3R - 79

REPORTS

DATE:

2/11/2003

3R79

THOMAS No. 1 LOCATION
BLOOMFIELD, NEW MEXICO

February 2003

BILLINGS & ASSOCIATES, INC

ANNUAL GROUNDWATER SAMPLING REPORT YEAR 2002
Burlington Resources Oil and Gas Well
THOMAS No. 1 LOCATION

Prepared for
NEW MEXICO OIL CONSERVATION DIVISION

Mr. Will Olson, Project Manager, Santa Fe Office
and
Mr. Denny Foust, Aztec Office

February 11, 2003

Prepared by Billings & Associates, Inc.

Brad Billings
on behalf of
BIOTECH REMEDIATION, INC.

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1.0 INTRODUCTION

Pursuant to and in compliance with the requirements of the New Mexico Oil Conservation Division (NMOCD), Billings & Associates, Inc. (BAI) is pleased to submit the following 2002 Annual Monitoring and Sampling Report for Thompson Engineering's Thomas No. 1 site located in Bloomfield, New Mexico.

Submitted report details the monitoring and sampling data activities covering July 2002 and December 2002. Data sets include ground water measurements for depth to water in five wells and laboratory analysis on ground water samples from wells identified as MW-02 and MW-03 for the two sampling dates recorded in this report. Field and or travel blank sample data are included in laboratory hard copy but are not detailed in report.

2.0 MONITORING/SAMPLING ACTIVITIES

BioTech personnel engaged in monitoring and sampling requirements for the Thomas No. 1 well site located in Bloomfield, New Mexico. These activities occurred on 7/30/02 and 12/4/02. Ground water sampling and well measurements adhered to the procedures outlined below.

2.1 GROUND WATER MEASUREMENT

At each sampling event, depth to ground water measurements were made and recorded for each monitor well. A Solonist Probe was used to measure from the survey point at top of casing to identified ground water level. Data was generated to the nearest 100th of a foot. Depth to ground water data are summarized in **Table 1**. Ground water (potentiometric surface) contour plots developed from the 7/02 and 12/02 measurement data are presented on **Figures 1A and 1B.** Ground water measurements were collected in five monitor wells (MW-1 through MW-5). Depth to water measurements are made prior to removal of any ground water.

2.2 Ground Water Sample Collection

Prior to ground water sample collection, each monitor well was purged of approximately three bore volumes. A short recovery time was then allowed for equilibration. Following this procedure, the well(s) were sampled.

A single use disposable bailer was used at each sampling location. Bailers were hand lowered into well and allowed to take on water. Bailer ultimately containing sample water was fitted with a slow flow drain device. During transfer of ground water to sample container, care is taken to ensure that no head space or air bubbles remain in sample container and that a meniscus is created at top of sample container. Following closure of sample container, the sample was rotated and agitated, further ensuring the sample container was void of free air.

2.3 Sample Preservation

Sample vials (40 ml VOA's) were prepared in advance of use by analyzing laboratory with hydrochloric acid (HCL) solution. HCL is used to prevent hydrocarbon degradation by bacteria during sample transport and laboratory holding time.

2.4 Sample Transport

Following sample collection, each sample container was labeled for origin, time/date of collection, sample type, identification of sampler, preservative used and the requested laboratory analysis. Each sample was then logged for Chain of Custody data sheets. Samples were then placed in iced cooler.

2.5 Laboratory Analysis

For each sampling event, collected samples were later analyzed by EPA Method SW8021B. Specific chemical assessments requested were methyl-tertiary-butyl-ether (MTBE), benzene, toluene, ethylbenzene and total xylenes (BTEX). Analysis results of the last two sampling events are found in **Table 2**. Historic laboratory data has been previously presented and may be found in preceding reports. Ground water samples were analyzed by EPA 8021B on the July 2002 samples. December 2002 samples were analyzed by EPA 8021B and EPA 8015. **Appendix A** contains hard copy of laboratory analysis, QA/QC information and chain of custody data.

3.0 EQUIPMENT DECONTAMINATION

To prevent cross-contamination and ensure valid data, BioTech personnel used strict decontamination protocol. For all monitor well measurement and sample collection, the following method for decontaminating equipment was employed:

- Wash with Alconox and distilled water
- Rinse with distilled water
- Wash with Alconox and distilled water
- Double rinse with distilled water

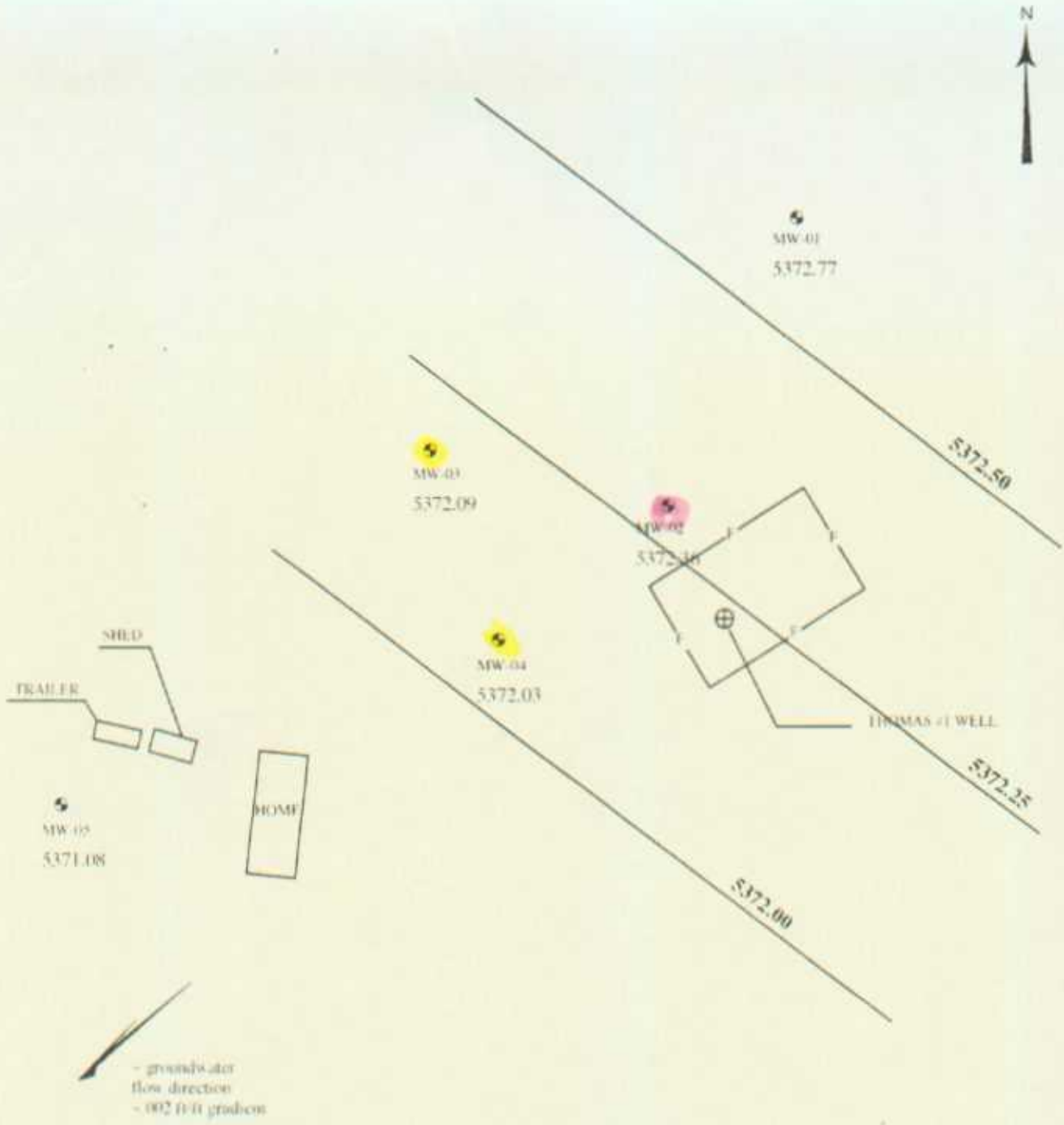
4.0 DISCUSSION AND RECOMMENDATIONS

Benzene value in well MW-02 continues to display cyclic behavior pattern. Decreasing to 50 parts per billion (ppb) at the July 2002 sampling then increasing to 87 ppb as of the December 2002 sample. Current value of 87 is nonetheless down from last years peak value of 120 ppb. Long term pattern indicates a decreasing trend. MTBE values in this well using both sampling events range from <5.0 ppb to <13.0 ppb.

Benzene values assessed from 7/02 and 12/02 sampling for well MW-3 ranged from <0.5 ppb to 0.6 ppb respectively. Again, when taken in an historical perspective, this level of benzene is still far below highest value recorded for this well and supports a general analysis for the site indicating decreasing contamination levels.

Developed ground water flow direction is nominally south/southwest based on both sampling events covered in this report. Historically a southerly ground water movement would be anticipated.

It is BAI's recommendation, based on current and historical data review, that no additional work effort is needed. BAI does suggest continued sampling by BioTech occur on the current semiannual basis and that continued annual reporting take place.



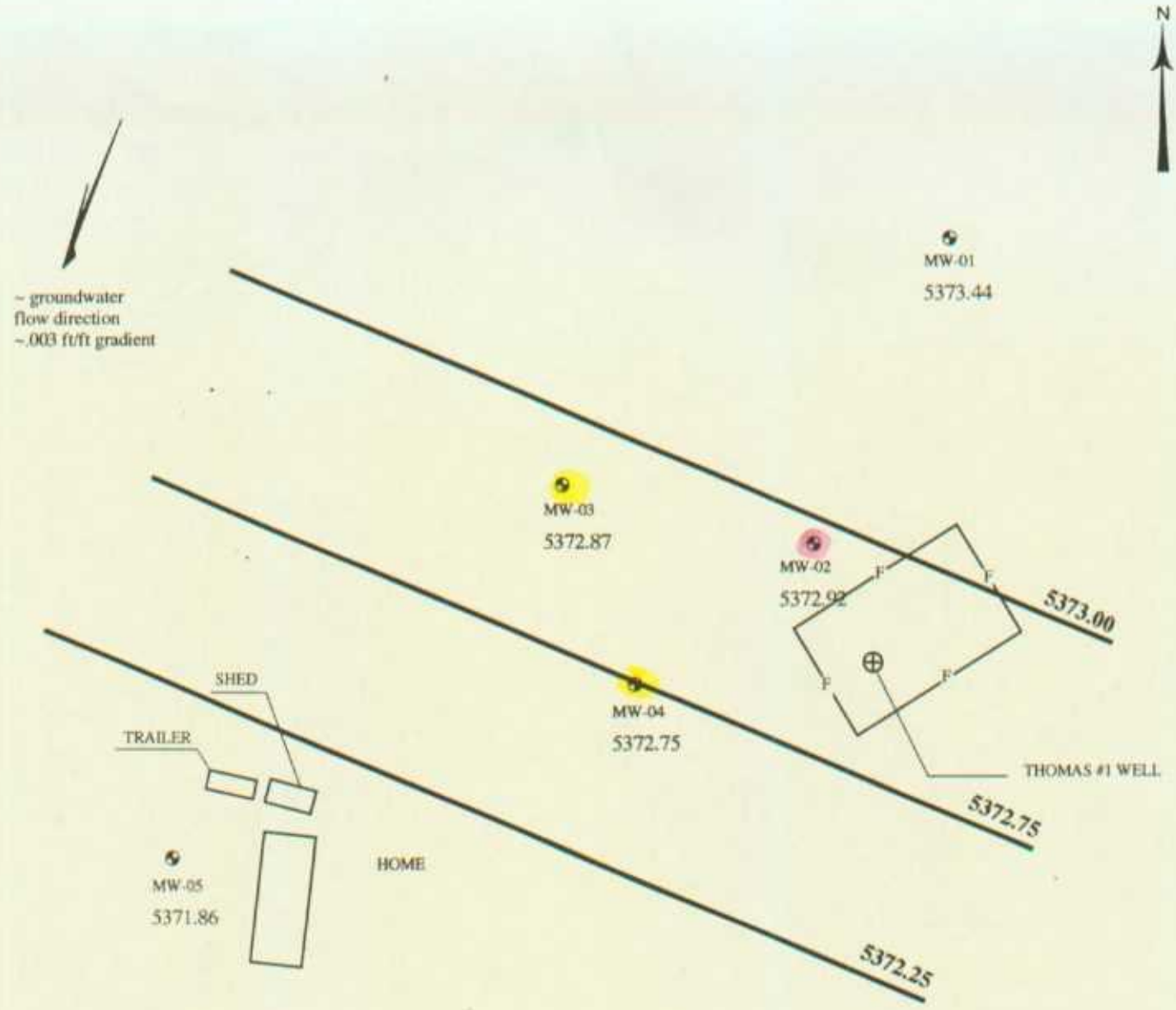
Scale 1 inch = 100 feet

0 100 200

monitoring well

groundwater contour

MODIFIED BY: Ja. Billings	Figure 1-A	BILLINGS & ASSOCIATES, INC
DATE: 2/6/2003	Groundwater Contour Map-7.02	
CASE NO:	Site Name: Thomas No. 1 Well	
	Site Location: Bloomfield New Mexico	



Taken from Bio Tech Remediation 12/13/2000

MODIFIED BY: G. Billings	Figure 1-B	
DATE: 2/6/2003	Groundwater Contour Map-12/02	BILLINGS & ASSOCIATES, INC
CASE NO:	Site Name: Thomas No. 1 Well	
	Site Location: Bloomfield New Mexico	

TABLE 1
SUMMARY OF GROUNDWATER MONITORING DATA
Thomas Well #1, Bloomfield, NM

WELL	DATE	TOC	OUTAGE FT	WATER ELEV.	TEMP C	pH	DO MG/L	COND.	Purged vol.
MW-01	09/07/2001		4.69						
	02/04/2002		3.66						
	07/30/2002		4.14						
	12/04/2002		3.47						
MW-02	09/07/2001		4.99						
	02/04/2002		4.21						
	07/30/2002		4.61						
	12/04/2002		4.05						
MW-03	09/07/2001		4.1						
	02/04/2002		2.46						
	07/30/2002		3.47						
	12/04/2002		2.69						
MW-04	09/07/2001		3.91						
	02/04/2002		2.82						
	07/30/2002		3.53						
	12/04/2002		2.81						
MW-05	09/07/2001		5.86						
	02/04/2002		4.19						
	07/30/2002		5.27						
	12/04/2002		4.49						

TABLE 2
SUMMARY OF GROUNDWATER LABORATORY ANALYSIS
Thomas Well #1, Bloomfield, NM

			ug/L				
WELL	**DATE**	**TIME**	**MTBE**	**BENZENE**	**TOLUENE**	**ETHYLBENZENE**	**XYLENES**
MW-02	9/7/01		<5.00	<2.50	<2.50	25	63.2
	2/4/02		2.8	120	9	76	373.6
	7/30/02		<5.00	50	<2.5	49	245.6
	12/4/02		<13.00	87	<2.5	67	270
MW-03	9/7/01		<1.00	130	<0.5	51	372.9
	7/30/02		<1.00	<0.5	2.3	9.5	8.6
	12/4/02		<2.5	0.6	1.7	2.4	6.2
MW-04	2/4/02		1	<0.5	6.9	8.2	18.7

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

Pinnacle Lab ID number **212020**
December 13, 2002

BIOTECH REMEDIATION
501 AIRPORT DRIVE SUITE 104
FARMINGTON, NM 87401

Project Name THOMAS WELLS
Project Number (NONE)

Attention: TERRY GRIFFIN

On 12/05/02 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), received a request to analyze **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.

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: jt

Enclosure

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
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Fax (505) 344-4413

CLIENT	: BIOTECH REMEDIATION	PINNACLE ID	: 212020
PROJECT #	: (NONE)	DATE RECEIVED	: 12/05/02
PROJECT NAME	: THOMAS WELLS	REPORT DATE	: 12/13/02

PINNACLE ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
212020 - 01	THOMAS MW #2	AQUEOUS	12/04/02
212020 - 02	THOMAS MW #3	AQUEOUS	12/04/02
212020 - 03	TRIP BLANK	AQUEOUS	11/21/02

PINNACLE LABORATORIES

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GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED / 8015 GRO
CLIENT : BIOTECH REMEDIATION PINNACLE I.D.: 212020
PROJECT # : (NONE)
PROJECT NAME : THOMAS WELLS

SAMPLE I.D. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	THOMAS MW #2	AQUEOUS	12/04/02	NA	12/06/02	5
02	THOMAS MW #3	AQUEOUS	12/04/02	NA	12/06/02	1
03	TRIP BLANK	AQUEOUS	11/21/02	NA	12/05/02	1

PARAMETER	DET. LIMIT	UNITS	THOMAS MW #2	THOMAS MW #3	TRIP BLANK
FUEL HYDROCARBONS	**50**	**UG/L**	**1800**	**500**	< 50
HYDROCARBON RANGE			**C6-C14**	**C6-C14**	C6-C14
HYDROCARBONS QUANTITATED USING			**GASOLINE**	**GASOLINE**	GASOLINE
BENZENE	**0.5**	**UG/L**	**87**	**0.6**	< 0.5
TOLUENE	**0.5**	**UG/L**	< 2.5	**1.7**	< 0.5
ETHYLBENZENE	**0.5**	**UG/L**	**67**	**2.4**	< 0.5
TOTAL XYLENES	**1.0**	**UG/L**	**270**	**6.2**	< 1.0
METHYL-t-BUTYL ETHER	2.5	UG/L	< 13	< 2.5	< 2.5
SURROGATE:					
BROMOFLUOROBENZENE (%)			112	109	103
SURROGATE LIMITS	(80 - 120)				

CHEMIST NOTES:
N/A

PINNACLE LABORATORIES

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GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED / 8015 GRO	PINNACLE I.D.	: 212020
BLANK I.D.	: 120502	DATE EXTRACTED	: N/A
CLIENT	: BIOTECH REMEDIATION	DATE ANALYZED	: 12/05/02
PROJECT #	: (NONE)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: THOMAS WELLS		

PARAMETER	UNITS	
FUEL HYDROCARBONS	UG/L	<50
HYDROCARBON RANGE		C6-C14
HYDROCARBONS QUANTITATED USING		GASOLINE
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<1.0
METHYL-t-BUTYL ETHER	UG/L	<2.5
SURROGATE:		
BROMOFLUOROBENZENE (%)		102
SURROGATE LIMITS (80 - 120)		

CHEMIST NOTES:
N/A

PINNACLE LABORATORIES

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GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED / 8015 GRO	PINNACLE I.D.	: 212020
BLANK I.D.	: 120602	DATE EXTRACTED	: N/A
CLIENT	: BIOTECH REMEDIATION	DATE ANALYZED	: 12/06/02
PROJECT #	: (NONE)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: THOMAS WELLS		

PARAMETER	UNITS	
FUEL HYDROCARBONS	UG/L	<50
HYDROCARBON RANGE		C6-C14
HYDROCARBONS QUANTITATED USING		GASOLINE
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<1.0
METHYL-t-BUTYL ETHER	UG/L	<2.5
SURROGATE:		
BROMOFLUOROBENZENE (%)		104
SURROGATE LIMITS (80 - 120)		

CHEMIST NOTES:
N/A

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GAS CHROMATOGRAPHY QUALITY CONTROL
LCS/LCSD

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 212020
BATCH I.D. #	: 120502	DATE EXTRACTED	: N/A
CLIENT	: BIOTECH REMEDIATION	DATE ANALYZED	: 12/05/02
PROJECT #	: (NONE)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: THOMAS WELLS	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	19.6	98	19.6	98	0	(80 - 120)	20
TOLUENE	<0.5	20.0	20.6	103	20.6	103	0	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	21.4	107	21.3	107	0	(80 - 120)	20
TOTAL XYLENES	<1.0	60.0	65.2	109	64.9	108	0	(80 - 120)	20
METHYL-t-BUTYL ETHER	<2.5	20.0	20.0	100	20.0	100	0	(70 - 133)	20

CHEMIST NOTES:
N/A

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

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

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GAS CHROMATOGRAPHY QUALITY CONTROL
LCS/LCSD

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 212020
BATCH I.D. #	: 120602	DATE EXTRACTED	: N/A
CLIENT	: BIOTECH REMEDIATION	DATE ANALYZED	: 12/06/02
PROJECT #	: (NONE)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: THOMAS WELLS	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	19.8	99	19.7	99	1	(80 - 120)	20
TOLUENE	<0.5	20.0	20.9	105	21.1	106	1	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	21.7	109	22.0	110	1	(80 - 120)	20
TOTAL XYLENES	<1.0	60.0	66.0	110	67.3	112	2	(80 - 120)	20
METHYL-t-BUTYL ETHER	<2.5	20.0	19.1	96	19.1	96	0	(70 - 133)	20

CHEMIST NOTES:
N/A

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

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

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GAS CHROMATOGRAPHY QUALITY CONTROL
MS/MSD

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 212020
MSMSD #	: 212020-02	DATE EXTRACTED	: N/A
CLIENT	: BIOTECH REMEDIATION	DATE ANALYZED	: 12/06/02
PROJECT #	: (NONE)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: THOMAS WELLS	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	0.6	20.0	22.4	109	22.3	109	0	(80 - 120)	20
TOLUENE	1.7	20.0	22.5	104	22.5	104	0	(80 - 120)	20
ETHYLBENZENE	2.4	20.0	24.0	108	24.2	109	1	(80 - 120)	20
TOTAL XYLENES	6.2	60.0	72.0	110	72.8	111	1	(80 - 120)	20
METHYL-t-BUTYL ETHER	<2.5	20.0	21.6	108	18.6	93	15	(70 - 133)	20

CHEMIST NOTES:
N/A

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

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

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE: 12-4-2 PAGE: 1 OF 1

PLI Accession #: 21020

SHADED AREAS ARE FOR LAB USE ONLY

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: Terry Griffin

COMPANY: Biotech Remediation Inc
ADDRESS: 501 Airport Dr. Suite 104
Farmington, NM 87401
PHONE:
FAX:

BILL TO:
COMPANY:
ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	NUMBER OF CONTAINERS
Thomas Wells MW #2	12-4-2	1435	H2O	01	2
Thomas MW #3	↓	1456	↓	02	2
Trip Blank	11/21/02	1240	AQ	03	1

Petroleum Hydrocarbons (418.1) TRPH
(MOD.8015) Diesel/Direct Inject
(M8015) Gas/Purge & Trap
8021 (BTEX)/8015 (Gasoline) MTBE ✓
8021 (BTEX) ☐MTBE ☐TMB ☐PCE
8021 (TCL)
8021 (EDX)
8021 (HALO)
8021 (CUST)
504.1 EDB ☐ / DBCP ☐
8260 (TCL) Volatile Organics
8260 (Full) Volatile Organics
8260 (CUST) Volatile Organics
8260 (Landfill) Volatile Organics
Pesticides/PCB (608/8081/8082)
Herbicides (615/8151)
Base/Neutral/Acid Compounds GC/MS (625/8270)
Polynuclear Aromatics (610/8310/8270-SIMS)
General Chemistry:
Priority Pollutant Metals (13)
Target Analyte List Metals (23)
RCRA Metals (8)
RCRA Metals by TCLP (Method 1311)
Metals:

PROJECT INFORMATION

PROJ. NO.:
PROJ. NAME: Thomas Wells
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS	5
CUSTODY SEALS	Y / N (NA)
RECEIVED INTACT	YES
BLUE ICE / ICE	9.8°C

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐24hr ☐48hr ☐72hr ☐1 WEEK (NORMAL) ☑

CERTIFICATION REQUIRED ☐NM ☐SDWA ☐OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

Rec'd TB out of hold.

Ice Present

RELINQUISHED BY: 1.

Signature: Time: 1537
Printed Name: Mike Beaudreau Date: 12-4-2
Company: Biotech
See reverse side (Force Majeure)

RECEIVED BY: 1.

Signature: Time:
Printed Name: Date:
Company:

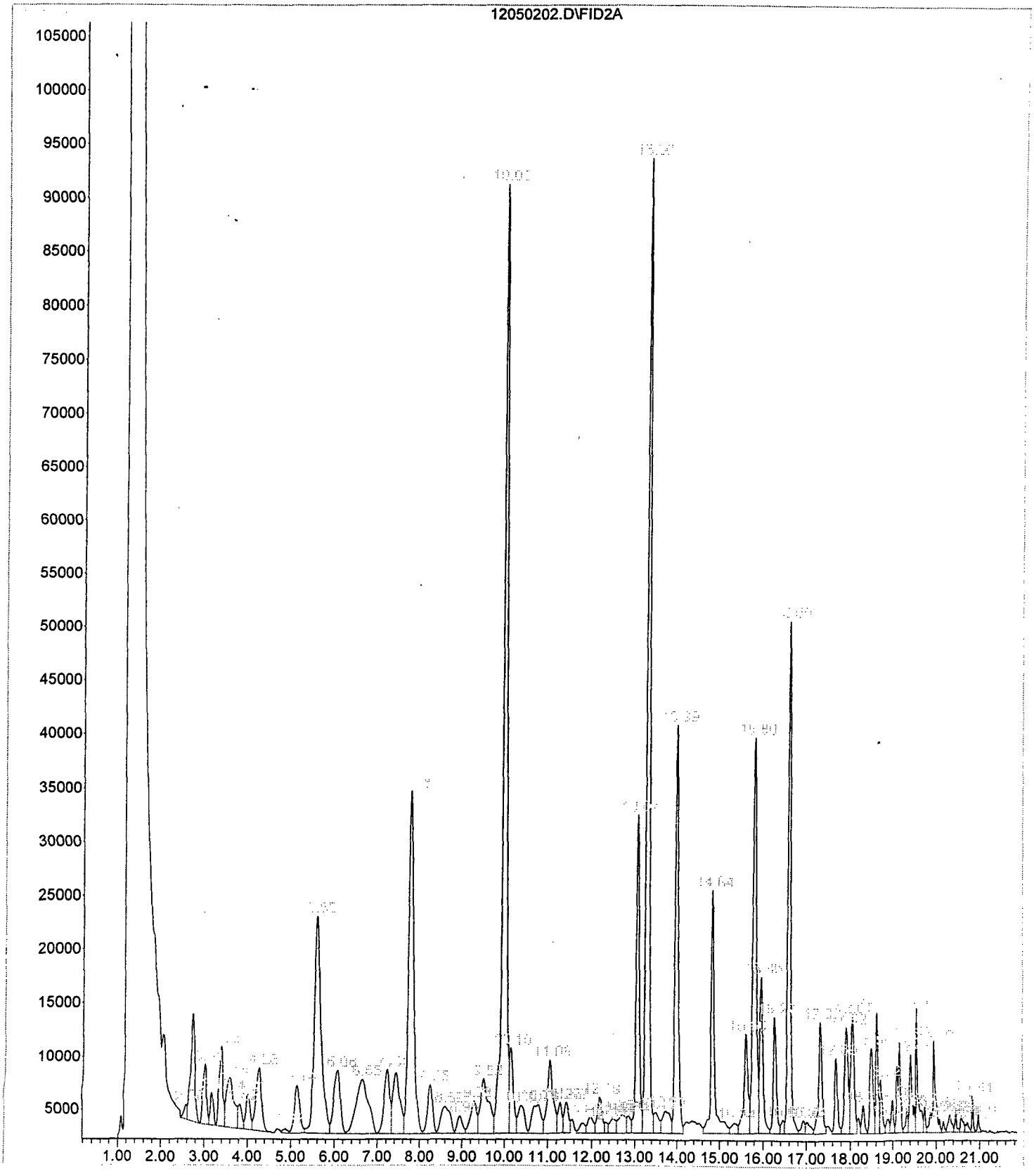
RELINQUISHED BY: 2.

Signature: Time:
Printed Name: Date:
Company:

RECEIVED BY: (LAB) 2.

Signature: Time: 0940
Printed Name: Francine Tonno Date: 12/5/02
Pinnacle Laboratories Inc.

File : C:\HPCHEM\1\DATA\120502\12050202.D
Operator : BP
Acquired : 5 Dec 2002 12:48 using AcqMethod BTEX1118.M
Instrument : GC-2
Sample Name: GRO CCV
Misc Info : 10uL GC4-66-14
Vial Number: 2



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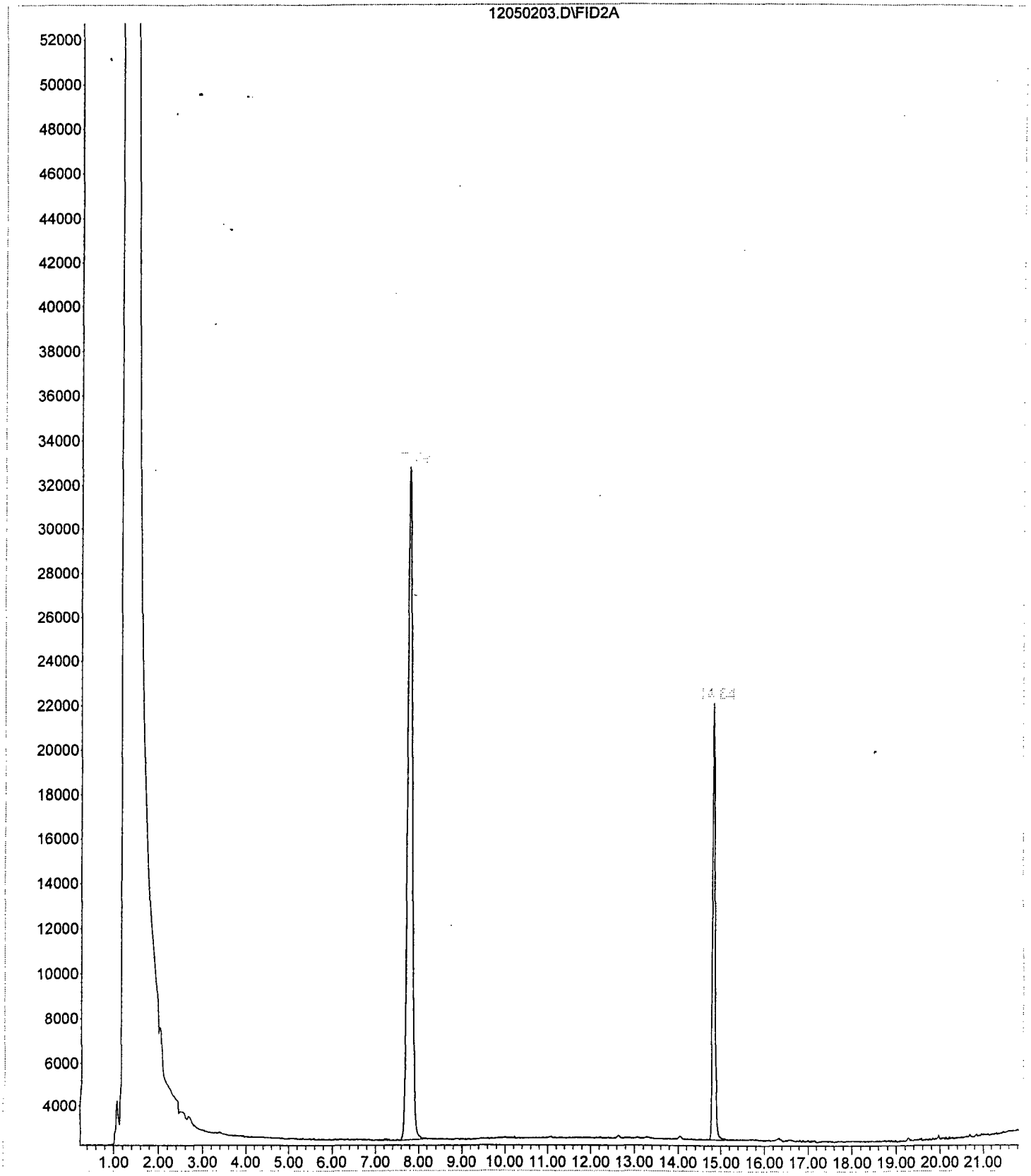
Operator : BP
Acquired : 5 Dec 2002 13:19 using AcqMethod BTEX1118.M
Instrument : GC-2
Sample Name: Reagent Blank
Misc Info : 10uL GC4-66-12 / GC4-66-13
Vial Number: 3



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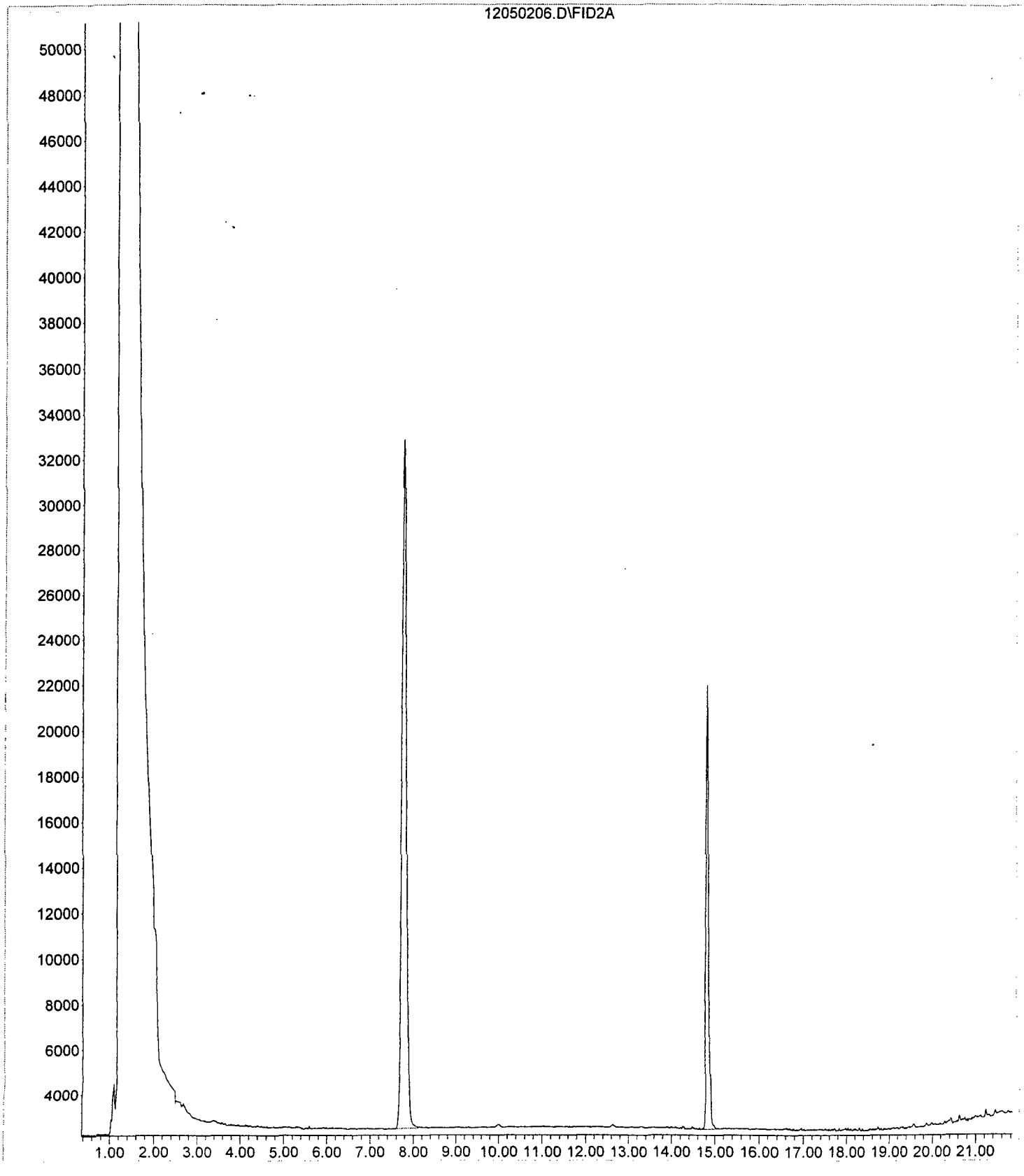
Operator : BP
Acquired : 5 Dec 2002 14:53 using AcqMethod BTEX1118.M
Instrument : GC-2
Sample Name: 212020-03 1X
Misc Info : 5mL TRIP BLANK
Vial Number: 6



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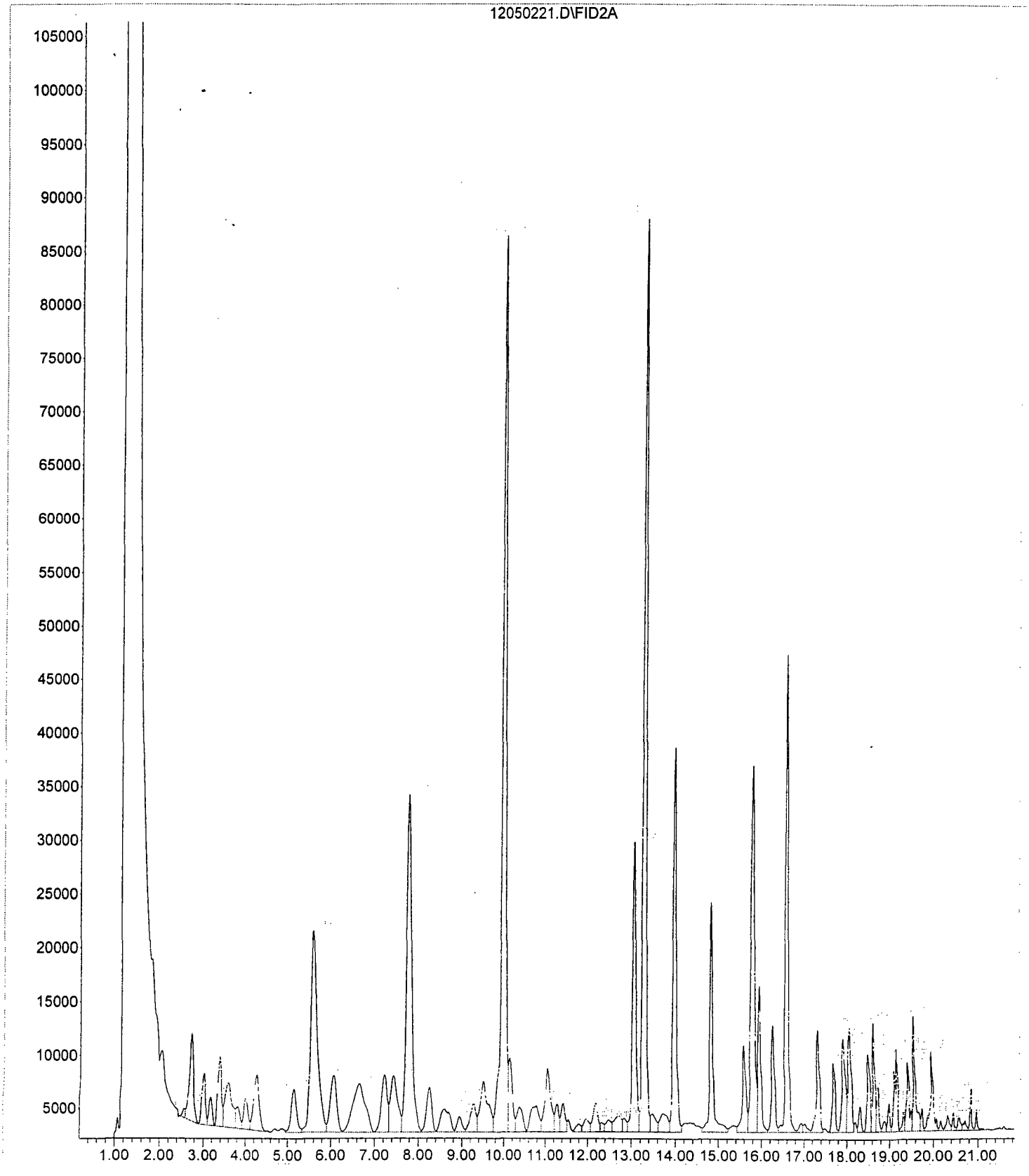
Operator : BP
Acquired : 5 Dec 2002 22:41 using AcqMethod BTEX1118.M
Instrument : GC-2
Sample Name: GRO CCV
Misc Info : 10uL GC4-66-14
Vial Number: 5



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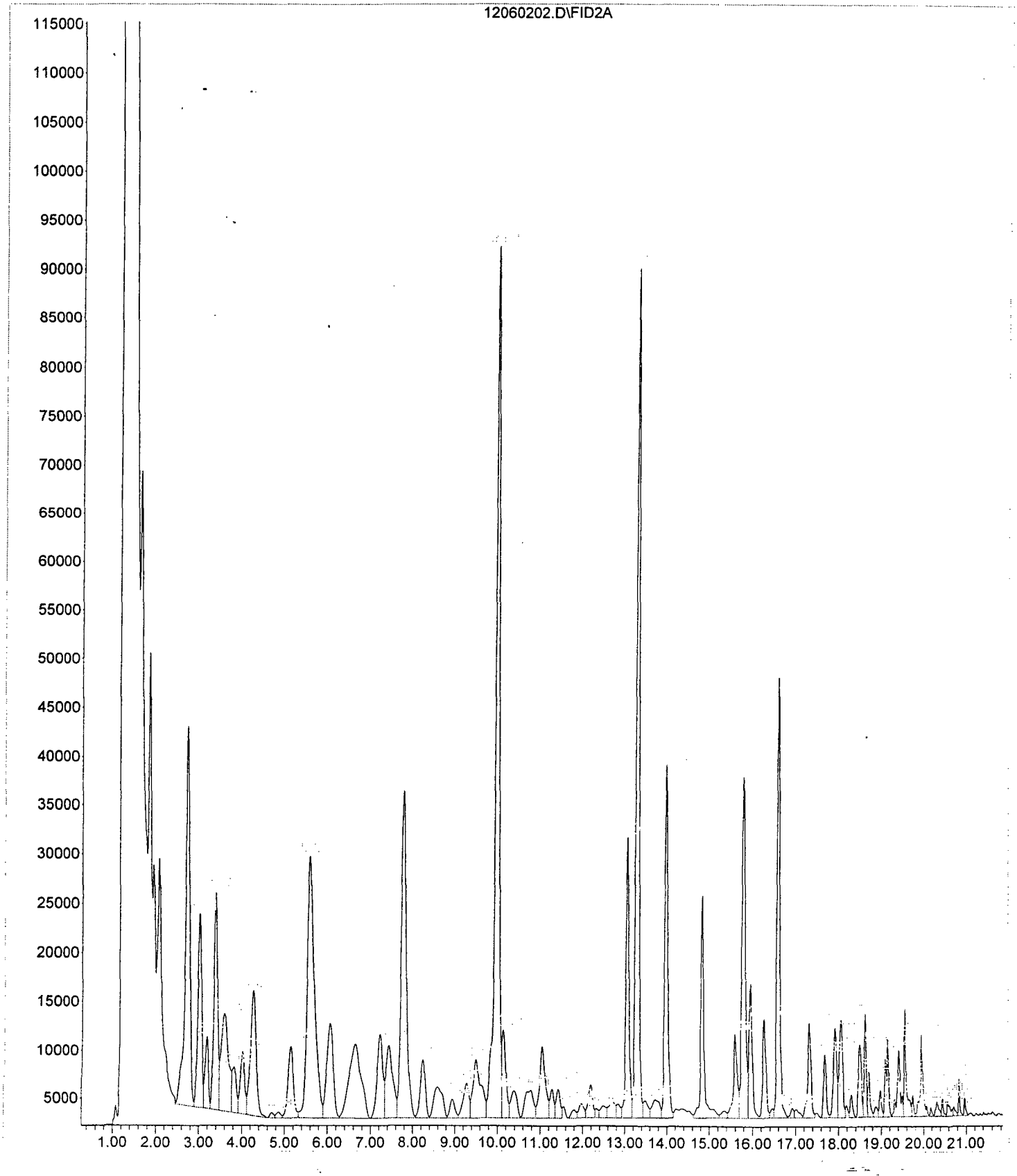
Operator : BP
Acquired : 6 Dec 2002 9:45 using AcqMethod BTEX1118.M
Instrument : GC-2
Sample Name: GRO CCV
Misc Info : 10uL GC4-73-02
Vial Number: 2



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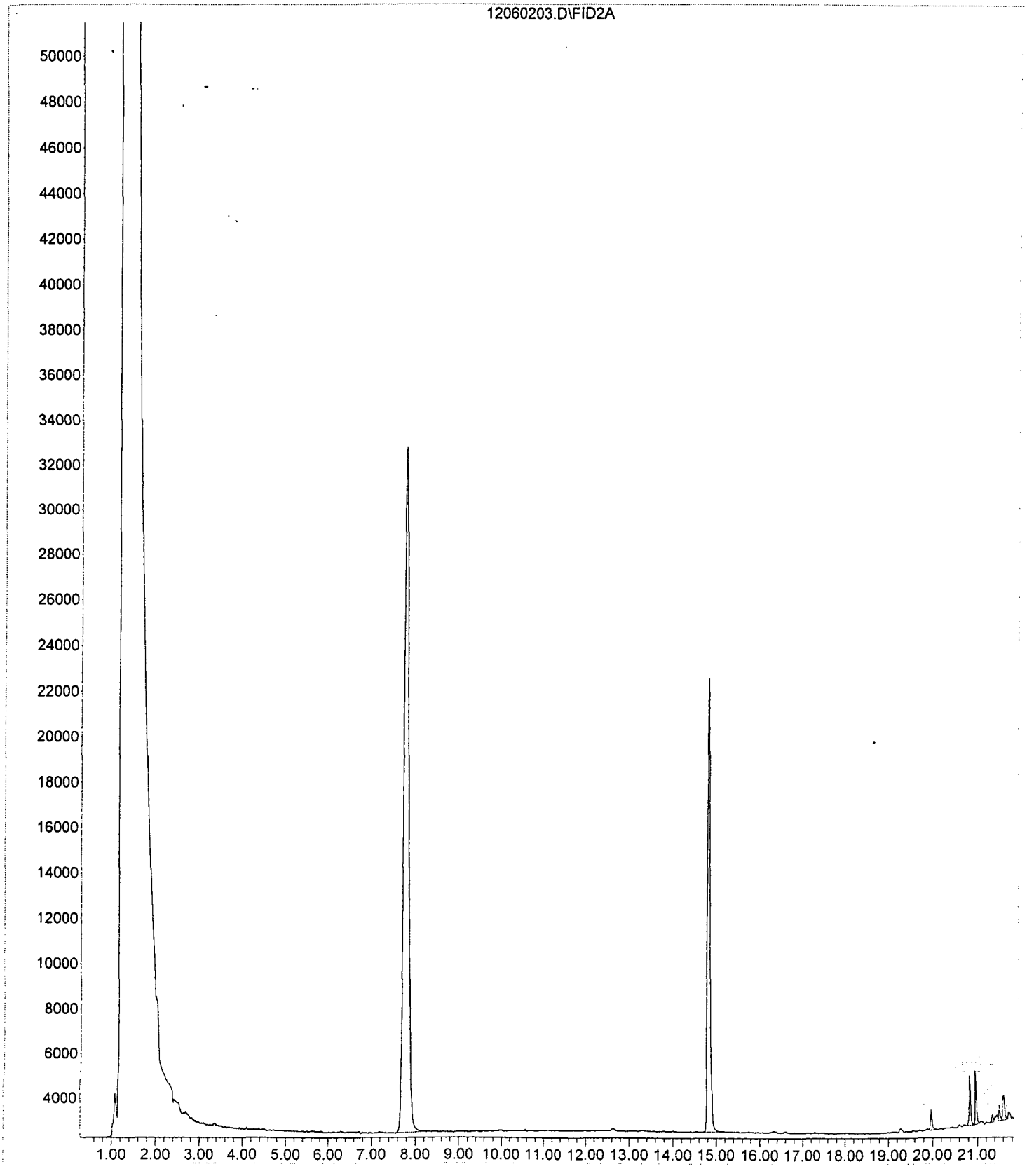
Operator : BP
Acquired : 6 Dec 2002 10:16 using AcqMethod BTEX1118.M
Instrument : GC-2
Sample Name: Reagent Blank
Misc Info : 10uL GC4-66-12 / GC4-66-13
Vial Number: 3



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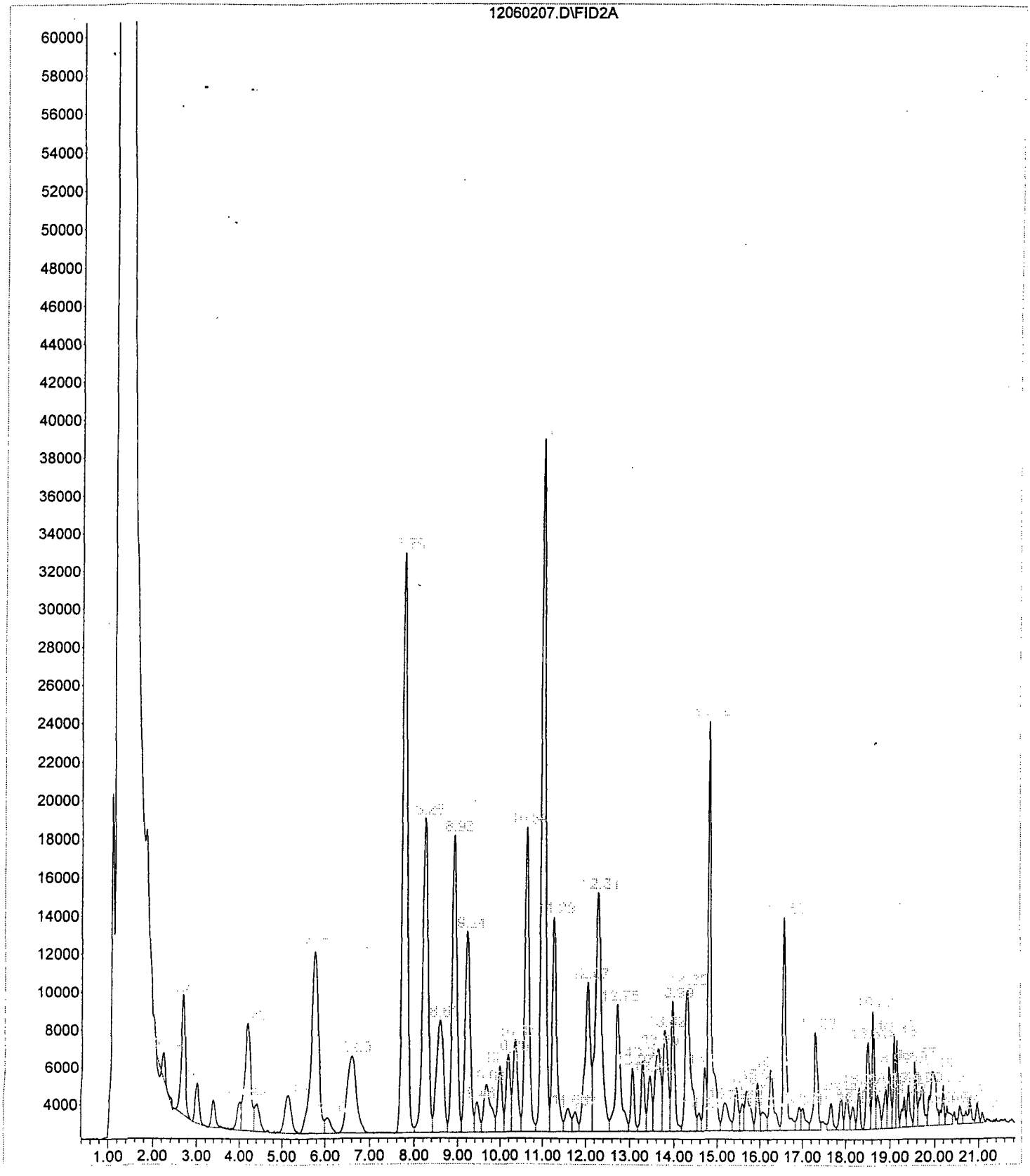
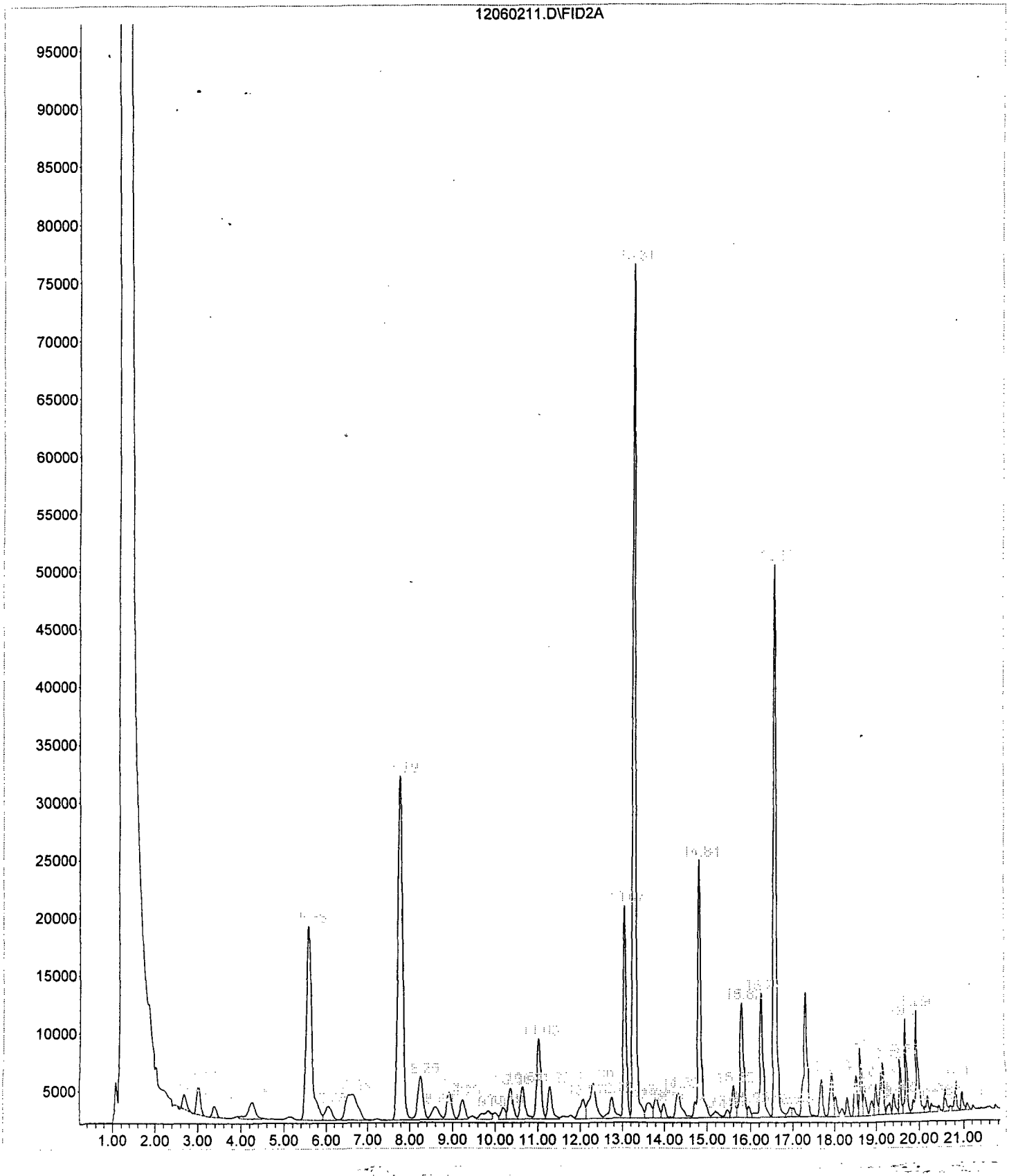
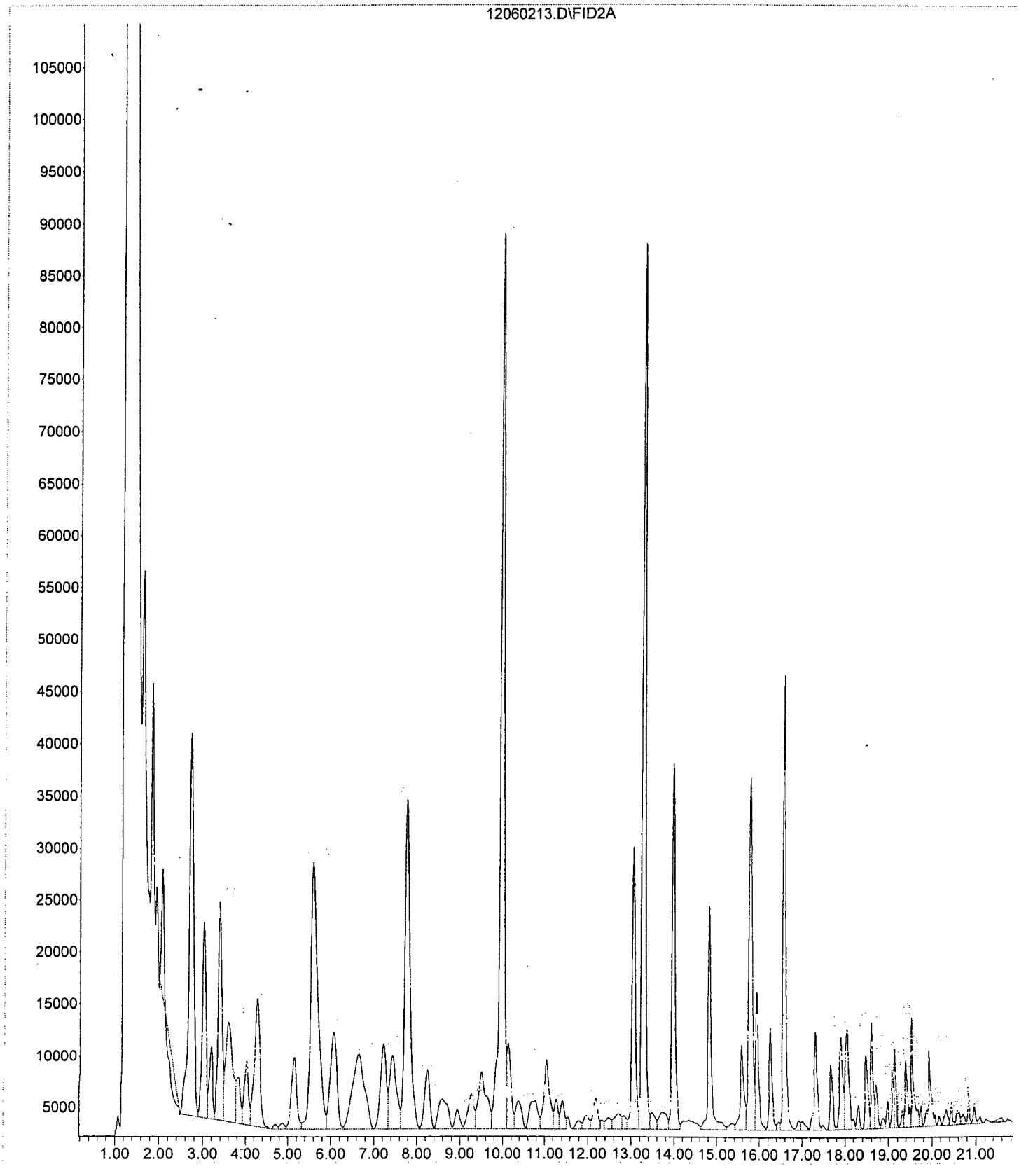
Operator : BP
Acquired : 6 Dec 2002 12:22 using AcqMethod BTEX1118.M
Instrument : GC-2
Sample Name: 212020-02 1X RR
Misc Info : 5mL
Vial Number: 7



File : C:\HPCHEM\1\DATA\120602\12060211.D
Operator : BP
Acquired : 6 Dec 2002 14:26 using AcqMethod BTEX1118.M
Instrument : GC-2
Sample Name: 212020-01 5X RR
Misc Info : 1mL
Vial Number: 11



File : C:\HPCHEM\1\DATA\120602\12060213.D
Operator : BP
Acquired : 6 Dec 2002 15:28 using AcqMethod BTEX1118.M
Instrument : GC-2
Sample Name: GRO CCV
Misc Info : 10uL GC4-73-02
Vial Number: 13



612 E. Murray Drive
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August 14, 2002

Terry Griffin
BioTech Remediation, Inc.
501 Airport Drive, Suite 104
Farmington, NM 87401
TEL: (505) 327-4965
FAX: (505) 564-3604

RE: Thomas Well #1; Bloomfield, NM Order No.: 0207047

Dear Terry Griffin,

iiná bá, Ltd. received 3 samples on 07/31/2002 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
Aromatic Volatiles by GC/PID (SW8021B)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

David Cox

612 E. Murray Drive
Farmington, NM 87401

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P.O. Box 2606
Farmington, NM 87499

Fax: (505) 327-1496

iiná bá, Ltd. **Date:** *14-Aug-02*

CLIENT: BioTech Remediation, Inc.
Project: Thomas Well #1; Bloomfield, NM
Lab Order: 0207047

CASE NARRATIVE

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

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s) or the quality control summary report(s).

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ANALYTICAL REPORT

Date: *14-Aug-02*

Client:	BioTech Remediation, Inc.	**Client Sample Info:**	Thomas Well #1
Work Order:	0207047	**Client Sample ID:**	Trip Blank
Lab ID:	0207047-01A **Matrix:** AQUEOUS	**Collection Date:**	07/30/2002 9:00:00 AM
Project:	Thomas Well #1; Bloomfield, NM	**COC Record:**	11284

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **HNR**
Methyl tert-Butyl Ether	ND	1		µg/L	1	08/07/2002
Benzene	ND	0.5		µg/L	1	08/07/2002
Toluene	1.3	0.5		µg/L	1	08/07/2002
Ethylbenzene	ND	0.5		µg/L	1	08/07/2002
m,p-Xylene	ND	1		µg/L	1	08/07/2002
o-Xylene	0.6	0.5		µg/L	1	08/07/2002

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above quantitation range
Surr: - Surrogate

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ANALYTICAL REPORT

Date: *14-Aug-02*

Client:	BioTech Remediation, Inc.	**Client Sample Info:**	Thomas Well #1
Work Order:	0207047	**Client Sample ID:**	MW-02
Lab ID:	0207047-02A **Matrix:** AQUEOUS	**Collection Date:**	07/30/2002 3:58:00 PM
Project:	Thomas Well #1; Bloomfield, NM	**COC Record:**	11284

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DWC**
Methyl tert-Butyl Ether	ND	5		µg/L	5	08/09/2002
Benzene	50	2.5		µg/L	5	08/09/2002
Toluene	ND	2.5		µg/L	5	08/09/2002
Ethylbenzene	49	2.5		µg/L	5	08/09/2002
m,p-Xylene	240	5		µg/L	5	08/09/2002
o-Xylene	5.6	2.5		µg/L	5	08/09/2002

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above quantitation range
Surr: - Surrogate

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ANALYTICAL REPORT

Date: *14-Aug-02*

Client:	BioTech Remediation, Inc.	**Client Sample Info:**	Thomas Well #1
Work Order:	0207047	**Client Sample ID:**	MW-03
Lab ID:	0207047-03A **Matrix:** AQUEOUS	**Collection Date:**	07/30/2002 4:10:00 PM
Project:	Thomas Well #1; Bloomfield, NM	**COC Record:**	11284

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DWC**
Methyl tert-Butyl Ether	ND	1		µg/L	1	08/09/2002
Benzene	ND	0.5		µg/L	1	08/09/2002
Toluene	2.3	0.5		µg/L	1	08/09/2002
Ethylbenzene	9.5	0.5		µg/L	1	08/09/2002
m,p-Xylene	4	1		µg/L	1	08/09/2002
o-Xylene	4.6	0.5		µg/L	1	08/09/2002

Qualifiers:

- PQL - Practical Quantitation Limit
- ND - Not Detected at Practical Quantitation Limit
- J - Analyte detected below Practical Quantitation Limit
- B - Analyte detected in the associated Method Blank
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted precision limits
- E - Value above quantitation range
- Surr: - Surrogate

CLIENT: BioTech Remediation, Inc.
Work Order: 0207047
Project: Thomas Well #1; Bloomfield, NM

QC SUMMARY REPORT
Method Blank

Sample ID: **MB_020807** Batch ID: **GC-1_020807** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/07/2002** Prep Date: **08/07/2002**
Client ID: **0207047** Run ID: **GC-1_020807A** SeqNo: **56311**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.0724	0.5									J
1,4-Difluorobenzene	110.1	0									
4-Bromochlorobenzene	120.1	0									
Fluorobenzene	113.8	0									

Sample ID: **MB_020809** Batch ID: **GC-1_020809** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/09/2002** Prep Date: **08/09/2002**
Client ID: **0207047** Run ID: **GC-1_020809A** SeqNo: **56318**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.073	0.5									J
1,4-Difluorobenzene	108.7	0									
4-Bromochlorobenzene	114.3	0									
Fluorobenzene	112.8	0									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: BioTech Remediation, Inc.
Work Order: 0207047
Project: Thomas Well #1; Bloomfield, NM

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **0207044-08AMS** Batch ID: **GC-1_020807** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/07/2002** Prep Date: **08/07/2002**
Client ID: **0207047** Run ID: **GC-1_020807A** SeqNo: **56296**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	372.6	5	400	0.75	93.0%	70	130				
Ethylbenzene	380.3	5	400	2.5	94.5%	70	130				
m,p-Xylene	755.2	10	800	2.8	94.1%	70	130				
Methyl tert-Butyl Ether	1366	10	400	970	99.1%	70	130				
o-Xylene	363.4	5	400	0	90.8%	70	130				
Toluene	370	5	400	1.1	92.2%	70	130				
1,4-Difluorobenzene	1089	0	1100	0	99.0%	70	130				
4-Bromochlorobenzene	1142	0	1100	0	103.9%	70	130				
Fluorobenzene	1119	0	1100	0	101.7%	70	130				

Sample ID: **0207044-08AMSD** Batch ID: **GC-1_020807** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/07/2002** Prep Date: **08/07/2002**
Client ID: **0207047** Run ID: **GC-1_020807A** SeqNo: **56297**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	364	5	400	0.75	90.8%	70	130	372.6	2.3%	15	
Ethylbenzene	371.6	5	400	2.5	92.3%	70	130	380.3	2.3%	15	
m,p-Xylene	738.2	10	800	2.8	91.9%	70	130	755.2	2.3%	15	
Methyl tert-Butyl Ether	1349	10	400	970	94.8%	70	130	1366	1.2%	15	
o-Xylene	357.2	5	400	0	89.3%	70	130	363.4	1.7%	15	
Toluene	361.9	5	400	1.1	90.2%	70	130	370	2.2%	15	
1,4-Difluorobenzene	1082	0	1100	0	98.4%	70	130	0	0.0%	0	
4-Bromochlorobenzene	1159	0	1100	0	105.4%	70	130	0	0.0%	0	
Fluorobenzene	1118	0	1100	0	101.6%	70	130	0	0.0%	0	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: BioTech Remediation, Inc.
Work Order: 0207047
Project: Thomas Well #1; Bloomfield, NM

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: **0207047-01AMS** Batch ID: **GC-1_020809** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/09/2002** Prep Date: **08/09/2002**
Client ID: **Trip Blank** **0207047** Run ID: **GC-1_020809A** SeqNo: **56319**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	199.4	2.5	200	0.3027	99.6%	70	130				
Ethylbenzene	200.6	2.5	200	0.1549	100.2%	70	130				
m,p-Xylene	399.3	5	400	0.5231	99.7%	70	130				
Methyl tert-Butyl Ether	203.7	5	200	0.3122	101.7%	70	130				
o-Xylene	191.7	2.5	200	0.5505	95.6%	70	130				
Toluene	195.6	2.5	200	1.336	97.2%	70	130				
1,4-Difluorobenzene	543.6	0	550	0	98.8%	70	130				
4-Bromochlorobenzene	591.9	0	550	0	107.6%	70	130				
Fluorobenzene	558.5	0	550	0	101.5%	70	130				

Sample ID: **0207047-01AMSD** Batch ID: **GC-1_020809** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/09/2002** Prep Date: **08/09/2002**
Client ID: **Trip Blank** **0207047** Run ID: **GC-1_020809A** SeqNo: **56320**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	195.1	2.5	200	0.3027	97.4%	70	130	199.4	2.2%	15	
Ethylbenzene	196.1	2.5	200	0.1549	98.0%	70	130	200.6	2.2%	15	
m,p-Xylene	391.1	5	400	0.5231	97.7%	70	130	399.3	2.1%	15	
Methyl tert-Butyl Ether	206.1	5	200	0.3122	102.9%	70	130	203.7	1.2%	15	
o-Xylene	188.6	2.5	200	0.5505	94.0%	70	130	191.7	1.6%	15	
Toluene	191.3	2.5	200	1.336	95.0%	70	130	195.6	2.2%	15	
1,4-Difluorobenzene	542.4	0	550	0	98.6%	70	130	0	0.0%	0	
4-Bromochlorobenzene	587.3	0	550	0	106.8%	70	130	0	0.0%	0	
Fluorobenzene	561.2	0	550	0	102.0%	70	130	0	0.0%	0	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

iiná bá, Ltd.

Date: *14-Aug-02*

CLIENT: BioTech Remediation, Inc.
Work Order: 0207047
Project: Thomas Well #1; Bloomfield, NM

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS_020807** Batch ID: **GC-1_020807** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/07/2002** Prep Date: **08/07/2002**
Client ID: **0207047** Run ID: **GC-1_020807A** SeqNo: **56310**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	34.62	0.5	40	0	86.6%	80	120				
Ethylbenzene	34.8	0.5	40	0	87.0%	80	120				
m,p-Xylene	69.41	1	80	0	86.8%	80	120				
Methyl tert-Butyl Ether	37.32	1	40	0	93.3%	80	120				
o-Xylene	33.6	0.5	40	0	84.0%	80	120				
Toluene	33.83	0.5	40	0.07	84.4%	80	120				
1,4-Difluorobenzene	109.7	0	110	0	99.7%	70	130				
4-Bromochlorobenzene	119.8	0	110	0	109.0%	70	130				
Fluorobenzene	112.9	0	110	0	102.7%	70	130				

Sample ID: **LCS_020809** Batch ID: **GC-1_020809** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/09/2002** Prep Date: **08/09/2002**
Client ID: **0207047** Run ID: **GC-1_020809A** SeqNo: **56317**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.5	0.5	40	0	98.7%	80	120				
Ethylbenzene	39.9	0.5	40	0	99.8%	80	120				
m,p-Xylene	79.53	1	80	0	99.4%	80	120				
Methyl tert-Butyl Ether	40.54	1	40	0	101.4%	80	120				
o-Xylene	38.17	0.5	40	0	95.4%	80	120				
Toluene	38.54	0.5	40	0.073	96.2%	80	120				
1,4-Difluorobenzene	108.5	0	110	0	98.6%	70	130				
4-Bromochlorobenzene	118.8	0	110	0	108.0%	70	130				
Fluorobenzene	112	0	110	0	101.8%	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

iiná bá, Ltd.

Date: *14-Aug-02*

CLIENT: BioTech Remediation, Inc.
Work Order: 0207047
Project: Thomas Well #1; Bloomfield, NM

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV1_020807** Batch ID: **GC-1_020807** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/07/2002** Prep Date: **08/07/2002**
Client ID: **0207047** Run ID: **GC-1_020807A** SeqNo: **56307**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	16.87	0.5	20	0	84.3%	85	115				S
Ethylbenzene	16.99	0.5	20	0	84.9%	85	115				S
m,p-Xylene	34.21	1	40	0	85.5%	85	115				
Methyl tert-Butyl Ether	18.26	1	20	0	91.3%	85	115				
o-Xylene	16.31	0.5	20	0	81.5%	85	115				S
Toluene	16.44	0.5	20	0	82.2%	85	115				S
1,4-Difluorobenzene	109.9	0	110	0	100.0%	70	130				
4-Bromochlorobenzene	119.1	0	110	0	108.2%	70	130				
Fluorobenzene	113.9	0	110	0	103.5%	70	130				

ALL SAMPLES RE-ANALYZED ✓ 8/16/02

Sample ID: **CCV2_020807** Batch ID: **GC-1_020807** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/07/2002** Prep Date: **08/07/2002**
Client ID: **0207047** Run ID: **GC-1_020807A** SeqNo: **56308**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.51	0.5	20	0	92.6%	85	115				
Ethylbenzene	18.66	0.5	20	0	93.3%	85	115				
m,p-Xylene	37.54	1	40	0	93.8%	85	115				
Methyl tert-Butyl Ether	19.36	1	20	0	96.8%	85	115				
o-Xylene	17.99	0.5	20	0	90.0%	85	115				
Toluene	18.1	0.5	20	0	90.5%	85	115				
1,4-Difluorobenzene	109.8	0	110	0	99.8%	70	130				
4-Bromochlorobenzene	115.4	0	110	0	104.9%	70	130				
Fluorobenzene	112.8	0	110	0	102.6%	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: BioTech Remediation, Inc.
Work Order: 0207047
Project: Thomas Well #1; Bloomfield, NM

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV3 020807** Batch ID: **GC-1_020807** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/07/2002** Prep Date: **08/07/2002**
Client ID: **0207047** Run ID: **GC-1_020807A** SeqNo: **56292**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.4	0.5	40	0	96.0%	85	115				
Ethylbenzene	38.84	0.5	40	0	97.1%	85	115				
m,p-Xylene	77.04	1	80	0	96.3%	85	115				
Methyl tert-Butyl Ether	40.23	1	40	0	100.6%	85	115				
o-Xylene	37.37	0.5	40	0	93.4%	85	115				
Toluene	37.57	0.5	40	0	93.9%	85	115				
1,4-Difluorobenzene	109.5	0	110	0	99.5%	70	130				
4-Bromochlorobenzene	121.3	0	110	0	110.3%	70	130				
Fluorobenzene	112.7	0	110	0	102.5%	70	130				

Sample ID: **CCV4_020807** Batch ID: **GC-1_020807** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/07/2002** Prep Date: **08/07/2002**
Client ID: **0207047** Run ID: **GC-1_020807A** SeqNo: **56309**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	17.35	0.5	20	0	86.7%	85	115				
Ethylbenzene	17.38	0.5	20	0	86.9%	85	115				
m,p-Xylene	34.85	1	40	0	87.1%	85	115				
Methyl tert-Butyl Ether	19.26	1	20	0	96.3%	85	115				
o-Xylene	17.08	0.5	20	0	85.4%	85	115				
Toluene	17.24	0.5	20	0	86.2%	85	115				
1,4-Difluorobenzene	110.5	0	110	0	100.5%	70	130				
4-Bromochlorobenzene	121.4	0	110	0	110.3%	70	130				
Fluorobenzene	113.4	0	110	0	103.1%	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: BioTech Remediation, Inc.
Work Order: 0207047
Project: Thomas Well #1; Bloomfield, NM

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV1_020809** Batch ID: **GC-1_020809** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/09/2002** Prep Date: **08/09/2002**
Client ID: **0207047** Run ID: **GC-1_020809A** SeqNo: **56315**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.7	0.5	20	0	98.5%	85	115				
Ethylbenzene	19.98	0.5	20	0	99.9%	85	115				
m,p-Xylene	40.17	1	40	0	100.4%	85	115				
Methyl tert-Butyl Ether	20.55	1	20	0	102.7%	85	115				
o-Xylene	19.11	0.5	20	0	95.5%	85	115				
Toluene	19.2	0.5	20	0	96.0%	85	115				
1,4-Difluorobenzene	109	0	110	0	99.0%	70	130				
4-Bromochlorobenzene	117.9	0	110	0	107.2%	70	130				
Fluorobenzene	112	0	110	0	101.8%	70	130				

Sample ID: **CCV2_020809** Batch ID: **GC-1_020809** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/09/2002** Prep Date: **08/09/2002**
Client ID: **0207047** Run ID: **GC-1_020809A** SeqNo: **56316**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.66	0.5	20	0	98.3%	85	115				
Ethylbenzene	19.9	0.5	20	0	99.5%	85	115				
m,p-Xylene	40.06	1	40	0	100.1%	85	115				
Methyl tert-Butyl Ether	20.34	1	20	0	101.7%	85	115				
o-Xylene	19.12	0.5	20	0	95.6%	85	115				
Toluene	19.19	0.5	20	0	95.9%	85	115				
1,4-Difluorobenzene	108.9	0	110	0	99.0%	70	130				
4-Bromochlorobenzene	113.4	0	110	0	103.1%	70	130				
Fluorobenzene	112.1	0	110	0	101.9%	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

iina ba, Ltd.

Date: 14-Aug-02

CLIENT: BioTech Remediation, Inc.
Work Order: 0207047
Project: Thomas Well #1; Bloomfield, NM
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ					
0207044-01A	99.4	104	103					
0207044-02A	99.1	104	103					
0207044-03A	100	105	104					
0207044-04A	99.3	110	102					
0207044-05A	99.7	104	103					
0207044-06A	100	106	104					
0207044-07A	97.1	112	101					
0207044-08A	101	111	104					
0207044-08AMS	99	104	102					
0207044-08AMSD	98.4	105	102					
0207044-09A	100	112	103					
0207044-10A	100	110	104					
0207044-11A	101	111	104					
0207044-12A	101	114	105					
0207044-13A	101	112	104					
0207044-14A	101	105	104					
0207044-15A	100	107	104					
0207044-16A	101	107	104					
0207044-17A	98.9	109	102					
0207046-01A	96.9	110	99.2					
0207046-02A	100	108	104					
0207047-01A	100	114	104					
0207047-01AMS	98.8	108	102					
0207047-01AMSD	98.6	107	102					
0207047-02A	95.9	104	99.9					
0207047-03A	96.2	101	99.6					
CCV1_020807	100	108	104					

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	70-130
4BCBZ	=	4-Bromochlorobenzene	70-130
FLBZ	=	Fluorobenzene	70-130

*** Surrogate recovery outside acceptance limits**

CLIENT: BioTech Remediation, Inc.
Work Order: 0207047
Project: Thomas Well #1; Bloomfield, NM
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ				
CCV1_020809	99	107	102				
CCV2_020807	99.8	105	102				
CCV2_020809	99	103	102				
CCV3 020807	99.5	110	102				
CCV4_020807	100	110	103				
LCS_020807	99.7	109	103				
LCS_020809	98.6	108	102				
MB_020807	100	109	103				
MB_020809	98.8	104	102				

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	70-130
4BCBZ	=	4-Bromochlorobenzene	70-130
FLBZ	=	Fluorobenzene	70-130

*** Surrogate recovery outside acceptance limits**

11284

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Date: 7-30-02

Page: 1 of 1

Purchase Order No.:

Project No. THOMAS #1

SEND INVOICE TO

Name TERRY GRIFFIN
Company BIOTECH REMEDIATION INC. Dept.
Address 501 AIRPORT DR SUITE 401
City, State, Zip FARMINGTON, N.M. 87401

REPORT RESULTS TO

Name Title
Company
Mailing Address
City, State, Zip
Telephone No. Telefax No.

PROJECT LOCATION:
THOMAS WELL #1
BLOOMFIELD, N.M.

SAMPLER'S SIGNATURE:
M Sampler

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	SAMPLE PRES.	Number of Containers	ANALYSIS REQUESTED: BTEX / MTBE	LAB ID
TRIP BLANK	7-30-02	0900	H2O	HCL	2	✓	020730-17.01A
MW# 02	"	1558	"	"	2	✓	02A
MW# 03	"	1610	"	"	2	✓	03A

Relinquished by: M Sampler Date/Time 7/31/02 1145 Received by: Hasan L. Date/Time 7/31/02 1145

Relinquished by: Date/Time Received by: Date/Time

Relinquished by: Date/Time Received by: Date/Time

Method of Shipment:

Rush | 24-48 Hours | 10 Working Days | By Date

Special Instructions / Remarks:

Authorized by: _____ Date _____
(Client Signature Must Accompany Request)

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client