TABLE OF CONTENTS

CLIENT: **ENSR**

PROJECT: **UPGRADIENT INVESTIGATION, TRONOX**

SDG: **06C222**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1005
GC/MS-VOA	METHOD SW5030B/8260B	2000 – 2122
GC/MS-SVOA	**	3000 –
GC-VOA	METHOD 5030B/8015B	4000 – 4046
GC-SVOA	METHOD 3520C/8015B	5000 – 5058
	METHOD M8015 (ALCOHOLS)	5059 – 5098
	METHOD M8015 (ETHYLENE)	5099 – 5144
HPLC	**	6000 –
METALS	**	7000 –
WET	**	8000 –
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 04-07-2006
EMAX Batch No.: 06C222

Attn: Linda Geddes

MWH
750 Royal Oaks Dr, Suite 100
Monrovia CA 91016-3629

Subject: Laboratory Report
Project: Upgradient Investigation, Tronox

Enclosed is the Laboratory report for samples received on 03/24/06.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
M-121	C222-01	03/23/06	WATER	VOLATILE ORGANICS BY GC/MS METHANOL & ETHANOL DIESEL RANGE ORGANICS MOTOR OIL GASOLINE RANGE ORGANICS ETHYLENE GLYCOL
M-117	C222-02	03/23/06	WATER	VOLATILE ORGANICS BY GC/MS METHANOL & ETHANOL DIESEL RANGE ORGANICS MOTOR OIL GASOLINE RANGE ORGANICS ETHYLENE GLYCOL
H-11	C222-03	03/23/06	WATER	VOLATILE ORGANICS BY GC/MS METHANOL & ETHANOL DIESEL RANGE ORGANICS MOTOR OIL GASOLINE RANGE ORGANICS ETHYLENE GLYCOL
TRIP BLANK	C222-04	03/23/06	WATER	VOLATILE ORGANICS BY GC/MS

Sample ID	Control #	Col Date	Matrix	Analysis
				METHANOL & ETHANOL
				GASOLINE RANGE ORGANICS
				ETHYLENE GLYCOL
M-121MS	C222-01M	03/23/06	WATER	VOLATILE ORGANICS BY GC/MS
				METHANOL & ETHANOL
				DIESEL RANGE ORGANICS
				MOTOR OIL
				GASOLINE RANGE ORGANICS
				ETHYLENE GLYCOL
M-121MSD	C222-01S	03/23/06	WATER	VOLATILE ORGANICS BY GC/MS
				METHANOL & ETHANOL
				DIESEL RANGE ORGANICS
				MOTOR OIL
				GASOLINE RANGE ORGANICS
				ETHYLENE GLYCOL

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

ENSR INTERNATIONAL

ENSR International
1220 Avenida Acaso
Camarillo, CA 93012-8738
Phone (805) 388-3775
Fax (805) 388-3577 J15

ANALYTICAL LAB: EMAX Laboratories
Ye Myint - (310) 618-8889 x121
1835 West 205th Street
Torrance, CA 90501 SITE Henderson DATE 3/23/06 PAGE 1 OF 1

06E222

CLIENT: Tronox LLC
PROJECT NAME: Upgradient Investigation
PROJECT MANAGER: Dave Gerry
JOB #: 04020-023-150
COELT LOG CODE: YES / NO
SAMPLER SIGNATURE: Brian Ho

Brian Ho

LINE ITEM	SAMPLE NO.	DATE	TIME	8260B / 5035 Volatile Organics	8260B BTEX / MTBE / Oxygenates	8015 Diesel / Gasoline (Full Range)	8081A Pesticides	CAM 17 Metals	Fuel Alcohols	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	OBSERVATIONS/ COMMENTS
1	1. M-121	3/23/06	08:30	X		X			X	W	G	12	
	2. M-121 MS/MSD	3/23/06	08:55	X		X			X	W	G	12	
2	3. M-117	3/23/06	14:50	X		X			X	W	G	12	
3	4. H-11	3/23/06	15:20	X		X			X	W	G	12	
4	5. Trip Blank	3/23/06	—	X		X			X	W	G	3	
	6.												
	7.												
	8.												
	9.												
	10.												

TURN-AROUND TIME: standard

MATRIX TYPE: S - Soil, W - Water, O - Other
CONTAINER TYPE: G - Glass Bottle, P - Plastic, O - Other

PRESERVATIVES:
All samples are preserved on ice.
Water samples are preserved as indicated on the sample labels.

T = 2.5°C

TEMPERATURE BLANK EACH COOLER: [X] YES [ ] NO

RELINQUISHED BY:	SIGNATURE		DATE	TIME	TOTAL NUMBER OF CONTAINERS:
Brian Ho	Brian Ho	ENSR International	3/23/06	16:35	
RECEIVED BY: Federal Express	SIGNATURE	COMPANY	DATE 3/23/06	TIME 16:35	METHOD OF SHIPMENT: Federal Express
RELINQUISHED BY:	SIGNATURE	COMPANY	DATE	TIME	SPECIAL SHIMENT/HANDLING/STORAGE REQUIREMENTS:
~~RECEIVED BY~~ DATE	~~SIGNATURE~~	COMPANY EMAX	DATE 3/24/06	TIME 9:15A	

DISTRIBUTION: White and Canary = Laboratory Pink = ENSR International

Serial No. 5165

2665

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill		
☐ EMAX Courier		ECN	060222
☐ Client Delivery		Recepient	Rafael
☑ Third Party Fedex	856241668687	Date	3-24-06
		Time	09:15

COC Inspection

☑ Client Name	☑ Sampler Name	☑ Sampling Date/Time/Location
☑ Address	☐ Courier Signature/Date/Time	☑ Analysis Required
☑ Client PM/FC	☐ TAT	☑ Matrix
☑ Tel #/Fax #	☑ Sample ID	☐ Preservative (if any)
Safety Issues ☑ None	☐ High Concentrations expected	☐ Superfund Site Samples
Comments: ☐ Rad Screening Required		

Packaging Inspection

Container	☑ Cooler	☐ Box	☐	☐
Condition	☐ Custody Seal	☑ Intact	☐ Damaged	☐
Packaging	☑ Bubble Pack	☐ Styrofoam	☑ Sufficient	☐
Temperatures	☑ Cooler 1 2.5	☑ Cooler 2 ____	☐ Cooler 3 ____	☐ Cooler 4 ____
	☐ Cooler 5 ____	☐ Cooler 6 ____	☐ Cooler 7 ____	☐ Cooler 8 ____
	☐ Cooler 9 ____	☐ Cooler 10 ____	☐ Cooler 11 ____	☐ Cooler 12 ____

Comments:

LSCID	Client ID	Discrepancy	Corrective Action
C222-1		No collection time on vials or bottles.	Informed client
C222-2			
C222-3			
C222-4		No client label only EMAX-Trip Blank-Soil No.: TB-01-061-02	
			JM 3/24/06

LSCID : Lab Sample Container ID

REVIEWS

Sample Labeling Rafael Date 3/24/06

SRF Rafael Date 3/24/06

PM [signature] Date 3/24/06

FedEx Express US Airbill

FedEx Tracking Number 8562 4166 8687

Form ID No. 0200

Recipient's Copy

1 From

Date 3/23/06

Sender's Name Brian Ho Phone 805 795-3334

Company ENSR 06 C222

3-24-06 9:15A

Address 1220 Avenida Acaso Dept./Floor/Suite/Room

City Camarillo State CA ZIP 93012

2 Your Internal Billing Reference 04020-023-150

3 To

Recipient's Name Ye Myint Phone 310 618-8889

Company EMAX Laboratories, Inc

Recipient's Address 1835 West 205th Street

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City Torrance State CA ZIP 90501

8562 4166 8687

4a Express Package Service *Packages up to 150 lbs.*

- [X] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

FedEx Envelope rate not available. Minimum charge: One-pound rate.

* To most locations.

4b Express Freight Service *Packages over 150 lbs.*

- [ ] FedEx 1Day Freight* — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [X] FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

* Call for Confirmation: ** To most locations.

5 Packaging

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
- [ ] FedEx Box
- [ ] FedEx Tube
- [X] Other

* Declared value limit $500.

6 Special Handling Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Not available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- [ ] HOLD Weekday at FedEx Location — Not available for FedEx First Overnight.
- [ ] HOLD Saturday at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.

- [X] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.

- [ ] Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No. [ ]

- [X] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages	Total Weight	Total Declared Value†	Total Charges
1	6	$ 500.00	1

Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 *NEW* Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

- [ ] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Anyone at recipient's address may sign for delivery. *Fee applies.*
- [ ] Indirect Signature — If no one is available at recipient's address, anyone at a neighboring address may sign for delivery. *Fee applies.*

520

Rev. Date 8/05•Part #158230•©1994-2005 FedEx•PRINTED IN U.S.A. SRF

fedex.com 1.800.GoFedEx 1.800.463.3339

fedex.com 1.800.GoFedEx 1.800.463.3339

1001

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

ENSR

UPGRADIENT INVESTIGATION, TRONOX

METHOD SW5030B/8260B
VOLATILE ORGANICS BY GC/MS

SDG#: 06C222

CASE NARRATIVE

CLIENT: ENSR

PROJECT: UPGRADIENT INVESTIGATION, TRONOX

SDG: 06C222

METHOD SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Four (4) water samples were received on 03/24/06 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   Sample C222-01 was spiked. All recoveries were within QC limit.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : ENSR
Project : UPGRADIENT INVESTIGATION, TRONOX

SDG NO. : 06C222
Instrument ID : T-067

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V067C47Q	1	NA	03/30/0608:00	03/30/0608:00	RCC677	RCC488	V067C47	Method Blank
LCS1W	V067C47L	1	NA	03/30/0606:13	03/30/0606:13	RCC674	RCC488	V067C47	Lab Control Sample (LCS)
LCD1W	V067C47C	1	NA	03/30/0606:48	03/30/0606:48	RCC675	RCC488	V067C47	LCS Duplicate
TRIP BLANK	C222-04	1	NA	03/30/0611:42	03/30/0611:42	RCC683	RCC488	V067C47	Field Sample
M-121	C222-01	1	NA	03/30/0612:53	03/30/0612:53	RCC685	RCC488	V067C47	Field Sample
M-117	C222-02	1	NA	03/30/0613:29	03/30/0613:29	RCC686	RCC488	V067C47	Field Sample
H-11	C222-03	1	NA	03/30/0614:05	03/30/0614:05	RCC687	RCC488	V067C47	Field Sample
M-121MS	C222-01M	1	NA	03/30/0615:16	03/30/0615:16	RCC689	RCC488	V067C47	Matrix Spike Sample (MS)
M-121MSD	C222-01S	1	NA	03/30/0615:52	03/30/0615:52	RCC690	RCC488	V067C47	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

2002

SAMPLE RESULTS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ENSR	Date Collected: 03/23/06
Project : UPGRADIENT INVESTIGATION, TRONOX	Date Received: 03/24/06
Batch No. : 06C222	Date Extracted: 03/30/06 12:53
Sample ID: M-121	Date Analyzed: 03/30/06 12:53
Lab Samp ID: C222-01	Dilution Factor: 1
Lab File ID: RCC685	Matrix : WATER
Ext Btch ID: VO67C47	% Moisture : NA
Calib. Ref.: RCC488	Instrument ID : T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	5	1
1,1,1-TRICHLOROETHANE	ND	5	1
1,1,2,2-TETRACHLOROETHANE	ND	5	1
1,1,2-TRICHLOROETHANE	ND	5	1
1,1-DICHLOROETHANE	ND	5	1
1,1-DICHLOROETHENE	ND	5	1
1,1-DICHLOROPROPENE	ND	5	1
1,2,3-TRICHLOROBENZENE	ND	5	1
1,2,3-TRICHLOROPROPANE	ND	5	1
1,2,4-TRICHLOROBENZENE	ND	5	1
1,2,4-TRIMETHYLBENZENE	ND	5	1
1,2-DIBROMO-3-CHLOROPROPANE	ND	5	1
1,2-DICHLOROBENZENE	ND	5	1
1,2-DICHLOROETHANE	ND	5	1
1,2-DICHLOROPROPANE	ND	5	1
1,2-DIBROMOETHANE	ND	5	1
1,3,5-TRIMETHYLBENZENE	ND	5	1
1,3-DICHLOROBENZENE	ND	5	1
1,3-DICHLOROPROPANE	ND	5	1
1,4-DICHLOROBENZENE	ND	5	1
1-CHLOROHEXANE	ND	5	1
2,2-DICHLOROPROPANE	ND	5	1
2-CHLOROTOLUENE	ND	5	1
4-CHLOROTOLUENE	ND	5	1
BENZENE	ND	5	1
BROMOBENZENE	ND	5	1
BROMOCHLOROMETHANE	ND	5	1
BROMODICHLOROMETHANE	ND	5	1
BROMOFORM	ND	5	1
BROMOMETHANE	ND	10	1
CARBON TETRACHLORIDE	ND	5	1
CHLOROBENZENE	ND	5	1
CHLOROETHANE	ND	5	1
CHLOROFORM	ND	5	1
CHLOROMETHANE	ND	5	1
CIS-1,2-DICHLOROETHENE	ND	5	1
CIS-1,3-DICHLOROPROPENE	ND	5	1
DIBROMOCHLOROMETHANE	ND	5	1
DIBROMOMETHANE	ND	5	1
DICHLORODIFLUOROMETHANE	ND	5	1
ETHYLBENZENE	ND	5	1
HEXACHLOROBUTADIENE	ND	10	1
ISOPROPYL BENZENE	ND	5	1
XYLENES	ND	10	2
METHYLENE CHLORIDE	ND	10	1
N-BUTYLBENZENE	ND	5	1
N-PROPYLBENZENE	ND	5	1
NAPHTHALENE	ND	5	1
P-ISOPROPYLTOLUENE	ND	5	1
SEC-BUTYLBENZENE	ND	5	1
STYRENE	ND	5	1
TERT-BUTYLBENZENE	ND	5	1
TETRACHLOROETHYLENE	ND	5	1
TOLUENE	ND	5	1
TRANS-1,2-DICHLOROETHENE	ND	5	1
TRANS-1,3-DICHLOROPROPENE	ND	5	1
TRICHLOROETHENE	ND	5	1
TRICHLOROFLUOROMETHANE	ND	5	1
VINYL CHLORIDE	ND	5	1
ACETONE	ND	10	5
2-BUTANONE	ND	10	5
MTBE	ND	5	1
4-METHYL-2-PENTANONE	ND	10	5
DIPE	ND	5	1
ETBE	ND	5	1
TAME	ND	5	1
TERT-BUTANOL	ND	50	10
2-HEXANONE	ND	10	5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	112	70-140
4-BROMOFLUOROBENZENE	127	70-130
TOLUENE-D8	112	70-140

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C29\RCC685.D Vial: 16
Acq On : 30 Mar 2006 12:53 pm Operator: CGM
Sample : 06C222-01 5.0mL Inst : TO67
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Apr 3 14:21 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

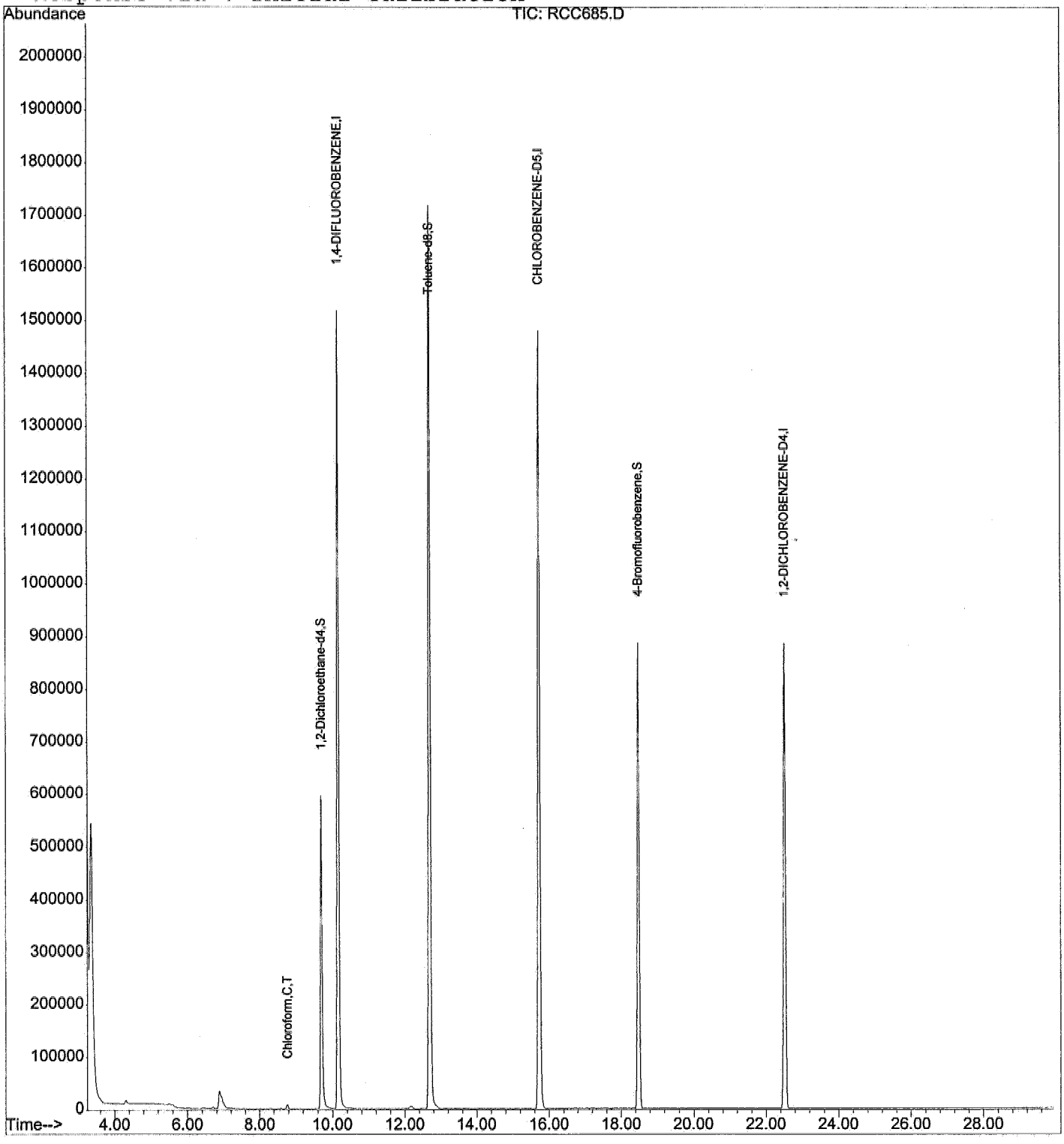
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.15	114	2352252	50.00	ug/l	0.01
36) CHLOROBENZENE-D5	15.72	117	1984448	50.00	ug/l	0.01
66) 1,2-DICHLOROBENZENE-D4	22.52	152	552082	50.00	ug/l	0.01
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.69	65	573166	56.16	ug/l	0.01
Spiked Amount 50.000			Recovery =	112.32%		
49) Toluene-d8	12.69	98	2443379	55.81	ug/l	0.01
Spiked Amount 50.000			Recovery =	111.62%		
70) 4-Bromofluorobenzene	18.48	95	743286	63.31	ug/l	0.01
Spiked Amount 50.000			Recovery =	126.62%		
Target Compounds						Qvalue
30) Chloroform	8.77	83	12605	0.56	ug/l	98

(#) = qualifier out of range (m) = manual integration

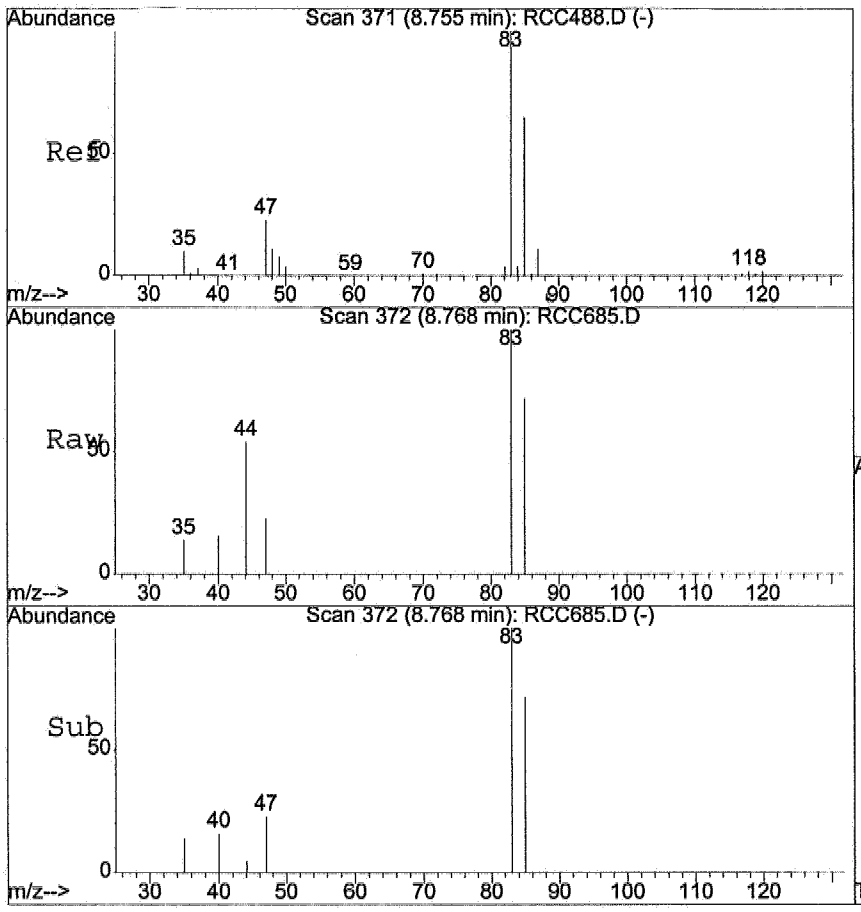
Quantitation Report

Data File : D:\HPCHEM\1\DATA\06C29\RCC685.D Vial: 16
Acq On : 30 Mar 2006 12:53 pm Operator: CGM
Sample : 06C222-01 5.0mL Inst : TO67
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Apr 3 14:21 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration



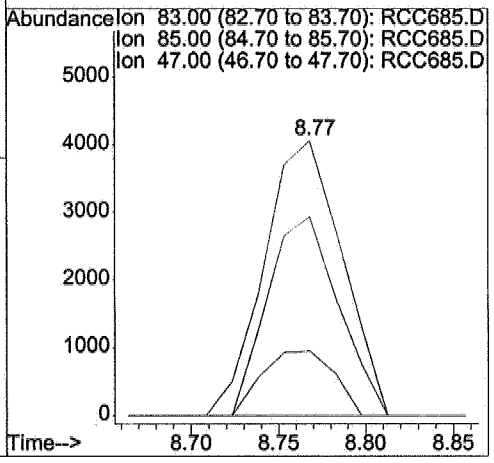
2006



#30
Chloroform
Concen: 0.56 ug/l
RT: 8.77 min Scan# 372
Delta R.T. 0.01 min
Lab File: RCC685.D
Acq: 30 Mar 2006 12:53 pm

Tgt Ion: 83 Resp: 12605

Ion	Ratio	Lower	Upper
83	100		
85	66.1	34.9	94.9
47	21.7	0.0	53.5



2007

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/30/06 13:29
Sample ID:	M-117	Date Analyzed:	03/30/06 13:29
Lab Samp ID:	C222-02	Dilution Factor:	1
Lab File ID:	RCC686	Matrix	: WATER
Ext Btch ID:	V067C47	% Moisture	: NA
Calib. Ref.:	RCC488	Instrument ID	: T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	5	1
1,1,1-TRICHLOROETHANE	ND	5	1
1,1,2,2-TETRACHLOROETHANE	ND	5	1
1,1,2-TRICHLOROETHANE	ND	5	1
1,1-DICHLOROETHANE	ND	5	1
1,1-DICHLOROETHENE	ND	5	1
1,1-DICHLOROPROPENE	ND	5	1
1,2,3-TRICHLOROBENZENE	ND	5	1
1,2,3-TRICHLOROPROPANE	ND	5	1
1,2,4-TRICHLOROBENZENE	ND	5	1
1,2,4-TRIMETHYLBENZENE	ND	5	1
1,2-DIBROMO-3-CHLOROPROPANE	ND	5	1
1,2-DICHLOROBENZENE	ND	5	1
1,2-DICHLOROETHANE	ND	5	1
1,2-DICHLOROPROPANE	ND	5	1
1,2-DIBROMOETHANE	ND	5	1
1,3,5-TRIMETHYLBENZENE	ND	5	1
1,3-DICHLOROBENZENE	ND	5	1
1,3-DICHLOROPROPANE	ND	5	1
1,4-DICHLOROBENZENE	ND	5	1
1-CHLOROHEXANE	ND	5	1
2,2-DICHLOROPROPANE	ND	5	1
2-CHLOROTOLUENE	ND	5	1
4-CHLOROTOLUENE	ND	5	1
BENZENE	ND	5	1
BROMOBENZENE	ND	5	1
BROMOCHLOROMETHANE	ND	5	1
BROMODICHLOROMETHANE	ND	5	1
BROMOFORM	ND	5	1
BROMOMETHANE	ND	10	1
CARBON TETRACHLORIDE	ND	5	1
CHLOROBENZENE	ND	5	1
CHLOROETHANE	ND	5	1
CHLOROFORM	ND	5	1
CHLOROMETHANE	ND	5	1
CIS-1,2-DICHLOROETHENE	ND	5	1
CIS-1,3-DICHLOROPROPENE	ND	5	1
DIBROMOCHLOROMETHANE	ND	5	1
DIBROMOMETHANE	ND	5	1
DICHLORODIFLUOROMETHANE	ND	5	1
ETHYLBENZENE	ND	5	1
HEXACHLOROBUTADIENE	ND	10	1
ISOPROPYL BENZENE	ND	5	1
XYLENES	ND	10	2
METHYLENE CHLORIDE	ND	10	1
N-BUTYLBENZENE	ND	5	1
N-PROPYLBENZENE	ND	5	1
NAPHTHALENE	ND	5	1
P-ISOPROPYLTOLUENE	ND	5	1
SEC-BUTYLBENZENE	ND	5	1
STYRENE	ND	5	1
TERT-BUTYLBENZENE	ND	5	1
TETRACHLOROETHYLENE	ND	5	1
TOLUENE	ND	5	1
TRANS-1,2-DICHLOROETHENE	ND	5	1
TRANS-1,3-DICHLOROPROPENE	ND	5	1
TRICHLOROETHENE	ND	5	1
TRICHLOROFLUOROMETHANE	ND	5	1
VINYL CHLORIDE	ND	5	1
ACETONE	5J	10	5
2-BUTANONE	ND	10	5
MTBE	ND	5	1
4-METHYL-2-PENTANONE	ND	10	5
DIPE	ND	5	1
ETBE	ND	5	1
TAME	ND	5	1
TERT-BUTANOL	ND	50	10
2-HEXANONE	ND	10	5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	113	70-140
4-BROMOFLUOROBENZENE	129	70-130
TOLUENE-D8	109	70-140

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C29\RCC686.D Vial: 17
Acq On : 30 Mar 2006 1:29 pm Operator: CGM
Sample : 06C222-02 5.0mL Inst : TO67
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Apr 3 14:22 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.16	114	2364880	50.00	ug/l	0.02
36) CHLOROBENZENE-D5	15.72	117	2068341	50.00	ug/l	0.00
66) 1,2-DICHLOROBENZENE-D4	22.51	152	550550	50.00	ug/l	0.00
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.70	65	578767	56.40	ug/l	0.02
Spiked Amount 50.000			Recovery = 112.80%			
49) Toluene-d8	12.70	98	2494897	54.67	ug/l	0.02
Spiked Amount 50.000			Recovery = 109.34%			
70) 4-Bromofluorobenzene	18.47	95	756802	64.65	ug/l	0.00
Spiked Amount 50.000			Recovery = 129.30%			
Target Compounds						Qvalue
11) Acetone	6.04	43	13472	5.05	ug/l	95
30) Chloroform	8.76	83	11556	0.51	ug/l	92

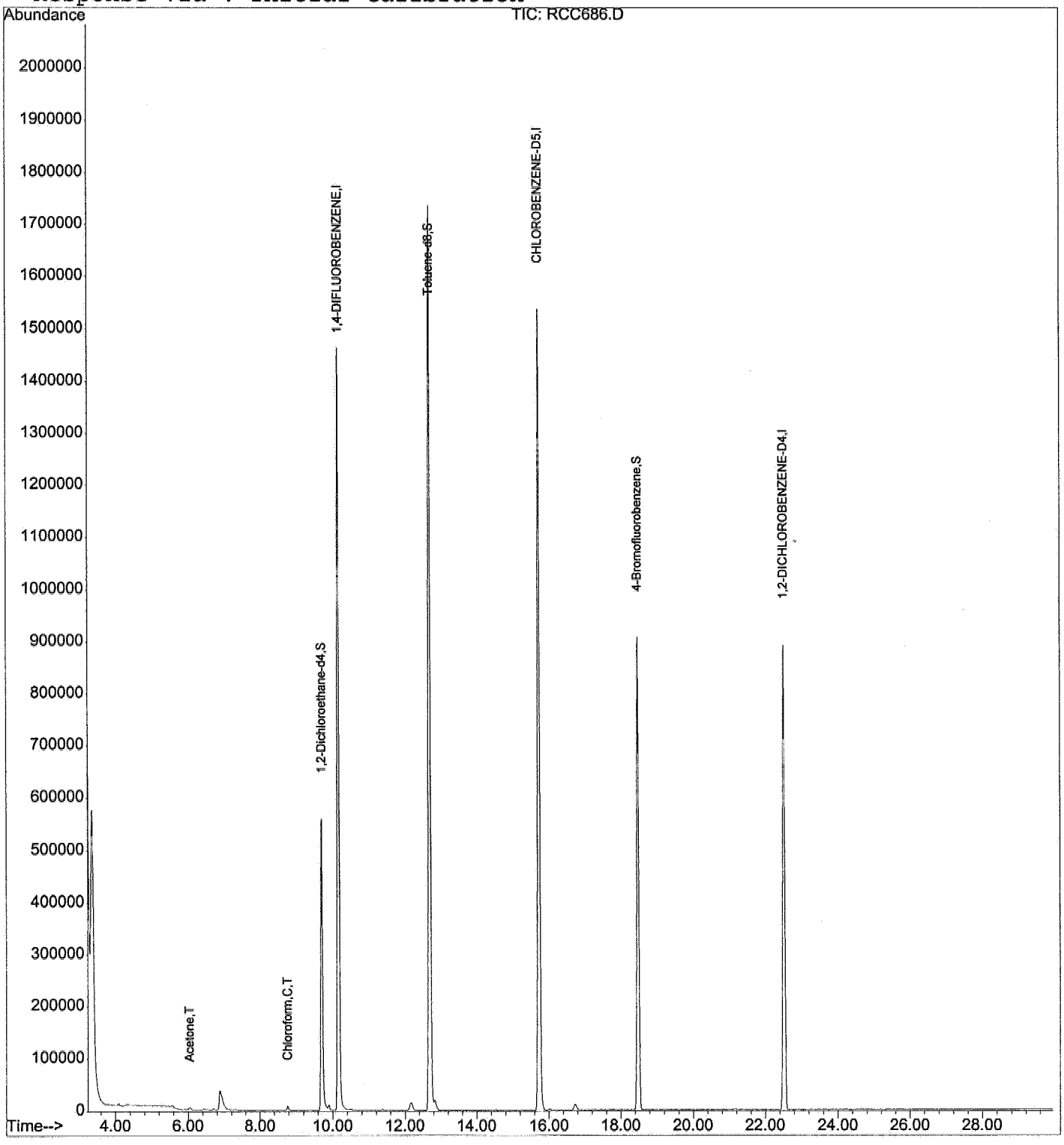
(#) = qualifier out of range (m) = manual integration

2009

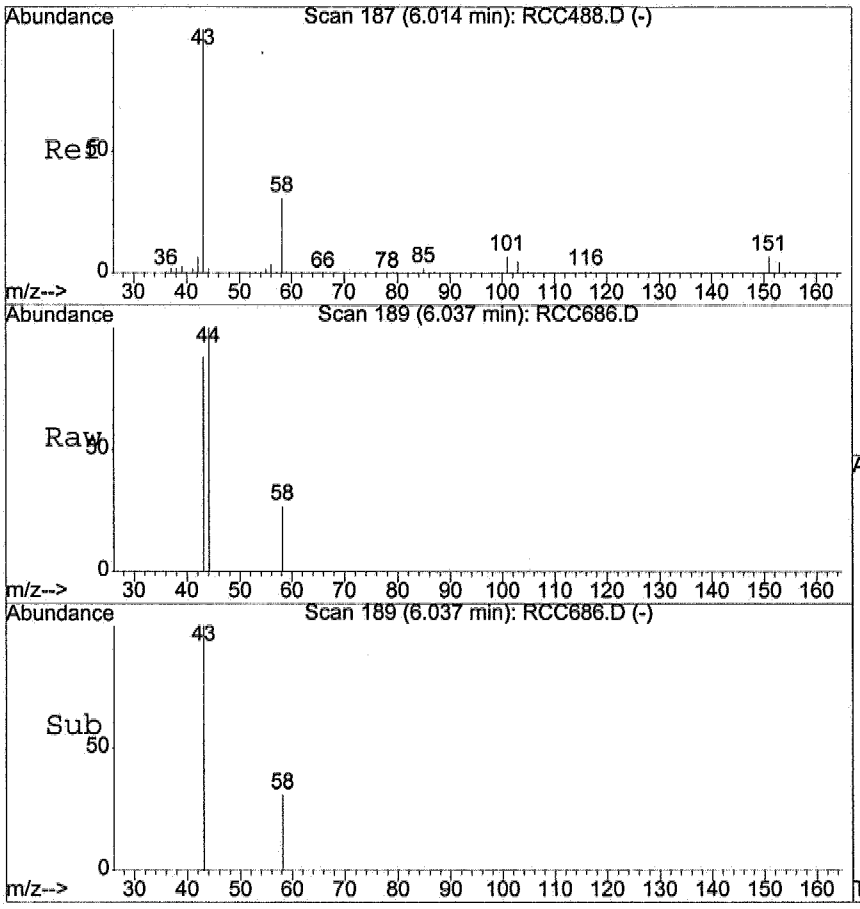
Quantitation Report

Data File : D:\HPCHEM\1\DATA\06C29\RCC686.D Vial: 17
Acq On : 30 Mar 2006 1:29 pm Operator: CGM
Sample : 06C222-02 5.0mL Inst : TO67
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Apr 3 14:22 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration



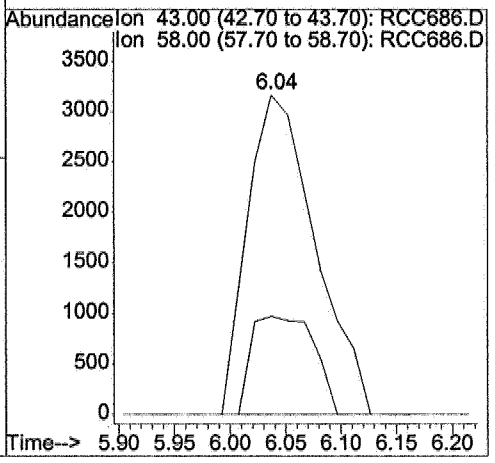
2010

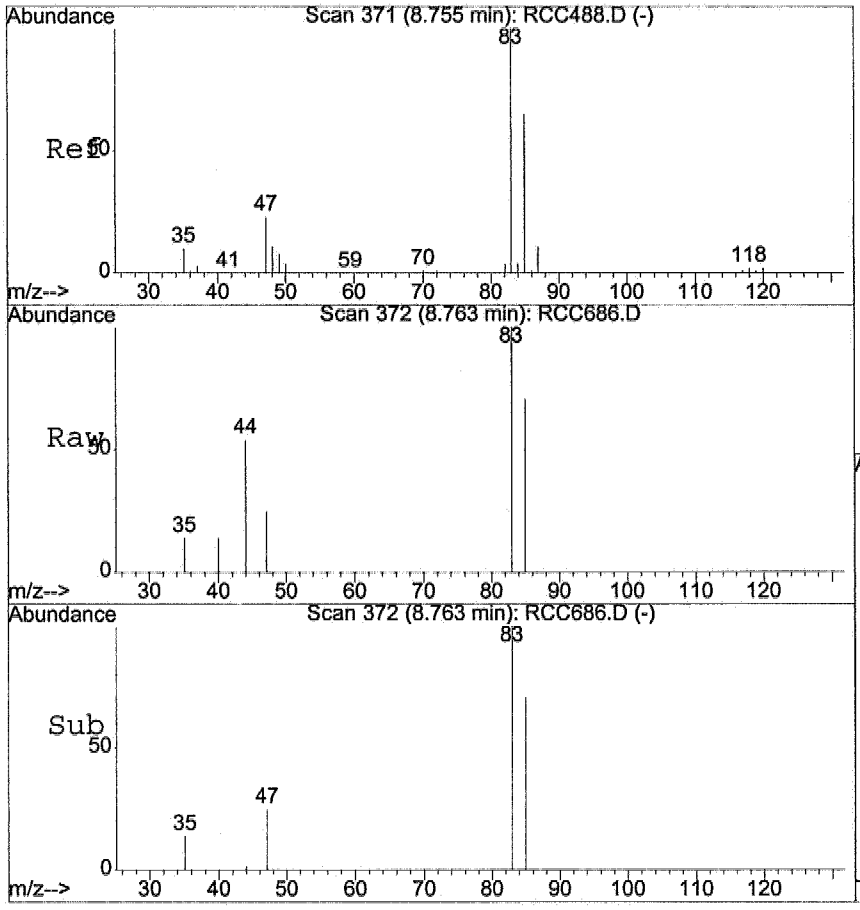


#11
Acetone
Concen: 5.05 ug/l
RT: 6.04 min Scan# 189
Delta R.T. 0.02 min
Lab File: RCC686.D
Acq: 30 Mar 2006 1:29 pm

Tgt Ion: 43 Resp: 13472

Ion	Ratio	Lower	Upper
43	100		
58	28.5	1.3	61.3

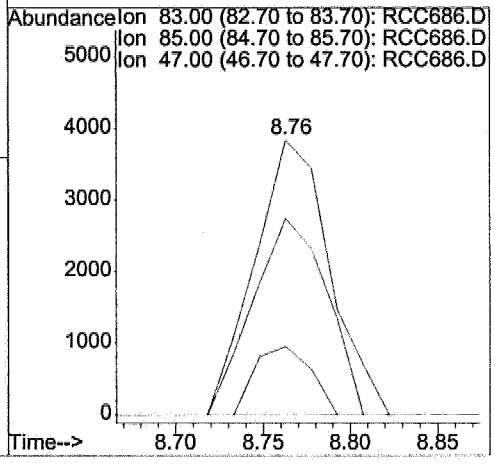




#30
Chloroform
Concen: 0.51 ug/l
RT: 8.76 min Scan# 372
Delta R.T. 0.01 min
Lab File: RCC686.D
Acq: 30 Mar 2006 1:29 pm

Tgt Ion: 83 Resp: 11556

Ion	Ratio	Lower	Upper
83	100		
85	70.5	34.9	94.9
47	18.6	0.0	53.5



2011

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : ENSR	Date Collected: 03/23/06
Project : UPGRADIENT INVESTIGATION, TRONOX	Date Received: 03/24/06
Batch No. : 06C222	Date Extracted: 03/30/06 14:05
Sample ID: H-11	Date Analyzed: 03/30/06 14:05
Lab Samp ID: C222-03	Dilution Factor: 1
Lab File ID: RCC687	Matrix : WATER
Ext Btch ID: V067C47	% Moisture : NA
Calib. Ref.: RCC488	Instrument ID : T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	5	1
1,1,1-TRICHLOROETHANE	ND	5	1
1,1,2,2-TETRACHLOROETHANE	ND	5	1
1,1,2-TRICHLOROETHANE	ND	5	1
1,1-DICHLOROETHANE	ND	5	1
1,1-DICHLOROETHENE	ND	5	1
1,1-DICHLOROPROPENE	ND	5	1
1,2,3-TRICHLOROBENZENE	ND	5	1
1,2,3-TRICHLOROPROPANE	ND	5	1
1,2,4-TRICHLOROBENZENE	ND	5	1
1,2,4-TRIMETHYLBENZENE	ND	5	1
1,2-DIBROMO-3-CHLOROPROPANE	ND	5	1
1,2-DICHLOROBENZENE	ND	5	1
1,2-DICHLOROETHANE	ND	5	1
1,2-DICHLOROPROPANE	ND	5	1
1,2-DIBROMOETHANE	ND	5	1
1,3,5-TRIMETHYLBENZENE	ND	5	1
1,3-DICHLOROBENZENE	ND	5	1
1,3-DICHLOROPROPANE	ND	5	1
1,4-DICHLOROBENZENE	ND	5	1
1-CHLOROHEXANE	ND	5	1
2,2-DICHLOROPROPANE	ND	5	1
2-CHLOROTOLUENE	ND	5	1
4-CHLOROTOLUENE	ND	5	1
BENZENE	ND	5	1
BROMOBENZENE	ND	5	1
BROMOCHLOROMETHANE	ND	5	1
BROMODICHLOROMETHANE	ND	5	1
BROMOFORM	ND	5	1
BROMOMETHANE	ND	10	1
CARBON TETRACHLORIDE	ND	5	1
CHLOROBENZENE	ND	5	1
CHLOROETHANE	ND	5	1
CHLOROFORM	ND	5	1
CHLOROMETHANE	ND	5	1
CIS-1,2-DICHLOROETHENE	ND	5	1
CIS-1,3-DICHLOROPROPENE	ND	5	1
DIBROMOCHLOROMETHANE	ND	5	1
DIBROMOMETHANE	ND	5	1
DICHLORODIFLUOROMETHANE	ND	5	1
ETHYLBENZENE	ND	5	1
HEXACHLOROBUTADIENE	ND	10	1
ISOPROPYL BENZENE	ND	5	1
XYLENES	ND	10	2
METHYLENE CHLORIDE	ND	10	1
N-BUTYLBENZENE	ND	5	1
N-PROPYLBENZENE	ND	5	1
NAPHTHALENE	ND	5	1
P-ISOPROPYLTOLUENE	ND	5	1
SEC-BUTYLBENZENE	ND	5	1
STYRENE	ND	5	1
TERT-BUTYLBENZENE	ND	5	1
TETRACHLOROETHYLENE	ND	5	1
TOLUENE	33	5	1
TRANS-1,2-DICHLOROETHENE	ND	5	1
TRANS-1,3-DICHLOROPROPENE	ND	5	1
TRICHLOROETHENE	ND	5	1
TRICHLOROFLUOROMETHANE	ND	5	1
VINYL CHLORIDE	ND	5	1
ACETONE	11	10	5
2-BUTANONE	ND	10	5
MTBE	ND	5	1
4-METHYL-2-PENTANONE	ND	10	5
DIPE	ND	5	1
ETBE	ND	5	1
TAME	ND	5	1
TERT-BUTANOL	ND	50	10
2-HEXANONE	ND	10	5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	115	70-140
4-BROMOFLUOROBENZENE	126	70-130
TOLUENE-D8	109	70-140

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C29\RCC687.D Vial: 18
Acq On : 30 Mar 2006 2:05 pm Operator: CGM
Sample : 06C222-03 5.0mL Inst : TO67
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Apr 3 14:27 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

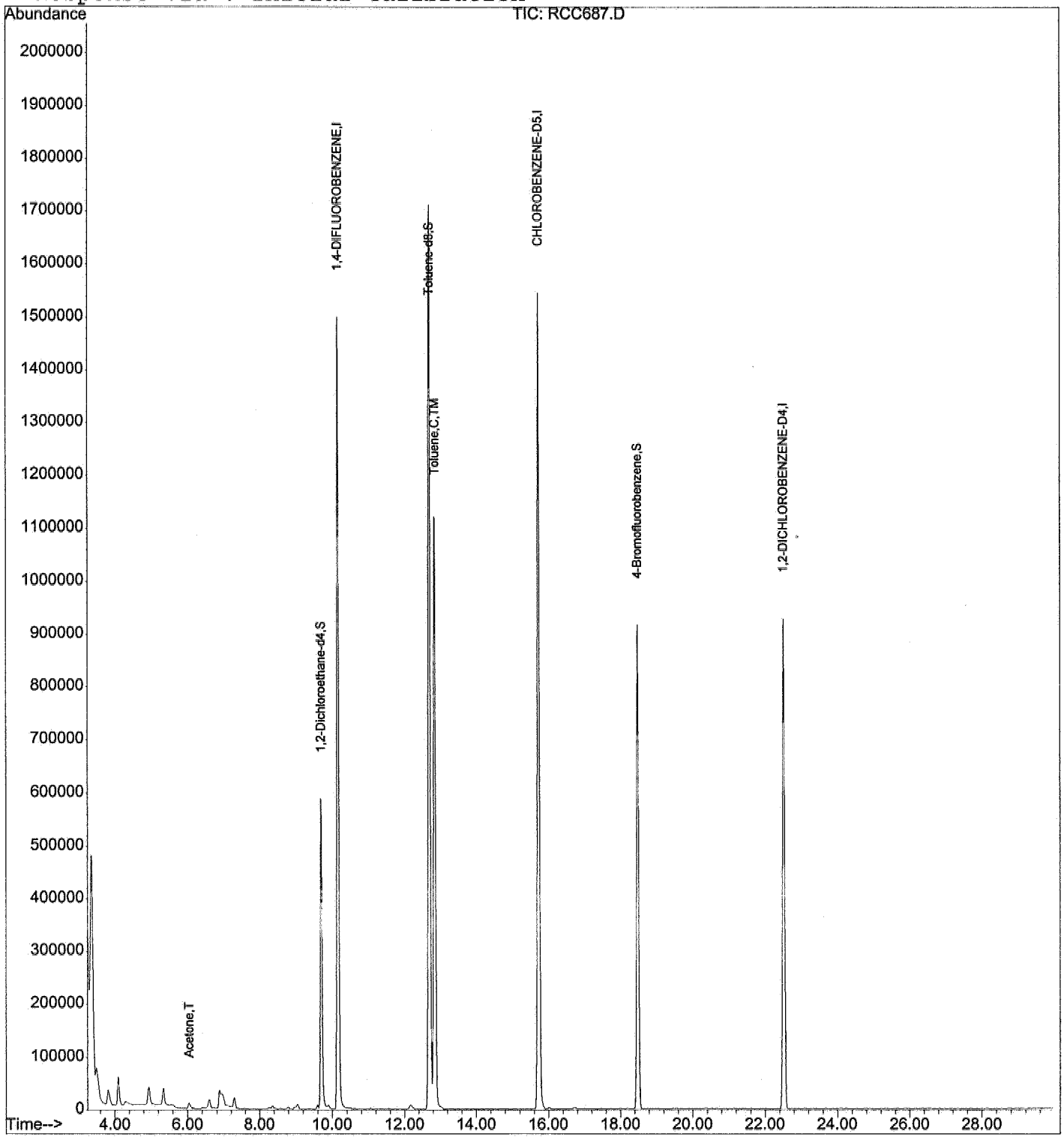
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.15	114	2352292	50.00	ug/l	0.01
36) CHLOROBENZENE-D5	15.72	117	2064091	50.00	ug/l	0.01
66) 1,2-DICHLOROBENZENE-D4	22.51	152	572799	50.00	ug/l	0.01
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.69	65	584423	57.26	ug/l	0.01
Spiked Amount 50.000			Recovery =	114.52%		
49) Toluene-d8	12.70	98	2484165	54.55	ug/l	0.03
Spiked Amount 50.000			Recovery =	109.10%		
70) 4-Bromofluorobenzene	18.48	95	769340	63.16	ug/l	0.01
Spiked Amount 50.000			Recovery =	126.32%		
Target Compounds						Qvalue
11) Acetone	6.04	43	28944	10.90	ug/l	97
50) Toluene	12.85	91	1791682	32.96	ug/l	100

(#) = qualifier out of range (m) = manual integration

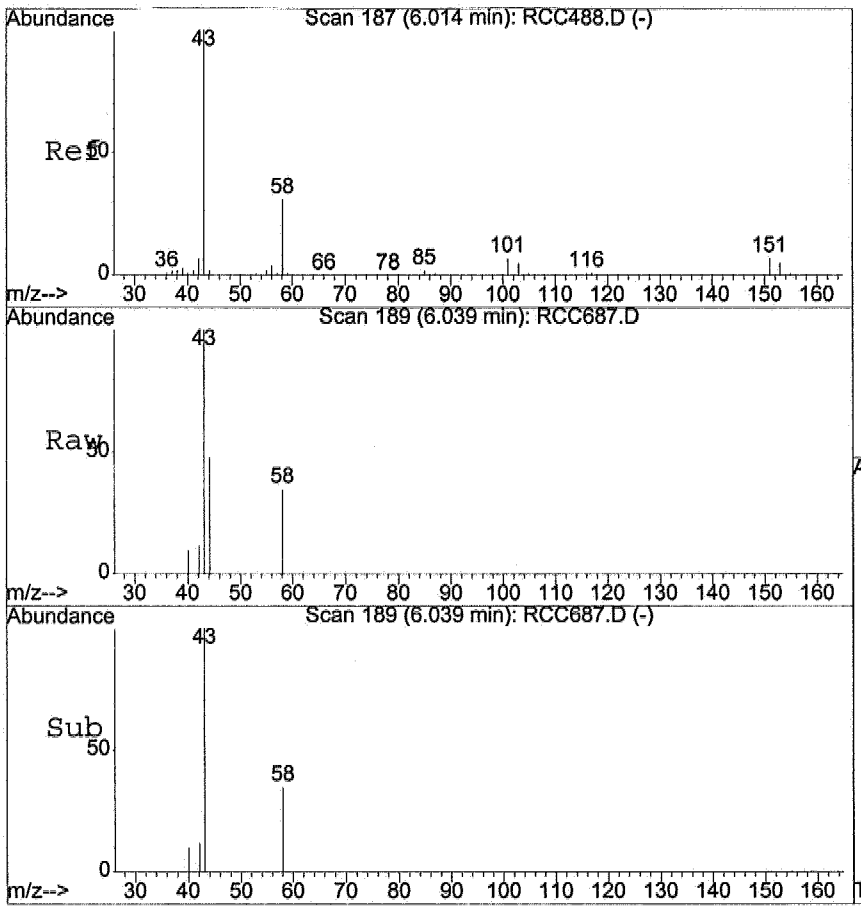
Quantitation Report

Data File : D:\HPCHEM\1\DATA\06C29\RCC687.D Vial: 18
Acq On : 30 Mar 2006 2:05 pm Operator: CGM
Sample : 06C222-03 5.0mL Inst : TO67
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Apr 3 14:27 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration



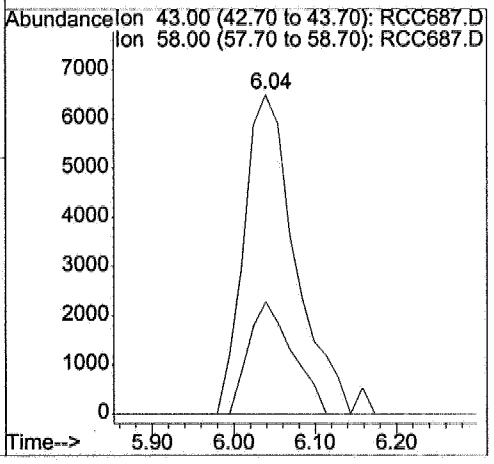
2014

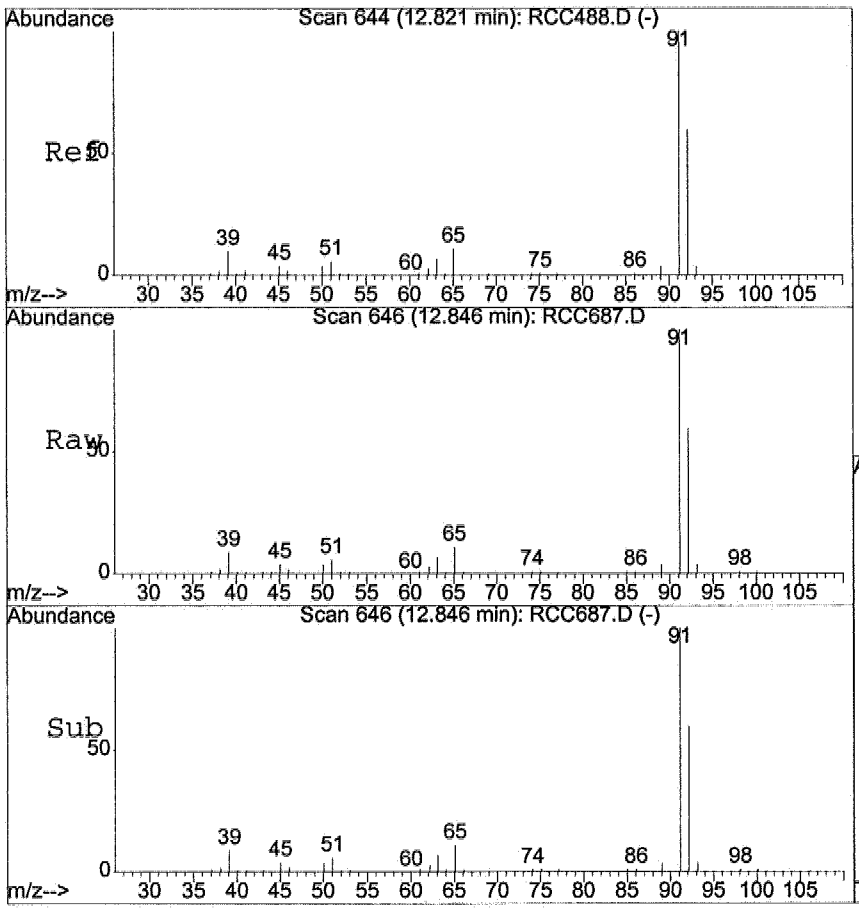


#11
Acetone
Concen: 10.90 ug/l
RT: 6.04 min Scan# 189
Delta R.T. 0.03 min
Lab File: RCC687.D
Acq: 30 Mar 2006 2:05 pm

Tgt Ion: 43 Resp: 28944

Ion	Ratio	Lower	Upper
43	100		
58	29.8	1.3	61.3

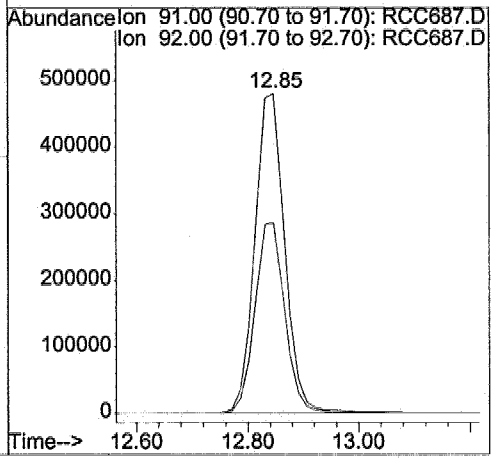




#50
Toluene
Concen: 32.96 ug/l
RT: 12.85 min Scan# 646
Delta R.T. 0.03 min
Lab File: RCC687.D
Acq: 30 Mar 2006 2:05 pm

Tgt Ion: 91 Resp: 1791682

Ion	Ratio	Lower	Upper
91	100		
92	60.0	30.1	90.1



2015

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/30/06 11:42
Sample ID:	TRIP BLANK	Date Analyzed:	03/30/06 11:42
Lab Samp ID:	C222-04	Dilution Factor:	1
Lab File ID:	RCC683	Matrix :	WATER
Ext Btch ID:	V067C47	% Moisture :	NA
Calib. Ref.:	RCC488	Instrument ID :	T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	5	1
1,1,1-TRICHLOROETHANE	ND	5	1
1,1,2,2-TETRACHLOROETHANE	ND	5	1
1,1,2-TRICHLOROETHANE	ND	5	1
1,1-DICHLOROETHANE	ND	5	1
1,1-DICHLOROETHENE	ND	5	1
1,1-DICHLOROPROPENE	ND	5	1
1,2,3-TRICHLOROBENZENE	ND	5	1
1,2,3-TRICHLOROPROPANE	ND	5	1
1,2,4-TRICHLOROBENZENE	ND	5	1
1,2,4-TRIMETHYLBENZENE	ND	5	1
1,2-DIBROMO-3-CHLOROPROPANE	ND	5	1
1,2-DICHLOROBENZENE	ND	5	1
1,2-DICHLOROETHANE	ND	5	1
1,2-DICHLOROPROPANE	ND	5	1
1,2-DIBROMOETHANE	ND	5	1
1,3,5-TRIMETHYLBENZENE	ND	5	1
1,3-DICHLOROBENZENE	ND	5	1
1,3-DICHLOROPROPANE	ND	5	1
1,4-DICHLOROBENZENE	ND	5	1
1-CHLOROHEXANE	ND	5	1
2,2-DICHLOROPROPANE	ND	5	1
2-CHLOROTOLUENE	ND	5	1
4-CHLOROTOLUENE	ND	5	1
BENZENE	ND	5	1
BROMOBENZENE	ND	5	1
BROMOCHLOROMETHANE	ND	5	1
BROMODICHLOROMETHANE	ND	5	1
BROMOFORM	ND	5	1
BROMOMETHANE	ND	10	1
CARBON TETRACHLORIDE	ND	5	1
CHLOROBENZENE	ND	5	1
CHLOROETHANE	ND	5	1
CHLOROFORM	ND	5	1
CHLOROMETHANE	ND	5	1
CIS-1,2-DICHLOROETHENE	ND	5	1
CIS-1,3-DICHLOROPROPENE	ND	5	1
DIBROMOCHLOROMETHANE	ND	5	1
DIBROMOMETHANE	ND	5	1
DICHLORODIFLUOROMETHANE	ND	5	1
ETHYLBENZENE	ND	5	1
HEXACHLOROBUTADIENE	ND	10	1
ISOPROPYL BENZENE	ND	5	1
XYLENES	ND	10	2
METHYLENE CHLORIDE	ND	10	1
N-BUTYLBENZENE	ND	5	1
N-PROPYLBENZENE	ND	5	1
NAPHTHALENE	ND	5	1
P-ISOPROPYLTOLUENE	ND	5	1
SEC-BUTYLBENZENE	ND	5	1
STYRENE	ND	5	1
TERT-BUTYLBENZENE	ND	5	1
TETRACHLOROETHYLENE	ND	5	1
TOLUENE	ND	5	1
TRANS-1,2-DICHLOROETHENE	ND	5	1
TRANS-1,3-DICHLOROPROPENE	ND	5	1
TRICHLOROETHENE	ND	5	1
TRICHLOROFLUOROMETHANE	ND	5	1
VINYL CHLORIDE	ND	5	1
ACETONE	ND	10	5
2-BUTANONE	ND	10	5
MTBE	ND	5	1
4-METHYL-2-PENTANONE	ND	10	5
DIPE	ND	5	1
ETBE	ND	5	1
TAME	ND	5	1
TERT-BUTANOL	ND	50	10
2-HEXANONE	ND	10	5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	110	70-140
4-BROMOFLUOROBENZENE	128	70-130
TOLUENE-D8	109	70-140

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C29\RCC683.D Vial: 16
Acq On : 30 Mar 2006 11:42 am Operator: CGM
Sample : 06C222-04 5.0mL Inst : TO67
Misc : DF=1.0 TB Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Apr 3 14:19 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.15	114	2440646	50.00	ug/l	0.01
36) CHLOROBENZENE-D5	15.72	117	2128180	50.00	ug/l	0.01
66) 1,2-DICHLOROBENZENE-D4	22.52	152	588933	50.00	ug/l	0.01
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.69	65	583706	55.12	ug/l	0.01
Spiked Amount 50.000			Recovery =	110.24%		
49) Toluene-d8	12.69	98	2554194	54.40	ug/l	0.01
Spiked Amount 50.000			Recovery =	108.80%		
70) 4-Bromofluorobenzene	18.48	95	798931	63.80	ug/l	0.01
Spiked Amount 50.000			Recovery =	127.60%		

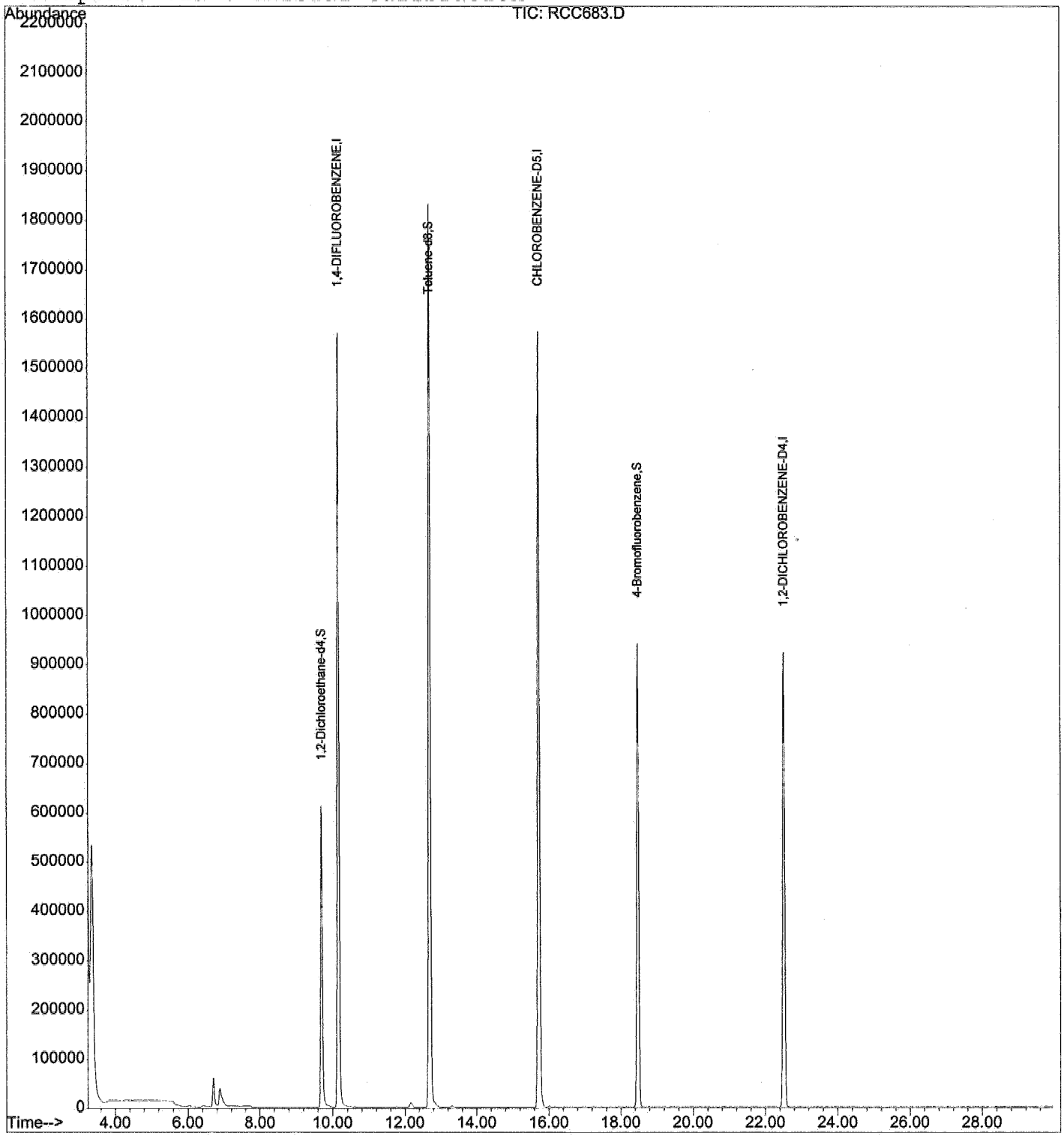
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\06C29\RCC683.D Vial: 16
Acq On : 30 Mar 2006 11:42 am Operator: CGM
Sample : 06C222-04 5.0mL Inst : TO67
Misc : DF=1.0 TB Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Apr 3 14:19 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration



2018

QC SUMMARIES

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: ENSR	Date Collected:	NA
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/30/06
Batch No.	: 06C222	Date Extracted:	03/30/06 08:00
Sample ID:	MBLK1W	Date Analyzed:	03/30/06 08:00
Lab Samp ID:	V067C47Q	Dilution Factor:	1
Lab File ID:	RCC677	Matrix :	WATER
Ext Btch ID:	V067C47	% Moisture :	NA
Calib. Ref.:	RCC488	Instrument ID :	T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	5	1
1,1,1-TRICHLOROETHANE	ND	5	1
1,1,2,2-TETRACHLOROETHANE	ND	5	1
1,1,2-TRICHLOROETHANE	ND	5	1
1,1-DICHLOROETHANE	ND	5	1
1,1-DICHLOROETHENE	ND	5	1
1,1-DICHLOROPROPENE	ND	5	1
1,2,3-TRICHLOROBENZENE	ND	5	1
1,2,3-TRICHLOROPROPANE	ND	5	1
1,2,4-TRICHLOROBENZENE	ND	5	1
1,2,4-TRIMETHYLBENZENE	ND	5	1
1,2-DIBROMO-3-CHLOROPROPANE	ND	5	1
1,2-DICHLOROBENZENE	ND	5	1
1,2-DICHLOROETHANE	ND	5	1
1,2-DICHLOROPROPANE	ND	5	1
1,2-DIBROMOETHANE	ND	5	1
1,3,5-TRIMETHYLBENZENE	ND	5	1
1,3-DICHLOROBENZENE	ND	5	1
1,3-DICHLOROPROPANE	ND	5	1
1,4-DICHLOROBENZENE	ND	5	1
1-CHLOROHEXANE	ND	5	1
2,2-DICHLOROPROPANE	ND	5	1
2-CHLOROTOLUENE	ND	5	1
4-CHLOROTOLUENE	ND	5	1
BENZENE	ND	5	1
BROMOBENZENE	ND	5	1
BROMOCHLOROMETHANE	ND	5	1
BROMODICHLOROMETHANE	ND	5	1
BROMOFORM	ND	5	1
BROMOMETHANE	ND	10	1
CARBON TETRACHLORIDE	ND	5	1
CHLOROBENZENE	ND	5	1
CHLOROETHANE	ND	5	1
CHLOROFORM	ND	5	1
CHLOROMETHANE	ND	5	1
CIS-1,2-DICHLOROETHENE	ND	5	1
CIS-1,3-DICHLOROPROPENE	ND	5	1
DIBROMOCHLOROMETHANE	ND	5	1
DIBROMOMETHANE	ND	5	1
DICHLORODIFLUOROMETHANE	ND	5	1
ETHYLBENZENE	ND	5	1
HEXACHLOROBUTADIENE	ND	10	1
ISOPROPYL BENZENE	ND	5	1
XYLENES	ND	10	2
METHYLENE CHLORIDE	ND	10	1
N-BUTYLBENZENE	ND	5	1
N-PROPYLBENZENE	ND	5	1
NAPHTHALENE	ND	5	1
P-ISOPROPYLTOLUENE	ND	5	1
SEC-BUTYLBENZENE	ND	5	1
STYRENE	ND	5	1
TERT-BUTYLBENZENE	ND	5	1
TETRACHLOROETHYLENE	ND	5	1
TOLUENE	ND	5	1
TRANS-1,2-DICHLOROETHENE	ND	5	1
TRANS-1,3-DICHLOROPROPENE	ND	5	1
TRICHLOROETHENE	ND	5	1
TRICHLOROFLUOROMETHANE	ND	5	1
VINYL CHLORIDE	ND	5	1
ACETONE	ND	10	5
2-BUTANONE	ND	10	5
MTBE	ND	5	1
4-METHYL-2-PENTANONE	ND	10	5
DIPE	ND	5	1
ETBE	ND	5	1
TAME	ND	5	1
TERT-BUTANOL	ND	50	10
2-HEXANONE	ND	10	5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	97	70-140
4-BROMOFLUOROBENZENE	121	70-130
TOLUENE-D8	104	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ENSR
PROJECT: UPGRADIENT INVESTIGATION, TRONOX
BATCH NO.: 06C222
METHOD: SW 5030B/8260B

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: V067C47Q V067C47L V067C47C
LAB FILE ID: RCC677 RCC674 RCC675
DATE EXTRACTED: 03/30/0608:00 03/30/0606:13 03/30/0606:48 DATE COLLECTED: NA
DATE ANALYZED: 03/30/0608:00 03/30/0606:13 03/30/0606:48 DATE RECEIVED: 03/30/06
PREP. BATCH: V067C47 V067C47 V067C47
CALIB. REF: RCC488 RCC488 RCC488

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	20	20.2	101	20	19.7	99	2	70-130	30
1,1,1-Trichloroethane	ND	20	19.7	98	20	19.3	96	2	70-130	30
1,1,2,2-Tetrachloroethane	ND	20	19.9	99	20	18.7	94	6	70-130	30
1,1,2-Trichloroethane	ND	20	19.7	99	20	19.4	97	2	70-130	30
1,1-Dichloroethane	ND	20	20.6	103	20	20.1	101	2	70-130	30
1,1-Dichloroethene	ND	20	19.5	97	20	18.9	94	3	60-130	30
1,1-Dichloropropene	ND	20	19.2	96	20	18.6	93	3	70-140	30
1,2,3-Trichlorobenzene	ND	20	15.8	79	20	15.3	77	3	60-130	30
1,2,3-Trichloropropane	ND	20	21	105	20	19.9	100	6	70-140	30
1,2,4-Trichlorobenzene	ND	20	16.3	81	20	15.6	78	4	60-140	30
1,2,4-Trimethylbenzene	ND	20	20	100	20	19.2	96	4	70-130	30
1,2-Dibromo-3-chloropropane	ND	20	17.1	86	20	16.5	83	4	60-130	30
1,2-Dichlorobenzene	ND	20	19.9	100	20	19.3	97	3	70-130	30
1,2-Dichloroethane	ND	20	19.9	100	20	19.5	97	2	70-130	30
1,2-Dichloropropane	ND	20	19.7	99	20	19.7	98	0	70-130	30
1,2-Dibromoethane	ND	20	19.8	99	20	19.4	97	2	70-140	30
1,3,5-Trimethylbenzene	ND	20	20.5	102	20	19.8	99	3	70-130	30
1,3-Dichlorobenzene	ND	20	19.8	99	20	19.2	96	3	70-130	30
1,3-Dichloropropane	ND	20	19.6	98	20	19.3	96	2	70-130	30
1,4-Dichlorobenzene	ND	20	19.4	97	20	18.8	94	3	70-130	30
1-Chlorohexane	ND	20	19.3	97	20	18.9	94	2	70-130	30
2,2-Dichloropropane	ND	20	18.8	94	20	18.3	92	2	50-140	30
2-Chlorotoluene	ND	20	19.7	98	20	19.9	100	1	70-130	30
4-Chlorotoluene	ND	20	21.2	106	20	19.2	96	10	70-130	30
Benzene	ND	20	19.8	99	20	19.5	97	2	70-130	30
Bromobenzene	ND	20	21.3	107	20	20.3	102	5	70-130	30
Bromochloromethane	ND	20	20.9	105	20	20.4	102	2	70-130	30
Bromodichloromethane	ND	20	19.5	98	20	18.7	93	4	70-130	30
Bromoform	ND	20	19.6	98	20	18.9	94	4	60-140	30
Bromomethane	ND	20	17.2	86	20	15.7	79	9	50-140	30
Carbon Tetrachloride	ND	20	19.4	97	20	18.9	95	2	70-130	30
Chlorobenzene	ND	20	20.1	100	20	19.6	98	3	70-130	30
Chloroethane	ND	20	21.1	105	20	20.5	102	3	70-140	30
Chloroform	ND	20	21.1	105	20	20.9	105	1	70-130	30
Chloromethane	ND	20	20.8	104	20	20.5	102	2	60-130	30
cis-1,2-Dichloroethene	ND	20	18.8	94	20	20.2	101	7	70-130	30
cis-1,3-Dichloropropene	ND	20	18.7	94	20	18.6	93	1	70-130	30
Dibromochloromethane	ND	20	19.8	99	20	19.5	98	1	70-130	30
Dibromomethane	ND	20	20.6	103	20	19.9	99	3	70-140	30
Dichlorodifluoromethane	ND	20	18.8	94	20	18.3	92	3	50-140	30
Ethylbenzene	ND	20	20	100	20	19.6	98	2	70-130	30
Hexachlorobutadiene	ND	20	17.9	90	20	17.1	85	5	60-140	30
Isopropyl Benzene	ND	20	22.6	113	20	21.7	109	4	70-150	30
Xylenes	ND	60	59.8	100	60	58.9	98	2	70-130	30
Methylene Chloride	ND	20	20.3	102	20	20.2	101	1	70-130	30
n-Butylbenzene	ND	20	16.6	83	20	16.1	81	3	60-140	30
n-Propylbenzene	ND	20	20.2	101	20	19.3	96	5	70-130	30
Naphthalene	ND	20	14.9	74	20	13.8	69	7	50-140	30
p-Isopropyltoluene	ND	20	19.7	99	20	19.3	96	2	70-140	30
Sec-Butylbenzene	ND	20	18.4	92	20	17.8	89	3	70-130	30
Styrene	ND	20	18.8	94	20	18.5	92	2	70-130	30
Tert-Butylbenzene	ND	20	20.1	100	20	19.4	97	3	70-130	30
Tetrachloroethylene	ND	20	19.7	99	20	19.2	96	3	70-130	30
Toluene	ND	20	20.4	102	20	19.5	97	5	70-130	30
Trans-1,2-Dichloroethene	ND	20	20.6	103	20	20.1	100	3	70-130	30
Trans-1,3-Dichloropropene	ND	20	20.3	101	20	19.7	98	3	70-140	30
Trichloroethene	ND	20	19.4	97	20	19.1	96	2	70-130	30
Trichlorofluoromethane	ND	20	21.5	108	20	20.8	104	4	70-140	30
Vinyl Chloride	ND	20	19.3	97	20	18.3	92	5	60-150	30
Acetone	ND	80	75.1	94	80	74.3	93	1	50-150	30
2-Butanone	ND	80	74.2	93	80	74.1	93	0	60-140	30
MTBE	ND	20	22.1	111	20	21.5	108	3	70-140	30
4-Methyl-2-Pentanone	ND	80	77	96	80	73.7	92	4	60-140	30
DIPE	ND	20	21.4	107	20	21	105	2	70-140	30
ETBE	ND	20	21.9	109	20	21.4	107	2	60-140	30
TAME	ND	20	21.5	107	20	21.2	106	1	60-140	30
tert-Butanol	ND	100	102	102	100	100	100	2	60-150	30
2-Hexanone	ND	80	75.5	94	80	69.1	86	9	70-140	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	53.9	108	50	50.8	102	70-140
4-Bromofluorobenzene	50	53.7	107	50	49.9	100	70-130
Toluene-d8	50	49.7	99	50	46.9	94	70-130

2021

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ENSR
PROJECT: UPGRADIENT INVESTIGATION, TRONOX
BATCH NO.: 06C222
METHOD: SW 5030B/8260B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1
SAMPLE ID:	M-121		
LAB SAMP ID:	C222-01	C222-01M	C222-01S
LAB FILE ID:	RCC685	RCC689	RCC690
DATE EXTRACTED:	03/30/0612:53	03/30/0615:16	03/30/0615:52
DATE ANALYZED:	03/30/0612:53	03/30/0615:16	03/30/0615:52
PREP. BATCH:	V067C47	V067C47	V067C47
CALIB. REF:	RCC488	RCC488	RCC488

DATE COLLECTED: 03/23/06
DATE RECEIVED: 03/24/06

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1,1,2-Tetrachloroethane	ND	50	56.6	113	50	57	114	1	70-130	30
1,1,1-Trichloroethane	ND	50	54.1	108	50	55.4	111	2	70-130	30
1,1,2,2-Tetrachloroethane	ND	50	51.9	104	50	55.4	111	6	70-140	30
1,1,2-Trichloroethane	ND	50	55.9	112	50	56.3	113	1	70-140	30
1,1-Dichloroethane	ND	50	56.5	113	50	56.8	114	1	70-130	30
1,1-Dichloroethene	ND	50	55.3	111	50	56.3	113	2	60-140	30
1,1-Dichloropropene	ND	50	53.1	106	50	56	112	5	60-140	30
1,2,3-Trichlorobenzene	ND	50	40.6	81	50	40.8	82	1	50-140	30
1,2,3-Trichloropropane	ND	50	51.8	104	50	56	112	8	70-140	30
1,2,4-Trichlorobenzene	ND	50	41	82	50	40.6	81	1	60-140	30
1,2,4-Trimethylbenzene	ND	50	54.5	109	50	55.6	111	2	60-150	30
1,2-Dibromo-3-chloropropane	ND	50	48.8	98	50	52.4	105	7	60-130	30
1,2-Dichlorobenzene	ND	50	53	106	50	53.2	106	0	70-130	30
1,2-Dichloroethane	ND	50	56	112	50	56.9	114	2	70-140	30
1,2-Dichloropropane	ND	50	56.6	113	50	57.2	114	1	70-130	30
1,2-Dibromoethane	ND	50	56.3	113	50	57.6	115	2	70-140	30
1,3,5-Trimethylbenzene	ND	50	54.8	110	50	55.4	111	1	70-140	30
1,3-Dichlorobenzene	ND	50	52.6	105	50	52.9	106	1	70-130	30
1,3-Dichloropropane	ND	50	55.7	111	50	57	114	2	70-130	30
1,4-Dichlorobenzene	ND	50	52.5	105	50	52.5	105	0	70-130	30
1-Chlorohexane	ND	50	55.7	111	50	56.5	113	1	50-150	30
2,2-Dichloropropane	ND	50	48.6	97	50	48	96	1	40-140	30
2-Chlorotoluene	ND	50	54.1	108	50	55.2	110	2	70-130	30
4-Chlorotoluene	ND	50	54.8	110	50	55.7	111	2	60-130	30
Benzene	ND	50	54.3	109	50	55.6	111	2	60-140	30
Bromobenzene	ND	50	53.5	107	50	54.7	109	2	70-130	30
Bromochloromethane	ND	50	57.2	114	50	58.3	117	2	60-140	30
Bromodichloromethane	ND	50	56.9	114	50	57.7	115	1	70-130	30
Bromoform	ND	50	53.1	106	50	56.4	113	6	60-140	30
Bromomethane	ND	50	42.6	85	50	47.2	94	10	40-140	30
Carbon Tetrachloride	ND	50	54.7	109	50	56.3	113	3	60-140	30
Chlorobenzene	ND	50	55.8	112	50	56.2	112	1	70-130	30
Chloroethane	ND	50	58.3	117	50	55.8	112	4	60-160	30
Chloroform	ND	50	57.6	115	50	57.2	114	1	70-130	30
Chloromethane	ND	50	59	118	50	59.1	118	0	60-140	30
cis-1,2-Dichloroethene	ND	50	57.5	115	50	57.7	115	0	70-140	30
cis-1,3-Dichloropropene	ND	50	54.6	109	50	55.3	111	1	70-130	30
Dibromochloromethane	ND	50	56.6	113	50	58.6	117	3	70-140	30
Dibromomethane	ND	50	55.7	111	50	57.4	115	3	70-140	30
Dichlorodifluoromethane	ND	50	58.2	116	50	56.2	112	4	10-160	30
Ethylbenzene	ND	50	56.9	114	50	56.6	113	1	70-130	30
Hexachlorobutadiene	ND	50	51.2	102	50	51	102	0	60-140	30
Isopropyl Benzene	ND	50	54.6	109	50	56.1	112	3	60-160	30
Xylenes	ND	150	172	114	150	172	115	0	70-140	30
Methylene Chloride	ND	50	56.7	113	50	56	112	1	60-140	30
n-Butylbenzene	ND	50	45.8	92	50	45.9	92	0	40-150	30
n-Propylbenzene	ND	50	55.7	111	50	56.2	112	1	60-140	30
Naphthalene	ND	50	35.7	71	50	38.2	76	7	30-160	30
p-Isopropyltoluene	ND	50	55	110	50	56.2	112	2	60-140	30
Sec-Butylbenzene	ND	50	55.4	111	50	57	114	3	60-140	30
Styrene	ND	50	53.9	108	50	53.2	106	1	40-150	30
Tert-Butylbenzene	ND	50	56.2	112	50	57	114	1	70-130	30
Tetrachloroethylene	ND	50	52.3	105	50	53	106	1	70-130	30
Toluene	ND	50	55.4	111	50	55.6	111	0	70-140	30
Trans-1,2-Dichloroethene	ND	50	57	114	50	56.3	113	1	70-130	30
Trans-1,3-Dichloropropene	ND	50	53.9	108	50	55.9	112	4	60-140	30
Trichloroethene	ND	50	52.9	106	50	54.4	109	3	60-140	30
Trichlorofluoromethane	ND	50	58.7	117	50	56.5	113	4	70-150	30
Vinyl Chloride	ND	50	55.3	111	50	55.2	110	0	60-160	30
Acetone	ND	200	197	99	200	202	101	2	50-150	30
2-Butanone	ND	200	204	102	200	213	106	5	60-150	30
MTBE	ND	50	56.1	112	50	56.5	113	1	60-140	30
4-Methyl-2-Pentanone	ND	200	203	102	200	220	110	8	60-140	30
DIPE	ND	50	57	114	50	57.5	115	1	50-150	30
ETBE	ND	50	57.8	116	50	58.7	117	2	40-160	30
TAME	ND	50	55.2	110	50	57	114	3	50-150	30
tert-Butanol	ND	250	246	98	250	274	110	11	20-160	30
2-Hexanone	ND	200	187	94	200	215	107	14	60-140	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	56.8	114	50	55.7	111	70-140
4-Bromofluorobenzene	50	54	108	50	54.5	109	70-130
Toluene-d8	50	52.9	106	50	53.3	107	70-140

2022

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C29\RCC677.D Vial: 8
Acq On : 30 Mar 2006 8:00 am Operator: CGM
Sample : VO67C47Q 5.0mL Inst : TO67
Misc : DF=1.0 MB Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 11:08 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.15	114	2522652	50.00	ug/l	0.00
36) CHLOROBENZENE-D5	15.72	117	2174431	50.00	ug/l	0.00
66) 1,2-DICHLOROBENZENE-D4	22.51	152	873843	50.00	ug/l	0.00
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.69	65	533391	48.73	ug/l	0.00
Spiked Amount 50.000			Recovery =	97.46%		
49) Toluene-d8	12.68	98	2503147	52.18	ug/l	0.00
Spiked Amount 50.000			Recovery =	104.36%		
70) 4-Bromofluorobenzene	18.48	95	736772	60.38	ug/l	0.01
Spiked Amount 50.000			Recovery =	120.76%		

Target Compounds Qvalue

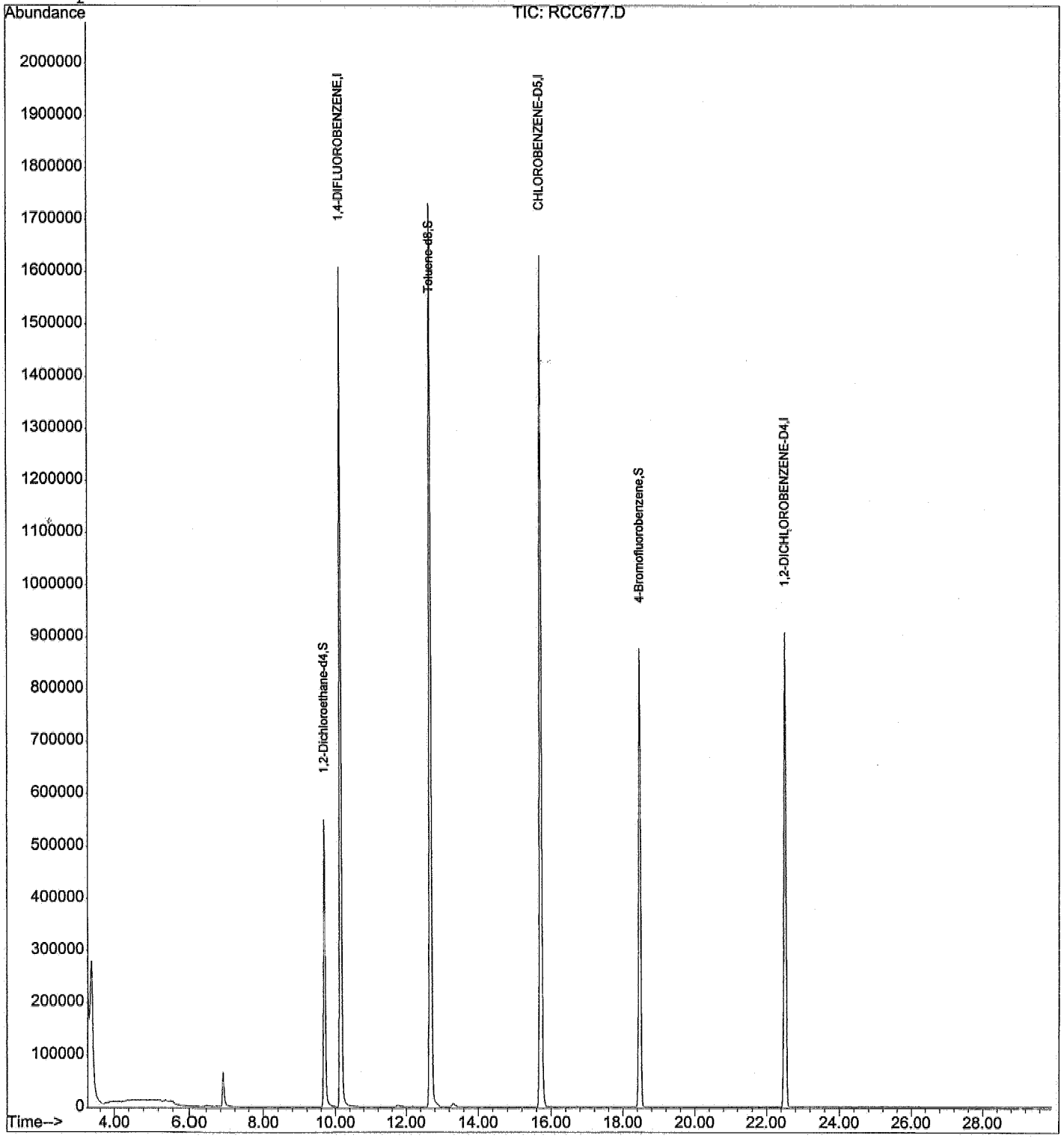
(#) = qualifier out of range (m) = manual integration
RCC677.D VO67C23.M Thu Mar 30 11:09:19 2006 Page 1

2024

Quantitation Report

Data File : D:\HPCHEM\1\DATA\06C29\RCC677.D Vial: 8
Acq On : 30 Mar 2006 8:00 am Operator: CGM
Sample : VO67C47Q 5.0mL Inst : TO67
Misc : DF=1.0 MB Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 11:08 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration



2025

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\data\06C29\RCC674.D Vial: 5
Acq On : 30 Mar 2006 6:13 am Operator: CGM
Sample : VO67C47L 5.0mL Inst : TO67
Misc : 20ppb 8260/80ppb Ket-AA/100ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 6:43 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.15	114	2699040	50.00	ug/l	0.01
36) CHLOROBENZENE-D5	15.72	117	2472947	50.00	ug/l	0.01
66) 1,2-DICHLOROBENZENE-D4	22.52	152	821799	50.00	ug/l	0.01
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.69	65	630804	53.86	ug/l	0.01
Spiked Amount 50.000			Recovery =	107.72%		
49) Toluene-d8	12.68	98	2712564	49.72	ug/l	0.01
Spiked Amount 50.000			Recovery =	99.44%		
70) 4-Bromofluorobenzene	18.48	95	939225	53.75	ug/l	0.01
Spiked Amount 50.000			Recovery =	107.50%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.54	85	251286	18.85	ug/l	100
3) Chloromethane	4.03	50	233155	20.82	ug/l	98
4) Vinyl chloride	4.18	62	186381	19.31	ug/l	100
5) Bromomethane	4.91	94	180421	17.23	ug/l	97
6) Chloroethane	5.01	64	131298	21.09	ug/l	99
7) Trichlorofluoromethane	5.39	101	290313	21.51	ug/l	100
9) Acrolein	5.95	56	89317	54.87	ug/l	98
10) 1,1,2-Trichloro-1,2,2-trif	5.97	151	198559	19.72	ug/l	99
11) Acetone	6.03	43	228903	75.13	ug/l	100
12) 1,1-Dichloroethene	6.24	61	394494	19.50	ug/l	97
13) tert-Butyl alcohol	6.28	59	105194	102.17	ug/l	99
16) Iodomethane	6.71	142	327988	23.51	ug/l	98
17) Methylene chloride	6.88	49	485105	20.30	ug/l	97
18) Carbon disulfide	7.01	76	1120415	21.94	ug/l	100
19) Acrylonitrile	7.00	53	308437	75.90	ug/l	99
20) tert-Butyl methyl ether (M	7.01	73	590627	22.12	ug/l	99
21) trans-1,2-Dichloroethene	7.25	61	426656	20.63	ug/l	98
22) Isopropyl ether (DIPE)	7.55	45	1005075	21.44	ug/l	100
23) 1,1-Dichloroethane	7.78	63	543921	20.60	ug/l	99
24) Vinyl acetate	7.70	43	442850	17.51	ug/l	100
25) tert-Butyl ethyl ether (ET	8.07	59	753995	21.90	ug/l	99
26) 2-Butanone	8.25	43	453019	74.18	ug/l	100
27) 2,2-Dichloropropane	8.50	77	306534	18.75	ug/l	99
28) cis-1,2-Dichloroethene	8.56	61	445304	18.82	ug/l	89
30) Chloroform	8.77	83	541766	21.09	ug/l	99
31) Bromochloromethane	9.01	49	299419	20.93	ug/l	95
32) 1,1,1-Trichloroethane	9.30	97	361504	19.67	ug/l	98
34) tert-Amyl methyl ether (TA	9.56	73	777738	21.46	ug/l	99
37) 1,1-Dichloropropene	9.50	77	135307	19.18	ug/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\data\06C29\RCC674.D Vial: 5
Acq On : 30 Mar 2006 6:13 am Operator: CGM
Sample : VO67C47L 5.0mL Inst : TO67
Misc : 20ppb 8260/80ppb Ket-AA/100ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 6:43 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38)	Carbon tetrachloride	9.68	119	320409	19.39	ug/l	99
39)	1,2-Dichloroethane	9.81	62	307832	19.93	ug/l	99
40)	Benzene	9.88	78	1337017	19.76	ug/l	99
41)	Trichloroethene	10.73	130	362655	19.45	ug/l	98
43)	1,2-Dichloropropane	10.97	63	360418	19.72	ug/l	99
44)	Bromodichloromethane	11.37	83	388724	19.53	ug/l	99
45)	Dibromomethane	11.51	93	227433	20.58	ug/l	97
46)	2-Chloroethyl vinyl ether	11.69	63	34055	12.40	ug/l	96
47)	4-Methyl-2-pentanone	11.73	43	1085674	76.98	ug/l	98
48)	cis-1,3-Dichloropropene	12.21	75	436889	18.73	ug/l	99
50)	Toluene	12.83	91	1331868	20.45	ug/l	100
51)	Ethyl methacrylate	12.89	69	305447	19.02	ug/l	99
52)	trans-1,3-Dichloropropene	13.06	75	340764	20.28	ug/l	97
53)	1,1,2-Trichloroethane	13.40	97	269615	19.72	ug/l	99
54)	2-Hexanone	13.27	43	704612	75.47	ug/l	99
55)	1,3-Dichloropropane	13.88	76	452931	19.56	ug/l	99
56)	Tetrachloroethene	14.10	164	254532	19.75	ug/l	100
57)	Dibromochloromethane	14.53	129	302703	19.79	ug/l	99
58)	1,2-Dibromoethane	14.95	107	299658	19.83	ug/l	99
59)	1-Chlorohexane	15.07	91	483870	19.34	ug/l	99
60)	Chlorobenzene	15.81	112	902587	20.09	ug/l	100
61)	1,1,1,2-Tetrachloroethane	15.86	131	283258	20.18	ug/l	99
62)	Ethylbenzene	15.84	91	1408855	20.04	ug/l	99
63)	m-Xylene & p-Xylene	16.01	91	2090306	39.64	ug/l	99
64)	o-Xylene	17.02	91	1094928	20.20	ug/l	100
65)	Styrene	17.09	104	822062	18.78	ug/l	99
67)	Bromoform	18.00	173	163838	19.64	ug/l	99
68)	Isopropylbenzene	17.82	105	1325547	22.65	ug/l	99
69)	1,1,2,2-Tetrachloroethane	18.23	83	389188	19.86	ug/l	100
71)	1,2,3-Trichloropropane	18.60	61	68707	21.05	ug/l	95
72)	trans-1,4-Dichloro-2-buten	18.70	53	35790	21.44	ug/l	95
73)	n-Propylbenzene	18.79	91	1568673	20.21	ug/l	99
74)	Bromobenzene	19.03	156	324316	21.33	ug/l	98
75)	2-Chlorotoluene	19.31	91	956349	19.66	ug/l	95
76)	1,3,5-Trimethylbenzene	19.18	105	973009	20.47	ug/l	100
77)	4-Chlorotoluene	19.42	91	888102	21.25	ug/l	95
78)	tert-Butylbenzene	20.09	119	841719	20.09	ug/l	100
79)	1,2,4-Trimethylbenzene	20.19	105	913503	19.97	ug/l	100
80)	sec-Butylbenzene	20.62	105	1215438	18.39	ug/l	99
81)	p-Isopropyltoluene	20.97	119	855808	19.74	ug/l	100
82)	1,3-Dichlorobenzene	21.32	146	554894	19.78	ug/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\data\06C29\RCC674.D Vial: 5
Acq On : 30 Mar 2006 6:13 am Operator: CGM
Sample : VO67C47L 5.0mL Inst : TO67
Misc : 20ppb 8260/80ppb Ket-AA/100ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 6:43 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

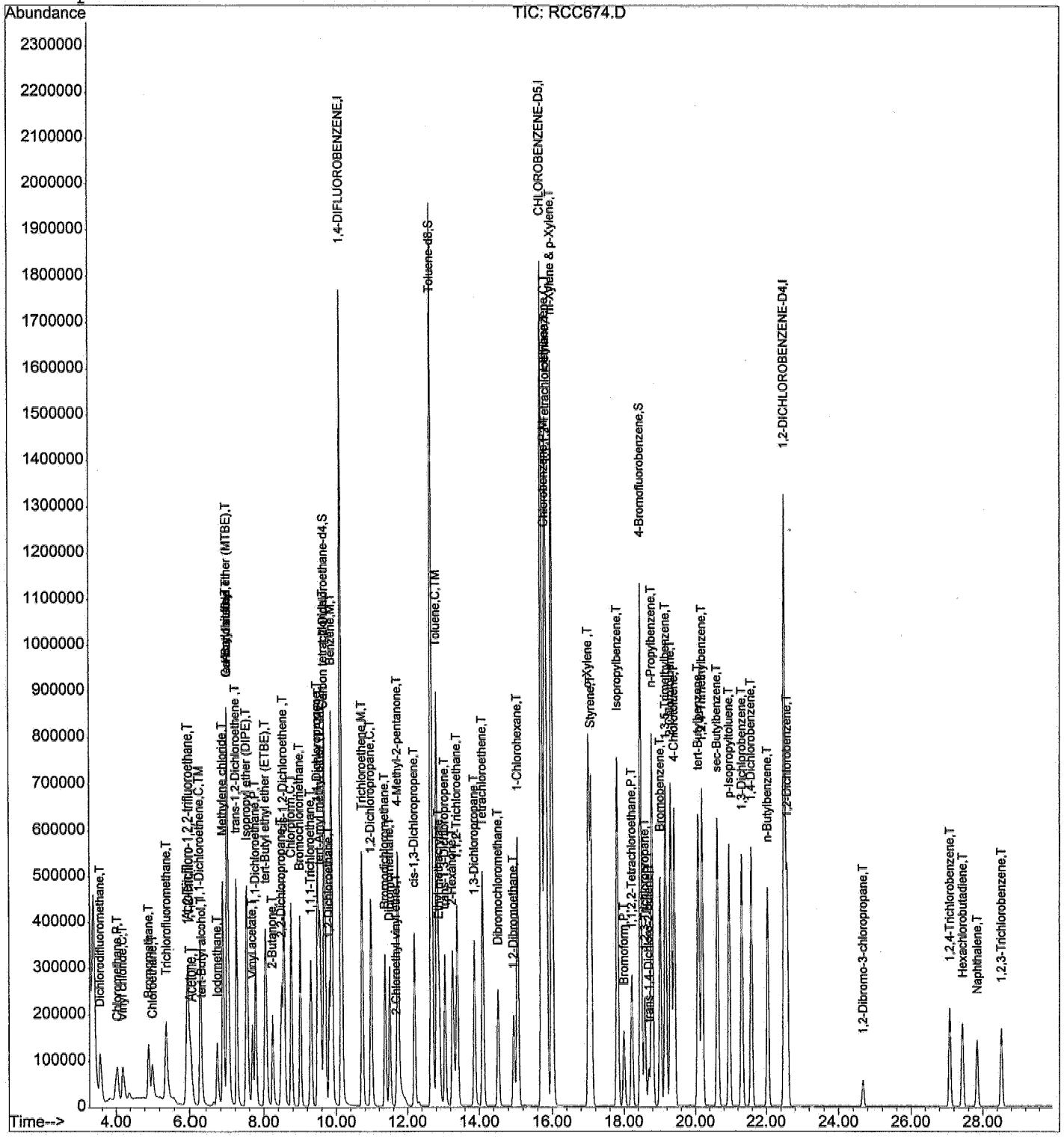
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
83)	1,4-Dichlorobenzene	21.58	146	535406	19.41	ug/l	99
84)	n-Butylbenzene	22.04	91	655286	16.57	ug/l	100
85)	1,2-Dichlorobenzene	22.59	146	504087	19.92	ug/l	99
86)	1,2-Dibromo-3-chloropropan	24.68	157	38488	17.10	ug/l	98
87)	1,2,4-Trichlorobenzene	27.09	180	149466	16.26	ug/l	100
88)	Hexachlorobutadiene	27.45	225	81522	17.93	ug/l	98
89)	Naphthalene	27.85	128	267314	14.87	ug/l	100
90)	1,2,3-Trichlorobenzene	28.52	180	117366	15.83	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\data\06C29\RCC674.D Vial: 5
Acq On : 30 Mar 2006 6:13 am Operator: CGM
Sample : VO67C47L 5.0mL Inst : TO67
Misc : 20ppb 8260/80ppb Ket-AA/100ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 6:43 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\data\06C29\RCC675.D Vial: 6
Acq On : 30 Mar 2006 6:48 am Operator: CGM
Sample : VO67C47C 5.0mL Inst : TO67
Misc : 20ppb 8260/80ppb Ket-AA/100ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 7:18 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.15	114	2786681	50.00	ug/l	0.01
36) CHLOROBENZENE-D5	15.72	117	2583573	50.00	ug/l	0.01
66) 1,2-DICHLOROBENZENE-D4	22.51	152	883377	50.00	ug/l	0.01
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.69	65	614097	50.79	ug/l	0.01
Spiked Amount 50.000			Recovery =	101.58%		
49) Toluene-d8	12.68	98	2674012	46.91	ug/l	0.01
Spiked Amount 50.000			Recovery =	93.82%		
70) 4-Bromofluorobenzene	18.48	95	937955	49.93	ug/l	0.01
Spiked Amount 50.000			Recovery =	99.86%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.54	85	252136	18.32	ug/l	99
3) Chloromethane	4.03	50	236499	20.45	ug/l	99
4) Vinyl chloride	4.18	62	184011	18.35	ug/l	99
5) Bromomethane	4.91	94	172740	15.70	ug/l	97
6) Chloroethane	5.01	64	131537	20.46	ug/l	99
7) Trichlorofluoromethane	5.39	101	289260	20.76	ug/l	99
9) Acrolein	5.95	56	90324	53.74	ug/l	96
10) 1,1,2-Trichloro-1,2,2-trif	5.95	151	199246	19.17	ug/l	98
11) Acetone	6.03	43	233614	74.27	ug/l	99
12) 1,1-Dichloroethene	6.23	61	394037	18.86	ug/l	98
13) tert-Butyl alcohol	6.28	59	106678	100.35	ug/l	98
16) Iodomethane	6.71	142	336559	23.40	ug/l	98
17) Methylene chloride	6.88	49	498551	20.19	ug/l	98
18) Carbon disulfide	6.99	76	1121383	21.27	ug/l	100
19) Acrylonitrile	6.99	53	317278	75.62	ug/l	98
20) tert-Butyl methyl ether (M	7.01	73	593500	21.53	ug/l	100
21) trans-1,2-Dichloroethene	7.25	61	428164	20.06	ug/l	97
22) Isopropyl ether (DIPE)	7.55	45	1017498	21.03	ug/l	99
23) 1,1-Dichloroethane	7.78	63	549203	20.15	ug/l	99
24) Vinyl acetate	7.69	43	433961	16.62	ug/l	100
25) tert-Butyl ethyl ether (ET	8.05	59	761809	21.43	ug/l	98
26) 2-Butanone	8.25	43	467101	74.09	ug/l	100
27) 2,2-Dichloropropane	8.50	77	309179	18.32	ug/l	99
28) cis-1,2-Dichloroethene	8.56	61	494256	20.24	ug/l	97
30) Chloroform	8.77	83	555580	20.95	ug/l	99
31) Bromochloromethane	9.01	49	301570	20.42	ug/l	95
32) 1,1,1-Trichloroethane	9.30	97	366091	19.30	ug/l	99
34) tert-Amyl methyl ether (TA	9.56	73	791933	21.17	ug/l	99
37) 1,1-Dichloropropene	9.50	77	137229	18.62	ug/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\data\06C29\RCC675.D Vial: 6
Acq On : 30 Mar 2006 6:48 am Operator: CGM
Sample : VO67C47C 5.0mL Inst : TO67
Misc : 20ppb 8260/80ppb Ket-AA/100ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 7:18 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38)	Carbon tetrachloride	9.68	119	326722	18.92	ug/l	99
39)	1,2-Dichloroethane	9.81	62	314260	19.47	ug/l	100
40)	Benzene	9.88	78	1375776	19.46	ug/l	99
41)	Trichloroethene	10.73	130	372967	19.14	ug/l	98
43)	1,2-Dichloropropane	10.97	63	375929	19.68	ug/l	99
44)	Bromodichloromethane	11.37	83	388375	18.68	ug/l	100
45)	Dibromomethane	11.51	93	229638	19.89	ug/l	97
46)	2-Chloroethyl vinyl ether	11.69	63	35390	12.33	ug/l	96
47)	4-Methyl-2-pentanone	11.73	43	1086021	73.71	ug/l	99
48)	cis-1,3-Dichloropropene	12.21	75	453799	18.62	ug/l	99
50)	Toluene	12.83	91	1324940	19.47	ug/l	100
51)	Ethyl methacrylate	12.89	69	307625	18.34	ug/l	99
52)	trans-1,3-Dichloropropene	13.06	75	345002	19.65	ug/l	98
53)	1,1,2-Trichloroethane	13.40	97	277467	19.43	ug/l	99
54)	2-Hexanone	13.27	43	674711	69.08	ug/l	99
55)	1,3-Dichloropropane	13.88	76	465641	19.25	ug/l	99
56)	Tetrachloroethene	14.10	164	258152	19.17	ug/l	99
57)	Dibromochloromethane	14.53	129	312185	19.54	ug/l	99
58)	1,2-Dibromoethane	14.95	107	306264	19.40	ug/l	99
59)	1-Chlorohexane	15.07	91	494009	18.90	ug/l	99
60)	Chlorobenzene	15.81	112	917826	19.55	ug/l	98
61)	1,1,1,2-Tetrachloroethane	15.86	131	289402	19.74	ug/l	99
62)	Ethylbenzene	15.84	91	1438003	19.58	ug/l	100
63)	m-Xylene & p-Xylene	16.01	91	2156127	39.14	ug/l	99
64)	o-Xylene	17.02	91	1117496	19.73	ug/l	100
65)	Styrene	17.09	104	844458	18.47	ug/l	99
67)	Bromoform	18.00	173	169336	18.88	ug/l	99
68)	Isopropylbenzene	17.82	105	1365533	21.71	ug/l	100
69)	1,1,2,2-Tetrachloroethane	18.23	83	394260	18.71	ug/l	99
71)	1,2,3-Trichloropropane	18.60	61	69842	19.90	ug/l	96
72)	trans-1,4-Dichloro-2-buten	18.70	53	36850	20.54	ug/l	97
73)	n-Propylbenzene	18.79	91	1608490	19.28	ug/l	100
74)	Bromobenzene	19.03	156	331858	20.30	ug/l	99
75)	2-Chlorotoluene	19.31	91	1041986	19.92	ug/l	100
76)	1,3,5-Trimethylbenzene	19.18	105	1011445	19.79	ug/l	100
77)	4-Chlorotoluene	19.42	91	862937	19.21	ug/l	100
78)	tert-Butylbenzene	20.09	119	873839	19.41	ug/l	100
79)	1,2,4-Trimethylbenzene	20.19	105	943469	19.19	ug/l	99
80)	sec-Butylbenzene	20.62	105	1263271	17.79	ug/l	100
81)	p-Isopropyltoluene	20.97	119	899238	19.30	ug/l	100
82)	1,3-Dichlorobenzene	21.32	146	577806	19.16	ug/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\data\06C29\RCC675.D Vial: 6
Acq On : 30 Mar 2006 6:48 am Operator: CGM
Sample : VO67C47C 5.0mL Inst : TO67
Misc : 20ppb 8260/80ppb Ket-AA/100ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 7:18 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

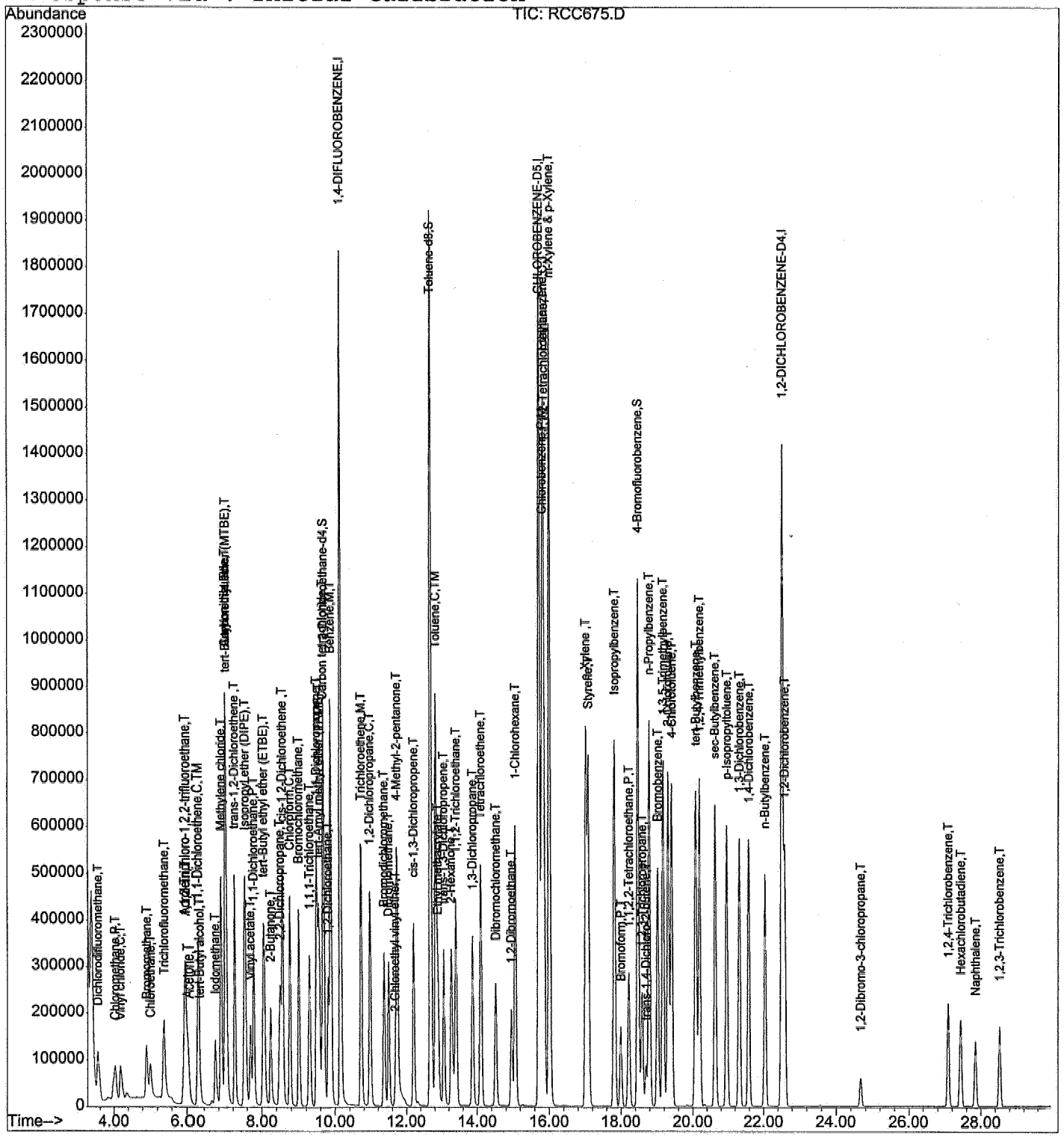
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
83)	1,4-Dichlorobenzene	21.59	146	557686	18.80	ug/l	99
84)	n-Butylbenzene	22.04	91	681581	16.15	ug/l	100
85)	1,2-Dichlorobenzene	22.59	146	526135	19.34	ug/l	99
86)	1,2-Dibromo-3-chloropropan	24.67	157	39947	16.51	ug/l	97
87)	1,2,4-Trichlorobenzene	27.09	180	152676	15.63	ug/l	99
88)	Hexachlorobutadiene	27.44	225	83028	17.06	ug/l	100
89)	Naphthalene	27.85	128	258985	13.82	ug/l	100
90)	1,2,3-Trichlorobenzene	28.52	180	121144	15.34	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\data\06C29\RCC675.D Vial: 6
Acq On : 30 Mar 2006 6:48 am Operator: CGM
Sample : VO67C47C 5.0mL Inst : TO67
Misc : 20ppb 8260/80ppb Ket-AA/100ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 7:18 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\data\06C29\RCC689.D Vial: 20
Acq On : 30 Mar 2006 3:16 pm Operator: CGM
Sample : 06C222-01M 5.0mL Inst : TO67
Misc : DF=1.0 MS Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 15:46 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.15	114	2257760	50.00	ug/l	0.01
36) CHLOROBENZENE-D5	15.72	117	2066536	50.00	ug/l	0.01
66) 1,2-DICHLOROBENZENE-D4	22.51	152	755902	50.00	ug/l	0.01
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.69	65	556427	56.80	ug/l	0.01
Spiked Amount 50.000			Recovery = 113.60%			
49) Toluene-d8	12.70	98	2410018	52.86	ug/l	0.03
Spiked Amount 50.000			Recovery = 105.72%			
70) 4-Bromofluorobenzene	18.48	95	867504	53.97	ug/l	0.01
Spiked Amount 50.000			Recovery = 107.94%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.55	85	648775	58.18	ug/l	99
3) Chloromethane	4.04	50	552773	59.00	ug/l	100
4) Vinyl chloride	4.18	62	363126	55.30	ug/l	99
5) Bromomethane	4.91	94	332991	42.60	ug/l	100
6) Chloroethane	5.01	64	303355	58.25	ug/l	100
7) Trichlorofluoromethane	5.38	101	662811	58.72	ug/l	100
9) Acrolein	5.95	56	256010	188.00	ug/l	100
10) 1,1,2-Trichloro-1,2,2-trif	5.97	151	463307	55.01	ug/l	100
11) Acetone	6.02	43	503040	197.39	ug/l	99
12) 1,1-Dichloroethene	6.25	61	935932	55.30	ug/l	99
13) tert-Butyl alcohol	6.28	59	211496	245.56	ug/l	99
16) Iodomethane	6.71	142	516310	38.76	ug/l	99
17) Methylene chloride	6.87	49	1015187	56.67	ug/l	100
18) Carbon disulfide	7.01	76	2330446	54.55	ug/l	100
19) Acrylonitrile	6.99	53	749568	220.50	ug/l	99
20) tert-Butyl methyl ether (M	7.01	73	1252260	56.06	ug/l	100
21) trans-1,2-Dichloroethene	7.26	61	985630	56.98	ug/l	100
22) Isopropyl ether (DIPE)	7.54	45	2235542	57.02	ug/l	100
23) 1,1-Dichloroethane	7.78	63	1248187	56.51	ug/l	100
24) Vinyl acetate	7.69	43	1066761	50.43	ug/l	99
25) tert-Butyl ethyl ether (ET	8.07	59	1664940	57.81	ug/l	99
26) 2-Butanone	8.24	43	1039836	203.56	ug/l	100
27) 2,2-Dichloropropane	8.50	77	664332	48.58	ug/l	99
28) cis-1,2-Dichloroethene	8.57	61	1138219	57.52	ug/l	99
30) Chloroform	8.77	83	1237252	57.58	ug/l	100
31) Bromochloromethane	9.02	49	683932	57.16	ug/l	98
32) 1,1,1-Trichloroethane	9.30	97	832221	54.15	ug/l	99
34) tert-Amyl methyl ether (TA	9.55	73	1673148	55.20	ug/l	100
37) 1,1-Dichloropropene	9.50	77	313037	53.10	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\data\06C29\RCC689.D Vial: 20
Acq On : 30 Mar 2006 3:16 pm Operator: CGM
Sample : 06C222-01M 5.0mL Inst : TO67
Misc : DF=1.0 MS Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 15:46 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38)	Carbon tetrachloride	9.67	119	755317	54.70	ug/l	100
39)	1,2-Dichloroethane	9.82	62	723166	56.02	ug/l	100
40)	Benzene	9.90	78	3067668	54.25	ug/l	100
41)	Trichloroethene	10.73	130	825128	52.95	ug/l	100
43)	1,2-Dichloropropane	10.98	63	864706	56.60	ug/l	99
44)	Bromodichloromethane	11.37	83	946266	56.89	ug/l	100
45)	Dibromomethane	11.51	93	514049	55.67	ug/l	99
47)	4-Methyl-2-pentanone	11.73	43	2393380	203.07	ug/l	98
48)	cis-1,3-Dichloropropene	12.21	75	1063279	54.55	ug/l	100
50)	Toluene	12.83	91	3015190	55.40	ug/l	100
51)	Ethyl methacrylate	12.89	69	765048	57.01	ug/l	98
52)	trans-1,3-Dichloropropene	13.06	75	757273	53.92	ug/l	100
53)	1,1,2-Trichloroethane	13.40	97	639073	55.95	ug/l	99
54)	2-Hexanone	13.26	43	1449250	187.36	ug/l	99
55)	1,3-Dichloropropane	13.87	76	1077660	55.70	ug/l	100
56)	Tetrachloroethene	14.11	164	563203	52.29	ug/l	99
57)	Dibromochloromethane	14.53	129	723729	56.63	ug/l	100
58)	1,2-Dibromoethane	14.96	107	710883	56.30	ug/l	100
59)	1-Chlorohexane	15.07	91	1165533	55.74	ug/l	100
60)	Chlorobenzene	15.81	112	2094037	55.77	ug/l	99
61)	1,1,1,2-Tetrachloroethane	15.86	131	664411	56.65	ug/l	99
62)	Ethylbenzene	15.86	91	3343975	56.93	ug/l	100
63)	m-Xylene & p-Xylene	16.00	91	5024103	114.02	ug/l	99
64)	o-Xylene	17.03	91	2613996	57.71	ug/l	100
65)	Styrene	17.09	104	1970804	53.88	ug/l	99
67)	Bromoform	18.00	173	407822	53.14	ug/l	99
68)	Isopropylbenzene	17.82	105	2938815	54.59	ug/l	100
69)	1,1,2,2-Tetrachloroethane	18.22	83	936355	51.94	ug/l	100
71)	1,2,3-Trichloropropane	18.60	61	155673	51.84	ug/l	99
72)	trans-1,4-Dichloro-2-buten	18.70	53	64235	41.84	ug/l	98
73)	n-Propylbenzene	18.79	91	3976780	55.71	ug/l	100
74)	Bromobenzene	19.03	156	747663	53.45	ug/l	99
75)	2-Chlorotoluene	19.31	91	2419111	54.06	ug/l	100
76)	1,3,5-Trimethylbenzene	19.18	105	2394764	54.76	ug/l	100
77)	4-Chlorotoluene	19.42	91	2107634	54.82	ug/l	99
78)	tert-Butylbenzene	20.09	119	2166356	56.23	ug/l	98
79)	1,2,4-Trimethylbenzene	20.19	105	2290809	54.46	ug/l	99
80)	sec-Butylbenzene	20.64	105	3369725	55.44	ug/l	100
81)	p-Isopropyltoluene	20.96	119	2191814	54.97	ug/l	100
82)	1,3-Dichlorobenzene	21.32	146	1358153	52.63	ug/l	100
83)	1,4-Dichlorobenzene	21.59	146	1331683	52.48	ug/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\data\06C29\RCC689.D Vial: 20
Acq On : 30 Mar 2006 3:16 pm Operator: CGM
Sample : 06C222-01M 5.0mL Inst : TO67
Misc : DF=1.0 MS Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 15:46 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

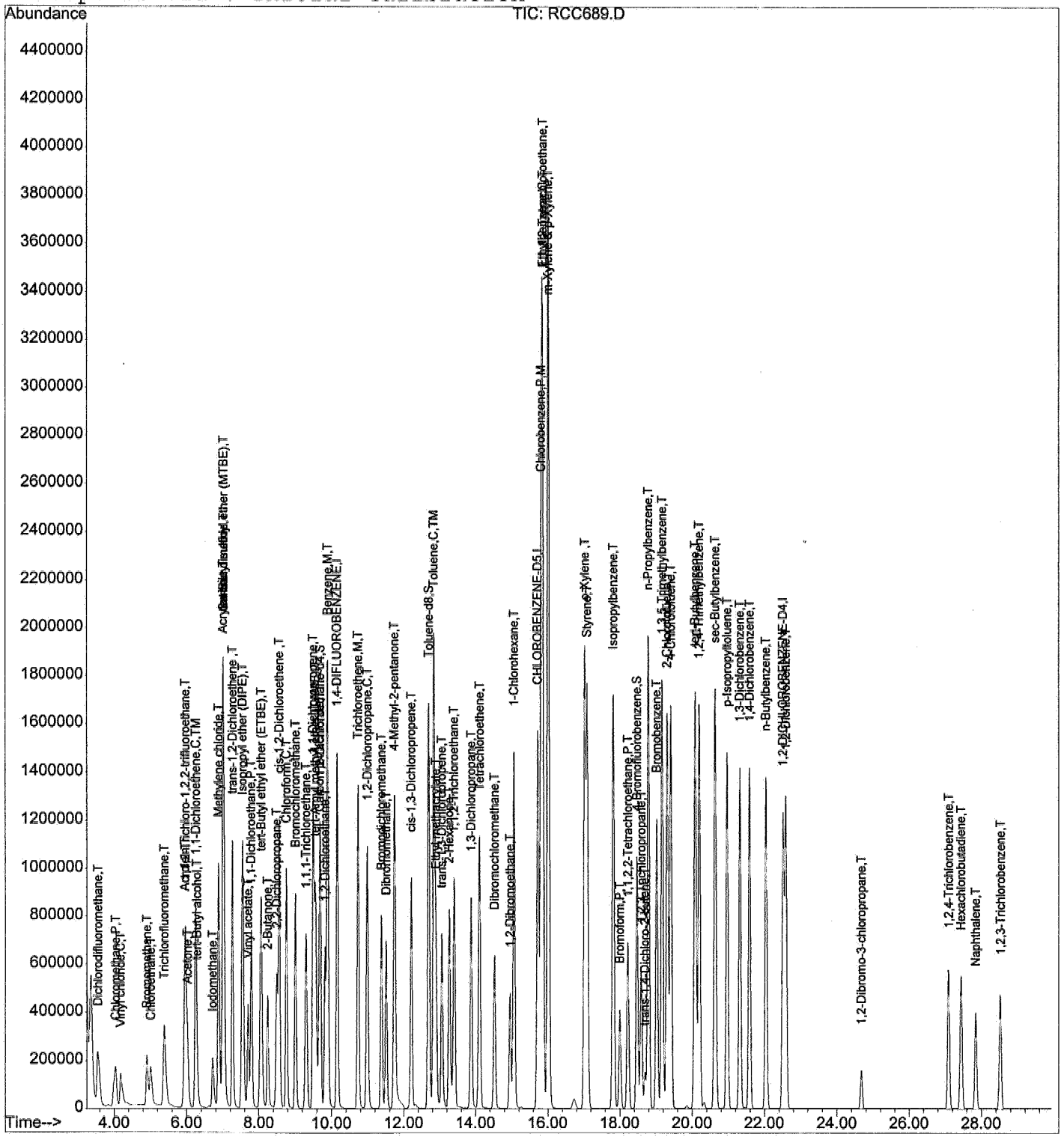
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
84)	n-Butylbenzene	22.04	91	1937489	45.78	ug/l	100
85)	1,2-Dichlorobenzene	22.59	146	1233896	53.01	ug/l	100
86)	1,2-Dibromo-3-chloropropan	24.67	157	101089	48.83	ug/l	98
87)	1,2,4-Trichlorobenzene	27.10	180	404874	41.03	ug/l	100
88)	Hexachlorobutadiene	27.44	225	233096	51.18	ug/l	100
89)	Naphthalene	27.85	128	724908	35.70	ug/l	100
90)	1,2,3-Trichlorobenzene	28.53	180	327313	40.57	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\data\06C29\RCC689.D Vial: 20
Acq On : 30 Mar 2006 3:16 pm Operator: CGM
Sample : 06C222-01M 5.0mL Inst : TO67
Misc : DF=1.0 MS Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 15:46 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\data\06C29\RCC690.D Vial: 21
Acq On : 30 Mar 2006 3:52 pm Operator: CGM
Sample : 06C222-01S 5.0mL Inst : TO67
Misc : DF=1.0 MSD Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 16:22 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.16	114	2386046	50.00	ug/l	0.02
36) CHLOROBENZENE-D5	15.72	117	2157820	50.00	ug/l	0.00
66) 1,2-DICHLOROBENZENE-D4	22.51	152	772377	50.00	ug/l	0.00
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.70	65	577031	55.73	ug/l	0.02
Spiked Amount 50.000			Recovery =	111.46%		
49) Toluene-d8	12.70	98	2535440	53.26	ug/l	0.02
Spiked Amount 50.000			Recovery =	106.52%		
70) 4-Bromofluorobenzene	18.47	95	895677	54.53	ug/l	0.00
Spiked Amount 50.000			Recovery =	109.06%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.54	85	661934	56.16	ug/l	100
3) Chloromethane	4.04	50	584680	59.05	ug/l	99
4) Vinyl chloride	4.18	62	383361	55.22	ug/l	100
5) Bromomethane	4.91	94	386768	47.19	ug/l	99
6) Chloroethane	5.01	64	307048	55.79	ug/l	100
7) Trichlorofluoromethane	5.40	101	674288	56.52	ug/l	100
9) Acrolein	5.95	56	277625	192.91	ug/l	99
10) 1,1,2-Trichloro-1,2,2-trif	5.96	151	498116	55.96	ug/l	100
11) Acetone	6.02	43	543354	201.74	ug/l	99
12) 1,1-Dichloroethene	6.25	61	1006524	56.28	ug/l	99
13) tert-Butyl alcohol	6.28	59	249260	273.85	ug/l	99
16) Iodomethane	6.71	142	590586	41.44	ug/l	99
17) Methylene chloride	6.87	49	1061158	56.01	ug/l	100
18) Carbon disulfide	7.01	76	2442026	54.09	ug/l	100
19) Acrylonitrile	6.99	53	813367	226.40	ug/l	98
20) tert-Butyl methyl ether (M	7.01	73	1334275	56.52	ug/l	100
21) trans-1,2-Dichloroethene	7.26	61	1029742	56.33	ug/l	99
22) Isopropyl ether (DIPE)	7.54	45	2381557	57.48	ug/l	100
23) 1,1-Dichloroethane	7.78	63	1326342	56.82	ug/l	100
24) Vinyl acetate	7.69	43	1186008	53.05	ug/l	100
25) tert-Butyl ethyl ether (ET	8.06	59	1788208	58.75	ug/l	100
26) 2-Butanone	8.24	43	1149648	212.96	ug/l	100
27) 2,2-Dichloropropane	8.51	77	694185	48.04	ug/l	99
28) cis-1,2-Dichloroethene	8.57	61	1206849	57.71	ug/l	98
30) Chloroform	8.76	83	1299314	57.22	ug/l	100
31) Bromochloromethane	9.02	49	737204	58.30	ug/l	98
32) 1,1,1-Trichloroethane	9.30	97	899264	55.36	ug/l	99
34) tert-Amyl methyl ether (TA	9.55	73	1825851	57.00	ug/l	99
37) 1,1-Dichloropropene	9.49	77	344895	56.03	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\data\06C29\RCC690.D Vial: 21
Acq On : 30 Mar 2006 3:52 pm Operator: CGM
Sample : 06C222-01S 5.0mL Inst : TO67
Misc : DF=1.0 MSD Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 16:22 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	Carbon tetrachloride	9.67	119	812068	56.32	ug/l		100
39)	1,2-Dichloroethane	9.82	62	766589	56.88	ug/l		100
40)	Benzene	9.90	78	3282590	55.60	ug/l		99
41)	Trichloroethene	10.73	130	885751	54.43	ug/l		99
43)	1,2-Dichloropropane	10.98	63	912780	57.22	ug/l		99
44)	Bromodichloromethane	11.37	83	1001431	57.66	ug/l		100
45)	Dibromomethane	11.50	93	553571	57.41	ug/l		98
46)	2-Chloroethyl vinyl ether	11.73	63	1612	0.67	ug/l	#	1
47)	4-Methyl-2-pentanone	11.74	43	2701362	219.51	ug/l		98
48)	cis-1,3-Dichloropropene	12.20	75	1125203	55.29	ug/l		100
50)	Toluene	12.84	91	3162673	55.65	ug/l		100
51)	Ethyl methacrylate	12.89	69	832927	59.44	ug/l		99
52)	trans-1,3-Dichloropropene	13.07	75	820387	55.95	ug/l		99
53)	1,1,2-Trichloroethane	13.41	97	671481	56.30	ug/l		100
54)	2-Hexanone	13.26	43	1734448	214.90	ug/l		99
55)	1,3-Dichloropropane	13.87	76	1151967	57.02	ug/l		100
56)	Tetrachloroethene	14.11	164	595484	52.95	ug/l		99
57)	Dibromochloromethane	14.53	129	782037	58.60	ug/l		99
58)	1,2-Dibromoethane	14.96	107	759191	57.58	ug/l		100
59)	1-Chlorohexane	15.06	91	1233734	56.50	ug/l		100
60)	Chlorobenzene	15.81	112	2203724	56.21	ug/l		99
61)	1,1,1,2-Tetrachloroethane	15.85	131	698016	56.99	ug/l		99
62)	Ethylbenzene	15.85	91	3473346	56.63	ug/l		100
63)	m-Xylene & p-Xylene	16.02	91	5242182	113.94	ug/l		99
64)	o-Xylene	17.03	91	2734654	57.82	ug/l		100
65)	Styrene	17.09	104	2033216	53.24	ug/l		99
67)	Bromoform	18.00	173	442295	56.40	ug/l		99
68)	Isopropylbenzene	17.82	105	3087750	56.13	ug/l		99
69)	1,1,2,2-Tetrachloroethane	18.22	83	1019905	55.37	ug/l		100
71)	1,2,3-Trichloropropane	18.59	61	171856	56.01	ug/l		99
72)	trans-1,4-Dichloro-2-buten	18.70	53	72078	45.95	ug/l		100
73)	n-Propylbenzene	18.80	91	4099865	56.21	ug/l		100
74)	Bromobenzene	19.03	156	781294	54.66	ug/l		99
75)	2-Chlorotoluene	19.32	91	2524216	55.20	ug/l		100
76)	1,3,5-Trimethylbenzene	19.17	105	2473332	55.35	ug/l		100
77)	4-Chlorotoluene	19.41	91	2186343	55.66	ug/l		99
78)	tert-Butylbenzene	20.08	119	2242099	56.95	ug/l		98
79)	1,2,4-Trimethylbenzene	20.19	105	2391550	55.64	ug/l		100
80)	sec-Butylbenzene	20.63	105	3541957	57.03	ug/l		100
81)	p-Isopropyltoluene	20.96	119	2290521	56.22	ug/l		100
82)	1,3-Dichlorobenzene	21.32	146	1394993	52.90	ug/l		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\data\06C29\RCC690.D Vial: 21
Acq On : 30 Mar 2006 3:52 pm Operator: CGM
Sample : 06C222-01S 5.0mL Inst : TO67
Misc : DF=1.0 MSD Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 16:22 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

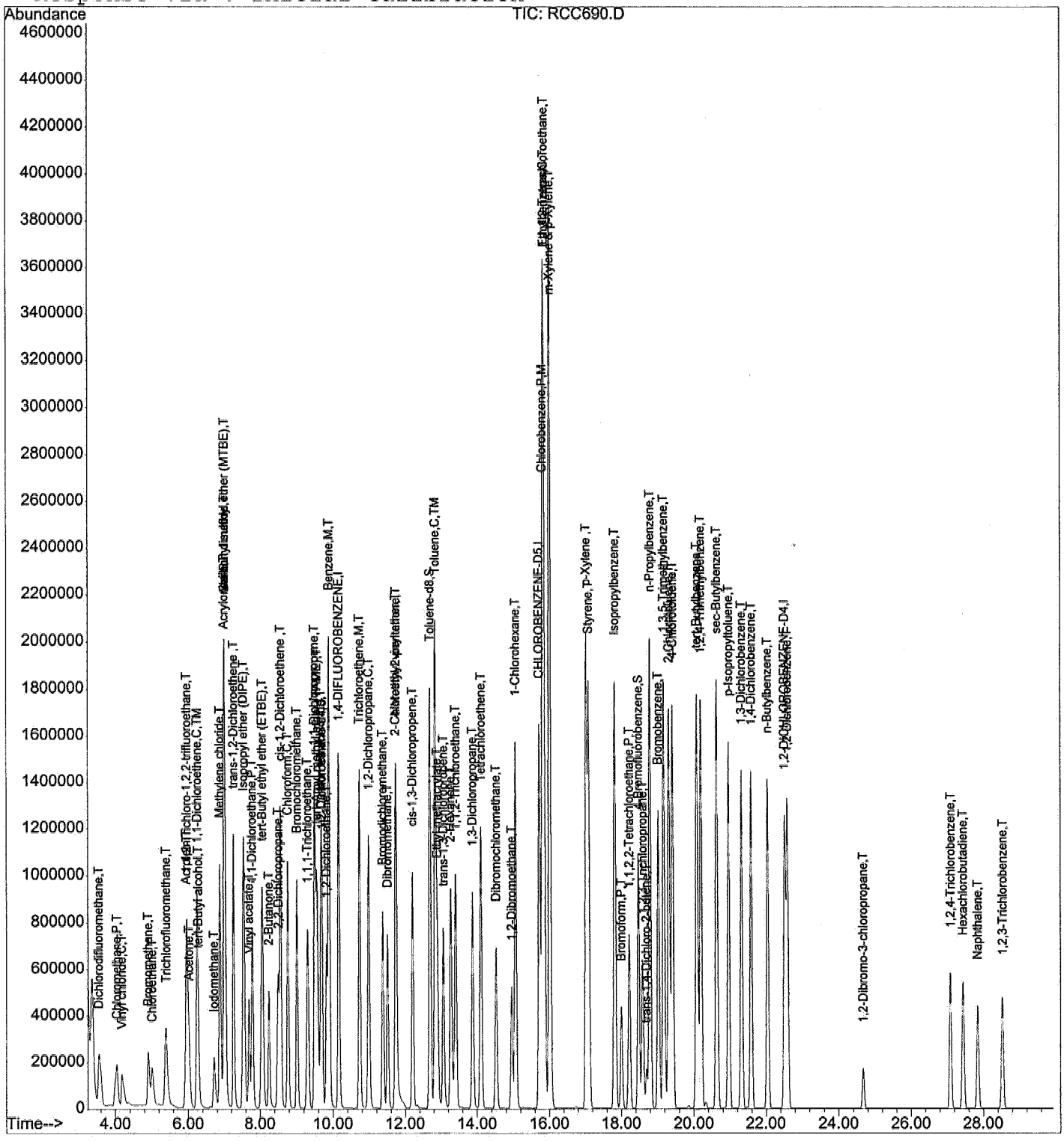
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
83)	1,4-Dichlorobenzene	21.59	146	1361219	52.50	ug/l	100
84)	n-Butylbenzene	22.03	91	1986280	45.92	ug/l	100
85)	1,2-Dichlorobenzene	22.59	146	1266208	53.24	ug/l	100
86)	1,2-Dibromo-3-chloropropan	24.67	157	110878	52.42	ug/l	99
87)	1,2,4-Trichlorobenzene	27.10	180	408520	40.56	ug/l	100
88)	Hexachlorobutadiene	27.44	225	237146	50.97	ug/l	99
89)	Naphthalene	27.84	128	799608	38.20	ug/l	100
90)	1,2,3-Trichlorobenzene	28.53	180	336811	40.83	ug/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\data\06C29\RCC690.D Vial: 21
Acq On : 30 Mar 2006 3:52 pm Operator: CGM
Sample : 06C222-01S 5.0mL Inst : TO67
Misc : DF=1.0 MSD Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 16:22 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration



INITIAL CALIBRATIONS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RCC483
Instrument ID: T-067
GC Column:RTX502.2ID:0.32mm (mm)

Contract: UPGRADIENT INVESTIGATION, TRONOX
SAS No.: SDG No.: 06C222
BFB Injection Date : 03/23/06
BFB Injection Time : 13:23
Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.78
75	30.0 - 60.0% of mass 95	40.56
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.56
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	71.60
175	5.0 - 9.0% of mass 174	5.09(7.1)1
176	95.0 - 101.0% of mass 174	68.86(96.2)1
177	5.0 - 9.0% of mass 176	4.41(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD050	V067C235	RCC488	03/23/06	16:23
2	VSTD080	V067C236	RCC489	03/23/06	16:58
3	VSTD100	V067C237	RCC490	03/23/06	17:34
4	VSTD200	V067C238	RCC491	03/23/06	18:09
5	VSTD300	V067C239	RCC492	03/23/06	18:44
6	VSTD02	V067C2310	RCC495	03/23/06	20:31
7	VSTD05	V067C2311	RCC496	03/23/06	21:07
8	VSTD010	V067C2312	RCC497	03/23/06	21:42
9	VSTD020	V067C2313	RCC498	03/23/06	22:18
10	VSTD050	IV067C231	RCC499	03/23/06	22:53

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO67
Beginning DateTime :03/23/06 16:23
Spike Units :PPB
IC File :rcc488

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :03/23/06 18:44
HPChem Method :vo67c23

M	IDX	Parameters	2 20:31 rcc495	5 21:07 rcc496	10 21:42 rcc497	20 22:18 rcc498	50 16:23 rcc488	80 16:58 rcc489	100 17:34 rcc490	200 18:09 rcc491	300 18:44 rcc492	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	0	10.1439
	2	Dichlorodifluoromethane	0.232	0.254	0.248	0.248	0.248	0.256	0.255	0.245	0.238	0.247	3.21	3.5339
	3	Chloromethane	0.192	0.204	0.190	0.203	0.204	0.217	0.220	0.219	0.217	0.207	5.65	4.0221
	4	Vinyl chloride	0.213	0.220	0.207	0.192	0.140	0.118	0.114	------	------	0.172	26.98	4.1703
	5	Bromomethane	------	0.253	0.232	0.217	0.158	0.161	0.170	0.160	0.162	0.189	20.35	4.8980
	6	Chloroethane	0.119	0.117	0.116	0.115	0.113	0.119	0.115	0.114	0.109	0.115	2.66	5.0002
	7	Trichlorofluoromethane	0.236	0.255	0.252	0.255	0.247	0.256	0.257	0.249	0.243	0.250	2.81	5.3775
	8	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
4	9	Acrolein	0.028	0.027	0.031	0.030	0.032	0.031	0.033	0.031	0.029	0.030	6.18	5.9468
	10	1,1,2-Trichloro-1,2,2-trifluoroethane	0.186	0.188	0.191	0.204	0.187	0.173	0.178	0.186	0.186	0.187	4.66	5.9518
4	11	Acetone	0.065	0.053	0.059	0.056	0.059	0.056	0.055	0.054	0.052	0.056	7.21	6.0180
	12	1,1-Dichloroethene	0.365	0.373	0.384	0.402	0.385	0.365	0.356	0.380	0.362	0.375	3.85	6.2348
5	13	tert-Butyl alcohol	0.014	0.016	0.020	0.022	0.022	0.019	0.019	0.021	0.019	0.019	14.59	6.2861
	14	Acetonitrile	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	15	Methyl acetate	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	16	Iodomethane	------	0.083	0.098	0.143	0.272	0.312	0.319	0.360	0.349	0.242	47.61	6.7003
	17	Methylene chloride	------	0.630	0.499	0.467	0.427	0.391	0.385	0.387	0.365	0.444	19.85	6.8604
	18	Carbon disulfide	0.942	0.938	0.944	1.009	0.995	0.902	0.914	0.958	0.912	0.946	3.87	6.9945
4	19	Acrylonitrile	0.079	0.071	0.081	0.075	0.083	0.075	0.075	0.072	0.067	0.075	6.76	6.9812
	20	tert-Butyl methyl ether (MTBE)	0.476	0.451	0.506	0.550	0.516	0.475	0.489	0.515	0.473	0.495	6.04	7.0044
	21	trans-1,2-Dichloroethene	0.354	0.372	0.379	0.415	0.408	0.379	0.374	0.395	0.372	0.383	5.06	7.2460
	22	Isopropyl ether (DIPE)	0.806	0.817	0.856	0.948	0.909	0.862	0.863	0.908	0.846	0.868	5.30	7.5340
	23	1,1-Dichloroethane	0.484	0.478	0.484	0.530	0.515	0.486	0.481	0.487	0.458	0.489	4.30	7.7756
	24	Vinyl acetate	0.431	0.408	0.400	0.456	0.516	0.498	0.504	0.529	0.475	0.468	10.16	7.6829
	25	tert-Butyl ethyl ether (ETBE)	0.589	0.586	0.639	0.693	0.661	0.632	0.642	0.666	0.633	0.638	5.40	8.0536
4	26	2-Butanone	0.115	0.100	0.120	0.109	0.122	0.114	0.114	0.115	0.108	0.113	5.77	8.2456
	27	2,2-Dichloropropane	0.286	0.284	0.295	0.316	0.320	0.299	0.300	0.317	0.309	0.303	4.41	8.4906
	28	cis-1,2-Dichloroethene	0.423	0.399	0.441	0.488	0.470	0.395	0.442	0.456	0.430	0.438	6.99	8.5584
4	29	tert-Butyl formate (TBF)	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	30	Chloroform	0.470	0.452	0.464	0.515	0.494	0.465	0.461	0.490	0.471	0.476	4.16	8.7537
	31	Bromochloromethane	0.247	0.254	0.266	0.290	0.279	0.263	0.264	0.268	0.255	0.265	4.94	8.9970
	32	1,1,1-Trichloroethane	0.330	0.338	0.331	0.357	0.351	0.331	0.327	0.350	0.348	0.340	3.33	9.2916
	33	Cyclohexane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	34	tert-Amyl methyl ether (TAME)	0.612	0.615	0.663	0.741	0.697	0.667	0.665	0.713	0.668	0.671	6.25	9.5514
	35	1,2-Dichloroethane-d4	0.230	0.222	0.218	0.226	0.186	0.226	0.227	0.217	0.200	0.217	6.74	9.6838
	36	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	0	15.7096
	37	1,1-Dichloropropene	0.145	0.144	0.139	0.154	0.147	0.139	0.137	0.140	0.138	0.143	3.91	9.4869
	38	Carbon tetrachloride	0.329	0.331	0.317	0.362	0.341	0.323	0.324	0.341	0.340	0.334	4.04	9.6606
	39	1,2-Dichloroethane	0.314	0.303	0.298	0.336	0.324	0.311	0.304	0.316	0.303	0.312	3.84	9.8096
	40	Benzene	1.455	1.413	1.342	1.468	1.387	1.314	1.277	1.349	1.307	1.368	4.89	9.8791
	41	Trichloroethene	0.385	0.383	0.367	0.404	0.377	0.364	0.360	0.378	0.375	0.377	3.50	10.7182
	42	Methylcyclohexane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	43	1,2-Dichloropropane	0.372	0.356	0.356	0.400	0.383	0.370	0.364	0.370	0.355	0.370	4.01	10.9714
	44	Bromodichloromethane	0.382	0.377	0.376	0.433	0.412	0.404	0.400	0.421	0.417	0.402	5.09	11.3586
	45	Dibromomethane	0.223	0.205	0.215	0.245	0.234	0.223	0.219	0.228	0.217	0.223	5.18	11.4927
	46	2-Chloroethyl vinyl ether	------	0.041	0.050	0.062	0.059	0.061	0.060	------	------	0.056	14.53	11.6833
4	47	4-Methyl-2-pentanone	0.317	0.236	0.273	0.284	0.304	0.295	0.292	0.288	0.276	0.285	8.01	11.7293
	48	cis-1,3-Dichloropropene	0.430	0.418	0.435	0.506	0.491	0.484	0.478	0.506	0.496	0.472	7.27	12.1928
	49	Toluene-d8	1.385	1.080	1.085	1.110	0.884	1.132	1.134	1.075	1.043	1.103	11.76	12.6777
	50	Toluene	1.388	1.323	1.274	1.403	1.337	1.286	1.267	1.312	1.261	1.317	3.91	12.8250
	51	Ethyl methacrylate	------	0.242	0.282	0.334	0.346	0.343	0.345	0.362	0.342	0.325	12.59	12.8835
	52	trans-1,3-Dichloropropene	0.292	0.286	0.312	0.373	0.356	0.354	0.354	0.374	0.357	0.340	9.98	13.0484
	53	1,1,2-Trichloroethane	0.275	0.258	0.271	0.304	0.285	0.273	0.271	0.281	0.269	0.276	4.60	13.3893
4	54	2-Hexanone	0.284	0.157	0.167	0.168	0.190	0.190	0.192	0.191	0.182	0.191	19.39	13.2602
	55	1,3-Dichloropropane	0.466	0.444	0.456	0.511	0.481	0.456	0.465	0.479	0.455	0.468	4.22	13.8610
	56	Tetrachloroethene	0.268	0.261	0.253	0.279	0.262	0.249	0.245	0.262	0.264	0.261	3.95	14.0943
	57	Dibromochloromethane	0.264	0.274	0.286	0.335	0.317	0.317	0.316	0.340	0.333	0.309	9.02	14.5163
	58	1,2-Dibromoethane	0.281	0.280	0.290	0.335	0.322	0.310	0.307	0.317	0.307	0.306	6.05	14.9450
	59	1-Chlorohexane	0.448	0.457	0.458	0.547	0.528	0.522	0.516	0.539	0.538	0.506	7.87	15.0526
	60	Chlorobenzene	0.962	0.896	0.873	0.974	0.918	0.888	0.884	0.909	0.872	0.908	4.10	15.7973
	61	1,1,1,2-Tetrachloroethane	0.276	0.272	0.269	0.312	0.289	0.283	0.279	0.292	0.281	0.284	4.53	15.8420
	62	Ethylbenzene	1.449	1.396	1.358	1.531	1.476	1.424	1.383	1.422	1.351	1.421	4.09	15.8403
2	63	m-Xylene & p-Xylene	1.044	1.035	0.994	1.164	1.092	1.069	1.050	1.081	------	1.066	4.67	15.9962
	64	o-Xylene	1.050	1.015	1.025	1.179	1.138	1.099	1.101	1.148	1.108	1.096	5.13	17.0166
	65	Styrene	0.755	0.768	0.791	0.952	0.934	0.931	0.917	0.976	0.941	0.885	9.85	17.0795
	66	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	0	22.4995
	67	Bromoform	0.489	0.464	0.508	0.554	0.521	0.499	0.491	0.526	0.516	0.508	5.12	17.9864
	68	Isopropylbenzene	3.661	3.693	3.565	3.852	3.604	3.378	3.318	3.496	3.481	3.561	4.63	17.8077
	69	1,1,2,2-Tetrachloroethane	1.298	1.205	1.253	1.303	1.236	1.124	1.100	1.132	1.081	1.192	7.17	18.2098
	70	4-Bromofluorobenzene	------	1.168	1.150	1.154	0.886	1.099	1.068	1.010	0.971	1.063	9.47	18.4630
	71	1,2,3-Trichloropropane	0.199	0.201	0.219	0.225	0.211	0.189	0.183	0.187	0.173	0.199	8.64	18.5822
	72	trans-1,4-Dichloro-2-butene	------	0.068	0.095	0.103	0.108	0.106	0.104	0.115	0.113	0.102	14.57	18.6883
	73	n-Propylbenzene	4.506	4.608	4.611	5.114	4.953	4.748	4.598	4.815	4.539	4.721	4.35	18.7808
	74	Bromobenzene	1.028	0.957	0.934	0.995	0.902	0.868	0.839	0.905	0.900	0.925	6.49	19.0141
	75	2-Chlorotoluene	3.294	3.134	3.039	3.213	3.018	2.792	2.660	2.779	2.713	2.960	7.81	19.3021
	76	1,3,5-Trimethylbenzene	2.777	2.861	2.833	3.147	2.975	2.876	2.761	2.896	2.908	2.893	4.00	19.1631
	77	4-Chlorotoluene	2.732	2.606	2.460	2.692	2.483	2.459	2.434	2.519	2.501	2.543	4.26	19.4014
	78	tert-Butylbenzene	2.424	2.493	2.468	2.778	2.640	2.495	2.446	2.601	2.593	2.549	4.48	20.0717
	79	1,2,4-Trimethylbenzene	2.569	2.612	2.661	3.021	2.916	2.794	2.736	2.881	2.852	2.782	5.41	20.1792
	80	sec-Butylbenzene	3.480	3.588	3.739	4.298	4.283	4.131	4.006	4.333	4.324	4.020	8.38	20.6211
	81	p-Isopropyltoluene	2.027	2.161	2.298	2.814	2.819	2.788	2.766	2.983	3.078	2.637	14.27	20.9504
	82	1,3-Dichlorobenzene	1.849	1.670	1.643	1.820	1.696	1.615	1.618	1.723	1.729	1.707	4.89	21.3079
	83	1,4-Dichlorobenzene	1.835	1.618	1.592	1.761	1.656	1.607	1.588	1.722	1.728	1.679	5.18	21.5744
	84	n-Butylbenzene	------	1.646	1.889	2.408	2.584	2.723	2.692	3.027	3.113	2.510	20.52	22.0265
	85	1,2-Dichlorobenzene	1.694	1.503	1.499	1.629	1.519	1.452	1.435	1.564	1.561	1.540	5.38	22.5740
	86	1,2-Dibromo-3-chloropropane	------	0.091	0.133	0.142	0.145	0.140	0.139	0.154	0.151	0.137	14.47	24.6611
	87	1,2,4-Trichlorobenzene	------	0.405	0.460	0.567	0.583	0.609	0.610	0.711	0.757	0.588	19.80	27.0796
	88	Hexachlorobutadiene	------	0.231	0.236	0.301	0.312	0.312	0.315	0.371	0.411	0.311	19.56	27.4296
	89	Naphthalene	------	0.794	0.870	1.090	1.142	1.271	1.305	1.554	1.595	1.203	24.07	27.8318
	90	1,2,3-Trichlorobenzene	------	0.334	0.364	0.454	0.478	0.496	0.501	0.589	0.619	0.479	20.49	28.5095

Spike Amount = Nominal Amount * M
Ave_%RSD : 8.5 Max_%RSD : 47.6

3/24/2044

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
4	Vinyl chloride	0.00787	0.12162	0.9811*
5	Bromomethane	0.01207	0.15895	0.9989
16	Iodomethane	-0.04368	0.35135	0.9965
17	Methylene chloride	0.02904	0.37110	0.9994
54	2-Hexanone	0.00409	0.18606	0.9990
84	n-Butylbenzene	-0.20469	3.02309	0.9984
87	1,2,4-Trichlorobenzene	-0.05043	0.71420	0.9961
88	Hexachlorobutadiene	-0.02719	0.37935	0.9942*
89	Naphthalene	-0.12727	1.52146	0.9954
90	1,2,3-Trichlorobenzene	-0.04281	0.58642	0.9961

Use Quadratic Regression of inv conc w.f. for comps of linear reg of inv conc w.f. with CCF < .995
Resp_Ratio = xo + x1 * Amt_Ratio + x2 * Amt_Ratio * Amt_Ratio

IDX	Parameter	x0	x1	x2	CCF2
4	Vinyl chloride	0.00224	0.18894	-0.04118	0.9968
88	Hexachlorobutadiene	-0.00584	0.28524	0.02123	0.9998

ar
3/28/02

Compound List Report TO67

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
Total Cpnds : 90

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-DIFLUOROBENZENE	114	10.14	1.000	A	1	A	B
2	T	Dichlorodifluoromethane	85	3.53	0.348	A	2	A	B
3	T	Chloromethane	50	4.02	0.396	A	1	A	B
4	T	Vinyl chloride	62	4.17	0.411	Q	1	A	B
5	T	Bromomethane	94	4.90	0.483	L	1	A	B
6	T	Chloroethane	64	5.00	0.493	A	2	A	B
7	T	Trichlorofluoromethane	101	5.37	0.530	A	1	A	B
8	T	sec-Propyl alcohol	45	6.21	0.612	A	1	A	B
9	T	Acrolein	56	5.94	0.586	A	1	A	B
10	T	1,1,2-Trichloro-1,2,2-trifluor	151	5.95	0.587	A	1	A	B
11	T	Acetone	43	6.01	0.593	A	1	A	B
12	T	1,1-Dichloroethene	61	6.24	0.615	A	2	A	B
13	T	tert-Butyl alcohol	59	6.27	0.618	A	1	A	B
14	T	Acetonitrile	41	7.00	0.690	A	2	A	B
15		Methyl acetate	43	6.59	0.650	A	1	A	B
16	T	Iodomethane	142	6.70	0.661	L	2	A	B
17	T	Methylene chloride	49	6.86	0.677	L	2	A	B
18	T	Carbon disulfide	76	7.00	0.690	A	1	A	B
19	T	Acrylonitrile	53	6.98	0.689	A	2	A	B
20	T	tert-Butyl methyl ether (MTBE)	73	7.00	0.690	A	1	A	B
21	T	trans-1,2-Dichloroethene	61	7.24	0.714	A	2	A	B
22	T	Isopropyl ether (DIPE)	45	7.53	0.743	A	1	A	B
23	T	1,1-Dichloroethane	63	7.77	0.766	A	2	A	B
24	T	Vinyl acetate	43	7.68	0.758	A	1	A	B
25	T	tert-Butyl ethyl ether (ETBE)	59	8.05	0.794	A	1	A	B
26	T	2-Butanone	43	8.23	0.812	A	1	A	B
27	T	2,2-Dichloropropane	77	8.49	0.837	A	3	A	B
28	T	cis-1,2-Dichloroethene	61	8.56	0.844	A	2	A	B
29	T	tert-Butyl formate (TBF)	59	9.81	0.968	A	2	A	B
30	T	Chloroform	83	8.75	0.863	A	2	A	B
31	T	Bromochloromethane	49	8.99	0.887	A	2	A	B
32	T	1,1,1-Trichloroethane	97	9.29	0.916	A	2	A	B
33	T	Cyclohexane	56	9.26	0.913	A	2	A	B
34	T	tert-Amyl methyl ether (TAME)	73	9.54	0.941	A	2	A	B
35	S	1,2-Dichloroethane-d4	65	9.68	0.954	A	1	A	B
36	I	CHLOROBENZENE-D5	117	15.71	1.000	A	2	A	B
37	T	1,1-Dichloropropene	77	9.48	0.604	A	2	A	B
38	T	Carbon tetrachloride	119	9.66	0.615	A	1	A	B
39	T	1,2-Dichloroethane	62	9.81	0.625	A	2	A	B
40	T	Benzene	78	9.87	0.628	A	2	A	B
41	T	Trichloroethene	130	10.72	0.682	A	3	A	B
42	T	Methylcyclohexane	83	10.97	0.699	A	2	A	B
43	T	1,2-Dichloropropane	63	10.97	0.699	A	2	A	B
44	T	Bromodichloromethane	83	11.36	0.723	A	2	A	B
45	T	Dibromomethane	93	11.50	0.732	A	2	A	B
46	T	2-Chloroethyl vinyl ether	63	11.67	0.743	A	2	A	B
47	T	4-Methyl-2-pentanone	43	11.72	0.746	A	3	A	B
48	T	cis-1,3-Dichloropropene	75	12.20	0.776	A	3	A	B
49	S	Toluene-d8	98	12.67	0.807	A	1	A	B
50	T	Toluene	91	12.82	0.816	A	1	A	B
51	T	Ethyl methacrylate	69	12.88	0.820	A	2	A	B
52	T	trans-1,3-Dichloropropene	75	13.04	0.830	A	3	A	B

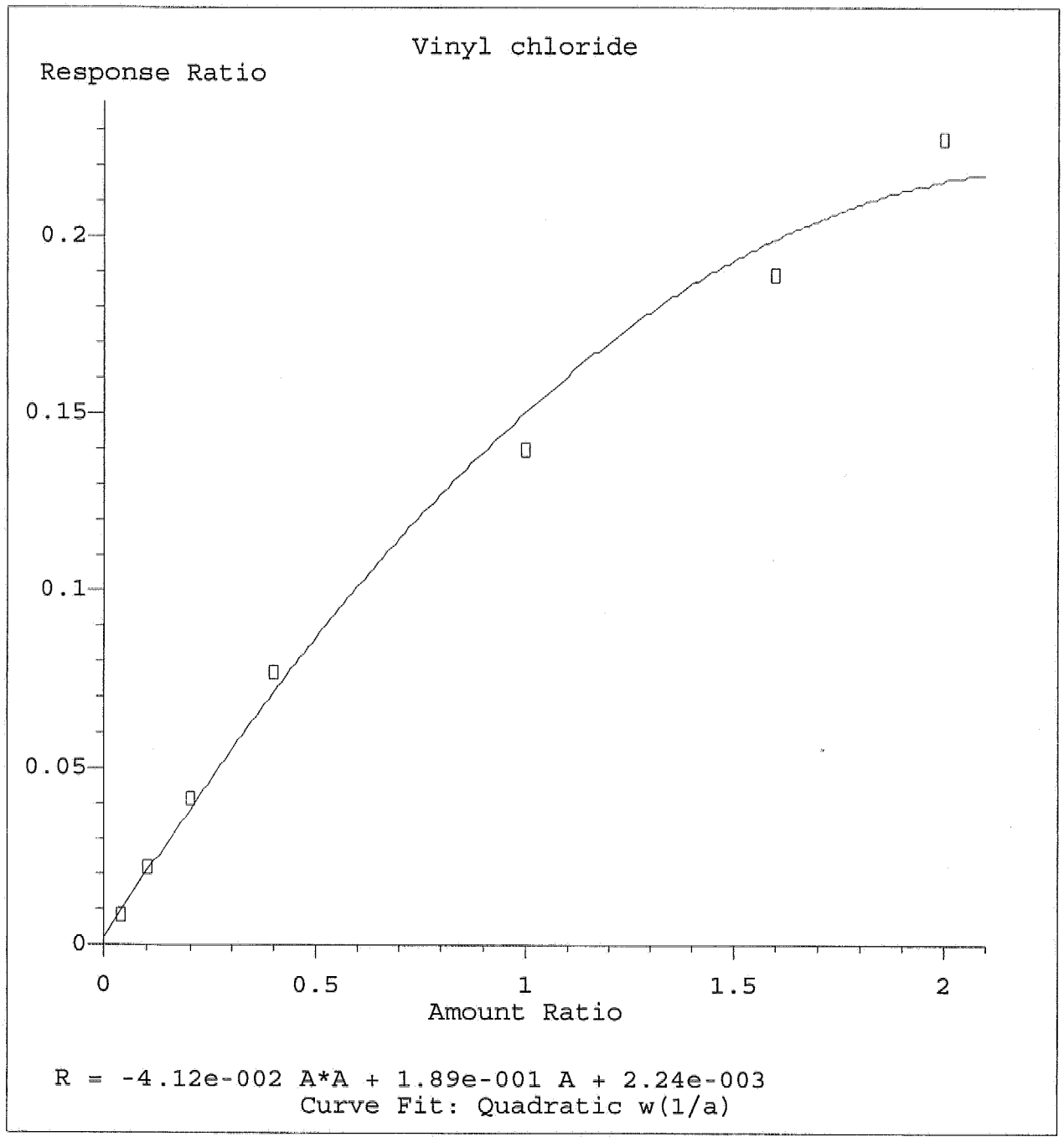
3/28/06

53	T	1,1,2-Trichloroethane	97	13.39	0.852	A	3	A	B
54	T	2-Hexanone	43	13.25	0.844	L	2	A	B
55	T	1,3-Dichloropropane	76	13.86	0.882	A	2	A	B
56	T	Tetrachloroethene	164	14.09	0.897	A	3	A	B
57	T	Dibromochloromethane	129	14.52	0.924	A	2	A	B
58	T	1,2-Dibromoethane	107	14.94	0.951	A	1	A	B
59	T	1-Chlorohexane	91	15.06	0.958	A	3	A	B
60	P,M	Chlorobenzene	112	15.80	1.006	A	3	A	B
61	T	1,1,1,2-Tetrachloroethane	131	15.84	1.009	A	3	A	B
62	T	Ethylbenzene	91	15.83	1.008	A	1	A	B
63	T	m-Xylene & p-Xylene	91	15.99	1.018	A	1	A	B
64	T	o-Xylene	91	17.01	1.082	A	1	A	B
65	T	Styrene	104	17.08	1.087	A	2	A	B
66	I	1,2-DICHLOROBENZENE-D4	152	22.50	1.000	A	1	A	B
67	T	Bromoform	173	17.99	0.799	A	2	A	B
68	T	Isopropylbenzene	105	17.81	0.791	A	3	A	B
69	T	1,1,2,2-Tetrachloroethane	83	18.21	0.809	A	2	A	B
70	S	4-Bromofluorobenzene	95	18.47	0.821	A	2	A	B
71	T	1,2,3-Trichloropropane	61	18.59	0.826	A	2	A	B
72	T	trans-1,4-Dichloro-2-butene	53	18.69	0.831	A	1	A	B
73	T	n-Propylbenzene	91	18.78	0.835	A	2	A	B
74	T	Bromobenzene	156	19.02	0.845	A	2	A	B
75	T	2-Chlorotoluene	91	19.30	0.858	A	1	A	B
76	T	1,3,5-Trimethylbenzene	105	19.17	0.852	A	2	A	B
77	T	4-Chlorotoluene	91	19.40	0.862	A	1	A	B
78	T	tert-Butylbenzene	119	20.07	0.892	A	2	A	B
79	T	1,2,4-Trimethylbenzene	105	20.18	0.897	A	1	A	B
80	T	sec-Butylbenzene	105	20.61	0.916	A	1	A	B
81	T	p-Isopropyltoluene	119	20.95	0.931	A	2	A	B
82	T	1,3-Dichlorobenzene	146	21.31	0.947	A	2	A	B
83	T	1,4-Dichlorobenzene	146	21.58	0.959	A	2	A	B
84	T	n-Butylbenzene	91	22.02	0.979	L	2	A	B
85	T	1,2-Dichlorobenzene	146	22.58	1.003	A	2	A	B
86	T	1,2-Dibromo-3-chloropropane	157	24.66	1.096	A	2	A	B
87	T	1,2,4-Trichlorobenzene	180	27.07	1.203	L	2	A	B
88	T	Hexachlorobutadiene	225	27.43	1.219	Q	2	A	B
89	T	Naphthalene	128	27.83	1.237	L	1	A	B
90	T	1,2,3-Trichlorobenzene	180	28.50	1.267	L	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

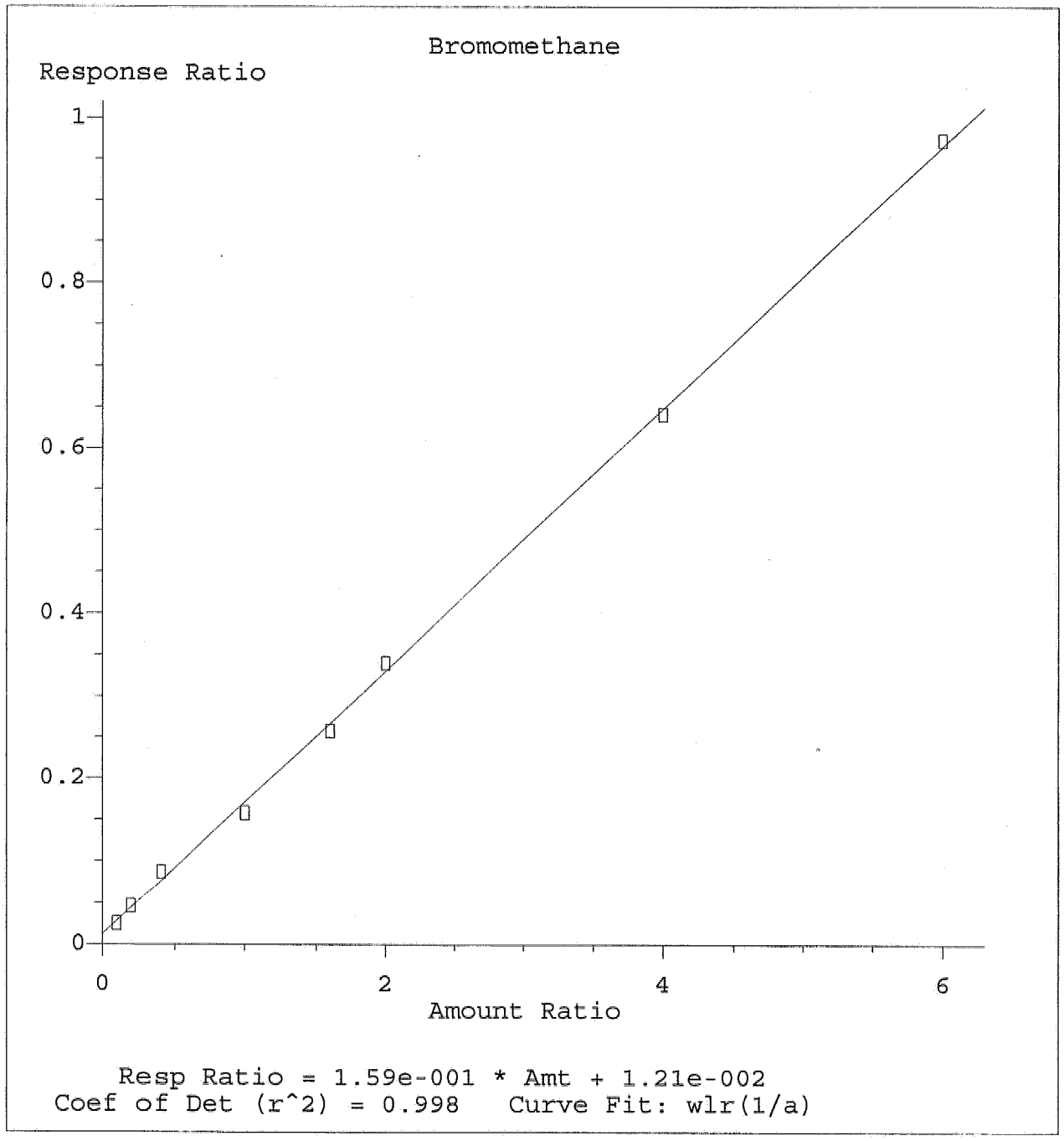
VO67C23.M Tue Mar 28 09:45:23 2006

ea
3/28/06



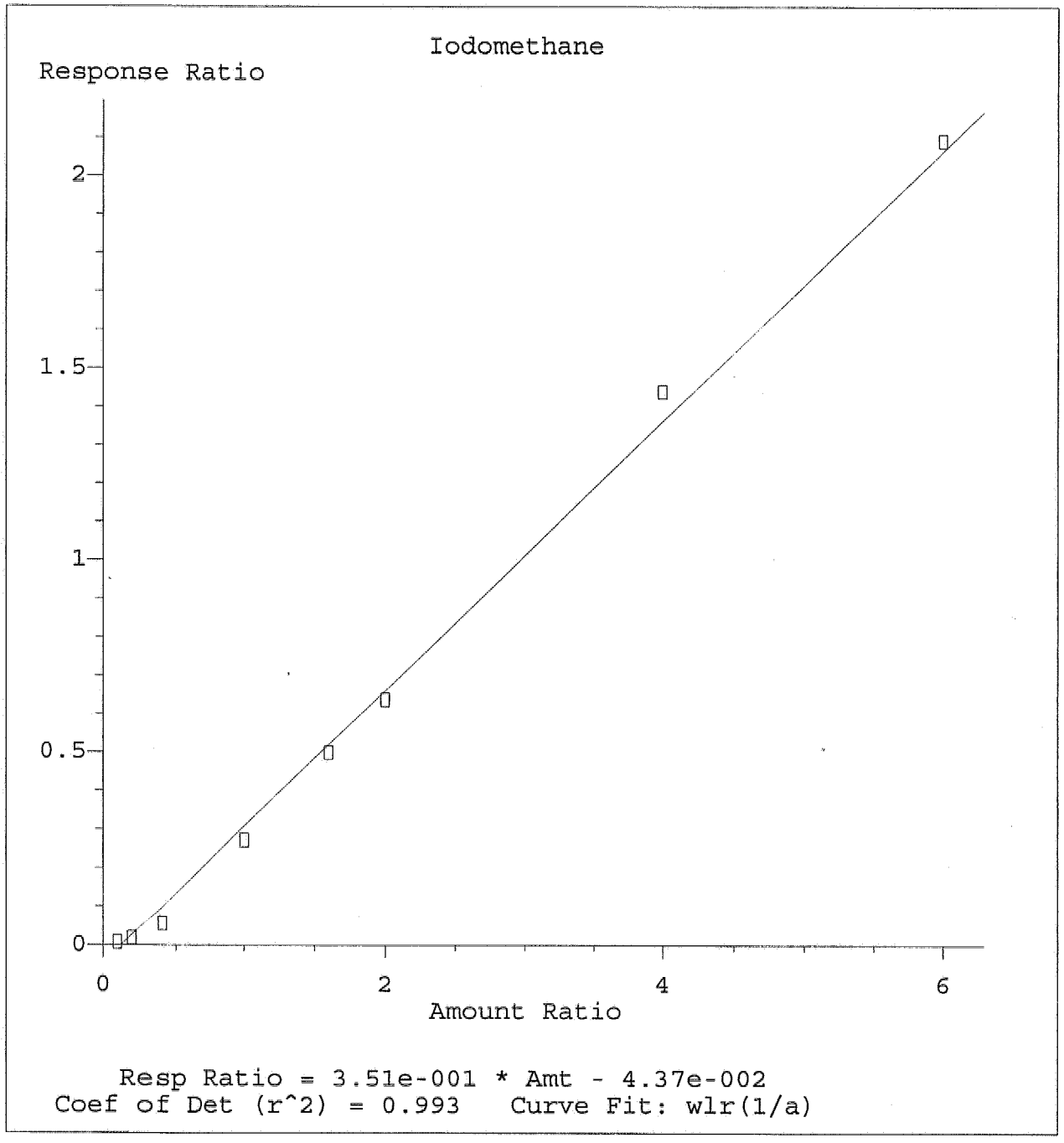
Method Name: D:\HPCHEM\1\METHODS\VO67C23.M
Calibration Table Last Updated: Tue Mar 28 09:22:46 2006

3/29/06



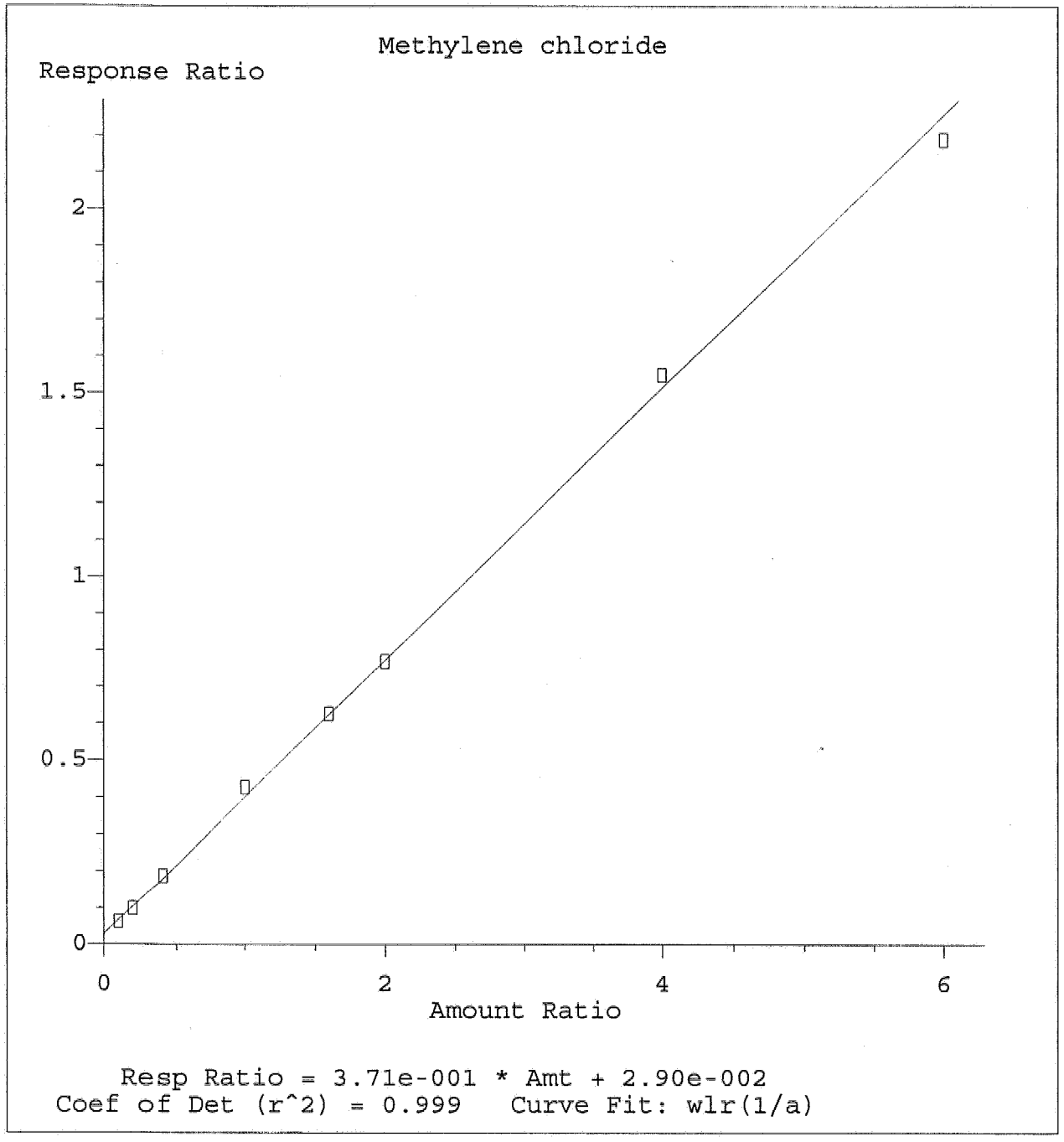
Method Name: D:\HPCHEM\1\METHODS\VO67C23.M
Calibration Table Last Updated: Tue Mar 28 09:22:46 2006

ea
3/28/06



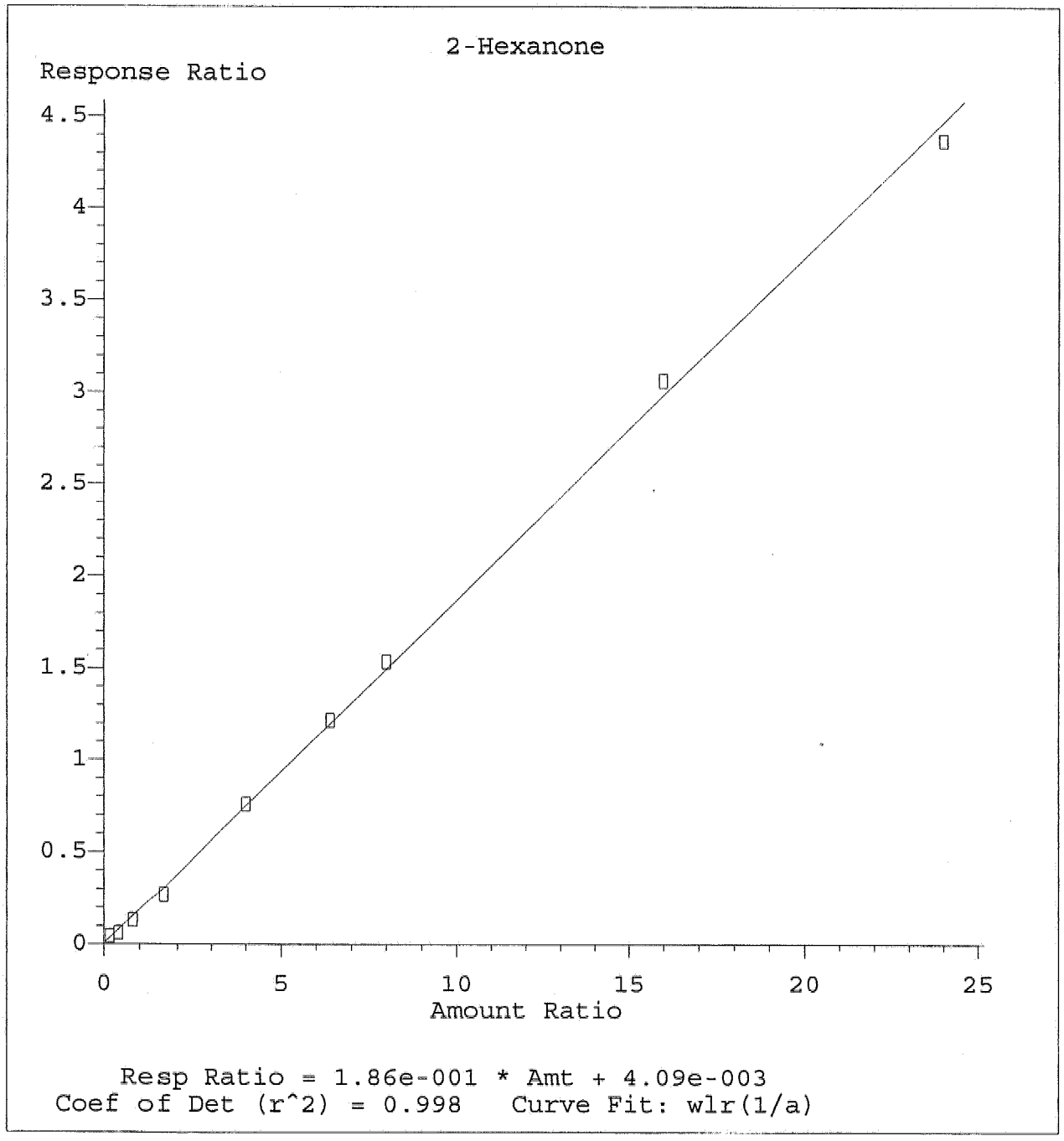
Method Name: D:\HPCHEM\1\METHODS\VO67C23.M
Calibration Table Last Updated: Tue Mar 28 09:22:46 2006

3/28/06



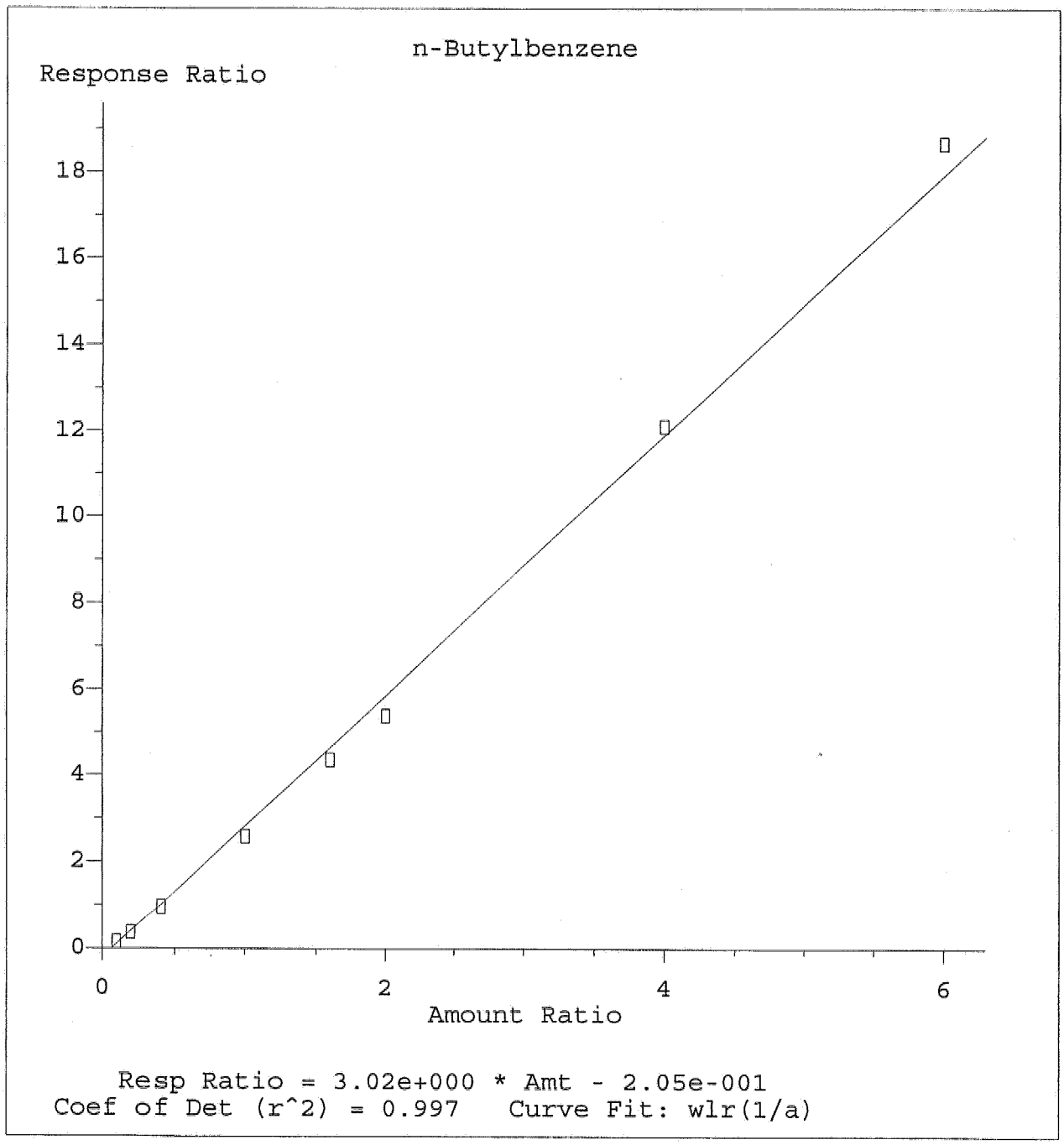
Method Name: D:\HPCHEM\1\METHODS\VO67C23.M
Calibration Table Last Updated: Tue Mar 28 09:22:46 2006

3/28/06



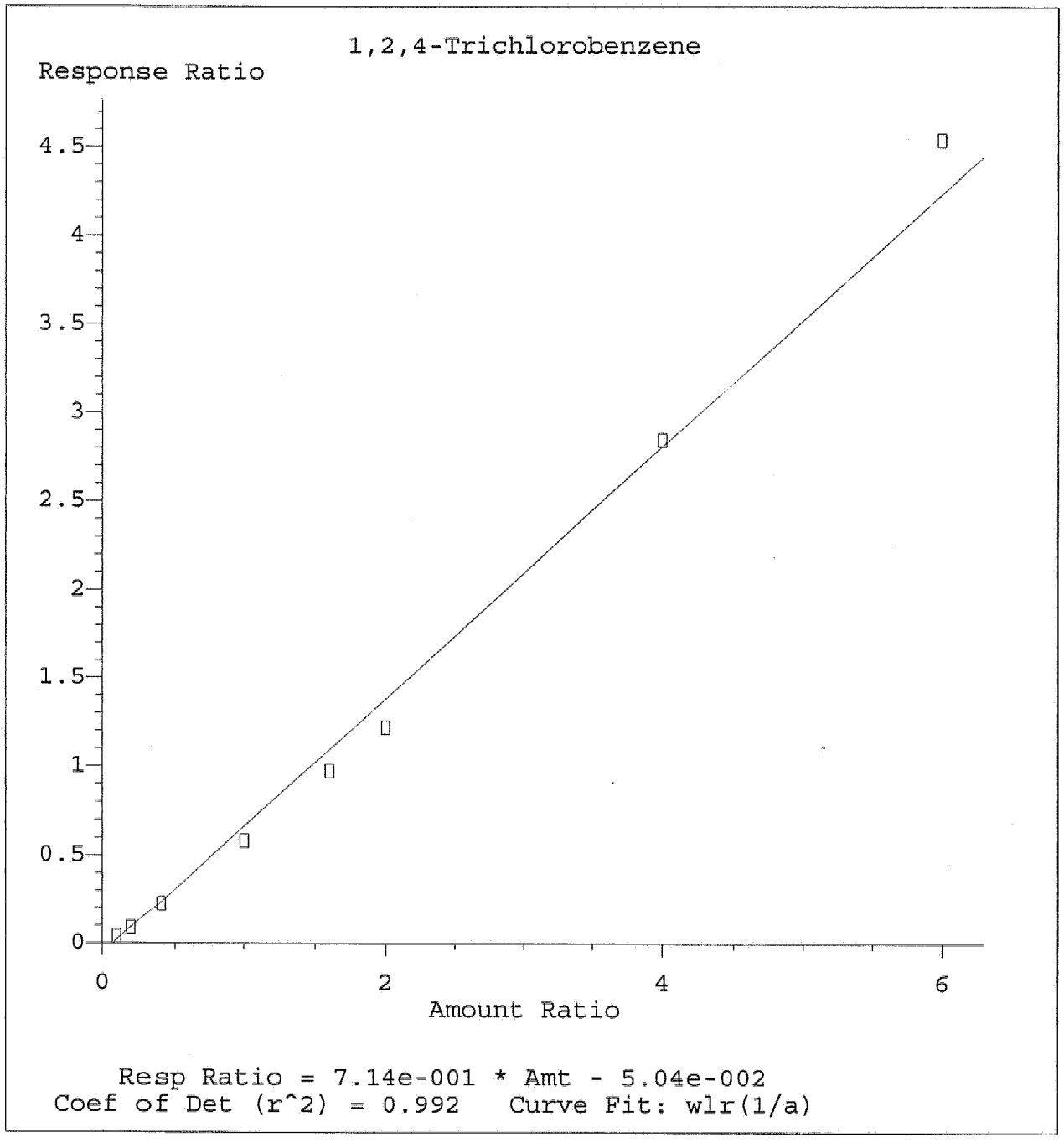
Method Name: D:\HPCHEM\1\METHODS\VO67C23.M
Calibration Table Last Updated: Tue Mar 28 09:22:46 2006

ea
3/28/06



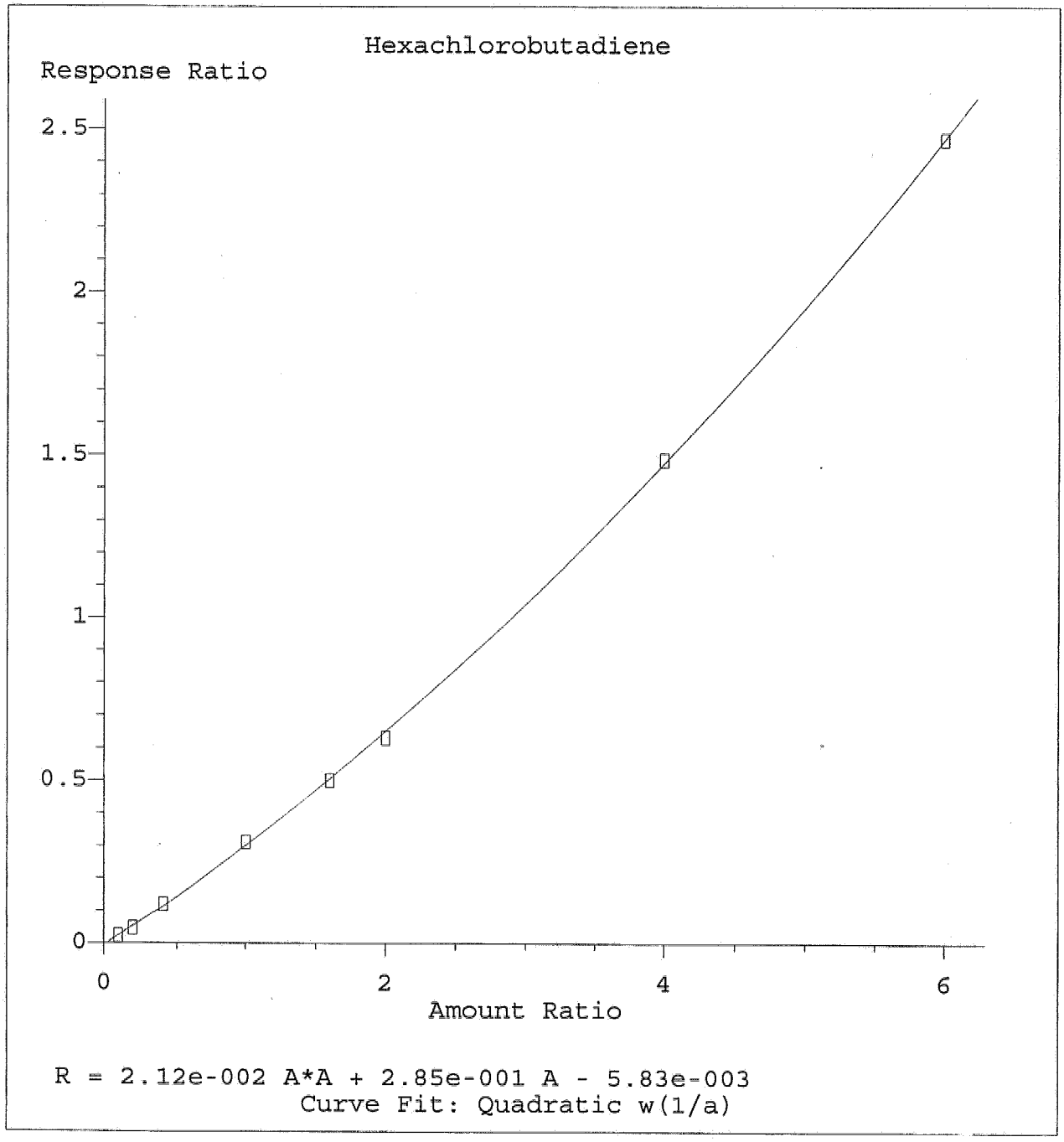
Method Name: D:\HPCHEM\1\METHODS\VO67C23.M
Calibration Table Last Updated: Tue Mar 28 09:22:46 2006

ea
3/28/06



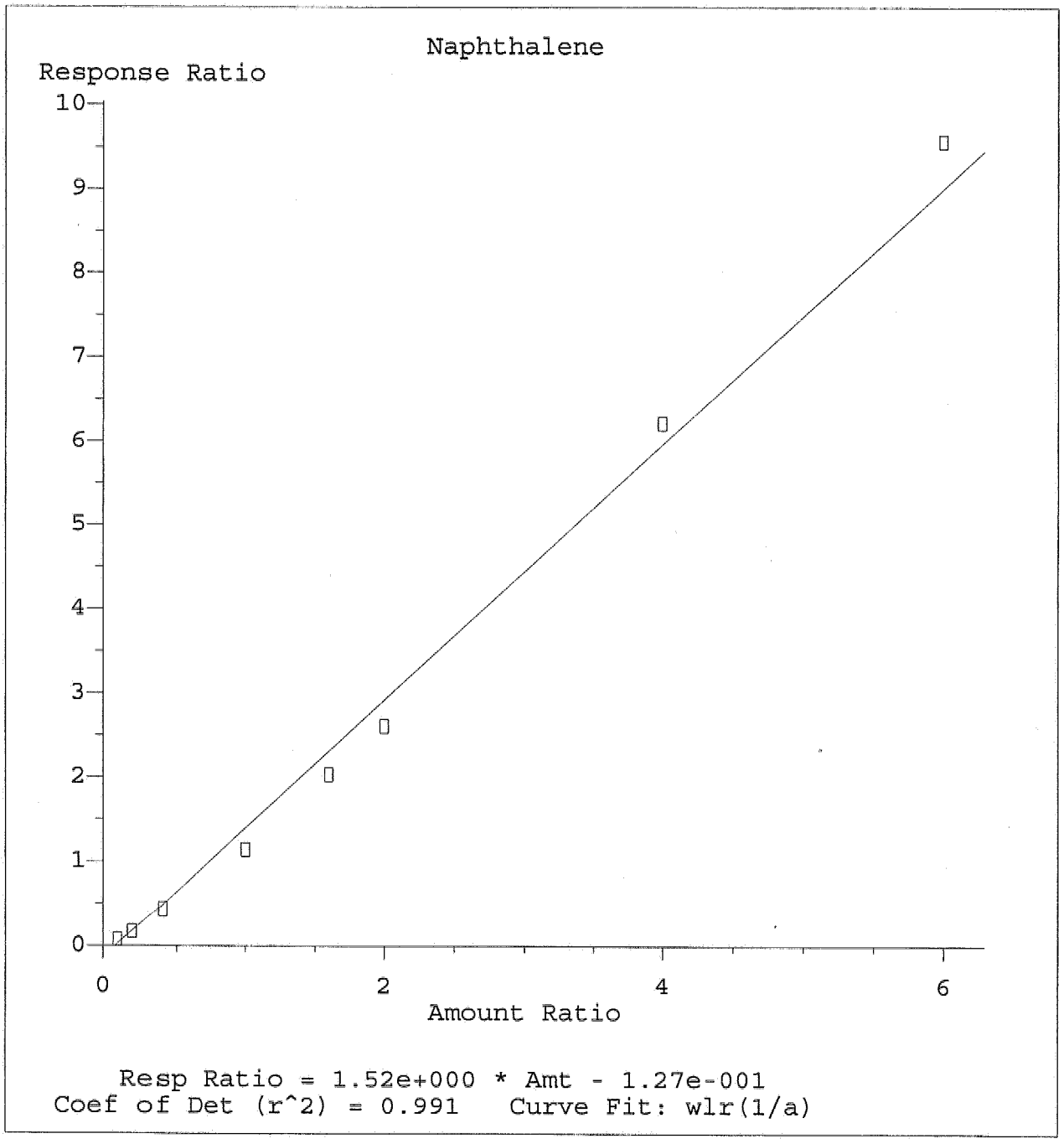
Method Name: D:\HPCHEM\1\METHODS\VO67C23.M
Calibration Table Last Updated: Tue Mar 28 09:22:46 2006

3/28/06



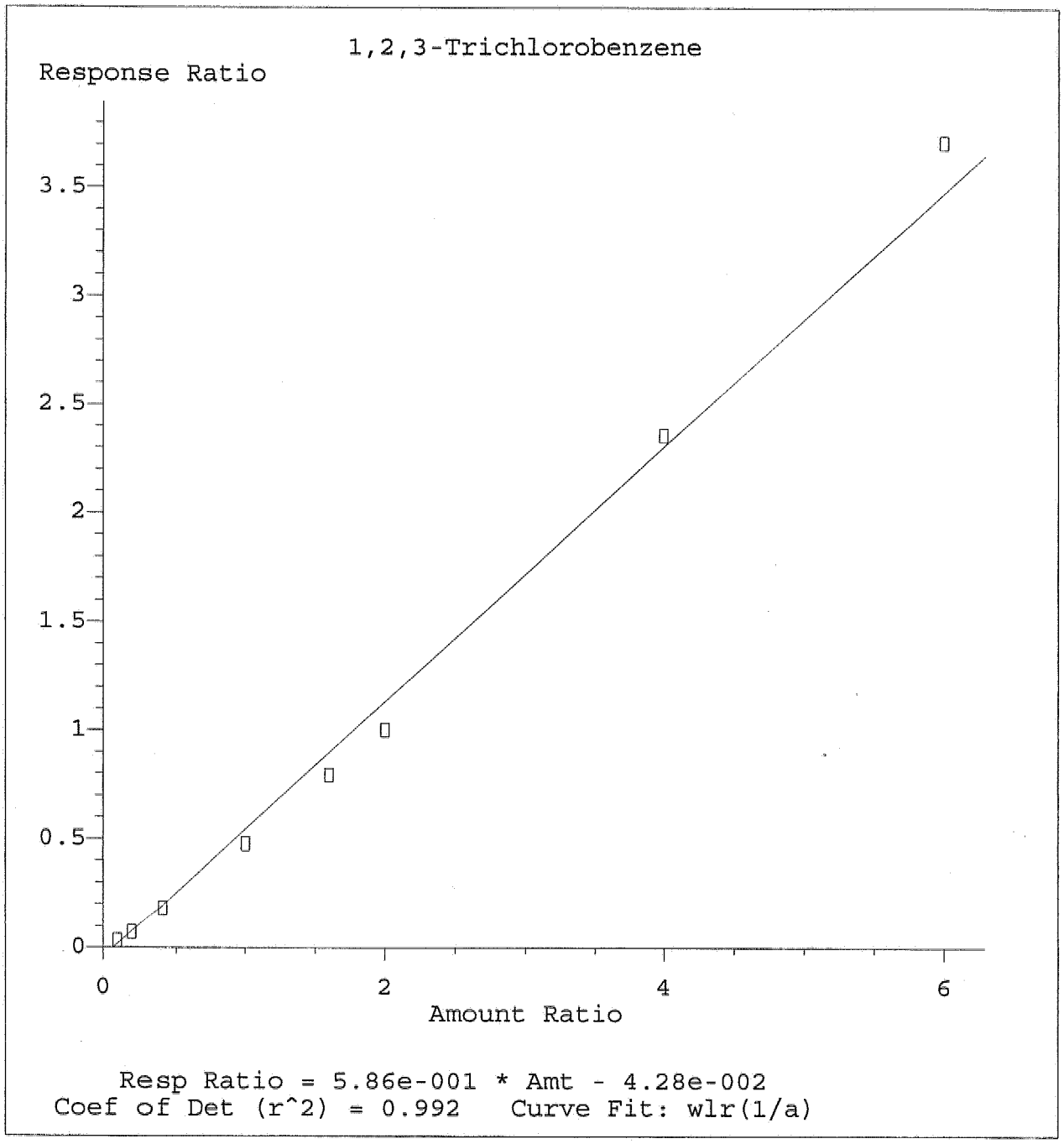
Method Name: D:\HPCHEM\1\METHODS\VO67C23.M
Calibration Table Last Updated: Tue Mar 28 09:22:46 2006

3/28/06



Method Name: D:\HPCHEM\1\METHODS\VO67C23.M
Calibration Table Last Updated: Tue Mar 28 09:22:46 2006

3/24/06



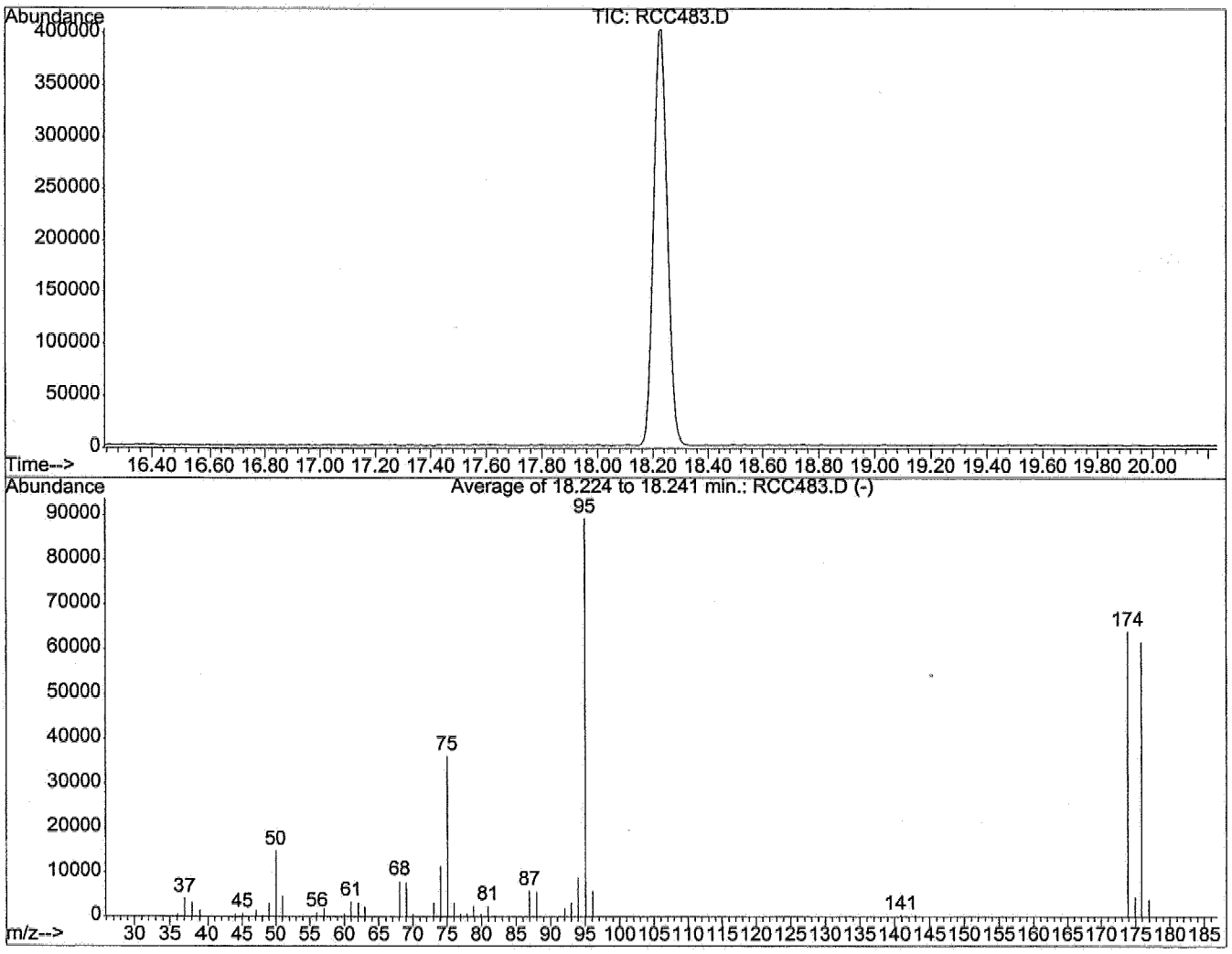
Method Name: D:\HPCHEM\1\METHODS\VO67C23.M
Calibration Table Last Updated: Tue Mar 28 09:22:46 2006

CW
3/29/06

BFB

Data File : D:\HPCHEM\1\DATA\06C23\RCC483.D
Acq On : 23 Mar 2006 1:23 pm
Sample : BFB67C32
Misc : BFB TUNE
MS Integration Params: LSCINT.P
Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml

Vial: 1
Operator: CGM
Inst : TO67
Multiplr: 1.00



AutoFind: Scans 1682, 1683, 1684; Background Corrected with Scan 1672

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.8	14991	PASS
75	95	30	60	40.6	36224	PASS
95	95	100	100	100.0	89312	PASS
96	95	5	9	6.6	5860	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	71.6	63949	PASS
175	174	5	9	7.1	4544	PASS
176	174	95	101	96.2	61499	PASS
177	176	5	9	6.4	3940	PASS

RCC483.D VO67C23.M Tue Mar 28 10:02:49 2006

3/28/06

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC488.D Vial: 6
Acq On : 23 Mar 2006 4:23 pm Operator: CGM
Sample : VO67C235 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:13 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:12:51 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.14	114	2430846	50.00	ug/l	0.00
36) CHLOROBENZENE-D5	15.71	117	2219848	50.00	ug/l	0.00
66) 1,2-DICHLOROBENZENE-D4	22.50	152	796276	50.00	ug/l	0.00
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.68	65	452843	42.93	ug/l	0.00
Spiked Amount 50.000			Recovery = 85.86%			
49) Toluene-d8	12.67	98	1962861	40.08	ug/l	0.00
Spiked Amount 50.000			Recovery = 80.16%			
70) 4-Bromofluorobenzene	18.47	95	705201	41.65	ug/l	0.00
Spiked Amount 50.000			Recovery = 83.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.53	85	603119	50.23	ug/l	100
3) Chloromethane	4.02	50	494781	49.05	ug/l	100
4) Vinyl chloride	4.17	62	339589	43.07	ug/l	100
5) Bromomethane	4.90	94	383682	41.72	ug/l	100
6) Chloroethane	5.00	64	275799	49.19	ug/l	100
7) Trichlorofluoromethane	5.37	101	600708	49.43	ug/l	100
9) Acrolein	5.94	56	307739	209.89	ug/l	100
10) 1,1,2-Trichloro-1,2,2-trif	5.95	151	453706	50.04	ug/l	100
11) Acetone	6.01	43	574639	209.43	ug/l	100
12) 1,1-Dichloroethene	6.24	61	935988	51.37	ug/l	100
13) tert-Butyl alcohol	6.27	59	261478	281.98	ug/l	100
16) Iodomethane	6.70	142	661573	56.25	ug/l	100
17) Methylene chloride	6.86	49	1037070	48.06	ug/l	100
18) Carbon disulfide	7.00	76	2418030	52.57	ug/l	100
19) Acrylonitrile	6.98	53	803552	219.55	ug/l	100
20) tert-Butyl methyl ether (M	7.00	73	1254295	52.15	ug/l	100
21) trans-1,2-Dichloroethene	7.24	61	991024	53.22	ug/l	100
22) Isopropyl ether (DIPE)	7.53	45	2209746	52.35	ug/l	100
23) 1,1-Dichloroethane	7.77	63	1251275	52.62	ug/l	100
24) Vinyl acetate	7.68	43	1254076	55.06	ug/l	100
25) tert-Butyl ethyl ether (ET	8.05	59	1607267	51.83	ug/l	100
26) 2-Butanone	8.23	43	1190763	216.51	ug/l	100
27) 2,2-Dichloropropane	8.49	77	777434	52.80	ug/l	100
28) cis-1,2-Dichloroethene	8.56	61	1143321	53.67	ug/l	100
30) Chloroform	8.75	83	1199777	51.86	ug/l	100
31) Bromochloromethane	8.99	49	679309	52.73	ug/l	100
32) 1,1,1-Trichloroethane	9.29	97	854101	51.61	ug/l	100
34) tert-Amyl methyl ether (TA	9.54	73	1694671	51.93	ug/l	100
37) 1,1-Dichloropropene	9.48	77	325368	51.38	ug/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC488.D Vial: 6
Acq On : 23 Mar 2006 4:23 pm Operator: CGM
Sample : VO67C235 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:13 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:12:51 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38)	Carbon tetrachloride	9.66	119	757148	51.04 ug/l	100
39)	1,2-Dichloroethane	9.81	62	720071	51.93 ug/l	100
40)	Benzene	9.87	78	3079313	50.70 ug/l	100
41)	Trichloroethene	10.72	130	836931	49.99 ug/l	100
43)	1,2-Dichloropropane	10.97	63	851123	51.87 ug/l	100
44)	Bromodichloromethane	11.36	83	914984	51.21 ug/l	100
45)	Dibromomethane	11.50	93	520534	52.47 ug/l	100
46)	2-Chloroethyl vinyl ether	11.67	63	130086	52.76 ug/l	100
47)	4-Methyl-2-pentanone	11.72	43	2702279	213.45 ug/l	100
48)	cis-1,3-Dichloropropene	12.20	75	1089143	52.02 ug/l	100
50)	Toluene	12.82	91	2967442	50.75 ug/l	100
51)	Ethyl methacrylate	12.88	69	769038	53.35 ug/l	100
52)	trans-1,3-Dichloropropene	13.04	75	791262	52.45 ug/l	100
53)	1,1,2-Trichloroethane	13.39	97	633586	51.64 ug/l	100
54)	2-Hexanone	13.25	43	1684628	198.47 ug/l	100
55)	1,3-Dichloropropane	13.86	76	1067311	51.35 ug/l	100
56)	Tetrachloroethene	14.09	164	582199	50.32 ug/l	100
57)	Dibromochloromethane	14.52	129	704525	51.32 ug/l	100
58)	1,2-Dibromoethane	14.94	107	714274	52.66 ug/l	100
59)	1-Chlorohexane	15.06	91	1172308	52.19 ug/l	100
60)	Chlorobenzene	15.80	112	2038174	50.54 ug/l	100
61)	1,1,1,2-Tetrachloroethane	15.84	131	641775	50.94 ug/l	100
62)	Ethylbenzene	15.83	91	3277545	51.94 ug/l	100
63)	m-Xylene & p-Xylene	15.99	91	4848003	102.43 ug/l	100
64)	o-Xylene	17.01	91	2526275	51.92 ug/l	100
65)	Styrene	17.08	104	2072482	52.75 ug/l	100
67)	Bromoform	17.99	173	415140	51.35 ug/l	100
68)	Isopropylbenzene	17.81	105	2870058	50.61 ug/l	100
69)	1,1,2,2-Tetrachloroethane	18.21	83	984198	51.83 ug/l	100
71)	1,2,3-Trichloropropane	18.59	61	167869	53.07 ug/l	100
72)	trans-1,4-Dichloro-2-buten	18.69	53	86067	53.22 ug/l	100
73)	n-Propylbenzene	18.78	91	3943910	52.45 ug/l	100
74)	Bromobenzene	19.02	156	718067	48.73 ug/l	100
75)	2-Chlorotoluene	19.30	91	2403297	50.98 ug/l	100
76)	1,3,5-Trimethylbenzene	19.17	105	2368606	51.42 ug/l	100
77)	4-Chlorotoluene	19.40	91	1977516	48.83 ug/l	100
78)	tert-Butylbenzene	20.07	119	2102034	51.79 ug/l	100
79)	1,2,4-Trimethylbenzene	20.18	105	2321978	52.40 ug/l	100
80)	sec-Butylbenzene	20.61	105	3410337	53.27 ug/l	100
81)	p-Isopropyltoluene	20.95	119	2245085	53.45 ug/l	100
82)	1,3-Dichlorobenzene	21.31	146	1350706	49.69 ug/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC488.D Vial: 6
Acq On : 23 Mar 2006 4:23 pm Operator: CGM
Sample : VO67C235 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:13 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:12:51 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
83)	1,4-Dichlorobenzene	21.58	146	1318413	49.32	ug/l	100
84)	n-Butylbenzene	22.03	91	2057315	53.61	ug/l	100
85)	1,2-Dichlorobenzene	22.58	146	1209724	49.34	ug/l	100
86)	1,2-Dibromo-3-chloropropan	24.66	157	115522	52.98	ug/l	100
87)	1,2,4-Trichlorobenzene	27.08	180	464092	49.57	ug/l	100
88)	Hexachlorobutadiene	27.43	225	248312	50.10	ug/l	100
89)	Naphthalene	27.83	128	909440	47.48	ug/l	100
90)	1,2,3-Trichlorobenzene	28.51	180	380228	49.83	ug/l	100

(#) = qualifier out of range (m) = manual integration

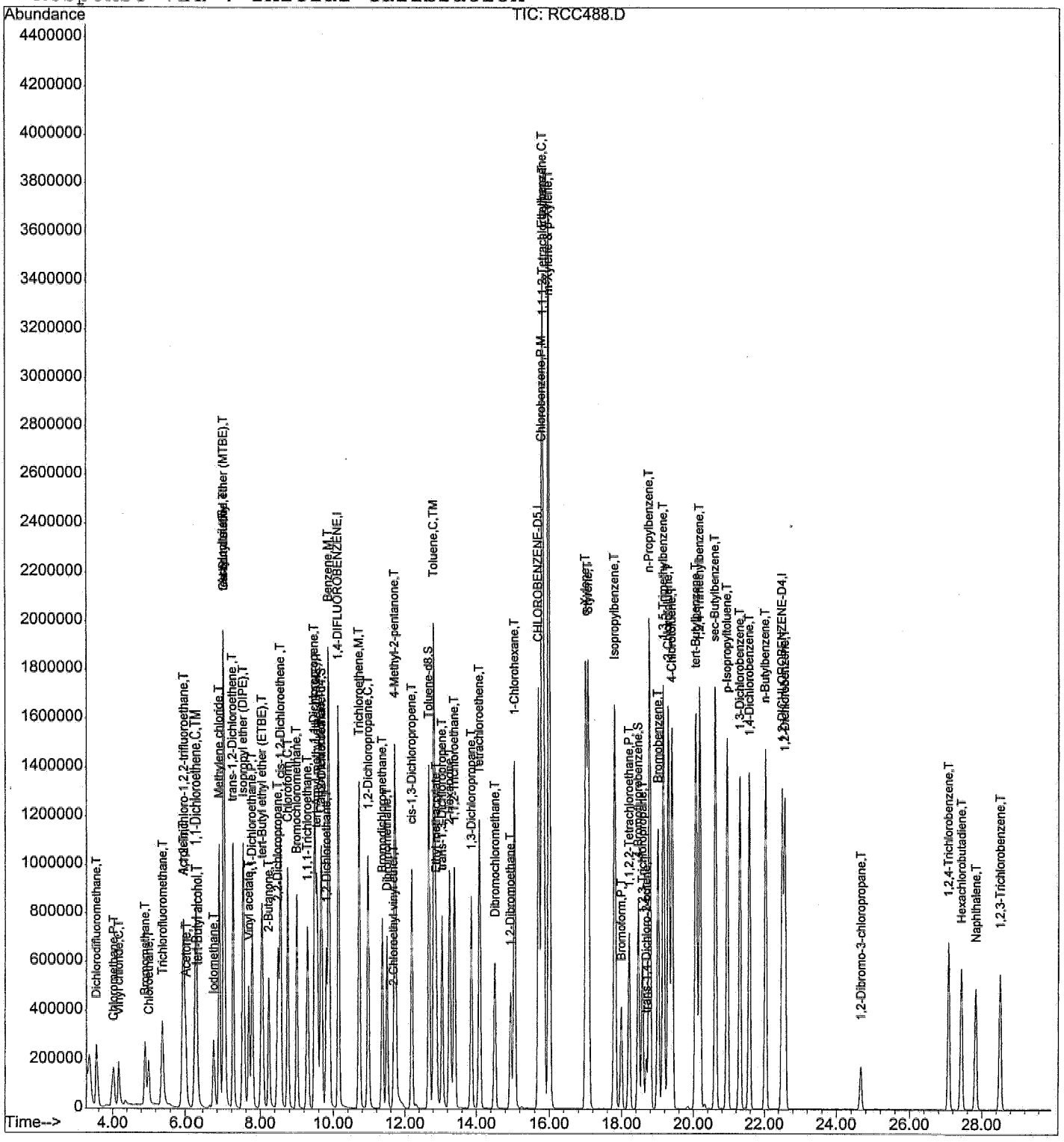
3/28/06

2061

Quantitation Report

Data File : D:\HPCHEM\1\DATA\06C23\RCC488.D Vial: 6
Acq On : 23 Mar 2006 4:23 pm Operator: CGM
Sample : VO67C235 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:13 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:23:02 2006
Response via : Initial Calibration



3/28/06

2062

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC489.D Vial: 7
Acq On : 23 Mar 2006 4:58 pm Operator: CGM
Sample : VO67C236 Inst : TO67
Misc : 80ppb 8260/320ppb Ket-AA/400ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:16 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:16:05 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.15	114	2586517	50.00	ug/l	0.01
36) CHLOROBENZENE-D5	15.71	117	2307183	50.00	ug/l	0.00
66) 1,2-DICHLOROBENZENE-D4	22.50	152	852997	50.00	ug/l	0.00
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.69	65	935029	83.51	ug/l	0.01
Spiked Amount 50.000			Recovery = 167.02%			
49) Toluene-d8	12.68	98	4179003	81.67	ug/l	0.01
Spiked Amount 50.000			Recovery = 163.34%			
70) 4-Bromofluorobenzene	18.46	95	1499835	72.38	ug/l	0.00
Spiked Amount 50.000			Recovery = 144.76%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.54	85	1057412	83.10	ug/l	99
3) Chloromethane	4.03	50	898672	87.48	ug/l	98
4) Vinyl chloride	4.16	62	488645	48.65	ug/l	100
5) Bromomethane	4.91	94	666759	56.31	ug/l	100
6) Chloroethane	5.01	64	491739	81.76	ug/l	100
7) Trichlorofluoromethane	5.38	101	1060882	82.41	ug/l	100
9) Acrolein	5.95	56	515388	337.83	ug/l	100
10) 1,1,2-Trichloro-1,2,2-trif	5.95	151	716685	72.47	ug/l	100
11) Acetone	6.01	43	920429	305.00	ug/l	99
12) 1,1-Dichloroethene	6.23	61	1511026	76.47	ug/l	100
13) tert-Butyl alcohol	6.26	59	398232	412.45	ug/l	99
16) Iodomethane	6.71	142	1289789	175.88	ug/l	100
17) Methylene chloride	6.86	49	1620190	51.51	ug/l	100
18) Carbon disulfide	6.99	76	3731058	74.68	ug/l	100
19) Acrylonitrile	6.98	53	1241273	308.75	ug/l	99
20) tert-Butyl methyl ether (M	7.01	73	1967805	76.10	ug/l	100
21) trans-1,2-Dichloroethene	7.25	61	1568636	78.66	ug/l	99
22) Isopropyl ether (DIPE)	7.53	45	3565757	79.48	ug/l	99
23) 1,1-Dichloroethane	7.78	63	2010911	78.04	ug/l	100
24) Vinyl acetate	7.68	43	2061932	90.18	ug/l	100
25) tert-Butyl ethyl ether (ET	8.05	59	2615173	79.79	ug/l	100
26) 2-Butanone	8.24	43	1888230	321.91	ug/l	100
27) 2,2-Dichloropropane	8.50	77	1237748	79.74	ug/l	99
28) cis-1,2-Dichloroethene	8.56	61	1635100	71.17	ug/l	91
30) Chloroform	8.75	83	1926225	77.74	ug/l	99
31) Bromochloromethane	9.00	49	1087467	78.65	ug/l	98
32) 1,1,1-Trichloroethane	9.30	97	1368068	77.47	ug/l	99
34) tert-Amyl methyl ether (TA	9.56	73	2758879	80.12	ug/l	99
37) 1,1-Dichloropropene	9.50	77	513159	76.24	ug/l	99

(#) = qualifier out of range (m) = manual integration

3/28/06

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC489.D Vial: 7
Acq On : 23 Mar 2006 4:58 pm Operator: CGM
Sample : VO67C236 Inst : TO67
Misc : 80ppb 8260/320ppb Ket-AA/400ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:16 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:16:05 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38)	Carbon tetrachloride	9.66	119	1192132	76.94	ug/l	100
39)	1,2-Dichloroethane	9.81	62	1149328	79.03	ug/l	100
40)	Benzene	9.88	78	4852148	74.42	ug/l	100
41)	Trichloroethene	10.72	130	1343521	75.98	ug/l	99
43)	1,2-Dichloropropane	10.97	63	1365669	79.24	ug/l	99
44)	Bromodichloromethane	11.36	83	1492285	81.67	ug/l	100
45)	Dibromomethane	11.49	93	823749	79.45	ug/l	99
46)	2-Chloroethyl vinyl ether	11.69	63	223393	97.77	ug/l	98
47)	4-Methyl-2-pentanone	11.73	43	4361004	333.97	ug/l	100
48)	cis-1,3-Dichloropropene	12.19	75	1787259	84.92	ug/l	99
50)	Toluene	12.83	91	4747318	76.49	ug/l	100
51)	Ethyl methacrylate	12.88	69	1267980	95.94	ug/l	100
52)	trans-1,3-Dichloropropene	13.06	75	1308291	87.58	ug/l	99
53)	1,1,2-Trichloroethane	13.40	97	1008268	78.44	ug/l	100
54)	2-Hexanone	13.25	43	2805986	315.03	ug/l	99
55)	1,3-Dichloropropane	13.86	76	1683332	77.36	ug/l	100
56)	Tetrachloroethene	14.10	164	919559	75.26	ug/l	100
57)	Dibromochloromethane	14.52	129	1168509	85.74	ug/l	100
58)	1,2-Dibromoethane	14.95	107	1145462	82.31	ug/l	100
59)	1-Chlorohexane	15.05	91	1926507	85.60	ug/l	99
60)	Chlorobenzene	15.80	112	3278335	76.83	ug/l	99
61)	1,1,1,2-Tetrachloroethane	15.84	131	1045672	79.90	ug/l	99
62)	Ethylbenzene	15.84	91	5257415	78.99	ug/l	100
63)	m-Xylene & p-Xylene	16.00	91	7892343	160.47	ug/l	100
64)	o-Xylene	17.02	91	4055233	81.27	ug/l	100
65)	Styrene	17.08	104	3435676	88.64	ug/l	100
67)	Bromoform	17.99	173	680695	78.65	ug/l	99
68)	Isopropylbenzene	17.81	105	4610807	73.54	ug/l	100
69)	1,1,2,2-Tetrachloroethane	18.21	83	1534380	71.43	ug/l	100
71)	1,2,3-Trichloropropane	18.58	61	258493	71.82	ug/l	100
72)	trans-1,4-Dichloro-2-buten	18.69	53	144942	97.95	ug/l	99
73)	n-Propylbenzene	18.77	91	6480575	79.83	ug/l	100
74)	Bromobenzene	19.01	156	1184516	72.09	ug/l	99
75)	2-Chlorotoluene	19.31	91	3810518	71.15	ug/l	100
76)	1,3,5-Trimethylbenzene	19.16	105	3925674	78.85	ug/l	100
77)	4-Chlorotoluene	19.40	91	3356221	75.82	ug/l	100
78)	tert-Butylbenzene	20.07	119	3404539	77.94	ug/l	99
79)	1,2,4-Trimethylbenzene	20.18	105	3813626	81.11	ug/l	99
80)	sec-Butylbenzene	20.62	105	5638337	85.24	ug/l	99
81)	p-Isopropyltoluene	20.95	119	3805169	92.02	ug/l	100
82)	1,3-Dichlorobenzene	21.31	146	2203869	74.44	ug/l	100

(#) = qualifier out of range (m) = manual integration

3/28/06

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC489.D Vial: 7
Acq On : 23 Mar 2006 4:58 pm Operator: CGM
Sample : VO67C236 Inst : TO67
Misc : 80ppb 8260/320ppb Ket-AA/400ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:16 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:16:05 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
83) 1,4-Dichlorobenzene	21.58	146	2193134	75.96	ug/l	99
84) n-Butylbenzene	22.02	91	3716828	107.51	ug/l	100
85) 1,2-Dichlorobenzene	22.57	146	1981178	74.02	ug/l	99
86) 1,2-Dibromo-3-chloropropan	24.66	157	191237	95.85	ug/l	99
87) 1,2,4-Trichlorobenzene	27.09	180	831202	98.24	ug/l	99
88) Hexachlorobutadiene	27.43	225	426421	96.36	ug/l	100
89) Naphthalene	27.83	128	1734615	100.88	ug/l	100
90) 1,2,3-Trichlorobenzene	28.52	180	676337	97.23	ug/l	100

(#) = qualifier out of range (m) = manual integration

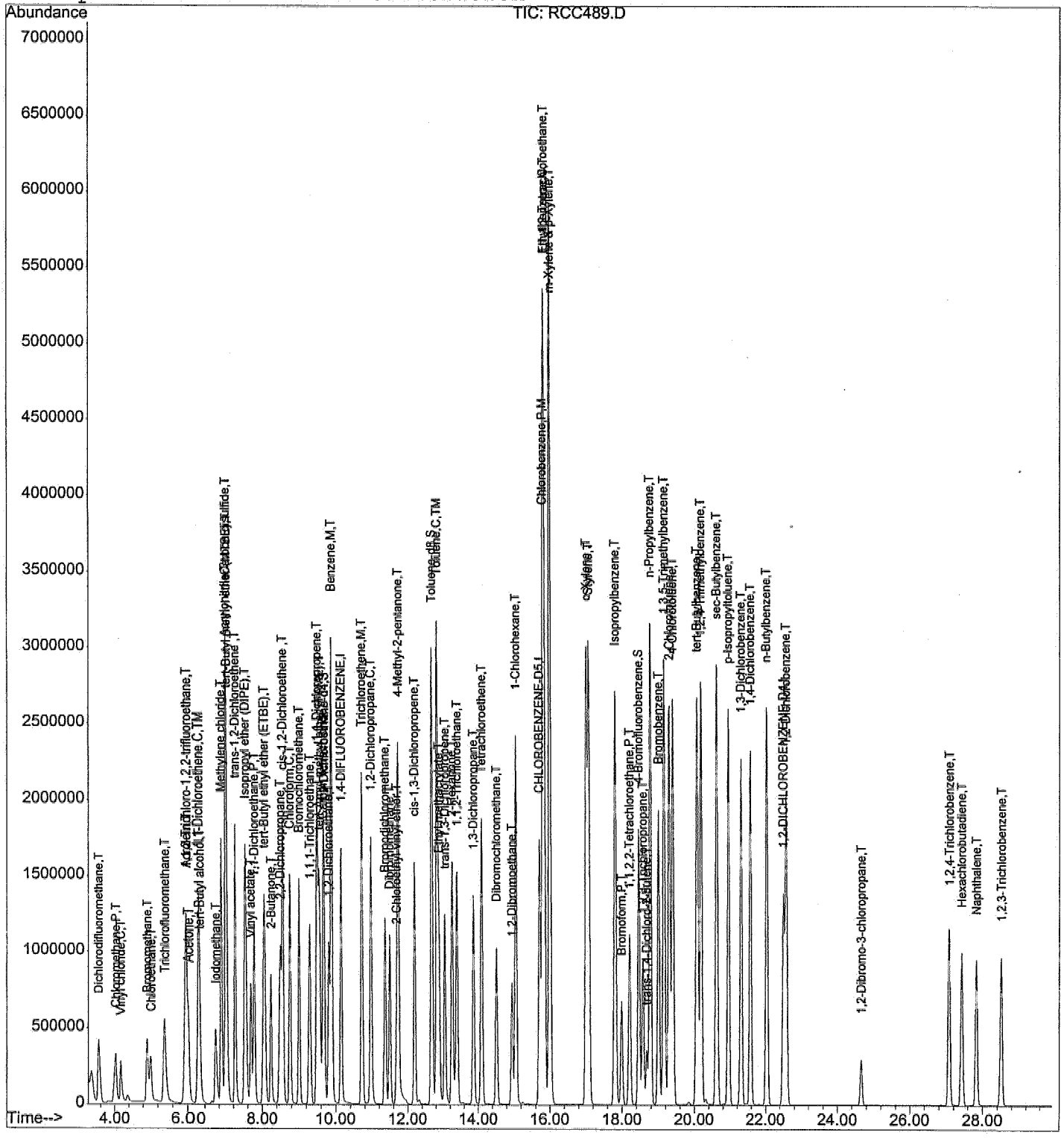
3/28/06

2065

Quantitation Report

Data File : D:\HPCHEM\1\DATA\06C23\RCC489.D Vial: 7
Acq On : 23 Mar 2006 4:58 pm Operator: CGM
Sample : VO67C236 Inst : TO67
Misc : 80ppb 8260/320ppb Ket-AA/400ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:16 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:23:02 2006
Response via : Initial Calibration



3/28/06

2066

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC490.D Vial: 8
Acq On : 23 Mar 2006 5:34 pm Operator: CGM
Sample : VO67C237 Inst : TO67
Misc : 100ppb 8260/400ppb Ket-AA/500ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:16 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:16:28 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.15	114	2624273	50.00	ug/l	0.00
36) CHLOROBENZENE-D5	15.72	117	2389621	50.00	ug/l	0.00
66) 1,2-DICHLOROBENZENE-D4	22.50	152	901820	50.00	ug/l	0.00
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.69	65	1193962	104.34	ug/l	0.00
Spiked Amount 50.000			Recovery =	208.68%		
49) Toluene-d8	12.68	98	5419429	101.90	ug/l	0.00
Spiked Amount 50.000			Recovery =	203.80%		
70) 4-Bromofluorobenzene	18.46	95	1926063	89.33	ug/l	0.00
Spiked Amount 50.000			Recovery =	178.66%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.54	85	1339175	103.06	ug/l	99
3) Chloromethane	4.03	50	1156430	109.25	ug/l	99
4) Vinyl chloride	4.16	62	596321	62.60	ug/l	99
5) Bromomethane	4.91	94	892482	78.15	ug/l	100
6) Chloroethane	5.00	64	602787	98.42	ug/l	99
7) Trichlorofluoromethane	5.38	101	1349018	102.77	ug/l	99
9) Acrolein	5.95	56	685455	438.76	ug/l	100
10) 1,1,2-Trichloro-1,2,2-trif	5.95	151	932355	94.40	ug/l	99
11) Acetone	6.01	43	1148249	377.97	ug/l	99
12) 1,1-Dichloroethene	6.23	61	1867373	93.83	ug/l	99
13) tert-Butyl alcohol	6.26	59	495049	502.74	ug/l	99
16) Iodomethane	6.71	142	1673769	187.50	ug/l	100
17) Methylene chloride	6.86	49	2018691	67.25	ug/l	99
18) Carbon disulfide	6.99	76	4797121	95.70	ug/l	100
19) Acrylonitrile	6.98	53	1577567	389.04	ug/l	99
20) tert-Butyl methyl ether (M	7.01	73	2567438	98.66	ug/l	100
21) trans-1,2-Dichloroethene	7.24	61	1964983	97.38	ug/l	99
22) Isopropyl ether (DIPE)	7.53	45	4528512	99.60	ug/l	100
23) 1,1-Dichloroethane	7.78	63	2522765	96.89	ug/l	100
24) Vinyl acetate	7.68	43	2645198	111.66	ug/l	100
25) tert-Butyl ethyl ether (ET	8.05	59	3369153	101.36	ug/l	99
26) 2-Butanone	8.24	43	2387057	400.69	ug/l	100
27) 2,2-Dichloropropane	8.50	77	1576466	100.15	ug/l	99
28) cis-1,2-Dichloroethene	8.55	61	2321385	101.45	ug/l	100
30) Chloroform	8.76	83	2420304	96.73	ug/l	99
31) Bromochloromethane	9.00	49	1384112	98.95	ug/l	97
32) 1,1,1-Trichloroethane	9.30	97	1717808	96.38	ug/l	99
34) tert-Amyl methyl ether (TA	9.55	73	3491632	99.92	ug/l	99
37) 1,1-Dichloropropene	9.49	77	654487	94.62	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC490.D Vial: 8
Acq On : 23 Mar 2006 5:34 pm Operator: CGM
Sample : VO67C237 Inst : TO67
Misc : 100ppb 8260/400ppb Ket-AA/500ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:16 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:16:28 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38)	Carbon tetrachloride	9.66	119	1548202	97.09	ug/l	100
39)	1,2-Dichloroethane	9.81	62	1454690	96.77	ug/l	100
40)	Benzene	9.88	78	6103434	91.45	ug/l	100
41)	Trichloroethene	10.71	130	1722689	94.85	ug/l	99
43)	1,2-Dichloropropane	10.97	63	1737495	97.49	ug/l	99
44)	Bromodichloromethane	11.36	83	1909455	100.55	ug/l	100
45)	Dibromomethane	11.49	93	1045142	97.44	ug/l	98
46)	2-Chloroethyl vinyl ether	11.68	63	288025	117.37	ug/l	99
47)	4-Methyl-2-pentanone	11.73	43	5576236	409.32	ug/l	99
48)	cis-1,3-Dichloropropene	12.19	75	2284254	103.72	ug/l	99
50)	Toluene	12.83	91	6056908	94.92	ug/l	100
51)	Ethyl methacrylate	12.89	69	1650453	116.70	ug/l	99
52)	trans-1,3-Dichloropropene	13.05	75	1691601	107.63	ug/l	99
53)	1,1,2-Trichloroethane	13.40	97	1296560	97.70	ug/l	100
54)	2-Hexanone	13.25	43	3670467	398.90	ug/l	100
55)	1,3-Dichloropropane	13.86	76	2224335	99.24	ug/l	100
56)	Tetrachloroethene	14.10	164	1172623	93.58	ug/l	100
57)	Dibromochloromethane	14.51	129	1512511	105.89	ug/l	100
58)	1,2-Dibromoethane	14.94	107	1468771	101.41	ug/l	100
59)	1-Chlorohexane	15.05	91	2466797	104.60	ug/l	98
60)	Chlorobenzene	15.79	112	4222515	96.18	ug/l	98
61)	1,1,1,2-Tetrachloroethane	15.84	131	1335305	98.53	ug/l	99
62)	Ethylbenzene	15.84	91	6607443	96.05	ug/l	100
63)	m-Xylene & p-Xylene	16.00	91	10031899	196.84	ug/l	99
64)	o-Xylene	17.02	91	5263456	101.58	ug/l	100
65)	Styrene	17.07	104	4383089	107.25	ug/l	100
67)	Bromoform	17.98	173	886072	97.11	ug/l	99
68)	Isopropylbenzene	17.80	105	5983672	91.50	ug/l	100
69)	1,1,2,2-Tetrachloroethane	18.21	83	1983412	88.93	ug/l	100
71)	1,2,3-Trichloropropane	18.58	61	330624	88.40	ug/l	98
72)	trans-1,4-Dichloro-2-buten	18.68	53	188258	116.00	ug/l	98
73)	n-Propylbenzene	18.79	91	8293143	96.67	ug/l	100
74)	Bromobenzene	19.01	156	1512723	88.54	ug/l	99
75)	2-Chlorotoluene	19.31	91	4797456	86.32	ug/l	100
76)	1,3,5-Trimethylbenzene	19.16	105	4980040	94.84	ug/l	100
77)	4-Chlorotoluene	19.40	91	4389813	94.63	ug/l	100
78)	tert-Butylbenzene	20.07	119	4412464	95.96	ug/l	99
79)	1,2,4-Trimethylbenzene	20.19	105	4934216	99.04	ug/l	99
80)	sec-Butylbenzene	20.62	105	7225452	102.20	ug/l	100
81)	p-Isopropyltoluene	20.95	119	4989260	111.33	ug/l	100
82)	1,3-Dichlorobenzene	21.30	146	2918891	94.34	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC490.D Vial: 8
Acq On : 23 Mar 2006 5:34 pm Operator: CGM
Sample : VO67C237 Inst : TO67
Misc : 100ppb 8260/400ppb Ket-AA/500ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:16 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:16:28 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
83)	1,4-Dichlorobenzene	21.57	146	2864732	94.65	ug/l	100
84)	n-Butylbenzene	22.03	91	4855335	125.64	ug/l	100
85)	1,2-Dichlorobenzene	22.57	146	2589026	92.65	ug/l	99
86)	1,2-Dibromo-3-chloropropan	24.66	157	251295	115.33	ug/l	98
87)	1,2,4-Trichlorobenzene	27.08	180	1099424	118.41	ug/l	99
88)	Hexachlorobutadiene	27.43	225	568355	117.47	ug/l	100
89)	Naphthalene	27.83	128	2354236	124.11	ug/l	100
90)	1,2,3-Trichlorobenzene	28.51	180	902911	118.53	ug/l	100

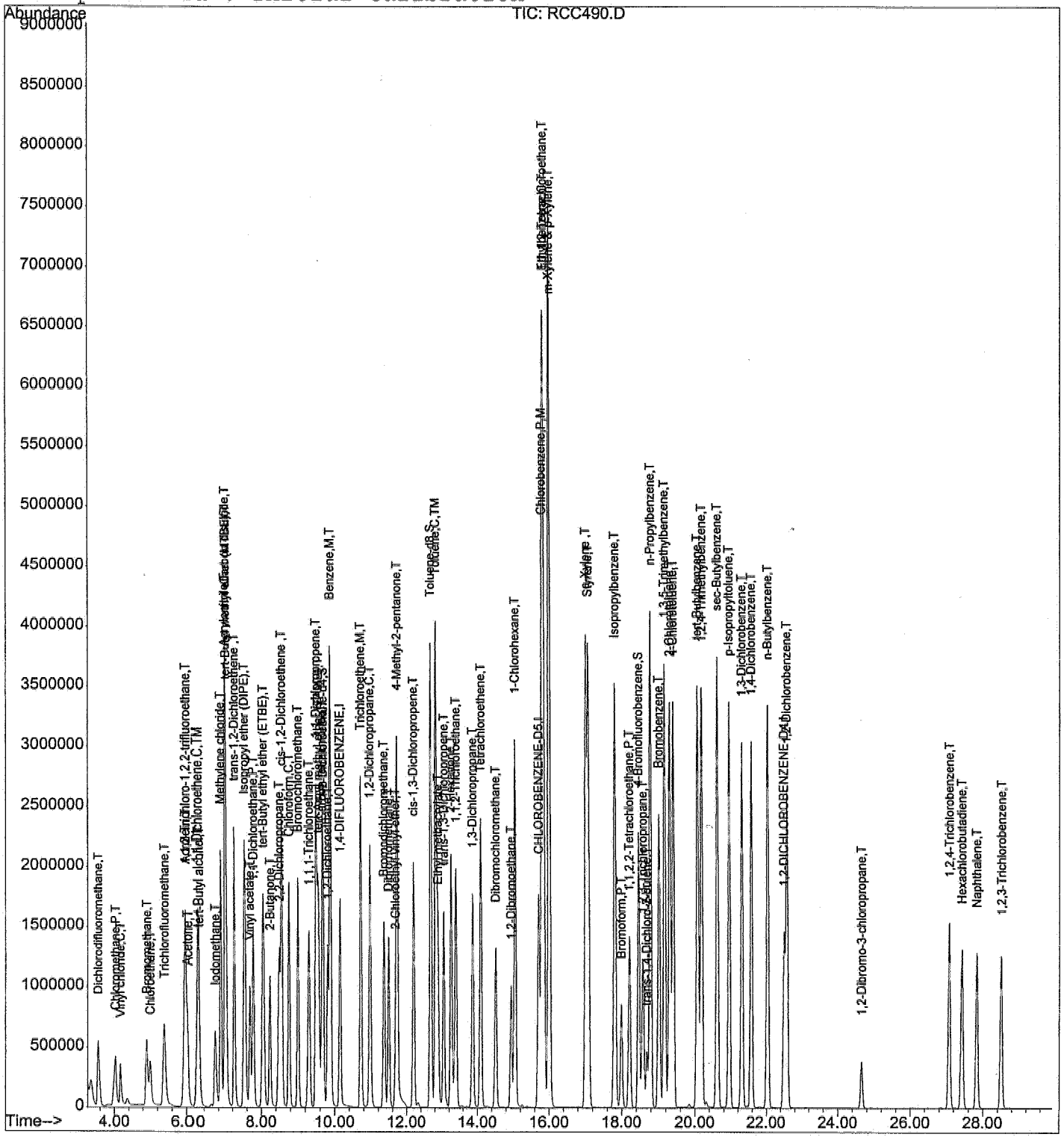
(#) = qualifier out of range (m) = manual integration
RCC490.D VO67C23.M Fri Mar 24 11:25:28 2006 3/28/06 Page 3

2069

Quantitation Report

Data File : D:\HPCHEM\1\DATA\06C23\RCC490.D Vial: 8
Acq On : 23 Mar 2006 5:34 pm Operator: CGM
Sample : VO67C237 Inst : TO67
Misc : 100ppb 8260/400ppb Ket-AA/500ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:16 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:23:02 2006
Response via : Initial Calibration



3/27/06

2070

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC491.D Vial: 9
Acq On : 23 Mar 2006 6:09 pm Operator: CGM
Sample : VO67C238 Inst : TO67
Misc : 200ppb 8260/800ppb Ket-AA/1000ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:16 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:16:44 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.14	114	2655683	50.00	ug/l	0.00
36) CHLOROBENZENE-D5	15.71	117	2446837	50.00	ug/l	0.00
66) 1,2-DICHLOROBENZENE-D4	22.50	152	939047	50.00	ug/l	0.00
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.69	65	2308547	198.13	ug/l	0.01
Spiked Amount 50.000			Recovery =	396.26%		
49) Toluene-d8	12.67	98	10516920	192.61	ug/l	0.00
Spiked Amount 50.000			Recovery =	385.22%		
70) 4-Bromofluorobenzene	18.46	95	3793959	171.61	ug/l	0.00
Spiked Amount 50.000			Recovery =	343.22%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.54	85	2598439	196.75	ug/l	100
3) Chloromethane	4.02	50	2330097	214.69	ug/l	99
4) Vinyl chloride	4.17	62	1007715	110.44	ug/l	100
5) Bromomethane	4.90	94	1703068	152.12	ug/l	99
6) Chloroethane	5.00	64	1209609	195.61	ug/l	99
7) Trichlorofluoromethane	5.39	101	2648427	198.59	ug/l	99
9) Acrolein	5.94	56	1330487	830.09	ug/l	99
10) 1,1,2-Trichloro-1,2,2-trif	5.95	151	1977596	199.46	ug/l	100
11) Acetone	6.01	43	2295073	752.45	ug/l	100
12) 1,1-Dichloroethene	6.24	61	4034938	202.13	ug/l	99
13) tert-Butyl alcohol	6.27	59	1137072	1140.19	ug/l	97
16) Iodomethane	6.70	142	3823452	376.23	ug/l	99
17) Methylene chloride	6.86	49	4114678	142.09	ug/l	98
18) Carbon disulfide	7.00	76	10179510	201.92	ug/l	100
19) Acrylonitrile	6.98	53	3072461	751.67	ug/l	99
20) tert-Butyl methyl ether (M	7.01	73	5476010	208.34	ug/l	99
21) trans-1,2-Dichloroethene	7.25	61	4193797	206.16	ug/l	99
22) Isopropyl ether (DIPE)	7.53	45	9646682	209.78	ug/l	100
23) 1,1-Dichloroethane	7.77	63	5174614	197.26	ug/l	100
24) Vinyl acetate	7.68	43	5622411	230.68	ug/l	100
25) tert-Butyl ethyl ether (ET	8.05	59	7074657	209.92	ug/l	99
26) 2-Butanone	8.23	43	4892331	811.32	ug/l	100
27) 2,2-Dichloropropane	8.50	77	3363957	211.14	ug/l	98
28) cis-1,2-Dichloroethene	8.56	61	4845717	208.83	ug/l	98
30) Chloroform	8.75	83	5209243	206.70	ug/l	99
31) Bromochloromethane	9.01	49	2842469	201.10	ug/l	94
32) 1,1,1-Trichloroethane	9.29	97	3723078	207.50	ug/l	98
34) tert-Amyl methyl ether (TA	9.56	73	7569783	214.08	ug/l	98
37) 1,1-Dichloropropene	9.48	77	1374567	195.59	ug/l	98

(#) = qualifier out of range (m) = manual integration

3/24/06

2071

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC491.D Vial: 9
Acq On : 23 Mar 2006 6:09 pm Operator: CGM
Sample : VO67C238 Inst : TO67
Misc : 200ppb 8260/800ppb Ket-AA/1000ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:16 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:16:44 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38)	Carbon tetrachloride	9.66	119	3337343	205.25	ug/l	100
39)	1,2-Dichloroethane	9.81	62	3097600	202.17	ug/l	100
40)	Benzene	9.89	78	13204886	195.61	ug/l	99
41)	Trichloroethene	10.72	130	3700727	200.48	ug/l	98
43)	1,2-Dichloropropane	10.97	63	3624093	199.30	ug/l	98
44)	Bromodichloromethane	11.36	83	4123300	211.88	ug/l	100
45)	Dibromomethane	11.49	93	2235595	204.30	ug/l	97
46)	2-Chloroethyl vinyl ether	11.67	63	683764	265.52	ug/l	99
47)	4-Methyl-2-pentanone	11.72	43	11281479	806.07	ug/l	99
48)	cis-1,3-Dichloropropene	12.19	75	4951399	218.41	ug/l	99
50)	Toluene	12.82	91	12844792	198.02	ug/l	99
51)	Ethyl methacrylate	12.88	69	3540269	238.77	ug/l	98
52)	trans-1,3-Dichloropropene	13.04	75	3664129	225.23	ug/l	99
53)	1,1,2-Trichloroethane	13.39	97	2752656	203.25	ug/l	99
54)	2-Hexanone	13.25	43	7495671	795.88	ug/l	100
55)	1,3-Dichloropropane	13.86	76	4683875	204.31	ug/l	100
56)	Tetrachloroethene	14.10	164	2568105	202.01	ug/l	99
57)	Dibromochloromethane	14.52	129	3326181	225.52	ug/l	100
58)	1,2-Dibromoethane	14.95	107	3098567	208.51	ug/l	100
59)	1-Chlorohexane	15.05	91	5272147	216.90	ug/l	97
60)	Chlorobenzene	15.80	112	8897457	199.01	ug/l	96
61)	1,1,1,2-Tetrachloroethane	15.84	131	2857677	206.36	ug/l	99
62)	Ethylbenzene	15.84	91	13914655	198.67	ug/l	100
63)	m-Xylene & p-Xylene	15.99	91	21160286	406.40	ug/l	99
64)	o-Xylene	17.02	91	11239872	211.37	ug/l	100
65)	Styrene	17.08	104	9554304	225.98	ug/l	99
67)	Bromoform	17.99	173	1977464	208.99	ug/l	99
68)	Isopropylbenzene	17.81	105	13130542	195.20	ug/l	100
69)	1,1,2,2-Tetrachloroethane	18.21	83	4251847	186.02	ug/l	100
71)	1,2,3-Trichloropropane	18.58	61	702333	183.37	ug/l	97
72)	trans-1,4-Dichloro-2-buten	18.69	53	430787	249.22	ug/l	95
73)	n-Propylbenzene	18.78	91	18087034	203.44	ug/l	100
74)	Bromobenzene	19.02	156	3398976	194.24	ug/l	98
75)	2-Chlorotoluene	19.30	91	10438163	183.95	ug/l	99
76)	1,3,5-Trimethylbenzene	19.16	105	10878201	200.43	ug/l	100
77)	4-Chlorotoluene	19.40	91	9462155	197.40	ug/l	100
78)	tert-Butylbenzene	20.07	119	9768782	205.20	ug/l	99
79)	1,2,4-Trimethylbenzene	20.18	105	10820970	208.87	ug/l	100
80)	sec-Butylbenzene	20.62	105	16275081	220.38	ug/l	100
81)	p-Isopropyltoluene	20.95	119	11206212	236.32	ug/l	99
82)	1,3-Dichlorobenzene	21.31	146	6472036	202.53	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC491.D Vial: 9
Acq On : 23 Mar 2006 6:09 pm Operator: CGM
Sample : VO67C238 Inst : TO67
Misc : 200ppb 8260/800ppb Ket-AA/1000ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:16 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:16:44 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
83)	1,4-Dichlorobenzene	21.58	146	6469836	206.87 ug/l	99
84)	n-Butylbenzene	22.02	91	11368410	272.52 ug/l	99
85)	1,2-Dichlorobenzene	22.58	146	5876306	204.08 ug/l	98
86)	1,2-Dibromo-3-chloropropan	24.66	157	579640	250.00 ug/l	98
87)	1,2,4-Trichlorobenzene	27.07	180	2672374	269.33 ug/l	100
88)	Hexachlorobutadiene	27.43	225	1395058	270.17 ug/l	100
89)	Naphthalene	27.83	128	5836960	285.67 ug/l	100
90)	1,2,3-Trichlorobenzene	28.50	180	2213951	271.91 ug/l	99

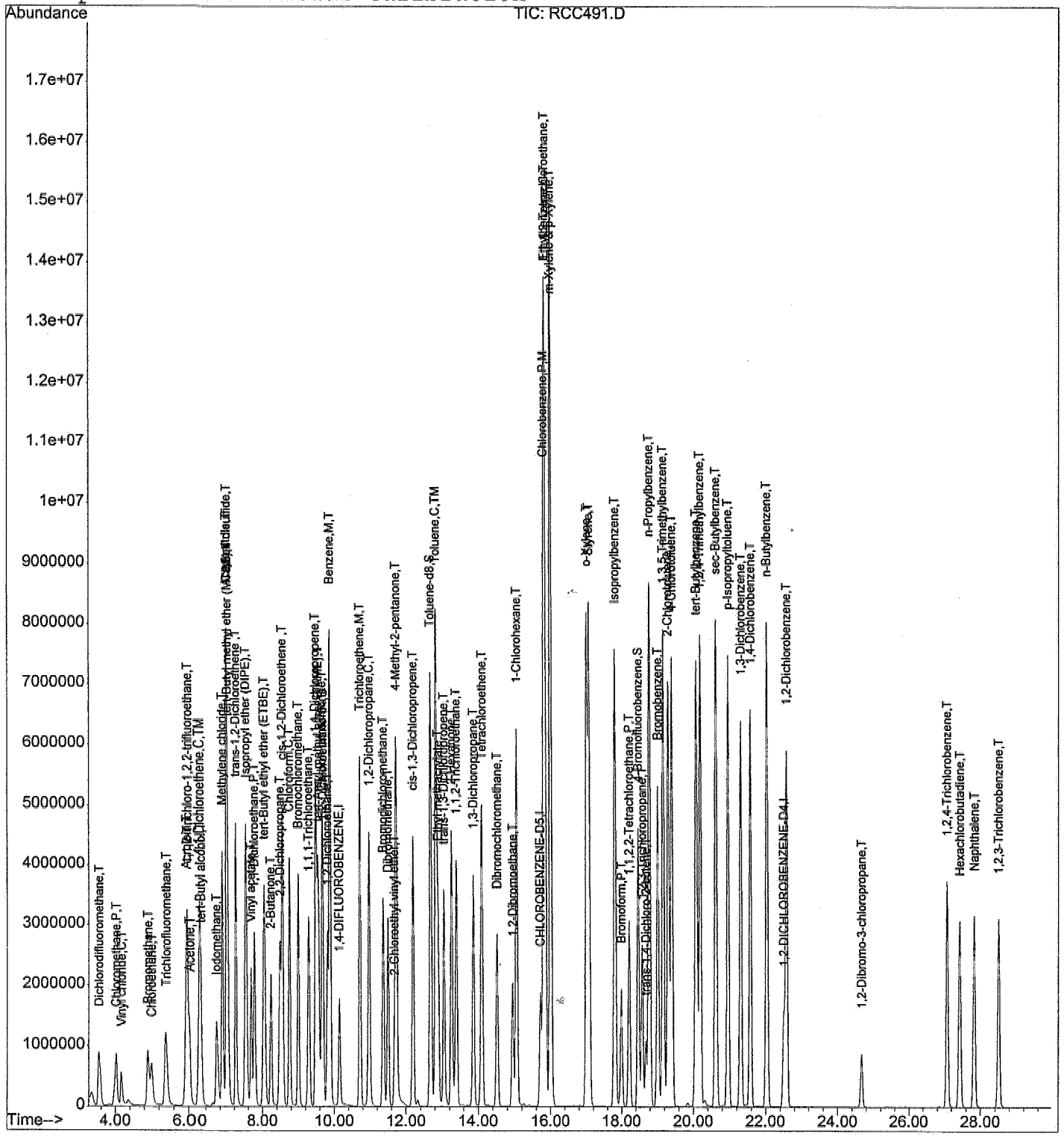
(#) = qualifier out of range (m) = manual integration
RCC491.D VO67C23.M Fri Mar 24 11:25:42 2006 3/28/06 Page 3

2073

Quantitation Report

Data File : D:\HPCHEM\1\DATA\06C23\RCC491.D Vial: 9
Acq On : 23 Mar 2006 6:09 pm Operator: CGM
Sample : VO67C238 Inst : TO67
Misc : 200ppb 8260/800ppb Ket-AA/1000ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:16 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:23:02 2006
Response via : Initial Calibration



3/28/06

2074

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC492.D Vial: 10
Acq On : 23 Mar 2006 6:44 pm Operator: CGM
Sample : VO67C239 Inst : TO67
Misc : 300ppb 8260/1200ppb Ket-AA/1500ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:17 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:17:00 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.14	114	2785705	50.00	ug/l	0.00
36) CHLOROBENZENE-D5	15.71	117	2539648	50.00	ug/l	0.00
66) 1,2-DICHLOROBENZENE-D4	22.50	152	968497	50.00	ug/l	0.00
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.68	65	3337797	273.42	ug/l	0.00
Spiked Amount 50.000			Recovery =	546.84%		
49) Toluene-d8	12.67	98	15894483	281.76	ug/l	0.00
Spiked Amount 50.000			Recovery =	563.52%		
70) 4-Bromofluorobenzene	18.46	95	5641683	251.89	ug/l	0.00
Spiked Amount 50.000			Recovery =	503.78%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.53	85	3971114	287.24	ug/l	100
3) Chloromethane	4.02	50	3635164	316.40	ug/l	99
4) Vinyl chloride	4.15	62	1456416	161.18	ug/l	100
5) Bromomethane	4.90	94	2710627	237.93	ug/l	100
6) Chloroethane	5.00	64	1823120	281.83	ug/l	99
7) Trichlorofluoromethane	5.39	101	4060689	290.53	ug/l	100
9) Acrolein	5.94	56	1929711	1142.38	ug/l	99
10) 1,1,2-Trichloro-1,2,2-trif	5.95	151	3104420	298.59	ug/l	99
11) Acetone	6.03	43	3472996	1093.62	ug/l	99
12) 1,1-Dichloroethene	6.24	61	6056260	288.85	ug/l	98
13) tert-Butyl alcohol	6.28	59	1572995	1477.79	ug/l	96
16) Iodomethane	6.70	142	5829938	492.63	ug/l	99
17) Methylene chloride	6.86	49	6098031	208.29	ug/l	97
18) Carbon disulfide	7.00	76	15248367	288.00	ug/l	99
19) Acrylonitrile	6.98	53	4448587	1045.43	ug/l	99
20) tert-Butyl methyl ether (M	7.01	73	7898406	284.99	ug/l	98
21) trans-1,2-Dichloroethene	7.25	61	6210780	289.94	ug/l	97
22) Isopropyl ether (DIPE)	7.53	45	14133270	291.22	ug/l	100
23) 1,1-Dichloroethane	7.79	63	7653220	278.60	ug/l	99
24) Vinyl acetate	7.68	43	7936698	304.60	ug/l	100
25) tert-Butyl ethyl ether (ET	8.05	59	10581522	297.48	ug/l	99
26) 2-Butanone	8.25	43	7238778	1142.39	ug/l	100
27) 2,2-Dichloropropane	8.49	77	5165750	306.96	ug/l	97
28) cis-1,2-Dichloroethene	8.56	61	7181081	293.41	ug/l	97
30) Chloroform	8.75	83	7868200	296.40	ug/l	99
31) Bromochloromethane	8.99	49	4254818	286.77	ug/l	91
32) 1,1,1-Trichloroethane	9.29	97	5819295	307.74	ug/l	98
34) tert-Amyl methyl ether (TA	9.54	73	11169458	298.51	ug/l	97
37) 1,1-Dichloropropene	9.48	77	2100947	288.82	ug/l	97

(#) = qualifier out of range (m) = manual integration

3/28/06

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC492.D Vial: 10
Acq On : 23 Mar 2006 6:44 pm Operator: CGM
Sample : VO67C239 Inst : TO67
Misc : 300ppb 8260/1200ppb Ket-AA/1500ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:17 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:17:00 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38)	Carbon tetrachloride	9.66	119	5184186	306.17 ug/l	100
39)	1,2-Dichloroethane	9.81	62	4612998	289.69 ug/l	100
40)	Benzene	9.89	78	19917826	285.05 ug/l	98
41)	Trichloroethene	10.72	130	5714154	298.15 ug/l	97
43)	1,2-Dichloropropane	10.97	63	5411714	286.86 ug/l	98
44)	Bromodichloromethane	11.36	83	6349867	312.05 ug/l	100
45)	Dibromomethane	11.49	93	3309892	290.64 ug/l	96
46)	2-Chloroethyl vinyl ether	11.67	63	1095571	393.77 ug/l	98
47)	4-Methyl-2-pentanone	11.72	43	16841065	1158.23 ug/l	99
48)	cis-1,3-Dichloropropene	12.19	75	7551690	317.29 ug/l	98
50)	Toluene	12.82	91	19222431	285.87 ug/l	99
51)	Ethyl methacrylate	12.88	69	5215993	330.92 ug/l	98
52)	trans-1,3-Dichloropropene	13.04	75	5433197	316.77 ug/l	99
53)	1,1,2-Trichloroethane	13.39	97	4095173	290.73 ug/l	99
54)	2-Hexanone	13.25	43	11094914	1135.72 ug/l	100
55)	1,3-Dichloropropane	13.86	76	6936376	290.72 ug/l	99
56)	Tetrachloroethene	14.10	164	4029429	305.00 ug/l	98
57)	Dibromochloromethane	14.52	129	5081680	326.74 ug/l	100
58)	1,2-Dibromoethane	14.94	107	4684193	302.09 ug/l	100
59)	1-Chlorohexane	15.05	91	8198683	321.58 ug/l	96
60)	Chlorobenzene	15.80	112	13280884	286.38 ug/l	94
61)	1,1,1,2-Tetrachloroethane	15.84	131	4285992	297.01 ug/l	97
62)	Ethylbenzene	15.84	91	20590836	283.48 ug/l	100
63)	m-Xylene & p-Xylene	15.98	91	28312911	522.85 ug/l	83
64)	o-Xylene	17.02	91	16887118	303.80 ug/l	100
65)	Styrene	17.09	104	14332425	321.39 ug/l	98
67)	Bromoform	17.98	173	2997684	305.46 ug/l	99
68)	Isopropylbenzene	17.81	105	20228590	292.46 ug/l	99
69)	1,1,2,2-Tetrachloroethane	18.21	83	6280809	268.78 ug/l	100
71)	1,2,3-Trichloropropane	18.58	61	1005603	257.25 ug/l	96
72)	trans-1,4-Dichloro-2-buten	18.69	53	656003	356.99 ug/l	94
73)	n-Propylbenzene	18.79	91	26377184	287.04 ug/l	98
74)	Bromobenzene	19.01	156	5229316	290.79 ug/l	97
75)	2-Chlorotoluene	19.31	91	15762596	272.07 ug/l	99
76)	1,3,5-Trimethylbenzene	19.16	105	16899447	301.82 ug/l	100
77)	4-Chlorotoluene	19.40	91	14532203	294.43 ug/l	99
78)	tert-Butylbenzene	20.07	119	15066894	305.87 ug/l	98
79)	1,2,4-Trimethylbenzene	20.19	105	16572706	308.45 ug/l	99
80)	sec-Butylbenzene	20.62	105	25129408	325.79 ug/l	99
81)	p-Isopropyltoluene	20.95	119	17888800	357.66 ug/l	98
82)	1,3-Dichlorobenzene	21.31	146	10050044	304.45 ug/l	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC492.D Vial: 10
Acq On : 23 Mar 2006 6:44 pm Operator: CGM
Sample : VO67C239 Inst : TO67
Misc : 300ppb 8260/1200ppb Ket-AA/1500ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:17 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:17:00 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

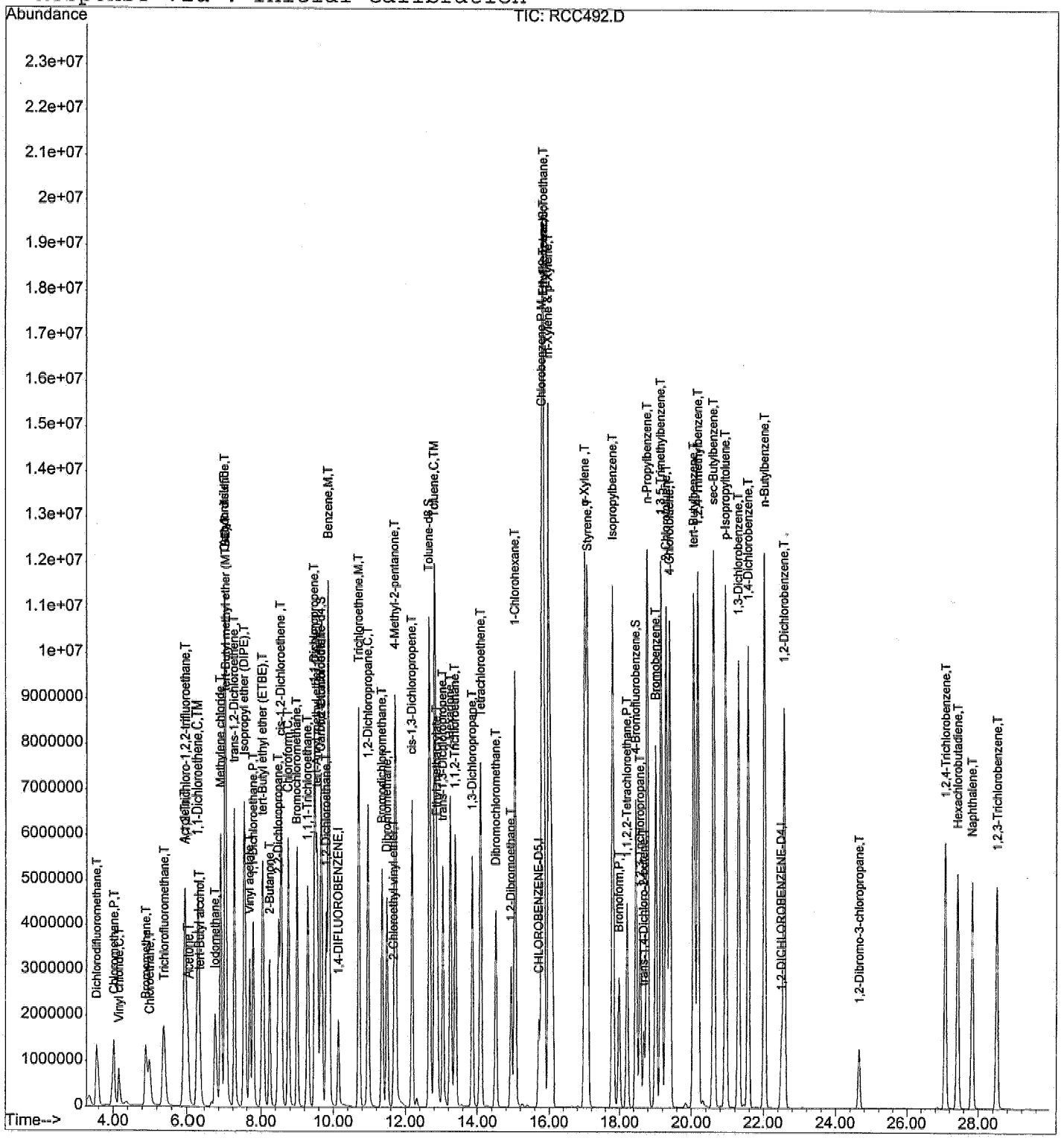
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
83)	1,4-Dichlorobenzene	21.57	146	10041797	309.99	ug/l	98
84)	n-Butylbenzene	22.04	91	18090086	402.24	ug/l	99
85)	1,2-Dichlorobenzene	22.57	146	9070912	304.68	ug/l	97
86)	1,2-Dibromo-3-chloropropan	24.66	157	877382	355.79	ug/l	97
87)	1,2,4-Trichlorobenzene	27.09	180	4398915	412.00	ug/l	99
88)	Hexachlorobutadiene	27.43	225	2390450	430.00	ug/l	100
89)	Naphthalene	27.83	128	9267404	417.42	ug/l	100
90)	1,2,3-Trichlorobenzene	28.52	180	3595785	409.77	ug/l	99

(#) = qualifier out of range (m) = manual integration
RCC492.D VO67C23.M Fri Mar 24 11:25:53 2006 ew 3/28/06

Quantitation Report

Data File : D:\HPCHEM\1\DATA\06C23\RCC492.D Vial: 10
Acq On : 23 Mar 2006 6:44 pm Operator: CGM
Sample : VO67C239 Inst : TO67
Misc : 300ppb 8260/1200ppb Ket-AA/1500ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:17 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:23:02 2006
Response via : Initial Calibration



3/28/06

2078

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC495.D Vial: 13
Acq On : 23 Mar 2006 8:31 pm Operator: CGM
Sample : VO67C2310 Inst : TO67
Misc : 2ppb 8260/8ppb Ket-AA/10ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:13 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:13:45 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.15	114	2487415	50.00	ug/l		0.01
36) CHLOROBENZENE-D5	15.71	117	2134097	50.00	ug/l		0.00
66) 1,2-DICHLOROBENZENE-D4	22.50	152	645210	50.00	ug/l		0.00
System Monitoring Compounds							
35) 1,2-Dichloroethane-d4	9.69	65	22900	2.47	ug/l		0.01
Spiked Amount 50.000			Recovery =	4.94%			
49) Toluene-d8	12.68	98	118249	3.13	ug/l		0.01
Spiked Amount 50.000			Recovery =	6.26%			
70) 4-Bromofluorobenzene	18.46	95	44273	3.87	ug/l		0.00
Spiked Amount 50.000			Recovery =	7.74%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.54	85	23099	1.87	ug/l		94
3) Chloromethane	4.03	50	19082	1.88	ug/l		95
4) Vinyl chloride	4.18	62	21144	3.04	ug/l		93
5) Bromomethane	4.89	94	28312	3.61	ug/l		77
6) Chloroethane	5.00	64	11855	2.10	ug/l		95
7) Trichlorofluoromethane	5.37	101	23467	1.91	ug/l		97
9) Acrolein	5.95	56	11119	7.06	ug/l		95
10) 1,1,2-Trichloro-1,2,2-trif	5.95	151	18468	1.99	ug/l		100
11) Acetone	6.03	43	25929	8.82	ug/l		92
12) 1,1-Dichloroethene	6.23	61	36362	1.90	ug/l		96
13) tert-Butyl alcohol	6.32	59	6866	6.42	ug/l	#	1
16) Iodomethane	6.70	142	11222	0.83	ug/l	#	77
17) Methylene chloride	6.86	49	101272	4.77	ug/l		97
18) Carbon disulfide	6.99	76	93772	1.89	ug/l		99
19) Acrylonitrile	6.98	53	31562	7.68	ug/l		96
20) tert-Butyl methyl ether (M	7.01	73	47402	1.85	ug/l		99
21) trans-1,2-Dichloroethene	7.25	61	35191	1.74	ug/l		98
22) Isopropyl ether (DIPE)	7.55	45	80204	1.77	ug/l		98
23) 1,1-Dichloroethane	7.77	63	48119	1.88	ug/l		98
24) Vinyl acetate	7.69	43	42851	1.67	ug/l		91
25) tert-Butyl ethyl ether (ET	8.07	59	58581	1.78	ug/l		97
26) 2-Butanone	8.26	43	45789	7.52	ug/l		93
27) 2,2-Dichloropropane	8.48	77	28451	1.79	ug/l		96
28) cis-1,2-Dichloroethene	8.56	61	42039	1.80	ug/l		98
30) Chloroform	8.75	83	46770	1.90	ug/l		97
31) Bromochloromethane	8.99	49	24599	1.77	ug/l		92
32) 1,1,1-Trichloroethane	9.29	97	32796	1.88	ug/l		98
34) tert-Amyl methyl ether (TA	9.56	73	60909	1.76	ug/l		98
37) 1,1-Dichloropropene	9.48	77	12360	1.98	ug/l		96

(#) = qualifier out of range (m) = manual integration

3/28/06

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC495.D Vial: 13
Acq On : 23 Mar 2006 8:31 pm Operator: CGM
Sample : VO67C2310 Inst : TO67
Misc : 2ppb 8260/8ppb Ket-AA/10ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:13 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:13:45 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	Carbon tetrachloride	9.66	119	28078	1.93	ug/l		98
39)	1,2-Dichloroethane	9.81	62	26824	1.94	ug/l		93
40)	Benzene	9.88	78	124202	2.10	ug/l		97
41)	Trichloroethene	10.72	130	32885	2.04	ug/l		98
43)	1,2-Dichloropropane	10.97	63	31741	1.94	ug/l		97
44)	Bromodichloromethane	11.36	83	32628	1.85	ug/l		99
45)	Dibromomethane	11.49	93	19064	1.90	ug/l		99
46)	2-Chloroethyl vinyl ether	11.67	63	2999	1.20	ug/l	#	45
47)	4-Methyl-2-pentanone	11.75	43	108291	8.34	ug/l		98
48)	cis-1,3-Dichloropropene	12.19	75	36706	1.75	ug/l		99
50)	Toluene	12.83	91	118508	2.08	ug/l		99
51)	Ethyl methacrylate	12.89	69	19407	1.31	ug/l		94
52)	trans-1,3-Dichloropropene	13.06	75	24950	1.64	ug/l		98
53)	1,1,2-Trichloroethane	13.40	97	23458	1.93	ug/l		97
54)	2-Hexanone	13.28	43	96930	11.97	ug/l		98
55)	1,3-Dichloropropane	13.86	76	39822	1.94	ug/l		95
56)	Tetrachloroethene	14.08	164	22907	2.05	ug/l		98
57)	Dibromochloromethane	14.52	129	22552	1.66	ug/l		100
58)	1,2-Dibromoethane	14.95	107	24019	1.75	ug/l		98
59)	1-Chlorohexane	15.05	91	38285	1.70	ug/l		99
60)	Chlorobenzene	15.80	112	82116	2.10	ug/l		98
61)	1,1,1,2-Tetrachloroethane	15.84	131	23550	1.91	ug/l	#	65
62)	Ethylbenzene	15.84	91	123728	1.96	ug/l		99
63)	m-Xylene & p-Xylene	16.01	91	178281	3.83	ug/l		99
64)	o-Xylene	17.02	91	89628	1.85	ug/l		99
65)	Styrene	17.08	104	64484	1.62	ug/l		97
67)	Bromoform	17.99	173	12621	1.88	ug/l		91
68)	Isopropylbenzene	17.81	105	94489	2.03	ug/l		99
69)	1,1,2,2-Tetrachloroethane	18.21	83	33506	2.10	ug/l		96
71)	1,2,3-Trichloropropane	18.58	61	5147	1.89	ug/l		88
72)	trans-1,4-Dichloro-2-buten	18.69	53	1536	1.10	ug/l	#	1
73)	n-Propylbenzene	18.78	91	116300	1.82	ug/l		99
74)	Bromobenzene	19.01	156	26524	2.28	ug/l		98
75)	2-Chlorotoluene	19.30	91	85011	2.18	ug/l		99
76)	1,3,5-Trimethylbenzene	19.16	105	71662	1.87	ug/l		100
77)	4-Chlorotoluene	19.40	91	70508	2.20	ug/l		100
78)	tert-Butylbenzene	20.07	119	62557	1.84	ug/l		100
79)	1,2,4-Trimethylbenzene	20.18	105	66310	1.76	ug/l		99
80)	sec-Butylbenzene	20.62	105	89808	1.62	ug/l		100
81)	p-Isopropyltoluene	20.95	119	52304	1.44	ug/l		98
82)	1,3-Dichlorobenzene	21.31	146	47723	2.18	ug/l		100

(#) = qualifier out of range (m) = manual integration

3/28/06

2080

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC495.D Vial: 13
Acq On : 23 Mar 2006 8:31 pm Operator: CGM
Sample : VO67C2310 Inst : TO67
Misc : 2ppb 8260/8ppb Ket-AA/10ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:13 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:13:45 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

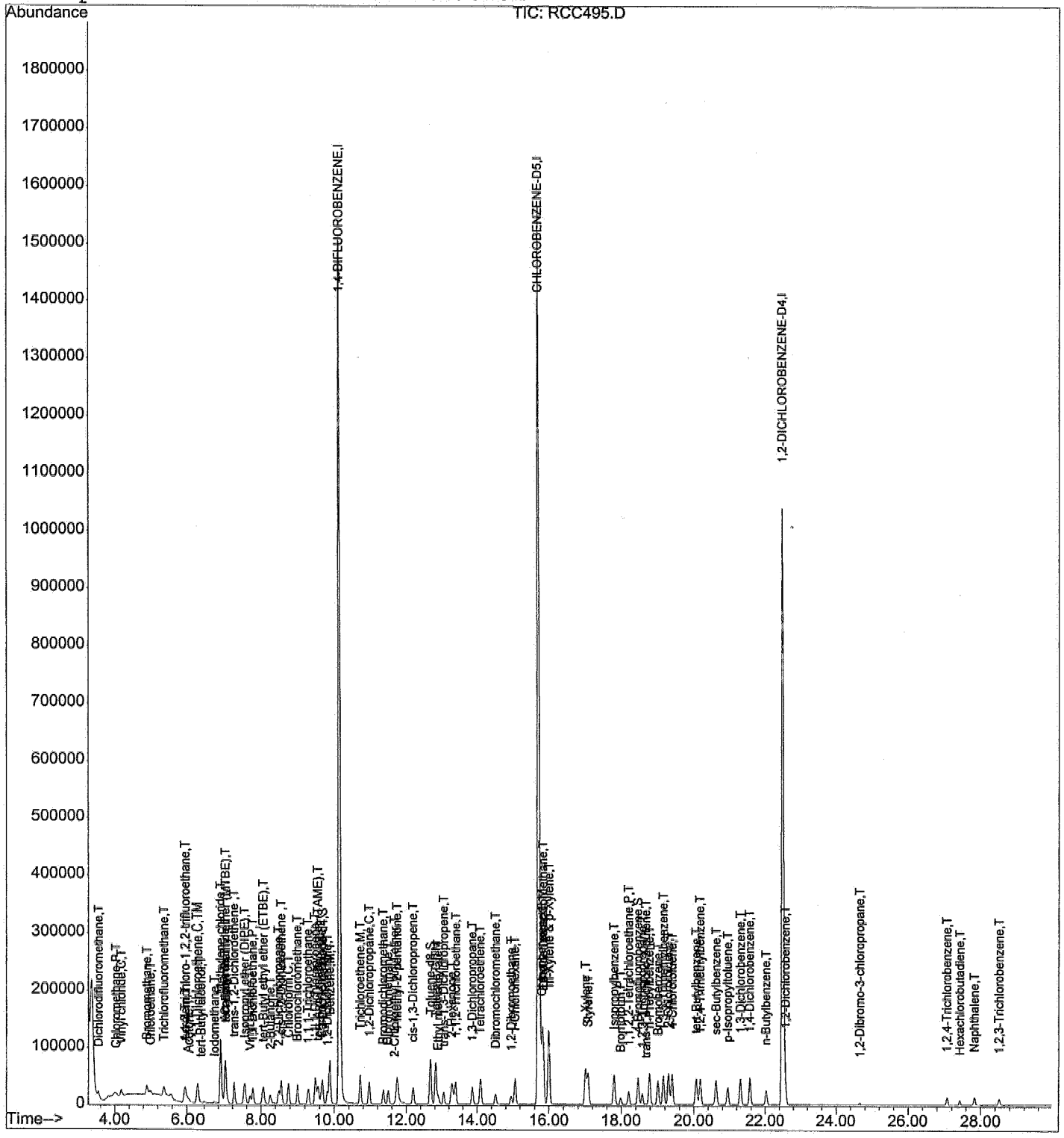
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
83)	1,4-Dichlorobenzene	21.56	146	47350	2.22	ug/l		100
84)	n-Butylbenzene	22.02	91	41432	1.24	ug/l		98
85)	1,2-Dichlorobenzene	22.57	146	43721	2.23	ug/l		97
86)	1,2-Dibromo-3-chloropropan	24.66	157	1912	1.02	ug/l	#	66
87)	1,2,4-Trichlorobenzene	27.07	180	11971	1.59	ug/l		97
88)	Hexachlorobutadiene	27.43	225	5614	1.40	ug/l		85
89)	Naphthalene	27.83	128	29512	2.00	ug/l		91
90)	1,2,3-Trichlorobenzene	28.50	180	10573	1.72	ug/l		91

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\06C23\RCC495.D Vial: 13
Acq On : 23 Mar 2006 8:31 pm Operator: CGM
Sample : VO67C2310 Inst : TO67
Misc : 2ppb 8260/8ppb Ket-AA/10ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:13 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:23:02 2006
Response via : Initial Calibration



3/28/06

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC496.D Vial: 14
Acq On : 23 Mar 2006 9:07 pm Operator: CGM
Sample : VO67C2311 Inst : TO67
Misc : 5ppb 8260/20ppb Ket-AA/25ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:14 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:14:05 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.15	114	2494957	50.00	ug/l	0.00
36) CHLOROBENZENE-D5	15.70	117	2171215	50.00	ug/l	0.00
66) 1,2-DICHLOROBENZENE-D4	22.50	152	657788	50.00	ug/l	0.00
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.69	65	55394	5.33	ug/l	0.00
Spiked Amount 50.000			Recovery =	10.66%		
49) Toluene-d8	12.68	98	234551	4.76	ug/l	0.00
Spiked Amount 50.000			Recovery =	9.52%		
70) 4-Bromofluorobenzene	18.46	95	76813	4.49	ug/l	0.00
Spiked Amount 50.000			Recovery =	8.98%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.54	85	63341	5.29	ug/l	98
3) Chloromethane	4.01	50	51002	5.17	ug/l	99
4) Vinyl chloride	4.18	62	54766	6.23	ug/l	99
5) Bromomethane	4.89	94	63101	5.72	ug/l	93
6) Chloroethane	4.99	64	29148	5.02	ug/l	98
7) Trichlorofluoromethane	5.37	101	63573	5.28	ug/l	98
9) Acrolein	5.96	56	27021	18.18	ug/l	96
10) 1,1,2-Trichloro-1,2,2-trif	5.95	151	46912	5.05	ug/l	100
11) Acetone	6.02	43	52786	17.03	ug/l	100
12) 1,1-Dichloroethene	6.23	61	93180	4.98	ug/l	99
13) tert-Butyl alcohol	6.34	59	19440	22.06	ug/l	84
16) Iodomethane	6.69	142	20751	2.16	ug/l	90
17) Methylene chloride	6.86	49	157286	4.36	ug/l	98
18) Carbon disulfide	6.99	76	234119	4.84	ug/l	99
19) Acrylonitrile	6.99	53	70554	17.46	ug/l	99
20) tert-Butyl methyl ether (M	7.01	73	112590	4.55	ug/l	99
21) trans-1,2-Dichloroethene	7.24	61	92916	4.89	ug/l	99
22) Isopropyl ether (DIPE)	7.54	45	203790	4.76	ug/l	100
23) 1,1-Dichloroethane	7.78	63	119318	4.79	ug/l	100
24) Vinyl acetate	7.69	43	101713	4.31	ug/l	96
25) tert-Butyl ethyl ether (ET	8.05	59	146276	4.69	ug/l	100
26) 2-Butanone	8.26	43	100198	16.91	ug/l	97
27) 2,2-Dichloropropane	8.50	77	70802	4.68	ug/l	99
28) cis-1,2-Dichloroethene	8.55	61	99661	4.47	ug/l	92
30) Chloroform	8.75	83	112802	4.69	ug/l	99
31) Bromochloromethane	9.00	49	63372	4.82	ug/l	98
32) 1,1,1-Trichloroethane	9.28	97	84372	4.97	ug/l	98
34) tert-Amyl methyl ether (TA	9.55	73	153336	4.69	ug/l	99
37) 1,1-Dichloropropene	9.49	77	31348	4.96	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC496.D Vial: 14
Acq On : 23 Mar 2006 9:07 pm Operator: CGM
Sample : VO67C2311 Inst : TO67
Misc : 5ppb 8260/20ppb Ket-AA/25ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:14 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:14:05 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	Carbon tetrachloride	9.66	119	71851	4.94	ug/l		100
39)	1,2-Dichloroethane	9.81	62	65823	4.75	ug/l		97
40)	Benzene	9.88	78	306772	4.97	ug/l		99
41)	Trichloroethene	10.71	130	83228	5.03	ug/l		98
43)	1,2-Dichloropropane	10.97	63	77284	4.71	ug/l		99
44)	Bromodichloromethane	11.35	83	81903	4.75	ug/l		99
45)	Dibromomethane	11.49	93	44613	4.49	ug/l		97
46)	2-Chloroethyl vinyl ether	11.68	63	9003	4.42	ug/l		85
47)	4-Methyl-2-pentanone	11.74	43	205076	15.20	ug/l		99
48)	cis-1,3-Dichloropropene	12.19	75	90817	4.54	ug/l		100
50)	Toluene	12.83	91	287276	4.86	ug/l		99
51)	Ethyl methacrylate	12.89	69	52565	4.22	ug/l		98
52)	trans-1,3-Dichloropropene	13.05	75	62025	4.40	ug/l		99
53)	1,1,2-Trichloroethane	13.38	97	56113	4.61	ug/l		99
54)	2-Hexanone	13.28	43	136194	13.24	ug/l		98
55)	1,3-Dichloropropane	13.86	76	96352	4.68	ug/l		98
56)	Tetrachloroethene	14.10	164	56573	4.91	ug/l		99
57)	Dibromochloromethane	14.51	129	59388	4.70	ug/l		100
58)	1,2-Dibromoethane	14.94	107	60776	4.64	ug/l		98
59)	1-Chlorohexane	15.05	91	99162	4.68	ug/l		99
60)	Chlorobenzene	15.79	112	194504	4.76	ug/l		99
61)	1,1,1,2-Tetrachloroethane	15.84	131	59024	4.81	ug/l		98
62)	Ethylbenzene	15.84	91	303209	4.77	ug/l		99
63)	m-Xylene & p-Xylene	15.99	91	449349	9.69	ug/l		100
64)	o-Xylene	17.02	91	220317	4.64	ug/l		100
65)	Styrene	17.07	104	166731	4.55	ug/l		98
67)	Bromoform	17.98	173	30526	4.59	ug/l		98
68)	Isopropylbenzene	17.80	105	242934	5.08	ug/l		99
69)	1,1,2,2-Tetrachloroethane	18.21	83	79292	4.76	ug/l		99
71)	1,2,3-Trichloropropane	18.58	61	13214	4.90	ug/l		91
72)	trans-1,4-Dichloro-2-buten	18.70	53	4492	4.07	ug/l	#	20
73)	n-Propylbenzene	18.79	91	303101	4.87	ug/l		100
74)	Bromobenzene	19.01	156	62918	4.96	ug/l		98
75)	2-Chlorotoluene	19.29	91	206125	4.96	ug/l		100
76)	1,3,5-Trimethylbenzene	19.16	105	188196	4.97	ug/l		100
77)	4-Chlorotoluene	19.40	91	171432	5.00	ug/l		99
78)	tert-Butylbenzene	20.07	119	163979	4.92	ug/l		98
79)	1,2,4-Trimethylbenzene	20.17	105	171818	4.76	ug/l		100
80)	sec-Butylbenzene	20.62	105	235999	4.62	ug/l		100
81)	p-Isopropyltoluene	20.95	119	142152	4.46	ug/l		99
82)	1,3-Dichlorobenzene	21.30	146	109823	4.71	ug/l		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC496.D Vial: 14
Acq On : 23 Mar 2006 9:07 pm Operator: CGM
Sample : VO67C2311 Inst : TO67
Misc : 5ppb 8260/20ppb Ket-AA/25ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:14 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:14:05 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
83)	1,4-Dichlorobenzene	21.57	146	106435	4.64	ug/l	99
84)	n-Butylbenzene	22.02	91	108254	3.93	ug/l	99
85)	1,2-Dichlorobenzene	22.57	146	98861	4.68	ug/l	92
86)	1,2-Dibromo-3-chloropropan	24.67	157	5977	4.15	ug/l	93
87)	1,2,4-Trichlorobenzene	27.08	180	26653	3.87	ug/l	95
88)	Hexachlorobutadiene	27.43	225	15180	4.36	ug/l	98
89)	Naphthalene	27.83	128	52224	3.47	ug/l	97
90)	1,2,3-Trichlorobenzene	28.51	180	21969	3.76	ug/l	98

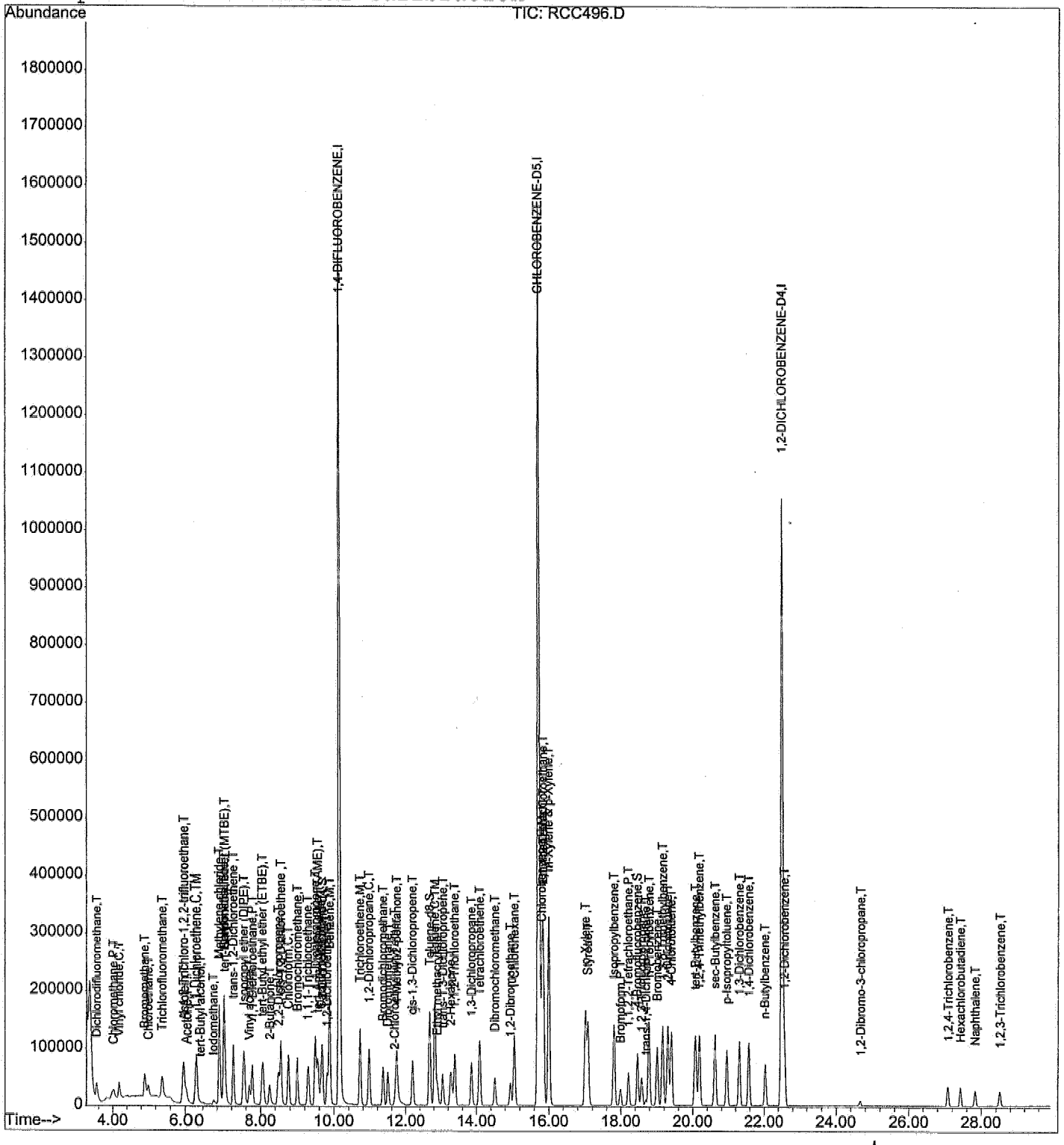
(#) = qualifier out of range (m) = manual integration
RCC496.D VO67C23.M Fri Mar 24 11:24:28 2006 3/28/06 Page 3

2085

Quantitation Report

Data File : D:\HPCHEM\1\DATA\06C23\RCC496.D Vial: 14
Acq On : 23 Mar 2006 9:07 pm Operator: CGM
Sample : VO67C2311 Inst : TO67
Misc : 5ppb 8260/20ppb Ket-AA/25ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:14 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:23:02 2006
Response via : Initial Calibration



3/28/06

2086

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC497.D Vial: 15
Acq On : 23 Mar 2006 9:42 pm Operator: CGM
Sample : VO67C2312 Inst : TO67
Misc : 10ppb 8260/40ppb Ket-AA/50ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:14 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:14:21 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.14	114	2530364	50.00	ug/l	0.00
36) CHLOROBENZENE-D5	15.71	117	2313936	50.00	ug/l	0.00
66) 1,2-DICHLOROBENZENE-D4	22.50	152	729584	50.00	ug/l	0.00
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.68	65	110176	10.23	ug/l	0.00
Spiked Amount 50.000			Recovery =	20.46%		
49) Toluene-d8	12.67	98	502054	9.72	ug/l	0.00
Spiked Amount 50.000			Recovery =	19.44%		
70) 4-Bromofluorobenzene	18.46	95	167818	9.15	ug/l	0.00
Spiked Amount 50.000			Recovery =	18.30%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.54	85	125421	10.13	ug/l	99
3) Chloromethane	4.03	50	96109	9.50	ug/l	96
4) Vinyl chloride	4.18	62	104789	10.87	ug/l	100
5) Bromomethane	4.90	94	117534	10.02	ug/l	95
6) Chloroethane	5.00	64	58920	10.00	ug/l	98
7) Trichlorofluoromethane	5.37	101	127476	10.24	ug/l	100
9) Acrolein	5.95	56	62825	42.97	ug/l	94
10) 1,1,2-Trichloro-1,2,2-trif	5.95	151	96752	10.24	ug/l	100
11) Acetone	6.03	43	119323	39.93	ug/l	100
12) 1,1-Dichloroethene	6.24	61	194122	10.24	ug/l	98
13) tert-Butyl alcohol	6.30	59	51647	60.15	ug/l	96
16) Iodomethane	6.70	142	49382	6.25	ug/l	96
17) Methylene chloride	6.86	49	252404	7.21	ug/l	99
18) Carbon disulfide	7.00	76	477775	9.85	ug/l	99
19) Acrylonitrile	6.98	53	163591	41.68	ug/l	96
20) tert-Butyl methyl ether (M	7.00	73	256154	10.52	ug/l	99
21) trans-1,2-Dichloroethene	7.25	61	191557	10.02	ug/l	98
22) Isopropyl ether (DIPE)	7.53	45	433028	10.14	ug/l	100
23) 1,1-Dichloroethane	7.77	63	245169	9.84	ug/l	99
24) Vinyl acetate	7.68	43	202320	8.86	ug/l	98
25) tert-Butyl ethyl ether (ET	8.05	59	323303	10.44	ug/l	99
26) 2-Butanone	8.25	43	242522	42.55	ug/l	99
27) 2,2-Dichloropropane	8.48	77	149172	9.94	ug/l	99
28) cis-1,2-Dichloroethene	8.56	61	223068	10.23	ug/l	99
30) Chloroform	8.75	83	234872	9.83	ug/l	99
31) Bromochloromethane	8.99	49	134690	10.23	ug/l	97
32) 1,1,1-Trichloroethane	9.29	97	167511	9.74	ug/l	99
34) tert-Amyl methyl ether (TA	9.56	73	335719	10.34	ug/l	99
37) 1,1-Dichloropropene	9.48	77	64388	9.58	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC497.D Vial: 15
Acq On : 23 Mar 2006 9:42 pm Operator: CGM
Sample : VO67C2312 Inst : TO67
Misc : 10ppb 8260/40ppb Ket-AA/50ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:14 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:14:21 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38)	Carbon tetrachloride	9.66	119	146494	9.49 ug/l	100
39)	1,2-Dichloroethane	9.81	62	138067	9.50 ug/l	99
40)	Benzene	9.87	78	620994	9.46 ug/l	99
41)	Trichloroethene	10.72	130	169650	9.60 ug/l	98
43)	1,2-Dichloropropane	10.97	63	164770	9.61 ug/l	99
44)	Bromodichloromethane	11.36	83	173795	9.62 ug/l	100
45)	Dibromomethane	11.49	93	99520	9.73 ug/l	98
46)	2-Chloroethyl vinyl ether	11.69	63	23257	11.15 ug/l	95
47)	4-Methyl-2-pentanone	11.73	43	505942	38.24 ug/l	100
48)	cis-1,3-Dichloropropene	12.19	75	201470	9.75 ug/l	99
50)	Toluene	12.82	91	589671	9.44 ug/l	100
51)	Ethyl methacrylate	12.89	69	130386	10.36 ug/l	99
52)	trans-1,3-Dichloropropene	13.04	75	144313	10.01 ug/l	99
53)	1,1,2-Trichloroethane	13.39	97	125267	9.92 ug/l	99
54)	2-Hexanone	13.27	43	308240	31.70 ug/l	99
55)	1,3-Dichloropropane	13.86	76	211150	9.84 ug/l	100
56)	Tetrachloroethene	14.10	164	117307	9.61 ug/l	99
57)	Dibromochloromethane	14.52	129	132431	10.04 ug/l	99
58)	1,2-Dibromoethane	14.95	107	134364	9.86 ug/l	100
59)	1-Chlorohexane	15.05	91	212014	9.59 ug/l	99
60)	Chlorobenzene	15.80	112	404071	9.44 ug/l	98
61)	1,1,1,2-Tetrachloroethane	15.84	131	124695	9.66 ug/l	99
62)	Ethylbenzene	15.84	91	628457	9.43 ug/l	100
63)	m-Xylene & p-Xylene	15.99	91	920452	18.82 ug/l	99
64)	o-Xylene	17.02	91	474420	9.60 ug/l	99
65)	Styrene	17.08	104	365898	9.65 ug/l	99
67)	Bromoform	17.99	173	74085	10.33 ug/l	98
68)	Isopropylbenzene	17.81	105	520175	9.76 ug/l	100
69)	1,1,2,2-Tetrachloroethane	18.21	83	182786	10.05 ug/l	100
71)	1,2,3-Trichloropropane	18.58	61	31977	10.76 ug/l	97
72)	trans-1,4-Dichloro-2-buten	18.69	53	13797	12.03 ug/l	85
73)	n-Propylbenzene	18.78	91	672751	9.83 ug/l	100
74)	Bromobenzene	19.02	156	136325	9.71 ug/l	99
75)	2-Chlorotoluene	19.30	91	443429	9.65 ug/l	100
76)	1,3,5-Trimethylbenzene	19.16	105	413325	9.87 ug/l	100
77)	4-Chlorotoluene	19.40	91	358899	9.43 ug/l	100
78)	tert-Butylbenzene	20.07	119	360123	9.80 ug/l	98
79)	1,2,4-Trimethylbenzene	20.18	105	388274	9.86 ug/l	100
80)	sec-Butylbenzene	20.62	105	545564	9.88 ug/l	100
81)	p-Isopropyltoluene	20.95	119	335353	9.84 ug/l	100
82)	1,3-Dichlorobenzene	21.31	146	239700	9.45 ug/l	99

(#) = qualifier out of range (m) = manual integration

3/24/06

2088

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC497.D Vial: 15
Acq On : 23 Mar 2006 9:42 pm Operator: CGM
Sample : VO67C2312 Inst : TO67
Misc : 10ppb 8260/40ppb Ket-AA/50ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:14 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:14:21 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
83)	1,4-Dichlorobenzene	21.58	146	232271	9.35	ug/l	99
84)	n-Butylbenzene	22.02	91	275704	9.71	ug/l	100
85)	1,2-Dichlorobenzene	22.58	146	218776	9.54	ug/l	98
86)	1,2-Dibromo-3-chloropropan	24.66	157	19359	12.84	ug/l	98
87)	1,2,4-Trichlorobenzene	27.07	180	67189	9.51	ug/l	98
88)	Hexachlorobutadiene	27.43	225	34405	9.31	ug/l	97
89)	Naphthalene	27.83	128	126986	8.48	ug/l	99
90)	1,2,3-Trichlorobenzene	28.50	180	53061	8.93	ug/l	98

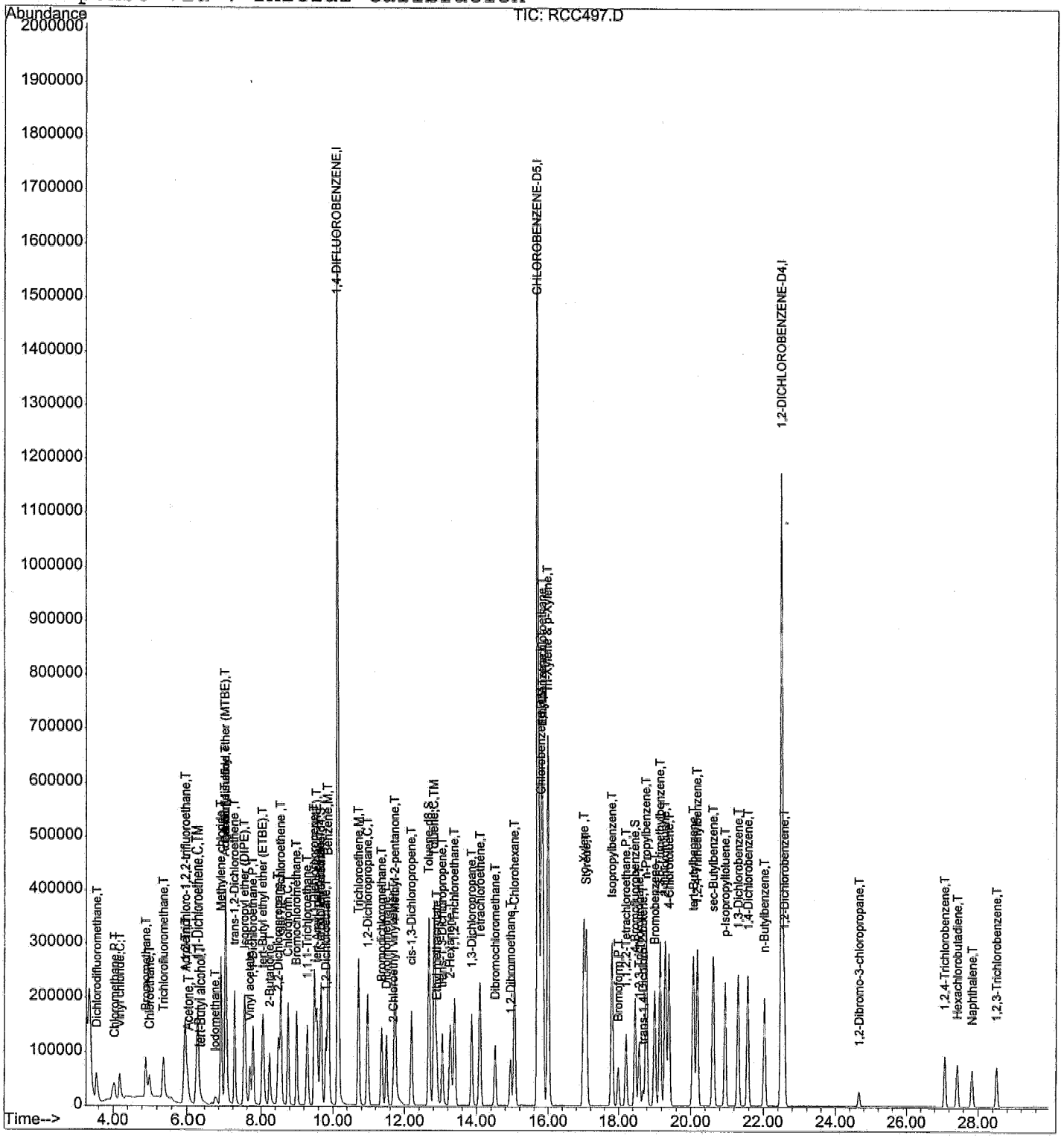
(#) = qualifier out of range (m) = manual integration
RCC497.D VO67C23.M Fri Mar 24 11:24:38 2006 3/28/06 Page 3

2089

Quantitation Report

Data File : D:\HPCHEM\1\DATA\06C23\RCC497.D Vial: 15
Acq On : 23 Mar 2006 9:42 pm Operator: CGM
Sample : VO67C2312 Inst : TO67
Misc : 10ppb 8260/40ppb Ket-AA/50ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:14 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:23:02 2006
Response via : Initial Calibration



3/28/06

2090

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC498.D Vial: 16
Acq On : 23 Mar 2006 10:18 pm Operator: CGM
Sample : VO67C2313 Inst : TO67
Misc : 20ppb 8260/80ppb Ket-AA/100ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:15 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:14:37 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.14	114	2608254	50.00	ug/l	0.00
36) CHLOROBENZENE-D5	15.71	117	2334033	50.00	ug/l	0.00
66) 1,2-DICHLOROBENZENE-D4	22.50	152	804493	50.00	ug/l	0.00
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.68	65	235752	21.11	ug/l	0.00
Spiked Amount 50.000			Recovery = 42.22%			
49) Toluene-d8	12.69	98	1036236	20.02	ug/l	0.01
Spiked Amount 50.000			Recovery = 40.04%			
70) 4-Bromofluorobenzene	18.46	95	371514	18.78	ug/l	0.00
Spiked Amount 50.000			Recovery = 37.56%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.53	85	258639	20.20	ug/l	100
3) Chloromethane	4.02	50	212039	20.59	ug/l	100
4) Vinyl chloride	4.17	62	200438	19.74	ug/l	99
5) Bromomethane	4.90	94	226218	18.70	ug/l	97
6) Chloroethane	5.00	64	120456	19.83	ug/l	99
7) Trichlorofluoromethane	5.37	101	265588	20.58	ug/l	100
9) Acrolein	5.94	56	124189	80.91	ug/l	99
10) 1,1,2-Trichloro-1,2,2-trif	5.95	151	213282	21.76	ug/l	99
11) Acetone	6.01	43	232039	75.36	ug/l	100
12) 1,1-Dichloroethene	6.24	61	419784	21.35	ug/l	98
13) tert-Butyl alcohol	6.28	59	114835	123.48	ug/l	92
16) Iodomethane	6.70	142	149303	20.24	ug/l	97
17) Methylene chloride	6.86	49	486861	14.51	ug/l	98
18) Carbon disulfide	7.00	76	1052799	21.14	ug/l	100
19) Acrylonitrile	6.98	53	313506	76.69	ug/l	99
20) tert-Butyl methyl ether (M	7.00	73	573302	22.55	ug/l	98
21) trans-1,2-Dichloroethene	7.25	61	433271	21.97	ug/l	98
22) Isopropyl ether (DIPE)	7.53	45	989525	22.40	ug/l	100
23) 1,1-Dichloroethane	7.77	63	552591	21.61	ug/l	99
24) Vinyl acetate	7.68	43	475663	20.79	ug/l	100
25) tert-Butyl ethyl ether (ET	8.05	59	722681	22.39	ug/l	100
26) 2-Butanone	8.25	43	455860	76.37	ug/l	99
27) 2,2-Dichloropropane	8.49	77	329695	21.35	ug/l	98
28) cis-1,2-Dichloroethene	8.56	61	508764	22.51	ug/l	98
30) Chloroform	8.75	83	537222	21.91	ug/l	99
31) Bromochloromethane	8.99	49	302058	22.13	ug/l	95
32) 1,1,1-Trichloroethane	9.29	97	372176	21.14	ug/l	99
34) tert-Amyl methyl ether (TA	9.54	73	773049	22.91	ug/l	100
37) 1,1-Dichloropropene	9.48	77	144201	21.49	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC498.D Vial: 16
Acq On : 23 Mar 2006 10:18 pm Operator: CGM
Sample : VO67C2313 Inst : TO67
Misc : 20ppb 8260/80ppb Ket-AA/100ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:15 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:14:37 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38)	Carbon tetrachloride	9.66	119	337507	21.95 ug/l	99
39)	1,2-Dichloroethane	9.81	62	313479	21.66 ug/l	99
40)	Benzene	9.87	78	1370360	20.98 ug/l	99
41)	Trichloroethene	10.72	130	377094	21.37 ug/l	99
43)	1,2-Dichloropropane	10.97	63	373744	21.83 ug/l	98
44)	Bromodichloromethane	11.36	83	404039	22.38 ug/l	99
45)	Dibromomethane	11.49	93	228833	22.32 ug/l	98
46)	2-Chloroethyl vinyl ether	11.69	63	57997	26.80 ug/l	97
47)	4-Methyl-2-pentanone	11.73	43	1060626	80.36 ug/l	100
48)	cis-1,3-Dichloropropene	12.19	75	472782	22.83 ug/l	100
50)	Toluene	12.82	91	1309652	21.09 ug/l	100
51)	Ethyl methacrylate	12.88	69	312208	24.37 ug/l	100
52)	trans-1,3-Dichloropropene	13.04	75	347772	23.91 ug/l	98
53)	1,1,2-Trichloroethane	13.39	97	283379	22.29 ug/l	99
54)	2-Hexanone	13.27	43	628244	67.55 ug/l	99
55)	1,3-Dichloropropane	13.86	76	476670	22.11 ug/l	100
56)	Tetrachloroethene	14.09	164	260782	21.39 ug/l	99
57)	Dibromochloromethane	14.52	129	313214	23.52 ug/l	100
58)	1,2-Dibromoethane	14.95	107	312423	22.82 ug/l	100
59)	1-Chlorohexane	15.05	91	511024	23.15 ug/l	99
60)	Chlorobenzene	15.80	112	909804	21.36 ug/l	99
61)	1,1,1,2-Tetrachloroethane	15.84	131	291194	22.55 ug/l	99
62)	Ethylbenzene	15.84	91	1429816	21.57 ug/l	100
63)	m-Xylene & p-Xylene	15.99	91	2173260	44.71 ug/l	100
64)	o-Xylene	17.02	91	1100572	22.31 ug/l	100
65)	Styrene	17.08	104	889052	23.46 ug/l	100
67)	Bromoform	17.99	173	178435	22.38 ug/l	99
68)	Isopropylbenzene	17.81	105	1239487	21.22 ug/l	100
69)	1,1,2,2-Tetrachloroethane	18.21	83	419293	20.88 ug/l	100
71)	1,2,3-Trichloropropane	18.58	61	72255	21.63 ug/l	96
72)	trans-1,4-Dichloro-2-buten	18.69	53	33223	24.99 ug/l	97
73)	n-Propylbenzene	18.78	91	1645551	21.90 ug/l	99
74)	Bromobenzene	19.02	156	320313	20.84 ug/l	99
75)	2-Chlorotoluene	19.30	91	1033872	20.59 ug/l	100
76)	1,3,5-Trimethylbenzene	19.16	105	1012614	22.00 ug/l	100
77)	4-Chlorotoluene	19.40	91	866249	20.95 ug/l	100
78)	tert-Butylbenzene	20.07	119	893962	22.17 ug/l	99
79)	1,2,4-Trimethylbenzene	20.18	105	972259	22.47 ug/l	100
80)	sec-Butylbenzene	20.62	105	1383104	22.79 ug/l	100
81)	p-Isopropyltoluene	20.95	119	905587	24.19 ug/l	100
82)	1,3-Dichlorobenzene	21.31	146	585610	21.23 ug/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC498.D Vial: 16
Acq On : 23 Mar 2006 10:18 pm Operator: CGM
Sample : VO67C2313 Inst : TO67
Misc : 20ppb 8260/80ppb Ket-AA/100ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:15 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:14:37 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
83)	1,4-Dichlorobenzene	21.58	146	566748	21.03 ug/l	99
84)	n-Butylbenzene	22.02	91	775035	24.94 ug/l	100
85)	1,2-Dichlorobenzene	22.58	146	524285	20.97 ug/l	99
86)	1,2-Dibromo-3-chloropropan	24.66	157	45706	25.67 ug/l	99
87)	1,2,4-Trichlorobenzene	27.07	180	182568	23.73 ug/l	100
88)	Hexachlorobutadiene	27.43	225	96892	24.19 ug/l	98
89)	Naphthalene	27.83	128	350633	22.07 ug/l	100
90)	1,2,3-Trichlorobenzene	28.50	180	146034	22.91 ug/l	100

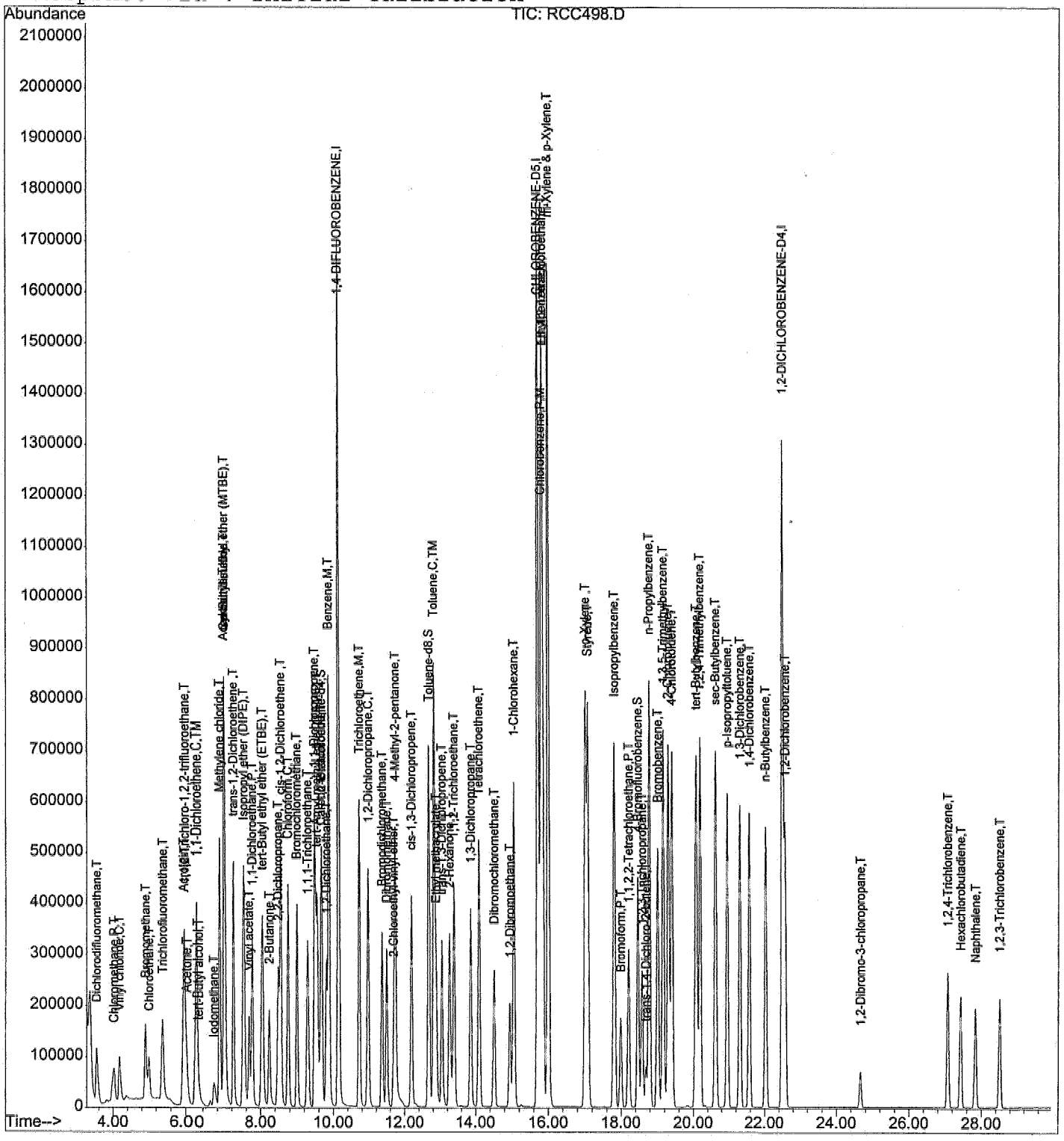
(#) = qualifier out of range (m) = manual integration
RCC498.D VO67C23.M Fri Mar 24 11:24:49 2006 3/28/06 Page 3

2093

Quantitation Report

Data File : D:\HPCHEM\1\DATA\06C23\RCC498.D Vial: 16
Acq On : 23 Mar 2006 10:18 pm Operator: CGM
Sample : VO67C2313 Inst : TO67
Misc : 20ppb 8260/80ppb Ket-AA/100ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 24 11:15 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Fri Mar 24 11:23:02 2006
Response via : Initial Calibration



3/24/06

2094

SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\06C23\RCC499.D Vial: 17
Acq On : 23 Mar 2006 10:53 pm Operator: CGM
Sample : IVO67C231 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006 * Not valid for compound # 72-
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	50.000	50.000	0.0	112	0.00
2	T	Dichlorodifluoromethane	50.000	52.550	-5.1	117	0.01
3	P,T	Chloromethane	50.000	53.659	-7.3	123	0.01
4	C,T	Vinyl chloride	50.000	58.865	-17.7	134	0.00
5	T	Bromomethane	50.000	58.307	-16.6	140	0.00
6	T	Chloroethane	50.000	53.317	-6.6	121	0.00
7	T	Trichlorofluoromethane	50.000	53.578	-7.2	121	0.00
8	T	sec-Propyl alcohol	-1.000	0.000	0.0	26	0.00
9	T	Acrolein	200.000	204.602	-2.3	109	0.00
10	T	1,1,2-Trichloro-1,2,2-trifl	50.000	47.755	4.5	107	0.00
11	T	Acetone	200.000	192.905	3.5	103	0.00
12	C,TM	1,1-Dichloroethene	50.000	46.855	6.3	102	0.00
13	T	tert-Butyl alcohol	250.000	253.960	-1.6	101	0.00
14	T	Acetonitrile	-1.000	0.000	0.0	102	0.00
15		Methyl acetate	-1.000	0.000	0.0	224	0.00
16	T	Iodomethane	50.000	47.346	5.3	119	0.00
17	T	Methylene chloride	50.000	48.572	2.9	102	0.00
18	T	Carbon disulfide	50.000	53.663	-7.3	114	0.00
19	T	Acrylonitrile	200.000	201.499	-0.7	103	0.00
20	T	tert-Butyl methyl ether (MT	50.000	50.124	-0.2	108	0.00
21	T	trans-1,2-Dichloroethene	50.000	49.813	0.4	105	0.01
22	T	Isopropyl ether (DIPE)	50.000	50.065	-0.1	107	0.00
23	P,T	1,1-Dichloroethane	50.000	49.602	0.8	106	0.00
24	T	Vinyl acetate	50.000	44.928	10.1	91	0.00
25	T	tert-Butyl ethyl ether (ETB	50.000	50.811	-1.6	110	0.00
26	T	2-Butanone	200.000	195.740	2.1	101	0.00
27	T	2,2-Dichloropropane	50.000	49.284	1.4	105	0.00
28	T	cis-1,2-Dichloroethene	50.000	49.222	1.6	103	0.00
29	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	111	0.00
30	C,T	Chloroform	50.000	50.361	-0.7	109	0.00
31	T	Bromochloromethane	50.000	48.362	3.3	103	0.00
32	T	1,1,1-Trichloroethane	50.000	48.692	2.6	106	0.00
33	T	Cyclohexane	-1.000	0.000	0.0	75	0.00
34	T	tert-Amyl methyl ether (TAM	50.000	50.153	-0.3	108	0.00
35	S	1,2-Dichloroethane-d4	50.000	51.266	-2.5	134	0.00
36	I	CHLOROBENZENE-D5	50.000	50.000	0.0	110	0.00
37	T	1,1-Dichloropropene	50.000	47.739	4.5	102	0.00
38	T	Carbon tetrachloride	50.000	49.098	1.8	106	0.00
39	T	1,2-Dichloroethane	50.000	48.571	2.9	103	0.00
40	M,T	Benzene	50.000	48.927	2.1	106	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\06C23\RCC499.D Vial: 17
Acq On : 23 Mar 2006 10:53 pm Operator: CGM
Sample : IVO67C231 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	M,T	Trichloroethene	50.000	49.034	1.9	108	0.00
42	T	Methylcyclohexane	-1.000	0.000	0.0	109	0.00
43	C,T	1,2-Dichloropropane	50.000	48.155	3.7	102	0.00
44	T	Bromodichloromethane	50.000	47.119	5.8	101	0.00
45	T	Dibromomethane	50.000	49.866	0.3	105	0.00
46	T	2-Chloroethyl vinyl ether	50.000	52.088	-4.2	109	0.00
47	T	4-Methyl-2-pentanone	200.000	198.504	0.7	102	0.00
48	T	cis-1,3-Dichloropropene	50.000	48.309	3.4	102	0.00
49	S	Toluene-d8	50.000	51.095	-2.2	140	0.00
50	C,TM	Toluene	50.000	49.352	1.3	107	0.00
51	T	Ethyl methacrylate	50.000	49.630	0.7	102	0.00
52	T	trans-1,3-Dichloropropene	50.000	53.573	-7.1	112	0.00
53	T	1,1,2-Trichloroethane	50.000	47.847	4.3	102	0.00
54	T	2-Hexanone	200.000	192.202	3.9	104	0.00
55	T	1,3-Dichloropropane	50.000	47.877	4.2	103	0.00
56	T	Tetrachloroethene	50.000	49.896	0.2	109	0.01
57	T	Dibromochloromethane	50.000	50.129	-0.3	107	0.00
58	T	1,2-Dibromoethane	50.000	49.262	1.5	103	0.00
59	T	1-Chlorohexane	50.000	50.052	-0.1	105	0.00
60	P,M	Chlorobenzene	50.000	49.013	2.0	107	0.00
61	T	1,1,1,2-Tetrachloroethane	50.000	49.660	0.7	107	0.00
62	C,T	Ethylbenzene	50.000	49.658	0.7	105	0.01
63	T	m-Xylene & p-Xylene	100.000	99.222	0.8	107	0.00
64	T	o-Xylene	50.000	49.121	1.8	104	0.00
65	T	Styrene	50.000	48.506	3.0	101	0.00
66	I	1,2-DICHLOROBENZENE-D4	50.000	50.000	0.0	110	0.00
67	P,T	Bromoform	50.000	48.217	3.6	103	0.00
68	T	Isopropylbenzene	50.000	53.398	-6.8	116	0.00
69	P,T	1,1,2,2-Tetrachloroethane	50.000	46.172	7.7	98	0.00
70	S	4-Bromofluorobenzene	50.000	51.593	-3.2	136	0.00
71	T	1,2,3-Trichloropropane	50.000	46.576	6.8	96	0.00
72	T	trans-1,4-Dichloro-2-butene	50.000	68.244	-36.5#	141	0.00
73	T	n-Propylbenzene	50.000	49.821	0.4	104	0.00
74	T	Bromobenzene	50.000	48.413	3.2	109	0.00
75	T	2-Chlorotoluene	50.000	48.166	3.7	104	0.00
76	T	1,3,5-Trimethylbenzene	50.000	50.089	-0.2	107	0.00
77	T	4-Chlorotoluene	50.000	47.423	5.2	107	0.00
78	T	tert-Butylbenzene	50.000	49.378	1.2	105	0.00
79	T	1,2,4-Trimethylbenzene	50.000	50.092	-0.2	105	0.00
80	T	sec-Butylbenzene	50.000	47.433	5.1	98	0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\06C23\RCC499.D Vial: 17
Acq On : 23 Mar 2006 10:53 pm Operator: CGM
Sample : IVO67C231 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	p-Isopropyltoluene	50.000	54.612	-9.2	112	0.00
82	T	1,3-Dichlorobenzene	50.000	47.816	4.4	106	0.00
83	T	1,4-Dichlorobenzene	50.000	47.187	5.6	105	0.00
84	T	n-Butylbenzene	50.000	45.772	8.5	109	0.00
85	T	1,2-Dichlorobenzene	50.000	48.204	3.6	107	0.00
86	T	1,2-Dibromo-3-chloropropane	50.000	49.582	0.8	103	0.00
87	T	1,2,4-Trichlorobenzene	50.000	44.036	11.9	109	0.00
88	T	Hexachlorobutadiene	50.000	48.576	2.8	103	0.00
89	T	Naphthalene	50.000	41.482	17.0	109	0.00
90	T	1,2,3-Trichlorobenzene	50.000	43.907	12.2	109	0.00

3/28/06

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\06C23\RCC499.D Vial: 17
Acq On : 23 Mar 2006 10:53 pm Operator: CGM
Sample : IVO67C231 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Multiple Level Calibration * Not valid for compound #72.

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	112	0.00
2	T	Dichlorodifluoromethane	0.247	0.260	-5.3	117	0.01
3	P,T	Chloromethane	0.207	0.223	-7.7	123	0.01
4	C,T	Vinyl chloride	0.172	0.168	2.3	134	0.00
5	T	Bromomethane	0.189	0.197	-4.2	140	0.00
6	T	Chloroethane	0.115	0.123	-7.0	121	0.00
7	T	Trichlorofluoromethane	0.250	0.268	-7.2	121	0.00
8	T	sec-Propyl alcohol	0.000	0.000	0.0	26#	0.00
9	T	Acrolein	0.030	0.031	-3.3	109	0.00
10	T	1,1,2-Trichloro-1,2,2-trifl	0.187	0.178	4.8	107	0.00
11	T	Acetone	0.056	0.054	3.6	103	0.00
12	C,TM	1,1-Dichloroethene	0.375	0.351	6.4	102	0.00
13	T	tert-Butyl alcohol	0.019	0.019	0.0	101	0.00
14	T	Acetonitrile	0.000	0.000	0.0	102	0.00
15		Methyl acetate	0.000	0.000	0.0	224#	0.00
16	T	Iodomethane	0.242	0.289	-19.4	119	0.00
17	T	Methylene chloride	0.444	0.390	12.2	102	0.00
18	T	Carbon disulfide	0.946	1.015	-7.3	114	0.00
19	T	Acrylonitrile	0.075	0.076	-1.3	103	0.00
20	T	tert-Butyl methyl ether (MT	0.495	0.496	-0.2	108	0.00
21	T	trans-1,2-Dichloroethene	0.383	0.382	0.3	105	0.01
22	T	Isopropyl ether (DIPE)	0.868	0.869	-0.1	107	0.00
23	P,T	1,1-Dichloroethane	0.489	0.485	0.8	106	0.00
24	T	Vinyl acetate	0.468	0.421	10.0	91	0.00
25	T	tert-Butyl ethyl ether (ETB	0.638	0.648	-1.6	110	0.00
26	T	2-Butanone	0.113	0.111	1.8	101	0.00
27	T	2,2-Dichloropropane	0.303	0.298	1.7	105	0.00
28	T	cis-1,2-Dichloroethene	0.438	0.431	1.6	103	0.00
29	T	tert-Butyl formate (TBF)	0.000	0.000	0.0	111	0.00
30	C,T	Chloroform	0.476	0.479	-0.6	109	0.00
31	T	Bromochloromethane	0.265	0.256	3.4	103	0.00
32	T	1,1,1-Trichloroethane	0.340	0.331	2.6	106	0.00
33	T	Cyclohexane	0.000	0.000	0.0	75	0.00
34	T	tert-Amyl methyl ether (TAM	0.671	0.673	-0.3	108	0.00
35	S	1,2-Dichloroethane-d4	0.217	0.222	-2.3	134	0.00
36	I	CHLOROBENZENE-D5	1.000	1.000	0.0	110	0.00
37	T	1,1-Dichloropropene	0.143	0.136	4.9	102	0.00
38	T	Carbon tetrachloride	0.334	0.328	1.8	106	0.00
39	T	1,2-Dichloroethane	0.312	0.303	2.9	103	0.00
40	M,T	Benzene	1.368	1.339	2.1	106	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\06C23\RCC499.D Vial: 17
Acq On : 23 Mar 2006 10:53 pm Operator: CGM
Sample : IVO67C231 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	M,T	Trichloroethene	0.377	0.370	1.9	108	0.00
42	T	Methylcyclohexane	0.000	0.000	0.0	109	0.00
43	C,T	1,2-Dichloropropane	0.370	0.356	3.8	102	0.00
44	T	Bromodichloromethane	0.402	0.379	5.7	101	0.00
45	T	Dibromomethane	0.223	0.223	0.0	105	0.00
46	T	2-Chloroethyl vinyl ether	0.056	0.058	-3.6	109	0.00
47	T	4-Methyl-2-pentanone	0.285	0.283	0.7	102	0.00
48	T	cis-1,3-Dichloropropene	0.472	0.456	3.4	102	0.00
49	S	Toluene-d8	1.103	1.127	-2.2	140	0.00
50	C,TM	Toluene	1.317	1.300	1.3	107	0.00
51	T	Ethyl methacrylate	0.325	0.322	0.9	102	0.00
52	T	trans-1,3-Dichloropropene	0.340	0.364	-7.1	112	0.00
53	T	1,1,2-Trichloroethane	0.276	0.264	4.3	102	0.00
54	T	2-Hexanone	0.191	0.180	5.8	104	0.00
55	T	1,3-Dichloropropane	0.468	0.448	4.3	103	0.00
56	T	Tetrachloroethene	0.261	0.260	0.4	109	0.01
57	T	Dibromochloromethane	0.309	0.310	-0.3	107	0.00
58	T	1,2-Dibromoethane	0.306	0.301	1.6	103	0.00
59	T	1-Chlorohexane	0.506	0.506	0.0	105	0.00
60	P,M	Chlorobenzene	0.908	0.890	2.0	107	0.00
61	T	1,1,1,2-Tetrachloroethane	0.284	0.282	0.7	107	0.00
62	C,T	Ethylbenzene	1.421	1.412	0.6	105	0.01
63	T	m-Xylene & p-Xylene	1.066	1.058	0.8	107	0.00
64	T	o-Xylene	1.096	1.077	1.7	104	0.00
65	T	Styrene	0.885	0.858	3.1	101	0.00
66	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	110	0.00
67	P,T	Bromoform	0.508	0.490	3.5	103	0.00
68	T	Isopropylbenzene	3.561	3.803	-6.8	116	0.00
69	P,T	1,1,2,2-Tetrachloroethane	1.192	1.101	7.6	98	0.00
70	S	4-Bromofluorobenzene	1.063	1.097	-3.2	136	0.00
71	T	1,2,3-Trichloropropane	0.199	0.185	7.0	96	0.00
72	T	trans-1,4-Dichloro-2-butene	0.102	0.139	-36.3#	141	0.00
73	T	n-Propylbenzene	4.721	4.704	0.4	104	0.00
74	T	Bromobenzene	0.925	0.896	3.1	109	0.00
75	T	2-Chlorotoluene	2.960	2.852	3.6	104	0.00
76	T	1,3,5-Trimethylbenzene	2.893	2.898	-0.2	107	0.00
77	T	4-Chlorotoluene	2.543	2.412	5.2	107	0.00
78	T	tert-Butylbenzene	2.549	2.517	1.3	105	0.00
79	T	1,2,4-Trimethylbenzene	2.782	2.788	-0.2	105	0.00
80	T	sec-Butylbenzene	4.020	3.814	5.1	98	0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\06C23\RCC499.D Vial: 17
Acq On : 23 Mar 2006 10:53 pm Operator: CGM
Sample : IVO67C231 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	p-Isopropyltoluene	2.637	2.881	-9.3	112	0.00
82	T	1,3-Dichlorobenzene	1.707	1.632	4.4	106	0.00
83	T	1,4-Dichlorobenzene	1.679	1.584	5.7	105	0.00
84	T	n-Butylbenzene	2.510	2.563	-2.1	109	0.00
85	T	1,2-Dichlorobenzene	1.540	1.484	3.6	107	0.00
86	T	1,2-Dibromo-3-chloropropane	0.137	0.136	0.7	103	0.00
87	T	1,2,4-Trichlorobenzene	0.588	0.579	1.5	109	0.00
88	T	Hexachlorobutadiene	0.311	0.291	6.4	103	0.00
89	T	Naphthalene	1.203	1.135	5.7	109	0.00
90	T	1,2,3-Trichlorobenzene	0.479	0.472	1.5	109	0.00

3/28/06

2101

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC499.D Vial: 17
Acq On : 23 Mar 2006 10:53 pm Operator: CGM
Sample : IVO67C231 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 28 9:44 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

* Not valid for compound # 72.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.14	114	2722743	50.00	ug/l	0.00
36) CHLOROBENZENE-D5	15.71	117	2441749	50.00	ug/l	0.00
66) 1,2-DICHLOROBENZENE-D4	22.50	152	874892	50.00	ug/l	0.00
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.68	65	605669	51.27	ug/l	0.00
Spiked Amount 50.000			Recovery =	102.54%		
49) Toluene-d8	12.67	98	2752560	51.10	ug/l	0.00
Spiked Amount 50.000			Recovery =	102.20%		
70) 4-Bromofluorobenzene	18.46	95	959833	51.59	ug/l	0.00
Spiked Amount 50.000			Recovery =	103.18%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.54	85	706732	52.55	ug/l	100
3) Chloromethane	4.03	50	606225	53.66	ug/l	98
4) Vinyl chloride	4.16	62	456328	58.86	ug/l	100
5) Bromomethane	4.89	94	537551	58.31	ug/l	100
6) Chloroethane	5.00	64	334837	53.32	ug/l	99
7) Trichlorofluoromethane	5.37	101	729357	53.58	ug/l	100
9) Acrolein	5.94	56	336002	204.60	ug/l	98
10) 1,1,2-Trichloro-1,2,2-trif	5.95	151	485024	47.75	ug/l	100
11) Acetone	6.01	43	592864	192.91	ug/l	99
12) 1,1-Dichloroethene	6.24	61	956238	46.85	ug/l	99
13) tert-Butyl alcohol	6.26	59	263777	253.96	ug/l	95
16) Iodomethane	6.70	142	786920	47.35	ug/l	99
17) Methylene chloride	6.86	49	1060621	48.57	ug/l	98
18) Carbon disulfide	6.99	76	2764689	53.66	ug/l	100
19) Acrylonitrile	6.98	53	826061	201.50	ug/l	99
20) tert-Butyl methyl ether (M	6.99	73	1350206	50.12	ug/l	99
21) trans-1,2-Dichloroethene	7.25	61	1039036	49.81	ug/l	98
22) Isopropyl ether (DIPE)	7.53	45	2367077	50.06	ug/l	100
23) 1,1-Dichloroethane	7.77	63	1321215	49.60	ug/l	99
24) Vinyl acetate	7.68	43	1146166	44.93	ug/l	99
25) tert-Butyl ethyl ether (ET	8.05	59	1764885	50.81	ug/l	99
26) 2-Butanone	8.23	43	1205813	195.74	ug/l	99
27) 2,2-Dichloropropane	8.48	77	812737	49.28	ug/l	99
28) cis-1,2-Dichloroethene	8.56	61	1174580	49.22	ug/l	98
30) Chloroform	8.75	83	1304918	50.36	ug/l	99
31) Bromochloromethane	8.99	49	697888	48.36	ug/l	95
32) 1,1,1-Trichloroethane	9.29	97	902521	48.69	ug/l	99
34) tert-Amyl methyl ether (TA	9.54	73	1833165	50.15	ug/l	99
37) 1,1-Dichloropropene	9.48	77	332501	47.74	ug/l	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC499.D Vial: 17
Acq On : 23 Mar 2006 10:53 pm Operator: CGM
Sample : IVO67C231 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 28 9:44 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38)	Carbon tetrachloride	9.66	119	801110	49.10	ug/l	99
39)	1,2-Dichloroethane	9.81	62	740793	48.57	ug/l	100
40)	Benzene	9.87	78	3268768	48.93	ug/l	99
41)	Trichloroethene	10.72	130	902903	49.03	ug/l	98
43)	1,2-Dichloropropane	10.97	63	869199	48.16	ug/l	99
44)	Bromodichloromethane	11.36	83	925983	47.12	ug/l	100
45)	Dibromomethane	11.49	93	544112	49.87	ug/l	98
46)	2-Chloroethyl vinyl ether	11.67	63	141272	52.09	ug/l	99
47)	4-Methyl-2-pentanone	11.72	43	2764316	198.50	ug/l	100
48)	cis-1,3-Dichloropropene	12.19	75	1112554	48.31	ug/l	99
50)	Toluene	12.82	91	3173931	49.35	ug/l	100
51)	Ethyl methacrylate	12.88	69	786944	49.63	ug/l	99
52)	trans-1,3-Dichloropropene	13.04	75	888945	53.57	ug/l	98
53)	1,1,2-Trichloroethane	13.38	97	645762	47.85	ug/l	100
54)	2-Hexanone	13.25	43	1756422	192.20	ug/l	99
55)	1,3-Dichloropropane	13.86	76	1094498	47.88	ug/l	100
56)	Tetrachloroethene	14.10	164	634954	49.90	ug/l	100
57)	Dibromochloromethane	14.52	129	757021	50.13	ug/l	100
58)	1,2-Dibromoethane	14.93	107	734987	49.26	ug/l	100
59)	1-Chlorohexane	15.05	91	1236681	50.05	ug/l	99
60)	Chlorobenzene	15.80	112	2174372	49.01	ug/l	99
61)	1,1,1,2-Tetrachloroethane	15.84	131	688220	49.66	ug/l	99
62)	Ethylbenzene	15.84	91	3446658	49.66	ug/l	100
63)	m-Xylene & p-Xylene	15.99	91	5165846	99.22	ug/l	99
64)	o-Xylene	17.00	91	2628868	49.12	ug/l	100
65)	Styrene	17.08	104	2096205	48.51	ug/l	99
67)	Bromoform	17.99	173	428317	48.22	ug/l	99
68)	Isopropylbenzene	17.81	105	3327148	53.40	ug/l	100
69)	1,1,2,2-Tetrachloroethane	18.21	83	963396	46.17	ug/l	99
71)	1,2,3-Trichloropropane	18.58	61	161870	46.58	ug/l	97
72)	trans-1,4-Dichloro-2-buten	18.69	53	121252	68.24	ug/l	98
73)	n-Propylbenzene	18.78	91	4115852	49.82	ug/l	100
74)	Bromobenzene	19.01	156	783792	48.41	ug/l	99
75)	2-Chlorotoluene	19.30	91	2494781	48.17	ug/l	99
76)	1,3,5-Trimethylbenzene	19.16	105	2535207	50.09	ug/l	100
77)	4-Chlorotoluene	19.40	91	2110082	47.42	ug/l	100
78)	tert-Butylbenzene	20.07	119	2202006	49.38	ug/l	100
79)	1,2,4-Trimethylbenzene	20.18	105	2438852	50.09	ug/l	100
80)	sec-Butylbenzene	20.62	105	3336674	47.43	ug/l	100
81)	p-Isopropyltoluene	20.95	119	2520207	54.61	ug/l	99
82)	1,3-Dichlorobenzene	21.31	146	1428237	47.82	ug/l	100

(#) = qualifier out of range (m) = manual integration

3/28/06

2103

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\DATA\06C23\RCC499.D Vial: 17
Acq On : 23 Mar 2006 10:53 pm Operator: CGM
Sample : IVO67C231 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 28 9:44 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
83)	1,4-Dichlorobenzene	21.58	146	1385945	47.19	ug/l	100
84)	n-Butylbenzene	22.02	91	2242136	45.77	ug/l	100
85)	1,2-Dichlorobenzene	22.57	146	1298678	48.20	ug/l	99
86)	1,2-Dibromo-3-chloropropan	24.66	157	118792	49.58	ug/l	99
87)	1,2,4-Trichlorobenzene	27.07	180	506191	44.04	ug/l	100
88)	Hexachlorobutadiene	27.43	225	254875	48.58	ug/l	100
89)	Naphthalene	27.83	128	993008	41.48	ug/l	100
90)	1,2,3-Trichlorobenzene	28.50	180	413073	43.91	ug/l	98

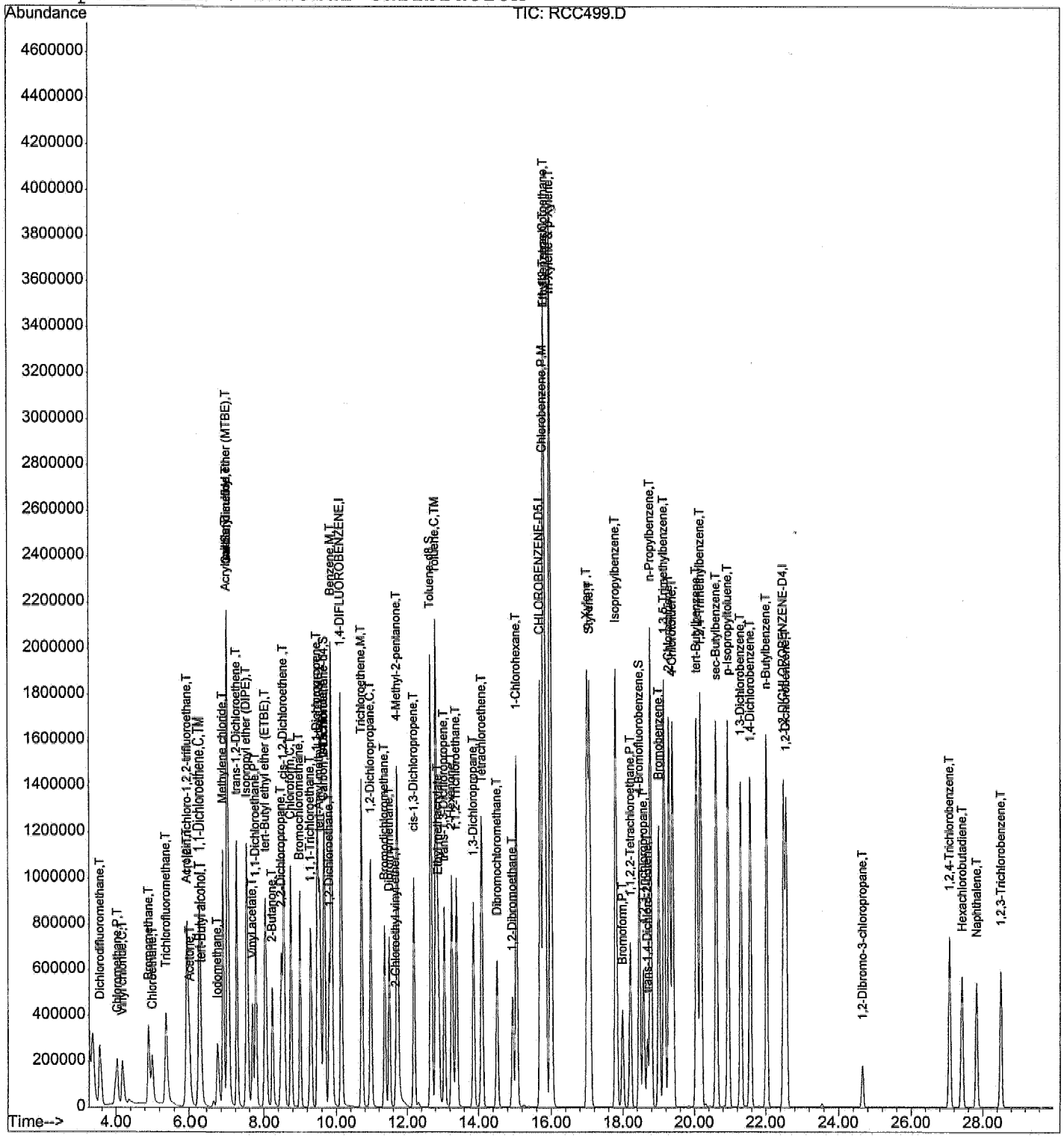
(#) = qualifier out of range (m) = manual integration
RCC499.D VO67C23.M Tue Mar 28 09:50:32 2006 3/28/06 Page 3

2104

Quantitation Report

Data File : D:\HPCHEM\1\DATA\06C23\RCC499.D Vial: 17
Acq On : 23 Mar 2006 10:53 pm Operator: CGM
Sample : IVO67C231 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 28 9:44 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration



3/24/06

2105

DAILY CALIBRATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RCC671
Instrument ID: T-067
GC Column:RTX502.2ID:0.32mm (mm)

Contract: UPGRADIENT INVESTIGATION, TRONOX
SAS No.: SDG No.: 06C222
BFB Injection Date : 03/30/06
BFB Injection Time : 04:25
Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.55
75	30.0 - 60.0% of mass 95	41.23
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.66
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	72.91
175	5.0 - 9.0% of mass 174	5.60(7.7)1
176	95.0 - 101.0% of mass 174	70.67(96.9)1
177	5.0 - 9.0% of mass 176	4.68(6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD050	CV067C2317	RCC672	03/30/06	05:01
2	MBLK1W	V067C47Q	RCC677	03/30/06	08:00
3	LCS1W	V067C47L	RCC674	03/30/06	06:13
4	LCD1W	V067C47C	RCC675	03/30/06	06:48
5	TRIP BLANK	C222-04	RCC683	03/30/06	11:42
6	M-121	C222-01	RCC685	03/30/06	12:53
7	M-117	C222-02	RCC686	03/30/06	13:29
8	H-11	C222-03	RCC687	03/30/06	14:05
9	M-121MS	C222-01M	RCC689	03/30/06	15:16
10	M-121MSD	C222-01S	RCC690	03/30/06	15:52

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RCC488
Instrument ID: T-067
GC Column: RTX502.2 ID: 0.32mm (mm)

Project: UPGRADIENT INVESTIGATION, TRONOX
SDG No.: 06C222
Date Analyzed: 03/23/06
Time Analyzed: 16:23
Heated Purge: (Y/N) Y

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2430846	10.14	2219848	15.71	796276	22.50
	UPPER LIMIT	4861692	10.64	4439696	16.21	1592552	23.00
	LOWER LIMIT	1215423	9.64	1109924	15.21	398138	22.00
	SAMPLE ID						
1	VSTD050	2622597	10.16	2457226	15.73	883625	22.52
2	MBLK1W	2522652	10.15	2174431	15.72	573843	22.51
3	LCS1W	2699040	10.15	2472947	15.72	821799	22.52
4	LCD1W	2786681	10.15	2583573	15.72	883377	22.51
5	TRIP BLANK	2440646	10.15	2128180	15.72	588933	22.52
6	M-121	2352252	10.15	1984448	15.72	552082	22.52
7	M-117	2364880	10.16	2068341	15.72	550550	22.51
8	H-11	2352292	10.15	2064091	15.72	572799	22.51
9	M-121MS	2257760	10.15	2066536	15.72	755902	22.51
10	M-121MSD	2386046	10.16	2157820	15.72	772377	22.51

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

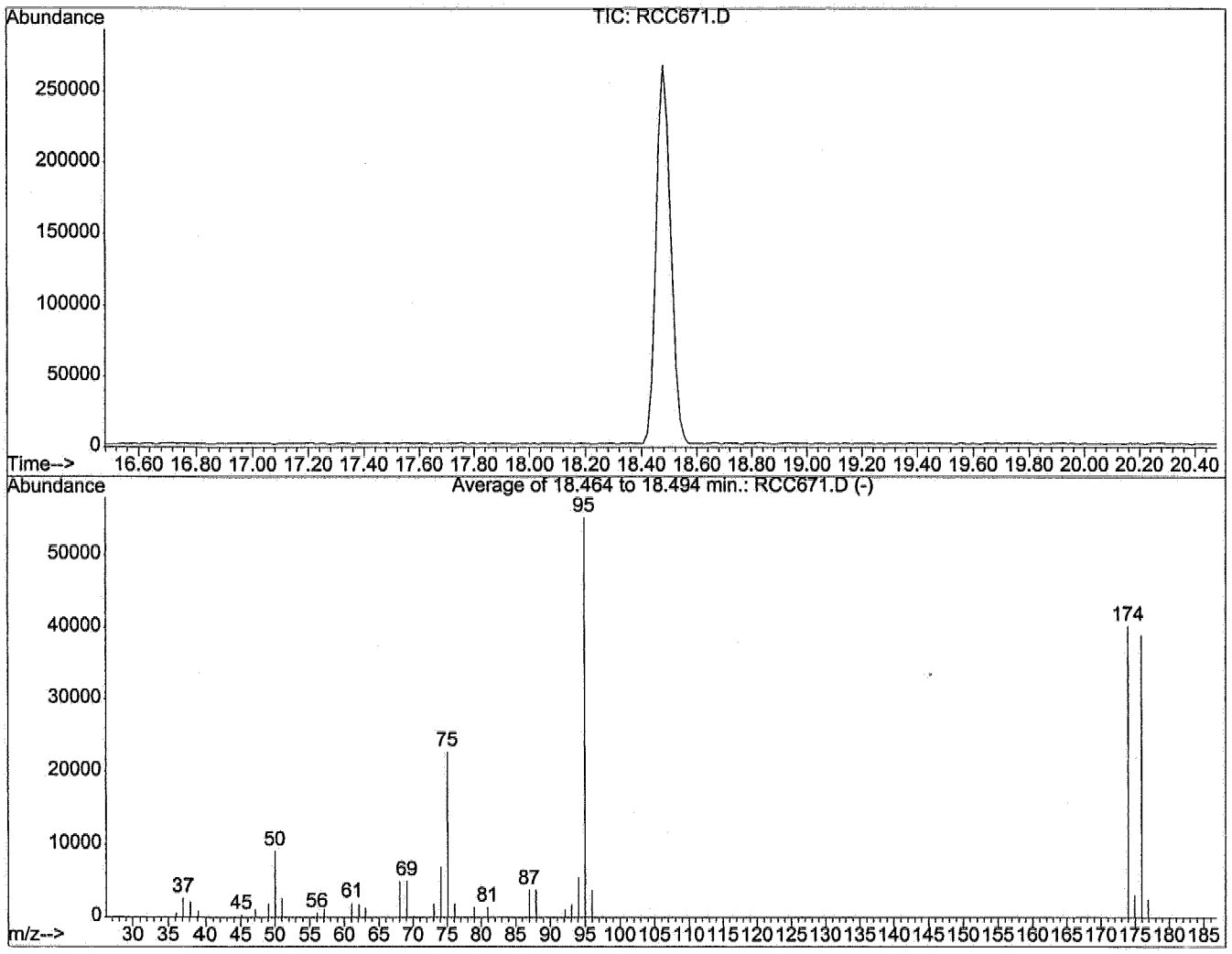
AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

BFB

Data File : D:\HPCHEM\1\DATA\06C29\RCC671.D
Acq On : 30 Mar 2006 4:25 am
Sample : BFB67C47
Misc : BFB TUNE
MS Integration Params: LSCINT.P
Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml

Vial: 2
Operator: CGM
Inst : TO67
Multiplr: 1.00



AutoFind: Scans 1023, 1024, 1025; Background Corrected with Scan 1018

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.5	9129	PASS
75	95	30	60	41.2	22747	PASS
95	95	100	100	100.0	55168	PASS
96	95	5	9	6.7	3677	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	72.9	40221	PASS
175	174	5	9	7.7	3090	PASS
176	174	95	101	96.9	38987	PASS
177	176	5	9	6.6	2584	PASS

RCC671.D VO67C23.M Thu Mar 30 11:07:03 2006

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\06C29\RCC672.D Vial: 3
Acq On : 30 Mar 2006 5:01 am Operator: CGM
Sample : CVO67C2317 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	50.000	50.000	0.0	108	0.02
2	T	Dichlorodifluoromethane	50.000	53.819	-7.6	116	0.02
3	P,T	Chloromethane	50.000	54.895	-9.8	121	0.02
4	C,T	Vinyl chloride	50.000	49.764	0.5	115	0.02
5	T	Bromomethane	50.000	43.810	12.4	103	0.02
6	T	Chloroethane	50.000	56.077	-12.2	123	0.02
7	T	Trichlorofluoromethane	50.000	55.148	-10.3	120	0.02
8	T	sec-Propyl alcohol	-1.000	0.000	0.0	104	0.02
9	T	Acrolein	200.000	219.009	-9.5	113	0.02
10	T	1,1,2-Trichloro-1,2,2-trifl	50.000	52.527	-5.1	113	0.02
11	T	Acetone	200.000	212.319	-6.2	109	0.02
12	C,TM	1,1-Dichloroethene	50.000	51.316	-2.6	108	0.02
13	T	tert-Butyl alcohol	250.000	251.054	-0.4	96	0.02
14	T	Acetonitrile	-1.000	0.000	0.0	109	0.02
15		Methyl acetate	-1.000	0.000	0.0	125	0.02
16	T	Iodomethane	50.000	47.064	5.9	114	0.02
17	T	Methylene chloride	50.000	53.580	-7.2	108	0.00
18	T	Carbon disulfide	50.000	49.863	0.3	102	0.02
19	T	Acrylonitrile	200.000	227.258	-13.6	112	0.00
20	T	tert-Butyl methyl ether (MT	50.000	55.104	-10.2	114	0.02
21	T	trans-1,2-Dichloroethene	50.000	51.322	-2.6	104	0.02
22	T	Isopropyl ether (DIPE)	50.000	54.607	-9.2	113	0.00
23	P,T	1,1-Dichloroethane	50.000	52.766	-5.5	108	0.02
24	T	Vinyl acetate	50.000	50.906	-1.8	100	0.02
25	T	tert-Butyl ethyl ether (ETB	50.000	54.794	-9.6	114	0.00
26	T	2-Butanone	200.000	222.699	-11.3	111	0.02
27	T	2,2-Dichloropropane	50.000	48.413	3.2	99	0.02
28	T	cis-1,2-Dichloroethene	50.000	52.753	-5.5	106	0.00
29	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	124	0.00
30	C,T	Chloroform	50.000	53.590	-7.2	111	0.02
31	T	Bromochloromethane	50.000	53.857	-7.7	110	0.02
32	T	1,1,1-Trichloroethane	50.000	50.891	-1.8	106	0.02
33	T	Cyclohexane	-1.000	0.000	0.0	109	0.02
34	T	tert-Amyl methyl ether (TAM	50.000	55.716	-11.4	116	0.02
35	S	1,2-Dichloroethane-d4	50.000	51.690	-3.4	130	0.02
36	I	CHLOROBENZENE-D5	50.000	50.000	0.0	111	0.02
37	T	1,1-Dichloropropene	50.000	49.243	1.5	106	0.02
38	T	Carbon tetrachloride	50.000	49.672	0.7	108	0.02
39	T	1,2-Dichloroethane	50.000	51.285	-2.6	109	0.00
40	M,T	Benzene	50.000	49.447	1.1	108	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\06C29\RCC672.D Vial: 3
Acq On : 30 Mar 2006 5:01 am Operator: CGM
Sample : CVO67C2317 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	M,T	Trichloroethene	50.000	50.315	-0.6	111	0.00
42	T	Methylcyclohexane	-1.000	0.000	0.0	104	0.00
43	C,T	1,2-Dichloropropane	50.000	51.727	-3.5	110	0.00
44	T	Bromodichloromethane	50.000	51.556	-3.1	111	0.02
45	T	Dibromomethane	50.000	51.777	-3.6	109	0.00
46	T	2-Chloroethyl vinyl ether	50.000	37.661	24.7#	79	0.02
47	T	4-Methyl-2-pentanone	200.000	212.067	-6.0	110	0.02
48	T	cis-1,3-Dichloropropene	50.000	51.831	-3.7	110	0.02
49	S	Toluene-d8	50.000	47.399	5.2	131	0.02
50	C,TM	Toluene	50.000	50.133	-0.3	109	0.02
51	T	Ethyl methacrylate	50.000	53.889	-7.8	112	0.02
52	T	trans-1,3-Dichloropropene	50.000	52.118	-4.2	110	0.02
53	T	1,1,2-Trichloroethane	50.000	52.856	-5.7	113	0.02
54	T	2-Hexanone	200.000	193.251	3.4	105	0.02
55	T	1,3-Dichloropropane	50.000	52.144	-4.3	112	0.02
56	T	Tetrachloroethene	50.000	48.730	2.5	107	0.02
57	T	Dibromochloromethane	50.000	54.356	-8.7	117	0.00
58	T	1,2-Dibromoethane	50.000	52.948	-5.9	111	0.02
59	T	1-Chlorohexane	50.000	51.496	-3.0	109	0.02
60	P,M	Chlorobenzene	50.000	51.102	-2.2	112	0.02
61	T	1,1,1,2-Tetrachloroethane	50.000	53.238	-6.5	116	0.02
62	C,T	Ethylbenzene	50.000	51.435	-2.9	110	0.02
63	T	m-Xylene & p-Xylene	100.000	103.017	-3.0	111	0.02
64	T	o-Xylene	50.000	52.557	-5.1	112	0.02
65	T	Styrene	50.000	53.787	-7.6	113	0.02
66	I	1,2-DICHLOROBENZENE-D4	50.000	50.000	0.0	111	0.02
67	P,T	Bromoform	50.000	52.148	-4.3	113	0.02
68	T	Isopropylbenzene	50.000	50.604	-1.2	111	0.00
69	P,T	1,1,2,2-Tetrachloroethane	50.000	49.224	1.6	105	0.00
70	S	4-Bromofluorobenzene	50.000	49.978	0.0	133	0.02
71	T	1,2,3-Trichloropropane	50.000	49.802	0.4	104	0.00
72	T	trans-1,4-Dichloro-2-butene	50.000	43.453	13.1	91	0.00
73	T	n-Propylbenzene	50.000	50.159	-0.3	106	0.02
74	T	Bromobenzene	50.000	50.800	-1.6	116	0.02
75	T	2-Chlorotoluene	50.000	48.599	2.8	106	0.02
76	T	1,3,5-Trimethylbenzene	50.000	51.961	-3.9	112	0.00
77	T	4-Chlorotoluene	50.000	52.794	-5.6	120	0.00
78	T	tert-Butylbenzene	50.000	52.091	-4.2	112	0.00
79	T	1,2,4-Trimethylbenzene	50.000	51.368	-2.7	109	0.02
80	T	sec-Butylbenzene	50.000	52.589	-5.2	110	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\06C29\RCC672.D Vial: 3
Acq On : 30 Mar 2006 5:01 am Operator: CGM
Sample : CVO67C2317 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	p-Isopropyltoluene	50.000	52.453	-4.9	109	0.00
82	T	1,3-Dichlorobenzene	50.000	50.047	-0.1	112	0.00
83	T	1,4-Dichlorobenzene	50.000	50.135	-0.3	113	0.00
84	T	n-Butylbenzene	50.000	42.540	14.9	102	0.02
85	T	1,2-Dichlorobenzene	50.000	51.168	-2.3	115	0.02
86	T	1,2-Dibromo-3-chloropropane	50.000	48.955	2.1	103	0.02
87	T	1,2,4-Trichlorobenzene	50.000	40.408	19.2	100	0.02
88	T	Hexachlorobutadiene	50.000	50.095	-0.2	107	0.02
89	T	Naphthalene	50.000	36.528	26.9#	96	0.02
90	T	1,2,3-Trichlorobenzene	50.000	40.460	19.1	100	0.02

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\06C29\RCC672.D Vial: 3
Acq On : 30 Mar 2006 5:01 am Operator: CGM
Sample : CV067C2317 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	108	0.02
2	T	Dichlorodifluoromethane	0.247	0.266	-7.7	116	0.02
3	P,T	Chloromethane	0.207	0.228	-10.1	121	0.02
4	C,T	Vinyl chloride	0.172	0.149	13.4	115	0.02
5	T	Bromomethane	0.189	0.151	20.1#	103	0.02
6	T	Chloroethane	0.115	0.129	-12.2	123	0.02
7	T	Trichlorofluoromethane	0.250	0.276	-10.4	120	0.02
8	T	sec-Propyl alcohol	0.000	0.000	0.0	104	0.02
9	T	Acrolein	0.030	0.033	-10.0	113	0.02
10	T	1,1,2-Trichloro-1,2,2-trifl	0.187	0.196	-4.8	113	0.02
11	T	Acetone	0.056	0.060	-7.1	109	0.02
12	C,TM	1,1-Dichloroethene	0.375	0.385	-2.7	108	0.02
13	T	tert-Butyl alcohol	0.019	0.019	0.0	96	0.02
14	T	Acetonitrile	0.000	0.000	0.0	109	0.02
15		Methyl acetate	0.000	0.000	0.0	125	0.02
16	T	Iodomethane	0.242	0.287	-18.6	114	0.02
17	T	Methylene chloride	0.444	0.427	3.8	108	0.00
18	T	Carbon disulfide	0.946	0.944	0.2	102	0.02
19	T	Acrylonitrile	0.075	0.086	-14.7	112	0.00
20	T	tert-Butyl methyl ether (MT	0.495	0.545	-10.1	114	0.02
21	T	trans-1,2-Dichloroethene	0.383	0.393	-2.6	104	0.02
22	T	Isopropyl ether (DIPE)	0.868	0.948	-9.2	113	0.00
23	P,T	1,1-Dichloroethane	0.489	0.516	-5.5	108	0.02
24	T	Vinyl acetate	0.468	0.477	-1.9	100	0.02
25	T	tert-Butyl ethyl ether (ETB	0.638	0.699	-9.6	114	0.00
26	T	2-Butanone	0.113	0.126	-11.5	111	0.02
27	T	2,2-Dichloropropane	0.303	0.293	3.3	99	0.02
28	T	cis-1,2-Dichloroethene	0.438	0.462	-5.5	106	0.00
29	T	tert-Butyl formate (TBF)	0.000	0.000	0.0	124	0.00
30	C,T	Chloroform	0.476	0.510	-7.1	111	0.02
31	T	Bromochloromethane	0.265	0.285	-7.5	110	0.02
32	T	1,1,1-Trichloroethane	0.340	0.346	-1.8	106	0.02
33	T	Cyclohexane	0.000	0.000	0.0	109	0.02
34	T	tert-Amyl methyl ether (TAM	0.671	0.748	-11.5	116	0.02
35	S	1,2-Dichloroethane-d4	0.217	0.224	-3.2	130	0.02
36	I	CHLOROBENZENE-D5	1.000	1.000	0.0	111	0.02
37	T	1,1-Dichloropropene	0.143	0.140	2.1	106	0.02
38	T	Carbon tetrachloride	0.334	0.332	0.6	108	0.02
39	T	1,2-Dichloroethane	0.312	0.320	-2.6	109	0.00
40	M,T	Benzene	1.368	1.353	1.1	108	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\06C29\RCC672.D Vial: 3
Acq On : 30 Mar 2006 5:01 am Operator: CGM
Sample : CVO67C2317 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	M,T	Trichloroethene	0.377	0.379	-0.5	111	0.00
42	T	Methylcyclohexane	0.000	0.000	0.0	104	0.00
43	C,T	1,2-Dichloropropane	0.370	0.382	-3.2	110	0.00
44	T	Bromodichloromethane	0.402	0.415	-3.2	111	0.02
45	T	Dibromomethane	0.223	0.231	-3.6	109	0.00
46	T	2-Chloroethyl vinyl ether	0.056	0.042	25.0#	79	0.02
47	T	4-Methyl-2-pentanone	0.285	0.302	-6.0	110	0.02
48	T	cis-1,3-Dichloropropene	0.472	0.489	-3.6	110	0.02
49	S	Toluene-d8	1.103	1.046	5.2	131	0.02
50	C,TM	Toluene	1.317	1.320	-0.2	109	0.02
51	T	Ethyl methacrylate	0.325	0.350	-7.7	112	0.02
52	T	trans-1,3-Dichloropropene	0.340	0.354	-4.1	110	0.02
53	T	1,1,2-Trichloroethane	0.276	0.292	-5.8	113	0.02
54	T	2-Hexanone	0.191	0.181	5.2	105	0.02
55	T	1,3-Dichloropropane	0.468	0.488	-4.3	112	0.02
56	T	Tetrachloroethene	0.261	0.254	2.7	107	0.02
57	T	Dibromochloromethane	0.309	0.336	-8.7	117	0.00
58	T	1,2-Dibromoethane	0.306	0.324	-5.9	111	0.02
59	T	1-Chlorohexane	0.506	0.521	-3.0	109	0.02
60	P,M	Chlorobenzene	0.908	0.928	-2.2	112	0.02
61	T	1,1,1,2-Tetrachloroethane	0.284	0.302	-6.3	116	0.02
62	C,T	Ethylbenzene	1.421	1.462	-2.9	110	0.02
63	T	m-Xylene & p-Xylene	1.066	1.098	-3.0	111	0.02
64	T	o-Xylene	1.096	1.152	-5.1	112	0.02
65	T	Styrene	0.885	0.952	-7.6	113	0.02
66	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	111	0.02
67	P,T	Bromoform	0.508	0.529	-4.1	113	0.02
68	T	Isopropylbenzene	3.561	3.604	-1.2	111	0.00
69	P,T	1,1,2,2-Tetrachloroethane	1.192	1.174	1.5	105	0.00
70	S	4-Bromofluorobenzene	1.063	1.063	0.0	133	0.02
71	T	1,2,3-Trichloropropane	0.199	0.198	0.5	104	0.00
72	T	trans-1,4-Dichloro-2-butene	0.102	0.088	13.7	91	0.00
73	T	n-Propylbenzene	4.721	4.736	-0.3	106	0.02
74	T	Bromobenzene	0.925	0.940	-1.6	116	0.02
75	T	2-Chlorotoluene	2.960	2.877	2.8	106	0.02
76	T	1,3,5-Trimethylbenzene	2.893	3.006	-3.9	112	0.00
77	T	4-Chlorotoluene	2.543	2.685	-5.6	120	0.00
78	T	tert-Butylbenzene	2.549	2.655	-4.2	112	0.00
79	T	1,2,4-Trimethylbenzene	2.782	2.859	-2.8	109	0.02
80	T	sec-Butylbenzene	4.020	4.228	-5.2	110	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\06C29\RCC672.D Vial: 3
Acq On : 30 Mar 2006 5:01 am Operator: CGM
Sample : CVO67C2317 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	p-Isopropyltoluene	2.637	2.767	-4.9	109	0.00
82	T	1,3-Dichlorobenzene	1.707	1.709	-0.1	112	0.00
83	T	1,4-Dichlorobenzene	1.679	1.683	-0.2	113	0.00
84	T	n-Butylbenzene	2.510	2.367	5.7	102	0.02
85	T	1,2-Dichlorobenzene	1.540	1.576	-2.3	115	0.02
86	T	1,2-Dibromo-3-chloropropane	0.137	0.134	2.2	103	0.02
87	T	1,2,4-Trichlorobenzene	0.588	0.527	10.4	100	0.02
88	T	Hexachlorobutadiene	0.311	0.301	3.2	107	0.02
89	T	Naphthalene	1.203	0.984	18.2	96	0.02
90	T	1,2,3-Trichlorobenzene	0.479	0.432	9.8	100	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\data\06C29\RCC672.D Vial: 3
Acq On : 30 Mar 2006 5:01 am Operator: CGM
Sample : CVO67C2317 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 5:31 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	10.16	114	2622597	50.00	ug/l	0.02
36) CHLOROBENZENE-D5	15.73	117	2457226	50.00	ug/l	0.02
66) 1,2-DICHLOROBENZENE-D4	22.52	152	883625	50.00	ug/l	0.02
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	9.69	65	588216	51.69	ug/l	0.02
Spiked Amount 50.000			Recovery =	103.38%		
49) Toluene-d8	12.69	98	2569625	47.40	ug/l	0.02
Spiked Amount 50.000			Recovery =	94.80%		
70) 4-Bromofluorobenzene	18.48	95	939069	49.98	ug/l	0.02
Spiked Amount 50.000			Recovery =	99.96%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.54	85	697179	53.82	ug/l	100
3) Chloromethane	4.03	50	597381	54.90	ug/l	98
4) Vinyl chloride	4.18	62	392061	49.76	ug/l	100
5) Bromomethane	4.91	94	396914	43.81	ug/l	100
6) Chloroethane	5.02	64	339217	56.08	ug/l	99
7) Trichlorofluoromethane	5.39	101	723113	55.15	ug/l	99
9) Acrolein	5.96	56	346432	219.01	ug/l	99
10) 1,1,2-Trichloro-1,2,2-trif	5.97	151	513868	52.53	ug/l	100
11) Acetone	6.03	43	628528	212.32	ug/l	99
12) 1,1-Dichloroethene	6.25	61	1008765	51.32	ug/l	98
13) tert-Butyl alcohol	6.28	59	251168	251.05	ug/l	96
16) Iodomethane	6.71	142	752788	47.06	ug/l	99
17) Methylene chloride	6.86	49	1119093	53.58	ug/l	98
18) Carbon disulfide	7.01	76	2474441	49.86	ug/l	100
19) Acrylonitrile	6.98	53	897391	227.26	ug/l	99
20) tert-Butyl methyl ether (M	7.01	73	1429758	55.10	ug/l	99
21) trans-1,2-Dichloroethene	7.25	61	1031134	51.32	ug/l	98
22) Isopropyl ether (DIPE)	7.53	45	2486851	54.61	ug/l	99
23) 1,1-Dichloroethane	7.79	63	1353806	52.77	ug/l	99
24) Vinyl acetate	7.70	43	1250905	50.91	ug/l	99
25) tert-Butyl ethyl ether (ET	8.06	59	1833225	54.79	ug/l	98
26) 2-Butanone	8.25	43	1321424	222.70	ug/l	100
27) 2,2-Dichloropropane	8.50	77	769010	48.41	ug/l	98
28) cis-1,2-Dichloroethene	8.56	61	1212538	52.75	ug/l	97
30) Chloroform	8.77	83	1337523	53.59	ug/l	99
31) Bromochloromethane	9.01	49	748599	53.86	ug/l	94
32) 1,1,1-Trichloroethane	9.31	97	908576	50.89	ug/l	99
34) tert-Amyl methyl ether (TA	9.56	73	1961592	55.72	ug/l	99
37) 1,1-Dichloropropene	9.50	77	345153	49.24	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\data\06C29\RCC672.D Vial: 3
Acq On : 30 Mar 2006 5:01 am Operator: CGM
Sample : CV067C2317 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 5:31 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38)	Carbon tetrachloride	9.68	119	815618	49.67	ug/l	100
39)	1,2-Dichloroethane	9.81	62	787154	51.29	ug/l	100
40)	Benzene	9.89	78	3324416	49.45	ug/l	99
41)	Trichloroethene	10.72	130	932365	50.31	ug/l	98
43)	1,2-Dichloropropane	10.97	63	939591	51.73	ug/l	99
44)	Bromodichloromethane	11.38	83	1019593	51.56	ug/l	100
45)	Dibromomethane	11.50	93	568544	51.78	ug/l	97
46)	2-Chloroethyl vinyl ether	11.69	63	102791	37.66	ug/l	96
47)	4-Methyl-2-pentanone	11.73	43	2971911	212.07	ug/l	99
48)	cis-1,3-Dichloropropene	12.21	75	1201223	51.83	ug/l	99
50)	Toluene	12.84	91	3244578	50.13	ug/l	100
51)	Ethyl methacrylate	12.90	69	859900	53.89	ug/l	98
52)	trans-1,3-Dichloropropene	13.06	75	870279	52.12	ug/l	98
53)	1,1,2-Trichloroethane	13.40	97	717875	52.86	ug/l	99
54)	2-Hexanone	13.27	43	1777145	193.25	ug/l	100
55)	1,3-Dichloropropane	13.88	76	1199601	52.14	ug/l	100
56)	Tetrachloroethene	14.10	164	624050	48.73	ug/l	100
57)	Dibromochloromethane	14.52	129	826043	54.36	ug/l	100
58)	1,2-Dibromoethane	14.95	107	794988	52.95	ug/l	99
59)	1-Chlorohexane	15.07	91	1280421	51.50	ug/l	98
60)	Chlorobenzene	15.82	112	2281409	51.10	ug/l	99
61)	1,1,1,2-Tetrachloroethane	15.86	131	742490	53.24	ug/l	98
62)	Ethylbenzene	15.85	91	3592678	51.44	ug/l	100
63)	m-Xylene & p-Xylene	16.01	91	5397426	103.02	ug/l	99
64)	o-Xylene	17.02	91	2830596	52.56	ug/l	100
65)	Styrene	17.10	104	2339174	53.79	ug/l	100
67)	Bromoform	18.00	173	467857	52.15	ug/l	99
68)	Isopropylbenzene	17.81	105	3184495	50.60	ug/l	99
69)	1,1,2,2-Tetrachloroethane	18.21	83	1037318	49.22	ug/l	100
71)	1,2,3-Trichloropropane	18.59	61	174808	49.80	ug/l	97
72)	trans-1,4-Dichloro-2-buten	18.69	53	77975	43.45	ug/l	99
73)	n-Propylbenzene	18.79	91	4185179	50.16	ug/l	100
74)	Bromobenzene	19.03	156	830643	50.80	ug/l	98
75)	2-Chlorotoluene	19.32	91	2542324	48.60	ug/l	100
76)	1,3,5-Trimethylbenzene	19.17	105	2656210	51.96	ug/l	100
77)	4-Chlorotoluene	19.41	91	2372541	52.79	ug/l	100
78)	tert-Butylbenzene	20.08	119	2346172	52.09	ug/l	99
79)	1,2,4-Trimethylbenzene	20.19	105	2525935	51.37	ug/l	99
80)	sec-Butylbenzene	20.63	105	3736339	52.59	ug/l	100
81)	p-Isopropyltoluene	20.95	119	2444702	52.45	ug/l	100
82)	1,3-Dichlorobenzene	21.31	146	1509795	50.05	ug/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\data\06C29\RCC672.D Vial: 3
Acq On : 30 Mar 2006 5:01 am Operator: CGM
Sample : CVO67C2317 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 5:31 2006 Quant Results File: VO67C23.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration
DataAcq Meth : VO67C23

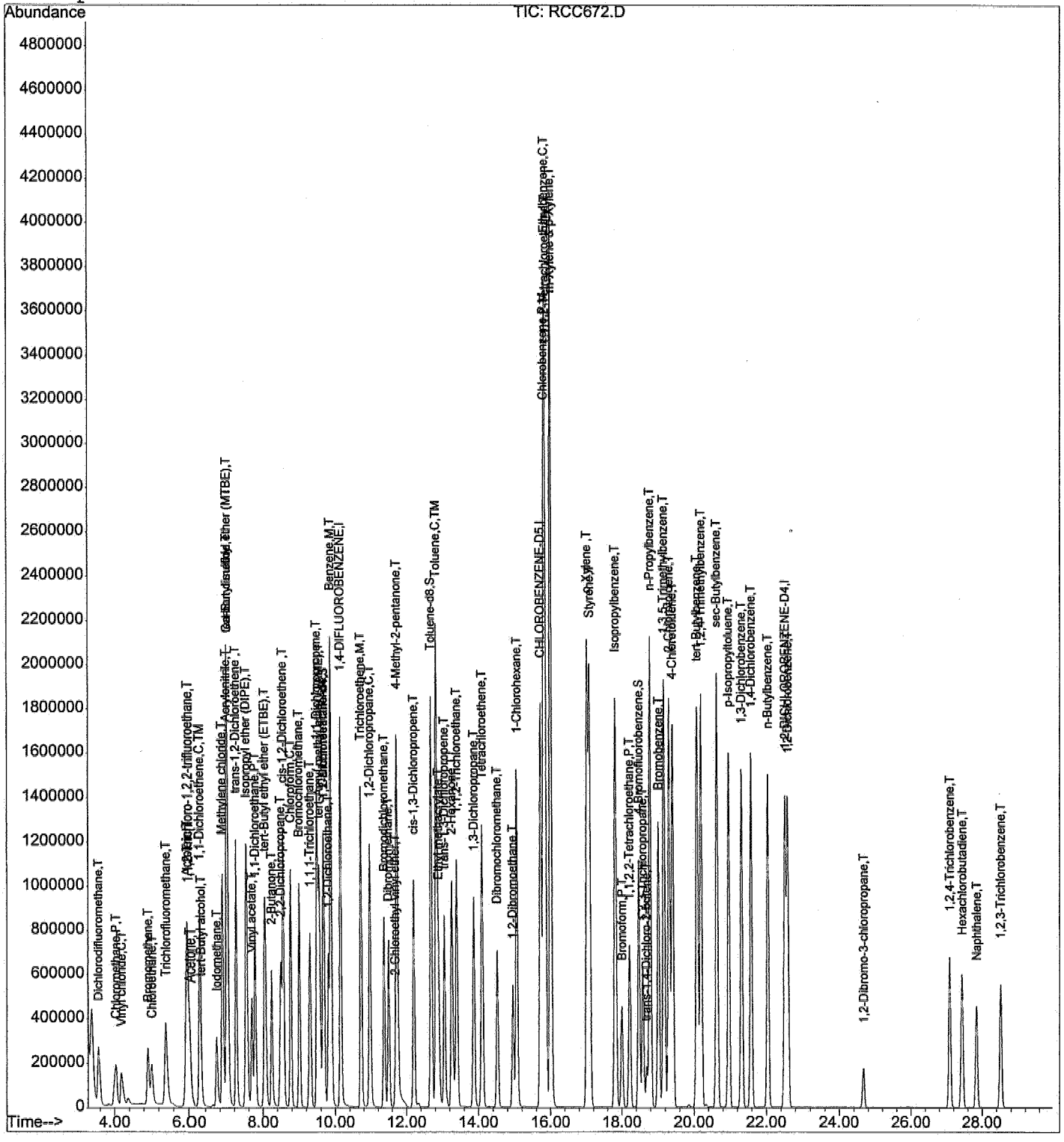
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
83)	1,4-Dichlorobenzene	21.58	146	1487227	50.13	ug/l	100
84)	n-Butylbenzene	22.04	91	2091840	42.54	ug/l	100
85)	1,2-Dichlorobenzene	22.59	146	1392288	51.17	ug/l	99
86)	1,2-Dibromo-3-chloropropan	24.68	157	118462	48.96	ug/l	98
87)	1,2,4-Trichlorobenzene	27.09	180	465453	40.41	ug/l	100
88)	Hexachlorobutadiene	27.45	225	266204	50.10	ug/l	100
89)	Naphthalene	27.85	128	869712	36.53	ug/l	100
90)	1,2,3-Trichlorobenzene	28.52	180	381480	40.46	ug/l	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\data\06C29\RCC672.D Vial: 3
Acq On : 30 Mar 2006 5:01 am Operator: CGM
Sample : CV067C2317 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Mar 30 5:31 2006 Quant Results File: VO67C23.RES

Method : D:\HPCHEM\1\METHODS\VO67C23.M (RTE Integrator)
Title : METHOD 8260 5ml
Last Update : Tue Mar 28 09:22:46 2006
Response via : Initial Calibration



ANALYTICAL LOG

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 2 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 3/23/06 ☑ 5-ml Purge ☐ 25-ml Purge **Book # A67 -021**

BATCH VO67C23S

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RCC483	BFB67C32	2ML	NA	NA	NA	8260 Ket/AA TBA
02	484	VO67C231 x	+08/-20/-04 µL	-04/-08/ CGM 3/23/06			2 8 10 ppb
03	485	2x					5 20 25
04	486	3x					10 40 50
05	487	4x					20 80 100
06	488	5					50 200 250
07	489	6					80 320 400
08	490	7					100 400 ~~1000~~ 500 CGM 3/23/06
09	491	8					200 800 1000
10	492	9					300 1200 1500
11	493	15/55 check					
12	494	VO67C32B					
13	495	CGM 3/23 XVO67C2310					CGM 3/23/06
14	496	11					
15	497	12					
16	498	13					
17	499	VO67C231 *					
18	500	2 *					
19	501	Rinse					
20							
21							
22							
23							
24							
25							CGM 3/23/06

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	3/23/06
ICAL ID	VO67C23

STANDARDS		
NAME	ID	CONC. (mg/L)
DCC	SVIC-10-47-3	500
DCC	42-2	50/250
DCC	48-1	250
BFB	20-3	50
IS/SURR.	48-3	250
LCS	44-3	250
LCS	42-3	50/250
LCS	20-2	250
~~SOLVENT~~ IS	SVIC-10-49-1 ID	~~250 ppm~~
~~METHANOL~~ SS	6 2	
DATA FILE	06C23	

Electronic Data Archival	
Location	Date
HPCHEM_VOA/TO67	

Comments:

* Not valid for trans-1,4-Dichloro-2-butene.

Analyzed By: CGM

Date Disposed: 3/24/06

Disposed By: CGM

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 2 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 3/30/06 ☑ 5-ml Purge ☐ 25-ml Purge **Book # A67 -021**

BATCH CVOC67C237

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RCC670	BFBC67C46	2µL				
02	671	↓ 47 ✓	↓				04:25
03	672	CVOC67C237 ✓	2/5/1µL				
04	673	↓ 15	↓				
05	674	VOC67C47L ✓	1/2/4µL	1.0			
06	675	C ✓	↓				
07	676	B	5.0mL				
08	677	Q ✓	↓	↓			
09	678	VOC67C48B ✓	100µL	50			
10	679	L ✓	1/2/4mL				
11	680	C ✓	↓				
12	681	OGC176-07T	100µL			✓	
13	682	↓ 08T	↓	↓		✓	
14	683	OGC222-04	5.0mL	1.0	<2		
15	684	OGC239-02					
16	685	OGC222-01					
17	686	↓ 02					
18	487	↓ 03					
19	688	OGC239-01					
20	689	OGC222-01M					
21	690	↓ 015	↓	↓	↓		
22							
23							
24							
25							CGM 3/30/06

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	3/23/06
ICAL ID	VOC67C23

STANDARDS

NAME	ID	CONC. (mg/L)
DCC	SVIC-10-47-3	500
DCC	42-2	50/250
DCC	48-1	250
BFB	70-3	CGM 3/30 250
IS/SURR.	48-3	250
LCS	44-3	250
LCS	42-3	50/250
LCS	20-2	250

SOLVENT	ID
METHANOL	
DATA FILE	OGC29

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO67	

Comments:

Analyzed By: CGM

Date Disposed:

Disposed By:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

LABORATORY REPORT FOR

ENSR

UPGRADIENT INVESTIGATION, TRONOX

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

SDG#: 06C222

CASE NARRATIVE

CLIENT: ENSR

PROJECT: UPGRADIENT INVESTIGATION, TRONOX

SDG: 06C222

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Four (4) water samples were received on 03/24/06 for Total Petroleum Hydrocarbons by purge and trap analysis by Method 5030B/8015B in accordance with SW846, 3rd edition.

1. Holding Time

Analytical holding time was met. Water samples were preserved.

2. Calibration

Initial calibration was seven points. %RSDs were within 20%. Continuing calibrations were carried out every 12 hours and at the end of the analysis sequence. All recoveries were within 85-115%.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

All recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

Sample C222-01 was spiked. All recoveries were within QC limits.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Result were quantified from C6 to C10 using GRO (C6-C10) calibration factor.

Discrete peak(s) found in sample C222-03 was not reported.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : ENSR
Project : UPGRADIENT INVESTIGATION, TRONOX

SDG NO. : 06C222
Instrument ID : GCT039

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VA39C13Q	1	NA	03/24/0616:06	03/24/0616:06	EC24010A	EC24007A	VA39C13	Method Blank
LCS1W	VA39C14L	1	NA	03/24/0618:00	03/24/0618:00	EC24013A	EC24007A	VA39C13	Lab Control Sample (LCS)
LCD1W	VA39C14C	1	NA	03/24/0618:38	03/24/0618:38	EC24014A	EC24007A	VA39C13	LCS Duplicate
M-121	C222-01	1	NA	03/25/0602:15	03/25/0602:15	EC24026A	EC24022A	VA39C13	Field Sample
M-117	C222-02	1	NA	03/25/0604:09	03/25/0604:09	EC24029A	EC24022A	VA39C13	Field Sample
H-11	C222-03	1	NA	03/25/0604:47	03/25/0604:47	EC24030A	EC24022A	VA39C13	Field Sample
TRIP BLANK	C222-04	1	NA	03/25/0605:25	03/25/0605:25	EC24031A	EC24022A	VA39C13	Field Sample
M-121MS	C222-01M	1	NA	03/25/0602:53	03/25/0602:53	EC24027A	EC24022A	VA39C13	Matrix Spike Sample (MS)
M-121MSD	C222-01S	1	NA	03/25/0603:31	03/25/0603:31	EC24028A	EC24022A	VA39C13	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

1904

SAMPLE RESULTS

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/25/06 02:15
Sample ID:	M-121	Date Analyzed:	03/25/06 02:15
Lab Samp ID:	C222-01	Dilution Factor:	1
Lab File ID:	EC24026A	Matrix	: WATER
Ext Btch ID:	VA39C13	% Moisture	: NA
Calib. Ref.:	EC24022A	Instrument ID	: GCT039

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GRO	ND	.1	.02

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOFLUOROBENZENE	91	60-140

RL : Reporting Limit

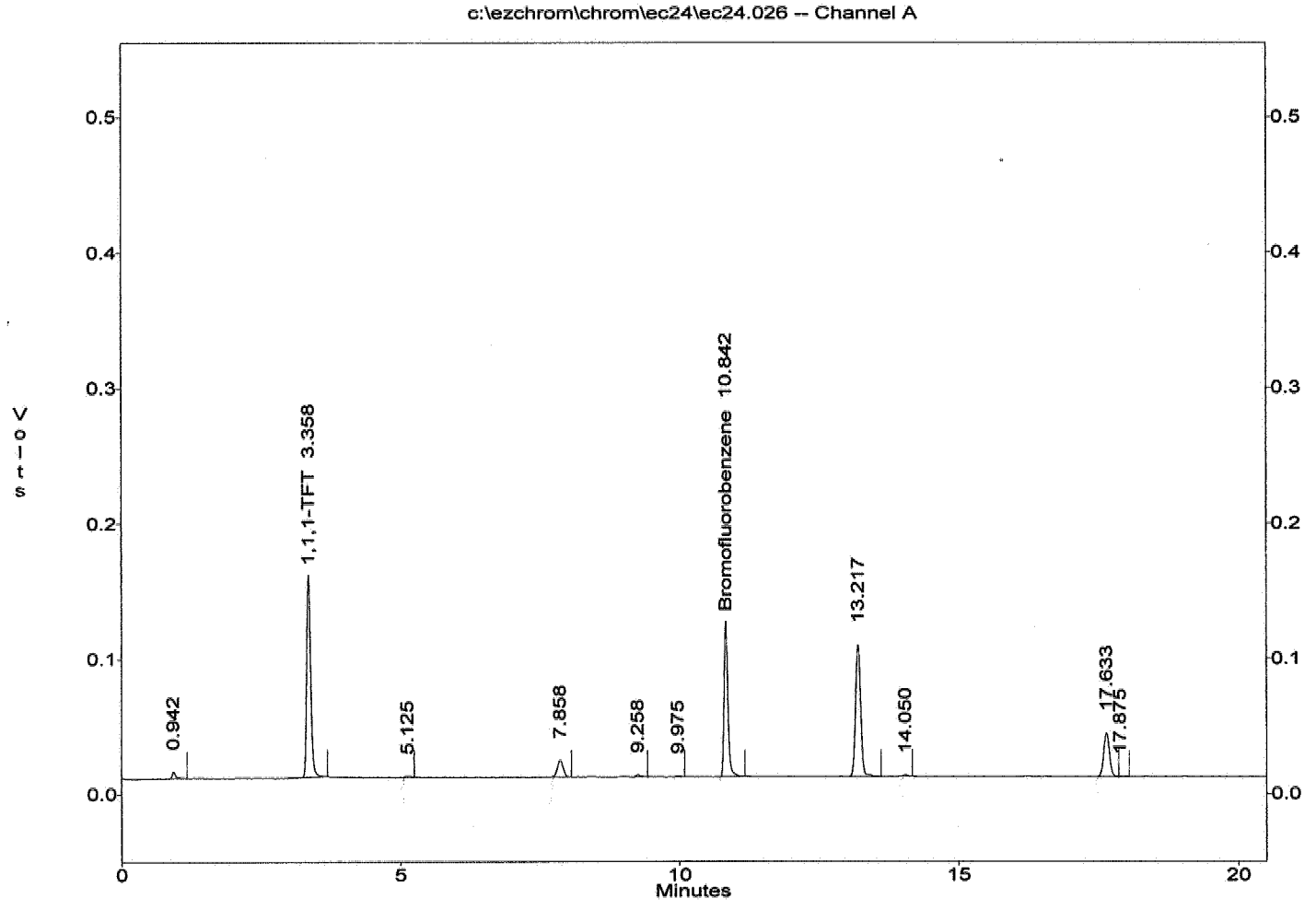
Parameter	H-C Range
GRO	C6-C10

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec24\ec24.026
Method : c:\ezchrom\methods\vg39c03.met
Sample ID : 06C222-01 5.0ML W
Acquired : Mar 25, 2006 02:15:09
Printed : Mar 27, 2006 17:02:18
User : SERGIO

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
2	1,1,1-TFT	3.358	756319.0	21531.8	35.13
7	Bromofluorobenzene	10.842	545134.0	15026.0	36.28
G1	GASOLINE(TOTAL)		962456.0	15352.4	62.69
G2	GRO(C6-C10)		105355.0	12418.6	8.48
G3	GRO(2MP-124TMB)		105355.0	12455.2	8.46
G4	GRO(C5-C12)		962456.0	15149.8	63.53
G5	DISCRETE PK (7.858)		88064.0	0.0	0.00
G6	DSCRT PEAK (13.217)		619211.0	0.0	0.00
G7	DSCRT PEAK (17.633)		229514.0	0.0	0.00



METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/25/06 04:09
Sample ID:	M-117	Date Analyzed:	03/25/06 04:09
Lab Samp ID:	C222-02	Dilution Factor:	1
Lab File ID:	EC24029A	Matrix	: WATER
Ext Btch ID:	VA39C13	% Moisture	: NA
Calib. Ref.:	EC24022A	Instrument ID	: GCT039

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GRO	ND	.1	.02

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOFLUOROBENZENE	92	60-140

RL : Reporting Limit

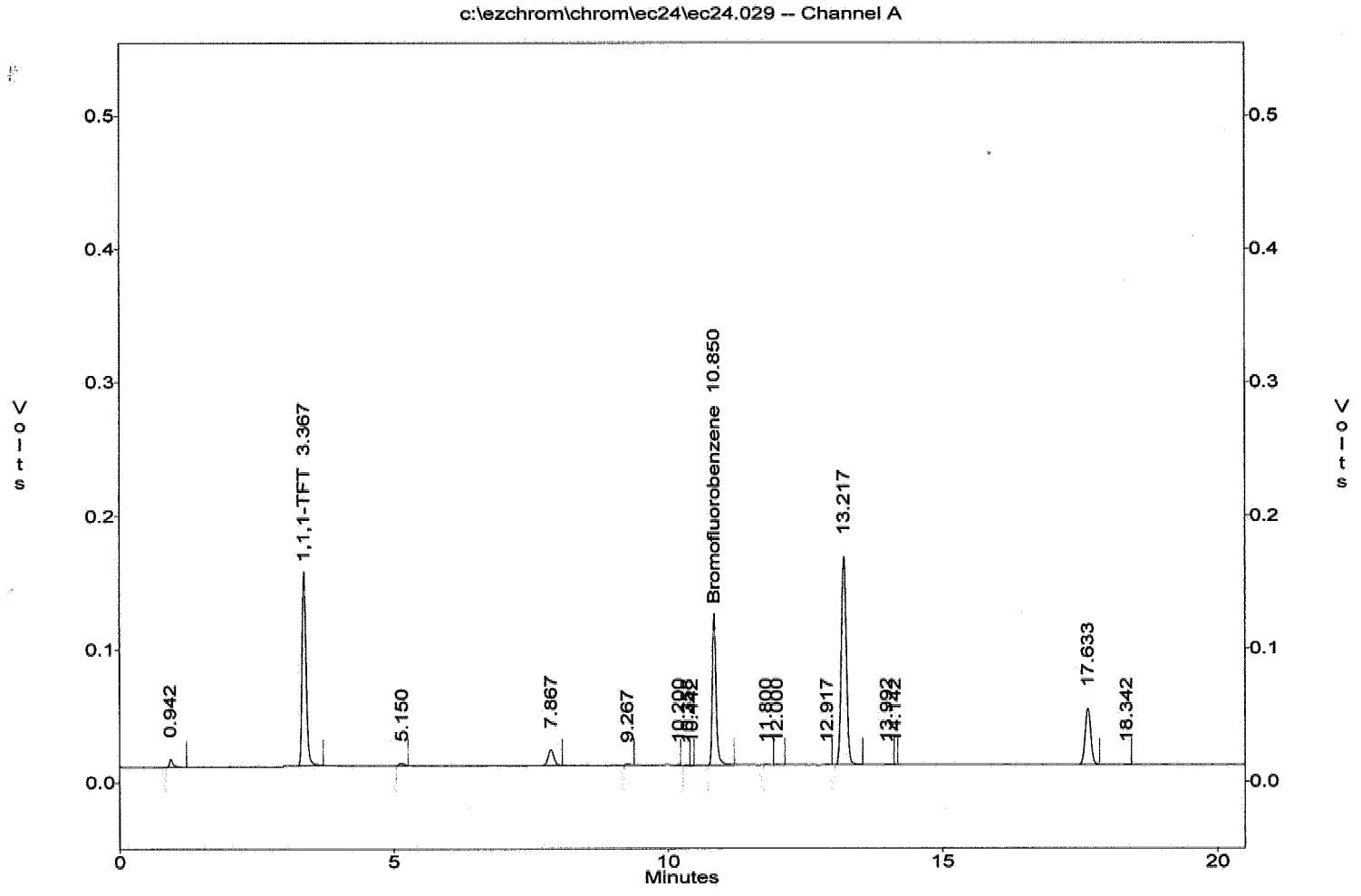
Parameter	H-C Range
GRO	C6-C10

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec24\ec24.029
Method : c:\ezchrom\methods\vg39c03.met
Sample ID : 06C222-02 5.0ML W
Acquired : Mar 25, 2006 04:09:10
Printed : Mar 27, 2006 17:02:50
User : SERGIO

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
2	1,1,1-TFT	3.367	747653.0	21531.8	34.72
9	Bromofluorobenzene	10.850	550486.0	15026.0	36.64
G1	GASOLINE(TOTAL)		1408951.0	15352.4	91.77
G2	GRO(C6-C10)		116975.0	12418.6	9.42
G3	GRO(2MP-124TMB)		116975.0	12455.2	9.39
G4	GRO(C5-C12)		1408951.0	15149.8	93.00
G5	DISCRETE PK (7.858)		86147.0	0.0	0.00
G6	DSCRT PEAK (13.217)		984317.0	0.0	0.00
G7	DSCRT PEAK (17.633)		301153.0	0.0	0.00



METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/25/06 04:47
Sample ID:	H-11	Date Analyzed:	03/25/06 04:47
Lab Samp ID:	C222-03	Dilution Factor:	1
Lab File ID:	EC24030A	Matrix :	WATER
Ext Btch ID:	VA39C13	% Moisture :	NA
Calib. Ref.:	EC24022A	Instrument ID :	GCT039

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GRO **	ND	.1	.02

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOFLUOROBENZENE	93	60-140

RL : Reporting Limit
Parameter H-C Range
GRO C6-C10

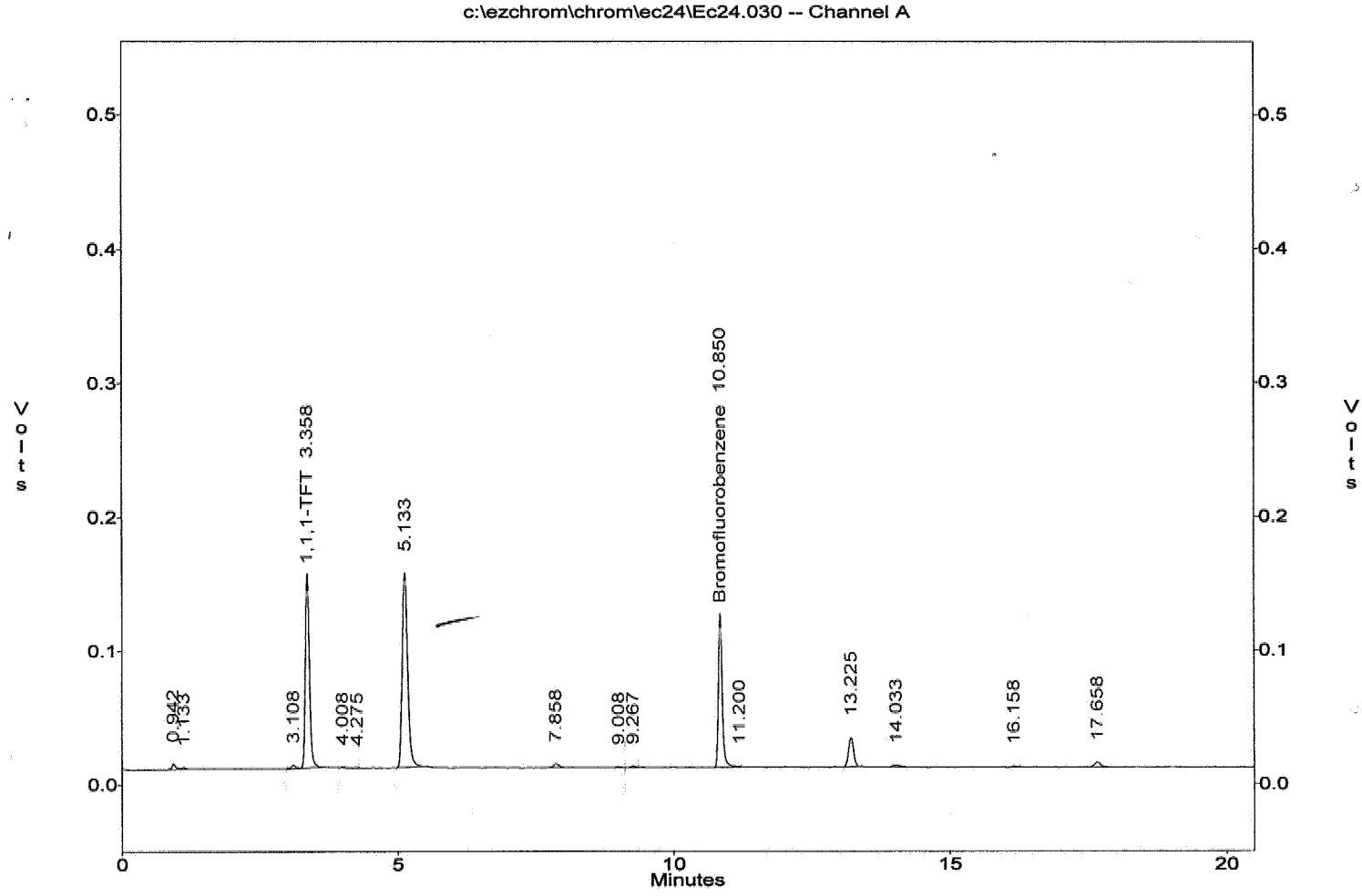
** : Discrete peak(s) was not reported

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec24\Ec24.030
Method : c:\ezchrom\methods\Vg39c03.met
Sample ID : 06C222-03 5.0ML W
Acquired : Mar 25, 2006 04:47:17
Printed : Mar 25, 2006 05:07:49
User : MICHAEL

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
4	1,1,1-TFT	3.358	761119.0	21531.8	35.35
11	Bromofluorobenzene	10.850	559245.0	15026.0	37.22
G1	GASOLINE(TOTAL)		1223238.0	15352.4	79.68
G2	GRO(C6-C10)		1034563.0	12418.6	83.31
G3	GRO(2MP-124TMB)		1034563.0	12455.2	83.06
G4	GRO(C5-C12)		1223238.0	15149.8	80.74



METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/25/06 05:25
Sample ID:	TRIP BLANK	Date Analyzed:	03/25/06 05:25
Lab Samp ID:	C222-04	Dilution Factor:	1
Lab File ID:	EC24031A	Matrix :	WATER
Ext Btch ID:	VA39C13	% Moisture :	NA
Calib. Ref.:	EC24022A	Instrument ID :	GCT039

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GRO	ND	.1	.02

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOFLUOROBENZENE	93	60-140

RL : Reporting Limit

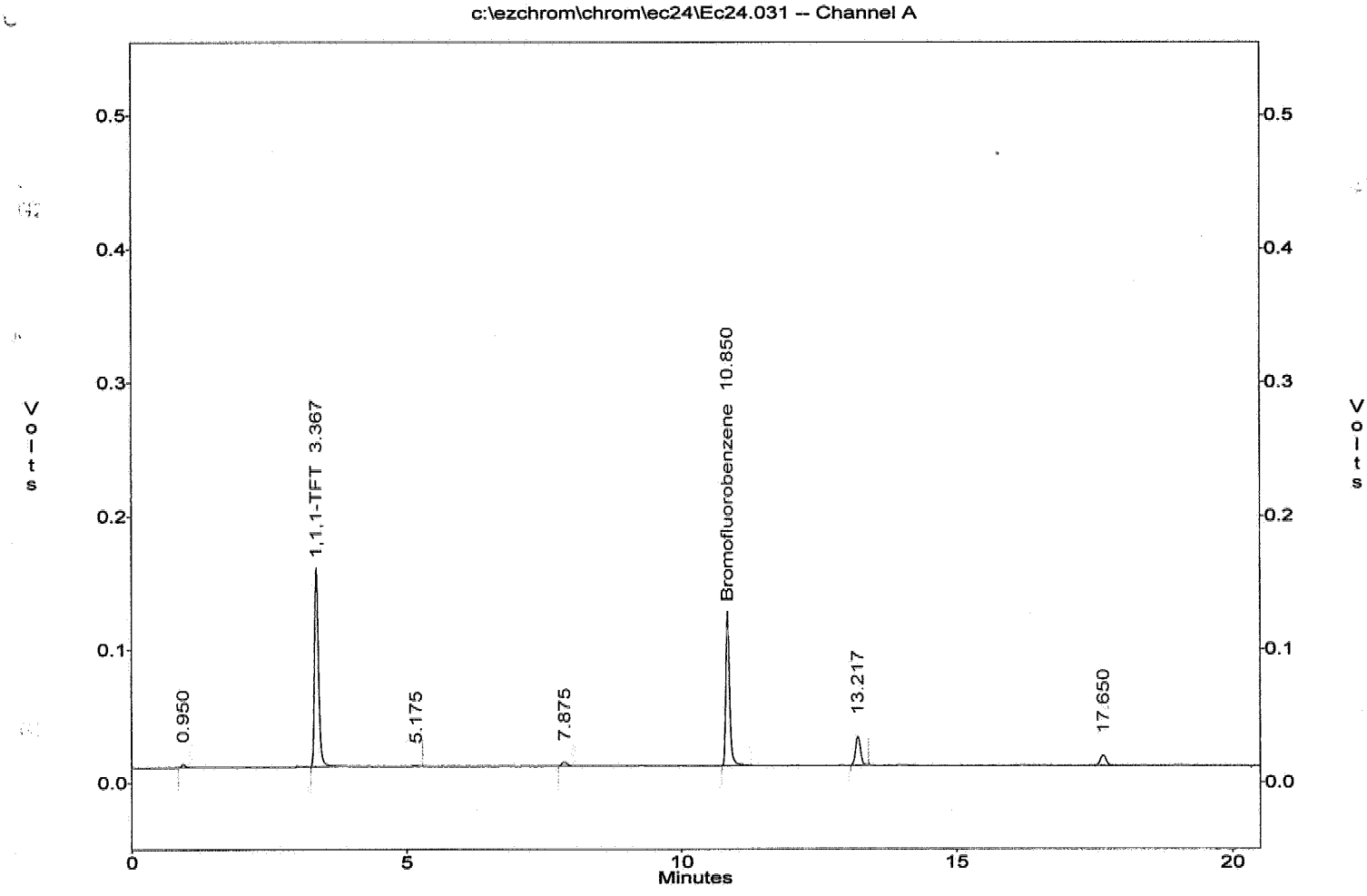
Parameter	H-C Range
GRO	C6-C10

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec24\Ec24.031
Method : c:\ezchrom\methods\Vg39c03.met
Sample ID : 06C222-04 5.0ML W
Acquired : Mar 25, 2006 05:25:13
Printed : Mar 25, 2006 05:45:44
User : MICHAEL

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
2	1,1,1-TFT	3.367	766401.0	21531.8	35.59
5	Bromofluorobenzene	10.850	556926.0	15026.0	37.06
G1	GASOLINE(TOTAL)		213923.0	15352.4	13.93
G2	GRO(C6-C10)		24510.0	12418.6	1.97
G3	GRO(2MP-124TMB)		24510.0	12455.2	1.97
G4	GRO(C5-C12)		213923.0	15149.8	14.12



QC SUMMARIES

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client	: ENSR	Date Collected:	NA
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/24/06 16:06
Sample ID:	MBLK1W	Date Analyzed:	03/24/06 16:06
Lab Samp ID:	VA39C13Q	Dilution Factor:	1
Lab File ID:	EC24010A	Matrix	: WATER
Ext Btch ID:	VA39C13	% Moisture	: NA
Calib. Ref.:	EC24007A	Instrument ID	: GCT039

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GRO	ND	.1	.02

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOFLUOROBENZENE	95	70-130

RL : Reporting Limit

Parameter	H-C Range
GRO	C6-C10

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ENSR
PROJECT: UPGRADIENT INVESTIGATION, TRONOX
BATCH NO.: 06C222
METHOD: METHOD 5030B/8015B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA39C13Q	VA39C14L	VA39C14C		
LAB FILE ID:	EC24010A	EC24013A	EC24014A		
DATE EXTRACTED:	03/24/0616:06	03/24/0618:00	03/24/0618:38	DATE COLLECTED:	NA
DATE ANALYZED:	03/24/0616:06	03/24/0618:00	03/24/0618:38	DATE RECEIVED:	03/24/06
PREP. BATCH:	VA39C13	VA39C13	VA39C13		
CALIB. REF:	EC24007A	EC24007A	EC24007A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GRO	ND	.5	.523	105	.5	.533	107	2	60-130	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	.04	.0444	111	.04	.0435	109	70-130

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ENSR
PROJECT: UPGRADIENT INVESTIGATION, TRONOX
BATCH NO.: 06C222
METHOD: METHOD 5030B/8015B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	M-121				
LAB SAMP ID:	C222-01	C222-01M	C222-01S		
LAB FILE ID:	EC24026A	EC24027A	EC24028A		
DATE EXTRACTED:	03/25/0602:15	03/25/0602:53	03/25/0603:31	DATE COLLECTED:	03/23/06
DATE ANALYZED:	03/25/0602:15	03/25/0602:53	03/25/0603:31	DATE RECEIVED:	03/24/06
PREP. BATCH:	VA39C13	VA39C13	VA39C13		
CALIB. REF:	EC24022A	EC24022A	EC24022A		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	SPIKE AMT (mg/L)	MSD RSLT (mg/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
GRO	ND	.5	.505	101	.5	.469	94	7	50-130	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	SPIKE AMT (mg/L)	MSD RSLT (mg/L)	MSD % REC	QC LIMIT (%)
Bromofluorobenzene	.04	.0406	102	.04	.0383	96	60-140

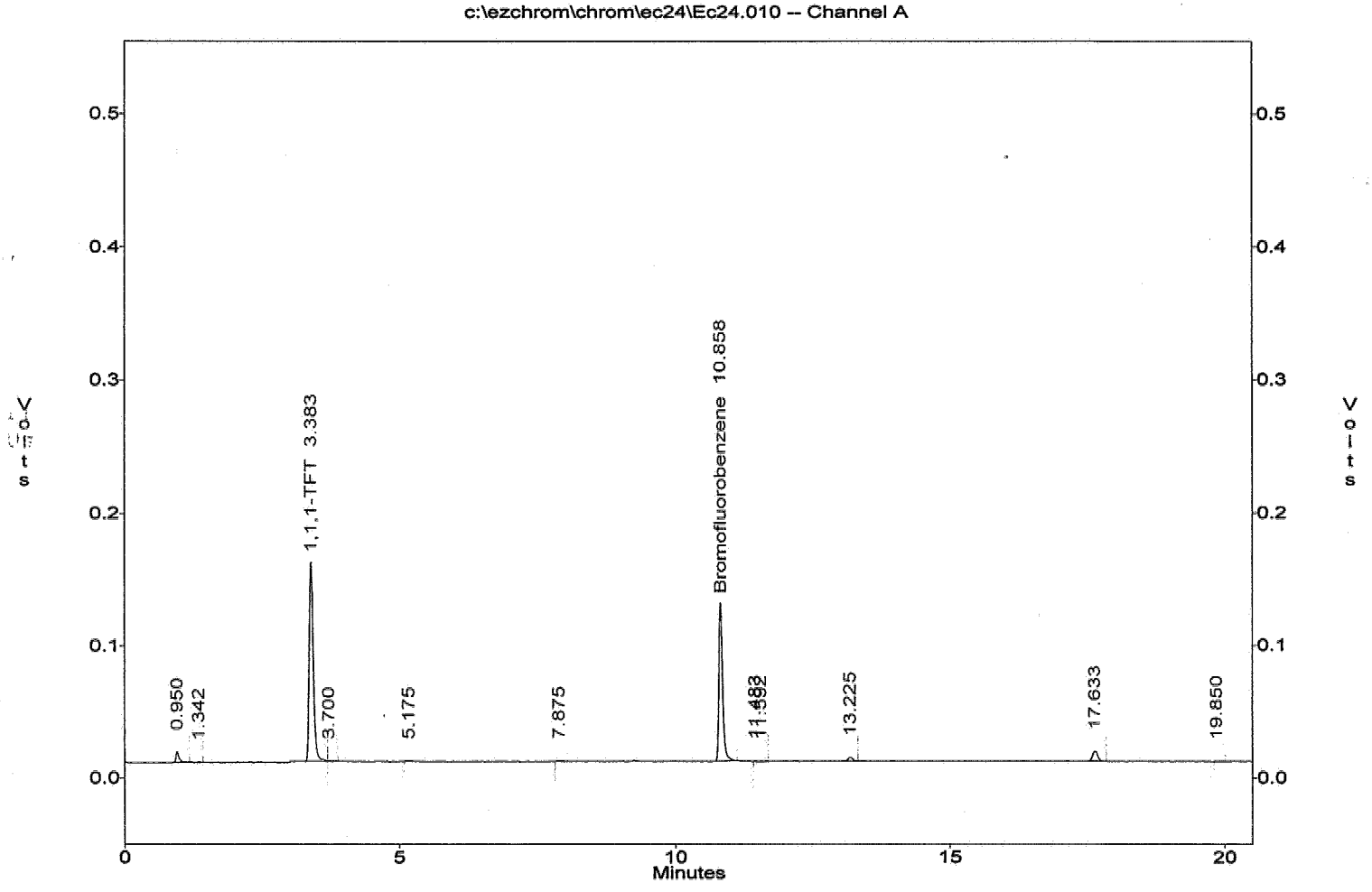
QC DATA

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec24\Ec24.010
Method : c:\ezchrom\methods\Vg39c03.met
Sample ID : VA39C13Q 5.0ML W
Acquired : Mar 24, 2006 16:06:17
Printed : Mar 24, 2006 16:26:48
User : MICHAEL

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
3	1,1,1-TFT	3.383	790480.0	21531.8	36.71
7	Bromofluorobenzene	10.858	572925.0	15026.0	38.13
G1	GASOLINE(TOTAL)		89161.0	15352.4	5.81
G2	GRO(C6-C10)		20049.0	12418.6	1.61
G3	GRO(2MP-124TMB)		20049.0	12455.2	1.61
G4	GRO(C5-C12)		86316.0	15149.8	5.70

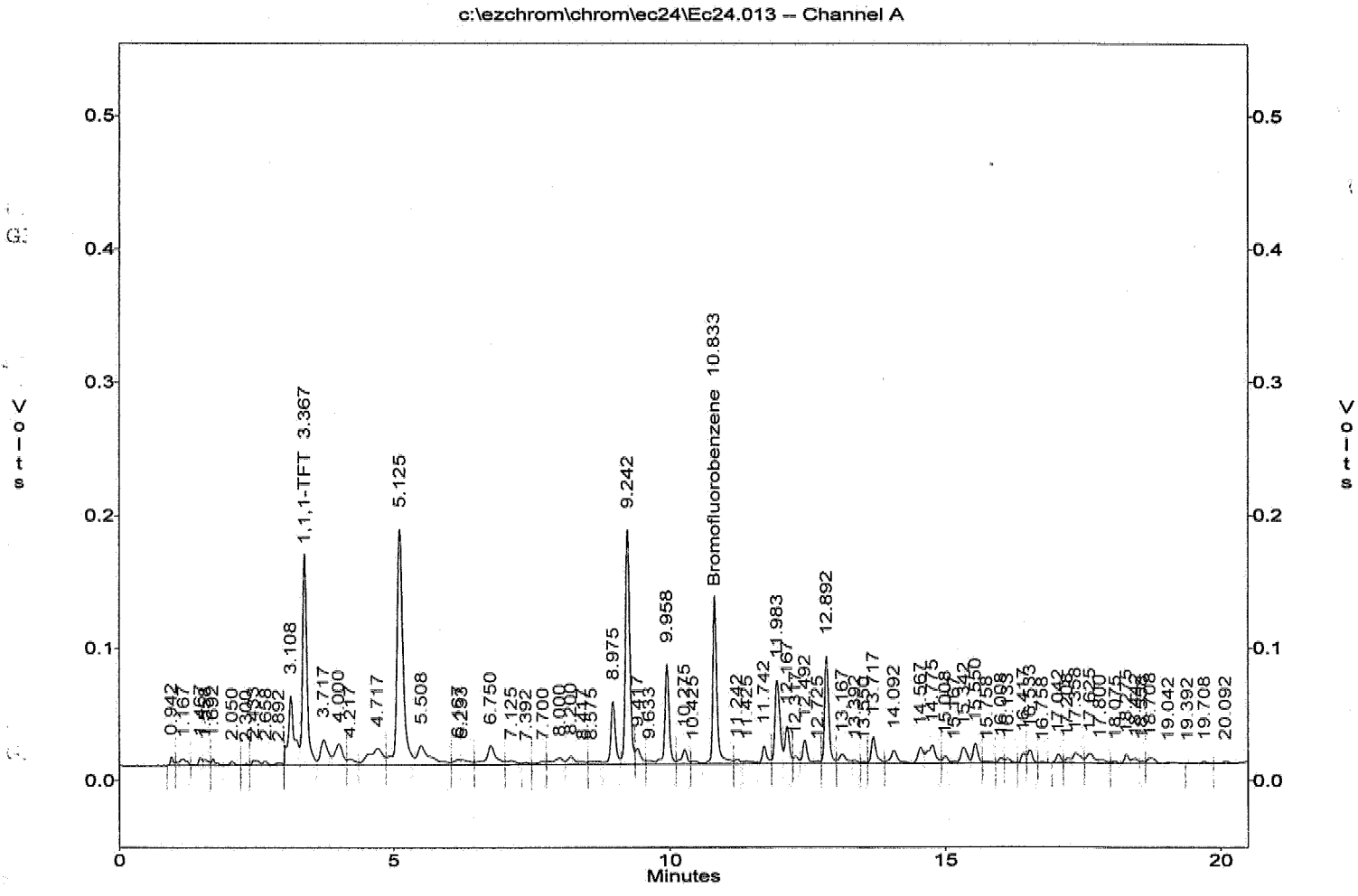


METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec24\Ec24.013
Method : c:\ezchrom\methods\Vg39c03.met
Sample ID : VA39C14L 5.0ML W
Acquired : Mar 24, 2006 18:00:49
Printed : Mar 24, 2006 18:21:21
User : MICHAEL

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
12	1,1,1-TFT	3.367	896680.0	21531.8	41.64
36	Bromofluorobenzene	10.833	666501.0	15026.0	44.36
G1	GASOLINE(TOTAL)		7835352.0	15352.4	510.37
G2	GRO(C6-C10)		6493044.0	12418.6	522.85
G3	GRO(2MP-124TMB)		6481727.0	12455.2	520.40
G4	GRO(C5-C12)		7803848.0	15149.8	515.11

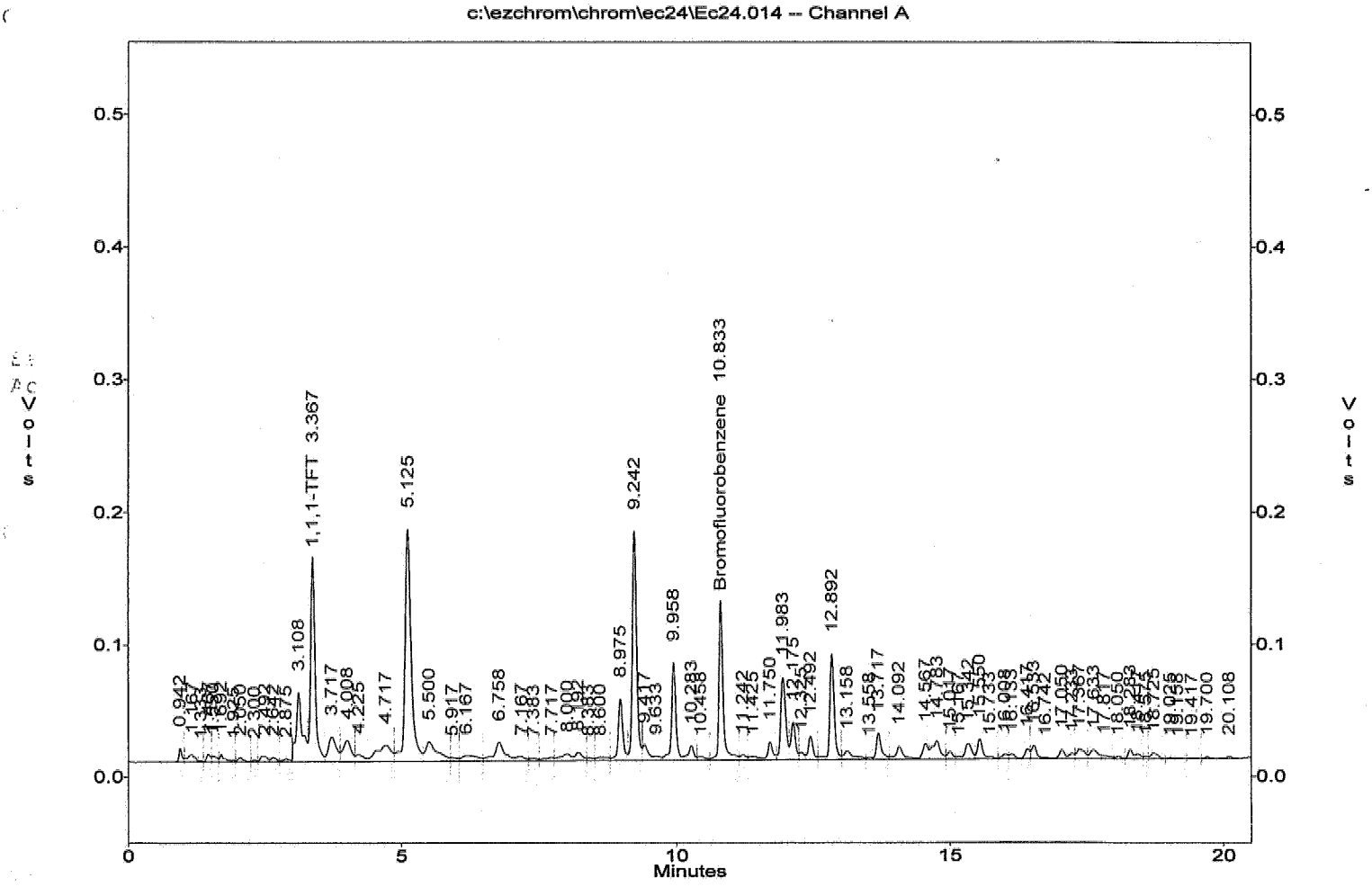


METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec24\Ec24.014
Method : c:\ezchrom\methods\Vg39c03.met
Sample ID : VA39C14C 5.0ML W
Acquired : Mar 24, 2006 18:38:56
Printed : Mar 24, 2006 18:59:28
User : MICHAEL

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
14	1,1,1-TFT	3.367	879110.0	21531.8	40.83
38	Bromofluorobenzene	10.833	653299.0	15026.0	43.48
G1	GASOLINE(TOTAL)		8023483.0	15352.4	522.62
G2	GRO(C6-C10)		6613388.0	12418.6	532.54
G3	GRO(2MP-124TMB)		6588129.0	12455.2	528.94
G4	GRO(C5-C12)		7980269.0	15149.8	526.76

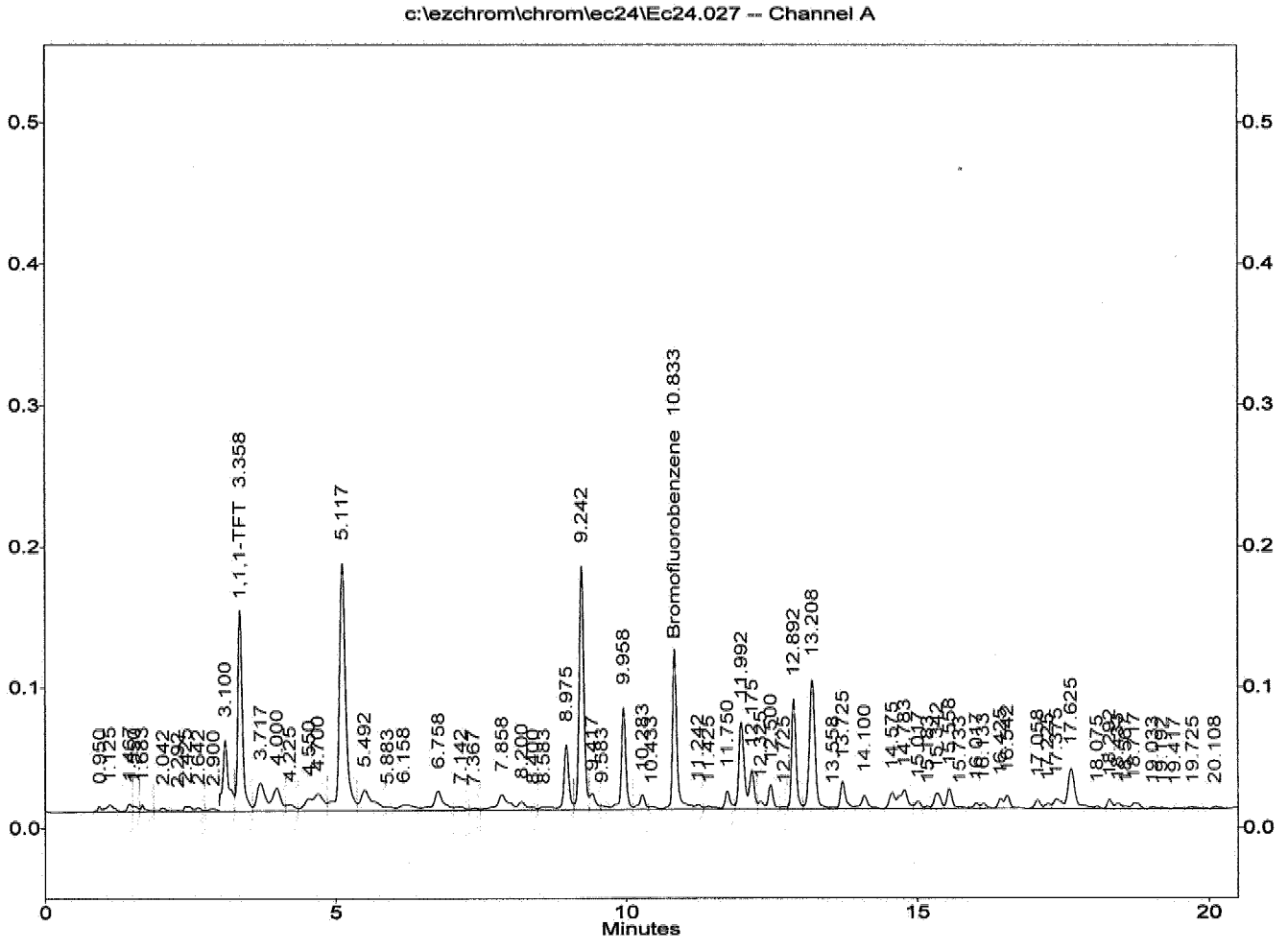


METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec24\Ec24.027
Method : c:\ezchrom\methods\Vg39c03.met
Sample ID : 06C222-01M 5.0ML W
Acquired : Mar 25, 2006 02:53:09
Printed : Mar 25, 2006 03:13:41
User : MICHAEL

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
12	1,1,1-TFT	3.358	800027.0	21531.8	37.16
36	Bromofluorobenzene	10.833	610193.0	15026.0	40.61
G1	GASOLINE(TOTAL)		8313202.0	15352.4	541.49
G2	GRO(C6-C10)		6274498.0	12418.6	505.25
G3	GRO(2MP-124TMB)		6324497.0	12455.2	507.78
G4	GRO(C5-C12)		8214979.0	15149.8	542.25

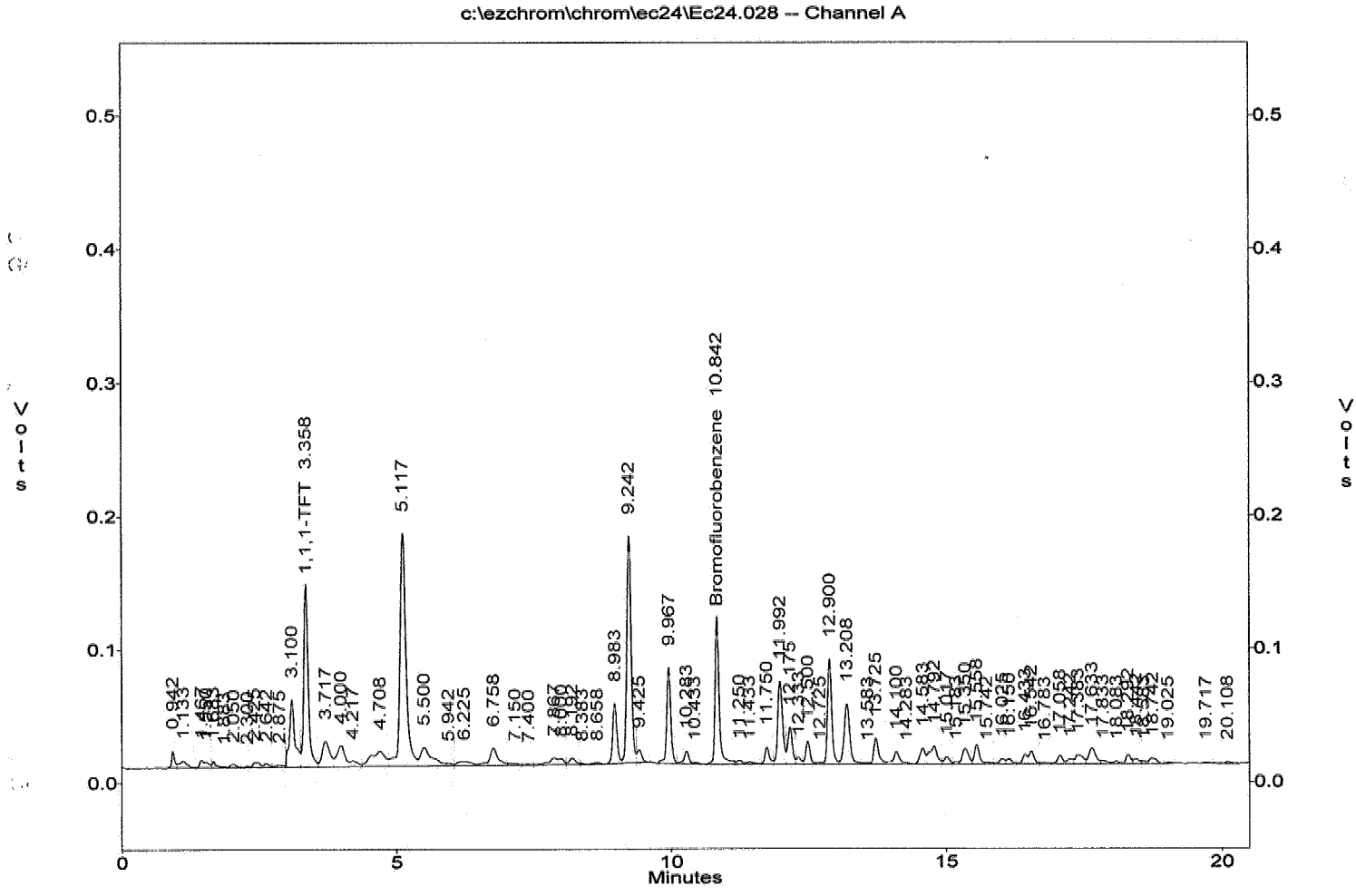


METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec24\Ec24.028
Method : c:\ezchrom\methods\Vg39c03.met
Sample ID : 06C222-01S 5.0ML W
Acquired : Mar 25, 2006 03:31:02
Printed : Mar 25, 2006 03:51:34
User : MICHAEL

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
13	1,1,1-TFT	3.358	768824.0	21531.8	35.71
36	Bromofluorobenzene	10.842	575014.0	15026.0	38.27
G1	GASOLINE(TOTAL)		7462496.0	15352.4	486.08
G2	GRO(C6-C10)		5827348.0	12418.6	469.24
G3	GRO(2MP-124TMB)		5879456.0	12455.2	472.05
G4	GRO(C5-C12)		7439298.0	15149.8	491.05



INITIAL CALIBRATION

INITIAL CALIBRATION
5030B/M8015

Lab Name : EMAX Inc
Instrument ID : GCT39
GC Column : DB-5
Column size ID : 30MX.53MM
LFID & Datetime: EC03019A 03/03/06 23:46
LFID & Datetime: EC03020A 03/04/06 00:24
LFID & Datetime: EC03021A 03/04/06 01:02
LFID & Datetime: EC03022A 03/04/06 01:40
LFID & Datetime: EC03023A 03/04/06 02:18
LFID & Datetime: EC03024A 03/04/06 02:57
LFID & Datetime: EC03025A 03/04/06 03:35
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA)/UNIT 1.00X	2.50X	5.00X	25.00X	50.00X	100.00X	150.00X	MEAN	%RSD
Gasoline(TOTAL)	20.00	12417	13454	15665	15778	16779	16708	16666	15352.4	11.3
GRO(C6-C10)	20.00	9660	10361	13007	12779	13750	13695	13678	12418.6	13.7
GRO(2MP-124TMB)	20.00	9660	10361	13148	12809	13777	13723	13709	12455.2	13.8
GRO(C5-C12)	20.00	11591	13210	15575	15708	16713	16645	16607	15149.8	13.1
SURROGATE	**X**	**1.00X**	**2.00X**	**3.00X**	**4.00X**	**5.00X**	**7.50X**	**10.00X**	**MEAN**	**%RSD**
Bromofluorobenzene	10.00	12063	13106	13108	14879	17078	17312	17635	15026.0	15.5
1,1,1-Trifluorotoluene	10.00	17166	19380	19227	21362	23275	24612	25700	21531.8	14.6

VG39C03.MET

03/06/06

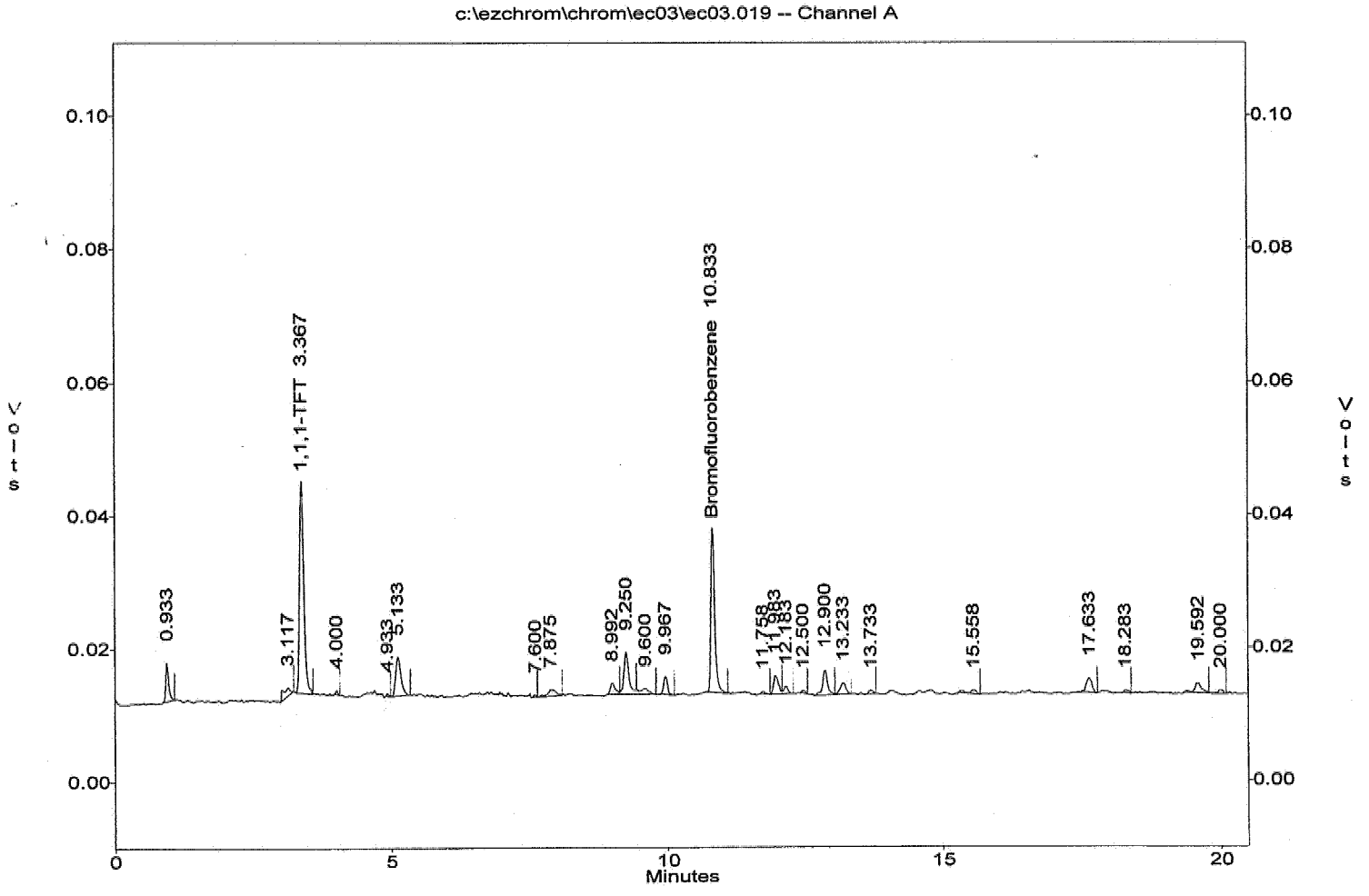
4023

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec03\ec03.019
Method : c:\ezchrom\methods\vg39c03.met
Sample ID : VG39C03-01 20/10
Acquired : Mar 03, 2006 23:46:19
Printed : Mar 06, 2006 12:14:18
User : SERGIO

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
3	1,1,1-TFT	3.367	171660.0	21531.8	10.00
13	Bromofluorobenzene	10.833	120632.0	15026.0	10.00
G1	GASOLINE(TOTAL)		248347.0	15352.4	20.00
G2	GRO(C6-C10)		193196.0	12418.6	20.00
G3	GRO(2MP-124TMB)		193196.0	12455.2	20.00
G4	GRO(C5-C12)		231819.0	15149.8	20.00



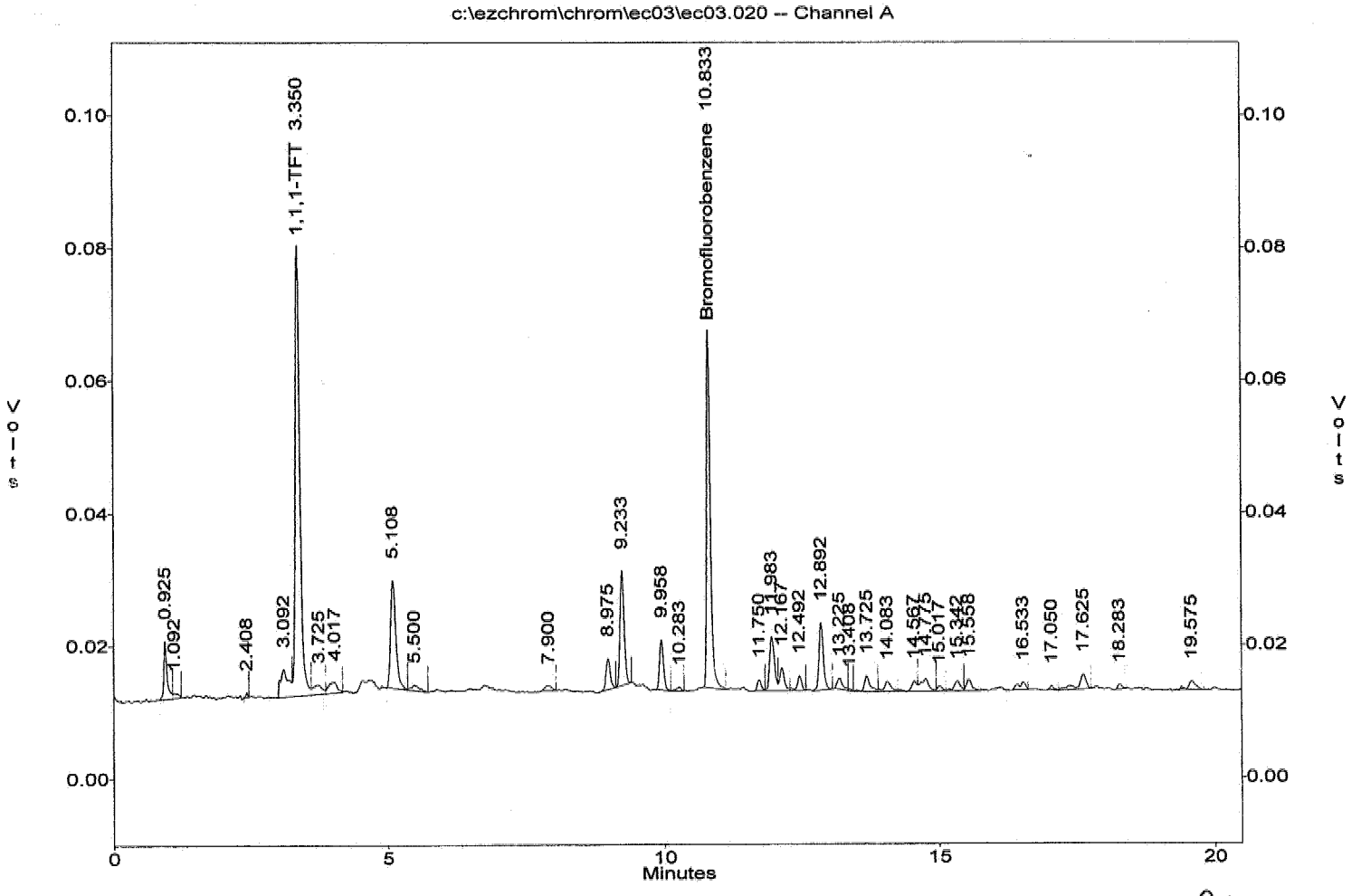
03/06/06
4024

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec03\ec03.020
Method : c:\ezchrom\methods\vg39c03.met
Sample ID : VG39C03-02 50/20
Acquired : Mar 04, 2006 00:24:42
Printed : Mar 06, 2006 12:14:41
User : SERGIO

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
5	1,1,1-TFT	3.350	387603.0	21531.8	20.00
15	Bromofluorobenzene	10.833	262122.0	15026.0	20.00
G1	GASOLINE(TOTAL)		672683.0	15352.4	50.00
G2	GRO(C6-C10)		518064.0	12418.6	50.00
G3	GRO(2MP-124TMB)		518064.0	12455.2	50.00
G4	GRO(C5-C12)		660488.0	15149.8	50.00



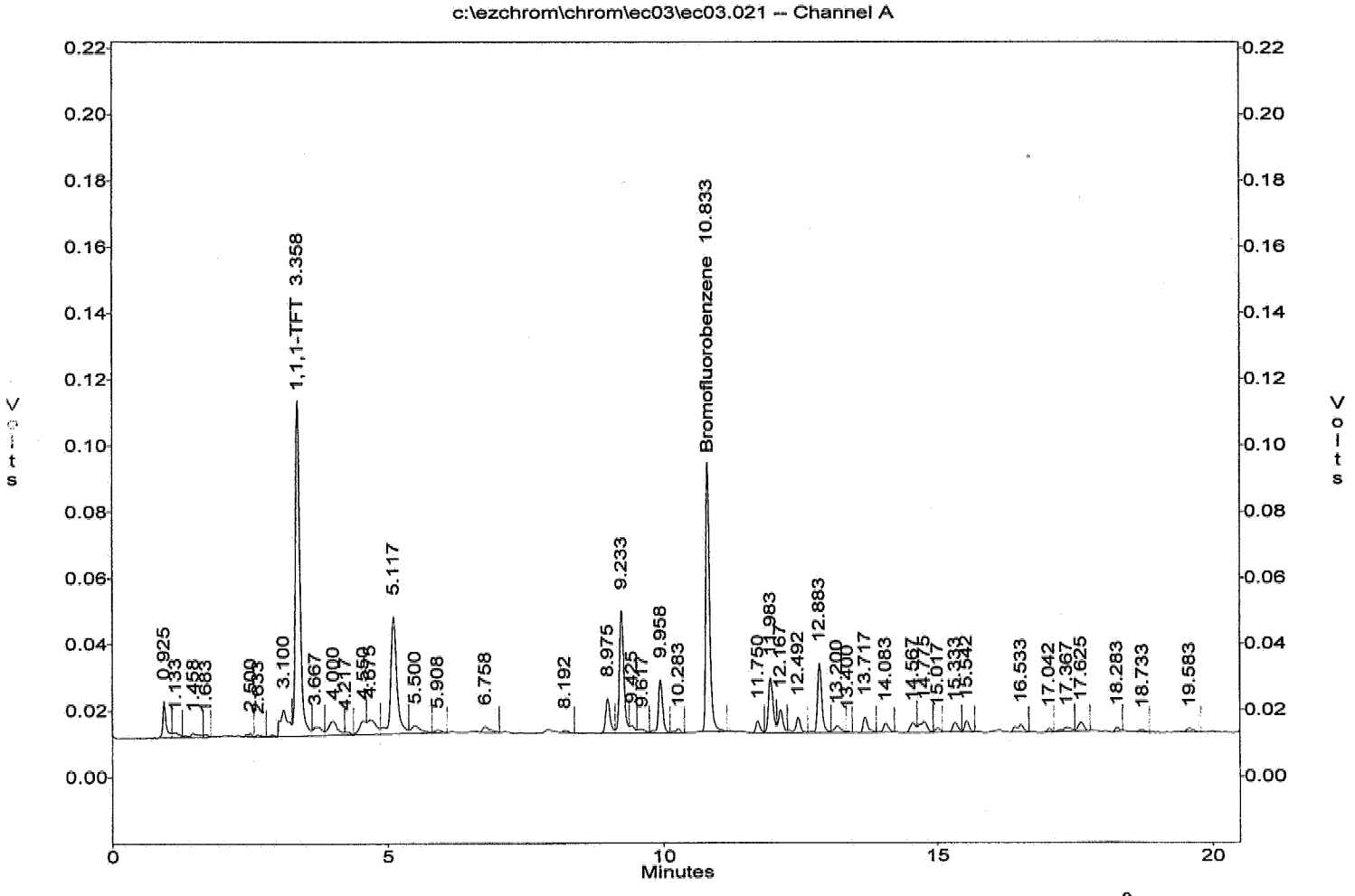
03/06/06
4025

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec03\ec03.021
Method : c:\ezchrom\methods\vg39c03.met
Sample ID : VG39C03-03 100/30
Acquired : Mar 04, 2006 01:02:51
Printed : Mar 06, 2006 12:17:19
User : SERGIO

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
8	1,1,1-TFT	3.358	576813.0	21531.8	30.00
25	Bromofluorobenzene	10.833	393242.0	15026.0	30.00
G1	GASOLINE(TOTAL)		1566460.0	15352.4	100.00
G2	GRO(C6-C10)		1300710.0	12418.6	100.00
G3	GRO(2MP-124TMB)		1314789.0	12455.2	100.00
G4	GRO(C5-C12)		1557478.0	15149.8	100.00



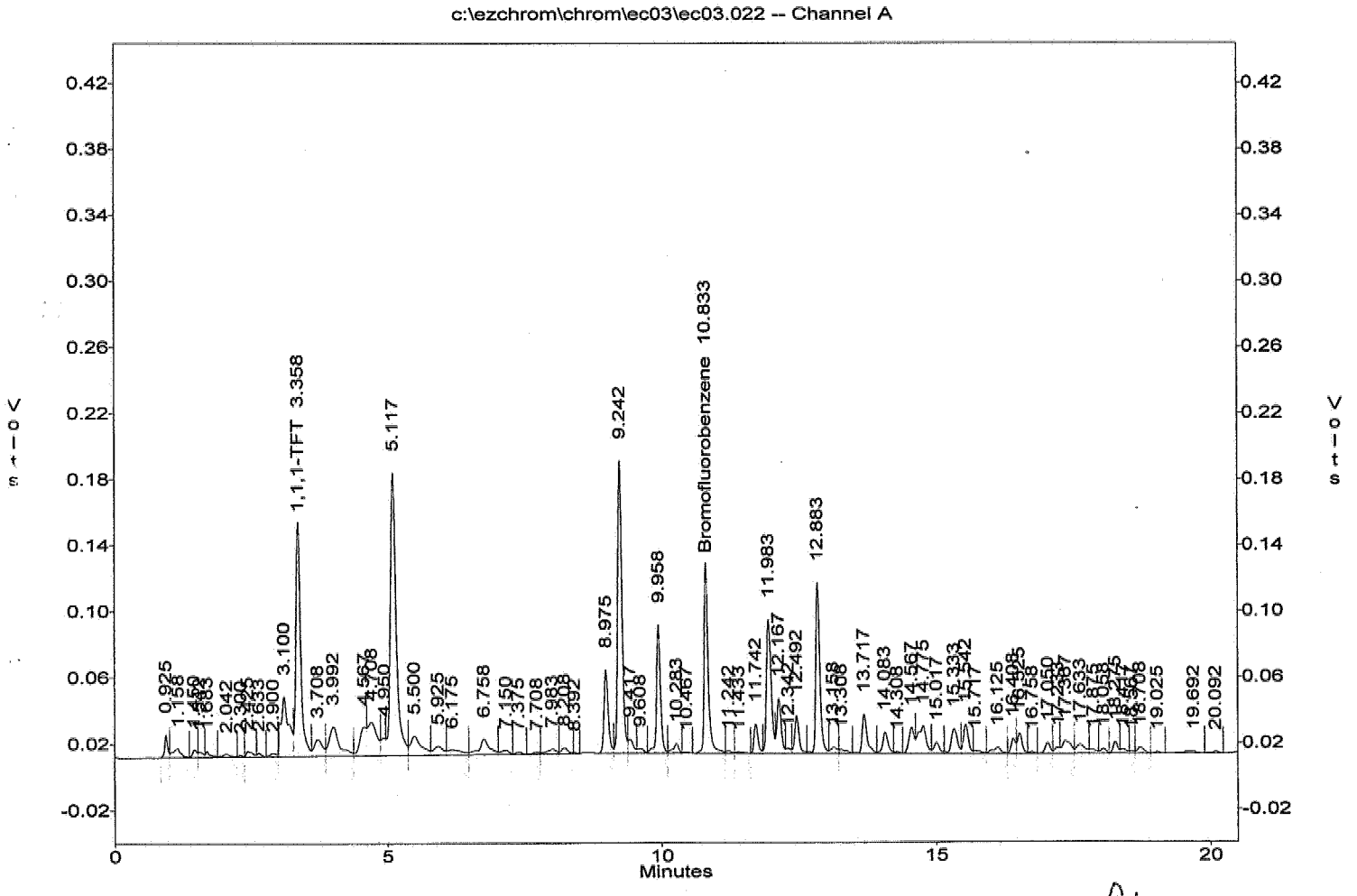
03/06/06
4026

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec03\ec03.022
Method : c:\ezchrom\methods\vg39c03.met
Sample ID : VG39C03-04 500/40
Acquired : Mar 04, 2006 01:40:58
Printed : Mar 06, 2006 12:18:47
User : SERGIO

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
12	1,1,1-TFT	3.358	854497.0	21531.8	40.00
36	Bromofluorobenzene	10.833	595155.0	15026.0	40.00
G1	GASOLINE(TOTAL)		7888862.0	15352.4	500.00
G2	GRO(C6-C10)		6389639.0	12418.6	500.00
G3	GRO(2MP-124TMB)		6404459.0	12455.2	500.00
G4	GRO(C5-C12)		7853986.0	15149.8	500.00



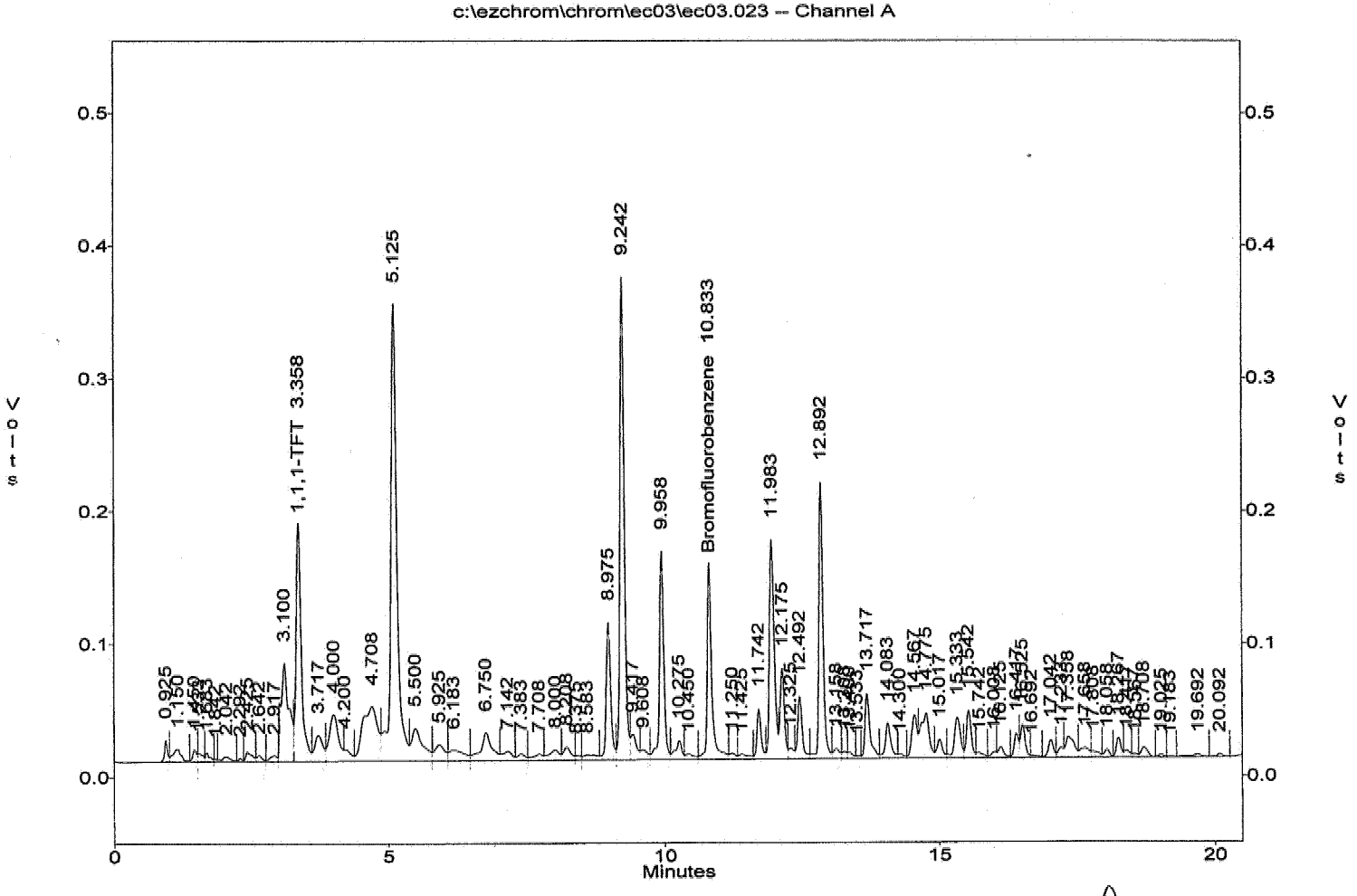
03/06/06
4027

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec03\ec03.023
Method : c:\ezchrom\methods\vg39c03.met
Sample ID : VG39C03-05 1000/50
Acquired : Mar 04, 2006 02:18:59
Printed : Mar 06, 2006 12:20:22
User : SERGIO

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
13	1,1,1-TFT	3.358	1163757.0	21531.8	50.00
37	Bromofluorobenzene	10.833	853904.0	15026.0	50.00
G1	GASOLINE(TOTAL)		16778924.0	15352.4	1000.00
G2	GRO(C6-C10)		13749773.0	12418.6	1000.00
G3	GRO(2MP-124TMB)		13776743.0	12455.2	1000.00
G4	GRO(C5-C12)		16712874.0	15149.8	1000.00



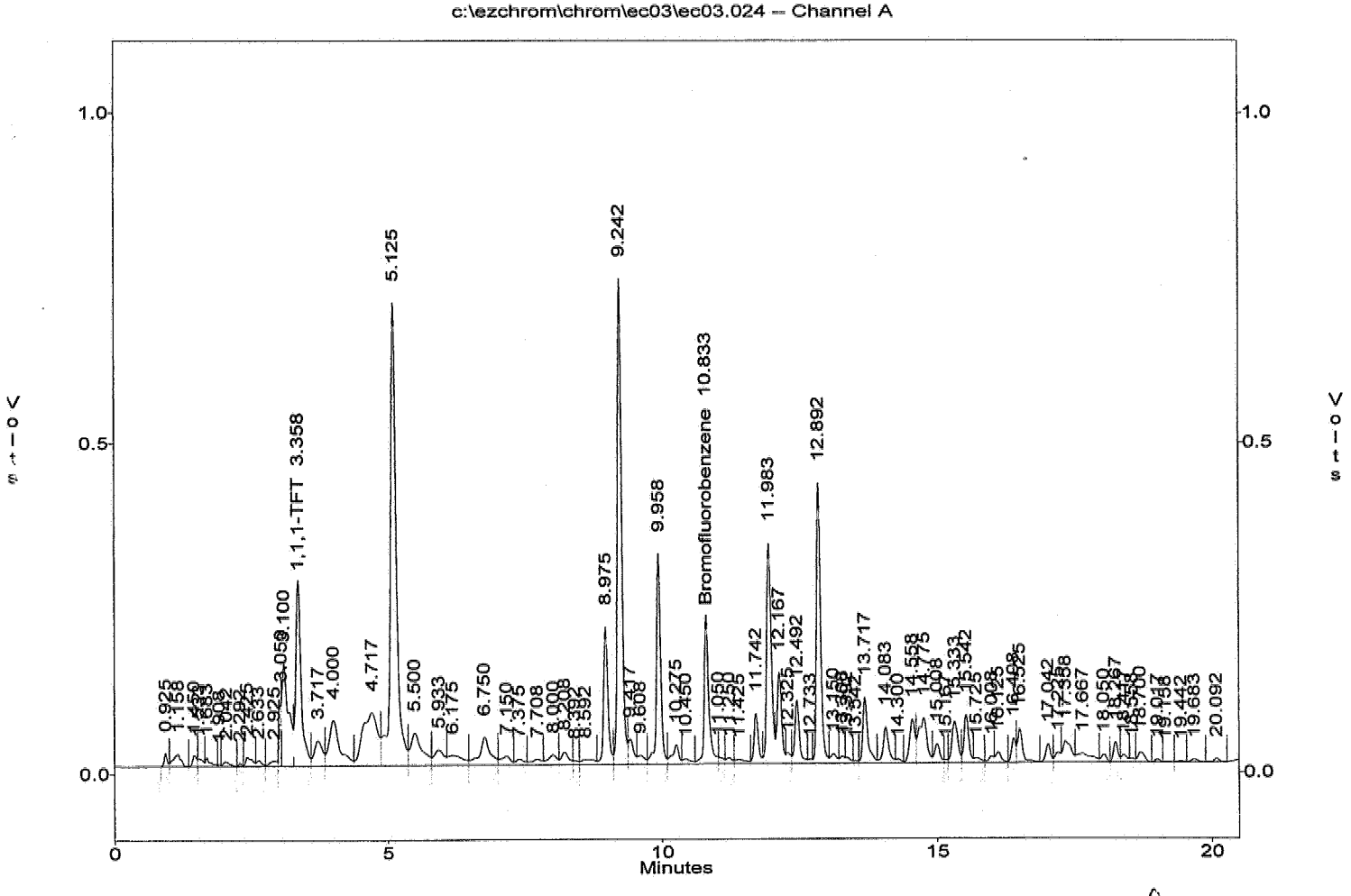
03/06/06
4028

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec03\ec03.024
Method : c:\ezchrom\methods\vg39c03.met
Sample ID : VG39C03-06 2000/75
Acquired : Mar 04, 2006 02:57:07
Printed : Mar 06, 2006 12:21:39
User : SERGIO

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
14	1,1,1-TFT	3.358	1845865.0	21531.8	75.00
37	Bromofluorobenzene	10.833	1298426.0	15026.0	75.00
G1	GASOLINE(TOTAL)		33415984.0	15352.4	2000.00
G2	GRO(C6-C10)		27390820.0	12418.6	2000.00
G3	GRO(2MP-124TMB)		27446880.0	12455.2	2000.00
G4	GRO(C5-C12)		33290400.0	15149.8	2000.00



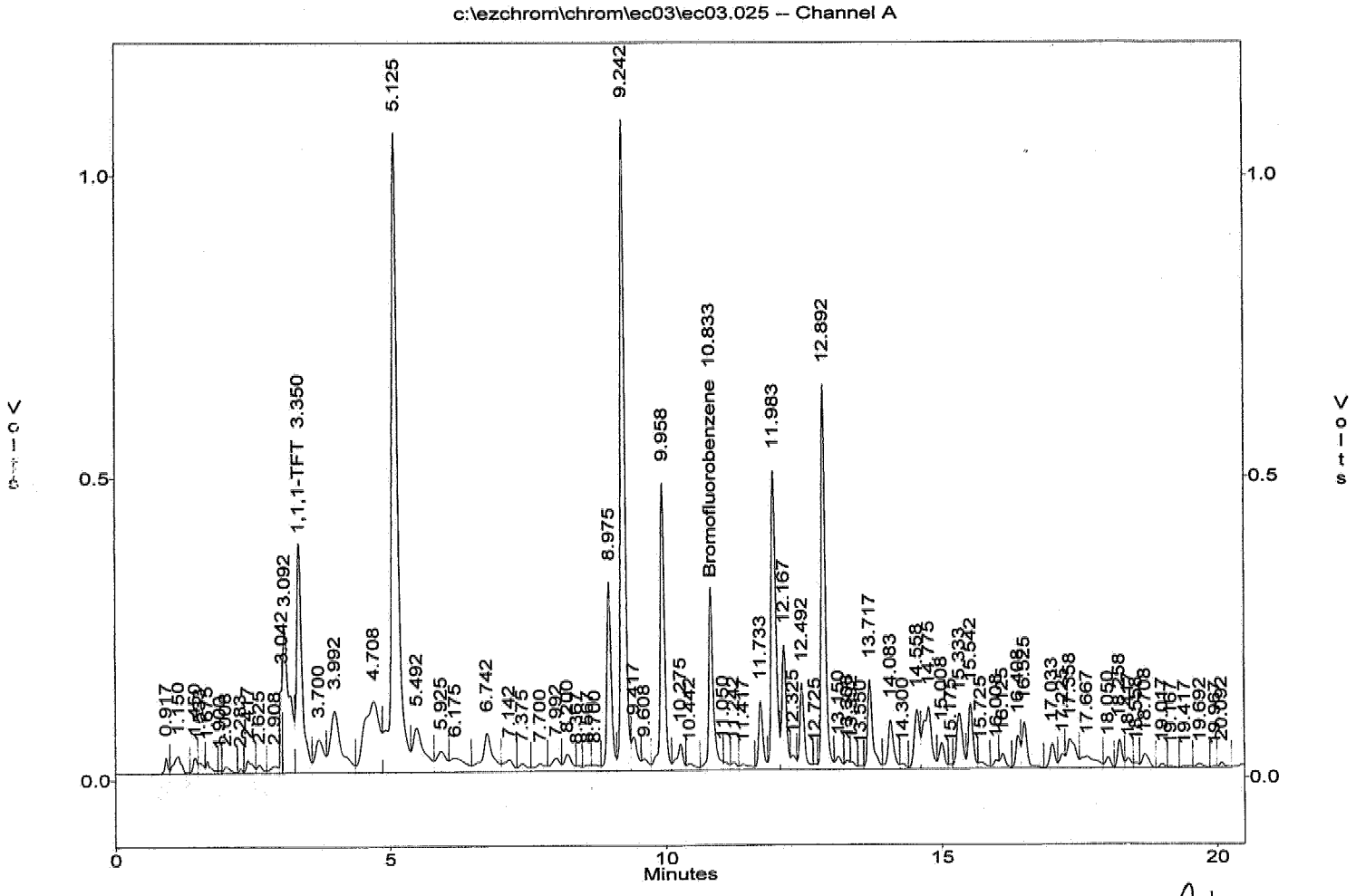
AA 03/06/06
4029

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec03\ec03.025
Method : c:\ezchrom\methods\vg39c03.met
Sample ID : VG39C03-07 3000/100
Acquired : Mar 04, 2006 03:35:22
Printed : Mar 06, 2006 12:22:07
User : SERGIO

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
14	1,1,1-TFT	3.350	2570044.0	21531.8	100.00
38	Bromofluorobenzene	10.833	1763520.0	15026.0	100.00
G1	GASOLINE(TOTAL)		49999240.0	15352.4	3000.00
G2	GRO(C6-C10)		41032744.0	12418.6	3000.00
G3	GRO(2MP-124TMB)		41125540.0	12455.2	3000.00
G4	GRO(C5-C12)		49821432.0	15149.8	3000.00



03/06/06
4030

SECOND SOURCE

INITIAL CALIBRATION VERIFICATION
5030B/M8015

Lab Name : EMAX
Instrument ID : GCT39
GC Column : DB-5
Column size ID : 30MX.53MM
Mid Conc Init LFID & Datetime: EC03022A 03/04/2006 01:40
Conc Cont LFID & Datetime: EC03026A 03/04/2006 04:13
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Gasoline(TOTAL)	0.000	0.000	0.000	500.0	15352.4	7188130	468.21	-6		15
GRO(C6-C10)	0.000	0.000	0.000	500.0	12418.6	5837213	470.04	-6		15
GRO(2MP-124TMB)	0.000	0.000	0.000	500.0	12455.2	5812679	466.69	-7		15
GRO(C5-C12)	0.000	0.000	0.000	500.0	15149.8	7136784	471.08	-6		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
Bromofluorobenzene	10.833	10.771	10.895	40.0	15026.0	621377	41.35	3		15
1,1,1-Trifluorotoluene	3.358	3.257	3.459	40.0	21531.8	834546	38.76	-3		15

VG39C03.MET

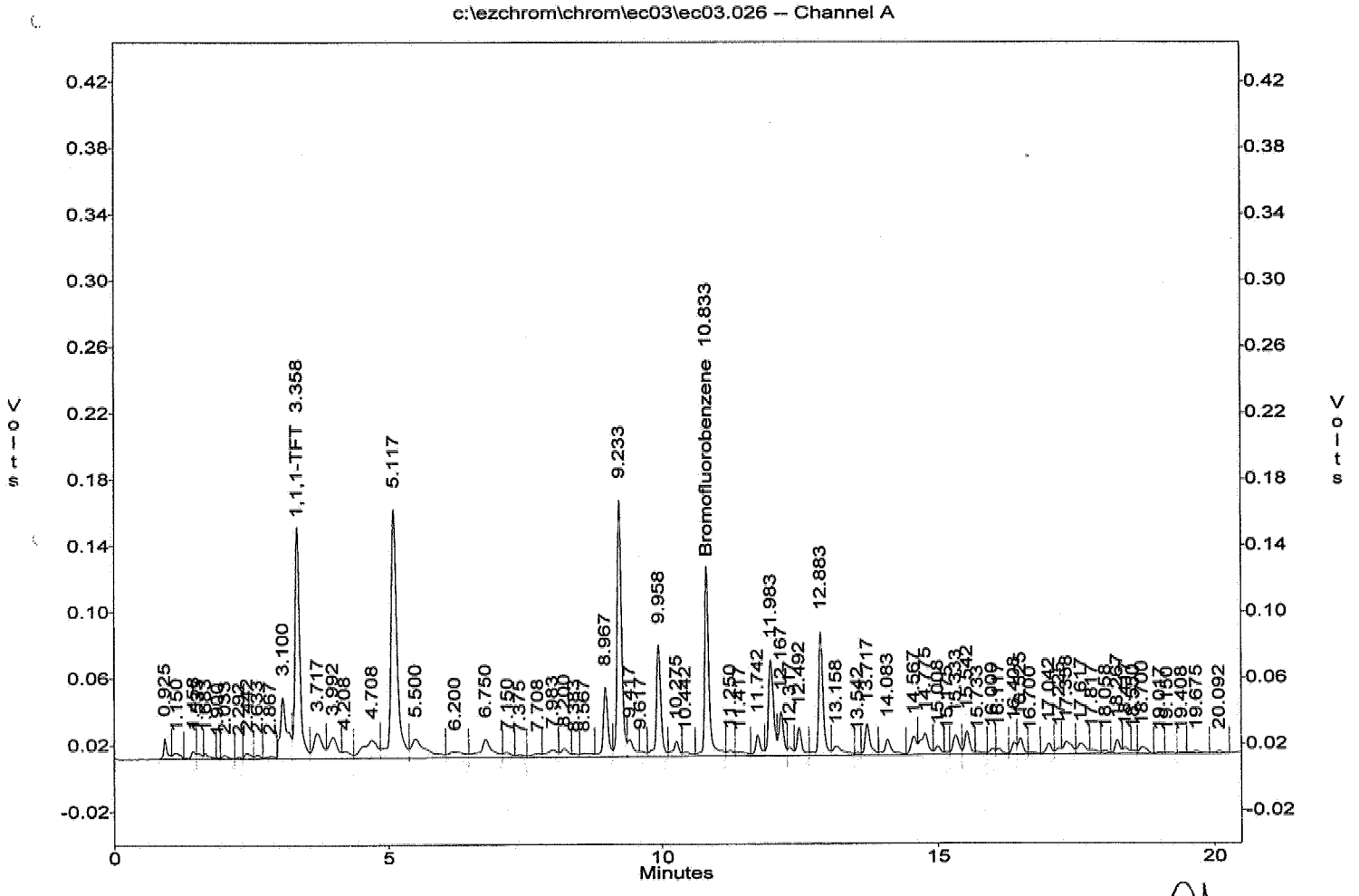
AS
03/06/04
4032

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec03\ec03.026
Method : c:\ezchrom\methods\vg39c03.met
Sample ID : IVG39C0301 500/40
Acquired : Mar 04, 2006 04:13:31
Printed : Mar 06, 2006 12:24:44
User : SERGIO

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
13	1,1,1-TFT	3.358	834546.0	21531.8	38.76
36	Bromofluorobenzene	10.833	621377.0	15026.0	41.35
G1	GASOLINE(TOTAL)		7188130.0	15352.4	468.21
G2	GRO(C6-C10)		5837213.0	12418.6	470.04
G3	GRO(2MP-124TMB)		5812679.0	12455.2	466.69
G4	GRO(C5-C12)		7136784.0	15149.8	471.08



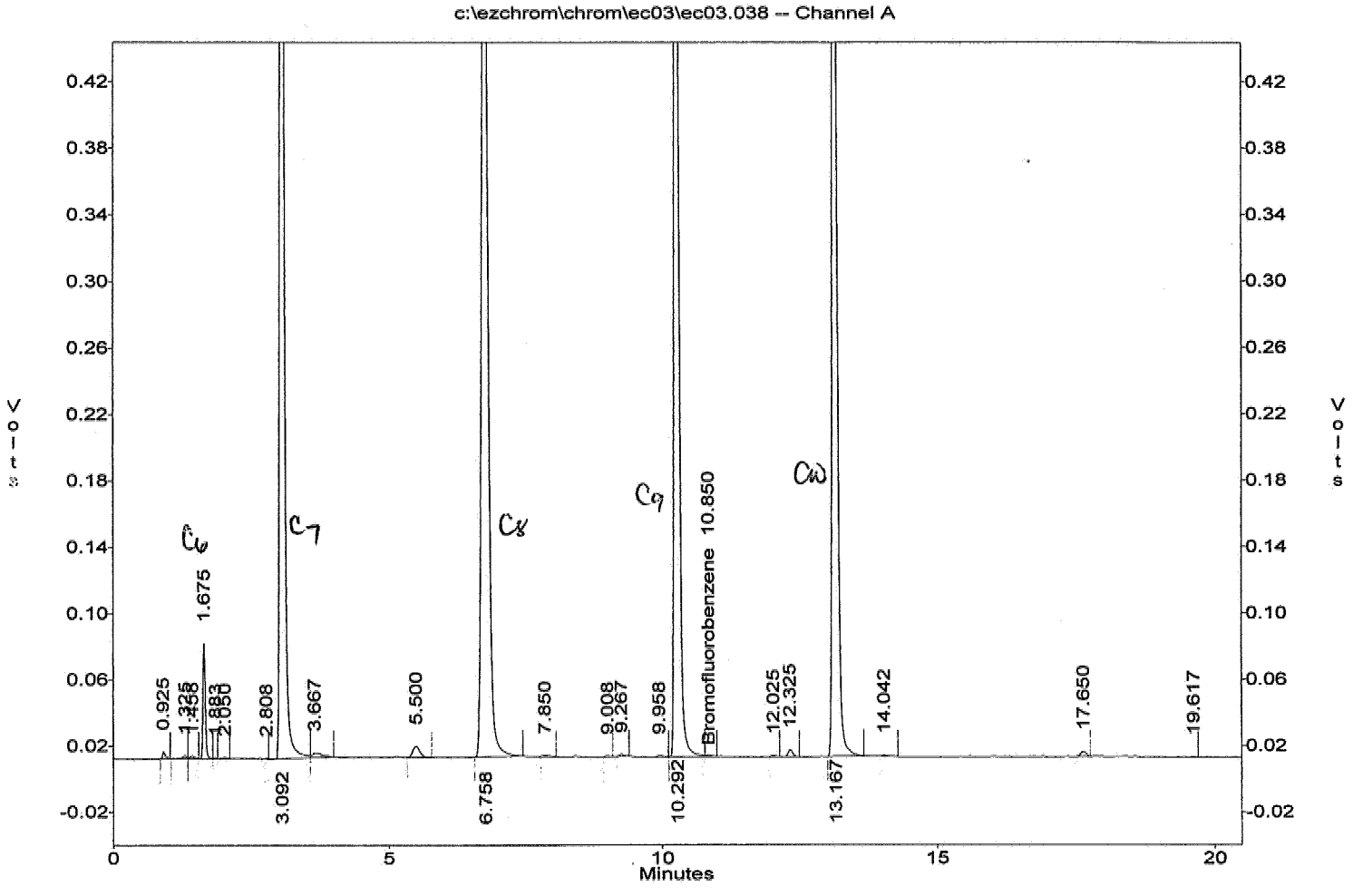
03/06/06
4033

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec03\ec03.038
Method : c:\ezchrom\methods\vg39c03.met
Sample ID : GRO
Acquired : Mar 04, 2006 11:51:49
Printed : Mar 07, 2006 09:10:15
User : MICHAEL

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
--	1,1,1-TFT	3.330	0.0	0.0	0.00
17	Bromofluorobenzene	10.850	7464.0	15026.0	0.50
G1	GASOLINE(TOTAL)		19320312.0	15352.4	1258.46
G2	GRO(C6-C10)		19276316.0	12418.6	1552.21
G3	GRO(2MP-124TMB)		14900208.0	12455.2	1196.30
G4	GRO(C5-C12)		19318510.0	15149.8	1275.17

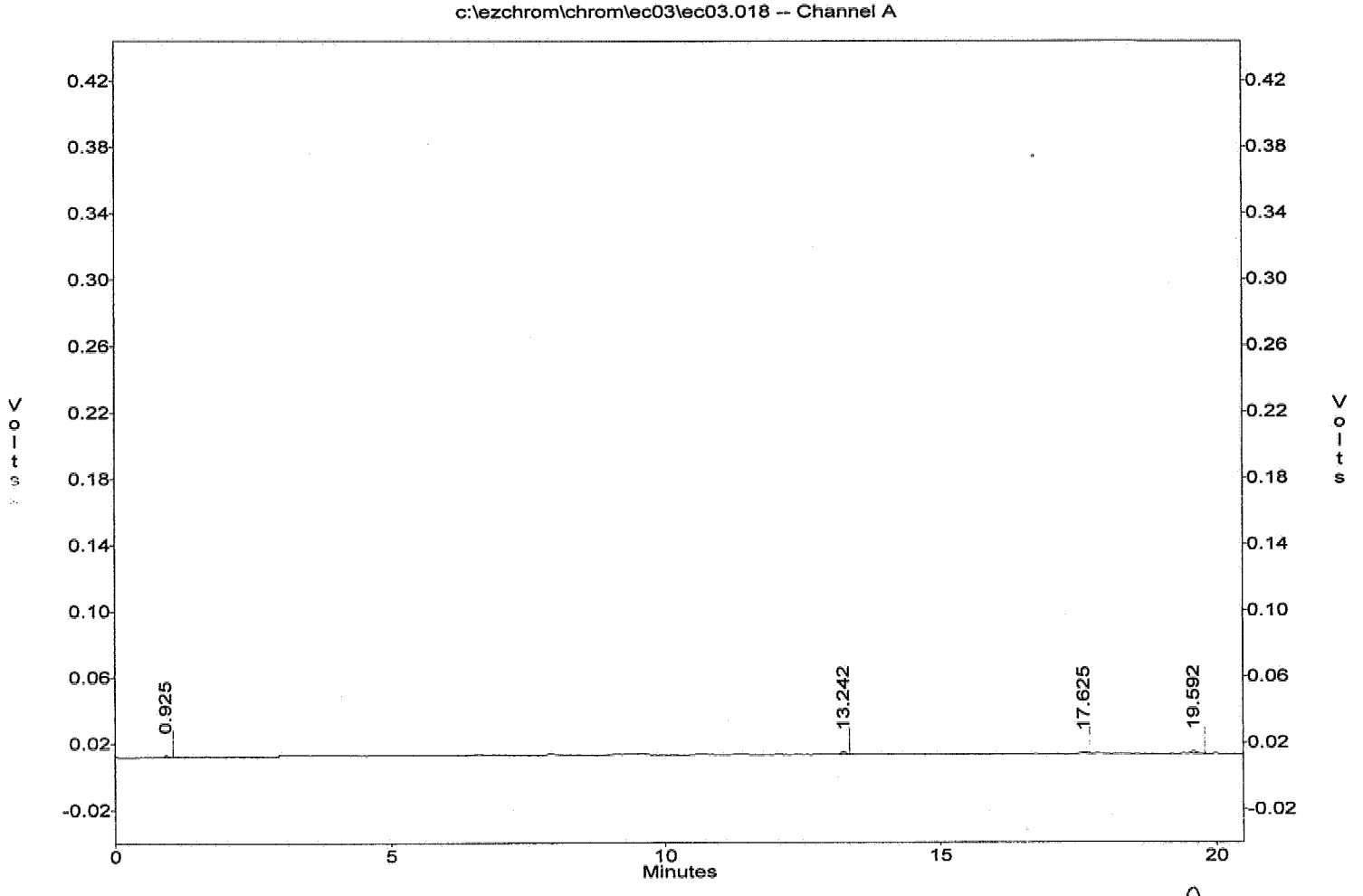


METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec03\ec03.018
Method : c:\ezchrom\methods\vg39c03.met
Sample ID : IB39C735
Acquired : Mar 03, 2006 23:07:55
Printed : Mar 06, 2006 12:25:52
User : SERGIO

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
--	1,1,1-TFT	3.330	0.0	0.0	0.00
--	Bromofluorobenzene	10.850	0.0	0.0	0.00
G1	GASOLINE(TOTAL)		21778.0	15352.4	1.42
G2	GRO(C6-C10)		0.0	12418.6	0.00
G3	GRO(2MP-124TMB)		0.0	12455.2	0.00
G4	GRO(C5-C12)		12407.0	15149.8	0.82



03/06/06
4035

DAILY CALIBRATION

CONTINUE CALIBRATION
5030B/M8015

Lab Name : EMAX
Instrument ID : GCT39
GC Columm : DB-5
Column size ID : 30MX.53MM
Mid Conc Init LFID & Datetime: EC03022A 03/04/2006 01:40
Conc Cont LFID & Datetime: EC24007A 03/24/2006 14:10
CONC UNIT : ppb

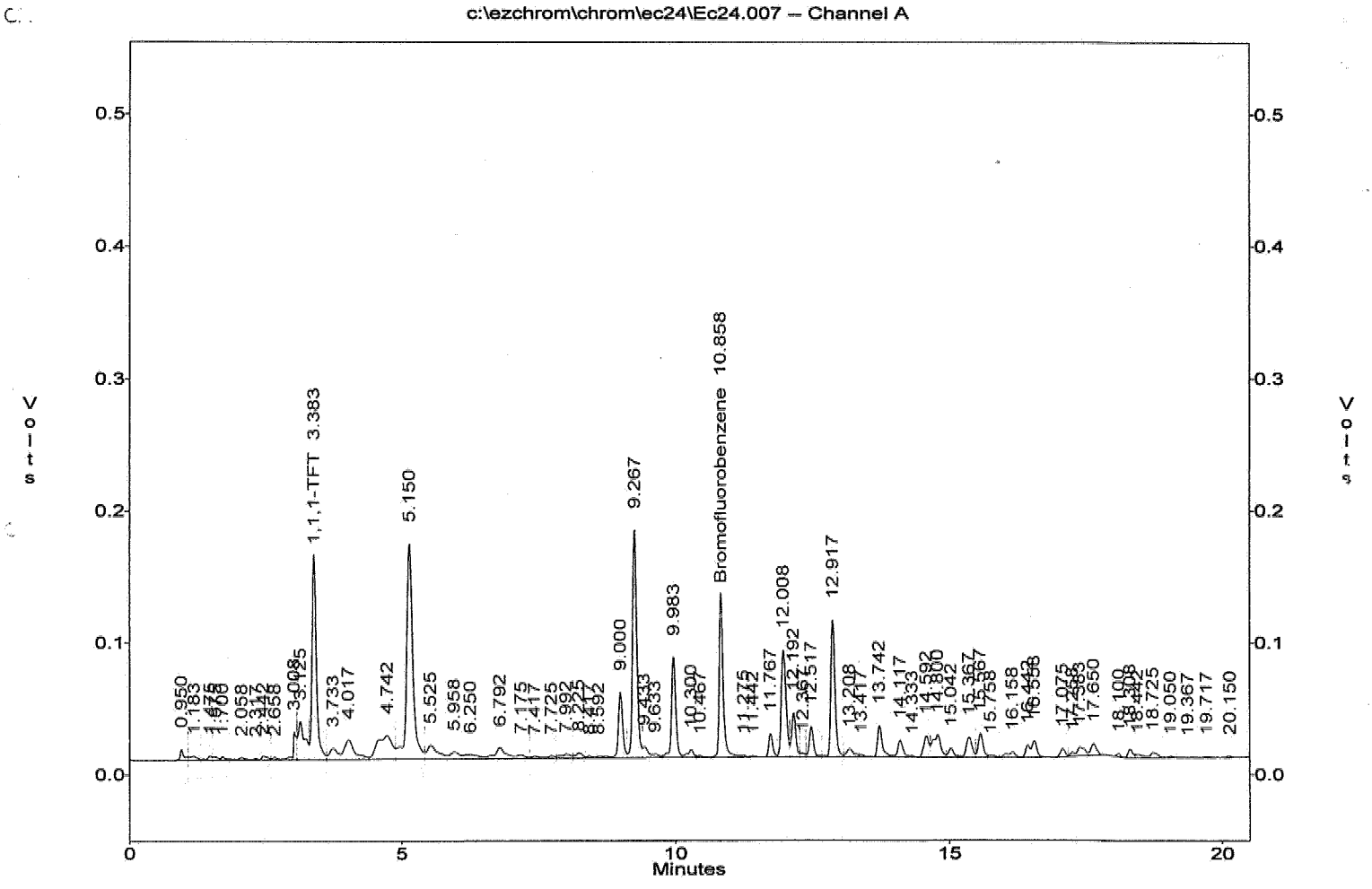
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Gasoline(TOTAL)	0.000	0.000	0.000	500.0	15352.4	7509823	489.16	-2		15
GRO(C6-C10)	0.000	0.000	0.000	500.0	12418.6	6097919	491.03	-2		15
GRO(2MP-124TMB)	0.000	0.000	0.000	500.0	12455.2	6134383	492.52	-1		15
GRO(C5-C12)	0.000	0.000	0.000	500.0	15149.8	7482208	493.88	-1		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
Bromofluorobenzene	10.858	10.796	10.920	40.0	15026.0	639120	42.53	6		15
1,1,1-Trifluorotoluene	3.383	3.282	3.484	40.0	21531.8	890547	41.36	3		15

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec24\Ec24.007
Method : c:\ezchrom\methods\Vg39c03.met
Sample ID : CVG39C03808 500/40
Acquired : Mar 24, 2006 14:10:41
Printed : Mar 24, 2006 14:31:14
User : MICHAEL

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
12	1,1,1-TFT	3.383	890547.0	21531.8	41.36
35	Bromofluorobenzene	10.858	639120.0	15026.0	42.53
G1	GASOLINE(TOTAL)		7509823.0	15352.4	489.16
G2	GRO(C6-C10)		6097919.0	12418.6	491.03
G3	GRO(2MP-124TMB)		6134383.0	12455.2	492.51
G4	GRO(C5-C12)		7482208.0	15149.8	493.88



CONTINUE CALIBRATION
5030B/M8015

Lab Name : EMAX
Instrument ID : GCT39
GC Column : DB-5
Column size ID : 30MX.53MM
Mid Conc Init LFID & Datetime: EC03022A 03/04/2006 01:40
Conc Cont LFID & Datetime: EC24022A 03/24/2006 23:43
CONC UNIT : ppb

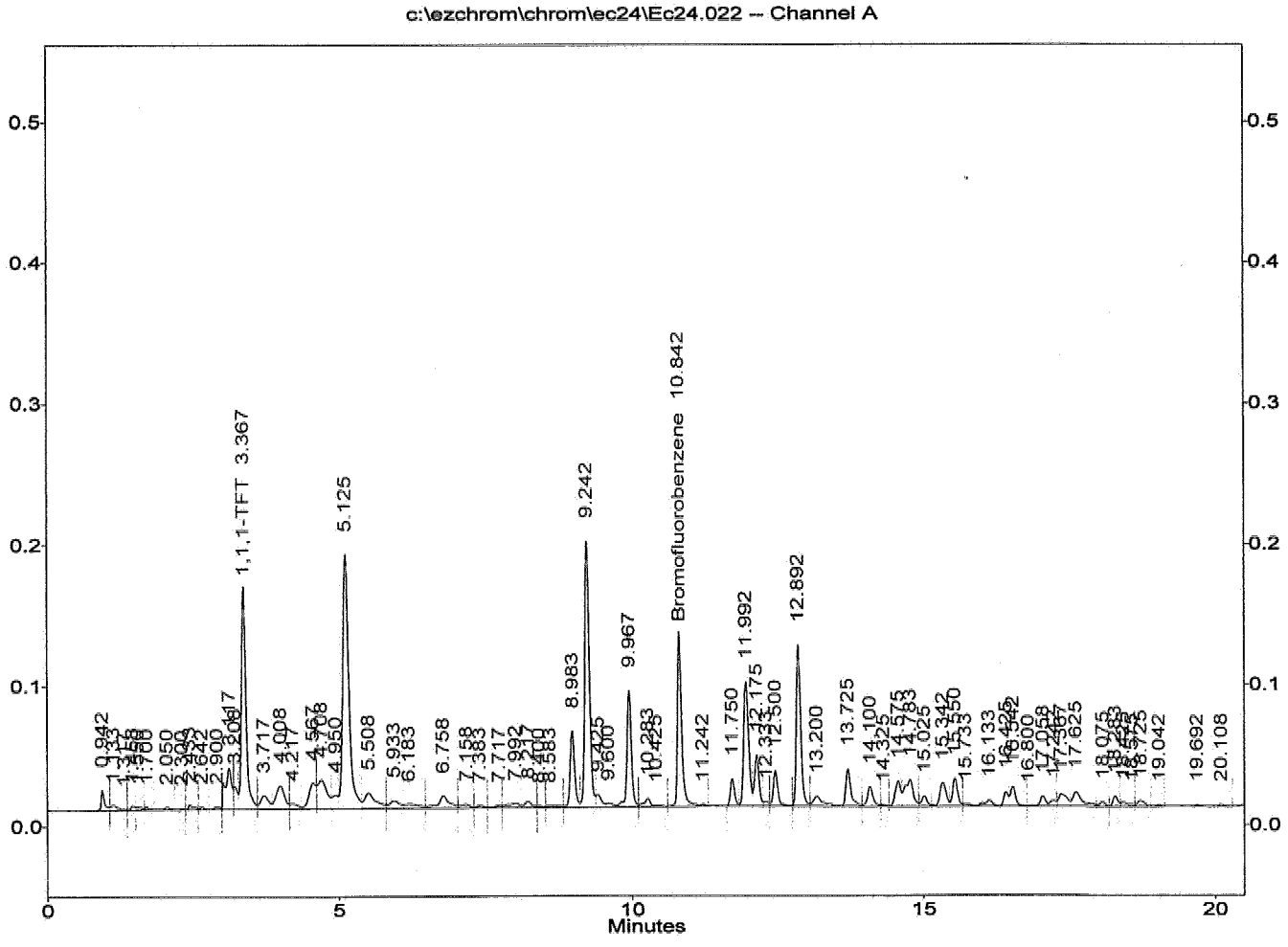
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Gasoline(TOTAL)	0.000	0.000	0.000	500.0	15352.4	8185368	533.17	7		15
GRO(C6-C10)	0.000	0.000	0.000	500.0	12418.6	6519572	524.98	5		15
GRO(2MP-124TMB)	0.000	0.000	0.000	500.0	12455.2	6551315	525.99	5		15
GRO(C5-C12)	0.000	0.000	0.000	500.0	15149.8	8158842	538.54	8		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
Bromofluorobenzene	10.842	10.780	10.904	40.0	15026.0	637479	42.42	6		15
1,1,1-Trifluorotoluene	3.367	3.266	3.468	40.0	21531.8	881905	40.96	2		15

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec24\Ec24.022
Method : c:\ezchrom\methods\Vg39c03.met
Sample ID : CVG39C03810 500/40
Acquired : Mar 24, 2006 23:43:27
Printed : Mar 25, 2006 00:04:00
User : MICHAEL

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
14	1,1,1-TFT	3.367	881905.0	21531.8	40.96
40	Bromofluorobenzene	10.842	637479.0	15026.0	42.43
G1	GASOLINE(TOTAL)		8185368.0	15352.4	533.17
G2	GRO(C6-C10)		6519572.0	12418.6	524.98
G3	GRO(2MP-124TMB)		6551315.0	12455.2	525.99
G4	GRO(C5-C12)		8158842.0	15149.8	538.54



CONTINUE CALIBRATION
5030B/M8015

Lab Name : EMAX
Instrument ID : GCT39
GC Column : DB-5
Column size ID : 30MX.53MM
Mid Conc Init LFID & Datetime: EC03022A 03/04/2006 01:40
Conc Cont LFID & Datetime: EC24032A 03/25/2006 06:03
CONC UNIT : ppb

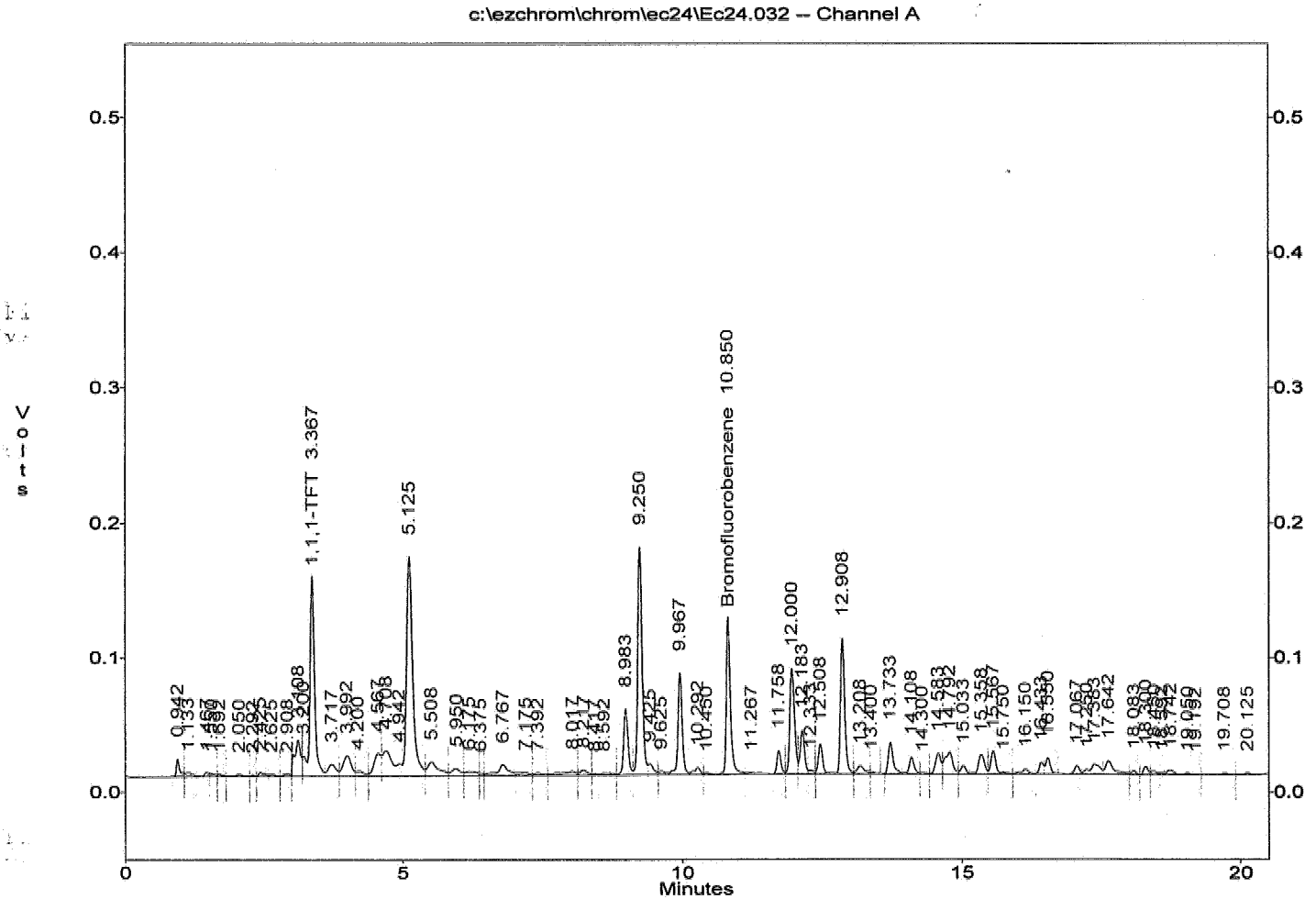
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Gasoline(TOTAL)	0.000	0.000	0.000	500.0	15352.4	7361609	479.51	-4		15
GRO(C6-C10)	0.000	0.000	0.000	500.0	12418.6	5966195	480.42	-4		15
GRO(2MP-124TMB)	0.000	0.000	0.000	500.0	12455.2	5997643	481.54	-4		15
GRO(C5-C12)	0.000	0.000	0.000	500.0	15149.8	7332536	484.00	-3		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
Bromofluorobenzene	10.850	10.788	10.912	40.0	15026.0	599723	39.91	-0		15
1,1,1-Trifluorotoluene	3.367	3.266	3.468	40.0	21531.8	836285	38.84	-3		15

METHOD 8015 by FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ec24\Ec24.032
Method : c:\ezchrom\methods\Vg39c03.met
Sample ID : CVG39C03814 500/40
Acquired : Mar 25, 2006 06:03:15
Printed : Mar 25, 2006 06:23:47
User : MICHAEL

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(PPB)
13	1,1,1-TFT	3.367	836285.0	21531.8	38.84
39	Bromofluorobenzene	10.850	599723.0	15026.0	39.91
G1	GASOLINE(TOTAL)		7361609.0	15352.4	479.51
G2	GRO(C6-C10)		5966195.0	12418.6	480.42
G3	GRO(2MP-124TMB)		5997643.0	12455.2	481.54
G4	GRO(C5-C12)		7332536.0	15149.8	484.00



ANALYTICAL LOGS

ANALYSIS RUN LOG FOR NONHALOGENATED VOLATILES

SOP: ☑ EMAX-5030B Rev. No. 1 ☑ EMAX-BTEXM Rev. No. 1 ☑ EMAX-8015G Rev. No. 1 ☐ SC 3/06/04 13:46

Starting Date: 3/03/06 Time: 23:07 Ending Date: ~~3/03/06~~ 3/04/06 Time: ~~22:29~~ SC 3/06/04 Book # A39-024

ANALYTICAL BATCH # N/A

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	Purge Volume	pH	Matrix	Notes
*01	EC03-018	LB39C735	5.0ml	5.0ml	N/A	W	
*02	-019	VG39C03-01	.04ml/1ml				20/10
*03	-020	-02	.1ml/2ml				50/20
*04	-021	-03	.2ml/3ml				100/30
*05	-022	-04	1ml/4ml				500/40 GAS
*06	-023	-05	2ml/5ml				1000/50 ICAL
*07	-024	-06	4ml/7.5ml				2000/75
*08	-025	-07	6ml/10ml				3000/100
*09	-026	LVG39C0301	.5ml/4ml				500/40 GAS ICV
*10	-027	LVG39C0302	1ml/5ml				1000/50 GAS ICV
*11	-028	LB39C736 ~~TEST~~ SC 3/06/06	5.0ml				
*12	-029	VA39C03-01	.05ml				.5 PPB
*13	-030	-02	.1ml				1 PPB
*14	-031	-03	.5ml				5PPB
*15	-032	-04	2ml				20 PPB BTEXM
*16	-033	-05	4ml				40 PPB ICAL
*17	-034	-06	7.5ml				75 PPB
*18	-035	-07	10ml				100 PPB
*19	-036	LVA39C0303	2ml				BTEX ICV 20/20
*20	-037	LVA39C0304	4ml				BTEX ICV 40/40
*21	-038	GRO	.5ml				
*22	-039	2MP/1,2,4-TMB	1ml/.5ml				
*23	-040	PENTANE/NAPHTHALENE	3ml/.5ml				
*24	-041	DRO	.5ml				
*25							
*26							
*27							
*28							SC 3/03/06
*29							
*30							

Instrument No:		39
Initial Calibration Reference		
	FIDChannel A	PIDChannel B
Method File	VG39C03	VG39C03
Date	3/03/06	3/03/06
ICAL ID	VG39C03-GAS	
	VA39C03-BTEXM	
ICV ID	LVG39C0301/02 GAS	
	LVA39C0303/-04 BTEXM	
Std.	ID	Conc.(mg/L)
DCC GAS ICAL	SV2A-04-58	2500
DCC BTEX ICAL	SV2C-04-30-3	50
BFB/TFT	SV2C-04-31-3	50
LCS/LCSD GAS ICV	SV2A-04-67	5000
MS/MSD	—	—
BTEX LCS/ICV	SV2C-04-31-1	50
Solvent	ID	
Methanol		
Electronic Data Archival		
Location		Date
	EZC-3-BTEX	

Comments:

Analyzed By: SC

Disposed on: 3/06/06 By: SC

MAXXAM LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

ANALYSIS RUN LOG FOR NONHALOGENATED VOLATILES

SOP: ☐ EMAX-5030B Rev. No. 1 ☑ EMAX-BTEXM Rev. No. 1 ☑ EMAX-8015G Rev. No. 1 ☐

Starting Date: 3/24/06 Time: 10:58 Ending Date: 3/25/06 Time: 3/28/06 MRA 6:44 4:47 Book # A39-024

ANALYTICAL BATCH # VA39C13 ** MRA 3/28/06

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	Purge Volume	pH	Matrix	Notes
*01	EC24 .001	JUNK	5.0mL	5.0mL	N/A	W	
*02	.002	IB39C808					
*03	.003	TEST					
*04	.004						
*05	.005						
*06	.006						
*07	.007	CVG39C03808	1ml/1ml				500/40 GAS
*08	.008	CVA39C03809	4ml				40/40 BTEX
*09	.009	VA39C13B	5.0mL				Not Evaluated
*10	.010	Q					
*11	.011	L	2ml				BTEX
*12	.012	C	2ml				BTEX
*13	.013	VA39C14 L	.5ml/1ml				GAS
*14	.014	C	.5ml/1ml				GAS
*15	.015	BTXMDLVER-1	1ml				.2 PPb Not Evaluated
*16	.016	BTXMDLVER-2	2ml				.4 PPb
*17	.017	GASMDLVER-1	1ml/1ml				10 PPb Not Evaluated
*18	.018	GASMDLVER-2	2ml/1ml				20 PPb
*19	.019	06C584-03	5.0mL		<2		
*20	.020	-01					
*21	.021	-02					
*22	.022	CVG39C03810	1ml/1ml		N/A		500/40 GAS
*23	.023	CVA39C03811	4ml				40/40 BTEX
*24	.024	CVG39C03812	1ml/1ml				500/40 GAS
*25	.025	CVA39C03813	4ml				40/40 BTEX
*26	.026	06C222-01	5.0mL		<2		
*27	.027	01M					
*28	.028	01S					
*29	.029	02					
*30	.030	03					

Instrument No:	39
Initial Calibration Reference	
	FIDChannel A / PIDChannel B
Method File	VG39C03 / VA39C03
Date	03/03/06 / 03/03/06
ICAL ID	— / —
ICV ID	— / —

Std.	ID	Conc.(mg/L)
DCC GAS	SV2A-04-58	2500
DCC BTEX	SV2C-04-30-1	50
BFB/TFT	SV2C-04-32.2	200
LCS/LCSD$_{GAS}$	SV2A-04-67	5000
MS/MSD	SV2A-04-67	5000
LCS/LCSD BTEX	SV2C-04-30-2	100

Solvent	ID
Methanol	

Electronic Data Archival

Location	Date
EZC-3-BTEX	

Comments:

Analyzed By: MRA / SC

Disposed on: 3/28/06 By: MRA

MAXXAM LABORATORIES, INC. 18333 W. 2nd St. Torrance, CA 90501

1015

ANALYSIS RUN LOG FOR NONHALOGENATED VOLATILES

SOP: ☐ EMAX-5030B Rev. No. 1 ☐ EMAX-BTEXM Rev. No. 1 ☐ EMAX-8015G Rev. No. 1 ☐

Starting Date: 3/25/06 Time: 5:25 Ending Date: 3/25/06 Time: 6:41 Book # A39-024

ANALYTICAL BATCH # X060325MMA-6

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	Purge Volume	pH	Matrix	Notes
**01	EC24 .031	060222-04	5.0mL	5.0mL	<2	W	
*02	.032	CVG39C03814	1ml/1ml		N/A		500/40 GAS
*03	.033	CVG39C03815	1ml/1ml				500/40 GAS
*04							
*05							
*06							
*07							
*08							
*09							
*10							
*11							
*12							
*13							
*14							
*15							
*16							
*17							
*18				- MDA 3/28/06			
*19							
*20							
*21							
*22							
*23							
*24							
*25							
*26							
*27							
*28							
*29							
*30							

Instrument No:	39
Initial Calibration Reference	
	FIDChannel A / PIDChannel B
Method File	VG39C03 / VA39C03
Date	03/03/06 / 03/03/06
ICAL ID	
ICV ID	

Std.	ID	Conc.(mg/L)
DCC GAS	SEE PREVIOUS PAGE	
DCC BTEX		
BFB/TFT		
LCS/LCSD		
MS/MSD		

Solvent	ID
Methanol	

Electronic Data Archival		
	Location	Date
	EZC-3-BTEX	

Comments:

Analyzed By: MDA / SC

Disposed on: 3/29/06 By: MDA

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

LABORATORY REPORT FOR

ENSR

UPGRADIENT INVESTIGATION, TRONOX

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 06C222

CASE NARRATIVE

CLIENT: ENSR

PROJECT: UPGRADIENT INVESTIGATION, TRONOX

SDG: 06C222

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Three (3) water samples were received on 03/24/06 for Total Petroleum Hydrocarbons by Extraction analysis by Method 3520C/8015B in accordance with SW846, 3rd edition.

1. Holding Time

Analytical holding time was met. Extraction was performed on 03/27/06 and completed on 03/28/06.

2. Calibration

Initial calibration was seven points for Diesel and Motor Oil. %RSDs were within 20%. Continuing calibrations were carried out at every 12-hour interval and all recoveries were within 85-115%.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

All recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

Sample C222-01 was spiked. Recoveries were witin QC limits.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Sample results were quantitated from C10 to C28 using Diesel (C10-C28) calibration factor and from C28 to C38 using Motor Oil calibration factor.

Sample C222-03 displayed lighter fuel pattern.

Discrete peak(s) found in sample C222-03 was not reported.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : ENSR
Project : UPGRADIENT INVESTIGATION, TRONOX

SDG NO. : 06C222
Instrument ID : GCT050

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSC025WB	1	NA	03/28/0617:46	03/27/0612:00	TC28006A	TC28004A	DSC025W	Method Blank
LCS1W	DSC025WL	1	NA	03/28/0618:28	03/27/0612:00	TC28007A	TC28004A	DSC025W	Lab Control Sample (LCS)
LCD1W	DSC025WC	1	NA	03/28/0619:09	03/27/0612:00	TC28008A	TC28004A	DSC025W	LCS Duplicate
M-121	C222-01	.94	NA	03/28/0619:51	03/27/0612:00	TC28009A	TC28004A	DSC025W	Field Sample
M-117	C222-02	.94	NA	03/28/0621:57	03/27/0612:00	TC28012A	TC28004A	DSC025W	Field Sample
H-11	C222-03	.94	NA	03/28/0622:38	03/27/0612:00	TC28013A	TC28004A	DSC025W	Field Sample
M-121MS	C222-01M	.94	NA	03/28/0620:33	03/27/0612:00	TC28010A	TC28004A	DSC025W	Matrix Spike Sample (MS)
M-121MSD	C222-01S	.94	NA	03/28/0621:15	03/27/0612:00	TC28011A	TC28004A	DSC025W	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/27/06 12:00
Sample ID:	M-121	Date Analyzed:	03/28/06 19:51
Lab Samp ID:	C222-01	Dilution Factor:	.94
Lab File ID:	TC28009A	Matrix	: WATER
Ext Btch ID:	DSC025W	% Moisture	: NA
Calib. Ref.:	TC28004A	Instrument ID	: GCT050

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DRO	ND	.47	.094
ORO	ND	.94	.094

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	66	45-154
HEXACOSANE	90	63-165

RL : Reporting Limit

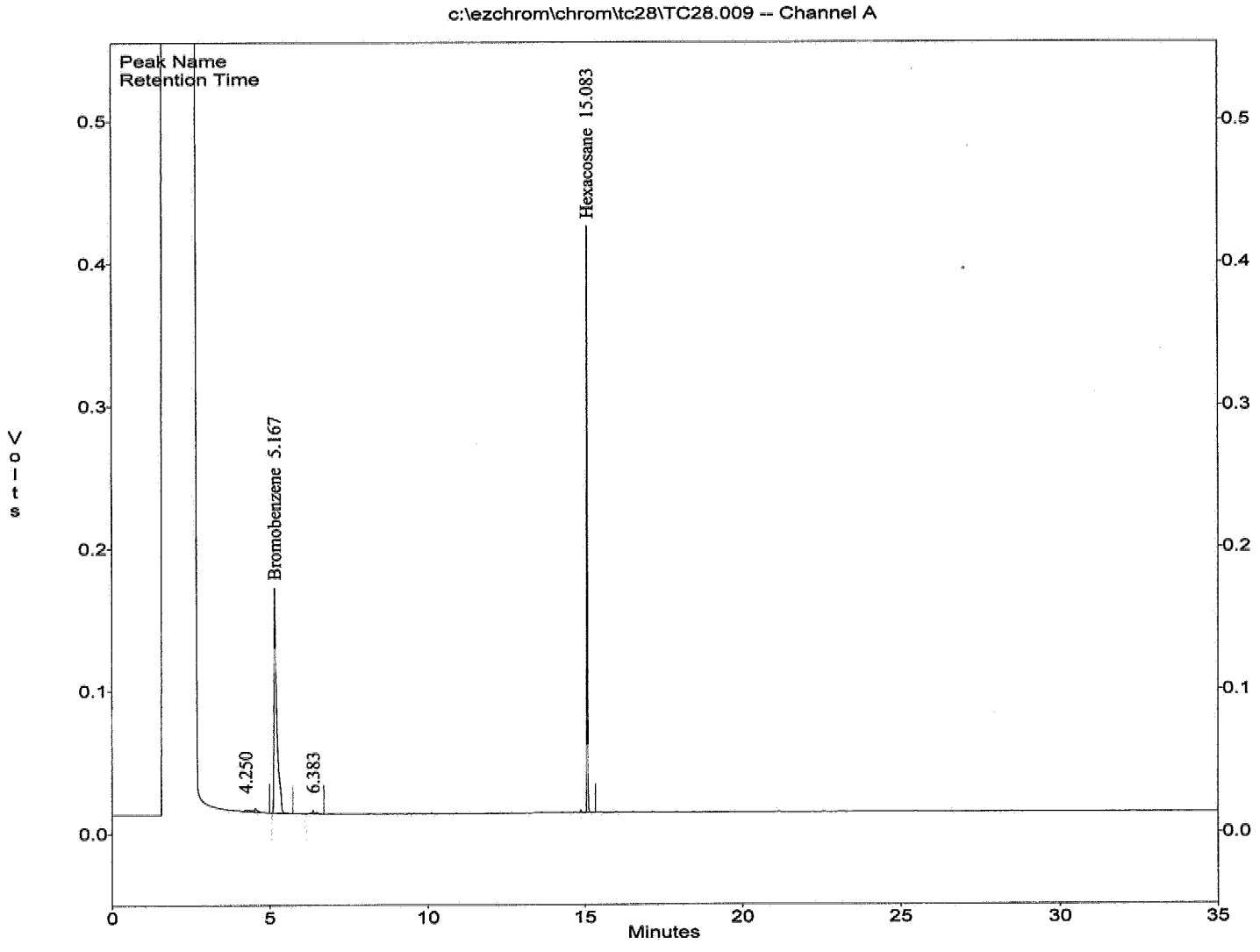
Parameter	H-C Range
DRO	C10-C28
ORO	C28-C38

METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\tc28\TC28.009
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : 06C222-01
Acquired : Mar 28, 2006 19:51:40
Printed : Mar 29, 2006 15:07:26
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
2	Bromobenzene	5.167	935346	14214.3	65.8
4	Hexacosane	15.083	654695	28984.5	22.6
G1	Diesel(TOTAL)		49735	26500.7	1.9
G2	Diesel(C10-C24)		15387	26460.6	0.6
G3	Diesel(C10-C28)		15387	26478.8	0.6



METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/27/06 12:00
Sample ID:	M-117	Date Analyzed:	03/28/06 21:57
Lab Samp ID:	C222-02	Dilution Factor:	.94
Lab File ID:	TC28012A	Matrix	: WATER
Ext Btch ID:	DSC025W	% Moisture	: NA
Calib. Ref.:	TC28004A	Instrument ID	: GCT050

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DRO	ND	.47	.094
ORO	ND	.94	.094

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	68	45-154
HEXACOSANE	85	63-165

RL : Reporting Limit

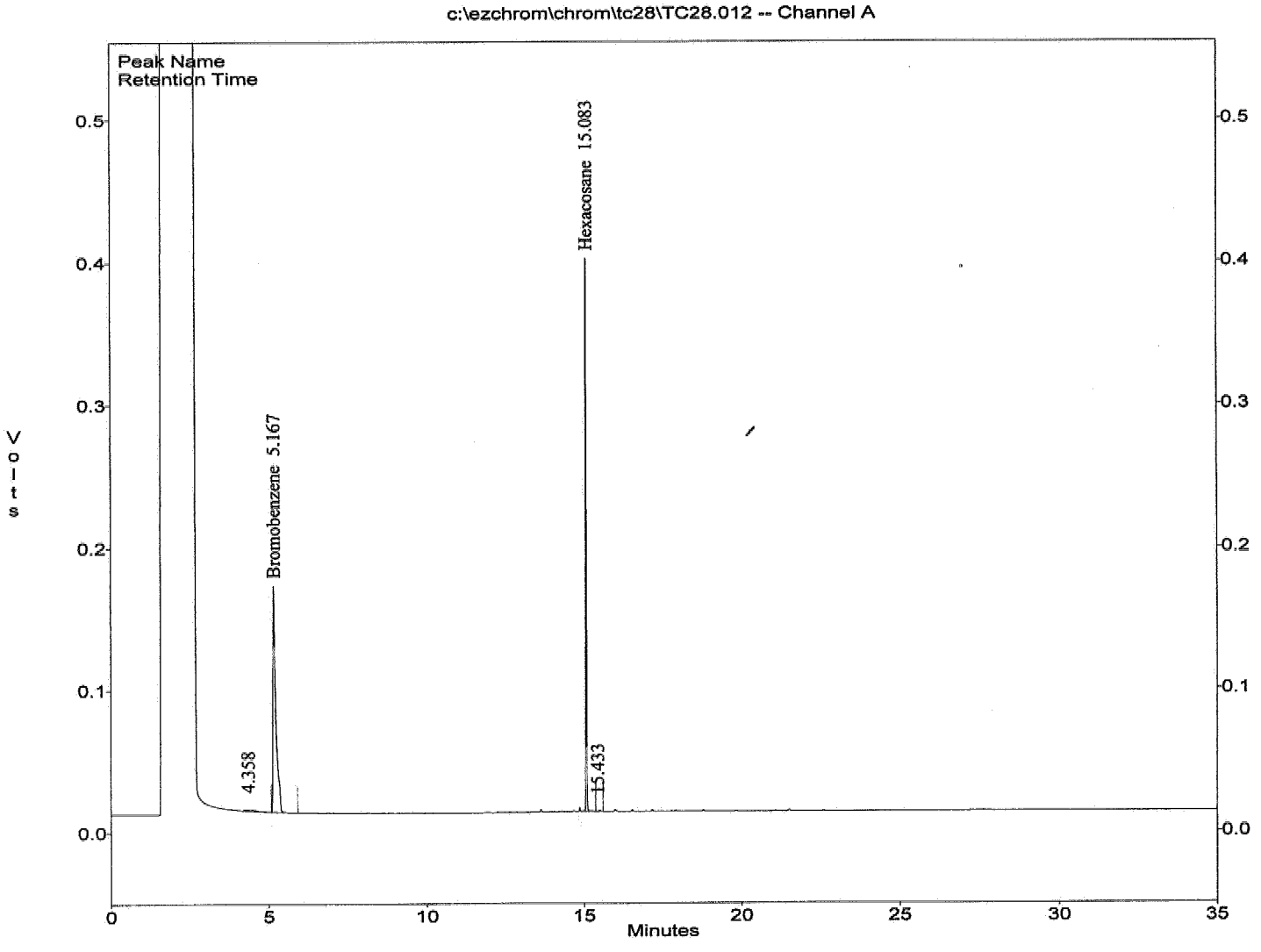
Parameter	H-C Range
DRO	C10-C28
ORO	C28-C38

METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\tc28\TC28.012
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : 06C222-02
Acquired : Mar 28, 2006 21:57:09
Printed : Mar 29, 2006 15:08:16
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
2	Bromobenzene	5.167	971696	14214.3	68.4
3	Hexacosane	15.083	615599	28984.5	21.2
G1	Diesel(TOTAL)		23100	26500.7	0.9
G2	Diesel(C10-C24)		0	26460.6	0.0
G3	Diesel(C10-C28)		0	26478.8	0.0



METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/27/06 12:00
Sample ID:	H-11	Date Analyzed:	03/28/06 22:38
Lab Samp ID:	C222-03	Dilution Factor:	.94
Lab File ID:	TC28013A	Matrix	: WATER
Ext Btch ID:	DSC025W	% Moisture	: NA
Calib. Ref.:	TC28004A	Instrument ID	: GCT050

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DRO**	.13J	.47	.094
ORO	ND	.94	.094

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	64	45-154
HEXACOSANE	98	63-165

RL : Reporting Limit

Parameter	H-C Range
DRO	C10-C28
ORO	C28-C38

** : Discrete peak(s) found was not reported

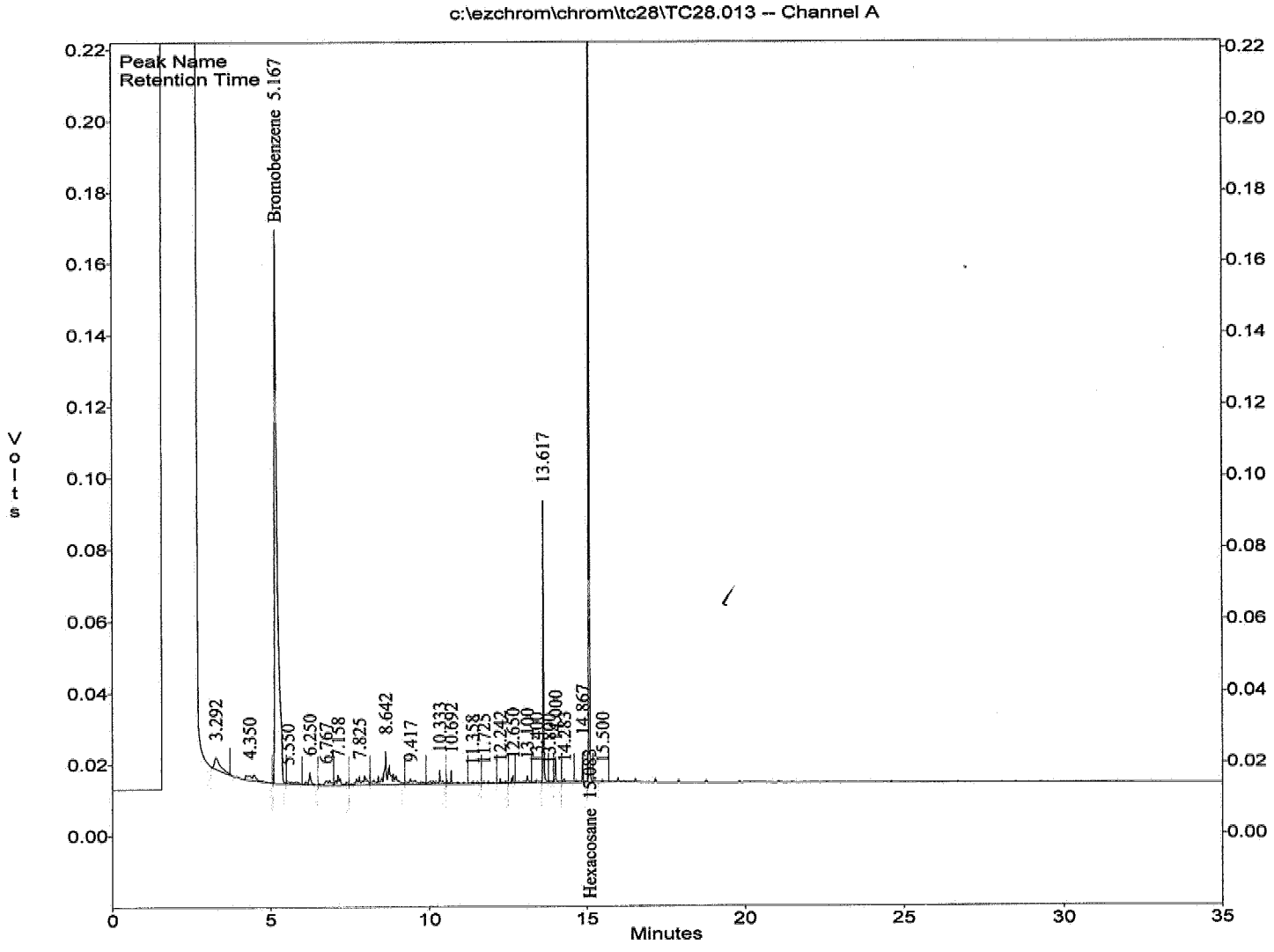
METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\tc28\TC28.013
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : 06C222-03
Acquired : Mar 28, 2006 22:38:57
Printed : Mar 29, 2006 15:10:03
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
3	Bromobenzene	5.167	914205	14214.3	64.3
24	Hexacosane	15.083	710439	28984.5	24.5
G1	Diesel(TOTAL)		527415	26500.7	19.9
G2	Diesel(C10-C24)		479652	26460.6	18.1
G3	Diesel(C10-C28)		497604	26478.8	18.8
G4	Dscrt Peak(13.617)		134055	0.0	0.0

Diesel (C10-C28) = $\frac{497604 - 134055}{20478.8} \times \frac{10}{1060} = 0.13$



3-29-06
5009

QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: ENSR	Date Collected:	NA
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/27/06
Batch No.	: 06C222	Date Extracted:	03/27/06 12:00
Sample ID:	MBLK1W	Date Analyzed:	03/28/06 17:46
Lab Samp ID:	DSC025WB	Dilution Factor:	1
Lab File ID:	TC28006A	Matrix :	WATER
Ext Btch ID:	DSC025W	% Moisture :	NA
Calib. Ref.:	TC28004A	Instrument ID :	GCT050

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
DRO	ND	.5	.1
ORO	ND	1	.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	56	50-140
HEXACOSANE	112	70-150

RL : Reporting Limit

Parameter	H-C Range
DRO	C10-C28
ORO	C28-C38

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ENSR
PROJECT: UPGRADIENT INVESTIGATION, TRONOX
BATCH NO.: 06C222
METHOD: METHOD 3520C/8015B

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: DSC025WB DSC025WL DSC025WC
LAB FILE ID: TC28006A TC28007A TC28008A
DATE EXTRACTED: 03/27/0612:00 03/27/0612:00 03/27/0612:00 DATE COLLECTED: NA
DATE ANALYZED: 03/28/0617:46 03/28/0618:28 03/28/0619:09 DATE RECEIVED: 03/27/06
PREP. BATCH: DSC025W DSC025W DSC025W
CALIB. REF: TC28004A TC28004A TC28004A

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
DRO	ND	5	4.03	81	5	3.88	78	4	60-140	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromobenzene	1	.694	69	1	.708	71	50-140
Hexacosane	.25	.272	109	.25	.273	109	70-150

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ENSR
PROJECT: UPGRADIENT INVESTIGATION, TRONOX
BATCH NO.: 06C222
METHOD: METHOD 3520C/8015B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	.94	.94	.94		
SAMPLE ID:	M-121				
LAB SAMP ID:	C222-01	C222-01M	C222-01S		
LAB FILE ID:	TC28009A	TC28010A	TC28011A		
DATE EXTRACTED:	03/27/0612:00	03/27/0612:00	03/27/0612:00	DATE COLLECTED:	03/23/06
DATE ANALYZED:	03/28/0619:51	03/28/0620:33	03/28/0621:15	DATE RECEIVED:	03/24/06
PREP. BATCH:	DSC025W	DSC025W	DSC025W		
CALIB. REF:	TC28004A	TC28004A	TC28004A		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	SPIKE AMT (mg/L)	MSD RSLT (mg/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
DRO	ND	4.7	4.38	93	4.7	3.77	80	15	54-154	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	SPIKE AMT (mg/L)	MSD RSLT (mg/L)	MSD % REC	QC LIMIT (%)
Bromobenzene	.94	.651	69	.94	.718	76	45-154
Hexacosane	.235	.236	100	.235	.25	106	63-165

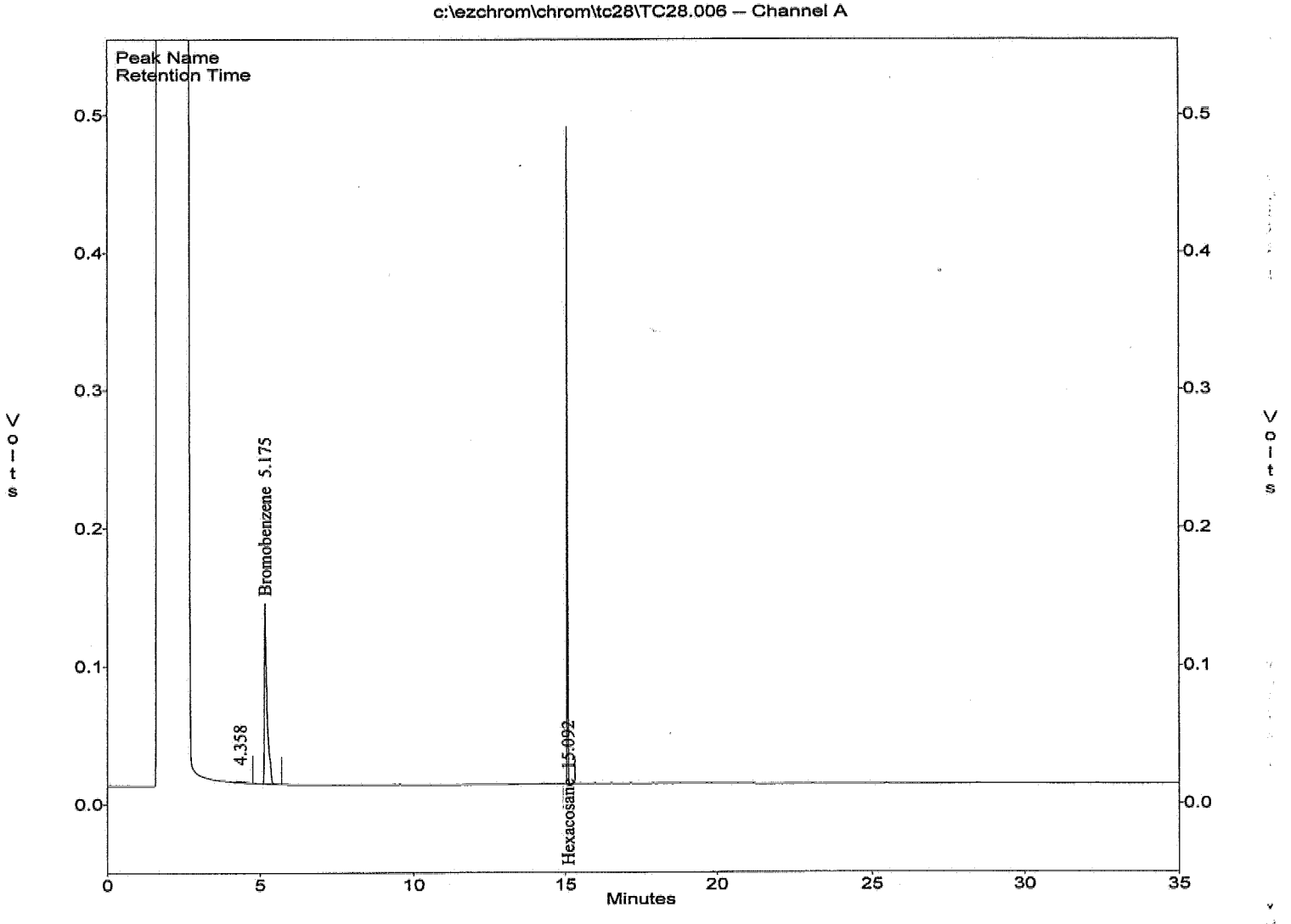
QC DATA

METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\tc28\TC28.006
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : DSC025WB
Acquired : Mar 28, 2006 17:46:11
Printed : Mar 29, 2006 18:20:06
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
2	Bromobenzene	5.175	789199	14214.3	55.5
3	Hexacosane	15.092	810545	28984.5	28.0
G1	Diesel(TOTAL)		17758	26500.7	0.7
G2	Diesel(C10-C24)		0	26460.6	0.0
G3	Diesel(C10-C28)		0	26478.8	0.0

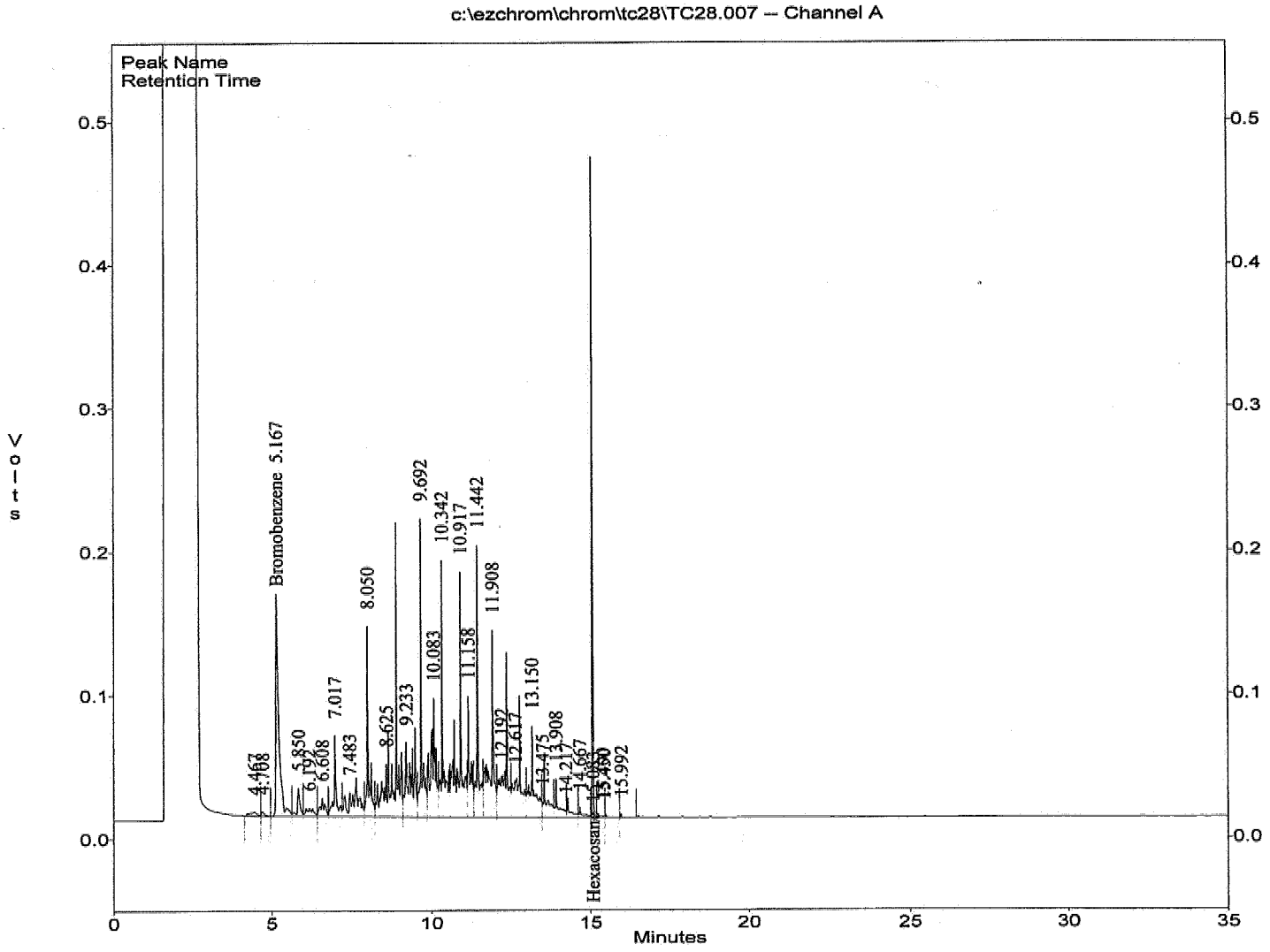


METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\tc28\TC28.007
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : DSC025WL
Acquired : Mar 28, 2006 18:28:01
Printed : Mar 29, 2006 18:20:07
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
3	Bromobenzene	5.167	986062	14214.3	69.4
26	Hexacosane	15.083	787500	28984.5	27.2
G1	Diesel(TOTAL)		10859025	26500.7	409.8
G2	Diesel(C10-C24)		10619773	26460.6	401.3
G3	Diesel(C10-C28)		10671037	26478.8	403.0

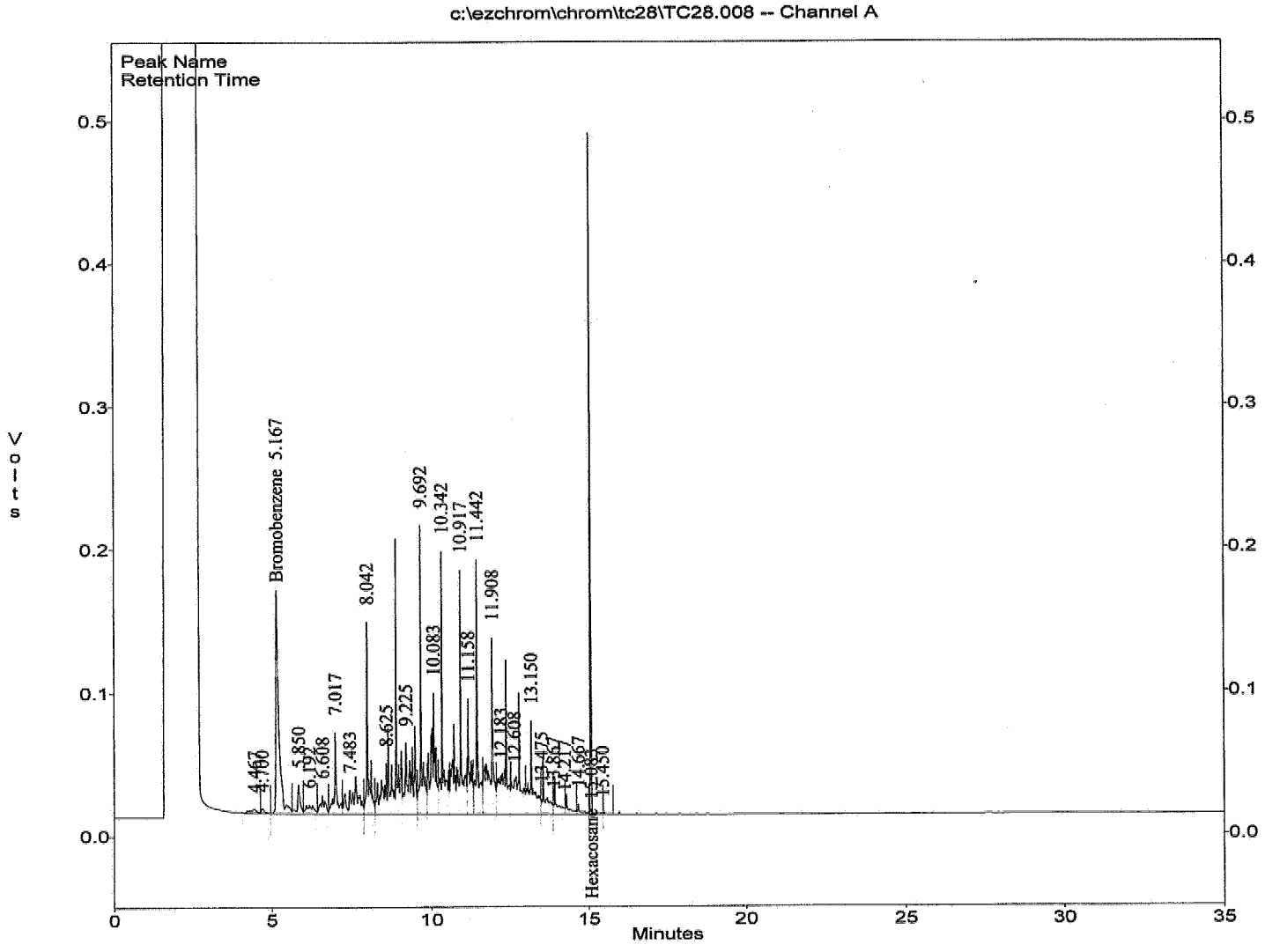


METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\tc28\TC28.008
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : DSC025WC
Acquired : Mar 28, 2006 19:09:53
Printed : Mar 29, 2006 18:20:08
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc. (ppm)
3	Bromobenzene	5.167	1005950	14214.3	70.8
26	Hexacosane	15.083	792347	28984.5	27.3
G1	Diesel(TOTAL)		10464488	26500.7	394.9
G2	Diesel(C10-C24)		10231967	26460.6	386.7
G3	Diesel(C10-C28)		10274192	26478.8	388.0

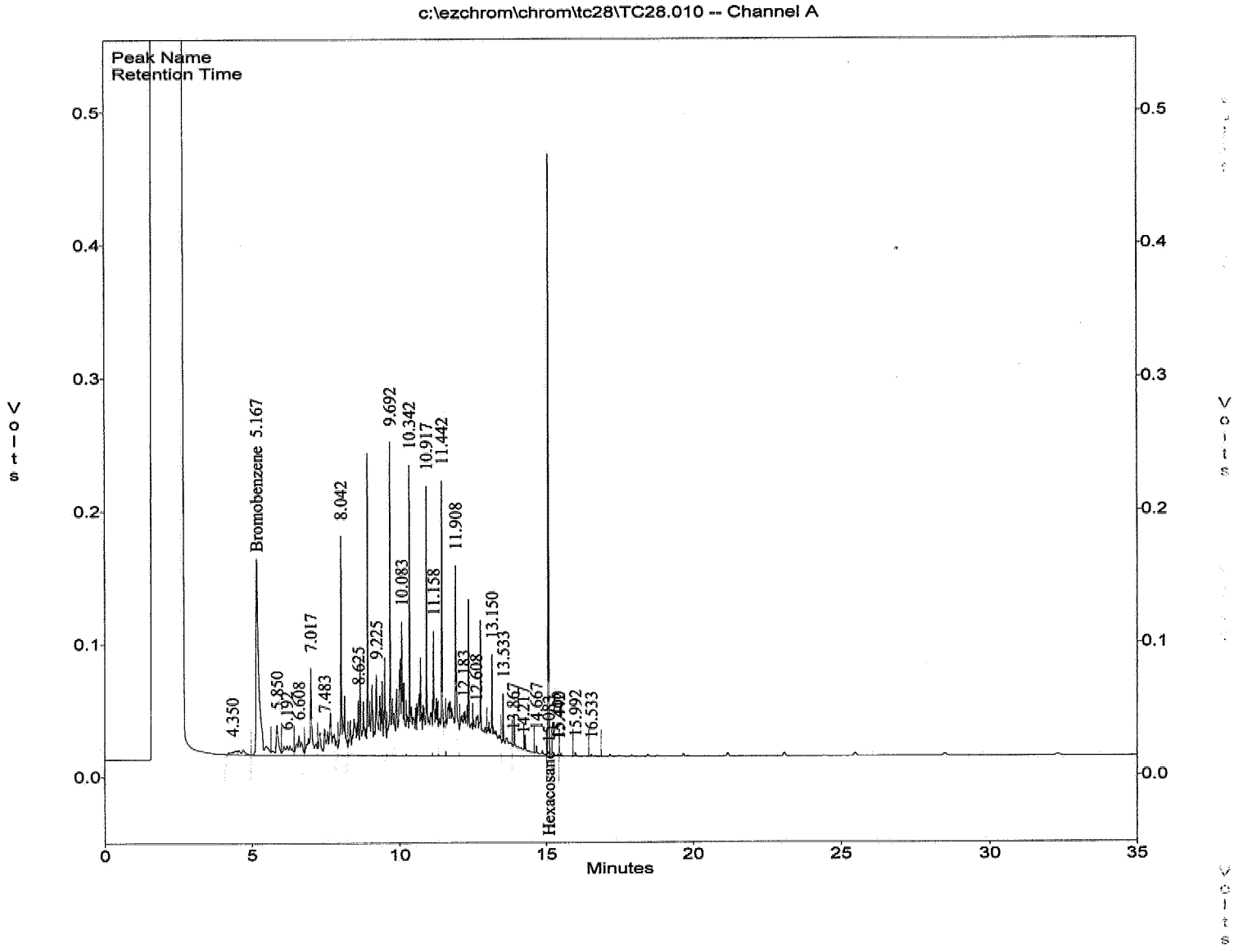


METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\tc28\TC28.010
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : 06C222-01M
Acquired : Mar 28, 2006 20:33:31
Printed : Mar 29, 2006 15:07:27
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
2	Bromobenzene	5.167	984834	14214.3	69.3
25	Hexacosane	15.083	728184	28984.5	25.1
G1	Diesel(TOTAL)		12579887	26500.7	474.7
G2	Diesel(C10-C24)		12280247	26460.6	464.1
G3	Diesel(C10-C28)		12348706	26478.8	466.4

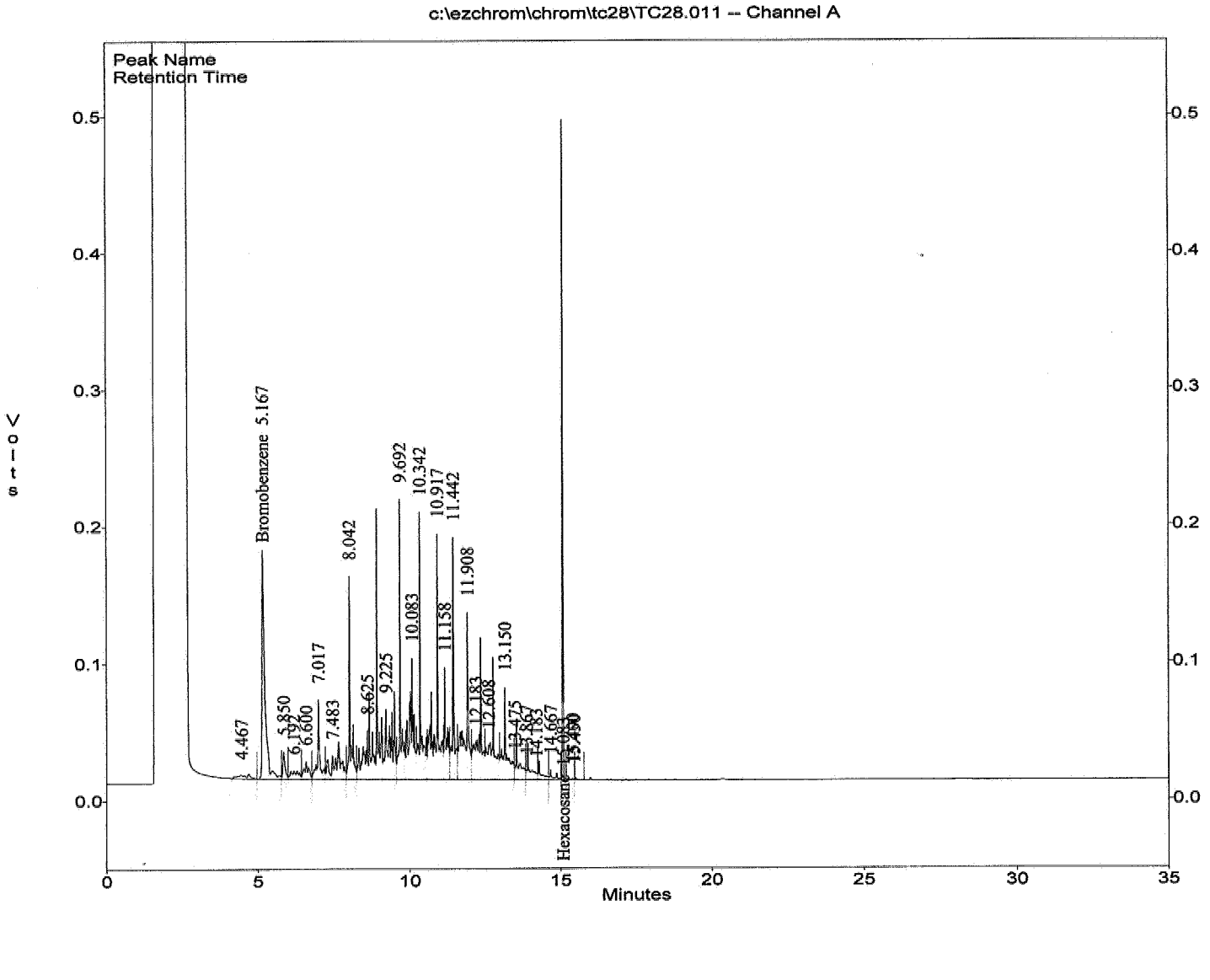


METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\tc28\TC28.011
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : 06C222-01S
Acquired : Mar 28, 2006 21:15:19
Printed : Mar 29, 2006 15:07:55
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
2	Bromobenzene	5.167	1085789	14214.3	76.4
25	Hexacosane	15.083	770165	28984.5	26.6
G1	Diesel(TOTAL)		10792517	26500.7	407.3
G2	Diesel(C10-C24)		10569463	26460.6	399.4
G3	Diesel(C10-C28)		10617055	26478.8	401.0



INITIAL CALIBRATION

INITIAL CALIBRATION
METHOD M8015

Lab Name : EMAX Inc
Instrument ID : GCTO50
GC Column : DB-5
Column size ID : 30MX0.25MM
LFID & Datetime: TA31009A 01/31/06 19:57
LFID & Datetime: TA31010A 01/31/06 20:39
LFID & Datetime: TA31004A 01/31/06 16:26
LFID & Datetime: TA31005A 01/31/06 17:08
LFID & Datetime: TA31006A 01/31/06 17:51
LFID & Datetime: TA31007A 01/31/06 18:33
LFID & Datetime: TA31008A 01/31/06 19:15
CONC UNIT: ppm

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	2.00X	10.00X	20.00X	100.00X	300.00X	600.00X	MEAN	%RSD
DIESEL(TOTAL)	5.00	29695	33603	21928	26105	23350	24931	25894	26500.7	15.0
DIESEL(C10-C24)	5.00	29695	33603	21896	26080	23330	24845	25775	26460.6	15.1
DIESEL(C10-C28)	5.00	29695	33603	21928	26105	23350	24872	25800	26478.8	15.0
SURROGATE	X	0.50X	1.00X	2.00X	3.00X	5.00X	7.00X	11.00X	MEAN	%RSD
BROMOBENZENE	20.00	-1	13517	14356	15142	13341	14495	14436	14214.3	4.7
HEXACOSANE	5.00	-1	29580	29371	31178	27128	28544	28106	28984.5	4.8

DS50A31.MET

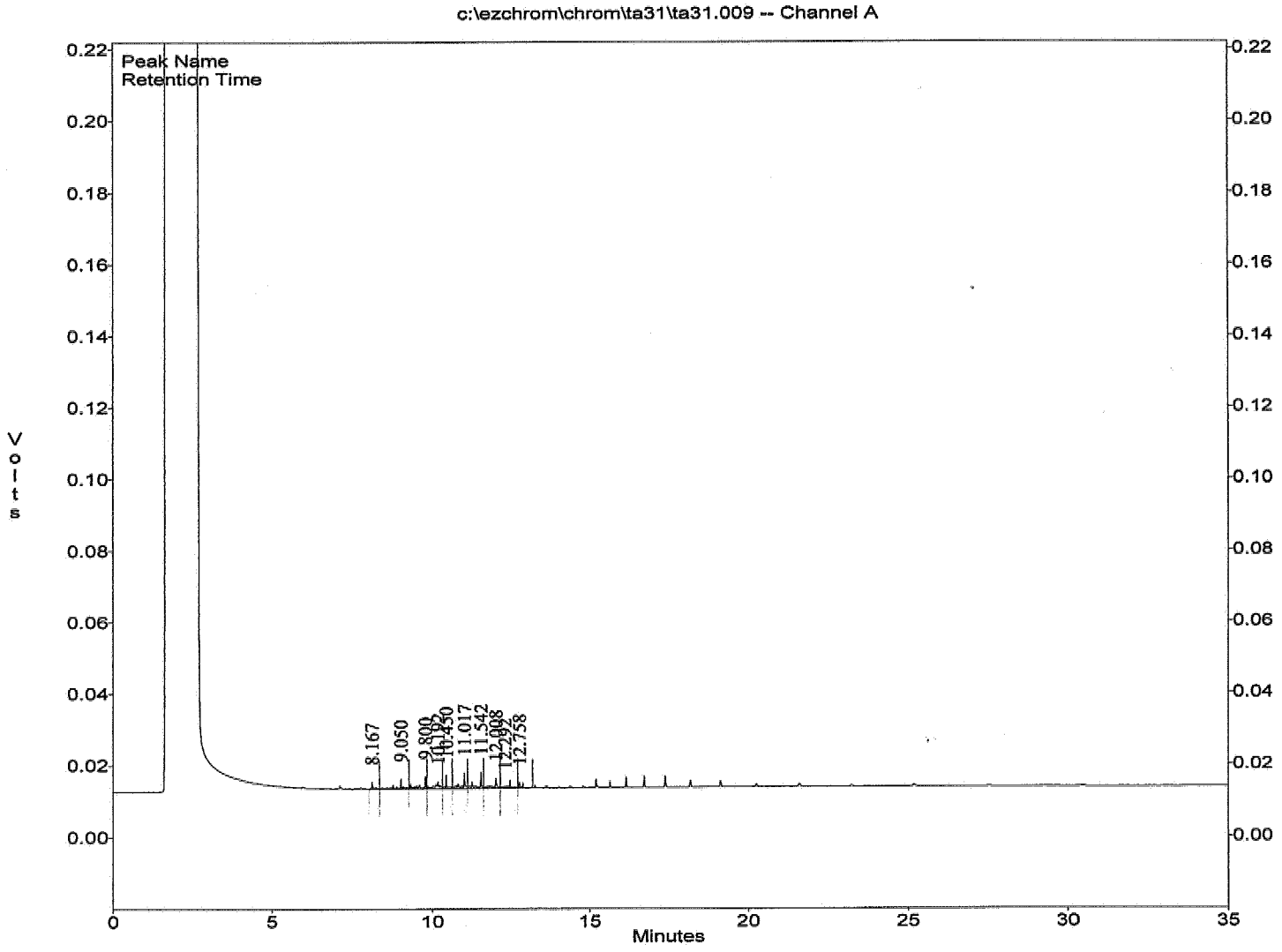
2/1/06

METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta31\ta31.009
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : DS50A3101 5PPM
Acquired : Jan 31, 2006 19:57:35
Printed : Feb 01, 2006 09:34:38
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
--	Bromobenzene	5.283	0	0.0	0.0
--	Hexacosane	15.233	0	0.0	0.0
G1	Diesel(TOTAL)		148474	26500.7	5.0
G2	Diesel(C10-C24)		148474	26460.6	5.0
G3	Diesel(C10-C28)		148474	26478.8	5.0



02/01/06

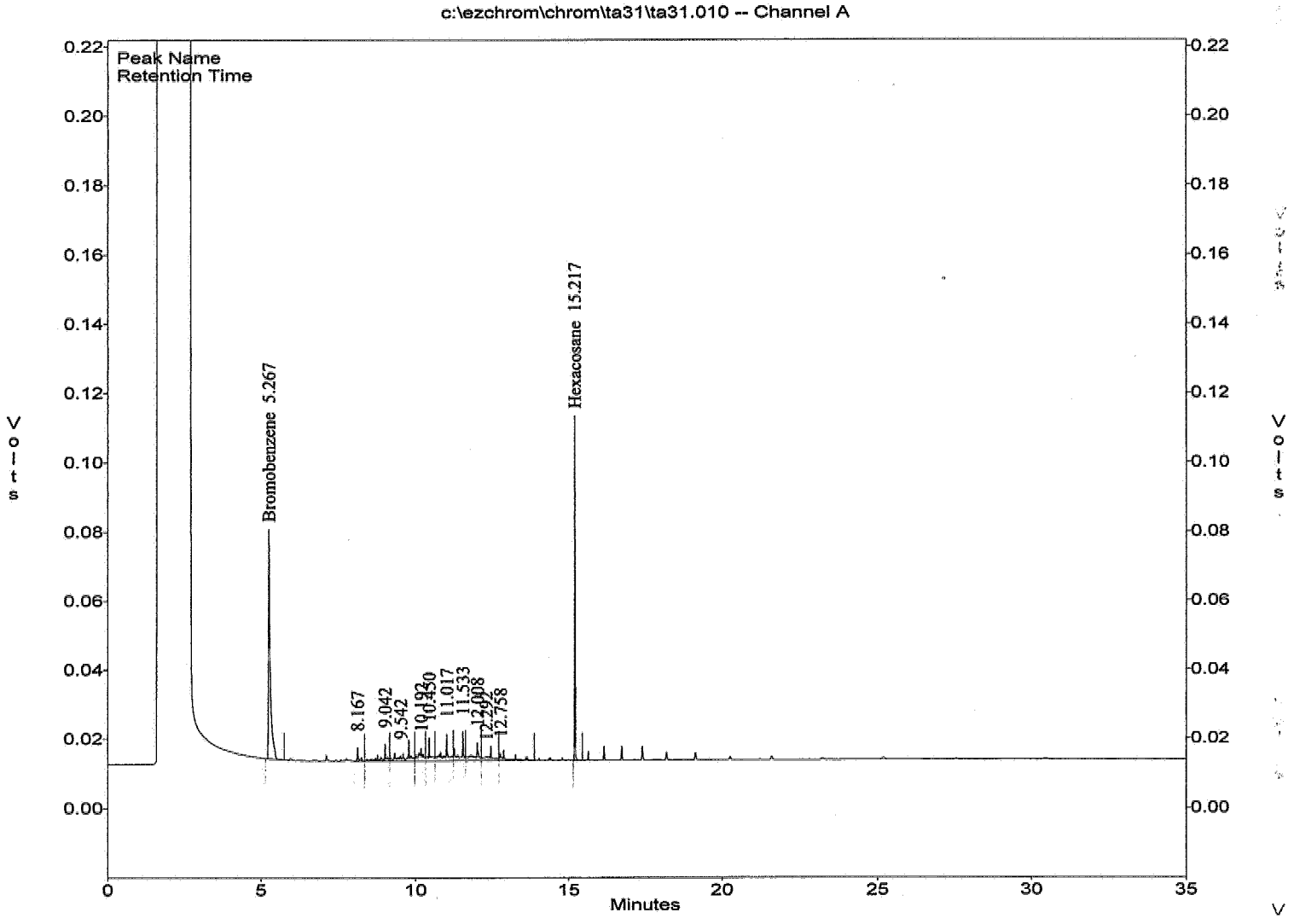
5022

METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta31\ta31.010
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : DS50A3102 10/20/5
Acquired : Jan 31, 2006 20:39:42
Printed : Feb 01, 2006 09:34:43
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
1	Bromobenzene	5.267	270334	14214.3	20.0
12	Hexacosane	15.217	147901	28984.5	5.0
G1	Diesel(TOTAL)		336030	26500.7	10.0
G2	Diesel(C10-C24)		336030	26460.6	10.0
G3	Diesel(C10-C28)		336030	26478.8	10.0



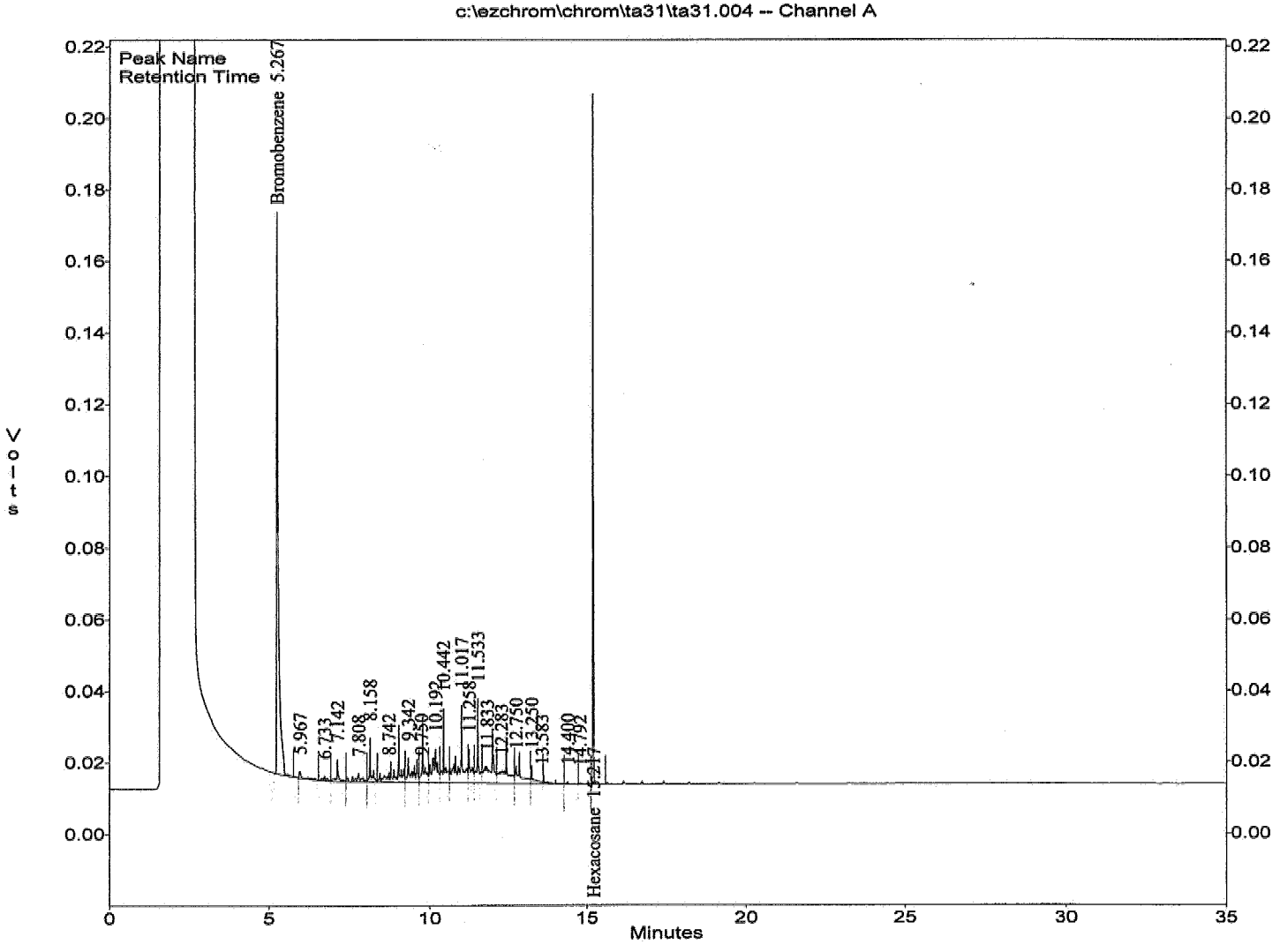
DA 02/01/06

METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta31\ta31.004
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : DS50A3103 50/40/10
Acquired : Jan 31, 2006 16:26:47
Printed : Feb 01, 2006 09:34:49
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
1	Bromobenzene	5.267	574237	14214.3	40.0
22	Hexacosane	15.217	293707	28984.5	10.0
G1	Diesel(TOTAL)		1096379	26500.7	50.0
G2	Diesel(C10-C24)		1094793	26460.6	50.0
G3	Diesel(C10-C28)		1096379	26478.8	50.0



02/01/06

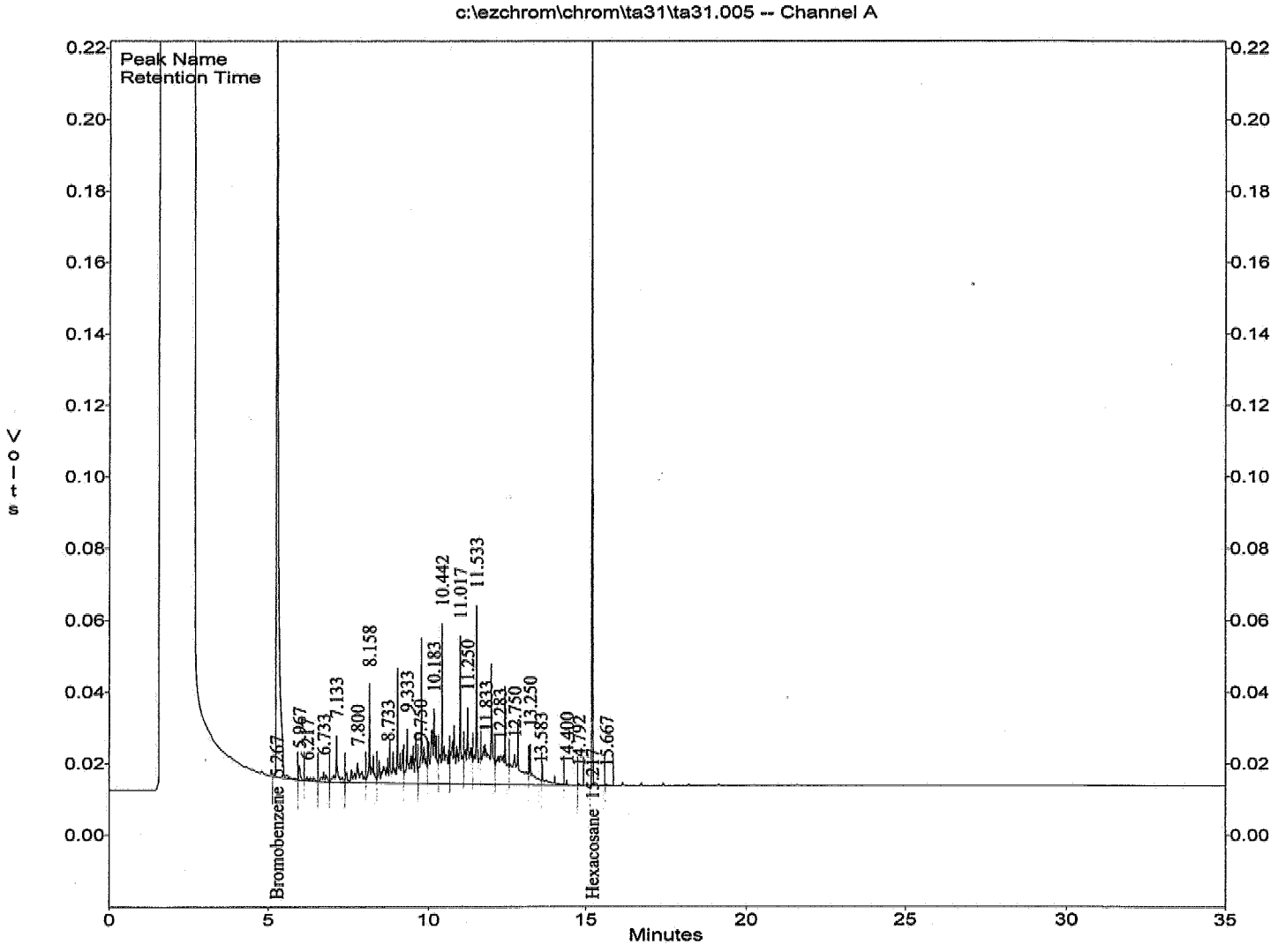
5024

METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta31\ta31.005
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : DS50A3104 100/60/15
Acquired : Jan 31, 2006 17:08:56
Printed : Feb 01, 2006 09:35:08
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
1	Bromobenzene	5.267	908499	14214.3	60.0
23	Hexacosane	15.217	467670	28984.5	15.0
G1	Diesel(TOTAL)		2610524	26500.7	100.0
G2	Diesel(C10-C24)		2608042	26460.6	100.0
G3	Diesel(C10-C28)		2610524	26478.8	100.0



02/01/06

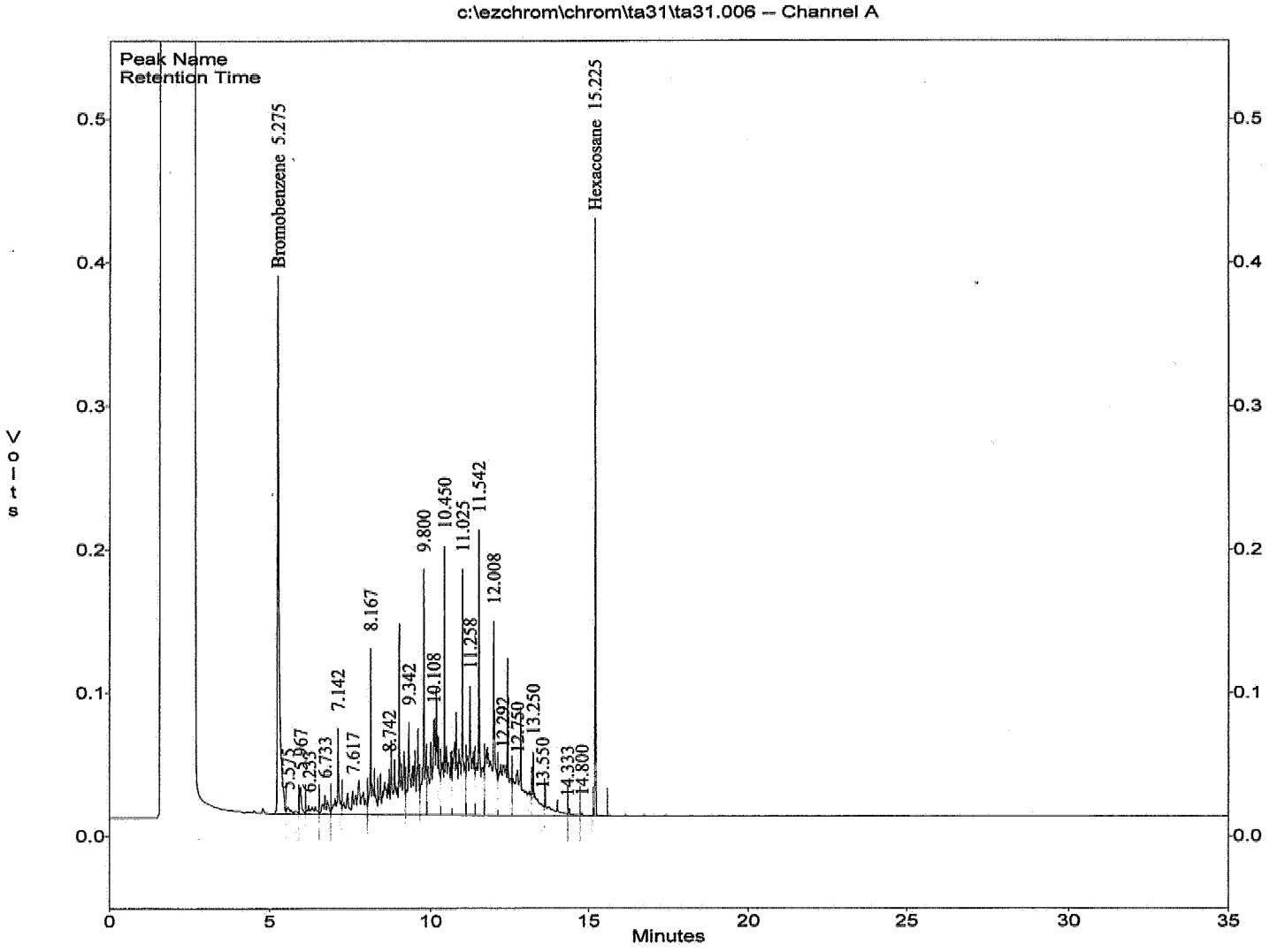
5025

METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta31\ta31.006
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : DS50A3105 500/100/2
Acquired : Jan 31, 2006 17:51:21
Printed : Feb 01, 2006 09:35:17
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc. (ppm)
1	Bromobenzene	5.275	1334115	14214.3	100.0
24	Hexacosane	15.225	678205	28984.5	25.0
G1	Diesel(TOTAL)		11674800	26500.7	500.0
G2	Diesel(C10-C24)		11665009	26460.6	500.0
G3	Diesel(C10-C28)		11674800	26478.8	500.0



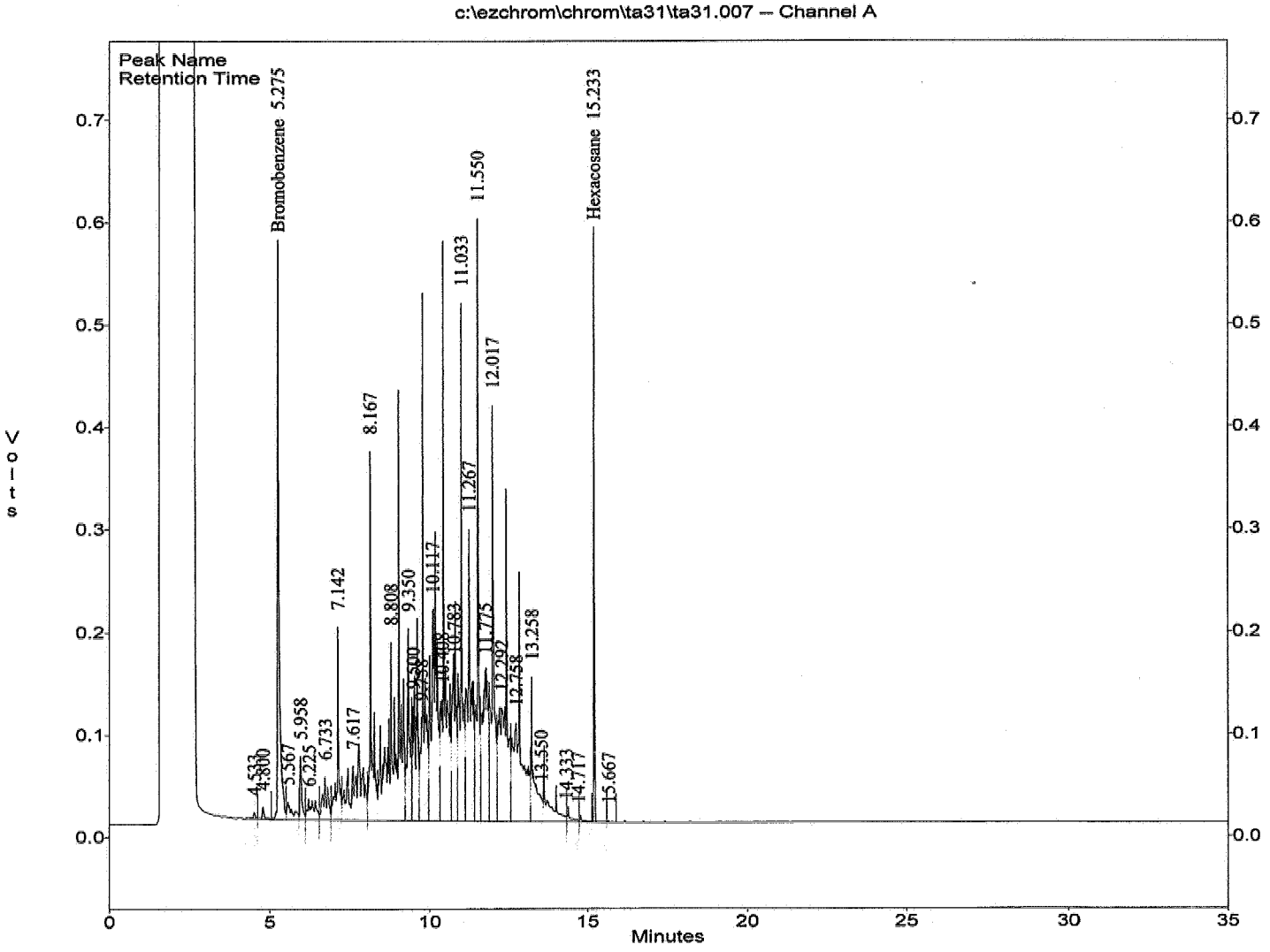
02/01/06
5026

METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta31\ta31.007
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : DS50A3106 1500/140/
Acquired : Jan 31, 2006 18:33:25
Printed : Feb 01, 2006 09:35:43
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
3	Bromobenzene	5.275	2029250	14214.3	140.0
29	Hexacosane	15.233	999027	28984.5	35.0
G1	Diesel(TOTAL)		37395864	26500.7	1500.0
G2	Diesel(C10-C24)		37267404	26460.6	1500.0
G3	Diesel(C10-C28)		37307612	26478.8	1500.0



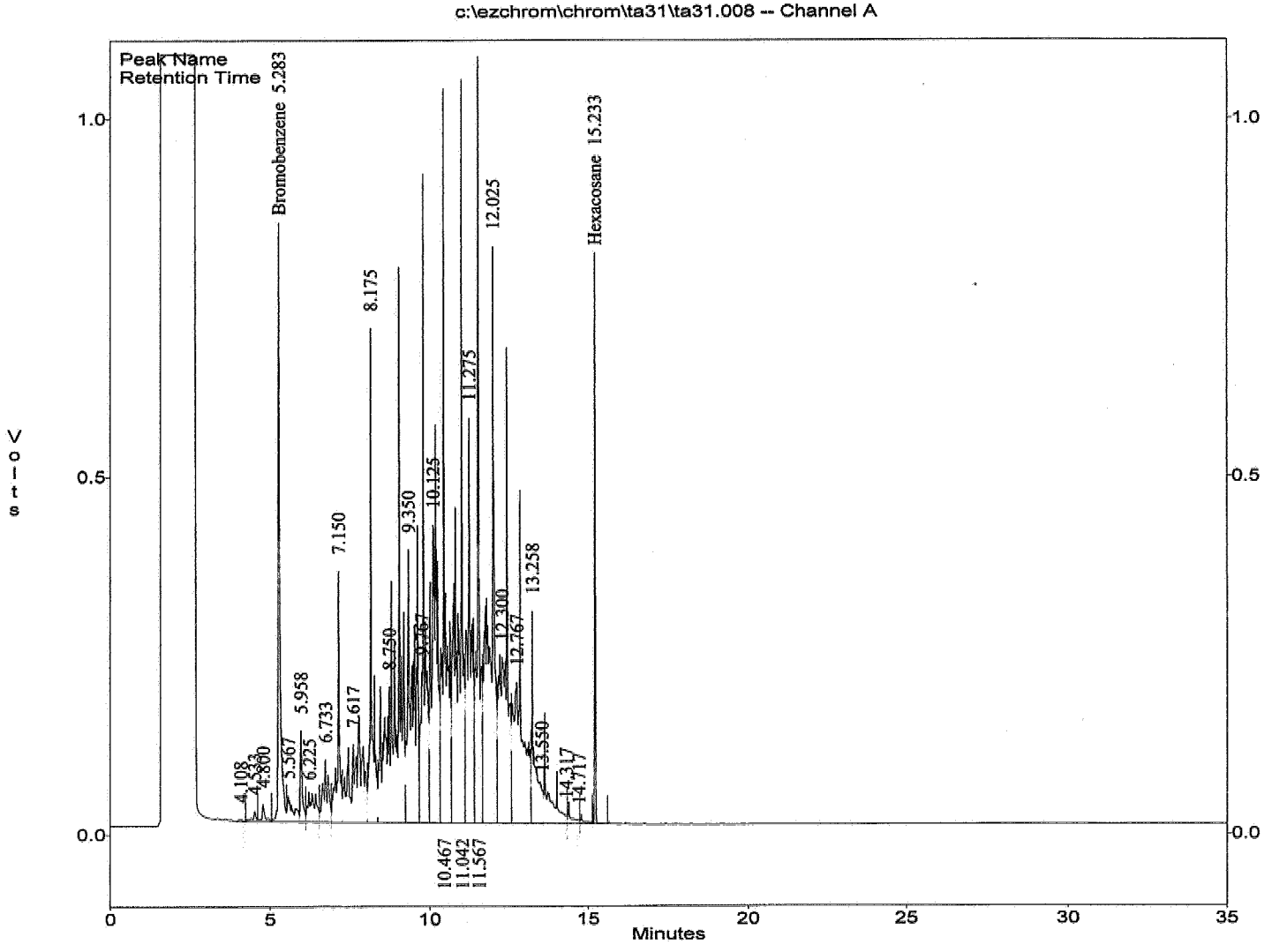
AA
02/01/06
5027

METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta31\ta31.008
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : DS50A3107 3000/220/
Acquired : Jan 31, 2006 19:15:30
Printed : Feb 01, 2006 09:35:51
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc. (ppm)
4	Bromobenzene	5.283	3175897	14214.3	220.0
27	Hexacosane	15.233	1545839	28984.5	55.0
G1	Diesel(TOTAL)		77682664	26500.7	3000.0
G2	Diesel(C10-C24)		77324912	26460.6	3000.0
G3	Diesel(C10-C28)		77399448	26478.8	3000.0



2/10/06

INITIAL CALIBRATION
METHOD M8015

Lab Name : EMAX Inc
Instrument ID : GCTO50
GC Column : DB-5
Column size ID : 30MX0.25MM
LFID & Datetime: TA05019A 01/05/06 23:55
LFID & Datetime: TA05020A 01/06/06 00:37
LFID & Datetime: TA05021A 01/06/06 01:19
LFID & Datetime: TA05022A 01/06/06 02:01
LFID & Datetime: TA05023A 01/06/06 02:43
LFID & Datetime: TA05024A 01/06/06 03:25
LFID & Datetime: TA05025A 01/06/06 04:07
CONC UNIT: ppm

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	2.00X	5.00X	50.00X	100.00X	150.00X	300.00X	MEAN	%RSD
JP5	10.00	19089	21129	20033	24716	24172	25573	26612	23046.2	12.7
5W30	10.00	33589	31968	34659	32099	30917	30603	31346	32168.8	4.6

J550A05M.MET

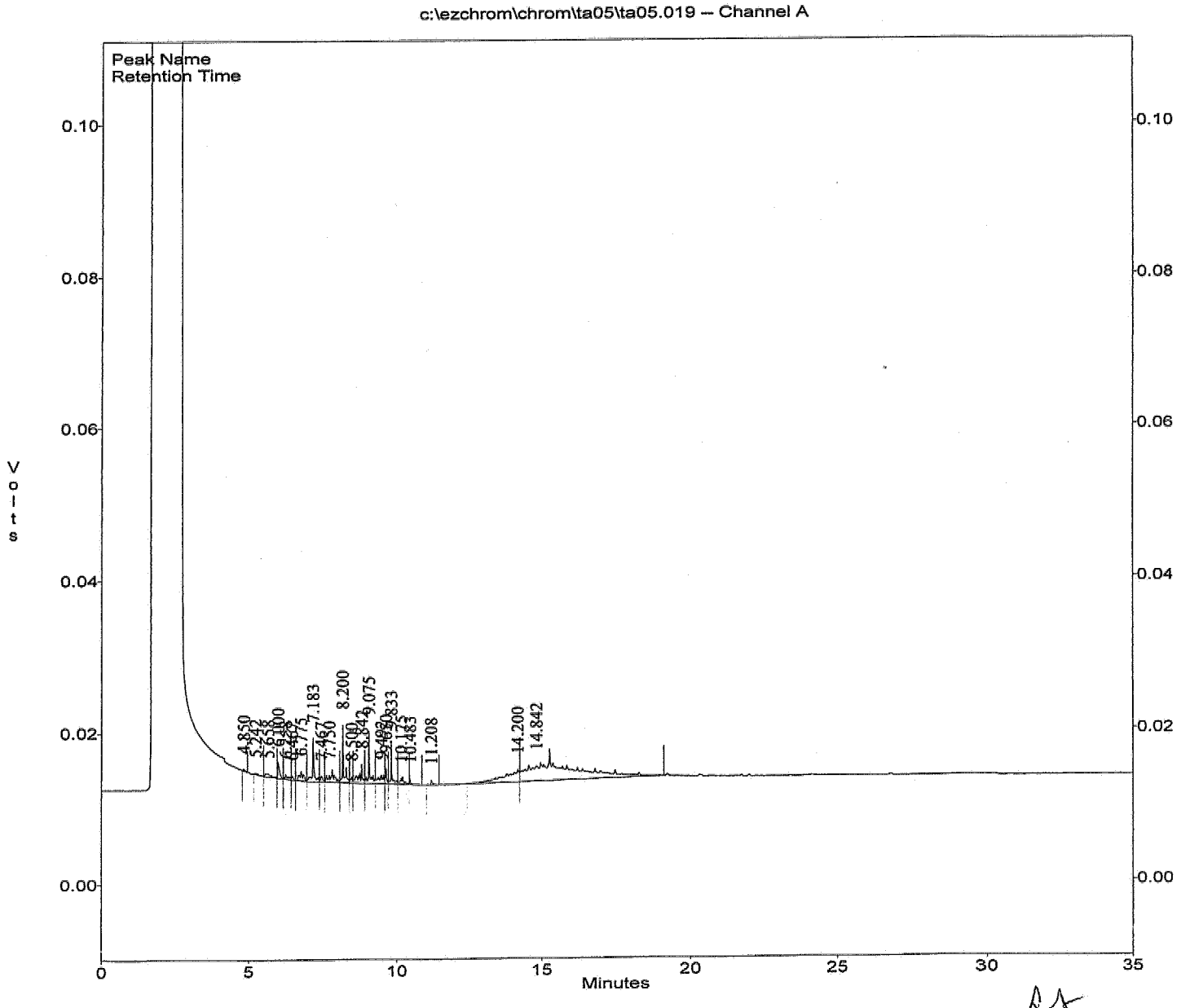
1/9/06

EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta05\ta05.019 ✓
Method : c:\ezchrom\methods\j550a05m.met
Sample ID : J550A05M01 10PPM
Acquired : Jan 05, 2006 23:55:57 ✓
Printed : Jan 06, 2006 09:55:49
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
G1	JP5		190889 ✓	23046.2	10.0
G2	5W30		335894 ✓	32168.8	10.0



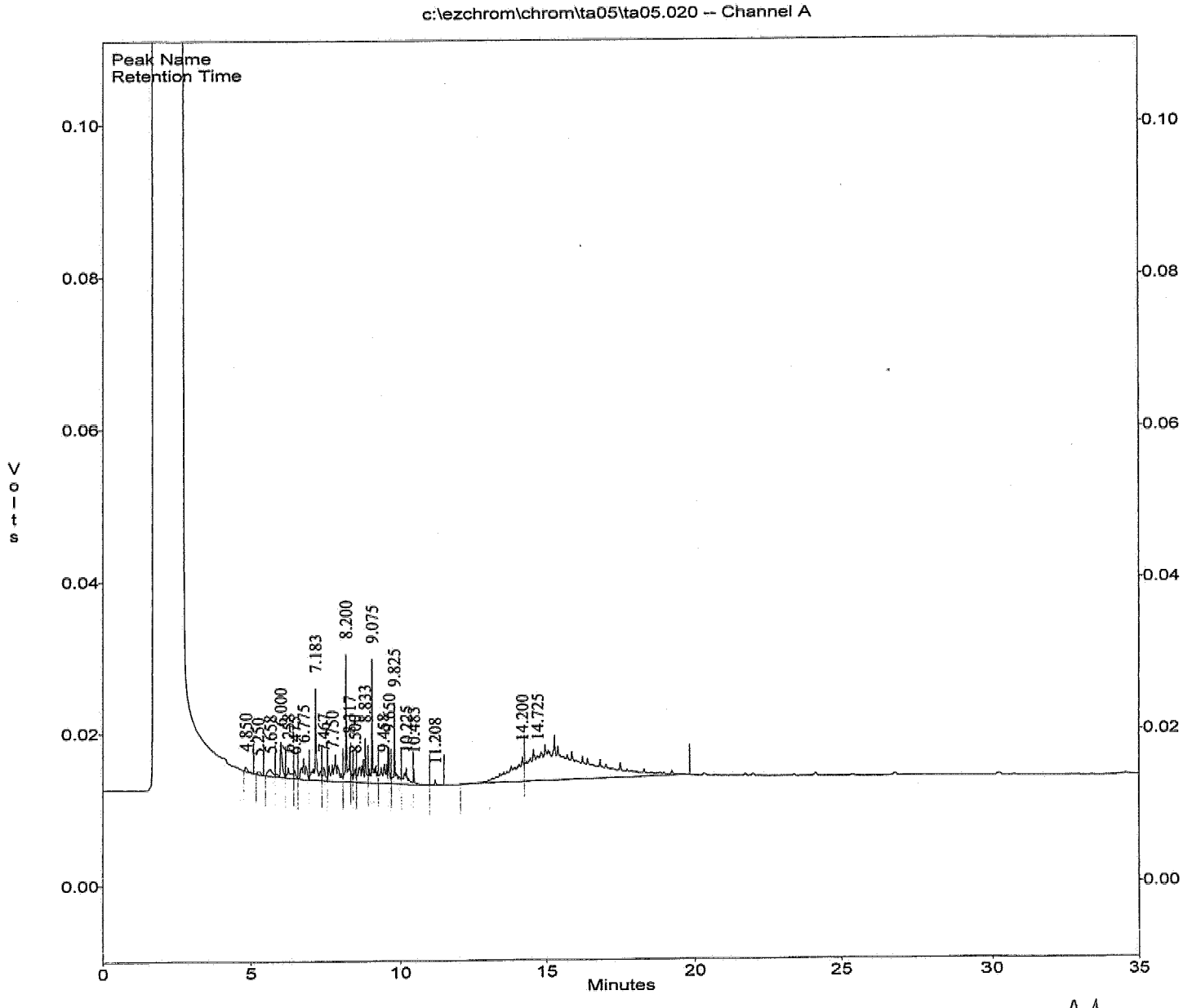
1/9/06

EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta05\ta05.020
Method : c:\ezchrom\methods\j550a05m.met
Sample ID : J550A05M02 20PPM
Acquired : Jan 06, 2006 00:37:56
Printed : Jan 06, 2006 09:55:55
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
G1	JP5		422586	23046.2	20.0
G2	5W30		639352	32168.8	20.0



1/9/06

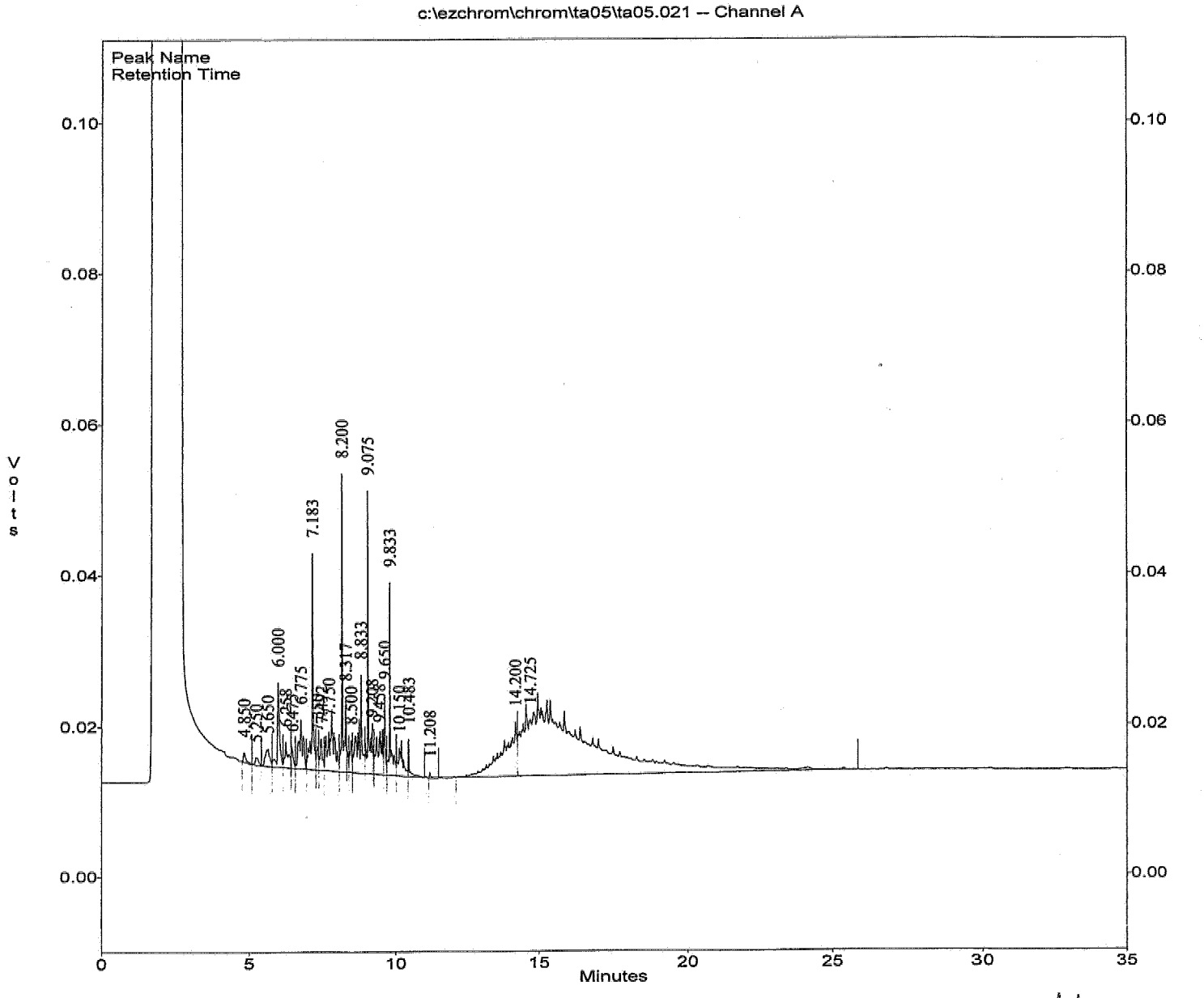
5031

EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta05\ta05.021
Method : c:\ezchrom\methods\j550a05m.met
Sample ID : J550A05M03 50PPM
Acquired : Jan 06, 2006 01:19:54
Printed : Jan 06, 2006 09:56:08
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
G1	JP5		1001658	23046.2	50.0
G2	5W30		1732935	32168.8	50.0



1/9/06

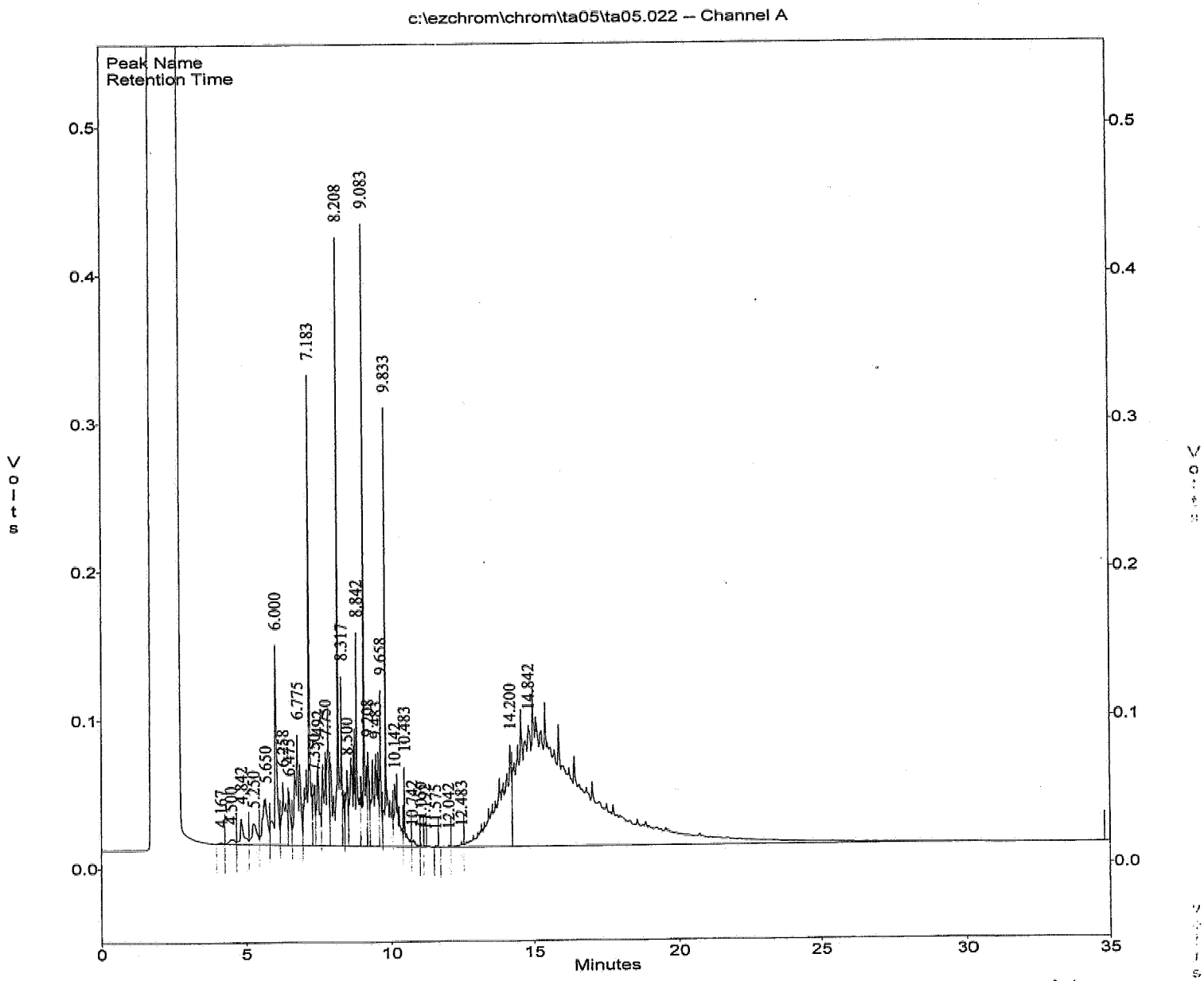
5032

EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta05\ta05.022
Method : c:\ezchrom\methods\j550a05m.met
Sample ID : J550A05M04 500PPM
Acquired : Jan 06, 2006 02:01:52
Printed : Jan 06, 2006 09:56:41
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc. (ppm)
G1	JP5		12357981	23046.2	500.0
G2	5W30		16049524	32168.8	500.0



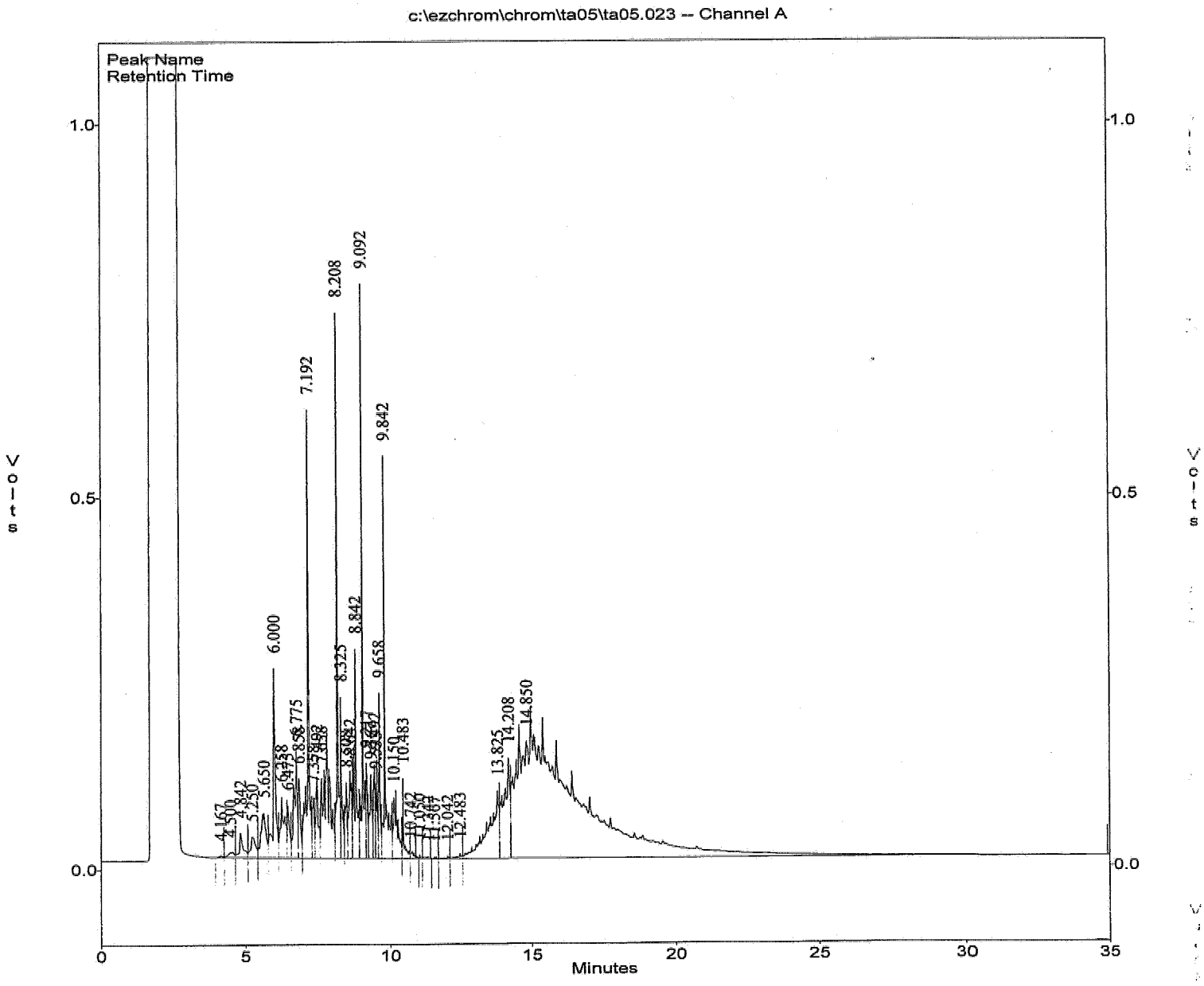
5033

EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta05\ta05.023
Method : c:\ezchrom\methods\j550a05m.met
Sample ID : J550A05M05 1000PPM
Acquired : Jan 06, 2006 02:43:50
Printed : Jan 06, 2006 09:57:19
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc. (ppm)
G1	JP5		24171588	23046.2	1000.0
G2	5W30		30917232	32168.8	1000.0



1/9/06

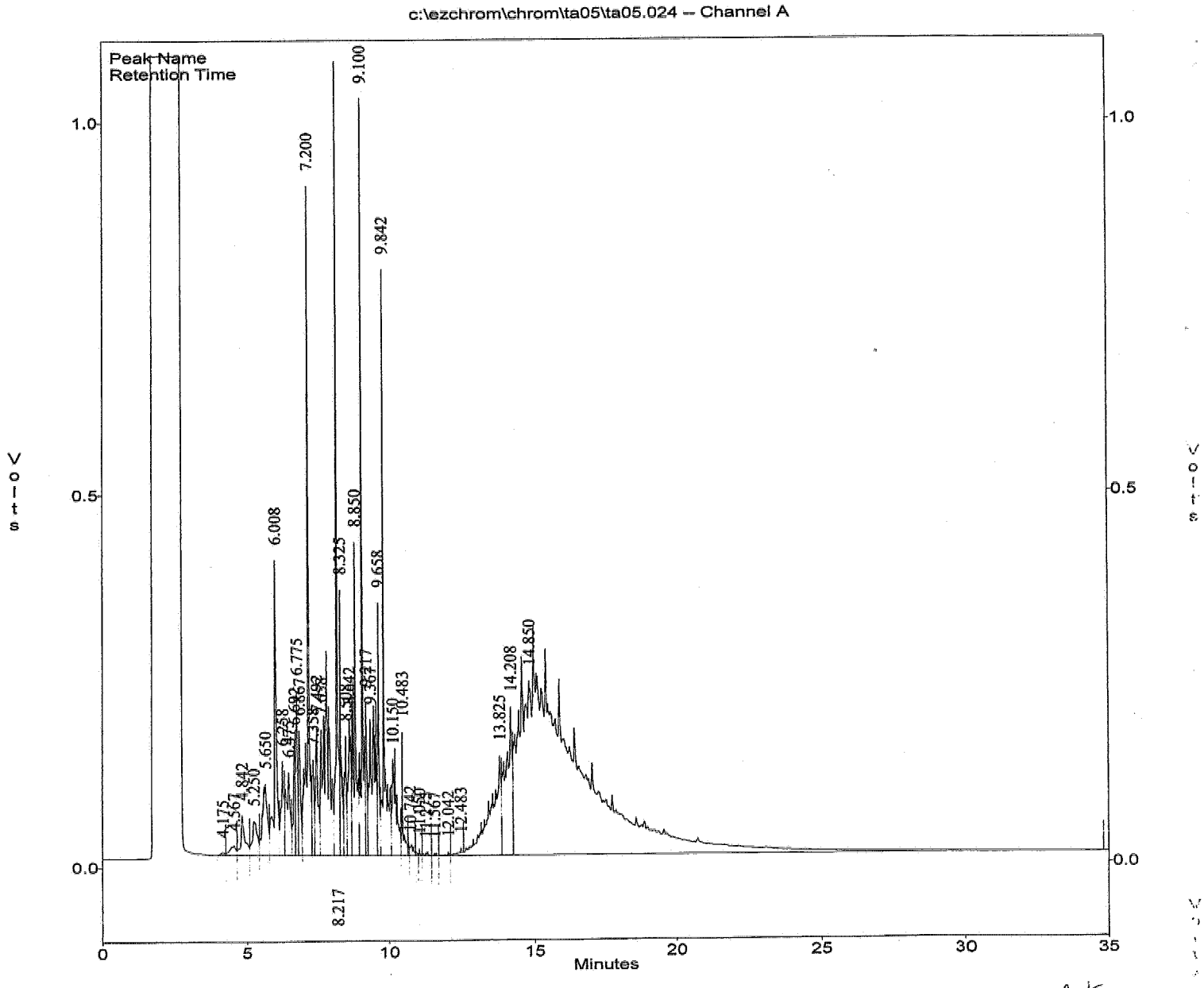
5034

EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta05\ta05.024
Method : c:\ezchrom\methods\j550a05m.met
Sample ID : J550A05M06 1500PPM
Acquired : Jan 06, 2006 03:25:48
Printed : Jan 06, 2006 09:57:24
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
G1	JP5		38358784	23046.2	1500.0
G2	5W30		45905100	32168.8	1500.0



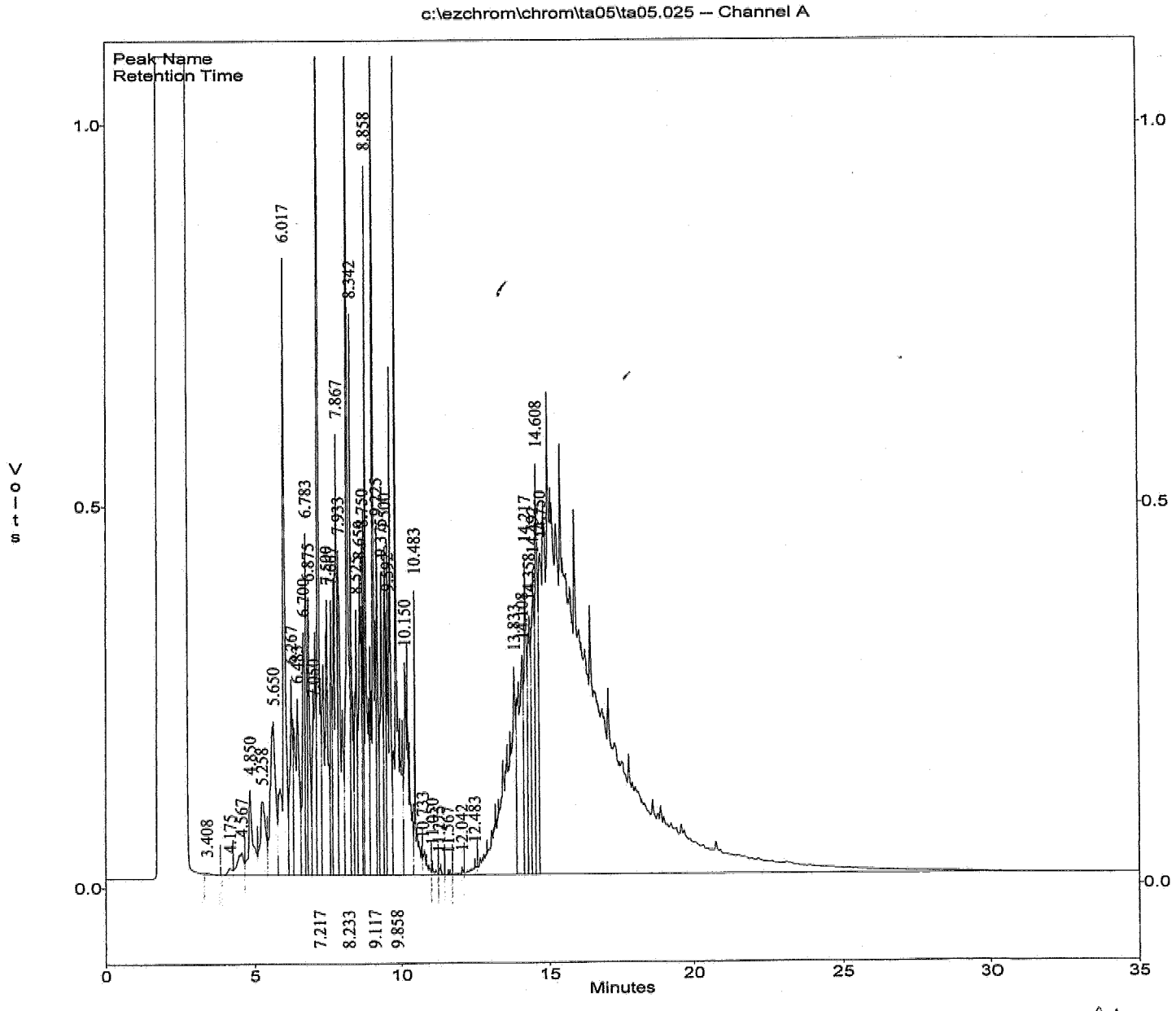
1/9/06

EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta05\ta05.025
Method : c:\ezchrom\methods\j550a05m.met
Sample ID : J550A05M07 3000PPM
Acquired : Jan 06, 2006 04:07:45
Printed : Jan 06, 2006 09:57:28
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
G1	JP5		79836656	23046.2	3000.0
G2	5W30		94039104	32168.8	3000.0



1/9/06

5036

SECOND SOURCE

INITIAL CALIBRATION VERIFICATION
METHOD M8015

Lab Name : EMAX
Instrument ID : GCTO50
GC Column : DB-5
Column size ID : 30MX0.25MM
Mid Conc Init LFID & Datetime: TA31006A 01/31/2006 17:51
Conc Cont LFID & Datetime: TA31011A 01/31/2006 21:21
CONC UNIT : ppm

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
DIESEL(TOTAL)	0.000	0.000	0.000	500.0	26500.7	13255810	500.21	0		15
DIESEL(C10-C24)	0.000	0.000	0.000	500.0	26460.6	13131692	496.27	-1		15
DIESEL(C10-C28)	0.000	0.000	0.000	500.0	26478.8	13174570	497.55	-0		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
BROMOBENZENE	5.275	5.188	5.362	100.0	14214.3	1337667	94.11	-6		15
HEXACOSANE	15.225	14.892	15.558	25.0	28984.5	687118	23.71	-5		15

DS50A31.MET

RA
02/01/06

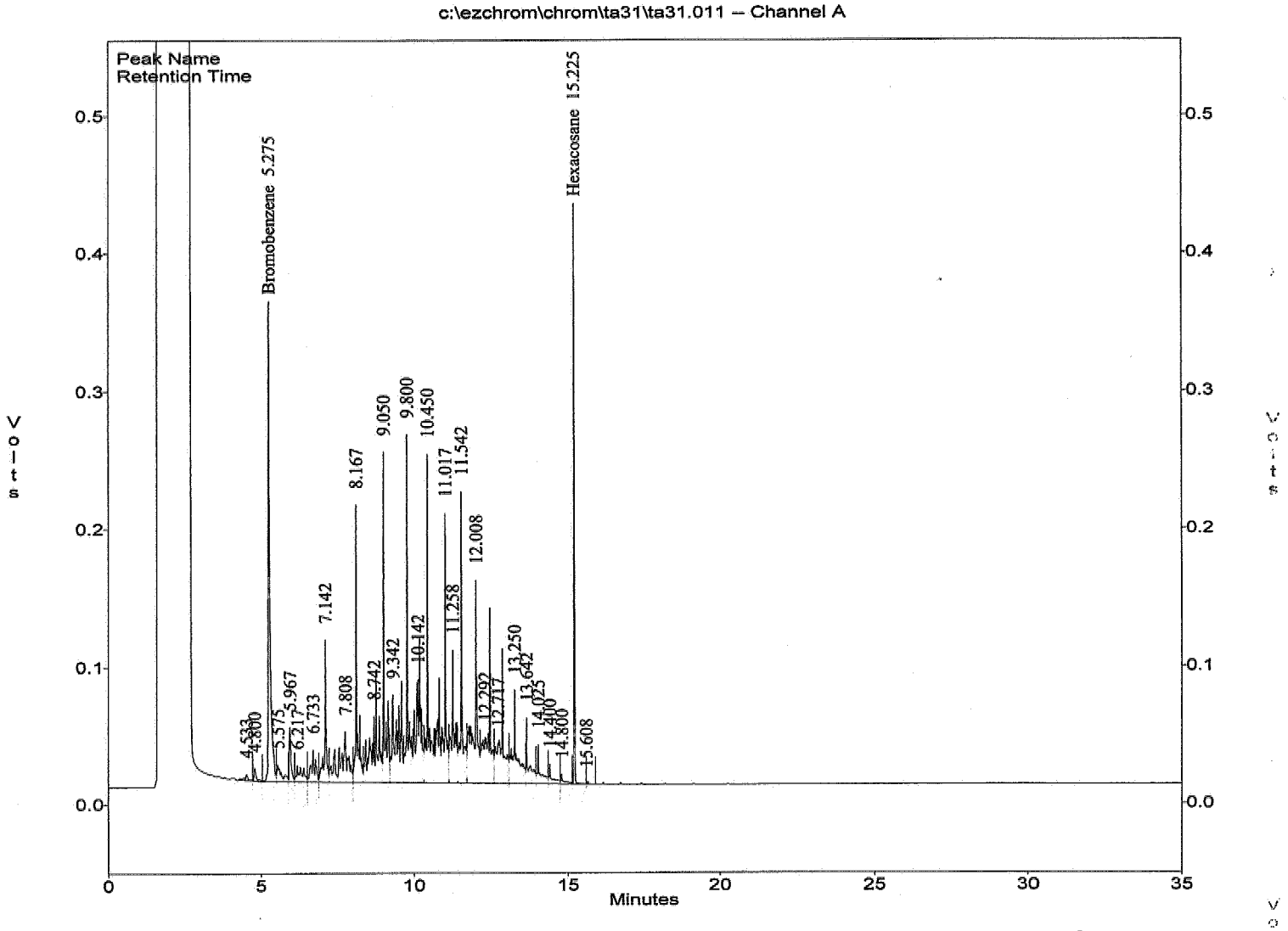
5038

METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta31\ta31.011
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : IDS50A3101 500PPM
Acquired : Jan 31, 2006 21:21:44
Printed : Feb 01, 2006 09:36:17
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
3	Bromobenzene	5.275	1337667	14214.3	94.1
28	Hexacosane	15.225	687118	28984.5	23.7
G1	Diesel(TOTAL)		13255810	26500.7	500.2
G2	Diesel(C10-C24)		13131692	26460.6	496.3
G3	Diesel(C10-C28)		13174570	26478.8	497.6



02/01/06

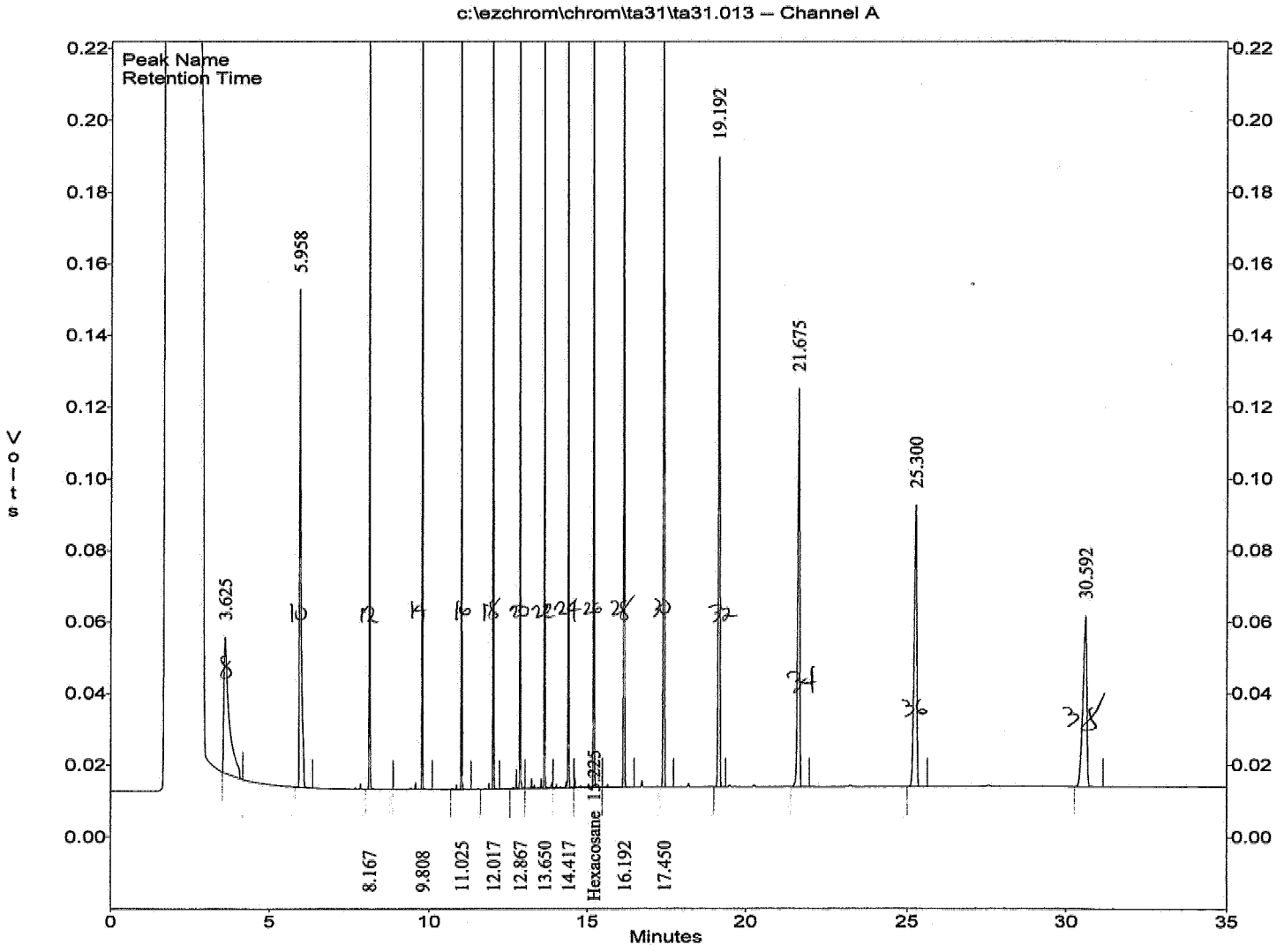
5039

METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta31\ta31.013
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : HC-CHAIN
Acquired : Jan 31, 2006 22:45:44
Printed : Feb 01, 2006 09:38:59
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
--	Bromobenzene	5.283	0	0.0	0.0
10	Hexacosane	15.225	612551	28984.5	21.1
G1	Diesel(TOTAL)		7808933	26500.7	294.7
G2	Diesel(C10-C24)		4312145	26460.6	163.0
G3	Diesel(C10-C28)		4904687	26478.8	185.2



02/01/06

5040

INITIAL CALIBRATION VERIFICATION
METHOD M8015

Lab Name : EMAX
Instrument ID : GCTO50
GC Columm : DB-5
Column size ID : 30MX0.25MM
Mid Conc Init LFID & Datetime: TA05022A 01/06/2006 02:01
Conc Cont LFID & Datetime: TA05026A 01/06/2006 04:49
CONC UNIT : ppm

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
JP5	0.000	0.000	0.000	500.0	23046.2	11649619	505.49	1		15
5W30	0.000	0.000	0.000	500.0	32168.8	16021303	498.04	-0		15

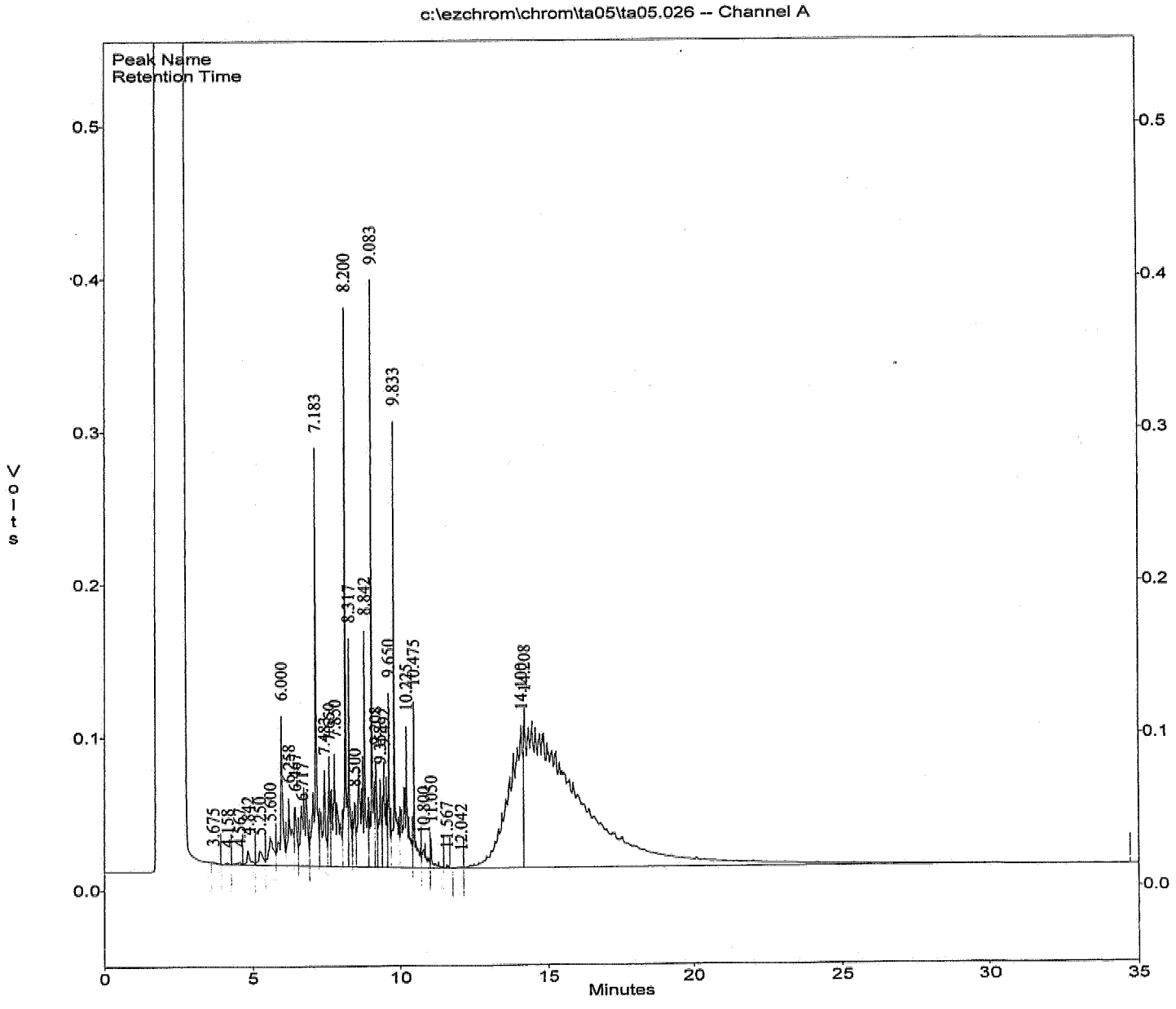
J550A05M.MET

EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta05\ta05.026
Method : c:\ezchrom\methods\j550a05m.met
Sample ID : IJ550A05M01 500PPM
Acquired : Jan 06, 2006 04:49:39
Printed : Jan 06, 2006 09:57:56
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
G1	JP5		11649619	23046.2	505.5
G2	5W30		16021303	32168.8	498.0

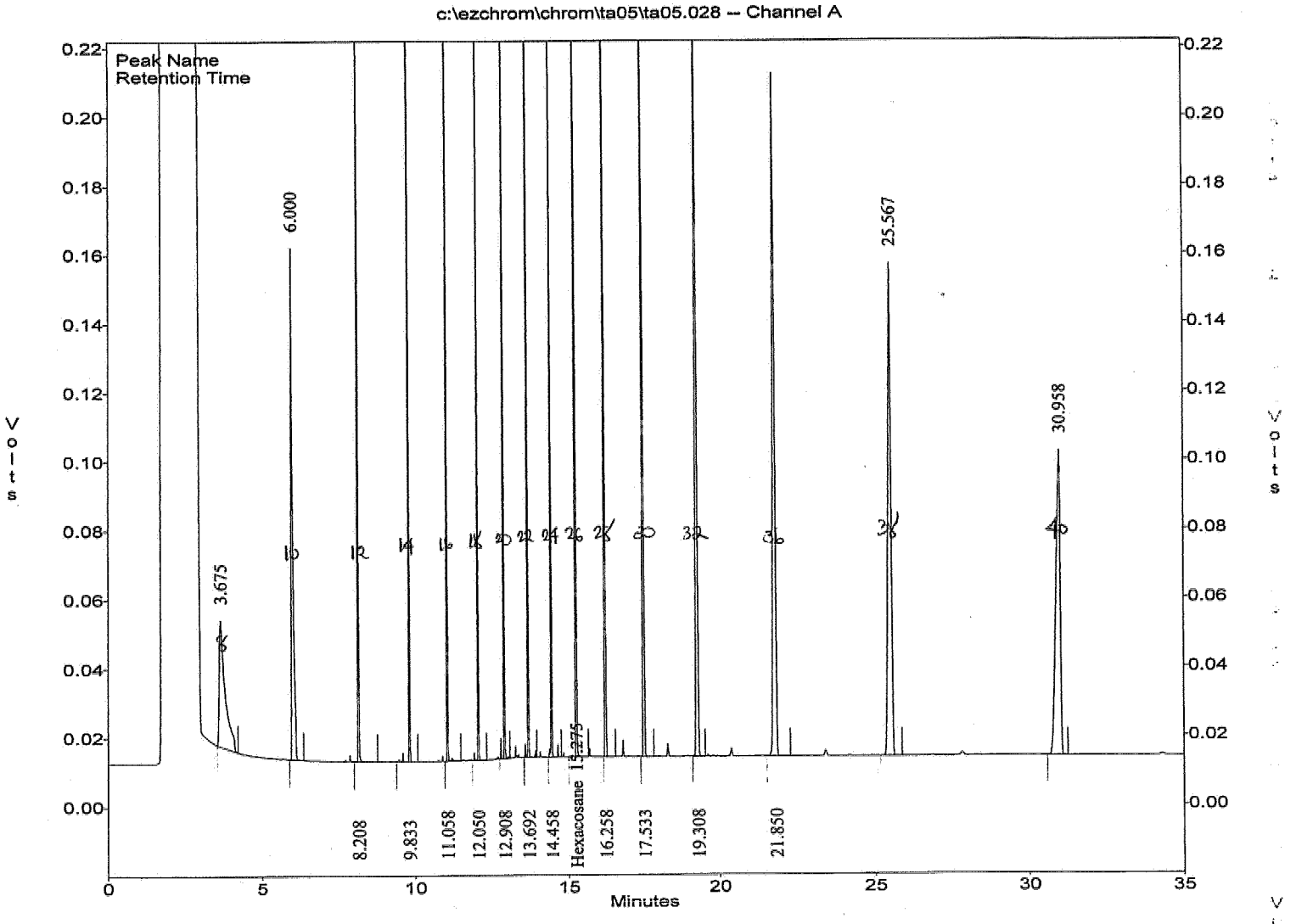


METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\ta05\ta05.028
Method : c:\ezchrom\methods\ds50k28.met
Sample ID : HC-CHAIN
Acquired : Jan 06, 2006 06:13:28
Printed : Jan 06, 2006 09:49:23
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
--	Bromobenzene	5.350	0	0.0	0.0
10	Hexacosane	15.275	785899	31441.2	25.0
G1	Diesel(TOTAL)		10840643	25617.3	423.2
G2	Diesel(C10-C24)		5027696	25569.5	196.6
G3	Diesel(C10-C28)		5789143	25586.1	226.3



DAILY CALIBRATION

CONTINUE CALIBRATION
METHOD M8015

Lab Name : EMAX
Instrument ID : GCTO50
GC Columm : DB-5
Column size ID : 30MX0.25MM
Mid Conc Init LFID & Datetime: TA31006A 01/31/2006 17:51
Conc Cont LFID & Datetime: TC28004A 03/28/2006 16:22
CONC UNIT : ppm

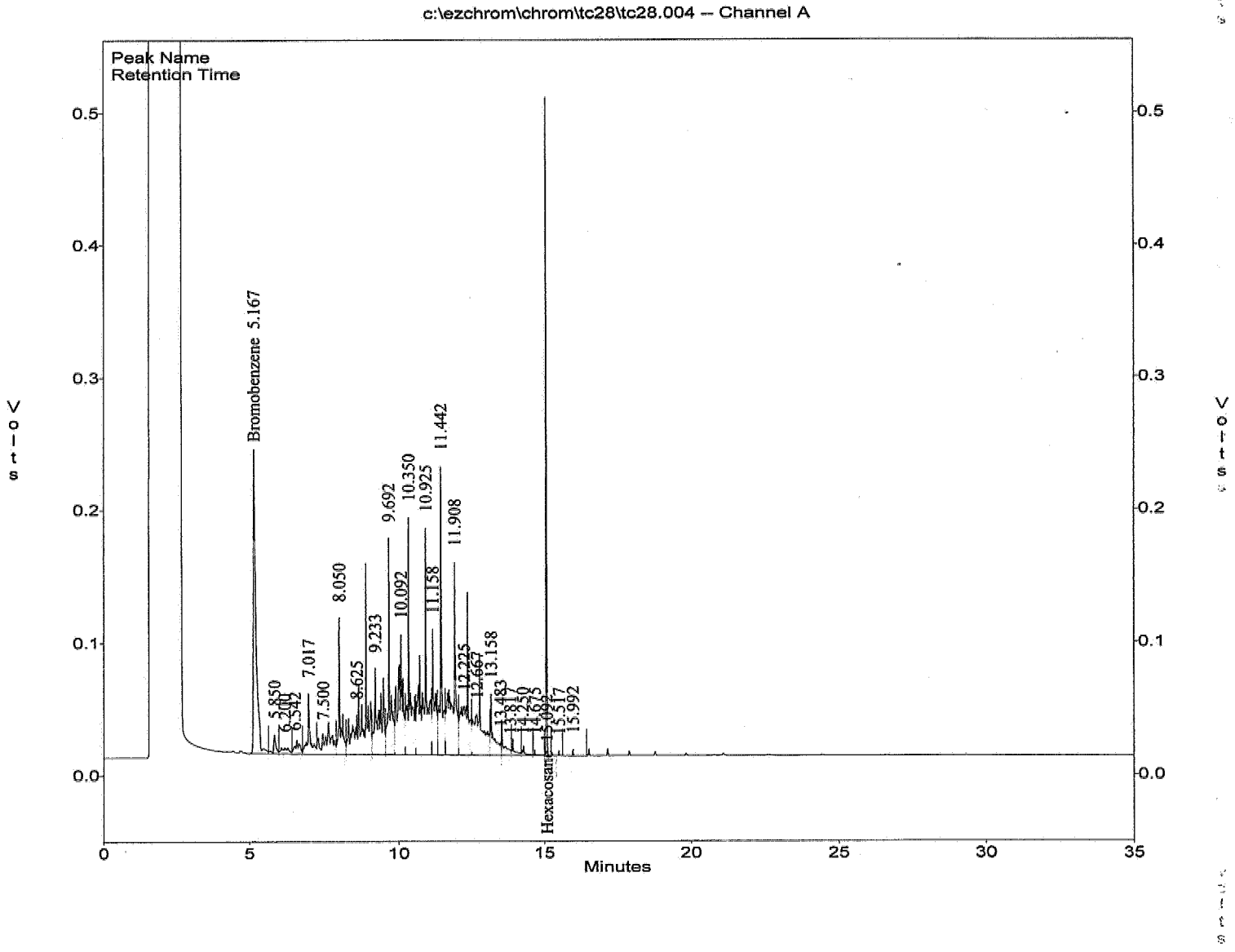
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
DIESEL(TOTAL)	0.000	0.000	0.000	500.0	26500.7	11892436	448.76	-10		15
DIESEL(C10-C24)	0.000	0.000	0.000	500.0	26460.6	11783090	445.31	-11		15
DIESEL(C10-C28)	0.000	0.000	0.000	500.0	26478.8	11805857	445.86	-11		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
BROMOBENZENE	5.167	5.080	5.254	100.0	14214.3	1399105	98.43	-2		15
HEXACOSANE	15.092	14.759	15.425	25.0	28984.5	801272	27.65	11		15

METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\tc28\tc28.004
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : CDS50A31619 D500
Acquired : Mar 28, 2006 16:22:42
Printed : Mar 29, 2006 14:59:12
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc. (ppm)
1	Bromobenzene	5.167	1399105	14214.3	98.4
24	Hexacosane	15.092	801272	28984.5	27.6
G1	Diesel(TOTAL)		11892436	26500.7	448.8
G2	Diesel(C10-C24)		11783090	26460.6	445.3
G3	Diesel(C10-C28)		11805857	26478.8	445.9



CONTINUE CALIBRATION
METHOD M8015

Lab Name : EMAX
Instrument ID : GCTO50
GC Column : DB-5
Column size ID : 30MX0.25MM
Mid Conc Init LFID & Datetime: TA05022A 01/06/2006 02:01
Conc Cont LFID & Datetime: TC28005A 03/28/2006 17:04
CONC UNIT : ppm

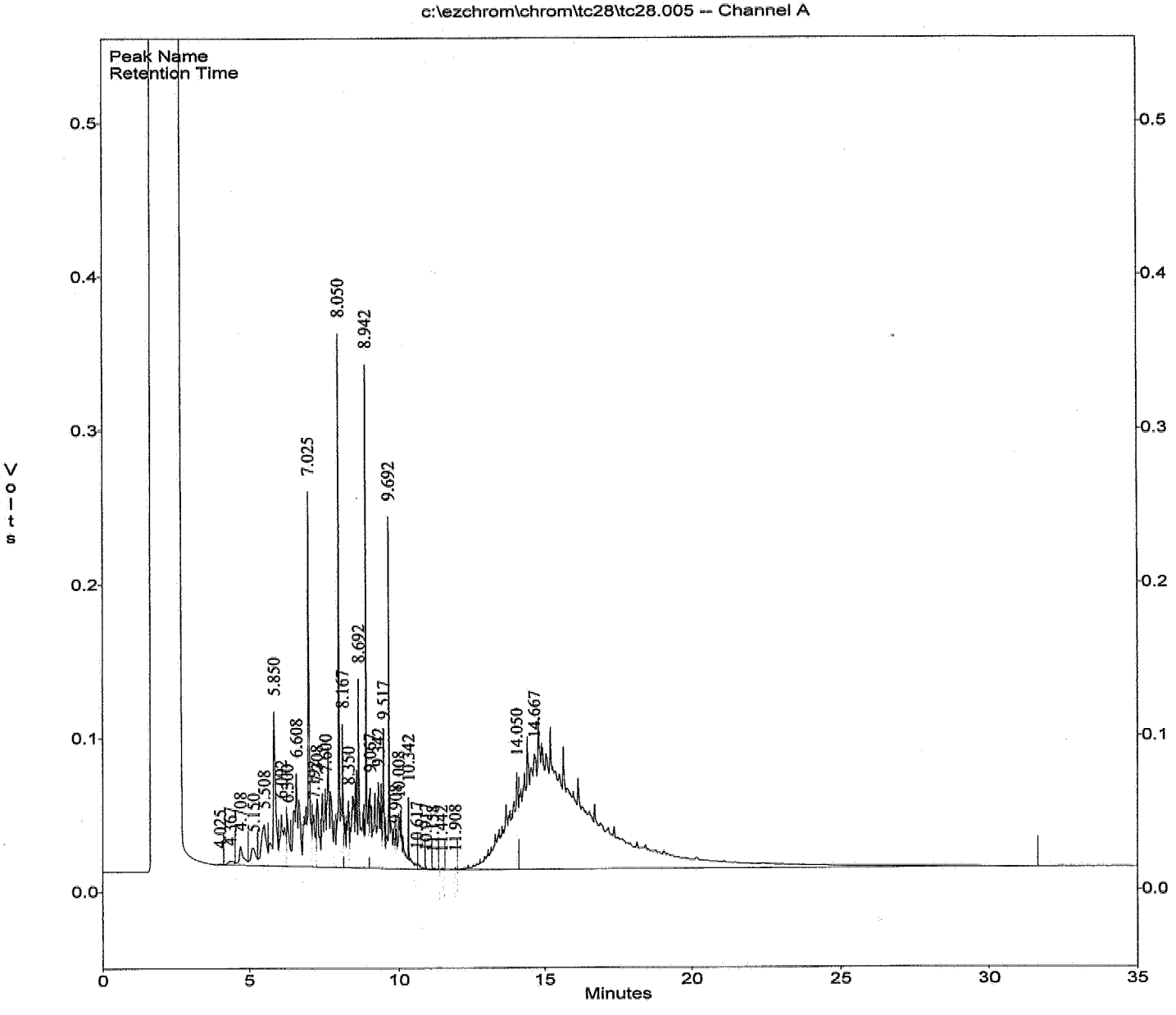
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
JP5	0.000	0.000	0.000	500.0	23046.2	10511094	456.09	-9		15
5W30	0.000	0.000	0.000	500.0	32168.8	14763198	458.93	-8		15

METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\tc28\tc28.005
Method : c:\ezchrom\methods\j550a05m.met
Sample ID : CJ550A05M620 JP5/MO
Acquired : Mar 28, 2006 17:04:23
Printed : Mar 29, 2006 14:59:21
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc. (ppm)
G1	JP5		10511094	23046.2	456.1
G2	5W30		14763198	32168.8	458.9



CONTINUE CALIBRATION
METHOD M8015

Lab Name : EMAX
Instrument ID : GCTO50
GC Column : DB-5
Column size ID : 30MX0.25MM
Mid Conc Init LFID & Datetime: TA31006A 01/31/2006 17:51
Conc Cont LFID & Datetime: TC28016A 03/29/2006 00:44
CONC UNIT : ppm

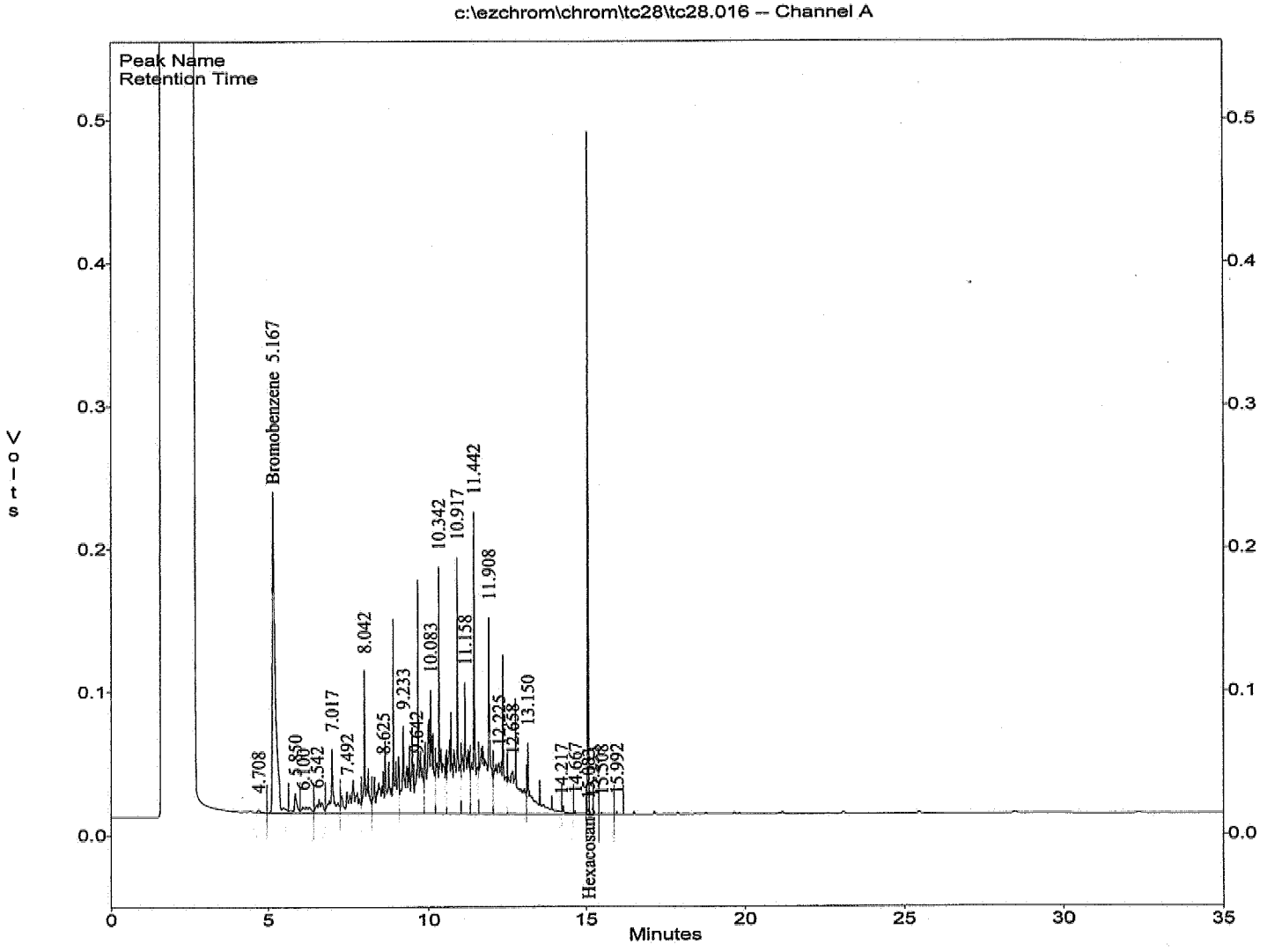
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
DIESEL(TOTAL)	0.000	0.000	0.000	500.0	26500.7	11521866	434.78	-13		15
DIESEL(C10-C24)	0.000	0.000	0.000	500.0	26460.6	11407165	431.10	-14		15
DIESEL(C10-C28)	0.000	0.000	0.000	500.0	26478.8	11423238	431.41	-14		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
BROMOBENZENE	5.167	5.080	5.254	100.0	14214.3	1330850	93.63	-6		15
HEXACOSANE	15.083	14.750	15.416	25.0	28984.5	769169	26.54	6		15

METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\tc28\tc28.016
Method : c:\ezchrom\methods\ds50a31.met
Sample ID : CDS50A31621 D500
Acquired : Mar 29, 2006 00:44:08
Printed : Mar 29, 2006 15:15:34
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc. (ppm)
2	Bromobenzene	5.167	1330850	14214.3	93.6
23	Hexacosane	15.083	769169	28984.5	26.5
G1	Diesel(TOTAL)		11521866	26500.7	434.8
G2	Diesel(C10-C24)		11407165	26460.6	431.1
G3	Diesel(C10-C28)		11423238	26478.8	431.4



CONTINUE CALIBRATION
METHOD M8015

Lab Name : EMAX
Instrument ID : GCTO50
GC Columm : DB-5
Column size ID : 30MX0.25MM
Mid Conc Init LFID & Datetime: TA05022A 01/06/2006 02:01
Conc Cont LFID & Datetime: TC28017A 03/29/2006 01:25
CONC UNIT : ppm

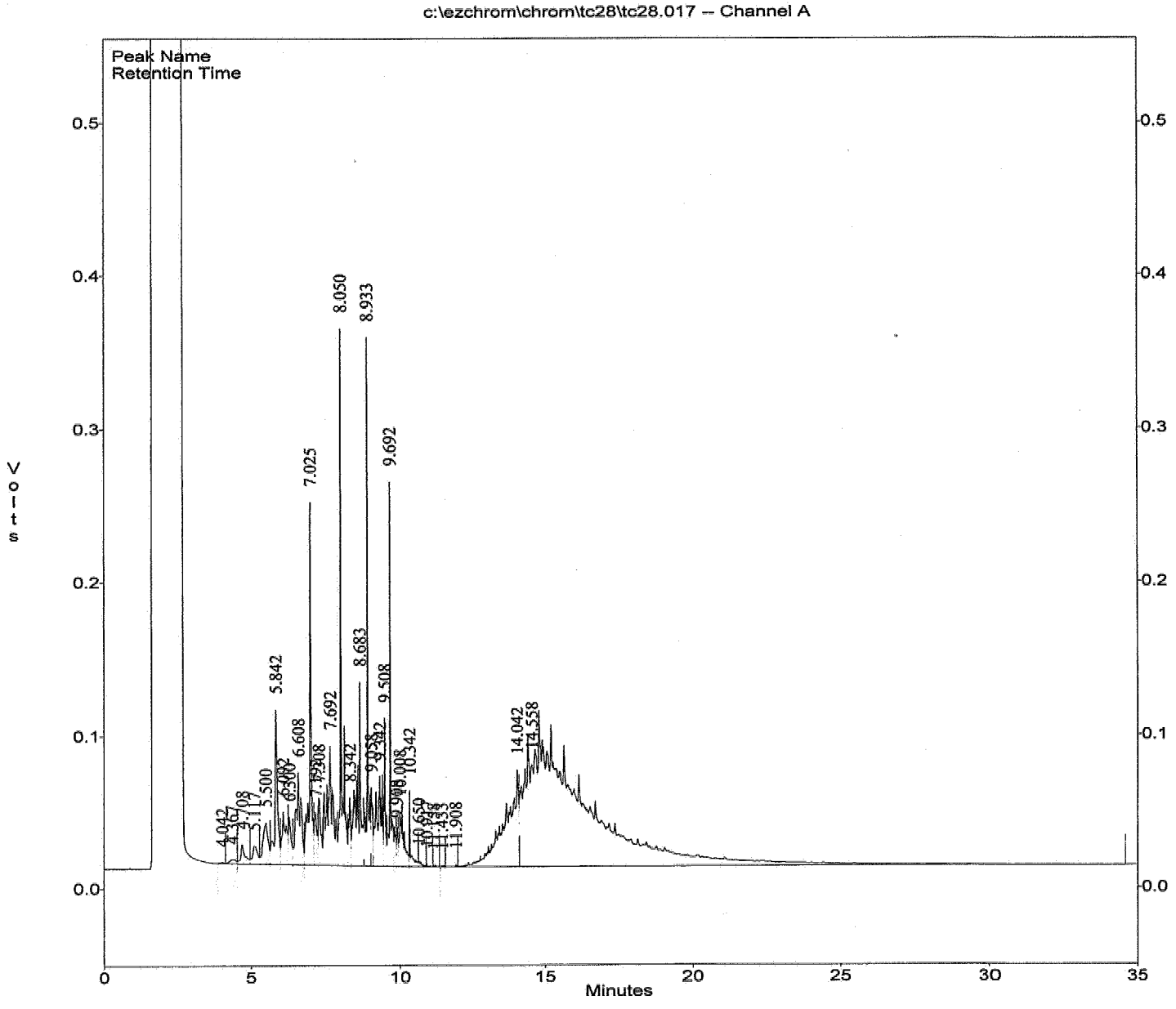
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
JP5	0.000	0.000	0.000	500.0	23046.2	10669033	462.94	-7		15
5W30	0.000	0.000	0.000	500.0	32168.8	14976449	465.56	-7		15

METHOD 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\tc28\tc28.017
Method : c:\ezchrom\methods\j550a05m.met
Sample ID : CJ550A05M622 JP5/MO
Acquired : Mar 29, 2006 01:25:46
Printed : Mar 29, 2006 15:15:43
User : JANE

Channel A Results

#	Peak Name	Ret.Time(Min)	Area	Ave. CF	ESTD Conc.(ppm)
G1	JP5		10669033	23046.2	462.9
G2	5W30		14976449	32168.8	465.6



ANALYTICAL LOGS

ANALYSIS RUN LOG FOR TPH

SOP ☑ EMAX-M8015D Revision No. 3 ☐ EMAX-LUFTE Revision No. 3 ☐ Book # A50-02

Starting Date: 01-05-06 Time: 22:31 Ending Date: 01-06-06 Time: 07:37

ANALYTICAL BATCH: N/A

Preparative Batch	Data File Name	Lab Sample ID	DF	Matrix S	Matrix W	Notes
	TA05-017	TEST				
	.018	IB50A233				
	.019	U550A05M01				10 PPM
	.020	02				20
	.021	03				50
	.022	04				500
	.023	05				1000
	.024	06				1500
	.025	07				3000
	.026	IU550A05M01				500
	.027	02				1500
	.028	HC-CHAIN				
	.029	MeCl2				
	.030	MeCl2				

JP5+5W30 ICV

No closure

Instrument No:	50

INITIAL CALIBRATION REFERENCE

	ID	Date
Diesel		
Motor oil		
JP5		
JP5+5W30	U550A05M	01-05-

Standards

Name	ID	Conc. (mg/L
CH_2Cl_2	45209	pure
DCC		
JP5+5W30 ICAL	S53B-07-01-1	10-300
JP5 ICV	S53B-06-55-3	50,000
5W30 ICV	S53B-06-69-3	50,000

Electronic Data Archival

Location	Date
☐ EZC_1_Diesel	
☐	

Comments:

Analyzed By: [signature]

Disposed on: 01-06-06 By: [signature]

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

5051

ANALYSIS RUN LOG FOR TPH

SOP ☑ EMAX-M8015D Revision No. 3 ☐ EMAX-LUFTE Revision No. 3 ☐ Book # A50-021

Starting Date: 01·31·06 Time: 14:20 Ending Date: 01·31·06 Time: 23:27

ANALYTICAL BATCH N/A

Preparative Batch	Data File Name	Lab Sample ID	DF	Matrix S	Matrix W	Notes
	TA31-001	IBS0A336				DSL (PPM) SURR
	.002	DS50A3101				> bad injection
	.003	02				
	.004	03				50 40/10
	.005	04				100 60/15
	.006	05				500 100/25
	.007	06				1500 140/35
	.008	07				3000 220/55
	.009	01				5
	.010	↓ 02				10 20/5
	.011	IDS50A31 01				500 100/25 ; DSL ICV
	.012	↓ 02				1500 140/35 ↓
	.013	HC-CHAIN				
	.014	MeCl2				

01/31/06

Instrument No:	50
INITIAL CALIBRATION REFERENCE	

	ID	Date
Diesel	DS50A31	01/31/06
Motor oil		
JP 5		

Standards

Name	ID	Conc. (mg/L)
CH_2Cl_2	45257	pure
DCC		
DSL 1GAL	S53C-07-04.2	5·3000
+ SURR		20/5 · 220/55
DSL ICV	S53C-07-03-3	3000

Electronic Data Archival

Location	Date
☐ EZC_1_Diesel	
☐	

Comments:

Analyzed By: JO

Disposed on: 02-01-06 By: JO

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

ANALYSIS RUN LOG FOR TPH

SOP ☑ EMAX-M8015D Revision No. 3 ☐ EMAX-LUFTE Revision No. 3 ☐ Book # A50-023

Starting Date: 03.28.06 Time: 14:17 Ending Date: 03.29.06 Time: 06:58

ANALYTICAL BATCH CDS30A31621

Preparative Batch	Data File Name	Lab Sample ID	DF	Matrix S	Matrix W	Notes
	7C28.001	TEST				
	.002	↓				
	.003	IBSDC619				
	.004	CDS30A31619				D620
	.005	C55DA05M620				JP5/SW30; 500 PPM
DSC024W	.006	DSC024WB 5/29/06	1		✓	W/SGEL
	.007	↓ L				↓
	.008	↓ C				
	.009	06C222.01				
	.010	01M				
	.011	01S				
	.012	02				
	.013	03				
	.014	06C239.01				
	.015	06C219.05	↓		↓	
	.016	CDS30A31621				D620
	.017	C55DA05M622				JP5/SW30; 500 PPM
DSC024W	.018	06C219.10	1		✓	
	.019	↓ 15				
	.020	06C226.01				
	.021	↓ 02				
	.022	06C584.01				
	.023	↓ 02				yellowish
	.024	06C219.20				
	.025	↓ 25	↓		↓	

Instrument No:		50
INITIAL CALIBRATION REFERENCE		
	ID	Date
Diesel	DS30A31	9-31-06
Motor oil		
JP 5/SW30	J55DA05M	9-05-06

Standards		
Name	ID	Conc. (mg/L)
CH_2Cl_2	45342	pure
DCC DSL	553C-07-16-1	500
JP5/SW30 DCC	553C-07-16-2	500

Electronic Data Archival	
Location	Date
☐ EZC_1_Diesel	
☐	

Comments:

Analyzed By: JO

Disposed on: 03/29/06 By: JO

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

5056

EXTRACTION LOGS

EXTRACTION LOG FOR TPH

SOP ☐ EMAX-3550 Rev. No.1 ☒ EMAX-3520 Rev. No.2 ☐ EMAX-LUFT E Rev. No.1 ☐ EMAX-3540 Rev. No.0 ☐ EMAX-3510Rev.No. 1

Matrix: WATER Start Date: 3/27/06 Time: 12:00 End Date: 3/28/06 Time: 6:00 Book # EDS-027

PREPARATION BATCH # DSC024 3/27/06 WL AB

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g | ml)	Extract Volume (ml)	Silica Gel Clean-up	Notes
01	DSC024 - WB	N/A	1000	10	Silica gel	* DSC025 WB
02	- WL		1000	10		WL
03	- WC		1000	10		WC
04	06C210 - 03		1060	10	Silica gel	light yellow soln
05	- 04		1060	10		
06	- 05		1060	10		
07	06C222 - 01		1060	10		light yellow w/ sediments
08	- 01M		1060	10		light yellow soln
09	- 01S		1060	10		
10	- 02		1060	10		light pink w/ sediments
11	- 03		1060	10		light green w/ sediments
12	06C225 - 01		1030	10	Silica gel	light yellow soln
13	- 01M		1030	10		
14	- 01S		990	10		
15	- 02		1060	10		
16	06C239 - 01		1060	10		
17	06C584 - 01		1050	10		light yellow soln
18	- 02		1060	10		
19	06C219 - 05		960	10		
20	- 10		980	10		
21	- 15		990	10		
22	- 20		990	10		yellow soln
23	- 25		960	10		light yellow soln
24	06C226 - 01		1060	10		
25	- 02		980	10		
26		3/28/06				
27						

Standards	ID	Amount Added (ml)
Surrogate	SS3C-07-04-1	1.0
LCS/MS	SS3C-07-04-3	1.0

Reagent	Lot# / ID
CH_2Cl_2	45342
Na_2SO_4	45045
HCl	45105
Silica ~~Sand~~ gel	42324304

TUNING

Sonicator #	Reading
	N/A

Concentrator Water Bath Temp. (C)		
1	35	35
2	35	35
3	35	35
4	35	35
5	35	35
6		

Comments: Test thermometer = T_1

Prepared By: AB/JM Standard Added By: JM

Witnessed By: AB Checked By: ML

Extract Received by: AB 3/28/06 Extract Location: SE06 - 15A

Disposal Date: Disposed By:

This page is checked during data review.

* Further silica gel clean up on DSC024 WB, WL, WC

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

LABORATORY REPORT FOR

ENSR

UPGRADIENT INVESTIGATION, TRONOX

METHOD M8015
ALCOHOLS BY GC

SDG#: 06C222

CASE NARRATIVE

CLIENT: ENSR

PROJECT: UPGRADIENT INVESTIGATION, TRONOX

SDG: 06C222

METHOD M8015
ALCOHOLS BY GC

Four (4) water samples were received on 03/24/06 for Alcohols by GC analysis by Method M8015 in accordance with USEPA SW846, 3rd Ed.

1. Holding Time

Analytical holding time was met. Samples were not preserved except sample C222-04, which was adjusted to pH 7 with NaOH prior to analysis.

2. Calibration

Initial calibration was five points. %RSD was within 20%. Continuing calibrations were carried out within 10-sample interval. All recoveries were within 85-115%.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

5. Matrix Spike/Matrix Spike Duplicate

Sample C222-01 was spiked. Recoveries were within QC limits.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
ALCOHOLS BY GC

Client : ENSR
Project : UPGRADIENT INVESTIGATION, TRONOX

SDG NO. : 06C222
Instrument ID : GCT043

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	MEC013WB	1	NA	03/27/0613:25	03/27/0613:25	DC27003A	DC27002A	MEC013W	Method Blank
LCS1W	MEC013WL	1	NA	03/27/0613:45	03/27/0613:45	DC27004A	DC27002A	MEC013W	Lab Control Sample (LCS)
LCD1W	MEC013WC	1	NA	03/27/0614:03	03/27/0614:03	DC27005A	DC27002A	MEC013W	LCS Duplicate
M-121	C222-01	1	NA	03/27/0614:20	03/27/0614:20	DC27006A	DC27002A	MEC013W	Field Sample
M-117	C222-02	1	NA	03/27/0615:17	03/27/0615:17	DC27009A	DC27002A	MEC013W	Field Sample
H-11	C222-03	1	NA	03/27/0615:34	03/27/0615:34	DC27010A	DC27002A	MEC013W	Field Sample
TRIP BLANK	C222-04	1	NA	03/27/0615:52	03/27/0615:52	DC27011A	DC27002A	MEC013W	Field Sample
M-121MS	C222-01M	1	NA	03/27/0614:38	03/27/0614:38	DC27007A	DC27002A	MEC013W	Matrix Spike Sample (MS)
M-121MSD	C222-01S	1	NA	03/27/0614:59	03/27/0614:59	DC27008A	DC27002A	MEC013W	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD M8015
ALCOHOLS BY GC

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/27/06 14:20
Sample ID:	M-121	Date Analyzed:	03/27/06 14:20
Lab Samp ID:	C222-01	Dilution Factor:	1
Lab File ID:	DC27006A	Matrix :	WATER
Ext Btch ID:	MEC013W	% Moisture :	NA
Calib. Ref.:	DC27002A	Instrument ID :	GCT043

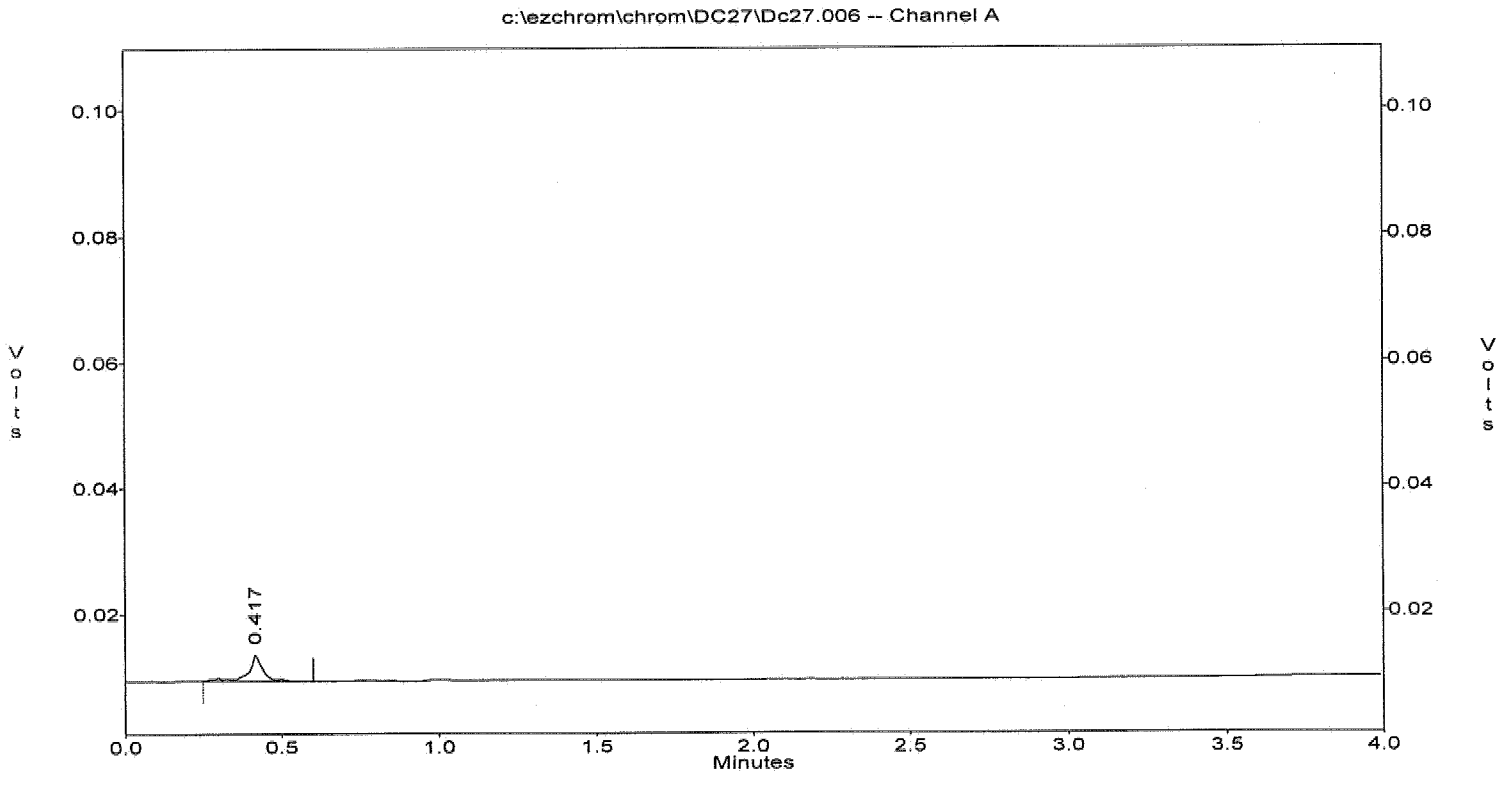
PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
METHANOL	ND	1	.5
ETHANOL	ND	1	.5

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC27\Dc27.006
Method : c:\ezchrom\methods\Me43c06.met
Sample ID : 06C222-01
Acquired : Mar 27, 2006 14:20:58
Printed : Mar 27, 2006 14:24:59
User : LUCY

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
--	METHANOL	0.992	0	0.0	0.0
--	ETHANOL	1.192	0	0.0	0.0



METHOD M8015
ALCOHOLS BY GC

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/27/06 15:17
Sample ID:	M-117	Date Analyzed:	03/27/06 15:17
Lab Samp ID:	C222-02	Dilution Factor:	1
Lab File ID:	DC27009A	Matrix	: WATER
Ext Btch ID:	MEC013W	% Moisture	: NA
Calib. Ref.:	DC27002A	Instrument ID	: GCT043

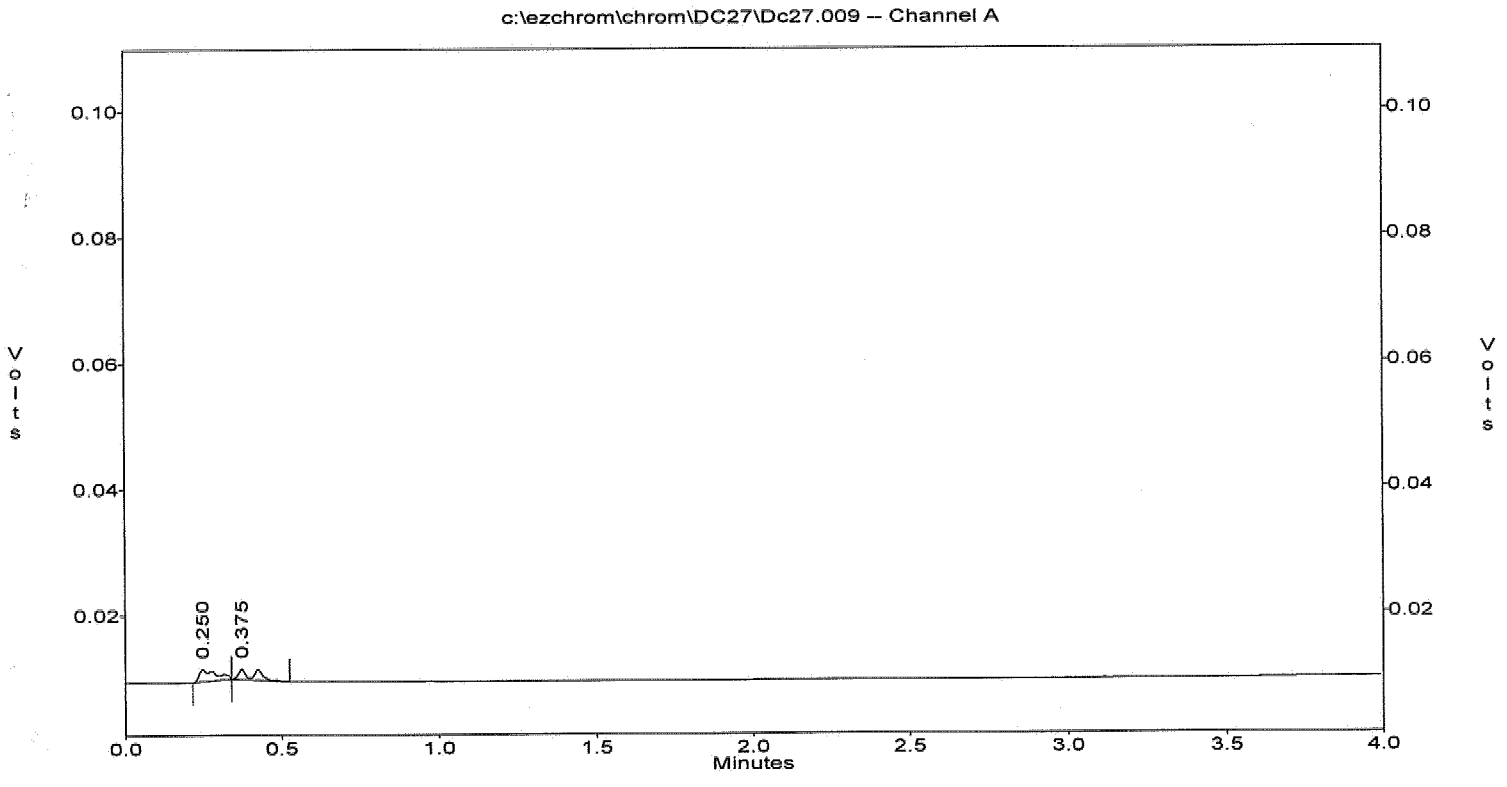
PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
METHANOL	ND	1	.5
ETHANOL	ND	1	.5

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC27\Dc27.009
Method : c:\ezchrom\methods\Me43c06.met
Sample ID : 06C222-02
Acquired : Mar 27, 2006 15:17:06
Printed : Mar 27, 2006 15:21:07
User : LUCY

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
--	METHANOL	0.992	0	0.0	0.0
--	ETHANOL	1.192	0	0.0	0.0



METHOD M8015
ALCOHOLS BY GC

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/27/06 15:34
Sample ID	: H-11	Date Analyzed:	03/27/06 15:34
Lab Samp ID	: C222-03	Dilution Factor:	1
Lab File ID	: DC27010A	Matrix :	WATER
Ext Btch ID	: MEC013W	% Moisture :	NA
Calib. Ref.	: DC27002A	Instrument ID :	GCT043

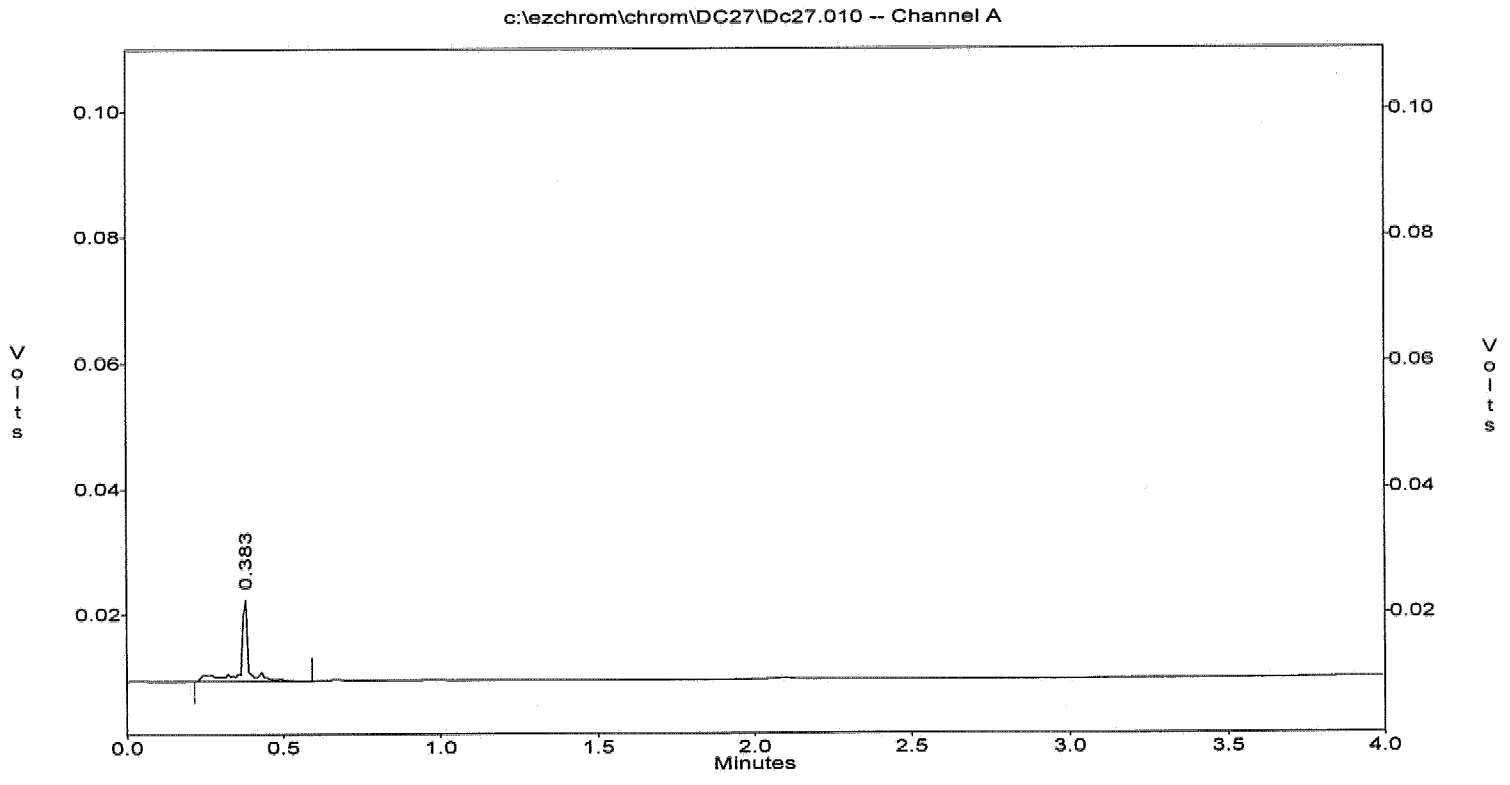
PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
METHANOL	ND	1	.5
ETHANOL	ND	1	.5

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC27\Dc27.010
Method : c:\ezchrom\methods\Me43c06.met
Sample ID : 06C222-03
Acquired : Mar 27, 2006 15:34:33
Printed : Mar 27, 2006 15:38:34
User : LUCY

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
--	METHANOL	0.992	0	0.0	0.0
--	ETHANOL	1.192	0	0.0	0.0



METHOD M8015
ALCOHOLS BY GC

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/27/06 15:52
Sample ID	: TRIP BLANK	Date Analyzed:	03/27/06 15:52
Lab Samp ID	: C222-04	Dilution Factor:	1
Lab File ID	: DC27011A	Matrix	: WATER
Ext Btch ID	: MEC013W	% Moisture	: NA
Calib. Ref.	: DC27002A	Instrument ID	: GCT043

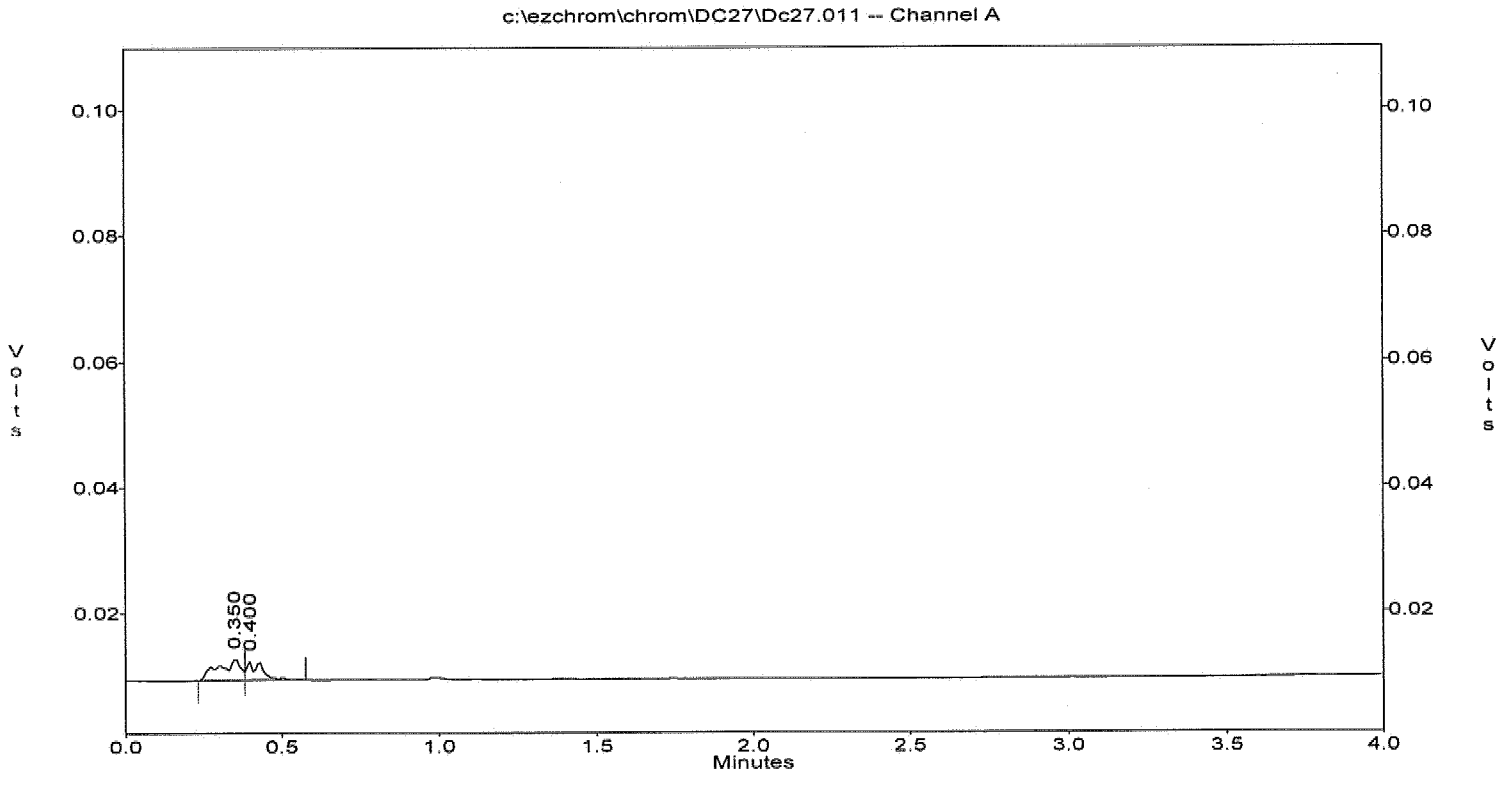
PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
METHANOL	ND	1	.5
ETHANOL	ND	1	.5

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC27\Dc27.011
Method : c:\ezchrom\methods\Me43c06.met
Sample ID : 06C222-04
Acquired : Mar 27, 2006 15:52:44
Printed : Mar 27, 2006 15:56:46
User : LUCY

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
--	METHANOL	0.992	0	0.0	0.0
--	ETHANOL	1.192	0	0.0	0.0



QC SUMMARIES

METHOD M8015
ALCOHOLS BY GC

Client	: ENSR	Date Collected:	NA
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/27/06
Batch No.	: 06C222	Date Extracted:	03/27/06 13:25
Sample ID:	MBLK1W	Date Analyzed:	03/27/06 13:25
Lab Samp ID:	MEC013WB	Dilution Factor:	1
Lab File ID:	DC27003A	Matrix :	WATER
Ext Btch ID:	MEC013W	% Moisture :	NA
Calib. Ref.:	DC27002A	Instrument ID :	GCT043

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
METHANOL	ND	1	.5
ETHANOL	ND	1	.5

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ENSR
PROJECT: UPGRADIENT INVESTIGATION, TRONOX
BATCH NO.: 06C222
METHOD: METHOD M8015

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	MEC013WB	MEC013WL	MEC013WC		
LAB FILE ID:	DC27003A	DC27004A	DC27005A		
DATE EXTRACTED:	03/27/0613:25	03/27/0613:45	03/27/0614:03	DATE COLLECTED:	NA
DATE ANALYZED:	03/27/0613:25	03/27/0613:45	03/27/0614:03	DATE RECEIVED:	03/27/06
PREP. BATCH:	MEC013W	MEC013W	MEC013W		
CALIB. REF:	DC27002A	DC27002A	DC27002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Methanol	ND	10	11.7	117	10	11.8	118	0	60-130	30
Ethanol	ND	10	10.3	103	10	10.3	103	0	60-130	30

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ENSR
PROJECT: UPGRADIENT INVESTIGATION, TRONOX
BATCH NO.: 06C222
METHOD: METHOD M8015

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	M-121				
LAB SAMP ID:	C222-01	C222-01M	C222-01S		
LAB FILE ID:	DC27006A	DC27007A	DC27008A		
DATE EXTRACTED:	03/27/0614:20	03/27/0614:38	03/27/0614:59	DATE COLLECTED:	03/23/06
DATE ANALYZED:	03/27/0614:20	03/27/0614:38	03/27/0614:59	DATE RECEIVED:	03/24/06
PREP. BATCH:	MEC013W	MEC013W	MEC013W		
CALIB. REF:	DC27002A	DC27002A	DC27002A		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	SPIKE AMT (mg/L)	MSD RSLT (mg/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Methanol	ND	10	11.9	119	10	11.2	112	6	60-130	30
Ethanol	ND	10	10.1	101	10	9.88	99	2	60-130	30

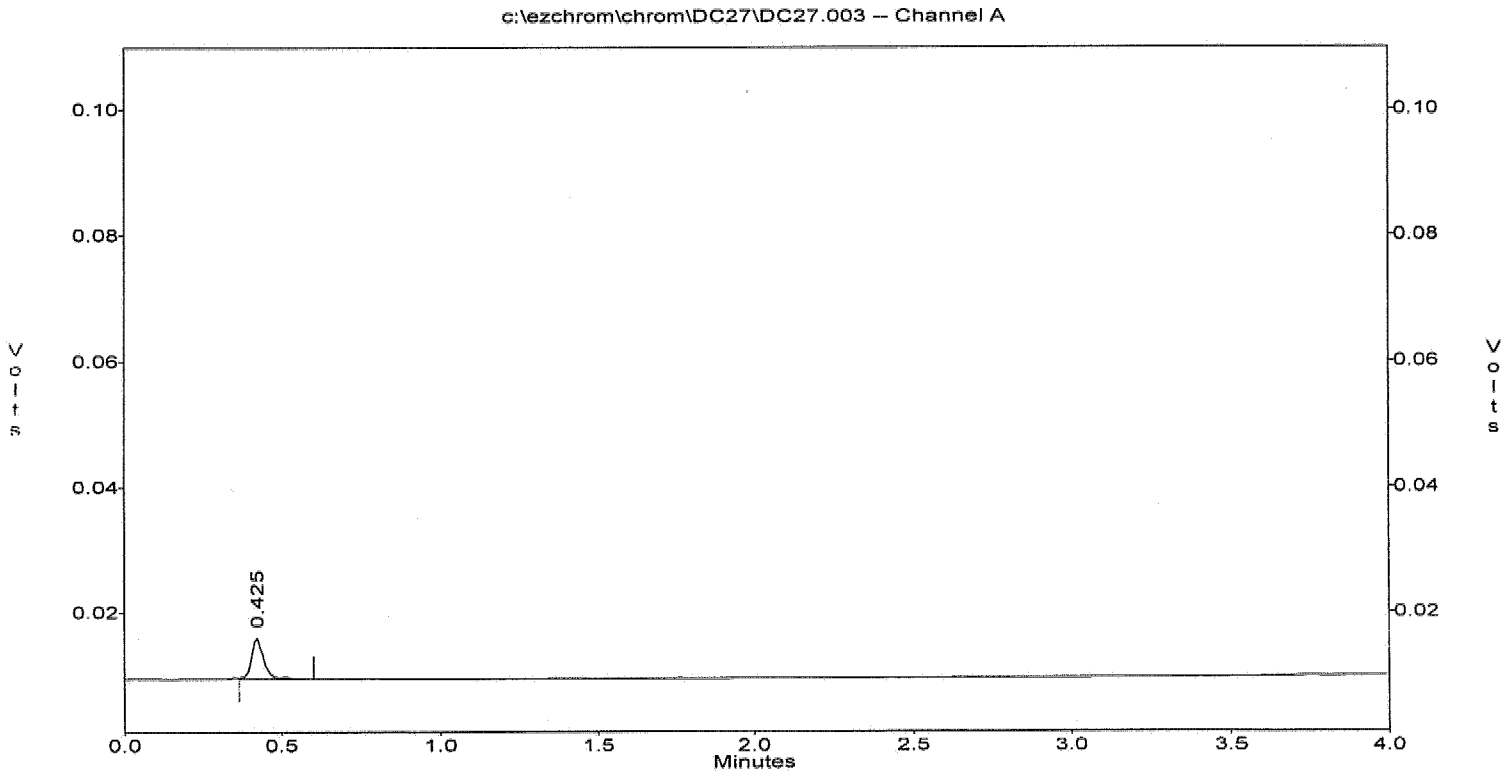
QC DATA

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC27\DC27.003
Method : c:\ezchrom\methods\me43c06.met
Sample ID : MEC013WB
Acquired : Mar 27, 2006 13:25:48
Printed : Mar 30, 2006 15:29:53
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
--	METHANOL	0.992	0	0.0	0.0
--	ETHANOL	1.192	0	0.0	0.0

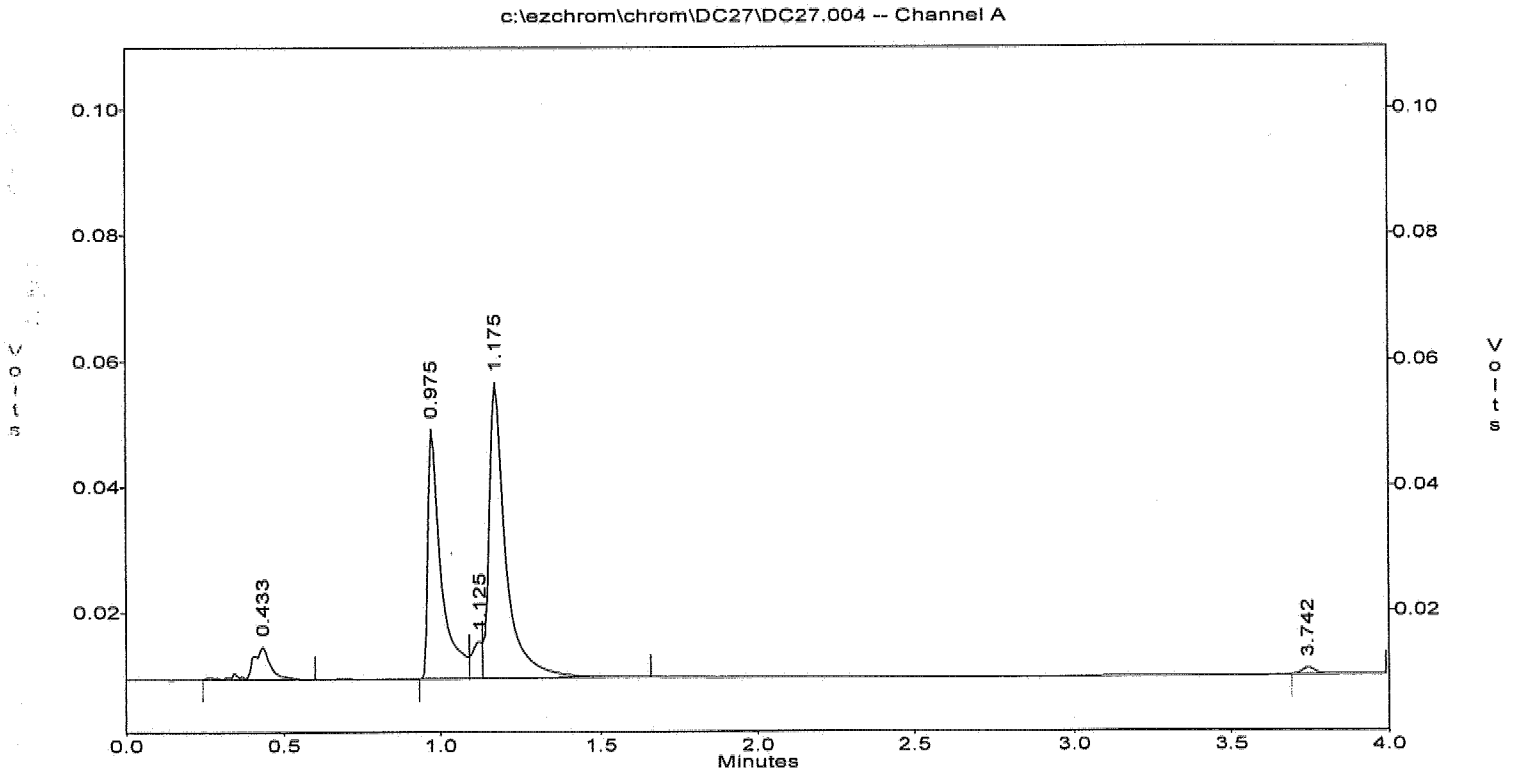


EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC27\DC27.004
Method : c:\ezchrom\methods\me43c06.met
Sample ID : MEC013WL
Acquired : Mar 27, 2006 13:45:29
Printed : Mar 30, 2006 15:29:54
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
2	METHANOL	0.975	114383	9735.5	11.7
4	ETHANOL	1.175	168013	16319.3	10.3

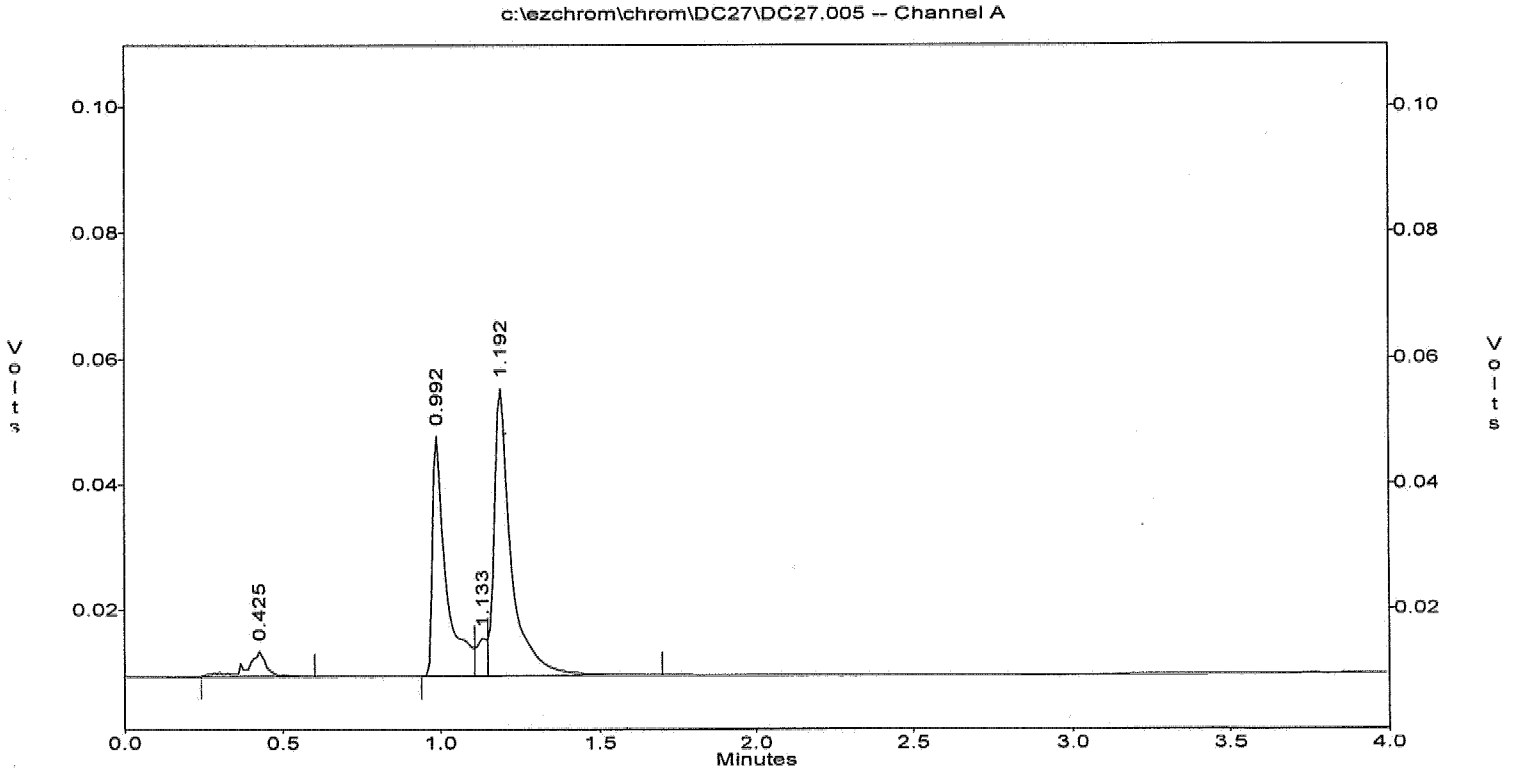


EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC27\DC27.005
Method : c:\ezchrom\methods\me43c06.met
Sample ID : MEC013WC
Acquired : Mar 27, 2006 14:03:06
Printed : Mar 30, 2006 15:29:55
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
2	METHANOL	0.992	114654	9735.5	11.8
4	ETHANOL	1.192	168449	16319.3	10.3

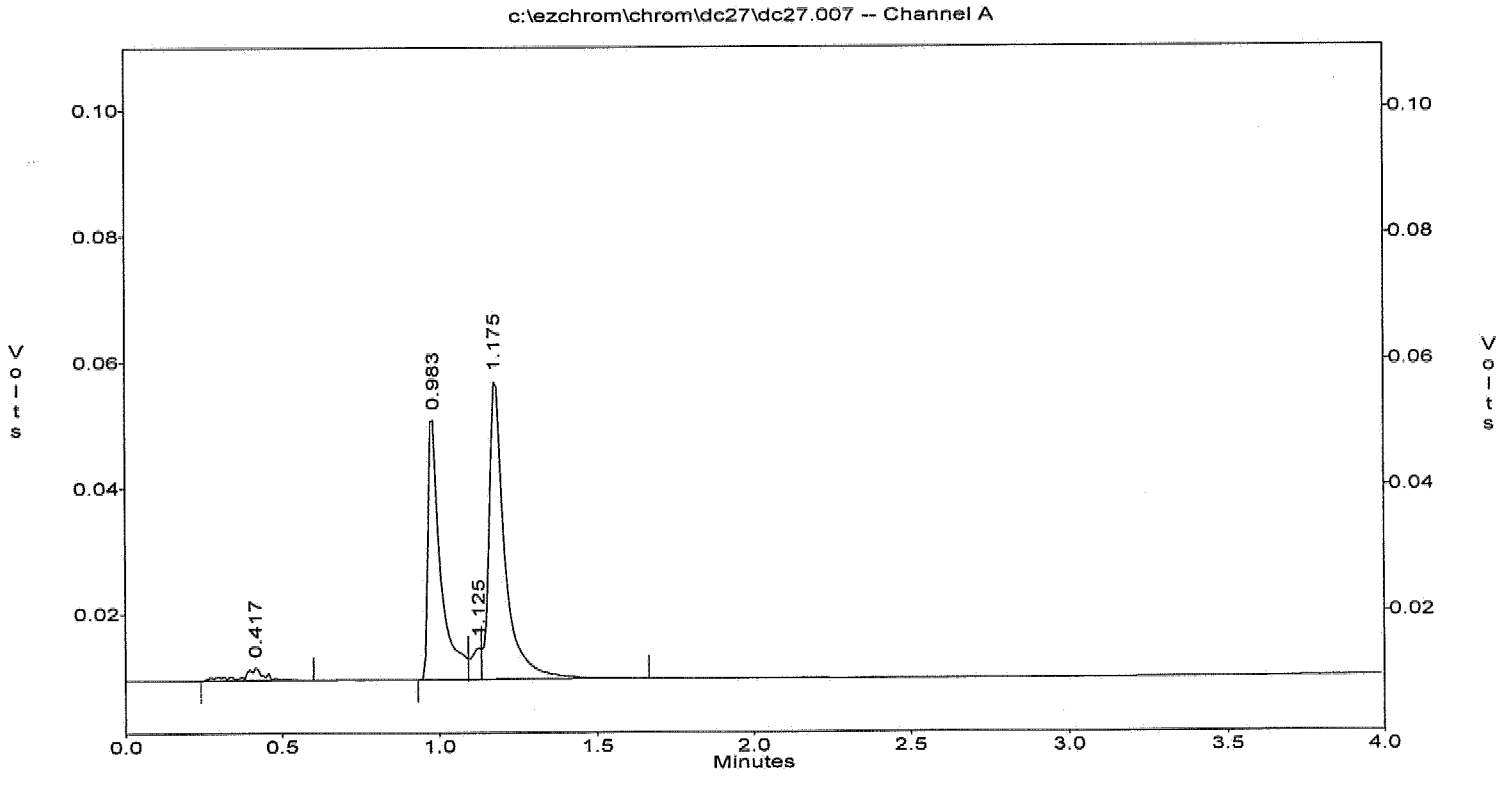


EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc27\dc27.007
Method : c:\ezchrom\methods\me43c06.met
Sample ID : 06C222-01M
Acquired : Mar 27, 2006 14:38:47
Printed : Mar 27, 2006 15:00:44
User : LUCY

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
2	METHANOL	0.983	115571	9735.5	11.9
4	ETHANOL	1.175	164741	16319.3	10.1

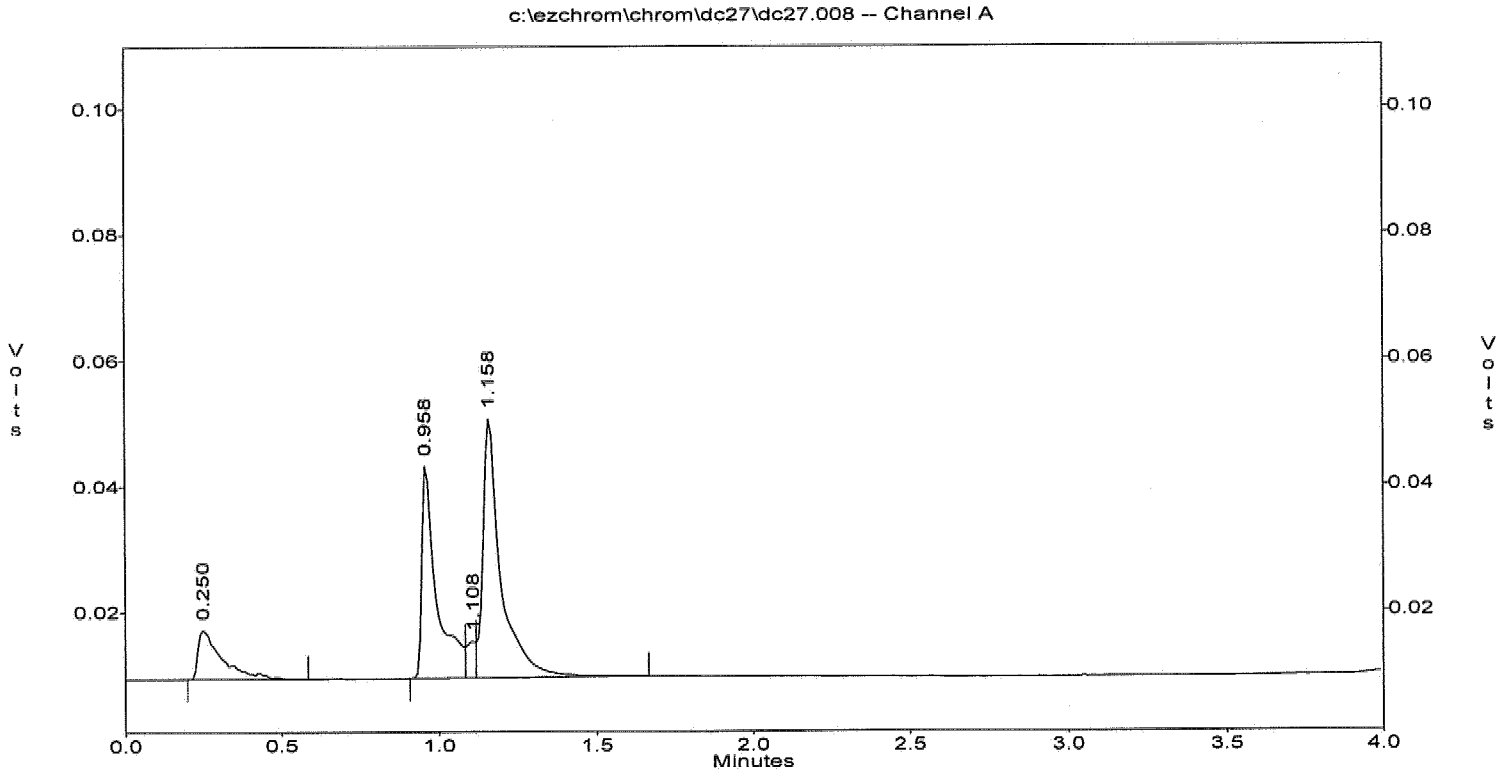


EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc27\dc27.008
Method : c:\ezchrom\methods\me43c06.met
Sample ID : 06C222-01S
Acquired : Mar 27, 2006 14:59:35
Printed : Mar 27, 2006 15:10:02
User : LUCY

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
2	METHANOL	0.958	109376	9735.5	11.2
4	ETHANOL	1.158	161205	16319.3	9.9



INITIAL CALIBRATION

INITIAL CALIBRATION
METHOD M8015

Lab Name : EMAX Inc
Instrument ID : GCTO43
GC Column : SUPELCO WAX 10
Column size ID : 30MX0.53MMX0.25UM
LFID & Datetime: DC06002A 03/06/06 13:33 ✓
LFID & Datetime: DC06003A 03/06/06 13:53 ✓
LFID & Datetime: DC06004A 03/06/06 14:11 ✓
LFID & Datetime: DC06005A 03/06/06 14:29 ✓
LFID & Datetime: DC06006A 03/06/06 14:47 ✓
CONC UNIT: ppm

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	5.00X	10.00X	15.00X	20.00X	MEAN	%RSD	
METHANOL	1.00	9358.00	9968.80	9945.50	9619.93	9785.45	9735.54	2.6	✓
ETHANOL	1.00	14498	16802	17403	17481	15412	16319	8.0	✓

ME43C06.MET

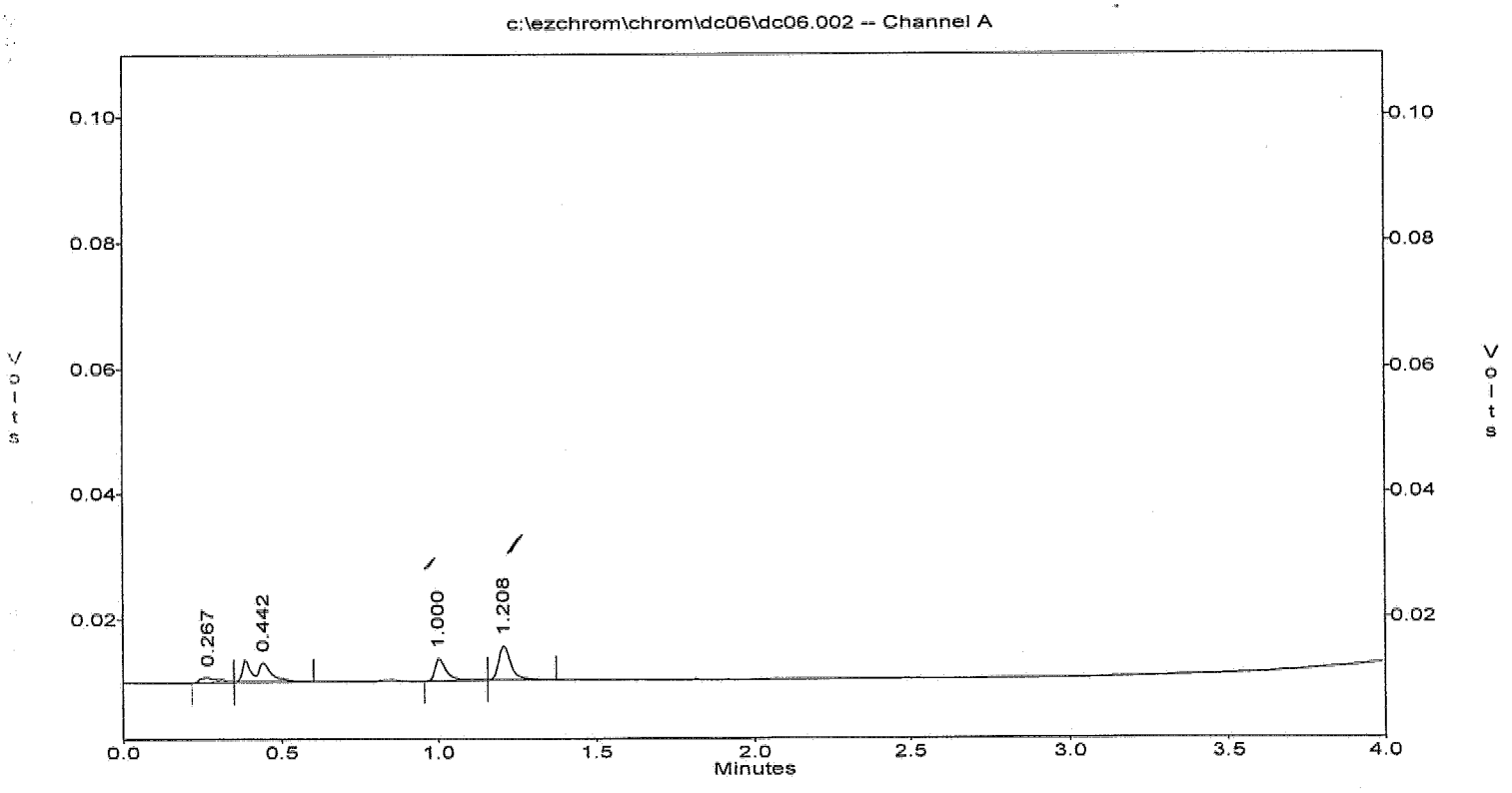
RA
03/08/06

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc06\dc06.002
Method : c:\ezchrom\methods\me43c06.met
Sample ID : ME43C0601 1PPM
Acquired : Mar 06, 2006 13:33:28
Printed : Mar 06, 2006 15:11:10
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
3	METHANOL	1.000	9358	9735.5	1.0
4	ETHANOL	1.208	14498	16319.3	1.0



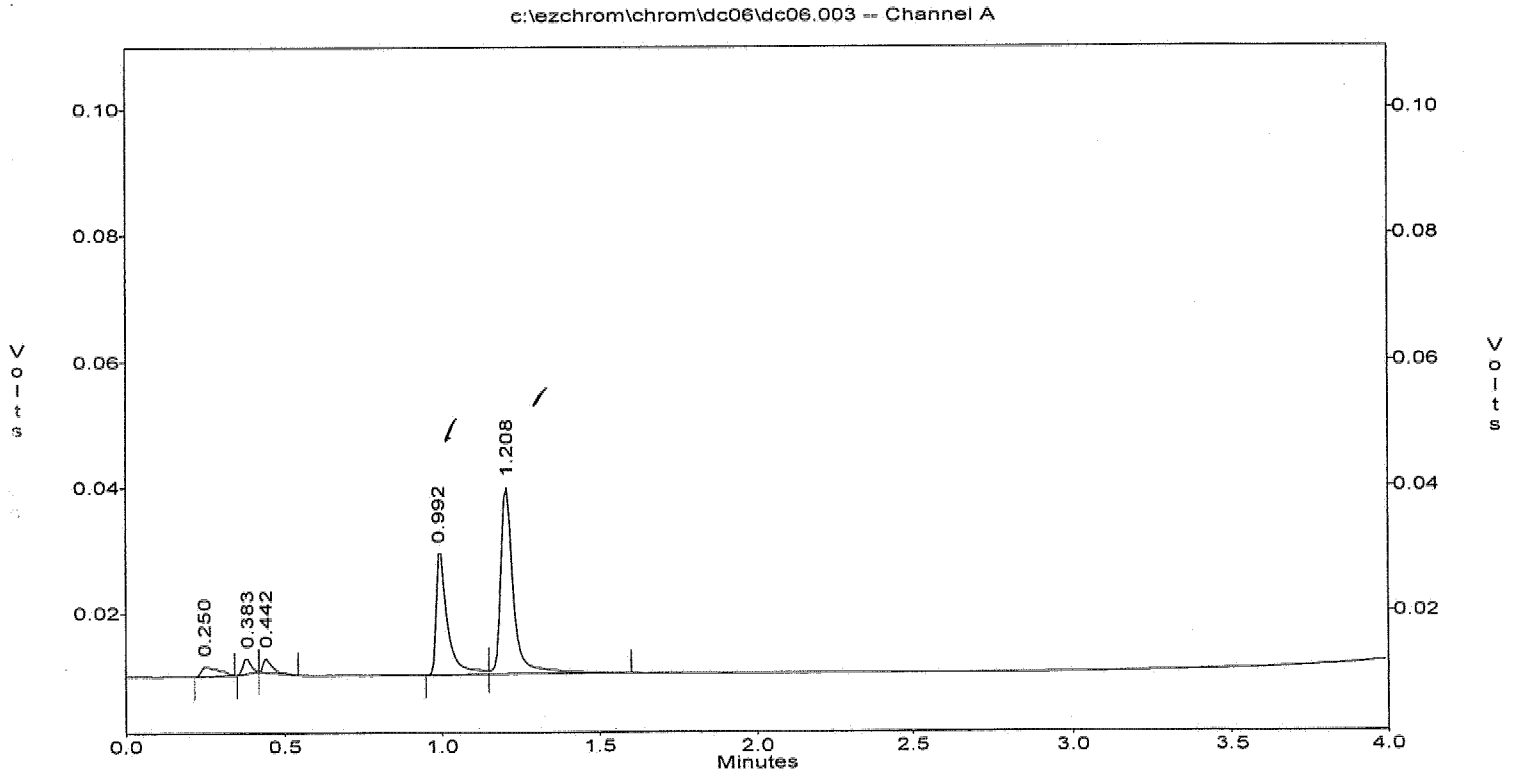
03/08/06
5083

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc06\dc06.003
Method : c:\ezchrom\methods\me43c06.met
Sample ID : ME43C0602 5PPM
Acquired : Mar 06, 2006 13:53:42
Printed : Mar 06, 2006 15:11:14
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
4	METHANOL	0.992	49844	9735.5	5.0
5	ETHANOL	1.208	84012	16319.3	5.0



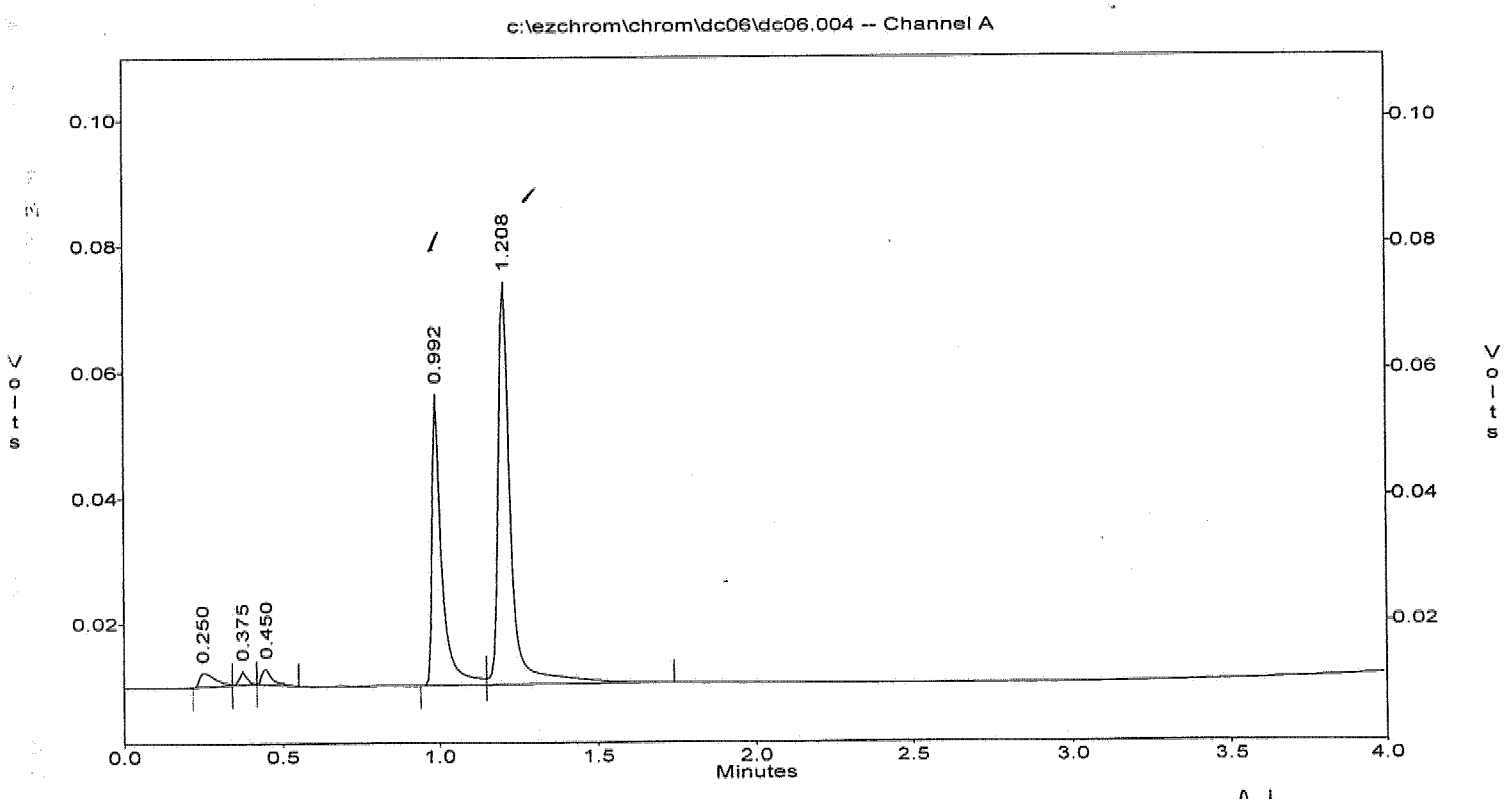
03/08/06
5084

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc06\dc06.004
Method : c:\ezchrom\methods\me43c06.met
Sample ID : ME43C0603 10PPM
Acquired : Mar 06, 2006 14:11:39
Printed : Mar 06, 2006 15:11:18
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
4	METHANOL	0.992	99455	9735.5	10.0
5	ETHANOL	1.208	174031	16319.3	10.0



RA
03/08 10b

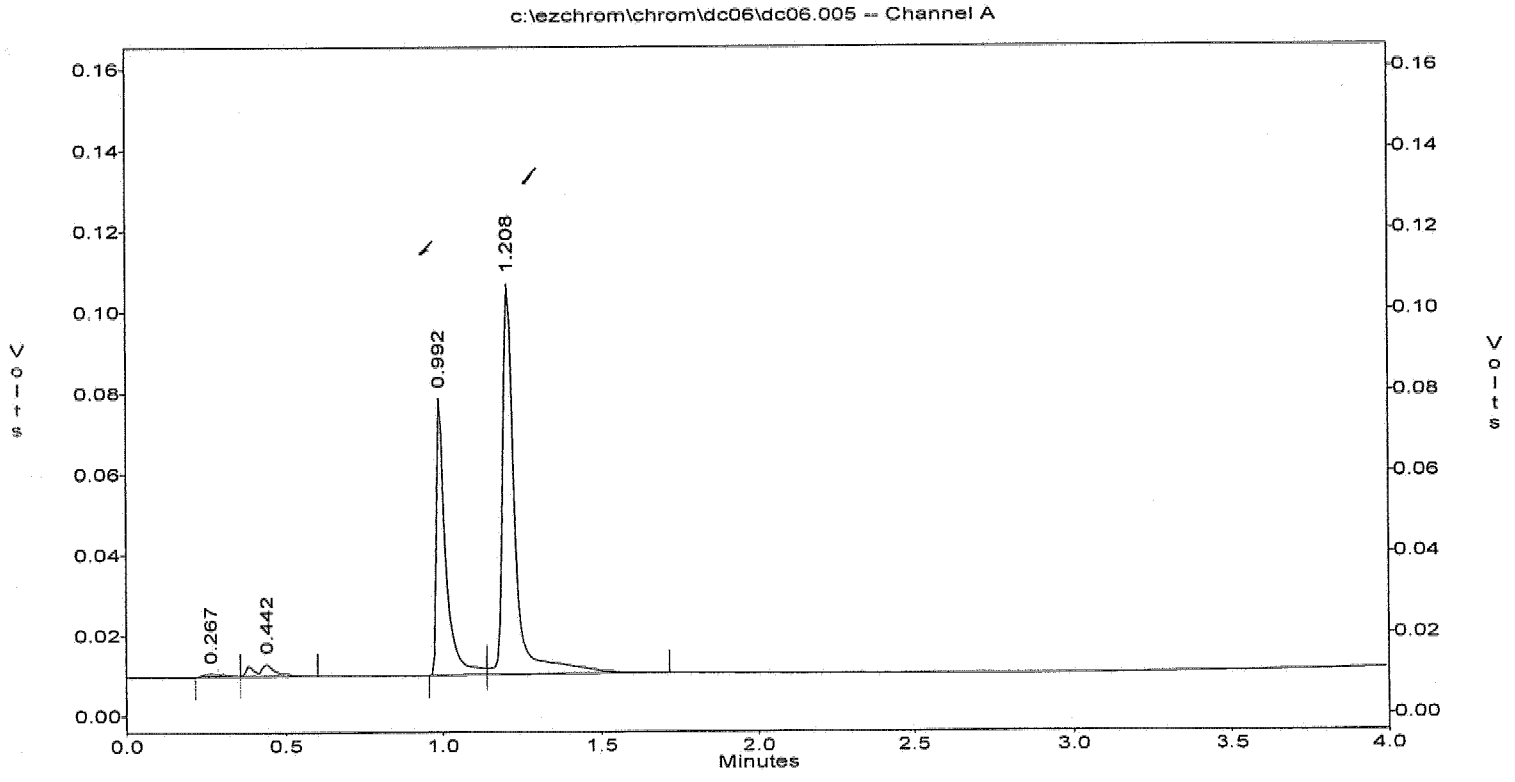
5085

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc06\dc06.005
Method : c:\ezchrom\methods\me43c06.met
Sample ID : ME43C0604 15PPM
Acquired : Mar 06, 2006 14:29:43
Printed : Mar 06, 2006 15:11:28
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
3	METHANOL	0.992	144299	9735.5	15.0
4	ETHANOL	1.208	262213	16319.3	15.0



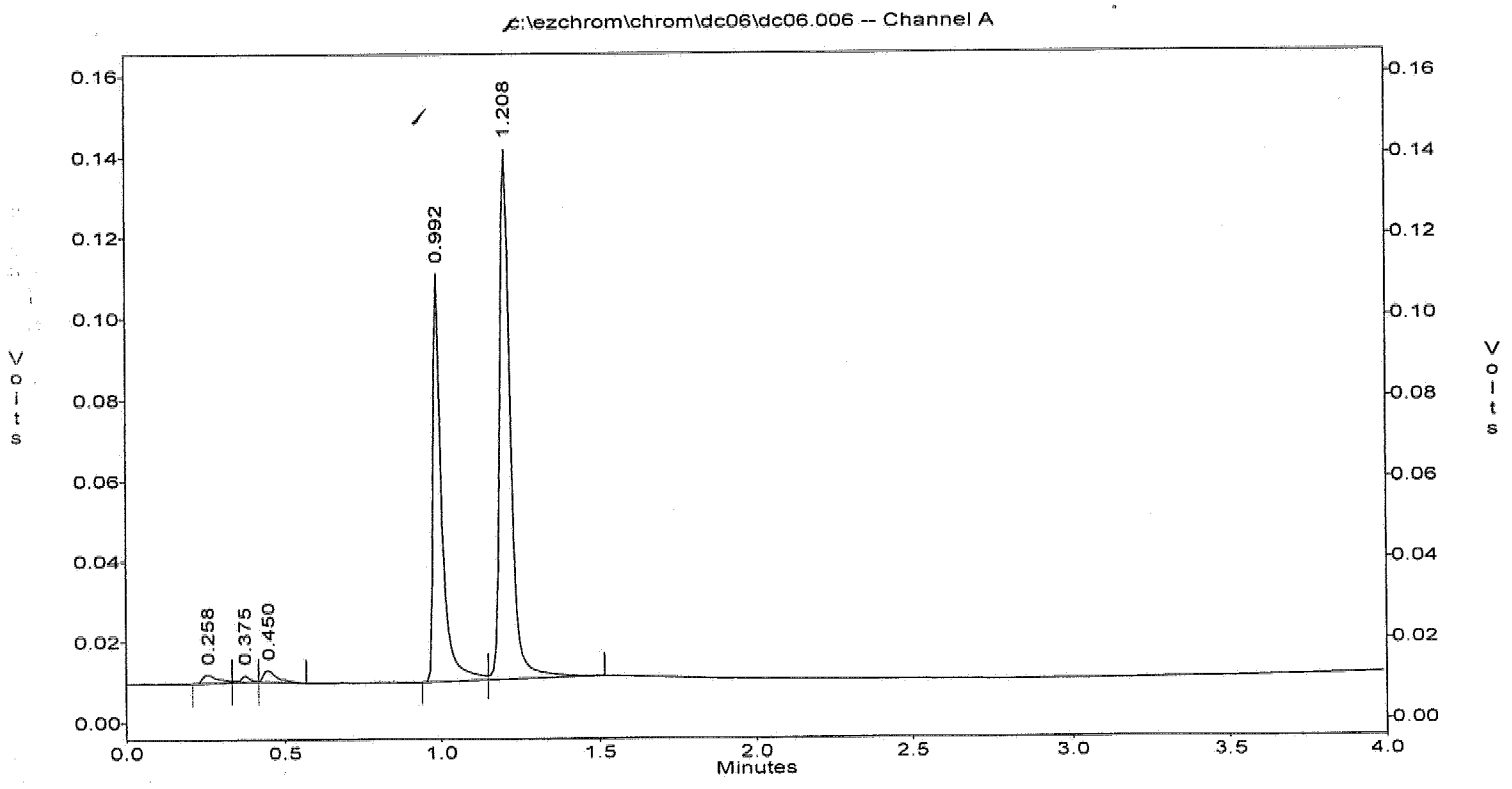
RA
03/08/06
5086

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc06\dc06.006
Method : c:\ezchrom\methods\me43c06.met
Sample ID : ME43C0605 20PPM
Acquired : Mar 06, 2006 14:47:41
Printed : Mar 06, 2006 15:11:33
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
4	METHANOL	0.992	195709	9735.5	20.0
5	ETHANOL	1.208	308245	16319.3	20.0



03/08/06
5087

SECOND SOURCE

INITIAL CALIBRATION VERIFICATION
METHOD M8015

Lab Name : EMAX
Instrument ID : GCTO43
GC Columm : SUPELCO WAX 10
Column size ID : 30MX0.53MMX0.25UM
Mid Conc Init LFID & Datetime: DC06004A 03/06/2006 14:11
Conc Cont LFID & Datetime: DC06007A 03/06/2006 15:04
CONC UNIT : ppm

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
METHANOL	1.008	0.982	1.034	10.0	9735.5	103117	10.59	6		15
ETHANOL	1.225	1.196	1.254	10.0	16319.3	164274	10.07	1		15

ME43C06.MET

03/08/06

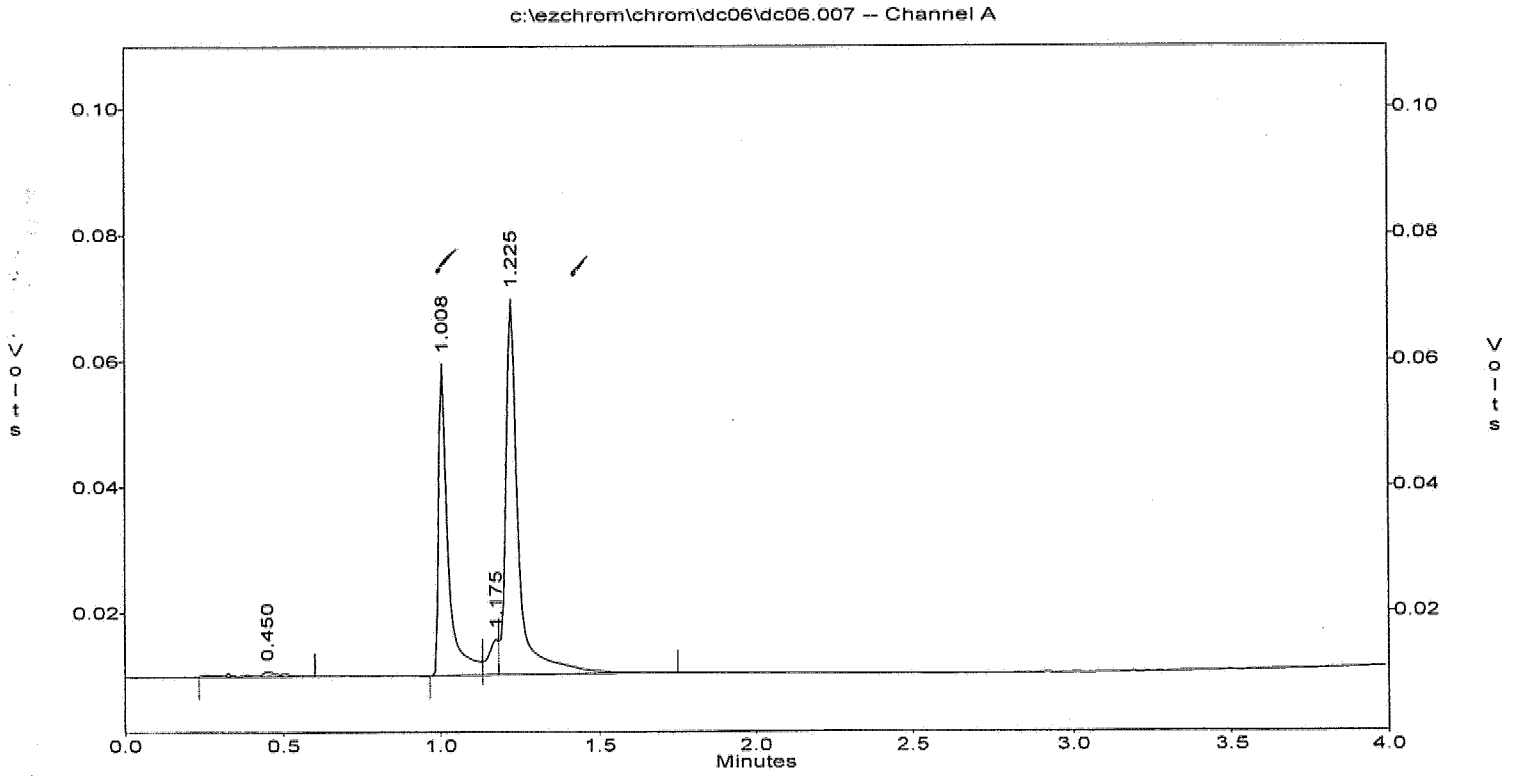
5089

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc06\dc06.007
Method : c:\ezchrom\methods\me43c06.met
Sample ID : IME43C0601 10PPM
Acquired : Mar 06, 2006 15:04:40
Printed : Mar 06, 2006 15:11:45
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
2	METHANOL	1.008	103117	9735.5	10.6
4	ETHANOL	1.225	164274	16319.3	10.1



03/08

5090

DAILY CALIBRATION

CONTINUE CALIBRATION
METHOD M8015

Lab Name : EMAX
Instrument ID : GCTO43
GC Columm : SUPELCO WAX 10
Column size ID : 30MX0.53MMX0.25UM
Mid Conc Init LFID & Datetime: DC06004A 03/06/2006 14:11
Conc Cont LFID & Datetime: DC27002A 03/27/2006 13:05
CONC UNIT : ppm

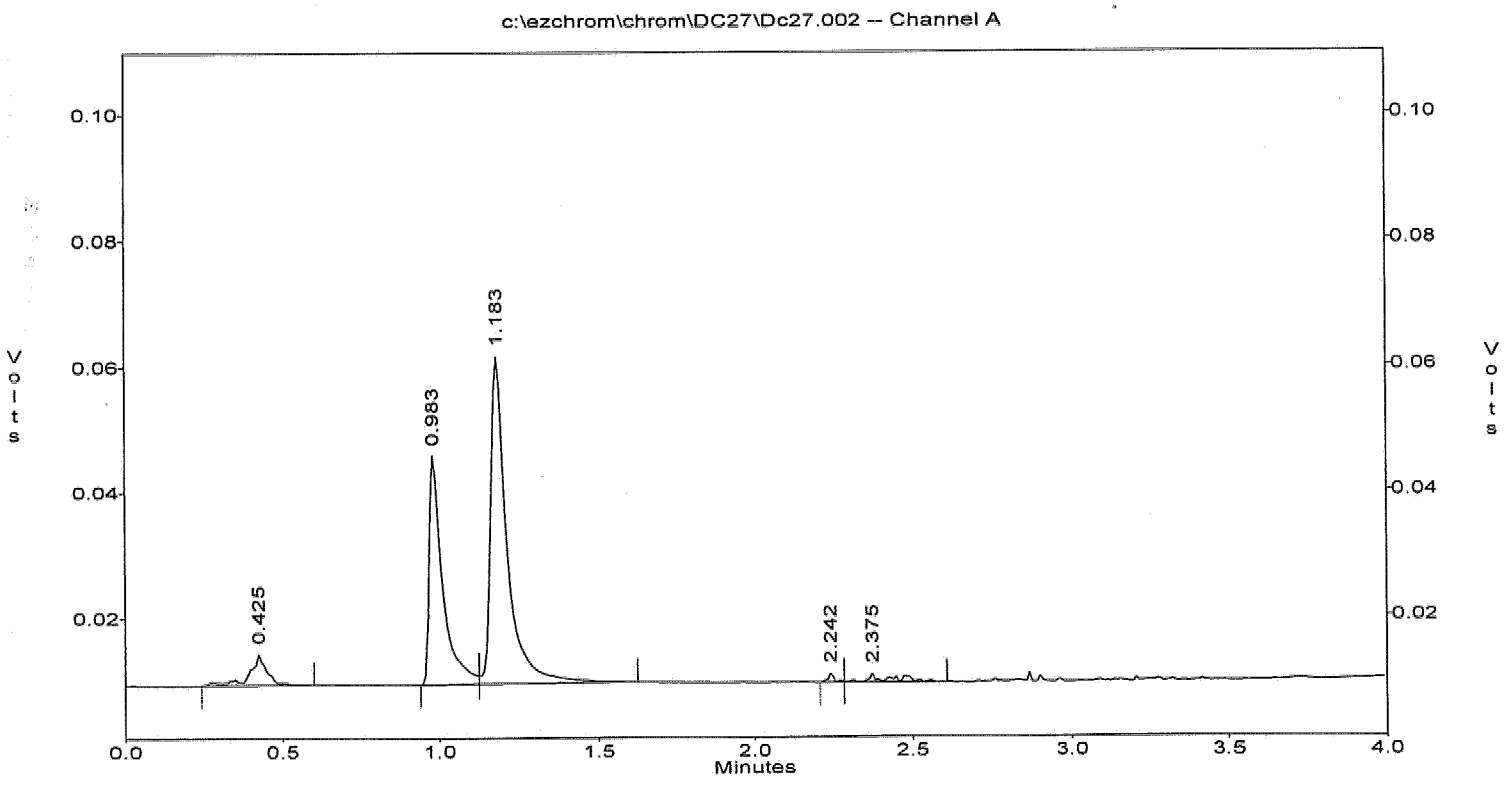
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
METHANOL	0.983	0.957	1.009	10.0	9735.5	106669	10.96	10		15
ETHANOL	1.183	1.154	1.212	10.0	16319.3	184262	11.29	13		15

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC27\Dc27.002
Method : c:\ezchrom\methods\Me43c06.met
Sample ID : CME43C06057
Acquired : Mar 27, 2006 13:05:20
Printed : Mar 27, 2006 13:09:22
User : LUCY

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
2	METHANOL	0.983	106669	9735.5	11.0
3	ETHANOL	1.183	184262	16319.3	11.3



CONTINUE CALIBRATION
METHOD M8015

Lab Name : EMAX
Instrument ID : GCTO43
GC Columm : SUPELCO WAX 10
Column size ID : 30MX0.53MMX0.25UM
Mid Conc Init LFID & Datetime: DC06004A 03/06/2006 14:11
Conc Cont LFID & Datetime: DC27016A 03/27/2006 17:33
CONC UNIT : ppm

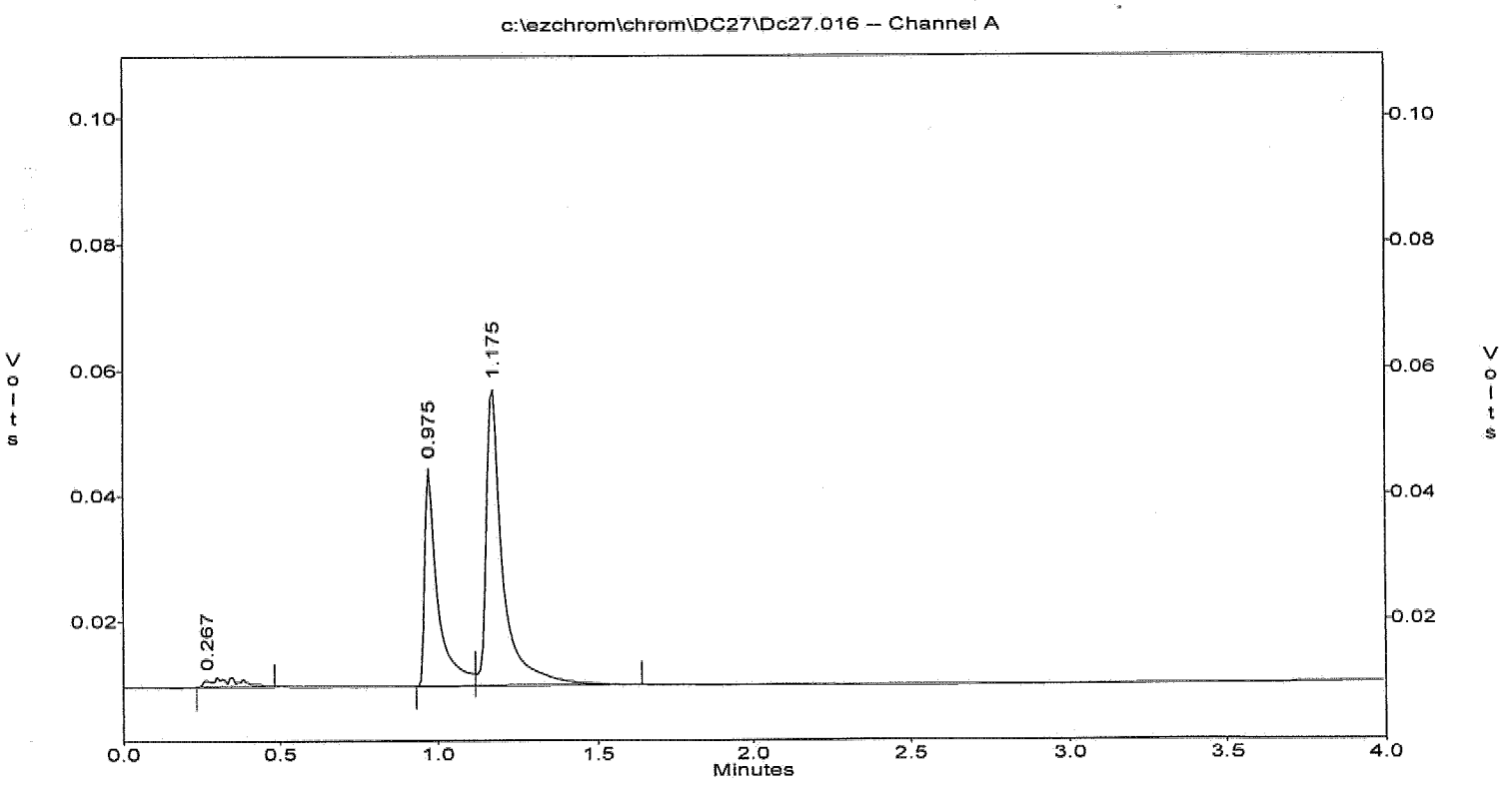
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
METHANOL	0.975	0.949	1.001	10.0	9735.5	96317	9.89	-1		15
ETHANOL	1.175	1.146	1.204	10.0	16319.3	169634	10.40	4		15

EPA 8015 by GC/FID
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC27\Dc27.016
Method : c:\ezchrom\methods\Me43c06.met
Sample ID : CME43C06058
Acquired : Mar 27, 2006 17:33:39
Printed : Mar 27, 2006 17:37:41
User : LUCY

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
2	METHANOL	0.975	96317	9735.5	9.9
3	ETHANOL	1.175	169634	16319.3	10.4



ANALYTICAL LOGS

ANALYSIS RUN LOG FOR TPH

SOP ☐ EMAX-M8015D Revision No. 3 ☐ EMAX-LUFTE Revision No. 3 ☑ Alcohols Book # A43-012

Starting Date: 3/6/06 Time: 13:13 Ending Date: 3/6/06 Time: 17:41

ANALYTICAL BATCH DCO6007

Preparative Batch	Data File Name	Lab Sample ID	DF	Matrix S	Matrix W	Notes
	DC06.001	IB43C012				
	2	ME43C0601				~~10ppm~~ 1ppm xp 3/6/06
	3	2				5
	4	3				10
	5	4				15
	6	5				20
	7	IME43C0601				10
MEC002W	8	MEC002C0B	1		✓	
	9	L				
	10	C				
	11	M8LVER-01				1ppm
	12	02				0.5ppm
	13	06C032-04				
	14	04D				
	15	CME43C06012				Bad inj.
	16	NO Injection				
	17	CME43C06012				10ppm

xp 3/6/06

Instrument No:		43
INITIAL CALIBRATION REFERENCE		
	ID	Date
Diesel		
Motor oil		
JP 5		
Alcohols	ME43C06	3/6/06

Standards		
Name	ID	Conc. (mg/L)
CH_2Cl_2	—	—
~~Dec~~ xp 3/6/06 /Ical	SS3C-07-11-1	1-20ppm
~~LCS~~ /ICV	SS3C-07-11-2	10ppm
Dec	SS3C-07-10-2	100
LCS	SS3C-07-10-3	↓

Electronic Data Archival	
Location	Date
☐ EZC_2_Diesel	
☐	

Comments:

Analyzed By: xp

Disposed on: 3/6/06 By: xp

This page is checked during the data review process.

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

ANALYSIS RUN LOG FOR TPH

SOP ☐ EMAX-M8015D Revision No. 3 ☐ EMAX-LUFTE Revision No. 3 ☑ Alcohols. Book # A43-012

Starting Date: 03/27/06 Time: 12:46 Ending Date: 03/27/06 Time: 17:33

ANALYTICAL BATCH DC27007

Preparative Batch	Data File Name	Lab Sample ID	DF	Matrix S	Matrix W	Notes
	DC27.001	IB43C057				
	-002	CME43C06057				
EMC013W	-003	EMEC013WB 03/27/06	1			
	-004	L				
	-005	C				
	-006	06C222-01			7	
	-007	-014				
	-008	-015				
	-009	-02			5 @ 3/27/06	
	-010	-03				
	-011	-04			2	adjust pH ~7
	-012	06C239-01			6	
	-013	-02			2	adjust pH ~7
	-014	06C238-06			2	
	-015	CME43C06058				not evaluated, Bad Spectrum.
	-016	CME43C06058				
					8	3/27/06

Instrument No:	43	
INITIAL CALIBRATION REFERENCE		
	ID	Date
Diesel		
Motor oil		
JP 5		
Alcohols	ME43C06	03/06/06

Standards		
Name	ID	Conc. (mg/L)
CH_2Cl_2	—	—
DCC (**)	SS3C-07-10-2	100
LCS (***)	SS3C-07-10-3	100
H_2O	organic free	NA
NaOH	SWA-06-255	50%
MS/MSD (***)	SS3C-07-14-2	1000

Electronic Data Archival

Location	Date
☐ EZC_2_Diesel	
☐	

Comments: (**) Prepared 10x >1mL ~ 10ppm
(***) spiked 10µL >1mL sample ~ 10ppm.

Analyzed By: RA

Disposed on: 3/27/06 By: RA

This page is checked during the data review process.

MAXXAM LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

LABORATORY REPORT FOR

ENSR

UPGRADIENT INVESTIGATION, TRONOX

METHOD M8015
ETHYLENE GLYCOL BY GC

SDG#: 06C222

CASE NARRATIVE

CLIENT: ENSR

PROJECT: UPGRADIENT INVESTIGATION, TRONOX

SDG: 06C222

METHOD M8015
ETHYLENE GLYCOL BY GC

Four (4) water samples were received on 03/24/06 for Ethylene Glycol by GC analysis by Method M8015 in accordance with USEPA SW846, 3rd Ed.

1. Holding Time

Analytical holding time was met. Samples were not preserved except sample C222-04, which was adjusted to pH 7 with NaOH prior to analysis.

2. Calibration

Initial calibration was five points. %RSD was within 20%. Continuing calibrations were carried out within 10-sample interval. All recoveries were within 85-115%.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

5. Matrix Spike/Matrix Spike Duplicate

Sample C222-01 was spiked. Recoveries were within QC limits.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
ETHYLENE GLYCOL

Client : ENSR
Project : UPGRADIENT INVESTIGATION, TRONOX

SDG NO. : 06C222
Instrument ID : GCT043

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	EGC012WB	1	NA	03/24/0610:44	03/24/0610:44	DC24003A	DC24002A	EGC012W	Method Blank
LCS1W	EGC012WL	1	NA	03/24/0610:55	03/24/0610:55	DC24004A	DC24002A	EGC012W	Lab Control Sample (LCS)
LCD1W	EGC012WC	1	NA	03/24/0611:09	03/24/0611:09	DC24005A	DC24002A	EGC012W	LCS Duplicate
M-121	C222-01	1	NA	03/24/0616:53	03/24/0616:53	DC24027A	DC24025A	EGC012W	Field Sample
M-117	C222-02	1	NA	03/24/0615:26	03/24/0615:26	DC24021A	DC24013A	EGC012W	Field Sample
H-11	C222-03	1	NA	03/24/0615:37	03/24/0615:37	DC24022A	DC24013A	EGC012W	Field Sample
TRIP BLANK	C222-04	1	NA	03/24/0615:57	03/24/0615:57	DC24023A	DC24013A	EGC012W	Field Sample
M-121MS	C222-01M	1	NA	03/24/0617:10	03/24/0617:10	DC24028A	DC24025A	EGC012W	Matrix Spike Sample (MS)
M-121MSD	C222-01S	1	NA	03/24/0617:25	03/24/0617:25	DC24029A	DC24025A	EGC012W	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD M8015
ETHYLENE GLYCOL

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/24/06 16:53
Sample ID:	M-121	Date Analyzed:	03/24/06 16:53
Lab Samp ID:	C222-01	Dilution Factor:	1
Lab File ID:	DC24027A	Matrix :	WATER
Ext Btch ID:	EGC012W	% Moisture :	NA
Calib. Ref.:	DC24025A	Instrument ID :	GCT043

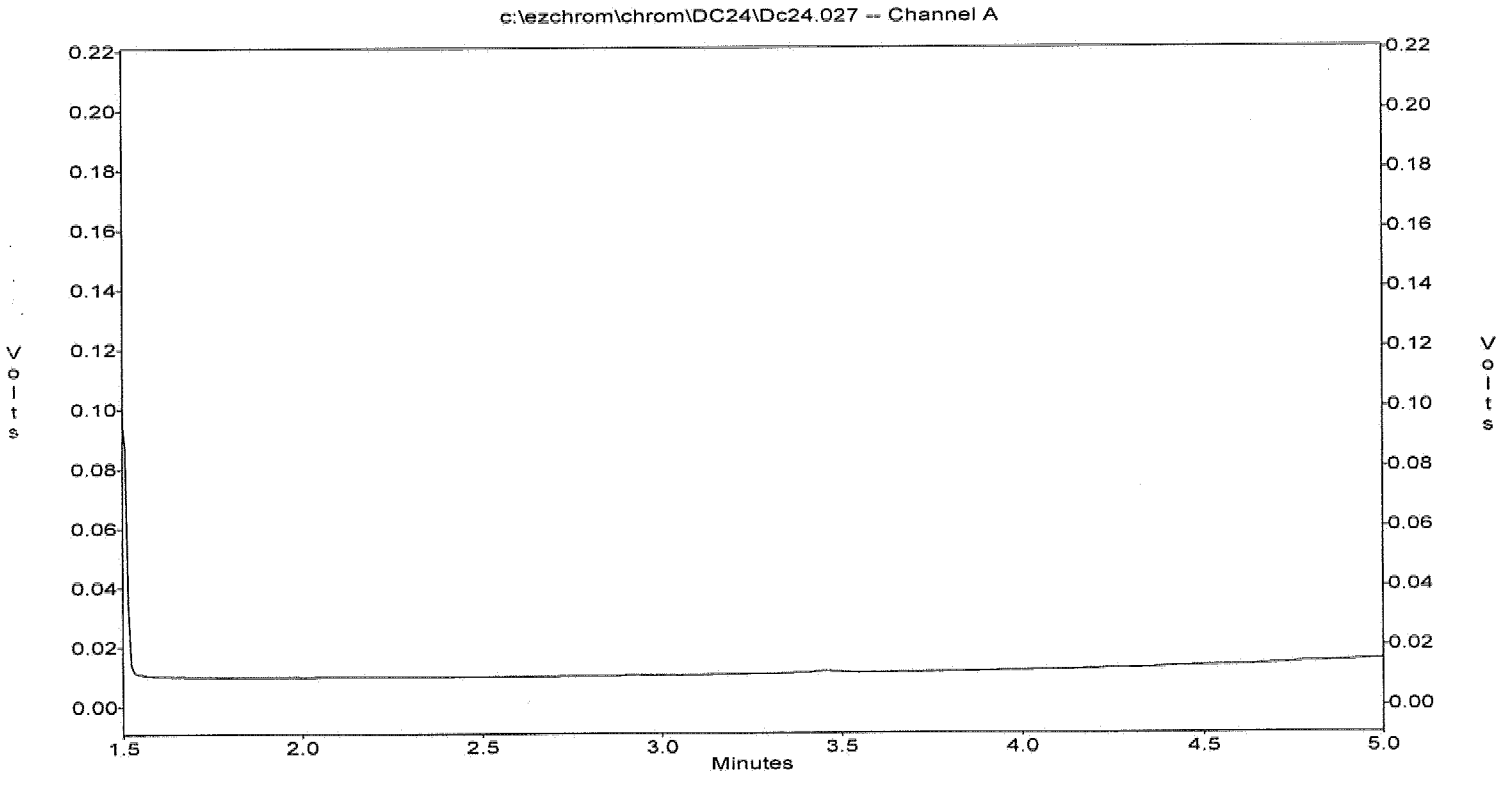
PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
ETHYLENE GLYCOL	ND	10	5

EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC24\Dc24.027
Method : c:\ezchrom\methods\Eg43c10.met
Sample ID : 06C222-01
Acquired : Mar 24, 2006 16:53:14
Printed : Mar 24, 2006 17:00:15
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
--	Ethylene Glycol	2.975	0	0.0	0.0



METHOD M8015
ETHYLENE GLYCOL

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/24/06 15:26
Sample ID:	M-117	Date Analyzed:	03/24/06 15:26
Lab Samp ID:	C222-02	Dilution Factor:	1
Lab File ID:	DC24021A	Matrix :	WATER
Ext Btch ID:	EGC012W	% Moisture :	NA
Calib. Ref.:	DC24013A	Instrument ID :	GCT043

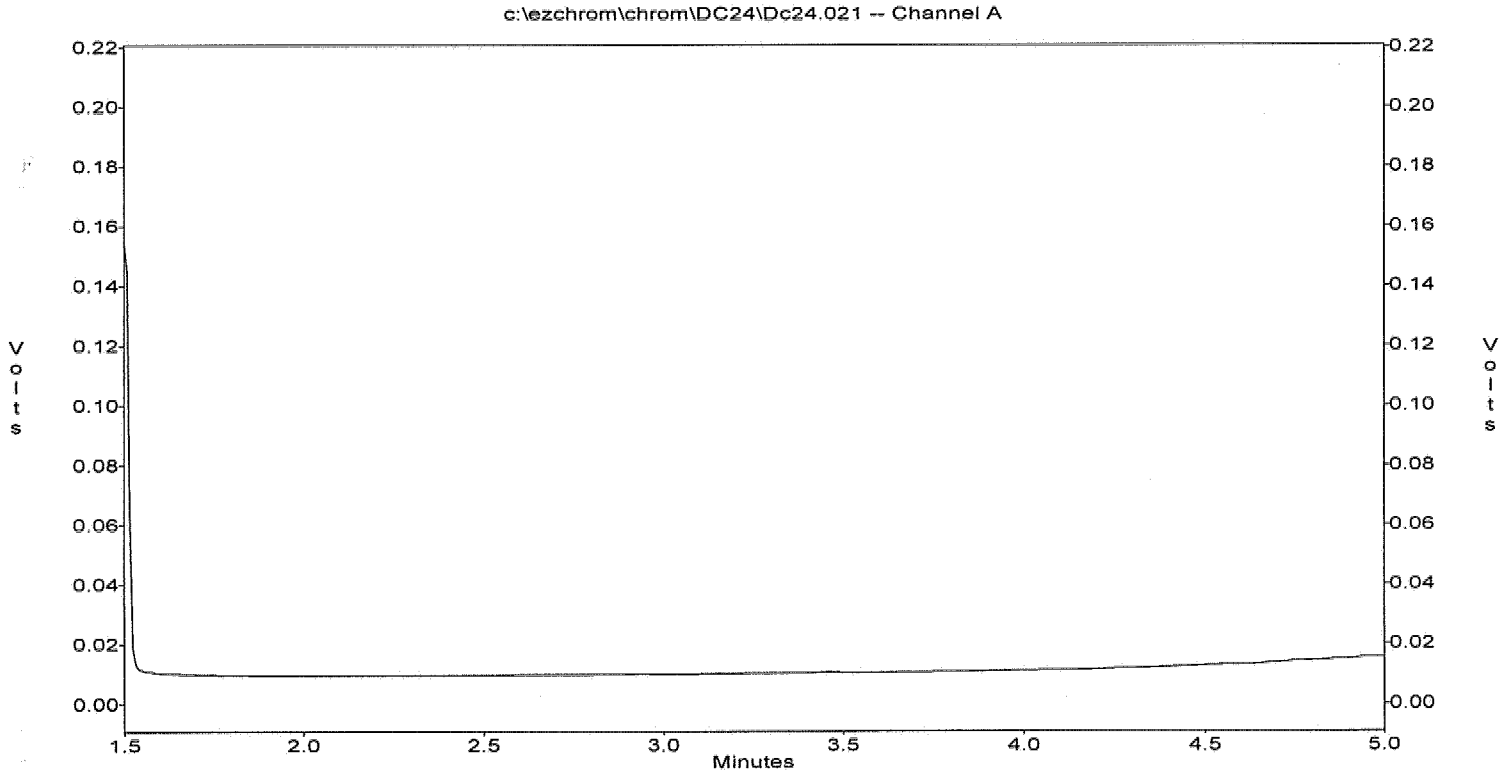
PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
ETHYLENE GLYCOL	ND	10	5

EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC24\Dc24.021
Method : c:\ezchrom\methods\Eg43c10.met
Sample ID : 06C222-02
Acquired : Mar 24, 2006 15:26:35
Printed : Mar 24, 2006 15:33:36
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
--	Ethylene Glycol	2.975	0	0.0	0.0



METHOD M8015
ETHYLENE GLYCOL

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/24/06 15:37
Sample ID:	H-11	Date Analyzed:	03/24/06 15:37
Lab Samp ID:	C222-03	Dilution Factor:	1
Lab File ID:	DC24022A	Matrix	: WATER
Ext Btch ID:	EGC012W	% Moisture	: NA
Calib. Ref.:	DC24013A	Instrument ID	: GCT043

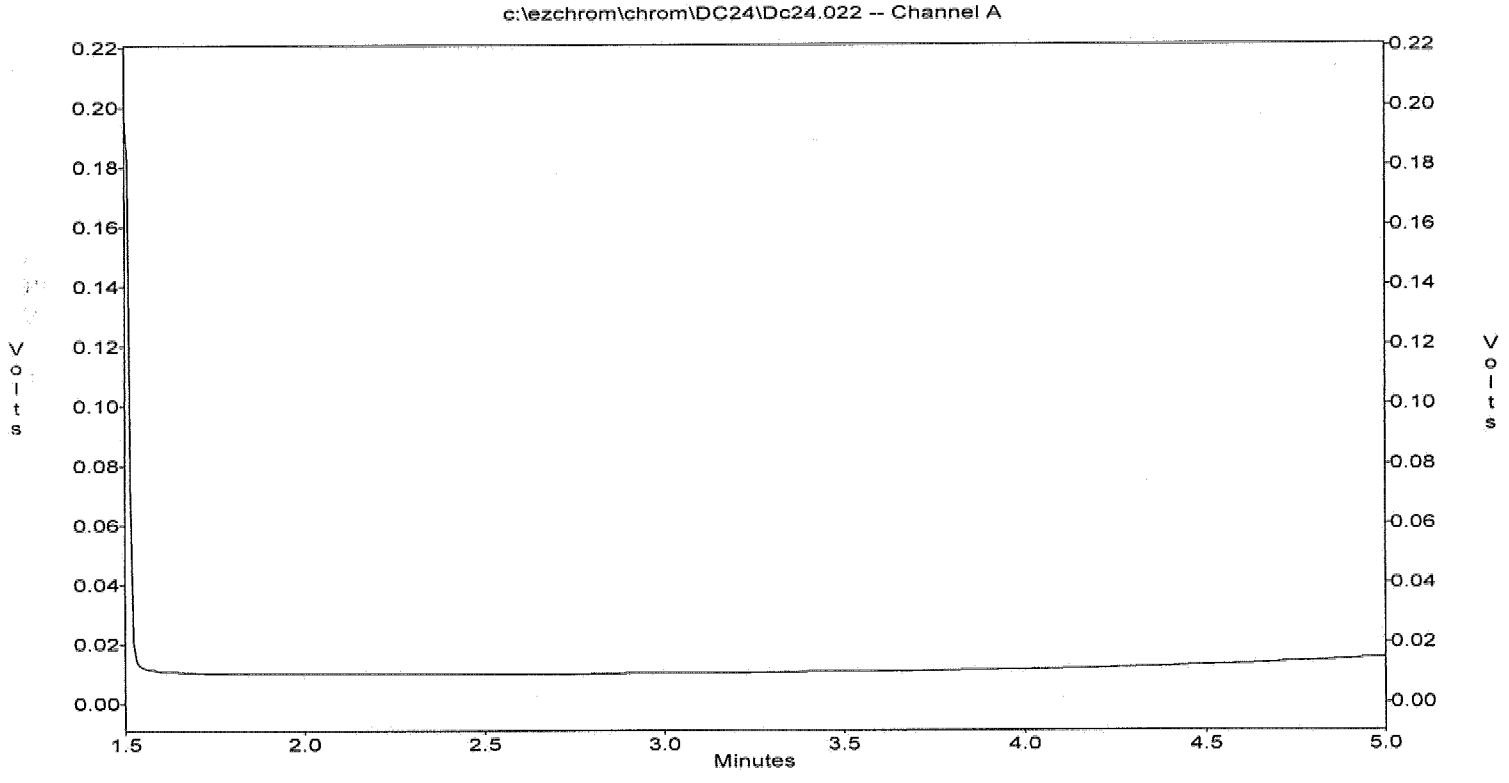
PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
ETHYLENE GLYCOL	ND	10	5

EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC24\Dc24.022
Method : c:\ezchrom\methods\Eg43c10.met
Sample ID : 06C222-03
Acquired : Mar 24, 2006 15:37:06
Printed : Mar 24, 2006 15:44:06
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
--	Ethylene Glycol	2.975	0	0.0	0.0



METHOD M8015
ETHYLENE GLYCOL

Client	: ENSR	Date Collected:	03/23/06
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/24/06 15:57
Sample ID:	TRIP BLANK	Date Analyzed:	03/24/06 15:57
Lab Samp ID:	C222-04	Dilution Factor:	1
Lab File ID:	DC24023A	Matrix	: WATER
Ext Btch ID:	EGC012W	% Moisture	: NA
Calib. Ref.:	DC24013A	Instrument ID	: GCT043

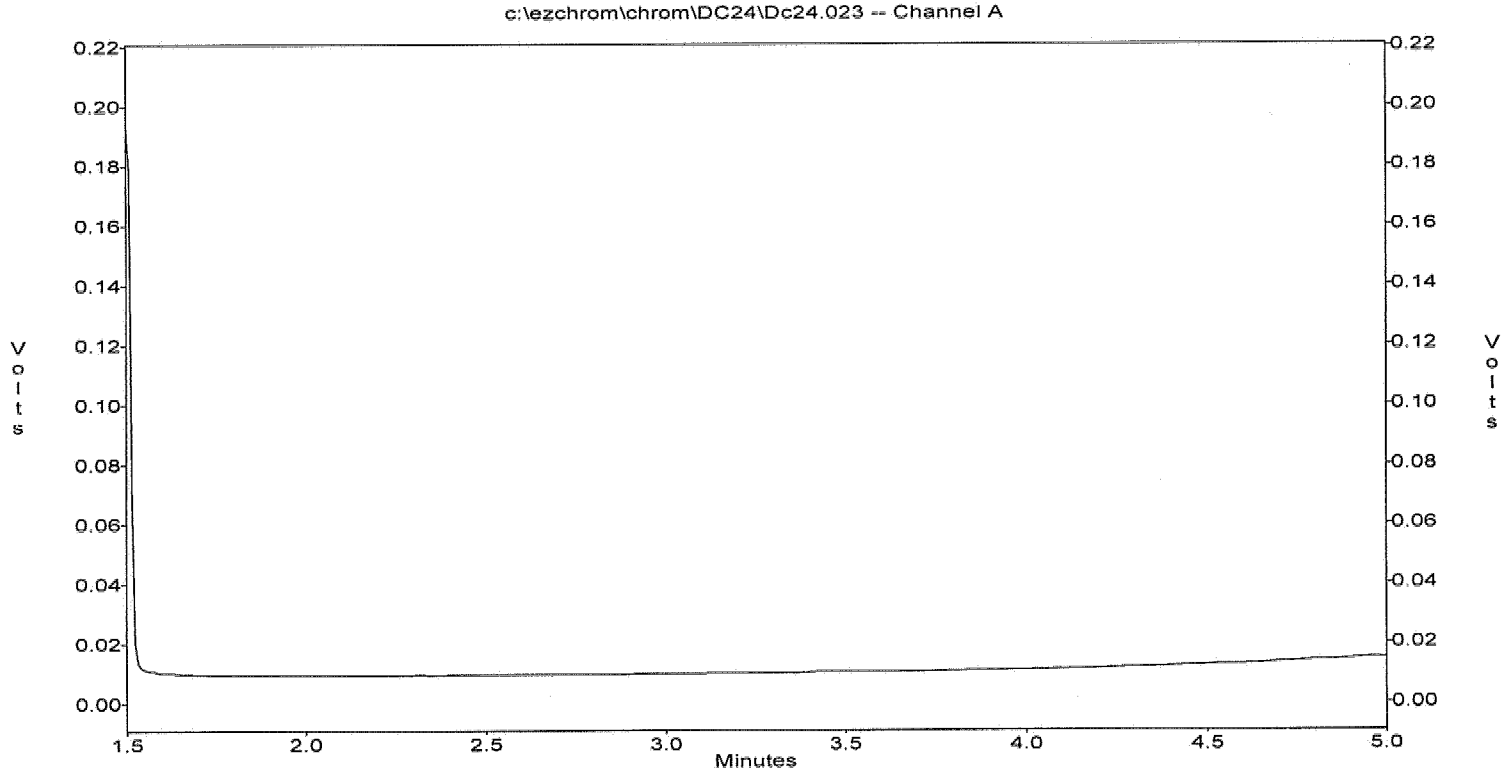
PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
ETHYLENE GLYCOL	ND	10	5

EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC24\Dc24.023
Method : c:\ezchrom\methods\Eg43c10.met
Sample ID : 06C222-04
Acquired : Mar 24, 2006 15:57:17
Printed : Mar 24, 2006 16:04:18
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
--	Ethylene Glycol	2.975	0	0.0	0.0



QC SUMMARIES

METHOD M8015
ETHYLENE GLYCOL

Client	: ENSR	Date Collected:	NA
Project	: UPGRADIENT INVESTIGATION, TRONOX	Date Received:	03/24/06
Batch No.	: 06C222	Date Extracted:	03/24/06 10:44
Sample ID	: MBLK1W	Date Analyzed:	03/24/06 10:44
Lab Samp ID	: EGC012WB	Dilution Factor:	1
Lab File ID	: DC24003A	Matrix :	WATER
Ext Btch ID	: EGC012W	% Moisture :	NA
Calib. Ref.	: DC24002A	Instrument ID :	GCT043

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
ETHYLENE GLYCOL	ND	10	5

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ENSR
PROJECT: UPGRADIENT INVESTIGATION, TRONOX
BATCH NO.: 06C222
METHOD: METHOD M8015

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: EGC012WB EGC012WL EGC012WC
LAB FILE ID: DC24003A DC24004A DC24005A
DATE EXTRACTED: 03/24/0610:44 03/24/0610:55 03/24/0611:09 DATE COLLECTED: NA
DATE ANALYZED: 03/24/0610:44 03/24/0610:55 03/24/0611:09 DATE RECEIVED: 03/24/06
PREP. BATCH: EGC012W EGC012W EGC012W
CALIB. REF: DC24002A DC24002A DC24002A

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethylene Glycol	ND	50	50.5	101	50	55.3	111	9	40-140	50

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ENSR
PROJECT: UPGRADIENT INVESTIGATION, TRONOX
BATCH NO.: 06C222
METHOD: METHOD M8015

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	M-121				
LAB SAMP ID:	C222-01	C222-01M	C222-01S		
LAB FILE ID:	DC24027A	DC24028A	DC24029A		
DATE EXTRACTED:	03/24/0616:53	03/24/0617:10	03/24/0617:25	DATE COLLECTED:	03/23/06
DATE ANALYZED:	03/24/0616:53	03/24/0617:10	03/24/0617:25	DATE RECEIVED:	03/24/06
PREP. BATCH:	EGC012W	EGC012W	EGC012W		
CALIB. REF:	DC24025A	DC24025A	DC24025A		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	SPIKE AMT (mg/L)	MSD RSLT (mg/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethylene Glycol	ND	50	39.7	79	50	41.9	85	5	30-140	50

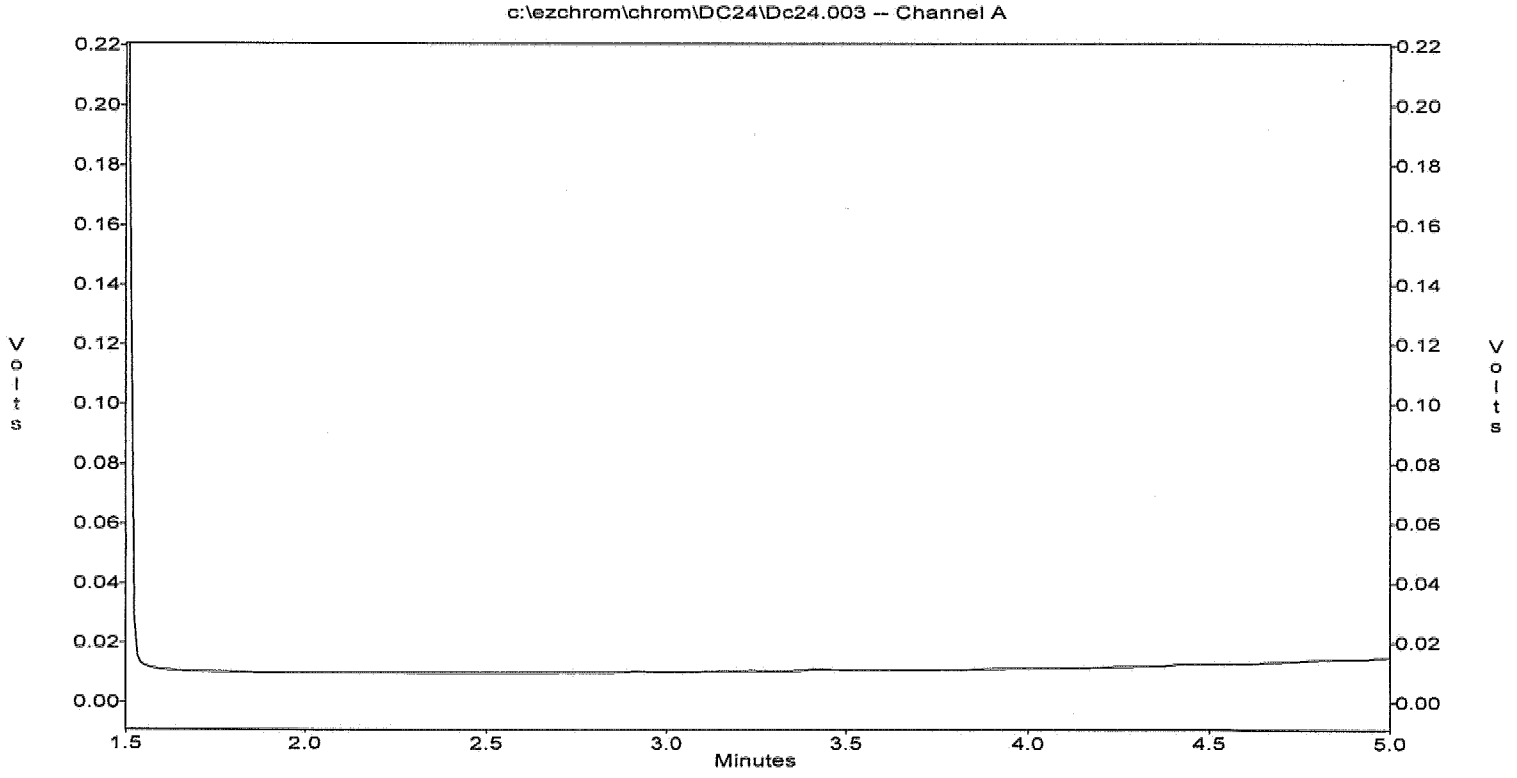
QC DATA

EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC24\Dc24.003
Method : c:\ezchrom\methods\Eg43c10.met
Sample ID : EGC012WB
Acquired : Mar 24, 2006 10:44:07
Printed : Mar 24, 2006 10:51:08
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc. (ppm)
--	Ethylene Glycol	2.975	0	0.0	0.0

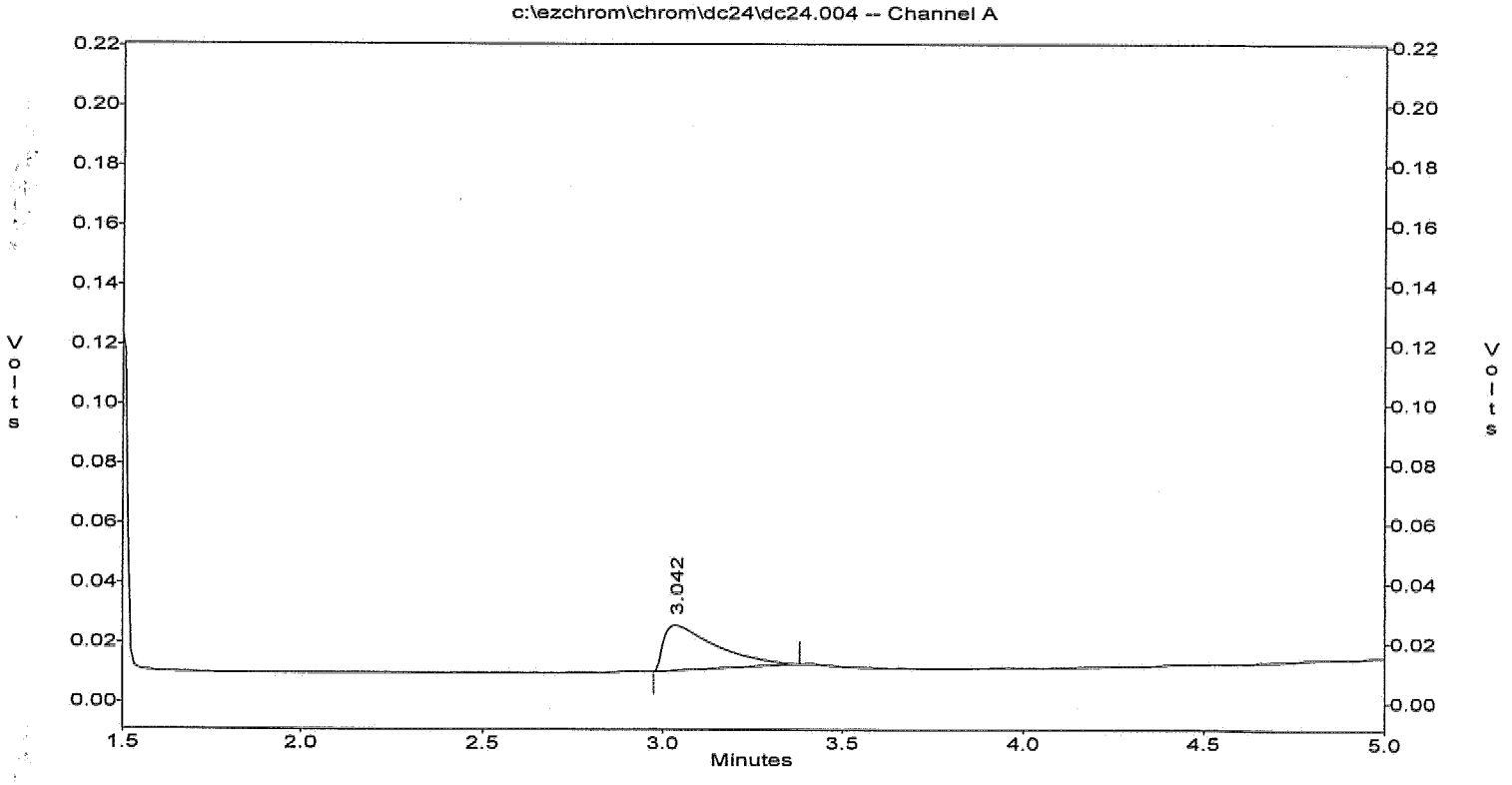


EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc24\dc24.004
Method : c:\ezchrom\methods\eg43c10.met
Sample ID : EGC012WL 50PPM
Acquired : Mar 24, 2006 10:55:40
Printed : Mar 24, 2006 11:06:23
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc. (ppm)
1	Ethylene Glycol	3.042	154577	3058.1	50.5

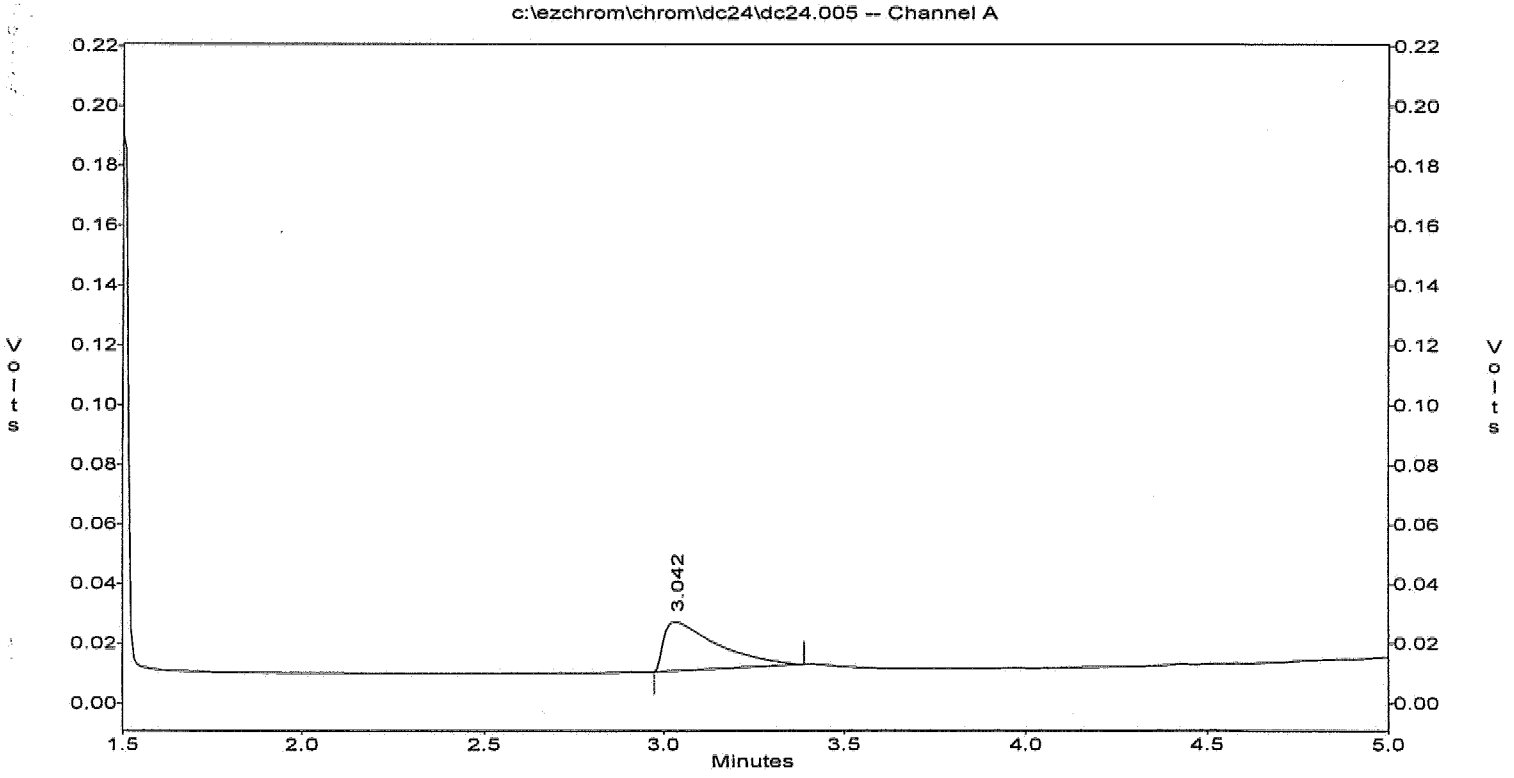


EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc24\dc24.005
Method : c:\ezchrom\methods\eg43c10.met
Sample ID : EGC012WC 50PPM
Acquired : Mar 24, 2006 11:09:51
Printed : Mar 24, 2006 11:22:44
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc. (ppm)
1	Ethylene Glycol	3.042	169267	3058.1	55.4

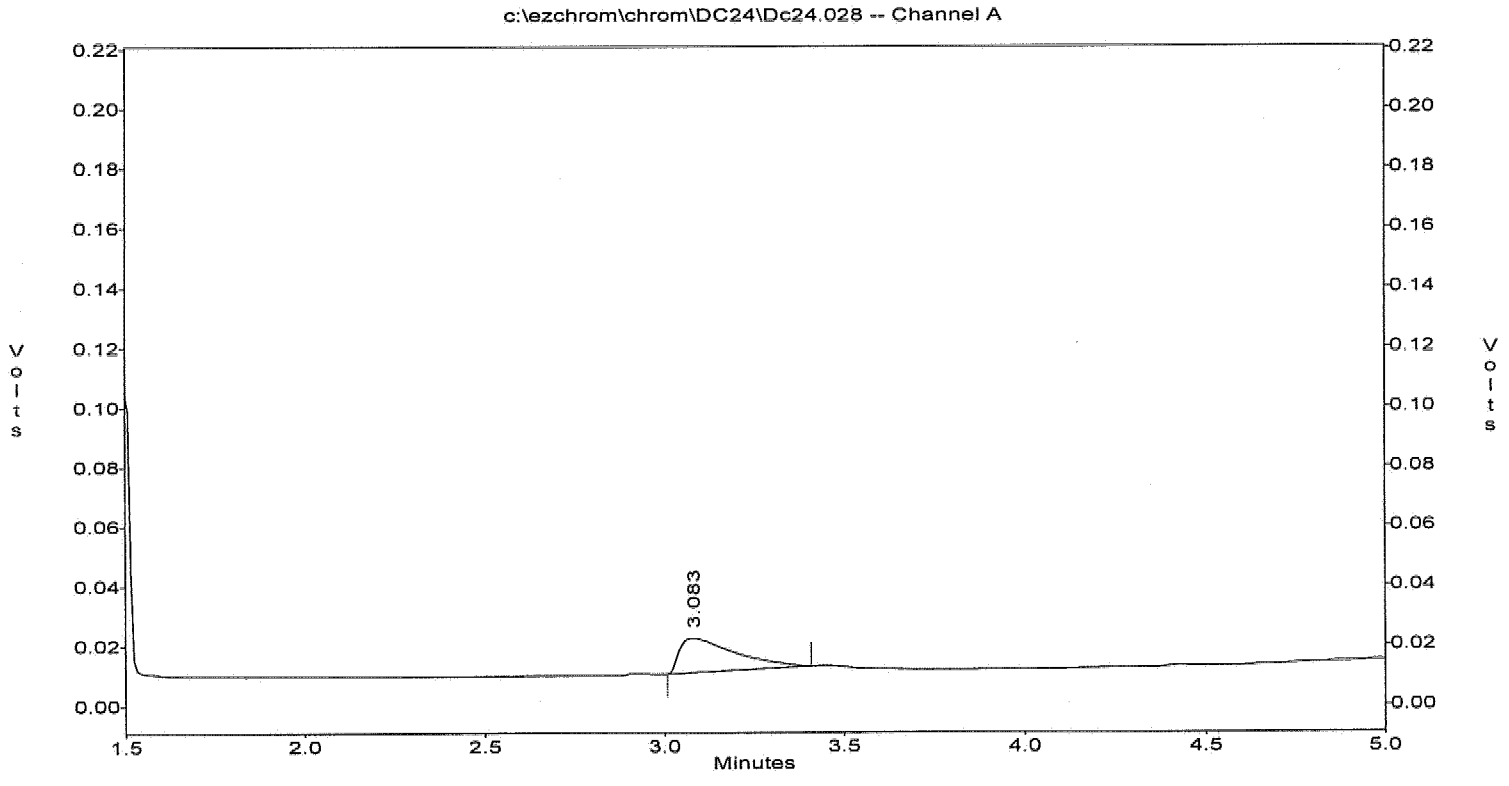


EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC24\Dc24.028
Method : c:\ezchrom\methods\Eg43c10.met
Sample ID : 06C222-01M
Acquired : Mar 24, 2006 17:10:20
Printed : Mar 24, 2006 17:17:22
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
1	Ethylene Glycol	3.083	121350	3058.1	39.7

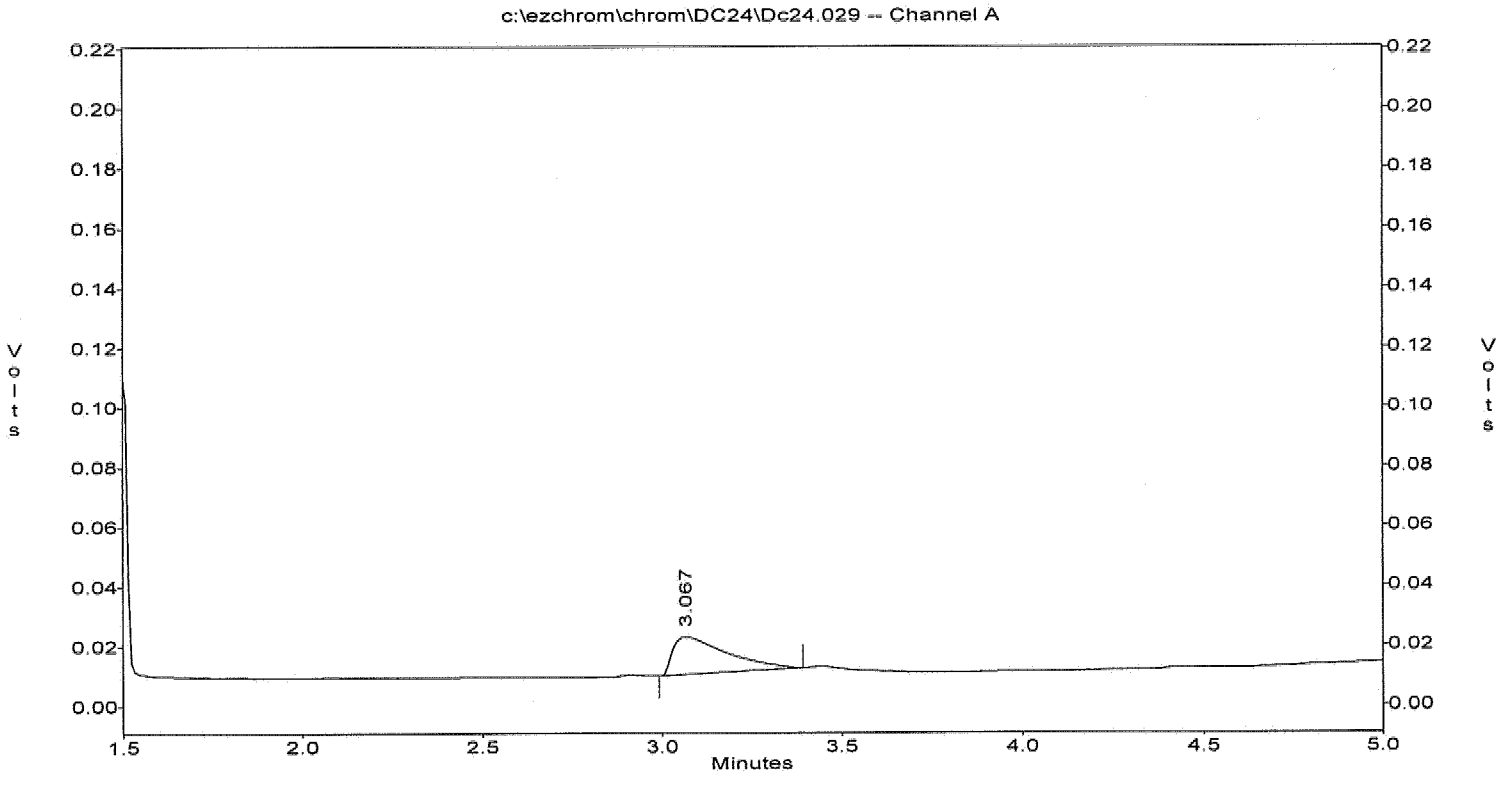


EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC24\Dc24.029
Method : c:\ezchrom\methods\Eg43c10.met
Sample ID : 06C222-01S
Acquired : Mar 24, 2006 17:25:31
Printed : Mar 24, 2006 17:32:32
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
1	Ethylene Glycol	3.067	128084	3058.1	41.9



INITIAL CALIBRATION

INITIAL CALIBRATION
METHOD M8015EG

Lab Name : EMAX Inc
Instrument ID : GCTO43
GC Column : SUPELCO WAX 10
Column size ID : 30MXO.53MMXO.25UM
LFID & Datetime: DC10024A 03/10/06 16:45
LFID & Datetime: DC10025A 03/10/06 16:57
LFID & Datetime: DC10026A 03/10/06 17:12
LFID & Datetime: DC10029A 03/10/06 17:57
LFID & Datetime: DC10028A 03/10/06 17:39
CONC UNIT: ppm

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	2.00X	5.00X	7.50X	10.00X	MEAN	%RSD
Ethylene Glycol	10.00	2634.70	2679.95	3055.42	3332.45	3588.02	3058.11	13.5

EG43C10.MET

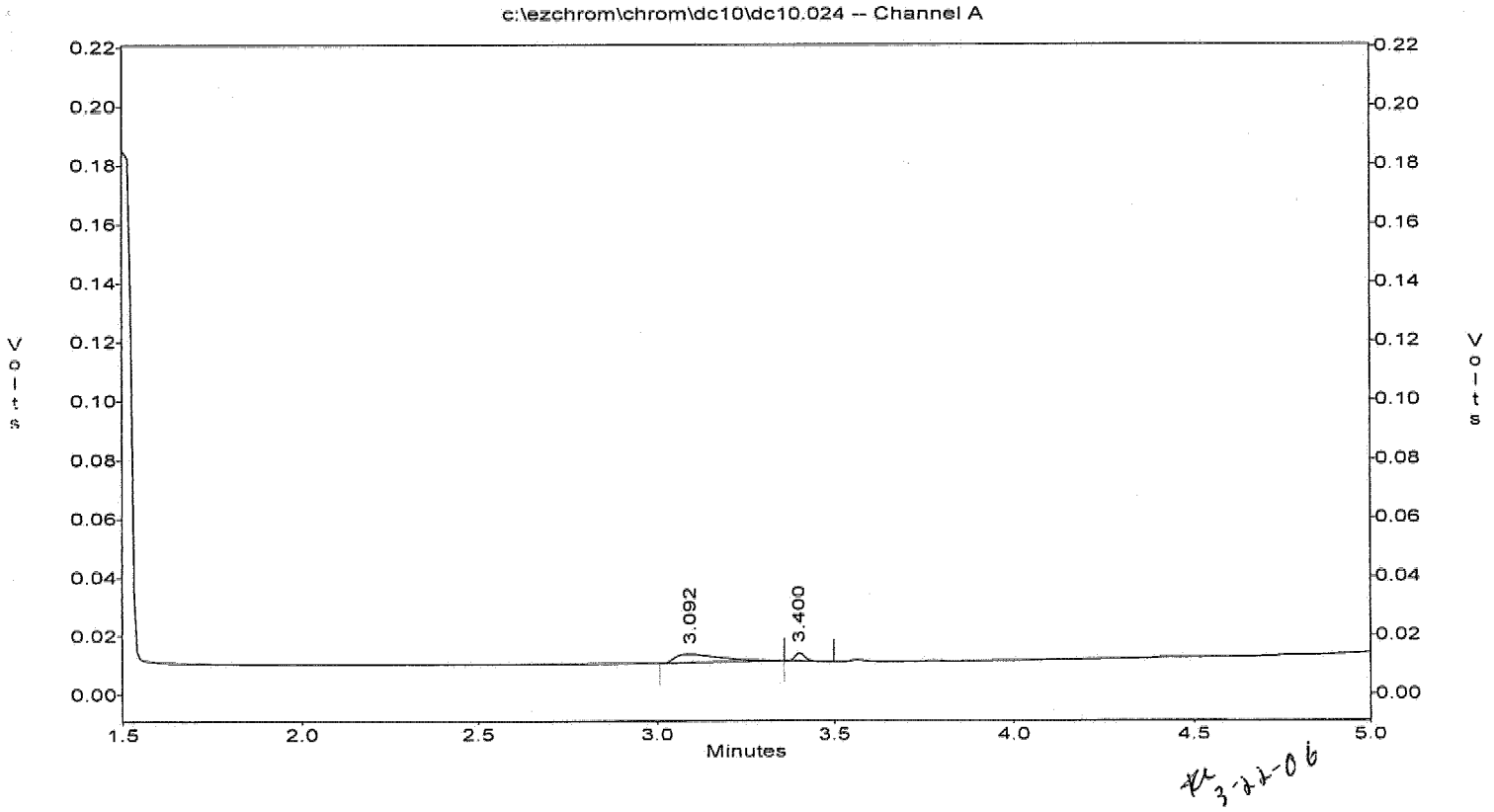
KV 3-22-06

EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc10\dc10.024
Method : c:\ezchrom\methods\eg43c10.met
Sample ID : EG43C1001 10PPM
Acquired : Mar 10, 2006 16:45:04
Printed : Mar 15, 2006 17:09:13
User : LUCY

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc. (ppm)
1	Ethylene Glycol	3.092	26347	3058.1	10.0



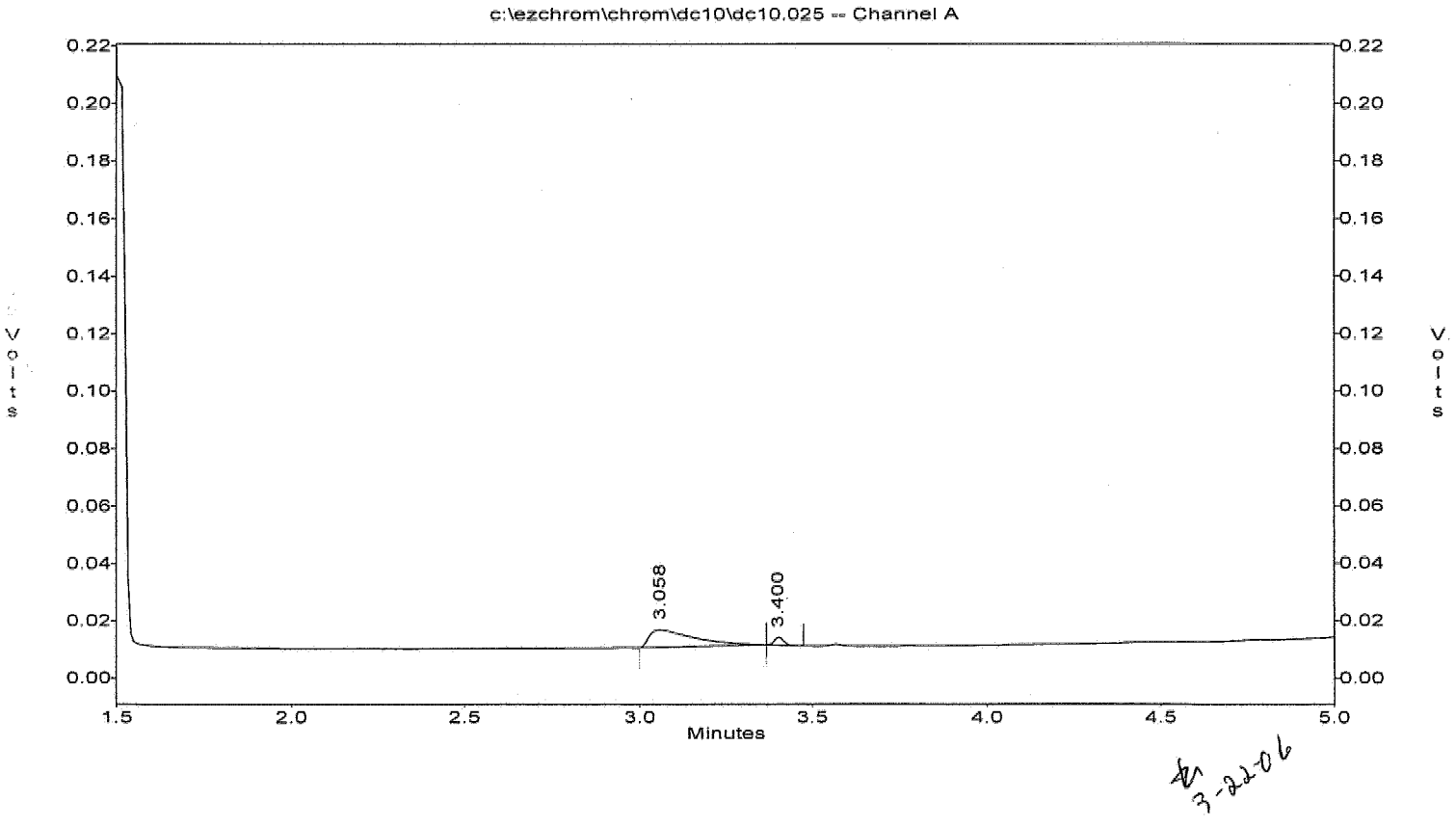
3-22-06

EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc10\dc10.025
Method : c:\ezchrom\methods\eg43c10.met
Sample ID : EG43C1002 20PPM
Acquired : Mar 10, 2006 16:57:52
Printed : Mar 15, 2006 17:09:44
User : LUCY

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc. (ppm)
1	Ethylene Glycol	3.058	53599	3058.1	20.0



3-22-06

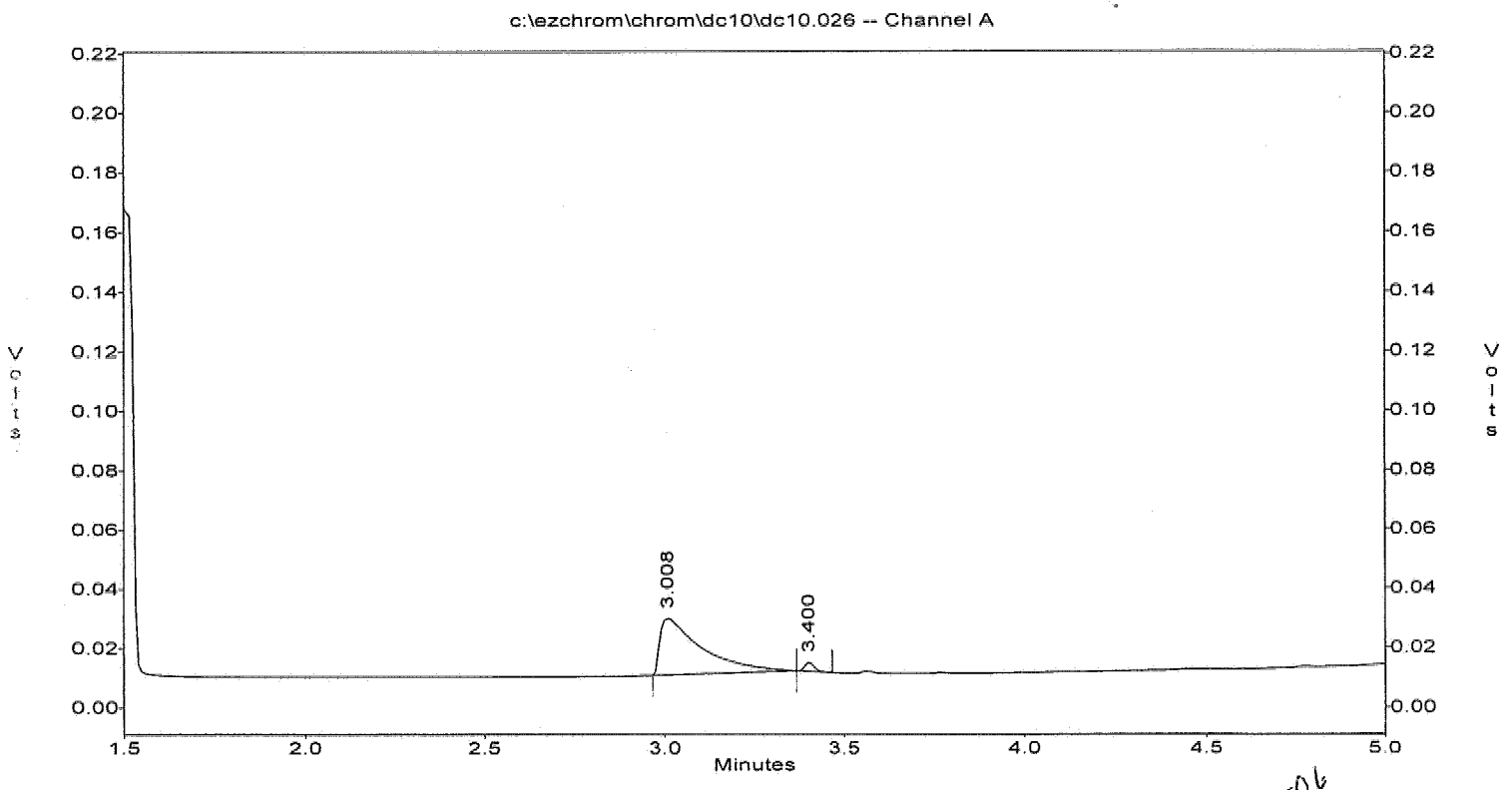
5124

EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc10\dc10.026
Method : c:\ezchrom\methods\eg43c10.met
Sample ID : EG43C1003 50PPM
Acquired : Mar 10, 2006 17:12:34
Printed : Mar 15, 2006 17:09:57
User : LUCY

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
1	Ethylene Glycol	3.008	152771	3058.1	50.0



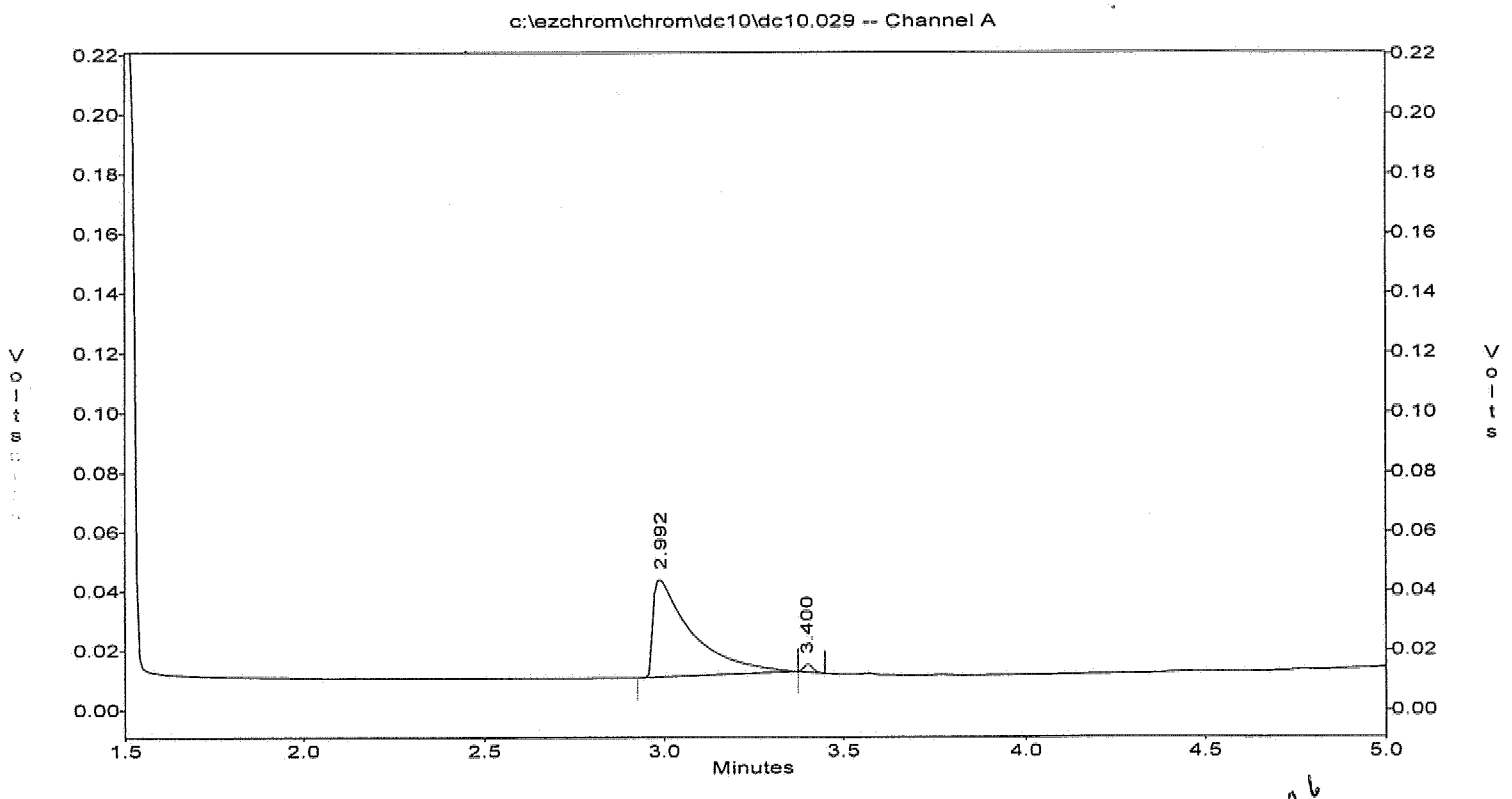
3-22-06

EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc10\dc10.029
Method : c:\ezchrom\methods\eg43c10.met
Sample ID : EG43C1004 75PPM
Acquired : Mar 10, 2006 17:57:02
Printed : Mar 15, 2006 17:10:07
User : LUCY

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc. (ppm)
1	Ethylene Glycol	2.992	249934	3058.1	75.0



3-22-06

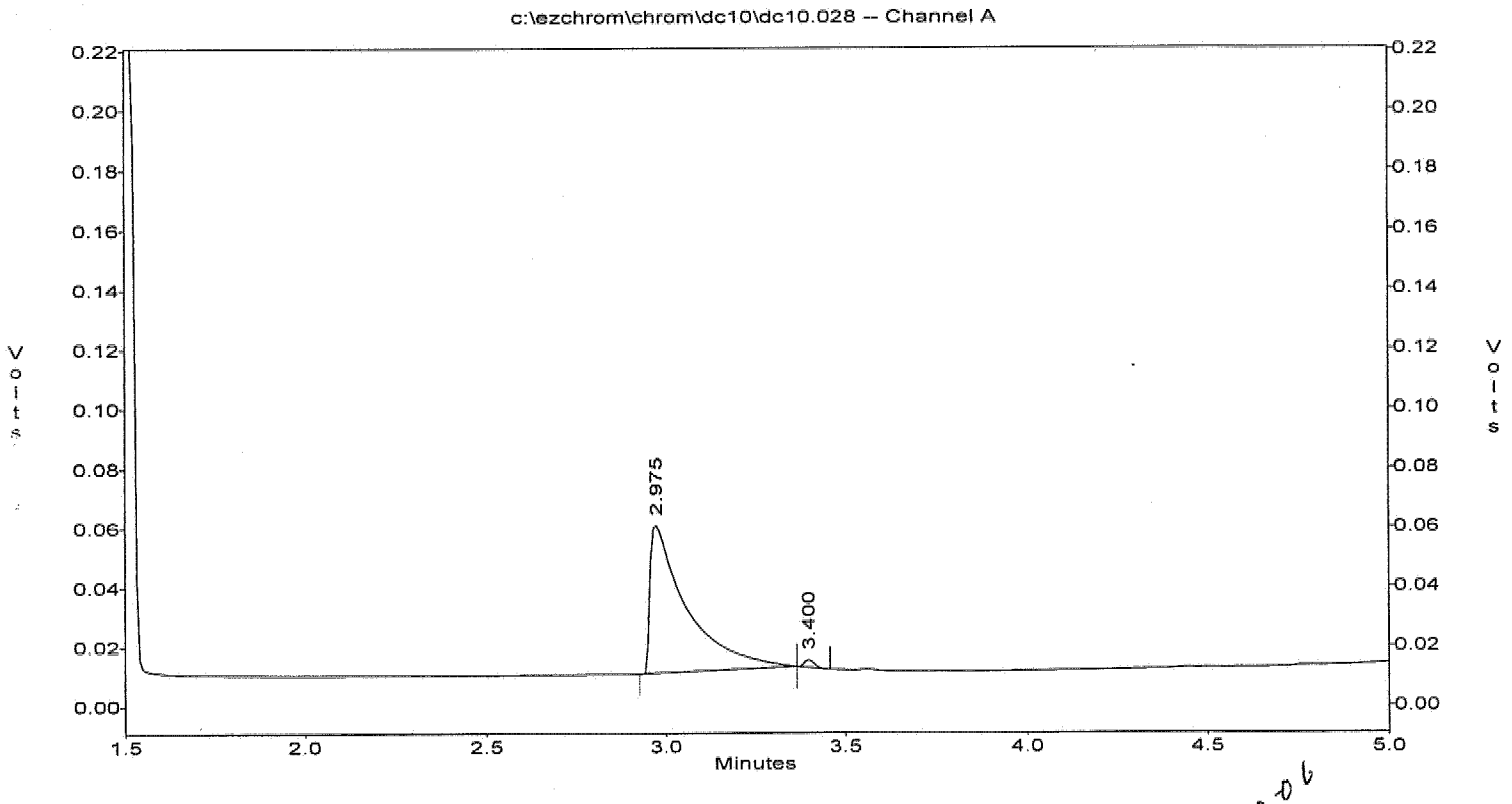
5126

EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc10\dc10.028
Method : c:\ezchrom\methods\eg43c10.met
Sample ID : EG43C1005 100PPM
Acquired : Mar 10, 2006 17:39:51
Printed : Mar 15, 2006 17:10:18
User : LUCY

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc. (ppm)
1	Ethylene Glycol	2.975	358802	3058.1	100.0



3-22-06

5127

SECOND SOURCE

INITIAL CALIBRATION VERIFICATION
METHOD M8015EG

Lab Name : EMAX
Instrument ID : GCTO43
GC Columm : SUPELCO WAX 10
Column size ID : 30MX0.53MMX0.25UM
Mid Conc Init LFID & Datetime: DC10026A 03/10/2006 17:12
Conc Cont LFID & Datetime: DC10030A 03/10/2006 18:14
CONC UNIT : ppm

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Ethylene Glycol	3.008	2.769	3.247	50.0	3058.1	174073	56.92	14		15

EG43C10.MET

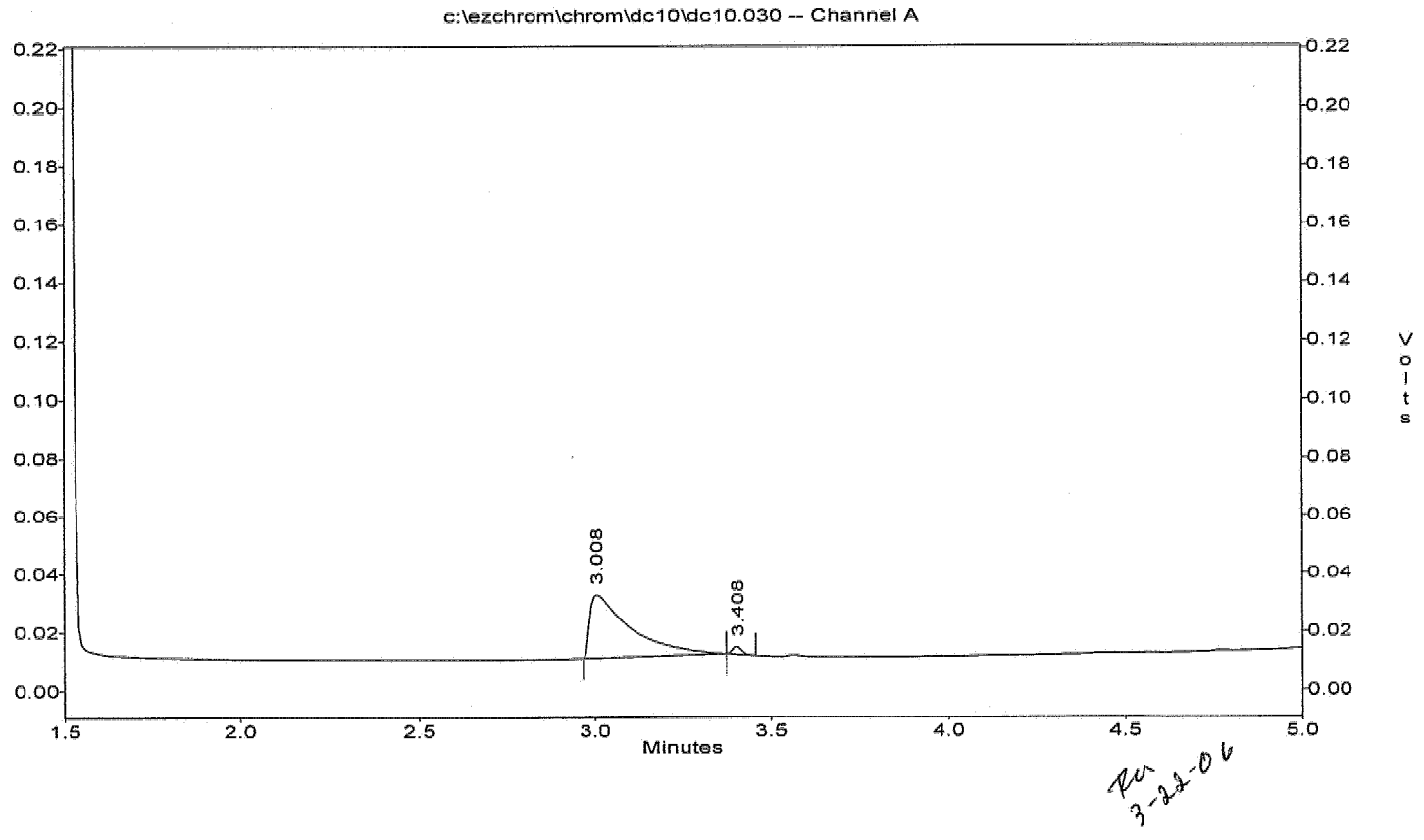
3-22-06

EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc10\dc10.030
Method : c:\ezchrom\methods\eg43c10.met
Sample ID : IEG43C1001 50PPM
Acquired : Mar 10, 2006 18:14:40
Printed : Mar 15, 2006 17:10:38
User : LUCY

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
1	Ethylene Glycol	3.008	174073	3058.1	56.9



RA 3-22-06

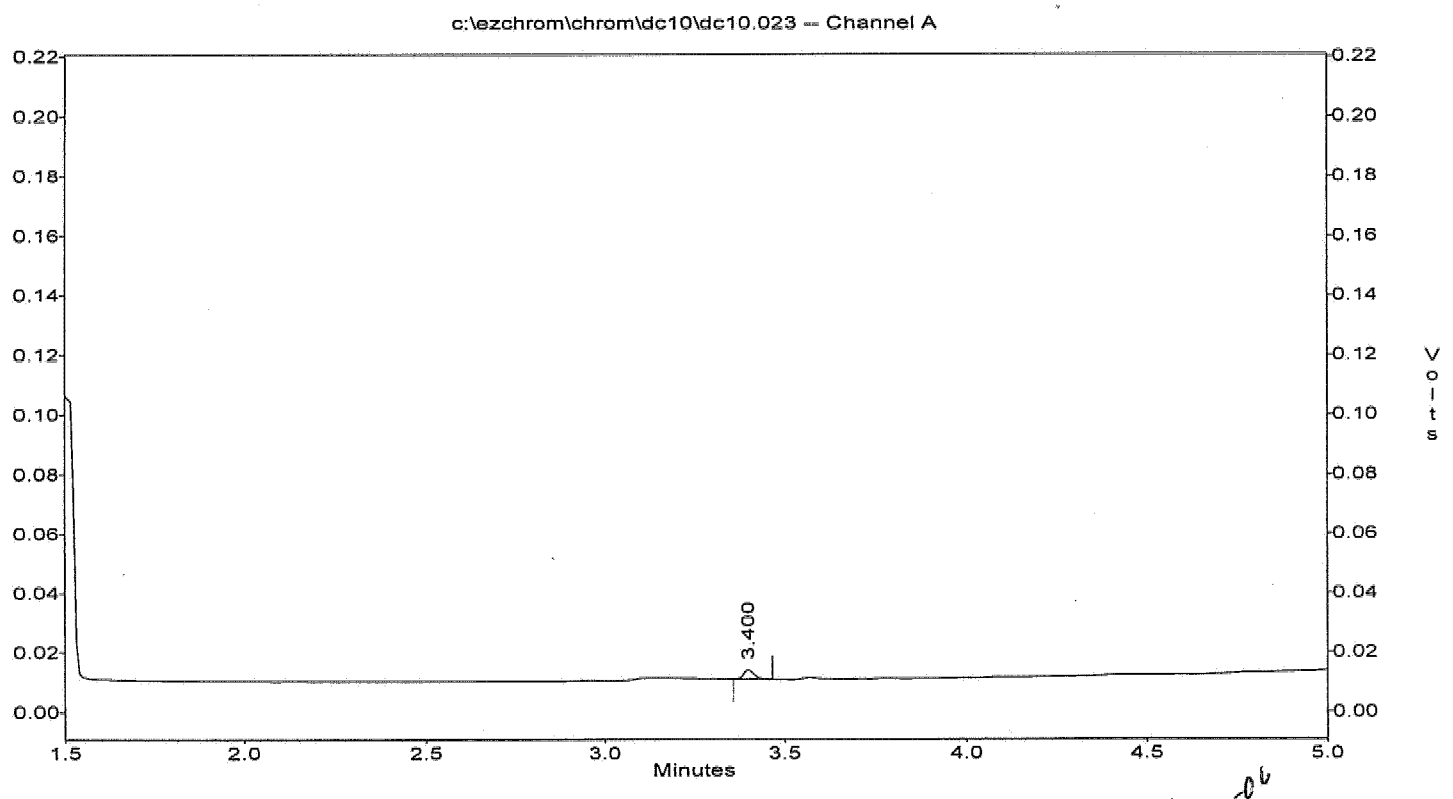
5130

EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc10\dc10.023
Method : c:\ezchrom\methods\eg43c10.met
Sample ID : IB43C021
Acquired : Mar 10, 2006 16:33:44
Printed : Mar 15, 2006 17:10:52
User : LUCY

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
--	Ethylene Glycol	2.975	0	0.0	0.0



3-22-06

5131

DAILY CALIBRATION

CONTINUE CALIBRATION
METHOD M8015EG

Lab Name : EMAX
Instrument ID : GCTO43
GC Columm : SUPELCO WAX 10
Column size ID : 30MX0.53MMX0.25UM
Mid Conc Init LFID & Datetime: DC10026A 03/10/2006 17:12
Conc Cont LFID & Datetime: DC24002A 03/24/2006 10:24
CONC UNIT : ppm

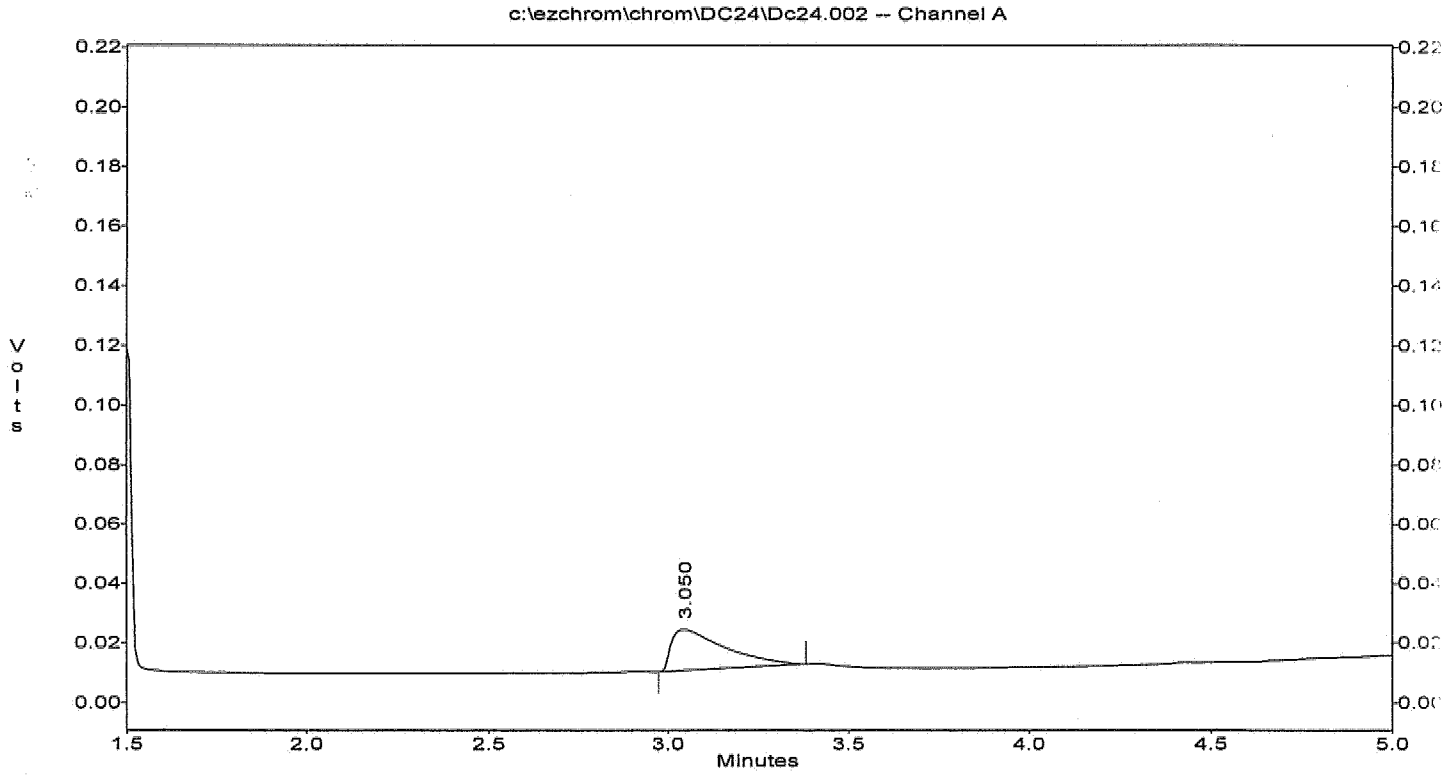
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Ethylene Glycol	3.050	2.811	3.289	50.0	3058.1	140705	46.01	-8		15

EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC24\Dc24.002
Method : c:\ezchrom\methods\Eg43c10.met
Sample ID : CEG43C10053
Acquired : Mar 24, 2006 10:24:53
Printed : Mar 24, 2006 10:31:54
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc. (ppm)
1	Ethylene Glycol	3.050	140705	3058.1	46.0



CONTINUE CALIBRATION
METHOD M8015EG

Lab Name : EMAX
Instrument ID : GCTO43
GC Columm : SUPELCO WAX 10
Column size ID : 30MX0.53MMX0.25UM
Mid Conc Init LFID & Datetime: DC10026A 03/10/2006 17:12
Conc Cont LFID & Datetime: DC24013A 03/24/2006 13:35
CONC UNIT : ppm

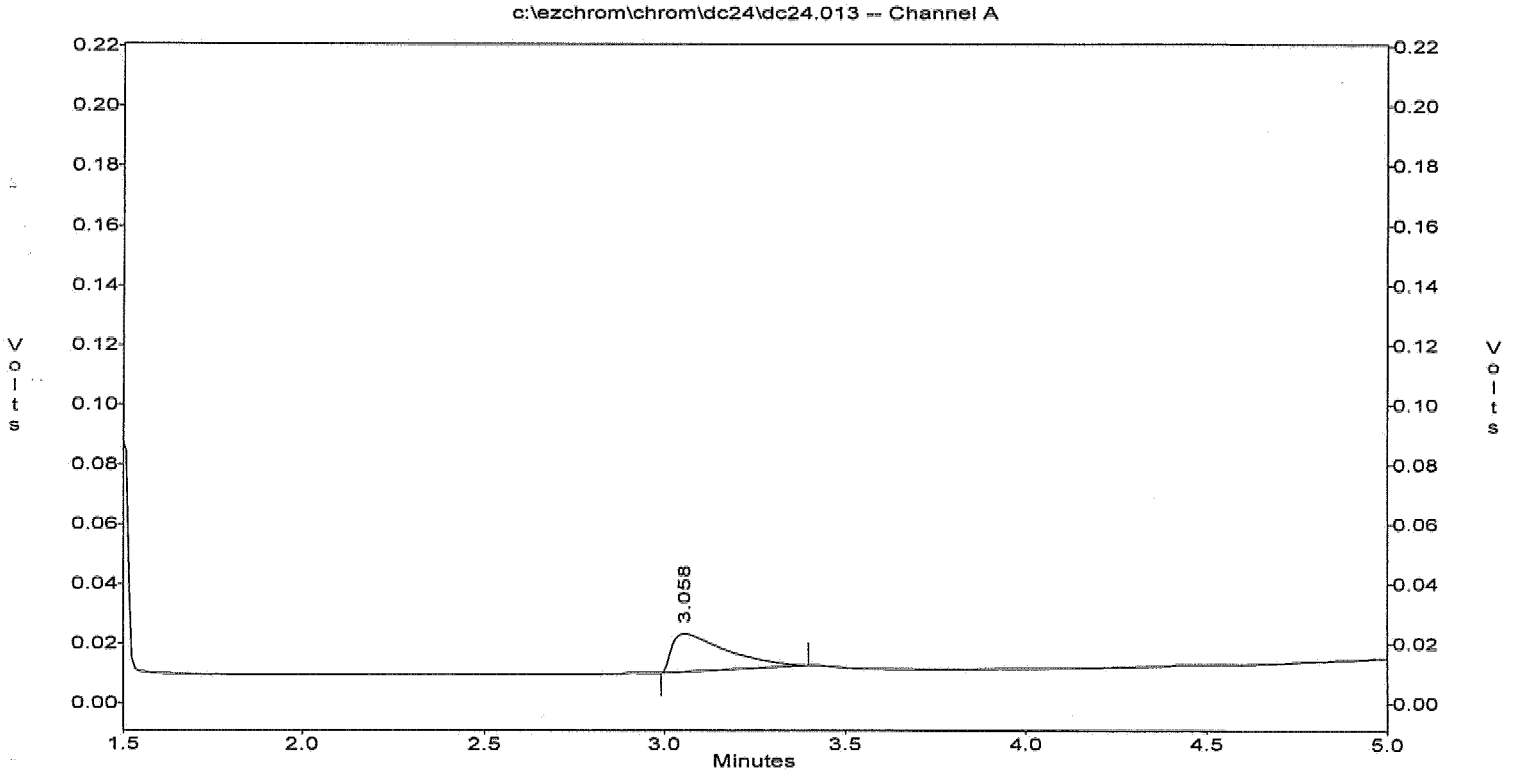
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Ethylene Glycol	3.058	2.819	3.297	50.0	3058.1	133399	43.62	-13		15

EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\dc24\dc24.013
Method : c:\ezchrom\methods\eg43c10.met
Sample ID : CEG43C10054
Acquired : Mar 24, 2006 13:35:30
Printed : Mar 24, 2006 13:48:13
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc. (ppm)
1	Ethylene Glycol	3.058	133399	3058.1	43.6



CONTINUE CALIBRATION
METHOD M8015EG

Lab Name : EMAX
Instrument ID : GCTO43
GC Columm : SUPELCO WAX 10
Column size ID : 30MX0.53MMX0.25UM
Mid Conc Init LFID & Datetime: DC10026A 03/10/2006 17:12
Conc Cont LFID & Datetime: DC24025A 03/24/2006 16:25
CONC UNIT : ppm

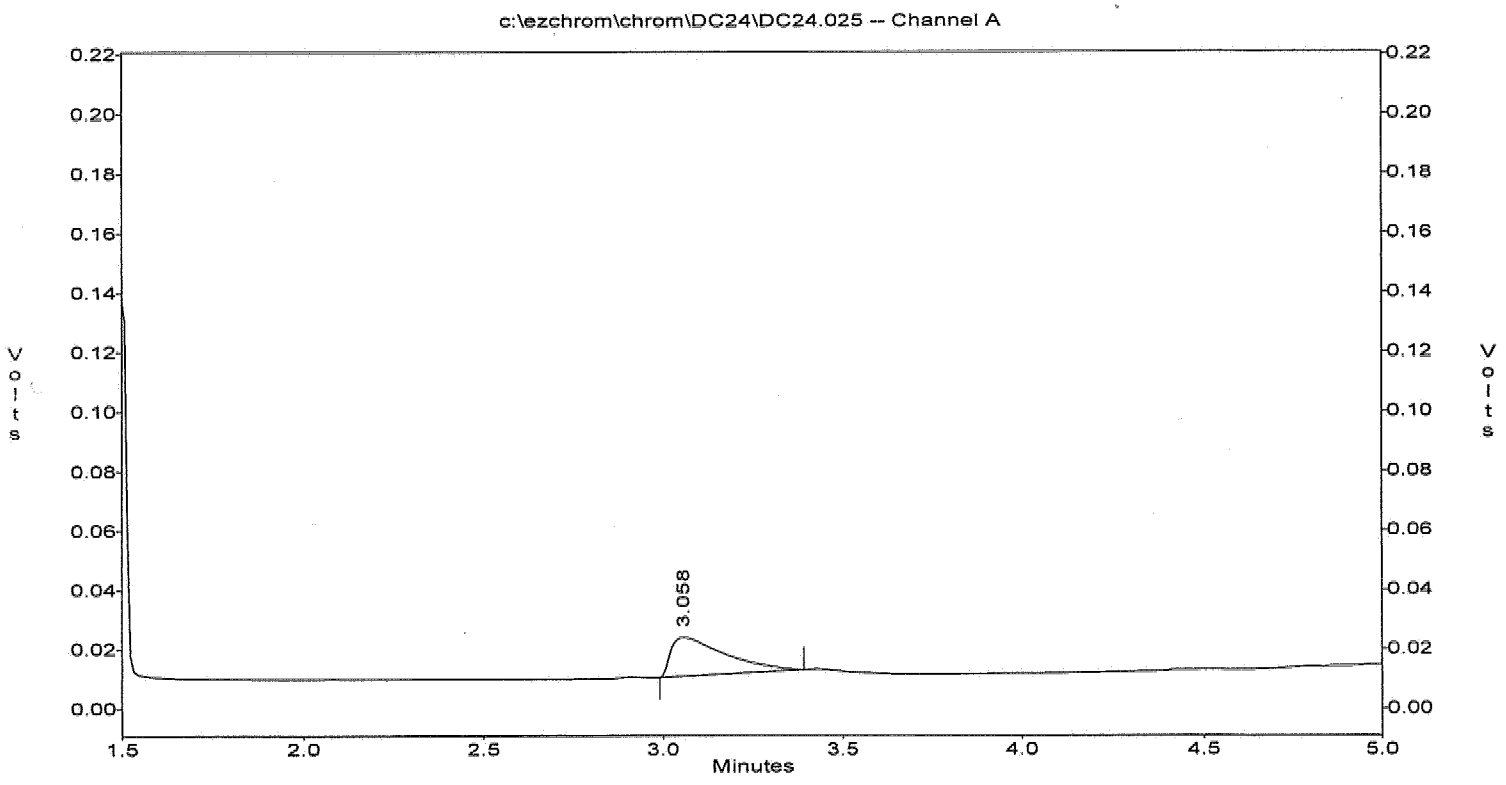
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Ethylene Glycol	3.058	2.819	3.297	50.0	3058.1	135993	44.47	-11		15

EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC24\DC24.025
Method : c:\ezchrom\methods\eg43c10.met
Sample ID : CEG43C10055
Acquired : Mar 24, 2006 16:25:50
Printed : Mar 27, 2006 08:59:41
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
1	Ethylene Glycol	3.058	135993	3058.1	44.5



CONTINUE CALIBRATION
METHOD M8015EG

Lab Name : EMAX
Instrument ID : GCTO43
GC Column : SUPELCO WAX 10
Column size ID : 30MX0.53MMX0.25UM
Mid Conc Init LFID & Datetime: DC10026A 03/10/2006 17:12
Conc Cont LFID & Datetime: DC24030A 03/24/2006 17:37
CONC UNIT : ppm

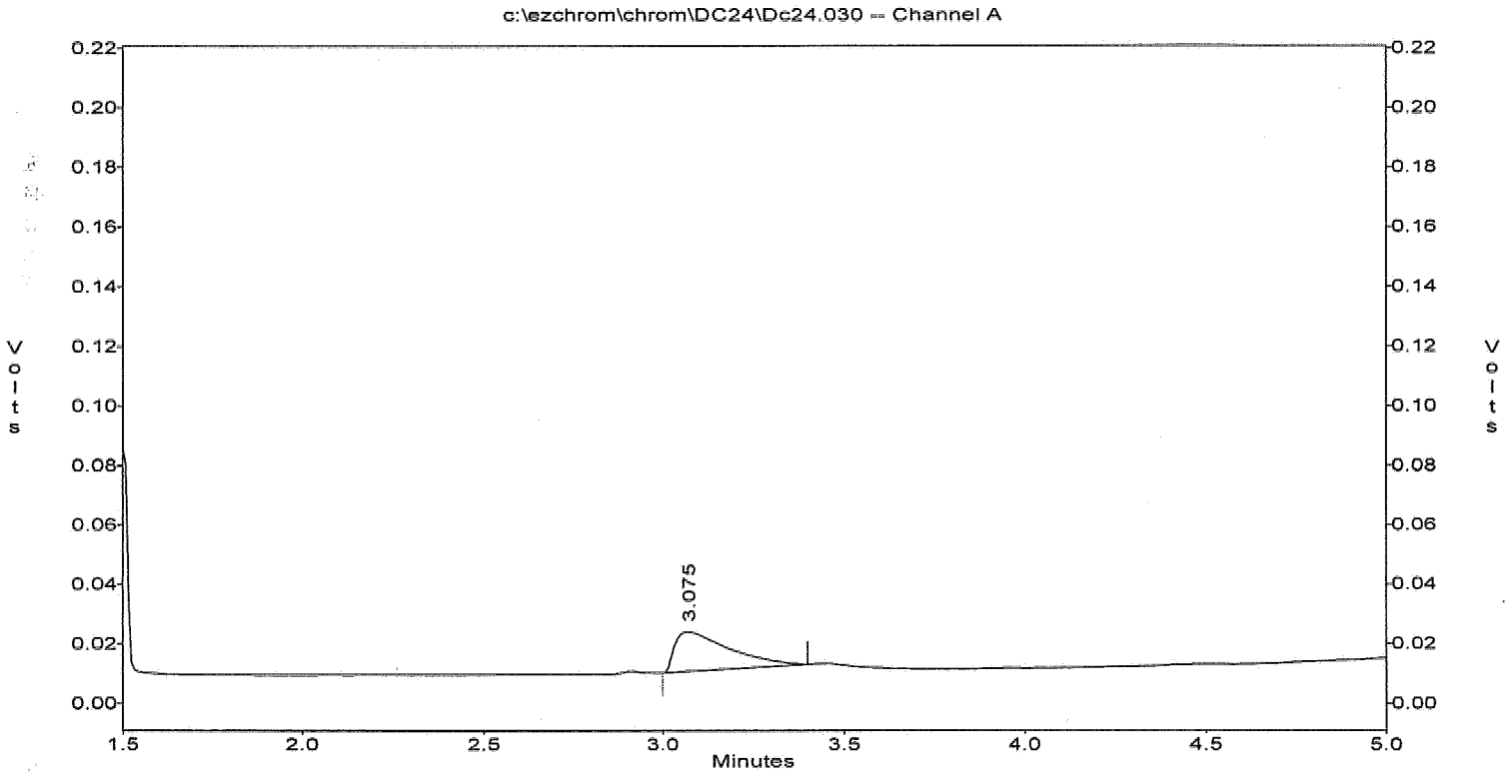
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Ethylene Glycol	3.075	2.836	3.314	50.0	3058.1	137373	44.92	-10		15

EPA 8015 by GC/FID - GCT043
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\DC24\Dc24.030
Method : c:\ezchrom\methods\Eg43c10.met
Sample ID : CEG43C10056
Acquired : Mar 24, 2006 17:37:17
Printed : Mar 24, 2006 17:44:19
User : XUYEN

Channel A Results

#	Peak Name	Ret.Time(min)	Area	Ave. CF	ESTD Conc.(ppm)
1	Ethylene Glycol	3.075	137373	3058.1	44.9



ANALYTICAL LOGS

ANALYSIS RUN LOG FOR TPH

SOP ☐ EMAX-M8015D Revision No. 3 ☐ EMAX-LUFTE Revision No. 3 ☑ Ethylene Glycol Book # A43-012

Starting Date: 3/10/06 Time: 16:33 Ending Date: 3/10/06 Time: 18:14

ANALYTICAL BATCH N/A

Preparative Batch	Data File Name	Lab Sample ID	DF	Matrix S	Matrix W	Notes
NA	DC10.023	IB43C021	NA			
	24	EG43C1001				10 ppm
	25	02				20
	26	03				50
	27	04				75 → Bad inj.
	28	05				100
	29	04				75
	30	IEG43C1001				50

XP 3/10/06

Instrument No:	43	
INITIAL CALIBRATION REFERENCE		
	ID	Date
Diesel		
Motor oil		
JP 5		
Alcohols		
Ethylene Glycol	EG43C10	3/10/06

Standards		
Name	ID	Conc. (mg/L)
CH_2Cl_2	—	—
DCC/Ical	SS3C-07-13-3	10-100
LCS/ICV	SS3C-07-14-1	50

Electronic Data Archival	
Location	Date
☑ EZC_2_Diesel	3/13/06
☐	

Comments:

Analyzed By: XP

Disposed on: 3/10/06 By: XP

This page is checked during the data review process.

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

ANALYSIS RUN LOG FOR TPH

SOP ☐ EMAX-M8015D Revision No. 3 ☐ EMAX-LUFTE Revision No. 3 ☑ Ethylene Glycol Book # A43-012

Starting Date: 3/24/06 Time: 10:13 Ending Date: 3/24/06 Time: 16:25

ANALYTICAL BATCH DC24002

Preparative Batch	Data File Name		Lab Sample ID	DF	Matrix S	Matrix W	Notes
	DC24.001		IB43C053				
		2	CEG43C10053	2			50ppm
EGC012W		3	EGC012WB	1		✓	
		4	L				50ppm (20x)
		5	C				
		6	06C187-01				pH 7
		7	02				
		8	03				
		9	04				
		10	06C199-01				
		11	06C204-01				
		12	03				
		13	CEG43C10054	2			50 ppm
		14	TEST				Isopropyl Alc
EGC012W		15	06C204-02	1		✓	pH<2-adjusted to pH 7
		16	06C193-01				pH 7
		17	02				
		18	03				
		19	04				
		20	05				pH<2-adjusted to pH 7
		21	06C222-02				pH 7
		22	03				pH 5
		23	04				pH<2 - adjusted to pH 7
		24	CEG43C10055	2			Bad inj.
		25	CEG43C10055	2			50ppm

Instrument No:		43
INITIAL CALIBRATION REFERENCE		
	ID	Date
Diesel		
Motor oil		
JP 5		
Alcohols		
E. Glycol	EG43C10	3/10/06
Standards		
Name	ID	Conc. (mg/L)
CH_2Cl_2	—	—
DCC	SS3C 07-12-3	100
LCS	SS3C-07-12-2	1000
H_2O	organic free	—
NaOH	SC07A-06-255	50%
Electronic Data Archival		
Location		Date
☐ EZC_2_Diesel		
☐		

Comments:

Analyzed By: XP

Disposed on: 3/27/06 By: XP

This page is checked during the data review process.

ANALYSIS RUN LOG FOR TPH

SOP ☐ EMAX-M8015D Revision No. 3 ☐ EMAX-LUFTE Revision No. 3 ☑ Ethylene Glycol Book # A43-012

Starting Date: 3/24/06 **Time:** 16:41 **Ending Date:** 3/24/06 **Time:** 17:37

ANALYTICAL BATCH DC24002

Preparative Batch	Data File Name	Lab Sample ID	DF	Matrix S	Matrix W	Notes
	DC24-026	10ppm				
EGC01240	27	06C222-01	1		✓	pH 7
↓	28	01M	↓		↓	50ppm (20x) pH 7
↓	29	01S	↓		↓	↓
	30	CEG43C10056	2			5ppm
						XP 3/24/06

Instrument No:		43
INITIAL CALIBRATION REFERENCE		
	ID	Date
Diesel		
Motor oil		
JP 5		
Alcohols		
E.Glycol	EG43C10	3/10/06

Standards		
Name	ID	Conc. (mg/L)
CH_2Cl_2	—	—
DCC	SS3C-07-12-3	100
LCS/MS	SS3C-07-12-2	1000
H_2O	organic free	—

Electronic Data Archival	
Location	Date
☐ EZC_2_Diesel	
☐	

Comments:

Analyzed By: XP

Disposed on: 3/27/06 By: XP

This page is checked during the data review process.

MAXXAM LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501