1R - 43

REPORTS

DATE:
1995

Bill Olson

From: Bill Olson
To: Jerry Sexton
Cc: Wayne Price
Subject: Baker Oil Tools Site Investigation
Date: Wed, Mar 8, 1995 3:51PM
Priority: High

Attached is a letter providing a review of Baker's Investigation report. Please provide me with any written comments by 4:00 pm on 3/10/95. Thanks.

<<File Attachment: REMEDY1.REQ>>

Bill Olson

From: Jerry Sexton
Date sent: Wed, Mar 8, 1995 3:57PM
To: Bill Olson
Subject: Registered: Jerry Sexton

Your message
To: Jerry Sexton
Subject: Baker Oil Tools Site Investigation
Date: Wed, Mar 8, 1995 3:51PM
was accessed on
Date: Wed, Mar 8, 1995 3:57PM

Bill Olson

From: POSTOFFICE
To: Bill Olson
Subject: Registered: Wayne Price
Date: Thu, Mar 9, 1995 5:52PM

[013] ***** CONFIRMATION OF REGISTERED MAIL *****
Your message:

TO: Wayne Price DATE: 03-08-95
SUBJECT: Baker Oil Tools Site Investigation TIME: 15:56

Was accessed on 03-09-95 17:52

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

MEMORANDUM

TO: James Bearzi, NMED Underground Storage Tank Bureau Chief
Marcy Leavitt, NMED Ground Water Protection and Remediation Bureau Chief

FROM: Roger C. Anderson, NMOCD Environmental Bureau Chief

DATE: March 8, 1995

RE: **KEELING PETROLEUM**
HOBBS, NEW MEXICO

Enclosed you will find a copy of an investigation report for the Baker Oil Tools site in Hobbs, New Mexico. The results of the investigation have shown that an upgradient monitor well on Baker's property has high levels of benzene and also contains MTBE. Keeling Petroleum's site on the Carlsbad Highway U.S. 62-180 in Hobbs is directly upgradient of Baker's site and appears to be the source of these contaminants.

The OCD is working with Baker to address contaminants related to their disposal practices (ie. napthalenes in ground water and TPH in soils). However, since the benzene, toluene, ethlybenzene, xylene and MTBE contamination appear to be from the Keeling Petroleum site which is not regulated by the NMOCD, the OCD refers the investigation and remediation of these contaminants to the NMED.

If you have any questions, please contact Bill Olson of my staff at (505) 827-7154.

BAKER OIL TOOLS
A Baker Hughes company

9100 Emmott Road
P.O. Box 40129
Houston, Texas 77240-0129
Tel: 713/466-1322

13 January, 1995

Mr. William C. Olson
State of New Mexico - Energy, Minerals and Natural Resources Department
Oil Conservation Division
P.O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87504

Dear Mr. Olson:

In response to your request dated October 6, 1994 for additional information at the Baker Oil Tools, Inc. (Baker), 2800 West Marland, Hobbs, New Mexico facility, Baker is submitting the following information provided to Baker by Rhino Environmental Services, Inc. (Rhino). I believe the report addresses all information requested in items 1-3 of your October 6, 1994 letter. Should you have any questions about the report or require additional information, please do not hesitate in contacting me at (713)466-2520.

Sincerely
For Baker Oil Tools, Inc.

Thomas V. Stenbeck
Manager of Health, Safety and Environmental - North America

Site Assessment Report
Baker Oil Tools
2800 W. Marland
Hobbs, NM

RECEIVED
JAN 18 1995
OIL CONSERVATION DIV.
SANTA FE

HISTORY

On October 6, 1994, Rhino Environmental Services installed a 2" monitor well (R-1) down gradient of the former wastewater disposal pit at the Baker Oil Tools Site located at 2800 W. Marland in Hobbs, NM. Figure No. 1 is a Site Map. The monitor well was requested by the Oil Conservation Division (OCD) to determine if the pit had contaminated groundwater. This work was in addition to a site investigation performed by Simon Hydro-Search in late 1991 and early 1992. Rhino's scope of work consisted of installing and sampling monitor well R-1, sampling the three monitor wells installed by Simon and sampling the existing water well. Rhino also sampled the drums of water and soils on-site that were generated during the Simon investigation. The results of this investigation are presented below.

MONITOR WELL R-1 INSTALLATION

Rhino contracted Techna Environmental Drilling to install monitor well R-1. The location of R-1 is shown in Figure No. 1. Techna used a CME-75 hollow stem auger rig to install the well. Soil samples were taken every 5 feet. The samples were retrieved with a split spoon sampler. The soil samples were split. One sample was sent to ATI Laboratory and one sample was tested in the field by the Vapor Headspace Method using a MINI-RAE photoionization detector. The samples were analyzed by the lab for Total Petroleum Hydrocarbon (TPH) by EPA Method 418.1 and for BTEX/MTBE by EPA Method 8020. The TPH results are summarized in Table No. 1. All the BTEX/MTBE results were non-detect except for sample R1-30

TABLE NO. 1 SUMMARY OF SOIL TESTING				
SAMPLE ID	DEPTH (FT)	TPH (PPM)	TOTAL XYLENES (PPM)	HEADSPACE (PPM)
R1-5'	5	<20	non-detect	non-detect
R1-10'	10	55	non-detect	non-detect
R1-15'	15	<20	non-detect	non-detect
R1-20'	20	<20	non-detect	non-detect
R1-25'	no sample due to rock			
R1-30'	30	1400	0.066	245
R1-35'	35	49	non-detect	18

which had a Total Xylenes of 0.066 ppm. Copies of the analytical reports are shown in Appendix A. R-1 was complete as a 2" monitor well using 2" flush thread casing. The depth to water was 32.36 feet. The well was screened from a depth of 25 feet to 40 feet. A monitor well completion diagram is shown in Figure No. 2.

GROUNDWATER SAMPLING

On November 17, 1994, Rhino surveyed, gauged and sampled R-1, MW-1, MW-2, MW-3 and WW-1. The local OCD office was notified prior to the sampling event. However, due to a scheduling conflict, Rhino was told to proceed even though they would not be able to be on site during the sampling. The groundwater elevations are summarized in Table No.2. Each well was purged of three well

TABLE NO. 2 SUMMARY OF GROUNDWATER ELEVATION DATA (all data in feet)				
WELL NO.	TOP OF CASING	DEPTH TO WATER	DEPTH TO PRODUCT	GROUNDWATER ELEVATION
R1	100.03	32.36	ND	67.67
MW-1	100.19	32.40	ND	67.79
MW-2	99.56	32.02	ND	67.54
MW-3	99.15	31.66	ND	67.49
WW-1	99.52	31.76	ND	67.76

casing volumes prior to sampling. Samples were retrieve using "VOSS" disposable bailers. The samples were placed in laboratory supplied containers, packaged and shipped via UPS to ATI Laboratory in Albuquerque, NM. The wells were analyzed as per the following:

ANALYSIS	R-1	MW-1	MW-2	MW-3	WW-1
BTEX/MTBE	X	X	X	X	X
Chlorinated Volatiles (8010)	X				
Major Cations	X				
Major Anions	X				
Semivolatile Organics (8270)	X				
Polynuclear Aromatics (8310)		X	X	X	X
Ion Balance	X				
Total Dissolved Solids	X				
RCRA Metals	X				

The positive results from the analyses are shown in Table No. 3.

TABLE NO. 3
SUMMARY OF ANALYTICAL RESULTS

ANALYTE/ PARAMETER	R-1	MW-1	MW-2	MW-3	WW-1
Benzene: ug/l	1.5				260.0
Toluene: ug/l	3.0		0.5		1.9
Ethylbenzene: ug/l	49.0				180.0
Total Xylenes: ug/l	94.0	1.2	0.5	0.8	7.0
MTBE: ug/l				2.6	4.1
Arsenic: mg/l	0.038				
Barium: mg/l	10.1				
Calcium: mg/l	155				

Cadmium: mg/l	0.0006				
Chromium: mg/l	0.505				
Mercury: mg/l	<0.0002				
Potassium: mg/l	24.4				
Magnesium: mg/l	40.9				
Sodium: mg/l	170				
Lead: mg/l	0.028				
Phenanthrene: ug/l				0.60	
Flouranthene: ug/l				0.15	
Pyrene: ug/l				0.04	
2-Methylnaphthalene: ug/l	360.0			1.0	14.0
Naphthalene: ug/l	240.0				46.0
Acenaphthylene: ug/l					6.3
1-Methylnaphthalene: ug/l					10.0
Dibenzofuran: ug/l	25.0				
Bis(2-ethylhexyl)phthalate: ug/l	28.0				
Bicarbonate: mg/l	462				
Total Alkalinity: mg/l	462				
Chloride: mg/l	340				
Flouride: mg/l	1.61				
Sulfate: mg/l	42				

Total Dissolved Solids: mg/l	1100				
Calcium: mg/l	155				
Potassium: mg/l	24.4				
Magnesium: mg/l	40.9				
Sodium: mg/l	170				

GROUNDWATER GRADIENT

The groundwater gradient flows in the southeast direction. The groundwater elevations are shown in Table No. 2. Figure No. 3 is a Groundwater Gradient Map.

DRUM SAMPLING

On November 17, 1994, Rhino took a composite sample from the water drums and a composite sample from the soil drums that were generated during the Simon investigation. The soil drums were analyzed for TPH. The water drums were analyzed for halogenated volatiles (8010). The TPH for the soil drums was 1200 ppm. No positive results were shown in the water sample. The analytical results are shown in Appendix A.

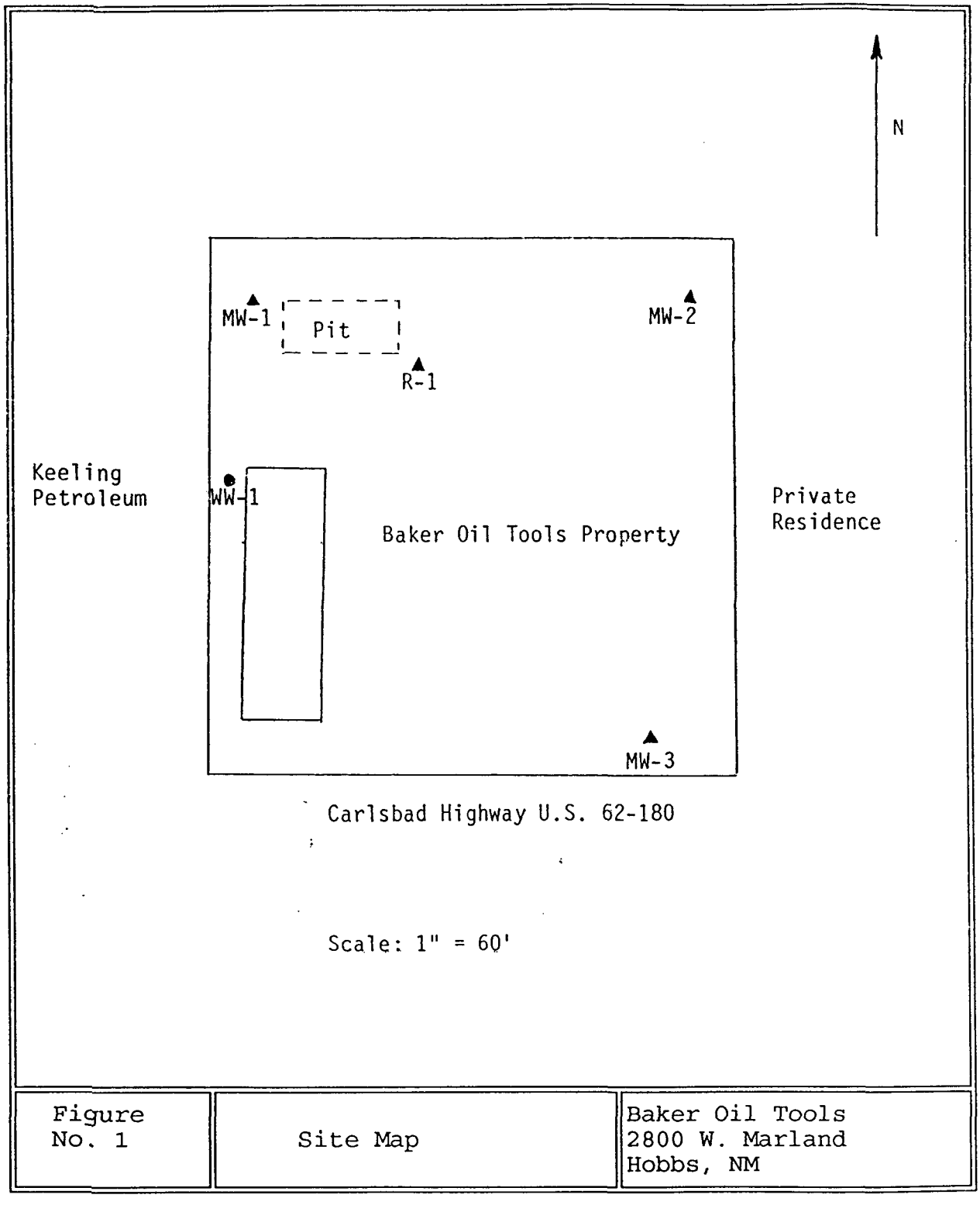
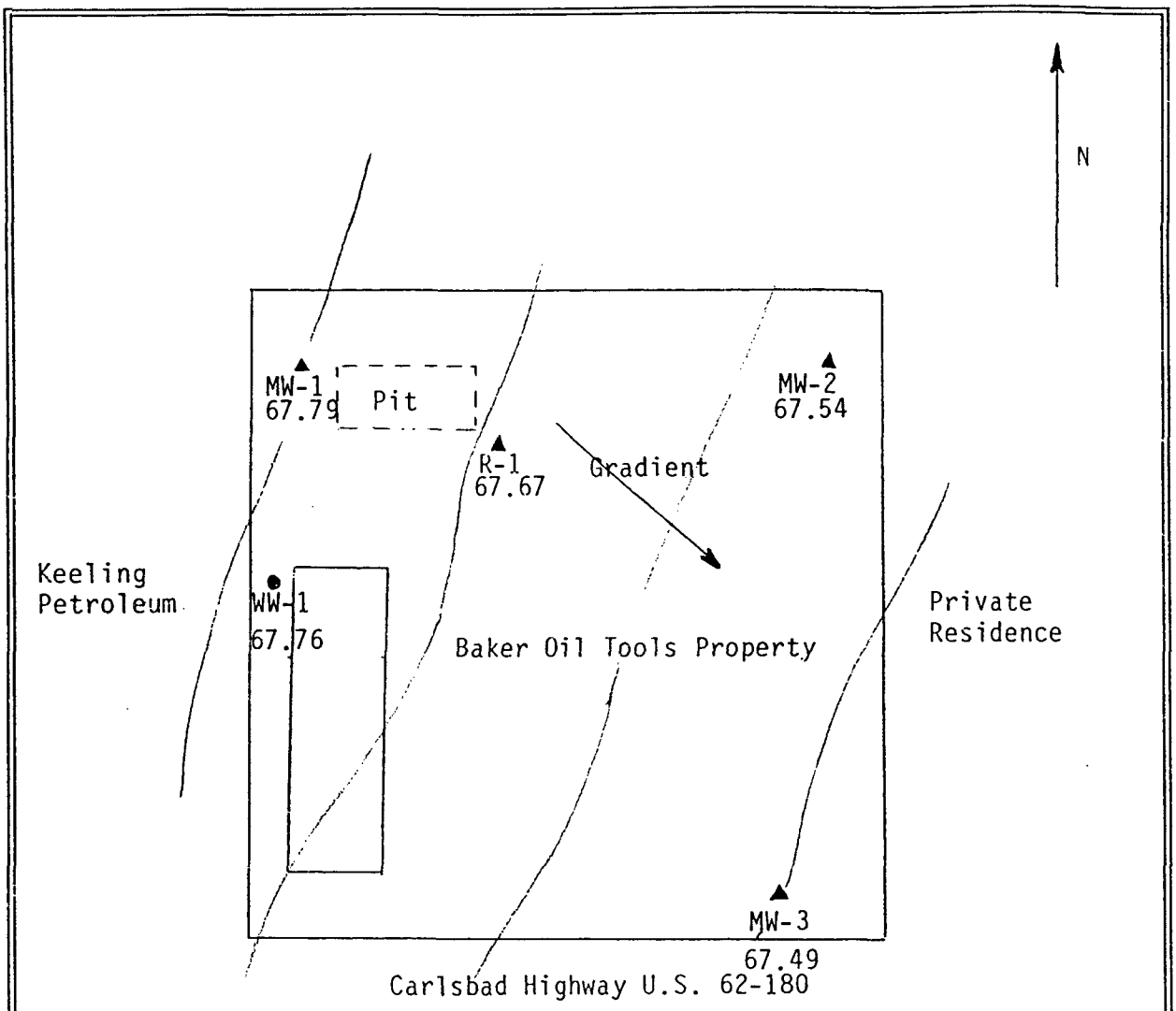


Figure No. 1	Site Map	Baker Oil Tools 2800 W. Marland Hobbs, NM

MONITOR WELL NO. R-1			MONITOR WELL DETAILS
DEPTH FT	MATERIAL DESCRIPTION	DEPTH FT	LOCKING PLUG CONCRETE FILL MW COVER
	0 to 2': Brown top soil		
5		5	2" Casing
10	2 to 22': Light tan caliche	10	Bentonite Grout
15		15	
20		20	Bentonite Plug
	22 - 28': Hard rock, sandstone		
25		25	
	28 - 32': Moist, black, contaminated sands		Sand Pack
30		30	
			2" Screen
35	32 - 40': Brown sand saturated	35	
40		40	

Figure No. 2	Monitor Well R-1 Construction Diagram	Baker Oil Tools 2800 W. Marland Hobbs, NM



Scale: 1" = 60'

Figure No. 3	Groundwater Gradient Map	Baker Oil Tools 2800 W. Marland Hobbs, NM

APPENDIX A
ANALYTICAL LABORATORY RESULTS

Analytical **Technologies,** Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. **410342**

October 18, 1994

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

Project Name/Number: BAKER OIL TOOLS

Attention: Royce Cooper

On **10/07/94**, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **non-aqueous** 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.

Letitia Krakowski, Ph.D.
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure

RECEIVED OCT 1 9 1994

Analytical Technologies, Inc.

CLIENT	: RHINO ENVIRONMENTAL	DATE RECEIVED	: 10/07/94
PROJECT #	: (NONE)		
PROJECT NAME	: BAKER OIL TOOLS	REPORT DATE	: 10/18/94

ATI ID: 410342

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	R1-5'	NON-AQ	10/06/94
02	R1-10'	NON-AQ	10/06/94
03	R1-15'	NON-AQ	10/06/94
04	R1-20'	NON-AQ	10/06/94
05	R1-30'	NON-AQ	10/06/94
06	R1-35'	NON-AQ	10/06/94

---TOTALS---

MATRIX	#SAMPLES
NON-AQ	6

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.	: 410342
PROJECT #	: (NONE)	DATE RECEIVED	: 10/07/94
PROJECT NAME	: BAKER OIL TOOLS	DATE ANALYZED	: 10/11/94

PARAMETER	UNITS	01	02	03	04
PETROLEUM HYDROCARBONS, IR	MG/KG	<20	55	<20	<20

Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

CLIENT	: RHINO ENVIRONMENTAL	ATI I.D.	: 410342
PROJECT #	: (NONE)	DATE RECEIVED	: 10/07/94
PROJECT NAME	: BAKER OIL TOOLS	DATE ANALYZED	: 10/11/94

PARAMETER	UNITS	05	06
PETROLEUM HYDROCARBONS, IR	MG/KG	1400	49

Analytical Technologies, Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT	: RHINO ENVIRONMENTAL	ATI I.D.	: 410342
PROJECT #	: (NONE)	SAMPLE MATRIX	: NON-AQ
PROJECT NAME	: BAKER OIL TOOLS	UNITS	: MG/KG

PARAMETER	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC.	% REC
PETROLEUM HYDROCARBONS	41034801	<20	<20	NA	190	150	126

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

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

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX, MTBE (EPA 8020)

CLIENT : RHINO ENVIRONMENTAL ATI I.D.: 410342

PROJECT # : (NONE)

PROJECT NAME : BAKER OIL TOOLS

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	R1-5'	NON-AQ	10/06/94	10/14/94	10/14/94	1
02	R1-10'	NON-AQ	10/06/94	10/14/94	10/14/94	1
03	R1-15'	NON-AQ	10/06/94	10/14/94	10/14/94	1

PARAMETER	UNITS	01	02	03
BENZENE	MG/KG	<0.025	<0.025	<0.025
TOLUENE	MG/KG	<0.025	<0.025	<0.025
ETHYLBENZENE	MG/KG	<0.025	<0.025	<0.025
TOTAL XYLENES	MG/KG	<0.025	<0.025	<0.025
METHYL-t-BUTYL ETHER	MG/KG	<0.12	<0.12	<0.12
SURROGATE:				
BROMOFLUOROBENZENE (%)		114	117	117

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX, MTBE (EPA 8020)

CLIENT : RHINO ENVIRONMENTAL ATI I.D.: 410342

PROJECT # : (NONE)

PROJECT NAME : BAKER OIL TOOLS

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	R1-20'	NON-AQ	10/06/94	10/14/94	10/14/94	1
05	R1-30'	NON-AQ	10/06/94	10/14/94	10/14/94	1
06	R1-35'	NON-AQ	10/06/94	10/14/94	10/14/94	1

PARAMETER	UNITS	04	05	06
BENZENE	MG/KG	<0.025	<0.025	<0.025
TOLUENE	MG/KG	<0.025	<0.025	<0.025
ETHYLBENZENE	MG/KG	<0.025	<0.025	<0.025
TOTAL XYLENES	MG/KG	<0.025	0.066	<0.025
METHYL-t-BUTYL ETHER	MG/KG	<0.12	<0.12	<0.12
SURROGATE:				
BROMOFLUOROBENZENE (%)		107	116	98

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

REAGENT BLANK

TEST	: BTEX, MTBE (EPA 8020)	ATI I.D.	: 410342
BLANK I.D.	: 101494	MATRIX	: NON-AQ
CLIENT	: RHINO ENVIRONMENTAL	DATE EXTRACTED	: 10/14/94
PROJECT #	: (NONE)	DATE ANALYZED	: 10/14/94
PROJECT NAME	: BAKER OIL TOOLS	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	<0.12
SURROGATE:		
BROMOFLUOROBENZENE (%)		106

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

TEST	: BTEX, MTBE (EPA 8020)		
MSMSD #	: 41033902	ATI I.D.	: 410342
CLIENT	: RHINO ENVIRONMENTAL	DATE EXTRACTED	: 10/14/94
PROJECT #	: (NONE)	DATE ANALYZED	: 10/14/94
PROJECT NAME	: BAKER OIL TOOLS	SAMPLE MATRIX	: NON-AQ
REF. I.D.	: 41033902	UNITS	: MG/KG

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD
BENZENE	<0.025	1.0	0.99	99	0.99	99	0
TOLUENE	<0.025	1.0	0.96	96	0.96	96	0
ETHYLBENZENE	<0.025	1.0	0.94	94	0.94	94	0
TOTAL XYLENES	<0.025	3.0	3.0	100	2.9	97	3
METHYL-t-BUTYL ETHER	<0.12	2.0	2.0	100	2.0	100	0

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

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

Analytical**Technologies,**Inc., Albuquerque, NM
San Diego • Phoenix • Seattle • Pensacola • Ft. Collins • Portland • Albuquerque

CHAIN OF CUSTODY

DATE: 10-6-94 PAGE 1 OF 1

ATI LAB I.D. 410342

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER: Royle Cooper

COMPANY: Rhino Environmental
ADDRESS: Po Box 2327
Hobbs, NM 88240
PHONE: 505-392-4498
FAX: Same

BILL TO: Same
COMPANY:
ADDRESS:

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020)	BTXE/MTBE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg.	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)	SDWA Primary Standards - Arizona	SDWA Secondary Standards - Arizona	SDWA Primary Standards - Federal	SDWA Secondary Standards - Federal	The 13 Priority Pollutant Metals	RCRA Metals by Total Digestion	RCRA Metals by TCLP (1311)	NUMBER CONTAINERS
R1-5'	10-6-94	10:33	Soil	01	X			X																1
R1-10'	10-6-94	10:42	Soil	02	X			X																1
R1-15'	10-6-94	10:51	Soil	03	X			X																1
R1-20'	10-6-94	11:01	Soil	04	X			X																1
R1-30'	10-6-94	12:25	Soil	05	X			X																1
R1-35'	10-6-94	12:35	Soil	06	X			X																1

ANALYSIS REQUEST

PROJECT INFORMATION

PROJ. NO.:
PROJ. NAME: Baker Oil Tools
P.O. NO.:
SHIPPED VIA: UPS

SAMPLE RECEIPT

NO. CONTAINERS: 6
CUSTODY SEALS: (Y) N / NA
RECEIVED INTACT: Y
RECEIVED COLD: Y

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☒ 2 WEEK

Comments:

SAMPLED & RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time: 1630	Signature: Time:	Signature: Time:
Printed Name: Royle Cooper Date: 10-6-94	Printed Name: Date:	Printed Name: Date:
Company: Rhino Phone: 392-4498	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY:(LAB) 3.
Signature: Time:	Signature: Time:	Signature: D Lutter Time: 1345
Printed Name: Date:	Printed Name: Date:	Printed Name: D Vinnelutter Date: 10/7/94
Company:	Company:	Analytical Technologies, Inc.

Analytical Technologies, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. **411377**

December 13, 1994

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

Project Name/Number: BAKER OIL TOOLS

Attention: Royce Cooper

On **11/18/94**, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **aqueous and non-aqueous** 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.

For EPA Method 8270 analysis, sample "R-1" had a corrupt file for the neat run so a 1:10 dilution is reported. There was insufficient sample for a Matrix Spike/Matrix Spike Duplicate to be analyzed.

Ignitiability, Reactivity and Corrosivity analyses were performed by Analytical Technologies, Inc., 5550 Morehouse Drive, San Diego, CA.

EPA Method 8310 & 8270 analyses were performed by Analytical Technologies, Inc., 225 Commerce Drive, Fort Collins, CO.

EPA Method 418.1, 8010 and 8020 analyses were performed by Analytical Technologies, Inc., Albuquerque, NM.

All other analyses were performed by Analytical Technologies, Inc., 9830 S. 51st Street, Suite B-113, Phoenix, AZ.

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

Letitia Krakowski, Ph.D.
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt
Enclosure

Analytical Technologies, Inc.

CLIENT : RHINO ENVIRONMENTAL
PROJECT # : (NONE)
PROJECT NAME : BAKER OIL TOOLS

DATE RECEIVED: 11/18/94
REPORT DATE : 12/13/94

ATI ID: 411377

	ATI SAN DIEGO ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	411377-01	R-1	AQUEOUS	11/17/94
02	411377-02	MW1	AQUEOUS	11/17/94
03	411377-03	MW2	AQUEOUS	11/17/94
04	411377-04	MW3	AQUEOUS	11/17/94
05	411377-05	WW-1	AQUEOUS	11/17/94
06	411377-06	DRUM COMPOSITE-W	AQUEOUS	11/17/94
07	411377-07	DRUM COMPOSITE-SOIL	NON-AQ	11/17/94
08	411377-08	TRIP BLANK	AQUEOUS	11/09/94

---TOTALS---

MATRIX	#SAMPLES
AQUEOUS	7
NON-AQ	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.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX, MTBE (EPA 8020)

CLIENT : RHINO ENVIRONMENTAL ATI I.D.: 411377

PROJECT # : (NONE)

PROJECT NAME : BAKER OIL TOOLS

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	R-1	AQUEOUS	11/17/94	NA	11/21/94	1
02	MW1	AQUEOUS	11/17/94	NA	11/19/94	1
03	MW2	AQUEOUS	11/17/94	NA	11/19/94	1

PARAMETER	UNITS	01	02	03
BENZENE	UG/L	1.5	<0.5	<0.5
TOLUENE	UG/L	3.0	<0.5	0.5
ETHYLBENZENE	UG/L	49	<0.5	<0.5
TOTAL XYLENES	UG/L	94	1.2	0.5
METHYL-t-BUTYL ETHER	UG/L	<2.5	<2.5	<2.5
SURROGATE:				
BROMOFLUOROBENZENE (%)		119	98	99

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX, MTBE (EPA 8020)

CLIENT : RHINO ENVIRONMENTAL ATI I.D.: 411377

PROJECT # : (NONE)

PROJECT NAME : BAKER OIL TOOLS

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	MW3	AQUEOUS	11/17/94	NA	11/19/94	1
05	WW-1	AQUEOUS	11/17/94	NA	11/19/94	1
08	TRIP BLANK	AQUEOUS	11/09/94	NA	11/19/94	1

PARAMETER	UNITS	04	05	08
BENZENE	UG/L	<0.5	260 D(10)	<0.5
TOLUENE	UG/L	<0.5	1.9	<0.5
ETHYLBENZENE	UG/L	<0.5	180	<0.5
TOTAL XYLENES	UG/L	0.8	7.0	<0.5
METHYL-t-BUTYL ETHER	UG/L	2.6	4.1	<2.5
SURROGATE:				
BROMOFLUOROBENZENE (%)		104	101	99

D(10)=DILUTED 10X, ANALYZED 11/21/94

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

REAGENT BLANK

TEST	: BTEX, MTBE (EPA 8020)	ATI I.D.	: 411377
BLANK I.D.	: 111994	MATRIX	: AQUEOUS
CLIENT	: RHINO ENVIRONMENTAL	DATE EXTRACTED	: NA
PROJECT #	: (NONE)	DATE ANALYZED	: 11/19/94
PROJECT NAME	: BAKER OIL TOOLS	DILUTION FACTOR	: 1

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5
METHYL-t-BUTYL ETHER	UG/L	<2.5
SURROGATE:		
BROMOFLUOROBENZENE (%)		100

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

TEST	: BTEX, MTBE (EPA 8020)		
MSMSD #	: 41137702	ATI I.D.	: 411377
CLIENT	: RHINO ENVIRONMENTAL	DATE EXTRACTED	: NA
PROJECT #	: (NONE)	DATE ANALYZED	: 11/19/94
PROJECT NAME	: BAKER OIL TOOLS	SAMPLE MATRIX	: AQUEOUS
REF. I.D.	: 41137702	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD
BENZENE	<0.5	10	8.3	83	8.0	80	4
TOLUENE	<0.5	10	10	100	8.5	85	16
ETHYLBENZENE	<0.5	10	8.9	89	8.6	86	3
TOTAL XYLENES	1.2	30	31	99	28	89	10
METHYL-t-BUTYL ETHER	<2.5	20	19	95	19	95	0

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

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

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : RHINO ENVIRONMENTAL ATI I.D.: 411377
PROJECT # : (NONE)
PROJECT NAME : BAKER OIL TOOLS

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	R-1	AQUEOUS	11/17/94	NA	11/30/94	1
06	DRUM COMPOSITE-W	AQUEOUS	11/17/94	NA	11/29/94	1
08	TRIP BLANK	AQUEOUS	11/09/94	NA	11/29/94	1

PARAMETER	UNITS	01	06	08
BROMODICHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
BROMOFORM	UG/L	<0.5	<0.5	<0.5
BROMOMETHANE	UG/L	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2	<0.2	<0.2
CHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
CHLOROETHANE	UG/L	<0.5	<0.5	<0.5
CHLOROFORM	UG/L	<0.5	<0.5	<0.5
CHLOROMETHANE	UG/L	<1.0	<1.0	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2	<0.2	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	UG/L	<0.2	<0.2	<0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2	<0.2	<0.2
CIS-1,2-DICHLOROETHENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0	<1.0	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2	<0.2	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
METHYLENE CHLORIDE	UG/L	<2.0	<2.0	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TETRACHLOROETHENE	UG/L	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0	<1.0	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TRICHLOROETHENE	UG/L	<0.2	<0.2	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2	<0.2	<0.2
VINYL CHLORIDE	UG/L	<0.5	<0.5	<0.5
SURROGATE:				
BROMOCHLOROMETHANE (%)		95	101	98

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS - QUALITY CONTROL

REAGENT BLANK

TEST	: EPA 8010	ATI I.D.	: 411377
BLANK I.D.	: 112994	MATRIX	: AQUEOUS
CLIENT	: RHINO ENVIRONMENTAL	DATE EXTRACTED	: NA
PROJECT #	: (NONE)	DATE ANALYZED	: 11/29/94
PROJECT NAME	: BAKER OIL TOOLS	DIL. FACTOR	: 1

PARAMETER	UNITS	
BROMODICHLOROMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
CIS-1,2-DICHLOROETHENE	UG/L	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
SURROGATE:		
BROMOCHLOROMETHANE (%)		97

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS - QUALITY CONTROL

REAGENT BLANK

TEST	: EPA 8010	ATI I.D.	: 411377
BLANK I.D.	: 113094	MATRIX	: AQUEOUS
CLIENT	: RHINO ENVIRONMENTAL	DATE EXTRACTED	: NA
PROJECT #	: (NONE)	DATE ANALYZED	: 11/30/94
PROJECT NAME	: BAKER OIL TOOLS	DIL. FACTOR	: 1

PARAMETER	UNITS	
BROMODICHLOROMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
CIS-1,2-DICHLOROETHENE	UG/L	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
SURROGATE:		
BROMOCHLOROMETHANE (%)		102

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

TEST	: PURGEABLE HALOCARBONS (EPA 8010)		
MSMSD #	: 41138201	ATI I.D.	: 411377
CLIENT	: RHINO ENVIRONMENTAL	DATE EXTRACTED	: NA
PROJECT #	: (NONE)	DATE ANALYZED	: 11/29/94 11/30/94
PROJECT NAME	: BAKER OIL TOOLS	SAMPLE MATRIX	: AQUEOUS
REF. I.D.	: 41138201	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD
CHLOROBENZENE	<0.5	10	8.8	88	8.8	88	0
1,1-DICHLOROETHENE	<0.2	10	9.0	90	9.6	96	6
TRICHLOROETHENE	<0.2	10	9.2	92	9.6	96	4

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

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

Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

Client : ANALYTICAL TECHNOLOGIES, INC.
Project # : 411377 ATI I.D.: 411319
Project Name: RHINO

Sample #	Client ID	Matrix	Date Sampled	Date Received
1	411377-07	SOIL	17-NOV-94	22-NOV-94

Parameter	Units	1
IGNITABILITY		NEGATIVE
pH	UNITS	7.6
REACTIVITY		NEGATIVE

Analytical Technologies, Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

DUP/MS

Client : ANALYTICAL TECHNOLOGIES, INC.
Project # : 411377 ATI I.D. : 411319
Project Name: RHINO

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
IGNITABILITY	411319-01		NEGATIVE	NEGATIVE	0	N/A	N/A	N/A
REACTIVITY	411319-01		NEGATIVE	NEGATIVE	0	N/A	N/A	N/A
pH	411319-01	UNITS	7.6	7.8	3	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 RESULTS

CLIENT	: RHINO ENVIRONMENTAL	ATI I.D.	: 411377
PROJECT #	: (NONE)	DATE RECEIVED	: 11/18/94
PROJECT NAME	: BAKER OIL TOOLS	DATE ANALYZED	: 11/28/94

PARAMETER	UNITS	07
PETROLEUM HYDROCARBONS, IR	MG/KG	1200

Analytical Technologies, Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT	: RHINO ENVIRONMENTAL	ATI I.D.	: 411377
PROJECT #	: (NONE)	SAMPLE MATRIX	: NON-AQ
PROJECT NAME	: BAKER OIL TOOLS	UNITS	: MG/KG

PARAMETER	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC.	% REC
PETROLEUM HYDROCARBONS	41138206	<20	<20	NA	170	140	121

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

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

Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

ATI I.D. : 411377

CLIENT : RHINO ENVIRONMENTAL
PROJECT # : (NONE)
PROJECT NAME : BAKER OIL TOOLS

DATE RECEIVED : 11/18/94
REPORT DATE : 12/12/94

PARAMETER	UNITS	01
CARBONATE (CACO3)	MG/L	<1
BICARBONATE (CACO3)	MG/L	462
HYDROXIDE (CACO3)	MG/L	<1
TOTAL ALKALINITY (AS CACO3)	MG/L	462
CHLORIDE (EPA 325.2)	MG/L	340
FLUORIDE (EPA 340.2)	MG/L	1.61
SULFATE (EPA 375.2)	MG/L	42
T. DISSOLVED SOLIDS (160.1)	MG/L	1100

Analytical Technologies, Inc.

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : RHINO ENVIRONMENTAL
PROJECT # : (NONE)
PROJECT NAME : BAKER OIL TOOLS ATI I.D. : 411377

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
CARBONATE	MG/L	41178606	<1	<1	NA	NA	NA	NA
BICARBONATE	MG/L		156	156	0	NA	NA	NA
HYDROXIDE	MG/L		<1	<1	NA	NA	NA	NA
TOTAL ALKALINITY	MG/L		156	156	0	NA	NA	NA
CHLORIDE	MG/L	41138301	650	650	0	1600	1000	95
FLUORIDE	MG/L	41174401	0.23	0.23	0	0.73	0.50	100
SULFATE	MG/L	41163931	1100	1100	0	2000	1000	90
TOTAL DISSOLVED SOLIDS	MG/L	41136801	3400	3400	0	NA	NA	NA

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

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

Analytical Technologies, Inc.

METALS RESULTS

ATI I.D. : 411377

CLIENT : RHINO ENVIRONMENTAL
PROJECT # : (NONE)
PROJECT NAME : BAKER OIL TOOLS

DATE RECEIVED : 11/18/94
REPORT DATE : 12/12/94

PARAMETER	UNITS	01
SILVER (EPA 200.7/6010)	MG/L	<0.020
ARSENIC (EPA 206.2/7060)	MG/L	0.038
BARIUM (EPA 200.7/6010)	MG/L	10.1
CALCIUM (EPA 200.7/6010)	MG/L	155
CADMIUM (EPA 213.2/7131)	MG/L	0.0006
CHROMIUM (EPA 200.7/6010)	MG/L	0.505
MERCURY (EPA 245.1/7470)	MG/L	<0.0002
POTASSIUM (EPA 200.7/6010)	MG/L	24.4
MAGNESIUM (EPA 200.7/6010)	MG/L	40.9
SODIUM (EPA 200.7/6010)	MG/L	170
LEAD (EPA 239.2/7421)	MG/L	0.028
SELENIUM (EPA 270.2/7740)	MG/L	<0.005

Analytical Technologies, Inc.

METALS - QUALITY CONTROL

CLIENT : RHINO ENVIRONMENTAL
PROJECT # : (NONE)
PROJECT NAME : BAKER OIL TOOLS ATI I.D. : 411377

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
SILVER	MG/L	41137304	<0.010	<0.010	NA	0.409	0.500	82
ARSENIC	MG/L	41137304	0.110	0.105	5	0.150	0.050	80
BARIUM	MG/L	41137304	24.0	23.0	4	34.0	10.0	100
CALCIUM	MG/L	41180506	96.3	94.6	2	141	50.0	89
CADMIUM	MG/L	41137304	<0.0005	<0.0005	NA	0.0046	0.0050	92
CHROMIUM	MG/L	41137304	<0.010	<0.010	NA	0.852	1.00	85
MERCURY	MG/L	41138304	<0.0002	0.0002	NA	0.0048	0.0050	96
POTASSIUM	MG/L	41180506	5.0	5.2	4	50.1	50.0	90
MAGNESIUM	MG/L	41180506	21.9	21.5	2	44.7	25.0	91
SODIUM	MG/L	41180506	131	129	2	176	50.0	90
LEAD	MG/L	41137304	<0.002	<0.002	NA	0.042	0.050	84
SELENIUM	MG/L	41172302	<0.005	<0.005	NA	0.033	0.050	66

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

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

Analytical Technologies, Inc.

DATE: 12-08-94

ION BALANCE

ATI ACCESSION NUMBER: 41137701
SAMPLE IDENTIFICATION: R-1
CLIENT: RHINO ENVIRONMENTAL

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL	
ALKALINITY (AS CACO3)	462.000	0.02000	9.24000	
CHLORIDE	340.000	0.02821	9.59140	
FLUORIDE	1.610	0.05254	0.08475	
NITRATE AS N	NA	0.01613	0.00000	
SULFATE	42.000	0.02082	0.87444	
		TOTAL ANIONS		19.79059

CATIONS	RESULT	FACTOR	TOTAL	
CALCIUM	155.000	0.04990	7.7345	
POTASSIUM	24.400	0.02558	0.62415	
MAGNESIUM	40.900	0.08229	3.36566	
SODIUM	170.000	0.04350	7.39500	
COPPER	NA	0.03147	0.00000	
IRON	NA	0.05372	0.00000	
MANGANESE	NA	0.03640	0.00000	
ZINC	NA	0.03059	0.00000	
		TOTAL CATIONS		19.11931
		%RPD (<10%)		3.45
TOTAL ANIONS/CATIONS		1051		
TOTAL DISSOLVED SOLIDS		1100	%RPD (<15%)	-4.55
ELECTRICAL COND.		NA	TDS/EC RATIO (0.65+/-0.1)	#DIV/0!

Analytical Technologies, Inc.

POLYNUCLEAR AROMATIC HYDROCARBONS

Method 8310

Lab Name: Analytical Technologies Inc.
Client Name: Analytical Technologies, Inc.
Client Project ID: Rhino -- 411377
Lab Sample ID: 94-11-253-02

Sample Matrix: Water
Cleanup: N/A

Sample ID

MW1

Date Collected: 11/17/94
Date Extracted: 11/22/94
Date Analyzed: 11/29/94

Sample Volume: 1000 mL
Final Volume: 1 mL

Analyte	Conc (ug/L)	Detection Limit (ug/L)
Naphthalene	ND	0.30
Acenaphthylene	ND	0.30
Acenaphthene	ND	0.50
Fluorene	ND	0.040
Phenanthrene	ND	0.030
Anthracene	ND	0.010
Fluoranthene	ND	0.030
Pyrene	ND	0.040
Benzo(a)anthracene	ND	0.010
Chrysene	ND	0.020
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(a)pyrene	ND	0.010
Dibenzo(a,h)anthracene	ND	0.030
Benzo(g,h,i)perylene	ND	0.040
Indeno(1,2,3,c,d)pyrene	ND	0.030
1-Methylnaphthalene	ND	0.30
2-Methylnaphthalene	ND	0.30

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits
2-Chloroanthracene	71	15 - 117

ND = Not Detected

Analytical Technologies, Inc.

POLYNUCLEAR AROMATIC HYDROCARBONS

Method 8310

Lab Name: Analytical Technologies Inc.
Client Name: Analytical Technologies, Inc.
Client Project ID: Rhino -- 411377
Lab Sample ID: 94-11-253-03

Sample Matrix: Water
Cleanup: N/A

Sample ID

MW2

Date Collected: 11/17/94
Date Extracted: 11/22/94
Date Analyzed: 11/29/94

Sample Volume: 1000 mL
Final Volume: 1 mL

Analyte	Conc (ug/L)	Detection Limit (ug/L)
Naphthalene	ND	0.30
Acenaphthylene	ND	0.30
Acenaphthene	ND	0.50
Fluorene	ND	0.040
Phenanthrene	ND	0.030
Anthracene	ND	0.010
Fluoranthene	ND	0.030
Pyrene	ND	0.040
Benzo(a)anthracene	ND	0.010
Chrysene	ND	0.020
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(a)pyrene	ND	0.010
Dibenzo(a,h)anthracene	ND	0.030
Benzo(g,h,i)perylene	ND	0.040
Indeno(1,2,3,c,d)pyrene	ND	0.030
1-Methylnaphthalene	ND	0.30
2-Methylnaphthalene	ND	0.30

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits
2-Chloroanthracene	65	15 - 117

ND = Not Detected

Analytical Technologies, Inc.

POLYNUCLEAR AROMATIC HYDROCARBONS

Method 8310

Lab Name: Analytical Technologies Inc.
Client Name: Analytical Technologies, Inc.
Client Project ID: Rhino -- 411377
Lab Sample ID: 94-11-253-04

Sample Matrix: Water
Cleanup: N/A

Sample ID

MW3

Date Collected: 11/17/94
Date Extracted: 11/22/94
Date Analyzed: 11/29/94

Sample Volume: 1000 mL
Final Volume: 1 mL

Analyte	Conc (ug/L)	Detection Limit (ug/L)
Naphthalene	ND	0.30
Acenaphthylene	ND	0.30
Acenaphthene	ND	0.50
Fluorene	ND	0.040
Phenanthrene	0.60	0.030
Anthracene	ND	0.010
Fluoranthene	0.15	0.030
Pyrene	0.04	0.040
Benzo(a)anthracene	ND	0.010
Chrysene	ND	0.020
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(a)pyrene	ND	0.010
Dibenzo(a,h)anthracene	ND	0.030
Benzo(g,h,i)perylene	ND	0.040
Indeno(1,2,3,c,d)pyrene	ND	0.030
1-Methylnaphthalene	ND	0.30
2-Methylnaphthalene	1.0	0.30

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits
2-Chloroanthracene	63	15 - 117

ND = Not Detected

Analytical Technologies, Inc.

POLYNUCLEAR AROMATIC HYDROCARBONS

Method 8310

Lab Name: Analytical Technologies Inc.
Client Name: Analytical Technologies, Inc.
Client Project ID: Rhino -- 411377
Lab Sample ID: 94-11-253-05

Sample Matrix: Water
Cleanup: N/A

Sample ID

WW-1

Date Collected: 11/17/94
Date Extracted: 11/22/94
Date Analyzed: 11/30/94

Sample Volume: 1000 mL
Final Volume: 10 mL

Analyte	Conc (ug/L)	Detection Limit (ug/L)
Naphthalene	46	3.0
Acenaphthylene	6.3	3.0
Acenaphthene	ND	5.0
Fluorene	ND	0.40
Phenanthrene	ND	0.30
Anthracene	ND	0.10
Fluoranthene	ND	0.30
Pyrene	ND	0.40
Benzo(a)anthracene	ND	0.10
Chrysene	ND	0.20
Benzo(b)fluoranthene	ND	0.10
Benzo(k)fluoranthene	ND	0.10
Benzo(a)pyrene	ND	0.10
Dibenzo(a,h)anthracene	ND	0.30
Benzo(g,h,i)perylene	ND	0.40
Indeno(1,2,3,c,d)pyrene	ND	0.30
1-Methylnaphthalene	10	3.0
2-Methylnaphthalene	14	3.0

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits
2-Chloroanthracene	78	15 - 117

ND = Not Detected

Analytical Technologies, Inc.

POLYNUCLEAR AROMATIC HYDROCARBONS

Method 8310

Lab Name: Analytical Technologies Inc.
Client Name: Analytical Technologies, Inc.
Client Project ID: Rhino -- 411377
Lab Sample ID: WRB1 11/22/94

Sample Matrix: Water
Cleanup: N/A

Sample ID

Reagent Blank

Date Collected: N/A
Date Extracted: 11/22/94
Date Analyzed: 11/29/94

Sample Volume: 1000 mL
Final Volume: 1 mL

Analyte	Conc (ug/L)	Detection Limit (ug/L)
Naphthalene	ND	0.30
Acenaphthylene	ND	0.30
Acenaphthene	ND	0.50
Fluorene	ND	0.040
Phenanthrene	ND	0.030
Anthracene	ND	0.010
Fluoranthene	ND	0.030
Pyrene	ND	0.040
Benzo(a)anthracene	ND	0.010
Chrysene	ND	0.020
Benzo(b)fluoranthene	ND	0.010
Benzo(k)fluoranthene	ND	0.010
Benzo(a)pyrene	ND	0.010
Dibenzo(a,h)anthracene	ND	0.030
Benzo(g,h,i)perylene	ND	0.040
Indeno(1,2,3,c,d)pyrene	ND	0.030
1-Methylnaphthalene	ND	0.30
2-Methylnaphthalene	ND	0.30

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits
2-Chloroanthracene	67	15 - 117

ND = Not Detected

Analytical Technologies, Inc.

POLYNUCLEAR AROMATIC HYDROCARBON BLANK SPIKE

Method 8310

Lab Name: Analytical Technologies, Inc.

Lab Sample ID: WBS1, 2 11/22/94

Client Name: Analytical Technologies, Inc.
Client Project ID: Rhino -- 411377

Date Extracted: 11/22/94
Date Analyzed: 11/29/94

Sample Matrix: Water

Instrument ID: HPLC

Analyte	Spike Added (ug/L)	BS Concentration (ug/L)	BS Percent Recovery	QC Limits % Rec
Acenaphthylene	10.0	7.5	75	36-113
Phenanthrene	1.00	0.89	89	30-114
Pyrene	1.00	0.76	76	43-108
Dibenzo(a,h)anthracene	1.00	0.72	72	42-111
Benzo(k)fluoranthene	0.25	0.20	80	35-104

Analyte	Spike Added (ug/L)	BSD Concentration (ug/L)	BSD Percent Recovery	RPD	QC Limits RPD
Acenaphthylene	10	7	70	8	20
Phenanthrene	1.0	0.8	82	8	20
Pyrene	1.0	0.7	72	5	20
Dibenzo(a,h)anthracene	1.0	0.6	62	14	20
Benzo(k)fluoranthene	0.25	0.2	87	9	20

SURROGATE RECOVERY BS/BSD

Analyte	% Recovery (BS)	% Recovery (BSD)	% Rec Limits
2-Chloroanthracene	69	65	15 - 117

Analytical **Technologies,** Inc.

SEMIVOLATILE ORGANICS

Method 8270

Sample ID: R - 1

Lab Name: Analytical Technologies, Inc.
Client Name: ATI -NM
Client Project: Rhino -- 411377
Lab Sample ID.: 94-11-253-01

Date Collected: 11/17/94
Date Extracted: 11/22/94
Date Analyzed: 11/29/94

Sample Matrix: Water
Cleanup: None

Sample Volume: 1000 mL
Final Volume: 10 mL

Analyte	Results (ug/L)	Detection Limit (ug/L)
Phenol	ND	100
bis (2-Chloroethyl) ether	ND	100
2-Chlorophenol	ND	100
1,3-Dichlorobenzene	ND	100
1,4-Dichlorobenzene	ND	100
Benzyl alcohol	ND	100
1,2-Dichlorobenzene	ND	100
2-Methylphenol	ND	100
bis (2-Chloroisopropyl) ether	ND	100
4-Methylphenol	ND	100
N-Nitroso-di-n-propylamine	ND	100
Hexachloroethane	ND	100
Nitrobenzene	ND	100
Isophorone	ND	100
2-Nitrophenol	ND	100
2,4-Dimethylphenol	ND	100
Benzoic acid	ND	500
bis (2-Chloroethoxy) methane	ND	100
2,4-Dichlorophenol	ND	100
1,2,4-Trichlorobenzene	ND	100
Naphthalene	240	100
4-Chloroaniline	ND	100
Hexachlorobutadiene	ND	100
4-Chloro-3-methylphenol	ND	100
2-Methylnaphthalene	360	100
Hexachlorocyclopentadiene	ND	100
2,4,6-Trichlorophenol	ND	100
2,4,5-Trichlorophenol	ND	500
2-Chloronaphthalene	ND	100
2-Nitroaniline	ND	500
Dimethyl phthalate	ND	100
Acenaphthylene	ND	100
2,6-Dinitrotoluene	ND	100
3-Nitroaniline	ND	500
Acenaphthene	ND	100
2,4-Dinitrophenol	ND	500

Analytical Technologies, Inc.

SEMIVOLATILE ORGANICS

Method 8270

Lab Name: Analytical Technologies, Inc.
Lab Sample ID.: 94-11-253-01

Sample ID
R - 1

Analyte	Results (ug/L)	Detection Limit (ug/L)
4-Nitrophenol	ND	500
Dibenzofuran	25 J	100
2,4-Dinitrotoluene	ND	100
Diethyl phthalate	ND	100
4-Chlorophenyl phenyl ether	ND	100
Fluorene	ND	100
4-Nitroaniline	ND	500
4,6-Dinitro-2-methylphenol	ND	500
N-Nitrosodiphenylamine	ND	100
4-Bromophenyl phenyl ether	ND	100
Hexachlorobenzene	ND	100
Pentachlorophenol	ND	500
Phenanthrene	ND	100
Anthracene	ND	100
Di-n-butyl phthalate	ND	100
Fluoranthene	ND	100
Pyrene	ND	100
Butyl benzyl phthalate	ND	100
3,3'-Dichlorobenzidine	ND	200
Benzo(a)anthracene	ND	100
Chrysene	ND	100
Bis(2-ethylhexyl)phthalate	28 J	100
Di-n-octyl phthalate	ND	100
Benzo(b)fluoranthene	ND	100
Benzo(k)fluoranthene	ND	100
Benzo(a)pyrene	ND	100
Indeno(1,2,3-cd)pyrene	ND	100
Dibenz(a,h)anthracene	ND	100
Benzo(g,h,i)perylene	ND	100

SURROGATE RECOVERIES

Analyte	% Recovery	% Rec Limits
2-Fluorophenol	62	21-110
Phenol-d5	64	10-110
Nitrobenzene-d5	133*	35-114
2-Fluorobiphenyl	90	43-116
2,4,6-Tribromophenol	55	10-123
Terphenyl-d14	45	33-141

ND = Not Detected
* = Outside QC limits
J = Estimated value, analyte found below detection limit

Analytical Technologies, Inc.

SEMIVOLATILE ORGANICS

Method 8270

Sample ID: **Reagent Blank**

Lab Name: Analytical Technologies, Inc.
Client Name: ATI -NM
Client Project: Rhino -- 411377
Lab Sample ID.: WRB1 11/22/94

Date Collected: N/A
Date Extracted: 11/22/94
Date Analyzed: 11/29/94

Sample Matrix: Water
Cleanup: None

Sample Volume: 1000 mL
Final Volume: 1 mL

Analyte	Results (ug/L)	Detection Limit (ug/L)
Phenol	ND	10
bis (2-Chloroethyl) ether	ND	10
2-Chlorophenol	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
Benzyl alcohol	ND	10
1,2-Dichlorobenzene	ND	10
2-Methylphenol	ND	10
bis (2-Chloroisopropyl) ether	ND	10
4-Methylphenol	ND	10
N-Nitroso-di-n-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
2-Nitrophenol	ND	10
2,4-Dimethylphenol	ND	10
Benzoic acid	ND	50
bis (2-Chloroethoxy) methane	ND	10
2,4-Dichlorophenol	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
4-Chloroaniline	ND	10
Hexachlorobutadiene	ND	10
4-Chloro-3-methylphenol	ND	10
2-Methylnaphthalene	ND	10
Hexachlorocyclopentadiene	ND	10
2,4,6-Trichlorophenol	ND	10
2,4,5-Trichlorophenol	ND	50
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	50
Dimethyl phthalate	ND	10
Acenaphthylene	ND	10
2,6-Dinitrotoluene	ND	10
3-Nitroaniline	ND	50
Acenaphthene	ND	10
2,4-Dinitrophenol	ND	50

Analytical Technologies, Inc.

SEMIVOLATILE ORGANICS

Method 8270

Lab Name: Analytical Technologies, Inc.
Lab Sample ID.: WRB1 11/22/94

Sample ID: **Reagent Blank**

Analyte	Results (ug/L)	Detection Limit (ug/L)
4-Nitrophenol	ND	50
Dibenzofuran	ND	10
2,4-Dinitrotoluene	ND	10
Diethyl phthalate	ND	10
4-Chlorophenyl phenyl ether	ND	10
Fluorene	ND	10
4-Nitroaniline	ND	50
4,6-Dinitro-2-methylphenol	ND	50
N-Nitrosodiphenylamine	ND	10
4-Bromophenyl phenyl ether	ND	10
Hexachlorobenzene	ND	10
Pentachlorophenol	ND	50
Phenanthrene	ND	10
Anthracene	ND	10
Di-n-butyl phthalate	ND	10
Fluoranthene	ND	10
Pyrene	ND	10
Butyl benzyl phthalate	ND	10
3,3'-Dichlorobenzidine	ND	20
Benzo(a)anthracene	ND	10
Chrysene	ND	10
Bis(2-ethylhexyl)phthalate	ND	10
Di-n-octyl phthalate	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenz(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

SURROGATE RECOVERIES

Analyte	% Recovery	% Rec Limits
2-Fluorophenol	88	21-110
Phenol-d5	84	10-110
Nitrobenzene-d5	99	35-114
2-Fluorobiphenyl	94	43-116
2,4,6-Tribromophenol	78	10-123
Terphenyl-d14	94	33-141

ND = Not Detected

Analytical **Technologies**, Inc.

SEMIVOLATILE ORGANICS BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

Method 8270

Sample ID
Blank Spike

Lab Name: Analytical Technologies, Inc.
Client Name: ATI -NM
Client Project: Rhino -- 411377
Lab Sample ID: WBS 11/22/94

Date Collected: N/A
Date Extracted: 11/22/94
Date Analyzed: 11/29/94

Sample Matrix: Water
Cleanup: None

Sample Volume: 1000 mL
Final Volume: 1 mL

Analyte	Spike Added (ug/L)	Sample Concentration (ug/L)	BS Concentration (ug/L)	BS % Rec	QC Limit Recovery
Phenol	75	N/A	48.6	65	12-110
2-Chlorophenol	75	N/A	48.6	65	27-123
1,4-Dichlorobenzene	50	N/A	34.6	69	36- 97
N-Nitroso-di-n-propylamine	50	N/A	47.8	96	41-116
1,2,4-Trichlorobenzene	50	N/A	38.9	78	39- 98
4-Chloro-3-methylphenol	75	N/A	49.1	65	23- 97
Acenaphthene	50	N/A	38.1	76	46-118
4-Nitrophenol	75	N/A	48.9	65	10- 80
2,4-Dinitrotoluene	50	N/A	40.0	80	24- 96
Pentachlorophenol	75	N/A	16.2	22	9-103
Pyrene	50	N/A	38.7	77	26-127

Analyte	Spike Added (ug/L)	BSD Concentration (ug/L)	BSD % REC #	% RPD	QC LIMITS RPD REC.
Phenol	75	45.5	61	7	42 | 12-110
2-Chlorophenol	75	45.8	61	6	40 | 27-123
1,4-Dichlorobenzene	50	32.8	66	5	28 | 36 - 97
N-Nitroso-di-n-propylamine	50	42.8	86	11	38 | 41-116
1,2,4-Trichlorobenzene	50	37.8	76	3	28 | 39 - 98
4-Chloro-3-methylphenol	75	47.5	63	3	42 | 23 - 97
Acenaphthene	50	36.6	73	4	31 | 46-118
4-Nitrophenol	75	45.8	61	7	50 | 10 - 80
2,4-Dinitrotoluene	50	37.9	76	5	38 | 24 - 96
Pentachlorophenol	75	15.1	20	7	50 | 9 - 103
Pyrene	50	35.7	71	8	31 | 26-127

N/A = Not Applicable

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

AnalyticalTechnologies,Inc., Albuquerque, NM
San Diego • Phoenix • Seattle • Pensacola • Ft. Collins • Portland • Albuquerque

CHAIN OF CUSTODY

DATE: 11-17-94 PAGE 1 OF 1

ATI LAB I.D. 411377

PROJECT MANAGER: ROYCE COOPER

COMPANY: RHINO ENVIRONMENTAL
ADDRESS: PO BOX 2327
HOBBS, NM 88240
PHONE: 505 392-4478
FAX: SAME

BILL TO: SAME
COMPANY:
ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1) IGN, REA, COR?	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020)	BTXE/MTBE (8020)	Chlorinated Volatiles 8010		Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg.	SO4, ALK, F, Cl	Na, Ca, Mg, K	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)	Ion Balance	TDS	SDWA Primary Standards - Arizona	SDWA Secondary Standards - Arizona	SDWA Primary Standards - Federal	SDWA Secondary Standards - Federal			The 13 Priority Pollutant Metals	RCRA Metals by Total Digestion	RCRA Metals by TCLP (1311)		NUMBER OF CONTAINERS
R-1	11-17-94	14:58	WATER	01				X	X					X	X			X			X	X								X			7
MW1	11-17-94	14:56	WATER	02				X												X													4
MW2	"	15:28	WATER	03				X												X													4
MW3	"	15:50	WATER	04				X												X													4
WW-1	"	11:28	WATER	05				X												X													4
DRUM COMPOSITE-W	"	16:06	WATER	06					X																								3
DRUM COMPOSITE SOIL	"	16:15	SOIL	07	X																												2
Trip Blank	11-9	14:30	AQ	08																													2

PROJECT INFORMATION

PROJ. NO.:
PROJ. NAME: BAKER OIL TOOLS
P.O. NO.:
SHIPPED VIA: UPS

SAMPLE RECEIPT

NO. CONTAINERS	30
CUSTODY SEALS	(Y) / N / NA
RECEIVED INTACT	Y
RECEIVED COLD	Y

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☒ 2 WEEK

Comments:

SAMPLED & RELINQUISHED BY: 1	RELINQUISHED BY: 2	RELINQUISHED BY: 3
Signature: [signature] Time: 16:31	Signature: Time:	Signature: Time:
Printed Name: Royce Cooper Date: 11/17/94	Printed Name: Date:	Printed Name: Date:
Company: Rhino Phone: 392-4498	Company:	Company:

RECEIVED BY: 1	RECEIVED BY: 2	RECEIVED BY (LAB): 3
Signature: Time:	Signature: Time:	Signature: [signature] Time: 14:25
Printed Name: Date:	Printed Name: Date:	Printed Name: Dianne Lutter? Date: 11/18/94
Company:	Company:	Analytical Technologies, Inc.

411314

AnalyticalTechnologies,Inc. Albuquerque, NM

Chain of Custody

DATE 11/18/94 PAGE 1 OF 1

NETWORK PROJECT MANAGER: LETITIA KRAKOWSKI

COMPANY: Analytical Technologies, Inc.

ADDRESS: 2709-D Pan American Freeway, NE
Albuquerque, NM 87107

CLIENT PROJECT MANAGER:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TOX	TOC	ORGANIC LEAD	SULFIDE	SURFACTANTS (MBAS)	Ignit., Corros., Reactiv.	632/532 MOD	619/619 MOD	610/8310	SO4, Alk, F, Cl, Na, Ca, Mg, K	Ion Balance	8240 (TCLP 1311) ZHE	TDS	Diesel/Gasoline/BTXE/MTBE/ (MOD 8015/8020)	Volatile Organics GC/MS (624/8240)	RCRA metals by Tot. Digestion	NACE	ASBESTOS		BOD	TOTAL COLIFORM	FECAL COLIFORM		GROSS ALPHA/BETA	RADIUM 226/228		AIR - O2, CO2, METHANE	AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020)	NUMBER OF CONTAINERS
~~411377-01~~	11/17	~~1458~~	~~AQ~~	1						X				X	X		X			X													2
411377-02	↓	1615	Nmag	2						X																							1 (1)

PROJECT INFORMATION	
PROJECT NUMBER:	411377
PROJECT NAME:	Rhino
QC LEVEL:	(STD) IV
(QC REQUIRED:)	MS MSD BLANK
TAT:	(STANDARD) RUSH!

DUE DATE: 12/6
RUSH SURCHARGE: 0
CLIENT DISCOUNT: 0 %

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	3
CHAIN OF CUSTODY SEALS	NA
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	411377

7.5°C

WO# LK1126

SAMPLES SENT TO:	
SAN DIEGO	
FT. COLLINS	
RENTON	
PENSACOLA	
PORTLAND	
PHOENIX	X
FIBERQUANT	

RELINQUISHED BY: 1.
Signature: D. Letter Time: 1730
Printed Name: Dianne Letter Date: 11/18/94
Analytical Technologies, Inc.
Albuquerque

RECEIVED BY: (LAB) 1.
Signature: Time:
Printed Name: Date:
Company:

RELINQUISHED BY: 2.
Signature: Time:
Printed Name: Date
Company:

RECEIVED BY: (LAB) 2.
Signature: [signature] Time: 1205
Printed Name: Marguerite [illegible] Date:
Company: ATI 11/19/1994

Sent 11/21/9 530pm Rosella
Rcvd M. H[illegible] 11/22 (12:[illegible] /50)

DISTRIBUTION: White, Canary - ATI • Pink - ORIGINATOR

Analytical**Technologies**,Inc. Albuquerque, NM

Chain of Custody

DATE 11/18/94 PAGE 1 OF 1

NETWORK PROJECT MANAGER: LETITIA KRAKOWSKI

COMPANY: **Analytical Technologies, Inc.**
ADDRESS: 2709-D Pan American Freeway, NE
Albuquerque, NM 87107

CLIENT PROJECT MANAGER:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TOX	TOC	ORGANIC LEAD	SULFIDE	SURFACTANTS (MBAS)	Ignit, Corros, Reactivity	632/632 MOD	619/619 MOD	610/8310	SO4, Alk, F, Cl, Na, Ca, Mg, K	Ion Balance	8240 (TCLP 1311) ZHE	TDS	Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020)	Volatile Organics GC/MS (624/8240)	RCRA metals 8 (tot. Digestion [?])	NACE	ASBESTOS		BOD	TOTAL COLIFORM	FECAL COLIFORM		GROSS ALPHA/BETA	RADIUM 226/228		AIR - O2, CO2, METHANE	AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020)	NUMBER OF CONTAINERS
411377-01	11/17	1458	AQ	1						X				X	X		X			X													2
-07	↓	1615	Nonaq [?]	7						X																							1

PROJECT INFORMATION	
PROJECT NUMBER:	411377
PROJECT NAME:	Rhino
QC LEVEL: (STD) IV	
QC REQUIRED: MS MSD BLANK	
TAT: (STANDARD) RUSH!	

DUE DATE: 12/6
RUSH SURCHARGE: 0
CLIENT DISCOUNT: 0 %

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	3
CHAIN OF CUSTODY SEALS	NA
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	411377

WO# LK1126

SAMPLES SENT TO:	
SAN DIEGO	
FT. COLLINS	
RENTON	
PENSACOLA	
PORTLAND	
PHOENIX	X
FIBERQUANT	

RELINQUISHED BY: 1.
Signature: D. Luther Time: 1730
Printed Name: Dianne Luther Date: 11/18/94
Analytical Technologies, Inc.
Albuquerque

RECEIVED BY: (LAB) 1.
Signature: Time:
Printed Name: Date:
Company:

RELINQUISHED BY: 2.
Signature: Time:
Printed Name: Date
Company:

RECEIVED BY: (LAB) 2.
Signature: [signature] Time: 1250 [?]
Printed Name: Marguerite [?] Date: 11/18/1994
Company: ATI

94-11-253

Analytical Technologies, Inc. Albuquerque, NM

Chain of Custody

DATE 11/18/94 PAGE 1 OF 1

NETWORK PROJECT MANAGER: LETITIA KRAKOWSKI

COMPANY: **Analytical Technologies, Inc.**

ADDRESS: 2709-D Pan American Freeway, NE
Albuquerque, NM 87107

CLIENT PROJECT MANAGER:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TOX	TOC	ORGANIC LEAD	SULFIDE	SURFACTANTS (MBAS)	632/632 MOD	619/619 MOD	608/8310	8270	8240 (TCLP 1311) ZHE	Diesel/Gasoline/BTXE/MTBE/ (MOD 8015/8020)	Volatile Organics GC/MS (624/8240)	NACE	ASBESTOS	BOD	TOTAL COLIFORM	FECAL COLIFORM	GROSS ALPHA/BETA	RADIUM 226/228	AIR - O2, CO2, METHANE	AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020)	NUMBER OF CONTAINERS
411377-01	11/17	1458	AQ	01									X													2
-02		1156		02								X														2
-03		1528		03								X														2
-04		1550		04								X														2
-05	↓	1128	↓	05								X														2

Ext

PROJECT INFORMATION	
PROJECT NUMBER:	411377
PROJECT NAME:	Rhino
QC LEVEL:	(STD) IV
QC REQUIRED:	(MS) MSD BLANK
TAT:	(STANDARD) RUSH!

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS	
INTACT?	
RECEIVED GOOD COND./COLD	
LAB NUMBER	

DUE DATE: 12/6

RUSH SURCHARGE: 0

CLIENT DISCOUNT: 0 %

WO# LK1125

SAMPLES SENT TO:	
SAN DIEGO	
FT. COLLINS	X
RENTON	
PENSACOLA	
PORTLAND	
PHOENIX	
FIBERQUANT	

RELINQUISHED BY: 1.

Signature: D Cutler Time: 1730

Printed Name: Dianne Cutler Date: 11/18/94

Analytical Technologies, Inc.
Albuquerque

RECEIVED BY: (LAB) 1.

Signature: Time:

Printed Name: Date:

Company: FED-X

RELINQUISHED BY: 2.

Signature: Time:

Printed Name: Date

Company: FED-X

RECEIVED BY: (LAB) 2.

Signature: Time: 9:45

Printed Name: Date: 11-19

Company: ATI

Analytical Technologies, Inc. Albuquerque, NM

Chain of Custody

DATE 12/2/94 PAGE 1 OF 1

NETWORK PROJECT MANAGER: LETITIA KRAKOWSKI

COMPANY: Analytical Technologies, Inc.

ADDRESS: 2709-D Pan American Freeway, NE
Albuquerque, NM 87107

FAXED

CLIENT PROJECT MANAGER:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TOX	TOC	ORGANIC LEAD	SULFIDE	SURFACTANTS (MBAS)	632/632 MOD	619/619 MOD	610/8310	Ignitability, reactivity	Corrosivity	8240 (TCLP 1311) ZHE	Diesel/Gasoline/BTXE/MTBE/ (MOD 8015/8020)	Volatile Organics GC/MS (624/8240)	NACE	ASBESTOS	BOD	TOTAL COLIFORM	FECAL COLIFORM	GROSS ALPHA/BETA	RADIUM 226/228	AIR - O2, CO2, METHANE	AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020)	NUMBER OF CONTAINERS
411377-07	11/17	1645	Dmag										X	X													1

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NUMBER:	411377	TOTAL NUMBER OF CONTAINERS	
PROJECT NAME:	Rhino	CHAIN OF CUSTODY SEALS	
QC LEVEL:	~~STD~~ IV	INTACT?	
QC REQUIRED:	~~MS~~ MSD BLANK	RECEIVED GOOD COND./COLD	
TAT:	(STANDARD) RUSH!	LAB NUMBER	

DUE DATE: 12/7
RUSH SURCHARGE: 0
CLIENT DISCOUNT: 0 %

work# LK1131

SAMPLES SENT TO:
- SAN DIEGO X
- FT. COLLINS
- RENTON
- PENSACOLA
- PORTLAND
- PHOENIX
- FIBERQUANT

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
Signature: Time: 1730	Signature: Time:
Printed Name: Date: 12/2/94	Printed Name: Date
Analytical Technologies, Inc. Albuquerque	Company:
RECEIVED BY: (LAB) 1.	**RECEIVED BY: (LAB) 2.**
Signature: Time:	Signature: Time:
Printed Name: Date:	Printed Name: Date:
Company:	Company:

Submit to Appropriate
District Office in Triplicate

DISTRICT I
PO Box 1980
Hobbs, NM 88241-1980

DISTRICT II
PO Drawer DD
Artesia, NM 88211-0719

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

DISTRICT III
1000 Rio Brazos Rd.
Aztec, NM 87410

DISTRICT IV
PO Box 2088
Santa Fe, NM 87504-2088

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE	XXXXXXXXXXXXXXXXXXXXXXXXX
1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☐ No ☐	4. Generator Baker Oil Tools
2. Destination Controlled Recovery, Inc.	5. Name of Originating Site Hobbs Yard
3. Address of Facility Operator P.O. Box 369, Hobbs, NM 88241	6. Name of Transporter Petro Thermo
7. Location of Material (Street Address or ULSTR) 507 West County Road	8. State NM

9. Circle One

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.
B. All requests for approval to accept non-oilfield exempt wastes will be accompanied by a certification of waste status from the Generator and the New Mexico Environment Department or other appropriate government agency; two certificates per job.
(C) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analyses to prove the material is non-hazardous and the Generator's certification of origin. No waste classified as hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF THE MATERIAL:

The material is from the facility's sump. The analytical results are on file with your office, and a statement from the generator is attached.

RECEIVED
NOV 04 1994
OCD HOBBS OFFICE

Estimated Volume 40 bbls. cy Known Volume (to be entered by the operator at the end of the haul: _____ cy

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Annette Curiel TITLE Office Manager DATE 10/31/94

TYPE OR PRINT NAME Annette Curiel TELEPHONE NO. (505) 393-1079

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE 11/7/94

APPROVED BY _____ TITLE Geologist IV DATE 11/17/94

CONDITIONS OF APPROVAL, IF ANY:

BAKER OIL TOOLS
P.O. BOX 1828
HOBBS, NM 88241
(505) 393-4147

STATEMENT OF CONDITION FOR ACCEPTANCE

We are requesting permission to dispose of waste material from our Hobbs yard at the Controlled Recovery, Inc. facility. The waste is generated from our sump, which is a concrete holding area for water that is used to wash off oil tools at our yard. As a condition of acceptance for disposal, I hereby certify that the analytical results dated March 17, 1994 still reflect the characteristics of this waste. In addition, I certify that no "hazardous waste" has been added or mixed with the sump waste.

BY: Dennis Collins J.
Name

District Manager
Title

10-31-94
Date

Hobbs yard - 507 West County Road
Project Location

RECEIVED
NOV 04 1994
OFFICE

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

October 6, 1994

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-170

Mr. Victor Bedford
Baker Oil Tools
9100 Emmott Rd.
Houston, Texas 77040

RE: MONITOR WELL INSTALLATION
BAKER OIL TOOLS HOBBS FACILITY

Dear Mr. Bedford:

The New Mexico Oil Conservation Division (OCD) has completed a review of Baker Oil Tools (BOT) October 5, 1994 and September 27, 1994 correspondence which was submitted on behalf of BOT by Rhino Environmental Services, Inc. These documents contain BOT's work plan for installation of an additional monitor well directly downgradient of the former unlined pit at BOT's oilfield service company facility located at 2800 West Marland in Hobbs, New Mexico.

The above referenced monitor well installation work plan is approved with the following conditions:

1. In addition to the analyses proposed, ground water from the new monitor well will also be sampled and analyzed for major cations and anions and heavy metals using EPA approved methods.

2. Ground water from the previously installed monitoring wells will be sampled and analyzed for benzene, toluene, ethylbenzene, xylene and polynuclear aromatic hydrocarbons using EPA approved methods.

3. BOT will submit a report on the site investigations to the OCD by January 14, 1995. The report will contain the results of all investigation activities including a water table elevation map for the site, well logs, monitor well completion diagrams, all soil and ground water sampling analytical results and any other pertinent information.

4. BOT will notify the OCD at least 72 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples.

5. All original documents submitted for approval will be submitted to the OCD Santa Fe Office with copies provided to the OCD Hobbs Office.

Please be advised that OCD approval does not relieve BOT of liability should the investigation activities determine that contamination exists which is beyond the scope of the work plan or if the closure activities fail to adequately determine the extent of contamination related to BOT's activities. In addition, OCD approval does not relieve BOT of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions, please call me at (505) 827-5885.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price, OCD Hobbs Office