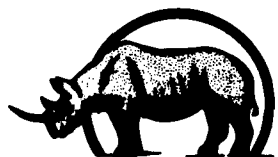


NM1 - 15

MONITORING REPORTS

YEAR(S):

1999-1996



RHINO

Environmental Services, Inc.

P.O. Box 25547 • Albuquerque, New Mexico 87125

Phone (505) 247-4646 • Fax (505) 797-4874

5 County Road 6065 • Farmington, New Mexico 87401

(505)598-9626 • Fax (505) 598-9627

August 27, 1999

Ms. Martyne J. Kieling
NM Energy, Mineral and Natural Resources
Oil Conservation Division
Environmental Bureau
2040 South Pacheco Street
Santa Fe, New Mexico 87505
Ph: (505) 827-7153
Fx: (505) 827-8177

**Re: Goo-Yea Landfarm Facility:
Quarterly Report - August 1999**

Dear Ms. Kieling:

In accordance with the conditions set forth in the permit, enclosed please find the August 1999 quarterly report for Rhino's Goo-Yea facility located in Lea County, New Mexico.

This report serves to maintain a written record of the amount of contaminated soil accepted for treatment and to ensure that no contaminant migration has occurred.

No soils were accepted into the facility for this past quarter, therefore, the soil log is not part of this report. One native soil sample was retrieved from each active treatment area, Cells 1, 2, 3 and 4. All samples were collected at a depth of between 2 and 3 feet below the soil surface, placed on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a site map showing the location of sample collection. The analytical results are summarized in Table one (1). A copy of the analytical report is submitted as Appendix A.

Rhino's next quarterly report will be submitted November, 1999. Please call me if you have any questions or require additional information.

Sincerely,

Daniele Berardelli
Rhino Environmental Services, Inc.

Attachments

**CC: Ms. Donna Williams
OCD, District - 1
P.O. Box 1908
Hobbs, New Mexico 88241-1980**

RECEIVED

SEP - 9 1999

MJK
9-10-99

**TABLE NO. 1 - Analytical Results****Quarterly Native Soil Sampling:**

One native soil sample was retrieved from Cell 1, Cell 2, Cell 3 and Cell 4. Each sample was taken 2 to 3 feet below the natural soil surface, stored on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a Site Map showing the location of each sample. The Cell 1, Cell 2, Cell 3 and Cell 4 samples were submitted for analysis by EPA method 418.1 and EPA method 8020. The analytical results are summarized in Table No. 1.

TABLE NO. 1 Summary of Analytical Results from Native Soil Sampling					
Sample ID	BTEX mg/kg	TPH mg/kg	RCRA Total Metals mg/kg	General Chemistry mg/kg	pH
Cell 1	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10			
Cell 2	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10			
Cell 3	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	<10			
Cell 4	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	22			

Analyses for Cells 1, 2, 3 report TPH and BTEX levels to be below detection, thereby demonstrating that no vertical contaminant migration has occurred.

Although Cell 4 does demonstrate trace levels of TPH are present, the concentration of 22 mg/kg does not represent a number of concern and the contamination was more than likely due to careless collection procedures. However, Rhino has made a note of this and will continue to carefully monitor this cell.



Goo-Yea Commercial Landfarm
SE/4 of Section 14, Township 11 South, Range 38 East
Lea County, New Mexico

N
↑
S

Cell 1	X	Cell 2	X	Cell 3	X	Cell 4	X	Cell 5
--------	---	--------	---	--------	---	--------	---	--------

Not to Scale



RHINO ENVIRONMENTAL SERVICES, INC.

APPENDIX A - ANALYTICAL RESULTS

**ANACHEM INC.**

8 Prestige Circle, Suite 104 Allen, Texas 75002
972/727-9003 • FAX # 972/727-9686 • 1-800-966-1186

August 24, 1999

Ms. Daniele Berardelli
Rhino Env. - Farmington
5 CR 6065

Farmington, NM 87401
TEL: 800-499-8393 FAX: 505-392-9376

Work Order: 9908368
Project: GooYea 08/99

Dear Client:

Anachem, Inc. received 4 samples on 08/20/1999 for the analyses presented in the following report.

The samples were analyzed for the following tests:

BTEX by EPA 8021 - Solid
Methanol Sample Container Charge
TPH by EPA 418.1 - Solid

Respectfully Submitted,
Anachem, Inc.

Howard H. Hayden, B.S.
Chemist

NOTE: Submitted material will be retained for 60 days unless notified or consumed in analysis. Material determined to be hazardous will be returned. The use of our name and reports are for the exclusive use of the client to whom they are addressed. The use of our name must receive our prior written approval. Our letters and reports apply to the sample tested and/or inspected, and are not necessarily indicative of the qualities of apparently identical or similar materials.

9908368-01A To 9908368-04A

Page 1 Of 5

Visit us on the internet at <http://www.anachem.com>

Anachem, Inc.

Date: 24-Aug-99

CLIENT: Rhino Env. - Farmington
 Work Order: 9908368
 Project: GooYca 08/99

Analyses	Result	Limit	Units	Date Analyzed
Lab ID: 9908368-01A				
Client Sample ID:	Cell 1 & 1-A	Collection Date:		8/19/99
Location:	Lea County, NM	Matrix:		SOIL
9908368-01A	BTEX BY EPA 8021 - SOLID		Prep Date	Analyst: AT
Benzene	ND	0.4	mg/Kg	8/20/99
Toluene	ND	0.5	mg/Kg	8/20/99
Ethylbenzene	ND	0.5	mg/Kg	8/20/99
Xylenes, Total	ND	0.5	mg/Kg	8/20/99
9908368-01A	TPH BY EPA 418.1 - SOLID		Prep Date	Analyst: AT
Petroleum Hydrocarbons, TR	ND	10	mg/Kg	8/24/99

Lab ID: 9908368-02A				
Client Sample ID:	Cell 2 & 2-A	Collection Date:		8/19/99
Location:	Lea County, NM	Matrix:		SOIL
9908368-02A	BTEX BY EPA 8021 - SOLID		Prep Date	Analyst: AT
Benzene	ND	0.4	mg/Kg	8/20/99
Toluene	ND	0.5	mg/Kg	8/20/99
Ethylbenzene	ND	0.5	mg/Kg	8/20/99
Xylenes, Total	ND	0.5	mg/Kg	8/20/99
9908368-02A	TPH BY EPA 418.1 - SOLID		Prep Date	Analyst: AT
Petroleum Hydrocarbons, TR	ND	10	mg/Kg	8/24/99

Lab ID: 9908368-03A				
Client Sample ID:	Cell 3 & 3-A	Collection Date:		8/19/99
Location:	Lea County, NM	Matrix:		SOIL
9908368-03A	BTEX BY EPA 8021 - SOLID		Prep Date	Analyst: AT
Benzene	ND	0.4	mg/Kg	8/20/99
Toluene	ND	0.5	mg/Kg	8/20/99
Ethylbenzene	ND	0.5	mg/Kg	8/20/99
Xylenes, Total	ND	0.5	mg/Kg	8/20/99
9908368-03A	TPH BY EPA 418.1 - SOLID		Prep Date	Analyst: AT
Petroleum Hydrocarbons, TR	ND	10	mg/Kg	8/24/99

Qualifiers: ND - Not Detected at the Reporting Limit
 B - Analyte detected in the associated Method Blank

Anachem, Inc.

Date: 24-Aug-99

CLIENT: Rhino Env. - Farmington
Work Order: 9908368
Project: GooYca 08/99

Analyses	Result	Limit	Units	Date Analyzed
Lab ID:	9908368-04A			
Client Sample ID:	Cell 4 & 4-A		Collection Date:	8/19/99
Location:	Lea County, NM		Matrix:	SOIL
9908368-04A	BTEX BY EPA 8021 - SOLID		Prep Date	Analyst: AT
Benzene	ND	0.4	mg/Kg	8/20/99
Toluene	ND	0.5	mg/Kg	8/20/99
Ethylbenzene	ND	0.5	mg/Kg	8/20/99
Xylenes, Total	ND	0.5	mg/Kg	8/20/99
9908368-04A	TPH BY EPA 418.1 - SOLID		Prep Date 8/24/99	Analyst: AT
Petroleum Hydrocarbons, TR	22	10	mg/Kg	8/24/99

Qualifiers: ND - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank

Anachem, Inc.

Date: 24-Aug-99

CLIENT: Rhino Env. - Farmington

Work Order: 9908368

Project: GooYea 08/99

QC SUMMARY REPORT

TPH by EPA 418.1 - Solid

Units: mg/Kg

Analysis Date 8/24/99

Analyte	SPK value	REC 1	REC 2	LowLimit	HighLimit	%RPD	RPDLimit
Petroleum Hydrocarbons, TR		146	150			2.7%	

Anachem, Inc.

Date: 24-Aug-99

CLIENT: Rhino Env. - Farmington

Work Order: 9908368

Project: GooYea 08/99

QC SUMMARY REPORT

BTEX by EPA 8021 - Solid

Units: mg/Kg

Analysis Date 8/20/99

Analyte	SPK value	REC 1	REC 2	LowLimit	HighLimit	%RPD	RPDLimit
Benzene	100	116.0%	110.0%	60%	140%	5.3%	30
Ethylbenzene	100	107.0%	107.0%	60%	140%	0.0%	30
Toluene	100	115.0%	108.0%	60%	140%	6.3%	30
Xylenes, Total	300	110.0%	108.0%	60%	140%	1.6%	30



**THE REPRODUCTION OF
THE
FOLLOWING
DOCUMENT (S)
CANNOT BE IMPROVED
DUE TO
THE CONDITION OF
THE ORIGINAL**

Purchase Order/Chain Of Custody

Anachem, Inc. 8 Prestige Circle, Suite 104, Allen, TX 75002 Phone: 972-727-9003 Fax: 972-727-9686

Page L of L

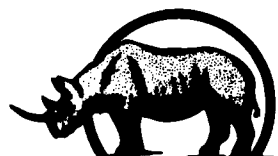
Report To: <u>Daniela Berardelli</u>		Bill To: (Buyer) <u>Anachem, Inc.</u>	
Company: <u>SCR Woods</u>		Purchase Order #: <u>PO BX 05547</u>	
Address: <u>SCR Woods</u>		Address: <u>PO Box 05547</u>	
City, State, Zip: <u>Farmington, NM 87401</u>		City, State, Zip: <u>Alb, NM 87105</u>	
Phone: <u>505 596 9606</u> Fax: <u>505 596 9607</u>		Phone: <u>505 596 9606</u> Fax: <u>777 4674</u>	
Project Name: <u>GOXRA 08199</u>		Quote #: <u></u>	
Project Location: <u>Los Alamos</u>		City, State: <u>Alb</u>	
Date Due: <u></u>		Rush: <u>0%</u> <u>25%</u> <u>50%</u> <u>100%</u> Sampled By: <u>D. Berardelli</u>	

Lab#	Client Sample ID	Matrix	Date/Time	Sample Notes	Analysis
1.	Cell 1	Soil	8/19/99 / 1030	100	TPH 418.1
2.	Cell 1-1-A		1030	100	BTEX
3.	Cell 2		1040	100	
4.	Cell 2-A		1040	100	
5.	Cell 3		1053	100	
6.	Cell 3-A		1053	100	
7.	Cell 4		1101	100	
8.	Cell 4-A		1101	100	
9.					
10.					

Relinquished By	Date	Time	Received By	Date	Time	Sample Receipt Notes
<u>[Signature]</u>	8/19/99	1637				Temperature
						Preserved Property
						COC Seals Intact
						Method of Shipment

Submission #

In the event that Anachem determines that a sample is hazardous, the client agrees to:
 Pay For Sample Disposal ✓
 Accept Returned Sample



RHINO

Environmental Services, Inc.

P.O. Box 25547 • Albuquerque, New Mexico 87125

Phone (505) 247-4646 • Fax (505) 797-4874

5 County Road 6065 • Farmington, New Mexico 87401

(505) 598-9626 • Fax (505) 598-9627

JUN - 2 1999

May 25, 1999

Ms. Martyne J. Kieling
NM Energy, Mineral and Natural Resources
Oil Conservation Division
Environmental Bureau
2040 South Pacheco Street
Santa Fe, New Mexico 87505
Ph: (505) 827-7153
Fx: (505) 827-8177

**Re: Goo-Yea Landfarm Facility:
Quarterly Report - May 1999**

Dear Ms. Kieling:

In accordance with the conditions set forth in the permit, enclosed please find the May 1999 quarterly report for Rhino's Goo-Yea facility located in Lea County, New Mexico.

This report serves to maintain a written record of the amount of contaminated soil accepted for treatment and to ensure that no contaminant migration has occurred.

No soils were accepted into the facility for this past quarter, therefore, the soil log is not part of this report. One native soil sample was retrieved from each active treatment area, Cells 1, 2, 3 and 4. All samples were collected at a depth of between 2 and 3 feet below the soil surface, placed on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a site map showing the location of sample collection. The analytical results are summarized in Table one (1). A copy of the analytical report is submitted as Appendix A.

Rhino's next quarterly report will be submitted August, 1999. Please call me if you have any questions or require additional information.

Sincerely,

Daniele Berardelli
Rhino Environmental Services, Inc.

Attachments

**CC: Ms. Donna Williams
OCD, District - 1
P.O. Box 1908
Hobbs, New Mexico 88241-1980**

6-3-99
mjk

**TABLE NO. 1 - Analytical Results****Quarterly Native Soil Sampling:**

One native soil sample was retrieved from Cell 1, Cell 2, Cell 3 and Cell 4. Each sample was taken 2 to 3 feet below the natural soil surface, stored on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a Site Map showing the location of each sample. The Cell 1, Cell 2, Cell 3 and Cell 4 samples were submitted for analysis by EPA method 418.1 and EPA method 8020. The analytical results are summarized in Table No. 1.

TABLE NO. 1 Summary of Analytical Results from Native Soil Sampling					
Sample ID	BTEX mg/kg	TPH mg/kg	RCRA Total Metals mg/kg	General Chemistry mg/kg	pH
Cell 1	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10			
Cell 2	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10			
Cell 3	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	<10			
Cell 4	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10			

Analyses for Cells 1, 2, 3 and 4 report TPH and BTEX levels to be below detection, thereby demonstrating that no vertical contaminant migration has occurred.



RHINO ENVIRONMENTAL SERVICES, INC.

Goo-Yea Commercial Landfarm
SE/4 of Section 14, Township 11 South, Range 38 East
Lea County, New Mexico

Each cell is approximately 5 acres in size.



Cell 1	Cell 2	Cell 3	Cell 4	Cell 5
X	X	X	X	

X denotes sample collection location

Not to Scale



RHINO ENVIRONMENTAL SERVICES, INC.

APPENDIX A - ANALYTICAL RESULTS

**ANACHEM INC.**

8 Prestige Circle, Suite 104 Allen, Texas 75002
972/727-9009 • FAX # 972/727-9886 • 1-800-866-1186

Customer Name: Rhino Env. - Farmington
Date Received: May 19, 1999 at 10:00:00
Date Reported: May 24, 1999
Submission #: 9905000286
Project: GOOYEA 0299

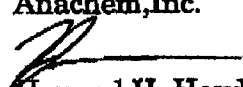
SAMPLES The submission consisted of 4 samples with sample I.D.'s shown in the attached data tables.

TESTS The samples listed in the attached result pages were analyzed for:
* BTEX (EPA 8021)
* METHANOL SAMPLE CONTAINER PREP, NEW MEXICO
* TPH (EPA 418.1)

Distribution Of Reports

1-Ms. Daniele Berardelli of Rhino Env. - Farmington
Ph. 505-598-9626 Fax 505-598-9627

Respectfully Submitted,
Anachem, Inc.


Howard H. Hayden, B.S.
Chemist

Submission #: 9905000286 lims

NOTE: Submitted material will be retained for 60 days unless notified or consumed in analysis. Material determined to be hazardous will be returned or a \$20 disposal fee will be assessed. Our letters and reports are for the exclusive use of the client to whom they are addressed. The use of our name must receive our prior written approval. Our letters and reports apply to the sample tested and/or inspected, and are not necessarily indicative of the qualities of apparently identical or similar materials.

138724 to 138727

Page 1 of 4

Client Name: Rhino Env. - Farmington
 Submission #: 9905000286
 Project Name: GOOYEA 0299
 Report Date: 05/24/99

Client Sample #: CELL 1 & 1-A

Laboratory ID #: 138724 Order Type: Normal Matrix: Soil
 Sample Container: Methanol Vial, 4oz Glass Jar\Aqua Lid
 Sampling Location: GOOYEA, LEA CO., NM
 Sampling Date: 05/17/99

BTEX (EPA 8021)

Analyte	Results(mg/kg)	Detection Limit
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

TPH (EPA 418.1)

TPH Prep Date: 05/19/99

Analyte	Results(mg/kg)	Detection Limit
Total Petroleum Hydrocarbons	<10	10

Client Sample #: CELL 2 & 2-A

Laboratory ID #: 138725 Order Type: Normal Matrix: Soil
 Sample Container: Methanol Vial, 4oz Glass Jar\Aqua Lid
 Sampling Location: GOOYEA, LEA CO., NM
 Sampling Date: 05/17/99

BTEX (EPA 8021)

Analyte	Results(mg/kg)	Detection Limit
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

TPH (EPA 418.1)

TPH Prep Date: 05/19/99

Analyte	Results(mg/kg)	Detection Limit
Total Petroleum Hydrocarbons	<10	10

Client Sample #: CELL 3 & 3-A

Laboratory ID #: 138726 Order Type: Normal Matrix: Soil
 Sample Container: Methanol Vial, 4oz Glass Jar\Aqua Lid
 Sampling Location: GOOYEA, LEA CO., NM
 Sampling Date: 05/17/99

BTEX (EPA 8021)

Analyte	Results(mg/kg)	Detection Limit
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

TPH (EPA 418.1)

TPH Prep Date: 05/19/99

Analyte	Results(mg/kg)	Detection Limit
Total Petroleum Hydrocarbons	<10	10

Client Name: Rhino Env. - Farmington
Submission #: 9905000286
Project Name: GOOYEA 0299
Report Date: 05/24/99

Client Sample #: CELL 4 & 4-A

Laboratory ID #: 138727 Order Type: Normal Matrix: Soil
Sample Container: Methanol Vial, 4oz Glass Jar\Aqua Lid
Sampling Location: GOOYEA, LEA CO., NM
Sampling Date: 05/17/99

BTEX (EPA 8021)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

TPH (EPA 418.1)

TPH Prep Date: 05/19/99

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

Report To: Rhino Environmental
Lab Number: 9905000286
Page 4 of 4

Project: GOOYEA 0299

QUALITY CONTROL DATA

<u>METHOD</u>	<u>ANALYST</u>	<u>MATRIX</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>		
BTEX 8021	Anthony Taylor	Solid	5/19/99	5/19/99		
<u>SPIKE COMPOUND</u>	<u>SPIKE AMOUNT</u>	<u>% REC 1</u>	<u>% REC 2</u>	<u>% REC QC LIMIT</u>	<u>% VAR. % VAR.</u>	<u>% VAR QC LIMIT</u>
Benzene	100 ppb	111	117	80-120	5.1	20.0
Toluene	100 ppb	103	110	80-120	6.4	20.0
Ethyl Benzene	100 ppb	106	110	80-120	3.6	20.0
Xylenes	300 ppb	103	108	80-120	4.6	20.0

QUALITY CONTROL DATA

TPH results are reported in parts per million (ppm) in solid.

	Value 1	Value 2	% Var.
TPH:	136	134	1.5

CONCENTRATION UNITS: TPH - ppm

DETECTION LIMITS: TPH - 10

<u>ANALYST</u>	<u>ANALYTE</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>
Anthony Taylor	TPH	5/19/99	5/19/99

Purchase Order/Chain Of Custody

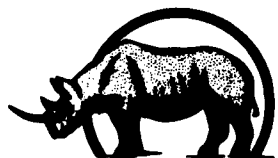
Page 1 of 1

Anachern, Inc. 8 Prestige Circle, Suite 104, Allen, TX 75002 Phone: 972-727-9003 Fax: 972-727-9686

Report To: DAVID B. BARNARD LLC		Bill To: (Buyer) RHINO	
Company: RHINO		Purchase Order #:	
Address: 5 CR 6065		Address: P.O. BOX 25547	
City, State, Zip: FAIRBANKS NM 87401		City, State, Zip: ALBUQUERQUE NM 87125	
Phone: 505-598-9626 Fax: 9627		Phone: 800-762-0241 Fax: 505-797-4874	
Project Name: BOOYEA 0299		Quote #:	
Project Location: 600YEA		City, State: LAH CO. NM	
Date Due:	Rush: 25% 50% 100%	Sampled By: ALICE HODGE	
Lab#	Client Sample ID	Mix	Date/Time
138724	1. CCLC 1	SOIL	5/17/99
↓	2. CCLC 1-A		1515
138725	3. CCLC 2		1330
↓	4. CCLC 2-A		1340
138726	5. CCLC 3		1400
↓	6. CCLC 3-A		1415
138727	7. CCLC 4		1445
↓	8. CCLC 4-A		1455
9.			
10.			
Relinquished By:	Date:	Time:	Sample Receipt Notes:
<i>[Signature]</i>	5/19/99	10:16	Temperature
			Preserved Properly
			COC Seal Intact
			Method of Shipment
In the event that Anachern determines that a sample is hazardous, the client agrees to: Pay For Sample Disposal _____ Accept Returned Sample _____			
Submission # 9905-286			

016 REV 5/97

Sample information is vital for proper login and reporting. This is a contract subject to the terms and conditions on the reverse side.

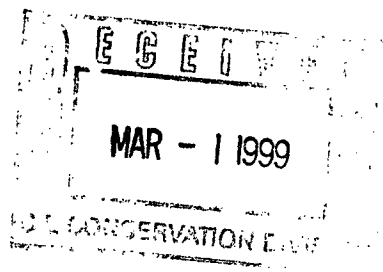


RHINO

Environmental Services, Inc.

P.O. Box 25547 • Albuquerque, New Mexico 87125

Phone (505) 247-4646 • Fax (505) 797-4874
5 County Road 6085 • Farmington, New Mexico 87401
(505) 598-9626 • Fax (505) 598-9627



February 25, 1999

Ms. Martyne J. Kieling
NM Energy, Mineral and Natural Resources
Oil Conservation Division
Environmental Bureau
2040 South Pacheco Street
Santa Fe, New Mexico 87505
Ph: (505) 827-7153
Fx: (505) 827-8177

Re: Goo-Yea Landfarm Facility:
Quarterly Report - February 1999

Dear Ms. Kieling:

In accordance with the conditions set forth in the permit, enclosed please find the February 1999 quarterly report for Rhino's Goo-Yea facility located in Lea County, New Mexico.

This report serves to maintain a written record of the amount of contaminated soil accepted for treatment and to ensure that no contaminant migration has occurred.

No soils were accepted into the facility for this past quarter, therefore, the soil log is not part of this report. One native soil sample was retrieved from each active treatment area, Cells 1, 2, 3 and 4. All samples were collected at a depth of between 2 and 3 feet below the soil surface, placed on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a site map showing the location of sample collection. The analytical results are summarized in Table one (1). A copy of the analytical report is submitted as Appendix A.

Rhino's next quarterly report will be submitted May, 1999. Please call me if you have any questions or require additional information.

Sincerely,

Daniele Berardelli
Rhino Environmental Services, Inc.

Attachments

CC: Ms. Donna Williams
OCD, District - 1
P.O. Box 1908
Hobbs, New Mexico 88241-1980



TABLE NO. 1 - Analytical Results

Quarterly Native Soil Sampling:

One native soil sample was retrieved from Cell 1, Cell 2, Cell 3 and Cell 4. Each sample was taken 2 to 3 feet below the natural soil surface, stored on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a Site Map showing the location of each sample. The Cell 1, Cell 2, Cell 3 and Cell 4 samples were submitted for analysis by EPA method 418.1 and EPA method 8020, RCRA Total Metals and General Chemistry. The analytical results are summarized in Table No. 1.

TABLE NO. 1 Summary of Analytical Results from Native Soil Sampling					
Sample ID	BTEX mg/kg	TPH mg/kg	RCRA Total Metals mg/kg	General Chemistry mg/kg	pH
Cell 1	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10	< 1.00 Arsenic 19.9 Barium < 0.12 Cadmium 1.28 Chromium 3.68 Lead < 2.00 Selenium < 1.00 Silver	48.0 Alkalinity, Total 58.6 Bicarbonate Ion 21.1 Calcium <1.0 Carbonate Ion 7.42 Chloride 13.9 Magnesium 0.025 Mercury 17.6 Potassium 22.6 Sodium 25.0 Sulfate	5.8
Cell 2	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10	3.48 Arsenic 124 Barium < 0.12 Cadmium 0.72 Chromium < 1.48 Lead < 2.00 Selenium < 1.00 Silver	192 Alkalinity, Total 234 Bicarbonate Ion 93.6 Calcium <1.0 Carbonate Ion 4.16 Chloride 14.9 Magnesium <0.02 Mercury 7.02 Potassium 18.6 Sodium 74.6 Sulfate	7.7
Cell 3	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	<10	< 1.00 Arsenic 96.4 Barium < 0.12 Cadmium 1.68 Chromium < 1.48 Lead < 2.00 Selenium < 1.00 Silver	108 Alkalinity, Total 132 Bicarbonate Ion 103 Calcium <1.0 Carbonate Ion 2.15 Chloride 30.7 Magnesium <0.02 Mercury 7.74 Potassium 11.9 Sodium 16.3 Sulfate	7.7



TABLE NO. 1, Continued
Summary of Analytical Results from Native Soil Sampling

Sample ID	BTEX mg/kg	TPH mg/kg	RCRA Total Metals mg/kg	General Chemistry mg/kg		pH
Cell 4	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10	<1.00 Arsenic 8.84 Barium <0.12 Cadmium 2.12 Chromium 3.52 Lead <2.00 Selenium <1.00 Silver	132	Alkalinity, Total	7.0
				160	Bicarbonate Ion	
				370	Calcium	
				<1.0	Carbonate Ion	
				71.0	Chloride	
				184	Magnesium	
				<0.02	Mercury	
				22.9	Potassium	
				352	Sodium	
				2020	Sulfate	

Analyses for Cells 1, 2, 3 and 4 report TPH and BTEX levels to be below detection, thereby demonstrating that no vertical contaminant migration has occurred.



FIGURE No. 1 - SITE MAP

Goo-Yea Commercial Landfarm
SE/4 of Section 14, Township 11 South, Range 38 East
Lea County, New Mexico

Each cell is approximately 5 acres in size.



Cell 1	Cell 2	Cell 3	Cell 4	Cell 5
X	X	X	X	

X denotes sample collection location

Not to Scale



RHINO ENVIRONMENTAL SERVICES, INC.

APPENDIX A - ANALYTICAL RESULTS



ANACHEM INC.

8 Prestige Circle, Suite 104 Allen, Texas 75002
972/727-9003 • FAX # 972/727-9686 • 1-800-966-1186

Customer Name: Rhino Env. - Farmington
Date Received: February 3, 1999 at 10:00:00
Date Reported: February 18, 1999
Submission #: 9902000070
Project: GOOYEA 0299

SAMPLES The submission consisted of 4 samples with sample I.D.'s shown in the attached data tables.


TESTS The samples listed in the attached result pages were analyzed for:


- * ALKALINITY, TOTAL (EPA 310.1)
- * BICARBONATE ION (EPA 310.1)
- * BTEX (EPA 8021)
- * CALCIUM/Ca (EPA 200.7)
- * CARBONATE ION (EPA 310.1)
- * CHLORIDE (EPA 300.0)
- * MAGNESIUM/Mg (EPA 200.7)
- * MERCURY DIGESTION (EPA 7470)
- * MERCURY/Hg BY COLD VAPOR (EPA 7471)
- * METHANOL SAMPLE CONTAINER PREP, NEW MEXICO
- * MICROWAVE DIGESTION (EPA 3015) LIQUID
- * MICROWAVE DIGESTION (EPA 3051) SOLID
- * pH (EPA 150.1)
- * POTASSIUM/K (EPA 200.7)
- * SODIUM/Na (EPA 200.7)
- * SULFATE (EPA 300.0)
- * TOTAL RCRA METALS (EPA 6010)
- * TPH (EPA 418.1)

Distribution Of Reports

1-Ms. Daniele Berardelli of Rhino Env. - Farmington
Ph. 505-598-9626 Fax 505-598-9627

Respectfully Submitted,
Anachem, Inc.


Howard H. Hayden, B.S.
Chemist


C.E. Newton, Ph.D.
Chemist

Submission #: 9902000070 lims

NOTE: Submitted material will be retained for 60 days unless notified or consumed in analysis. Material determined to be hazardous will be returned or a \$20 disposal fee will be assessed. Our letters and reports are for the exclusive use of the client to whom they are addressed. The use of our name must receive our prior written approval. Our letters and reports apply to the sample tested and/or inspected, and are not necessarily indicative of the qualities of apparently identical or similar materials.

128863 to 128866

Page 1 of 2

Client Name: Rhino Env. - Farmington
Submission #: 9902000070
Project Name: GOOYEA 0299
Report Date: 02/18/99

Client Sample #: CELL 1 & 1-A

Laboratory ID #: 128863 **Order Type:** Normal **Matrix:** Soil
Sample Container: 4oz EPA Glass Jar\Aqua Lid,Methanol Jar
Sampling Location: DP 619, LEA COUNTY, NM
Sampling Date: 01/28/99
Temperature (Celcius): 4

ALKALINITY, TOTAL (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Alkalinity	48	1.0

BICARBONATE ION (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Bicarbonate, HCO ₃ (CaCO ₃)	58.6	1.0

BTEX (EPA 8021)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

CALCIUM/Ca (EPA 200.7)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Calcium (for anion extract; total concentration: 1280 mg / kg)	21.1	0.05

CARBONATE ION (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Carbonate, CO ₃ (CaCO ₃)	<1.0	1.0

CHLORIDE (EPA 300.0)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Chloride	7.42	0.1

MAGNESIUM/Mg (EPA 200.7)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Magnesium (for anion extract; total concentration: 916 mg / kg)	13.9	1.5

MERCURY DIGESTION (EPA 7470)

Mercury Digestion Date: 02/12/99

MERCURY/Hg BY COLD VAPOR (EPA 7471)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Mercury	0.025	0.02

MICROWAVE DIGESTION (EPA 3015) LIQUID

Microwave Digestion Date: 02/12/99

MICROWAVE DIGESTION (EPA 3051) SOLID

Microwave Digestion Date: 02/12/99

pH (EPA 150.1)

<u>Analyte</u>	<u>Results(---)</u>	<u>Detection Limit</u>
pH For Liquid	5.8	0.05

Client Name: Rhino Env. - Farmington
Submission #: 9902000070
Project Name: GOOYEA 0299
Report Date: 02/18/99

POTASSIUM/K (EPA 200.7)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Potassium (for anion extract; total concentration: 967 mg/kg)	17.6	0.5

SODIUM/Na (EPA 200.7)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Sodium (for anion extract; total concentration: 40.4 mg/kg)	22.6	0.05

SULFATE (EPA 300.0)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Sulfate	25.0	1.0

TOTAL RCRA METALS (EPA 6010)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Arsenic	<1.00	1.00
Barium	19.9	0.12
Cadmium	<0.12	0.12
Chromium	1.28	0.12
Lead	3.68	1.48
Selenium	<2.00	2.00
Silver	<1.00	1.00

TPH (EPA 418.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
TPH Prep Date: 02/07/99 Total Petroleum Hydrocarbons	<10	10

Client Sample #: CELL 2 & 2-A

Laboratory ID #: 128864 Order Type: Normal Matrix: Soil
Sample Container: 4oz EPA Glass Jar\Aqua Lid,Methanol Jar
Sampling Location: DP 619, LEA COUNTY, NM
Sampling Date: 01/28/99
Temperature (Celcius):4

ALKALINITY, TOTAL (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Alkalinity	192	1.0

BICARBONATE ION (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Bicarbonate, HCO ₃ (CaCO ₃)	234	1.0

BTEX (EPA 8021)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

CALCIUM/Ca (EPA 200.7)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Calcium (for anion extract; total concentration: 4620 mg/kg)	93.6	0.05

CARBONATE ION (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Carbonate, CO ₃ (CaCO ₃)	<1.0	1.0

Client Name: Rhino Env. - Farmington
Submission #: 9902000070
Project Name: GOOYEA 0299
Report Date: 02/18/99

CHLORIDE (EPA 300.0)

Analyte
Chloride

Results(mg/kg)
4.16

Detection Limit
0.1

MAGNESIUM/Mg (EPA 200.7)

Analyte
Magnesium
(for anion extract; total concentration: 3660 mg / kg)

Results(mg/kg)
14.9

Detection Limit
1.5

MERCURY DIGESTION (EPA 7470)

Mercury Digestion Date: 02/12/99

MERCURY/Hg BY COLD VAPOR (EPA 7471)

Analyte
Mercury

Results(mg/kg)
<0.02

Detection Limit
0.02

MICROWAVE DIGESTION (EPA 3015) LIQUID

Microwave Digestion Date: 02/12/99

MICROWAVE DIGESTION (EPA 3051) SOLID

Microwave Digestion Date: 02/12/99

pH (EPA 150.1)

Analyte
pH For Liquid

Results(----)
7.7

Detection Limit
0.05

POTASSIUM/K (EPA 200.7)

Analyte
Potassium

Results(mg/kg)
7.02

Detection Limit
0.5

(for anion extract; total concentration: 1510 mg / kg)

SODIUM/Na (EPA 200.7)

Analyte
Sodium

Results(mg/kg)
18.6

Detection Limit
0.05

(for anion extract; total concentration: 225 mg / kg)

SULFATE (EPA 300.0)

Analyte
Sulfate

Results(mg/kg)
74.6

Detection Limit
1.0

TOTAL RCRA METALS (EPA 6010)

Analyte
Arsenic
Barium
Cadmium
Chromium
Lead
Selenium
Silver

Results(mg/kg)
3.48
124
<0.12
0.720
<1.48
<2.00
<1.00

Detection Limit
1.00
0.12
0.12
0.12
1.48
2.00
1.00

TPH (EPA 418.1)

TPH Prep Date: 02/07/99

Analyte
Total Petroleum Hydrocarbons

Results(mg/kg)
<10

Detection Limit
10

Client Name: Rhino Env. - Farmington
Submission #: 9902000070
Project Name: GOOYEA 0299
Report Date: 02/18/99

Client Sample #: CELL 3 & 3-A

Laboratory ID #: 128865 Order Type: Normal Matrix: Soil
Sample Container: 4oz EPA Glass Jar\Aqua Lid,Methanol Jar
Sampling Location: DP 619, LEA COUNTY, NM
Sampling Date: 01/28/99
Temperature (Celcius):4

ALKALINITY, TOTAL (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Alkalinity	108	1.0

BICARBONATE ION (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Bicarbonate, HCO ₃ (CaCO ₃)	132	1.0

BTEX (EPA 8021)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

CALCIUM/Ca (EPA 200.7)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Calcium (for anion extract; total concentration: 3970 mg / kg)	103	0.05

CARBONATE ION (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Carbonate, CO ₃ (CaCO ₃)	<1.0	1.0

CHLORIDE (EPA 300.0)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Chloride	2.15	0.1

MAGNESIUM/Mg (EPA 200.7)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Magnesium (for anion extract; total concentration: 4600 mg / kg)	30.7	1.5

MERCURY DIGESTION (EPA 7470)

Mercury Digestion Date: 02/12/99

MERCURY/Hg BY COLD VAPOR (EPA 7471)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Mercury	<0.02	0.02

MICROWAVE DIGESTION (EPA 3015) LIQUID

Microwave Digestion Date: 02/12/99

MICROWAVE DIGESTION (EPA 3051) SOLID

Microwave Digestion Date: 02/12/99

pH (EPA 150.1)

<u>Analyte</u>	<u>Results(---)</u>	<u>Detection Limit</u>
pH For Liquid	7.7	0.05

Client Name: Rhino Env. - Farmington
Submission #: 9902000070
Project Name: GOOYEA 0299
Report Date: 02/18/99

POTASSIUM/K (EPA 200.7)

Analyte _____
Potassium
(for anion extract; total concentration: 2580 mg/kg)

Results(mg/kg)
7.74

Detection Limit
0.5

SODIUM/Na (EPA 200.7)

Analyte _____
Sodium
(for anion extract; total concentration: 147 mg/kg)

Results(mg/kg)
11.9

Detection Limit
0.05

SULFATE (EPA 300.0)

Analyte _____
Sulfate

Results(mg/kg)
16.3

Detection Limit
1.0

TOTAL RCRA METALS (EPA 6010)

Analyte _____
Arsenic
Barium
Cadmium
Chromium
Lead
Selenium
Silver

Results(mg/kg)
<1.00
96.4
<0.12
1.68
<1.48
<2.00
<1.00

Detection Limit
1.00
0.12
0.12
0.12
1.48
2.00
1.00

TPH (EPA 418.1)

TPH Prep Date: 02/07/99

Analyte _____
Total Petroleum Hydrocarbons

Results(mg/kg)
<10

Detection Limit
10

Client Sample #: CELL 4 & 4-A

Laboratory ID #: 128866 Order Type: Normal Matrix: Soil
Sample Container: 4oz EPA Glass Jar\Aqua Lid,Methanol Jar
Sampling Location: DP 619, LEA COUNTY, NM
Sampling Date: 01/28/99
Temperature (Celcius):4

ALKALINITY, TOTAL (EPA 310.1)

Analyte _____
Total Alkalinity

Results(mg/kg)
132

Detection Limit
1.0

BICARBONATE ION (EPA 310.1)

Analyte _____
Bicarbonate, HCO₃ (CaCO₃)

Results(mg/kg)
160

Detection Limit
1.0

BTEX (EPA 8021)

Analyte _____
Benzene
Toluene
Ethyl Benzene
Xylenes

Results(mg/kg)
<0.40
<0.50
<0.50
<0.50

Detection Limit
0.40
0.50
0.50
0.50

CALCIUM/Ca (EPA 200.7)

Analyte _____
Calcium
(for anion extract; total concentration: 5600 mg/kg)

Results(mg/kg)
370

Detection Limit
0.05

CARBONATE ION (EPA 310.1)

Analyte _____
Carbonate, CO₃ (CaCO₃)

Results(mg/kg)
<1.0

Detection Limit
1.0

Client Name: Rhino Env. - Farmington
Submission #: 9902000070
Project Name: GOOYEA 0299
Report Date: 02/18/99

CHLORIDE (EPA 300.0)

Analyte
Chloride

Results(mg/kg)
71

Detection Limit
0.1

MAGNESIUM/Mg (EPA 200.7)

Analyte
Magnesium
(for anion extract; total concentration: 2750 mg/kg)

Results(mg/kg)
184

Detection Limit
1.5

MERCURY DIGESTION (EPA 7470)

Mercury Digestion Date: 02/12/99

MERCURY/Hg BY COLD VAPOR (EPA 7471)

Analyte
Mercury

Results(mg/kg)
<0.02

Detection Limit
0.02

MICROWAVE DIGESTION (EPA 3015) LIQUID

Microwave Digestion Date: 02/12/99

MICROWAVE DIGESTION (EPA 3051) SOLID

Microwave Digestion Date: 02/12/99

pH (EPA 150.1)

Analyte
pH For Liquid

Results(----
7.0

Detection Limit
0.05

POTASSIUM/K (EPA 200.7)

Analyte
Potassium
(for anion extract; total concentration: 1770 mg/kg)

Results(mg/kg)
22.9

Detection Limit
0.5

SODIUM/Na (EPA 200.7)

Analyte
Sodium
(for anion extract; total concentration: 784 mg/kg)

Results(mg/kg)
352

Detection Limit
0.05

SULFATE (EPA 300.0)

Analyte
Sulfate

Results(mg/kg)
2020

Detection Limit
1.0

TOTAL RCRA METALS (EPA 6010)

Analyte
Arsenic
Barium
Cadmium
Chromium
Lead
Selenium
Silver

Results(mg/kg)
<1.00
8.84
<0.12
2.12
3.52
<2.00
<1.00

Detection Limit
1.00
0.12
0.12
0.12
1.48
2.00
1.00

TPH (EPA 418.1)

TPH Prep Date: 02/07/99

Analyte
Total Petroleum Hydrocarbons

Results(mg/kg)
<10

Detection Limit
10

Report To: Rhino Environmental
 Lab Number: 9902000070
 Page 8 of 8

Project: GooYea 0299

QUALITY CONTROL DATA

<u>METHOD</u>	<u>ANALYST</u>	<u>MATRIX</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>		
BTEX 8021	Anthony Taylor	Solid	2/4/99	2/4/99		
<u>SPIKE COMPOUND</u>	<u>SPIKE AMOUNT</u>	<u>% REC 1</u>	<u>% REC 2</u>	<u>% REC QC LIMIT</u>	<u>% VAR.</u>	<u>% VAR QC LIMIT</u>
Benzene	100 ppb	87.8	94.0	80-120	6.5	20.0
Toluene	100 ppb	90.7	90.1	80-120	0.66	20.0
Ethyl Benzene	100 ppb	89.4	98.1	80-120	8.8	20.0
Xylenes	300 ppb	83.9	82.8	80-120	1.3	20.0

QUALITY CONTROL DATA

TPH results are reported in parts per million (ppm) in solid.

	Value 1	Value 2	% Var.
TPH:	132	130	1.5

CONCENTRATION UNITS: TPH - ppm
 DETECTION LIMITS: TPH - 10

<u>ANALYST</u>	<u>ANALYTE</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>
Anthony Taylor	TPH	2/7/99	2/7/99

QUALITY CONTROL DATA

<u>ANALYTE</u>	<u>DATE ANALYZED</u>	<u>SPIKE (ppm)</u>	<u>STAND. DEV.</u>	<u>COEFF. OF VAR %</u>	<u>REC1/%</u>	<u>REC2/%</u>
Total Alkalinity	2/15/99	----	7.1	3.0	92	96
Chloride	2/8/99	----	0.231	1.7	111	107.4
Mercury	2/15/99	----	0.048	25.5	114	84
Sulfate	2/8/99	----	1.06	3.2	91.8	96
Silver	2/14/99	4.0	0.098	2.0	98.9	101.7
Arsenic	2/14/99	4.0	0.040	0.8	98.7	99.9
Chromium	2/14/99	4.0	0.057	1.2	90.3	91.9
Lead	2/14/99	4.0	0.029	0.5	96.7	97.5
Selenium	2/14/99	4.0	0.042	0.8	105.5	106.6
Barium	2/14/99	4.0	0.058	0.7	80.8	79.2
Cadmium	2/14/99	4.0	0.064	1.3	99.9	101.7

Standard Deviation = $(x1-x2)/1.414$

Coefficient of Variability % = $(S.D./Avg.) \times 100$

Recovery % = $[(\text{spiked}-\text{unspiked})/\text{expected}] \times 100$

Purchase Order/Chain Of Custody

Page 1 of 1

Anachem, Inc. 8 Prestige Circle, Suite 104, Allen, TX 75002 Phone: 972-727-9003 Fax: 972-727-9686

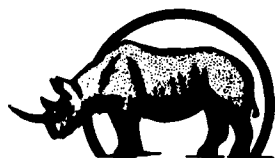
Report To: <u>Danielle Berardelli</u>		Bill To: (Buyer) <u>Rhino</u>		Analysis	
Company: <u>Rhino</u>		Purchase Order #: <u>1158</u>			
Address: <u>SCR 6065</u>		Address: <u>P.O. Box 25547</u>			
City, State, Zip: <u>Farmington, NM 87401</u>		City, State, Zip: <u>Alb., NM 87125</u>			
Phone: <u>505 598-9626</u> Fax: <u>-9627</u>		Phone: <u>505 597-4646</u> Fax: <u>797-4874</u>			
Project Name: <u>Goodyear 0299</u>		Quote #:			
Project Location: <u>Goodyear</u>		City, State: <u>Lea County, NM</u>			
Date Due:		Rush: <u>0%</u> 25% 50% 100%			
Sampled By:					

Lab#	Client Sample ID	Matrix	Date/Time	Sample Notes	Analysis
128863	1. Cell 1	Soil		ice	TPH (418.1)
↓	2. Cell 1-A			ice	Total Metal-RCA8
128864	3. Cell 2			ice	Cadmium/Ammon
↓	4. Cell 2-A			ice	BTEX (8021)
128865	5. Cell 3			ice	
↓	6. Cell 3-A			ice	
128866	7. Cell 4			ice	
↓	8. Cell 4-A			ice	
	9.				
	10.				

Relinquished By: <u>[Signature]</u>	Date: <u>1/24</u>	Time: <u>1:39</u>	Received By: <u>[Signature]</u>	Date: <u>2/3/99</u>	Time: <u>10:10</u>
Sample Receipt Notes			Temperature <u>40°C</u>		
Preserved Properly			COC Seals Intact		
Method of Shipment					

In the event that Anachem determines that a sample is hazardous, the client agrees to:
 Pay For Sample Disposal ✓
 Accept Returned Sample

Submission # 9902-70



RHINO

Environmental Services, Inc.

P.O. Box 25547 • Albuquerque, New Mexico 87125

Phone (505) 247-4646 • Fax (505) 797-4874

5 County Road 6065 • Farmington, New Mexico 87401

(505) 598-9626 • Fax (505) 598-9627

December 14, 1998

Ms. Martyne J. Kieling
NM Energy, Mineral and Natural Resources
Oil Conservation Division
Environmental Bureau
2040 South Pacheco Street
Santa Fe, New Mexico 87505
Ph: (505) 827-7153
Fx: (505) 827-8177

**Re: Goo-Yea Landfarm Facility:
Quarterly Report - November 1998**

Dear Ms. Kieling:

In accordance with the conditions set forth in the permit, enclosed please find the November 1998 quarterly report for Rhino's Goo-Yea facility located in Lea County, New Mexico.

This report serves to maintain a written record of the amount of contaminated soil accepted for treatment and to ensure that no contaminant migration has occurred.

No soils were accepted into the facility for this past quarter, therefore, the soil log is not part of this report. One native soil sample was retrieved from each active treatment area, Cells 1, 2, 3 and 4. All samples were collected at a depth of between 2 and 3 feet below the soil surface, placed on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a site map showing the location of sample collection. The analytical results are summarized in Table two (2). A copy of the analytical report is submitted as Appendix A.

Rhino's next quarterly report will be submitted February, 1999. Rhino apologizes for the tardiness of this report. Please don't hesitate to call if you have any questions or require additional information.

Sincerely,

Daniele Berardelli
Rhino Environmental Services, Inc.

Attachments

DEC 18 1998

RECEIVED

DEC 8 1998

Environmental Bureau
Oil Conservation Division



RHINO ENVIRONMENTAL SERVICES, INC.

TABLE 1 - SOIL AND WATER LOG

DISCHARGE PLAN DP-619 QUARTERLY REPORT November 1998

Soil accepted from August 1, 1998 to October 31, 1998

A total of 84 cubic yards (cy) of soil were received during this quarter. A list of these soils are shown in the table below. All soils were disced on a regular basis.

TABLE NO. 1

DATE	VOLUME	SOURCE	TYPE	SECTION
8/14/98	84 cy	Sierra Well Service 2726 Lovington Hwy. Hobbs, NM	Oilfield/ Non-Exempt	Cell 3

TABLE NO. 2 - Analytical Results

Quarterly Native Soil Sampling:

One native soil sample was retrieved from Cell 1, Cell 2, Cell 3 and Cell 4. Each sample was taken 2 to 3 feet below the natural soil surface, stored on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a Site Map showing the location of each sample. The Cell 1, Cell 2, Cell 3 and Cell 4 samples were submitted for analysis by EPA method 418.1 and EPA method 8020. The analytical results are summarized in Table No. 1.

TABLE NO. 1 Summary of Analytical Results from Native Soil Sampling		
Sample ID	BTEX mg/kg	TPH mg/kg
Cell 1	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10
Cell 2	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10
Cell 3	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10
Cell 4	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10

Analyses for Cells 1, 2, 3 and 4 report TPH and BTEX levels to be below detection, thereby demonstrating that no vertical contaminant migration has occurred.



Goo-Yea Commercial Landfarm
SE/4 of Section 14, Township 11 South, Range 38 East
Lea County, New Mexico

N
↑
S

Cell 1	X	Cell 2	X	Cell 3	X	Cell 4	X	Cell 5
--------	---	--------	---	--------	---	--------	---	--------

Not to Scale



RHINO ENVIRONMENTAL SERVICES, INC.

APPENDIX A - ANALYTICAL RESULTS



ANACHEM INC.

8 Prestige Circle, Suite 104 Allen, Texas 75002
972/727-9003 • FAX # 972/727-9686 • 1-800-966-1186

Customer Name: Rhino Env. - Farmington
Date Received: December 1, 1998 at 10:00:00
Date Reported: December 7, 1998
Submission #: 9812000007
Project: GOOYEA - 1198


SAMPLES The submission consisted of 4 samples with sample I.D.'s shown in the attached data tables.

TESTS The samples listed in the attached result pages were analyzed for:
* BTEX (EPA 8021)
* METHANOL SAMPLE CONTAINER PREP, NEW MEXICO
* TPH (EPA 418.1)
* TS-TOTAL SOLIDS (EPA 160.3)


Distribution Of Reports

1-Ms. Daniele Berardelli of Rhino Env. - Farmington
Ph. 505-598-9626 Fax 505-598-9627

Respectfully Submitted,
Anachem, Inc.


Howard H. Hayden, B.S.
Chemist

Submission #: 9812000007 lims


C.E. Newton, Ph.D.
Chemist

NOTE: Submitted material will be retained for 60 days unless notified or consumed in analysis. Material determined to be hazardous will be returned or a \$20 disposal fee will be assessed. Our letters and reports are for the exclusive use of the client to whom they are addressed. The use of our name must receive our prior written approval. Our letters and reports apply to the sample tested and/or inspected, and are not necessarily indicative of the qualities of apparently identical or similar materials.

122744 to 122747

Page 1 of 4

Client Name: Rhino Env. - Farmington
Submission #: 9812000007
Project Name: GOOYEA - 1198
Report Date: 12/07/98

Client Sample #: CELL 1 01 & 02

Laboratory ID #: 122744 **Order Type:** Normal **Matrix:** Soil
Sample Container: Methanol Jar, 4oz EPA Glass Jar\White lid
Sampling Location: LEA COUNTY, NEW MEXICO
Sampling Date: 11/29/98

BTEX (EPA 8021)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

TPH (EPA 418.1)

TPH Prep Date: 12/07/98

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

TS-TOTAL SOLIDS (EPA 160.3)

<u>Analyte</u>	<u>Results(%)</u>	<u>Detection Limit</u>
Total Solids	89.8	

MOISTURE = 10.2%

Client Sample #: CELL 2 01 & 02

Laboratory ID #: 122745 **Order Type:** Normal **Matrix:** Soil
Sample Container: Methanol Jar, 4oz EPA Glass Jar\White lid
Sampling Location: LEA COUNTY, NEW MEXICO
Sampling Date: 11/29/98

BTEX (EPA 8021)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

TPH (EPA 418.1)

TPH Prep Date: 12/07/98

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

TS-TOTAL SOLIDS (EPA 160.3)

<u>Analyte</u>	<u>Results(%)</u>	<u>Detection Limit</u>
Total Solids	91.2	

MOISTURE = 8.8%

Client Sample #: CELL 3 01 & 02

Laboratory ID #: 122746 **Order Type:** Normal **Matrix:** Soil
Sample Container: Methanol Jar, 4oz EPA Glass Jar\White lid
Sampling Location: LEA COUNTY, NEW MEXICO
Sampling Date: 11/29/98

BTEX (EPA 8021)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

Client Name: Rhino Env. - Farmington
Submission #: 9812000007
Project Name: GOOYEA - 1198
Report Date: 12/07/98

TPH (EPA 418.1)

TPH Prep Date: 12/07/98

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

TS-TOTAL SOLIDS (EPA 160.3)

<u>Analyte</u>	<u>Results(%)</u>	<u>Detection Limit</u>
Total Solids	88.4	
MOISTURE = 11.6%		

Client Sample #: CELL 4 01 & 02

Laboratory ID #: 122747 Order Type: Normal Matrix: Soil
Sample Container: Methanol Jar, 4oz EPA Glass Jar\White lid
Sampling Location: LEA COUNTY, NEW MEXICO
Sampling Date: 11/29/98

BTEX (EPA 8021)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

TPH (EPA 418.1)

TPH Prep Date: 12/07/98

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

TS-TOTAL SOLIDS (EPA 160.3)

<u>Analyte</u>	<u>Results(%)</u>	<u>Detection Limit</u>
Total Solids	90.6	
MOISTURE = 9.4%		

Report To: Rhino Environmental Services
 Lab Number: 9812000007
 Page 4 of 4

Project: Gooyea-1198

QUALITY CONTROL DATA

<u>ANALYTE</u>	<u>DATE ANALYZED</u>	<u>SPIKE (ppm)</u>	<u>STAND. DEV.</u>	<u>COEFF. OF VAR %</u>	<u>REC1/%</u>	<u>REC2/%</u>
Total Solids	12/1/98	----	±0.212	0.23	----	----

Standard Deviation = $(x1-x2)/1.414$

Coefficient of Variability % = $(S.D./Avg.) \times 100$

Recovery % = $[(spiked-unsiked)/expected] \times 100$

QUALITY CONTROL DATA

TPH results are reported in parts per million (ppm) in solid.

	Value 1	Value 2	% Var.
TPH:	116	120	3.3
CONCENTRATION UNITS:	TPH - ppm		
DETECTION LIMITS:	TPH - 10		

<u>ANALYST</u>	<u>ANALYTE</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>
Anthony Taylor	TPH	12/7/98	12/7/98


QUALITY CONTROL DATA

<u>METHOD</u>	<u>ANALYST</u>	<u>MATRIX</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>
BTEX 8021	Anthony Taylor	Solid	12/2/98	12/2/98

<u>SPIKE COMPOUND</u>	<u>SPIKE AMOUNT</u>	<u>% REC 1</u>	<u>% REC 2</u>	<u>% REC QC LIMIT</u>	<u>% VAR.</u>	<u>% VAR QC LIMIT</u>
Benzene	100 ppb	114	113	80-120	0.8	20.0
Toluene	100 ppb	124	121	80-120	2.4	20.0
Ethyl Benzene	100 ppb	113	111	80-120	1.7	20.0
Xylenes	300 ppb	122	122	80-120	0.0	20.0

Page 1 of 1.

Anachem, Inc. 8 Prestige Circle, Suite 104, Allen, TX 75002 Phone: 972-727-9003 Fax: 972-727-9686

Report To: DANIELE BERARDELLI		Bill To: (Buyer) RHINO ENVIRONMENTAL				
Company: RHINO ENVIRONMENTAL SERVICES		Purchase Order #:				
Address: 5 CR 6065		Address: P.O. BOX 25547				
City, State, Zip: FARMINGTON, NM 87401		City, State, Zip: ALBUQUERQUE, NM				
Phone: 800-449-8393 Fax: (505) 598-9627		Phone: 800-762-0241 Fax: (505) 797-4874				
Project Name: GOOYEA - 1198		Quote #:				
Project Location: LEA COUNTY		City, State: NM				
Date Due:		Rush: <input checked="" type="radio"/> 25% 50% 100% Sampled By: ALLEN HODGE				
Lab#	Client Sample ID	Matrix	Date/Time	Sample Notes		
122744	1. CELL 1-01	Soil	11/29/98 @ 8:30	ICE		
↓	2. CELL 1-02		11/29/98 @ 9:00	METHANOL		
122745	3. CELL 2-01		11/29/98 @ 9:30	ICE		
↓	4. CELL 2-02		11/29/98 @ 9:30	METHANOL		
122746	5. CELL 3-01		11/29/98 @ 9:40	ICE		
↓	6. CELL 3-02		11/29/98 @ 10:00	METHANOL		
122747	7. CELL 4-01		11/29/98 @ 10:20	ICE		
↓	8. CELL 4-02		11-29-98 / 10:30	METHANOL		
	9. CELL -					
	10.					
Relinquished By	Date	Time	Received By	Date	Time	Sample Receipt Notes
	11/29/98	10:00	Mad Thonwill	12/1/98	10:00	Temperature
						Preserved Properly
						COC Seals Intact
						Method of Shipment
In the event that Anachem determines that a sample is hazardous, the client agrees to: Pay For Sample Disposal _____ Accept Returned Sample _____						
Submission # 9812-07						

Sample information is vital for proper login and reporting. This is a contract subject to the terms and conditions on the reverse side.



RHINO

Environmental Services, Inc.

P.O. Box 25547 • Albuquerque, New Mexico 87125

(505) 247-4646 • Fax (505) 797-4874

5 County Road 6065 • Farmington, New Mexico 87401

(505) 598-9626 • Fax (505) 598-9627

June 25, 1998

Ms. Martyne J. Kieling
NM Energy, Mineral and Natural Resources
Oil Conservation Division
Environmental Bureau
2040 South Pacheco Street
Santa Fe, New Mexico 87505
Ph: (505) 827-7153
Fx: (505) 827-8177

RECEIVED

JUL 01 1998

Environmental Bureau
Oil Conservation Division

**Re: Goo-Yea Landfarm Facility:
Quarterly Report - May 1998**

Dear Ms. Kieling:

Rhino Environmental Services, Inc. (Rhino) would like to apologize for the tardiness of this report. As can be read on Anachem's cover sheet, samples were submitted to the laboratory on May 20, 1998, however, results were not reported until June 23, 1998.

In accordance with the conditions set forth in the permit, enclosed please find the February 1998 quarterly report for Rhino's Goo-Yea facility located in Lea County, New Mexico.

This report serves to maintain a written record of the amount of contaminated soil accepted for treatment and to ensure that no contaminant migration has occurred.

No soils were accepted into the facility for this past quarter, therefore, the soil log is not part of this report. One native soil sample was retrieved from each active treatment area, Cells 1, 2, 3 and 4. All samples were collected at a depth of between 2 and 3 feet below the soil surface, placed on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a site map showing the location of sample collection. The analytical results are summarized in Table two (2). A copy of the analytical report is submitted as Appendix A.

Rhino's next quarterly report will be submitted August, 1998. Please don't hesitate to call if you have any questions or require additional information.

Sincerely,

Daniele Berardelli
Rhino Environmental Services, Inc.

Attachments

CC: Mr. Wayne Price
OCD, District - 1
P.O. Box 1908
Hobbs, New Mexico 88241-1980

WJM
7-1-98

**RHINO ENVIRONMENTAL SERVICES, INC.****TABLE NO. 1 - Analytical Results****Quarterly Native Soil Sampling:**

One native soil sample was retrieved from Cell 1, Cell 2, Cell 3 and Cell 4. Each sample was taken 2 to 3 feet below the natural soil surface, stored on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a Site Map showing the location of each sample. The Cell 1, Cell 2, Cell 3 and Cell 4 samples were submitted for analysis by EPA method 418.1 and EPA method 8020, RCRA Total Metals and General Chemistry. The analytical results are summarized in Table No. 1.

TABLE NO. 1 Summary of Analytical Results from Native Soil Sampling					
Sample ID	BTEX mg/kg	TPH mg/kg	RCRA Total Metals mg/kg	General Chemistry mg/kg	pH
Cell 1	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10	< 3.05 Arsenic 24.0 Barium < 0.35 Cadmium 4.0 Chromium 3.5 Lead < 2.50 Selenium < 1.50 Silver	25.0 Alkalinity, Total 25.0 Bicarbonate Alkalinity 30.5 Bicarbonate Ion 47.9 Calcium <1.0 Carbonate Ion 1.06 Chloride 4.10 Magnesium <0.02 Mercury 8.30 Potassium 8.0 Sodium <0.1 Sulfate	7.9
Cell 2	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10	< 0.61 Arsenic 20.0 Barium < 0.07 Cadmium 3.5 Chromium 3.2 Lead < 0.50 Selenium < 0.30 Silver	40.0 Alkalinity, Total 40.0 Bicarbonate Alkalinity 48.8 Bicarbonate Ion 20.3 Calcium <1.0 Carbonate Ion 1.05 Chloride <1.5 Magnesium <0.02 Mercury 5.50 Potassium 6.80 Sodium 1.45 Sulfate	7.8
Cell 3	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	?? 36	< 0.61 Arsenic 19.0 Barium < 0.07 Cadmium 3.4 Chromium 2.6 Lead < 0.50 Selenium < 0.30 Silver	25.0 Alkalinity, Total 25.0 Bicarbonate Alkalinity 30.5 Bicarbonate Ion 29.4 Calcium <1.0 Carbonate Ion 0.49 Chloride <1.5 Magnesium <0.02 Mercury 5.00 Potassium 8.4 Sodium <1.0 Sulfate	7.9

**RHINO ENVIRONMENTAL SERVICES, INC.**

TABLE NO. 1, Continued
Summary of Analytical Results from Native Soil Sampling

Sample ID	BTEX mg/kg	TPH mg/kg	RCRA Total Metals mg/kg	General Chemistry mg/kg	pH
Cell 4	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10	< 0.615 Arsenic 50.0 Barium < 0.07 Cadmium 5.0 Chromium 5.0 Lead < 0.50 Selenium < 0.30 Silver	45.0 Alkalinity, Total 45.0 Bicarbonate Alkalinity 54.9 Bicarbonate Ion 52.5 Calcium <1.0 Carbonate Ion 89.6 Chloride 24.0 Magnesium <0.02 Mercury 28.1 Potassium 70.8 Sodium 8.70 Sulfate	8.0

Analyses for Cells 1, 2 and 4 report TPH and BTEX levels to be below detection, thereby demonstrating that no vertical contaminant migration has occurred.

*Cell 3 results report trace amount of TPH. Rhino believes this is most likely due to contamination during sample collection. High winds were experienced probably causing a bit of cross contamination to occur. Upon request by the OCD, Rhino will re-sample Cell 3 for TPH analysis.



RHINO ENVIRONMENTAL SERVICES, INC.

APPENDIX A - ANALYTICAL RESULTS



ANACHEM INC.

8 Prestige Circle, Suite 104 Allen, Texas 75002
972/727-9003 • FAX # 972/727-9686 • 1-800-966-1186

Good Yea
Got originals

RECEIVED

JUL 17 1998

Customer Name: Rhino Env. - Farmington
Date Received: May 20, 1998 at 09:00:00
Date Reported: June 23, 1998
Submission #: 9805000278
Project: GY QTR - 0598

Martigne, Background 2.2.

Here are the original
results for the
quarterly sampling
(5/98).

Also - Thanks very
much for all your help
with the new permit.

Daniele

SAMPLES The submission consisted of 8 samples with sar
I.D.'s shown in the attached data tables.

TESTS The samples listed in the attached result pages

- * ALKALINITY, TOTAL (EPA 310.1)
- * BICARBONATE ALKALINITY (EPA 310.1)
- * BICARBONATE ION (EPA 310.1)
- * BTEX (EPA 8020)
- * CALCIUM/Ca (EPA 200.7)
- * CARBONATE ION (EPA 310.1)
- * CHLORIDE (EPA 300.0)
- * MAGNESIUM/Mg (EPA 200.7)
- * MERCURY DIGESTION (EPA 7470)
- * MERCURY/Hg BY COLD VAPOR (EPA 7471)
- * MICROWAVE DIGESTION (EPA 3051) SOLID
- * pH (EPA 150.1)
- * POTASSIUM/K (EPA 200.7)
- * SODIUM/Na (EPA 200.7)
- * SULFATE (EPA 300.0)
- * TOTAL RCRA METALS (EPA 6010)
- * TPH (EPA 418.1)

Totals 20% ... of 5 ppm

is under EPA Limit

Distribution Of Reports

1-Ms. Daniele Berardelli of Rhino Env. - Farmington
Ph. 505-598-9626 Fax 505-598-9627

Respectfully Submitted,
Anachem, Inc.

Howard H. Hayden, B.S.
Chemist

C.E. Newton, Ph.D.
Chemist

Submission #: 9805000278 lims

NOTE: Submitted material will be retained for 60 days unless notified or consumed in analysis. Material determined to be hazardous will be returned or a \$20 disposal fee will be assessed. Our letters and reports are for the exclusive use of the client to whom they are addressed. The use of our name must receive our prior written approval. Our letters and reports apply to the sample tested and/or inspected, and are not necessarily indicative of the qualities of apparently identical or similar materials.

106363 to 106370

Page 1 of 9

Client Name: Rhino Env. - Farmington
Submission #: 9805000278
Project Name: GY QTR - 0598
Report Date: 06/23/98

Client Sample #: CELL 1-A

Laboratory ID #: 106363 Order Type: Normal Matrix: Soil
Sample Container: 4oz EPA Approved Glass Jar\Aqua Lid
Sampling Location: LEA COUNTY, NM
Sampling Date: 05/17/98
Temperature (Celcius): 4

ALKALINITY, TOTAL (EPA 310.1)

Analyte	Results(mg/kg)	Detection Limit
Total Alkalinity	25	1.0

BICARBONATE ALKALINITY (EPA 310.1)

Analyte	Results(mg/kg)	Detection Limit
Bicarbonate Alkalinity	25	1.0

BICARBONATE ION (EPA 310.1)

Analyte	Results(mg/kg)	Detection Limit
Bicarbonate, HCO ₃ (CaCO ₃)	30.5	1.0

CALCIUM/Ca (EPA 200.7)

Analyte	Results(mg/kg)	Detection Limit
Calcium (for anion extract; total concentration = 11200mg/kg)	47.9	0.05

CARBONATE ION (EPA 310.1)

Analyte	Results(mg/kg)	Detection Limit
Carbonate, CO ₃ (CaCO ₃)	<1.0	1.0

CHLORIDE (EPA 300.0)

Analyte	Results(mg/kg)	Detection Limit
Chloride	1.06	0.1

MAGNESIUM/Mg (EPA 200.7)

Analyte	Results(mg/kg)	Detection Limit
Magnesium (for anion extract; total concentration = 463mg/kg)	4.1	1.5

MERCURY DIGESTION (EPA 7470)

Mercury Digestion Date: 05/20/98

MERCURY/Hg BY COLD VAPOR (EPA 7471)

Analyte	Results(mg/kg)	Detection Limit
Mercury	<0.02	0.02

MICROWAVE DIGESTION (EPA 3051) SOLID

Microwave Digestion Date: 05/20/98

pH (EPA 150.1)

Analyte	Results(---)	Detection Limit
pH For Liquid	7.9	0.05

POTASSIUM/K (EPA 200.7)

Analyte	Results(mg/kg)	Detection Limit
Potassium (for anion extract; total concentration = 485mg/kg)	8.3	0.5

SODIUM/Na (EPA 200.7)

Analyte	Results(mg/kg)	Detection Limit
Sodium (for anion extract; total concentration = 125mg/kg)	8.0	0.05

Client Name: Rhino Env. - Farmington
Submission #: 9805000278
Project Name: GY QTR - 0598
Report Date: 06/23/98

SULFATE (EPA 300.0)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Sulfate	<0.1	0.1

TOTAL RCRA METALS (EPA 6010)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Arsenic	<3.05	3.05
Barium	24.0	0.05
Cadmium	<0.35	0.35
Chromium	4.0	0.375
Lead	3.5	2.00
Selenium	<2.50	2.50
Silver	<1.50	1.50

TPH (EPA 418.1)

TPH Prep Date: 05/27/98

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

Client Sample #: CELL 1-B

Laboratory ID #: 106364 Order Type: Normal Matrix: Soil
Sample Container: Methanol Jar
Sampling Location: LEA COUNTY, NM
Sampling Date: 05/17/98
Temperature (Celcius):4

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

Client Sample #: CELL 2-A

Laboratory ID #: 106365 Order Type: Normal Matrix: Soil
Sample Container: 4oz EPA Approved Glass Jar\Aqua Lid
Sampling Location: LEA COUNTY, NM
Sampling Date: 05/17/98
Temperature (Celcius):4

ALKALINITY, TOTAL (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Alkalinity	40	1.0

BICARBONATE ALKALINITY (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Bicarbonate Alkalinity	40	1.0

BICARBONATE ION (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Bicarbonate, HCO ₃ (CaCO ₃)	48.8	1.0

CALCIUM/Ca (EPA 200.7)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Calcium (for anion extract; total concentration = 9100mg/kg)	20.3	0.05

Client Name: Rhino Env. - Farmington
Submission #: 9805000278
Project Name: GY QTR - 0598
Report Date: 06/23/98

CARBONATE ION (EPA 310.1)

Analyte
Carbonate, CO₃ (CaCO₃)

Results(mg/kg)
<1.0

Detection Limit
1.0

CHLORIDE (EPA 300.0)

Analyte
Chloride

Results(mg/kg)
1.05

Detection Limit
0.1

MAGNESIUM/Mg (EPA 200.7)

Analyte
Magnesium
(for anion extract; total concentration = 424mg / kg)

Results(mg/kg)
<1.5

Detection Limit
1.5

MERCURY DIGESTION (EPA 7470)

Mercury Digestion Date: 05/20/98

MERCURY/Hg BY COLD VAPOR (EPA 7471)

Analyte
Mercury

Results(mg/kg)
<0.02

Detection Limit
0.02

MICROWAVE DIGESTION (EPA 3051) SOLID

Microwave Digestion Date: 05/20/98

pH (EPA 150.1)

Analyte
pH For Liquid

Results(---)
7.8

Detection Limit
0.05

POTASSIUM/K (EPA 200.7)

Analyte
Potassium
(for anion extract; total concentration = 454mg / kg)

Results(mg/kg)
5.5

Detection Limit
0.5

SODIUM/Na (EPA 200.7)

Analyte
Sodium
(for anion extract; total concentration = 122mg / kg)

Results(mg/kg)
6.8

Detection Limit
0.05

SULFATE (EPA 300.0)

Analyte
Sulfate

Results(mg/kg)
1.45

Detection Limit
1.0

TOTAL RCRA METALS (EPA 6010)

Analyte
Arsenic
Barium
Cadmium
Chromium
Lead
Selenium
Silver

Results(mg/kg)
<0.61
20.0
<0.07
3.5
3.2
<0.5
<0.3

Detection Limit
0.61
0.01
0.07
0.075
0.40
0.5
0.3

TPH (EPA 418.1)

TPH Prep Date: 05/27/98

Analyte
Total Petroleum Hydrocarbons

Results(mg/kg)
<10

Detection Limit
10

Client Name: Rhino Env. - Farmington
Submission #: 9805000278
Project Name: GY QTR - 0598
Report Date: 06/23/98

Client Sample #: CELL 2-B

Laboratory ID #: 106366 Order Type: Normal Matrix: Soil
Sample Container: Methanol Jar
Sampling Location: LEA COUNTY, NM
Sampling Date: 05/17/98
Temperature (Celcius): 4

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

Client Sample #: CELL 3-A

Laboratory ID #: 106367 Order Type: Normal Matrix: Soil
Sample Container: 4oz EPA Approved Glass Jar\Aqua Lid
Sampling Location: LEA COUNTY, NM
Sampling Date: 05/17/98
Temperature (Celcius): 4

ALKALINITY, TOTAL (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Alkalinity	25	1.0

BICARBONATE ALKALINITY (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Bicarbonate Alkalinity	25	1.0

BICARBONATE ION (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Bicarbonate, HCO ₃ (CaCO ₃)	30.5	1.0

CALCIUM/Ca (EPA 200.7)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Calcium (for anion extract; total concentration = 8250mg/kg)	29.4	0.05

CARBONATE ION (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Carbonate, CO ₃ (CaCO ₃)	<1.0	1.0

CHLORIDE (EPA 300.0)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Chloride	0.49	0.1

MAGNESIUM/Mg (EPA 200.7)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Magnesium (for anion extract; total concentration = 451mg/kg)	<1.5	1.5

MERCURY DIGESTION (EPA 7470)

Mercury Digestion Date: 05/20/98

MERCURY/Hg BY COLD VAPOR (EPA 7471)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Mercury	<0.02	0.02

Client Name: Rhino Env. - Farmington
Submission #: 9805000278
Project Name: GY QTR - 0598
Report Date: 06/23/98

MICROWAVE DIGESTION (EPA 3051) SOLID

Microwave Digestion Date: 05/20/98

pH (EPA 150.1)

Analyte
pH For Liquid

Results(----)
7.9

Detection Limit
0.05

POTASSIUM/K (EPA 200.7)

Analyte
Potassium
(for anion extract; total concentration = 500mg/kg)

Results(mg/kg)
5.0

Detection Limit
0.5

SODIUM/Na (EPA 200.7)

Analyte
Sodium
(for anion extract; total concentration = 116mg/kg)

Results(mg/kg)
8.4

Detection Limit
0.05

SULFATE (EPA 300.0)

Analyte
Sulfate

Results(mg/kg)
<1.0

Detection Limit
1.0

TOTAL RCRA METALS (EPA 6010)

Analyte
Arsenic
Barium
Cadmium
Chromium
Lead
Selenium
Silver

Results(mg/kg)
<0.61
19.0
<0.07
3.4
2.6
<0.5
<0.3

Detection Limit
0.61
0.01
0.07
0.075
0.40
0.5
0.3

TPH (EPA 418.1)

TPH Prep Date: 05/27/98

Analyte
Total Petroleum Hydrocarbons

Results(mg/kg)
36

Detection Limit
10

Client Sample #: CELL 3-B

Laboratory ID #: 106368 Order Type: Normal Matrix: Soil
Sample Container: Methanol Jar
Sampling Location: LEA COUNTY, NM
Sampling Date: 05/17/98
Temperature (Celcius): 4

BTEX (EPA 8020)

Analyte
Benzene
Toluene
Ethyl Benzene
Xylenes

Results(mg/kg)
<0.40
<0.50
<0.50
<0.50

Detection Limit
0.40
0.50
0.50
0.50

Client Name: Rhino Env. - Farmington
Submission #: 9805000278
Project Name: GY QTR - 0598
Report Date: 06/23/98

Client Sample #: CELL 4-A

Laboratory ID #: 106369 Order Type: Normal Matrix: Soil
Sample Container: 4oz EPA Approved Glass Jar\Aqua Lid
Sampling Location: LEA COUNTY, NM
Sampling Date: 05/17/98
Temperature (Celcius): 4

ALKALINITY, TOTAL (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Alkalinity	45	1.0

BICARBONATE ALKALINITY (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Bicarbonate Alkalinity	45	1.0

BICARBONATE ION (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Bicarbonate, HCO ₃ (CaCO ₃)	54.9	1.0

CALCIUM/Ca (EPA 200.7)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Calcium (for anion extract; total concentration = 13900mg/kg)	52.5	0.05

CARBONATE ION (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Carbonate, CO ₃ (CaCO ₃)	<1.0	1.0

CHLORIDE (EPA 300.0)

<u>Analyte</u>	<u>Results(mg/l)</u>	<u>Detection Limit</u>
Chloride	89.6	0.1

MAGNESIUM/Mg (EPA 200.7)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Magnesium (for anion extract; total concentration = 975mg/kg)	24.0	1.5

MERCURY DIGESTION (EPA 7470)

Mercury Digestion Date: 05/20/98

MERCURY/Hg BY COLD VAPOR (EPA 7471)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Mercury	<0.02	0.02

MICROWAVE DIGESTION (EPA 3051) SOLID

Microwave Digestion Date: 05/20/98

pH (EPA 150.1)

<u>Analyte</u>	<u>Results(---)</u>	<u>Detection Limit</u>
pH For Liquid	8.0	0.05

POTASSIUM/K (EPA 200.7)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Potassium (for anion extract; total concentration = 745mg/kg)	28.1	0.5

SODIUM/Na (EPA 200.7)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Sodium (for anion extract; total concentration = 285mg/kg)	70.8	0.05

Client Name: Rhino Env. - Farmington
Submission #: 9805000278
Project Name: GY QTR - 0598
Report Date: 06/23/98

SULFATE (EPA 300.0)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Sulfate	8.7	1.0

TOTAL RCRA METALS (EPA 6010)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Arsenic	<0.61	0.61
Barium	50.0	0.01
Cadmium	<0.07	0.07
Chromium	5.0	0.075
Lead	5.0	0.40
Selenium	<0.5	0.5
Silver	<0.3	0.3

TPH (EPA 418.1)

TPH Prep Date: 05/27/98

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

Client Sample #: CELL 4-B

Laboratory ID #: 106370 *Order Type:* Normal *Matrix:* Soil
Sample Container: Methanol Jar
Sampling Location: LEA COUNTY, NM
Sampling Date: 05/17/98
Temperature (Celcius): 4

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

Report To: Rhino Environmental

Lab Number: 9805000278

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Project: GYQTR-9598

QUALITY CONTROL DATA

<u>METHOD</u>	<u>ANALYST</u>	<u>MATRIX</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>
BTEX 8020	Howard Hayden	Solid	5/20/98	5/20/98

<u>SPIKE COMPOUND</u>	<u>SPIKE AMOUNT</u>	<u>% REC 1</u>	<u>% REC 2</u>	<u>% REC QC LIMIT</u>	<u>% VAR. % VAR.</u>	<u>% VAR QC LIMIT</u>
Benzene	100 ppb	86.8	86.1	80-120	0.8	20.0
Toluene	100 ppb	101	102	80-120	0.9	20.0
Ethyl Benzene	100 ppb	107	108	80-120	0.9	20.0
Xylenes	300 ppb	107	109	80-120	1.8	20.0

QUALITY CONTROL DATA

TPH results are reported in parts per million (ppm) in solid.

	<u>Value 1</u>	<u>Value 2</u>	<u>% Var.</u>
TPH:	136	134	1.5
CONCENTRATION UNITS:	TPH - ppm		
DETECTION LIMITS:	TPH - 10		

<u>ANALYST</u>	<u>ANALYTE</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>
Anthony Taylor	TPH	5/27/98	5/27/98

QUALITY CONTROL DATA

<u>ANALYTE</u>	<u>DATE ANALYZED</u>	<u>SPIKE (ppm)</u>	<u>STAND. DEV.</u>	<u>COEFF. OF VAR %</u>	<u>REC1/%</u>	<u>REC2/%</u>
Total Alkalinity	6/9/98	----	63.6	12	95.1	110
Chloride	6/15/98	----	0	0	90	90
Mercury	5/21/98	----	0.004	2.4	97	101
Silver	5/22/98	4.0	0.099	2.9	86.7	83.2
Arsenic	5/22/98	4.0	0.064	1.9	85.1	82.8
Chromium	5/22/98	4.0	0.092	2.6	86.1	82.8
Lead	5/22/98	4.0	0.050	1.4	84.2	82.4
Selenium	5/22/98	4.0	0.035	1.2	79.4	80.6
Barium	5/22/98	4.0	0.212	4.7	92.9	85.4
Cadmium	5/22/98	4.0	0.099	3.0	85.3	81.8

Standard Deviation = $(x1-x2)/1.414$

Coefficient of Variability % = $(S.D./Avg.) \times 100$

Recovery % = $[(\text{spiked-unspiked})/\text{expected}] \times 100$

Purchase Order/Chain Of Custody

Report To: <u>D. Berardelli</u>		Bill To: (Buyer) <u>Rhine Environmental</u>	
Company: <u>Rhine</u>		Purchase Order #: <u>6Y98-1998 (600Yea)</u>	
Address: <u>5 CR 60065</u>		Address: <u>P.O. Box 25547</u>	
City, State, Zip: <u>Farmington, NM 87401</u>		City, State, Zip: <u>Alb., NM 87125</u>	
Phone: <u>505 598 9626</u> Fax: <u>598-9627</u>		Phone: <u>505 247 4646</u> Fax: <u>797-4874</u>	
Project Name: <u>GYQTR-0598</u>		Quote #:	
Project Location: <u>Lea County</u>		City, State: <u>NM</u>	
Date Due: <u>Rush: 0% 25% 50% 100%</u>		Sampled By: <u>Steve Degen</u>	

Lab#	Client Sample ID	Matrix	Date/Time	Sample Notes	Analysis
106363	1. Cell 1-A	Soil	5/17 1715	ice	TPH 418.1
64	2. Cell 1-B		5/17 1722	ice	BTEX 8020
65	3. Cell 2-A		5/17 1735	ice	Total RCRA 8 Metals
66	4. Cell 2-B		5/17 1744	ice	Cation/Anion
67	5. Cell 3-A		5/17 1754	ice	
68	6. Cell 3-B		5/17 1810	ice	
69	7. Cell 4-A		5/17 1822	ice	
70	8. Cell 4-B		5/17 1830	ice	
9.					
10.					

Relinquished By	Date	Time	Received By	Date	Time	Sample Receipt Notes
<u>Steve Degen</u>	5/17	10:15	<u>Steve Degen</u>	5/17	10:15	Temperature 4°C
						Preserved Properly
						COC Seals Intact
						Method of Shipment

In the event that Anachem determines that a sample is hazardous, the client agrees to: Pay For Sample Disposal ☒ Accept Returned Sample ☐

Submission # 9805-278



RHINO

Environmental Services, Inc.

P.O. Box 25547 • Albuquerque, New Mexico 87125

(505) 247-4646 • Fax (505) 797-4874

5 County Road 6065 • Farmington, New Mexico 87401

(505) 598-9626 • Fax (505) 598-9627

SEP - 2 1998

OIL CONSERVATION DIVISION

August 31, 1998

Ms. Martyne J. Kieling
NM Energy, Mineral and Natural Resources
Oil Conservation Division
Environmental Bureau
2040 South Pacheco Street
Santa Fe, New Mexico 87505
Ph: (505) 827-7153
Fx: (505) 827-8177

**Re: Goo-Yea Landfarm Facility:
Quarterly Report - August 1998**

Dear Ms. Kieling:

In accordance with the conditions set forth in the permit, enclosed please find the August 1998 quarterly report for Rhino's Goo-Yea facility located in Lea County, New Mexico.

This report serves to maintain a written record of the amount of contaminated soil accepted for treatment and to ensure that no contaminant migration has occurred.

No soils were accepted into the facility for this past quarter, therefore, the soil log is not part of this report. One native soil sample was retrieved from each active treatment area, Cells 1, 2, 3 and 4. All samples were collected at a depth of between 2 and 3 feet below the soil surface, placed on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a site map showing the location of sample collection. The analytical results are summarized in Table two (2). A copy of the analytical report is submitted as Appendix A.

Rhino's next quarterly report will be submitted August, 1998. Please don't hesitate to call if you have any questions or require additional information.

Sincerely,

Daniele Berardelli
Rhino Environmental Services, Inc.

Attachments

CC: Mr. Wayne Price
OCD, District - 1
P.O. Box 1908
Hobbs, New Mexico 88241-1980

10-7-98
WJK

**TABLE NO. 1 - Analytical Results****Quarterly Native Soil Sampling:**

One native soil sample was retrieved from Cell 1, Cell 2, Cell 3 and Cell 4. Each sample was taken 2 to 3 feet below the natural soil surface, stored on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a Site Map showing the location of each sample. The Cell 1, Cell 2, Cell 3 and Cell 4 samples were submitted for analysis by EPA method 418.1 and EPA method 8020. The analytical results are summarized in Table No. 1.

TABLE NO. 1 Summary of Analytical Results from Native Soil Sampling		
Sample ID	BTEX mg/kg	TPH mg/kg
Cell 1	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10
Cell 2	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10
Cell 3	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10
Cell 4	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10

Analyses for Cells 1, 2 and 4 report TPH and BTEX levels to be below detection, thereby demonstrating that no vertical contaminant migration has occurred.



FIGURE No. 1 - SITE MAP

Goo-Yea Commercial Landfarm
SE/4 of Section 14, Township 11 South, Range 38 East
Lea County, New Mexico

Each cell is approximately 5 acres in size.



Cell 1	Cell 2	Cell 3	Cell 4	Cell 5
X	X	X	X	

X denotes sample collection location

Not to Scale



RHINO ENVIRONMENTAL SERVICES, INC.

APPENDIX A - ANALYTICAL RESULTS

**ANACHEM INC.**

8 Prestige Circle, Suite 104 Allen, Texas 75002
972/727-9003 • FAX # 972/727-9686 • 1-800-966-1186

Customer Name: Rhino Env. - Farmington
Date Received: August 19, 1998 at 10:00:00
Date Reported: August 25, 1998
Submission #: 9808000323
Project: GY 0898


SAMPLES The submission consisted of 4 samples with sample I.D.'s shown in the attached data tables.

TESTS The samples listed in the attached result pages were analyzed for:
* BTEX (EPA 8020)
* METHANOL SAMPLE CONTAINER PREP, NEW MEXICO
* TPH (EPA 418.1)
* TS-TOTAL SOLIDS (EPA 160.3)

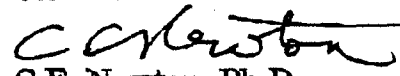
Distribution Of Reports

1-Ms. Daniele Berardelli of Rhino Env. - Farmington
Ph. 505-598-9626 Fax 505-598-9627

Respectfully Submitted,
Anachem, Inc.


Howard H. Hayden, B.S.
Chemist

Submission #: 9808000323 lms


C.E. Newton, Ph.D.
Chemist

NOTE: Submitted material will be retained for 60 days unless notified or consumed in analysis. Material determined to be hazardous will be returned or a \$20 disposal fee will be assessed. Our letters and reports are for the exclusive use of the client to whom they are addressed. The use of our name must receive our prior written approval. Our letters and reports apply to the sample tested and/or inspected, and are not necessarily indicative of the qualities of apparently identical or similar materials.

119164 to 119167

Page 1 of 4

Client Name: Rhino Env. - Farmington
Submission #: 9808000323
Project Name: GY 0898
Report Date: 08/25/98

Client Sample #: CELL 1 A & B

Laboratory ID #: 113164 **Order Type:** Normal Matrix: Soil
Sample Container: 4oz Glass Jar\Aqua Lid,Methanol Jar
Sampling Location: GOOYEA, LEA COUNTY, NM
Sampling Date: 08/17/98
Temperature (Celcius): 4

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

TPH (EPA 418.1)

TPH Prep Date: 08/25/98

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

TS-TOTAL SOLIDS (EPA 160.3)

<u>Analyte</u>	<u>Results(%)</u>	<u>Detection Limit</u>
Total Solids	82.7	

Client Sample #: CELL 2 A & B

Laboratory ID #: 113165 **Order Type:** Normal Matrix: Soil
Sample Container: 4oz Glass Jar\Aqua Lid,Methanol Jar
Sampling Location: GOOYEA, LEA COUNTY, NM
Sampling Date: 08/17/98
Temperature (Celcius): 4

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

TPH (EPA 418.1)

TPH Prep Date: 08/25/98

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

TS-TOTAL SOLIDS (EPA 160.3)

<u>Analyte</u>	<u>Results(%)</u>	<u>Detection Limit</u>
Total Solids	90.3	

Client Sample #: CELL 3 A & B

Laboratory ID #: 113166 **Order Type:** Normal Matrix: Soil
Sample Container: 4oz Glass Jar\Aqua Lid,Methanol Jar
Sampling Location: GOOYEA, LEA COUNTY, NM
Sampling Date: 08/17/98
Temperature (Celcius): 4

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

Client Name: Rhino Env. - Farmington
Submission #: 9808000323
Project Name: GY 0898
Report Date: 08/25/98

TPH (EPA 418.1)

TPH Prep Date: 08/25/98

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

TS-TOTAL SOLIDS (EPA 160.3)

<u>Analyte</u>	<u>Results(%)</u>	<u>Detection Limit</u>
Total Solids	90.0	

Client Sample #: CELL 4 A & B

Laboratory ID #: 113167 Order Type: Normal Matrix: Soil
Sample Container: 4oz Glass Jar\Aqua Lid,Methanol Jar
Sampling Location: GOOYEA, LEA COUNTY, NM
Sampling Date: 08/17/98
Temperature (Celcius): 4

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

TPH (EPA 418.1)

TPH Prep Date: 08/25/98

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

TS-TOTAL SOLIDS (EPA 160.3)

<u>Analyte</u>	<u>Results(%)</u>	<u>Detection Limit</u>
Total Solids	88.9	

Report To: Rhino Environmental

Project: 640898

Lab Number: 9808000323

Page 4 of 4**QUALITY CONTROL DATA**

<u>ANALYTE</u>	<u>DATE ANALYZED</u>	<u>SPIKE (ppm)</u>	<u>STAND. DEV.</u>	<u>COEFF. OF VAR %</u>	<u>REC1%</u>	<u>REC2%</u>
Total Solids	8/24/98	---	0.14	0.17	---	---

Standard Deviation = $(x1-x2)/1.414$ Coefficient of Variability % = $(S.D./Avg.) \times 100$ Recovery % = $[(spiked-unsiked)/expected] \times 100$ **QUALITY CONTROL DATA**

<u>METHOD</u>	<u>ANALYST</u>	<u>MATRIX</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>
BTEX 8020	Howard Hayden	Solid	8/20/98	8/20/98

<u>SPIKE COMPOUND</u>	<u>SPIKE AMOUNT</u>	<u>% REC 1</u>	<u>% REC 2</u>	<u>% REC QC LIMIT</u>	<u>% VAR.</u>	<u>% VAR QC LIMIT</u>
Benzene	100 ppb	82.1	80.1	80-120	2.4	20.0
Toluene	100 ppb	86.5	83.7	80-120	3.2	20.0
Ethyl Benzene	100 ppb	100	85.8	80-120	14.2	20.0
Xylenes	300 ppb	98.9	85.8	80-120	13.2	20.0

QUALITY CONTROL DATA

TPH results are reported in parts per million (ppm) in solid.

	Value 1	Value 2	% Var.
TPH:	116	120	3.3
CONCENTRATION UNITS:	TPH - ppm		
DETECTION LIMITS:	TPH - 10		

<u>ANALYST</u>	<u>ANALYTE</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>
Anthony Taylor	TPH	8/25/98	8/25/98

Purchase Order/Chain Of Custody

Page 1 of 1.

Anachem, Inc. 8 Prestige Circle, Suite 104, Allen, TX 75002 Phone: 972-727-9003 Fax: 972-727-9686

Report To: <u>Danielle Bivarrelli</u>		Bill To: (Buyer) <u>Rhino Environmental</u>	
Company: <u>Rhino</u>		Purchase Order #: <u>6Y0898</u>	
Address: <u>5 CR 602S</u>		Address: <u>P.O. Box 88547</u>	
City, State, Zip: <u>Farmington, NM 87401</u>		City, State, Zip: <u>Alb., NM 87105</u>	
Phone: <u>505 989 6086</u> Fax: <u>9687</u>		Phone: <u>505 347 4646</u> Fax: <u>505 797 4874</u>	
Project Name: <u>6Y0898</u>		Quote #:	
Project Location: <u>600 Yea</u>		City, State: <u>Lee County, NM</u>	
Date Due: <u>Rush: 0%</u> 25% 50% 100%		Sampled By: <u>Alfred Hernandez Bivarrelli</u>	

Lab#	Client Sample ID	Matrix	Date/Time	Sample Notes	Analysis
113164	1. C000 1-A	Soil	8-17/1730	ice	TPH 418.1
✓ 113165	2. C000 1-B		8-17/1730	ice	8021 BTEX
✓ 113165	3. C000 2-A		8-17/1755	ice	Moisture
✓ 113166	4. C011 2-B		8-17/1755	ice	
✓ 113166	5. C011 3-A		8-17/1827	ice	
✓ 113167	6. C000 3-B		8-17/1827	ice	
✓ 113167	7. C000 4-A		8-17/1903	ice	
✓ 113167	8. C000 4-B		8-17/1903	ice	
10.					

Relinquished By	Date	Time	Received By	Date	Time	Sample Receipt Notes
<u>[Signature]</u>	8-18-98	1502	<u>[Signature]</u>	8/19/98	1600	Temperature Preserved Properly COC Seal Intact Method of Shipment

In the event that Anachem determines that a sample is hazardous, the client agrees to:
 Pay For Sample Disposal ☒
 Accept Returned Sample ☐

Submission # 9808-323

010 REV 5/97

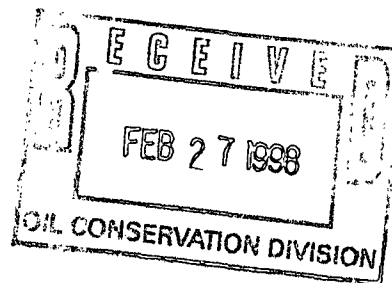
Sample information is vital for proper login and reporting. This is a contract subject to the terms and conditions on the reverse side.



RHINO

Environmental Services, Inc.

300 Broadway NE • Albuquerque, New Mexico 87102
(505) 242-6464 • Fax (505) 247-4941
5 County Road 6065 • Farmington, New Mexico 87401
(505) 598-9626 • Fax (505) 598-9627



February 24, 1998

Ms. Martyne J. Kieling
NM Energy, Mineral and Natural Resources
Oil Conservation Division
Environmental Bureau
2040 South Pacheco Street
Santa Fe, New Mexico 87505
Ph: (505) 827-7153
Fx: (505) 827-8177

**Re: Goo-Yea Landfarm Facility:
Quarterly Report - February 1998**

Dear Ms. Kieling:

In accordance with the conditions set forth in the permit, enclosed please find the February 1998 quarterly report for Rhino's Goo-Yea facility located in Lea County, New Mexico.

This report serves to maintain a written record of the amount of contaminated soil accepted for treatment and to ensure that no contaminant migration has occurred.

Table one (1) includes all soils accepted from November 1, 1997 through January 31, 1998. One native soil sample was retrieved from the treatment area in Cell 1, Cell 2, Cell 3 and Cell 4. All samples were collected at a depth of between 2 and 3 feet below the soil surface, placed on ice and submitted to Anachem, Inc. for analysis. An additional cell, number 6, has been constructed. Background samples for this cells were collected and submitted for the appropriate analysis. Figure No. 1 is a site map showing the location of sample collection. Analyses for Cell 1, Cell 2, Cell 3 and Cell 4 report TPH and BTEX levels to be below detection, thereby demonstrating that no vertical contaminant migration has occurred. The analytical results are summarized in Table two (2). A copy of the analytical report is submitted as Appendix A.

Rhino's next quarterly report will be submitted May, 1998. Please don't hesitate to call if you have any questions or require additional information.

Sincerely,

Daniele Berardelli
Rhino Environmental Services, Inc.

Attachments

CC: Wayne Price
OCD, District - 1

**TABLE NO. 1 - Soil Log**

**GOO-YEA LANDFARM FACILITY
QUARTERLY REPORT
February 1998**

Soil accepted from November 1, 1997 to January 31, 1998.

A total of 1,320 cubic yards (cy) of soils were received during this quarter. A list of those soils are shown in the table below. All soils were disced on a regular basis.

TABLE NO. 1

DATE	VOLUME	SOURCE	SECTION
12-31-97 to 01-09-98	640 cy Exempt	Bonneville Fuels Corporation Norris Well #2 Lea County, NM	Cell 4
12-29-97 to 01-05-98	500 cy Exempt	Bonneville Fuels Corporation Norris Well #4 Lea County, NM	Cell 4
01-14-98 & 01-15-98	180 cy Exempt	Texaco E & P, Inc. Cooper Jal # 119 Lea County, NM	Cell 4

**TABLE NO. 2 - Analytical Results****Quarterly Native Soil Sampling:**

One native soil sample was retrieved from Cell 1, Cell 2, Cell 3 and Cell 4 and one background sample was collected from Cell 5. Each sample was taken 2 to 3 feet below the natural soil surface, stored on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a Site Map showing the location of each sample. The Cell 1, Cell 2, Cell 3 and Cell 4 samples were submitted for analysis by EPA method 418.1 and EPA method 8020. The Cell 5 background sample was submitted for analysis by EPA method 418.1, EPA method 8020, RCRA Total Metals, and General Chemistry. The analytical results are summarized in Table No. 1.

TABLE NO. 2 Summary of Analytical Results from Native Soil Sampling					
Sample ID	BTEX mg/kg	TPH mg/kg	RCRA Total Metals mg/kg	General Chemistry mg/kg	pH
Cell 1	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10			
Cell 2	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10			
Cell 3	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10			
Cell 4	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10			
Cell 6		< 10	< 1.53 Arsenic 7.24 Barium < 0.18 Cadmium < 0.19 Chromium < 1.00 Lead < 1.25 Selenium < 0.75 Silver	70.8 Bicarbonate 908 Calcium <10 Carbonate 40.0 Chloride 1.68 Fluoride 840 Magnesium <0.02 Mercury <1.0 Nitrate <1.0 Phosphate 515 Potassium 236 Sodium 104 Sulfate	7.5

Background

Analyses for Cells 1, 2, 3 and 4 report TPH and BTEX levels to be below detection, thereby demonstrating that no vertical contaminant migration has occurred.

APPENDIX A - Analytical Results



FIGURE No. 1 - SITE MAP

Goo-Yea Commercial Landfarm
SE/4 of Section 14, Township 11 South, Range 38 East
Lea County, New Mexico

Each cell is approximately 5 acres in size.

N
↑
↓
S

Cell 1	Cell 2	Cell 3	Cell 4	Cell 5
X	X	X	X	X

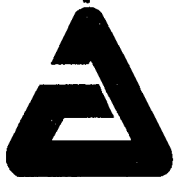
X denotes sample collection location

Not to Scale



RHINO ENVIRONMENTAL SERVICES, INC.

APPENDIX A - ANALYTICAL RESULTS



ANACHEM INC.

8 Prestige Circle, Suite 104 Allen, Texas 75002
972/727-9003 • FAX # 972/727-9686 • 1-800-966-1186

Customer Name: Rhino Env. - Farmington
Date Received: February 6, 1998 at 10:00:00
Date Reported: February 12, 1998
Submission #: 9802000056
Project: GY 0298

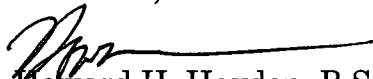
SAMPLES The submission consisted of 8 samples with sample I.D.'s shown in the attached data tables.

TESTS The samples listed in the attached result pages were analyzed for:
* BTEX (EPA 8020)
* METHANOL SAMPLE CONTAINER PREP, NEW MEXICO
* TPH (EPA 418.1)
* TS-TOTAL SOLIDS (EPA 160.3)


Distribution Of Reports

1-Ms. Daniele Berardelli of Rhino Env. - Farmington
Ph. 505-598-9626 Fax 505-598-9627

Respectfully Submitted,
Anachem, Inc.


Howard H. Hayden, B.S.
Chemist

Submission #: 9802000056 lms


C.E. Newton, Ph.D.
Chemist

NOTE: Submitted material will be retained for 60 days unless notified or consumed in analysis. Material determined to be hazardous will be returned or a \$20 disposal fee will be assessed. Our letters and reports are for the exclusive use of the client to whom they are addressed. The use of our name must receive our prior written approval. Our letters and reports apply to the sample tested and/or inspected, and are not necessarily indicative of the qualities of apparently identical or similar materials.

98635 to 98642

Page 1 of 5

Client Name: Rhino Env. - Farmington
Submission #: 9802000056
Project Name: GY 0298
Report Date: 02/12/98

Client Sample #: GY01-A

Laboratory ID #: 98635 **Order Type:** Normal **Matrix:** Soil
Sample Container: Methanol Jar
Sampling Location: LEA COUNTY, NM
Sampling Date: 02/03/98
Temperature (Celcius): 4

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

Client Sample #: GY01-B

Laboratory ID #: 98636 **Order Type:** Normal **Matrix:** Soil
Sample Container: 4oz EPA Approved Glass Jar\Aqua Lid
Sampling Location: LEA COUNTY, NM
Sampling Date: 02/03/98
Temperature (Celcius): 4

TPH (EPA 418.1)

TPH Prep Date: 02/09/98

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

TS-TOTAL SOLIDS (EPA 160.3)

<u>Analyte</u>	<u>Results(%)</u>	<u>Detection Limit</u>
Total Solids	90.9	1

Client Sample #: GY02-A

Laboratory ID #: 98637 **Order Type:** Normal **Matrix:** Soil
Sample Container: Methanol Jar
Sampling Location: LEA COUNTY, NM
Sampling Date: 02/03/98
Temperature (Celcius): 4

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

Client Sample #: GY02-B

Laboratory ID #: 98638 **Order Type:** Normal **Matrix:** Soil
Sample Container: 4oz EPA Approved Glass Jar\Aqua Lid
Sampling Location: LEA COUNTY, NM
Sampling Date: 02/03/98
Temperature (Celcius): 4

TPH (EPA 418.1)

TPH Prep Date: 02/09/98

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

Client Name: Rhino Env. - Farmington
Submission #: 9802000056
Project Name: GY 0298
Report Date: 02/12/98

TS-TOTAL SOLIDS (EPA 160.3)

<u>Analyte</u>	<u>Results(%)</u>	<u>Detection Limit</u>
Total Solids	88.0	1

Client Sample #: GY03-A

Laboratory ID #: 98639 Order Type: Normal Matrix: Soil
Sample Container: Methanol Jar
Sampling Location: LEA COUNTY, NM
Sampling Date: 02/03/98
Temperature (Celcius):4

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

Client Sample #: GY03-B

Laboratory ID #: 98640 Order Type: Normal Matrix: Soil
Sample Container: 4oz EPA Approved Glass Jar\Aqua Lid
Sampling Location: LEA COUNTY, NM
Sampling Date: 02/03/98
Temperature (Celcius):4

TPH (EPA 418.1)

TPH Prep Date: 02/09/98

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

TS-TOTAL SOLIDS (EPA 160.3)

<u>Analyte</u>	<u>Results(%)</u>	<u>Detection Limit</u>
Total Solids	88.0	1

Client Sample #: GY04-A

Laboratory ID #: 98641 Order Type: Normal Matrix: Soil
Sample Container: Methanol Jar
Sampling Location: LEA COUNTY, NM
Sampling Date: 02/03/98
Temperature (Celcius):4

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

Client Sample #: GY04-B

Laboratory ID #: 98642 Order Type: Normal Matrix: Soil
Sample Container: 4oz EPA Approved Glass Jar\Aqua Lid
Sampling Location: LEA COUNTY, NM
Sampling Date: 02/03/98
Temperature (Celcius):4

TPH (EPA 418.1)

TPH Prep Date: 02/09/98

Client Name: Rhino Env. - Farmington
Submission #: 9802000056
Project Name: GY 0298
Report Date: 02/12/98

TPH (EPA 418.1)

Analyte

Total Petroleum Hydrocarbons

Results(mg/kg)

<10

Detection Limit

10

TS-TOTAL SOLIDS (EPA 160.3)

Analyte

Total Solids

Results(%)

88.9

Detection Limit

1

QUALITY CONTROL DATA

<u>METHOD</u>	<u>ANALYST</u>	<u>MATRIX</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>		
BTEX 8020	Howard Hayden	Solid	2/6/98	2/6/98		
<u>SPIKE COMPOUND</u>	<u>SPIKE AMOUNT</u>	<u>% REC 1</u>	<u>% REC 2</u>	<u>% REC QC LIMIT</u>	<u>% VAR.</u>	<u>% VAR QC LIMIT</u>
Benzene	100 ppb	91.4	81.7	80-120	11	20.0
Toluene	100 ppb	93.1	83.3	80-120	11	20.0
Ethyl Benzene	100 ppb	92.0	81.8	80-120	11	20.0
Xylenes	300 ppb	96.6	86.1	80-120	11	20.0

QUALITY CONTROL DATA

TPH results are reported in parts per million (ppm) in solid.

	<u>Value 1</u>	<u>Value 2</u>	<u>% Var.</u>
TPH:	430	420	2.3

CONCENTRATION UNITS: TPH - ppm

DETECTION LIMITS: TPH - 10

<u>ANALYST</u>	<u>ANALYTE</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>
Anthony Taylor	TPH	2/9/98	2/9/98

QUALITY CONTROL DATA

<u>ANALYTE</u>	<u>DATE ANALYZED</u>	<u>SPIKE (ppm)</u>	<u>STAND. DEV.</u>	<u>COEFF. OF VAR %</u>	<u>REC1/%</u>	<u>REC2/%</u>
Total Solids	2/11/98	----	0.354	0.4	----	----

Standard Deviation = $(x1-x2)/1.414$

Coefficient of Variability % = $(S.D./Avg.) \times 100$

Recovery % = $[(\text{spiked}-\text{unspiked})/\text{expected}] \times 100$

Purchase Order/Chain Of Custody

Page 1 of 1

Anachem, Inc. 8 Prestige Circle, Suite 104, Allen, TX 75002 Phone: 972-727-9003 Fax: 972-727-9686

Report To: <u>Daniele Berardelli</u>		Bill To: (Buyer) <u>Rhino</u>		Analysis	
Company: <u>Rhino</u>		Purchase Order #: <u>R1198-1998</u>			
Address: <u>5 CR 6065</u>		Address: <u>PO Box 25547</u>			
City, State, Zip: <u>Farmington, NM 87401</u>		City, State, Zip: <u>Alb., NM 87125</u>			
Phone: <u>505 988-9626</u> Fax: <u>598-9627</u>		Phone: <u>505 242 6464</u> Fax: <u>247-4941</u>			
Project Name: <u>GVO298</u>		Quote #:			
Project Location: <u>Lea Cnty</u>		City, State: <u>NM</u>			
Date Due:		Rush: <u>0%</u> 25% 50% 100%			
Sample ID		Client Sample ID			
Lab #		Lab *			
1. <u>GVO1-A</u>		98635			
2. <u>GVO1-B</u>		36			
3. <u>GVO2-A</u>		37			
4. <u>GVO2-B</u>		38			
5. <u>GVO3-A</u>		39			
6. <u>GVO3-B</u>		40			
7. <u>GVO4-A</u>		41			
8. <u>GVO4-B</u>		42			
9.					
10.					

Sample	Date/Time	Matrix	Sample Notes
1. <u>GVO1-A</u>	<u>2-3/1712</u>	<u>soil</u>	<u>ice methanol</u>
2. <u>GVO1-B</u>	<u>2-3/1712</u>		<u>ice</u>
3. <u>GVO2-A</u>	<u>2-3/1723</u>		<u>ice/methanol</u>
4. <u>GVO2-B</u>	<u>2-3/1723</u>		<u>ice</u>
5. <u>GVO3-A</u>	<u>2-3/1735</u>		<u>ice/methanol</u>
6. <u>GVO3-B</u>	<u>2-3/1735</u>		<u>ice</u>
7. <u>GVO4-A</u>	<u>2-3/1742</u>		<u>ice/methanol</u>
8. <u>GVO4-B</u>	<u>2-3/1742</u>		<u>ice</u>
9.			
10.			

Relinquished By	Date	Time	Received By	Date	Time	Sample Receipt Notes
<u>[Signature]</u>	<u>2-4-98</u>	<u>1805</u>	<u>[Signature]</u>	<u>2-4-98</u>	<u>1808</u>	<u>40c</u>
<u>[Signature]</u>			<u>[Signature]</u>	<u>2-6-98</u>	<u>10:00</u>	Preserved Properly
						COC Seals Intact
						Method of Shipment

In the event that Anachem determines that a sample is hazardous, the client agrees to: Pay For Sample Disposal <u>✓</u> Accept Returned Sample <u> </u>		Submission # <u>9802-56</u>
--	--	-----------------------------



ANACHEM INC.

8 Prestige Circle, Suite 104 Allen, Texas 75002
972/727-9003 • FAX # 972/727-9686 • 1-800-966-1186

Customer Name: Rhino Env. - Farmington
Date Received: February 6, 1998 at 10:00:00
Date Reported: February 19, 1998
Submission #: 9802000057
Project: GY 0298 BCK

SAMPLES The submission consisted of 1 sample with sample
I.D. shown in the attached data table.


TESTS The sample listed in the attached result pages was analyzed for:

- * BICARBONATE ION (EPA 310.1)
- * CALCIUM/Ca (EPA 6010)
- * CARBONATE ION (EPA 310.1)
- * CHLORIDE (EPA 9056)
- * FLUORIDE (EPA 9056)
- * MAGNESIUM/Mg (EPA 6010)
- * MERCURY DIGESTION (EPA 7470)
- * MERCURY/Hg BY COLD VAPOR (EPA 7471)
- * MICROWAVE DIGESTION (EPA 3051) SOLID
- * NITRATE (EPA 9056)
- * pH (EPA 9045A)
- * PHOSPHATE (EPA 9056)
- * POTASSIUM/K (EPA 6010)
- * SODIUM/Na (EPA 6010)
- * SULFATE (EPA 9056)
- * TOTAL RCRA METALS (EPA 6010)
- * TPH (EPA 418.1)


Distribution Of Reports

1-Ms. Daniele Berardelli of Rhino Env. - Farmington
Ph. 505-598-9626 Fax 505-598-9627

Respectfully Submitted,
Anachem, Inc.


Howard H. Hayden, B.S.
Chemist

Submission #: 9802000057 lims


C.E. Newton, Ph.D.
Chemist

NOTE: Submitted material will be retained for 60 days unless notified or consumed in analysis. Material determined to be hazardous will be returned or a \$20 disposal fee will be assessed. Our letters and reports are for the exclusive use of the client to whom they are addressed. The use of our name must receive our prior written approval. Our letters and reports apply to the sample tested and/or inspected, and are not necessarily indicative of the qualities of apparently identical or similar materials.

98643 to 98643

Page 1 of 4

Purchase Order/Chain Of Custody

Anachem, Inc. 8 Prestige Circle, Suite 104, Allen, TX 75002 Phone: 972-727-9003 Fax: 972-727-9686

Page 1 of 1

Report To: <u>D. Berardelli</u>		Bill To: (Buyer) <u>Rhino</u>		Analysis	
Company: <u>Rhino</u>		Purchase Order #: <u>R498-1998</u>			
Address: <u>5 CR 6065</u>		Address: <u>PO Box 25547</u>			
City, State, Zip: <u>Farmington, NM 87401</u>		City, State, Zip: <u>Alb., NM 87125</u>			
Phone: <u>598-9626</u> Fax: <u>598-9627</u>		Phone: <u>505-242-6464</u> Fax: <u>247-4941</u>			
Project Name: <u>GY0298 BCK</u>		Quote #:			
Project Location: <u>Lea Cnty</u>		City, State: <u>NM</u>			
Date Due:		Rush: <u>(0%)</u> 25% 50% 100%			
Sampled By: <u>D. Berardelli</u>					

Lab#	Client Sample ID	Date	Time	Received By	Date	Time	Matrix	Date/Time	Sample Notes
98643	1. GY06	2/4/98	1808	<u>[Signature]</u>	1808	2:48	Soil	2-3/1755	ice
	2.							2/3/1755	
	3.								
	4.								
	5.								
	6.								
	7.								
	8.								
	9.								
	10.								

Relinquished By: <u>[Signature]</u>	Date: <u>2/4/98</u>	Time: <u>1808</u>	Received By: <u>[Signature]</u>	Date: <u>2/6/98</u>	Time: <u>10:00</u>

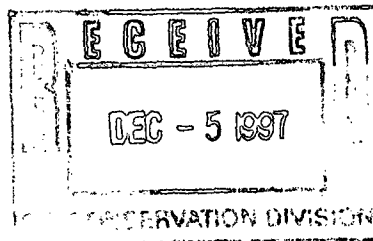
In the event that Anachem determines that a sample is hazardous, the client agrees to: Pay For Sample Disposal <u>✓</u> Accept Returned Sample <u> </u>	
Submission # <u>9802-57</u>	



RHINO

Environmental Services, Inc.

300 Broadway NE • Albuquerque, New Mexico 87102
(505) 242-6464 • Fax (505) 247-4941



December 3, 1997

Ms. Martyne J. Kieling
NM Energy, Mineral and Natural Resources
Oil Conservation Division
Environmental Bureau
2040 South Pacheco Street
Santa Fe, New Mexico 87505
Ph: (505) 827-7153
Fx: (505) 827-8177

**Re: Goo-Yea Landfarm Facility:
Quarterly Report - November 1997**

Dear Ms. Kieling:

In accordance with the conditions set forth in the permit, enclosed please find the November 1997 quarterly report for Rhino's Goo-Yea facility located in Lea County, New Mexico.

This report serves to maintain a written record of the amount of contaminated soil accepted for treatment and to ensure that no contaminant migration has occurred.

Table one (1) includes all soils accepted from August 1, 1997 through November 4, 1997. One native soil sample was retrieved from the treatment area in Cell 1, Cell 2, Cell 3 and Cell 4. All samples were collected at a depth of between 2 and 3 feet below the soil surface, placed on ice and submitted to Anachem, Inc. for analysis. An additional cell, number 5, has been constructed. Background samples for this cells were collected and submitted for the appropriate analysis. Figure No. 1 is a site map showing the location of sample collection. Analyses for Cell 1, Cell 2, Cell 3 and Cell 4 report TPH and BTEX levels to be below detection, thereby demonstrating that no vertical contaminant migration has occurred. The analytical results are summarized in Table two (2). A copy of the analytical report is submitted as Appendix A.

Rhino's next quarterly report will be submitted February, 1997. Please don't hesitate to call if you have any questions or require additional information.

Sincerely,

Daniele Berardelli
Rhino Environmental Services, Inc.

Attachments

CC: Wayne Price
OCD, District - 1



RHINO ENVIRONMENTAL SERVICES, INC.

TABLE NO. 1 - Soil Log



RHINO ENVIRONMENTAL SERVICES, INC.

GOO-YEA LANDFARM FACILITY QUARTERLY REPORT November 1997

Soil accepted from August 1, 1997 to November 4, 1997.

A total of 2,222 cubic yards (cy) of soils were received during this quarter. A list of those soils are shown in the table below. All soils were disced on a regular basis.

TABLE NO. 1

DATE	VOLUME	SOURCE	SECTION
09-29-97 to 11-04-97	2,222 cy	Pride Petroleum Services, Inc. Lovington Yard Lovington, New Mexico	Cell 3



RHINO ENVIRONMENTAL SERVICES, INC.

TABLE NO. 2 - Analytical Results



RHINO ENVIRONMENTAL SERVICES, INC.

Quarterly Soil Sampling:

One native soil sample was retrieved from Cell 1, Cell 2, Cell 3 and Cell 4 and one background sample was collected from Cell 5. Each sample was taken 2 to 3 feet below the natural soil surface, stored on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a Site Map showing the location of each sample. The Cell 1, Cell 2, Cell 3 and Cell 4 samples were submitted for analysis by EPA method 418.1 and EPA method 8020. The Cell 5 background sample was submitted for analysis by EPA method 418.1, EPA method 8020, RCRA Total Metals, and General Chemistry. The analytical results are summarized in Table No. 1.

TABLE NO. 2 Summary of Analytical Results from Native Soil Sampling					
Sample ID	BTEX mg/kg	TPH mg/kg	RCRA Total Metals mg/kg	General Chemistry mg/kg	pH
Cell 1	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10			
Cell 2	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10			
Cell 3	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10			
Cell 4	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10			
Cell 5		< 10	< 3.05 Arsenic 142 Barium 0.55 Cadmium 8.15 Chromium < 2.00 Lead < 2.50 Selenium < 1.50 Silver <i>5.27 ppm Hg</i>	350 Total Alkalinity 326 Bicarbonate 16100 Calcium 24 Carbonate 50.0 Chloride 18300 Magnesium <0.02 Mercury 3060 Potassium 840 Sodium 19.2 Sulfate	9.0

Background

Analyses for Cells 1, 2, 3 and 4 report TPH and BTEX levels to be below detection, thereby demonstrating that no vertical contaminant migration has occurred. Background samples collected from the center of treatment Cell 5 show trace amounts of Barium, Cadmium and Chromium as being naturally present in the soil.

5.00 ppm EPA vac limit



RHINO ENVIRONMENTAL SERVICES, INC.

APPENDIX A - Analytical Results



RHINO ENVIRONMENTAL SERVICES, INC.

FIGURE 1 - SITE MAP

Goo-Yea Commercial Landfarm
SE/4 of Section 14, Township 11 South, Range 38 East
Lea County, New Mexico

Each cell is approximately 5 acres in size.

N
↑
↓
S

Cell 1	Cell 2	Cell 3	Cell 4	Cell 5
X	X	X	X	X

X denotes sample collection location

Not to Scale



ANACHEM INC.

8 Prestige Circle, Suite 104 Allen, Texas 75002
972/727-9003 • FAX # 972/727-9686 • 1-800-966-1186

Customer Name: Rhino Env. - Farmington
Date Received: November 19, 1997 at 10:00:00
Date Reported: November 26, 1997-
Submission #: 9711000213
Project: GOOYEA - 1197

SAMPLES The submission consisted of 9 samples with sample I.D.'s shown in the attached data tables.

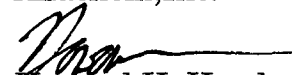
TESTS The samples listed in the attached result pages were analyzed for:

- * ALKALINITY, TOTAL (EPA 310.1)
- * BICARBONATE ALKALINITY (EPA 310.1)
- * BTEX (EPA 8020)
- * CALCIUM/Ca (EPA 215.1)
- * CARBONATE ALKALINITY (EPA 310.1)
- * CHLORIDE (EPA 300.0)
- * MAGNESIUM/Mg (EPA 242.1)
- * MERCURY DIGESTION (EPA 7470)
- * MERCURY/Hg BY COLD VAPOR (EPA 7471)
- * METHANOL SAMPLE CONTAINER PREP, NEW MEXICO
- * MICROWAVE DIGESTION (EPA 3051) SOLID
- * pH (EPA 150.1)
- * POTASSIUM/K (EPA 258.1)
- * SODIUM/Na (EPA 273.1)
- * SULFATE (EPA 300.0)
- * TOTAL RCRA METALS (EPA 6010)
- * TPH (EPA 418.1)
- * TS-TOTAL SOLIDS (EPA 160.3)


Distribution Of Reports

1-Ms. Daniele Berardelli of Rhino Env. - Farmington
Ph. 505-598-9626 Fax 505-598-9627

Respectfully Submitted,
Anachem, Inc.


Howard H. Hayden, B.S.
Chemist

Submission #: 9711000213 lims


C.E. Newton, Ph.D.
Chemist

NOTE: Submitted material will be retained for 60 days unless notified or consumed in analysis. Material determined to be hazardous will be returned or a \$20 disposal fee will be assessed. Our letters and reports are for the exclusive use of the client to whom they are addressed. The use of our name must receive our prior written approval. Our letters and reports apply to the sample tested and/or inspected, and are not necessarily indicative of the qualities of apparently identical or similar materials.

94459 to 94467

Page 1 of 7

Client Name: Rhino Env. - Farmington
Submission #: 9711000213
Project Name: GOOYEA -1197
Report Date: 11/26/97

Client Sample #: CELL 1-01

Laboratory ID #: 94459 Order Type: Normal Matrix: Soil
Sample Container: 4oz EPA Approved Glass Jar\Aqua Lid
Sampling Location: LEA COUNTY, NM
Sampling Date: 11/18/97
Temperature (Celcius):4

TPH (EPA 418.1)

TPH Prep Date: 11/20/97

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

TS-TOTAL SOLIDS (EPA 160.3)

<u>Analyte</u>	<u>Results(%)</u>	<u>Detection Limit</u>
Total Solids	89.5	

Client Sample #: CELL 1-02

Laboratory ID #: 94460 Order Type: Normal Matrix: Soil
Sample Container: Methanol Jar
Sampling Location: LEA COUNTY, NM
Sampling Date: 11/18/97
Temperature (Celcius):4

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

Client Sample #: CELL 2-01

Laboratory ID #: 94461 Order Type: Normal Matrix: Soil
Sample Container: 4oz EPA Approved Glass Jar\Aqua Lid
Sampling Location: LEA COUNTY, NM
Sampling Date: 11/18/97
Temperature (Celcius):4

TPH (EPA 418.1)

TPH Prep Date: 11/20/97

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

TS-TOTAL SOLIDS (EPA 160.3)

<u>Analyte</u>	<u>Results(%)</u>	<u>Detection Limit</u>
Total Solids	89.6	

Client Sample #: CELL 2-02

Laboratory ID #: 94462 Order Type: Normal Matrix: Soil
Sample Container: Methanol Jar
Sampling Location: LEA COUNTY, NM
Sampling Date: 11/18/97
Temperature (Celcius):4

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50

Client Name: Rhino Env. - Farmington
Submission #: 9711000213
Project Name: GOOYEA -1197
Report Date: 11/26/97

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Xylenes	<0.50	0.50

Client Sample #: CELL 3-01

Laboratory ID #: 94463 Order Type: Normal Matrix: Soil
Sample Container: 4oz EPA Approved Glass Jar\Aqua Lid
Sampling Location: LEA COUNTY, NM
Sampling Date: 11/18/97
Temperature (Celcius):4

TPH (EPA 418.1)

TPH Prep Date: 11/20/97

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

TS-TOTAL SOLIDS (EPA 160.3)

<u>Analyte</u>	<u>Results(%)</u>	<u>Detection Limit</u>
Total Solids	92.9	

Client Sample #: CELL 3-02

Laboratory ID #: 94464 Order Type: Normal Matrix: Soil
Sample Container: Methanol Jar
Sampling Location: LEA COUNTY, NM
Sampling Date: 11/18/97
Temperature (Celcius):4

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

Client Sample #: CELL 4-01

Laboratory ID #: 94465 Order Type: Normal Matrix: Soil
Sample Container: 4oz EPA Approved Glass Jar\Aqua Lid
Sampling Location: LEA COUNTY, NM
Sampling Date: 11/18/97
Temperature (Celcius):4

TPH (EPA 418.1)

TPH Prep Date: 11/20/97

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

TS-TOTAL SOLIDS (EPA 160.3)

<u>Analyte</u>	<u>Results(%)</u>	<u>Detection Limit</u>
Total Solids	93.4	

Client Name: Rhino Env. - Farmington
Submission #: 9711000213
Project Name: GOOYEA - J197
Report Date: 11/26/97

Client Sample #: CELL 4-02

Laboratory ID #: 94466 Order Type: Normal Matrix: Soil
Sample Container: Methanol Jar
Sampling Location: LEA COUNTY, NM
Sampling Date: 11/18/97
Temperature (Celcius): 4

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

Client Sample #: CELL 5

Laboratory ID #: 94467 Order Type: Normal Matrix: Soil
Sample Container: 3x4oz EPA Approved Glass Jar\Aqua Lid
Sampling Location: LEA COUNTY, NM
Sampling Date: 11/18/97
Temperature (Celcius): 4

ALKALINITY, TOTAL (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Alkalinity	350	

BICARBONATE ALKALINITY (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Bicarbonate Alkalinity	326	

CALCIUM/Ca (EPA 215.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Calcium (EQUIVALENT IN ANION EXTRACT: 100 ppm)	16100	0.5

CARBONATE ALKALINITY (EPA 310.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Carbonate Alkalinity	24	1

CHLORIDE (EPA 300.0)

<u>Analyte</u>	<u>Results(mg/l)</u>	<u>Detection Limit</u>
Chloride	50.0	0.1

MAGNESIUM/Mg (EPA 242.1)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Magnesium (EQUIVALENT IN ANION EXTRACT: 53.8 ppm)	18300	0.5

MERCURY DIGESTION (EPA 7470)

Mercury Digestion Date: 11/19/97

MERCURY/Hg BY COLD VAPOR (EPA 7471)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Mercury	<0.02	0.02

MICROWAVE DIGESTION (EPA 3051) SOLID

Microwave Digestion Date: 11/19/97

Client Name: Rhino Env. - Farmington
Submission #: 9711000213
Project Name: GOOYEA - J197
Report Date: 11/26/97

pH (EPA 150.1)

Analyte
pH For Liquid

Results(---)
9.00

Detection Limit
0.05

POTASSIUM/K (EPA 258.1)

Analyte
Potassium
(EQUIVALENT IN ANION EXTRACT: 16.5 ppm)

Results(mg/kg)
3060

Detection Limit
0.5

SODIUM/Na (EPA 273.1)

Analyte
Sodium
(EQUIVALENT IN ANION EXTRACT: 6.1 ppm)

Results(mg/kg)
840

Detection Limit
0.5

SULFATE (EPA 300.0)

Analyte
Sulfate

Results(mg/kg)
19.2

Detection Limit
1.0

TOTAL RCRA METALS (EPA 6010)

Analyte
Arsenic
Barium
Cadmium
Chromium
Lead
Selenium
Silver

Results(mg/kg)
<3.05
142.0
0.55
8.15
<2.00
<2.50
<1.50

Detection Limit
3.05
0.05
0.35
0.38
2.00
2.50
1.50

TPH (EPA 418.1)

TPH Prep Date: 11/20/97

Analyte
Total Petroleum Hydrocarbons

Results(mg/kg)
<10

Detection Limit
10

Report To: Rhino Env.
Lab Number: 9711000213
Page 6 of 7

Project: GooYea - 1197

QUALITY CONTROL DATA

<u>METHOD</u>	<u>ANALYST</u>	<u>MATRIX</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>
BTEX 8020	Howard Hayden	Solid	11/19/97	11/19/97

<u>SPIKE COMPOUND</u>	<u>SPIKE AMOUNT</u>	<u>% REC 1</u>	<u>% REC 2</u>	<u>% REC QC LIMIT</u>	<u>% VAR. % VAR.</u>	<u>% VAR QC LIMIT</u>
Benzene	100 ppb	94.1	95.1	80-120	1.1	20.0
Toluene	100 ppb	94.4	95.4	80-120	1.1	20.0
Ethyl Benzene	100 ppb	90.8	91.9	80-120	1.2	20.0
Xylenes	300 ppb	86.0	87.2	80-120	1.4	20.0

QUALITY CONTROL DATA

TPH results are reported in parts per million (ppm) in solid.

	Value 1	Value 2	% Var.
TPH:	78	76	2.6

CONCENTRATION UNITS: TPH - ppm

DETECTION LIMITS: TPH - 10

<u>ANALYST</u>	<u>ANALYTE</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>
Anthony Taylor	TPH	11/20/97	11/20/97

Report To: Rhino Env.
Lab Number: 9711000213
Page 7 of 7

Project: GooYea - 1197

QUALITY CONTROL DATA

<u>ANALYTE</u>	<u>DATE ANALYZED</u>	<u>SPIKE (ppm)</u>	<u>STAND. DEV.</u>	<u>COEFF. OF VAR %</u>	<u>REC1/%</u>	<u>REC2/%</u>
Alkalinity	11/24/97	---	1.4	4	97.3	96
Chloride	11/25/97	---	0.03	2.1	107	104
Mercury	11/20/97	---	0.509	5.6	107	99
Sulfate	11/24/97	---	0.06	0.8	106	105
Arsenic	11/19/97	---	0.148	3.9	93	88
Barium	11/19/97	---	0.276	4.5	88	78
Cadmium	11/19/97	---	0.109	3.3	85	81
Chromium	11/19/97	---	0.118	3.2	90	86
Lead	11/19/97	---	0.110	3.2	86	82
Selenium	11/19/97	---	0.139	4.1	87	83
Silver	11/19/97	---	0.182	4.5	93	87

Standard Deviation = $(x1-x2)/1.414$

Coefficient of Variability % = $(S.D./Avg.) \times 100$

Recovery % = $[(spiked-unsiked)/expected] \times 100$

Purchase Order/Chain Of Custody

Report To: <u>Danielle Bernatelli</u>		Bill To: (Buyer) <u>Rhino Environmental</u>				
Company: <u>Rhino Environmental</u>		Purchase Order #: <u>6997-1997/054925</u>				
Address: <u>5 CR6065</u>		Address: <u>P.O. Box 35547</u>				
City, State, Zip: <u>Farmington, NM 87401</u>		City, State, Zip: <u>Alb., NM 87138</u>				
Phone: <u>598-9626</u> Fax: <u>598-9627</u>		Phone: <u>242-6464</u> Fax: <u>247-4941</u>				
Project Name: <u>600 Yea - 1197</u>		Quote #:				
Project Location: <u>Los Comany</u>		City, State: <u>NM</u>				
Date Due: <u>11/24</u>		Rush: <u>(0%)</u> 25% 50% 100% Sampled By:				
Lab#	Client Sample ID	Matrix	Date/Time	Sample Notes		
94459	1. Cell 1 - 01	Soil	11/18/97 09:45	ice		
60	2. Cell 1 - 02		11/18/97 09:45	methanol		
61	3. Cell 2 - 01		11/18/97 09:48	ice		
62	4. Cell 2 - 02		11/18/97 09:48	methanol		
63	5. Cell 3 - 01		11/18/97 09:55	ice		
64	6. Cell 3 - 02		11/18/97 09:55	methanol		
65	7. Cell 4 - 01		11/18/97 10:03	ice		
66	8. Cell 4 - 02		11/18/97 10:03	methanol		
67	9. Cell 5		11/18/97 10:15	ice		
10.						
Relinquished By	Date	Time	Received By	Date	Time	Sample Receipt Notes
<u>[Signature]</u>	<u>11-18-97</u>	<u>10:00</u>	<u>[Signature]</u>	<u>11/19/97</u>	<u>10:00</u>	Temperature <u>40°C</u>
						Preserved Properly
						COC Seals Intact
						Method of Shipment
<p>In the event that Anachem determines that a sample is hazardous, the client agrees to:</p> <p>Pay For Sample Disposal <u>✓</u></p> <p>Accept Returned Sample <u> </u></p>						
<p>Submission # <u>9711-213</u></p>						
<p>Analysis</p> <p>TPH - 418.1</p> <p>BTEX - 8020</p> <p>Moisture</p> <p>RCRA 8 - Tot. Metals</p> <p>General Chem - Cation/Anion</p>						



RHINO ENVIRONMENTAL SERVICES, INC.

FIGURE NO. 1 - Site Map



RHINO

Environmental Services, Inc.

300 Broadway NE • Albuquerque, New Mexico 87102
(505) 242-6464 • Fax (505) 247-4941

RECEIVED

SEP 03 1997

Environmental Bureau
Oil Conservation Division

August 28, 1997

Ms. Martyne J. Kieling
NM Energy, Mineral and Natural Resources
Oil Conservation Division
Environmental Bureau
2040 South Pacheco Street
Santa Fe, New Mexico 87505
Ph: (505) 827-7153
Fx: (505) 827-8177

SEP - 2 1997

**Re: Goo-Yea Landfarm Facility:
Quarterly Report - August 1997**

Dear Ms. Kieling: *2 AND BACKGROUND SAMPLES FOR CELL 3 & 4*

In accordance with the conditions set forth in the permit, enclosed please find the August 31, 1997 quarterly report for Rhino's Goo-Yea facility located in Lea County, New Mexico.

This report serves to maintain a written record of the amount of contaminated soil accepted for treatment and to ensure that no contaminant migration has occurred.

Table one (1) includes all soils accepted from May 1, 1997 through July 31, 1997. One native soil sample was retrieved from the treatment area in Cell 1 and Cell 2. Both samples were collected at a depth of between 2 and 3 feet below the soil surface, placed on ice and submitted to Anachem, Inc. for analysis. Additional cells, numbered 3 and 4 have been constructed. Background samples for these cells were collected and submitted for the appropriate analysis. Figure No. 1 is a site map showing the location of sample collection. Analyses for Cell 1 and Cell 2 report TPH and BTEX levels to be below detection, thereby demonstrating that no vertical contaminant migration has occurred. The analytical results are summarized in Table two (2). A copy of the analytical report is submitted as Appendix A.

Rhino's next quarterly report will be submitted November 31, 1997. Please don't hesitate to call if you have any questions or require additional information.

Sincerely,

Daniele Berardelli
Rhino Environmental Services, Inc.

Attachments

CC: Wayne Price
OCD, District - 1

*my
9/14/97*



RHINO ENVIRONMENTAL SERVICES, INC.

TABLE NO. 1 - Soil Log



RHINO ENVIRONMENTAL SERVICES, INC.

GOO-YEA LANDFARM FACILITY QUARTERLY REPORT August 31, 1997

Soil accepted from May 1, 1997 to July 31, 1997.

A total of 3,292 cubic yards (cy) of soils were received during this quarter. A list of those soils are shown in the table below. All soils were disced on a regular basis.

TABLE NO. 1

DATE	VOLUME	SOURCE	SECTION
05-07-97 to 05-28-97	1,650 cy	EOTT Energy Denton Gathering System Lea County, New Mexico	Cell 2
05-27-97	4.0 cy	Koch Pipeline, LP Krouch Station Lea County, New Mexico	Cell 2
06-26-97 to 07-02-97	1,638 cy	Bonneville Fuel Corporation Sec. 14, T17S, R37E Lea County, New Mexico	Cell 2 (1,238) Cell 1 (400)



RHINO ENVIRONMENTAL SERVICES, INC.

TABLE NO. 2 - Analytical Results

**Quarterly Soil Sampling:**

One native soil sample was retrieved from Cell 1 and one background sample was collected from Cell 2. Each sample was taken 2 to 3 feet below the natural soil surface, stored on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a Site Map showing the location of each sample. The Cell 1 sample was submitted for analysis by EPA method 418.1 and EPA method 8020. The Cell 2 background sample was submitted for analysis by EPA method 418.1, EPA method 8020, RCRA Total Metals, and General Chemistry. The analytical results are summarized in Table No. 1.

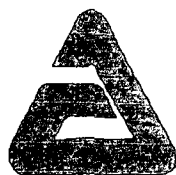
TABLE NO. 2 Summary of Analytical Results from Native Soil Sampling					
Sample ID	BTEX mg/kg	TPH mg/kg	RCRA Total Metals mg/kg	General Chemistry mg/kg	pH
Cell 1A&B - QTR	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10			
Cell 2A&B- QTR	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10			
Cell 3 - BCK		< 10	< 1.22 Arsenic 104 Barium < 0.14 Cadmium < 0.15 Chromium 2.95 Lead < 1.00 Selenium < 0.60 Silver	125 Total Alkalinity 134 Bicarbonate 30.6 Calcium 9.0 Carbonate <0.2 Chloride 9.11 Magnesium <0.04 Mercury 8.4 Potassium 3.1 Sodium 7.3 Sulfate	9.2
Cell 4 - BCK		< 10	< 1.22 Arsenic 132 Barium < 0.14 Cadmium 2.20 Chromium 4.15 Lead < 1.00 Selenium < 0.60 Silver	130 Total Alkalinity 144 Bicarbonate 32.7 Calcium 6.6 Carbonate 0.74 Chloride 8.17 Magnesium <0.04 Mercury 7.27 Potassium 3.34 Sodium 4.6 Sulfate	9.0

Analyses for Cells 1 and 2 report TPH and BTEX levels to be below detection, thereby demonstrating that no vertical contaminant migration has occurred. Background samples collected from the center of treatment Cells 3 and 4 show trace amounts of Barium, Chromium and Lead as being naturally present in the soil.



RHINO ENVIRONMENTAL SERVICES, INC.

APPENDIX A - Analytical Results



ANACHEM INC.

8 Prestige Circle, Suite 104 Allen, Texas 75002
972/727-9003 • FAX # 972/727-9686 • 1-800-966-1186

Customer Name: Rhino Env. - Farmington
Date Received: August 7, 1997 at 10:00:00
Date Reported: August 26, 1997
Submission #: 9708000070
Project: GY 0897Q

SAMPLES The submission consisted of 6 samples with sample I.D.'s shown in the attached data tables.


TESTS The samples listed in the attached result pages were analyzed for:

- * ALKALINITY, TOTAL (EPA 310.1)
- * ANION/CATION RATIO (CALCULATION)
- * BICARBONATE ALKALINITY (EPA 310.1)
- * BICARBONATE ION (EPA 310.1)
- * BTEX (EPA 8020)
- * CALCIUM/Ca (EPA 215.1)
- * CARBONATE ION (EPA 310.1)
- * CHLORIDE (EPA 325.3)
- * MAGNESIUM/Mg (EPA 242.1)
- * MERCURY DIGESTION (EPA 7470)
- * MERCURY/Hg BY COLD VAPOR (EPA 7471)
- * METHANOL SAMPLE CONTAINER PREP, NEW MEXICO
- * MICROWAVE DIGESTION (EPA 3051) SOLID
- * pH (EPA 150.1)
- * POTASSIUM/K (EPA 258.1)
- * SODIUM/Na (EPA 273.1)
- * SPECIFIC CONDUCTANCE (EPA 120.1)
- * SULFATE (EPA 375.4)


Distribution Of Reports

1-Ms. Daniele Berardelli of Rhino Env. - Farmington
Ph. 505-598-9626 Fax 505-598-9627

Respectfully Submitted,
Anachem, Inc.


Howard H. Hayden, B.S.
Chemist

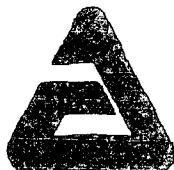
Submission #: 9708000070 lms


C.E. Newton, Ph.D.
Chemist

NOTE: Submitted material will be retained for 60 days unless notified or consumed in analysis. Material determined to be hazardous will be returned or a \$20 disposal fee will be assessed. Our letters and reports are for the exclusive use of the client to whom they are addressed. The use of our name must receive our prior written approval. Our letters and reports apply to the sample tested and/or inspected, and are not necessarily indicative of the qualities of apparently identical or similar materials.

88723 to 88727

Page 1 of 7

**ANACHEM INC.**

8 Prestige Circle, Suite 104 Allen, Texas 75002
972/727-9003 • FAX # 972/727-9686 • 1-800-966-1186


Customer Name: Rhino Env. - Farmington
Date Received: August 7, 1997 at 10:00:00
Date Reported: August 26, 1997
Submission #: 9708000070
Project: GY 0897Q

- * TOTAL DISSOLVED SOLIDS (EPA 160.1)
- * TOTAL RCRA METALS (EPA 6010)
- * TPH (EPA 418.1)

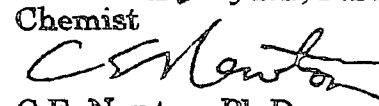
Distribution Of Reports

1-Ms. Daniele Berardelli of Rhino Env. - Farmington
Ph. 505-598-9626 Fax 505-598-9627

Respectfully Submitted,
Anachem, Inc.


Howard M. Hayden, B.S.
Chemist

Submission #: 9708000070 lims


C.E. Newton, Ph.D.
Chemist

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88722 to 88727

Page 2 of 7

Client Name: Rhino Env. - Farmington
 Submission #: 9708000070
 Project Name: GY 0897Q
 Report Date: 08/26/97

Client Sample #: CELL 1A - QTR

Laboratory ID #: 88722 Order Type: Normal Matrix: Soil
 Sample Container: 4oz EPA Approved Glass Jar \Aqua Lid
 Sampling Location: LEA COUNTY, NM
 Sampling Date: 08/04/97
 Temperature (Celcius): 4

TPH (EPA 418.1)

TPH Prep Date: 08/08/97

Analyte	Results(mg/kg)	Detection Limit
Total Petroleum Hydrocarbons	<10	10

Client Sample #: CELL 1B - QTR

Laboratory ID #: 88723 Order Type: Normal Matrix: Soil
 Sample Container: Methanol Jar
 Sampling Location: LEA COUNTY, NM
 Sampling Date: 08/04/97
 Temperature (Celcius): 4

BTEX (EPA 8020)

Analyte	Results(mg/kg)	Detection Limit
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

Client Sample #: CELL 2A - QTR

Laboratory ID #: 88724 Order Type: Normal Matrix: Soil
 Sample Container: 4oz EPA Approved Glass Jar \Aqua Lid
 Sampling Location: LEA COUNTY, NM
 Sampling Date: 08/04/97
 Temperature (Celcius): 4

TPH (EPA 418.1)

TPH Prep Date: 08/08/97

Analyte	Results(mg/kg)	Detection Limit
Total Petroleum Hydrocarbons	<10	10

Client Sample #: CELL 2B - QTR

Laboratory ID #: 88725 Order Type: Normal Matrix: Soil
 Sample Container: Methanol Jar
 Sampling Location: LEA COUNTY, NM
 Sampling Date: 08/04/97
 Temperature (Celcius): 4

BTEX (EPA 8020)

Analyte	Results(mg/kg)	Detection Limit
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

Client Name: Rhino Env. - Farmington
 Submission #: 9708000070
 Project Name: GY 0897Q
 Report Date: 08/26/97

Client Sample #: CELL 3 - BCK

Laboratory ID #: 88726 Order Type: Normal Matrix: Soil
 Sample Container: 4oz EPA Approved Glass Jar\Aqua Lid
 Sampling Location: LEA COUNTY, NM
 Sampling Date: 08/04/97
 Temperature (Celcius): 4

ALKALINITY, TOTAL (EPA 310.1)

Analyte
 Total Alkalinity

Results(mg/kg)
 125

Detection Limit
 2

ANION/CATION RATIO (CALCULATION)

Analyte
 Anion/Cation Ratio

Results(-----)
 0.98

Detection Limit

BICARBONATE ALKALINITY (EPA 310.1)

Analyte
 Bicarbonate Alkalinity

Results(mg/kg)
 110

Detection Limit
 2

BICARBONATE ION (EPA 310.1)

Analyte
 Bicarbonate, HCO₃ (CaCO₃)

Results(mg/kg)
 134

Detection Limit

CALCIUM/Ca (EPA 215.1)

Analyte
 Calcium

Results(mg/kg)
 30.6

Detection Limit
 0.02

CARBONATE ION (EPA 310.1)

Analyte
 Carbonate, CO₃ (CaCO₃)

Results(mg/kg)
 9.0

Detection Limit

CHLORIDE (EPA 325.3)

Analyte
 Chloride

Results(mg/kg)
 <0.2

Detection Limit
 0.2

MAGNESIUM/Mg (EPA 242.1)

Analyte
 Magnesium

Results(mg/kg)
 9.11

Detection Limit
 0.02

MERCURY DIGESTION (EPA 7470)

Mercury Digestion Date: 08/12/97

MERCURY/Hg BY COLD VAPOR (EPA 7471)

Analyte
 Mercury

Results(mg/kg)
 <0.04

Detection Limit
 0.04

MICROWAVE DIGESTION (EPA 3051) SOLID

Microwave Digestion Date: 08/11/97

pH (EPA 150.1)

Analyte
 pH For Liquid

Results(---)
 9.2

Detection Limit
 0.05

POTASSIUM/K (EPA 258.1)

Analyte
 Potassium

Results(mg/kg)
 8.4

Detection Limit
 0.02

SODIUM/Na (EPA 273.1)

Analyte
 Sodium

Results(mg/kg)
 3.1

Detection Limit
 0.02

Client Name: Rhino Env. - Farmington
 Submission #: 9708000070
 Project Name: GY 0897Q
 Report Date: 08/26/97

SPECIFIC CONDUCTANCE (EPA 120.1)Analyte

Specific Conductance

Results(uS)

256

Detection Limit**SULFATE (EPA 375.4)**Analyte

Sulfate

Results(mg/kg)

7.3

Detection Limit

0.2

TOTAL DISSOLVED SOLIDS (EPA 160.1)Analyte

Total Dissolved Solids

(Results for TDS, conductivity and pH are for the
 extracts; 100g of each sample was extracted into
 200ml of distilled water)

Results(mg/l)

328

Detection Limit**TOTAL RCRA METALS (EPA 6010)**Analyte

Arsenic

Barium

Cadmium

Chromium

Lead

Selenium

Silver

Results(mg/kg)

<1.22

104

<0.14

<0.15

2.95

<1.0

<0.6

Detection Limit

1.22

0.02

0.14

0.15

0.8

1.0

0.6

TPH (EPA 418.1)

TPH Prep Date: 08/08/97

Analyte

Total Petroleum Hydrocarbons

Results(mg/kg)

<10

Detection Limit

10

Client Sample #: CELL 4 - BCK

Laboratory ID #:

88727

Order Type: Normal Matrix: Soil

Sample Container:

4oz EPA Approved Glass Jar\Aqua Lid

Sampling Location:

LEA COUNTY, NM

Sampling Date:

08/04/97

Temperature (Celcius):4

ALKALINITY, TOTAL (EPA 310.1)Analyte

Total Alkalinity

Results(mg/kg)

130

Detection Limit

2

ANION/CATION RATIO (CALCULATION)Analyte

Anion/Cation Ratio

Results(-----)

0.97

Detection Limit**BICARBONATE ALKALINITY (EPA 310.1)**Analyte

Bicarbonate Alkalinity

Results(mg/kg)

118

Detection Limit

2

BICARBONATE ION (EPA 310.1)AnalyteBicarbonate, HCO₃ (CaCO₃)Results(mg/kg)

144

Detection Limit**CALCIUM/CA (EPA 215.1)**Analyte

Calcium

Results(mg/kg)

32.7

Detection Limit

0.02

CARBONATE ION (EPA 310.1)AnalyteCarbonate, CO₃ (CaCO₃)Results(mg/kg)

6.6

Detection Limit

Client Name: Rhino Env. - Farmington
 Submission #: 9708000070
 Project Name: GY 0897Q
 Report Date: 08/26/97

CHLORIDE (EPA 325.3)

Analyte
 Chloride

Results(mg/kg)
 0.737

Detection Limit
 0.02

MAGNESIUM/Mg (EPA 242.1)

Analyte
 Magnesium

Results(mg/kg)
 8.17

Detection Limit
 0.02

MERCURY DIGESTION (EPA 7470)

Mercury Digestion Date: 08/11/97

MERCURY/Hg BY COLD VAPOR (EPA 7471)

Analyte
 Mercury

Results(mg/kg)
 <0.04

Detection Limit
 0.04

MICROWAVE DIGESTION (EPA 3051) SOLID

Microwave Digestion Date: 08/11/97

pH (EPA 150.1)

Analyte
 pH For Liquid

Results(---)
 9.0

Detection Limit
 0.05

POTASSIUM/K (EPA 258.1)

Analyte
 Potassium

Results(mg/kg)
 7.27

Detection Limit
 0.02

SODIUM/Na (EPA 273.1)

Analyte
 Sodium

Results(mg/kg)
 3.34

Detection Limit
 0.02

SPECIFIC CONDUCTANCE (EPA 120.1)

Analyte
 Specific Conductance

Results(uS)
 244

Detection Limit

SULFATE (EPA 375.4)

Analyte
 Sulfate

Results(mg/kg)
 4.6

Detection Limit
 0.02

TOTAL DISSOLVED SOLIDS (EPA 160.1)

Analyte
 Total Dissolved Solids

Results(mg/l)
 352

Detection Limit

TOTAL RCRA METALS (EPA 6010)

Analyte
 Arsenic
 Barium
 Cadmium
 Chromium
 Lead
 Selenium
 Silver

Results(mg/kg)
 <1.22
 132
 <0.14
 2.20
 4.15
 <1.0
 <0.6

Detection Limit
 1.22
 0.02
 0.14
 0.15
 0.8
 1.0
 0.6

TPH (EPA 418.1)

TPH Prep Date: 08/08/97

Analyte
 Total Petroleum Hydrocarbons

Results(mg/kg)
 <10

Detection Limit
 10

Report To: Rhino Environmental
 Lab Number: 9708000070
 Page 1 of 1

Project: GYO897Q

QUALITY CONTROL DATA

<u>METHOD</u>	<u>ANALYST</u>	<u>MATRIX</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>
BTEX 8020	Howard Hayden	Solid	8/7/97	8/7/97

<u>SPIKE COMPOUND</u>	<u>SPIKE AMOUNT</u>	<u>% REC 1</u>	<u>% REC 2</u>	<u>% REC QC LIMIT</u>	<u>% VAR.</u>	<u>% VAR QC LIMIT</u>
Benzene	100 ppb	104	102	80-120	1.9	20.0
Toluene	100 ppb	106	103	80-120	2.8	20.0
Ethyl Benzene	100 ppb	111	108	80-120	2.7	20.0
Xylenes	300 ppb	114	111	80-120	2.6	20.0

QUALITY CONTROL DATA

TPH results are reported in parts per million (ppm) in solid.

	<u>Value 1</u>	<u>Value 2</u>	<u>% Var.</u>
TPH:	132	126	4.5
CONCENTRATION UNITS:	TPH - ppm		
DETECTION LIMITS:	TPH - 10		
<u>ANALYST</u>	<u>ANALYTE</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>
Anthony Taylor	TPH	8/8/97	8/8/97

QUALITY CONTROL DATA

<u>ANALYTE</u>	<u>DATE ANALYZED</u>	<u>SPIKE (ppm)</u>	<u>STAND. DEV.</u>	<u>COEFF. OF VAR %</u>	<u>REC1/%</u>	<u>REC2/%</u>
Total Alkalinity	8/15/97	----	7.07	1.1	96.9	98.5
Chloride	8/21/97	---	0.424	5.1	107	115
Mercury	8/14/97	----	0.580	8.5	96	108
Sulfate	8/21/97	---	0.283	0.75	99	100
T.D.S.	8/21/97	----	9.0	1.0	93	98
Arsenic	8/11/97	---	0.048	1.0	87	86
Barium	8/11/97	----	0.028	0.6	108	107
Cadmium	8/11/97	----	0.035	1.1	83	82
Chromium	8/11/97	---	0.064	1.6	81	79
Lead	8/11/97	----	0.042	1.1	75	76
Selenium	8/11/97	---	0.156	4.3	85	80
Silver	8/11/97	----	0.078	1.3	89	87

Standard Deviation = $(x1-x2)/1.414$ Coefficient of Variability % = $(S.D./Avg.) \times 100$ Recovery % = $[(\text{spiked-unspiked})/\text{expected}] \times 100$

Purchase Order/Chain Of Custody

Page 1 of 1

Anachem, Inc. 8 Prestige Circle, Suite 104, Allen, TX 75002 Phone: 972-727-9003 Fax: 972-727-9686

Report To: Donna BeavervilleBill To: (Buyer) RhinoCompany: RhinoPurchase Order #: 6Y-1997/08970Address: 5 CR 6065Address: PO Box 25527City, State, Zip: Farmington, NM 87401City, State, Zip: Alb., NM 87105Phone: 505 598-9626 Fax: 505 598-9627Phone: 505 242 6464 Fax: 505 247-4941Project Name: GY08970

Quote #:

Project Location:

Lea CanyonCity, State: NM

Date Due:

Rush: (0%) 25% 50% 100% Sampled By:

Lab#

Client Sample ID

Matrix

Date/Time

Sample Notes

① Cell 1A-QTR \$8722

Soil

8/4 12:15 ice

② Cell 2A-QTR

23

8/4 12:30 methanol ice

③ Cell 2A-QTR

24

8/4 12:45 ice

④ Cell 2B-QTR

25

8/4 1:00 methanol ice

⑤ Cell 3-BCK

26

8/4 1:15 ice

⑥ Cell 4-BCK

27

8/4 1:30 ice

7.

8.

9.

10.

Relinquished By

Date

Time

Received By

Date

Time

Sample Receipt Notes

Steve Orr9/209:20 AMSteve Orr9/209:30 AM

Temperature

Steve Orr9/209:20 AMSteve Orr9/209:30 AM

Preserved Properly

Steve Orr9/209:20 AMSteve Orr9/209:30 AM

COC Seal Intact

Steve Orr9/209:20 AMSteve Orr9/209:30 AM

Method of Shipment

Submission #

Q708-70

In the event that Anachem determines that a sample is hazardous, the client agrees to: Pay For Sample Disposal Accept Returned Sample

Analysis

TPH (418.1)
BTEX (8020)
Anion/Cation
Tot. Metals/RCRA 8

OTO REV 5/97

Sample Information is vital for proper login and reporting. This is a contract subject to the terms and conditions on the reverse side.



RHINO ENVIRONMENTAL SERVICES, INC.

FIGURE NO. 1 - Site Map



RHINO ENVIRONMENTAL SERVICES, INC.

FIGURE 1 - SITE MAP

Goo-Yea Commercial Landfarm
SE/4 of Section 14, Township 11 South, Range 38 East
Lea County, New Mexico

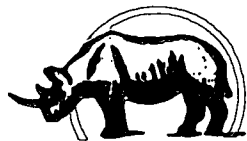
Each cell is approximately 5 acres in size.

N
↑
↓
S

Cell 1	Cell 2	Cell 3	Cell 4
X	X	X	X

X denotes sample collection location

Not to Scale



RHINO

Environmental Services, Inc.

300 Broadway NE • Albuquerque, New Mexico 87102
(505) 242-6464 • Fax (505) 247-4941

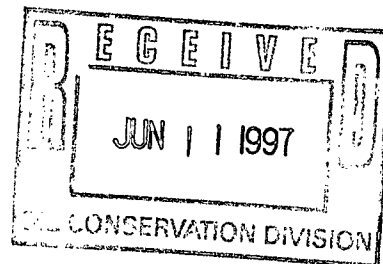
RECEIVED

JUN 13 1997

Environmental Bureau
Oil Conservation Division

June 9, 1997

Ms. Martyne J. Kieling
NM Energy, Mineral and Natural Resources
Oil Conservation Division
Environmental Bureau
2040 South Pacheco Street
Santa Fe, New Mexico 87505
Ph: (505) 827-7153
Fx: (505) 827-8177



**Re: Goo-Yea Landfarm Facility:
Quarterly Report -May 1997**

Dear Ms. Kieling:

In accordance with the conditions set forth in the permit, enclosed please find the May 1997 quarterly report for Rhino's Goo-Yea facility located in Lea County, New Mexico. Rhino would like to apologize for the tardiness of the report. Samples were collected and submitted for analysis on May 14, 1997, but due to laboratory delays, results were not received until

This report serves to maintain a written record of the amount of contaminated soil accepted for treatment and to ensure that no contaminant migration has occurred.

Table one (1) includes all soils accepted from February 1997 through April 30, 1997. One native soil sample was retrieved from the treatment area in Cell 1 and one background sample was collected from Cell 2. Both samples were collected at a depth of between 2 and 3 feet below the soil surface, placed on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a site map showing the location of sample collections. Analysis for Cell 1 reports TPH and BTEX levels to be below detection, thereby demonstrating that no vertical contaminant migration has occurred. Background samples collected from the center of treatment Cell 2 show trace amounts of Barium, Cadmium, Chromium and Lead as being naturally present in the soil. The analytical results are summarized in Table two (2). A copy of the analytical report is submitted as Appendix A.

Rhino's next quarterly report will be submitted August 31, 1997. Please don't hesitate to call if you have any questions or require additional information.

Sincerely,

Daniele Berardelli
Rhino Environmental Services, Inc.

Attachments

CC: Wayne Price

S C.R. 6065
Farmington NM 87401



RHINO ENVIRONMENTAL SERVICES, INC.

TABLE NO. 1 - Soil Log



RHINO ENVIRONMENTAL SERVICES, INC.

GOO-YEA LANDFARM FACILITY QUARTERLY REPORT May 1997

Soil accepted from February 1997 to April 31, 1997.

A total of 1,061.4 cubic yards (cy) of soils were received during this quarter. A list of those soils are shown in the table below. All soils were disced on a regular basis.

TABLE NO. 1

DATE	VOLUME	SOURCE	SECTION
2-17-97 to 2-22-97	208 cy	Sid Richardson Monostate Compressor Site Lea County, New Mexico	Cell 1
4-1-97 to 4-13-97	853.4 cy	BJ Services 2708 West County Road Hobbs, New Mexico 88240	Cell 2



RHINO ENVIRONMENTAL SERVICES, INC.

TABLE NO. 2 - Analytical Results



RHINO ENVIRONMENTAL SERVICES, INC.

Quarterly Soil Sampling:

One native soil sample was retrieved from Cell 1 and one background sample was collected from Cell 2. Each sample was taken 2 to 3 feet below the natural soil surface, stored on ice and submitted to Anachem, Inc. for analysis. Figure No. 1 is a Site Map showing the location of each sample. The Cell 1 sample was submitted for analysis by EPA method 418.1 and EPA method 8020. The Cell 2 background sample was submitted for analysis by EPA method 418.1, EPA method 8020, RCRA Total Metals, and General Chemistry. The analytical results are summarized in Table No. 1.

TABLE NO. 2 Summary of Analytical Results from Native Soil Sampling					
Sample ID	BTEX mg/kg	TPH mg/kg	RCRA Total Metals mg/kg	General Chemistry mg/kg	pH
Cell 1 - 02QTR	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	< 10			
Cell 2 - 01BCK		< 10	< 3.05 Arsenic 56.5 Barium 4.78 Cadmium 16.3 Chromium 11.7 Lead < 2.50 Selenium < 1.50 Silver	450 Total Alkalinity 549 Bicarbonate 1020 Calcium <1.0 Carbonate 5.20 Chloride 6.00 Fluoride 521 Magnesium <0.02 Mercury <1.0 Nitrate 294 Potassium 500 Sodium 16.7 Sulfate	7.7

Analysis for Cell 1 reports TPH and BTEX levels to be below detection, thereby demonstrating that no vertical contaminant migration has occurred. Background samples collected from the center of treatment Cell 2 show trace amounts of Barium, Cadmium, Chromium and Lead as being naturally present in the soil.



RHINO ENVIRONMENTAL SERVICES, INC.

APPENDIX A - Analytical Results



RHINO ENVIRONMENTAL SERVICES, INC.

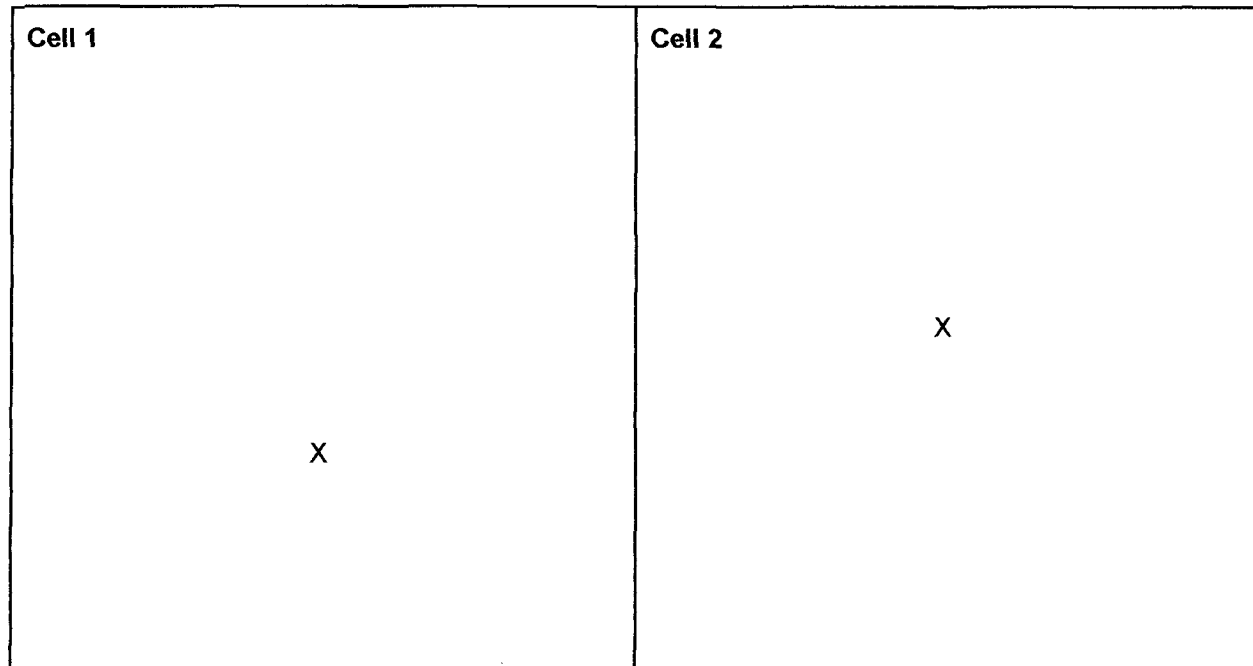
FIGURE NO. 1 - Site Map



FIGURE 1 - SITE MAP

Goo-Yea Commercial Landfarm
SE/4 of Section 14, Township 11 South, Range 38 East
Lea County, New Mexico

Two Active Cells, each approximately 5 acres



X denotes sample collection location

Not to Scale



ANACHEM INC.

8 Prestige Circle, Suite 104 Allen, Texas 75002
972/727-9003 • FAX # 972/727-9686 • 1-800-966-1186

Customer Name: Rhino Env.- Alb.
Date Received: May 15, 1997 at 10:00:00
Date Reported: June 4, 1997
Submission #: 9705000155
Project: GOODYEAR 0597

SAMPLES The submission consisted of 2 samples with sample I.D.'s shown in the attached data tables.


TESTS The samples listed in the attached result pages were analyzed for:


- * ALKALINITY, TOTAL (EPA 310.1)
- * BICARBONATE ION (EPA 310.1)
- * BTEX (EPA 8020)
- * CALCIUM/Ca (EPA 215.1)
- * CARBONATE ION (EPA 310.1)
- * CHLORIDE (EPA 300.0)
- * FLUORIDE (EPA 300.0)
- * MAGNESIUM/Mg (EPA 242.1)
- * MERCURY DIGESTION (EPA 7470)
- * MERCURY/Hg BY COLD VAPOR (EPA 7471)
- * MICROWAVE DIGESTION (EPA 3051) SOLID
- * NITRATE (EPA 300.0)
- * pH (EPA 150.1)
- * POTASSIUM/K (EPA 258.1)
- * SODIUM/Na (EPA 273.1)
- * SULFATE (EPA 300.0)
- * TOTAL RCRA METALS (EPA 6010)
- * TPH (EPA 418.1)

Distribution Of Reports

1-Mr. Jerry Dunlap of Rhino Env.- Alb.
Ph. 505-242-6464 Fax 505-247-4941

Respectfully Submitted,
Anachem, Inc.


Howard H. Hayden, B.S.
Chemist

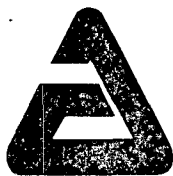

C.E. Newton, Ph.D.
Chemist

Submission #: 9705000155 lims

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84477 to 84478

Page 1 of 6



ANACHEM INC.

8 Prestige Circle, Suite 104 Allen, Texas 75002
972/727-9003 • FAX # 972/727-9686 • 1-800-966-1186

Customer Name: Rhino Env.- Alb.
Date Received: May 15, 1997 at 10:00:00
Date Reported: June 4, 1997
Submission #: 9705000155
Project: GOODYEAR 0597

* TS-TOTAL SOLIDS (EPA 160.3)

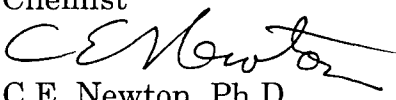
Distribution Of Reports

1-Mr. Jerry Dunlap of Rhino Env.- Alb.
Ph. 505-242-6464 Fax 505-247-4941

Respectfully Submitted,
Anachem, Inc.

Howard H. Hayden, B.S.
Chemist

Submission #: 9705000155 lms


C.E. Newton, Ph.D.
Chemist

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84477 to 84478

Page 2 of 6

Client Name: Rhino Env.- Alb.
Submission #: 9705000155
Project Name: GOODYEAR 0597
Report Date: 06/04/97

Client Sample #: 01BCK

Laboratory ID #: 84477 Order Type: Normal Matrix: Soil
Sample Container: 4oz EPA Approved Glass Jar\Aqua Lid
Sampling Location: LEA COUNEY, NM
Sampling Date: 05/14/97
Temperature (Celcius): 4

ALKALINITY, TOTAL (EPA 310.1)

Analyte	Results(mg/kg)	Detection Limit
Total Alkalinity	450	1.0

BICARBONATE ION (EPA 310.1)

Analyte	Results(mg/kg)	Detection Limit
Bicarbonate, HCO ₃ (CaCO ₃)	549	1.0

CALCIUM/Ca (EPA 215.1)

Analyte	Results(mg/kg)	Detection Limit
Calcium	1020	0.5

CARBONATE ION (EPA 310.1)

Analyte	Results(mg/kg)	Detection Limit
Carbonate, CO ₃ (CaCO ₃)	<1.0	1.0

CHLORIDE (EPA 300.0)

Analyte	Results(mg/kg)	Detection Limit
Chloride	5.2	1.0

FLUORIDE (EPA 300.0)

Analyte	Results(mg/kg)	Detection Limit
Fluoride	6.0	1.0

MAGNESIUM/Mg (EPA 242.1)

Analyte	Results(mg/kg)	Detection Limit
Magnesium	521	0.5

MERCURY DIGESTION (EPA 7470)

Mercury Digestion Date: 05/19/97

MERCURY/Hg BY COLD VAPOR (EPA 7471)

Analyte	Results(mg/kg)	Detection Limit
Mercury	<0.02	0.02

MICROWAVE DIGESTION (EPA 3051) SOLID

Microwave Digestion Date: 06/03/97

NITRATE (EPA 300.0)

Analyte	Results(mg/kg)	Detection Limit
Nitrate	<1.0	1.0

pH (EPA 150.1)

Analyte	Results(----)	Detection Limit
pH For Liquid	7.7	0.05

POTASSIUM/K (EPA 258.1)

Analyte	Results(mg/kg)	Detection Limit
Potassium	294	0.5

SODIUM/Na (EPA 273.1)

Analyte	Results(mg/kg)	Detection Limit
Sodium	500	0.5

Client Name: Rhino Env.- Alb.
Submission #: 9705000155
Project Name: GOODYEAR 0597
Report Date: 06/04/97

SULFATE (EPA 300.0)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Sulfate	16.7	1.0

TOTAL RCRA METALS (EPA 6010)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Arsenic	<3.05	3.05
Barium	56.5	0.050
Cadmium	4.78	0.350
Chromium	16.3	0.375
Lead	11.7	2.00
Selenium	<2.50	2.50
Silver	<1.50	1.50

TPH (EPA 418.1)

TPH Prep Date: 05/20/97

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

Client Sample #: 02QTR

Laboratory ID #: 84478 Order Type: Normal Matrix: Soil
Sample Container: Methanol Jar, Vial, 4oz Jar / Aqua Lid
Sampling Location: LEA COUNEY, NM
Sampling Date: 05/14/97
Temperature (Celcius): 4

BTEX (EPA 8020)

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Benzene	<0.40	0.40
Toluene	<0.50	0.50
Ethyl Benzene	<0.50	0.50
Xylenes	<0.50	0.50

TPH (EPA 418.1)

TPH Prep Date: 05/20/97

<u>Analyte</u>	<u>Results(mg/kg)</u>	<u>Detection Limit</u>
Total Petroleum Hydrocarbons	<10	10

TS-TOTAL SOLIDS (EPA 160.3)

<u>Analyte</u>	<u>Results(%)</u>	<u>Detection Limit</u>
Total Solids	88.7	1.0

Report To: Rhino Environmental
Lab Number: 9705000155
Page 6 of 6

Project: GooYea 0597

QUALITY CONTROL DATA

<u>ANALYTE</u>	<u>DATE ANALYZED</u>	<u>SPIKE (ppm)</u>	<u>STAND. DEV.</u>	<u>COEFF. OF VAR %</u>	<u>REC1/%</u>	<u>REC2/%</u>
Total Alkalinity	5/21/97	----	28.3	2.4	93.3	98.7
Chloride	5/21/97	----	0.099	1.3	97.5	90.8
Fluoride	5/21/97	----	0.0236	1.4	91	96.5
Mercury	5/20/97	----	0.856	10	99	85
Nitrate	5/21/97	----	0.151	1.1	98	96.5
Sulfate	5/21/97	----	0.32	1	99	99
Arsenic	6/3/97	----	0.247	5.0	92	86
Barium	6/3/97	----	0.032	0.6	108	106
Cadmium	6/3/97	----	0.128	2.8	84	87
Chromium	6/3/97	----	---	---	93	93
Lead	6/3/97	----	0.037	0.7	85	85
Selenium	6/3/97	----	0.442	8.5	97	86
Silver	6/3/97	----	0.070	2.5	100	104
Total Solids	5/15/97	----	0.387	2.5	---	---

Standard Deviation = $(x1-x2)/1.414$

Coefficient of Variability % = $(S.D./Avg.) \times 100$

Recovery % = $[(spiked-unsiked)/expected] \times 100$

Report To: Rhino Environmental
Lab Number: 9705000155
Page 5 of 6

Project: GooYea 0597

QUALITY CONTROL DATA

<u>METHOD</u>	<u>ANALYST</u>	<u>MATRIX</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>		
BTEX 8020	Howard Hayden	Solid	5/16/97	5/16/97		
<u>SPIKE COMPOUND</u>	<u>SPIKE AMOUNT</u>	<u>% REC 1</u>	<u>% REC 2</u>	<u>% REC QC LIMIT</u>	<u>% VAR. %</u>	<u>% VAR QC LIMIT</u>
Benzene	100 ppb	98.5	100	80-120	1.5	20.0
Toluene	100 ppb	105	106	80-120	0.94	20.0
Ethyl Benzene	100 ppb	105	106	80-120	0.94	20.0
Xylenes	300 ppb	99.4	96.6	80-120	2.8	20.0

QUALITY CONTROL DATA

TPH results are reported in parts per million (ppm) in solid.

	Value 1	Value 2	% Var.
TPH:	1024	1000	2.3

CONCENTRATION UNITS: TPH - ppm

DETECTION LIMITS: TPH - 10

<u>ANALYST</u>	<u>ANALYTE</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>
Anthony Taylor	TPH	5/20/97	5/20/97

Page__ of __.

Report To: Daniela Berardelli

Bill To: *Rising*

Company: Rivind

Purchase Order #: 6Y0597

Address: S CR 6065

Address: PO Box 25547

City, State, Zip: Farmington, NM 87401

City, State, Zip: Alb., NM 87125

Phone (505) 599-9626 Fax (505) 599-9627

Phone (505) 242-6464 Fax (505) 247-4941

Project Name: Goodyea 0595^{DB} 5-14-97

Project Location: Goodyea

City, State: Lea County, NM

Date Due:

Rush: ☒ 0% ☐ 50% ☐ 100% Sampled By: D. Brandelli + S. Decker

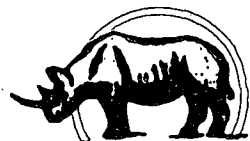
[illegible]

In the event that Anaschem determines that a sample is hazardous, the client agrees to :
 Pay For Sample Disposal X
 Accept Returned Sample

Pay For Sample Disposal ☒
Accept Returned Sample ☐

Anachem Submission #:

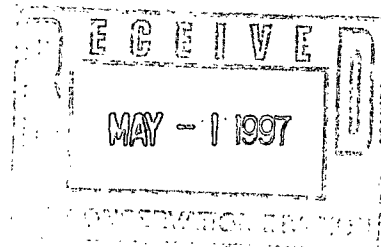
9705-155



RHINO

Environmental Services, Inc.

300 Broadway NE • Albuquerque, New Mexico 87102
(505) 242-6464 • Fax (505) 247-4941



April 28, 1997

Ms. Martyne J. Kieling
NM Energy, Mineral and Natural Resources
Oil Conservation Division
Environmental Bureau
2040 South Pacheco Street
Santa Fe, New Mexico 87505
Ph: (505) 827-7153
Fx: (505) 827-8177

1-800-499-8393

**Re: Goo-Yea Landfarm Facility:
Quarterly Report - April 1997**

Dear Ms. Kieling:

In accordance with the conditions set forth in the permit, enclosed please find the April 1997 quarterly report for Rhino's Goo-Yea facility located in Lea County, New Mexico.

This report serves to maintain a written record of the amount of contaminated soil accepted for treatment and to ensure that no contaminant migration has occurred.

Table one (1) includes all soils accepted from February 1997 through April 1997. One native soil sample was retrieved from the treatment area in Cell 1 and submitted to Anachem, Inc. for analysis. This report demonstrates the level of total petroleum hydrocarbons at 68 mg/kg. As we discussed during your site visit, I was not able to dig down to the required depth of three feet and feel the sample is not representative. This sample was collected at a depth of 1.5 to 2.0 feet below the native soil surface. Figure No. 1 is a site map showing the location of sample collection. The analytical results are summarized in Table two (2). A copy of the analytical report is submitted as Appendix A.

A second sample will be collected from the same area at a depth of three feet. In addition, a background sample will be collected from the second treatment area, Cell 2. Sample collection is scheduled for the week of May 12, 1997. Results will be forwarded to you as soon as available.

Please don't hesitate to call if you have any questions or require additional information.

Sincerely,

Daniele Berardelli
Rhino Environmental Services, Inc.

1-800-499-8393

Farmington #

Wait for original Lab Documents
5/9/97
MJK

Attachments

MJK 5/6/97



RHINO ENVIRONMENTAL SERVICES, INC.

TABLES

Table No. 1 - Soil Log

Table No. 2 - Analytical Results



RHINO ENVIRONMENTAL SERVICES, INC.

GOO-YEA LANDFARM FACILITY QUARTERLY REPORT April 1997

Soil accepted from February 1997 to April 1997.

A total of 1,061.4 cubic yards (cy) of soils were received during this quarter. A list of those soils are shown in the table below. All soils were disced on a regular basis.

TABLE NO. 1

DATE	VOLUME	SOURCE	SECTION
2-17-97 to 2-22-97	208 cy	Sid Richardson Monostate Compressor Site Lea County, New Mexico	Cell 1
4-1-97 to 4-13-97	853.4 cy	BJ Services 2708 West County Road Hobbs, New Mexico 88240	Cell 2

Quarterly Soil Sampling:

One native soil sample was retrieved from the treatment area 1.5 to 2 feet below the natural soil surface. Figure No. 1 is a Site Map showing the location of the sample. One sample was submitted for analysis by EPA method 418.1 and EPA method 8020. The analytical results are summarized in Table No. 1.

TABLE NO. 2 Summary of Analytical Results from Native Soil Sampling		
Sample ID	BTEX mg/kg	TPH mg/kg
Cell 1	< 0.40 Benzene < 0.50 Toluene < 0.50 Ethyl Benzene < 0.50 Xylenes	68

I understand that original analytical report is preferred, however the original has not yet been received. A copy has been submitted as Appendix A of this report. If this is unacceptable, please let me know and the original will be promptly forwarded. The results of the native soil testing are not believed to be representative, therefore, the cell will be re-sampled. ✓



RHINO ENVIRONMENTAL SERVICES, INC.

APPENDIX A - ANALYTICAL RESULTS

**ANACHEM INC.**

8 Prestige Circle, Suite 104 Allen, Texas 75002
972/727-9003 • FAX # 972/727-9686 • 1-800-966-1186

Customer Name: Rhino Env.- Alb.
Date Received: April 4, 1997 at 09:43:55
Date Reported: April 8, 1997
Submission #: 9704000051
Project: GOO YEA 4/97

SAMPLES The submission consisted of 1 sample with sample I.D. shown in the attached data table.


TESTS The sample listed in the attached result pages were analyzed for:
* BTEX (EPA 8020)
* METHANOL SAMPLE CONTAINER PREP, NEW MEXICO
* TPH (EPA 418.1)
* TS-TOTAL SOLIDS (EPA 160.3)

Distribution Of Reports

1-Mrs. Daniele Berardelli of Rhino Env.- Alb.
Ph. 505-242-6464 Fax 505-247-4941

Submission #: 9704000051 lims

Respectfully Submitted,
Anachem, Inc.


Howard H. Hayden, B.S.
Chemist


C.E. Newton, Ph.D.
Chemist

NOTE: Submitted material will be retained for 60 days unless notified or consumed in analysis. Material determined to be hazardous will be returned or a \$20 disposal fee will be assessed. Our letters and reports are for the exclusive use of the client to whom they are addressed. The use of our name must receive our prior written approval. Our letters and reports apply to the sample tested and/or inspected, and are not necessarily indicative of the qualities of apparently identical or similar materials.

52523 to 52525

Page 1 of 3

Client Name: Rhino Env.- Alb.
Submission #: 9704000051
Project Name: GOO YEA 4/97
Report Date: 04/08/97

Client Sample #: GOO YEA I

Laboratory ID #: 82523 Order Type: Normal Matrix: Soil
Sample Container: 4oz EPA Approved Glass Jar Aqua Lid
Sampling Location: GOO YEA LANDFARM, LEA COUNTY, NM
Sampling Date: 04/03/97
Temperature (Celcius): 4

TPH (EPA 418.1)

TPH Prep Date: 04/08/97

Analyte**Results(mg/kg)****Detection Limit**

Total Petroleum Hydrocarbons

68

10

Client Sample #: GOO YEA II

Laboratory ID #: 82524 Order Type: Normal Matrix: Soil
Sample Container: Methanol Jar
Sampling Location: GOO YEA LANDFARM, LEA COUNTY, NM
Sampling Date: 04/03/97
Temperature (Celcius): 4

BTEX (EPA 8020)**Analyte****Results(mg/kg)****Detection Limit**

Benzene

<0.40

0.40

Toluene

<0.50

0.50

Ethyl Benzene

<0.50

0.50

Xylenes

<0.50

0.50

Client Sample #: GOO YEA III

Laboratory ID #: 82525 Order Type: Normal Matrix: Soil
Sample Container: Vial
Sampling Location: GOO YEA LANDFARM, LEA COUNTY, NM
Sampling Date: 04/03/97
Temperature (Celcius): 4

TS-TOTAL SOLIDS (EPA 160.8)**Analyte****Results(%)****Detection Limit**

Total Solids

89.1

Report To: Rhino Environmental-Alb.

Project: GOO YEA 4/97

Lab Number: 9704000051

Page 5 of 5

QUALITY CONTROL DATA

<u>METHOD</u>	<u>ANALYST</u>	<u>MATRIX</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>
BTEX 8020	Howard Hayden	Solid	4/4/97	4/4/97 -1

<u>SPIKE COMPOUND</u>	<u>SPIKE AMOUNT</u>	<u>% REC 1</u>	<u>% REC 2</u>	<u>% REC QC LIMIT</u>	<u>% VAR.</u>	<u>% VAR QC LIMIT</u>
Benzene	100 ppb	103	109	80-120	5.5	20.0
Toluene	100 ppb	105	110	80-120	4.5	20.0
Ethyl Benzene	100 ppb	107	113	80-120	5.3	20.0
Xylenes	300 ppb	107	113	80-120	5.3	20.0

QUALITY CONTROL DATA

TPH results are reported in parts per million (ppm) in solid.

	<u>Value 1</u>	<u>Value 2</u>	<u>% Var.</u>
TPH:	68	66	2.9
CONCENTRATION UNITS:	TPH : ppm		
DETECTION LIMITS:	TPH - 10		

<u>ANALYST</u>	<u>ANALYTE</u>	<u>DATE EXTRACTED</u>	<u>DATE ANALYZED</u>
Anthony Taylor	TPH	4/8/97	4/8/97 - 5

QUALITY CONTROL DATA

<u>ANALYTE</u>	<u>DATE ANALYZED</u>	<u>SPIKE (ppm)</u>	<u>STAND. DEV.</u>	<u>COEFF. OF VAR %</u>	<u>REC1/%</u>	<u>REC2/%</u>
Total Solids	4/7/97	---	±0.707	0.8	---	---

Standard Deviation = $(x1-x2)/1.414$ Coefficient of Variability % = $(S.D./Avg.) \times 100$ Recovery % = $[(spiked-unsiked)/expected] \times 100$

Chain Of Custody/Order Form

Page of

Anachem, Inc., 8 Presidio Circle, Suite 104, Allen, TX 75002 Phone: 214-727-8003 Fax: 214-727-8688

[illegible]



RHINO ENVIRONMENTAL SERVICES, INC.

FIGURE 1 - SITE MAP



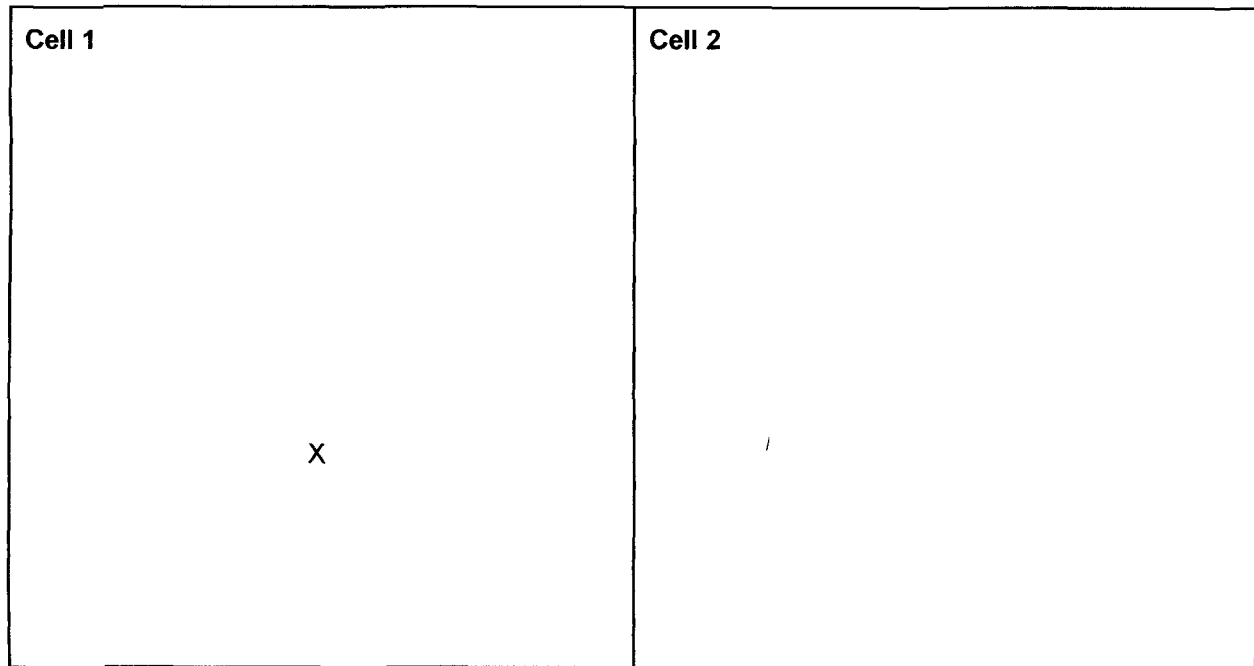
RHINO ENVIRONMENTAL SERVICES, INC.

FIGURE 1 - SITE MAP

Goo-Yea Commercial Landfarm
SE/4 of Section 14, Township 11 South, Range 38 East
Lea County, New Mexico

Two Active Cells, each approximately 5 acres

N
↑
↓
S



X denotes sample collection location

Not to Scale

American Environmental Network, Inc.

AEN I.D. 612311

December 20, 1996

RHINO ENVIRONMENTAL SERVICES
P.O. BOX 25547
ALBUQUERQUE

Project Name GOO-YEA
Project Number 1196

Attention: DANIELE BERARDELLI

On 12/5/96 American Environmental Network (NM), Inc. (ADHS License No. AZ0015), received a request to analyze **non-aq** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

EPA methods 8020 and 418.1 were performed by American Environmental Network (NM) Inc., Albuquerque, NM.

All other analyses were performed by American Environmental Network (FL), Inc., 11 East Olive Rd, Pensacola, FL.

If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.



Kimberly D. McNeill
Project Manager



H. Mitchell Rubenstein, Ph. D.
General Manager

MR: mt

Enclosure

American Environmental Network, Inc.

CLIENT	: RHINO ENVIRONMENTAL SERVICES	AEN I.D.	: 612311
PROJECT #	: 1196	DATE RECEIVED	: 12/5/96
PROJECT NAME	: GOO-YEA	REPORT DATE	: 12/20/96
AEN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	CELL 1	SOIL	11/30/96

GENERAL CHEMISTRY RESULTS

418.1

CLIENT : RHINO ENVIRONMENTAL SERVICES AEN I.D. : 612311
PROJECT # : 1196 DATE RECEIVED : 12/5/96
PROJECT NAME : GOO-YEA

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	CELL 1	NON-AQ	11/30/96	12/9/96	12/9/96	1
PARAMETER		DET. LIMIT	UNITS	01		
PETROLEUM HYDROCARBONS, IR		20	MG/KG	< 20		

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GENERAL CHEMISTRY - REAGENT BLANK

418.1

CLIENT	: RHINO ENVIRONMENTAL SERVICES	AEN I.D.	: 612311
PROJECT #	: 1196	SAMPLE MATRIX	: NON-AQ
PROJECT NAME	: GOO-YEA	UNITS	: MG/KG

PARAMETER	AEN I.D.	SAMPLE RESULT
PETROLEUM HYDROCARBONS	120996	<20

CHEMIST NOTES:

N/A

American Environmental Network, Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

418.1

CLIENT	: RHINO ENVIRONMENTAL SERVICES	AEN I.D.	: 612311
PROJECT #	: 1196	SAMPLE MATRIX	: NON-AQ
PROJECT NAME	: GOO-YEA	UNITS	: MG/KG

PARAMETER	AEN I.D.	SAMPLE RESULT	DUP. RESULT	% RPD	SPIKED SAMPLE	SPIKE CONC.	% REC
PETROLEUM HYDROCARBONS	612310-01	<20	<20	NA	151	150	101%

CHEMIST NOTES:

N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

American Environmental Network, Inc.

"FINAL REPORT FORMAT - SINGLE"

Accession: 612133
Client: AMERICAN ENVIRONMENTAL NETWORK OF NEW MEXICO
Project Number: 612311
Project Name: RHINO
Project Location: 600 YEA 1196
Test: Group of Single Wetchem
Matrix: SOIL
QC Level: II

Lab ID: 001
Client Sample Id: 612311-01

Sample Date/Time: 30-NOV-96 0900
Received Date: 06-DEC-96

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
CONDUCTIVITY (120.1)	UMH/CM	N/A	1		NONE	N/A
FLUORIDE (340.2)	MG/KG	ND	4.0		FLS003	ED
NITRITE-NITRATE, NITROGEN (353.2)	MG/KG	2	2		N3S67S	MM
SULFATE (9038)	MG/KG	2100	1000	+	SWS015	AB
TOTAL SOLIDS (160.3)	%	97	0.1		TSS048	ED
CHLORIDE (325.3)	MG/KG	270	50		CIS012	RB

Comments:

American Environmental Network, Inc.

"Method Report Summary"

Accession Number: 612133
Client: AMERICAN ENVIRONMENTAL NETWORK OF NEW MEXICO
Project Number: 612311
Project Name: RHINO
Project Location: 600 YEA 1196
Test: Group of Single Wetchem

Client Sample Id:	Parameter:	Unit:	Result:
612311-01	CONDUCTIVITY (120.1)	UMH/CM	N/A
	NITRITE-NITRATE, NITROGEN (353.2)	MG/KG	2
	SULFATE (9038)	MG/KG	2100
	TOTAL SOLIDS (160.3)	%	97
	CHLORIDE (325.3)	MG/KG	270

American Environmental Network, Inc.

"WetChem Quality Control Report"

Parameter:	FLUORIDE	NO2NO3	SULFATE	TOTL SLDS	CHLORIDE
Batch Id:	FLS003	N3S67S	SWS015	TSS048	CIS012
Blank Result:	<0.2	<2	<10	<0.1	<50
Anal. Method:	340.2	353.2	9038	160.3	9252
Prep. Method:	N/A	N/A	N/A	N/A	N/A
Analysis Date:	13-DEC-96	12-DEC-96	17-DEC-96	11-DEC-96	17-DEC-96
Prep. Date:	13-DEC-96	12-DEC-96	17-DEC-96	09-DEC-96	17-DEC-96

Sample Duplication

Sample Dup:	612133-1	612133-1	612054-1	612091-1	612054-1
Rept Limit:	<0.2	<2	<2000+	<0.1	<50
Sample Result:	<0.2	2.3	6060	1.1	666
Dup Result:	<0.2	2.3	5900	1.0	658
Sample RPD:	N/C	0G	160G	10	1
Max RPD:	0.2	2	2000+	12	8
Dry Weight%	N/A	N/A	N/A	N/A	N/A

Matrix Spike

Sample Spiked:	612133-1	612133-1	612054-1	N/A	612054-1
Rept Limit:	<0.2	<2	<5000+	N/A	<50
Sample Result:	<0.2	2.3	6060		666
Spiked Result:	19.8	19.7	14200		3300
Spike Added:	16.0	20.0	10000		2750
% Recovery:	124	87	81		96
% Rec Limits:	70-129	75-125	51-151		80-109
Dry Weight%	N/A	N/A	N/A		N/A

ICV

ICV Result:	1.15	1.91	21.3		93.6
True Result:	1.20	2.00	20.0		100.0
% Recovery:	96	96	107		94
% Rec Limits:	90-110	90-110	90-110		90-110

LCS

LCS Result:					
True Result:					
% Recovery:					
% Rec Limits:					

American Environmental Network, Inc.

"Quality Control Comments"

Batch Id: Comments:

FLS003	TIME ON: 12/13/96 @ 1540
FLS003	TIME OFF: 12/13/96 @ 1630
FLS003	ANALYST: ED
N3S67S	TIME ON: 12/12/96 @ 1317
N3S67S	TIME OFF: 12/12/96 @ 1430
N3S67S	ANALYST: MM
TSS048	TIME ON: 12/9/96 @ 1149
TSS048	TIME OFF: 12/11/96 @ 1247
TSS048	ANALYST: ED

American Environmental Network, Inc.

----- Common Footnotes WetChem -----

N/A = NOT APPLICABLE.
N/S = NOT SUBMITTED.
N/C = SAMPLE AND DUPLICATE RESULTS ARE AT OR BELOW AEN REPORTING LIMIT;
THEREFORE, THE RPD IS "NOT CALCULABLE" AND NO CONTROL LIMITS APPLY.
N/D = NOT DETECTED.
DISS. OR D = DISSOLVED
T & D = TOTAL AND DISSOLVED
R = REACTIVE
T = TOTAL
G = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X AEN REPORTING LIMIT AND
THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE RESULT IS AT
OR BELOW AEN REPORTING LIMIT; THEREFORE, THE RESULTS ARE "IN CONTROL".
Q = THE ANALYTICAL (POST-DISTILLATION) SPIKE IS REPORTED DUE TO PERCENT RECOVERY
BEING OUTSIDE ACCEPTANCE LIMITS ON THE MATRIX (PRE-DISTILLATION) SPIKE.
= ELEVATED REPORTING LIMIT DUE TO INSUFFICIENT SAMPLE.
+ = ELEVATED REPORTING LIMIT DUE TO DILUTION INTO CALIBRATION RANGE.
* = ELEVATED REPORTING LIMIT DUE TO MATRIX INTERFERENCE. (DILUTION PRIOR
TO ANALYSIS)
@ = ADJUSTED REPORTING LIMIT DUE TO SAMPLE MATRIX. (DILUTION PRIOR TO
DIGESTION)
P = ANALYTICAL (POST DIGESTION) SPIKE.
I = DUPLICATE INJECTION.
& = AUTOMATED
F = SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
N/C+ = NOT CALCULABLE
H = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X AEN REPORTING LIMIT AND THE
ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE AEN REPORTING
LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL".
A = SAMPLE AND DUPLICATE RESULTS ARE "OUT OF CONTROL".
Z = THE SAMPLE RESULT FOR THE SPIKE IS BELOW THE REPORTING LIMIT. HOWEVER,
THIS RESULT IS REPORTED FOR ACCURATE QC CALCULATIONS.
NH= SAMPLE AND / OR DUPLICATE RESULT IS BELOW 5 X AEN REPORTING LIMIT
AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE AEN
REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL".
SAMPLE IS NON-HOMOGENEOUS.
(*) = DETECTION LIMITS RAISED DUE TO CLP METHOD NOT REQUIRING A CONCENTRATION STEP FOR CN.
(CA) = SEE CORRECTIVE ACTIONS FORM.
**= MATRIX INTERFERENCE
SW-846, 3rd Edition, latest revision
EPA 600/4-79-020, Revised March 1983.
STANDARD METHODS, For the Examination of Water and Wastewater, 18TH ED., 1992
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ANNUAL BOOK OF ASTM STANDARDS, VOLUME 11.01, 1991.
METHODS FOR THE DETERMINATION OF INORGANIC SUBSTANCES IN ENVIRONMENTAL SAMPLES,
EPA600/R-93/100, AUGUST 1993

1. COLIFORM. COLIFORM PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN
THE LOGARITHM OF COLONIES PER 100 MLS OF SAMPLE ON DUPLICATE PLATES.
2. PH. PH PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE
SAMPLE AND DUPLICATE ANALYSIS.
3. FLASHPOINT. FLASHPOINT PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN
THE SAMPLE AND DUPLICATE ANALYSIS.

RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION).
RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES.

DPH = DOLLY P. HWANG	SG = SCOTT GRESHAM	RB = REBECCA BROWN
JL = JAN LECLEAR	NSB = NANCY S. BUTLER	MM = MIKE MCKENZIE
MB = MICHELLE BOTTS	ED = ESTHER DANTIN	AB = ANDY BROTHERTON
PLD = PAULA L. DOUGHTY	RH = RICKY HAGENDORFER	BH = BARRY HICKS

American Environmental Network, Inc.

"FINAL REPORT FORMAT - SINGLE"

Accession: 612133
Client: AMERICAN ENVIRONMENTAL NETWORK OF NEW MEXICO
Project Number: 612311
Project Name: RHINO
Project Location: 600 YEA 1196
Test: TOTAL ALKALINITY
Matrix: SOIL
QC Level: II

Lab ID: 001
Client Sample Id: 612311-01
Sample Date/Time: 30-NOV-96 0900
Received Date: 06-DEC-96

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
ALKALINITY, TOTAL (2320B)	MG/KG	25000	1		ASS003	AB
PH (9045)	UNITS	7.7	NA	R	PHS243	MM
BICARBONATE, CACO3 (2330B)	MG/KG	25000	1		NONE	DPH
CARBONATE, CACO3 (2330B)	MG/KG	120	1		NONE	DPH
CARBON DIOXIDE, FREE AS CACO3	MG/KG	990	1		NONE	DPH
HYDROXIDE (2330B) AS CACO3	MG/KG	ND	1		NONE	DPH

Comments:

R = SAMPLE RECEIVED OUT OF HOLD TIME.

American Environmental Network, Inc.

"Method Report Summary"

Accession Number: 612133
Client: AMERICAN ENVIRONMENTAL NETWORK OF NEW MEXICO
Project Number: 612311
Project Name: RHINO
Project Location: 600 YEA 1196
Test: TOTAL ALKALINITY

Client Sample Id:	Parameter:	Unit:	Result:
612311-01	ALKALINITY, TOTAL (2320B)	MG/KG	25000
	PH (9045)	UNITS	7.7
	BICARBONATE, CaCO_3 (2330B)	MG/KG	25000
	CARBONATE, CaCO_3 (2330B)	MG/KG	120
	CARBON DIOXIDE, FREE AS CaCO_3	MG/KG	990

American Environmental Network, Inc.

"WetChem Quality Control Report"

Parameter:	ALKALINITY	PH
Batch Id:	ASS003	PHS243
Blank Result:	<1	N/A
Anal. Method:	2320B	9045
Prep. Method:	N/A	N/A
Analysis Date:	18-DEC-96	06-DEC-96
Prep. Date:	18-DEC-96	06-DEC-96

Sample Duplication

Sample Dup:	612133-1	612133-1
Rept Limit:	<1	N/A
Sample Result:	25332	7.71
Dup Result:	25387	7.74
Sample RPD:	0	0.03
Max RPD:	4	0.12
Dry Weight%	N/A	N/A

Matrix Spike

Sample Spiked:	612133-1	N/A
Rept Limit:	<1	N/A
Sample Result:	25332	
Spiked Result:	23520	
Spike Added:	2000F	
% Recovery:	-91	
% Rec Limits:	80-113	
Dry Weight%	N/A	

ICV

ICV Result:	107	10.06
True Result:	100	10.00
% Recovery:	107	101
% Rec Limits:	90-110	90-110

LCS

LCS Result:		6.71
True Result:		6.87
% Recovery:		98
% Rec Limits:		97-103

American Environmental Network, Inc.

"Quality Control Comments"

Batch Id: Comments:

PHS243	TIME ON: 12/6/96 @ 1353
PHS243	TIME OFF: 12/6/96 @ 1830
PHS243	ANALYST: MM

American Environmental Network, Inc.

----- Common Footnotes WetChem -----

N/A = NOT APPLICABLE.
N/S = NOT SUBMITTED.
N/C = SAMPLE AND DUPLICATE RESULTS ARE AT OR BELOW AEN REPORTING LIMIT;
THEREFORE, THE RPD IS "NOT CALCULABLE" AND NO CONTROL LIMITS APPLY.
N/D = NOT DETECTED.
DISS. OR D = DISSOLVED
T & D = TOTAL AND DISSOLVED
R = REACTIVE
T = TOTAL
G = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X AEN REPORTING LIMIT AND
THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE RESULT IS AT
OR BELOW AEN REPORTING LIMIT; THEREFORE, THE RESULTS ARE "IN CONTROL".
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BEING OUTSIDE ACCEPTANCE LIMITS ON THE MATRIX (PRE-DISTILLATION) SPIKE.
= ELEVATED REPORTING LIMIT DUE TO INSUFFICIENT SAMPLE.
+ = ELEVATED REPORTING LIMIT DUE TO DILUTION INTO CALIBRATION RANGE.
* = ELEVATED REPORTING LIMIT DUE TO MATRIX INTERFERENCE. (DILUTION PRIOR
TO ANALYSIS)
@ = ADJUSTED REPORTING LIMIT DUE TO SAMPLE MATRIX. (DILUTION PRIOR TO
DIGESTION)
P = ANALYTICAL (POST DIGESTION) SPIKE.
I = DUPLICATE INJECTION.
& = AUTOMATED
F = SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
N/C+ = NOT CALCULABLE
H = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X AEN REPORTING LIMIT AND THE
ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE AEN REPORTING
LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL".
A = SAMPLE AND DUPLICATE RESULTS ARE "OUT OF CONTROL".
Z = THE SAMPLE RESULT FOR THE SPIKE IS BELOW THE REPORTING LIMIT. HOWEVER,
THIS RESULT IS REPORTED FOR ACCURATE QC CALCULATIONS.
NH= SAMPLE AND / OR DUPLICATE RESULT IS BELOW 5 X AEN REPORTING LIMIT
AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE AEN
REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL".
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(*) = DETECTION LIMITS RAISED DUE TO CLP METHOD NOT REQUIRING A CONCENTRATION STEP FOR CN.
(CA) = SEE CORRECTIVE ACTIONS FORM.
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American Environmental Network, Inc.

"FINAL REPORT FORMAT - SINGLE"

Accession: 612133
Client: AMERICAN ENVIRONMENTAL NETWORK OF NEW MEXICO
Project Number: 612311
Project Name: RHINO
Project Location: 600 YEA 1196
Test: Group of Single Metals
Matrix: SOIL
QC Level: II

Lab Id: 001
Client Sample Id: 612311-01
Sample Date/Time: 30-NOV-96 0900
Received Date: 06-DEC-96

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
ALUMINUM (6010)	MG/KG	4500	6		L6S151	JR
CALCIUM (6010)	MG/KG	8300	100		I6S151	JR
COPPER (6010)	MG/KG	4	1		F6S151	JR
IRON (6010)	MG/KG	6400	2		N6S151	JR
POTASSIUM (6010)	MG/KG	1200	200		X6S151	JR
MAGNESIUM (6010)	MG/KG	1300	20		J6S151	JR
MANGANESE (6010)	MG/KG	74	1		G6S151	JR
SODIUM (6010)	MG/KG	43	20		16S151	JR
ZINC (6010)	MG/KG	14	2		56S151	JR

Comments:

American Environmental Network, Inc.

"Method Report Summary"

Accession Number: 612133
Client: AMERICAN ENVIRONMENTAL NETWORK OF NEW MEXICO
Project Number: 612311
Project Name: RHINO
Project Location: 600 YEA 1196
Test: Group of Single Metals

Client Sample Id:	Parameter:	Unit:	Result:
612311-01	ALUMINUM (6010)	MG/KG	4500
	CALCIUM (6010)	MG/KG	8300
	COPPER (6010)	MG/KG	4
	IRON (6010)	MG/KG	6400
	POTASSIUM (6010)	MG/KG	1200
	MAGNESIUM (6010)	MG/KG	1300
	MANGANESE (6010)	MG/KG	74
	SODIUM (6010)	MG/KG	43
	ZINC (6010)	MG/KG	14

American Environmental Network, Inc.

"Metals Quality Control Report"

Parameter:	ALUMINUM	CALCIUM	COPPER	IRON	POTASSIUM	MAGNESIUM
Batch Id:	L6S151	I6S151	F6S151	N6S151	X6S151	J6S151
Blank Result:	<6	<100	<1	<2	<200	<20
Anal. Method:	6010	6010	6010	6010	6010	6010
Prep. Method:	3050	3050	3050	3050	3050	3050
Analysis Date:	11-DEC-96	11-DEC-96	11-DEC-96	11-DEC-96	11-DEC-96	11-DEC-96
Prep. Date:	10-DEC-96	10-DEC-96	10-DEC-96	10-DEC-96	10-DEC-96	10-DEC-96

Sample Duplication

Sample Dup:	612169-1	612169-1	612169-1	612169-1	612169-1	612169-1
Rept Limit:	<6	<1000+	<1	<2	<200	<20
Sample Result:	1500	320000	180	940	2000	2500
Dup Result:	1700	320000	180	1100	2000	2500
Sample RPD:	12	0	0	16	0	0
Max RPD:	20	20	20	20	20	20
Dry Weight%	N/A	N/A	N/A	N/A	N/A	N/A

Matrix Spike

Sample Spiked:	612169-1	612169-1	612169-1	612169-1	612169-1	612169-1
Rept Limit:	<6	<1000+	<1	<2	<200	<20
Sample Result:	1400	320000	2	860	<200	770
Spiked Result:	1500	320000	180	940	2000	2500
Spike Added:	200F	2000F	200	200F	2000	2000
% Recovery:	50	0	89	40	100	87
% Rec Limits:	75-125	75-125	75-125	75-125	75-125	75-125
Dry Weight%	N/A	N/A	N/A	N/A	N/A	N/A

ICV

ICV Result:	5.1	9.9	5.1	5.1	51	5.0
True Result:	5.0	10	5.0	5.0	50	5.0
% Recovery:	102	99	102	102	102	100
% Rec Limits:	90-110	90-110	90-110	90-110	90-110	90-110

LCS

LCS Result:	6900	2800	58	16000	2300	1800
True Result:	6210	2760	58.2	15300	2020	1800
% Recovery:	111	101	100	105	114	100
% Rec Limits:	62-138	64-136	79-121	58-142	70-130	80-120

American Environmental Network, Inc.

"Metals Quality Control Report"

Parameter:	MANGANESE	SODIUM	ZINC
Batch Id:	G6S151	16S151	56S151
Blank Result:	<1	<20	<2
Anal. Method:	6010	6010	6010
Prep. Method:	3050	3050	3050
Analysis Date:	11-DEC-96	11-DEC-96	11-DEC-96
Prep. Date:	10-DEC-96	10-DEC-96	10-DEC-96

Sample Duplication

Sample Dup:	612169-1	612169-1	612169-1
Rept Limit:	<1	<20	<2
Sample Result:	180	2300	180
Dup Result:	180	2200	180
Sample RPD:	0	4	0
Max RPD:	20	20	20
Dry Weight%	N/A	N/A	N/A

Matrix Spike

Sample Spiked:	612169-1	612169-1	612169-1
Rept Limit:	<1	<20	<2
Sample Result:	16	330	6
Spiked Result:	180	2300	180
Spike Added:	200	2000	200
% Recovery:	82	99	87
% Rec Limits:	75-125	75-125	75-125
Dry Weight%	N/A	N/A	N/A

ICV

ICV Result:	5.0	9.9	5.1
True Result:	5.0	10	5.0
% Recovery:	100	99	102
% Rec Limits:	90-110	90-110	90-110

LCS

LCS Result:	240	430	110
True Result:	232	474	114
% Recovery:	103	91	96
% Rec Limits:	77-123	64-136	74-126

"Quality Control Comments"

Batch Id: Comments:

L6S151	ANALYST: JR
L6S151	The results reported under "Sample Duplication" are the MS/MSD.
I6S151	ANALYST: JR
I6S151	The results reported under "Sample Duplication" are the MS/MSD.
F6S151	ANALYST: JR
F6S151	The results reported under "Sample Duplication" are the MS/MSD.
N6S151	ANALYST: JR
N6S151	The results reported under "Sample Duplication" are the MS/MSD.
X6S151	ANALYST: JR
X6S151	The results reported under "Sample Duplication" are the MS/MSD.
J6S151	ANALYST: JR
J6S151	The results reported under "Sample Duplication" are the MS/MSD.
G6S151	ANALYST: JR
G6S151	The results reported under "Sample Duplication" are the MS/MSD.
16S151	ANALYST: JR
16S151	The results reported under "Sample Duplication" are the MS/MSD.
56S151	ANALYST: JR
56S151	The results reported under "Sample Duplication" are the MS/MSD.

American Environmental Network, Inc.

----- Common Footnotes Metals -----

N/A = NOT APPLICABLE.
N/S = NOT SUBMITTED.
N/C = SAMPLE AND DUPLICATE RESULTS ARE AT OR BELOW ATI REPORTING LIMIT;
THEREFORE, THE RPD IS "NOT CALCULABLE" AND NO CONTROL LIMITS APPLY.
N/D = NOT DETECTED.
DISS. OR D = DISSOLVED
T & D = TOTAL AND DISSOLVED
R = REACTIVE
T = TOTAL
G = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND
THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE RESULT IS AT
OR BELOW ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "IN CONTROL".
Q = THE ANALYTICAL (POST-DIGESTION) SPIKE IS REPORTED DUE TO PERCENT RECOVERY
BEING OUTSIDE ACCEPTANCE LIMITS ON THE MATRIX (PRE-DIGESTION) SPIKE.
= ELEVATED REPORTING LIMIT DUE TO INSUFFICIENT SAMPLE.
+ = ELEVATED REPORTING LIMIT DUE TO DILUTION INTO CALIBRATION RANGE.
* = ELEVATED REPORTING LIMIT DUE TO MATRIX INTERFERENCE. (DILUTION PRIOR
TO ANALYSIS)
@ = ADJUSTED REPORTING LIMIT DUE TO SAMPLE MATRIX. (DILUTION PRIOR TO
DIGESTION)
P = ANALYTICAL (POST DIGESTION) SPIKE.
I = DUPLICATE INJECTION.
& = AUTOMATED
F = SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
N/C+ = NOT CALCULABLE
N/C* = NOT CALCULABLE; SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
H = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND THE
ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE ATI REPORTING
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THIS RESULT IS REPORTED FOR ACCURATE QC CALCULATIONS.
NH= SAMPLE AND / OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT
AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE ATI
REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL".
SAMPLE IS NON-HOMOGENEOUS.
J = (FLORIDA DEP 'J' FLAG) - MATRIX SPIKE AND POST SPIKE RECOVERY IS OUT OF
THE ACCEPTABLE RANGE. SEE OUT OF CONTROL EVENTS FORM.
U = (FLORIDA DEP 'U' FLAG) - THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED.
S = METHOD OF STANDARD ADDITIONS (MSA) WAS PERFORMED ON THIS SAMPLE.

FROM ANALYSIS REPORT:

RL= REPORTING LIMIT BASED ON METHOD DETECTION LIMIT STUDIES.

Q= QUALIFIER (FOOTNOTE)

FROM QUALITY CONTROL REPORT:

RPD= RELATIVE PERCENT DEVIATION.

RPT LIMIT= REPORTING LIMIT BASED ON METHOD DETECTION LIMIT STUDIES.

NOTE: THE UNITS REPORTED ON THE QUALITY CONTROL REPORT ARE REPORTED ON AN AS
RUN BASIS.

SW-846, 3rd Edition, latest revision.

EPA 600/4-79-020, Revised March 1983.

NIOSH Manual of Analytical Methods, 4th Edition.

Standard Methods For the Examination of Water and Wastewater, 18th Edition, 1992.
Methods For the Determination of Metals in Environmental Samples - Supplement I,
EPA 600/R-94-111, May 1994.

GJ = GARY JACOBS
JLH = JAMES L. HERED
CD = CHRISTY DRAPER

JR = JOHN REED
LV = LASSANDRA VON APPEN

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX, MTBE (EPA 8020) METHANOL PRESERVATION
CLIENT : RHINO ENVIRONMENTAL SERVICES
PROJECT # : 1196
PROJECT NAME : GOO-YEA

AEN I.D.: 612311

SAMPLE		DATE		DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	CELL 1	NON-AQ	11/30/96	NA	12/5/96	1
PARAMETER		DET. LIMIT	UNITS	01		
BENZENE		0.025	MG/KG	< 0.025		
TOLUENE		0.025	MG/KG	< 0.025		
ETHYLBENZENE		0.025	MG/KG	< 0.025		
TOTAL XYLENES		0.025	MG/KG	< 0.025		
METHYL-t-BUTYL ETHER		0.13	MG/KG	< 0.13		

SURROGATE:

BROMOFLUOROBENZENE (%) 102

SURROGATE LIMITS (80 - 120)

DRY WEIGHT (%) 94

CHEMIST NOTES:

N/A

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: BTEX, MTBE (EPA 8020)	AEN I.D.	: 612311
BLANK I. D.	: 120596	DATE EXTRACTED	: NA
CLIENT	: RHINO ENVIRONMENTAL SERVICES	DATE ANALYZED	: 12/5/96
PROJECT #	: 1196	SAMPLE MATRIX	: NON-AQ
PROJECT NAME	: GOO-YEA		

PARAMETER	UNITS	
BENZENE	MG/KG	<0.025
TOLUENE	MG/KG	<0.025
ETHYLBENZENE	MG/KG	<0.025
TOTAL XYLENES	MG/KG	<0.025
METHYL-t-BUTYL ETHER	MG/KG	<0.13

SURROGATE:

BROMOFLUOROBENZENE (%)	101
------------------------	-----

SURROGATE LIMITS: (80 - 120)

CHEMIST NOTES:

N/A

American Environmental Network, Inc.

GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST	: BTEX, MTBE (EPA 8020)	AEN I.D.	: 612311
MSMSD #	: 612304-03	DATE EXTRACTED	: NA
CLIENT	: RHINO ENVIRONMENTAL SERVICES	DATE ANALYZED	: 12/5/96
PROJECT #	: 1196	SAMPLE MATRIX	: FP
PROJECT NAME	: GOO-YEA	UNITS	: MG/KG

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.025	0.50	0.55	110	0.56	112	2	(80 - 120)	20
TOLUENE	<0.025	0.50	0.55	110	0.55	110	0	(80 - 120)	20
ETHYLBENZENE	<0.025	0.50	0.54	108	0.54	108	0	(80 - 120)	20
TOTAL XYLENES	<0.025	1.50	1.65	110	1.66	111	1	(80 - 120)	20
METHYL-t-BUTYL ETHER	<0.13	1.00	0.96	96	1.02	102	6	(70 - 133)	20

CHEMIST NOTES:
N/A

% Recovery = $\frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$

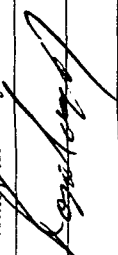

RPD (Relative Percent Difference) = $\frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$

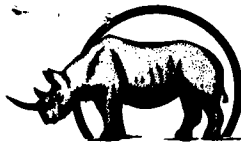


DATE: 12/5 PAGE 1 OF 1

Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001 • Portland (503) 684-0447 • Albuquerque (505) 344-3777

Chain Of Custody/Order Form
Anachem, Inc. 8 Prestige Circle, Suite 104, Allen, Tx 75002 Phone: 214-727-9003 Fax: 214-727-9686

Report To: Daniele Berardelli		Bill To: Rhino		Analysis: 612311	
Company: Rhino Env. Svcs.		Purchase Order #: 600-yea			
Address: PO Box 25547		Address: same			
City, State, Zip: Alb, NM 87125		City, State, Zip:			
Phone: 242-6464 Fax: 247-4941		Phone:			
Project Name: Goodyea 1196		City, State: NM			
Project Location: Hubbs		City, State: NM			
Date Due:		Rush: (0%) 50% 100% Sampled By:			
Anachem Lab#	Client Sample ID	Matrix	Date/Time	Presrv/Temp	Sample Notes
1	Cell 1	Soil	11/30/96/11:30	90c	-01
2					
3					
4					
5					
6					
7					
8					
9					
10					
Relinquished By: 		Received By: 		In the event that Anachem determines that a sample is hazardous, the client agrees to: Pay For Sample Disposal Accept Returned Sample <input checked="" type="checkbox"/>	
				Anachem Submission #:	



RHINO

Environmental Services, Inc.

P.O. BOX 2327 • HOBBS, NM 88241 • PHONE & FAX (505) 392-4498

OIL CONSERVATION DIVISION
RECEIVED

96 APR 24 AM 8 52

Tightness Tests
Removals
New Installations
Repairs
Remedial Services
Contaminated Soils Disposal
Leak Detection

Chris Eustice
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

April 23, 1996

Re: Goo-Yea Landfarm
Quarterly Report

Dear Chris,

This report represents our 1st Quarterly Report for the above referenced facility. We have received soils only in one 5 acre cell to date. On 04/10/96 one soil sample was taken in Cell #1. The soil sample was retrieved 3 feet below the native soil surface and analyzed for BTEX and TPH. A summary of the analytical results are shown in Table No. 1. A copy of the analytical results are

TABLE NO. 1 SUMMARY OF ANALYTICAL RESULTS					
SAMPLE ID	BENZENE (MB/KG)	TOLUENE (MG/KG)	ETHYL- BENZENE (MG/KG)	TOTAL BENZENES (MG/KG)	TOTAL PETROLEUM HYDROCARBONS (MG/KG)
GooYea Cell#1	<0.025	<0.025	<0.025	<0.025	<20

shown in Appendix A. The 2nd Quarterly Report will be submitted to you by July 23, 1996. If you have any questions, please call me at 505-392-4498.

Sincerely,

Royce Cooper, Jr.

cc: Wayne Price/OCD Hobbs

American Environmental Network, Inc.

RECEIVED APR 22 1996

AEN I.D. 604353

April 19, 1996

Rhino Environmental
P.O. Box 2327
Hobbs, NM 88240

Project Name/Number: GOO YEA

Attention: Royce Cooper

On 04/12/96, American Environmental Network (NM), Inc., (ADHS License No. AZ0015) (formerly ATI-NM), received a request to analyze **non-aqueous** sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.



Kimberly D. McNeill
Project Manager



H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure

American Environmental Network, Inc.

CLIENT : RHINO ENVIRONMENTAL DATE RECEIVED : 04/12/96
PROJECT # : (NONE)
PROJECT NAME : GOO YEA REPORT DATE : 04/19/96

AEN ID: 604353

AEN #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	GOO YEA CELL #1	NON-AQ	04/10/96

---TOTALS---

<u>MATRIX</u>	<u>#SAMPLES</u>
NON-AQ	1

AEN STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX, MTBE (EPA 8020)
CLIENT : RHINO ENVIRONMENTAL AEN I.D.: 604353
PROJECT # : (NONE)
PROJECT NAME : GOO YEA

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	GOO YEA CELL #1	NON-AQ	04/10/96	04/17/96	04/17/96	1
PARAMETER			UNITS		01	
BENZENE			MG/KG		<0.025	
TOLUENE			MG/KG		<0.025	
ETHYLBENZENE			MG/KG		<0.025	
TOTAL XYLENES			MG/KG		<0.025	
METHYL-t-BUTYL ETHER			MG/KG		<0.13	

SURROGATE:

BROMOFLUOROBENZENE (%) 91

GAS CHROMATOGRAPHY RESULTS

REAGENT BLANK

TEST	: BTEX, MTBE (EPA 8020)	AEN I.D.	: 604353
BLANK I.D.	: 041796	MATRIX	: NON-AQ
CLIENT	: RHINO ENVIRONMENTAL	DATE EXTRACTED	: 04/17/96
PROJECT #	: (NONE)	DATE ANALYZED	: 04/17/96
PROJECT NAME	: GOO YEA	DILUTION FACTOR	: 1

PARAMETER	UNITS	
BENZENE	MG/KG	<0.025
TOLUENE	MG/KG	<0.025
ETHYLBENZENE	MG/KG	<0.025
TOTAL XYLENES	MG/KG	<0.025
METHYL-t-BUTYL ETHER	MG/KG	<0.13

SURROGATE:

BROMOFLUOROBENZENE (%)	96
------------------------	----

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

TEST : BTEX, MTBE (EPA 8020)
MSMSD # : 60335711 AEN I.D. : 604353
CLIENT : RHINO ENVIRONMENTAL DATE EXTRACTED : 04/17/96
PROJECT # : (NONE) DATE ANALYZED : 04/17/96
PROJECT NAME : GOO YEA SAMPLE MATRIX : NON-AQ
REF. I.D. : 60335711 UNITS : MG/KG

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD
BENZENE	<0.025	1.00	0.82	82	0.85	85	4
TOLUENE	<0.025	1.00	0.82	82	0.85	85	4
ETHYLBENZENE	<0.025	1.00	0.83	83	0.87	87	5
TOTAL XYLENES	<0.025	3.00	2.49	83	2.57	86	3
METHYL-t-BUTYL ETHER	<0.13	2.00	1.65	83	1.73	87	5

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

American Environmental Network, Inc.

GENERAL CHEMISTRY RESULTS

CLIENT	: RHINO ENVIRONMENTAL	AEN I.D.	: 604353
PROJECT #	: (NONE)	DATE RECEIVED	: 04/12/96
PROJECT NAME	: GOO YEA	DATE ANALYZED	: 04/16/96
		SAMPLE MATRIX	: NON-AQ

PARAMETER	UNITS	01
PETROLEUM HYDROCARBONS, IR	MG/KG	<20

American Environmental Network, Inc.

GENERAL CHEMISTRY - REAGENT BLANK

CLIENT	: RHINO ENVIRONMENTAL	AEN I.D.	: 604353
PROJECT #	: (NONE)	SAMPLE MATRIX	: NON-AQ
PROJECT NAME	: GOO YEA	UNITS	: MG/KG

PARAMETER	AEN I.D.	SAMPLE RESULT
PETROLEUM HYDROCARBONS	041696	<20

American Environmental Network, Inc.

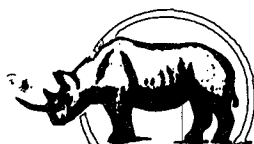
GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : RHINO ENVIRONMENTAL AEN I.D. : 604353
PROJECT # : (NONE) SAMPLE MATRIX : NON-AQ
PROJECT NAME : GOO YEA UNITS : MG/KG

PARAMETER	AEN I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC.	% REC
PETROLEUM HYDROCARBONS	60435301	<20	<20	NA	168	150	112

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



RHINO

Environmental Services, Inc.

300 Broadway NE • Albuquerque, New Mexico 87102
(505) 242-6464 • Fax (505) 247-4941

OIL CONSERVATION DIVISION
RECEIVED

'96 NOV 8 AM 8 52

Chris Eustice
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

November 5, 1996

Re: Goo-Yea Landfarm
Quarterly Monitoring Report

Dear Chris,

This report represents our 2nd Quarterly Report for the above referenced facility. We have only one 5 acre treatment cell. One sample was retrieved from Cell #1 on 10/25/96 3 feet below the native soil surface and analyzed for BTEX and TPH. A summary of the analytical results are shown in Table No. 1. A copy of the

TABLE NO. 1 SUMMARY OF ANALYTICAL RESULTS					
SAMPLE ID	BENZENE (MG/KG)	TOLUENE (MG/KG)	ETHYL- BENZENE (MG/KG)	TOTAL XYLENES (MG/KG)	TOTAL PETROLEUM HYDROCARBONS (MG/KG)
GooYea Cell #1	<0.025	<0.025	<0.025	<0.025	<20

analytical results are attached. We will perform another Quarterly Monitoring Event in December 1996. The report will be submitted to you by the end of January 1997.

If you have any questions, please call me at 505-242-6464.

Sincerely,

Royce Cooper, Jr.

cc: Wayne Price/OCD Hobbs

American Environmental Network, Inc.

AEN I.D. 610386

November 1, 1996

RHINO ENVIRONMENTAL SERVICES
P.O. BOX 25547
ALBUQUERQUE, NM 87125

RECEIVED NOV - 4 1996

Project Name GOO YEA
Project Number (none)

Attention: ROYCE COOPER

On 10/28/96 American Environmental Network (NM), Inc. (ADHS License No. AZ0015), received a request to analyze **non-aq** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.



Kimberly D. McNeill
Project Manager



H. Mitchell Rubenstein, Ph. D.
General Manager

MR: mt

Enclosure

American Environmental Network, Inc.

CLIENT	: RHINO ENVIRONMENTAL SERVICES	AEN I.D.	: 610386
PROJECT #	: (none)	DATE RECEIVED	: 10/28/96
PROJECT NAME	: GOO YEA	REPORT DATE	: 11/1/96
AEN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	GOO YEA CELL #1	SOIL	10/25/96

American Environmental Network, Inc.

GENERAL CHEMISTRY RESULTS

418.1

CLIENT : RHINO ENVIRONMENTAL SERVICES AEN I.D. : 610386
PROJECT # : (none) DATE RECEIVED : 10/28/96
PROJECT NAME : GOO YEA

SAMPLE	DATE	DATE	DATE	DIL.		
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	GOO YEA CELL #1	NON-AQ	10/25/96	10/29/96	10/29/96	1
PARAMETER	DET. LIMIT	UNITS	01			
PETROLEUM HYDROCARBONS, IR	20	MG/KG	< 20			

CHEMIST NOTES:

N/A

American Environmental Network, Inc.

GENERAL CHEMISTRY - REAGENT BLANK

418.1

CLIENT	: RHINO ENVIRONMENTAL SERVICES	AEN I.D.	: 610386
PROJECT #	: (none)	SAMPLE MATRIX	: NON-AQ
PROJECT NAME	: GOO YEA	UNITS	: MG/KG

PARAMETER	AEN I.D.	SAMPLE RESULT
PETROLEUM HYDROCARBONS	102996	<20

CHEMIST NOTES:

N/A

American Environmental Network, Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

418.1

CLIENT	: RHINO ENVIRONMENTAL SERVICES	AEN I.D.	: 610386
PROJECT #	: (none)	SAMPLE MATRIX	: NON-AQ
PROJECT NAME	: GOO YEA	UNITS	: MG/KG

PARAMETER	AEN I.D.	SAMPLE RESULT	DUP. RESULT	% RPD	SPIKED SAMPLE	SPIKE CONC.	% REC
PETROLEUM HYDROCARBONS	610386-01	<20	<20	N/A	144	150	96%

CHEMIST NOTES:

N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
CLIENT : RHINO ENVIRONMENTAL SERVICES AEN I.D.: 610386
PROJECT # : (none)
PROJECT NAME : GOO YEA

SAMPLE		DATE		DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	GOO YEA CELL #1	NON-AQ	10/25/96	10/30/96	10/30/96	1
PARAMETER		DET. LIMIT	UNITS	01		
BENZENE		0.025	MG/KG	< 0.025		
TOLUENE		0.025	MG/KG	< 0.025		
ETHYLBENZENE		0.025	MG/KG	< 0.025		
TOTAL XYLENES		0.025	MG/KG	< 0.025		

SURROGATE:
BROMOFLUOROBENZENE (%) 100
SURROGATE LIMITS (65 - 120)

CHEMIST NOTES:
N/A

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: BTEX (EPA 8020)	AEN I.D.	: 610386
BLANK I. D.	: 103096	DATE EXTRACTED	: 10/30/96
CLIENT	: RHINO ENVIRONMENTAL SERVICES	DATE ANALYZED	: 10/30/96
PROJECT #	: (none)	SAMPLE MATRIX	: NON-AQ
PROJECT NAME	: GOO YEA		

PARAMETER	UNITS	
BENZENE	MG/KG	<0.025
TOLUENE	MG/KG	<0.025
ETHYLBENZENE	MG/KG	<0.025
TOTAL XYLENES	MG/KG	<0.025

SURROGATE:
BROMOFLUOROBENZENE (%) 100
SURROGATE LIMITS: (80 - 120)
CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST	: BTEX (EPA 8020)	AEN I.D.	: 610386
MSMSD #	: 610390-06	DATE EXTRACTED	: 10/30/96
CLIENT	: RHINO ENVIRONMENTAL SERVICES	DATE ANALYZED	: 10/30/96
PROJECT #	: (none)	SAMPLE MATRIX	: NON-AQ
PROJECT NAME	: GOO YEA	UNITS	: MG/KG

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.025	1.00	0.80	80	0.83	83	4	(68 - 120)	20
TOLUENE	<0.025	1.00	0.98	98	1.00	100	2	(64 - 120)	20
ETHYLBENZENE	<0.025	1.00	1.05	105	1.08	108	3	(49 - 127)	20
TOTAL XYLENES	<0.025	3.00	3.19	106	3.29	110	3	(58 - 120)	20

CHEMIST NOTES:
N/A

% Recovery =
$$\frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

RPD (Relative Percent Difference) =
$$\frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Chain Of Custody/Order Form

Anachem, Inc. 8 Prestige Circle, Suite 104, Allen, Tx 75002 Phone: 214-727-9003 Fax: 214-727-9686

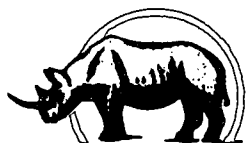
Report To: <u>Roxie Cooper</u>		Bill To: <u>Same</u>		Analysis: <u>610386</u>	
Company: <u>PHIND Environmental</u>		Purchase Order #:			
Address: <u>PO Box 25547</u>		Address:			
City, State, Zip: <u>Albuquerque NM 87121</u>		City, State, Zip:			
Phone: <u>242-6464</u> Fax: <u>247-4754</u>		Phone:			
Project Name: <u>Good Joe</u>		City, State: <u>N.M.</u>			
Project Location: <u>Lee County</u>		Sampled By: <u>Roxie Cooper</u>			
Date Due: <u>March</u>		Rush: 0% 50% 100%			

Anachem Lab#	Client Sample ID	Matrix	Date/Time	Presrv/Temp	Sample Notes
1	600 YEA Cell #1	Sole	Water 11/15		
2					
3					
4					
5					
6					
7					
8					
9					
10					

Relinquished By	Received By	Date	Time	Delivery	Analyst
<u>[Signature]</u>	<u>John Caldwell</u>	<u>10/28/86</u>	<u>13:20</u>	<u>Hand</u>	

In the event that Anachem determines that a sample is hazardous, the client agrees to:
 Pay For Sample Disposal _____
 Accept Returned Sample X

Anachem Submission #:



RHINO

Environmental Services, Inc.

300 Broadway NE • Albuquerque, New Mexico 87102
(505) 242-6464 • Fax (505) 247-4941

OIL CONSERVATION DIVISION
RECEIVED

JAN 10 1996 5 52

January 9, 1996

**Mr. Chris Eustice
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505**

**RE: Goo-Yea Landfarm
Quarterly Monitoring Report**

Dear Mr. Eustice:

In accordance with the conditions set forth in the treatment zone monitoring and reporting requirements of the permit, enclosed please find the second quarterly report for Rhino's Goo-Yea Facility, located in Lea County, New Mexico. At this time, Rhino has only one active 5 acre treatment cell.

A sample was retrieved from Cell #1 at two to three feet below the native soil surface. The sample was analyzed for BTEX, TPH, general chemistry and total metals. A summary of the analytical results are shown in Table No. 1. A copy of the analytical results are attached.

If you have any questions, please call me at 505-242-6464.

Sincerely,

Joseph Menicucci
Rhino Environmental Services, Inc.

TABLE NO.1 - SUMMARY OF ANALYTICAL RESULTS

SAMPLE RESULT	MG/KG (ppm)
TPH/BTEX	
TPH	<20
Benzene	<0.025
Toluene	<0.025
Ethyl benzene	<0.025
Xylenes	<0.025
Total Metals	
Silver	ND
Arsenic	ND
Barium	210
Cadmium	ND
Chromium	5
Mercury	ND
Lead	5
Selenium	ND
General Chemistry	
Fluoride	ND
Nitrite-Nitrate, Nitrogen	2
Sulfate	2100
Total Solids	97%
Chloride	270
Alkalinity, Total	25000
pH	7.7
Bicarbonate, CaCO_3	25000
Carbonate, CaCO_3	120
Carbon Dioxide, Free as CaCO_3	990
Aluminum	4500
Calcium	8300
Copper	4
Iron	6400
Potassium	1200
Magnesium	1300
Manganese	74
Sodium	43
Zinc	14

American Environmental Network, Inc.

AEN I.D. 612311

January 3, 1996

RHINO ENVIRONMENTAL SERVICES
P.O. BOX 25547
ALBUQUERQUE

Project Name GOO-YEA
Project Number 1196

Attention: DANIELE BERARDELLI

On 12/5/96 American Environmental Network (NM), Inc. (ADHS License No. AZ0015), received a request to analyze **non-aq** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

EPA methods 8020 and 418.1 were performed by American Environmental Network (NM) Inc., Albuquerque, NM.

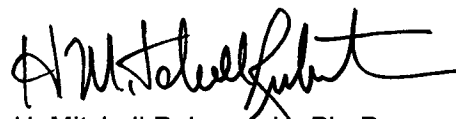
All other analyses were performed by American Environmental Network (FL), Inc., 11 East Olive Rd, Pensacola, FL.

This report is being reissued in part to include 8 RCRA metals. We apologize for any inconvenience this delay may have occurred.

If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.



Kimberly D. McNeill
Project Manager



H. Mitchell Rubenstein, Ph. D.
General Manager

MR: mt

Enclosure

American Environmental Network, Inc.

CLIENT	: RHINO ENVIRONMENTAL SERVICES	AEN I.D.	: 612311
PROJECT #	: 1196	DATE RECEIVED	: 12/5/96
PROJECT NAME	: GOO-YEA	REPORT DATE	: 12/20/96
AEN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	CELL 1	SOIL	11/30/96

American Environmental Network, Inc.

"FINAL REPORT FORMAT - SINGLE"

Accession: 612625
Client: AMERICAN ENVIRONMENTAL NETWORK OF NEW MEXICO
Project Number: 612311
Project Name: RHINO
Project Location: 600 YEA 1196
Test: RCRA METALS
Matrix: SOIL
QC Level: II

Lab Id: 001
Client Sample Id: 612311-01
Sample Date/Time: 30-NOV-96 0900
Received Date: 17-DEC-96

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
SILVER (6010)	MG/KG	ND	1		A6S151	JR
ARSENIC (6010)	MG/KG	ND	5		R6S151	JR
BARIUM (6010)	MG/KG	210	1		B6S151	JR
CADMIUM (6010)	MG/KG	ND	0.5		C6S151	JR
CHROMIUM (6010)	MG/KG	5	1		H6S151	JR
MERCURY (7471)	MG/KG	ND	0.02		M4S069	JR
LEAD (6010)	MG/KG	5	5		P6S151	JR
SELENIUM (6010)	MG/KG	ND	10		S6S151	JR

Comments:

American Environmental Network, Inc.

"Method Report Summary"

Accession Number: 612625
Client: AMERICAN ENVIRONMENTAL NETWORK OF NEW MEXICO
Project Number: 612311
Project Name: RHINO
Project Location: 600 YEA 1196
Test: RCRA METALS

Client Sample Id:	Parameter:	Unit:	Result:
612311-01	BARIUM (6010)	MG/KG	210
	CHROMIUM (6010)	MG/KG	5
	LEAD (6010)	MG/KG	5

American Environmental Network, Inc.

"Metals Quality Control Report"

Parameter:	SILVER	ARSENIC	BARIUM	CADMIUM	CHROMIUM	MERCURY
Batch Id:	A6S151	R6S151	B6S151	C6S151	H6S151	M4S069
Blank Result:	<1	<5	<1	<0.5	<1	<0.02
Anal. Method:	6010	6010	6010	6010	6010	7471
Prep. Method:	3050	3050	3050	3050	3050	7471
Analysis Date:	11-DEC-96	11-DEC-96	11-DEC-96	11-DEC-96	11-DEC-96	31-DEC-96
Prep. Date:	10-DEC-96	10-DEC-96	10-DEC-96	10-DEC-96	10-DEC-96	31-DEC-96

Sample Duplication

Sample Dup:	612169-1	612169-1	612169-1	612169-1	612169-1	612625-1
Rept Limit:	<1	<5	<1	<0.5	<1	<0.02
Sample Result:	170	180	180	170	170	0.42
Dup Result:	170	180	180	170	170	0.45
Sample RPD:	0	0	0	0	0	7
Max RPD:	20	20	20	20	20	20
Dry Weight%	N/A	N/A	N/A	N/A	N/A	N/A

Matrix Spike

Sample Spiked:	612169-1	612169-1	612169-1	612169-1	612169-1	612625-1
Rept Limit:	<1	<5	<1	<0.5	<1	<0.02
Sample Result:	<1	<5	5	<0.5	6	<0.02
Spiked Result:	170	180	180	170	170	0.42
Spike Added:	200	200	200	200	200	0.42
% Recovery:	85	90	88	85	82	100
% Rec Limits:	75-125	75-125	75-125	75-125	75-125	75-125
Dry Weight%	N/A	N/A	N/A	N/A	N/A	N/A

ICV

ICV Result:	5.0	4.9	5.0	4.9	5.1	0.0044
True Result:	5.0	5.0	5.0	5.0	5.0	0.0040
% Recovery:	100	98	100	98	102	110
% Rec Limits:	90-110	90-110	90-110	90-110	90-110	80-120

LCS

LCS Result:	76	59	260	74	77	2.30
True Result:	69.6	62.7	260	77.4	76.9	2.51
% Recovery:	109	94	100	96	100	92
% Rec Limits:	74-126	70-130	73-127	66-133	77-123	64-135

American Environmental Network, Inc.

"Metals Quality Control Report"

Parameter:	LEAD	SELENIUM
Batch Id:	P6S151	S6S151
Blank Result:	<5	<10
Anal. Method:	6010	6010
Prep. Method:	3050	3050
Analysis Date:	11-DEC-96	11-DEC-96
Prep. Date:	10-DEC-96	10-DEC-96

Sample Duplication

Sample Dup:	612169-1	612169-1
Rept Limit:	<5	<10
Sample Result:	170	180
Dup Result:	170	180
Sample RPD:	0	0
Max RPD:	20	20
Dry Weight%	N/A	N/A

Matrix Spike

Sample Spiked:	612169-1	612169-1
Rept Limit:	<5	<10
Sample Result:	<5	<10
Spiked Result:	170	180
Spike Added:	200	200
% Recovery:	85	90
% Rec Limits:	75-125	75-125
Dry Weight%	N/A	N/A

ICV

ICV Result:	5.0	5.0
True Result:	5.0	5.0
% Recovery:	100	100
% Rec Limits:	90-110	90-110

LCS

LCS Result:	110	100
True Result:	122	91.7
% Recovery:	90	109
% Rec Limits:	68-131	71-129

American Environmental Network, Inc.

"Quality Control Comments"

Batch Id: Comments:

A6S151	ANALYST: JR
A6S151	The results reported under "Sample Duplication" are the MS/MSD.
R6S151	ANALYST: JR
R6S151	The results reported under "Sample Duplication" are the MS/MSD.
B6S151	ANALYST: JR
B6S151	The results reported under "Sample Duplication" are the MS/MSD.
C6S151	ANALYST: JR
C6S151	The results reported under "Sample Duplication" are the MS/MSD.
H6S151	ANALYST: JR
H6S151	The results reported under "Sample Duplication" are the MS/MSD.
M4S069	ANALYST: GJ
M4S069	The results reported under "Sample Duplication" are the MS/MSD.
P6S151	ANALYST: JR
P6S151	The results reported under "Sample Duplication" are the MS/MSD.
S6S151	ANALYST: JR
S6S151	The results reported under "Sample Duplication" are the MS/MSD.

American Environmental Network, Inc.

----- Common Footnotes Metals -----

N/A = NOT APPLICABLE.
N/S = NOT SUBMITTED.
N/C = SAMPLE AND DUPLICATE RESULTS ARE AT OR BELOW ATI REPORTING LIMIT;
THEREFORE, THE RPD IS "NOT CALCULABLE" AND NO CONTROL LIMITS APPLY.
N/D = NOT DETECTED.
DISS. OR D = DISSOLVED
T & D = TOTAL AND DISSOLVED
R = REACTIVE
T = TOTAL
G = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND
THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE RESULT IS AT
OR BELOW ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "IN CONTROL".
Q = THE ANALYTICAL (POST-DIGESTION) SPIKE IS REPORTED DUE TO PERCENT RECOVERY
BEING OUTSIDE ACCEPTANCE LIMITS ON THE MATRIX (PRE-DIGESTION) SPIKE.
= ELEVATED REPORTING LIMIT DUE TO INSUFFICIENT SAMPLE.
+ = ELEVATED REPORTING LIMIT DUE TO DILUTION INTO CALIBRATION RANGE.
* = ELEVATED REPORTING LIMIT DUE TO MATRIX INTERFERENCE. (DILUTION PRIOR
TO ANALYSIS)
@ = ADJUSTED REPORTING LIMIT DUE TO SAMPLE MATRIX. (DILUTION PRIOR TO
DIGESTION)
P = ANALYTICAL (POST DIGESTION) SPIKE.
I = DUPLICATE INJECTION.
& = AUTOMATED
F = SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
N/C+ = NOT CALCULABLE
N/C* = NOT CALCULABLE; SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
H = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND THE
ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE ATI REPORTING
LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL".
A = SAMPLE AND DUPLICATE RESULTS ARE "OUT OF CONTROL".
Z = THE SAMPLE RESULT FOR THE SPIKE IS BELOW THE REPORTING LIMIT. HOWEVER,
THIS RESULT IS REPORTED FOR ACCURATE QC CALCULATIONS.
NH= SAMPLE AND / OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT
AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE ATI
REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL".
SAMPLE IS NON-HOMOGENEOUS.
J = (FLORIDA DEP 'J' FLAG) - MATRIX SPIKE AND POST SPIKE RECOVERY IS OUT OF
THE ACCEPTABLE RANGE. SEE OUT OF CONTROL EVENTS FORM.
U = (FLORIDA DEP 'U' FLAG) - THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED.
S = METHOD OF STANDARD ADDITIONS (MSA) WAS PERFORMED ON THIS SAMPLE.

FROM ANALYSIS REPORT:

RL= REPORTING LIMIT BASED ON METHOD DETECTION LIMIT STUDIES.

Q= QUALIFIER (FOOTNOTE)

FROM QUALITY CONTROL REPORT:

RPD= RELATIVE PERCENT DEVIATION.

RPT LIMIT= REPORTING LIMIT BASED ON METHOD DETECTION LIMIT STUDIES.

NOTE: THE UNITS REPORTED ON THE QUALITY CONTROL REPORT ARE REPORTED ON AN AS
RUN BASIS.

SW-846, 3rd Edition, latest revision.

EPA 600/4-79-020, Revised March 1983.

NIOSH Manual of Analytical Methods, 4th Edition.

Standard Methods For the Examination of Water and Wastewater, 18th Edition, 1992.

Methods For the Determination of Metals in Environmental Samples - Supplement I,

EPA 600/R-94-111, May 1994.

GJ = GARY JACOBS

JLH = JAMES L. HERED

CD = CHRISTY DRAPER

JR = JOHN REED

LV = LASSANDRA VON APPEN



Interlab Chain of Custody

[illegible]

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:		RELINQUISHED BY:	
PROJECT NUMBER:	Ph. 10	TOTAL NUMBER OF CONTAINERS		SAN DIEGO	Signature:	1.	RELINQUISHED BY:
PROJECT NAME:	612311	CHAIN OF CUSTODY SEALS		Paragon	Time:		12/6/96
QC LEVEL:	STD IV	INTACT?		RENTON	Printed Name:		Signature: [Signature]
QC REQUIRED:	MS MSD BLANK	RECEIVED GOOD COND./COLD		PENSACOLA	Date:		Date: 12/6/96
TAT:	STANDARD RUSH!	LAB NUMBER		PORTLAND	Company:		Company: [Signature]
				PHOENIX			
					Signature:	1.	RECEIVED BY: (LAB)
					Time:		Time: 0939
					Printed Name:		Printed Name: R. ELSPASS
					Date:		Date: 12/6/96
					Company:		Company: AFEN-PN
DUE DATE: 12/17							
RUSH SURCHARGE:							
CLIENT DISCOUNT:							
SPECIAL CERTIFICATION REQUIRED:							

Page 1 of 1.

Fax: 214-727-9888

1918 REV 10/94

Sample information is vital for proper login and reporting. After 65 days, a 3.5% late fee will be assessed for all unpaid submissions.



P.O. BOX 2327 • HOBBS, NM 88241 • PHONE & FAX (505) 392-4498

OIL CONSERVATION DIVISION
RECEIVED

05 AUG 4 AM 8 52

Tightness Tests
Removals
New Installations
Repairs
Remedial Services
Contaminated Soils Disposal
Leak Detection

Chris Eustice
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

August 1, 1995

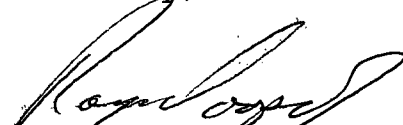
Re: Goo-Yea Landfarm
Background Sampling

Dear Chris,

Enclosed please find copies of the analytical report for background sampling at the above referenced facility. This should complete all pre-operational requirements for this facility.

If you have any questions, please call me at 505-392-4498.

Sincerely,



Royce Cooper, Jr.

cc: Wayne Price/OCD Hobbs



Analytical **Technologies**, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. 506441

July 21, 1995

Rhino Environmental
P.O. Box 2327
Hobbs, NM 88240

Project Name/Number: GOO-YEA

Attention: Royce Cooper

On 06/30/95, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **non-aqueous** sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

EPA method 418.1 analyses were performed by Analytical Technologies, Inc., Albuquerque, NM.

All other analyses were performed by Analytical Technologies, Inc., 5550 Morehouse Drive, San Diego, CA.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure



Analytical Technologies, Inc.

CLIENT : RHINO ENVIRONMENTAL

DATE RECEIVED : 06/30/95

PROJECT # : (NONE)

PROJECT NAME : GOO-YEA

REPORT DATE : 07/21/95

ATI ID: 506441

	ATI SAN DIEGO ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	506441-01	BACKGROUND	NON-AQ	06/28/95

---TOTALS---

MATRIX
NON-AQ

#SAMPLES
1

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

CLIENT	: RHINO ENVIRONMENTAL	ATI I.D.	: 506441
PROJECT #	: (NONE)	DATE RECEIVED	: 06/30/95
PROJECT NAME	: GOO-YEA	DATE ANALYZED	: 06/30/95

PARAMETER	UNITS	01
PETROLEUM HYDROCARBONS, IR	MG/KG	<20



Analytical Technologies, Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : RHINO ENVIRONMENTAL ATI I.D. : 506441
PROJECT # : (NONE) SAMPLE MATRIX : NON-AQ
PROJECT NAME : GOO-YEA UNITS : MG/KG

PARAMETER	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC.	% REC
PETROLEUM HYDROCARBONS	50644001	<20	<20	NA	170	150	113

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



Analytical Technologies, Inc.

ANALYTICAL SCHEDULE

Client : ANALYTICAL TECHNOLOGIES, INC.

Project # : 506441

ATI I.D.: 507017

Project Name: RHINO ENV./GOO-YEA

Analysis	Technique/Description
AMERICAN SOCIETY OF AGRONOMY 91-4 (CARBONATE IN SO	TITRATION
EPA 320.1 (BROMIDE)	TITRATION
EPA 340.2 (FLUORIDE)	ELECTRODE
EPA 6010 (ALUMINUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (ANTIMONY)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (BARIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (BERYLLIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (BORON)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (CALCIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (CHROMIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (COBALT)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (COPPER)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (IRON)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (LEAD)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (MAGNESIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (MANGANESE)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (MOLYBDENUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (NICKEL)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (POTASSIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (SILICON)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (SILVER)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (SODIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (VANADIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (ZINC)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (ARSENIC)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (CADMIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (SELENIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 6010 (THALLIUM)	INDUCTIVELY COUPLED ARGON PLASMA
EPA 9038 (SULFATE)	TURBIDIMETRIC
EPA 9045 (pH SOIL)	ELECTRODE
EPA 9253 (CHLORIDE)	TITRIMETRIC, SILVER NITRATE
MOD EPA 9050 (ELECTRICAL CONDUCTIVITY)	ELECTRODE



Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

Client : ANALYTICAL TECHNOLOGIES, INC.
Project # : 506441
Project Name: RHINO ENV./GOO-YEA

ATI I.D.: 507017

Sample #	Client ID	Matrix	Date Sampled	Date Received
1	506441-01	SOIL	28-JUN-95	06-JUL-95

Parameter	Units	1
BROMIDE	MG/KG	<2.0
CHLORIDE	MG/KG	<5
CARBONATE	%	0.072
ELECTRICAL CONDUCTIVITY	UMHOS/CM	<20
FLUORIDE	MG/KG	<5
pH	UNITS	6.6
SULFATE	MG/KG	<100



Analytical Technologies, Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

DUP/MS

Client : ANALYTICAL TECHNOLOGIES, INC.
Project # : 506441
Project Name: RHINO ENV./GOO-YEA

ATI I.D. : 507017

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
BROMIDE	507017-01	MG/KG	<2.0	<2.0	0	99.4	99.5	100
CARBONATE	507017-01	%	0.072	0.078	8	N/A	N/A	N/A
CHLORIDE	507017-01	MG/KG	<5	<5	0	41.0	40.0	103
ELECTRICAL CONDUCTIVITY	507017-01	UMHOS/CM	<20	<20	0	N/A	N/A	N/A
FLUORIDE	507017-01	MG/KG	<5	<5	0	37	49	76
SULFATE	507017-01	MG/KG	<100	<100	0	202	201	100
pH	507017-01	UNITS	6.6	6.5	2	N/A	N/A	N/A

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration

RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result



Analytical Technologies, Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

BLANK SPIKE

Client : ANALYTICAL TECHNOLOGIES, INC.

Project # : 506441

ATI I.D. : 507017

Project Name: RHINO ENV./GOO-YEA

Parameters	Blank Spike ID#	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
BROMIDE	57564	MG/KG	<2.0	99.0	99	100
CHLORIDE	57662	MG/KG	<5	40.0	40.0	100
FLUORIDE	57666	MG/KG	<5	49	50	98
SULFATE	57606	MG/KG	<100	192	196	98

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration

RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result



Analytical Technologies, Inc.

METALS RESULTS

Client : ANALYTICAL TECHNOLOGIES, INC.

Project # : 506441

ATI I.D.: 507017

Project Name: RHINO ENV./GOO-YEA

Sample Client ID #	Matrix	Date Sampled	Date Received
1 506441-01	SOIL	28-JUN-95	06-JUL-95

Parameter	Units	1
SILVER	MG/KG	<1.0
ALUMINUM	MG/KG	1910
ARSENIC	MG/KG	<1.0
BORON	MG/KG	<5.0
BARIUM	MG/KG	12.9
BERYLLIUM	MG/KG	<0.5
CALCIUM	MG/KG	315
CADMIUM	MG/KG	<0.5
COBALT	MG/KG	<1.0
CHROMIUM	MG/KG	2.8
COPPER	MG/KG	<1.0
IRON	MG/KG	2220
POTASSIUM	MG/KG	432
MAGNESIUM	MG/KG	362
MANGANESE	MG/KG	21.0
MOLYBDENUM	MG/KG	<1.0
SODIUM	MG/KG	14.8
NICKEL	MG/KG	1.5
LEAD	MG/KG	2.2
ANTIMONY	MG/KG	<3.0
SELENIUM	MG/KG	<1.0
SILICON	MG/KG	119
THALLIUM	MG/KG	<1.0
VANADIUM	MG/KG	5.0
ZINC	MG/KG	5.9



Analytical Technologies, Inc.

METALS - QUALITY CONTROL

DUP/MS

Client : ANALYTICAL TECHNOLOGIES, INC.

Project # : 506441

ATI I.D. : 507017

Project Name: RHINO ENV./GOO-YEA

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
ALUMINUM	506385-01	MG/KG	7240	7340	1	8910	250	N/A*V
ANTIMONY	506385-01	MG/KG	<3.0	<3.0	0	46.6	50.0	93
ARSENIC	506385-10	MG/KG	3.2	3.1	3	52.1	49.9	98
BARIUM	506385-01	MG/KG	84.4	86.3	2	182	99.9	98
BERYLLIUM	506385-01	MG/KG	<0.5	<0.5	0	45.2	49.9	91
BORON	506385-01	MG/KG	<5.0	<5.0	0	215	250	86
CADMIUM	506385-10	MG/KG	<0.5	<0.5	0	47.3	49.9	95
CALCIUM	506385-01	MG/KG	1630	1580	3	2230	499	120
CHROMIUM	506385-01	MG/KG	14.5	14.6	1	60.2	49.9	92
COBALT	506385-01	MG/KG	5.0	5.0	0	96.8	99.9	92
COPPER	506385-01	MG/KG	10.1	10.2	1	56.3	49.9	93
IRON	506385-01	MG/KG	12100	12100	0	11800	99.9	N/A*V
LEAD	506385-10	MG/KG	16.8	24.9@C	39	64.2	50.0	95
MAGNESIUM	506385-01	MG/KG	3520	3530	0	3800	250	112
MANGANESE	506385-01	MG/KG	182	171	6	262	99.9	80
MOLYBDENUM	506385-01	MG/KG	<1.0	<1.0	0	88.2	99.9	88
NICKEL	506385-01	MG/KG	4.4	3.8	15	47.8	49.9	87
POTASSIUM	506385-01	MG/KG	3340	3330	0	3570	250	92
SELENIUM	506385-10	MG/KG	1.5	1.4	7	28.9	30.0	91
SILICON	506385-01	MG/KG	92	85	8	142	50	100*V
SILVER	506385-01	MG/KG	<1.0	<1.0	0	42.9	49.9	86
SODIUM	506385-10	MG/KG	317	322	2	971	625	105
THALLIUM	506385-10	MG/KG	<1.0	<1.0	0	58.8	49.9	118
VANADIUM	506385-01	MG/KG	35.7	36.0	1	127	99.9	91
ZINC	506385-10	MG/KG	46.5	45.0	3	88.0	50.0	83

% Recovery = (Spike Sample Result - Sample Result)*100/Spike Concentration

RPD (Relative % Difference) = (Sample Result - Duplicate Result)*100/Average Result

@C MATRIX HETEROGENEITY CONFIRMED BY SECOND ANALYSIS

METALS - QUALITY CONTROL



Analytical Technologies, Inc.

BLANK SPIKE

Client : ANALYTICAL TECHNOLOGIES, INC.

Project # : 506441

ATI I.D. : 507017

Project Name: RHINO ENV./GOO-YEA

Parameters	Blank Spike ID#	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
ALUMINUM	57608	MG/KG	<20	229	250	92
ANTIMONY	57608	MG/KG	<3.0	45.1	50.0	90
ARSENIC	57640	MG/KG	<1.0	48.7	50.0	97
BARIUM	57608	MG/KG	<0.5	96.3	100	96
BERYLLIUM	57608	MG/KG	<0.5	44.9	50.0	90
BORON	57608	MG/KG	<5.0	238	250	95
CADMIUM	57640	MG/KG	<0.5	48.0	50.0	96
CALCIUM	57608	MG/KG	<2.5	480	500	96
CHROMIUM	57608	MG/KG	<0.5	47.6	50.0	95
COBALT	57608	MG/KG	<1.0	95.3	100	95
COPPER	57608	MG/KG	<1.0	46.1	50.0	92
IRON	57608	MG/KG	<0.5	92.5	100	93
LEAD	57608	MG/KG	<1.5	47.8	50.0	96
MAGNESIUM	57608	MG/KG	<0.5	241	250	96
MANGANESE	57608	MG/KG	<0.5	95.3	100	95
MOLYBDENUM	57608	MG/KG	<1.0	92.0	100	92
NICKEL	57608	MG/KG	<1.0	45.7	50.0	91
POTASSIUM	57608	MG/KG	<5.0	235	250	94
SELENIUM	57640	MG/KG	<1.0	28.2	30.0	94
SILICON	57608	MG/KG	<40	266	250	106
SILVER	57608	MG/KG	<1.0	44.1	50.0	88
SODIUM	57637	MG/KG	<5.0	600	625	96
THALLIUM	57640	MG/KG	<1.0	59.4	50.0	119
VANADIUM	57608	MG/KG	<0.5	94.7	100	95
ZINC	57608	MG/KG	<2.0	45.2	50.0	90

$$\% \text{ Recovery} = (\text{Spike Sample Result} - \text{Sample Result}) * 100 / \text{Spike Concentration}$$

$$\text{RPD (Relative \% Difference)} = (\text{Sample Result} - \text{Duplicate Result}) * 100 / \text{Average Result}$$



DATE LISTING FOR INORGANICS FOR PROJECT ID ANATEC01
FOR ACCESSIONS RECEIVED WITHIN THE LAST 90 DAYS
Analytical Technologies, Inc. ACCESSION # 507017

Project Id: ANATEC01
Proj Num : 506441

Proj Name : RHINO ENV./GOO-YEA
Accession : 507017

Test: AMERICAN SOCIETY OF AGRONOMY 91-4 (CARBONATE IN SOIL)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	14-JUL-95	N/A

Test: EPA 320.1 (BROMIDE)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	11-JUL-95	N/A

Test: EPA 340.2 (FLUORIDE)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	14-JUL-95	N/A

Test: EPA 9038 (SULFATE)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 9045 (pH SOIL)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	10-JUL-95	N/A

Test: EPA 9253 (CHLORIDE)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	14-JUL-95	N/A

Test: MOD EPA 9050 (ELECTRICAL CONDUCTIVITY)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	07-JUL-95	N/A

Test: EPA 6010 (ALUMINUM)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (ANTIMONY)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
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DATE LISTING FOR INORGANICS FOR PROJECT ID ANATEC01
FOR ACCESSIONS RECEIVED WITHIN THE LAST 90 DAYS
ACCESSION # 507017

Project Id: ANATEC01
Proj Num : 506441

Proj Name : RHINO ENV./GOO-YEA
Accession : 507017

Test: EPA 6010 (ANTIMONY)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (BARIUM)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (BERYLLIUM)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (BORON)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (CALCIUM)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (CHROMIUM)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (COBALT)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (COPPER)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (IRON)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A



DATE LISTING FOR INORGANICS FOR PROJECT ID ANATEC01
Analytical Technologies, Inc. FOR ACCESSIONS RECEIVED WITHIN THE LAST 90 DAYS
ACCESSION # 507017

Project Id: ANATEC01
Proj Num : 506441

Proj Name : RHINO ENV./GOO-YEA
Accession : 507017

Test: EPA 6010 (LEAD)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (MAGNESIUM)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (MANGANESE)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (MOLYBDENUM)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (NICKEL)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (POTASSIUM)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (SILICON)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (SILVER)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	12-JUL-95	N/A

Test: EPA 6010 (SODIUM)

ATI #	Matrix	Client ID	Sampled	Received	Analyzed	Prep Date
1	SOIL	506441-01	28-JUN-95	06-JUL-95	13-JUL-95	N/A



DATE _____ PAGE _____ OF _____

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