Appendix B

Laboratory Reports

TABLE OF CONTENTS

CLIENT: **ECO & ASSOCIATES, INC.**

PROJECT: **BROWN & BRYANT SUPERFUND SITE**

SDG: **12J181**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1005
GC/MS-VOA	METHOD 5030B/8260B	2000 – 2145
	METHOD 5030B/8260B SIM	2146 – 2260
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 8151A	5000 – 5097
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: 11-13-2012
EMAX Batch No.: 12J181

Mitra Fiuzat

Eco & Associates, Inc.
1855 W. Katella Ave, Suite 340
Orange, CA 92867

Subject: Laboratory Report
Project: Brown & Bryant Superfund Site

Enclosed is the Laboratory report for samples received on 10/25/12.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
10-24-12 WA-3	J181-01	10/24/12	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				COURIER SERVICE
10-25-12 WA-9	J181-02	10/25/12	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
10-25-12 PWA-7A	J181-03	10/25/12	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
10-25-12 WA-1	J181-04	10/25/12	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
10-25-12 PWA-3	J181-05	10/25/12	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
10-25-12 WA-5	J181-06	10/25/12	WATER	CHLORINATED HERBICIDES
				VOC SIM
				VOLATILE ORGANICS BY GC/MS

Sample ID		Control #	Col Date	Matrix	Analysis
10-25-12	EPAS-2	J181-07	10/25/12	WATER	CHLORINATED HERBICIDES
					VOC SIM
					VOLATILE ORGANICS BY GC/MS
10-25-12	WA-2	J181-08	10/25/12	WATER	CHLORINATED HERBICIDES
					VOC SIM
					VOLATILE ORGANICS BY GC/MS
10-25-12	EPAS-3	J181-09	10/25/12	WATER	CHLORINATED HERBICIDES
					VOC SIM
					VOLATILE ORGANICS BY GC/MS
10-25-12	PWA-2	J181-10	10/25/12	WATER	CHLORINATED HERBICIDES
					VOC SIM
					VOLATILE ORGANICS BY GC/MS
10-25-12	FDUP-4	J181-11	10/25/12	WATER	CHLORINATED HERBICIDES
					VOC SIM
					VOLATILE ORGANICS BY GC/MS
10-25-12	TB-3	J181-12	10/25/12	WATER	VOLATILE ORGANICS BY GC/MS
10-25-12	WA-1MS	J181-04M	10/25/12	WATER	CHLORINATED HERBICIDES
					VOC SIM
					VOLATILE ORGANICS BY GC/MS
10-25-12	WA-1MSD	J181-04S	10/25/12	WATER	CHLORINATED HERBICIDES
					VOC SIM
					VOLATILE ORGANICS BY GC/MS

The results are summarized on the following pages.

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

Sincerely yours,

Caspar J. Pang
Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that results included in this report meets all NELAC & DOD requirements unless noted in the Case Narrative.

NELAC Accredited Certificate Number 02116CA
L-A-B Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: Eco-12-548
SAMPLE STORAGE: Coolers
EMAX CONTROL NO. *: 12J181
PROJECT CODE:

CLIENT: Eco and Associates, Inc
PROJECT: B+B Superfund - GW Monitoring
COORDINATOR: Jack Collender
TEL: 714-289-0995 FAX: 714-289-0965 EMAIL: jcollender@ecoinc.info
SEND REPORT TO: Mitra Fivzat
COMPANY: Eco and Associates, Inc.
ADDRESS: 1855 W. Katella Ave., Suite 340, Orange, CA 92867
EMAX PM: Richard Beauvil

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☒ Normal TAT

	LAB	CLIENT	LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	8260B	8260 SIM	8151A (Diesel)	COMMENTS
1	1	10-29-12 WA-3	A-Zone	10-29-12	600	8	Var	Var	GW		X	X	X	
2	2	10-25-12 WA-9	A-Zone	10-25-12	1030	8	Var	Var	GW		X	X	X	
3	3	10-25-12 PWA-7A	A-Zone	10-25-12	0915	8	Var	Var	GW		X	X	X	
4	4	10-25-12 WA-1	A-Zone	10-25-12	0800	8	Var	Var	GW		X	X	X	MS/MSD
5	5	10-25-12 PWA-3	A-Zone	10-25-12	0850	8	Var	Var	GW		X	X	X	
6	6	10-25-12 WA-5	A-Zone	10-25-12	0755	8	Var	Var	GW		X	X	X	
7	7	10-25-12 EPAS-2	A-Zone	10-25-12	0948	8	Var	Var	GW		X	X	X	Level 4
8	8	10-25-12 WA-2	A-Zone	10-25-12	0835	8	Var	Var	GW		X	X	X	
9	9	10-25-12 EPAS-3	A-Zone	10-25-12	0933	8	Var	Var	GW		X	X	X	
10	10	10-25-12 PWA-2	A-Zone	10-25-12	1026	8	Var	Var	GW		X	X	X	

Instructions

Cooler #	Temp. (°C)	Sample #s
1	3.2	
2	2.0	
3	2.2	

SAMPLER

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY		
Jack Collender	10-25-12	1420	Karen M.	10/25/12	14:20
K. M.	10/25/12	17:20	Christie Ortiz		

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: Eco-12-548
SAMPLE STORAGE: Coolers
EMAX CONTROL NO. * 12J181
PROJECT CODE:

CLIENT: Eco and Associates, Inc.
PROJECT: B+B Superfund Site-GW Monitoring
COORDINATOR: Jack Collender
TEL: 714-289-0995 FAX: 714-289-0965 EMAIL: jcollender@eaoinc.info
SEND REPORT TO: Mitra Fivzat
COMPANY: Eco and Associates, Inc.
ADDRESS: 1855 W. Katella Ave., Suite 340, Orange, CA 92867
EMAX PM: Richard Beauvil

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☒ Normal TAT

	SAMPLE ID LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	SAMPLING DATE	SAMPLING TIME	CONTAINER NO.	CONTAINER SIZE	CONTAINER TYPE	MATRIX CODE	QC	8260B	8260 SIM	8151 A (Pinosed)						COMMENTS
11	1	10-25-12 FDUP 4	A-Zone	10-25-12	—	8	Var	Var	GW		X	X	X						
12	2	10-25-12 TB-3	—	10-25-12	1200	3	40ml	VOA	W		X								
*	3																		
*	4																		
*	5																		
*	6																		
*	7																		
*	8																		
*	9																		
*	9																		

Instructions

Cooler #	Temp. (°C)	Sample #s

SAMPLER

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY	Date	Time
Jack Collender	10-25-12	1420	Kamal M.	10/25/12	14:20
K.M.	10/25/12	12:20	[illegible]		

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Airbill / Tracking Number	ECN 125181
☐ Fedex ☐ UPS ☐ GSO ☐ Others		Recipient Cecilia
☑ EMAX Courier ☐ Client Delivery		Date 10/25/12 Time 17:20

COC Inspection

☑ Client Name	☑ Client PM/FC	☐ Sampler Name	☑ Sampling Date/Time/Location	☑ Sample ID	☑ Matrix
☑ Address	☑ Tel # / Fax #	☑ Courier Signature	☑ Analysis Required	☑ Preservative (if any)	☑ TAT

Safety Issues (if any) ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☑ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☐ Bubble Pack	☐ Styrofoam	☐ Popcorn	☐ Sufficient	☐
Temperatures (Cool, ≤6 °C but not frozen)	☑ Cooler 1 3.2 °C	☑ Cooler 2 2.0 °C	☑ Cooler 3 2.2 °C	☐ Cooler 4 ____ °C	☐ Cooler 5 ____ °C
	☐ Cooler 6 ____ °C	☐ Cooler 7 ____ °C	☐ Cooler 8 ____ °C	☐ Cooler 9 ____ °C	☐ Cooler 10 ____ °C

Thermometer: *A - S/N 101541371* *B - S/N 101541382* *C - S/N 122091701*

Comments: ☐ **Temperature is out of range. PM was informed IMMEDIATELY.**

Note: **pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time.**

DISCREPANCIES

LSID	LSCID	Description Code	Sample Label ID / Information	Corrective Action Code
4	25-48	H1		R5
1-12	1-6, 9-14	H2		OK. R2
	17-22, 25-42			
	49-54, 57-62			
	65-70, 73-78			
	81-86, 89-94			
	97-102, 105-107			

RB

☐ **Continue to next page.**

REVIEWS

Sample Labeling ____ Date 10-25-12 10-25-12

SRF Cecilia Date 10/26/12

PM RB Date 10/26/12

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC.
A2	Analysis is not indicated in label.
A3	Analysis is inconsistent in COC vis-à-vis label.
B1	Sample ID is not indicated in COC.
B2	Sample ID is not indicated in label.
B3	Sample ID is inconsistent in COC vis-à-vis label.
C1	Improper container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC.
D2	Date and/or time is not indicated in label.
D3	Date and/or time is inconsistent in COC vis-à-vis label.
F1	Improper preservation
F2	Insufficient Sample
F3	Bubble is > 6mm. Use vial with smallest bubble first.
F4	Bubble is > 6mm in all vials.
F5	>20 % solid particle
F6	Out of Holding Time

Code	Description-Sample Management
G1	Sample indicated in COC is not received.
G2	MS/MSD is not indicated in COC.
G3	No identified trip blank, proceed as indicated in COC.
G4	Trip Blank is designated in SDG ____
G5	Trip Blank has no sampling date & time. Log-in with earliest sampling date and 0:00 time.
H1	COC specify 8 amber ary vials. Received 18 total containers.
H2	No preservative on COC or label. vials are preserved.

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC and inform client.
R3	Refer to attached instruction
R4	Cancel the analysis
R5	Inform client.
R6	Proceed as indicated in COC

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

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

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

SDG#: 12J181

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J181

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

A total of twelve (12) water samples were received on 10/25/12 for Volatile Organics by GC/MS analysis, Method 5030B/8260B in accordance with Department of Defense Quality Systems Manual for Environmental Laboratories, Version 4.2 and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Instrument mass ratios were within specification. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blanks were analyzed at the frequency required by the project. For this SDG, two (2) method blanks were analyzed with the samples. All results were compliant to project requirement. Refer to QC result summary forms for details.

Lab Control Sample
Two (2) sets of LCS/LCD were analyzed with the samples in this SDG.
Percent recoveries for VO06J20L/C were all within QC limits.
Percent recoveries for VO06J21L/C were all within QC limits.

Matrix QC Sample
A set of MS/MSD was analyzed with the samples in this SDG.
Percent recoveries for J181-04M/S were within project QC limits.

Surrogate
Surrogates were added on QC and field samples. Surrogate recoveries were within project QC limits. Refer to sample result forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE

SDG NO. : 12J181
Instrument ID : T-006

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V006J20B	1	NA	10/26/1215:31	10/26/1215:31	RJW503	RHW008	V006J20	Method Blank
LCS1W	V006J20L	1	NA	10/26/1214:01	10/26/1214:01	RJW500	RHW008	V006J20	Lab Control Sample (LCS)
LCD1W	V006J20C	1	NA	10/26/1214:31	10/26/1214:31	RJW501	RHW008	V006J20	LCS Duplicate
10-24-12 WA-3	J181-01	1	NA	10/26/1216:05	10/26/1216:05	RJW504	RHW008	V006J20	Field Sample
10-25-12 WA-9	J181-02	1	NA	10/26/1216:35	10/26/1216:35	RJW505	RHW008	V006J20	Field Sample
10-25-12 PWA-7A	J181-03	1	NA	10/26/1217:05	10/26/1217:05	RJW506	RHW008	V006J20	Field Sample
10-25-12 WA-1	J181-04	1	NA	10/26/1217:35	10/26/1217:35	RJW507	RHW008	V006J20	Field Sample
10-25-12 WA-1MS	J181-04M	1	NA	10/26/1218:05	10/26/1218:05	RJW508	RHW008	V006J20	Matrix Spike Sample (MS)
10-25-12 WA-1MSD	J181-04S	1	NA	10/26/1218:35	10/26/1218:35	RJW509	RHW008	V006J20	MS Duplicate (MSD)
10-25-12 PWA-3	J181-05	1	NA	10/26/1219:35	10/26/1219:35	RJW511	RHW008	V006J20	Field Sample
10-25-12 WA-5	J181-06	1	NA	10/26/1220:06	10/26/1220:06	RJW512	RHW008	V006J20	Field Sample
10-25-12 EPAS-2	J181-07	1	NA	10/26/1220:36	10/26/1220:36	RJW513	RHW008	V006J20	Field Sample
10-25-12 WA-2	J181-08	1	NA	10/26/1221:05	10/26/1221:05	RJW514	RHW008	V006J20	Field Sample
10-25-12 EPAS-3	J181-09	1	NA	10/26/1221:36	10/26/1221:36	RJW515	RHW008	V006J20	Field Sample
10-25-12 PWA-2	J181-10	1	NA	10/26/1222:06	10/26/1222:06	RJW516	RHW008	V006J20	Field Sample
MBLK2W	V006J21B	1	NA	10/29/1213:19	10/29/1213:19	RJW527	RHW008	V006J21	Method Blank
LCS2W	V006J21L	1	NA	10/29/1211:49	10/29/1211:49	RJW524	RHW008	V006J21	Lab Control Sample (LCS)
LCD2W	V006J21C	1	NA	10/29/1212:19	10/29/1212:19	RJW525	RHW008	V006J21	LCS Duplicate
10-25-12 TB-3	J181-12R	1	NA	10/29/1213:49	10/29/1213:49	RJW528	RHW008	V006J21	Field Sample
10-25-12 EPAS-3DL	J181-09T	100	NA	10/29/1214:25	10/29/1214:25	RJW529	RHW008	V006J21	Diluted Sample
10-25-12 PWA-2DL	J181-10T	100	NA	10/29/1214:55	10/29/1214:55	RJW530	RHW008	V006J21	Diluted Sample
10-25-12 FDUP-4	J181-11R	1	NA	10/29/1215:25	10/29/1215:25	RJW531	RHW008	V006J21	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/26/12 16:05
Sample ID:	10-24-12 WA-3	Date Analyzed:	10/26/12 16:05
Lab Samp ID:	J181-01	Dilution Factor:	1
Lab File ID:	RJW504	Matrix	: WATER
Ext Btch ID:	V006J20	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	71	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	1.0	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	2.3	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.50J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	0.61J	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.15	10.00	81.5	70-120
4-BROMOFLUOROBENZENE	8.92	10.00	89.2	75-120
TOLUENE-D8	10.8	10.00	108	85-120
DIBROMOFLUOROMETHANE	9.69	10.00	96.9	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/26/12 16:35
Sample ID:	10-25-12 WA-9	Date Analyzed:	10/26/12 16:35
Lab Samp ID:	J181-02	Dilution Factor:	1
Lab File ID:	RJW505	Matrix	: WATER
Ext Btch ID:	V006J20	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.33J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.84	10.00	88.4	70-120
4-BROMOFLUOROBENZENE	8.74	10.00	87.4	75-120
TOLUENE-D8	10.5	10.00	105	85-120
DIBROMOFLUOROMETHANE	10.0	10.00	100	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/26/12 17:05
Sample ID:	10-25-12 PWA-7A	Date Analyzed:	10/26/12 17:05
Lab Samp ID:	J181-03	Dilution Factor:	1
Lab File ID:	RJW506	Matrix	: WATER
Ext Btch ID:	V006J20	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.80	10.00	88.0	70-120
4-BROMOFLUOROBENZENE	8.49	10.00	84.9	75-120
TOLUENE-D8	10.6	10.00	106	85-120
DIBROMOFLUOROMETHANE	9.90	10.00	99.0	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/26/12 17:35
Sample ID:	10-25-12 WA-1	Date Analyzed:	10/26/12 17:35
Lab Samp ID:	J181-04	Dilution Factor:	1
Lab File ID:	RJW507	Matrix	: WATER
Ext Btch ID:	V006J20	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	0.89J	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.21J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	3.7	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	0.63J	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.35	10.00	93.5	70-120
4-BROMOFLUOROBENZENE	8.64	10.00	86.4	75-120
TOLUENE-D8	10.7	10.00	107	85-120
DIBROMOFLUOROMETHANE	10.2	10.00	102	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/26/12 19:35
Sample ID:	10-25-12 PWA-3	Date Analyzed:	10/26/12 19:35
Lab Samp ID:	J181-05	Dilution Factor:	1
Lab File ID:	RJW511	Matrix	: WATER
Ext Btch ID:	VO06J20	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.33J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	5.9	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.35	10.00	93.5	70-120
4-BROMOFLUOROBENZENE	8.71	10.00	87.1	75-120
TOLUENE-D8	10.5	10.00	105	85-120
DIBROMOFLUOROMETHANE	10.6	10.00	106	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected	: 10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received	: 10/25/12
Batch No.	: 12J181	Date Extracted	: 10/26/12 20:06
Sample ID	: 10-25-12 WA-5	Date Analyzed	: 10/26/12 20:06
Lab Samp ID	: J181-06	Dilution Factor	: 1
Lab File ID	: RJW512	Matrix	: WATER
Ext Btch ID	: V006J20	% Moisture	: NA
Calib. Ref.	: RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	0.82J	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	5.1	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.39J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	0.43J	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.28	10.00	92.8	70-120
4-BROMOFLUOROBENZENE	8.48	10.00	84.8	75-120
TOLUENE-D8	10.7	10.00	107	85-120
DIBROMOFLUOROMETHANE	10.2	10.00	102	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/26/12 20:36
Sample ID:	10-25-12 EPAS-2	Date Analyzed:	10/26/12 20:36
Lab Samp ID:	J181-07	Dilution Factor:	1
Lab File ID:	RJW513	Matrix	: WATER
Ext Btch ID:	V006J20	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	3.4	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	0.81J	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	29	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	2.8	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.16	10.00	91.6	70-120
4-BROMOFLUOROBENZENE	8.44	10.00	84.4	75-120
TOLUENE-D8	10.3	10.00	103	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW513.D Vial: 17
Acq On : 26 Oct 2012 8:36 pm Operator: WL
Sample : 12J181-07 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:11 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

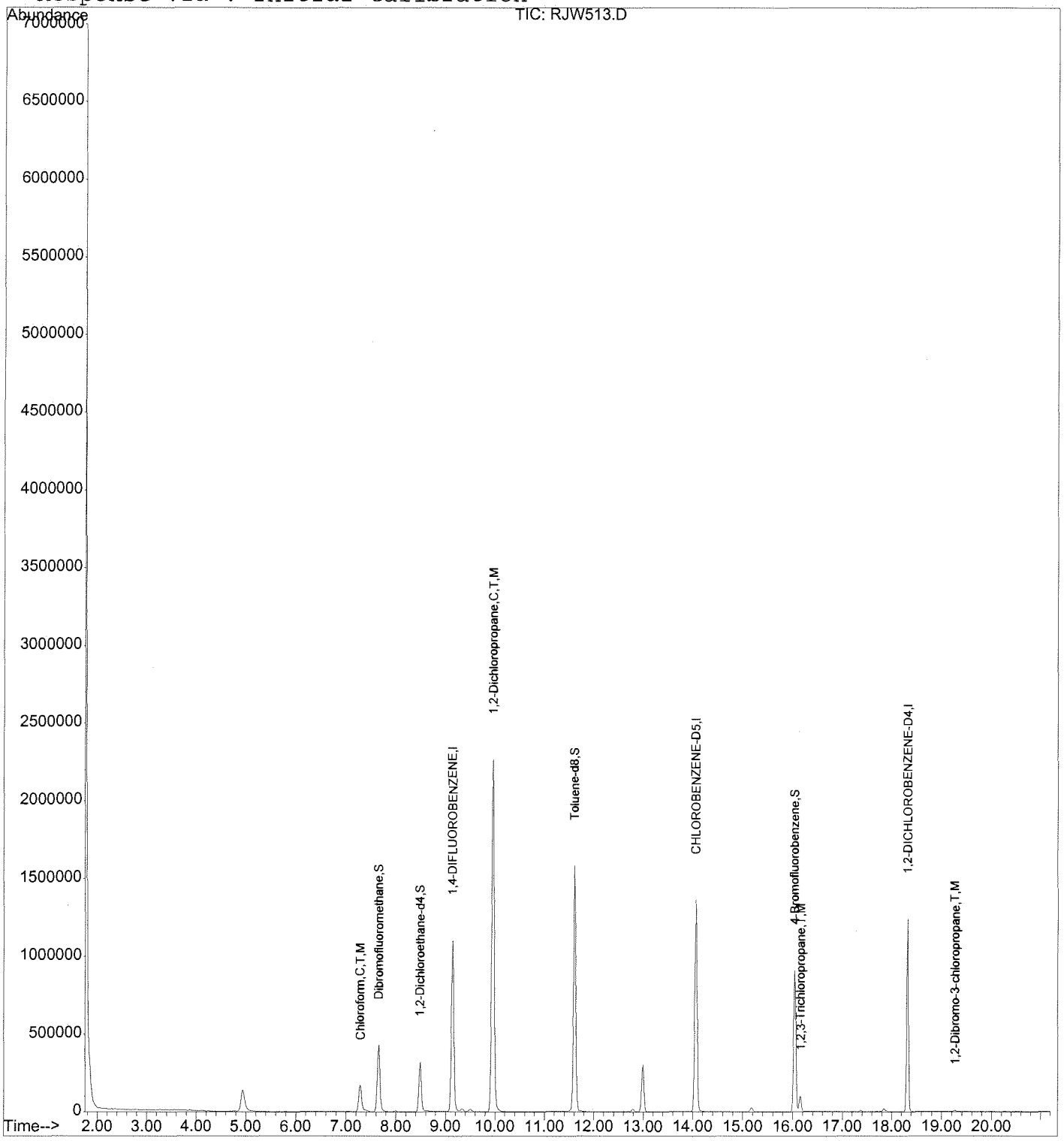
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.14	114	1649092	10.00	ug/l	-0.01
39) CHLOROBENZENE-D5	14.06	117	1428667	10.00	ug/l	-0.01
72) 1,2-DICHLOROBENZENE-D4	18.32	152	553647	10.00	ug/l	-0.01
System Monitoring Compounds						
34) Dibromofluoromethane	7.65	111	512177	10.29	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	102.90%	
38) 1,2-Dichloroethane-d4	8.48	65	380750	9.16	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	91.60%	
54) Toluene-d8	11.60	98	1880328	10.31	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	103.10%	
76) 4-Bromofluorobenzene	16.04	95	581726	8.44	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	84.40%	
Target Compounds						Qvalue
30) Chloroform	7.28	83	268833	2.82	ug/l	97
47) 1,2-Dichloropropane	9.95	63	1611404	29.41	ug/l	96
77) 1,2,3-Trichloropropane	16.15	110	31252	3.37	ug/l	97
93) 1,2-Dibromo-3-chloropropan	19.26	157	3235	0.81	ug/l	89

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

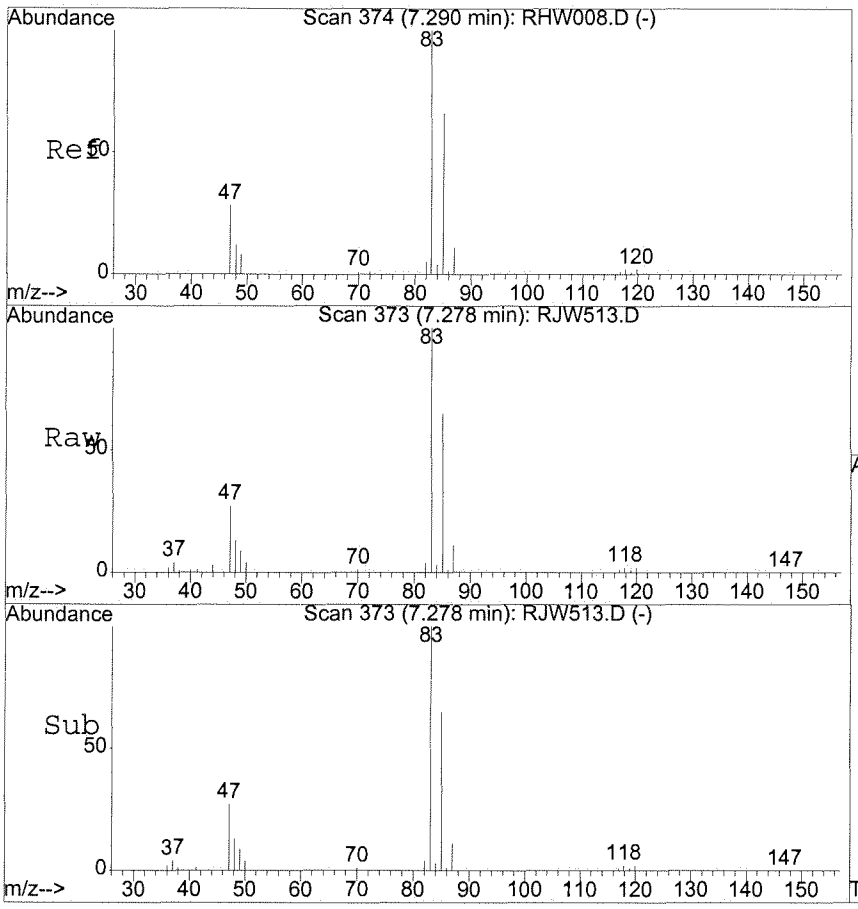
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJW513.D Vial: 17
Acq On : 26 Oct 2012 8:36 pm Operator: WL
Sample : 12J181-07 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:11 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



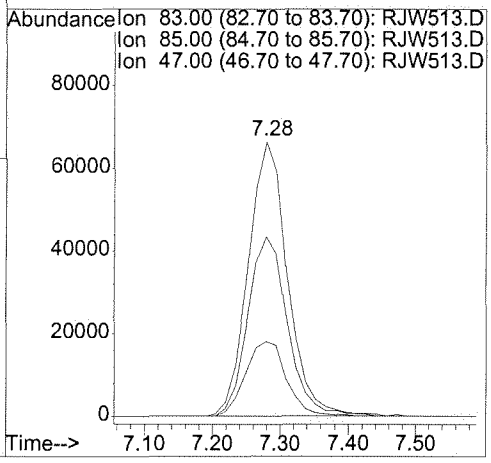
2012

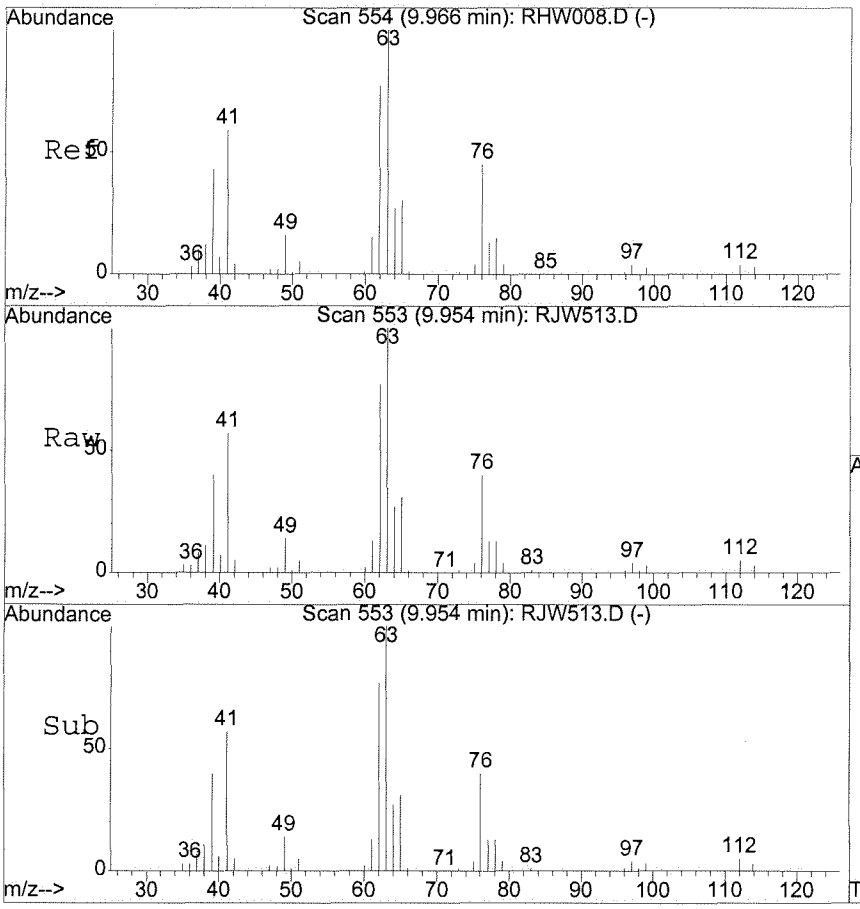


#30
Chloroform
Concen: 2.82 ug/l
RT: 7.28 min Scan# 373
Delta R.T. -0.01 min
Lab File: RJW513.D
Acq: 26 Oct 2012 8:36 pm

Tgt Ion: 83 Resp: 268833

Ion	Ratio	Lower	Upper
83	100		
85	66.1	39.1	99.1
47	28.5	0.0	58.8

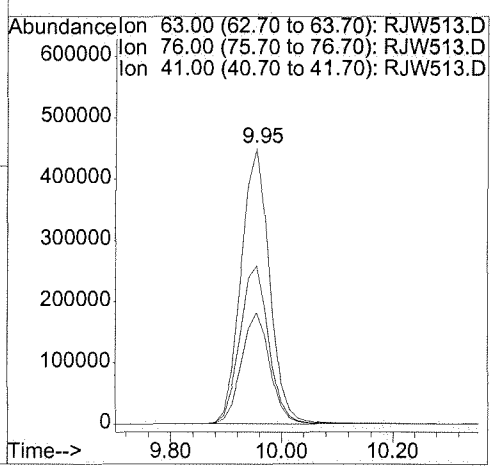


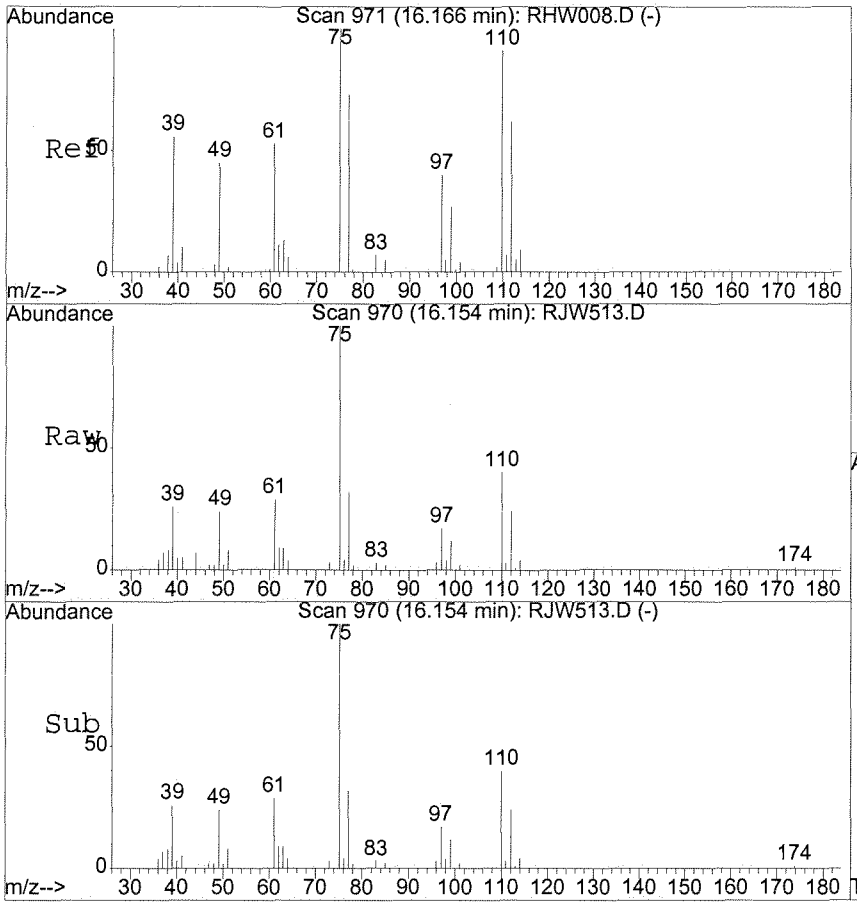


#47
1,2-Dichloropropane
Concen: 29.41 ug/l
RT: 9.95 min Scan# 553
Delta R.T. -0.01 min
Lab File: RJW513.D
Acq: 26 Oct 2012 8:36 pm

Tgt Ion: 63 Resp: 1611404

Ion	Ratio	Lower	Upper
63	100		
76	40.5	15.3	75.3
41	58.2	30.0	90.0

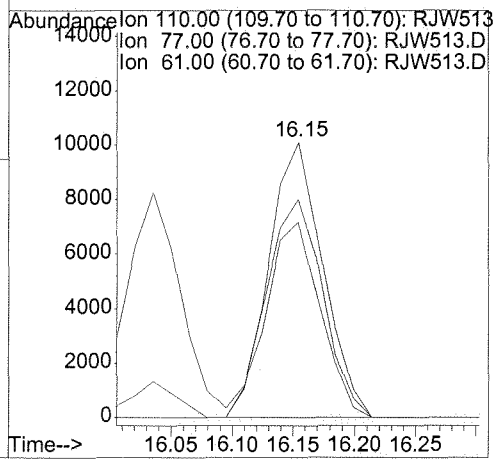


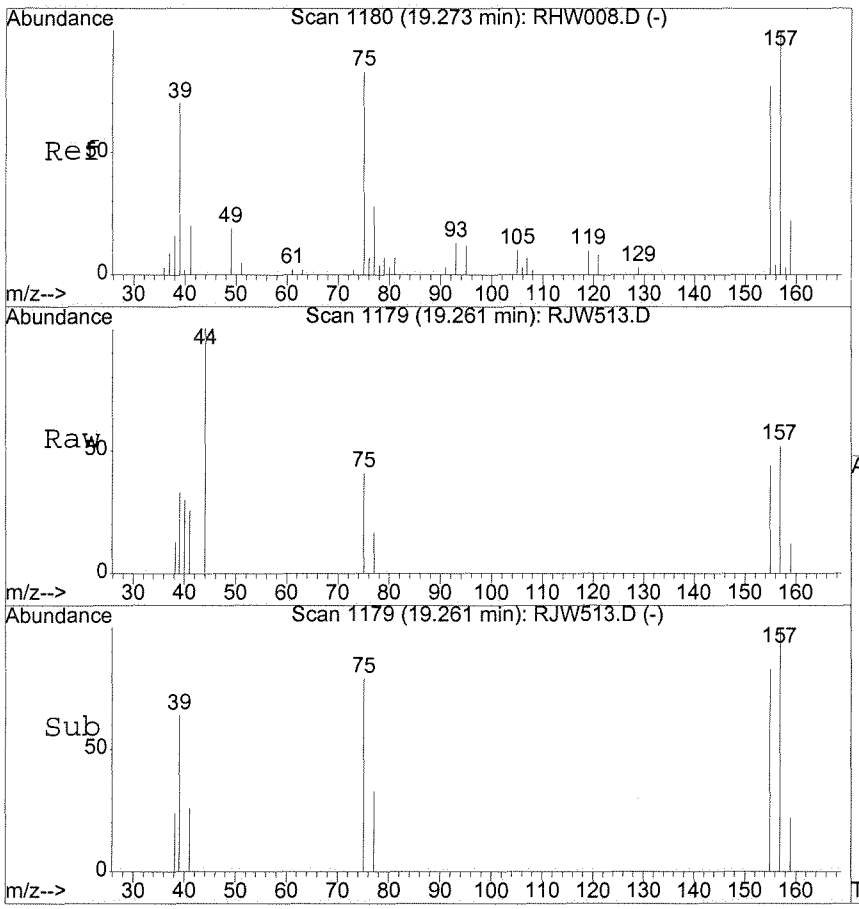


#77
1,2,3-Trichloropropane
Concen: 3.37 ug/l
RT: 16.15 min Scan# 970
Delta R.T. -0.01 min
Lab File: RJW513.D
Acq: 26 Oct 2012 8:36 pm

Tgt Ion:110 Resp: 31252

Ion	Ratio	Lower	Upper
110	100		
77	82.5	51.2	111.2
61	71.1	37.9	97.9

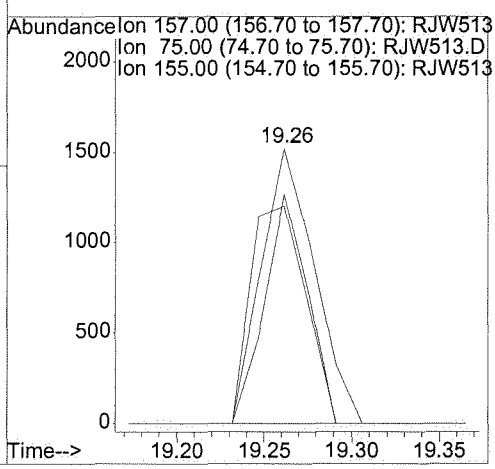




#93
1,2-Dibromo-3-chloropropane
Concen: 0.81 ug/l
RT: 19.26 min Scan# 1179
Delta R.T. -0.01 min
Lab File: RJW513.D
Acq: 26 Oct 2012 8:36 pm

Tgt Ion:157 Resp: 3235

Ion	Ratio	Lower	Upper
157	100		
75	82.1	61.6	121.6
155	67.4	48.0	108.0



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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/25/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 10/26/12 21:05
Sample ID: 10-25-12 WA-2	Date Analyzed: 10/26/12 21:05
Lab Samp ID: J181-08	Dilution Factor: 1
Lab File ID: RJW514	Matrix : WATER
Ext Btch ID: V006J20	% Moisture : NA
Calib. Ref.: RHW008	Instrument ID : 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	0.62J	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	53	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.30	10.00	93.0	70-120
4-BROMOFLUOROBENZENE	8.56	10.00	85.6	75-120
TOLUENE-D8	10.4	10.00	104	85-120
DIBROMOFLUOROMETHANE	10.0	10.00	100	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/26/12 21:36 # 10/29/12 14:25
Sample ID:	10-25-12 EPAS-3	Date Analyzed:	10/26/12 21:36 # 10/29/12 14:25
Lab Samp ID:	J181-09 #J181-09T	Dilution Factor:	1 # 100
Lab File ID:	RJW515 #RJW529	Matrix	: WATER
Ext Btch ID:	VO06J20 #VO06J21	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	1.3	1.0	0.20
1,1-DICHLOROETHANE	0.65J	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	0.96J	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
# 1,2,3-TRICHLOROPROPANE	540	100	50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
# 1,2-DIBROMO-3-CHLOROPROPANE	310	100	50
1,2-DIBROMOETHANE	2.7	1.0	0.20
1,2-DICHLOROBENZENE	0.62J	1.0	0.20
1,2-DICHLOROETHANE	4.2	1.0	0.20
# 1,2-DICHLOROPROPANE	4500	100	20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	0.31J	1.0	0.20
1,3-DICHLOROPROPANE	5.6	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	1.1	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	2.0	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	4.4	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	0.27J	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.47	10.00	94.7	70-120
4-BROMOFLUOROBENZENE	10.8	10.00	108	75-120
TOLUENE-D8	10.8	10.00	108	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115
# 1,2-DICHLOROETHANE-D4	924	1000	92.4	70-120
# 4-BROMOFLUOROBENZENE	863	1000	86.3	75-120
# TOLUENE-D8	1020	1000	102	85-120
# DIBROMOFLUOROMETHANE	1020	1000	102	85-115

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/26/12 21:36
Sample ID:	10-25-12 EPAS-3	Date Analyzed:	10/26/12 21:36
Lab Samp ID:	J181-09	Dilution Factor:	1
Lab File ID:	RJW515	Matrix	: WATER
Ext Btch ID:	VO06J20	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	1.3	1.0	0.20
1,1-DICHLOROETHANE	0.65J	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	0.96J	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	470E	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	300E	1.0	0.50
1,2-DIBROMOETHANE	2.7	1.0	0.20
1,2-DICHLOROBENZENE	0.62J	1.0	0.20
1,2-DICHLOROETHANE	4.2	1.0	0.20
1,2-DICHLOROPROPANE	1000E	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	0.31J	1.0	0.20
1,3-DICHLOROPROPANE	5.6	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	1.1	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	2.0	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	4.4	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	0.27J	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.47	10.00	94.7	70-120
4-BROMOFLUOROBENZENE	10.8	10.00	108	75-120
TOLUENE-D8	10.8	10.00	108	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/29/12 14:25
Sample ID:	10-25-12 EPAS-3DL	Date Analyzed:	10/29/12 14:25
Lab Samp ID:	J181-09T	Dilution Factor:	100
Lab File ID:	RJW529	Matrix	: WATER
Ext Btch ID:	VO06J21	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	100	20
1,1,1-TRICHLOROETHANE	ND	100	20
1,1,2,2-TETRACHLOROETHANE	ND	100	20
1,1,2-TRICHLOROETHANE	ND	100	20
1,1-DICHLOROETHANE	ND	100	20
1,1-DICHLOROETHENE	ND	100	20
1,1-DICHLOROPROPENE	ND	100	20
1,2,3-TRICHLOROBENZENE	ND	100	30
1,2,3-TRICHLOROPROPANE	540	100	50
1,2,4-TRICHLOROBENZENE	ND	100	30
1,2,4-TRIMETHYLBENZENE	ND	100	20
1,2-DIBROMO-3-CHLOROPROPANE	310	100	50
1,2-DIBROMOETHANE	ND	100	20
1,2-DICHLOROBENZENE	ND	100	20
1,2-DICHLOROETHANE	ND	100	20
1,2-DICHLOROPROPANE	4500	100	20
1,3,5-TRIMETHYLBENZENE	ND	100	20
1,3-DICHLOROBENZENE	ND	100	20
1,3-DICHLOROPROPANE	ND	50	20
1,4-DICHLOROBENZENE	ND	100	20
2,2-DICHLOROPROPANE	ND	100	20
2-BUTANONE	ND	1000	400
2-CHLOROTOLUENE	ND	100	20
2-HEXANONE	ND	1000	400
4-CHLOROTOLUENE	ND	100	20
ACETONE	ND	1000	500
BENZENE	ND	100	20
BROMOBENZENE	ND	100	20
BROMOCHLOROMETHANE	ND	100	20
BROMODICHLOROMETHANE	ND	100	20
BROMOFORM	ND	100	30
BROMOMETHANE	ND	100	30
CARBON DISULFIDE	ND	100	20
CARBON TETRACHLORIDE	ND	100	20
CHLOROBENZENE	ND	100	20
CHLOROETHANE	ND	100	30
CHLOROFORM	ND	100	20
CHLOROMETHANE	ND	100	30
CIS-1,2-DICHLOROETHENE	ND	100	20
CIS-1,3-DICHLOROPROPENE	ND	100	20
DIBROMOCHLOROMETHANE	ND	100	20
DIBROMOMETHANE	ND	100	20
DICHLORODIFLUOROMETHANE	ND	100	30
ETHYLBENZENE	ND	100	20
HEXACHLOROBUTADIENE	ND	100	30
ISOPROPYL BENZENE	ND	100	20
M,P-XYLENES	ND	100	40
MIBK	ND	1000	400
METHYLENE CHLORIDE	ND	100	50
MTBE	ND	100	20
NAPHTHALENE	ND	100	50
N-BUTYLBENZENE	ND	100	20
N-PROPYLBENZENE	ND	100	20
O-XYLENE	ND	100	20
P-ISOPROPYLTOLUENE	ND	100	20
SEC-BUTYLBENZENE	ND	100	20
STYRENE	ND	100	20
TERT-BUTYLBENZENE	ND	100	20
TETRACHLOROETHENE	ND	100	20
TOLUENE	ND	100	20
TRANS-1,2-DICHLOROETHENE	ND	100	20
TRANS-1,3-DICHLOROPROPENE	ND	100	20
TRICHLOROETHENE	ND	100	20
TRICHLOROFLUOROMETHANE	ND	100	30
VINYL CHLORIDE	ND	100	20
FREON113	ND	100	30
VINYL ACETATE	ND	200	50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	924	1000	92.4	70-120
4-BROMOFLUOROBENZENE	863	1000	86.3	75-120
TOLUENE-D8	1020	1000	102	85-120
DIBROMOFLUOROMETHANE	1020	1000	102	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/26/12 22:06 # 10/29/12 14:55
Sample ID:	10-25-12 PWA-2	Date Analyzed:	10/26/12 22:06 # 10/29/12 14:55
Lab Samp ID:	J181-10 #J181-10T	Dilution Factor:	1 # 100
Lab File ID:	RJW516 #RJW530	Matrix	: WATER
Ext Btch ID:	VO06J20 #VO06J21	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	1.6	1.0	0.20
1,1-DICHLOROETHANE	0.64J	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	0.85J	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
# 1,2,3-TRICHLOROPROPANE	910	100	50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
# 1,2-DIBROMO-3-CHLOROPROPANE	360	100	50
1,2-DIBROMOETHANE	79	1.0	0.20
1,2-DICHLOROBENZENE	0.85J	1.0	0.20
1,2-DICHLOROETHANE	10	1.0	0.20
# 1,2-DICHLOROPROPANE	6600	100	20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	0.35J	1.0	0.20
1,3-DICHLOROPROPANE	8.9	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	1.2	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	1.7	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	9.7	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	0.35J	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	0.30J	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	0.35J	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.42	10.00	94.2	70-120
4-BROMOFLUOROBENZENE	10.7	10.00	107	75-120
TOLUENE-D8	10.4	10.00	104	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115
# 1,2-DICHLOROETHANE-D4	916	1000	91.6	70-120
# 4-BROMOFLUOROBENZENE	862	1000	86.2	75-120
# TOLUENE-D8	1030	1000	103	85-120
# DIBROMOFLUOROMETHANE	1050	1000	105	85-115

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/26/12 22:06
Sample ID:	10-25-12 PWA-2	Date Analyzed:	10/26/12 22:06
Lab Samp ID:	J181-10	Dilution Factor:	1
Lab File ID:	RJW516	Matrix :	WATER
Ext Btch ID:	V006J20	% Moisture :	NA
Calib. Ref.:	RHW008	Instrument ID :	06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	1.6	1.0	0.20
1,1-DICHLOROETHANE	0.64J	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	0.85J	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	830E	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	350E	1.0	0.50
1,2-DIBROMOETHANE	79	1.0	0.20
1,2-DICHLOROBENZENE	0.85J	1.0	0.20
1,2-DICHLOROETHANE	10	1.0	0.20
1,2-DICHLOROPROPANE	1200E	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	0.35J	1.0	0.20
1,3-DICHLOROPROPANE	8.9	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	1.2	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	1.7	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	9.7	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	0.35J	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	0.30J	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	0.35J	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.42	10.00	94.2	70-120
4-BROMOFLUOROBENZENE	10.7	10.00	107	75-120
TOLUENE-D8	10.4	10.00	104	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/29/12 14:55
Sample ID:	10-25-12 PWA-2DL	Date Analyzed:	10/29/12 14:55
Lab Samp ID:	J181-10T	Dilution Factor:	100
Lab File ID:	RJW530	Matrix	: WATER
Ext Btch ID:	VO06J21	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	100	20
1,1,1-TRICHLOROETHANE	ND	100	20
1,1,2,2-TETRACHLOROETHANE	ND	100	20
1,1,2-TRICHLOROETHANE	ND	100	20
1,1-DICHLOROETHANE	ND	100	20
1,1-DICHLOROETHENE	ND	100	20
1,1-DICHLOROPROPENE	ND	100	20
1,2,3-TRICHLOROBENZENE	ND	100	30
1,2,3-TRICHLOROPROPANE	910	100	50
1,2,4-TRICHLOROBENZENE	ND	100	30
1,2,4-TRIMETHYLBENZENE	ND	100	20
1,2-DIBROMO-3-CHLOROPROPANE	360	100	50
1,2-DIBROMOETHANE	76J	100	20
1,2-DICHLOROBENZENE	ND	100	20
1,2-DICHLOROETHANE	ND	100	20
1,2-DICHLOROPROPANE	6600	100	20
1,3,5-TRIMETHYLBENZENE	ND	100	20
1,3-DICHLOROBENZENE	ND	100	20
1,3-DICHLOROPROPANE	ND	50	20
1,4-DICHLOROBENZENE	ND	100	20
2,2-DICHLOROPROPANE	ND	100	20
2-BUTANONE	ND	1000	400
2-CHLOROTOLUENE	ND	100	20
2-HEXANONE	ND	1000	400
4-CHLOROTOLUENE	ND	100	20
ACETONE	ND	1000	500
BENZENE	ND	100	20
BROMOBENZENE	ND	100	20
BROMOCHLOROMETHANE	ND	100	20
BROMODICHLOROMETHANE	ND	100	20
BROMOFORM	ND	100	30
BROMOMETHANE	ND	100	30
CARBON DISULFIDE	ND	100	20
CARBON TETRACHLORIDE	ND	100	20
CHLOROBENZENE	ND	100	20
CHLOROETHANE	ND	100	30
CHLOROFORM	ND	100	20
CHLOROMETHANE	ND	100	30
CIS-1,2-DICHLOROETHENE	ND	100	20
CIS-1,3-DICHLOROPROPENE	ND	100	20
DIBROMOCHLOROMETHANE	ND	100	20
DIBROMOMETHANE	ND	100	20
DICHLORODIFLUOROMETHANE	ND	100	30
ETHYLBENZENE	ND	100	20
HEXACHLOROBUTADIENE	ND	100	30
ISOPROPYL BENZENE	ND	100	20
M,P-XYLENES	ND	100	40
MIBK	ND	1000	400
METHYLENE CHLORIDE	ND	100	50
MTBE	ND	100	20
NAPHTHALENE	ND	100	50
N-BUTYLBENZENE	ND	100	20
N-PROPYLBENZENE	ND	100	20
O-XYLENE	ND	100	20
P-ISOPROPYLTOLUENE	ND	100	20
SEC-BUTYLBENZENE	ND	100	20
STYRENE	ND	100	20
TERT-BUTYLBENZENE	ND	100	20
TETRACHLOROETHENE	ND	100	20
TOLUENE	ND	100	20
TRANS-1,2-DICHLOROETHENE	ND	100	20
TRANS-1,3-DICHLOROPROPENE	ND	100	20
TRICHLOROETHENE	ND	100	20
TRICHLOROFLUOROMETHANE	ND	100	30
VINYL CHLORIDE	ND	100	20
FREON113	ND	100	30
VINYL ACETATE	ND	200	50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	916	1000	91.6	70-120
4-BROMOFLUOROBENZENE	862	1000	86.2	75-120
TOLUENE-D8	1030	1000	103	85-120
DIBROMOFLUOROMETHANE	1050	1000	105	85-115

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/25/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 10/29/12 15:25
Sample ID: 10-25-12 FDUP-4	Date Analyzed: 10/29/12 15:25
Lab Samp ID: J181-11R	Dilution Factor: 1
Lab File ID: RJW531	Matrix : WATER
Ext Btch ID: V006J21	% Moisture : NA
Calib. Ref.: RHW008	Instrument ID : 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	3.7	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	0.96J	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	30	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	3.0	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.81	10.00	98.1	70-120
4-BROMOFLUOROBENZENE	8.33	10.00	83.3	75-120
TOLUENE-D8	10.2	10.00	102	85-120
DIBROMOFLUOROMETHANE	10.7	10.00	107	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/29/12 13:49
Sample ID:	10-25-12 TB-3	Date Analyzed:	10/29/12 13:49
Lab Samp ID:	J181-12R	Dilution Factor:	1
Lab File ID:	RJW528	Matrix	: WATER
Ext Btch ID:	V006J21	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.70	10.00	87.0	70-120
4-BROMOFLUOROBENZENE	8.94	10.00	89.4	75-120
TOLUENE-D8	10.7	10.00	107	85-120
DIBROMOFLUOROMETHANE	10.1	10.00	101	85-115

QC SUMMARIES

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	NA
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/26/12
Batch No.	: 12J181	Date Extracted:	10/26/12 15:31
Sample ID:	MBLK1W	Date Analyzed:	10/26/12 15:31
Lab Samp ID:	V006J20B	Dilution Factor:	1
Lab File ID:	RJW503	Matrix	: WATER
Ext Btch ID:	V006J20	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.85	10.00	88.5	70-120
4-BROMOFLUOROBENZENE	8.44	10.00	84.4	75-120
TOLUENE-D8	10.5	10.00	105	85-120
DIBROMOFLUOROMETHANE	10.2	10.00	102	85-115

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J181
METHOD: METHOD 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V006J20B	V006J20L	V006J20C		
LAB FILE ID:	RJW503	RJW500	RJW501		
DATE EXTRACTED:	10/26/1215:31	10/26/1214:01	10/26/1214:31	DATE COLLECTED:	NA
DATE ANALYZED:	10/26/1215:31	10/26/1214:01	10/26/1214:31	DATE RECEIVED:	10/26/12
PREP. BATCH:	V006J20	V006J20	V006J20		
CALIB. REF:	RHW008	RHW008	RHW008		

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	10.0	10.7	107	10.0	10.1	101	6	80-130	30
1,1,1-Trichloroethane	ND	10.0	9.57	96	10.0	9.01	90	6	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	9.44	94	10.0	9.26	93	2	65-130	30
1,1,2-Trichloroethane	ND	10.0	10.3	103	10.0	10.1	101	1	75-125	30
1,1-Dichloroethane	ND	10.0	10.3	103	10.0	9.99	100	3	70-135	30
1,1-Dichloroethene	ND	10.0	10.4	104	10.0	9.69	97	7	70-130	30
1,1-Dichloropropene	ND	10.0	11.2	112	10.0	11.0	110	2	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	9.13	91	10.0	9.05	90	1	55-140	30
1,2,3-Trichloropropane	ND	10.0	9.20	92	10.0	8.68	87	6	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	10.3	103	10.0	9.86	99	5	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	10.1	101	10.0	9.50	95	6	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	9.21	92	10.0	8.96	90	3	50-130	30
1,2-Dibromoethane	ND	10.0	10.2	102	10.0	9.85	99	3	80-120	30
1,2-Dichlorobenzene	ND	10.0	10.8	108	10.0	10.5	105	3	70-120	30
1,2-Dichloroethane	ND	10.0	8.73	87	10.0	8.30	83	5	70-130	30
1,2-Dichloropropane	ND	10.0	10.4	104	10.0	10.3	103	1	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	10.3	103	10.0	9.59	96	7	75-130	30
1,3-Dichlorobenzene	ND	10.0	11.4	114	10.0	10.8	108	5	75-125	30
1,3-Dichloropropane	ND	10.0	9.58	96	10.0	9.12	91	5	75-125	30
1,4-Dichlorobenzene	ND	10.0	11.0	110	10.0	10.7	107	3	75-125	30
2,2-Dichloropropane	ND	10.0	10.4	104	10.0	10.3	103	1	70-135	30
2-Butanone	ND	50.0	41.0	82	50.0	43.9	88	7	30-150	30
2-Chlorotoluene	ND	10.0	10.2	102	10.0	8.92	89	13	75-125	30
2-Hexanone	ND	50.0	43.8	88	50.0	46.4	93	6	55-130	30
4-Chlorotoluene	ND	10.0	9.55	96	10.0	9.64	96	1	75-130	30
Acetone	ND	50.0	43.0	86	50.0	45.4	91	5	40-140	30
Benzene	ND	10.0	10.6	106	10.0	10.1	101	5	80-120	30
Bromobenzene	ND	10.0	11.3	113	10.0	10.6	106	6	75-125	30
Bromochloromethane	ND	10.0	10.0	100	10.0	9.61	96	4	65-130	30
Bromodichloromethane	ND	10.0	9.68	97	10.0	9.17	92	5	75-120	30
Bromoform	ND	10.0	9.15	92	10.0	9.10	91	1	70-130	30
Bromomethane	ND	10.0	10.6	106	10.0	10.6	106	0	30-145	30
Carbon Disulfide	ND	10.0	11.7	117	10.0	11.8	118	1	35-160	30
Carbon Tetrachloride	ND	10.0	9.17	92	10.0	8.92	89	3	65-140	30
Chlorobenzene	ND	10.0	11.1	111	10.0	10.5	105	5	80-120	30
Chloroethane	ND	10.0	10.9	109	10.0	10.6	106	3	60-135	30
Chloroform	ND	10.0	9.59	96	10.0	9.19	92	4	65-135	30
Chloromethane	ND	10.0	10.6	106	10.0	10.6	106	0	40-125	30
cis-1,2-Dichloroethene	ND	10.0	11.0	110	10.0	10.6	106	3	70-125	30
cis-1,3-Dichloropropene	ND	10.0	10.3	103	10.0	9.94	99	3	70-130	30
Dibromochloromethane	ND	10.0	9.88	99	10.0	9.64	96	2	60-135	30
Dibromomethane	ND	10.0	9.40	94	10.0	9.34	93	1	75-125	30
Dichlorodifluoromethane	ND	10.0	9.85	99	10.0	9.93	99	1	30-155	30
Ethylbenzene	ND	10.0	10.6	106	10.0	10.2	102	5	75-125	30
Hexachlorobutadiene	ND	10.0	10.4	104	10.0	10.2	102	1	50-140	30
Isopropyl Benzene	ND	10.0	10.3	103	10.0	9.55	95	8	75-125	30
m,p-Xylenes	ND	20.0	20.0	100	20.0	18.9	95	6	75-130	30
MIBK	ND	50.0	43.5	87	50.0	46.4	93	6	60-135	30
Methylene Chloride	ND	10.0	11.8	118	10.0	11.3	113	4	55-140	30
MTBE	ND	10.0	9.30	93	10.0	9.23	92	1	65-125	30
Naphthalene	ND	10.0	8.98	90	10.0	9.01	90	0	55-140	30
n-Butylbenzene	ND	10.0	10.6	106	10.0	9.75	98	8	70-135	30
n-Propylbenzene	ND	10.0	10.6	106	10.0	9.88	99	7	70-130	30
o-Xylene	ND	10.0	10.2	102	10.0	9.70	97	5	80-120	30
p-Isopropyltoluene	ND	10.0	10.7	107	10.0	9.95	100	8	75-130	30
Sec-Butylbenzene	ND	10.0	10.7	107	10.0	9.90	99	8	70-125	30
Styrene	ND	10.0	11.1	111	10.0	10.3	103	7	65-135	30
Tert-Butylbenzene	ND	10.0	11.1	111	10.0	10.7	107	4	70-130	30
Tetrachloroethene	ND	10.0	11.8	118	10.0	11.3	113	4	45-150	30
Toluene	ND	10.0	10.8	108	10.0	10.3	103	4	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	10.3	103	10.0	9.78	98	5	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	9.60	96	10.0	9.31	93	3	55-140	30
Trichloroethene	ND	10.0	11.0	110	10.0	10.6	106	4	70-125	30
Trichlorofluoromethane	ND	10.0	8.38	84	10.0	8.41	84	0	60-145	30
Vinyl Chloride	ND	10.0	11.4	114	10.0	11.0	110	3	50-145	30
Freon113	ND	10.0	10.5	105	10.0	9.98	100	5	65-135	30
Vinyl Acetate	ND	10.0	9.10	91	10.0	9.37	94	3	65-135	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	10.0	8.30	83	10.0	8.36	84	70-120
4-Bromofluorobenzene	10.0	9.28	93	10.0	9.18	92	75-120
Toluene-d8	10.0	10.6	106	10.0	10.3	103	85-120
Dibromofluoromethane	10.0	9.88	99	10.0	9.88	99	85-115

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

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/29/12
Batch No. : 12J181	Date Extracted: 10/29/12 13:19
Sample ID: MBLK2W	Date Analyzed: 10/29/12 13:19
Lab Samp ID: V006J21B	Dilution Factor: 1
Lab File ID: RJW527	Matrix : WATER
Ext Btch ID: V006J21	% Moisture : NA
Calib. Ref.: RHW008	Instrument ID : 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.67	10.00	86.7	70-120
4-BROMOFLUOROBENZENE	8.64	10.00	86.4	75-120
TOLUENE-D8	10.7	10.00	107	85-120
DIBROMOFLUOROMETHANE	10.0	10.00	100	85-115

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J181
METHOD: METHOD 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	V006J21B	V006J21L	V006J21C		
LAB FILE ID:	RJW527	RJW524	RJW525		
DATE EXTRACTED:	10/29/1213:19	10/29/1211:49	10/29/1212:19	DATE COLLECTED:	NA
DATE ANALYZED:	10/29/1213:19	10/29/1211:49	10/29/1212:19	DATE RECEIVED:	10/29/12
PREP. BATCH:	V006J21	V006J21	V006J21		
CALIB. REF:	RHW008	RHW008	RHW008		

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	10.0	10.4	104	10.0	10.4	104	0	80-130	30
1,1,1-Trichloroethane	ND	10.0	9.71	97	10.0	9.40	94	3	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	9.51	95	10.0	9.34	93	2	65-130	30
1,1,2-Trichloroethane	ND	10.0	10.2	102	10.0	10.1	101	2	75-125	30
1,1-Dichloroethane	ND	10.0	10.3	103	10.0	10.2	102	1	70-135	30
1,1-Dichloroethene	ND	10.0	10.3	103	10.0	9.92	99	3	70-130	30
1,1-Dichloropropene	ND	10.0	11.1	111	10.0	10.9	109	1	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	8.76	88	10.0	8.61	86	2	55-140	30
1,2,3-Trichloropropane	ND	10.0	8.98	90	10.0	8.50	85	6	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	9.92	99	10.0	9.67	97	3	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	9.82	98	10.0	9.67	97	2	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	9.01	90	10.0	8.99	90	0	50-130	30
1,2-Dibromoethane	ND	10.0	10.3	103	10.0	9.80	98	5	80-120	30
1,2-Dichlorobenzene	ND	10.0	10.5	105	10.0	10.5	105	0	70-120	30
1,2-Dichloroethane	ND	10.0	8.72	87	10.0	8.53	85	2	70-130	30
1,2-Dichloropropane	ND	10.0	10.4	104	10.0	10.4	104	0	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	9.78	98	10.0	9.68	97	1	75-130	30
1,3-Dichlorobenzene	ND	10.0	10.9	109	10.0	10.7	107	2	75-125	30
1,3-Dichloropropane	ND	10.0	9.71	97	10.0	9.43	94	3	75-125	30
1,4-Dichlorobenzene	ND	10.0	10.9	109	10.0	10.6	106	3	75-125	30
2,2-Dichloropropane	ND	10.0	11.1	111	10.0	10.9	109	2	70-135	30
2-Butanone	ND	50.0	45.8	92	50.0	44.1	88	4	30-150	30
2-Chlorotoluene	ND	10.0	9.62	96	10.0	9.33	93	3	75-125	30
2-Hexanone	ND	50.0	46.9	94	50.0	45.0	90	4	55-130	30
4-Chlorotoluene	ND	10.0	9.24	92	10.0	9.29	93	0	75-130	30
Acetone	ND	50.0	48.3	97	50.0	45.5	91	6	40-140	30
Benzene	ND	10.0	10.1	101	10.0	10.2	102	1	80-120	30
Bromobenzene	ND	10.0	10.8	108	10.0	10.8	108	0	75-125	30
Bromochloromethane	ND	10.0	10.5	105	10.0	10.1	101	4	65-130	30
Bromodichloromethane	ND	10.0	9.79	98	10.0	9.49	95	3	75-120	30
Bromoform	ND	10.0	9.63	96	10.0	9.16	92	5	70-130	30
Bromomethane	ND	10.0	10.7	107	10.0	10.9	109	1	30-145	30
Carbon Disulfide	ND	10.0	11.5	115	10.0	11.6	116	1	35-160	30
Carbon Tetrachloride	ND	10.0	9.12	91	10.0	9.21	92	1	65-140	30
Chlorobenzene	ND	10.0	10.9	109	10.0	10.6	106	3	80-120	30
Chloroethane	ND	10.0	10.7	107	10.0	11.0	110	3	60-135	30
Chloroform	ND	10.0	9.97	100	10.0	9.54	95	4	65-135	30
Chloromethane	ND	10.0	10.4	104	10.0	10.7	107	3	40-125	30
cis-1,2-Dichloroethene	ND	10.0	11.1	111	10.0	10.8	108	3	70-125	30
cis-1,3-Dichloropropene	ND	10.0	10.5	105	10.0	10.0	100	5	70-130	30
Dibromochloromethane	ND	10.0	10.2	102	10.0	9.99	100	2	60-135	30
Dibromomethane	ND	10.0	9.93	99	10.0	9.48	95	5	75-125	30
Dichlorodifluoromethane	ND	10.0	10.1	101	10.0	10.4	104	3	30-155	30
Ethylbenzene	ND	10.0	10.1	101	10.0	9.93	99	2	75-125	30
Hexachlorobutadiene	ND	10.0	10.1	101	10.0	9.92	99	1	50-140	30
Isopropyl Benzene	ND	10.0	9.92	99	10.0	9.77	98	1	75-125	30
m,p-Xylenes	ND	20.0	19.6	98	20.0	19.3	97	2	75-130	30
MIBK	ND	50.0	44.5	89	50.0	45.1	90	1	60-135	30
Methylene Chloride	ND	10.0	11.6	116	10.0	11.5	115	0	55-140	30
MTBE	ND	10.0	9.85	98	10.0	9.31	93	6	65-125	30
Naphthalene	ND	10.0	8.84	88	10.0	8.64	86	2	55-140	30
n-Butylbenzene	ND	10.0	10.1	101	10.0	9.90	99	2	70-135	30
n-Propylbenzene	ND	10.0	10.2	102	10.0	9.95	100	2	70-130	30
o-Xylene	ND	10.0	9.98	100	10.0	10.0	100	0	80-120	30
p-Isopropyltoluene	ND	10.0	10.2	102	10.0	10.1	101	1	75-130	30
Sec-Butylbenzene	ND	10.0	10.2	102	10.0	10.1	101	0	70-125	30
Styrene	ND	10.0	10.9	109	10.0	10.7	107	3	65-135	30
Tert-Butylbenzene	ND	10.0	11.1	111	10.0	10.9	109	2	70-130	30
Tetrachloroethene	ND	10.0	11.5	115	10.0	11.4	114	1	45-150	30
Toluene	ND	10.0	10.3	103	10.0	10.1	101	2	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	10.4	104	10.0	10.2	102	1	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	9.80	98	10.0	9.30	93	5	55-140	30
Trichloroethene	ND	10.0	11.0	110	10.0	10.6	106	4	70-125	30
Trichlorofluoromethane	ND	10.0	8.74	87	10.0	9.01	90	3	60-145	30
Vinyl Chloride	ND	10.0	10.6	106	10.0	11.3	113	6	50-145	30
Freon113	ND	10.0	10.7	107	10.0	10.4	104	3	65-135	30
Vinyl Acetate	ND	10.0	9.76	98	10.0	9.53	95	2	65-135	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	10.0	8.97	90	10.0	8.75	88	70-120
4-Bromofluorobenzene	10.0	9.14	91	10.0	9.52	95	75-120
Toluene-d8	10.0	10.5	105	10.0	10.3	103	85-120
Dibromofluoromethane	10.0	10.3	103	10.0	10.2	102	85-115

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J181
METHOD: METHOD 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	10-25-12 WA-1				
LAB SAMP ID:	J181-04	J181-04M	J181-04S		
LAB FILE ID:	RJW507	RJW508	RJW509		
DATE EXTRACTED:	10/26/1217:35	10/26/1218:05	10/26/1218:35	DATE COLLECTED:	10/25/12
DATE ANALYZED:	10/26/1217:35	10/26/1218:05	10/26/1218:35	DATE RECEIVED:	10/25/12
PREP. BATCH:	VO06J20	VO06J20	VO06J20		
CALIB. REF:	RHW008	RHW008	RHW008		

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	10.0	10.5	105	10.0	10.1	101	4	80-130	30
1,1,1-Trichloroethane	ND	10.0	9.90	99	10.0	8.96	90	10	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	9.27	93	10.0	9.23	92	0	65-130	30
1,1,2-Trichloroethane	ND	10.0	10.2	102	10.0	9.66	97	5	75-125	30
1,1-Dichloroethane	ND	10.0	10.3	103	10.0	9.85	99	5	70-135	30
1,1-Dichloroethene	ND	10.0	10.5	105	10.0	9.80	98	7	70-130	30
1,1-Dichloropropene	ND	10.0	10.9	109	10.0	10.7	107	2	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	8.93	89	10.0	8.63	86	3	55-140	30
1,2,3-Trichloropropane	0.892J	10.0	9.83	89	10.0	9.68	88	2	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	10.0	100	10.0	9.56	96	5	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	9.46	95	10.0	9.27	93	2	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	8.85	88	10.0	9.06	91	2	50-130	30
1,2-Dibromoethane	ND	10.0	10.2	102	10.0	9.80	98	4	80-120	30
1,2-Dichlorobenzene	ND	10.0	10.6	106	10.0	10.0	100	6	70-120	30
1,2-Dichloroethane	ND	10.0	8.83	88	10.0	8.50	85	4	70-130	30
1,2-Dichloropropane	0.213J	10.0	10.7	105	10.0	10.3	101	4	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	9.50	95	10.0	9.15	91	4	75-130	30
1,3-Dichlorobenzene	ND	10.0	10.7	107	10.0	10.4	104	3	75-125	30
1,3-Dichloropropane	ND	10.0	9.75	97	10.0	9.28	93	5	75-125	30
1,4-Dichlorobenzene	ND	10.0	10.6	106	10.0	10.6	106	0	75-125	30
2,2-Dichloropropane	ND	10.0	11.1	111	10.0	9.84	98	12	70-135	30
2-Butanone	ND	50.0	44.6	89	50.0	40.2	80	11	30-150	30
2-Chlorotoluene	ND	10.0	9.64	96	10.0	9.00	90	7	75-125	30
2-Hexanone	ND	50.0	46.6	93	50.0	45.2	90	3	55-130	30
4-Chlorotoluene	ND	10.0	8.86	89	10.0	8.87	89	0	75-130	30
Acetone	ND	50.0	45.8	92	50.0	44.0	88	4	40-140	30
Benzene	ND	10.0	10.1	101	10.0	9.96	100	2	80-120	30
Bromobenzene	ND	10.0	10.7	107	10.0	10.4	104	3	75-125	30
Bromochloromethane	ND	10.0	10.3	103	10.0	9.74	97	6	65-130	30
Bromodichloromethane	ND	10.0	9.59	96	10.0	9.17	92	4	75-120	30
Bromoform	ND	10.0	8.76	88	10.0	8.64	86	1	70-130	30
Bromomethane	ND	10.0	10.4	104	10.0	10.4	104	0	30-145	30
Carbon Disulfide	ND	10.0	11.6	116	10.0	11.4	114	2	35-160	30
Carbon Tetrachloride	ND	10.0	9.23	92	10.0	8.83	88	4	65-140	30
Chlorobenzene	ND	10.0	10.8	108	10.0	10.2	102	6	80-120	30
Chloroethane	ND	10.0	10.9	109	10.0	10.5	105	3	60-135	30
Chloroform	3.66	10.0	13.9	102	10.0	12.8	91	8	65-135	30
Chloromethane	ND	10.0	9.98	100	10.0	9.98	100	0	40-125	30
cis-1,2-Dichloroethene	ND	10.0	11.1	111	10.0	10.3	103	7	70-125	30
cis-1,3-Dichloropropene	ND	10.0	10.2	102	10.0	9.67	97	6	70-130	30
Dibromochloromethane	ND	10.0	10.1	101	10.0	9.63	96	4	60-135	30
Dibromomethane	ND	10.0	9.69	97	10.0	9.28	93	4	75-125	30
Dichlorodifluoromethane	ND	10.0	10.0	100	10.0	9.51	95	5	30-155	30
Ethylbenzene	ND	10.0	10.3	103	10.0	9.98	100	3	75-125	30
Hexachlorobutadiene	ND	10.0	10.0	100	10.0	9.60	96	5	50-140	30
Isopropyl Benzene	ND	10.0	9.65	96	10.0	9.40	94	3	75-125	30
m,p-Xylenes	ND	20.0	19.8	99	20.0	18.9	95	5	75-130	30
MIBK	ND	50.0	41.7	83	50.0	41.0	82	2	60-135	30
Methylene Chloride	ND	10.0	11.3	113	10.0	10.7	107	5	55-140	30
MTBE	0.627J	10.0	10.4	98	10.0	9.85	92	6	65-125	30
Naphthalene	ND	10.0	8.79	88	10.0	8.72	87	1	55-140	30
n-Butylbenzene	ND	10.0	9.76	98	10.0	9.79	98	0	70-135	30
n-Propylbenzene	ND	10.0	9.77	98	10.0	9.60	96	2	70-130	30
o-Xylene	ND	10.0	10.3	103	10.0	10.0	100	2	80-120	30
p-Isopropyltoluene	ND	10.0	10.2	102	10.0	9.90	99	3	75-130	30
Sec-Butylbenzene	ND	10.0	9.98	100	10.0	9.83	98	2	70-125	30
Styrene	ND	10.0	8.37	84	10.0	7.00	70	18	65-135	30
Tert-Butylbenzene	ND	10.0	10.5	105	10.0	10.4	104	1	70-130	30
Tetrachloroethene	ND	10.0	11.4	114	10.0	10.9	109	5	45-150	30
Toluene	ND	10.0	10.0	100	10.0	9.92	99	1	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	10.7	107	10.0	9.77	98	9	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	9.45	95	10.0	9.10	91	4	55-140	30
Trichloroethene	ND	10.0	10.7	107	10.0	10.2	102	5	70-125	30
Trichlorofluoromethane	ND	10.0	8.89	89	10.0	8.54	85	4	60-145	30
Vinyl Chloride	ND	10.0	10.7	107	10.0	10.4	104	3	50-145	30
Freon113	ND	10.0	10.7	107	10.0	9.95	99	7	65-135	30
Vinyl Acetate	ND	10.0	8.53	85	10.0	7.93	79	7	65-135	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	10.0	9.17	92	10.0	9.00	90	70-120
4-Bromofluorobenzene	10.0	8.89	89	10.0	9.14	91	75-120
Toluene-d8	10.0	10.4	104	10.0	10.5	105	85-120
Dibromofluoromethane	10.0	10.3	103	10.0	10.2	102	85-115

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW503.D Vial: 7
Acq On : 26 Oct 2012 3:31 pm Operator: WL
Sample : VO06J20B 25mL Inst : TO06
Misc : BLANK Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:00 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.14	114	1889528	10.00	ug/l	-0.01
39) CHLOROBENZENE-D5	14.06	117	1643249	10.00	ug/l	-0.01
72) 1,2-DICHLOROBENZENE-D4	18.32	152	612416	10.00	ug/l	-0.01
System Monitoring Compounds						
34) Dibromofluoromethane	7.65	111	584640	10.25	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	102.50%	
38) 1,2-Dichloroethane-d4	8.48	65	421740	8.85	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	88.50%	
54) Toluene-d8	11.60	98	2200926	10.50	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	105.00%	
76) 4-Bromofluorobenzene	16.03	95	643267	8.44	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	84.40%	

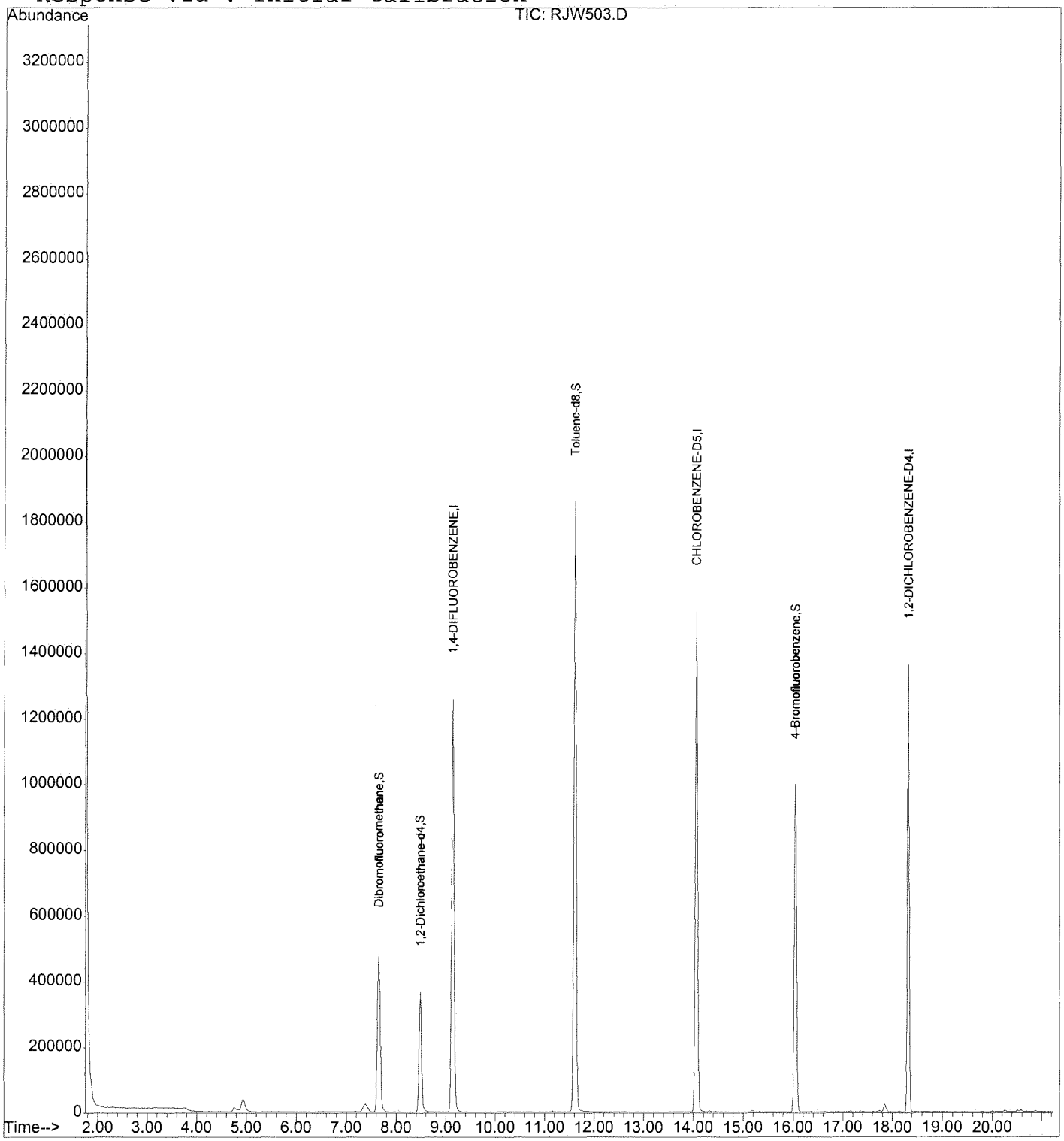
Target Compounds Qvalue

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJW503.D Vial: 7
Acq On : 26 Oct 2012 3:31 pm Operator: WL
Sample : VO06J20B 25mL Inst : TO06
Misc : BLANK Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:00 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW500.D Vial: 4
Acq On : 26 Oct 2012 2:01 pm Operator: WL
Sample : VO06J20L Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:00 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.14	114	1645718	10.00	ug/l	-0.01
39) CHLOROBENZENE-D5	14.06	117	1412954	10.00	ug/l	-0.01
72) 1,2-DICHLOROBENZENE-D4	18.32	152	489911	10.00	ug/l	-0.01
System Monitoring Compounds						
34) Dibromofluoromethane	7.63	111	490806	9.88	ug/l	-0.03
Spiked Amount 10.000			Recovery	=	98.80%	
38) 1,2-Dichloroethane-d4	8.48	65	344482	8.30	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	83.00%	
54) Toluene-d8	11.60	98	1908277	10.58	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	105.80%	
76) 4-Bromofluorobenzene	16.03	95	565778	9.28	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	92.80%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.88	85	418059	9.85	ug/l	100
3) Chloromethane	2.13	50	539752	10.58	ug/l	98
4) Vinyl chloride	2.28	62	435590	11.37	ug/l	99
5) Bromomethane	2.80	94	325320	10.60	ug/l	99
6) Chloroethane	2.92	64	285921	10.92	ug/l	97
7) Dichlorofluoromethane	2.95	67	966558	10.70	ug/l	99
8) Trichlorofluoromethane	3.22	101	490179	8.38	ug/l	100
9) Acrolein	3.75	56	116568	57.65	ug/l	97
10) 1,1,2-Trichloro-1,2,2-trif	3.84	151	289213	10.45	ug/l	97
11) Acetone	3.84	43	241208	43.03	ug/l	96
12) 1,1-Dichloroethene	4.04	61	894922	10.36	ug/l	94
13) tert-Butyl alcohol	4.14	59	77554	48.76	ug/l	90
16) Iodomethane	4.47	142	891791	12.03	ug/l	87
17) Methylene chloride	4.75	49	696903	11.79	ug/l	86
18) Carbon disulfide	4.77	76	2067452	11.71	ug/l	100
19) Acrylonitrile	4.96	53	337782	47.96	ug/l	99
20) tert-Butyl methyl ether (M	5.00	73	719423	9.30	ug/l	97
21) trans-1,2-Dichloroethene	5.23	61	942231	10.29	ug/l	92
22) Isopropyl ether (DIPE)	5.79	45	1867201	10.48	ug/l	98
23) Vinyl acetate	5.98	43	562733	9.10	ug/l	99
24) 1,1-Dichloroethane	5.95	63	1075606	10.27	ug/l	99
26) tert-Butyl ethyl ether (ET	6.50	59	1243658	9.55	ug/l	98
27) 2-Butanone	6.70	43	426698	41.02	ug/l	96
28) 2,2-Dichloropropane	6.92	77	544849	10.38	ug/l	98
29) cis-1,2-Dichloroethene	7.01	96	658681	10.95	ug/l	91
30) Chloroform	7.28	83	912668	9.59	ug/l	100
32) Bromochloromethane	7.55	49	420959	10.05	ug/l	95

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW500.D Vial: 4
Acq On : 26 Oct 2012 2:01 pm Operator: WL
Sample : VO06J20L Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:00 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33)	Tetrahydrofuran	7.61	42	56536	8.27 ug/l	99
35)	1,1,1-Trichloroethane	7.95	97	741224	9.57 ug/l	91
37)	tert-Amyl methyl ether (TA	8.42	87	192841	9.51 ug/l	95
41)	1,1-Dichloropropene	8.21	110	307528	11.19 ug/l	99
42)	Carbon tetrachloride	8.36	119	655325	9.17 ug/l	100
43)	1,2-Dichloroethane	8.63	62	452744	8.73 ug/l	100
44)	Benzene	8.65	78	2266607	10.61 ug/l	99
45)	Trichloroethene	9.66	130	673201	11.04 ug/l	94
47)	1,2-Dichloropropane	9.95	63	564340	10.41 ug/l	92
48)	1,4-Dioxane	10.37	88	31391	186.95 ug/l	100
49)	Bromodichloromethane	10.33	83	637350	9.68 ug/l	99
50)	Dibromomethane	10.41	93	221167	9.40 ug/l	89
51)	2-Chloroethyl vinyl ether	10.86	63	150083	8.58 ug/l	99
52)	4-Methyl-2-pentanone	10.89	43	1216114	43.53 ug/l	99
53)	cis-1,3-Dichloropropene	11.22	75	781759	10.27 ug/l	97
55)	Toluene	11.74	91	2387047	10.79 ug/l	99
56)	Ethyl methacrylate	12.04	69	346820	9.56 ug/l	98
57)	trans-1,3-Dichloropropene	12.04	75	535479	9.60 ug/l	95
58)	1,1,2-Trichloroethane	12.29	97	284953	10.25 ug/l	98
59)	2-Hexanone	12.30	43	728929	43.84 ug/l	98
60)	1,3-Dichloropropane	12.70	76	554031	9.58 ug/l	99
61)	Tetrachloroethene	12.79	164	567073	11.79 ug/l	96
62)	Dibromochloromethane	13.12	129	370209	9.88 ug/l	99
64)	1,2-Dibromoethane	13.45	107	295001	10.20 ug/l	98
65)	1-Chlorohexane	13.72	91	986822	10.58 ug/l	95
66)	Chlorobenzene	14.12	112	1472194	11.09 ug/l	94
67)	1,1,1,2-Tetrachloroethane	14.19	131	450924	10.73 ug/l	97
68)	Ethylbenzene	14.21	91	2643822	10.64 ug/l	96
69)	m-Xylene & p-Xylene	14.33	91	3822026	20.03 ug/l	94
70)	o-Xylene	15.04	91	1951566	10.22 ug/l	95
71)	Styrene	15.10	104	1459748	11.05 ug/l	94
73)	Isopropylbenzene	15.62	105	2362886	10.30 ug/l	96
74)	Bromoform	15.66	173	173203	9.15 ug/l	99
75)	1,1,2,2-Tetrachloroethane	15.92	83	289228	9.44 ug/l	100
77)	1,2,3-Trichloropropane	16.15	110	75507	9.20 ug/l	99
78)	trans-1,4-Dichloro-2-buten	16.26	53	81236	8.82 ug/l	98
79)	n-Propylbenzene	16.27	91	3261337	10.64 ug/l	96
80)	Bromobenzene	16.36	156	541297	11.33 ug/l	88
81)	1,3,5-Trimethylbenzene	16.54	105	1892417	10.27 ug/l	93
82)	2-Chlorotoluene	16.57	91	1948013	10.20 ug/l	94
83)	4-Chlorotoluene	16.64	91	1480223	9.55 ug/l	93

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW500.D Vial: 4
Acq On : 26 Oct 2012 2:01 pm Operator: WL
Sample : VO06J20L Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:00 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

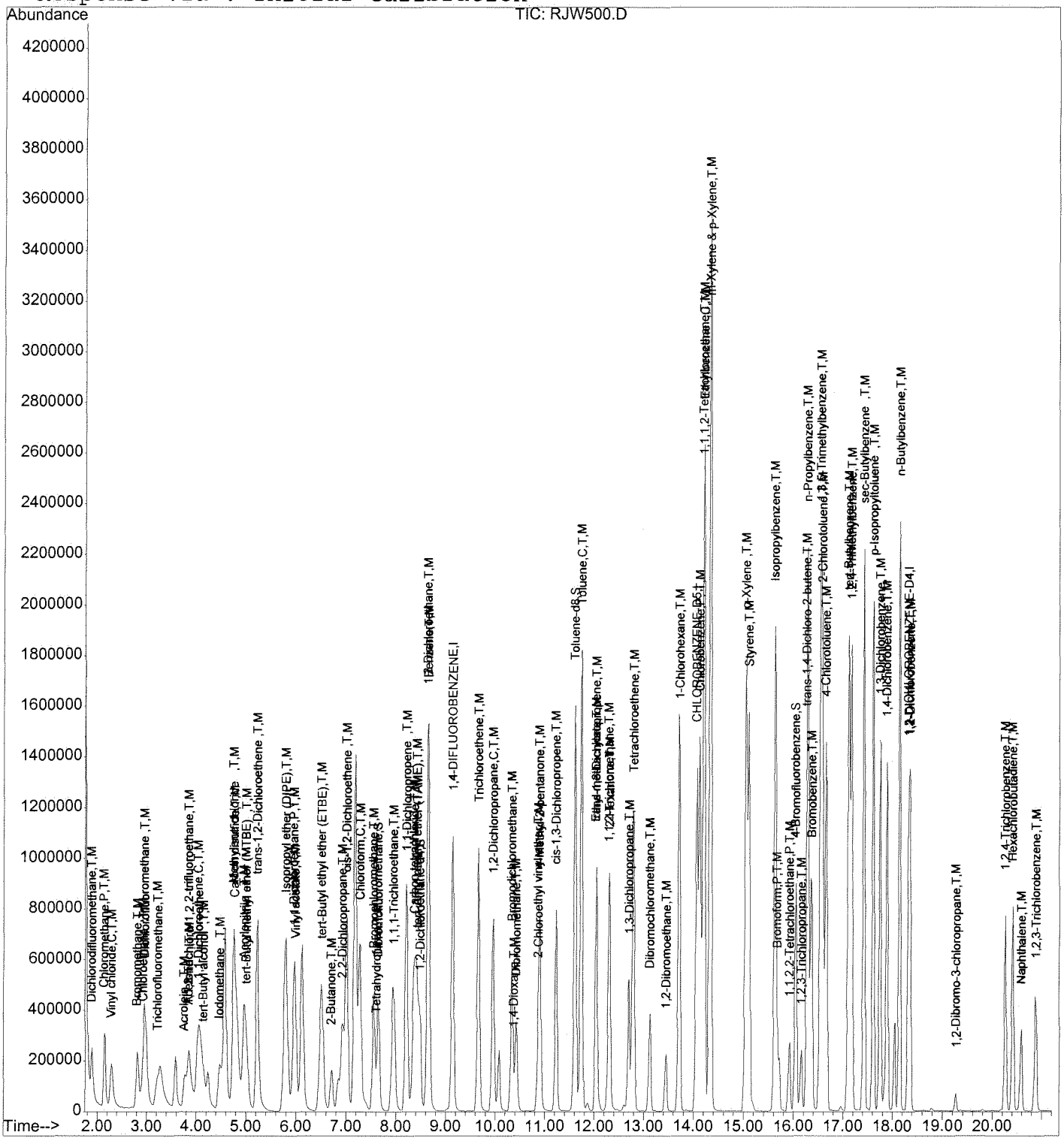
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
84)	tert-Butylbenzene	17.11	134	470153	11.12 ug/l	#	83
85)	1,2,4-Trimethylbenzene	17.16	105	1782897	10.07 ug/l		92
86)	sec-Butylbenzene	17.42	105	2729923	10.74 ug/l		97
87)	p-Isopropyltoluene	17.61	119	2089702	10.75 ug/l		95
88)	1,3-Dichlorobenzene	17.74	146	1072774	11.35 ug/l		97
89)	1,4-Dichlorobenzene	17.88	146	995086	11.04 ug/l		97
91)	n-Butylbenzene	18.15	91	2085604	10.56 ug/l		98
92)	1,2-Dichlorobenzene	18.35	146	780565	10.78 ug/l		97
93)	1,2-Dibromo-3-chloropropan	19.26	157	32715	9.21 ug/l		91
94)	1,2,4-Trichlorobenzene	20.26	180	469824	10.34 ug/l		98
95)	Hexachlorobutadiene	20.41	225	333392	10.38 ug/l		99
96)	Naphthalene	20.58	128	494974	8.98 ug/l		100
97)	1,2,3-Trichlorobenzene	20.88	180	310517	9.13 ug/l		99

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJW500.D Vial: 4
Acq On : 26 Oct 2012 2:01 pm Operator: WL
Sample : VO06J20L Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:00 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW501.D Vial: 5
Acq On : 26 Oct 2012 2:31 pm Operator: WL
Sample : VO06J20C Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:01 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.14	114	1733010	10.00 ug/l	0.00
39) CHLOROBENZENE-D5	14.06	117	1482056	10.00 ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.33	152	527567	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	7.64	111	517041	9.88 ug/l	-0.02
Spiked Amount 10.000			Recovery =	98.80%	
38) 1,2-Dichloroethane-d4	8.47	65	365441	8.36 ug/l	-0.02
Spiked Amount 10.000			Recovery =	83.60%	
54) Toluene-d8	11.61	98	1941227	10.27 ug/l	0.00
Spiked Amount 10.000			Recovery =	102.70%	
76) 4-Bromofluorobenzene	16.04	95	603035	9.18 ug/l	0.00
Spiked Amount 10.000			Recovery =	91.80%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.89	85	443980	9.93 ug/l	99
3) Chloromethane	2.14	50	571209	10.63 ug/l	99
4) Vinyl chloride	2.29	62	444535	11.02 ug/l	99
5) Bromomethane	2.81	94	343168	10.62 ug/l	97
6) Chloroethane	2.93	64	291875	10.58 ug/l	97
7) Dichlorofluoromethane	2.96	67	963951	10.13 ug/l	99
8) Trichlorofluoromethane	3.24	101	518140	8.41 ug/l	99
9) Acrolein	3.76	56	121677	57.15 ug/l	98
10) 1,1,2-Trichloro-1,2,2-trif	3.86	151	290944	9.98 ug/l	96
11) Acetone	3.85	43	267789	45.37 ug/l	93
12) 1,1-Dichloroethene	4.06	61	881614	9.69 ug/l	94
13) tert-Butyl alcohol	4.15	59	84354	50.36 ug/l	97
16) Iodomethane	4.52	142	865161	11.08 ug/l	87
17) Methylene chloride	4.76	49	704689	11.30 ug/l	85
18) Carbon disulfide	4.77	76	2193624	11.79 ug/l	100
19) Acrylonitrile	4.96	53	380743	51.34 ug/l	96
20) tert-Butyl methyl ether (M	5.01	73	752401	9.23 ug/l	97
21) trans-1,2-Dichloroethene	5.22	61	942984	9.78 ug/l	92
22) Isopropyl ether (DIPE)	5.78	45	1866460	9.95 ug/l	99
23) Vinyl acetate	5.99	43	610682	9.37 ug/l	99
24) 1,1-Dichloroethane	5.96	63	1102183	9.99 ug/l	99
26) tert-Butyl ethyl ether (ET	6.51	59	1261560	9.20 ug/l	100
27) 2-Butanone	6.70	43	480547	43.86 ug/l	97
28) 2,2-Dichloropropane	6.93	77	570294	10.31 ug/l	98
29) cis-1,2-Dichloroethene	7.01	96	673031	10.63 ug/l	89
30) Chloroform	7.27	83	921232	9.19 ug/l	99
32) Bromochloromethane	7.55	49	423832	9.61 ug/l	94

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW501.D Vial: 5
Acq On : 26 Oct 2012 2:31 pm Operator: WL
Sample : VO06J20C Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:01 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33)	Tetrahydrofuran	7.61	42	58670	8.14 ug/l		99
35)	1,1,1-Trichloroethane	7.94	97	734496	9.01 ug/l		91
37)	tert-Amyl methyl ether (TA	8.41	87	201447	9.43 ug/l		95
41)	1,1-Dichloropropene	8.20	110	316458	10.98 ug/l		99
42)	Carbon tetrachloride	8.35	119	669146	8.92 ug/l		100
43)	1,2-Dichloroethane	8.64	62	451253	8.30 ug/l		98
44)	Benzene	8.64	78	2267728	10.12 ug/l		99
45)	Trichloroethene	9.66	130	676667	10.58 ug/l		94
47)	1,2-Dichloropropane	9.94	63	585011	10.29 ug/l		91
48)	1,4-Dioxane	10.37	88	32417	184.06 ug/l		91
49)	Bromodichloromethane	10.33	83	633086	9.17 ug/l		99
50)	Dibromomethane	10.40	93	230268	9.34 ug/l		90
51)	2-Chloroethyl vinyl ether	10.85	63	161919	8.82 ug/l		99
52)	4-Methyl-2-pentanone	10.90	43	1359322	46.39 ug/l		98
53)	cis-1,3-Dichloropropene	11.22	75	793220	9.94 ug/l		96
55)	Toluene	11.73	91	2395789	10.32 ug/l		99
56)	Ethyl methacrylate	12.03	69	361399	9.49 ug/l		100
57)	trans-1,3-Dichloropropene	12.04	75	544256	9.31 ug/l		95
58)	1,1,2-Trichloroethane	12.29	97	295486	10.13 ug/l		97
59)	2-Hexanone	12.31	43	810094	46.45 ug/l		98
60)	1,3-Dichloropropane	12.69	76	553504	9.12 ug/l		100
61)	Tetrachloroethene	12.78	164	572117	11.34 ug/l		95
62)	Dibromochloromethane	13.11	129	378964	9.64 ug/l		99
64)	1,2-Dibromoethane	13.44	107	298946	9.85 ug/l		100
65)	1-Chlorohexane	13.71	91	1010748	10.33 ug/l		95
66)	Chlorobenzene	14.12	112	1467406	10.54 ug/l		93
67)	1,1,1,2-Tetrachloroethane	14.20	131	444454	10.08 ug/l		97
68)	Ethylbenzene	14.21	91	2646104	10.15 ug/l		96
69)	m-Xylene & p-Xylene	14.33	91	3788543	18.93 ug/l		94
70)	o-Xylene	15.04	91	1944074	9.70 ug/l		94
71)	Styrene	15.10	104	1427307	10.30 ug/l		95
73)	Isopropylbenzene	15.62	105	2360042	9.55 ug/l		96
74)	Bromoform	15.65	173	185425	9.10 ug/l		98
75)	1,1,2,2-Tetrachloroethane	15.91	83	305363	9.26 ug/l		99
77)	1,2,3-Trichloropropane	16.16	110	76705	8.68 ug/l		96
78)	trans-1,4-Dichloro-2-buten	16.26	53	86803	8.75 ug/l		93
79)	n-Propylbenzene	16.28	91	3260555	9.88 ug/l		96
80)	Bromobenzene	16.35	156	546412	10.62 ug/l	#	85
81)	1,3,5-Trimethylbenzene	16.53	105	1903124	9.59 ug/l		93
82)	2-Chlorotoluene	16.57	91	1834842	8.92 ug/l		86
83)	4-Chlorotoluene	16.65	91	1608933	9.64 ug/l		99

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW501.D Vial: 5
Acq On : 26 Oct 2012 2:31 pm Operator: WL
Sample : VO06J20C Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:01 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

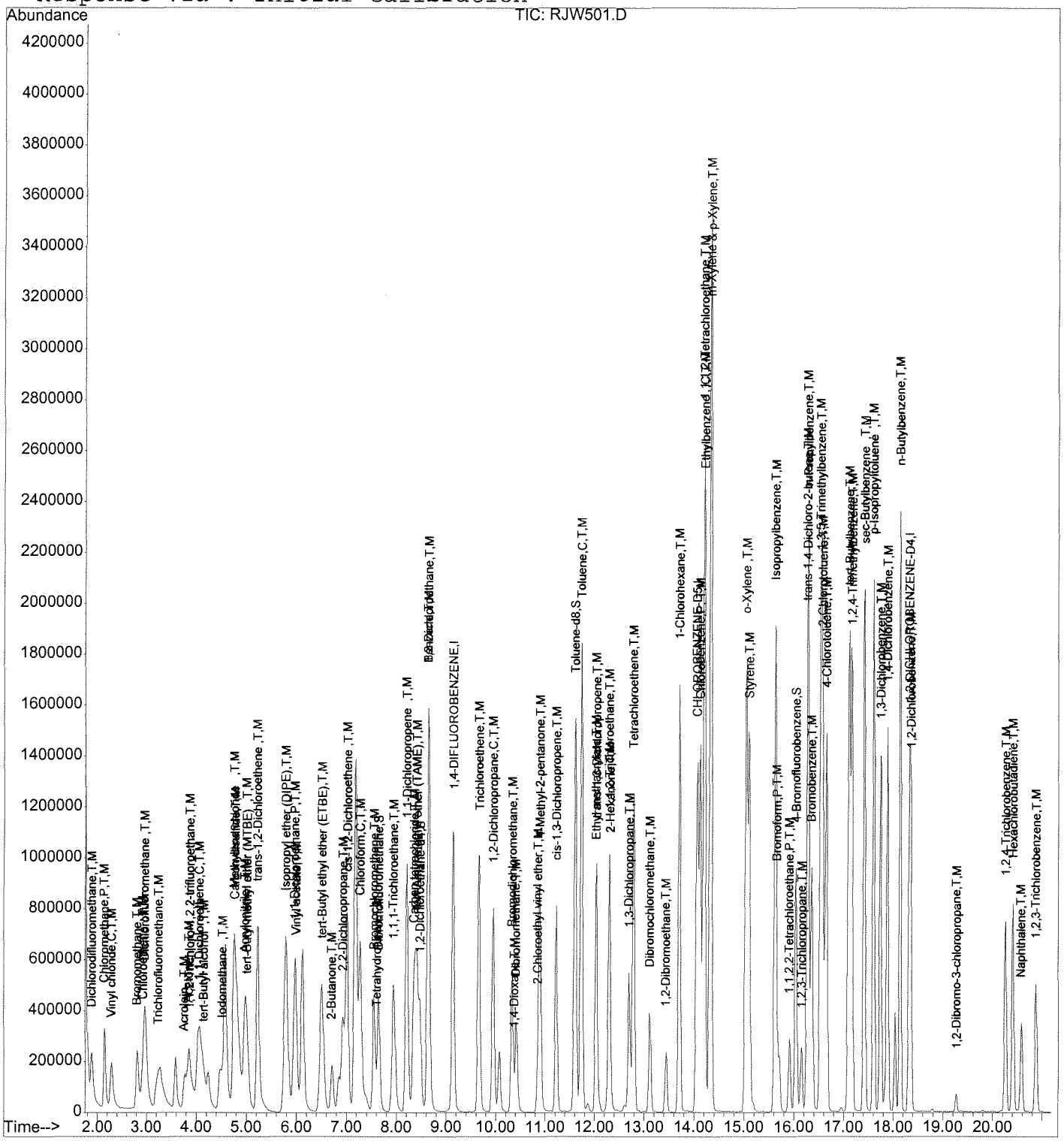
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
84)	tert-Butylbenzene	17.11	134	488400	10.73 ug/l	#	81
85)	1,2,4-Trimethylbenzene	17.17	105	1811197	9.50 ug/l		92
86)	sec-Butylbenzene	17.42	105	2709165	9.90 ug/l		96
87)	p-Isopropyltoluene	17.60	119	2084274	9.95 ug/l		95
88)	1,3-Dichlorobenzene	17.75	146	1095281	10.76 ug/l		97
89)	1,4-Dichlorobenzene	17.88	146	1040142	10.72 ug/l		97
91)	n-Butylbenzene	18.14	91	2074117	9.75 ug/l		98
92)	1,2-Dichlorobenzene	18.36	146	819527	10.51 ug/l		95
93)	1,2-Dibromo-3-chloropropan	19.27	157	34258	8.96 ug/l		90
94)	1,2,4-Trichlorobenzene	20.26	180	482556	9.86 ug/l		98
95)	Hexachlorobutadiene	20.41	225	353743	10.23 ug/l		99
96)	Naphthalene	20.57	128	535100	9.01 ug/l		100
97)	1,2,3-Trichlorobenzene	20.87	180	331226	9.05 ug/l		98

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJW501.D Vial: 5
Acq On : 26 Oct 2012 2:31 pm Operator: WL
Sample : VO06J20C Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:01 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



2846

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW507.D Vial: 11
Acq On : 26 Oct 2012 5:35 pm Operator: WL
Sample : 12J181-04 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:06 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

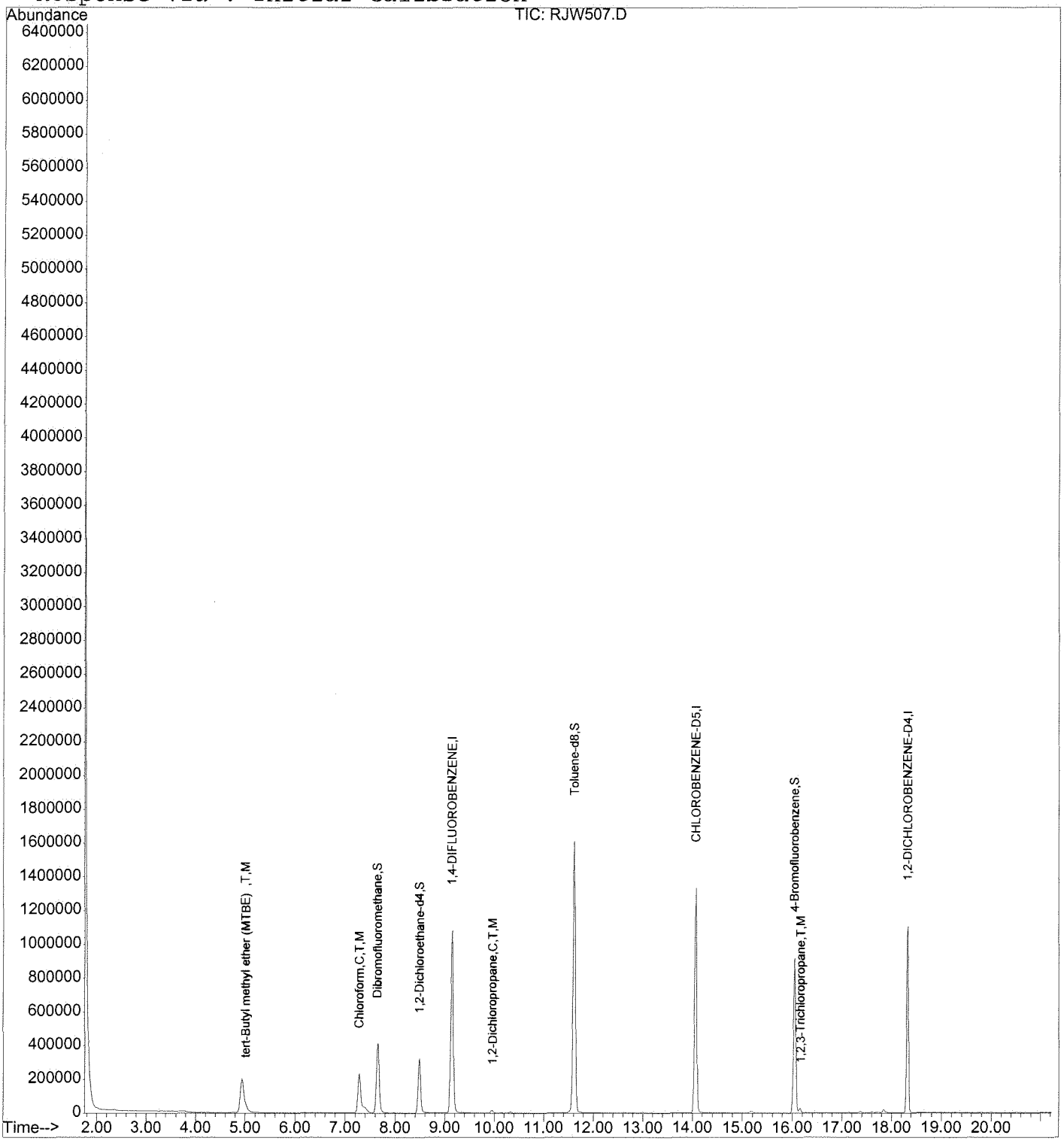
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.14	114	1655077	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.06	117	1419238	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.33	152	530428	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.64	111	510245	10.21	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	102.10%	
38) 1,2-Dichloroethane-d4	8.49	65	390243	9.35	ug/l	0.00
Spiked Amount 10.000			Recovery	=	93.50%	
54) Toluene-d8	11.61	98	1934711	10.68	ug/l	0.00
Spiked Amount 10.000			Recovery	=	106.80%	
76) 4-Bromofluorobenzene	16.04	95	570539	8.64	ug/l	0.00
Spiked Amount 10.000			Recovery	=	86.40%	
Target Compounds						Qvalue
20) tert-Butyl methyl ether (M	5.01	73	48814	0.63	ug/l	91
30) Chloroform	7.28	83	350360	3.66	ug/l	96
47) 1,2-Dichloropropane	9.96	63	11605	0.21	ug/l	91
77) 1,2,3-Trichloropropane	16.16	110	7929	0.89	ug/l	94

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

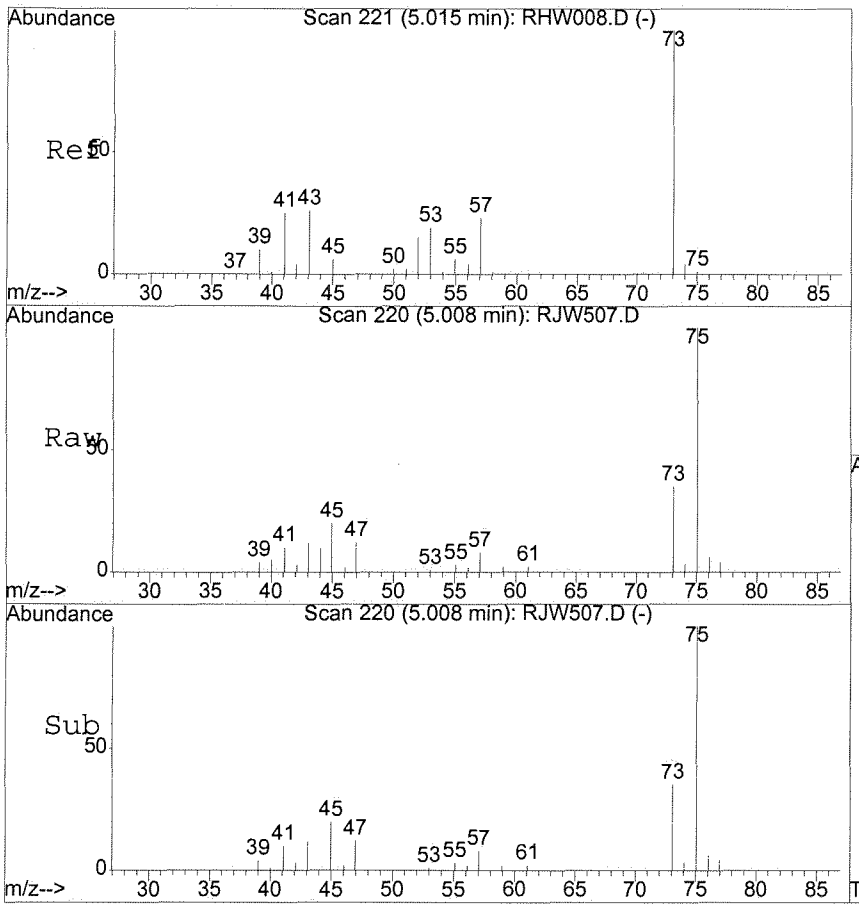
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJW507.D Vial: 11
Acq On : 26 Oct 2012 5:35 pm Operator: WL
Sample : 12J181-04 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:06 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



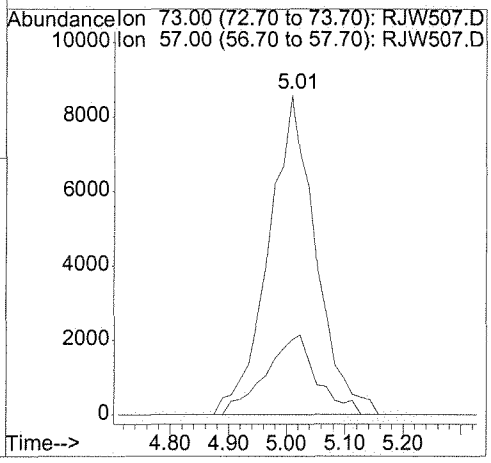
2042

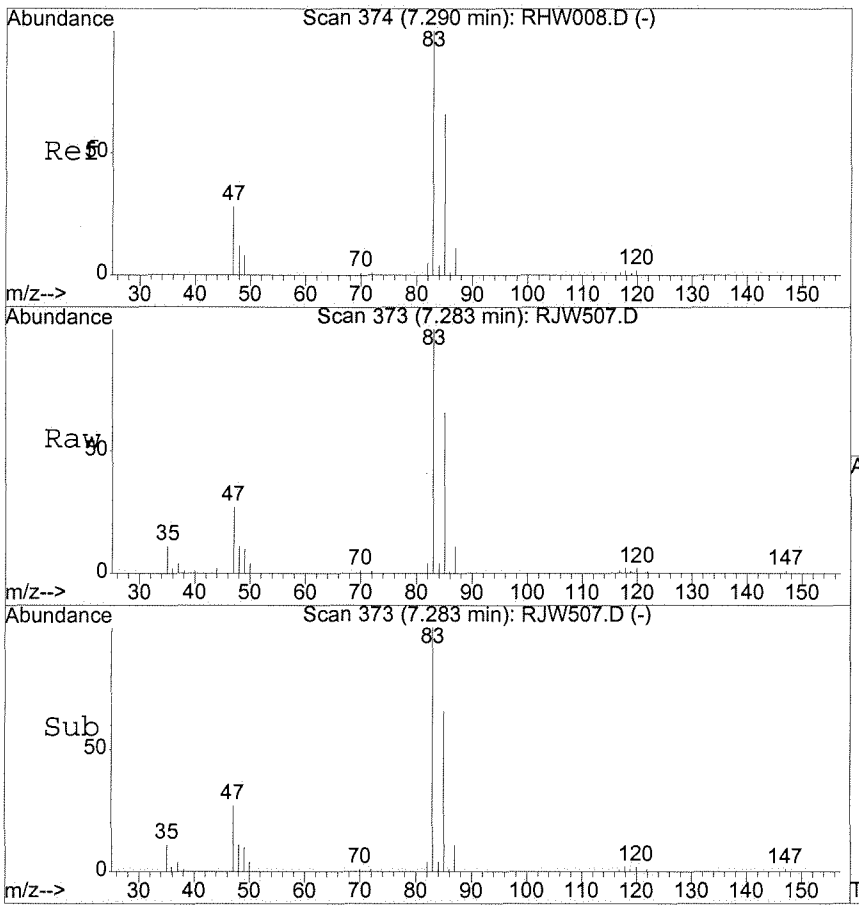


#20
tert-Butyl methyl ether (MTBE
Concen: 0.63 ug/l
RT: 5.01 min Scan# 220
Delta R.T. -0.01 min
Lab File: RJW507.D
Acq: 26 Oct 2012 5:35 pm

Tgt Ion: 73 Resp: 48814

Ion	Ratio	Lower	Upper
73	100		
57	26.8	0.0	52.7

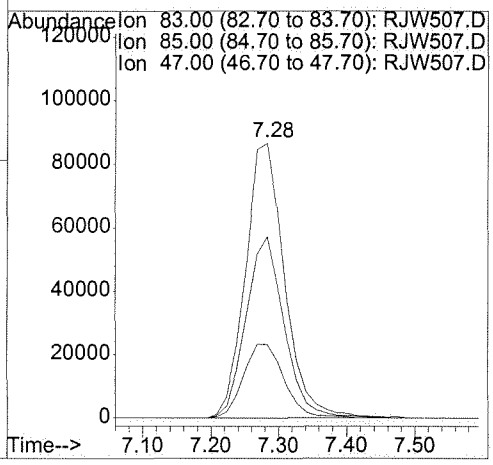


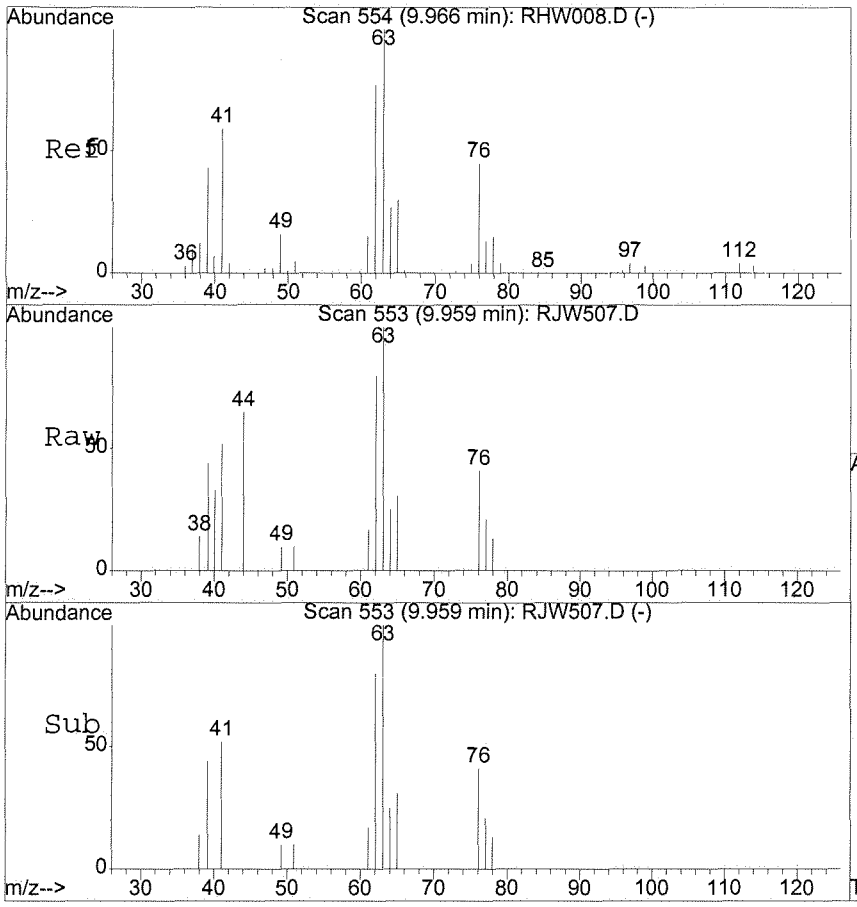


#30
Chloroform
Concen: 3.66 ug/l
RT: 7.28 min Scan# 373
Delta R.T. -0.01 min
Lab File: RJW507.D
Acq: 26 Oct 2012 5:35 pm

Tgt Ion: 83 Resp: 350360

Ion	Ratio	Lower	Upper
83	100		
85	64.7	39.1	99.1
47	28.1	0.0	58.8

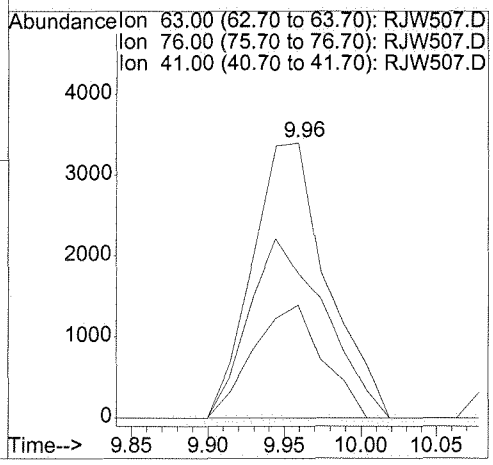


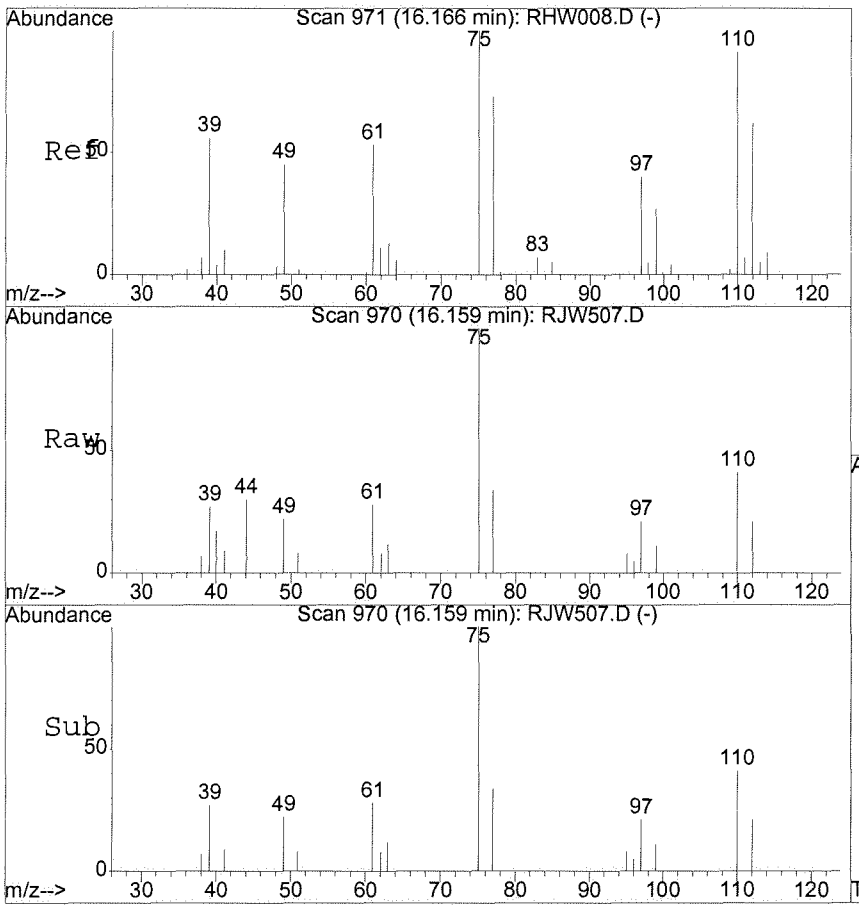


#47
1,2-Dichloropropane
Concen: 0.21 ug/l
RT: 9.96 min Scan# 553
Delta R.T. -0.01 min
Lab File: RJW507.D
Acq: 26 Oct 2012 5:35 pm

Tgt Ion: 63 Resp: 11605

Ion	Ratio	Lower	Upper
63	100		
76	38.2	15.3	75.3
41	66.4	30.0	90.0

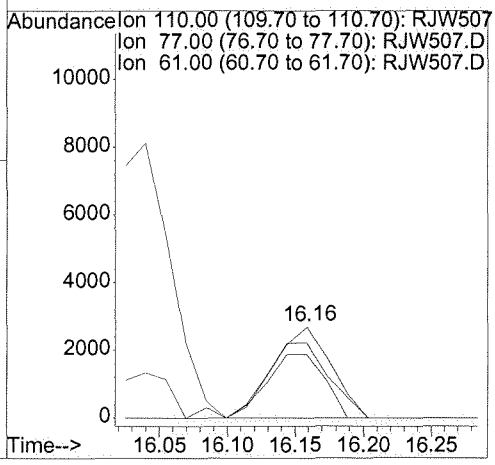




#77
1,2,3-Trichloropropane
Concen: 0.89 ug/l
RT: 16.16 min Scan# 970
Delta R.T. -0.01 min
Lab File: RJW507.D
Acq: 26 Oct 2012 5:35 pm

Tgt Ion:110 Resp: 7929

Ion	Ratio	Lower	Upper
110	100		
77	89.2	51.2	111.2
61	70.3	37.9	97.9



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW508.D Vial: 12
Acq On : 26 Oct 2012 6:05 pm Operator: WL
Sample : 12J181-04M 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:07 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.14	114	1448197	10.00 ug/l	0.00
39) CHLOROBENZENE-D5	14.06	117	1301162	10.00 ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.33	152	486366	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	7.65	111	452381	10.35 ug/l	0.00
Spiked Amount 10.000			Recovery	= 103.50%	
38) 1,2-Dichloroethane-d4	8.49	65	334711	9.17 ug/l	0.00
Spiked Amount 10.000			Recovery	= 91.70%	
54) Toluene-d8	11.61	98	1723879	10.38 ug/l	0.00
Spiked Amount 10.000			Recovery	= 103.80%	
76) 4-Bromofluorobenzene	16.04	95	538258	8.89 ug/l	0.00
Spiked Amount 10.000			Recovery	= 88.90%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.88	85	374888	10.04 ug/l	100
3) Chloromethane	2.15	50	447950	9.98 ug/l	99
4) Vinyl chloride	2.29	62	360690	10.70 ug/l	100
5) Bromomethane	2.82	94	281222	10.41 ug/l	99
6) Chloroethane	2.92	64	250214	10.86 ug/l	97
7) Dichlorofluoromethane	2.97	67	876339	11.02 ug/l	99
8) Trichlorofluoromethane	3.22	101	457383	8.89 ug/l	98
9) Acrolein	3.77	56	102951	57.86 ug/l	96
10) 1,1,2-Trichloro-1,2,2-trif	3.85	151	260057	10.68 ug/l	98
11) Acetone	3.86	43	225841	45.79 ug/l	97
12) 1,1-Dichloroethene	4.07	61	795807	10.47 ug/l	95
13) tert-Butyl alcohol	4.16	59	74213	53.02 ug/l	96
16) Iodomethane	4.53	142	770812	11.81 ug/l	88
17) Methylene chloride	4.75	49	586769	11.26 ug/l	86
18) Carbon disulfide	4.77	76	1807046	11.63 ug/l	100
19) Acrylonitrile	4.96	53	315706	50.94 ug/l	100
20) tert-Butyl methyl ether (M	5.01	73	711230	10.44 ug/l	97
21) trans-1,2-Dichloroethene	5.23	61	861085	10.68 ug/l	93
22) Isopropyl ether (DIPE)	5.79	45	1640483	10.47 ug/l	99
23) Vinyl acetate	5.99	43	464482	8.53 ug/l	100
24) 1,1-Dichloroethane	5.97	63	953848	10.35 ug/l	100
26) tert-Butyl ethyl ether (ET	6.52	59	1118080	9.76 ug/l	99
27) 2-Butanone	6.72	43	408750	44.65 ug/l	98
28) 2,2-Dichloropropane	6.94	77	510792	11.05 ug/l	98
29) cis-1,2-Dichloroethene	7.01	96	587873	11.11 ug/l	93
30) Chloroform	7.28	83	1162348	13.88 ug/l	98
32) Bromochloromethane	7.55	49	380391	10.32 ug/l	95

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW508.D Vial: 12
Acq On : 26 Oct 2012 6:05 pm Operator: WL
Sample : 12J181-04M 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:07 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33)	Tetrahydrofuran	7.62	42	49564	8.24 ug/l		93
35)	1,1,1-Trichloroethane	7.95	97	674299	9.90 ug/l		91
37)	tert-Amyl methyl ether (TA	8.43	87	177474	9.94 ug/l		94
41)	1,1-Dichloropropene	8.20	110	275116	10.87 ug/l		100
42)	Carbon tetrachloride	8.37	119	607960	9.23 ug/l		100
43)	1,2-Dichloroethane	8.63	62	421791	8.83 ug/l		98
44)	Benzene	8.65	78	1994873	10.14 ug/l		99
45)	Trichloroethene	9.66	130	601744	10.71 ug/l		94
47)	1,2-Dichloropropane	9.96	63	535419	10.73 ug/l		94
48)	1,4-Dioxane	10.37	88	28562	184.72 ug/l		91
49)	Bromodichloromethane	10.33	83	581099	9.59 ug/l		100
50)	Dibromomethane	10.42	93	209943	9.69 ug/l		91
52)	4-Methyl-2-pentanone	10.89	43	1071652	41.66 ug/l		94
53)	cis-1,3-Dichloropropene	11.22	75	717255	10.23 ug/l		98
55)	Toluene	11.74	91	2047103	10.05 ug/l		100
56)	Ethyl methacrylate	12.04	69	327004	9.78 ug/l		99
57)	trans-1,3-Dichloropropene	12.04	75	485258	9.45 ug/l		98
58)	1,1,2-Trichloroethane	12.29	97	260970	10.20 ug/l		99
59)	2-Hexanone	12.31	43	713830	46.62 ug/l		99
60)	1,3-Dichloropropane	12.71	76	519265	9.75 ug/l		99
61)	Tetrachloroethene	12.80	164	507091	11.45 ug/l		96
62)	Dibromochloromethane	13.12	129	347135	10.06 ug/l		100
64)	1,2-Dibromoethane	13.45	107	270898	10.17 ug/l		99
65)	1-Chlorohexane	13.70	91	914902	10.65 ug/l		98
66)	Chlorobenzene	14.12	112	1320667	10.81 ug/l		96
67)	1,1,1,2-Tetrachloroethane	14.19	131	407282	10.52 ug/l		99
68)	Ethylbenzene	14.21	91	2346796	10.26 ug/l		97
69)	m-Xylene & p-Xylene	14.33	91	3476893	19.78 ug/l		95
70)	o-Xylene	15.04	91	1805172	10.26 ug/l		95
71)	Styrene	15.10	104	1018643	8.37 ug/l		96
73)	Isopropylbenzene	15.62	105	2198047	9.65 ug/l		97
74)	Bromoform	15.65	173	164569	8.76 ug/l		98
75)	1,1,2,2-Tetrachloroethane	15.90	83	281762	9.27 ug/l		99
77)	1,2,3-Trichloropropane	16.16	110	80114	9.83 ug/l		99
78)	trans-1,4-Dichloro-2-buten	16.26	53	80447	8.79 ug/l		95
79)	n-Propylbenzene	16.28	91	2972536	9.77 ug/l		97
80)	Bromobenzene	16.36	156	506050	10.67 ug/l		87
81)	1,3,5-Trimethylbenzene	16.54	105	1737987	9.50 ug/l		93
82)	2-Chlorotoluene	16.57	91	1828712	9.64 ug/l		93
83)	4-Chlorotoluene	16.65	91	1363257	8.86 ug/l		94
84)	tert-Butylbenzene	17.11	134	441677	10.52 ug/l	#	83

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW508.D Vial: 12
Acq On : 26 Oct 2012 6:05 pm Operator: WL
Sample : 12J181-04M 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:07 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

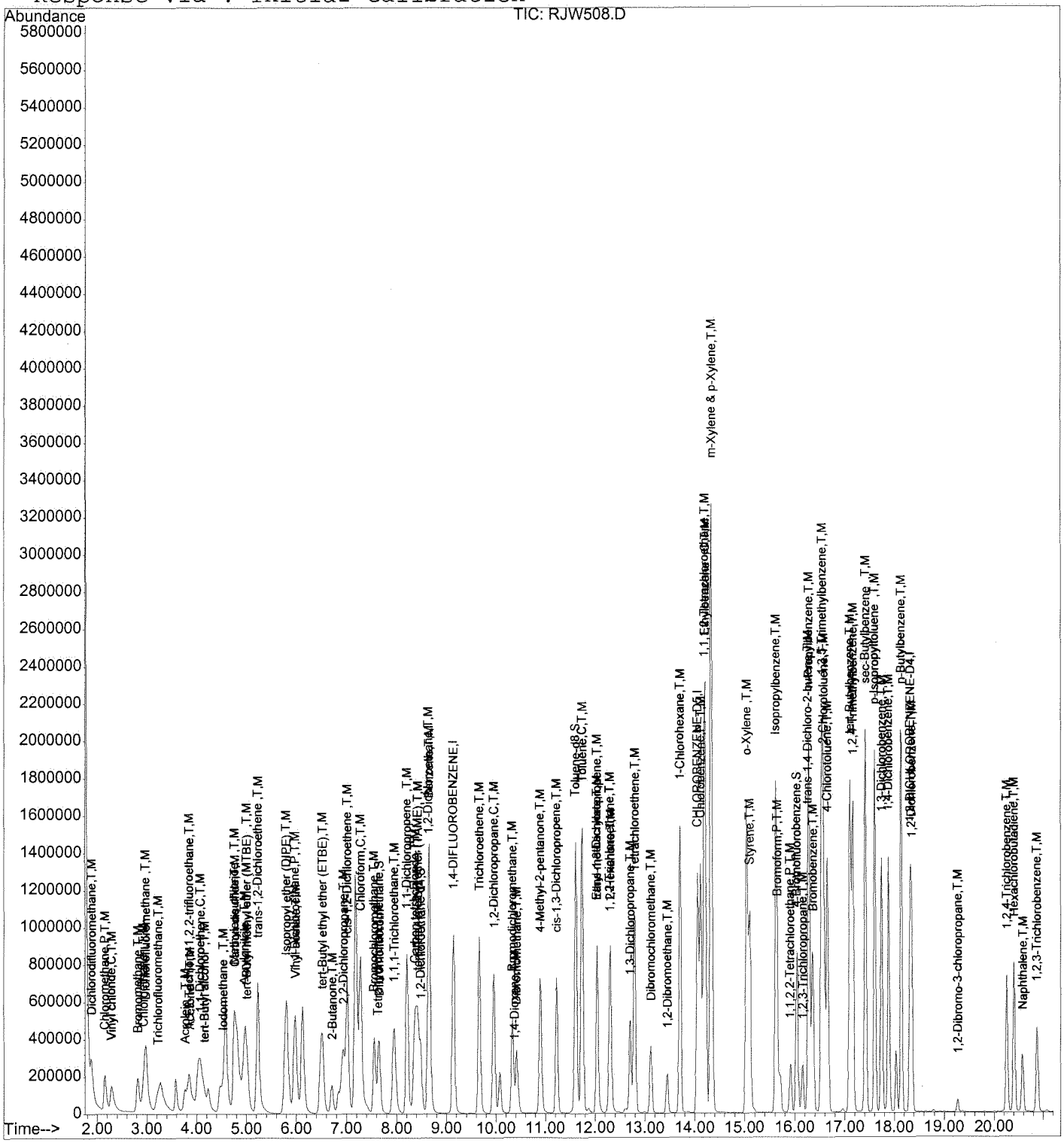
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85)	1,2,4-Trimethylbenzene	17.17	105	1662297	9.46 ug/l	94
86)	sec-Butylbenzene	17.42	105	2518525	9.98 ug/l	97
87)	p-Isopropyltoluene	17.60	119	1970892	10.21 ug/l	95
88)	1,3-Dichlorobenzene	17.75	146	1005449	10.72 ug/l	97
89)	1,4-Dichlorobenzene	17.88	146	947308	10.59 ug/l	97
91)	n-Butylbenzene	18.13	91	1914250	9.76 ug/l	98
92)	1,2-Dichlorobenzene	18.36	146	763381	10.62 ug/l	96
93)	1,2-Dibromo-3-chloropropan	19.26	157	31185	8.85 ug/l	93
94)	1,2,4-Trichlorobenzene	20.26	180	451613	10.01 ug/l	99
95)	Hexachlorobutadiene	20.41	225	320228	10.05 ug/l	99
96)	Naphthalene	20.59	128	481142	8.79 ug/l	100
97)	1,2,3-Trichlorobenzene	20.87	180	301526	8.93 ug/l	99

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJW508.D Vial: 12
Acq On : 26 Oct 2012 6:05 pm Operator: WL
Sample : 12J181-04M 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:07 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



2848

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW509.D Vial: 13
Acq On : 26 Oct 2012 6:35 pm Operator: WL
Sample : 12J181-04S 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:08 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.14	114	1586617	10.00 ug/l	-0.01
39) CHLOROBENZENE-D5	14.06	117	1382258	10.00 ug/l	-0.01
72) 1,2-DICHLOROBENZENE-D4	18.32	152	507434	10.00 ug/l	-0.01
System Monitoring Compounds					
34) Dibromofluoromethane	7.65	111	486458	10.16 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 101.60%	
38) 1,2-Dichloroethane-d4	8.48	65	360209	9.00 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 90.00%	
54) Toluene-d8	11.60	98	1856396	10.53 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 105.30%	
76) 4-Bromofluorobenzene	16.04	95	577100	9.14 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 91.40%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.88	85	389122	9.51 ug/l	99
3) Chloromethane	2.15	50	491030	9.99 ug/l	100
4) Vinyl chloride	2.28	62	385043	10.43 ug/l	100
5) Bromomethane	2.82	94	309030	10.44 ug/l	98
6) Chloroethane	2.92	64	265596	10.52 ug/l	97
7) Dichlorofluoromethane	2.97	67	901776	10.35 ug/l	100
8) Trichlorofluoromethane	3.23	101	481671	8.54 ug/l	99
9) Acrolein	3.77	56	110839	56.86 ug/l	95
10) 1,1,2-Trichloro-1,2,2-trif	3.84	151	265356	9.95 ug/l	98
11) Acetone	3.86	43	238040	44.05 ug/l	97
12) 1,1-Dichloroethene	4.07	61	816455	9.80 ug/l	95
13) tert-Butyl alcohol	4.16	59	77779	50.72 ug/l	94
16) Iodomethane	4.53	142	789574	11.05 ug/l	88
17) Methylene chloride	4.75	49	611818	10.68 ug/l	87
18) Carbon disulfide	4.78	76	1941807	11.40 ug/l	100
19) Acrylonitrile	4.96	53	332260	48.94 ug/l	98
20) tert-Butyl methyl ether (M	5.00	73	734512	9.85 ug/l	97
21) trans-1,2-Dichloroethene	5.23	61	862604	9.77 ug/l	94
22) Isopropyl ether (DIPE)	5.79	45	1710210	9.96 ug/l	99
23) Vinyl acetate	6.00	43	473213	7.93 ug/l	99
24) 1,1-Dichloroethane	5.97	63	995084	9.85 ug/l	99
26) tert-Butyl ethyl ether (ET	6.51	59	1143391	9.11 ug/l	99
27) 2-Butanone	6.71	43	402877	40.17 ug/l	98
28) 2,2-Dichloropropane	6.92	77	498345	9.84 ug/l	98
29) cis-1,2-Dichloroethene	7.01	96	598204	10.32 ug/l	92
30) Chloroform	7.28	83	1172707	12.78 ug/l	98
32) Bromochloromethane	7.55	49	393206	9.74 ug/l	96

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW509.D Vial: 13
Acq On : 26 Oct 2012 6:35 pm Operator: WL
Sample : 12J181-04S 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:08 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33)	Tetrahydrofuran	7.61	42	52699	7.98 ug/l	97
35)	1,1,1-Trichloroethane	7.95	97	669087	8.96 ug/l	91
37)	tert-Amyl methyl ether (TA	8.42	87	183436	9.38 ug/l	95
41)	1,1-Dichloropropene	8.21	110	286860	10.67 ug/l	100
42)	Carbon tetrachloride	8.36	119	617902	8.83 ug/l	99
43)	1,2-Dichloroethane	8.63	62	431226	8.50 ug/l	99
44)	Benzene	8.65	78	2080959	9.96 ug/l	99
45)	Trichloroethene	9.66	130	607098	10.17 ug/l	94
47)	1,2-Dichloropropane	9.95	63	545856	10.30 ug/l	94
48)	1,4-Dioxane	10.37	88	31179	189.82 ug/l	88
49)	Bromodichloromethane	10.33	83	590500	9.17 ug/l	100
50)	Dibromomethane	10.42	93	213388	9.28 ug/l	91
52)	4-Methyl-2-pentanone	10.89	43	1120618	41.00 ug/l	94
53)	cis-1,3-Dichloropropene	11.22	75	720020	9.67 ug/l	98
55)	Toluene	11.74	91	2146410	9.92 ug/l	99
56)	Ethyl methacrylate	12.04	69	333813	9.40 ug/l	98
57)	trans-1,3-Dichloropropene	12.04	75	496389	9.10 ug/l	97
58)	1,1,2-Trichloroethane	12.29	97	262783	9.66 ug/l	99
59)	2-Hexanone	12.30	43	735806	45.23 ug/l	99
60)	1,3-Dichloropropane	12.70	76	525485	9.28 ug/l	99
61)	Tetrachloroethene	12.79	164	511438	10.87 ug/l	96
62)	Dibromochloromethane	13.12	129	353171	9.63 ug/l	99
64)	1,2-Dibromoethane	13.45	107	277514	9.80 ug/l	98
65)	1-Chlorohexane	13.72	91	937385	10.28 ug/l	97
66)	Chlorobenzene	14.12	112	1321734	10.18 ug/l	95
67)	1,1,1,2-Tetrachloroethane	14.19	131	414603	10.09 ug/l	98
68)	Ethylbenzene	14.21	91	2425013	9.98 ug/l	97
69)	m-Xylene & p-Xylene	14.33	91	3530306	18.91 ug/l	95
70)	o-Xylene	15.04	91	1872768	10.02 ug/l	96
71)	Styrene	15.10	104	905130	7.00 ug/l	96
73)	Isopropylbenzene	15.62	105	2234275	9.40 ug/l	97
74)	Bromoform	15.66	173	169277	8.64 ug/l	99
75)	1,1,2,2-Tetrachloroethane	15.92	83	292690	9.23 ug/l	99
77)	1,2,3-Trichloropropane	16.15	110	82318	9.68 ug/l	97
78)	trans-1,4-Dichloro-2-buten	16.26	53	81427	8.53 ug/l	95
79)	n-Propylbenzene	16.27	91	3045738	9.60 ug/l	97
80)	Bromobenzene	16.36	156	514816	10.40 ug/l	88
81)	1,3,5-Trimethylbenzene	16.54	105	1745312	9.15 ug/l	94
82)	2-Chlorotoluene	16.57	91	1780202	9.00 ug/l	93
83)	4-Chlorotoluene	16.64	91	1423509	8.87 ug/l	94
84)	tert-Butylbenzene	17.11	134	457026	10.43 ug/l #	83

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW509.D Vial: 13
Acq On : 26 Oct 2012 6:35 pm Operator: WL
Sample : 12J181-04S 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:08 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

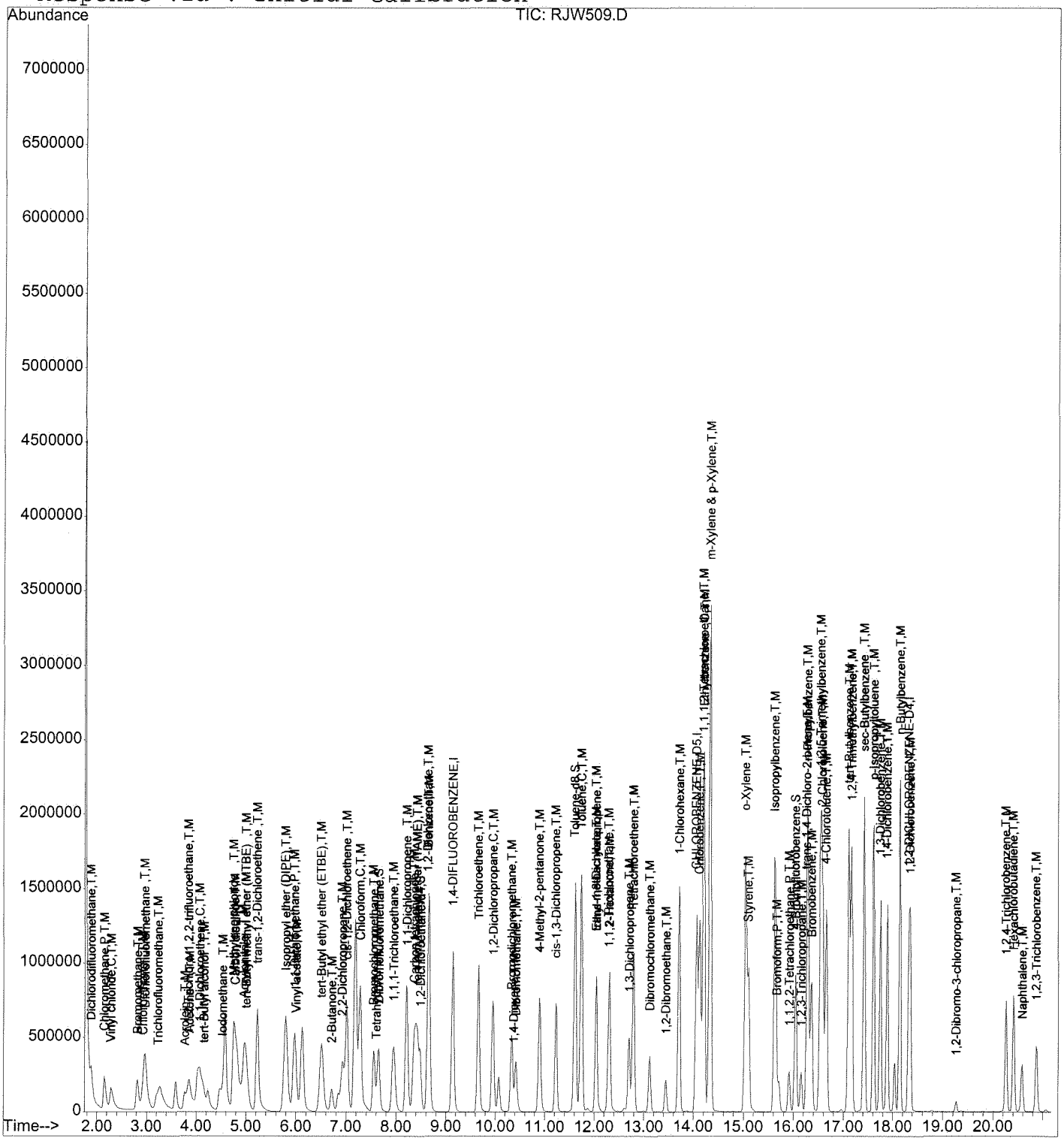
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85)	1,2,4-Trimethylbenzene	17.16	105	1700122	9.27 ug/l	93
86)	sec-Butylbenzene	17.42	105	2587420	9.83 ug/l	96
87)	p-Isopropyltoluene	17.61	119	1993173	9.90 ug/l	95
88)	1,3-Dichlorobenzene	17.74	146	1021986	10.44 ug/l	98
89)	1,4-Dichlorobenzene	17.88	146	990702	10.61 ug/l	97
91)	n-Butylbenzene	18.15	91	2002235	9.79 ug/l	98
92)	1,2-Dichlorobenzene	18.35	146	753734	10.05 ug/l	97
93)	1,2-Dibromo-3-chloropropan	19.26	157	33318	9.06 ug/l	89
94)	1,2,4-Trichlorobenzene	20.26	180	450141	9.56 ug/l	99
95)	Hexachlorobutadiene	20.41	225	319110	9.60 ug/l	99
96)	Naphthalene	20.58	128	498262	8.72 ug/l	100
97)	1,2,3-Trichlorobenzene	20.87	180	303892	8.63 ug/l	98

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJW509.D Vial: 13
Acq On : 26 Oct 2012 6:35 pm Operator: WL
Sample : 12J181-04S 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 18:08 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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: RHW002
Instrument ID: 06
GC Column:RTX502.2ID:0.25mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J181
BFB Injection Date : 08/15/12
BFB Injection Time : 18:53
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.75
75	30.0 - 60.0% of mass 95	45.15
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	5.79
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	76.82
175	5.0 - 9.0% of mass 174	5.66(7.4)1
176	95.0 - 101.0% of mass 174	77.21(100.5)1
177	5.0 - 9.0% of mass 176	5.31(6.9)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	VSTD0.3	V006H151	RHW003	08/15/12	19:22
2	VSTD0.5	V006H152	RHW004	08/15/12	19:53
3	VSTD01	V006H153	RHW005	08/15/12	20:23
4	VSTD02	V006H154	RHW006	08/15/12	20:54
5	VSTD05	V006H155	RHW007	08/15/12	21:23
6	VSTD010	V006H156	RHW008	08/15/12	21:54
7	VSTD020	V006H157	RHW009	08/15/12	22:23
8	VSTD030	V006H158	RHW010	08/15/12	22:53
9	VSTD050	V006H159	RHW011	08/15/12	23:24
10	VSTD100	V006H1510	RHW012	08/15/12	23:53

FORM V VOA OLM02.0

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO06
Beginning DateTime :08/15/12 19:22
Spike Units :PPB
IC File :rhw008

Column Spec :RTX502.2 ID :0.25MM
Ending DateTime :08/15/12 23:53
HPChem Method :vo06h15

M	IDX	Parameters	.3 19:22 rhw003	.5 19:53 rhw004	1 20:23 rhw005	2 20:54 rhw006	5 21:23 rhw007	10 21:54 rhw008	20 22:23 rhw009	30 22:53 rhw010	50 23:24 rhw011	100 23:53 rhw012	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	1	0	9.1495
	2	Dichlorodifluoromethane	0.287	0.246	0.236	0.255	0.283	0.258	0.244	0.257	0.261	0.251	0.258	6.32	1.8942
	3	Chloromethane	0.323	0.284	0.300	0.327	0.342	0.320	0.298	0.312	0.307	0.287	0.310	5.91	2.1470
	4	Vinyl chloride	0.237	0.239	0.230	0.264	0.275	0.236	0.200	0.181	------	------	0.233	13.19	2.2996
	5	Bromomethane	0.159	0.178	0.161	0.198	0.217	0.202	0.196	0.200	0.190	0.164	0.187	10.72	2.8115
	6	Chloroethane	0.161	0.140	0.144	0.173	0.177	0.174	0.163	0.164	0.161	0.134	0.159	9.41	2.9186
	7	Dichlorofluoromethane	0.581	0.572	0.599	0.516	0.558	0.574	0.564	0.559	0.533	0.433	0.549	8.55	2.9602
	8	Trichlorofluoromethane	0.328	0.320	0.313	0.371	0.414	0.374	0.359	0.365	0.364	0.345	0.355	8.43	3.2382
5	9	Acrolein	0.015	0.012	0.012	0.012	0.012	0.013	0.012	0.014	0.012	0.010	0.012	9.90	3.7720
	10	1,1,2-Trichloro-1,2,2-trifluoroethane	0.187	0.169	0.168	0.146	0.169	0.169	0.170	0.174	0.176	0.155	0.168	6.69	3.8255
5	11	Acetone	------	------	------	0.041	0.033	0.034	0.031	0.035	0.030	------	0.034	12.26	3.8594
	12	1,1-Dichloroethene	0.541	0.516	0.544	0.491	0.534	0.534	0.533	0.542	0.541	0.475	0.525	4.54	4.0634
5	13	tert-Butyl alcohol	------	0.008	0.009	0.009	0.010	0.011	0.010	0.012	0.009	0.009	0.010	12.01	4.1607
	14	Acetonitrile	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	15	Methyl acetate	------	0.139	0.122	0.119	0.118	0.104	0.098	0.116	0.097	0.088	0.111	14.21	4.5407
	16	Iodomethane	0.451	0.425	0.461	0.413	0.459	0.455	0.462	0.484	0.468	0.426	0.451	4.90	4.5258
	17	Methylene chloride	------	0.666	0.549	0.438	0.412	0.392	0.374	0.392	0.359	0.315	0.433	25.09	4.7885
	18	Carbon disulfide	0.929	0.919	1.035	1.105	1.134	1.134	1.090	1.152	1.192	1.042	1.073	8.57	4.7934
5	19	Acrylonitrile	0.042	0.045	0.043	0.046	0.042	0.044	0.041	0.048	0.040	0.037	0.043	7.45	4.9733
	20	tert-Butyl methyl ether (MTBE)	0.480	0.505	0.485	0.456	0.465	0.494	0.457	0.522	0.438	0.400	0.470	7.49	5.0178
	21	trans-1,2-Dichloroethene	0.595	0.552	0.584	0.529	0.574	0.559	0.566	0.572	0.552	0.482	0.556	5.77	5.2334
	22	Isopropyl ether (DIPE)	1.123	1.096	1.136	1.038	1.095	1.123	1.079	1.168	1.046	0.919	1.082	6.46	5.8043
	23	Vinyl acetate	------	0.349	0.355	0.410	0.409	0.397	0.364	0.406	0.361	0.334	0.376	7.83	6.0010
	24	1,1-Dichloroethane	0.639	0.646	0.669	0.623	0.665	0.649	0.642	0.650	0.628	0.556	0.637	5.00	5.9708
5	25	2-Butanol	------	------	0.009	0.010	0.010	0.009	0.009	0.011	0.009	0.009	0.009	9.21	6.3805
	26	tert-Butyl ethyl ether (ETBE)	0.810	0.803	0.811	0.770	0.784	0.814	0.794	0.876	0.767	0.679	0.791	6.29	6.5180
5	27	2-Butanone	0.078	0.068	0.068	0.063	0.057	0.062	0.057	0.069	0.058	0.053	0.063	11.92	6.7231
	28	2,2-Dichloropropane	0.368	0.337	0.356	0.310	0.339	0.331	0.317	0.310	0.292	0.232	0.319	11.92	6.9387
	29	cis-1,2-Dichloroethene	0.377	0.376	0.387	0.359	0.369	0.363	0.367	0.377	0.357	0.323	0.365	4.81	7.0235
	30	Chloroform	0.636	0.589	0.618	0.564	0.581	0.575	0.571	0.592	0.561	0.497	0.578	6.39	7.2911
5	31	tert-Amyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	32	Bromochloromethane	0.260	0.266	0.264	0.244	0.251	0.262	0.254	0.276	0.246	0.222	0.255	5.92	7.5587
	33	Tetrahydrofuran	------	------	0.069	0.049	0.042	0.041	0.036	0.042	------	------	0.047	25.79	7.6236
	34	Dibromofluoromethane	0.224	0.247	0.306	0.313	0.340	0.331	0.317	0.336	0.321	0.283	0.302	12.90	7.6568
	35	1,1,1-Trichloroethane	0.485	0.477	0.497	0.449	0.491	0.484	0.480	0.476	0.465	0.401	0.471	5.91	7.9571
	36	Cyclohexane	0.861	0.968	0.772	0.770	0.826	0.736	0.706	0.681	0.692	------	0.779	11.92	7.9733
	37	tert-Amyl methyl ether (TAME)	0.124	0.124	0.126	0.116	0.119	0.133	0.125	0.140	0.120	0.106	0.123	7.49	8.4329
	38	1,2-Dichloroethane-d4	0.201	0.223	0.272	0.266	0.279	0.278	0.257	0.275	0.249	0.222	0.252	11.03	8.4924
	39	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	1	0	14.0706
	40	2,2,4-Trimethylpentane	------	1.513	1.721	1.746	1.844	1.617	1.457	1.579	1.684	1.505	1.630	7.89	8.0906
	41	1,1-Dichloropropene	0.201	0.190	0.200	0.180	0.196	0.191	0.198	0.198	0.207	0.184	0.194	4.25	8.2203
	42	Carbon tetrachloride	0.511	0.485	0.518	0.443	0.509	0.510	0.524	0.522	0.552	0.486	0.506	5.79	8.3764
	43	1,2-Dichloroethane	0.401	0.381	0.396	0.352	0.365	0.366	0.361	0.381	0.352	0.315	0.367	6.76	8.6455
	44	Benzene	1.765	1.655	1.624	1.425	1.472	1.458	1.485	1.505	1.483	1.248	1.512	9.36	8.6589
	45	Trichloroethene	0.483	0.438	0.424	0.386	0.432	0.427	0.435	0.437	0.454	0.402	0.432	6.12	9.6699
	46	Methylcyclohexane	0.575	0.677	0.714	0.725	0.816	0.701	0.683	0.683	0.742	0.649	0.697	8.98	9.7576
	47	1,2-Dichloropropane	0.399	0.398	0.397	0.363	0.379	0.383	0.388	0.398	0.386	0.345	0.384	4.61	9.9642
20	48	1,4-Dioxane	------	------	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	11.65	10.3854
	49	Bromodichloromethane	0.463	0.438	0.453	0.426	0.461	0.477	0.494	0.509	0.488	0.449	0.466	5.58	10.3389
	50	Dibromomethane	0.171	0.167	0.169	0.152	0.165	0.168	0.171	0.183	0.167	0.152	0.166	5.54	10.4266
	51	2-Chloroethyl vinyl ether	0.116	0.112	0.116	0.111	0.123	0.132	0.129	0.147	0.129	0.125	0.124	8.84	10.8696
5	52	4-Methyl-2-pentanone	0.206	0.195	0.195	0.206	0.196	0.207	0.194	0.222	0.190	0.168	0.198	7.11	10.9068
	53	cis-1,3-Dichloropropene	0.539	0.516	0.516	0.494	0.543	0.558	0.560	0.596	0.560	0.505	0.539	5.79	11.2339
	54	Toluene-d8	1.073	1.150	1.304	1.319	1.454	1.354	1.289	1.334	1.325	1.158	1.276	8.94	11.6190
	55	Toluene	1.709	1.639	1.656	1.514	1.605	1.545	1.567	1.560	1.548	1.318	1.566	6.76	11.7483
	56	Ethyl methacrylate	0.261	0.249	0.249	0.236	0.252	0.273	0.264	0.294	0.260	0.231	0.257	7.04	12.0487
	57	trans-1,3-Dichloropropene	0.390	0.377	0.380	0.363	0.390	0.413	0.412	0.440	0.410	0.369	0.395	6.05	12.0487
	58	1,1,2-Trichloroethane	0.205	0.195	0.204	0.181	0.196	0.202	0.196	0.215	0.196	0.177	0.197	5.64	12.3014

2555

pm 8/21/12

5	59	2-Hexanone	0.128	0.114	0.116	0.123	0.117	0.123	0.114	0.131	0.112	0.098	0.118	8.05	12.3207
	60	1,3-Dichloropropane	0.447	0.412	0.415	0.385	0.403	0.423	0.401	0.442	0.401	0.365	0.409	6.01	12.7147
	61	Tetrachloroethene	0.363	0.347	0.352	0.317	0.339	0.335	0.342	0.340	0.357	0.312	0.340	4.76	12.8039
	62	Dibromochloromethane	0.249	0.233	0.249	0.235	0.260	0.280	0.280	0.310	0.290	0.266	0.265	9.39	13.1339
	63	2-Ethyl-1-butanol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	64	1,2-Dibromoethane	0.198	0.197	0.198	0.190	0.203	0.213	0.209	0.232	0.213	0.193	0.205	6.02	13.4581
	65	1-Chlorohexane	0.685	0.649	0.673	0.604	0.676	0.678	0.674	0.677	0.699	0.585	0.660	5.61	13.7197
	66	Chlorobenzene	1.040	0.972	0.975	0.887	0.933	0.915	0.949	0.963	0.942	0.814	0.939	6.36	14.1316
	67	1,1,1,2-Tetrachloroethane	0.295	0.290	0.300	0.282	0.297	0.308	0.306	0.317	0.308	0.271	0.297	4.58	14.2044
	68	Ethylbenzene	2.007	1.855	1.918	1.728	1.800	1.767	1.739	1.733	1.691	1.349	1.759	9.90	14.2193
2	69	m-Xylene & p-Xylene	1.532	1.415	1.460	1.281	1.367	1.312	1.293	1.277	1.220	------	1.351	7.48	14.3415
	70	o-Xylene	1.419	1.362	1.424	1.308	1.410	1.381	1.370	1.384	1.342	1.118	1.352	6.63	15.0518
	71	Styrene	0.993	0.934	0.949	0.890	0.985	0.970	0.947	0.958	0.935	0.788	0.935	6.35	15.1113
	72	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	1	0	18.3375
	73	Isopropylbenzene	4.817	4.725	4.698	4.142	4.738	4.727	5.349	4.882	4.914	3.857	4.685	8.82	15.6391
	74	Bromoform	0.266	0.276	0.302	0.291	0.336	0.374	0.419	0.442	0.407	0.369	0.348	18.12	15.6733
	75	1,1,2,2-Tetrachloroethane	0.669	0.600	0.589	0.551	0.608	0.642	0.669	0.721	0.638	0.566	0.625	8.36	15.9260
	76	4-Bromofluorobenzene	1.199	1.104	1.211	1.160	1.341	1.297	1.381	1.352	1.302	1.100	1.245	8.32	16.0479
	77	1,2,3-Trichloropropane	0.152	0.159	0.159	0.154	0.167	0.175	0.179	0.200	0.175	0.156	0.168	8.94	16.1684
	78	trans-1,4-Dichloro-2-butene	------	0.187	0.181	0.154	0.188	0.198	0.210	0.218	0.194	0.164	0.188	10.76	16.2743
	79	n-Propylbenzene	6.526	6.372	6.494	5.677	6.439	6.376	6.983	6.429	6.432	4.826	6.255	9.47	16.2947
	80	Bromobenzene	1.016	0.938	0.977	0.873	0.950	0.979	1.083	1.051	1.014	0.874	0.975	7.12	16.3750
	81	1,3,5-Trimethylbenzene	3.974	3.801	3.943	3.418	3.821	3.725	4.133	3.854	3.840	3.096	3.761	7.92	16.5520
	82	2-Chlorotoluene	4.210	4.102	4.100	3.341	3.984	3.898	4.382	4.006	3.896	3.083	3.900	10.14	16.5847
	83	4-Chlorotoluene	3.413	3.269	3.388	3.069	3.028	3.084	3.349	3.188	3.200	2.644	3.163	7.18	16.6634
	84	tert-Butylbenzene	0.859	0.839	0.903	0.757	0.875	0.850	0.942	0.901	0.927	0.779	0.863	6.95	17.1184
	85	1,2,4-Trimethylbenzene	3.861	3.723	3.822	3.342	3.715	3.602	3.889	3.672	3.561	2.953	3.614	7.83	17.1779
	86	sec-Butylbenzene	5.526	5.294	5.427	4.864	5.364	5.139	5.573	5.267	5.291	4.137	5.188	8.10	17.4306
	87	p-Isopropyltoluene	4.295	3.940	4.162	3.688	4.082	3.947	4.234	3.991	4.044	3.310	3.969	7.26	17.6209
	88	1,3-Dichlorobenzene	2.082	1.903	2.018	1.757	1.921	1.909	2.097	2.021	1.957	1.621	1.929	7.62	17.7577
	89	1,4-Dichlorobenzene	2.002	1.877	1.880	1.671	1.847	1.822	1.971	1.917	1.851	1.555	1.839	7.30	17.8945
	90	Benzyl chloride	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	91	n-Butylbenzene	4.434	4.242	4.283	3.722	4.211	3.945	4.224	3.955	4.025	3.275	4.032	8.35	18.1531
	92	1,2-Dichlorobenzene	1.608	1.561	1.514	1.361	1.485	1.454	1.488	1.516	1.491	1.308	1.479	5.96	18.3673
	93	1,2-Dibromo-3-chloropropane	------	0.053	0.074	0.067	0.077	0.073	0.066	0.076	0.075	0.092	0.072	14.38	19.2726
	94	1,2,4-Trichlorobenzene	1.046	0.987	1.012	0.911	1.019	0.886	0.831	0.842	0.882	0.859	0.927	8.69	20.2703
	95	Hexachlorobutadiene	0.758	0.691	0.723	0.658	0.733	0.647	0.569	0.543	0.606	0.624	0.655	10.91	20.4204
	96	Naphthalene	------	1.272	1.306	1.174	1.268	1.128	0.961	1.029	0.977	1.014	1.125	12.07	20.5958
	97	1,2,3-Trichlorobenzene	0.768	0.746	0.786	0.708	0.773	0.661	0.563	0.547	------	------	0.694	13.66	20.8875

Spike Amount = Nominal Amount * M
Ave_%RSD : 8.6 Max_%RSD : 25.8

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

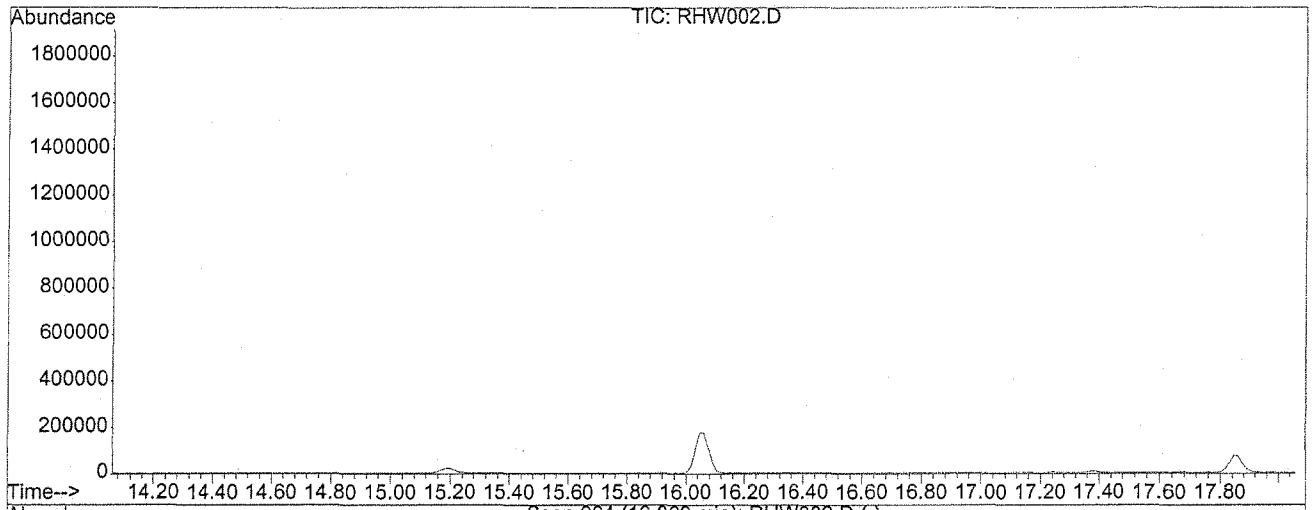
IDX	Parameter	x0	x1	CCF
17	Methylene chloride	0.02114	0.34115	0.9963
33	Tetrahydrofuran	0.00261	0.03837	0.9958
74	Bromoform	-0.00618	0.39310	0.9971

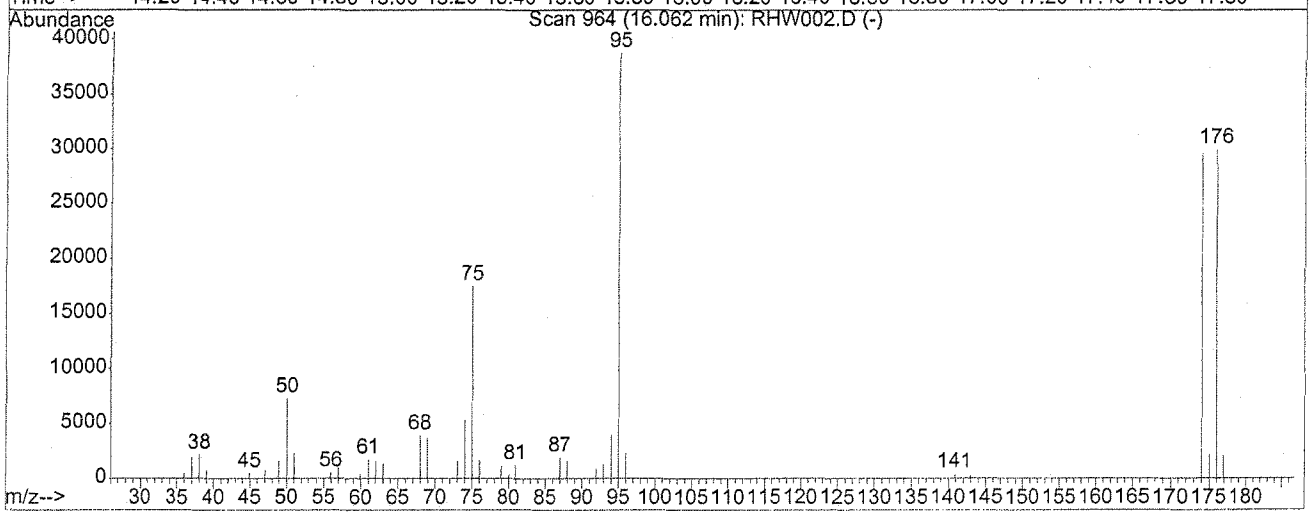
RL 8/21/11d

2956

BFB

Data File : D:\HPCHEM\1\DATA\12H15\RHW002.D Vial: 2
Acq On : 15 Aug 2012 6:53 pm Operator: WL
Sample : BFB06H01 Inst : TO06
Misc : T/ CHK Multiplr: 1.00
MS Integration Params: RTE.P
Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260





Spectrum Information: Scan 964 - Background Scan 957

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.7	7264	PASS
75	95	30	60	45.1	17496	PASS
95	95	100	100	100.0	38752	PASS
96	95	5	9	5.8	2244	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	76.8	29768	PASS
175	174	5	9	7.4	2193	PASS
176	174	95	101	100.5	29920	PASS
177	176	5	9	6.9	2057	PASS

RHW002.D VO06H15.M Thu Aug 16 16:14:02 2012

8-21-12

Compound List Report TO06

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
Total Cpnds : 97

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-DIFLUOROBENZENE	114	9.15	1.000	A	1	A	B
2	T	Dichlorodifluoromethane	85	1.89	0.207	A	1	A	B
3	T	Chloromethane	50	2.15	0.235	A	1	A	B
4	T	Vinyl chloride	62	2.29	0.251	A	1	A	B
5	T	Bromomethane	94	2.81	0.308	A	1	A	B
6	T	Chloroethane	64	2.92	0.319	A	2	A	B
7	T	Dichlorofluoromethane	67	2.96	0.324	A	1	A	B
8	T	Trichlorofluoromethane	101	3.25	0.355	A	1	A	B
9	T	Acrolein	56	3.77	0.412	A	1	A	B
10	T	1,1,2-Trichloro-1,2,2-trifluor	151	3.83	0.418	A	1	A	B
11	T	Acetone	43	3.86	0.421	A	2	A	B
12	T	1,1-Dichloroethene	61	4.06	0.444	A	2	A	B
13	T	tert-Butyl alcohol	59	4.15	0.454	A	1	A	B
14	T	Acetonitrile	41	4.24	0.464	A	2	A	B
15	T	Methyl acetate	43	4.54	0.496	A	1	A	B
16	T	Iodomethane	142	4.52	0.495	A	1	A	B
17	T	Methylene chloride	49	4.76	0.521	L	2	A	B
18	T	Carbon disulfide	76	4.79	0.524	A	1	A	B
19	T	Acrylonitrile	53	4.97	0.543	A	2	A	B
20	T	tert-Butyl methyl ether (MTBE)	73	5.02	0.548	A	1	A	B
21	T	trans-1,2-Dichloroethene	61	5.24	0.573	A	2	A	B
22	T	Isopropyl ether (DIPE)	45	5.80	0.634	A	1	A	B
23	T	Vinyl acetate	43	6.00	0.655	A	1	A	B
24	T	1,1-Dichloroethane	63	5.97	0.652	A	2	A	B
25	T	2-Butanol	45	6.37	0.696	A	1	A	B
26	T	tert-Butyl ethyl ether (ETBE)	59	6.52	0.712	A	1	A	B
27	T	2-Butanone	43	6.72	0.735	A	1	A	B
28	T	2,2-Dichloropropane	77	6.93	0.758	A	2	A	B
29	T	cis-1,2-Dichloroethene	96	7.02	0.768	A	2	A	B
30	T	Chloroform	83	7.29	0.797	A	2	A	B
31	T	tert-Amyl alcohol	59	7.02	0.768	A	2	A	B
32	T	Bromochloromethane	49	7.56	0.826	A	2	A	B
33	T	Tetrahydrofuran	42	7.62	0.833	L	2	A	B
34	S	Dibromofluoromethane	111	7.66	0.837	A	2	A	B
35	T	1,1,1-Trichloroethane	97	7.96	0.870	A	2	A	B
36	T	Cyclohexane	56	7.97	0.872	A	2	A	B
37	T	tert-Amyl methyl ether (TAME)	87	8.43	0.922	A	2	A	B
38	S	1,2-Dichloroethane-d4	65	8.49	0.928	A	1	A	B
39	I	CHLOROBENZENE-D5	117	14.07	1.000	A	2	A	B
40	T	2,2,4-Trimethylpentane	57	8.09	0.575	A	3	A	B
41	T	1,1-Dichloropropene	110	8.21	0.584	A	1	A	B
42	T	Carbon tetrachloride	119	8.38	0.595	A	1	A	B
43	T	1,2-Dichloroethane	62	8.64	0.614	A	1	A	B
44	T	Benzene	78	8.66	0.615	A	2	A	B
45	T	Trichloroethene	130	9.67	0.687	A	3	A	B
46	T	Methylcyclohexane	83	9.76	0.694	A	2	A	B
47	T	1,2-Dichloropropane	63	9.97	0.708	A	2	A	B
48	T	1,4-Dioxane	88	10.38	0.738	A	1	A	B
49	T	Bromodichloromethane	83	10.34	0.735	A	1	A	B
50	T	Dibromomethane	93	10.43	0.741	A	2	A	B
51	T	2-Chloroethyl vinyl ether	63	10.87	0.773	A	2	A	B
52	T	4-Methyl-2-pentanone	43	10.90	0.775	A	3	A	B

53	T	cis-1,3-Dichloropropene	75	11.23	0.798	A	3	A	B
54	S	Toluene-d8	98	11.62	0.826	A	1	A	B
55	T	Toluene	91	11.75	0.835	A	1	A	B
56	T	Ethyl methacrylate	69	12.05	0.856	A	2	A	B
57	T	trans-1,3-Dichloropropene	75	12.05	0.856	A	2	A	B
58	T	1,1,2-Trichloroethane	97	12.30	0.874	A	3	A	B
59	T	2-Hexanone	43	12.32	0.875	A	2	A	B
60	T	1,3-Dichloropropane	76	12.72	0.904	A	1	A	B
61	T	Tetrachloroethene	164	12.81	0.910	A	3	A	B
62	T	Dibromochloromethane	129	13.13	0.933	A	1	A	B
63	T	2-Ethyl-1-butanol	43	0.00	0.000	A	3	A	B
64	T	1,2-Dibromoethane	107	13.46	0.957	A	1	A	B
65	T	1-Chlorohexane	91	13.71	0.975	A	3	A	B
66	T	Chlorobenzene	112	14.13	1.004	A	3	A	B
67	T	1,1,1,2-Tetrachloroethane	131	14.20	1.010	A	3	A	B
68	T	Ethylbenzene	91	14.22	1.011	A	1	A	B
69	T	m-Xylene & p-Xylene	91	14.34	1.019	A	1	A	B
70	T	o-Xylene	91	15.05	1.070	A	1	A	B
71	T	Styrene	104	15.11	1.074	A	2	A	B
72	I	1,2-DICHLOROBENZENE-D4	152	18.34	1.000	A	1	A	B
73	T	Isopropylbenzene	105	15.63	0.852	A	3	A	B
74	T	Bromoform	173	15.68	0.855	L	2	A	B
75	T	1,1,2,2-Tetrachloroethane	83	15.93	0.869	A	1	A	B
76	S	4-Bromofluorobenzene	95	16.05	0.875	A	2	A	B
77	T	1,2,3-Trichloropropane	110	16.17	0.882	A	2	A	B
78	T	trans-1,4-Dichloro-2-butene	53	16.27	0.887	A	1	A	B
79	T	n-Propylbenzene	91	16.28	0.888	A	2	A	B
80	T	Bromobenzene	156	16.37	0.893	A	2	A	B
81	T	1,3,5-Trimethylbenzene	105	16.55	0.903	A	2	A	B
82	T	2-Chlorotoluene	91	16.58	0.904	A	1	A	B
83	T	4-Chlorotoluene	91	16.66	0.908	A	1	A	B
84	T	tert-Butylbenzene	134	17.12	0.934	A	2	A	B
85	T	1,2,4-Trimethylbenzene	105	17.18	0.937	A	1	A	B
86	T	sec-Butylbenzene	105	17.43	0.951	A	1	A	B
87	T	p-Isopropyltoluene	119	17.62	0.961	A	2	A	B
88	T	1,3-Dichlorobenzene	146	17.76	0.968	A	2	A	B
89	T	1,4-Dichlorobenzene	146	17.89	0.976	A	2	A	B
90	T	Benzyl chloride	91	0.00	0.000	A	3	A	B
91	T	n-Butylbenzene	91	18.16	0.990	A	2	A	B
92	T	1,2-Dichlorobenzene	146	18.37	1.002	A	2	A	B
93	T	1,2-Dibromo-3-chloropropane	157	19.27	1.051	A	2	A	B
94	T	1,2,4-Trichlorobenzene	180	20.27	1.105	A	2	A	B
95	T	Hexachlorobutadiene	225	20.42	1.114	A	2	A	B
96	T	Naphthalene	128	20.60	1.123	A	1	A	B
97	T	1,2,3-Trichlorobenzene	180	20.89	1.139	A	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

VO06H15.M Mon Aug 20 16:00:47 2012

8-21-12

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW003.D Vial: 2
Acq On : 15 Aug 2012 7:22 pm Operator: WL
Sample : VO06H151 Inst : TO06
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:18 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1684396	10.00 ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1435167	10.00 ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	517438	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	7.66	111	11318	0.22 ug/l	0.00
Spiked Amount 10.000			Recovery	= 2.20%	
38) 1,2-Dichloroethane-d4	8.49	65	10133	0.24 ug/l	0.00
Spiked Amount 10.000			Recovery	= 2.40%	
54) Toluene-d8	11.63	98	46216	0.25 ug/l	0.02
Spiked Amount 10.000			Recovery	= 2.50%	
76) 4-Bromofluorobenzene	16.05	95	18608	0.29 ug/l	0.00
Spiked Amount 10.000			Recovery	= 2.90%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.89	85	14507	0.33 ug/l	95
3) Chloromethane	2.15	50	16324	0.31 ug/l	95
4) Vinyl chloride	2.30	62	11960	0.31 ug/l	96
5) Bromomethane	2.82	94	8015	0.26 ug/l	91
6) Chloroethane	2.92	64	8121	0.30 ug/l	74
7) Dichlorofluoromethane	2.96	67	29367	0.32 ug/l	99
8) Trichlorofluoromethane	3.23	101	16595	0.28 ug/l	97
9) Acrolein	3.78	56	3687	1.78 ug/l	65
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	9428	0.33 ug/l	88
11) Acetone	3.86	43	24185	4.22 ug/l	99
12) 1,1-Dichloroethene	4.06	61	27348	0.31 ug/l	96
13) tert-Butyl alcohol	4.17	59	2685	1.65 ug/l #	1
16) Iodomethane	4.53	142	22767	0.30 ug/l	98
17) Methylene chloride	4.76	49	46456	0.19 ug/l	86
18) Carbon disulfide	4.79	76	46963	0.26 ug/l	98
19) Acrylonitrile	4.99	53	10545	1.46 ug/l	93
20) tert-Butyl methyl ether (M	5.02	73	24246	0.31 ug/l	91
21) trans-1,2-Dichloroethene	5.24	61	30059	0.32 ug/l	99
22) Isopropyl ether (DIPE)	5.80	45	56746	0.31 ug/l	98
24) 1,1-Dichloroethane	5.98	63	32299	0.30 ug/l	97
26) tert-Butyl ethyl ether (ET	6.52	59	40951	0.31 ug/l	98
27) 2-Butanone	6.73	43	19744	1.85 ug/l	86
28) 2,2-Dichloropropane	6.95	77	18576	0.35 ug/l	90
29) cis-1,2-Dichloroethene	7.02	96	19051	0.31 ug/l	97
30) Chloroform	7.29	83	32140	0.33 ug/l	96
32) Bromochloromethane	7.56	49	13143	0.31 ug/l	97
33) Tetrahydrofuran	7.63	42	7189	0.43 ug/l	91

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

8-21-12

2060

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW003.D
Acq On : 15 Aug 2012 7:22 pm
Sample : VO06H151
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:18 2012

Vial: 2
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
35)	1,1,1-Trichloroethane	7.96	97	24502	0.31 ug/l		88
36)	Cyclohexane	7.97	56	43516	0.33 ug/l		78
37)	tert-Amyl methyl ether (TA	8.44	87	6256	0.30 ug/l	#	70
40)	2,2,4-Trimethylpentane	8.09	57	63588	0.27 ug/l	#	35
41)	1,1-Dichloropropene	8.23	110	8665	0.31 ug/l		100
42)	Carbon tetrachloride	8.39	119	21990	0.30 ug/l		98
43)	1,2-Dichloroethane	8.64	62	17269	0.33 ug/l		98
44)	Benzene	8.66	78	75983	0.35 ug/l		97
45)	Trichloroethene	9.67	130	20780	0.34 ug/l		97
46)	Methylcyclohexane	9.76	83	24772	0.25 ug/l		96
47)	1,2-Dichloropropane	9.97	63	17165	0.31 ug/l		97
49)	Bromodichloromethane	10.34	83	19925	0.30 ug/l		96
50)	Dibromomethane	10.43	93	7349	0.31 ug/l		97
51)	2-Chloroethyl vinyl ether	10.87	63	4981	0.28 ug/l	#	73
52)	4-Methyl-2-pentanone	10.90	43	44301	1.56 ug/l		96
53)	cis-1,3-Dichloropropene	11.25	75	23209	0.30 ug/l		97
55)	Toluene	11.75	91	73602	0.33 ug/l		100
56)	Ethyl methacrylate	12.05	69	11235	0.30 ug/l		92
57)	trans-1,3-Dichloropropene	12.05	75	16807	0.30 ug/l		92
58)	1,1,2-Trichloroethane	12.30	97	8823	0.31 ug/l		98
59)	2-Hexanone	12.33	43	27617	1.64 ug/l		97
60)	1,3-Dichloropropane	12.72	76	19240	0.33 ug/l		94
61)	Tetrachloroethene	12.81	164	15621	0.32 ug/l		96
62)	Dibromochloromethane	13.13	129	10708	0.28 ug/l		95
64)	1,2-Dibromoethane	13.46	107	8536	0.29 ug/l		95
65)	1-Chlorohexane	13.73	91	29482	0.31 ug/l		97
66)	Chlorobenzene	14.14	112	44784	0.33 ug/l		88
67)	1,1,1,2-Tetrachloroethane	14.20	131	12704	0.30 ug/l	#	73
68)	Ethylbenzene	14.22	91	86427	0.34 ug/l		98
69)	m-Xylene & p-Xylene	14.34	91	131936	0.68 ug/l		98
70)	o-Xylene	15.05	91	61093	0.31 ug/l		98
71)	Styrene	15.11	104	42762	0.32 ug/l		98
73)	Isopropylbenzene	15.65	105	74776	0.31 ug/l		99
74)	Bromoform	15.68	173	4130	0.36 ug/l		96
75)	1,1,2,2-Tetrachloroethane	15.93	83	10379	0.32 ug/l		95
77)	1,2,3-Trichloropropane	16.18	110	2356	0.27 ug/l		78
78)	trans-1,4-Dichloro-2-buten	16.29	53	2717	0.28 ug/l	#	36
79)	n-Propylbenzene	16.30	91	101305	0.31 ug/l		100
80)	Bromobenzene	16.37	156	15773	0.31 ug/l		96
81)	1,3,5-Trimethylbenzene	16.55	105	61684	0.32 ug/l		97
82)	2-Chlorotoluene	16.58	91	65346	0.32 ug/l		99

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

8-21-12

2951

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW003.D Vial: 2
Acq On : 15 Aug 2012 7:22 pm Operator: WL
Sample : VO06H151 Inst : TO06
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:18 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
83)	4-Chlorotoluene	16.67	91	52975	0.32 ug/l	98
84)	tert-Butylbenzene	17.12	134	13332	0.30 ug/l	97
85)	1,2,4-Trimethylbenzene	17.18	105	59939	0.32 ug/l	98
86)	sec-Butylbenzene	17.43	105	85786	0.32 ug/l	98
87)	p-Isopropyltoluene	17.62	119	66671	0.32 ug/l	99
88)	1,3-Dichlorobenzene	17.76	146	32320	0.32 ug/l	98
89)	1,4-Dichlorobenzene	17.89	146	31083	0.33 ug/l	100
91)	n-Butylbenzene	18.16	91	68824	0.33 ug/l	97
92)	1,2-Dichlorobenzene	18.37	146	24955	0.33 ug/l	79
94)	1,2,4-Trichlorobenzene	20.27	180	16240	0.34 ug/l	97
95)	Hexachlorobutadiene	20.42	225	11774	0.35 ug/l	97
96)	Naphthalene	20.60	128	21918	0.38 ug/l	98
97)	1,2,3-Trichlorobenzene	20.89	180	11923	0.33 ug/l	93

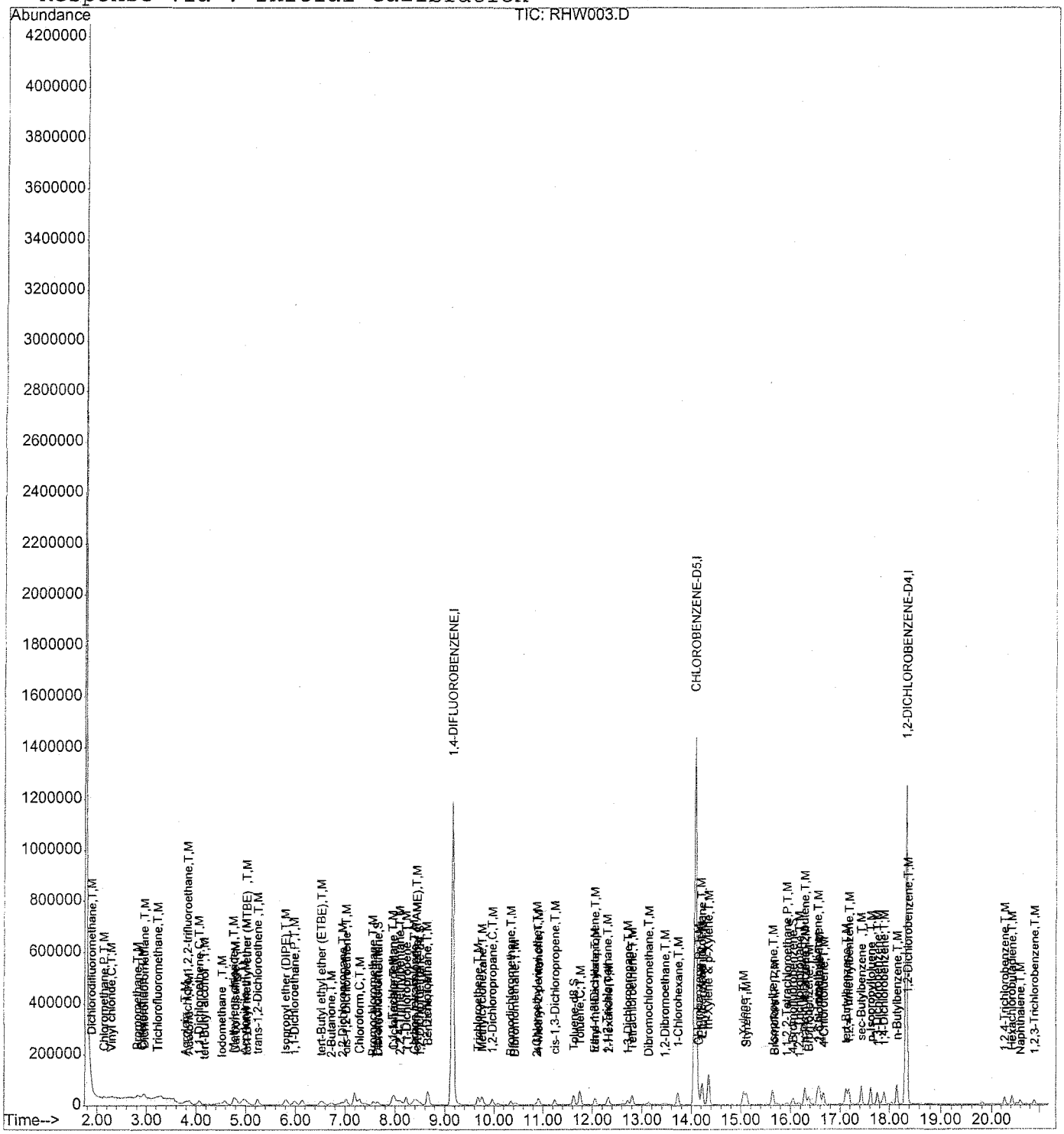
8-21-12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW003.D Vial: 2
Acq On : 15 Aug 2012 7:22 pm Operator: WL
Sample : VO06H151 Inst : TO06
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:18 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2063

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW004.D Vial: 3
Acq On : 15 Aug 2012 7:53 pm Operator: WL
Sample : VO06H152 Inst : TO06
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:22 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1703617	10.00 ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1458151	10.00 ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	509753	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	7.65	111	21073	0.41 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 4.10%	
38) 1,2-Dichloroethane-d4	8.50	65	19012	0.44 ug/l	0.00
Spiked Amount 10.000			Recovery	= 4.40%	
54) Toluene-d8	11.62	98	83846	0.45 ug/l	0.00
Spiked Amount 10.000			Recovery	= 4.50%	
76) 4-Bromofluorobenzene	16.05	95	28145	0.44 ug/l	0.00
Spiked Amount 10.000			Recovery	= 4.40%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.89	85	20953	0.48 ug/l	92
3) Chloromethane	2.15	50	24168	0.46 ug/l	90
4) Vinyl chloride	2.30	62	20387	0.51 ug/l	93
5) Bromomethane	2.82	94	15156	0.48 ug/l	90
6) Chloroethane	2.92	64	11949	0.44 ug/l	83
7) Dichlorofluoromethane	2.96	67	48762	0.52 ug/l	100
8) Trichlorofluoromethane	3.23	101	27297	0.45 ug/l	95
9) Acrolein	3.78	56	4937	2.36 ug/l	81
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	14418	0.50 ug/l	96
11) Acetone	3.87	43	26187	4.51 ug/l	98
12) 1,1-Dichloroethene	4.06	61	43979	0.49 ug/l	99
13) tert-Butyl alcohol	4.15	59	3512	2.13 ug/l	79
15) Methyl acetate	4.54	43	11855	0.63 ug/l	77
16) Iodomethane	4.53	142	36240	0.47 ug/l	99
17) Methylene chloride	4.76	49	56739	0.36 ug/l	88
18) Carbon disulfide	4.79	76	78256	0.43 ug/l	99
19) Acrylonitrile	4.97	53	19079	2.62 ug/l	91
20) tert-Butyl methyl ether (M	5.03	73	43051	0.54 ug/l	100
21) trans-1,2-Dichloroethene	5.22	61	47008	0.50 ug/l	99
22) Isopropyl ether (DIPE)	5.82	45	93324	0.51 ug/l	97
23) Vinyl acetate	6.01	43	29698	0.46 ug/l	95
24) 1,1-Dichloroethane	5.97	63	55031	0.51 ug/l	97
26) tert-Butyl ethyl ether (ET	6.52	59	68382	0.51 ug/l	98
27) 2-Butanone	6.73	43	28920	2.69 ug/l	92
28) 2,2-Dichloropropane	6.93	77	28690	0.53 ug/l	96
29) cis-1,2-Dichloroethene	7.02	96	31993	0.51 ug/l	89
30) Chloroform	7.29	83	50132	0.51 ug/l	99

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

2064

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW004.D
Acq On : 15 Aug 2012 7:53 pm
Sample : VO06H152
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:22 2012

Vial: 3
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
32)	Bromochloromethane	7.56	49	22619	0.52 ug/l		95
33)	Tetrahydrofuran	7.63	42	7871	0.52 ug/l		79
35)	1,1,1-Trichloroethane	7.96	97	40590	0.51 ug/l		99
36)	Cyclohexane	7.96	56	82429	0.62 ug/l		81
37)	tert-Amyl methyl ether (TA	8.44	87	10588	0.50 ug/l	#	85
40)	2,2,4-Trimethylpentane	8.08	57	110317	0.46 ug/l	#	65
41)	1,1-Dichloropropene	8.21	110	13848	0.49 ug/l		96
42)	Carbon tetrachloride	8.36	119	35393	0.48 ug/l		99
43)	1,2-Dichloroethane	8.64	62	27743	0.52 ug/l		97
44)	Benzene	8.66	78	120645	0.55 ug/l		99
45)	Trichloroethene	9.67	130	31959	0.51 ug/l		99
46)	Methylcyclohexane	9.76	83	49386	0.49 ug/l		98
47)	1,2-Dichloropropane	9.97	63	28981	0.52 ug/l		97
48)	1,4-Dioxane	10.40	88	1259	7.27 ug/l		98
49)	Bromodichloromethane	10.34	83	31930	0.47 ug/l		95
50)	Dibromomethane	10.41	93	12143	0.50 ug/l		98
51)	2-Chloroethyl vinyl ether	10.87	63	8158	0.45 ug/l		96
52)	4-Methyl-2-pentanone	10.92	43	71062	2.46 ug/l		98
53)	cis-1,3-Dichloropropene	11.23	75	37625	0.48 ug/l		97
55)	Toluene	11.75	91	119529	0.52 ug/l		98
56)	Ethyl methacrylate	12.05	69	18134	0.48 ug/l		95
57)	trans-1,3-Dichloropropene	12.05	75	27503	0.48 ug/l		95
58)	1,1,2-Trichloroethane	12.30	97	14233	0.50 ug/l		98
59)	2-Hexanone	12.33	43	41670	2.43 ug/l		98
60)	1,3-Dichloropropane	12.72	76	30041	0.50 ug/l		96
61)	Tetrachloroethene	12.81	164	25302	0.51 ug/l		99
62)	Dibromochloromethane	13.13	129	17004	0.44 ug/l		97
64)	1,2-Dibromoethane	13.46	107	14398	0.48 ug/l		98
65)	1-Chlorohexane	13.71	91	47313	0.49 ug/l		95
66)	Chlorobenzene	14.13	112	70862	0.52 ug/l		84
67)	1,1,1,2-Tetrachloroethane	14.20	131	21147	0.49 ug/l		90
68)	Ethylbenzene	14.22	91	135256	0.53 ug/l		99
69)	m-Xylene & p-Xylene	14.34	91	206361	1.05 ug/l		99
70)	o-Xylene	15.05	91	99288	0.50 ug/l		98
71)	Styrene	15.11	104	68116	0.50 ug/l		99
73)	Isopropylbenzene	15.65	105	120430	0.50 ug/l		99
74)	Bromoform	15.68	173	7043	0.51 ug/l		96
75)	1,1,2,2-Tetrachloroethane	15.91	83	15303	0.48 ug/l		97
77)	1,2,3-Trichloropropane	16.17	110	4052	0.47 ug/l		90
78)	trans-1,4-Dichloro-2-buten	16.29	53	4776	0.50 ug/l		81
79)	n-Propylbenzene	16.30	91	162398	0.51 ug/l		99

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

8-21-12

2065

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW004.D Vial: 3
Acq On : 15 Aug 2012 7:53 pm Operator: WL
Sample : VO06H152 Inst : TO06
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:22 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
80)	Bromobenzene	16.37	156	23899	0.48 ug/l	93
81)	1,3,5-Trimethylbenzene	16.55	105	96883	0.51 ug/l	99
82)	2-Chlorotoluene	16.58	91	104548	0.53 ug/l	97
83)	4-Chlorotoluene	16.66	91	83320	0.52 ug/l	99
84)	tert-Butylbenzene	17.12	134	21385	0.49 ug/l	94
85)	1,2,4-Trimethylbenzene	17.18	105	94900	0.52 ug/l	98
86)	sec-Butylbenzene	17.43	105	134927	0.51 ug/l	99
87)	p-Isopropyltoluene	17.62	119	100414	0.50 ug/l	98
88)	1,3-Dichlorobenzene	17.76	146	48506	0.49 ug/l	97
89)	1,4-Dichlorobenzene	17.89	146	47842	0.51 ug/l	99
91)	n-Butylbenzene	18.16	91	108127	0.53 ug/l	98
92)	1,2-Dichlorobenzene	18.37	146	39789	0.53 ug/l	89
93)	1,2-Dibromo-3-chloropropan	19.27	157	1350	0.37 ug/l	90
94)	1,2,4-Trichlorobenzene	20.27	180	25155	0.53 ug/l	99
95)	Hexachlorobutadiene	20.42	225	17616	0.53 ug/l	98
96)	Naphthalene	20.60	128	32432	0.57 ug/l	97
97)	1,2,3-Trichlorobenzene	20.88	180	19010	0.54 ug/l	98

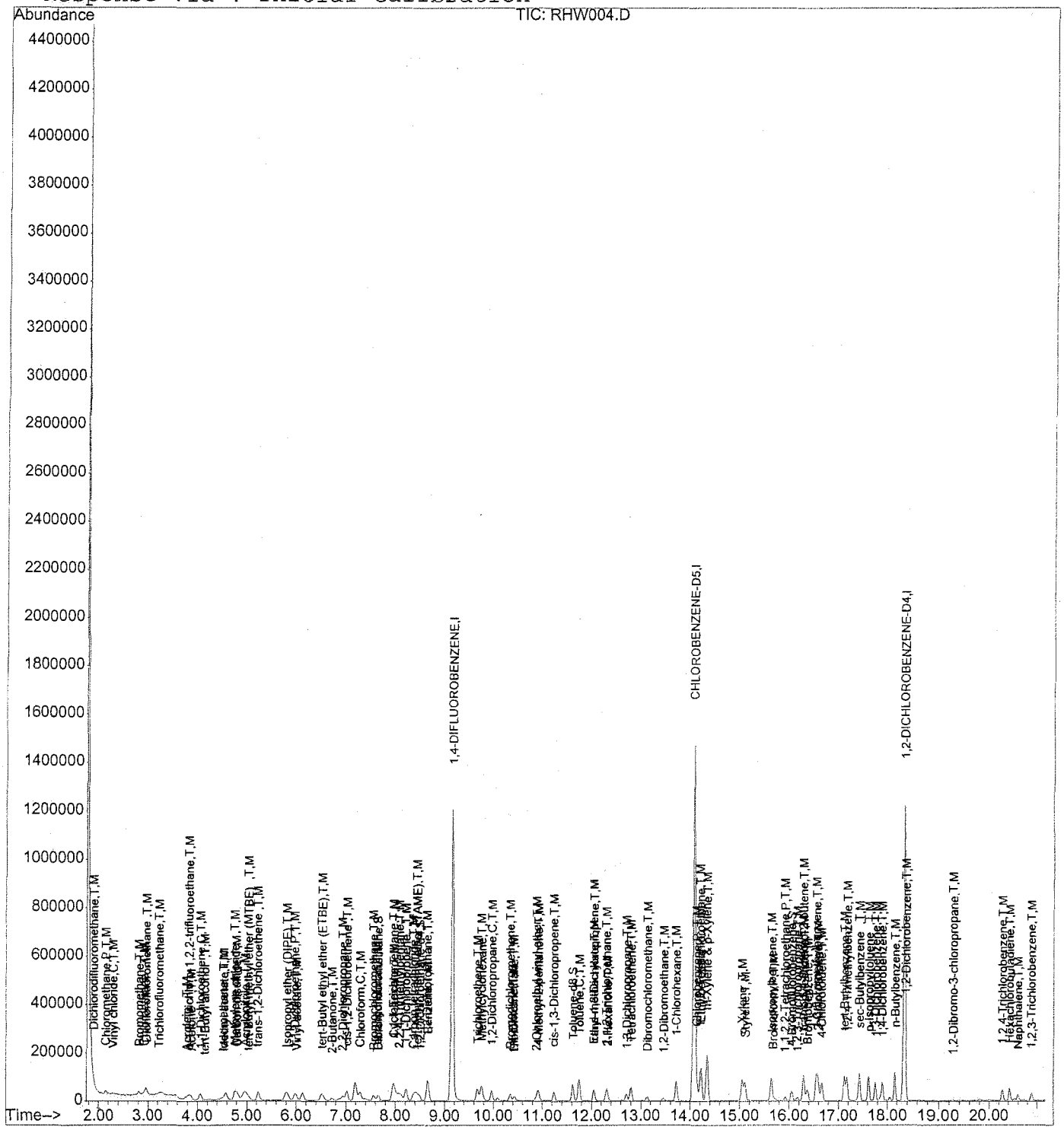
m 8-21-12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW004.D Vial: 3
Acq On : 15 Aug 2012 7:53 pm Operator: WL
Sample : VO06H152 Inst : TO06
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:22 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2067

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW005.D Vial: 4
Acq On : 15 Aug 2012 8:23 pm Operator: WL
Sample : VO06H153 Inst : TO06
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1673201	10.00 ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1429024	10.00 ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	505065	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	7.66	111	51245	1.01 ug/l	0.00
Spiked Amount 10.000			Recovery	= 10.10%	
38) 1,2-Dichloroethane-d4	8.50	65	45565	1.08 ug/l	0.00
Spiked Amount 10.000			Recovery	= 10.80%	
54) Toluene-d8	11.62	98	186357	1.02 ug/l	0.00
Spiked Amount 10.000			Recovery	= 10.20%	
76) 4-Bromofluorobenzene	16.05	95	61162	0.97 ug/l	0.00
Spiked Amount 10.000			Recovery	= 9.70%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.89	85	39436	0.91 ug/l	97
3) Chloromethane	2.15	50	50246	0.97 ug/l	98
4) Vinyl chloride	2.30	62	38471	0.99 ug/l	100
5) Bromomethane	2.82	94	26982	0.86 ug/l	97
6) Chloroethane	2.92	64	24082	0.90 ug/l	70
7) Dichlorofluoromethane	2.96	67	100275	1.09 ug/l	100
8) Trichlorofluoromethane	3.23	101	52299	0.88 ug/l	95
9) Acrolein	3.78	56	10247	4.98 ug/l	90
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	28048	1.00 ug/l	99
11) Acetone	3.87	43	40947	7.19 ug/l	94
12) 1,1-Dichloroethene	4.06	61	91023	1.04 ug/l	99
13) tert-Butyl alcohol	4.18	59	7773	4.81 ug/l #	1
15) Methyl acetate	4.54	43	20435	1.10 ug/l	88
16) Iodomethane	4.53	142	77217	1.02 ug/l	97
17) Methylene chloride	4.76	49	91847	0.99 ug/l	87
18) Carbon disulfide	4.79	76	173107	0.96 ug/l	99
19) Acrylonitrile	4.97	53	35595	4.97 ug/l	96
20) tert-Butyl methyl ether (M	5.02	73	81211	1.03 ug/l	96
21) trans-1,2-Dichloroethene	5.24	61	97779	1.05 ug/l	99
22) Isopropyl ether (DIPE)	5.80	45	190111	1.05 ug/l	100
23) Vinyl acetate	6.01	43	59347	0.94 ug/l	93
24) 1,1-Dichloroethane	5.98	63	111862	1.05 ug/l	98
25) 2-Butanol	6.40	45	7406	4.68 ug/l #	1
26) tert-Butyl ethyl ether (ET	6.52	59	135737	1.03 ug/l	99
27) 2-Butanone	6.73	43	56503	5.34 ug/l	95
28) 2,2-Dichloropropane	6.95	77	59565	1.12 ug/l	99
29) cis-1,2-Dichloroethene	7.02	96	64723	1.06 ug/l	92

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

2068

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW005.D Vial: 4
Acq On : 15 Aug 2012 8:23 pm Operator: WL
Sample : VO06H153 Inst : TO06
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	Chloroform	7.29	83	103368	1.07 ug/l		99
32)	Bromochloromethane	7.56	49	44249	1.04 ug/l		98
33)	Tetrahydrofuran	7.63	42	11616	1.13 ug/l		88
35)	1,1,1-Trichloroethane	7.96	97	83109	1.06 ug/l		98
36)	Cyclohexane	7.98	56	129179	0.99 ug/l		99
37)	tert-Amyl methyl ether (TA	8.44	87	20999	1.02 ug/l	#	87
40)	2,2,4-Trimethylpentane	8.08	57	245956	1.06 ug/l		98
41)	1,1-Dichloropropene	8.23	110	28608	1.03 ug/l		96
42)	Carbon tetrachloride	8.38	119	74094	1.02 ug/l		99
43)	1,2-Dichloroethane	8.66	62	56571	1.08 ug/l		98
44)	Benzene	8.66	78	232071	1.07 ug/l		99
45)	Trichloroethene	9.67	130	60521	0.98 ug/l		96
46)	Methylcyclohexane	9.76	83	102096	1.03 ug/l		100
47)	1,2-Dichloropropane	9.97	63	56714	1.03 ug/l		95
48)	1,4-Dioxane	10.40	88	2768	16.30 ug/l		83
49)	Bromodichloromethane	10.34	83	64730	0.97 ug/l		100
50)	Dibromomethane	10.43	93	24178	1.02 ug/l		99
51)	2-Chloroethyl vinyl ether	10.87	63	16592	0.94 ug/l		95
52)	4-Methyl-2-pentanone	10.92	43	139657	4.94 ug/l		98
53)	cis-1,3-Dichloropropene	11.25	75	73739	0.96 ug/l		97
55)	Toluene	11.75	91	236657	1.06 ug/l		97
56)	Ethyl methacrylate	12.05	69	35532	0.97 ug/l		96
57)	trans-1,3-Dichloropropene	12.05	75	54367	0.96 ug/l		99
58)	1,1,2-Trichloroethane	12.30	97	29119	1.04 ug/l		97
59)	2-Hexanone	12.33	43	83000	4.94 ug/l		97
60)	1,3-Dichloropropane	12.72	76	59265	1.01 ug/l		97
61)	Tetrachloroethene	12.81	164	50330	1.03 ug/l		98
62)	Dibromochloromethane	13.13	129	35608	0.94 ug/l		94
64)	1,2-Dibromoethane	13.46	107	28307	0.97 ug/l		95
65)	1-Chlorohexane	13.73	91	96208	1.02 ug/l		98
66)	Chlorobenzene	14.13	112	139335	1.04 ug/l		92
67)	1,1,1,2-Tetrachloroethane	14.20	131	42927	1.01 ug/l		95
68)	Ethylbenzene	14.22	91	274158	1.09 ug/l		100
69)	m-Xylene & p-Xylene	14.35	91	417376	2.16 ug/l		98
70)	o-Xylene	15.05	91	203488	1.05 ug/l		100
71)	Styrene	15.11	104	135649	1.02 ug/l		98
73)	Isopropylbenzene	15.65	105	237288	1.00 ug/l		99
74)	Bromoform	15.68	173	15268	0.93 ug/l		94
75)	1,1,2,2-Tetrachloroethane	15.93	83	29732	0.94 ug/l		95
77)	1,2,3-Trichloropropane	16.17	110	8010	0.95 ug/l		93
78)	trans-1,4-Dichloro-2-buten	16.29	53	9117	0.96 ug/l		85

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW005.D
Acq On : 15 Aug 2012 8:23 pm
Sample : VO06H153
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012

Vial: 4
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.30	91	327991	1.04 ug/l	99
80)	Bromobenzene	16.38	156	49366	1.00 ug/l	97
81)	1,3,5-Trimethylbenzene	16.55	105	199135	1.05 ug/l	100
82)	2-Chlorotoluene	16.58	91	207086	1.05 ug/l	100
83)	4-Chlorotoluene	16.67	91	171135	1.07 ug/l	98
84)	tert-Butylbenzene	17.12	134	45587	1.05 ug/l	98
85)	1,2,4-Trimethylbenzene	17.18	105	193048	1.06 ug/l	98
86)	sec-Butylbenzene	17.43	105	274112	1.05 ug/l	99
87)	p-Isopropyltoluene	17.62	119	210230	1.05 ug/l	99
88)	1,3-Dichlorobenzene	17.76	146	101947	1.05 ug/l	99
89)	1,4-Dichlorobenzene	17.91	146	94960	1.02 ug/l	100
91)	n-Butylbenzene	18.16	91	216306	1.06 ug/l	99
92)	1,2-Dichlorobenzene	18.37	146	76455	1.02 ug/l	92
93)	1,2-Dibromo-3-chloropropan	19.27	157	3715	1.01 ug/l	95
94)	1,2,4-Trichlorobenzene	20.27	180	51109	1.09 ug/l	100
95)	Hexachlorobutadiene	20.43	225	36524	1.10 ug/l	98
96)	Naphthalene	20.60	128	65964	1.16 ug/l	99
97)	1,2,3-Trichlorobenzene	20.89	180	39673	1.13 ug/l	97

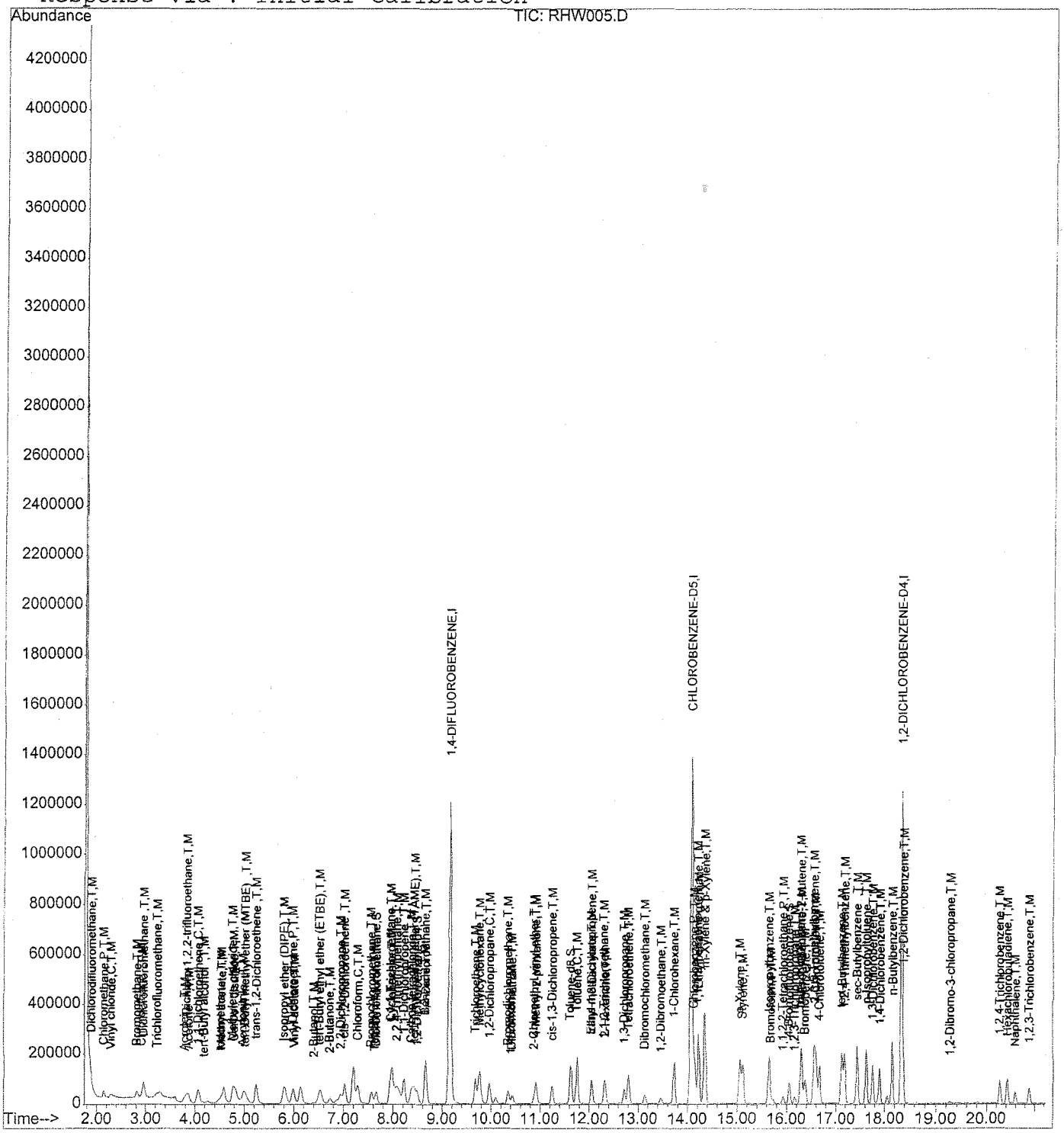
8-21-12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW005.D Vial: 4
Acq On : 15 Aug 2012 8:23 pm Operator: WL
Sample : VO06H153 Inst : TO06
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2871

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW006.D Vial: 5
Acq On : 15 Aug 2012 8:54 pm Operator: WL
Sample : VO06H154 Inst : TO06
Misc : 2.0ppb 8260/10ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1618568	10.00 ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1396085	10.00 ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	508493	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	7.65	111	101453	2.08 ug/l	0.00
Spiked Amount 10.000			Recovery	= 20.80%	
38) 1,2-Dichloroethane-d4	8.48	65	86205	2.11 ug/l	0.00
Spiked Amount 10.000			Recovery	= 21.10%	
54) Toluene-d8	11.62	98	368158	2.07 ug/l	0.00
Spiked Amount 10.000			Recovery	= 20.70%	
76) 4-Bromofluorobenzene	16.05	95	117946	1.86 ug/l	0.00
Spiked Amount 10.000			Recovery	= 18.60%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.90	85	82608	1.98 ug/l	96
3) Chloromethane	2.15	50	105880	2.11 ug/l	99
4) Vinyl chloride	2.30	62	85560	2.27 ug/l	99
5) Bromomethane	2.81	94	63968	2.12 ug/l	98
6) Chloroethane	2.92	64	55972	2.17 ug/l	96
7) Dichlorofluoromethane	2.95	67	167155	1.88 ug/l	99
8) Trichlorofluoromethane	3.24	101	120111	2.09 ug/l	99
9) Acrolein	3.77	56	19857	9.99 ug/l	88
10) 1,1,2-Trichloro-1,2,2-trif	3.82	151	47113	1.73 ug/l	99
11) Acetone	3.86	43	67002	12.15 ug/l	98
12) 1,1-Dichloroethene	4.07	61	159017	1.87 ug/l	99
13) tert-Butyl alcohol	4.16	59	14837	9.48 ug/l	89
15) Methyl acetate	4.54	43	38601	2.14 ug/l	93
16) Iodomethane	4.53	142	133840	1.84 ug/l	100
17) Methylene chloride	4.81	49	141893	1.95 ug/l	96
18) Carbon disulfide	4.80	76	357660	2.06 ug/l	98
19) Acrylonitrile	4.98	53	75207	10.86 ug/l	98
20) tert-Butyl methyl ether (M	5.02	73	147462	1.94 ug/l	98
21) trans-1,2-Dichloroethene	5.23	61	171235	1.90 ug/l	99
22) Isopropyl ether (DIPE)	5.81	45	335920	1.92 ug/l	100
23) Vinyl acetate	6.00	43	132604	2.18 ug/l	98
24) 1,1-Dichloroethane	5.97	63	201521	1.96 ug/l	98
25) 2-Butanol	6.39	45	16314	10.66 ug/l	100
26) tert-Butyl ethyl ether (ET	6.52	59	249404	1.95 ug/l	97
27) 2-Butanone	6.72	43	102090	9.98 ug/l	100
28) 2,2-Dichloropropane	6.94	77	100286	1.94 ug/l	97
29) cis-1,2-Dichloroethene	7.03	96	116215	1.96 ug/l	95

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

8-21-12

2072

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW006.D Vial: 5
Acq On : 15 Aug 2012 8:54 pm Operator: WL
Sample : VO06H154 Inst : TO06
Misc : 2.0ppb 8260/10ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	Chloroform	7.30	83	182486	1.95 ug/l		99
32)	Bromochloromethane	7.56	49	79143	1.92 ug/l		97
33)	Tetrahydrofuran	7.64	42	15988	1.89 ug/l		92
35)	1,1,1-Trichloroethane	7.95	97	145342	1.91 ug/l		98
36)	Cyclohexane	7.98	56	249186	1.98 ug/l		98
37)	tert-Amyl methyl ether (TA	8.43	87	37682	1.89 ug/l	#	92
40)	2,2,4-Trimethylpentane	8.10	57	487559	2.14 ug/l	#	72
41)	1,1-Dichloropropene	8.22	110	50224	1.85 ug/l		98
42)	Carbon tetrachloride	8.38	119	123566	1.75 ug/l		98
43)	1,2-Dichloroethane	8.65	62	98273	1.92 ug/l		98
44)	Benzene	8.66	78	397990	1.89 ug/l		100
45)	Trichloroethene	9.67	130	107729	1.79 ug/l		98
46)	Methylcyclohexane	9.76	83	202463	2.08 ug/l		99
47)	1,2-Dichloropropane	9.96	63	101276	1.89 ug/l		98
48)	1,4-Dioxane	10.39	88	5668	34.16 ug/l		86
49)	Bromodichloromethane	10.34	83	118900	1.83 ug/l		98
50)	Dibromomethane	10.43	93	42323	1.82 ug/l		96
51)	2-Chloroethyl vinyl ether	10.86	63	30948	1.79 ug/l		96
52)	4-Methyl-2-pentanone	10.91	43	287213	10.41 ug/l		100
53)	cis-1,3-Dichloropropene	11.24	75	137917	1.83 ug/l		98
55)	Toluene	11.74	91	422830	1.93 ug/l		100
56)	Ethyl methacrylate	12.05	69	65922	1.84 ug/l		99
57)	trans-1,3-Dichloropropene	12.05	75	101468	1.84 ug/l		99
58)	1,1,2-Trichloroethane	12.31	97	50525	1.84 ug/l		98
59)	2-Hexanone	12.32	43	172004	10.47 ug/l		99
60)	1,3-Dichloropropane	12.71	76	107465	1.88 ug/l		99
61)	Tetrachloroethene	12.80	164	88580	1.86 ug/l		99
62)	Dibromochloromethane	13.14	129	65524	1.77 ug/l		100
64)	1,2-Dibromoethane	13.45	107	53132	1.86 ug/l		98
65)	1-Chlorohexane	13.72	91	168675	1.83 ug/l		98
66)	Chlorobenzene	14.13	112	247756	1.89 ug/l		97
67)	1,1,1,2-Tetrachloroethane	14.21	131	78848	1.90 ug/l		97
68)	Ethylbenzene	14.22	91	482379	1.96 ug/l		99
69)	m-Xylene & p-Xylene	14.34	91	715107	3.79 ug/l		99
70)	o-Xylene	15.06	91	365341	1.94 ug/l		99
71)	Styrene	15.12	104	248576	1.90 ug/l		99
73)	Isopropylbenzene	15.64	105	421211	1.77 ug/l		99
74)	Bromoform	15.67	173	29596	1.64 ug/l		94
75)	1,1,2,2-Tetrachloroethane	15.92	83	56006	1.76 ug/l		98
77)	1,2,3-Trichloropropane	16.17	110	15679	1.84 ug/l		96
78)	trans-1,4-Dichloro-2-buten	16.28	53	15639	1.64 ug/l		98

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

TW 8-21-12

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW006.D Vial: 5
Acq On : 15 Aug 2012 8:54 pm Operator: WL
Sample : VO06H154 Inst : TO06
Misc : 2.0ppb 8260/10ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79) n-Propylbenzene	16.29	91	577309	1.81 ug/l	100
80) Bromobenzene	16.38	156	88741	1.79 ug/l	99
81) 1,3,5-Trimethylbenzene	16.54	105	347648	1.82 ug/l	100
82) 2-Chlorotoluene	16.59	91	339754	1.71 ug/l	94
83) 4-Chlorotoluene	16.66	91	312137	1.94 ug/l	92
84) tert-Butylbenzene	17.12	134	77031	1.76 ug/l	94
85) 1,2,4-Trimethylbenzene	17.18	105	339828	1.85 ug/l	99
86) sec-Butylbenzene	17.43	105	494666	1.88 ug/l	98
87) p-Isopropyltoluene	17.61	119	375039	1.86 ug/l	99
88) 1,3-Dichlorobenzene	17.76	146	178657	1.82 ug/l	100
89) 1,4-Dichlorobenzene	17.90	146	169913	1.82 ug/l	99
91) n-Butylbenzene	18.15	91	378504	1.85 ug/l	99
92) 1,2-Dichlorobenzene	18.37	146	138371	1.84 ug/l	96
93) 1,2-Dibromo-3-chloropropan	19.26	157	6831	1.85 ug/l	93
94) 1,2,4-Trichlorobenzene	20.27	180	92641	1.96 ug/l	100
95) Hexachlorobutadiene	20.42	225	66920	2.01 ug/l	99
96) Naphthalene	20.59	128	119352	2.09 ug/l	99
97) 1,2,3-Trichlorobenzene	20.88	180	71975	2.04 ug/l	100

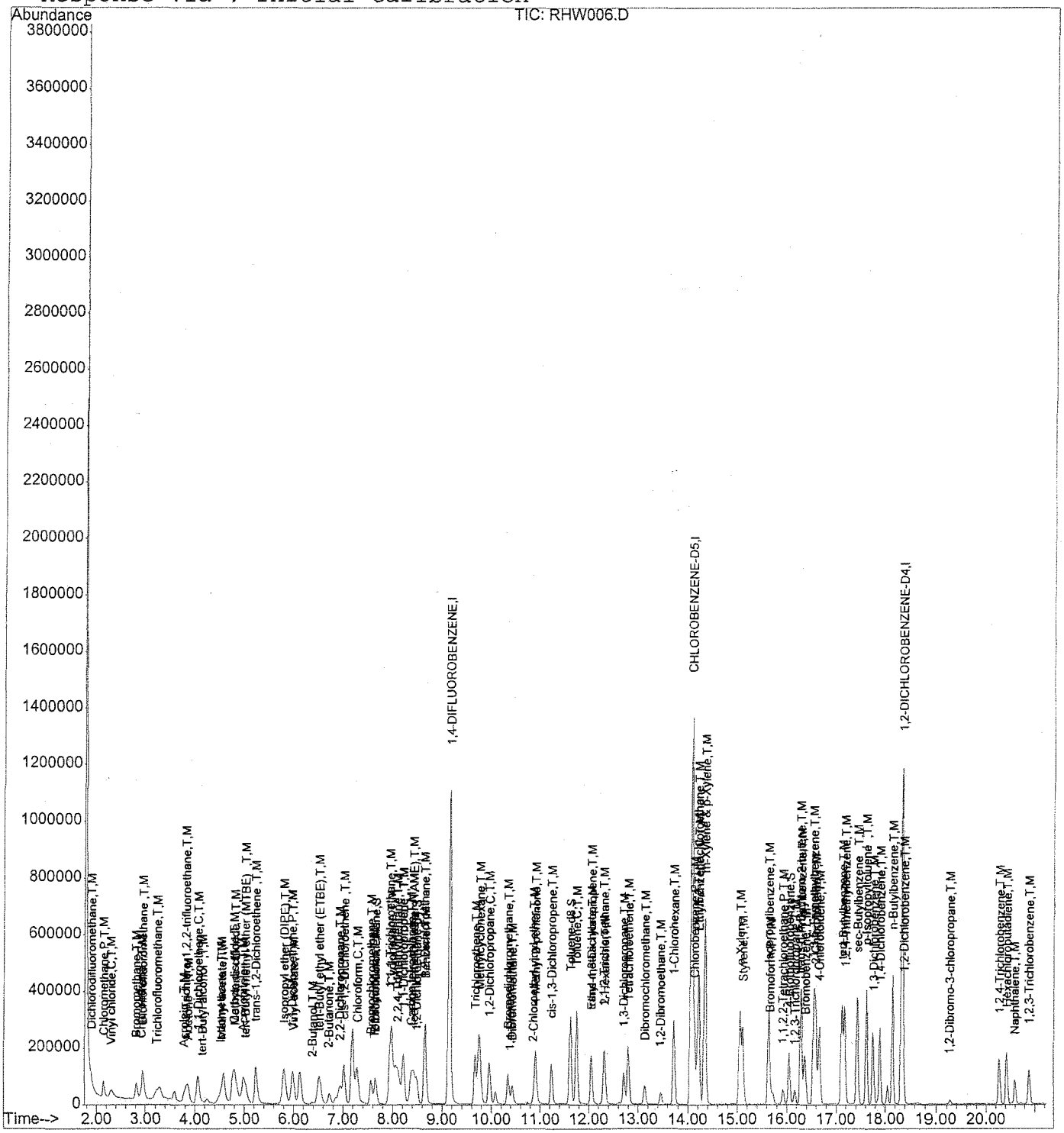
8-21-12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW006.D Vial: 5
Acq On : 15 Aug 2012 8:54 pm Operator: WL
Sample : VO06H154 Inst : TO06
Misc : 2.0ppb 8260/10ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2075

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW007.D Vial: 6
Acq On : 15 Aug 2012 9:23 pm Operator: WL
Sample : VO06H155 Inst : TO06
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1604526	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1363601	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	475284	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.66	111	272737	5.63	ug/l	0.00
Spiked Amount 10.000			Recovery	=	56.30%	
38) 1,2-Dichloroethane-d4	8.49	65	223713	5.53	ug/l	0.00
Spiked Amount 10.000			Recovery	=	55.30%	
54) Toluene-d8	11.62	98	991496	5.70	ug/l	0.00
Spiked Amount 10.000			Recovery	=	57.00%	
76) 4-Bromofluorobenzene	16.05	95	318737	5.39	ug/l	0.00
Spiked Amount 10.000			Recovery	=	53.90%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	227348	5.49	ug/l	99
3) Chloromethane	2.15	50	274065	5.51	ug/l	99
4) Vinyl chloride	2.29	62	220559	5.91	ug/l	100
5) Bromomethane	2.82	94	174139	5.82	ug/l	98
6) Chloroethane	2.92	64	142362	5.57	ug/l	99
7) Dichlorofluoromethane	2.96	67	447796	5.08	ug/l	99
8) Trichlorofluoromethane	3.25	101	332011	5.82	ug/l	100
9) Acrolein	3.77	56	48101	24.40	ug/l	98
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	135307	5.02	ug/l	98
11) Acetone	3.87	43	133634	24.45	ug/l	99
12) 1,1-Dichloroethene	4.06	61	428148	5.08	ug/l	99
13) tert-Butyl alcohol	4.15	59	38933	25.10	ug/l	96
15) Methyl acetate	4.54	43	94696	5.30	ug/l	95
16) Iodomethane	4.53	142	368460	5.10	ug/l	100
17) Methylene chloride	4.76	49	330793	5.42	ug/l	88
18) Carbon disulfide	4.79	76	909489	5.28	ug/l	98
19) Acrylonitrile	4.97	53	169870	24.74	ug/l	99
20) tert-Butyl methyl ether (M	5.02	73	373095	4.95	ug/l	99
21) trans-1,2-Dichloroethene	5.24	61	460561	5.16	ug/l	99
22) Isopropyl ether (DIPE)	5.80	45	878334	5.06	ug/l	99
23) Vinyl acetate	6.00	43	327957	5.44	ug/l	99
24) 1,1-Dichloroethane	5.97	63	533874	5.23	ug/l	99
25) 2-Butanol	6.38	45	40749	26.87	ug/l	100
26) tert-Butyl ethyl ether (ET	6.52	59	628638	4.95	ug/l	100
27) 2-Butanone	6.73	43	229024	22.58	ug/l	99
28) 2,2-Dichloropropane	6.95	77	271706	5.31	ug/l	99
29) cis-1,2-Dichloroethene	7.02	96	296030	5.05	ug/l	98

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

8-21-12

2076

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW007.D Vial: 6
Acq On : 15 Aug 2012 9:23 pm Operator: WL
Sample : VO06H155 Inst : TO06
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30)	Chloroform	7.29	83	466289	5.02	ug/l		99
32)	Bromochloromethane	7.56	49	201195	4.93	ug/l		99
33)	Tetrahydrofuran	7.62	42	33501	4.76	ug/l		96
35)	1,1,1-Trichloroethane	7.96	97	394281	5.22	ug/l		99
36)	Cyclohexane	7.97	56	662284	5.30	ug/l		97
37)	tert-Amyl methyl ether (TA	8.44	87	95347	4.82	ug/l		97
40)	2,2,4-Trimethylpentane	8.06	57	1257309	5.66	ug/l	#	71
41)	1,1-Dichloropropene	8.23	110	133700	5.04	ug/l		99
42)	Carbon tetrachloride	8.38	119	347046	5.03	ug/l		100
43)	1,2-Dichloroethane	8.64	62	248640	4.97	ug/l		98
44)	Benzene	8.66	78	1003623	4.87	ug/l		99
45)	Trichloroethene	9.67	130	294680	5.01	ug/l		99
46)	Methylcyclohexane	9.74	83	556650	5.86	ug/l		99
47)	1,2-Dichloropropane	9.97	63	258681	4.95	ug/l		99
48)	1,4-Dioxane	10.38	88	17298	106.75	ug/l		93
49)	Bromodichloromethane	10.34	83	314611	4.95	ug/l		100
50)	Dibromomethane	10.43	93	112515	4.96	ug/l		100
51)	2-Chloroethyl vinyl ether	10.86	63	84096	4.98	ug/l		97
52)	4-Methyl-2-pentanone	10.90	43	666513	24.72	ug/l		99
53)	cis-1,3-Dichloropropene	11.23	75	370435	5.04	ug/l		99
55)	Toluene	11.75	91	1094034	5.12	ug/l		100
56)	Ethyl methacrylate	12.05	69	172024	4.91	ug/l		98
57)	trans-1,3-Dichloropropene	12.05	75	265645	4.94	ug/l		98
58)	1,1,2-Trichloroethane	12.30	97	133903	4.99	ug/l		99
59)	2-Hexanone	12.32	43	398004	24.80	ug/l		99
60)	1,3-Dichloropropane	12.72	76	274852	4.92	ug/l		99
61)	Tetrachloroethene	12.81	164	231048	4.98	ug/l		98
62)	Dibromochloromethane	13.13	129	177559	4.91	ug/l		100
64)	1,2-Dibromoethane	13.46	107	138373	4.96	ug/l		100
65)	1-Chlorohexane	13.71	91	460739	5.12	ug/l		99
66)	Chlorobenzene	14.13	112	636167	4.97	ug/l		99
67)	1,1,1,2-Tetrachloroethane	14.20	131	202193	4.99	ug/l		99
68)	Ethylbenzene	14.22	91	1226929	5.12	ug/l		99
69)	m-Xylene & p-Xylene	14.34	91	1863799	10.12	ug/l		99
70)	o-Xylene	15.05	91	961229	5.22	ug/l		98
71)	Styrene	15.11	104	671239	5.27	ug/l		99
73)	Isopropylbenzene	15.63	105	1125864	5.06	ug/l		100
74)	Bromoform	15.68	173	79924	4.44	ug/l		98
75)	1,1,2,2-Tetrachloroethane	15.93	83	144519	4.86	ug/l		99
77)	1,2,3-Trichloropropane	16.17	110	39777	4.99	ug/l		95
78)	trans-1,4-Dichloro-2-buten	16.27	53	44561	4.98	ug/l		94

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

8-21-12

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW007.D Vial: 6
Acq On : 15 Aug 2012 9:23 pm Operator: WL
Sample : VO06H155 Inst : TO06
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.29	91	1530106	5.15 ug/l	100
80)	Bromobenzene	16.37	156	225647	4.87 ug/l	100
81)	1,3,5-Trimethylbenzene	16.55	105	908147	5.08 ug/l	99
82)	2-Chlorotoluene	16.58	91	946708	5.11 ug/l	100
83)	4-Chlorotoluene	16.66	91	719573	4.79 ug/l	100
84)	tert-Butylbenzene	17.12	134	207964	5.07 ug/l	98
85)	1,2,4-Trimethylbenzene	17.18	105	882877	5.14 ug/l	99
86)	sec-Butylbenzene	17.43	105	1274782	5.17 ug/l	99
87)	p-Isopropyltoluene	17.62	119	969946	5.14 ug/l	99
88)	1,3-Dichlorobenzene	17.76	146	456443	4.98 ug/l	99
89)	1,4-Dichlorobenzene	17.89	146	438860	5.02 ug/l	100
91)	n-Butylbenzene	18.14	91	1000797	5.22 ug/l	99
92)	1,2-Dichlorobenzene	18.37	146	352899	5.02 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.27	157	18345	5.33 ug/l	98
94)	1,2,4-Trichlorobenzene	20.27	180	242082	5.49 ug/l	99
95)	Hexachlorobutadiene	20.42	225	174184	5.59 ug/l	99
96)	Naphthalene	20.60	128	301325	5.63 ug/l	100
97)	1,2,3-Trichlorobenzene	20.89	180	183762	5.57 ug/l	99

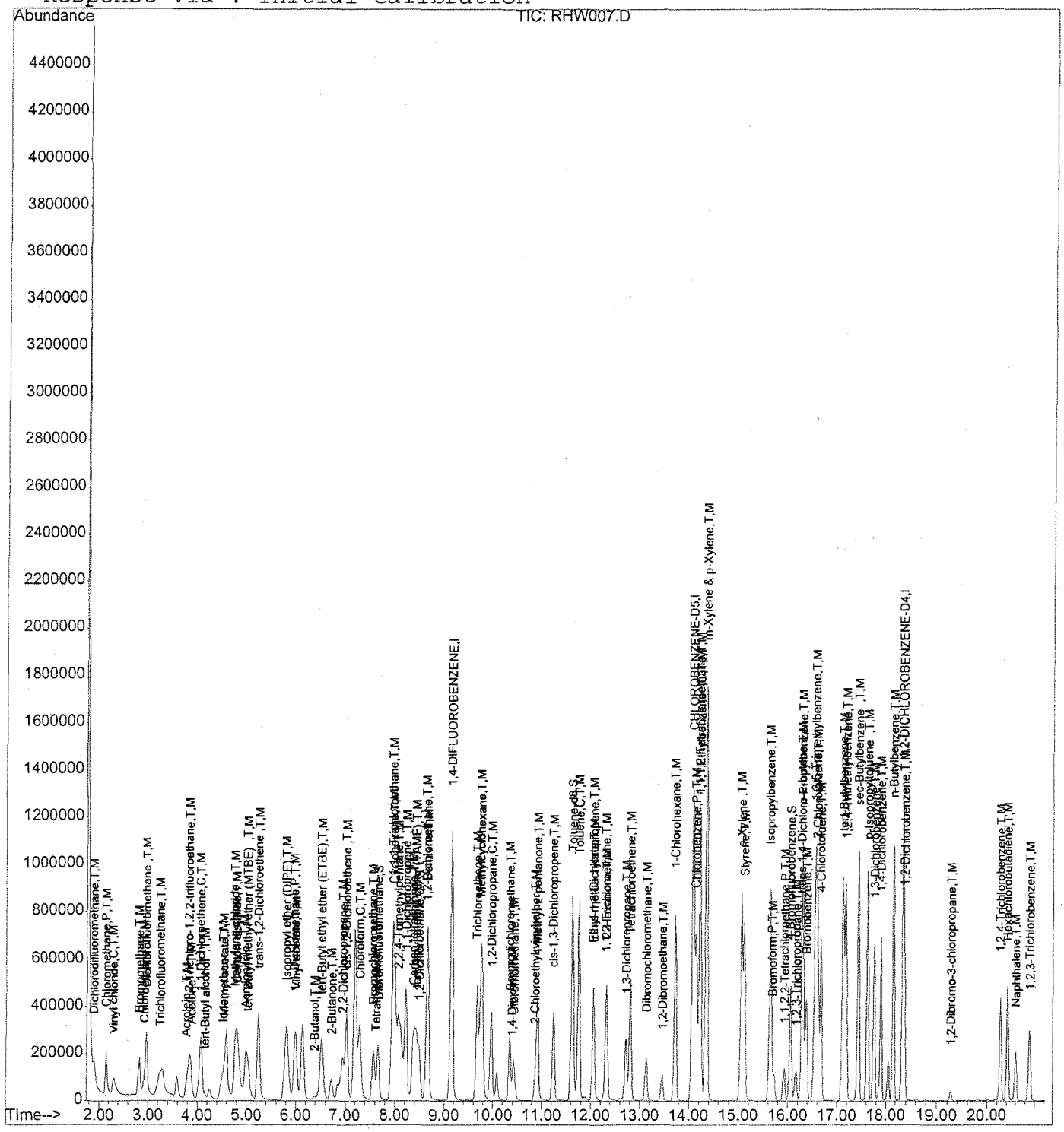
8-21-12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW007.D Vial: 6
Acq On : 15 Aug 2012 9:23 pm Operator: WL
Sample : VO06H155 Inst : TO06
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW008.D Vial: 7
Acq On : 15 Aug 2012 9:54 pm Operator: WL
Sample : VO06H156 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1654332	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1432235	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	489315	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.66	111	547360	10.96	ug/l	0.00
Spiked Amount 10.000			Recovery	=	109.60%	
38) 1,2-Dichloroethane-d4	8.49	65	460705	11.04	ug/l	0.00
Spiked Amount 10.000			Recovery	=	110.40%	
54) Toluene-d8	11.62	98	1938847	10.61	ug/l	0.00
Spiked Amount 10.000			Recovery	=	106.10%	
76) 4-Bromofluorobenzene	16.05	95	634772	10.42	ug/l	0.00
Spiked Amount 10.000			Recovery	=	104.20%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	427306	10.02	ug/l	100
3) Chloromethane	2.15	50	528794	10.31	ug/l	100
4) Vinyl chloride	2.29	62	390122	10.13	ug/l	100
5) Bromomethane	2.81	94	334700	10.85	ug/l	100
6) Chloroethane	2.92	64	288185	10.95	ug/l	100
7) Dichlorofluoromethane	2.96	67	949901	10.46	ug/l	100
8) Trichlorofluoromethane	3.25	101	618983	10.53	ug/l	100
9) Acrolein	3.77	56	103473	50.91	ug/l	100
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	279245	10.04	ug/l	100
11) Acetone	3.86	43	281216	49.91	ug/l	100
12) 1,1-Dichloroethene	4.06	61	883388	10.17	ug/l	100
13) tert-Butyl alcohol	4.15	59	91451	57.19	ug/l	100
15) Methyl acetate	4.54	43	172219	9.36	ug/l	100
16) Iodomethane	4.52	142	752457	10.10	ug/l	100
17) Methylene chloride	4.76	49	648778	10.88	ug/l	100
18) Carbon disulfide	4.79	76	1876655	10.57	ug/l	100
19) Acrylonitrile	4.97	53	362605	51.22	ug/l	100
20) tert-Butyl methyl ether (M	5.02	73	817115	10.50	ug/l	100
21) trans-1,2-Dichloroethene	5.24	61	924416	10.04	ug/l	100
22) Isopropyl ether (DIPE)	5.80	45	1857211	10.37	ug/l	100
23) Vinyl acetate	6.00	43	656451	10.55	ug/l	100
24) 1,1-Dichloroethane	5.97	63	1073447	10.19	ug/l	100
25) 2-Butanol	6.37	45	73836	47.22	ug/l	100
26) tert-Butyl ethyl ether (ET	6.52	59	1345996	10.29	ug/l	100
27) 2-Butanone	6.72	43	512648	49.02	ug/l	100
28) 2,2-Dichloropropane	6.93	77	546977	10.36	ug/l	100
29) cis-1,2-Dichloroethene	7.02	96	600621	9.93	ug/l	100

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW008.D
Acq On : 15 Aug 2012 9:54 pm
Sample : VO06H156
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012

Vial: 7
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30)	Chloroform	7.29	83	951680	9.95 ug/l	100
32)	Bromochloromethane	7.56	49	433861	10.30 ug/l	100
33)	Tetrahydrofuran	7.62	42	67722	9.99 ug/l	100
35)	1,1,1-Trichloroethane	7.96	97	800820	10.29 ug/l	100
36)	Cyclohexane	7.97	56	1217420	9.45 ug/l	100
37)	tert-Amyl methyl ether (TA	8.43	87	219210	10.75 ug/l	100
40)	2,2,4-Trimethylpentane	8.09	57	2315931	9.92 ug/l	100
41)	1,1-Dichloropropene	8.21	110	273735	9.83 ug/l	100
42)	Carbon tetrachloride	8.38	119	729817	10.07 ug/l	100
43)	1,2-Dichloroethane	8.64	62	524892	9.98 ug/l	100
44)	Benzene	8.66	78	2088809	9.65 ug/l	100
45)	Trichloroethene	9.67	130	611201	9.89 ug/l	100
46)	Methylcyclohexane	9.76	83	1003583	10.06 ug/l	100
47)	1,2-Dichloropropane	9.97	63	548408	9.98 ug/l	100
48)	1,4-Dioxane	10.38	88	34812	204.54 ug/l	100
49)	Bromodichloromethane	10.34	83	683254	10.24 ug/l	100
50)	Dibromomethane	10.43	93	241256	10.12 ug/l	100
51)	2-Chloroethyl vinyl ether	10.87	63	188502	10.63 ug/l	100
52)	4-Methyl-2-pentanone	10.90	43	1480123	52.27 ug/l	100
53)	cis-1,3-Dichloropropene	11.23	75	798774	10.35 ug/l	100
55)	Toluene	11.75	91	2212675	9.86 ug/l	100
56)	Ethyl methacrylate	12.05	69	390843	10.62 ug/l	100
57)	trans-1,3-Dichloropropene	12.05	75	591390	10.47 ug/l	100
58)	1,1,2-Trichloroethane	12.30	97	289819	10.29 ug/l	100
59)	2-Hexanone	12.32	43	881961	52.33 ug/l	100
60)	1,3-Dichloropropane	12.72	76	606294	10.34 ug/l	100
61)	Tetrachloroethene	12.81	164	480324	9.85 ug/l	100
62)	Dibromochloromethane	13.13	129	400566	10.55 ug/l	100
64)	1,2-Dibromoethane	13.46	107	304845	10.39 ug/l	100
65)	1-Chlorohexane	13.71	91	970386	10.27 ug/l	100
66)	Chlorobenzene	14.13	112	1309865	9.74 ug/l	100
67)	1,1,1,2-Tetrachloroethane	14.20	131	440434	10.34 ug/l	100
68)	Ethylbenzene	14.22	91	2530951	10.05 ug/l	100
69)	m-Xylene & p-Xylene	14.34	91	3757093	19.42 ug/l	100
70)	o-Xylene	15.05	91	1977643	10.22 ug/l	100
71)	Styrene	15.11	104	1389288	10.38 ug/l	100
73)	Isopropylbenzene	15.63	105	2312854	10.09 ug/l	100
74)	Bromoform	15.68	173	182928	9.67 ug/l	100
75)	1,1,2,2-Tetrachloroethane	15.93	83	314044	10.27 ug/l	100
77)	1,2,3-Trichloropropane	16.17	110	85665	10.45 ug/l	100
78)	trans-1,4-Dichloro-2-buten	16.27	53	96916	10.53 ug/l	100

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

8-21-12

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW008.D Vial: 7
Acq On : 15 Aug 2012 9:54 pm Operator: WL
Sample : VO06H156 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
79)	n-Propylbenzene	16.28	91	3119921	10.19	ug/l	100
80)	Bromobenzene	16.37	156	478948	10.04	ug/l	100
81)	1,3,5-Trimethylbenzene	16.55	105	1822878	9.91	ug/l	100
82)	2-Chlorotoluene	16.58	91	1907368	9.99	ug/l	100
83)	4-Chlorotoluene	16.66	91	1509268	9.75	ug/l	100
84)	tert-Butylbenzene	17.12	134	415879	9.85	ug/l	100
85)	1,2,4-Trimethylbenzene	17.18	105	1762714	9.97	ug/l	100
86)	sec-Butylbenzene	17.43	105	2514703	9.91	ug/l	100
87)	p-Isopropyltoluene	17.62	119	1931202	9.94	ug/l	100
88)	1,3-Dichlorobenzene	17.76	146	934080	9.90	ug/l	100
89)	1,4-Dichlorobenzene	17.89	146	891765	9.91	ug/l	100
91)	n-Butylbenzene	18.16	91	1930358	9.79	ug/l	100
92)	1,2-Dichlorobenzene	18.37	146	711399	9.83	ug/l	100
93)	1,2-Dibromo-3-chloropropan	19.27	157	35677	10.06	ug/l	100
94)	1,2,4-Trichlorobenzene	20.27	180	433509	9.55	ug/l	100
95)	Hexachlorobutadiene	20.42	225	316442	9.87	ug/l	100
96)	Naphthalene	20.60	128	551804	10.02	ug/l	100
97)	1,2,3-Trichlorobenzene	20.89	180	323344	9.52	ug/l	100

8-21-12

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

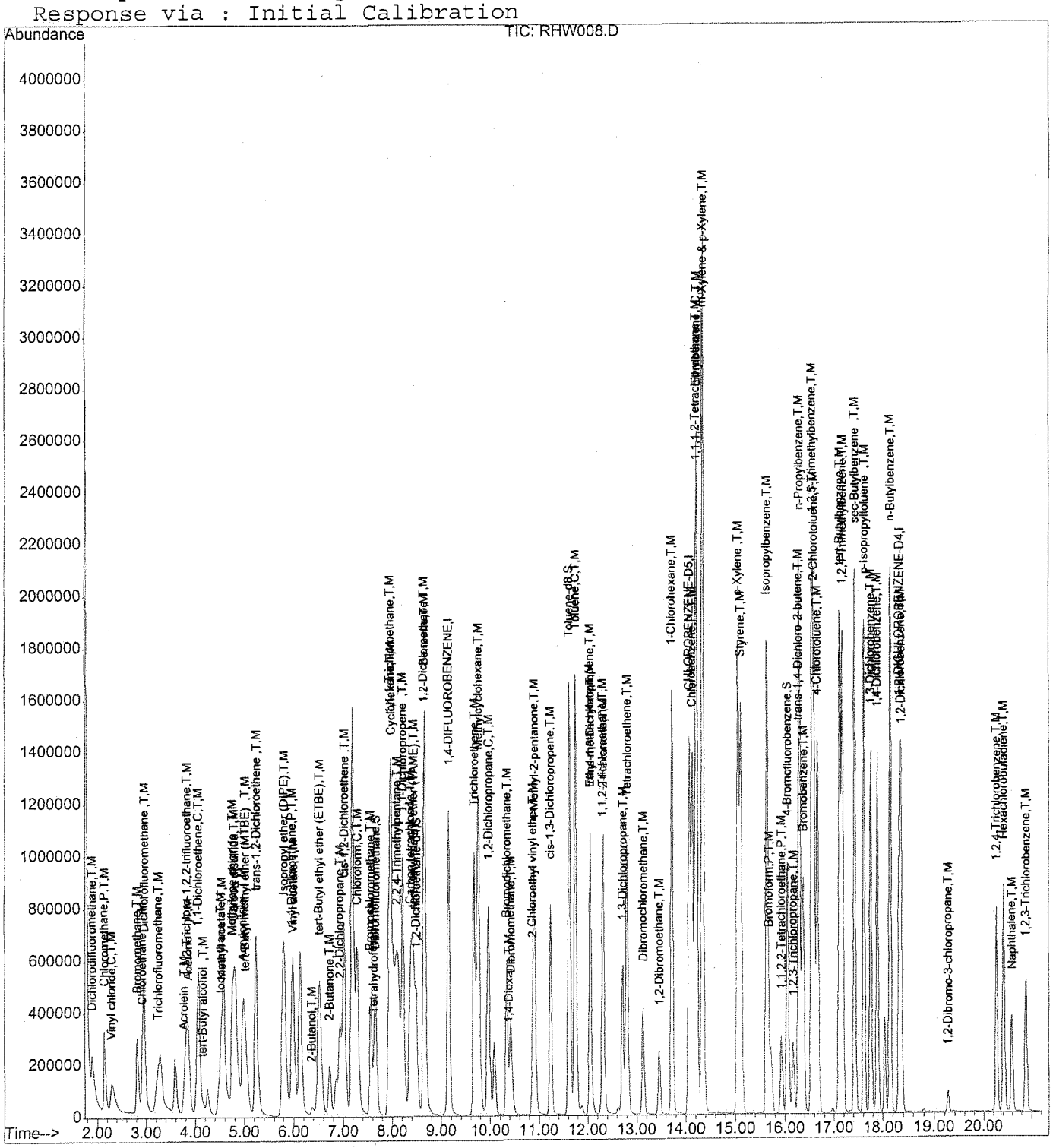
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW008.D
Acq On : 15 Aug 2012 9:54 pm
Sample : VO06H156
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012

Vial: 7
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8/21-W

2083

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW009.D Vial: 8
Acq On : 15 Aug 2012 10:23 pm Operator: WL
Sample : VO06H157 Inst : TO06
Misc : 20ppb 8260/100ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1702228	10.00 ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1429844	10.00 ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	426712	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	7.65	111	1079724	21.01 ug/l	-0.01
Spiked Amount 10.000			Recovery =	210.10%	
38) 1,2-Dichloroethane-d4	8.48	65	873390	20.35 ug/l	-0.01
Spiked Amount 10.000			Recovery =	203.50%	
54) Toluene-d8	11.62	98	3685826	20.20 ug/l	0.00
Spiked Amount 10.000			Recovery =	202.00%	
76) 4-Bromofluorobenzene	16.05	95	1178645	22.19 ug/l	0.00
Spiked Amount 10.000			Recovery =	221.90%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.90	85	830282	18.91 ug/l	99
3) Chloromethane	2.15	50	1015909	19.26 ug/l	100
4) Vinyl chloride	2.31	62	680702	17.18 ug/l	100
5) Bromomethane	2.82	94	668082	21.04 ug/l	100
6) Chloroethane	2.92	64	555917	20.52 ug/l	99
7) Dichlorofluoromethane	2.95	67	1919163	20.54 ug/l	100
8) Trichlorofluoromethane	3.23	101	1221096	20.19 ug/l	99
9) Acrolein	3.77	56	207737	99.33 ug/l	100
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	580247	20.27 ug/l	99
11) Acetone	3.86	43	524561	90.48 ug/l	99
12) 1,1-Dichloroethene	4.07	61	1814652	20.30 ug/l	99
13) tert-Butyl alcohol	4.16	59	162216	98.60 ug/l	100
15) Methyl acetate	4.54	43	332823	17.57 ug/l	100
16) Iodomethane	4.53	142	1574187	20.53 ug/l	100
17) Methylene chloride	4.81	49	1274511	21.33 ug/l	98
18) Carbon disulfide	4.79	76	3711027	20.31 ug/l	100
19) Acrylonitrile	4.97	53	699233	95.99 ug/l	99
20) tert-Butyl methyl ether (M	5.02	73	1555724	19.44 ug/l	99
21) trans-1,2-Dichloroethene	5.23	61	1927347	20.35 ug/l	98
22) Isopropyl ether (DIPE)	5.79	45	3673351	19.94 ug/l	100
23) Vinyl acetate	6.00	43	1240010	19.38 ug/l	100
24) 1,1-Dichloroethane	5.97	63	2187069	20.18 ug/l	100
25) 2-Butanol	6.37	45	145463	90.40 ug/l	98
26) tert-Butyl ethyl ether (ET	6.52	59	2702939	20.08 ug/l	99
27) 2-Butanone	6.71	43	962544	89.45 ug/l	98
28) 2,2-Dichloropropane	6.94	77	1079048	19.87 ug/l	99
29) cis-1,2-Dichloroethene	7.03	96	1248250	20.07 ug/l	97

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

2084

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW009.D
Acq On : 15 Aug 2012 10:23 pm
Sample : VO06H157
Misc : 20ppb 8260/100ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012

Vial: 8
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30)	Chloroform	7.29	83	1945597	19.76 ug/l	100
32)	Bromochloromethane	7.56	49	864341	19.95 ug/l	99
33)	Tetrahydrofuran	7.62	42	121803	17.97 ug/l	97
35)	1,1,1-Trichloroethane	7.95	97	1635104	20.42 ug/l	99
36)	Cyclohexane	7.98	56	2404745	18.13 ug/l	100
37)	tert-Amyl methyl ether (TA	8.42	87	425315	20.27 ug/l	97
40)	2,2,4-Trimethylpentane	8.10	57	4166860	17.88 ug/l	94
41)	1,1-Dichloropropene	8.21	110	566065	20.35 ug/l	100
42)	Carbon tetrachloride	8.38	119	1499346	20.72 ug/l	100
43)	1,2-Dichloroethane	8.65	62	1031493	19.65 ug/l	99
44)	Benzene	8.66	78	4245350	19.64 ug/l	100
45)	Trichloroethene	9.67	130	1242633	20.13 ug/l	99
46)	Methylcyclohexane	9.76	83	1952582	19.60 ug/l	100
47)	1,2-Dichloropropane	9.95	63	1110418	20.25 ug/l	100
48)	1,4-Dioxane	10.39	88	71568	421.20 ug/l	98
49)	Bromodichloromethane	10.34	83	1411441	21.19 ug/l	99
50)	Dibromomethane	10.43	93	487601	20.49 ug/l	99
51)	2-Chloroethyl vinyl ether	10.86	63	367735	20.77 ug/l	99
52)	4-Methyl-2-pentanone	10.91	43	2775791	98.19 ug/l	99
53)	cis-1,3-Dichloropropene	11.23	75	1602324	20.80 ug/l	99
55)	Toluene	11.74	91	4481231	20.01 ug/l	100
56)	Ethyl methacrylate	12.05	69	754073	20.53 ug/l	99
57)	trans-1,3-Dichloropropene	12.05	75	1179460	20.91 ug/l	97
58)	1,1,2-Trichloroethane	12.30	97	559496	19.89 ug/l	99
59)	2-Hexanone	12.32	43	1636610	97.26 ug/l	100
60)	1,3-Dichloropropane	12.70	76	1147791	19.60 ug/l	100
61)	Tetrachloroethene	12.79	164	978703	20.10 ug/l	100
62)	Dibromochloromethane	13.14	129	800309	21.10 ug/l	100
64)	1,2-Dibromoethane	13.45	107	599055	20.46 ug/l	99
65)	1-Chlorohexane	13.72	91	1928084	20.43 ug/l	99
66)	Chlorobenzene	14.13	112	2714035	20.21 ug/l	98
67)	1,1,1,2-Tetrachloroethane	14.21	131	874511	20.57 ug/l	99
68)	Ethylbenzene	14.22	91	4973785	19.78 ug/l	99
69)	m-Xylene & p-Xylene	14.34	91	7392958	38.28 ug/l	99
70)	o-Xylene	15.05	91	3917118	20.27 ug/l	100
71)	Styrene	15.11	104	2708432	20.26 ug/l	100
73)	Isopropylbenzene	15.63	105	4564697	22.83 ug/l	99
74)	Bromoform	15.66	173	357667	21.48 ug/l	99
75)	1,1,2,2-Tetrachloroethane	15.93	83	570540	21.39 ug/l	100
77)	1,2,3-Trichloropropane	16.17	110	152569	21.33 ug/l	99
78)	trans-1,4-Dichloro-2-buten	16.27	53	178995	22.30 ug/l	97

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW009.D Vial: 8
Acq On : 15 Aug 2012 10:23 pm Operator: WL
Sample : VO06H157 Inst : TO06
Misc : 20ppb 8260/100ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.29	91	5959397	22.33 ug/l	99
80)	Bromobenzene	16.38	156	924045	22.20 ug/l	99
81)	1,3,5-Trimethylbenzene	16.55	105	3527607	21.98 ug/l	99
82)	2-Chlorotoluene	16.58	91	3739562	22.47 ug/l	99
83)	4-Chlorotoluene	16.66	91	2857965	21.17 ug/l	100
84)	tert-Butylbenzene	17.12	134	803678	21.82 ug/l	97
85)	1,2,4-Trimethylbenzene	17.18	105	3319292	21.52 ug/l	100
86)	sec-Butylbenzene	17.43	105	4756148	21.48 ug/l	100
87)	p-Isopropyltoluene	17.61	119	3612980	21.33 ug/l	100
88)	1,3-Dichlorobenzene	17.76	146	1789970	21.75 ug/l	100
89)	1,4-Dichlorobenzene	17.89	146	1681857	21.43 ug/l	100
91)	n-Butylbenzene	18.15	91	3604934	20.95 ug/l	100
92)	1,2-Dichlorobenzene	18.37	146	1269889	20.13 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.28	157	56167	18.16 ug/l	98
94)	1,2,4-Trichlorobenzene	20.27	180	709001	17.91 ug/l	100
95)	Hexachlorobutadiene	20.42	225	485824	17.37 ug/l	99
96)	Naphthalene	20.60	128	820193	17.08 ug/l	100
97)	1,2,3-Trichlorobenzene	20.88	180	480501	16.23 ug/l	100

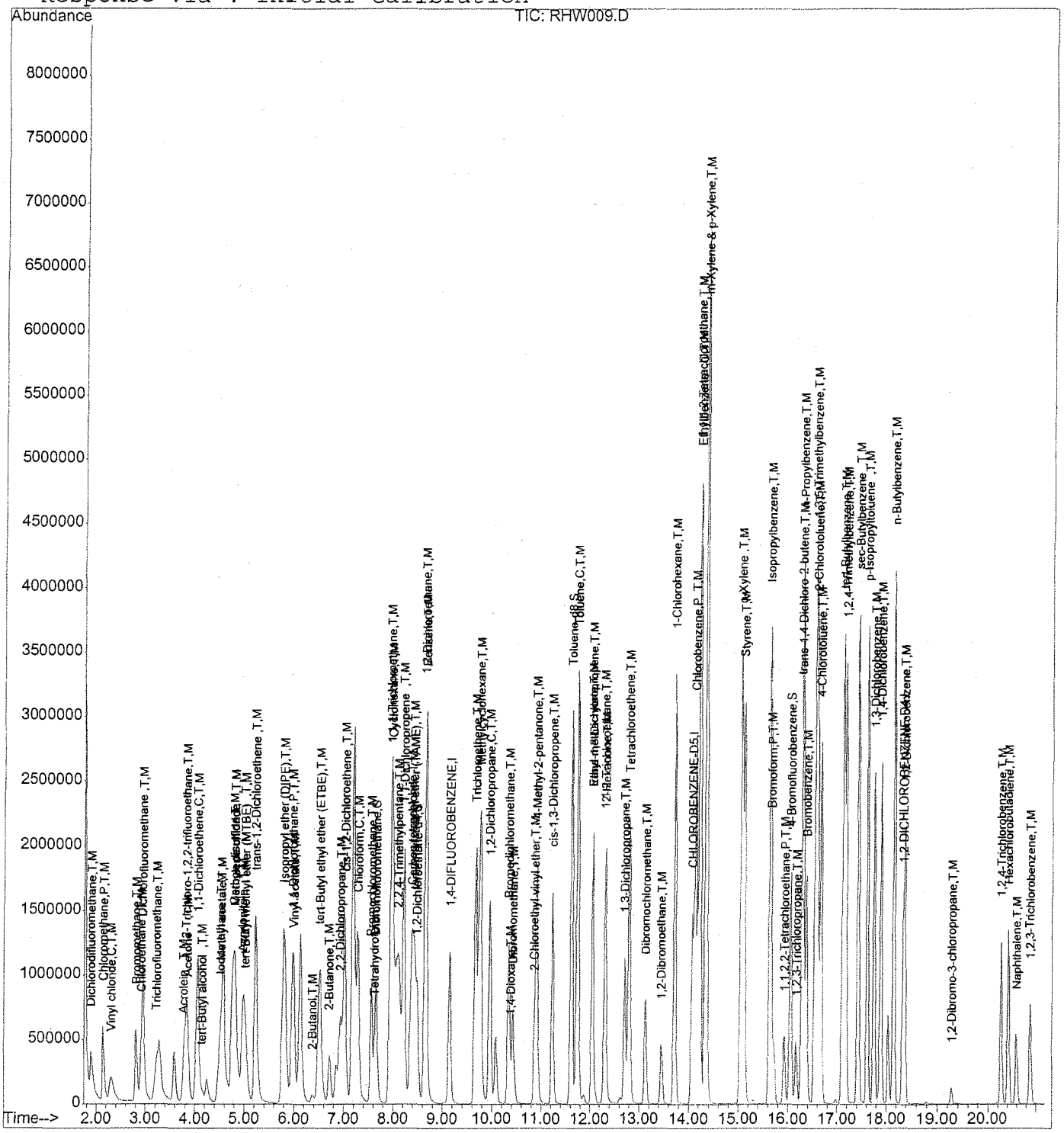
WL 8-21-12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW009.D Vial: 8
Acq On : 15 Aug 2012 10:23 pm Operator: WL
Sample : VO06H157 Inst : TO06
Misc : 20ppb 8260/100ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2087

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW010.D
Acq On : 15 Aug 2012 10:53 pm
Sample : VO06H158
Misc : 30ppb 8260/150ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012

Vial: 9
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1651261	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1410191	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	454935	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.66	111	1666483	33.43	ug/l	0.00
Spiked Amount 10.000			Recovery	=	334.30%	
38) 1,2-Dichloroethane-d4	8.49	65	1360934	32.68	ug/l	0.00
Spiked Amount 10.000			Recovery	=	326.80%	
54) Toluene-d8	11.62	98	5642516	31.36	ug/l	0.00
Spiked Amount 10.000			Recovery	=	313.60%	
76) 4-Bromofluorobenzene	16.05	95	1844820	32.58	ug/l	0.00
Spiked Amount 10.000			Recovery	=	325.80%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	1275311	29.95	ug/l	100
3) Chloromethane	2.15	50	1546366	30.21	ug/l	100
4) Vinyl chloride	2.31	62	897041	23.34	ug/l	100
5) Bromomethane	2.81	94	989584	32.13	ug/l	100
6) Chloroethane	2.92	64	811923	30.90	ug/l	99
7) Dichlorofluoromethane	2.96	67	2767050	30.52	ug/l	100
8) Trichlorofluoromethane	3.25	101	1806930	30.80	ug/l	100
9) Acrolein	3.77	56	339247	167.22	ug/l	96
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	861137	31.02	ug/l	99
11) Acetone	3.86	43	874803	155.54	ug/l	99
12) 1,1-Dichloroethene	4.06	61	2682690	30.94	ug/l	99
13) tert-Butyl alcohol	4.15	59	297116	186.16	ug/l	96
15) Methyl acetate	4.54	43	572747	31.18	ug/l	98
16) Iodomethane	4.52	142	2397720	32.23	ug/l	99
17) Methylene chloride	4.81	49	1939444	33.81	ug/l	99
18) Carbon disulfide	4.79	76	5705494	32.20	ug/l	100
19) Acrylonitrile	4.97	53	1191290	168.58	ug/l	99
20) tert-Butyl methyl ether (M	5.02	73	2585720	33.30	ug/l	99
21) trans-1,2-Dichloroethene	5.24	61	2831262	30.81	ug/l	97
22) Isopropyl ether (DIPE)	5.80	45	5786168	32.38	ug/l	99
23) Vinyl acetate	6.00	43	2013120	32.43	ug/l	99
24) 1,1-Dichloroethane	5.97	63	3219862	30.63	ug/l	100
25) 2-Butanol	6.37	45	273158	175.00	ug/l	97
26) tert-Butyl ethyl ether (ET	6.52	59	4341556	33.24	ug/l	100
27) 2-Butanone	6.72	43	1708067	163.63	ug/l	99
28) 2,2-Dichloropropane	6.93	77	1537998	29.19	ug/l	99
29) cis-1,2-Dichloroethene	7.02	96	1868651	30.97	ug/l	96

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW010.D
Acq On : 15 Aug 2012 10:53 pm
Sample : VO06H158
Misc : 30ppb 8260/150ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012

Vial: 9
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30)	Chloroform	7.29	83	2931306	30.69 ug/l	99
32)	Bromochloromethane	7.56	49	1369146	32.57 ug/l	98
33)	Tetrahydrofuran	7.62	42	208700	32.26 ug/l	94
35)	1,1,1-Trichloroethane	7.96	97	2357923	30.35 ug/l	99
36)	Cyclohexane	7.97	56	3371958	26.21 ug/l	97
37)	tert-Amyl methyl ether (TA	8.43	87	695504	34.18 ug/l	96
40)	2,2,4-Trimethylpentane	8.09	57	6682091	29.08 ug/l	97
41)	1,1-Dichloropropene	8.23	110	837598	30.54 ug/l	100
42)	Carbon tetrachloride	8.38	119	2209232	30.96 ug/l	100
43)	1,2-Dichloroethane	8.64	62	1613405	31.17 ug/l	99
44)	Benzene	8.66	78	6368767	29.87 ug/l	100
45)	Trichloroethene	9.67	130	1847858	30.35 ug/l	99
46)	Methylcyclohexane	9.76	83	2890693	29.42 ug/l	99
47)	1,2-Dichloropropane	9.97	63	1684265	31.14 ug/l	98
48)	1,4-Dioxane	10.38	88	118429	706.71 ug/l	98
49)	Bromodichloromethane	10.34	83	2153010	32.78 ug/l	100
50)	Dibromomethane	10.43	93	775392	33.04 ug/l	99
51)	2-Chloroethyl vinyl ether	10.87	63	621401	35.58 ug/l	100
52)	4-Methyl-2-pentanone	10.90	43	4688824	168.17 ug/l	99
53)	cis-1,3-Dichloropropene	11.23	75	2520665	33.18 ug/l	99
55)	Toluene	11.75	91	6597671	29.87 ug/l	99
56)	Ethyl methacrylate	12.05	69	1243867	34.34 ug/l	100
57)	trans-1,3-Dichloropropene	12.05	75	1862112	33.47 ug/l	99
58)	1,1,2-Trichloroethane	12.30	97	907780	32.72 ug/l	99
59)	2-Hexanone	12.32	43	2768932	166.85 ug/l	99
60)	1,3-Dichloropropane	12.72	76	1870450	32.39 ug/l	99
61)	Tetrachloroethene	12.81	164	1440053	29.99 ug/l	100
62)	Dibromochloromethane	13.13	129	1313414	35.12 ug/l	99
64)	1,2-Dibromoethane	13.46	107	980338	33.95 ug/l	99
65)	1-Chlorohexane	13.71	91	2865406	30.79 ug/l	99
66)	Chlorobenzene	14.13	112	4073976	30.76 ug/l	99
67)	1,1,1,2-Tetrachloroethane	14.20	131	1342036	32.00 ug/l	99
68)	Ethylbenzene	14.22	91	7329738	29.55 ug/l	98
69)	m-Xylene & p-Xylene	14.34	91	10804861	56.73 ug/l	98
70)	o-Xylene	15.05	91	5855917	30.72 ug/l	99
71)	Styrene	15.11	104	4052241	30.74 ug/l	99
73)	Isopropylbenzene	15.63	105	6663214	31.26 ug/l	99
74)	Bromoform	15.68	173	603769	33.92 ug/l	99
75)	1,1,2,2-Tetrachloroethane	15.93	83	983894	34.59 ug/l	100
77)	1,2,3-Trichloropropane	16.17	110	273096	35.82 ug/l	98
78)	trans-1,4-Dichloro-2-buten	16.27	53	297132	34.72 ug/l	95

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW010.D Vial: 9
Acq On : 15 Aug 2012 10:53 pm Operator: WL
Sample : VO06H158 Inst : TO06
Misc : 30ppb 8260/150ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.30	91	8774815	30.83 ug/l	98
80)	Bromobenzene	16.37	156	1434106	32.32 ug/l	98
81)	1,3,5-Trimethylbenzene	16.55	105	5260120	30.75 ug/l	99
82)	2-Chlorotoluene	16.58	91	5467680	30.82 ug/l	98
83)	4-Chlorotoluene	16.66	91	4350802	30.23 ug/l	99
84)	tert-Butylbenzene	17.12	134	1229405	31.31 ug/l	96
85)	1,2,4-Trimethylbenzene	17.18	105	5012006	30.48 ug/l	98
86)	sec-Butylbenzene	17.43	105	7187835	30.45 ug/l	98
87)	p-Isopropyltoluene	17.62	119	5446422	30.16 ug/l	99
88)	1,3-Dichlorobenzene	17.76	146	2758213	31.44 ug/l	100
89)	1,4-Dichlorobenzene	17.89	146	2616885	31.27 ug/l	100
91)	n-Butylbenzene	18.14	91	5398158	29.43 ug/l	99
92)	1,2-Dichlorobenzene	18.37	146	2069671	30.77 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.27	157	103996	31.54 ug/l	98
94)	1,2,4-Trichlorobenzene	20.27	180	1149323	27.24 ug/l	100
95)	Hexachlorobutadiene	20.42	225	741384	24.87 ug/l	100
96)	Naphthalene	20.60	128	1403953	27.42 ug/l	99
97)	1,2,3-Trichlorobenzene	20.88	180	746543	23.65 ug/l	99

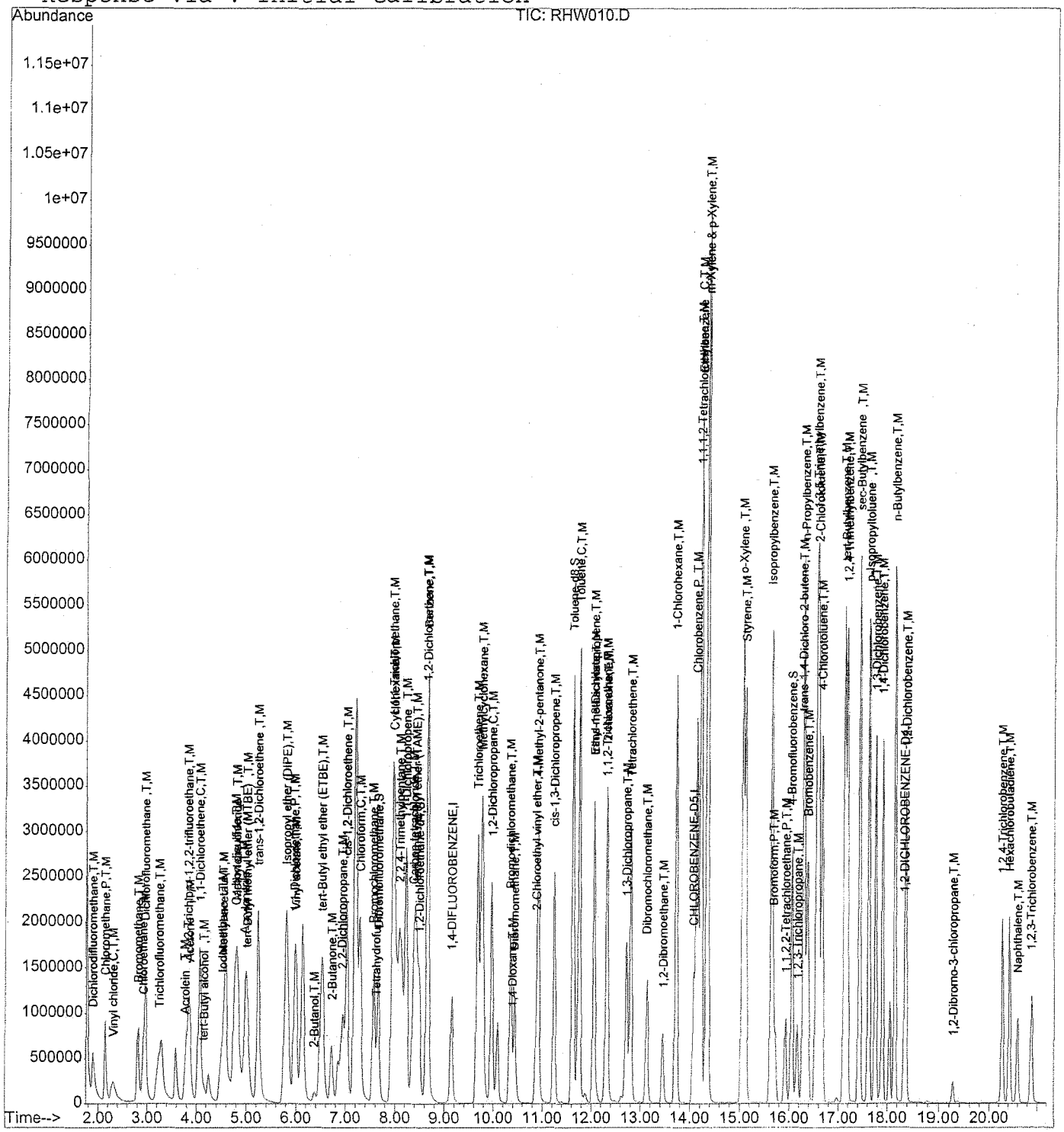
8-21-12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW010.D Vial: 9
Acq On : 15 Aug 2012 10:53 pm Operator: WL
Sample : VO06H158 Inst : TO06
Misc : 30ppb 8260/150ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2691

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW011.D Vial: 10
Acq On : 15 Aug 2012 11:24 pm Operator: WL
Sample : VO06H159 Inst : TO06
Misc : 50ppb 8260/250ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1604978	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1309880	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	416256	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.66	111	2577109	53.18	ug/l	0.00
Spiked Amount 10.000			Recovery	=	531.80%	
38) 1,2-Dichloroethane-d4	8.49	65	1996317	49.32	ug/l	0.00
Spiked Amount 10.000			Recovery	=	493.20%	
54) Toluene-d8	11.62	98	8677452	51.92	ug/l	0.00
Spiked Amount 10.000			Recovery	=	519.20%	
76) 4-Bromofluorobenzene	16.05	95	2709042	52.29	ug/l	0.00
Spiked Amount 10.000			Recovery	=	522.90%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	2091234	50.53	ug/l	100
3) Chloromethane	2.15	50	2460705	49.47	ug/l	100
4) Vinyl chloride	2.31	62	1382123	37.00	ug/l	99
5) Bromomethane	2.80	94	1527871	51.04	ug/l	100
6) Chloroethane	2.92	64	1291157	50.55	ug/l	98
7) Dichlorofluoromethane	2.96	67	4273522	48.50	ug/l	100
8) Trichlorofluoromethane	3.25	101	2919370	51.19	ug/l	100
9) Acrolein	3.77	56	470119	238.41	ug/l	97
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	1413204	52.37	ug/l	100
11) Acetone	3.86	43	1184293	216.65	ug/l	99
12) 1,1-Dichloroethene	4.06	61	4342876	51.53	ug/l	98
13) tert-Butyl alcohol	4.17	59	370167	238.62	ug/l	95
15) Methyl acetate	4.54	43	780245	43.70	ug/l	97
16) Iodomethane	4.52	142	3754849	51.93	ug/l	99
17) Methylene chloride	4.81	49	2877389	51.93	ug/l	87
18) Carbon disulfide	4.79	76	9569287	55.56	ug/l	100
19) Acrylonitrile	4.97	53	1602092	233.26	ug/l	99
20) tert-Butyl methyl ether (M	5.01	73	3515638	46.58	ug/l	99
21) trans-1,2-Dichloroethene	5.24	61	4433671	49.64	ug/l	96
22) Isopropyl ether (DIPE)	5.80	45	8390456	48.31	ug/l	98
23) Vinyl acetate	6.00	43	2895132	47.98	ug/l	99
24) 1,1-Dichloroethane	5.97	63	5035917	49.29	ug/l	100
25) 2-Butanol	6.38	45	353232	232.83	ug/l	98
26) tert-Butyl ethyl ether (ET	6.52	59	6158753	48.52	ug/l	100
27) 2-Butanone	6.72	43	2317529	228.42	ug/l	98
28) 2,2-Dichloropropane	6.93	77	2339720	45.69	ug/l	98
29) cis-1,2-Dichloroethene	7.02	96	2868115	48.90	ug/l	96

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

2092

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW011.D Vial: 10
Acq On : 15 Aug 2012 11:24 pm Operator: WL
Sample : VO06H159 Inst : TO06
Misc : 50ppb 8260/250ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30)	Chloroform	7.29	83	4503324	48.51 ug/l	100
32)	Bromochloromethane	7.56	49	1970775	48.24 ug/l	97
33)	Tetrahydrofuran	7.62	42	266132	42.54 ug/l	93
35)	1,1,1-Trichloroethane	7.96	97	3730829	49.40 ug/l	99
36)	Cyclohexane	7.97	56	5554535	44.42 ug/l	95
37)	tert-Amyl methyl ether (TA	8.43	87	961306	48.60 ug/l	96
40)	2,2,4-Trimethylpentane	8.11	57	11028641	51.66 ug/l	98
41)	1,1-Dichloropropene	8.23	110	1354130	53.15 ug/l	100
42)	Carbon tetrachloride	8.37	119	3613270	54.51 ug/l	100
43)	1,2-Dichloroethane	8.64	62	2308306	48.01 ug/l	99
44)	Benzene	8.66	78	9709779	49.03 ug/l	99
45)	Trichloroethene	9.67	130	2976696	52.64 ug/l	99
46)	Methylcyclohexane	9.76	83	4861884	53.27 ug/l	98
47)	1,2-Dichloropropane	9.97	63	2531105	50.38 ug/l	98
48)	1,4-Dioxane	10.38	88	156804	1007.36 ug/l	96
49)	Bromodichloromethane	10.34	83	3193999	52.35 ug/l	99
50)	Dibromomethane	10.43	93	1095367	50.24 ug/l	99
51)	2-Chloroethyl vinyl ether	10.87	63	844103	52.04 ug/l	100
52)	4-Methyl-2-pentanone	10.90	43	6205771	239.62 ug/l	98
53)	cis-1,3-Dichloropropene	11.23	75	3664921	51.94 ug/l	98
55)	Toluene	11.75	91	10139191	49.42 ug/l	98
56)	Ethyl methacrylate	12.05	69	1701287	50.57 ug/l	99
57)	trans-1,3-Dichloropropene	12.05	75	2684174	51.93 ug/l	97
58)	1,1,2-Trichloroethane	12.30	97	1286163	49.91 ug/l	99
59)	2-Hexanone	12.31	43	3664526	237.73 ug/l	98
60)	1,3-Dichloropropane	12.72	76	2626624	48.97 ug/l	98
61)	Tetrachloroethene	12.81	164	2339199	52.45 ug/l	100
62)	Dibromochloromethane	13.13	129	1897530	54.62 ug/l	99
64)	1,2-Dibromoethane	13.46	107	1395880	52.04 ug/l	100
65)	1-Chlorohexane	13.73	91	4580273	52.98 ug/l	99
66)	Chlorobenzene	14.13	112	6172784	50.18 ug/l	98
67)	1,1,1,2-Tetrachloroethane	14.20	131	2017370	51.79 ug/l	99
68)	Ethylbenzene	14.22	91	11075532	48.08 ug/l	97
69)	m-Xylene & p-Xylene	14.35	91	15980464	90.32 ug/l	96
70)	o-Xylene	15.05	91	8788144	49.63 ug/l	98
71)	Styrene	15.11	104	6125199	50.02 ug/l	99
73)	Isopropylbenzene	15.64	105	10227480	52.45 ug/l	98
74)	Bromoform	15.67	173	846514	51.89 ug/l	99
75)	1,1,2,2-Tetrachloroethane	15.93	83	1327350	51.00 ug/l	99
77)	1,2,3-Trichloropropane	16.17	110	364678	52.27 ug/l	98
78)	trans-1,4-Dichloro-2-buten	16.27	53	403422	51.52 ug/l	95

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

8-21-12

2099

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW011.D
Acq On : 15 Aug 2012 11:24 pm
Sample : VO06H159
Misc : 50ppb 8260/250ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012

Vial: 10
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.30	91	13386211	51.41 ug/l	97
80)	Bromobenzene	16.37	156	2111145	52.00 ug/l	98
81)	1,3,5-Trimethylbenzene	16.55	105	7992956	51.06 ug/l	98
82)	2-Chlorotoluene	16.58	91	8108671	49.95 ug/l	98
83)	4-Chlorotoluene	16.67	91	6659828	50.58 ug/l	99
84)	tert-Butylbenzene	17.12	134	1929431	53.70 ug/l	93
85)	1,2,4-Trimethylbenzene	17.18	105	7411906	49.27 ug/l	98
86)	sec-Butylbenzene	17.43	105	11011197	50.99 ug/l	97
87)	p-Isopropyltoluene	17.62	119	8415862	50.94 ug/l	98
88)	1,3-Dichlorobenzene	17.76	146	4073894	50.74 ug/l	99
89)	1,4-Dichlorobenzene	17.89	146	3853044	50.32 ug/l	99
91)	n-Butylbenzene	18.16	91	8378120	49.92 ug/l	98
92)	1,2-Dichlorobenzene	18.37	146	3102409	50.41 ug/l	100
93)	1,2-Dibromo-3-chloropropan	19.27	157	155509	51.54 ug/l	99
94)	1,2,4-Trichlorobenzene	20.27	180	1835825	47.55 ug/l	100
95)	Hexachlorobutadiene	20.42	225	1261884	46.26 ug/l	100
96)	Naphthalene	20.60	128	2033623	43.41 ug/l	99
97)	1,2,3-Trichlorobenzene	20.89	180	1108419	38.37 ug/l	99

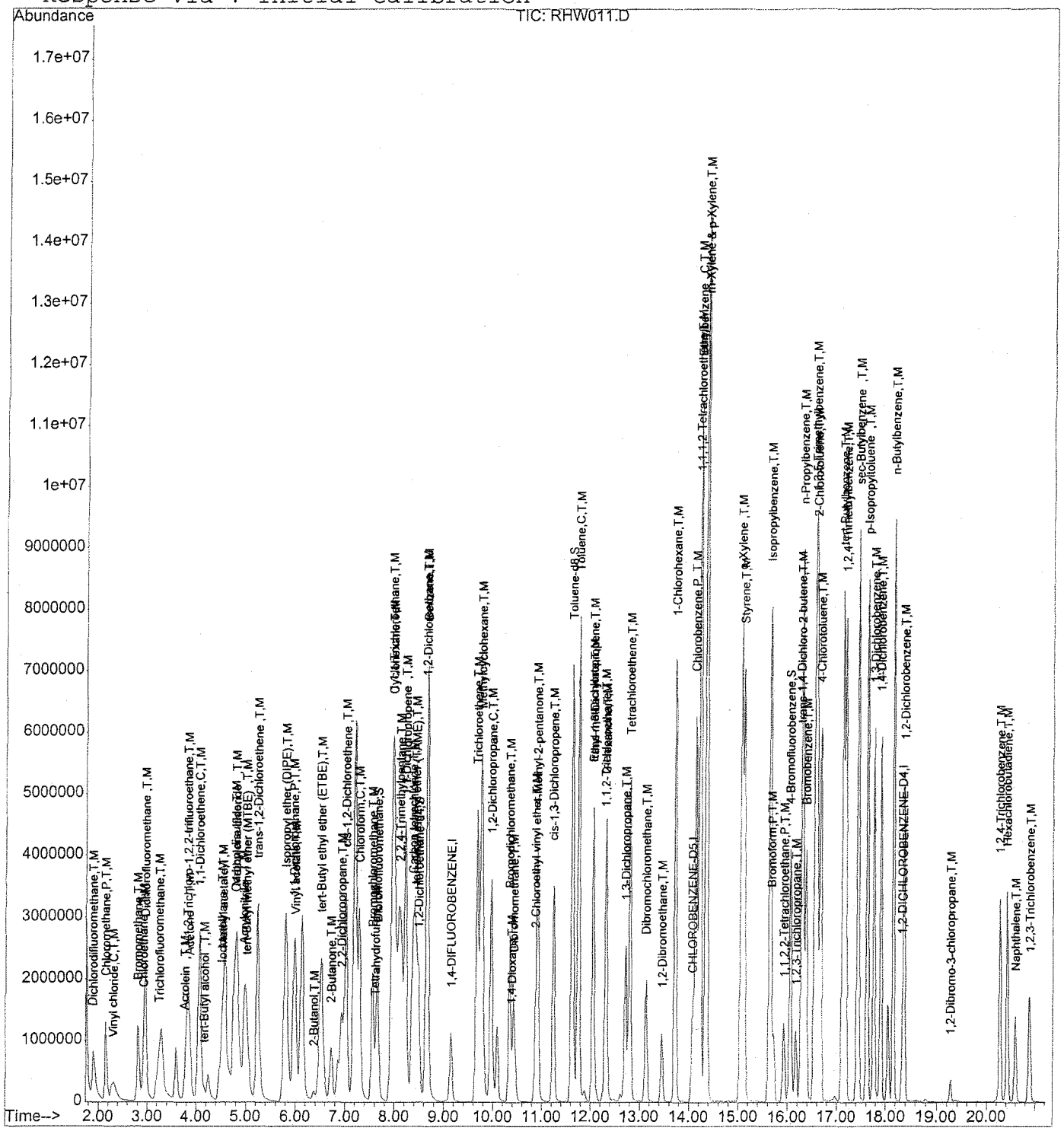
RM 8-21-12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW011.D Vial: 10
Acq On : 15 Aug 2012 11:24 pm Operator: WL
Sample : VO06H159 Inst : TO06
Misc : 50ppb 8260/250ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2885

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW012.D Vial: 11
Acq On : 15 Aug 2012 11:53 pm Operator: WL
Sample : VO06H1510 Inst : TO06
Misc : 100ppb 8260/500ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1719664	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1382085	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	445959	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.65	111	4860243	93.61	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	936.10%	
38) 1,2-Dichloroethane-d4	8.50	65	3818725	88.06	ug/l	0.00
Spiked Amount 10.000			Recovery	=	880.60%	
54) Toluene-d8	11.62	98	16009776	90.78	ug/l	0.00
Spiked Amount 10.000			Recovery	=	907.80%	
76) 4-Bromofluorobenzene	16.05	95	4904141	88.35	ug/l	0.00
Spiked Amount 10.000			Recovery	=	883.50%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	4320687	97.43	ug/l	99
3) Chloromethane	2.15	50	4933116	92.55	ug/l	100
4) Vinyl chloride	2.28	62	2346491	58.62	ug/l	100
5) Bromomethane	2.80	94	2817812	87.86	ug/l	100
6) Chloroethane	2.91	64	2303160	84.15	ug/l	99
7) Dichlorofluoromethane	2.95	67	7454435	78.96	ug/l	99
8) Trichlorofluoromethane	3.23	101	5938361	97.19	ug/l	100
9) Acrolein	3.77	56	863307	408.61	ug/l	94
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	2658235	91.93	ug/l	99
11) Acetone	3.86	43	2222601	379.47	ug/l	98
12) 1,1-Dichloroethene	4.05	61	8165514	90.43	ug/l	98
13) tert-Butyl alcohol	4.17	59	754243	453.78	ug/l	93
15) Methyl acetate	4.54	43	1512729	79.07	ug/l	96
16) Iodomethane	4.53	142	7322859	94.52	ug/l	99
17) Methylene chloride	4.81	49	5424133	91.84	ug/l	87
18) Carbon disulfide	4.79	76	17915771	97.08	ug/l	99
19) Acrylonitrile	4.97	53	3190840	433.59	ug/l	99
20) tert-Butyl methyl ether (M	5.02	73	6879340	85.08	ug/l	100
21) trans-1,2-Dichloroethene	5.22	61	8282899	86.56	ug/l	95
22) Isopropyl ether (DIPE)	5.80	45	15797039	84.89	ug/l	97
23) Vinyl acetate	6.00	43	5737917	88.75	ug/l	98
24) 1,1-Dichloroethane	5.97	63	9558443	87.31	ug/l	99
25) 2-Butanol	6.38	45	793325	488.04	ug/l	97
26) tert-Butyl ethyl ether (ET	6.52	59	11681467	85.89	ug/l	99
27) 2-Butanone	6.73	43	4569976	420.39	ug/l	98
28) 2,2-Dichloropropane	6.93	77	3992236	72.76	ug/l	97
29) cis-1,2-Dichloroethene	7.02	96	5550329	88.32	ug/l	94

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

2096

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW012.D Vial: 11
Acq On : 15 Aug 2012 11:53 pm Operator: WL
Sample : VO06H1510 Inst : TO06
Misc : 100ppb 8260/500ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30) Chloroform	7.29	83	8553553	85.99 ug/l	99
32) Bromochloromethane	7.56	49	3817099	87.20 ug/l	97
33) Tetrahydrofuran	7.62	42	509336	76.51 ug/l	92
35) 1,1,1-Trichloroethane	7.96	97	6900690	85.29 ug/l	94
36) Cyclohexane	7.97	56	10261630	76.60 ug/l	93
37) tert-Amyl methyl ether (TA	8.44	87	1822154	85.98 ug/l	92
40) 2,2,4-Trimethylpentane	8.11	57	20802353	92.36 ug/l #	33
41) 1,1-Dichloropropene	8.21	110	2540445	94.51 ug/l	99
42) Carbon tetrachloride	8.38	119	6717264	96.05 ug/l	100
43) 1,2-Dichloroethane	8.64	62	4358819	85.92 ug/l	98
44) Benzene	8.66	78	17244630	82.52 ug/l	98
45) Trichloroethene	9.67	130	5554293	93.09 ug/l	99
46) Methylcyclohexane	9.76	83	8976625	93.22 ug/l	98
47) 1,2-Dichloropropane	9.97	63	4763576	89.86 ug/l	98
48) 1,4-Dioxane	10.38	88	329297	2004.99 ug/l	96
49) Bromodichloromethane	10.34	83	6211336	96.49 ug/l	99
50) Dibromomethane	10.43	93	2098696	91.24 ug/l	98
51) 2-Chloroethyl vinyl ether	10.87	63	1721581	100.58 ug/l	99
52) 4-Methyl-2-pentanone	10.90	43	11593873	424.27 ug/l	97
53) cis-1,3-Dichloropropene	11.23	75	6973884	93.68 ug/l	98
55) Toluene	11.75	91	18210927	84.13 ug/l	97
56) Ethyl methacrylate	12.05	69	3198361	90.10 ug/l	98
57) trans-1,3-Dichloropropene	12.05	75	5103338	93.58 ug/l	97
58) 1,1,2-Trichloroethane	12.30	97	2446955	90.00 ug/l	99
59) 2-Hexanone	12.32	43	6748509	414.93 ug/l	97
60) 1,3-Dichloropropane	12.72	76	5045895	89.16 ug/l	98
61) Tetrachloroethene	12.81	164	4305847	91.50 ug/l	99
62) Dibromochloromethane	13.13	129	3679972	100.39 ug/l	100
64) 1,2-Dibromoethane	13.46	107	2673316	94.46 ug/l	100
65) 1-Chlorohexane	13.73	91	8078546	88.57 ug/l	98
66) Chlorobenzene	14.13	112	11254683	86.71 ug/l	98
67) 1,1,1,2-Tetrachloroethane	14.20	131	3745547	91.12 ug/l	98
68) Ethylbenzene	14.22	91	18643656	76.70 ug/l	95
69) m-Xylene & p-Xylene	14.35	91	25028802	134.07 ug/l	90
70) o-Xylene	15.05	91	15444924	82.67 ug/l	96
71) Styrene	15.11	104	10884514	84.24 ug/l	97
73) Isopropylbenzene	15.65	105	17200094	82.33 ug/l	96
74) Bromoform	15.68	173	1644719	93.98 ug/l	99
75) 1,1,2,2-Tetrachloroethane	15.93	83	2526155	90.60 ug/l	99
77) 1,2,3-Trichloropropane	16.17	110	695182	93.01 ug/l	99
78) trans-1,4-Dichloro-2-buten	16.27	53	733068	87.39 ug/l	92

(#) = qualifier out of range (m) = manual integration
RHW012.D VO06H15.M Mon Aug 20 17:26:53 2012 M 8-21-12 Page 2

2697

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW012.D Vial: 11
Acq On : 15 Aug 2012 11:53 pm Operator: WL
Sample : VO06H1510 Inst : TO06
Misc : 100ppb 8260/500ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.30	91	21521353	77.15 ug/l	94
80)	Bromobenzene	16.37	156	3896257	89.57 ug/l	96
81)	1,3,5-Trimethylbenzene	16.55	105	13805252	82.32 ug/l	96
82)	2-Chlorotoluene	16.60	91	13750578	79.06 ug/l	96
83)	4-Chlorotoluene	16.67	91	11789041	83.57 ug/l	97
84)	tert-Butylbenzene	17.12	134	3475053	90.28 ug/l	91
85)	1,2,4-Trimethylbenzene	17.18	105	13169518	81.71 ug/l	95
86)	sec-Butylbenzene	17.43	105	18451317	79.75 ug/l	94
87)	p-Isopropyltoluene	17.62	119	14759441	83.39 ug/l	95
88)	1,3-Dichlorobenzene	17.76	146	7229650	84.05 ug/l	98
89)	1,4-Dichlorobenzene	17.91	146	6936890	84.56 ug/l	98
91)	n-Butylbenzene	18.16	91	14604029	81.23 ug/l	96
92)	1,2-Dichlorobenzene	18.37	146	5834486	88.49 ug/l	100
93)	1,2-Dibromo-3-chloropropan	19.27	157	409436	126.67 ug/l	98
94)	1,2,4-Trichlorobenzene	20.27	180	3831247	92.63 ug/l	99
95)	Hexachlorobutadiene	20.42	225	2784008	95.26 ug/l	99
96)	Naphthalene	20.60	128	4523270	90.12 ug/l	98
97)	1,2,3-Trichlorobenzene	20.89	180	2189042	70.74 ug/l	99

TM 8-21-12

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

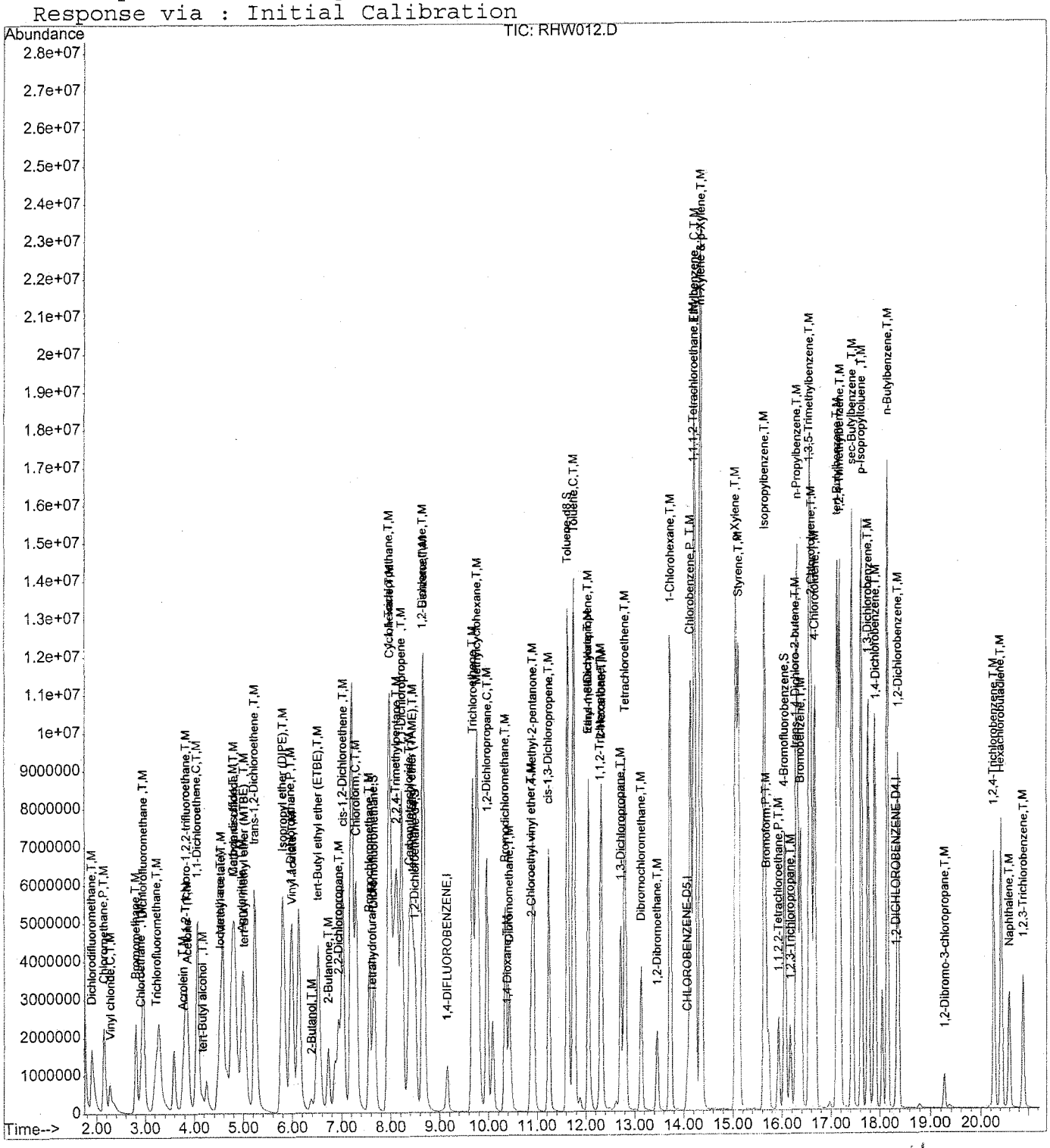
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW012.D
Acq On : 15 Aug 2012 11:53 pm
Sample : VO06H1510
Misc : 100ppb 8260/500ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012

Vial: 11
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



2099

SECOND SOURCE VERIFICATION

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RHW015
Instrument ID: 06
GC Column:RTX502.2ID:0.25mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J181
BFB Injection Date : 08/16/12
BFB Injection Time : 09:31
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.62
75	30.0 - 60.0% of mass 95	48.50
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.99
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	71.35
175	5.0 - 9.0% of mass 174	5.40(7.6)1
176	95.0 - 101.0% of mass 174	70.48(98.8)1
177	5.0 - 9.0% of mass 176	4.57(6.5)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	VSTD010	IV006H1501	RHW016	08/16/12	10:02

FORM V VOA OLM02.0

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :TO06
IC_Beginning DateTime :08/15/12 19:22
Spike Amount :10 PPB
CC/CV File :RHW016
IC File :RHW008

Column Spec :RTX502.2 ID :0.25MM
IC_Ending DateTime :08/15/12 23:53
HPChem Method :vo06h15
Date_Time :08/16/12 10:02

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,4-DIFLUOROBENZENE	10.000	0	1860809	1	1	9.148	9.149	0				
	2	Dichlorodifluoromethane	9.824	-1.8	471407	0.253	0.258	1.893	1.894	6.32				
	3	Chloromethane	10.472	4.7	603952	0.325	0.310	2.145	2.147	5.91				
	4	Vinyl chloride	10.328	3.3	447330	0.240	0.233	2.309	2.300	13.19				
	5	Bromomethane	10.472	4.7	363435	0.195	0.187	2.815	2.812	10.72				
	6	Chloroethane	10.573	5.7	313116	0.168	0.159	2.919	2.919	9.41				
	7	Dichlorofluoromethane	9.964	-0.4	1017847	0.547	0.549	2.963	2.960	8.55				
	8	Trichlorofluoromethane	10.192	1.9	673832	0.362	0.355	3.231	3.238	8.43				
5	9	Acrolein	57.206	14.4	130783	0.014	0.012	3.766	3.772	9.90				
	10	1,1,2-Trichloro-1,2,2-trifluoroethane	10.065	0.6	314914	0.169	0.168	3.826	3.826	6.69				
5	11	Acetone	51.048	2.1	323536	0.035	0.034	3.855	3.859	12.26				
	12	1,1-Dichloroethene	10.137	1.4	990521	0.532	0.525	4.049	4.063	4.54				
5	13	tert-Butyl alcohol	56.186	12.4	101052	0.011	0.010	4.153	4.161	12.01				
	14	Acetonitrile												
	15	Methyl acetate	10.068	0.7	208432	0.112	0.111	4.539	4.541	14.21				
	16	Iodomethane	10.290	2.9	862656	0.464	0.451	4.524	4.526	4.90				
	17	Methylene chloride	10.870	8.7	729403	0.392	0.433	4.807	4.788	25.09	0.0211	0.3411		0.9963
	18	Carbon disulfide	11.695	16.9	2335412	1.255	1.073	4.777	4.793	8.57				
5	19	Acrylonitrile	53.093	6.2	422792	0.045	0.043	4.970	4.973	7.45				
	20	tert-Butyl methyl ether (MTBE)	10.073	0.7	881351	0.474	0.470	5.015	5.018	7.49				
	21	trans-1,2-Dichloroethene	10.028	0.3	1038370	0.558	0.556	5.223	5.233	5.77				
	22	Isopropyl ether (DIPE)	9.940	-0.6	2001510	1.076	1.082	5.803	5.804	6.46				
	23	Vinyl acetate	10.735	7.4	751016	0.404	0.376	5.996	6.001	7.83				
	24	1,1-Dichloroethane	9.548	-4.5	1131093	0.608	0.637	5.966	5.971	5.00				
5	25	2-Butanol	54.187	8.4	95311	0.010	0.009	6.368	6.380	9.21				
	26	tert-Butyl ethyl ether (ETBE)	10.081	0.8	1483732	0.797	0.791	6.502	6.518	6.29				
5	27	2-Butanone	51.017	2.0	600112	0.065	0.063	6.710	6.723	11.92				
	28	2,2-Dichloropropane	10.821	8.2	642452	0.345	0.319	6.933	6.939	11.92				
	29	cis-1,2-Dichloroethene	10.088	0.9	686039	0.369	0.365	7.022	7.023	4.81				
	30	Chloroform	9.714	-2.9	1045522	0.562	0.578	7.275	7.291	6.39				
5	31	tert-Amyl alcohol												
	32	Bromochloromethane	10.016	0.2	474413	0.255	0.255	7.557	7.559	5.92				
	33	Tetrahydrofuran	9.889	-1.1	75461	0.041	0.047	7.617	7.624	25.79	0.0026	0.0384		0.9958
	34	Dibromofluoromethane	10.596	6.0	595307	0.320	0.302	7.646	7.657	12.90				
	35	1,1,1-Trichloroethane	9.918	-0.8	868363	0.467	0.471	7.944	7.957	5.91				
	36	Cyclohexane	10.698	7.0	1550794	0.833	0.779	7.959	7.973	11.92				
	37	tert-Amyl methyl ether (TAME)	10.642	6.4	244051	0.131	0.123	8.434	8.433	7.49				
	38	1,2-Dichloroethane-d4	10.073	0.7	472685	0.254	0.252	8.479	8.492	11.03				
	39	CHLOROBENZENE-D5	10.000	0	1581053	1	1	14.069	14.071	0				
	40	2,2,4-Trimethylpentane	8.293	-17.1	2136863	1.352	1.630	8.092	8.091	7.89				
	41	1,1-Dichloropropene	10.114	1.1	311010	0.197	0.194	8.211	8.220	4.25				
	42	Carbon tetrachloride	9.911	-0.9	792907	0.502	0.506	8.360	8.376	5.79				
	43	1,2-Dichloroethane	9.612	-3.9	557820	0.353	0.367	8.643	8.646	6.76				
	44	Benzene	9.816	-1.8	2346500	1.484	1.512	8.657	8.659	9.36				
	45	Trichloroethene	10.006	0.1	682938	0.432	0.432	9.668	9.670	6.12				
	46	Methylcyclohexane	10.131	1.3	1115968	0.706	0.697	9.743	9.758	8.98				
	47	1,2-Dichloropropane	9.994	-0.1	606068	0.383	0.384	9.951	9.964	4.61				
20	48	1,4-Dioxane	222.394	11.2	41784	0.001	0.001	10.382	10.385	11.65				
	49	Bromodichloromethane	10.149	1.5	747350	0.473	0.466	10.337	10.339	5.58				
	50	Dibromomethane	10.358	3.6	272570	0.172	0.166	10.427	10.427	5.54				
	51	2-Chloroethyl vinyl ether	10.536	5.4	206300	0.130	0.124	10.858	10.870	8.84				
5	52	4-Methyl-2-pentanone	53.865	7.7	1683849	0.213	0.198	10.902	10.907	7.11				
	53	cis-1,3-Dichloropropene	10.612	6.1	903757	0.572	0.539	11.229	11.234	5.79				
	54	Toluene-d8	10.605	6.0	2139440	1.353	1.276	11.616	11.619	8.94				
	55	Toluene	9.869	-1.3	2443694	1.546	1.566	11.750	11.748	6.76				
	56	Ethyl methacrylate	10.733	7.3	435851	0.276	0.257	12.047	12.049	7.04				
	57	trans-1,3-Dichloropropene	10.482	4.8	653879	0.414	0.395	12.047	12.049	6.05				
	58	1,1,2-Trichloroethane	10.369	3.7	322523	0.204	0.197	12.300	12.301	5.64				
5	59	2-Hexanone	55.018	10.0	1023658	0.129	0.118	12.315	12.321	8.05				
	60	1,3-Dichloropropane	10.199	2.0	660249	0.418	0.409	12.701	12.715	6.01				
	61	Tetrachloroethene	9.998	-0.0	538206	0.340	0.340	12.791	12.804	4.76				
	62	Dibromochloromethane	10.525	5.2	441326	0.279	0.265	13.132	13.134	9.39				
	63	2-Ethyl-1-butanol												
	64	1,2-Dibromoethane	10.651	6.5	344825	0.218	0.205	13.445	13.458	6.02				
	65	1-Chlorohexane	10.209	2.1	1065278	0.674	0.660	13.712	13.720	5.61				
	66	Chlorobenzene	9.966	-0.3	1479703	0.936	0.939	14.129	14.132	6.36				
	67	1,1,1,2-Tetrachloroethane	10.275	2.8	483160	0.306	0.297	14.203	14.204	4.58				
	68	Ethylbenzene	10.056	0.6	2796277	1.769	1.759	14.218	14.219	9.90				
2	69	m-Xylene & p-Xylene	19.384	-3.1	4139569	1.309	1.351	14.337	14.342	7.48				
	70	o-Xylene	10.008	0.1	2138774	1.353	1.352	15.050	15.052	6.63				
	71	Styrene	10.422	4.2	1540593	0.974	0.935	15.110	15.111	6.35				
	72	1,2-DICHLOROBENZENE-D4	10.000	0	526652	1	1	18.336	18.337	0				
	73	Isopropylbenzene	10.383	3.8	2561704	4.864	4.685	15.630	15.639	8.82				
	74	Bromoform	10.163	1.6	207142	0.393	0.348	15.660	15.673	18.12	-0.0062	0.3931		0.9971
	75	1,1,2,2-Tetrachloroethane	10.756	7.6	354162	0.672	0.625	15.913	15.926	8.36				
	76	4-Bromofluorobenzene	10.340	3.4	677781	1.287	1.245	16.046	16.048	8.32				
	77	1,2,3-Trichloropropane	10.734	7.3	94743	0.180	0.168	16.165	16.168	8.94				
	78	trans-1,4-Dichloro-2-butene	10.856	8.6	107548	0.204	0.188	16.270	16.274	10.76				
	79	n-Propylbenzene	10.233	2.3	3371039	6.401	6.255	16.284	16.295	9.47				

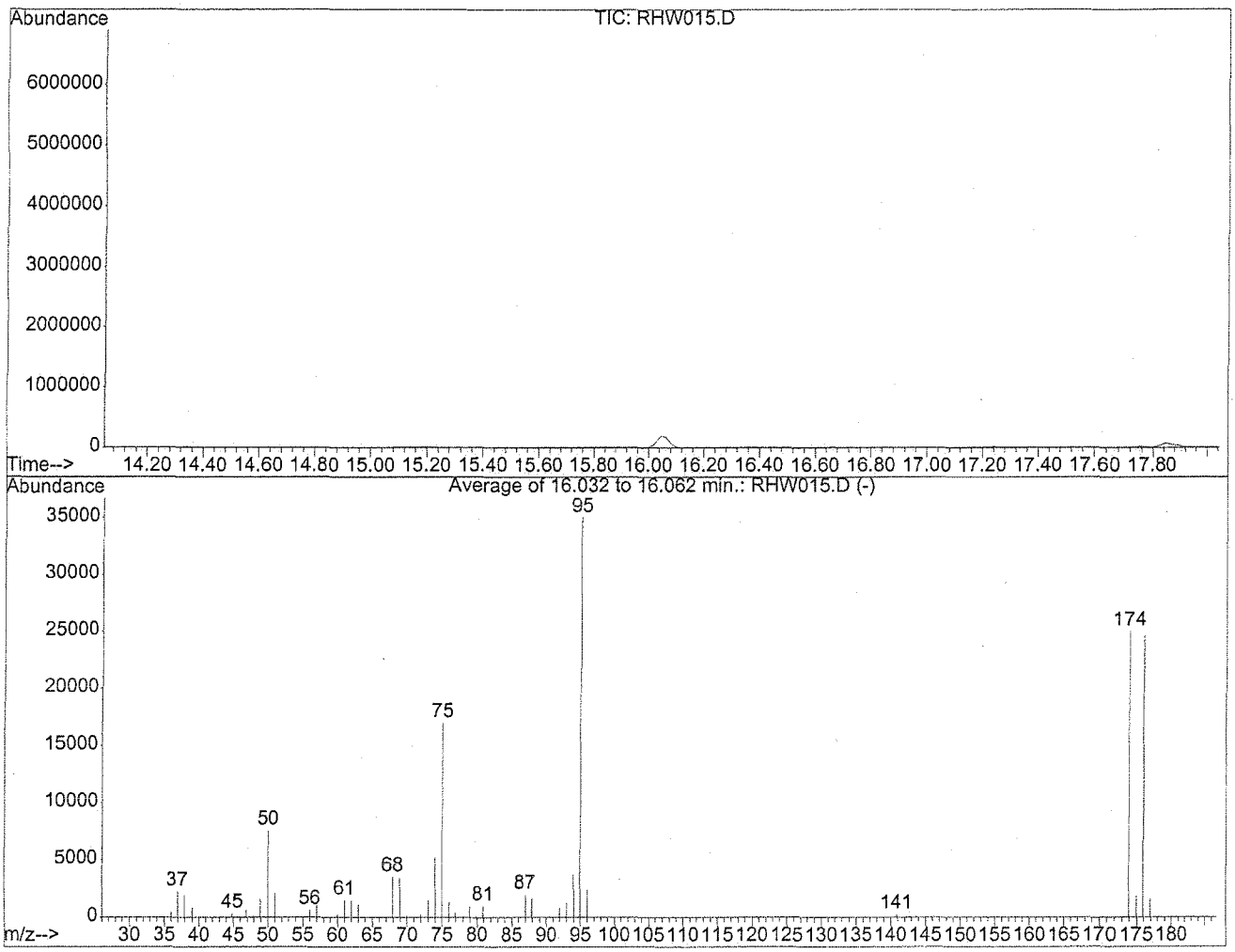
80	Bromobenzene	10.213	2.1	524642	0.996	0.975	16.374	16.375	7.12				
81	1,3,5-Trimethylbenzene	10.066	0.7	1993640	3.785	3.761	16.552	16.552	7.92				
82	2-Chlorotoluene	10.344	3.4	2124758	4.034	3.900	16.582	16.585	10.14				
83	4-Chlorotoluene	9.430	-5.7	1570957	2.983	3.163	16.656	16.663	7.18				
84	tert-Butylbenzene	10.076	0.8	458066	0.870	0.863	17.117	17.118	6.95				
85	1,2,4-Trimethylbenzene	9.991	-0.1	1901812	3.611	3.614	17.176	17.178	7.83				
86	sec-Butylbenzene	9.937	-0.6	2715256	5.156	5.188	17.429	17.431	8.10				
87	p-Isopropyltoluene	10.031	0.3	2096778	3.981	3.969	17.608	17.621	7.26				
88	1,3-Dichlorobenzene	10.013	0.1	1017050	1.931	1.929	17.756	17.758	7.62				
89	1,4-Dichlorobenzene	10.199	2.0	988001	1.876	1.839	17.890	17.895	7.30				
90	Benzyl chloride												
91	n-Butylbenzene	10.078	0.8	2139780	4.063	4.032	18.143	18.153	8.35				
92	1,2-Dichlorobenzene	9.944	-0.6	774306	1.470	1.479	18.366	18.367	5.96				
93	1,2-Dibromo-3-chloropropane	10.737	7.4	40985	0.078	0.072	19.273	19.273	14.38				
94	1,2,4-Trichlorobenzene	9.828	-1.7	480032	0.911	0.927	20.269	20.270	8.69				
95	Hexachlorobutadiene	9.875	-1.3	340815	0.647	0.655	20.417	20.420	10.91				
96	Naphthalene	10.328	3.3	612170	1.162	1.125	20.596	20.596	12.07				
97	1,2,3-Trichlorobenzene	9.754	-2.5	356463	0.677	0.694	20.878	20.888	13.66				

Spike Amount = Nominal Amount * M

RW 8-26-12

BFB

Data File : D:\HPCHEM\1\DATA\12H16\RHW015.D Vial: 1
Acq On : 16 Aug 2012 9:31 am Operator: WL
Sample : BFB06H02 Inst : TO06
Misc : T/ CHK Multiplr: 1.00
MS Integration Params: RTE.P
Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260



AutoFind: Scans 962, 963, 964; Background Corrected with Scan 958

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.6	7573	PASS
75	95	30	60	48.5	16989	PASS
95	95	100	100	100.0	35029	PASS
96	95	5	9	7.0	2449	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	71.4	24994	PASS
175	174	5	9	7.6	1892	PASS
176	174	95	101	98.8	24687	PASS
177	176	5	9	6.5	1601	PASS

RHW015.D VO06H15.M Mon Aug 20 17:27:19 2012

8-21-12

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	112	0.00
2	T,M	Dichlorodifluoromethane	10.000	9.824	1.8	110	0.00
3	P,T,M	Chloromethane	10.000	10.472	-4.7	114	0.00
4	C,T,M	Vinyl chloride	10.000	10.328	-3.3	115	0.02
5	T,M	Bromomethane	10.000	10.472	-4.7	109	0.00
6	T,M	Chloroethane	10.000	10.573	-5.7	109	0.00
7	T,M	Dichlorofluoromethane	10.000	9.964	0.4	107	0.00
8	T,M	Trichlorofluoromethane	10.000	10.192	-1.9	109	-0.02
9	T,M	Acrolein	50.000	57.206	-14.4	126	0.00
10	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	10.065	-0.6	113	0.00
11	T,M	Acetone	50.000	51.048	-2.1	115	0.00
12	C,T,M	1,1-Dichloroethene	10.000	10.137	-1.4	112	-0.02
13	T,M	tert-Butyl alcohol	50.000	56.186	-12.4	110	0.00
14	T,M	Acetonitrile	-1.000	0.000	0.0	113	0.00
15	T,M	Methyl acetate	10.000	10.068	-0.7	121	0.00
16	T,M	Iodomethane	10.000	10.290	-2.9	115	0.00
17	T,M	Methylene chloride	10.000	10.870	-8.7	112	0.04
18	T,M	Carbon disulfide	10.000	11.695	-17.0	124	-0.02
19	T,M	Acrylonitrile	50.000	53.093	-6.2	117	0.00
20	T,M	tert-Butyl methyl ether (MT	10.000	10.073	-0.7	108	0.00
21	T,M	trans-1,2-Dichloroethene	10.000	10.028	-0.3	112	-0.02
22	T,M	Isopropyl ether (DIPE)	10.000	9.940	0.6	108	0.00
23	T,M	Vinyl acetate	10.000	10.735	-7.3	114	0.00
24	P,T,M	1,1-Dichloroethane	10.000	9.548	4.5	105	0.00
25	T,M	2-Butanol	50.000	54.187	-8.4	129	0.00
26	T,M	tert-Butyl ethyl ether (ETB	10.000	10.081	-0.8	110	-0.02
27	T,M	2-Butanone	50.000	51.017	-2.0	117	-0.02
28	T,M	2,2-Dichloropropane	10.000	10.821	-8.2	117	0.00
29	T,M	cis-1,2-Dichloroethene	10.000	10.088	-0.9	114	0.00
30	C,T,M	Chloroform	10.000	9.714	2.9	110	-0.02
31	T,M	tert-Amyl alcohol	-1.000	0.000	0.0	105	0.00
32	T,M	Bromochloromethane	10.000	10.016	-0.2	109	0.00
33	T,M	Tetrahydrofuran	10.000	9.888	1.1	111	0.00
34	S	Dibromofluoromethane	10.000	10.596	-6.0	109	-0.02
35	T,M	1,1,1-Trichloroethane	10.000	9.918	0.8	108	-0.02
36	T,M	Cyclohexane	10.000	10.698	-7.0	127	-0.01
37	T,M	tert-Amyl methyl ether (TAM	10.000	10.642	-6.4	111	0.00
38	S	1,2-Dichloroethane-d4	10.000	10.073	-0.7	103	-0.02
39	I	CHLOROBENZENE-D5	10.000	10.000	0.0	110	0.00
40	T,M	2,2,4-Trimethylpentane	10.000	8.293	17.1	92	0.00

(#) = Out of Range

8-21-12

2165

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T,M	1,1-Dichloropropene	10.000	10.114	-1.1	114	0.00
42	T,M	Carbon tetrachloride	10.000	9.911	0.9	109	-0.02
43	T,M	1,2-Dichloroethane	10.000	9.612	3.9	106	0.00
44	T,M	Benzene	10.000	9.816	1.8	112	0.00
45	T,M	Trichloroethene	10.000	10.006	-0.1	112	0.00
46	T,M	Methylcyclohexane	10.000	10.131	-1.3	111	-0.02
47	C,T,M	1,2-Dichloropropane	10.000	9.994	0.1	111	-0.02
48	T,M	1,4-Dioxane	200.000	222.394	-11.2	120	0.00
49	T,M	Bromodichloromethane	10.000	10.149	-1.5	109	0.00
50	T,M	Dibromomethane	10.000	10.358	-3.6	113	0.00
51	T,M	2-Chloroethyl vinyl ether	10.000	10.536	-5.4	109	-0.02
52	T,M	4-Methyl-2-pentanone	50.000	53.865	-7.7	114	0.00
53	T,M	cis-1,3-Dichloropropene	10.000	10.612	-6.1	113	0.00
54	S	Toluene-d8	10.000	10.605	-6.1	110	0.00
55	C,T,M	Toluene	10.000	9.869	1.3	110	0.00
56	T,M	Ethyl methacrylate	10.000	10.733	-7.3	112	0.00
57	T,M	trans-1,3-Dichloropropene	10.000	10.482	-4.8	111	0.00
58	T,M	1,1,2-Trichloroethane	10.000	10.369	-3.7	111	0.00
59	T,M	2-Hexanone	50.000	55.018	-10.0	116	0.00
60	T,M	1,3-Dichloropropane	10.000	10.199	-2.0	109	-0.02
61	T,M	Tetrachloroethene	10.000	9.998	0.0	112	-0.02
62	T,M	Dibromochloromethane	10.000	10.525	-5.3	110	0.00
63	T,M	2-Ethyl-1-butanol	-1.000	0.000	0.0	0	0.00
64	T,M	1,2-Dibromoethane	10.000	10.651	-6.5	113	-0.02
65	T,M	1-Chlorohexane	10.000	10.209	-2.1	110	0.00
66	P, T,M	Chlorobenzene	10.000	9.966	0.3	113	0.00
67	T,M	1,1,1,2-Tetrachloroethane	10.000	10.275	-2.8	110	0.00
68	C,T,M	Ethylbenzene	10.000	10.056	-0.6	110	0.00
69	T,M	m-Xylene & p-Xylene	20.000	19.384	3.1	110	0.00
70	T,M	o-Xylene	10.000	10.008	-0.1	108	0.00
71	T,M	Styrene	10.000	10.422	-4.2	111	0.00
72	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	108	0.00
73	T,M	Isopropylbenzene	10.000	10.383	-3.8	111	0.00
74	P,T,M	Bromoform	10.000	10.163	-1.6	113	-0.02
75	P,T,M	1,1,2,2-Tetrachloroethane	10.000	10.756	-7.6	113	-0.02
76	S	4-Bromofluorobenzene	10.000	10.340	-3.4	107	0.00
77	T,M	1,2,3-Trichloropropane	10.000	10.734	-7.3	111	0.00
78	T,M	trans-1,4-Dichloro-2-butene	10.000	10.856	-8.6	111	0.00
79	T,M	n-Propylbenzene	10.000	10.233	-2.3	108	0.00
80	T,M	Bromobenzene	10.000	10.213	-2.1	110	0.00

(#) = Out of Range

2166

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	1,3,5-Trimethylbenzene	10.000	10.066	-0.7	109	0.00
82	T,M	2-Chlorotoluene	10.000	10.344	-3.4	111	0.00
83	T,M	4-Chlorotoluene	10.000	9.430	5.7	104	0.00
84	T,M	tert-Butylbenzene	10.000	10.076	-0.8	110	0.00
85	T,M	1,2,4-Trimethylbenzene	10.000	9.992	0.1	108	0.00
86	T,M	sec-Butylbenzene	10.000	9.937	0.6	108	0.00
87	T,M	p-Isopropyltoluene	10.000	10.031	-0.3	109	-0.02
88	T,M	1,3-Dichlorobenzene	10.000	10.013	-0.1	109	0.00
89	T,M	1,4-Dichlorobenzene	10.000	10.199	-2.0	111	0.00
90	T,M	Benzyl chloride	-1.000	0.000	0.0	0	0.00
91	T,M	n-Butylbenzene	10.000	10.078	-0.8	111	-0.02
92	T,M	1,2-Dichlorobenzene	10.000	9.944	0.6	109	0.00
93	T,M	1,2-Dibromo-3-chloropropane	10.000	10.737	-7.4	115	0.00
94	T,M	1,2,4-Trichlorobenzene	10.000	9.828	1.7	111	0.00
95	T,M	Hexachlorobutadiene	10.000	9.875	1.3	108	0.00
96	T,M	Naphthalene	10.000	10.328	-3.3	111	0.00
97	T,M	1,2,3-Trichlorobenzene	10.000	9.754	2.5	110	-0.02

8-21-12

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	112	0.00
2	T,M	Dichlorodifluoromethane	0.258	0.253	1.9	110	0.00
3	P,T,M	Chloromethane	0.310	0.325	-4.8	114	0.00
4	C,T,M	Vinyl chloride	0.233	0.240	-3.0	115	0.02
5	T,M	Bromomethane	0.187	0.195	-4.3	109	0.00
6	T,M	Chloroethane	0.159	0.168	-5.7	109	0.00
7	T,M	Dichlorofluoromethane	0.549	0.547	0.4	107	0.00
8	T,M	Trichlorofluoromethane	0.355	0.362	-2.0	109	-0.02
9	T,M	Acrolein	0.012	0.014	-16.7	126	0.00
10	T,M	1,1,2-Trichloro-1,2,2-trifl	0.168	0.169	-0.6	113	0.00
11	T,M	Acetone	0.034	0.035	-2.9	115	0.00
12	C,T,M	1,1-Dichloroethene	0.525	0.532	-1.3	112	-0.02
13	T,M	tert-Butyl alcohol	0.010	0.011	-10.0	110	0.00
14	T,M	Acetonitrile	0.000	0.000	0.0	113	0.00
15	T,M	Methyl acetate	0.111	0.112	-0.9	121	0.00
16	T,M	Iodomethane	0.451	0.464	-2.9	115	0.00
17	T,M	Methylene chloride	0.433	0.392	9.5	112	0.04
18	T,M	Carbon disulfide	1.073	1.255	-17.0	124	-0.02
19	T,M	Acrylonitrile	0.043	0.045	-4.7	117	0.00
20	T,M	tert-Butyl methyl ether (MT	0.470	0.474	-0.9	108	0.00
21	T,M	trans-1,2-Dichloroethene	0.556	0.558	-0.4	112	-0.02
22	T,M	Isopropyl ether (DIPE)	1.082	1.076	0.6	108	0.00
23	T,M	Vinyl acetate	0.376	0.404	-7.4	114	0.00
24	P,T,M	1,1-Dichloroethane	0.637	0.608	4.6	105	0.00
25	T,M	2-Butanol	0.009	0.010	-11.1	129	0.00
26	T,M	tert-Butyl ethyl ether (ETB	0.791	0.797	-0.8	110	-0.02
27	T,M	2-Butanone	0.063	0.065	-3.2	117	-0.02
28	T,M	2,2-Dichloropropane	0.319	0.345	-8.2	117	0.00
29	T,M	cis-1,2-Dichloroethene	0.365	0.369	-1.1	114	0.00
30	C,T,M	Chloroform	0.578	0.562	2.8	110	-0.02
31	T,M	tert-Amyl alcohol	0.000	0.000	0.0	105	0.00
32	T,M	Bromochloromethane	0.255	0.255	0.0	109	0.00
33	T,M	Tetrahydrofuran	0.047	0.041	12.8	111	0.00
34	S	Dibromofluoromethane	0.302	0.320	-6.0	109	-0.02
35	T,M	1,1,1-Trichloroethane	0.471	0.467	0.8	108	-0.02
36	T,M	Cyclohexane	0.779	0.833	-6.9	127	-0.01
37	T,M	tert-Amyl methyl ether (TAM	0.123	0.131	-6.5	111	0.00
38	S	1,2-Dichloroethane-d4	0.252	0.254	-0.8	103	-0.02
39	I	CHLOROBENZENE-D5	1.000	1.000	0.0	110	0.00
40	T,M	2,2,4-Trimethylpentane	1.630	1.352	17.1	92	0.00

(#) = Out of Range

8-21-12

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T,M	1,1-Dichloropropene	0.194	0.197	-1.5	114	0.00
42	T,M	Carbon tetrachloride	0.506	0.502	0.8	109	-0.02
43	T,M	1,2-Dichloroethane	0.367	0.353	3.8	106	0.00
44	T,M	Benzene	1.512	1.484	1.9	112	0.00
45	T,M	Trichloroethene	0.432	0.432	0.0	112	0.00
46	T,M	Methylcyclohexane	0.697	0.706	-1.3	111	-0.02
47	C,T,M	1,2-Dichloropropane	0.384	0.383	0.3	111	-0.02
48	T,M	1,4-Dioxane	0.001	0.001	0.0	120	0.00
49	T,M	Bromodichloromethane	0.466	0.473	-1.5	109	0.00
50	T,M	Dibromomethane	0.166	0.172	-3.6	113	0.00
51	T,M	2-Chloroethyl vinyl ether	0.124	0.130	-4.8	109	-0.02
52	T,M	4-Methyl-2-pentanone	0.198	0.213	-7.6	114	0.00
53	T,M	cis-1,3-Dichloropropene	0.539	0.572	-6.1	113	0.00
54	S	Toluene-d8	1.276	1.353	-6.0	110	0.00
55	C,T,M	Toluene	1.566	1.546	1.3	110	0.00
56	T,M	Ethyl methacrylate	0.257	0.276	-7.4	112	0.00
57	T,M	trans-1,3-Dichloropropene	0.395	0.414	-4.8	111	0.00
58	T,M	1,1,2-Trichloroethane	0.197	0.204	-3.6	111	0.00
59	T,M	2-Hexanone	0.118	0.129	-9.3	116	0.00
60	T,M	1,3-Dichloropropane	0.409	0.418	-2.2	109	-0.02
61	T,M	Tetrachloroethene	0.340	0.340	0.0	112	-0.02
62	T,M	Dibromochloromethane	0.265	0.279	-5.3	110	0.00
63	T,M	2-Ethyl-1-butanol	0.000	0.000	0.0	0#	0.00
64	T,M	1,2-Dibromoethane	0.205	0.218	-6.3	113	-0.02
65	T,M	1-Chlorohexane	0.660	0.674	-2.1	110	0.00
66	P, T,M	Chlorobenzene	0.939	0.936	0.3	113	0.00
67	T,M	1,1,1,2-Tetrachloroethane	0.297	0.306	-3.0	110	0.00
68	C,T,M	Ethylbenzene	1.759	1.769	-0.6	110	0.00
69	T,M	m-Xylene & p-Xylene	1.351	1.309	3.1	110	0.00
70	T,M	o-Xylene	1.352	1.353	-0.1	108	0.00
71	T,M	Styrene	0.935	0.974	-4.2	111	0.00
72	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	108	0.00
73	T,M	Isopropylbenzene	4.685	4.864	-3.8	111	0.00
74	P,T,M	Bromoform	0.348	0.393	-12.9	113	-0.02
75	P,T,M	1,1,2,2-Tetrachloroethane	0.625	0.672	-7.5	113	-0.02
76	S	4-Bromofluorobenzene	1.245	1.287	-3.4	107	0.00
77	T,M	1,2,3-Trichloropropane	0.168	0.180	-7.1	111	0.00
78	T,M	trans-1,4-Dichloro-2-butene	0.188	0.204	-8.5	111	0.00
79	T,M	n-Propylbenzene	6.255	6.401	-2.3	108	0.00
80	T,M	Bromobenzene	0.975	0.996	-2.2	110	0.00

(#) = Out of Range

2169

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	1,3,5-Trimethylbenzene	3.761	3.785	-0.6	109	0.00
82	T,M	2-Chlorotoluene	3.900	4.034	-3.4	111	0.00
83	T,M	4-Chlorotoluene	3.163	2.983	5.7	104	0.00
84	T,M	tert-Butylbenzene	0.863	0.870	-0.8	110	0.00
85	T,M	1,2,4-Trimethylbenzene	3.614	3.611	0.1	108	0.00
86	T,M	sec-Butylbenzene	5.188	5.156	0.6	108	0.00
87	T,M	p-Isopropyltoluene	3.969	3.981	-0.3	109	-0.02
88	T,M	1,3-Dichlorobenzene	1.929	1.931	-0.1	109	0.00
89	T,M	1,4-Dichlorobenzene	1.839	1.876	-2.0	111	0.00
90	T,M	Benzyl chloride	0.000	0.000	0.0	0#	0.00
91	T,M	n-Butylbenzene	4.032	4.063	-0.8	111	-0.02
92	T,M	1,2-Dichlorobenzene	1.479	1.470	0.6	109	0.00
93	T,M	1,2-Dibromo-3-chloropropane	0.072	0.078	-8.3	115	0.00
94	T,M	1,2,4-Trichlorobenzene	0.927	0.911	1.7	111	0.00
95	T,M	Hexachlorobutadiene	0.655	0.647	1.2	108	0.00
96	T,M	Naphthalene	1.125	1.162	-3.3	111	0.00
97	T,M	1,2,3-Trichlorobenzene	0.694	0.677	2.4	110	-0.02

JM 8-21-12

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 15:53 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1860809	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1581053	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	526652	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.65	111	595307	10.60	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	106.00%	
38) 1,2-Dichloroethane-d4	8.48	65	472685	10.07	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	100.70%	
54) Toluene-d8	11.62	98	2139440	10.60	ug/l	0.00
Spiked Amount 10.000			Recovery	=	106.00%	
76) 4-Bromofluorobenzene	16.05	95	677781	10.34	ug/l	0.00
Spiked Amount 10.000			Recovery	=	103.40%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	471407	9.82	ug/l	100
3) Chloromethane	2.15	50	603952	10.47	ug/l	100
4) Vinyl chloride	2.31	62	447330	10.33	ug/l	100
5) Bromomethane	2.81	94	363435	10.47	ug/l	97
6) Chloroethane	2.92	64	313116	10.57	ug/l	97
7) Dichlorofluoromethane	2.96	67	1017847	9.96	ug/l	99
8) Trichlorofluoromethane	3.23	101	673832	10.19	ug/l	99
9) Acrolein	3.77	56	130783	57.21	ug/l	99
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	314914	10.07	ug/l	100
11) Acetone	3.86	43	323536	51.05	ug/l	98
12) 1,1-Dichloroethene	4.05	61	990521	10.14	ug/l	98
13) tert-Butyl alcohol	4.15	59	101052	56.19	ug/l	95
15) Methyl acetate	4.54	43	208432	10.07	ug/l	100
16) Iodomethane	4.52	142	862656	10.29	ug/l	97
17) Methylene chloride	4.81	49	729403	10.87	ug/l	98
18) Carbon disulfide	4.78	76	2335412	11.69	ug/l	100
19) Acrylonitrile	4.97	53	422792	53.09	ug/l	99
20) tert-Butyl methyl ether (M	5.01	73	881351	10.07	ug/l	98
21) trans-1,2-Dichloroethene	5.22	61	1038370	10.03	ug/l	96
22) Isopropyl ether (DIPE)	5.80	45	2001510	9.94	ug/l	98
23) Vinyl acetate	6.00	43	751016	10.74	ug/l	98
24) 1,1-Dichloroethane	5.97	63	1131093	9.55	ug/l	98
25) 2-Butanol	6.37	45	95311	54.19	ug/l	98
26) tert-Butyl ethyl ether (ET	6.50	59	1483732	10.08	ug/l	100
27) 2-Butanone	6.71	43	600112	51.02	ug/l	100
28) 2,2-Dichloropropane	6.93	77	642452	10.82	ug/l	99
29) cis-1,2-Dichloroethene	7.02	96	686039	10.09	ug/l	96

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

2111

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D
Acq On : 16 Aug 2012 10:02 am
Sample : IVO06H1501
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 15:53 2012

Vial: 2
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	Chloroform	7.27	83	1045522	9.71 ug/l		99
32)	Bromochloromethane	7.56	49	474413	10.02 ug/l		97
33)	Tetrahydrofuran	7.62	42	75461	9.89 ug/l		99
35)	1,1,1-Trichloroethane	7.94	97	868363	9.92 ug/l		99
36)	Cyclohexane	7.96	56	1550794	10.70 ug/l		92
37)	tert-Amyl methyl ether (TA	8.43	87	244051	10.64 ug/l		99
40)	2,2,4-Trimethylpentane	8.09	57	2136863	8.29 ug/l	#	47
41)	1,1-Dichloropropene	8.21	110	311010	10.11 ug/l		99
42)	Carbon tetrachloride	8.36	119	792907	9.91 ug/l		100
43)	1,2-Dichloroethane	8.64	62	557820	9.61 ug/l		98
44)	Benzene	8.66	78	2346500	9.82 ug/l		100
45)	Trichloroethene	9.67	130	682938	10.01 ug/l		99
46)	Methylcyclohexane	9.74	83	1115968	10.13 ug/l		98
47)	1,2-Dichloropropane	9.95	63	606068	9.99 ug/l		96
48)	1,4-Dioxane	10.38	88	41784	222.39 ug/l		99
49)	Bromodichloromethane	10.34	83	747350	10.15 ug/l		99
50)	Dibromomethane	10.43	93	272570	10.36 ug/l		99
51)	2-Chloroethyl vinyl ether	10.86	63	206300	10.54 ug/l		99
52)	4-Methyl-2-pentanone	10.90	43	1683849	53.87 ug/l		98
53)	cis-1,3-Dichloropropene	11.23	75	903757	10.61 ug/l		98
55)	Toluene	11.75	91	2443694	9.87 ug/l		100
56)	Ethyl methacrylate	12.05	69	435851	10.73 ug/l		98
57)	trans-1,3-Dichloropropene	12.05	75	653879	10.48 ug/l		98
58)	1,1,2-Trichloroethane	12.30	97	322523	10.37 ug/l		99
59)	2-Hexanone	12.31	43	1023658	55.02 ug/l		99
60)	1,3-Dichloropropane	12.70	76	660249	10.20 ug/l		100
61)	Tetrachloroethene	12.79	164	538206	10.00 ug/l		100
62)	Dibromochloromethane	13.13	129	441326	10.52 ug/l		100
64)	1,2-Dibromoethane	13.44	107	344825	10.65 ug/l		100
65)	1-Chlorohexane	13.71	91	1065278	10.21 ug/l		97
66)	Chlorobenzene	14.13	112	1479703	9.97 ug/l		97
67)	1,1,1,2-Tetrachloroethane	14.20	131	483160	10.28 ug/l		100
68)	Ethylbenzene	14.22	91	2796277	10.06 ug/l		99
69)	m-Xylene & p-Xylene	14.34	91	4139569	19.38 ug/l		99
70)	o-Xylene	15.05	91	2138774	10.01 ug/l		98
71)	Styrene	15.11	104	1540593	10.42 ug/l		98
73)	Isopropylbenzene	15.63	105	2561704	10.38 ug/l		99
74)	Bromoform	15.66	173	207142	10.16 ug/l		100
75)	1,1,2,2-Tetrachloroethane	15.91	83	354162	10.76 ug/l		99
77)	1,2,3-Trichloropropane	16.17	110	94743	10.73 ug/l		98
78)	trans-1,4-Dichloro-2-buten	16.27	53	107548	10.86 ug/l		99

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

2112

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 15:53 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.28	91	3371039	10.23 ug/l	99
80)	Bromobenzene	16.37	156	524642	10.21 ug/l	97
81)	1,3,5-Trimethylbenzene	16.55	105	1993640	10.07 ug/l	98
82)	2-Chlorotoluene	16.58	91	2124758	10.34 ug/l	99
83)	4-Chlorotoluene	16.66	91	1570957	9.43 ug/l	99
84)	tert-Butylbenzene	17.12	134	458066	10.08 ug/l	97
85)	1,2,4-Trimethylbenzene	17.18	105	1901812	9.99 ug/l	100
86)	sec-Butylbenzene	17.43	105	2715256	9.94 ug/l	100
87)	p-Isopropyltoluene	17.61	119	2096778	10.03 ug/l	99
88)	1,3-Dichlorobenzene	17.76	146	1017050	10.01 ug/l	100
89)	1,4-Dichlorobenzene	17.89	146	988001	10.20 ug/l	99
91)	n-Butylbenzene	18.14	91	2139780	10.08 ug/l	99
92)	1,2-Dichlorobenzene	18.37	146	774306	9.94 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.27	157	40985	10.74 ug/l	98
94)	1,2,4-Trichlorobenzene	20.27	180	480032	9.83 ug/l	100
95)	Hexachlorobutadiene	20.42	225	340815	9.87 ug/l	99
96)	Naphthalene	20.60	128	612170	10.33 ug/l	100
97)	1,2,3-Trichlorobenzene	20.88	180	356463	9.75 ug/l	100

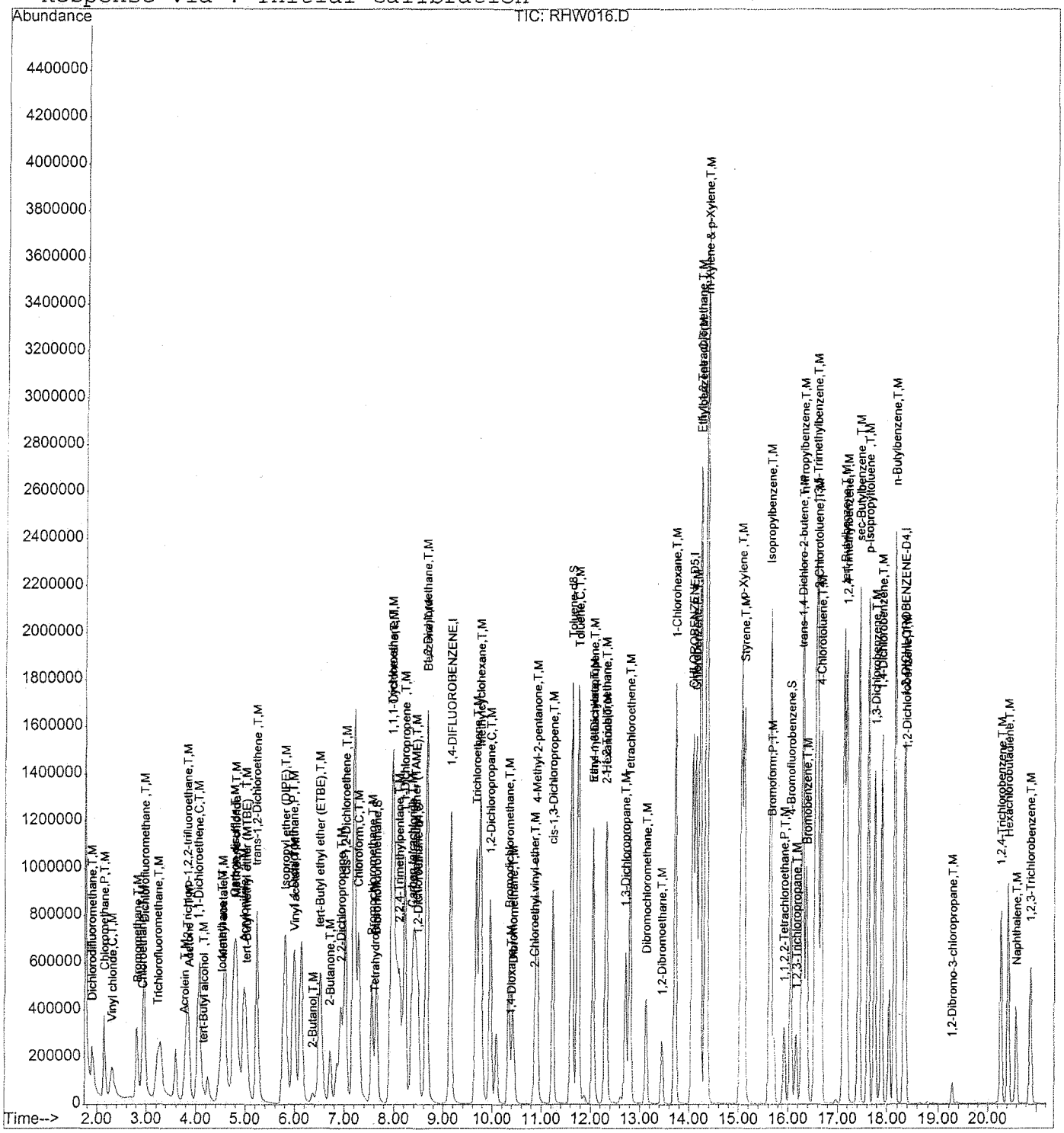
JM 8-21-12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 15:53 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2114

DAILY CALIBRATIONS

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJW497
Instrument ID: 06
GC Column:RTX502.2ID:0.25mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J181
BFB Injection Date : 10/26/12
BFB Injection Time : 11:51
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.41
75	30.0 - 60.0% of mass 95	44.52
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.74
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	90.36
175	5.0 - 9.0% of mass 174	6.16(6.8)1
176	95.0 - 101.0% of mass 174	86.87(96.1)1
177	5.0 - 9.0% of mass 176	5.47(6.3)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	VSTD010	CV006H1550	RJW499	10/26/12	12:57
2	MBLK1W	V006J20B	RJW503	10/26/12	15:31
3	LCS1W	V006J20L	RJW500	10/26/12	14:01
4	LCD1W	V006J20C	RJW501	10/26/12	14:31
5	10-24-12 WA-3	J181-01	RJW504	10/26/12	16:05
6	10-25-12 WA-9	J181-02	RJW505	10/26/12	16:35
7	10-25-12 PWA-7A	J181-03	RJW506	10/26/12	17:05
8	10-25-12 WA-1	J181-04	RJW507	10/26/12	17:35
9	10-25-12 WA-1MS	J181-04M	RJW508	10/26/12	18:05
10	10-25-12 WA-1MSD	J181-04S	RJW509	10/26/12	18:35
11	10-25-12 PWA-3	J181-05	RJW511	10/26/12	19:35
12	10-25-12 WA-5	J181-06	RJW512	10/26/12	20:06
13	10-25-12 EPAS-2	J181-07	RJW513	10/26/12	20:36
14	10-25-12 WA-2	J181-08	RJW514	10/26/12	21:05
15	10-25-12 EPAS-3	J181-09	RJW515	10/26/12	21:36
16	10-25-12 PWA-2	J181-10	RJW516	10/26/12	22:06

FORM V VOA OLM02.0

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RHW008
Instrument ID: 06
GC Column: RTX502.2 ID: 0.25mm (mm)

Project: BROWN & BRYANT SUPERFUND SITE
SDG No.: 12J181
Date Analyzed: 08/15/12
Time Analyzed: 21:54
Heated Purge: (Y/N) N

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1654332	9.15	1432235	14.07	489315	18.34
	UPPER LIMIT	3308664	9.65	2864470	14.57	978630	18.84
	LOWER LIMIT	827166	8.65	716118	13.57	244658	17.84
	SAMPLE ID						
1	VSTD010	1670786	9.14	1433002	14.06	512103	18.32
2	MBLK1W	1889528	9.14	1643249	14.06	612416	18.32
3	LCS1W	1645718	9.14	1412954	14.06	489911	18.32
4	LCD1W	1733010	9.14	1482056	14.06	527567	18.33
5	10-24-12 WA-3	1784134	9.14	1425606	14.06	524614	18.33
6	10-25-12 WA-9	1781876	9.14	1526998	14.06	577711	18.33
7	10-25-12 PWA-7A	1656356	9.14	1383076	14.06	530255	18.32
8	10-25-12 WA-1	1655077	9.14	1419238	14.06	530428	18.33
9	10-25-12 WA-1MS	1448197	9.14	1301162	14.06	486366	18.33
10	10-25-12 WA-1MSD	1586617	9.14	1382258	14.06	507434	18.32
11	10-25-12 PWA-3	1641306	9.14	1466131	14.06	537996	18.32
12	10-25-12 WA-5	1618188	9.14	1398168	14.06	547641	18.33
13	10-25-12 EPAS-2	1649092	9.14	1428667	14.06	553647	18.32
14	10-25-12 WA-2	1621633	9.14	1414560	14.06	538672	18.32
15	10-25-12 EPAS-3	1613621	9.14	1337232	14.06	391723	18.33
16	10-25-12 PWA-2	1563329	9.14	1304176	14.06	381168	18.32

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
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :TO06
IC Beginning DateTime :08/15/12 19:22
Spike Amount :10 PPB
CC/CV File :RJW499
IC File :RHW008

Column Spec :RTX502.2 ID :0.25MM
IC Ending DateTime :08/15/12 23:53
HPChem Method :vo06h15
Date_Time :10/26/12 12:57

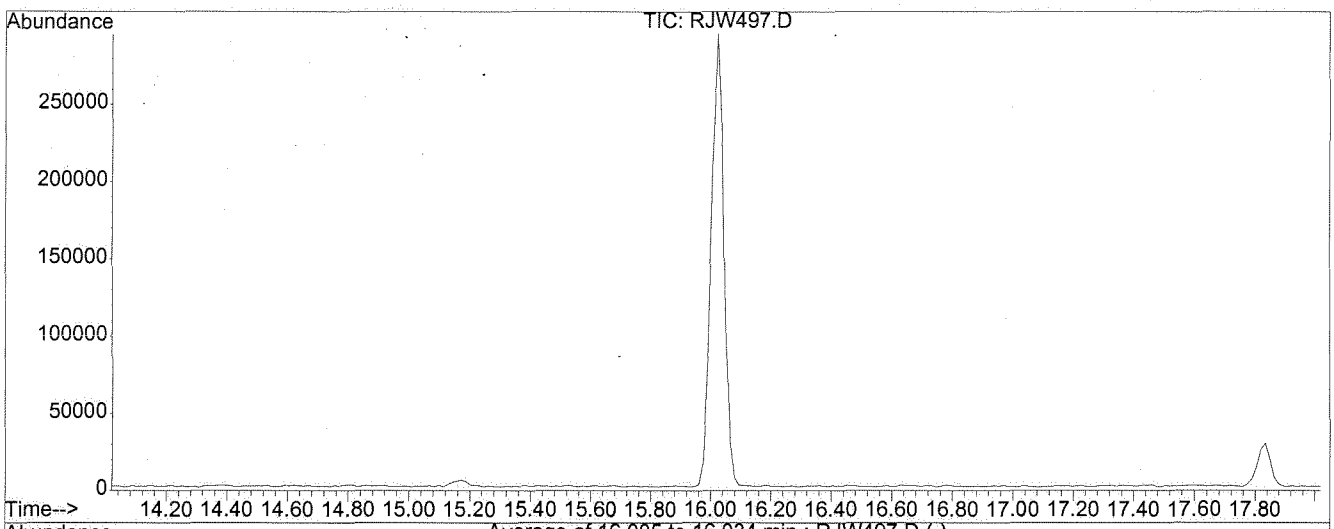
M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	% RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,4-DIFLUOROBENZENE	10.000	0	1670786	1	1	9.136	9.149	0				
	2	Dichlorodifluoromethane	9.265	-7.3	399203	0.239	0.258	1.881	1.894	6.32				
	3	Chloromethane	9.534	-4.7	493735	0.296	0.310	2.134	2.147	5.91				
	4	Vinyl chloride	10.322	3.2	401414	0.240	0.233	2.282	2.300	13.19				
	5	Bromomethane	10.125	1.3	315504	0.189	0.187	2.803	2.812	10.72				
	6	Chloroethane	10.434	4.3	277452	0.166	0.159	2.921	2.919	9.41				
	7	Dichlorofluoromethane	10.441	4.4	957715	0.573	0.549	2.951	2.960	8.55				
	8	Trichlorofluoromethane	8.024	-19.8	476360	0.285	0.355	3.234	3.238	8.43				
5	9	Acrolein	55.868	11.7	114682	0.014	0.012	3.754	3.772	9.90				
	10	1,1,2-Trichloro-1,2,2-trifluoroethane	10.288	2.9	289031	0.173	0.168	3.843	3.826	6.69				
5	11	Acetone	42.728	-14.5	243152	0.029	0.034	3.843	3.859	12.26				
	12	1,1-Dichloroethene	9.762	-2.4	856472	0.513	0.525	4.022	4.063	4.54				
5	13	tert-Butyl alcohol	47.535	-4.9	76764	0.009	0.010	4.155	4.161	12.01				
	14	Acetonitrile												
	15	Methyl acetate												
	16	Iodomethane	11.258	12.6	847471	0.507	0.451	4.468	4.526	4.90				
	17	Methylene chloride	11.053	10.5	665354	0.398	0.433	4.750	4.788	25.09	0.0211	0.3411		0.9963
	18	Carbon disulfide	10.672	6.7	1913608	1.145	1.073	4.765	4.793	8.57				
5	19	Acrylonitrile	45.951	-8.1	328549	0.039	0.043	4.958	4.973	7.45				
	20	tert-Butyl methyl ether (MTBE)	9.051	-9.5	711099	0.426	0.470	5.003	5.018	7.49				
	21	trans-1,2-Dichloroethene	9.864	-1.4	917114	0.549	0.556	5.211	5.233	5.77				
	22	Isopropyl ether (DIPE)	9.812	-1.9	1773982	1.062	1.082	5.776	5.804	6.46				
	23	Vinyl acetate	8.471	-15.3	532114	0.318	0.376	5.984	6.001	7.83				
	24	1,1-Dichloroethane	9.907	-0.9	1053801	0.631	0.637	5.954	5.971	5.00				
5	25	2-Butanol												
	26	tert-Butyl ethyl ether (ETBE)	9.137	-8.6	1207476	0.723	0.791	6.490	6.518	6.29				
5	27	2-Butanone	40.283	-19.4	425467	0.051	0.063	6.698	6.723	11.92				
	28	2,2-Dichloropropane	10.088	0.9	537822	0.322	0.319	6.921	6.939	11.92				
	29	cis-1,2-Dichloroethene	10.508	5.1	641637	0.384	0.365	6.995	7.023	4.81				
	30	Chloroform	9.193	-8.1	888480	0.532	0.578	7.263	7.291	6.39				
5	31	tert-Amyl alcohol												
	32	Bromochloromethane	9.706	-2.9	412802	0.247	0.255	7.530	7.559	5.92				
	33	Tetrahydrofuran	7.445	-25.5	52093	0.031	0.047	7.605	7.624	25.79	0.0026	0.0384		0.9958
	34	Dibromofluoromethane	9.941	-0.6	501478	0.300	0.302	7.634	7.657	12.90				
	35	1,1,1-Trichloroethane	8.840	-11.6	694959	0.416	0.471	7.932	7.957	5.91				
	36	Cyclohexane												
	37	tert-Amyl methyl ether (TAME)	9.063	-9.4	186639	0.112	0.123	8.408	8.433	7.49				
	38	1,2-Dichloroethane-d4	8.622	-13.8	363303	0.217	0.252	8.467	8.492	11.03				
	39	CHLOROBENZENE-D5	10.000	0	1433002	1	1	14.057	14.071	0				
	40	2,2,4-Trimethylpentane												
	41	1,1-Dichloropropene	10.958	9.6	305432	0.213	0.194	8.199	8.220	4.25				
	42	Carbon tetrachloride	9.017	-9.8	653851	0.456	0.506	8.348	8.376	5.79				
	43	1,2-Dichloroethane	8.480	-15.2	446084	0.311	0.367	8.630	8.646	6.76				
	44	Benzene	10.185	1.9	2206924	1.540	1.512	8.645	8.659	9.36				
	45	Trichloroethene	10.483	4.8	648549	0.453	0.432	9.656	9.670	6.12				
	46	Methylcyclohexane												
	47	1,2-Dichloropropane	9.924	-0.8	545508	0.381	0.384	9.939	9.964	4.61				
20	48	1,4-Dioxane	171.085	-14.5	29134	0.001	0.001	10.370	10.385	11.65				
	49	Bromodichloromethane	9.214	-7.9	615006	0.429	0.466	10.325	10.339	5.58				
	50	Dibromomethane	9.452	-5.5	225446	0.157	0.166	10.400	10.427	5.54				
	51	2-Chloroethyl vinyl ether	8.336	-16.6	147934	0.103	0.124	10.846	10.870	8.84				
5	52	4-Methyl-2-pentanone	42.365	-15.3	1200360	0.168	0.198	10.890	10.907	7.11				
	53	cis-1,3-Dichloropropene	9.732	-2.7	751243	0.524	0.539	11.217	11.234	5.79				
	54	Toluene-d8	10.335	3.4	1889854	1.319	1.276	11.604	11.619	8.94				
	55	Toluene	10.222	2.2	2294190	1.601	1.566	11.723	11.748	6.76				
	56	Ethyl methacrylate	8.997	-10.0	331172	0.231	0.257	12.035	12.049	7.04				
	57	trans-1,3-Dichloropropene	9.021	-9.8	510114	0.356	0.395	12.035	12.049	6.05				
	58	1,1,2-Trichloroethane	9.632	-3.7	271540	0.189	0.197	12.288	12.301	5.64				
5	59	2-Hexanone	42.451	-15.1	715882	0.100	0.118	12.303	12.321	8.05				
	60	1,3-Dichloropropane	9.187	-8.1	539072	0.376	0.409	12.689	12.715	6.01				
	61	Tetrachloroethene	11.223	12.2	547596	0.382	0.340	12.778	12.804	4.76				
	62	Dibromochloromethane	9.444	-5.6	358957	0.250	0.265	13.106	13.134	9.39				
	63	2-Ethyl-1-butanol												
	64	1,2-Dibromoethane	9.676	-3.2	283936	0.198	0.205	13.433	13.458	6.02				
	65	1-Chlorohexane	10.448	4.5	988191	0.690	0.660	13.700	13.720	5.61				
	66	Chlorobenzene	10.301	3.0	1386342	0.967	0.939	14.117	14.132	6.36				
	67	1,1,1,2-Tetrachloroethane	9.811	-1.9	418147	0.292	0.297	14.191	14.204	4.58				
	68	Ethylbenzene	9.826	-1.7	2476409	1.728	1.759	14.206	14.219	9.90				
2	69	m-Xylene & p-Xylene	18.673	-6.6	3614372	1.261	1.351	14.325	14.342	7.48				
	70	o-Xylene	9.949	-0.5	1927174	1.345	1.352	15.038	15.052	6.63				
	71	Styrene	10.624	6.2	1423452	0.993	0.935	15.098	15.111	6.35				
	72	1,2-DICHLOROBENZENE-D4	10.000	0	512103	1	1	18.324	18.337	0				
	73	Isopropylbenzene	9.627	-3.7	2309753	4.510	4.685	15.618	15.639	8.82				
	74	Bromoform	8.693	-13.1	171833	0.336	0.348	15.648	15.673	18.12	-0.0062	0.3931		0.9971
	75	1,1,2,2-Tetrachloroethane	8.968	-10.3	287146	0.561	0.625	15.901	15.926	8.36				
	76	4-Bromofluorobenzene	9.097	-9.0	579861	1.132	1.245	16.035	16.048	8.32				
	77	1,2,3-Trichloropropane	8.254	-17.5	70847	0.138	0.168	16.153	16.168	8.94				
	78	trans-1,4-Dichloro-2-butene	8.419	-15.8	81103	0.158	0.188	16.257	16.274	10.76				
	79	n-Propylbenzene	9.754	-2.5	3124722	6.102	6.255	16.272	16.295	9.47				
	80	Bromobenzene	10.497	5.0	524313	1.024	0.975	16.362	16.375	7.12				
	81	1,3,5-Trimethylbenzene	9.429	-5.7	1816046	3.546	3.761	16.525	16.552	7.92				
	82	2-Chlorotoluene	8.735	-12.7	1744786	3.407	3.900	16.570	16.585	10.14				
	83	4-Chlorotoluene	9.685	-3.1	1568893	3.064	3.163	16.644	16.663	7.18				
	84	tert-Butylbenzene	10.478	4.8	463170	0.904	0.863	17.105	17.118	6.95				
	85	1,2,4-Trimethylbenzene	9.459	-5.4	1750814	3.419	3.614	17.164	17.178	7.83				
	86	sec-Butylbenzene	9.971	-0.3	2649420	5.174	5.188	17.417	17.431	8.10				
	87	p-Isopropyltoluene	10.104	1.0	2053743	4.010	3.969	17.596	17.621	7.26				
	88	1,3-Dichlorobenzene	10.482	4.8	1035344	2.022	1.929	17.744	17.758	7.62				
	89	1,4-Dichlorobenzene	10.417	4.2	981285	1.916	1.839	17.878	17.895	7.30				
	90	Benzyl chloride												
	91	n-Butylbenzene	9.920	-0.8	2048226	4.000	4.032	18.131	18.153	8.35				
	92	1,2-Dichlorobenzene	10.288	2.9	778974	1.521	1.479	18.354	18.367	5.96				
	93	1,2-Dibromo-3-chloropropane	8.666	-13.3	32168	0.063	0.072	19.261	19.273	14.38				
	94	1,2,4-Trichlorobenzene	9.781	-2.2	464593	0.907	0.927	20.257	20.270	8.69				
	95	Hexachlorobutadiene	9.910	-0.9	332601	0.649	0.655	20.406	20.420	10.91				
	96	Naphthalene	8.573	-14.3	494145	0.965	1.125	20.569	20.596	12.07				
	97	1,2,3-Trichlorobenzene	8.551	-14.5	303885	0.593	0.694	20.866	20.888	13.66				

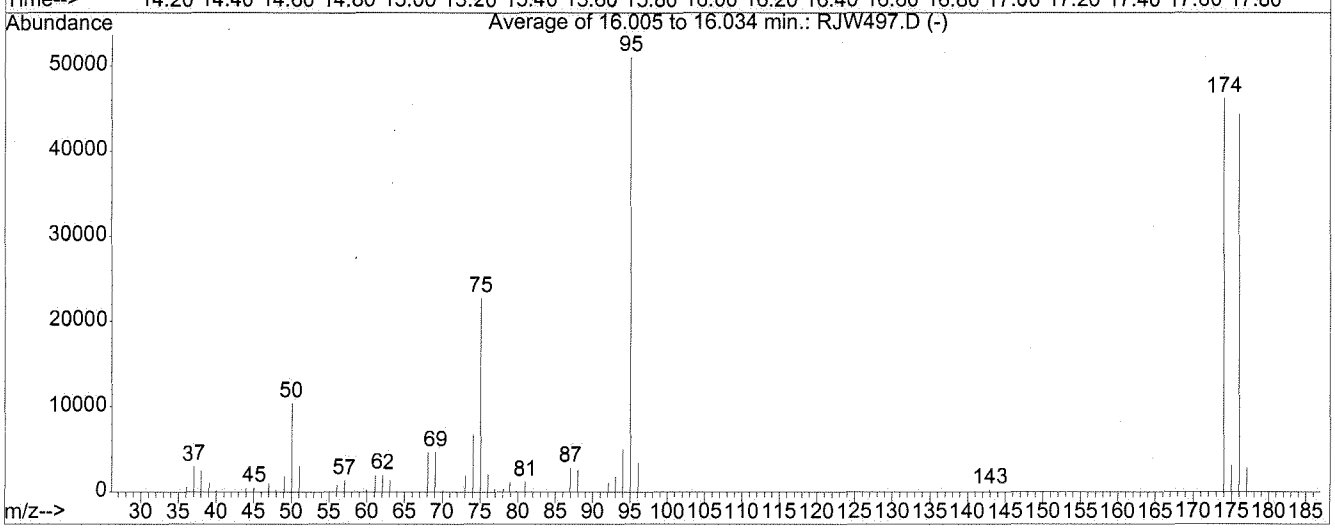
Spike Amount = Nominal Amount * M

BFB

Data File : D:\HPCHEM\1\DATA\12J26\RJW497.D
Acq On : 26 Oct 2012 11:51 am
Sample : BFB06J20
Misc : T/CHK
MS Integration Params: RTE.P
Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260

Vial: 1
Operator: WL
Inst : TO06
Multiplr: 1.00





AutoFind: Scans 960, 961, 962; Background Corrected with Scan 955

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.4	10427	PASS
75	95	30	60	44.5	22752	PASS
95	95	100	100	100.0	51101	PASS
96	95	5	9	6.7	3443	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	90.4	46176	PASS
175	174	5	9	6.8	3147	PASS
176	174	95	101	96.1	44392	PASS
177	176	5	9	6.3	2794	PASS

RJW497.D VO06H15.M Mon Oct 29 16:26:05 2012

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J26\RJW499.D Vial: 4
Acq On : 26 Oct 2012 12:57 pm Operator: WL
Sample : CVO06H1550 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	101	-0.01
2	T,M	Dichlorodifluoromethane	10.000	9.265	7.3	93	-0.01
3	P,T,M	Chloromethane	10.000	9.534	4.7	93	-0.01
4	C,T,M	Vinyl chloride	10.000	10.322	-3.2	103	-0.01
5	T,M	Bromomethane	10.000	10.125	-1.3	94	-0.01
6	T,M	Chloroethane	10.000	10.434	-4.3	96	0.00
7	T,M	Dichlorofluoromethane	10.000	10.441	-4.4	101	-0.01
8	T,M	Trichlorofluoromethane	10.000	8.024	19.8	77	-0.01
9	T,M	Acrolein	50.000	55.869	-11.7	111	-0.01
10	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	10.288	-2.9	104	0.02
11	T,M	Acetone	50.000	42.728	14.5	86	-0.01
12	C,T,M	1,1-Dichloroethene	10.000	9.762	2.4	97	-0.04
13	T,M	tert-Butyl alcohol	50.000	47.536	4.9	84	0.00
14	T,M	Acetonitrile	-1.000	0.000	0.0	79	-0.01
15	T,M	Methyl acetate	10.000	0.000	100.0#	0	-4.54#
16	T,M	Iodomethane	10.000	11.259	-12.6	113	-0.06
17	T,M	Methylene chloride	10.000	11.053	-10.5	103	-0.01
18	T,M	Carbon disulfide	10.000	10.673	-6.7	102	-0.03
19	T,M	Acrylonitrile	50.000	45.951	8.1	91	-0.01
20	T,M	tert-Butyl methyl ether (MT	10.000	9.051	9.5	87	-0.01
21	T,M	trans-1,2-Dichloroethene	10.000	9.864	1.4	99	-0.03
22	T,M	Isopropyl ether (DIPE)	10.000	9.812	1.9	96	-0.03
23	T,M	Vinyl acetate	10.000	8.471	15.3	81	-0.01
24	P,T,M	1,1-Dichloroethane	10.000	9.907	0.9	98	-0.01
25	T,M	2-Butanol	50.000	0.000	100.0#	0	-6.37#
26	T,M	tert-Butyl ethyl ether (ETB	10.000	9.137	8.6	90	-0.03
27	T,M	2-Butanone	50.000	40.284	19.4	83	-0.03
28	T,M	2,2-Dichloropropane	10.000	10.089	-0.9	98	-0.01
29	T,M	cis-1,2-Dichloroethene	10.000	10.508	-5.1	107	-0.03
30	C,T,M	Chloroform	10.000	9.193	8.1	93	-0.03
31	T,M	tert-Amyl alcohol	-1.000	0.000	0.0	84	-0.03
32	T,M	Bromochloromethane	10.000	9.706	2.9	95	-0.03
33	T,M	Tetrahydrofuran	10.000	7.445	25.5#	77	-0.01
34	S	Dibromofluoromethane	10.000	9.941	0.6	92	-0.03
35	T,M	1,1,1-Trichloroethane	10.000	8.840	11.6	87	-0.03
36	T,M	Cyclohexane	10.000	0.000	100.0#	0	-7.97#
37	T,M	tert-Amyl methyl ether (TAM	10.000	9.064	9.4	85	-0.03
38	S	1,2-Dichloroethane-d4	10.000	8.623	13.8	79	-0.03
39	I	CHLOROBENZENE-D5	10.000	10.000	0.0	100	-0.01
40	T,M	2,2,4-Trimethylpentane	10.000	0.000	100.0#	0	-8.09#

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J26\RJW499.D Vial: 4
Acq On : 26 Oct 2012 12:57 pm Operator: WL
Sample : CVO06H1550 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T,M	1,1-Dichloropropene	10.000	10.959	-9.6	112	-0.01
42	T,M	Carbon tetrachloride	10.000	9.017	9.8	90	-0.03
43	T,M	1,2-Dichloroethane	10.000	8.481	15.2	85	-0.01
44	T,M	Benzene	10.000	10.186	-1.9	106	-0.01
45	T,M	Trichloroethene	10.000	10.484	-4.8	106	-0.01
46	T,M	Methylcyclohexane	10.000	0.000	100.0#	0	-9.76#
47	C,T,M	1,2-Dichloropropane	10.000	9.925	0.7	99	-0.03
48	T,M	1,4-Dioxane	200.000	171.085	14.5	84	-0.01
49	T,M	Bromodichloromethane	10.000	9.214	7.9	90	-0.01
50	T,M	Dibromomethane	10.000	9.452	5.5	93	-0.03
51	T,M	2-Chloroethyl vinyl ether	10.000	8.336	16.6	78	-0.03
52	T,M	4-Methyl-2-pentanone	50.000	42.366	15.3	81	-0.01
53	T,M	cis-1,3-Dichloropropene	10.000	9.733	2.7	94	-0.01
54	S	Toluene-d8	10.000	10.336	-3.4	97	-0.01
55	C,T,M	Toluene	10.000	10.223	-2.2	104	-0.03
56	T,M	Ethyl methacrylate	10.000	8.998	10.0	85	-0.01
57	T,M	trans-1,3-Dichloropropene	10.000	9.022	9.8	86	-0.01
58	T,M	1,1,2-Trichloroethane	10.000	9.632	3.7	94	-0.01
59	T,M	2-Hexanone	50.000	42.452	15.1	81	-0.01
60	T,M	1,3-Dichloropropane	10.000	9.187	8.1	89	-0.03
61	T,M	Tetrachloroethene	10.000	11.223	-12.2	114	-0.03
62	T,M	Dibromochloromethane	10.000	9.445	5.5	90	-0.03
63	T,M	2-Ethyl-1-butanol	-1.000	0.000	0.0	0	0.00
64	T,M	1,2-Dibromoethane	10.000	9.676	3.2	93	-0.03
65	T,M	1-Chlorohexane	10.000	10.449	-4.5	102	-0.01
66	P, T,M	Chlorobenzene	10.000	10.302	-3.0	106	-0.01
67	T,M	1,1,1,2-Tetrachloroethane	10.000	9.812	1.9	95	-0.01
68	C,T,M	Ethylbenzene	10.000	9.826	1.7	98	-0.01
69	T,M	m-Xylene & p-Xylene	20.000	18.673	6.6	96	-0.01
70	T,M	o-Xylene	10.000	9.949	0.5	97	-0.01
71	T,M	Styrene	10.000	10.625	-6.3	102	-0.01
72	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	105	-0.01
73	T,M	Isopropylbenzene	10.000	9.628	3.7	100	-0.01
74	P,T,M	Bromoform	10.000	8.693	13.1	94	-0.03
75	P,T,M	1,1,2,2-Tetrachloroethane	10.000	8.969	10.3	91	-0.03
76	S	4-Bromofluorobenzene	10.000	9.098	9.0	91	-0.01
77	T,M	1,2,3-Trichloropropane	10.000	8.255	17.4	83	-0.01
78	T,M	trans-1,4-Dichloro-2-butene	10.000	8.420	15.8	84	-0.01
79	T,M	n-Propylbenzene	10.000	9.755	2.4	100	-0.01
80	T,M	Bromobenzene	10.000	10.497	-5.0	109	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J26\RJW499.D Vial: 4
Acq On : 26 Oct 2012 12:57 pm Operator: WL
Sample : CVO06H1550 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	1,3,5-Trimethylbenzene	10.000	9.430	5.7	100	-0.03
82	T,M	2-Chlorotoluene	10.000	8.736	12.6	91	-0.01
83	T,M	4-Chlorotoluene	10.000	9.685	3.1	104	-0.01
84	T,M	tert-Butylbenzene	10.000	10.478	-4.8	111	-0.01
85	T,M	1,2,4-Trimethylbenzene	10.000	9.460	5.4	99	-0.01
86	T,M	sec-Butylbenzene	10.000	9.972	0.3	105	-0.01
87	T,M	p-Isopropyltoluene	10.000	10.104	-1.0	106	-0.03
88	T,M	1,3-Dichlorobenzene	10.000	10.482	-4.8	111	-0.01
89	T,M	1,4-Dichlorobenzene	10.000	10.417	-4.2	110	-0.01
90	T,M	Benzyl chloride	-1.000	0.000	0.0	0	0.00
91	T,M	n-Butylbenzene	10.000	9.921	0.8	106	-0.03
92	T,M	1,2-Dichlorobenzene	10.000	10.288	-2.9	109	-0.01
93	T,M	1,2-Dibromo-3-chloropropane	10.000	8.666	13.3	90	-0.01
94	T,M	1,2,4-Trichlorobenzene	10.000	9.782	2.2	107	-0.01
95	T,M	Hexachlorobutadiene	10.000	9.910	0.9	105	-0.01
96	T,M	Naphthalene	10.000	8.574	14.3	90	-0.03
97	T,M	1,2,3-Trichlorobenzene	10.000	8.552	14.5	94	-0.03

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J26\RJW499.D Vial: 4
Acq On : 26 Oct 2012 12:57 pm Operator: WL
Sample : CVO06H1550 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	101	-0.01
2	T,M	Dichlorodifluoromethane	0.258	0.239	7.4	93	-0.01
3	P,T,M	Chloromethane	0.310	0.296	4.5	93	-0.01
4	C,T,M	Vinyl chloride	0.233	0.240	-3.0	103	-0.01
5	T,M	Bromomethane	0.187	0.189	-1.1	94	-0.01
6	T,M	Chloroethane	0.159	0.166	-4.4	96	0.00
7	T,M	Dichlorofluoromethane	0.549	0.573	-4.4	101	-0.01
8	T,M	Trichlorofluoromethane	0.355	0.285	19.7	77	-0.01
9	T,M	Acrolein	0.012	0.014	-16.7	111	-0.01
10	T,M	1,1,2-Trichloro-1,2,2-trifl	0.168	0.173	-3.0	104	0.02
11	T,M	Acetone	0.034	0.029	14.7	86	-0.01
12	C,T,M	1,1-Dichloroethene	0.525	0.513	2.3	97	-0.04
13	T,M	tert-Butyl alcohol	0.010	0.009	10.0	84	0.00
14	T,M	Acetonitrile	0.000	0.000	0.0	79	-0.01
15	T,M	Methyl acetate	0.111	0.000	100.0#	0#	-4.54#
16	T,M	Iodomethane	0.451	0.507	-12.4	113	-0.06
17	T,M	Methylene chloride	0.433	0.398	8.1	103	-0.01
18	T,M	Carbon disulfide	1.073	1.145	-6.7	102	-0.03
19	T,M	Acrylonitrile	0.043	0.039	9.3	91	-0.01
20	T,M	tert-Butyl methyl ether (MT	0.470	0.426	9.4	87	-0.01
21	T,M	trans-1,2-Dichloroethene	0.556	0.549	1.3	99	-0.03
22	T,M	Isopropyl ether (DIPE)	1.082	1.062	1.8	96	-0.03
23	T,M	Vinyl acetate	0.376	0.318	15.4	81	-0.01
24	P,T,M	1,1-Dichloroethane	0.637	0.631	0.9	98	-0.01
25	T,M	2-Butanol	0.009	0.000	100.0#	0#	-6.37#
26	T,M	tert-Butyl ethyl ether (ETB	0.791	0.723	8.6	90	-0.03
27	T,M	2-Butanone	0.063	0.051	19.0	83	-0.03
28	T,M	2,2-Dichloropropane	0.319	0.322	-0.9	98	-0.01
29	T,M	cis-1,2-Dichloroethene	0.365	0.384	-5.2	107	-0.03
30	C,T,M	Chloroform	0.578	0.532	8.0	93	-0.03
31	T,M	tert-Amyl alcohol	0.000	0.000	0.0	84	-0.03
32	T,M	Bromochloromethane	0.255	0.247	3.1	95	-0.03
33	T,M	Tetrahydrofuran	0.047	0.031	34.0#	77	-0.01
34	S	Dibromofluoromethane	0.302	0.300	0.7	92	-0.03
35	T,M	1,1,1-Trichloroethane	0.471	0.416	11.7	87	-0.03
36	T,M	Cyclohexane	0.779	0.000	100.0#	0#	-7.97#
37	T,M	tert-Amyl methyl ether (TAM	0.123	0.112	8.9	85	-0.03
38	S	1,2-Dichloroethane-d4	0.252	0.217	13.9	79	-0.03
39	I	CHLOROBENZENE-D5	1.000	1.000	0.0	100	-0.01
40	T,M	2,2,4-Trimethylpentane	1.630	0.000	100.0#	0#	-8.09#

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J26\RJW499.D Vial: 4
Acq On : 26 Oct 2012 12:57 pm Operator: WL
Sample : CVO06H1550 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T,M	1,1-Dichloropropene	0.194	0.213	-9.8	112	-0.01
42	T,M	Carbon tetrachloride	0.506	0.456	9.9	90	-0.03
43	T,M	1,2-Dichloroethane	0.367	0.311	15.3	85	-0.01
44	T,M	Benzene	1.512	1.540	-1.9	106	-0.01
45	T,M	Trichloroethene	0.432	0.453	-4.9	106	-0.01
46	T,M	Methylcyclohexane	0.697	0.000	100.0#	0#	-9.76#
47	C,T,M	1,2-Dichloropropane	0.384	0.381	0.8	99	-0.03
48	T,M	1,4-Dioxane	0.001	0.001	0.0	84	-0.01
49	T,M	Bromodichloromethane	0.466	0.429	7.9	90	-0.01
50	T,M	Dibromomethane	0.166	0.157	5.4	93	-0.03
51	T,M	2-Chloroethyl vinyl ether	0.124	0.103	16.9	78	-0.03
52	T,M	4-Methyl-2-pentanone	0.198	0.168	15.2	81	-0.01
53	T,M	cis-1,3-Dichloropropene	0.539	0.524	2.8	94	-0.01
54	S	Toluene-d8	1.276	1.319	-3.4	97	-0.01
55	C,T,M	Toluene	1.566	1.601	-2.2	104	-0.03
56	T,M	Ethyl methacrylate	0.257	0.231	10.1	85	-0.01
57	T,M	trans-1,3-Dichloropropene	0.395	0.356	9.9	86	-0.01
58	T,M	1,1,2-Trichloroethane	0.197	0.189	4.1	94	-0.01
59	T,M	2-Hexanone	0.118	0.100	15.3	81	-0.01
60	T,M	1,3-Dichloropropane	0.409	0.376	8.1	89	-0.03
61	T,M	Tetrachloroethene	0.340	0.382	-12.4	114	-0.03
62	T,M	Dibromochloromethane	0.265	0.250	5.7	90	-0.03
63	T,M	2-Ethyl-1-butanol	0.000	0.000	0.0	0#	0.00
64	T,M	1,2-Dibromoethane	0.205	0.198	3.4	93	-0.03
65	T,M	1-Chlorohexane	0.660	0.690	-4.5	102	-0.01
66	P, T,M	Chlorobenzene	0.939	0.967	-3.0	106	-0.01
67	T,M	1,1,1,2-Tetrachloroethane	0.297	0.292	1.7	95	-0.01
68	C,T,M	Ethylbenzene	1.759	1.728	1.8	98	-0.01
69	T,M	m-Xylene & p-Xylene	1.351	1.261	6.7	96	-0.01
70	T,M	o-Xylene	1.352	1.345	0.5	97	-0.01
71	T,M	Styrene	0.935	0.993	-6.2	102	-0.01
72	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	105	-0.01
73	T,M	Isopropylbenzene	4.685	4.510	3.7	100	-0.01
74	P,T,M	Bromoform	0.348	0.336	3.4	94	-0.03
75	P,T,M	1,1,2,2-Tetrachloroethane	0.625	0.561	10.2	91	-0.03
76	S	4-Bromofluorobenzene	1.245	1.132	9.1	91	-0.01
77	T,M	1,2,3-Trichloropropane	0.168	0.138	17.9	83	-0.01
78	T,M	trans-1,4-Dichloro-2-butene	0.188	0.158	16.0	84	-0.01
79	T,M	n-Propylbenzene	6.255	6.102	2.4	100	-0.01
80	T,M	Bromobenzene	0.975	1.024	-5.0	109	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J26\RJW499.D Vial: 4
Acq On : 26 Oct 2012 12:57 pm Operator: WL
Sample : CVO06H1550 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	1,3,5-Trimethylbenzene	3.761	3.546	5.7	100	-0.03
82	T,M	2-Chlorotoluene	3.900	3.407	12.6	91	-0.01
83	T,M	4-Chlorotoluene	3.163	3.064	3.1	104	-0.01
84	T,M	tert-Butylbenzene	0.863	0.904	-4.8	111	-0.01
85	T,M	1,2,4-Trimethylbenzene	3.614	3.419	5.4	99	-0.01
86	T,M	sec-Butylbenzene	5.188	5.174	0.3	105	-0.01
87	T,M	p-Isopropyltoluene	3.969	4.010	-1.0	106	-0.03
88	T,M	1,3-Dichlorobenzene	1.929	2.022	-4.8	111	-0.01
89	T,M	1,4-Dichlorobenzene	1.839	1.916	-4.2	110	-0.01
90	T,M	Benzyl chloride	0.000	0.000	0.0	0#	0.00
91	T,M	n-Butylbenzene	4.032	4.000	0.8	106	-0.03
92	T,M	1,2-Dichlorobenzene	1.479	1.521	-2.8	109	-0.01
93	T,M	1,2-Dibromo-3-chloropropane	0.072	0.063	12.5	90	-0.01
94	T,M	1,2,4-Trichlorobenzene	0.927	0.907	2.2	107	-0.01
95	T,M	Hexachlorobutadiene	0.655	0.649	0.9	105	-0.01
96	T,M	Naphthalene	1.125	0.965	14.2	90	-0.03
97	T,M	1,2,3-Trichlorobenzene	0.694	0.593	14.6	94	-0.03

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW499.D Vial: 4
Acq On : 26 Oct 2012 12:57 pm Operator: WL
Sample : CVO06H1550 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 17:59 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.14	114	1670786	10.00	ug/l	-0.01
39) CHLOROBENZENE-D5	14.06	117	1433002	10.00	ug/l	-0.01
72) 1,2-DICHLOROBENZENE-D4	18.32	152	512103	10.00	ug/l	-0.01
System Monitoring Compounds						
34) Dibromofluoromethane	7.63	111	501478	9.94	ug/l	-0.03
Spiked Amount 10.000			Recovery = 99.40%			
38) 1,2-Dichloroethane-d4	8.47	65	363303	8.62	ug/l	-0.03
Spiked Amount 10.000			Recovery = 86.20%			
54) Toluene-d8	11.60	98	1889854	10.34	ug/l	-0.01
Spiked Amount 10.000			Recovery = 103.40%			
76) 4-Bromofluorobenzene	16.03	95	579861	9.10	ug/l	-0.01
Spiked Amount 10.000			Recovery = 91.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.88	85	399203	9.27	ug/l	99
3) Chloromethane	2.13	50	493735	9.53	ug/l	98
4) Vinyl chloride	2.28	62	401414	10.32	ug/l	98
5) Bromomethane	2.80	94	315504	10.13	ug/l	99
6) Chloroethane	2.92	64	277452	10.43	ug/l	93
7) Dichlorofluoromethane	2.95	67	957715	10.44	ug/l	98
8) Trichlorofluoromethane	3.23	101	476360	8.02	ug/l	100
9) Acrolein	3.75	56	114682	55.87	ug/l	92
10) 1,1,2-Trichloro-1,2,2-trif	3.84	151	289031	10.29	ug/l	97
11) Acetone	3.84	43	243152	42.73	ug/l	96
12) 1,1-Dichloroethene	4.02	61	856472	9.76	ug/l	95
13) tert-Butyl alcohol	4.16	59	76764	47.54	ug/l	100
16) Iodomethane	4.47	142	847471	11.26	ug/l	88
17) Methylene chloride	4.75	49	665354	11.05	ug/l	88
18) Carbon disulfide	4.77	76	1913608	10.67	ug/l	99
19) Acrylonitrile	4.96	53	328549	45.95	ug/l	99
20) tert-Butyl methyl ether (M	5.00	73	711099	9.05	ug/l	97
21) trans-1,2-Dichloroethene	5.21	61	917114	9.86	ug/l	92
22) Isopropyl ether (DIPE)	5.78	45	1773982	9.81	ug/l	98
23) Vinyl acetate	5.98	43	532114	8.47	ug/l	99
24) 1,1-Dichloroethane	5.95	63	1053801	9.91	ug/l	100
26) tert-Butyl ethyl ether (ET	6.49	59	1207476	9.14	ug/l	99
27) 2-Butanone	6.70	43	425467	40.28	ug/l	97
28) 2,2-Dichloropropane	6.92	77	537822	10.09	ug/l	97
29) cis-1,2-Dichloroethene	7.00	96	641637	10.51	ug/l	85
30) Chloroform	7.26	83	888480	9.19	ug/l	99
32) Bromochloromethane	7.53	49	412802	9.71	ug/l	93

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW499.D Vial: 4
Acq On : 26 Oct 2012 12:57 pm Operator: WL
Sample : CVO06H1550 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 17:59 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33) Tetrahydrofuran	7.60	42	52093	7.45 ug/l	96
35) 1,1,1-Trichloroethane	7.93	97	694959	8.84 ug/l	91
37) tert-Amyl methyl ether (TA	8.41	87	186639	9.06 ug/l	94
41) 1,1-Dichloropropene	8.20	110	305432	10.96 ug/l	100
42) Carbon tetrachloride	8.35	119	653851	9.02 ug/l	99
43) 1,2-Dichloroethane	8.63	62	446084	8.48 ug/l	99
44) Benzene	8.65	78	2206924	10.19 ug/l	99
45) Trichloroethene	9.66	130	648549	10.48 ug/l	95
47) 1,2-Dichloropropane	9.94	63	545508	9.92 ug/l	93
48) 1,4-Dioxane	10.37	88	29134	171.09 ug/l	99
49) Bromodichloromethane	10.33	83	615006	9.21 ug/l	98
50) Dibromomethane	10.40	93	225446	9.45 ug/l	91
51) 2-Chloroethyl vinyl ether	10.85	63	147934	8.34 ug/l	98
52) 4-Methyl-2-pentanone	10.89	43	1200360	42.37 ug/l	98
53) cis-1,3-Dichloropropene	11.22	75	751243	9.73 ug/l	97
55) Toluene	11.72	91	2294190	10.22 ug/l	99
56) Ethyl methacrylate	12.04	69	331172	9.00 ug/l	99
57) trans-1,3-Dichloropropene	12.04	75	510114	9.02 ug/l	96
58) 1,1,2-Trichloroethane	12.29	97	271540	9.63 ug/l	99
59) 2-Hexanone	12.30	43	715882	42.45 ug/l	99
60) 1,3-Dichloropropane	12.69	76	539072	9.19 ug/l	99
61) Tetrachloroethene	12.78	164	547596	11.22 ug/l	95
62) Dibromochloromethane	13.11	129	358957	9.44 ug/l	99
64) 1,2-Dibromoethane	13.43	107	283936	9.68 ug/l	100
65) 1-Chlorohexane	13.70	91	988191	10.45 ug/l	97
66) Chlorobenzene	14.12	112	1386342	10.30 ug/l	94
67) 1,1,1,2-Tetrachloroethane	14.19	131	418147	9.81 ug/l	97
68) Ethylbenzene	14.21	91	2476409	9.83 ug/l	97
69) m-Xylene & p-Xylene	14.32	91	3614372	18.67 ug/l	95
70) o-Xylene	15.04	91	1927174	9.95 ug/l	94
71) Styrene	15.10	104	1423452	10.62 ug/l	95
73) Isopropylbenzene	15.62	105	2309753	9.63 ug/l	97
74) Bromoform	15.65	173	171833	8.69 ug/l	98
75) 1,1,2,2-Tetrachloroethane	15.90	83	287146	8.97 ug/l	99
77) 1,2,3-Trichloropropane	16.15	110	70847	8.25 ug/l	98
78) trans-1,4-Dichloro-2-buten	16.26	53	81103	8.42 ug/l	93
79) n-Propylbenzene	16.27	91	3124722	9.75 ug/l	96
80) Bromobenzene	16.36	156	524313	10.50 ug/l	87
81) 1,3,5-Trimethylbenzene	16.53	105	1816046	9.43 ug/l	93
82) 2-Chlorotoluene	16.57	91	1744786	8.74 ug/l	86
83) 4-Chlorotoluene	16.64	91	1568893	9.69 ug/l	100

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJW499.D Vial: 4
Acq On : 26 Oct 2012 12:57 pm Operator: WL
Sample : CVO06H1550 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 17:59 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

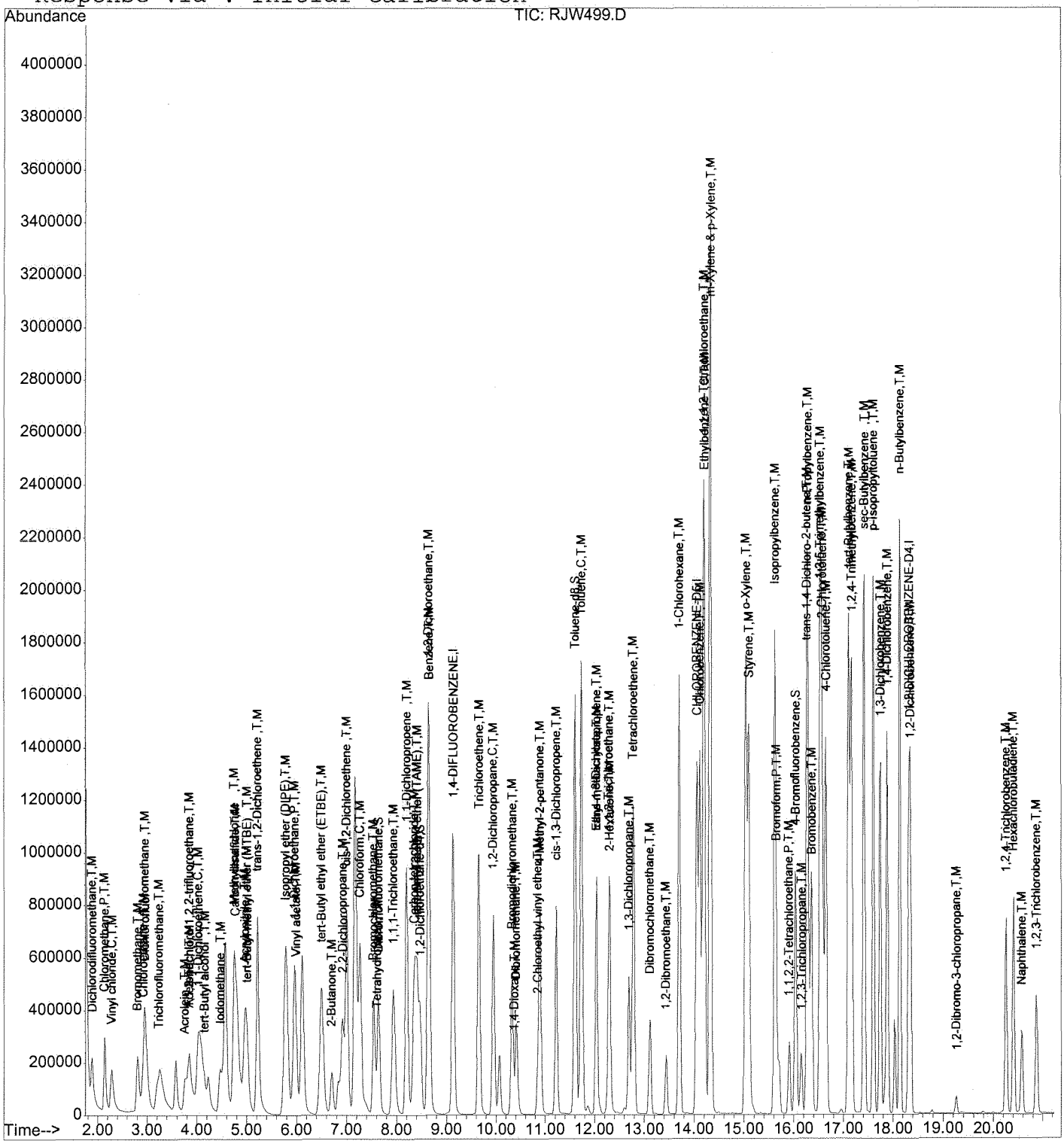
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
84)	tert-Butylbenzene	17.10	134	463170	10.48 ug/l	#	83
85)	1,2,4-Trimethylbenzene	17.16	105	1750814	9.46 ug/l		94
86)	sec-Butylbenzene	17.42	105	2649420	9.97 ug/l		97
87)	p-Isopropyltoluene	17.60	119	2053743	10.10 ug/l		95
88)	1,3-Dichlorobenzene	17.74	146	1035344	10.48 ug/l		97
89)	1,4-Dichlorobenzene	17.88	146	981285	10.42 ug/l		97
91)	n-Butylbenzene	18.13	91	2048226	9.92 ug/l		98
92)	1,2-Dichlorobenzene	18.35	146	778974	10.29 ug/l		96
93)	1,2-Dibromo-3-chloropropan	19.26	157	32168	8.67 ug/l		89
94)	1,2,4-Trichlorobenzene	20.26	180	464593	9.78 ug/l		99
95)	Hexachlorobutadiene	20.41	225	332601	9.91 ug/l		99
96)	Naphthalene	20.57	128	494145	8.57 ug/l		99
97)	1,2,3-Trichlorobenzene	20.87	180	303885	8.55 ug/l		98

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJW499.D Vial: 4
Acq On : 26 Oct 2012 12:57 pm Operator: WL
Sample : CVO06H1550 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 29 17:59 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJW521
Instrument ID: 06
GC Column:RTX502.2ID:0.25mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J181
BFB Injection Date : 10/29/12
BFB Injection Time : 10:07
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.25
75	30.0 - 60.0% of mass 95	44.87
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.62
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	89.21
175	5.0 - 9.0% of mass 174	5.79(6.5)1
176	95.0 - 101.0% of mass 174	86.09(96.5)1
177	5.0 - 9.0% of mass 176	6.17(7.2)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	VSTD010	CV006H1551	RJW523	10/29/12	11:14
2	MBLK2W	V006J21B	RJW527	10/29/12	13:19
3	LCS2W	V006J21L	RJW524	10/29/12	11:49
4	LCD2W	V006J21C	RJW525	10/29/12	12:19
5	10-25-12 TB-3	J181-12R	RJW528	10/29/12	13:49
6	10-25-12 EPAS-3DL	J181-09T	RJW529	10/29/12	14:25
7	10-25-12 PWA-2DL	J181-10T	RJW530	10/29/12	14:55
8	10-25-12 FDUP-4	J181-11R	RJW531	10/29/12	15:25

FORM V VOA OLM02.0

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RHW008
Instrument ID: 06
GC Column: RTX502.2 ID: 0.25mm (mm)

Project: BROWN & BRYANT SUPERFUND SITE
SDG No.: 12J181
Date Analyzed: 08/15/12
Time Analyzed: 21:54
Heated Purge: (Y/N) N

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1654332	9.15	1432235	14.07	489315	18.34
	UPPER LIMIT	3308664	9.65	2864470	14.57	978630	18.84
	LOWER LIMIT	827166	8.65	716118	13.57	244658	17.84
	SAMPLE ID						
1	VSTD010	1558015	9.12	1352099	14.05	489332	18.31
2	MBLK2W	1861821	9.13	1553277	14.05	582884	18.32
3	LCS2W	1543998	9.12	1361276	14.04	482558	18.31
4	LCD2W	1646558	9.12	1444289	14.04	511438	18.31
5	10-25-12 TB-3	1738194	9.12	1469255	14.06	536889	18.31
6	10-25-12 EPAS-3DL	1812233	9.12	1550929	14.04	594095	18.31
7	10-25-12 PWA-2DL	1608246	9.13	1394289	14.05	536176	18.31
8	10-25-12 FDUP-4	1606916	9.14	1419164	14.06	550359	18.32

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
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T006
IC_Beginning DateTime :08/15/12 19:22
Spike Amount :10 PPB
CC/CV File :RJW523
IC File :RHW008

Column Spec :RTX502.2 ID :0.25MM
IC_Ending DateTime :08/15/12 23:53
HPChem Method :vo06h15
Date_Time :10/29/12 11:14

M	IDX	Parameters	CC_Con	CC% D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	% RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,4-DIFLUOROBENZENE	10.000	0	1558015	1	1	9.124	9.149	0				
	2	Dichlorodifluoromethane	9.756	-2.4	391993	0.252	0.258	1.884	1.894	6.32				
	3	Chloromethane	10.140	1.4	489677	0.314	0.310	2.137	2.147	5.91				
	4	Vinyl chloride	10.836	8.4	392959	0.252	0.233	2.270	2.300	13.19				
	5	Bromomethane	10.967	9.7	318677	0.205	0.187	2.806	2.812	10.72				
	6	Chloroethane	10.687	6.9	265000	0.170	0.159	2.910	2.919	9.41				
	7	Dichlorofluoromethane	10.689	6.9	914335	0.587	0.549	2.954	2.960	8.55				
	8	Trichlorofluoromethane	8.527	-14.7	472061	0.303	0.355	3.207	3.238	8.43				
5	9	Acrolein	55.845	11.7	106897	0.014	0.012	3.742	3.772	9.90				
	10	1,1,2-Trichloro-1,2,2-trifluoroethane	10.187	1.9	266889	0.171	0.168	3.832	3.826	6.69				
5	11	Acetone	43.553	-12.9	231120	0.030	0.034	3.832	3.859	12.26				
	12	1,1-Dichloroethene	9.871	-1.3	807578	0.518	0.525	4.010	4.063	4.54				
5	13	tert-Butyl alcohol	52.656	5.3	79294	0.010	0.010	4.129	4.161	12.01				
	14	Acetonitrile												
	15	Methyl acetate												
	16	Iodomethane	11.518	15.2	808466	0.519	0.451	4.456	4.526	4.90				
	17	Methylene chloride	11.474	14.7	642853	0.413	0.433	4.739	4.788	25.09	0.0211	0.3411		0.9963
	18	Carbon disulfide	11.092	10.9	1854713	1.190	1.073	4.739	4.793	8.57				
5	19	Acrylonitrile	47.687	-4.6	317950	0.041	0.043	4.947	4.973	7.45				
	20	tert-Butyl methyl ether (MTBE)	9.620	-3.8	704766	0.452	0.470	4.991	5.018	7.49				
	21	trans-1,2-Dichloroethene	10.231	2.3	887084	0.569	0.556	5.199	5.233	5.77				
	22	Isopropyl ether (DIPE)	10.227	2.3	1724252	1.107	1.082	5.779	5.804	6.46				
	23	Vinyl acetate	8.988	-10.1	526499	0.338	0.376	5.972	6.001	7.83				
	24	1,1-Dichloroethane	9.762	-2.4	968295	0.621	0.637	5.943	5.971	5.00				
5	25	2-Butanol												
	26	tert-Butyl ethyl ether (ETBE)	9.545	-4.5	1176225	0.755	0.791	6.478	6.518	6.29				
5	27	2-Butanone	41.704	-16.6	410741	0.053	0.063	6.686	6.723	11.92				
	28	2,2-Dichloropropane	11.223	12.2	557952	0.358	0.319	6.909	6.939	11.92				
	29	cis-1,2-Dichloroethene	10.911	9.1	621270	0.399	0.365	6.998	7.023	4.81				
	30	Chloroform	9.625	-3.8	867440	0.557	0.578	7.251	7.291	6.39				
5	31	tert-Amyl alcohol												
	32	Bromochloromethane	9.951	-0.5	394673	0.253	0.255	7.534	7.559	5.92				
	33	Tetrahydrofuran	8.224	-17.8	53235	0.034	0.047	7.593	7.624	25.79	0.0026	0.0384		0.9958
	34	Dibromofluoromethane	10.409	4.1	489658	0.314	0.302	7.623	7.657	12.90				
	35	1,1,1-Trichloroethane	9.543	-4.6	699596	0.449	0.471	7.920	7.957	5.91				
	36	Cyclohexane												
	37	tert-Amyl methyl ether (TAME)	9.458	-5.4	181616	0.117	0.123	8.396	8.433	7.49				
	38	1,2-Dichloroethane-d4	9.110	-8.9	357965	0.230	0.252	8.455	8.492	11.03				
	39	CHLOROBENZENE-D5	10.000	0	1352099	1	1	14.045	14.071	0				
	40	2,2,4-Trimethylpentane												
	41	1,1-Dichloropropene	11.027	10.3	290012	0.214	0.194	8.188	8.220	4.25				
	42	Carbon tetrachloride	9.079	-9.2	621205	0.459	0.506	8.336	8.376	5.79				
	43	1,2-Dichloroethane	8.765	-12.3	435039	0.322	0.367	8.619	8.646	6.76				
	44	Benzene	10.074	0.7	2059624	1.523	1.512	8.634	8.659	9.36				
	45	Trichloroethene	10.559	5.6	616333	0.456	0.432	9.645	9.670	6.12				
	46	Methylcyclohexane												
	47	1,2-Dichloropropane	10.318	3.2	535150	0.396	0.384	9.927	9.964	4.61				
20	48	1,4-Dioxane	180.836	-9.6	29056	0.001	0.001	10.358	10.385	11.65				
	49	Bromodichloromethane	9.637	-3.6	606899	0.449	0.466	10.314	10.339	5.58				
	50	Dibromomethane	9.836	-1.6	221360	0.164	0.166	10.403	10.427	5.54				
	51	2-Chloroethyl vinyl ether	8.162	-18.4	136680	0.101	0.124	10.834	10.870	8.84				
5	52	4-Methyl-2-pentanone	43.797	-12.4	1170871	0.173	0.198	10.879	10.907	7.11				
	53	cis-1,3-Dichloropropene	10.157	1.6	739761	0.547	0.539	11.206	11.234	5.79				
	54	Toluene-d8	10.569	5.7	1823436	1.349	1.276	11.592	11.619	8.94				
	55	Toluene	10.470	4.7	2217202	1.640	1.566	11.711	11.748	6.76				
	56	Ethyl methacrylate	9.690	-3.1	336532	0.249	0.257	12.024	12.049	7.04				
	57	trans-1,3-Dichloropropene	9.790	-2.1	522299	0.386	0.395	12.024	12.049	6.05				
	58	1,1,2-Trichloroethane	10.338	3.4	275009	0.203	0.197	12.276	12.301	5.64				
5	59	2-Hexanone	44.066	-11.9	701156	0.104	0.118	12.291	12.321	8.05				
	60	1,3-Dichloropropane	9.764	-2.4	540570	0.400	0.409	12.678	12.715	6.01				
	61	Tetrachloroethene	11.232	12.3	517132	0.382	0.340	12.767	12.804	4.76				
	62	Dibromochloromethane	10.068	0.7	361057	0.267	0.265	13.109	13.134	9.39				
	63	2-Ethyl-1-butanol												
	64	1,2-Dibromoethane	10.015	0.2	277283	0.205	0.205	13.421	13.458	6.02				
	65	Chlorohexane	10.396	4.0	927695	0.686	0.660	13.689	13.720	5.61				
	66	Chlorobenzene	10.584	5.8	1343908	0.994	0.939	14.105	14.132	6.36				
	67	1,1,1,2-Tetrachloroethane	10.488	4.9	421779	0.312	0.297	14.179	14.204	4.58				
	68	Ethylbenzene	10.240	2.4	2435164	1.801	1.759	14.194	14.219	9.90				
2	69	m-Xylene & p-Xylene	19.602	-2.0	3579945	1.324	1.351	14.313	14.342	7.48				
	70	o-Xylene	10.095	1.0	1845176	1.365	1.352	15.027	15.052	6.63				
	71	Styrene	10.691	6.9	1351458	1.000	0.935	15.086	15.111	6.35				
	72	1,2-DICHLOROBENZENE-D4	10.000	0	489332	1	1	18.312	18.337	0				
	73	Isopropylbenzene	9.595	-4.0	2199801	4.496	4.685	15.607	15.639	8.82				
	74	Bromoform	9.559	-4.4	180849	0.370	0.348	15.636	15.673	18.12	-0.0062	0.3931		0.9971
	75	1,1,2,2-Tetrachloroethane	9.325	-6.8	285282	0.583	0.625	15.889	15.926	8.36				
	76	4-Bromofluorobenzene	9.230	-7.7	562168	1.149	1.245	16.023	16.048	8.32				
	77	1,2,3-Trichloropropane	8.733	-12.7	71619	0.146	0.168	16.142	16.168	8.94				
	78	trans-1,4-Dichloro-2-butene	8.840	-11.6	81368	0.166	0.188	16.246	16.274	10.76				
	79	n-Propylbenzene	9.738	-2.6	2980983	6.092	6.255	16.261	16.295	9.47				
	80	Bromobenzene	10.670	6.7	509260	1.041	0.975	16.350	16.375	7.12				
	81	1,3,5-Trimethylbenzene	9.652	-3.5	1776306	3.630	3.761	16.513	16.552	7.92				
	82	2-Chlorotoluene	9.796	-2.0	1869610	3.821	3.900	16.558	16.585	10.14				
	83	4-Chlorotoluene	8.585	-14.1	1328905	2.716	3.163	16.632	16.663	7.18				
	84	tert-Butylbenzene	10.895	9.0	460185	0.940	0.863	17.093	17.118	6.95				
	85	1,2,4-Trimethylbenzene	9.613	-3.9	1700239	3.475	3.614	17.153	17.178	7.83				
	86	sec-Butylbenzene	9.974	-0.3	2532302	5.175	5.188	17.406	17.431	8.10				
	87	p-Isopropyltoluene	10.147	1.5	1970804	4.028	3.969	17.599	17.621	7.26				
	88	1,3-Dichlorobenzene	10.784	7.8	1017832	2.080	1.929	17.733	17.758	7.62				
	89	1,4-Dichlorobenzene	10.609	6.1	954954	1.952	1.839	17.866	17.895	7.30				
	90	Benzyl chloride												
	91	n-Butylbenzene	9.997	-0.0	1972341	4.031	4.032	18.134	18.153	8.35				
	92	1,2-Dichlorobenzene	10.555	5.6	763706	1.561	1.479	18.342	18.367	5.96				
	93	1,2-Dibromo-3-chloropropane	9.078	-9.2	32199	0.066	0.072	19.249	19.273	14.38				
	94	1,2,4-Trichlorobenzene	9.788	-2.1	444230	0.908	0.927	20.245	20.270	8.69				
	95	Hexachlorobutadiene	10.011	0.1	321065	0.656	0.655	20.394	20.420	10.91				
	96	Naphthalene	8.824	-11.8	485997	0.993	1.125	20.557	20.596	12.07				
	97	1,2,3-Trichlorobenzene	8.887	-11.1	301766	0.617	0.694	20.855	20.888	13.66				

Spike Amount = Nominal Amount * M

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J29\RJW523.D Vial: 4
Acq On : 29 Oct 2012 11:14 am Operator: WL
Sample : CVO06H1551 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	94	-0.02
2	T,M	Dichlorodifluoromethane	10.000	9.756	2.4	92	0.00
3	P,T,M	Chloromethane	10.000	10.140	-1.4	93	0.00
4	C,T,M	Vinyl chloride	10.000	10.836	-8.4	101	-0.02
5	T,M	Bromomethane	10.000	10.967	-9.7	95	0.00
6	T,M	Chloroethane	10.000	10.687	-6.9	92	0.00
7	T,M	Dichlorofluoromethane	10.000	10.690	-6.9	96	0.00
8	T,M	Trichlorofluoromethane	10.000	8.528	14.7	76	-0.04
9	T,M	Acrolein	50.000	55.845	-11.7	103	-0.02
10	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	10.188	-1.9	96	0.00
11	T,M	Acetone	50.000	43.554	12.9	82	-0.02
12	C,T,M	1,1-Dichloroethene	10.000	9.871	1.3	91	-0.05
13	T,M	tert-Butyl alcohol	50.000	52.656	-5.3	87	-0.02
14	T,M	Acetonitrile	-1.000	0.000	0.0	90	-0.02
15	T,M	Methyl acetate	10.000	0.000	100.0#	0	-4.54#
16	T,M	Iodomethane	10.000	11.518	-15.2	107	-0.07
17	T,M	Methylene chloride	10.000	11.475	-14.7	99	-0.02
18	T,M	Carbon disulfide	10.000	11.093	-10.9	99	-0.05
19	T,M	Acrylonitrile	50.000	47.687	4.6	88	-0.02
20	T,M	tert-Butyl methyl ether (MT	10.000	9.620	3.8	86	-0.02
21	T,M	trans-1,2-Dichloroethene	10.000	10.232	-2.3	96	-0.04
22	T,M	Isopropyl ether (DIPE)	10.000	10.227	-2.3	93	-0.02
23	T,M	Vinyl acetate	10.000	8.989	10.1	80	-0.02
24	P,T,M	1,1-Dichloroethane	10.000	9.762	2.4	90	-0.02
25	T,M	2-Butanol	50.000	0.000	100.0#	0	-6.37#
26	T,M	tert-Butyl ethyl ether (ETB	10.000	9.545	4.6	87	-0.04
27	T,M	2-Butanone	50.000	41.704	16.6	80	-0.04
28	T,M	2,2-Dichloropropane	10.000	11.224	-12.2	102	-0.02
29	T,M	cis-1,2-Dichloroethene	10.000	10.911	-9.1	103	-0.02
30	C,T,M	Chloroform	10.000	9.625	3.8	91	-0.04
31	T,M	tert-Amyl alcohol	-1.000	0.000	0.0	85	-0.02
32	T,M	Bromochloromethane	10.000	9.952	0.5	91	-0.02
33	T,M	Tetrahydrofuran	10.000	8.224	17.8	79	-0.02
34	S	Dibromofluoromethane	10.000	10.410	-4.1	89	-0.04
35	T,M	1,1,1-Trichloroethane	10.000	9.544	4.6	87	-0.04
36	T,M	Cyclohexane	10.000	0.000	100.0#	0	-7.97#
37	T,M	tert-Amyl methyl ether (TAM	10.000	9.458	5.4	83	-0.04
38	S	1,2-Dichloroethane-d4	10.000	9.111	8.9	78	-0.04
39	I	CHLOROBENZENE-D5	10.000	10.000	0.0	94	-0.02
40	T,M	2,2,4-Trimethylpentane	10.000	0.000	100.0#	0	-8.09#

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J29\RJW523.D Vial: 4
Acq On : 29 Oct 2012 11:14 am Operator: WL
Sample : CVO06H1551 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T,M	1,1-Dichloropropene	10.000	11.028	-10.3	106	-0.02
42	T,M	Carbon tetrachloride	10.000	9.080	9.2	85	-0.04
43	T,M	1,2-Dichloroethane	10.000	8.766	12.3	83	-0.02
44	T,M	Benzene	10.000	10.075	-0.7	99	-0.02
45	T,M	Trichloroethene	10.000	10.559	-5.6	101	-0.02
46	T,M	Methylcyclohexane	10.000	0.000	100.0#	0	-9.76#
47	C,T,M	1,2-Dichloropropane	10.000	10.319	-3.2	98	-0.04
48	T,M	1,4-Dioxane	200.000	180.837	9.6	83	-0.02
49	T,M	Bromodichloromethane	10.000	9.637	3.6	89	-0.02
50	T,M	Dibromomethane	10.000	9.836	1.6	92	-0.02
51	T,M	2-Chloroethyl vinyl ether	10.000	8.163	18.4	73	-0.04
52	T,M	4-Methyl-2-pentanone	50.000	43.798	12.4	79	-0.02
53	T,M	cis-1,3-Dichloropropene	10.000	10.157	-1.6	93	-0.02
54	S	Toluene-d8	10.000	10.569	-5.7	94	-0.02
55	C,T,M	Toluene	10.000	10.471	-4.7	100	-0.04
56	T,M	Ethyl methacrylate	10.000	9.690	3.1	86	-0.02
57	T,M	trans-1,3-Dichloropropene	10.000	9.790	2.1	88	-0.02
58	T,M	1,1,2-Trichloroethane	10.000	10.339	-3.4	95	-0.02
59	T,M	2-Hexanone	50.000	44.066	11.9	79	-0.02
60	T,M	1,3-Dichloropropane	10.000	9.764	2.4	89	-0.04
61	T,M	Tetrachloroethene	10.000	11.233	-12.3	108	-0.04
62	T,M	Dibromochloromethane	10.000	10.068	-0.7	90	-0.02
63	T,M	2-Ethyl-1-butanol	-1.000	0.000	0.0	0	0.00
64	T,M	1,2-Dibromoethane	10.000	10.015	-0.2	91	-0.04
65	T,M	1-Chlorohexane	10.000	10.396	-4.0	96	-0.02
66	P, T,M	Chlorobenzene	10.000	10.584	-5.8	103	-0.02
67	T,M	1,1,1,2-Tetrachloroethane	10.000	10.489	-4.9	96	-0.02
68	C,T,M	Ethylbenzene	10.000	10.241	-2.4	96	-0.02
69	T,M	m-Xylene & p-Xylene	20.000	19.602	2.0	95	-0.02
70	T,M	o-Xylene	10.000	10.096	-1.0	93	-0.02
71	T,M	Styrene	10.000	10.691	-6.9	97	-0.02
72	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	100	-0.02
73	T,M	Isopropylbenzene	10.000	9.596	4.0	95	-0.02
74	P,T,M	Bromoform	10.000	9.559	4.4	99	-0.04
75	P,T,M	1,1,2,2-Tetrachloroethane	10.000	9.325	6.8	91	-0.04
76	S	4-Bromofluorobenzene	10.000	9.230	7.7	89	-0.02
77	T,M	1,2,3-Trichloropropane	10.000	8.733	12.7	84	-0.02
78	T,M	trans-1,4-Dichloro-2-butene	10.000	8.840	11.6	84	-0.02
79	T,M	n-Propylbenzene	10.000	9.739	2.6	96	-0.02
80	T,M	Bromobenzene	10.000	10.670	-6.7	106	-0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J29\RJW523.D Vial: 4
Acq On : 29 Oct 2012 11:14 am Operator: WL
Sample : CVO06H1551 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	1,3,5-Trimethylbenzene	10.000	9.653	3.5	97	-0.04
82	T,M	2-Chlorotoluene	10.000	9.796	2.0	98	-0.02
83	T,M	4-Chlorotoluene	10.000	8.586	14.1	88	-0.02
84	T,M	tert-Butylbenzene	10.000	10.895	-8.9	111	-0.02
85	T,M	1,2,4-Trimethylbenzene	10.000	9.614	3.9	96	-0.02
86	T,M	sec-Butylbenzene	10.000	9.974	0.3	101	-0.02
87	T,M	p-Isopropyltoluene	10.000	10.147	-1.5	102	-0.02
88	T,M	1,3-Dichlorobenzene	10.000	10.785	-7.9	109	-0.02
89	T,M	1,4-Dichlorobenzene	10.000	10.609	-6.1	107	-0.02
90	T,M	Benzyl chloride	-1.000	0.000	0.0	0	0.00
91	T,M	n-Butylbenzene	10.000	9.998	0.0	102	-0.02
92	T,M	1,2-Dichlorobenzene	10.000	10.556	-5.6	107	-0.02
93	T,M	1,2-Dibromo-3-chloropropane	10.000	9.078	9.2	90	-0.02
94	T,M	1,2,4-Trichlorobenzene	10.000	9.788	2.1	102	-0.02
95	T,M	Hexachlorobutadiene	10.000	10.012	-0.1	101	-0.02
96	T,M	Naphthalene	10.000	8.825	11.8	88	-0.04
97	T,M	1,2,3-Trichlorobenzene	10.000	8.887	11.1	93	-0.04

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J29\RJW523.D Vial: 4
Acq On : 29 Oct 2012 11:14 am Operator: WL
Sample : CVO06H1551 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	94	-0.02
2	T,M	Dichlorodifluoromethane	0.258	0.252	2.3	92	0.00
3	P,T,M	Chloromethane	0.310	0.314	-1.3	93	0.00
4	C,T,M	Vinyl chloride	0.233	0.252	-8.2	101	-0.02
5	T,M	Bromomethane	0.187	0.205	-9.6	95	0.00
6	T,M	Chloroethane	0.159	0.170	-6.9	92	0.00
7	T,M	Dichlorofluoromethane	0.549	0.587	-6.9	96	0.00
8	T,M	Trichlorofluoromethane	0.355	0.303	14.6	76	-0.04
9	T,M	Acrolein	0.012	0.014	-16.7	103	-0.02
10	T,M	1,1,2-Trichloro-1,2,2-trifl	0.168	0.171	-1.8	96	0.00
11	T,M	Acetone	0.034	0.030	11.8	82	-0.02
12	C,T,M	1,1-Dichloroethene	0.525	0.518	1.3	91	-0.05
13	T,M	tert-Butyl alcohol	0.010	0.010	0.0	87	-0.02
14	T,M	Acetonitrile	0.000	0.000	0.0	90	-0.02
15	T,M	Methyl acetate	0.111	0.000	100.0#	0#	-4.54#
16	T,M	Iodomethane	0.451	0.519	-15.1	107	-0.07
17	T,M	Methylene chloride	0.433	0.413	4.6	99	-0.02
18	T,M	Carbon disulfide	1.073	1.190	-10.9	99	-0.05
19	T,M	Acrylonitrile	0.043	0.041	4.7	88	-0.02
20	T,M	tert-Butyl methyl ether (MT	0.470	0.452	3.8	86	-0.02
21	T,M	trans-1,2-Dichloroethene	0.556	0.569	-2.3	96	-0.04
22	T,M	Isopropyl ether (DIPE)	1.082	1.107	-2.3	93	-0.02
23	T,M	Vinyl acetate	0.376	0.338	10.1	80	-0.02
24	P,T,M	1,1-Dichloroethane	0.637	0.621	2.5	90	-0.02
25	T,M	2-Butanol	0.009	0.000	100.0#	0#	-6.37#
26	T,M	tert-Butyl ethyl ether (ETB	0.791	0.755	4.6	87	-0.04
27	T,M	2-Butanone	0.063	0.053	15.9	80	-0.04
28	T,M	2,2-Dichloropropane	0.319	0.358	-12.2	102	-0.02
29	T,M	cis-1,2-Dichloroethene	0.365	0.399	-9.3	103	-0.02
30	C,T,M	Chloroform	0.578	0.557	3.6	91	-0.04
31	T,M	tert-Amyl alcohol	0.000	0.000	0.0	85	-0.02
32	T,M	Bromochloromethane	0.255	0.253	0.8	91	-0.02
33	T,M	Tetrahydrofuran	0.047	0.034	27.7#	79	-0.02
34	S	Dibromofluoromethane	0.302	0.314	-4.0	89	-0.04
35	T,M	1,1,1-Trichloroethane	0.471	0.449	4.7	87	-0.04
36	T,M	Cyclohexane	0.779	0.000	100.0#	0#	-7.97#
37	T,M	tert-Amyl methyl ether (TAM	0.123	0.117	4.9	83	-0.04
38	S	1,2-Dichloroethane-d4	0.252	0.230	8.7	78	-0.04
39	I	CHLOROBENZENE-D5	1.000	1.000	0.0	94	-0.02
40	T,M	2,2,4-Trimethylpentane	1.630	0.000	100.0#	0#	-8.09#

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J29\RJW523.D Vial: 4
Acq On : 29 Oct 2012 11:14 am Operator: WL
Sample : CVO06H1551 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T,M	1,1-Dichloropropene	0.194	0.214	-10.3	106	-0.02
42	T,M	Carbon tetrachloride	0.506	0.459	9.3	85	-0.04
43	T,M	1,2-Dichloroethane	0.367	0.322	12.3	83	-0.02
44	T,M	Benzene	1.512	1.523	-0.7	99	-0.02
45	T,M	Trichloroethene	0.432	0.456	-5.6	101	-0.02
46	T,M	Methylcyclohexane	0.697	0.000	100.0#	0#	-9.76#
47	C,T,M	1,2-Dichloropropane	0.384	0.396	-3.1	98	-0.04
48	T,M	1,4-Dioxane	0.001	0.001	0.0	83	-0.02
49	T,M	Bromodichloromethane	0.466	0.449	3.6	89	-0.02
50	T,M	Dibromomethane	0.166	0.164	1.2	92	-0.02
51	T,M	2-Chloroethyl vinyl ether	0.124	0.101	18.5	73	-0.04
52	T,M	4-Methyl-2-pentanone	0.198	0.173	12.6	79	-0.02
53	T,M	cis-1,3-Dichloropropene	0.539	0.547	-1.5	93	-0.02
54	S	Toluene-d8	1.276	1.349	-5.7	94	-0.02
55	C,T,M	Toluene	1.566	1.640	-4.7	100	-0.04
56	T,M	Ethyl methacrylate	0.257	0.249	3.1	86	-0.02
57	T,M	trans-1,3-Dichloropropene	0.395	0.386	2.3	88	-0.02
58	T,M	1,1,2-Trichloroethane	0.197	0.203	-3.0	95	-0.02
59	T,M	2-Hexanone	0.118	0.104	11.9	79	-0.02
60	T,M	1,3-Dichloropropane	0.409	0.400	2.2	89	-0.04
61	T,M	Tetrachloroethene	0.340	0.382	-12.4	108	-0.04
62	T,M	Dibromochloromethane	0.265	0.267	-0.8	90	-0.02
63	T,M	2-Ethyl-1-butanol	0.000	0.000	0.0	0#	0.00
64	T,M	1,2-Dibromoethane	0.205	0.205	0.0	91	-0.04
65	T,M	1-Chlorohexane	0.660	0.686	-3.9	96	-0.02
66	P, T,M	Chlorobenzene	0.939	0.994	-5.9	103	-0.02
67	T,M	1,1,1,2-Tetrachloroethane	0.297	0.312	-5.1	96	-0.02
68	C,T,M	Ethylbenzene	1.759	1.801	-2.4	96	-0.02
69	T,M	m-Xylene & p-Xylene	1.351	1.324	2.0	95	-0.02
70	T,M	o-Xylene	1.352	1.365	-1.0	93	-0.02
71	T,M	Styrene	0.935	1.000	-7.0	97	-0.02
72	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	100	-0.02
73	T,M	Isopropylbenzene	4.685	4.496	4.0	95	-0.02
74	P,T,M	Bromoform	0.348	0.370	-6.3	99	-0.04
75	P,T,M	1,1,2,2-Tetrachloroethane	0.625	0.583	6.7	91	-0.04
76	S	4-Bromofluorobenzene	1.245	1.149	7.7	89	-0.02
77	T,M	1,2,3-Trichloropropane	0.168	0.146	13.1	84	-0.02
78	T,M	trans-1,4-Dichloro-2-butene	0.188	0.166	11.7	84	-0.02
79	T,M	n-Propylbenzene	6.255	6.092	2.6	96	-0.02
80	T,M	Bromobenzene	0.975	1.041	-6.8	106	-0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J29\RJW523.D Vial: 4
Acq On : 29 Oct 2012 11:14 am Operator: WL
Sample : CVO06H1551 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	1,3,5-Trimethylbenzene	3.761	3.630	3.5	97	-0.04
82	T,M	2-Chlorotoluene	3.900	3.821	2.0	98	-0.02
83	T,M	4-Chlorotoluene	3.163	2.716	14.1	88	-0.02
84	T,M	tert-Butylbenzene	0.863	0.940	-8.9	111	-0.02
85	T,M	1,2,4-Trimethylbenzene	3.614	3.475	3.8	96	-0.02
86	T,M	sec-Butylbenzene	5.188	5.175	0.3	101	-0.02
87	T,M	p-Isopropyltoluene	3.969	4.028	-1.5	102	-0.02
88	T,M	1,3-Dichlorobenzene	1.929	2.080	-7.8	109	-0.02
89	T,M	1,4-Dichlorobenzene	1.839	1.952	-6.1	107	-0.02
90	T,M	Benzyl chloride	0.000	0.000	0.0	0#	0.00
91	T,M	n-Butylbenzene	4.032	4.031	0.0	102	-0.02
92	T,M	1,2-Dichlorobenzene	1.479	1.561	-5.5	107	-0.02
93	T,M	1,2-Dibromo-3-chloropropane	0.072	0.066	8.3	90	-0.02
94	T,M	1,2,4-Trichlorobenzene	0.927	0.908	2.0	102	-0.02
95	T,M	Hexachlorobutadiene	0.655	0.656	-0.2	101	-0.02
96	T,M	Naphthalene	1.125	0.993	11.7	88	-0.04
97	T,M	1,2,3-Trichlorobenzene	0.694	0.617	11.1	93	-0.04

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

ANALYTICAL LOGS

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/26/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book # A06 -051

BATCH CV001H1550

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01		RJW497	BFB06J20 ✓	0.5 µL					11:51 am
02		498	std chk						
03		499	CV006H1550 ✓	1/1/515 µL					
04		500	V006J20L ✓						
05		501	C ✓						
06		502	Rinse						
07		503	V006J20B ✓	25mL					
08		504	12J181-01 ✓	25mL	1.0	✓	✓		
09		505	-02 ✓			✓	✓		
10		506	-03 ✓			✓	✓		
11		507	-04 ✓			✓	✓		
12		508	-04M ✓			✓	✓		
13		509	-04S ✓			✓	✓		
14		510	Rinse						
15		511	12J181-05 ✓	25mL	1.0	✓	✓		
16		512	-06 ✓			✓	✓		
17		513	-07 ✓			✓	✓		
18		514	-08 ✓			✓	✓		
19		515	-09 ✓			✓	✓		100X
20		516	-10 ✓			✓	✓		↓
21		517	-11			✓	✓		c/o. RQ
22		518	-12			✓	✓		11:06pM
23		519-520	Rinse						
24									
25									
26									
27									
28									
29									
30									

WL 10/29/12

Instrument No.	06
INITIAL CALIBRATION REFERENCE	
DATE	8/15/12
ICAL ID	V006H15

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC	SV1-20-8-1	1	
DCC	-18-3	1	
DCC	-19-2	5	
DCC	-10-2	5	
BFB	-22-1	0.5	50/250
IS/SURR.	-23-2	1	
ICV/LCS	-15-2	1	
ICV/LCS	-25-1	1	
ICV/LCS	-22-2	5	
ICV/LCS	-17-2	5	
Data File Folder	12J26		
	LOT #		
pH strip	HC137671		
Chlorine strip	2220		
Methanol			
$NaHSO_4$			
Reagent Water	RW4-12-001		
Sand			

Electronic Data Archival Location	Date
HPCHEM_VOA/TO06	

Comments:

Analyzed By: WL

Date Disposed: 10/~~26/12~~ 29/12 Disposed By: WL

WL 10/29/12

215

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/29/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book # A06 -051

BATCH CV001H1551

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH < 2	Matrix W Cl_2 < 5ppm	Matrix S	Notes
01	RJW521	BFB06J21 ✓	1 µL					10:07 am
02	522	std chk						
03	523	CV006H1551 ✓	1/1/15 5 µL					
04	524	V006J21L ✓						
05	525	C ✓						
06	526	Rinse						
07	527	V006J21B ✓	25 mL					
08	528	12J181-12R ✓	25 mL	1.0	✓	✓		
09	529	-09T ✓	250 µL	100	✓	✓		
10	530	-10T ✓			✓	✓		
11	531	-11R ✓	25 mL	1.0	✓	✓		
12	532	12J186-20B ✓			✓	✓		
13	533	-20 ✓			✓	✓		
14	534	-01 ✓			✓	✓		
15	535	-02 ✓			✓	✓		
16	536	-03 ✓			✓	✓		
17	537	-05 ✓			✓	✓		
18	538	-06 ✓			✓	✓		
19	539	-07 ✓			✓	✓		
20	540	-08 ✓			✓	✓		
21	541	-09 ✓			✓	✓		
22	542	-04 ✓			✓	✓		
23	543	-04M ✓			✓	✓		
24	544	-04S ✓			✓	✓		9:55 pm
25	545-550	Rinse						
26								
27								
28								
29								
30								10/30/12

Instrument No.	06
INITIAL CALIBRATION REFERENCE	
DATE	8/15/12
ICAL ID	V006H15

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC	SV1-20-8-1	1	
DCC	-18-3	1	
DCC	-19-2	5	
DCC	-10-2	5	
BFB	-22-1	1	50/250
IS/SURR.	-23-2	1	
ICV/LCS	-15-2	1	
ICV/LCS	-25-1	1	
ICV/LCS	-22-2	5	
ICV/LCS	-17-2	5	
Data File Folder	12J29		
	LOT #		
pH strip	HC137671		
Chlorine strip	2220		
Methanol			
$NaHSO_4$			
Reagent Water	RW4-12-001		
Sand			

Electronic Data Archival Location	Date
HPCHEM_VOA/TO06	

Comments:

Analyzed By: WL

Date Disposed: 10/30/12 Disposed By: WL

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐

Start Date: 8/15/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book # A06 -050

BATCH V006H156

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl <5ppm	Matrix S	Notes			
01	RHW 001	Rinse		NA	NA	NA					
02	002	BFB06H01	1 µL					CS2, Gases, 8260, 224TMP, 4-Add	KH/AA/BA	H2O/MeOH	
03	003	V006H151	*a b c d e f µL					~~0.3~~ (ppb)	~~1.5~~	~~6~~	
04	004	2	.03/.03/.15/.15/.03/.03					~~0.5~~ 0.3	1.5	6	
05	005	3	.05/.05/.25/.25/.05/.05				WL 8/17/12	~~1~~ 0.5	2.5	10	
06	006	4	.1/.1/.5/.5/.1/.1					~~2~~ 1	5	20	
07	007	5	.2/.2/1/1/.2/.2					~~5~~ 2	10	40	
08	008	6	.5/.5/2.5/2.5/.5/.5					~~10~~ 5	25	100	
09	009	7	1/1/5/5/1/1					~~20~~ 10	50	200	
10	010	8	2/2/10/10/2/2					~~30~~ 20	100	400	
11	011	9	3/3/15/15/3/3					30	150	600	
12	012	10	5/5/25/25/5/5					50	250	1000	
13	013	IS/SS	10/10/50/50/10/10					100	500	2000	
14	014	V006H15B									
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											WL 8/17/12

Instrument No.	06
INITIAL CALIBRATION REFERENCE	
DATE	~~V006H~~ 8/15/12
ICAL ID	V006H15

STANDARDS (WL 8/16/12)

NAME	ID	Amount (ul)	Conc. (mg/L)
(a) DCC CS2	5V1-20-8-2	250	*
(b) DCC Gases	-7-1	250	
(c,d) KH-AA DCC 8260	-9-2 -9-3	250 50/250	
(e,f) 224TMP DCC 4-Add	5V1-19-79-2 -94-2	250 250	
BFB	-68-2	50	1 µL
IS/SURR. IS SS IS/SS	5V1-20-7-3 -8-1 -6-1	250	1 * 1
ICV/LCS CS2	-1-2	250	1
ICV/LCS Gases	-4-1	250	1
ICV/LCS KH-AA 8260	5V1-20-5-3 5V1-19-78-3	250 50/250	5 6
ICV/LCS 224TMP 3-Add	-80-1 5V1-19-55-02	250 250	1 1
2-butanol	5V1-12-36-15	1000	~~0.25~~ 1.25 WL 9/11/12
DATA FILE FOLDER	12H15		

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO06	

Comments: * varied amount

Analyzed By: WL

Date Disposed: 8/16/12

Disposed By: WL

2132

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐

Start Date: 8/16/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book # A06 -050

BATCH 1V006H1501

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl <5ppm	Matrix S	Notes
01	RHW015	BFB06H02	1mL					9:31am
02	↓ 016	1V006H1501	1/1/3/5/1/1/0	25mL				10:02 am
03	↓ 017	Rinse						
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								WL 8/17/12

Instrument No.	06
INITIAL CALIBRATION REFERENCE	
DATE	8/15/12
ICAL ID	V006H15

STANDARDS

NAME	ID	Amount (µL)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC			
BFB	SV1-19-68-2	1	50
IS/SURR.	SV1-20-6-1	1	250
ICV/LCS	↓ -1-2	1	250
ICV/LCS	↓ -4-1	1	250
ICV/LCS	SV1-20-5-3	5	250
	SV1-19-78-3	5	50/250
ICV/LCS	↓ -80-1	1	250
	-55-2	1	250
	SV1-12-36-15	~~0.75~~ 1.25	1000
DATA FILE FOLDER	12H16	WL 8/11/12	

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO06	

Comments:

Analyzed By: WL

Date Disposed: 8/17/12

Disposed By: WL

2145

Injection Log

Directory: D:\HPCHEM\1\DATA\12J26

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RJW497.D	1.	BFB06J20	T/CHK	26 Oct 2012 11:51
2	2	RJW498.D	1.	STD CHK	10ppb 8260/50ppb KET-AA-TBA	26 Oct 2012 12:21
3	4	RJW499.D	1.	CVO06H1550	10ppb 8260/50ppb KET-AA-TBA	26 Oct 2012 12:57
4	4	RJW500.D	1.	VO06J20L	10ppb 8260/50ppb KET-AA-TBA	26 Oct 2012 14:01
5	5	RJW501.D	1.	VO06J20C	10ppb 8260/50ppb KET-AA-TBA	26 Oct 2012 14:31
6	6	RJW502.D	1.	RINSE	BLANK	26 Oct 2012 15:01
7	7	RJW503.D	1.	VO06J20B 25mL	BLANK	26 Oct 2012 15:31
8	8	RJW504.D	1.	12J181-01 25mL	DF=1.0	26 Oct 2012 16:05
9	9	RJW505.D	1.	12J181-02 25mL	DF=1.0	26 Oct 2012 16:35
10	10	RJW506.D	1.	12J181-03 25mL	DF=1.0	26 Oct 2012 17:05
11	11	RJW507.D	1.	12J181-04 25mL	DF=1.0	26 Oct 2012 17:35
12	12	RJW508.D	1.	12J181-04M 25mL	DF=1.0	26 Oct 2012 18:05
13	13	RJW509.D	1.	12J181-04S 25mL	DF=1.0	26 Oct 2012 18:35
14	14	RJW510.D	1.	RINSE	DF=1.0	26 Oct 2012 19:06
15	15	RJW511.D	1.	12J181-05 25mL	DF=1.0	26 Oct 2012 19:35
16	16	RJW512.D	1.	12J181-06 25mL	DF=1.0	26 Oct 2012 20:06
17	17	RJW513.D	1.	12J181-07 25mL	DF=1.0	26 Oct 2012 20:36
18	18	RJW514.D	1.	12J181-08 25mL	DF=1.0	26 Oct 2012 21:05
19	19	RJW515.D	1.	12J181-09 25mL	DF=1.0	26 Oct 2012 21:36
20	20	RJW516.D	1.	12J181-10 25mL	DF=1.0	26 Oct 2012 22:06
21	21	RJW517.D	1.	12J181-11 25mL	DF=1.0	26 Oct 2012 22:36
22	22	RJW518.D	1.	12J181-12 25mL	DF=1.0	26 Oct 2012 23:06
23	23	RJW519.D	1.	RINSE	DF=1.0	26 Oct 2012 23:37
24	24	RJW520.D	1.	RINSE	DF=1.0	27 Oct 2012 00:06

Injection Log

Directory: D:\HPCHEM\1\DATA\12J29

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RJW521.D	1.	BFB06J21	T/CHK	29 Oct 2012 10:07
2	2	RJW522.D	1.	STD CHK	10ppb 8260/50ppb KET-AA-TBA	29 Oct 2012 10:41
3	4	RJW523.D	1.	CVO06H1551	10ppb 8260/50ppb KET-AA-TBA	29 Oct 2012 11:14
4	4	RJW524.D	1.	VO06J21L	10ppb 8260/50ppb KET-AA-TBA	29 Oct 2012 11:49
5	5	RJW525.D	1.	VO06J21C	10ppb 8260/50ppb KET-AA-TBA	29 Oct 2012 12:19
6	6	RJW526.D	1.	RINSE	BLANK	29 Oct 2012 12:49
7	7	RJW527.D	1.	VO06J21B 25mL	BLANK	29 Oct 2012 13:19
8	8	RJW528.D	1.	12J181-12R 25mL	DF=1.0	29 Oct 2012 13:49
9	9	RJW529.D	1.	12J181-09T 250uL	DF=100	29 Oct 2012 14:25
10	10	RJW530.D	1.	12J181-10T 250uL	DF=100	29 Oct 2012 14:55
11	11	RJW531.D	1.	12J181-11R 25mL	DF=1.0	29 Oct 2012 15:25
12	12	RJW532.D	1.	12J186-16 25mL	DF=1.0	29 Oct 2012 15:55
13	13	RJW533.D	1.	12J186-20 25mL	DF=1.0	29 Oct 2012 16:24
14	14	RJW534.D	1.	12J186-01 25mL	DF=1.0	29 Oct 2012 16:55
15	15	RJW535.D	1.	12J186-02 25mL	DF=1.0	29 Oct 2012 17:25
16	16	RJW536.D	1.	12J186-03 25mL	DF=1.0	29 Oct 2012 17:55
17	17	RJW537.D	1.	12J186-05 25mL	DF=1.0	29 Oct 2012 18:25
18	18	RJW538.D	1.	12J186-06 25mL	DF=1.0	29 Oct 2012 18:55
19	19	RJW539.D	1.	12J186-07 25mL	DF=1.0	29 Oct 2012 19:25
20	20	RJW540.D	1.	12J186-08 25mL	DF=1.0	29 Oct 2012 19:55
21	21	RJW541.D	1.	12J186-09 25mL	DF=1.0	29 Oct 2012 20:25
22	22	RJW542.D	1.	12J186-04 25mL	DF=1.0	29 Oct 2012 20:55
23	23	RJW543.D	1.	12J186-04M 25mL	DF=1.0	29 Oct 2012 21:24
24	24	RJW544.D	1.	12J186-04S 25mL	DF=1.0	29 Oct 2012 21:55
25	25	RJW545.D	1.	RINSE	DF=1.0	29 Oct 2012 22:25
26	26	RJW546.D	1.	RINSE	DF=1.0	29 Oct 2012 22:55
27	27	RJW547.D	1.	RINSE	DF=1.0	29 Oct 2012 23:24
28	28	RJW548.D	1.	RINSE	DF=1.0	29 Oct 2012 23:54
29	29	RJW549.D	1.	RINSE	DF=1.0	30 Oct 2012 00:24
30	30	RJW550.D	1.	RINSE	DF=1.0	30 Oct 2012 00:54

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

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

SDG#: 12J181

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J181

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

A total of eleven (11) water samples were received on 10/25/12 for VOC SIM analysis, Method 5030B/8260B SIM in accordance with Department of Defense Quality Systems Manual for Environmental Laboratories, Version 4.2 and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Instrument mass ratios were within specification. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blanks were analyzed at the frequency required by the project. For this SDG, two (2) method blanks were analyzed with the samples. All results were compliant to project requirement. Refer to QC result summary forms for details.

Lab Control Sample
Two (2) sets of LCS/LCD were analyzed with the samples in this SDG.
Percent recoveries for VO05J22L/C were all within QC limits.
Percent recoveries for VO05K01L/C were all within QC limits.

Matrix QC Sample
A set of MS/MSD was analyzed with the samples in this SDG.
Percent recoveries were within project QC limits except for results qualified with [*] in J181-04 M/S summary form, most likely due to matrix interference. Check QC summary form for details.

Surrogate
Surrogate was added on QC and field samples. Surrogate recoveries were within project QC limits. Refer to sample result forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter. Samples J181-09 and -10 were analyzed at dilution due to their contaminating nature at 1x.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE

SDG NO. : 12J181
Instrument ID : T-005

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V005J22B	1	NA	10/30/1209:23	10/30/1209:23	RJQ425	RJQ091	V005J22	Method Blank
LCS1W	V005J22L	1	NA	10/30/1208:26	10/30/1208:26	RJQ423	RJQ091	V005J22	Lab Control Sample (LCS)
LCD1W	V005J22C	1	NA	10/30/1208:54	10/30/1208:54	RJQ424	RJQ091	V005J22	LCS Duplicate
10-25-12 PWA-3	J181-05	1	NA	10/30/1209:52	10/30/1209:52	RJQ426	RJQ091	V005J22	Field Sample
10-25-12 WA-2	J181-08	1	NA	10/30/1210:22	10/30/1210:22	RJQ427	RJQ091	V005J22	Field Sample
10-25-12 PWA-7A	J181-03	1	NA	10/30/1210:59	10/30/1210:59	RJQ428	RJQ091	V005J22	Field Sample
10-25-12 WA-9	J181-02	1	NA	10/30/1211:28	10/30/1211:28	RJQ429	RJQ091	V005J22	Field Sample
10-25-12 WA-5	J181-06	1	NA	10/30/1212:04	10/30/1212:04	RJQ430	RJQ091	V005J22	Field Sample
10-25-12 WA-1	J181-04	1	NA	10/30/1212:34	10/30/1212:34	RJQ431	RJQ091	V005J22	Field Sample
10-25-12 WA-1MS	J181-04M	1	NA	10/30/1213:03	10/30/1213:03	RJQ432	RJQ091	V005J22	Matrix Spike Sample (MS)
10-25-12 WA-1MSD	J181-04S	1	NA	10/30/1213:36	10/30/1213:36	RJQ433	RJQ091	V005J22	MS Duplicate (MSD)
10-24-12 WA-3	J181-01	1	NA	10/30/1214:09	10/30/1214:09	RJQ434	RJQ091	V005J22	Field Sample
10-25-12 EPAS-2	J181-07	1	NA	10/30/1214:38	10/30/1214:38	RJQ435	RJQ091	V005J22	Field Sample
10-25-12 FDUP-4	J181-11	1	NA	10/30/1215:08	10/30/1215:08	RJQ436	RJQ091	V005J22	Field Sample
10-25-12 PWA-2	J181-10	25	NA	10/30/1215:36	10/30/1215:36	RJQ437	RJQ091	V005J22	Field Sample
10-25-12 EPAS-3	J181-09	10	NA	10/30/1216:35	10/30/1216:35	RJQ439	RJQ091	V005J22	Field Sample
MBLK2W	V005K01B	1	NA	11/01/1209:21	11/01/1209:21	RKQ005	RJQ091	V005K01	Method Blank
LCS2W	V005K01L	1	NA	11/01/1208:22	11/01/1208:22	RKQ003	RJQ091	V005K01	Lab Control Sample (LCS)
LCD2W	V005K01C	1	NA	11/01/1208:51	11/01/1208:51	RKQ004	RJQ091	V005K01	LCS Duplicate
10-25-12 PWA-2DL	J181-10I	2500	NA	11/01/1209:56	11/01/1209:56	RKQ006	RJQ091	V005K01	Diluted Sample
10-25-12 EPAS-3DL	J181-09T	2500	NA	11/01/1210:25	11/01/1210:25	RKQ007	RJQ091	V005K01	Diluted Sample
10-25-12 PWA-2DL	J181-10T	500	NA	11/01/1210:53	11/01/1210:53	RKQ008	RJQ091	V005K01	Diluted Sample
10-24-12 WA-3DL	J181-01T	10	NA	11/01/1211:28	11/01/1211:28	RKQ009	RJQ091	V005K01	Diluted Sample
10-24-12 WA-3DL	J181-01I	500	NA	11/01/1211:58	11/01/1211:58	RKQ010	RJQ091	V005K01	Diluted Sample
10-25-12 WA-1DL	J181-04T	10	NA	11/01/1212:26	11/01/1212:26	RKQ011	RJQ091	V005K01	Diluted Sample
10-25-12 EPAS-2DL	J181-07T	25	NA	11/01/1213:00	11/01/1213:00	RKQ012	RJQ091	V005K01	Diluted Sample
10-25-12 FDUP-4DL	J181-11T	25	NA	11/01/1213:29	11/01/1213:29	RKQ013	RJQ091	V005K01	Diluted Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/24/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 10/30/12 14:09 # 11/01/12 11:28 ## 11/01/12 11:58
Sample ID: 10-24-12 WA-3	Date Analyzed: 10/30/12 14:09 # 11/01/12 11:28 ## 11/01/12 11:58
Lab Samp ID: J181-01 #J181-01T ##J181-01I	Dilution Factor: 1 # 10 ## 500
Lab File ID: RJQ434 #RKQ009 ##RKQ010	Matrix : WATER
Ext Btch ID: VO05J22 #VO05K01 ##VO05K01	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
##1,2,3-TRICHLOROPROPANE	140	2.5	1.2
# 1,2-DIBROMO-3-CHLOROPROPANE	1.1	0.50	0.20
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.101	0.1000	101	80-120
# TOLUENE-D8	0.933	1.000	93.3	80-120
##TOLUENE-D8	49.5	50.00	99.1	80-120

Members of the First Associated File
Members of the Second Associated File

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/24/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 10/30/12 14:09
Sample ID: 10-24-12 WA-3	Date Analyzed: 10/30/12 14:09
Lab Samp ID: J181-01	Dilution Factor: 1
Lab File ID: RJQ434	Matrix : WATER
Ext Btch ID: VO05J22	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	130E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	1.2E	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.101	0.1000	101	80-120

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/24/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 11/01/12 11:28
Sample ID: 10-24-12 WA-3DL	Date Analyzed: 11/01/12 11:28
Lab Samp ID: J181-01T	Dilution Factor: 10
Lab File ID: RKQ009	Matrix : WATER
Ext Btch ID: V005K01	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	130E	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	1.1	0.50	0.20
1,2-DIBROMOETHANE	ND	0.50	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.933	1.000	93.3	80-120

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/24/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 11/01/12 11:58
Sample ID: 10-24-12 WA-3DL	Date Analyzed: 11/01/12 11:58
Lab Samp ID: J181-01I	Dilution Factor: 500
Lab File ID: RKQ010	Matrix : WATER
Ext Btch ID: VO05K01	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	140	2.5	1.2
1,2-DIBROMO-3-CHLOROPROPANE	ND	25	10
1,2-DIBROMOETHANE	ND	25	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	49.5	50.00	99.1	80-120

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/25/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 10/30/12 11:28
Sample ID: 10-25-12 WA-9	Date Analyzed: 10/30/12 11:28
Lab Samp ID: J181-02	Dilution Factor: 1
Lab File ID: RJQ429	Matrix : WATER
Ext Btch ID: VO05J22	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.012	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0946	0.1000	94.6	80-120

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/25/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 10/30/12 10:59
Sample ID: 10-25-12 PWA-7A	Date Analyzed: 10/30/12 10:59
Lab Samp ID: J181-03	Dilution Factor: 1
Lab File ID: RJQ428	Matrix : WATER
Ext Btch ID: VO05J22	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.67	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.116	0.1000	116	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 12:34 # 11/01/12 12:26
Sample ID:	10-25-12 WA-1	Date Analyzed:	10/30/12 12:34 # 11/01/12 12:26
Lab Samp ID:	J181-04 #J181-04T	Dilution Factor:	1 # 10
Lab File ID:	RJQ431 #RKQ011	Matrix	: WATER
Ext Btch ID:	VO05J22 #VO05K01	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	1.5	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0929	0.1000	92.9	80-120
# TOLUENE-D8	0.972	1.000	97.2	80-120

Members of the Associated File

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/25/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 10/30/12 12:34
Sample ID: 10-25-12 WA-1	Date Analyzed: 10/30/12 12:34
Lab Samp ID: J181-04	Dilution Factor: 1
Lab File ID: RJQ431	Matrix : WATER
Ext Btch ID: VO05J22	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	1.3E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0929	0.1000	92.9	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	11/01/12 12:26
Sample ID:	10-25-12 WA-1DL	Date Analyzed:	11/01/12 12:26
Lab Samp ID:	J181-04T	Dilution Factor:	10
Lab File ID:	RKQ011	Matrix :	WATER
Ext Btch ID:	VO05K01	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	1.5	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.50	0.20
1,2-DIBROMOETHANE	ND	0.50	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.972	1.000	97.2	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 09:52
Sample ID:	10-25-12 PWA-3	Date Analyzed:	10/30/12 09:52
Lab Samp ID:	J181-05	Dilution Factor:	1
Lab File ID:	RJQ426	Matrix :	WATER
Ext Btch ID:	V005J22	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.11	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.113	0.1000	113	80-120

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/25/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 10/30/12 12:04
Sample ID: 10-25-12 WA-5	Date Analyzed: 10/30/12 12:04
Lab Samp ID: J181-06	Dilution Factor: 1
Lab File ID: RJQ430	Matrix : WATER
Ext Btch ID: VO05J22	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.39	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0957	0.1000	95.7	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 14:38 # 11/01/12 13:00
Sample ID:	10-25-12 EPAS-2	Date Analyzed:	10/30/12 14:38 # 11/01/12 13:00
Lab Samp ID:	J181-07 #J181-07T	Dilution Factor:	1 # 25
Lab File ID:	RJQ435 #RKQ012	Matrix	: WATER
Ext Btch ID:	VO05J22 #VO05K01	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	5.6	0.12	0.063
1,2-DIBROMO-3-CHLOROPROPANE	0.89	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0857	0.1000	85.7	80-120
# TOLUENE-D8	2.54	2.500	102	80-120

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 14:38
Sample ID:	10-25-12 EPAS-2	Date Analyzed:	10/30/12 14:38
Lab Samp ID:	J181-07	Dilution Factor:	1
Lab File ID:	RJQ435	Matrix :	WATER
Ext Btch ID:	VO05J22	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	5.7E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.89	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0857	0.1000	85.7	80-120

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJQ435.D
Acq On : 30 Oct 2012 2:38 pm
Sample : 12J181-07 25mL
Misc : DF=1.0
MS Integration Params: 524INT.P
Quant Time: Nov 1 12:08 2012

Vial: 15
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

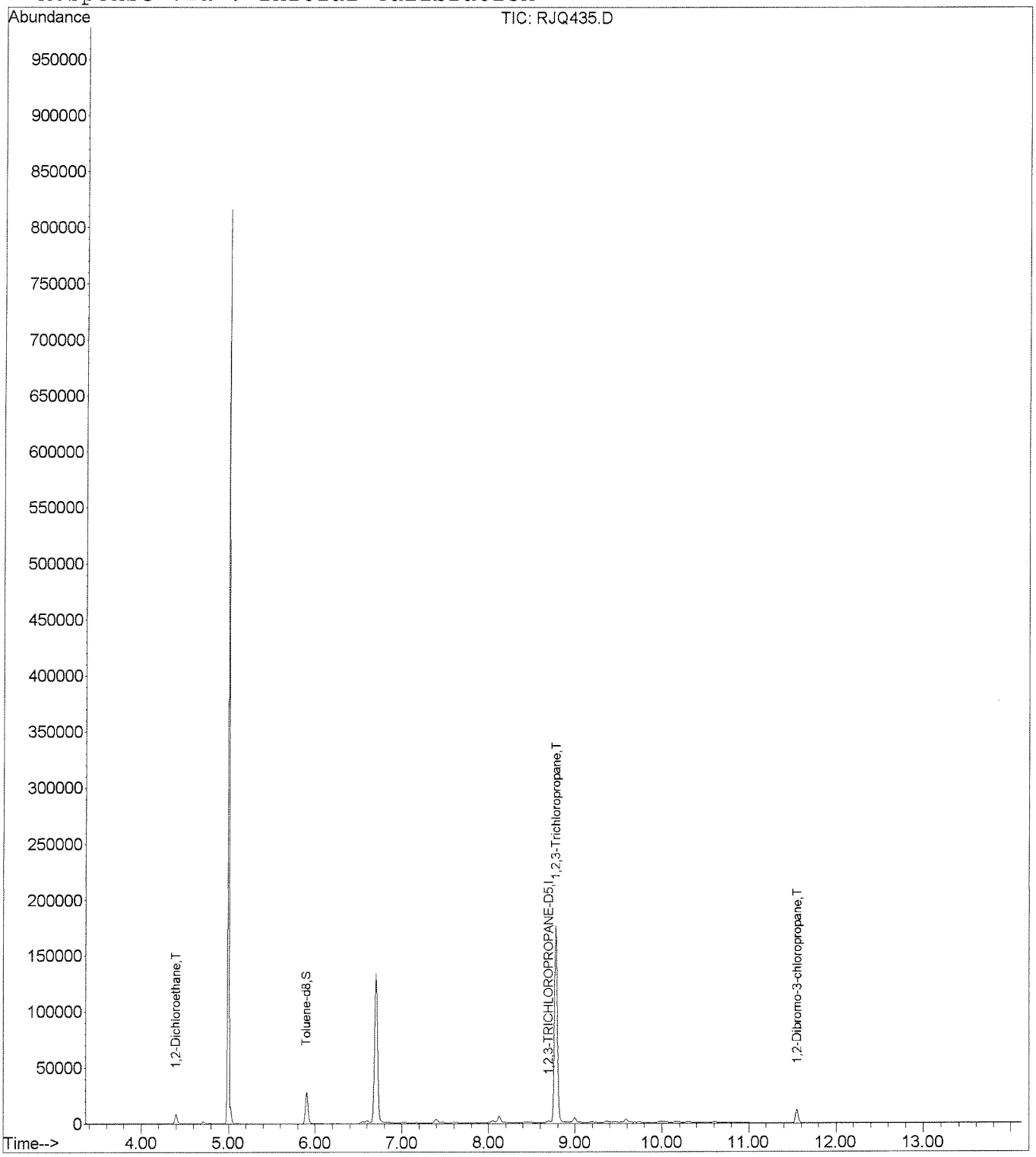
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2711	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.91	98	37044	85.74 ng/l	0.00
Spiked Amount 100.000			Recovery	= 85.74%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.40	62	12539	69.71 ng/l	98
6) 1,2,3-Trichloropropane	8.78	75	278738	5683.97 ng/l E	91
7) 1,2-Dibromo-3-chloropropan	11.55	157	9827	887.86 ng/l	98

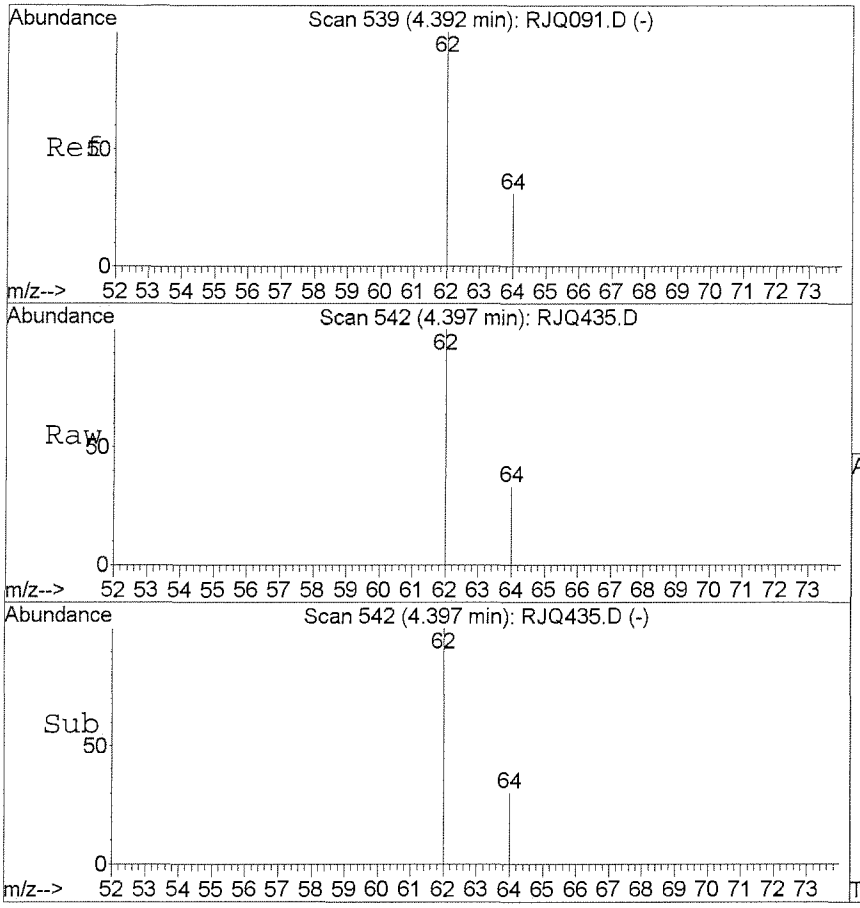
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J30\RJQ435.D Vial: 15
Acq On : 30 Oct 2012 2:38 pm Operator: SD
Sample : 12J181-07 25mL Inst : TO05
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 12:08 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration

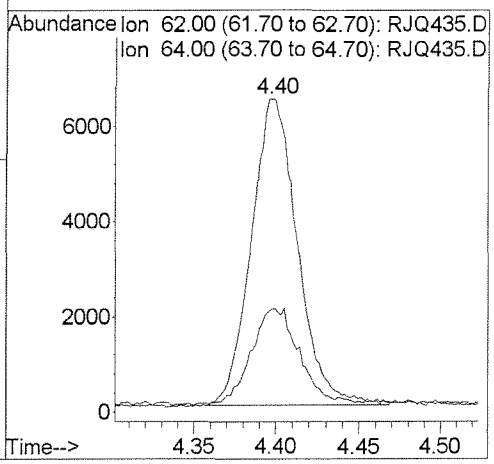


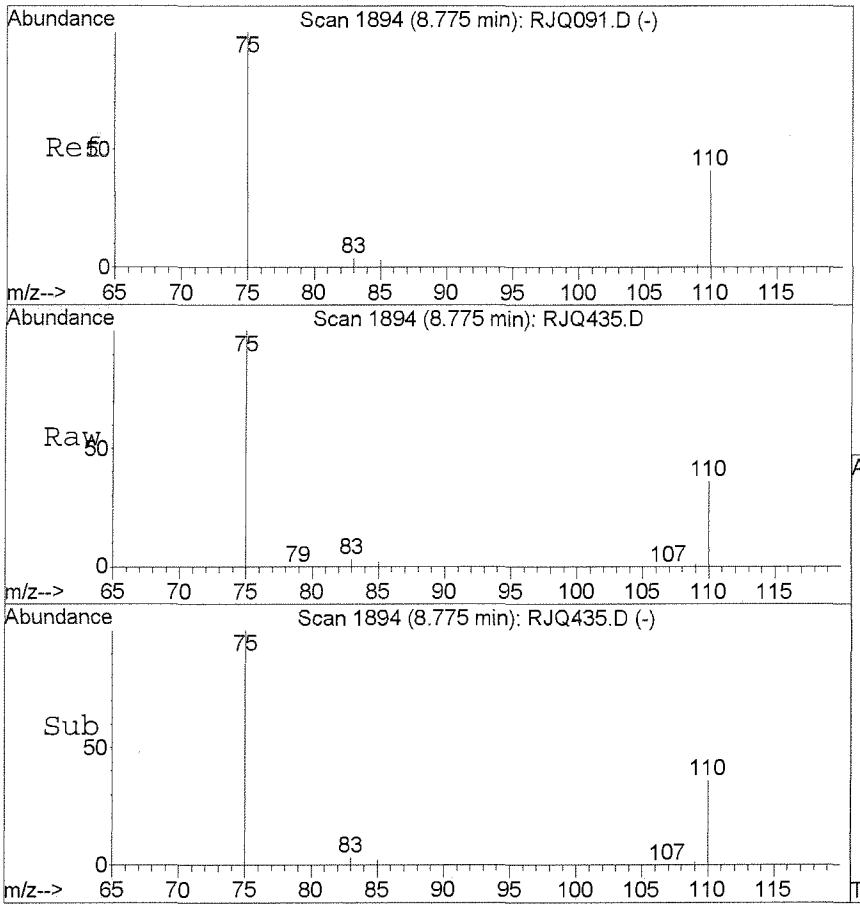


#2
1,2-Dichloroethane
Concen: 69.71 ng/l
RT: 4.40 min Scan# 542
Delta R.T. 0.01 min
Lab File: RJQ435.D
Acq: 30 Oct 2012 2:38 pm

Tgt Ion: 62 Resp: 12539

Ion	Ratio	Lower	Upper
62	100		
64	31.1	2.3	62.3

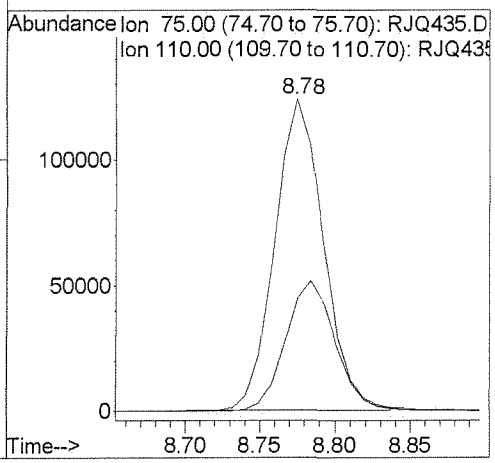


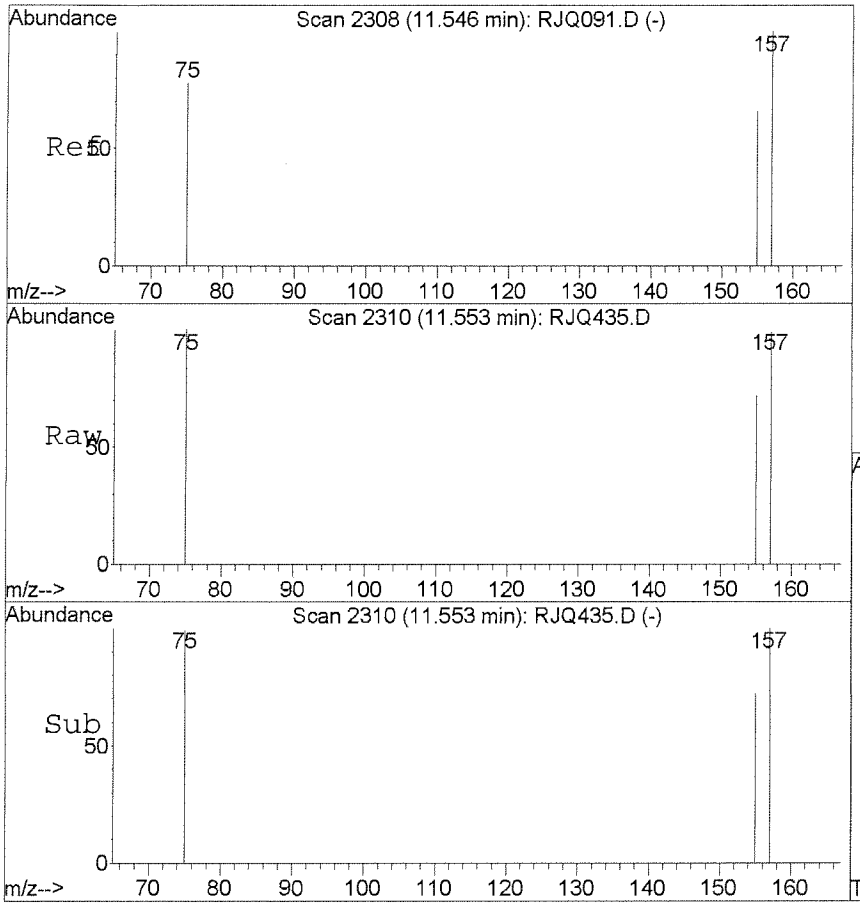


#6
1,2,3-Trichloropropane
Concen: 5683.97 ng/l
RT: 8.78 min Scan# 1894
Delta R.T. 0.00 min
Lab File: RJQ435.D
Acq: 30 Oct 2012 2:38 pm

Tgt Ion: 75 Resp: 278738

Ion	Ratio	Lower	Upper
75	100		
110	41.9	18.1	78.1

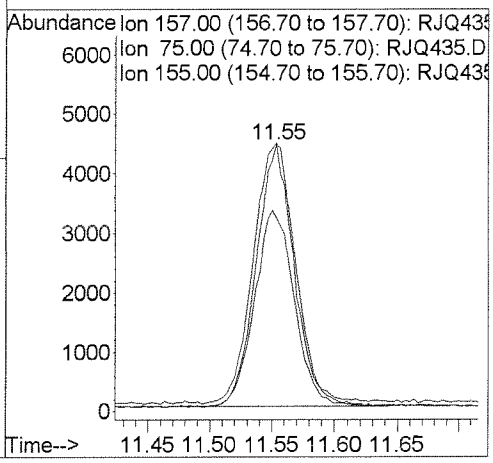




#7
1,2-Dibromo-3-chloropropane
Concen: 887.86 ng/l
RT: 11.55 min Scan# 2310
Delta R.T. 0.01 min
Lab File: RJQ435.D
Acq: 30 Oct 2012 2:38 pm

Tgt Ion:157 Resp: 9827

Ion	Ratio	Lower	Upper
157	100		
75	101.9	72.4	134.5
155	75.9	52.1	96.9



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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/25/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 11/01/12 13:00
Sample ID: 10-25-12 EPAS-2DL	Date Analyzed: 11/01/12 13:00
Lab Samp ID: J181-07T	Dilution Factor: 25
Lab File ID: RKQ012	Matrix : WATER
Ext Btch ID: V005K01	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	5.6	0.12	0.063
1,2-DIBROMO-3-CHLOROPROPANE	0.88J	1.2	0.50
1,2-DIBROMOETHANE	ND	1.2	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	2.54	2.500	102	80-120

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12K01\RKQ012.D
Acq On : 1 Nov 2012 1:00 pm
Sample : 12J181-07T 1.0mL
Misc : DF=25
MS Integration Params: 524INT.P
Quant Time: Nov 1 13:36 2012

Vial: 12
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

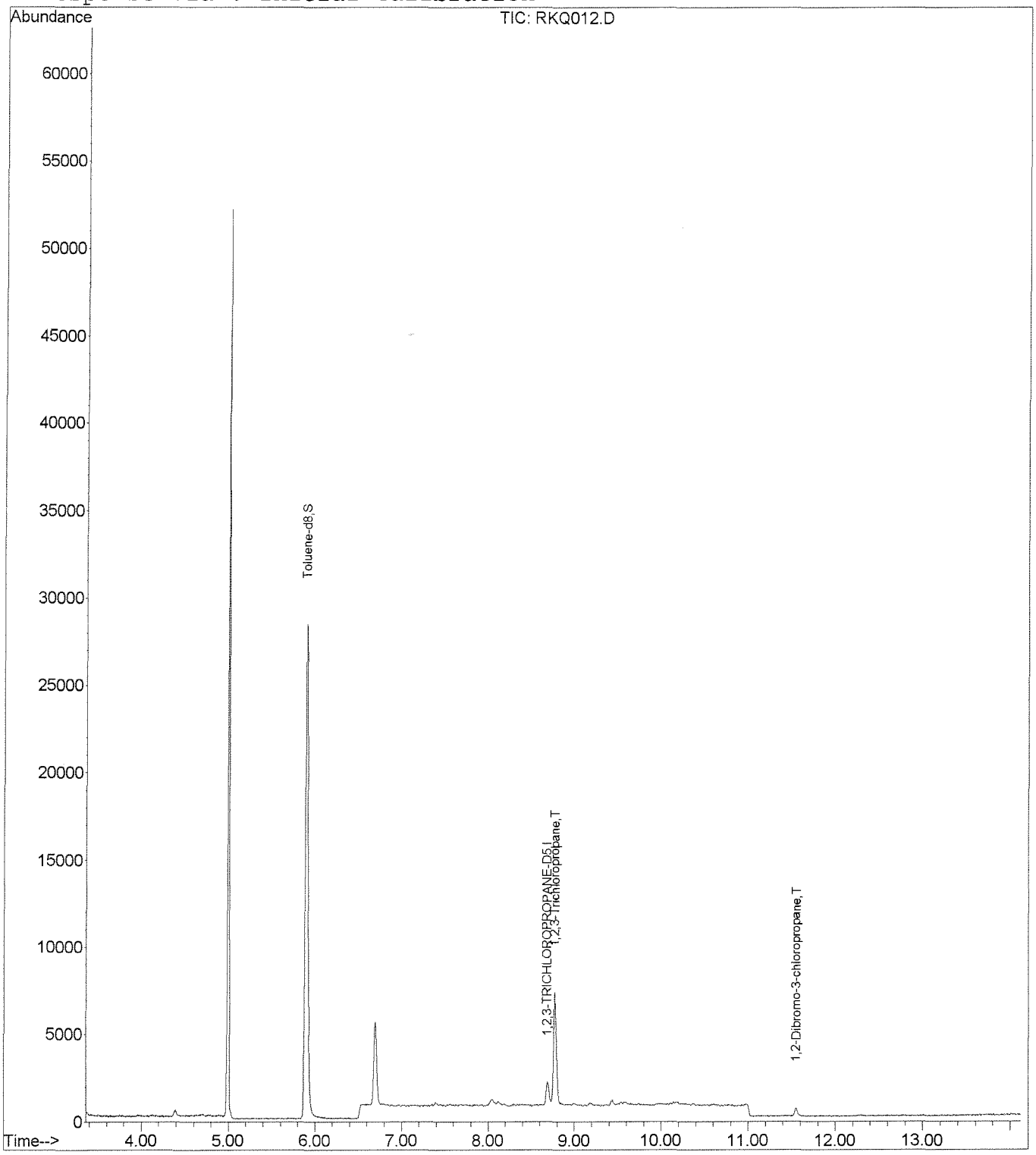
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2429	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	39317	101.56	ng/l	0.00
Spiked Amount 100.000			Recovery	=	101.56%	
Target Compounds						Qvalue
6) 1,2,3-Trichloropropane	8.78	75	9766	222.27	ng/l	90
7) 1,2-Dibromo-3-chloropropan	11.55	157	351	35.39	ng/l	96

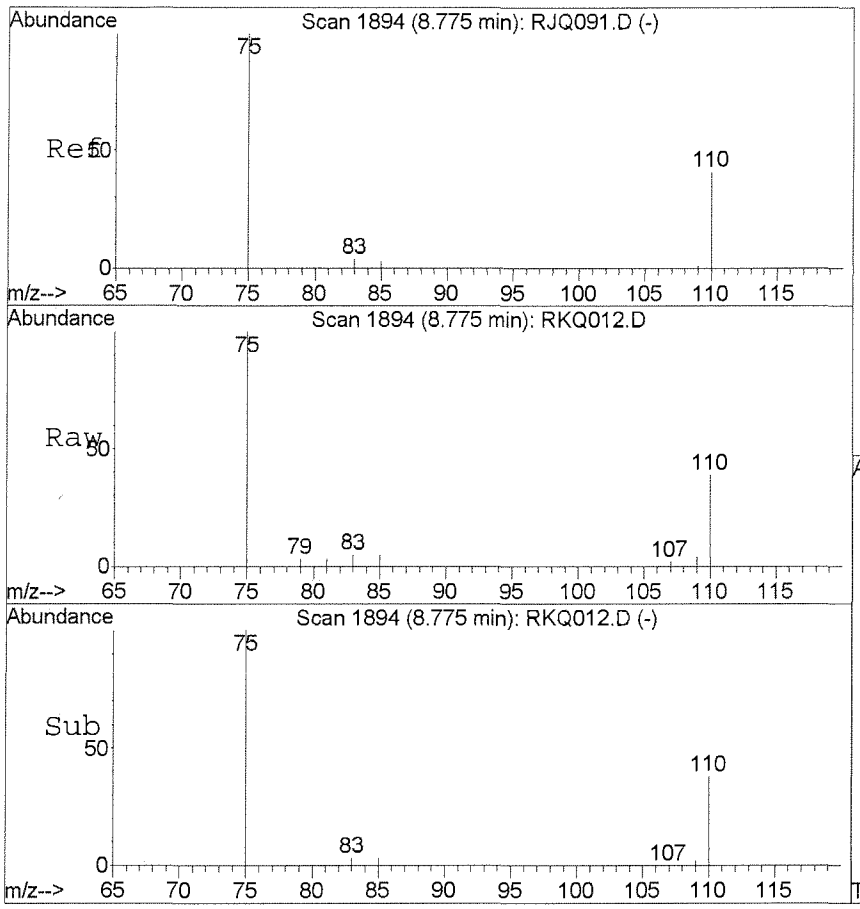
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12K01\RKQ012.D Vial: 12
Acq On : 1 Nov 2012 1:00 pm Operator: SD
Sample : 12J181-07T 1.0mL Inst : TO05
Misc : DF=25 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 13:36 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration

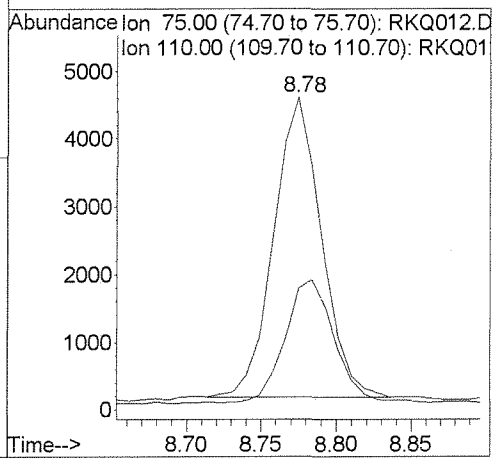


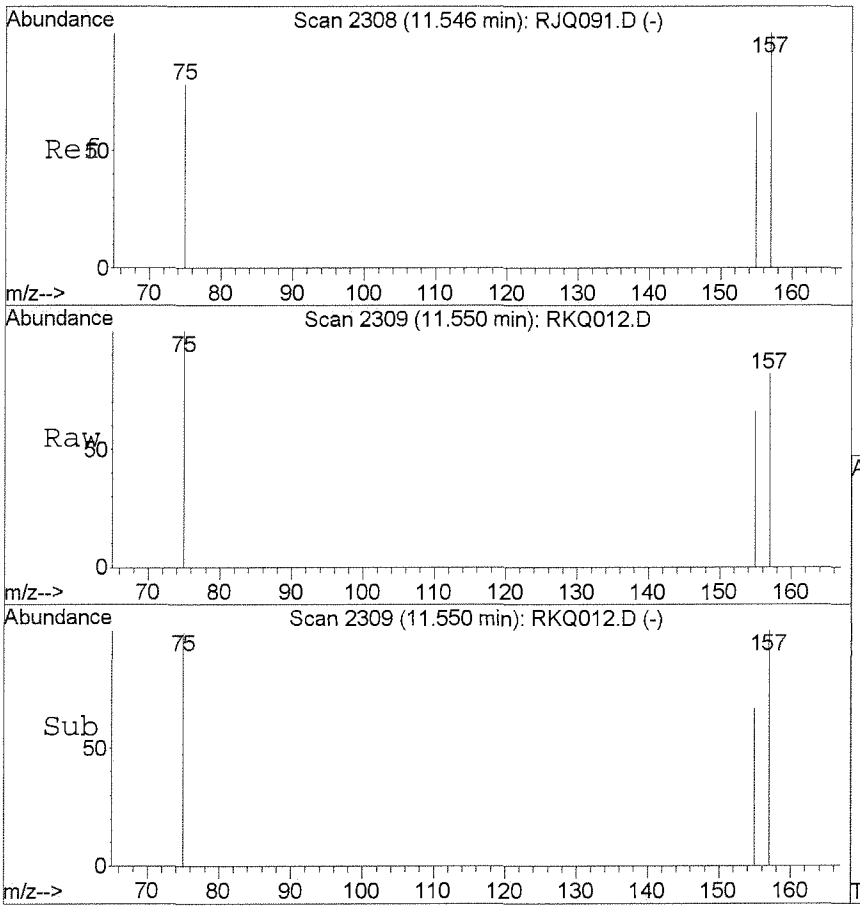


#6
1,2,3-Trichloropropane
Concen: 222.27 ng/l
RT: 8.78 min Scan# 1894
Delta R.T. 0.00 min
Lab File: RKQ012.D
Acq: 1 Nov 2012 1:00 pm

Tgt Ion: 75 Resp: 9766

Ion	Ratio	Lower	Upper
75	100		
110	41.3	18.1	78.1

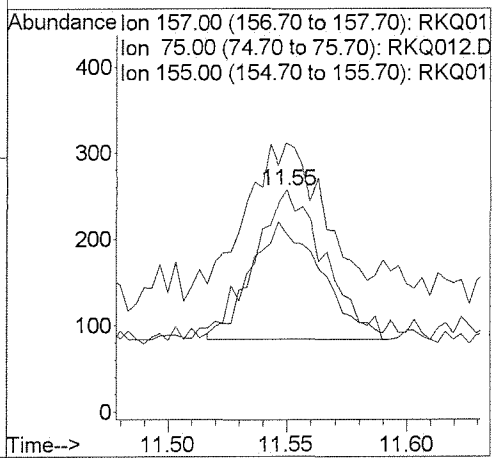




#7
1,2-Dibromo-3-chloropropane
Concen: 35.39 ng/l
RT: 11.55 min Scan# 2309
Delta R.T. 0.00 min
Lab File: RKQ012.D
Acq: 1 Nov 2012 1:00 pm

Tgt Ion:157 Resp: 351

Ion	Ratio	Lower	Upper
157	100		
75	100.0	72.4	134.5
155	79.2	52.1	96.9



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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 10:22
Sample ID:	10-25-12 WA-2	Date Analyzed:	10/30/12 10:22
Lab Samp ID:	J181-08	Dilution Factor:	1
Lab File ID:	RJQ427	Matrix :	WATER
Ext Btch ID:	V005J22	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.0094	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.102	0.1000	102	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 16:35 # 11/01/12 10:25
Sample ID:	10-25-12 EPAS-3	Date Analyzed:	10/30/12 16:35 # 11/01/12 10:25
Lab Samp ID:	J181-09 #J181-09T	Dilution Factor:	10 # 2500
Lab File ID:	RJQ439 #RKQ007	Matrix :	WATER
Ext Btch ID:	VO05J22 #VO05K01	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	660	12	6.2
# 1,2-DIBROMO-3-CHLOROPROPANE	240	120	50
1,2-DIBROMOETHANE	3.0	0.50	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.850	1.000	85.0	80-120
# TOLUENE-D8	239	250.0	95.6	80-120

Members of the Associated File

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/25/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 10/30/12 16:35
Sample ID: 10-25-12 EPAS-3	Date Analyzed: 10/30/12 16:35
Lab Samp ID: J181-09	Dilution Factor: 10
Lab File ID: RJQ439	Matrix : WATER
Ext Btch ID: VO05J22	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	710E	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	370E	0.50	0.20
1,2-DIBROMOETHANE	3.0	0.50	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.850	1.000	85.0	80-120

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/25/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 11/01/12 10:25
Sample ID: 10-25-12 EPAS-3DL	Date Analyzed: 11/01/12 10:25
Lab Samp ID: J181-09T	Dilution Factor: 2500
Lab File ID: RKQ007	Matrix : WATER
Ext Btch ID: VO05K01	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	660	12	6.2
1,2-DIBROMO-3-CHLOROPROPANE	240	120	50
1,2-DIBROMOETHANE	ND	120	50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	239	250.0	95.6	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 15:36 # 11/01/12 10:53 ## 11/01/12 09:56
Sample ID:	10-25-12 PWA-2	Date Analyzed:	10/30/12 15:36 # 11/01/12 10:53 ## 11/01/12 09:56
Lab Samp ID:	J181-10 #J181-10T ##J181-10I	Dilution Factor:	25 # 500 ## 2500
Lab File ID:	RJQ437 #RKQ008 ##RKQ006	Matrix	: WATER
Ext Btch ID:	VO05J22 #VO05K01 ##VO05K01	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
##1,2,3-TRICHLOROPROPANE	1100	12	6.2
# 1,2-DIBROMO-3-CHLOROPROPANE	310	25	10
# 1,2-DIBROMOETHANE	81	25	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	2.39	2.500	95.5	80-120
# TOLUENE-D8	44.2	50.00	88.4	80-120
##TOLUENE-D8	231	250.0	92.2	80-120

Members of the First Associated File
Members of the Second Associated File

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/25/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 10/30/12 15:36
Sample ID: 10-25-12 PWA-2	Date Analyzed: 10/30/12 15:36
Lab Samp ID: J181-10	Dilution Factor: 25
Lab File ID: RJQ437	Matrix : WATER
Ext Btch ID: VO05J22	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	1400E	0.12	0.063
1,2-DIBROMO-3-CHLOROPROPANE	440E	1.2	0.50
1,2-DIBROMOETHANE	98E	1.2	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	2.39	2.500	95.5	80-120

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/25/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 11/01/12 10:53
Sample ID: 10-25-12 PWA-2DL	Date Analyzed: 11/01/12 10:53
Lab Samp ID: J181-10T	Dilution Factor: 500
Lab File ID: RKQ008	Matrix : WATER
Ext Btch ID: VO05K01	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	1200E	2.5	1.2
1,2-DIBROMO-3-CHLOROPROPANE	310	25	10
1,2-DIBROMOETHANE	81	25	10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	44.2	50.00	88.4	80-120

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/25/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 11/01/12 09:56
Sample ID: 10-25-12 PWA-2DL	Date Analyzed: 11/01/12 09:56
Lab Samp ID: J181-10I	Dilution Factor: 2500
Lab File ID: RKQ006	Matrix : WATER
Ext Btch ID: VO05K01	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	1100	12	6.2
1,2-DIBROMO-3-CHLOROPROPANE	260	120	50
1,2-DIBROMOETHANE	80J	120	50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	231	250.0	92.2	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 15:08 # 11/01/12 13:29
Sample ID:	10-25-12 FDUP-4	Date Analyzed:	10/30/12 15:08 # 11/01/12 13:29
Lab Samp ID:	J181-11 #J181-11T	Dilution Factor:	1 # 25
Lab File ID:	RJQ436 #RKQ013	Matrix	: WATER
Ext Btch ID:	VO05J22 #VO05K01	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	5.2	0.12	0.063
1,2-DIBROMO-3-CHLOROPROPANE	0.89	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0918	0.1000	91.8	80-120
# TOLUENE-D8	2.43	2.500	97.3	80-120

Members of the Associated File

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/25/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 10/30/12 15:08
Sample ID: 10-25-12 FDUP-4	Date Analyzed: 10/30/12 15:08
Lab Samp ID: J181-11	Dilution Factor: 1
Lab File ID: RJQ436	Matrix : WATER
Ext Btch ID: VO05J22	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	5.5E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.89	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0918	0.1000	91.8	80-120

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/25/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 11/01/12 13:29
Sample ID: 10-25-12 FDUP-4DL	Date Analyzed: 11/01/12 13:29
Lab Samp ID: J181-11T	Dilution Factor: 25
Lab File ID: RKQ013	Matrix : WATER
Ext Btch ID: VO05K01	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	5.2	0.12	0.063
1,2-DIBROMO-3-CHLOROPROPANE	1.1J	1.2	0.50
1,2-DIBROMOETHANE	ND	1.2	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	2.43	2.500	97.3	80-120

QC SUMMARIES

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

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/30/12
Batch No. : 12J181	Date Extracted: 10/30/12 09:23
Sample ID: MBLK1W	Date Analyzed: 10/30/12 09:23
Lab Samp ID: VO05J22B	Dilution Factor: 1
Lab File ID: RJQ425	Matrix : WATER
Ext Btch ID: VO05J22	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	ND	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0929	0.1000	92.9	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J181
METHOD: METHOD 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VO05J22B	VO05J22L	VO05J22C		
LAB FILE ID:	RJQ425	RJQ423	RJQ424		
DATE EXTRACTED:	10/30/1209:23	10/30/1208:26	10/30/1208:54	DATE COLLECTED:	NA
DATE ANALYZED:	10/30/1209:23	10/30/1208:26	10/30/1208:54	DATE RECEIVED:	10/30/12
PREP. BATCH:	VO05J22	VO05J22	VO05J22		
CALIB. REF:	RJQ091	RJQ091	RJQ091		

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 (%)
1,2,3-Trichloropropane	ND	0.100	0.0924	92	0.100	0.0917	92	1	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0805	80	0.100	0.0768	77	5	50-130	30
1,2-Dibromoethane	ND	0.100	0.101	101	0.100	0.0977	98	4	80-120	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 (%)
Toluene-d8	0.100	0.107	107	0.100	0.0964	96	80-120

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

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 11/01/12
Batch No. : 12J181	Date Extracted: 11/01/12 09:21
Sample ID: MBLK2W	Date Analyzed: 11/01/12 09:21
Lab Samp ID: VO05K01B	Dilution Factor: 1
Lab File ID: RKQ005	Matrix : WATER
Ext Btch ID: VO05K01	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	ND	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0951	0.1000	95.1	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J181
METHOD: METHOD 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	VO05K01B	VO05K01L	VO05K01C		
LAB FILE ID:	RKQ005	RKQ003	RKQ004		
DATE EXTRACTED:	11/01/1209:21	11/01/1208:22	11/01/1208:51	DATE COLLECTED:	NA
DATE ANALYZED:	11/01/1209:21	11/01/1208:22	11/01/1208:51	DATE RECEIVED:	11/01/12
PREP. BATCH:	VO05K01	VO05K01	VO05K01		
CALIB. REF:	RJQ091	RJQ091	RJQ091		

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 (%)
1,2,3-Trichloropropane	ND	0.100	0.102	102	0.100	0.109	109	7	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0811	81	0.100	0.0902	90	11	50-130	30
1,2-Dibromoethane	ND	0.100	0.102	102	0.100	0.0987	99	4	80-120	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 (%)
Toluene-d8	0.100	0.101	101	0.100	0.0968	97	80-120

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J181
METHOD: METHOD 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	10-25-12 WA-1				
LAB SAMP ID:	J181-04	J181-04M	J181-04S		
LAB FILE ID:	RJQ431	RJQ432	RJQ433		
DATE EXTRACTED:	10/30/1212:34	10/30/1213:03	10/30/1213:36	DATE COLLECTED:	10/25/12
DATE ANALYZED:	10/30/1212:34	10/30/1213:03	10/30/1213:36	DATE RECEIVED:	10/25/12
PREP. BATCH:	VO05J22	VO05J22	VO05J22		
CALIB. REF:	RJQ091	RJQ091	RJQ091		

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 (%)
1,2,3-Trichloropropane	1.32E	0.100	1.55E	236*	0.100	1.47E	150*	6	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0907	91	0.100	0.0793	79	13	50-130	30
1,2-Dibromoethane	ND	0.100	0.103	103	0.100	0.0817	82	23	80-120	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 (%)
Toluene-d8	0.100	0.0929	93	0.100	0.0918	92	80-120

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJQ425.D
Acq On : 30 Oct 2012 9:23 am
Sample : VO05J22B
Misc : BLANK
MS Integration Params: 524INT.P
Quant Time: Oct 30 9:37 2012

Vial: 5
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2840	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.89	98	42045	92.89	ng/l	0.00
Spiked Amount 100.000			Recovery = 92.89%			

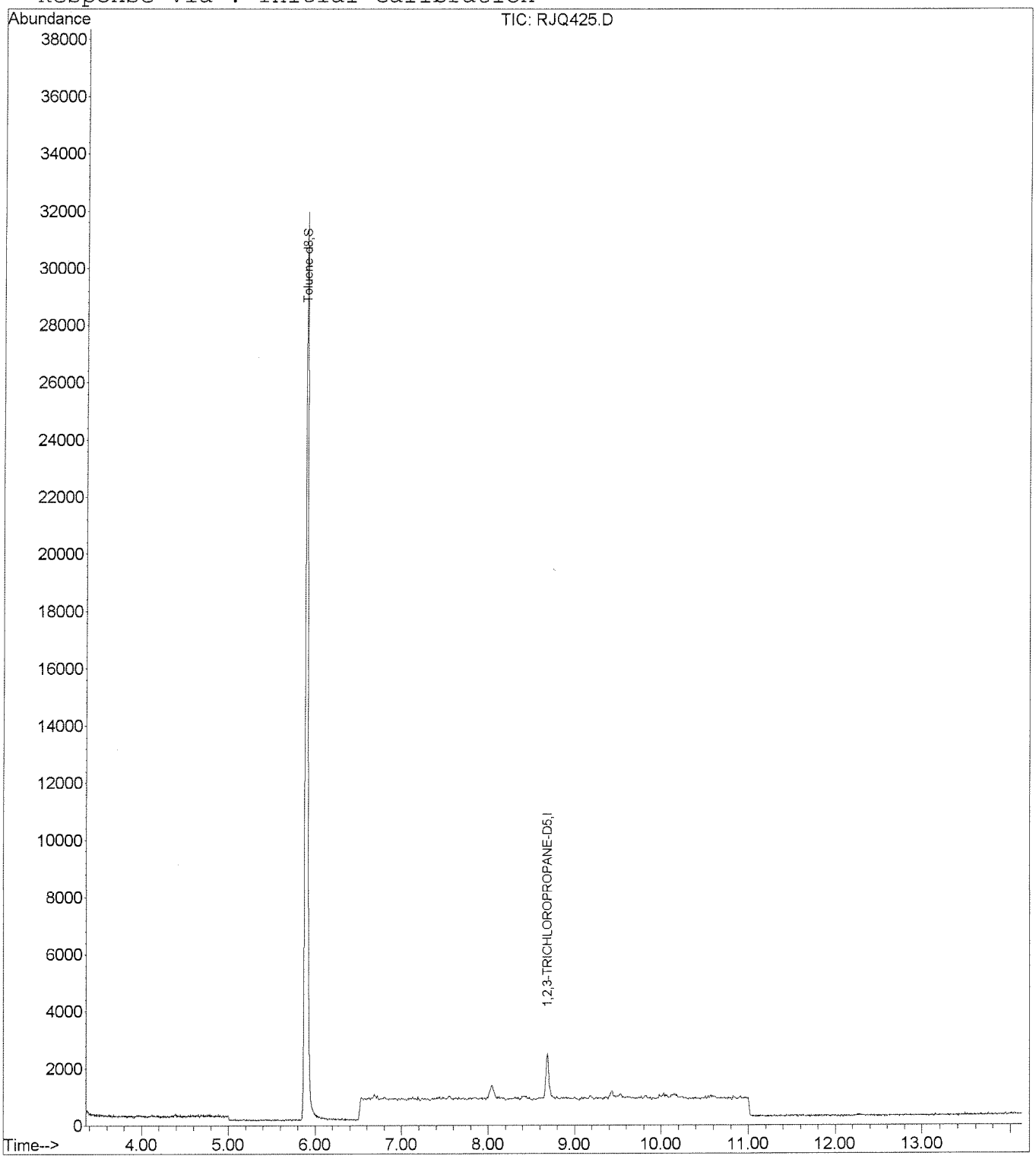
Target Compounds Qvalue

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J30\RJQ425.D Vial: 5
Acq On : 30 Oct 2012 9:23 am Operator: SD
Sample : VO05J22B Inst : TO05
Misc : BLANK Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 30 9:37 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJQ423.D Vial: 3
Acq On : 30 Oct 2012 8:26 am Operator: SD
Sample : VO05J22L Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 30 8:40 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

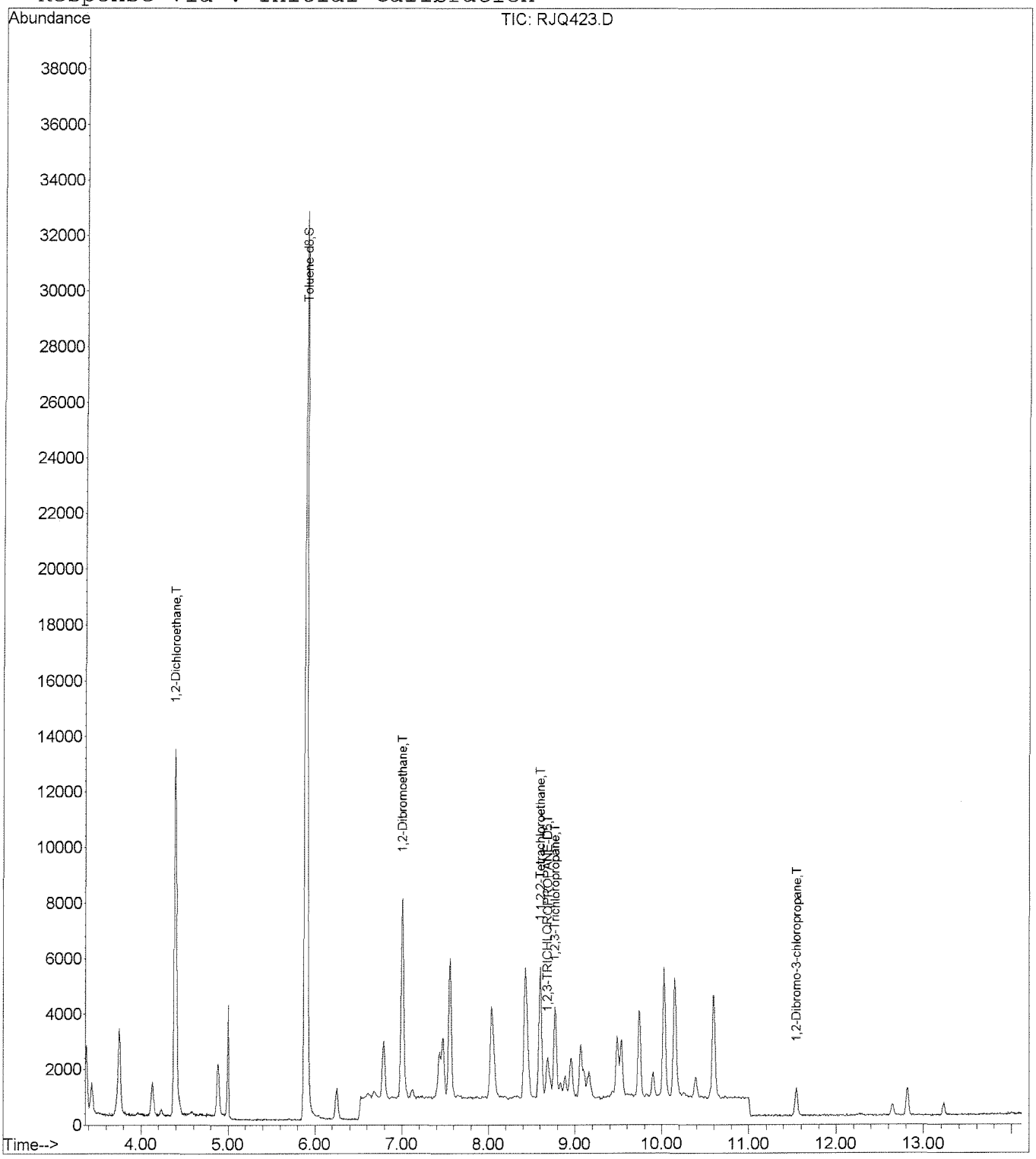
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.68	79	2529	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.89	98	43184	107.14	ng/l	0.00
Spiked Amount 100.000			Recovery	=	107.14%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	20486	122.09	ng/l	98
4) 1,2-Dibromoethane	7.01	107	7352	101.43	ng/l	97
5) 1,1,2,2-Tetrachloroethane	8.60	83	6581	94.41	ng/l	100
6) 1,2,3-Trichloropropane	8.77	75	4227	92.40	ng/l	99
7) 1,2-Dibromo-3-chloropropan	11.54	157	831	80.48	ng/l	96

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J30\RJQ423.D Vial: 3
Acq On : 30 Oct 2012 8:26 am Operator: SD
Sample : VO05J22L Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 30 8:40 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJQ424.D Vial: 4
Acq On : 30 Oct 2012 8:54 am Operator: SD
Sample : VO05J22C Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 30 9:08 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

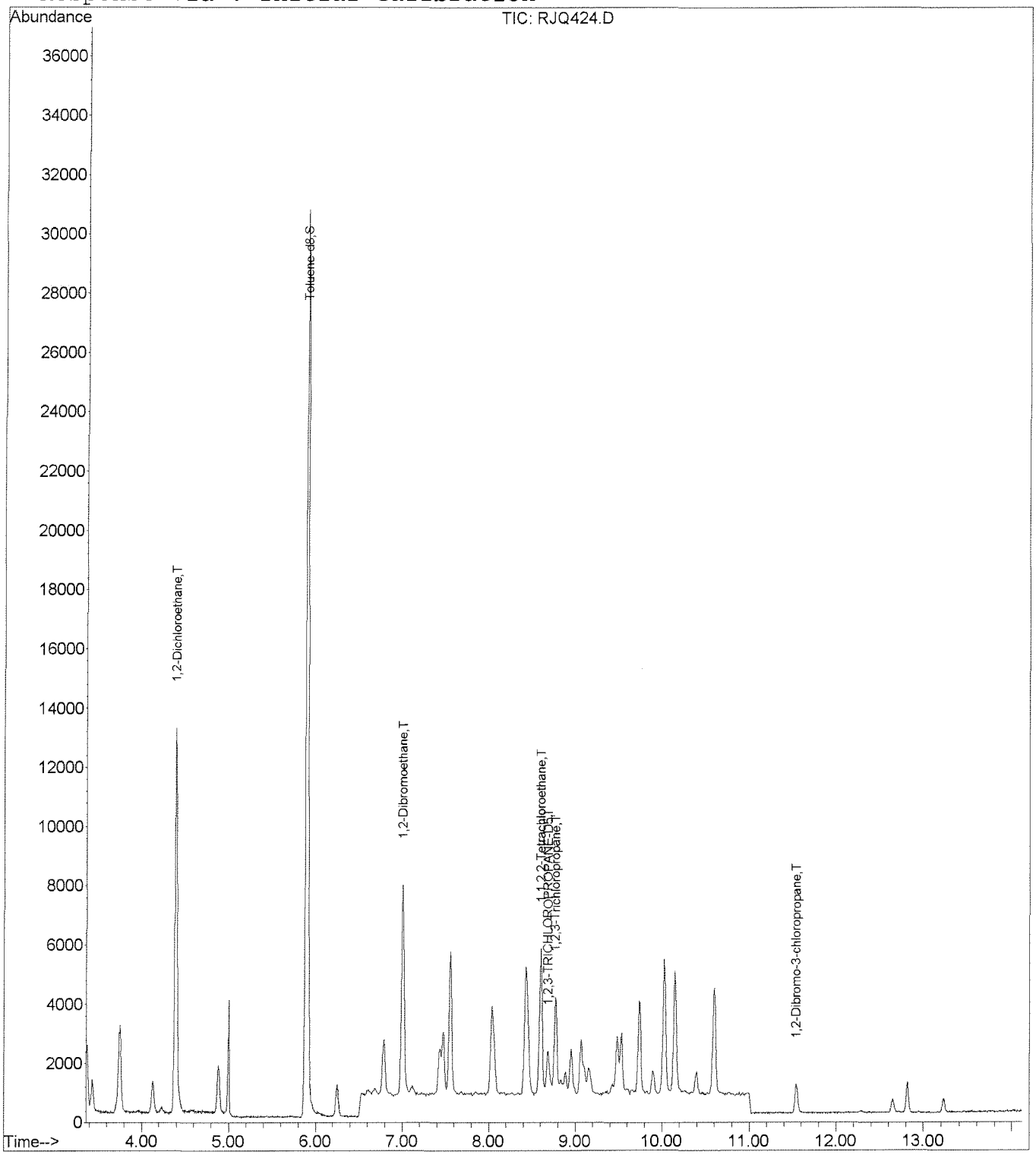
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.68	79	2644	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.89	98	40605	96.36	ng/l	0.00
Spiked Amount 100.000			Recovery =	96.36%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	19962	113.79	ng/l	96
4) 1,2-Dibromoethane	7.00	107	7405	97.72	ng/l	97
5) 1,1,2,2-Tetrachloroethane	8.60	83	6859	94.12	ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	4388	91.75	ng/l	100
7) 1,2-Dibromo-3-chloropropan	11.54	157	829	76.80	ng/l	97

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J30\RJQ424.D Vial: 4
Acq On : 30 Oct 2012 8:54 am Operator: SD
Sample : VO05J22C Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 30 9:08 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12K01\RKQ005.D Vial: 5
Acq On : 1 Nov 2012 9:21 am Operator: SD
Sample : VO05K01B Inst : TO05
Misc : BLANK Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 9:36 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2492	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.89	98	37762	95.08	ng/l	0.00
Spiked Amount 100.000			Recovery = 95.08%			

Target Compounds Qvalue

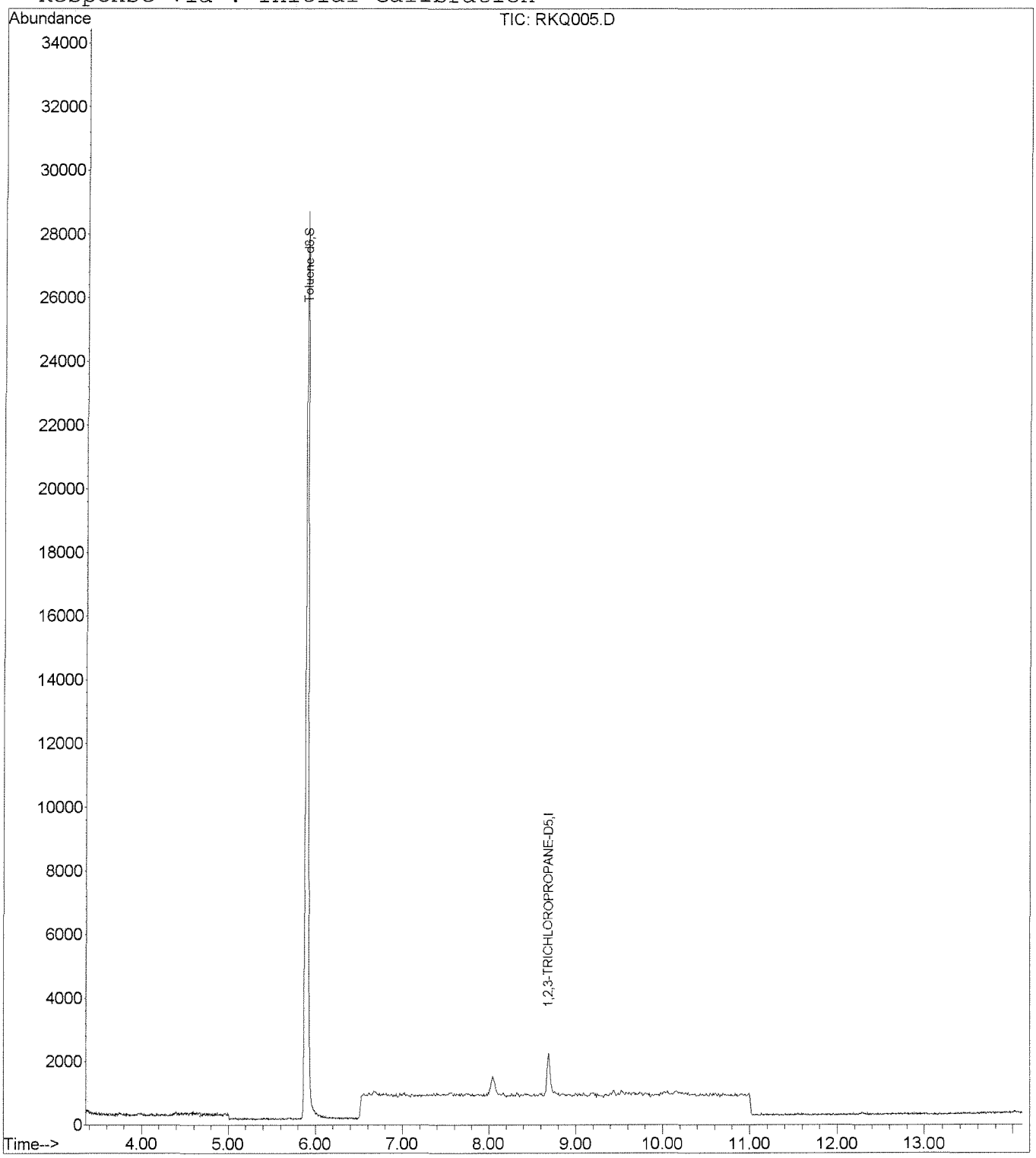
(#) = qualifier out of range (m) = manual integration
RKQ005.D VO05J09.M Thu Nov 01 12:13:48 2012 Page 1

2195

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12K01\RKQ005.D Vial: 5
Acq On : 1 Nov 2012 9:21 am Operator: SD
Sample : VO05K01B Inst : TO05
Misc : BLANK Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 9:36 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12K01\RKQ003.D Vial: 3
Acq On : 1 Nov 2012 8:22 am Operator: SD
Sample : VO05K01L Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 8:36 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

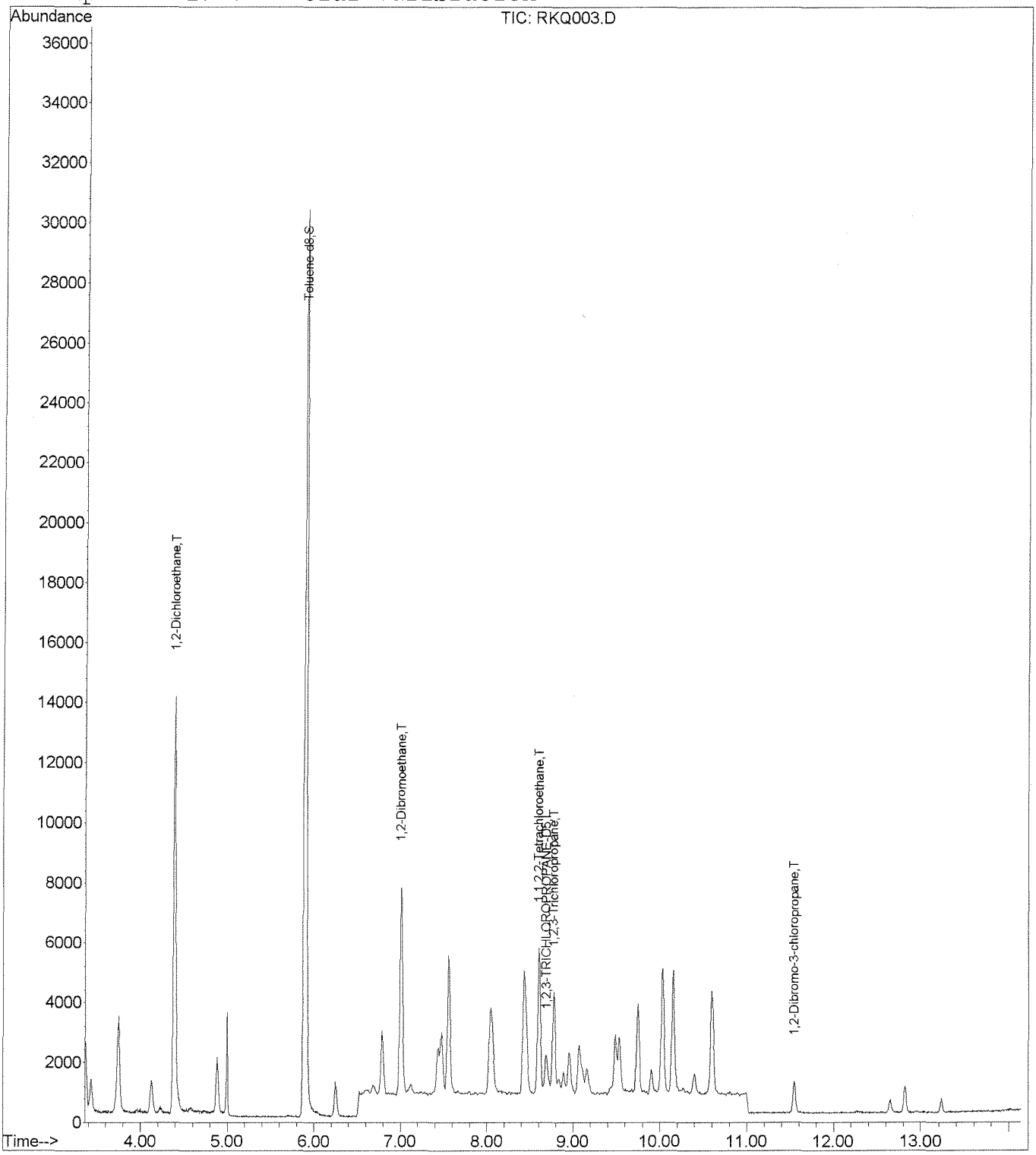
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2507	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.89	98	40354	101.00	ng/l	0.00
Spiked Amount 100.000			Recovery	=	101.00%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	20975	126.10	ng/l	98
4) 1,2-Dibromoethane	7.00	107	7362	102.46	ng/l	97
5) 1,1,2,2-Tetrachloroethane	8.60	83	6741	97.55	ng/l	98
6) 1,2,3-Trichloropropane	8.77	75	4614	101.74	ng/l	98
7) 1,2-Dibromo-3-chloropropan	11.55	157	830	81.09	ng/l	93

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12K01\RKQ003.D Vial: 3
Acq On : 1 Nov 2012 8:22 am Operator: SD
Sample : VO05K01L Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 8:36 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12K01\RKQ004.D Vial: 4
Acq On : 1 Nov 2012 8:51 am Operator: SD
Sample : VO05K01C Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 9:05 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

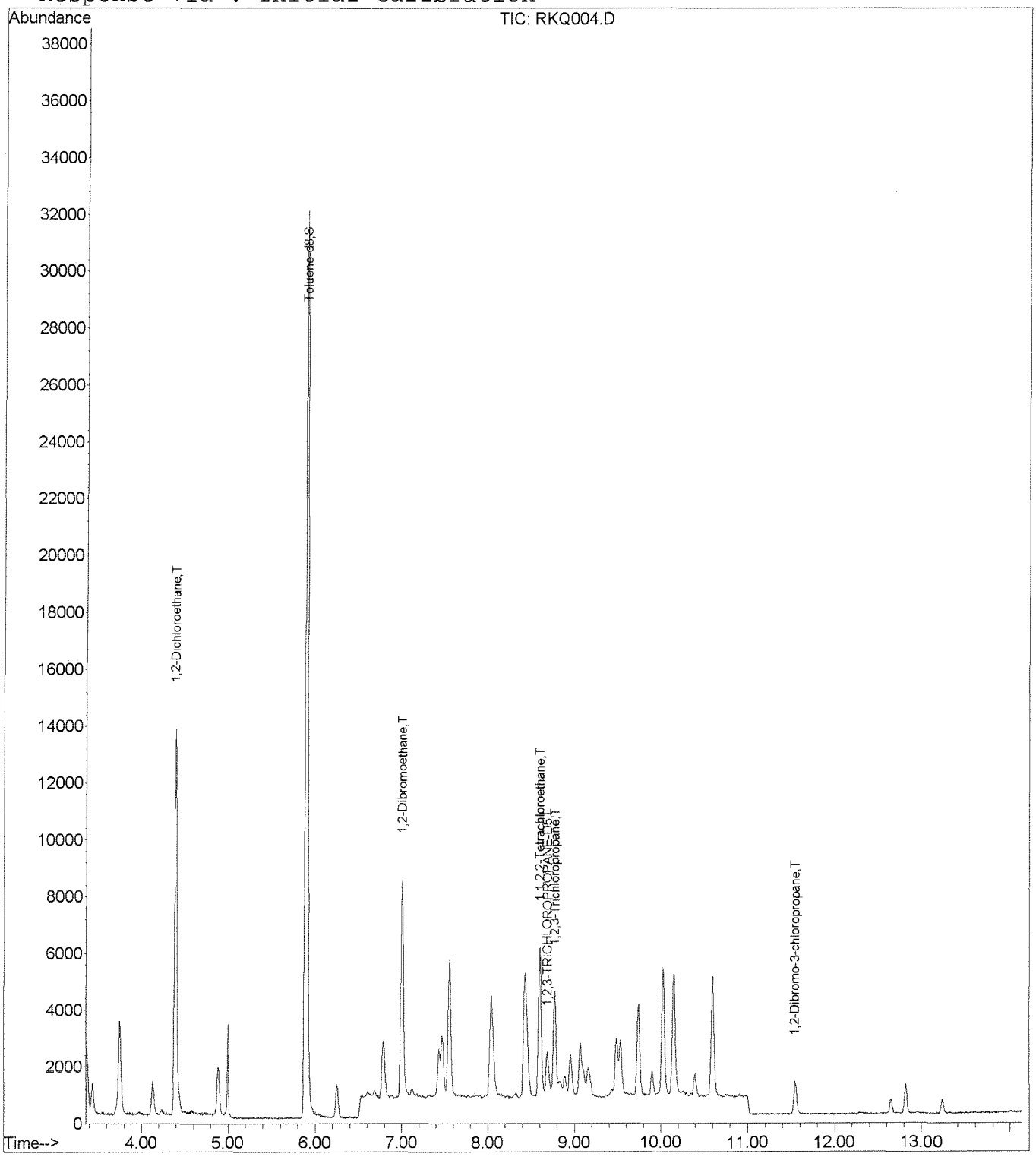
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2713	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.89	98	41855	96.80	ng/l	0.00
Spiked Amount 100.000			Recovery = 96.80%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	21123	117.35	ng/l	99
4) 1,2-Dibromoethane	7.00	107	7674	98.70	ng/l	98
5) 1,1,2,2-Tetrachloroethane	8.60	83	7477	99.99	ng/l	98
6) 1,2,3-Trichloropropane	8.77	75	5334	108.69	ng/l	94
7) 1,2-Dibromo-3-chloropropan	11.54	157	999	90.19	ng/l	95

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12K01\RKQ004.D Vial: 4
Acq On : 1 Nov 2012 8:51 am Operator: SD
Sample : VO05K01C Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 9:05 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



2269

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJQ431.D
Acq On : 30 Oct 2012 12:34 pm
Sample : 12J181-04 25mL
Misc : DF=1.0
MS Integration Params: 524INT.P
Quant Time: Nov 1 12:06 2012

Vial: 11
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

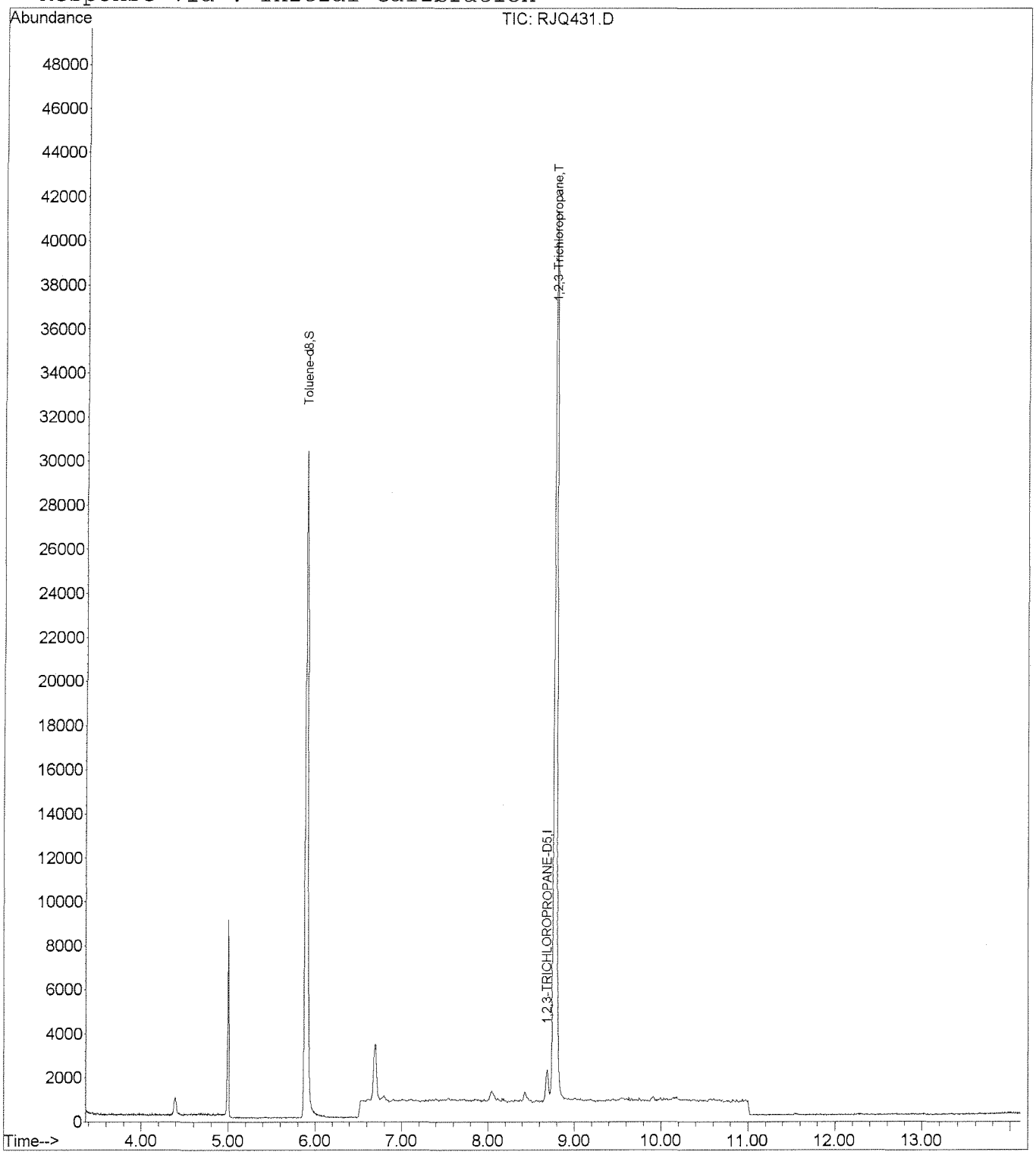
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2653	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	39274	92.89	ng/l	0.00
Spiked Amount 100.000			Recovery = 92.89%			
Target Compounds						Qvalue
6) 1,2,3-Trichloropropane	8.78	75	63156	1316.02	ng/l E	90

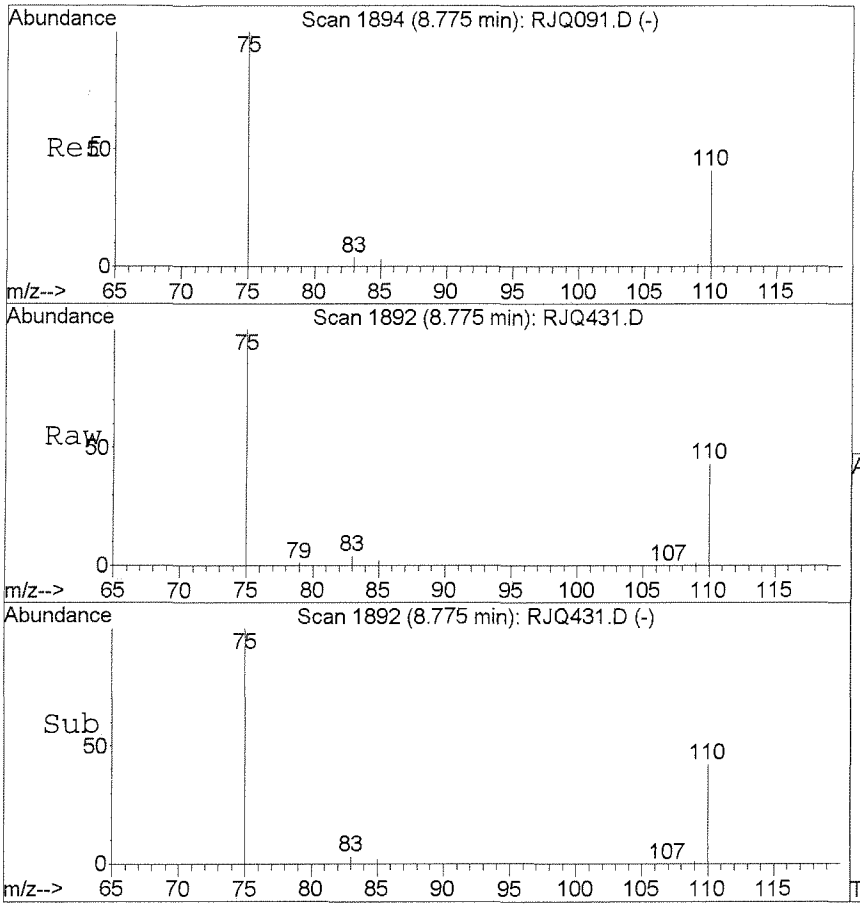
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J30\RJQ431.D Vial: 11
Acq On : 30 Oct 2012 12:34 pm Operator: SD
Sample : 12J181-04 25mL Inst : TO05
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 12:06 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration

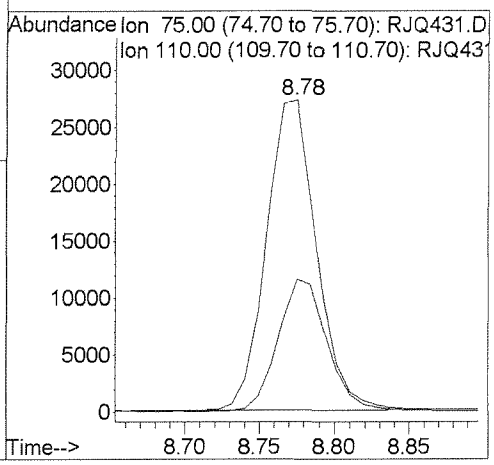




#6
1,2,3-Trichloropropane
Concen: 1316.02 ng/l
RT: 8.78 min Scan# 1892
Delta R.T. 0.00 min
Lab File: RJQ431.D
Acq: 30 Oct 2012 12:34 pm

Tgt Ion: 75 Resp: 63156

Ion	Ratio	Lower	Upper
75	100		
110	41.4	18.1	78.1



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJQ432.D Vial: 12
Acq On : 30 Oct 2012 1:03 pm Operator: SD
Sample : 12J181-04M 25mL Inst : TO05
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 31 6:32 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

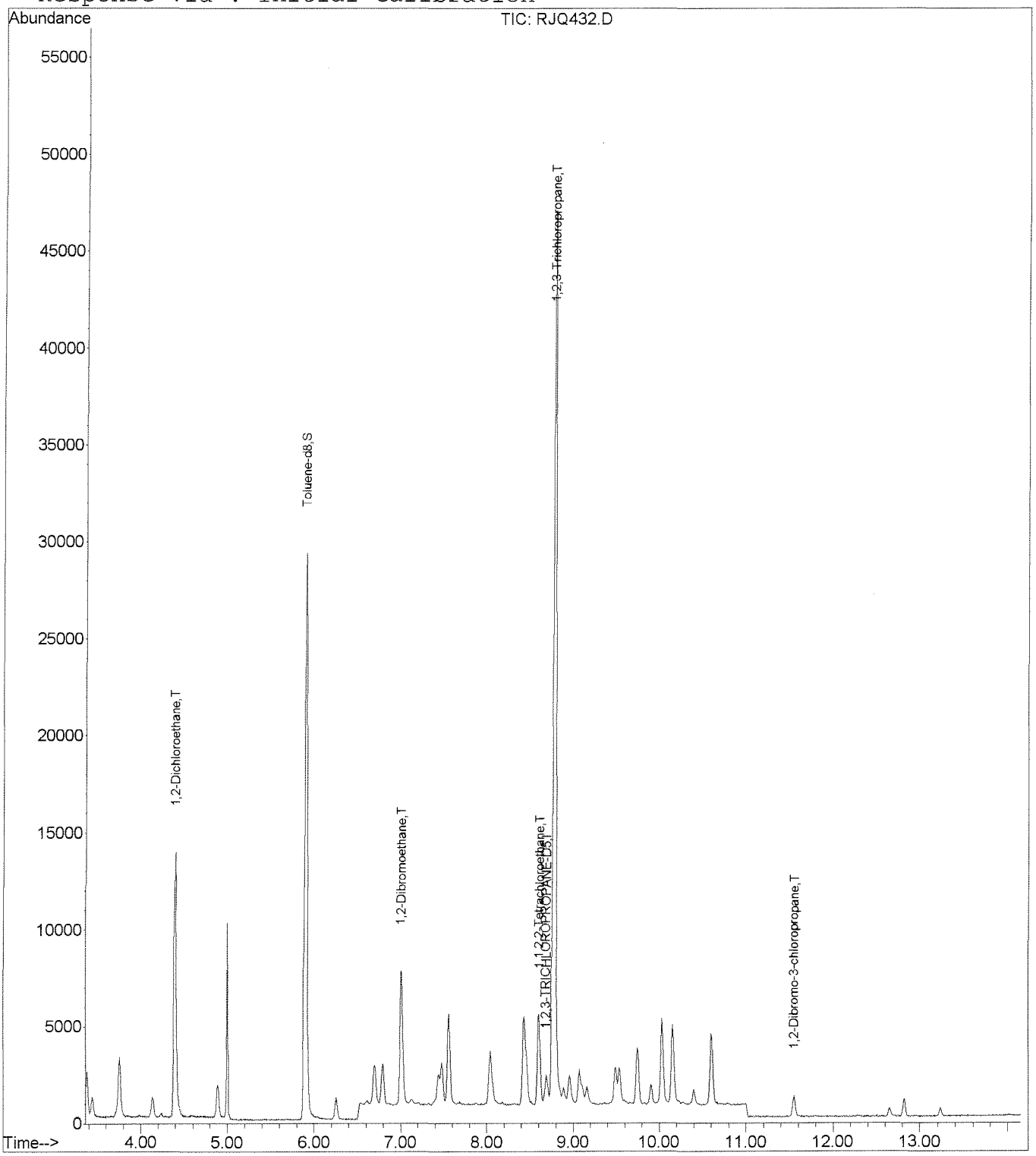
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2550	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	37740	92.86	ng/l	0.00
Spiked Amount 100.000			Recovery = 92.86%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.40	62	21445	126.75	ng/l	98
4) 1,2-Dibromoethane	7.00	107	7548	103.28	ng/l	98
5) 1,1,2,2-Tetrachloroethane	8.60	83	6740	95.89	ng/l	100
6) 1,2,3-Trichloropropane	8.77	75	71582	1551.85	ng/l E	91
7) 1,2-Dibromo-3-chloropropan	11.55	157	944	90.67	ng/l	97

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J30\RJQ432.D Vial: 12
Acq On : 30 Oct 2012 1:03 pm Operator: SD
Sample : 12J181-04M 25mL Inst : TO05
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 31 6:32 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



2285

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJQ433.D Vial: 13
Acq On : 30 Oct 2012 1:36 pm Operator: SD
Sample : 12J181-04S 25mL Inst : TO05
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 31 6:32 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

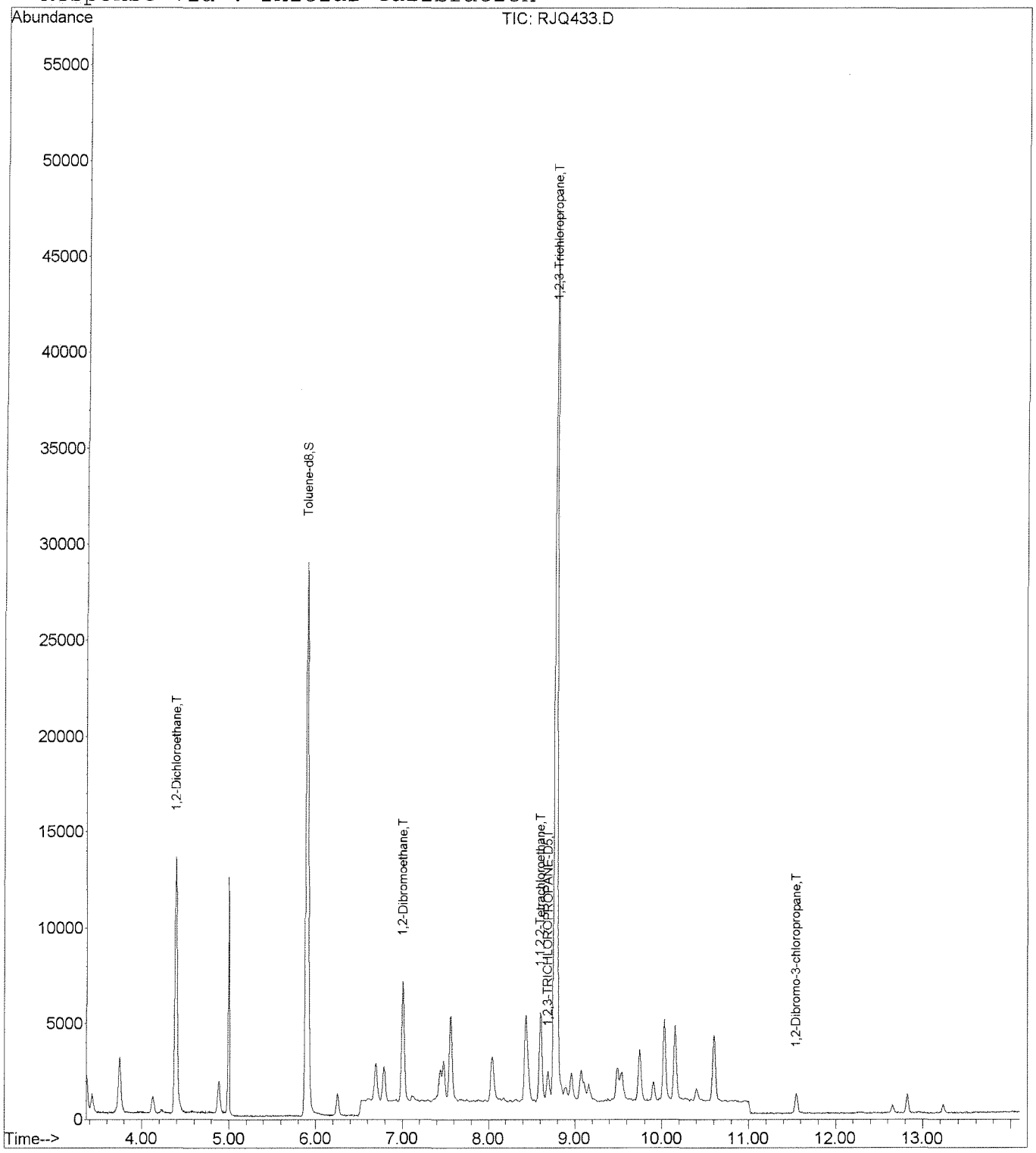
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2686	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	39292	91.79	ng/l	0.00
Spiked Amount 100.000			Recovery = 91.79%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	20897	117.26	ng/l	96
4) 1,2-Dibromoethane	7.01	107	6288	81.68	ng/l	99
5) 1,1,2,2-Tetrachloroethane	8.60	83	6714	90.69	ng/l	98
6) 1,2,3-Trichloropropane	8.78	75	71245	1466.34	ng/lE	90
7) 1,2-Dibromo-3-chloropropan	11.56	157	870	79.34	ng/l	95

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J30\RJQ433.D Vial: 13
Acq On : 30 Oct 2012 1:36 pm Operator: SD
Sample : 12J181-04S 25mL Inst : TO05
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 31 6:32 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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: RJQ085
Instrument ID: T005
GC Column:RTX502.2ID:0.32mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J181
BFB Injection Date : 10/09/12
BFB Injection Time : 18:19
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.27
75	30.0 - 60.0% of mass 95	53.41
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.32
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	86.71
175	5.0 - 9.0% of mass 174	6.06(7.0)1
176	95.0 - 101.0% of mass 174	83.47(96.3)1
177	5.0 - 9.0% of mass 176	5.95(7.1)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	VSTD05	V005J091	RJQ087	10/09/12	19:17
2	VSTD010	V005J092	RJQ088	10/09/12	19:46
3	VSTD020	V005J093	RJQ089	10/09/12	20:16
4	VSTD050	V005J094	RJQ090	10/09/12	20:45
5	VSTD100	V005J095	RJQ091	10/09/12	21:14
6	VSTD200	V005J096	RJQ092	10/09/12	21:43
7	VSTD400	V005J097	RJQ093	10/09/12	22:11
8	VSTD1000	V005J098	RJQ094	10/09/12	22:40

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO05
Beginning DateTime :10/09/12 19:17
Spike Units :PPT
IC File :RJQ091

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :10/09/12 22:40
HPChem Method :VO05J09

M IDX	Parameters	5 19:17 RJQ087	10 19:46 RJQ088	20 20:16 RJQ089	50 20:45 RJQ090	100 21:14 RJQ091	200 21:43 RJQ092	400 22:11 RJQ093	1000 22:40 RJQ094	Av_RRF	%_RSD	Av_Rt_M
1	1,2,3-TRICHLOROPROPANE-D5	1	1	1	1	1	1	1	1	1	0	8.6877
2	1,2-Dichloroethane	2.581	2.988	3.663	3.529	3.342	3.569	3.377	3.490	3.317	10.89	4.3934
3	Toluene-d8	9.402	7.923	7.658	7.948	7.512	7.920	7.464	7.922	7.969	7.68	5.8978
4	1,2-Dibromoethane	1.296	1.364	1.391	1.407	1.420	1.520	1.480	1.585	1.433	6.40	7.0058
5	1,1,2,2-Tetrachloroethane	------	1.402	1.406	1.323	1.321	1.354	1.397	1.445	1.378	3.38	8.6017
6	1,2,3-Trichloropropane	0.836	0.833	0.871	0.894	0.858	0.883	0.958	1.103	0.904	9.89	8.7749
7	1,2-Dibromo-3-chloropropane	------	------	0.247	0.212	0.183	0.185	0.190	0.207	0.204	11.79	11.5483

Ave_%RSD : 8.3 Max_%RSD : 11.8

SA
10/12/12

Compound List Report TO05

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
Total Cpnds : 7

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,2,3-TRICHLOROPROPANE-D5	79	8.69	1.000	A	1	A	B
2	T	1,2-Dichloroethane	62	4.39	0.505	A	1	A	B
3	S	Toluene-d8	98	5.90	0.679	A	1	A	B
4	T	1,2-Dibromoethane	107	7.00	0.806	A	1	A	B
5	T	1,1,2,2-Tetrachloroethane	83	8.60	0.990	A	1	A	B
6	T	1,2,3-Trichloropropane	75	8.78	1.010	A	1	A	B
7	T	1,2-Dibromo-3-chloropropane	157	11.55	1.329	A	2	A	B

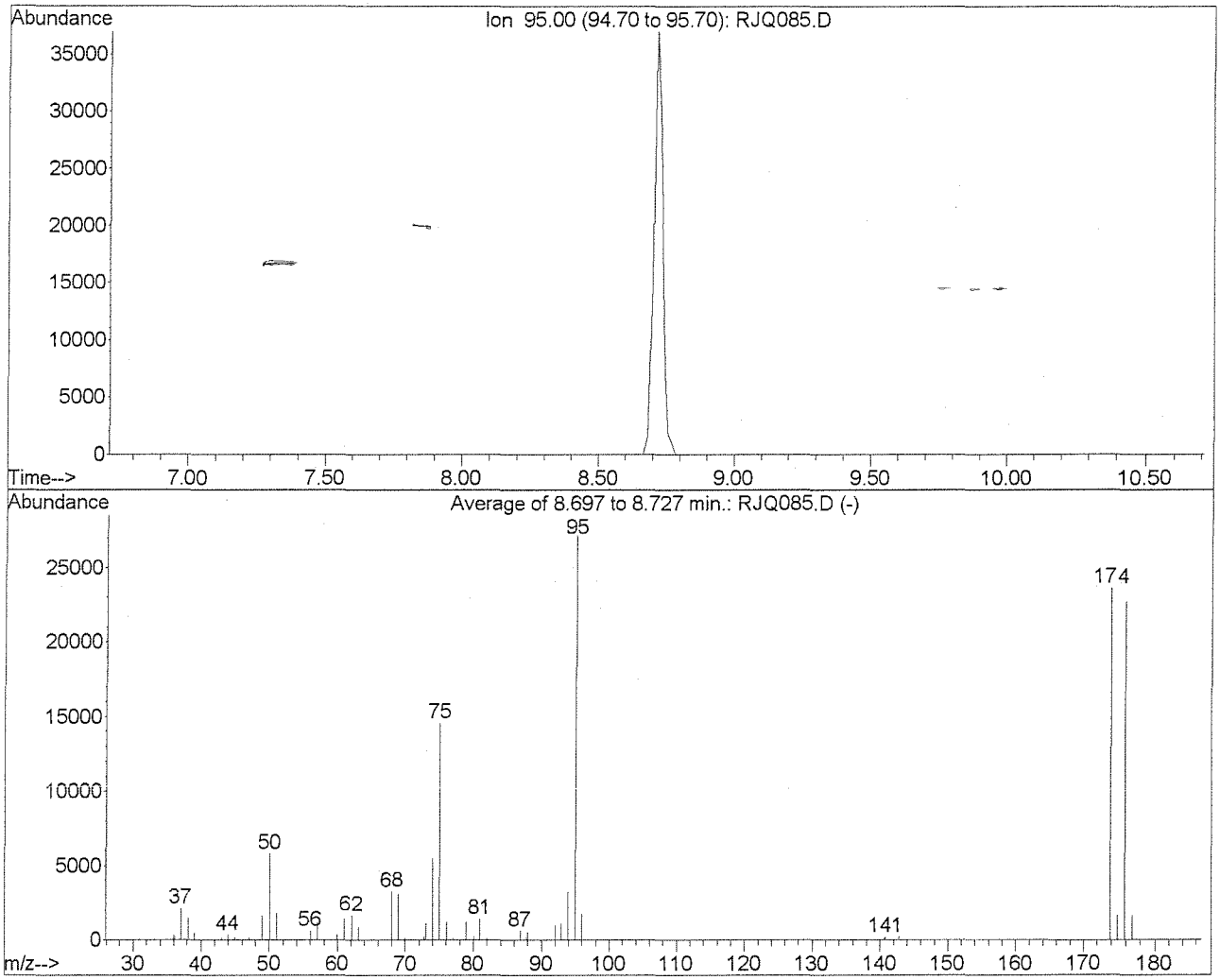
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

VO05J09.M Thu Oct 11 10:09:46 2012

SU
10/12/12

BFB

Data File : D:\HPCHEM\1\DATA\12J09\RJQ085.D Vial: 1
Acq On : 9 Oct 2012 6:19 pm Operator: SD
Sample : BFB05J06 Inst : TO05
Misc : T/CHK Multiplr: 1.00
MS Integration Params: 524INT.P
Method : D:\HPCHEM\1\METHODS\VO05J09A.M (RTE Integrator)
Title : METHOD 8260 SIM



AutoFind: Scans 360, 361, 362; Background Corrected with Scan 356

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.3	5791	PASS
75	95	30	60	53.4	14544	PASS
95	95	100	100	100.0	27230	PASS
96	95	5	9	6.3	1721	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	86.7	23612	PASS
175	174	5	9	7.0	1650	PASS
176	174	95	101	96.3	22728	PASS
177	176	5	9	7.1	1621	PASS

RJQ085.D VO05J09A.M Thu Oct 11 09:57:47 2012 Sa 10/12/12

2212

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ087.D Vial: 3
Acq On : 9 Oct 2012 7:17 pm Operator: SD
Sample : VO05J091 Inst : TO05
Misc : 5.0ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:01 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2608	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	2452	5.90	ng/l	0.00
Spiked Amount 100.000			Recovery	=	5.90%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.40	62	673	3.89	ng/l	79
4) 1,2-Dibromoethane	7.01	107	338	4.52	ng/l	82
6) 1,2,3-Trichloropropane	8.78	75	218	4.62	ng/l	60

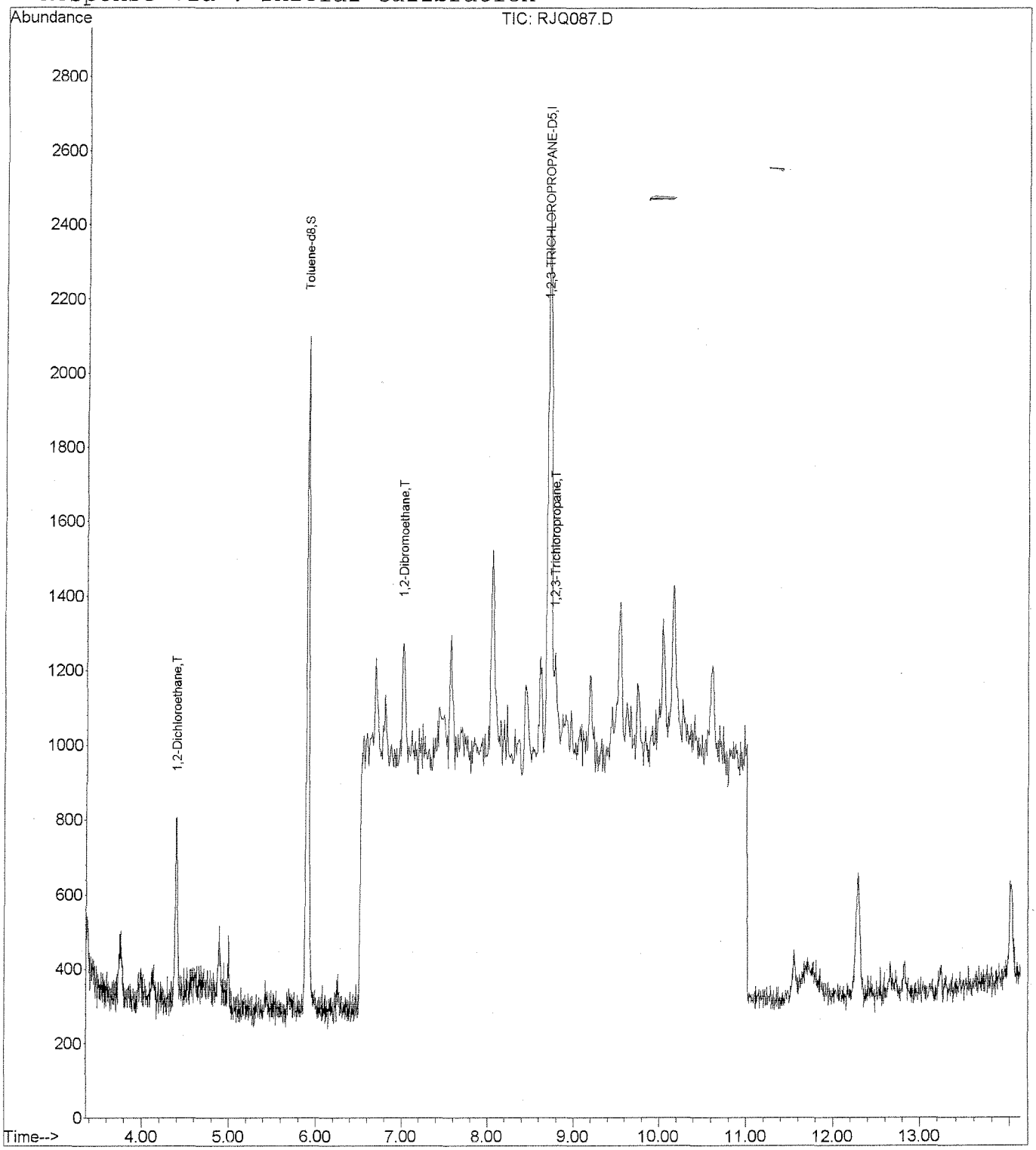
SU 10/12/12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ087.D Vial: 3
Acq On : 9 Oct 2012 7:17 pm Operator: SD
Sample : VO05J091 Inst : TO05
Misc : 5.0ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:01 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



2214

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ088.D Vial: 4
Acq On : 9 Oct 2012 7:46 pm Operator: SD
Sample : VO05J092 Inst : TO05
Misc : 10ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:06 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2624	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	4158	9.94 ng/l	0.00
Spiked Amount 100.000			Recovery =	9.94%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.39	62	1568	9.01 ng/l	97
4) 1,2-Dibromoethane	7.00	107	716	9.52 ng/l	95
5) 1,1,2,2-Tetrachloroethane	8.61	83	736	10.18 ng/l	99
6) 1,2,3-Trichloropropane	8.78	75	437	9.21 ng/l	79

SG
10/12/12

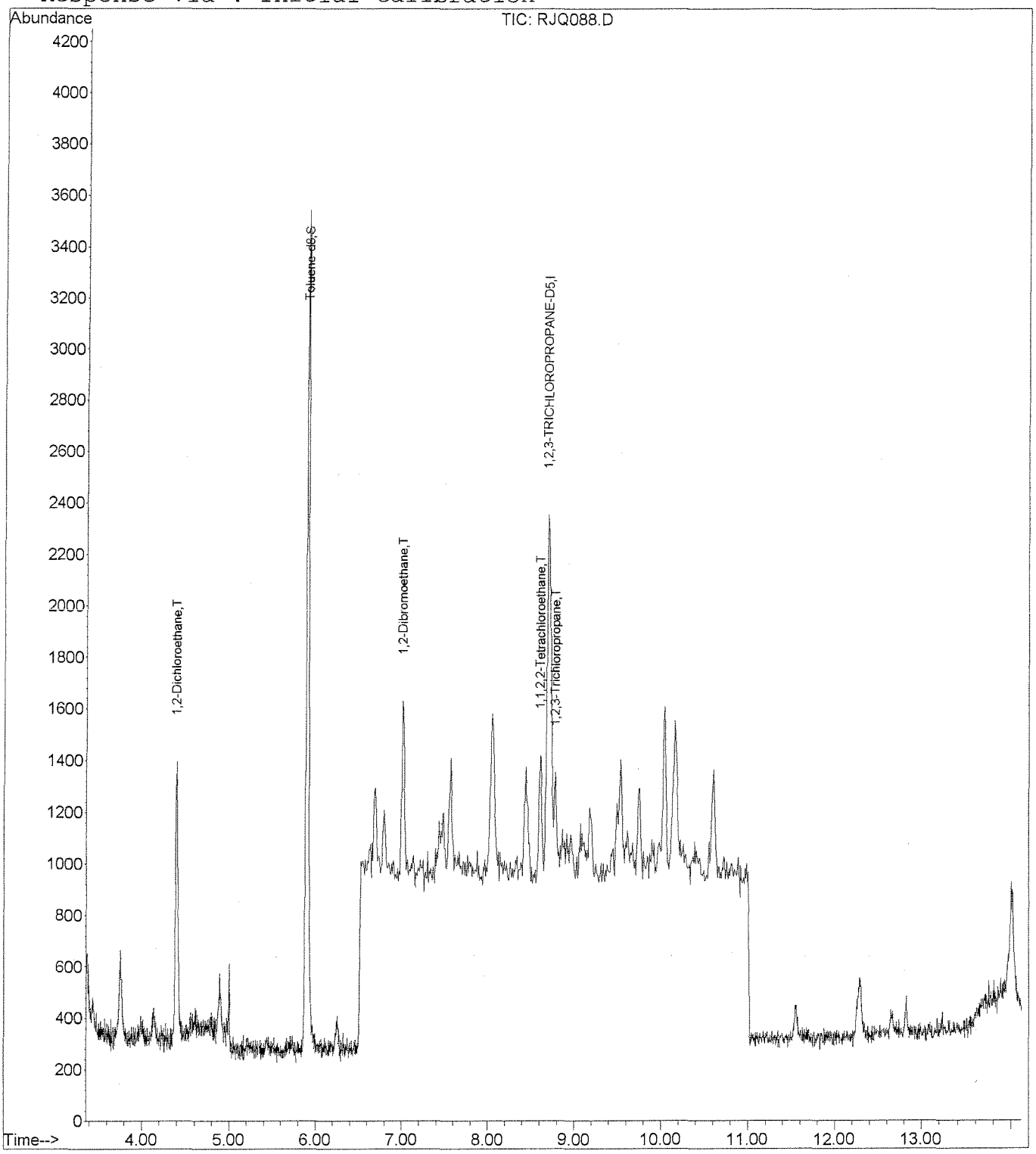
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ088.D
Acq On : 9 Oct 2012 7:46 pm
Sample : VO05J092
Misc : 10ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:06 2012

Vial: 4
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SA 10/12/12

2216

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ089.D Vial: 5
Acq On : 9 Oct 2012 8:16 pm Operator: SD
Sample : VO05J093 Inst : TO05
Misc : 20ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2643	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	8096	19.22	ng/l	0.00
---Spiked Amount 100.000			Recovery	=	19.22%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	3873	22.09	ng/l	95
4) 1,2-Dibromoethane	7.00	107	1471	19.42	ng/l	100
5) 1,1,2,2-Tetrachloroethane	8.60	83	1486	20.40	ng/l	92
6) 1,2,3-Trichloropropane	8.77	75	921	19.26	ng/l	86
7) 1,2-Dibromo-3-chloropropan	11.55	157	261	24.19	ng/l	94

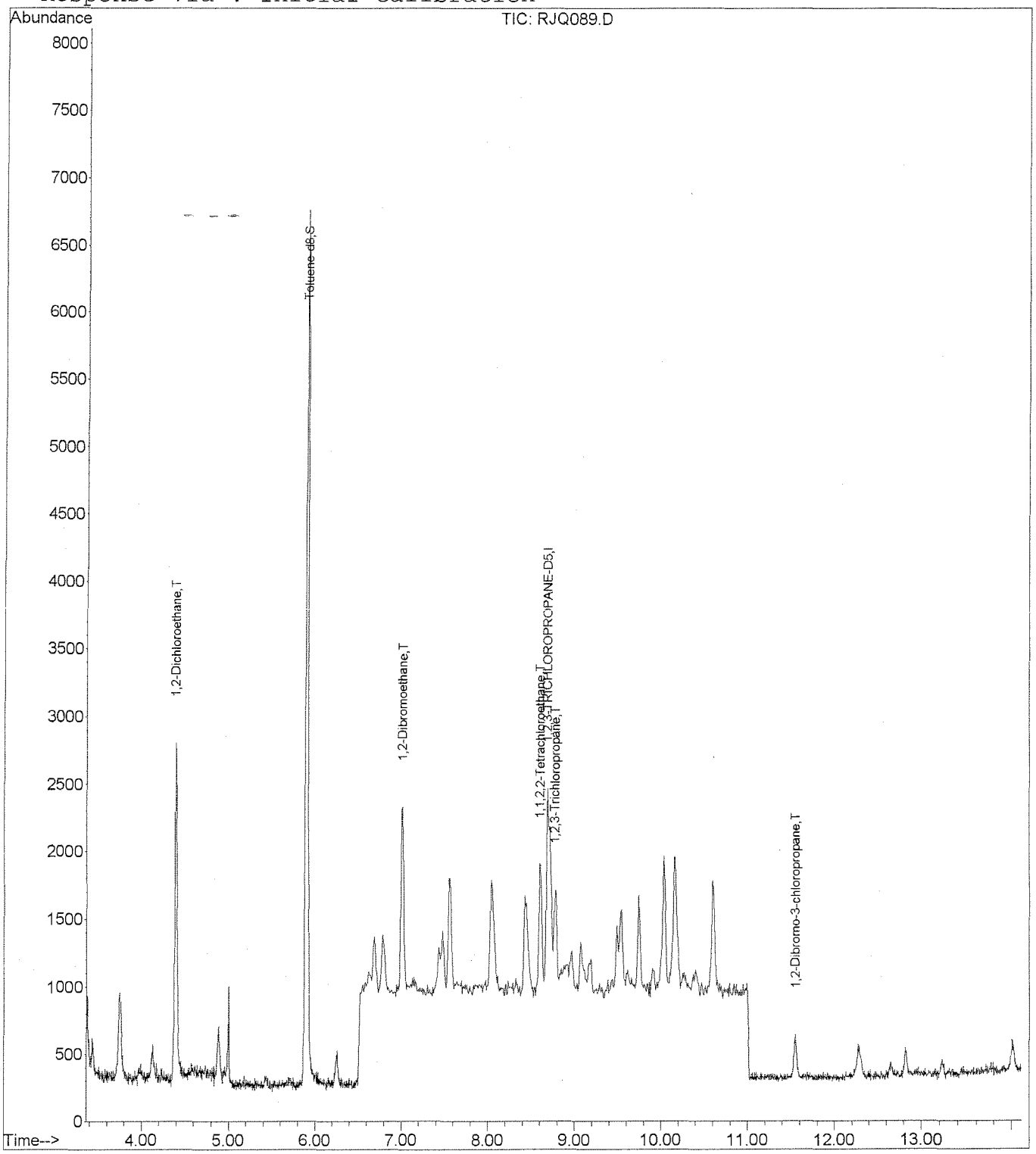
SG 10/12/12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ089.D Vial: 5
Acq On : 9 Oct 2012 8:16 pm Operator: SD
Sample : VO05J093 Inst : TO05
Misc : 20ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SU 10/12/12

2218

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ090.D
Acq On : 9 Oct 2012 8:45 pm
Sample : VO05J094
Misc : 50ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 6
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2657	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	21117	49.87 ng/l	0.00
Spiked Amount 100.000			Recovery	= 49.87%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.39	62	9376	53.19 ng/l	92
4) 1,2-Dibromoethane	7.01	107	3739	49.10 ng/l	96
5) 1,1,2,2-Tetrachloroethane	8.60	83	3514	47.98 ng/l	97
6) 1,2,3-Trichloropropane	8.78	75	2376	49.44 ng/l	97
7) 1,2-Dibromo-3-chloropropan	11.55	157	564	51.99 ng/l	86

SA
10/12/12

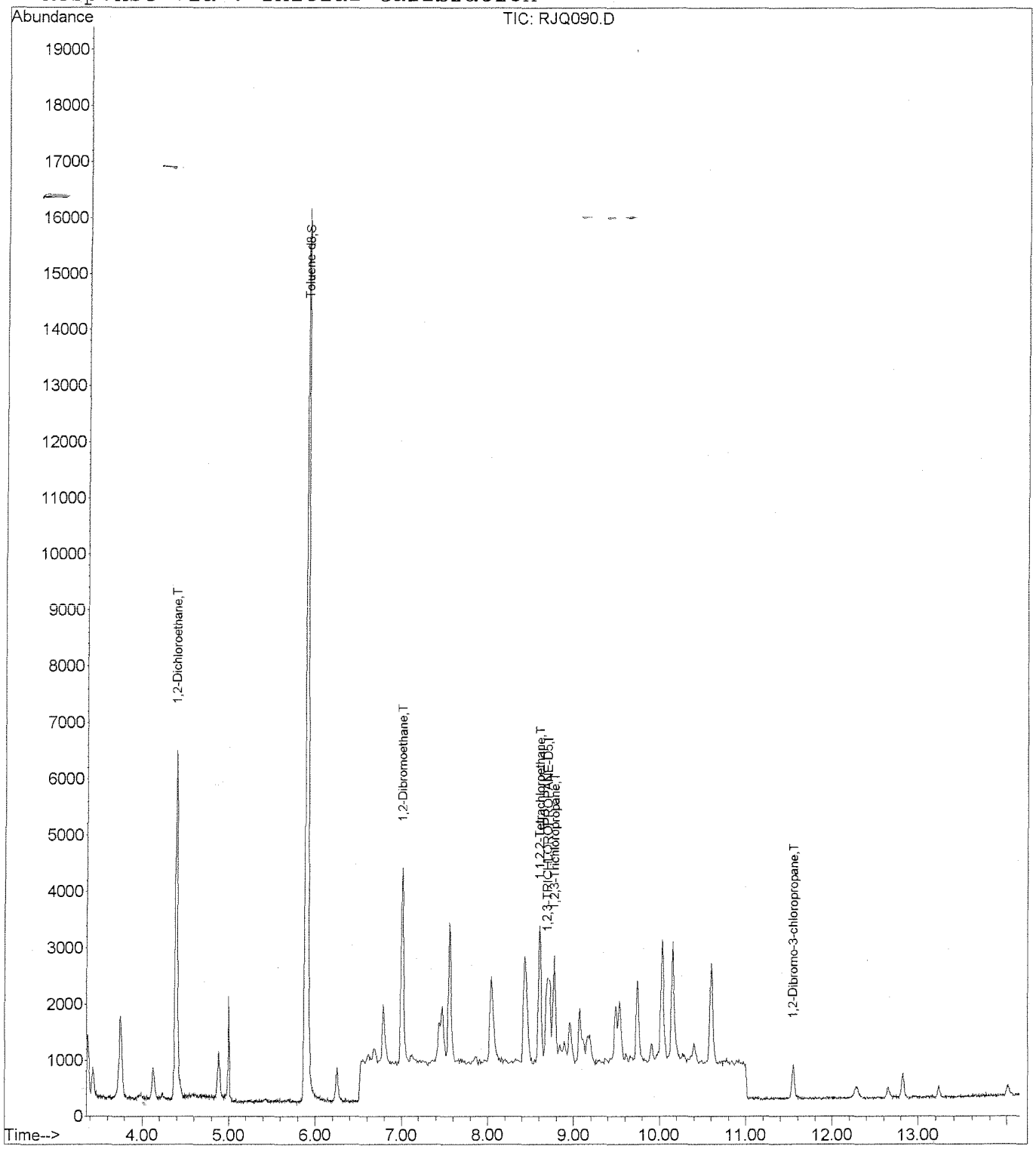
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ090.D
Acq On : 9 Oct 2012 8:45 pm
Sample : VO05J094
Misc : 50ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 6
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SU 10/24/12

2228

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ091.D Vial: 7
Acq On : 9 Oct 2012 9:14 pm Operator: SD
Sample : VO05J095 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2700	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	40565	94.27 ng/l	0.00
Spiked Amount 100.000			Recovery =	94.27%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.39	62	18048	100.75 ng/l	100
4) 1,2-Dibromoethane	7.00	107	7667	99.08 ng/l	100
5) 1,1,2,2-Tetrachloroethane	8.60	83	7136	95.89 ng/l	100
6) 1,2,3-Trichloropropane	8.78	75	4632	94.84 ng/l	100
7) 1,2-Dibromo-3-chloropropan	11.55	157	990	89.81 ng/l	100

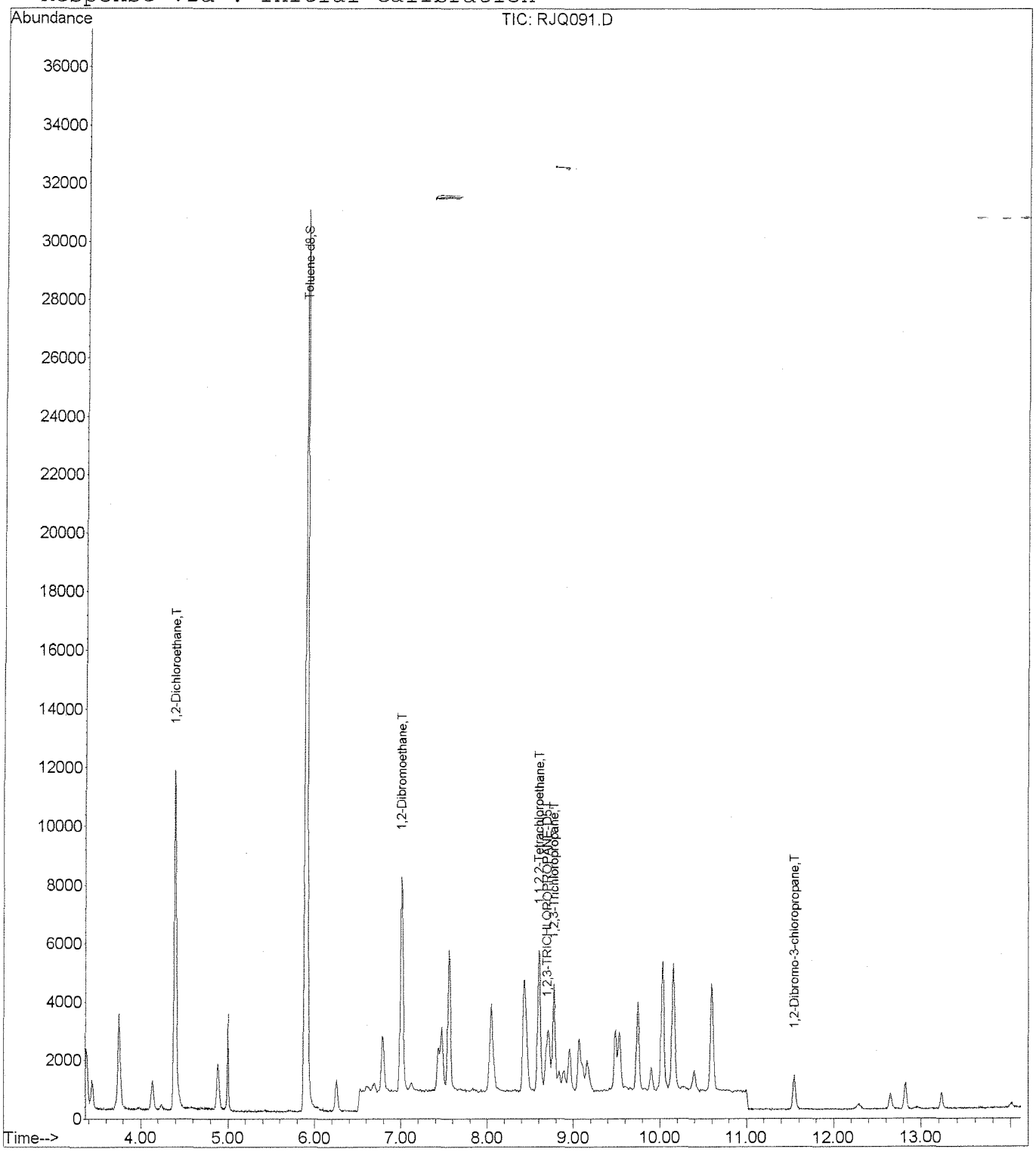
SG
10/12/12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ091.D Vial: 7
Acq On : 9 Oct 2012 9:14 pm Operator: SD
Sample : VO05J095 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SG 10/12/12

2222

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ092.D Vial: 8
Acq On : 9 Oct 2012 9:43 pm Operator: SD
Sample : VO05J096 Inst : TO05
Misc : 200ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2619	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	82966	198.77	ng/l	0.00
Spiked Amount 100.000			Recovery	=	198.77%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	37387	215.16	ng/l	99
4) 1,2-Dibromoethane	7.00	107	15926	212.18	ng/l	95
5) 1,1,2,2-Tetrachloroethane	8.60	83	14180	196.43	ng/l	97
6) 1,2,3-Trichloropropane	8.77	75	9248	195.21	ng/l	100
7) 1,2-Dibromo-3-chloropropan	11.54	157	1937	181.15	ng/l	93

SW
10/12/12

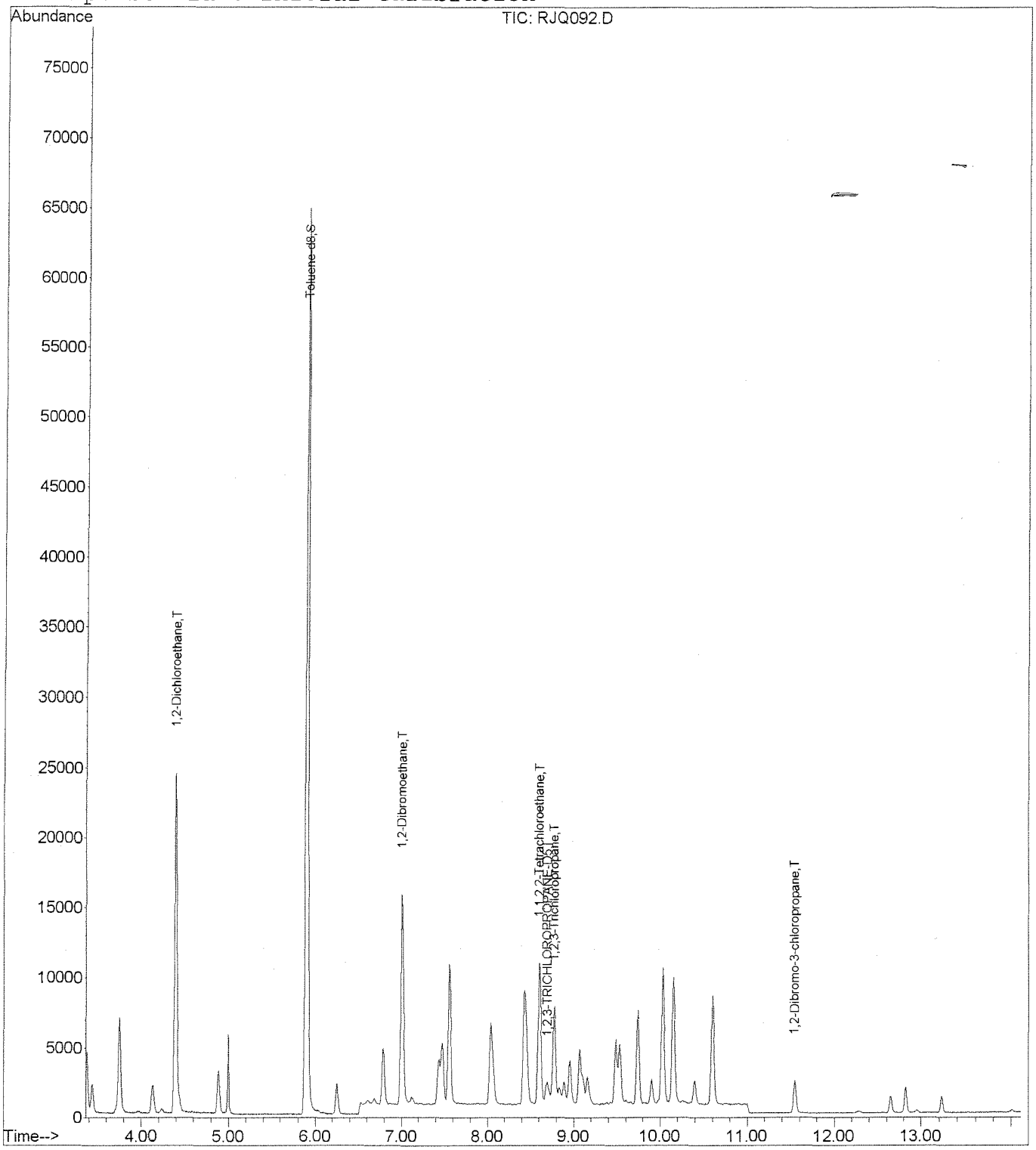
(#) = qualifier out of range (m) = manual integration

2223

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ092.D Vial: 8
Acq On : 9 Oct 2012 9:43 pm Operator: SD
Sample : VO05J096 Inst : TO05
Misc : 200ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SW 10/24/12

2224

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ093.D Vial: 9
Acq On : 9 Oct 2012 10:11 pm Operator: SD
Sample : VO05J097 Inst : TO05
Misc : 400ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2816	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	168153	374.68	ng/l	0.00
Spiked Amount 100.000			Recovery	=	374.68%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.40	62	76083	407.22	ng/l	99
4) 1,2-Dibromoethane	7.00	107	33350	413.23	ng/l	98
5) 1,1,2,2-Tetrachloroethane	8.60	83	31464	405.37	ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	21579	423.63	ng/l	94
7) 1,2-Dibromo-3-chloropropan	11.55	157	4286	372.80	ng/l	94

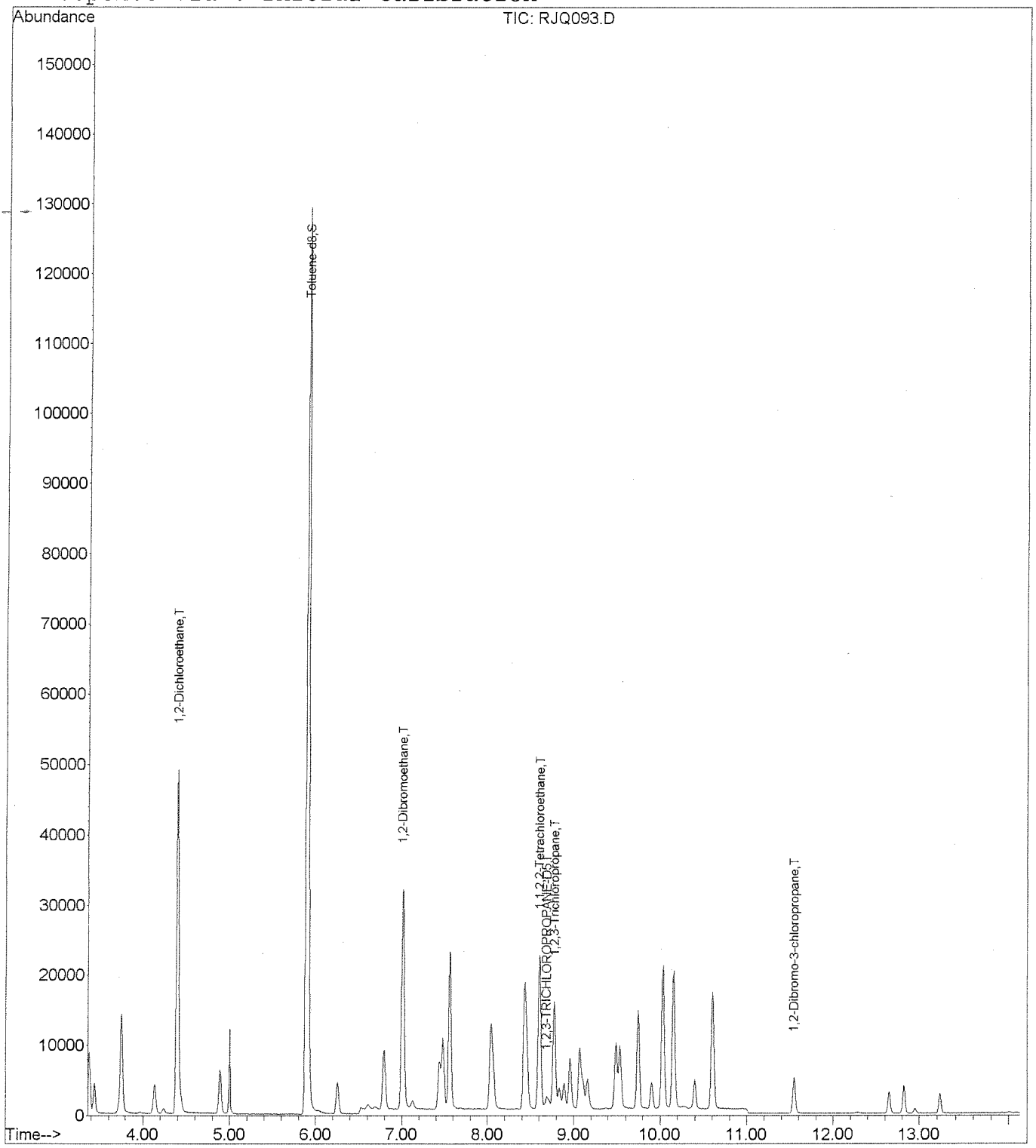
SW
10/12/12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ093.D Vial: 9
Acq On : 9 Oct 2012 10:11 pm Operator: SD
Sample : VO05J097 Inst : TO05
Misc : 400ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SW 10/12/12

2225

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ094.D Vial: 10
Acq On : 9 Oct 2012 10:40 pm Operator: SD
Sample : VO05J098 Inst : TO05
Misc : 1000ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2690	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	426210	994.17	ng/l	0.00
Spiked Amount 100.000			Recovery	=	994.17%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	187777	1052.11	ng/l	99
4) 1,2-Dibromoethane	7.00	107	85251	1105.79	ng/l	97
5) 1,1,2,2-Tetrachloroethane	8.60	83	77726	1048.31	ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	59351	1219.72	ng/l	90
7) 1,2-Dibromo-3-chloropropan	11.55	157	11146	1014.89	ng/l	96

SW
10/12/12

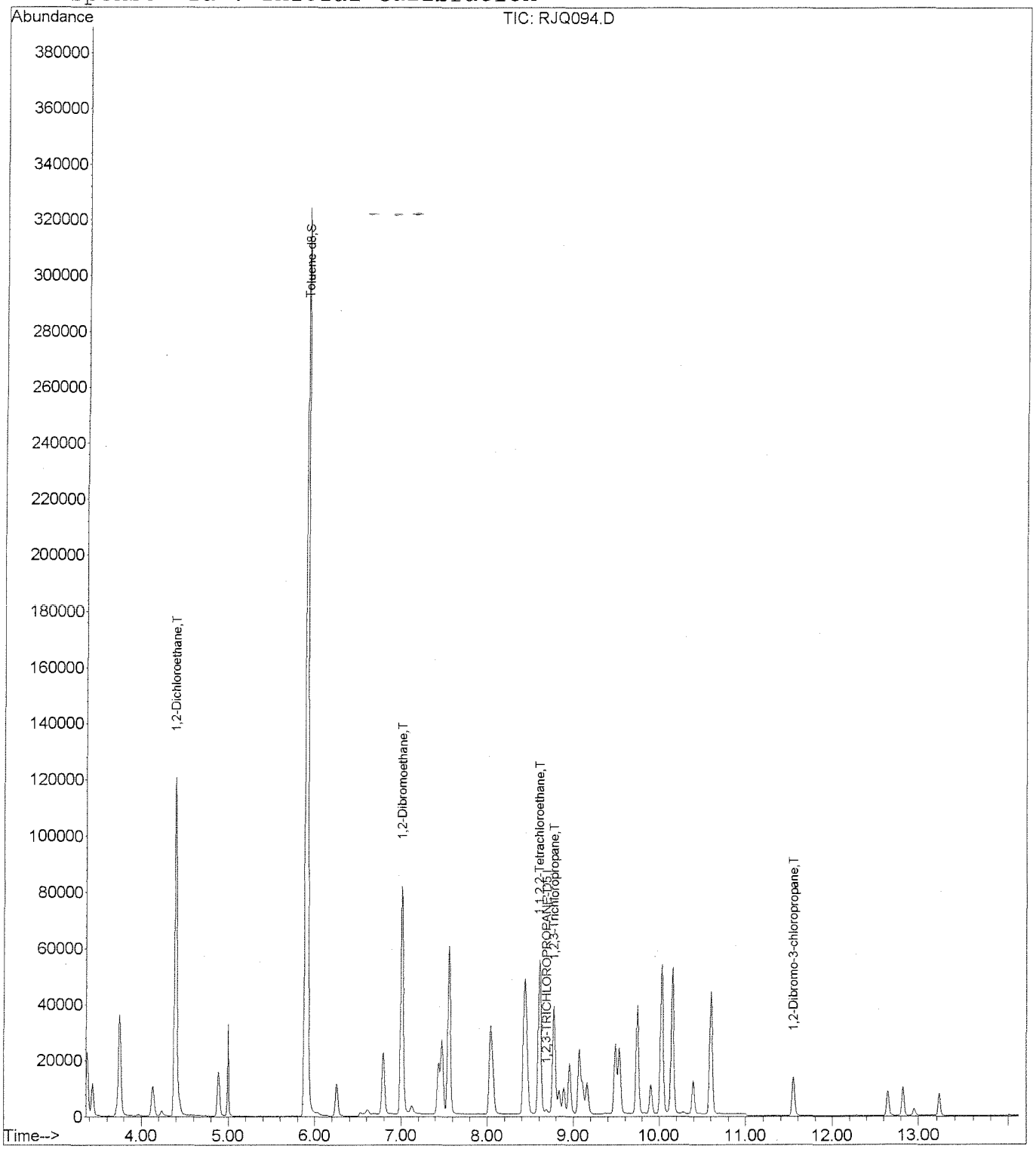
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ094.D
Acq On : 9 Oct 2012 10:40 pm
Sample : VO05J098
Misc : 1000ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 10
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SC 10/10/12

2228

SECOND SOURCE VERIFICATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJQ097
Instrument ID: T005
GC Column:RTX502.2ID:0.32mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J181
BFB Injection Date : 10/10/12
BFB Injection Time : 09:41
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.32
75	30.0 - 60.0% of mass 95	55.45
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.93
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	85.93
175	5.0 - 9.0% of mass 174	6.00(7.0)1
176	95.0 - 101.0% of mass 174	86.30(100.4)1
177	5.0 - 9.0% of mass 176	5.34(6.2)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	VSTD100	IV005J0902	RJQ098	10/10/12	10:23

FORM V VOA OLM02.0

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T005
IC_Beginning DateTime :10/09/12 19:17
Spike Amount :100 PPT
CC/CV File :RJQ098
IC File :RJQ091

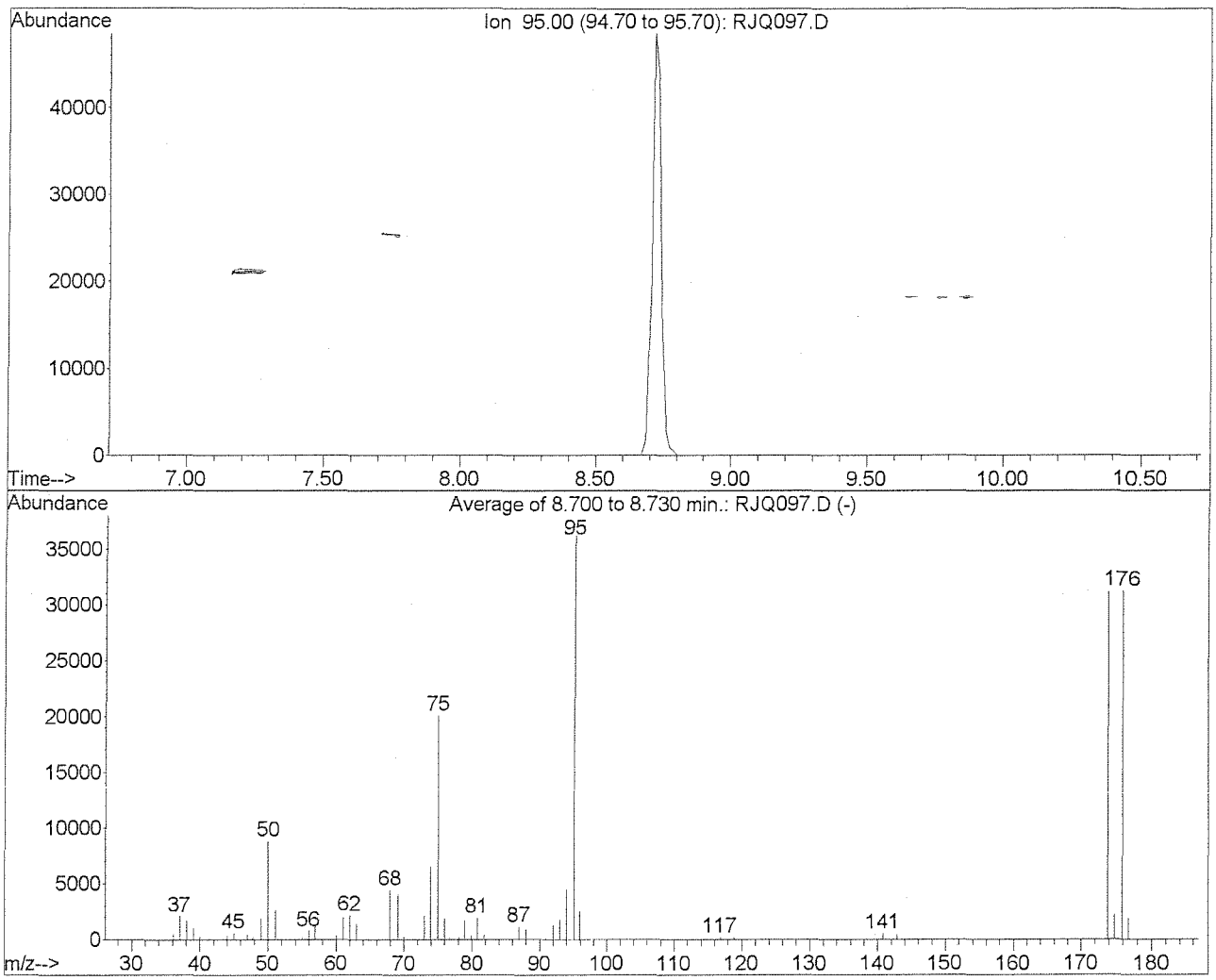
Column Spec :RTX502.2 ID :0.32MM
IC_Ending DateTime :10/09/12 22:40
HPChem Method :V005J09
Date_Time :10/10/12 10:23

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,2,3-TRICHLOROPROPANE-D5	50.000	0	2409	1	1	8.696	8.688	0				
	2	1,2-Dichloroethane	114.501	14.5	18301	3.798	3.317	4.400	4.393	10.89				
	3	Toluene-d8	118.197	18.2	45379	9.419	7.969	5.904	5.898	7.68				
	4	1,2-Dibromoethane	105.703	5.7	7298	1.515	1.433	7.013	7.006	6.40				
	5	1,1,2,2-Tetrachloroethane	102.637	2.6	6815	1.414	1.378	8.609	8.602	3.38				
	6	1,2,3-Trichloropropane	92.389	-7.6	4026	0.836	0.904	8.783	8.775	9.89				
	7	1,2-Dibromo-3-chloropropane	90.898	-9.1	894	0.186	0.204	11.553	11.548	11.79				

SG
10/12/12

BFB

Data File : D:\HPCHEM\1\DATA\12J10\RJQ097.D Vial: 1
Acq On : 10 Oct 2012 9:41 am Operator: SD
Sample : BFB05J07 Inst : TO05
Misc : T/CHK Multiplr: 1.00
MS Integration Params: 524INT.P
Method : D:\HPCHEM\1\METHODS\VO05J09A.M (RTE Integrator)
Title : METHOD 8260 SIM



AutoFind: Scans 360, 361, 362; Background Corrected with Scan 356

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.3	8805	PASS
75	95	30	60	55.5	20079	PASS
95	95	100	100	100.0	36211	PASS
96	95	5	9	6.9	2510	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	85.9	31116	PASS
175	174	5	9	7.0	2174	PASS
176	174	95	101	100.4	31250	PASS
177	176	5	9	6.2	1934	PASS

RJQ097.D VO05J09A.M Thu Oct 11 09:53:51 2012

SG 10/12/12

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J10\RJQ098.D Vial: 2
Acq On : 10 Oct 2012 10:23 am Operator: SD
Sample : IVO05J0902 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	50.000	50.000	0.0	89	0.00
2	T	1,2-Dichloroethane	100.000	114.501	-14.5	101	0.00
3	S	Toluene-d8	100.000	118.198	-18.2	112	0.00
4	T	1,2-Dibromoethane	100.000	105.704	-5.7	95	0.00
5	T	1,1,2,2-Tetrachloroethane	100.000	102.637	-2.6	96	0.00
6	T	1,2,3-Trichloropropane	100.000	92.389	7.6	87	0.00
7	T	1,2-Dibromo-3-chloropropane	100.000	90.898	9.1	90	0.00

SA 10/12/12

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J10\RJQ098.D Vial: 2
Acq On : 10 Oct 2012 10:23 am Operator: SD
Sample : IVO05J0902 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	89	0.00
2	T	1,2-Dichloroethane	3.317	3.798	-14.5	101	0.00
3	S	Toluene-d8	7.969	9.419	-18.2	112	0.00
4	T	1,2-Dibromoethane	1.433	1.515	-5.7	95	0.00
5	T	1,1,2,2-Tetrachloroethane	1.378	1.414	-2.6	96	0.00
6	T	1,2,3-Trichloropropane	0.904	0.836	7.5	87	0.00
7	T	1,2-Dibromo-3-chloropropane	0.204	0.186	8.8	90	0.00

10/12/12

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

2234

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J10\RJQ098.D Vial: 2
Acq On : 10 Oct 2012 10:23 am Operator: SD
Sample : IVO05J0902 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:04 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.70	79	2409	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	45379	118.20	ng/l	0.00
Spiked Amount 100.000			Recovery	=	118.20%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.40	62	18301	114.50	ng/l	98
4) 1,2-Dibromoethane	7.01	107	7298	105.70	ng/l	98
5) 1,1,2,2-Tetrachloroethane	8.61	83	6815	102.64	ng/l	99
6) 1,2,3-Trichloropropane	8.78	75	4026	92.39	ng/l	95
7) 1,2-Dibromo-3-chloropropan	11.55	157	894	90.90	ng/l	92

SC 10/12/12

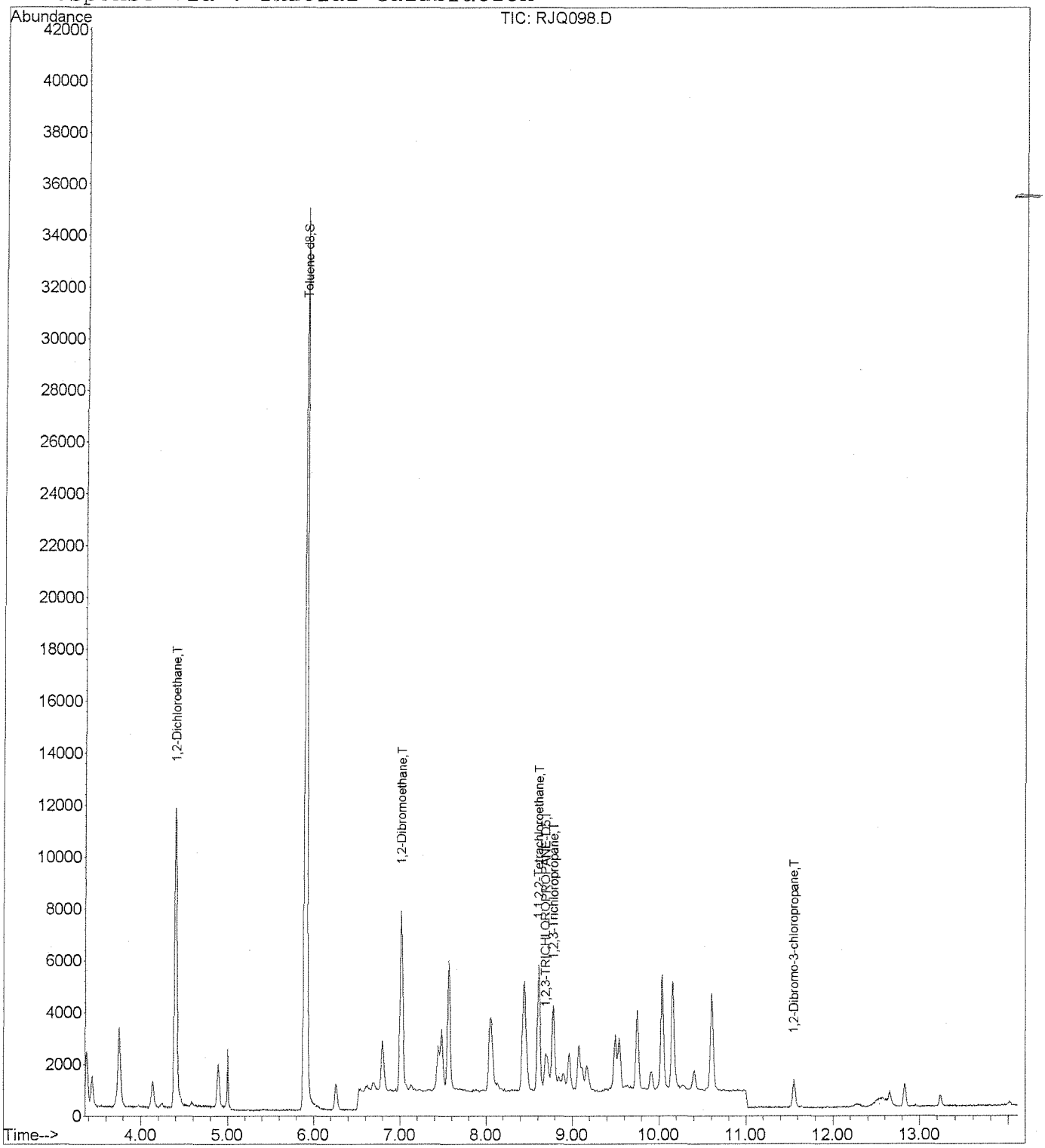
(#) = qualifier out of range (m) = manual integration

235

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J10\RJQ098.D Vial: 2
Acq On : 10 Oct 2012 10:23 am Operator: SD
Sample : IV005J0902 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:04 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SA 10/11/12

DAILY CALIBRATIONS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc — Contract: BROWN & BRYANT SUPERFUND SITE

Lab Code: EMXT Case No.: — SAS No.: SDG No.: 12J181

Lab File ID: RJQ421 — BFB Injection Date : 10/30/12

Instrument ID: TO05 — BFB Injection Time : 07:06

GC Column:RTX502.2ID:0.32mm (mm) — Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.14
75	30.0 - 60.0% of mass 95	51.51
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	5.20
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	89.68
175	5.0 - 9.0% of mass 174	7.24(8.1)1
176	95.0 - 101.0% of mass 174	85.48(95.3)1
177	5.0 - 9.0% of mass 176	4.88(5.7)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	VSTD100	CV005J0905	RJQ422	10/30/12	07:43
2	MBLK1W	V005J22B	RJQ425	10/30/12	09:23
3	LCS1W	V005J22L	RJQ423	10/30/12	08:26
4	LCD1W	V005J22C	RJQ424	10/30/12	08:54
5	10-25-12 PWA-3	J181-05	RJQ426	10/30/12	09:52
6	10-25-12 WA-2	J181-08	RJQ427	10/30/12	10:22
7	10-25-12 PWA-7A	J181-03	RJQ428	10/30/12	10:59
8	10-25-12 WA-9	J181-02	RJQ429	10/30/12	11:28
9	10-25-12 WA-5	J181-06	RJQ430	10/30/12	12:04
10	10-25-12 WA-1	J181-04	RJQ431	10/30/12	12:34
11	10-25-12 WA-1MS	J181-04M	RJQ432	10/30/12	13:03
12	10-25-12 WA-1MSD	J181-04S	RJQ433	10/30/12	13:36
13	10-24-12 WA-3	J181-01	RJQ434	10/30/12	14:09
14	10-25-12 EPAS-2	J181-07	RJQ435	10/30/12	14:38
15	10-25-12 FDUP-4	J181-11	RJQ436	10/30/12	15:08
16	10-25-12 PWA-2	J181-10	RJQ437	10/30/12	15:36
17	10-25-12 EPAS-3	J181-09	RJQ439	10/30/12	16:35

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RJQ091
Instrument ID: T005

Project: BROWN & BRYANT SUPERFUND SITE
SDG No.: 12J181
Date Analyzed: 10/09/12
Time Analyzed: 21:14

		IS1(TCP) AREA #	RT #
	12 HOUR STD	2700	8.69
	UPPER LIMIT	5400	9.19
	LOWER LIMIT	1350	8.19
	SAMPLE ID		
1	VSTD100	2509	8.68
2	MBLK1W	2840	8.69
3	LCS1W	2529	8.68
4	LCD1W	2644	8.68
5	10-25-12 PWA-3	2044	8.69
6	10-25-12 WA-2	2347	8.69
7	10-25-12 PWA-7A	2075	8.69
8	10-25-12 WA-9	2595	8.69
9	10-25-12 WA-5	2491	8.69
10	10-25-12 WA-1	2653	8.69
11	10-25-12 WA-1MS	2550	8.69
12	10-25-12 WA-1MSD	2686	8.69
13	10-24-12 WA-3	2560	8.69
14	10-25-12 EPAS-2	2711	8.69
15	10-25-12 FDUP-4	2538	8.69
16	10-25-12 PWA-2	2655	8.70
17	10-25-12 EPAS-3	3000	8.70

IS1 (TCP) = 1,2,3-Trichloropropane-d5

AREA UPPER LIMIT = +100% of internal satndard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

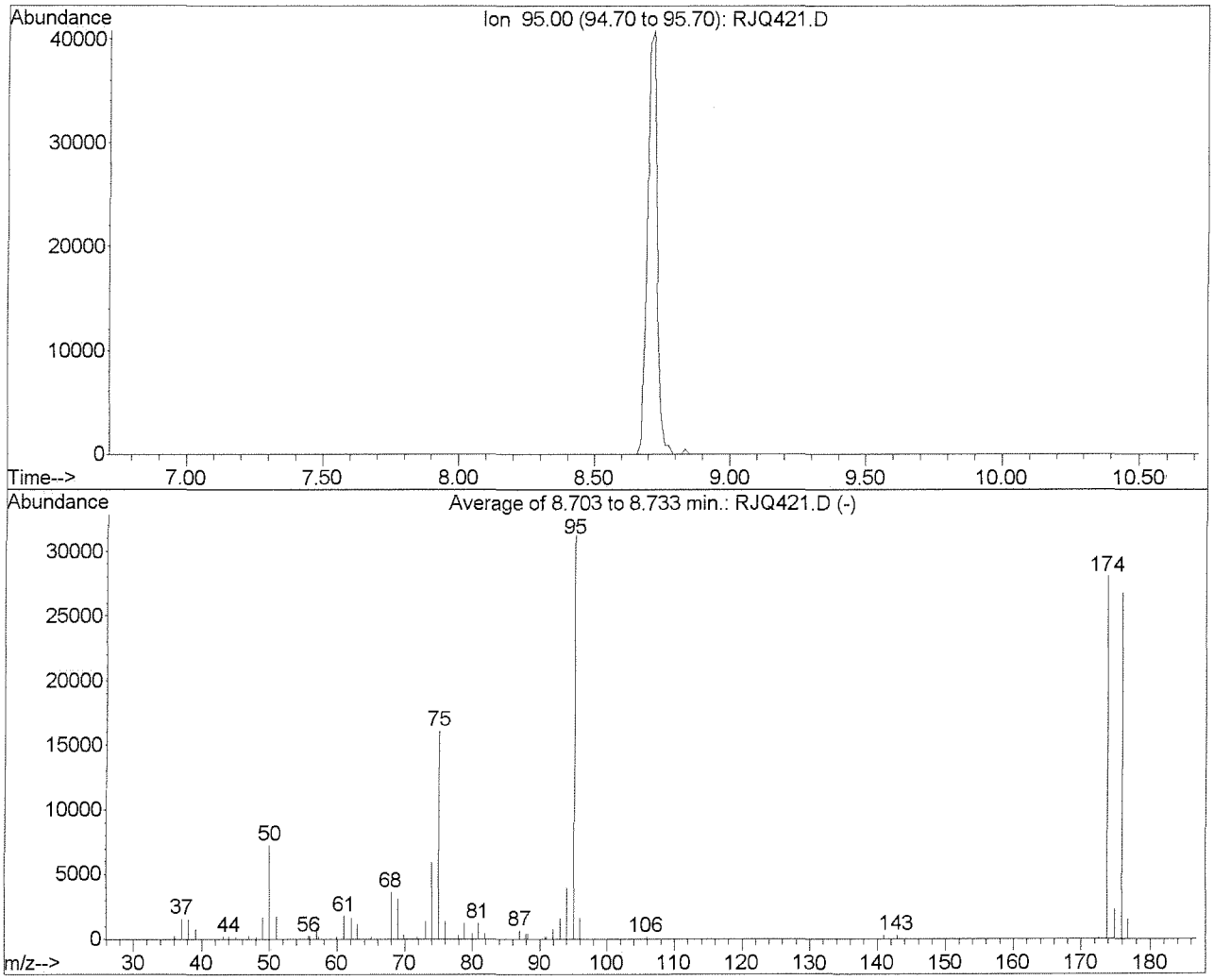
Instrument ID :TO05
IC_Beginning DateTime :10/09/12 19:17
Spike Amount :100 PPT
CC/CV File :RJQ422
IC File :RJQ091

Column Spec :RTX502.2 ID :0.32MM
IC_Ending DateTime :10/09/12 22:40
HPChem Method :VO05J09
Date_Time :10/30/12 07:43

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,2,3-TRICHLOROPROPANE-D5	50.000	0	2509	1	1	8.678	8.688	0				
	2	1,2-Dichloroethane	122.132	22.1	20331	4.052	3.317	4.392	4.393	10.89				
	3	Toluene-d8	111.305	11.3	44507	8.869	7.969	5.894	5.898	7.68				
	4	1,2-Dibromoethane	108.430	8.4	7797	1.554	1.433	7.004	7.006	6.40				
	5	1,1,2,2-Tetrachloroethane	97.779	-2.2	6762	1.348	1.378	8.600	8.602	3.38				
	6	1,2,3-Trichloropropane	102.367	2.4	4646	0.926	0.904	8.765	8.775	9.89				
	7	1,2-Dibromo-3-chloropropane	83.077	-16.9	851	0.170	0.204	11.540	11.548	11.79				

BFB

Data File : D:\HPCHEM\1\DATA\12J30\RJQ421.D Vial: 1
Acq On : 30 Oct 2012 7:06 am Operator: SD
Sample : BFB05J22 Inst : TO05
Misc : T/CHK Multiplr: 1.00
MS Integration Params: 524INT.P
Method : D:\HPCHEM\1\METHODS\VO05J09A.M (RTE Integrator)
Title : METHOD 8260 SIM



AutoFind: Scans 360, 361, 362; Background Corrected with Scan 355

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.1	7240	PASS
75	95	30	60	51.5	16113	PASS
95	95	100	100	100.0	31282	PASS
96	95	5	9	5.2	1626	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	89.7	28053	PASS
175	174	5	9	8.1	2266	PASS
176	174	95	101	95.3	26739	PASS
177	176	5	9	5.7	1527	PASS

RJQ421.D VO05J09A.M Thu Nov 01 11:01:02 2012

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J30\RJQ422.D Vial: 2
Acq On : 30 Oct 2012 7:43 am Operator: SD
Sample : CVO05J0905 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	50.000	50.000	0.0	93	0.00
2	T	1,2-Dichloroethane	100.000	122.132	-22.1#	113	0.00
3	S	Toluene-d8	100.000	111.306	-11.3	110	0.00
4	T	1,2-Dibromoethane	100.000	108.430	-8.4	102	0.00
5	T	1,1,2,2-Tetrachloroethane	100.000	97.780	2.2	95	0.00
6	T	1,2,3-Trichloropropane	100.000	102.368	-2.4	100	0.00
7	T	1,2-Dibromo-3-chloropropane	100.000	83.077	16.9	86	0.00

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J30\RJQ422.D Vial: 2
Acq On : 30 Oct 2012 7:43 am Operator: SD
Sample : CVO05J0905 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	93	0.00
2	T	1,2-Dichloroethane	3.317	4.052	-22.2#	113	0.00
3	S	Toluene-d8	7.969	8.869	-11.3	110	0.00
4	T	1,2-Dibromoethane	1.433	1.554	-8.4	102	0.00
5	T	1,1,2,2-Tetrachloroethane	1.378	1.348	2.2	95	0.00
6	T	1,2,3-Trichloropropane	0.904	0.926	-2.4	100	0.00
7	T	1,2-Dibromo-3-chloropropane	0.204	0.170	16.7	86	0.00

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJQ422.D Vial: 2
Acq On : 30 Oct 2012 7:43 am Operator: SD
Sample : CVO05J0905 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 30 7:57 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

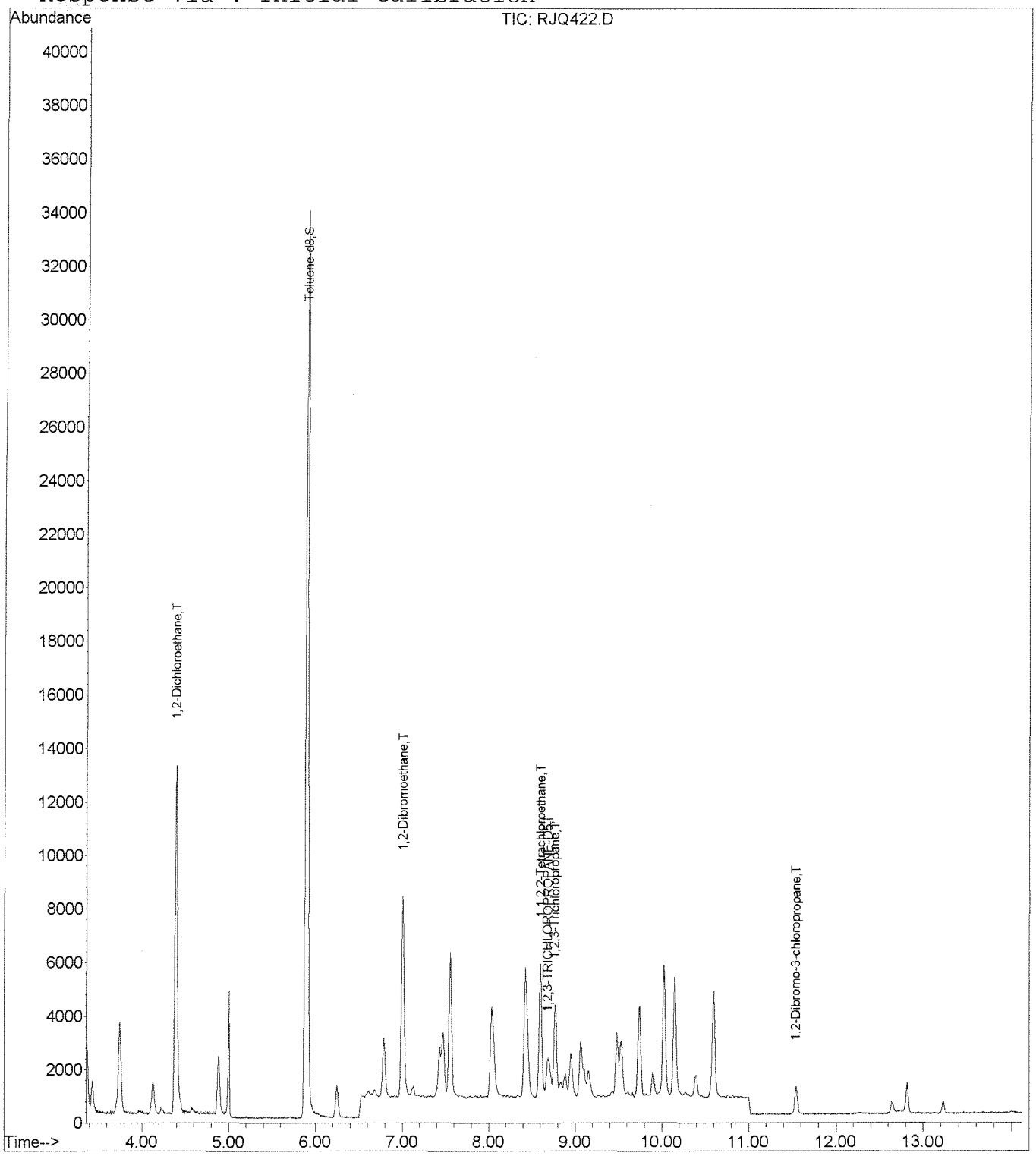
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.68	79	2509	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.89	98	44507	111.31	ng/l	0.00
Spiked Amount 100.000			Recovery	=	111.31%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	20331	122.13	ng/l	96
4) 1,2-Dibromoethane	7.00	107	7797	108.43	ng/l	98
5) 1,1,2,2-Tetrachloroethane	8.60	83	6762	97.78	ng/l	97
6) 1,2,3-Trichloropropane	8.77	75	4646	102.37	ng/l	98
7) 1,2-Dibromo-3-chloropropan	11.54	157	851	83.08	ng/l	94

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J30\RJQ422.D Vial: 2
Acq On : 30 Oct 2012 7:43 am Operator: SD
Sample : CVO05J0905 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 30 7:57 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RKQ001
Instrument ID: TO05
GC Column:RTX502.2ID:0.32mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J181
BFB Injection Date : 11/01/12
BFB Injection Time : 07:15
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.15
75	30.0 - 60.0% of mass 95	54.03
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	90.37
175	5.0 - 9.0% of mass 174	6.78(7.5)1
176	95.0 - 101.0% of mass 174	88.29(97.7)1
177	5.0 - 9.0% of mass 176	5.11(5.8)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	VSTD100	CV005J0907	RKQ002	11/01/12	07:47
2	MBLK2W	V005K01B	RKQ005	11/01/12	09:21
3	LCS2W	V005K01L	RKQ003	11/01/12	08:22
4	LCD2W	V005K01C	RKQ004	11/01/12	08:51
5	10-25-12 PWA-2DL	J181-10I	RKQ006	11/01/12	09:56
6	10-25-12 EPAS-3DL	J181-09T	RKQ007	11/01/12	10:25
7	10-25-12 PWA-2DL	J181-10T	RKQ008	11/01/12	10:53
8	10-24-12 WA-3DL	J181-01T	RKQ009	11/01/12	11:28
9	10-24-12 WA-3DL	J181-01I	RKQ010	11/01/12	11:58
10	10-25-12 WA-1DL	J181-04T	RKQ011	11/01/12	12:26
11	10-25-12 EPAS-2DL	J181-07T	RKQ012	11/01/12	13:00
12	10-25-12 FDUP-4DL	J181-11T	RKQ013	11/01/12	13:29

FORM V VOA OLM02.0

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RJQ091
Instrument ID: TO05

Project: BROWN & BRYANT SUPERFUND SITE
SDG No.: 12J181
Date Analyzed: 10/09/12
Time Analyzed: 21:14

		IS1(TCP) AREA #	RT #
	12 HOUR STD	2700	8.69
	UPPER LIMIT	5400	9.19
	LOWER LIMIT	1350	8.19
	SAMPLE ID		
1	VSTD100	2818	8.69
2	MBLK2W	2492	8.69
3	LCS2W	2507	8.69
4	LCD2W	2713	8.69
5	10-25-12 PWA-2DL	2571	8.68
6	10-25-12 EPAS-3DL	2328	8.69
7	10-25-12 PWA-2DL	2551	8.69
8	10-24-12 WA-3DL	2301	8.68
9	10-24-12 WA-3DL	2340	8.69
10	10-25-12 WA-1DL	2343	8.69
11	10-25-12 EPAS-2DL	2429	8.69
12	10-25-12 FDUP-4DL	2519	8.69

IS1 (TCP) = 1,2,3-Trichloropropane-d5

AREA UPPER LIMIT = +100% of internal satndard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

FORM VIII VOSIM OLM02.0

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

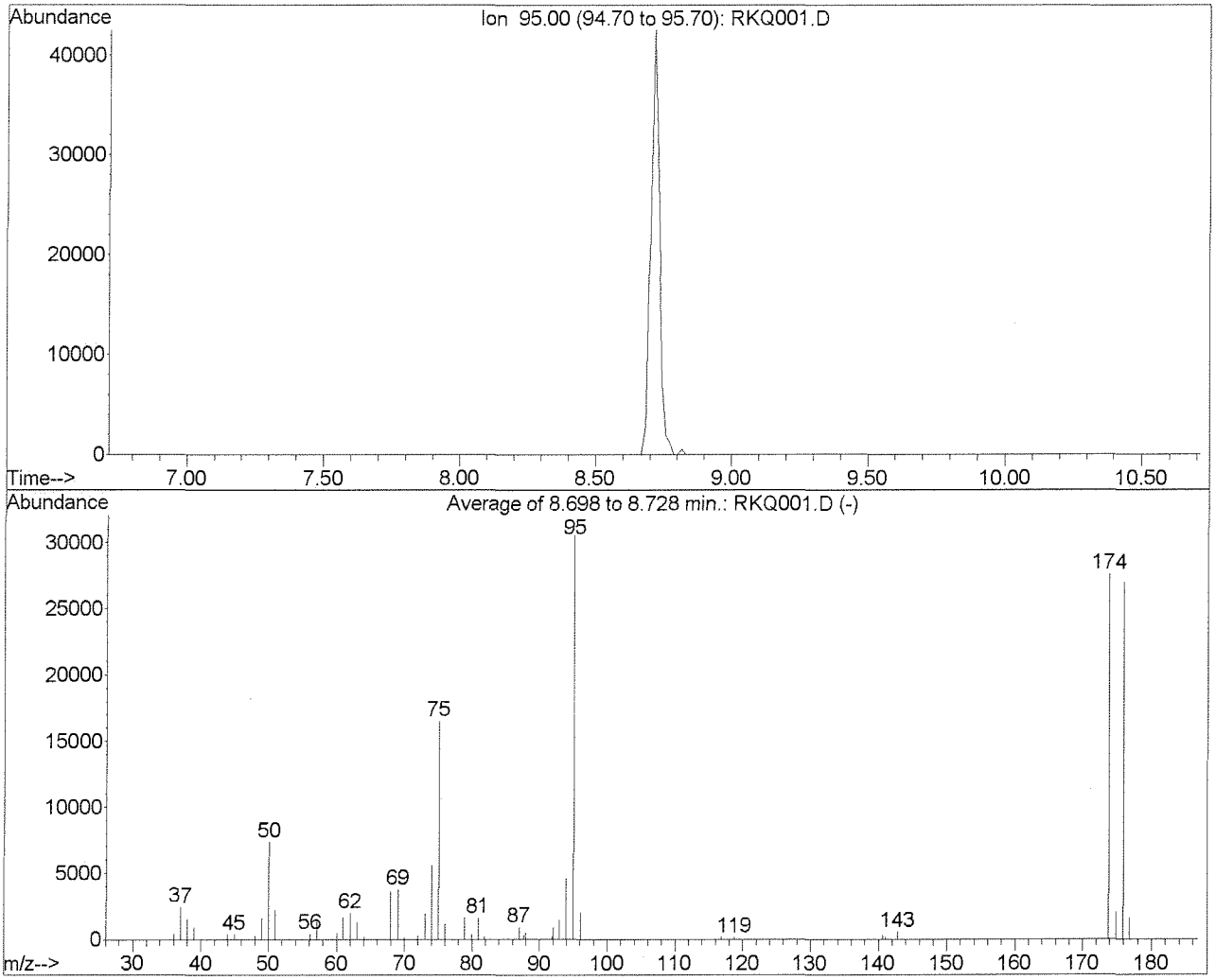
Instrument ID :T005
IC_Beginning DateTime :10/09/12 19:17
Spike Amount :100 PPT
CC/CV File :RKQ002
IC File :RJQ091

Column Spec :RTX502.2 ID :0.32MM
IC_Ending DateTime :10/09/12 22:40
HPChem Method :V005J09
Date_Time :11/01/12 07:47

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,2,3-TRICHLOROPROPANE-D5	50.000	0	2818	1	1	8.688	8.688	0				
	2	1,2-Dichloroethane	125.320	25.3	23431	4.157	3.317	4.392	4.393	10.89				
	3	Toluene-d8	99.797	-0.2	44820	7.952	7.969	5.895	5.898	7.68				
	4	1,2-Dibromoethane	109.170	9.2	8817	1.564	1.433	7.005	7.006	6.40				
	5	1,1,2,2-Tetrachloroethane	103.705	3.7	8055	1.429	1.378	8.601	8.602	3.38				
	6	1,2,3-Trichloropropane	104.953	5.0	5350	0.949	0.904	8.775	8.775	9.89				
	7	1,2-Dibromo-3-chloropropane	97.435	-2.6	1121	0.199	0.204	11.546	11.548	11.79				

BFB

Data File : D:\HPCHEM\1\DATA\12K01\RKQ001.D Vial: 1
Acq On : 1 Nov 2012 7:15 am Operator: SD
Sample : BFB05K01 Inst : TO05
Misc : T/CHK Multiplr: 1.00
MS Integration Params: 524INT.P
Method : D:\HPCHEM\1\METHODS\VO05J09A.M (RTE Integrator)
Title : METHOD 8260 SIM



AutoFind: Scans 360, 361, 362; Background Corrected with Scan 356

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.1	7385	PASS
75	95	30	60	54.0	16524	PASS
95	95	100	100	100.0	30584	PASS
96	95	5	9	6.7	2036	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	90.4	27640	PASS
175	174	5	9	7.5	2073	PASS
176	174	95	101	97.7	27003	PASS
177	176	5	9	5.8	1564	PASS

RKQ001.D VO05J09A.M Thu Nov 01 12:13:16 2012

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12K01\RKQ002.D Vial: 2
Acq On : 1 Nov 2012 7:47 am Operator: SD
Sample : CVO05J0907 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	50.000	50.000	0.0	104	0.00
2	T	1,2-Dichloroethane	100.000	125.321	-25.3#	130	0.00
3	S	Toluene-d8	100.000	99.798	0.2	110	0.00
4	T	1,2-Dibromoethane	100.000	109.170	-9.2	115	0.00
5	T	1,1,2,2-Tetrachloroethane	100.000	103.705	-3.7	113	0.00
6	T	1,2,3-Trichloropropane	100.000	104.954	-5.0	116	0.00
7	T	1,2-Dibromo-3-chloropropane	100.000	97.436	2.6	113	0.00

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12K01\RKQ002.D Vial: 2
Acq On : 1 Nov 2012 7:47 am Operator: SD
Sample : CVO05J0907 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	104	0.00
2	T	1,2-Dichloroethane	3.317	4.157	-25.3#	130	0.00
3	S	Toluene-d8	7.969	7.952	0.2	110	0.00
4	T	1,2-Dibromoethane	1.433	1.564	-9.1	115	0.00
5	T	1,1,2,2-Tetrachloroethane	1.378	1.429	-3.7	113	0.00
6	T	1,2,3-Trichloropropane	0.904	0.949	-5.0	116	0.00
7	T	1,2-Dibromo-3-chloropropane	0.204	0.199	2.5	113	0.00

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12K01\RKQ002.D Vial: 2
Acq On : 1 Nov 2012 7:47 am Operator: SD
Sample : CVO05J0907 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 8:01 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

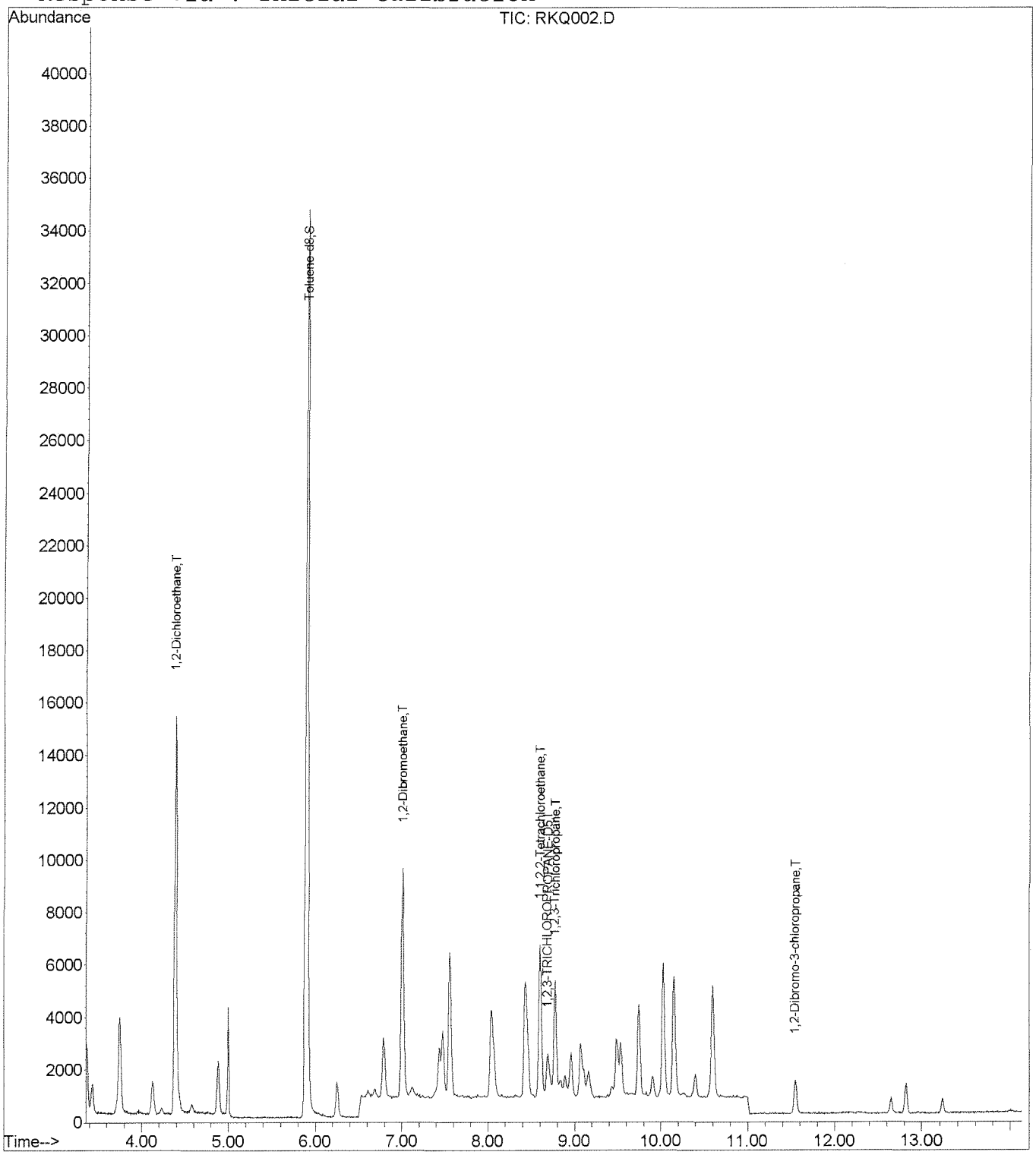
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2818	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.89	98	44820	99.80	ng/l	0.00
Spiked Amount 100.000			Recovery = 99.80%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	23431	125.32	ng/l	99
4) 1,2-Dibromoethane	7.00	107	8817	109.17	ng/l	98
5) 1,1,2,2-Tetrachloroethane	8.60	83	8055	103.70	ng/l	98
6) 1,2,3-Trichloropropane	8.78	75	5350	104.95	ng/l	97
7) 1,2-Dibromo-3-chloropropan	11.55	157	1121	97.44	ng/l	94

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12K01\RKQ002.D Vial: 2
Acq On : 1 Nov 2012 7:47 am Operator: SD
Sample : CVO05J0907 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 8:01 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



256

ANALYTICAL LOGS

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☐ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/9/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book # A05 -061

BATCH V005J095

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH < 2	Matrix W Cl_2 < 5ppm	Matrix S	Notes
01	RJQ085	RFB05J06	0.5mL	N/A	N/A	N/A		V005J09A 6:19pm
02	086	25ppt test						
03	087	V005J091	0.05/0.05mL					5.0 ppt
04	088	2	0.1/0.1mL					10
05	089	3	0.2/0.2mL					20
06	090	4	0.5/0.5mL					50
07	091	5	1/1mL					100
08	092	6	2/2mL					200
09	093	7	4/4mL					400
10	094	8	10/10mL					1000
11	095	IS/SS						
12	096	IV005J091	1/1mL					100 ppt; IS response high; RQ, 11:39pm
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								sd 10/10/12

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	10/9/12
ICAL ID	V005J09

STANDARDS

NAME	ID	Amount (ul)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC (a)	SV1-20-13-03	varies	2.5
BFB	-22-01	0.5	50
IS/SURR.(b) IS	-25-02	1	1.25
SS	-25-03	varies	2.5
ICV/LCS	-14-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	12J09		
	LOT #		
pH strip			
Chlorine strip			
Methanol			
$NaHSO_4$			
Reagent Water	RW4-12-001		
Sand			

Electronic Data Archival Location	Date
HPCHEM_VOA/TO05	

Comments:

☐ Refer to sample weight log

Analyzed By: sd

Date Disposed: 10/10/12 Disposed By: sd

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☐ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/10/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book # A05 -061

BATCH: V005J090/

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH < 2	Matrix W Cl_2 < 5ppm	Matrix S	Notes
01		RQTQ097	RABOSJ07	0.5mL					V005J09A 9:41am
02		098	IV005J0902	1/1mL					
03		099	CV005J0901						
04		100	V005J07L						
05		101	C						
06		102	B	.25mL					
07		103	LOD 25PPT	.125mL					
08		104-105	RINSE						1:50pm
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									vd 10/11/12

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	10/9/12
ICAL ID	V005J09

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	VV1-20-13-03	1	0.5
BFB	-22-01	0.5	50
IS/SURR.	-25-02 -25-03	1 1	1.25 2.5
ICV/LCS	-14-03	1	0.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	12J10		
	LOT #		
pH strip			
Chlorine strip			
Methanol			
$NaHSO_4$			
Reagent Water	RW4-12-001		
Sand			

Electronic Data Archival Location	Date
HPCHEM_VOA/TO05	

Comments:

☐ Refer to sample weight log

Analyzed By: vd

Date Disposed: 10/11/12 Disposed By: vd

2256

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☐ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/30/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book # A05 -061

BATCH cv005J09 05

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01		RTQ421	BFB 0J22	0.5mL					v005J09A
02		422	cv005J09 05	1mL					
03		423	v005J22L						
04		424	C						
05		425	B	25mL					
06		426	12J181-05		1.0	✓	✓		
07		427	-08			✓	✓		
08		428	-03			✓	✓		
09		429	-02			✓	✓		
10		430	-06			✓	✓		
11		431	-04			✓	✓		
12		432	-04M			✓	✓		
13		433	-04MS			✓	✓		
14		434	-01			✓	✓		
15		435	-07			✓	✓		
16		436	-11			✓	✓		
17		437	-10	1.0mL	25	✓	✓		
18		438	-10	0.25mL	100	✓	✓		
19		439	-09	2.5mL	10	✓	✓		
20		440	-09	0.50mL	50	✓	✓		5:05pm
21		441.45	RW58						
22									
23									
24									
25									
26									
27									
28									
29									
30									sd 10/31/12

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	10/8/12
ICAL ID	v005J09

STANDARDS			
NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SV1-20-13-03	1	25
BFB	-22-01	0.5	50
IS/SURR.	-25-03	1	1.25
IS/SURR.	-25-03	1	2.5
ICV/LCS	-14-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	12J30		
LOT #			
pH strip	13767		
Chlorine strip	2220		
Methanol			
$NaHSO_4$			
Reagent Water	RW4-12-001		
Sand			

Electronic Data Archival Location	Date
HPCHEM_VOA/TO05	

Comments:

☐ Refer to sample weight log

Analyzed By: sd

Date Disposed: 10/31/12 Disposed By: sd

2257

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☐ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 11/1/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book # A05 -061

BATCH CV005J0907

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH < 2	Matrix W Cl_2 < 5ppm	Matrix S	Notes
01	RKQ001	BFB05K01	0.5mL					V005J09A 7:15am
02	002	CV005J0907	1mL					
03	003	V005K01L	↓					
04	004	C	↓					
05	005	B	25mL					
06	006	12J181-10I	10mL	2500	✓	✓		
07	007	-09T	↓	↓	✓	✓		
08	008	-10T	50mL	500	✓	✓		
09	009	-01T	2.5mL	10	✓	✓		
10	010	-01I	50mL	500	✓	✓		
11	011	-04T	2.5mL	10	✓	✓		
12	012	-07T	1.0mL	25	✓	✓		
13	013	-11T	↓	↓	✓	✓		1:29pm
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								sd 11/2/12

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	10/9/12
ICAL ID	V005J09

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SV1-20-13-03	1	2.5
BFB	-22-01	0.5	50
IS/SURR.	-25-03 / -25-03	1 / 1	1.25 / 2.5
ICV/LCS	-14-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			

	LOT #
Data File Folder	12K01
pH strip	137671
Chlorine strip	2220
Methanol	
$NaHSO_4$	
Reagent Water	RW4-12-001
Sand	

Electronic Data Archival Location	Date
HPCHEM_VOA/TO05	

Comments:

☐ Refer to sample weight log

Analyzed By: [illegible]

Date Disposed: 11/2/12 Disposed By: [illegible]

2258

Injection Log

Directory: D:\HPCHEM\1\DATA\12J30

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RJQ421.D	1.	BFB05J22	T/CHK	30 Oct 2012 0
2	2	RJQ422.D	1.	CVO05J0905	100ppt	30 Oct 2012 0
3	3	RJQ423.D	1.	VO05J22L	100ppt	30 Oct 2012 0
4	4	RJQ424.D	1.	VO05J22C	100ppt	30 Oct 2012 0
5	5	RJQ425.D	1.	VO05J22B	BLANK	30 Oct 2012 0
6	6	RJQ426.D	1.	12J181-05 25mL	DF=1.0	30 Oct 2012 0
7	7	RJQ427.D	1.	12J181-08 25mL	DF=1.0	30 Oct 2012 1
8	8	RJQ428.D	1.	12J181-03 25mL	DF=1.0	30 Oct 2012 1
9	9	RJQ429.D	1.	12J181-02 25mL	DF=1.0	30 Oct 2012 1
10	10	RJQ430.D	1.	12J181-06 25mL	DF=1.0	30 Oct 2012 1
11	11	RJQ431.D	1.	12J181-04 25mL	DF=1.0	30 Oct 2012 1
12	12	RJQ432.D	1.	12J181-04M 25mL	DF=1.0	30 Oct 2012 1
13	13	RJQ433.D	1.	12J181-04S 25mL	DF=1.0	30 Oct 2012 1
14	14	RJQ434.D	1.	12J181-01 25mL	DF=1.0	30 Oct 2012 1
15	15	RJQ435.D	1.	12J181-07 25mL	DF=1.0	30 Oct 2012 1
16	16	RJQ436.D	1.	12J181-11 25mL	DF=1.0	30 Oct 2012 1
17	17	RJQ437.D	1.	12J181-10 1.0mL	DF=25	30 Oct 2012 1
18	18	RJQ438.D	1.	12J181-10 0.25mL	DF=100	30 Oct 2012 1
19	19	RJQ439.D	1.	12J181-09 2.5mL	DF=10	30 Oct 2012 1
20	20	RJQ440.D	1.	12J181-09 0.50mL	DF=50	30 Oct 2012 1
21	1	RJQ441.D	1.	RINSE		30 Oct 2012 1
22	2	RJQ442.D	1.	RINSE		30 Oct 2012 1
23	3	RJQ443.D	1.	RINSE		30 Oct 2012 1
24	4	RJQ444.D	1.	RINSE		30 Oct 2012 1
25	5	RJQ445.D	1.	RINSE		30 Oct 2012 1
26	6	RJQ446.D	1.	DRY PURGE		30 Oct 2012 2
27	7	RJQ447.D	1.	DRY PURGE		30 Oct 2012 2
28	8	RJQ448.D	1.	DRY PURGE		30 Oct 2012 2
29	9	RJQ449.D	1.	DRY PURGE		30 Oct 2012 2
30	10	RJQ450.D	1.	DRY PURGE		30 Oct 2012 2
31	11	RJQ451.D	1.	DRY PURGE		31 Oct 2012 0

01 Nov 2012 13:29

2259

Injection Log

Directory: D:\HPCHEM\1\DATA\12K01

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RKQ001.D	1.	BFB05K01	T/CHK	1 Nov 2012 0
2	2	RKQ002.D	1.	CVO05J0907	100ppt	1 Nov 2012 0
3	3	RKQ003.D	1.	VO05K01L	100ppt	1 Nov 2012 0
4	4	RKQ004.D	1.	VO05K01C	100ppt	1 Nov 2012 0
5	5	RKQ005.D	1.	VO05K01B	BLANK	1 Nov 2012 0
6	6	RKQ006.D	1.	12J181-10I 10uL	DF=2500	1 Nov 2012 0
7	7	RKQ007.D	1.	12J181-09T 10uL	DF=2500	1 Nov 2012 1
8	8	RKQ008.D	1.	12J181-10T 50uL	DF=500	1 Nov 2012 1
9	9	RKQ009.D	1.	12J181-01T 2.5mL	DF=100	1 Nov 2012 1
10	10	RKQ010.D	1.	12J181-01I 50uL	DF=500	1 Nov 2012 1
11	11	RKQ011.D	1.	12J181-04T 2.5mL	DF=10	1 Nov 2012 1
12	12	RKQ012.D	1.	12J181-07T 1.0mL	DF=25	1 Nov 2012 1
13	13	RKQ013.D	1.	12J181-11T 1.0mL	DF=25	1 Nov 2012 1

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

METHOD 8151A
HERBICIDES

SDG#: 12J181

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J181

METHOD 8151A
HERBICIDES

A total of eleven (11) water samples were received on 10/25/12 for Chlorinated Herbicides analysis, Method 8151A in accordance with Department of Defense Quality Systems Manual for Environmental Laboratories, Version 4.2 and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried on a frequency specified by the project. All calibration requirements were within acceptance criteria except recovery of Dinoseb in CCV-QJ31026 column B was biased high. However, Dinoseb was not detected in the associated samples J181-06 and 08. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Results were compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for HEJ010WL/C were all within QC limits.

Matrix QC Sample
A set of MS/MSD was analyzed with the samples in this SDG.
Percent recoveries for J181-04M/S were within project QC limits.

Surrogate
Surrogate was added on QC and field samples. Surrogate recoveries were within project QC limits except were diluted out (DO) in samples J181-01I, -09J, and -10J due to high dilution required to bring Dinoseb to be within the calibration range.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
HERBICIDES

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE

SDG NO. : 12J181
Instrument ID : GCT009

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	HEJ010WB	1	NA	10/31/1216:31	10/30/1210:50	QJ31003A	QJ31002A	HEJ010W	Method Blank
LCS1W	HEJ010WL	1	NA	10/31/1216:51	10/30/1210:50	QJ31004A	QJ31002A	HEJ010W	Lab Control Sample (LCS)
LCD1W	HEJ010WC	1	NA	10/31/1217:11	10/30/1210:50	QJ31005A	QJ31002A	HEJ010W	LCS Duplicate
10-24-12 WA-3	J181-01I	50	NA	11/01/1213:36	10/30/1210:50	QJ31037A	QJ31036A	HEJ010W	Diluted Sample
10-25-12 WA-9	J181-02	1	NA	10/31/1217:51	10/30/1210:50	QJ31007A	QJ31002A	HEJ010W	Field Sample
10-25-12 PWA-7A	J181-03	1	NA	10/31/1218:12	10/30/1210:50	QJ31008A	QJ31002A	HEJ010W	Field Sample
10-25-12 WA-1	J181-04	1	NA	10/31/1218:32	10/30/1210:50	QJ31009A	QJ31002A	HEJ010W	Field Sample
10-25-12 PWA-3	J181-05	1	NA	10/31/1219:33	10/30/1210:50	QJ31012A	QJ31002A	HEJ010W	Field Sample
10-25-12 WA-5	J181-06	1	NA	10/31/1220:34	10/30/1210:50	QJ31015A	QJ31014A	HEJ010W	Field Sample
10-25-12 EPAS-2	J181-07J	10	NA	11/01/1215:58	10/30/1210:50	QJ31043A	QJ31036A	HEJ010W	Diluted Sample
10-25-12 WA-2	J181-08	1	NA	10/31/1221:15	10/30/1210:50	QJ31017A	QJ31014A	HEJ010W	Field Sample
10-25-12 EPAS-3	J181-09J	2000	NA	11/01/1216:18	10/30/1210:50	QJ31044A	QJ31036A	HEJ010W	Diluted Sample
10-25-12 PWA-2	J181-10J	8000	NA	11/01/1216:58	10/30/1210:50	QJ31045A	QJ31036A	HEJ010W	Diluted Sample
10-25-12 FDUP-4	J181-11J	10	NA	11/01/1217:18	10/30/1210:50	QJ31046A	QJ31036A	HEJ010W	Diluted Sample
10-25-12 WA-1MS	J181-04M	1	NA	10/31/1218:52	10/30/1210:50	QJ31010A	QJ31002A	HEJ010W	Matrix Spike Sample (MS)
10-25-12 WA-1MSD	J181-04S	1	NA	10/31/1219:12	10/30/1210:50	QJ31011A	QJ31002A	HEJ010W	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 10:50
Sample ID:	10-24-12 WA-3	Date Analyzed:	11/01/12 13:36
Lab Samp ID:	J181-01I	Dilution Factor:	50
Lab File ID:	QJ31037A	Matrix :	WATER
Ext Btch ID:	HEJ010W	% Moisture :	NA
Calib. Ref.:	QJ31036A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	34|(41)	20	10|10

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(ND)|ND	10.00	(DO)|DO	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 10:50
Sample ID:	10-25-12 WA-9	Date Analyzed:	10/31/12 17:51
Lab Samp ID:	J181-02	Dilution Factor:	1
Lab File ID:	QJ31007A	Matrix :	WATER
Ext Btch ID:	HEJ010W	% Moisture :	NA
Calib. Ref.:	QJ31002A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(10.11)|9.727	10.00	(101)|97.3	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/25/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J181	Date Extracted: 10/30/12 10:50
Sample ID: 10-25-12 PWA-7A	Date Analyzed: 10/31/12 18:12
Lab Samp ID: J181-03	Dilution Factor: 1
Lab File ID: QJ31008A	Matrix : WATER
Ext Btch ID: HEJ010W	% Moisture : NA
Calib. Ref.: QJ31002A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.232)|9.177	10.00	(92.3)|91.8	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 10:50
Sample ID:	10-25-12 WA-1	Date Analyzed:	10/31/12 18:32
Lab Samp ID:	J181-04	Dilution Factor:	1
Lab File ID:	QJ31009A	Matrix :	WATER
Ext Btch ID:	HEJ010W	% Moisture :	NA
Calib. Ref.:	QJ31002A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	0.27J|(0.35J)	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.440)|8.925	10.00	(94.4)|89.2	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 10:50
Sample ID:	10-25-12 PWA-3	Date Analyzed:	10/31/12 19:33
Lab Samp ID:	J181-05	Dilution Factor:	1
Lab File ID:	QJ31012A	Matrix :	WATER
Ext Btch ID:	HEJ010W	% Moisture :	NA
Calib. Ref.:	QJ31002A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(8.940)|8.647	10.00	(89.4)|86.5	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 10:50
Sample ID:	10-25-12 WA-5	Date Analyzed:	10/31/12 20:34
Lab Samp ID:	J181-06	Dilution Factor:	1
Lab File ID:	QJ31015A	Matrix :	WATER
Ext Btch ID:	HEJ010W	% Moisture :	NA
Calib. Ref.:	QJ31014A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(8.446)|8.115	10.00	(84.5)|81.1	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 10:50
Sample ID:	10-25-12 EPAS-2	Date Analyzed:	11/01/12 15:58
Lab Samp ID:	J181-07J	Dilution Factor:	10
Lab File ID:	QJ31043A	Matrix	: WATER
Ext Btch ID:	HEJ010W	% Moisture	: NA
Calib. Ref.:	QJ31036A	Instrument ID	: GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	6.3|(7.7)	4.0	2.0|2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(13.83)|13.09	10.00	(138)|131	40-140

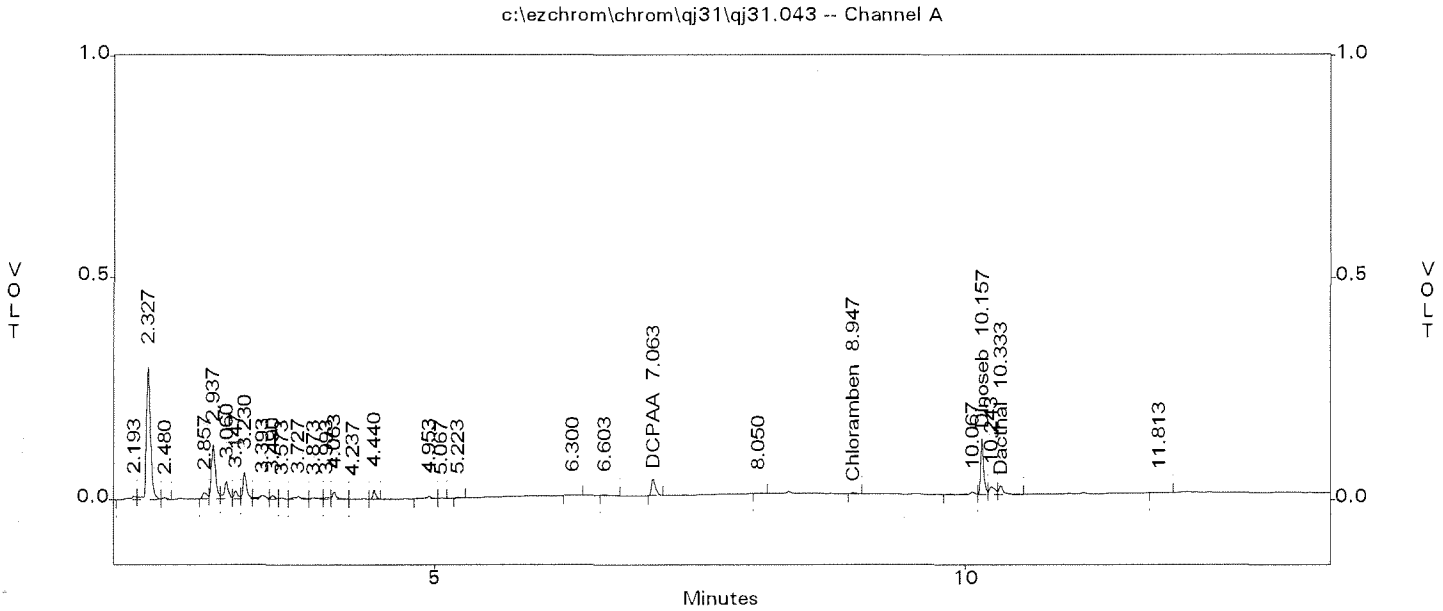
Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.043
Method : c:\ezchrom\methods\he09j30.met
Sample ID : J181-07J DF=10
Acquired : Nov 01, 2012 15:58:10
Printed : Nov 01, 2012 16:35:28
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.777	0.0	0.00	0.00	--
3,5 Dichlorobenzo	6.213	0.0	0.00	0.00	--
4-Nitrophenol	6.820	0.0	0.00	0.00	--
DCPAA	7.063	99228.0	717.28	1383.38	BI
Dicamba	7.240	0.0	0.00	0.00	--
MCPP	7.437	0.0	0.00	0.00	--
MCPA	7.580	0.0	0.00	0.00	--
DCP	7.923	0.0	0.00	0.00	--
2,4-D	8.127	0.0	0.00	0.00	--
Pentachlorophenol	8.337	0.0	0.00	0.00	--
Silvex	8.817	0.0	0.00	0.00	--
Chloramben	8.947	6150.0	4138.84	14.86	BV
2,4,5-T	9.030	0.0	0.00	0.00	--
2,4-DB	9.430	0.0	0.00	0.00	--
Bentazon/Picloram	10.050	0.0	0.00	0.00	--
Dinoseb	10.157	250719.0	3981.06	629.78	VV
Dacthal	10.333	56838.0	6309.82	90.08	VI
Acifluorfen	11.773	0.0	0.00	0.00	--

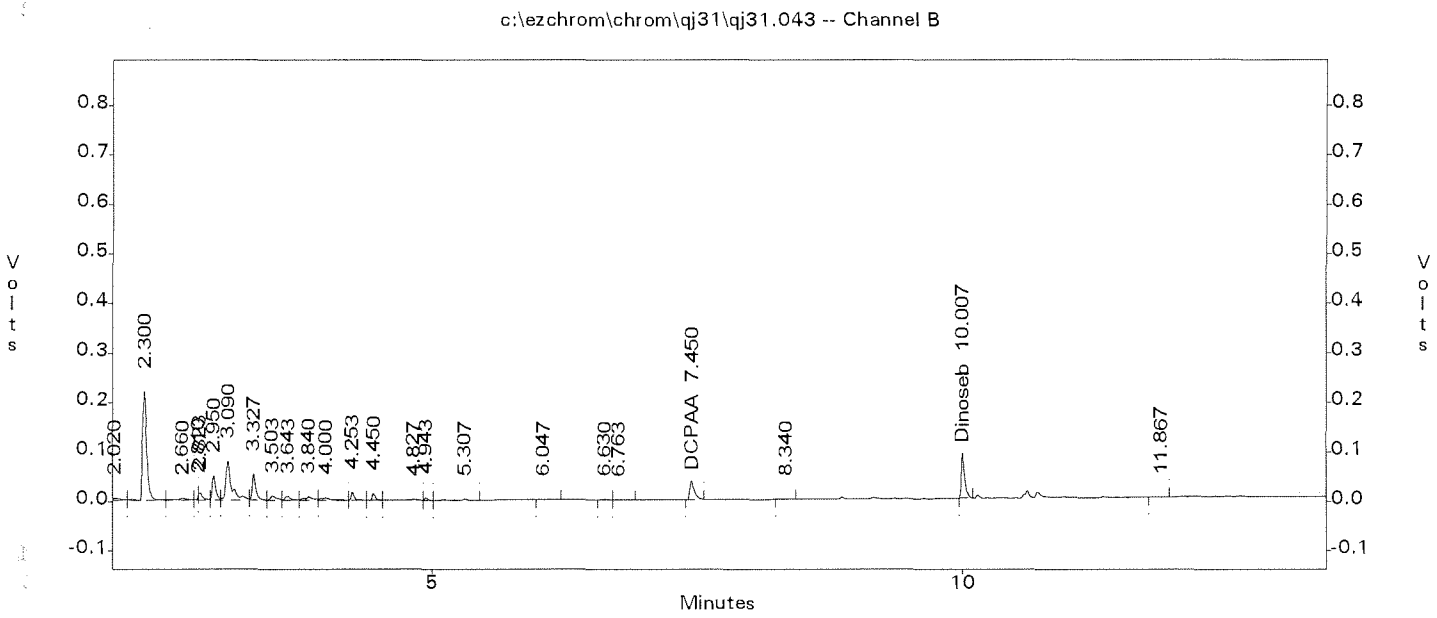


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.043
Method : c:\ezchrom\methods\he09j30.met
Sample ID : J181-07J DF=10
Acquired : Nov 01, 2012 15:58:10
Printed : Nov 01, 2012 16:35:28
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.773	0.0	0.00	0.00	--
3,5 Dichlorobenzoic	6.380	0.0	0.00	0.00	--
4-Nitrophenol	6.960	0.0	0.00	0.00	--
DCPAA	7.450	106254.0	812.00	1308.55	BI
Dicamba	7.623	0.0	0.00	0.00	--
MCPP	7.730	0.0	0.00	0.00	--
MCPA	7.953	0.0	0.00	0.00	--
DCP	8.257	0.0	0.00	0.00	--
2,4-D	8.523	0.0	0.00	0.00	--
Pentachlorophenol	8.870	0.0	0.00	0.00	--
Silvex	9.160	0.0	0.00	0.00	--
2,4,5-T	9.440	0.0	0.00	0.00	--
Chloramben	9.480	0.0	0.00	0.00	--
2,4-DB	9.790	0.0	0.00	0.00	--
Dinoseb	10.007	199637.0	2604.65	766.46	BI
Bentazon	10.360	0.0	0.00	0.00	--
Dacthal	10.583	0.0	0.00	0.00	--
Picloram	10.623	0.0	0.00	0.00	--
Acifluorfen	11.787	0.0	0.00	0.00	--



METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 10:50
Sample ID:	10-25-12 WA-2	Date Analyzed:	10/31/12 21:15
Lab Samp ID:	J181-08	Dilution Factor:	1
Lab File ID:	QJ31017A	Matrix :	WATER
Ext Btch ID:	HEJ010W	% Moisture :	NA
Calib. Ref.:	QJ31014A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.274)|8.868	10.00	(92.7)|88.7	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 10:50
Sample ID:	10-25-12 EPAS-3	Date Analyzed:	11/01/12 16:18
Lab Samp ID:	J181-09J	Dilution Factor:	2000
Lab File ID:	QJ31044A	Matrix :	WATER
Ext Btch ID:	HEJ010W	% Moisture :	NA
Calib. Ref.:	QJ31036A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	1100|(1400)	800	400|400

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(ND)|ND	10.00	(DO)|DO	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 10:50
Sample ID:	10-25-12 PWA-2	Date Analyzed:	11/01/12 16:58
Lab Samp ID:	J181-10J	Dilution Factor:	8000
Lab File ID:	QJ31045A	Matrix :	WATER
Ext Btch ID:	HEJ010W	% Moisture :	NA
Calib. Ref.:	QJ31036A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	7300|(9100)	3200	1600|1600

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(ND)|ND	10.00	(DO)|DO	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/25/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J181	Date Extracted:	10/30/12 10:50
Sample ID:	10-25-12 FDUP-4	Date Analyzed:	11/01/12 17:18
Lab Samp ID:	J181-11J	Dilution Factor:	10
Lab File ID:	QJ31046A	Matrix :	WATER
Ext Btch ID:	HEJ010W	% Moisture :	NA
Calib. Ref.:	QJ31036A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	5.8|(7.2)	4.0	2.0|2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(13.34)|12.83	10.00	(133)|128	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

QC SUMMARIES

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	NA
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/30/12
Batch No.	: 12J181	Date Extracted:	10/30/12 10:50
Sample ID:	MBLK1W	Date Analyzed:	10/31/12 16:31
Lab Samp ID:	HEJ010WB	Dilution Factor:	1
Lab File ID:	QJ31003A	Matrix :	WATER
Ext Btch ID:	HEJ010W	% Moisture :	NA
Calib. Ref.:	QJ31002A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.911)|9.499	10.00	(99.1)|95.0	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J181
METHOD: METHOD 8151A

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	HEJ010WB	HEJ010WL	HEJ010WC		
LAB FILE ID:	QJ31003A	QJ31004A	QJ31005A		
DATE EXTRACTED:	10/30/1210:50	10/30/1210:50	10/30/1210:50	DATE COLLECTED:	NA
DATE ANALYZED:	10/31/1216:31	10/31/1216:51	10/31/1217:11	DATE RECEIVED:	10/30/12
PREP. BATCH:	HEJ010W	HEJ010W	HEJ010W		
CALIB. REF:	QJ31002A	QJ31002A	QJ31002A		

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 (%)
Dinoseb	(ND)|ND	1.00	0.745|(0.891)	74|(89)	1.00	0.737|(0.911)	74|(91)	1|(2)	20-100	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 (%)
2,4-DCPAA	10.00	(9.940)|9.870	(99.4)|98.7	10.00	9.780|(9.833)	97.8|(98.3)	40-140

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J181
METHOD: METHOD 8151A

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	10-25-12 WA-1				
LAB SAMP ID:	J181-04	J181-04M	J181-04S		
LAB FILE ID:	QJ31009A	QJ31010A	QJ31011A		
DATE EXTRACTED:	10/30/1210:50	10/30/1210:50	10/30/1210:50	DATE COLLECTED:	10/25/12
DATE ANALYZED:	10/31/1218:32	10/31/1218:52	10/31/1219:12	DATE RECEIVED:	10/25/12
PREP. BATCH:	HEJ010W	HEJ010W	HEJ010W		
CALIB. REF:	QJ31002A	QJ31002A	QJ31002A		

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 (%)
Dinoseb	0.27J|(0.35J)	1.00	0.764|(0.967)	49|(62)	1.00	0.885|(1.12)	61|(77)	15|(15)	20-100	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 (%)
2,4-DCPAA	10.00	(9.342)|9.288	(93.4)|92.9	10.00	(9.403)|9.280	(94.0)|92.8	40-140

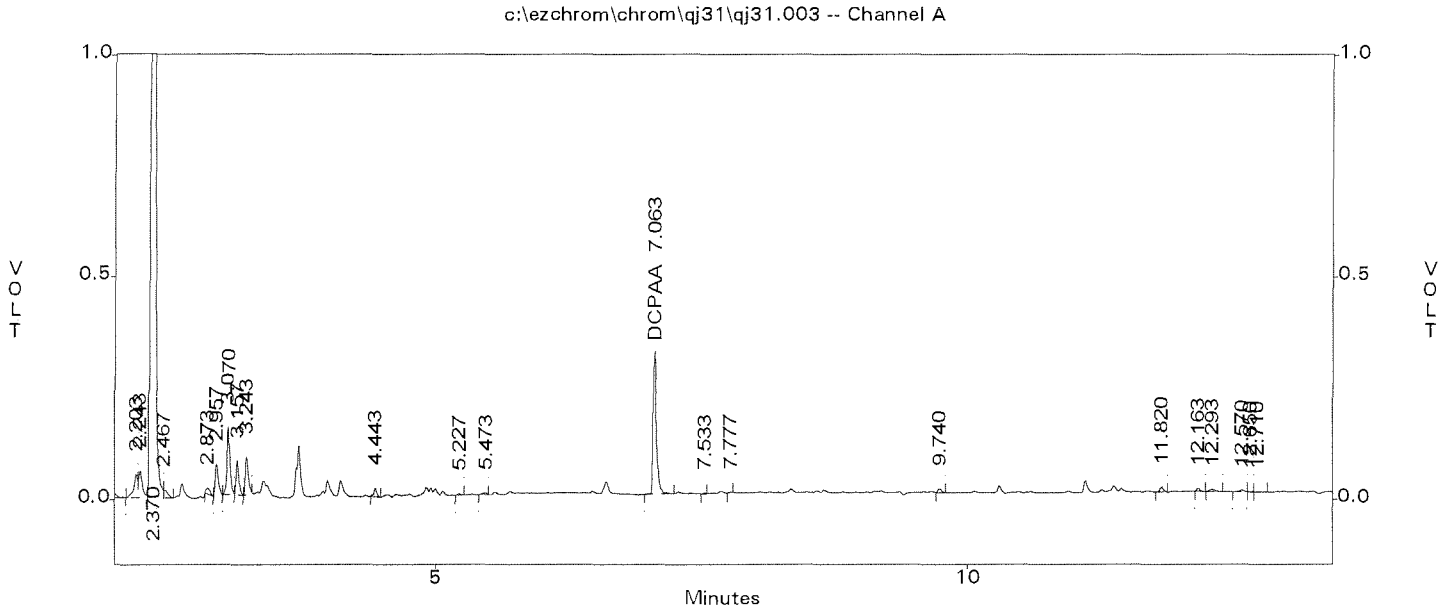
QC DATA

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.003
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HEJ010WB
Acquired : Oct 31, 2012 16:31:01
Printed : Nov 01, 2012 09:36:11
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	0.0	0.00	0.00	--
3,5 Dichlorobenzo	6.223	0.0	0.00	0.00	--
4-Nitrophenol	6.830	0.0	0.00	0.00	--
DCPAA	7.063	710888.0	717.28	991.08	BV
Dicamba	7.250	0.0	0.00	0.00	--
MCPP	7.447	0.0	0.00	0.00	--
MCPA	7.590	0.0	0.00	0.00	--
DCP	7.933	0.0	0.00	0.00	--
2,4-D	8.133	0.0	0.00	0.00	--
Pentachlorophenol	8.347	0.0	0.00	0.00	--
Silvex	8.827	0.0	0.00	0.00	--
Chloramben	8.950	0.0	0.00	0.00	--
2,4,5-T	9.040	0.0	0.00	0.00	--
2,4-DB	9.437	0.0	0.00	0.00	--
Bentazon/Picloram	10.057	0.0	0.00	0.00	--
Dinoseb	10.163	0.0	0.00	0.00	--
Dacthal	10.337	0.0	0.00	0.00	--
Acifluorfen	11.783	0.0	0.00	0.00	--



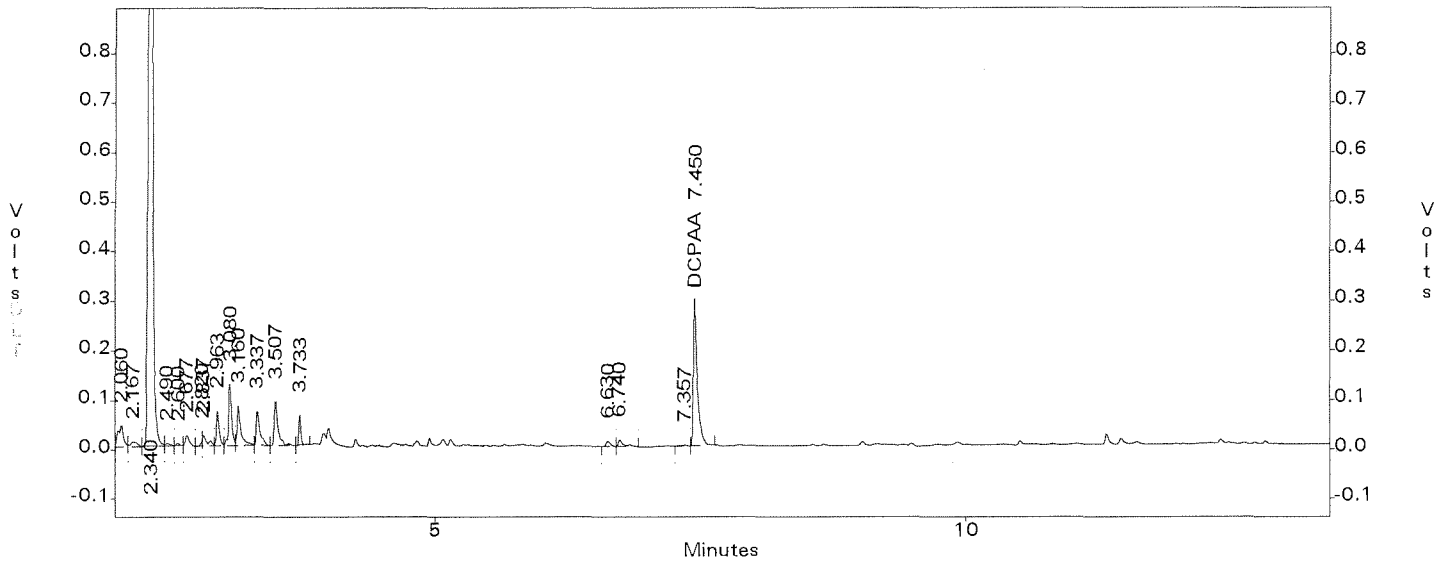
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.003
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HEJ010WB
Acquired : Oct 31, 2012 16:31:01
Printed : Nov 01, 2012 09:36:11
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	0.0	0.00	0.00	--
3,5 Dichlorobenzoic	6.390	0.0	0.00	0.00	--
4-Nitrophenol	6.970	0.0	0.00	0.00	--
DCPAA	7.450	771329.0	812.00	949.91	SI
Dicamba	7.633	0.0	0.00	0.00	--
MCPP	7.740	0.0	0.00	0.00	--
MCPA	7.960	0.0	0.00	0.00	--
DCP	8.267	0.0	0.00	0.00	--
2,4-D	8.530	0.0	0.00	0.00	--
Pentachlorophenol	8.877	0.0	0.00	0.00	--
Silvex	9.167	0.0	0.00	0.00	--
2,4,5-T	9.447	0.0	0.00	0.00	--
Chloramben	9.487	0.0	0.00	0.00	--
2,4-DB	9.797	0.0	0.00	0.00	--
Dinoseb	10.013	0.0	0.00	0.00	--
Bentazon	10.370	0.0	0.00	0.00	--
Dacthal	10.590	0.0	0.00	0.00	--
Picloram	10.633	0.0	0.00	0.00	--
Acifluorfen	11.793	0.0	0.00	0.00	--

c:\ezchrom\chrom\qj31\qj31.003 -- Channel B



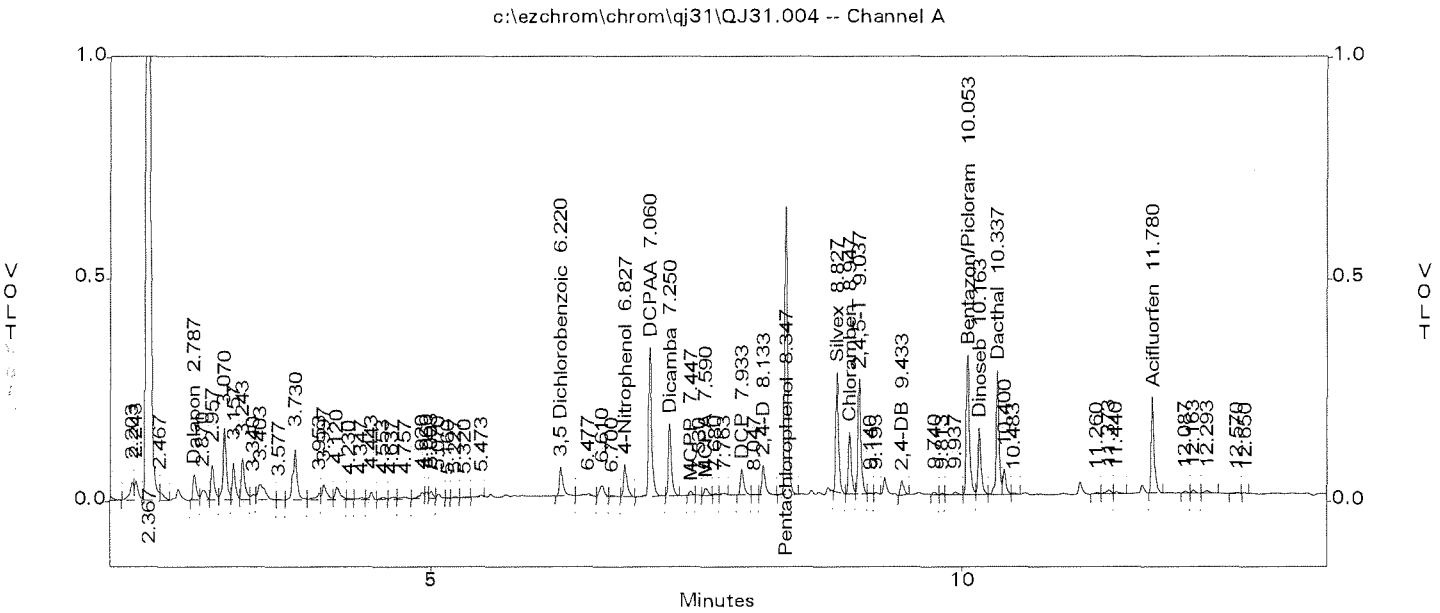
5823

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\QJ31.004
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HEJ010WL
Acquired : Oct 31, 2012 16:51:12
Printed : Nov 01, 2012 08:28:36
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	134400.0	1669.16	80.52	BV
3,5 Dichlorobenzo	6.220	148414.0	1582.76	93.77	BV
4-Nitrophenol	6.827	171279.0	994.81	172.17	VV
DCPAA	7.060	712969.0	717.28	993.98	VV
Dicamba	7.250	330179.0	3332.79	99.07	VV
MCPP	7.447	21055.0	3.75	5610.49	BV
MCPA	7.590	36737.0	7.75	4738.98	xV
DCP	7.933	125050.0	1133.12	110.36	BV
2,4-D	8.133	151806.0	1424.90	106.54	VV
Pentachlorophenol	8.347	1280250.0	12876.92	99.42	VV
Silvex	8.827	491867.0	5252.30	93.65	BV
Chloramben	8.947	270723.0	4138.84	65.41	VV
2,4,5-T	9.037	505568.0	5436.08	93.00	VV
2,4-DB	9.433	71136.0	733.46	96.99	BV
Bentazon/Picloram	10.053	651494.0	3836.73	169.80	VV
Dinoseb	10.163	296747.0	3981.06	74.54	VV
Dacthal	10.337	526665.0	6309.82	83.47	VV
Acifluorfen	11.780	422020.0	4861.40	86.81	BV



5624

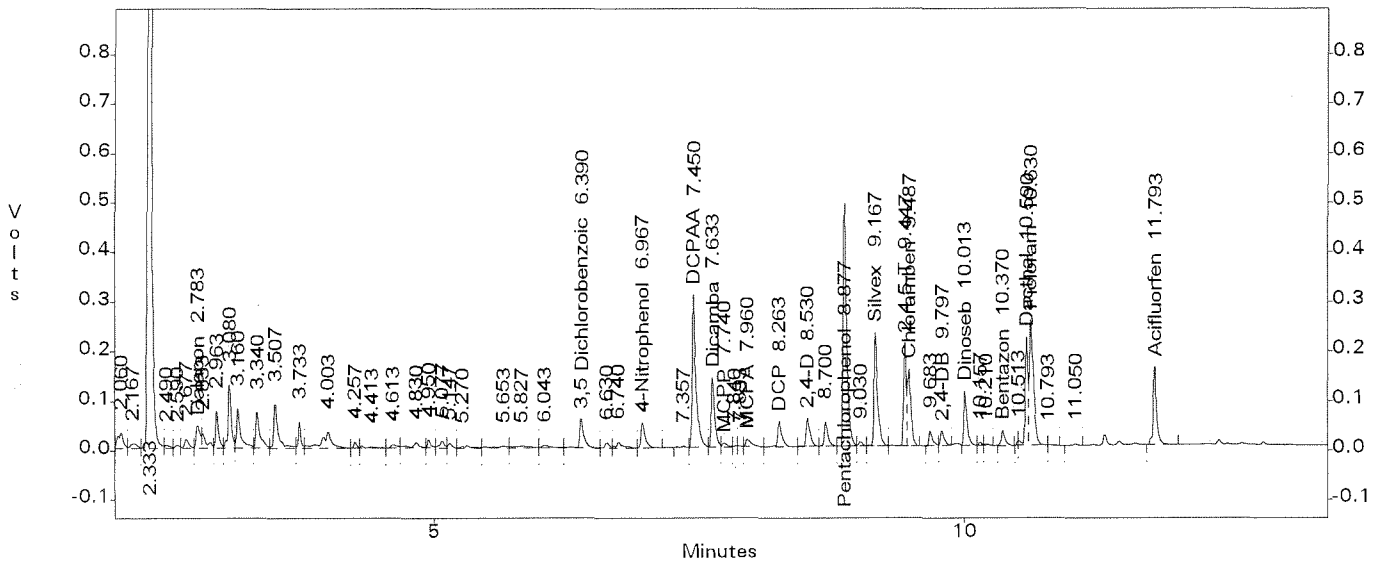
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\QJ31.004
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HEJ010WL
Acquired : Oct 31, 2012 16:51:12
Printed : Nov 01, 2012 08:28:36
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	121716.0	1263.67	96.32	Vx
3,5 Dichlorobenzoic	6.390	163345.0	1675.04	97.52	VV
4-Nitrophenol	6.967	137660.0	738.33	186.45	VV
DCPAA	7.450	801454.0	812.00	987.01	SV
Dicamba	7.633	318512.0	3231.74	98.56	VS
MCPP	7.740	25889.0	5.17	5008.54	SV
MCPA	7.960	58341.0	10.00	5836.95	SV
DCP	8.263	145713.0	1198.60	121.57	VV
2,4-D	8.530	150516.0	1382.77	108.85	VV
Pentachlorophenol	8.877	1150541.0	11546.42	99.64	VS
Silvex	9.167	538038.0	4667.02	115.29	VS
2,4,5-T	9.447	359573.0	3607.14	99.68	Sx
Chloramben	9.487	370066.0	4751.55	77.88	xV
2,4-DB	9.797	67993.0	713.67	95.27	VV
Dinoseb	10.013	232092.0	2604.65	89.11	BV
Bentazon	10.370	73235.0	620.24	118.08	xV
Dacthal	10.590	382378.0	4296.46	89.00	Sx
Picloram	10.630	712325.0	7077.91	100.64	xS
Acifluorfen	11.793	349347.0	2674.64	130.61	BI

c:\ezchrom\chrom\qj31\QJ31.004 -- Channel B



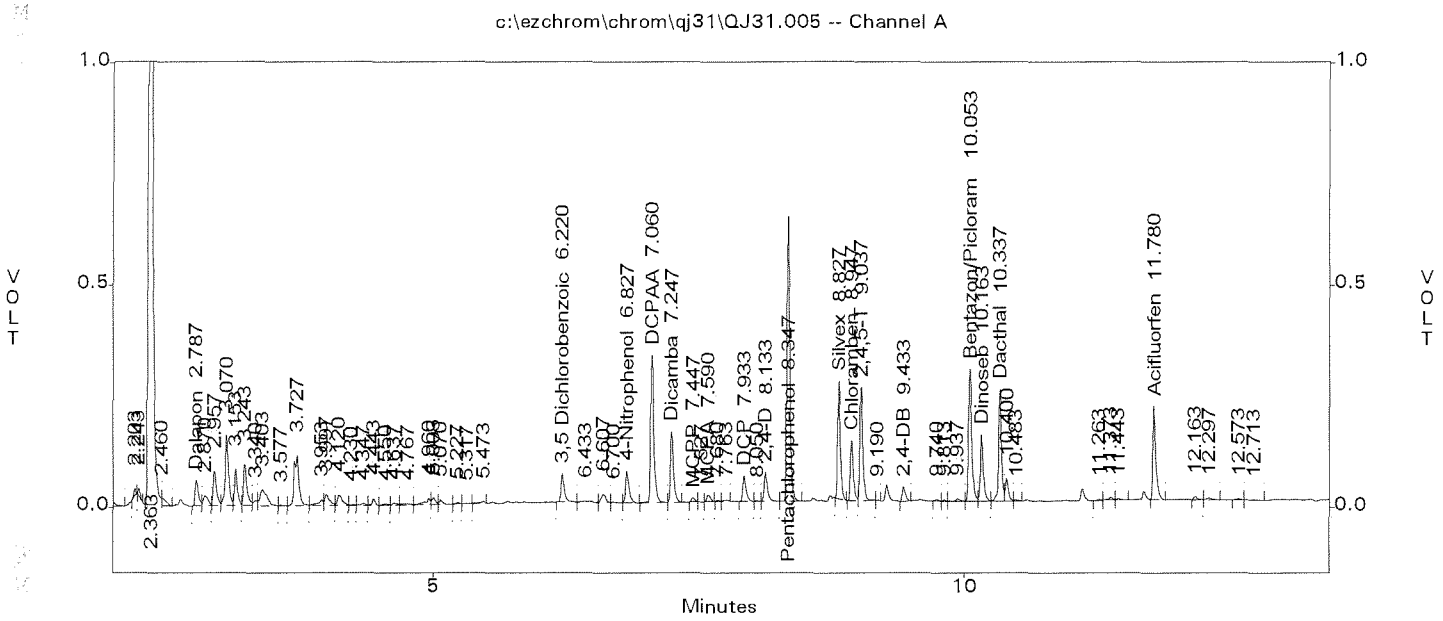
5625

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\QJ31.005
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HEJ010WC
Acquired : Oct 31, 2012 17:11:25
Printed : Nov 01, 2012 08:28:39
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	133606.0	1669.16	80.04	BV
3,5 Dichlorobenzo	6.220	141037.0	1582.76	89.11	BV
4-Nitrophenol	6.827	165502.0	994.81	166.36	VV
DCPAA	7.060	701486.0	717.28	977.97	VV
Dicamba	7.247	322040.0	3332.79	96.63	VV
MCPP	7.447	20904.0	3.75	5570.25	BV
MCPA	7.590	36121.0	7.75	4659.52	xV
DCP	7.933	123012.0	1133.12	108.56	BV
2,4-D	8.133	145860.0	1424.90	102.37	VV
Pentachlorophenol	8.347	1262105.0	12876.92	98.01	Vx
Silvex	8.827	484057.0	5252.30	92.16	BV
Chloramben	8.947	265052.0	4138.84	64.04	VV
2,4,5-T	9.037	502322.0	5436.08	92.41	VV
2,4-DB	9.433	70401.0	733.46	95.99	BV
Bentazon/Picloram	10.053	623485.0	3836.73	162.50	VV
Dinoseb	10.163	293346.0	3981.06	73.69	VV
Dacthal	10.337	470954.0	6309.82	74.64	VV
Acifluorfen	11.780	409011.0	4861.40	84.13	BV



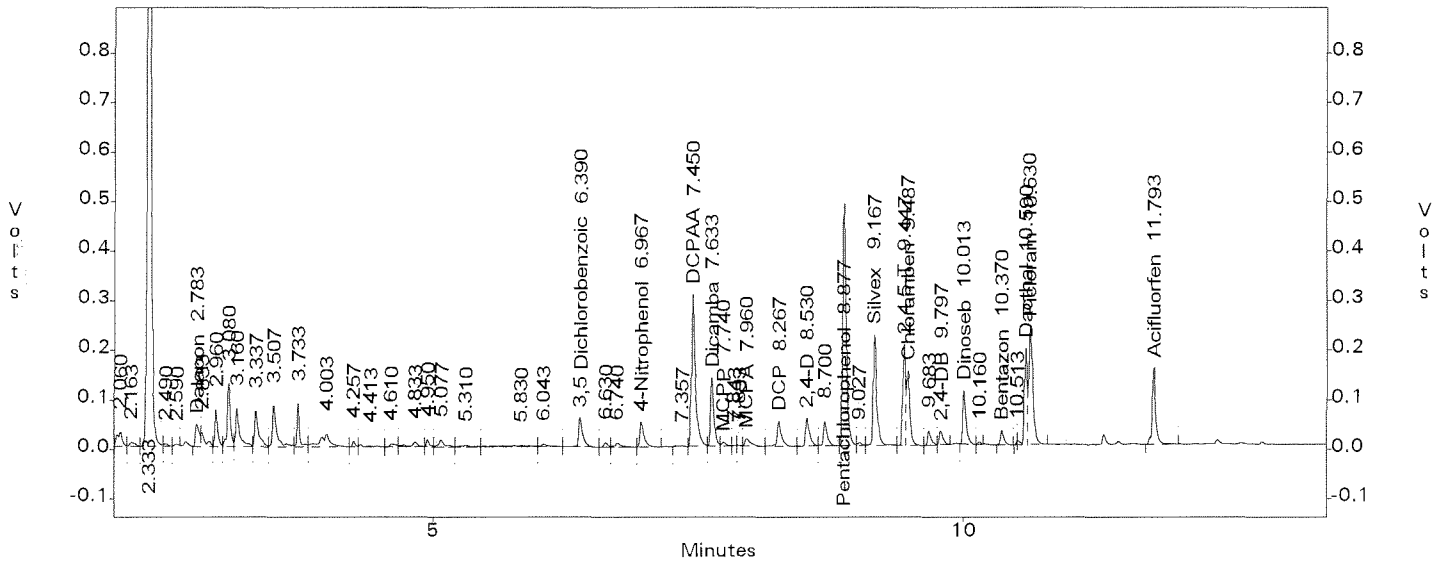
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\QJ31.005
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HEJ010WC
Acquired : Oct 31, 2012 17:11:25
Printed : Nov 01, 2012 08:28:39
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	112625.0	1263.67	89.13	Sx
3,5 Dichlorobenzoic	6.390	157703.0	1675.04	94.15	VV
4-Nitrophenol	6.967	137250.0	738.33	185.89	VV
DCPAA	7.450	798405.0	812.00	983.26	SV
Dicamba	7.633	313997.0	3231.74	97.16	VS
MCPP	7.740	25910.0	5.17	5012.60	SV
MCPA	7.960	56746.0	10.00	5677.37	SV
DCP	8.267	142193.0	1198.60	118.63	VV
2,4-D	8.530	145924.0	1382.77	105.53	VV
Pentachlorophenol	8.877	1139927.0	11546.42	98.73	VS
Silvex	9.167	525947.0	4667.02	112.69	VV
2,4,5-T	9.447	342952.0	3607.14	95.08	Sx
Chloramben	9.487	366401.0	4751.55	77.11	xV
2,4-DB	9.797	68038.0	713.67	95.34	VV
Dinoseb	10.013	237349.0	2604.65	91.12	BV
Bentazon	10.370	68216.0	620.24	109.98	xV
Dacthal	10.590	338117.0	4296.46	78.70	Sx
Picloram	10.630	662897.0	7077.91	93.66	xS
Acifluorfen	11.793	340679.0	2674.64	127.37	BI

c:\ezchrom\chrom\qj31\QJ31.005 -- Channel B



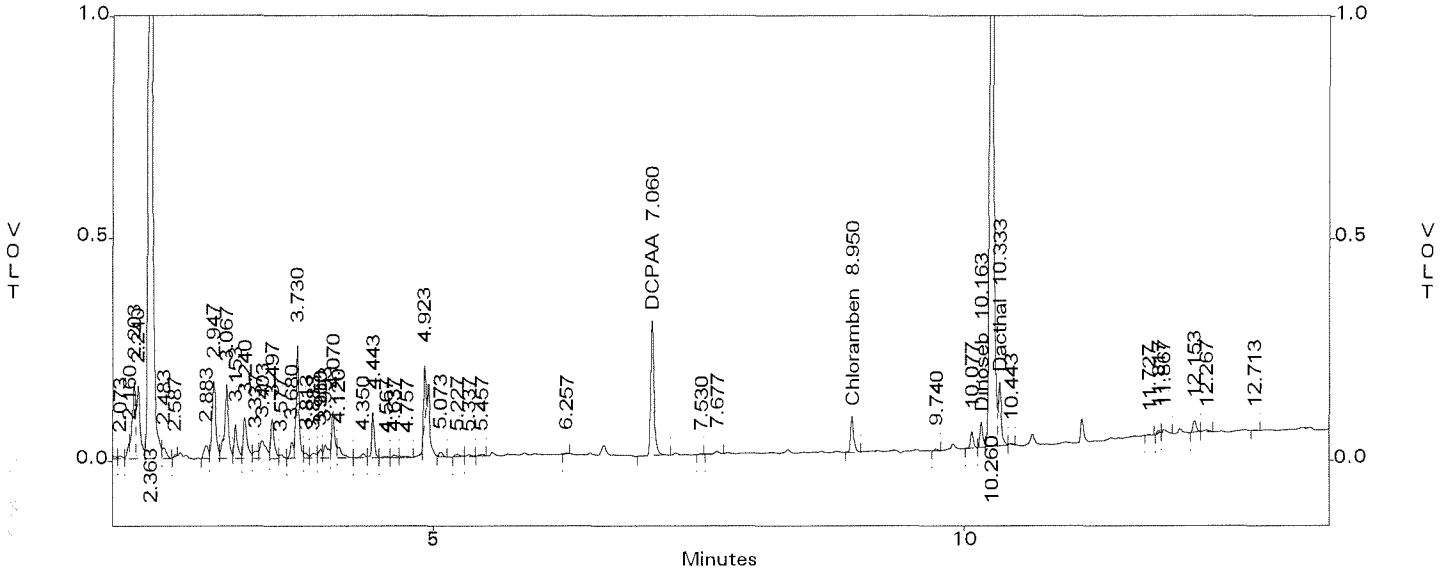
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.009
Method : c:\ezchrom\methods\he09j30.met
Sample ID : J181-04
Acquired : Oct 31, 2012 18:32:18
Printed : Nov 01, 2012 09:48:16
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	0.0	0.00	0.00	--
3,5 Dichlorobenzo	6.223	0.0	0.00	0.00	--
4-Nitrophenol	6.830	0.0	0.00	0.00	--
DCPAA	7.060	677151.0	717.28	944.05	BV
Dicamba	7.250	0.0	0.00	0.00	--
MCPP	7.447	0.0	0.00	0.00	--
MCPA	7.590	0.0	0.00	0.00	--
DCP	7.933	0.0	0.00	0.00	--
2,4-D	8.133	0.0	0.00	0.00	--
Pentachlorophenol	8.347	0.0	0.00	0.00	--
Silvex	8.827	0.0	0.00	0.00	--
Chloramben	8.950	161531.0	4138.84	39.03	BV
2,4,5-T	9.040	0.0	0.00	0.00	--
2,4-DB	9.437	0.0	0.00	0.00	--
Bentazon/Picloram	10.057	0.0	0.00	0.00	--
Dinoseb	10.163	109253.0	3981.06	27.44	VV
Dacthal	10.333	301389.0	6309.82	47.77	SV
Acifluorfen	11.783	0.0	0.00	0.00	--

c:\ezchrom\chrom\qj31\qj31.009 -- Channel A



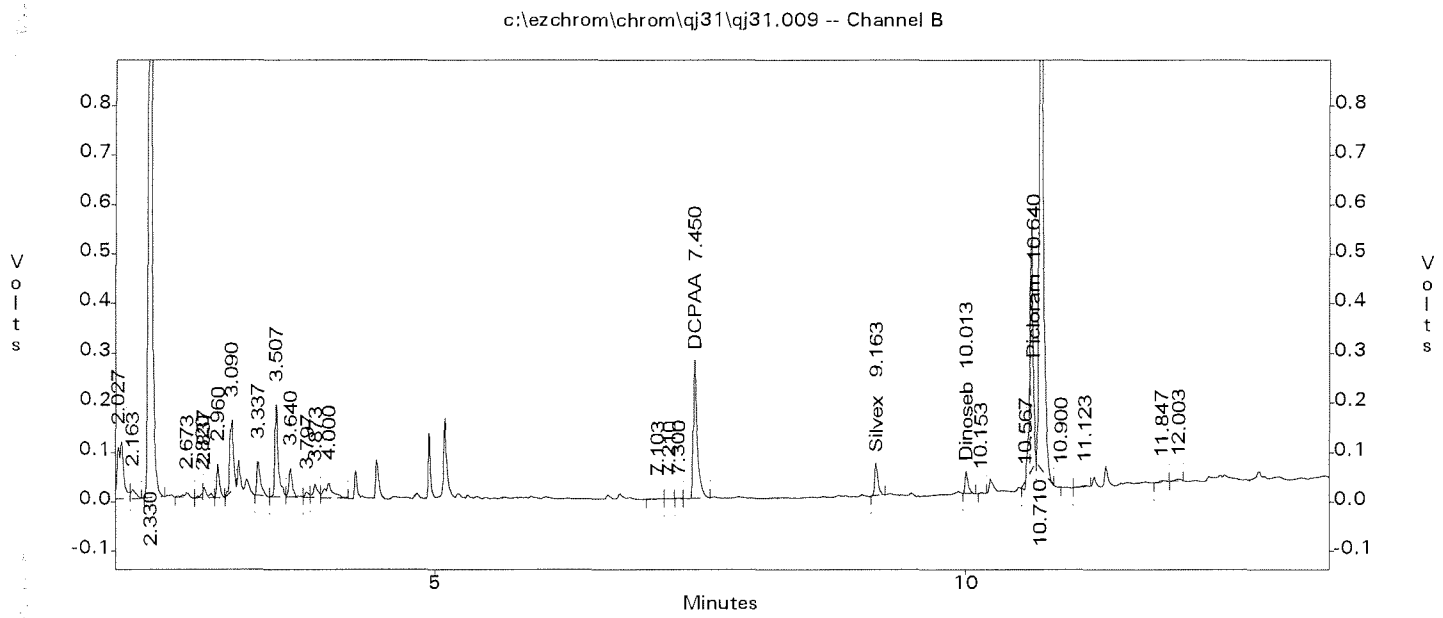
5028

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.009
Method : c:\ezchrom\methods\he09j30.met
Sample ID : J181-04
Acquired : Oct 31, 2012 18:32:18
Printed : Nov 01, 2012 09:48:16
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	0.0	0.00	0.00	--
3,5 Dichlorobenzoic	6.390	0.0	0.00	0.00	--
4-Nitrophenol	6.970	0.0	0.00	0.00	--
DCPAA	7.450	724681.0	812.00	892.47	SI
Dicamba	7.633	0.0	0.00	0.00	--
MCPP	7.740	0.0	0.00	0.00	--
MCPA	7.960	0.0	0.00	0.00	--
DCP	8.267	0.0	0.00	0.00	--
2,4-D	8.530	0.0	0.00	0.00	--
Pentachlorophenol	8.877	0.0	0.00	0.00	--
Silvex	9.163	144685.0	4667.02	31.00	BI
2,4,5-T	9.447	0.0	0.00	0.00	--
Chloramben	9.487	0.0	0.00	0.00	--
2,4-DB	9.797	0.0	0.00	0.00	--
Dinoseb	10.013	92245.0	2604.65	35.42	BV
Bentazon	10.370	0.0	0.00	0.00	--
Dacthal	10.590	0.0	0.00	0.00	--
Picloram	10.640	841721.0	7077.91	118.92	xS
Acifluorfen	11.793	0.0	0.00	0.00	--

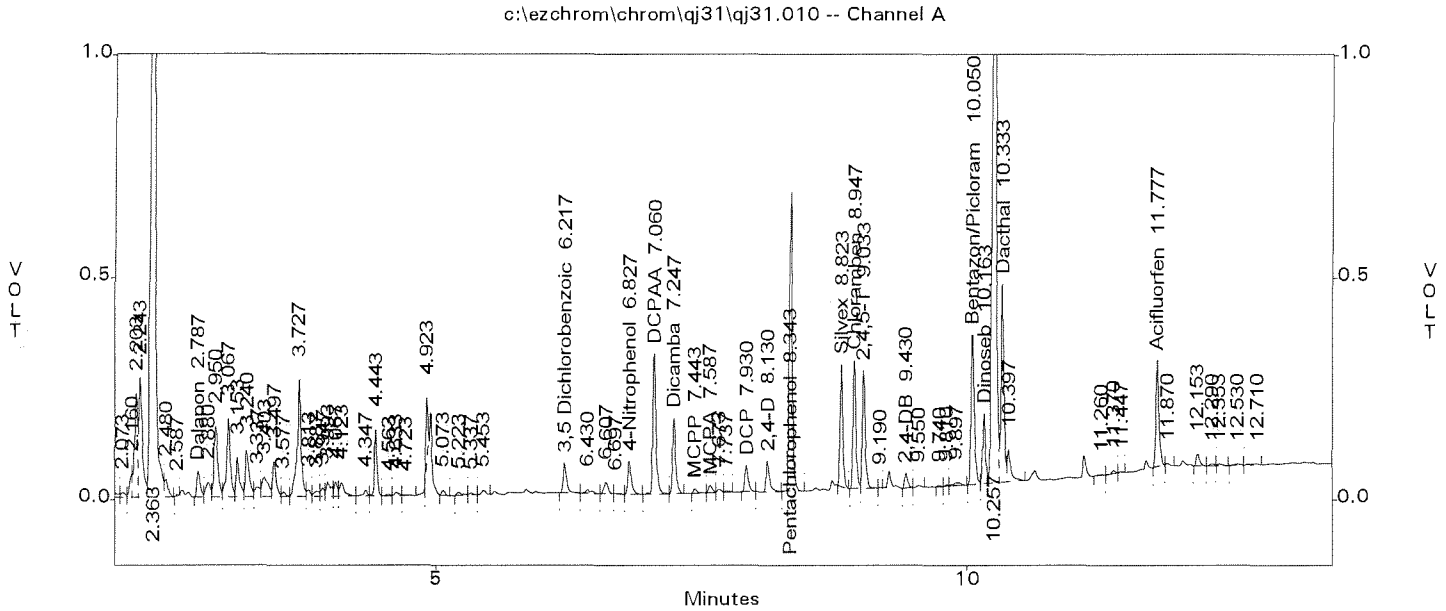


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.010
Method : c:\ezchrom\methods\he09j30.met
Sample ID : J181-04M
Acquired : Oct 31, 2012 18:52:28
Printed : Nov 01, 2012 09:53:22
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	132182.0	1669.16	79.19	BV
3,5 Dichlorobenzo	6.217	145118.0	1582.76	91.69	BV
4-Nitrophenol	6.827	175244.0	994.81	176.16	VV
DCPAA	7.060	670070.0	717.28	934.18	VV
Dicamba	7.247	345448.0	3332.79	103.65	VV
MCPP	7.443	26838.0	3.75	7151.47	BV
MCPA	7.587	40029.0	7.75	5163.65	VV
DCP	7.930	129521.0	1133.12	114.31	BV
2,4-D	8.130	163359.0	1424.90	114.65	VV
Pentachlorophenol	8.343	1322555.0	12876.92	102.71	VV
Silvex	8.823	494909.0	5252.30	94.23	BV
Chloramben	8.947	559411.0	4138.84	135.16	VV
2,4,5-T	9.033	520906.0	5436.08	95.82	VV
2,4-DB	9.430	72850.0	733.46	99.32	BV
Bentazon/Picloram	10.050	753803.0	3836.73	196.47	VV
Dinoseb	10.163	304238.0	3981.06	76.42	VV
Dacthal	10.333	865951.0	6309.82	137.24	VS
Acifluorfen	11.777	454007.0	4861.40	93.39	BV



5030

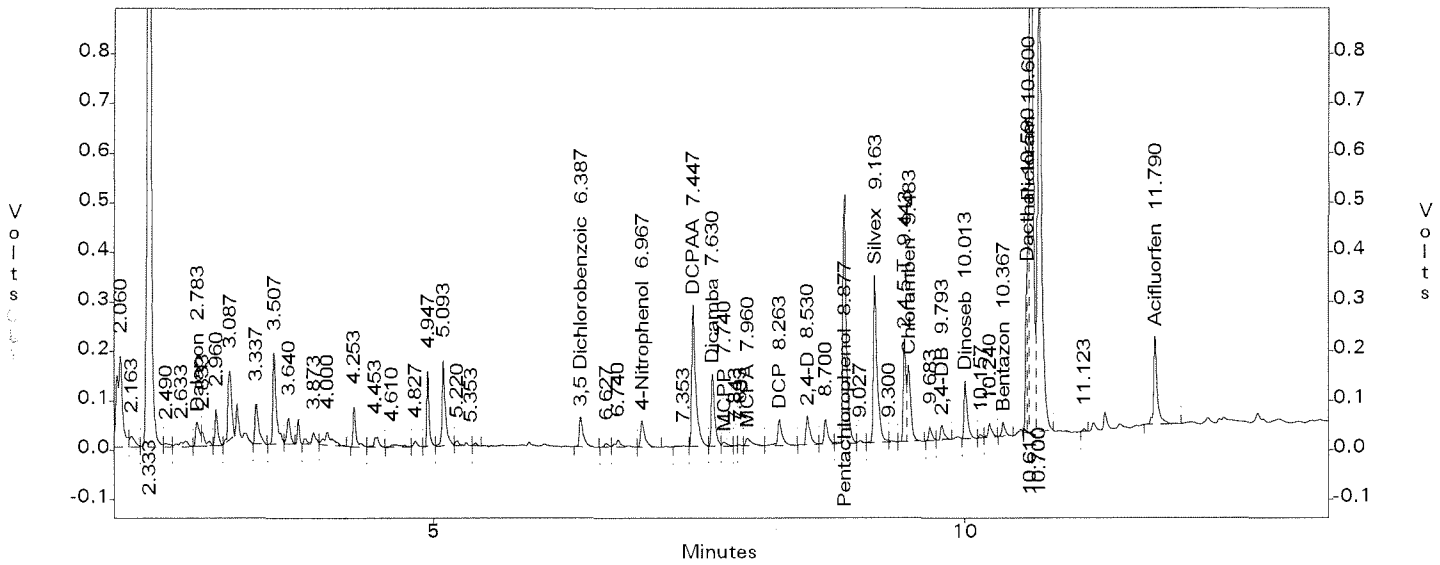
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.010
Method : c:\ezchrom\methods\he09j30.met
Sample ID : J181-04M
Acquired : Oct 31, 2012 18:52:28
Printed : Nov 01, 2012 09:53:22
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	124933.0	1263.67	98.87	Sx
3,5 Dichlorobenzoic	6.387	151101.0	1675.04	90.21	BV
4-Nitrophenol	6.967	144830.0	738.33	196.16	VV
DCPAA	7.447	754185.0	812.00	928.80	SV
Dicamba	7.630	337633.0	3231.74	104.47	VS
MCPP	7.740	28476.0	5.17	5509.02	SV
MCPA	7.960	60895.0	10.00	6092.47	SV
DCP	8.263	146157.0	1198.60	121.94	VV
2,4-D	8.530	149782.0	1382.77	108.32	VV
Pentachlorophenol	8.877	1184697.0	11546.42	102.60	VS
Silvex	9.163	838510.0	4667.02	179.67	VS
2,4,5-T	9.443	364252.0	3607.14	100.98	Vx
Chloramben	9.483	367398.0	4751.55	77.32	xV
2,4-DB	9.793	66607.0	713.67	93.33	VV
Dinoseb	10.013	251747.0	2604.65	96.65	BV
Bentazon	10.367	64882.0	620.24	104.61	xV
Dacthal	10.590	322126.0	4296.46	74.97	MM
Picloram	10.600	573289.0	7077.91	81.00	MM
Acifluorfen	11.790	416221.0	2674.64	155.62	SV

c:\ezchrom\chrom\qj31\qj31.010 -- Channel B



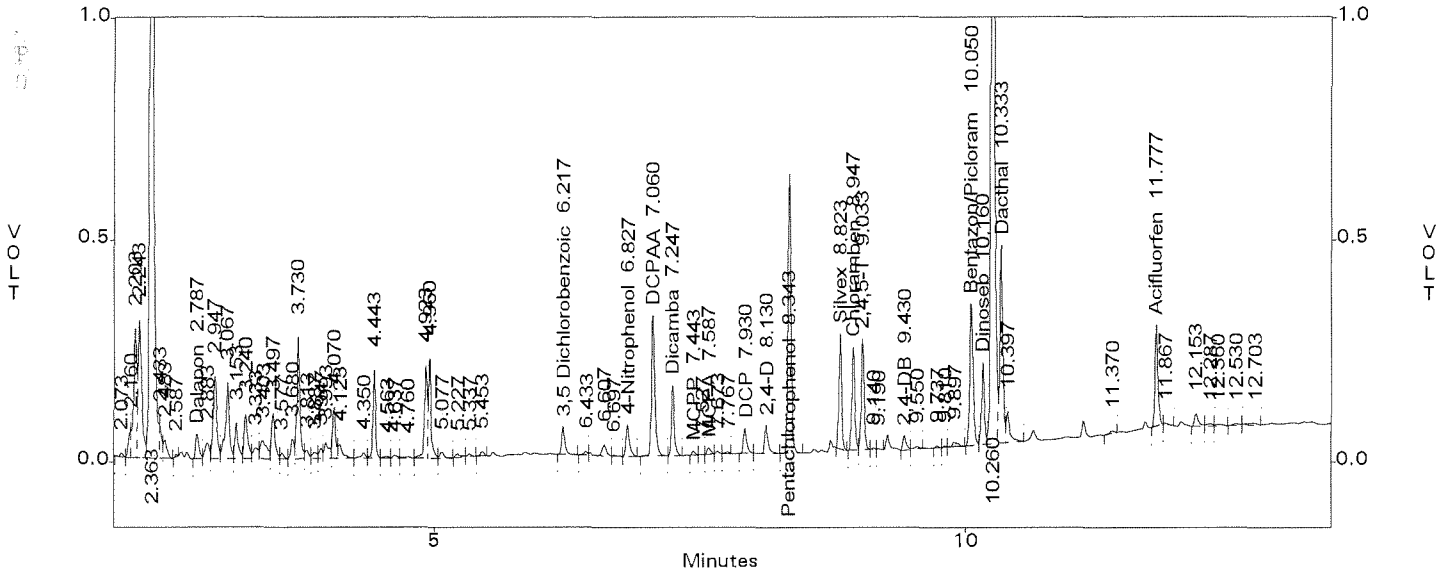
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.011
Method : c:\ezchrom\methods\he09j30.met
Sample ID : J181-04S
Acquired : Oct 31, 2012 19:12:46
Printed : Nov 01, 2012 09:55:12
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	127864.0	1669.16	76.60	BV
3,5 Dichlorobenzo	6.217	136225.0	1582.76	86.07	BV
4-Nitrophenol	6.827	165569.0	994.81	166.43	VV
DCPAA	7.060	674457.0	717.28	940.29	VV
Dicamba	7.247	323719.0	3332.79	97.13	VV
MCPP	7.443	19684.0	3.75	5245.16	BV
MCPA	7.587	34257.0	7.75	4419.07	xV
DCP	7.930	122162.0	1133.12	107.81	BV
2,4-D	8.130	156816.0	1424.90	110.05	VV
Pentachlorophenol	8.343	1238046.0	12876.92	96.14	VV
Silvex	8.823	468585.0	5252.30	89.22	BV
Chloramben	8.947	450411.0	4138.84	108.83	VV
2,4,5-T	9.033	484799.0	5436.08	89.18	VV
2,4-DB	9.430	71135.0	733.46	96.99	BV
Bentazon/Picloram	10.050	707942.0	3836.73	184.52	VV
Dinoseb	10.160	352154.0	3981.06	88.46	VV
Dacthal	10.333	885170.0	6309.82	140.28	VS
Acifluorfen	11.777	433640.0	4861.40	89.20	BV

c:\ezchrom\chrom\qj31\qj31.011 -- Channel A



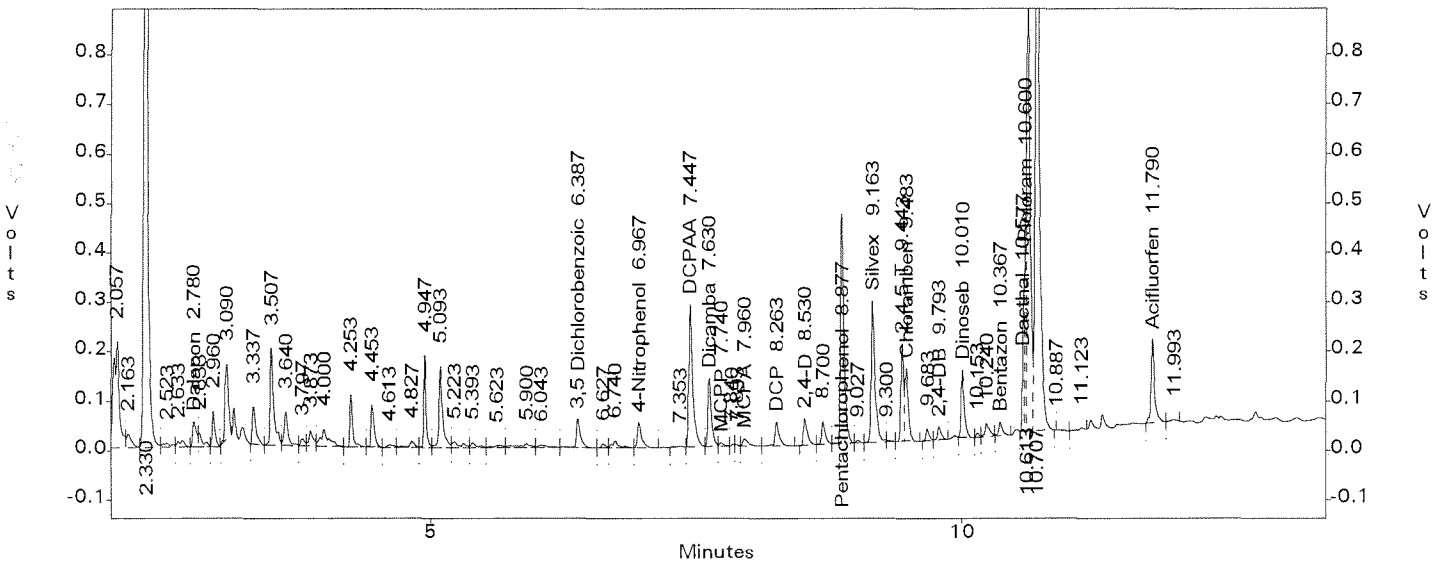
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.011
Method : c:\ezchrom\methods\he09j30.met
Sample ID : J181-04S
Acquired : Oct 31, 2012 19:12:46
Printed : Nov 01, 2012 09:55:12
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	129485.0	1263.67	102.47	Sx
3,5 Dichlorobenzoic	6.387	160625.0	1675.04	95.89	VV
4-Nitrophenol	6.967	136753.0	738.33	185.22	VV
DCPAA	7.447	753547.0	812.00	928.02	SV
Dicamba	7.630	315090.0	3231.74	97.50	VS
MCPP	7.740	25159.0	5.17	4867.31	SV
MCPA	7.960	58637.0	10.00	5866.56	SV
DCP	8.263	137653.0	1198.60	114.85	VV
2,4-D	8.530	141542.0	1382.77	102.36	VV
Pentachlorophenol	8.877	1088253.0	11546.42	94.25	VS
Silvex	9.163	720472.0	4667.02	154.38	VS
2,4,5-T	9.443	347060.0	3607.14	96.21	Vx
Chloramben	9.483	342400.0	4751.55	72.06	xV
2,4-DB	9.793	60381.0	713.67	84.61	VV
Dinoseb	10.010	291272.0	2604.65	111.83	BV
Bentazon	10.367	70070.0	620.24	112.97	xV
Dacthal	10.577	313961.0	4296.46	73.07	MM
Picloram	10.600	435007.0	7077.91	61.46	MM
Acifluorfen	11.790	380466.0	2674.64	142.25	BV

c:\ezchrom\chrom\qj31\qj31.011 -- Channel B



INITIAL CALIBRATIONS

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Columm : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
LFID & Datetime: QJ30002A 10/30/12 14:21
LFID & Datetime: QJ30003A 10/30/12 14:41
LFID & Datetime: QJ30004A 10/30/12 15:01
LFID & Datetime: QJ30005A 10/30/12 15:21
LFID & Datetime: QJ30006A 10/30/12 15:41
LFID & Datetime: QJ30007A 10/30/12 16:02
LFID & Datetime: QJ30008A 10/30/12 16:22
LFID & Datetime: QJ30009A 10/30/12 16:42
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA)/UNIT 1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
Dalapon	10.00	0	2100	1798	1725	1650	1604	1569	1518	1709.2	11.5
3,5-Dichlorobenzo	10.00	0	1849	1627	1530	1462	1403	1364	1318	1507.6	12.1
4-Nitrophenol	10.00	0	1262	1135	1076	1032	989	956	913	1051.9	11.3
Dicamba	10.00	0	3955	3470	3393	3306	3220	3176	3080	3371.5	8.6
MCPP	500.00	0	0	4	5	5	5	5	4	4.6	6.2
MCPA	500.00	0	0	9	9	8	8	8	7	8.3	9.8
Dichloroprop	10.00	0	1423	1286	1201	1152	1104	1076	1032	1182.1	11.4
2,4-D	10.00	0	1671	1733	1522	1470	1398	1357	1297	1492.5	10.8
Pentachlorophenol	10.00	13840	15310	13553	12814	12438	12041	11834	11063	12861.5	10.4
2,4,5-TP(Silvex)	10.00	0	5969	5442	5357	5250	5112	5047	4876	5293.3	6.7
Chloramben	10.00	0	4121	3929	4080	4122	4091	4095	4013	4064.3	1.7
2,4,5-T	10.00	0	6639	5993	5769	5570	5369	5250	5044	5662.1	9.5
2,4-DB	10.00	0	831	770	758	739	721	712	694	746.3	6.1
Bentazon/Picloram	20.00	4728	4333	4002	4063	4036	3964	3937	3839	4112.7	7.0
Dinoseb	10.00	0	5532	4816	4563	4357	4193	4052	3878	4484.4	12.4
Dacthal	10.00	0	7375	6677	6205	6304	6134	6048	5839	6368.7	8.0
Acifluorfen	10.00	0	5759	5138	5178	5049	4980	4912	4787	5114.7	6.1

SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
2,4-DCPAA	100.00	0	933	803	725	684	652	636	611	720.5	15.7

11/02/12

5035

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Columm : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: QJ30002B 10/30/12 14:21
LFID & Datetime: QJ30003B 10/30/12 14:41
LFID & Datetime: QJ30004B 10/30/12 15:01
LFID & Datetime: QJ30005B 10/30/12 15:21
LFID & Datetime: QJ30006B 10/30/12 15:41
LFID & Datetime: QJ30007B 10/30/12 16:02
LFID & Datetime: QJ30008B 10/30/12 16:22
LFID & Datetime: QJ30009B 10/30/12 16:42
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA)/UNIT 1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
Dalapon	10.00	0	1407	1328	1294	1240	1243	1311	1308	1304.2	4.3
3,5-Dichlorobenzo	10.00	0	1929	1757	1666	1612	1559	1531	1476	1647.3	9.4
4-Nitrophenol	10.00	0	1125	956	900	851	819	788	752	884.3	14.3
Dicamba	10.00	0	3638	3355	3325	3283	3226	3212	3159	3313.9	4.8
MCPP	500.00	0	0	5	6	5	5	5	6	5.4	4.2
MCPA	500.00	0	0	13	12	10	10	9	9	10.5	13.7
Dichloroprop	10.00	0	1587	1382	1285	1225	1177	1153	1117	1275.0	12.8
2,4-D	10.00	0	1722	1535	1462	1420	1373	1349	1300	1451.6	9.8
Pentachlorophenol	10.00	11146	13426	12254	12194	12026	11780	11702	11382	11988.8	5.8
2,4,5-TP(Silvex)	10.00	0	5375	4924	4938	4927	4860	4851	4749	4946.3	4.0
Chloramben	10.00	0	4992	4695	4801	5128	5144	5163	5057	4997.1	3.7
2,4,5-T	10.00	0	4317	3923	3974	3658	3556	3528	3441	3771.0	8.3
2,4-DB	10.00	0	830	820	770	759	781	734	709	771.7	5.6
Dinoseb	10.00	0	3822	3523	3387	3446	3355	3343	3268	3449.0	5.3
Bentazon	10.00	0	871	755	709	667	653	649	632	705.1	12.0
Dacthal	10.00	0	5222	4813	4764	4554	4460	4405	4342	4651.5	6.6
Picloram	10.00	0	7276	7015	7436	7872	7911	7992	7862	7623.5	5.0
Acifluorfen	10.00	0	4287	3920	4013	4021	4022	4010	3963	4033.7	2.9

SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
2,4-DCPAA	100.00	0	1079	907	841	802	770	753	726	839.8	14.5

pr 11/02/12

5835

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Columm : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
LFID & Datetime: QJ30002A 10/30/12 14:21
LFID & Datetime: QJ30003A 10/30/12 14:41
LFID & Datetime: QJ30004A 10/30/12 15:01
LFID & Datetime: QJ30005A 10/30/12 15:21
LFID & Datetime: QJ30006A 10/30/12 15:41
LFID & Datetime: QJ30007A 10/30/12 16:02
LFID & Datetime: QJ30008A 10/30/12 16:22
LFID & Datetime: QJ30009A 10/30/12 16:42

COMPOUND	RT OF STANDARDS (MIN) 1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	MEAN RT	RT WINDOW FROM	TO	RTWINDOW WIDTH
Dalapon	2.793	2.790	2.790	2.787	2.787	2.787	2.787	2.787	2.788	2.774	2.802	0.014
3,5-Dichlorobenzo	6.223	6.220	6.220	6.217	6.217	6.217	6.217	6.217	6.218	6.204	6.232	0.014
4-Nitrophenol	6.837	6.830	6.830	6.827	6.827	6.823	6.823	6.823	6.826	6.812	6.840	0.014
Dicamba	7.253	7.247	7.247	7.247	7.243	7.243	7.243	7.243	7.245	7.231	7.259	0.014
MCPP	0.000	7.447	7.447	7.443	7.443	7.443	7.440	7.440	7.443	7.429	7.457	0.014
MCPA	7.600	7.590	7.590	7.587	7.583	7.583	7.583	7.583	7.585	7.569	7.601	0.016
Dichloroprop	7.937	7.933	7.930	7.930	7.930	7.927	7.927	7.927	7.929	7.915	7.943	0.014
2,4-D	8.140	8.133	8.133	8.130	8.130	8.130	8.127	8.127	8.130	8.114	8.146	0.016
Pentachlorophenol	8.350	8.343	8.343	8.340	8.340	8.340	8.340	8.340	8.342	8.326	8.358	0.016
2,4,5-TP(Silvex)	8.830	8.827	8.823	8.823	8.823	8.820	8.820	8.820	8.822	8.806	8.838	0.016
Chloramben	8.953	8.950	8.950	8.947	8.943	8.943	8.943	8.943	8.946	8.930	8.962	0.016
2,4,5-T	9.040	9.037	9.037	9.033	9.033	9.033	9.033	9.030	9.034	9.018	9.050	0.016
2,4-DB	9.437	9.437	9.437	9.433	9.430	9.430	9.430	9.430	9.432	9.416	9.448	0.016
Bentazon/Picloram	10.060	10.060	10.057	10.053	10.053	10.053	10.053	10.050	10.055	10.041	10.069	0.014
Dinoseb	10.167	10.163	10.163	10.160	10.160	10.160	10.160	10.160	10.161	10.145	10.177	0.016
Dacthal	10.337	10.333	10.333	10.330	10.330	10.333	10.330	10.330	10.331	10.315	10.347	0.016
Acifluorfen	11.783	11.780	11.780	11.777	11.777	11.777	11.777	11.777	11.778	11.764	11.792	0.014

SURROGATE	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
2,4-DCPAA	7.070	7.063	7.060	7.057	7.057	7.057	7.057	7.057	7.058	7.042	7.074	0.016

5837

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Columm : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: QJ30002B 10/30/12 14:21
LFID & Datetime: QJ30003B 10/30/12 14:41
LFID & Datetime: QJ30004B 10/30/12 15:01
LFID & Datetime: QJ30005B 10/30/12 15:21
LFID & Datetime: QJ30006B 10/30/12 15:41
LFID & Datetime: QJ30007B 10/30/12 16:02
LFID & Datetime: QJ30008B 10/30/12 16:22
LFID & Datetime: QJ30009B 10/30/12 16:42

COMPOUND	RT OF STANDARDS (MIN) 1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	MEAN RT	RT WINDOW FROM	TO	RTWINDOW WIDTH
Dalapon	2.783	2.787	2.787	2.783	2.783	2.783	2.783	2.783	2.784	2.768	2.800	0.016
3,5-Dichlorobenzo	6.387	6.390	6.387	6.387	6.387	6.387	6.387	6.383	6.387	6.371	6.403	0.016
4-Nitrophenol	6.967	6.970	6.967	6.967	6.963	6.963	6.963	6.963	6.965	6.949	6.981	0.016
Dicamba	7.630	7.630	7.630	7.627	7.627	7.627	7.627	7.627	7.628	7.612	7.644	0.016
MCPP	0.000	7.740	7.740	7.737	7.737	7.737	7.737	7.733	7.737	7.721	7.753	0.016
MCPA	0.000	7.963	7.960	7.960	7.957	7.957	7.957	7.957	7.958	7.942	7.974	0.016
Dichloroprop	8.263	8.263	8.263	8.263	8.260	8.260	8.260	8.260	8.261	8.247	8.275	0.014
2,4-D	8.530	8.530	8.530	8.527	8.527	8.527	8.527	8.527	8.528	8.514	8.542	0.014
Pentachlorophenol	8.873	8.877	8.873	8.873	8.873	8.873	8.873	8.873	8.874	8.860	8.888	0.014
2,4,5-TP(Silvex)	9.167	9.167	9.167	9.163	9.163	9.163	9.163	9.163	9.164	9.150	9.178	0.014
Chloramben	9.487	9.487	9.487	9.483	9.483	9.483	9.483	9.483	9.484	9.454	9.514	0.030
2,4,5-T	9.443	9.447	9.447	9.443	9.443	9.443	9.443	9.443	9.444	9.428	9.460	0.016
2,4-DB	9.813	9.797	9.797	9.793	9.793	9.793	9.793	9.793	9.794	9.770	9.818	0.024
Dinoseb	10.010	10.010	10.010	10.010	10.010	10.010	10.010	10.010	10.010	9.994	10.026	0.016
Bentazon	10.360	10.367	10.367	10.363	10.367	10.367	10.367	10.367	10.366	10.350	10.382	0.016
Dacthal	10.587	10.587	10.587	10.583	10.587	10.587	10.587	10.587	10.586	10.570	10.602	0.016
Picloram	10.630	10.633	10.630	10.627	10.627	10.627	10.627	10.627	10.628	10.604	10.652	0.024
Acifluorfen	11.790	11.790	11.790	11.787	11.790	11.790	11.790	11.790	11.790	11.776	11.804	0.014
SURROGATE	**1.0X**	**2.0X**	**4.0X**	**7.0X**	**10.0X**	**13.0X**	**16.0X**	**20.0X**	**RT**	**FROM**	**TO**	**WIDTH**
2,4-DCPAA	7.450	7.450	7.447	7.447	7.447	7.447	7.447	7.443	7.447	7.431	7.463	0.016

11/02/12

5038

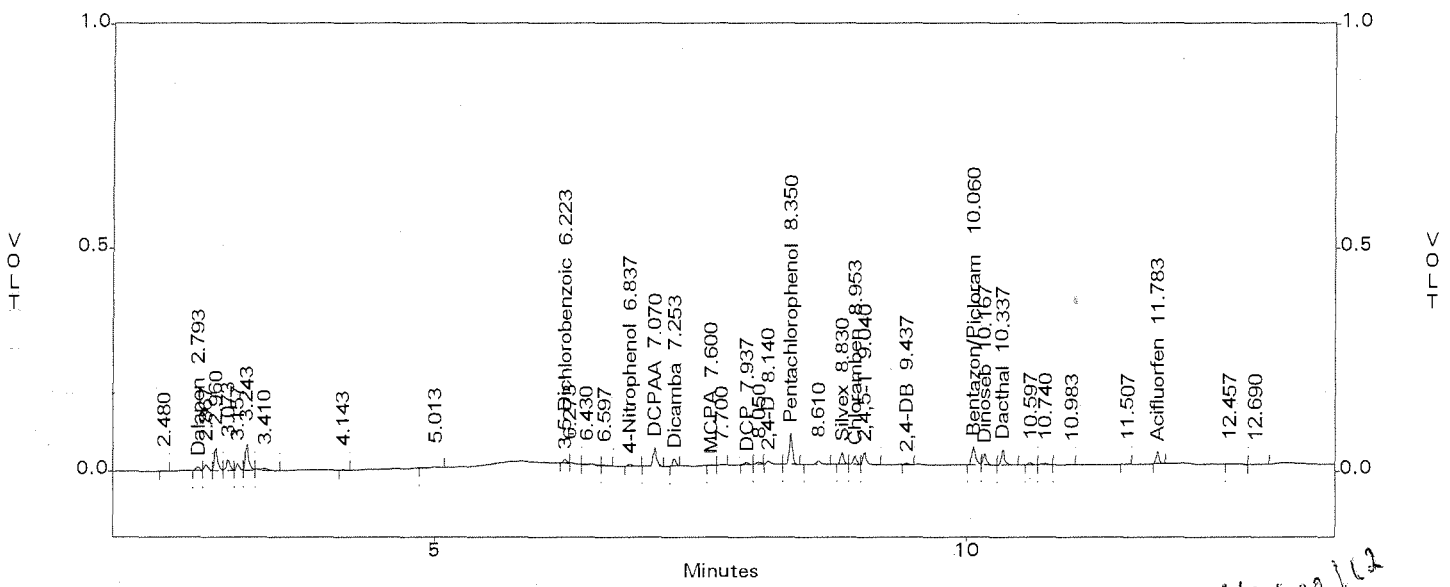
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.002
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3001
Acquired : Oct 30, 2012 14:21:31
Printed : Oct 31, 2012 09:27:33
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.793	19494.0	1709.22	-1.00	BV
3,5 Dichlorobenzo	6.223	19524.0	1507.56	-1.00	Bx
4-Nitrophenol	6.837	11506.0	1051.91	-1.00	BV
DCPAA	7.070	92342.0	720.54	-1.00	VV
Dicamba	7.253	32488.0	3371.46	-1.00	VV
MCPP	7.447	0.0	0.00	0.00	--
MCPA	7.600	5353.0	8.27	-1.00	BV
DCP	7.937	13857.0	1182.11	-1.00	BV
2,4-D	8.140	23163.0	1492.49	-1.00	VV
Pentachlorophenol	8.350	138397.0	12861.50	10.00	VV
Silvex	8.830	52990.0	5293.29	-1.00	BV
Chloramben	8.953	39232.0	4064.33	-1.00	VV
2,4,5-T	9.040	56557.0	5662.12	-1.00	VB
2,4-DB	9.437	7309.0	746.33	-1.00	BV
Bentazon/Picloram	10.060	94563.0	4112.69	20.00	BV
Dinoseb	10.167	51336.0	4484.44	-1.00	VV
Dacthal	10.337	71698.0	6368.69	-1.00	VB
Acifluorfen	11.783	51666.0	5114.74	-1.00	BV

c:\ezchrom\chrom\qj30\qj30.002 -- Channel A



11/02/12

5899

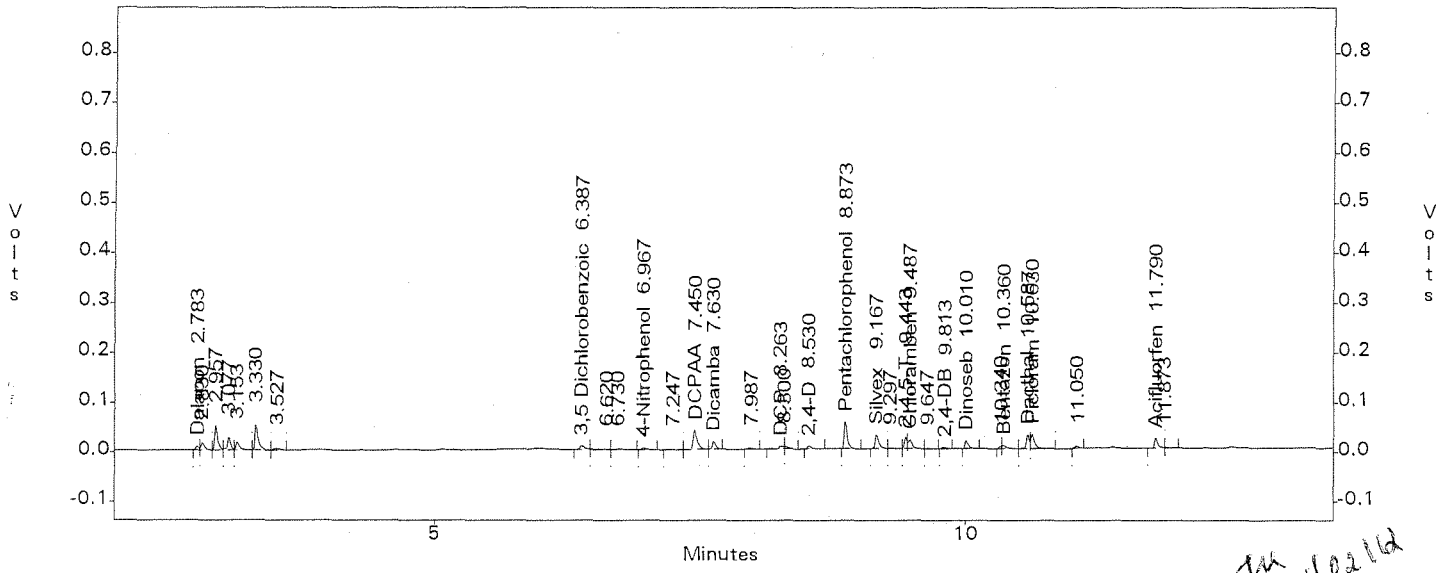
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.002
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3001
Acquired : Oct 30, 2012 14:21:31
Printed : Oct 31, 2012 09:27:33
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	12297.0	1304.23	-1.00	xx
3,5 Dichlorobenzoic	6.387	19388.0	1647.29	-1.00	BV
4-Nitrophenol	6.967	10528.0	884.30	-1.00	VV
DCPAA	7.450	101539.0	839.77	-1.00	SV
Dicamba	7.630	31621.0	3313.89	-1.00	VV
MCPP	7.740	0.0	0.00	0.00	--
MCPA	7.960	0.0	0.00	0.00	--
DCP	8.263	16055.0	1274.98	-1.00	Sx
2,4-D	8.530	16121.0	1451.63	-1.00	xS
Pentachlorophenol	8.873	111458.0	11988.79	10.00	BV
Silvex	9.167	68196.0	4946.26	-1.00	SS
2,4,5-T	9.443	37931.0	3771.03	-1.00	xx
Chloramben	9.487	44811.0	4997.10	-1.00	xV
2,4-DB	9.813	8580.0	771.68	-1.00	VS
Dinoseb	10.010	34253.0	3449.00	-1.00	SV
Bentazon	10.360	19615.0	705.05	-1.00	xV
Dacthal	10.587	50745.0	4651.52	-1.00	Vx
Picloram	10.630	65651.0	7623.47	-1.00	xB
Acifluorfen	11.790	40770.0	4033.72	-1.00	BS

c:\ezchrom\chrom\qj30\qj30.002 -- Channel B



11/02/12

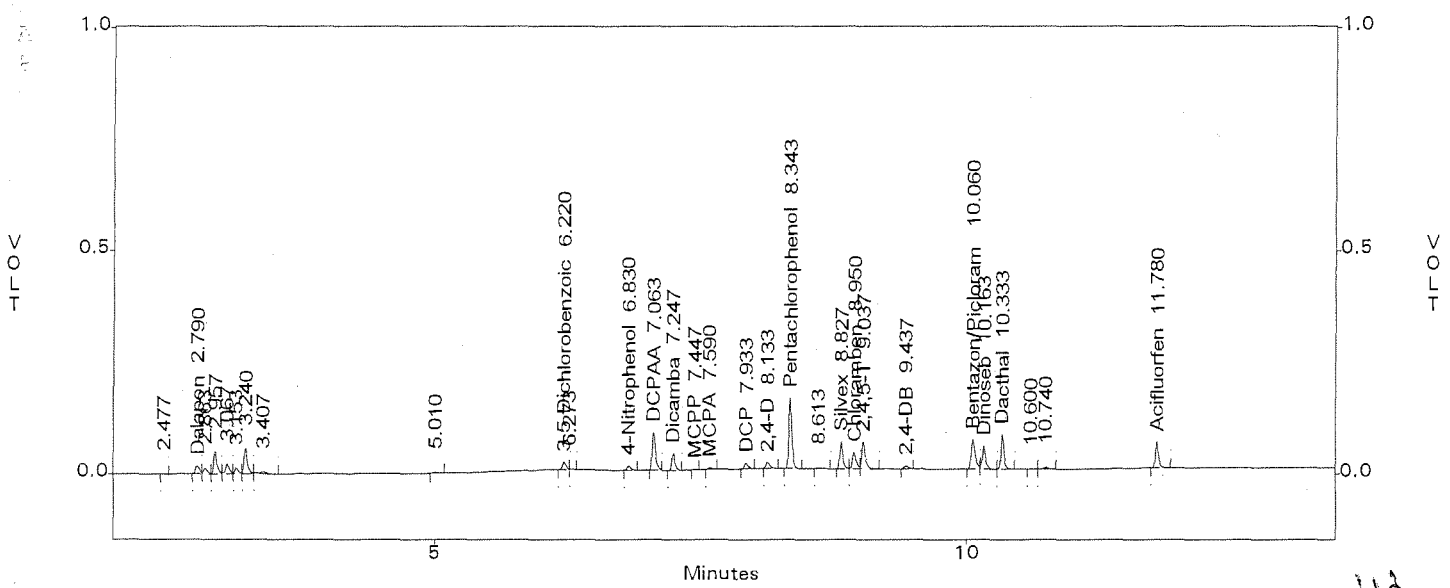
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.003
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3002
Acquired : Oct 30, 2012 14:41:30
Printed : Oct 31, 2012 09:27:39
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	42008.0	1709.22	20.00	BV
3,5 Dichlorobenzo	6.220	36980.0	1507.56	20.00	Bx
4-Nitrophenol	6.830	25236.0	1051.91	20.00	BI
DCPAA	7.063	186541.0	720.54	200.00	BI
Dicamba	7.247	79096.0	3371.46	20.00	BV
MCPP	7.447	3784.0	4.57	-1.00	BV
MCPA	7.590	11178.0	8.27	-1.00	xV
DCP	7.933	28457.0	1182.11	20.00	BV
2,4-D	8.133	33412.0	1492.49	20.00	xI
Pentachlorophenol	8.343	306192.0	12861.50	20.00	BI
Silvex	8.827	119387.0	5293.29	20.00	BV
Chloramben	8.950	82410.0	4064.33	20.00	VV
2,4,5-T	9.037	132784.0	5662.12	20.00	VI
2,4-DB	9.437	16612.0	746.33	20.00	Bx
Bentazon/Picloram	10.060	173336.0	4112.69	40.00	BV
Dinoseb	10.163	110643.0	4484.44	20.00	VV
Dacthal	10.333	147490.0	6368.69	20.00	vv
Acifluorfen	11.780	115187.0	5114.74	20.00	BI

c:\ezchrom\chrom\qj30\qj30.003 -- Channel A



11/02/12

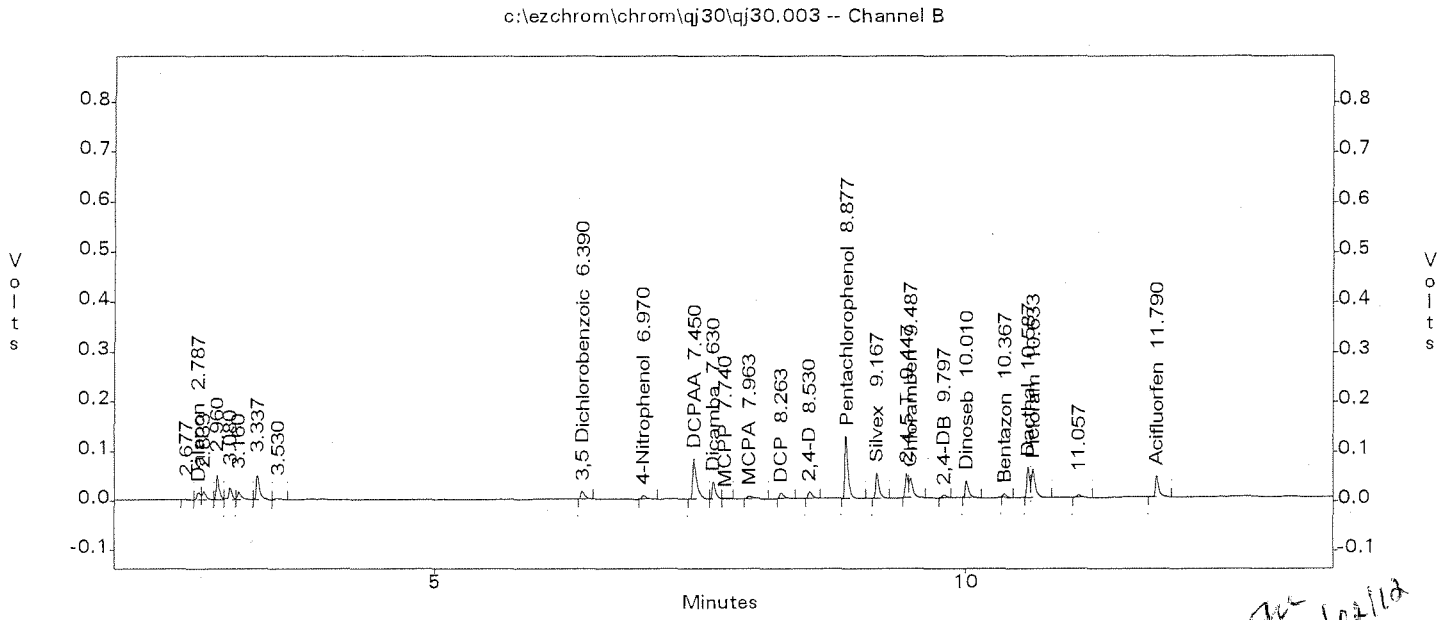
5041

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.003
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3002
Acquired : Oct 30, 2012 14:41:30
Printed : Oct 31, 2012 09:27:39
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	28146.0	1304.23	20.00	xx
3,5 Dichlorobenzoic	6.390	38588.0	1647.29	20.00	BI
4-Nitrophenol	6.970	22501.0	884.30	20.00	BI
DCPAA	7.450	215830.0	839.77	200.00	BV
Dicamba	7.630	72757.0	3313.89	20.00	VS
MCPP	7.740	3396.0	5.44	-1.00	SI
MCPA	7.963	17375.0	10.48	-1.00	SV
DCP	8.263	31730.0	1274.98	20.00	BI
2,4-D	8.530	34430.0	1451.63	20.00	BI
Pentachlorophenol	8.877	268520.0	11988.79	20.00	SI
Silvex	9.167	107504.0	4946.26	20.00	BI
2,4,5-T	9.447	86345.0	3771.03	20.00	xx
Chloramben	9.487	99843.0	4997.10	20.00	xS
2,4-DB	9.797	16599.0	771.68	20.00	Bx
Dinoseb	10.010	76438.0	3449.00	20.00	vv
Bentazon	10.367	17429.0	705.05	20.00	xI
Dacthal	10.587	104439.0	4651.52	20.00	xx
Picloram	10.633	145524.0	7623.47	20.00	xS
Acifluorfen	11.790	85736.0	4033.72	20.00	BI



11/02/12

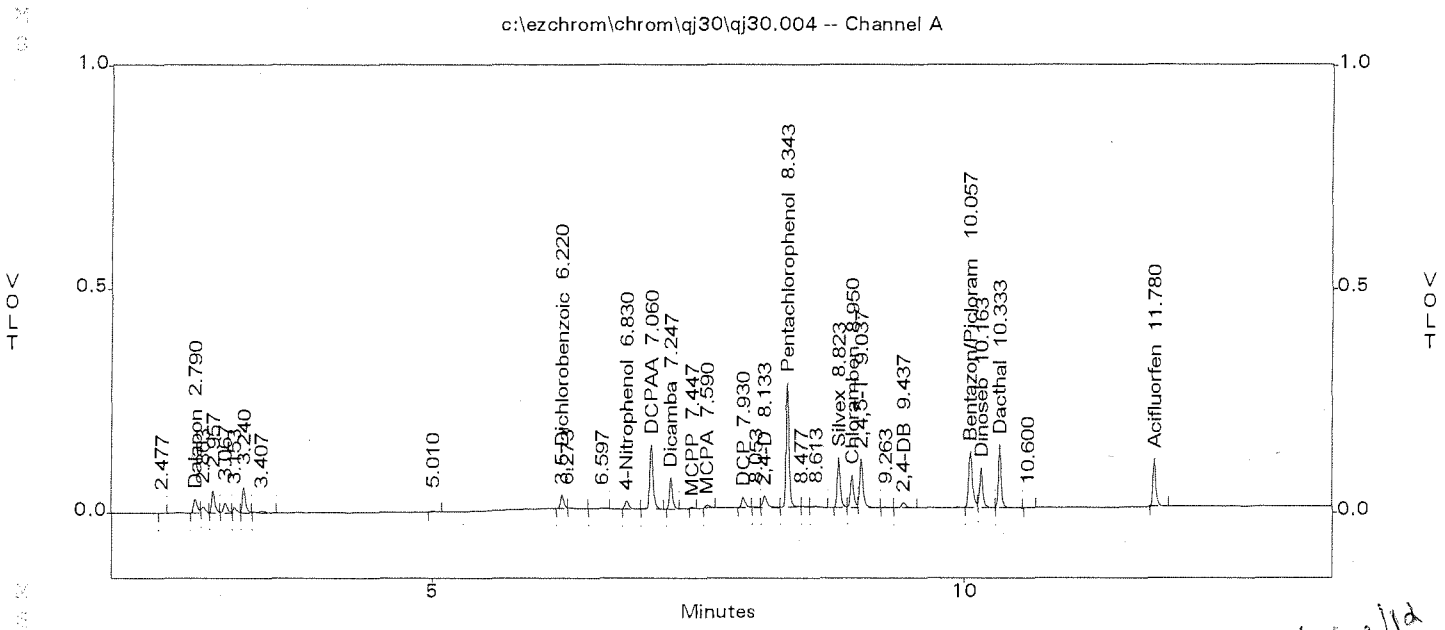
5042

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.004
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3003
Acquired : Oct 30, 2012 15:01:32
Printed : Oct 31, 2012 09:27:44
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	71936.0	1709.22	40.00	BV
3,5 Dichlorobenzo	6.220	65096.0	1507.56	40.00	Bx
4-Nitrophenol	6.830	45411.0	1051.91	40.00	BV
DCPAA	7.060	321280.0	720.54	400.00	VV
Dicamba	7.247	138815.0	3371.46	40.00	VV
MCPP	7.447	8179.0	4.57	2000.00	BV
MCPA	7.590	18961.0	8.27	2000.00	xV
DCP	7.930	51422.0	1182.11	40.00	BV
2,4-D	8.133	69308.0	1492.49	40.00	xV
Pentachlorophenol	8.343	542134.0	12861.50	40.00	Vx
Silvex	8.823	217661.0	5293.29	40.00	BV
Chloramben	8.950	157144.0	4064.33	40.00	VV
2,4,5-T	9.037	239739.0	5662.12	40.00	VV
2,4-DB	9.437	30786.0	746.33	40.00	VI
Bentazon/Picloram	10.057	320141.0	4112.69	80.00	BV
Dinoseb	10.163	192657.0	4484.44	40.00	VV
Dacthal	10.333	267073.0	6368.69	40.00	VV
Acifluorfen	11.780	205510.0	5114.74	40.00	BV



11/02/12

5043

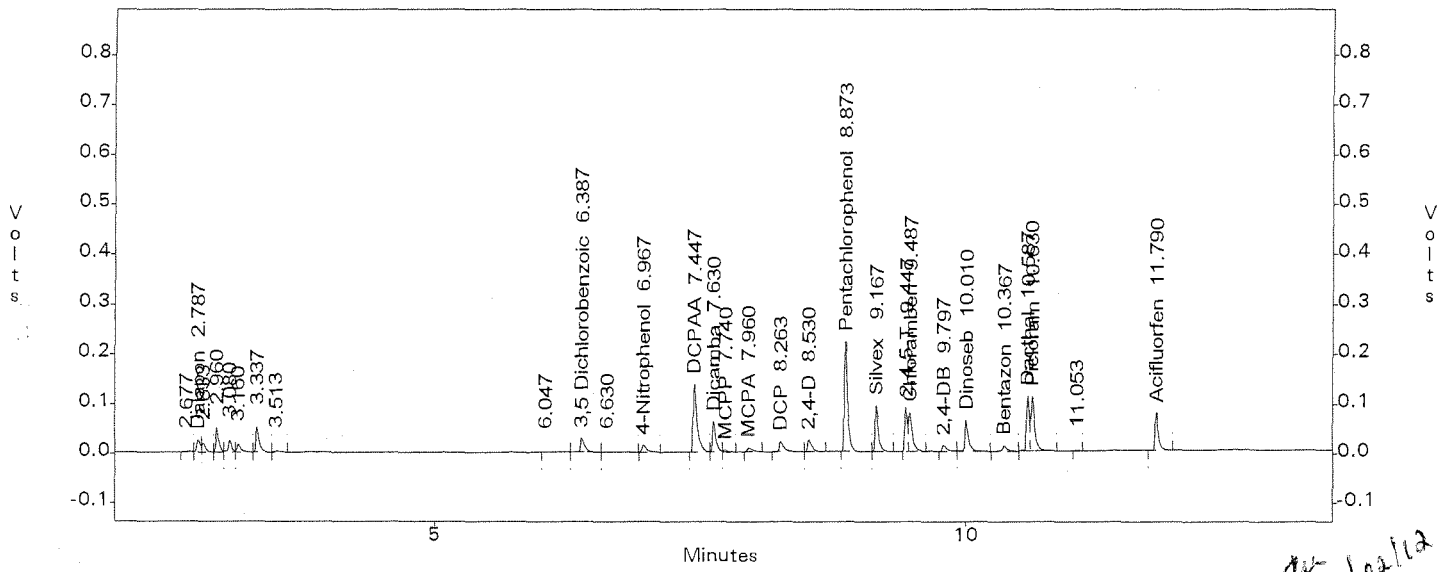
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.004
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3003
Acquired : Oct 30, 2012 15:01:32
Printed : Oct 31, 2012 09:27:44
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	53109.0	1304.23	40.00	xx
3,5 Dichlorobenzoic	6.387	70278.0	1647.29	40.00	VV
4-Nitrophenol	6.967	38227.0	884.30	40.00	VV
DCPAA	7.447	362697.0	839.77	400.00	SV
Dicamba	7.630	134187.0	3313.89	40.00	VS
MCPP	7.740	10560.0	5.44	2000.00	Sx
MCPA	7.960	25511.0	10.48	2000.00	SI
DCP	8.263	55271.0	1274.98	40.00	BV
2,4-D	8.530	61390.0	1451.63	40.00	VV
Pentachlorophenol	8.873	490157.0	11988.79	40.00	SV
Silvex	9.167	196944.0	4946.26	40.00	VS
2,4,5-T	9.447	156923.0	3771.03	40.00	xx
Chloramben	9.487	187806.0	4997.10	40.00	xS
2,4-DB	9.797	32802.0	771.68	40.00	BV
Dinoseb	10.010	140903.0	3449.00	40.00	VV
Bentazon	10.367	30212.0	705.05	40.00	VV
Dacthal	10.587	192512.0	4651.52	40.00	Vx
Picloram	10.630	280589.0	7623.47	40.00	xV
Acifluorfen	11.790	156819.0	4033.72	40.00	BS

c:\ezchrom\chrom\qj30\qj30.004 -- Channel B



11/02/12

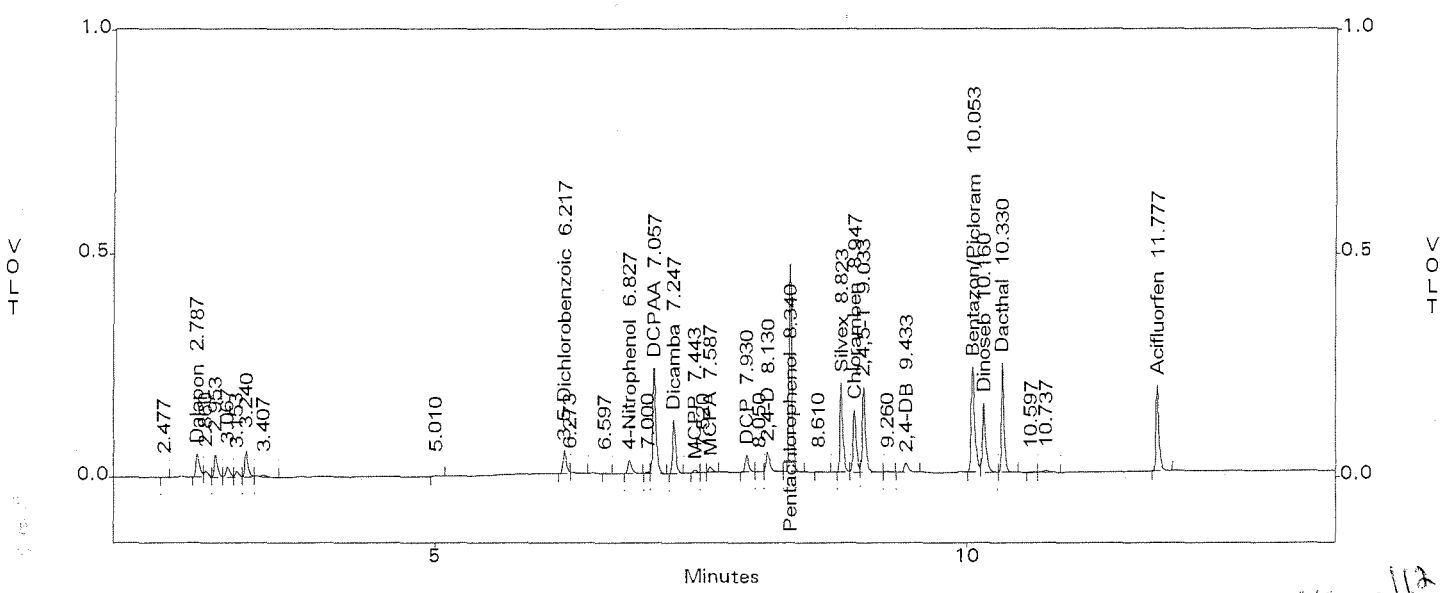
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.005
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3004
Acquired : Oct 30, 2012 15:21:39
Printed : Oct 31, 2012 09:27:49
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	120776.0	1709.22	70.00	BV
3,5 Dichlorobenzo	6.217	107099.0	1507.56	70.00	Bx
4-Nitrophenol	6.827	75353.0	1051.91	70.00	BV
DCPAA	7.057	507212.0	720.54	700.00	SV
Dicamba	7.247	237524.0	3371.46	70.00	VV
MCPP	7.443	15906.0	4.57	3500.00	BV
MCPA	7.587	30370.0	8.27	3500.00	xV
DCP	7.930	84094.0	1182.11	70.00	BV
2,4-D	8.130	106570.0	1492.49	70.00	xV
Pentachlorophenol	8.340	897006.0	12861.50	70.00	Vx
Silvex	8.823	375007.0	5293.29	70.00	BV
Chloramben	8.947	285627.0	4064.33	70.00	VV
2,4,5-T	9.033	403833.0	5662.12	70.00	VV
2,4-DB	9.433	53091.0	746.33	70.00	VI
Bentazon/Picloram	10.053	568817.0	4112.69	140.00	BV
Dinoseb	10.160	319387.0	4484.44	70.00	VV
Dacthal	10.330	434347.0	6368.69	70.00	VB
Acifluorfen	11.777	362435.0	5114.74	70.00	BV

c:\ezchrom\chrom\qj30\qj30.005 -- Channel A



11/02/12

5645

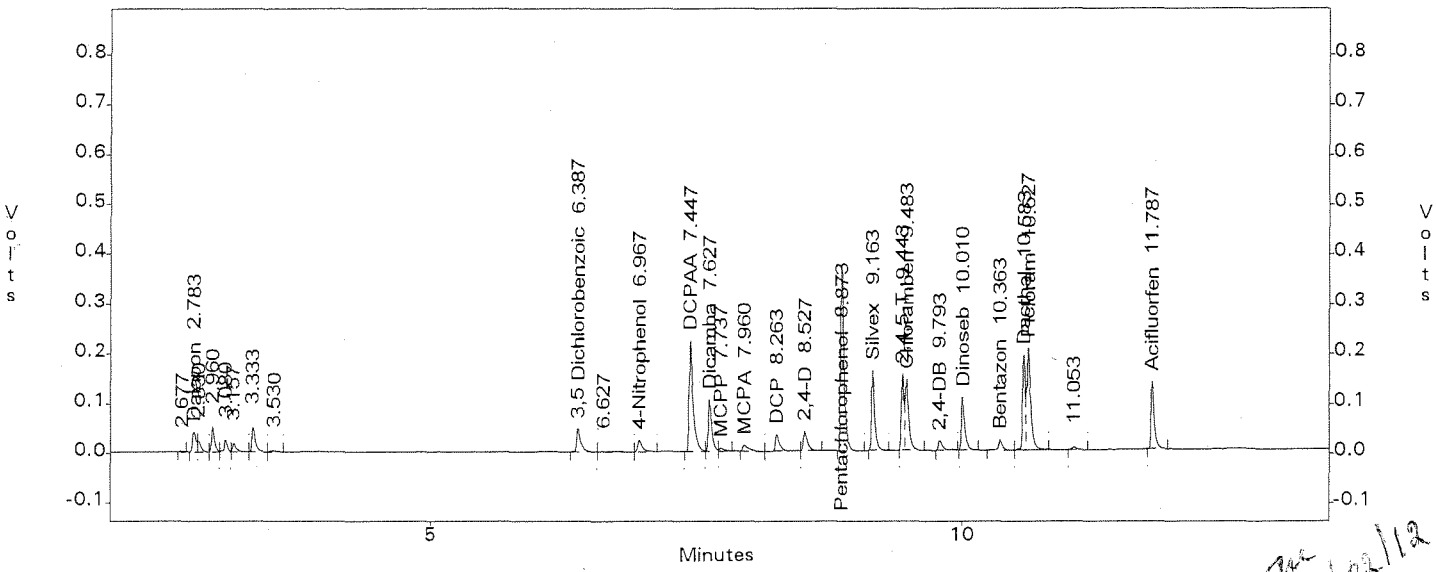
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.005
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3004
Acquired : Oct 30, 2012 15:21:39
Printed : Oct 31, 2012 09:27:50
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	90548.0	1304.23	70.00	xx
3,5 Dichlorobenzoic	6.387	116641.0	1647.29	70.00	BV
4-Nitrophenol	6.967	63008.0	884.30	70.00	VV
DCPAA	7.447	588999.0	839.77	700.00	SV
Dicamba	7.627	232716.0	3313.89	70.00	VS
MCPP	7.737	19726.0	5.44	3500.00	Sx
MCPA	7.960	40580.0	10.48	3500.00	SV
DCP	8.263	89956.0	1274.98	70.00	VV
2,4-D	8.527	102364.0	1451.63	70.00	VV
Pentachlorophenol	8.873	853588.0	11988.79	70.00	SV
Silvex	9.163	345635.0	4946.26	70.00	VS
2,4,5-T	9.443	278195.0	3771.03	70.00	xx
Chloramben	9.483	336035.0	4997.10	70.00	xS
2,4-DB	9.793	53892.0	771.68	70.00	BV
Dinoseb	10.010	237063.0	3449.00	70.00	SV
Bentazon	10.363	49597.0	705.05	70.00	VV
Dacthal	10.583	333504.0	4651.52	70.00	Vx
Picloram	10.627	520542.0	7623.47	70.00	xS
Acifluorfen	11.787	280896.0	4033.72	70.00	BS

c:\ezchrom\chrom\qj30\qj30.005 -- Channel B



11/02/12

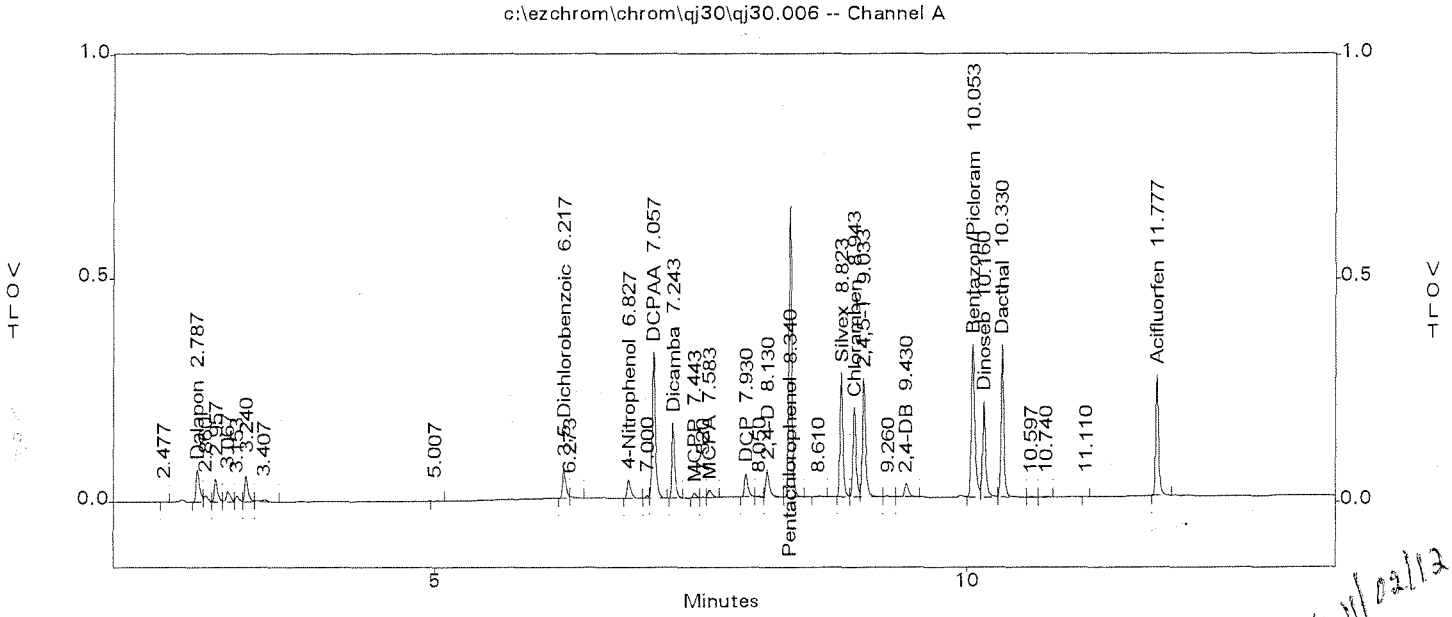
5046

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.006
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3005
Acquired : Oct 30, 2012 15:41:49
Printed : Oct 31, 2012 09:27:55
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	164957.0	1709.22	100.00	BS
3,5 Dichlorobenzo	6.217	146152.0	1507.56	100.00	Bx
4-Nitrophenol	6.827	103160.0	1051.91	100.00	BV
DCPAA	7.057	684156.0	720.54	1000.00	SV
Dicamba	7.243	330621.0	3371.46	100.00	VV
MCPP	7.443	23836.0	4.57	5000.00	BV
MCPA	7.583	41759.0	8.27	5000.00	xV
DCP	7.930	115207.0	1182.11	100.00	BV
2,4-D	8.130	147020.0	1492.49	100.00	xV
Pentachlorophenol	8.340	1243766.0	12861.50	100.00	Vx
Silvex	8.823	524981.0	5293.29	100.00	BV
Chloramben	8.943	412177.0	4064.33	100.00	VV
2,4,5-T	9.033	556952.0	5662.12	100.00	VV
2,4-DB	9.430	73863.0	746.33	100.00	VV
Bentazon/Picloram	10.053	807109.0	4112.69	200.00	BV
Dinoseb	10.160	435676.0	4484.44	100.00	VV
Dacthal	10.330	630355.0	6368.69	100.00	VV
Acifluorfen	11.777	504922.0	5114.74	100.00	BV



TM 11/02/12

5847

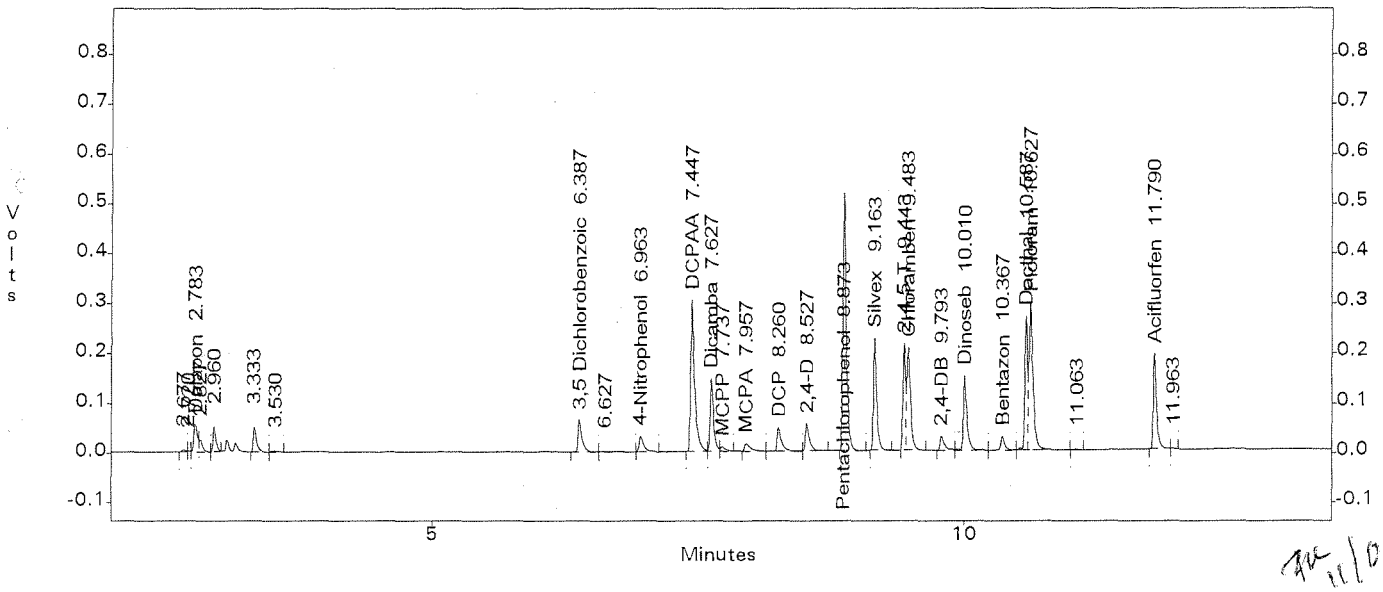
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.006
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3005
Acquired : Oct 30, 2012 15:41:49
Printed : Oct 31, 2012 09:27:56
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	123955.0	1304.23	100.00	xx
3,5 Dichlorobenzoic	6.387	161197.0	1647.29	100.00	BV
4-Nitrophenol	6.963	85120.0	884.30	100.00	VV
DCPAA	7.447	801839.0	839.77	1000.00	SV
Dicamba	7.627	328333.0	3313.89	100.00	VS
MCPP	7.737	26903.0	5.44	5000.00	Sx
MCPA	7.957	52178.0	10.48	5000.00	SV
DCP	8.260	122451.0	1274.98	100.00	VV
2,4-D	8.527	141988.0	1451.63	100.00	VB
Pentachlorophenol	8.873	1202639.0	11988.79	100.00	BV
Silvex	9.163	492672.0	4946.26	100.00	VS
2,4,5-T	9.443	365764.0	3771.03	100.00	xx
Chloramben	9.483	512773.0	4997.10	100.00	xS
2,4-DB	9.793	75908.0	771.68	100.00	BV
Dinoseb	10.010	344598.0	3449.00	100.00	VV
Bentazon	10.367	66651.0	705.05	100.00	VV
Dacthal	10.587	455435.0	4651.52	100.00	Vx
Picloram	10.627	787158.0	7623.47	100.00	xV
Acifluorfen	11.790	402054.0	4033.72	100.00	BS

c:\ezchrom\chrom\qj30\qj30.006 -- Channel B



TW 11/02/12

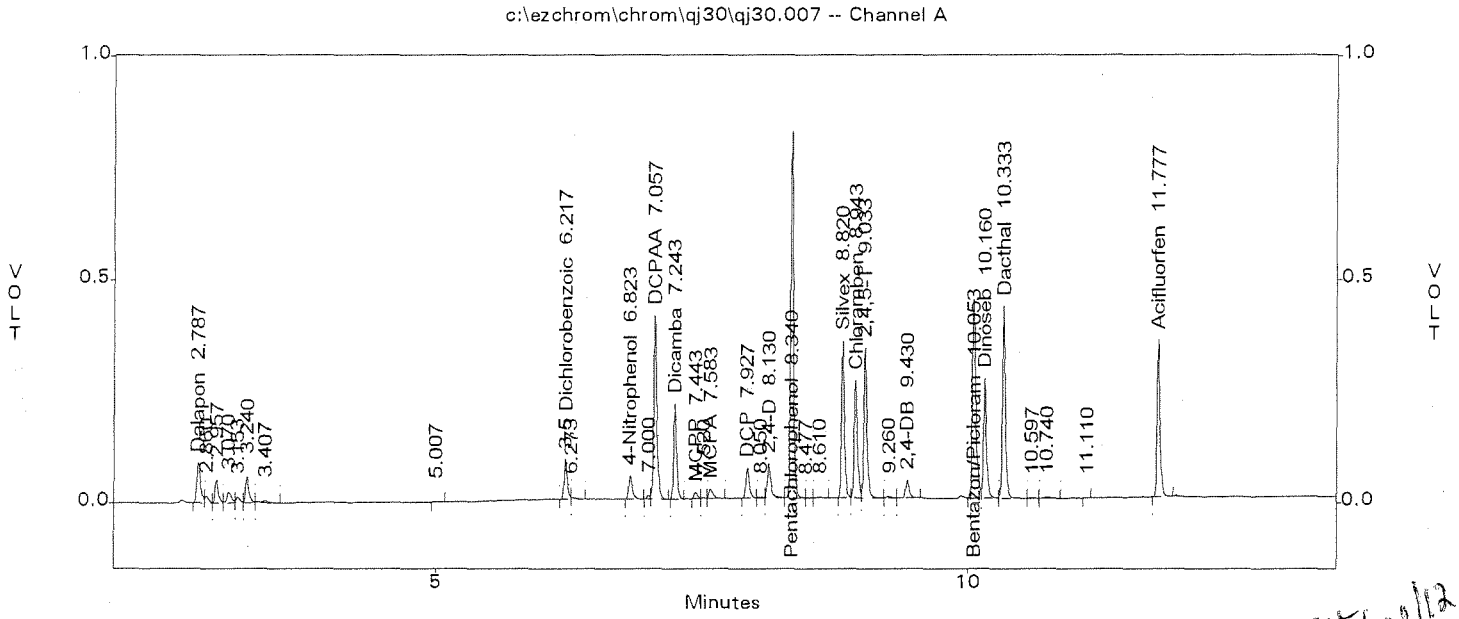
5848

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.007
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3006
Acquired : Oct 30, 2012 16:02:02
Printed : Oct 31, 2012 09:28:02
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	208464.0	1709.22	130.00	BS
3,5 Dichlorobenzo	6.217	182400.0	1507.56	130.00	Bx
4-Nitrophenol	6.823	128512.0	1051.91	130.00	BV
DCPAA	7.057	848032.0	720.54	1300.00	SV
Dicamba	7.243	418601.0	3371.46	130.00	VV
MCPP	7.443	31213.0	4.57	6500.00	BV
MCPA	7.583	53427.0	8.27	6500.00	xV
DCP	7.927	143584.0	1182.11	130.00	BV
2,4-D	8.130	181711.0	1492.49	130.00	xV
Pentachlorophenol	8.340	1565342.0	12861.50	130.00	Vx
Silvex	8.820	664603.0	5293.29	130.00	BV
Chloramben	8.943	531832.0	4064.33	130.00	VV
2,4,5-T	9.033	698031.0	5662.12	130.00	VV
2,4-DB	9.430	93694.0	746.33	130.00	VV
Bentazon/Picloram	10.053	1030714.0	4112.69	260.00	BV
Dinoseb	10.160	545061.0	4484.44	130.00	VV
Dacthal	10.333	797382.0	6368.69	130.00	VV
Acifluorfen	11.777	647398.0	5114.74	130.00	BV



11/02/12

5049

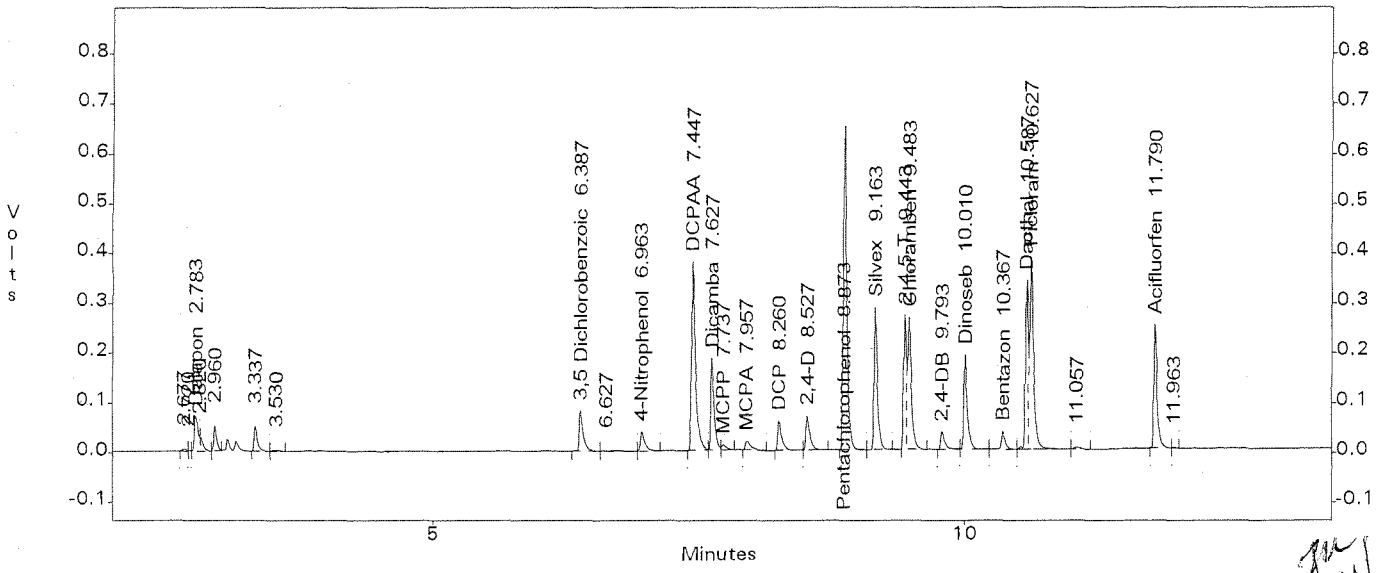
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.007
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3006
Acquired : Oct 30, 2012 16:02:02
Printed : Oct 31, 2012 09:28:02
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	161580.0	1304.23	130.00	xx
3,5 Dichlorobenzoic	6.387	202651.0	1647.29	130.00	BV
4-Nitrophenol	6.963	106437.0	884.30	130.00	VV
DCPAA	7.447	1001535.0	839.77	1300.00	SV
Dicamba	7.627	419337.0	3313.89	130.00	VS
MCPP	7.737	34156.0	5.44	6500.00	Sx
MCPA	7.957	62494.0	10.48	6500.00	SV
DCP	8.260	152956.0	1274.98	130.00	VV
2,4-D	8.527	178488.0	1451.63	130.00	VV
Pentachlorophenol	8.873	1531428.0	11988.79	130.00	SV
Silvex	9.163	631778.0	4946.26	130.00	VS
2,4,5-T	9.443	462279.0	3771.03	130.00	xx
Chloramben	9.483	668714.0	4997.10	130.00	xV
2,4-DB	9.793	101473.0	771.68	130.00	SV
Dinoseb	10.010	436123.0	3449.00	130.00	VV
Bentazon	10.367	84887.0	705.05	130.00	VV
Dacthal	10.587	579830.0	4651.52	130.00	Vx
Picloram	10.627	1028422.0	7623.47	130.00	xV
Acifluorfen	11.790	522821.0	4033.72	130.00	BS

c:\ezchrom\chrom\qj30\qj30.007 -- Channel B



11/08/12

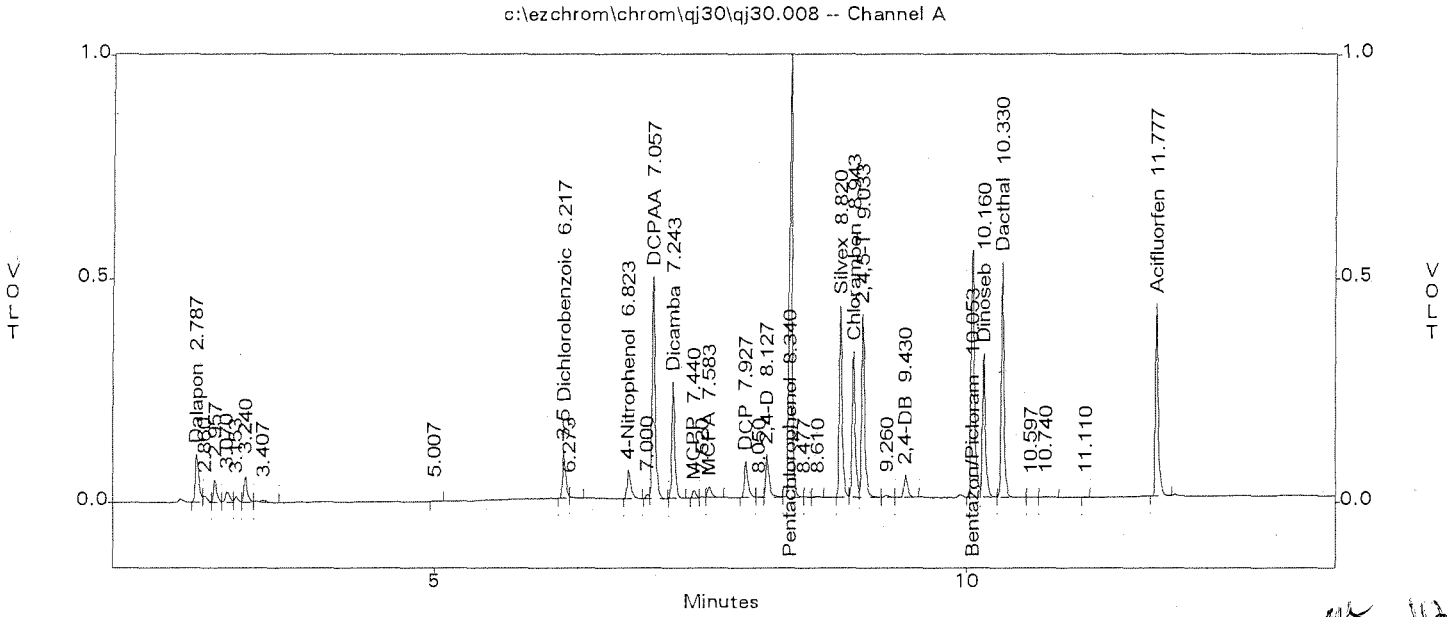
5858

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.008
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3007
Acquired : Oct 30, 2012 16:22:16
Printed : Oct 31, 2012 09:28:08
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	251072.0	1709.22	160.00	BS
3,5 Dichlorobenzo	6.217	218258.0	1507.56	160.00	Bx
4-Nitrophenol	6.823	152991.0	1051.91	160.00	BV
DCPAA	7.057	1018051.0	720.54	1600.00	SV
Dicamba	7.243	508151.0	3371.46	160.00	VI
MCPP	7.440	38416.0	4.57	8000.00	BV
MCPA	7.583	62442.0	8.27	8000.00	xB
DCP	7.927	172235.0	1182.11	160.00	BV
2,4-D	8.127	217080.0	1492.49	160.00	xV
Pentachlorophenol	8.340	1893363.0	12861.50	160.00	Vx
Silvex	8.820	807466.0	5293.29	160.00	BV
Chloramben	8.943	655223.0	4064.33	160.00	VV
2,4,5-T	9.033	839989.0	5662.12	160.00	VV
2,4-DB	9.430	113964.0	746.33	160.00	VV
Bentazon/Picloram	10.053	1259693.0	4112.69	320.00	BV
Dinoseb	10.160	648306.0	4484.44	160.00	VV
Dacthal	10.330	967755.0	6368.69	160.00	VV
Acifluorfen	11.777	785999.0	5114.74	160.00	BV



11/02/12

5851

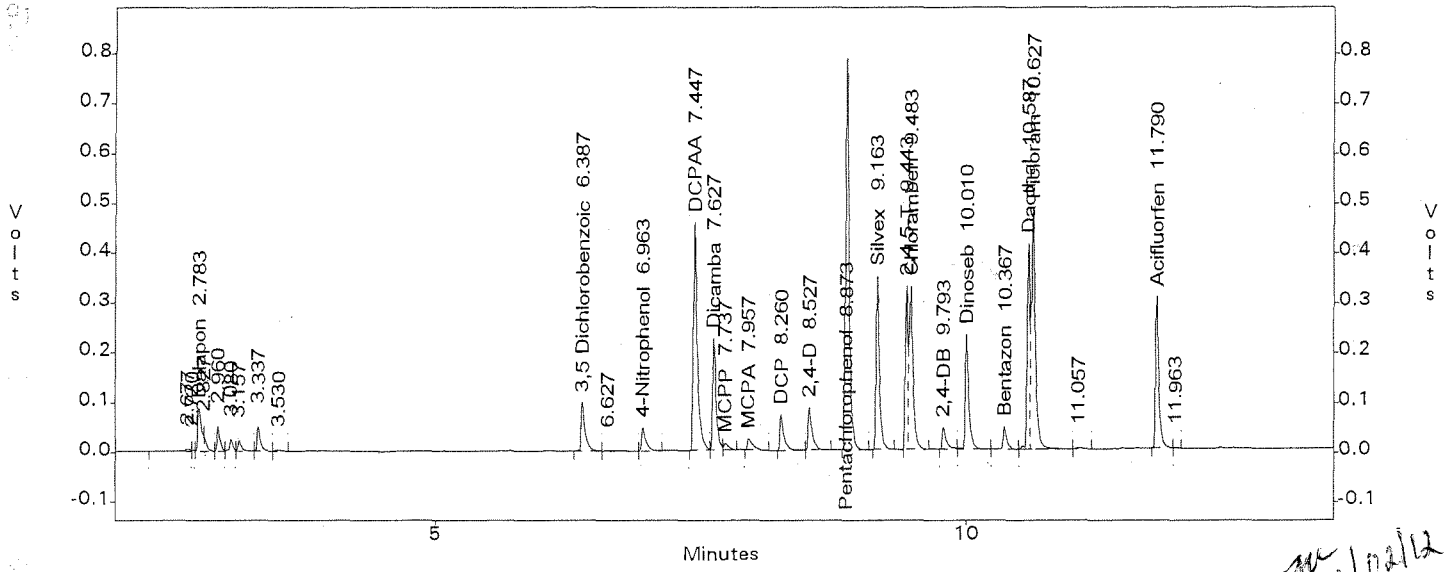
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.008
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3007
Acquired : Oct 30, 2012 16:22:16
Printed : Oct 31, 2012 09:28:09
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	209763.0	1304.23	160.00	xx
3,5 Dichlorobenzoic	6.387	244981.0	1647.29	160.00	BV
4-Nitrophenol	6.963	126026.0	884.30	160.00	VV
DCPAA	7.447	1204712.0	839.77	1600.00	SV
Dicamba	7.627	513959.0	3313.89	160.00	VS
MCPP	7.737	42170.0	5.44	8000.00	Sx
MCPA	7.957	72576.0	10.48	8000.00	SV
DCP	8.260	184530.0	1274.98	160.00	VV
2,4-D	8.527	215913.0	1451.63	160.00	VB
Pentachlorophenol	8.873	1872331.0	11988.79	160.00	BV
Silvex	9.163	776218.0	4946.26	160.00	VS
2,4,5-T	9.443	564521.0	3771.03	160.00	xx
Chloramben	9.483	826110.0	4997.10	160.00	xV
2,4-DB	9.793	117363.0	771.68	160.00	SV
Dinoseb	10.010	534888.0	3449.00	160.00	VV
Bentazon	10.367	103829.0	705.05	160.00	VV
Dacthal	10.587	704749.0	4651.52	160.00	Vx
Picloram	10.627	1278779.0	7623.47	160.00	xV
Acifluorfen	11.790	641649.0	4033.72	160.00	BS

c:\ezchrom\chrom\qj30\qj30.008 -- Channel B



11/02/12

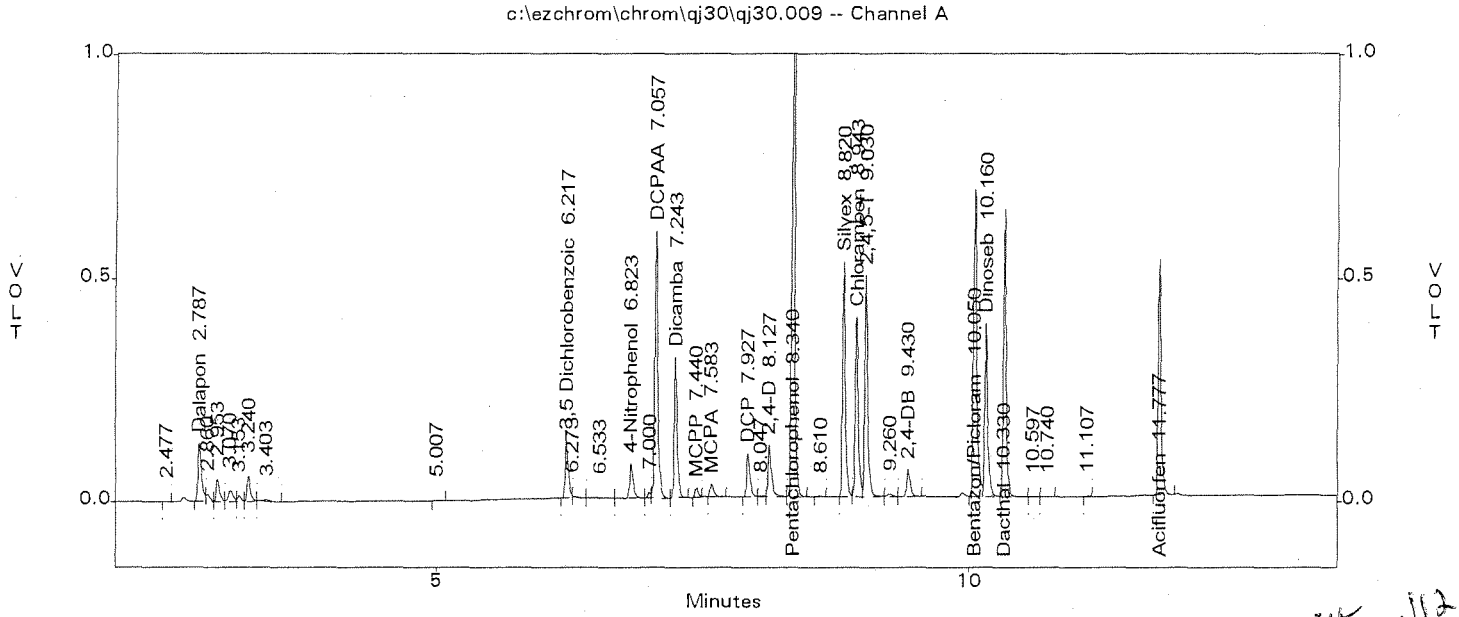
5852

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.009
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3008
Acquired : Oct 30, 2012 16:42:27
Printed : Oct 31, 2012 09:28:15
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	303608.0	1709.22	200.00	BS
3,5 Dichlorobenzo	6.217	263558.0	1507.56	200.00	Bx
4-Nitrophenol	6.823	182698.0	1051.91	200.00	VV
DCPAA	7.057	1221098.0	720.54	2000.00	SV
Dicamba	7.243	615941.0	3371.46	200.00	VI
MCPP	7.440	44295.0	4.57	10000.00	BV
MCPA	7.583	70795.0	8.27	10000.00	xV
DCP	7.927	206406.0	1182.11	200.00	BV
2,4-D	8.127	259396.0	1492.49	200.00	xV
Pentachlorophenol	8.340	2212538.0	12861.50	200.00	Vx
Silvex	8.820	975224.0	5293.29	200.00	BV
Chloramben	8.943	802580.0	4064.33	200.00	VV
2,4,5-T	9.030	1008834.0	5662.12	200.00	VV
2,4-DB	9.430	138791.0	746.33	200.00	VV
Bentazon/Picloram	10.050	1535552.0	4112.69	400.00	BV
Dinoseb	10.160	775676.0	4484.44	200.00	VV
Dacthal	10.330	1167763.0	6368.69	200.00	VV
Acifluorfen	11.777	957348.0	5114.74	200.00	BV



11/02/12

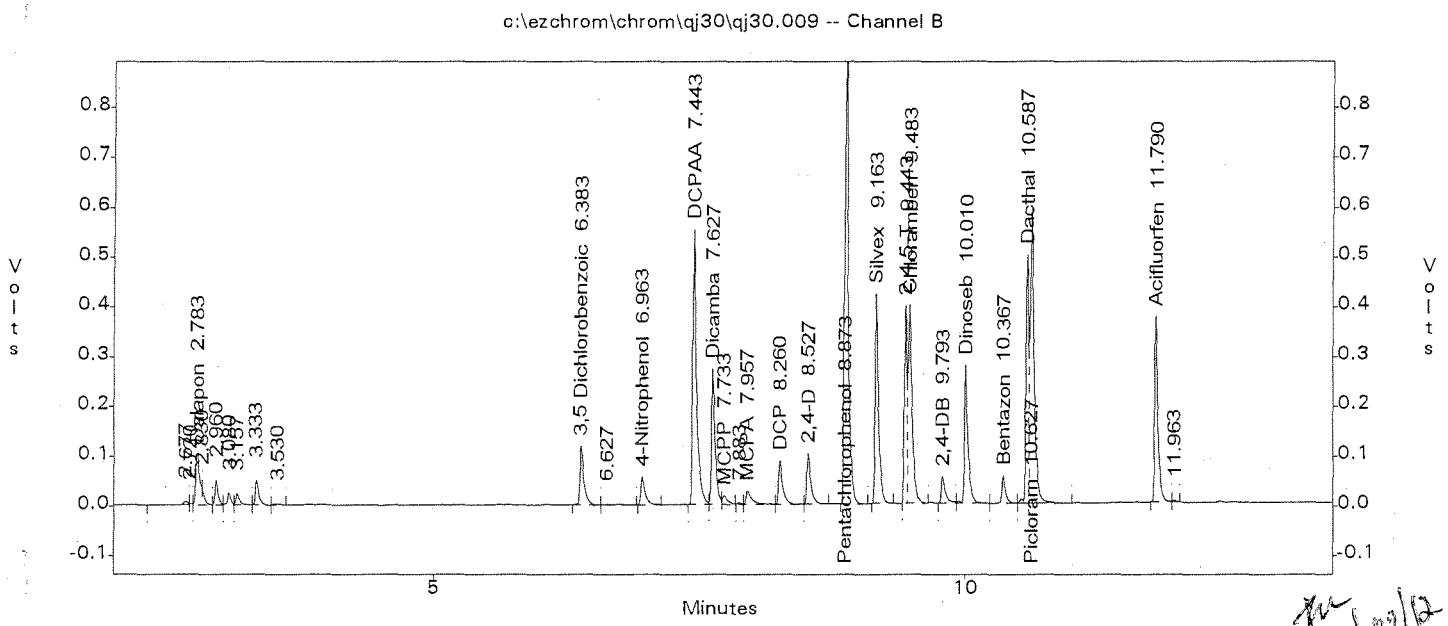
5053

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.009
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3008
Acquired : Oct 30, 2012 16:42:27
Printed : Oct 31, 2012 09:28:15
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	261515.0	1304.23	200.00	xx
3,5 Dichlorobenzoic	6.383	295290.0	1647.29	200.00	BV
4-Nitrophenol	6.963	150335.0	884.30	200.00	VV
DCPAA	7.443	1451691.0	839.77	2000.00	SV
Dicamba	7.627	631789.0	3313.89	200.00	VS
MCPP	7.733	57930.0	5.44	10000.00	Sx
MCPA	7.957	94335.0	10.48	10000.00	SV
DCP	8.260	223415.0	1274.98	200.00	VV
2,4-D	8.527	260094.0	1451.63	200.00	VS
Pentachlorophenol	8.873	2276364.0	11988.79	200.00	BV
Silvex	9.163	949893.0	4946.26	200.00	VS
2,4,5-T	9.443	688159.0	3771.03	200.00	xx
Chloramben	9.483	1011404.0	4997.10	200.00	xV
2,4-DB	9.793	141741.0	771.68	200.00	SV
Dinoseb	10.010	653616.0	3449.00	200.00	VV
Bentazon	10.367	126337.0	705.05	200.00	VV
Dacthal	10.587	868452.0	4651.52	200.00	Vx
Picloram	10.627	1572433.0	7623.47	200.00	xV
Acifluorfen	11.790	792677.0	4033.72	200.00	BS



11/02/12

5654

SECOND SOURCE VERIFICATION

INITIAL CALIBRATION VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Columm : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30010A 10/30/2012 17:02
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.787	2.773	2.801	100.0	1709.2	163796	95.83	-4		15
3,5-Dichlorobenzo	6.217	6.203	6.231	100.0	1507.6	138613	91.95	-8		15
4-Nitrophenol	6.823	6.809	6.837	100.0	1051.9	99244	94.35	-6		15
Dicamba	7.243	7.229	7.257	100.0	3371.5	314947	93.42	-7		15
Dichloroprop	7.927	7.913	7.941	100.0	1182.1	114858	97.16	-3		15
2,4-D	8.127	8.111	8.143	100.0	1492.5	140356	94.04	-6		15
Pentachlorophenol	8.340	8.324	8.356	100.0	12861.5	1232337	95.82	-4		15
2,4,5-TP(Silvex)	8.820	8.804	8.836	100.0	5293.3	512009	96.73	-3		15
Chloramben	8.943	8.927	8.959	100.0	4064.3	402054	98.92	-1		15
2,4,5-T	9.030	9.014	9.046	100.0	5662.1	560233	98.94	-1		15
2,4-DB	9.430	9.414	9.446	100.0	746.300	72859	97.62	-2		15
Bentazon/Picloram	10.053	10.039	10.067	200.0	4112.7	782861	190.35	-5		15
Dinoseb	10.157	10.141	10.173	100.0	4484.4	398101	88.77	-11		15
Dacthal	10.330	10.314	10.346	100.0	6368.7	634716	99.66	-0		15
Acifluorfen	11.777	11.763	11.791	100.0	5114.7	501676	98.08	-2		15

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.057	7.041	7.073	1000.0	720.500	671734	932.26	-7		15

11/02/12

5056

INITIAL CALIBRATION VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Columm : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30010B 10/30/2012 17:02
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.783	2.767	2.799	100.0	1304.2	127117	97.46	-3		15
3,5-Dichlorobenzo	6.383	6.367	6.399	100.0	1647.3	149890	90.99	-9		15
4-Nitrophenol	6.963	6.947	6.979	100.0	884.300	81292	91.93	-8		15
Dicamba	7.627	7.611	7.643	100.0	3313.9	310627	93.74	-6		15
Dichloroprop	8.260	8.246	8.274	100.0	1275.0	121382	95.20	-5		15
2,4-D	8.527	8.513	8.541	100.0	1451.6	137340	94.61	-5		15
Pentachlorophenol	8.873	8.859	8.887	100.0	11988.8	1192104	99.43	-1		15
2,4,5-TP(Silvex)	9.163	9.149	9.177	100.0	4946.3	491024	99.27	-1		15
Chloramben	9.483	9.453	9.513	100.0	4997.1	509375	101.93	2		15
2,4,5-T	9.443	9.427	9.459	100.0	3771.0	375192	99.49	-1		15
2,4-DB	9.793	9.769	9.817	100.0	771.700	72938	94.52	-5		15
Dinoseb	10.010	9.994	10.026	100.0	3449.0	317757	92.13	-8		15
Bentazon	10.363	10.347	10.379	100.0	705.100	71292	101.12	1		15
Dacthal	10.587	10.571	10.603	100.0	4651.5	432387	92.96	-7		15
Picloram	10.627	10.603	10.651	100.0	7623.5	796747	104.51	5		15
Acifluorfen	11.787	11.773	11.801	100.0	4033.7	396927	98.40	-2		15

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.443	7.427	7.459	1000.0	839.800	775720	923.73	-8		15

AW 11/02/12

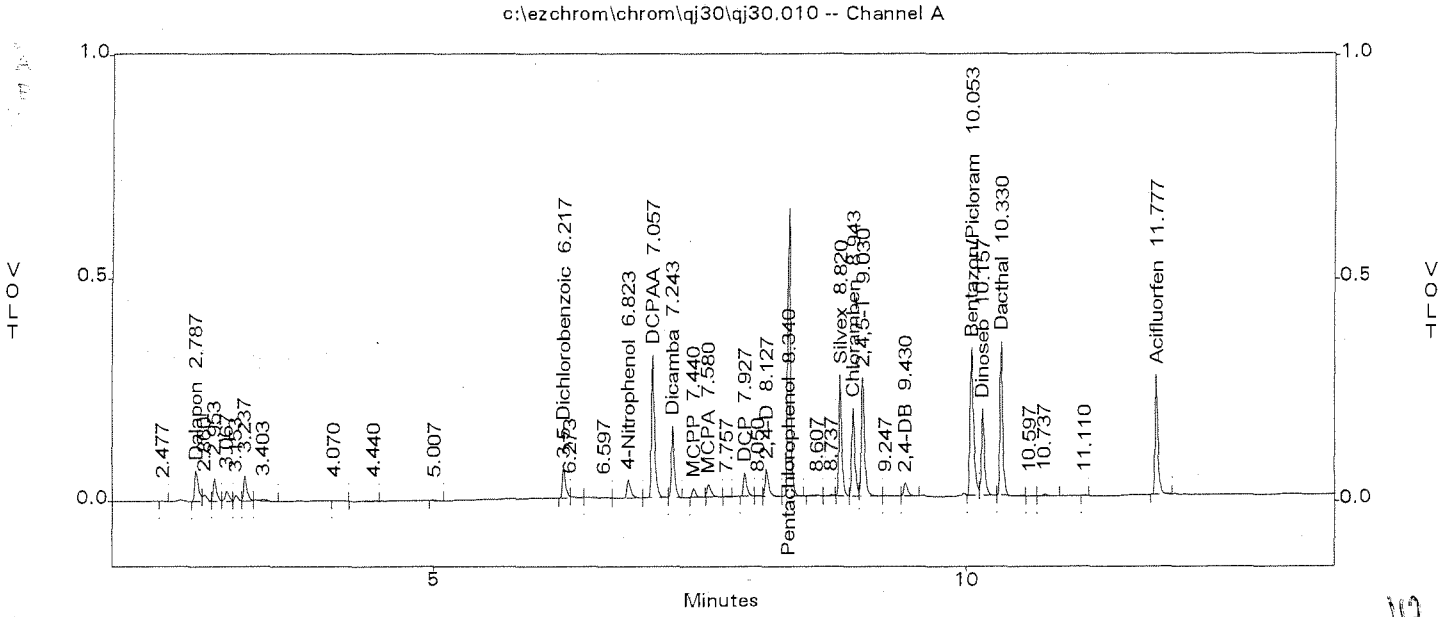
5857

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.010
Method : c:\ezchrom\methods\he09j30.met
Sample ID : IHE09J30001
Acquired : Oct 30, 2012 17:02:37
Printed : Oct 31, 2012 09:33:17
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	163796.0	1709.22	95.83	BS
3,5 Dichlorobenzo	6.217	138613.0	1507.56	91.95	Bx
4-Nitrophenol	6.823	99244.0	1051.91	94.35	VV
DCPAA	7.057	671734.0	720.54	932.26	VV
Dicamba	7.243	314947.0	3371.46	93.42	VV
MCPP	7.440	46739.0	4.57	10221.85	BV
MCPA	7.580	72312.0	8.27	8745.00	xV
DCP	7.927	114858.0	1182.11	97.16	BV
2,4-D	8.127	140356.0	1492.49	94.04	xV
Pentachlorophenol	8.340	1232337.0	12861.50	95.82	Vx
Silvex	8.820	512009.0	5293.29	96.73	BV
Chloramben	8.943	402054.0	4064.33	98.92	VV
2,4,5-T	9.030	560233.0	5662.12	98.94	VV
2,4-DB	9.430	72859.0	746.33	97.62	VV
Bentazon/Picloram	10.053	782861.0	4112.69	190.35	SV
Dinoseb	10.157	398101.0	4484.44	88.77	VV
Dacthal	10.330	634716.0	6368.69	99.66	VV
Acifluorfen	11.777	501676.0	5114.74	98.08	BV



AR 11/02/12

5658

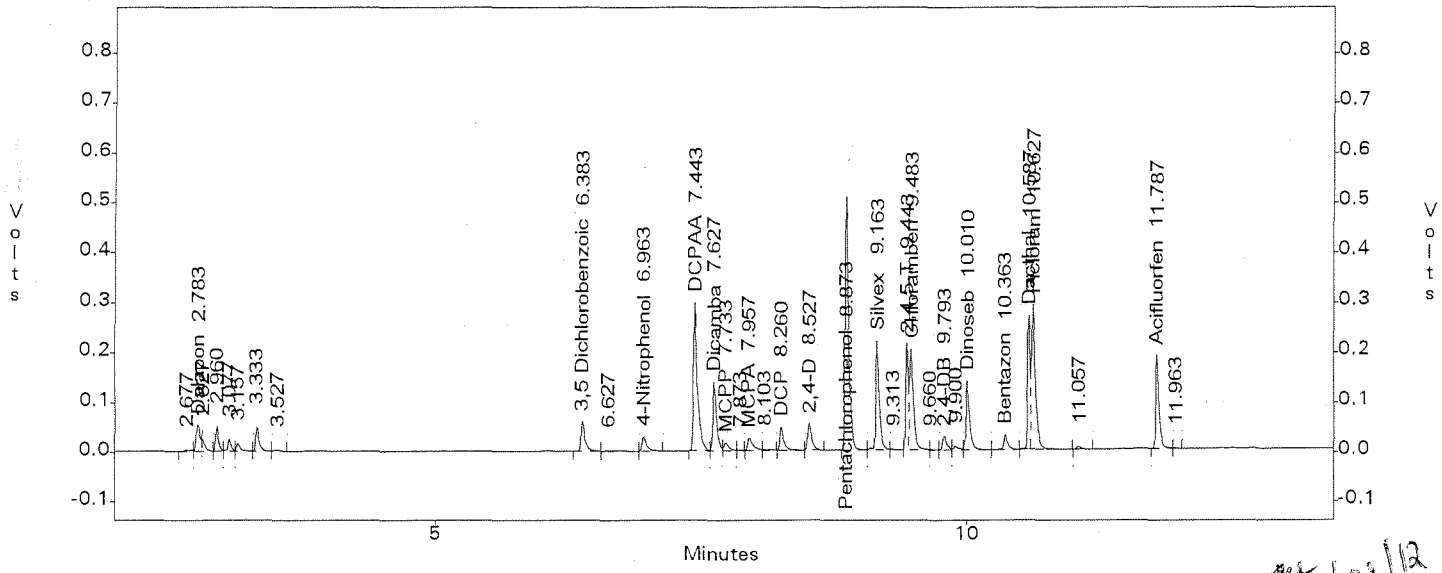
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.010
Method : c:\ezchrom\methods\he09j30.met
Sample ID : IHE09J30001
Acquired : Oct 30, 2012 17:02:37
Printed : Oct 31, 2012 09:33:17
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	127117.0	1304.23	97.46	xx
3,5 Dichlorobenzoic	6.383	149890.0	1647.29	90.99	BV
4-Nitrophenol	6.963	81292.0	884.30	91.93	VV
DCPAA	7.443	775720.0	839.77	923.73	SV
Dicamba	7.627	310627.0	3313.89	93.73	VS
MCPP	7.733	46897.0	5.44	8627.22	Sx
MCPA	7.957	82884.0	10.48	7905.59	Sx
DCP	8.260	121382.0	1274.98	95.20	SV
2,4-D	8.527	137340.0	1451.63	94.61	VS
Pentachlorophenol	8.873	1192104.0	11988.79	99.43	BV
Silvex	9.163	491024.0	4946.26	99.27	VS
2,4,5-T	9.443	375192.0	3771.03	99.49	xx
Chloramben	9.483	509375.0	4997.10	101.93	xS
2,4-DB	9.793	72938.0	771.68	94.52	xx
Dinoseb	10.010	317757.0	3449.00	92.13	SV
Bentazon	10.363	71292.0	705.05	101.12	VV
Dacthal	10.587	432387.0	4651.52	92.96	Vx
Picloram	10.627	796747.0	7623.47	104.51	xV
Acifluorfen	11.787	396927.0	4033.72	98.40	BS

c:\ezchrom\chrom\qj30\qj30.010 -- Channel B



11/02/12

5659

INITIAL CALIBRATION VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30011A 10/30/2012 17:22
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
MCPP	7.440	7.426	7.454	5000.0	4.600	23581	5157.18	3		15
MCPA	7.583	7.567	7.599	5000.0	8.300	44058	5328.12	7		15

TW 11/02/12

5060

INITIAL CALIBRATION VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30011B 10/30/2012 17:22
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
MCPP	7.737	7.721	7.753	5000.0	5.400	26225	4824.38	-4		15
MCPA	7.957	7.941	7.973	5000.0	10.500	53080	5062.85	1		15

JLL 11/02/12

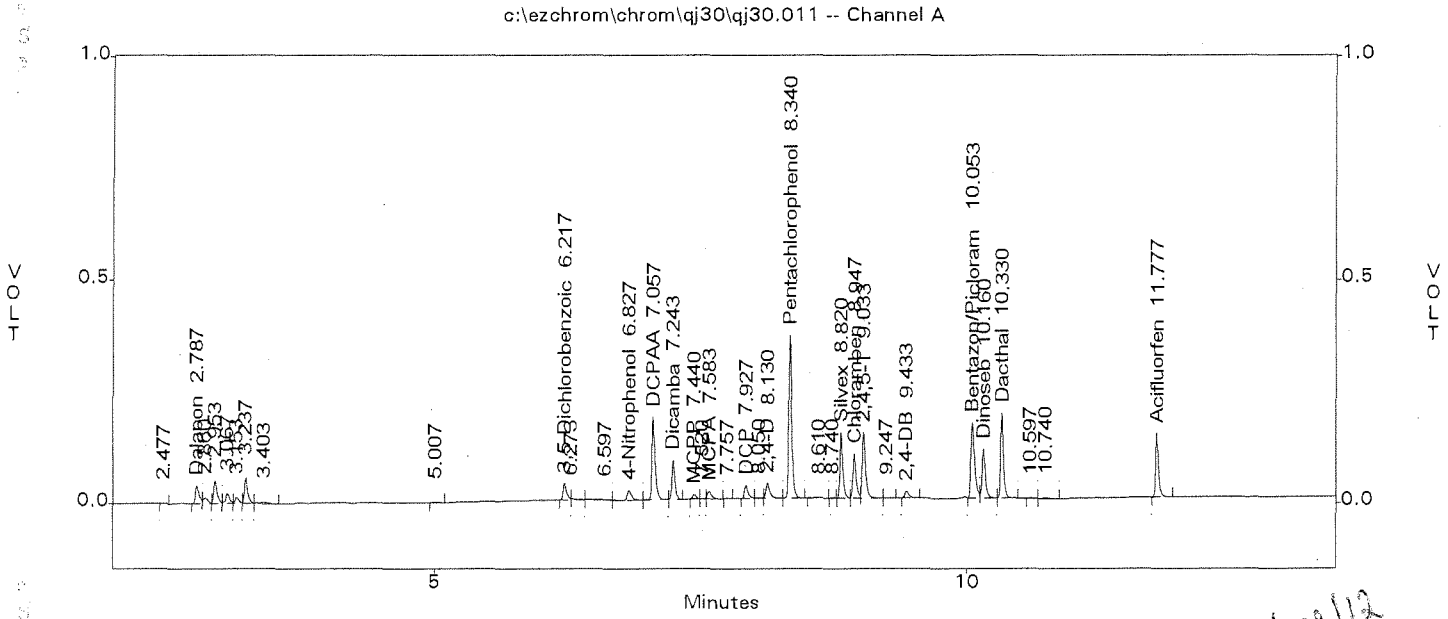
5961

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.011
Method : c:\ezchrom\methods\he09j30.met
Sample ID : IHE09J30002
Acquired : Oct 30, 2012 17:22:50
Printed : Oct 31, 2012 09:33:31
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	92802.0	1709.22	54.29	BV
3,5 Dichlorobenzo	6.217	80493.0	1507.56	53.39	Bx
4-Nitrophenol	6.827	58398.0	1051.91	55.52	VV
DCPAA	7.057	397673.0	720.54	551.91	VV
Dicamba	7.243	174706.0	3371.46	51.82	VV
MCPP	7.440	23581.0	4.57	5157.18	BV
MCPA	7.583	44058.0	8.27	5328.12	xV
DCP	7.927	66631.0	1182.11	56.37	BV
2,4-D	8.130	84036.0	1492.49	56.31	xV
Pentachlorophenol	8.340	702993.0	12861.50	54.66	Vx
Silvex	8.820	282161.0	5293.29	53.31	BV
Chloramben	8.947	211314.0	4064.33	51.99	VV
2,4,5-T	9.033	316763.0	5662.12	55.94	VV
2,4-DB	9.433	40453.0	746.33	54.20	VI
Bentazon/Picloram	10.053	420971.0	4112.69	102.36	SV
Dinoseb	10.160	228882.0	4484.44	51.04	VV
Dacthal	10.330	354217.0	6368.69	55.62	VB
Acifluorfen	11.777	273059.0	5114.74	53.39	BV



JM 11/02/12

5062

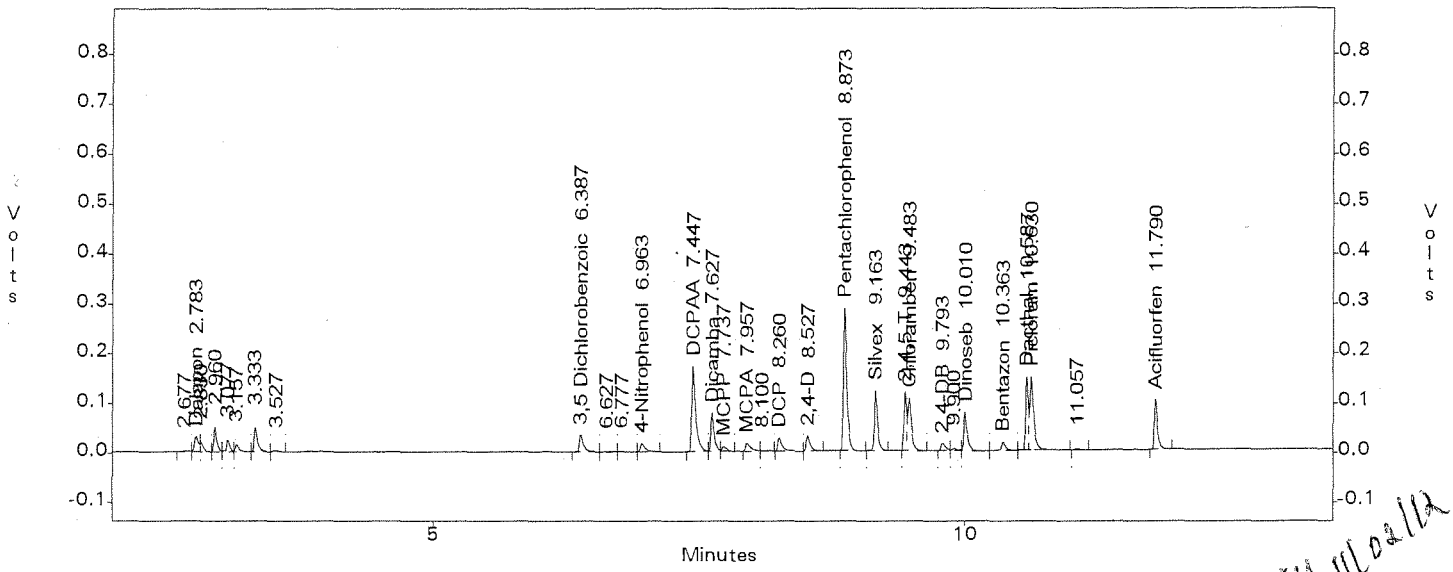
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.011
Method : c:\ezchrom\methods\he09j30.met
Sample ID : IHE09J30002
Acquired : Oct 30, 2012 17:22:50
Printed : Oct 31, 2012 09:33:31
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	72270.0	1304.23	55.41	xx
3,5 Dichlorobenzoic	6.387	85029.0	1647.29	51.62	BV
4-Nitrophenol	6.963	46927.0	884.30	53.07	VV
DCPAA	7.447	451330.0	839.77	537.45	SV
Dicamba	7.627	168983.0	3313.89	50.99	VS
MCPP	7.737	26225.0	5.44	4824.38	Sx
MCPA	7.957	53080.0	10.48	5062.84	Sx
DCP	8.260	70178.0	1274.98	55.04	SV
2,4-D	8.527	77987.0	1451.63	53.72	VB
Pentachlorophenol	8.873	648178.0	11988.79	54.07	BV
Silvex	9.163	258851.0	4946.26	52.33	VS
2,4,5-T	9.443	203121.0	3771.03	53.86	xx
Chloramben	9.483	258453.0	4997.10	51.72	xS
2,4-DB	9.793	39929.0	771.68	51.74	Bx
Dinoseb	10.010	171265.0	3449.00	49.66	SV
Bentazon	10.363	40119.0	705.05	56.90	VV
Dacthal	10.587	235668.0	4651.52	50.66	Vx
Picloram	10.630	408576.0	7623.47	53.59	xV
Acifluorfen	11.790	209434.0	4033.72	51.92	BS

c:\ezchrom\chrom\qj30\qj30.011 -- Channel B



5863

DAILY CALIBRATIONS

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Columm : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31002A 10/31/2012 16:10
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.163	10.147	10.179	100.0	4484.4	406178	102.03	2		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.063	7.047	7.079	1000.0	720.500	671865	936.68	-6		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Columm : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31002B 10/31/2012 16:10
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.013	9.997	10.029	100.0	3449.0	307094	117.90	18		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.450	7.434	7.466	1000.0	839.800	777447	957.45	-4		20

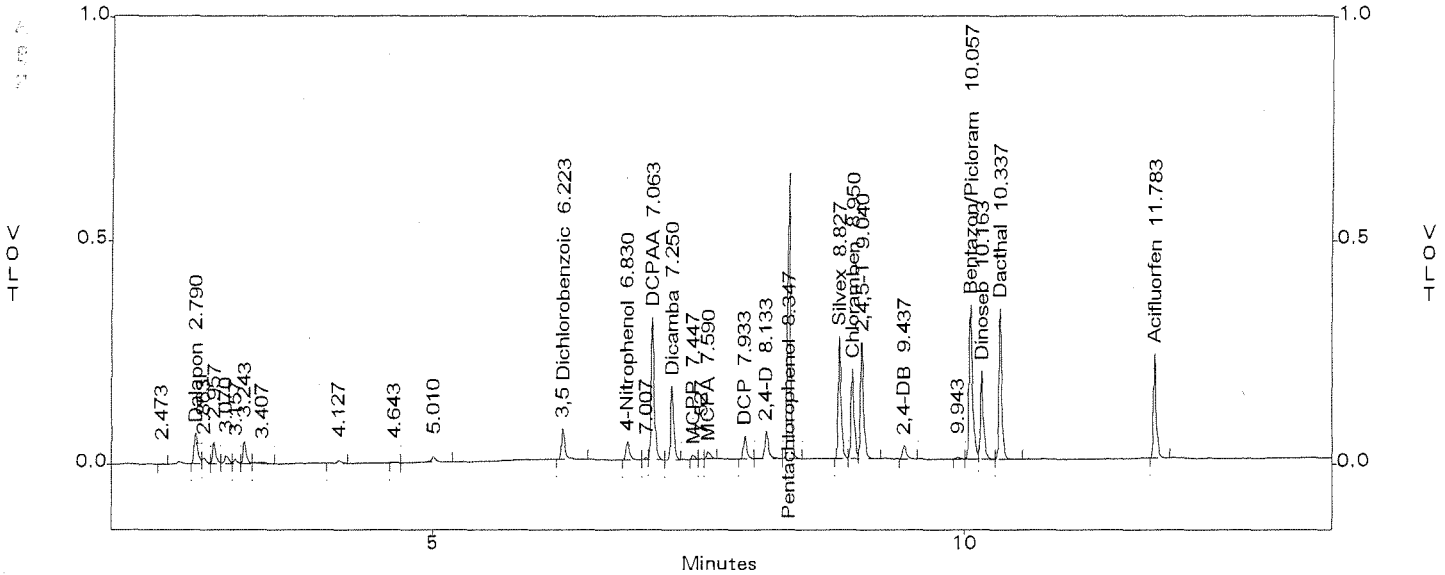
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.002
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30007
Acquired : Oct 31, 2012 16:10:45
Printed : Nov 01, 2012 08:25:45
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	155207.0	1669.16	92.98	BS
3,5 Dichlorobenzo	6.223	152853.0	1582.76	96.57	BV
4-Nitrophenol	6.830	101645.0	994.81	102.17	BV
DCPAA	7.063	671865.0	717.28	936.68	SV
Dicamba	7.250	324228.0	3332.79	97.28	VV
MCPP	7.447	22631.0	3.75	6030.44	BV
MCPA	7.590	39017.0	7.75	5033.10	xV
DCP	7.933	112876.0	1133.12	99.62	BV
2,4-D	8.133	147460.0	1424.90	103.49	VV
Pentachlorophenol	8.347	1223311.0	12876.92	95.00	Vx
Silvex	8.827	522482.0	5252.30	99.48	BV
Chloramben	8.950	413516.0	4138.84	99.91	VV
2,4,5-T	9.040	548724.0	5436.08	100.94	VV
2,4-DB	9.437	72806.0	733.46	99.26	BV
Bentazon/Picloram	10.057	803526.0	3836.73	209.43	VV
Dinoseb	10.163	406178.0	3981.06	102.03	VV
Dacthal	10.337	627606.0	6309.82	99.47	VI
Acifluorfen	11.783	444675.0	4861.40	91.47	BV

c:\ezchrom\chrom\qj31\qj31.002 -- Channel A



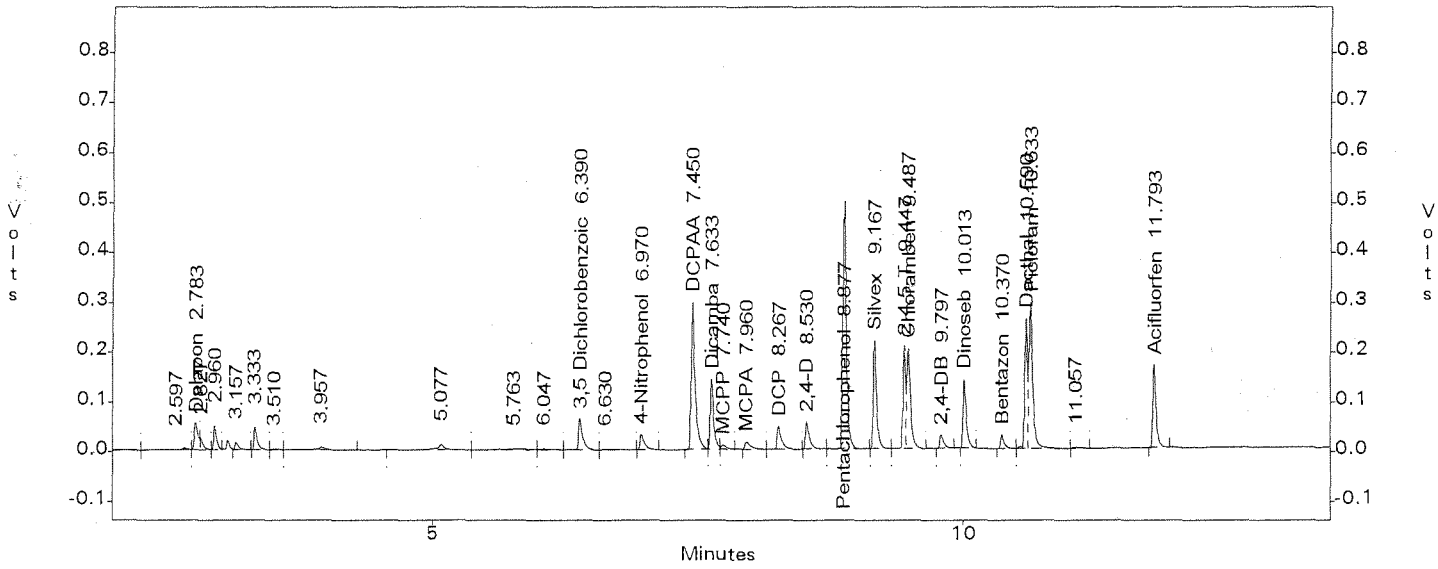
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.002
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30007
Acquired : Oct 31, 2012 16:10:45
Printed : Nov 01, 2012 08:25:46
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	126005.0	1263.67	99.71	Sx
3,5 Dichlorobenzoic	6.390	163620.0	1675.04	97.68	VV
4-Nitrophenol	6.970	83120.0	738.33	112.58	VV
DCPAA	7.450	777447.0	812.00	957.45	SV
Dicamba	7.633	315803.0	3231.74	97.72	VS
MCPP	7.740	24527.0	5.17	4745.04	SV
MCPA	7.960	49753.0	10.00	4977.73	SV
DCP	8.267	118106.0	1198.60	98.54	VV
2,4-D	8.530	138851.0	1382.77	100.42	VS
Pentachlorophenol	8.877	1161272.0	11546.42	100.57	SV
Silvex	9.167	478804.0	4667.02	102.59	VS
2,4,5-T	9.447	348966.0	3607.14	96.74	Sx
Chloramben	9.487	509146.0	4751.55	107.15	xS
2,4-DB	9.797	66830.0	713.67	93.64	Bx
Dinoseb	10.013	307094.0	2604.65	117.90	BI
Bentazon	10.370	62216.0	620.24	100.31	xV
Dacthal	10.590	439788.0	4296.46	102.36	Vx
Picloram	10.633	781179.0	7077.91	110.37	xV
Acifluorfen	11.793	349217.0	2674.64	130.57	BS

c:\ezchrom\chrom\qj31\qj31.002 -- Channel B



5868

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31014A 10/31/2012 20:13
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.160	10.144	10.176	100.0	4484.4	401425	100.83	1		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.057	7.041	7.073	1000.0	720.500	674597	940.49	-6		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Columm : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31014B 10/31/2012 20:13
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.010	9.994	10.026	100.0	3449.0	302035	115.96	16		20

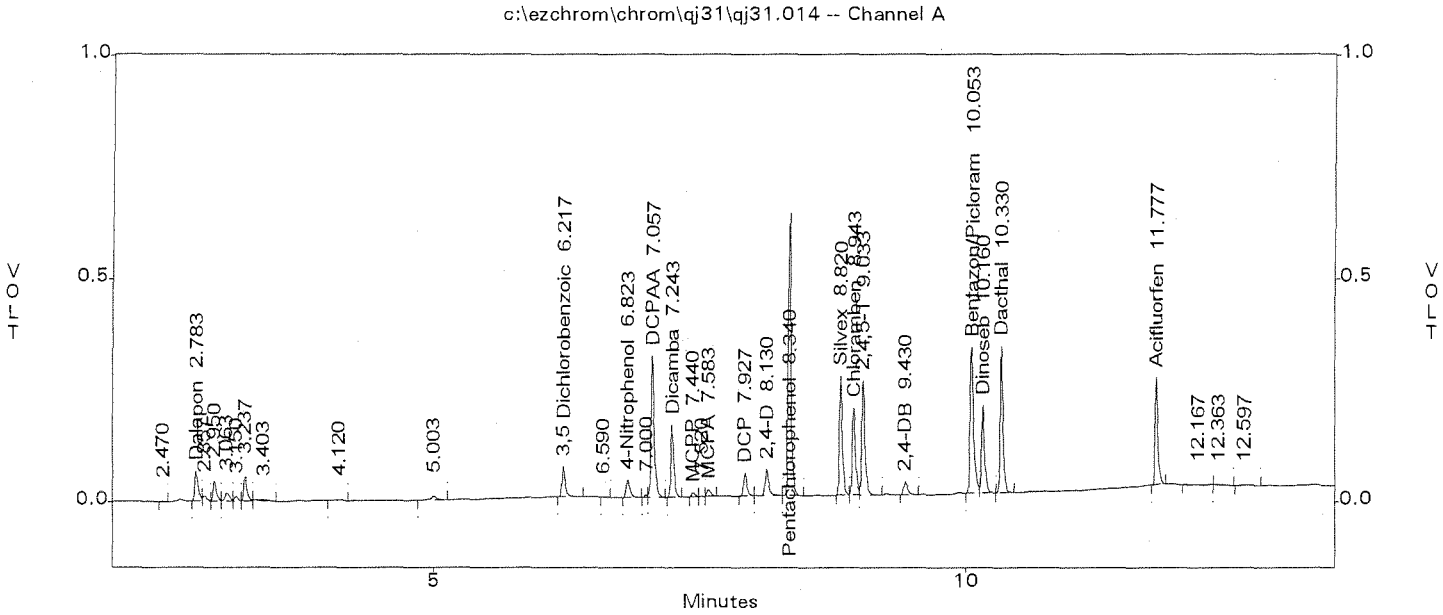
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.443	7.427	7.459	1000.0	839.800	771902	950.62	-5		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.014
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30008
Acquired : Oct 31, 2012 20:13:55
Printed : Nov 01, 2012 09:06:52
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	154970.0	1669.16	92.84	BS
3,5 Dichlorobenzo	6.217	150356.0	1582.76	95.00	BB
4-Nitrophenol	6.823	100377.0	994.81	100.90	BV
DCPAA	7.057	674597.0	717.28	940.49	SV
Dicamba	7.243	324233.0	3332.79	97.29	VV
MCPP	7.440	22293.0	3.75	5940.37	BV
MCPA	7.583	38437.0	7.75	4958.28	xV
DCP	7.927	112906.0	1133.12	99.64	BV
2,4-D	8.130	144917.0	1424.90	101.70	VV
Pentachlorophenol	8.340	1224004.0	12876.92	95.05	Vx
Silvex	8.820	519086.0	5252.30	98.83	BV
Chloramben	8.943	410646.0	4138.84	99.22	VV
2,4,5-T	9.033	548510.0	5436.08	100.90	VV
2,4-DB	9.430	71232.0	733.46	97.12	BV
Bentazon/Picloram	10.053	785128.0	3836.73	204.63	BV
Dinoseb	10.160	401425.0	3981.06	100.83	VV
Dacthal	10.330	613874.0	6309.82	97.29	VV
Acifluorfen	11.777	451019.0	4861.40	92.78	BV



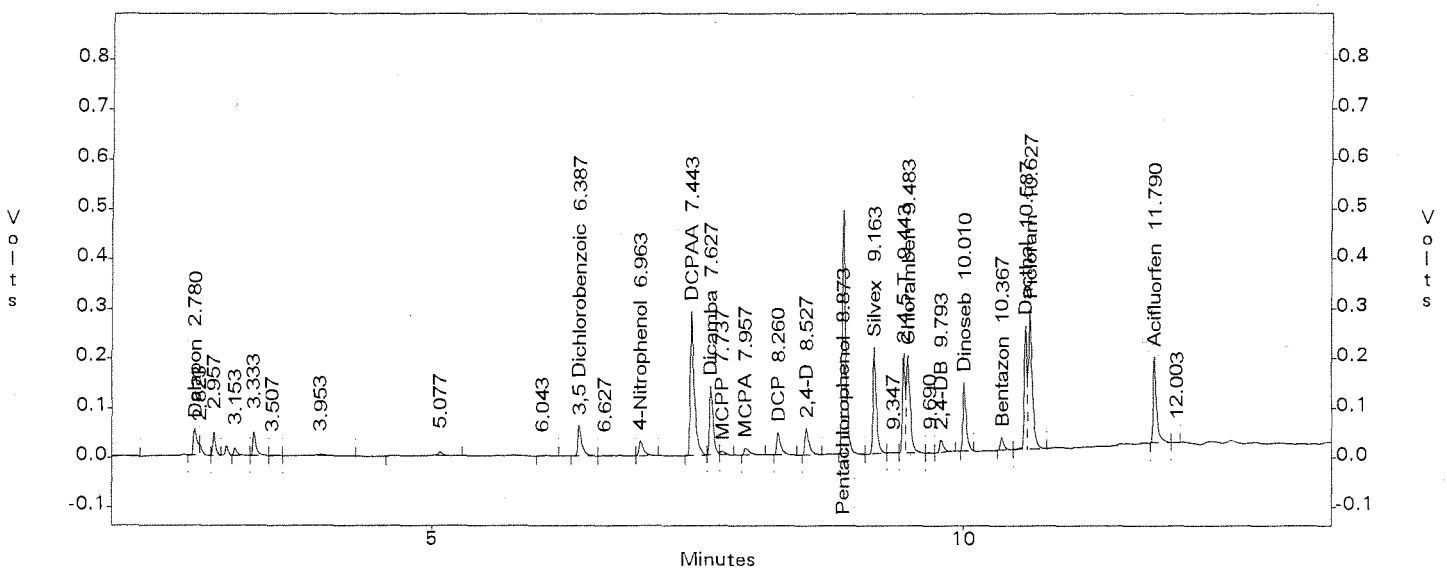
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.014
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30008
Acquired : Oct 31, 2012 20:13:55
Printed : Nov 01, 2012 09:06:52
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	125596.0	1263.67	99.39	Bx
3,5 Dichlorobenzoic	6.387	151634.0	1675.04	90.53	BV
4-Nitrophenol	6.963	82263.0	738.33	111.42	VV
DCPAA	7.443	771902.0	812.00	950.62	SV
Dicamba	7.627	312939.0	3231.74	96.83	VS
MCPP	7.737	23299.0	5.17	4507.47	SV
MCPA	7.957	49232.0	10.00	4925.60	SV
DCP	8.260	115076.0	1198.60	96.01	VV
2,4-D	8.527	136472.0	1382.77	98.69	VV
Pentachlorophenol	8.873	1144005.0	11546.42	99.08	SV
Silvex	9.163	472357.0	4667.02	101.21	VV
2,4,5-T	9.443	350547.0	3607.14	97.18	Sx
Chloramben	9.483	497442.0	4751.55	104.69	xV
2,4-DB	9.793	67910.0	713.67	95.16	Sx
Dinoseb	10.010	302035.0	2604.65	115.96	BI
Bentazon	10.367	54873.0	620.24	88.47	BV
Dacthal	10.587	428661.0	4296.46	99.77	Vx
Picloram	10.627	730509.0	7077.91	103.21	xV
Acifluorfen	11.790	390254.0	2674.64	145.91	SV

c:\ezchrom\chrom\qj31\qj31.014 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Columm : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31026A 11/01/2012 00:18
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.153	10.137	10.169	100.0	4484.4	432731	108.70	9		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.050	7.034	7.066	1000.0	720.500	701266	977.67	-2		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Columm : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31026B 11/01/2012 00:18
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.007	9.991	10.023	100.0	3449.0	328655	126.18	26	*	20

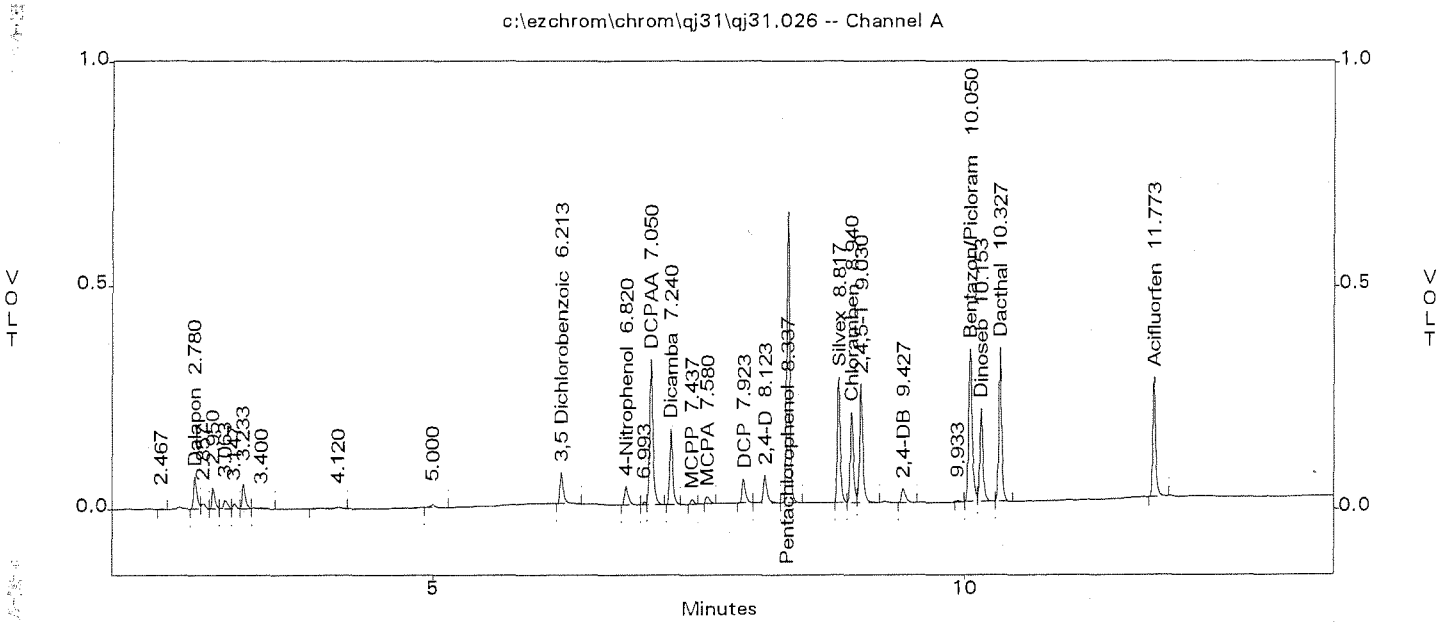
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.440	7.424	7.456	1000.0	839.800	805397	991.87	-1		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.026
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30009
Acquired : Nov 01, 2012 00:18:24
Printed : Nov 01, 2012 08:44:42
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	160009.0	1669.16	95.86	BS
3,5 Dichlorobenzo	6.213	153204.0	1582.76	96.80	BB
4-Nitrophenol	6.820	104218.0	994.81	104.76	BV
DCPAA	7.050	701266.0	717.28	977.67	SV
Dicamba	7.240	337007.0	3332.79	101.12	VV
MCPP	7.437	22267.0	3.75	5933.44	BI
MCPA	7.580	38539.0	7.75	4971.44	xV
DCP	7.923	117774.0	1133.12	103.94	BV
2,4-D	8.123	150148.0	1424.90	105.37	VV
Pentachlorophenol	8.337	1275654.0	12876.92	99.07	Vx
Silvex	8.817	541170.0	5252.30	103.03	BV
Chloramben	8.940	430003.0	4138.84	103.89	VV
2,4,5-T	9.030	572685.0	5436.08	105.35	VV
2,4-DB	9.427	74993.0	733.46	102.25	BV
Bentazon/Picloram	10.050	824369.0	3836.73	214.86	VV
Dinoseb	10.153	432731.0	3981.06	108.70	VV
Dacthal	10.327	644735.0	6309.82	102.18	VI
Acifluorfen	11.773	511131.0	4861.40	105.14	BV



5075

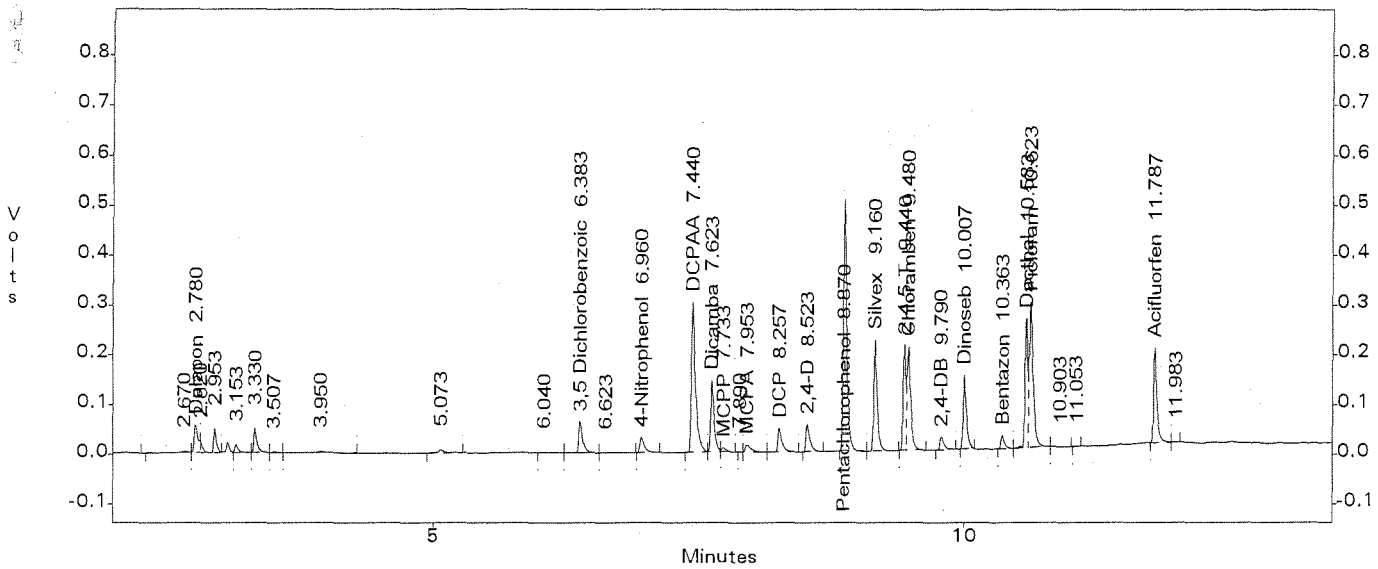
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.026
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30009
Acquired : Nov 01, 2012 00:18:24
Printed : Nov 01, 2012 08:44:43
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	130869.0	1263.67	103.56	SS
3,5 Dichlorobenzoic	6.383	158376.0	1675.04	94.55	VV
4-Nitrophenol	6.960	85997.0	738.33	116.47	VV
DCPAA	7.440	805397.0	812.00	991.87	SV
Dicamba	7.623	329561.0	3231.74	101.98	VS
MCPP	7.733	29290.0	5.17	5666.50	SV
MCPA	7.953	56563.0	10.00	5659.06	SV
DCP	8.257	121914.0	1198.60	101.71	VV
2,4-D	8.523	142009.0	1382.77	102.70	VV
Pentachlorophenol	8.870	1191045.0	11546.42	103.15	SV
Silvex	9.160	496159.0	4667.02	106.31	VV
2,4,5-T	9.440	370103.0	3607.14	102.60	Sx
Chloramben	9.480	527292.0	4751.55	110.97	xV
2,4-DB	9.790	72970.0	713.67	102.25	Sx
Dinoseb	10.007	328655.0	2604.65	126.18	BI
Bentazon	10.363	59295.0	620.24	95.60	xV
Dacthal	10.583	449627.0	4296.46	104.65	Vx
Picloram	10.623	774431.0	7077.91	109.42	xV
Acifluorfen	11.787	411465.0	2674.64	153.84	SV

c:\ezchrom\chrom\qj31\qj31.026 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31033A 11/01/2012 02:41
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.153	10.137	10.169	100.0	4484.4	451269	113.35	13		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.050	7.034	7.066	1000.0	720.500	728453	1015.57	2		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Columm : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31033B 11/01/2012 02:41
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.007	9.991	10.023	100.0	3449.0	347507	133.42	33	*	20

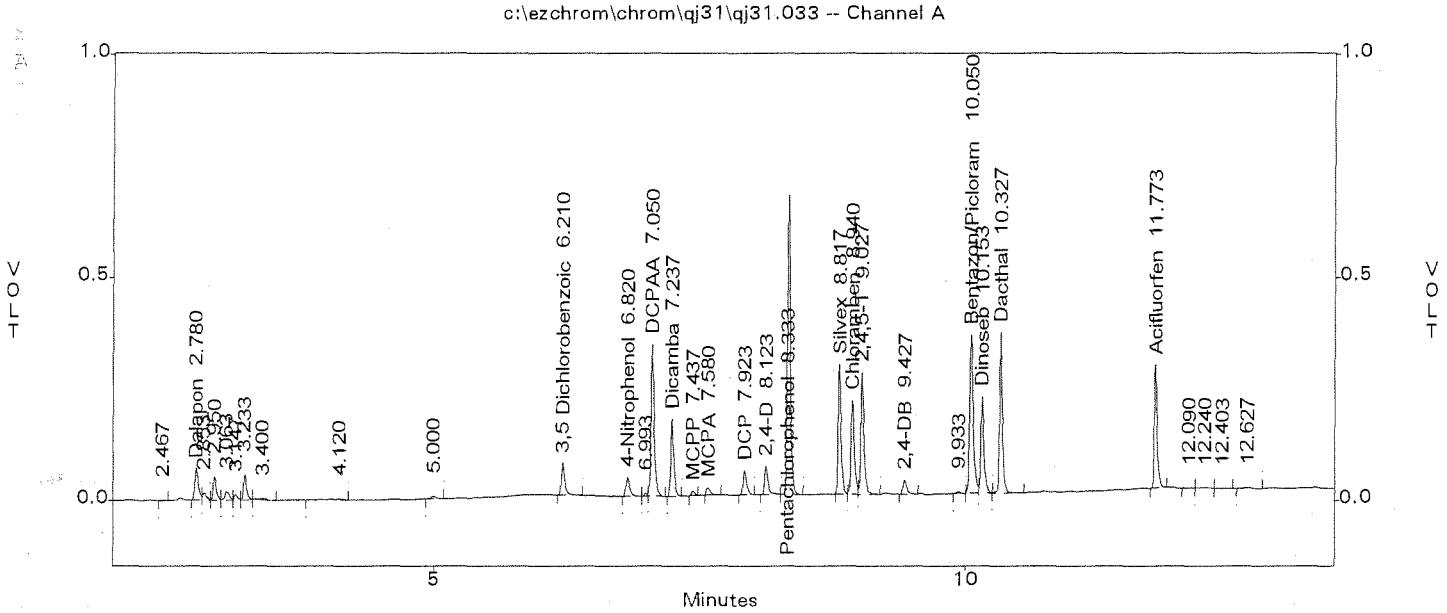
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.440	7.424	7.456	1000.0	839.800	832784	1025.60	3		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.033
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30010
Acquired : Nov 01, 2012 02:41:42
Printed : Nov 01, 2012 09:00:48
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	163889.0	1669.16	98.19	BV
3,5 Dichlorobenzo	6.210	157435.0	1582.76	99.47	BB
4-Nitrophenol	6.820	107174.0	994.81	107.73	BV
DCPAA	7.050	728453.0	717.28	1015.57	SV
Dicamba	7.237	347399.0	3332.79	104.24	VV
MCPP	7.437	22921.0	3.75	6107.72	BV
MCPA	7.580	41080.0	7.75	5299.22	xB
DCP	7.923	119492.0	1133.12	105.45	BV
2,4-D	8.123	148674.0	1424.90	104.34	BV
Pentachlorophenol	8.333	1313068.0	12876.92	101.97	Vx
Silvex	8.817	558638.0	5252.30	106.36	BV
Chloramben	8.940	443454.0	4138.84	107.14	VV
2,4,5-T	9.027	592825.0	5436.08	109.05	VV
2,4-DB	9.427	77883.0	733.46	106.19	BV
Bentazon/Picloram	10.050	855495.0	3836.73	222.98	VV
Dinoseb	10.153	451269.0	3981.06	113.35	VV
Dacthal	10.327	691963.0	6309.82	109.66	VV
Acifluorfen	11.773	521534.0	4861.40	107.28	BI



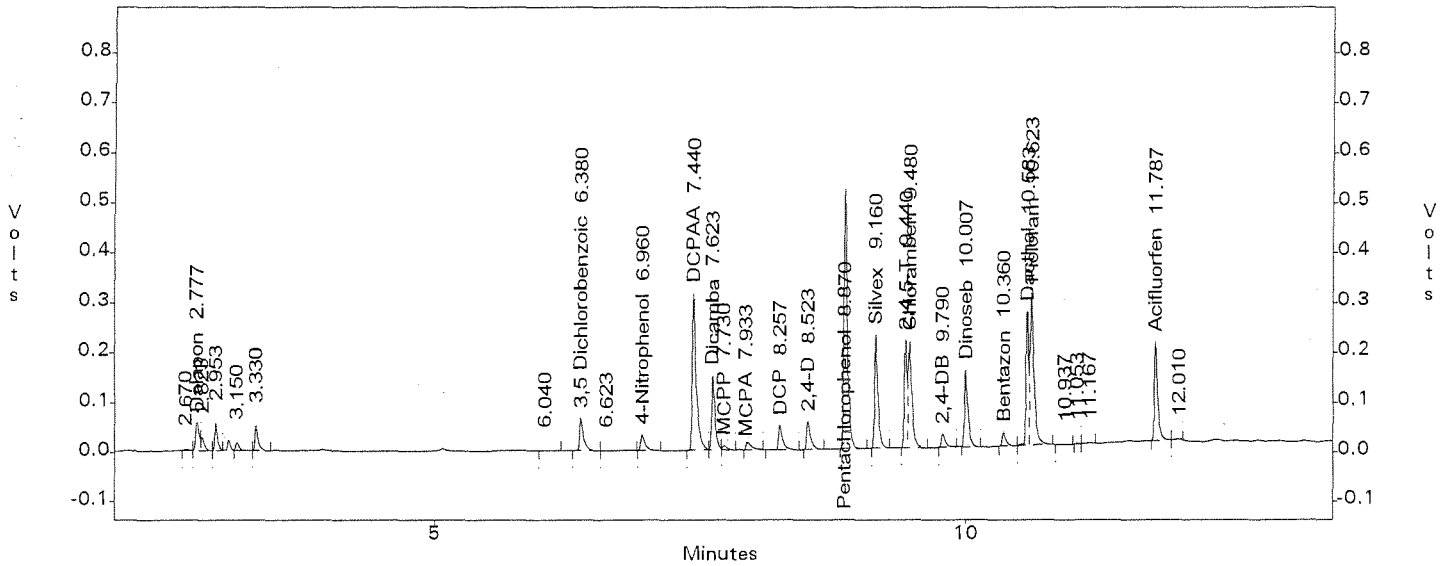
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.033
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30010
Acquired : Nov 01, 2012 02:41:42
Printed : Nov 01, 2012 09:00:48
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.777	126465.0	1263.67	100.08	Sx
3,5 Dichlorobenzoic	6.380	162249.0	1675.04	96.86	BV
4-Nitrophenol	6.960	88570.0	738.33	119.96	VV
DCPAA	7.440	832784.0	812.00	1025.60	SV
Dicamba	7.623	336153.0	3231.74	104.02	VS
MCPP	7.730	25073.0	5.17	4850.67	SV
MCPA	7.933	52121.0	10.00	5214.64	xx
DCP	8.257	122498.0	1198.60	102.20	SV
2,4-D	8.523	146759.0	1382.77	106.13	VV
Pentachlorophenol	8.870	1221686.0	11546.42	105.81	SV
Silvex	9.160	500545.0	4667.02	107.25	VV
2,4,5-T	9.440	376689.0	3607.14	104.43	Sx
Chloramben	9.480	541220.0	4751.55	113.90	xV
2,4-DB	9.790	71732.0	713.67	100.51	SV
Dinoseb	10.007	347507.0	2604.65	133.42	BV
Bentazon	10.360	67913.0	620.24	109.49	xV
Dacthal	10.583	469208.0	4296.46	109.21	Vx
Picloram	10.623	811166.0	7077.91	114.61	xV
Acifluorfen	11.787	426733.0	2674.64	159.55	SV

c:\ezchrom\chrom\qj31\qj31.033 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31036A 11/01/2012 13:16
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.157	10.141	10.173	100.0	4484.4	399512	100.35	0		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.053	7.037	7.069	1000.0	720.500	613073	854.71	-15		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31036B 11/01/2012 13:16
CONC UNIT : ppb

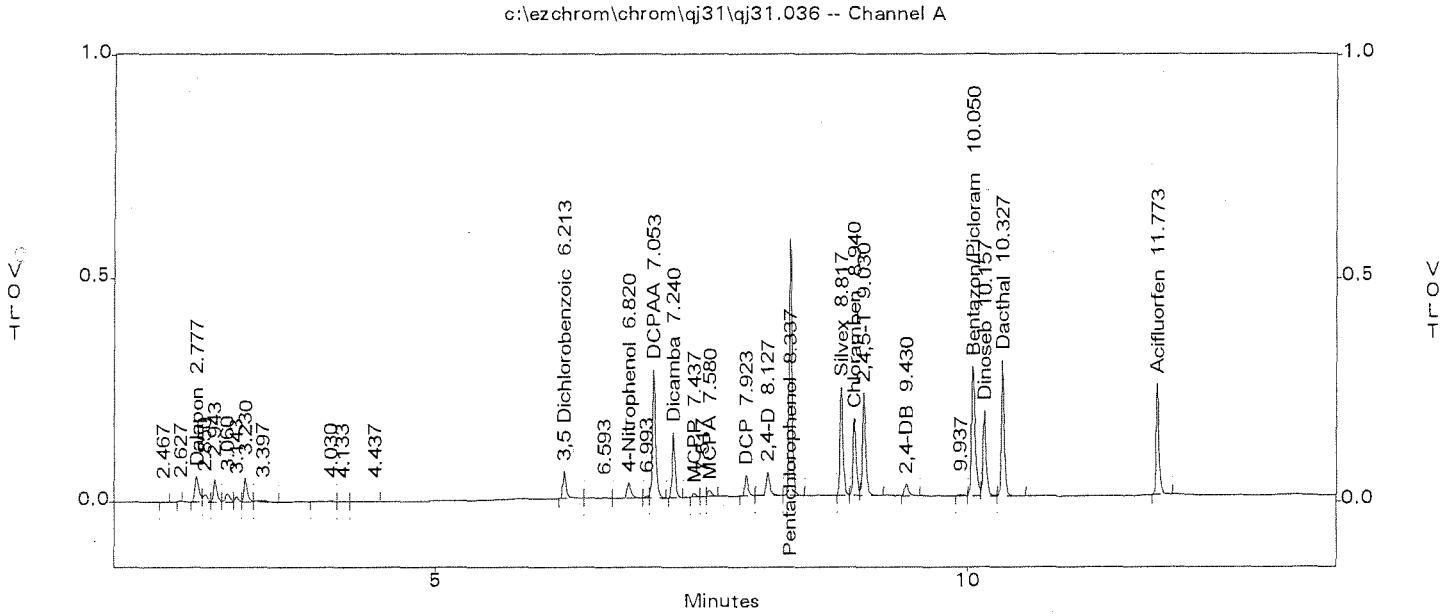
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.007	9.991	10.023	100.0	3449.0	304354	116.85	17		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.440	7.424	7.456	1000.0	839.800	708604	872.67	-13		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.036
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30011
Acquired : Nov 01, 2012 13:16:43
Printed : Nov 01, 2012 14:22:26
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.777	146323.0	1669.16	87.66	BV
3,5 Dichlorobenzo	6.213	139859.0	1582.76	88.36	BV
4-Nitrophenol	6.820	91249.0	994.81	91.72	VV
DCPAA	7.053	613073.0	717.28	854.71	SV
Dicamba	7.240	287927.0	3332.79	86.39	VV
MCPP	7.437	20083.0	3.75	5351.48	BV
MCPA	7.580	36354.0	7.75	4689.58	xV
DCP	7.923	101547.0	1133.12	89.62	BV
2,4-D	8.127	134932.0	1424.90	94.70	VV
Pentachlorophenol	8.337	1108275.0	12876.92	86.07	Vx
Silvex	8.817	467568.0	5252.30	89.02	BV
Chloramben	8.940	364954.0	4138.84	88.18	VV
2,4,5-T	9.030	498511.0	5436.08	91.70	VV
2,4-DB	9.430	63718.0	733.46	86.87	BV
Bentazon/Picloram	10.050	710478.0	3836.73	185.18	VV
Dinoseb	10.157	399512.0	3981.06	100.35	VV
Dacthal	10.327	574151.0	6309.82	90.99	VI
Acifluorfen	11.773	469746.0	4861.40	96.63	BV



5883

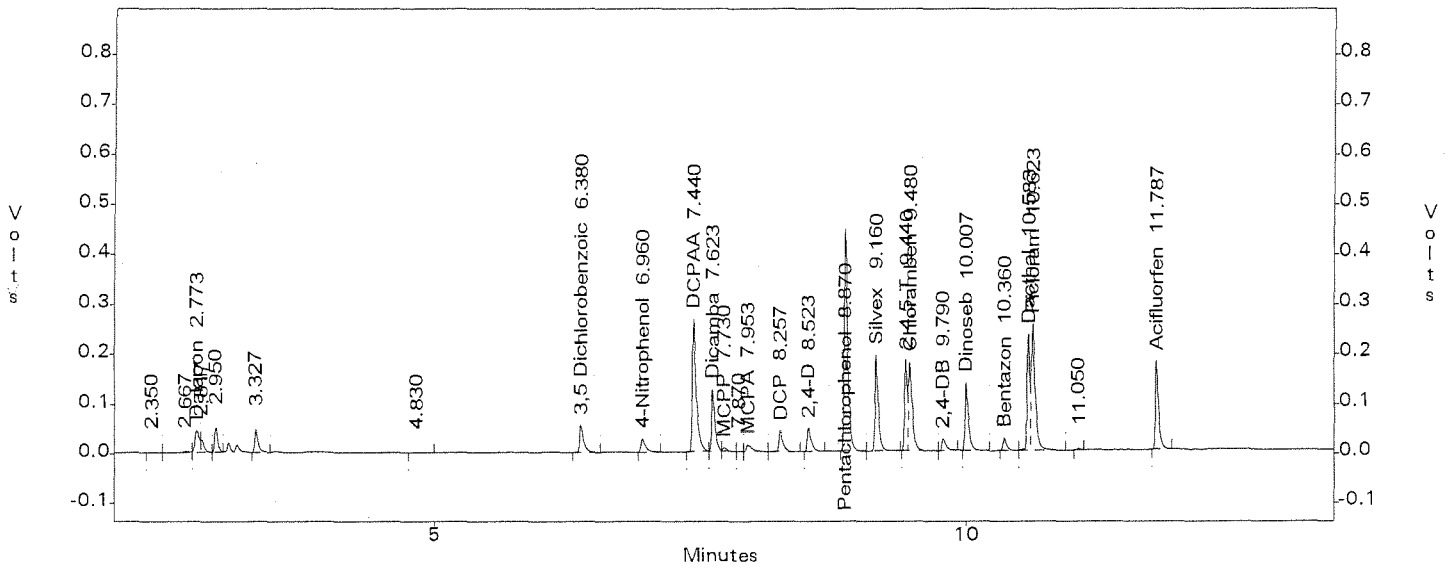
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.036
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30011
Acquired : Nov 01, 2012 13:16:43
Printed : Nov 01, 2012 14:22:27
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.773	118188.0	1263.67	93.53	Sx
3,5 Dichlorobenzoic	6.380	137386.0	1675.04	82.02	BV
4-Nitrophenol	6.960	75300.0	738.33	101.99	BV
DCPAA	7.440	708604.0	812.00	872.67	SV
Dicamba	7.623	282874.0	3231.74	87.53	VS
MCPP	7.730	28280.0	5.17	5471.11	Sx
MCPA	7.953	52532.0	10.00	5255.76	SV
DCP	8.257	107941.0	1198.60	90.06	VV
2,4-D	8.523	123154.0	1382.77	89.06	VV
Pentachlorophenol	8.870	1036100.0	11546.42	89.73	SV
Silvex	9.160	427573.0	4667.02	91.62	VV
2,4,5-T	9.440	318062.0	3607.14	88.18	Sx
Chloramben	9.480	452383.0	4751.55	95.21	xV
2,4-DB	9.790	65132.0	713.67	91.26	Sx
Dinoseb	10.007	304354.0	2604.65	116.85	BV
Bentazon	10.360	59762.0	620.24	96.35	xV
Dacthal	10.583	401868.0	4296.46	93.53	Vx
Picloram	10.623	677646.0	7077.91	95.74	xV
Acifluorfen	11.787	375541.0	2674.64	140.41	BS

c:\ezchrom\chrom\qj31\qj31.036 -- Channel B



5084

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31048A 11/01/2012 17:59
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.157	10.141	10.173	100.0	4484.4	405809	90.49	-10		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.053	7.037	7.069	1000.0	720.500	620640	861.35	-14		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Columm : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31048B 11/01/2012 17:59
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.007	9.991	10.023	100.0	3449.0	311128	90.21	-10		20

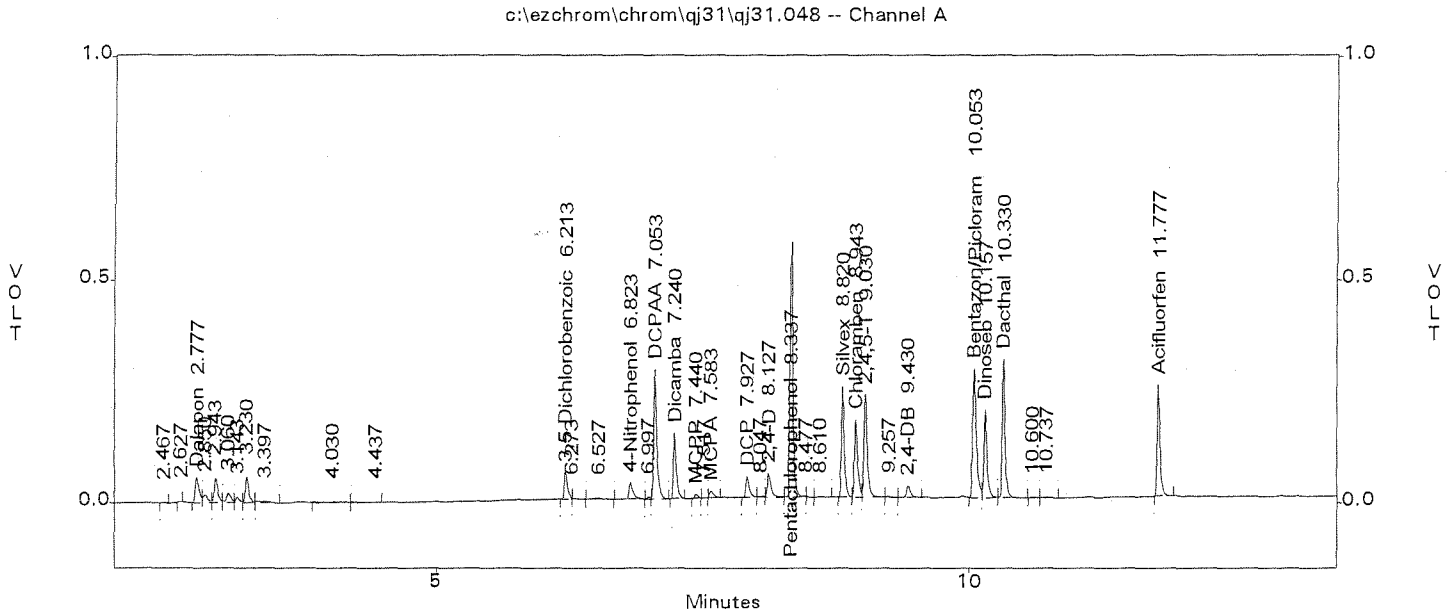
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.443	7.427	7.459	1000.0	839.800	714795	851.18	-15		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.048
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30012
Acquired : Nov 01, 2012 17:59:17
Printed : Nov 01, 2012 18:15:23
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.777	146673.0	1709.22	85.81	BV
3,5 Dichlorobenzo	6.213	131017.0	1507.56	86.91	Bx
4-Nitrophenol	6.823	92466.0	1051.91	87.90	VV
DCPAA	7.053	620640.0	720.54	861.35	SV
Dicamba	7.240	291763.0	3371.46	86.54	VV
MCPP	7.440	20570.0	4.57	4498.67	BV
MCPA	7.583	37043.0	8.27	4479.77	xV
DCP	7.927	104467.0	1182.11	88.37	BV
2,4-D	8.127	136169.0	1492.49	91.24	xV
Pentachlorophenol	8.337	1123923.0	12861.50	87.39	Vx
Silvex	8.820	476555.0	5293.29	90.03	BV
Chloramben	8.943	371596.0	4064.33	91.43	VV
2,4,5-T	9.030	513261.0	5662.12	90.65	VV
2,4-DB	9.430	66405.0	746.33	88.98	VI
Bentazon/Picloram	10.053	722757.0	4112.69	175.74	BV
Dinoseb	10.157	405809.0	4484.44	90.49	VV
Dacthal	10.330	583041.0	6368.69	91.55	VV
Acifluorfen	11.777	480352.0	5114.74	93.92	BV



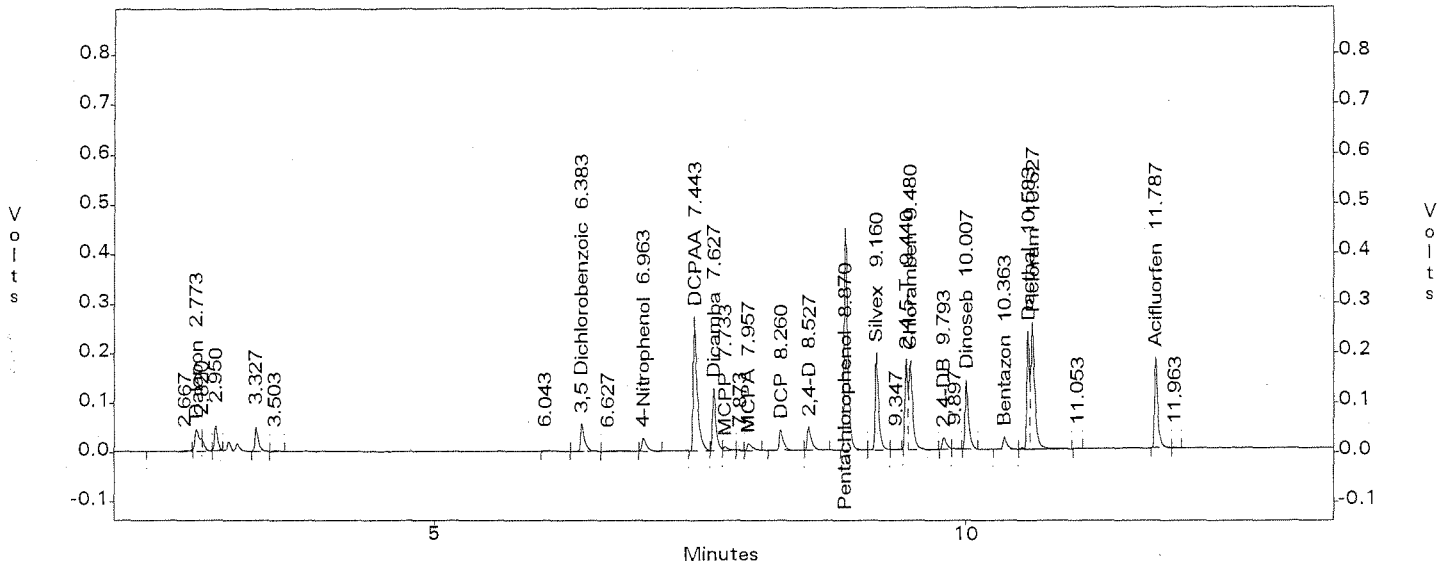
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.048
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30012
Acquired : Nov 01, 2012 17:59:17
Printed : Nov 01, 2012 18:15:23
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.773	128604.0	1304.23	98.61	xx
3,5 Dichlorobenzoic	6.383	140469.0	1647.29	85.27	VV
4-Nitrophenol	6.963	76330.0	884.30	86.32	VV
DCPAA	7.443	714795.0	839.77	851.18	SV
Dicamba	7.627	285378.0	3313.89	86.12	VS
MCPP	7.733	23205.0	5.44	4268.81	Sx
MCPA	7.957	46973.0	10.48	4480.35	Sx
DCP	8.260	107406.0	1274.98	84.24	VV
2,4-D	8.527	125841.0	1451.63	86.69	VV
Pentachlorophenol	8.870	1043846.0	11988.79	87.07	SV
Silvex	9.160	434252.0	4946.26	87.79	VV
2,4,5-T	9.440	331145.0	3771.03	87.81	xx
Chloramben	9.480	451477.0	4997.10	90.35	xx
2,4-DB	9.793	61464.0	771.68	79.65	Sx
Dinoseb	10.007	311128.0	3449.00	90.21	SI
Bentazon	10.363	59295.0	705.05	84.10	BV
Dacthal	10.583	395011.0	4651.52	84.92	Vx
Picloram	10.627	702779.0	7623.47	92.19	xV
Acifluorfen	11.787	388684.0	4033.72	96.36	BS

c:\ezchrom\chrom\qj31\qj31.048 -- Channel B



5088

ANALYTICAL LOGS

ANALYSIS RUN LOG
for
PCB CONGENERS/HERBICIDES/EDB and DBCP

EMAX LABORATORIES, INC.

Note: For samples and relevant QC/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #:	A09-015
Instrument No.:	09
Analytical Sequence:	QJ30
Method File:	HE0QJ30.MET
Analytical Batch:	QJ30002

SOP #	Rev. #
☑ EMAX-8151	3
☐ EMAX-8082CON	0
☐ EMAX-504.1	3
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
HE0QJ30	QJ30	10/30/12

STANDARDS ID		Conc (µg/L)
Hexane	5125J	NA
DCC	—	—
8151 ICAL	554B-03-53-03	10/500/100 to 200/10,000/2000
8151 ICV	554B-03-54-01	100/10,000/1000 to 50/5000/500
8151 DCC	554B-03-54-02	100/5000/1000

Column	☐ A. STX CLPEST I ☑ STX CLPEST II

ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC6HERB	
☐	

Analyzed By: [illegible] Date: 10/30/12

Disposed By: [illegible] Date Disposed: 10/31/12

This page is checked during data review.

5890

Run	Sample ID	Method	Filename	Mult.	Description
1	IB09J30001	HE09J30.MET	QJ30.001	1	
2	HE09J3001	HE09J30.MET	QJ30.002	1	
3	HE09J3002	HE09J30.MET	QJ30.003	1	
4	HE09J3003	HE09J30.MET	QJ30.004	1	
5	HE09J3004	HE09J30.MET	QJ30.005	1	
6	HE09J3005	HE09J30.MET	QJ30.006	1	
7	HE09J3006	HE09J30.MET	QJ30.007	1	
8	HE09J3007	HE09J30.MET	QJ30.008	1	
9	HE09J3008	HE09J30.MET	QJ30.009	1	
10	IHE09J30001	HE09J30.MET	QJ30.010	1	
11	IHE09J30002	HE09J30.MET	QJ30.011	1	
12	CHE09J30001	HE09J30.MET	QJ30.012	1	
13	HEJ009WB	HE09J30.MET	QJ30.013	1	
14	HEJ009WL	HE09J30.MET	QJ30.014	1	
15	HEJ009WC	HE09J30.MET	QJ30.015	1	
16	J163-01	HE09J30.MET	QJ30.016	1	
17	J163-02	HE09J30.MET	QJ30.017	1	
18	J163-04	HE09J30.MET	QJ30.018	1	
19	J163-05	HE09J30.MET	QJ30.019	1	
20	J163-06	HE09J30.MET	QJ30.020	1	
21	J163-07	HE09J30.MET	QJ30.021	1	
22	J163-08	HE09J30.MET	QJ30.022	1	
23	IB09J30002	HE09J30.MET	QJ30.023	1	
24	CHE09J30002	HE09J30.MET	QJ30.024	1	
25	J163-09	HE09J30.MET	QJ30.025	1	

ANALYSIS RUN LOG
for
PCB CONGENERS/HERBICIDES/EDB and DBCP

Note: For samples and relevant QC/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A09-015
Instrument No.: 09
Analytical Sequence: QJ31
Method File: HE09J30.MET
Analytical Batch: QJ31002

SOP #	Rev. #
☑ EMAX-8151	3
☐ EMAX-8082CON	0
☐ EMAX-504.1	3
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
HE09J30	QJ30	10/30/12

STANDARDS ID		Conc (µg/L)
Hexane	J257	NA
DCC	SS4B-03-J4-02	100/5000/1000

Column	☑ A. STX CLPEST I	☑ STX CLPEST II

ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC6HERB	
☐	

Analyzed By: [signature] Date: 10/31/12
Disposed By: [signature] Date Disposed: 11/1/12

This page is checked during data review.

Run	Sample ID	Method	Filename	Mult.	Description
1	IB09J30007	he09j30.met	QJ31.001	1	
2	CHE09J30007	he09j30.met	QJ31.002	1	✓ OK
3	HEJ010WB	he09j30.met	QJ31.003	1	
4	HEJ010WL	he09j30.met	QJ31.004	1	
5	HEJ010WC	he09j30.met	QJ31.005	1	
6	J181-01	he09j30.met	QJ31.006	1	
7	J181-02	he09j30.met	QJ31.007	1	
8	J181-03	he09j30.met	QJ31.008	1	
9	J181-04	he09j30.met	QJ31.009	1	
10	J181-04M	he09j30.met	QJ31.010	1	
11	J181-04S	he09j30.met	QJ31.011	1	
12	J181-05	he09j30.met	QJ31.012	1	
13	IB09J30008	he09j30.met	QJ31.013	1	
14	CHE09J30008	he09j30.met	QJ31.014	1	✓ OK
15	J181-06	he09j30.met	QJ31.015	1	Report from Col. A.
16	J181-07	he09j30.met	QJ31.016	1	
17	J181-08	he09j30.met	QJ31.017	1	
18	J181-09	he09j30.met	QJ31.018	1	
19	J181-10I DF=10	he09j30.met	QJ31.019	10	
20	J181-11	he09j30.met	QJ31.020	1	
21	J182-02	he09j30.met	QJ31.021	1	
22	J182-02M	he09j30.met	QJ31.022	1	
23	J182-02S	he09j30.met	QJ31.023	1	
24	J182-03	he09j30.met	QJ31.024	1	
25	IB09J30009	he09j30.met	QJ31.025	1	

Run	Sample ID	Method	Filename	Mult.	Description
25	IB09J30009	he09j30.met	QJ31.025	1	
26	CHE09J30009	he09j30.met	QJ31.026	1	Dinoseb in col. B high.
27	J182-04 ✓	he09j30.met	QJ31.027	1	Report from col. A.
28	J182-05	he09j30.met	QJ31.028	1	dilution
29	J182-06 ✓	he09j30.met	QJ31.029	1	Report from col. A.
30	J182-07 ✓	he09j30.met	QJ31.030	1	↓
31	J181-09I DF=5	he09j30.met	QJ31.031	5	
32	IB09J30010	he09j30.met	QJ31.032	1	
33	CHE09J30010	he09j30.met	QJ31.033	1	Dinoseb in col. B high.
34	no data	he09j30.met	QJ31.034	1	
35	IB09J30011	he09j30.met	QJ31.035	1	
36	CHE09J30011	he09j30.met	QJ31.036	1	✓ ok
37	J181-01I DF=50	he09j30.met	QJ31.037	50	
38	J181-07I DF=20	he09j30.met	QJ31.038	20	
39	J181-09I DF=100	he09j30.met	QJ31.039	100	
40	J181-10I DF=100	he09j30.met	QJ31.040	100	
41	J181-11I DF=20	he09j30.met	QJ31.041	20	
42	J182-05I DF=20 ✓	he09j30.met	QJ31.042	20	
43	J181-07J DF=10	he09j30.met	QJ31.043	10	
44	J181-09J DF=2000	he09j30.met	QJ31.044	2000	
45	J181-10J DF=8000	he09j30.met	QJ31.045	8000	
46	J181-11J DF=10	he09j30.met	QJ31.046	10	
47	IB09J30012	he09j30.met	QJ31.047	1	
48	CHE09J30012	he09j30.met	QJ31.048	1	✓ ok.
49	IB	he09j30.met	QJ31.049	1	

EXTRACTION LOGS

EMAX LABORATORIES, INC.

EXTRACTION LOG
for
HERBICIDES

SOP	Rev. #
☒ EMAX-8151	3
☐ EMAX-	

Note: For samples, relevant QCs/Standards extracted, refer to attached extraction sequence.

Comments:

Book #.: EHE-016
Preparation Batch: HEJ010W
Matrix WATER
Micropipette ID: PE00-04 (1000 uL)
Micropipette ID:

Standards	ID	Amount Added (ml)
Surrogate	554B-03-01-01	1.0
LCS/MS	554B-02-50-3	0.25

Reagent	Lot # / ID
CH_2Cl_2	—
Hexane	52153
Ethyl Ether	DG659
Acified Na_2SO_4	SP1B-04-262
H_2SO_4	3111070
Diazo-methane	SP1B-05-04-01
Methanol	51145
Iso Octane	SP1A-03-035
Silica Sand	—
Silicic Acid	SP1A-03-041
Reagent Water	SW1A-04-571
Residual Chlorine Strip	20221
pH Strip	HC248798

Lab Sample ID	Sonicator #	Concentrator #
HEJ010-WB	N/A	1
-WL		1
-WC		1
J181-01		2
-02		2
-03		2
-04		2
-04M		2
-04S		2
-05		3
-06		3
-07		3
-08		3
-09		3
-10		3
-11		4
J182-02		4
-02M		4
-02S		4
-03		4
-04		4
-05		1
-06		1
-07		1

TUNING

Sonicator #	Reading
	N/A

Concentrator	Water Bath Temperature Setting (°C)	Thermometer Reading (°C)
1	35	35
2	35	35
3	35	35
4	35	35
5		
6		

Test Thermometer = SVOC-T1

Prepared By: ML CS
Standard Added By: ML
Witnessed By: CS
Checked By: JM
Extract Received By: JM
Extract Location: SE04-8151-4
Disposal Date:
Disposed By:

EMAX LABORATORIES, INC.

FileID: HEJ010W

EXTRACTION LOG FOR HERBICIDES

PrepBatchID	LabSampleID	Aliquot	Unit	DateTime	Ve(ml)	ExpAmt	ExpVe(ml)	PrepFctr	Comments
12HEJ010W01	HEJ010WB	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W02	HEJ010WL	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W03	HEJ010WC	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W04	J181-01	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W05	J181-02	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W06	J181-03	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W07	J181-04	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W08	J181-04M	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W09	J181-04S	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W10	J181-05	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W11	J181-06	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W12	J181-07	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W13	J181-08	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W14	J181-09	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W15	J181-10	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W16	J181-11	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W17	J182-02	500	ml	10/30/12 13:06	5	500	5	1	CHLORINE DETECTED >5
12HEJ010W18	J182-02M	500	ml	10/30/12 13:06	5	500	5	1	CHLORINE DETECTED >5
12HEJ010W19	J182-02S	460	ml	10/30/12 13:06	5	500	5	1.09	CHLORINE DETECTED >5
12HEJ010W20	J182-03	500	ml	10/30/12 13:06	5	500	5	1	
12HEJ010W21	J182-04	500	ml	10/30/12 13:07	5	500	5	1	
12HEJ010W22	J182-05	500	ml	10/30/12 13:07	5	500	5	1	
12HEJ010W23	J182-06	500	ml	10/30/12 13:07	5	500	5	1	
12HEJ010W24	J182-07	500	ml	10/30/12 13:07	5	500	5	1	

Ve=extract volume

PrepFctr=(ExpAmt/Aliquot)(Ve/ExpVe)

☑ Extraction Started @ 10/30/12 10:50

Prepared By: ML

☑ Extraction Ended @ 10/30/12 16:25

Checked By: GM

Comments:

Date 10/30/12

TABLE OF CONTENTS

CLIENT: **ECO & ASSOCIATES, INC.**

PROJECT: **BROWN & BRYANT SUPERFUND SITE**

SDG: **12J162**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1005
GC/MS-VOA	METHOD 5030B/8260B	2000 – 2124
	METHOD 5030B/8260B SIM	2125 – 2202
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 8151A	5000 – 5088
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 300.0	8000 – 8076
	METHOD 415.1	8077 – 8115
	METHOD SM4500S2D	8116 – 8122
	SM3500	8123 – 8130
OTHERS	METHANE AND DISSOLVED HYDROGEN	

** - Not Requested

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

Date: 11-21-2012
EMAX Batch No.: 12J162

Mitra Fiuzat

Eco & Associates, Inc.
1855 W. Katella Ave, Suite 340
Orange, CA 92867

Subject: Laboratory Report
Project: Brown & Bryant Superfund Site

Enclosed is the Laboratory report for samples received on 10/24/12.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
10-24-12 BBW-1	J162-01	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
				COURIER SERVICE
10-24-12 BBW-2	J162-02	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-24-12 BBW-3	J162-03	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES

Sample ID	Control #	Col Date	Matrix	Analysis
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-24-12 FDUP-1	J162-04	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 PWB-6	J162-05	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 AR-1	J162-06	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 PWB-1	J162-07	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 AMW-3R	J162-08	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON

Sample ID	Control #	Col Date	Matrix	Analysis
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 PWB-3	J162-09	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 PWB-10	J162-10	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 AMW-3RMS	J162-08M	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 AMW-3RMSD	J162-08S	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				METHANE AND DISSOLVED HYDROGEN
10-23-12 AMW-3RDUP	J162-08D	10/23/12	WATER	FERROUS IRON
				TOTAL SULFIDE BY STD METHOD

Note : METHANE AND DISSOLVED HYDROGEN were subcontracted to Air Technology Laboratories, Inc.

The results are summarized on the following pages.

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

Sincerely yours,

Caspar J. Pang
Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that results included in this report meets all NELAC & DOD requirements unless noted in the Case Narrative.

NELAC Accredited Certificate Number 02116CA
L-A-B Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: Eco - 12-548
SAMPLE STORAGE: Coolers
EMAX CONTROL NO. * 12J162
PROJECT CODE:

CLIENT: Eco and Associates, Inc.
PROJECT: B+B Superfund - GW Monitoring
COORDINATOR: Jack Collender
TEL: 714-289-0995 FAX: 714-289-0965 EMAIL: jcollender@eco-inc.com
SEND REPORT TO: Mitra Fivzat
COMPANY: Eco and Associates
ADDRESS: 1855 W. Katella Ave., Suite 340, Orange, CA 92867
EMAX PM: Richard Beauvil

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☒ Normal TAT

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	8260B	8260 SIM	8151 (Dinosel)	415.1 (TOC)	Ferrous Iron - SM 3500	300 Sulfate/Nitrate/Nitrite	SM 4500 S2D (Sulfide)	RSK 175 (CH4, H2)	COMMENTS
1	10-24-12 BBW-1	B-Zone	10-24-12	0825	14	Var	Var	GW		X	X	X	X	X	X	X	X	
2	10-24-12 BBW-2	B-Zone	10-24-12	0935	14	Var	Var	GW		X	X	X	X	X	X	X	X	
3	10-24-12 BBW-3	B-Zone	10-24-12	1050	14	Var	Var	GW		X	X	X	X	X	X	X	X	
4	10-24-12 FDUP-1	B Zone	10-24-12	—	14	Var	Var	GW		X	X	X	X	X	X	X	X	
5	10-23-12 PWB-6	B Zone	10-23-12	1132	14	Var	Var	GW		X	X	X	X	X	X	X	X	Level 4
6	10-23-12 AR-1	B Zone	10-23-12	1216	14	Var	Var	GW		X	X	X	X	X	X	X	X	
7	10-23-12 PWB-1	B Zone	10-23-12	1050	14	Var	Var	GW		X	X	X	X	X	X	X	X	
8	10-23-12 AMW-3R	B Zone	10-23-12	0936	42	Var	Var	GW	✓	X	X	X	X	X	X	X	X	MS/MSD
9	10-23-12 PWB-3	B Zone	10-23-12	0957	14	Var	Var	GW		X	X	X	X	X	X	X	X	
10	10-23-12 PWB-10	B Zone	10-23-12	1150	14	Var	Var	GW		X	X	X	X	X	X	X	X	

Instructions

Cooler #	Temp. (°C)	Sample #s
1	4.0	
2	4.4	
4	3.0	
5	3.4	
6	3.0	

SAMPLER

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY	
Jack Collender	10-24-12	1132	Kamal M.	10/24/12 11:32
K. M.	10/24/12	14:30	[illegible]	

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Airbill / Tracking Number	ECN 12 J 162
☐ Fedex ☐ UPS ☐ GSO ☑ Others	TOP Line Courier	Recipient I. PATEL
☐ EMAX Courier ☐ Client Delivery		Date 10/24/12 Time 1430

COC Inspection

☑ Client Name ☑ Client PM/FC NV ☑ Sampler Name ☑ Sampling Date/Time/Location ☑ Sample ID ☑ Matrix
☑ Address ☑ Tel # / Fax # ☑ Courier Signature ☑ Analysis Required ☐ Preservative (if any) ☑ TAT
Safety Issues (if any) ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container ☑ Cooler 5 ☐ Box ☐ Other
Condition ☑ Custody Seal ☑ Intact ☐ Damaged
Packaging ☑ Bubble Pack ☐ Styrofoam ☐ Popcorn ☑ Sufficient ☑ Plastic Bag
Temperatures (Cool, ≈6 °C but not frozen) C ☑ Cooler 1 4.0 °C C ☑ Cooler 2 4.4 °C ☐ Cooler 3 ____ °C C ☑ Cooler 4 3.0 °C C ☑ Cooler 5 3.4 °C
C ☑ Cooler 6 3.0 °C ☐ Cooler 7 ____ °C ☐ Cooler 8 ____ °C ☐ Cooler 9 ____ °C ☐ Cooler 10 ____ °C
Thermometer: *A - S/N 101541371* *B - S/N 101541382* *C - S/N 122091701* *D - S/N 122091758*

Comments: ☐ **Temperature is out of range. PM was informed IMMEDIATELY.**

Note: **pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time.**

DISCREPANCIES

LSID	LSCID	Description Code	Sample Label ID / Information	Corrective Action Code
8		C2	One vial RSK175 (CH4 H2)	R5

☐ **Continue to next page.**

REVIEWS Sample Labeling [signature] Date 10/24/12 [signature] 10/24/12 SRF [signature] Date 10/24/12 PM [signature] Date 10/25/12

LEGEND:

Code	Description- Sample Management	Code	Description-Sample Management	Code	Description-Project Management
A1	Analysis is not indicated in COC.	G1	Sample indicated in COC is not received.	R1	Hold sample(s); wait for further instructions
A2	Analysis is not indicated in label.	G2	MS/MSD is not indicated in COC.	R2	Proceed as indicated in COC and inform client.
A3	Analysis is inconsistent in COC vis-à-vis label.	G3	No identified trip blank, proceed as indicated in COC.	R3	Refer to attached instruction
B1	Sample ID is not indicated in COC.	G4	Trip Blank is designated in SDG ____	R4	Cancel the analysis
B2	Sample ID is not indicated in label.	G5	Trip Blank has no sampling date & time. Log-in with earliest sampling date and 0:00 time.	R5	Inform client.
B3	Sample ID is inconsistent in COC vis-à-vis label.	H1	Bottle only indicates 300- No Sample Container for female vial	R6	Proceed as indicated in COC
C1	Improper container				
C2	Broken container				
C3	Leaking container				
D1	Date and/or time is not indicated in COC.				
D2	Date and/or time is not indicated in label.				
D3	Date and/or time is inconsistent in COC vis-à-vis label.				
F1	Improper preservation				
F2	Insufficient Sample				
F3	Bubble is > 6mm. Use vial with smallest bubble first.				
F4	Bubble is > 6mm in all vials.				
F5	>20 % solid particle				
F6	Out of Holding Time				

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

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

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

SDG#: 12J163

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J162

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

A total of ten (10) water samples were received on 10/24/12 for Volatile Organics by GC/MS analysis, Method 5030B/8260B in accordance with Department of Defense Quality Systems Manual for Environmental Laboratories, Version 4.2 and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Instrument mass ratios were within specification. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Results were compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for VO67J20L/C were all within QC limits.

Matrix QC Sample
A set of MS/MSD was analyzed with the samples in this SDG.
Percent recoveries for J162-08M/S were within project QC limits.

Surrogate
Surrogates were added on QC and field samples. Surrogate recoveries were within project QC limits. Refer to sample result forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE

SDG NO. : 12J162
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	V067J20B	1	NA	10/26/1212:32	10/26/1212:32	RJC423	RJC042	V067J20	Method Blank
LCS1W	V067J20L	1	NA	10/26/1211:01	10/26/1211:01	RJC420	RJC042	V067J20	Lab Control Sample (LCS)
LCD1W	V067J20C	1	NA	10/26/1211:33	10/26/1211:33	RJC421	RJC042	V067J20	LCS Duplicate
10-23-12 AMW-3R	J162-08	1	NA	10/26/1213:05	10/26/1213:05	RJC424	RJC042	V067J20	Field Sample
10-24-12 BBW-1	J162-01	1	NA	10/26/1213:35	10/26/1213:35	RJC425	RJC042	V067J20	Field Sample
10-24-12 BBW-2	J162-02	1	NA	10/26/1214:05	10/26/1214:05	RJC426	RJC042	V067J20	Field Sample
10-23-12 AMW-3RMS	J162-08M	1	NA	10/26/1215:35	10/26/1215:35	RJC429	RJC042	V067J20	Matrix Spike Sample (MS)
10-23-12 AMW-3RMSD	J162-08S	1	NA	10/26/1216:45	10/26/1216:45	RJC431	RJC042	V067J20	MS Duplicate (MSD)
10-24-12 BBW-3	J162-03	1	NA	10/26/1217:44	10/26/1217:44	RJC433	RJC042	V067J20	Field Sample
10-24-12 FDUP-1	J162-04	1	NA	10/26/1218:15	10/26/1218:15	RJC434	RJC042	V067J20	Field Sample
10-23-12 PWB-6	J162-05	1	NA	10/26/1218:46	10/26/1218:46	RJC435	RJC042	V067J20	Field Sample
10-23-12 AR-1	J162-06	1	NA	10/26/1219:15	10/26/1219:15	RJC436	RJC042	V067J20	Field Sample
10-23-12 PWB-1	J162-07	1	NA	10/26/1219:47	10/26/1219:47	RJC437	RJC042	V067J20	Field Sample
10-23-12 PWB-3	J162-09	1	NA	10/26/1220:17	10/26/1220:17	RJC438	RJC042	V067J20	Field Sample
10-23-12 PWB-10	J162-10	1	NA	10/26/1220:47	10/26/1220:47	RJC439	RJC042	V067J20	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

TABLE OF CONTENTS

CLIENT: **ECO & ASSOCIATES, INC.**

PROJECT: **BROWN & BRYANT SUPERFUND SITE**

SDG: **12J162**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1005
GC/MS-VOA	METHOD 5030B/8260B	2000 – 2124
	METHOD 5030B/8260B SIM	2125 – 2202
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 8151A	5000 – 5088
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 300.0	8000 – 8076
	METHOD 415.1	8077 – 8115
	METHOD SM4500S2D	8116 – 8122
	SM3500	8123 – 8130
OTHERS	METHANE AND DISSOLVED HYDROGEN	

** - Not Requested

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

Date: 11-21-2012
EMAX Batch No.: 12J162

Mitra Fiuzat

Eco & Associates, Inc.
1855 W. Katella Ave, Suite 340
Orange, CA 92867

Subject: Laboratory Report
Project: Brown & Bryant Superfund Site

Enclosed is the Laboratory report for samples received on 10/24/12.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
10-24-12 BBW-1	J162-01	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
				COURIER SERVICE
10-24-12 BBW-2	J162-02	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-24-12 BBW-3	J162-03	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES

Sample ID	Control #	Col Date	Matrix	Analysis
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-24-12 FDUP-1	J162-04	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 PWB-6	J162-05	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 AR-1	J162-06	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 PWB-1	J162-07	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 AMW-3R	J162-08	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON

Sample ID	Control #	Col Date	Matrix	Analysis
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 PWB-3	J162-09	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 PWB-10	J162-10	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 AMW-3RMS	J162-08M	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 AMW-3RMSD	J162-08S	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				METHANE AND DISSOLVED HYDROGEN
10-23-12 AMW-3RDUP	J162-08D	10/23/12	WATER	FERROUS IRON
				TOTAL SULFIDE BY STD METHOD

Note : METHANE AND DISSOLVED HYDROGEN were subcontracted to Air Technology Laboratories, Inc.

The results are summarized on the following pages.

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

Sincerely yours,

Caspar J. Pang
Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that results included in this report meets all NELAC & DOD requirements unless noted in the Case Narrative.

NELAC Accredited Certificate Number 02116CA
L-A-B Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: Eco - 12-548
SAMPLE STORAGE: Coolers
EMAX CONTROL NO. * 12J162
PROJECT CODE:

CLIENT: Eco and Associates, Inc.
PROJECT: B+B Superfund - GW Monitoring
COORDINATOR: Jack Collender
TEL: 714-289-0995 FAX: 714-289-0965 EMAIL: jcollender@eco-inc.com
SEND REPORT TO: Mitra Fivzat
COMPANY: Eco and Associates
ADDRESS: 1855 W. Katella Ave., Suite 340, Orange, CA 92867
EMAX PM: Richard Beauvil

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☒ Normal TAT

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	8260B	8260 SIM	8151 (Dinosel)	415.1 (TOC)	Ferrous Iron - SM 3500	300 Sulfate/Nitrate/Nitrite	SM 4500 S2D (Sulfide)	RSK 175 (CH4, H2)	COMMENTS
1	10-24-12 BBW-1	B-Zone	10-24-12	0825	14	Var	Var	GW		X	X	X	X	X	X	X	X	
2	10-24-12 BBW-2	B-Zone	10-24-12	0935	14	Var	Var	GW		X	X	X	X	X	X	X	X	
3	10-24-12 BBW-3	B-Zone	10-24-12	1050	14	Var	Var	GW		X	X	X	X	X	X	X	X	
4	10-24-12 FDUP-1	B Zone	10-24-12	—	14	Var	Var	GW		X	X	X	X	X	X	X	X	
5	10-23-12 PWB-6	B Zone	10-23-12	1132	14	Var	Var	GW		X	X	X	X	X	X	X	X	Level 4
6	10-23-12 AR-1	B Zone	10-23-12	1216	14	Var	Var	GW		X	X	X	X	X	X	X	X	
7	10-23-12 PWB-1	B Zone	10-23-12	1050	14	Var	Var	GW		X	X	X	X	X	X	X	X	
8	10-23-12 AMW-3R	B Zone	10-23-12	0936	42	Var	Var	GW	✓	X	X	X	X	X	X	X	X	MS/MSD
9	10-23-12 PWB-3	B Zone	10-23-12	0957	14	Var	Var	GW		X	X	X	X	X	X	X	X	
10	10-23-12 PWB-10	B Zone	10-23-12	1150	14	Var	Var	GW		X	X	X	X	X	X	X	X	

Instructions

Cooler #	Temp. (°C)	Sample #s
1	4.0	
2	4.4	
4	3.0	
5	3.4	
6	3.0	

SAMPLER

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY	
Jack Collender	10-24-12	1132	Kamal M.	10/24/12 11:32
K. M.	10/24/12	14:30	[illegible]	

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

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

SDG#: 12J163

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J162

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

A total of ten (10) water samples were received on 10/24/12 for Volatile Organics by GC/MS analysis, Method 5030B/8260B in accordance with Department of Defense Quality Systems Manual for Environmental Laboratories, Version 4.2 and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Instrument mass ratios were within specification. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Results were compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for VO67J20L/C were all within QC limits.

Matrix QC Sample
A set of MS/MSD was analyzed with the samples in this SDG.
Percent recoveries for J162-08M/S were within project QC limits.

Surrogate
Surrogates were added on QC and field samples. Surrogate recoveries were within project QC limits. Refer to sample result forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE

SDG NO. : 12J162
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	V067J20B	1	NA	10/26/1212:32	10/26/1212:32	RJC423	RJC042	V067J20	Method Blank
LCS1W	V067J20L	1	NA	10/26/1211:01	10/26/1211:01	RJC420	RJC042	V067J20	Lab Control Sample (LCS)
LCD1W	V067J20C	1	NA	10/26/1211:33	10/26/1211:33	RJC421	RJC042	V067J20	LCS Duplicate
10-23-12 AMW-3R	J162-08	1	NA	10/26/1213:05	10/26/1213:05	RJC424	RJC042	V067J20	Field Sample
10-24-12 BBW-1	J162-01	1	NA	10/26/1213:35	10/26/1213:35	RJC425	RJC042	V067J20	Field Sample
10-24-12 BBW-2	J162-02	1	NA	10/26/1214:05	10/26/1214:05	RJC426	RJC042	V067J20	Field Sample
10-23-12 AMW-3RMS	J162-08M	1	NA	10/26/1215:35	10/26/1215:35	RJC429	RJC042	V067J20	Matrix Spike Sample (MS)
10-23-12 AMW-3RMSD	J162-08S	1	NA	10/26/1216:45	10/26/1216:45	RJC431	RJC042	V067J20	MS Duplicate (MSD)
10-24-12 BBW-3	J162-03	1	NA	10/26/1217:44	10/26/1217:44	RJC433	RJC042	V067J20	Field Sample
10-24-12 FDUP-1	J162-04	1	NA	10/26/1218:15	10/26/1218:15	RJC434	RJC042	V067J20	Field Sample
10-23-12 PWB-6	J162-05	1	NA	10/26/1218:46	10/26/1218:46	RJC435	RJC042	V067J20	Field Sample
10-23-12 AR-1	J162-06	1	NA	10/26/1219:15	10/26/1219:15	RJC436	RJC042	V067J20	Field Sample
10-23-12 PWB-1	J162-07	1	NA	10/26/1219:47	10/26/1219:47	RJC437	RJC042	V067J20	Field Sample
10-23-12 PWB-3	J162-09	1	NA	10/26/1220:17	10/26/1220:17	RJC438	RJC042	V067J20	Field Sample
10-23-12 PWB-10	J162-10	1	NA	10/26/1220:47	10/26/1220:47	RJC439	RJC042	V067J20	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/26/12 13:35
Sample ID:	10-24-12 BBW-1	Date Analyzed:	10/26/12 13:35
Lab Samp ID:	J162-01	Dilution Factor:	1
Lab File ID:	RJC425	Matrix	: WATER
Ext Btch ID:	VO67J20	% Moisture	: NA
Calib. Ref.:	RJC042	Instrument ID	: 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.51J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.32	10.00	93.2	70-120
4-BROMOFLUOROBENZENE	9.60	10.00	96.0	75-120
TOLUENE-D8	10.0	10.00	100	85-120
DIBROMOFLUOROMETHANE	10.2	10.00	102	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/26/12 14:05
Sample ID:	10-24-12 BBW-2	Date Analyzed:	10/26/12 14:05
Lab Samp ID:	J162-02	Dilution Factor:	1
Lab File ID:	RJC426	Matrix	: WATER
Ext Btch ID:	V067J20	% Moisture	: NA
Calib. Ref.:	RJC042	Instrument ID	: 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	0.51J	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.67J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	6.0J	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.46	10.00	94.6	70-120
4-BROMOFLUOROBENZENE	9.40	10.00	94.0	75-120
TOLUENE-D8	9.87	10.00	98.7	85-120
DIBROMOFLUOROMETHANE	10.4	10.00	104	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/26/12 17:44
Sample ID:	10-24-12 BBW-3	Date Analyzed:	10/26/12 17:44
Lab Samp ID:	J162-03	Dilution Factor:	1
Lab File ID:	RJC433	Matrix	: WATER
Ext Btch ID:	V067J20	% Moisture	: NA
Calib. Ref.:	RJC042	Instrument ID	: 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	2.6	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.39J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	0.25J	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.09	10.00	90.9	70-120
4-BROMOFLUOROBENZENE	9.43	10.00	94.3	75-120
TOLUENE-D8	9.92	10.00	99.2	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/26/12 18:15
Sample ID:	10-24-12 FDUP-1	Date Analyzed:	10/26/12 18:15
Lab Samp ID:	J162-04	Dilution Factor:	1
Lab File ID:	RJC434	Matrix	: WATER
Ext Btch ID:	V067J20	% Moisture	: NA
Calib. Ref.:	RJC042	Instrument ID	: 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	5.6J	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	3.2	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.41J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	0.24J	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.21	10.00	92.1	70-120
4-BROMOFLUOROBENZENE	9.15	10.00	91.5	75-120
TOLUENE-D8	9.74	10.00	97.4	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/26/12 18:46
Sample ID:	10-23-12 PWB-6	Date Analyzed:	10/26/12 18:46
Lab Samp ID:	J162-05	Dilution Factor:	1
Lab File ID:	RJC435	Matrix	: WATER
Ext Btch ID:	V067J20	% Moisture	: NA
Calib. Ref.:	RJC042	Instrument ID	: 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.98	10.00	89.8	70-120
4-BROMOFLUOROBENZENE	8.90	10.00	89.0	75-120
TOLUENE-D8	9.80	10.00	98.0	85-120
DIBROMOFLUOROMETHANE	10.4	10.00	104	85-115

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC435.D Vial: 18
Acq On : 26 Oct 2012 6:46 pm Operator: AS
Sample : 12J162-05 25mls Inst : TO67
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 29 8:37 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.10	114	1635254	10.00	ug/l	-0.01
41) CHLOROBENZENE-D5	13.19	117	1158821	10.00	ug/l	-0.03
73) 1,2-DICHLOROBENZENE-D4	18.42	152	341714	10.00	ug/l	-0.01
System Monitoring Compounds						
35) Dibromofluoromethane	6.78	111	438507	10.35	ug/l	-0.03
Spiked Amount 10.000			Recovery	=	103.50%	
40) 1,2-Dichloroethane-d4	7.51	65	239217	8.98	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	89.80%	
56) Toluene-d8	10.54	98	1585223	9.80	ug/l	-0.03
Spiked Amount 10.000			Recovery	=	98.00%	
78) 4-Bromofluorobenzene	15.47	95	367960	8.90	ug/l	-0.03
Spiked Amount 10.000			Recovery	=	89.00%	

Target Compounds Qvalue

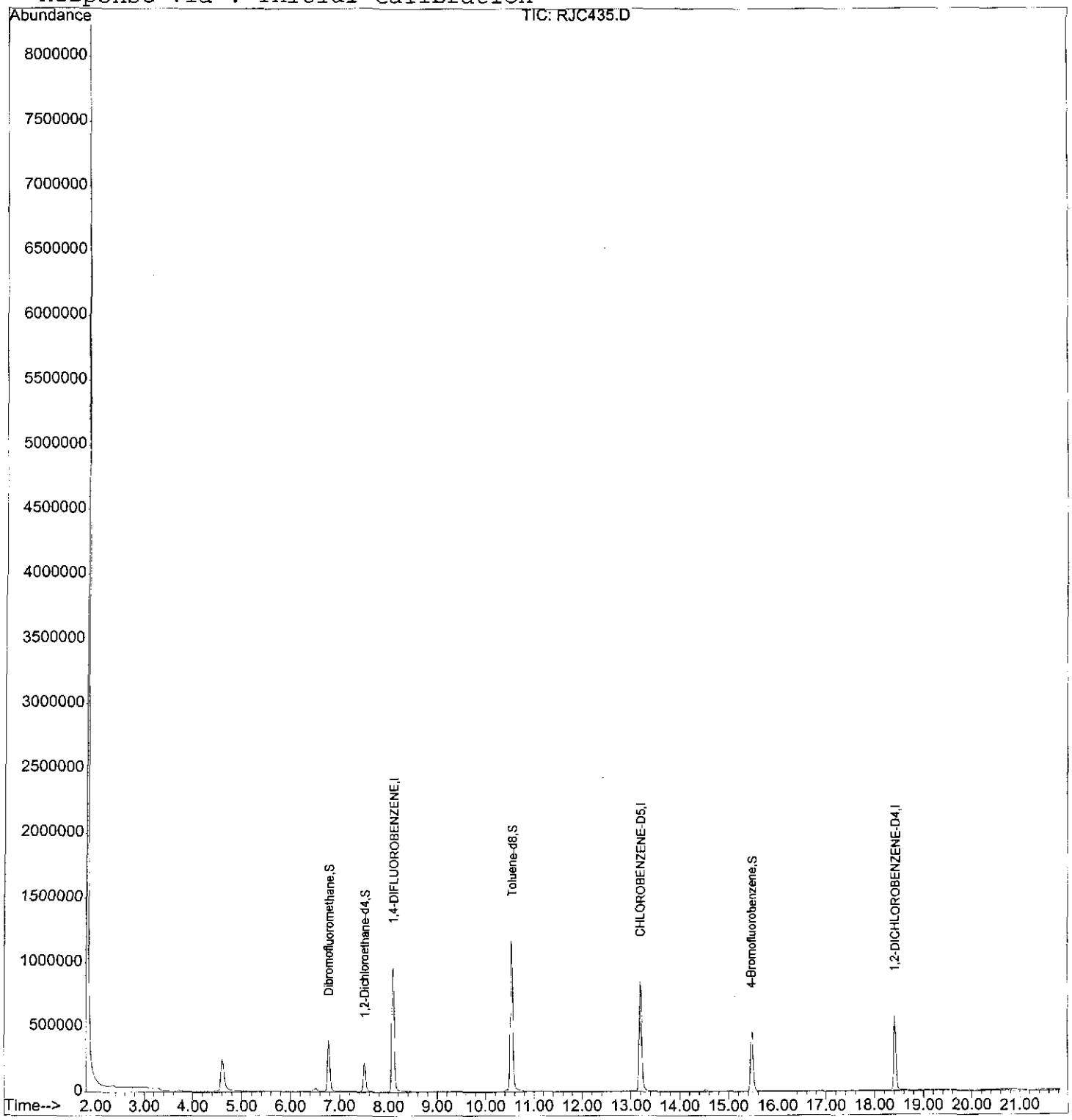
(#) = qualifier out of range (m) = manual integration

2009

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJC435.D Vial: 18
Acq On : 26 Oct 2012 6:46 pm Operator: AS
Sample : 12J162-05 25mls Inst : TO67
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 29 8:37 2012 Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration



2010

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/23/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/24/12
Batch No. : 12J162	Date Extracted: 10/26/12 19:15
Sample ID: 10-23-12 AR-1	Date Analyzed: 10/26/12 19:15
Lab Samp ID: J162-06	Dilution Factor: 1
Lab File ID: RJC436	Matrix : WATER
Ext Btch ID: V067J20	% Moisture : NA
Calib. Ref.: RJC042	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.13	10.00	91.3	70-120
4-BROMOFLUOROBENZENE	9.42	10.00	94.2	75-120
TOLUENE-D8	9.88	10.00	98.8	85-120
DIBROMOFLUOROMETHANE	10.5	10.00	105	85-115

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/23/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/24/12
Batch No. : 12J162	Date Extracted: 10/26/12 19:47
Sample ID: 10-23-12 PWB-1	Date Analyzed: 10/26/12 19:47
Lab Samp ID: J162-07	Dilution Factor: 1
Lab File ID: RJC437	Matrix : WATER
Ext Btch ID: V067J20	% Moisture : NA
Calib. Ref.: RJC042	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.25J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.26	10.00	92.6	70-120
4-BROMOFLUOROBENZENE	9.50	10.00	95.0	75-120
TOLUENE-D8	9.75	10.00	97.5	85-120
DIBROMOFLUOROMETHANE	10.4	10.00	104	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/26/12 13:05
Sample ID:	10-23-12 AMW-3R	Date Analyzed:	10/26/12 13:05
Lab Samp ID:	J162-08	Dilution Factor:	1
Lab File ID:	RJC424	Matrix :	WATER
Ext Btch ID:	V067J20	% Moisture :	NA
Calib. Ref.:	RJC042	Instrument ID :	67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.32J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	1.3	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.29	10.00	82.9	70-120
4-BROMOFLUOROBENZENE	9.81	10.00	98.1	75-120
TOLUENE-D8	10.3	10.00	103	85-120
DIBROMOFLUOROMETHANE	9.90	10.00	99.0	85-115

METHOD 50308/8260B
VOLATILE ORGANICS BY GC/MS

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/26/12 20:17
Sample ID:	10-23-12 PWB-3	Date Analyzed:	10/26/12 20:17
Lab Samp ID:	J162-09	Dilution Factor:	1
Lab File ID:	RJC438	Matrix	: WATER
Ext Btch ID:	V067J20	% Moisture	: NA
Calib. Ref.:	RJC042	Instrument ID	: 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.25J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.21	10.00	92.1	70-120
4-BROMOFLUOROBENZENE	9.60	10.00	96.0	75-120
TOLUENE-D8	9.81	10.00	98.1	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/26/12 20:47
Sample ID:	10-23-12 PWB-10	Date Analyzed:	10/26/12 20:47
Lab Samp ID:	J162-10	Dilution Factor:	1
Lab File ID:	RJC439	Matrix	: WATER
Ext Btch ID:	V067J20	% Moisture	: NA
Calib. Ref.:	RJC042	Instrument ID	: 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.41J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	0.64J	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.05	10.00	90.5	70-120
4-BROMOFLUOROBENZENE	9.62	10.00	96.2	75-120
TOLUENE-D8	10.0	10.00	100	85-120
DIBROMOFLUOROMETHANE	10.5	10.00	105	85-115

QC SUMMARIES

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

Client : ECO & ASSOCIATES, INC.	Date Collected: NA
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/26/12
Batch No. : 12J162	Date Extracted: 10/26/12 12:32
Sample ID: MBLK1W	Date Analyzed: 10/26/12 12:32
Lab Samp ID: V067J20B	Dilution Factor: 1
Lab File ID: RJC423	Matrix : WATER
Ext Btch ID: V067J20	% Moisture : NA
Calib. Ref.: RJC042	Instrument ID : 67

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	0.73J	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.07	10.00	90.7	70-120
4-BROMOFLUOROBENZENE	9.57	10.00	95.7	75-120
TOLUENE-D8	9.83	10.00	98.3	85-120
DIBROMOFLUOROMETHANE	10.1	10.00	101	85-115

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V067J20B	V067J20L	V067J20C		
LAB FILE ID:	RJC423	RJC420	RJC421		
DATE EXTRACTED:	10/26/1212:32	10/26/1211:01	10/26/1211:33	DATE COLLECTED:	NA
DATE ANALYZED:	10/26/1212:32	10/26/1211:01	10/26/1211:33	DATE RECEIVED:	10/26/12
PREP. BATCH:	V067J20	V067J20	V067J20		
CALIB. REF:	RJC042	RJC042	RJC042		

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	10.0	11.5	115	10.0	11.4	114	1	80-130	30
1,1,1-Trichloroethane	ND	10.0	11.9	119	10.0	11.8	118	1	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	10.9	109	10.0	10.9	109	0	65-130	30
1,1,2-Trichloroethane	ND	10.0	11.3	113	10.0	11.2	112	1	75-125	30
1,1-Dichloroethane	ND	10.0	10.9	109	10.0	10.9	109	0	70-135	30
1,1-Dichloroethene	ND	10.0	10.1	101	10.0	9.80	98	3	70-130	30
1,1-Dichloropropene	ND	10.0	11.1	111	10.0	10.6	106	5	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	8.05	81	10.0	7.94	79	1	55-140	30
1,2,3-Trichloropropane	ND	10.0	10.9	109	10.0	10.5	105	4	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	8.50	85	10.0	8.40	84	1	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	10.7	107	10.0	10.4	104	3	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	10.6	106	10.0	10.1	101	5	50-130	30
1,2-Dibromoethane	ND	10.0	10.9	109	10.0	11.0	110	1	80-120	30
1,2-Dichlorobenzene	ND	10.0	10.8	108	10.0	10.6	106	2	70-120	30
1,2-Dichloroethane	ND	10.0	11.1	111	10.0	10.9	109	1	70-130	30
1,2-Dichloropropane	ND	10.0	10.9	109	10.0	10.8	108	1	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	10.7	107	10.0	10.3	103	4	75-130	30
1,3-Dichlorobenzene	ND	10.0	10.8	108	10.0	10.5	105	3	75-125	30
1,3-Dichloropropane	ND	10.0	10.6	106	10.0	10.5	105	2	75-125	30
1,4-Dichlorobenzene	ND	10.0	10.8	108	10.0	10.7	107	1	75-125	30
2,2-Dichloropropane	ND	10.0	11.6	116	10.0	11.3	113	3	70-135	30
2-Butanone	ND	50.0	51.4	103	50.0	51.3	103	0	30-150	30
2-Chlorotoluene	ND	10.0	10.2	102	10.0	10.3	103	1	75-125	30
2-Hexanone	ND	50.0	51.6	103	50.0	51.8	104	0	55-130	30
4-Chlorotoluene	ND	10.0	11.0	110	10.0	10.1	101	8	75-130	30
Acetone	ND	50.0	54.0	108	50.0	57.4	115	6	40-140	30
Benzene	ND	10.0	10.8	108	10.0	10.5	105	3	80-120	30
Bromobenzene	ND	10.0	10.8	108	10.0	10.5	105	3	75-125	30
Bromochloromethane	ND	10.0	10.3	103	10.0	10.4	104	1	65-130	30
Bromodichloromethane	ND	10.0	11.3	113	10.0	11.2	112	1	75-120	30
Bromoform	ND	10.0	11.5	115	10.0	11.1	111	3	70-130	30
Bromomethane	ND	10.0	10.3	103	10.0	9.88	99	4	30-145	30
Carbon Disulfide	ND	10.0	8.62	86	10.0	7.90	79	9	35-160	30
Carbon Tetrachloride	ND	10.0	11.7	117	10.0	11.4	114	2	65-140	30
Chlorobenzene	ND	10.0	11.3	113	10.0	11.0	110	2	80-120	30
Chloroethane	ND	10.0	10.4	104	10.0	10.0	100	4	60-135	30
Chloroform	ND	10.0	11.5	115	10.0	11.6	116	1	65-135	30
Chloromethane	ND	10.0	10.3	103	10.0	9.62	96	7	40-125	30
cis-1,2-Dichloroethene	ND	10.0	10.2	102	10.0	10.1	101	1	70-125	30
cis-1,3-Dichloropropene	ND	10.0	11.2	112	10.0	10.8	108	3	70-130	30
Dibromochloromethane	ND	10.0	11.2	112	10.0	11.2	112	0	60-135	30
Dibromomethane	ND	10.0	11.2	112	10.0	11.2	112	0	75-125	30
Dichlorodifluoromethane	ND	10.0	9.76	98	10.0	9.28	93	5	30-155	30
Ethylbenzene	ND	10.0	11.1	111	10.0	10.8	108	3	75-125	30
Hexachlorobutadiene	ND	10.0	8.83	88	10.0	8.46	85	4	50-140	30
Isopropyl Benzene	ND	10.0	11.9	119	10.0	11.2	112	6	75-125	30
m,p-Xylenes	ND	20.0	21.8	109	20.0	21.5	108	1	75-130	30
MIBK	ND	50.0	53.5	107	50.0	53.2	106	1	60-135	30
Methylene Chloride	0.735J	10.0	9.81	98	10.0	10.0	100	2	55-140	30
MTBE	ND	10.0	11.1	111	10.0	11.4	114	2	65-125	30
Naphthalene	ND	10.0	7.97	80	10.0	7.95	80	0	55-140	30
n-Butylbenzene	ND	10.0	10.1	101	10.0	9.79	98	4	70-135	30
n-Propylbenzene	ND	10.0	10.6	106	10.0	10.2	102	4	70-130	30
o-Xylene	ND	10.0	10.9	109	10.0	10.7	107	2	80-120	30
p-Isopropyltoluene	ND	10.0	10.9	109	10.0	10.6	106	3	75-130	30
Sec-Butylbenzene	ND	10.0	10.6	106	10.0	10.3	103	3	70-125	30
Styrene	ND	10.0	11.5	115	10.0	11.3	113	2	65-135	30
Tert-Butylbenzene	ND	10.0	11.0	110	10.0	10.5	105	5	70-130	30
Tetrachloroethene	ND	10.0	11.7	117	10.0	11.4	114	3	45-150	30
Toluene	ND	10.0	11.0	110	10.0	10.6	106	3	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	10.0	100	10.0	10.0	100	0	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	11.0	110	10.0	11.1	111	0	55-140	30
Trichloroethene	ND	10.0	11.3	113	10.0	11.1	111	2	70-125	30
Trichlorofluoromethane	ND	10.0	11.9	119	10.0	11.0	110	8	60-145	30
Vinyl Chloride	ND	10.0	11.1	111	10.0	10.6	106	5	50-145	30
Freon113	ND	10.0	11.7	117	10.0	11.4	114	2	65-135	30
Vinyl Acetate	ND	10.0	7.94	79	10.0	8.34	83	5	65-135	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	10.0	8.99	90	10.0	9.33	93	70-120
4-Bromofluorobenzene	10.0	9.21	92	10.0	9.07	91	75-120
Toluene-d8	10.0	9.73	97	10.0	9.61	96	85-120
Dibromofluoromethane	10.0	9.91	99	10.0	10.3	103	85-115

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	10-23-12 AMW-3R				
LAB SAMP ID:	J162-08	J162-08M	J162-08S		
LAB FILE ID:	RJC424	RJC429	RJC431		
DATE EXTRACTED:	10/26/1213:05	10/26/1215:35	10/26/1216:45	DATE COLLECTED:	10/23/12
DATE ANALYZED:	10/26/1213:05	10/26/1215:35	10/26/1216:45	DATE RECEIVED:	10/24/12
PREP. BATCH:	V067J20	V067J20	V067J20		
CALIB. REF:	RJC042	RJC042	RJCD42		

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	10.0	10.6	106	10.0	10.8	108	2	80-130	30
1,1,1-Trichloroethane	ND	10.0	10.9	109	10.0	11.0	110	2	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	9.76	98	10.0	9.81	98	1	65-130	30
1,1,2-Trichloroethane	ND	10.0	10.5	105	10.0	10.7	107	1	75-125	30
1,1-Dichloroethane	ND	10.0	10.1	101	10.0	10.3	103	2	70-135	30
1,1-Dichloroethene	ND	10.0	9.09	91	10.0	9.30	93	2	70-130	30
1,1-Dichloropropene	ND	10.0	9.94	99	10.0	10.1	101	1	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	7.23	72	10.0	7.23	72	0	55-140	30
1,2,3-Trichloropropane	ND	10.0	9.49	95	10.0	9.58	96	1	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	7.50	75	10.0	7.67	77	2	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	9.51	95	10.0	9.74	97	2	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	9.37	94	10.0	9.39	94	0	50-130	30
1,2-Dibromoethane	ND	10.0	10.1	101	10.0	10.3	103	2	80-120	30
1,2-Dichlorobenzene	ND	10.0	9.94	99	10.0	10.1	101	2	70-120	30
1,2-Dichloroethane	ND	10.0	10.2	102	10.0	10.5	105	3	70-130	30
1,2-Dichloropropane	0.316J	10.0	10.2	99	10.0	10.4	101	2	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	9.47	95	10.0	9.59	96	1	75-130	30
1,3-Dichlorobenzene	ND	10.0	9.70	97	10.0	9.99	100	3	75-125	30
1,3-Dichloropropane	ND	10.0	9.86	99	10.0	10.1	101	2	75-125	30
1,4-Dichlorobenzene	ND	10.0	9.88	99	10.0	9.87	99	0	75-125	30
2,2-Dichloropropane	ND	10.0	10.6	106	10.0	10.5	105	1	70-135	30
2-Butanone	ND	50.0	48.1	96	50.0	45.5	91	5	30-150	30
2-Chlorotoluene	ND	10.0	8.86	89	10.0	9.12	91	3	75-125	30
2-Hexanone	ND	50.0	48.2	96	50.0	43.8	88	10	55-130	30
4-Chlorotoluene	ND	10.0	9.91	99	10.0	9.79	98	1	75-130	30
Acetone	ND	50.0	48.9	98	50.0	45.2	90	8	40-140	30
Benzene	ND	10.0	9.76	98	10.0	10.1	101	3	80-120	30
Bromobenzene	ND	10.0	9.95	100	10.0	10.0	100	0	75-125	30
Bromochloromethane	ND	10.0	9.61	96	10.0	9.83	98	2	65-130	30
Bromodichloromethane	ND	10.0	10.3	103	10.0	10.6	106	3	75-120	30
Bromoform	ND	10.0	10.4	104	10.0	10.4	104	0	70-130	30
Bromomethane	ND	10.0	9.20	92	10.0	9.05	90	2	30-145	30
Carbon Disulfide	ND	10.0	7.39	74	10.0	7.70	77	4	35-160	30
Carbon Tetrachloride	1.30	10.0	11.4	101	10.0	11.7	104	3	65-140	30
Chlorobenzene	ND	10.0	10.3	103	10.0	10.6	106	3	80-120	30
Chloroethane	ND	10.0	9.34	93	10.0	9.41	94	1	60-135	30
Chloroform	ND	10.0	10.9	109	10.0	11.1	111	2	65-135	30
Chloromethane	ND	10.0	8.56	86	10.0	8.38	84	2	40-125	30
cis-1,2-Dichloroethene	ND	10.0	9.53	95	10.0	9.65	96	1	70-125	30
cis-1,3-Dichloropropene	ND	10.0	10.1	101	10.0	10.3	103	2	70-130	30
Dibromochloromethane	ND	10.0	10.4	104	10.0	10.7	107	2	60-135	30
Dibromomethane	ND	10.0	10.4	104	10.0	9.78	98	6	75-125	30
Dichlorodifluoromethane	ND	10.0	9.20	92	10.0	9.00	90	2	30-155	30
Ethylbenzene	ND	10.0	9.97	100	10.0	10.2	102	3	75-125	30
Hexachlorobutadiene	ND	10.0	7.58	76	10.0	8.17	82	8	50-140	30
Isopropyl Benzene	ND	10.0	10.5	105	10.0	10.7	107	2	75-125	30
m,p-Xylenes	ND	20.0	19.9	100	20.0	20.5	103	3	75-130	30
MIBK	ND	50.0	48.0	96	50.0	44.7	89	7	60-135	30
Methylene Chloride	ND	10.0	9.12	91	10.0	9.15	92	0	55-140	30
MTBE	ND	10.0	10.9	109	10.0	10.7	107	1	65-125	30
Naphthalene	ND	10.0	7.23	72	10.0	7.12	71	1	55-140	30
n-Butylbenzene	ND	10.0	8.77	88	10.0	9.01	90	3	70-135	30
n-Propylbenzene	ND	10.0	9.39	94	10.0	9.57	96	2	70-130	30
o-Xylene	ND	10.0	10.0	100	10.0	10.2	102	2	80-120	30
p-Isopropyltoluene	ND	10.0	9.59	96	10.0	9.93	99	4	75-130	30
Sec-Butylbenzene	ND	10.0	9.38	94	10.0	9.59	96	2	70-125	30
Styrene	ND	10.0	10.1	101	10.0	10.7	107	5	65-135	30
Tert-Butylbenzene	ND	10.0	9.59	96	10.0	9.82	98	2	70-130	30
Tetrachloroethene	ND	10.0	10.6	106	10.0	11.0	110	4	45-150	30
Toluene	ND	10.0	9.86	99	10.0	10.2	102	4	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	9.25	93	10.0	9.45	95	2	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	10.3	103	10.0	10.4	104	1	55-140	30
Trichloroethene	ND	10.0	10.3	103	10.0	10.7	107	3	70-125	30
Trichlorofluoromethane	ND	10.0	10.7	107	10.0	10.6	106	1	60-145	30
Vinyl Chloride	ND	10.0	9.61	96	10.0	9.52	95	1	50-145	30
Freon113	ND	10.0	10.9	109	10.0	11.1	111	1	65-135	30
Vinyl Acetate	ND	10.0	7.99	80	10.0	8.09	81	1	65-135	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	10.0	9.28	93	10.0	9.14	91	70-120
4-Bromofluorobenzene	10.0	9.08	91	10.0	8.78	88	75-120
Toluene-d8	10.0	9.61	96	10.0	9.67	97	85-120
Dibromofluoromethane	10.0	10.2	102	10.0	10.2	102	85-115

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC423.D Vial: 6
Acq On : 26 Oct 2012 12:32 pm Operator: AS
Sample : VO67J20B 25mls Inst : TO67
Misc : DF=1.0, MB Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 13:42 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.09	114	1771941	10.00 ug/l	-0.02
41) CHLOROBENZENE-D5	13.20	117	1223737	10.00 ug/l	-0.02
73) 1,2-DICHLOROBENZENE-D4	18.41	152	339933	10.00 ug/l	-0.02
System Monitoring Compounds					
35) Dibromofluoromethane	6.79	111	465146	10.14 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 101.40%	
40) 1,2-Dichloroethane-d4	7.50	65	261828	9.07 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 90.70%	
56) Toluene-d8	10.54	98	1679531	9.83 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 98.30%	
78) 4-Bromofluorobenzene	15.48	95	393750	9.57 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 95.70%	
Target Compounds					Qvalue
19) Methylene chloride	4.48	49	54107	0.73 ug/l	98

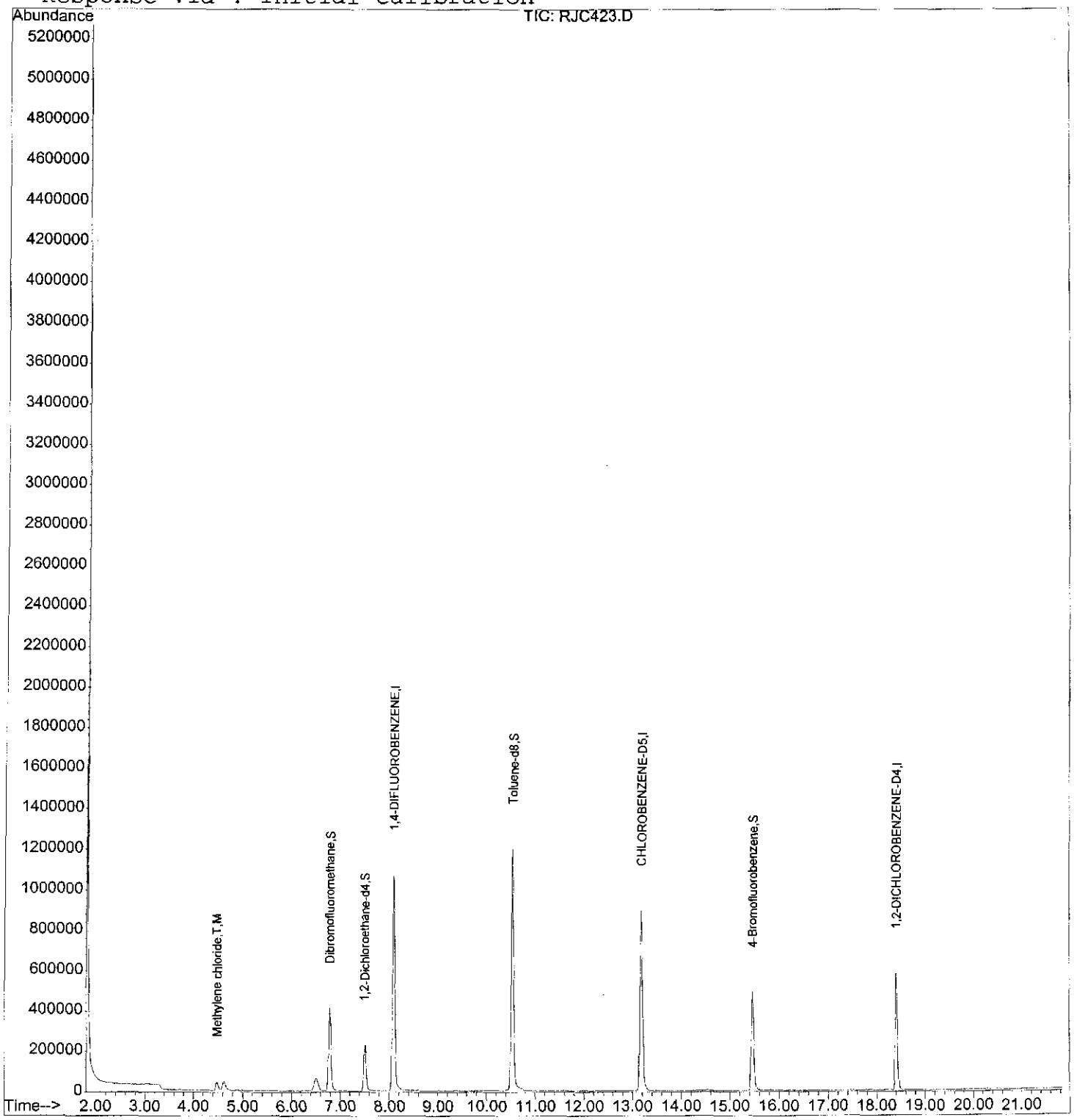
(#) = qualifier out of range (m) = manual integration
RJC423.D VO67J02.M Fri Oct 26 13:43:12 2012 Page 1

2021

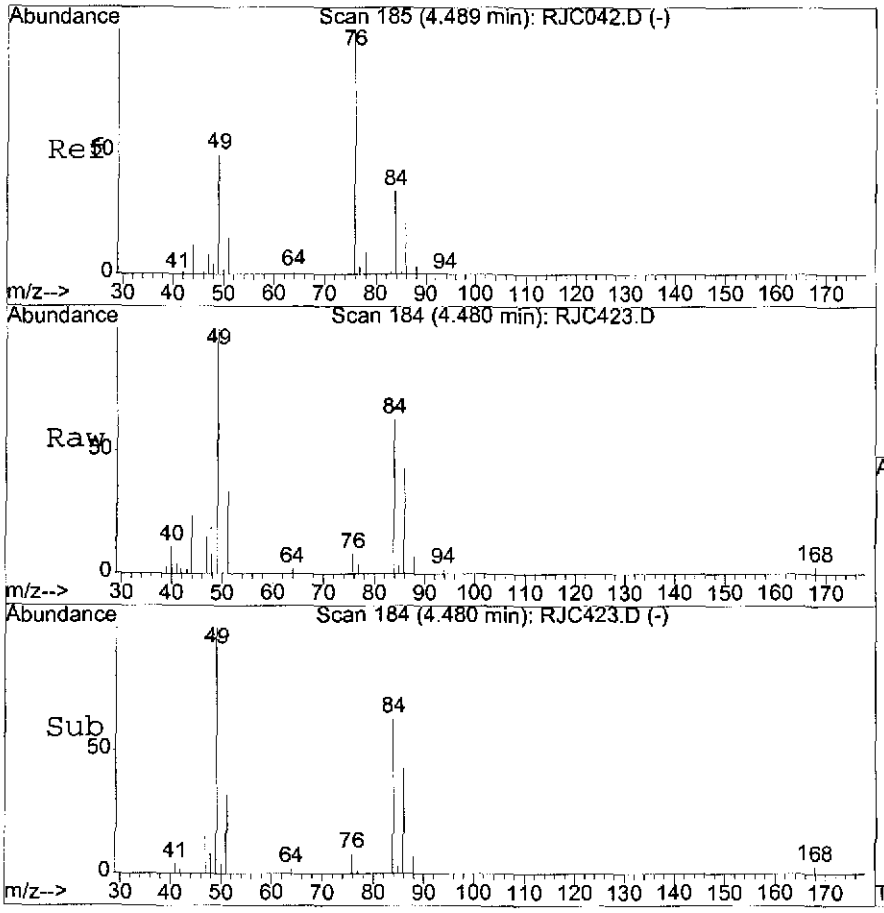
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJC423.D Vial: 6
Acq On : 26 Oct 2012 12:32 pm Operator: AS
Sample : VO67J20B 25mls Inst : TO67
Misc : DF=1.0, MB Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 13:42 2012 Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration



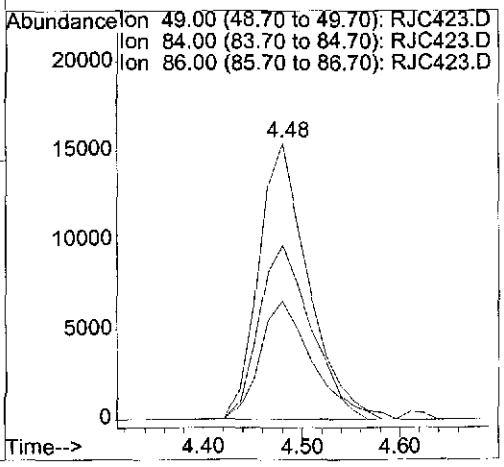
2022



#19
Methylene chloride
Concen: 0.73 ug/l
RT: 4.48 min Scan# 184
Delta R.T. -0.01 min
Lab File: RJC423.D
Acq: 26 Oct 2012 12:32 pm

Tgt Ion: 49 Resp: 54107

Ion	Ratio	Lower	Upper
49	100		
84	67.2	40.0	100.0
86	44.1	14.2	74.2



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC420.D Vial: 3
Acq On : 26 Oct 2012 11:01 am Operator: AS
Sample : VO67J20L 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 12:19 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.09	114	1725150	10.00	ug/l	-0.02
41) CHLOROBENZENE-D5	13.19	117	1272857	10.00	ug/l	-0.04
73) 1,2-DICHLOROBENZENE-D4	18.41	152	406304	10.00	ug/l	-0.02
System Monitoring Compounds						
35) Dibromofluoromethane	6.77	111	442751	9.91	ug/l	-0.04
Spiked Amount 10.000			Recovery	=	99.10%	
40) 1,2-Dichloroethane-d4	7.50	65	252636	8.99	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	89.90%	
56) Toluene-d8	10.53	98	1728370	9.73	ug/l	-0.04
Spiked Amount 10.000			Recovery	=	97.30%	
78) 4-Bromofluorobenzene	15.46	95	452815	9.21	ug/l	-0.04
Spiked Amount 10.000			Recovery	=	92.10%	

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.90	85	531147	9.76	ug/l	99
4) Chloromethane	2.13	50	945373	10.29	ug/l	100
5) Vinyl chloride	2.26	62	874196	11.11	ug/l	99
6) Bromomethane	2.76	94	514693	10.31	ug/l	100
7) Chloroethane	2.85	64	523022	10.38	ug/l	97
8) Dichlorofluoromethane	2.89	67	1230517	10.51	ug/l	100
9) Trichlorofluoromethane	3.14	101	775923	11.89	ug/l	100
11) Acrolein	3.63	56	80067	27.97	ug/l	97
12) 1,1,2-Trichloro-1,2,2-trif	3.66	151	509219	11.70	ug/l	98
13) Acetone	3.71	43	229062	53.99	ug/l	100
14) 1,1-Dichloroethene	3.87	61	1011160	10.06	ug/l	99
15) tert-Butyl alcohol	3.96	59	63771	56.44	ug/l	98
17) Iodomethane	4.25	142	1174158	12.56	ug/l	99
18) Acetonitrile	4.32	41	1096854	106.62	ug/l	99
19) Methylene chloride	4.47	49	703357	9.81	ug/l	97
20) Carbon disulfide	4.48	76	1845016	8.62	ug/l	99
21) Acrylonitrile	4.63	53	346066	53.74	ug/l	97
22) tert-Butyl methyl ether (M	4.66	73	639798	11.08	ug/l	98
23) trans-1,2-Dichloroethene	4.85	61	942744	10.01	ug/l	97
24) Isopropyl ether (DIPE)	5.26	45	1774259	10.91	ug/l	98
25) 1,1-Dichloroethane	5.42	63	1160440	10.92	ug/l	99
26) Vinyl acetate	5.42	43	426855	7.94	ug/l	96
28) tert-Butyl ethyl ether (ET	5.81	59	1126012	11.08	ug/l	98
29) 2-Butanone	5.99	43	392443	51.42	ug/l	98
30) 2,2-Dichloropropane	6.18	77	595702	11.62	ug/l	99
31) cis-1,2-Dichloroethene	6.25	96	629058	10.24	ug/l	97
32) Chloroform	6.47	83	930678	11.46	ug/l	99

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC420.D Vial: 3
Acq On : 26 Oct 2012 11:01 am Operator: AS
Sample : VO67J20L 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 12:19 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33)	Bromochloromethane	6.70	49	381822	10.29 ug/l	95
36)	Tetrahydrofuran	6.75	42	51537	9.20 ug/l	96
37)	1,1,1-Trichloroethane	7.04	97	813827	11.91 ug/l	98
39)	tert-Amyl methyl ether (TA	7.43	87	171682	11.52 ug/l	99
43)	1,1-Dichloropropene	7.27	110	355854	11.10 ug/l	100
44)	Carbon tetrachloride	7.42	119	753930	11.67 ug/l	100
45)	1,2-Dichloroethane	7.64	62	370432	11.08 ug/l	98
46)	Benzene	7.67	78	2401228	10.83 ug/l	99
47)	Trichloroethene	8.59	130	760387	11.30 ug/l	98
49)	1,2-Dichloropropane	8.86	63	571267	10.87 ug/l	98
50)	Bromodichloromethane	9.24	83	573643	11.27 ug/l	98
51)	1,4-Dioxane	9.27	88	33905	234.53 ug/l	94
52)	Dibromomethane	9.33	93	204247	11.21 ug/l	94
54)	4-Methyl-2-pentanone	9.78	43	925505	53.49 ug/l	99
55)	cis-1,3-Dichloropropene	10.12	75	724932	11.17 ug/l	98
57)	Toluene	10.66	91	2428802	11.00 ug/l	100
58)	Ethyl methacrylate	10.97	69	272432	10.56 ug/l	93
59)	trans-1,3-Dichloropropene	10.98	75	459231	11.02 ug/l	95
60)	1,1,2-Trichloroethane	11.24	97	252600	11.25 ug/l	99
61)	2-Hexanone	11.26	43	534692	51.59 ug/l	99
62)	1,3-Dichloropropane	11.68	76	471201	10.65 ug/l	100
63)	Tetrachloroethene	11.78	164	613816	11.70 ug/l	97
64)	Dibromochloromethane	12.15	129	353354	11.24 ug/l	100
65)	1,2-Dibromoethane	12.50	107	238562	10.85 ug/l	100
66)	1-Chlorohexane	12.79	91	1095928	11.59 ug/l	97
67)	Chlorobenzene	13.26	112	1418195	11.28 ug/l	99
68)	1,1,1,2-Tetrachloroethane	13.33	131	447279	11.46 ug/l	99
69)	Ethylbenzene	13.36	91	2610613	11.09 ug/l	100
70)	m-Xylene & p-Xylene	13.49	91	3739499	21.79 ug/l	100
71)	o-Xylene	14.31	91	1834589	10.93 ug/l	99
72)	Styrene	14.38	104	1371690	11.45 ug/l	99
74)	Isopropylbenzene	14.98	105	2615895	11.92 ug/l	99
75)	Bromoform	15.01	173	166673	11.49 ug/l	99
76)	trans-1,4-Dichloro-2-buten	15.08	53	51811	8.90 ug/l	92
77)	1,1,2,2-Tetrachloroethane	15.32	83	237025	10.92 ug/l	98
79)	1,2,3-Trichloropropane	15.60	110	62081	10.93 ug/l	97
80)	n-Propylbenzene	15.76	91	3002993	10.63 ug/l	100
81)	Bromobenzene	15.83	156	472838	10.84 ug/l	97
82)	1,3,5-Trimethylbenzene	16.06	105	1797799	10.70 ug/l	99
83)	2-Chlorotoluene	16.09	91	1690296	10.16 ug/l	99
84)	4-Chlorotoluene	16.18	91	1387410	10.96 ug/l	100

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC420.D Vial: 3
Acq On : 26 Oct 2012 11:01 am Operator: AS
Sample : VO67J20L 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 12:19 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85)	tert-Butylbenzene	16.75	134	481338	10.96 ug/l	98
86)	1,2,4-Trimethylbenzene	16.82	105	1646556	10.69 ug/l	99
87)	sec-Butylbenzene	17.17	105	2611446	10.61 ug/l	100
88)	p-Isopropyltoluene	17.45	119	2053413	10.95 ug/l	100
89)	1,3-Dichlorobenzene	17.61	146	923061	10.78 ug/l	99
90)	1,4-Dichlorobenzene	17.82	146	852369	10.82 ug/l	99
91)	n-Butylbenzene	18.20	91	1700646	10.14 ug/l	100
92)	1,2-Dichlorobenzene	18.46	146	689371	10.84 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.60	157	31051	10.58 ug/l	95
94)	1,2,4-Trichlorobenzene	20.68	180	289960	8.50 ug/l	98
95)	Hexachlorobutadiene	20.85	225	238941	8.83 ug/l	98
96)	Naphthalene	21.01	128	346519	7.97 ug/l	98
97)	1,2,3-Trichlorobenzene	21.34	180	199763	8.05 ug/l	99

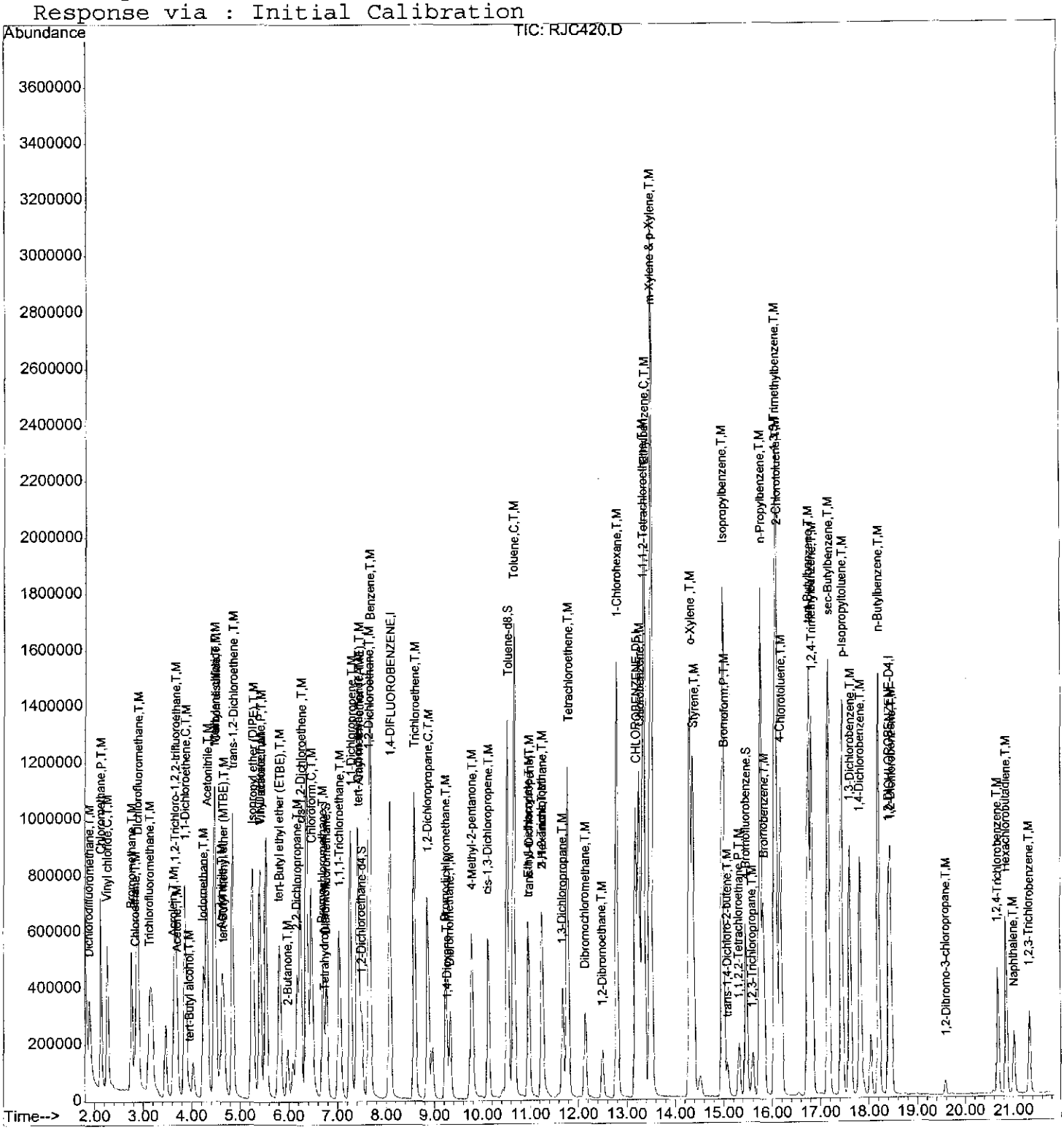
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJC420.D
Acq On : 26 Oct 2012 11:01 am
Sample : VO67J20L 10ppb
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 12:19 2012

Vial: 3
Operator: AS
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration



2027

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC421.D Vial: 4
Acq On : 26 Oct 2012 11:33 am Operator: AS
Sample : VO67J20C 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 12:21 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.08	114	1765902	10.00	ug/l	-0.03
41) CHLOROBENZENE-D5	13.20	117	1327895	10.00	ug/l	-0.03
73) 1,2-DICHLOROBENZENE-D4	18.41	152	427910	10.00	ug/l	-0.03
System Monitoring Compounds						
35) Dibromofluoromethane	6.78	111	470259	10.28	ug/l	-0.03
Spiked Amount 10.000			Recovery	=	102.80%	
40) 1,2-Dichloroethane-d4	7.50	65	268238	9.33	ug/l	-0.03
Spiked Amount 10.000			Recovery	=	93.30%	
56) Toluene-d8	10.54	98	1781716	9.61	ug/l	-0.03
Spiked Amount 10.000			Recovery	=	96.10%	
78) 4-Bromofluorobenzene	15.46	95	469448	9.07	ug/l	-0.04
Spiked Amount 10.000			Recovery	=	90.70%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.91	85	517080	9.28	ug/l	99
4) Chloromethane	2.13	50	904552	9.62	ug/l	100
5) Vinyl chloride	2.27	62	853285	10.59	ug/l	99
6) Bromomethane	2.75	94	504934	9.88	ug/l	100
7) Chloroethane	2.86	64	516215	10.01	ug/l	99
8) Dichlorofluoromethane	2.88	67	1223633	10.21	ug/l	100
9) Trichlorofluoromethane	3.15	101	736655	11.03	ug/l	99
11) Acrolein	3.63	56	83391	28.45	ug/l	89
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	509745	11.44	ug/l	99
13) Acetone	3.70	43	249071	57.36	ug/l	98
14) 1,1-Dichloroethene	3.86	61	1008124	9.80	ug/l	99
15) tert-Butyl alcohol	3.95	59	60506	52.31	ug/l	99
17) Iodomethane	4.24	142	1194823	12.49	ug/l	100
18) Acetonitrile	4.32	41	1154097	109.59	ug/l	99
19) Methylene chloride	4.46	49	735734	10.02	ug/l	97
20) Carbon disulfide	4.49	76	1729903	7.90	ug/l	100
21) Acrylonitrile	4.62	53	350185	53.12	ug/l	98
22) tert-Butyl methyl ether (M	4.67	73	671100	11.36	ug/l	99
23) trans-1,2-Dichloroethene	4.84	61	963881	10.00	ug/l	98
24) Isopropyl ether (DIPE)	5.27	45	1835369	11.03	ug/l	98
25) 1,1-Dichloroethane	5.41	63	1183007	10.88	ug/l	100
26) Vinyl acetate	5.41	43	459416	8.34	ug/l	98
28) tert-Butyl ethyl ether (ET	5.81	59	1177491	11.32	ug/l	98
29) 2-Butanone	5.98	43	400911	51.32	ug/l	98
30) 2,2-Dichloropropane	6.19	77	594570	11.33	ug/l	99
31) cis-1,2-Dichloroethene	6.24	96	638125	10.15	ug/l	98
32) Chloroform	6.46	83	963056	11.58	ug/l	99

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC421.D Vial: 4
Acq On : 26 Oct 2012 11:33 am Operator: AS
Sample : VO67J20C 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 12:21 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33)	Bromochloromethane	6.70	49	393497	10.36 ug/l	95
36)	Tetrahydrofuran	6.75	42	57665	10.05 ug/l	95
37)	1,1,1-Trichloroethane	7.05	97	822477	11.76 ug/l	98
39)	tert-Amyl methyl ether (TA	7.43	87	183467	12.03 ug/l	97
43)	1,1-Dichloropropene	7.27	110	353226	10.56 ug/l	100
44)	Carbon tetrachloride	7.41	119	767141	11.38 ug/l	99
45)	1,2-Dichloroethane	7.65	62	381029	10.92 ug/l	98
46)	Benzene	7.66	78	2423203	10.47 ug/l	99
47)	Trichloroethene	8.60	130	781220	11.13 ug/l	96
49)	1,2-Dichloropropane	8.87	63	591414	10.79 ug/l	99
50)	Bromodichloromethane	9.24	83	593948	11.18 ug/l	100
51)	1,4-Dioxane	9.28	88	34070	225.91 ug/l	98
52)	Dibromomethane	9.33	93	212848	11.19 ug/l	95
54)	4-Methyl-2-pentanone	9.78	43	959985	53.18 ug/l	100
55)	cis-1,3-Dichloropropene	10.13	75	731715	10.80 ug/l	98
57)	Toluene	10.67	91	2451883	10.64 ug/l	100
58)	Ethyl methacrylate	10.96	69	283410	10.53 ug/l	93
59)	trans-1,3-Dichloropropene	10.98	75	480791	11.06 ug/l	95
60)	1,1,2-Trichloroethane	11.24	97	262149	11.19 ug/l	99
61)	2-Hexanone	11.25	43	559984	51.80 ug/l	100
62)	1,3-Dichloropropane	11.69	76	484088	10.48 ug/l	100
63)	Tetrachloroethene	11.79	164	621443	11.35 ug/l	97
64)	Dibromochloromethane	12.14	129	366810	11.18 ug/l	100
65)	1,2-Dibromoethane	12.51	107	251274	10.96 ug/l	100
66)	1-Chlorohexane	12.80	91	1084686	10.99 ug/l	97
67)	Chlorobenzene	13.25	112	1443391	11.00 ug/l	99
68)	1,1,1,2-Tetrachloroethane	13.34	131	462461	11.36 ug/l	99
69)	Ethylbenzene	13.36	91	2654479	10.81 ug/l	99
70)	m-Xylene & p-Xylene	13.50	91	3851390	21.51 ug/l	100
71)	o-Xylene	14.31	91	1866819	10.66 ug/l	99
72)	Styrene	14.38	104	1406957	11.26 ug/l	99
74)	Isopropylbenzene	14.99	105	2593569	11.22 ug/l	100
75)	Bromoform	15.01	173	170282	11.14 ug/l	99
76)	trans-1,4-Dichloro-2-buten	15.09	53	53304	8.70 ug/l	93
77)	1,1,2,2-Tetrachloroethane	15.33	83	248817	10.89 ug/l	98
79)	1,2,3-Trichloropropane	15.61	110	62555	10.46 ug/l	98
80)	n-Propylbenzene	15.75	91	3035344	10.20 ug/l	100
81)	Bromobenzene	15.82	156	484002	10.53 ug/l	96
82)	1,3,5-Trimethylbenzene	16.07	105	1825024	10.32 ug/l	99
83)	2-Chlorotoluene	16.09	91	1806569	10.31 ug/l	99
84)	4-Chlorotoluene	16.19	91	1344648	10.09 ug/l	100

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC421.D Vial: 4
Acq On : 26 Oct 2012 11:33 am Operator: AS
Sample : VO67J20C 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 12:21 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85)	tert-Butylbenzene	16.76	134	483210	10.45 ug/l	99
86)	1,2,4-Trimethylbenzene	16.83	105	1687484	10.40 ug/l	99
87)	sec-Butylbenzene	17.17	105	2659125	10.26 ug/l	100
88)	p-Isopropyltoluene	17.45	119	2093439	10.60 ug/l	99
89)	1,3-Dichlorobenzene	17.62	146	945991	10.49 ug/l	99
90)	1,4-Dichlorobenzene	17.83	146	891704	10.74 ug/l	98
91)	n-Butylbenzene	18.21	91	1728272	9.79 ug/l	100
92)	1,2-Dichlorobenzene	18.45	146	710588	10.61 ug/l	98
93)	1,2-Dibromo-3-chloropropan	19.59	157	31211	10.10 ug/l	99
94)	1,2,4-Trichlorobenzene	20.69	180	301818	8.40 ug/l	98
95)	Hexachlorobutadiene	20.86	225	241229	8.46 ug/l	99
96)	Naphthalene	21.02	128	364116	7.95 ug/l	98
97)	1,2,3-Trichlorobenzene	21.33	180	207572	7.94 ug/l	100

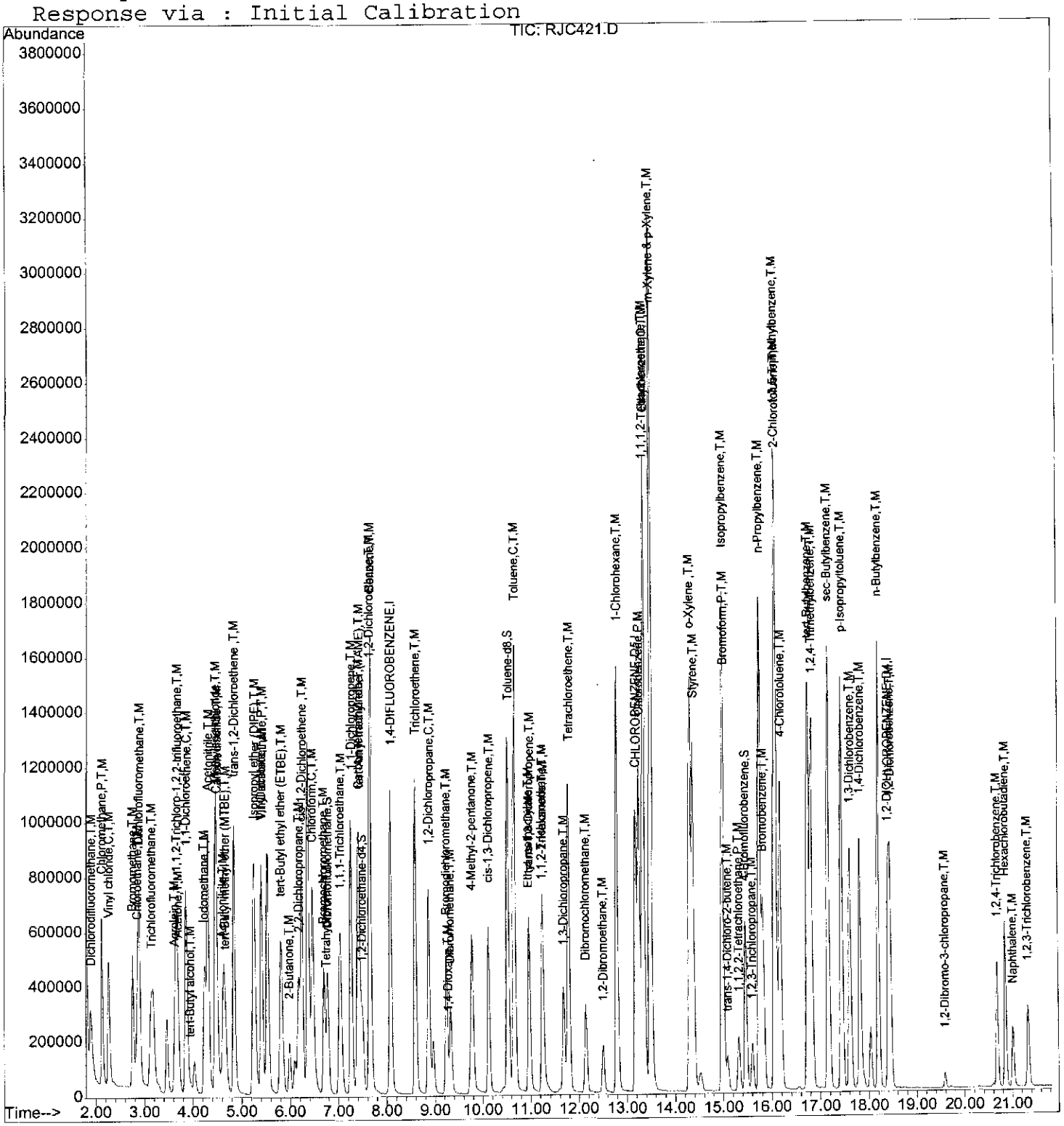
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJC421.D
Acq On : 26 Oct 2012 11:33 am
Sample : VO67J20C 10ppb
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 12:21 2012

Vial: 4
Operator: AS
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC424.D Vial: 7
Acq On : 26 Oct 2012 1:05 pm Operator: AS
Sample : 12J162-08 25mls Inst : TO67
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 13:53 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

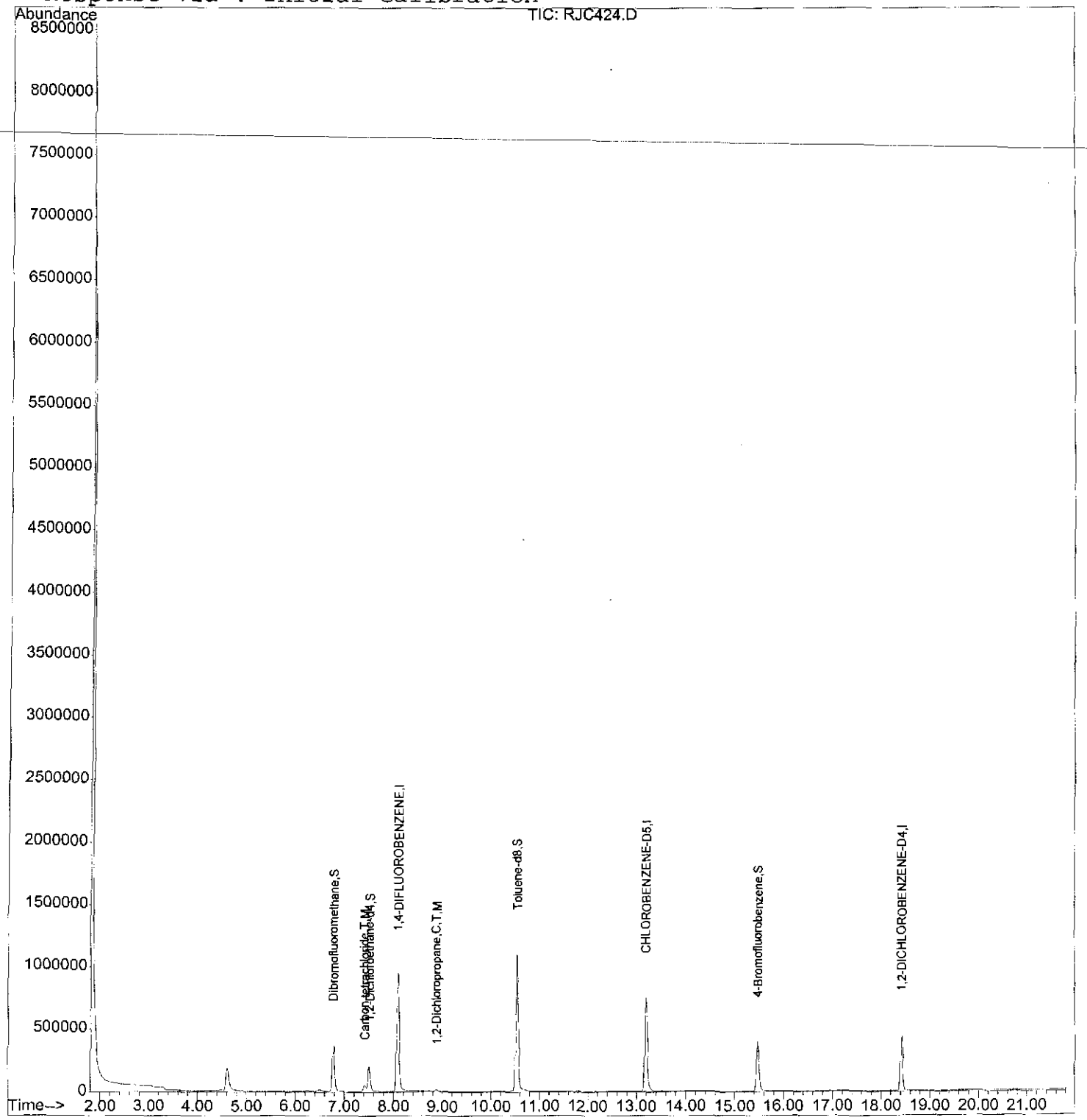
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.10	114	1603950	10.00	ug/l	-0.01
41) CHLOROBENZENE-D5	13.20	117	1034045	10.00	ug/l	-0.03
73) 1,2-DICHLOROBENZENE-D4	18.42	152	266512	10.00	ug/l	-0.01
System Monitoring Compounds						
35) Dibromofluoromethane	6.78	111	411411	9.90	ug/l	-0.03
Spiked Amount 10.000			Recovery	=	99.00%	
40) 1,2-Dichloroethane-d4	7.51	65	216631	8.29	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	82.90%	
56) Toluene-d8	10.54	98	1492098	10.34	ug/l	-0.03
Spiked Amount 10.000			Recovery	=	103.40%	
78) 4-Bromofluorobenzene	15.47	95	316407	9.81	ug/l	-0.03
Spiked Amount 10.000			Recovery	=	98.10%	
Target Compounds						Qvalue
44) Carbon tetrachloride	7.41	119	68247	1.30	ug/l	98
49) 1,2-Dichloropropane	8.87	63	13484	0.32	ug/l	97

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

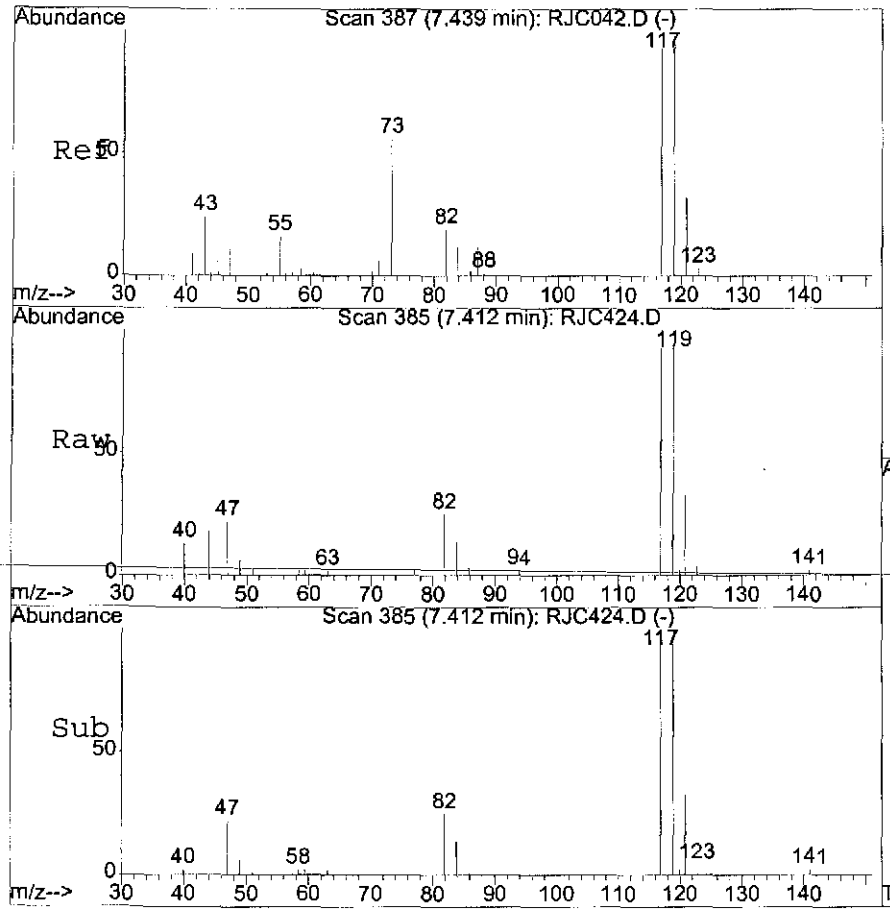
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJC424.D Vial: 7
Acq On : 26 Oct 2012 1:05 pm Operator: AS
Sample : 12J162-08 25mls Inst : TO67
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 13:53 2012 Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration



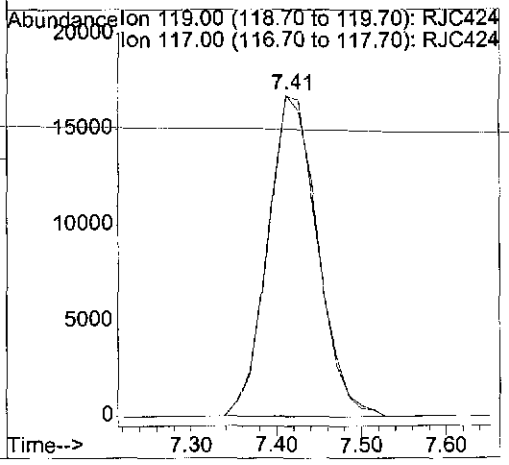
2033

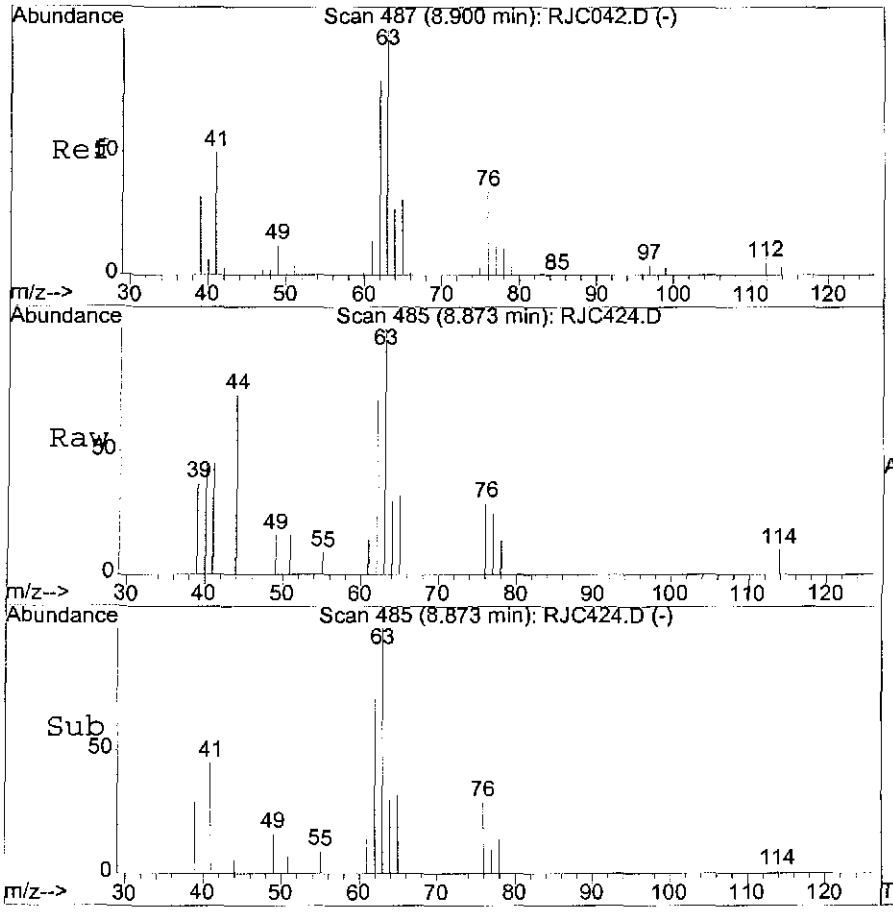


#44
Carbon tetrachloride
Concen: 1.30 ug/l
RT: 7.41 min Scan# 385
Delta R.T. -0.03 min
Lab File: RJC424.D
Acq: 26 Oct 2012 1:05 pm

Tgt Ion:119 Resp: 68247

Ion	Ratio	Lower	Upper
119	100		
117	100.4	72.7	132.7

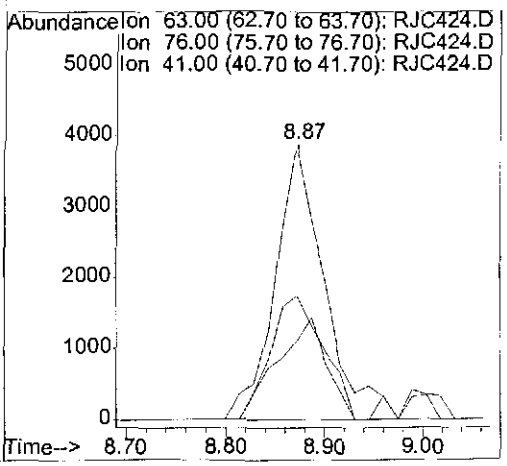




#49
1,2-Dichloropropane
Concen: 0.32 ug/l
RT: 8.87 min Scan# 485
Delta R.T. -0.03 min
Lab File: RJC424.D
Acq: 26 Oct 2012 1:05 pm

Tgt Ion: 63 Resp: 13484

Ion	Ratio	Lower	Upper
63	100		
76	36.9	4.1	64.1
41	48.4	17.3	77.3



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC429.D Vial: 12
Acq On : 26 Oct 2012 3:35 pm Operator: AS
Sample : 12J162-08M 25mls Inst : TO67
Misc : DF=1.0, MS Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 15:59 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.11	114	1797833	10.00	ug/l	0.00
~~41) CHLOROBENZENE-D5~~	~~13.21~~	~~117~~	~~1348985~~	~~10.00~~	~~ug/l~~	~~-0.01~~
73) 1,2-DICHLOROBENZENE-D4	18.44	152	440271	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.80	111	472789	10.15	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	101.50%	
40) 1,2-Dichloroethane-d4	7.53	65	271772	9.28	ug/l	0.00
Spiked Amount 10.000			Recovery	=	92.80%	
56) Toluene-d8	10.55	98	1808474	9.61	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	96.10%	
78) 4-Bromofluorobenzene	15.49	95	483492	9.08	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	90.80%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.91	85	521928	9.20	ug/l	99
4) Chloromethane	2.15	50	819455	8.56	ug/l	99
5) Vinyl chloride	2.29	62	788061	9.61	ug/l	99
6) Bromomethane	2.77	94	478407	9.20	ug/l	98
7) Chloroethane	2.86	64	490690	9.34	ug/l	97
8) Dichlorofluoromethane	2.90	67	1145281	9.39	ug/l	100
9) Trichlorofluoromethane	3.16	101	727429	10.70	ug/l	100
11) Acrolein	3.64	56	78406	26.28	ug/l	86
12) 1,1,2-Trichloro-1,2,2-trif	3.69	151	496532	10.95	ug/l	98
13) Acetone	3.72	43	216379	48.94	ug/l	98
14) 1,1-Dichloroethene	3.88	61	952183	9.09	ug/l	99
15) tert-Butyl alcohol	3.98	59	67248	57.11	ug/l	93
17) Iodomethane	4.27	142	1159406	11.90	ug/l	99
18) Acetonitrile	4.35	41	1156388	107.86	ug/l	99
19) Methylene chloride	4.49	49	681725	9.12	ug/l	96
20) Carbon disulfide	4.51	76	1648893	7.39	ug/l	100
21) Acrylonitrile	4.65	53	345690	51.51	ug/l	99
22) tert-Butyl methyl ether (M	4.68	73	653758	10.87	ug/l	99
23) trans-1,2-Dichloroethene	4.87	61	908193	9.25	ug/l	97
24) Isopropyl ether (DIPE)	5.28	45	1752352	10.34	ug/l	99
25) 1,1-Dichloroethane	5.44	63	1119791	10.11	ug/l	99
26) Vinyl acetate	5.44	43	447637	7.99	ug/l	98
28) tert-Butyl ethyl ether (ET	5.83	59	1128073	10.65	ug/l	98
29) 2-Butanone	6.01	43	382220	48.06	ug/l	99
30) 2,2-Dichloropropane	6.20	77	563661	10.55	ug/l	99
31) cis-1,2-Dichloroethene	6.27	96	610195	9.53	ug/l	97
32) Chloroform	6.49	83	925617	10.94	ug/l	99

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC429.D Vial: 12
Acq On : 26 Oct 2012 3:35 pm Operator: AS
Sample : 12J162-08M 25mls Inst : TO67
Misc : DF=1.0, MS Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 15:59 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
~~33)~~	~~Bromochloromethane~~	~~6.73~~	~~49~~	~~371484~~	~~9.61 ug/l~~	~~93~~
36)	Tetrahydrofuran	6.77	42	47777	8.18 ug/l	89
37)	1,1,1-Trichloroethane	7.06	97	774418	10.88 ug/l	99
39)	tert-Amyl methyl ether (TA	7.46	87	171232	11.02 ug/l	99
43)	1,1-Dichloropropene	7.30	110	337745	9.94 ug/l	100
44)	Carbon tetrachloride	7.44	119	782907	11.44 ug/l	100
45)	1,2-Dichloroethane	7.66	62	360500	10.17 ug/l	98
46)	Benzene	7.69	78	2293088	9.76 ug/l	99
47)	Trichloroethene	8.62	130	736911	10.33 ug/l	96
49)	1,2-Dichloropropane	8.90	63	569327	10.22 ug/l	99
50)	Bromodichloromethane	9.27	83	554240	10.27 ug/l	97
51)	1,4-Dioxane	9.30	88	33064	215.81 ug/l	100
52)	Dibromomethane	9.35	93	201292	10.42 ug/l	94
54)	4-Methyl-2-pentanone	9.81	43	880406	48.01 ug/l	97
55)	cis-1,3-Dichloropropene	10.16	75	696228	10.12 ug/l	98
57)	Toluene	10.68	91	2306616	9.86 ug/l	99
58)	Ethyl methacrylate	10.99	69	270001	9.88 ug/l	96
59)	trans-1,3-Dichloropropene	11.00	75	454675	10.30 ug/l	95
60)	1,1,2-Trichloroethane	11.27	97	250028	10.51 ug/l	99
61)	2-Hexanone	11.28	43	529578	48.22 ug/l	99
62)	1,3-Dichloropropane	11.71	76	462387	9.86 ug/l	99
63)	Tetrachloroethene	11.82	164	587418	10.56 ug/l	98
64)	Dibromochloromethane	12.17	129	346947	10.41 ug/l	100
65)	1,2-Dibromoethane	12.52	107	235011	10.09 ug/l	99
66)	1-Chlorohexane	12.83	91	1020352	10.18 ug/l	98
67)	Chlorobenzene	13.28	112	1373914	10.31 ug/l	99
68)	1,1,1,2-Tetrachloroethane	13.37	131	437866	10.58 ug/l	99
69)	Ethylbenzene	13.39	91	2487035	9.97 ug/l	99
70)	m-Xylene & p-Xylene	13.53	91	3626550	19.94 ug/l	99
71)	o-Xylene	14.33	91	1781707	10.02 ug/l	100
72)	Styrene	14.41	104	1285628	10.13 ug/l	99
74)	Isopropylbenzene	15.02	105	2489681	10.47 ug/l	99
75)	Bromoform	15.04	173	163823	10.42 ug/l	99
76)	trans-1,4-Dichloro-2-buten	15.12	53	50570	8.02 ug/l	94
77)	1,1,2,2-Tetrachloroethane	15.34	83	229541	9.76 ug/l	99
79)	1,2,3-Trichloropropane	15.63	110	58434	9.49 ug/l	99
80)	n-Propylbenzene	15.78	91	2874468	9.39 ug/l	100
81)	Bromobenzene	15.85	156	470438	9.95 ug/l	93
82)	1,3,5-Trimethylbenzene	16.09	105	1723155	9.47 ug/l	98
83)	2-Chlorotoluene	16.12	91	1596163	8.86 ug/l	94
84)	4-Chlorotoluene	16.22	91	1359237	9.91 ug/l	97

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC429.D Vial: 12
Acq On : 26 Oct 2012 3:35 pm Operator: AS
Sample : 12J162-08M 25mls Inst : TO67
Misc : DF=1.0, MS Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 15:59 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

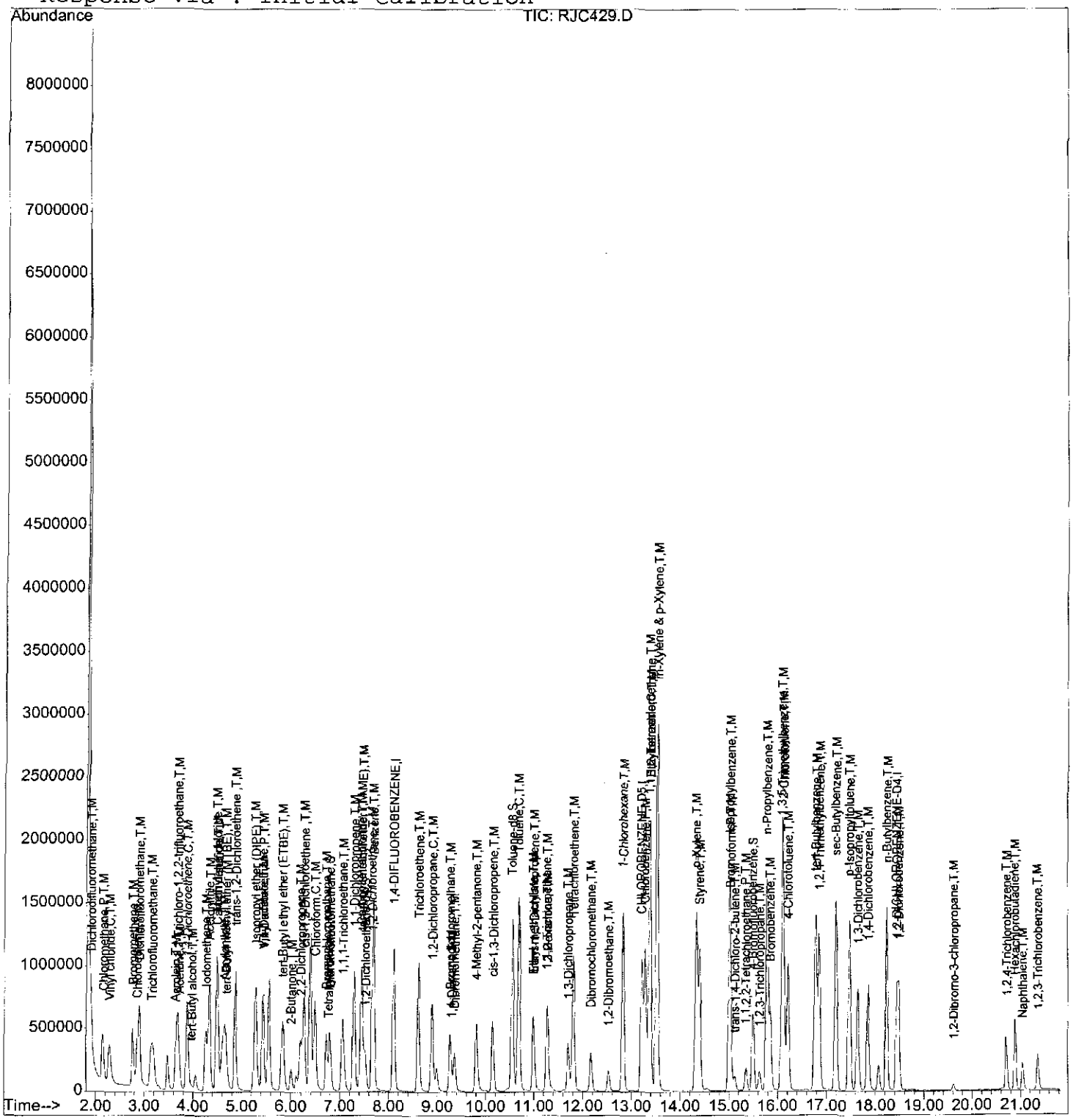
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85)	tert-Butylbenzene	16.79	134	456332	9.59 ug/l	98
86)	1,2,4-Trimethylbenzene	16.86	105	1588045	9.51 ug/l	99
87)	sec-Butylbenzene	17.20	105	2499799	9.38 ug/l	99
88)	p-Isopropyltoluene	17.48	119	1948894	9.59 ug/l	99
89)	1,3-Dichlorobenzene	17.65	146	900615	9.70 ug/l	99
90)	1,4-Dichlorobenzene	17.85	146	843637	9.88 ug/l	99
91)	n-Butylbenzene	18.23	91	1592656	8.77 ug/l	100
92)	1,2-Dichlorobenzene	18.48	146	685321	9.94 ug/l	98
93)	1,2-Dibromo-3-chloropropan	19.62	157	29794	9.37 ug/l	95
94)	1,2,4-Trichlorobenzene	20.72	180	277434	7.50 ug/l	98
95)	Hexachlorobutadiene	20.88	225	222221	7.58 ug/l	99
96)	Naphthalene	21.04	128	340442	7.23 ug/l	98
97)	1,2,3-Trichlorobenzene	21.36	180	194444	7.23 ug/l	100

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJC429.D Vial: 12
Acq On : 26 Oct 2012 3:35 pm Operator: AS
Sample : 12J162-08M 25mls Inst : TO67
Misc : DF=1.0, MS Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 15:59 2012 Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration



2038

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC431.D Vial: 14
Acq On : 26 Oct 2012 4:45 pm Operator: AS
Sample : 12J162-08S 25mls Inst : TO67
Misc : DF=1.0, MSD Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 17:16 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.09	114	1778700	10.00	ug/l	-0.02
41) CHLOROBENZENE-D5	13.20	117	1327220	10.00	ug/l	-0.02
73) 1,2-DICHLOROBENZENE-D4	18.43	152	439156	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.79	111	471937	10.25	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	102.50%	
40) 1,2-Dichloroethane-d4	7.52	65	264882	9.14	ug/l	0.00
Spiked Amount 10.000			Recovery	=	91.40%	
56) Toluene-d8	10.54	98	1792132	9.67	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	96.70%	
78) 4-Bromofluorobenzene	15.48	95	466722	8.78	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	87.80%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.91	85	505019	9.00	ug/l	99
4) Chloromethane	2.15	50	793603	8.38	ug/l	98
5) Vinyl chloride	2.29	62	772199	9.52	ug/l	100
6) Bromomethane	2.77	94	465682	9.05	ug/l	99
7) Chloroethane	2.86	64	489144	9.41	ug/l	99
8) Dichlorofluoromethane	2.90	67	1113544	9.22	ug/l	100
9) Trichlorofluoromethane	3.15	101	714544	10.62	ug/l	99
11) Acrolein	3.63	56	73350	24.85	ug/l	99
12) 1,1,2-Trichloro-1,2,2-trif	3.68	151	495946	11.05	ug/l	98
13) Acetone	3.71	43	197906	45.25	ug/l	98
14) 1,1-Dichloroethene	3.87	61	963077	9.29	ug/l	98
15) tert-Butyl alcohol	3.96	59	67283	57.76	ug/l	97
17) Iodomethane	4.26	142	1142435	11.85	ug/l	99
18) Acetonitrile	4.32	41	1108828	104.54	ug/l	97
19) Methylene chloride	4.48	49	676652	9.15	ug/l	96
20) Carbon disulfide	4.50	76	1698530	7.70	ug/l	100
21) Acrylonitrile	4.64	53	324854	48.93	ug/l	98
22) tert-Butyl methyl ether (M	4.67	73	637561	10.71	ug/l	100
23) trans-1,2-Dichloroethene	4.86	61	917956	9.45	ug/l	96
24) Isopropyl ether (DIPE)	5.27	45	1760003	10.50	ug/l	98
25) 1,1-Dichloroethane	5.42	63	1133688	10.35	ug/l	99
26) Vinyl acetate	5.42	43	448426	8.09	ug/l	98
28) tert-Butyl ethyl ether (ET	5.83	59	1110026	10.59	ug/l	99
29) 2-Butanone	6.00	43	358214	45.53	ug/l	98
30) 2,2-Dichloropropane	6.19	77	553810	10.48	ug/l	99
31) cis-1,2-Dichloroethene	6.26	96	610859	9.65	ug/l	98
32) Chloroform	6.48	83	931705	11.13	ug/l	99

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC431.D Vial: 14
Acq On : 26 Oct 2012 4:45 pm Operator: AS
Sample : 12J162-08S 25mls Inst : TO67
Misc : DF=1.0, MSD Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 17:16 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33)	Bromochloromethane	6.72	49	375899	9.83 ug/l	94
36)	Tetrahydrofuran	6.76	42	50048	8.66 ug/l	95
37)	1,1,1-Trichloroethane	7.05	97	778228	11.05 ug/l	98
39)	tert-Amyl methyl ether (TA	7.45	87	167785	10.92 ug/l	97
43)	1,1-Dichloropropene	7.27	110	336217	10.06 ug/l	99
44)	Carbon tetrachloride	7.42	119	790656	11.74 ug/l	100
45)	1,2-Dichloroethane	7.65	62	365690	10.49 ug/l	99
46)	Benzene	7.68	78	2328862	10.07 ug/l	99
47)	Trichloroethene	8.60	130	749401	10.68 ug/l	96
49)	1,2-Dichloropropane	8.88	63	569485	10.39 ug/l	99
50)	Bromodichloromethane	9.26	83	563381	10.61 ug/l	98
51)	1,4-Dioxane	9.29	88	33784	224.12 ug/l	96
52)	Dibromomethane	9.35	93	185947	9.78 ug/l	87
54)	4-Methyl-2-pentanone	9.80	43	805686	44.66 ug/l	97
55)	cis-1,3-Dichloropropene	10.13	75	700574	10.35 ug/l	98
57)	Toluene	10.67	91	2355496	10.23 ug/l	100
58)	Ethyl methacrylate	10.97	69	269681	10.03 ug/l	95
59)	trans-1,3-Dichloropropene	10.98	75	452522	10.42 ug/l	94
60)	1,1,2-Trichloroethane	11.26	97	249547	10.66 ug/l	99
61)	2-Hexanone	11.27	43	473547	43.82 ug/l	99
62)	1,3-Dichloropropane	11.70	76	465070	10.08 ug/l	98
63)	Tetrachloroethene	11.80	164	599832	10.96 ug/l	98
64)	Dibromochloromethane	12.15	129	349382	10.66 ug/l	99
65)	1,2-Dibromoethane	12.51	107	236181	10.30 ug/l	100
66)	1-Chlorohexane	12.81	91	1039347	10.54 ug/l	98
67)	Chlorobenzene	13.27	112	1391238	10.61 ug/l	99
68)	1,1,1,2-Tetrachloroethane	13.35	131	440982	10.83 ug/l	98
69)	Ethylbenzene	13.36	91	2510266	10.23 ug/l	100
70)	m-Xylene & p-Xylene	13.51	91	3672777	20.52 ug/l	99
71)	o-Xylene	14.33	91	1787310	10.21 ug/l	99
72)	Styrene	14.38	104	1331370	10.66 ug/l	99
74)	Isopropylbenzene	15.00	105	2533689	10.68 ug/l	99
75)	Bromoform	15.03	173	163070	10.40 ug/l	99
76)	trans-1,4-Dichloro-2-buten	15.10	53	51823	8.24 ug/l	96
77)	1,1,2,2-Tetrachloroethane	15.33	83	230206	9.81 ug/l	98
79)	1,2,3-Trichloropropane	15.63	110	58832	9.58 ug/l	98
80)	n-Propylbenzene	15.77	91	2921555	9.57 ug/l	99
81)	Bromobenzene	15.84	156	471415	10.00 ug/l	95
82)	1,3,5-Trimethylbenzene	16.08	105	1741759	9.59 ug/l	98
83)	2-Chlorotoluene	16.11	91	1639802	9.12 ug/l	98
84)	4-Chlorotoluene	16.20	91	1338774	9.79 ug/l	100

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

2048

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC431.D Vial: 14
Acq On : 26 Oct 2012 4:45 pm Operator: AS
Sample : 12J162-08S 25mls Inst : TO67
Misc : DF=1.0, MSD Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 17:16 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

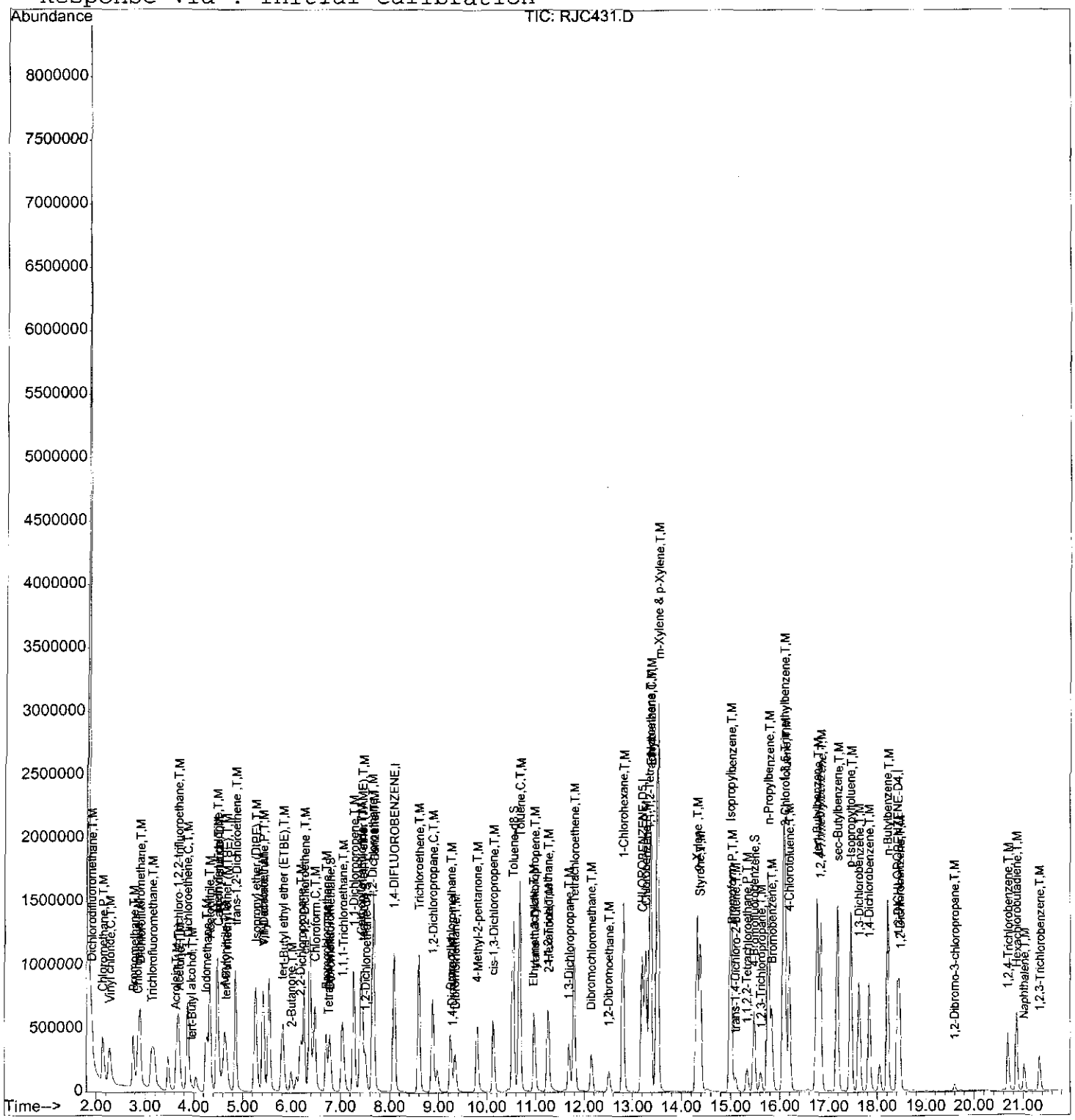
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85)	tert-Butylbenzene	16.76	134	466217	9.82 ug/l	98
86)	1,2,4-Trimethylbenzene	16.84	105	1621665	9.74 ug/l	99
87)	sec-Butylbenzene	17.19	105	2551089	9.59 ug/l	99
88)	p-Isopropyltoluene	17.45	119	2013361	9.93 ug/l	99
89)	1,3-Dichlorobenzene	17.63	146	924329	9.99 ug/l	99
90)	1,4-Dichlorobenzene	17.83	146	840754	9.87 ug/l	99
91)	n-Butylbenzene	18.21	91	1632699	9.01 ug/l	100
92)	1,2-Dichlorobenzene	18.47	146	697239	10.14 ug/l	98
93)	1,2-Dibromo-3-chloropropan	19.60	157	29799	9.39 ug/l	93
94)	1,2,4-Trichlorobenzene	20.69	180	282762	7.67 ug/l	99
95)	Hexachlorobutadiene	20.87	225	239159	8.17 ug/l	99
96)	Naphthalene	21.03	128	334834	7.12 ug/l	99
97)	1,2,3-Trichlorobenzene	21.35	180	193952	7.23 ug/l	99

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJC431.D Vial: 14
Acq On : 26 Oct 2012 4:45 pm Operator: AS
Sample : 12J162-08S 25mls Inst : TO67
Misc : DF=1.0, MSD Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 17:16 2012 Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration



INITIAL CALIBRATION(S)

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJC036
Instrument ID: 67
GC Column:RTX502.2ID:0.25mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J162
BFB Injection Date : 10/02/12
BFB Injection Time : 16:19
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.76
75	30.0 - 60.0% of mass 95	42.07
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.38
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	84.68
175	5.0 - 9.0% of mass 174	7.36(8.7)1
176	95.0 - 101.0% of mass 174	83.45(98.6)1
177	5.0 - 9.0% of mass 176	5.18(6.2)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	VSTD0.3	V067J0201	RJC037	10/02/12	16:48
2	VSTD0.5	V067J0202	RJC038	10/02/12	17:19
3	VSTD01	V067J0203	RJC039	10/02/12	17:50
4	VSTD02	V067J0204	RJC040	10/02/12	18:21
5	VSTD05	V067J0205	RJC041	10/02/12	18:50
6	VSTD010	V067J0206	RJC042	10/02/12	19:21
7	VSTD020	V067J0207	RJC043	10/02/12	19:53
8	VSTD030	V067J0208	RJC044	10/02/12	20:23
9	VSTD050	V067J0209	RJC045	10/02/12	20:54
10	VSTD100	V067J0210	RJC046	10/02/12	21:25

FORM V VOA OLM02.0

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :T067
Beginning DateTime :10/02/12 16:48
Spike Units :PPB
IC File :RJC042

Column Spec :RTX502.2 ID :0.25MM
Ending DateTime :10/02/12 21:25
HPChem Method :V067JD2

M	IDX	Parameters	.3 16:48 RJC037	.5 17:19 RJC038	1 17:50 RJC039	2 18:21 RJC040	5 18:50 RJC041	10 19:21 RJC042	20 19:53 RJC043	30 20:23 RJC044	50 20:54 RJC045	100 21:25 RJC046	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	1	0	8.1139
	2	Dichlorodifluoromethane	0.263	0.262	0.307	0.314	0.362	0.333	0.342	0.329	0.319	0.323	0.316	10.14	1.9082
	3	Dichlorotetrafluoroethane	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	4	Chloromethane	0.413	0.460	0.498	0.537	0.611	0.570	0.591	0.543	0.553	0.548	0.532	11.26	2.1404
	5	Vinyl chloride	0.391	0.413	0.491	0.491	0.550	0.493	0.482	0.422	0.374	------	0.456	12.80	2.2721
	6	Bromomethane	0.238	0.261	0.291	0.282	0.324	0.301	0.306	0.294	0.296	0.299	0.289	8.32	2.7670
	7	Chloroethane	0.256	0.285	0.290	0.295	0.333	0.303	0.307	0.288	0.284	0.280	0.292	6.81	2.8590
	8	Dichlorofluoromethane	0.643	0.665	0.688	0.653	0.723	0.692	0.714	0.688	0.667	0.653	0.679	3.98	2.9013
	9	Trichlorofluoromethane	0.316	0.304	0.356	0.367	0.441	0.401	0.413	0.394	0.392	0.399	0.378	11.34	3.1613
	10	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
5	11	Acrolein	------	------	0.021	0.016	0.017	0.017	0.017	0.016	0.015	0.015	0.017	12.13	3.6475
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	0.264	0.267	0.256	0.235	0.264	0.247	0.259	0.247	0.240	0.244	0.252	4.41	3.6798
5	13	Acetone	------	------	------	0.027	0.029	0.024	0.025	0.023	0.021	0.022	0.025	11.20	3.7206
	14	1,1-Dichloroethene	0.580	0.567	0.597	0.561	0.627	0.593	0.615	0.573	0.558	0.554	0.583	4.27	3.8828
5	15	tert-Butyl alcohol	0.006	0.006	0.007	0.006	0.007	0.007	0.007	0.007	0.006	0.007	0.007	6.72	3.9850
	16	Methyl acetate	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	17	Iodomethane	0.496	0.513	0.551	0.517	0.577	0.554	0.578	0.546	0.544	0.543	0.542	4.92	4.2698
10	18	Acetonitrile	0.057	0.057	0.061	0.058	0.065	0.062	0.061	0.060	0.058	0.057	0.060	4.40	4.3429
	19	Methylene chloride	0.543	0.478	0.462	0.397	0.410	0.387	0.395	0.370	0.357	0.358	0.416	14.53	4.4889
	20	Carbon disulfide	1.034	1.029	1.185	1.310	1.443	1.274	1.436	1.267	1.221	1.205	1.241	11.34	4.5050
5	21	Acrylonitrile	0.033	0.036	0.035	0.033	0.038	0.039	0.043	0.039	0.037	0.040	0.037	8.39	4.6525
	22	tert-Butyl methyl ether (MTBE)	0.326	0.325	0.339	0.311	0.348	0.344	0.352	0.337	0.327	0.336	0.335	3.74	4.6876
	23	trans-1,2-Dichloroethene	0.524	0.549	0.562	0.523	0.583	0.565	0.570	0.533	0.525	0.526	0.546	4.14	4.8686
	24	Isopropyl ether (DIPE)	0.889	0.938	0.970	0.893	0.980	0.966	0.995	0.937	0.923	0.933	0.942	3.76	5.2834
	25	1,1-Dichloroethane	0.612	0.630	0.650	0.592	0.650	0.619	0.638	0.595	0.584	0.588	0.616	4.13	5.4382
	26	Vinyl acetate	------	0.265	0.277	0.283	0.330	0.331	0.329	0.331	0.321	0.340	0.312	9.14	5.4392
5	27	2-Butanol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	28	tert-Butyl ethyl ether (ETBE)	0.551	0.549	0.619	0.562	0.627	0.608	0.620	0.595	0.576	0.585	0.589	4.95	5.8428
5	29	2-Butanone	------	0.052	0.041	0.035	0.043	0.045	0.048	0.045	0.043	0.045	0.044	10.37	6.0120
	30	2,2-Dichloropropane	0.389	0.291	0.323	0.293	0.318	0.300	0.297	0.270	0.254	0.236	0.297	14.18	6.2079
	31	cis-1,2-Dichloroethene	0.340	0.347	0.364	0.338	0.377	0.366	0.374	0.354	0.349	0.351	0.356	3.85	6.2722
	32	Chloroform	0.431	0.467	0.490	0.459	0.502	0.494	0.482	0.461	0.460	0.461	0.471	4.50	6.4942
	33	Bromochloromethane	0.194	0.209	0.217	0.204	0.231	0.223	0.226	0.217	0.213	0.217	0.215	5.08	6.7250
5	34	tert-Amyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	35	Dibromofluoromethane	0.232	0.253	0.246	0.256	0.280	0.250	0.283	0.263	0.258	0.268	0.259	5.91	6.8082
	36	Tetrahydrofuran	------	------	------	0.038	0.036	0.034	0.031	0.030	0.028	0.030	0.032	11.11	6.7793
	37	1,1,1-Trichloroethane	0.393	0.382	0.417	0.382	0.426	0.404	0.413	0.387	0.382	0.374	0.396	4.52	7.0652
	38	Cyclohexane	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	39	tert-Amyl methyl ether (TAME)	0.074	0.085	0.084	0.083	0.091	0.090	0.094	0.089	0.085	0.088	0.086	6.49	7.4654
	40	1,2-Dichloroethane-d4	0.161	0.166	0.156	0.166	0.167	0.154	0.172	0.164	0.157	0.166	0.163	3.47	7.5297
	41	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	1	0	13.2213
	42	2,2,4-Trimethylpentane	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	43	1,1-Dichloropropene	0.269	0.252	0.249	0.238	0.272	0.253	0.257	0.247	0.242	0.239	0.252	4.60	7.2960
	44	Carbon tetrachloride	0.513	0.512	0.527	0.486	0.550	0.505	0.527	0.500	0.480	0.475	0.508	4.62	7.4406
	45	1,2-Dichloroethane	0.250	0.263	0.269	0.249	0.279	0.265	0.279	0.268	0.252	0.253	0.263	4.37	7.6728
	46	Benzene	1.795	1.789	1.808	1.687	1.857	1.721	1.792	1.708	1.646	1.617	1.742	4.47	7.6904
	47	Trichloroethene	0.576	0.542	0.539	0.503	0.558	0.520	0.543	0.511	0.499	0.496	0.529	5.12	8.6236
	48	Methylcyclohexane	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000

5a
10/15/12

49	1,2-Dichloropropane	0.406	0.434	0.441	0.394	0.447	0.409	0.418	0.402	0.391	0.386	0.413	5.20	8.8997
50	Bromodichloromethane	0.358	0.393	0.407	0.381	0.425	0.415	0.423	0.411	0.394	0.393	0.400	5.15	9.2677
20 51	1,4-Dioxane	------	------	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	9.01	9.2996
52	Dibromomethane	0.128	0.122	0.141	0.131	0.155	0.152	0.158	0.154	0.145	0.147	0.143	8.66	9.3568
53	2-Chloroethyl vinyl ether	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
5 54	4-Methyl-2-pentanone	0.136	0.135	0.131	0.112	0.139	0.140	0.150	0.145	0.133	0.137	0.136	7.40	9.8125
55	cis-1,3-Dichloropropene	0.476	0.481	0.519	0.469	0.549	0.525	0.543	0.522	0.507	0.509	0.510	5.38	10.1571
56	Toluene-d8	1.303	1.391	1.339	1.406	1.534	1.333	1.503	1.404	1.380	1.366	1.396	5.21	10.5603
57	Toluene	1.783	1.754	1.812	1.655	1.866	1.735	1.787	1.704	1.648	1.604	1.735	4.73	10.6975
58	Ethyl methacrylate	0.197	0.175	0.199	0.184	0.206	0.207	0.220	0.219	0.208	0.212	0.203	7.11	10.9940
59	trans-1,3-Dichloropropene	0.290	0.303	0.335	0.296	0.347	0.338	0.349	0.347	0.331	0.337	0.327	6.84	11.0057
60	1,1,2-Trichloroethane	0.167	0.175	0.175	0.167	0.185	0.181	0.187	0.181	0.172	0.174	0.176	3.89	11.2730
5 61	2-Hexanone	0.070	0.083	0.080	0.069	0.082	0.084	0.092	0.087	0.082	0.084	0.081	8.81	11.2905
62	1,3-Dichloropropane	0.331	0.335	0.352	0.321	0.368	0.354	0.369	0.361	0.341	0.345	0.348	4.60	11.7126
63	Tetrachloroethene	0.462	0.422	0.412	0.385	0.441	0.411	0.423	0.401	0.387	0.377	0.412	6.42	11.8221
64	Dibromochloromethane	0.225	0.234	0.251	0.229	0.262	0.250	0.266	0.258	0.246	0.249	0.247	5.51	12.1741
65	1,2-Dibromoethane	0.153	0.149	0.173	0.162	0.183	0.179	0.188	0.186	0.176	0.178	0.173	7.86	12.5349
66	1-Chlorohexane	0.793	0.756	0.740	0.671	0.781	0.740	0.780	0.746	0.720	0.705	0.743	5.04	12.8313
67	Chlorobenzene	0.983	0.986	1.015	0.931	1.036	1.006	1.027	0.984	0.963	0.947	0.988	3.46	13.2856
68	1,1,1,2-Tetrachloroethane	0.292	0.312	0.317	0.288	0.329	0.308	0.320	0.308	0.299	0.293	0.307	4.38	13.3717
69	Ethylbenzene	1.952	1.867	1.892	1.738	1.972	1.854	1.917	1.829	1.783	1.684	1.849	5.00	13.3863
2 70	m-Xylene & p-Xylene	1.371	1.332	1.367	1.266	1.432	1.358	1.400	1.326	1.284	------	1.349	3.92	13.5326
71	o-Xylene	1.319	1.351	1.388	1.257	1.382	1.325	1.374	1.307	1.264	1.218	1.319	4.38	14.3357
72	Styrene	0.870	0.909	0.950	0.881	0.995	0.965	1.016	0.963	0.942	0.918	0.941	5.00	14.4087
73	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	1	0	18.4397
74	Isopropylbenzene	5.284	5.224	5.351	4.964	5.734	5.439	5.614	5.486	5.624	5.274	5.400	4.23	15.0221
75	Bromoform	0.278	0.343	0.352	0.317	0.368	0.363	0.384	0.390	0.389	0.387	0.357	10.22	15.0353
76	trans-1,4-Dichloro-2-butene	------	0.119	0.146	0.133	0.143	0.138	0.152	0.154	0.152	0.150	0.143	7.98	15.1224
77	1,1,2,2-Tetrachloroethane	0.456	0.518	0.548	0.487	0.547	0.537	0.564	0.570	0.562	0.554	0.534	6.91	15.3566
78	4-Bromofluorobenzene	1.389	1.275	1.119	1.156	1.232	1.096	1.226	1.192	1.230	1.185	1.210	6.88	15.4924
79	1,2,3-Trichloropropane	------	0.124	0.143	0.129	0.141	0.139	0.147	0.147	0.145	0.143	0.140	5.80	15.6352
80	n-Propylbenzene	7.113	6.918	6.808	6.318	7.304	6.966	7.249	7.165	7.193	6.505	6.954	4.71	15.7831
81	Bromobenzene	1.051	1.026	1.073	0.965	1.105	1.074	1.112	1.114	1.129	1.088	1.074	4.59	15.8634
82	1,3,5-Trimethylbenzene	4.311	4.071	4.140	3.797	4.338	4.205	4.229	4.172	4.191	3.887	4.134	4.19	16.1000
83	2-Chlorotoluene	4.274	4.289	4.185	3.810	4.243	4.047	4.140	4.068	4.118	3.762	4.094	4.44	16.1175
84	4-Chlorotoluene	3.352	2.946	3.093	2.914	3.198	3.099	3.156	3.150	3.174	3.067	3.115	4.03	16.2197
85	tert-Butylbenzene	1.043	1.015	1.100	0.975	1.171	1.086	1.120	1.099	1.125	1.070	1.081	5.29	16.7893
86	1,2,4-Trimethylbenzene	4.004	3.722	3.773	3.471	3.963	3.760	3.870	3.832	3.870	3.647	3.791	4.11	16.8624
87	sec-Butylbenzene	6.273	6.010	6.038	5.592	6.416	6.095	6.272	6.076	6.083	5.696	6.055	4.17	17.1983
88	p-Isopropyltoluene	4.674	4.411	4.544	4.193	5.001	4.667	4.861	4.625	4.707	4.479	4.616	4.94	17.4758
89	1,3-Dichlorobenzene	2.149	2.117	2.128	1.891	2.184	2.123	2.151	2.129	2.140	2.067	2.108	3.88	17.6510
90	1,4-Dichlorobenzene	1.942	1.902	1.927	1.783	2.065	1.939	1.995	1.956	1.980	1.908	1.940	3.76	17.8555
91	n-Butylbenzene	4.191	4.005	4.098	3.688	4.418	4.162	4.337	4.145	4.239	3.982	4.126	4.95	18.2352
92	1,2-Dichlorobenzene	1.599	1.550	1.619	1.446	1.658	1.563	1.597	1.558	1.535	1.531	1.566	3.70	18.4835
93	1,2-Dibromo-3-chloropropane	------	0.062	0.067	0.070	0.080	0.076	0.079	0.074	0.069	0.073	0.072	8.09	19.6094
94	1,2,4-Trichlorobenzene	0.844	0.809	0.829	0.748	0.890	0.860	0.890	0.844	0.840	0.844	0.840	4.86	20.7050
95	Hexachlorobutadiene	0.709	0.711	0.686	0.620	0.748	0.688	0.680	0.633	0.609	0.578	0.666	8.04	20.8788
96	Naphthalene	1.063	1.008	1.054	0.969	1.098	1.070	1.146	1.129	1.076	1.089	1.070	4.91	21.0394
97	1,2,3-Trichlorobenzene	0.599	0.586	0.617	0.555	0.651	0.630	0.651	0.635	0.601	0.580	0.611	5.23	21.3607

Spike Amount = Nominal Amount * M

Ave_%RSD : 6.3 Max_%RSD : 14.5

SG
10/5/12

2946

Compound List Report TO67

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
Total Cpnds : 97

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-DIFLUOROBENZENE	114	8.11	1.000	A	1	A	B
2	T	Dichlorodifluoromethane	85	1.92	0.237	A	1	A	B
3	T	Dichlorotetrafluoroethane	85	0.00	0.000	A	2	A	B
4	T	Chloromethane	50	2.14	0.264	A	1	A	B
5	T	Vinyl chloride	62	2.28	0.282	A	1	A	B
6	T	Bromomethane	94	2.77	0.341	A	1	A	B
7	T	Chloroethane	64	2.87	0.354	A	2	A	B
8	T	Dichlorofluoromethane	67	2.91	0.359	A	1	A	B
9	T	Trichlorofluoromethane	101	3.16	0.390	A	1	A	B
10	T	sec-Propyl alcohol	45	0.00	0.000	A	1	A	B
11	T	Acrolein	56	3.66	0.451	A	1	A	B
12	T	1,1,2-Trichloro-1,2,2-trifluor	151	3.69	0.454	A	1	A	B
13	T	Acetone	43	3.73	0.460	A	2	A	B
14	T	1,1-Dichloroethene	61	3.89	0.480	A	2	A	B
15	T	tert-Butyl alcohol	59	3.98	0.490	A	1	A	B
16	T	Methyl acetate	43	4.30	0.530	A	1	A	B
17	T	Iodomethane	142	4.27	0.526	A	1	A	B
18	T	Acetonitrile	41	4.34	0.535	A	2	A	B
19	T	Methylene chloride	49	4.49	0.553	A	2	A	B
20	T	Carbon disulfide	76	4.50	0.555	A	1	A	B
21	T	Acrylonitrile	53	4.65	0.573	A	2	A	B
22	T	tert-Butyl methyl ether (MTBE)	73	4.69	0.579	A	1	A	B
23	T	trans-1,2-Dichloroethene	61	4.87	0.600	A	2	A	B
24	T	Isopropyl ether (DIPE)	45	5.29	0.652	A	1	A	B
25	T	1,1-Dichloroethane	63	5.44	0.670	A	2	A	B
26	T	Vinyl acetate	43	5.44	0.670	A	1	A	B
27	T	2-Butanol	45	5.75	0.708	A	1	A	B
28	T	tert-Butyl ethyl ether (ETBE)	59	5.85	0.721	A	1	A	B
29	T	2-Butanone	43	6.01	0.741	A	1	A	B
30	T	2,2-Dichloropropane	77	6.21	0.766	A	2	A	B
31	T	cis-1,2-Dichloroethene	96	6.27	0.773	A	2	A	B
32	T	Chloroform	83	6.50	0.802	A	2	A	B
33	T	Bromochloromethane	49	6.72	0.829	A	2	A	B
34	T	tert-Amyl alcohol	59	6.72	0.829	A	2	A	B
35	S	Dibromofluoromethane	111	6.81	0.840	A	2	A	B
36	T	Tetrahydrofuran	42	6.78	0.836	A	2	A	B
37	T	1,1,1-Trichloroethane	97	7.07	0.872	A	2	A	B
38	T	Cyclohexane	56	7.09	0.874	A	2	A	B
39	T	tert-Amyl methyl ether (TAME)	87	7.47	0.921	A	2	A	B
40	S	1,2-Dichloroethane-d4	65	7.53	0.928	A	1	A	B
41	I	CHLOROBENZENE-D5	117	13.22	1.000	A	2	A	B
42	T	2,2,4-Trimethylpentane	57	7.09	0.536	A	3	A	B
43	T	1,1-Dichloropropene	110	7.29	0.552	A	1	A	B
44	T	Carbon tetrachloride	119	7.44	0.563	A	1	A	B
45	T	1,2-Dichloroethane	62	7.67	0.580	A	1	A	B
46	T	Benzene	78	7.69	0.581	A	2	A	B
47	T	Trichloroethene	130	8.62	0.652	A	3	A	B
48	T	Methylcyclohexane	83	8.71	0.659	A	2	A	B
49	T	1,2-Dichloropropane	63	8.90	0.673	A	2	A	B
50	T	Bromodichloromethane	83	9.27	0.701	A	1	A	B
51	T	1,4-Dioxane	88	9.29	0.703	A	1	A	B
52	T	Dibromomethane	93	9.35	0.707	A	2	A	B

SC 10/5/12

2047

53	T	2-Chloroethyl vinyl ether	63	9.76	0.738	A	2	A	B
54	T	4-Methyl-2-pentanone	43	9.81	0.742	A	3	A	B
55	T	cis-1,3-Dichloropropene	75	10.16	0.768	A	3	A	B
56	S	Toluene-d8	98	10.56	0.799	A	1	A	B
57	T	Toluene	91	10.70	0.809	A	1	A	B
58	T	Ethyl methacrylate	69	10.99	0.831	A	2	A	B
59	T	trans-1,3-Dichloropropene	75	11.00	0.832	A	2	A	B
60	T	1,1,2-Trichloroethane	97	11.28	0.853	A	3	A	B
61	T	2-Hexanone	43	11.28	0.853	A	2	A	B
62	T	1,3-Dichloropropane	76	11.72	0.886	A	1	A	B
63	T	Tetrachloroethene	164	11.82	0.894	A	3	A	B
64	T	Dibromochloromethane	129	12.17	0.920	A	1	A	B
65	T	1,2-Dibromoethane	107	12.54	0.948	A	1	A	B
66	T	1-Chlorohexane	91	12.83	0.970	A	3	A	B
67	P,M	Chlorobenzene	112	13.30	1.006	A	3	A	B
68	T	1,1,1,2-Tetrachloroethane	131	13.37	1.011	A	3	A	B
69	T	Ethylbenzene	91	13.38	1.012	A	1	A	B
70	T	m-Xylene & p-Xylene	91	13.53	1.023	A	1	A	B
71	T	o-Xylene	91	14.33	1.084	A	1	A	B
72	T	Styrene	104	14.41	1.089	A	2	A	B
73	I	1,2-DICHLOROBENZENE-D4	152	18.44	1.000	A	1	A	B
74	T	Isopropylbenzene	105	15.02	0.815	A	3	A	B
75	T	Bromoform	173	15.03	0.815	A	2	A	B
76	T	trans-1,4-Dichloro-2-butene	53	15.12	0.820	A	1	A	B
77	T	1,1,2,2-Tetrachloroethane	83	15.36	0.833	A	1	A	B
78	S	4-Bromofluorobenzene	95	15.50	0.841	A	2	A	B
79	T	1,2,3-Trichloropropane	110	15.63	0.848	A	2	A	B
80	T	n-Propylbenzene	91	15.78	0.856	A	2	A	B
81	T	Bromobenzene	156	15.87	0.861	A	2	A	B
82	T	1,3,5-Trimethylbenzene	105	16.10	0.873	A	2	A	B
83	T	2-Chlorotoluene	91	16.11	0.874	A	1	A	B
84	T	4-Chlorotoluene	91	16.22	0.880	A	1	A	B
85	T	tert-Butylbenzene	134	16.79	0.910	A	2	A	B
86	T	1,2,4-Trimethylbenzene	105	16.86	0.914	A	1	A	B
87	T	sec-Butylbenzene	105	17.20	0.933	A	1	A	B
88	T	p-Isopropyltoluene	119	17.47	0.948	A	2	A	B
89	T	1,3-Dichlorobenzene	146	17.65	0.957	A	2	A	B
90	T	1,4-Dichlorobenzene	146	17.85	0.968	A	2	A	B
91	T	n-Butylbenzene	91	18.23	0.989	A	2	A	B
92	T	1,2-Dichlorobenzene	146	18.48	1.002	A	2	A	B
93	T	1,2-Dibromo-3-chloropropane	157	19.62	1.064	A	2	A	B
94	T	1,2,4-Trichlorobenzene	180	20.70	1.123	A	2	A	B
95	T	Hexachlorobutadiene	225	20.88	1.132	A	2	A	B
96	T	Naphthalene	128	21.04	1.141	A	1	A	B
97	T	1,2,3-Trichlorobenzene	180	21.36	1.158	A	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

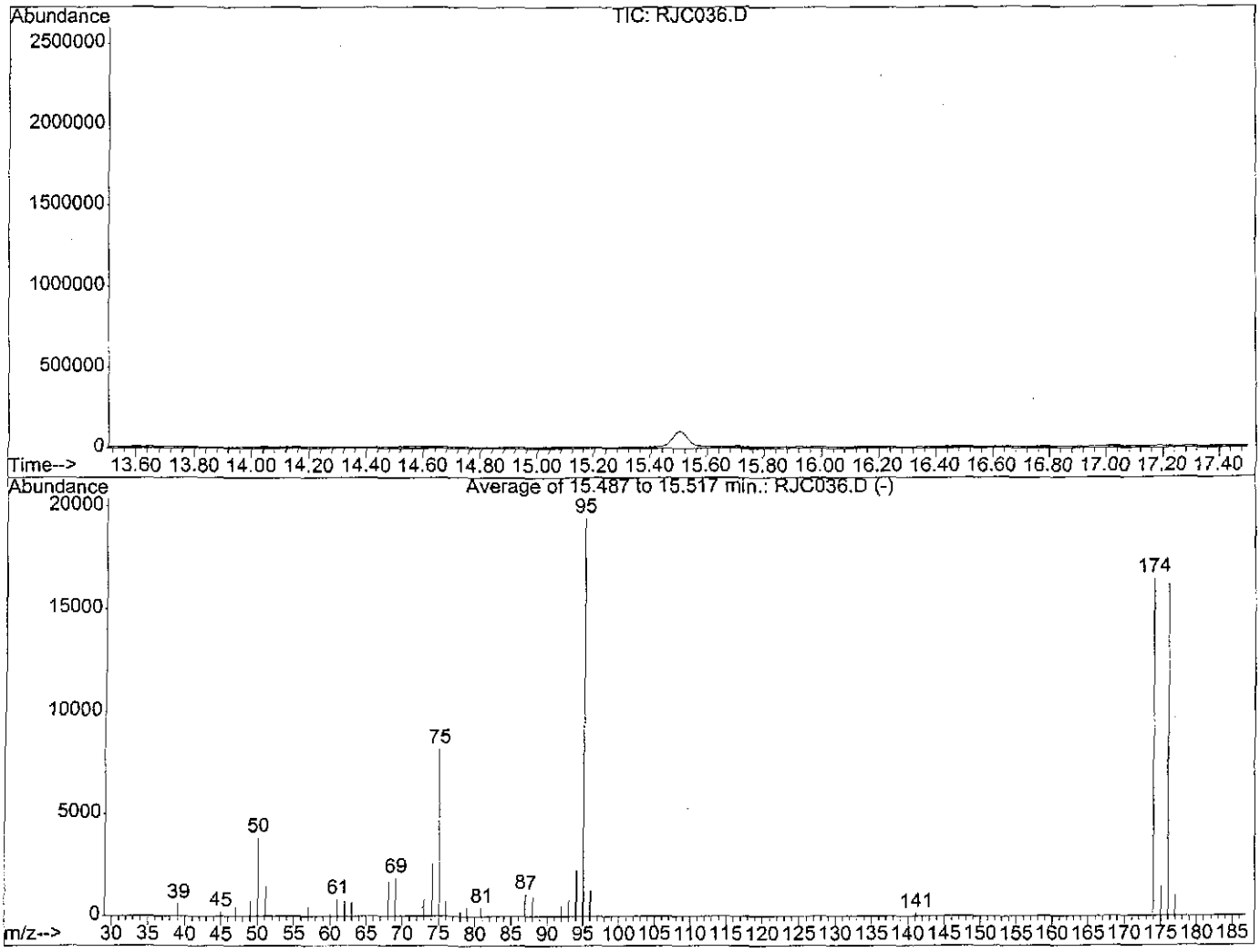
VO67J02.M Wed Oct 03 14:28:28 2012

SU
10/5/12

BFB

Data File : D:\HPCHEM\1\DATA\12J02\RJC036.D
Acq On : 2 Oct 2012 4:19 pm
Sample : BFB67J02
Misc : T/CHK
MS Integration Params: LSCINT1.P
Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0

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



AutoFind: Scans 938, 939, 940; Background Corrected with Scan 932

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.8	3840	PASS
75	95	30	60	42.1	8175	PASS
95	95	100	100	100.0	19432	PASS
96	95	5	9	6.4	1240	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	84.7	16454	PASS
175	174	5	9	8.7	1431	PASS
176	174	95	101	98.6	16216	PASS
177	176	5	9	6.2	1007	PASS

RJC036.D VO67J02.M Tue Oct 02 16:49:39 2012

Sa 10/5/12

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC037.D Vial: 2
Acq On : 2 Oct 2012 4:48 pm Operator: AS
Sample : VO67J0201 0.3ppb Inst : TO67
Misc : .3ppb 8260/1.5ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:29 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.12	114	1708319	10.00	ug/l	0.00
41) CHLOROBENZENE-D5	13.23	117	1241937	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.44	152	395280	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.82	111	11907	0.27	ug/l	0.00
Spiked Amount 10.000			Recovery	=	2.70%	
40) 1,2-Dichloroethane-d4	7.53	65	8230	0.30	ug/l	0.00
Spiked Amount 10.000			Recovery	=	3.00%	
56) Toluene-d8	10.57	98	48548	0.28	ug/l	0.00
Spiked Amount 10.000			Recovery	=	2.80%	
78) 4-Bromofluorobenzene	15.49	95	16470	0.34	ug/l	0.00
Spiked Amount 10.000			Recovery	=	3.40%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.91	85	13457	0.25	ug/l	100
4) Chloromethane	2.14	50	21191	0.23	ug/l	72
5) Vinyl chloride	2.27	62	20046	0.26	ug/l	77
6) Bromomethane	2.77	94	12217	0.25	ug/l	93
7) Chloroethane	2.86	64	13124	0.26	ug/l	95
8) Dichlorofluoromethane	2.90	67	32939	0.28	ug/l	100
9) Trichlorofluoromethane	3.17	101	16215	0.25	ug/l	95
12) 1,1,2-Trichloro-1,2,2-trif	3.69	151	13525	0.31	ug/l	100
14) 1,1-Dichloroethene	3.88	61	29730	0.30	ug/l	96
15) tert-Butyl alcohol	4.01	59	1498	1.34	ug/l #	1
17) Iodomethane	4.28	142	25415	0.27	ug/l	99
18) Acetonitrile	4.35	41	29209	2.87	ug/l	85
19) Methylene chloride	4.49	49	27854	0.39	ug/l	99
20) Carbon disulfide	4.51	76	52986	0.25	ug/l	97
21) Acrylonitrile	4.66	53	8581	1.35	ug/l #	74
22) tert-Butyl methyl ether (M	4.70	73	16714	0.29	ug/l	82
23) trans-1,2-Dichloroethene	4.87	61	26840	0.29	ug/l	97
24) Isopropyl ether (DIPE)	5.30	45	45557	0.28	ug/l	95
25) 1,1-Dichloroethane	5.44	63	31350	0.30	ug/l	98
28) tert-Butyl ethyl ether (ET	5.84	59	28231	0.28	ug/l	97
29) 2-Butanone	6.03	43	18130	2.40	ug/l	84
30) 2,2-Dichloropropane	6.22	77	19945	0.39	ug/l	83
31) cis-1,2-Dichloroethene	6.28	96	17404	0.29	ug/l	99
32) Chloroform	6.50	83	22089	0.27	ug/l	98
33) Bromochloromethane	6.73	49	9922	0.27	ug/l	98
37) 1,1,1-Trichloroethane	7.07	97	20138	0.30	ug/l	93
39) tert-Amyl methyl ether (TA	7.46	87	3781	0.26	ug/l #	56

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

SM 10/5/12

2058

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC037.D Vial: 2
Acq On : 2 Oct 2012 4:48 pm Operator: AS
Sample : VO67J0201 0.3ppb Inst : TO67
Misc : .3ppb 8260/1.5ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:29 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
43)	1,1-Dichloropropene	7.30	110	10036	0.32 ug/l		89
44)	Carbon tetrachloride	7.45	119	19128	0.30 ug/l		98
45)	1,2-Dichloroethane	7.68	62	9305	0.29 ug/l		83
46)	Benzene	7.69	78	66878	0.31 ug/l		98
47)	Trichloroethene	8.63	130	21451	0.33 ug/l		96
49)	1,2-Dichloropropane	8.89	63	15144	0.30 ug/l		92
50)	Bromodichloromethane	9.27	83	13335	0.27 ug/l		95
52)	Dibromomethane	9.37	93	4761	0.27 ug/l		91
54)	4-Methyl-2-pentanone	9.83	43	25410	1.51 ug/l		93
55)	cis-1,3-Dichloropropene	10.15	75	17724	0.28 ug/l		89
57)	Toluene	10.70	91	66441	0.31 ug/l		99
58)	Ethyl methacrylate	10.99	69	7344	0.29 ug/l	#	81
59)	trans-1,3-Dichloropropene	11.01	75	10811	0.27 ug/l		90
60)	1,1,2-Trichloroethane	11.29	97	6221	0.28 ug/l		96
61)	2-Hexanone	11.30	43	13065	1.29 ug/l		96
62)	1,3-Dichloropropane	11.71	76	12325	0.29 ug/l		85
63)	Tetrachloroethene	11.83	164	17228	0.34 ug/l		98
64)	Dibromochloromethane	12.18	129	8390	0.27 ug/l		99
65)	1,2-Dibromoethane	12.53	107	5701	0.27 ug/l		99
66)	1-Chlorohexane	12.83	91	29539	0.32 ug/l		99
67)	Chlorobenzene	13.29	112	36628	0.30 ug/l		75
68)	1,1,1,2-Tetrachloroethane	13.37	131	10888	0.29 ug/l	#	63
69)	Ethylbenzene	13.39	91	72725	0.32 ug/l		100
70)	m-Xylene & p-Xylene	13.54	91	102169	0.61 ug/l		97
71)	o-Xylene	14.34	91	49156	0.30 ug/l		99
72)	Styrene	14.41	104	32405	0.28 ug/l		94
74)	Isopropylbenzene	15.03	105	62660	0.29 ug/l		99
75)	Bromoform	15.03	173	3298	0.23 ug/l		88
77)	1,1,2,2-Tetrachloroethane	15.36	83	5406	0.26 ug/l		99
80)	n-Propylbenzene	15.80	91	84346	0.31 ug/l		97
81)	Bromobenzene	15.86	156	12469	0.29 ug/l		97
82)	1,3,5-Trimethylbenzene	16.11	105	51127	0.31 ug/l		97
83)	2-Chlorotoluene	16.12	91	50688	0.31 ug/l		100
84)	4-Chlorotoluene	16.22	91	39751	0.32 ug/l		95
85)	tert-Butylbenzene	16.79	134	12373	0.29 ug/l		91
86)	1,2,4-Trimethylbenzene	16.87	105	47479	0.32 ug/l		98
87)	sec-Butylbenzene	17.20	105	74393	0.31 ug/l		99
88)	p-Isopropyltoluene	17.48	119	55423	0.30 ug/l		97
89)	1,3-Dichlorobenzene	17.65	146	25487	0.31 ug/l		99
90)	1,4-Dichlorobenzene	17.86	146	23030	0.30 ug/l		96
91)	n-Butylbenzene	18.24	91	49694	0.30 ug/l		98

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

SG 10/5/12

2051

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC037.D Vial: 2
Acq On : 2 Oct 2012 4:48 pm Operator: AS
Sample : VO67J0201 0.3ppb Inst : TO67
Misc : .3ppb 8260/1.5ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:29 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
92)	1,2-Dichlorobenzene	18.49	146	18958	0.31 ug/l	78
94)	1,2,4-Trichlorobenzene	20.71	180	10013	0.30 ug/l	99
95)	Hexachlorobutadiene	20.88	225	8408	0.32 ug/l	99
96)	Naphthalene	21.04	128	12602	0.30 ug/l	99
97)	1,2,3-Trichlorobenzene	21.36	180	7106	0.29 ug/l	97

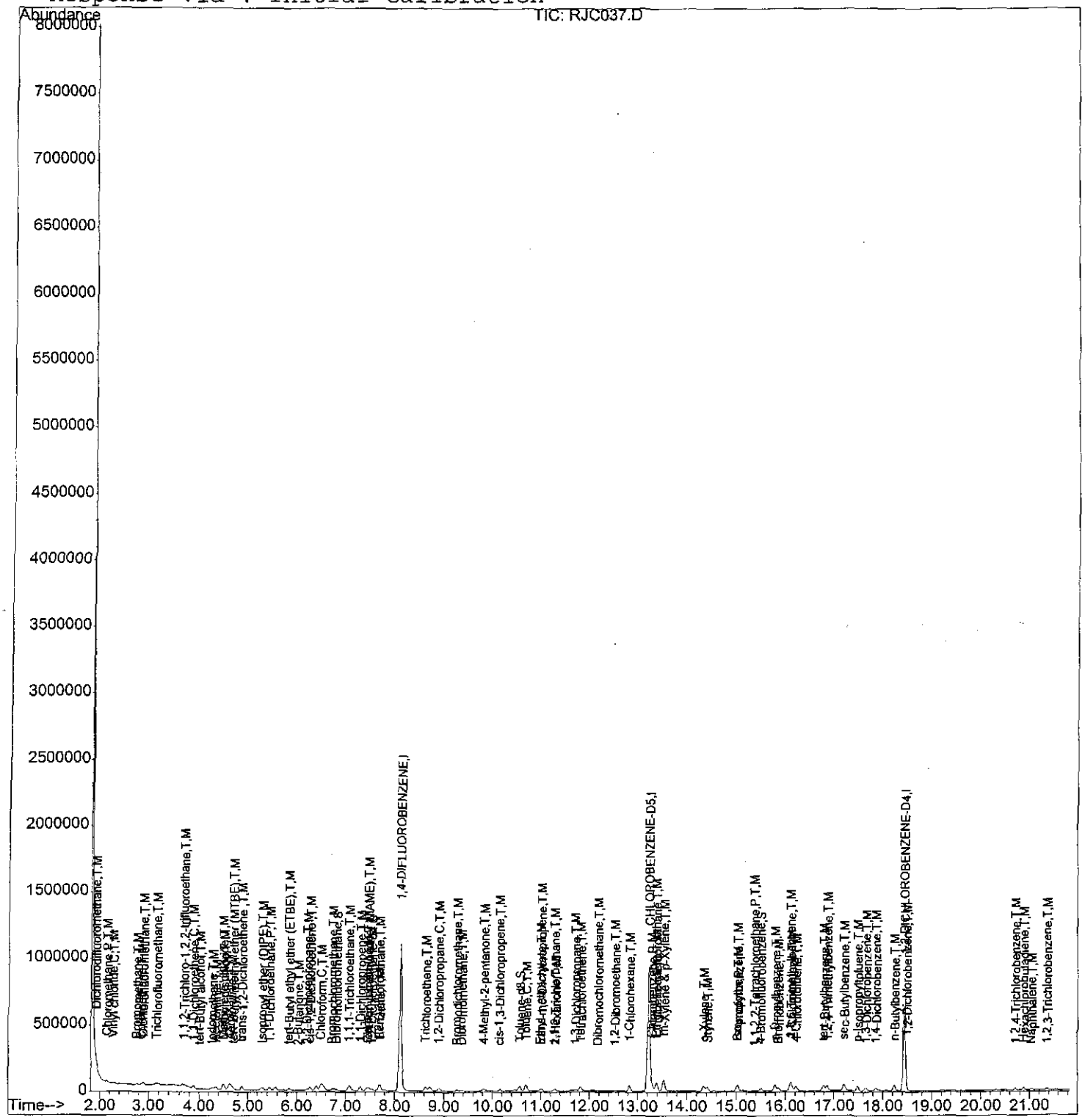
SU
10/5/12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J02\RJC037.D Vial: 2
Acq On : 2 Oct 2012 4:48 pm Operator: AS
Sample : VO67J0201 0.3ppb Inst : TO67
Misc : .3ppb 8260/1.5ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:29 2012 Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration



SC 10/5/12

2053

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC038.D Vial: 3
Acq On : 2 Oct 2012 5:19 pm Operator: AS
Sample : VO67J0202 0.5ppb Inst : TO67
Misc : .5ppb 8260/2.5ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:38 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.12	114	1778701	10.00 ug/l	0.00
41) CHLOROBENZENE-D5	13.22	117	1302204	10.00 ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.44	152	410551	10.00 ug/l	0.00
System Monitoring Compounds					
35) Dibromofluoromethane	6.82	111	22508	0.49 ug/l	0.00
Spiked Amount 10.000			Recovery	= 4.90%	
40) 1,2-Dichloroethane-d4	7.53	65	14738	0.51 ug/l	0.00
Spiked Amount 10.000			Recovery	= 5.10%	
56) Toluene-d8	10.56	98	90555	0.50 ug/l	0.00
Spiked Amount 10.000			Recovery	= 5.00%	
78) 4-Bromofluorobenzene	15.49	95	26168	0.53 ug/l	0.00
Spiked Amount 10.000			Recovery	= 5.30%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.91	85	23306	0.42 ug/l	92
4) Chloromethane	2.14	50	40952	0.43 ug/l	93
5) Vinyl chloride	2.28	62	36729	0.45 ug/l	87
6) Bromomethane	2.77	94	23234	0.45 ug/l	89
7) Chloroethane	2.87	64	25339	0.49 ug/l	95
8) Dichlorofluoromethane	2.90	67	59141	0.49 ug/l	95
9) Trichlorofluoromethane	3.17	101	27008	0.40 ug/l	98
12) 1,1,2-Trichloro-1,2,2-trif	3.68	151	23707	0.53 ug/l	93
14) 1,1-Dichloroethene	3.90	61	50450	0.49 ug/l	96
15) tert-Butyl alcohol	4.00	59	2825	2.42 ug/l #	1
17) Iodomethane	4.28	142	45581	0.47 ug/l	98
18) Acetonitrile	4.35	41	50968	4.81 ug/l	88
19) Methylene chloride	4.50	49	42472	0.57 ug/l	99
20) Carbon disulfide	4.51	76	91511	0.41 ug/l	94
21) Acrylonitrile	4.67	53	15792	2.38 ug/l	89
22) tert-Butyl methyl ether (M	4.70	73	28914	0.49 ug/l	94
23) trans-1,2-Dichloroethene	4.88	61	48831	0.50 ug/l	97
24) Isopropyl ether (DIPE)	5.28	45	83403	0.50 ug/l	96
25) 1,1-Dichloroethane	5.45	63	56027	0.51 ug/l	99
26) Vinyl acetate	5.45	43	23524	0.42 ug/l	92
28) tert-Butyl ethyl ether (ET	5.84	59	48858	0.47 ug/l	99
29) 2-Butanone	6.03	43	22928	2.92 ug/l	95
30) 2,2-Dichloropropane	6.20	77	25839	0.49 ug/l	96
31) cis-1,2-Dichloroethene	6.28	96	30876	0.49 ug/l	96
32) Chloroform	6.50	83	41566	0.50 ug/l	98
33) Bromochloromethane	6.73	49	18596	0.49 ug/l	99
37) 1,1,1-Trichloroethane	7.07	97	33962	0.48 ug/l	96

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC038.D Vial: 3
Acq On : 2 Oct 2012 5:19 pm Operator: AS
Sample : VO67J0202 0.5ppb Inst : TO67
Misc : .5ppb 8260/2.5ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:38 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
39)	tert-Amyl methyl ether (TA	7.46	87	7566	0.49 ug/l		90
43)	1,1-Dichloropropene	7.30	110	16380	0.50 ug/l		95
44)	Carbon tetrachloride	7.45	119	33366	0.50 ug/l		99
45)	1,2-Dichloroethane	7.68	62	17126	0.50 ug/l		86
46)	Benzene	7.69	78	116498	0.51 ug/l		98
47)	Trichloroethene	8.63	130	35271	0.51 ug/l		99
49)	1,2-Dichloropropane	8.91	63	28282	0.53 ug/l		95
50)	Bromodichloromethane	9.27	83	25585	0.49 ug/l		99
51)	1,4-Dioxane	9.32	88	922	6.23 ug/l	#	15
52)	Dibromomethane	9.36	93	7937	0.43 ug/l		82
54)	4-Methyl-2-pentanone	9.83	43	44102	2.49 ug/l		94
55)	cis-1,3-Dichloropropene	10.16	75	31327	0.47 ug/l		87
57)	Toluene	10.70	91	114212	0.51 ug/l		99
58)	Ethyl methacrylate	11.01	69	11394	0.43 ug/l		81
59)	trans-1,3-Dichloropropene	11.01	75	19713	0.46 ug/l		89
60)	1,1,2-Trichloroethane	11.27	97	11369	0.49 ug/l		96
61)	2-Hexanone	11.30	43	27151	2.56 ug/l		92
62)	1,3-Dichloropropane	11.71	76	21795	0.48 ug/l		99
63)	Tetrachloroethene	11.83	164	27488	0.51 ug/l		97
64)	Dibromochloromethane	12.18	129	15234	0.47 ug/l		99
65)	1,2-Dibromoethane	12.53	107	9695	0.43 ug/l		94
66)	1-Chlorohexane	12.84	91	49218	0.51 ug/l		96
67)	Chlorobenzene	13.29	112	64167	0.50 ug/l		91
68)	1,1,1,2-Tetrachloroethane	13.38	131	20323	0.51 ug/l		83
69)	Ethylbenzene	13.39	91	121572	0.50 ug/l		100
70)	m-Xylene & p-Xylene	13.54	91	173478	0.99 ug/l		97
71)	o-Xylene	14.34	91	87967	0.51 ug/l		97
72)	Styrene	14.41	104	59203	0.48 ug/l		97
74)	Isopropylbenzene	15.03	105	107241	0.48 ug/l		99
75)	Bromoform	15.04	173	7042	0.48 ug/l		90
76)	trans-1,4-Dichloro-2-buten	15.11	53	2448	0.42 ug/l		82
77)	1,1,2,2-Tetrachloroethane	15.35	83	10626	0.48 ug/l		95
79)	1,2,3-Trichloropropane	15.64	110	2553	0.44 ug/l		83
80)	n-Propylbenzene	15.79	91	142001	0.50 ug/l		99
81)	Bromobenzene	15.87	156	21062	0.48 ug/l		95
82)	1,3,5-Trimethylbenzene	16.11	105	83567	0.49 ug/l		99
83)	2-Chlorotoluene	16.12	91	88052	0.52 ug/l		97
84)	4-Chlorotoluene	16.22	91	60465	0.47 ug/l		100
85)	tert-Butylbenzene	16.79	134	20845	0.47 ug/l		93
86)	1,2,4-Trimethylbenzene	16.87	105	76395	0.49 ug/l		99
87)	sec-Butylbenzene	17.20	105	123370	0.50 ug/l		97

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC038.D Vial: 3
Acq On : 2 Oct 2012 5:19 pm Operator: AS
Sample : VO67J0202 0.5ppb Inst : TO67
Misc : .5ppb 8260/2.5ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:38 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
88)	p-Isopropyltoluene	17.48	119	90545	0.48 ug/l		97
89)	1,3-Dichlorobenzene	17.66	146	43456	0.50 ug/l		100
90)	1,4-Dichlorobenzene	17.86	146	39038	0.49 ug/l		96
91)	n-Butylbenzene	18.24	91	82220	0.49 ug/l		98
92)	1,2-Dichlorobenzene	18.49	146	31818	0.50 ug/l		87
93)	1,2-Dibromo-3-chloropropan	19.61	157	1269	0.43 ug/l	#	41
94)	1,2,4-Trichlorobenzene	20.71	180	16605	0.48 ug/l		97
95)	Hexachlorobutadiene	20.88	225	14596	0.53 ug/l		98
96)	Naphthalene	21.04	128	20688	0.47 ug/l		97
97)	1,2,3-Trichlorobenzene	21.36	180	12026	0.48 ug/l		97

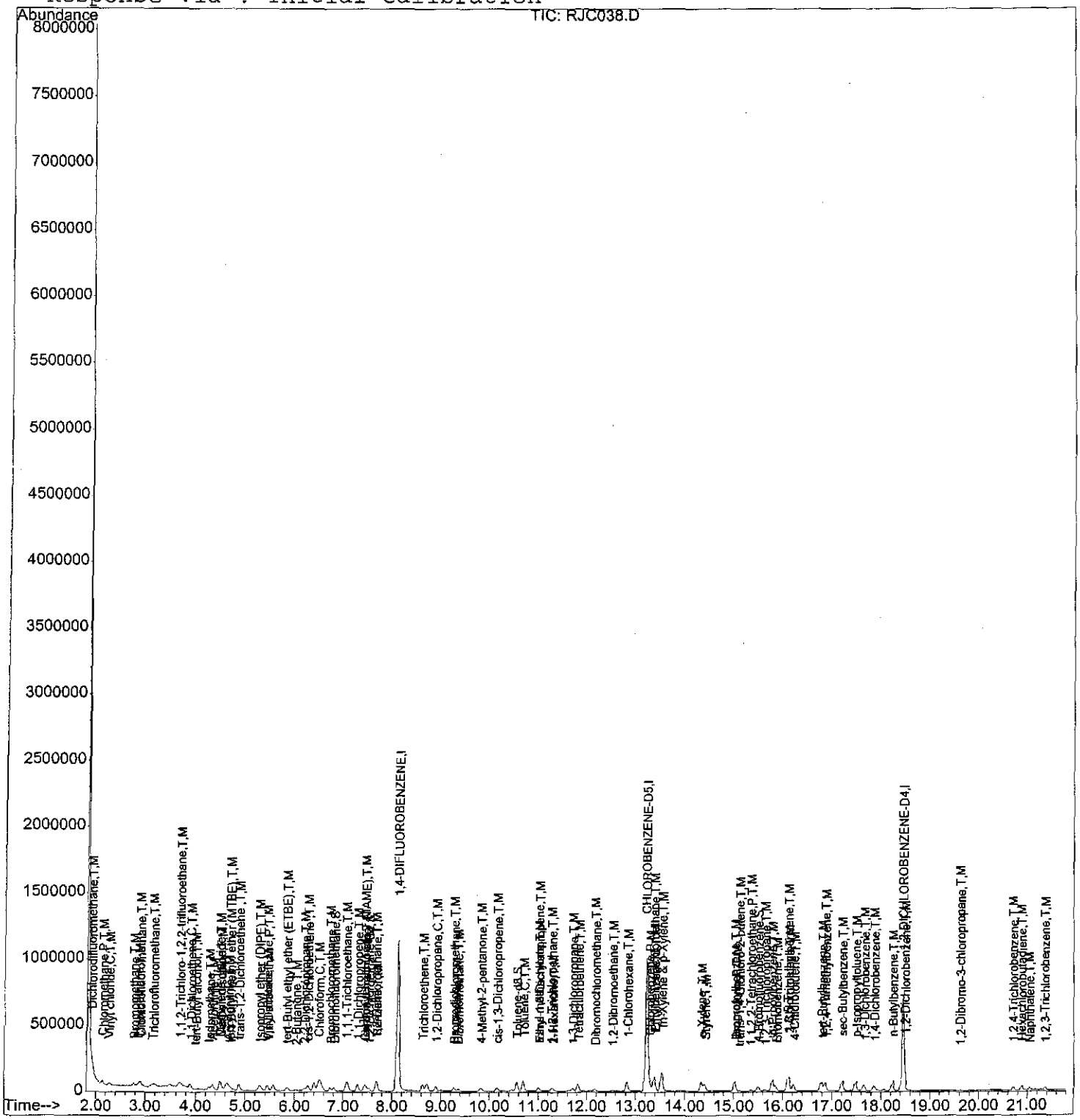
SU 10/5/12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J02\RJC038.D Vial: 3
Acq On : 2 Oct 2012 5:19 pm Operator: AS
Sample : VO67J0202 0.5ppb Inst : TO67
Misc : .5ppb 8260/2.5ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:38 2012 Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:38:05 2012
Response via : Initial Calibration



SU 10/5/12

2057

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC039.D Vial: 4
Acq On : 2 Oct 2012 5:50 pm Operator: AS
Sample : VO67J0203 1.0ppb Inst : TO67
Misc : 1ppb 8260/5ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:47 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.12	114	1716887	10.00 ug/l	0.00
41) CHLOROBENZENE-D5	13.23	117	1263715	10.00 ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.44	152	401232	10.00 ug/l	0.00
System Monitoring Compounds					
35) Dibromofluoromethane	6.80	111	42233	0.95 ug/l	0.00
Spiked Amount 10.000			Recovery	= 9.50%	
40) 1,2-Dichloroethane-d4	7.53	65	26849	0.96 ug/l	0.00
Spiked Amount 10.000			Recovery	= 9.60%	
56) Toluene-d8	10.57	98	169192	0.96 ug/l	0.00
Spiked Amount 10.000			Recovery	= 9.60%	
78) 4-Bromofluorobenzene	15.51	95	44895	0.92 ug/l	0.00
Spiked Amount 10.000			Recovery	= 9.20%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.91	85	52760	0.97 ug/l	98
4) Chloromethane	2.14	50	85419	0.93 ug/l	91
5) Vinyl chloride	2.27	62	84246	1.08 ug/l	100
6) Bromomethane	2.77	94	49997	1.01 ug/l	94
7) Chloroethane	2.86	64	49860	0.99 ug/l	97
8) Dichlorofluoromethane	2.90	67	118201	1.01 ug/l	98
9) Trichlorofluoromethane	3.15	101	61062	0.94 ug/l	99
11) Acrolein	3.65	56	18053	6.59 ug/l	94
12) 1,1,2-Trichloro-1,2,2-trif	3.68	151	43997	1.02 ug/l	97
13) Acetone	3.72	43	41183	9.75 ug/l	90
14) 1,1-Dichloroethene	3.88	61	102562	1.03 ug/l	98
15) tert-Butyl alcohol	3.98	59	6079	5.41 ug/l	44
17) Iodomethane	4.28	142	94651	1.02 ug/l	99
18) Acetonitrile	4.35	41	104718	10.23 ug/l	95
19) Methylene chloride	4.49	49	79306	1.11 ug/l	97
20) Carbon disulfide	4.51	76	203512	0.96 ug/l	96
21) Acrylonitrile	4.65	53	30130	4.70 ug/l	89
22) tert-Butyl methyl ether (M	4.68	73	58199	1.01 ug/l	90
23) trans-1,2-Dichloroethene	4.87	61	96479	1.03 ug/l	98
24) Isopropyl ether (DIPE)	5.30	45	166571	1.03 ug/l	99
25) 1,1-Dichloroethane	5.44	63	111642	1.06 ug/l	98
26) Vinyl acetate	5.44	43	47510	0.89 ug/l	98
28) tert-Butyl ethyl ether (ET	5.85	59	106296	1.05 ug/l	98
29) 2-Butanone	6.03	43	35585	4.69 ug/l	98
30) 2,2-Dichloropropane	6.22	77	55507	1.09 ug/l	99
31) cis-1,2-Dichloroethene	6.28	96	62560	1.02 ug/l	98
32) Chloroform	6.50	83	84091	1.04 ug/l	99

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

SCA 10/5/12

2658

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC039.D Vial: 4
Acq On : 2 Oct 2012 5:50 pm Operator: AS
Sample : VO67J0203 1.0ppb Inst : TO67
Misc : 1ppb 8260/5ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:47 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33)	Bromochloromethane	6.73	49	37302	1.01 ug/l		96
36)	Tetrahydrofuran	6.77	42	8167	1.46 ug/l		85
37)	1,1,1-Trichloroethane	7.06	97	71607	1.05 ug/l		96
39)	tert-Amyl methyl ether (TA	7.46	87	14463	0.98 ug/l	#	80
43)	1,1-Dichloropropene	7.30	110	31452	0.99 ug/l		94
44)	Carbon tetrachloride	7.44	119	66608	1.04 ug/l		99
45)	1,2-Dichloroethane	7.66	62	33937	1.02 ug/l		95
46)	Benzene	7.69	78	228495	1.04 ug/l		99
47)	Trichloroethene	8.63	130	68123	1.02 ug/l		99
49)	1,2-Dichloropropane	8.90	63	55755	1.07 ug/l		99
50)	Bromodichloromethane	9.27	83	51400	1.02 ug/l		97
51)	1,4-Dioxane	9.30	88	2900	20.21 ug/l		82
52)	Dibromomethane	9.36	93	17834	0.99 ug/l		90
54)	4-Methyl-2-pentanone	9.83	43	83084	4.84 ug/l		97
55)	cis-1,3-Dichloropropene	10.16	75	65639	1.02 ug/l		97
57)	Toluene	10.70	91	229048	1.04 ug/l		99
58)	Ethyl methacrylate	11.01	69	25092	0.98 ug/l		94
59)	trans-1,3-Dichloropropene	11.01	75	42338	1.02 ug/l		95
60)	1,1,2-Trichloroethane	11.27	97	22058	0.99 ug/l		95
61)	2-Hexanone	11.30	43	50652	4.92 ug/l		94
62)	1,3-Dichloropropane	11.72	76	44513	1.01 ug/l		100
63)	Tetrachloroethene	11.83	164	52081	1.00 ug/l		100
64)	Dibromochloromethane	12.18	129	31768	1.02 ug/l		98
65)	1,2-Dibromoethane	12.54	107	21877	1.00 ug/l		96
66)	1-Chlorohexane	12.83	91	93453	1.00 ug/l		99
67)	Chlorobenzene	13.29	112	128231	1.03 ug/l		93
68)	1,1,1,2-Tetrachloroethane	13.37	131	40120	1.04 ug/l	#	83
69)	Ethylbenzene	13.39	91	239137	1.02 ug/l		100
70)	m-Xylene & p-Xylene	13.53	91	345566	2.03 ug/l		98
71)	o-Xylene	14.34	91	175440	1.05 ug/l		99
72)	Styrene	14.41	104	120108	1.01 ug/l		97
74)	Isopropylbenzene	15.02	105	214697	0.99 ug/l		99
75)	Bromoform	15.04	173	14127	0.99 ug/l		96
76)	trans-1,4-Dichloro-2-buten	15.13	53	5867	1.02 ug/l		79
77)	1,1,2,2-Tetrachloroethane	15.36	83	21981	1.03 ug/l		100
79)	1,2,3-Trichloropropane	15.64	110	5754	1.03 ug/l		86
80)	n-Propylbenzene	15.78	91	273173	0.98 ug/l		99
81)	Bromobenzene	15.87	156	43043	1.00 ug/l		97
82)	1,3,5-Trimethylbenzene	16.11	105	166095	1.00 ug/l		99
83)	2-Chlorotoluene	16.12	91	167930	1.02 ug/l		99
84)	4-Chlorotoluene	16.22	91	124083	0.99 ug/l		100

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

SU 10/5/12

2059

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC039.D Vial: 4
Acq On : 2 Oct 2012 5:50 pm Operator: AS
Sample : VO67J0203 1.0ppb Inst : TO67
Misc : 1ppb 8260/5ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:47 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85)	tert-Butylbenzene	16.79	134	44134	1.02 ug/l	96
86)	1,2,4-Trimethylbenzene	16.86	105	151365	1.00 ug/l	100
87)	sec-Butylbenzene	17.20	105	242277	1.00 ug/l	99
88)	p-Isopropyltoluene	17.48	119	182314	0.98 ug/l	99
89)	1,3-Dichlorobenzene	17.65	146	85373	1.01 ug/l	99
90)	1,4-Dichlorobenzene	17.86	146	77321	0.99 ug/l	99
91)	n-Butylbenzene	18.24	91	164426	0.99 ug/l	99
92)	1,2-Dichlorobenzene	18.49	146	64953	1.03 ug/l	97
93)	1,2-Dibromo-3-chloropropan	19.61	157	2692	0.93 ug/l	82
94)	1,2,4-Trichlorobenzene	20.72	180	33260	0.99 ug/l	98
95)	Hexachlorobutadiene	20.88	225	27532	1.03 ug/l	99
96)	Naphthalene	21.04	128	42285	0.98 ug/l	98
97)	1,2,3-Trichlorobenzene	21.36	180	24756	1.01 ug/l	97

SM 10/5/12

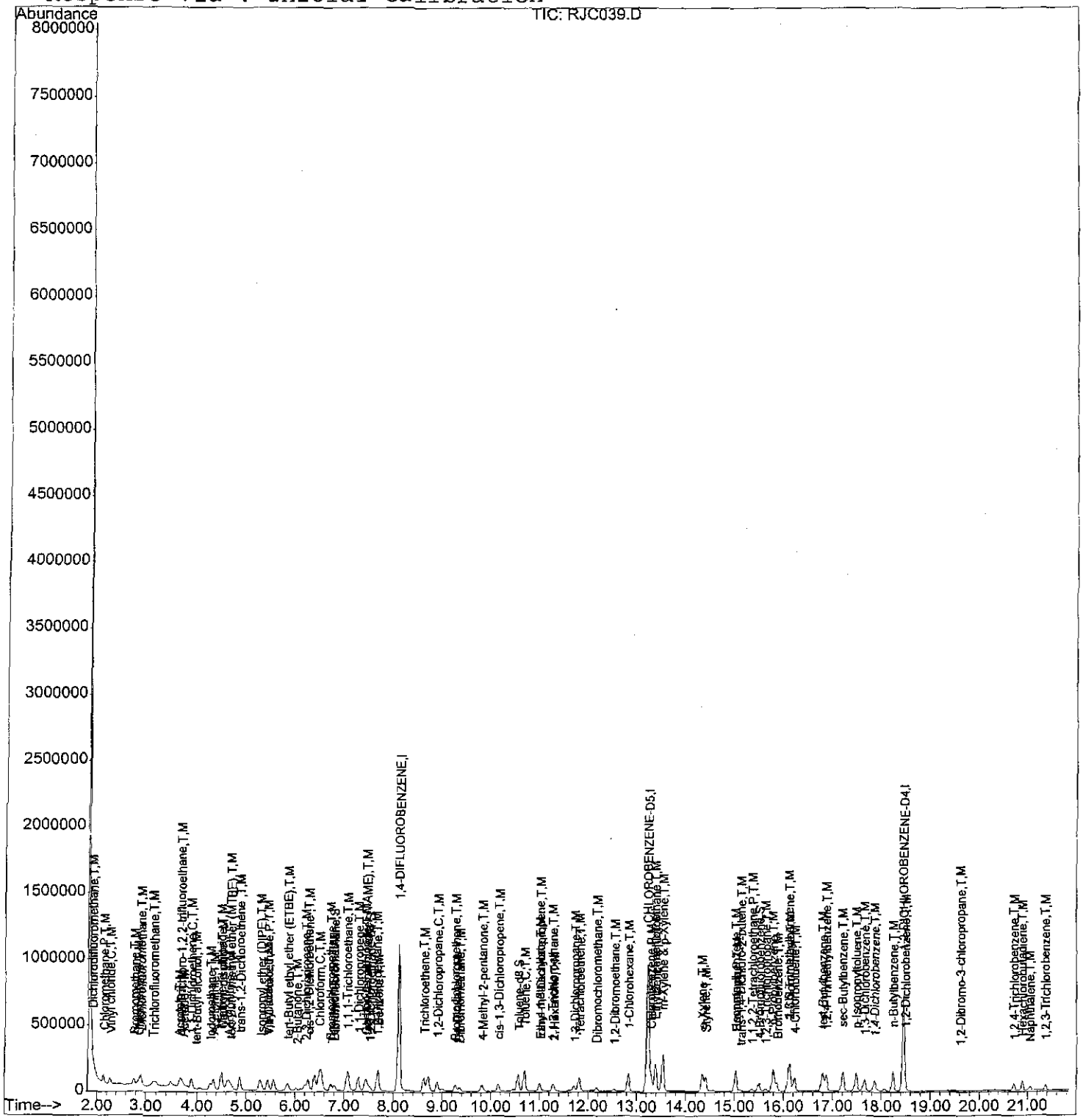
(#) = qualifier out of range (m) = manual integration

2060

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J02\RJC039.D Vial: 4
Acq On : 2 Oct 2012 5:50 pm Operator: AS
Sample : VO67J0203 1.0ppb Inst : TO67
Misc : 1ppb 8260/5ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:47 2012 Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:50:30 2012
Response via : Initial Calibration



SU 10/5/12

2061

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC040.D Vial: 5
Acq On : 2 Oct 2012 6:21 pm Operator: AS
Sample : VO67J0204 2.0ppb Inst : TO67
Misc : 2ppb 8260/10ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:52 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.12	114	1686715	10.00 ug/l	0.00
41) CHLOROBENZENE-D5	13.21	117	1236776	10.00 ug/l	-0.01
73) 1,2-DICHLOROBENZENE-D4	18.44	152	392134	10.00 ug/l	0.00
System Monitoring Compounds					
35) Dibromofluoromethane	6.80	111	86485	1.98 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 19.80%	
40) 1,2-Dichloroethane-d4	7.53	65	56132	2.04 ug/l	0.00
Spiked Amount 10.000			Recovery	= 20.40%	
56) Toluene-d8	10.57	98	347754	2.01 ug/l	0.00
Spiked Amount 10.000			Recovery	= 20.10%	
78) 4-Bromofluorobenzene	15.49	95	90631	1.91 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 19.10%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.91	85	105889	1.99 ug/l	97
4) Chloromethane	2.14	50	181110	2.02 ug/l	96
5) Vinyl chloride	2.27	62	165471	2.15 ug/l	98
6) Bromomethane	2.77	94	95244	1.95 ug/l	99
7) Chloroethane	2.86	64	99536	2.02 ug/l	98
8) Dichlorofluoromethane	2.90	67	220221	1.92 ug/l	98
9) Trichlorofluoromethane	3.16	101	123806	1.94 ug/l	99
11) Acrolein	3.65	56	26716	9.92 ug/l	96
12) 1,1,2-Trichloro-1,2,2-trif	3.68	151	79213	1.86 ug/l	100
13) Acetone	3.72	43	45776	11.04 ug/l	96
14) 1,1-Dichloroethene	3.88	61	189276	1.93 ug/l	97
15) tert-Butyl alcohol	3.98	59	10395	9.41 ug/l	97
17) Iodomethane	4.27	142	174557	1.91 ug/l	99
18) Acetonitrile	4.35	41	196337	19.52 ug/l	99
19) Methylene chloride	4.49	49	133872	1.91 ug/l	97
20) Carbon disulfide	4.51	76	442031	2.11 ug/l	99
21) Acrylonitrile	4.65	53	55021	8.74 ug/l	96
22) tert-Butyl methyl ether (M	4.68	73	104827	1.86 ug/l	97
23) trans-1,2-Dichloroethene	4.87	61	176314	1.91 ug/l	100
24) Isopropyl ether (DIPE)	5.28	45	301214	1.90 ug/l	100
25) 1,1-Dichloroethane	5.44	63	199644	1.92 ug/l	99
26) Vinyl acetate	5.44	43	95627	1.82 ug/l	97
28) tert-Butyl ethyl ether (ET	5.85	59	189639	1.91 ug/l	99
29) 2-Butanone	6.01	43	59053	7.92 ug/l	97
30) 2,2-Dichloropropane	6.20	77	98723	1.97 ug/l	98
31) cis-1,2-Dichloroethene	6.27	96	114036	1.90 ug/l	99
32) Chloroform	6.49	83	154746	1.95 ug/l	99

(#) = qualifier out of range (m) = manual integration
RJC040.D VO67J02.M Wed Oct 03 13:53:34 2012 SU 10/5/12

2062

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC040.D Vial: 5
Acq On : 2 Oct 2012 6:21 pm Operator: AS
Sample : VO67J0204 2.0ppb Inst : TO67
Misc : 2ppb 8260/10ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:52 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33)	Bromochloromethane	6.73	49	68757	1.90 ug/l	99
36)	Tetrahydrofuran	6.79	42	12720	2.32 ug/l	90
37)	1,1,1-Trichloroethane	7.06	97	129016	1.93 ug/l	99
39)	tert-Amyl methyl ether (TA	7.47	87	27998	1.92 ug/l	97
43)	1,1-Dichloropropene	7.30	110	58967	1.89 ug/l	99
44)	Carbon tetrachloride	7.44	119	120264	1.92 ug/l	97
45)	1,2-Dichloroethane	7.68	62	61626	1.90 ug/l	99
46)	Benzene	7.69	78	417184	1.94 ug/l	100
47)	Trichloroethene	8.63	130	124305	1.90 ug/l	99
49)	1,2-Dichloropropane	8.90	63	97561	1.91 ug/l	99
50)	Bromodichloromethane	9.27	83	94175	1.90 ug/l	100
51)	1,4-Dioxane	9.31	88	4512	32.12 ug/l	96
52)	Dibromomethane	9.36	93	32500	1.84 ug/l	92
54)	4-Methyl-2-pentanone	9.81	43	138488	8.24 ug/l	99
55)	cis-1,3-Dichloropropene	10.16	75	116067	1.84 ug/l	97
57)	Toluene	10.70	91	409273	1.91 ug/l	99
58)	Ethyl methacrylate	10.99	69	45503	1.82 ug/l	94
59)	trans-1,3-Dichloropropene	11.01	75	73127	1.81 ug/l	98
60)	1,1,2-Trichloroethane	11.27	97	41384	1.90 ug/l	97
61)	2-Hexanone	11.30	43	84925	8.43 ug/l	99
62)	1,3-Dichloropropane	11.71	76	79511	1.85 ug/l	98
63)	Tetrachloroethene	11.82	164	95338	1.87 ug/l	99
64)	Dibromochloromethane	12.18	129	56767	1.86 ug/l	99
65)	1,2-Dibromoethane	12.54	107	40072	1.88 ug/l	97
66)	1-Chlorohexane	12.83	91	165946	1.81 ug/l	99
67)	Chlorobenzene	13.29	112	230264	1.88 ug/l	97
68)	1,1,1,2-Tetrachloroethane	13.37	131	71156	1.88 ug/l	90
69)	Ethylbenzene	13.39	91	430001	1.88 ug/l	100
70)	m-Xylene & p-Xylene	13.53	91	626289	3.76 ug/l	100
71)	o-Xylene	14.34	91	310959	1.91 ug/l	99
72)	Styrene	14.41	104	217983	1.87 ug/l	98
74)	Isopropylbenzene	15.02	105	389340	1.84 ug/l	100
75)	Bromoform	15.04	173	24851	1.77 ug/l	97
76)	trans-1,4-Dichloro-2-buten	15.13	53	10443	1.86 ug/l	89
77)	1,1,2,2-Tetrachloroethane	15.36	83	38229	1.82 ug/l	100
79)	1,2,3-Trichloropropane	15.64	110	10088	1.84 ug/l	99
80)	n-Propylbenzene	15.78	91	495530	1.82 ug/l	99
81)	Bromobenzene	15.87	156	75697	1.80 ug/l	96
82)	1,3,5-Trimethylbenzene	16.10	105	297824	1.84 ug/l	100
83)	2-Chlorotoluene	16.12	91	298844	1.86 ug/l	100
84)	4-Chlorotoluene	16.22	91	228504	1.87 ug/l	98

(#) = qualifier out of range (m) = manual integration
RJC040.D VO67J02.M Wed Oct 03 13:53:35 2012

SW 10/5/12

2063

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC040.D Vial: 5
Acq On : 2 Oct 2012 6:21 pm Operator: AS
Sample : VO67J0204 2.0ppb Inst : TO67
Misc : 2ppb 8260/10ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:52 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85)	tert-Butylbenzene	16.79	134	76436	1.80 ug/l	94
86)	1,2,4-Trimethylbenzene	16.86	105	272216	1.83 ug/l	99
87)	sec-Butylbenzene	17.20	105	438539	1.85 ug/l	99
88)	p-Isopropyltoluene	17.48	119	328877	1.82 ug/l	98
89)	1,3-Dichlorobenzene	17.65	146	148325	1.79 ug/l	98
90)	1,4-Dichlorobenzene	17.86	146	139812	1.84 ug/l	99
91)	n-Butylbenzene	18.24	91	289220	1.79 ug/l	99
92)	1,2-Dichlorobenzene	18.48	146	113425	1.85 ug/l	97
93)	1,2-Dibromo-3-chloropropan	19.61	157	5471	1.93 ug/l	94
94)	1,2,4-Trichlorobenzene	20.70	180	58674	1.78 ug/l	98
95)	Hexachlorobutadiene	20.88	225	48600	1.86 ug/l	98
96)	Naphthalene	21.04	128	75991	1.81 ug/l	99
97)	1,2,3-Trichlorobenzene	21.36	180	43503	1.82 ug/l	97

SU 10/5/12

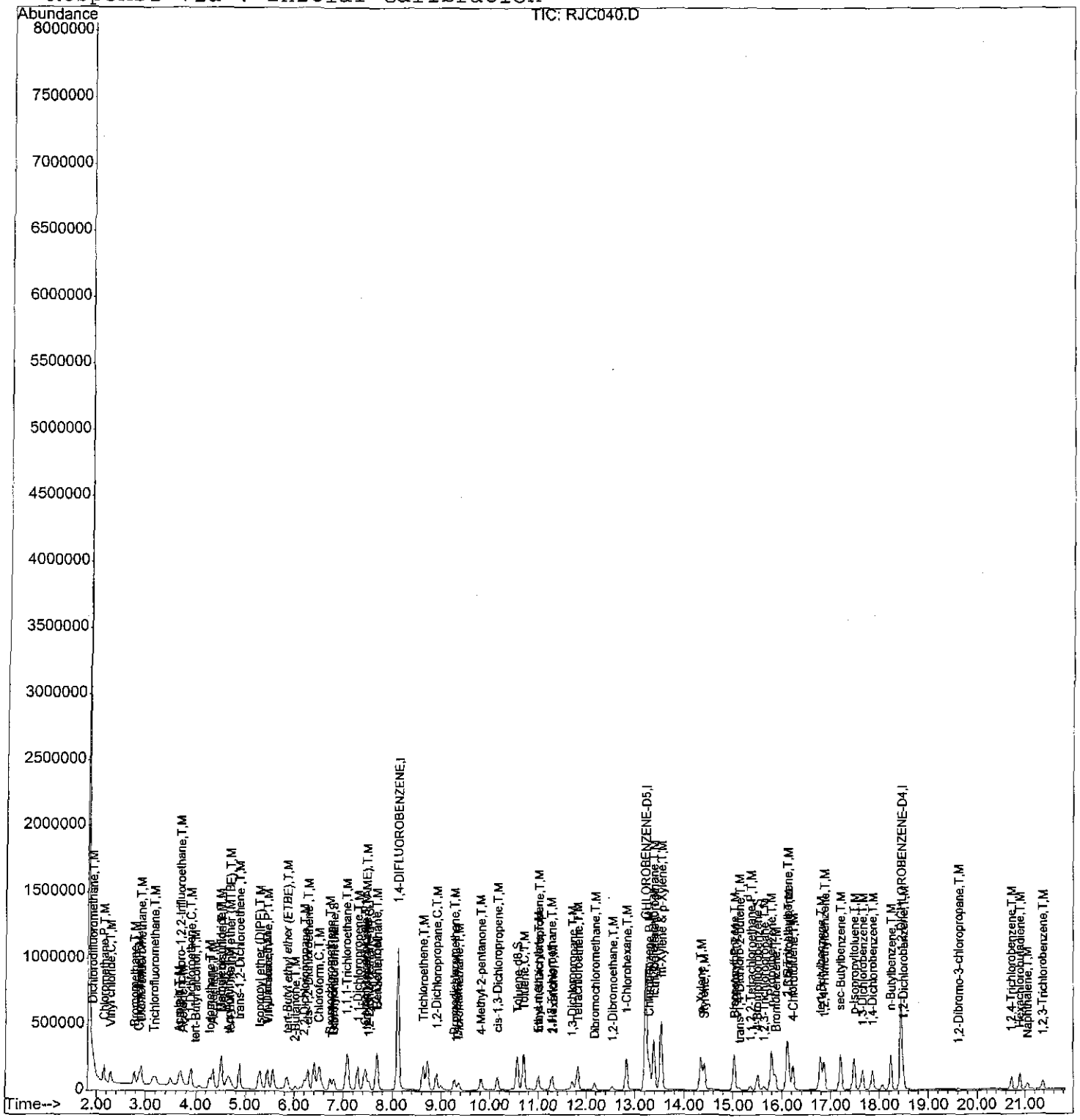
(#) = qualifier out of range (m) = manual integration

2064

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J02\RJC040.D Vial: 5
Acq On : 2 Oct 2012 6:21 pm Operator: AS
Sample : VO67J0204 2.0ppb Inst : TO67
Misc : 2ppb 8260/10ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:52 2012 Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:52:48 2012
Response via : Initial Calibration



SA 10/5/12

2065

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC041.D Vial: 6
Acq On : 2 Oct 2012 6:50 pm Operator: AS
Sample : VO67J0205 5.0ppb Inst : TO67
Misc : 5ppb 8260/25ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:54 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.11	114	1593923	10.00 ug/l	0.00
41) CHLOROBENZENE-D5	13.23	117	1171204	10.00 ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.44	152	370659	10.00 ug/l	0.00
System Monitoring Compounds					
35) Dibromofluoromethane	6.81	111	223436	5.41 ug/l	0.00
Spiked Amount 10.000			Recovery	= 54.10%	
40) 1,2-Dichloroethane-d4	7.53	65	133022	5.12 ug/l	0.00
Spiked Amount 10.000			Recovery	= 51.20%	
56) Toluene-d8	10.55	98	898067	5.49 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 54.90%	
78) 4-Bromofluorobenzene	15.49	95	228333	5.09 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 50.90%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.91	85	288605	5.74 ug/l	99
4) Chloromethane	2.14	50	486885	5.74 ug/l	99
5) Vinyl chloride	2.27	62	438393	6.03 ug/l	99
6) Bromomethane	2.77	94	258005	5.59 ug/l	99
7) Chloroethane	2.86	64	265096	5.69 ug/l	99
8) Dichlorofluoromethane	2.90	67	576400	5.33 ug/l	98
9) Trichlorofluoromethane	3.16	101	351730	5.83 ug/l	99
11) Acrolein	3.64	56	66329	26.07 ug/l	98
12) 1,1,2-Trichloro-1,2,2-trif	3.69	151	210242	5.23 ug/l	99
13) Acetone	3.72	43	116018	29.60 ug/l	95
14) 1,1-Dichloroethene	3.88	61	499789	5.38 ug/l	99
15) tert-Butyl alcohol	3.98	59	28670	27.46 ug/l	92
17) Iodomethane	4.27	142	460164	5.33 ug/l	100
18) Acetonitrile	4.35	41	516782	54.37 ug/l	100
19) Methylene chloride	4.49	49	327001	4.93 ug/l	99
20) Carbon disulfide	4.51	76	1150178	5.82 ug/l	99
21) Acrylonitrile	4.65	53	152225	25.59 ug/l	99
22) tert-Butyl methyl ether (M	4.68	73	277692	5.21 ug/l	96
23) trans-1,2-Dichloroethene	4.87	61	464485	5.34 ug/l	100
24) Isopropyl ether (DIPE)	5.28	45	781019	5.20 ug/l	100
25) 1,1-Dichloroethane	5.44	63	517936	5.28 ug/l	100
26) Vinyl acetate	5.44	43	262724	5.29 ug/l	99
28) tert-Butyl ethyl ether (ET	5.85	59	499501	5.32 ug/l	99
29) 2-Butanone	6.01	43	173230	24.58 ug/l	99
30) 2,2-Dichloropropane	6.20	77	253523	5.35 ug/l	100
31) cis-1,2-Dichloroethene	6.27	96	300556	5.30 ug/l	99
32) Chloroform	6.49	83	399689	5.33 ug/l	99

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

SU 10/5/12

2066

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC041.D Vial: 6
Acq On : 2 Oct 2012 6:50 pm Operator: AS
Sample : VO67J0205 5.0ppb Inst : TO67
Misc : 5ppb 8260/25ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:54 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33)	Bromochloromethane	6.73	49	183971	5.37 ug/l	97
36)	Tetrahydrofuran	6.79	42	28954	5.59 ug/l	99
37)	1,1,1-Trichloroethane	7.06	97	339692	5.38 ug/l	99
39)	tert-Amyl methyl ether (TA	7.47	87	72909	5.29 ug/l	94
43)	1,1-Dichloropropene	7.30	110	159147	5.40 ug/l	99
44)	Carbon tetrachloride	7.44	119	322081	5.42 ug/l	99
45)	1,2-Dichloroethane	7.68	62	163638	5.32 ug/l	99
46)	Benzene	7.69	78	1087340	5.33 ug/l	100
47)	Trichloroethene	8.63	130	327043	5.28 ug/l	100
49)	1,2-Dichloropropane	8.90	63	261637	5.41 ug/l	99
50)	Bromodichloromethane	9.27	83	248816	5.31 ug/l	99
51)	1,4-Dioxane	9.31	88	14071	105.78 ug/l	92
52)	Dibromomethane	9.36	93	90708	5.41 ug/l	97
54)	4-Methyl-2-pentanone	9.81	43	406975	25.56 ug/l	100
55)	cis-1,3-Dichloropropene	10.16	75	321625	5.38 ug/l	100
57)	Toluene	10.70	91	1092523	5.38 ug/l	100
58)	Ethyl methacrylate	10.99	69	120394	5.07 ug/l	97
59)	trans-1,3-Dichloropropene	11.01	75	203046	5.30 ug/l	100
60)	1,1,2-Trichloroethane	11.28	97	108345	5.24 ug/l	99
61)	2-Hexanone	11.30	43	241462	25.32 ug/l	99
62)	1,3-Dichloropropane	11.72	76	215698	5.30 ug/l	98
63)	Tetrachloroethene	11.82	164	258523	5.35 ug/l	99
64)	Dibromochloromethane	12.17	129	153316	5.30 ug/l	98
65)	1,2-Dibromoethane	12.54	107	107112	5.30 ug/l	100
66)	1-Chlorohexane	12.83	91	457273	5.25 ug/l	99
67)	Chlorobenzene	13.28	112	606885	5.25 ug/l	99
68)	1,1,1,2-Tetrachloroethane	13.37	131	192388	5.36 ug/l	99
69)	Ethylbenzene	13.39	91	1155018	5.33 ug/l	100
70)	m-Xylene & p-Xylene	13.53	91	1676676	10.62 ug/l	99
71)	o-Xylene	14.34	91	809097	5.24 ug/l	98
72)	Styrene	14.41	104	582781	5.29 ug/l	98
74)	Isopropylbenzene	15.02	105	1062659	5.31 ug/l	100
75)	Bromoform	15.04	173	68174	5.15 ug/l	99
76)	trans-1,4-Dichloro-2-buten	15.12	53	26585	5.01 ug/l	99
77)	1,1,2,2-Tetrachloroethane	15.36	83	101365	5.12 ug/l	98
79)	1,2,3-Trichloropropane	15.64	110	26074	5.03 ug/l	94
80)	n-Propylbenzene	15.78	91	1353673	5.25 ug/l	99
81)	Bromobenzene	15.87	156	204773	5.15 ug/l	97
82)	1,3,5-Trimethylbenzene	16.09	105	803877	5.25 ug/l	100
83)	2-Chlorotoluene	16.12	91	786304	5.18 ug/l	99
84)	4-Chlorotoluene	16.22	91	592703	5.13 ug/l	99

(#) = qualifier out of range (m) = manual integration
RJC041.D VO67J02.M Wed Oct 03 13:57:06 2012

SU 10/5/12

2067

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC041.D Vial: 6
Acq On : 2 Oct 2012 6:50 pm Operator: AS
Sample : VO67J0205 5.0ppb Inst : TO67
Misc : 5ppb 8260/25ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:54 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85)	tert-Butylbenzene	16.79	134	217041	5.42 ug/l	100
86)	1,2,4-Trimethylbenzene	16.86	105	734425	5.23 ug/l	99
87)	sec-Butylbenzene	17.20	105	1189100	5.30 ug/l	100
88)	p-Isopropyltoluene	17.48	119	926895	5.42 ug/l	99
89)	1,3-Dichlorobenzene	17.65	146	404820	5.18 ug/l	100
90)	1,4-Dichlorobenzene	17.86	146	382644	5.32 ug/l	99
91)	n-Butylbenzene	18.24	91	818742	5.35 ug/l	100
92)	1,2-Dichlorobenzene	18.48	146	307304	5.30 ug/l	100
93)	1,2-Dibromo-3-chloropropan	19.61	157	14745	5.51 ug/l	98
94)	1,2,4-Trichlorobenzene	20.70	180	164910	5.30 ug/l	99
95)	Hexachlorobutadiene	20.88	225	138544	5.61 ug/l	98
96)	Naphthalene	21.04	128	203517	5.13 ug/l	100
97)	1,2,3-Trichlorobenzene	21.36	180	120742	5.34 ug/l	99

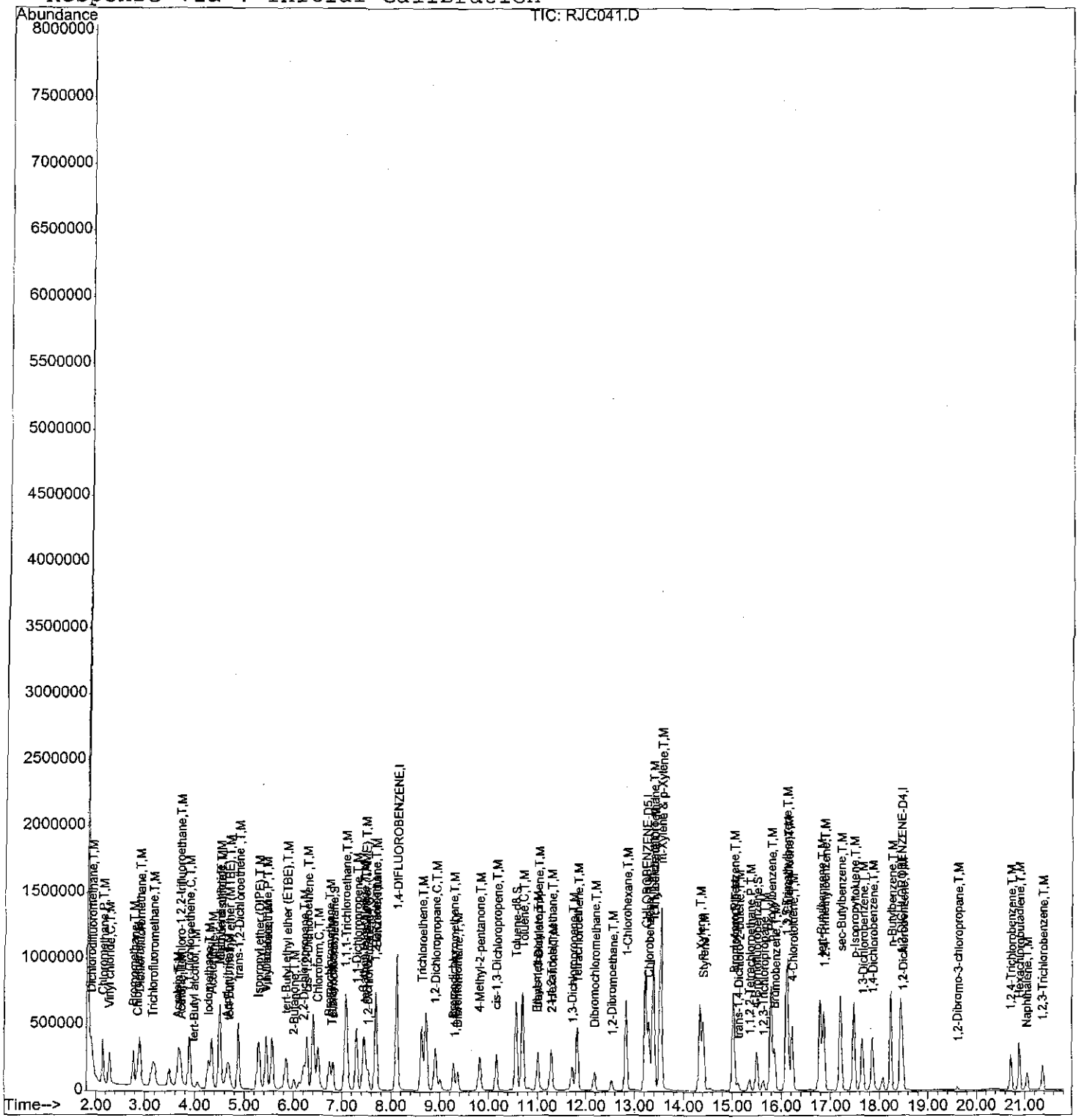
ek 10/5/12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J02\RJC041.D Vial: 6
Acq On : 2 Oct 2012 6:50 pm Operator: AS
Sample : VO67J0205 5.0ppb Inst : TO67
Misc : 5ppb 8260/25ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:54 2012 Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:54:58 2012
Response via : Initial Calibration



SU 10/5/12

2669

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC042.D Vial: 7
Acq On : 2 Oct 2012 7:21 pm Operator: AS
Sample : VO67J0206 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:59 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.11	114	1596835	10.00 ug/l	0.00
41) CHLOROBENZENE-D5	13.22	117	1202009	10.00 ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.44	152	376608	10.00 ug/l	0.00
System Monitoring Compounds					
35) Dibromofluoromethane	6.81	111	399984	9.67 ug/l	0.00
Spiked Amount 10.000			Recovery	= 96.70%	
40) 1,2-Dichloroethane-d4	7.53	65	246286	9.47 ug/l	0.00
Spiked Amount 10.000			Recovery	= 94.70%	
56) Toluene-d8	10.56	98	1602199	9.55 ug/l	0.00
Spiked Amount 10.000			Recovery	= 95.50%	
78) 4-Bromofluorobenzene	15.50	95	412914	9.06 ug/l	0.00
Spiked Amount 10.000			Recovery	= 90.60%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.92	85	532139	10.56 ug/l	100
4) Chloromethane	2.14	50	910172	10.71 ug/l	100
5) Vinyl chloride	2.28	62	786472	10.80 ug/l	100
6) Bromomethane	2.77	94	481140	10.41 ug/l	100
7) Chloroethane	2.87	64	483493	10.37 ug/l	100
8) Dichlorofluoromethane	2.91	67	1104643	10.19 ug/l	100
9) Trichlorofluoromethane	3.16	101	641092	10.61 ug/l	100
11) Acrolein	3.66	56	134811	52.89 ug/l	100
12) 1,1,2-Trichloro-1,2,2-trif	3.69	151	394092	9.78 ug/l	100
13) Acetone	3.73	43	192602	49.05 ug/l	100
14) 1,1-Dichloroethene	3.89	61	946995	10.18 ug/l	100
15) tert-Butyl alcohol	3.98	59	54201	51.82 ug/l	100
17) Iodomethane	4.27	142	884697	10.22 ug/l	100
18) Acetonitrile	4.34	41	993148	104.30 ug/l	100
19) Methylene chloride	4.49	49	618671	9.32 ug/l	100
20) Carbon disulfide	4.50	76	2035139	10.27 ug/l	100
21) Acrylonitrile	4.65	53	313917	52.66 ug/l	100
22) tert-Butyl methyl ether (M	4.69	73	550060	10.29 ug/l	100
23) trans-1,2-Dichloroethene	4.87	61	902099	10.35 ug/l	100
24) Isopropyl ether (DIPE)	5.29	45	1542109	10.25 ug/l	100
25) 1,1-Dichloroethane	5.44	63	988402	10.05 ug/l	100
26) Vinyl acetate	5.44	43	528356	10.61 ug/l	100
28) tert-Butyl ethyl ether (ET	5.85	59	971649	10.33 ug/l	100
29) 2-Butanone	6.01	43	360259	51.03 ug/l	100
30) 2,2-Dichloropropane	6.21	77	479159	10.10 ug/l	100
31) cis-1,2-Dichloroethene	6.27	96	584519	10.28 ug/l	100
32) Chloroform	6.50	83	789288	10.50 ug/l	100

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

SU 10/5/12

2078

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC042.D Vial: 7
Acq On : 2 Oct 2012 7:21 pm Operator: AS
Sample : VO67J0206 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:59 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33) Bromochloromethane	6.72	49	356073	10.37 ug/l	100
36) Tetrahydrofuran	6.78	42	54415	10.49 ug/l	100
37) 1,1,1-Trichloroethane	7.07	97	644472	10.19 ug/l	100
39) tert-Amyl methyl ether (TA	7.47	87	143809	10.42 ug/l	100
43) 1,1-Dichloropropene	7.29	110	304153	10.05 ug/l	100
44) Carbon tetrachloride	7.44	119	606525	9.94 ug/l	100
45) 1,2-Dichloroethane	7.67	62	318634	10.09 ug/l	100
46) Benzene	7.69	78	2069256	9.88 ug/l	100
47) Trichloroethene	8.62	130	625273	9.84 ug/l	100
49) 1,2-Dichloropropane	8.90	63	491031	9.89 ug/l	100
50) Bromodichloromethane	9.27	83	498741	10.37 ug/l	100
51) 1,4-Dioxane	9.29	88	27673	202.71 ug/l	100
52) Dibromomethane	9.35	93	182619	10.61 ug/l	100
54) 4-Methyl-2-pentanone	9.81	43	840768	51.45 ug/l	100
55) cis-1,3-Dichloropropene	10.16	75	630807	10.29 ug/l	100
57) Toluene	10.70	91	2085371	10.00 ug/l	100
58) Ethyl methacrylate	10.99	69	248318	10.20 ug/l	100
59) trans-1,3-Dichloropropene	11.00	75	405971	10.32 ug/l	100
60) 1,1,2-Trichloroethane	11.28	97	217089	10.24 ug/l	100
61) 2-Hexanone	11.28	43	502344	51.33 ug/l	100
62) 1,3-Dichloropropane	11.72	76	425398	10.18 ug/l	100
63) Tetrachloroethene	11.82	164	493672	9.96 ug/l	100
64) Dibromochloromethane	12.17	129	300612	10.13 ug/l	100
65) 1,2-Dibromoethane	12.54	107	214623	10.34 ug/l	100
66) 1-Chlorohexane	12.83	91	889227	9.96 ug/l	100
67) Chlorobenzene	13.30	112	1209756	10.19 ug/l	100
68) 1,1,1,2-Tetrachloroethane	13.37	131	370691	10.06 ug/l	100
69) Ethylbenzene	13.38	91	2229094	10.03 ug/l	100
70) m-Xylene & p-Xylene	13.53	91	3265628	20.15 ug/l	100
71) o-Xylene	14.33	91	1592231	10.05 ug/l	100
72) Styrene	14.41	104	1159424	10.25 ug/l	100
74) Isopropylbenzene	15.02	105	2048412	10.07 ug/l	100
75) Bromoform	15.03	173	136793	10.17 ug/l	100
76) trans-1,4-Dichloro-2-buten	15.12	53	51983	9.64 ug/l	100
77) 1,1,2,2-Tetrachloroethane	15.36	83	202055	10.04 ug/l	100
79) 1,2,3-Trichloropropane	15.63	110	52220	9.92 ug/l	100
80) n-Propylbenzene	15.78	91	2623429	10.02 ug/l	100
81) Bromobenzene	15.87	156	404410	10.00 ug/l	100
82) 1,3,5-Trimethylbenzene	16.10	105	1583617	10.17 ug/l	100
83) 2-Chlorotoluene	16.11	91	1523967	9.88 ug/l	100
84) 4-Chlorotoluene	16.22	91	1167266	9.95 ug/l	100

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

SM 10/5/12

2971

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC042.D Vial: 7
Acq On : 2 Oct 2012 7:21 pm Operator: AS
Sample : VO67J0206 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:59 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85)	tert-Butylbenzene	16.79	134	409122	10.05 ug/l	100
86)	1,2,4-Trimethylbenzene	16.86	105	1415956	9.92 ug/l	100
87)	sec-Butylbenzene	17.20	105	2295510	10.07 ug/l	100
88)	p-Isopropyltoluene	17.47	119	1757739	10.11 ug/l	100
89)	1,3-Dichlorobenzene	17.65	146	799467	10.07 ug/l	100
90)	1,4-Dichlorobenzene	17.85	146	730278	10.00 ug/l	100
91)	n-Butylbenzene	18.23	91	1567394	10.09 ug/l	100
92)	1,2-Dichlorobenzene	18.48	146	588786	9.99 ug/l	100
93)	1,2-Dibromo-3-chloropropan	19.62	157	28479	10.47 ug/l	100
94)	1,2,4-Trichlorobenzene	20.70	180	323845	10.24 ug/l	100
95)	Hexachlorobutadiene	20.88	225	259149	10.33 ug/l	100
96)	Naphthalene	21.04	128	403055	10.00 ug/l	100
97)	1,2,3-Trichlorobenzene	21.36	180	237344	10.32 ug/l	100

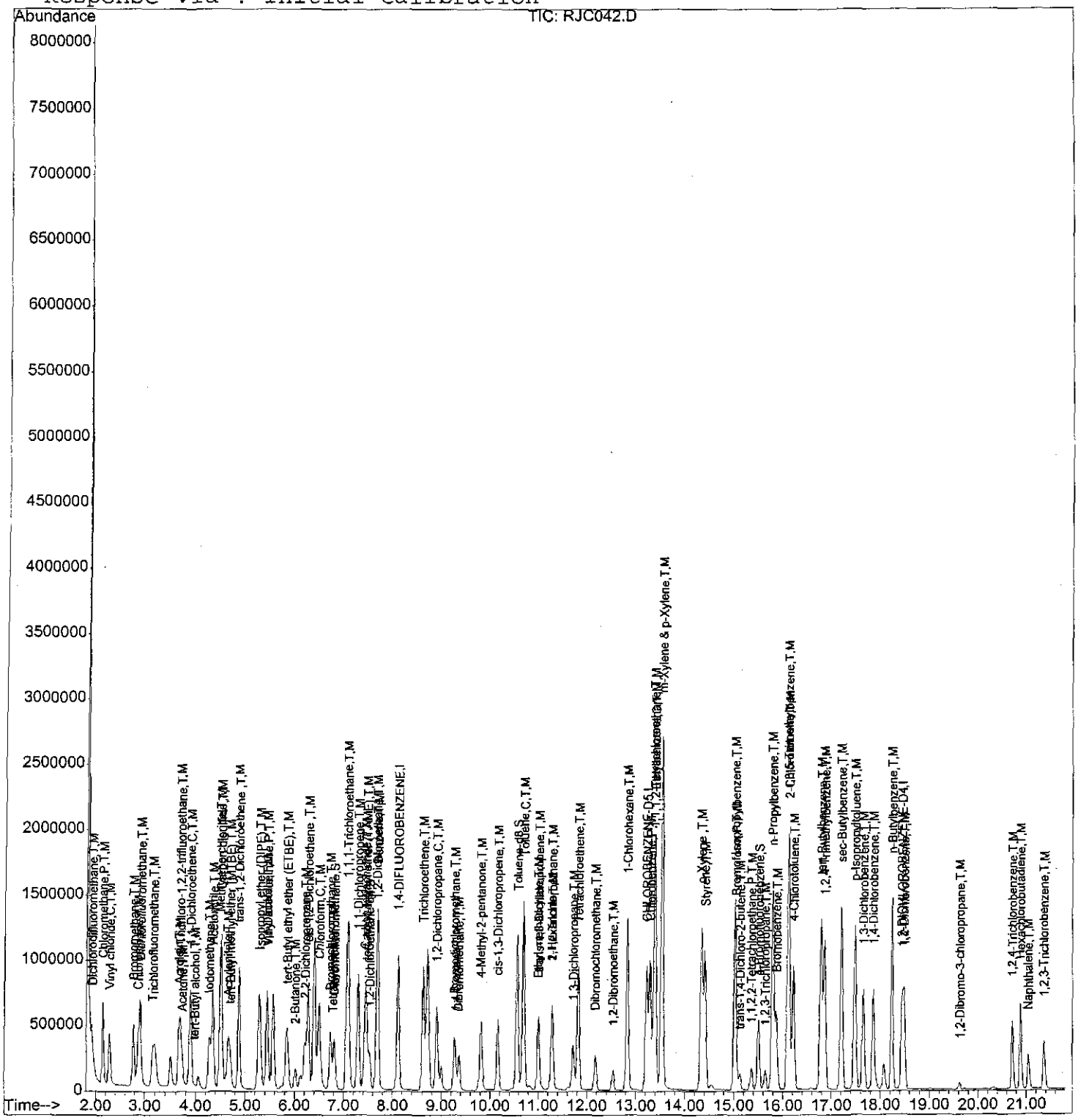
SW 10/5/12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J02\RJC042.D Vial: 7
Acq On : 2 Oct 2012 7:21 pm Operator: AS
Sample : VO67J0206 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 13:59 2012 Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:59:53 2012
Response via : Initial Calibration



SU 10/5/12

2073

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC043.D Vial: 8
Acq On : 2 Oct 2012 7:53 pm Operator: AS
Sample : VO67J0207 20ppb Inst : TO67
Misc : 20ppb 8260/100ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:02 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.11	114	1493828	10.00 ug/l	0.00
41) CHLOROBENZENE-D5	13.21	117	1119454	10.00 ug/l	-0.01
73) 1,2-DICHLOROBENZENE-D4	18.44	152	353186	10.00 ug/l	0.00
System Monitoring Compounds					
35) Dibromofluoromethane	6.80	111	845105	21.85 ug/l	-0.01
Spiked Amount 10.000			Recovery = 218.50%		
40) 1,2-Dichloroethane-d4	7.53	65	513440	21.10 ug/l	0.00
Spiked Amount 10.000			Recovery = 211.00%		
56) Toluene-d8	10.55	98	3364361	21.53 ug/l	-0.01
Spiked Amount 10.000			Recovery = 215.30%		
78) 4-Bromofluorobenzene	15.49	95	865762	20.26 ug/l	-0.01
Spiked Amount 10.000			Recovery = 202.60%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.91	85	1023254	21.71 ug/l	100
4) Chloromethane	2.14	50	1766744	22.21 ug/l	100
5) Vinyl chloride	2.27	62	1440490	21.14 ug/l	100
6) Bromomethane	2.77	94	915485	21.18 ug/l	98
7) Chloroethane	2.85	64	916887	21.01 ug/l	98
8) Dichlorofluoromethane	2.90	67	2134617	21.06 ug/l	100
9) Trichlorofluoromethane	3.15	101	1232801	21.82 ug/l	100
11) Acrolein	3.64	56	256143	107.42 ug/l	100
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	773794	20.53 ug/l	98
13) Acetone	3.72	43	371117	101.03 ug/l	97
14) 1,1-Dichloroethene	3.88	61	1836037	21.10 ug/l	99
15) tert-Butyl alcohol	3.96	59	99330	101.52 ug/l	99
17) Iodomethane	4.26	142	1727358	21.34 ug/l	100
18) Acetonitrile	4.33	41	1825073	204.88 ug/l	100
19) Methylene chloride	4.48	49	1180898	19.02 ug/l	99
20) Carbon disulfide	4.49	76	4290817	23.15 ug/l	100
21) Acrylonitrile	4.64	53	638889	114.58 ug/l	99
22) tert-Butyl methyl ether (M	4.68	73	1051683	21.04 ug/l	99
23) trans-1,2-Dichloroethene	4.86	61	1704004	20.89 ug/l	100
24) Isopropyl ether (DIPE)	5.26	45	2972300	21.12 ug/l	100
25) 1,1-Dichloroethane	5.42	63	1907436	20.73 ug/l	100
26) Vinyl acetate	5.42	43	983254	21.11 ug/l	98
28) tert-Butyl ethyl ether (ET	5.83	59	1852093	21.04 ug/l	99
29) 2-Butanone	5.99	43	719170	108.88 ug/l	99
30) 2,2-Dichloropropane	6.20	77	886078	19.97 ug/l	99
31) cis-1,2-Dichloroethene	6.26	96	1117589	21.01 ug/l	99
32) Chloroform	6.49	83	1441439	20.50 ug/l	99

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC043.D Vial: 8
Acq On : 2 Oct 2012 7:53 pm Operator: AS
Sample : VO67J0207 20ppb Inst : TO67
Misc : 20ppb 8260/100ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:02 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33)	Bromochloromethane	6.71	49	675758	21.03 ug/l	98
36)	Tetrahydrofuran	6.77	42	93903	19.35 ug/l	92
37)	1,1,1-Trichloroethane	7.06	97	1234503	20.87 ug/l	99
39)	tert-Amyl methyl ether (TA	7.45	87	280438	21.73 ug/l	99
43)	1,1-Dichloropropene	7.29	110	575857	20.43 ug/l	99
44)	Carbon tetrachloride	7.43	119	1179226	20.76 ug/l	99
45)	1,2-Dichloroethane	7.66	62	625295	21.26 ug/l	98
46)	Benzene	7.69	78	4012874	20.58 ug/l	100
47)	Trichloroethene	8.61	130	1216083	20.55 ug/l	99
49)	1,2-Dichloropropane	8.89	63	936459	20.26 ug/l	98
50)	Bromodichloromethane	9.27	83	947586	21.17 ug/l	99
51)	1,4-Dioxane	9.30	88	55158	433.83 ug/l	93
52)	Dibromomethane	9.35	93	352990	22.02 ug/l	97
54)	4-Methyl-2-pentanone	9.81	43	1681880	110.52 ug/l	99
55)	cis-1,3-Dichloropropene	10.16	75	1216600	21.31 ug/l	100
57)	Toluene	10.68	91	4001798	20.61 ug/l	99
58)	Ethyl methacrylate	10.99	69	492619	21.72 ug/l	100
59)	trans-1,3-Dichloropropene	11.00	75	781417	21.33 ug/l	99
60)	1,1,2-Trichloroethane	11.27	97	418135	21.18 ug/l	98
61)	2-Hexanone	11.28	43	1033976	113.44 ug/l	99
62)	1,3-Dichloropropane	11.71	76	826552	21.23 ug/l	99
63)	Tetrachloroethene	11.81	164	946907	20.52 ug/l	99
64)	Dibromochloromethane	12.17	129	594540	21.50 ug/l	100
65)	1,2-Dibromoethane	12.52	107	420583	21.75 ug/l	100
66)	1-Chlorohexane	12.83	91	1745760	20.99 ug/l	100
67)	Chlorobenzene	13.28	112	2298719	20.79 ug/l	99
68)	1,1,1,2-Tetrachloroethane	13.37	131	716557	20.87 ug/l	98
69)	Ethylbenzene	13.38	91	4292572	20.74 ug/l	99
70)	m-Xylene & p-Xylene	13.53	91	6271027	41.54 ug/l	100
71)	o-Xylene	14.33	91	3077254	20.85 ug/l	99
72)	Styrene	14.41	104	2275440	21.60 ug/l	99
74)	Isopropylbenzene	15.02	105	3965799	20.80 ug/l	100
75)	Bromoform	15.04	173	271324	21.51 ug/l	99
76)	trans-1,4-Dichloro-2-buten	15.12	53	107680	21.29 ug/l	98
77)	1,1,2,2-Tetrachloroethane	15.36	83	398108	21.10 ug/l	99
79)	1,2,3-Trichloropropane	15.63	110	103631	20.99 ug/l	98
80)	n-Propylbenzene	15.78	91	5120217	20.85 ug/l	100
81)	Bromobenzene	15.85	156	785336	20.71 ug/l	99
82)	1,3,5-Trimethylbenzene	16.09	105	2987298	20.46 ug/l	99
83)	2-Chlorotoluene	16.12	91	2924146	20.22 ug/l	99
84)	4-Chlorotoluene	16.22	91	2229136	20.26 ug/l	100

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC043.D Vial: 8
Acq On : 2 Oct 2012 7:53 pm Operator: AS
Sample : VO67J0207 20ppb Inst : TO67
Misc : 20ppb 8260/100ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:02 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85)	tert-Butylbenzene	16.79	134	791002	20.73 ug/l	99
86)	1,2,4-Trimethylbenzene	16.86	105	2733783	20.42 ug/l	100
87)	sec-Butylbenzene	17.20	105	4430117	20.72 ug/l	100
88)	p-Isopropyltoluene	17.47	119	3433976	21.06 ug/l	100
89)	1,3-Dichlorobenzene	17.65	146	1519598	20.41 ug/l	99
90)	1,4-Dichlorobenzene	17.85	146	1409221	20.57 ug/l	99
91)	n-Butylbenzene	18.23	91	3063261	21.02 ug/l	100
92)	1,2-Dichlorobenzene	18.48	146	1127990	20.40 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.61	157	56134	22.00 ug/l	95
94)	1,2,4-Trichlorobenzene	20.70	180	628904	21.20 ug/l	99
95)	Hexachlorobutadiene	20.88	225	480533	20.42 ug/l	99
96)	Naphthalene	21.04	128	809704	21.42 ug/l	100
97)	1,2,3-Trichlorobenzene	21.36	180	459896	21.33 ug/l	99

SU 10/5/12

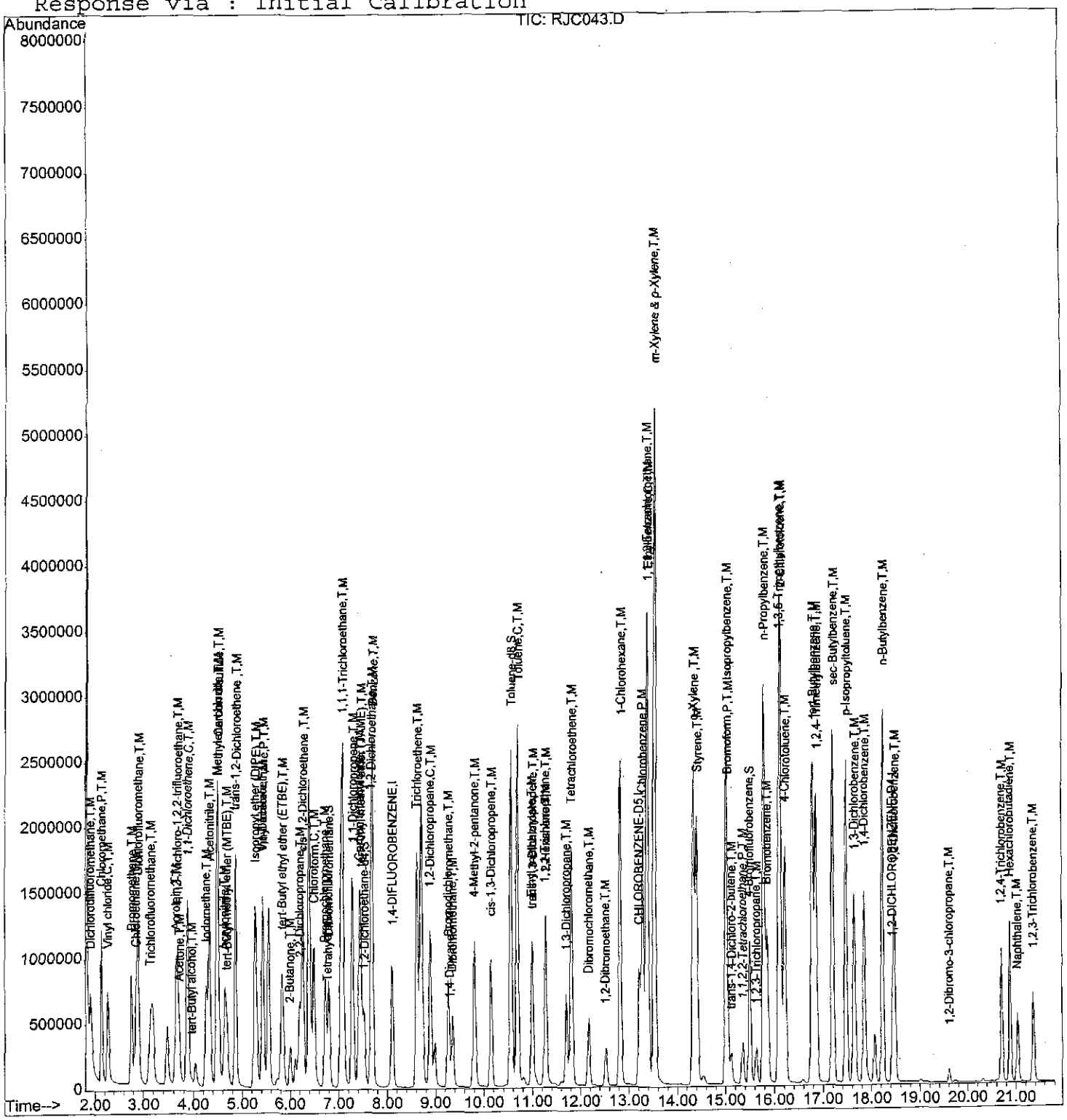
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J02\RJC043.D
Acq On : 2 Oct 2012 7:53 pm
Sample : VO67J0207 20ppb
Misc : 20ppb 8260/100ppb KET-ACR-ACN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:02 2012

Vial: 8
Operator: AS
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:59:53 2012
Response via : Initial Calibration



SU 10/5/12

2677

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC044.D Vial: 9
Acq On : 2 Oct 2012 8:23 pm Operator: AS
Sample : VO67J0208 30ppb Inst : TO67
Misc : 30ppb 8260/150ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:03 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.11	114	1572182	10.00 ug/l	0.00
41) CHLOROBENZENE-D5	13.22	117	1174519	10.00 ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.44	152	356587	10.00 ug/l	0.00
System Monitoring Compounds					
35) Dibromofluoromethane	6.81	111	1239475	30.44 ug/l	0.00
Spiked Amount 10.000			Recovery	= 304.40%	
40) 1,2-Dichloroethane-d4	7.53	65	774451	30.24 ug/l	0.00
Spiked Amount 10.000			Recovery	= 302.40%	
56) Toluene-d8	10.56	98	4947444	30.18 ug/l	0.00
Spiked Amount 10.000			Recovery	= 301.80%	
78) 4-Bromofluorobenzene	15.49	95	1275502	29.56 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 295.60%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.90	85	1553716	31.32 ug/l	99
4) Chloromethane	2.14	50	2560662	30.59 ug/l	100
5) Vinyl chloride	2.27	62	1991577	27.77 ug/l	100
6) Bromomethane	2.77	94	1386588	30.48 ug/l	99
7) Chloroethane	2.85	64	1356435	29.54 ug/l	96
8) Dichlorofluoromethane	2.90	67	3245636	30.42 ug/l	100
9) Trichlorofluoromethane	3.17	101	1856012	31.21 ug/l	99
11) Acrolein	3.66	56	372565	148.46 ug/l	100
12) 1,1,2-Trichloro-1,2,2-trif	3.69	151	1167036	29.43 ug/l	99
13) Acetone	3.73	43	554096	143.32 ug/l	98
14) 1,1-Dichloroethene	3.89	61	2701823	29.50 ug/l	99
15) tert-Butyl alcohol	3.99	59	159455	154.85 ug/l	92
17) Iodomethane	4.27	142	2573158	30.21 ug/l	100
18) Acetonitrile	4.34	41	2818073	300.58 ug/l	99
19) Methylene chloride	4.49	49	1745269	26.70 ug/l	99
20) Carbon disulfide	4.50	76	5974687	30.63 ug/l	99
21) Acrylonitrile	4.65	53	920262	156.81 ug/l	99
22) tert-Butyl methyl ether (M	4.69	73	1591342	30.25 ug/l	99
23) trans-1,2-Dichloroethene	4.87	61	2515815	29.31 ug/l	99
24) Isopropyl ether (DIPE)	5.28	45	4417099	29.82 ug/l	100
25) 1,1-Dichloroethane	5.44	63	2807950	29.00 ug/l	100
26) Vinyl acetate	5.44	43	1559213	31.81 ug/l	100
28) tert-Butyl ethyl ether (ET	5.85	59	2806601	30.30 ug/l	100
29) 2-Butanone	6.01	43	1068660	153.73 ug/l	100
30) 2,2-Dichloropropane	6.21	77	1271750	27.23 ug/l	98
31) cis-1,2-Dichloroethene	6.27	96	1670126	29.84 ug/l	98
32) Chloroform	6.49	83	2176392	29.41 ug/l	99

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

SA 10/5/12

2078

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC044.D Vial: 9
Acq On : 2 Oct 2012 8:23 pm Operator: AS
Sample : VO67J0208 30ppb Inst : TO67
Misc : 30ppb 8260/150ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:03 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33)	Bromochloromethane	6.72	49	1022304	30.23 ug/l	98
36)	Tetrahydrofuran	6.78	42	141294	27.67 ug/l	91
37)	1,1,1-Trichloroethane	7.07	97	1826574	29.34 ug/l	99
39)	tert-Amyl methyl ether (TA	7.47	87	420023	30.92 ug/l	97
43)	1,1-Dichloropropene	7.29	110	871344	29.46 ug/l	100
44)	Carbon tetrachloride	7.44	119	1760938	29.54 ug/l	100
45)	1,2-Dichloroethane	7.67	62	944250	30.60 ug/l	99
46)	Benzene	7.69	78	6019226	29.42 ug/l	100
47)	Trichloroethene	8.62	130	1801510	29.01 ug/l	99
49)	1,2-Dichloropropane	8.90	63	1417388	29.22 ug/l	99
50)	Bromodichloromethane	9.26	83	1446628	30.80 ug/l	98
51)	1,4-Dioxane	9.29	88	86286	646.85 ug/l	93
52)	Dibromomethane	9.35	93	541938	32.22 ug/l	97
54)	4-Methyl-2-pentanone	9.81	43	2552834	159.89 ug/l	99
55)	cis-1,3-Dichloropropene	10.16	75	1839313	30.70 ug/l	99
57)	Toluene	10.70	91	6002891	29.46 ug/l	100
58)	Ethyl methacrylate	10.99	69	771315	32.42 ug/l	99
59)	trans-1,3-Dichloropropene	11.00	75	1222197	31.80 ug/l	98
60)	1,1,2-Trichloroethane	11.27	97	639047	30.85 ug/l	99
61)	2-Hexanone	11.28	43	1540804	161.13 ug/l	99
62)	1,3-Dichloropropane	11.72	76	1270534	31.11 ug/l	99
63)	Tetrachloroethene	11.82	164	1414078	29.21 ug/l	99
64)	Dibromochloromethane	12.17	129	908654	31.32 ug/l	99
65)	1,2-Dibromoethane	12.54	107	655164	32.30 ug/l	100
66)	1-Chlorohexane	12.83	91	2630298	30.14 ug/l	99
67)	Chlorobenzene	13.28	112	3466455	29.88 ug/l	99
68)	1,1,1,2-Tetrachloroethane	13.37	131	1086215	30.16 ug/l	99
69)	Ethylbenzene	13.38	91	6445010	29.68 ug/l	99
70)	m-Xylene & p-Xylene	13.53	91	9343981	58.99 ug/l	99
71)	o-Xylene	14.33	91	4605309	29.74 ug/l	99
72)	Styrene	14.41	104	3394394	30.71 ug/l	100
74)	Isopropylbenzene	15.02	105	5869198	30.48 ug/l	99
75)	Bromoform	15.03	173	417506	32.78 ug/l	100
76)	trans-1,4-Dichloro-2-buten	15.12	53	164981	32.30 ug/l	96
77)	1,1,2,2-Tetrachloroethane	15.36	83	609683	32.01 ug/l	99
79)	1,2,3-Trichloropropane	15.63	110	157678	31.63 ug/l	98
80)	n-Propylbenzene	15.78	91	7665090	30.91 ug/l	100
81)	Bromobenzene	15.85	156	1191714	31.13 ug/l	99
82)	1,3,5-Trimethylbenzene	16.10	105	4462686	30.27 ug/l	99
83)	2-Chlorotoluene	16.11	91	4351844	29.81 ug/l	99
84)	4-Chlorotoluene	16.22	91	3369573	30.34 ug/l	100

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

SU 10/9/12

2073

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC044.D Vial: 9
Acq On : 2 Oct 2012 8:23 pm Operator: AS
Sample : VO67J0208 30ppb Inst : TO67
Misc : 30ppb 8260/150ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:03 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85)	tert-Butylbenzene	16.79	134	1175846	30.52 ug/l	99
86)	1,2,4-Trimethylbenzene	16.86	105	4099434	30.32 ug/l	100
87)	sec-Butylbenzene	17.20	105	6500018	30.10 ug/l	100
88)	p-Isopropyltoluene	17.47	119	4947641	30.06 ug/l	100
89)	1,3-Dichlorobenzene	17.65	146	2277401	30.30 ug/l	100
90)	1,4-Dichlorobenzene	17.85	146	2092404	30.25 ug/l	99
91)	n-Butylbenzene	18.23	91	4434455	30.14 ug/l	100
92)	1,2-Dichlorobenzene	18.48	146	1666157	29.85 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.61	157	79569	30.89 ug/l	97
94)	1,2,4-Trichlorobenzene	20.70	180	903306	30.16 ug/l	99
95)	Hexachlorobutadiene	20.88	225	677318	28.51 ug/l	99
96)	Naphthalene	21.04	128	1207708	31.65 ug/l	99
97)	1,2,3-Trichlorobenzene	21.36	180	678919	31.18 ug/l	100

SU 10/5/12

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

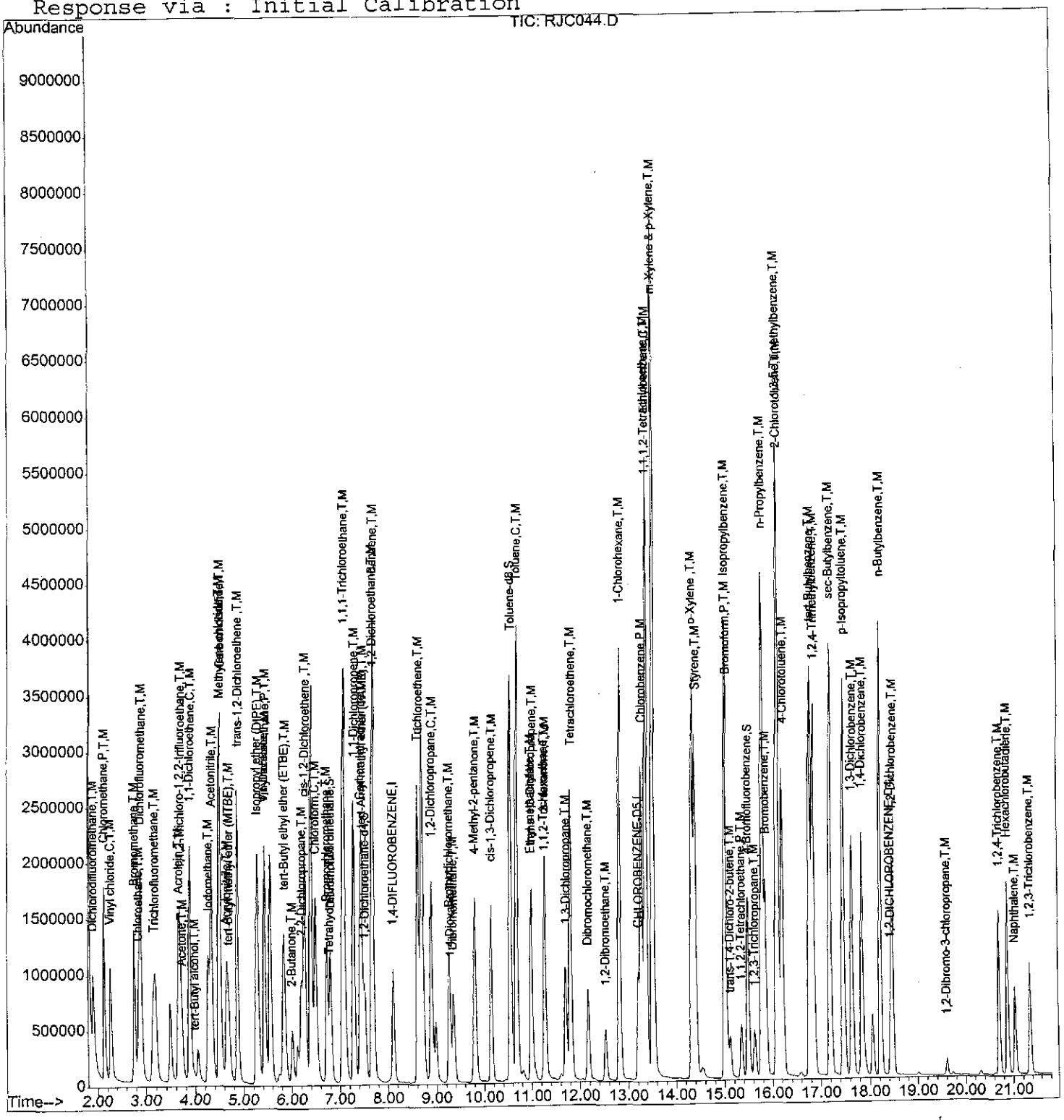
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J02\RJC044.D
Acq On : 2 Oct 2012 8:23 pm
Sample : VO67J0208 30ppb
Misc : 30ppb 8260/150ppb KET-ACR-ACN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:03 2012

Vial: 9
Operator: AS
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:04:10 2012
Response via : Initial Calibration



SW 10/5/12

2081

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC045.D Vial: 10
Acq On : 2 Oct 2012 8:54 pm Operator: AS
Sample : VO67J0209 50ppb Inst : TO67
Misc : 50ppb 8260/250ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:05 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.11	114	1679920	10.00	ug/l	0.00
41) CHLOROBENZENE-D5	13.22	117	1277472	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.44	152	368586	10.00	ug/l	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	6.81	111	2166104	49.79	ug/l	0.00
Spiked Amount 10.000			Recovery	=	497.90%	
40) 1,2-Dichloroethane-d4	7.53	65	1316928	48.13	ug/l	0.00
Spiked Amount 10.000			Recovery	=	481.30%	
56) Toluene-d8	10.55	98	8811560	49.42	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	494.20%	
78) 4-Bromofluorobenzene	15.49	95	2266895	50.83	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	508.30%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.91	85	2677422	50.51	ug/l	100
4) Chloromethane	2.14	50	4641372	51.89	ug/l	100
5) Vinyl chloride	2.26	62	3137325	40.94	ug/l	100
6) Bromomethane	2.77	94	2486053	51.14	ug/l	99
7) Chloroethane	2.85	64	2388358	48.67	ug/l	99
8) Dichlorofluoromethane	2.90	67	5601565	49.13	ug/l	100
9) Trichlorofluoromethane	3.16	101	3294528	51.85	ug/l	99
11) Acrolein	3.64	56	614191	229.04	ug/l	98
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	2012598	47.49	ug/l	98
13) Acetone	3.72	43	890958	215.67	ug/l	98
14) 1,1-Dichloroethene	3.88	61	4686705	47.89	ug/l	99
15) tert-Butyl alcohol	3.98	59	254328	231.15	ug/l	89
17) Iodomethane	4.27	142	4565787	50.16	ug/l	100
18) Acetonitrile	4.34	41	4871653	486.30	ug/l	99
19) Methylene chloride	4.49	49	2995478	42.89	ug/l	99
20) Carbon disulfide	4.50	76	10259026	49.23	ug/l	99
21) Acrylonitrile	4.65	53	1574518	251.09	ug/l	98
22) tert-Butyl methyl ether (M	4.68	73	2747347	48.87	ug/l	99
23) trans-1,2-Dichloroethene	4.87	61	4413389	48.11	ug/l	99
24) Isopropyl ether (DIPE)	5.28	45	7753891	48.98	ug/l	100
25) 1,1-Dichloroethane	5.44	63	4908849	47.44	ug/l	100
26) Vinyl acetate	5.44	43	2694132	51.44	ug/l	99
28) tert-Butyl ethyl ether (ET	5.83	59	4834728	48.84	ug/l	100
29) 2-Butanone	6.01	43	1790563	241.07	ug/l	100
30) 2,2-Dichloropropane	6.21	77	2133702	42.76	ug/l	98
31) cis-1,2-Dichloroethene	6.27	96	2932398	49.03	ug/l	97
32) Chloroform	6.49	83	3865628	48.88	ug/l	99

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

SW 10/5/12

2082

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC045.D Vial: 10
Acq On : 2 Oct 2012 8:54 pm Operator: AS
Sample : VO67J0209 50ppb Inst : TO67
Misc : 50ppb 8260/250ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:05 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33)	Bromochloromethane	6.72	49	1788874	49.51 ug/l	98
36)	Tetrahydrofuran	6.78	42	237739	43.57 ug/l	91
37)	1,1,1-Trichloroethane	7.06	97	3204730	48.17 ug/l	99
39)	tert-Amyl methyl ether (TA	7.47	87	717892	49.46 ug/l	97
43)	1,1-Dichloropropene	7.29	110	1545859	48.05 ug/l	99
44)	Carbon tetrachloride	7.44	119	3066045	47.29 ug/l	100
45)	1,2-Dichloroethane	7.67	62	1610856	48.00 ug/l	99
46)	Benzene	7.69	78	10514266	47.24 ug/l	100
47)	Trichloroethene	8.62	130	3187231	47.19 ug/l	99
49)	1,2-Dichloropropane	8.90	63	2500544	47.40 ug/l	99
50)	Bromodichloromethane	9.27	83	2516054	49.25 ug/l	98
51)	1,4-Dioxane	9.30	88	141356	974.28 ug/l	93
52)	Dibromomethane	9.35	93	925169	50.57 ug/l	98
54)	4-Methyl-2-pentanone	9.81	43	4262200	245.44 ug/l	99
55)	cis-1,3-Dichloropropene	10.16	75	3237026	49.68 ug/l	99
57)	Toluene	10.70	91	10529202	47.51 ug/l	99
58)	Ethyl methacrylate	10.99	69	1329906	51.39 ug/l	99
59)	trans-1,3-Dichloropropene	11.00	75	2115847	50.61 ug/l	98
60)	1,1,2-Trichloroethane	11.27	97	1099827	48.81 ug/l	99
61)	2-Hexanone	11.28	43	2627288	252.60 ug/l	99
62)	1,3-Dichloropropane	11.71	76	2180342	49.08 ug/l	99
63)	Tetrachloroethene	11.82	164	2471116	46.92 ug/l	99
64)	Dibromochloromethane	12.17	129	1570025	49.76 ug/l	99
65)	1,2-Dibromoethane	12.54	107	1126576	51.06 ug/l	99
66)	1-Chlorohexane	12.83	91	4600162	48.46 ug/l	99
67)	Chlorobenzene	13.28	112	6150981	48.75 ug/l	99
68)	1,1,1,2-Tetrachloroethane	13.37	131	1908414	48.72 ug/l	98
69)	Ethylbenzene	13.38	91	11390269	48.22 ug/l	99
70)	m-Xylene & p-Xylene	13.53	91	16402058	95.21 ug/l	98
71)	o-Xylene	14.33	91	8074337	47.93 ug/l	99
72)	Styrene	14.41	104	6019891	50.07 ug/l	99
74)	Isopropylbenzene	15.02	105	10365197	52.08 ug/l	99
75)	Bromoform	15.04	173	716976	54.46 ug/l	100
76)	trans-1,4-Dichloro-2-buten	15.12	53	280320	53.10 ug/l	96
77)	1,1,2,2-Tetrachloroethane	15.36	83	1036434	52.64 ug/l	98
79)	1,2,3-Trichloropropane	15.63	110	267876	51.98 ug/l	98
80)	n-Propylbenzene	15.78	91	13256847	51.72 ug/l	99
81)	Bromobenzene	15.85	156	2081209	52.59 ug/l	99
82)	1,3,5-Trimethylbenzene	16.10	105	7723103	50.68 ug/l	98
83)	2-Chlorotoluene	16.12	91	7589454	50.30 ug/l	98
84)	4-Chlorotoluene	16.22	91	5850257	50.96 ug/l	99

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

3a 10/5/12

2083

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC045.D Vial: 10
Acq On : 2 Oct 2012 8:54 pm Operator: AS
Sample : VO67J0209 50ppb Inst : TO67
Misc : 50ppb 8260/250ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:05 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85)	tert-Butylbenzene	16.79	134	2073539	52.06 ug/l	98
86)	1,2,4-Trimethylbenzene	16.86	105	7131887	51.04 ug/l	99
87)	sec-Butylbenzene	17.20	105	11209925	50.23 ug/l	100
88)	p-Isopropyltoluene	17.47	119	8674127	50.98 ug/l	99
89)	1,3-Dichlorobenzene	17.65	146	3943769	50.76 ug/l	99
90)	1,4-Dichlorobenzene	17.85	146	3649301	51.04 ug/l	99
91)	n-Butylbenzene	18.23	91	7811882	51.36 ug/l	100
92)	1,2-Dichlorobenzene	18.48	146	2828558	49.02 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.61	157	127529	47.90 ug/l	96
94)	1,2,4-Trichlorobenzene	20.70	180	1548901	50.03 ug/l	100
95)	Hexachlorobutadiene	20.88	225	1122974	45.73 ug/l	99
96)	Naphthalene	21.04	128	1982535	50.26 ug/l	99
97)	1,2,3-Trichlorobenzene	21.36	180	1108089	49.24 ug/l	100

Su 10/5/12

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

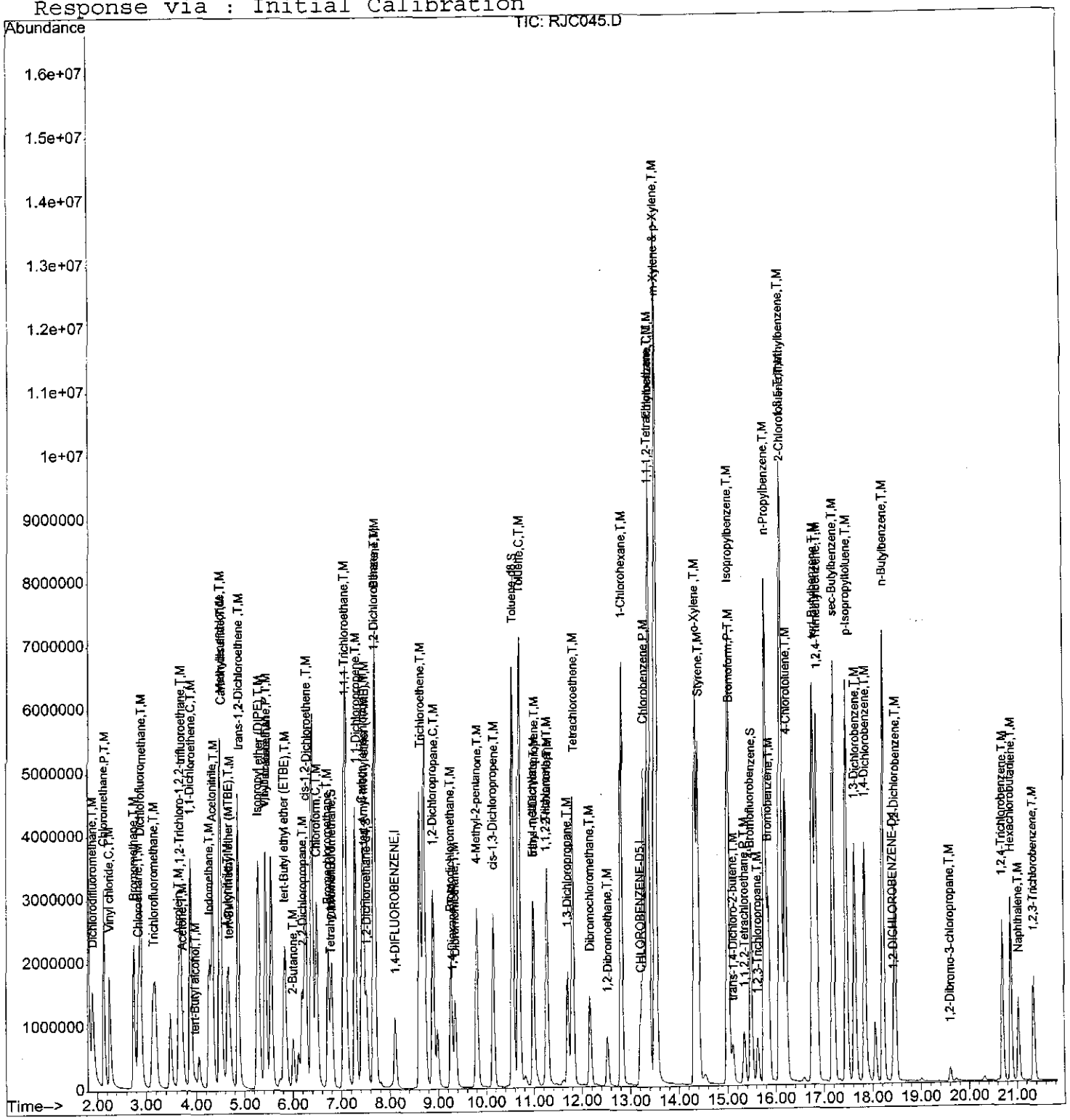
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J02\RJC045.D
Acq On : 2 Oct 2012 8:54 pm
Sample : VO67J0209 50ppb
Misc : 50ppb 8260/250ppb KET-ACR-ACN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:05 2012

Vial: 10
Operator: AS
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:04:10 2012
Response via : Initial Calibration



SU 10/5/12

2665

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC046.D Vial: 11
Acq On : 2 Oct 2012 9:25 pm Operator: AS
Sample : VO67J0210 100ppb Inst : TO67
Misc : 100ppb 8260/500ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:08 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.11	114	1590460	10.00 ug/l	0.00
41) CHLOROBENZENE-D5	13.22	117	1228247	10.00 ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.44	152	360761	10.00 ug/l	0.00
System Monitoring Compounds					
35) Dibromofluoromethane	6.80	111	4255163	103.31 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 1033.10%	
40) 1,2-Dichloroethane-d4	7.53	65	2636899	101.79 ug/l	0.00
Spiked Amount 10.000			Recovery	= 1017.90%	
56) Toluene-d8	10.55	98	16777330	97.87 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 978.70%	
78) 4-Bromofluorobenzene	15.49	95	4274739	97.93 ug/l	-0.01
Spiked Amount 10.000			Recovery	= 979.30%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.90	85	5141572	102.46 ug/l	99
4) Chloromethane	2.14	50	8715404	102.92 ug/l	99
6) Bromomethane	2.75	94	4754020	103.30 ug/l	99
7) Chloroethane	2.85	64	4457429	95.95 ug/l	100
8) Dichlorofluoromethane	2.90	67	10387720	96.24 ug/l	100
9) Trichlorofluoromethane	3.16	101	6341910	105.41 ug/l	100
11) Acrolein	3.64	56	1176721	463.51 ug/l	99
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	3888589	96.92 ug/l	99
13) Acetone	3.72	43	1765969	451.53 ug/l	98
14) 1,1-Dichloroethene	3.88	61	8808700	95.08 ug/l	98
15) tert-Butyl alcohol	3.98	59	525047	504.04 ug/l	94
17) Iodomethane	4.26	142	8629385	100.13 ug/l	100
18) Acetonitrile	4.33	41	9059127	955.16 ug/l	99
19) Methylene chloride	4.48	49	5691259	86.07 ug/l	97
20) Carbon disulfide	4.50	76	19160864	97.12 ug/l	99
21) Acrylonitrile	4.65	53	3161739	532.56 ug/l	99
22) tert-Butyl methyl ether (M	4.68	73	5347148	100.46 ug/l	99
23) trans-1,2-Dichloroethene	4.85	61	8363645	96.31 ug/l	98
24) Isopropyl ether (DIPE)	5.28	45	14833104	98.98 ug/l	100
25) 1,1-Dichloroethane	5.42	63	9355425	95.51 ug/l	100
26) Vinyl acetate	5.44	43	5413406	109.17 ug/l	99
28) tert-Butyl ethyl ether (ET	5.83	59	9303423	99.27 ug/l	100
29) 2-Butanone	6.01	43	3612259	513.68 ug/l	100
30) 2,2-Dichloropropane	6.20	77	3759296	79.57 ug/l	97
31) cis-1,2-Dichloroethene	6.27	96	5580869	98.55 ug/l	97
32) Chloroform	6.49	83	7330315	97.90 ug/l	99
33) Bromochloromethane	6.72	49	3456181	101.03 ug/l	98

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

SM 10/5/12

2086

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC046.D Vial: 11
Acq On : 2 Oct 2012 9:25 pm Operator: AS
Sample : VO67J0210 100ppb Inst : TO67
Misc : 100ppb 8260/500ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:08 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
36)	Tetrahydrofuran	6.77	42	469985	90.98 ug/l	91
37)	1,1,1-Trichloroethane	7.06	97	5946407	94.41 ug/l	99
39)	tert-Amyl methyl ether (TA	7.47	87	1398275	101.76 ug/l	98
43)	1,1-Dichloropropene	7.29	110	2934688	94.87 ug/l	100
44)	Carbon tetrachloride	7.44	119	5832795	93.57 ug/l	99
45)	1,2-Dichloroethane	7.67	62	3101626	96.13 ug/l	100
46)	Benzene	7.69	78	19863592	92.83 ug/l	100
47)	Trichloroethene	8.62	130	6094500	93.85 ug/l	99
49)	1,2-Dichloropropane	8.90	63	4738081	93.42 ug/l	100
50)	Bromodichloromethane	9.27	83	4832463	98.38 ug/l	98
51)	1,4-Dioxane	9.29	88	272967	1956.79 ug/l	95
52)	Dibromomethane	9.35	93	1801149	102.41 ug/l	97
54)	4-Methyl-2-pentanone	9.81	43	8386640	502.30 ug/l	99
55)	cis-1,3-Dichloropropene	10.16	75	6254495	99.83 ug/l	99
57)	Toluene	10.70	91	19705541	92.48 ug/l	98
58)	Ethyl methacrylate	10.99	69	2603785	104.64 ug/l	99
59)	trans-1,3-Dichloropropene	11.00	75	4145278	103.12 ug/l	97
60)	1,1,2-Trichloroethane	11.27	97	2143235	98.93 ug/l	98
61)	2-Hexanone	11.28	43	5139160	513.91 ug/l	100
62)	1,3-Dichloropropane	11.70	76	4232409	99.10 ug/l	99
63)	Tetrachloroethene	11.82	164	4629978	91.44 ug/l	99
64)	Dibromochloromethane	12.17	129	3055596	100.72 ug/l	99
65)	1,2-Dibromoethane	12.54	107	2190909	103.28 ug/l	100
66)	1-Chlorohexane	12.83	91	8658494	94.86 ug/l	98
67)	Chlorobenzene	13.28	112	11632574	95.88 ug/l	99
68)	1,1,1,2-Tetrachloroethane	13.37	131	3599579	95.57 ug/l	98
69)	Ethylbenzene	13.38	91	20684291	91.08 ug/l	98
71)	o-Xylene	14.33	91	14961493	92.38 ug/l	98
72)	Styrene	14.41	104	11281253	97.60 ug/l	99
74)	Isopropylbenzene	15.02	105	19028278	97.68 ug/l	99
75)	Bromoform	15.03	173	1396398	108.37 ug/l	100
76)	trans-1,4-Dichloro-2-buten	15.12	53	541877	104.87 ug/l	98
77)	1,1,2,2-Tetrachloroethane	15.36	83	1997693	103.66 ug/l	99
79)	1,2,3-Trichloropropane	15.63	110	516522	102.40 ug/l	98
80)	n-Propylbenzene	15.78	91	23467754	93.55 ug/l	97
81)	Bromobenzene	15.87	156	3923635	101.30 ug/l	98
82)	1,3,5-Trimethylbenzene	16.10	105	14022358	94.02 ug/l	97
83)	2-Chlorotoluene	16.12	91	13572546	91.90 ug/l	97
84)	4-Chlorotoluene	16.22	91	11066250	98.48 ug/l	100
85)	tert-Butylbenzene	16.79	134	3861610	99.06 ug/l	96
86)	1,2,4-Trimethylbenzene	16.86	105	13156076	96.19 ug/l	98

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

SA 10/5/12

2087

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J02\RJC046.D Vial: 11
Acq On : 2 Oct 2012 9:25 pm Operator: AS
Sample : VO67J0210 100ppb Inst : TO67
Misc : 100ppb 8260/500ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:08 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 13:12:47 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
87) sec-Butylbenzene	17.20	105	20548847	94.07 ug/l	98
88) p-Isopropyltoluene	17.47	119	16159200	97.03 ug/l	99
89) 1,3-Dichlorobenzene	17.65	146	7456130	98.05 ug/l	99
90) 1,4-Dichlorobenzene	17.85	146	6882905	98.36 ug/l	99
91) n-Butylbenzene	18.23	91	14365776	96.50 ug/l	99
92) 1,2-Dichlorobenzene	18.48	146	5521555	97.77 ug/l	99
93) 1,2-Dibromo-3-chloropropan	19.61	157	263933	101.29 ug/l	94
94) 1,2,4-Trichlorobenzene	20.70	180	3043138	100.43 ug/l	99
95) Hexachlorobutadiene	20.88	225	2085554	86.77 ug/l	99
96) Naphthalene	21.04	128	3927433	101.73 ug/l	99
97) 1,2,3-Trichlorobenzene	21.36	180	2093888	95.06 ug/l	99

SW 10/5/12

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

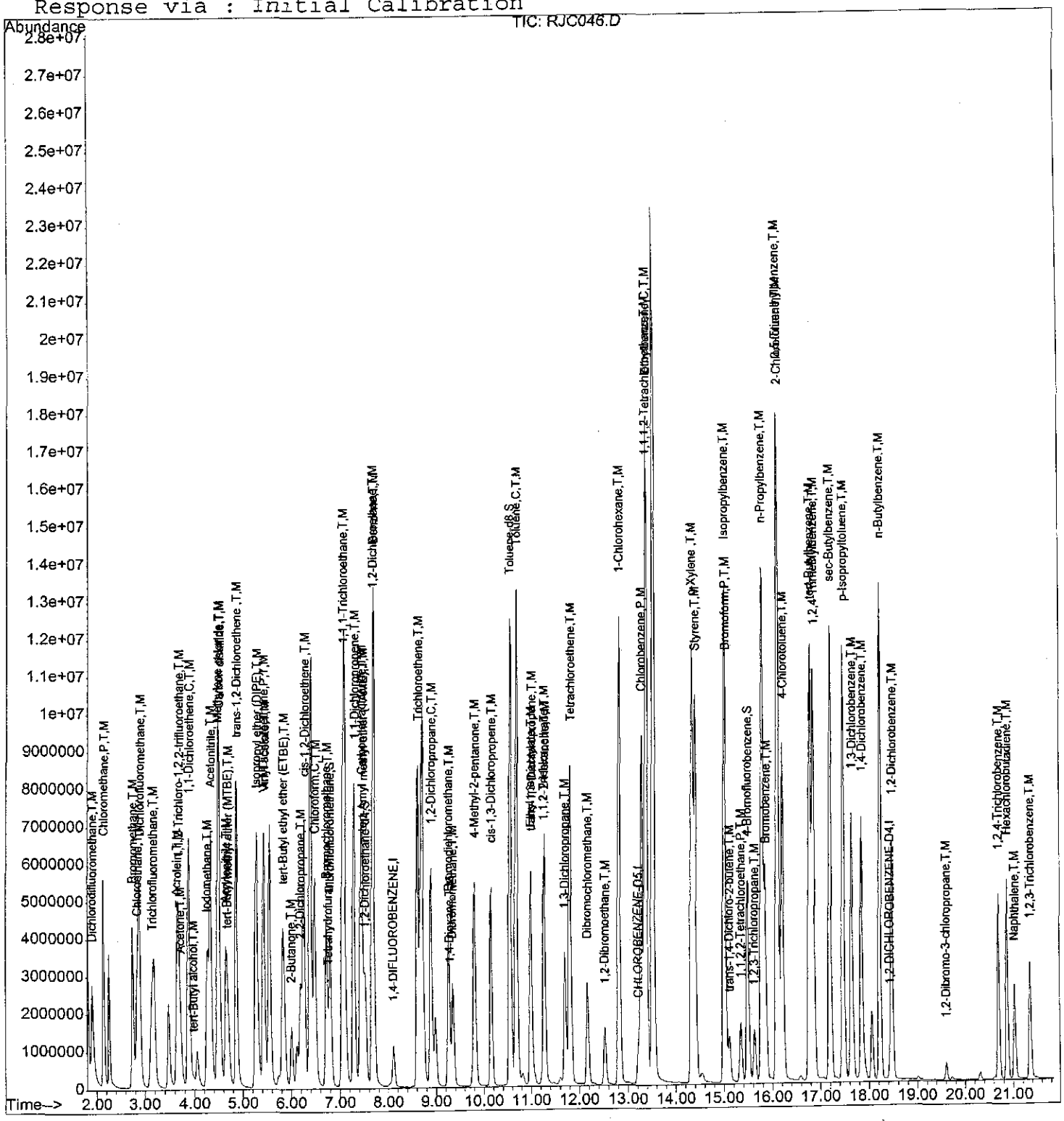
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J02\RJC046.D
Acq On : 2 Oct 2012 9:25 pm
Sample : VO67J0210 100ppb
Misc : 100ppb 8260/500ppb KET-ACR-ACN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:08 2012

Vial: 11
Operator: AS
Inst : TO67
Multiplr: 1.00

Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration



SU 10/5/12

2088

SECOND SOURCE VERIFICATION

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJC053
Instrument ID: 67
GC Column:RTX502.2ID:0.25mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J162
BFB Injection Date : 10/03/12
BFB Injection Time : 11:37
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.68
75	30.0 - 60.0% of mass 95	42.35
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.76
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	86.49
175	5.0 - 9.0% of mass 174	7.06(8.2)1
176	95.0 - 101.0% of mass 174	84.45(97.6)1
177	5.0 - 9.0% of mass 176	6.01(7.1)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	VSTD010	IV067J0202	RJC054	10/03/12	12:17

FORM V VOA OLM02.0

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T067
IC_Beginning DateTime :10/02/12 16:48
Spike Amount :10 PPB
CC/CV File :RJC054
IC File :RJC042

Column Spec :RTX502.2 ID :0.25MM
IC_Ending DateTime :10/02/12 21:25
HPChem Method :V067J02
Date_Time :10/03/12 12:17

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,4-DIFLUOROBENZENE	10.000	0	1513883	1	1	8.099	8.114	0				
	2	Dichlorodifluoromethane	9.161	-8.4	437588	0.289	0.316	1.906	1.908	10.14				
	3	Dichlorotetrafluoroethane												
	4	Chloromethane	10.055	0.6	810461	0.535	0.532	2.125	2.140	11.26				
	5	Vinyl chloride	10.565	5.6	729666	0.482	0.456	2.271	2.272	12.80				
	6	Bromomethane	9.582	-4.2	419768	0.277	0.289	2.753	2.767	8.32				
	7	Chloroethane	9.828	-1.7	434597	0.287	0.292	2.841	2.859	6.81				
	8	Dichlorofluoromethane	9.300	-7.0	955561	0.631	0.679	2.885	2.901	3.98				
	9	Trichlorofluoromethane	10.882	8.8	623198	0.412	0.378	3.147	3.161	11.34				
	10	sec-Propyl alcohol												
5	11	Acrolein	43.809	-12.4	110068	0.015	0.017	3.629	3.648	12.13				
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	10.627	6.3	405871	0.268	0.252	3.659	3.680	4.41				
5	13	Acetone	54.003	8.0	201044	0.027	0.025	3.702	3.721	11.20				
	14	1,1-Dichloroethene	10.114	1.1	891986	0.589	0.583	3.863	3.883	4.27				
5	15	tert-Butyl alcohol	51.227	2.5	50793	0.007	0.007	3.965	3.985	6.72				
	16	Methyl acetate												
	17	Iodomethane	11.925	19.3	978220	0.646	0.542	4.257	4.270	4.92				
10	18	Acetonitrile	109.455	9.5	988136	0.065	0.060	4.316	4.343	4.40				
	19	Methylene chloride	9.645	-3.5	607067	0.401	0.416	4.476	4.489	14.53				
	20	Carbon disulfide	10.950	9.5	2056486	1.358	1.241	4.491	4.505	11.34				
5	21	Acrylonitrile	53.763	7.5	303818	0.040	0.037	4.637	4.653	8.39				
	22	tert-Butyl methyl ether (MTBE)	10.615	6.1	537786	0.355	0.335	4.666	4.688	3.74				
	23	trans-1,2-Dichloroethene	9.821	-1.8	811816	0.536	0.546	4.856	4.869	4.14				
	24	Isopropyl ether (DIPE)	10.511	5.1	1499393	0.990	0.942	5.265	5.283	3.76				
	25	1,1-Dichloroethane	10.156	1.6	947000	0.626	0.616	5.426	5.438	4.13				
	26	Vinyl acetate	9.123	-8.8	430642	0.284	0.312	5.426	5.439	9.14				
5	27	2-Butanol												
	28	tert-Butyl ethyl ether (ETBE)	10.843	8.4	967218	0.639	0.589	5.820	5.843	4.95				
5	29	2-Butanone	52.149	4.3	349243	0.046	0.044	5.995	6.012	10.37				
	30	2,2-Dichloropropane	10.387	3.9	467110	0.309	0.297	6.185	6.208	14.18				
	31	cis-1,2-Dichloroethene	9.326	-6.7	502719	0.332	0.356	6.258	6.272	3.85				
	32	Chloroform	10.612	6.1	756361	0.500	0.471	6.477	6.494	4.50				
	33	Bromochloromethane	10.499	5.0	341866	0.226	0.215	6.711	6.725	5.08				
5	34	tert-Amyl alcohol												
	35	Dibromofluoromethane	10.656	6.6	417794	0.276	0.259	6.784	6.808	5.91				
	36	Tetrahydrofuran	9.489	-5.1	46659	0.031	0.032	6.755	6.779	11.11				
	37	1,1,1-Trichloroethane	10.192	1.9	611014	0.404	0.396	7.047	7.065	4.52				
	38	Cyclohexane												
	39	tert-Amyl methyl ether (TAME)	10.922	9.2	142848	0.094	0.086	7.441	7.465	6.49				
	40	1,2-Dichloroethane-d4	10.454	4.5	257796	0.170	0.163	7.514	7.530	3.47				
	41	CHLOROBENZENE-D5	10.000	0	1151034	1	1	13.196	13.221	0				
	42	2,2,4-Trimethylpentane												
	43	1,1-Dichloropropene	9.666	-3.3	280229	0.243	0.252	7.281	7.296	4.60				
	44	Carbon tetrachloride	9.973	-0.3	582617	0.506	0.508	7.427	7.441	4.62				

SK
10/5/12

	45	1,2-Dichloroethane	10.665	6.6	322500	0.280	0.263	7.646	7.673	4.37				
	46	Benzene	9.804	-2.0	1966114	1.708	1.742	7.675	7.690	4.47				
	47	Trichloroethene	9.879	-1.2	601239	0.522	0.529	8.595	8.624	5.12				
	48	Methylcyclohexane												
	49	1,2-Dichloropropane	9.814	-1.9	466522	0.405	0.413	8.873	8.900	5.20				
	50	Bromodichloromethane	10.146	1.5	467077	0.406	0.400	9.252	9.268	5.15				
	51	1,4-Dioxane	209.090	4.5	27334	0.001	0.001	9.281	9.300	9.01				
	52	Dibromomethane	10.614	6.1	174950	0.152	0.143	9.340	9.357	8.66				
	53	2-Chloroethyl vinyl ether												
	54	4-Methyl-2-pentanone	55.396	10.8	866794	0.151	0.136	9.793	9.813	7.40				
	55	cis-1,3-Dichloropropene	10.479	4.8	615277	0.535	0.510	10.143	10.157	5.38				
	56	Toluene-d8	10.390	3.9	1669266	1.450	1.396	10.538	10.560	5.21				
	57	Toluene	9.702	-3.0	1937553	1.683	1.735	10.669	10.698	4.73				
	58	Ethyl methacrylate	10.711	7.1	249783	0.217	0.203	10.976	10.994	7.11				
	59	trans-1,3-Dichloropropene	10.679	6.8	402297	0.350	0.327	10.990	11.006	6.84				
	60	1,1,2-Trichloroethane	10.626	6.3	215751	0.187	0.176	11.253	11.273	3.89				
	61	2-Hexanone	53.154	6.3	498138	0.087	0.081	11.268	11.290	8.81				
	62	1,3-Dichloropropane	10.310	3.1	412679	0.359	0.348	11.691	11.713	4.60				
	63	Tetrachloroethene	9.947	-0.5	471995	0.410	0.412	11.794	11.822	6.42				
	64	Dibromochloromethane	10.356	3.6	294437	0.256	0.247	12.159	12.174	5.51				
	65	1,2-Dibromoethane	10.265	2.7	204065	0.177	0.173	12.509	12.535	7.86				
	66	1-Chlorohexane	10.463	4.6	894977	0.778	0.743	12.816	12.831	5.04				
	67	Chlorobenzene	10.228	2.3	1162907	1.010	0.988	13.269	13.286	3.46				
	68	1,1,1,2-Tetrachloroethane	10.198	2.0	359992	0.313	0.307	13.356	13.372	4.38				
	69	Ethylbenzene	9.930	-0.7	2113523	1.836	1.849	13.371	13.386	5.00				
	70	m-Xylene & p-Xylene	19.509	-2.5	3028347	1.315	1.349	13.517	13.533	3.92				
	71	o-Xylene	9.709	-2.9	1473592	1.280	1.319	14.320	14.336	4.38				
	72	Styrene	10.382	3.8	1124663	0.977	0.941	14.393	14.409	5.00				
	73	1,2-DICHLOROBENZENE-D4	10.000	0	367484	1	1	18.424	18.440	0				
	74	Isopropylbenzene	10.369	3.7	2057680	5.599	5.400	15.007	15.022	4.23				
	75	Bromoform	10.281	2.8	134948	0.367	0.357	15.021	15.035	10.22				
	76	trans-1,4-Dichloro-2-butene	10.371	3.7	54593	0.149	0.143	15.109	15.122	7.98				
	77	1,1,2,2-Tetrachloroethane	10.465	4.7	205444	0.559	0.534	15.343	15.357	6.91				
	78	4-Bromofluorobenzene	9.740	-2.6	433113	1.179	1.210	15.474	15.492	6.88				
	79	1,2,3-Trichloropropane	10.461	4.6	53755	0.146	0.140	15.620	15.635	5.80				
	80	n-Propylbenzene	9.534	-4.7	2436548	6.630	6.954	15.766	15.783	4.71				
	81	Bromobenzene	9.796	-2.0	386526	1.052	1.074	15.839	15.863	4.59				
	82	1,3,5-Trimethylbenzene	9.437	-5.6	1433675	3.901	4.134	16.073	16.100	4.19				
	83	2-Chlorotoluene	8.865	-11.4	1333630	3.629	4.094	16.102	16.118	4.44				
	84	4-Chlorotoluene	10.285	2.8	1177304	3.204	3.115	16.190	16.220	4.03				
	85	tert-Butylbenzene	9.515	-4.8	377830	1.028	1.081	16.774	16.789	5.29				
	86	1,2,4-Trimethylbenzene	9.714	-2.9	1353418	3.683	3.791	16.832	16.862	4.11				
	87	sec-Butylbenzene	9.499	-5.0	2113727	5.752	6.055	17.183	17.198	4.17				
	88	p-Isopropyltoluene	10.012	0.1	1698507	4.622	4.616	17.460	17.476	4.94				
	89	1,3-Dichlorobenzene	9.921	-0.8	768507	2.091	2.108	17.636	17.651	3.88				
	90	1,4-Dichlorobenzene	9.908	-0.9	706230	1.922	1.940	17.840	17.855	3.76				
	91	n-Butylbenzene	9.704	-3.0	1471543	4.004	4.126	18.220	18.235	4.95				
	92	1,2-Dichlorobenzene	10.017	0.2	576281	1.568	1.566	18.468	18.483	3.70				
	93	1,2-Dibromo-3-chloropropane	10.511	5.1	27901	0.076	0.072	19.593	19.609	8.09				
	94	1,2,4-Trichlorobenzene	10.063	0.6	310591	0.845	0.840	20.688	20.705	4.86				
	95	Hexachlorobutadiene	9.607	-3.9	235224	0.640	0.666	20.863	20.879	8.04				
	96	Naphthalene	9.902	-1.0	389437	1.060	1.070	21.024	21.039	4.91				
	97	1,2,3-Trichlorobenzene	9.853	-1.5	221101	0.602	0.611	21.345	21.361	5.23				

Spike Amount = Nominal Amount * M

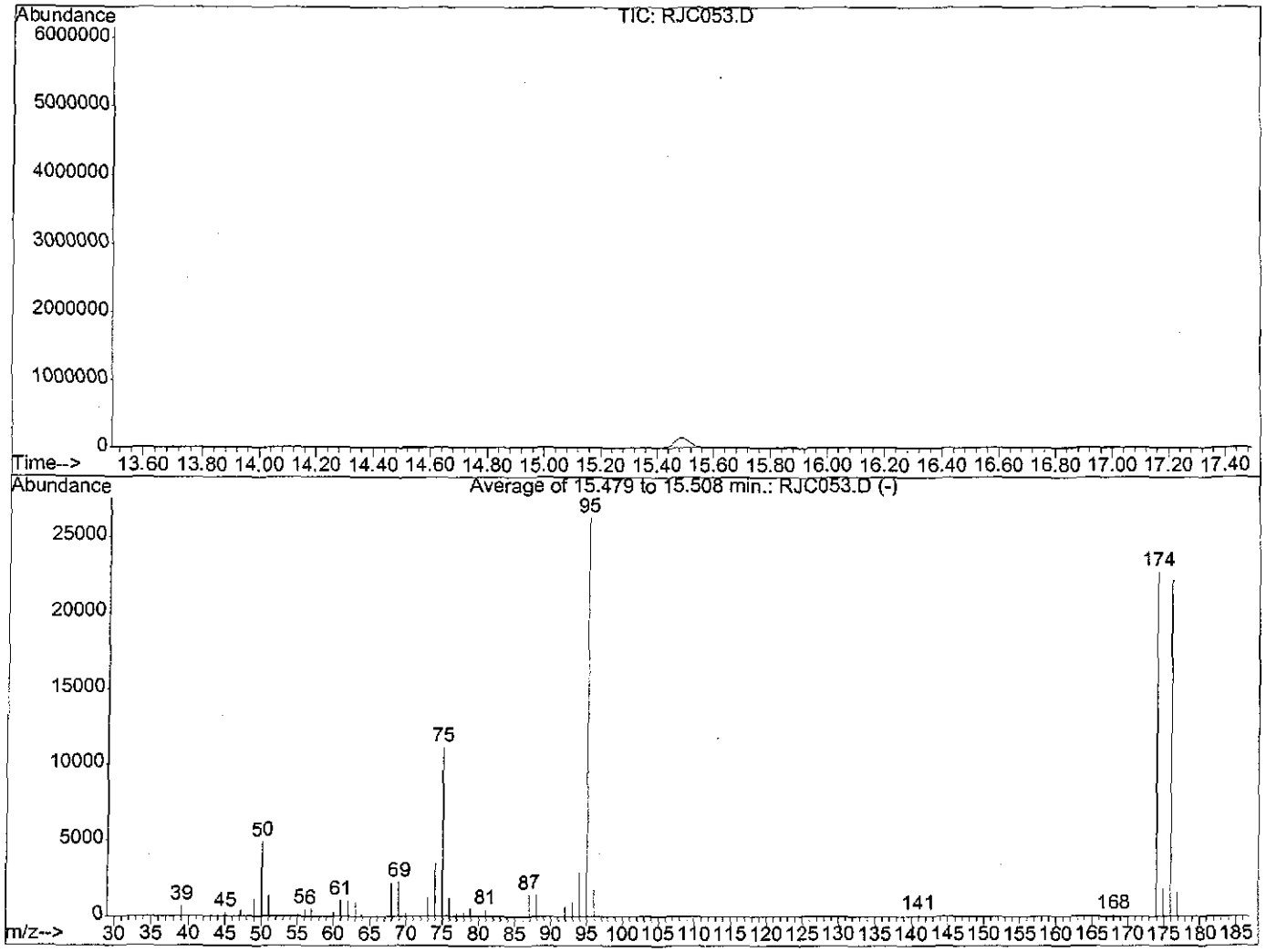
SG

10/5/1 2

BFB

Data File : D:\HPCHEM\1\DATA\12J03\RJC053.D
Acq On : 3 Oct 2012 11:37 am
Sample : BFB67J03
Misc : T/CHK
MS Integration Params: LSCINT1.P
Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0

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



AutoFind: Scans 937, 938, 939; Background Corrected with Scan 930

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.7	4902	PASS
75	95	30	60	42.3	11114	PASS
95	95	100	100	100.0	26245	PASS
96	95	5	9	6.8	1775	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	86.5	22699	PASS
175	174	5	9	8.2	1854	PASS
176	174	95	101	97.6	22163	PASS
177	176	5	9	7.1	1577	PASS

Sa 10/5

RJC053.D VO67J02.M Wed Oct 03 14:44:49 2012

269H

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J03\RJC054.D Vial: 2
Acq On : 3 Oct 2012 12:17 pm Operator: AS
Sample : IVO67J0202 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
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	10.000	10.000	0.0	95	-0.01
2	T,M	Dichlorodifluoromethane	10.000	9.161	8.4	82	-0.01
3	T,M	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	0.00
4	P,T,M	Chloromethane	10.000	10.055	-0.5	89	-0.01
5	C,T,M	Vinyl chloride	10.000	10.565	-5.6	93	-0.01
6	T,M	Bromomethane	10.000	9.583	4.2	87	-0.01
7	T,M	Chloroethane	10.000	9.828	1.7	90	-0.03
8	T,M	Dichlorofluoromethane	10.000	9.301	7.0	87	-0.03
9	T,M	Trichlorofluoromethane	10.000	10.883	-8.8	97	-0.01
10	T,M	sec-Propyl alcohol	-1.000	0.000	0.0	0	0.00
11	T,M	Acrolein	50.000	43.810	12.4	82	-0.03
12	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	10.628	-6.3	103	-0.03
13	T,M	Acetone	50.000	54.003	-8.0	104	-0.03
14	C,T,M	1,1-Dichloroethene	10.000	10.115	-1.2	94	-0.03
15	T,M	tert-Butyl alcohol	50.000	51.227	-2.5	94	-0.01
16	T,M	Methyl acetate	10.000	0.000	100.0#	0	-4.30#
17	T,M	Iodomethane	10.000	11.925	-19.3	111	-0.01
18	T,M	Acetonitrile	100.000	109.456	-9.5	99	-0.03
19	T,M	Methylene chloride	10.000	9.646	3.5	98	-0.01
20	T,M	Carbon disulfide	10.000	10.950	-9.5	101	-0.01
21	T,M	Acrylonitrile	50.000	53.764	-7.5	97	-0.01
22	T,M	tert-Butyl methyl ether (MT	10.000	10.615	-6.2	98	-0.03
23	T,M	trans-1,2-Dichloroethene	10.000	9.821	1.8	90	-0.01
24	T,M	Isopropyl ether (DIPE)	10.000	10.511	-5.1	97	-0.03
25	P,T,M	1,1-Dichloroethane	10.000	10.157	-1.6	96	-0.01
26	T,M	Vinyl acetate	10.000	9.124	8.8	82	-0.01
27	T,M	2-Butanol	50.000	0.000	100.0#	0	-5.75#
28	T,M	tert-Butyl ethyl ether (ETB	10.000	10.843	-8.4	100	-0.03
29	T,M	2-Butanone	50.000	52.149	-4.3	97	-0.01
30	T,M	2,2-Dichloropropane	10.000	10.387	-3.9	97	-0.03
31	T,M	cis-1,2-Dichloroethene	10.000	9.326	6.7	86	-0.01
32	C,T,M	Chloroform	10.000	10.613	-6.1	96	-0.03
33	T,M	Bromochloromethane	10.000	10.499	-5.0	96	-0.01
34	T,M	tert-Amyl alcohol	50.000	0.000	100.0#	0	-6.72#
35	S	Dibromofluoromethane	10.000	10.657	-6.6	104	-0.03
36	T,M	Tetrahydrofuran	10.000	9.489	5.1	86	-0.03
37	T,M	1,1,1-Trichloroethane	10.000	10.192	-1.9	95	-0.03
38	T,M	Cyclohexane	10.000	0.000	100.0#	0	-7.09#
39	T,M	tert-Amyl methyl ether (TAM	10.000	10.922	-9.2	99	-0.03
40	S	1,2-Dichloroethane-d4	10.000	10.454	-4.5	105	-0.01
41	I	CHLOROBENZENE-D5	10.000	10.000	0.0	96	0.03

(#) = Out of Range

JN 10/5/12

2095

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J03\RJC054.D Vial: 2
Acq On : 3 Oct 2012 12:17 pm Operator: AS
Sample : IV067J0202 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
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)
42	T,M	2,2,4-Trimethylpentane	10.000	0.000	100.0#	0	-7.09#
43	T,M	1,1-Dichloropropene	10.000	9.667	3.3	92	-0.01
44	T,M	Carbon tetrachloride	10.000	9.974	0.3	96	-0.01
45	T,M	1,2-Dichloroethane	10.000	10.666	-6.7	101	-0.03
46	T,M	Benzene	10.000	9.805	2.0	95	-0.01
47	T,M	Trichloroethene	10.000	9.879	1.2	96	-0.03
48	T,M	Methylcyclohexane	10.000	0.000	100.0#	0	-8.71#
49	C,T,M	1,2-Dichloropropane	10.000	9.815	1.9	95	-0.03
50	T,M	Bromodichloromethane	10.000	10.147	-1.5	94	-0.01
51	T,M	1,4-Dioxane	200.000	209.091	-4.5	99	-0.01
52	T,M	Dibromomethane	10.000	10.614	-6.1	96	-0.01
53	T,M	2-Chloroethyl vinyl ether	10.000	0.000	100.0#	0	-9.76#
54	T,M	4-Methyl-2-pentanone	50.000	55.397	-10.8	103	-0.01
55	T,M	cis-1,3-Dichloropropene	10.000	10.479	-4.8	98	-0.01
56	S	Toluene-d8	10.000	10.390	-3.9	104	-0.03
57	C,T,M	Toluene	10.000	9.703	3.0	93	-0.03
58	T,M	Ethyl methacrylate	10.000	10.712	-7.1	101	-0.01
59	T,M	trans-1,3-Dichloropropene	10.000	10.680	-6.8	99	-0.01
60	T,M	1,1,2-Trichloroethane	10.000	10.627	-6.3	99	-0.03
61	T,M	2-Hexanone	50.000	53.154	-6.3	99	-0.01
62	T,M	1,3-Dichloropropane	10.000	10.311	-3.1	97	-0.03
63	T,M	Tetrachloroethene	10.000	9.947	0.5	96	-0.03
64	T,M	Dibromochloromethane	10.000	10.357	-3.6	98	-0.01
65	T,M	1,2-Dibromoethane	10.000	10.265	-2.7	95	-0.03
66	T,M	1-Chlorohexane	10.000	10.463	-4.6	101	-0.01
67	P,M	Chlorobenzene	10.000	10.228	-2.3	96	-0.03
68	T,M	1,1,1,2-Tetrachloroethane	10.000	10.199	-2.0	97	-0.01
69	C,T,M	Ethylbenzene	10.000	9.931	0.7	95	-0.01
70	T,M	m-Xylene & p-Xylene	20.000	19.510	2.4	93	-0.01
71	T,M	o-Xylene	10.000	9.709	2.9	93	-0.01
72	T,M	Styrene	10.000	10.382	-3.8	97	-0.01
73	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	98	-0.01
74	T,M	Isopropylbenzene	10.000	10.370	-3.7	100	-0.01
75	P,T,M	Bromoform	10.000	10.281	-2.8	99	-0.01
76	T,M	trans-1,4-Dichloro-2-butene	10.000	10.372	-3.7	105	-0.01
77	P,T,M	1,1,2,2-Tetrachloroethane	10.000	10.465	-4.6	102	-0.01
78	S	4-Bromofluorobenzene	10.000	9.741	2.6	105	-0.03
79	T,M	1,2,3-Trichloropropane	10.000	10.462	-4.6	103	-0.01
80	T,M	n-Propylbenzene	10.000	9.535	4.6	93	-0.01
81	T,M	Bromobenzene	10.000	9.796	2.0	96	-0.03

(#) = Out of Range

2096

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J03\RJC054.D Vial: 2
Acq On : 3 Oct 2012 12:17 pm Operator: AS
Sample : IVO67J0202 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
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)
82	T,M	1,3,5-Trimethylbenzene	10.000	9.437	5.6	91	-0.03
83	T,M	2-Chlorotoluene	10.000	8.865	11.3	88	-0.01
84	T,M	4-Chlorotoluene	10.000	10.285	-2.9	101	-0.03
85	T,M	tert-Butylbenzene	10.000	9.515	4.8	92	-0.01
86	T,M	1,2,4-Trimethylbenzene	10.000	9.715	2.9	96	-0.03
87	T,M	sec-Butylbenzene	10.000	9.499	5.0	92	-0.01
88	T,M	p-Isopropyltoluene	10.000	10.012	-0.1	97	-0.01
89	T,M	1,3-Dichlorobenzene	10.000	9.921	0.8	96	-0.01
90	T,M	1,4-Dichlorobenzene	10.000	9.908	0.9	97	-0.01
91	T,M	n-Butylbenzene	10.000	9.704	3.0	94	-0.01
92	T,M	1,2-Dichlorobenzene	10.000	10.017	-0.2	98	-0.01
93	T,M	1,2-Dibromo-3-chloropropane	10.000	10.512	-5.1	98	-0.03
94	T,M	1,2,4-Trichlorobenzene	10.000	10.063	-0.6	96	-0.01
95	T,M	Hexachlorobutadiene	10.000	9.607	3.9	91	-0.01
96	T,M	Naphthalene	10.000	9.903	1.0	97	-0.01
97	T,M	1,2,3-Trichlorobenzene	10.000	9.854	1.5	93	-0.01

SV 10/5/12

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J03\RJC054.D Vial: 2
Acq On : 3 Oct 2012 12:17 pm Operator: AS
Sample : IV067J0202 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
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	95	-0.01
2	T,M	Dichlorodifluoromethane	0.316	0.289	8.5	82	-0.01
3	T,M	Dichlorotetrafluoroethane	0.000	0.000	0.0	0#	0.00
4	P,T,M	Chloromethane	0.532	0.535	-0.6	89	-0.01
5	C,T,M	Vinyl chloride	0.456	0.482	-5.7	93	-0.01
6	T,M	Bromomethane	0.289	0.277	4.2	87	-0.01
7	T,M	Chloroethane	0.292	0.287	1.7	90	-0.03
8	T,M	Dichlorofluoromethane	0.679	0.631	7.1	87	-0.03
9	T,M	Trichlorofluoromethane	0.378	0.412	-9.0	97	-0.01
10	T,M	sec-Propyl alcohol	0.000	0.000	0.0	0#	0.00
11	T,M	Acrolein	0.017	0.015	11.8	82	-0.03
12	T,M	1,1,2-Trichloro-1,2,2-trifl	0.252	0.268	-6.3	103	-0.03
13	T,M	Acetone	0.025	0.027	-8.0	104	-0.03
14	C,T,M	1,1-Dichloroethene	0.583	0.589	-1.0	94	-0.03
15	T,M	tert-Butyl alcohol	0.007	0.007	0.0	94	-0.01
16	T,M	Methyl acetate	0.000	0.000	0.0	0#	-4.30#
17	T,M	Iodomethane	0.542	0.646	-19.2	111	-0.01
18	T,M	Acetonitrile	0.060	0.065	-8.3	99	-0.03
19	T,M	Methylene chloride	0.416	0.401	3.6	98	-0.01
20	T,M	Carbon disulfide	1.241	1.358	-9.4	101	-0.01
21	T,M	Acrylonitrile	0.037	0.040	-8.1	97	-0.01
22	T,M	tert-Butyl methyl ether (MT	0.335	0.355	-6.0	98	-0.03
23	T,M	trans-1,2-Dichloroethene	0.546	0.536	1.8	90	-0.01
24	T,M	Isopropyl ether (DIPE)	0.942	0.990	-5.1	97	-0.03
25	P,T,M	1,1-Dichloroethane	0.616	0.626	-1.6	96	-0.01
26	T,M	Vinyl acetate	0.312	0.284	9.0	82	-0.01
27	T,M	2-Butanol	0.000	0.000	0.0	0#	-5.75#
28	T,M	tert-Butyl ethyl ether (ETB	0.589	0.639	-8.5	100	-0.03
29	T,M	2-Butanone	0.044	0.046	-4.5	97	-0.01
30	T,M	2,2-Dichloropropane	0.297	0.309	-4.0	97	-0.03
31	T,M	cis-1,2-Dichloroethene	0.356	0.332	6.7	86	-0.01
32	C,T,M	Chloroform	0.471	0.500	-6.2	96	-0.03
33	T,M	Bromochloromethane	0.215	0.226	-5.1	96	-0.01
34	T,M	tert-Amyl alcohol	0.000	0.000	0.0	0#	-6.72#
35	S	Dibromofluoromethane	0.259	0.276	-6.6	104	-0.03
36	T,M	Tetrahydrofuran	0.032	0.031	3.1	86	-0.03
37	T,M	1,1,1-Trichloroethane	0.396	0.404	-2.0	95	-0.03
38	T,M	Cyclohexane	0.000	0.000	0.0	0#	-7.09#
39	T,M	tert-Amyl methyl ether (TAM	0.086	0.094	-9.3	99	-0.03
40	S	1,2-Dichloroethane-d4	0.163	0.170	-4.3	105	-0.01
41	I	CHLOROBENZENE-D5	1.000	1.000	0.0	96	0.03

(#) = Out of Range

SU 10/5/12

2096

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J03\RJC054.D Vial: 2
Acq On : 3 Oct 2012 12:17 pm Operator: AS
Sample : IVO67J0202 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
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)
42	T,M	2,2,4-Trimethylpentane	0.000	0.000	0.0	0#	-7.09#
43	T,M	1,1-Dichloropropene	0.252	0.243	3.6	92	-0.01
44	T,M	Carbon tetrachloride	0.508	0.506	0.4	96	-0.01
45	T,M	1,2-Dichloroethane	0.263	0.280	-6.5	101	-0.03
46	T,M	Benzene	1.742	1.708	2.0	95	-0.01
47	T,M	Trichloroethene	0.529	0.522	1.3	96	-0.03
48	T,M	Methylcyclohexane	0.000	0.000	0.0	0#	-8.71#
49	C,T,M	1,2-Dichloropropane	0.413	0.405	1.9	95	-0.03
50	T,M	Bromodichloromethane	0.400	0.406	-1.5	94	-0.01
51	T,M	1,4-Dioxane	0.001	0.001	0.0	99	-0.01
52	T,M	Dibromomethane	0.143	0.152	-6.3	96	-0.01
53	T,M	2-Chloroethyl vinyl ether	0.000	0.000	0.0	0#	-9.76#
54	T,M	4-Methyl-2-pentanone	0.136	0.151	-11.0	103	-0.01
55	T,M	cis-1,3-Dichloropropene	0.510	0.535	-4.9	98	-0.01
56	S	Toluene-d8	1.396	1.450	-3.9	104	-0.03
57	C,T,M	Toluene	1.735	1.683	3.0	93	-0.03
58	T,M	Ethyl methacrylate	0.203	0.217	-6.9	101	-0.01
59	T,M	trans-1,3-Dichloropropene	0.327	0.350	-7.0	99	-0.01
60	T,M	1,1,2-Trichloroethane	0.176	0.187	-6.3	99	-0.03
61	T,M	2-Hexanone	0.081	0.087	-7.4	99	-0.01
62	T,M	1,3-Dichloropropane	0.348	0.359	-3.2	97	-0.03
63	T,M	Tetrachloroethene	0.412	0.410	0.5	96	-0.03
64	T,M	Dibromochloromethane	0.247	0.256	-3.6	98	-0.01
65	T,M	1,2-Dibromoethane	0.173	0.177	-2.3	95	-0.03
66	T,M	1-Chlorohexane	0.743	0.778	-4.7	101	-0.01
67	P,M	Chlorobenzene	0.988	1.010	-2.2	96	-0.03
68	T,M	1,1,1,2-Tetrachloroethane	0.307	0.313	-2.0	97	-0.01
69	C,T,M	Ethylbenzene	1.849	1.836	0.7	95	-0.01
70	T,M	m-Xylene & p-Xylene	1.349	1.315	2.5	93	-0.01
71	T,M	o-Xylene	1.319	1.280	3.0	93	-0.01
72	T,M	Styrene	0.941	0.977	-3.8	97	-0.01
73	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	98	-0.01
74	T,M	Isopropylbenzene	5.400	5.599	-3.7	100	-0.01
75	P,T,M	Bromoform	0.357	0.367	-2.8	99	-0.01
76	T,M	trans-1,4-Dichloro-2-butene	0.143	0.149	-4.2	105	-0.01
77	P,T,M	1,1,2,2-Tetrachloroethane	0.534	0.559	-4.7	102	-0.01
78	S	4-Bromofluorobenzene	1.210	1.179	2.6	105	-0.03
79	T,M	1,2,3-Trichloropropane	0.140	0.146	-4.3	103	-0.01
80	T,M	n-Propylbenzene	6.954	6.630	4.7	93	-0.01
81	T,M	Bromobenzene	1.074	1.052	2.0	96	-0.03

(#) = Out of Range

SU 10/5/12

2000

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J03\RJC054.D Vial: 2
Acq On : 3 Oct 2012 12:17 pm Operator: AS
Sample : IVO67J0202 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
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)
82	T,M	1,3,5-Trimethylbenzene	4.134	3.901	5.6	91	-0.03
83	T,M	2-Chlorotoluene	4.094	3.629	11.4	88	-0.01
84	T,M	4-Chlorotoluene	3.115	3.204	-2.9	101	-0.03
85	T,M	tert-Butylbenzene	1.081	1.028	4.9	92	-0.01
86	T,M	1,2,4-Trimethylbenzene	3.791	3.683	2.8	96	-0.03
87	T,M	sec-Butylbenzene	6.055	5.752	5.0	92	-0.01
88	T,M	p-Isopropyltoluene	4.616	4.622	-0.1	97	-0.01
89	T,M	1,3-Dichlorobenzene	2.108	2.091	0.8	96	-0.01
90	T,M	1,4-Dichlorobenzene	1.940	1.922	0.9	97	-0.01
91	T,M	n-Butylbenzene	4.126	4.004	3.0	94	-0.01
92	T,M	1,2-Dichlorobenzene	1.566	1.568	-0.1	98	-0.01
93	T,M	1,2-Dibromo-3-chloropropane	0.072	0.076	-5.6	98	-0.03
94	T,M	1,2,4-Trichlorobenzene	0.840	0.845	-0.6	96	-0.01
95	T,M	Hexachlorobutadiene	0.666	0.640	3.9	91	-0.01
96	T,M	Naphthalene	1.070	1.060	0.9	97	-0.01
97	T,M	1,2,3-Trichlorobenzene	0.611	0.602	1.5	93	-0.01

SU 10/5/12

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J03\RJC054.D Vial: 2
Acq On : 3 Oct 2012 12:17 pm Operator: AS
Sample : IV067J0202 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:46 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.10	114	1513883	10.00 ug/l	-0.01
41) CHLOROBENZENE-D5	13.20	117	1151034	10.00 ug/l	-0.03
73) 1,2-DICHLOROBENZENE-D4	18.42	152	367484	10.00 ug/l	-0.01
System Monitoring Compounds					
35) Dibromofluoromethane	6.78	111	417794	10.66 ug/l	-0.03
Spiked Amount 10.000			Recovery = 106.60%		
40) 1,2-Dichloroethane-d4	7.51	65	257796	10.45 ug/l	-0.01
Spiked Amount 10.000			Recovery = 104.50%		
56) Toluene-d8	10.54	98	1669266	10.39 ug/l	-0.03
Spiked Amount 10.000			Recovery = 103.90%		
78) 4-Bromofluorobenzene	15.47	95	433113	9.74 ug/l	-0.03
Spiked Amount 10.000			Recovery = 97.40%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.91	85	437588	9.16 ug/l	99
4) Chloromethane	2.13	50	810461	10.06 ug/l	99
5) Vinyl chloride	2.27	62	729666	10.57 ug/l	99
6) Bromomethane	2.75	94	419768	9.58 ug/l	100
7) Chloroethane	2.84	64	434597	9.83 ug/l	100
8) Dichlorofluoromethane	2.88	67	955561	9.30 ug/l	99
9) Trichlorofluoromethane	3.15	101	623198	10.88 ug/l	100
11) Acrolein	3.63	56	110068	43.81 ug/l	98
12) 1,1,2-Trichloro-1,2,2-trif	3.66	151	405871	10.63 ug/l	99
13) Acetone	3.70	43	201044	54.00 ug/l	98
14) 1,1-Dichloroethene	3.86	61	891986	10.11 ug/l	99
15) tert-Butyl alcohol	3.97	59	50793	51.23 ug/l	99
17) Iodomethane	4.26	142	978220	11.93 ug/l	99
18) Acetonitrile	4.32	41	988136	109.46 ug/l	100
19) Methylene chloride	4.48	49	607067	9.65 ug/l	99
20) Carbon disulfide	4.49	76	2056486	10.95 ug/l	99
21) Acrylonitrile	4.64	53	303818	53.76 ug/l	98
22) tert-Butyl methyl ether (M	4.67	73	537786	10.61 ug/l	100
23) trans-1,2-Dichloroethene	4.86	61	811816	9.82 ug/l	99
24) Isopropyl ether (DIPE)	5.27	45	1499393	10.51 ug/l	100
25) 1,1-Dichloroethane	5.43	63	947000	10.16 ug/l	99
26) Vinyl acetate	5.43	43	430642	9.12 ug/l	98
28) tert-Butyl ethyl ether (ET	5.82	59	967218	10.84 ug/l	99
29) 2-Butanone	6.00	43	349243	52.15 ug/l	99
30) 2,2-Dichloropropane	6.19	77	467110	10.39 ug/l	99
31) cis-1,2-Dichloroethene	6.26	96	502719	9.33 ug/l	98
32) Chloroform	6.48	83	756361	10.61 ug/l	100

(#) = qualifier out of range (m) = manual integration
RJC054.D VO67J02.M Wed Oct 03 14:46:35 2012

SU 10/5/12

2101

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J03\RJC054.D Vial: 2
Acq On : 3 Oct 2012 12:17 pm Operator: AS
Sample : IV067J0202 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:46 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33)	Bromochloromethane	6.71	49	341866	10.50 ug/l	98
36)	Tetrahydrofuran	6.75	42	46659	9.49 ug/l	93
37)	1,1,1-Trichloroethane	7.05	97	611014	10.19 ug/l	99
39)	tert-Amyl methyl ether (TA	7.44	87	142848	10.92 ug/l	98
43)	1,1-Dichloropropene	7.28	110	280229	9.67 ug/l	100
44)	Carbon tetrachloride	7.43	119	582617	9.97 ug/l	100
45)	1,2-Dichloroethane	7.65	62	322500	10.67 ug/l	99
46)	Benzene	7.67	78	1966114	9.80 ug/l	99
47)	Trichloroethene	8.60	130	601239	9.88 ug/l	99
49)	1,2-Dichloropropane	8.87	63	466522	9.81 ug/l	99
50)	Bromodichloromethane	9.25	83	467077	10.15 ug/l	99
51)	1,4-Dioxane	9.28	88	27334	209.09 ug/l	94
52)	Dibromomethane	9.34	93	174950	10.61 ug/l	97
54)	4-Methyl-2-pentanone	9.79	43	866794	55.40 ug/l	97
55)	cis-1,3-Dichloropropene	10.14	75	615277	10.48 ug/l	99
57)	Toluene	10.67	91	1937553	9.70 ug/l	100
58)	Ethyl methacrylate	10.98	69	249783	10.71 ug/l	94
59)	trans-1,3-Dichloropropene	10.99	75	402297	10.68 ug/l	99
60)	1,1,2-Trichloroethane	11.25	97	215751	10.63 ug/l	99
61)	2-Hexanone	11.27	43	498138	53.15 ug/l	99
62)	1,3-Dichloropropane	11.69	76	412679	10.31 ug/l	100
63)	Tetrachloroethene	11.79	164	471995	9.95 ug/l	98
64)	Dibromochloromethane	12.16	129	294437	10.36 ug/l	99
65)	1,2-Dibromoethane	12.51	107	204065	10.27 ug/l	99
66)	1-Chlorohexane	12.82	91	894977	10.46 ug/l	99
67)	Chlorobenzene	13.27	112	1162907	10.23 ug/l	99
68)	1,1,1,2-Tetrachloroethane	13.36	131	359992	10.20 ug/l	99
69)	Ethylbenzene	13.37	91	2113523	9.93 ug/l	99
70)	m-Xylene & p-Xylene	13.52	91	3028347	19.51 ug/l	100
71)	o-Xylene	14.32	91	1473592	9.71 ug/l	99
72)	Styrene	14.39	104	1124663	10.38 ug/l	100
74)	Isopropylbenzene	15.01	105	2057680	10.37 ug/l	100
75)	Bromoform	15.02	173	134948	10.28 ug/l	99
76)	trans-1,4-Dichloro-2-buten	15.11	53	54593	10.37 ug/l	95
77)	1,1,2,2-Tetrachloroethane	15.34	83	205444	10.47 ug/l	98
79)	1,2,3-Trichloropropane	15.62	110	53755	10.46 ug/l	97
80)	n-Propylbenzene	15.77	91	2436548	9.53 ug/l	100
81)	Bromobenzene	15.84	156	386526	9.80 ug/l	100
82)	1,3,5-Trimethylbenzene	16.07	105	1433675	9.44 ug/l	99
83)	2-Chlorotoluene	16.10	91	1333630	8.87 ug/l	99
84)	4-Chlorotoluene	16.19	91	1177304	10.29 ug/l	99

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

SU 10/5/12

2102

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J03\RJC054.D Vial: 2
Acq On : 3 Oct 2012 12:17 pm Operator: AS
Sample : IVO67J0202 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:46 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85)	tert-Butylbenzene	16.77	134	377830	9.52 ug/l	98
86)	1,2,4-Trimethylbenzene	16.83	105	1353418	9.71 ug/l	99
87)	sec-Butylbenzene	17.18	105	2113727	9.50 ug/l	100
88)	p-Isopropyltoluene	17.46	119	1698507	10.01 ug/l	100
89)	1,3-Dichlorobenzene	17.64	146	768507	9.92 ug/l	100
90)	1,4-Dichlorobenzene	17.84	146	706230	9.91 ug/l	99
91)	n-Butylbenzene	18.22	91	1471543	9.70 ug/l	100
92)	1,2-Dichlorobenzene	18.47	146	576281	10.02 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.59	157	27901	10.51 ug/l	98
94)	1,2,4-Trichlorobenzene	20.69	180	310591	10.06 ug/l	99
95)	Hexachlorobutadiene	20.86	225	235224	9.61 ug/l	98
96)	Naphthalene	21.02	128	389437	9.90 ug/l	100
97)	1,2,3-Trichlorobenzene	21.35	180	221101	9.85 ug/l	99

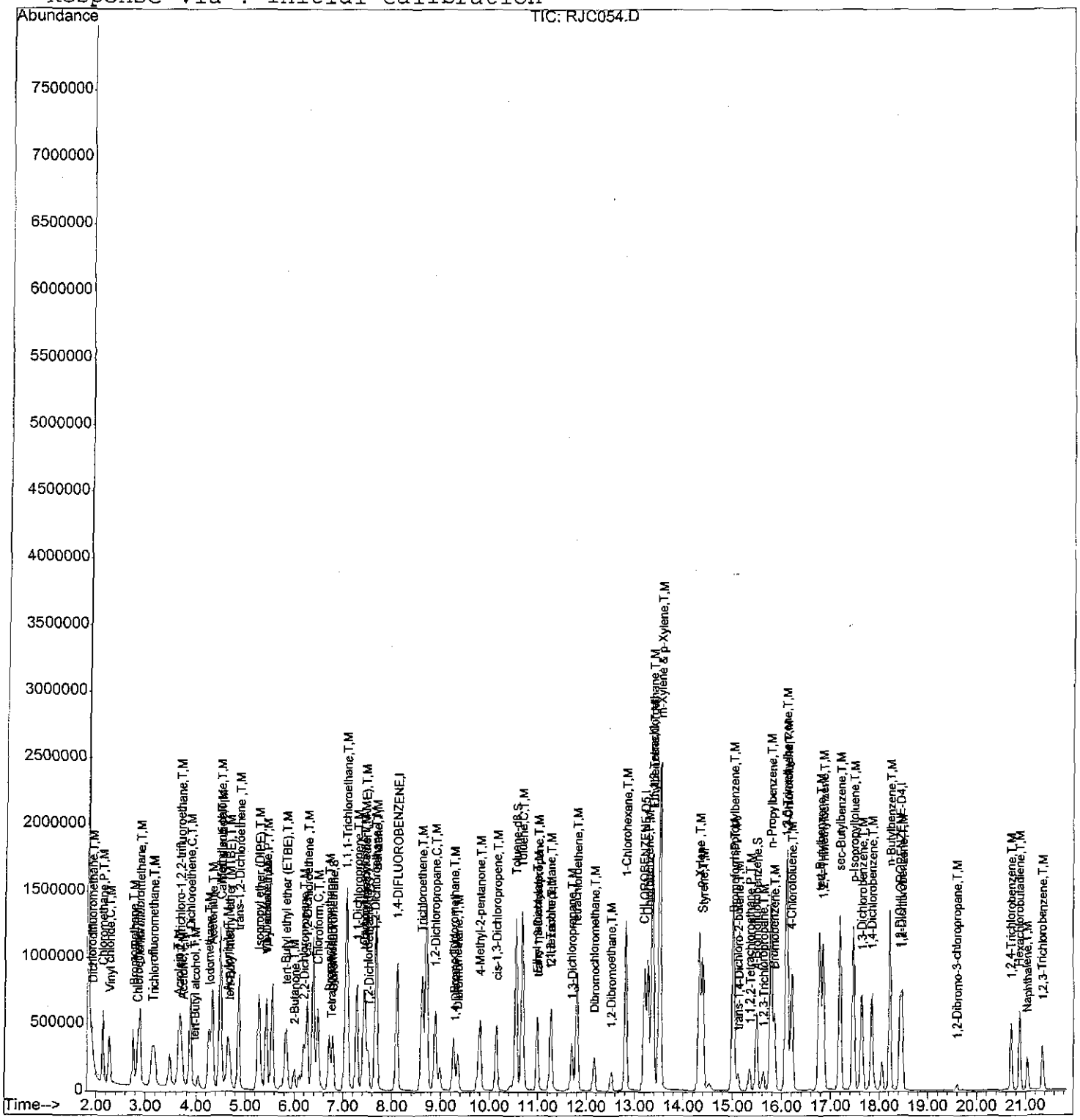
SU 10/5/12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J03\RJC054.D Vial: 2
Acq On : 3 Oct 2012 12:17 pm Operator: AS
Sample : IVO67J0202 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 3 14:46 2012 Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration



SM 10/5/12

2104

DAILY CALIBRATION(S)

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJC418
Instrument ID: 67
GC Column:RTX502.2ID:0.25mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J162
BFB Injection Date : 10/26/12
BFB Injection Time : 09:43
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.85
75	30.0 - 60.0% of mass 95	40.91
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.06
173	Less than 2.0% of mass 174	1.05(1.2)1
174	Greater than 50% of mass 95	90.84
175	5.0 - 9.0% of mass 174	7.69(8.5)1
176	95.0 - 101.0% of mass 174	87.81(96.7)1
177	5.0 - 9.0% of mass 176	5.19(5.9)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	VSTD010	CV067J0218	RJC419	10/26/12	10:22
2	MBLK1W	V067J20B	RJC423	10/26/12	12:32
3	LCS1W	V067J20L	RJC420	10/26/12	11:01
4	LCD1W	V067J20C	RJC421	10/26/12	11:33
5	10-23-12 AMW-3R	J162-08	RJC424	10/26/12	13:05
6	10-24-12 BBW-1	J162-01	RJC425	10/26/12	13:35
7	10-24-12 BBW-2	J162-02	RJC426	10/26/12	14:05
8	10-23-12 AMW-3RMS	J162-08M	RJC429	10/26/12	15:35
9	10-23-12 AMW-3RMSD	J162-08S	RJC431	10/26/12	16:45
10	10-24-12 BBW-3	J162-03	RJC433	10/26/12	17:44
11	10-24-12 FDUP-1	J162-04	RJC434	10/26/12	18:15
12	10-23-12 PWB-6	J162-05	RJC435	10/26/12	18:46
13	10-23-12 AR-1	J162-06	RJC436	10/26/12	19:15
14	10-23-12 PWB-1	J162-07	RJC437	10/26/12	19:47
15	10-23-12 PWB-3	J162-09	RJC438	10/26/12	20:17
16	10-23-12 PWB-10	J162-10	RJC439	10/26/12	20:47

FORM V VOA OLM02.0

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RJC042
Instrument ID: 67
GC Column: RTX502.2 ID: 0.25mm (mm)

Project: BROWN & BRYANT SUPERFUND SITE
SDG No.: 12J162
Date Analyzed: 10/02/12
Time Analyzed: 19:21
Heated Purge: (Y/N) N

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1596835	8.11	1202009	13.22	376608	18.44
	UPPER LIMIT	3193670	8.61	2404018	13.72	753216	18.94
	LOWER LIMIT	798418	7.61	601005	12.72	188304	17.94
	SAMPLE ID						
1	VSTD010	1671827	8.08	1255723	13.18	401796	18.41
2	MBLK1W	1771941	8.09	1223737	13.20	339933	18.41
3	LCS1W	1725150	8.09	1272857	13.19	406304	18.41
4	LCD1W	1765902	8.08	1327895	13.20	427910	18.41
5	10-23-12 AMW-3R	1603950	8.10	1034045	13.20	266512	18.42
6	10-24-12 BBW-1	1773411	8.10	1209993	13.20	329831	18.42
7	10-24-12 BBW-2	1611054	8.10	1109387	13.20	312844	18.43
8	10-23-12 AMW-3RMS	1797833	8.11	1348985	13.21	440271	18.44
9	10-23-12 AMW-3RMSD	1778700	8.09	1327220	13.20	439156	18.43
10	10-24-12 BBW-3	1625096	8.10	1106763	13.21	313605	18.42
11	10-24-12 FDUP-1	1494456	8.10	994888	13.20	279899	18.43
12	10-23-12 PWB-6	1635254	8.10	1158821	13.19	341714	18.42
13	10-23-12 AR-1	1759359	8.10	1216295	13.20	342558	18.42
14	10-23-12 PWB-1	1709862	8.10	1203883	13.20	335788	18.43
15	10-23-12 PWB-3	1682745	8.09	1163014	13.20	316274	18.43
16	10-23-12 PWB-10	1736015	8.10	1168514	13.21	319490	18.42

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
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

FORM VIII VOA-8260 1/2000

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T067
IC Beginning DateTime :10/02/12 16:48
Spike Amount :10 PPB
CC/CV File :RJC419
IC File :RJC042

Column Spec :RTX502.2 ID :0.25MM
IC Ending DateTime :10/02/12 21:25
HPChem Method :V067J02
Date_Time :10/26/12 10:22

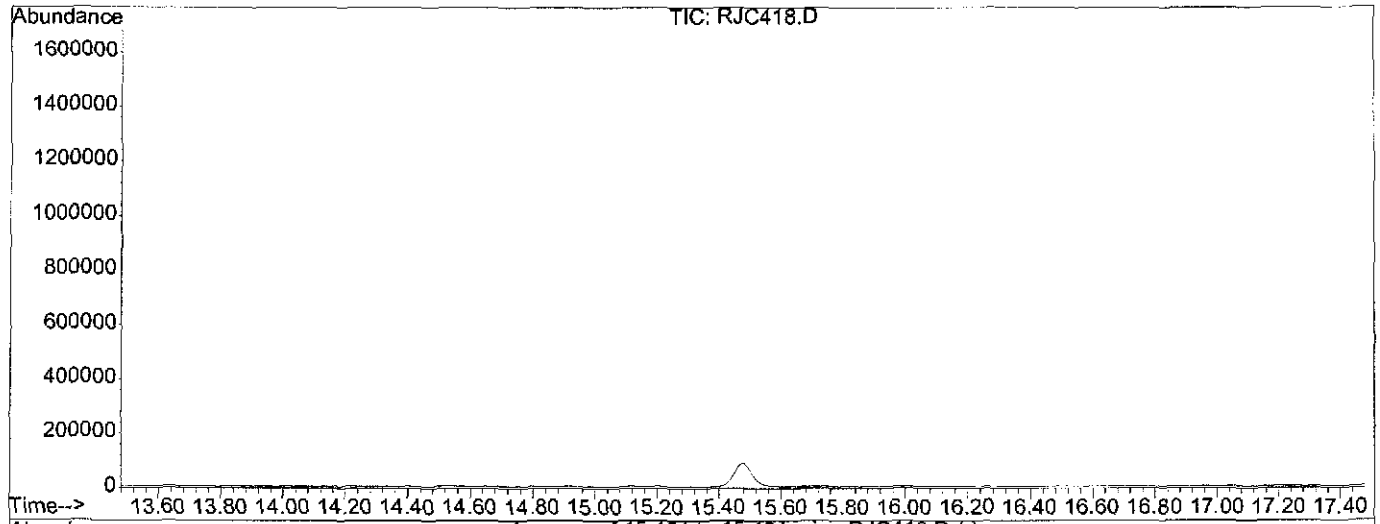
M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AVRRF	CC_Rtm	AVRtm	% RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,4-DIFLUOROBENZENE	10.000	0	1671827	1	1	8.084	8.114	0				
	2	Dichlorodifluoromethane	10.156	1.6	535732	0.320	0.316	1.906	1.908	10.14				
	3	Dichlorotetrafluoroethane												
	4	Chloromethane	10.112	1.1	900092	0.538	0.532	2.125	2.140	11.26				
	5	Vinyl chloride	10.982	9.8	837595	0.501	0.456	2.271	2.272	12.80				
	6	Bromomethane	10.496	5.0	507772	0.304	0.289	2.753	2.767	8.32				
	7	Chloroethane	10.005	0.1	488579	0.292	0.292	2.855	2.859	6.81				
	8	Dichlorofluoromethane	11.205	12.0	1271345	0.760	0.679	2.899	2.901	3.98				
	9	Trichlorofluoromethane	11.207	12.1	708743	0.424	0.378	3.147	3.161	11.34				
	10	sec-Propyl alcohol												
5	11	Acrolein	32.969	-34.1	91475	0.011	0.017	3.629	3.648	12.13				
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	10.472	4.7	441664	0.264	0.252	3.673	3.680	4.41				
5	13	Acetone	54.369	8.7	223526	0.027	0.025	3.702	3.721	11.20				
	14	1,1-Dichloroethene	9.884	-1.2	962609	0.576	0.583	3.863	3.883	4.27				
5	15	tert-Butyl alcohol	52.803	5.6	57818	0.007	0.007	3.965	3.985	6.72				
	16	Methyl acetate												
	17	Iodomethane	10.752	7.5	974059	0.583	0.542	4.242	4.270	4.92				
10	18	Acetonitrile	100.534	0.5	1002290	0.060	0.060	4.315	4.343	4.40				
	19	Methylene chloride	9.485	-5.2	659286	0.394	0.416	4.462	4.489	14.53				
	20	Carbon disulfide	11.809	18.1	2449132	1.465	1.241	4.476	4.505	11.34				
5	21	Acrylonitrile	56.824	13.6	354614	0.042	0.037	4.622	4.653	8.39				
	22	tert-Butyl methyl ether (MTBE)	11.145	11.5	623583	0.373	0.335	4.666	4.688	3.74				
	23	trans-1,2-Dichloroethene	10.352	3.5	945040	0.565	0.546	4.841	4.869	4.14				
	24	Isopropyl ether (DIPE)	11.032	10.3	1737877	1.040	0.942	5.250	5.283	3.76				
	25	1,1-Dichloroethane	10.981	9.8	1130716	0.676	0.616	5.411	5.438	4.13				
	26	Vinyl acetate	11.042	10.4	575593	0.344	0.312	5.411	5.439	9.14				
5	27	2-Butanol												
	28	tert-Butyl ethyl ether (ETBE)	11.084	10.8	1091937	0.653	0.589	5.805	5.843	4.95				
5	29	2-Butanone	52.374	4.7	387345	0.046	0.044	5.981	6.012	10.37				
	30	2,2-Dichloropropane	11.908	19.1	591378	0.354	0.297	6.185	6.208	14.18				
	31	cis-1,2-Dichloroethene	11.240	12.4	669121	0.400	0.356	6.243	6.272	3.85				
	32	Chloroform	11.309	13.1	890072	0.532	0.471	6.462	6.494	4.50				
	33	Bromochloromethane	10.576	5.8	380311	0.227	0.215	6.696	6.725	5.08				
5	34	tert-Amyl alcohol												
	35	Dibromofluoromethane	10.022	0.2	433905	0.260	0.259	6.784	6.808	5.91				
	36	Tetrahydrofuran	8.915	-10.9	48413	0.029	0.032	6.755	6.779	11.11				
	37	1,1,1-Trichloroethane	11.933	19.3	790049	0.473	0.396	7.032	7.065	4.52				
	38	Cyclohexane												
	39	tert-Amyl methyl ether (TAME)	11.755	17.6	169783	0.102	0.086	7.441	7.465	6.49				
	40	1,2-Dichloroethane-d4	9.241	-7.6	251665	0.151	0.163	7.499	7.530	3.47				
	41	CHLOROBENZENE-D5	10.000	0	1255723	1	1	13.181	13.221	0				
	42	2,2,4-Trimethylpentane												
	43	1,1-Dichloropropene	10.910	9.1	345035	0.275	0.252	7.266	7.296	4.60				
	44	Carbon tetrachloride	11.316	13.2	721189	0.574	0.508	7.412	7.441	4.62				
	45	1,2-Dichloroethane	10.829	8.3	357222	0.284	0.263	7.646	7.673	4.37				
	46	Benzene	10.777	7.8	2357733	1.878	1.742	7.660	7.690	4.47				
	47	Trichloroethene	10.894	8.9	723338	0.576	0.529	8.595	8.624	5.12				
	48	Methylcyclohexane												
	49	1,2-Dichloropropane	10.831	8.3	561665	0.447	0.413	8.872	8.900	5.20				
	50	Bromodichloromethane	11.641	16.4	584647	0.466	0.400	9.237	9.268	5.15				
20	51	1,4-Dioxane	239.682	19.8	34183	0.001	0.001	9.267	9.300	9.01				
	52	Dibromomethane	11.396	14.0	204926	0.163	0.143	9.325	9.357	8.66				
	53	2-Chloroethyl vinyl ether												
5	54	4-Methyl-2-pentanone	51.203	2.4	874055	0.139	0.136	9.778	9.813	7.40				
	55	cis-1,3-Dichloropropene	11.194	11.9	717012	0.571	0.510	10.128	10.157	5.38				
	56	Toluene-d8	9.606	-3.9	1683759	1.341	1.396	10.523	10.560	5.21				
	57	Toluene	10.893	8.9	2373249	1.890	1.735	10.654	10.698	4.73				
	58	Ethyl methacrylate	10.624	6.2	270283	0.215	0.203	10.961	10.994	7.11				
	59	trans-1,3-Dichloropropene	11.199	12.0	460240	0.367	0.327	10.975	11.006	6.84				
	60	1,1,2-Trichloroethane	11.264	12.6	249490	0.199	0.176	11.238	11.273	3.89				
5	61	2-Hexanone	51.173	2.3	523189	0.083	0.081	11.253	11.290	8.81				
	62	1,3-Dichloropropane	11.097	11.0	484535	0.386	0.348	11.677	11.713	4.60				
	63	Tetrachloroethene	11.287	12.9	584287	0.465	0.412	11.779	11.822	6.42				
	64	Dibromochloromethane	11.565	15.6	358713	0.286	0.247	12.144	12.174	5.51				
	65	1,2-Dibromoethane	11.232	12.3	243591	0.194	0.173	12.509	12.535	7.86				
	66	1-Chlorohexane	10.986	9.9	1025224	0.816	0.743	12.801	12.831	5.04				
	67	Chlorobenzene	11.000	10.0	1364407	1.087	0.988	13.254	13.286	3.46				
	68	1,1,1,2-Tetrachloroethane	11.561	15.6	445225	0.355	0.307	13.342	13.372	4.38				
	69	Ethylbenzene	11.129	11.3	2584169	2.058	1.849	13.356	13.386	5.00				
2	70	m-Xylene & p-Xylene	22.229	11.1	3764242	1.499	1.349	13.502	13.533	3.92				
	71	o-Xylene	11.061	10.6	1831599	1.459	1.319	14.305	14.336	4.38				
	72	Styrene	10.981	9.8	1297735	1.033	0.941	14.378	14.409	5.00				
	73	1,2-DICHLOROBENZENE-D4	10.000	0	401796	1	1	18.409	18.440	0				
	74	Isopropylbenzene	10.911	9.1	2367249	5.892	5.400	14.992	15.022	4.23				
	75	Bromoform	11.530	15.3	165476	0.412	0.357	15.006	15.035	10.22				
	76	trans-1,4-Dichloro-2-butene	8.941	-10.6	51457	0.128	0.143	15.094	15.122	7.98				
	77	1,1,2,2-Tetrachloroethane	11.413	14.1	244968	0.610	0.534	15.313	15.357	6.91				
	78	4-Bromofluorobenzene	9.184	-8.2	446491	1.111	1.210	15.459	15.492	6.88				
	79	1,2,3-Trichloropropane	10.917	9.2	61333	0.153	0.140	15.605	15.635	5.80				
	80	n-Propylbenzene	10.742	7.4	3001507	7.470	6.954	15.751	15.783	4.71				
	81	Bromobenzene	11.141	11.4	480630	1.196	1.074	15.824	15.863	4.59				
	82	1,3,5-Trimethylbenzene	10.805	8.1	1794807	4.467	4.134	16.058	16.100	4.19				
	83	2-Chlorotoluene	10.297	3.0	1693759	4.215	4.094	16.087	16.118	4.44				
	84	4-Chlorotoluene	11.143	11.4	1394618	3.471	3.115	16.189	16.220	4.03				
	85	tert-Butylbenzene	11.232	12.3	487659	1.214	1.081	16.759	16.789	5.29				
	86	1,2,4-Trimethylbenzene	10.617	6.2	1617201	4.025	3.791	16.817	16.862	4.11				
	87	sec-Butylbenzene	10.701	7.0	2603515	6.480	6.055	17.168	17.198	4.17				
	88	p-Isopropyltoluene	10.795	8.0	2002407	4.984	4.616	17.445	17.476	4.94				
	89	1,3-Dichlorobenzene	10.920	9.2	924908	2.302	2.108	17.621	17.651	3.88				
	90	1,4-Dichlorobenzene	10.685	6.9	832796	2.073	1.940	17.825	17.855	3.76				
	91	n-Butylbenzene	9.990	-0.1	1656322	4.122	4.126	18.205	18.235	4.95				
	92	1,2-Dichlorobenzene	10.760	7.6	676859	1.685	1.566	18.453	18.483	3.70				
	93	1,2-Dibromo-3-chloropropane	11.145	11.5	32346	0.081	0.072	19.592	19.609	8.09				
	94	1,2,4-Trichlorobenzene	8.567	-14.3	289121	0.720	0.840	20.688	20.705	4.86				
	95	Hexachlorobutadiene	8.962	-10.4	239918	0.597	0.666	20.863	20.879	8.04				
	96	Naphthalene	8.151	-18.5	350505	0.872	1.070	21.024	21.039	4.91				
	97	1,2,3-Trichlorobenzene	8.255	-17.4	202525	0.504	0.611	21.330	21.361	5.23				

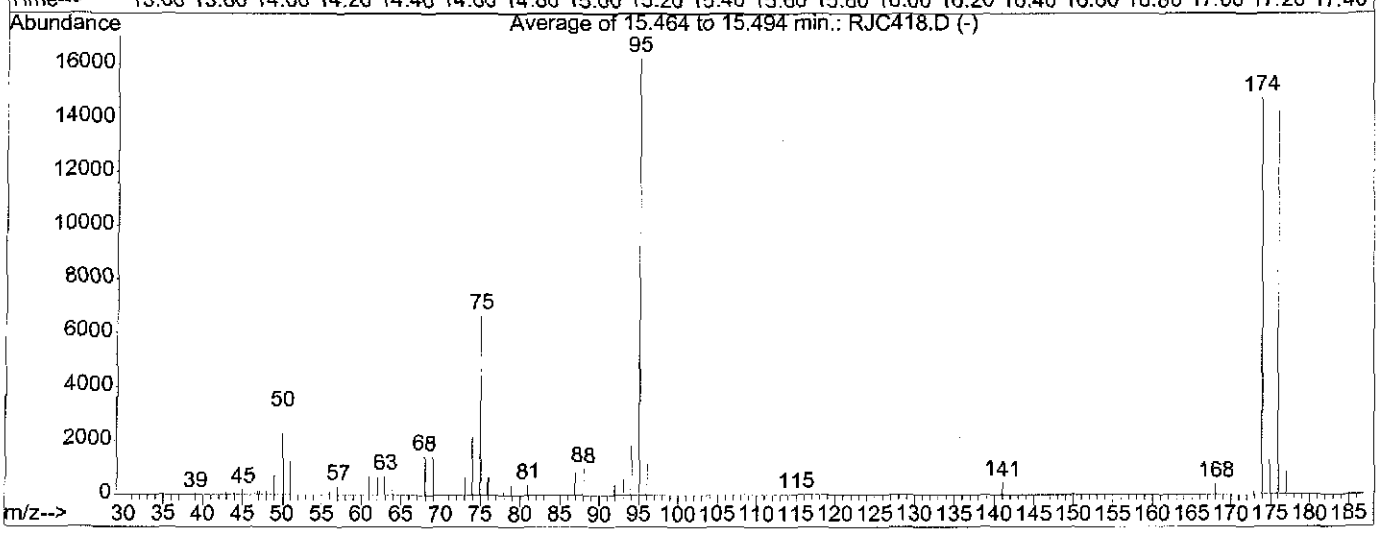
Spike Amount = Nominal Amount * M

BFB

Data File : D:\HPCHEM\1\DATA\12J26\RJC418.D
Acq On : 26 Oct 2012 9:43 am
Sample : BFB67J20
Misc : T/CHK
MS Integration Params: LSCINT1.P
Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0

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





AutoFind: Scans 936, 937, 938; Background Corrected with Scan 929

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.9	3063	PASS
75	95	30	60	40.9	6648	PASS
95	95	100	100	100.0	16249	PASS
96	95	5	9	7.1	1147	PASS
173	174	0.00	2	1.2	171	PASS
174	95	50	100	90.8	14760	PASS
175	174	5	9	8.5	1250	PASS
176	174	95	101	96.7	14268	PASS
177	176	5	9	5.9	844	PASS

RJC418.D VO67J02.M Fri Oct 26 10:09:11 2012

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J26\RJC419.D Vial: 2
Acq On : 26 Oct 2012 10:22 am Operator: AS
Sample : CVO67J0218 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
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	10.000	10.000	0.0	105	-0.03
2	T,M	Dichlorodifluoromethane	10.000	10.156	-1.6	101	-0.01
3	T,M	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	0.00
4	P,T,M	Chloromethane	10.000	10.112	-1.1	99	-0.01
5	C,T,M	Vinyl chloride	10.000	10.982	-9.8	107	-0.01
6	T,M	Bromomethane	10.000	10.497	-5.0	106	-0.01
7	T,M	Chloroethane	10.000	10.005	-0.1	101	-0.01
8	T,M	Dichlorofluoromethane	10.000	11.205	-12.1	115	-0.01
9	T,M	Trichlorofluoromethane	10.000	11.207	-12.1	111	-0.01
10	T,M	sec-Propyl alcohol	-1.000	0.000	0.0	0	0.00
11	T,M	Acrolein	50.000	32.970	34.1#	68	-0.03 NT
12	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	10.472	-4.7	112	-0.01
13	T,M	Acetone	50.000	54.370	-8.7	116	-0.03
14	C,T,M	1,1-Dichloroethene	10.000	9.884	1.2	102	-0.03
15	T,M	tert-Butyl alcohol	50.000	52.803	-5.6	107	-0.01
16	T,M	Methyl acetate	10.000	0.000	100.0#	0	-4.30# NT
17	T,M	Iodomethane	10.000	10.753	-7.5	110	-0.03
18	T,M	Acetonitrile	100.000	100.535	-0.5	101	-0.03
19	T,M	Methylene chloride	10.000	9.486	5.1	107	-0.03
20	T,M	Carbon disulfide	10.000	11.809	-18.1	120	-0.03
21	T,M	Acrylonitrile	50.000	56.824	-13.6	113	-0.03
22	T,M	tert-Butyl methyl ether (MT	10.000	11.146	-11.5	113	-0.03
23	T,M	trans-1,2-Dichloroethene	10.000	10.353	-3.5	105	-0.03
24	T,M	Isopropyl ether (DIPE)	10.000	11.032	-10.3	113	-0.04
25	P,T,M	1,1-Dichloroethane	10.000	10.981	-9.8	114	-0.03
26	T,M	Vinyl acetate	10.000	11.043	-10.4	109	-0.03
27	T,M	2-Butanol	50.000	0.000	100.0#	0	-5.75# NT
28	T,M	tert-Butyl ethyl ether (ETB	10.000	11.085	-10.9	112	-0.04
29	T,M	2-Butanone	50.000	52.374	-4.7	108	-0.03
30	T,M	2,2-Dichloropropane	10.000	11.908	-19.1	123	-0.03
31	T,M	cis-1,2-Dichloroethene	10.000	11.241	-12.4	114	-0.03
32	C,T,M	Chloroform	10.000	11.309	-13.1	113	-0.04
33	T,M	Bromochloromethane	10.000	10.577	-5.8	107	-0.03
34	T,M	tert-Amyl alcohol	50.000	0.000	100.0#	0	-6.72# NT
35	S	Dibromofluoromethane	10.000	10.022	-0.2	108	-0.03
36	T,M	Tetrahydrofuran	10.000	8.916	10.8	89	-0.03
37	T,M	1,1,1-Trichloroethane	10.000	11.933	-19.3	123	-0.04
38	T,M	Cyclohexane	10.000	0.000	100.0#	0	-7.09# NT
39	T,M	tert-Amyl methyl ether (TAM	10.000	11.755	-17.6	118	-0.03
40	S	1,2-Dichloroethane-d4	10.000	9.242	7.6	102	-0.03
41	I	CHLOROBENZENE-D5	10.000	10.000	0.0	104	-0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J26\RJC419.D Vial: 2
Acq On : 26 Oct 2012 10:22 am Operator: AS
Sample : CVO67J0218 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
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)
42	T,M	2,2,4-Trimethylpentane	10.000	0.000	100.0#	0	-7.09# NT
43	T,M	1,1-Dichloropropene	10.000	10.910	-9.1	113	-0.03
44	T,M	Carbon tetrachloride	10.000	11.316	-13.2	119	-0.03
45	T,M	1,2-Dichloroethane	10.000	10.829	-8.3	112	-0.03
46	T,M	Benzene	10.000	10.778	-7.8	114	-0.03
47	T,M	Trichloroethene	10.000	10.895	-8.9	116	-0.03
48	T,M	Methylcyclohexane	10.000	0.000	100.0#	0	-8.71# NT
49	C,T,M	1,2-Dichloropropane	10.000	10.831	-8.3	114	-0.03
50	T,M	Bromodichloromethane	10.000	11.642	-16.4	117	-0.03
51	T,M	1,4-Dioxane	200.000	239.682	-19.8	124	-0.03
52	T,M	Dibromomethane	10.000	11.396	-14.0	112	-0.03
53	T,M	2-Chloroethyl vinyl ether	10.000	0.000	100.0#	0	-9.76# NT
54	T,M	4-Methyl-2-pentanone	50.000	51.204	-2.4	104	-0.03
55	T,M	cis-1,3-Dichloropropene	10.000	11.194	-11.9	114	-0.03
56	S	Toluene-d8	10.000	9.607	3.9	105	-0.04
57	C,T,M	Toluene	10.000	10.894	-8.9	114	-0.04
58	T,M	Ethyl methacrylate	10.000	10.624	-6.2	109	-0.03
59	T,M	trans-1,3-Dichloropropene	10.000	11.199	-12.0	113	-0.03
60	T,M	1,1,2-Trichloroethane	10.000	11.264	-12.6	115	-0.04
61	T,M	2-Hexanone	50.000	51.173	-2.3	104	-0.03
62	T,M	1,3-Dichloropropane	10.000	11.097	-11.0	114	-0.04
63	T,M	Tetrachloroethene	10.000	11.287	-12.9	118	-0.04
64	T,M	Dibromochloromethane	10.000	11.566	-15.7	119	-0.03
65	T,M	1,2-Dibromoethane	10.000	11.232	-12.3	113	-0.03
66	T,M	1-Chlorohexane	10.000	10.987	-9.9	115	-0.03
67	P,M	Chlorobenzene	10.000	11.000	-10.0	113	-0.04
68	T,M	1,1,1,2-Tetrachloroethane	10.000	11.562	-15.6	120	-0.03
69	C,T,M	Ethylbenzene	10.000	11.130	-11.3	116	-0.03
70	T,M	m-Xylene & p-Xylene	20.000	22.229	-11.1	115	-0.03
71	T,M	o-Xylene	10.000	11.062	-10.6	115	-0.03
72	T,M	Styrene	10.000	10.981	-9.8	112	-0.03
73	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	107	-0.03
74	T,M	Isopropylbenzene	10.000	10.911	-9.1	116	-0.03
75	P,T,M	Bromoform	10.000	11.531	-15.3	121	-0.03
76	T,M	trans-1,4-Dichloro-2-butene	10.000	8.941	10.6	99	-0.03
77	P,T,M	1,1,2,2-Tetrachloroethane	10.000	11.413	-14.1	121	-0.04
78	S	4-Bromofluorobenzene	10.000	9.184	8.2	108	-0.04
79	T,M	1,2,3-Trichloropropane	10.000	10.917	-9.2	117	-0.03
80	T,M	n-Propylbenzene	10.000	10.742	-7.4	114	-0.03
81	T,M	Bromobenzene	10.000	11.141	-11.4	119	-0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J26\RJC419.D Vial: 2
Acq On : 26 Oct 2012 10:22 am Operator: AS
Sample : CVO67J0218 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
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)
82	T,M	1,3,5-Trimethylbenzene	10.000	10.805	-8.0	113	-0.04
83	T,M	2-Chlorotoluene	10.000	10.297	-3.0	111	-0.03
84	T,M	4-Chlorotoluene	10.000	11.143	-11.4	119	-0.03
85	T,M	tert-Butylbenzene	10.000	11.232	-12.3	119	-0.03
86	T,M	1,2,4-Trimethylbenzene	10.000	10.617	-6.2	114	-0.04
87	T,M	sec-Butylbenzene	10.000	10.701	-7.0	113	-0.03
88	T,M	p-Isopropyltoluene	10.000	10.796	-8.0	114	-0.03
89	T,M	1,3-Dichlorobenzene	10.000	10.920	-9.2	116	-0.03
90	T,M	1,4-Dichlorobenzene	10.000	10.686	-6.9	114	-0.03
91	T,M	n-Butylbenzene	10.000	9.990	0.1	106	-0.03
92	T,M	1,2-Dichlorobenzene	10.000	10.761	-7.6	115	-0.03
93	T,M	1,2-Dibromo-3-chloropropane	10.000	11.146	-11.5	114	-0.03
94	T,M	1,2,4-Trichlorobenzene	10.000	8.568	14.3	89	-0.01
95	T,M	Hexachlorobutadiene	10.000	8.962	10.4	93	-0.01
96	T,M	Naphthalene	10.000	8.152	18.5	87	-0.01
97	T,M	1,2,3-Trichlorobenzene	10.000	8.255	17.4	85	-0.03

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J26\RJC419.D Vial: 2
Acq On : 26 Oct 2012 10:22 am Operator: AS
Sample : CVO67J0218 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
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	105	-0.03
2	T,M	Dichlorodifluoromethane	0.316	0.320	-1.3	101	-0.01
3	T,M	Dichlorotetrafluoroethane	0.000	0.000	0.0	0#	0.00
4	P,T,M	Chloromethane	0.532	0.538	-1.1	99	-0.01
5	C,T,M	Vinyl chloride	0.456	0.501	-9.9	107	-0.01
6	T,M	Bromomethane	0.289	0.304	-5.2	106	-0.01
7	T,M	Chloroethane	0.292	0.292	0.0	101	-0.01
8	T,M	Dichlorofluoromethane	0.679	0.760	-11.9	115	-0.01
9	T,M	Trichlorofluoromethane	0.378	0.424	-12.2	111	-0.01
10	T,M	sec-Propyl alcohol	0.000	0.000	0.0	0#	0.00
11	T,M	Acrolein	0.017	0.011	35.3#	68	-0.03
12	T,M	1,1,2-Trichloro-1,2,2-trifl	0.252	0.264	-4.8	112	-0.01
13	T,M	Acetone	0.025	0.027	-8.0	116	-0.03
14	C,T,M	1,1-Dichloroethene	0.583	0.576	1.2	102	-0.03
15	T,M	tert-Butyl alcohol	0.007	0.007	0.0	107	-0.01
16	T,M	Methyl acetate	0.000	0.000	0.0	0#	-4.30#
17	T,M	Iodomethane	0.542	0.583	-7.6	110	-0.03
18	T,M	Acetonitrile	0.060	0.060	0.0	101	-0.03
19	T,M	Methylene chloride	0.416	0.394	5.3	107	-0.03
20	T,M	Carbon disulfide	1.241	1.465	-18.0	120	-0.03
21	T,M	Acrylonitrile	0.037	0.042	-13.5	113	-0.03
22	T,M	tert-Butyl methyl ether (MT	0.335	0.373	-11.3	113	-0.03
23	T,M	trans-1,2-Dichloroethene	0.546	0.565	-3.5	105	-0.03
24	T,M	Isopropyl ether (DIPE)	0.942	1.040	-10.4	113	-0.04
25	P,T,M	1,1-Dichloroethane	0.616	0.676	-9.7	114	-0.03
26	T,M	Vinyl acetate	0.312	0.344	-10.3	109	-0.03
27	T,M	2-Butanol	0.000	0.000	0.0	0#	-5.75#
28	T,M	tert-Butyl ethyl ether (ETB	0.589	0.653	-10.9	112	-0.04
29	T,M	2-Butanone	0.044	0.046	-4.5	108	-0.03
30	T,M	2,2-Dichloropropane	0.297	0.354	-19.2	123	-0.03
31	T,M	cis-1,2-Dichloroethene	0.356	0.400	-12.4	114	-0.03
32	C,T,M	Chloroform	0.471	0.532	-13.0	113	-0.04
33	T,M	Bromochloromethane	0.215	0.227	-5.6	107	-0.03
34	T,M	tert-Amyl alcohol	0.000	0.000	0.0	0#	-6.72#
35	S	Dibromofluoromethane	0.259	0.260	-0.4	108	-0.03
36	T,M	Tetrahydrofuran	0.032	0.029	9.4	89	-0.03
37	T,M	1,1,1-Trichloroethane	0.396	0.473	-19.4	123	-0.04
38	T,M	Cyclohexane	0.000	0.000	0.0	0#	-7.09#
39	T,M	tert-Amyl methyl ether (TAM	0.086	0.102	-18.6	118	-0.03
40	S	1,2-Dichloroethane-d4	0.163	0.151	7.4	102	-0.03

41-I----CHLOROBENZENE-D5----------1.000---1.000-------0.0--104---0.04-

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J26\RJC419.D Vial: 2
Acq On : 26 Oct 2012 10:22 am Operator: AS
Sample : CVO67J0218 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
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)
42	T,M	2,2,4-Trimethylpentane	0.000	0.000	0.0	0#	-7.09#
43	T,M	1,1-Dichloropropene	0.252	0.275	-9.1	113	-0.03
44	T,M	Carbon tetrachloride	0.508	0.574	-13.0	119	-0.03
45	T,M	1,2-Dichloroethane	0.263	0.284	-8.0	112	-0.03
46	T,M	Benzene	1.742	1.878	-7.8	114	-0.03
47	T,M	Trichloroethene	0.529	0.576	-8.9	116	-0.03
48	T,M	Methylcyclohexane	0.000	0.000	0.0	0#	-8.71#
49	C,T,M	1,2-Dichloropropane	0.413	0.447	-8.2	114	-0.03
50	T,M	Bromodichloromethane	0.400	0.466	-16.5	117	-0.03
51	T,M	1,4-Dioxane	0.001	0.001	0.0	124	-0.03
52	T,M	Dibromomethane	0.143	0.163	-14.0	112	-0.03
53	T,M	2-Chloroethyl vinyl ether	0.000	0.000	0.0	0#	-9.76#
54	T,M	4-Methyl-2-pentanone	0.136	0.139	-2.2	104	-0.03
55	T,M	cis-1,3-Dichloropropene	0.510	0.571	-12.0	114	-0.03
56	S	Toluene-d8	1.396	1.341	3.9	105	-0.04
57	C,T,M	Toluene	1.735	1.890	-8.9	114	-0.04
58	T,M	Ethyl methacrylate	0.203	0.215	-5.9	109	-0.03
59	T,M	trans-1,3-Dichloropropene	0.327	0.367	-12.2	113	-0.03
60	T,M	1,1,2-Trichloroethane	0.176	0.199	-13.1	115	-0.04
61	T,M	2-Hexanone	0.081	0.083	-2.5	104	-0.03
62	T,M	1,3-Dichloropropane	0.348	0.386	-10.9	114	-0.04
63	T,M	Tetrachloroethene	0.412	0.465	-12.9	118	-0.04
64	T,M	Dibromochloromethane	0.247	0.286	-15.8	119	-0.03
65	T,M	1,2-Dibromoethane	0.173	0.194	-12.1	113	-0.03
66	T,M	1-Chlorohexane	0.743	0.816	-9.8	115	-0.03
67	P,M	Chlorobenzene	0.988	1.087	-10.0	113	-0.04
68	T,M	1,1,1,2-Tetrachloroethane	0.307	0.355	-15.6	120	-0.03
69	C,T,M	Ethylbenzene	1.849	2.058	-11.3	116	-0.03
70	T,M	m-Xylene & p-Xylene	1.349	1.499	-11.1	115	-0.03
71	T,M	o-Xylene	1.319	1.459	-10.6	115	-0.03
72	T,M	Styrene	0.941	1.033	-9.8	112	-0.03
73	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	107	-0.03
74	T,M	Isopropylbenzene	5.400	5.892	-9.1	116	-0.03
75	P,T,M	Bromoform	0.357	0.412	-15.4	121	-0.03
76	T,M	trans-1,4-Dichloro-2-butene	0.143	0.128	10.5	99	-0.03
77	P,T,M	1,1,2,2-Tetrachloroethane	0.534	0.610	-14.2	121	-0.04
78	S	4-Bromofluorobenzene	1.210	1.111	8.2	108	-0.04
79	T,M	1,2,3-Trichloropropane	0.140	0.153	-9.3	117	-0.03
80	T,M	n-Propylbenzene	6.954	7.470	-7.4	114	-0.03
81	T,M	Bromobenzene	1.074	1.196	-11.4	119	-0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J26\RJC419.D Vial: 2
Acq On : 26 Oct 2012 10:22 am Operator: AS
Sample : CVO67J0218 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
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)
82	T,M	1,3,5-Trimethylbenzene	4.134	4.467	-8.1	113	-0.04
83	T,M	2-Chlorotoluene	4.094	4.215	-3.0	111	-0.03
84	T,M	4-Chlorotoluene	3.115	3.471	-11.4	119	-0.03
85	T,M	tert-Butylbenzene	1.081	1.214	-12.3	119	-0.03
86	T,M	1,2,4-Trimethylbenzene	3.791	4.025	-6.2	114	-0.04
87	T,M	sec-Butylbenzene	6.055	6.480	-7.0	113	-0.03
88	T,M	p-Isopropyltoluene	4.616	4.984	-8.0	114	-0.03
89	T,M	1,3-Dichlorobenzene	2.108	2.302	-9.2	116	-0.03
90	T,M	1,4-Dichlorobenzene	1.940	2.073	-6.9	114	-0.03
91	T,M	n-Butylbenzene	4.126	4.122	0.1	106	-0.03
92	T,M	1,2-Dichlorobenzene	1.566	1.685	-7.6	115	-0.03
93	T,M	1,2-Dibromo-3-chloropropane	0.072	0.081	-12.5	114	-0.03
94	T,M	1,2,4-Trichlorobenzene	0.840	0.720	14.3	89	-0.01
95	T,M	Hexachlorobutadiene	0.666	0.597	10.4	93	-0.01
96	T,M	Naphthalene	1.070	0.872	18.5	87	-0.01
97	T,M	1,2,3-Trichlorobenzene	0.611	0.504	17.5	85	-0.03

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC419.D Vial: 2
Acq On : 26 Oct 2012 10:22 am Operator: AS
Sample : CVO67J0218 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 11:03 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.08	114	1671827	10.00 ug/l	-0.03
41) CHLOROBENZENE-D5	13.18	117	1255723	10.00 ug/l	-0.04
73) 1,2-DICHLOROBENZENE-D4	18.41	152	401796	10.00 ug/l	-0.03
System Monitoring Compounds					
35) Dibromofluoromethane	6.78	111	433905	10.02 ug/l	-0.03
Spiked Amount 10.000			Recovery	= 100.20%	
40) 1,2-Dichloroethane-d4	7.50	65	251665	9.24 ug/l	-0.03
Spiked Amount 10.000			Recovery	= 92.40%	
56) Toluene-d8	10.52	98	1683759	9.61 ug/l	-0.04
Spiked Amount 10.000			Recovery	= 96.10%	
78) 4-Bromofluorobenzene	15.46	95	446491	9.18 ug/l	-0.04
Spiked Amount 10.000			Recovery	= 91.80%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.91	85	535732	10.16 ug/l	99
4) Chloromethane	2.12	50	900092	10.11 ug/l	100
5) Vinyl chloride	2.27	62	837595	10.98 ug/l	99
6) Bromomethane	2.75	94	507772	10.50 ug/l	99
7) Chloroethane	2.85	64	488579	10.01 ug/l	98
8) Dichlorofluoromethane	2.90	67	1271345	11.21 ug/l	100
9) Trichlorofluoromethane	3.15	101	708743	11.21 ug/l	99
11) Acrolein	3.63	56	91475	32.97 ug/l	93
12) 1,1,2-Trichloro-1,2,2-trif	3.67	151	441664	10.47 ug/l	98
13) Acetone	3.70	43	223526	54.37 ug/l	98
14) 1,1-Dichloroethene	3.86	61	962609	9.88 ug/l	99
15) tert-Butyl alcohol	3.96	59	57818	52.80 ug/l	98
17) Iodomethane	4.24	142	974059	10.75 ug/l	100
18) Acetonitrile	4.32	41	1002290	100.53 ug/l	100
19) Methylene chloride	4.46	49	659286	9.49 ug/l	96
20) Carbon disulfide	4.48	76	2449132	11.81 ug/l	100
21) Acrylonitrile	4.62	53	354614	56.82 ug/l	99
22) tert-Butyl methyl ether (M	4.67	73	623583	11.15 ug/l	100
23) trans-1,2-Dichloroethene	4.84	61	945040	10.35 ug/l	97
24) Isopropyl ether (DIPE)	5.25	45	1737877	11.03 ug/l	98
25) 1,1-Dichloroethane	5.41	63	1130716	10.98 ug/l	99
26) Vinyl acetate	5.41	43	575593	11.04 ug/l	98
28) tert-Butyl ethyl ether (ET	5.81	59	1091937	11.08 ug/l	98
29) 2-Butanone	5.98	43	387345	52.37 ug/l	98
30) 2,2-Dichloropropane	6.18	77	591378	11.91 ug/l	99
31) cis-1,2-Dichloroethene	6.24	96	669121	11.24 ug/l	98
32) Chloroform	6.46	83	890072	11.31 ug/l	99

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC419.D Vial: 2
Acq On : 26 Oct 2012 10:22 am Operator: AS
Sample : CVO67J0218 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 11:03 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33)	Bromochloromethane	6.70	49	380311	10.58 ug/l	95
36)	Tetrahydrofuran	6.75	42	48413	8.92 ug/l	91
37)	1,1,1-Trichloroethane	7.03	97	790049	11.93 ug/l	98
39)	tert-Amyl methyl ether (TA	7.44	87	169783	11.76 ug/l	97
43)	1,1-Dichloropropene	7.27	110	345035	10.91 ug/l	98
44)	Carbon tetrachloride	7.41	119	721189	11.32 ug/l	100
45)	1,2-Dichloroethane	7.65	62	357222	10.83 ug/l	100
46)	Benzene	7.66	78	2357733	10.78 ug/l	99
47)	Trichloroethene	8.59	130	723338	10.89 ug/l	97
49)	1,2-Dichloropropane	8.87	63	561665	10.83 ug/l	98
50)	Bromodichloromethane	9.24	83	584647	11.64 ug/l	99
51)	1,4-Dioxane	9.27	88	34183	239.68 ug/l	99
52)	Dibromomethane	9.33	93	204926	11.40 ug/l	95
54)	4-Methyl-2-pentanone	9.78	43	874055	51.20 ug/l	97
55)	cis-1,3-Dichloropropene	10.13	75	717012	11.19 ug/l	99
57)	Toluene	10.65	91	2373249	10.89 ug/l	100
58)	Ethyl methacrylate	10.96	69	270283	10.62 ug/l	96
59)	trans-1,3-Dichloropropene	10.98	75	460240	11.20 ug/l	95
60)	1,1,2-Trichloroethane	11.24	97	249490	11.26 ug/l	99
61)	2-Hexanone	11.25	43	523189	51.17 ug/l	99
62)	1,3-Dichloropropane	11.68	76	484535	11.10 ug/l	99
63)	Tetrachloroethene	11.78	164	584287	11.29 ug/l	98
64)	Dibromochloromethane	12.14	129	358713	11.57 ug/l	100
65)	1,2-Dibromoethane	12.51	107	243591	11.23 ug/l	99
66)	1-Chlorohexane	12.80	91	1025224	10.99 ug/l	98
67)	Chlorobenzene	13.25	112	1364407	11.00 ug/l	98
68)	1,1,1,2-Tetrachloroethane	13.34	131	445225	11.56 ug/l	99
69)	Ethylbenzene	13.36	91	2584169	11.13 ug/l	100
70)	m-Xylene & p-Xylene	13.50	91	3764242	22.23 ug/l	99
71)	o-Xylene	14.31	91	1831599	11.06 ug/l	99
72)	Styrene	14.38	104	1297735	10.98 ug/l	99
74)	Isopropylbenzene	14.99	105	2367249	10.91 ug/l	99
75)	Bromoform	15.01	173	165476	11.53 ug/l	99
76)	trans-1,4-Dichloro-2-buten	15.09	53	51457	8.94 ug/l	91
77)	1,1,2,2-Tetrachloroethane	15.31	83	244968	11.41 ug/l	97
79)	1,2,3-Trichloropropane	15.61	110	61333	10.92 ug/l	98
80)	n-Propylbenzene	15.75	91	3001507	10.74 ug/l	100
81)	Bromobenzene	15.82	156	480630	11.14 ug/l	96
82)	1,3,5-Trimethylbenzene	16.06	105	1794807	10.81 ug/l	98
83)	2-Chlorotoluene	16.09	91	1693759	10.30 ug/l	95
84)	4-Chlorotoluene	16.19	91	1394618	11.14 ug/l	96

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJC419.D Vial: 2
Acq On : 26 Oct 2012 10:22 am Operator: AS
Sample : CVO67J0218 10ppb Inst : TO67
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA Multiplr: 1.00
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 11:03 2012 Quant Results File: VO67J02.RES

Quant Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration
DataAcq Meth : VO67J02

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85)	tert-Butylbenzene	16.76	134	487659	11.23 ug/l	97
86)	1,2,4-Trimethylbenzene	16.82	105	1617201	10.62 ug/l	99
87)	sec-Butylbenzene	17.17	105	2603515	10.70 ug/l	100
88)	p-Isopropyltoluene	17.45	119	2002407	10.80 ug/l	100
89)	1,3-Dichlorobenzene	17.62	146	924908	10.92 ug/l	99
90)	1,4-Dichlorobenzene	17.83	146	832796	10.69 ug/l	99
91)	n-Butylbenzene	18.20	91	1656322	9.99 ug/l	100
92)	1,2-Dichlorobenzene	18.45	146	676859	10.76 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.59	157	32346	11.15 ug/l	94
94)	1,2,4-Trichlorobenzene	20.69	180	289121	8.57 ug/l	98
95)	Hexachlorobutadiene	20.86	225	239918	8.96 ug/l	98
96)	Naphthalene	21.02	128	350505	8.15 ug/l	99
97)	1,2,3-Trichlorobenzene	21.33	180	202525	8.26 ug/l	100

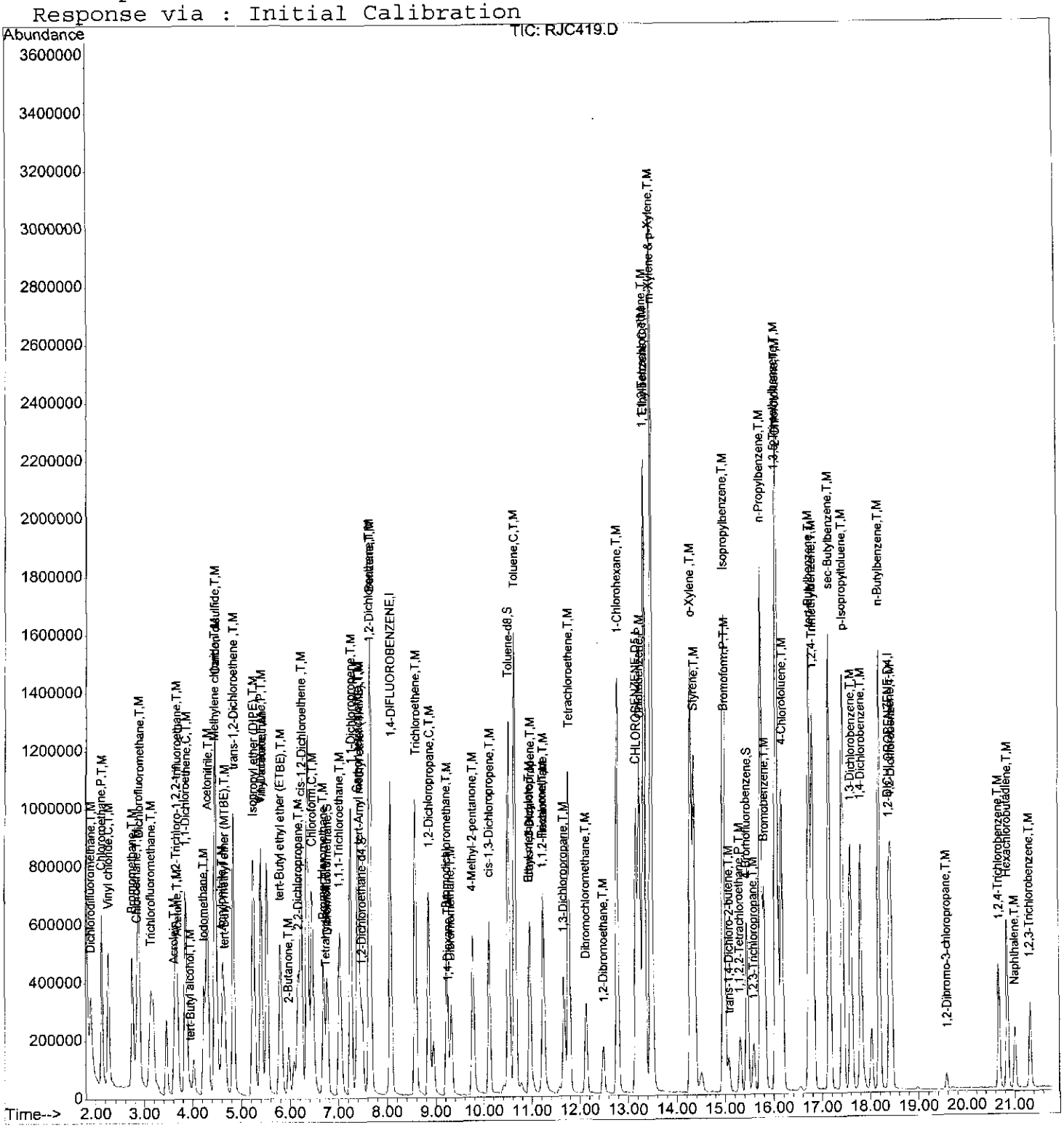
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJC419.D
Acq On : 26 Oct 2012 10:22 am
Sample : CVO67J0218 10ppb
Misc : 10ppb 8260/50ppb KET-ACR-ACN-TBA
MS Integration Params: LSCINT1.P
Quant Time: Oct 26 11:03 2012

Vial: 2
Operator: AS
Inst : TO67
Multiplr: 1.00
Quant Results File: VO67J02.RES

Method : D:\HPCHEM\1\METHODS\VO67J02.M (RTE Integrator)
Title : METHOD 8260B 4.0
Last Update : Wed Oct 03 14:08:26 2012
Response via : Initial Calibration



2119

ANALYTICAL LOG(S)

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☒ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10-2-12 ☐ 5-mL Purge ☐ 10-mL Purge ☒ 25-mL Purge Book # A67 -050

BATCH V067J02A6

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl2 <5ppm	Matrix S	Notes
01	RJC036	BFB67J02	1 µL					T/CHECK 16:18
02	37	V067J0201	.15/.15/.03/.03 µL					.3 ppb 8260/15 ppb Lot#A6-14 10CM-T32 AS 10-3-12
03	38	02	.25/.25/.05/.05 µL					.5 /2.5
04	39	03	.5/.5/.1/.1 µL					1 /5
05	40	04	1/1/.2/.2 µL					2 /10
06	41	05	2.5/2.5/.5/.5 µL					5 /25
07	42	06	5/5/1/1 µL					10 /50
08	43	07	10/10/2/2 µL					20 /100
09	44	08	15/15/3/3 µL					30 /150
10	45	09	25/25/5/5 µL					50 /250
11	46	10	50/50/10/10 µL					100 /500
12	47	rinse	25 mL	1.0				
13	48							
14	49	V067J02B						MB
15	50	IV067J0201	5/5/1/1 µL					10 /50 3 ppb CS1/Lot#A6-14 BAD SPIKE CS2 23/27 10/3/12
16	51	rinse	25 mL	1.0				
17	52							
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								AS 10-3-12

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	10-2-12
ICAL ID	V067J02

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC 8260	SVL-20-10-3	Various	50/250
DCC Kat/Aq	-19-2		250
DCC Gases	-25-1		250
DCC CS2	~~-20-~~ 1 493/10/3/12		250
BFB	-22-1	1	50
IS/SURR. IS SS	-20-7-3 -21-1 10/3/12	Various	250 250
ICV/LCS 8260	-18-1	5	50/250
ICV/LCS Kat/Aq	-22-2	5	250
ICV/LCS Gases	-24-1	1	250
ICV/LCS CS2	-15-2	1	250
Data File Folder	12J02		
LOW	LOT #		
pH strip			
Chlorine strip			
Methanol			
$NaHSO_4$			
Reagent Water	RW3-12-001		
Sand			

Electronic Data Archival Location	Date
HPCHEM_VOA/TO67	

Comments:

IS/SS: SVL-20-23-2

☐ Refer to sample weight log

Analyzed By: AS

Date Disposed: 10-3-12 Disposed By: AS

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☒ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10-3-12 ☐ 5-mL Purge ☐ 10-mL Purge ☒ 25-mL Purge

Book # A67 -050

BATCH CV067J020 1

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH ≤2	Matrix W Cl_2 ≤5ppm	Matrix S	Notes
01	RJC053	BFB67J03	1 µl					T/CHECK 11:37
02	54	IV067J0202	5/5/1/1 µl					
03	55	CV067J0201						
04	56	V067J03L						
05	57	C						
06	58	LOD/LOQ 1ppb	2µl 8260					80ppb 1,4-Dioxane
07	59	.5/5ppb	.25/.5/.05/.05µl					
08	60	.3/4ppb	.15/.4/.03/.03µl					
09	61	.2/4ppb	.01/.4/.02/.02µl					
10	62	50ppb	0/.5µl					Ketone 5ppb
11	63	50ppb	0/.5µl					
12	64	V067J03B	25mls	1.0				MB
13	65	12I278-01			<2	<5		TB
14	66	-02			✓	✓		
15	67	-03T	50µl	50	✓	✓		
16	68	-04T	10mls	25	✓	✓		
17	69	-05T	10mls	25	✓	✓		
18	70	-06T			✓	✓		
19	71	-07T			✓	✓		
20	72	-08T			✓	✓		
21	73	-03	25mls	1.0	✓	✓		22:50
22	74	rinse						
23	75	rinse						
24	76-88	rinse						Prepurged Vials Deleted as clean
25								
26								
27								
28								
29								
30								AS 10-4-12

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	10-2-12
ICAL ID	V067J02

STANDARDS

NAME	ID	Amount (ul)	Conc. (mg/L)
DCC	SVI-20-10-3		
DCC	-19-2		
DCC	-25-1		
DCC	-1-1		
BFB	-22-1		
IS/SURR. IS SS	-7-3 -8-3 ≥1 [illegible]		
ICV/LCS	-18-1		
ICV/LCS	-22-2		
ICV/LCS	-24-1		
ICV/LCS	-15-2		
Data File Folder	12J03		
	LOT #		
pH strip	HC137671		
Chlorine strip	20221		
Methanol			
$NaHSO_4$			
Reagent Water	RW3-12-001		
Sand			

Electronic Data Archival Location	Date
HPCHEM_VOA/TO67	

Comments:
IS/SS: SVI-2023-2

☐ Refer to sample weight log

Analyzed By: AS

Date Disposed: 10-4-12 Disposed By: AS

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☒ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10-26-12 ☐ 5-mL Purge ☐ 10-mL Purge ☒ 25-mL Purge

Book # A67 -050

BATCH VU067J0218

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH < 2	Matrix W Cl2 < 5ppm	Matrix S	Notes
01	RJC418	BFB67J20-	1µL					T/CHECK 09:43
02	419	CVU067J0218-	5/5/1/1µL					
03	420	VU67J20L-						
04	421	C-						
05	422	rinse	25mls	1.0				
06	423	VU67J20B-						MB
07	424	12J162-08-			<2	<5		
08	425	-01-			-	-		
09	426	-02-			-	-		
10	427	-08M			-	-		MS 1gram x2, Bad spike x [illegible]
11	428	-08SMD			-	-		MSD
12	429	-08M-			-	-		MS
13	430	rinse						
14	431	12J162-08S-			<2	<5		MSD
15	432	rinse						
16	433	12J162-03-			<2	<5		
17	434	-04-			-	-		
18	435	-05-			-	-		
19	436	-06-			-	-		
20	437	-07-			-	-		
21	438	-09-			-	-		
22	439	-10-			-	-		20:47
23	440	rinse						
24	441							
25								
26								
27								
28								
29								
30								AS 10-29-12

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	10-2-12
ICAL ID	VU67J02

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC	SVL-20-10-3	5	
DCC	-19-2	5	
DCC	-25-1	1	50/250
DCC	-30-3	1	
BFB	-22-1	1	
IS/SURR.	-23-2	1	
ICV/LCS	-18-1	5	
ICV/LCS	-22-2	5	
ICV/LCS	-24-1	1	
ICV/LCS	-15-2	1	
Data File Folder	12J26		

	LOT #
pH strip	HC137671
Chlorine strip	7220
Methanol	—
$NaHSO_4$	—
Reagent Water	RW3-12-001
Sand	—

Electronic Data Archival Location	Date
HPCHEM_VOA/TO67	

Comments:

☐ Refer to sample weight log

Analyzed By: AS

Date Disposed: 10-29-12 Disposed By: AS

Injection Log

Directory: D:\HPCHEM\1\DATA\12J26

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RJC418.D	1.	BFB67J20	T/CHK	26 Oct 2012 09:43
2	2	RJC419.D	1.	CVO67J0218 10ppb	10ppb 8260/50ppb KET-ACR-ACN-TBA	26 Oct 2012 10:22
3	3	RJC420.D	1.	VO67J20L 10ppb	10ppb 8260/50ppb KET-ACR-ACN-TBA	26 Oct 2012 11:01
4	4	RJC421.D	1.	VO67J20C 10ppb	10ppb 8260/50ppb KET-ACR-ACN-TBA	26 Oct 2012 11:33
5	5	RJC422.D	1.	RINSE 25mls	BLANK	26 Oct 2012 12:03
6	6	RJC423.D	1.	VO67J20B 25mls	DF=1.0, MB	26 Oct 2012 12:32
7	7	RJC424.D	1.	12J162-08 25mls	DF=1.0	26 Oct 2012 13:05
8	8	RJC425.D	1.	12J162-01 25mls	DF=1.0	26 Oct 2012 13:35
9	9	RJC426.D	1.	12J162-02 25mls	DF=1.0	26 Oct 2012 14:05
10	10	RJC427.D	1.	12J162-08M 25mls	DF=1.0, MS	26 Oct 2012 14:35
11	11	RJC428.D	1.	12J162-08S 25mls	DF=1.0, MSD	26 Oct 2012 15:06
12	12	RJC429.D	1.	12J162-08M 25mls	DF=1.0, MS	26 Oct 2012 15:35
13	13	RJC430.D	1.	RINSE 25mls	BLANK	26 Oct 2012 16:06
14	14	RJC431.D	1.	12J162-08S 25mls	DF=1.0, MSD	26 Oct 2012 16:45
15	15	RJC432.D	1.	RINSE 25mls	BLANK	26 Oct 2012 17:15
16	16	RJC433.D	1.	12J162-03 25mls	DF=1.0	26 Oct 2012 17:44
17	17	RJC434.D	1.	12J162-04 25mls	DF=1.0	26 Oct 2012 18:15
18	18	RJC435.D	1.	12J162-05 25mls	DF=1.0	26 Oct 2012 18:46
19	19	RJC436.D	1.	12J162-06 25mls	DF=1.0	26 Oct 2012 19:15
20	20	RJC437.D	1.	12J162-07 25mls	DF=1.0	26 Oct 2012 19:47
21	21	RJC438.D	1.	12J162-09 25mls	DF=1.0	26 Oct 2012 20:17
22	22	RJC439.D	1.	12J162-10 25mls	DF=1.0	26 Oct 2012 20:47
23	23	RJC440.D	1.	RINSE 25mls	BLANK	26 Oct 2012 21:19
24	24	RJC441.D	1.	RINSE 25mls	BLANK	26 Oct 2012 21:50

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

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

SDG#: 12J162

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J162

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

A total of ten (10) water samples were received on 10/24/12 for VOC SIM analysis, Method 5030B/8260B SIM in accordance with Department of Defense Quality Systems Manual for Environmental Laboratories, Version 4.2 and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Instrument mass ratios were within specification. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Results were compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for VO05J21L/C were all within QC limits.

Matrix QC Sample
A set of MS/MSD was analyzed with the samples in this SDG.
Percent recoveries for J162-08M/S were within project QC limits.

Surrogate
Surrogate was added on QC and field samples. Surrogate recoveries were within project QC limits. Refer to sample result forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE

SDG NO. : 12J162
Instrument ID : T-005

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V005J21B	1	NA	10/29/1209:35	10/29/1209:35	RJQ403	RJQ091	V005J21	Method Blank
LCS1W	V005J21L	1	NA	10/29/1208:37	10/29/1208:37	RJQ401	RJQ091	V005J21	Lab Control Sample (LCS)
LCD1W	V005J21C	1	NA	10/29/1209:06	10/29/1209:06	RJQ402	RJQ091	V005J21	LCS Duplicate
10-24-12 BBW-1	J162-01	1	NA	10/29/1210:06	10/29/1210:06	RJQ404	RJQ091	V005J21	Field Sample
10-24-12 BBW-2	J162-02	1	NA	10/29/1210:36	10/29/1210:36	RJQ405	RJQ091	V005J21	Field Sample
10-24-12 BBW-3	J162-03	1	NA	10/29/1211:07	10/29/1211:07	RJQ406	RJQ091	V005J21	Field Sample
10-24-12 FDUP-1	J162-04	1	NA	10/29/1211:36	10/29/1211:36	RJQ407	RJQ091	V005J21	Field Sample
10-23-12 PWB-6	J162-05	1	NA	10/29/1212:05	10/29/1212:05	RJQ408	RJQ091	V005J21	Field Sample
10-23-12 AR-1	J162-06	1	NA	10/29/1212:34	10/29/1212:34	RJQ409	RJQ091	V005J21	Field Sample
10-23-12 PWB-1	J162-07	1	NA	10/29/1213:03	10/29/1213:03	RJQ410	RJQ091	V005J21	Field Sample
10-23-12 PWB-3	J162-09	1	NA	10/29/1213:35	10/29/1213:35	RJQ411	RJQ091	V005J21	Field Sample
10-23-12 PWB-10	J162-10	1	NA	10/29/1214:04	10/29/1214:04	RJQ412	RJQ091	V005J21	Field Sample
10-23-12 AMW-3R	J162-08	1	NA	10/29/1214:33	10/29/1214:33	RJQ413	RJQ091	V005J21	Field Sample
10-23-12 AMW-3RMS	J162-08M	1	NA	10/29/1215:03	10/29/1215:03	RJQ414	RJQ091	V005J21	Matrix Spike Sample (MS)
10-23-12 AMW-3RMSD	J162-08S	1	NA	10/29/1215:32	10/29/1215:32	RJQ415	RJQ091	V005J21	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/29/12 10:06
Sample ID:	10-24-12 BBW-1	Date Analyzed:	10/29/12 10:06
Lab Samp ID:	J162-01	Dilution Factor:	1
Lab File ID:	RJQ404	Matrix :	WATER
Ext Btch ID:	V005J21	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.44	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.118	0.1000	118	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/29/12 10:36
Sample ID:	10-24-12 BBW-2	Date Analyzed:	10/29/12 10:36
Lab Samp ID:	J162-02	Dilution Factor:	1
Lab File ID:	RJQ405	Matrix :	WATER
Ext Btch ID:	VO05J21	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.74	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.108	0.1000	108	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/29/12 11:07
Sample ID:	10-24-12 BBW-3	Date Analyzed:	10/29/12 11:07
Lab Samp ID:	J162-03	Dilution Factor:	1
Lab File ID:	RJQ406	Matrix	: WATER
Ext Btch ID:	VO05J21	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.020	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0990	0.1000	99.0	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/29/12 11:36
Sample ID:	10-24-12 FDUP-1	Date Analyzed:	10/29/12 11:36
Lab Samp ID:	J162-04	Dilution Factor:	1
Lab File ID:	RJQ407	Matrix :	WATER
Ext Btch ID:	VO05J21	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.018	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.101	0.1000	101	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/29/12 12:05
Sample ID:	10-23-12 PWB-6	Date Analyzed:	10/29/12 12:05
Lab Samp ID:	J162-05	Dilution Factor:	1
Lab File ID:	RJQ408	Matrix :	WATER
Ext Btch ID:	V005J21	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.0027J	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0906	0.1000	90.6	80-120

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J29\RJQ408.D
Acq On : 29 Oct 2012 12:05 pm
Sample : 12J162-05 25mL
Misc : DF=1.0
MS Integration Params: 524INT.P
Quant Time: Oct 30 6:40 2012

Vial: 10
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2707	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	39066	90.55 ng/l	0.00
Spiked Amount 100.000			Recovery	= 90.55%	
Target Compounds					Qvalue
6) 1,2,3-Trichloropropane	8.78	75	133	2.72 ng/l	87

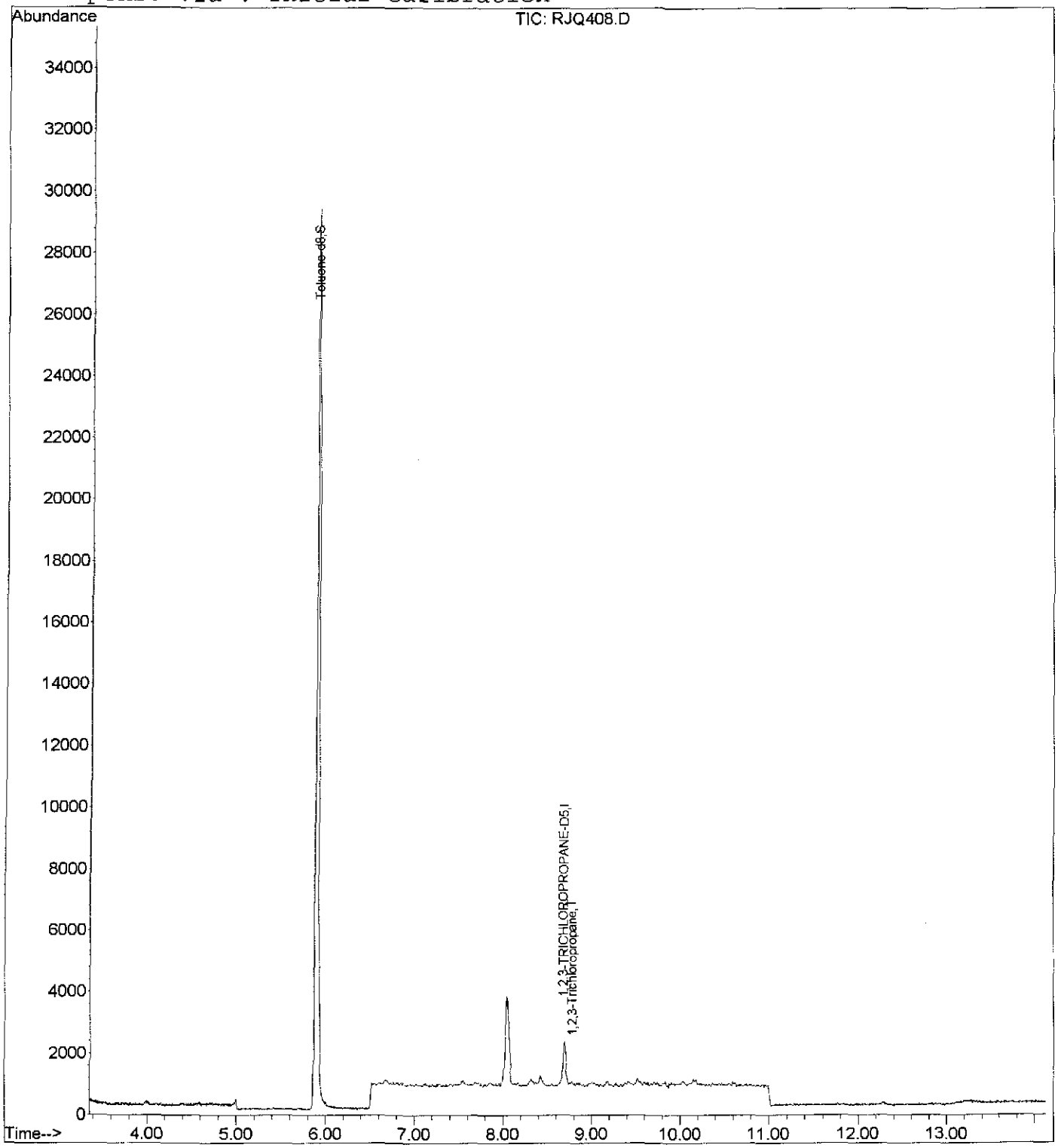
(#) = qualifier out of range (m) = manual integration

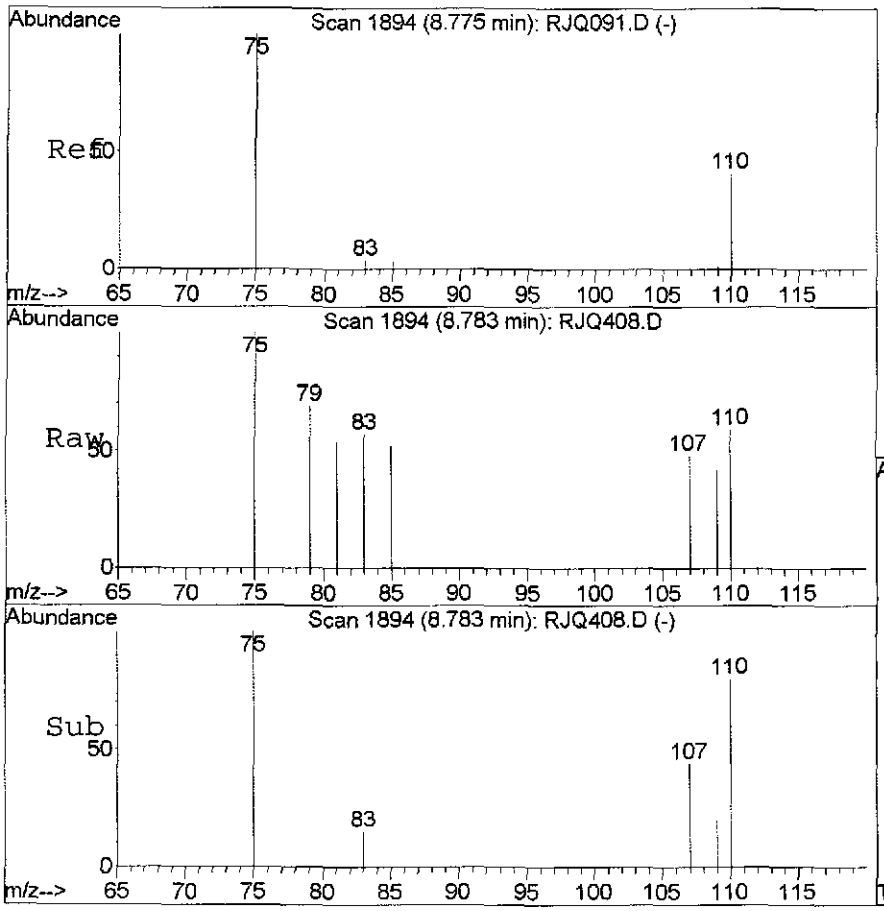
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J29\RJQ408.D
Acq On : 29 Oct 2012 12:05 pm
Sample : 12J162-05 25mL
Misc : DF=1.0
MS Integration Params: 524INT.P
Quant Time: Oct 30 6:40 2012

Vial: 10
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration

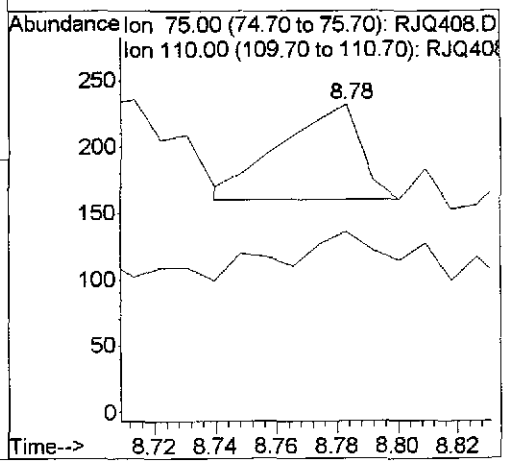




#6
1,2,3-Trichloropropane
Concen: 2.72 ng/l
RT: 8.78 min Scan# 1894
Delta R.T. 0.01 min
Lab File: RJQ408.D
Acq: 29 Oct 2012 12:05 pm

Tgt Ion: 75 Resp: 133

Ion	Ratio	Lower	Upper
75	100		
110	39.1	18.1	78.1



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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/29/12 12:34
Sample ID:	10-23-12 AR-1	Date Analyzed:	10/29/12 12:34
Lab Samp ID:	J162-06	Dilution Factor:	1
Lab File ID:	RJQ409	Matrix	: WATER
Ext Btch ID:	V005J21	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.14	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0996	0.1000	99.6	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/29/12 13:03
Sample ID:	10-23-12 PWB-1	Date Analyzed:	10/29/12 13:03
Lab Samp ID:	J162-07	Dilution Factor:	1
Lab File ID:	RJQ410	Matrix :	WATER
Ext Btch ID:	V005J21	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.15	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0985	0.1000	98.5	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/29/12 14:33
Sample ID:	10-23-12 AMW-3R	Date Analyzed:	10/29/12 14:33
Lab Samp ID:	J162-08	Dilution Factor:	1
Lab File ID:	RJQ413	Matrix :	WATER
Ext Btch ID:	V005J21	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.21	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.102	0.1000	102	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/29/12 13:35
Sample ID:	10-23-12 PWB-3	Date Analyzed:	10/29/12 13:35
Lab Samp ID:	J162-09	Dilution Factor:	1
Lab File ID:	RJQ411	Matrix :	WATER
Ext Btch ID:	V005J21	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.28	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.107	0.1000	107	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/29/12 14:04
Sample ID:	10-23-12 PWB-10	Date Analyzed:	10/29/12 14:04
Lab Samp ID:	J162-10	Dilution Factor:	1
Lab File ID:	RJQ412	Matrix :	WATER
Ext Btch ID:	V005J21	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.49	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.106	0.1000	106	80-120

QC SUMMARIES

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	NA
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/29/12
Batch No.	: 12J162	Date Extracted:	10/29/12 09:35
Sample ID:	MBLK1W	Date Analyzed:	10/29/12 09:35
Lab Samp ID:	V005J21B	Dilution Factor:	1
Lab File ID:	RJQ403	Matrix :	WATER
Ext Btch ID:	V005J21	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-Q05

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	ND	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0892	0.1000	89.2	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V005J21B	V005J21L	V005J21C		
LAB FILE ID:	RJQ403	RJQ401	RJQ402		
DATE EXTRACTED:	10/29/1209:35	10/29/1208:37	10/29/1209:06	DATE COLLECTED:	NA
DATE ANALYZED:	10/29/1209:35	10/29/1208:37	10/29/1209:06	DATE RECEIVED:	10/29/12
PREP. BATCH:	V005J21	V005J21	V005J21		
CALIB. REF:	RJQ091	RJQ091	RJQ091		

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 (%)
1,2,3-Trichloropropane	ND	0.100	0.0931	93	0.100	0.0954	95	2	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0895	89	0.100	0.0853	85	5	50-130	30
1,2-Dibromoethane	ND	0.100	0.100	100	0.100	0.0937	94	7	80-120	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 (%)
Toluene-d8	0.100	0.101	101	0.100	0.0940	94	80-120

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	10-23-12 AMW-3R				
LAB SAMP ID:	J162-08	J162-08M	J162-08S		
LAB FILE ID:	RJQ413	RJQ414	RJQ415		
DATE EXTRACTED:	10/29/1214:33	10/29/1215:03	10/29/1215:32	DATE COLLECTED:	10/23/12
DATE ANALYZED:	10/29/1214:33	10/29/1215:03	10/29/1215:32	DATE RECEIVED:	10/24/12
PREP. BATCH:	V005J21	V005J21	V005J21		
CALIB. REF:	RJQ091	RJQ091	RJQ091		

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 (%)
1,2,3-Trichloropropane	0.207	0.100	0.293	86	0.100	0.331	124	12	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0823	82	0.100	0.0839	84	2	50-130	30
1,2-Dibromoethane	ND	0.100	0.0945	94	0.100	0.105	105	11	80-120	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 (%)
Toluene-d8	0.100	0.0940	94	0.100	0.0996	100	80-120

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J29\RJQ403.D
Acq On : 29 Oct 2012 9:35 am
Sample : VO05J21B
Misc : BLANK
MS Integration Params: 524INT.P
Quant Time: Oct 29 9:49 2012

Vial: 5
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.68	79	3105	50.00 ng/l	0.00

System Monitoring Compounds

3) Toluene-d8	5.89	98	44136	89.19 ng/l	0.00
Spiked Amount 100.000			Recovery =	89.19%	

Target Compounds Qvalue

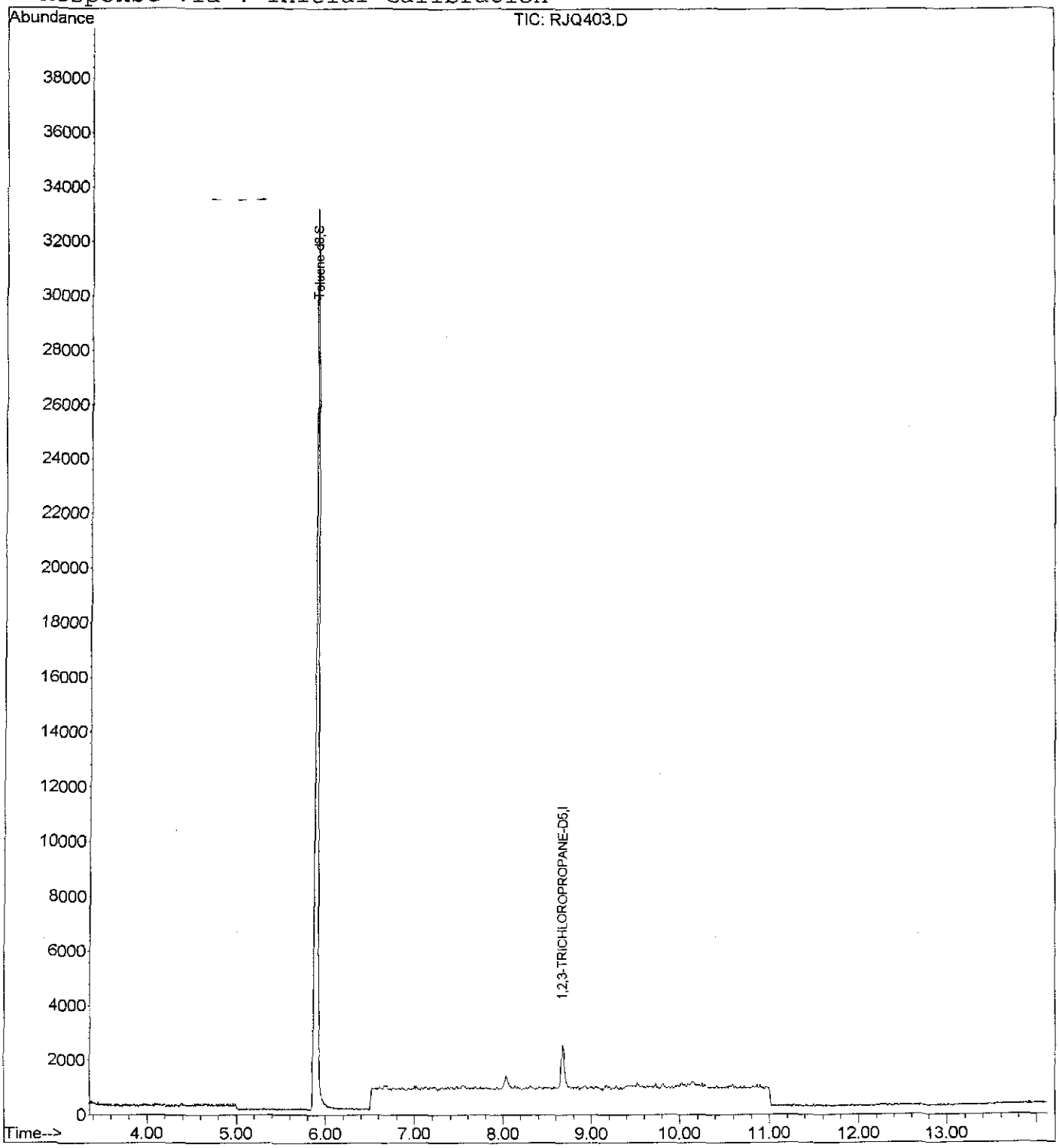
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J29\RJQ403.D
Acq On : 29 Oct 2012 9:35 am
Sample : VO05J21B
Misc : BLANK
MS Integration Params: 524INT.P
Quant Time: Oct 29 9:49 2012

Vial: 5
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



2148

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J29\RJQ401.D
Acq On : 29 Oct 2012 8:37 am
Sample : VO05J21L
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 29 8:51 2012

Vial: 3
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.68	79	2664	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.89	98	42914	101.08	ng/l	0.00
Spiked Amount 100.000			Recovery	=	101.08%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	20906	118.28	ng/l	97
4) 1,2-Dibromoethane	7.00	107	7652	100.22	ng/l	96
5) 1,1,2,2-Tetrachloroethane	8.60	83	6946	94.60	ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	4487	93.11	ng/l	96
7) 1,2-Dibromo-3-chloropropan	11.54	157	973	89.46	ng/l	95

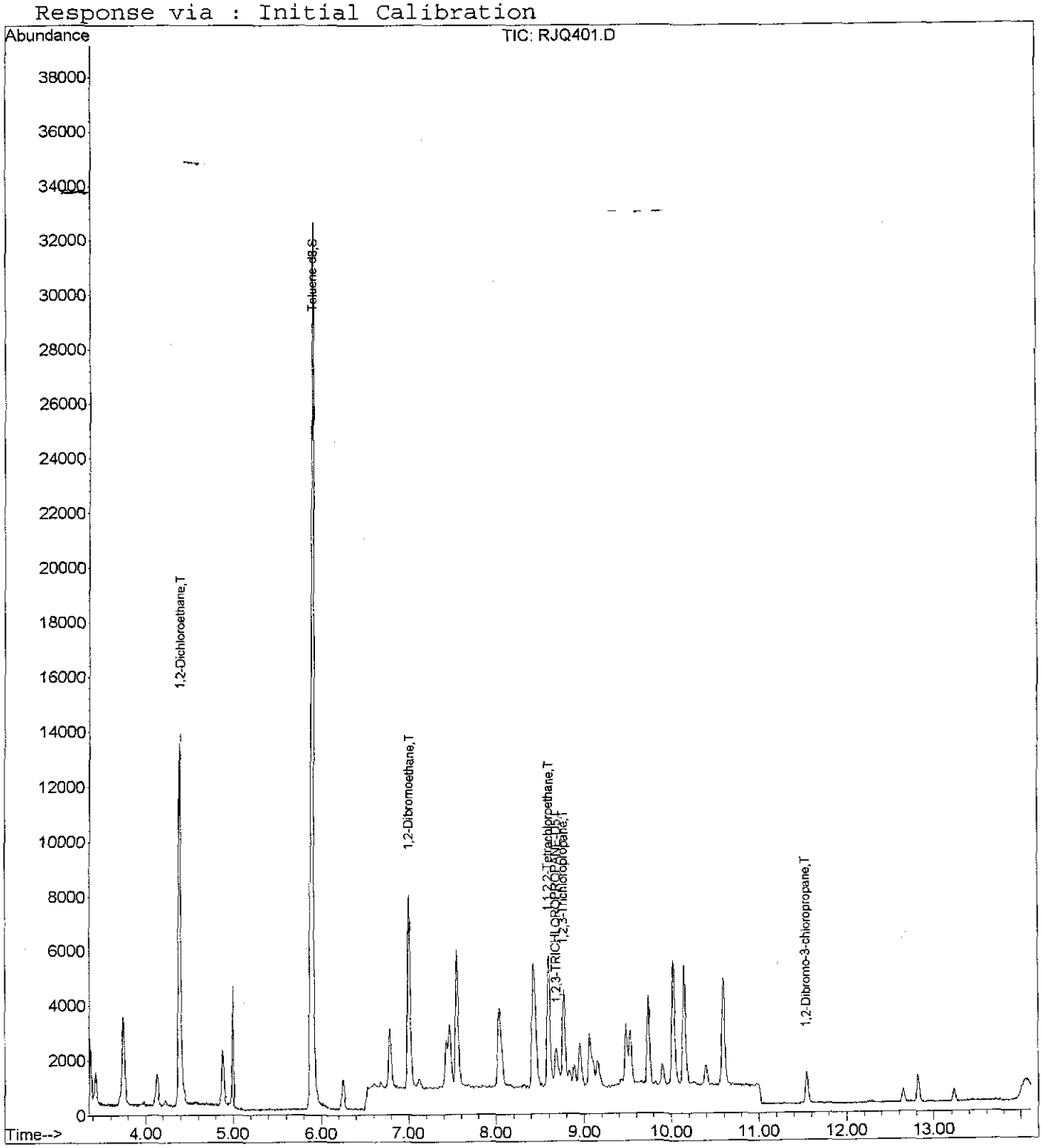
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J29\RJQ401.D
Acq On : 29 Oct 2012 8:37 am
Sample : VO05J21L
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 29 8:51 2012

Vial: 3
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J29\RJQ402.D
Acq On : 29 Oct 2012 9:06 am
Sample : VO05J21C
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 29 9:20 2012

Vial: 4
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2792	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.89	98	41838	94.03	ng/l	0.00
Spiked Amount 100.000			Recovery = 94.03%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	20059	108.28	ng/l	96
4) 1,2-Dibromoethane	7.00	107	7496	93.68	ng/l	97
5) 1,1,2,2-Tetrachloroethane	8.59	83	7008	91.07	ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	4820	95.44	ng/l	100
7) 1,2-Dibromo-3-chloropropan	11.54	157	972	85.27	ng/l	94

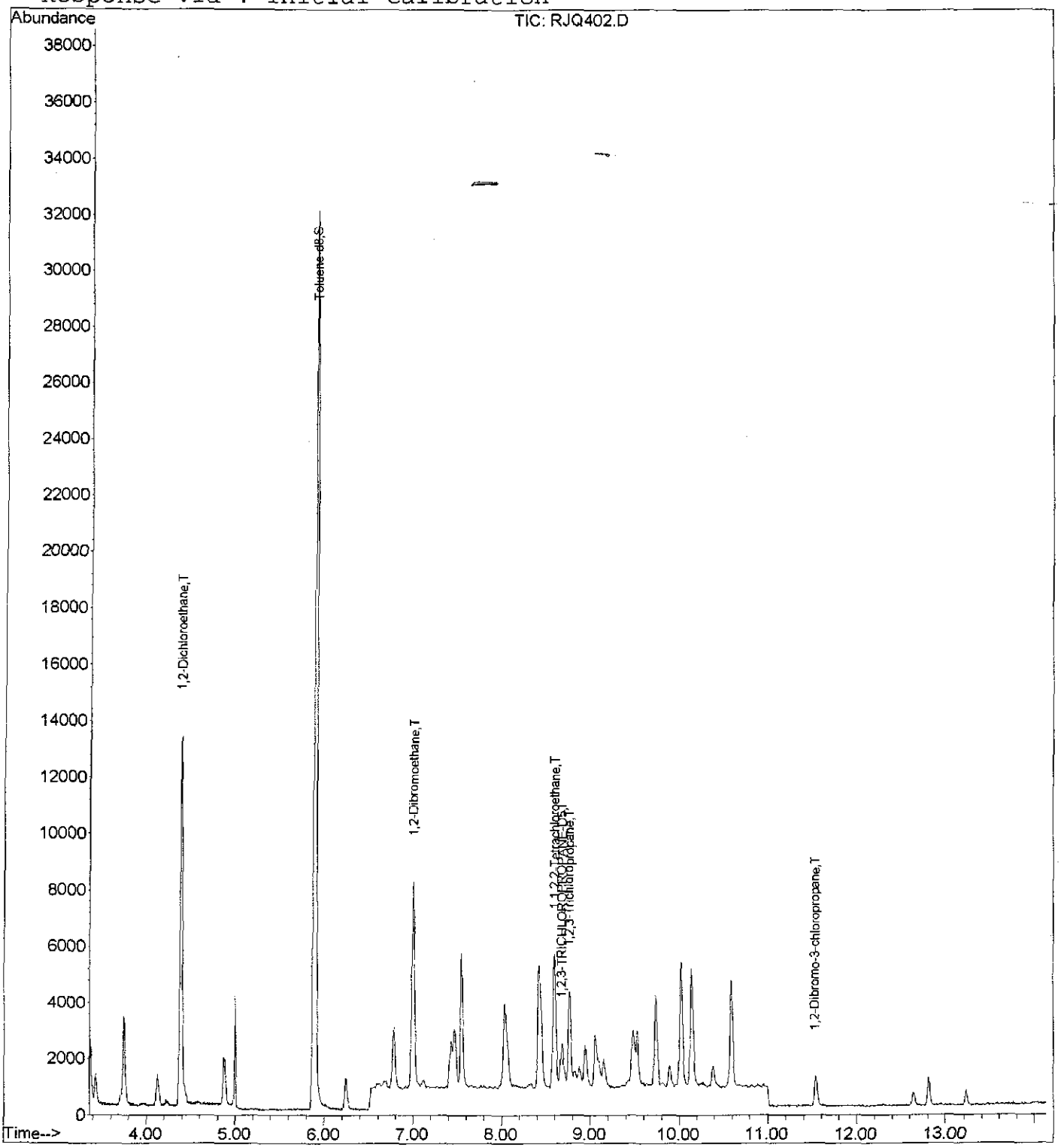
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J29\RJQ402.D
Acq On : 29 Oct 2012 9:06 am
Sample : VO05J21C
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 29 9:20 2012

Vial: 4
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



2152

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J29\RJQ413.D
Acq On : 29 Oct 2012 2:33 pm
Sample : 12J162-08 25mL
Misc : DF=1.0
MS Integration Params: 524INT.P
Quant Time: Oct 30 6:40 2012

Vial: 15
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

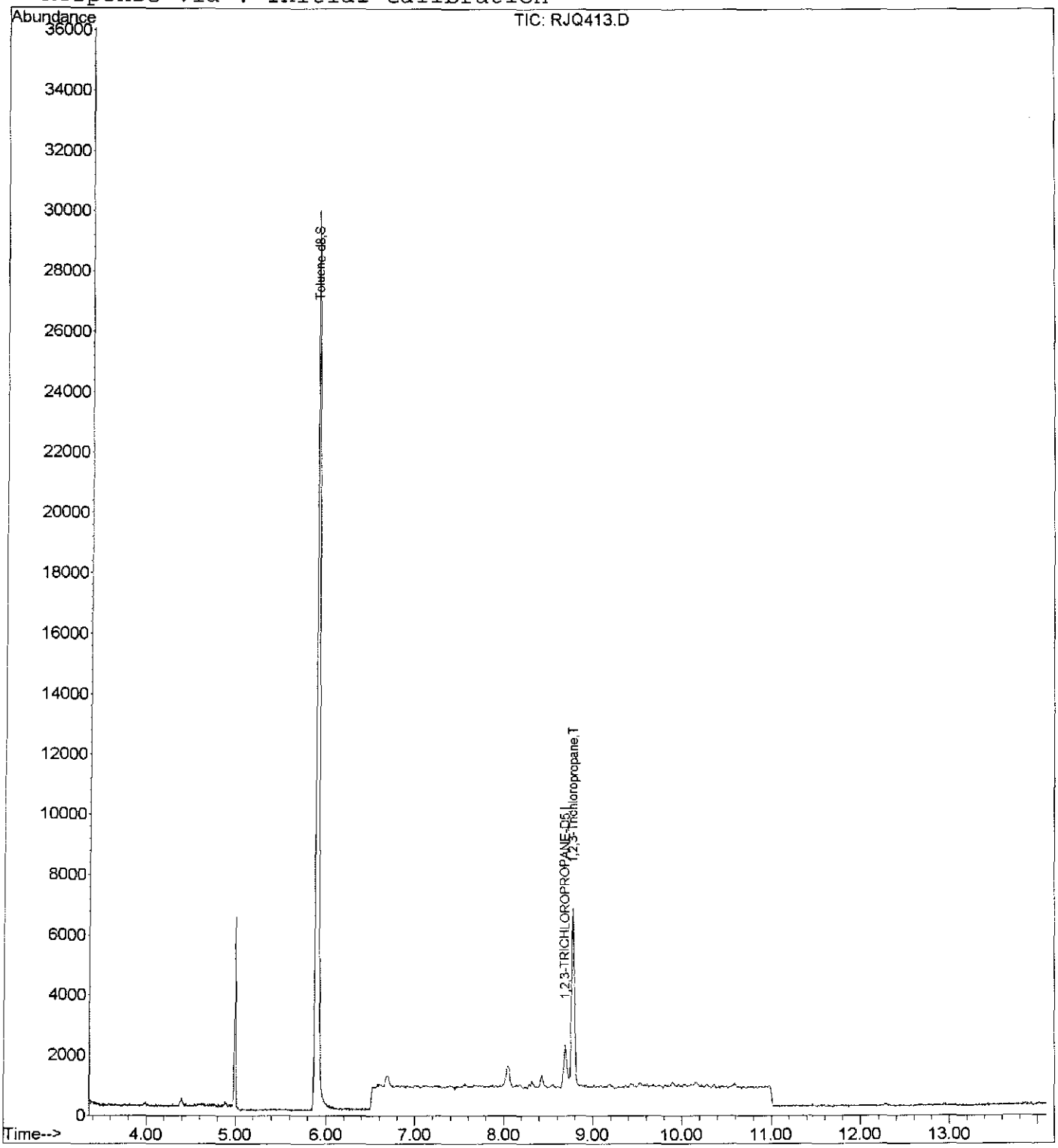
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2437	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	39487	101.67 ng/l	0.00
Spiked Amount 100.000			Recovery	= 101.67%	
Target Compounds					Qvalue
6) 1,2,3-Trichloropropane	8.77	75	9127	207.04 ng/l	91

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

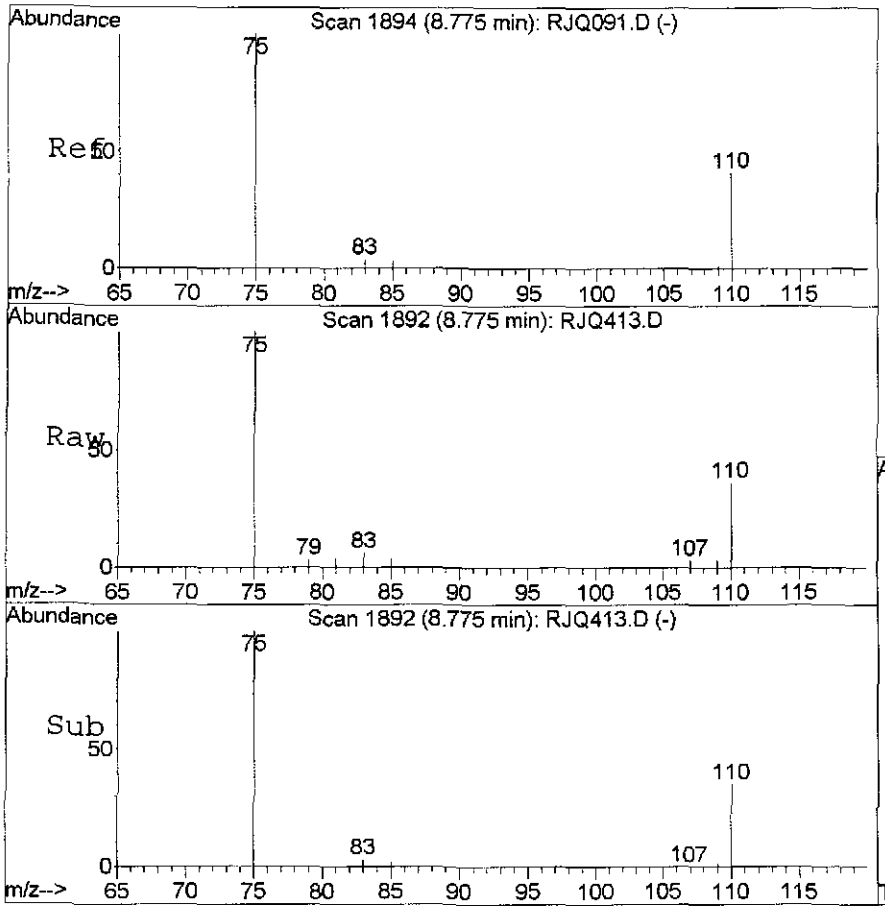
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J29\RJQ413.D Vial: 15
Acq On : 29 Oct 2012 2:33 pm Operator: SD
Sample : 12J162-08 25mL Inst : TO05
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 30 6:40 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



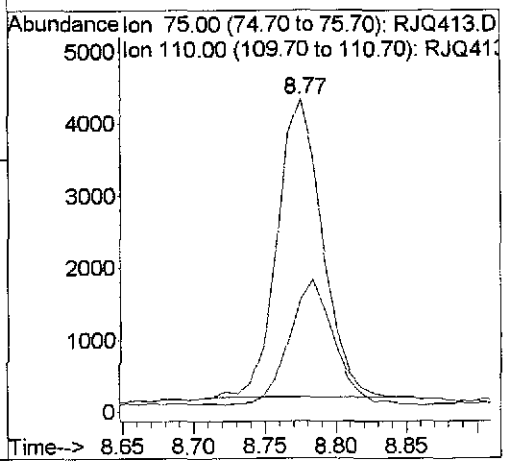
215H



#6
1,2,3-Trichloropropane
Concen: 207.04 ng/l
RT: 8.77 min Scan# 1892
Delta R.T. -0.00 min
Lab File: RJQ413.D
Acq: 29 Oct 2012 2:33 pm

Tgt Ion: 75 Resp: 9127

Ion	Ratio	Lower	Upper
75	100		
110	42.0	18.1	78.1



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J29\RJQ414.D Vial: 16
Acq On : 29 Oct 2012 3:03 pm Operator: SD
Sample : 12J162-08M 25mL Inst : TO05
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 30 6:40 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

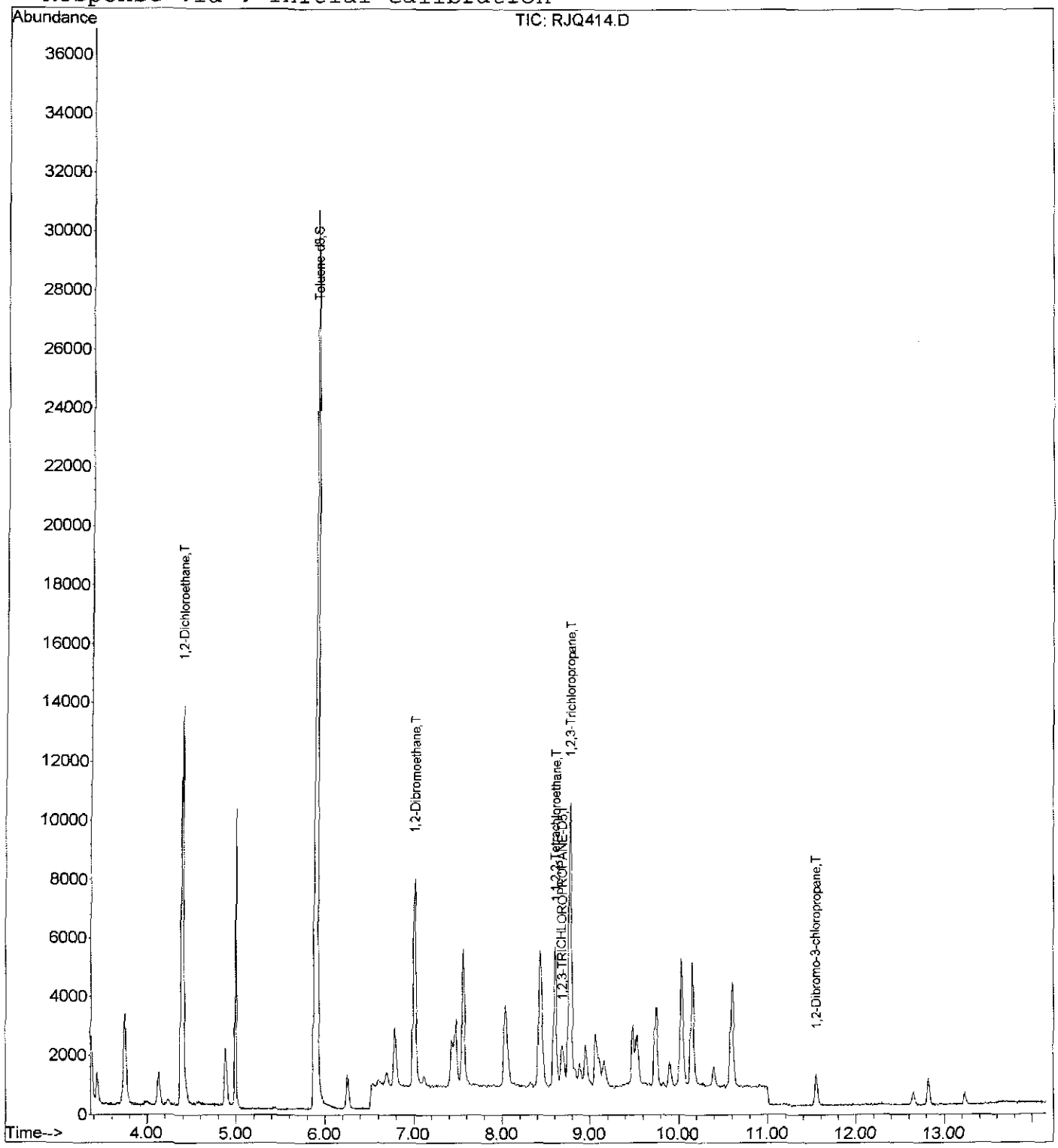
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2710	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	40594	93.99	ng/l	0.00
Spiked Amount 100.000			Recovery	=	93.99%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	20699	115.12	ng/l	97
4) 1,2-Dibromoethane	7.01	107	7339	94.49	ng/l	99
5) 1,1,2,2-Tetrachloroethane	8.61	83	6757	90.46	ng/l	96
6) 1,2,3-Trichloropropane	8.78	75	14355	292.83	ng/l	92
7) 1,2-Dibromo-3-chloropropan	11.55	157	911	82.34	ng/l	98

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J29\RJQ414.D Vial: 16
Acq On : 29 Oct 2012 3:03 pm Operator: SD
Sample : 12J162-08M 25mL Inst : TO05
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 30 6:40 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J29\RJQ415.D Vial: 17
Acq On : 29 Oct 2012 3:32 pm Operator: SD
Sample : 12J162-08S 25mL Inst : TO05
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 30 6:40 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

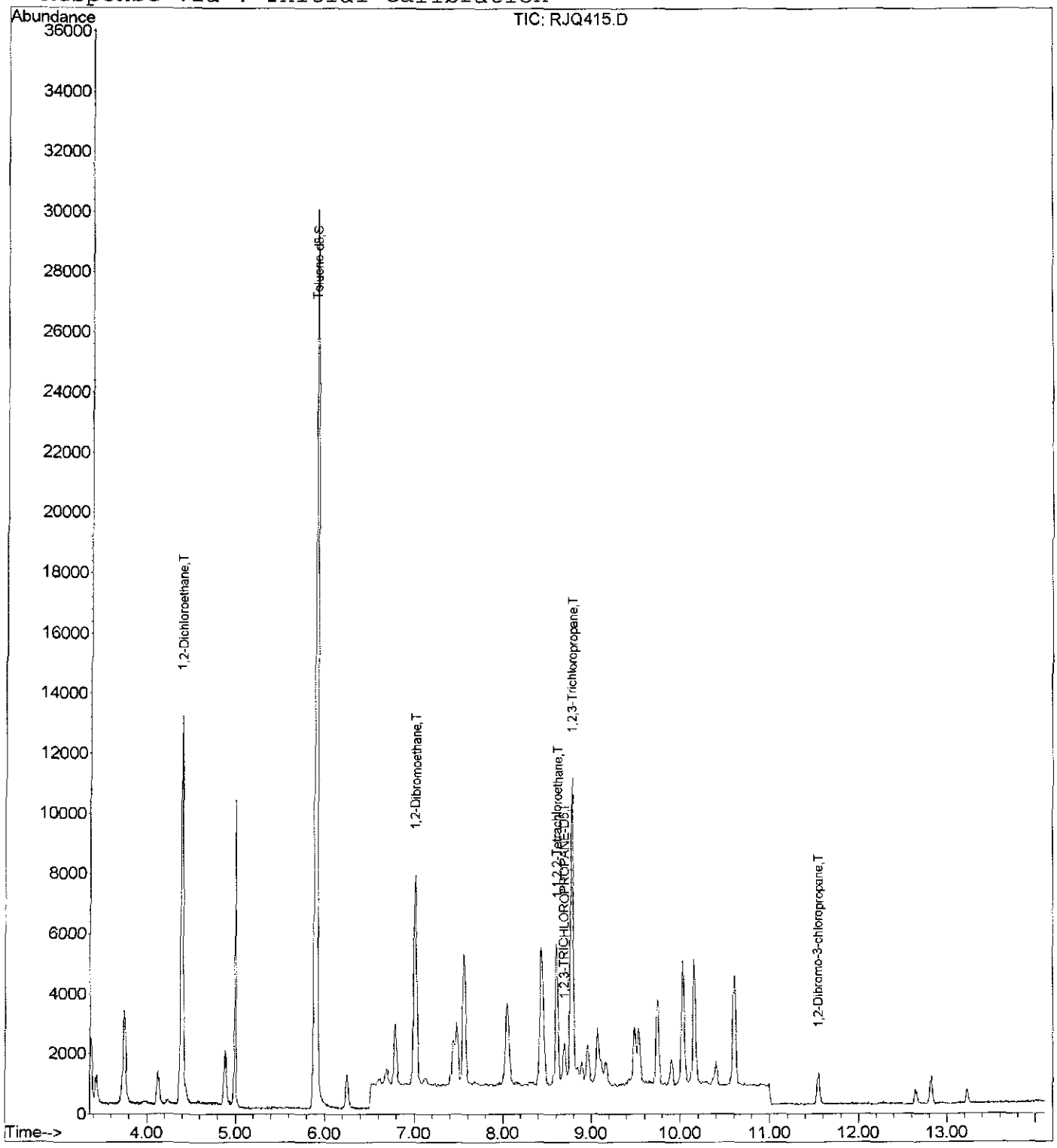
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.70	79	2485	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	39446	99.60 ng/l	0.00
Spiked Amount 100.000			Recovery =	99.60%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.40	62	20229	122.69 ng/l	99
4) 1,2-Dibromoethane	7.01	107	7486	105.11 ng/l	97
5) 1,1,2,2-Tetrachloroethane	8.61	83	6936	101.26 ng/l	98
6) 1,2,3-Trichloropropane	8.77	75	14884	331.11 ng/l	90
7) 1,2-Dibromo-3-chloropropan	11.55	157	851	83.88 ng/l	94

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J29\RJQ415.D Vial: 17
Acq On : 29 Oct 2012 3:32 pm Operator: SD
Sample : 12J162-08S 25mL Inst : TO05
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 30 6:40 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



2159

INITIAL CALIBRATION(S)

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJQ085
Instrument ID: T005
GC Column:RTX502.2ID:0.32mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J162
BFB Injection Date : 10/09/12
BFB Injection Time : 18:19
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.27
75	30.0 - 60.0% of mass 95	53.41
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.32
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	86.71
175	5.0 - 9.0% of mass 174	6.06(7.0)1
176	95.0 - 101.0% of mass 174	83.47(96.3)1
177	5.0 - 9.0% of mass 176	5.95(7.1)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	VSTD05	V005J091	RJQ087	10/09/12	19:17
2	VSTD010	V005J092	RJQ088	10/09/12	19:46
3	VSTD020	V005J093	RJQ089	10/09/12	20:16
4	VSTD050	V005J094	RJQ090	10/09/12	20:45
5	VSTD100	V005J095	RJQ091	10/09/12	21:14
6	VSTD200	V005J096	RJQ092	10/09/12	21:43
7	VSTD400	V005J097	RJQ093	10/09/12	22:11
8	VSTD1000	V005J098	RJQ094	10/09/12	22:40

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO05
Beginning DateTime :10/09/12 19:17
Spike Units :PPT
IC File :RJQ091

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :10/09/12 22:40
HPChem Method :VO05J09

M IDX	Parameters	5 19:17 RJQ087	10 19:46 RJQ088	20 20:16 RJQ089	50 20:45 RJQ090	100 21:14 RJQ091	200 21:43 RJQ092	400 22:11 RJQ093	1000 22:40 RJQ094	Av_RRF	%_RSD	Av_Rt_M
1	1,2,3-TRICHLOROPROPANE-D5	1	1	1	1	1	1	1	1	1	0	8.6877
2	1,2-Dichloroethane	2.581	2.988	3.663	3.529	3.342	3.569	3.377	3.490	3.317	10.89	4.3934
3	Toluene-d8	9.402	7.923	7.658	7.948	7.512	7.920	7.464	7.922	7.969	7.68	5.8978
4	1,2-Dibromoethane	1.296	1.364	1.391	1.407	1.420	1.520	1.480	1.585	1.433	6.40	7.0058
5	1,1,2,2-Tetrachloroethane	------	1.402	1.406	1.323	1.321	1.354	1.397	1.445	1.378	3.38	8.6017
6	1,2,3-Trichloropropane	0.836	0.833	0.871	0.894	0.858	0.883	0.958	1.103	0.904	9.89	8.7749
7	1,2-Dibromo-3-chloropropane	------	------	0.247	0.212	0.183	0.185	0.190	0.207	0.204	11.79	11.5483

Ave_%RSD : 8.3 Max_%RSD : 11.8

SA
10/12/12

Compound List Report TO05

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
Total Cpnds : 7

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,2,3-TRICHLOROPROPANE-D5	79	8.69	1.000	A	1	A	B
2	T	1,2-Dichloroethane	62	4.39	0.505	A	1	A	B
3	S	Toluene-d8	98	5.90	0.679	A	1	A	B
4	T	1,2-Dibromoethane	107	7.00	0.806	A	1	A	B
5	T	1,1,2,2-Tetrachloroethane	83	8.60	0.990	A	1	A	B
6	T	1,2,3-Trichloropropane	75	8.78	1.010	A	1	A	B
7	T	1,2-Dibromo-3-chloropropane	157	11.55	1.329	A	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

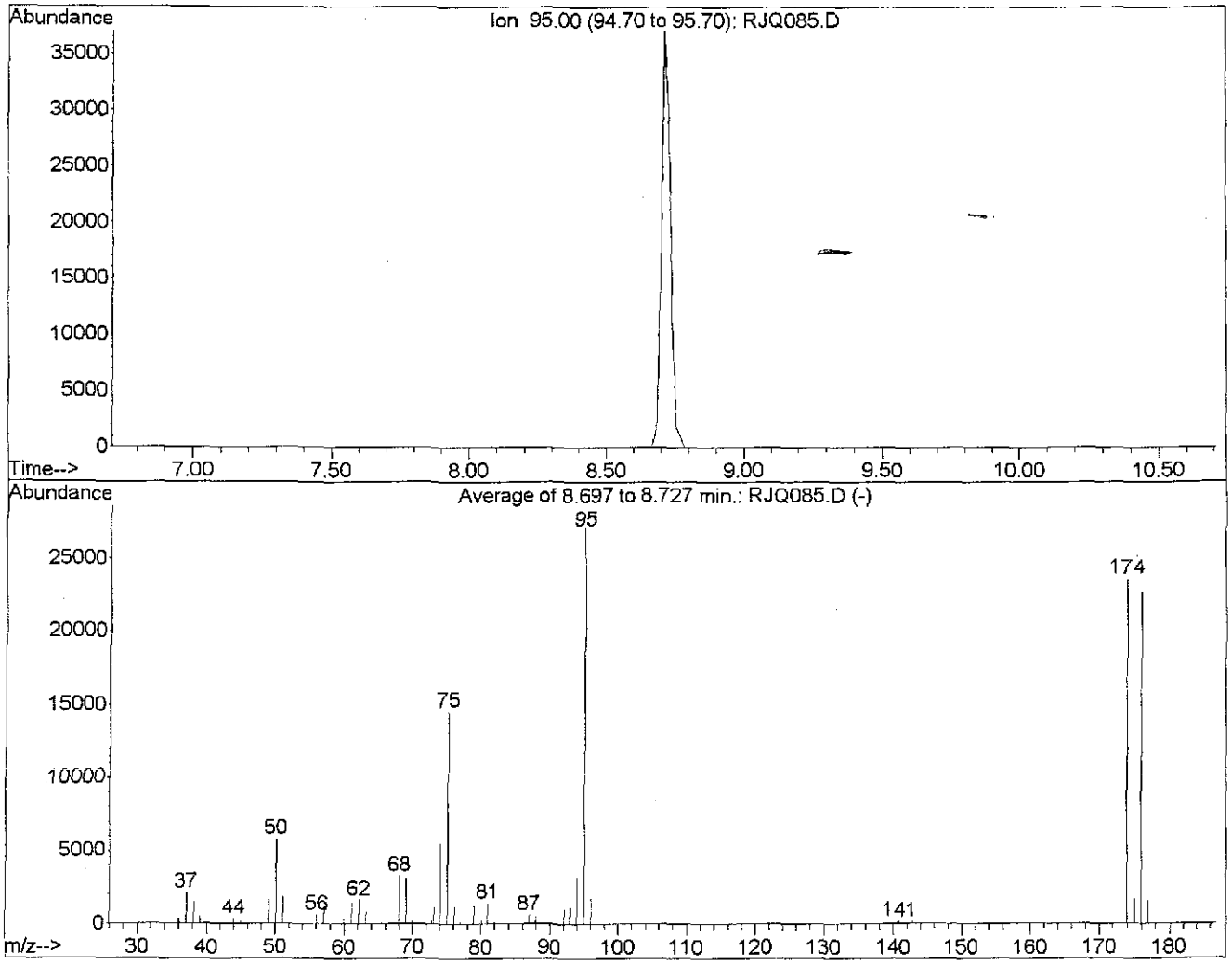
VO05J09.M Thu Oct 11 10:09:46 2012

SU
10/12/12

BFB

Data File : D:\HPCHEM\1\DATA\12J09\RJQ085.D
Acq On : 9 Oct 2012 6:19 pm
Sample : BFB05J06
Misc : T/CHK
MS Integration Params: 524INT.P
Method : D:\HPCHEM\1\METHODS\VO05J09A.M (RTE Integrator)
Title : METHOD 8260 SIM

Vial: 1
Operator: SD
Inst : TO05
Multiplr: 1.00



AutoFind: Scans 360, 361, 362; Background Corrected with Scan 356

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.3	5791	PASS
75	95	30	60	53.4	14544	PASS
95	95	100	100	100.0	27230	PASS
96	95	5	9	6.3	1721	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	86.7	23612	PASS
175	174	5	9	7.0	1650	PASS
176	174	95	101	96.3	22728	PASS
177	176	5	9	7.1	1621	PASS

RJQ085.D VO05J09A.M Thu Oct 11 09:57:47 2012 Sa 10/12/12

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ087.D
Acq On : 9 Oct 2012 7:17 pm
Sample : VO05J091
Misc : 5.0ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:01 2012

Vial: 3
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2608	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	2452	5.90 ng/l	0.00
Spiked Amount 100.000			Recovery	= 5.90%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.40	62	673	3.89 ng/l	79
4) 1,2-Dibromoethane	7.01	107	338	4.52 ng/l	82
6) 1,2,3-Trichloropropane	8.78	75	218	4.62 ng/l	60

SU 10/12/12

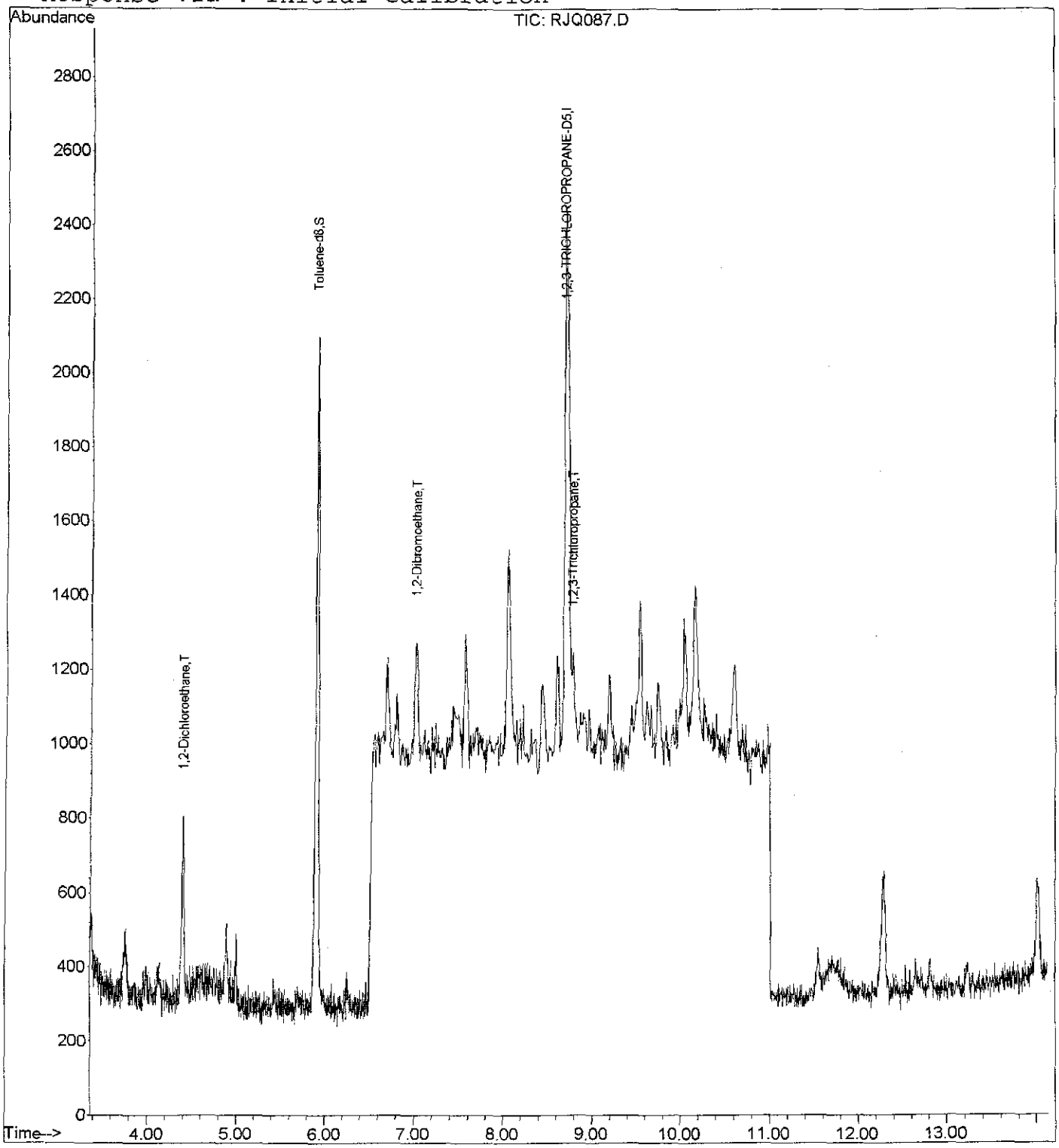
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ087.D
Acq On : 9 Oct 2012 7:17 pm
Sample : VO05J091
Misc : 5.0ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:01 2012

Vial: 3
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



2166

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ088.D Vial: 4
Acq On : 9 Oct 2012 7:46 pm Operator: SD
Sample : VO05J092 Inst : TO05
Misc : 10ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:06 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2624	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	4158	9.94	ng/l	0.00
Spiked Amount 100.000			Recovery	=	9.94%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	1568	9.01	ng/l	97
4) 1,2-Dibromoethane	7.00	107	716	9.52	ng/l	95
5) 1,1,2,2-Tetrachloroethane	8.61	83	736	10.18	ng/l	99
6) 1,2,3-Trichloropropane	8.78	75	437	9.21	ng/l	79

SG
10/12/12

(#) = qualifier out of range (m) = manual integration
RJQ088.D VO05J09.M Thu Oct 11 10:07:50 2012 Page 1

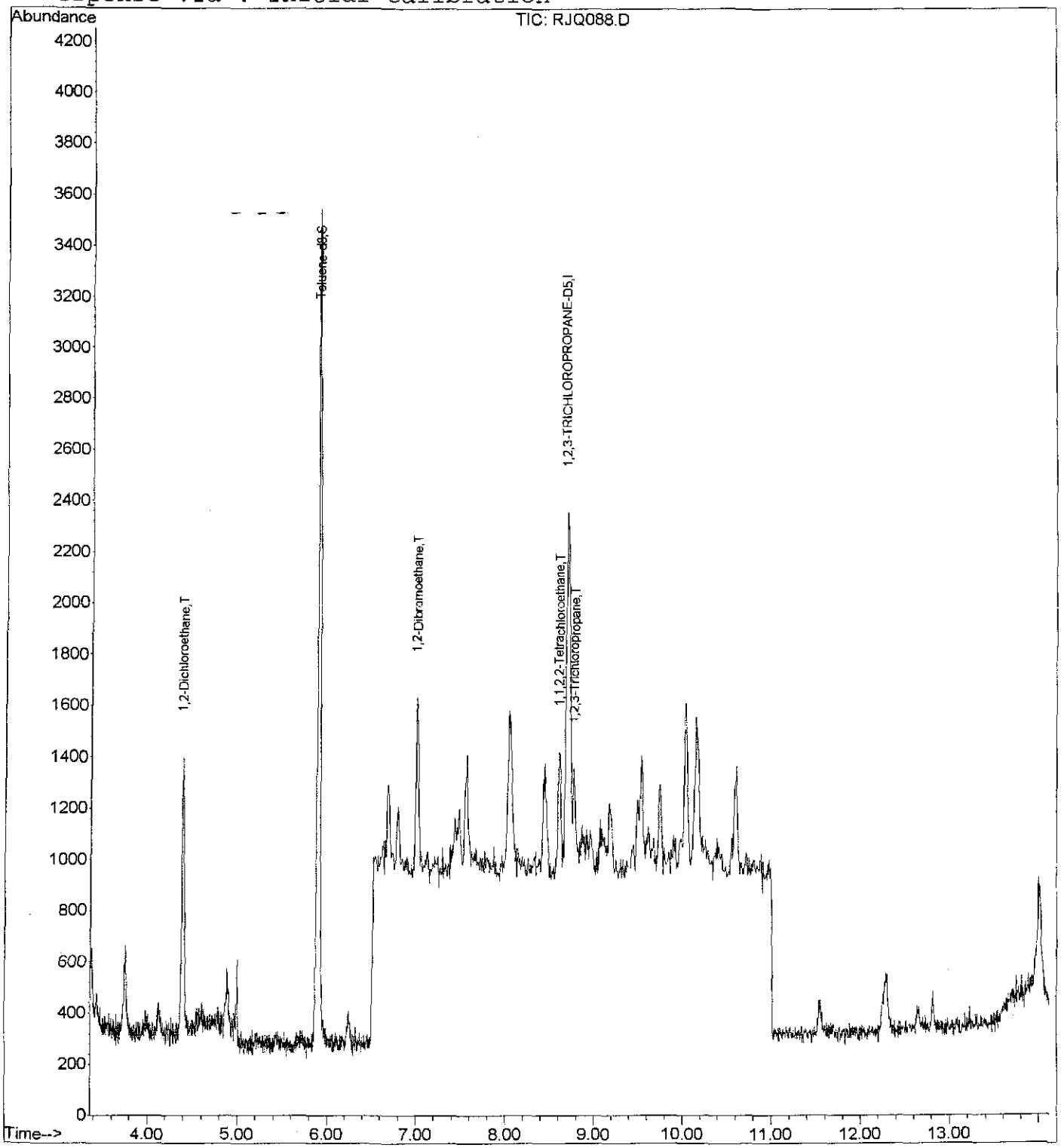
2187

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ088.D
Acq On : 9 Oct 2012 7:46 pm
Sample : VO05J092
Misc : 10ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:06 2012

Vial: 4
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SA 10/12/12

2168

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ089.D
Acq On : 9 Oct 2012 8:16 pm
Sample : VO05J093
Misc : 20ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 5
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2643	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	8096	19.22 ng/l	0.00
Spiked Amount 100.000			Recovery	= 19.22%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.39	62	3873	22.09 ng/l	95
4) 1,2-Dibromoethane	7.00	107	1471	19.42 ng/l	100
5) 1,1,2,2-Tetrachloroethane	8.60	83	1486	20.40 ng/l	92
6) 1,2,3-Trichloropropane	8.77	75	921	19.26 ng/l	86
7) 1,2-Dibromo-3-chloropropan	11.55	157	261	24.19 ng/l	94

SG 10/12/12

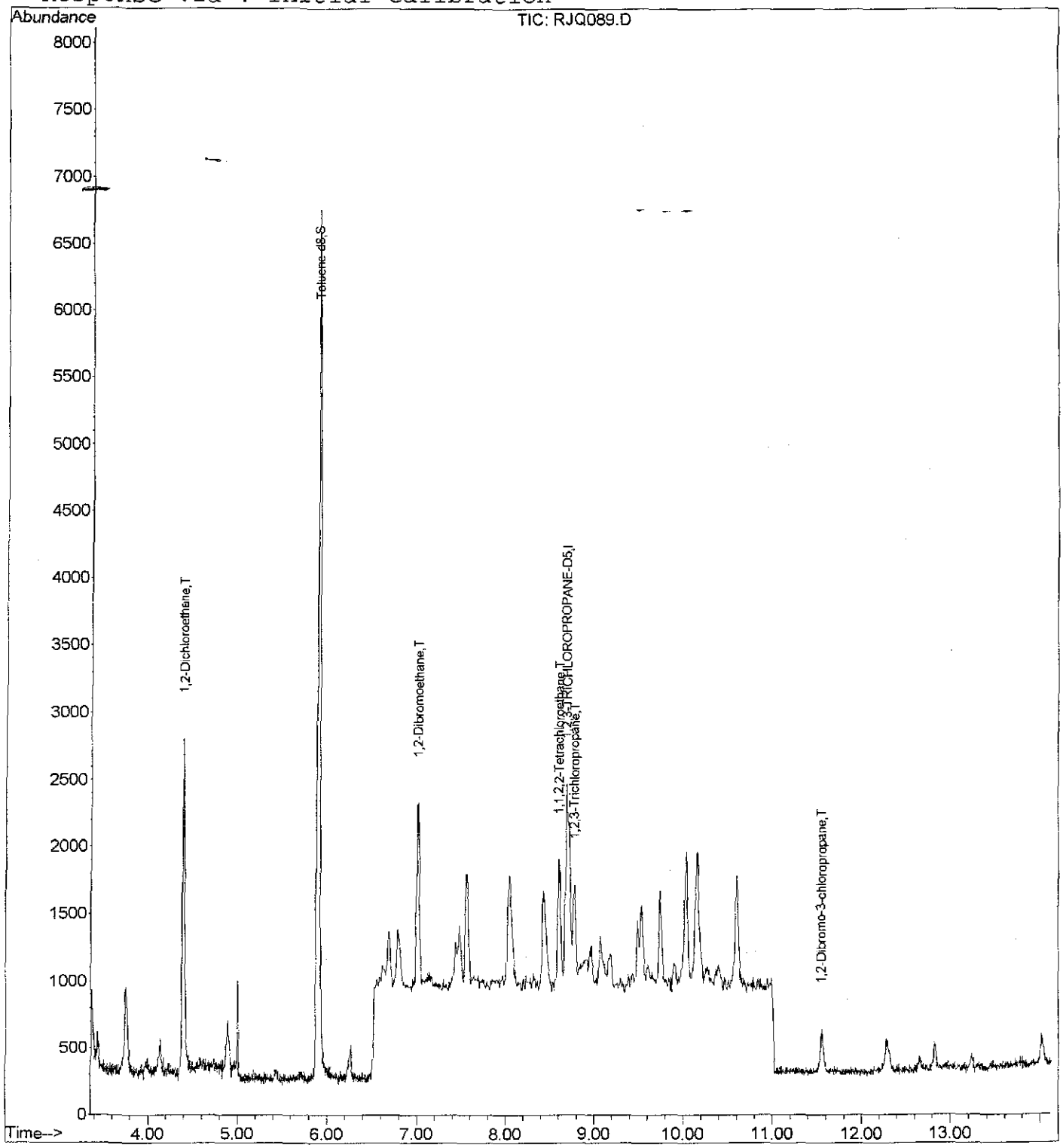
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ089.D
Acq On : 9 Oct 2012 8:16 pm
Sample : VO05J093
Misc : 20ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 5
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



Su 10/12/12

2170

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ090.D
Acq On : 9 Oct 2012 8:45 pm
Sample : VO05J094
Misc : 50ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 6
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2657	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	21117	49.87 ng/l	0.00
Spiked Amount 100.000			Recovery =	49.87%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.39	62	9376	53.19 ng/l	92
4) 1,2-Dibromoethane	7.01	107	3739	49.10 ng/l	96
5) 1,1,2,2-Tetrachloroethane	8.60	83	3514	47.98 ng/l	97
6) 1,2,3-Trichloropropane	8.78	75	2376	49.44 ng/l	97
7) 1,2-Dibromo-3-chloropropan	11.55	157	564	51.99 ng/l	86

SK 10/12/12

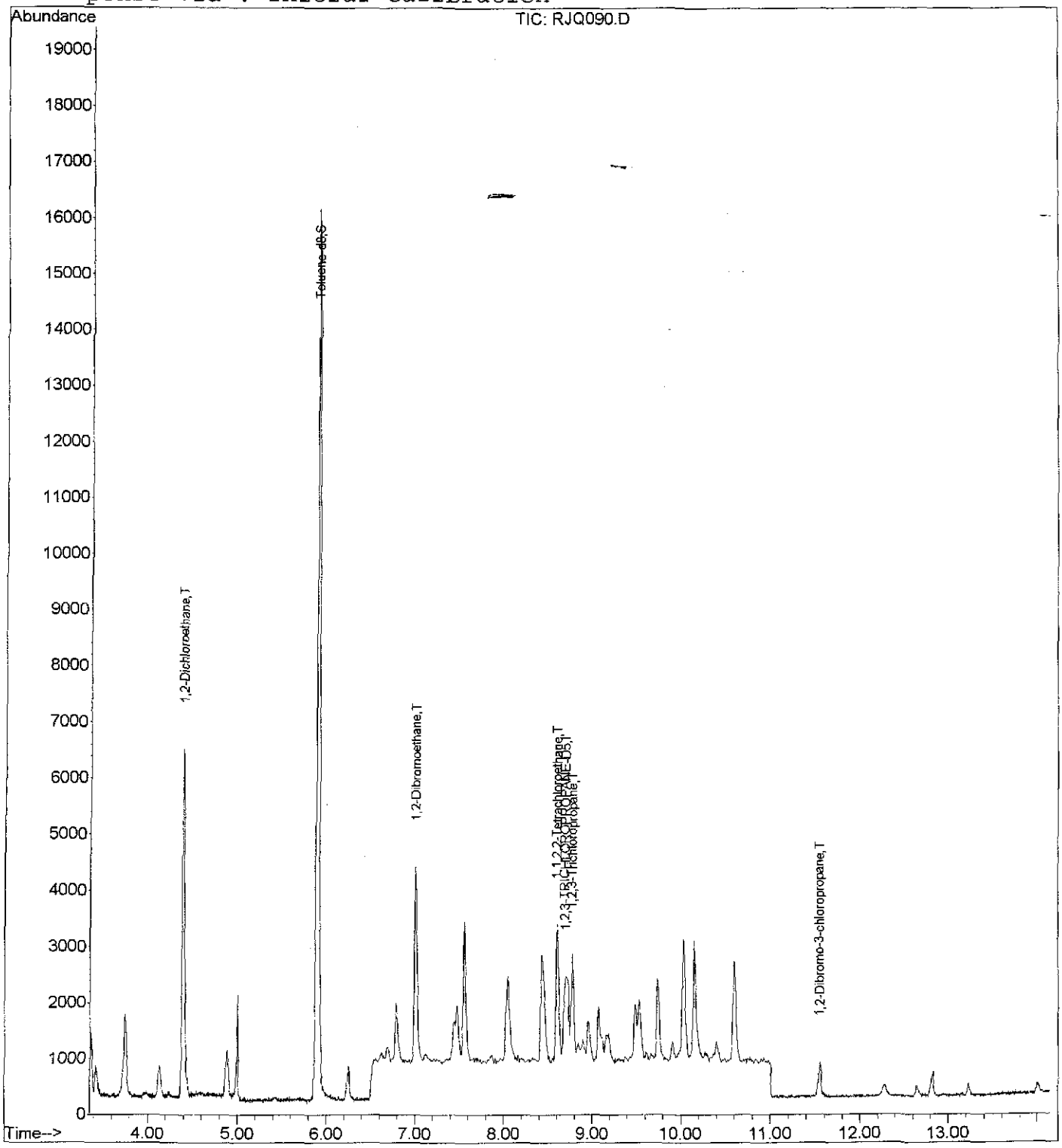
(#) = qualifier out of range (m) = manual integration
RJQ090.D VO05J09.M Thu Oct 11 10:08:00 2012

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ090.D
Acq On : 9 Oct 2012 8:45 pm
Sample : VO05J094
Misc : 50ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 6
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SU 10/24/12

2172

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ091.D
Acq On : 9 Oct 2012 9:14 pm
Sample : VO05J095
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 7
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2700	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	40565	94.27 ng/l	0.00
Spiked Amount 100.000			Recovery =	94.27%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.39	62	18048	100.75 ng/l	100
4) 1,2-Dibromoethane	7.00	107	7667	99.08 ng/l	100
5) 1,1,2,2-Tetrachloroethane	8.60	83	7136	95.89 ng/l	100
6) 1,2,3-Trichloropropane	8.78	75	4632	94.84 ng/l	100
7) 1,2-Dibromo-3-chloropropan	11.55	157	990	89.81 ng/l	100

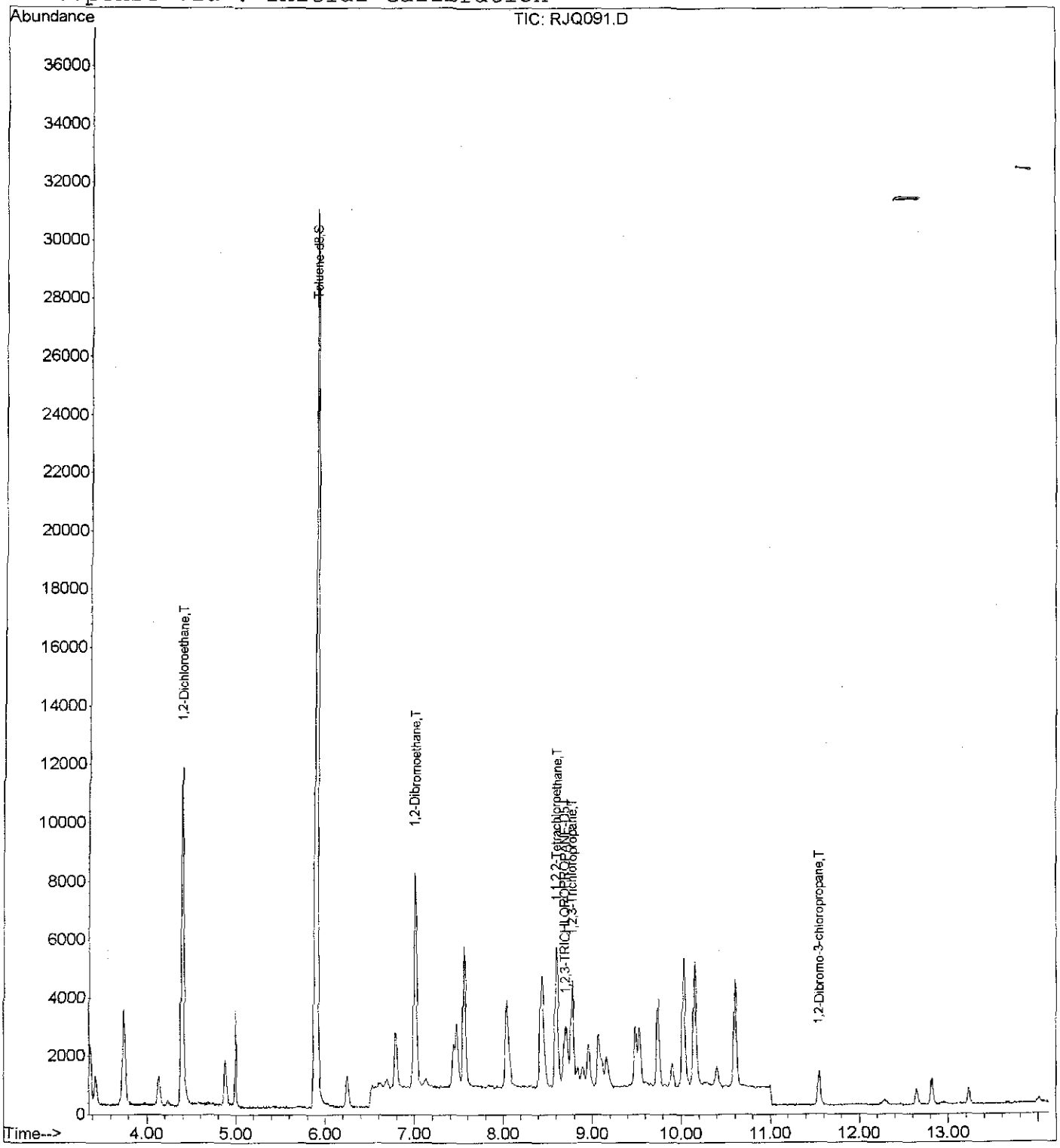
SG
10/12/12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ091.D Vial: 7
Acq On : 9 Oct 2012 9:14 pm Operator: SD
Sample : VO05J095 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SG 10/12/12

2174

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ092.D
Acq On : 9 Oct 2012 9:43 pm
Sample : VO05J096
Misc : 200ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 8
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2619	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	82966	198.77	ng/l	0.00
Spiked Amount 100.000			Recovery	=	198.77%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	37387	215.16	ng/l	99
4) 1,2-Dibromoethane	7.00	107	15926	212.18	ng/l	95
5) 1,1,2,2-Tetrachloroethane	8.60	83	14180	196.43	ng/l	97
6) 1,2,3-Trichloropropane	8.77	75	9248	195.21	ng/l	100
7) 1,2-Dibromo-3-chloropropan	11.54	157	1937	181.15	ng/l	93

Sa
10/12/12

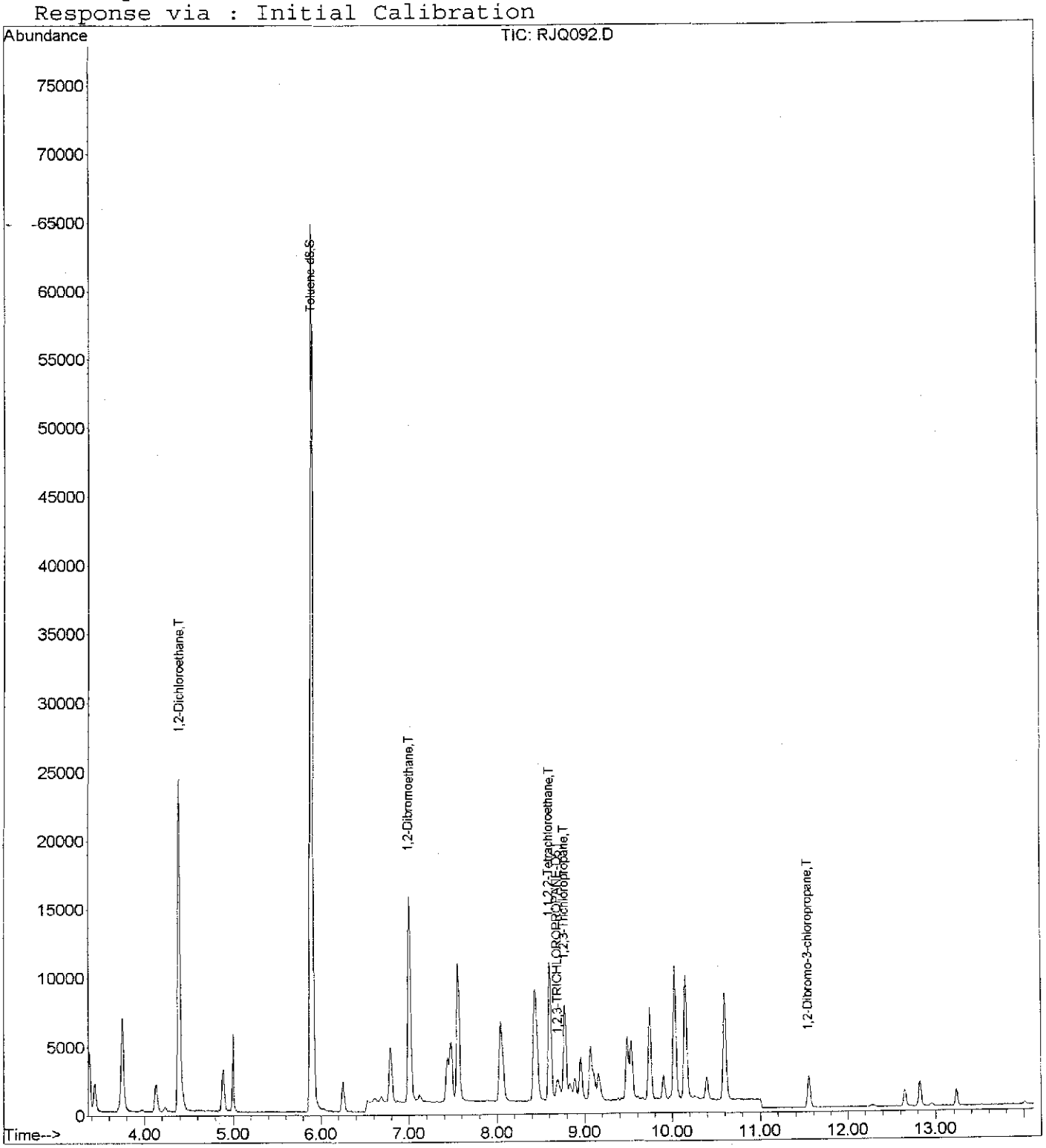
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ092.D
Acq On : 9 Oct 2012 9:43 pm
Sample : VO05J096
Misc : 200ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 8
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SW 10/24/12

2176

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ093.D Vial: 9
Acq On : 9 Oct 2012 10:11 pm Operator: SD
Sample : VO05J097 Inst : TO05
Misc : 400ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2816	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	168153	374.68 ng/l	0.00
Spiked Amount -- 100.000			Recovery	= 374.68%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.40	62	76083	407.22 ng/l	99
4) 1,2-Dibromoethane	7.00	107	33350	413.23 ng/l	98
5) 1,1,2,2-Tetrachloroethane	8.60	83	31464	405.37 ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	21579	423.63 ng/l	94
7) 1,2-Dibromo-3-chloropropan	11.55	157	4286	372.80 ng/l	94

SW
10/12/12

(#) = qualifier out of range (m) = manual integration
RJQ093.D VO05J09.M Thu Oct 11 10:08:12 2012 Page 1

2177

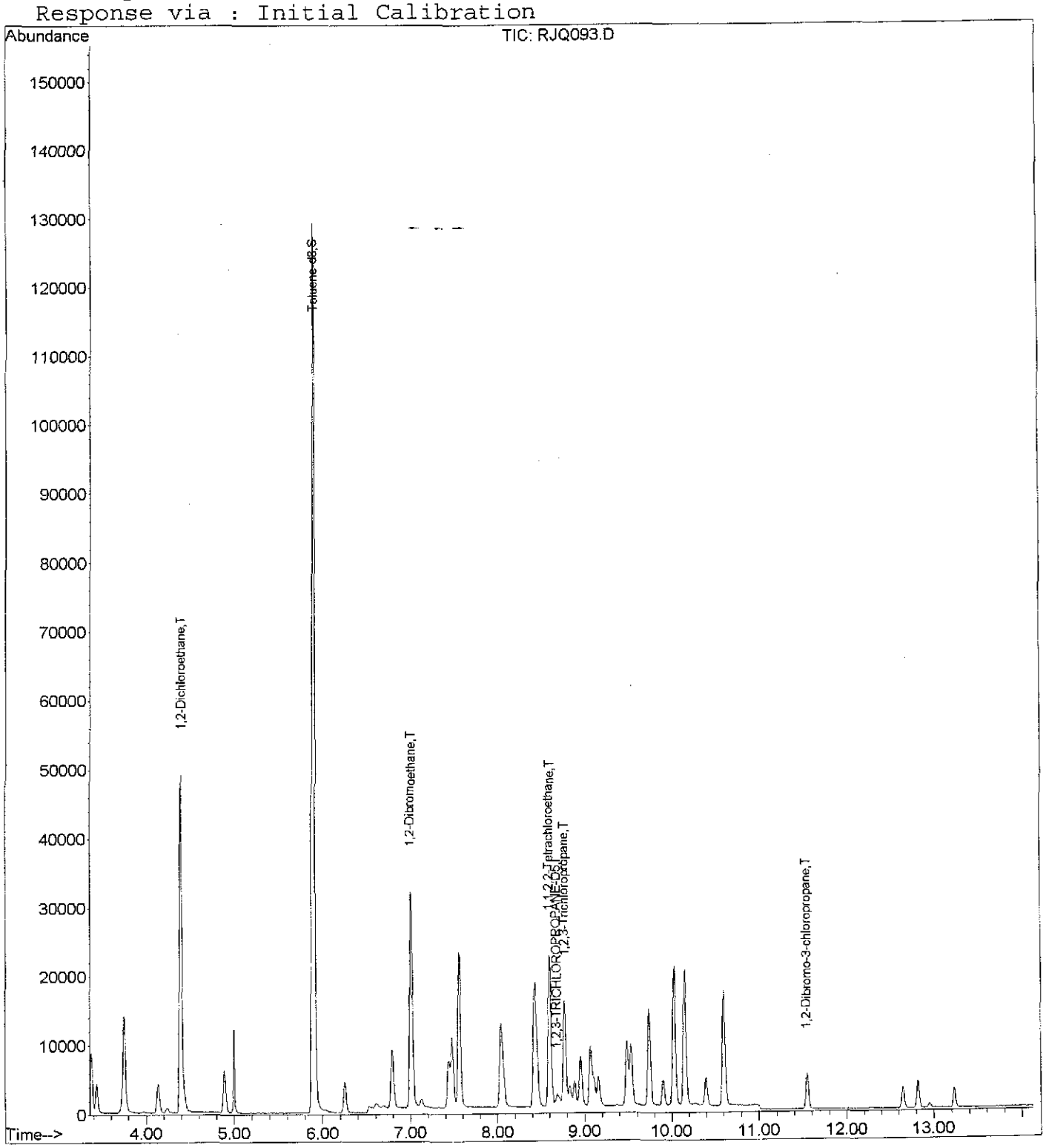
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ093.D
Acq On : 9 Oct 2012 10:11 pm
Sample : VO05J097
Misc : 400ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 9
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SW 10/12/12

2178

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ094.D
Acq On : 9 Oct 2012 10:40 pm
Sample : VO05J098
Misc : 1000ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 10
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2690	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	426210	994.17	ng/l	0.00
Spiked Amount 100.000		---	Recovery	=	994.17%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	187777	1052.11	ng/l	99
4) 1,2-Dibromoethane	7.00	107	85251	1105.79	ng/l	97
5) 1,1,2,2-Tetrachloroethane	8.60	83	77726	1048.31	ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	59351	1219.72	ng/l	90
7) 1,2-Dibromo-3-chloropropan	11.55	157	11146	1014.89	ng/l	96

SC
10/12/12

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

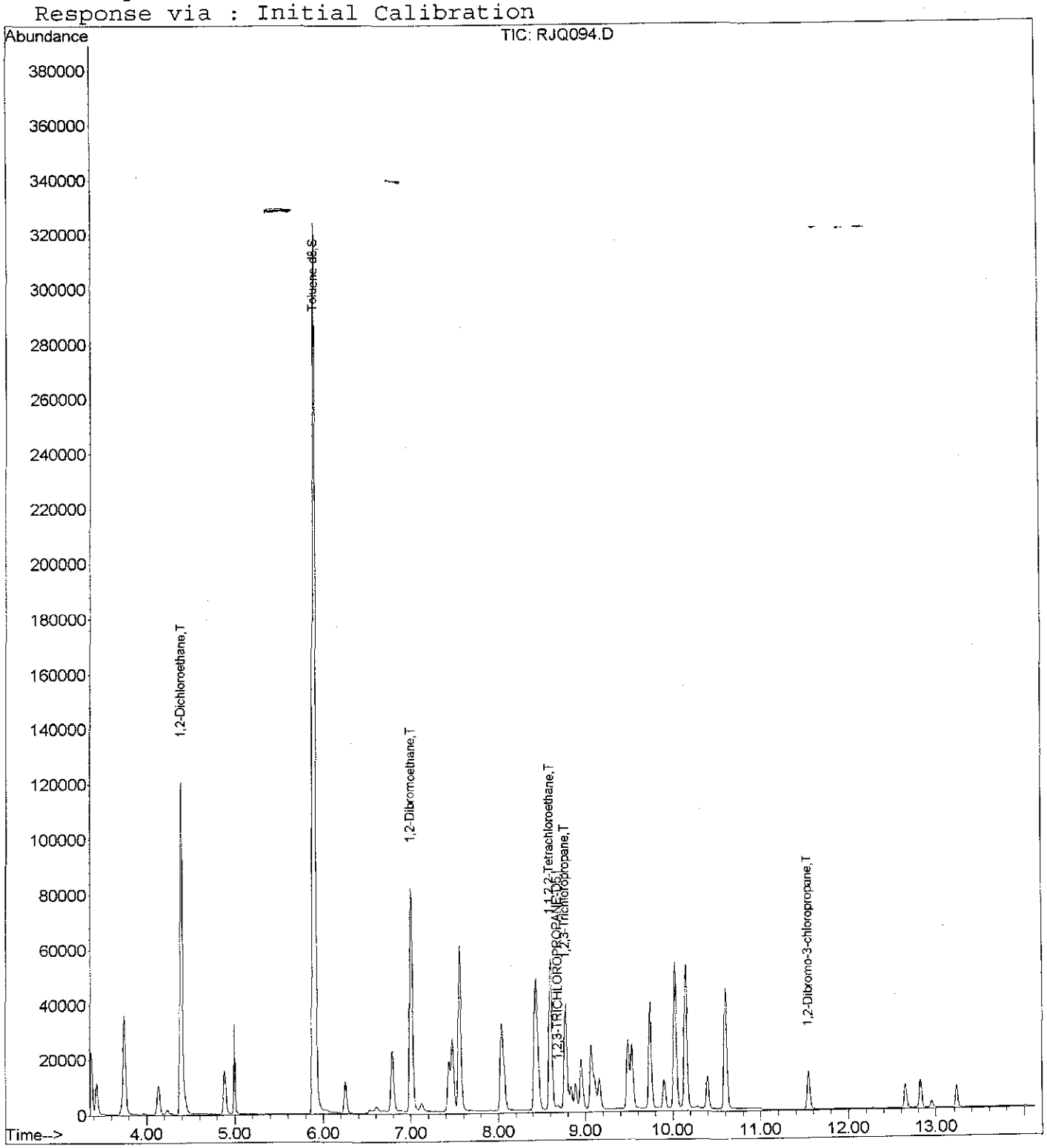
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ094.D
Acq On : 9 Oct 2012 10:40 pm
Sample : VO05J098
Misc : 1000ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 10
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



10/10/12

2180

SECOND SOURCE VERIFICATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJQ097
Instrument ID: T005
GC Column:RTX502.2ID:0.32mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J162
BFB Injection Date : 10/10/12
BFB Injection Time : 09:41
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.32
75	30.0 - 60.0% of mass 95	55.45
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.93
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	85.93
175	5.0 - 9.0% of mass 174	6.00(7.0)1
176	95.0 - 101.0% of mass 174	86.30(100.4)1
177	5.0 - 9.0% of mass 176	5.34(6.2)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	VSTD100	IV005J0902	RJQ098	10/10/12	10:23

FORM V VOA OLM02.0

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T005
IC_Beginning DateTime :10/09/12 19:17
Spike Amount :100 PPT
CC/CV File :RJQ098
IC File :RJQ091

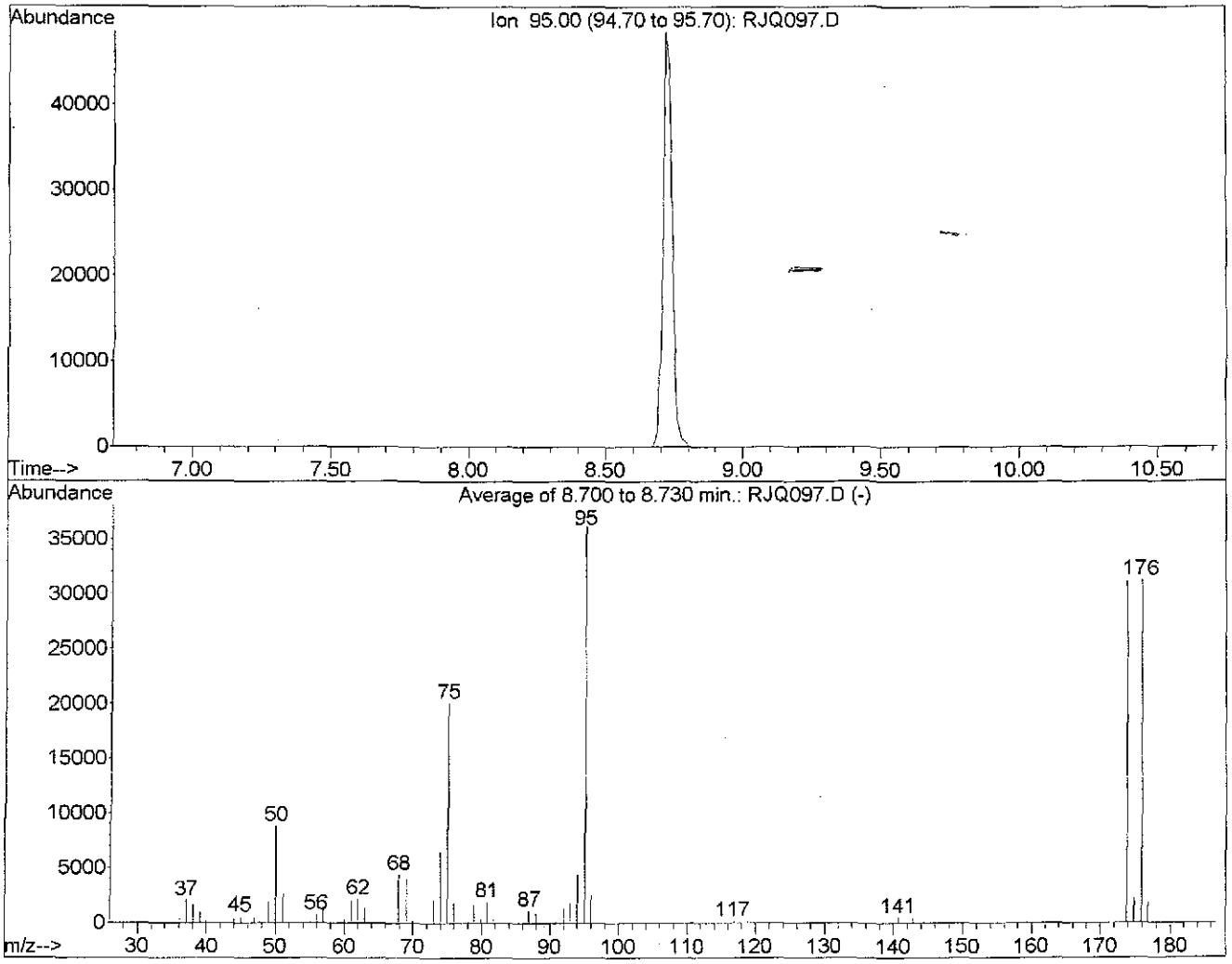
Column Spec :RTX502.2 ID :0.32MM
IC_Ending DateTime :10/09/12 22:40
HPChem Method :V005J09
Date_Time :10/10/12 10:23

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,2,3-TRICHLOROPROPANE-D5	50.000	0	2409	1	1	8.696	8.688	0				
	2	1,2-Dichloroethane	114.501	14.5	18301	3.798	3.317	4.400	4.393	10.89				
	3	Toluene-d8	118.197	18.2	45379	9.419	7.969	5.904	5.898	7.68				
	4	1,2-Dibromoethane	105.703	5.7	7298	1.515	1.433	7.013	7.006	6.40				
	5	1,1,2,2-Tetrachloroethane	102.637	2.6	6815	1.414	1.378	8.609	8.602	3.38				
	6	1,2,3-Trichloropropane	92.389	-7.6	4026	0.836	0.904	8.783	8.775	9.89				
	7	1,2-Dibromo-3-chloropropane	90.898	-9.1	894	0.186	0.204	11.553	11.548	11.79				

SA
10/12/12

BFB

Data File : D:\HPCHEM\1\DATA\12J10\RJQ097.D Vial: 1
Acq On : 10 Oct 2012 9:41 am Operator: SD
Sample : BFB05J07 Inst : TO05
Misc : T/CHK Multiplr: 1.00
MS Integration Params: 524INT.P
Method : D:\HPCHEM\1\METHODS\VO05J09A.M (RTE Integrator)
Title : METHOD 8260 SIM



AutoFind: Scans 360, 361, 362; Background Corrected with Scan 356

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.3	8805	PASS
75	95	30	60	55.5	20079	PASS
95	95	100	100	100.0	36211	PASS
96	95	5	9	6.9	2510	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	85.9	31116	PASS
175	174	5	9	7.0	2174	PASS
176	174	95	101	100.4	31250	PASS
177	176	5	9	6.2	1934	PASS

RJQ097.D VO05J09A.M Thu Oct 11 09:53:51 2012

SG 10/12/12

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J10\RJQ098.D Vial: 2
Acq On : 10 Oct 2012 10:23 am Operator: SD
Sample : IVO05J0902 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	50.000	50.000	0.0	89	0.00
2	T	1,2-Dichloroethane	100.000	114.501	-14.5	101	0.00
3	S	Toluene-d8	100.000	118.198	-18.2	112	0.00
4	T	1,2-Dibromoethane	100.000	105.704	-5.7	95	0.00
5	T	1,1,2,2-Tetrachloroethane	100.000	102.637	-2.6	96	0.00
6	T	1,2,3-Trichloropropane	100.000	92.389	7.6	87	0.00
7	T	1,2-Dibromo-3-chloropropane	100.000	90.898	9.1	90	0.00

SA 10/12/12

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J10\RJQ098.D Vial: 2
Acq On : 10 Oct 2012 10:23 am Operator: SD
Sample : IVO05J0902 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	89	0.00
2	T	1,2-Dichloroethane	3.317	3.798	-14.5	101	0.00
3	S	Toluene-d8	7.969	9.419	-18.2	112	0.00
4	T	1,2-Dibromoethane	1.433	1.515	-5.7	95	0.00
5	T	1,1,2,2-Tetrachloroethane	1.378	1.414	-2.6	96	0.00
6	T	1,2,3-Trichloropropane	0.904	0.836	7.5	87	0.00
7	T	1,2-Dibromo-3-chloropropane	0.204	0.186	8.8	90	0.00

10/12/12

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J10\RJQ098.D
Acq On : 10 Oct 2012 10:23 am
Sample : IVO05J0902
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:04 2012

Vial: 2
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.70	79	2409	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	45379	118.20	ng/l	0.00
- -Spiked Amount 100.000			Recovery	=	118.20%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.40	62	18301	114.50	ng/l	98
4) 1,2-Dibromoethane	7.01	107	7298	105.70	ng/l	98
5) 1,1,2,2-Tetrachloroethane	8.61	83	6815	102.64	ng/l	99
6) 1,2,3-Trichloropropane	8.78	75	4026	92.39	ng/l	95
7) 1,2-Dibromo-3-chloropropan	11.55	157	894	90.90	ng/l	92

SC 10/12/12

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

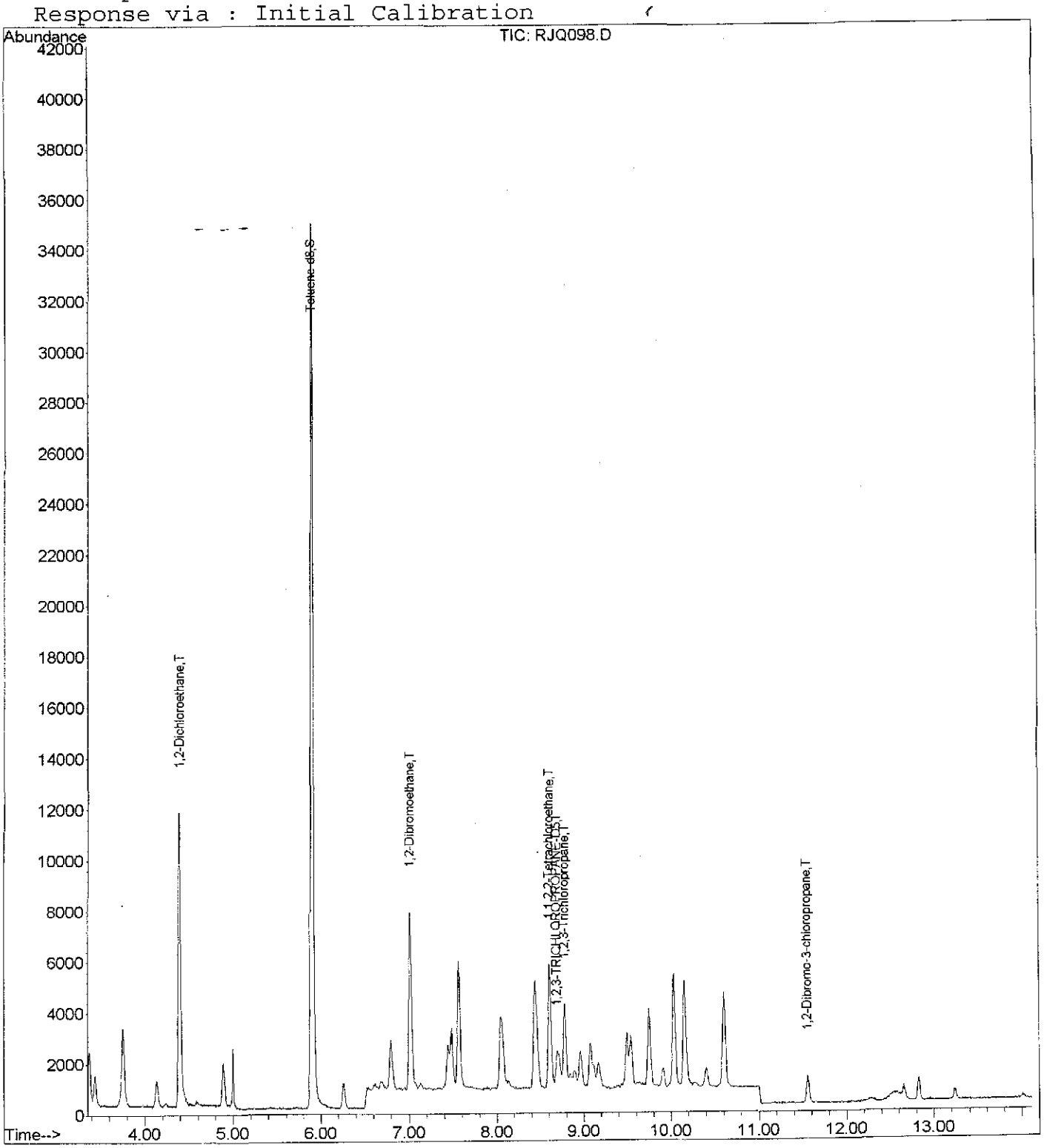
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J10\RJQ098.D
Acq On : 10 Oct 2012 10:23 am
Sample : IVO05J0902
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:04 2012

Vial: 2
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SA 10/11/12 2188

DAILY CALIBRATION(S)

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJQ399
Instrument ID: T005
GC Column:RTX502.2ID:0.32mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J162
BFB Injection Date : 10/29/12
BFB Injection Time : 07:35
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.35
75	30.0 - 60.0% of mass 95	57.23
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.04
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	84.65
175	5.0 - 9.0% of mass 174	6.62(7.8)1
176	95.0 - 101.0% of mass 174	83.37(98.5)1
177	5.0 - 9.0% of mass 176	5.12(6.1)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	VSTD100	CV005J0904	RJQ400	10/29/12	08:05
2	MBLK1W	V005J21B	RJQ403	10/29/12	09:35
3	LCS1W	V005J21L	RJQ401	10/29/12	08:37
4	LCD1W	V005J21C	RJQ402	10/29/12	09:06
5	10-24-12 BBW-1	J162-01	RJQ404	10/29/12	10:06
6	10-24-12 BBW-2	J162-02	RJQ405	10/29/12	10:36
7	10-24-12 BBW-3	J162-03	RJQ406	10/29/12	11:07
8	10-24-12 FDUP-1	J162-04	RJQ407	10/29/12	11:36
9	10-23-12 PWB-6	J162-05	RJQ408	10/29/12	12:05
10	10-23-12 AR-1	J162-06	RJQ409	10/29/12	12:34
11	10-23-12 PWB-1	J162-07	RJQ410	10/29/12	13:03
12	10-23-12 PWB-3	J162-09	RJQ411	10/29/12	13:35
13	10-23-12 PWB-10	J162-10	RJQ412	10/29/12	14:04
14	10-23-12 AMW-3R	J162-08	RJQ413	10/29/12	14:33
15	10-23-12 AMW-3RMS	J162-08M	RJQ414	10/29/12	15:03
16	10-23-12 AMW-3RMSD	J162-08S	RJQ415	10/29/12	15:32

FORM V VOA OLM02.0

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RJQ091
Instrument ID: T005

Project: BROWN & BRYANT SUPERFUND SITE
SDG No.: 12J162
Date Analyzed: 10/09/12
Time Analyzed: 21:14

		IS1(TCP) AREA #	RT #
	12 HOUR STD	2700	8.69
	UPPER LIMIT	5400	9.19
	LOWER LIMIT	1350	8.19
	SAMPLE ID		
1	VSTD100	2589	8.68
2	MBLK1W	3105	8.68
3	LCS1W	2664	8.68
4	LCD1W	2792	8.69
5	10-24-12 BBW-1	2010	8.69
6	10-24-12 BBW-2	2273	8.68
7	10-24-12 BBW-3	2581	8.68
8	10-24-12 FDUP-1	2476	8.69
9	10-23-12 PWB-6	2707	8.69
10	10-23-12 AR-1	2599	8.69
11	10-23-12 PWB-1	2414	8.69
12	10-23-12 PWB-3	2375	8.69
13	10-23-12 PWB-10	2323	8.69
14	10-23-12 AMW-3R	2437	8.69
15	10-23-12 AMW-3RMS	2710	8.69
16	10-23-12 AMW-3RMSD	2485	8.70

IS1 (TCP) = 1,2,3-Trichloropropane-d5

AREA UPPER LIMIT = +100% of internal satndard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :TO05
IC_Beginning DateTime :10/09/12 19:17
Spike Amount :100 PPT
CC/CV File :RJQ400
IC File :RJQ091

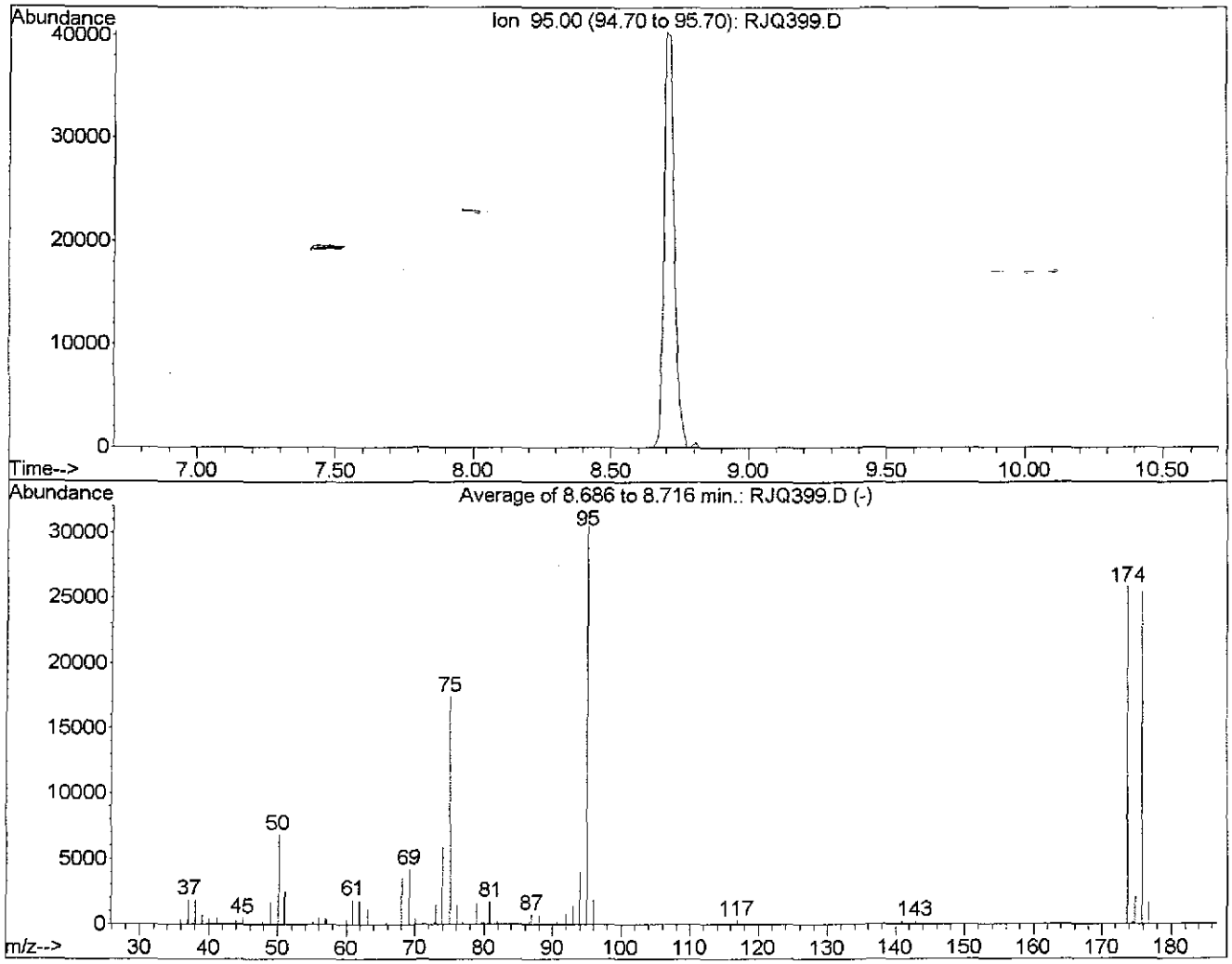
Column Spec :RTX502.2 ID :0.32MM
IC_Ending DateTime :10/09/12 22:40
HPChem Method :VO05J09
Date_Time :10/29/12 08:05

M IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
1	1,2,3-TRICHLOROPROPANE-D5	50.000	0	2589	1	1	8.678	8.688	0				
2	1,2-Dichloroethane	126.869	26.9	21793	4.209	3.317	4.387	4.393	10.89				
3	Toluene-d8	108.336	8.3	44701	8.633	7.969	5.892	5.898	7.68				
4	1,2-Dibromoethane	113.893	13.9	8451	1.632	1.433	7.004	7.006	6.40				
5	1,1,2,2-Tetrachloroethane	102.031	2.0	7281	1.406	1.378	8.591	8.602	3.38				
6	1,2,3-Trichloropropane	99.162	-0.8	4644	0.897	0.904	8.766	8.775	9.89				
7	1,2-Dibromo-3-chloropropane	103.310	3.3	1092	0.211	0.204	11.540	11.548	11.79				

BFB

Data File : D:\HPCHEM\1\DATA\12J29\RJQ399.D
Acq On : 29 Oct 2012 7:35 am
Sample : BFB05J21
Misc : T/CHK
MS Integration Params: 524INT.P
Method : D:\HPCHEM\1\METHODS\VO05J09A.M (RTE Integrator)
Title : METHOD 8260 SIM

Vial: 1
Operator: SD
Inst : TO05
Multiplr: 1.00



AutoFind: Scans 359, 360, 361; Background Corrected with Scan 355

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.3	6814	PASS
75	95	30	60	57.2	17449	PASS
95	95	100	100	100.0	30488	PASS
96	95	5	9	6.0	1842	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	84.6	25807	PASS
175	174	5	9	7.8	2019	PASS
176	174	95	101	98.5	25418	PASS
177	176	5	9	6.1	1561	PASS

RJQ399.D VO05J09A.M Thu Nov 01 11:00:00 2012

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J29\RJQ400.D Vial: 2
Acq On : 29 Oct 2012 8:05 am Operator: SD
Sample : CV005J0904 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	50.000	50.000	0.0	96	0.00
2	T	1,2-Dichloroethane	100.000	126.870	-26.9#	121	0.00
3	S	Toluene-d8	100.000	108.337	-8.3	110	0.00
4	T	1,2-Dibromoethane	100.000	113.894	-13.9	110	0.00
5	T	1,1,2,2-Tetrachloroethane	100.000	102.031	-2.0	102	0.00
6	T	1,2,3-Trichloropropane	100.000	99.162	0.8	100	0.00
7	T	1,2-Dibromo-3-chloropropane	100.000	103.310	-3.3	110	0.00

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J29\RJQ400.D Vial: 2
Acq On : 29 Oct 2012 8:05 am Operator: SD
Sample : CVO05J0904 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	96	0.00
2	T	1,2-Dichloroethane	3.317	4.209	-26.9#	121	0.00
3	S	Toluene-d8	7.969	8.633	-8.3	110	0.00
4	T	1,2-Dibromoethane	1.433	1.632	-13.9	110	0.00
5	T	1,1,2,2-Tetrachloroethane	1.378	1.406	-2.0	102	0.00
6	T	1,2,3-Trichloropropane	0.904	0.897	0.8	100	0.00
7	T	1,2-Dibromo-3-chloropropane	0.204	0.211	-3.4	110	0.00

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J29\RJQ400.D Vial: 2
Acq On : 29 Oct 2012 8:05 am Operator: SD
Sample : CVO05J0904 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 29 8:19 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.68	79	2589	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.89	98	44701	108.34 ng/l	0.00
Spiked Amount 100.000			Recovery	= 108.34%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.39	62	21793	126.87 ng/l	98
4) 1,2-Dibromoethane	7.00	107	8451	113.89 ng/l	96
5) 1,1,2,2-Tetrachloroethane	8.59	83	7281	102.03 ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	4644	99.16 ng/l	95
7) 1,2-Dibromo-3-chloropropan	11.54	157	1092	103.31 ng/l #	41

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

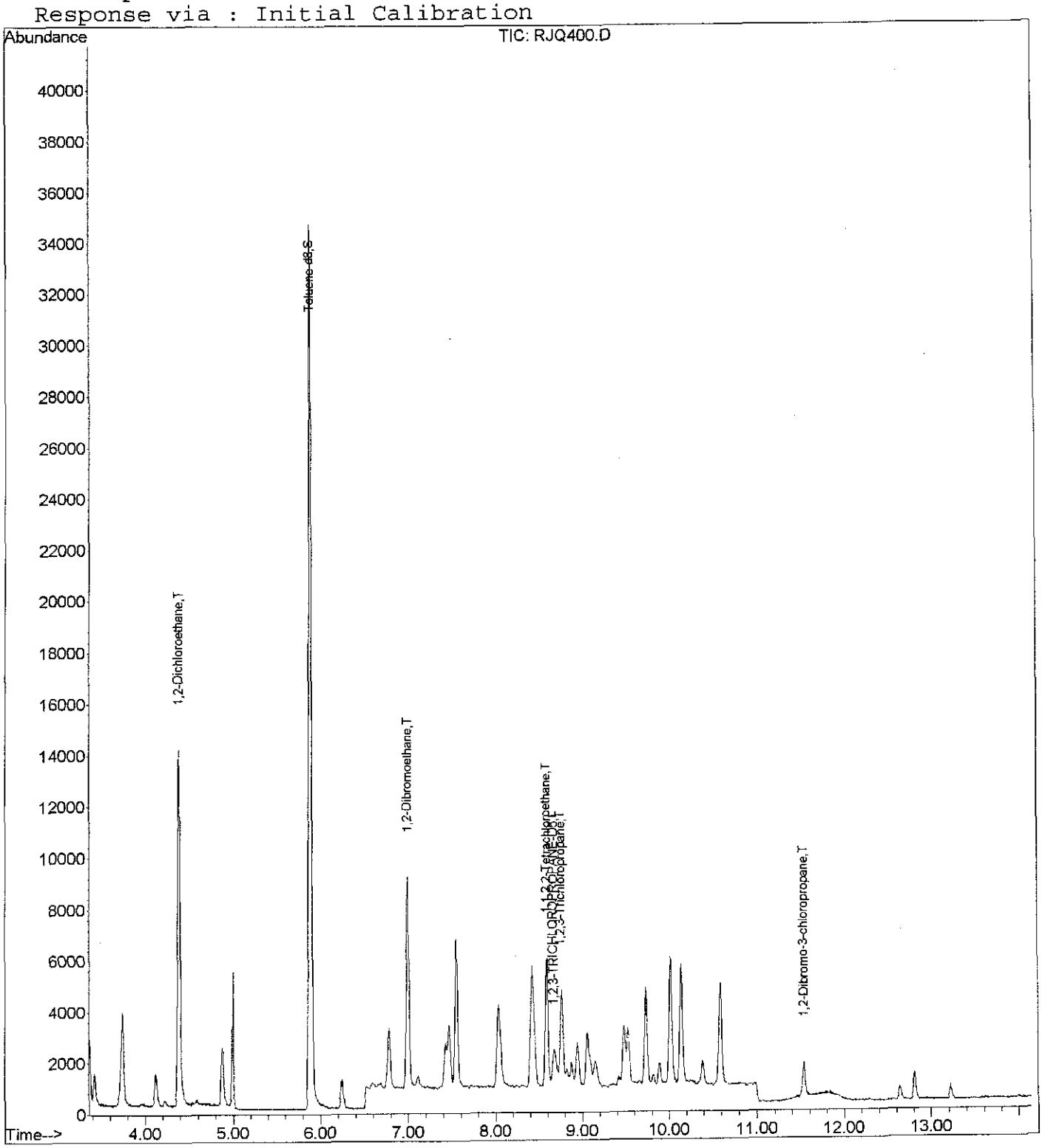
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J29\RJQ400.D
Acq On : 29 Oct 2012 8:05 am
Sample : CVO05J0904
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 29 8:19 2012

Vial: 2
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



ANALYTICAL LOG(S)

ANALYSIS LOG FOR VOLATILES

SOP ☐ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/9/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book # A05 -061

BATCH V005J095

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH < 2	Matrix W Cl_2 < 5ppm	Matrix S	Notes
01		RJQ085	RFB05J06	0.5mL	N/A	N/A	N/A		V005J09A 6:19pm
02		086	25ppt Jeff						
03		087	V005J091	0.1/0.1mL 0.05/0.05mL					5.0 ppt
04		088	2	0.1/0.1mL					10
05		089	3	0.2/0.2mL					20
06		090	4	0.5/0.5mL					50
07		091	5	1/1mL					100
08		092	6	2/2mL					200
09		093	7	4/4mL					400
10		094	8	10/10mL					1000
11		095	IS/SS						
12		096	IV005J0901	1/1mL					100 ppt; 75% response high! RR 11:39pm
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									sd 10/10/12

Instrument No.	05		
INITIAL CALIBRATION REFERENCE			
DATE	10/9/12		
ICAL ID	V005J09		
STANDARDS			
NAME	ID	Amount (ul)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC (a)	SVI-20-13-03	varies	2.5
BFB	-22-01	0.5	50
IS/SURR. (b) IS	-25-02	1	1.25
SS	-25-03	varies	2.5
ICV/LCS	-14-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	12J09		
LOT #			
pH strip			
Chlorine strip			
Methanol			
$NaHSO_4$			
Reagent Water	RW4-12-001		
Sand			
Electronic Data Archival Location		Date	
HPCHEM_VOA/TO05			

Comments:

☐ Refer to sample weight log

Analyzed By: sd

Date Disposed: 10/10/12 Disposed By: sd

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☐ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/10/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book # A05 -061

BATCH: V005TJ09

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH ≤2	Matrix W Cl_2 ≤5ppm	Matrix S	Notes
01		RQTQ097	RABOSTJ07	0.5mL					V005TJ09A 9:41am
02		098	IV005TJ902	1/mL					
03		099	CV005TJ901						
04		100	V005TJ07L						
05		101	C						
06		102	B	.25mL					
07		103	LOD 25PPT	.125mL					
08		104-105	RINSE						1:50pm
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									sd 10/11/12

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	10/9/12
ICAL ID	V005TJ09

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SV1-20-13-03	1	0.5
BFB	-22-01	0.5	50
IS/SURR.	-25-02 -25-03	1 1	1.25 2.5
ICV/LCS	-14-03	1	0.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	12J10		
LOT #			
pH strip			
Chlorine strip			
Methanol			
$NaHSO_4$			
Reagent Water	RW4-12-001		
Sand			

Electronic Data Archival Location	Date
HPCHEM_VOA/TO05	

Comments:

☐ Refer to sample weight log

Analyzed By: sd

Date Disposed: 10/11/12 Disposed By: sd

EMAX Laboratories, Inc.

ANALYSIS LOG FOR VOLATILES

SOP ☐ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/29/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book # A05 -061

BATCH V0050709A

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl2 <5ppm	Matrix S	Notes
01		RTQ339	BPA05J21	0.5mL					V005J09A 7:35am
02		400	CV005J09D4	1mL					
03		401	V005J21L						
04		402	C						
05		403	B	25mL					
06		404	12J162-01		1.0	✓	✓		
07		405	-02			✓	✓		
08		406	-03			✓	✓		
09		407	-04			✓	✓		
10		408	-05			✓	✓		
11		409	-06			✓	✓		
12		410	-07			✓	✓		
13		411	-09			✓	✓		
14		412	-10			✓	✓		
15		413	-08			✓	✓		
16		414	-08M			✓	✓		
17		415	-08			✓	✓		
18		416	12J163-07T	0.25mL	100	✓	✓		
19		417	-08T			✓	✓		
20		418	-09T	1.0mL	25	✓	✓		
21		419	-11T	0.25mL	100	✓	✓		
22		420	-14T			✓	✓		5:59pm
23									
24									
25									
26									
27									
28									
29									
30									12/30/12

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	10/9/12
ICAL ID	V005J09

STANDARDS

NAME	ID	Amount (ul)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SV1-20-13-03	1	2.5
BFB	-22-01	0.5	50
IS/SURR.	-25-02 -25-03	1 1	1.25 2.50
ICV/LCS	-14-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	12J29		
LOT #			
pH strip	13767		
Chlorine strip	2220		
Methanol			
$NaHSO_4$			
Reagent Water	RW4-12-00		
Sand			

Electronic Data Archival Location	Date
HPCHEM_VOA/TO05	

Comments:

☐ Refer to sample weight log

Analyzed By: [illegible]

Date Disposed: 10/30/12 Disposed By: [illegible]

Injection Log

Directory: D:\HPCHEM\1\DATA\12J29

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RJQ399.D	1.	BFB05J21	T/CHK	29 Oct 2012 0
2	2	RJQ400.D	1.	CVO05J0904	100ppt	29 Oct 2012 0
3	3	RJQ401.D	1.	VO05J21L	100ppt	29 Oct 2012 0
4	4	RJQ402.D	1.	VO05J21C	100ppt	29 Oct 2012 0
5	5	RJQ403.D	1.	VO05J21B	BLANK	29 Oct 2012 0
6	6	RJQ404.D	1.	12J162-01 25mL	DF=1.0	29 Oct 2012 1
7	7	RJQ405.D	1.	12J162-02 25mL	DF=1.0	29 Oct 2012 1
8	8	RJQ406.D	1.	12J162-03 25mL	DF=1.0	29 Oct 2012 1
9	9	RJQ407.D	1.	12J162-04 25mL	DF=1.0	29 Oct 2012 1
10	10	RJQ408.D	1.	12J162-05 25mL	DF=1.0	29 Oct 2012 1
11	11	RJQ409.D	1.	12J162-06 25mL	DF=1.0	29 Oct 2012 1
12	12	RJQ410.D	1.	12J162-07 25mL	DF=1.0	29 Oct 2012 1
13	13	RJQ411.D	1.	12J162-09 25mL	DF=1.0	29 Oct 2012 1
14	14	RJQ412.D	1.	12J162-10 25mL	DF=1.0	29 Oct 2012 1
15	15	RJQ413.D	1.	12J162-08 25mL	DF=1.0	29 Oct 2012 1
16	16	RJQ414.D	1.	12J162-08M 25mL	DF=1.0	29 Oct 2012 1
17	17	RJQ415.D	1.	12J162-08S 25mL	DF=1.0	29 Oct 2012 1
18	18	RJQ416.D	1.	12J163-07T 0.25mL	DF=100	29 Oct 2012 1
19	19	RJQ417.D	1.	12J163-08T 0.25mL	DF=100	29 Oct 2012 1
20	20	RJQ418.D	1.	12J163-09T 1.0mL	DF=25	29 Oct 2012 1
21	21	RJQ419.D	1.	12J163-11T 0.25mL	DF=100	29 Oct 2012 1
22	22	RJQ420.D	1.	12J163-14T 0.25mL	DF=100	29 Oct 2012 1

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

METHOD 8151A
HERBICIDES

SDG#: 12J162

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J162

METHOD 8151A
HERBICIDES

A total of ten (10) water samples were received on 10/24/12 for Anions by IC analysis, Method 8151A in accordance with Department of Defense Quality Systems Manual for Environmental Laboratories, Version 4.2 and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for HEJ008WL/C were all within QC limits.

Matrix QC Sample
A set of MS/MSD was analyzed with the samples in this SDG.
Percent recoveries for J162-08M/S were within project QC limits.

Surrogate
Surrogate was added on QC and field samples. Surrogate recoveries were within project QC limits. Refer to sample result forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
HERBICIDES

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE

SDG NO. : 12J162
Instrument ID : GCT009

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	HEJ008WB	1	NA	10/29/1216:09	10/27/1212:11	QJ29021A	QJ29014A	HEJ008W	Method Blank
LCS1W	HEJ008WL	1	NA	10/29/1216:29	10/27/1212:11	QJ29022A	QJ29014A	HEJ008W	Lab Control Sample (LCS)
LCD1W	HEJ008WC	1	NA	10/29/1216:49	10/27/1212:11	QJ29023A	QJ29014A	HEJ008W	LCS Duplicate
10-24-12 BBW-1	J162-01	1	NA	10/29/1217:09	10/27/1212:11	QJ29024A	QJ29014A	HEJ008W	Field Sample
10-24-12 BBW-2	J162-02	1	NA	10/29/1218:10	10/27/1212:11	QJ29027A	QJ29026A	HEJ008W	Field Sample
10-24-12 BBW-3	J162-03	1	NA	10/29/1218:30	10/27/1212:11	QJ29028A	QJ29026A	HEJ008W	Field Sample
10-24-12 FDUP-1	J162-04	1	NA	10/29/1218:50	10/27/1212:11	QJ29029A	QJ29026A	HEJ008W	Field Sample
10-23-12 PWB-6	J162-05	1	NA	10/29/1219:10	10/27/1212:11	QJ29030A	QJ29026A	HEJ008W	Field Sample
10-23-12 AR-1	J162-06	1	NA	10/29/1219:30	10/27/1212:11	QJ29031A	QJ29026A	HEJ008W	Field Sample
10-23-12 PWB-1	J162-07	1	NA	10/29/1219:51	10/27/1212:11	QJ29032A	QJ29026A	HEJ008W	Field Sample
10-23-12 AMW-3R	J162-08	1	NA	10/29/1220:11	10/27/1212:11	QJ29033A	QJ29026A	HEJ008W	Field Sample
10-23-12 PWB-3	J162-09	1	NA	10/29/1221:12	10/27/1212:11	QJ29036A	QJ29026A	HEJ008W	Field Sample
10-23-12 PWB-10	J162-10	1	NA	10/29/1222:13	10/27/1212:11	QJ29039A	QJ29038A	HEJ008W	Field Sample
10-23-12 AMW-3RMS	J162-08M	1	NA	10/29/1220:31	10/27/1212:11	QJ29034A	QJ29026A	HEJ008W	Matrix Spike Sample (MS)
10-23-12 AMW-3RMSD	J162-08S	1	NA	10/29/1220:52	10/27/1212:11	QJ29035A	QJ29026A	HEJ008W	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/27/12 12:11
Sample ID:	10-24-12 BBW-1	Date Analyzed:	10/29/12 17:09
Lab Samp ID:	J162-01	Dilution Factor:	1
Lab File ID:	QJ29024A	Matrix	: WATER
Ext Btch ID:	HEJ008W	% Moisture	: NA
Calib. Ref.:	QJ29014A	Instrument ID	: GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	8.849|(9.047)	10.00	88.5|(90.5)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/27/12 12:11
Sample ID:	10-24-12 BBW-2	Date Analyzed:	10/29/12 18:10
Lab Samp ID:	J162-02	Dilution Factor:	1
Lab File ID:	QJ29027A	Matrix	: WATER
Ext Btch ID:	HEJ008W	% Moisture	: NA
Calib. Ref.:	QJ29026A	Instrument ID	: GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	8.417|(8.490)	10.00	84.2|(84.9)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/27/12 12:11
Sample ID:	1D-24-12 BBW-3	Date Analyzed:	10/29/12 18:30
Lab Samp ID:	J162-03	Dilution Factor:	1
Lab File ID:	QJ29028A	Matrix	: WATER
Ext Btch ID:	HEJ008W	% Moisture	: NA
Calib. Ref.:	QJ29026A	Instrument ID	: GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	8.159|(8.532)	10.00	81.6|(85.3)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/24/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/24/12
Batch No. : 12J162	Date Extracted: 10/27/12 12:11
Sample ID: 10-24-12 FDUP-1	Date Analyzed: 10/29/12 18:50
Lab Samp ID: J162-04	Dilution Factor: 1
Lab File ID: QJ29029A	Matrix : WATER
Ext Btch ID: HEJ008W	% Moisture : NA
Calib. Ref.: QJ29026A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.313)|9.180	10.00	(93.1)|91.8	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/27/12 12:11
Sample ID:	10-23-12 PWB-6	Date Analyzed:	10/29/12 19:10
Lab Samp ID:	J162-05	Dilution Factor:	1
Lab File ID:	QJ29030A	Matrix	: WATER
Ext Btch ID:	HEJ008W	% Moisture	: NA
Calib. Ref.:	QJ29026A	Instrument ID	: GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	7.924|(8.115)	10.00	79.2|(81.1)	40-140

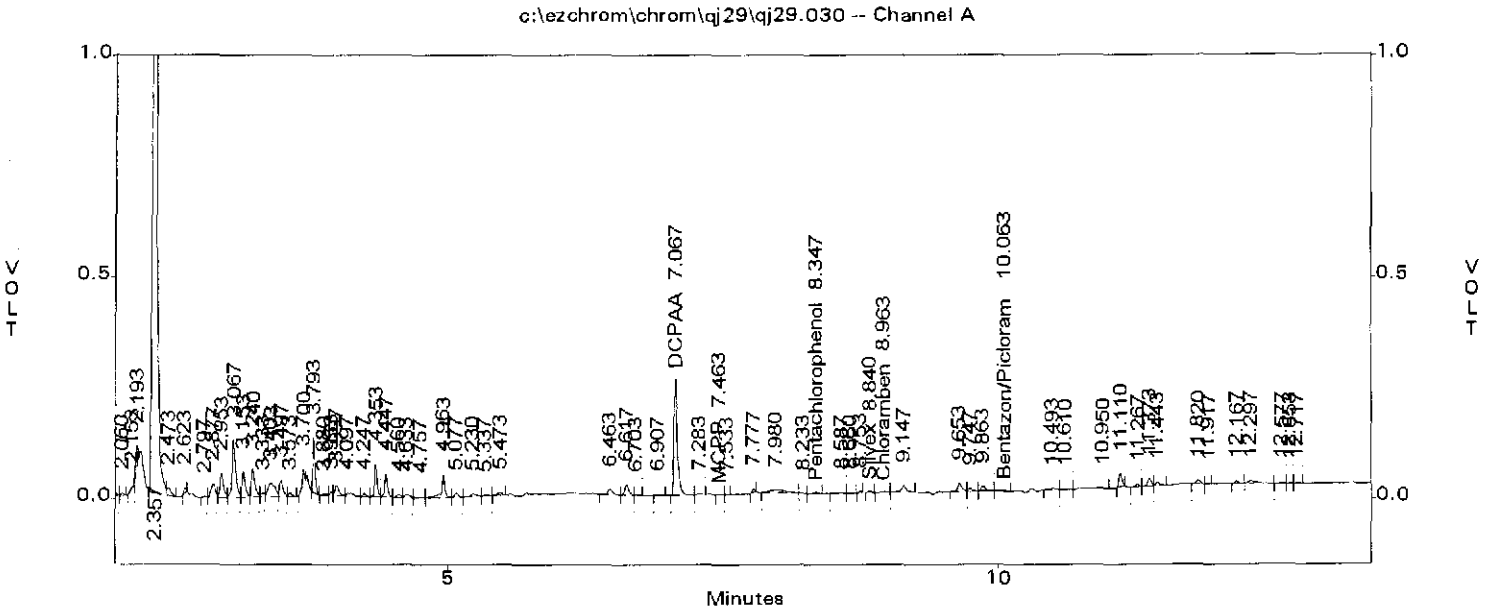
Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\qj29.030
Method : c:\ezchrom\methods\he09j09.met
Sample ID : J162-05
Acquired : Oct 29, 2012 19:10:40
Printed : Oct 30, 2012 11:00:30
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	0.0	0.00	0.00	--
3,5 Dichlorobenzo	6.227	0.0	0.00	0.00	--
4-Nitrophenol	6.837	0.0	0.00	0.00	--
DCPAA	7.067	568377.0	717.28	792.40	VV
Dicamba	7.257	0.0	0.00	0.00	--
MCPP	7.463	5243.0	3.75	1397.09	BV
MCPA	7.597	0.0	0.00	0.00	--
DCP	7.940	0.0	0.00	0.00	--
2,4-D	8.140	0.0	0.00	0.00	--
Pentachlorophenol	8.347	14287.0	12876.92	1.11	VV
Silvex	8.840	9272.0	5252.30	1.77	BV
Chloramben	8.963	9199.0	4138.84	2.22	VV
2,4,5-T	9.043	0.0	0.00	0.00	--
2,4-DB	9.443	0.0	0.00	0.00	--
Bentazon/Picloram	10.063	15322.0	3836.73	3.99	VV
Dinoseb	10.170	0.0	0.00	0.00	--
Dacthal	10.343	0.0	0.00	0.00	--
Acifluorfen	11.787	0.0	0.00	0.00	--



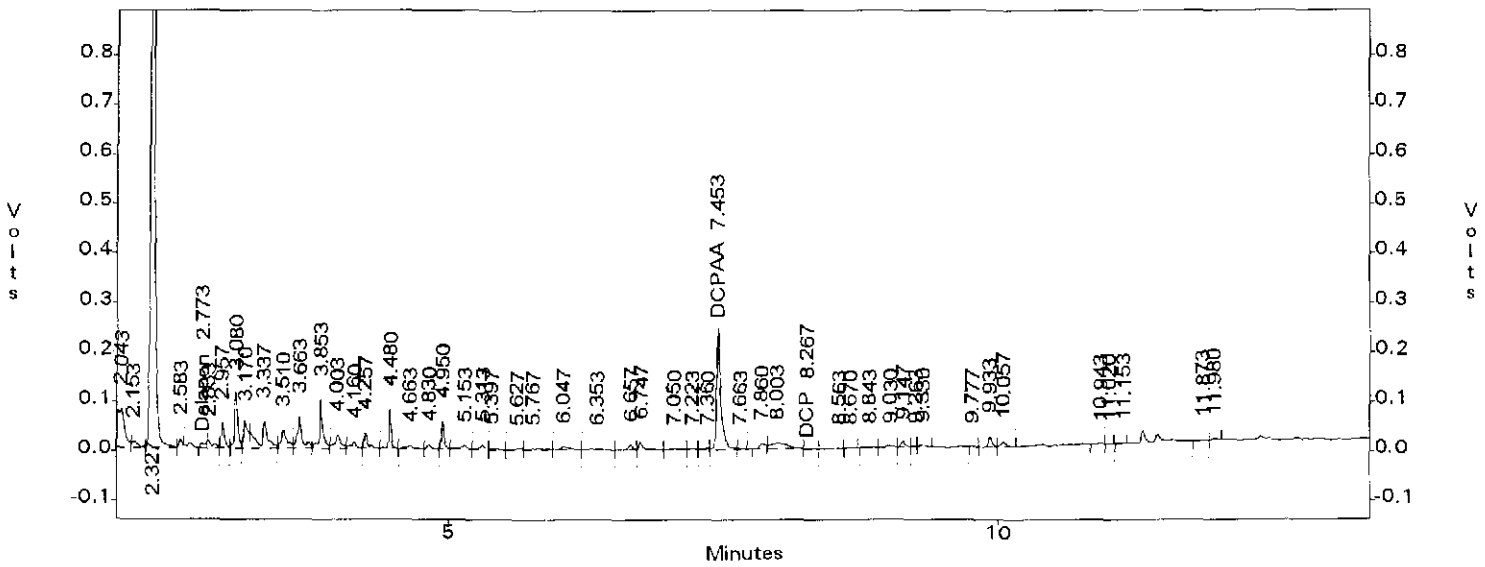
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\qj29.030
Method : c:\ezchrom\methods\he09j09.met
Sample ID : J162-05
Acquired : Oct 29, 2012 19:10:40
Printed : Oct 30, 2012 11:00:30
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.773	31843.0	1263.67	25.20	Sx
3,5 Dichlorobenzoic	6.397	0.0	0.00	0.00	--
4-Nitrophenol	6.977	0.0	0.00	0.00	--
DCPAA	7.453	658921.0	812.00	811.48	SS
Dicamba	7.640	0.0	0.00	0.00	--
MCPP	7.747	0.0	0.00	0.00	--
MCPA	7.967	0.0	0.00	0.00	--
DCP	8.267	8598.0	1198.60	7.17	VV
2,4-D	8.537	0.0	0.00	0.00	--
Pentachlorophenol	8.883	0.0	0.00	0.00	--
Silvex	9.173	0.0	0.00	0.00	--
2,4,5-T	9.453	0.0	0.00	0.00	--
Chloramben	9.493	0.0	0.00	0.00	--
2,4-DB	9.803	0.0	0.00	0.00	--
Dinoseb	10.020	0.0	0.00	0.00	--
Bentazon	10.377	0.0	0.00	0.00	--
Dacthal	10.597	0.0	0.00	0.00	--
Picloram	10.640	0.0	0.00	0.00	--
Acifluorfen	11.800	0.0	0.00	0.00	--

c:\ezchrom\chrom\qj29\qj29.030 -- Channel B



METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/27/12 12:11
Sample ID:	10-23-12 AR-1	Date Analyzed:	10/29/12 19:30
Lab Samp ID:	J162-06	Dilution Factor:	1
Lab File ID:	QJ29031A	Matrix :	WATER
Ext Btch ID:	HEJ008W	% Moisture :	NA
Calib. Ref.:	QJ29026A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	8.272|(8.408)	10.00	82.7|(84.1)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/27/12 12:11
Sample ID:	10-23-12 PWB-1	Date Analyzed:	10/29/12 19:51
Lab Samp ID:	J162-07	Dilution Factor:	1
Lab File ID:	QJ29032A	Matrix :	WATER
Ext Btch ID:	HEJ008W	% Moisture :	NA
Calib. Ref.:	QJ29026A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(7.725)|7.694	10.00	(77.2)|76.9	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/27/12 12:11
Sample ID:	10-23-12 AMW-3R	Date Analyzed:	10/29/12 20:11
Lab Samp ID:	J162-08	Dilution Factor:	1
Lab File ID:	QJ29033A	Matrix :	WATER
Ext Btch ID:	HEJ008W	% Moisture :	NA
Calib. Ref.:	QJ29026A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(6.408)|6.328	10.00	(64.1)|63.3	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/27/12 12:11
Sample ID:	10-23-12 PWB-3	Date Analyzed:	10/29/12 21:12
Lab Samp ID:	J162-D9	Dilution Factor:	1
Lab File ID:	QJ29036A	Matrix :	WATER
Ext Btch ID:	HEJ008W	% Moisture :	NA
Calib. Ref.:	QJ29026A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	8.843|(8.910)	10.00	88.4|(89.1)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J162	Date Extracted:	10/27/12 12:11
Sample ID:	10-23-12 PWB-10	Date Analyzed:	10/29/12 22:13
Lab Samp ID:	J162-10	Dilution Factor:	1
Lab File ID:	QJ29039A	Matrix :	WATER
Ext Btch ID:	HEJ008W	% Moisture :	NA
Calib. Ref.:	QJ29038A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	8.597|(8.944)	10.00	86.0|(89.4)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

QC SUMMARIES

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	NA
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/27/12
Batch No.	: 12J162	Date Extracted:	10/27/12 12:11
Sample ID:	MBLK1W	Date Analyzed:	10/29/12 16:09
Lab Samp ID:	HEJ008WB	Dilution Factor:	1
Lab File ID:	QJ29021A	Matrix :	WATER
Ext Btch ID:	HEJ008W	% Moisture :	NA
Calib. Ref.:	QJ29014A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	9.438|(9.735)	10.00	94.4|(97.4)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 8151A

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	HEJ008WB	HEJ008WL	HEJ008WC		
LAB FILE ID:	QJ29021A	QJ29022A	QJ29023A		
DATE EXTRACTED:	10/27/1212:11	10/27/1212:11	10/27/1212:11	DATE COLLECTED:	NA
DATE ANALYZED:	10/29/1216:09	10/29/1216:29	10/29/1216:49	DATE RECEIVED:	10/27/12
PREP. BATCH:	HEJ008W	HEJ008W	HEJ008W		
CALIB. REF:	QJ29014A	QJ29014A	QJ29014A		

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 (%)
Dinoseb	(ND)|ND	1.00	0.760|(0.893)	76|(89)	1.00	0.681|(0.779)	68|(78)	11|(14)	20-100	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 (%)
2,4-DCPAA	10.00	8.851|(9.445)	88.5|(94.5)	10.00	8.773|(9.284)	87.7|(92.8)	40-140

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 8151A

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	10-23-12 AMW-3R				
LAB SAMP ID:	J162-08	J162-08M	J162-08S		
LAB FILE ID:	QJ29033A	QJ29034A	QJ29035A		
DATE EXTRACTED:	10/27/1212:11	10/27/1212:11	10/27/1212:11	DATE COLLECTED:	10/23/12
DATE ANALYZED:	10/29/1220:11	10/29/1220:31	10/29/1220:52	DATE RECEIVED:	10/24/12
PREP. BATCH:	HEJ008W	HEJ008W	HEJ008W		
CALIB. REF:	QJ29026A	QJ29026A	QJ29026A		

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 (%)
Dinoseb	(ND)|ND	1.00	0.802|(0.973)	80|(97)	1.00	0.744|(0.963)	74|(96)	8|(1)	20-100	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 (%)
2,4-DCPAA	10.00	8.470|(8.486)	84.7|(84.9)	10.00	9.115|(9.298)	91.1|(93.0)	40-140

0145

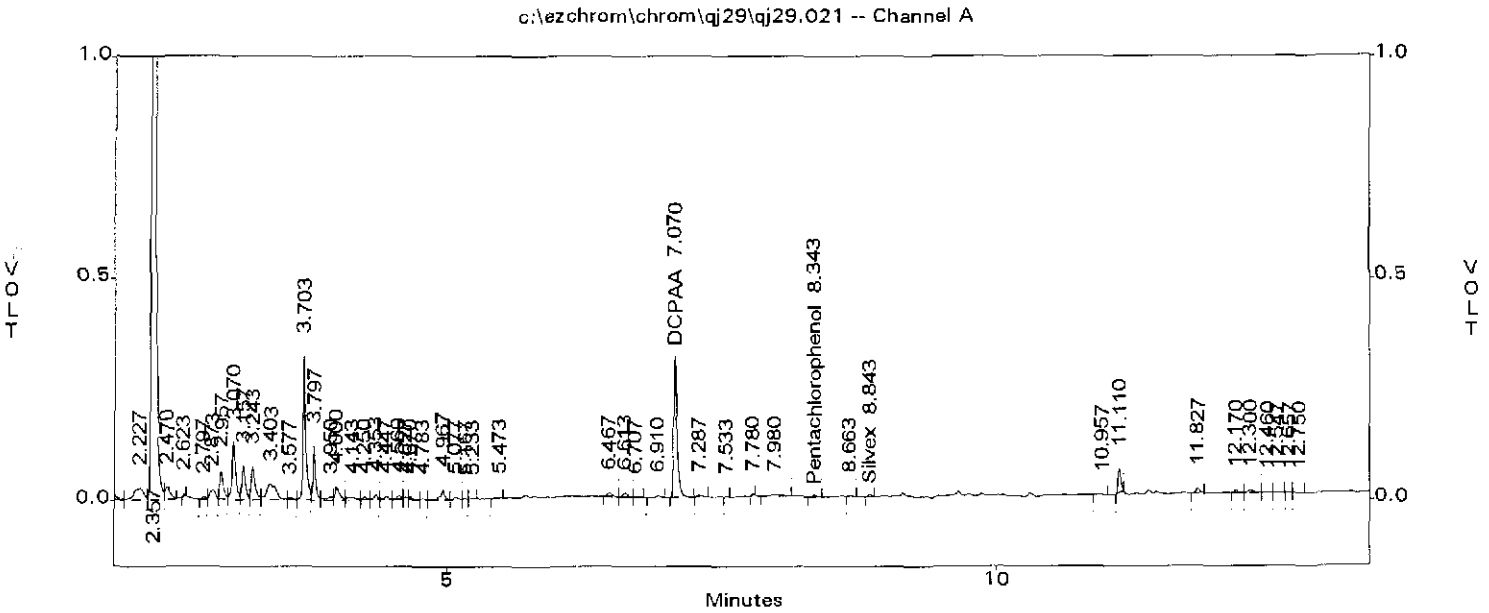
QC DATA

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\qj29.021
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HEJ008WB
Acquired : Oct 29, 2012 16:09:27
Printed : Oct 30, 2012 10:49:57
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	0.0	0.00	0.00	--
3,5 Dichlorobenzo	6.223	0.0	0.00	0.00	--
4-Nitrophenol	6.833	0.0	0.00	0.00	--
DCPAA	7.070	676967.0	717.28	943.79	VV
Dicamba	7.253	0.0	0.00	0.00	--
MCPP	7.453	0.0	0.00	0.00	--
MCPA	7.593	0.0	0.00	0.00	--
DCP	7.937	0.0	0.00	0.00	--
2,4-D	8.137	0.0	0.00	0.00	--
Pentachlorophenol	8.343	10614.0	12876.92	0.82	BI
Silvex	8.843	8762.0	5252.30	1.67	BI
Chloramben	8.953	0.0	0.00	0.00	--
2,4,5-T	9.040	0.0	0.00	0.00	--
2,4-DB	9.440	0.0	0.00	0.00	--
Bentazon/Picloram	10.063	0.0	0.00	0.00	--
Dinoseb	10.167	0.0	0.00	0.00	--
Dacthal	10.340	0.0	0.00	0.00	--
Acifluorfen	11.787	0.0	0.00	0.00	--



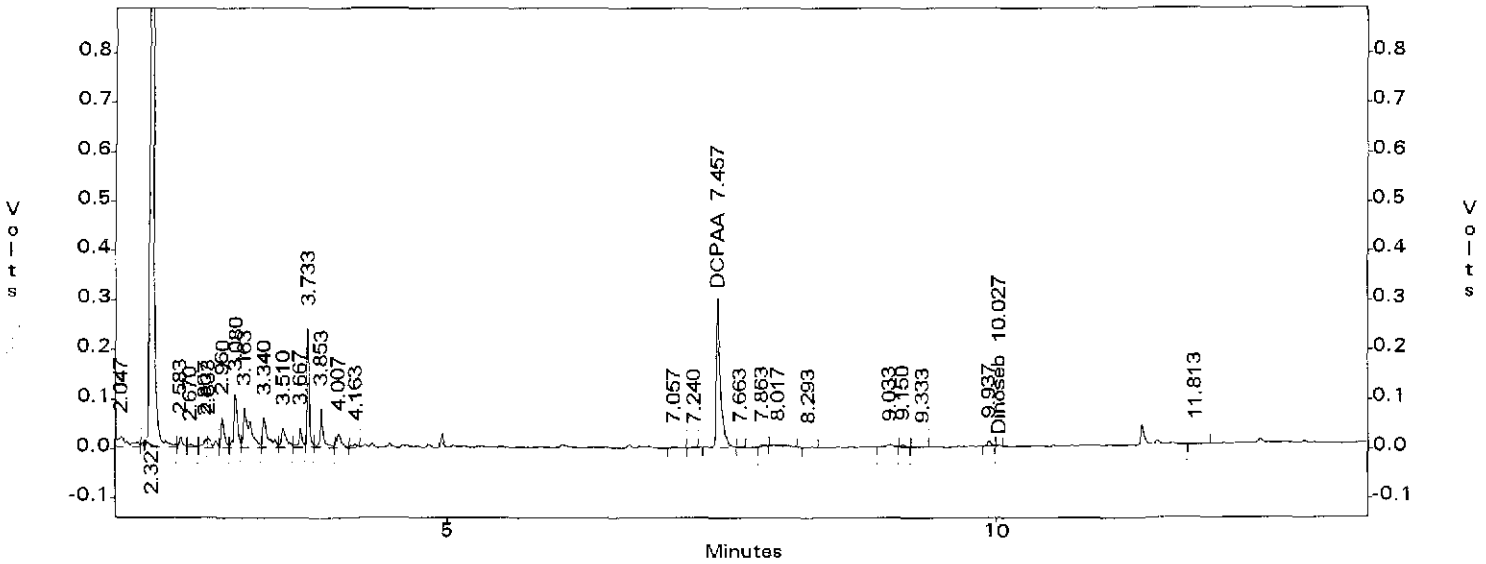
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\qj29.021
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HEJ008WB
Acquired : Oct 29, 2012 16:09:27
Printed : Oct 30, 2012 10:49:58
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	0.0	0.00	0.00	--
3,5 Dichlorobenzoic	6.393	0.0	0.00	0.00	--
4-Nitrophenol	6.973	0.0	0.00	0.00	--
DCPAA	7.457	790502.0	812.00	973.53	SS
Dicamba	7.637	0.0	0.00	0.00	--
MCPP	7.747	0.0	0.00	0.00	--
MCPA	7.967	0.0	0.00	0.00	--
DCP	8.270	0.0	0.00	0.00	--
2,4-D	8.537	0.0	0.00	0.00	--
Pentachlorophenol	8.883	0.0	0.00	0.00	--
Silvex	9.173	0.0	0.00	0.00	--
2,4,5-T	9.450	0.0	0.00	0.00	--
Chloramben	9.490	0.0	0.00	0.00	--
2,4-DB	9.803	0.0	0.00	0.00	--
Dinoseb	10.027	2449.0	2604.65	0.94	VI
Bentazon	10.373	0.0	0.00	0.00	--
Dacthal	10.593	0.0	0.00	0.00	--
Picloram	10.637	0.0	0.00	0.00	--
Acifluorfen	11.797	0.0	0.00	0.00	--

c:\ezchrom\chrom\qj29\qj29.021 -- Channel B

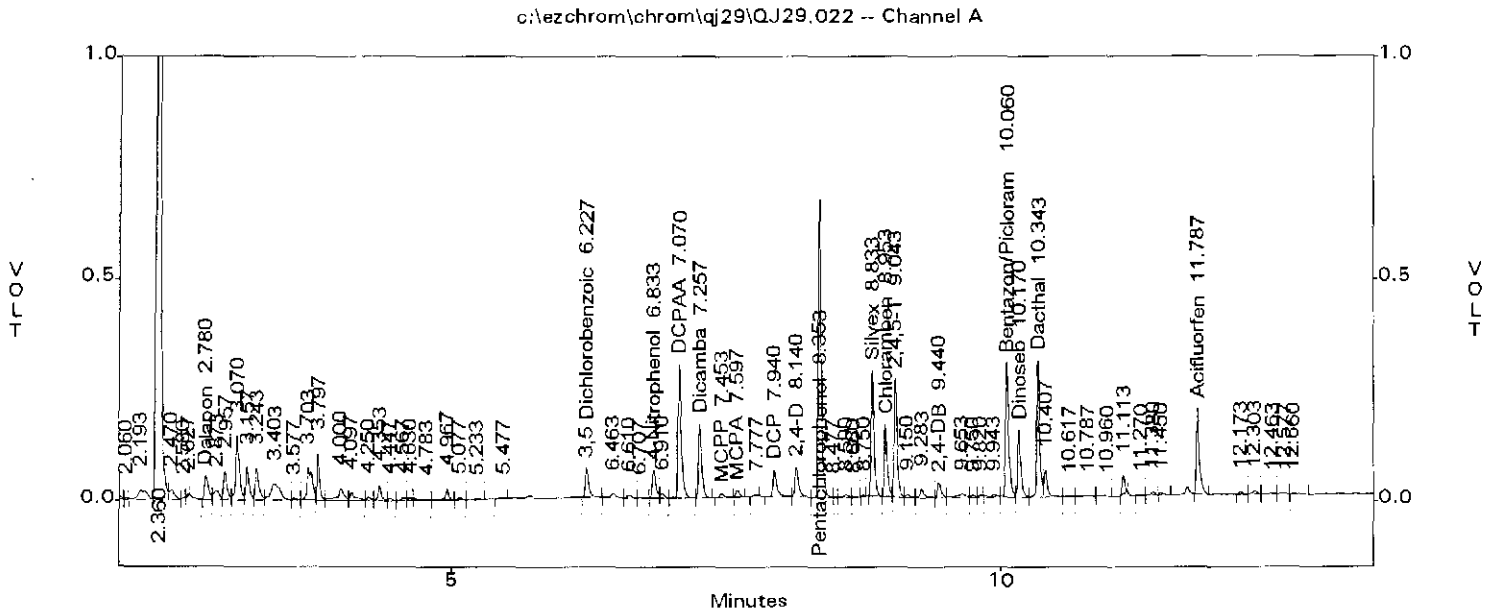


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\QJ29.022
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HEJ008WL
Acquired : Oct 29, 2012 16:29:38
Printed : Oct 30, 2012 08:06:42
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	130706.0	1669.16	78.31	BV
3,5 Dichlorobenzo	6.227	139388.0	1582.76	88.07	BV
4-Nitrophenol	6.833	143436.0	994.81	144.18	VS
DCPAA	7.070	634875.0	717.28	885.11	VV
Dicamba	7.257	336453.0	3332.79	100.95	VI
MCPP	7.453	27321.0	3.75	7280.17	BV
MCPA	7.597	40687.0	7.75	5248.53	xV
DCP	7.940	150447.0	1133.12	132.77	BV
2,4-D	8.140	152975.0	1424.90	107.36	VV
Pentachlorophenol	8.353	1312429.0	12876.92	101.92	Vx
Silvex	8.833	511820.0	5252.30	97.45	BV
Chloramben	8.953	312487.0	4138.84	75.50	VV
2,4,5-T	9.043	517500.0	5436.08	95.20	VV
2,4-DB	9.440	83320.0	733.46	113.60	VV
Bentazon/Picloram	10.060	633186.0	3836.73	165.03	VV
Dinoseb	10.170	302387.0	3981.06	75.96	VV
Dacthal	10.343	555619.0	6309.82	88.06	VV
Acifluorfen	11.787	365412.0	4861.40	75.17	BV

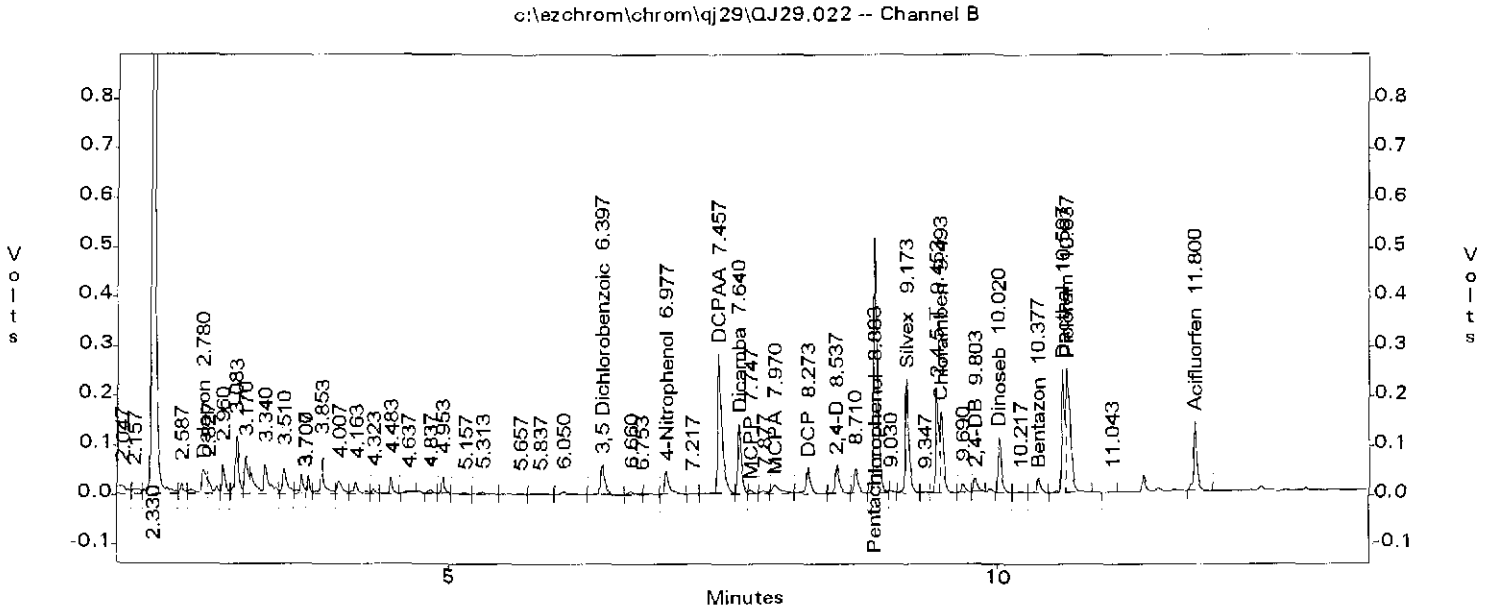


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\QJ29.022
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HEJ008WL
Acquired : Oct 29, 2012 16:29:38
Printed : Oct 30, 2012 08:06:42
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	170533.0	1263.67	134.95	Sx
3,5 Dichlorobenzoic	6.397	157722.0	1675.04	94.16	VV
4-Nitrophenol	6.977	136373.0	738.33	184.70	VV
DCPAA	7.457	766965.0	812.00	944.54	SV
Dicamba	7.640	325441.0	3231.74	100.70	VS
MCPP	7.747	26415.0	5.17	5110.30	SV
MCPA	7.970	94393.0	10.00	9443.91	SV
DCP	8.273	150086.0	1198.60	125.22	VV
2,4-D	8.537	148685.0	1382.77	107.53	VV
Pentachlorophenol	8.883	1200055.0	11546.42	103.93	VS
Silvex	9.173	517222.0	4667.02	110.82	VV
2,4,5-T	9.453	402686.0	3607.14	111.64	Sx
Chloramben	9.493	345162.0	4751.55	72.64	xV
2,4-DB	9.803	68445.0	713.67	95.91	VV
Dinoseb	10.020	232567.0	2604.65	89.29	SV
Bentazon	10.377	72390.0	620.24	116.71	VV
Dacthal	10.597	447268.0	4296.46	104.10	Vx
Picloram	10.637	686865.0	7077.91	97.04	xV
Acifluorfen	11.800	289261.0	2674.64	108.15	BS

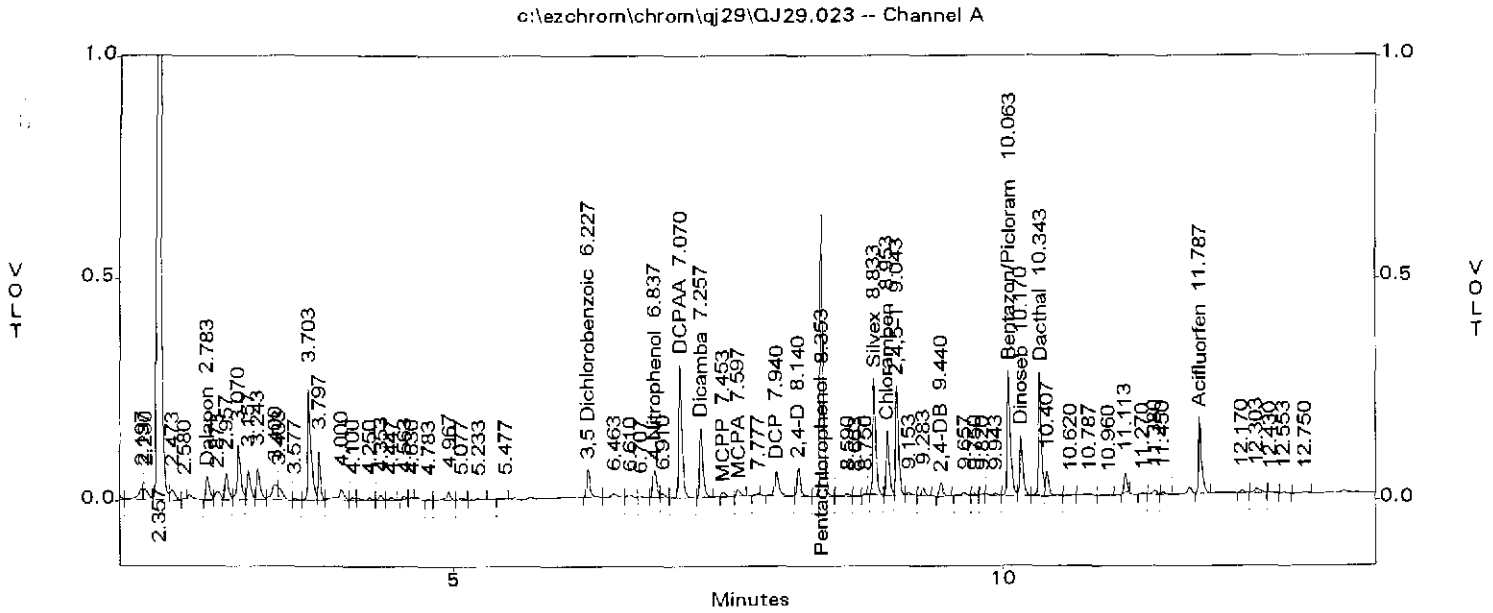


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\QJ29.023
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HEJ008WC
Acquired : Oct 29, 2012 16:49:48
Printed : Oct 30, 2012 08:06:45
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	118821.0	1669.16	71.19	BV
3,5 Dichlorobenzo	6.227	131736.0	1582.76	83.23	BV
4-Nitrophenol	6.837	136106.0	994.81	136.82	VS
DCPAA	7.070	629297.0	717.28	877.33	VV
Dicamba	7.257	317023.0	3332.79	95.12	VI
MCPP	7.453	25825.0	3.75	6881.54	BV
MCPA	7.597	38069.0	7.75	4910.81	xV
DCP	7.940	150600.0	1133.12	132.91	BV
2,4-D	8.140	145814.0	1424.90	102.33	VV
Pentachlorophenol	8.353	1240217.0	12876.92	96.31	VV
Silvex	8.833	471491.0	5252.30	89.77	BV
Chloramben	8.953	280896.0	4138.84	67.87	VV
2,4,5-T	9.043	473632.0	5436.08	87.13	VV
2,4-DB	9.440	69282.0	733.46	94.46	SB
Bentazon/Picloram	10.063	583858.0	3836.73	152.18	VV
Dinoseb	10.170	270978.0	3981.06	68.07	VV
Dacthal	10.343	503771.0	6309.82	79.84	VV
Acifluorfen	11.787	329216.0	4861.40	67.72	BV



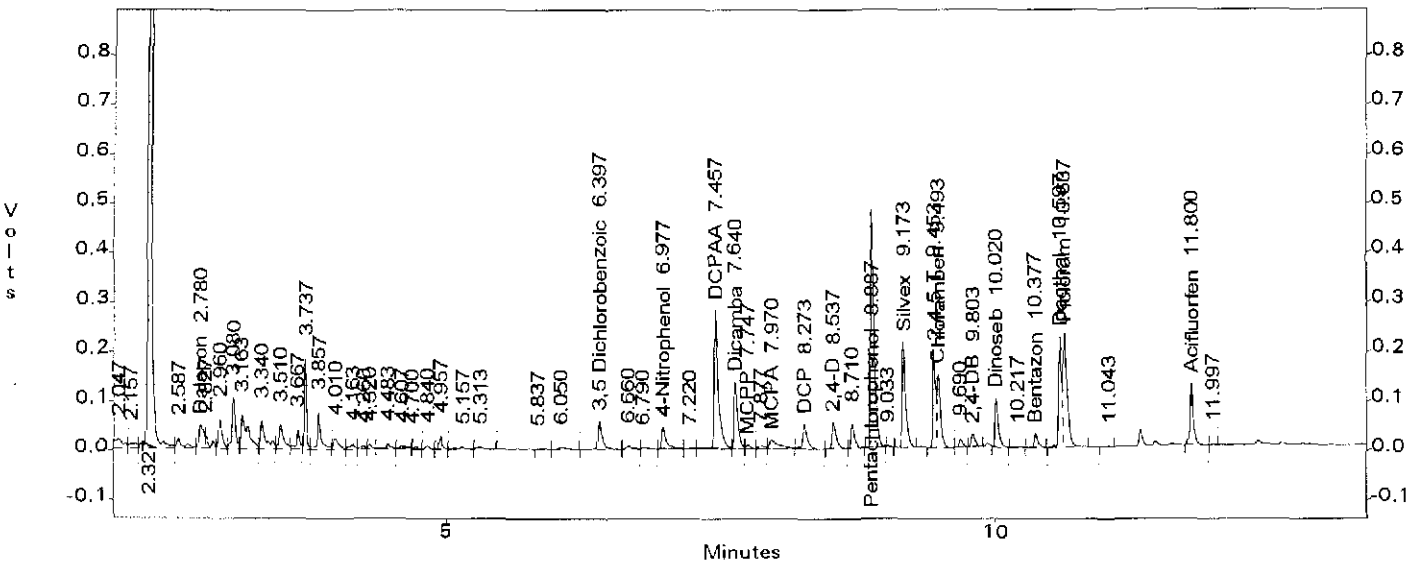
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\QJ29.023
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HEJ008WC
Acquired : Oct 29, 2012 16:49:48
Printed : Oct 30, 2012 08:06:45
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	133062.0	1263.67	105.30	Sx
3,5 Dichlorobenzoic	6.397	150499.0	1675.04	89.85	VV
4-Nitrophenol	6.977	126867.0	738.33	171.83	VV
DCPAA	7.457	753841.0	812.00	928.38	SV
Dicamba	7.640	306612.0	3231.74	94.88	VS
MCPP	7.747	24752.0	5.17	4788.57	SV
MCPA	7.970	108018.0	10.00	10807.07	SV
DCP	8.273	137983.0	1198.60	115.12	VV
2,4-D	8.537	138989.0	1382.77	100.51	VV
Pentachlorophenol	8.887	1116577.0	11546.42	96.70	VS
Silvex	9.173	472937.0	4667.02	101.34	VV
2,4,5-T	9.453	360195.0	3607.14	99.86	Sx
Chloramben	9.493	313192.0	4751.55	65.91	xV
2,4-DB	9.803	60653.0	713.67	84.99	VV
Dinoseb	10.020	202951.0	2604.65	77.92	SV
Bentazon	10.377	68511.0	620.24	110.46	VV
Dacthal	10.597	395929.0	4296.46	92.15	Vx
Picloram	10.637	631554.0	7077.91	89.23	xV
Acifluorfen	11.800	257866.0	2674.64	96.41	BV

c:\ezchrom\chrom\qj29\QJ29.023 -- Channel B



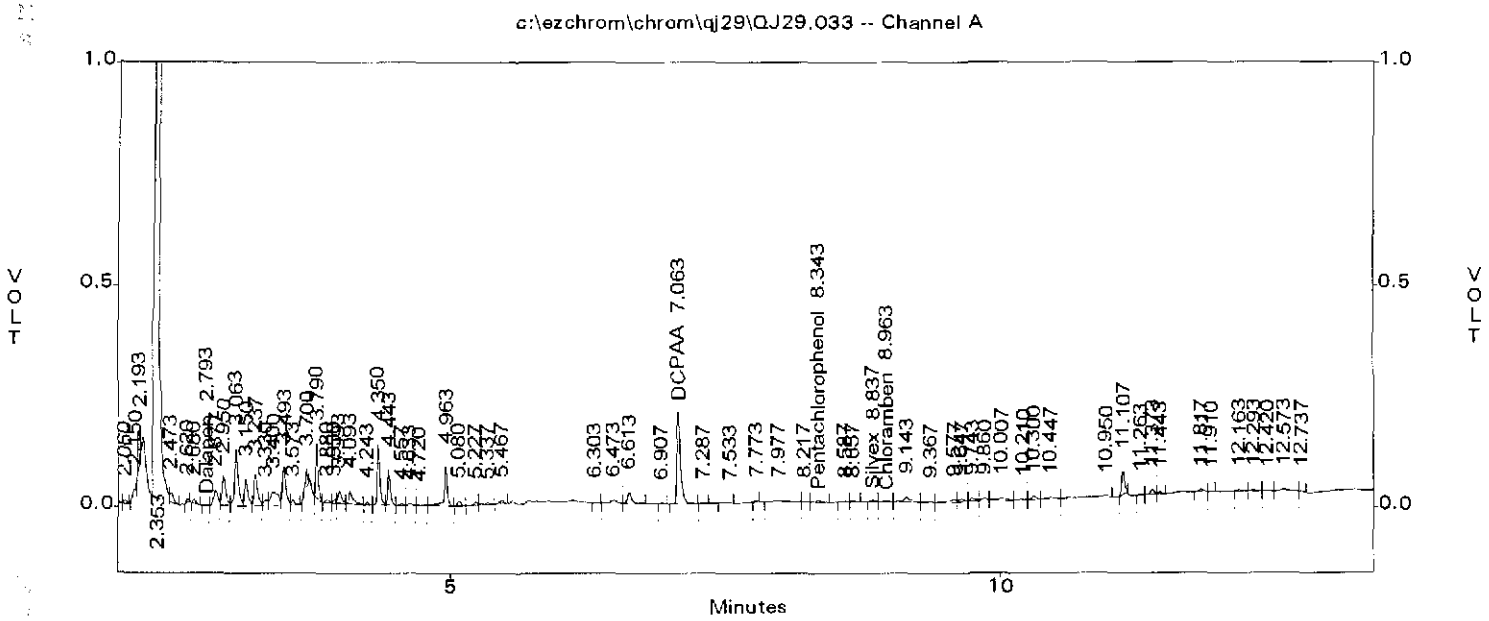
5626

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\QJ29.033
Method : c:\ezchrom\methods\he09j09.met
Sample ID : J162-08
Acquired : Oct 29, 2012 20:11:40
Printed : Oct 30, 2012 08:09:24
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.793	3641.0	1669.16	2.18	VS
3,5 Dichlorobenzo	6.227	0.0	0.00	0.00	--
4-Nitrophenol	6.837	0.0	0.00	0.00	--
DCPAA	7.063	459670.0	717.28	640.85	VV
Dicamba	7.257	0.0	0.00	0.00	--
MCPP	7.453	0.0	0.00	0.00	--
MCPA	7.597	0.0	0.00	0.00	--
DCP	7.940	0.0	0.00	0.00	--
2,4-D	8.140	0.0	0.00	0.00	--
Pentachlorophenol	8.343	13642.0	12876.92	1.06	VB
Silvex	8.837	11080.0	5252.30	2.11	BV
Chloramben	8.963	11018.0	4138.84	2.66	VV
2,4,5-T	9.043	0.0	0.00	0.00	--
2,4-DB	9.443	0.0	0.00	0.00	--
Bentazon/Picloram	10.063	0.0	0.00	0.00	--
Dinoseb	10.170	0.0	0.00	0.00	--
Dacthal	10.343	0.0	0.00	0.00	--
Acifluorfen	11.787	0.0	0.00	0.00	--



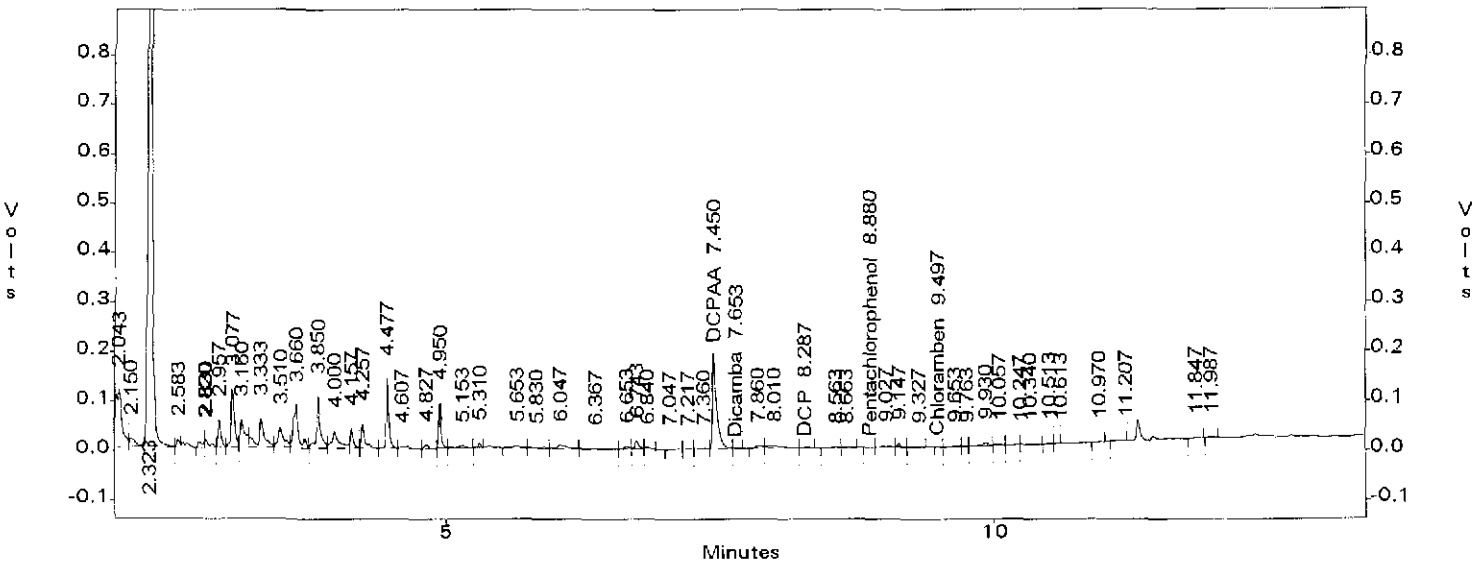
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\QJ29.033
Method : c:\ezchrom\methods\he09j09.met
Sample ID : J162-08
Acquired : Oct 29, 2012 20:11:40
Printed : Oct 30, 2012 08:09:24
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	0.0	0.00	0.00	--
3,5 Dichlorobenzoic	6.397	0.0	0.00	0.00	--
4-Nitrophenol	6.977	0.0	0.00	0.00	--
DCPAA	7.450	513794.0	812.00	632.75	SS
Dicamba	7.653	3526.0	3231.74	1.09	SV
MCPP	7.747	0.0	0.00	0.00	--
MCPA	7.967	0.0	0.00	0.00	--
DCP	8.287	6507.0	1198.60	5.43	VV
2,4-D	8.537	0.0	0.00	0.00	--
Pentachlorophenol	8.880	2442.0	11546.42	0.21	SS
Silvex	9.173	0.0	0.00	0.00	--
2,4,5-T	9.453	0.0	0.00	0.00	--
Chloramben	9.497	4616.0	4751.55	0.97	xV
2,4-DB	9.803	0.0	0.00	0.00	--
Dinoseb	10.020	0.0	0.00	0.00	--
Bentazon	10.377	0.0	0.00	0.00	--
Dacthal	10.597	0.0	0.00	0.00	--
Picloram	10.640	0.0	0.00	0.00	--
Acifluorfen	11.800	0.0	0.00	0.00	--

c:\ezchrom\chrom\qj29\QJ29.033 -- Channel B

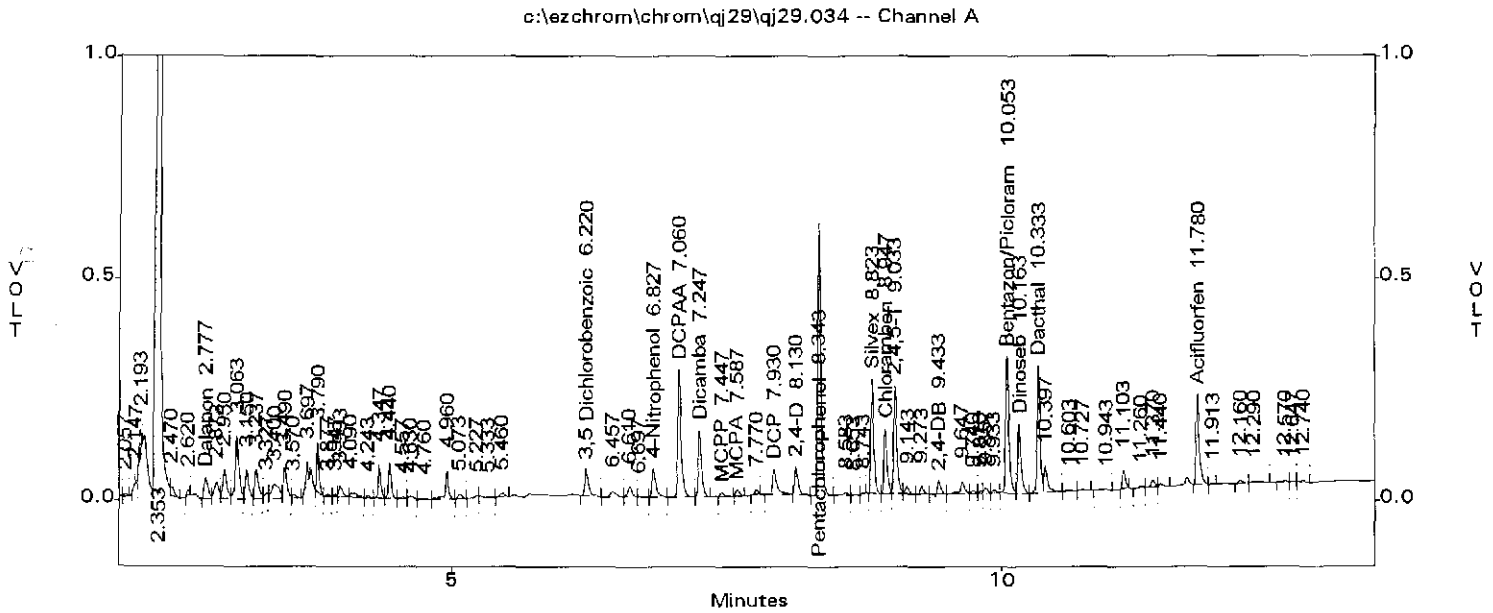


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\qj29.034
Method : c:\ezchrom\methods\he09j09.met
Sample ID : J162-08M
Acquired : Oct 29, 2012 20:31:57
Printed : Oct 30, 2012 11:09:04
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.777	119676.0	1669.16	71.70	BV
3,5 Dichlorobenzo	6.220	127670.0	1582.76	80.66	BV
4-Nitrophenol	6.827	153072.0	994.81	153.87	VV
DCPAA	7.060	607539.0	717.28	847.00	VV
Dicamba	7.247	301798.0	3332.79	90.55	VV
MCPP	7.447	24821.0	3.75	6614.00	BV
MCPA	7.587	36628.0	7.75	4724.92	xV
DCP	7.930	166456.0	1133.12	146.90	BV
2,4-D	8.130	144000.0	1424.90	101.06	VV
Pentachlorophenol	8.343	1207053.0	12876.92	93.74	VV
Silvex	8.823	472337.0	5252.30	89.93	BV
Chloramben	8.947	288840.0	4138.84	69.79	VV
2,4,5-T	9.033	473739.0	5436.08	87.15	VV
2,4-DB	9.433	56453.0	733.46	76.97	SV
Bentazon/Picloram	10.053	646769.0	3836.73	168.57	VV
Dinoseb	10.163	319319.0	3981.06	80.21	VV
Dacthal	10.333	518811.0	6309.82	82.22	VV
Acifluorfen	11.780	397303.0	4861.40	81.73	BV

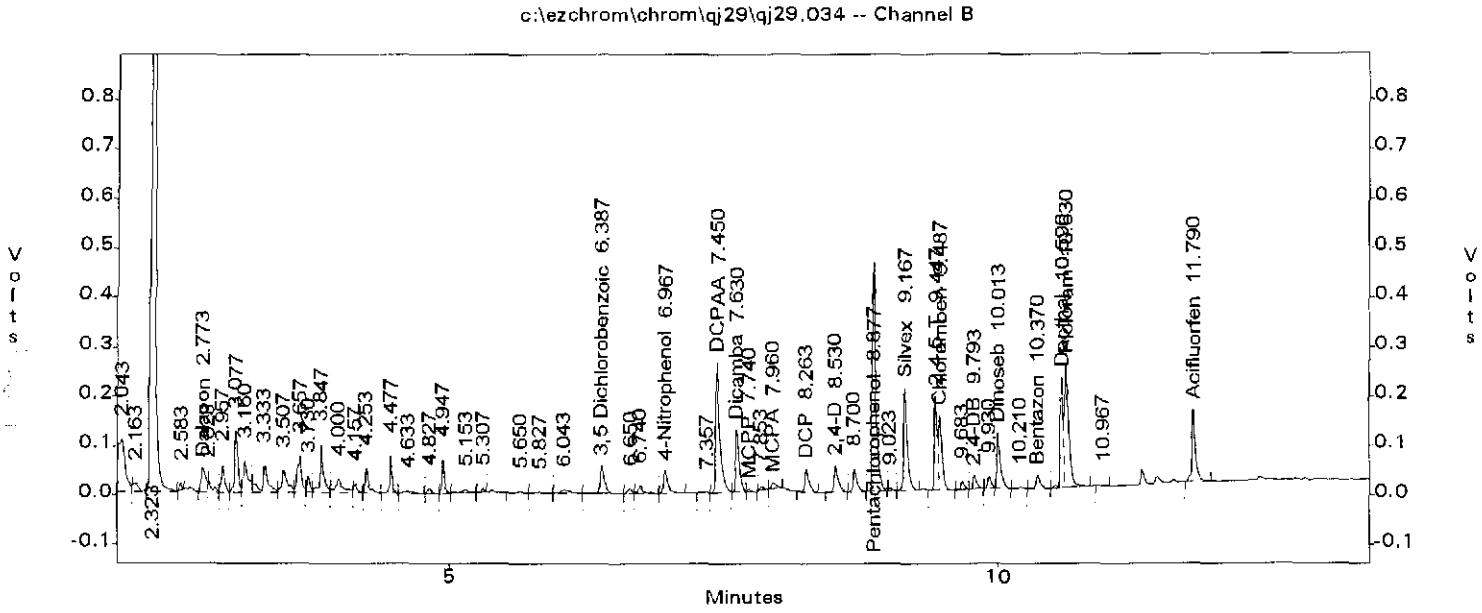


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\qj29.034
Method : c:\ezchrom\methods\he09j09.met
Sample ID : J162-08M
Acquired : Oct 29, 2012 20:31:57
Printed : Oct 30, 2012 11:09:04
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.773	139234.0	1263.67	110.18	Sx
3,5 Dichlorobenzoic	6.387	145362.0	1675.04	86.78	VV
4-Nitrophenol	6.967	127577.0	738.33	172.79	VV
DCPAA	7.450	689053.0	812.00	848.59	SV
Dicamba	7.630	282268.0	3231.74	87.34	VS
MCPP	7.740	12629.0	5.17	2443.23	MM
MCPA	7.960	37990.0	10.00	3800.85	vv
DCP	8.263	119616.0	1198.60	99.80	VV
2,4-D	8.530	136016.0	1382.77	98.36	VV
Pentachlorophenol	8.877	1079308.0	11546.42	93.48	VS
Silvex	9.167	475089.0	4667.02	101.80	VV
2,4,5-T	9.447	346654.0	3607.14	96.10	Sx
Chloramben	9.487	333725.0	4751.55	70.24	xV
2,4-DB	9.793	60689.0	713.67	85.04	VV
Dinoseb	10.013	253398.0	2604.65	97.29	vv
Bentazon	10.370	68212.0	620.24	109.98	vv
Dacthal	10.590	390013.0	4296.46	90.78	Vx
Picloram	10.630	705028.0	7077.91	99.61	xV
Acifluorfen	11.790	321462.0	2674.64	120.19	BS

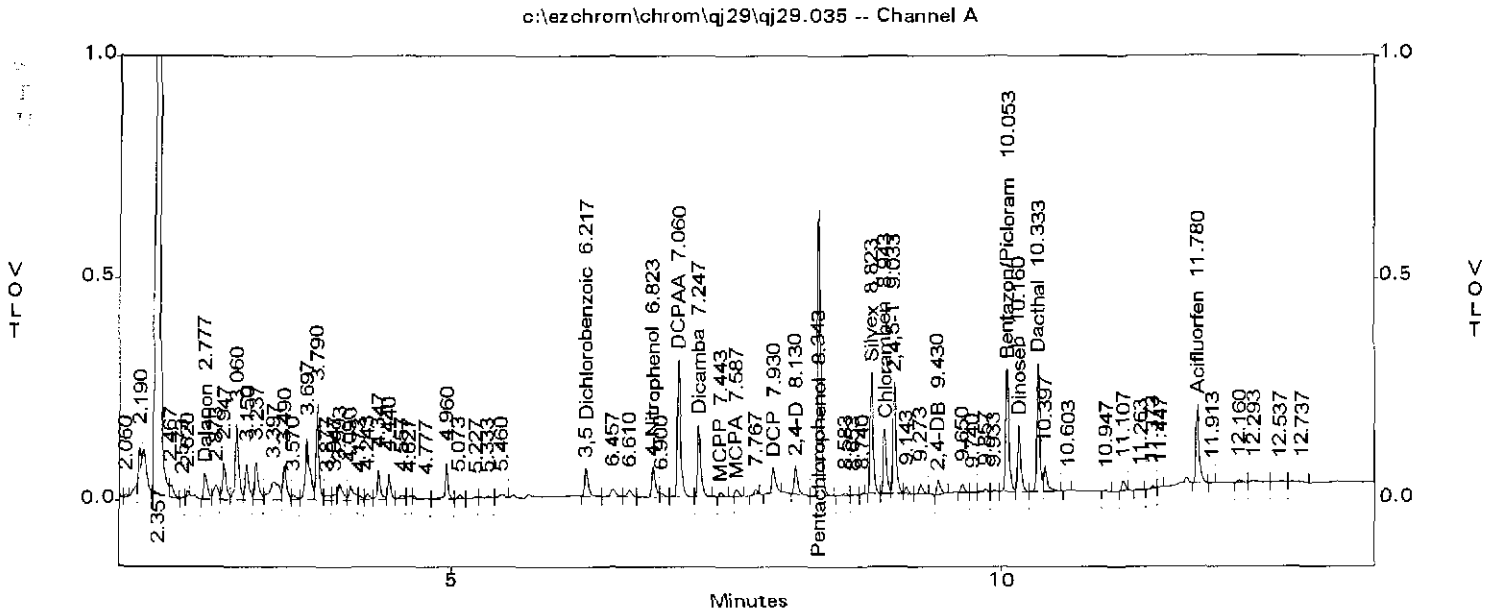


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\qj29.035
Method : c:\ezchrom\methods\he09j09.met
Sample ID : J162-08S
Acquired : Oct 29, 2012 20:52:13
Printed : Oct 30, 2012 11:12:03
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.777	131166.0	1669.16	78.58	BV
3,5 Dichlorobenzo	6.217	136679.0	1582.76	86.35	BV
4-Nitrophenol	6.823	154106.0	994.81	154.91	VS
DCPAA	7.060	653795.0	717.28	911.49	VV
Dicamba	7.247	329338.0	3332.79	98.82	VI
MCPP	7.443	20170.0	3.75	5374.66	BI
MCPA	7.587	37657.0	7.75	4857.66	xV
DCP	7.930	126436.0	1133.12	111.58	BI
2,4-D	8.130	135912.0	1424.90	95.38	BV
Pentachlorophenol	8.343	1275975.0	12876.92	99.09	Vx
Silvex	8.823	499199.0	5252.30	95.04	BV
Chloramben	8.943	287152.0	4138.84	69.38	VV
2,4,5-T	9.033	487989.0	5436.08	89.77	VV
2,4-DB	9.430	74221.0	733.46	101.19	SI
Bentazon/Picloram	10.053	592647.0	3836.73	154.47	VV
Dinoseb	10.160	296310.0	3981.06	74.43	VV
Dacthal	10.333	527819.0	6309.82	83.65	VV
Acifluorfen	11.780	353550.0	4861.40	72.73	BV

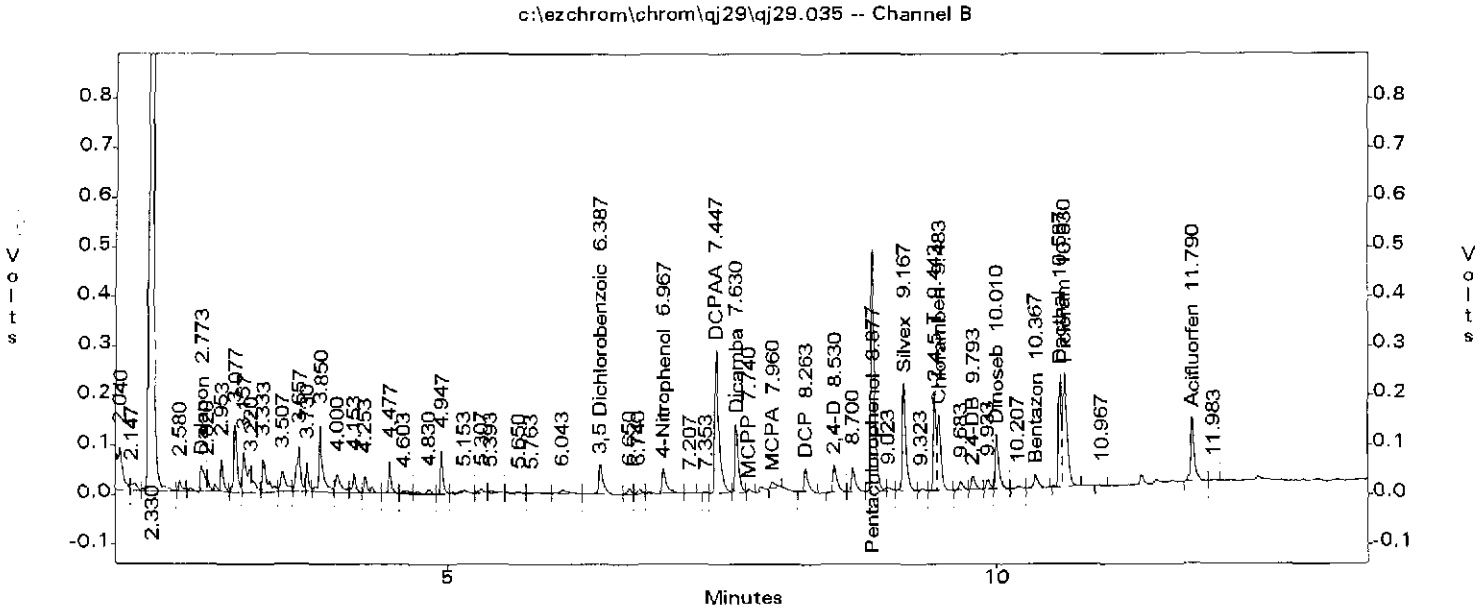


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\qj29.035
Method : c:\ezchrom\methods\he09j09.met
Sample ID : J162-08S
Acquired : Oct 29, 2012 20:52:13
Printed : Oct 30, 2012 11:12:03
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.773	149799.0	1263.67	118.54	SS
3,5 Dichlorobenzoic	6.387	157082.0	1675.04	93.78	VV
4-Nitrophenol	6.967	152381.0	738.33	206.39	SV
DCPAA	7.447	755002.0	812.00	929.81	SV
Dicamba	7.630	301395.0	3231.74	93.26	VS
MCPP	7.740	13544.0	5.17	2620.25	Sx
MCPA	7.960	41648.0	10.00	4166.83	vv
DCP	8.263	126175.0	1198.60	105.27	VV
2,4-D	8.530	143947.0	1382.77	104.10	VV
Pentachlorophenol	8.877	1146309.0	11546.42	99.28	VS
Silvex	9.167	508823.0	4667.02	109.03	VV
2,4,5-T	9.443	348907.0	3607.14	96.73	Sx
Chloramben	9.483	355051.0	4751.55	74.72	xV
2,4-DB	9.793	70970.0	713.67	99.44	VV
Dinoseb	10.010	250737.0	2604.65	96.27	SV
Bentazon	10.367	72080.0	620.24	116.21	SV
Dacthal	10.587	395964.0	4296.46	92.16	Sx
Picloram	10.630	636802.0	7077.91	89.97	xS
Acifluorfen	11.790	277901.0	2674.64	103.90	BV



INITIAL CALIBRATIONS

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
LFID & Datetime: QJ09002A 10/09/12 13:17
LFID & Datetime: QJ09003A 10/09/12 13:38
LFID & Datetime: QJ09004A 10/09/12 13:58
LFID & Datetime: QJ09005A 10/09/12 14:19
LFID & Datetime: QJ09006A 10/09/12 14:39
LFID & Datetime: QJ09007A 10/09/12 15:00
LFID & Datetime: QJ09008A 10/09/12 15:21
LFID & Datetime: QJ09009A 10/09/12 15:41
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA)/UNIT 1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
Dalapon	10.00	0	1974	1827	1719	1613	1566	1530	1456	1669.2	10.9
3,5-Dichlorobenzo	10.00	0	1855	1691	1610	1493	1441	1403	1586	1582.8	9.9
4-Nitrophenol	10.00	0	1153	1074	1033	966	938	916	883	994.8	9.7
Dicamba	10.00	0	3614	3520	3456	3294	3227	3188	3031	3332.8	6.2
MCPP	500.00	0	0	3	4	4	4	4	4	3.8	8.7
MCPA	500.00	0	0	9	9	8	7	7	6	7.8	13.5
Dichloroprop	10.00	0	1326	1213	1167	1092	1064	1059	1010	1133.1	9.7
2,4-D	10.00	0	1745	1525	1451	1357	1323	1316	1256	1424.9	11.8
Pentachlorophenol	10.00	14394	14227	13677	13190	12476	12142	11903	11006	12876.9	9.3
2,4,5-TP(Silvex)	10.00	0	5493	5492	5488	5264	5152	5055	4821	5252.3	5.0
Chloramben	10.00	0	4076	4181	4286	4190	4150	4127	3962	4138.8	2.5
2,4,5-T	10.00	0	5968	5793	5682	5395	5227	5128	4860	5436.1	7.3
2,4-DB	10.00	0	790	760	747	718	708	722	689	733.5	4.7
Bentazon/Picloram	20.00	3938	3944	3936	3986	3830	3763	3728	3571	3836.7	3.7
Dinoseb	10.00	0	4569	4231	4114	3905	3810	3707	3532	3981.1	8.8
Dacthal	10.00	0	6702	6670	6557	6287	6145	6035	5774	6309.8	5.5
Acifluorfen	10.00	0	5359	4994	5029	4748	4731	4656	4513	4861.4	5.9

SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
2,4-DCPAA	100.00	0	902	807	738	681	655	635	602	717.3	14.8

10/10/12

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: QJ09002B 10/09/12 13:17
LFID & Datetime: QJ09003B 10/09/12 13:38
LFID & Datetime: QJ09004B 10/09/12 13:58
LFID & Datetime: QJ09005B 10/09/12 14:19
LFID & Datetime: QJ09006B 10/09/12 14:39
LFID & Datetime: QJ09007B 10/09/12 15:00
LFID & Datetime: QJ09008B 10/09/12 15:21
LFID & Datetime: QJ09009B 10/09/12 15:41
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA)/UNIT 1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
Dalapon	10.00	0	1532	1385	1322	1188	1175	1143	1101	1263.7	12.3
3,5-Dichlorobenzo	10.00	0	1856	1768	1818	1798	1544	1507	1435	1675.0	10.3
4-Nitrophenol	10.00	0	842	828	810	750	670	650	617	738.3	12.5
Dicamba	10.00	0	3389	3311	3325	3216	3176	3157	3048	3231.7	3.6
MCPP	500.00	0	0	4	5	5	5	6	5	5.2	9.0
MCPA	500.00	0	0	12	11	10	9	9	9	10.0	12.5
Dichloroprop	10.00	0	1416	1286	1228	1158	1126	1117	1059	1198.6	10.1
2,4-D	10.00	0	1603	1493	1426	1347	1310	1282	1219	1382.8	9.6
Pentachlorophenol	10.00	11285	11690	11880	12024	11640	11496	11392	10964	11546.4	2.9
2,4,5-TP(Silvex)	10.00	0	4580	4668	4841	4705	4691	4664	4520	4667.0	2.2
Chloramben	10.00	0	4351	4584	4777	4827	4994	5024	4703	4751.5	4.9
2,4,5-T	10.00	0	3983	3861	3862	3598	3356	3286	3304	3607.1	8.2
2,4-DB	10.00	0	811	758	728	689	689	674	646	713.7	7.9
Dinoseb	10.00	0	2656	2624	2658	2598	2592	2574	2529	2604.7	1.8
Bentazon	10.00	0	673	635	623	595	608	598	609	620.2	4.4
Dacthal	10.00	0	4467	4390	4468	4453	4226	4139	3932	4296.5	4.8
Picloram	10.00	0	6365	6826	7242	7103	7315	7397	7296	7077.9	5.2
Acifluorfen	10.00	0	2565	2537	2639	2738	2733	2790	2719	2674.6	3.6

SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
2,4-DCPAA	100.00	0	986	890	835	781	755	737	700	812.0	12.2

In cohol

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
LFID & Datetime: QJ09002A 10/09/12 13:17
LFID & Datetime: QJ09003A 10/09/12 13:38
LFID & Datetime: QJ09004A 10/09/12 13:58
LFID & Datetime: QJ09005A 10/09/12 14:19
LFID & Datetime: QJ09006A 10/09/12 14:39
LFID & Datetime: QJ09007A 10/09/12 15:00
LFID & Datetime: QJ09008A 10/09/12 15:21
LFID & Datetime: QJ09009A 10/09/12 15:41

COMPOUND	RT OF STANDARDS (MIN) 1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	MEAN RT	RT WINDOW FROM	TO	RTWINDOW WIDTH
Dalapon	2.800	2.800	2.803	2.800	2.800	2.797	2.800	2.797	2.800	2.786	2.814	0.014
3,5-Dichlorobenzo	6.243	6.243	6.243	6.243	6.240	6.240	6.237	6.240	6.241	6.227	6.255	0.014
4-Nitrophenol	6.857	6.857	6.857	6.853	6.853	6.850	6.850	6.850	6.853	6.839	6.867	0.014
Dicamba	7.277	7.277	7.277	7.277	7.273	7.270	7.270	7.273	7.274	7.260	7.288	0.014
MCPP	0.000	0.000	7.473	7.473	7.470	7.470	7.470	7.470	7.471	7.457	7.485	0.014
MCPA	7.623	7.620	7.617	7.617	7.613	7.610	7.610	7.610	7.613	7.597	7.629	0.016
Dichloroprop	7.960	7.960	7.960	7.960	7.957	7.957	7.957	7.957	7.958	7.944	7.972	0.014
2,4-D	8.160	8.160	8.160	8.160	8.157	8.157	8.157	8.157	8.158	8.142	8.174	0.016
Pentachlorophenol	8.370	8.370	8.370	8.370	8.367	8.367	8.367	8.370	8.369	8.353	8.385	0.016
2,4,5-TP(Silvex)	8.850	8.853	8.853	8.853	8.850	8.850	8.850	8.850	8.851	8.835	8.867	0.016
Chloramben	8.973	8.973	8.973	8.973	8.973	8.970	8.970	8.970	8.972	8.956	8.988	0.016
2,4,5-T	9.060	9.063	9.063	9.060	9.060	9.060	9.057	9.060	9.060	9.044	9.076	0.016
2,4-DB	9.457	9.460	9.460	9.460	9.457	9.457	9.453	9.457	9.458	9.442	9.474	0.016
Bentazon/Picloram	10.080	10.080	10.080	10.080	10.077	10.077	10.077	10.077	10.078	10.064	10.092	0.014
Dinoseb	10.190	10.193	10.193	10.190	10.190	10.187	10.187	10.190	10.190	10.174	10.206	0.016
Dacthal	10.363	10.363	10.363	10.363	10.360	10.360	10.360	10.360	10.361	10.345	10.377	0.016
Acifluorfen	11.810	11.810	11.810	11.810	11.810	11.807	11.807	11.807	11.809	11.795	11.823	0.014
SURROGATE	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
2,4-DCPAA	7.090	7.090	7.090	7.090	7.087	7.087	7.083	7.087	7.088	7.072	7.104	0.016

5096

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: QJ09002B 10/09/12 13:17
LFID & Datetime: QJ09003B 10/09/12 13:38
LFID & Datetime: QJ09004B 10/09/12 13:58
LFID & Datetime: QJ09D05B 10/09/12 14:19
LFID & Datetime: QJ09006B 10/09/12 14:39
LFID & Datetime: QJ09007B 10/09/12 15:00
LFID & Datetime: QJ09008B 10/09/12 15:21
LFID & Datetime: QJ09009B 10/09/12 15:41

COMPOUND	RT OF STANDARDS (MIN) 1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	MEAN RT	RT WINDOW FROM	TO	RTWINDOW WIDTH
Dalapon	2.793	2.793	2.793	2.793	2.790	2.790	2.790	2.790	2.791	2.775	2.807	0.016
3,5-Dichlorobenzo	6.390	6.390	6.390	6.390	6.387	6.387	6.387	6.387	6.388	6.372	6.404	0.016
4-Nitrophenol	6.967	6.970	6.970	6.970	6.967	6.963	6.963	6.967	6.967	6.951	6.983	0.016
Dicamba	7.633	7.633	7.633	7.633	7.630	7.630	7.630	7.630	7.631	7.615	7.647	0.016
MCPP	0.000	7.740	7.740	7.740	7.737	7.737	7.737	7.737	7.738	7.722	7.754	0.016
MCPA	0.000	7.963	7.963	7.960	7.957	7.957	7.957	7.957	7.959	7.943	7.975	0.016
Dichloroprop	8.263	8.267	8.267	8.263	8.263	8.260	8.260	8.263	8.263	8.249	8.277	0.014
2,4-D	8.530	8.530	8.530	8.530	8.527	8.527	8.527	8.527	8.528	8.514	8.542	0.014
Pentachlorophenol	8.877	8.877	8.877	8.877	8.873	8.873	8.873	8.873	8.875	8.861	8.889	0.014
2,4,5-TP(Silvex)	9.163	9.167	9.167	9.167	9.163	9.163	9.163	9.163	9.165	9.151	9.179	0.014
Chloramben	9.483	9.487	9.487	9.483	9.483	9.480	9.480	9.483	9.483	9.453	9.513	0.030
2,4,5-T	9.443	9.443	9.443	9.443	9.440	9.440	9.440	9.440	9.441	9.425	9.457	0.016
2,4-DB	9.793	9.793	9.793	9.793	9.790	9.790	9.790	9.790	9.791	9.767	9.815	0.024
Dinoseb	10.010	10.010	10.010	10.010	10.010	10.007	10.007	10.007	10.009	9.993	10.025	0.016
Bentazon	10.367	10.367	10.367	10.367	10.367	10.363	10.363	10.367	10.366	10.350	10.382	0.016
Dacthal	10.587	10.587	10.587	10.587	10.587	10.583	10.583	10.587	10.586	10.570	10.602	0.016
Picloram	10.627	10.627	10.627	10.627	10.627	10.623	10.623	10.623	10.625	10.601	10.649	0.024
Acifluorfen	11.787	11.790	11.790	11.790	11.787	11.787	11.787	11.787	11.788	11.774	11.802	0.014

SURROGATE	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
2,4-DCPAA	7.450	7.450	7.450	7.450	7.447	7.447	7.447	7.447	7.448	7.432	7.464	0.016

10/10/12

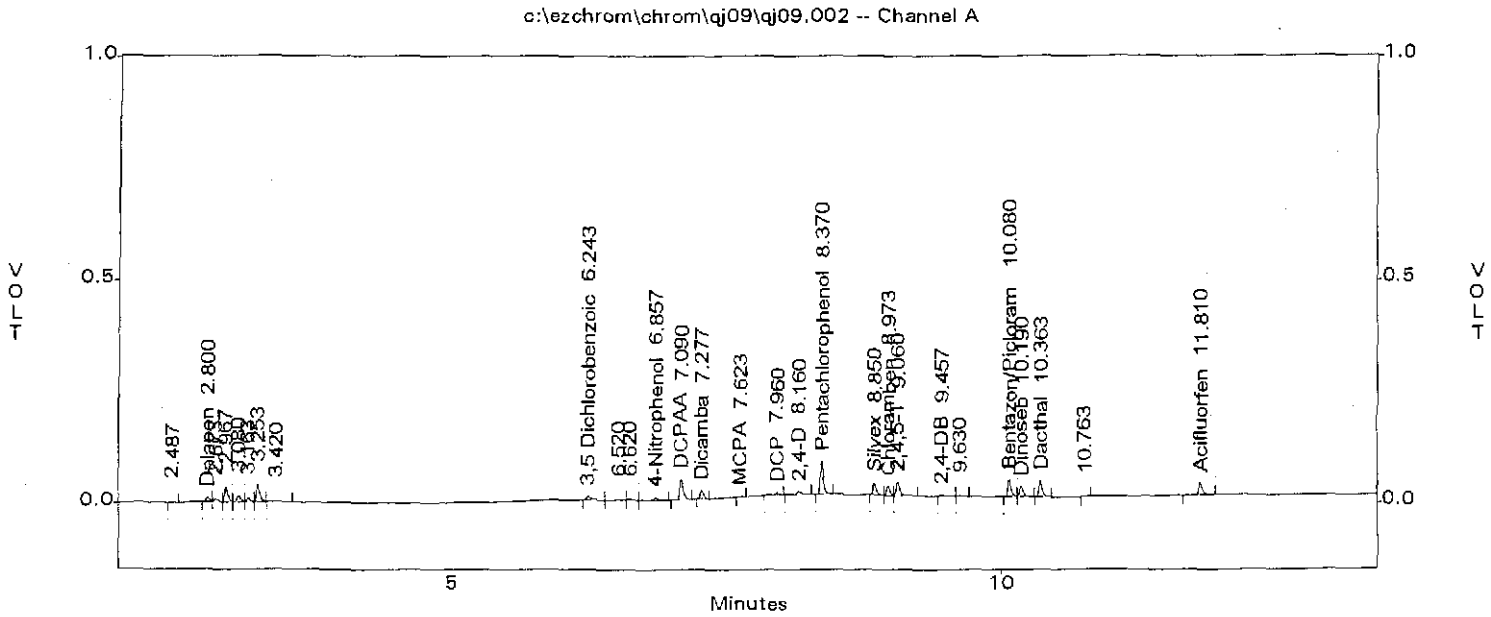
5937

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.002
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HE09J0901
Acquired : Oct 09, 2012 13:17:45
Printed : Oct 09, 2012 16:53:33
User : Supakit

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.800	20766.0	1669.16	-1.00	BV
3,5 Dichlorobenzo	6.243	20233.0	1582.76	-1.00	BV
4-Nitrophenol	6.857	12528.0	994.81	-1.00	VV
DCPAA	7.090	99974.0	717.28	-1.00	VV
Dicamba	7.277	37037.0	3332.79	-1.00	VV
MCPP	7.473	0.0	0.00	0.00	--
MCPA	7.623	5902.0	7.75	-1.00	BV
DCP	7.960	12968.0	1133.12	-1.00	BV
2,4-D	8.160	17659.0	1424.90	-1.00	VI
Pentachlorophenol	8.370	143935.0	12876.92	10.00	Bx
Silvex	8.850	54029.0	5252.30	-1.00	BV
Chloramben	8.973	39850.0	4138.84	-1.00	VV
2,4,5-T	9.060	60682.0	5436.08	-1.00	VV
2,4-DB	9.457	8352.0	733.46	-1.00	BV
Bentazon/Picloram	10.080	78756.0	3836.73	20.00	BV
Dinoseb	10.190	47670.0	3981.06	-1.00	VV
Dacthal	10.363	67186.0	6309.82	-1.00	VV
Acifluorfen	11.810	62317.0	4861.40	-1.00	BV



5988

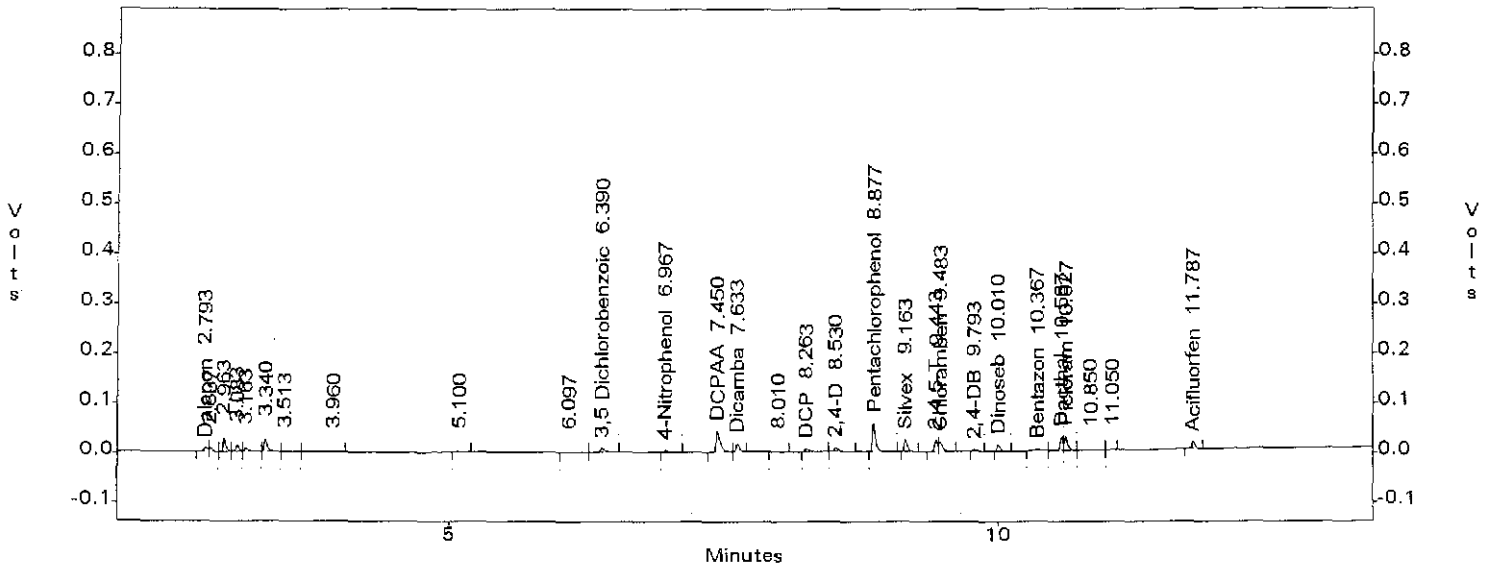
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.002
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HE09J0901
Acquired : Oct 09, 2012 13:17:45
Printed : Oct 09, 2012 16:53:34
User : Supakit

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.793	14986.0	1263.67	-1.00	Bx
3,5 Dichlorobenzoic	6.390	19752.0	1675.04	-1.00	VV
4-Nitrophenol	6.967	9027.0	738.33	-1.00	BV
DCPAA	7.450	109341.0	812.00	-1.00	SV
Dicamba	7.633	35368.0	3231.74	-1.00	VV
MCPP	7.737	0.0	0.00	0.00	--
MCPA	7.960	0.0	0.00	0.00	--
DCP	8.263	14982.0	1198.60	-1.00	BV
2,4-D	8.530	17081.0	1382.77	-1.00	VV
Pentachlorophenol	8.877	112853.0	11546.42	10.00	SV
Silvex	9.163	44678.0	4667.02	-1.00	VV
2,4,5-T	9.443	41554.0	3607.14	-1.00	Bx
Chloramben	9.483	41291.0	4751.55	-1.00	xV
2,4-DB	9.793	8142.0	713.67	-1.00	SI
Dinoseb	10.010	26469.0	2604.65	-1.00	SV
Bentazon	10.367	7409.0	620.24	-1.00	SV
Dacthal	10.587	43746.0	4296.46	-1.00	Vx
Picloram	10.627	58315.0	7077.91	-1.00	xV
Acifluorfen	11.787	26007.0	2674.64	-1.00	SV

c:\ezchrom\chrom\qj09\qj09.002 -- Channel B

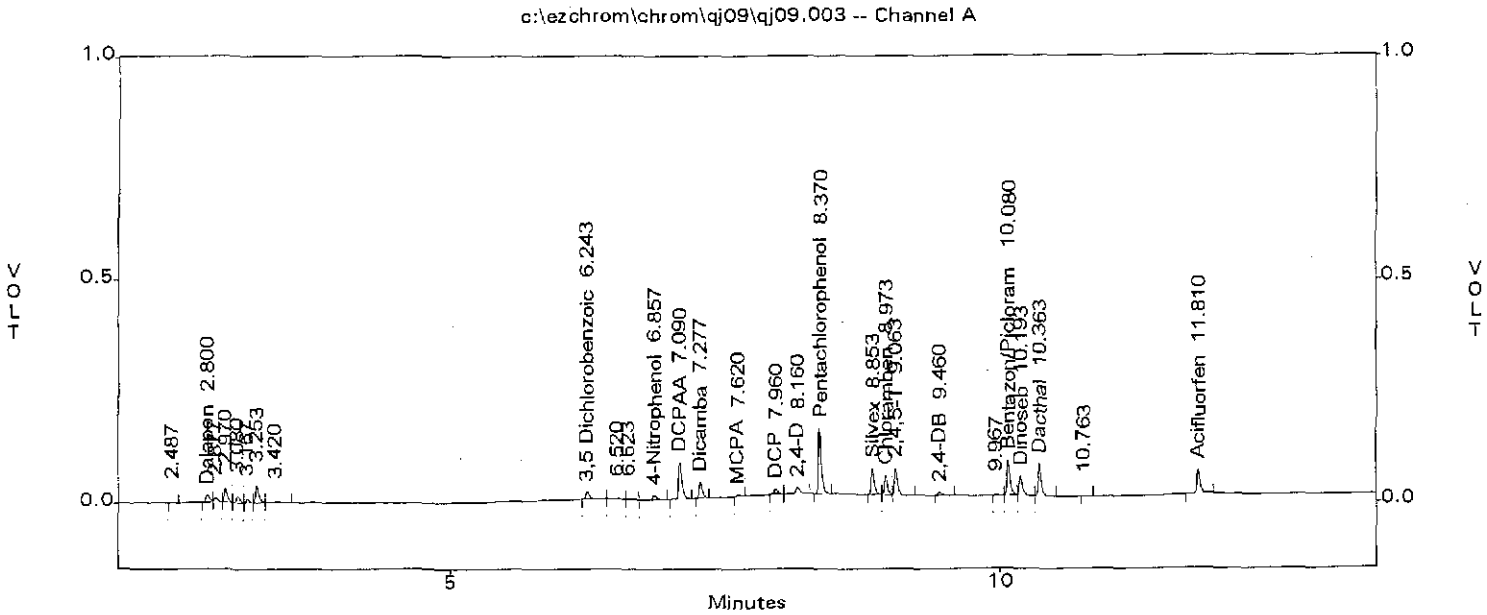


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.003
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HE09J0902
Acquired : Oct 09, 2012 13:38:17
Printed : Oct 09, 2012 16:53:40
User : Supakit

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.800	39474.0	1669.16	20.00	BV
3,5 Dichlorobenzo	6.243	37103.0	1582.76	20.00	BV
4-Nitrophenol	6.857	23068.0	994.81	20.00	VV
DCPAA	7.090	180448.0	717.28	200.00	VV
Dicamba	7.277	72274.0	3332.79	20.00	VV
MCPP	7.473	0.0	0.00	0.00	--
MCPA	7.620	10408.0	7.75	-1.00	BV
DCP	7.960	26522.0	1133.12	20.00	BV
2,4-D	8.160	34906.0	1424.90	20.00	VI
Pentachlorophenol	8.370	284549.0	12876.92	20.00	Bx
Silvex	8.853	109869.0	5252.30	20.00	BV
Chloramben	8.973	81522.0	4138.84	20.00	VV
2,4,5-T	9.063	119360.0	5436.08	20.00	VV
2,4-DB	9.460	15804.0	733.46	20.00	BV
Bentazon/Picloram	10.080	157741.0	3836.73	40.00	VV
Dinoseb	10.193	91382.0	3981.06	20.00	VV
Dacthal	10.363	134033.0	6309.82	20.00	VB
Acifluorfen	11.810	107179.0	4861.40	20.00	BV



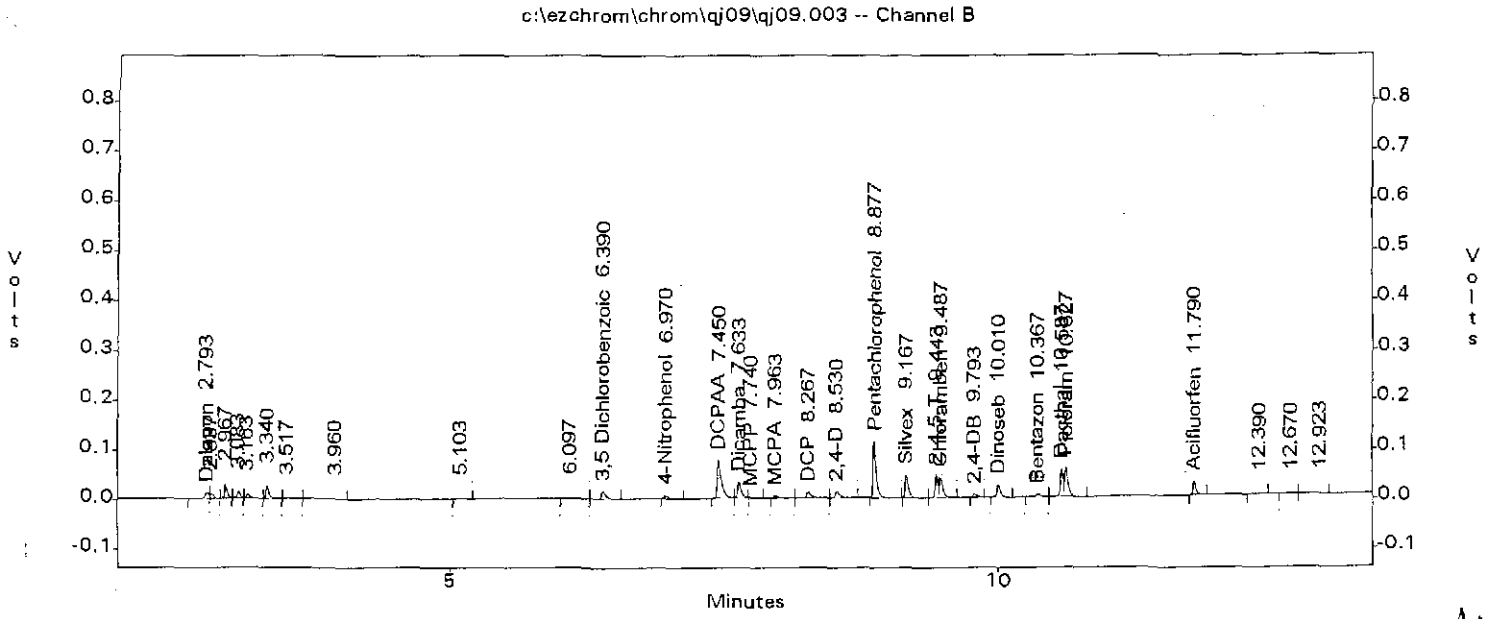
5046

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.003
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HE09J0902
Acquired : Oct 09, 2012 13:38:17
Printed : Oct 09, 2012 16:53:41
User : Supakit

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.793	30646.0	1263.67	20.00	Bx
3,5 Dichlorobenzoic	6.390	37125.0	1675.04	20.00	VV
4-Nitrophenol	6.970	16849.0	738.33	20.00	BV
DCPAA	7.450	197247.0	812.00	200.00	SV
Dicamba	7.633	67786.0	3231.74	20.00	VS
MCPP	7.740	3317.0	5.17	-1.00	SV
MCPA	7.963	14331.0	10.00	-1.00	SV
DCP	8.267	28319.0	1198.60	20.00	VV
2,4-D	8.530	32055.0	1382.77	20.00	VV
Pentachlorophenol	8.877	233808.0	11546.42	20.00	SV
Silvex	9.167	91605.0	4667.02	20.00	VV
2,4,5-T	9.443	79654.0	3607.14	20.00	Sx
Chloramben	9.487	87018.0	4751.55	20.00	xV
2,4-DB	9.793	16219.0	713.67	20.00	SV
Dinoseb	10.010	53129.0	2604.65	20.00	SV
Bentazon	10.367	13467.0	620.24	20.00	SV
Dacthal	10.587	89348.0	4296.46	20.00	Vx
Picloram	10.627	127309.0	7077.91	20.00	xV
Acifluorfen	11.790	51306.0	2674.64	20.00	SI



5941

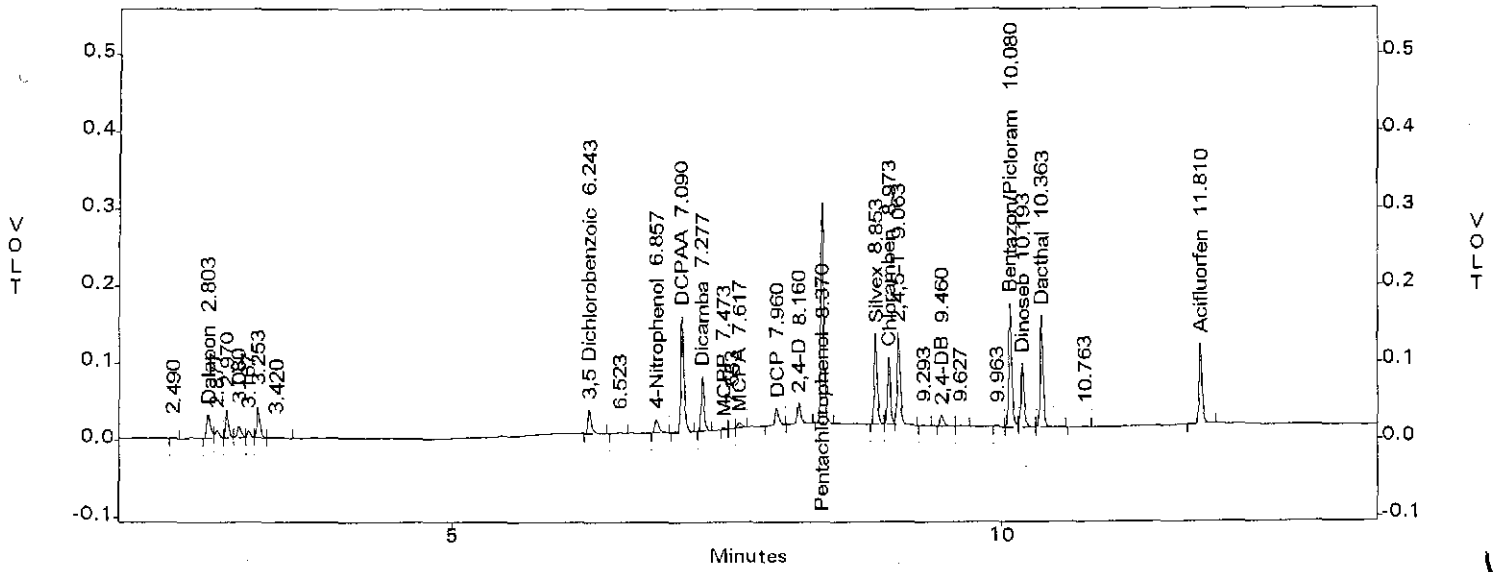
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.004
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HE09J0903
Acquired : Oct 09, 2012 13:58:52
Printed : Oct 10, 2012 17:23:32
User : Supakit

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.803	73096.0	1669.16	40.00	BV
3,5 Dichlorobenzo	6.243	67632.0	1582.76	40.00	BV
4-Nitrophenol	6.857	42969.0	994.81	40.00	BV
DCPAA	7.090	322998.0	717.28	400.00	VV
Dicamba	7.277	140813.0	3332.79	40.00	VI
MCPP	7.473	6241.0	3.75	2000.00	BV
MCPA	7.617	17693.0	7.75	2000.00	xV
DCP	7.960	48530.0	1133.12	40.00	BV
2,4-D	8.160	61006.0	1424.90	40.00	VI
Pentachlorophenol	8.370	547076.0	12876.92	40.00	Bx
Silvex	8.853	219692.0	5252.30	40.00	BV
Chloramben	8.973	167225.0	4138.84	40.00	VV
2,4,5-T	9.063	231724.0	5436.08	40.00	VV
2,4-DB	9.460	30417.0	733.46	40.00	BV
Bentazon/Picloram	10.080	314853.0	3836.73	80.00	VV
Dinoseb	10.193	169246.0	3981.06	40.00	VV
Dacthal	10.363	266783.0	6309.82	40.00	VV
Acifluorfen	11.810	199765.0	4861.40	40.00	BV

c:\ezchrom\chrom\qj09\qj09.004 -- Channel A



10/10/12

5012

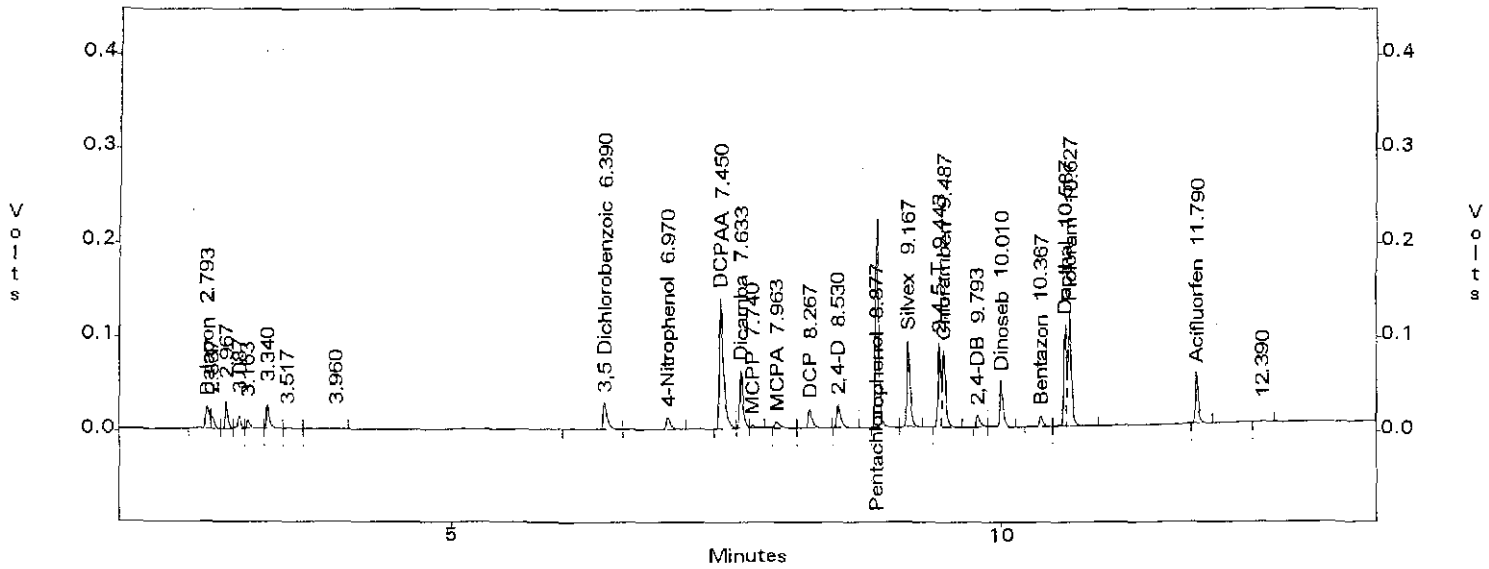
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.004
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HE09J0903
Acquired : Oct 09, 2012 13:58:52
Printed : Oct 10, 2012 17:23:32
User : Supakit

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.793	55386.0	1263.67	40.00	Bx
3,5 Dichlorobenzoic	6.390	70702.0	1675.04	40.00	BV
4-Nitrophenol	6.970	33114.0	738.33	40.00	VV
DCPAA	7.450	356127.0	812.00	400.00	SV
Dicamba	7.633	132438.0	3231.74	40.00	VS
MCPP	7.740	8481.0	5.17	2000.00	SV
MCPA	7.963	23894.0	10.00	2000.00	SV
DCP	8.267	51423.0	1198.60	40.00	VV
2,4-D	8.530	59714.0	1382.77	40.00	VV
Pentachlorophenol	8.877	475199.0	11546.42	40.00	SV
Silvex	9.167	186715.0	4667.02	40.00	VV
2,4,5-T	9.443	154427.0	3607.14	40.00	Sx
Chloramben	9.487	183374.0	4751.55	40.00	xV
2,4-DB	9.793	30329.0	713.67	40.00	SV
Dinoseb	10.010	104975.0	2604.65	40.00	VV
Bentazon	10.367	25401.0	620.24	40.00	SV
Dacthal	10.587	175587.0	4296.46	40.00	Vx
Picloram	10.627	273049.0	7077.91	40.00	xB
Acifluorfen	11.790	101490.0	2674.64	40.00	SV

c:\ezchrom\chrom\qj09\qj09.004 -- Channel B



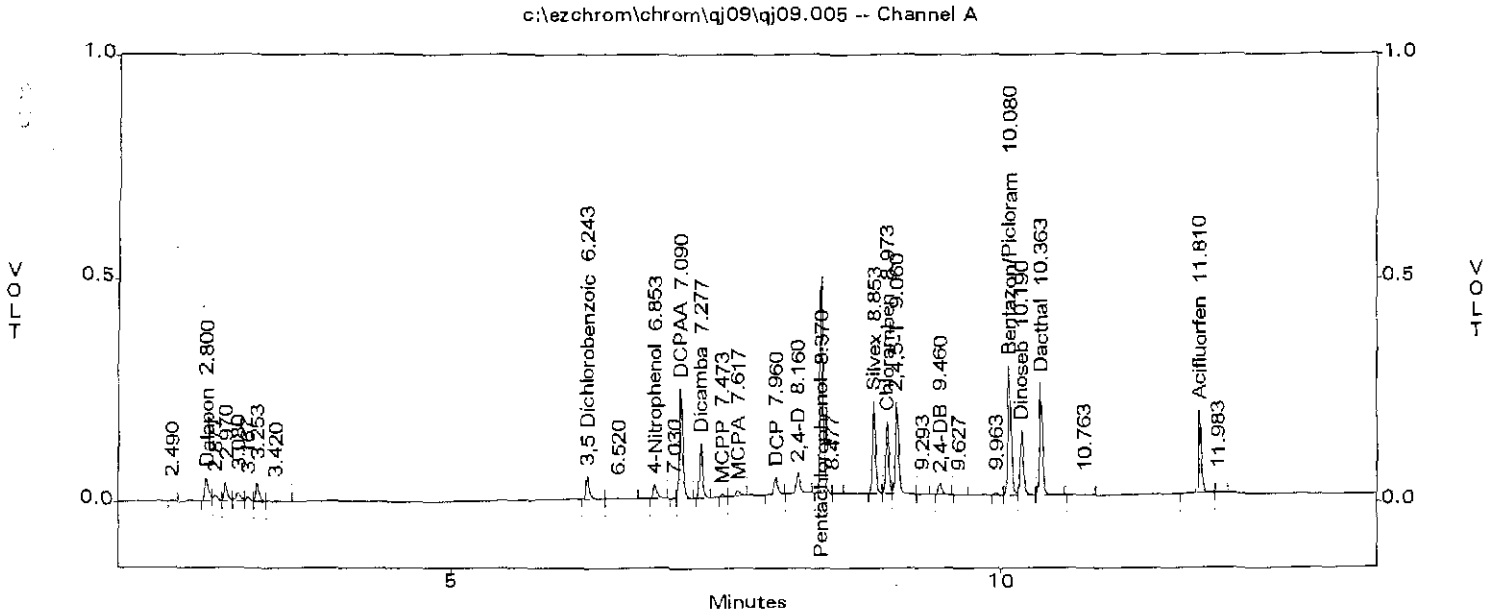
10/10/12

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.005
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HE09J0904
Acquired : Oct 09, 2012 14:19:27
Printed : Oct 09, 2012 16:53:53
User : Supakit

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.800	120348.0	1669.16	70.00	BV
3,5 Dichlorobenzo	6.243	112668.0	1582.76	70.00	BV
4-Nitrophenol	6.853	72323.0	994.81	70.00	VV
DCPAA	7.090	516250.0	717.28	700.00	SV
Dicamba	7.277	241949.0	3332.79	70.00	VI
MCPP	7.473	13160.0	3.75	3500.00	BV
MCPA	7.617	31429.0	7.75	3500.00	VV
DCP	7.960	81679.0	1133.12	70.00	BV
2,4-D	8.160	101592.0	1424.90	70.00	VI
Pentachlorophenol	8.370	923292.0	12876.92	70.00	Bx
Silvex	8.853	384137.0	5252.30	70.00	BV
Chloramben	8.973	300048.0	4138.84	70.00	VV
2,4,5-T	9.060	397714.0	5436.08	70.00	VV
2,4-DB	9.460	52302.0	733.46	70.00	BV
Bentazon/Picloram	10.080	558024.0	3836.73	140.00	VV
Dinoseb	10.190	287953.0	3981.06	70.00	VV
Dacthal	10.363	458970.0	6309.82	70.00	VV
Acifluorfen	11.810	352029.0	4861.40	70.00	BV



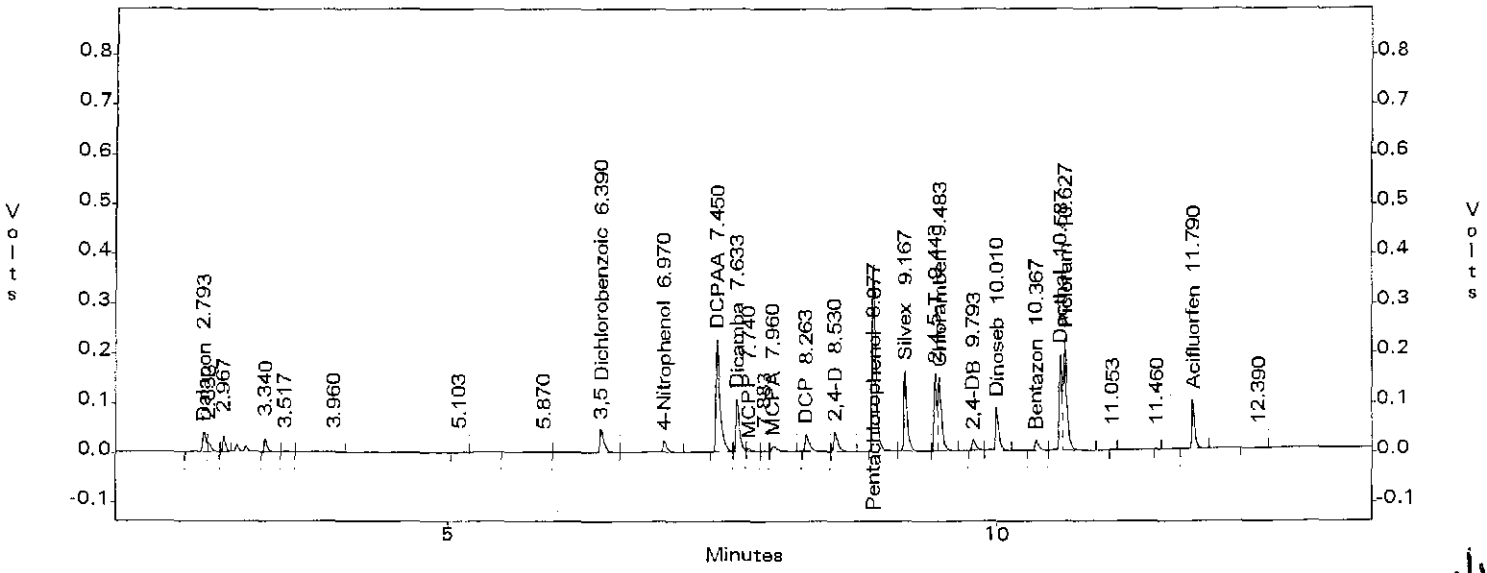
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.005
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HE09J0904
Acquired : Oct 09, 2012 14:19:27
Printed : Oct 09, 2012 16:53:53
User : Supakit

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.793	92549.0	1263.67	70.00	Bx
3,5 Dichlorobenzoic	6.390	127241.0	1675.04	70.00	VV
4-Nitrophenol	6.970	56728.0	738.33	70.00	VV
DCPAA	7.450	584248.0	812.00	700.00	SV
Dicamba	7.633	232722.0	3231.74	70.00	VS
MCPP	7.740	18909.0	5.17	3500.00	SV
MCPA	7.960	38262.0	10.00	3500.00	SI
DCP	8.263	85950.0	1198.60	70.00	BV
2,4-D	8.530	99803.0	1382.77	70.00	VV
Pentachlorophenol	8.877	841693.0	11546.42	70.00	SV
Silvex	9.167	338865.0	4667.02	70.00	VV
2,4,5-T	9.443	270339.0	3607.14	70.00	Sx
Chloramben	9.483	334421.0	4751.55	70.00	xV
2,4-DB	9.793	50938.0	713.67	70.00	SV
Dinoseb	10.010	186042.0	2604.65	70.00	VB
Bentazon	10.367	43604.0	620.24	70.00	BV
Dacthal	10.587	312770.0	4296.46	70.00	Vx
Picloram	10.627	506970.0	7077.91	70.00	xV
Acifluorfen	11.790	184701.0	2674.64	70.00	SV

c:\ezchrom\chrom\qj09\qj09.005 -- Channel B



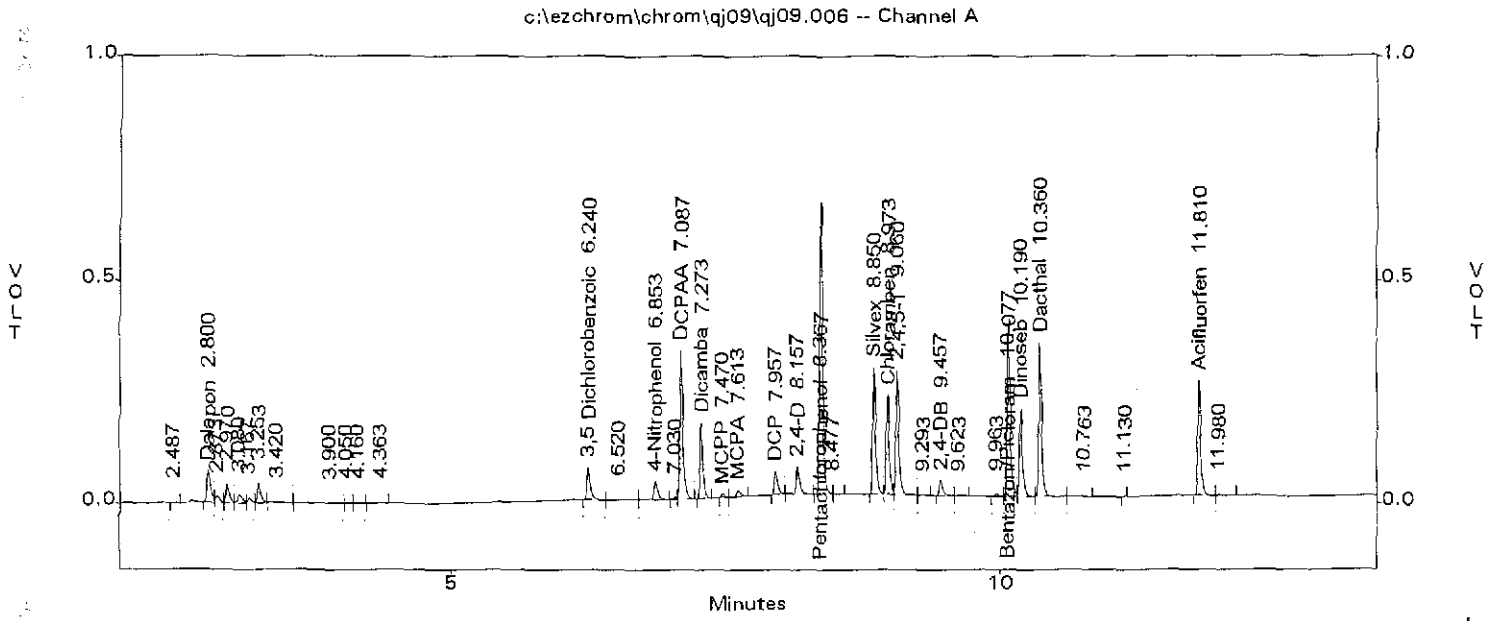
10/10/12

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.006
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HE09J0905
Acquired : Oct 09, 2012 14:39:59
Printed : Oct 09, 2012 16:53:59
User : Supakit

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.800	161250.0	1669.16	100.00	BS
3,5 Dichlorobenzo	6.240	149346.0	1582.76	100.00	BV
4-Nitrophenol	6.853	96565.0	994.81	100.00	VV
DCPAA	7.087	681481.0	717.28	1000.00	SV
Dicamba	7.273	329374.0	3332.79	100.00	VI
MCPP	7.470	18857.0	3.75	5000.00	BV
MCPA	7.613	40661.0	7.75	5000.00	VV
DCP	7.957	109228.0	1133.12	100.00	BV
2,4-D	8.157	135700.0	1424.90	100.00	VI
Pentachlorophenol	8.367	1247595.0	12876.92	100.00	Bx
Silvex	8.850	526373.0	5252.30	100.00	BV
Chloramben	8.973	419021.0	4138.84	100.00	VV
2,4,5-T	9.060	539530.0	5436.08	100.00	VV
2,4-DB	9.457	71797.0	733.46	100.00	BV
Bentazon/Picloram	10.077	765947.0	3836.73	200.00	VV
Dinoseb	10.190	390455.0	3981.06	100.00	VV
Dacthal	10.360	628719.0	6309.82	100.00	VV
Acifluorfen	11.810	474752.0	4861.40	100.00	BV



10/10/12

5846

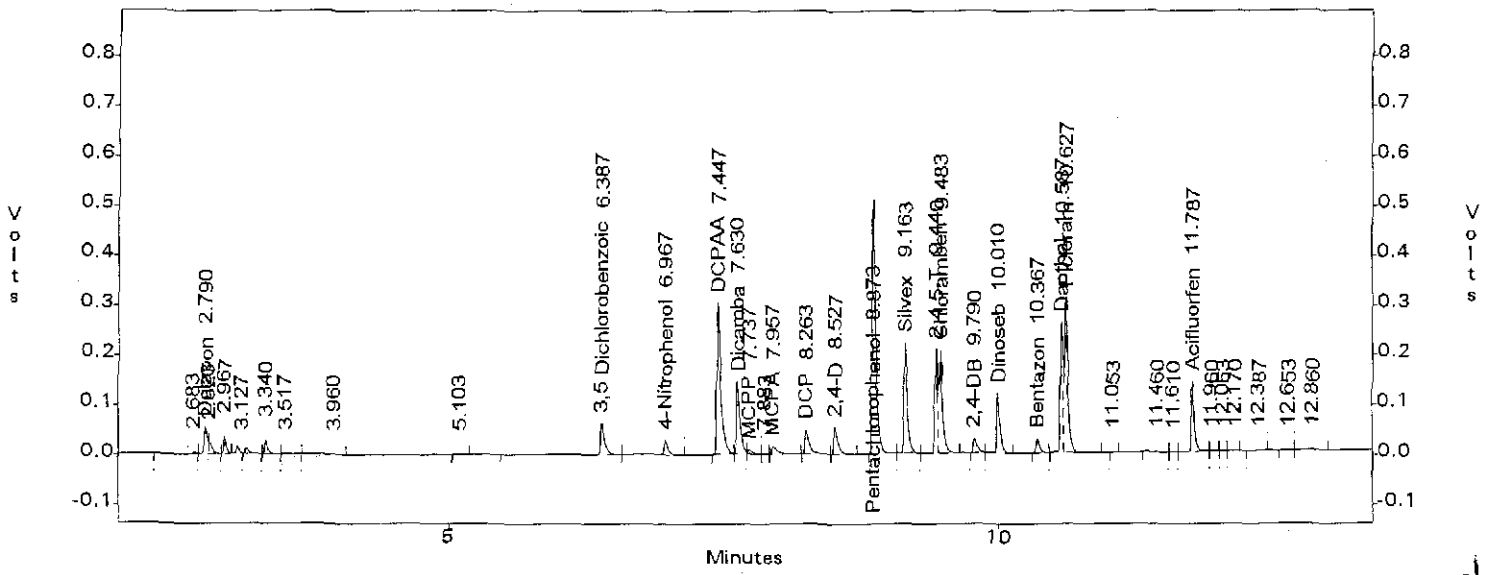
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.006
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HE09J0905
Acquired : Oct 09, 2012 14:39:59
Printed : Oct 09, 2012 16:53:59
User : Supakit

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	118826.0	1263.67	100.00	Sx
3,5 Dichlorobenzoic	6.387	179781.0	1675.04	100.00	VV
4-Nitrophenol	6.967	75016.0	738.33	100.00	VV
DCPAA	7.447	780882.0	812.00	1000.00	MM
Dicamba	7.630	321596.0	3231.74	100.00	MM
MCPP	7.737	26624.0	5.17	5000.00	MM
MCPA	7.957	50164.0	10.00	5000.00	MM
DCP	8.263	115802.0	1198.60	100.00	BV
2,4-D	8.527	134655.0	1382.77	100.00	VV
Pentachlorophenol	8.873	1163969.0	11546.42	100.00	SV
Silvex	9.163	470529.0	4667.02	100.00	VS
2,4,5-T	9.440	359836.0	3607.14	100.00	Sx
Chloramben	9.483	482726.0	4751.55	100.00	xV
2,4-DB	9.790	68937.0	713.67	100.00	SV
Dinoseb	10.010	259847.0	2604.65	100.00	VS
Bentazon	10.367	59532.0	620.24	100.00	BV
Dacthal	10.587	445260.0	4296.46	100.00	Vx
Picloram	10.627	710340.0	7077.91	100.00	xV
Acifluorfen	11.787	273842.0	2674.64	100.00	SV

c:\ezchrom\chrom\qj09\qj09.006 -- Channel B



10/10/1

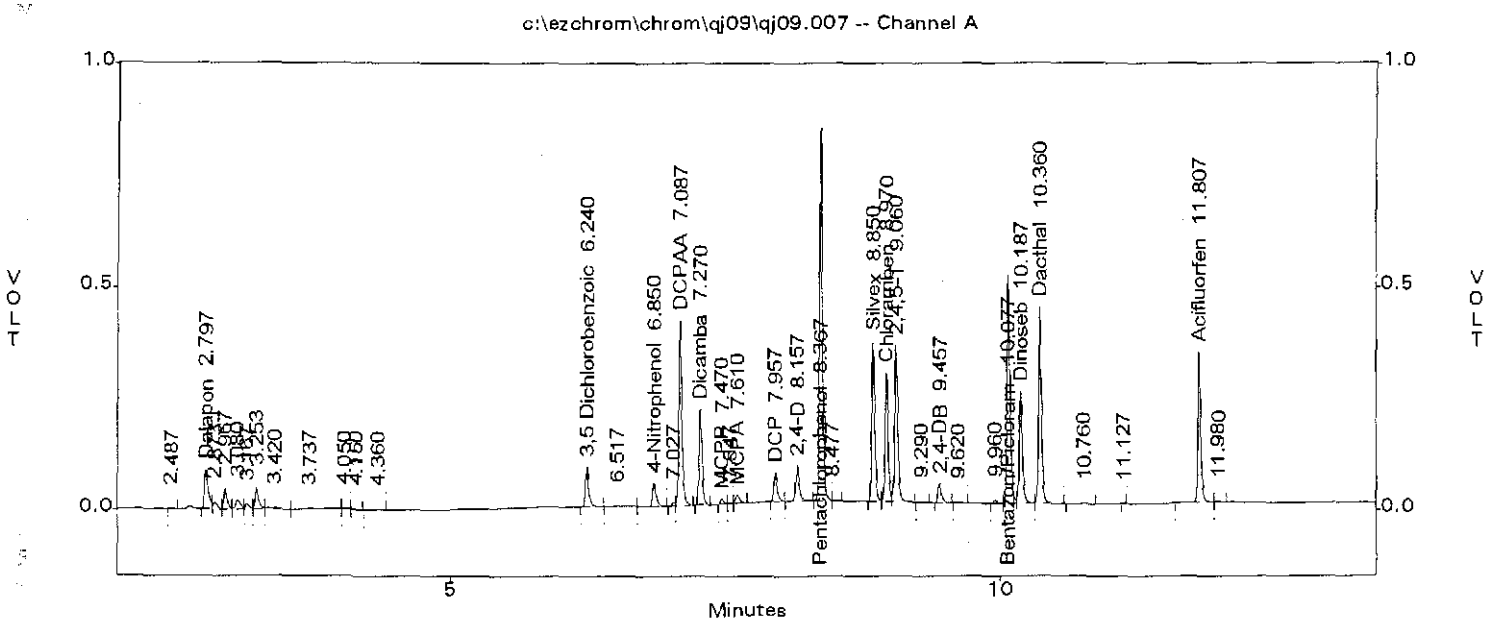
0947

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.007
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HE09J0906
Acquired : Oct 09, 2012 15:00:32
Printed : Oct 09, 2012 16:54:05
User : Supakit

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.797	203531.0	1669.16	130.00	BS
3,5 Dichlorobenzo	6.240	187366.0	1582.76	130.00	BV
4-Nitrophenol	6.850	121984.0	994.81	130.00	VV
DCPAA	7.087	851156.0	717.28	1300.00	SV
Dicamba	7.270	419503.0	3332.79	130.00	VI
MCPP	7.470	25491.0	3.75	6500.00	BV
MCPA	7.610	46521.0	7.75	6500.00	xV
DCP	7.957	138303.0	1133.12	130.00	BV
2,4-D	8.157	171939.0	1424.90	130.00	VI
Pentachlorophenol	8.367	1578522.0	12876.92	130.00	Bx
Silvex	8.850	669791.0	5252.30	130.00	BV
Chloramben	8.970	539494.0	4138.84	130.00	VV
2,4,5-T	9.060	679530.0	5436.08	130.00	VV
2,4-DB	9.457	92037.0	733.46	130.00	BV
Bentazon/Picloram	10.077	978283.0	3836.73	260.00	VV
Dinoseb	10.187	495293.0	3981.06	130.00	VV
Dacthal	10.360	798807.0	6309.82	130.00	VV
Acifluorfen	11.807	615003.0	4861.40	130.00	BV



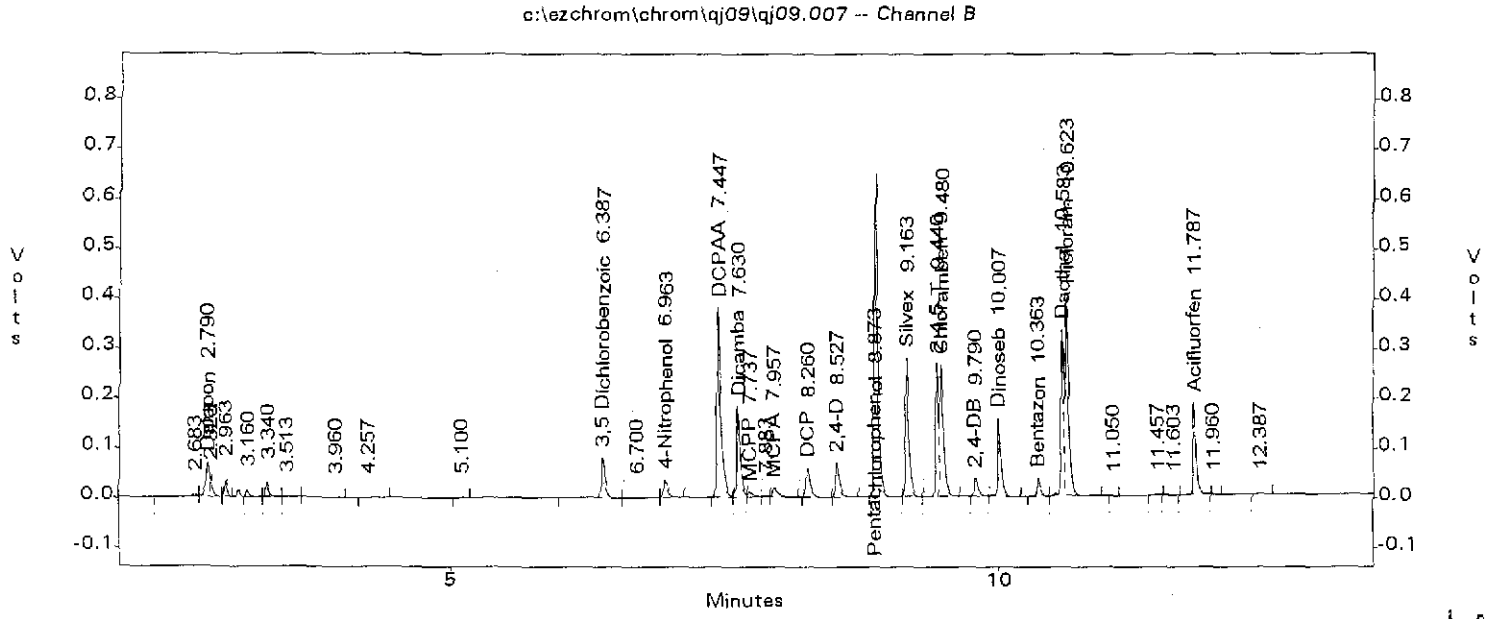
10/10/12
5048

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.007
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HE09J0906
Acquired : Oct 09, 2012 15:00:32
Printed : Oct 09, 2012 16:54:05
User : Supakit

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	152709.0	1263.67	130.00	Sx
3,5 Dichlorobenzoic	6.387	200740.0	1675.04	130.00	BV
4-Nitrophenol	6.963	87157.0	738.33	130.00	VV
DCPAA	7.447	980976.0	812.00	1300.00	MM
Dicamba	7.630	412880.0	3231.74	130.00	MM
MCPP	7.737	34663.0	5.17	6500.00	MM
MCPA	7.957	59263.0	10.00	6500.00	MM
DCP	8.260	146444.0	1198.60	130.00	BV
2,4-D	8.527	170317.0	1382.77	130.00	VV
Pentachlorophenol	8.873	1494544.0	11546.42	130.00	SV
Silvex	9.163	609849.0	4667.02	130.00	VS
2,4,5-T	9.440	436289.0	3607.14	130.00	Sx
Chloramben	9.480	649165.0	4751.55	130.00	xV
2,4-DB	9.790	89592.0	713.67	130.00	SV
Dinoseb	10.007	336956.0	2604.65	130.00	VB
Bentazon	10.363	79045.0	620.24	130.00	BV
Dacthal	10.583	549395.0	4296.46	130.00	Vx
Picloram	10.623	950972.0	7077.91	130.00	xV
Acifluorfen	11.787	355304.0	2674.64	130.00	SV

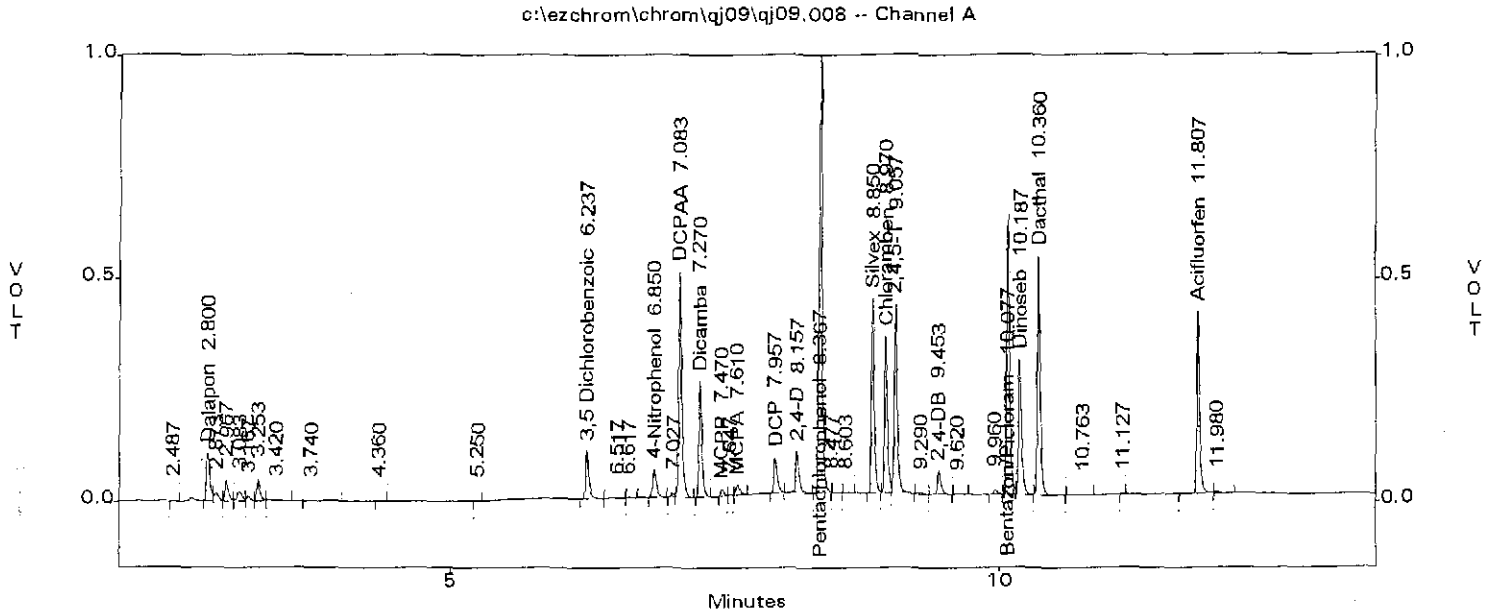


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.008
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HE09J0907
Acquired : Oct 09, 2012 15:21:08
Printed : Oct 09, 2012 16:54:11
User : Supakit

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.800	244733.0	1669.16	160.00	BS
3,5 Dichlorobenzo	6.237	224443.0	1582.76	160.00	BV
4-Nitrophenol	6.850	146546.0	994.81	160.00	VV
DCPAA	7.083	1016602.0	717.28	1600.00	SV
Dicamba	7.270	510002.0	3332.79	160.00	VI
MCPP	7.470	32051.0	3.75	8000.00	BV
MCPA	7.610	55284.0	7.75	8000.00	SV
DCP	7.957	169484.0	1133.12	160.00	BV
2,4-D	8.157	210626.0	1424.90	160.00	VI
Pentachlorophenol	8.367	1904526.0	12876.92	160.00	Bx
Silvex	8.850	808852.0	5252.30	160.00	BV
Chloramben	8.970	660328.0	4138.84	160.00	VV
2,4,5-T	9.057	820409.0	5436.08	160.00	VV
2,4-DB	9.453	115464.0	733.46	160.00	VV
Bentazon/Picloram	10.077	1192923.0	3836.73	320.00	VV
Dinoseb	10.187	593080.0	3981.06	160.00	VV
Dacthal	10.360	965581.0	6309.82	160.00	VV
Acifluorfen	11.807	744970.0	4861.40	160.00	BV



10/10/12

5656

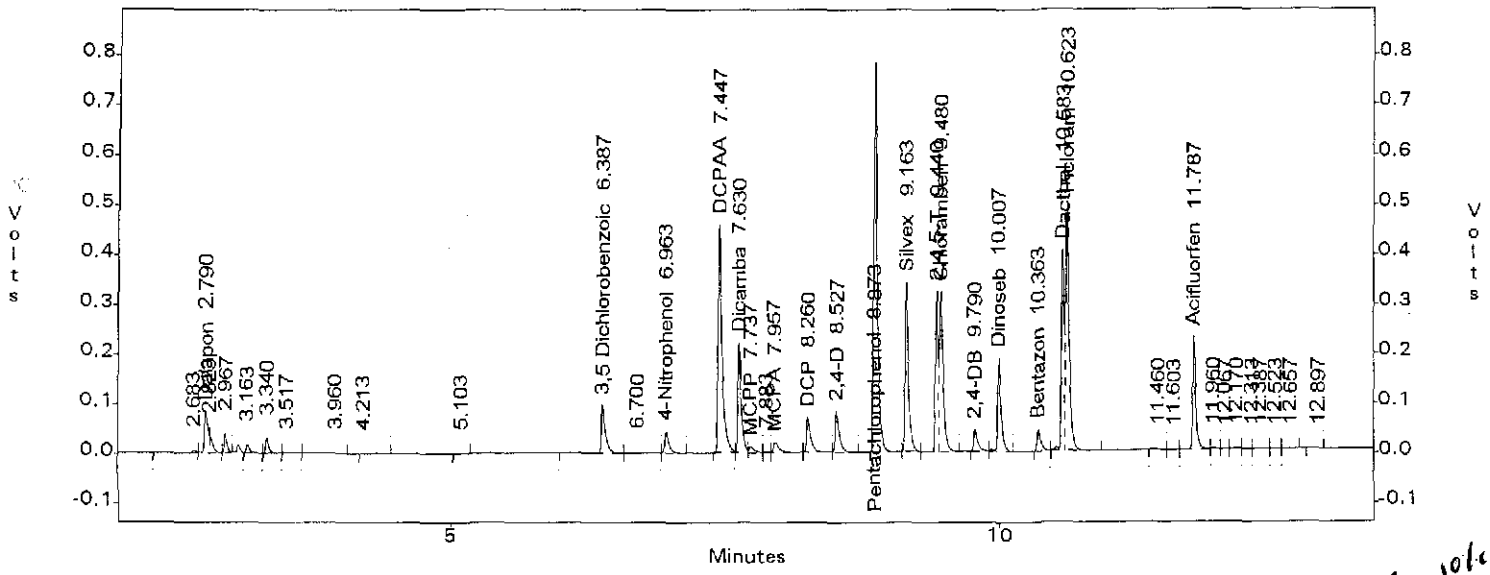
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.008
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HE09J0907
Acquired : Oct 09, 2012 15:21:08
Printed : Oct 09, 2012 16:54:11
User : Supakit

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	182849.0	1263.67	160.00	Sx
3,5 Dichlorobenzoic	6.387	241137.0	1675.04	160.00	BV
4-Nitrophenol	6.963	103977.0	738.33	160.00	VV
DCPAA	7.447	1179187.0	812.00	1600.00	SV
Dicamba	7.630	505194.0	3231.74	160.00	VS
MCPP	7.737	44028.0	5.17	8000.00	SV
MCPA	7.957	74638.0	10.00	8000.00	SV
DCP	8.260	178711.0	1198.60	160.00	VV
2,4-D	8.527	205113.0	1382.77	160.00	VB
Pentachlorophenol	8.873	1822688.0	11546.42	160.00	BV
Silvex	9.163	746237.0	4667.02	160.00	VS
2,4,5-T	9.440	525799.0	3607.14	160.00	Sx
Chloramben	9.480	803831.0	4751.55	160.00	xV
2,4-DB	9.790	107822.0	713.67	160.00	SV
Dinoseb	10.007	411897.0	2604.65	160.00	VS
Bentazon	10.363	95716.0	620.24	160.00	BV
Dacthal	10.583	662278.0	4296.46	160.00	Vx
Picloram	10.623	1183525.0	7077.91	160.00	xV
Acifluorfen	11.787	446476.0	2674.64	160.00	SV

c:\ezchrom\chrom\qj09\qj09.008 -- Channel B



10/10/12

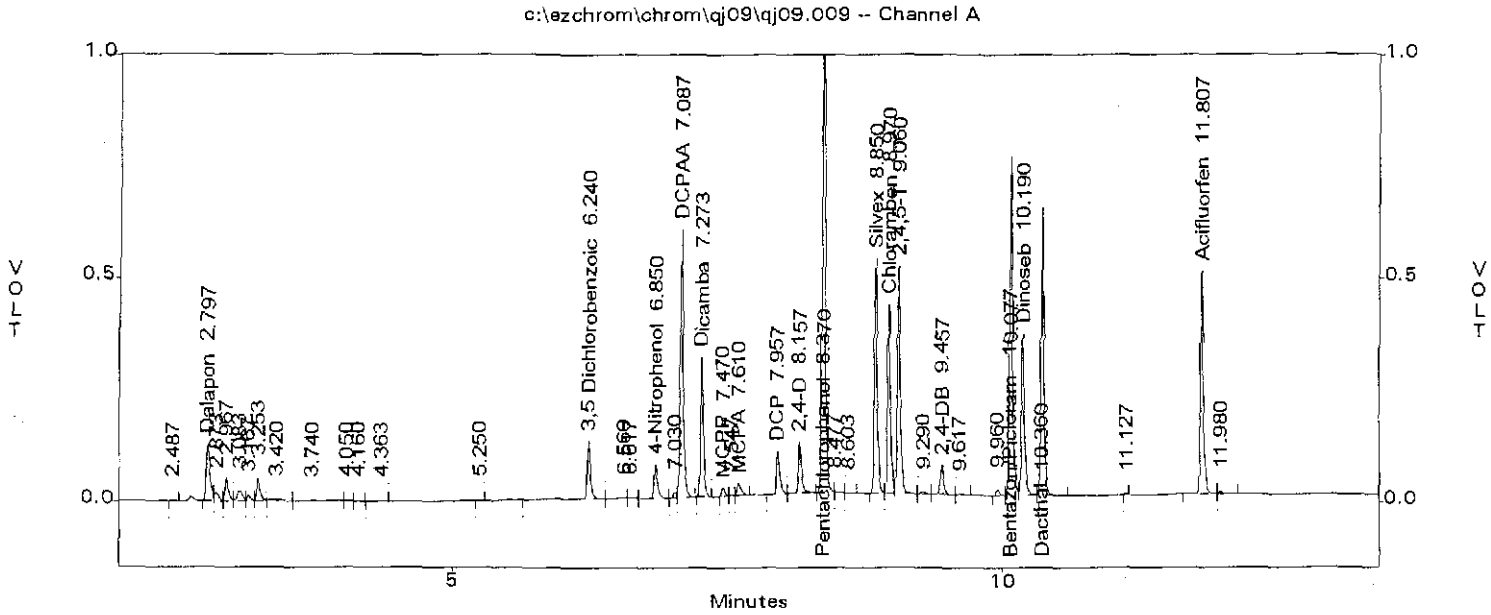
5051

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.009
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HE09J0908
Acquired : Oct 09, 2012 15:41:46
Printed : Oct 09, 2012 16:54:18
User : Supakit

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.797	291217.0	1669.16	200.00	BS
3,5 Dichlorobenzo	6.240	317261.0	1582.76	200.00	BV
4-Nitrophenol	6.850	176596.0	994.81	200.00	VV
DCPAA	7.087	1204323.0	717.28	2000.00	SV
Dicamba	7.273	606173.0	3332.79	200.00	VI
MCPP	7.470	39368.0	3.75	10000.00	BV
MCPA	7.610	64865.0	7.75	10000.00	SV
DCP	7.957	202039.0	1133.12	200.00	BV
2,4-D	8.157	251298.0	1424.90	200.00	VI
Pentachlorophenol	8.370	2201188.0	12876.92	200.00	Bx
Silvex	8.850	964277.0	5252.30	200.00	BV
Chloramben	8.970	792307.0	4138.84	200.00	VV
2,4,5-T	9.060	971965.0	5436.08	200.00	VV
2,4-DB	9.457	137761.0	733.46	200.00	VV
Bentazon/Picloram	10.077	1428289.0	3836.73	400.00	VV
Dinoseb	10.190	706457.0	3981.06	200.00	VV
Dacthal	10.360	1154807.0	6309.82	200.00	VV
Acifluorfen	11.807	902670.0	4861.40	200.00	BV



10/10/

5852

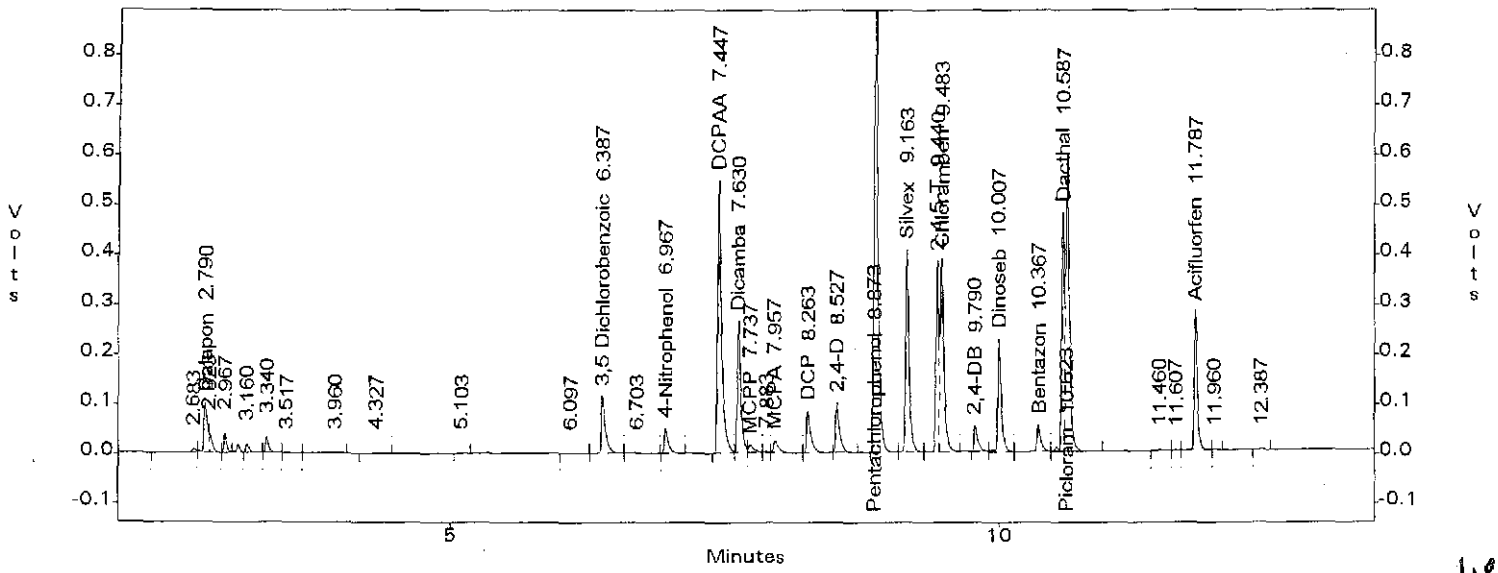
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.009
Method : c:\ezchrom\methods\he09j09.met
Sample ID : HE09J0908
Acquired : Oct 09, 2012 15:41:46
Printed : Oct 09, 2012 16:54:18
User : Supakit

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	220169.0	1263.67	200.00	Sx
3,5 Dichlorobenzoic	6.387	286941.0	1675.04	200.00	VV
4-Nitrophenol	6.967	123433.0	738.33	200.00	VV
DCPAA	7.447	1400656.0	812.00	2000.00	SV
Dicamba	7.630	609580.0	3231.74	200.00	VS
MCPP	7.737	52097.0	5.17	10000.00	SV
MCPA	7.957	86118.0	10.00	10000.00	SV
DCP	8.263	211866.0	1198.60	200.00	VV
2,4-D	8.527	243880.0	1382.77	200.00	VS
Pentachlorophenol	8.873	2192700.0	11546.42	200.00	BV
Silvex	9.163	903931.0	4667.02	200.00	VS
2,4,5-T	9.440	660795.0	3607.14	200.00	Sx
Chloramben	9.483	940672.0	4751.55	200.00	xV
2,4-DB	9.790	129276.0	713.67	200.00	SV
Dinoseb	10.007	505842.0	2604.65	200.00	VS
Bentazon	10.367	121761.0	620.24	200.00	SV
Dacthal	10.587	786406.0	4296.46	200.00	Vx
Picloram	10.623	1459126.0	7077.91	200.00	xV
Acifluorfen	11.787	543866.0	2674.64	200.00	SV

c:\ezchrom\chrom\qj09\qj09.009 -- Channel B



10/10/12

SECOND SOURCE VERIFICATION

INITIAL CALIBRATION VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ09006A 10/09/2012 14:39
Conc Cont LFID & Datetime: QJ09010A 10/09/2012 16:02
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.797	2.783	2.811	100.0	1669.2	170573	102.19	2		15
3,5-Dichlorobenzo	6.240	6.226	6.254	100.0	1582.8	146690	92.68	-7		15
4-Nitrophenol	6.850	6.836	6.864	100.0	994.800	96651	97.15	-3		15
Dicamba	7.273	7.259	7.287	100.0	3332.8	327136	98.16	-2		15
Dichloroprop	7.957	7.943	7.971	100.0	1133.1	115141	101.61	2		15
2,4-D	8.157	8.141	8.173	100.0	1424.9	138472	97.18	-3		15
Pentachlorophenol	8.367	8.351	8.383	100.0	12876.9	1291132	100.27	0		15
2,4,5-TP(Silvex)	8.850	8.834	8.866	100.0	5252.3	532410	101.37	1		15
Chloramben	8.970	8.954	8.986	100.0	4138.8	426596	103.07	3		15
2,4,5-T	9.060	9.044	9.076	100.0	5436.1	563032	103.57	4		15
2,4-DB	9.453	9.437	9.469	100.0	733.500	74715	101.87	2		15
Bentazon/Picloram	10.077	10.063	10.091	200.0	3836.7	782705	204.00	2		15
Dinoseb	10.187	10.171	10.203	100.0	3981.1	390875	98.18	-2		15
Dacthal	10.360	10.344	10.376	100.0	6309.8	656585	104.06	4		15
Acifluorfen	11.807	11.793	11.821	100.0	4861.4	507202	104.33	4		15

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.087	7.071	7.103	1000.0	717.300	701188	977.56	-2		15

10/10/12

5855

INITIAL CALIBRATION VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ09006B 10/09/2012 14:39
Conc Cont LFID & Datetime: QJ09010B 10/09/2012 16:02
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.790	2.774	2.806	100.0	1263.7	136482	108.00	8		15
3,5-Dichlorobenzo	6.387	6.371	6.403	100.0	1675.0	151252	90.30	-10		15
4-Nitrophenol	6.967	6.951	6.983	100.0	738.300	74347	100.70	1		15
Dicamba	7.630	7.614	7.646	100.0	3231.7	316528	97.94	-2		15
Dichloroprop	8.263	8.249	8.277	100.0	1198.6	120667	100.67	1		15
2,4-D	8.527	8.513	8.541	100.0	1382.8	137004	99.08	-1		15
Pentachlorophenol	8.873	8.859	8.887	100.0	11546.4	1208801	104.69	5		15
2,4,5-TP(Silvex)	9.163	9.149	9.177	100.0	4667.0	491707	105.36	5		15
Chloramben	9.483	9.453	9.513	100.0	4751.5	500179	105.27	5		15
2,4,5-T	9.440	9.424	9.456	100.0	3607.1	384528	106.60	7		15
2,4-DB	9.790	9.766	9.814	100.0	713.700	70441	98.70	-1		15
Dinoseb	10.007	9.991	10.023	100.0	2604.7	256928	98.64	-1		15
Bentazon	10.367	10.351	10.383	100.0	620.200	65900	106.25	6		15
Dacthal	10.583	10.567	10.599	100.0	4296.5	441664	102.80	3		15
Picloram	10.623	10.599	10.647	100.0	7077.9	749837	105.94	6		15
Acifluorfen	11.787	11.773	11.801	100.0	2674.6	286411	107.08	7		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.447	7.431	7.463	1000.0	812.000	791280	974.48	-3		15

10/10/

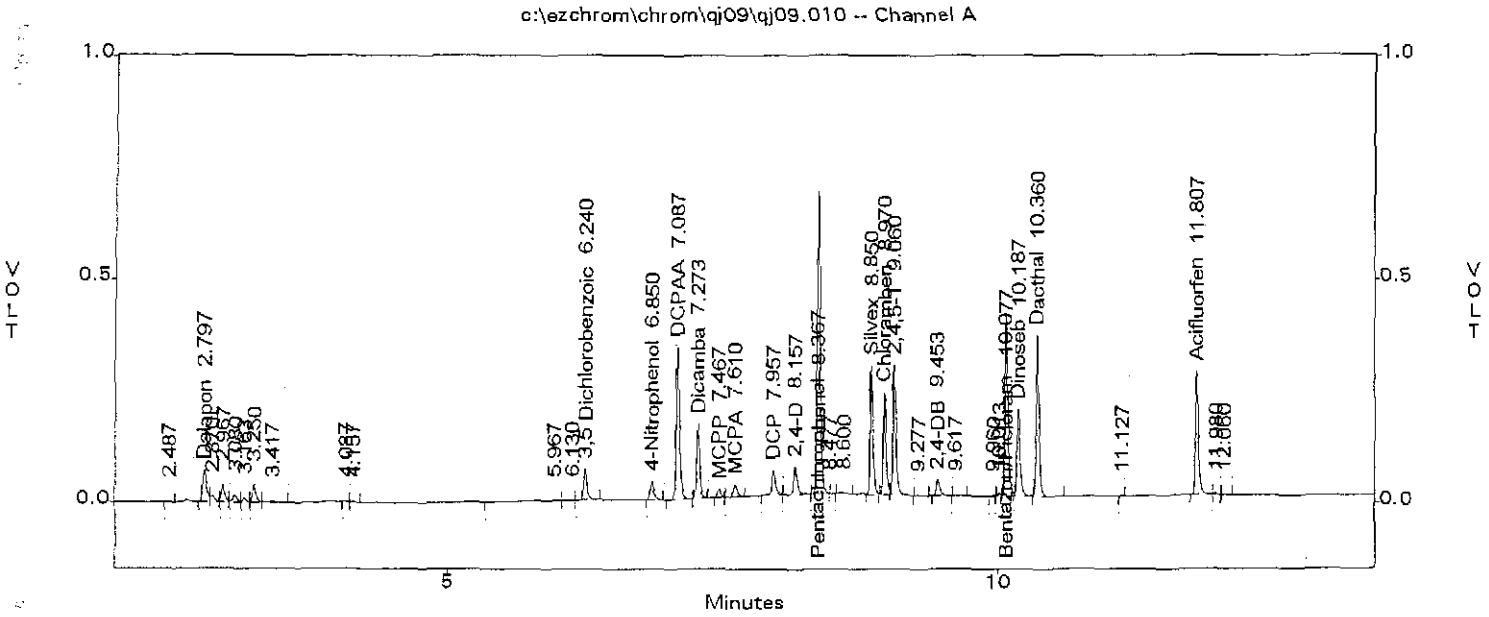
5056

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.010
Method : c:\ezchrom\methods\he09j09.met
Sample ID : IHE09J0901
Acquired : Oct 09, 2012 16:02:19
Printed : Oct 10, 2012 09:06:57
User : Supakit

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.797	170573.0	1669.16	102.19	BS
3,5 Dichlorobenzo	6.240	146690.0	1582.76	92.68	VB
4-Nitrophenol	6.850	96651.0	994.81	97.15	BV
DCPAA	7.087	701188.0	717.28	977.56	VV
Dicamba	7.273	327136.0	3332.79	98.16	VI
MCPP	7.467	37965.0	3.75	10116.46	BV
MCPA	7.610	67769.0	7.75	8742.04	VV
DCP	7.957	115141.0	1133.12	101.61	BV
2,4-D	8.157	138472.0	1424.90	97.18	VI
Pentachlorophenol	8.367	1291132.0	12876.92	100.27	Bx
Silvex	8.850	532410.0	5252.30	101.37	BV
Chloramben	8.970	426596.0	4138.84	103.07	VV
2,4,5-T	9.060	563032.0	5436.08	103.57	VV
2,4-DB	9.453	74715.0	733.46	101.87	VV
Bentazon/Picloram	10.077	782705.0	3836.73	204.00	SV
Dinoseb	10.187	390875.0	3981.06	98.18	VV
Dacthal	10.360	656585.0	6309.82	104.06	VV
Acifluorfen	11.807	507202.0	4861.40	104.33	BV



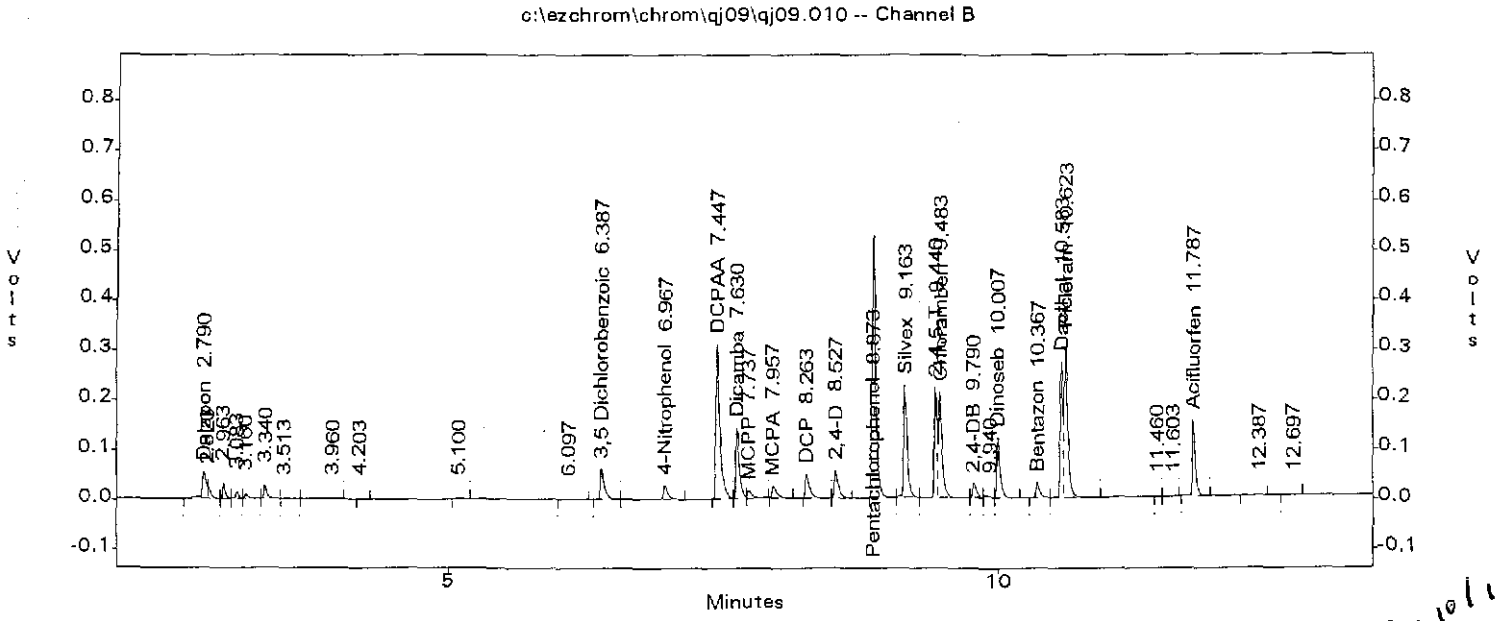
10/10/12
5957

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.010
Method : c:\ezchrom\methods\he09j09.met
Sample ID : IHE09J0901
Acquired : Oct 09, 2012 16:02:19
Printed : Oct 10, 2012 09:06:57
User : Supakit

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	136482.0	1263.67	108.00	Bx
3,5 Dichlorobenzoic	6.387	151252.0	1675.04	90.30	BV
4-Nitrophenol	6.967	74347.0	738.33	100.70	VV
DCPAA	7.447	791280.0	812.00	974.48	SV
Dicamba	7.630	316528.0	3231.74	97.94	VS
MCPP	7.737	46415.0	5.17	8979.54	SV
MCPA	7.957	77738.0	10.00	7777.59	SV
DCP	8.263	120667.0	1198.60	100.67	SV
2,4-D	8.527	137004.0	1382.77	99.08	VS
Pentachlorophenol	8.873	1208801.0	11546.42	104.69	VV
Silvex	9.163	491707.0	4667.02	105.36	VS
2,4,5-T	9.440	384528.0	3607.14	106.60	Sx
Chloramben	9.483	500179.0	4751.55	105.27	xV
2,4-DB	9.790	70441.0	713.67	98.70	SV
Dinoseb	10.007	256928.0	2604.65	98.64	SB
Bentazon	10.367	65900.0	620.24	106.25	BV
Dacthal	10.583	441664.0	4296.46	102.80	Vx
Picloram	10.623	749837.0	7077.90	105.94	xV
Acifluorfen	11.787	286411.0	2674.64	107.08	SV



10/10/
5858

INITIAL CALIBRATION VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ09006A 10/09/2012 14:39
Conc Cont LFID & Datetime: QJ09011A 10/09/2012 16:22
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
MCPP	7.467	7.453	7.481	5000.0	3.800	18060	4812.41	-4		15
MCPA	7.610	7.594	7.626	5000.0	7.800	36961	4767.88	-5		15

10/10/1

5859

INITIAL CALIBRATION VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ09006B 10/09/2012 14:39
Conc Cont LFID & Datetime: QJ09011B 10/09/2012 16:22
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
MCPP	7.737	7.721	7.753	5000.0	5.200	21854	4227.92	-15		15
MCPA	7.957	7.941	7.973	5000.0	10.000	47454	4747.71	-5		15

10/10/12

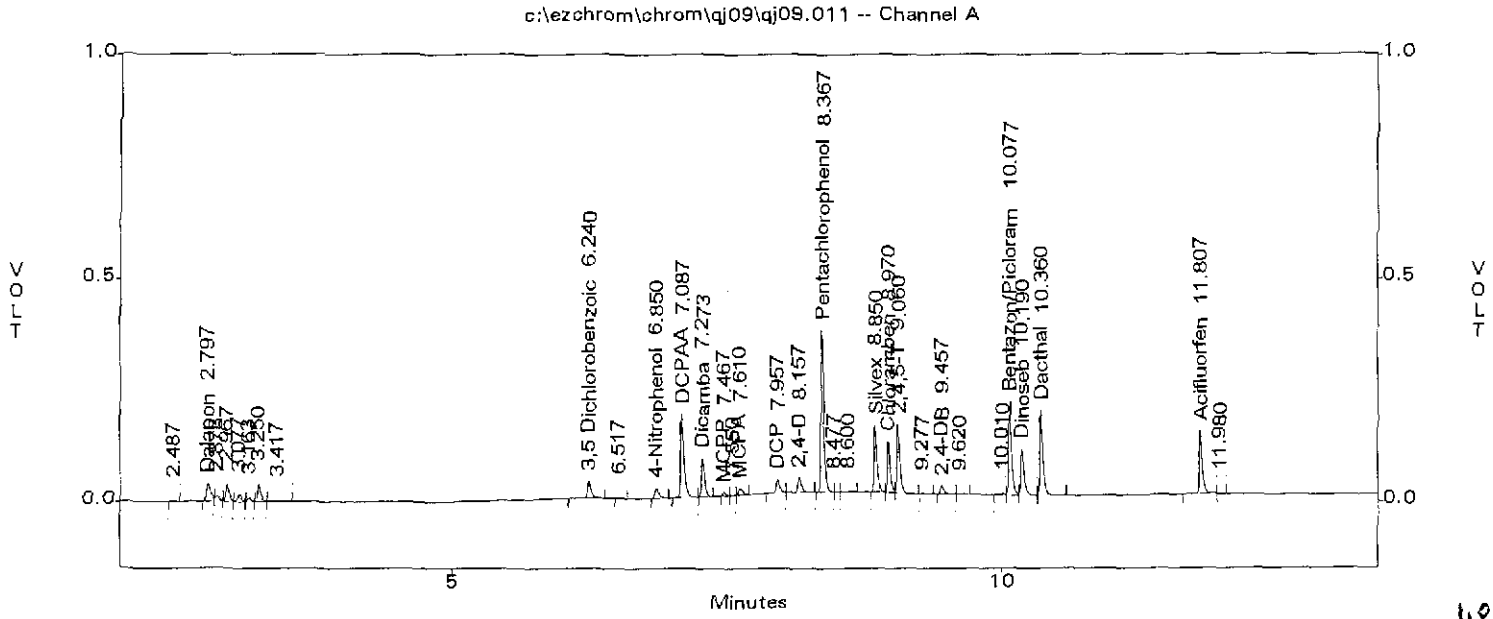
5060

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.011
Method : c:\ezchrom\methods\he09j09.met
Sample ID : IHE09J0902
Acquired : Oct 09, 2012 16:22:55
Printed : Oct 10, 2012 09:07:18
User : Supakit

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.797	92521.0	1669.16	55.43	BV
3,5 Dichlorobenzo	6.240	81748.0	1582.76	51.65	BB
4-Nitrophenol	6.850	51850.0	994.81	52.12	BV
DCPAA	7.087	394462.0	717.28	549.94	VV
Dicamba	7.273	172031.0	3332.79	51.62	VI
MCPP	7.467	18060.0	3.75	4812.41	BV
MCPA	7.610	36961.0	7.75	4767.88	xV
DCP	7.957	65258.0	1133.12	57.59	BV
2,4-D	8.157	79968.0	1424.90	56.12	VI
Pentachlorophenol	8.367	699878.0	12876.92	54.35	Bx
Silvex	8.850	279392.0	5252.30	53.19	BV
Chloramben	8.970	216429.0	4138.84	52.29	VV
2,4,5-T	9.060	302723.0	5436.08	55.69	VV
2,4-DB	9.457	39260.0	733.46	53.53	VV
Bentazon/Picloram	10.077	409706.0	3836.73	106.79	SV
Dinoseb	10.190	209962.0	3981.06	52.74	VV
Dacthal	10.360	349479.0	6309.82	55.39	VV
Acifluorfen	11.807	273061.0	4861.40	56.17	BV



10/10/12

5861

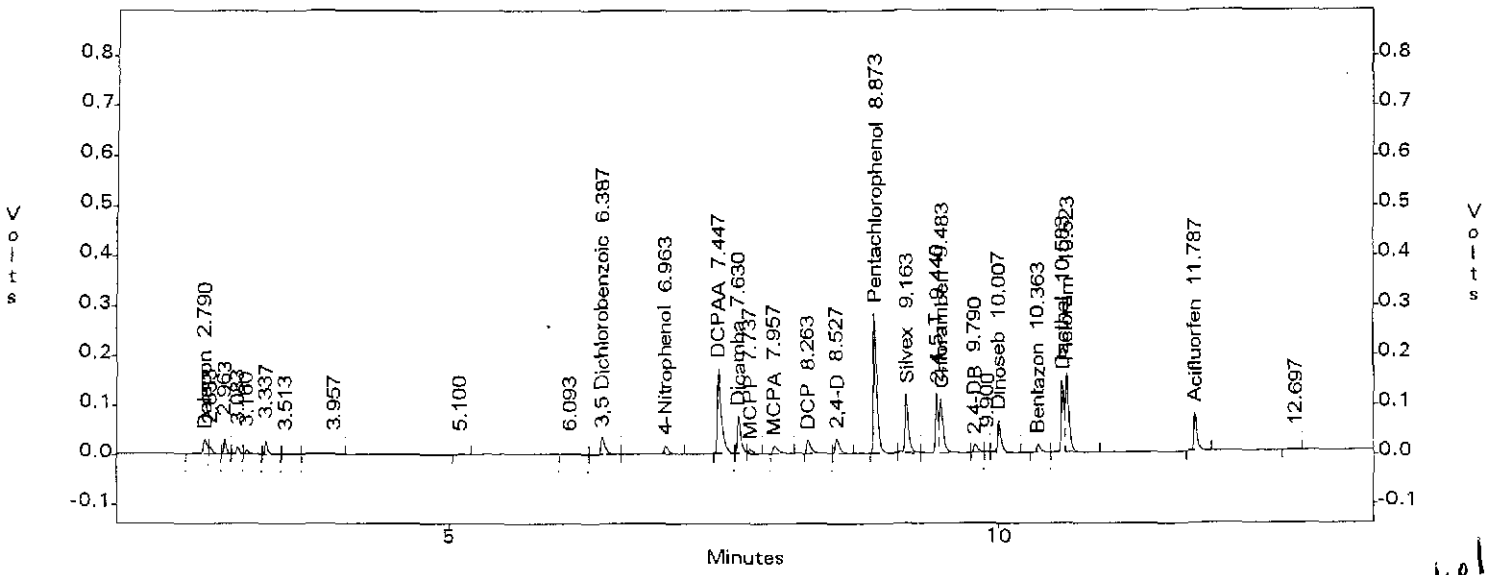
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj09\qj09.011
Method : c:\ezchrom\methods\he09j09.met
Sample ID : IHE09J0902
Acquired : Oct 09, 2012 16:22:55
Printed : Oct 10, 2012 09:07:19
User : Supakit

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	74342.0	1263.67	58.83	Bx
3,5 Dichlorobenzoic	6.387	86350.0	1675.04	51.55	VV
4-Nitrophenol	6.963	45898.0	738.33	62.16	VV
DCPAA	7.447	439626.0	812.00	541.41	SV
Dicamba	7.630	163068.0	3231.74	50.46	VS
MCPP	7.737	21854.0	5.17	4227.92	SV
MCPA	7.957	47454.0	10.00	4747.72	SV
DCP	8.263	65163.0	1198.60	54.37	SV
2,4-D	8.527	73715.0	1382.77	53.31	VB
Pentachlorophenol	8.873	622501.0	11546.42	53.91	BV
Silvex	9.163	247983.0	4667.02	53.14	VS
2,4,5-T	9.440	205522.0	3607.14	56.98	Sx
Chloramben	9.483	244126.0	4751.55	51.38	xV
2,4-DB	9.790	37852.0	713.67	53.04	SV
Dinoseb	10.007	134531.0	2604.65	51.65	SB
Bentazon	10.363	33687.0	620.24	54.31	BV
Dacthal	10.583	232284.0	4296.46	54.06	Vx
Picloram	10.623	362078.0	7077.90	51.16	xV
Acifluorfen	11.787	144208.0	2674.64	53.92	BV

c:\ezchrom\chrom\qj09\qj09.011 -- Channel B



10/10/12
5062

DAILY CALIBRATIONS

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Columm : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ09006A 10/09/2012 14:39
Conc Cont LFID & Datetime: QJ29014A 10/29/2012 13:48
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.167	10.151	10.183	100.0	3981.1	406780	102.18	2		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.067	7.051	7.083	1000.0	717.300	681254	949.77	-5		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ09006B 10/09/2012 14:39
Conc Cont LFID & Datetime: QJ29014B 10/29/2012 13:48
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.017	10.001	10.033	100.0	2604.7	307291	117.98	18		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.457	7.441	7.473	1000.0	812.000	805584	992.10	-1		20

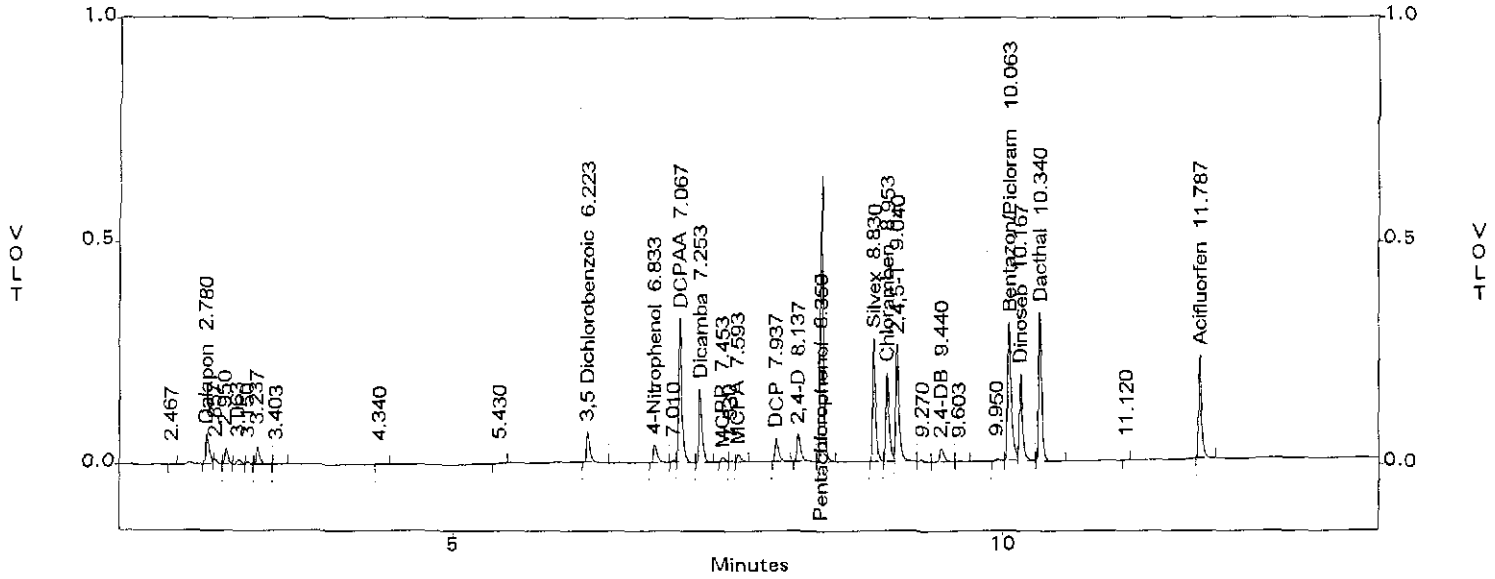
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\qj29.014
Method : c:\ezchrom\methods\he09j09.met
Sample ID : CHE09J09011
Acquired : Oct 29, 2012 13:48:45
Printed : Oct 29, 2012 14:14:42
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	149232.0	1669.16	89.41	BS
3,5 Dichlorobenzo	6.223	148294.0	1582.76	93.69	BB
4-Nitrophenol	6.833	97517.0	994.81	98.03	BV
DCPAA	7.067	681254.0	717.28	949.77	SV
Dicamba	7.253	325421.0	3332.79	97.64	VI
MCPP	7.453	21763.0	3.75	5799.15	vv
MCPA	7.593	39875.0	7.75	5143.78	xV
DCP	7.937	112814.0	1133.12	99.56	BB
2,4-D	8.137	140982.0	1424.90	98.94	BV
Pentachlorophenol	8.350	1220798.0	12876.92	94.81	Vx
Silvex	8.830	518286.0	5252.30	98.68	BV
Chloramben	8.953	406878.0	4138.84	98.31	VV
2,4,5-T	9.040	547478.0	5436.08	100.71	VV
2,4-DB	9.440	77465.0	733.46	105.62	VV
Bentazon/Picloram	10.063	753967.0	3836.73	196.51	VV
Dinoseb	10.167	406780.0	3981.06	102.18	VV
Dacthal	10.340	615809.0	6309.82	97.60	VV
Acifluorfen	11.787	429852.0	4861.40	88.42	BV

c:\ezchrom\chrom\qj29\qj29.014 -- Channel A



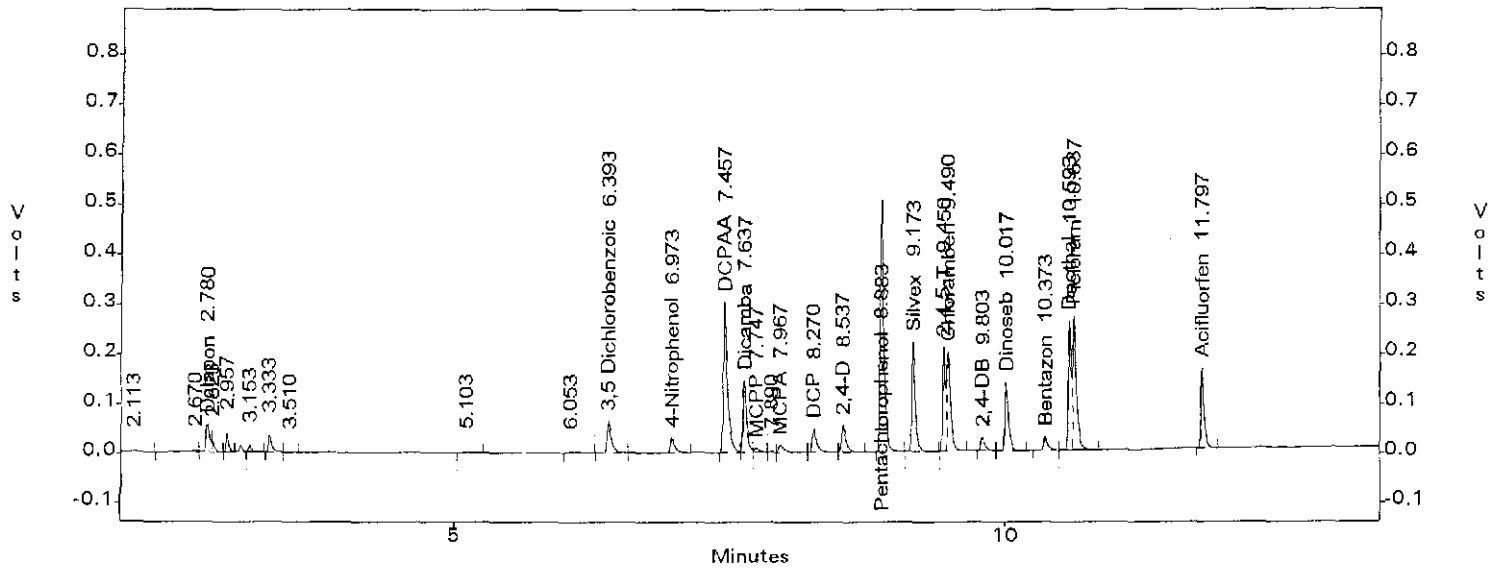
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\qj29.014
Method : c:\ezchrom\methods\he09j09.met
Sample ID : CHE09J09011
Acquired : Oct 29, 2012 13:48:45
Printed : Oct 29, 2012 14:14:42
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	132947.0	1263.67	105.21	Sx
3,5 Dichlorobenzoic	6.393	159452.0	1675.04	95.19	VV
4-Nitrophenol	6.973	81710.0	738.33	110.67	VV
DCPAA	7.457	805584.0	812.00	992.10	SV
Dicamba	7.637	327822.0	3231.74	101.44	VS
MCPP	7.747	28226.0	5.17	5460.66	SV
MCPA	7.967	55403.0	10.00	5543.00	SV
DCP	8.270	121151.0	1198.60	101.08	VV
2,4-D	8.537	141713.0	1382.77	102.48	VB
Pentachlorophenol	8.883	1175649.0	11546.42	101.82	SV
Silvex	9.173	489745.0	4667.02	104.94	VV
2,4,5-T	9.450	428560.0	3607.14	118.81	Sx
Chloramben	9.490	439528.0	4751.55	92.50	xV
2,4-DB	9.803	74400.0	713.67	104.25	SV
Dinoseb	10.017	307291.0	2604.65	117.98	VV
Bentazon	10.373	62994.0	620.24	101.56	VV
Dacthal	10.593	489589.0	4296.46	113.95	Vx
Picloram	10.637	670194.0	7077.91	94.69	xS
Acifluorfen	11.797	321369.0	2674.64	120.15	BS

c:\ezchrom\chrom\qj29\qj29.014 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ09006A 10/09/2012 14:39
Conc Cont LFID & Datetime: QJ29026A 10/29/2012 17:50
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.170	10.154	10.186	100.0	3981.1	412216	103.54	4		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.070	7.054	7.086	1000.0	717.300	681071	949.51	-5		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ09006B 10/09/2012 14:39
Conc Cont LFID & Datetime: QJ29026B 10/29/2012 17:50
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.020	10.004	10.036	100.0	2604.7	304970	117.09	17		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.457	7.441	7.473	1000.0	812.000	802629	988.46	-1		20

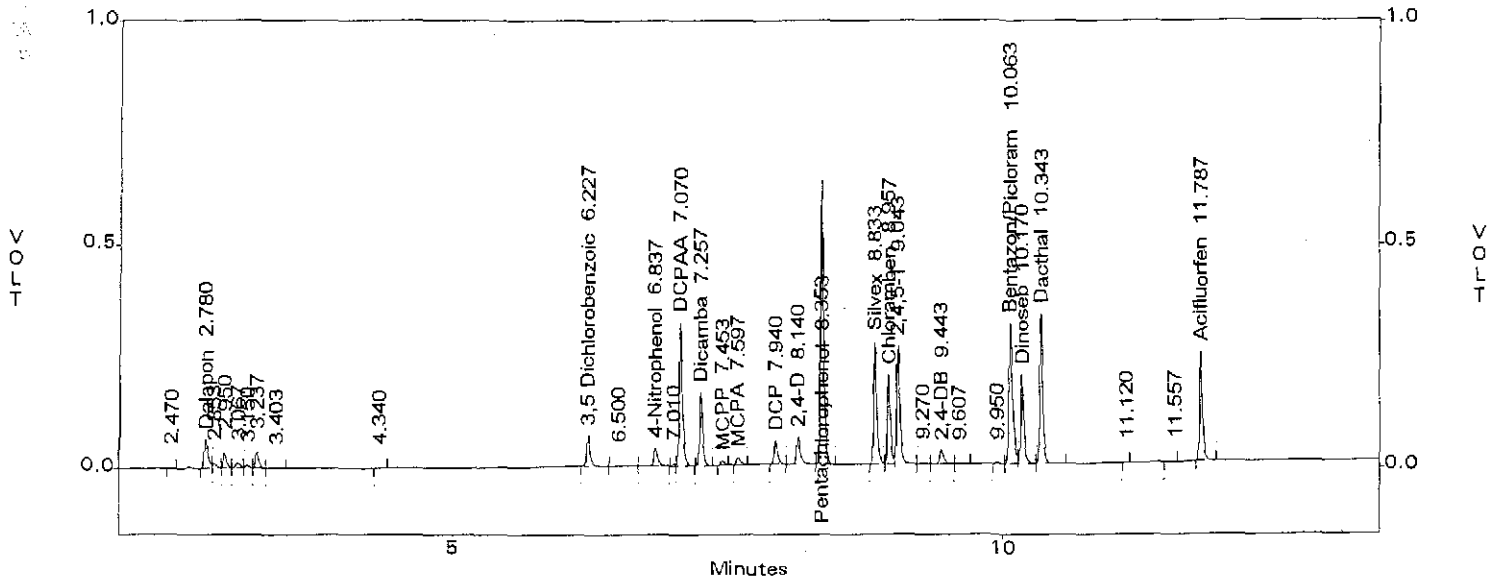
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\qj29.026
Method : c:\ezchrom\methods\he09j09.met
Sample ID : CHE09J09012
Acquired : Oct 29, 2012 17:50:12
Printed : Oct 30, 2012 12:24:25
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	153845.0	1669.16	92.17	BS
3,5 Dichlorobenzo	6.227	154778.0	1582.76	97.79	BV
4-Nitrophenol	6.837	98369.0	994.81	98.88	VV
DCPAA	7.070	681071.0	717.28	949.51	SV
Dicamba	7.257	324651.0	3332.79	97.41	VI
MCPP	7.453	21955.0	3.75	5850.31	BV
MCPA	7.597	39665.0	7.75	5116.69	xV
DCP	7.940	113906.0	1133.12	100.52	BV
2,4-D	8.140	146067.0	1424.90	102.51	VV
Pentachlorophenol	8.353	1225747.0	12876.92	95.19	Vx
Silvex	8.833	519021.0	5252.30	98.82	BV
Chloramben	8.957	406561.0	4138.84	98.23	VV
2,4,5-T	9.043	549897.0	5436.08	101.16	VV
2,4-DB	9.443	76886.0	733.46	104.83	VV
Bentazon/Picloram	10.063	761751.0	3836.73	198.54	VV
Dinoseb	10.170	412216.0	3981.06	103.54	VV
Dacthal	10.343	622271.0	6309.82	98.62	VV
Acifluorfen	11.787	456786.0	4861.40	93.96	BV

c:\ezchrom\chrom\qj29\qj29.026 -- Channel A



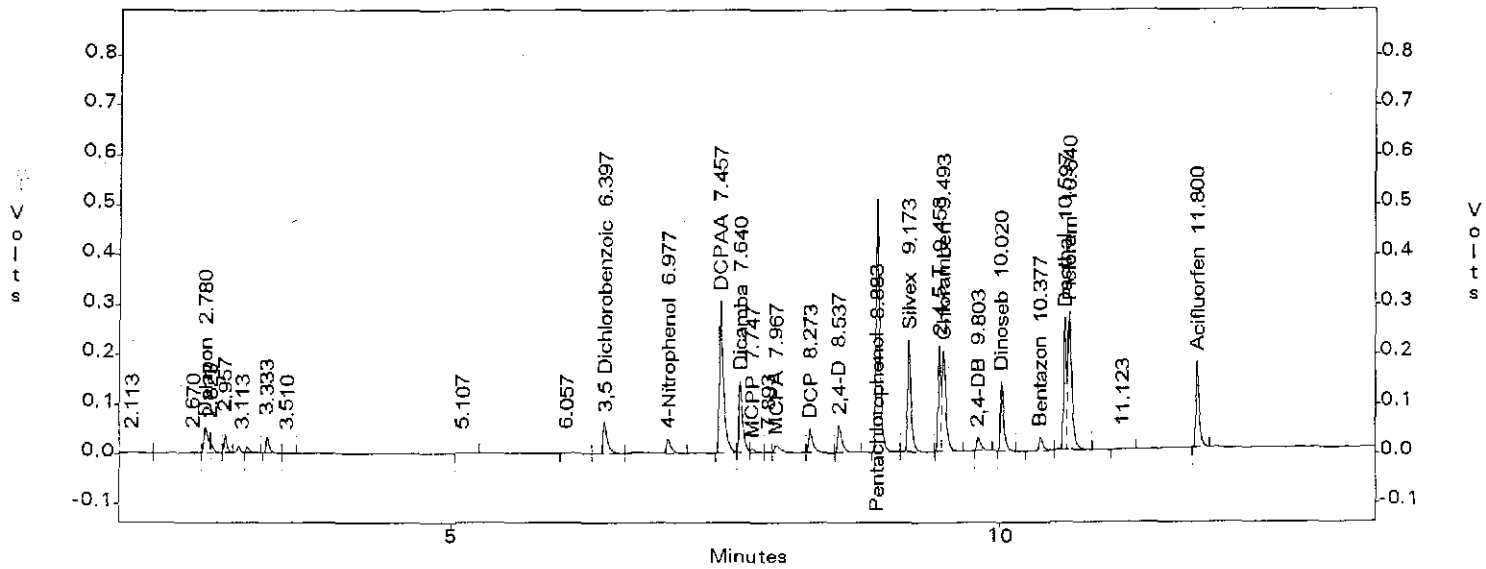
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\qj29.026
Method : c:\ezchrom\methods\he09j09.met
Sample ID : CHE09J09012
Acquired : Oct 29, 2012 17:50:12
Printed : Oct 30, 2012 12:24:26
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	132730.0	1263.67	105.04	Sx
3,5 Dichlorobenzoic	6.397	158895.0	1675.04	94.86	VV
4-Nitrophenol	6.977	83041.0	738.33	112.47	VV
DCPAA	7.457	802629.0	812.00	988.46	SV
Dicamba	7.640	326329.0	3231.74	100.98	VS
MCPP	7.747	28511.0	5.17	5515.80	SV
MCPA	7.967	56389.0	10.00	5641.65	SV
DCP	8.273	120443.0	1198.60	100.49	VV
2,4-D	8.537	141503.0	1382.77	102.33	VB
Pentachlorophenol	8.883	1179016.0	11546.42	102.11	BV
Silvex	9.173	489454.0	4667.02	104.88	VV
2,4,5-T	9.453	360515.0	3607.14	99.94	Sx
Chloramben	9.493	510479.0	4751.55	107.43	xV
2,4-DB	9.803	70400.0	713.67	98.65	SI
Dinoseb	10.020	304970.0	2604.65	117.09	vv
Bentazon	10.377	63530.0	620.24	102.43	VV
Dacthal	10.597	442982.0	4296.46	103.10	Vx
Picloram	10.640	731436.0	7077.91	103.34	xV
Acifluorfen	11.800	348305.0	2674.64	130.23	BI

c:\ezchrom\chrom\qj29\qj29.026 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ09006A 10/09/2012 14:39
Conc Cont LFID & Datetime: QJ29038A 10/29/2012 21:53
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.163	10.147	10.179	100.0	3981.1	418045	105.01	5		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.060	7.044	7.076	1000.0	717.300	701439	977.91	-2		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ09006B 10/09/2012 14:39
Conc Cont LFID & Datetime: QJ29038B 10/29/2012 21:53
CONC UNIT : ppb

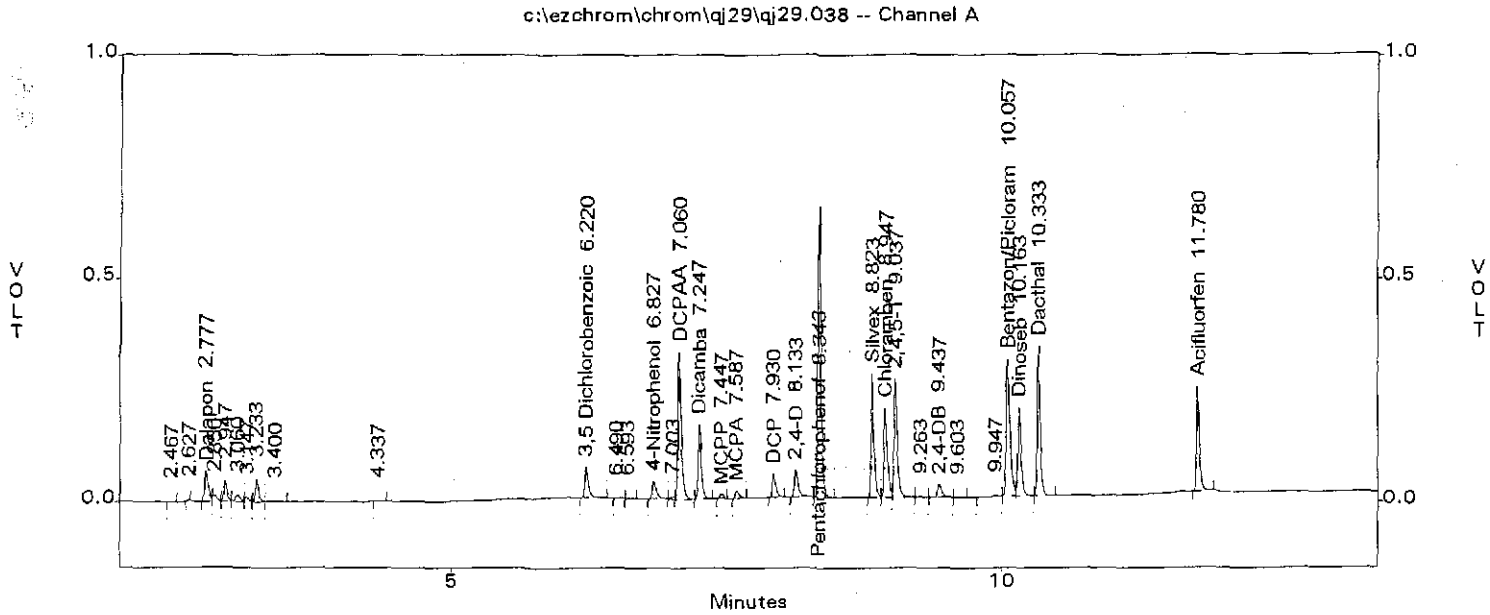
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.013	9.997	10.029	100.0	2604.7	311898	119.75	20		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.450	7.434	7.466	1000.0	812.000	817235	1006.45	1		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\qj29.038
Method : c:\ezchrom\methods\he09j09.met
Sample ID : CHE09J09013
Acquired : Oct 29, 2012 21:53:19
Printed : Oct 30, 2012 08:16:39
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.777	153661.0	1669.16	92.06	BV
3,5 Dichlorobenzo	6.220	150766.0	1582.76	95.26	BV
4-Nitrophenol	6.827	99733.0	994.81	100.25	BV
DCPAA	7.060	701439.0	717.28	977.91	SV
Dicamba	7.247	334638.0	3332.79	100.41	VI
MCPP	7.447	22490.0	3.75	5992.87	BI
MCPA	7.587	39827.0	7.75	5137.59	xV
DCP	7.930	114990.0	1133.12	101.48	BV
2,4-D	8.133	144409.0	1424.90	101.35	BV
Pentachlorophenol	8.343	1260972.0	12876.92	97.92	Vx
Silvex	8.823	534295.0	5252.30	101.73	BV
Chloramben	8.947	418793.0	4138.84	101.19	VV
2,4,5-T	9.037	564819.0	5436.08	103.90	VV
2,4-DB	9.437	75029.0	733.46	102.30	vv
Bentazon/Picloram	10.057	760412.0	3836.73	198.19	VV
Dinoseb	10.163	418045.0	3981.06	105.01	VV
Dacthal	10.333	630365.0	6309.82	99.90	VV
Acifluorfen	11.780	447678.0	4861.40	92.09	BV



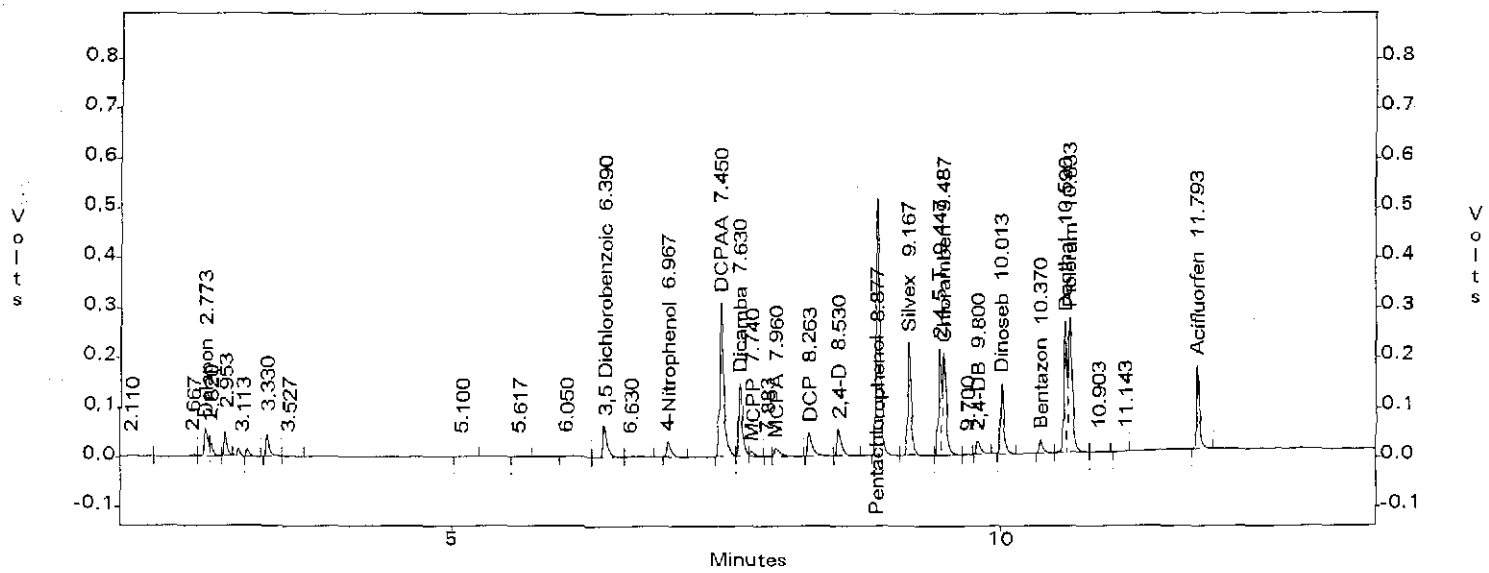
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\qj29.038
Method : c:\ezchrom\methods\he09j09.met
Sample ID : CHE09J09013
Acquired : Oct 29, 2012 21:53:19
Printed : Oct 30, 2012 08:16:39
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.773	123793.0	1263.67	97.96	Sx
3,5 Dichlorobenzoic	6.390	160369.0	1675.04	95.74	VV
4-Nitrophenol	6.967	82370.0	738.33	111.56	BV
DCPAA	7.450	817235.0	812.00	1006.45	SV
Dicamba	7.630	330418.0	3231.74	102.24	VS
MCPP	7.740	25679.0	5.17	4967.91	SV
MCPA	7.960	51486.0	10.00	5151.11	SV
DCP	8.263	121956.0	1198.60	101.75	VV
2,4-D	8.530	144494.0	1382.77	104.50	VV
Pentachlorophenol	8.877	1201654.0	11546.42	104.07	SV
Silvex	9.167	498049.0	4667.02	106.72	VV
2,4,5-T	9.447	366551.0	3607.14	101.62	Sx
Chloramben	9.487	522824.0	4751.55	110.03	xV
2,4-DB	9.800	70749.0	713.67	99.13	SV
Dinoseb	10.013	311898.0	2604.65	119.75	BV
Bentazon	10.370	59993.0	620.24	96.73	BV
Dacthal	10.590	443247.0	4296.46	103.17	Vx
Picloram	10.633	722374.0	7077.91	102.06	xV
Acifluorfen	11.793	351370.0	2674.64	131.37	SI

c:\ezchrom\chrom\qj29\qj29.038 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ09006A 10/09/2012 14:39
Conc Cont LFID & Datetime: QJ29040A 10/29/2012 22:33
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.163	10.147	10.179	100.0	3981.1	398967	100.22	0		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.060	7.044	7.076	1000.0	717.300	693244	966.48	-3		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ09006B 10/09/2012 14:39
Conc Cont LFID & Datetime: QJ29040B 10/29/2012 22:33
CONC UNIT : ppb

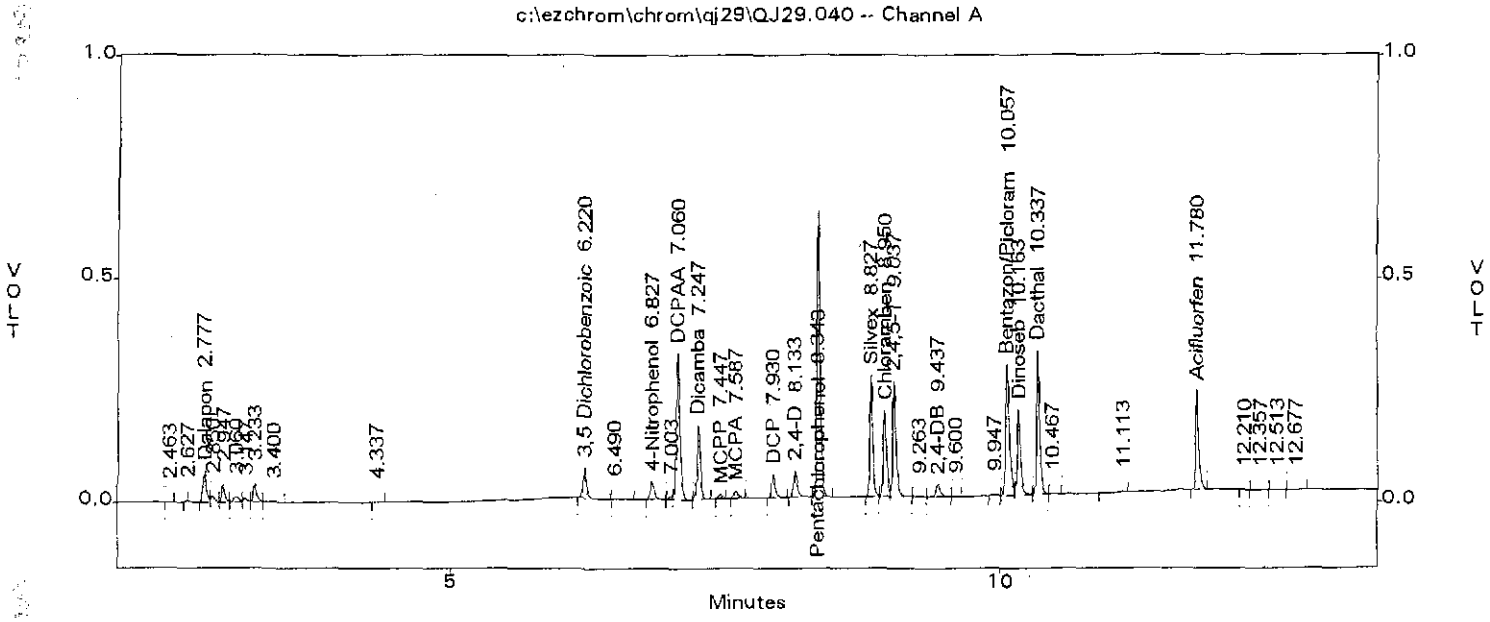
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.013	9.997	10.029	100.0	2604.7	300881	115.52	16		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.450	7.434	7.466	1000.0	812.000	806601	993.35	-1		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\QJ29.040
Method : c:\ezchrom\methods\he09j09.met
Sample ID : CHE09J09014
Acquired : Oct 29, 2012 22:33:57
Printed : Oct 30, 2012 08:43:42
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.777	152846.0	1669.16	91.57	BS
3,5 Dichlorobenzo	6.220	149603.0	1582.76	94.52	BV
4-Nitrophenol	6.827	97951.0	994.81	98.46	BV
DCPAA	7.060	693244.0	717.28	966.48	SV
Dicamba	7.247	330629.0	3332.79	99.20	VI
MCPP	7.447	22068.0	3.75	5880.42	BV
MCPA	7.587	39687.0	7.75	5119.53	xV
DCP	7.930	113567.0	1133.12	100.23	BB
2,4-D	8.133	141183.0	1424.90	99.08	BV
Pentachlorophenol	8.343	1233894.0	12876.92	95.82	Vx
Silvex	8.827	519942.0	5252.30	98.99	BV
Chloramben	8.950	401609.0	4138.84	97.03	VV
2,4,5-T	9.037	547099.0	5436.08	100.64	VV
2,4-DB	9.437	74235.0	733.46	101.21	VV
Bentazon/Picloram	10.057	720572.0	3836.73	187.81	VV
Dinoseb	10.163	398967.0	3981.06	100.22	VV
Dacthal	10.337	609539.0	6309.82	96.60	VV
Acifluorfen	11.780	418074.0	4861.40	86.00	BV



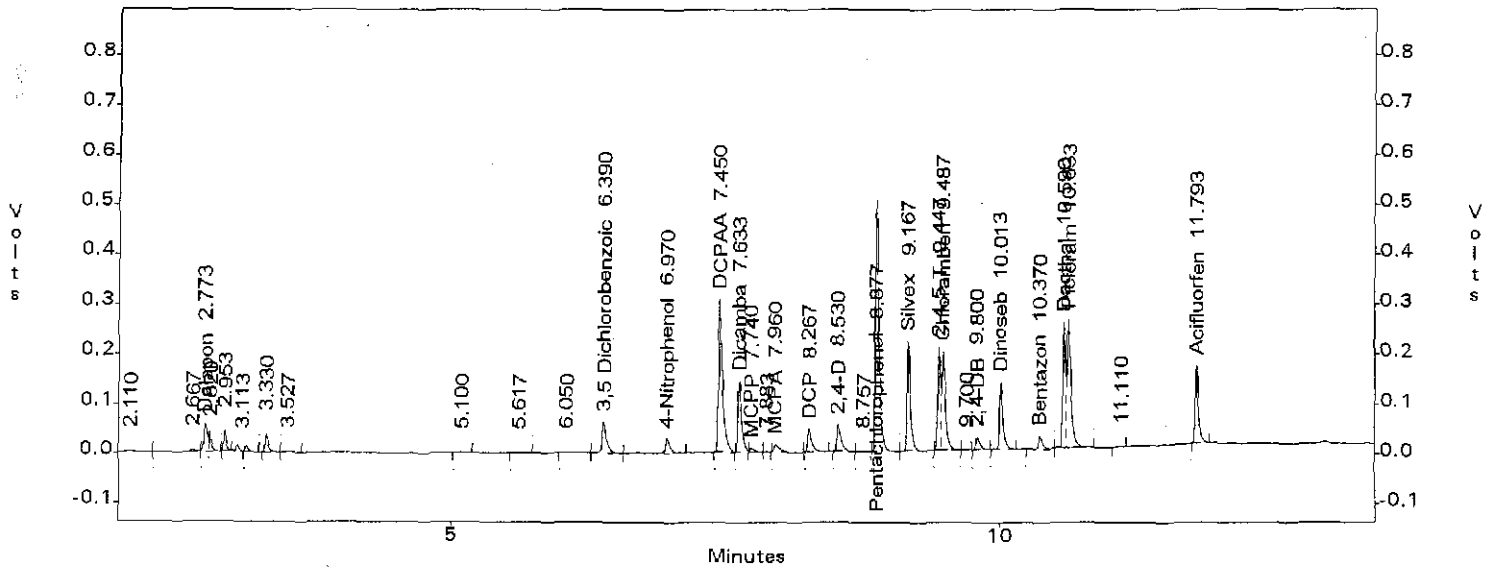
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj29\QJ29.040
Method : c:\ezchrom\methods\he09j09.met
Sample ID : CHE09J09014
Acquired : Oct 29, 2012 22:33:57
Printed : Oct 30, 2012 08:43:43
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.773	120061.0	1263.67	95.01	Sx
3,5 Dichlorobenzoic	6.390	158635.0	1675.04	94.71	VV
4-Nitrophenol	6.970	82379.0	738.33	111.57	VV
DCPAA	7.450	806601.0	812.00	993.35	SV
Dicamba	7.633	326125.0	3231.74	100.91	VS
MCPP	7.740	24294.0	5.17	4699.97	SV
MCPA	7.960	51171.0	10.00	5119.60	vv
DCP	8.267	118020.0	1198.60	98.47	VV
2,4-D	8.530	141233.0	1382.77	102.14	VV
Pentachlorophenol	8.877	1177583.0	11546.42	101.99	SV
Silvex	9.167	486356.0	4667.02	104.21	VV
2,4,5-T	9.447	350198.0	3607.14	97.08	Sx
Chloramben	9.487	510968.0	4751.55	107.54	xV
2,4-DB	9.800	67402.0	713.67	94.44	SV
Dinoseb	10.013	300881.0	2604.65	115.52	VV
Bentazon	10.370	63675.0	620.24	102.66	SV
Dacthal	10.590	418278.0	4296.46	97.35	Vx
Picloram	10.633	695824.0	7077.91	98.31	xV
Acifluorfen	11.793	320114.0	2674.64	119.68	BI

c:\ezchrom\chrom\qj29\QJ29.040 -- Channel B



ANALYTICAL LOGS

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
PCB CONGENERS/HERBICIDES/EDB and DBCP

Note: For samples and relevant QC/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #:	A09-015
Instrument No.:	09
Analytical Sequence:	QJ09
Method File:	HE09J09
Analytical Batch:	QJ09002

SOP #	Rev. #
☑ EMAX-8151	3
☐ EMAX-8082CON	0
☐ EMAX-504.1	3
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
HE09J09	QJ09	10/09/12

STANDARDS ID	Conc (µg/L)
Hexane 5 1 2 5 7	N.A
DCC 8151 SS4C-02-50-3	100/5000/1,000
ICAL 8151 SS4B-03-51-01	10 - 200
↓	500 - 10000
	100 - 2000
ICV 8151 SS4B-03-51-02	100/10000/1000
↓	50/500/500

Column	☑ A. STX CLPEST I ☑ STX CLPEST II

ELECTRONIC DATA ARCHIVAL

Location	Date
☐ EZC6HERB	
☐	

Analyzed By: SP Date: 10/9/12

Disposed By: SD Date Disposed: 10/10/12

This page is checked during data review.

Run	Sample ID	Method	Filename	Mult.	Description
1	IB09J0901	he09j09.met	QJ09.001	1	
2	HE09J0901	he09j09.met	QJ09.002	1	
3	HE09J0902	he09j09.met	QJ09.003	1	
4	HE09J0903	he09j09.met	QJ09.004	1	
5	HE09J0904	he09j09.met	QJ09.005	1	
6	HE09J0905	he09j09.met	QJ09.006	1	
7	HE09J0906	he09j09.met	QJ09.007	1	
8	HE09J0907	he09j09.met	QJ09.008	1	
9	HE09J0908	he09j09.met	QJ09.009	1	
10	IHE09J0901	he09j09.met	QJ09.010	1	
11	IHE09J0902	he09j09.met	QJ09.011	1	
12	CHE09J0901	he09j09.met	QJ09.012	1	
13	HEJ002SB	he09j09.met	QJ09.013	1	
14	HEJ002SL	he09j09.met	QJ09.014	1	
15	HEJ002SC	he09j09.met	QJ09.015	1	
16	LOQ-07	he09j09.met	QJ09.016	1	
17	LOD-07	he09j09.met	QJ09.017	1	
18	IB09J0902	he09j09.met	QJ09.018	1	
19	CHE09J0902	he09j09.met	QJ09.019	1	
20	I264-01I DF=5	he09j09.met	QJ09.020	5	
21	I264-01	he09j09.met	QJ09.021	1	
22	IB09J0903	he09j09.met	QJ09.022	1	
23	CHE09J0903	he09j09.met	QJ09.023	1	

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
PCB CONGENERS/HERBICIDES/EDB and DBCP

Note: For samples and relevant QC/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #:	A09-015
Instrument No.:	09
Analytical Sequence:	QJ29
Method File:	HE09J09
Analytical Batch:	QJ29002

SOP #	Rev. #
☑ EMAX-8151	3
☐ EMAX-8082CON	0
☐ EMAX-504.1	3
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
HE09J09	QJ09	10/09/12

STANDARDS ID		Conc (µg/L)
Hexane	J257	NA
DCC	SS4B-03-J2-03	100/1000/1000

Column	☑ A. STX CLPEST I ☑ STX CLPEST II

ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC6HERB	
☐	

Analyzed By: [signature] Date: 10/29/12

Disposed By: [signature] Date Disposed: 10/30/12

This page is checked during data review.

Run	Sample ID	Method	Filename	Mult.	Description
1	IB09J09010	he09j09.met	QJ29.001	1	
2	CHE09J09010	he09j09.met	QJ29.002	1	
3	HEJ007WB	he09j09.met	QJ29.003	1	
4	HEJ007WL	he09j09.met	QJ29.004	1	
5	HEJ007WC	he09j09.met	QJ29.005	1	
6	J147-01	he09j09.met	QJ29.006	1	
7	J147-02	he09j09.met	QJ29.007	1	
8	J147-03	he09j09.met	QJ29.008	1	
9	J147-03M	he09j09.met	QJ29.009	1	
10	J147-03S	he09j09.met	QJ29.010	1	
11	J147-04	he09j09.met	QJ29.011	1	
12	J147-05	he09j09.met	QJ29.012	1	
13	IB09J09011	he09j09.met	QJ29.013	1	
14	CHE09J09011	he09j09.met	QJ29.014	1	
15	J147-06	he09j09.met	QJ29.015	1	
16	J147-07	he09j09.met	QJ29.016	1	
17	TXJ010SB	he09j09.met	QJ29.017	1	
18	J176-01	he09j09.met	QJ29.018	1	
19	TXJ011WB	he09j09.met	QJ29.019	1	
20	J176-02	he09j09.met	QJ29.020	1	
21	HEJ008WB	he09j09.met	QJ29.021	1	
22	HEJ008WL	he09j09.met	QJ29.022	1	
23	HEJ008WC	he09j09.met	QJ29.023	1	
24	J162-01	he09j09.met	QJ29.024	1	

Run	Sample ID	Method	Filename	Mult.	Description
25	IB09J09012	he09j09.met	QJ29.025	1	
26	CHE09J09012	he09j09.met	QJ29.026	1	
27	J162-02	he09j09.met	QJ29.027	1	
28	J162-03	he09j09.met	QJ29.028	1	
29	J162-04	he09j09.met	QJ29.029	1	
30	J162-05	he09j09.met	QJ29.030	1	
31	J162-06	he09j09.met	QJ29.031	1	
32	J162-07	he09j09.met	QJ29.032	1	
33	J162-08	he09j09.met	QJ29.033	1	
34	J162-08M	he09j09.met	QJ29.034	1	
35	J162-08S	he09j09.met	QJ29.035	1	
36	J162-09	he09j09.met	QJ29.036	1	
37	IB09J09013	he09j09.met	QJ29.037	1	
38	CHE09J09013	he09j09.met	QJ29.038	1	
39	J162-10	he09j09.met	QJ29.039	1	
40	CHE09J09014	he09j09.met	QJ29.040	1	
41	IB	he09j09.met	QJ29.041	1	
42	IB	he09j09.met	QJ29.042	1	
43	IB	he09j09.met	QJ29.043	1	
44	IB	he09j09.met	QJ29.044	1	
45	IB	he09j09.met	QJ29.045	1	
46	IB	he09j09.met	QJ29.046	1	
47	IB	he09j09.met	QJ29.047	1	
48	IB	he09j09.met	QJ29.048	1	
49	IB	he09j09.met	QJ29.049	1	

EXTRACTION LOGS

EMAX LABORATORIES, INC.

EXTRACTION LOG
for
HERBICIDES

SOP	Rev. #
☒ EMAX-8151	3
☐ EMAX-	

Note: For samples, relevant QCs/Standards extracted, refer to attached extraction sequence.

Comments:

Book #.: EHE-016
Preparation Batch: HEJ008W
Matrix Water
Micropipette ID: PE00-02 (1000 µL)
Micropipette ID: —

Standards	ID	Amount Added (ml)
Surrogate	SS4B-03-01-01	1.0
LCS/MS	SS4B-02-50-3	0.25

Reagent	Lot # / ID
CH_2Cl_2	—
Hexane	52153
Ethyl Ether	DG659 ML 10/27
Acified Na_2SO_4	SP1B-04-188262
H_2SO_4	3111070
Diazo-methane	SP1B-05-03-03
Methanol	51145
Iso Octane	SP1A-03-035
Silica Sand	—
Silicic Acid	SP1A-03-041
Reagent Water	SW1A-04-571
Residual Chlorine Strip	20221
pH Strip	HC248798

Lab Sample ID	Sonicator #	Concentrator #
HEJ008WB	N/A	1
-WL		1
-WC		1
12J162-01		2
-02		2
-03		2
-04		2
-05		2
-06		2
-07		3
-08		3
-08M		3
-08S		3
-09		3
-10		3

TUNING

Sonicator #	Reading

Concentrator	Water Bath Temperature Setting(°C)	Thermometer Reading (°C)
1	35	35
2	35	35
3	35	35
4		
5		
6		

Test Thermometer = SVOC-T1

Prepared By: YK/ML Standard Added By: YK

Witnessed By: JM Checked By: JM

Extract Received By: [illegible] Extract Location: SE04-815

Disposal Date: Disposed By:

EMAX LABORATORIES, INC.

FileID: HEJ008W

EXTRACTION LOG FOR HERBICIDES

PrepBatchID	LabSampleID	Aliquot	Unit	DateTime	Ve(ml)	ExpAmt	ExpVe(ml)	PrepFctr	Comments
12HEJ008W01	HEJ008WB	500	ml	10/27/12 12:11	5	500	5	1	
12HEJ008W02	HEJ008WL	500	ml	10/27/12 12:11	5	500	5	1	
12HEJ008W03	HEJ008WC	500	ml	10/27/12 12:11	5	500	5	1	
12HEJ008W04	J162-01	500	ml	10/27/12 12:11	5	500	5	1	
12HEJ008W05	J162-02	500	ml	10/27/12 12:11	5	500	5	1	
12HEJ008W06	J162-03	500	ml	10/27/12 12:11	5	500	5	1	
12HEJ008W07	J162-04	500	ml	10/27/12 12:11	5	500	5	1	
12HEJ008W08	J162-05	500	ml	10/27/12 12:11	5	500	5	1	
12HEJ008W09	J162-06	500	ml	10/27/12 12:11	5	500	5	1	
12HEJ008W10	J162-07	500	ml	10/27/12 12:11	5	500	5	1	
12HEJ008W11	J162-08	500	ml	10/27/12 12:11	5	500	5	1	
12HEJ008W12	J162-08M	500	ml	10/27/12 12:11	5	500	5	1	
12HEJ008W13	J162-08S	500	ml	10/27/12 12:11	5	500	5	1	
12HEJ008W14	J162-09	500	ml	10/27/12 12:11	5	500	5	1	
12HEJ008W15	J162-10	500	ml	10/27/12 12:11	5	500	5	1	

Ve=extract volume

PrepFctr=(ExpAmt/Aliquot)(Ve/ExpVe)

☑ Extraction Started @ 10/27/12 12:11

Prepared By: YK

☑ Extraction Ended @ 10/27/12 15:12

Checked By: VM

Comments:

Date 10/29/12

5088

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

WET CHEMICAL ANALYSES

SDG#: 12J162

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J162

METHOD 300.0
ANIONS BY IC

A total of ten (10) water samples were received on 10/24/12 for Anions (Nitrate-N, Nitrite-N and Sulfate) by IC analysis, Method 300.0 in accordance with Methods for the Determination of Inorganic Substances in Environmental Samples (EPA/600/R-93/100) and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source. Continuing calibration verifications were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blanks were analyzed at the frequency required by the project. For this SDG, two (2) method blanks were analyzed with the samples. All results were compliant to project requirement. Refer to QC result summary forms for details.

Lab Control Sample
Two (2) sets of LCS/LCD were analyzed with the samples in this SDG.
Percent recoveries for ICJ037WL/C were all within QC limits.
Percent recoveries for ICJ039WL/C were all within QC limits.

Matrix QC Sample
Matrix QC sample was analyzed at the frequency prescribed by the project.
Percent recoveries for J162-08M/S were within project QC limits.
Sample duplicate was also analyzed with the samples. RPD was within project limit.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

SAMPLE RESULTS

METHOD 300.0
NITRATE-N

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J162

Matrix : WATER
Instrument ID : DO

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICJ037WB	ND	1	NA	0.100	0.0500	10/24/1215:17	NA	AJ31-03	AJ31-01	ICJ037W	NA	NA
LCS1W	ICJ037WL	1.00	1	NA	0.100	0.0500	10/24/1215:34	NA	AJ31-04	AJ31-01	ICJ037W	NA	NA
LCD1W	ICJ037WC	1.00	1	NA	0.100	0.0500	10/24/1215:51	NA	AJ31-05	AJ31-01	ICJ037W	NA	NA
10-23-12 PWB-6	J162-05I	11.8	10	NA	1.00	0.500	10/24/1219:17	NA	AJ31-17	AJ31-13	ICJ037W	10/23/1211:32	10/24/12
10-23-12 AR-1	J162-06I	29.7	20	NA	2.00	1.00	10/24/1219:34	NA	AJ31-18	AJ31-13	ICJ037W	10/23/1212:16	10/24/12
10-23-12 PWB-3	J162-09I	23.8	20	NA	2.00	1.00	10/24/1222:43	NA	AJ31-29	AJ31-25	ICJ037W	10/23/1209:57	10/24/12
10-23-12 PWB-1	J162-07I	27.5	20	NA	2.00	1.00	10/24/1223:00	NA	AJ31-30	AJ31-25	ICJ037W	10/23/1210:50	10/24/12
10-23-12 PWB-10	J162-10I	29.4	20	NA	2.00	1.00	10/24/1223:17	NA	AJ31-31	AJ31-25	ICJ037W	10/23/1211:50	10/24/12
LCS2W	ICJ039WL	1.01	1	NA	0.100	0.0500	10/24/1223:34	NA	AJ31-32	AJ31-25	ICJ039W	NA	NA
LCD2W	ICJ039WC	1.01	1	NA	0.100	0.0500	10/24/1223:51	NA	AJ31-33	AJ31-25	ICJ039W	NA	NA
MBLK2W	ICJ039WB	ND	1	NA	0.100	0.0500	10/25/1200:09	NA	AJ31-34	AJ31-25	ICJ039W	NA	NA
10-23-12 AMW-3R	J162-08I	29.2	20	NA	2.00	1.00	10/25/1200:26	NA	AJ31-35	AJ31-25	ICJ039W	10/23/1209:36	10/24/12
10-23-12 AMW-3RDUP	J162-08D	29.4	20	NA	2.00	1.00	10/25/1200:43	NA	AJ31-36	AJ31-25	ICJ039W	10/23/1209:36	10/24/12
10-23-12 AMW-3RMS	J162-08M	50.2	20	NA	2.00	1.00	10/25/1201:34	NA	AJ31-39	AJ31-37	ICJ039W	10/23/1209:36	10/24/12
10-23-12 AMW-3RMSD	J162-08S	50.2	20	NA	2.00	1.00	10/25/1201:52	NA	AJ31-40	AJ31-37	ICJ039W	10/23/1209:36	10/24/12
10-24-12 BBW-1	J162-01I	25.0	20	NA	2.00	1.00	10/25/1206:26	NA	AJ31-56	AJ31-49	ICJ039W	10/24/1208:25	10/24/12
10-24-12 BBW-2	J162-02I	18.6	20	NA	2.00	1.00	10/25/1206:43	NA	AJ31-57	AJ31-49	ICJ039W	10/24/1209:35	10/24/12
10-24-12 BBW-3	J162-03I	35.9	20	NA	2.00	1.00	10/25/1207:00	NA	AJ31-58	AJ31-49	ICJ039W	10/24/1210:50	10/24/12
10-24-12 FDUP-1	J162-04I	35.7	20	NA	2.00	1.00	10/25/1207:17	NA	AJ31-59	AJ31-49	ICJ039W	10/24/1200:00	10/24/12

METHOD 300.0
NITRITE-N

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J162

Matrix : WATER
Instrument ID : DO

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICJ037WB	ND	1	NA	0.100	0.0500	10/24/1215:17	NA	AJ31-03	AJ31-01	ICJ037W	NA	NA
LCS1W	ICJ037WL	2.07	1	NA	0.100	0.0500	10/24/1215:34	NA	AJ31-04	AJ31-01	ICJ037W	NA	NA
LCD1W	ICJ037WC	2.07	1	NA	0.100	0.0500	10/24/1215:51	NA	AJ31-05	AJ31-01	ICJ037W	NA	NA
10-23-12 PWB-3	J162-09	ND	1	NA	0.100	0.0500	10/24/1216:43	NA	AJ31-08	AJ31-01	ICJ037W	10/23/1209:57	10/24/12
10-23-12 AMW-3R	J162-08	ND	1	NA	0.100	0.0500	10/24/1217:00	NA	AJ31-09	AJ31-01	ICJ037W	10/23/1209:36	10/24/12
10-23-12 AMW-3RDUP	J162-08D	ND	1	NA	0.100	0.0500	10/24/1217:17	NA	AJ31-10	AJ31-01	ICJ037W	10/23/1209:36	10/24/12
10-23-12 AMW-3RMS	J162-08M	2.00	1	NA	0.100	0.0500	10/24/1217:34	NA	AJ31-11	AJ31-01	ICJ037W	10/23/1209:36	10/24/12
10-23-12 AMW-3RMSD	J162-08S	1.97	1	NA	0.100	0.0500	10/24/1217:51	NA	AJ31-12	AJ31-01	ICJ037W	10/23/1209:36	10/24/12
10-23-12 PWB-1	J162-07	ND	1	NA	0.100	0.0500	10/24/1218:43	NA	AJ31-15	AJ31-13	ICJ037W	10/23/1210:50	10/24/12
10-23-12 PWB-10	J162-10	ND	1	NA	0.100	0.0500	10/24/1219:00	NA	AJ31-16	AJ31-13	ICJ037W	10/23/1211:50	10/24/12
LCS2W	ICJ039WL	2.07	1	NA	0.100	0.0500	10/24/1223:34	NA	AJ31-32	AJ31-25	ICJ039W	NA	NA
LCD2W	ICJ039WC	2.08	1	NA	0.100	0.0500	10/24/1223:51	NA	AJ31-33	AJ31-25	ICJ039W	NA	NA
MBLK2W	ICJ039WB	ND	1	NA	0.100	0.0500	10/25/1200:09	NA	AJ31-34	AJ31-25	ICJ039W	NA	NA
10-23-12 PWB-6	J162-05	ND	1	NA	0.100	0.0500	10/25/1202:09	NA	AJ31-41	AJ31-37	ICJ039W	10/23/1211:32	10/24/12
10-23-12 AR-1	J162-06	ND	1	NA	0.100	0.0500	10/25/1202:26	NA	AJ31-42	AJ31-37	ICJ039W	10/23/1212:16	10/24/12
10-24-12 BBW-1	J162-01	ND	1	NA	0.100	0.0500	10/25/1205:17	NA	AJ31-52	AJ31-49	ICJ039W	10/24/1208:25	10/24/12
10-24-12 BBW-2	J162-02	ND	1	NA	0.100	0.0500	10/25/1205:35	NA	AJ31-53	AJ31-49	ICJ039W	10/24/1209:35	10/24/12
10-24-12 BBW-3	J162-03	ND	1	NA	0.100	0.0500	10/25/1205:52	NA	AJ31-54	AJ31-49	ICJ039W	10/24/1210:50	10/24/12
10-24-12 FDUP-1	J162-04	ND	1	NA	0.100	0.0500	10/25/1206:09	NA	AJ31-55	AJ31-49	ICJ039W	10/24/1200:00	10/24/12

METHOD 300.0
SULFATE

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J162

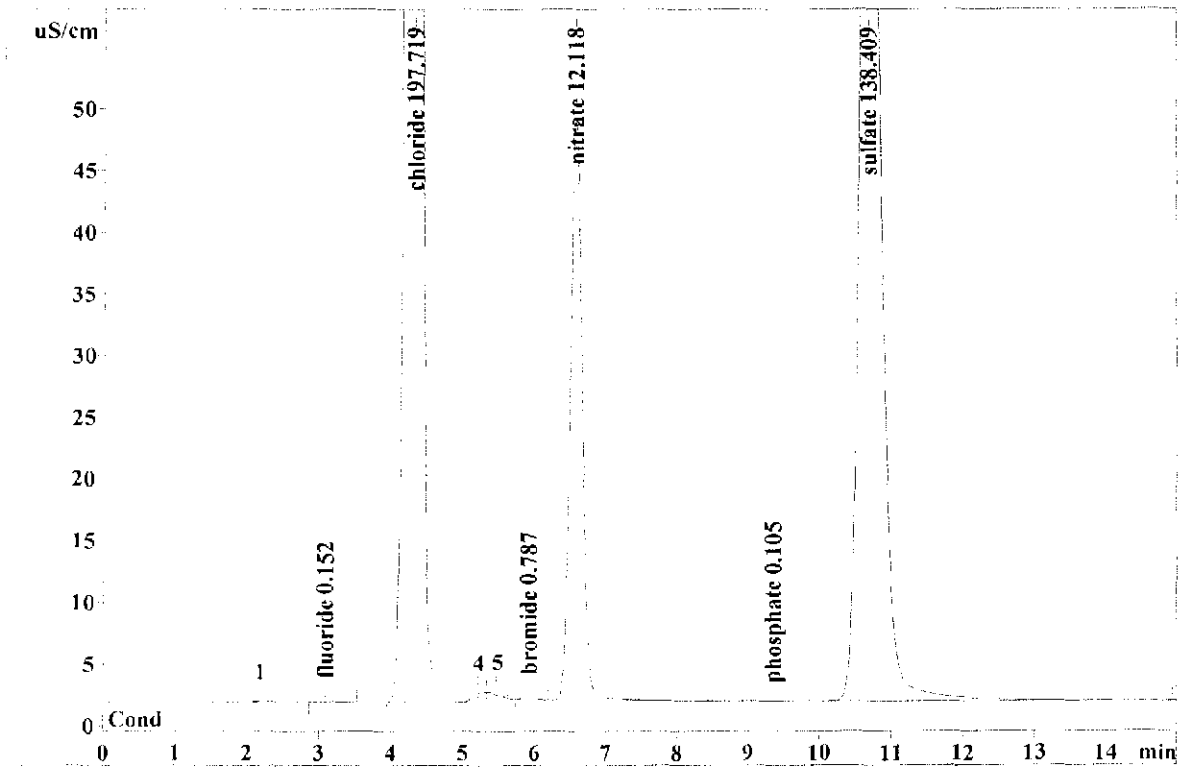
Matrix : WATER
Instrument ID : DO

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICJ037WB	ND	1	NA	0.500	0.250	10/24/1215:17	NA	AJ31-03	AJ31-01	ICJ037W	NA	NA
LCS1W	ICJ037WL	4.89	1	NA	0.500	0.250	10/24/1215:34	NA	AJ31-04	AJ31-01	ICJ037W	NA	NA
LCD1W	ICJ037WC	4.89	1	NA	0.500	0.250	10/24/1215:51	NA	AJ31-05	AJ31-01	ICJ037W	NA	NA
10-23-12 PWB-6	J162-05I	136	10	NA	5.00	2.50	10/24/1219:17	NA	AJ31-17	AJ31-13	ICJ037W	10/23/1211:32	10/24/12
10-23-12 AR-1	J162-06I	232	20	NA	10.0	5.00	10/24/1219:34	NA	AJ31-18	AJ31-13	ICJ037W	10/23/1212:16	10/24/12
10-23-12 PWB-3	J162-09I	85.3	20	NA	10.0	5.00	10/24/1222:43	NA	AJ31-29	AJ31-25	ICJ037W	10/23/1209:57	10/24/12
10-23-12 PWB-1	J162-07I	162	20	NA	10.0	5.00	10/24/1223:00	NA	AJ31-30	AJ31-25	ICJ037W	10/23/1210:50	10/24/12
10-23-12 PWB-10	J162-10I	146	20	NA	10.0	5.00	10/24/1223:17	NA	AJ31-31	AJ31-25	ICJ037W	10/23/1211:50	10/24/12
LCS2W	ICJ039WL	4.91	1	NA	0.500	0.250	10/24/1223:34	NA	AJ31-32	AJ31-25	ICJ039W	NA	NA
LCD2W	ICJ039WC	4.91	1	NA	0.500	0.250	10/24/1223:51	NA	AJ31-33	AJ31-25	ICJ039W	NA	NA
MBLK2W	ICJ039WB	ND	1	NA	0.500	0.250	10/25/1200:09	NA	AJ31-34	AJ31-25	ICJ039W	NA	NA
10-23-12 AMW-3R	J162-08I	187	20	NA	10.0	5.00	10/25/1200:26	NA	AJ31-35	AJ31-25	ICJ039W	10/23/1209:36	10/24/12
10-23-12 AMW-3RDUP	J162-08D	187	20	NA	10.0	5.00	10/25/1200:43	NA	AJ31-36	AJ31-25	ICJ039W	10/23/1209:36	10/24/12
10-23-12 AMW-3RMS	J162-08M	288	20	NA	10.0	5.00	10/25/1201:34	NA	AJ31-39	AJ31-37	ICJ039W	10/23/1209:36	10/24/12
10-23-12 AMW-3RMSD	J162-08S	289	20	NA	10.0	5.00	10/25/1201:52	NA	AJ31-40	AJ31-37	ICJ039W	10/23/1209:36	10/24/12
10-24-12 BBW-1	J162-01I	73.0	20	NA	10.0	5.00	10/25/1206:26	NA	AJ31-56	AJ31-49	ICJ039W	10/24/1208:25	10/24/12
10-24-12 BBW-2	J162-02I	152	20	NA	10.0	5.00	10/25/1206:43	NA	AJ31-57	AJ31-49	ICJ039W	10/24/1209:35	10/24/12
10-24-12 BBW-3	J162-03I	183	20	NA	10.0	5.00	10/25/1207:00	NA	AJ31-58	AJ31-49	ICJ039W	10/24/1210:50	10/24/12
10-24-12 FDUP-1	J162-04I	181	20	NA	10.0	5.00	10/25/1207:17	NA	AJ31-59	AJ31-49	ICJ039W	10/24/1200:00	10/24/12

Report date: 10/25/2012 9:29:15 AM
Printed by: Jadelyn Chun

Ident: AJ31-41 J162-05
Analysis from: 10/25/2012 2:09:10 AM
File: wa250209.chw Last save: 10/25/2012 9:27:47 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83079

SAMPLE:
:
Vial number: 41
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.19	0.01	0.095	0.000	
2	3.09	0.47	4.225	0.152	fluoride
3	4.33	311.93	3565.258	197.719	chloride
4	5.21	0.26	2.476	0.000	
5	5.48	0.25	2.243	0.000	
6	5.92	0.57	5.635	0.787	bromide
7	6.57	47.32	549.388	12.118	nitrate
8	9.34	0.04	0.696	0.105	phosphate
9	10.68	95.45	1834.073	138.409	sulfate
9	15.00	456.30	5964.090	349.290	

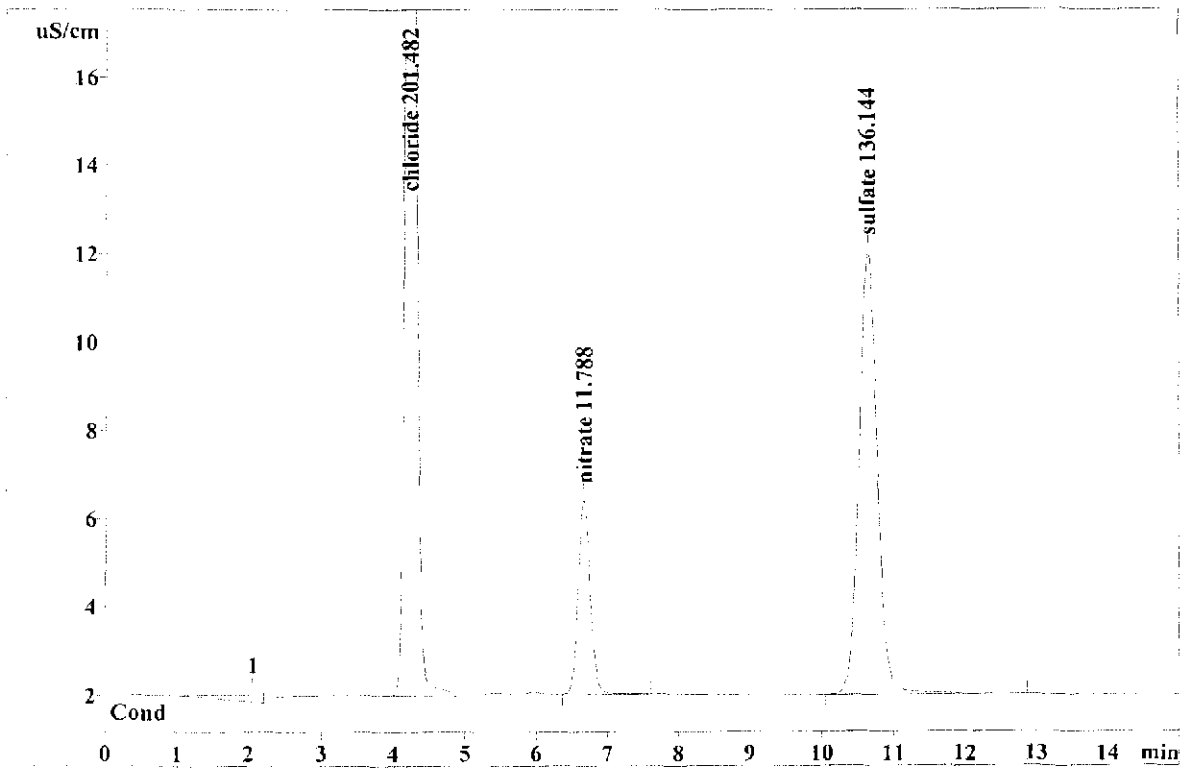
NO_3N ✓

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:28:25 AM
Printed by: Jadelyn Chun

Ident: AJ31-17 J162-05I DF=10
Analysis from: 10/24/2012 7:17:29 PM
File: wa241917.chw Last save: 10/24/2012 7:32:26 PM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83055

SAMPLE:
:
Vial number: 17
Volume: 1.0 µL
Dilution: 10.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.06	0.15	5.548	0.000	
2	4.23	43.45	362.431	201.482	chloride
3	6.66	4.38	51.946	11.788	nitrate
4	10.64	10.02	179.600	136.144	sulfate
4	15.00	58.00	599.526	349.415	

This report has been created by IC Net
METROHM LTD

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICJ037WB	ICJ037WL	ICJ037WC		
LAB FILE ID:	AJ31-03	AJ31-04	AJ31-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/24/1215:17	10/24/1215:34	10/24/1215:51	DATE RECEIVED:	NA
PREP. BATCH:	ICJ037W	ICJ037W	ICJ037W		
CALIB. REF:	AJ31-01	AJ31-01	AJ31-01		

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 (%)
Nitrate-N	ND	1	1	100	1	1	100	0	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	ICJ039WB	ICJ039WL	ICJ039WC		
LAB FILE ID:	AJ31-34	AJ31-32	AJ31-33		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/25/1200:09	10/24/1223:34	10/24/1223:51	DATE RECEIVED:	NA
PREP. BATCH:	ICJ039W	ICJ039W	ICJ039W		
CALIB. REF:	AJ31-25	AJ31-25	AJ31-25		

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 (%)
Nitrate-N	ND	1	1.01	101	1	1.01	101	0	90-110	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	20	20	20		
SAMPLE ID:	10-23-12 AMW-3R				
LAB SAMP ID:	J162-08I	J162-08M	J162-08S		
LAB FILE ID:	AJ31-35	AJ31-39	AJ31-40		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	10/23/12 09:36
DATE ANALYZED:	10/25/1200:26	10/25/1201:34	10/25/1201:52	DATE RECEIVED:	10/24/12
PREP. BATCH:	ICJ039W	ICJ039W	ICJ039W		
CALIB. REF:	AJ31-25	AJ31-37	AJ31-37		

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 (%)
Nitrate-N	29.2	20	50.2	105	20	50.2	105	0	80-120	20

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 300.0

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	20	20		
SAMPLE ID:	10-23-12 AMW-3R			
EMAX SAMP ID:	J162-08I	J162-08D		
LAB FILE ID:	AJ31-35	AJ31-36		
DATE EXTRACTED:	NA	NA	DATE COLLECTED:	10/23/12 09:36
DATE ANALYZED:	10/25/1200:26	10/25/1200:43	DATE RECEIVED:	10/24/12
PREP. BATCH:	ICJ039W	ICJ039W		
CALIB. REF:	AJ31-25	AJ31-25		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	DUPL RSLT (mg/L)	RPD RSLT %	QC LIMIT (%)
Nitrate-N	29.2	29.4	0	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICJ037WB	ICJ037WL	ICJ037WC		
LAB FILE ID:	AJ31-03	AJ31-04	AJ31-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/24/1215:17	10/24/1215:34	10/24/1215:51	DATE RECEIVED:	NA
PREP. BATCH:	ICJ037W	ICJ037W	ICJ037W		
CALIB. REF:	AJ31-01	AJ31-01	AJ31-01		

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 (%)
Nitrite-N	ND	2	2.07	104	2	2.07	104	0	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	ICJ039WB	ICJ039WL	ICJ039WC		
LAB FILE ID:	AJ31-34	AJ31-32	AJ31-33		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/25/1200:09	10/24/1223:34	10/24/1223:51	DATE RECEIVED:	NA
PREP. BATCH:	ICJ039W	ICJ039W	ICJ039W		
CALIB. REF:	AJ31-25	AJ31-25	AJ31-25		

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 (%)
Nitrite-N	ND	2	2.07	104	2	2.08	104	0	90-110	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	10-23-12 AMW-3R				
LAB SAMP ID:	J162-08	J162-08M	J162-08S		
LAB FILE ID:	AJ31-09	AJ31-11	AJ31-12		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	10/23/12 09:36
DATE ANALYZED:	10/24/1217:00	10/24/1217:34	10/24/1217:51	DATE RECEIVED:	10/24/12
PREP. BATCH:	ICJ037W	ICJ037W	ICJ037W		
CALIB. REF:	AJ31-01	AJ31-01	AJ31-01		

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 (%)
Nitrite-N	ND	2	2	100	2	1.97	99	1	80-120	20

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 300.0

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	10-23-12 AMW-3R			
EMAX SAMP ID:	J162-08	J162-08D		
LAB FILE ID:	AJ31-09	AJ31-10		
DATE EXTRACTED:	NA	NA	DATE COLLECTED:	10/23/12 09:36
DATE ANALYZED:	10/24/1217:00	10/24/1217:17	DATE RECEIVED:	10/24/12
PREP. BATCH:	ICJ037W	ICJ037W		
CALIB. REF:	AJ31-01	AJ31-01		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	DUPL RSLT (mg/L)	RPD RSLT %	QC LIMIT (%)
Nitrite-N	ND	ND	NA	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICJ037WB	ICJ037WL	ICJ037WC		
LAB FILE ID:	AJ31-03	AJ31-04	AJ31-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/24/1215:17	10/24/1215:34	10/24/1215:51	DATE RECEIVED:	NA
PREP. BATCH:	ICJ037W	ICJ037W	ICJ037W		
CALIB. REF:	AJ31-01	AJ31-01	AJ31-01		

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 (%)
Sulfate	ND	5	4.89	98	5	4.89	98	0	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	ICJ039WB	ICJ039WL	ICJ039WC		
LAB FILE ID:	AJ31-34	AJ31-32	AJ31-33		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/25/1200:09	10/24/1223:34	10/24/1223:51	DATE RECEIVED:	NA
PREP. BATCH:	ICJ039W	ICJ039W	ICJ039W		
CALIB. REF:	AJ31-25	AJ31-25	AJ31-25		

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 (%)
Sulfate	ND	5	4.91	98	5	4.91	98	0	90-110	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	20	20	20		
SAMPLE ID:	10-23-12 AMW-3R				
LAB SAMP ID:	J162-08I	J162-08M	J162-08S		
LAB FILE ID:	AJ31-35	AJ31-39	AJ31-40		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	10/23/12 09:36
DATE ANALYZED:	10/25/1200:26	10/25/1201:34	10/25/1201:52	DATE RECEIVED:	10/24/12
PREP. BATCH:	ICJ039W	ICJ039W	ICJ039W		
CALIB. REF:	AJ31-25	AJ31-37	AJ31-37		

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 (%)
Sulfate	187	100	288	101	100	289	102	0	80-120	20

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 300.0

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	20	20		
SAMPLE ID:	10-23-12 AMW-3R			
EMAX SAMP ID:	J162-08I	J162-08D		
LAB FILE ID:	AJ31-35	AJ31-36		
DATE EXTRACTED:	NA	NA	DATE COLLECTED:	10/23/12 09:36
DATE ANALYZED:	10/25/1200:26	10/25/1200:43	DATE RECEIVED:	10/24/12
PREP. BATCH:	ICJ039W	ICJ039W		
CALIB. REF:	AJ31-25	AJ31-25		

ACCESSION:

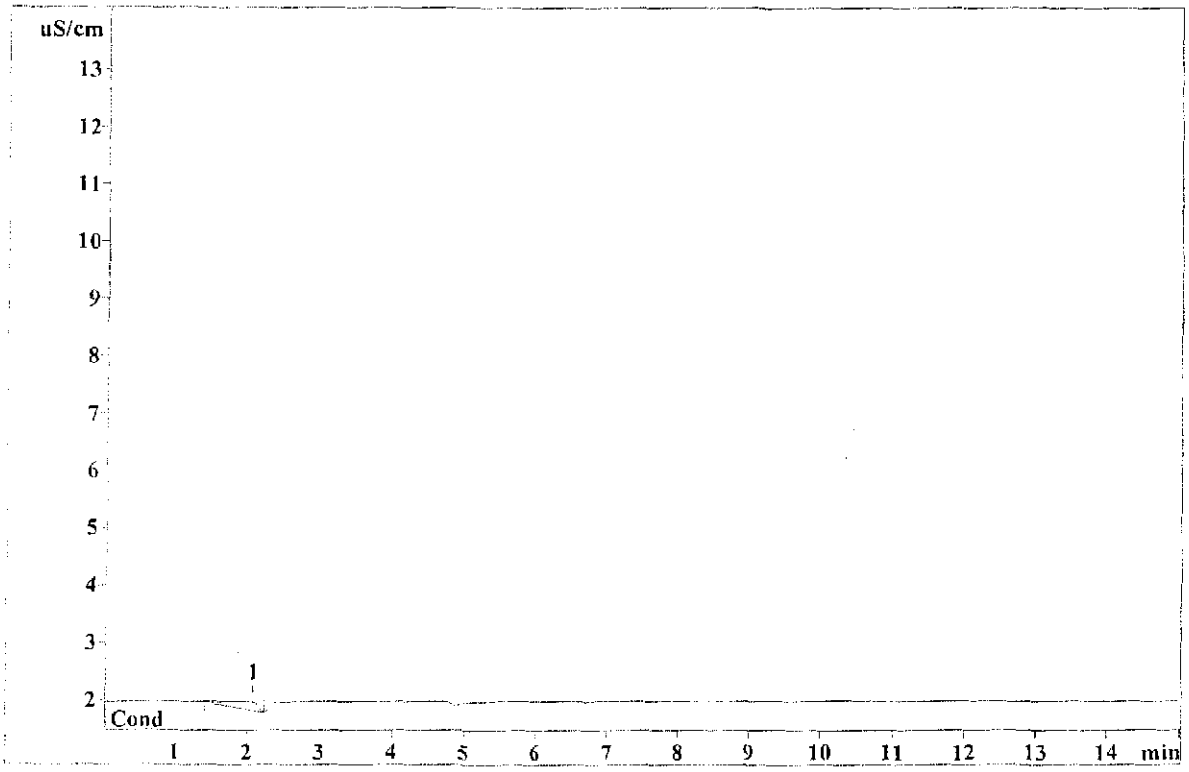
PARAMETER	SMPL RSLT (mg/L)	DUPL RSLT (mg/L)	RPD RSLT %	QC LIMIT (%)
Sulfate	187	187	0	20

QC DATA

Report date: 10/25/2012 9:10:52 AM
Printed by: Jadelyn Chun

Ident: AJ31-03 ICJ037WB
Analysis from: 10/24/2012 3:17:14 PM
File: wa241517.chw Last save: 10/24/2012 3:32:11 PM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83041

SAMPLE:
:
Vial number: 3
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.15	3.980	0.000	

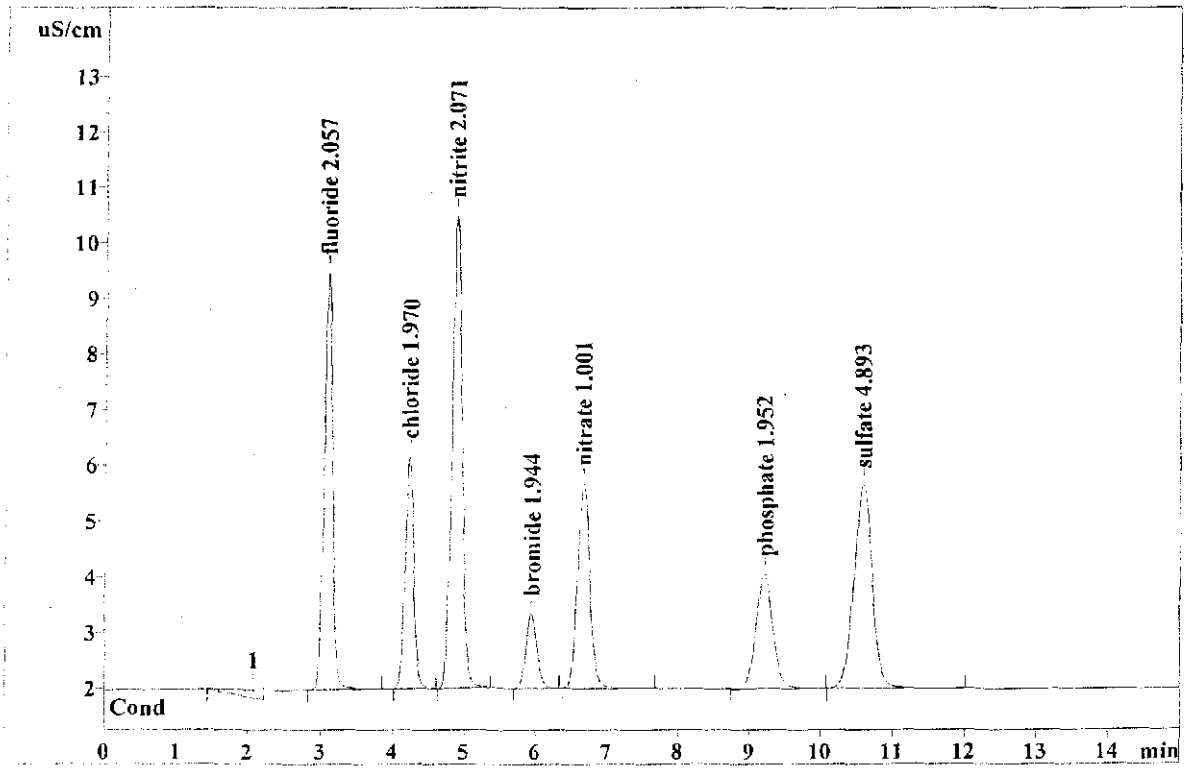
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 3:49:20 PM
Printed by: Jadelyn Chun

Ident: AJ31-04 ICJ037WL
Analysis from: 10/24/2012 3:34:23 PM
File: WA241534.CHW Last save: 10/24/2012 3:49:20 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83042

SAMPLE:
:
Vial number: 4
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	3.475	0.000	
2	3.09	7.49	60.077	2.057	fluoride
3	4.22	4.17	34.553	1.970	chloride
4	4.88	8.49	83.030	2.071	nitrite
5	5.95	1.33	14.258	1.944	bromide
6	6.67	3.68	43.849	1.001	nitrate
7	9.21	2.05	34.002	1.952	phosphate
8	10.59	3.64	63.981	4.893	sulfate
8	15.00	30.99	337.226	15.889	

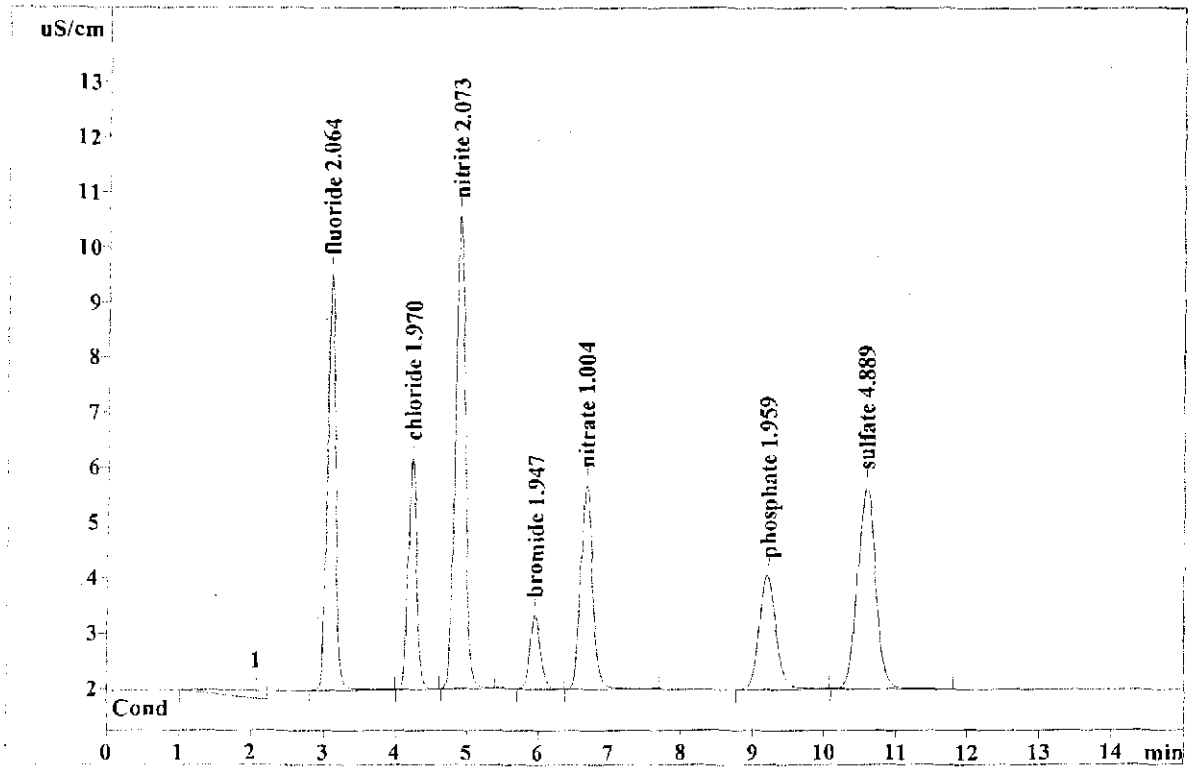
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 4:06:29 PM
Printed by: Jadelyn Chun

Ident: AJ31-05 ICJ037WC
Analysis from: 10/24/2012 3:51:32 PM
File: WA241551.CHW Last save: 10/24/2012 4:06:29 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83043

SAMPLE:
:
Vial number: 5
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

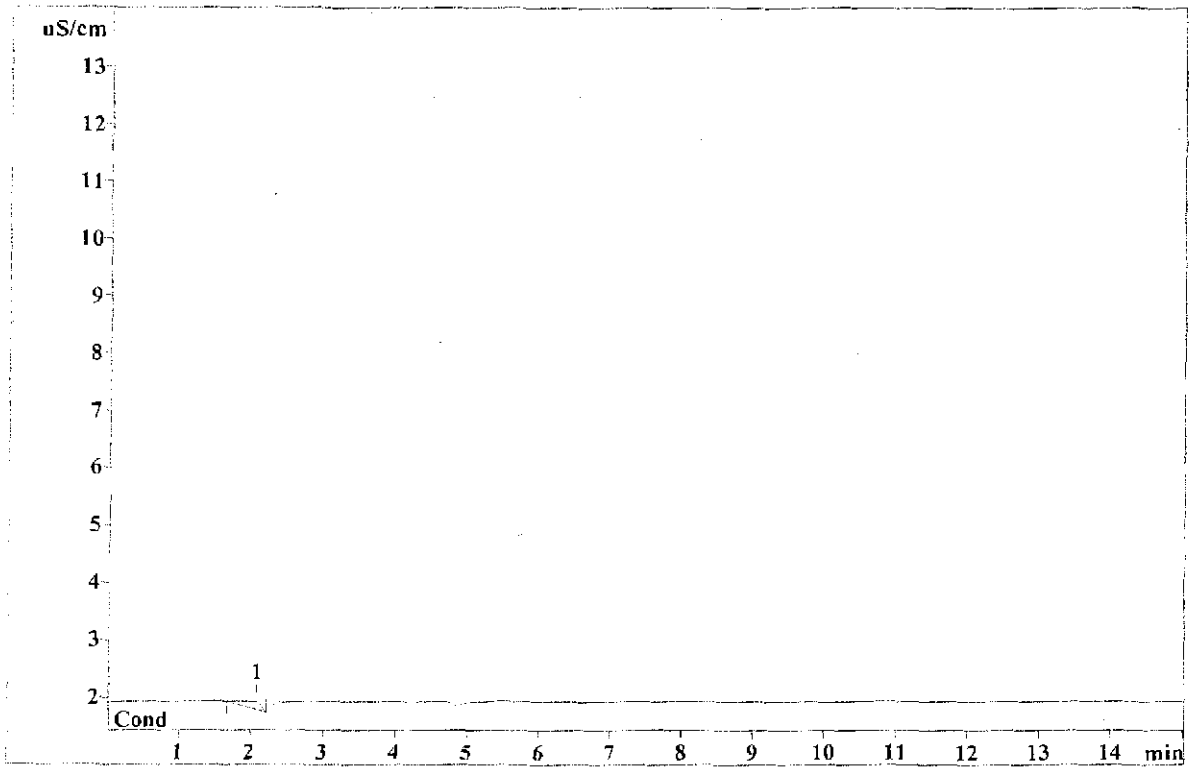
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.06	0.15	5.873	0.000	
2	3.09	7.55	60.256	2.064	fluoride
3	4.22	4.19	34.547	1.970	chloride
4	4.88	8.56	83.106	2.073	nitrite
5	5.95	1.33	14.284	1.947	bromide
6	6.67	3.69	43.985	1.004	nitrate
7	9.21	2.06	34.121	1.959	phosphate
8	10.59	3.64	63.923	4.889	sulfate
8	15.00	31.17	340.095	15.906	

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:14:02 AM
Printed by: Jadelyn Chun

Ident: AJ31-34 ICJ039WB
Analysis from: 10/25/2012 12:09:05 AM
File: wa250009.chw Last save: 10/25/2012 12:24:01 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83072

SAMPLE:
:
Vial number: 34
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.09	0.14	2.471	0.000	

This report has been created by IC Net
METROHM LTD

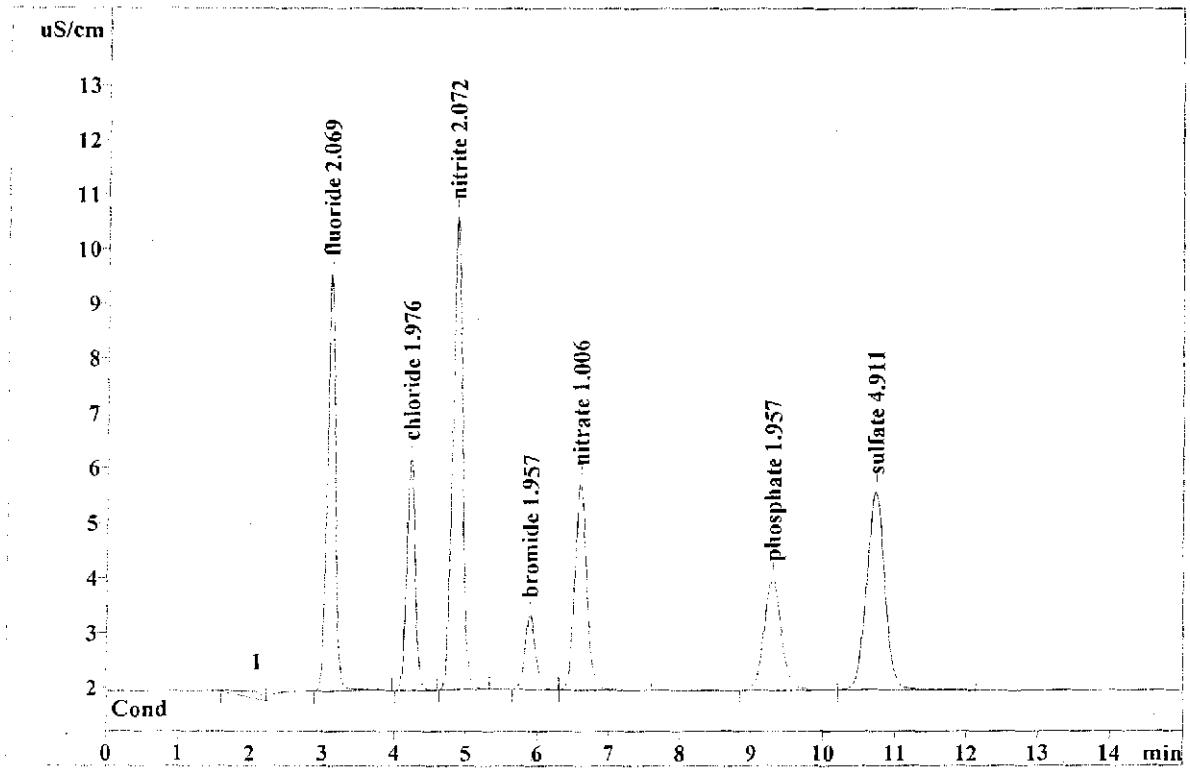
Report date: 10/24/2012 11:49:43 PM
Printed by: Jadelyn Chun

Ident: AJ31-32 ICJ039WL
Analysis from: 10/24/2012 11:34:46 PM
File: WA242334.CHW Last save: 10/24/2012 11:49:43 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83070

SAMPLE:

Vial number: 32
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	2.714	0.000	
2	3.09	7.61	60.423	2.069	fluoride
3	4.21	4.23	34.656	1.976	chloride
4	4.85	8.62	83.046	2.072	nitrite
5	5.89	1.36	14.355	1.957	bromide
6	6.58	3.77	44.092	1.006	nitrate
7	9.28	2.04	34.093	1.957	phosphate
8	10.72	3.61	64.212	4.911	sulfate
8	15.00	31.38	337.591	15.948	

This report has been created by IC Net
METROHM LTD

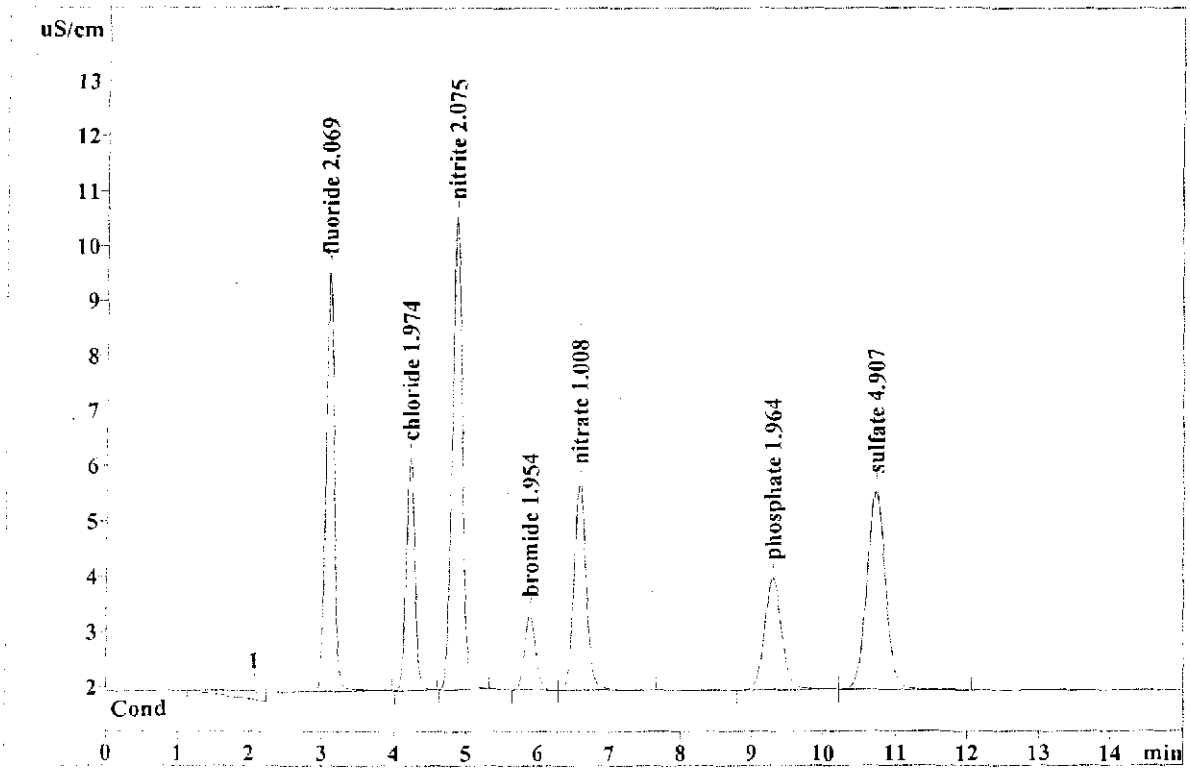
Report date: 10/25/2012 12:06:52 AM
Printed by: Jadelyn Chun

Ident: AJ31-33 ICJ039WC
Analysis from: 10/24/2012 11:51:55 PM
File: WA242351.CHW Last save: 10/25/2012 12:06:52 AM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83071

SAMPLE:

Vial number: 33
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

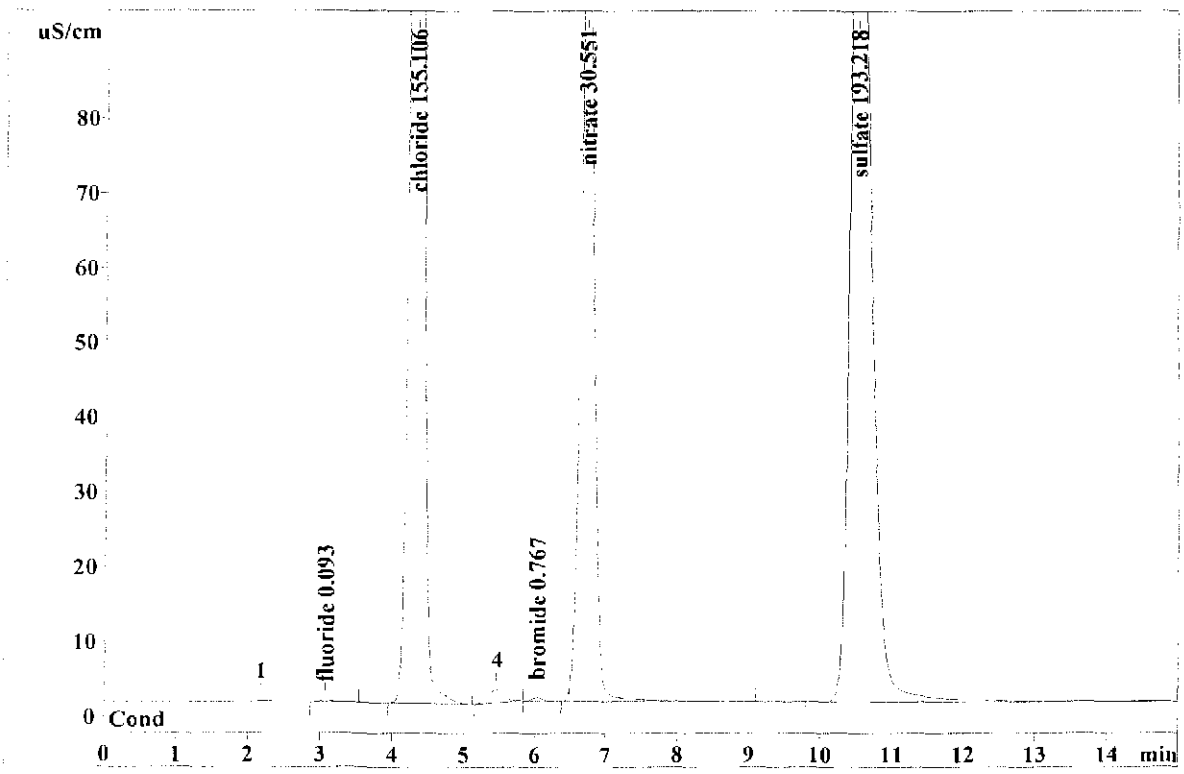
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.15	5.262	0.000	
2	3.10	7.59	60.401	2.069	fluoride
3	4.21	4.21	34.628	1.974	chloride
4	4.85	8.58	83.198	2.075	nitrite
5	5.89	1.36	14.337	1.954	bromide
6	6.58	3.76	44.156	1.008	nitrate
7	9.29	2.04	34.218	1.964	phosphate
8	10.73	3.59	64.163	4.907	sulfate
8	15.00	31.27	340.364	15.952	

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:39:05 AM
Printed by: Jadelyn Chun

Ident: AJ31-09 J162-08
Analysis from: 10/24/2012 5:00:13 PM
File: wa241700.chw Last save: 10/24/2012 5:15:10 PM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83047

SAMPLE:
:
Vial number: 9
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.18	0.11	0.816	0.000	
2	3.07	0.25	2.499	0.093	fluoride
3	4.33	257.42	2796.650	155.106	chloride
4	5.45	1.74	26.486	0.000	
5	6.03	0.53	5.481	0.767	bromide
6	6.72	108.79	1387.635	30.551	nitrate
7	10.53	132.87	2560.705	193.218	sulfate
7	15.00	501.71	6780.271	379.734	

NO_{2N} ✓

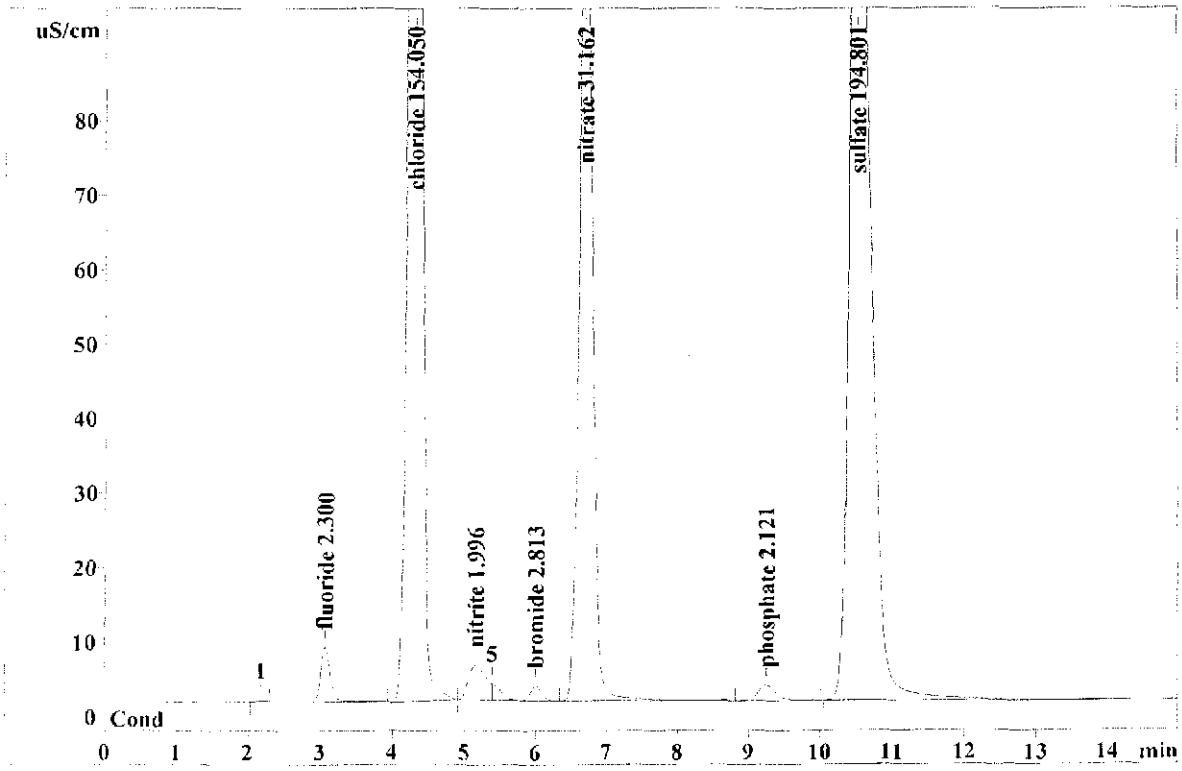
This report has been created by IC Net
METROHM LTD

8628

Report date: 10/25/2012 9:43:15 AM
Printed by: Jadelyn Chun

Ident: AJ31-11 J162-08M
Analysis from: 10/24/2012 5:34:35 PM
File: wa241734.chw Last save: 10/25/2012 9:41:27 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83049

SAMPLE:
:
Vial number: 11
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: *Custom*

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.17	0.11	0.888	0.000	
2	3.07	7.35	67.195	2.300	fluoride
3	4.32	258.43	2777.601	154.050	chloride
4	5.16	4.74	79.991	1.996	nitrite ✓
5	5.39	2.17	17.493	0.000	
6	6.01	2.01	20.735	2.813	bromide
7	6.71	110.86	1415.420	31.162	nitrate
8	9.25	2.11	37.042	2.121	phosphate
9	10.53	134.10	2581.685	194.801	sulfate
9	15.00	521.88	6998.050	389.242	

☐ Incorrect Retention Time
☐ Incorrect Baseline
☑ Incorrect Integration
☐ Other
Initials JC
Date 10/25/12

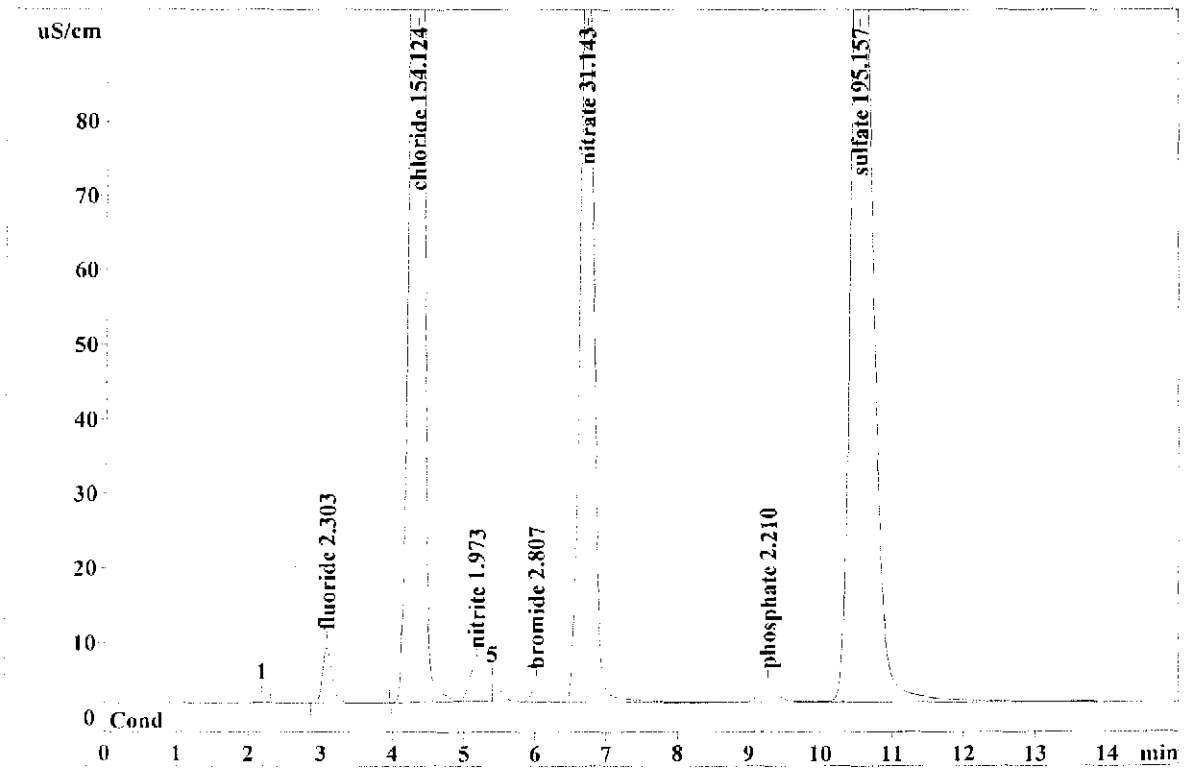
This report has been created by IC Net
METROHM LTD

8629

Report date: 10/25/2012 9:43:55 AM
Printed by: Jadelyn Chun

Ident: AJ31-12 J162-08S
Analysis from: 10/24/2012 5:51:44 PM
File: wa241751.chw Last save: 10/24/2012 6:06:41 PM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83050

SAMPLE:
:
Vial number: 12
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.18	0.11	0.849	0.000	
2	3.08	7.34	67.260	2.303	fluoride
3	4.33	258.20	2778.943	154.124	chloride
4	5.17	4.74	79.094	1.973	nitrite
5	5.39	2.25	18.464	0.000	
6	6.01	2.01	20.692	2.807	bromide
7	6.72	110.60	1414.576	31.143	nitrate
8	9.26	2.12	38.645	2.210	phosphate
9	10.54	133.84	2586.403	195.157	sulfate
9	15.00	521.20	7004.926	389.716	

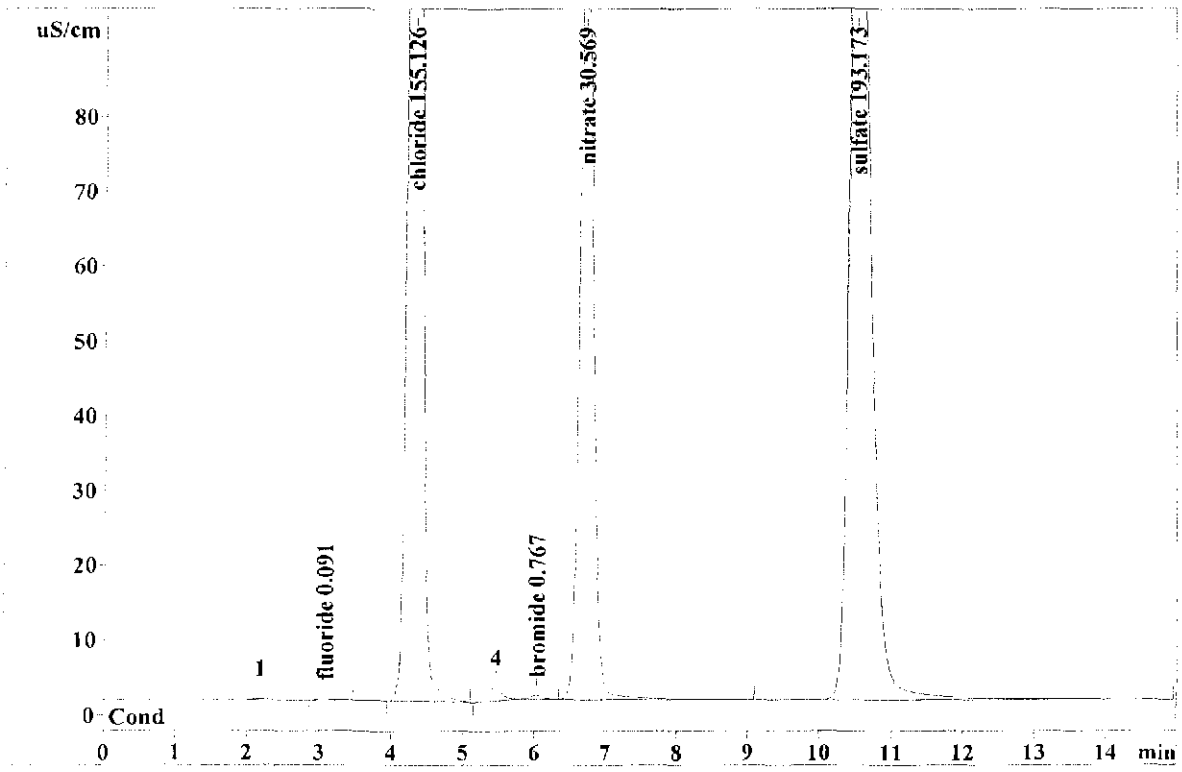
☐ Incorrect Retention Time
☐ Incorrect Baseline
☑ Incorrect Integration
☐ Other
Initials JS
Date 10/25/12

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:39:25 AM
Printed by: Jadelyn Chun

Ident: AJ31-10 J162-08D
Analysis from: 10/24/2012 5:17:25 PM
File: wa241717.chw Last save: 10/24/2012 5:32:22 PM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83048

SAMPLE:
:
Vial number: 10
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.18	0.10	0.808	0.000	
2	3.07	0.25	2.440	0.091	fluoride
3	4.33	257.25	2797.006	155.126	chloride
4	5.45	1.78	26.559	0.000	
5	6.03	0.53	5.486	0.767	bromide
6	6.72	108.85	1388.447	30.569	nitrate
7	10.53	132.65	2560.107	193.173	sulfate
7	15.00	501.42	6780.853	379.726	

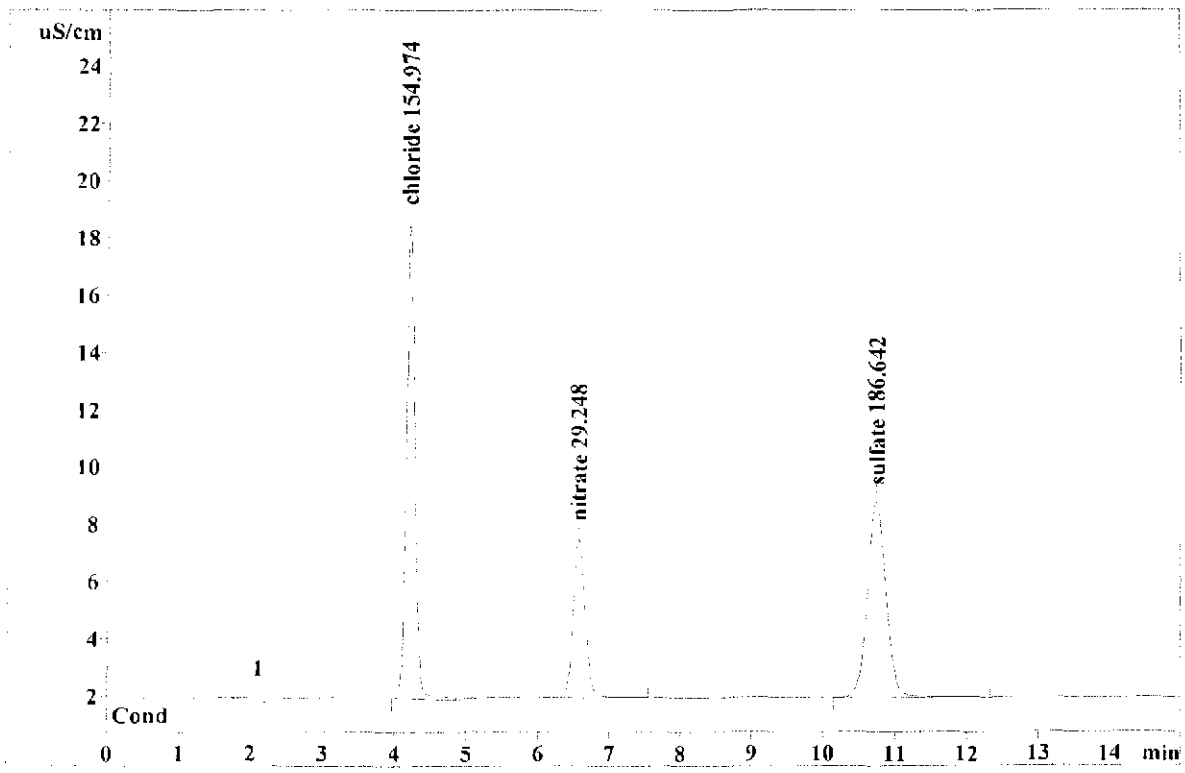
NO2N✓

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:44:59 AM
Printed by: Jadelyn Chun

Ident: AJ31-35 J162-08I DF=20
Analysis from: 10/25/2012 12:26:15 AM
File: wa250026.chw Last save: 10/25/2012 12:41:12 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83073

SAMPLE:
:
Vial number: 35
Volume: 1.0 µL
Dilution: 20.00
Amount: 1.0000



Quantitation method: Custom

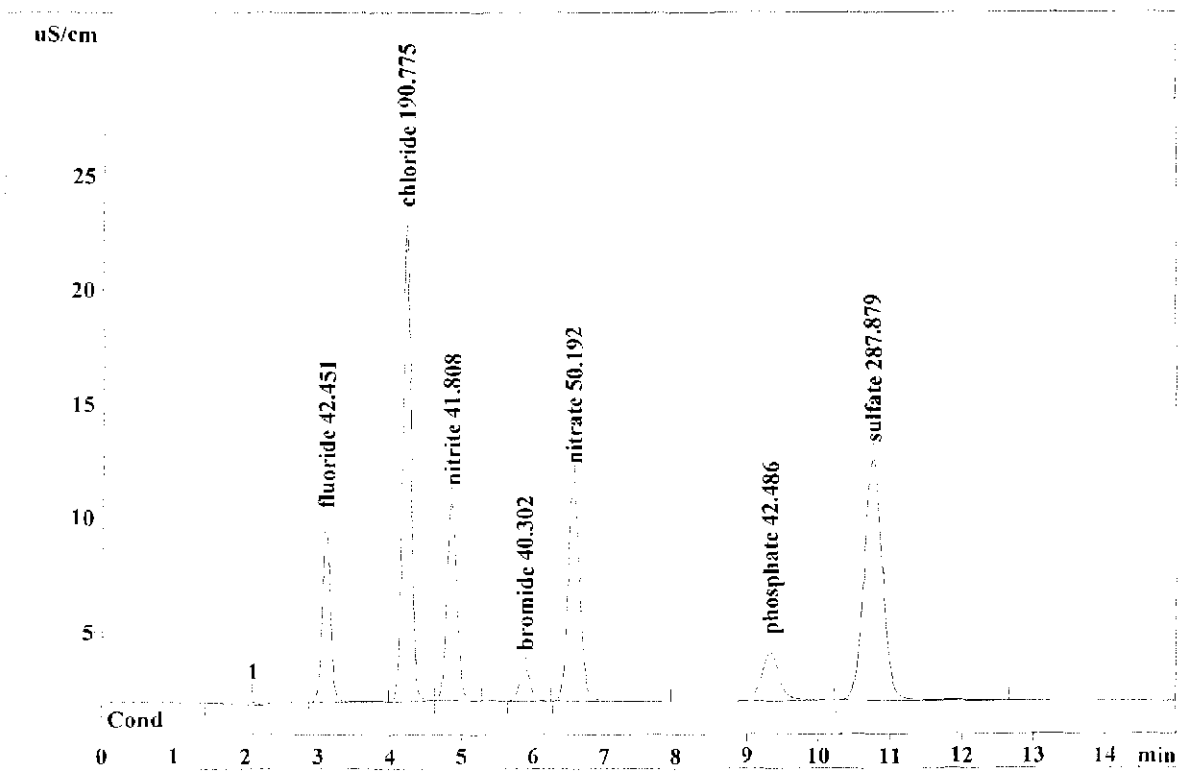
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.09	0.12	1.916	0.000	
2	4.21	16.64	138.782	154.974	chloride
3	6.57	5.57	64.840	29.248	nitrate
4	10.74	6.83	122.828	186.642	sulfate
4	15.00	29.15	328.366	370.864	

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:46:06 AM
Printed by: Jadelyn Chun

Ident: AJ31-39 J162-08M DF=20
Analysis from: 10/25/2012 1:34:51 AM
File: wa250134.chw Last save: 10/25/2012 1:49:48 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83077

SAMPLE:
:
Vial number: 39
Volume: 1.0 µL
Dilution: 20.00
Amount: 1.0000



Quantitation method: Custom

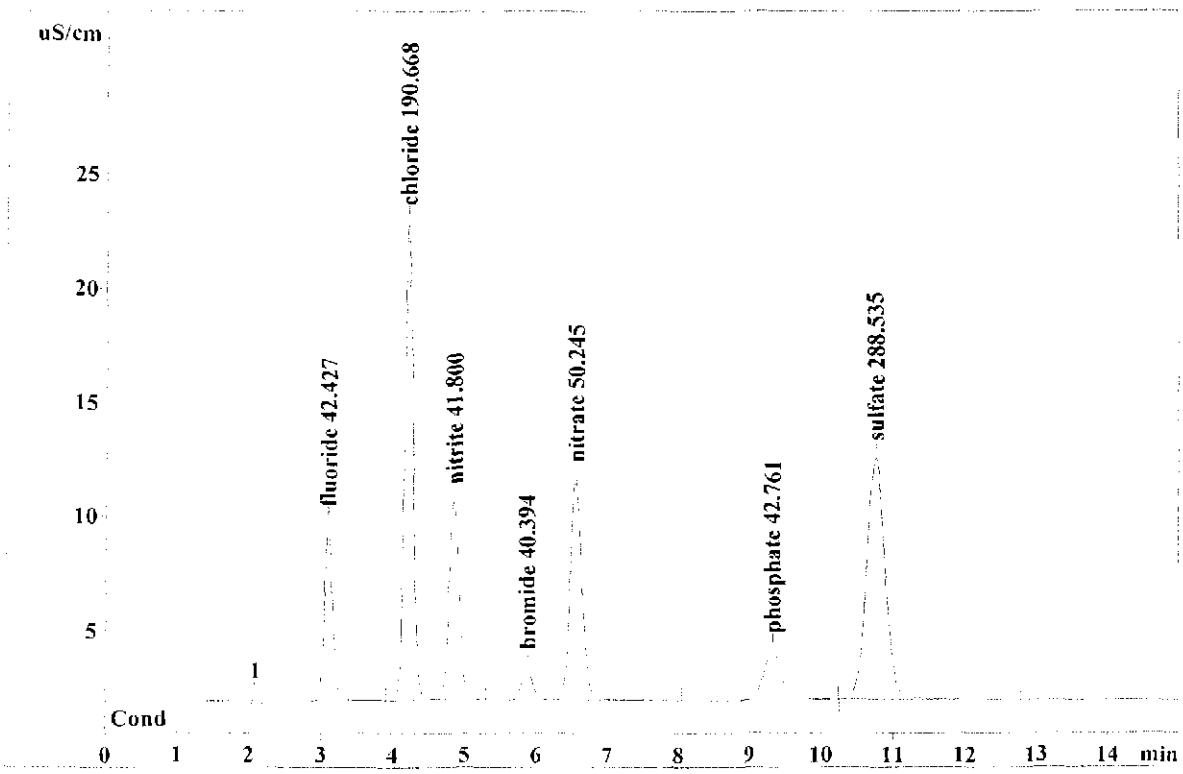
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.12	3.225	0.000	
2	3.10	7.72	61.984	42.451	fluoride
3	4.22	20.91	171.069	190.775	chloride
4	4.85	8.64	83.797	41.808	nitrite
5	5.88	1.42	14.789	40.302	bromide
6	6.55	9.65	112.463	50.192	nitrate
7	9.32	2.12	37.101	42.486	phosphate
8	10.75	10.57	189.935	287.879	sulfate
8	15.00	61.15	674.364	695.893	

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:46:38 AM
Printed by: Jadelyn Chun

Ident: AJ31-40 J162-08S DF=20
Analysis from: 10/25/2012 1:52:00 AM
File: wa250152.chw Last save: 10/25/2012 2:06:57 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83078

SAMPLE:
:
Vial number: 40
Volume: 1.0 µL
Dilution: 20.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	3.282	0.000	
2	3.10	7.70	61.950	42.427	fluoride
3	4.21	20.88	170.973	190.668	chloride
4	4.85	8.62	83.782	41.800	nitrite
5	5.87	1.42	14.824	40.394	bromide
6	6.55	9.66	112.582	50.245	nitrate
7	9.31	2.14	37.349	42.761	phosphate
8	10.76	10.57	190.370	288.535	sulfate
8	15.00	61.11	675.111	696.830	

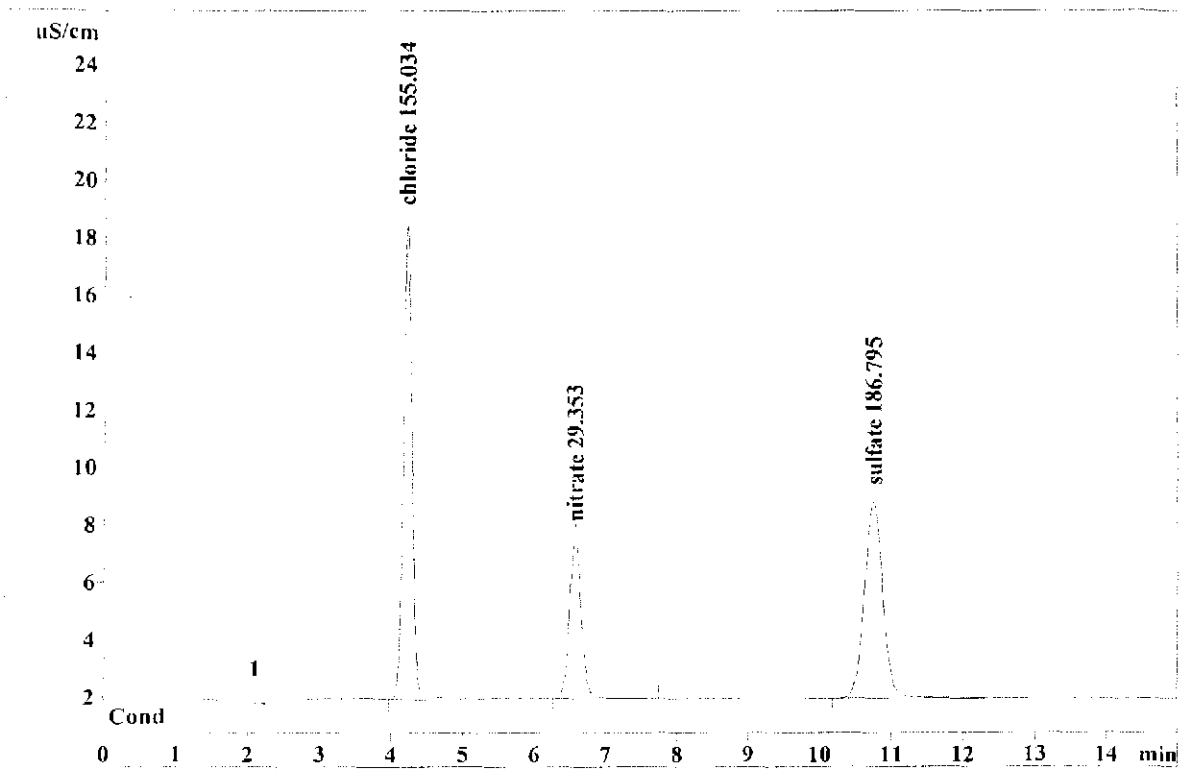
This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:45:27 AM
Printed by: Jadelyn Chun

Ident: AJ31-36 J162-08D DF=20
Analysis from: 10/25/2012 12:43:24 AM
File: wa250043.chw Last save: 10/25/2012 12:58:21 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83074

SAMPLE:

Vial number: 36
Volume: 1.0 µL
Dilution: 20.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.14	3.778	0.000	
2	4.22	16.59	138.836	155.034	chloride
3	6.57	5.56	65.079	29.353	nitrate
4	10.75	6.82	122.929	186.795	sulfate
4	15.00	29.11	330.622	371.182	

This report has been created by IC Net
METROHM LTD

INITIAL CALIBRATION(S)

IC Result Check FormVersion : J23/AJ29(2012)

LFID	LSID	Selection	nitrite	fluoride	chloride	bromide	nitrate	phosphate	sulfate	RawNetID	DF
AJ29-01	IB	IFCBNPS	0	0	0	0	0	0	0	wa241041	1
AJ29-02	S0	IFCBNPS	0	0	0	0	0	0	0	wa241058	1
AJ29-03	S1	IFCBNPS	0.0329725	0.0547602	0.10038	0.0764202	0.0777669	0.105649	0.124282	wa241115	1
AJ29-04	S2	IFCBNPS	0.079829	0.101045	0.144404	0.123128	0.121245	0.142975	0.176245	wa241132	1
AJ29-05	S3	IFCBNPS	0.176216	0.195399	0.240614	0.210634	0.208746	0.224959	0.263737	wa241149	1
AJ29-06	S4	IFCBNPS	0.480514	0.494182	0.508132	0.494586	0.490103	0.484643	0.528509	wa241207	1
AJ29-07	S5	IFCBNPS	0.997189	1.0008	0.980634	0.969565	0.976174	0.940499	0.987607	wa241224	1
AJ29-08	S6	IFCBNPS	2.02578	2.0055	1.94419	1.95204	1.95364	1.90707	1.92803	wa241241	1
AJ29-09	S7	IFCBNPS	5.12583	4.99831	4.92111	5.02363	5.02232	5.04421	4.84749	wa241258	1
AJ29-10	S8	IFCBNPS	9.93166	9.63232	9.97226	10.3392	10.1675	10.4038	9.90628	wa241315	1
AJ29-11	S9	IFCBNPS	18.5771	18.0074	20.0383	21.0431	20.4024	21.096	20.0878	wa241332	1
AJ29-12	ICV	IFCBNPS	101.2%	102.9%	100.5%	97.2%	100.2%	97.9%	99.8%	wa241400	1
AJ29-13	ICB	IFCBNPS	0	0	0	0	0	0	0	wa241417	1

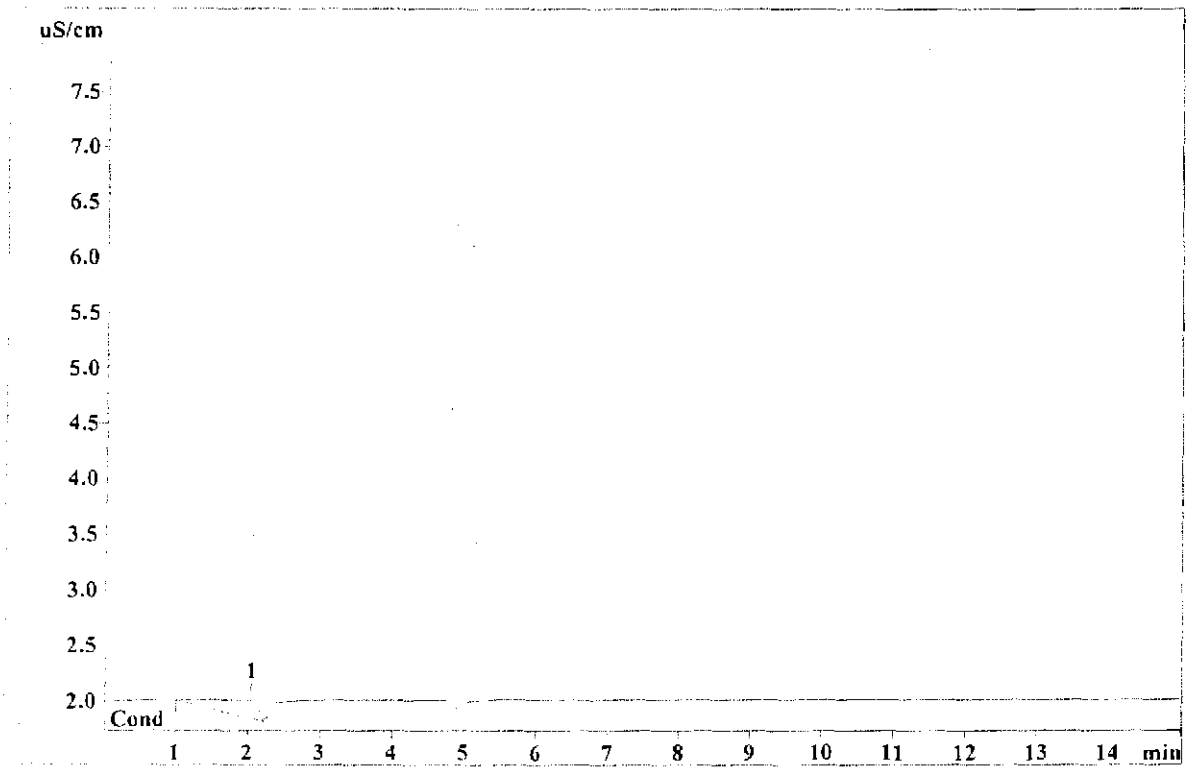
AS 10/25/12

Report date: 10/24/2012 2:37:15 PM
Printed by: Jadelyn Chun

Ident: AJ29-02 S0
Analysis from: 10/24/2012 10:58:21 AM
File: wa241058.chw Last save: 10/24/2012 2:36:20 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83027

SAMPLE:
:
Vial number: 2
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.05	0.15	6.174	0.000	

This report has been created by IC Net
METROHM LTD

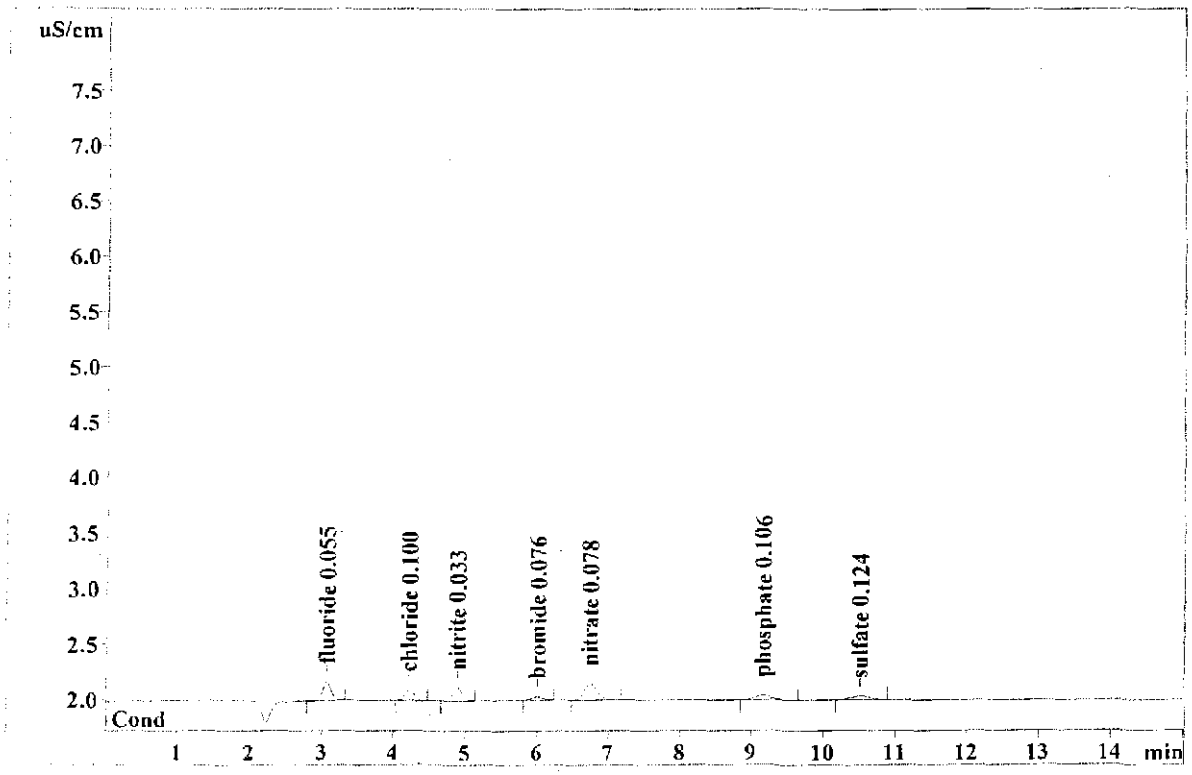
AS
10/25/12

Report date: 10/24/2012 2:37:18 PM
Printed by: Jadelyn Chun

Ident: AJ29-03 S1
Analysis from: 10/24/2012 11:15:30 AM
File: wa241115.chw Last save: 10/24/2012 2:36:20 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83028

SAMPLE: 0.05PPM
:
Vial number: 3
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	3.07	0.17	1.379	0.055	fluoride
2	4.23	0.10	0.830	0.100	chloride
3	4.89	0.12	1.161	0.033	nitrite
4	6.01	0.03	0.334	0.076	bromide
5	6.75	0.15	1.875	0.078	nitrate
6	9.18	0.04	0.701	0.106	phosphate
7	10.52	0.04	0.754	0.124	sulfate
7	15.00	0.64	7.035	0.572	

This report has been created by IC Net
METROHM LTD

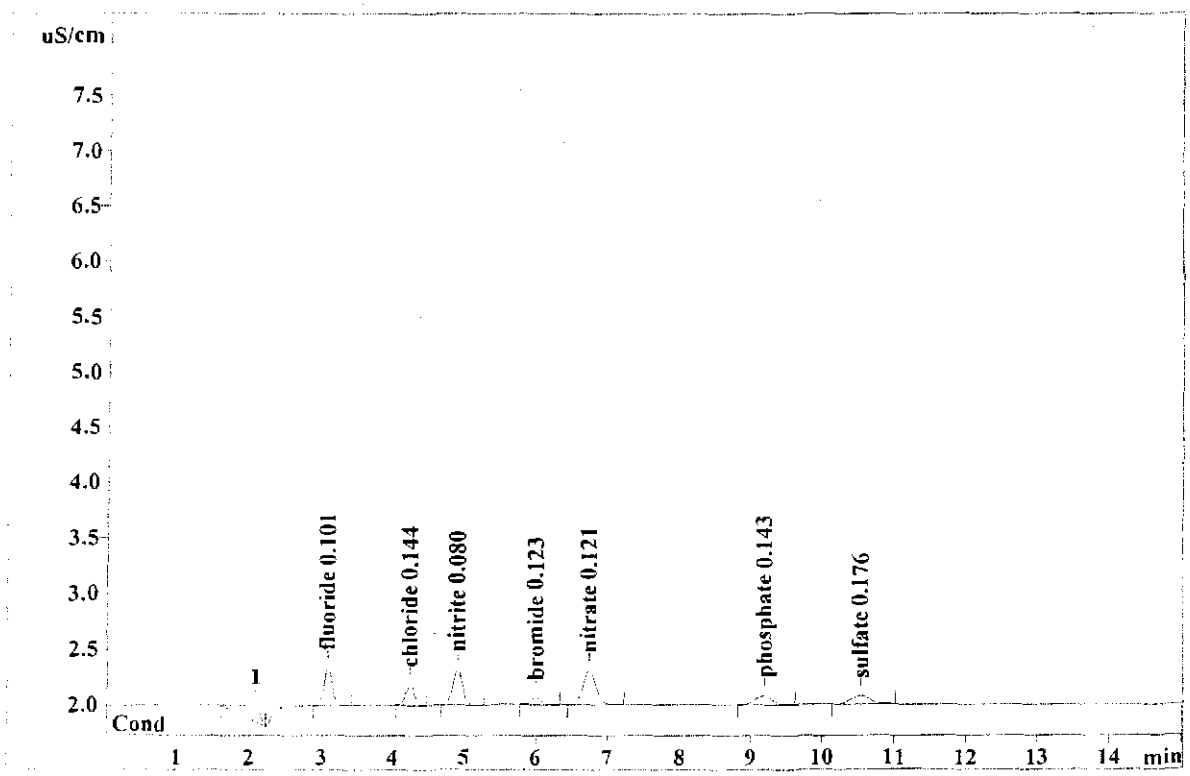
AS 10/26/12

Report date: 10/24/2012 2:37:21 PM
Printed by: Jadelyn Chun

Ident: AJ29-04 S2
Analysis from: 10/24/2012 11:32:40 AM
File: wa241132.chw Last save: 10/24/2012 2:36:20 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83029

SAMPLE: 0.1PPM
:
Vial number: 4
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	2.725	0.000	
2	3.08	0.33	2.736 ✓	0.101 ✓	fluoride
3	4.23	0.19	1.624	0.144	chloride
4	4.89	0.32	3.043 ✓	0.080 ✓	nitrite
5	5.99	0.06	0.683	0.123	bromide
6	6.74	0.31	3.852 ✓	0.121 ✓	nitrate
7	9.18	0.08	1.374	0.143	phosphate
8	10.53	0.08	1.443	0.176	sulfate
8	15.00	1.50	17.480	0.889	

This report has been created by IC Net
METROHM LTD

AS 10/25/12

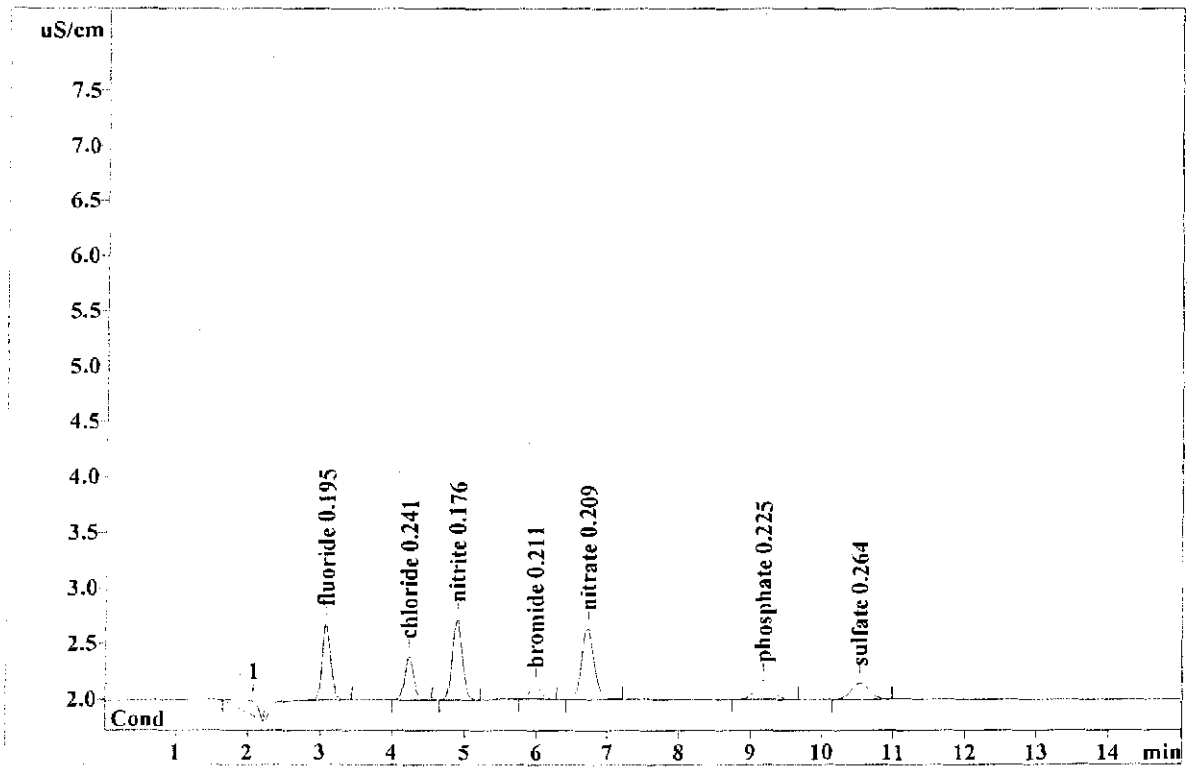
Report date: 10/24/2012 2:37:24 PM
Printed by: Jadelyn Chun

Ident: AJ29-05 S3
Analysis from: 10/24/2012 11:49:49 AM
File: wa241149.chw Last save: 10/24/2012 2:36:20 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83030

SAMPLE: 0.2PPM

Vial number: 5
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	2.424	0.000	
2	3.08	0.68	5.501	0.195	fluoride
3	4.23	0.39	3.359 ✓	0.241 ✓	chloride
4	4.89	0.72	6.915	0.176	nitrite
5	5.98	0.12	1.335	0.211	bromide
6	6.72	0.64	7.831	0.209	nitrate
7	9.18	0.17	2.853	0.225	phosphate
8	10.54	0.14	2.603	0.264	sulfate
8	15.00	2.99	32.820	1.520	

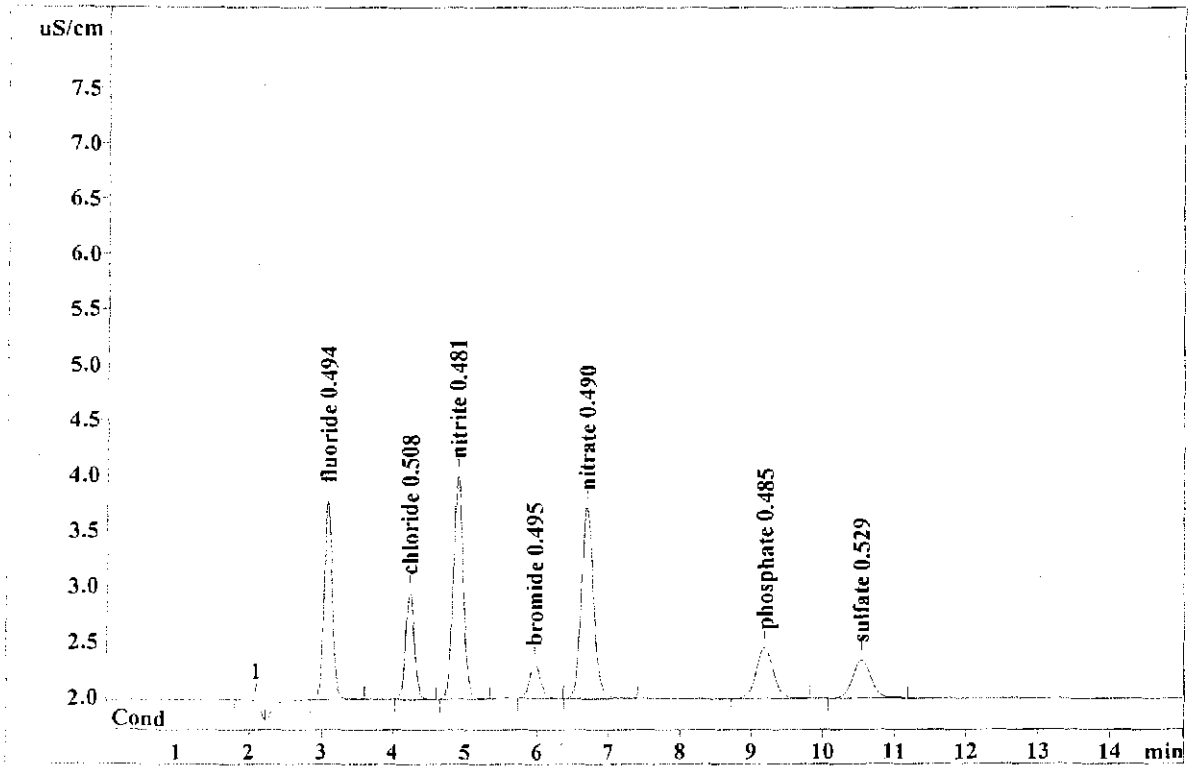
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 2:37:27 PM
Printed by: Jadelyn Chun

Ident: AJ29-06 S4
Analysis from: 10/24/2012 12:07:00 PM
File: wa241207.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83031

SAMPLE: 0.5PPM
:
Vial number: 6
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec		Conc. mg/L		Name
1	2.09	0.11	1.565		0.000		
2	3.07	1.78	14.258		0.494		fluoride
3	4.22	0.97	8.184		0.508		chloride
4	4.88	2.00	19.137		0.481		nitrite
5	5.97	0.31	3.452	✓	0.495	✓	bromide
6	6.69	1.72	20.626		0.490		nitrate
7	9.18	0.45	7.535	✓	0.485	✓	phosphate
8	10.54	0.34	6.113	/	0.529	✓	sulfate
8	15.00	7.69	80.871		3.481		

AS
10/25/12

This report has been created by IC Net
METROHM LTD

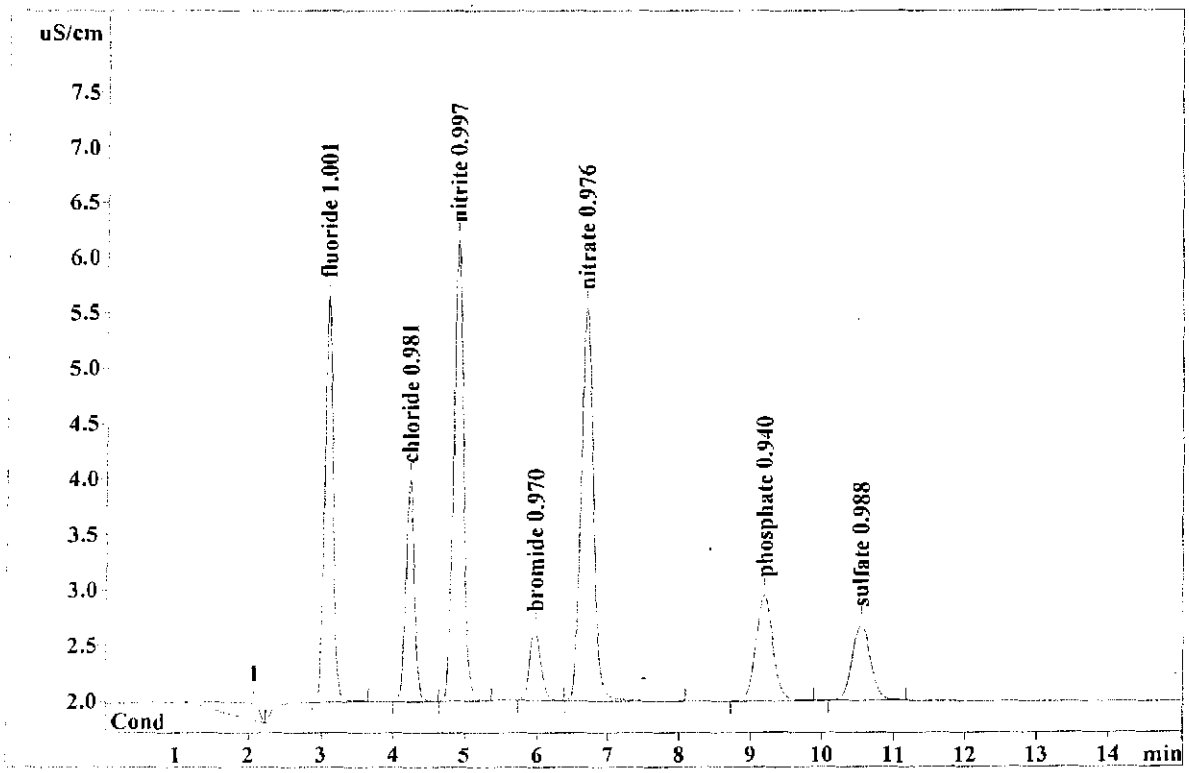
8042

Report date: 10/24/2012 2:37:31 PM
Printed by: Jadelyn Chun

Ident: AJ29-07 S5
Analysis from: 10/24/2012 12:24:09 PM
File: wa241224.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83032

SAMPLE: 1.0PPM
:
Vial number: 7
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.15	5.364	0.000	
2	3.08	3.66	29.107	1.001	fluoride
3	4.22	2.00	16.707	0.981	chloride
4	4.89	4.15	39.889	0.997	nitrite
5	5.97	0.64	6.994	0.970	bromide
6	6.69	3.55	42.730	0.976	nitrate
7	9.19	0.95	15.755	0.940	phosphate
8	10.55	0.69	12.200	0.988	sulfate
8	15.00	15.79	168.745	6.852	

10/25/12

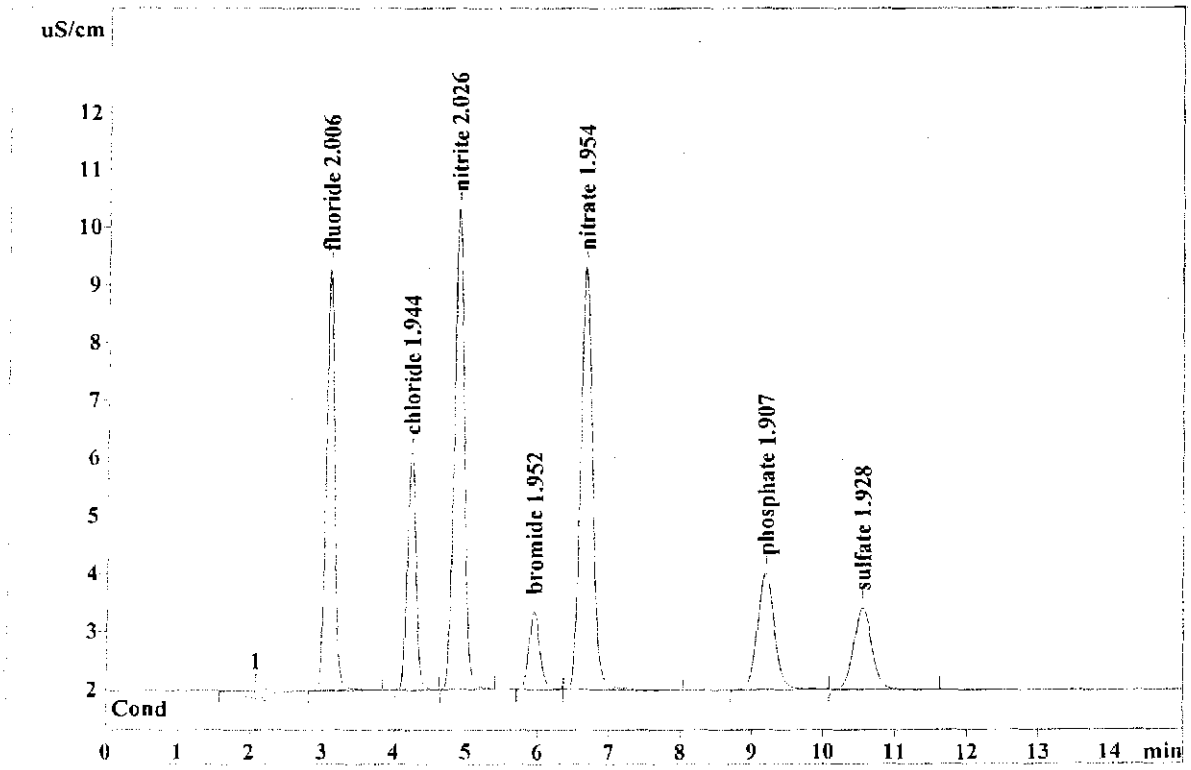
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 2:37:34 PM
Printed by: Jadelyn Chun

Ident: AJ29-08 S6
Analysis from: 10/24/2012 12:41:18 PM
File: wa241241.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83033

SAMPLE: 2.0PPM
:
Vial number: 8
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	2.670	0.000	
2	3.08	7.29	58.554	2.006	fluoride
3	4.22	4.11	34.087	1.944	chloride
4	4.88	8.30	81.202	2.026	nitrite
5	5.95	1.33	14.319	1.952	bromide
6	6.66	7.30	87.180	1.954	nitrate
7	9.19	2.00	33.185	1.907	phosphate
8	10.55	1.40	24.667	1.928	sulfate
8	15.00	31.86	335.864	13.716	

10/25/12

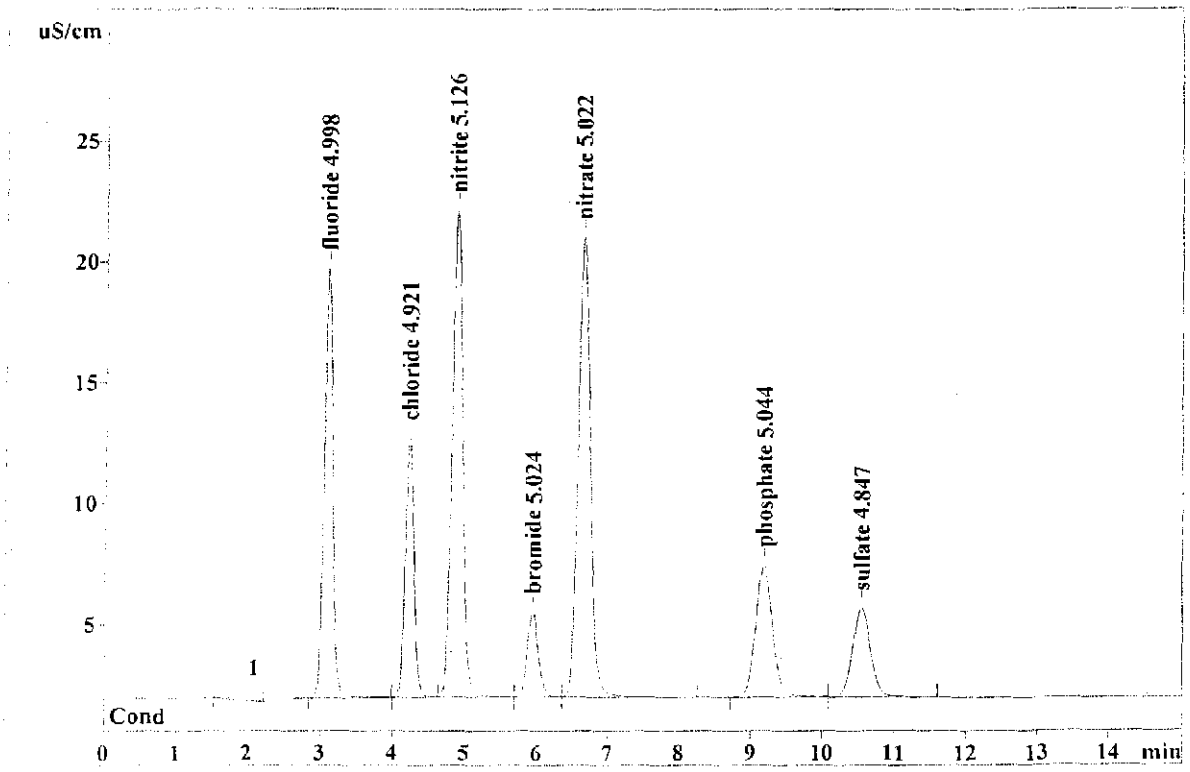
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 2:37:38 PM
Printed by: Jadelyn Chun

Ident: AJ29-09 S7
Analysis from: 10/24/2012 12:58:28 PM
File: wa241258.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83034

SAMPLE: 5.0PPM
:
Vial number: 9
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.11	2.622	0.000	
2	3.09	17.72	146.272	4.998	fluoride
3	4.22	10.70	87.781	4.921	chloride
4	4.87	20.09	205.715	5.126	nitrite
5	5.95	3.51	37.221	5.024	bromide
6	6.65	18.98	226.728	5.022	nitrate
7	9.18	5.43	89.754	5.044	phosphate
8	10.55	3.65	63.372	4.847	sulfate
8	15.00	80.20	859.465	34.983	

RS
10/25/12

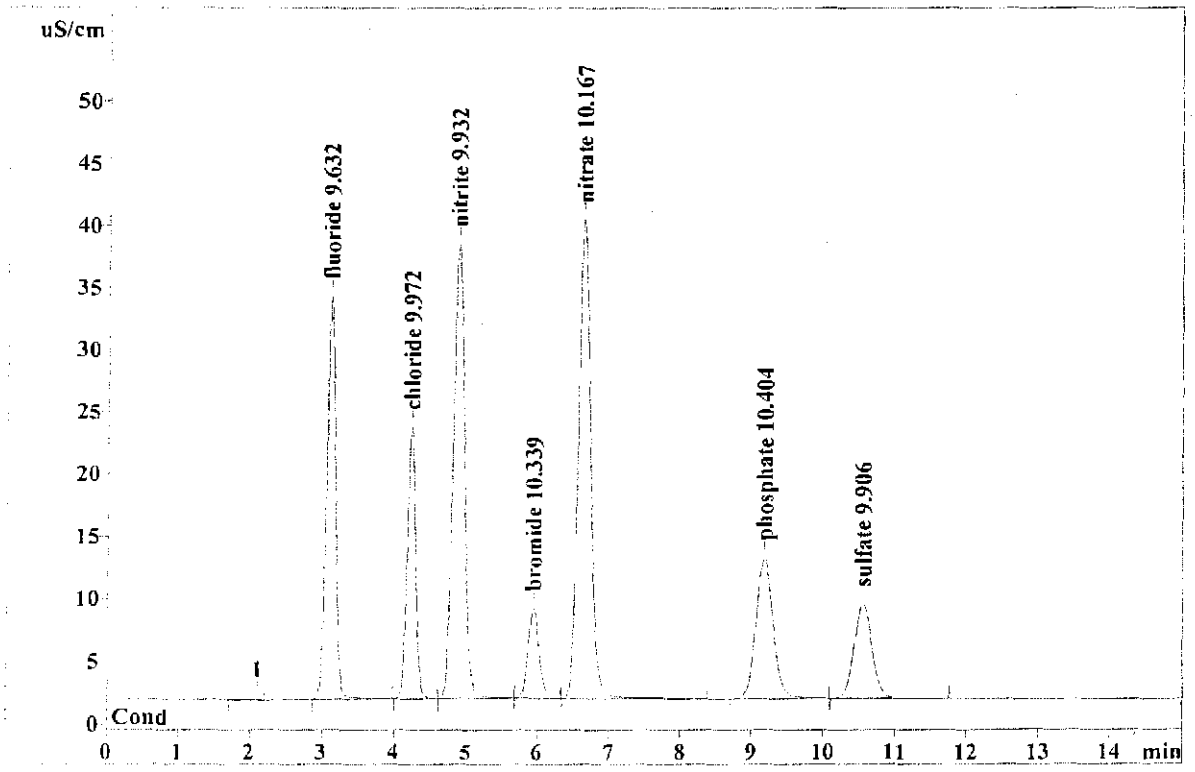
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 2:37:41 PM
Printed by: Jadelyn Chun

Ident: AJ29-10 S8
Analysis from: 10/24/2012 1:15:37 PM
File: wa241315.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83035

SAMPLE: 10.0PPM
:
Vial number: 10
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.08	1.308	0.000	
2	3.11	32.18	282.092	9.632	fluoride
3	4.22	21.75	178.888	9.972	chloride
4	4.87	36.32	398.741	9.932	nitrite
5	5.94	7.14	76.854	10.339	bromide
6	6.63	38.40	460.703	10.167	nitrate
7	9.18	11.19	186.399	10.404	phosphate
8	10.56	7.53	130.439	9.906	sulfate
8	15.00	154.59	1715.424	70.353	

AJ
10/25/12

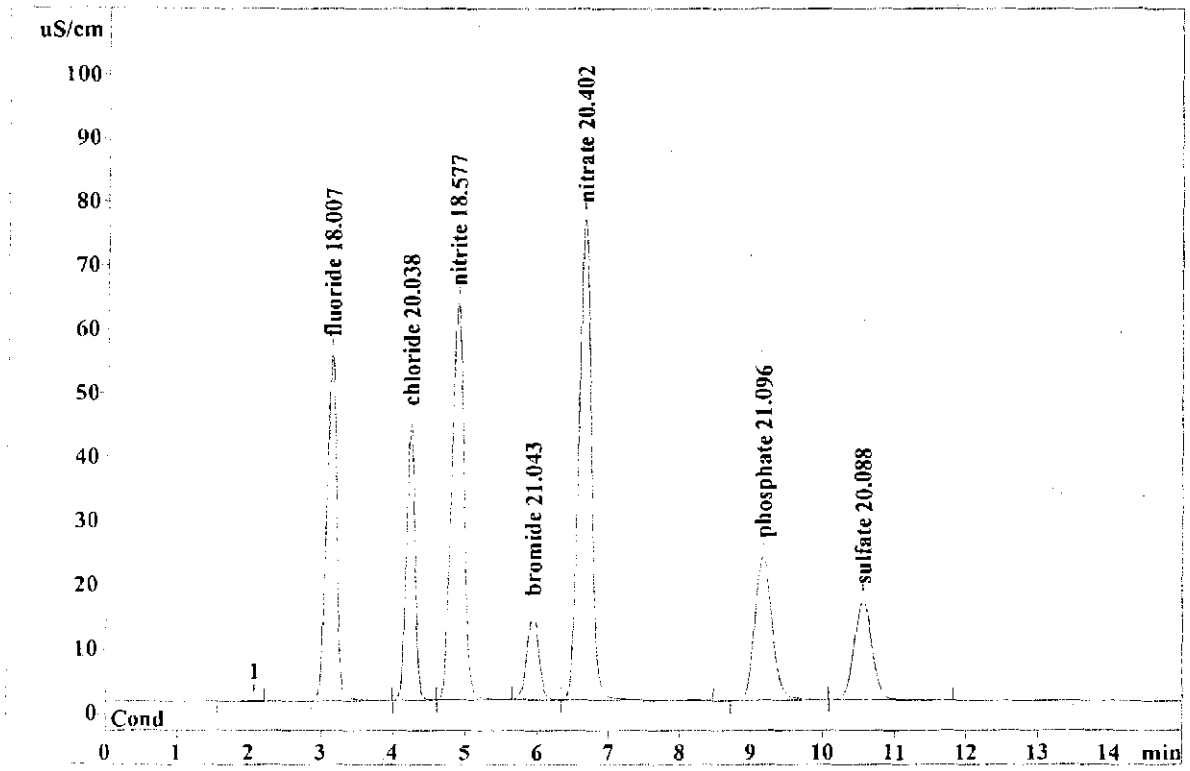
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 2:37:44 PM
Printed by: Jadelyn Chun

Ident: AJ29-11 S9
Analysis from: 10/24/2012 1:32:46 PM
File: wa241332.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83036

SAMPLE: 20.0PPM
:
Vial number: 11
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

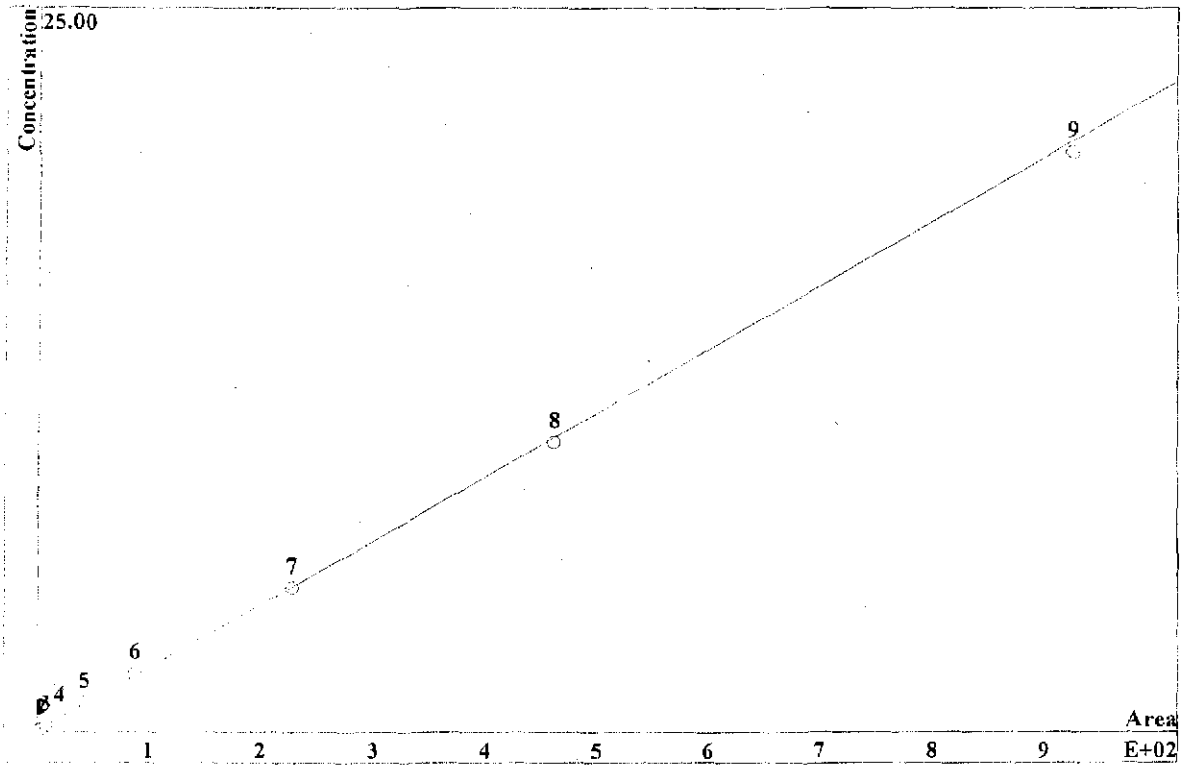
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.06	0.03	0.631	0.000	
2	3.12	54.06	527.560	18.007	fluoride
3	4.22	43.28	360.448	20.038	chloride
4	4.87	61.86	745.984	18.577	nitrite
5	5.93	13.42	156.664	21.043	bromide
6	6.64	75.02	926.137	20.402	nitrate
7	9.16	22.49	379.202	21.096	phosphate
8	10.55	15.30	265.422	20.088	sulfate
8	15.00	285.46	3362.048	139.252	

10/25/12

This report has been created by IC Net
METROHM LTD

CALIBRATION OF COMPONENT nitrate

Method: ICD0-J23.mtw
Equation: Q = 0.0219902·A + 0.0365389
RSD: 2.402 %
Correlation coefficient: 0.999879



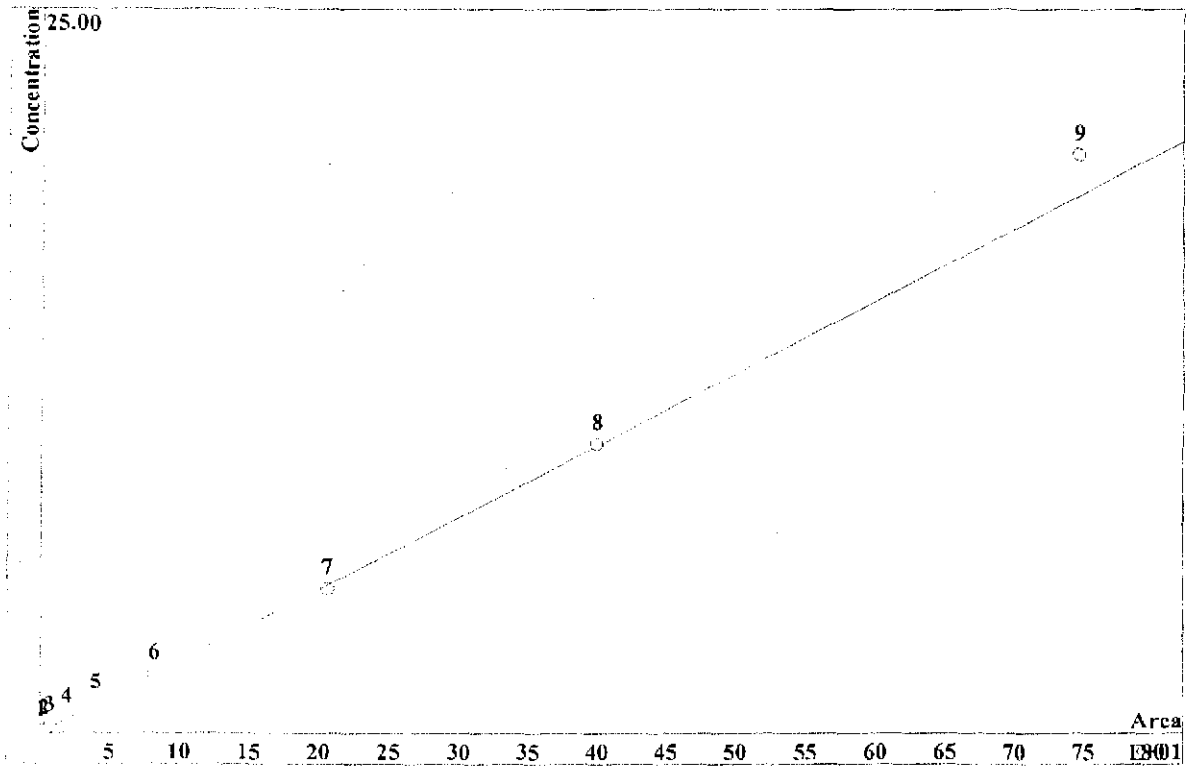
K3 = 0 K2 = 0 K1 = 0.0219902 K0 = 0.0365389
Base: Area
Ref.channel: Cond
ISTD:
Formula: Linear
Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.1509	1.875	0.05	1	6.69	Yes	wa241115.chw
2	0.3128	3.852	0.1	1	6.69	Yes	wa241132.chw
3	0.6444	7.831	0.2	1	6.69	Yes	wa241149.chw
4	1.716	20.63	0.5	1	6.69	Yes	wa241207.chw
5	3.554	42.73	1	1	6.69	Yes	wa241224.chw
6	7.297	87.18	2	1	6.69	Yes	wa241241.chw
7	18.98	226.7	5	1	6.69	Yes	wa241258.chw
8	38.4	460.7	10	1	6.69	No	wa241315.chw
9	75.02	926.1	20	1	6.69	No	wa241332.chw

10/25/12

CALIBRATION OF COMPONENT nitrite

Method: ICD0-J23.mtw ✓ ✓
Equation: Q = 0.0248974·A + 0.00406002
RSD: 2.617 %
Correlation coefficient: 0.999867



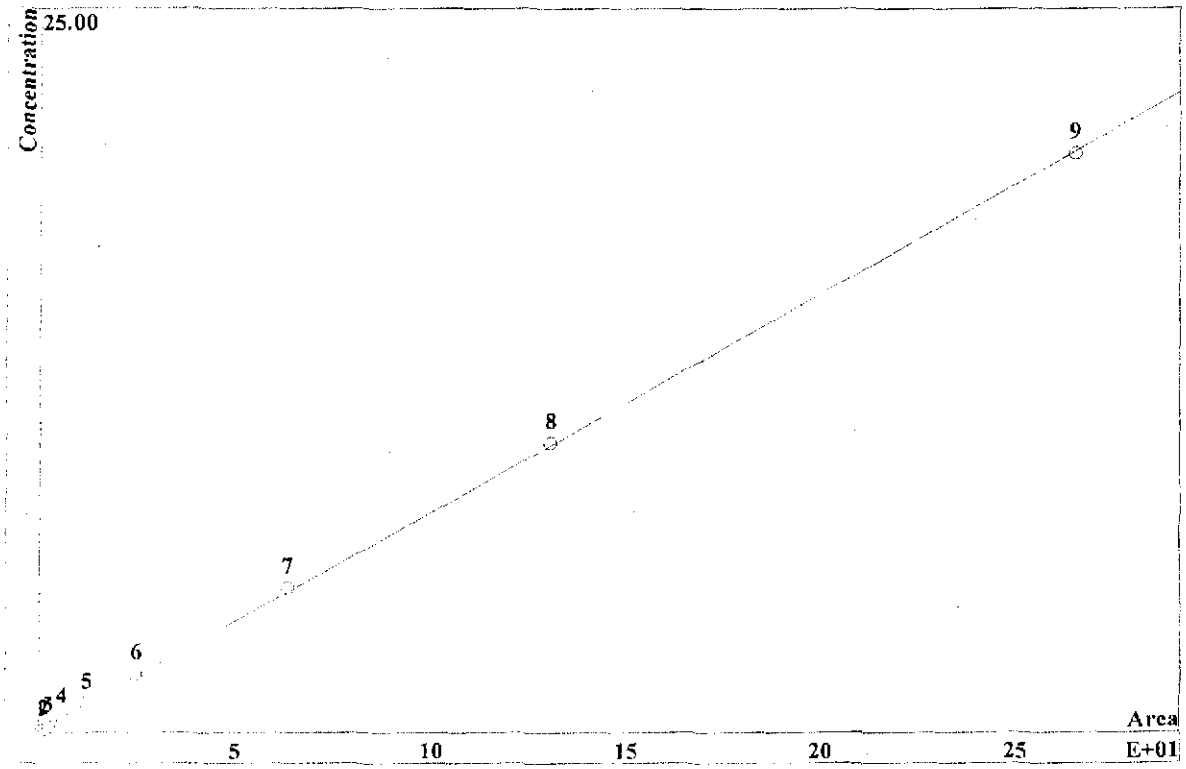
K3 = 0 K2 = 0 K1 = 0.0248974 K0 = 0.00406002
Base: Area
Ref.channel: Cond
ISTD:
Formula: Linear
Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.1229	1.161 ✓	0.05	1	4.88	Yes	wa241115.chw
2	0.317	3.043 ✓	0.1	1	4.88	Yes	wa241132.chw
3	0.7175	6.915 ✓	0.2	1	4.88	Yes	wa241149.chw
4	2.003	19.14 ✓	0.5	1	4.88	Yes	wa241207.chw
5	4.153	39.89 ✓	1	1	4.88	Yes	wa241224.chw
6	8.302	81.2 ✓	2	1	4.88	Yes	wa241241.chw
7	20.09	205.7 ✓	5	1	4.88	Yes	wa241258.chw
8	36.32	398.7 ✓	10	1	4.88	Yes	wa241315.chw
9	61.86	746 ✓	20	1	4.88	No	wa241332.chw

AS 25/12.

CALIBRATION OF COMPONENT sulfate

Method: ICD0-J23.mtw
Equation: Q = 0.0754287·A + 0.0673977
RSD: 2.168 %
Correlation coefficient: 0.999915



K3 = 0 K2 = 0 K1 = 0.0754287 K0 = 0.0673977
Base: Area
Ref.channel: Cond
ISTD:
Formula: Linear
Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.04232	0.7541	0.05	1	10.54	Yes	wa241115.chw
2	0.07896	1.443	0.1	1	10.54	Yes	wa241132.chw
3	0.1451	2.603	0.2	1	10.54	Yes	wa241149.chw
4	0.342	6.113	0.5	1	10.54	Yes	wa241207.chw
5	0.6887	12.2	1	1	10.54	Yes	wa241224.chw
6	1.4	24.67	2	1	10.54	Yes	wa241241.chw
7	3.649	63.37	5	1	10.54	Yes	wa241258.chw
8	7.53	130.4	10	1	10.54	Yes	wa241315.chw
9	15.3	265.4	20	1	10.54	Yes	wa241332.chw

10/25/12.

SECOND SOURCE VERIFICATION

IC Result Check FormVersion : J23/AJ29(2012)

LFID	LSID	Selection	bromide	chloride	sulfate	nitrate	nitrite	phosphate	fluoride	RawNetID	DF
AJ29-01	IB	BCSNIPF	0	0	0	0	0	0	0	wa241041	1
AJ29-12	ICV	BCSNIPF	97.2%	100.5%	99.8%	100.2%	101.2%	97.9%	102.9%	wa241400	1
AJ29-13	ICB	BCSNIPF	0	0	0	0	0	0	0	wa241417	1

RS
10/25/12

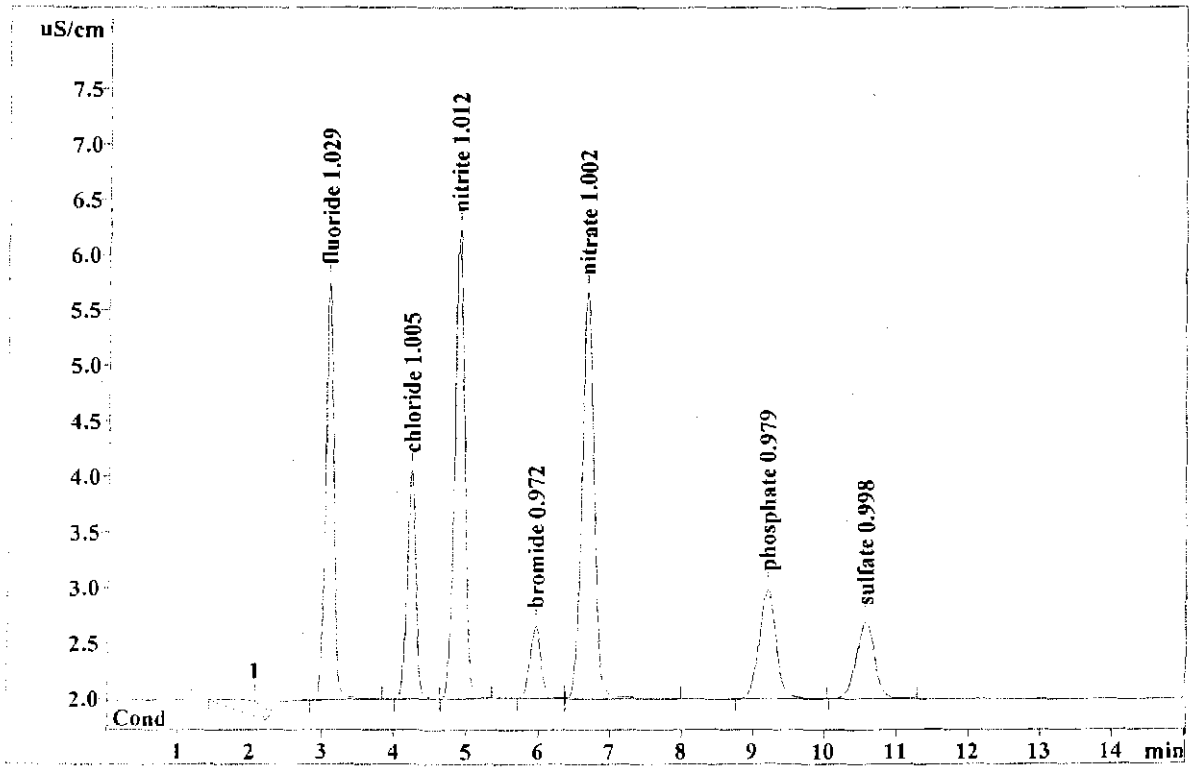
Report date: 10/24/2012 2:37:52 PM
Printed by: Jadelyn Chun

Ident: AJ29-12 ICV
Analysis from: 10/24/2012 2:00:27 PM
File: wa241400.chw Last save: 10/24/2012 2:36:22 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83037

SAMPLE: 1.0PPM

Vial number: 12
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.14	3.647	0.000	
2	3.08	3.76	29.948 ✓	1.029 ✓	fluoride
3	4.22	2.05	17.149 ✓	1.005 ✓	chloride
4	4.88	4.23	40.479 ✓	1.012 ✓	nitrite
5	5.95	0.65	7.011 ✓	0.972 ✓	bromide
6	6.67	3.66	43.902 ✓	1.002 ✓	nitrate
7	9.20	0.98	16.450 ✓	0.979 ✓	phosphate
8	10.57	0.69	12.344 ✓	0.998 ✓	sulfate
8	15.00	16.17	170.931	6.998	

AS 10/25/12

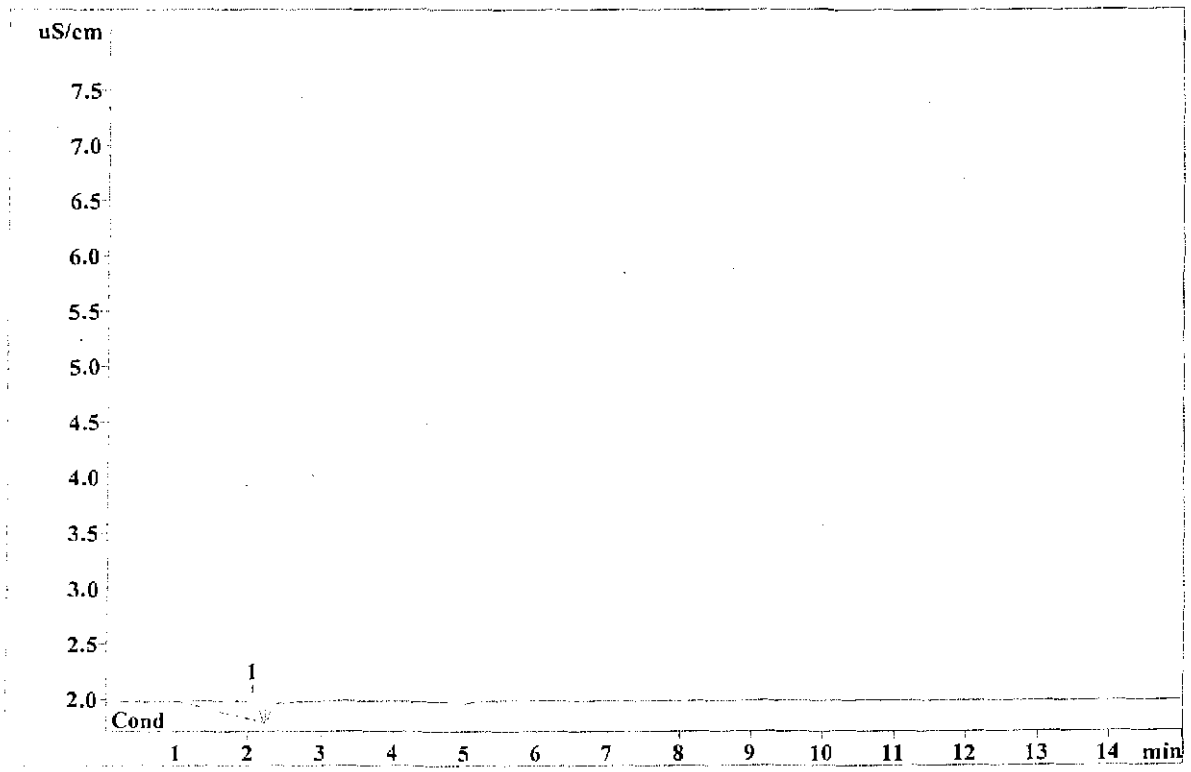
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 2:37:56 PM
Printed by: Jadelyn Chun

Ident: AJ29-13 ICB
Analysis from: 10/24/2012 2:17:36 PM
File: wa241417.chw Last save: 10/24/2012 2:36:22 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83038

SAMPLE:
:
Vial number: 13
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.06	0.16	6.360	0.000	

This report has been created by IC Net
METROHM LTD

AJ 10/24/12

DAILY CALIBRATION(S)

IC Result Check FormVersion : J23/AJ29(2012)

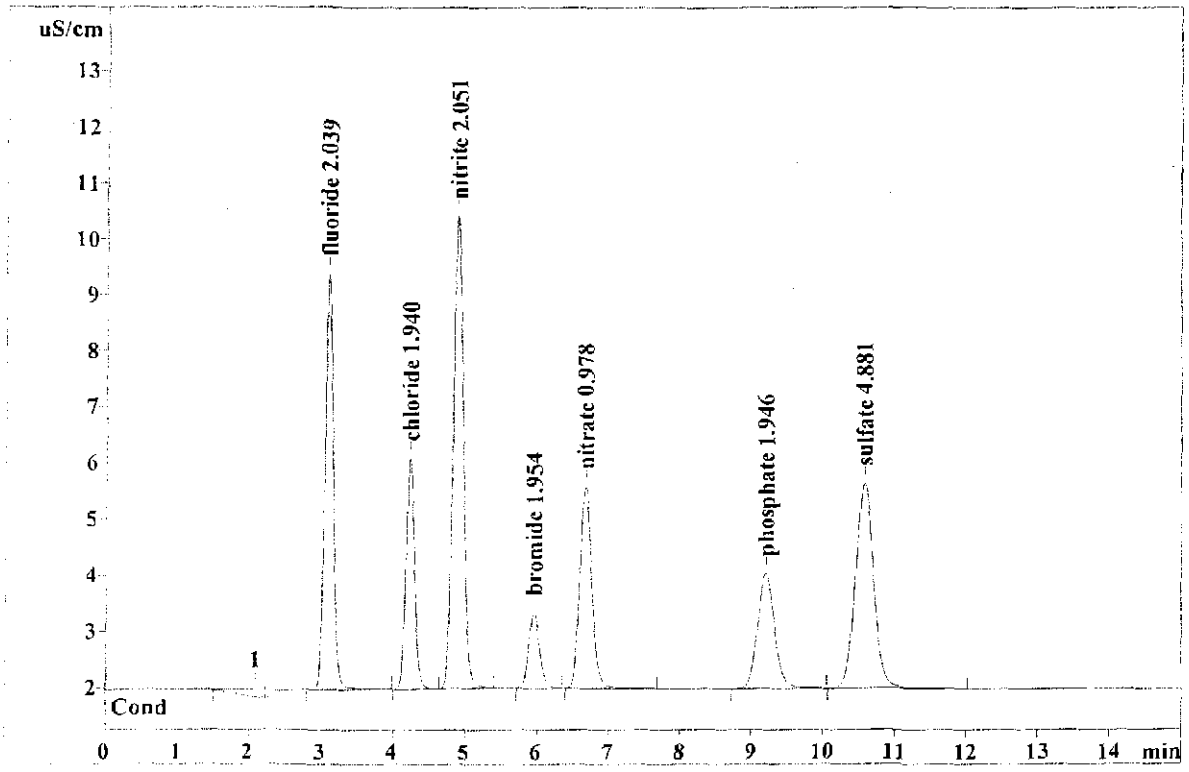
LFID	LSID	Selection	bromide	chloride	fluoride	nitrate	nitrite	phosphate	sulfate	RawNetID	DF
AJ31-01	CCV1	BCFNIPS	97.7%	97%	102%	97.8%	102.6%	97.3%	97.6%	wa241442	1
AJ31-02	CCB1	BCFNIPS	0	0	0	0	0	0	0	wa241500	1
AJ31-13	CCV3	BCFNIPS	98.3%	97.5%	102.1%	98.6%	102.4%	96.5%	98.1%	wa241808	1
AJ31-14	CCB3	BCFNIPS	0	0	0	0	0	0	0	wa241826	1
AJ31-25	CCV5	BCFNIPS	98.1%	97.6%	102.3%	98.4%	102.5%	96.8%	97.9%	wa242134	1
AJ31-26	CCB5	BCFNIPS	0	0	0	0	0	0	0	wa242151	1
AJ31-37	CCV7	BCFNIPS	98.3%	97.6%	102.7%	98.6%	102.7%	98.1%	98%	wa250100	1
AJ31-38	CCB7	BCFNIPS	0	0	0	0	0	0	0	wa250117	1
AJ31-49	CCV9	BCFNIPS	98.7%	98.4%	102.7%	99.2%	102.5%	96.1%	98.7%	wa250426	1
AJ31-50	CCB9	BCFNIPS	0	0	0	0	0	0	0	wa250443	1
AJ31-61	CCV11	BCFNIPS	98.6%	97.8%	102.6%	98.8%	103%	96.8%	98.7%	wa250752	1
AJ31-62	CCB11	BCFNIPS	0	0	0	0	0	0	0	wa250809	1
AJ31-73	CCV13	BCFNIPS	98.7%	98%	102.8%	98.6%	103%	96.9%	98.2%	wa251118	1
AJ31-74	CCB13	BCFNIPS	0	0	0	0	0	0	0	wa251135	1
AJ31-85	CCV15	BCFNIPS	98.4%	100.6%	104.1%	101%	104.1%	98.2%	99%	wa251443	1
AJ31-86	CCB15	BCFNIPS	0	0	0	0	0	0	0	wa251519	1
AJ31-93	CCV17	BCFNIPS	87.1%*	91%	97.5%	91.1%	100.1%	88.2%*	90.7%	wa251720	1
AJ31-94	CCB17	BCFNIPS	0	0	0	0	0	0	0	wa251737	1

Report date: 10/24/2012 2:57:53 PM
Printed by: Jadelyn Chun

Ident: AJ31-01 CCV1
Analysis from: 10/24/2012 2:42:56 PM
File: WA241442.CHW Last save: 10/24/2012 2:57:53 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83039

SAMPLE:
:
Vial number: 1
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

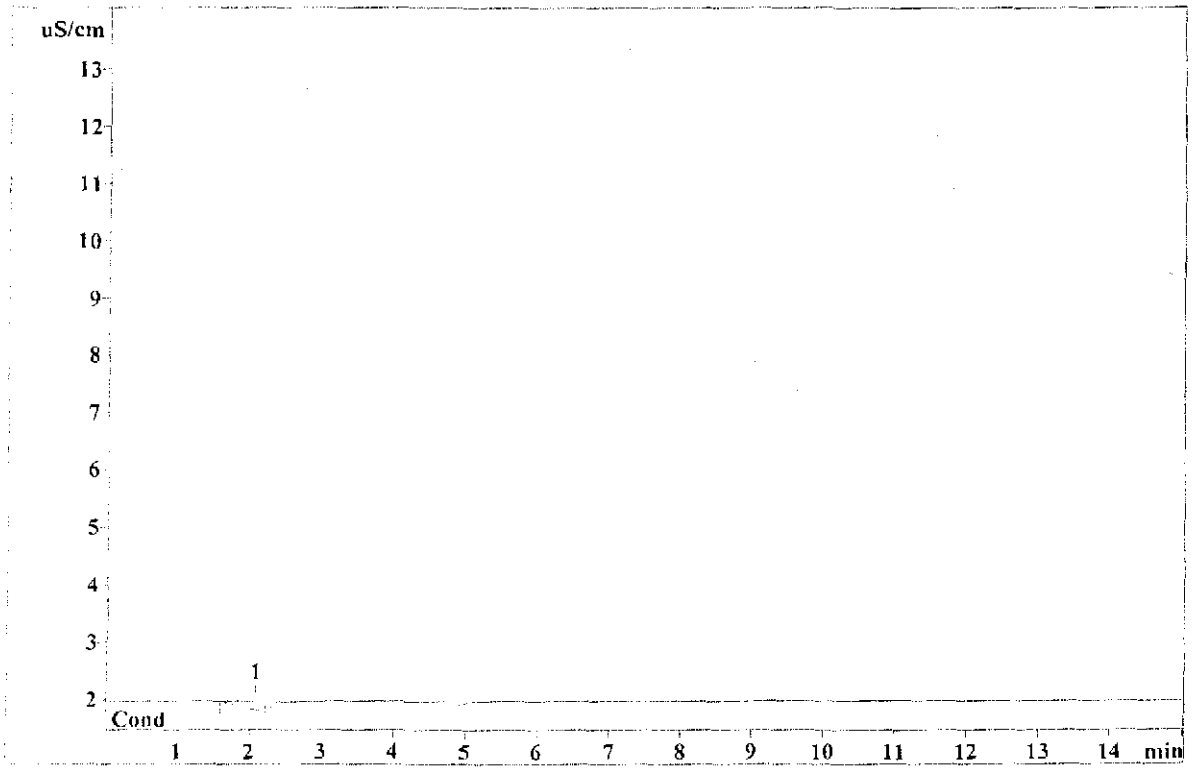
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	3.137	0.000	
2	3.09	7.40	59.546	2.039	fluoride
3	4.22	4.10	34.010	1.940	chloride
4	4.88	8.41	82.229	2.051	nitrite
5	5.95	1.34	14.337	1.954	bromide
6	6.67	3.59	42.832	0.978	nitrate
7	9.21	2.04	33.885	1.946	phosphate
8	10.58	3.63	63.814	4.881	sulfate
8	15.00	30.64	333.791	15.790	

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:10:29 AM
Printed by: Jadelyn Chun

Ident: AJ31-02 CCB1
Analysis from: 10/24/2012 3:00:05 PM
File: wa241500.chw Last save: 10/24/2012 3:15:02 PM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83040

SAMPLE:
:
Vial number: 2
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.14	2.832	0.000	

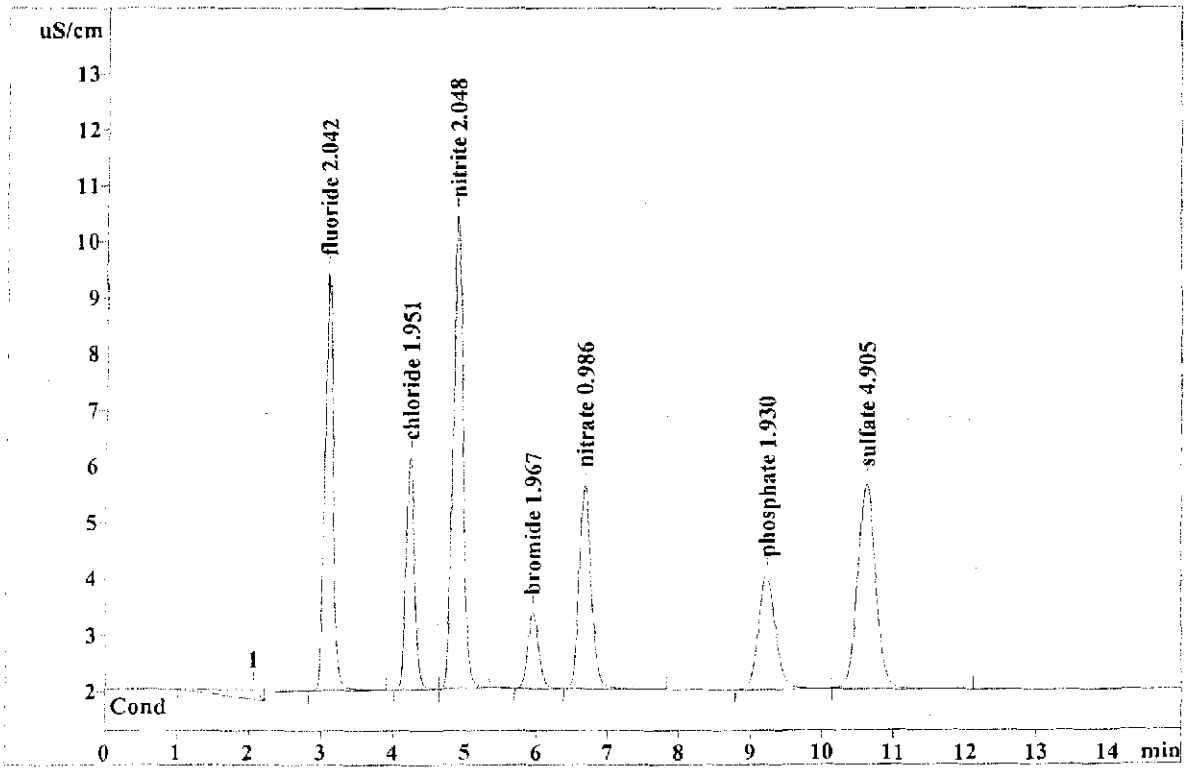
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 6:23:50 PM
Printed by: Jadelyn Chun

Ident: AJ31-13 CCV3
Analysis from: 10/24/2012 6:08:53 PM
File: WA241808.CHW Last save: 10/24/2012 6:23:50 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83051

SAMPLE:
:
Vial number: 13
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

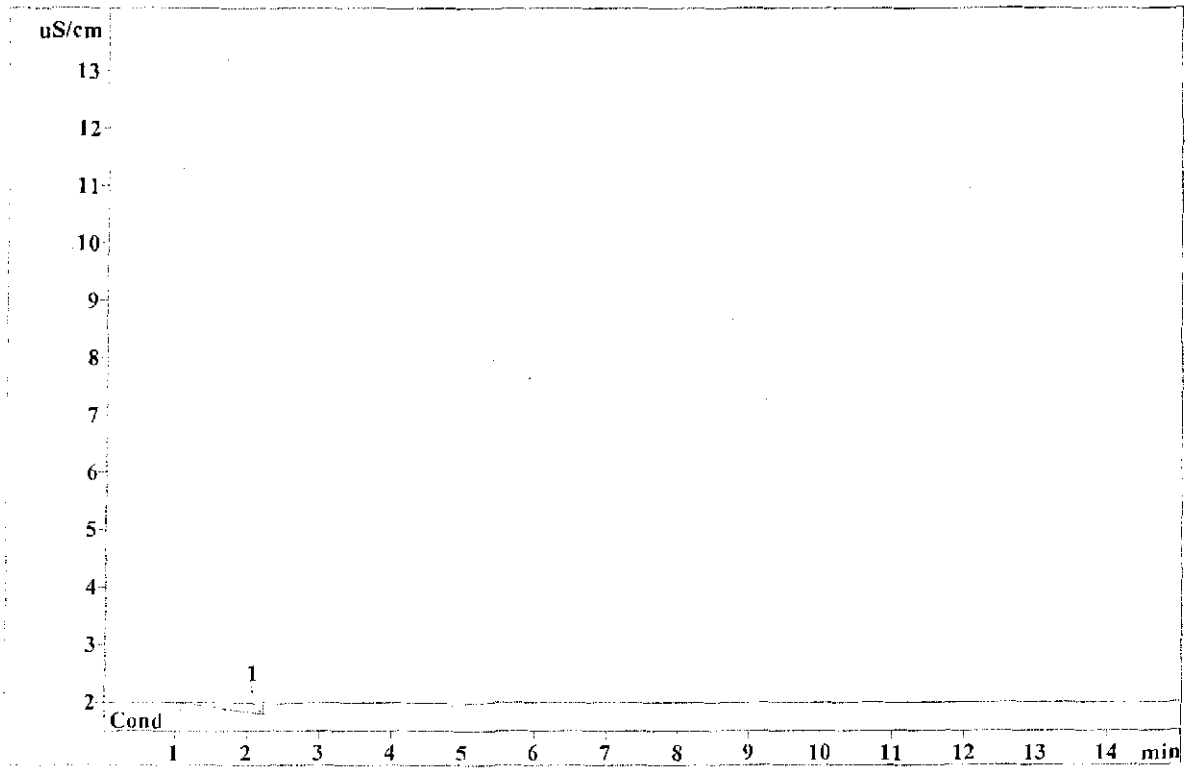
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.05	0.16	6.169	0.000	
2	3.09	7.41	59.626	2.042	fluoride
3	4.23	4.13	34.207	1.951	chloride
4	4.88	8.40	82.092	2.048	nitrite
5	5.95	1.34	14.429	1.967	bromide
6	6.67	3.61	43.164	0.986	nitrate
7	9.23	2.03	33.596	1.930	phosphate
8	10.62	3.63	64.135	4.905	sulfate
8	15.00	30.71	337.418	15.828	

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:11:41 AM
Printed by: Jadelyn Chun

Ident: AJ31-14 CCB3
Analysis from: 10/24/2012 6:26:02 PM
File: wa241826.chw Last save: 10/24/2012 6:40:59 PM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83052

SAMPLE:
:
Vial number: 14
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.06	0.16	6.185	0.000	

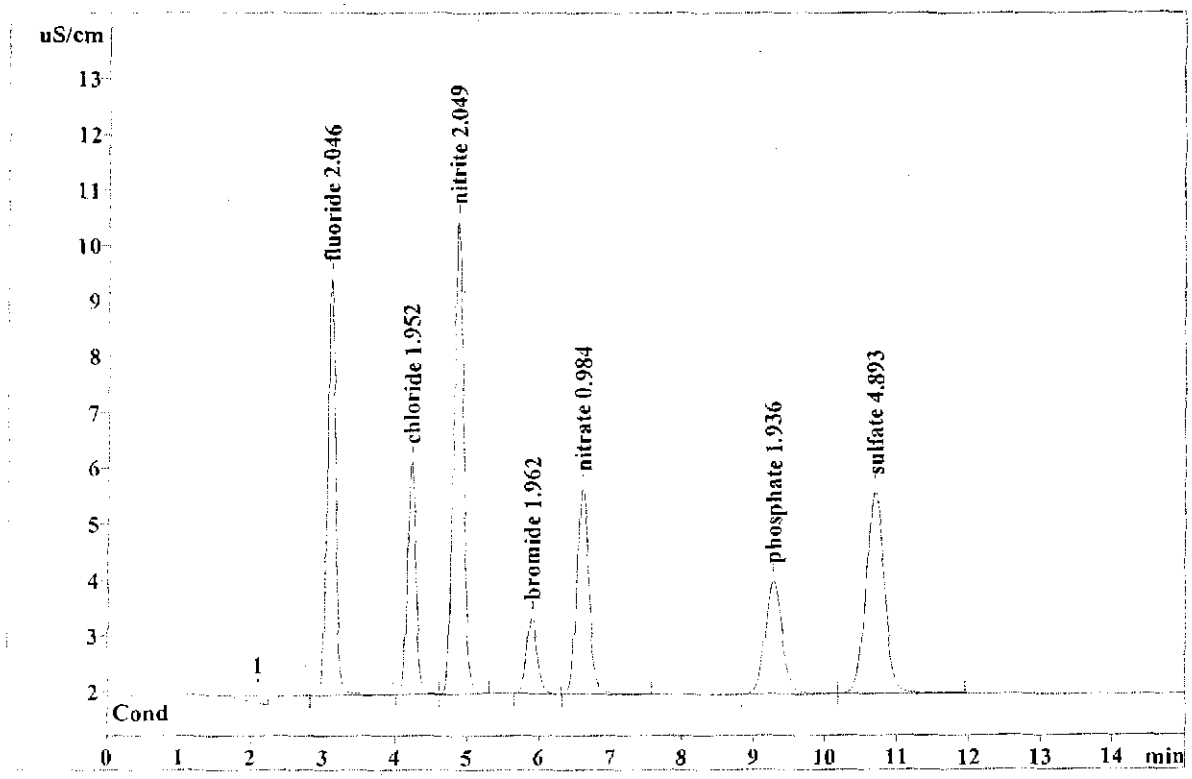
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 9:49:39 PM
Printed by: Jadelyn Chun

Ident: AJ31-25 CCV5
Analysis from: 10/24/2012 9:34:42 PM
File: WA242134.CHW Last save: 10/24/2012 9:49:39 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83063

SAMPLE:
:
Vial number: 25
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

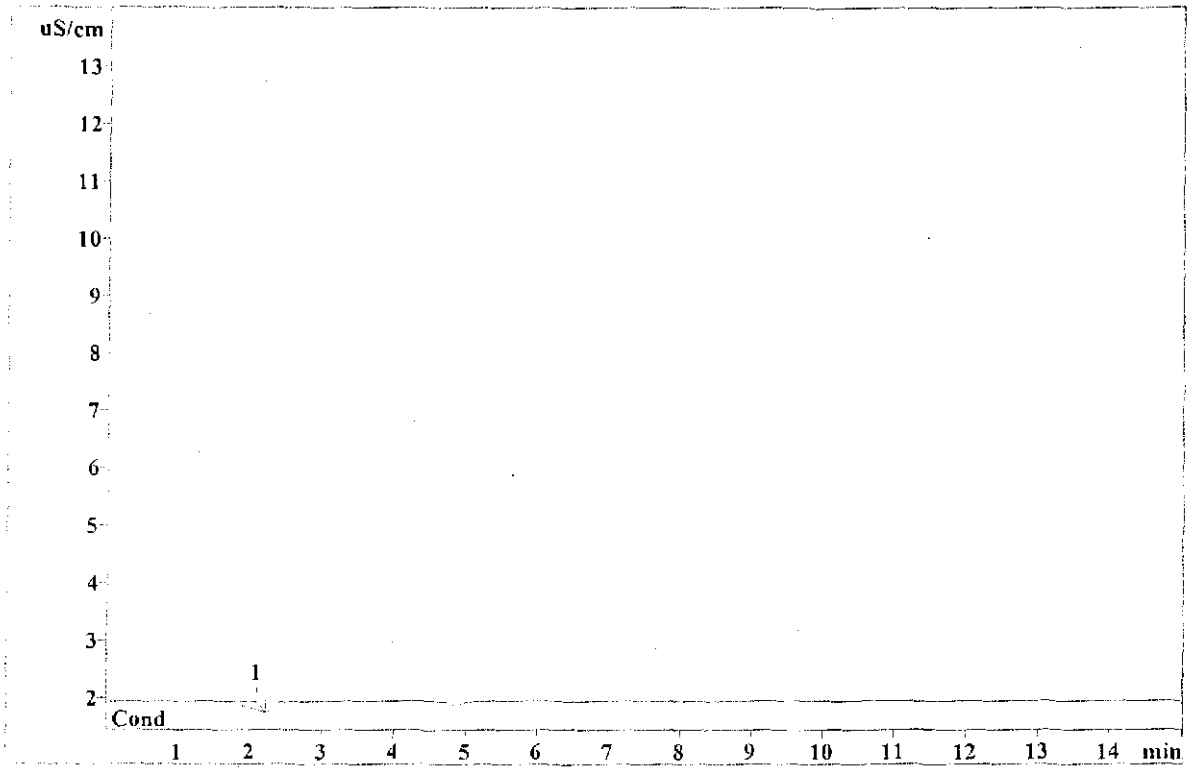
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	2.524	0.000	
2	3.09	7.46	59.735	2.046	fluoride
3	4.22	4.16	34.235	1.952	chloride
4	4.86	8.46	82.152	2.049	nitrite
5	5.90	1.36	14.394	1.962	bromide
6	6.60	3.67	43.092	0.984	nitrate
7	9.27	2.01	33.705	1.936	phosphate
8	10.70	3.60	63.982	4.893	sulfate
8	15.00	30.85	333.818	15.823	

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:13:25 AM
Printed by: Jadelyn Chun

Ident: AJ31-26 CCB5
Analysis from: 10/24/2012 9:51:52 PM
File: wa242151.chw Last save: 10/24/2012 10:06:49 PM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83064

SAMPLE:
:
Vial number: 26
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.09	0.13	2.446	0.000	

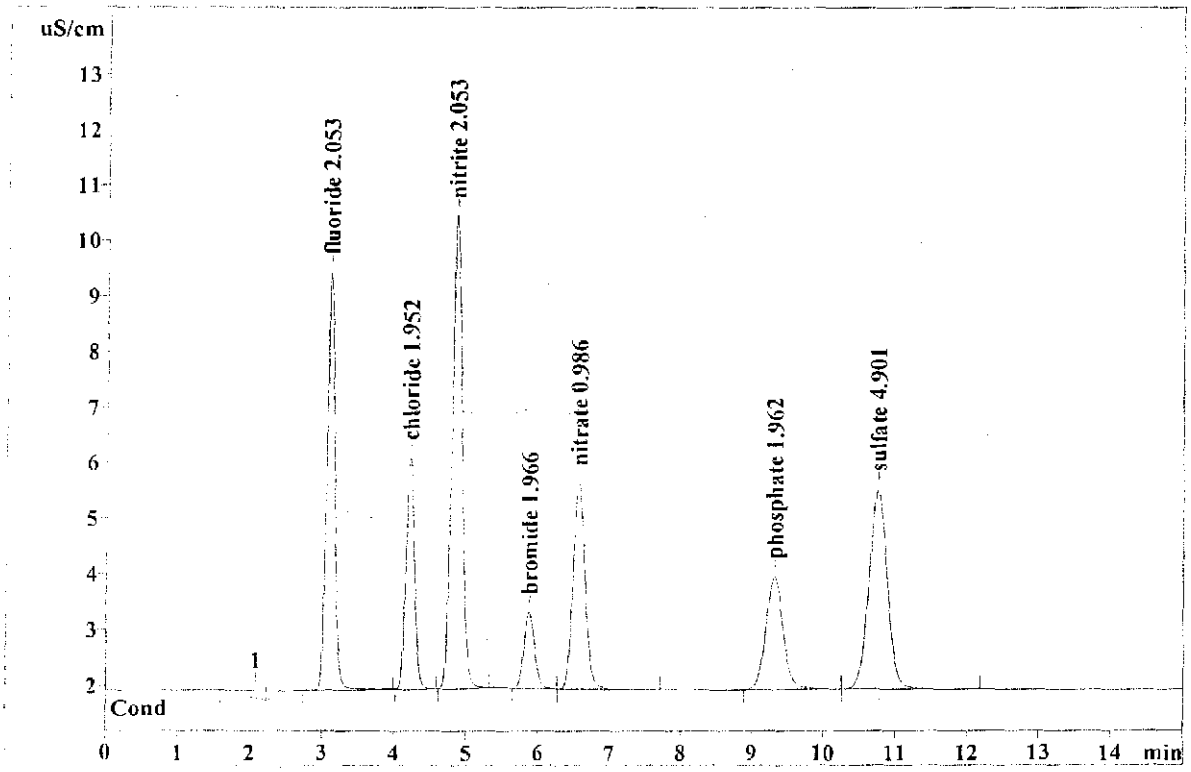
This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 1:15:30 AM
Printed by: Jadelyn Chun

Ident: AJ31-37 CCV7
Analysis from: 10/25/2012 1:00:33 AM
File: WA250100.CHW Last save: 10/25/2012 1:15:30 AM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83075

SAMPLE:
:
Vial number: 37
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

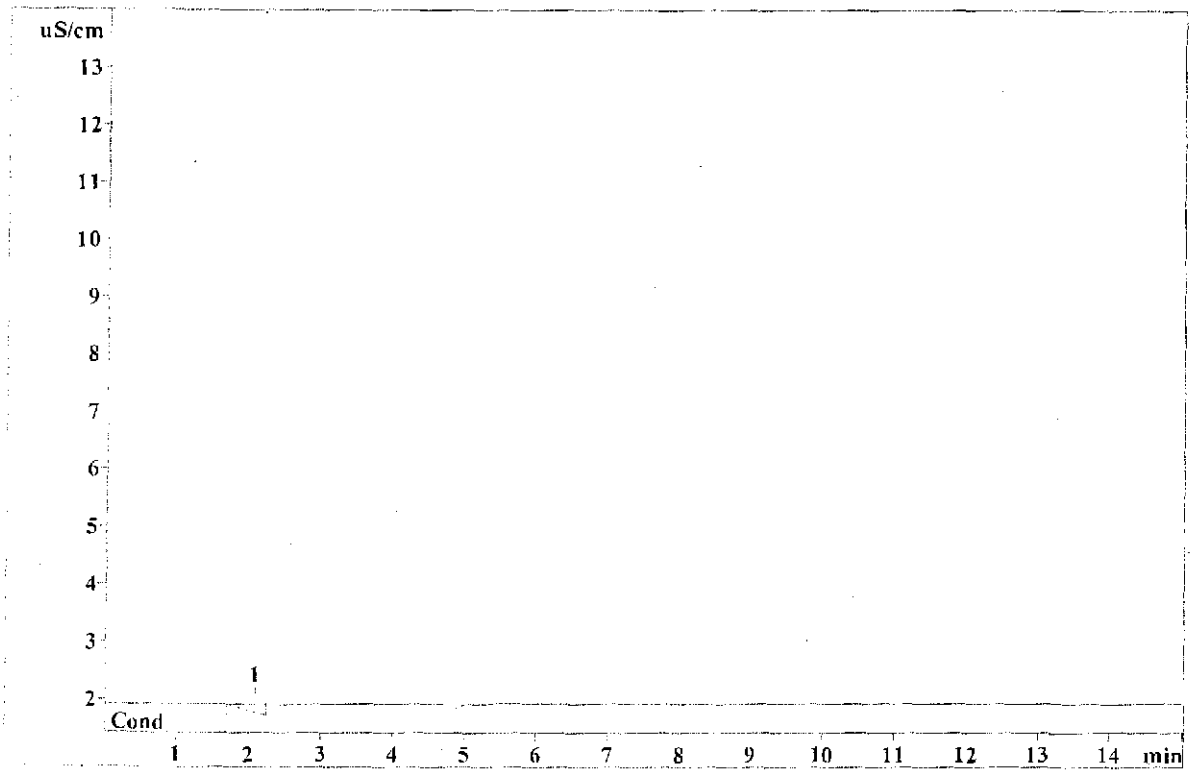
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	2.846	0.000	
2	3.10	7.50	59.953	2.053	fluoride
3	4.21	4.16	34.226	1.952	chloride
4	4.85	8.50	82.300	2.053	nitrite
5	5.87	1.37	14.424	1.966	bromide
6	6.56	3.70	43.171	0.986	nitrate
7	9.31	2.03	34.166	1.962	phosphate
8	10.75	3.58	64.087	4.901	sulfate
8	15.00	30.97	335.173	15.873	

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:14:24 AM
Printed by: Jadelyn Chun

Ident: AJ31-38 CCB7
Analysis from: 10/25/2012 1:17:42 AM
File: wa250117.chw Last save: 10/25/2012 1:32:39 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83076

SAMPLE:
:
Vial number: 38
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.09	0.13	2.380	0.000	

This report has been created by IC Net
METROHM LTD

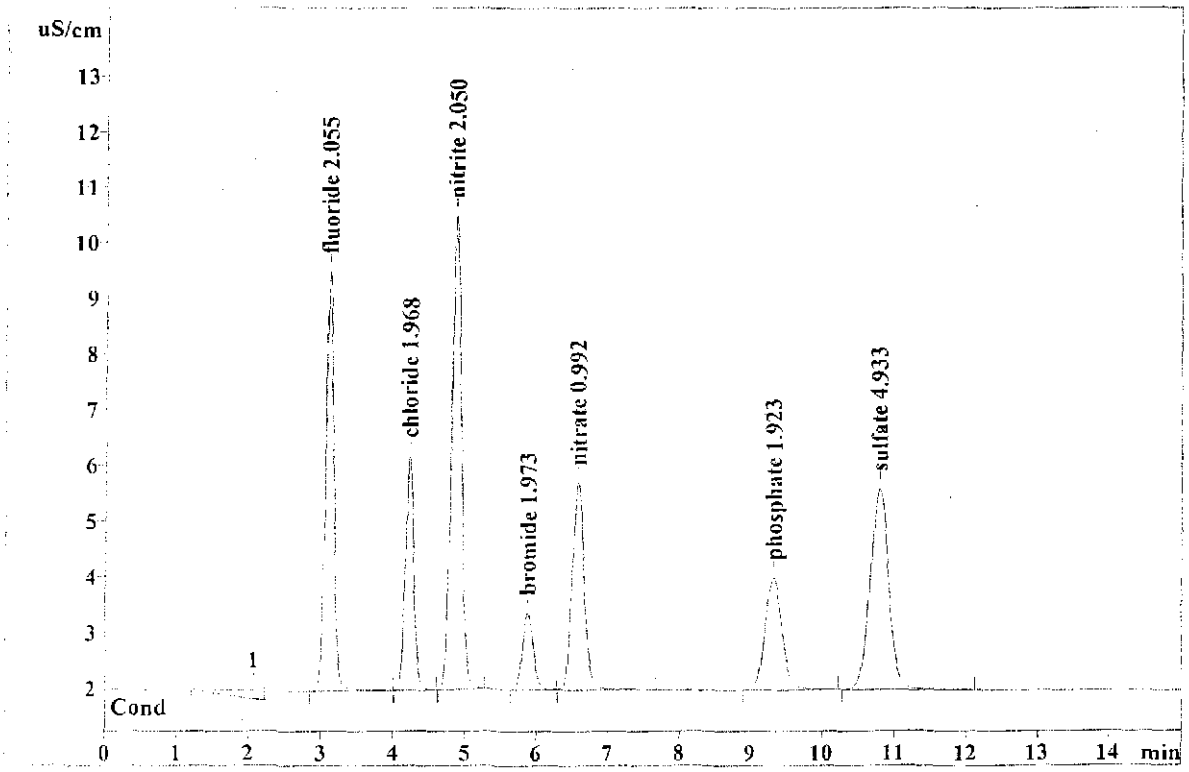
Report date: 10/25/2012 4:41:20 AM
Printed by: Jadelyn Chun

Ident: AJ31-49 CCV9
Analysis from: 10/25/2012 4:26:23 AM
File: WA250426.CHW Last save: 10/25/2012 4:41:20 AM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83087

SAMPLE:

Vial number: 49
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

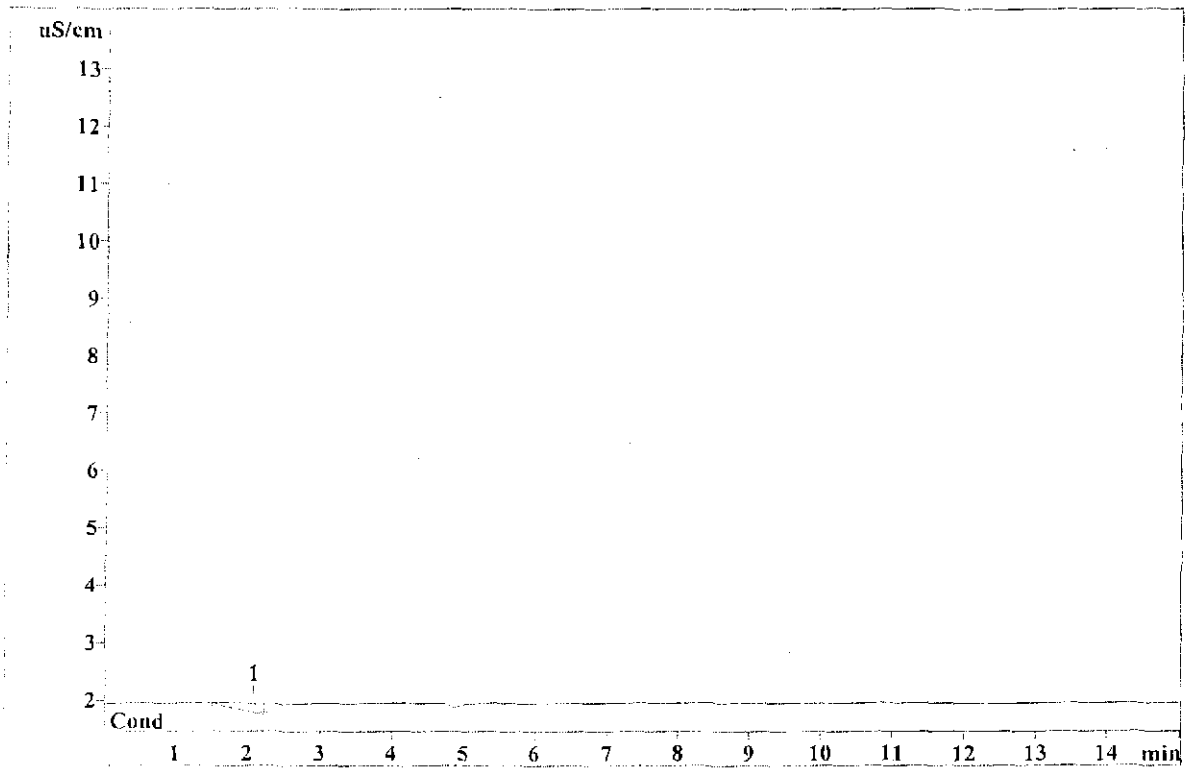
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.16	5.133	0.000	
2	3.10	7.52	60.003	2.055	fluoride
3	4.22	4.20	34.509	1.968	chloride
4	4.85	8.49	82.193	2.050	nitrite
5	5.88	1.37	14.476	1.973	bromide
6	6.58	3.71	43.465	0.992	nitrate
7	9.32	2.01	33.470	1.923	phosphate
8	10.79	3.59	64.508	4.933	sulfate
8	15.00	31.06	337.758	15.895	

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:14:58 AM
Printed by: Jadelyn Chun

Ident: AJ31-50 CCB9
Analysis from: 10/25/2012 4:43:32 AM
File: wa250443.chw Last save: 10/25/2012 4:58:29 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83088

SAMPLE:
:
Vial number: 50
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.15	3.625	0.000	

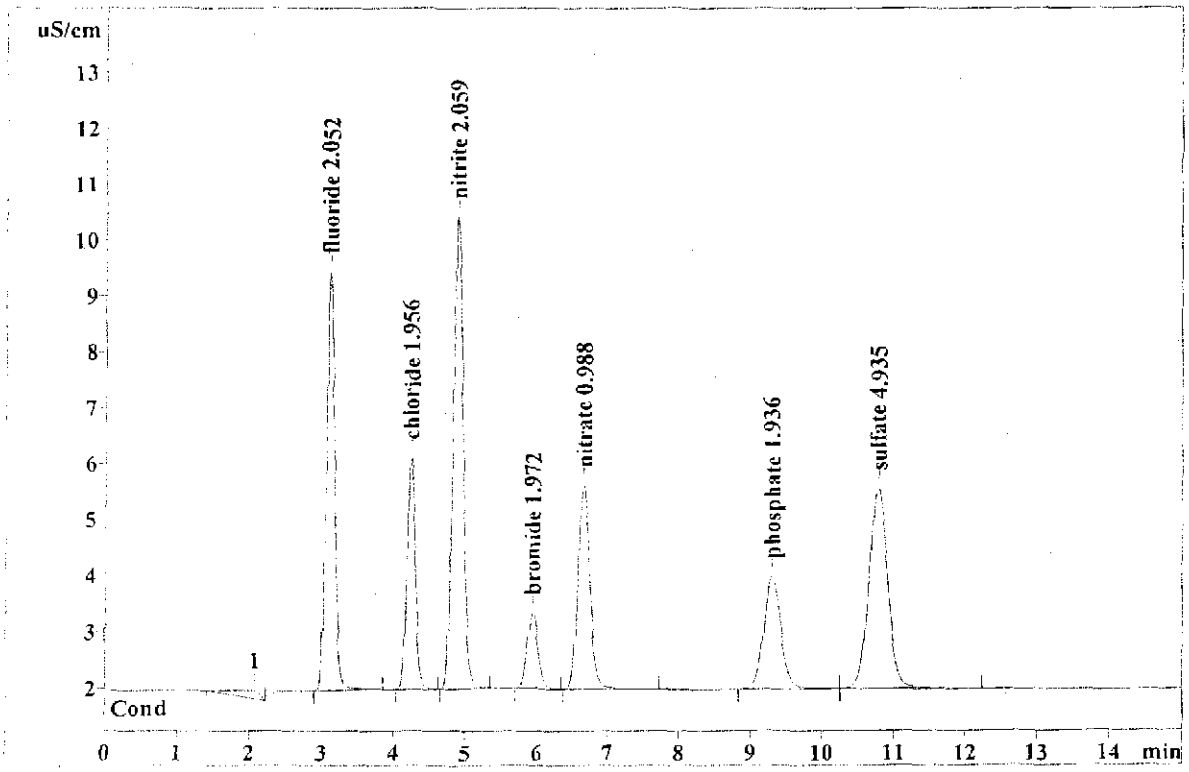
This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 8:07:11 AM
Printed by: Jadelyn Chun

Ident: AJ31-61 CCV11
Analysis from: 10/25/2012 7:52:14 AM
File: WA250752.CHW Last save: 10/25/2012 8:07:11 AM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83099

SAMPLE:
:
Vial number: 61
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

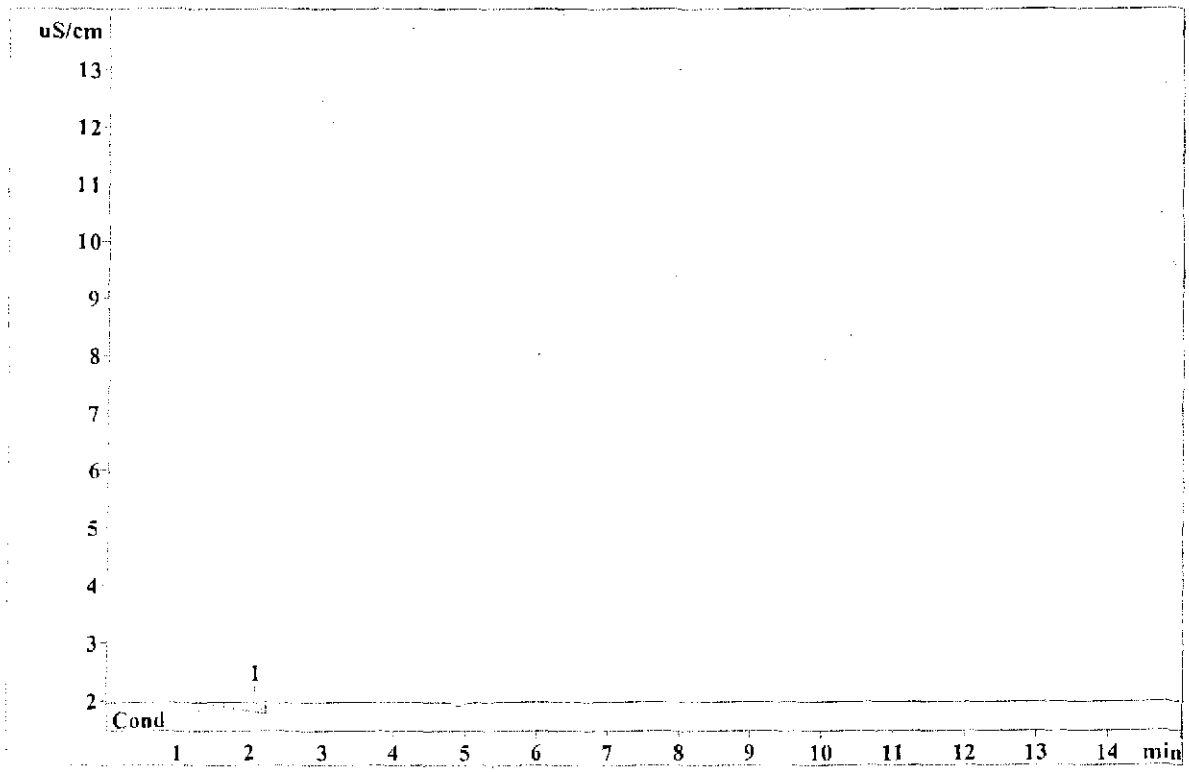
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.14	3.712	0.000	
2	3.10	7.47	59.926	2.052	fluoride
3	4.23	4.14	34.305	1.956	chloride
4	4.88	8.43	82.536	2.059	nitrite
5	5.94	1.35	14.471	1.972	bromide
6	6.65	3.64	43.282	0.988	nitrate
7	9.30	2.00	33.701	1.936	phosphate
8	10.78	3.58	64.531	4.935	sulfate
8	15.00	30.75	336.465	15.899	

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:15:25 AM
Printed by: Jadelyn Chun

Ident: AJ31-62 CCB11
Analysis from: 10/25/2012 8:09:23 AM
File: wa250809.chw Last save: 10/25/2012 8:24:20 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83100

SAMPLE:
:
Vial number: 62
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.16	4.653	0.000	

This report has been created by IC Net
METROHM LTD

ANALYTICAL LOG(S)

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Concentrations of (ppm):

S_1 — 0.05
S_2 — 0.1
S_3 — 0.2
S_4 — 0.5
S_5 — 1.0
S_6 — 2.0
S_7 — 5.0
S_8 — 10.0
S_9 — 20.0

Linearity (ppm):

F^- — 5
Cl^- — 20
NO_2N — 10
Br^- — 5
PO_4P — 5
NO_3N — 5
SO_4^{2-} — 20

Column: Metrosep A Supp 5-100 # 7108270

Flow Rate: 0.70 ml/min Metrosep RP 2 Guard # D108 0022

IC Eluent:
SW4-02-01-04
(320 mM Na_2CO_3 / 100 mM $NaHCO_3$) 20 ml → 2 L reagent water

IC Regenerant:
SW4-02-01-03 (1000 mM H_2SO_4) 100 ml → 1 L reagent water

Reagent Water: RW1-12-001

Book #:	AD0-037
Instrument No.:	D0
Pipette ID's:	039380124
	SW8A-02-12
	SW8A-02-13
Balance ID #:	40706360
Analytical Sequence:	AJ29
Method File:	ICDO-J23.mtw
Analytical Batch:	NA

SOP #	Rev. #
☑ EMAX-300.0	9
☐ EMAX-4110B	3
☑ EMAX-9056	6
☐ EMAX-	

STANDARDS ID	
ICAL	SI1B-21-41-02
ICV	SI1B-21-41-03
CCV	NA
LCS	↓
MS	

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ IC-METROHM	

Analyzed By: JC

Date: 10/24/12

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2
wa241041.chw	ICD0-J23.mtw	AJ29-01 IB	1	1.0	1.0	1.0	100.0	0		
wa241058.chw	ICD0-J23.mtw	AJ29-02 S0	2	1.0	1.0	1.0	100.0	0		
wa241115.chw	ICD0-J23.mtw	AJ29-03 S1	3	1.0	1.0	1.0	100.0	1	0.05PPM	
wa241132.chw	ICD0-J23.mtw	AJ29-04 S2	4	1.0	1.0	1.0	100.0	2	0.1PPM	
wa241149.chw	ICD0-J23.mtw	AJ29-05 S3	5	1.0	1.0	1.0	100.0	3	0.2PPM	
wa241207.chw	ICD0-J23.mtw	AJ29-06 S4	6	1.0	1.0	1.0	100.0	4	0.5PPM	
wa241224.chw	ICD0-J23.mtw	AJ29-07 S5	7	1.0	1.0	1.0	100.0	5	1.0PPM	
wa241241.chw	ICD0-J23.mtw	AJ29-08 S6	8	1.0	1.0	1.0	100.0	6	2.0PPM	
wa241258.chw	ICD0-J23.mtw	AJ29-09 S7	9	1.0	1.0	1.0	100.0	7	5.0PPM	
wa241315.chw	ICD0-J23.mtw	AJ29-10 S8	10	1.0	1.0	1.0	100.0	8	10.0PPM	
wa241332.chw	ICD0-J23.mtw	AJ29-11 S9	11	1.0	1.0	1.0	100.0	9	20.0PPM	
wa241400.chw	ICD0-J23.mtw	AJ29-12 ICV	12	1.0	1.0	1.0	100.0	0	1.0PPM	
wa241417.chw	ICD0-J23.mtw	AJ29-13 ICB	13	1.0	1.0	1.0	100.0	0		

FINAL

JC 10/24/12

10/25/12

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #:	AD0-037
Instrument No.:	D0
Pipette ID's:	039380124
	SW8A-02-12
	SW8A-02-13
Balance ID #:	40706360
Analytical Sequence:	AJ31
Method File:	ICD0 -J23.mtw
Analytical Batch:	ICJ037W; ICJ039W ICJ041W

SOP #	Rev. #
☑ EMAX-300.0	9
☐ EMAX-4110B	3
☑ EMAX-9056	6
☐ EMAX-	

STANDARDS ID	
ICAL	—
ICV	—
CCV	SI1B -21-42-01
LCS	SI1B -21-42-02
MS	SCP Refer to LCS Parent 10

Column: *Metrosep A Supp 5-100* Filter 0.45µm: 218 03739

Flow Rate: 0.70 ml/min 0.20µm: 21801546

IC Eluent:
SW4-02-01-04
(320 mM Na_2CO_3 / 100 mM $NaHCO_3$) 20 ml → 2 L reagent water

IC Regenerant:
SW4-02-01-03 (1000 mM H_2SO_4) 100 ml → 1 L reagent water

Reagent Water: RW1-12-001

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ IC-METROHM	

Analyzed By: JC

Date: 10/24/12

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2	Fi
wa241442.chw	ICD0-J23.mtw	AJ31-01 CCV1	1	1.0	1.0	1.0	100.0	0			
wa241500.chw	ICD0-J23.mtw	AJ31-02 CCB1	2	1.0	1.0	1.0	100.0	0			
wa241517.chw	ICD0-J23.mtw	AJ31-03 ICJ037WB	3	1.0	1.0	1.0	100.0	0			
wa241534.chw	ICD0-J23.mtw	AJ31-04 ICJ037WL	4	1.0	1.0	1.0	100.0	0			
wa241551.chw	ICD0-J23.mtw	AJ31-05 ICJ037WC	5	1.0	1.0	1.0	100.0	0			
wa241608.chw	ICD0-J23.mtw	AJ31-06 J150-01	6	1.0	1.0	1.0	100.0	0			
wa241625.chw	ICD0-J23.mtw	AJ31-07 J164-01	7	1.0	1.0	1.0	100.0	0			
wa241643.chw	ICD0-J23.mtw	AJ31-08 J162-09	8	1.0	1.0	1.0	100.0	0			
wa241700.chw	ICD0-J23.mtw	AJ31-09 J162-08	9	1.0	1.0	1.0	100.0	0			
wa241717.chw	ICD0-J23.mtw	AJ31-10 J162-08D	10	1.0	1.0	1.0	100.0	0			
wa241734.chw	ICD0-J23.mtw	AJ31-11 J162-08M	11	1.0	1.0	1.0	100.0	0			
wa241751.chw	ICD0-J23.mtw	AJ31-12 J162-08S	12	1.0	1.0	1.0	100.0	0			
wa241808.chw	ICD0-J23.mtw	AJ31-13 CCV3	13	1.0	1.0	1.0	100.0	0			
wa241826.chw	ICD0-J23.mtw	AJ31-14 CCB3	14	1.0	1.0	1.0	100.0	0			
wa241843.chw	ICD0-J23.mtw	AJ31-15 J162-07	15	1.0	1.0	1.0	100.0	0			
wa241900.chw	ICD0-J23.mtw	AJ31-16 J162-10	16	1.0	1.0	1.0	100.0	0			
wa241917.chw	ICD0-J23.mtw	AJ31-17 J162-05I DF=10	17	1.0	10.0	1.0	100.0	0			
wa241934.chw	ICD0-J23.mtw	AJ31-18 J162-06I DF=20	18	1.0	20.0	1.0	100.0	0			
wa241951.chw	ICD0-J23.mtw	AJ31-19 J163-02I DF=10	19	1.0	10.0	1.0	100.0	0			
wa242008.chw	ICD0-J23.mtw	AJ31-20 J163-01I DF=20	20	1.0	20.0	1.0	100.0	0			
wa242026.chw	ICD0-J23.mtw	AJ31-21 J163-05I DF=20	21	1.0	20.0	1.0	100.0	0			
wa242043.chw	ICD0-J23.mtw	AJ31-22 J163-08I DF=20	22	1.0	20.0	1.0	100.0	0			
wa242100.chw	ICD0-J23.mtw	AJ31-23 J163-07I DF=20	23	1.0	20.0	1.0	100.0	0			
wa242117.chw	ICD0-J23.mtw	AJ31-24 J163-04I DF=20	24	1.0	20.0	1.0	100.0	0			
wa242134.chw	ICD0-J23.mtw	AJ31-25 CCV5	25	1.0	1.0	1.0	100.0	0			
wa242151.chw	ICD0-J23.mtw	AJ31-26 CCB5	26	1.0	1.0	1.0	100.0	0			
wa242209.chw	ICD0-J23.mtw	AJ31-27 J163-09	27	1.0	1.0	1.0	100.0	0			
wa242226.chw	ICD0-J23.mtw	AJ31-28 J163-06I DF=20	28	1.0	20.0	1.0	100.0	0			
wa242243.chw	ICD0-J23.mtw	AJ31-29 J162-09I DF=20	29	1.0	20.0	1.0	100.0	0			
wa242300.chw	ICD0-J23.mtw	AJ31-30 J162-07I DF=20	30	1.0	20.0	1.0	100.0	0			
wa242317.chw	ICD0-J23.mtw	AJ31-31 J162-10I DF=20	31	1.0	20.0	1.0	100.0	0			
wa242334.chw	ICD0-J23.mtw	AJ31-32 ICJ039WL	32	1.0	1.0	1.0	100.0	0			
wa242351.chw	ICD0-J23.mtw	AJ31-33 ICJ039WC	33	1.0	1.0	1.0	100.0	0			
wa250009.chw	ICD0-J23.mtw	AJ31-34 ICJ039WB	34	1.0	1.0	1.0	100.0	0			
wa250026.chw	ICD0-J23.mtw	AJ31-35 J162-08I DF=20	35	1.0	20.0	1.0	100.0	0			
wa250043.chw	ICD0-J23.mtw	AJ31-36 J162-08D DF=20	36	1.0	20.0	1.0	100.0	0			
wa250100.chw	ICD0-J23.mtw	AJ31-37 CCV7	37	1.0	1.0	1.0	100.0	0			
wa250117.chw	ICD0-J23.mtw	AJ31-38 CCB7	38	1.0	1.0	1.0	100.0	0			
wa250134.chw	ICD0-J23.mtw	AJ31-39 J162-08M DF=20	39	1.0	20.0	1.0	100.0	0			
wa250152.chw	ICD0-J23.mtw	AJ31-40 J162-08S DF=20	40	1.0	20.0	1.0	100.0	0			
wa250209.chw	ICD0-J23.mtw	AJ31-41 J162-05	41	1.0	1.0	1.0	100.0	0			
wa250226.chw	ICD0-J23.mtw	AJ31-42 J162-06	42	1.0	1.0	1.0	100.0	0			
wa250243.chw	ICD0-J23.mtw	AJ31-43 J163-02	43	1.0	1.0	1.0	100.0	0			
wa250300.chw	ICD0-J23.mtw	AJ31-44 J163-01	44	1.0	1.0	1.0	100.0	0			
wa250317.chw	ICD0-J23.mtw	AJ31-45 J163-05	45	1.0	1.0	1.0	100.0	0			
wa250334.chw	ICD0-J23.mtw	AJ31-46 J163-08	46	1.0	1.0	1.0	100.0	0			
wa250352.chw	ICD0-J23.mtw	AJ31-47 J163-07	47	1.0	1.0	1.0	100.0	0			
wa250409.chw	ICD0-J23.mtw	AJ31-48 J163-04	48	1.0	1.0	1.0	100.0	0			
wa250426.chw	ICD0-J23.mtw	AJ31-49 CCV9	49	1.0	1.0	1.0	100.0	0			
wa250443.chw	ICD0-J23.mtw	AJ31-50 CCB9	50	1.0	1.0	1.0	100.0	0			
wa250500.chw	ICD0-J23.mtw	AJ31-51 J163-06	51	1.0	1.0	1.0	100.0	0			
wa250517.chw	ICD0-J23.mtw	AJ31-52 J162-01	52	1.0	1.0	1.0	100.0	0			
wa250535.chw	ICD0-J23.mtw	AJ31-53 J162-02	53	1.0	1.0	1.0	100.0	0			
wa250552.chw	ICD0-J23.mtw	AJ31-54 J162-03	54	1.0	1.0	1.0	100.0	0			
wa250609.chw	ICD0-J23.mtw	AJ31-55 J162-04	55	1.0	1.0	1.0	100.0	0			
wa250626.chw	ICD0-J23.mtw	AJ31-56 J162-01I DF=20	56	1.0	20.0	1.0	100.0	0			
wa250643.chw	ICD0-J23.mtw	AJ31-57 J162-02I DF=20	57	1.0	20.0	1.0	100.0	0			
wa250700.chw	ICD0-J23.mtw	AJ31-58 J162-03I DF=20	58	1.0	20.0	1.0	100.0	0			

FINAL

JA 10/20/12

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2
wa250717.chw	ICD0-J23.mtw	AJ31-59 J162-04J DF=20	59	1.0	20.0	1.0	100.0	0		
wa250733.chw	ICD0-J23.mtw	AJ31-60 J163-10I DF=20	60	1.0	20.0	1.0	100.0	0		
wa250752.chw	ICD0-J23.mtw	AJ31-61 CCV11	61	1.0	1.0	1.0	100.0	0		
wa250809.chw	ICD0-J23.mtw	AJ31-62 CCB11	62	1.0	1.0	1.0	100.0	0		
wa250826.chw	ICD0-J23.mtw	AJ31-63 J163-10	63	1.0	1.0	1.0	100.0	0		
wa250843.chw	ICD0-J23.mtw	AJ31-64 ICJ041WL	64	1.0	1.0	1.0	100.0	0		
wa250900.chw	ICD0-J23.mtw	AJ31-65 ICJ041WC	65	1.0	1.0	1.0	100.0	0		
wa250918.chw	ICD0-J23.mtw	AJ31-66 ICJ041WB	66	1.0	1.0	1.0	100.0	0		
wa250935.chw	ICD0-J23.mtw	AJ31-67 J163-11	67	1.0	1.0	1.0	100.0	0		
wa250952.chw	ICD0-J23.mtw	AJ31-68 J163-12	68	1.0	1.0	1.0	100.0	0		
wa251009.chw	ICD0-J23.mtw	AJ31-69 J163-13	69	1.0	1.0	1.0	100.0	0		
wa251026.chw	ICD0-J23.mtw	AJ31-70 J163-14	70	1.0	1.0	1.0	100.0	0		
wa251043.chw	ICD0-J23.mtw	AJ31-71 J163-11I DF=20	71	1.0	20.0	1.0	100.0	0		
wa251100.chw	ICD0-J23.mtw	AJ31-72 J163-12I DF=20	72	1.0	20.0	1.0	100.0	0		
wa251118.chw	ICD0-J23.mtw	AJ31-73 CCV13	73	1.0	1.0	1.0	100.0	0		
wa251135.chw	ICD0-J23.mtw	AJ31-74 CCB13	74	1.0	1.0	1.0	100.0	0		
wa251152.chw	ICD0-J23.mtw	AJ31-75 J163-13I DF=10	75	1.0	10.0	1.0	100.0	0		
wa251209.chw	ICD0-J23.mtw	AJ31-76 J163-14I DF=20	76	1.0	20.0	1.0	100.0	0		
wa251226.chw	ICD0-J23.mtw	AJ31-77 J164-03	77	1.0	1.0	1.0	100.0	0		
wa251243.chw	ICD0-J23.mtw	AJ31-78 J164-04	78	1.0	1.0	1.0	100.0	0		
wa251300.chw	ICD0-J23.mtw	AJ31-79 J164-06I DF=10	79	1.0	10.0	1.0	100.0	0		
wa251318.chw	ICD0-J23.mtw	AJ31-80 J164-01I DF=5	80	1.0	5.0	1.0	100.0	0		
wa251335.chw	ICD0-J23.mtw	AJ31-81 J164-03I DF=10	81	1.0	10.0	1.0	100.0	0		
wa251352.chw	ICD0-J23.mtw	AJ31-82 J164-04I DF=5	82	1.0	5.0	1.0	100.0	0		
wa251409.chw	ICD0-J23.mtw	AJ31-83 J164-01J DF=100	83	1.0	100.0	1.0	100.0	0		
wa251426.chw	ICD0-J23.mtw	AJ31-84 J163-09I DF=10	84	1.0	10.0	1.0	100.0	0		
wa251443.chw	ICD0-J23.mtw	AJ31-85 CCV15	85	1.0	1.0	1.0	100.0	0		
wa251519.chw	ICD0-J23.mtw	AJ31-86 CCB15	86	1.0	1.0	1.0	100.0	0		
wa251537.chw	ICD0-J23.mtw	AJ31-87 J164-03J DF=200	87	1.0	200.0	1.0	100.0	0		
wa251554.chw	ICD0-J23.mtw	AJ31-88 J164-04J DF=100	88	1.0	100.0	1.0	100.0	0		
wa251611.chw	ICD0-J23.mtw	AJ31-89 J164-06J DF=200	89	1.0	200.0	1.0	100.0	0		
wa251628.chw	ICD0-J23.mtw	AJ31-90 J155-13I DF=20	90	1.0	20.0	1.0	100.0	0		
wa251646.chw	ICD0-J23.mtw	AJ31-91 J155-13M DF=20	91	1.0	20.0	1.0	100.0	0		
wa251703.chw	ICD0-J23.mtw	AJ31-92 J155-13S DF=20	92	1.0	20.0	1.0	100.0	0		
wa251720.chw	ICD0-J23.mtw	AJ31-93 CCV17	93	1.0	1.0	1.0	100.0	0		
wa251737.chw	ICD0-J23.mtw	AJ31-94 CCB17	94	1.0	1.0	1.0	100.0	0		

F2

FINAL

JL 10/26/12

RETENTION TIME WINDOW

RETENTION TIME WINDOW
METHOD 300.0

Lab name:	**EMAX**	**Method:**	**EMAX-300.0**
Instrument ID:	IC100 (761 IC)	IC column:	METROSEP A SUPP 5
		Column size:	100X4.0mm

Compound	Retention time Window
FLUORIDE	0.234
CHLORIDE	0.407
NTIRITE	0.52
BROMIDE	0.688
NTIRATE	0.836
PHOSPHATE	0.678
SULFATE	0.915
IODIDE	1.078

10-17-07

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J162

METHOD 415.1
TOC

A total of ten (10) water samples were received on 10/24/12 for Total Organic Carbon analysis, Method 415.1 in accordance with Methods for the Chemical Analysis of Water and Wastes (MCAWW) (EPA/600/4-79/020) and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source. Continuing calibration verifications were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for TCJ006WL/C were all within QC limits.

Matrix QC Sample
Matrix QC sample was analyzed at the frequency prescribed by the project.
Percent recoveries for J162-08M/S were within project QC limits.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

METHOD 415.1
TOC

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J162

Matrix : WATER
Instrument ID : I62

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	TCJ006WB	ND	1	NA	1.00	0.500	10/26/1215:38	NA	TCJ006-05	TCJ006-D2	TCJ006W	NA	NA
LCS1W	TCJ006WL	22.9	1	NA	1.00	0.500	10/26/1215:51	NA	TCJ006-06	TCJ006-02	TCJ006W	NA	NA
LCD1W	TCJ006WC	23.0	1	NA	1.00	0.500	10/26/1216:04	NA	TCJ006-07	TCJ006-02	TCJ006W	NA	NA
10-24-12 BBW-1	J162-01	0.614J	1	NA	1.00	0.500	10/26/1216:30	NA	TCJ006-08	TCJ006-02	TCJ006W	10/24/1208:25	10/24/12
10-24-12 BBW-2	J162-02	0.840J	1	NA	1.00	0.500	10/26/1216:41	NA	TCJ006-09	TCJ006-02	TCJ006W	10/24/1209:35	10/24/12
10-24-12 BBW-3	J162-03	0.725J	1	NA	1.00	0.500	10/26/1216:52	NA	TCJ006-10	TCJ006-02	TCJ006W	10/24/1210:50	10/24/12
10-24-12 FDUP-1	J162-04	0.567J	1	NA	1.00	0.500	10/26/1217:02	NA	TCJ006-11	TCJ006-02	TCJ006W	10/24/1200:00	10/24/12
10-23-12 PWB-6	J162-05	0.564J	1	NA	1.00	0.500	10/26/1217:13	NA	TCJ006-12	TCJ006-02	TCJ006W	10/23/1211:32	10/24/12
10-23-12 AR-1	J162-06	0.820J	1	NA	1.00	0.500	10/26/1217:23	NA	TCJ006-13	TCJ006-02	TCJ006W	10/23/1212:16	10/24/12
10-23-12 PWB-1	J162-07	0.794J	1	NA	1.00	0.500	10/26/1217:56	NA	TCJ006-16	TCJ006-14	TCJ006W	10/23/1210:50	10/24/12
10-23-12 AMW-3R	J162-08	0.951J	1	NA	1.00	0.500	10/26/1218:06	NA	TCJ006-17	TCJ006-14	TCJ006W	10/23/1209:36	10/24/12
10-23-12 AMW-3RMS	J162-08M	22.5	1	NA	1.00	0.500	10/26/1218:19	NA	TCJ006-18	TCJ006-14	TCJ006W	10/23/1209:36	10/24/12
10-23-12 AMW-3RMSD	J162-08S	23.0	1	NA	1.00	0.500	10/26/1218:31	NA	TCJ006-19	TCJ006-14	TCJ006W	10/23/1209:36	10/24/12
10-23-12 PWB-3	J162-09	0.683J	1	NA	1.00	0.500	10/26/1218:42	NA	TCJ006-20	TCJ006-14	TCJ006W	10/23/1209:57	10/24/12
10-23-12 PWB-10	J162-10	0.772J	1	NA	1.00	0.500	10/26/1218:52	NA	TCJ006-21	TCJ006-14	TCJ006W	10/23/1211:50	10/24/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 415.1

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	TCJ006WB	TCJ006WL	TCJ006WC		
LAB FILE ID:	TCJ006-05	TCJ006-06	TCJ006-07		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/26/1215:38	10/26/1215:51	10/26/1216:04	DATE RECEIVED:	NA
PREP. BATCH:	TCJ006W	TCJ006W	TCJ006W		
CALIB. REF:	TCJ006-02	TCJ006-02	TCJ006-02		

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 (%)
TOC	ND	25	22.9	92	25	23	92	1	80-120	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J162
METHOD: METHOD 415.1

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	10-23-12 AMW-3R				
LAB SAMP ID:	J162-08	J162-08M	J162-08S		
LAB FILE ID:	TCJ006-17	TCJ006-18	TCJ006-19		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	10/23/12 09:36
DATE ANALYZED:	10/26/1218:06	10/26/1218:19	10/26/1218:31	DATE RECEIVED:	10/24/12
PREP. BATCH:	TCJ006W	TCJ006W	TCJ006W		
CALIB. REF:	TCJ006-14	TCJ006-14	TCJ006-14		

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 (%)
TOC	.951	25	22.5	86	25	23	88	2	75-125	20

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
TOC

	Date	Time
Start	10/26/12	13:20
End	10/27/12	02:50

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

TCJ006W: J162, J164, J163
TCJ007W: J163, J155*

J155 - 01 DF = 5
- 03 DF = 2
- ~~04~~ 04 N 10/26/12 DF = 2
- 10 DF = 2
- 12 DF = 5
- 13 DF = 2

due to odor

*~~All samples associated with J155 were filtered prior to analysis.~~
N 10/26/12

Book #:	A62-023
Instrument No.:	62
Pipette ID:	039380025
	SW3-01-33
	SI1A-01-4
Balance ID:	40706360
Analytical Sequence:	TCJ006
Method File:	TCJ006
Analytical Batch:	TCJ006W/7W

SOP #	Rev. #
☑ EMAX-415.1	3
☐ EMAX-5310B	2
☐ EMAX-9060	3
☐ EMAX-	

STANDARDS ID		CONC. (mg/L)
S0	RW1-12-001	0
S1	SW10B-04-286 N 10/26/12	1
S2		5
S3		10
S4		40
S5		80
S6	—	—
ICV/LCS	SW10B-04-289	25
CCV	287	25

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ TOC	
☐	

Reagent Water ID #:	RW1-12-001
pH Strips Lot #:	HC248798
2 M HCl	SW4-01-256

Analyzed By: N
Date: 10/26/12

	Type	Analysis	Sample Nam	Sample ID	ObjectID	Origin	Dilutio	Result	Comment
1	Standard	NPOC	ICAL	TCJ006-01	0A-12345	C:\Progra	1.000		
2	Control	NPOC	ICV	TCJ006-02	0A-12345	C:\Progra	1.000	NPOC:24.61 mg/L	
3	Unknown	NPOC	ICB	TCJ006-03	0A-12345	C:\Progra	1.000	NPOC:0.05741 mg/	
4	Unknown	NPOC	HCO3/CO3	TCJ006-04	0A-12345	C:\Progra	1.000	NPOC:0.2505 mg/L	
5	Unknown	NPOC	TCJ006WB	TCJ006-05	0A-12345	C:\Progra	1.000	NPOC:0.08730 mg/	
6	Unknown	NPOC	TCJ006WL	TCJ006-06	0A-12345	C:\Progra	1.000	NPOC:22.89 mg/L	
7	Unknown	NPOC	TCJ006WC	TCJ006-07	0A-12345	C:\Progra	1.000	NPOC:23.01 mg/L	
8	Unknown	NPOC	J162-01	TCJ006-08	0A-12345	C:\Progra	1.000	NPOC:0.6144 mg/L	PH<2
9	Unknown	NPOC	J162-02	TCJ006-09	0A-12345	C:\Progra	1.000	NPOC:0.8403 mg/L	PH<2
10	Unknown	NPOC	J162-03	TCJ006-10	0A-12345	C:\Progra	1.000	NPOC:0.7251 mg/L	PH<2
11	Unknown	NPOC	J162-04	TCJ006-11	0A-12345	C:\Progra	1.000	NPOC:0.5671 mg/L	PH<2
12	Unknown	NPOC	J162-05	TCJ006-12	0A-12345	C:\Progra	1.000	NPOC:0.5638 mg/L	PH<2
13	Unknown	NPOC	J162-06	TCJ006-13	0A-12345	C:\Progra	1.000	NPOC:0.8198 mg/L	PH<2
14	Control	NPOC	CCV1	TCJ006-14	0A-12345	C:\Progra	1.000	NPOC:22.87 mg/L	
15	Unknown	NPOC	CCB2	TCJ006-15	0A-12345	C:\Progra	1.000	NPOC:0.05561 mg/	
16	Unknown	NPOC	J162-07	TCJ006-16	0A-12345	C:\Progra	1.000	NPOC:0.7943 mg/L	PH<2
17	Unknown	NPOC	J162-08	TCJ006-17	0A-12345	C:\Progra	1.000	NPOC:0.9508 mg/L	PH<2
18	Unknown	NPOC	J162-08M	TCJ006-18	0A-12345	C:\Progra	1.000	NPOC:22.52 mg/L	PH<2
19	Unknown	NPOC	J162-08S	TCJ006-19	0A-12345	C:\Progra	1.000	NPOC:22.95 mg/L	PH<2
20	Unknown	NPOC	J162-09	TCJ006-20	0A-12345	C:\Progra	1.000	NPOC:0.6829 mg/L	PH<2
21	Unknown	NPOC	J162-10	TCJ006-21	0A-12345	C:\Progra	1.000	NPOC:0.7723 mg/L	PH<2
22	Unknown	NPOC	J164-01	TCJ006-22	0A-12345	C:\Progra	1.000	NPOC:3.517 mg/L	PH<2
23	Unknown	NPOC	J164-03	TCJ006-23	0A-12345	C:\Progra	1.000	NPOC:2.711 mg/L	PH<2
24	Unknown	NPOC	J164-04	TCJ006-24	0A-12345	C:\Progra	1.000	NPOC:1.957 mg/L	PH<2
25	Unknown	NPOC	J164-06	TCJ006-25	0A-12345	C:\Progra	1.000	NPOC:10.17 mg/L	PH<2
26	Control	NPOC	CCV2	TCJ006-26	0A-12345	C:\Progra	1.000	NPOC:22.74 mg/L	
27	Unknown	NPOC	CCB2	TCJ006-27	0A-12345	C:\Progra	1.000	NPOC:0.05442 mg/	
28	Unknown	NPOC	J163-01	TCJ006-28	0A-12345	C:\Progra	1.000	NPOC:0.7385 mg/L	PH<2
29	Unknown	NPOC	J163-02	TCJ006-29	0A-12345	C:\Progra	1.000	NPOC:0.4761 mg/L	PH<2
30	Unknown	NPOC	J163-04	TCJ006-30	0A-12345	C:\Progra	1.000	NPOC:0.6663 mg/L	PH<2
31	Unknown	NPOC	J163-05	TCJ006-31	0A-12345	C:\Progra	1.000	NPOC:0.7324 mg/L	PH<2
32	Unknown	NPOC	J163-06	TCJ006-32	0A-12345	C:\Progra	1.000	NPOC:0.6055 mg/L	PH<2
33	Unknown	NPOC	J163-07	TCJ006-33	0A-12345	C:\Progra	1.000	NPOC:0.7116 mg/L	PH<2
34	Unknown	NPOC	TCJ007WL	TCJ006-34	0A-12345	C:\Progra	1.000	NPOC:23.03 mg/L	
35	Unknown	NPOC	TCJ007WC	TCJ006-35	0A-12345	C:\Progra	1.000	NPOC:22.99 mg/L	
36	Unknown	NPOC	TCJ007WB	TCJ006-36	0A-12345	C:\Progra	1.000	NPOC:0.04555 mg/	
37	Unknown	NPOC	J163-08	TCJ006-37	0A-12345	C:\Progra	1.000	NPOC:0.6712 mg/L	PH<2
38	Control	NPOC	CCV3	TCJ006-38	0A-12345	C:\Progra	1.000	NPOC:22.99 mg/L	
39	Unknown	NPOC	CCB3	TCJ006-39	0A-12345	C:\Progra	1.000	NPOC:0.03050 mg/	
40	Unknown	NPOC	J163-09	TCJ006-40	0A-12345	C:\Progra	1.000	NPOC:0.8416 mg/L	PH<2
41	Unknown	NPOC	J163-10	TCJ006-41	0A-12345	C:\Progra	1.000	NPOC:0.7049 mg/L	PH<2
42	Unknown	NPOC	J163-11	TCJ006-42	0A-12345	C:\Progra	1.000	NPOC:0.7208 mg/L	PH<2
43	Unknown	NPOC	J163-12	TCJ006-43	0A-12345	C:\Progra	1.000	NPOC:0.8831 mg/L	PH<2
44	Unknown	NPOC	J163-13	TCJ006-44	0A-12345	C:\Progra	1.000	NPOC:0.5697 mg/L	PH<2
45	Unknown	NPOC	J163-14	TCJ006-45	0A-12345	C:\Progra	1.000	NPOC:0.6929 mg/L	PH<2
46	Unknown	NPOC	J155-01I	TCJ006-46	0A-12345	C:\Progra	5.000	NPOC:1092 mg/L	PH<2; DF=5 *
47	Unknown	NPOC	J155-02	TCJ006-47	0A-12345	C:\Progra	1.000	NPOC:8.325 mg/L	PH<2 **
48	Unknown	NPOC	J155-03I	TCJ006-48	0A-12345	C:\Progra	2.000	NPOC:521.1 mg/L	PH<2; DF=2 *
49	Control	NPOC	CCV4	TCJ006-49	0A-12345	C:\Progra	1.000	NPOC:23.94 mg/L	
50	Unknown	NPOC	CCB4	TCJ006-50	0A-12345	C:\Progra	1.000	NPOC:0.1760 mg/L	
51	Unknown	NPOC	J155-04I	TCJ006-51	0A-12345	C:\Progra	2.000	NPOC:14.96 mg/L	PH<2; DF=2
52	Unknown	NPOC	J155-05	TCJ006-52	0A-12345	C:\Progra	1.000	NPOC:16.90 mg/L	PH<2
53	Unknown	NPOC	J155-06	TCJ006-53	0A-12345	C:\Progra	1.000	NPOC:7.612 mg/L	PH<2
54	Unknown	NPOC	J155-07	TCJ006-54	0A-12345	C:\Progra	1.000	NPOC:18.98 mg/L	PH<2
55	Unknown	NPOC	J155-10I	TCJ006-55	0A-12345	C:\Progra	2.000	NPOC:13.26 mg/L	PH<2; DF=2
56	Unknown	NPOC	J155-12I	TCJ006-56	0A-12345	C:\Progra	5.000	NPOC:170.1 mg/L	PH<2; DF=5
57	Unknown	NPOC	J155-13I	TCJ006-57	0A-12345	C:\Progra	2.000	NPOC:244.4 mg/L	PH<2; DF=2 *
58	Unknown	NPOC	J155-13M	TCJ006-58	0A-12345	C:\Progra	2.000	NPOC:302.7 mg/L	PH<2; DF=2 *
59	Unknown	NPOC	J155-13S	TCJ006-59	0A-12345	C:\Progra	2.000	NPOC:303.9 mg/L	PH<2; DF=2 *
60	Unknown	NPOC	J155-14	TCJ006-60	0A-12345	C:\Progra	1.000	NPOC:12.73 mg/L	PH<2 **
61	Control	NPOC	CCV5	TCJ006-61	0A-12345	C:\Progra	1.000	NPOC:23.47 mg/L	
62	Unknown	NPOC	CCB5	TCJ006-62	0A-12345	C:\Progra	1.000	NPOC:0.1204 mg/L	
63									
64									
65									
66									FINAL
67									

VL 10/31/12

* RR over range

** RR carry over

VL 10/31/12

8082

Instr.Information

System	toc
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Cal. Curve

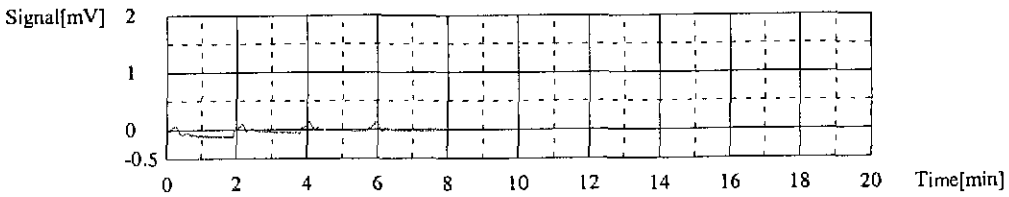
Sample Name:	ICAL
Sample ID:	TCJ006-01
Cal. Curve:	TCJ006.2012_10_26_13_11_55.cal

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.000	50uL	1	*******		10/26/12 01:20:06 PM
2	0.000	50uL	1	*******		10/26/12 01:22:12 PM
3	0.000	50uL	1	*******		10/26/12 01:24:18 PM
4	0.000	50uL	1	*******		10/26/12 01:26:24 PM

Acid Add.	2.500%
Sp. Time	90.00sec
Mean Area	0.000

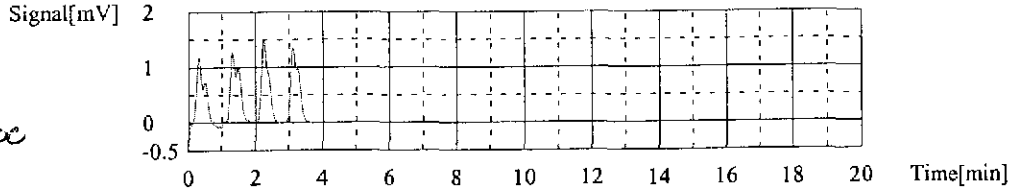


Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	2.134	50uL	10	*******		10/26/12 01:34:37 PM
2	2.252	50uL	10	*******		10/26/12 01:35:44 PM
3	2.284	50uL	10	*******		10/26/12 01:36:47 PM
4	2.243	50uL	10	*******		10/26/12 01:37:53 PM

Acid Add.	2.500%
Sp. Time	90.00sec
Mean Area	2.228

2.228 / 2.228 = 1.000

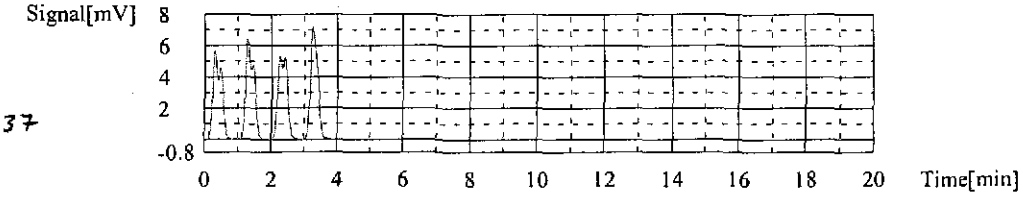


Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	10.66	50uL	2	*******		10/26/12 01:44:08 PM
2	11.12	50uL	2	*******		10/26/12 01:45:16 PM
3	11.06	50uL	2	*******		10/26/12 01:46:27 PM
4	11.14	50uL	2	*******		10/26/12 01:47:33 PM

Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 11.00

11.00/2.228 = 4.937

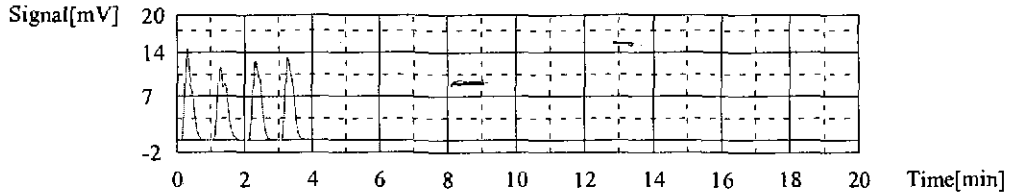


Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	21.56	50uL	1	*******		10/26/12 01:53:04 PM
2	21.95	50uL	1	*******		10/26/12 01:54:18 PM
3	22.02	50uL	1	*******		10/26/12 01:55:27 PM
4	22.12	50uL	1	*******		10/26/12 01:56:36 PM

Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 21.91

21.91/2.228 = 9.834

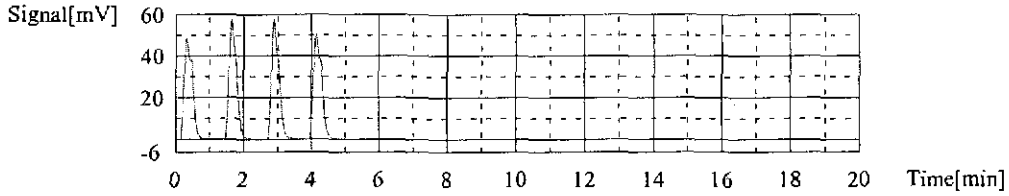


Conc: 40.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	85.09	50uL	2	*******		10/26/12 02:05:07 PM
2	88.84	50uL	2	*******		10/26/12 02:06:34 PM
3	88.27	50uL	2	*******		10/26/12 02:08:00 PM
4	88.88	50uL	2	*******		10/26/12 02:09:32 PM

Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 87.77

87.77/2.228 = 39.39

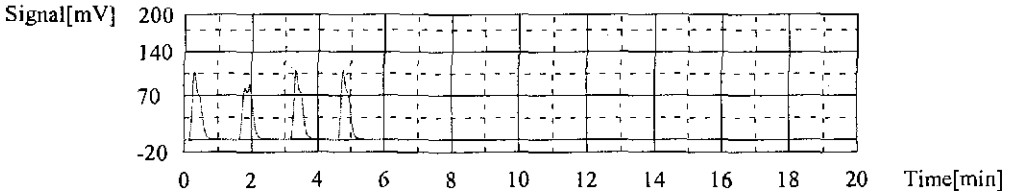


Conc: 80.00mg/L

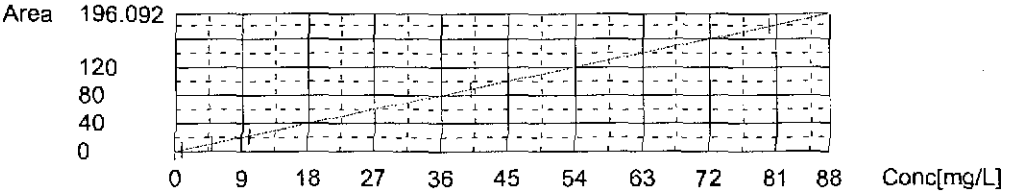
No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	175.3	50uL	1	*******		10/26/12 02:15:35 PM
2	177.7	50uL	1	*******		10/26/12 02:17:20 PM
3	180.6	50uL	1	*******		10/26/12 02:18:57 PM
4	180.6	50uL	1	*******		10/26/12 02:20:36 PM

Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 178.6

178.6/2.228 = 80.16



Slope: 2.228
Intercept 0.000
r^2 0.999933



Control Sample

Sample Name: ICV
Sample ID: TCJ006-02
Method: TCJ006.tpl
Chk. Result Control value: 24.61 / Control exceeds range!

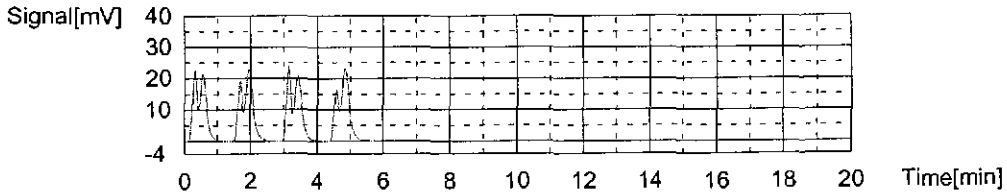
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:24.61 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.19	23.87mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 02:28:43 PM
2	54.89	24.63mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 02:30:22 PM
3	55.87	25.07mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 02:31:59 PM
4	55.42	24.87mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 02:33:39 PM

Mean Area 54.84
Mean Conc. 24.61mg/L



Sample

Sample Name: ICB
Sample ID: TCJ006-03
Origin: TCJ006.cal
Chk. Result

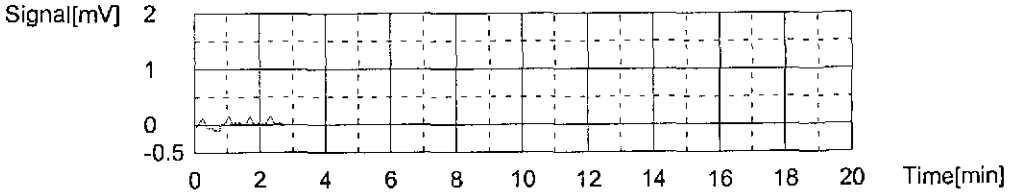
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.05741 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1600	0.07180mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 02:40:58 PM
2	0.1342	0.06022mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 02:41:49 PM
3	0.1104	0.04954mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 02:42:37 PM
4	0.1071	0.04806mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 02:43:27 PM

Mean Area 0.1279
Mean Conc. 0.05741mg/L



8085

Sample

Sample Name: HCO3/CO3
Sample ID: TCJ006-04
Origin: TCJ006.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2505 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4620	0.2073mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:25:32 PM
2	0.6022	0.2702mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:26:33 PM
3	0.6068	0.2723mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:27:34 PM
4	0.5615	0.2520mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:28:36 PM

Mean Area 0.5581
Mean Conc. 0.2505mg/L

Sample

Sample Name: TCJ006WB
Sample ID: TCJ006-05
Origin: TCJ006.cal
Chk. Result

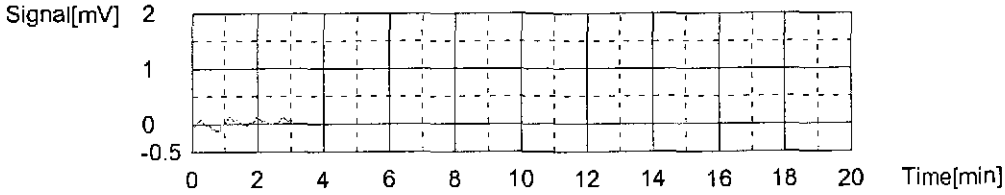
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.08730 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1638	0.07351mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:35:58 PM
2	0.2582	0.1159mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:36:59 PM
3	0.1703	0.07643mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:37:58 PM
4	0.1858	0.08338mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:38:57 PM

Mean Area 0.1945
Mean Conc. 0.08730mg/L



Sample

8886

Sample Name: TCJ006WL
Sample ID: TCJ006-06
Origin: TCJ006.cal
Chk. Result

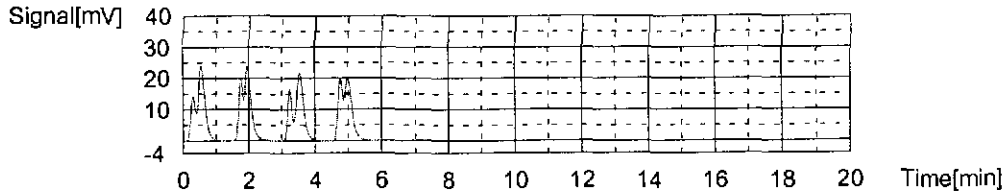
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:22.89 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	49.90	22.39mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:46:54 PM
2	51.75	23.22mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:48:35 PM
3	50.14	22.50mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:50:17 PM
4	52.27	23.46mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:51:55 PM

Mean Area 51.02
Mean Conc. *22.89mg/L*



Sample

Sample Name: TCJ006WC
Sample ID: TCJ006-07
Origin: TCJ006.cal
Chk. Result

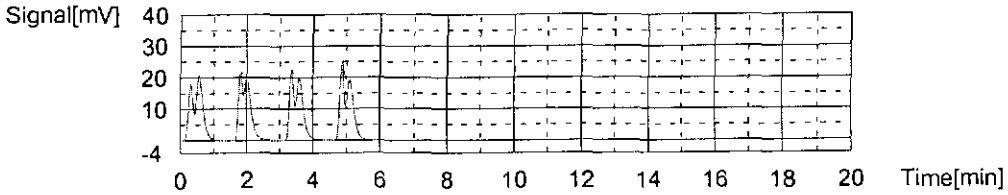
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:23.01 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	50.22	22.54mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:59:56 PM
2	50.34	22.59mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:01:39 PM
3	52.78	23.69mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:03:22 PM
4	51.71	23.21mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:04:59 PM

Mean Area 51.26
Mean Conc. *23.01mg/L*



Sample

Sample Name: J162-01
Sample ID: TCJ006-08
Origin: TCJ006.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6144 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.306	0.5861mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:27:56 PM
2	1.399	0.6278mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:28:57 PM
3	1.362	0.6112mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:30:01 PM
4	1.409	0.6323mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:30:59 PM

Mean Area 1.369
Mean Conc. 0.6144mg/L

Sample

Sample Name: J162-02
Sample ID: TCJ006-09
Origin: TCJ006.cal
Chk. Result

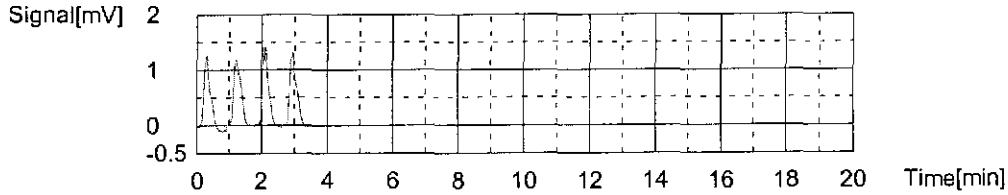
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8403 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.798	0.8069mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:38:24 PM
2	1.924	0.8634mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:39:28 PM
3	1.835	0.8235mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:40:30 PM
4	1.933	0.8675mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:41:33 PM

Mean Area 1.873
Mean Conc. 0.8403mg/L



Sample

Sample Name: J162-03
Sample ID: TCJ006-10
Origin: TCJ006.cal
Chk. Result

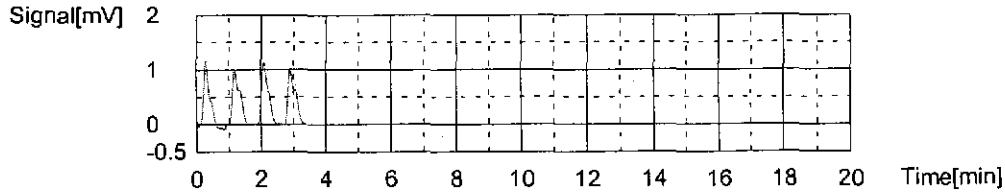
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7251 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.592	0.7144mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:48:56 PM
2	1.603	0.7194mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:50:01 PM
3	1.643	0.7373mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:51:02 PM
4	1.625	0.7293mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:52:06 PM

Mean Area 1.616
Mean Conc. 0.7251mg/L



Sample

Sample Name: J162-04
Sample ID: TCJ006-11
Origin: TCJ006.cal
Chk. Result

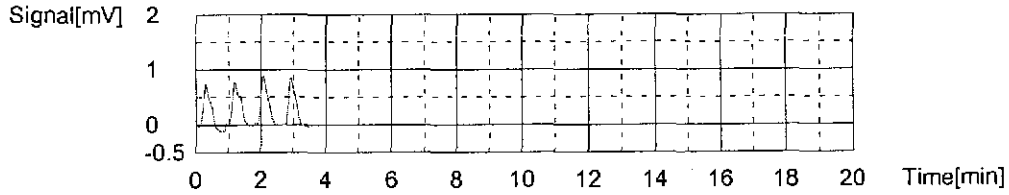
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.5671 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.218	0.5466mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:59:29 PM
2	1.267	0.5686mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:00:33 PM
3	1.258	0.5646mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:01:36 PM
4	1.312	0.5888mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:02:38 PM

Mean Area 1.264
Mean Conc. 0.5671mg/L



Sample

Sample Name: J162-05
Sample ID: TCJ006-12
Origin: TCJ006.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.5638 mg/L

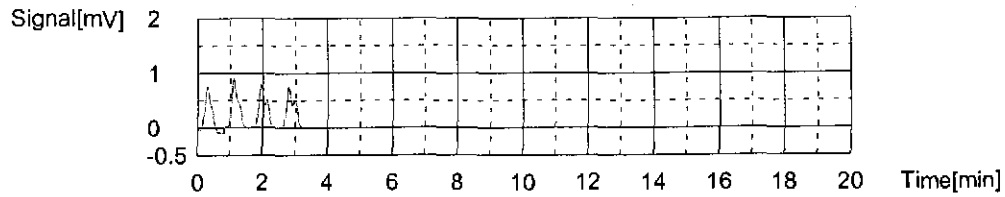
1. Det

Anal.: NPOC

8669

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.157	0.5192mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:09:57 PM
2	1.285	0.5767mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:10:58 PM
3	1.267	0.5686mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:12:01 PM
4	1.316	0.5906mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:13:06 PM

Mean Area 1.256
Mean Conc. 0.5638mg/L



Sample

Sample Name: J162-06
Sample ID: TCJ006-13
Origin: TCJ006.cal
Chk. Result

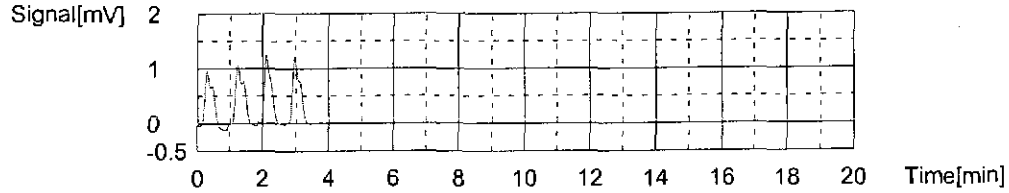
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8198 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.734	0.7782mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:20:31 PM
2	1.869	0.8388mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:21:35 PM
3	1.799	0.8073mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:22:38 PM
4	1.905	0.8549mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:23:39 PM

Mean Area 1.827
Mean Conc. 0.8198mg/L



Control Sample

Sample Name: CCV1
Sample ID: TCJ006-14
Method: TCJ006.tpl
Chk. Result Control value: 22.87 / Control exceeds range!

Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:22.87 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	48.04	21.56mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:31:26 PM
2	52.73	23.66mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:32:50 PM
3	51.38	23.06mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:34:11 PM
4	51.68	23.19mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:35:33 PM

Mean Area 50.96
Mean Conc. 22.87mg/L

Sample

Sample Name: CCB2
Sample ID: TCJ006-15
Origin: TCJ006.cal
Chk. Result

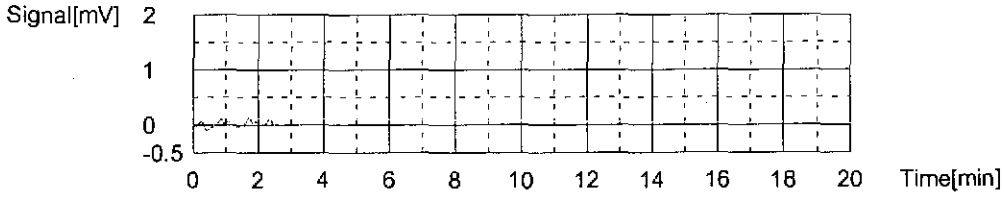
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.05561 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.05610	0.02518mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:42:38 PM
2	0.1517	0.06808mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:43:39 PM
3	0.1697	0.07616mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:44:30 PM
4	0.1182	0.05304mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:45:20 PM

Mean Area 0.1239
Mean Conc. 0.05561mg/L



Sample

Sample Name: J162-07
Sample ID: TCJ006-16
Origin: TCJ006.cal
Chk. Result

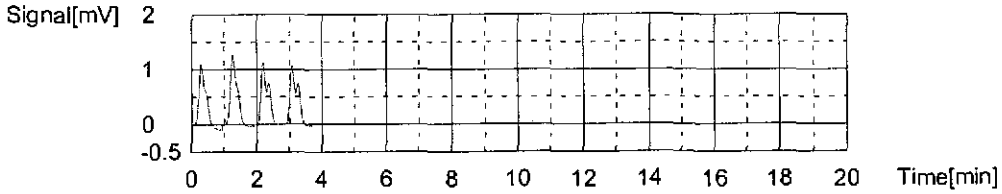
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7943 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.668	0.7485mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:52:44 PM
2	1.847	0.8289mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:53:51 PM
3	1.787	0.8020mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:54:55 PM
4	1.778	0.7979mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:56:00 PM

Mean Area 1.770
Mean Conc. 0.7943mg/L



Sample

Sample Name: J162-08
Sample ID: TCJ006-17
Origin: TCJ006.cal
Chk. Result

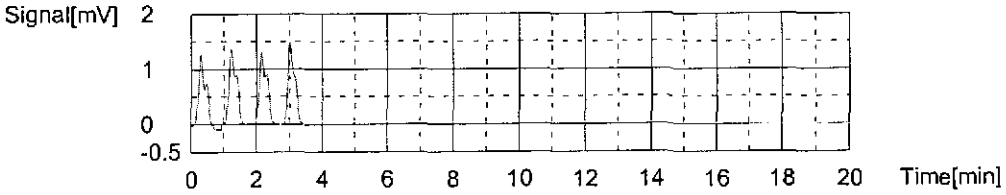
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9508 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.960	0.8796mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:03:25 PM
2	2.145	0.9626mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:04:31 PM
3	2.142	0.9613mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:05:35 PM
4	2.228	0.9999mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:06:37 PM

Mean Area 2.119
Mean Conc. 0.9508mg/L



Sample

Sample Name: J162-08M
Sample ID: TCJ006-18
Origin: TCJ006.cal
Chk. Result

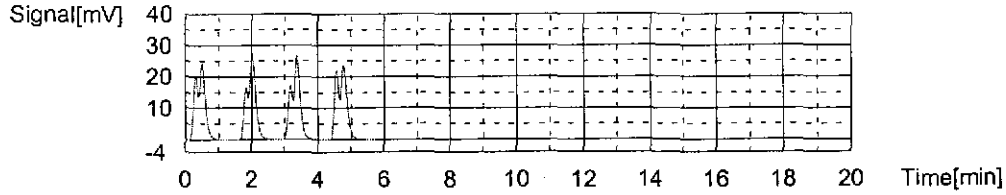
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:22.52 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	49.12	22.04mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:14:38 PM
2	50.63	22.72mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:16:09 PM
3	49.23	22.09mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:17:45 PM
4	51.74	23.22mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:19:23 PM

Mean Area 50.18
Mean Conc. 22.52mg/L



Sample

Sample Name: J162-08S
Sample ID: TCJ006-19
Origin: TCJ006.cal
Chk. Result

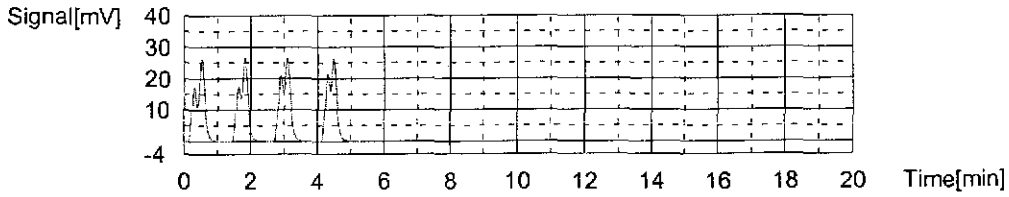
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:22.95 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	49.96	22.42mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:27:12 PM
2	49.21	22.08mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:28:39 PM
3	53.25	23.90mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:30:15 PM
4	52.10	23.38mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:31:43 PM

Mean Area 51.13
Mean Conc. 22.95mg/L



Sample

Sample Name: J162-09
Sample ID: TCJ006-20
Origin: TCJ006.cal
Chk. Result

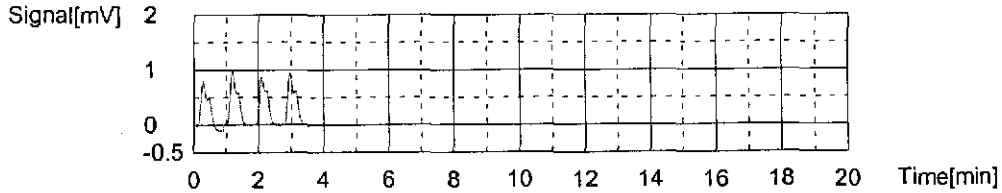
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6829 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.440	0.6462mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:39:07 PM
2	1.556	0.6983mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:40:12 PM
3	1.467	0.6583mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:41:16 PM
4	1.624	0.7288mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:42:21 PM

Mean Area 1.522
Mean Conc. 0.6829mg/L



Sample

Sample Name: J162-10
Sample ID: TCJ006-21
Origin: TCJ006.cal
Chk. Result

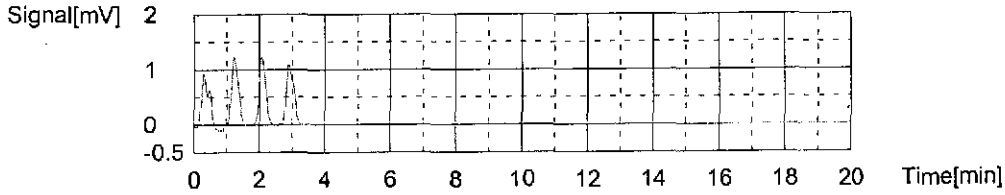
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7723 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.630	0.7315mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:49:45 PM
2	1.794	0.8051mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:50:47 PM
3	1.736	0.7791mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:51:49 PM
4	1.724	0.7737mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:52:50 PM

Mean Area 1.721
Mean Conc. 0.7723mg/L



Sample

Sample Name: J164-01
Sample ID: TCJ006-22
Origin: TCJ006.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.517 mg/L

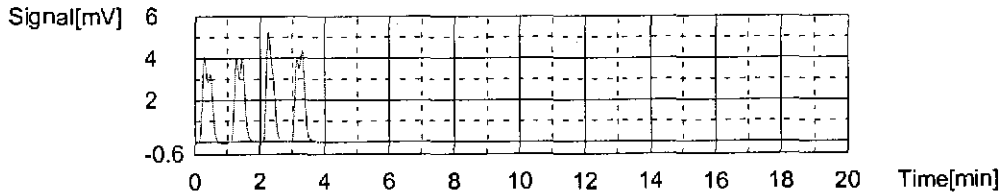
1. Det

Anal.: NPOC

8894

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.397	3.320mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:00:19 PM
2	7.967	3.575mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:01:28 PM
3	7.870	3.532mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:02:34 PM
4	8.114	3.641mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:03:47 PM

Mean Area 7.837
Mean Conc. 3.517mg/L



Sample

Sample Name: J164-03
Sample ID: TCJ006-23
Origin: TCJ006.cal
Chk. Result

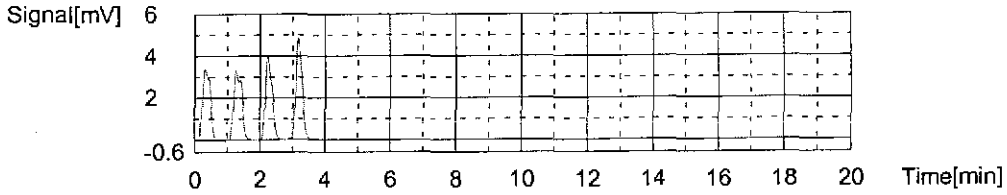
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.711 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.840	2.621mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:11:13 PM
2	5.826	2.615mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:12:23 PM
3	5.954	2.672mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:13:31 PM
4	6.544	2.937mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:14:36 PM

Mean Area 6.041
Mean Conc. 2.711mg/L



Sample

Sample Name: J164-04
Sample ID: TCJ006-24
Origin: TCJ006.cal
Chk. Result

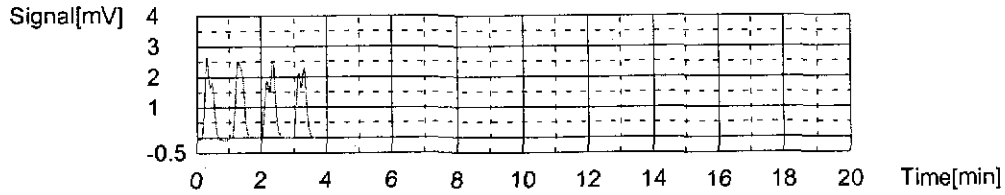
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.957 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.328	1.942mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:22:02 PM
2	4.330	1.943mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:23:09 PM
3	4.364	1.958mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:24:19 PM
4	4.419	1.983mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:25:28 PM

Mean Area 4.360
Mean Conc. 1.957mg/L



Sample

Sample Name: J164-06
Sample ID: TCJ006-25
Origin: TCJ006.cal
Chk. Result

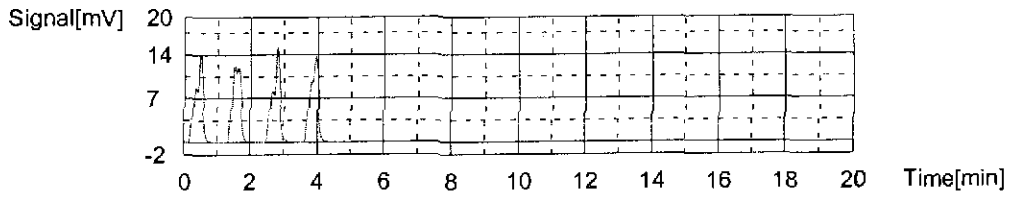
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:10.17 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.32	10.02mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:33:08 PM
2	23.05	10.34mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:34:29 PM
3	22.82	10.24mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:35:50 PM
4	22.47	10.08mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:37:09 PM

Mean Area 22.66
Mean Conc. 10.17mg/L



Control Sample

Sample Name: CCV2
Sample ID: TCJ006-26
Method: TCJ006.tpl
Chk. Result Control value: 22.74 / Control exceeds range!

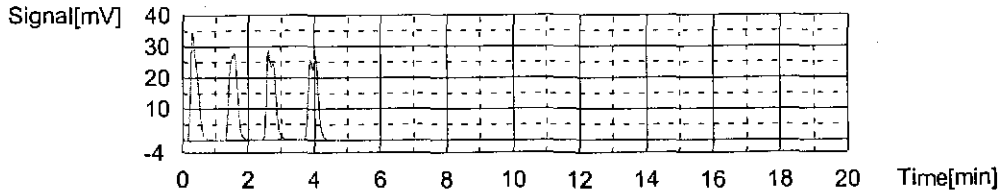
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:22.74 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.40	23.07mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:44:47 PM
2	49.23	22.09mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:46:09 PM
3	50.19	22.52mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:47:36 PM
4	51.87	23.28mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:49:01 PM

Mean Area 50.67
Mean Conc. 22.74mg/L



Sample

Sample Name: CCB2
Sample ID: TCJ006-27
Origin: TCJ006.cal
Chk. Result

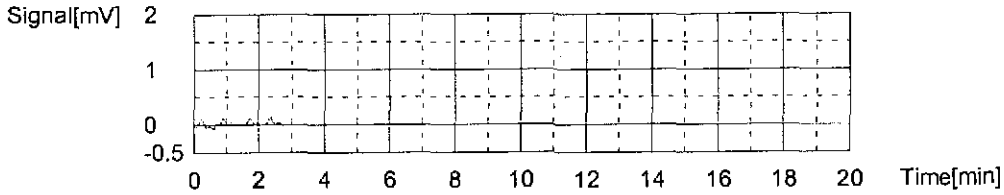
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.05442 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1352	0.06067mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:56:09 PM
2	0.1316	0.05906mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:57:10 PM
3	0.1001	0.04492mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:58:00 PM
4	0.1182	0.05304mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:58:52 PM

Mean Area 0.1213
Mean Conc. 0.05442mg/L



Sample

Sample Name: J163-01
Sample ID: TCJ006-28
Origin: TCJ006.cal
Chk. Result

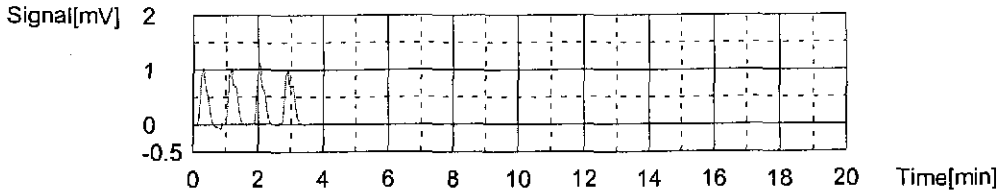
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7385 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.548	0.6947mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:06:12 PM
2	1.658	0.7441mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:07:17 PM
3	1.679	0.7535mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:08:21 PM
4	1.697	0.7616mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:09:25 PM

Mean Area 1.646
Mean Conc. 0.7385mg/L



Sample

Sample Name: J163-02
Sample ID: TCJ006-29
Origin: TCJ006.cal
Chk. Result

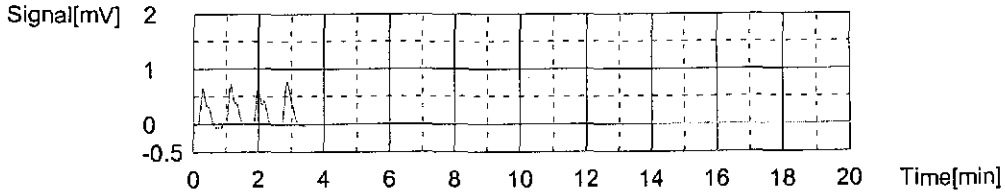
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4761 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9686	0.4347mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:16:45 PM
2	1.061	0.4761mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:17:48 PM
3	1.095	0.4914mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:18:52 PM
4	1.119	0.5022mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:19:53 PM

Mean Area 1.061
Mean Conc. 0.4761mg/L



Sample

Sample Name: J163-04
Sample ID: TCJ006-30
Origin: TCJ006.cal
Chk. Result

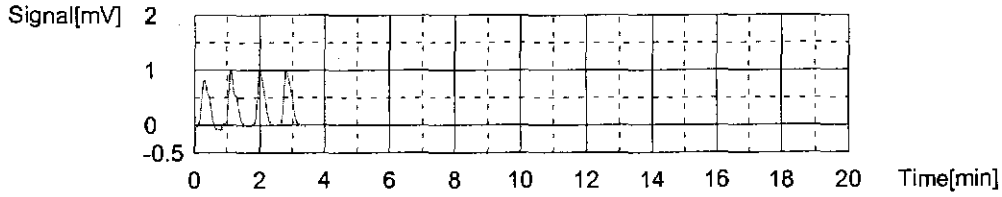
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6663 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.407	0.6314mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:27:12 PM
2	1.489	0.6682mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:28:16 PM
3	1.487	0.6673mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:29:16 PM
4	1.556	0.6983mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:30:20 PM

Mean Area 1.485
Mean Conc. 0.6663mg/L



Sample

Sample Name: J163-05
Sample ID: TCJ006-31
Origin: TCJ006.cal
Chk. Result

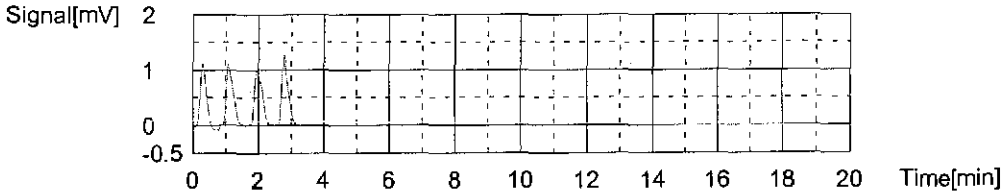
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7324 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.533	0.6880mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:37:38 PM
2	1.649	0.7400mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:38:41 PM
3	1.643	0.7373mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:39:43 PM
4	1.703	0.7643mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:40:45 PM

Mean Area 1.632
Mean Conc. 0.7324mg/L



Sample

Sample Name: J163-06
Sample ID: TCJ006-32
Origin: TCJ006.cal
Chk. Result

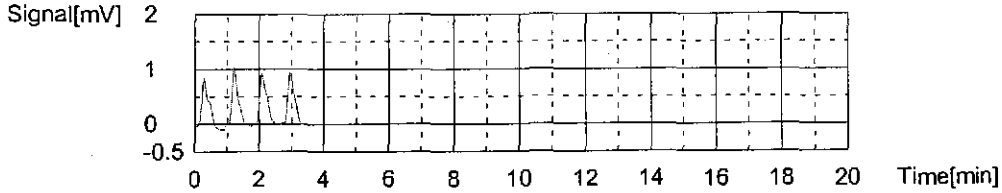
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6055 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.290	0.5789mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:48:10 PM
2	1.351	0.6063mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:49:14 PM
3	1.394	0.6256mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:50:18 PM
4	1.362	0.6112mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:51:23 PM

Mean Area 1.349
Mean Conc. 0.6055mg/L



Sample

Sample Name: J163-07
Sample ID: TCJ006-33
Origin: TCJ006.cal
Chk. Result

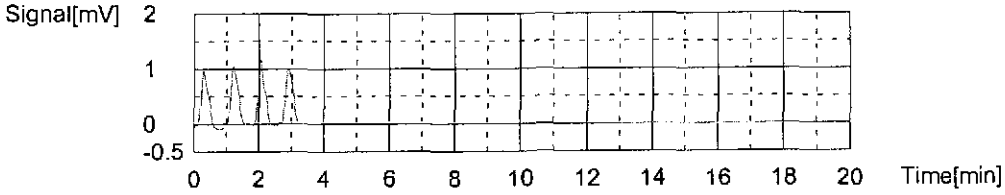
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7116 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.486	0.6669mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:58:47 PM
2	1.586	0.7117mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:59:50 PM
3	1.629	0.7310mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:00:52 PM
4	1.642	0.7369mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:01:54 PM

Mean Area 1.586
Mean Conc. 0.7116mg/L



Sample

Sample Name: TCJ007WL
Sample ID: TCJ006-34
Origin: TCJ006.cal
Chk. Result

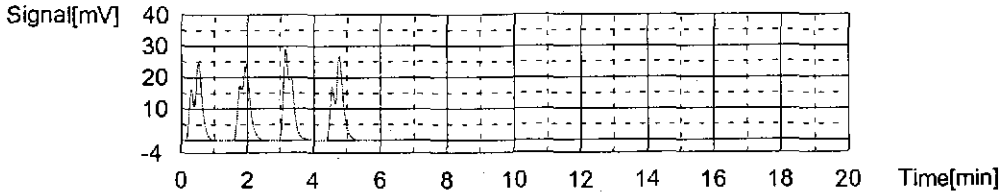
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:23.03 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	48.90	21.94mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:09:51 PM
2	52.18	23.42mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:11:26 PM
3	51.28	23.01mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:13:03 PM
4	52.88	23.73mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:14:44 PM

Mean Area 51.31
Mean Conc. 23.03mg/L



Sample

Sample Name: TCJ007WC
Sample ID: TCJ006-35
Origin: TCJ006.cal
Chk. Result

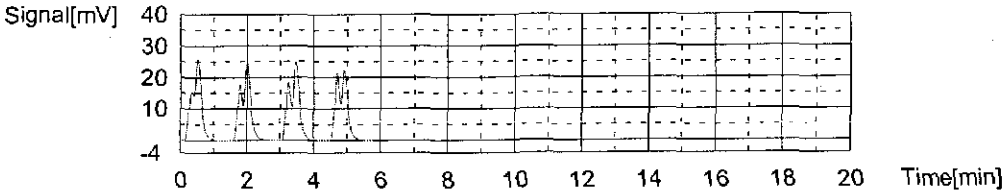
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:22.99 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.62	23.17mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:22:43 PM
2	50.86	22.82mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:24:22 PM
3	52.28	23.46mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:26:01 PM
4	50.20	22.53mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:27:33 PM

Mean Area 51.24
Mean Conc. 22.99mg/L



Sample

Sample Name: TCJ007WB
Sample ID: TCJ006-36
Origin: TCJ006.cal
Chk. Result

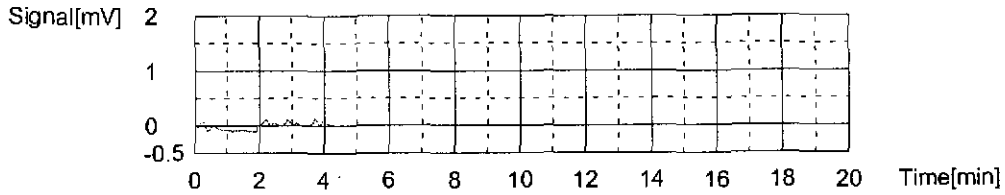
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.04555 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	0.000mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:35:57 PM
2	0.1347	0.06045mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:36:51 PM
3	0.1317	0.05910mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:37:53 PM
4	0.1396	0.06265mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:38:54 PM

Mean Area 0.1015
Mean Conc. 0.04555mg/L



Sample

Sample Name: J163-08
Sample ID: TCJ006-37
Origin: TCJ006.cal
Chk. Result

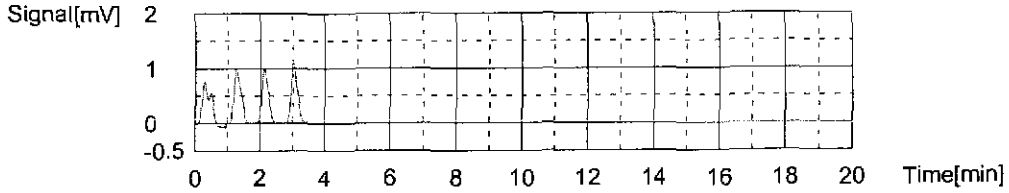
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6712 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.458	0.6543mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:46:22 PM
2	1.545	0.6933mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:47:25 PM
3	1.460	0.6552mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:48:31 PM
4	1.520	0.6821mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:49:32 PM

Mean Area 1.496
Mean Conc. 0.6712mg/L



Control Sample

Sample Name: CCV3
Sample ID: TCJ006-38
Method: TCJ006.tpl
Chk. Result Control value: 22.99 / Control exceeds range!

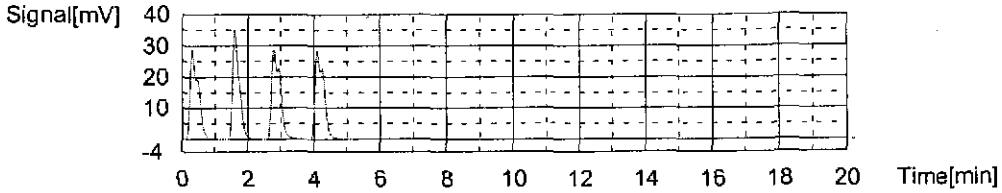
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:22.99 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	49.94	22.41mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:57:19 PM
2	50.04	22.46mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:58:42 PM
3	52.65	23.63mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:00:12 PM
4	52.25	23.45mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:01:45 PM

Mean Area 51.22
Mean Conc. 22.99mg/L



Sample

Sample Name: CCB3
Sample ID: TCJ006-39
Origin: TCJ006.cal
Chk. Result

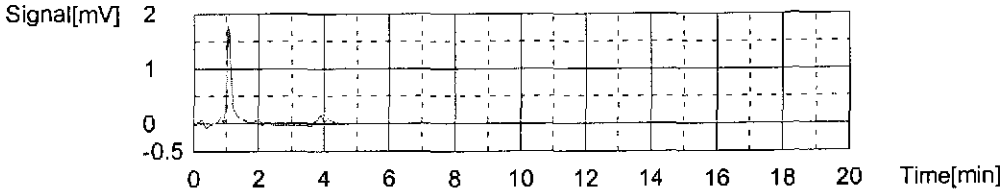
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.03050 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.01840	0.00826mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:08:49 PM
2	1.895	0.8504mg/L	50uL	1	E	TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:10:10 PM
3	0.000	0.000mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:12:15 PM
4	0.1855	0.08325mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:13:16 PM

Mean Area 0.06797
Mean Conc. 0.03050mg/L



Sample

Sample Name: J163-09
Sample ID: TCJ006-40
Origin: TCJ006.cal
Chk. Result

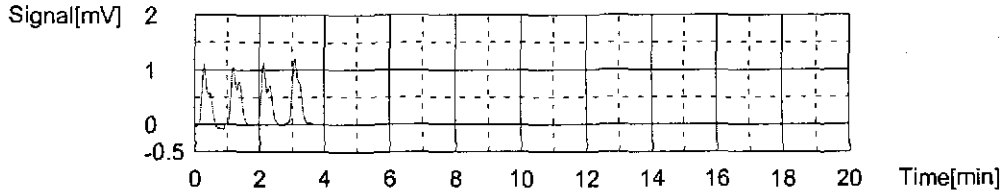
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8416 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.808	0.8114mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:20:40 PM
2	1.885	0.8459mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:21:47 PM
3	1.875	0.8414mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:22:54 PM
4	1.933	0.8675mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:23:57 PM

Mean Area 1.875
Mean Conc. 0.8416mg/L



Sample

Sample Name: J163-10
Sample ID: TCJ006-41
Origin: TCJ006.cal
Chk. Result

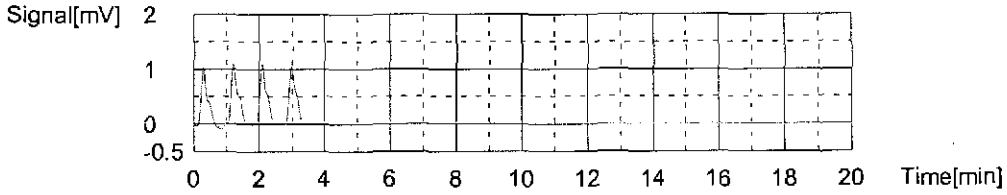
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7049 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.532	0.6875mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:31:22 PM
2	1.646	0.7387mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:32:26 PM
3	1.551	0.6960mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:33:30 PM
4	1.554	0.6974mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:34:35 PM

Mean Area 1.571
Mean Conc. 0.7049mg/L



Sample

Sample Name: J163-11
Sample ID: TCJ006-42
Origin: TCJ006.cal
Chk. Result

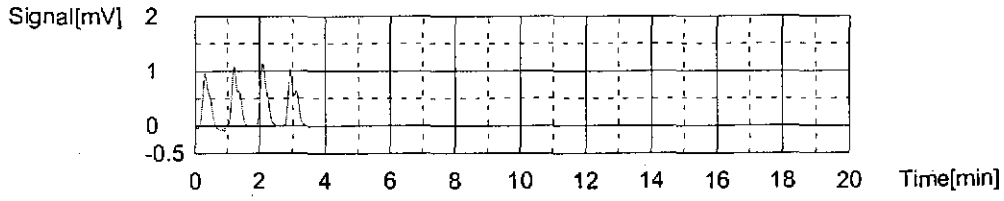
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7208 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.569	0.7041mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:41:59 PM
2	1.655	0.7427mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:43:03 PM
3	1.588	0.7126mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:44:05 PM
4	1.613	0.7239mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:45:09 PM

Mean Area 1.606
Mean Conc. 0.7208mg/L



Sample

Sample Name: J163-12
Sample ID: TCJ006-43
Origin: TCJ006.cal
Chk. Result

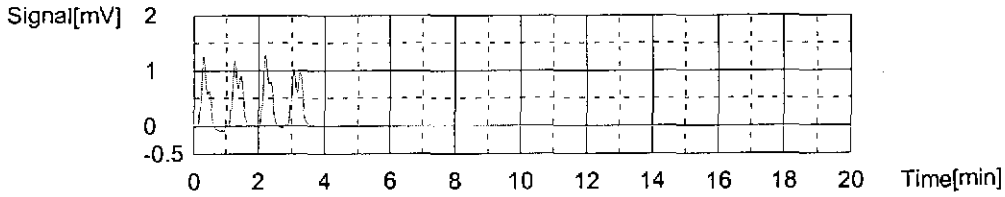
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8831 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.893	0.8495mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:52:37 PM
2	2.025	0.9088mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:53:44 PM
3	1.989	0.8926mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:54:47 PM
4	1.964	0.8814mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:55:53 PM

Mean Area 1.968
Mean Conc. 0.8831mg/L



Sample

Sample Name: J163-13
Sample ID: TCJ006-44
Origin: TCJ006.cal
Chk. Result

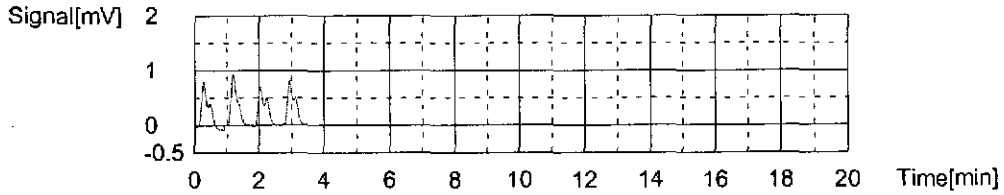
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.5697 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.283	0.5758mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:03:17 PM
2	1.287	0.5776mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:04:19 PM
3	1.229	0.5515mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:05:24 PM
4	1.279	0.5740mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:06:28 PM

Mean Area 1.270
Mean Conc. 0.5697mg/L



Sample

Sample Name: J163-14
Sample ID: TCJ006-45
Origin: TCJ006.cal
Chk. Result

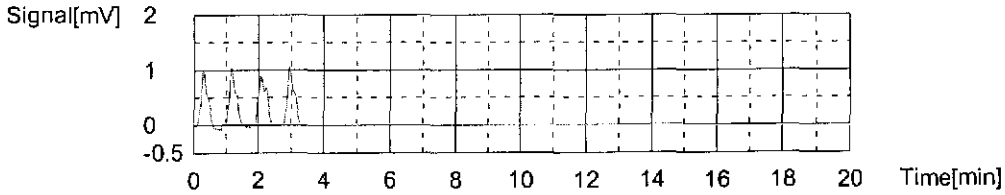
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6929 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.463	0.6566mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:13:49 PM
2	1.535	0.6889mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:14:54 PM
3	1.581	0.7095mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:15:58 PM
4	1.597	0.7167mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:16:59 PM

Mean Area 1.544
Mean Conc. 0.6929mg/L



Sample

Sample Name: J155-01i
Sample ID: TCJ006-46
Origin: TCJ006.cal
Chk. Result

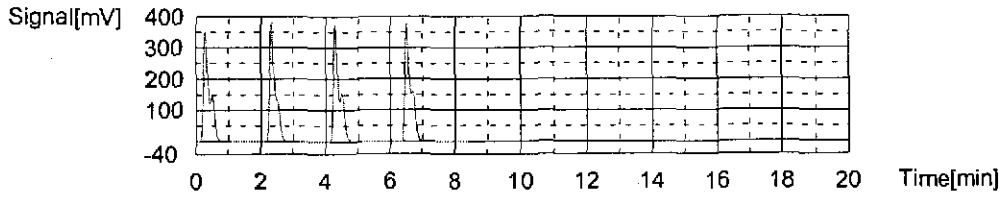
Type	Anal.	Dil.	Result
Unknown	NPOC	5.000	NPOC:1092 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	470.5	1056mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:25:32 PM
2	475.2	1066mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:27:41 PM
3	497.4	1116mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:30:05 PM
4	503.6	1130mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:32:28 PM

Mean Area 486.7
Mean Conc. 1092mg/L



Sample

Sample Name: J155-02
Sample ID: TCJ006-47
Origin: TCJ006.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:8.325 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.58	8.338mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:40:06 PM
2	18.40	8.257mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:41:31 PM
3	18.30	8.212mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:42:54 PM
4	18.92	8.491mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:44:12 PM

Mean Area 18.55
Mean Conc. 8.325mg/L

Sample

Sample Name: J155-03I
Sample ID: TCJ006-48
Origin: TCJ006.cal
Chk. Result

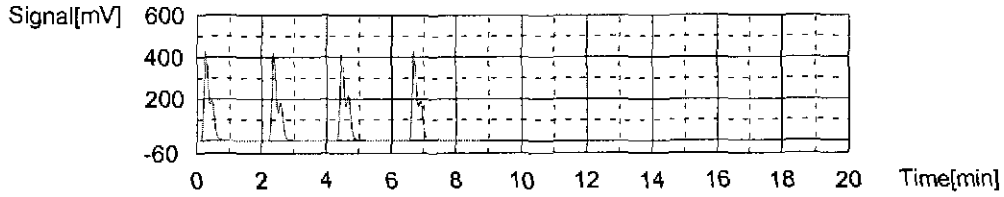
Type	Anal.	Dil.	Result
Unknown	NPOC	2.000	NPOC:521.1 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	570.5	512.0mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:52:47 PM
2	571.1	512.6mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:55:04 PM
3	589.4	529.0mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:57:29 PM
4	591.5	530.9mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:59:58 PM

Mean Area 580.6
Mean Conc. 521.1mg/L



Control Sample

Sample Name: CCV4
Sample ID: TCJ006-49
Method: TCJ006.tpl
Chk. Result Control value: 23.94 / Control exceeds range!

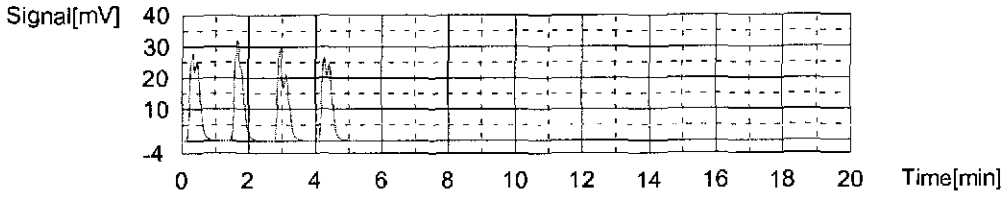
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:23.94 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.68	24.09mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:07:48 AM
2	54.51	24.46mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:09:17 AM
3	53.51	24.01mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:10:47 AM
4	51.70	23.20mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:12:15 AM

Mean Area 53.35
Mean Conc. 23.94mg/L



Sample

Sample Name: CCB4
Sample ID: TCJ006-50
Origin: TCJ006.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1760 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2875	0.1290mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:19:40 AM
2	2.180	0.9783mg/L	50uL	1	E	TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:20:47 AM
3	0.5332	0.2393mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:21:54 AM
4	0.3561	0.1598mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:22:59 AM

Mean Area 0.3923
Mean Conc. 0.1760mg/L

Sample

Sample Name: J155-04I
Sample ID: TCJ006-51
Origin: TCJ006.cal
Chk. Result

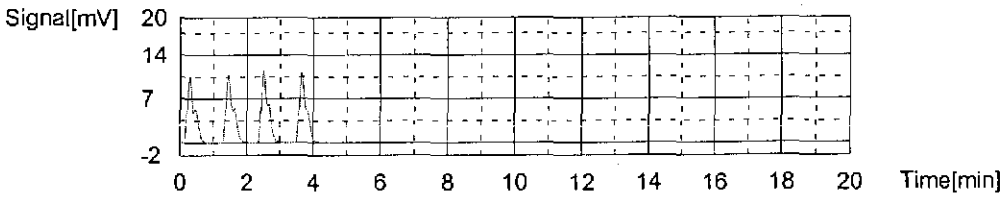
Type	Anal.	Dil.	Result
Unknown	NPOC	2.000	NPOC:14.96 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.38	14.70mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:30:38 AM
2	16.58	14.88mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:31:53 AM
3	16.97	15.23mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:33:12 AM
4	16.76	15.04mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:34:32 AM

Mean Area 16.67
Mean Conc. 14.96mg/L



Sample

Sample Name: J155-05
Sample ID: TCJ006-52
Origin: TCJ006.cal
Chk. Result

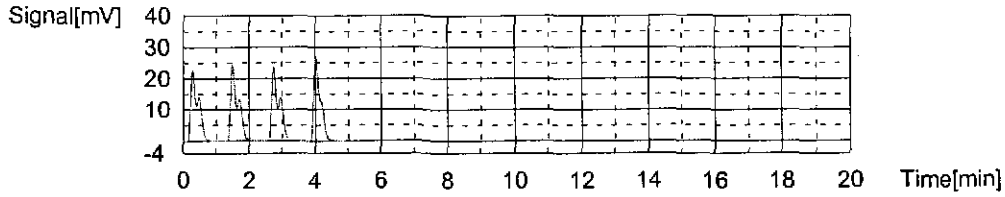
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:16.90 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	36.99	16.60mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:42:15 AM
2	38.12	17.11mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:43:41 AM
3	37.20	16.69mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:45:08 AM
4	38.32	17.20mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:46:28 AM

Mean Area 37.66
Mean Conc. 16.90mg/L



Sample

Sample Name: J155-06
Sample ID: TCJ006-53
Origin: TCJ006.cal
Chk. Result

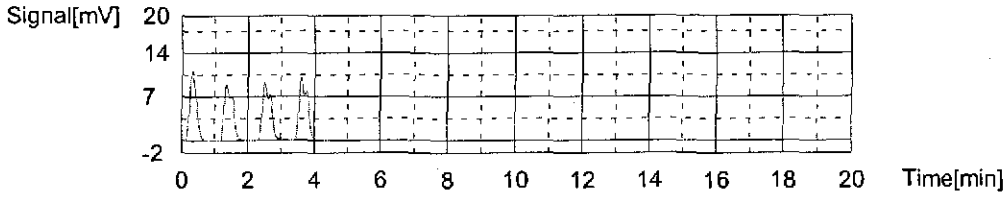
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:7.612 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.39	7.355mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:54:01 AM
2	16.50	7.405mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:55:21 AM
3	16.95	7.607mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:56:38 AM
4	18.01	8.082mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:57:58 AM

Mean Area 16.96
Mean Conc. 7.612mg/L



Sample

Sample Name: J155-07
Sample ID: TCJ006-54
Origin: TCJ006.cal
Chk. Result

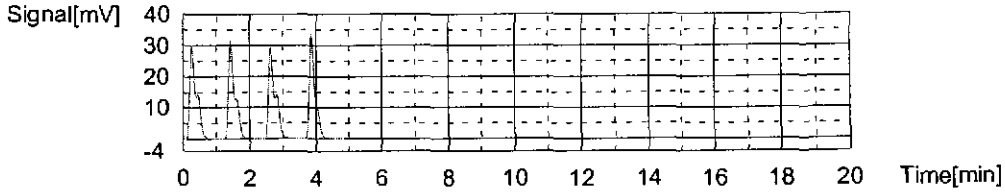
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:18.98 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	42.96	19.28mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:05:37 AM
2	42.58	19.11mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:07:00 AM
3	42.41	19.03mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:08:25 AM
4	41.23	18.50mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:09:50 AM

Mean Area 42.30
Mean Conc. 18.98mg/L



Sample

Sample Name: J155-10I
Sample ID: TCJ006-55
Origin: TCJ006.cal
Chk. Result

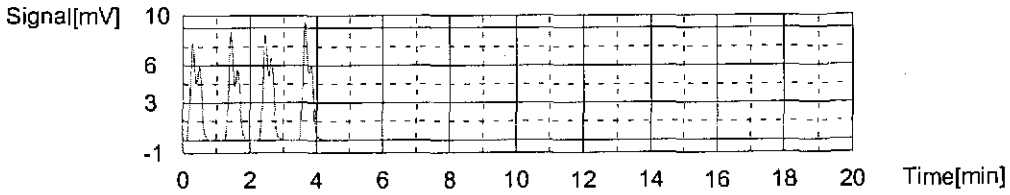
Type	Anal.	Dil.	Result
Unknown	NPOC	2.000	NPOC:13.26 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.15	12.70mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:17:28 AM
2	14.32	12.85mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:18:40 AM
3	15.37	13.80mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:20:03 AM
4	15.26	13.70mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:21:21 AM

Mean Area 14.78
Mean Conc. 13.26mg/L



Sample

Sample Name: J155-12I
Sample ID: TCJ006-56
Origin: TCJ006.cal
Chk. Result

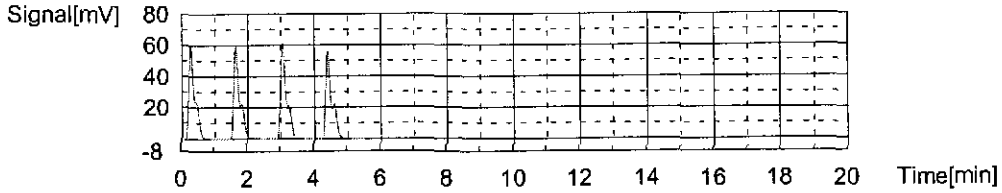
Type	Anal.	Dil.	Result
Unknown	NPOC	5.000	NPOC:170.1 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.25	173.3mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:29:13 AM
2	76.62	171.9mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:30:49 AM
3	76.58	171.8mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:32:21 AM
4	72.75	163.2mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:33:54 AM

Mean Area 75.80
Mean Conc. 170.1mg/L



Sample

Sample Name: J155-13I
Sample ID: TCJ006-57
Origin: TCJ006.cal
Chk. Result

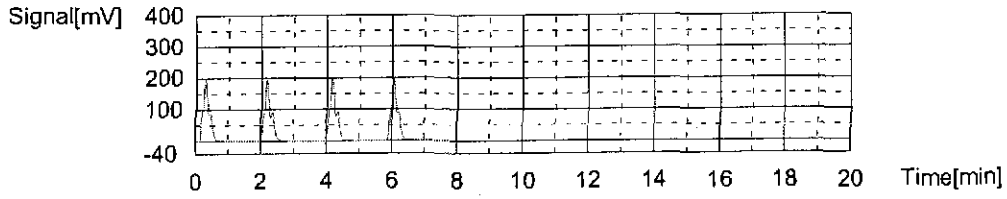
Type	Anal.	Dil.	Result
Unknown	NPOC	2.000	NPOC:244.4 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	265.4	238.2mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:42:18 AM
2	271.0	243.2mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:44:28 AM
3	273.9	245.8mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:46:32 AM
4	278.8	250.2mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:48:45 AM

Mean Area 272.3
Mean Conc. 244.4mg/L



Sample

Sample Name: J155-13M
Sample ID: TCJ006-58
Origin: TCJ006.cal
Chk. Result

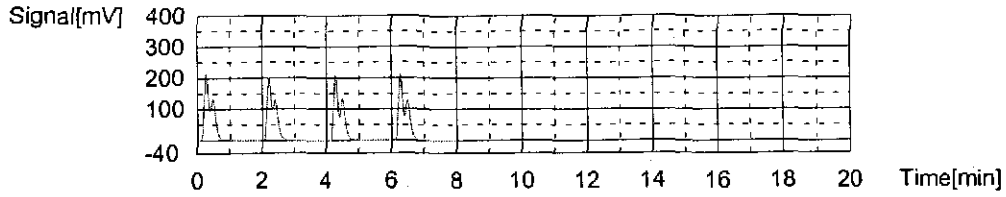
Type	Anal.	Dil.	Result
Unknown	NPOC	2.000	NPOC:302.7 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	339.0	304.3mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:57:12 AM
2	337.1	302.6mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:59:27 AM
3	332.7	298.6mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:01:38 AM
4	340.0	305.2mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:03:48 AM

Mean Area 337.2
Mean Conc. 302.7mg/L



Sample

Sample Name: J155-13S
Sample ID: TCJ006-59
Origin: TCJ006.cal
Chk. Result

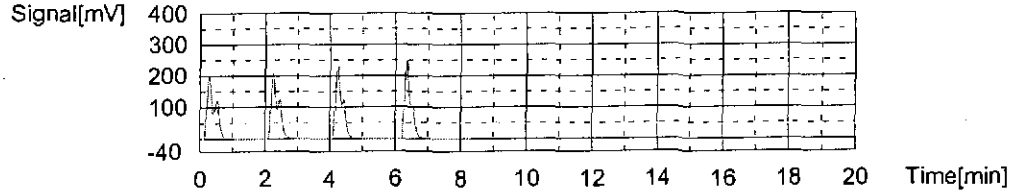
Type	Anal.	Dil.	Result
Unknown	NPOC	2.000	NPOC:303.9 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	334.6	300.3mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:12:17 AM
2	333.6	299.4mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:14:27 AM
3	348.3	312.6mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:16:45 AM
4	338.0	303.4mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:19:09 AM

Mean Area 338.6
Mean Conc. 303.9mg/L



Sample

Sample Name: J155-14
Sample ID: TCJ006-60
Origin: TCJ006.cal
Chk. Result

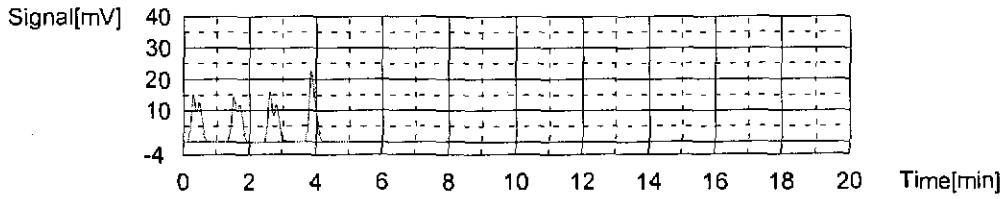
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:12.73 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.05	12.59mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:26:53 AM
2	27.12	12.17mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:28:10 AM
3	28.30	12.70mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:29:35 AM
4	30.02	13.47mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:31:14 AM

Mean Area 28.37
Mean Conc. 12.73mg/L



Control Sample

Sample Name: CCV5
Sample ID: TCJ006-61
Method: TCJ006.tpl
Chk. Result Control value: 23.47 / Control exceeds range!

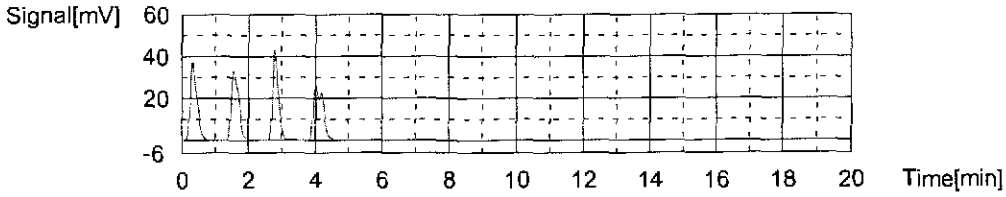
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:23.47 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.85	23.72mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:38:59 AM
2	52.54	23.58mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:40:25 AM
3	51.45	23.09mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:41:49 AM
4	52.36	23.50mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:43:17 AM

Mean Area 52.30
Mean Conc. 23.47mg/L



Sample

Sample Name: CCB5
Sample ID: TCJ006-62
Origin: TCJ006.cal
Chk. Result

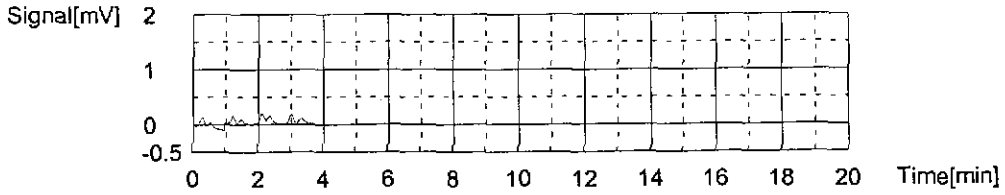
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1204 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2516	0.1129mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:50:43 AM
2	0.2337	0.1049mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:51:48 AM
3	0.3468	0.1556mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:52:54 AM
4	0.2408	0.1081mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:54:01 AM

Mean Area 0.2682
Mean Conc. 0.1204mg/L



CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J162

METHOD SM4500S2D
SULFIDE

A total of ten (10) water samples were received on 10/24/12 for Total Sulfide by Std Method analysis, Method SM4500S2D in accordance with Standard Methods for the Examination of Water and Wastewater, 20th Edition and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for SFJ011WL/C were all within QC limits.

Matrix QC Sample
Matrix QC sample was analyzed at the frequency prescribed by the project.
Percent recovery for J162-08M was within project QC limits.
Sample duplicate was also analyzed with the samples. RPD was within project limit.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

METHOD SM4500S2D
SULFIDE

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J162

Matrix : WATER
InstrumentID : 70

CLIENT SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	PREP. FACTOR	MOIST (%)	LOQ (mg/L)	LOD (mg/L)	ANALYSIS DATETIME	PREPARATION DATETIME	DATA FILE ID	CAL REF	PREP BATCH	COLLECTION DATETIME	RECEIVED DATETIME
MBLK1W	SFJ011WB	ND	1	NA	0.1	0.02	10/29/1215:50	NA	12SFJ01109	12SFJ011	SFJ011W	NA	NA
LCS1W	SFJ011WL	0.474	1	NA	0.1	0.02	10/29/1215:50	NA	12SFJ01110	12SFJ011	SFJ011W	NA	NA
LCD1W	SFJ011WC	0.466	1	NA	0.1	0.02	10/29/1215:50	NA	12SFJ01111	12SFJ011	SFJ011W	NA	NA
10-24-12 BBW-1	J162-01	ND	1	NA	0.1	0.02	10/29/1215:51	NA	12SFJ01112	12SFJ011	SFJ011W	10/24/1208:25	10/24/12
10-24-12 BBW-2	J162-02	ND	1	NA	0.1	0.02	10/29/1215:51	NA	12SFJ01113	12SFJ011	SFJ011W	10/24/1209:35	10/24/12
10-24-12 BBW-3	J162-03	ND	1	NA	0.1	0.02	10/29/1215:51	NA	12SFJ01114	12SFJ011	SFJ011W	10/24/1210:50	10/24/12
10-24-12 FDUP-1	J162-04	ND	1	NA	0.1	0.02	10/29/1215:51	NA	12SFJ01115	12SFJ011	SFJ011W	10/24/1200:00	10/24/12
10-23-12 PWB-6	J162-05	ND	1	NA	0.1	0.02	10/29/1215:51	NA	12SFJ01116	12SFJ011	SFJ011W	10/23/1211:32	10/24/12
10-23-12 AR-1	J162-06	ND	1	NA	0.1	0.02	10/29/1215:51	NA	12SFJ01117	12SFJ011	SFJ011W	10/23/1212:16	10/24/12
10-23-12 PWB-1	J162-07	ND	1	NA	0.1	0.02	10/29/1215:51	NA	12SFJ01118	12SFJ011	SFJ011W	10/23/1210:50	10/24/12
10-23-12 AMW-3R	J162-08	ND	1	NA	0.1	0.02	10/29/1215:52	NA	12SFJ01121	12SFJ011	SFJ011W	10/23/1209:36	10/24/12
10-23-12 AMW-3RDUP	J162-08D	ND	1	NA	0.1	0.02	10/29/1215:52	NA	12SFJ01122	12SFJ011	SFJ011W	10/23/1209:36	10/24/12
10-23-12 AMW-3RMS	J162-08M	0.470	1	NA	0.1	0.02	10/29/1215:52	NA	12SFJ01123	12SFJ011	SFJ011W	10/23/1209:36	10/24/12
10-23-12 PWB-3	J162-09	ND	1	NA	0.1	0.02	10/29/1215:52	NA	12SFJ01124	12SFJ011	SFJ011W	10/23/1209:57	10/24/12
10-23-12 PWB-10	J162-10	ND	1	NA	0.1	0.02	10/29/1215:53	NA	12SFJ01125	12SFJ011	SFJ011W	10/23/1211:50	10/24/12

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : BROWN & BRYANT SUPERFUND SITE
BATCH NO. : 12J162
METHOD : METHOD SM4500S2D

MATRIX : WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1
SAMPLE ID :	MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID :	SFJ011WB	SFJ011WL	SFJ011WC
LAB FILE ID :	12SFJ01109	12SFJ01110	12SFJ01111
DATE PREPARED :	NA	NA	NA
DATE ANALYZED :	10/29/1215:50	10/29/1215:50	10/29/1215:50
PREP BATCH :	SFJ011W	SFJ011W	SFJ011W
CALIBRATION REF:	12SFJ011	12SFJ011	12SFJ011

ACCESSION:

PARAMETER	MB RESULT (mg/L)	SPIKE AMT (mg/L)	BS RESULT (mg/L)	BS REC (%)	SPIKE AMT (mg/L)	BSD RESULT (mg/L)	BSD REC (%)	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Sulfide	ND	.5	.474	95	.5	.466	93	2	80-120	20

EMAX QUALITY CONTROL DATA
SAMPLE DUPLICATE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : BROWN & BRYANT SUPERFUND SITE
BATCH NO. : 12J162
METHOD : METHOD SM4500S2D

==========

MATRIX : WATER % MOISTURE:

DILUTION FACTOR:	1	1
SAMPLE ID	10-23-12 AMW-3R	10-23-12 AMW-3RDUP
LAB SAMPLE ID	J162-08	J162-08D
LAB FILE ID	12SFJ01121	12SFJ01122
DATE PREPARED	NA	NA
DATE ANALYZED	10/29/1215:52	10/29/1215:52
PREP BATCH	SFJ011W	SFJ011W
CALIBRATION REF:	12SFJ011	12SFJ011

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	DUP RESULT (mg/L)	RPD (%)	MAX DIFF (%)
Sulfide	ND	ND	0	20

EMAX QUALITY CONTROL DATA
MATRIX SPIKE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : BROWN & BRYANT SUPERFUND SITE
BATCH NO. : 12J162
METHOD : METHOD SM4500S2D

==========

MATRIX	: WATER		% MOISTURE:
DILUTION FACTOR	: 1	1	
SAMPLE ID	: 10-23-12 AMW-3R	10-23-12 AMW-3RMS	
LAB SAMPLE ID	: J162-08	J162-08M	
LAB FILE ID	: 12SFJ01121	12SFJ01123	
DATE PREPARED	: NA	NA	
DATE ANALYZED	: 10/29/1215:52	10/29/1215:52	
PREP BATCH	: SFJ011W	SFJ011W	
CALIBRATION REF	: 12SFJ011	12SFJ011	

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	SPIKE AMT (mg/L)	MS RESULT (mg/L)	MS REC (%)	QC LIMIT (%)
Sulfide	ND	.5	.47	94	75-125

BMAX LABORATORIES, INC.

SULFIDE ANALYSIS
(COLORIMETRY)

DataFileID	LabSampleID	Result	Flag	RUnit	SampleAmt	SUnit	PDateTime	FinalVol (ml)	WL	Abs	ADateTime	Sample Blkgnd	DF	%M	FC	DExPrep Factor	Notes	Analyst	pH check
12SFJ01109	SFJ011WB	ND		mg/L	7.5	ml	NA	7.5	664NM	0.001	10/29/12 15:50	0	1		-0.010448	1		MJM	
12SFJ01110	SFJ011WL	0.474		mg/L	7.5	ml	NA	7.5	664NM	0.363	10/29/12 15:50	0	1		0.4744935	1		MJM	
12SFJ01111	SFJ011WC	0.466		mg/L	7.5	ml	NA	7.5	664NM	0.357	10/29/12 15:50	0	1		0.4664558	1		MJM	
12SFJ01112	J162-01	ND		mg/L	7.5	ml	NA	7.5	664NM	0.007	10/29/12 15:51	0	1		-0.002411	1		MJM	>9
12SFJ01113	J162-02	ND		mg/L	7.5	ml	NA	7.5	664NM	0.032	10/29/12 15:51	0.027	1		-0.00509	1		MJM	>9
12SFJ01114	J162-03	ND		mg/L	7.5	ml	NA	7.5	664NM	0.02	10/29/12 15:51	0	1		0.0150043	1		MJM	>9
12SFJ01115	J162-04	ND		mg/L	7.5	ml	NA	7.5	664NM	0.015	10/29/12 15:51	0	1		0.0083062	1		MJM	>9
12SFJ01116	J162-05	ND		mg/L	7.5	ml	NA	7.5	664NM	0.008	10/29/12 15:51	0	1		-0.001071	1		MJM	>9
12SFJ01117	J162-06	ND		mg/L	7.5	ml	NA	7.5	664NM	0.006	10/29/12 15:51	0	1		-0.00375	1		MJM	>9
12SFJ01118	J162-07	ND		mg/L	7.5	ml	NA	7.5	664NM	0.004	10/29/12 15:51	0	1		-0.00643	1		MJM	>9
12SFJ01119	CCV1	0.519		mg/L	7.5	ml	NA	7.5	664NM	0.396	10/29/12 15:52	0	1		0.518701	1		MJM	
12SFJ01120	CCB1	ND		mg/L	7.5	ml	NA	7.5	664NM	0.002	10/29/12 15:52	0	1		-0.009109	1		MJM	
12SFJ01121	J162-08	ND		mg/L	7.5	ml	NA	7.5	664NM	0.005	10/29/12 15:52	0	1		-0.00509	1		MJM	>9
12SFJ01122	J162-08D	ND		mg/L	7.5	ml	NA	7.5	664NM	0.006	10/29/12 15:52	0	1		-0.00375	1		MJM	>9
12SFJ01123	J162-08M	0.47		mg/L	7.5	ml	NA	7.5	664NM	0.36	10/29/12 15:52	0	1		0.4704747	1		MJM	>9
12SFJ01124	J162-09	ND		mg/L	7.5	ml	NA	7.5	664NM	0.008	10/29/12 15:52	0	1		-0.001071	1		MJM	>9
12SFJ01125	J162-10	ND		mg/L	7.5	ml	NA	7.5	664NM	0.009	10/29/12 15:53	0	1		0.0002685	1		MJM	>9
12SFJ01126	CCV2	0.521		mg/L	7.5	ml	NA	7.5	664NM	0.398	10/29/12 15:53	0	1		0.5213802	1		MJM	
12SFJ01127	CCB2	ND		mg/L	7.5	ml	NA	7.5	664NM	0.001	10/29/12 15:53	0	1		-0.010448	1		MJM	

MJM 10/29/12

Reviewed by: RY 10/30/12

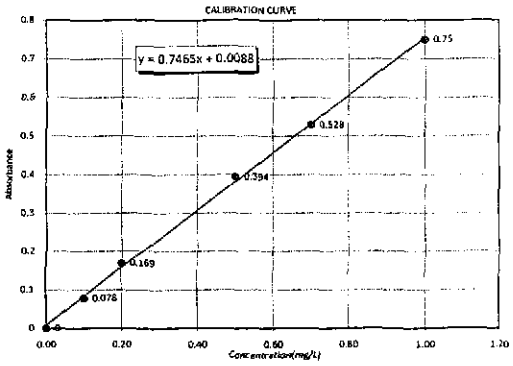
EMAX LABORATORIES, INC.

SULFIDE ANALYSIS
(COLORIMETRY)

Data File Name	Calibration ID	Conc. mg/L	WL	Abs	CalDate	FC	%Rec
12SFJ01101	S0	0.00	664NM	0	10/29/12 15:47	-0.011788048	ND
12SFJ01102	S1	0.10	664NM	0.078	10/29/12 15:47	0.092702211	93
12SFJ01103	S2	0.20	664NM	0.169	10/29/12 15:48	0.214607513	107
12SFJ01104	S3	0.50	664NM	0.394	10/29/12 15:48	0.51602172	103
12SFJ01105	S4	0.70	664NM	0.528	10/29/12 15:49	0.695530626	99
12SFJ01106	S5	1.00	664NM	0.75	10/29/12 15:49	0.992925978	99
12SFJ01107	ICV	0.50	664NM	0.355	10/29/12 15:49	0.463776591	93
12SFJ01108	ICB	0.00	664NM	0.002	10/29/12 15:50	-0.00910881	ND
12SFJ01119	CCV1	0.50	664NM	0.396	10/29/12 15:52	0.518700958	104
12SFJ01120	CCB1	0.00	664NM	0.002	10/29/12 15:52	-0.00910881	ND
12SFJ01126	CCV2	0.50	664NM	0.398	10/29/12 15:53	0.521380195	104
12SFJ01127	CCB2	0.00	664NM	0.001	10/29/12 15:53	-0.010448429	ND

$$FC = [(A * CF) - Y] * DF$$

InstrumentID: 70



CF= 1.339618701 Y= 0.01179 r= 0.999513

LOD Water(mg/L) 0.02 LOD Soil(mg/Kg)

LOQ Water(mg/L) 0.1 LOQ Soil(mg/Kg)

SOP

☐ EMAX-376.2 Rev. 2

☑ EMAX-4500-S2D Rev. 2

Standard / Reagent ID	Description	Conc.	Exp.Date
SW2-03-56-06	Intermediate ICAL CCV High Low Std (mg/L)	10	10/29/12
SW2-03-56-07	Intermediate ICV LCS MS Std (mg/L)	2.15	10/29/12
SW1-01-495	MS Spike	215	06/01/15
RW1-12-003	Reagent Water	NA	NA
SWR1-01-595	Amino Sulfuric Acid	ASSAY	07/01/13
SWR1-01-582	Ferric Chloride (%)	100	09/01/13
SWP1-09-81-02	Diammonium Phosphate	RGT	10/01/13
SWP1-09-44-04	Sulfuric Acid,%	50	02/02/13
HCWM149	pH strip	0-14	10/01/13

Standard Prep	Intermediate Std Aliquot (mg/L)	Final Vol (ml)	DateTime
S0	0	7.5	10/29/12 15:10
S1	0.075	7.5	10/29/12 15:10
S2	0.15	7.5	10/29/12 15:10
S3	0.375	7.5	10/29/12 15:10
S4	0.525	7.5	10/29/12 15:10
S5	0.75	7.5	10/29/12 15:10
ICV/LCS	1.74	7.5	10/29/12 15:10
CCV	0.375	7.5	10/29/12 15:10
MS	0.0174	7.5	10/29/12 15:10

Notes:

LAB QC CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
12SFJ01109	SFJ011WB	ND	ND	MB Passed
12SFJ01110	SFJ011WL	0.474	0.5	%R=95
12SFJ01111	SFJ011WC	0.466	0.5	%R=93

MS CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
12SFJ01121	J162-08	ND	0	
12SFJ01123	J162-08M	0.47	0.5	%R=94

DUP CHECK

DataFileID	LabSampleID	Result	Expected Value	RPD
12SFJ01121	J162-08	ND	0	0
12SFJ01122	J162-08D	ND		

MicropipetteID: 2427B0099, 2846967, ICP01, GFAA-07

Analyzed by: MJM

Reviewed by: RW 10/30/12

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J162

SM3500
FERROUS IRON

A total of ten (10) water samples were received on 10/24/12 for Ferrous Iron analysis, MethodSM3500 in accordance with Standard Methods for the Examination of Water and Wastewater, 20th Edition and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source. Continuing calibration verifications were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for FEJ004WL/C were all within QC limits.

Matrix QC Sample
Matrix QC sample was analyzed at the frequency prescribed by the project.
Percent recoveries for J162-08M/S were within project QC limits.
Sample duplicate was also analyzed with the samples. RPD was within project limit.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

SM3500
FERROUS IRON

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J162
Matrix : WATER
InstrumentID : 70

CLIENT SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	PREP. FACTOR	MOIST (%)	LOQ (mg/L)	LOD (mg/L)	ANALYSIS DATETIME	PREPARATION DATETIME	DATA FILE ID	CAL REF	PREP BATCH	COLLECTION DATETIME	RECEIVED DATETIME
MBLK1W	FEJ004WB	ND	1	NA	2	0.5	10/24/1218:01	NA	12FEJ00409	12FEJ004	FEJ004W	NA	NA
LCS1W	FEJ004WL	14.9	1	NA	2	0.5	10/24/1218:01	NA	12FEJ00410	12FEJ004	FEJ004W	NA	NA
LCD1W	FEJ004WC	15.3	1	NA	2	0.5	10/24/1218:01	NA	12FEJ00411	12FEJ004	FEJ004W	NA	NA
10-24-12 BBW-1	J162-01	ND	1	NA	2	0.5	10/24/1218:01	NA	12FEJ00412	12FEJ004	FEJ004W	10/24/1208:25	10/24/12
10-24-12 BBW-2	J162-02	ND	1	NA	2	0.5	10/24/1218:01	NA	12FEJ00413	12FEJ004	FEJ004W	10/24/1209:35	10/24/12
10-24-12 BBW-3	J162-03	ND	1	NA	2	0.5	10/24/1218:01	NA	12FEJ00414	12FEJ004	FEJ004W	10/24/1210:50	10/24/12
10-24-12 FDUP-1	J162-04	ND	1	NA	2	0.5	10/24/1218:01	NA	12FEJ00415	12FEJ004	FEJ004W	10/24/1200:00	10/24/12
10-23-12 PWB-6	J162-05	ND	1	NA	2	0.5	10/24/1218:01	NA	12FEJ00416	12FEJ004	FEJ004W	10/23/1211:32	10/24/12
10-23-12 AR-1	J162-06	ND	1	NA	2	0.5	10/24/1218:01	NA	12FEJ00417	12FEJ004	FEJ004W	10/23/1212:16	10/24/12
10-23-12 PWB-1	J162-07	ND	1	NA	2	0.5	10/24/1218:01	NA	12FEJ00418	12FEJ004	FEJ004W	10/23/1210:50	10/24/12
10-23-12 AMW-3R	J162-08	ND	1	NA	2	0.5	10/24/1218:01	NA	12FEJ00421	12FEJ004	FEJ004W	10/23/1209:36	10/24/12
10-23-12 AMW-3RDUP	J162-08D	ND	1	NA	2	0.5	10/24/1218:01	NA	12FEJ00422	12FEJ004	FEJ004W	10/23/1209:36	10/24/12
10-23-12 AMW-3RMS	J162-08M	14.4	1	NA	2	0.5	10/24/1218:01	NA	12FEJ00423	12FEJ004	FEJ004W	10/23/1209:36	10/24/12
10-23-12 AMW-3RMSD	J162-08S	14.9	1	NA	2	0.5	10/24/1218:01	NA	12FEJ00424	12FEJ004	FEJ004W	10/23/1209:36	10/24/12
10-23-12 PWB-3	J162-09	ND	1	NA	2	0.5	10/24/1218:01	NA	12FEJ00425	12FEJ004	FEJ004W	10/23/1209:57	10/24/12
10-23-12 PWB-10	J162-10	ND	1	NA	2	0.5	10/24/1218:01	NA	12FEJ00426	12FEJ004	FEJ004W	10/23/1211:50	10/24/12

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : BROWN & BRYANT SUPERFUND SITE
BATCH NO. : 12J162
METHOD : SM3500

MATRIX : WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1
SAMPLE ID :	MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID :	FEJ004WB	FEJ004WL	FEJ004WC
LAB FILE ID :	12FEJ00409	12FEJ00410	12FEJ00411
DATE PREPARED :	NA	NA	NA
DATE ANALYZED :	10/24/1218:01	10/24/1218:01	10/24/1218:01
PREP BATCH :	FEJ004W	FEJ004W	FEJ004W
CALIBRATION REF:	12FEJ004	12FEJ004	12FEJ004

ACCESSION:

PARAMETER	MB RESULT (mg/L)	SPIKE AMT (mg/L)	BS RESULT (mg/L)	BS REC (%)	SPIKE AMT (mg/L)	BSD RESULT (mg/L)	BSD REC (%)	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ferrous Iron	ND	15	14.9	99	15	15.3	102	3	80-120	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : BROWN & BRYANT SUPERFUND SITE
BATCH NO. : 12J162
METHOD : SM3500

MATRIX	: WATER		% MOISTURE:
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 10-23-12 AMW-3R	10-23-12 AMW-3RMS	10-23-12 AMW-3RMSD
LAB SAMPLE ID	: J162-08	J162-08M	J162-08S
LAB FILE ID	: 12FEJ00421	12FEJ00423	12FEJ00424
DATE PREPARED	: NA	NA	NA
DATE ANALYZED	: 10/24/1218:01	10/24/1218:01	10/24/1218:01
PREP BATCH	: FEJ004W	FEJ004W	FEJ004W
CALIBRATION REF	: 12FEJ004	12FEJ004	12FEJ004

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	SPIKE AMT (mg/L)	MS RESULT (mg/L)	MS REC (%)	SPIKE AMT (mg/L)	MSD RESULT (mg/L)	MSD REC (%)	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ferrous Iron	ND	15	14.4	96	15	14.9	99	3	80-120	20

EMAX QUALITY CONTROL DATA
SAMPLE DUPLICATE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : BROWN & BRYANT SUPERFUND SITE
BATCH NO. : 12J162
METHOD : SM3500

==========

MATRIX : WATER % MOISTURE:

DILUTION FACTOR:	1	1
SAMPLE ID :	10-23-12 AMW-3R	10-23-12 AMW-3RDUP
LAB SAMPLE ID :	J162-08	J162-08D
LAB FILE ID :	12FEJ00421	12FEJ00422
DATE PREPARED :	NA	NA
DATE ANALYZED :	10/24/1218:01	10/24/1218:01
PREP BATCH :	FEJ004W	FEJ004W
CALIBRATION REF:	12FEJ004	12FEJ004

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	DUP RESULT (mg/L)	RPD (%)	MAX DIFF (%)
Ferrous Iron	ND	ND	0	20

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
FERROUS IRON

Calibration	Stock Conc.	Exp Date
ICAL	200 µg	9/14/13 ~~10/24/12~~ 10/24/12
ICV/LCS/MS	200 µg	10/24/12

Book #: A70-Fe B-006

Instrument No.: 70

Analytical Batch: FE1004

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Micropipette ID: 541460054, 939380239

SOP #	Rev. #
☒ EMAX-3500-Fe B	2
☐ EMAX-	

Comments:

STANDARDS ID	aliquot (mL) in 10 final vol.	Conc. (mg/L)
S0 Reagent H2O Run-12-001	0	0
S1 SW2-03-47-08	0.1	2
S2 SW2-03-47-08	0.5	10
S3 SW2-03-47-08	0.75	15
S4 SW2-03-47-08	1.0	20
S5 SW2-03-47-08	1.25	25
CCV SW2-03-47-08 ~~SW2-03-55-07~~	0.75	15
ICV/LCS/MS SW2-03-55-07 ~~SW2-03-47-08~~ 10/24/12	0.75	15

Prep Date: 10/24/12 Exp Date: 10/24/12

REAGENT	ID
HCl	SW19-04-555
$NH_4C_2H_3O_2$ Buffer	SWP1-09-80-02
Phenanthroline Solution	SWP1-09-80-01
Hydroxyalamine-HCL Solution	SWP1-007-93-04

Analyzed By: ch

Date: 10/24/12

8128

EMAX LABORATORIES, INC.

FERROUS ANALYSIS

DateFileID	LabSampleID	Result	Flag	RUnit	SampleAmt	SUnit	PDateTime	FinalVol (ml)	WL	Abs	ADateTime	Sample Bkgnd	DF	MM	Conc.	DFxPrep Factor	Notes	Analyst	Sample pH
12FEJ00409	FEJ004WB	ND		mg/L	10	ml	NA	10	510NM	0.009	10/24/12 18:01	0	1		-0.070083	1		CJS	
12FEJ00410	FEJ004WL	14.9		mg/L	10	ml	NA	10	510NM	0.323	10/24/12 18:01	0	1		14.945074	1		CJS	
12FEJ00411	FEJ004WC	15.3		mg/L	10	ml	NA	10	510NM	0.331	10/24/12 18:01	0	1		15.324553	1		CJS	
12FEJ00412	J162-01	ND		mg/L	10	ml	NA	10	510NM	0.005	10/24/12 18:01	0	1		0.0297867	1		CJS	
12FEJ00413	J162-02	ND		mg/L	10	ml	NA	10	510NM	0.014	10/24/12 18:01	0	1		0.4462005	1		CJS	
12FEJ00414	J162-03	ND		mg/L	10	ml	NA	10	510NM	0.01	10/24/12 18:01	0	1		0.258461	1		CJS	
12FEJ00415	J162-04	ND		mg/L	10	ml	NA	10	510NM	0.008	10/24/12 18:01	0	1		0.1645913	1		CJS	
12FEJ00416	J162-05	ND		mg/L	10	ml	NA	10	510NM	0.004	10/24/12 18:01	0	1		-0.023148	1		CJS	
12FEJ00417	J162-06	ND		mg/L	10	ml	NA	10	510NM	0.004	10/24/12 18:01	0	1		-0.023148	1		CJS	
12FEJ00418	J162-07	ND		mg/L	10	ml	NA	10	510NM	0.002	10/24/12 18:01	0	1		-0.117018	1		CJS	
12FEJ00419	CCV1	15		mg/L	10	ml	NA	10	510NM	0.325	10/24/12 18:01	0	1		15.042944	1		CJS	
12FEJ00420	CCB1	ND		mg/L	10	ml	NA	10	510NM	0	10/24/12 18:01	0	1		-0.210888	1		CJS	
12FEJ00421	J162-08	ND		mg/L	10	ml	NA	10	510NM	0.006	10/24/12 18:01	0	1		0.0707216	1		CJS	
12FEJ00422	J162-08D	ND		mg/L	10	ml	NA	10	510NM	0.002	10/24/12 18:01	0	1		-0.117018	1		CJS	
12FEJ00423	J162-08M	14.4		mg/L	10	ml	NA	10	510NM	0.311	10/24/12 18:01	0	1		14.385856	1		CJS	
12FEJ00424	J162-08S	14.9		mg/L	10	ml	NA	10	510NM	0.322	10/24/12 18:01	0	1		14.902189	1		CJS	
12FEJ00425	J162-09	ND		mg/L	10	ml	NA	10	510NM	0.003	10/24/12 18:01	0	1		-0.070083	1		CJS	
12FEJ00426	J162-10	ND		mg/L	10	ml	NA	10	510NM	0.001	10/24/12 18:01	0	1		-0.163953	1		CJS	
12FEJ00427	CCV2	15.1		mg/L	10	ml	NA	10	510NM	0.328	10/24/12 18:01	0	1		15.089879	1		CJS	
12FEJ00428	CCB2	ND		mg/L	10	ml	NA	10	510NM	0	10/24/12 18:01	0	1		-0.210888	1		CJS	

10/24/12

Reviewed by: MJB
Date: 11/16/12

EMAX LABORATORIES, INC.

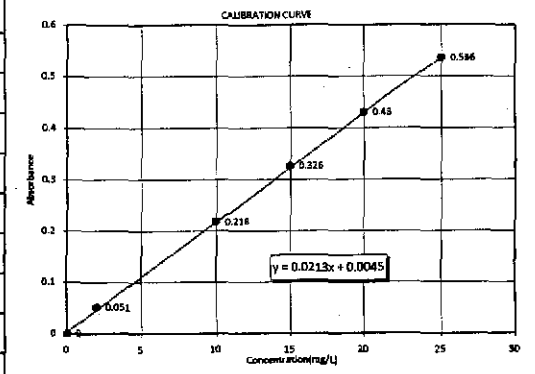
FERROUS ANALYSIS

Data File Name	Calibration ID	Conc. mg/L	WL	Abs	CalDate	FC	%Rec
12FEJ00401	S0	0	510NM	0	10/24/12 17:53	-0.210887612	ND
12FEJ00402	S1	2	510NM	0.051	10/24/12 17:53	2.182790549	109
12FEJ00403	S2	10	510NM	0.218	10/24/12 17:53	10.02091915	100
12FEJ00404	S3	15	510NM	0.326	10/24/12 17:53	15.08987867	101
12FEJ00405	S4	20	510NM	0.43	10/24/12 17:53	19.97110478	100
12FEJ00406	S5	25	510NM	0.536	10/24/12 17:53	24.94620051	100
12FEJ00407	ICV	15	509NM	0.339	10/24/12 17:54	15.70009199	103
12FEJ00408	ICB	0	510NM	0	10/24/12 17:54	-0.210887612	ND
12FEJ00419	CCV1	15	510NM	0.325	10/24/12 18:01	15.04294381	100
12FEJ00420	CCB1	0	510NM	0	10/24/12 18:01	-0.210887612	ND
12FEJ00427	CCV2	15	510NM	0.326	10/24/12 18:01	15.08987867	101
12FEJ00428	CCB2	0	510NM	0	10/24/12 18:01	-0.210887612	ND

10/24/12

$$FC = [(A * CF) - Y] * DF$$

InstrumentID: 70



CF= 46.9348659 Y= 0.21089 r= 0.999908

LOD Water(mg/L) 0.5 LOD Soil(mg/Kg)

LOQ Water(mg/L) 2 LOQ Soil(mg/Kg)

SOP

☑ EMAX-3500 Fe B Rev. 8

Standard / Reagent ID	Description	Conc.	Exp.Date
SW2-03-47-08	Intermediate ICAL CCV Std (mg/L)	200	09/14/13
SW2-03-55-07	Intermediate ICV LCS MS Std (mg/L)	200	10/24/12
RW1-12-001	Reagent Water	NA	NA
NA	Reagent Water		
SW1A-04-555	HCl	ASSAY	06/01/14
SWP1-09-80-02	$NH_4C_2H_3O_2$ Buffer	NA	09/28/13
SWP1-09-80-01	Phenanthroline Solution	NA	09/28/13
SWP1-007-93-04	Hydroxylamine-HCl Solution	NA	12/01/12
HC24879a	pH Strip	NA	09/17/13

10/24/12

Standard Prep	Intermediate Std Aliquot (ml)	Final Vol (ml)	DateTime
S0	0	10	10/24/12 17:21
S1	0.1	10	10/24/12 17:21
S2	0.5	10	10/24/12 17:21
S3	0.75	10	10/24/12 17:21
S4	1	10	10/24/12 17:21
S5	1.25	10	10/24/12 17:21
ICV	0.75	10	10/24/12 17:21
CCV	0.75	10	10/24/12 17:21
LCS	0.75	10	10/24/12 17:21

MicropipetteID: 541460054 939380239

Expected Sample Amount: 10

LAB QC CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
12FEJ00409	FEJ004WB	ND	ND	MB Passed
12FEJ00410	FEJ004WL	14.9	15	%R=99
12FEJ00411	FEJ004WC	15.3	15	%R=102

MS CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
12FEJ00421	J162-08	ND	0	RPD=3
12FEJ00423	J162-08M	14.4	15	%R=96
12FEJ00424	J162-08S	14.9	15	%R=99

DUP CHECK

DataFileID	LabSampleID	Result	Expected Value	RPD
12FEJ00421	J162-08	ND		
12FEJ00422	J162-08D	ND	ND	#VALUE!

☑ Distillation DateTime Start: NA ☐ End:

Analyzed by: CJS

Reviewed by: MJM

Date: 3/14/12

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

METHANE AND DISSOLVED HYDROGEN

SDG#: 12J162

November 19, 2012

ACLASS DoD ELAP
ADE-1461
EPA Methods TO-3, TO14A,TO15 SIM & Scan, ASTM D1946

nelac
LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-09-TX
EPA Methods TO14A, TO15

EMAX Laboratories, Inc.
ATTN: Richard Beauvil
1835 205th St.
Torrance, CA 90501

LABORATORY TEST RESULTS

Project Reference: 12J162, Eco & Associates, Inc.
Lab Number: D102603-01/12

Enclosed are results for sample(s) received 10/26/12 by Air Technology Laboratories. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

Total Number of Pages: 134

CHAIN OF CUSTODY

D102603-01 12

EMAX LABORATORIES, INC.
Tel#: 310-618-8889 FAX#: 310-618-0818
email: info@emaxlabs.com

EMAX CONTROL NO	12J162
PROJECT CODE	ECO1101_
TURN-AROUND-TIME	STANDARD

SEND REPORT TO:
EMAX LABORATORIES, INC.
1835 W. 205TH ST. CA 90501

ATTN: **Richard Beauvil**

CLIENT: Eco & Associates, Inc.
PROJECT: Brown & Bryant Superfund

SEND SAMPLES TO:
Air Technology Labs
18501 E. Gale Ave, Suite 130
City of Industry, CA 91748

	EMAX Sample ID	Client Sample ID	Collection Date	CollectionTime	Matrix	Method		COMMENTS
01	J162-01	10-24-12 BBW-1	10/24/2012	8:25:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
02	J162-02	10-24-12 BBW-2	10/24/2012	9:35:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
03	J162-03	10-24-12 BBW-3	10/24/2012	10:50:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
04	J162-04	10-24-12 FDUP-1	10/24/2012	12:00:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
05	J162-05	10-23-12 PWB-6	10/23/2012	11:32:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	LEVEL 4
06	J162-06	10-23-12 AR-1	10/23/2012	12:16:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
07	J162-07	10-23-12 PWB-1	10/23/2012	10:50:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
08	J162-08	10-23-12 AMW-3R	10/23/2012	9:36:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
09	J162-08M	10-23-12 AMW-3RMS	10/23/2012	9:36:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
10	J162-08S	10-23-12 AMW-3RMSD	10/23/2012	9:36:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
11	J162-09	10-23-12 PWB-3	10/23/2012	9:57:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
12	J162-10	10-23-12 PWB-10	10/23/2012	11:50:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	

CHAIN OF CUSTODY

D102603-01/12

EMAX LABORATORIES, INC.
Tel#: 310-618-8889 FAX#: 310-618-0818
email: info@emaxlabs.com

EMAX CONTROL NO	12J162
PROJECT CODE	ECO1101
TURN-AROUND-TIME	STANDARD

SEND REPORT TO:
EMAX LABORATORIES, INC.
1835 W. 205TH ST. CA 90501

ATTN: **Richard Beauvil**

CLIENT: **Eco & Associates, Inc.**
PROJECT: **Brown & Bryant Superfund**

SEND SAMPLES TO:

EMAX Sample ID	Client Sample ID	Collection Date	CollectionTime	Matrix	Method	COMMENTS

INSTRUCTION:

DATA PACKAGE: 2 HARD COPIES AND 1 CD, LEVEL III with 10% LEVEL IV.
EDD: ADR1A/3A

COOLER TEMPERATURE

8°C

Ko initial 12

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	10/26/12	~~1230~~ or 10/26/12 1200	[signature]	10/26/12	1200

PAGE 008

Client: EMAX Laboratories, Inc.
Attn: Richard Beauvil
Project Name: Eco & Associates, Inc.
Project No.: 12J162
Date Received: 10/26/12
Matrix: Air
Reporting Units: ug/L

RSK175

Lab No.:	D102603-01		D102603-02		D102603-03		D102603-04	
Client Sample I.D.:	J162-01 / 10-24-12 BBW-1		J162-02 / 10-24-12 BBW-2		J162-03 / 10-24-12 BBW-3		J162-04 / 10-24-12 FDUP-1	
Date Sampled:	10/24/12		10/24/12		10/24/12		10/24/12	
Date Analyzed:	11/05/12		11/05/12		11/05/12		11/05/12	
QC Batch No.:	121105GC8A1		121105GC8A1		121105GC8A1		121105GC8A1	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result ug/L	RL ug/L	Result ug/L	RL ug/L	Result ug/L	RL ug/L	Result ug/L	RL ug/L
Methane	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Hydrogen	ND	10	ND	10	ND	10	ND	10

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 11-19-12
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: EMAX Laboratories, Inc.
Attn: Richard Beauvil
Project Name: Eco & Associates, Inc.
Project No.: 12J162
Date Received: 10/26/12
Matrix: Air
Reporting Units: ug/L

RSK175

Lab No.:	D102603-05		D102603-06		D102603-07		D102603-08	
Client Sample I.D.:	J162-05 / 10-23-12 PWB-6		J162-06 / 10-23-12 AR-1		J162-07 / 10-23-12 PWB-1		J162-08 / 10-23-12 AMW-3R	
Date Sampled:	10/23/12		10/23/12		10/23/12		10/23/12	
Date Analyzed:	11/05/12		11/05/12		11/05/12		11/06/12	
QC Batch No.:	121105GC8A1		121105GC8A1		121105GC8A1		121105GC8A1	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result ug/L	RL ug/L	Result ug/L	RL ug/L	Result ug/L	RL ug/L	Result ug/L	RL ug/L
Methane	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Hydrogen	ND	10	ND	10	ND	10	ND	10

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 11-14-12
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ◆ City of Industry, CA 91748 ◆ Ph: (626) 964-4032 ◆ Fx: (626) 964-5832

Client:	EMAX Laboratories, Inc.
Attn:	Richard Beauvil
Project Name:	Eco & Associates, Inc.
Project No.:	12J162
Date Received:	10/26/12
Matrix:	Air
Reporting Units:	ug/L

RSK175

Lab No.:	D102603-11		D102603-12					
Client Sample I.D.:	J162-09 / 10-23-12 PWB-3		J162-10 / 10-23-12 PWB-10					
Date Sampled:	10/23/12		10/23/12					
Date Analyzed:	11/05/12		11/05/12					
QC Batch No.:	121105GC8A1		121105GC8A1					
Analyst Initials:	MJ		MJ					
Dilution Factor:	1.0		1.0					
ANALYTE	Result ug/L	RL ug/L	Result ug/L	RL ug/L				
Methane	ND	1.0	ND	1.0				
Hydrogen	ND	10	ND	10				

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 11-19-12

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 121105GC8A1
Matrix: Water
Units: ug/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		D102603-08		D102603-09MS		D102603-10MSD			
Date Analyzed:		11/5-6/2012		11/5-6/2012		11/5-6/2012			
Analyst Initials:		MJ		MJ		MJ			
Datafile:		05nov037/06nov002		05nov042/06nov003		05nov044/06nov004			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	1.0	1.0	ND	84	70-130%	89	70-130%	6.2	<30
Hydrogen	10	10	ND	105	70-130%	113	70-130%	6.8	<30

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL).
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ Date: 11-19-12
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

QC Batch No.: 121105GC8A1
Matrix: Water
Units: ug/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date Analyzed:		11/05/12		11/05/12		11/05/12			
Analyst Initials:		MJ		MJ		MJ			
Datafile:		05nov005/028		05nov001/055		05nov002/054			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	1.0	1.0	ND	98	70-130%	98	70-130%	0.5	<30
Hydrogen	10	10	ND	109	70-130%	107	70-130%	2.3	<30

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL).
RL = PQL X Dilution Factor

Reviewed/Approved By: Mark J. Johnson
Operations Manager

Date: 11-19-12

The cover letter is an integral part of this analytical report.

GC Raw Data Index
General Information

Method: RSK

Section	Page #
1. Supporting Documents	10
2. Sample Raw Data	17
3. Initial Calibration	71
4. Continuing Calibration	99
5. Method Blank	112
6. LCS/LCSD	119

Conventions and Conversions

1 ppbv = 0.001 ppmv = 0.0000001% v/v
1% v/v = 10,000 ppmv = 10,000,000 ppbv

1 ug/m^3 = 1 ng/L = ppbv x MW/24.45
1 ug/L = 1 mg/m^3 = ppmv x MW/24.45

Where **MW** is the molecular weight of the compound and 24.45 is the molar volume of ideal gas at 1 atmosphere and 25° C.

1 atmosphere = 14.6 psia = 0 psig
30" Hg = 0 psia = -14.6 psig

Standard pressure is taken as 14.6 psia at Air Technology Labs' facility.

1. Supporting Documents

a. Pressurization log (if applicable)

b. ICAL run log

c. CCAL/QC/Samples run log

d. Miscellaneous documents

Instrument ID: GC 8A

GC Injection Logbook

Chemist: [illegible]

Analytical Method: TSK175

Blank Lot #: [illegible]

Datafile Directory: c:\terargi gc8a 2011\ november 2011

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	11-3-11	11:39	03 nov 013	C102003 - 08	EMAX	250 ml	-	-	1.0	D.I.	OK	pH = 7.0	111103GCBAL
2		11:53	014	-09									
3		12:06	015	-10									
4		12:20	016	Presence	-						OK		
5		13:28	017	Presence	-						OK		
6		13:42	018	Presence	-						OK		
7		13:57	019	C102003 - 01	EMAX MS						OK		
8		14:10	020	-0	EMAX MSD						OK		
9		14:23	021	0.5% CH4	AW17606						OK		
10	11-3-11	14:40	03 nov 022	H2 ESIL VOAL L5	AW17613	250 ml	-	-	1.0	D.I.	NO	noise	111103GCBAL
11		14:51	023	L5	AW17613						OK		
12		15:02	024	L4	AW17614						OK		
13		15:10	025	L3	AW17615						NO	noise	
14		15:23	026	L3	AW17615						OK		
15		15:32	027	L2	AW17616						OK		
16		15:41	028	L1	AW17617						NO	noise	
17		15:50	029	L1	AW17617						OK		
18		16:02	030	2.5% H2 CO	AW17618	250 ml					OK		
19		16:12	031	Method Blank	AW17609						OK		
20		16:27	032	C102003 - 01	EMAX						OK		

Air Technology Laboratories, Inc.
GC8A #26

Approved by/Date:_____

Instrument ID: GC 8A

Analytical Method: TSK AS 120227

Datafile Directory: GC8\2012\Feb.

GC Injection Logbook

Chemist: DS

Blank Lot #: 118F129

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	2/27/12	12:27	24 feb 008	3.0 ppmv C_3C_3	AW119015	75	-	-	1.0		OK		120227GC8A
2		12:43	27feb.	10 ppmv C_3C_3	↓	200							
3		12:57	27feb001	100 ppmv C_3C_3	AW119016	200						use for TCE ICAL also CO_2, CH_4	
4		13:10	002	1000 ppmv C_3C_3	AW119017	250							
5		13:25	003	5,000 ppmv C_3C_3	AS014107	125							
6		13:58	004	10,000 ppmv C_3C_3	↓	200							
7		15:30 TG	005	100,000 ppmv CO_2 CH_4	AW119018	50							
8		15:30	006	500,000 ppmv CO_2 CH_4	↓	200							
9		14:02	007	10,000 ppmv C_3C_3	AS014107	200					OK	not use	
10													
11													
12													
13													
14													
15												DS	
16												3/1/12	
17													
18													
19													
20													

Air Technology Laboratories, Inc.
GC8A #26

Approved by/Date: DS 3/1/12

Instrument ID: GC 8A

GC Injection Logbook

Chemist: MJ

Analytical Method: nmoc fixed 111024b, rsk 175 fg 120727

Blank Lot #: 1M2G612A50

Datafile Directory: gc8a\2012\nov

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	11/2/12	1615	02NOV020	D110201-01	Earth Sys.	std 100g.	—	—	1.0	2	OK	1 1 1 2 2	~~1211~~ 121102GC8A1
2		1632	021	-02						2		2	
3		1648	022	-02						2		2	
4		1704	023	0.1% CH4 CO2 CO	AW111501					5	No	5	
5		1718	024	25% CH4 CO2	AW111502					4	OK	4	
6		1733	025	O2 N2 CCV	—					1		1	
7		1748	026	300 ppmv NMOC	AS13701					7		7	
8		1802	027							7		7	
9		1817	028							7		7	
10		1831	029	0.1% CH4 CO2 CO	AW111501					DI	OK	11	
11	11/5/12	1017	05NOV	0.5% RSK CCV	AS091107	120							121105GC8A1
12		1104	001	RSK LCS	AW111516	250							
13		1127	002	RSK LCSD		250							
14		1142	003	Method Blank	—						—		
15		1205	004		—						—		
16		1222	005		—						OK		
17		1300	006	D102603-01	EMAX	250							
18		1314	007	-02									
19		1328	008	-03									
20		1352	009	-04									

Air Technology Laboratories, Inc.
GC8A #28

Approved by/Date:

GC Injection Logbook

Instrument ID: GC 8A

Analytical Method: RSK175-fg 120227

Datafile Directory: gc8a\2012\nov

Chemist: MJ

Blank Lot #: 1N2 6912A50

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	11/5/12	1438	C8NOV010	D102603-05	EMAX	2.50	—	—	1.0	DI	012		121105GC8A1
2		1459	011	-06									
3		1515	012	-07									
4		1534	013	-08									
5		1550	014	-09									
6		1603	015	-10									
7		1617	016	-11									
8		1634	017	-12									
9		1649	018	D102605-01									
10		1709	019	-02									
11		1723	020	-03									
12		1739	021	-04									
13		1759	022	-05									
14		1810	023	-06									
15		1825	024	-07									
16		1836	025	-08									
17		1851	026	0.5% RSK CCV	A5011117	125					01~~4~~		
18		0806	027	1% H2 RSK CCV	A0111517	250					01~~4~~	H_2	
19		0819	028	Method Blank	—						01~~4~~		
20		0835	029	D102603-01	EMAX						—	baseline ?	

Approved by/Date:

Instrument ID: GC 8A

Analytical Method: RSK hydrogen 111103

Datafile Directory: GC8a\ 2012\ NOV

GC Injection Logbook

Chemist: MT

Blank Lot #: 1426912ASO

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	11/6/12	0843	05NOV030	D102603-01	EMAX	250	—	—	1.0	DI	No	interference H_2	121105GC8A1
2		0850	031	-02									
3		0912	032	-03							ok		
4		0920	033	-04							ok		
5		0937	034	-05							ok		
6		0949	035	-06							ok		
7		0958	036	-07							ok		
8		1006	037	-08							No	interference	
9		1018	038	-11							ok		
10		1038	039	-12							ok		
11		1100	040	-01							ok		
12		1110	041	-02							ok		
13		1129	042	-09B							ok	rerun as MS	
14		1136	043	-10B							No	int	
15		1159	044	-10BMSD							ok	rerun as MSD	
16		1229	045	D102605-01		250					ok		
17		1238 (11/8/12)	046	-02MS									
18		1248	047	-03MSD									
19		1314	048	-04									
20		1336	049	-05									

Approved by/Date:

GC Injection Logbook

Instrument ID: GC 8A
Analytical Method: RSK hydrogen 111103
Datafile Directory: gc8a\2012\Nov

Chemist: MT
Blank Lot #: 1412691 2ASO

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	11/6/12	1346	05Nov050	D102605-06	EMAX		—	—	1.0	DI	ok	H_2	121105G-C8A1
2		1357	051	-07									
3		1417	052	-08									
4		1426	053	H2 RSK LCS	AW111512						—	m-?	
5		1444	054	H2 RSK LCSD							ok		
6		1501	055	H2 RSK LCS							ok		
7		1522	056	H2 RSK CCV	AW111517						ok		
8	11/6/12	1530	06Nov	RSK CCV	AS0141107		—	—	1.0	DI	ok		121106G-C8A1
9		1555	001	Method Blank	—								
10		1608	002	D102603-08	EMAX								
11		1628	003	-09MS									
12		1650	004	-10msd									
13		1705	005	D102605-01									
14		1722	006	-01									
15		1739	007	-02MS									
16		1809	008	-03MSD									
17		0857	009	RSK LCS	AW111516								
18		0921	010	RSK LCSD									
19		0934	011	RSK CCV	AS0141107								
20													11-8-12

Approved by/Date:

2. Sample Raw Data

a. Calculations (if applicable)

b. Chromatograms/Results

	D102603-01	05nov006							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	0.375	0.278	0	0.981	NA	0	NA	NA	ppmv
p_g	3.75E-07	2.78E-07	0	9.81E-07	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	3.2895E-11	9.2053E-12	0	2.3753E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	5.1118E-05	1.5327E-05	0	2.1093E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	0.0000015	1.112E-06	0	3.924E-06	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	4.769E-05	3.7879E-05	0	7.129E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	9.8808E-05	5.3206E-05	0	9.2382E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	0.10	0.05	0.00	0.09	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	0.10	0.05	0.00	0.09	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.1758691	1	4	16	Methane	0.65439673	0.01411717
49.0797546	1	4	30	Ethane	1.22699387	0.00433631
45.807771	1	4	28	Ethene	1.14519427	0.00862809
42.5357873	1	4	26	Acetylene	1.06339468	0
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.9836401	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

PAGE 018

	D102603-02	05nov007							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	0.136	0.245	0	2.494	NA	0	NA	NA	ppmv
p_g	1.36E-07	2.45E-07	0	2.494E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	1.193E-11	8.1126E-12	0	6.0387E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	1.8539E-05	1.3507E-05	0	5.3624E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	5.44E-07	0.00000098	0	9.976E-06	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	1.7296E-05	3.3383E-05	0	0.00018124	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	3.5834E-05	4.689E-05	0	0.00023486	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	0.04	0.05	0.00	0.23	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	0.04	0.05	0.00	0.23	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.						
ug	%	mL	MW		mg/L	%R
26.1758691	1	4	16	Methane	0.65439673	0.03589014
49.0797546	1	4	30	Ethane	1.22699387	0.00382157
45.807771	1	4	28	Ethene	1.14519427	0.00312912
42.5357873	1	4	26	Acetylene	1.06339468	0
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.9836401	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	D102603-03	05nov008							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	0.599	0.458	0	8.89	NA	0	NA	NA	ppmv
p_g	5.99E-07	4.58E-07	0	0.00000889	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	5.2544E-11	1.5166E-11	0	2.1525E-10	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	8.1653E-05	2.5251E-05	0	0.00019115	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	2.396E-06	1.832E-06	0	0.00003556	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	7.6177E-05	6.2406E-05	0	0.00064604	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	0.00015783	8.7656E-05	0	0.00083719	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	0.16	0.09	0.00	0.84	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	0.16	0.09	0.00	0.84	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.1758691	1	4	16	Methane	0.65439673	0.12793237
49.0797546	1	4	30	Ethane	1.22699387	0.00714399
45.807771	1	4	28	Ethene	1.14519427	0.01378193
42.5357873	1	4	26	Acetylene	1.06339468	0
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.9836401	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	D102603-04	05nov009							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	0.63	0.443	0	8.982	NA	0	NA	NA	ppmv
p_g	0.00000063	4.43E-07	0	8.982E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	5.5263E-11	1.4669E-11	0	2.1748E-10	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	8.5879E-05	2.4424E-05	0	0.00019312	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	0.00000252	1.772E-06	0	3.5928E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	8.0119E-05	6.0362E-05	0	0.00065273	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	0.000166	8.4785E-05	0	0.00084585	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	0.17	0.08	0.00	0.85	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	0.17	0.08	0.00	0.85	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.1758691	1	4	16	Methane	0.65439673	0.1292563
49.0797546	1	4	30	Ethane	1.22699387	0.00691002
45.807771	1	4	28	Ethene	1.14519427	0.01449518
42.5357873	1	4	26	Acetylene	1.06339468	0
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.9836401	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	D102603-05	05nov010							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	0	0.361	0	7.426	NA	0	NA	NA	ppmv
p_g	0	3.61E-07	0	7.426E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	0	1.1954E-11	0	1.7981E-10	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	0	1.9903E-05	0	0.00015967	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	0	1.444E-06	0	2.9704E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	0	4.9189E-05	0	0.00053965	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	0	6.9092E-05	0	0.00069932	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	0.00	0.07	0.00	0.70	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	0.00	0.07	0.00	0.70	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.						
ug	%	mL	MW		mg/L	%R
26.1758691	1	4	16	Methane	0.65439673	0.10686454
49.0797546	1	4	30	Ethane	1.22699387	0.00563096
45.807771	1	4	28	Ethene	1.14519427	0
42.5357873	1	4	26	Acetylene	1.06339468	0
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.9836401	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	D102603-06	05nov011							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	0	0	0	0.574	NA	0	NA	NA	ppmv
p_g	0	0	0	5.74E-07	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	0	0	0	1.3898E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	0	0	0	1.2342E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	0	0	0	2.296E-06	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	0	0	0	4.1713E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	0	0	0	5.4054E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	0.00	0.00	0.00	0.05	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	0.00	0.00	0.00	0.05	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.						
ug	%	mL	MW		mg/L	%R	
26.1758691	1	4	16	Methane	0.65439673	0.0082602	
49.0797546	1	4	30	Ethane	1.22699387	0	
45.807771	1	4	28	Ethene	1.14519427	0	
42.5357873	1	4	26	Acetylene	1.06339468	0	
#VALUE!	NA	4	44	Propane	#VALUE!		
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!	
71.9836401	1	4	44	CO2	1.799591	#VALUE!	
		4	28	Nitrogen			

	D102603-07	05nov012							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	0	0.333	0	8.097	NA	0	NA	NA	ppmv
p_g	0	3.33E-07	0	8.097E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	0	1.1026E-11	0	1.9605E-10	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	0	1.8359E-05	0	0.0001741	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	0	1.332E-06	0	3.2388E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	0	4.5374E-05	0	0.00058841	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	0	6.3733E-05	0	0.00076251	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	0.00	0.06	0.00	0.76	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	0.00	0.06	0.00	0.76	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.1758691	1	4	16	Methane	0.65439673	0.11652063
49.0797546	1	4	30	Ethane	1.22699387	0.00519421
45.807771	1	4	28	Ethene	1.14519427	0
42.5357873	1	4	26	Acetylene	1.06339468	0
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.9836401	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	D102603-08	05nov013							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	0	0	0	2.641	NA	0	NA	NA	ppmv
p_g	0	0	0	2.641E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	0	0	0	6.3947E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	0	0	0	5.6785E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	0	0	0	1.0564E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	0	0	0	0.00019192	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	0	0	0	0.00024871	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	0.00	0.00	0.00	0.25	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	0.00	0.00	0.00	0.25	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.1758691	1	4	16	Methane	0.65439673	0.03800555		
	49.0797546	1	4	30	Ethane	1.22699387	0		
	45.807771	1	4	28	Ethene	1.14519427	0		
	42.5357873	1	4	26	Acetylene	1.06339468	0		
	#VALUE!	NA	4	44	Propane	#VALUE!			
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.9836401	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

D102603-09 ms	05nov042	06nov003							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	5805.7	NA	8082.3	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	0.0058057	#VALUE!	0.0080823	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	1.406E-07	#VALUE!	1.143E-07	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	0.1248296	#VALUE!	0.0126893	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	0.0232228	#VALUE!	0.0323292	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.4219023	#VALUE!	0.073418	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.5467319	#VALUE!	0.0861073	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	546.73	#VALUE!	86.11	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	83.547463
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
42.535787	1	4	26	Acetylene	1.0633947	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

D102603-10 msd		05nov044	06nov004						
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	6179.7	NA	8647.8	NA	NA	ppmv
ρ_g	#VALUE!	#VALUE!	#VALUE!	0.0061797	#VALUE!	0.0086478	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	1.496E-07	#VALUE!	1.223E-07	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	0.132871	#VALUE!	0.0135772	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
ρ	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	0.0247188	#VALUE!	0.0345912	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.449081	#VALUE!	0.0785548	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.581952	#VALUE!	0.092132	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	581.95	#VALUE!	92.13	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	88.929545
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
42.535787	1	4	26	Acetylene	1.0633947	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	D102603-11	05nov016							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	0	0	0	2.653	NA	0	NA	NA	ppmv
p_g	0	0	0	2.653E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	0	0	0	6.4237E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	0	0	0	5.7043E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	0	0	0	1.0612E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	0	0	0	0.00019279	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	0	0	0	0.00024984	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	0.00	0.00	0.00	0.25	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	0.00	0.00	0.00	0.25	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.1758691	1	4	16	Methane	0.65439673	0.03817824
49.0797546	1	4	30	Ethane	1.22699387	0
45.807771	1	4	28	Ethene	1.14519427	0
42.5357873	1	4	26	Acetylene	1.06339468	0
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.9836401	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	D102603-12	05nov017							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	0	0	0	2.778	NA	0	NA	NA	ppmv
p_g	0	0	0	2.778E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	0	0	0	6.7264E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	0	0	0	5.973E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	0	0	0	1.1112E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	0	0	0	0.00020188	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	0	0	0	0.00026161	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	0.00	0.00	0.00	0.26	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	0.00	0.00	0.00	0.26	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.1758691	1	4	16	Methane	0.65439673	0.03997707
49.0797546	1	4	30	Ethane	1.22699387	0
45.807771	1	4	28	Ethene	1.14519427	0
42.5357873	1	4	26	Acetylene	1.06339468	0
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.9836401	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov006.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-01 EMAX

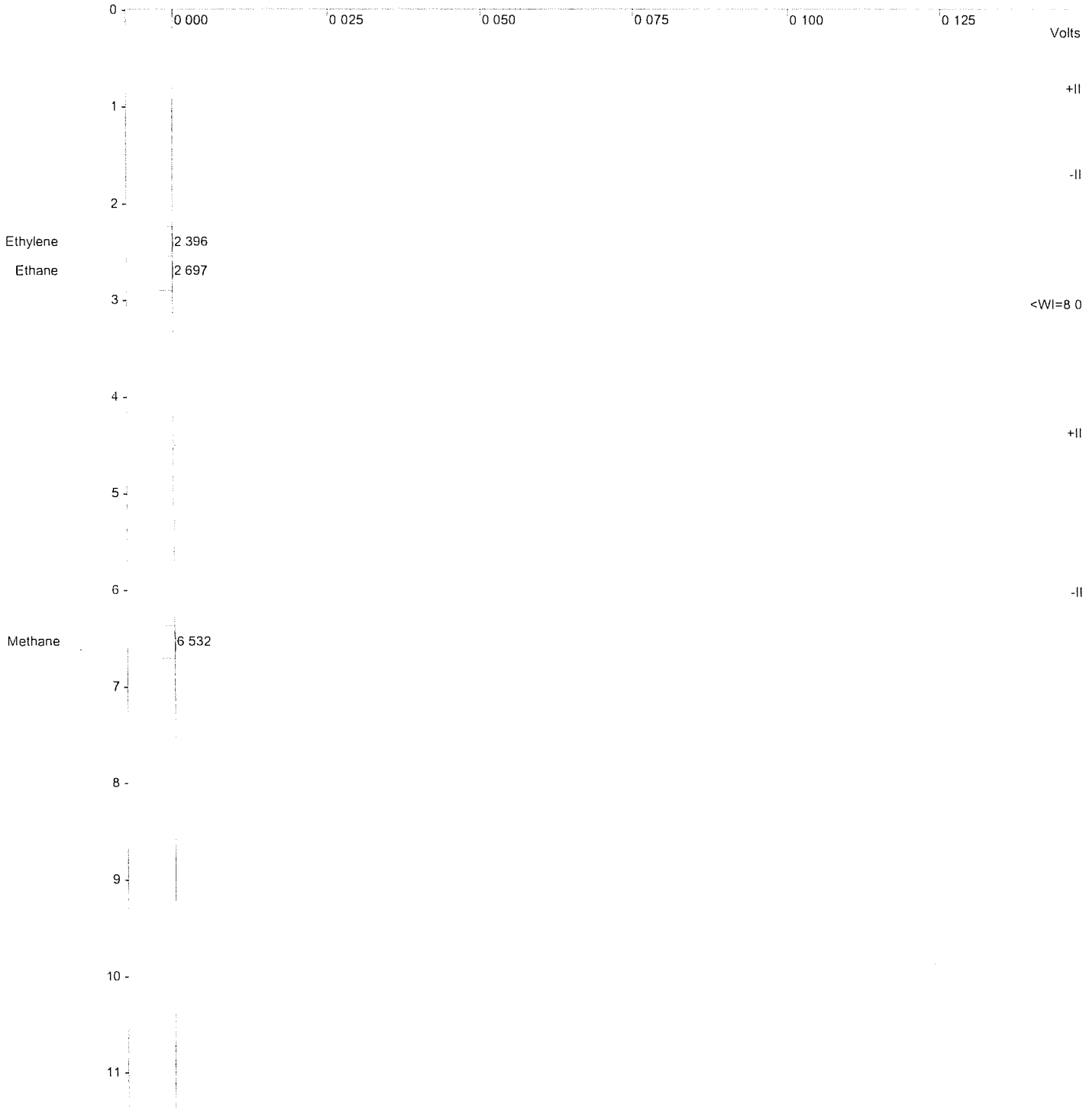
Injection Date: 11/5/2012 1:00 PM Calculation Date: 11/5/2012 1:12 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov006.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : D102603-01 EMAX

Injection Date: 11/5/2012 1:00 PM Calculation Date: 11/5/2012 1:12 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.375	2.396	0.051	1040	BV	6.8	
2	Ethane	0.278	2.697	0.055	788	VB	7.4	
3	Acetylene		3.286					M
4	Methane	0.981	6.532	0.046	1424	BB	0.0	
	Totals:	1.634		0.152	3252			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -46 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov007.run
Method File : C:\Temp GC\GC8A\Methods\rskl75fg120227.mth
Sample ID : D102603-02 EMAX

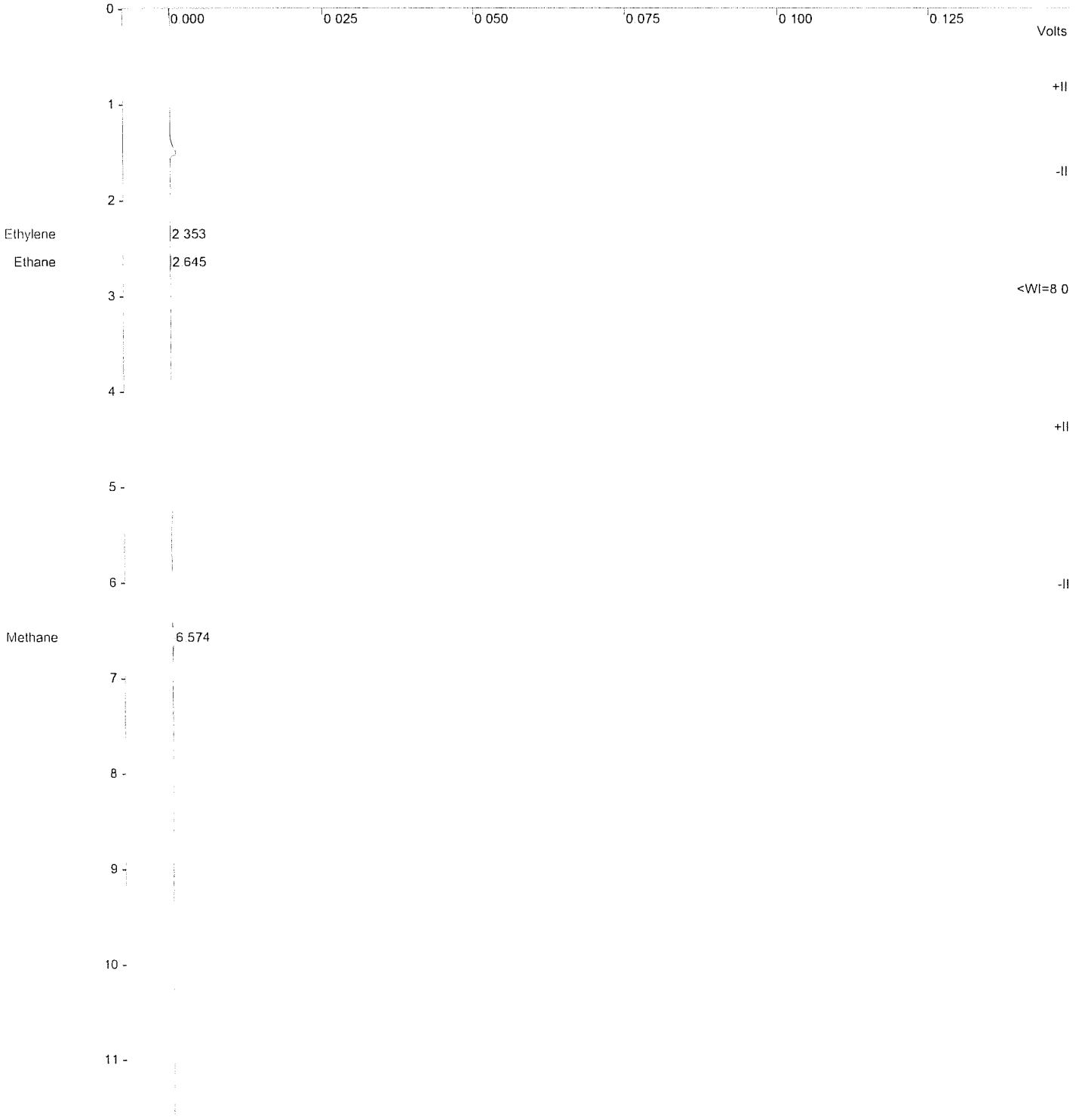
Injection Date: 11/5/2012 1:14 PM Calculation Date: 11/5/2012 1:26 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov007.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : D102603-02 EMAX

Injection Date: 11/5/2012 1:14 PM Calculation Date: 11/5/2012 1:26 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.136	2.353	0.008	378	BV	5.9	
2	Ethane	0.245	2.645	0.003	693	VB	6.3	
3	Acetylene		3.286					M
4	Methane	2.494	6.574	0.088	3620	BB	10.2	
	Totals:	2.875		0.099	4691			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 47 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 10 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov008.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-03 EMAX

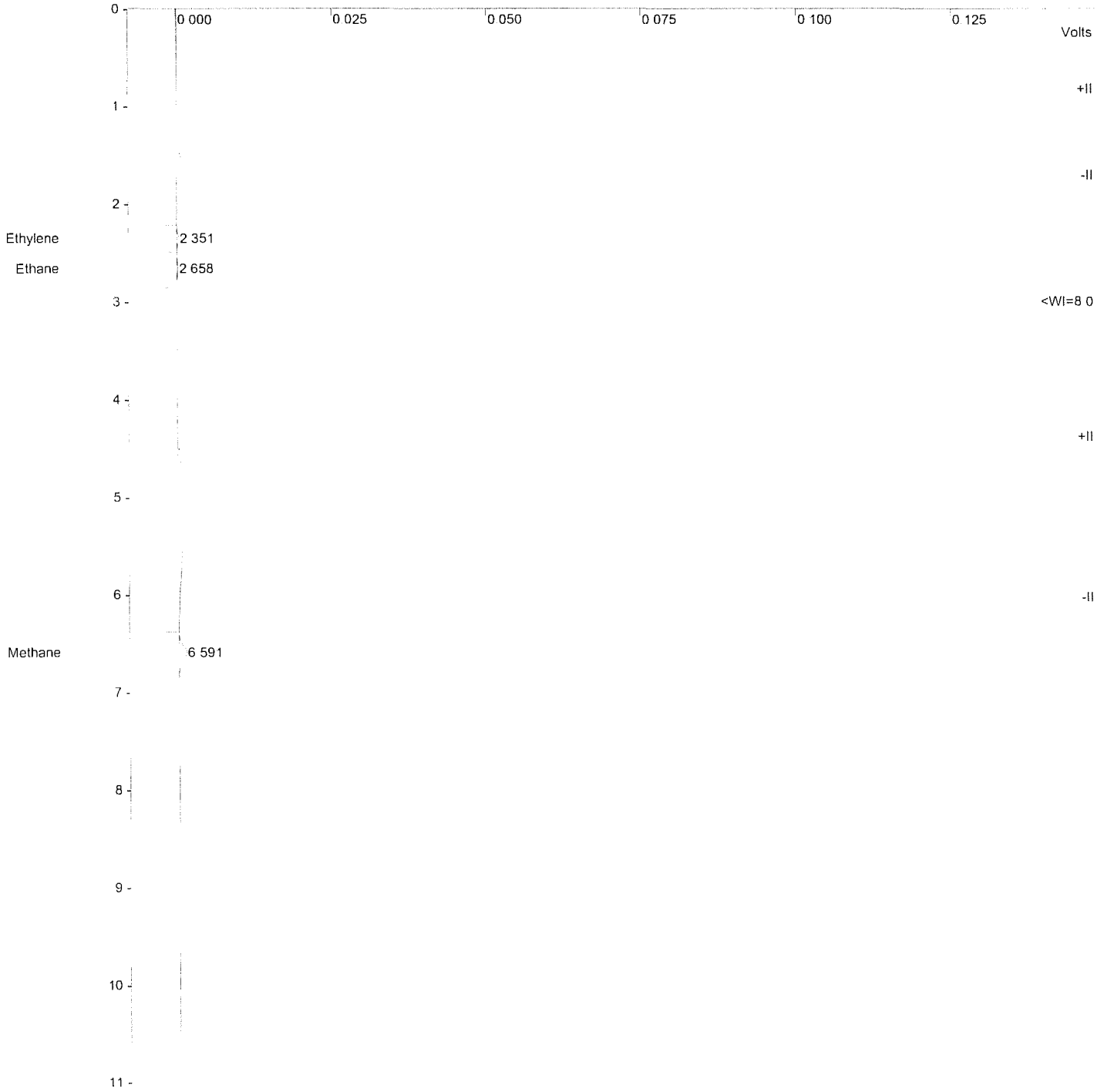
Injection Date: 11/5/2012 1:28 PM Calculation Date: 11/5/2012 1:40 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov008.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-03 EMAX

Injection Date: 11/5/2012 1:28 PM Calculation Date: 11/5/2012 1:40 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.599	2.351	0.006	1661	BV	5.7	
2	Ethane	0.458	2.658	0.016	1297	VB	6.7	
3	Acetylene		3.286					M
4	Methane	8.890	6.591	0.105	12903	BB	9.4	
	Totals:	9.947		0.127	15861			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 49 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 14 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov009.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-04 EMAX

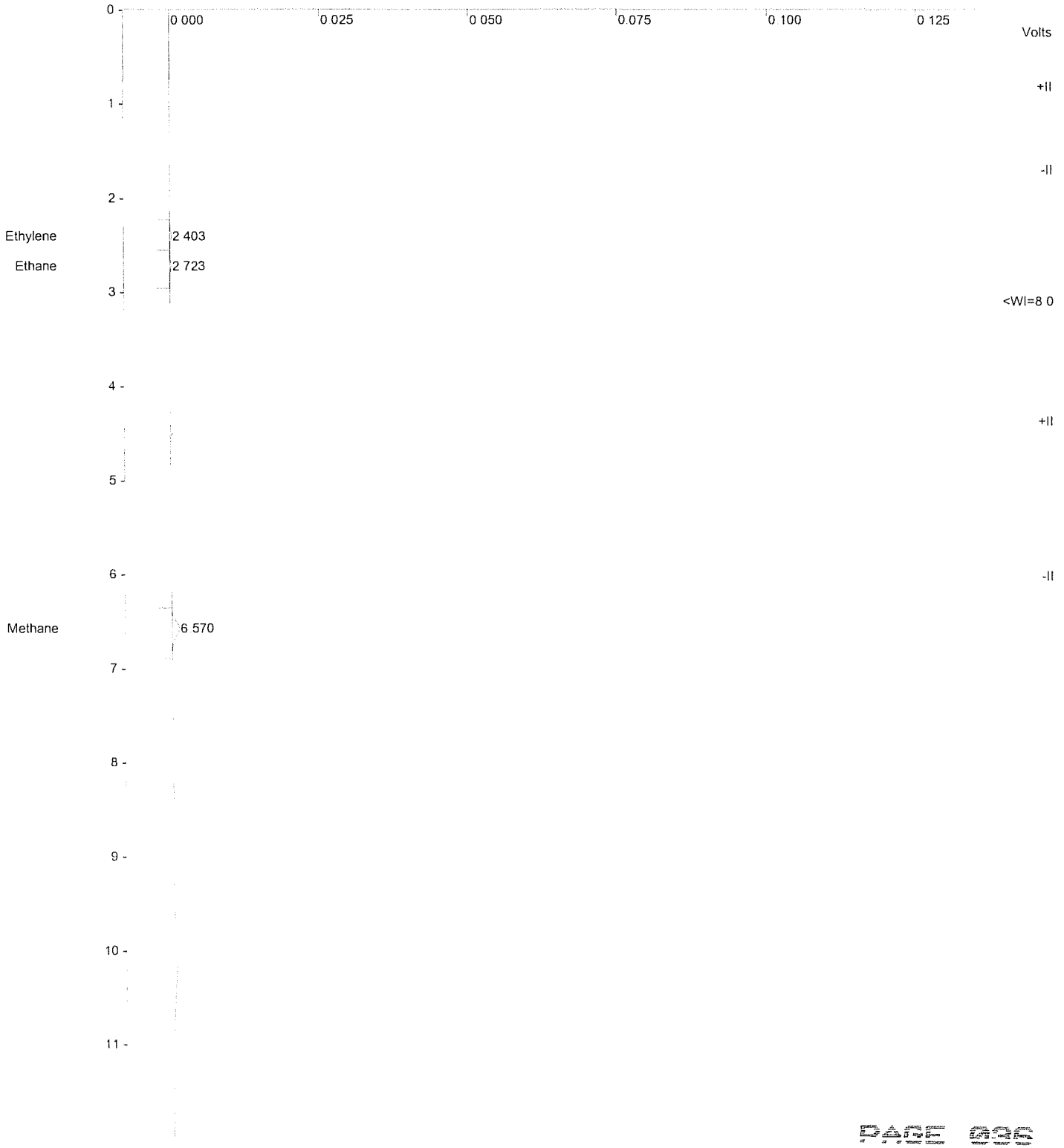
Injection Date: 11/5/2012 1:52 PM Calculation Date: 11/5/2012 2:04 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov009.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-04 EMAX

Injection Date: 11/5/2012 1:52 PM Calculation Date: 11/5/2012 2:04 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.630	2.403	0.058	1746	BV	6.0	
2	Ethane	0.443	2.723	0.081	1253	VB	6.9	
3	Acetylene		3.286					M
4	Methane	8.982	6.570	0.084	13035	BB	9.6	
	Totals:	10.055		0.223	16034			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -1 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov010.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-05 EMAX

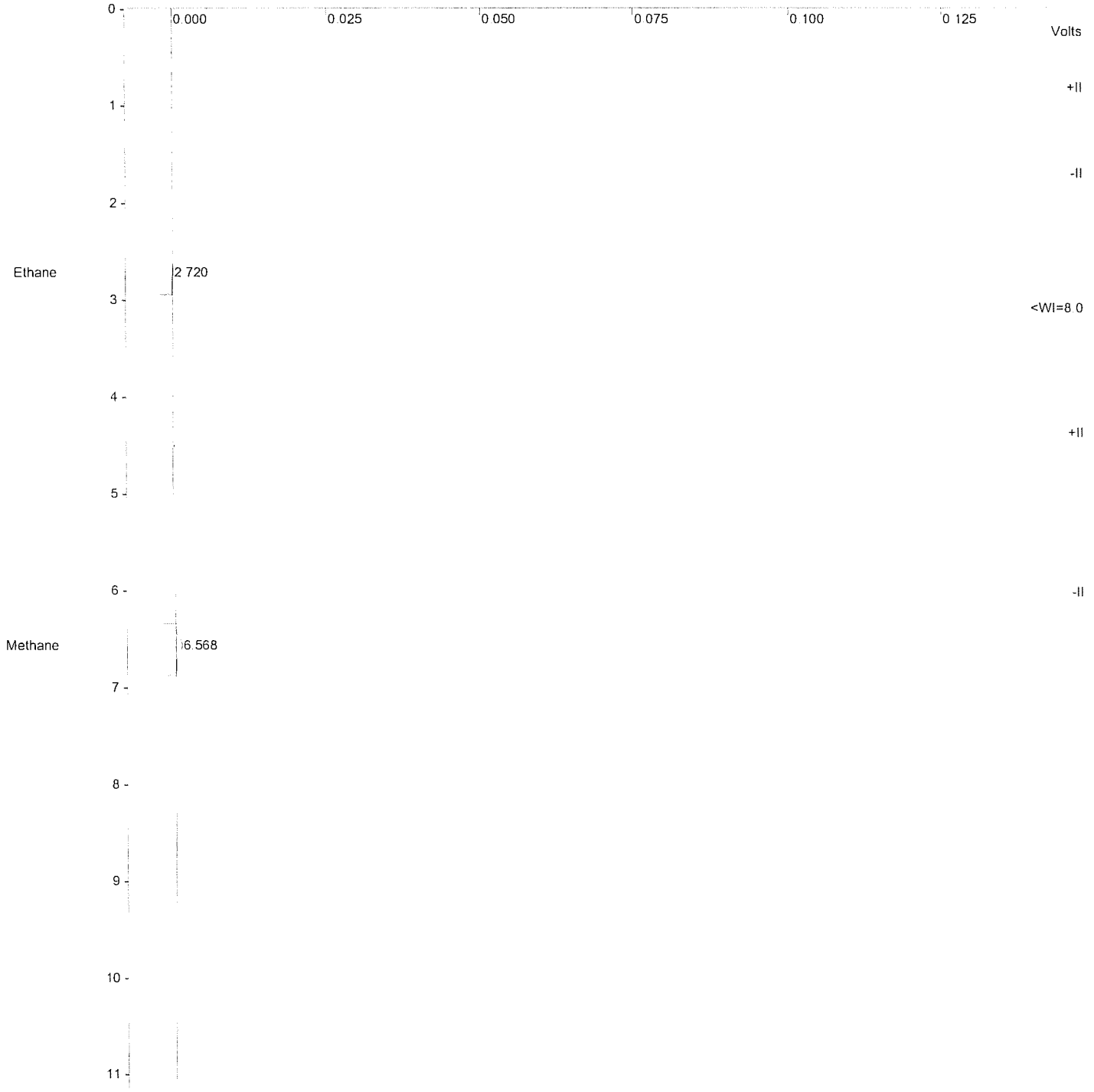
Injection Date: 11/5/2012 2:38 PM Calculation Date: 11/5/2012 2:50 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov010.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-05 EMAX

Injection Date: 11/5/2012 2:38 PM Calculation Date: 11/5/2012 2:50 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene		2.345					M
2	Ethane	0.361	2.720	0.079	1020	BB	6.8	
3	Acetylene		3.286					M
4	Methane	7.426	6.568	0.082	10777	BB	9.6	
	Totals:	7.787		0.161	11797			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 2 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -36 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov011.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-06 EMAX

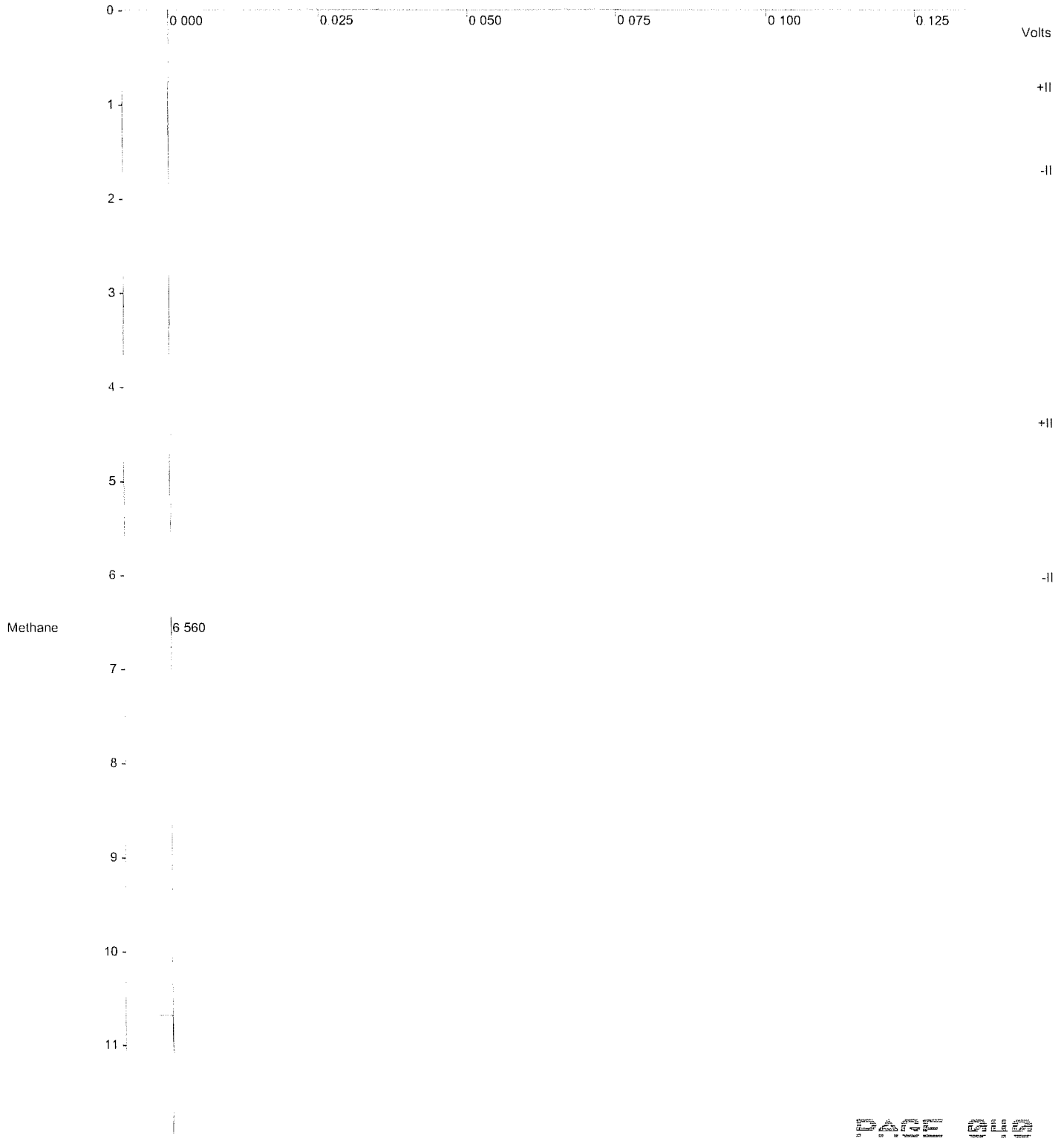
Injection Date: 11/5/2012 2:59 PM Calculation Date: 11/5/2012 3:10 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov011.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-06 EMAX

Injection Date: 11/5/2012 2:59 PM Calculation Date: 11/5/2012 3:10 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene		2.345					M
2	Ethane		2.642					M
3	Acetylene		3.286					M
4	Methane	0.574	6.560	0.074	833	BB	10.8	
	Totals:	0.574		0.074	833			

Status Codes:
M - Missing peak

Total Unidentified Counts : 12657 counts

Detected Peaks: 2 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -77 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov012.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-07 EMAX

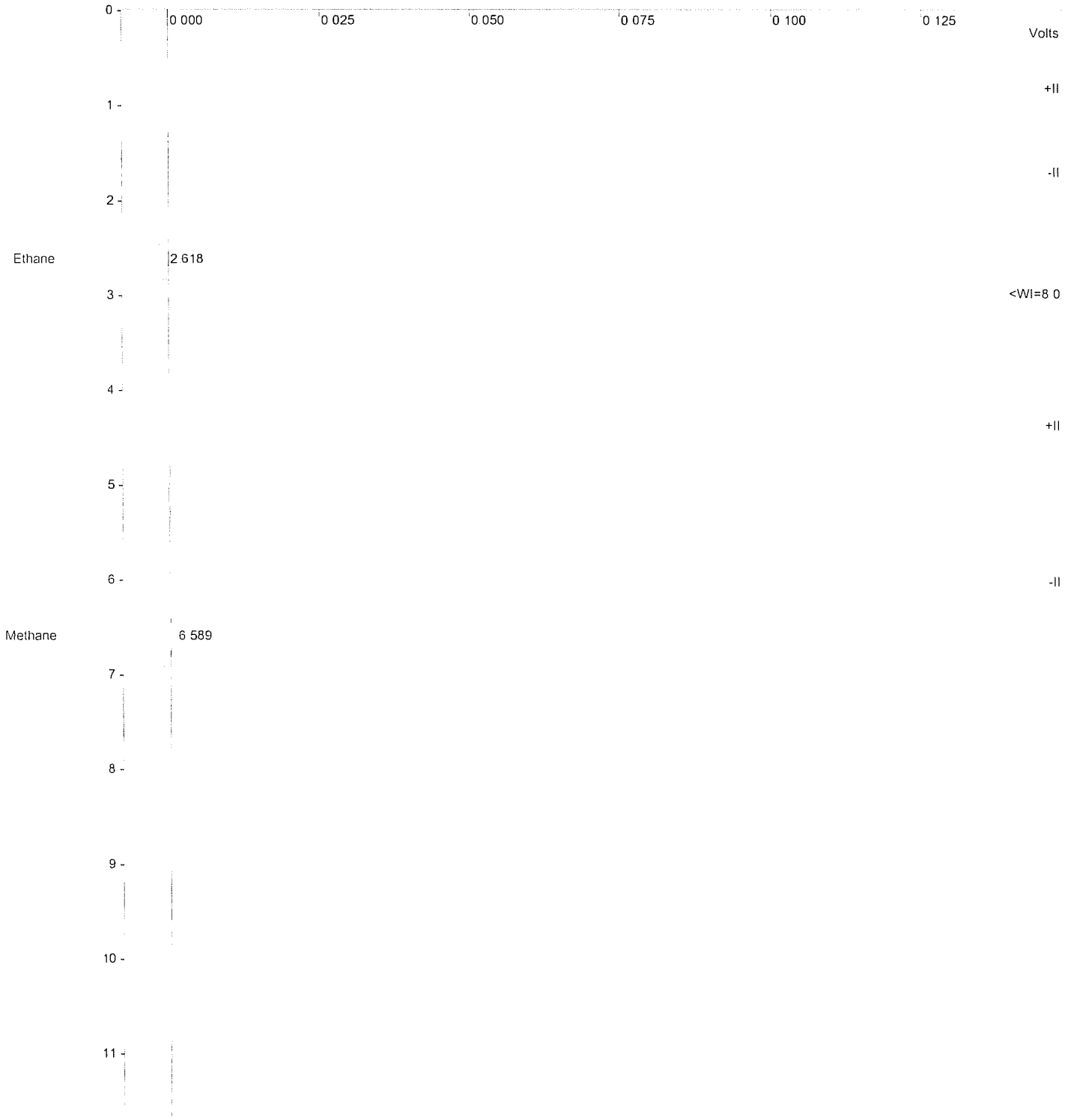
Injection Date: 11/5/2012 3:13 PM Calculation Date: 11/5/2012 3:24 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov012.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-07 EMAX

Injection Date: 11/5/2012 3:13 PM Calculation Date: 11/5/2012 3:24 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene		2.345					M
2	Ethane	0.333	2.618	-0.024	943	BB	6.3	
3	Acetylene		3.286					M
4	Methane	8.097	6.589	0.102	11751	BB	9.6	
	Totals:	8.430		0.078	12694			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 2 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -38 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov002.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-08 EMAX

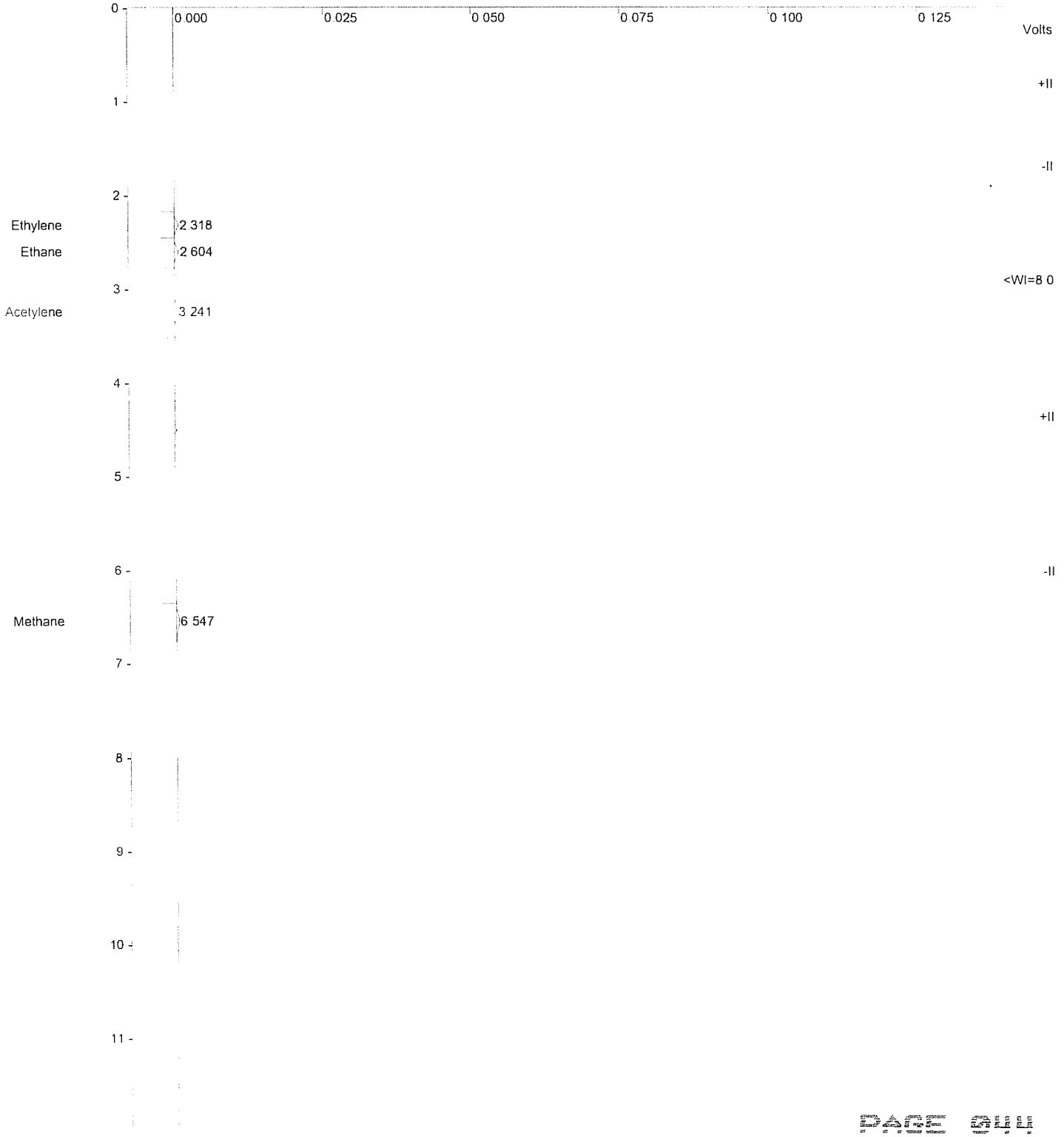
Injection Date: 11/6/2012 4:08 PM Calculation Date: 11/6/2012 4:20 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov002.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : D102603-08 EMAX

Injection Date: 11/6/2012 4:08 PM Calculation Date: 11/6/2012 4:20 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	1.428	2.318	-0.027	3958	BV	5.6	
2	Ethane	1.606	2.604	-0.038	4545	VB	6.3	
3	Acetylene	1.478	3.241	-0.045	4475	BB	8.1	
4	Methane	3.874	6.547	0.061	5623	BB	9.4	
	Totals:	8.386		-0.049	18601			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -38 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 15 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov003.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-09MS EMAX

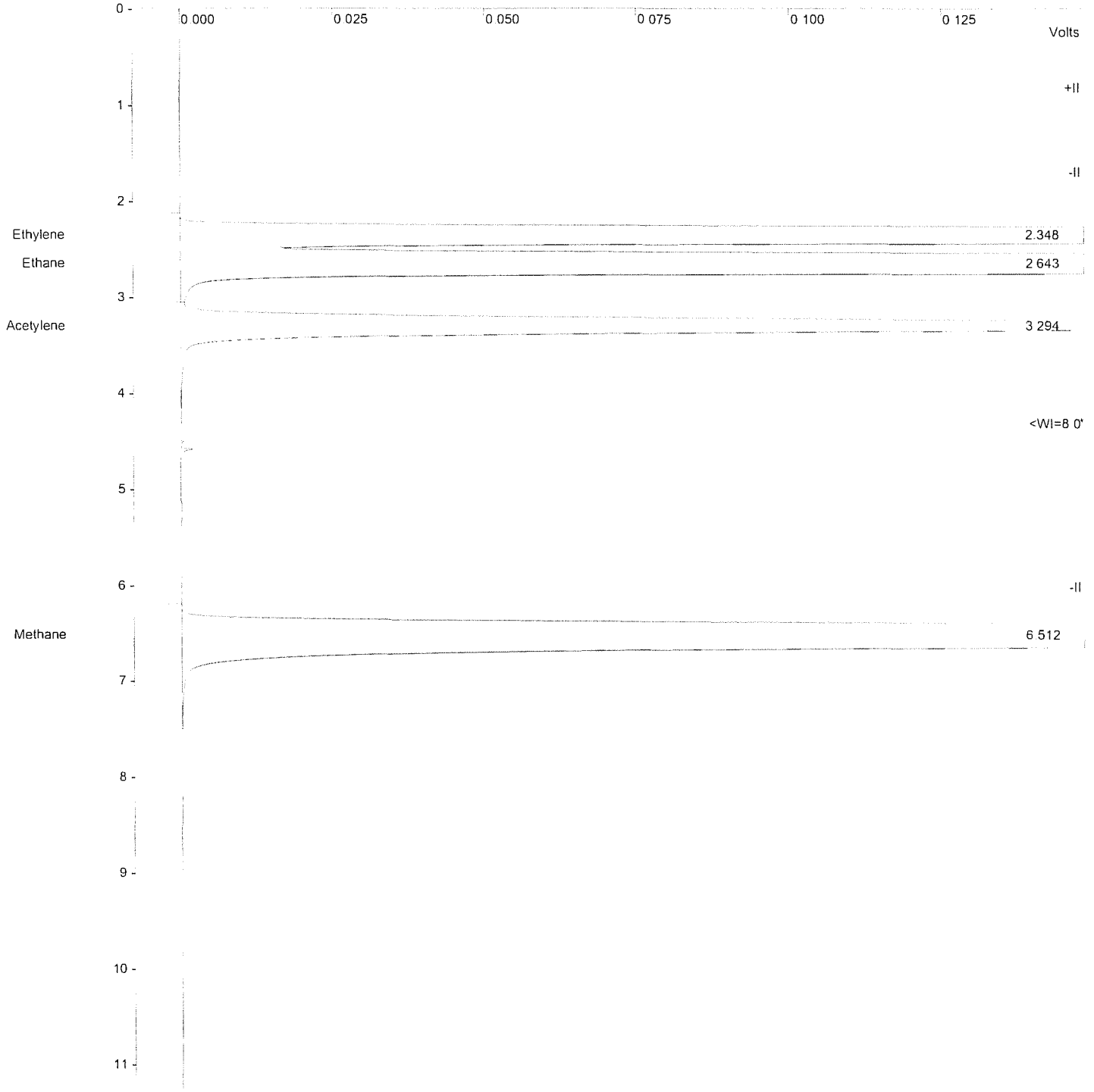
Injection Date: 11/6/2012 4:28 PM Calculation Date: 11/6/2012 4:39 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov003.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-09MS EMAX

Injection Date: 11/6/2012 4:28 PM Calculation Date: 11/6/2012 4:39 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	3440.854	2.348	0.003	9536659	BV	5.8	
2	Ethane	5302.415	2.643	0.001	15001278	VV	6.5	
3	Acetylene	604.615	3.294	0.008	1830444	VB	8.2	
4	Methane	5805.737	6.512	0.026	8425914	BB	9.3	
	Totals:	15153.621		0.038	34794295			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 8 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov004.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-10MSD EMAX

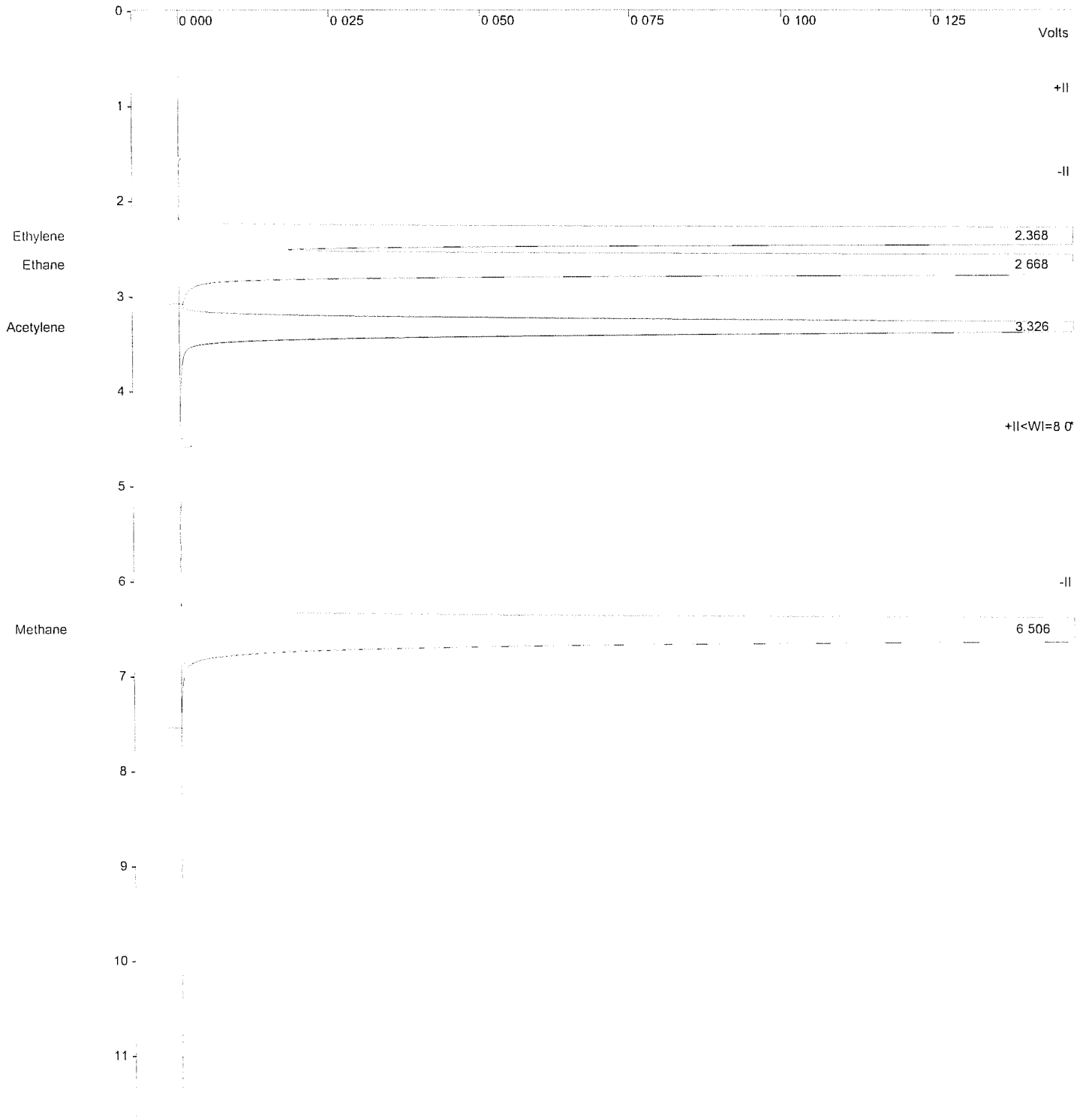
Injection Date: 11/6/2012 4:50 PM Calculation Date: 11/6/2012 5:02 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov004.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-10MSD EMAX

Injection Date: 11/6/2012 4:50 PM Calculation Date: 11/6/2012 5:02 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	3704.957	2.368	0.023	10268645	BV	5.8	
2	Ethane	5694.254	2.668	0.026	16109846	VV	6.6	
3	Acetylene	660.398	3.326	0.039	1999325	VB	8.2	
4	Methane	6179.741	6.506	0.020	8968709	BB	9.3	
	Totals:	16239.350		0.108	37346525			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -7 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 10 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov016.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-11 EMAX

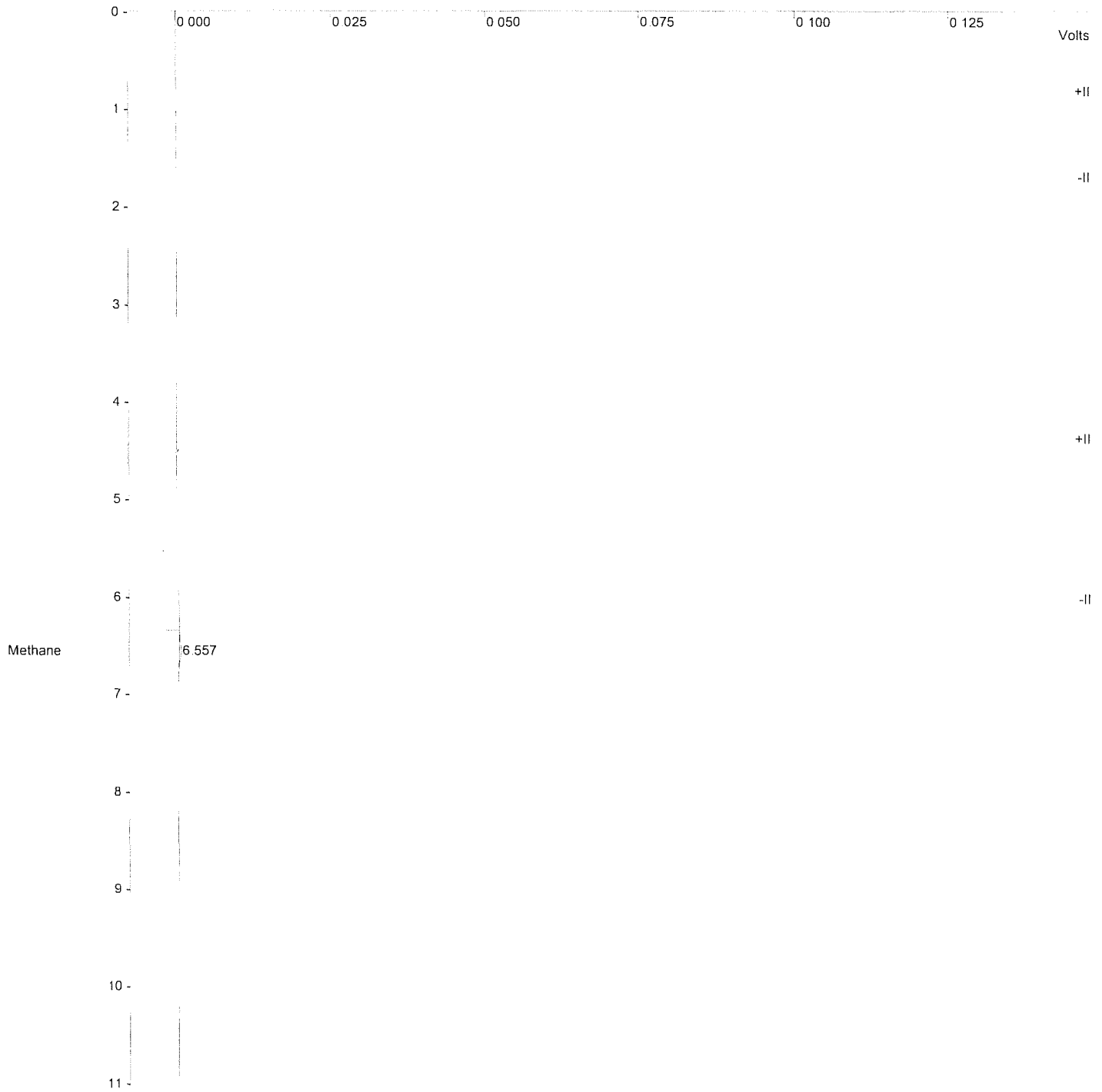
Injection Date: 11/5/2012 4:17 PM Calculation Date: 11/5/2012 4:29 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov016.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-11 EMAX

Injection Date: 11/5/2012 4:17 PM Calculation Date: 11/5/2012 4:29 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene		2.345					M
2	Ethane		2.642					M
3	Acetylene		3.286					M
4	Methane	2.653	6.557	0.071	3851	BB	8.4	
	Totals:	2.653		0.071	3851			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 1 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 31 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 14 microVolts

Manual injection

.....

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov017.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-12 EMAX

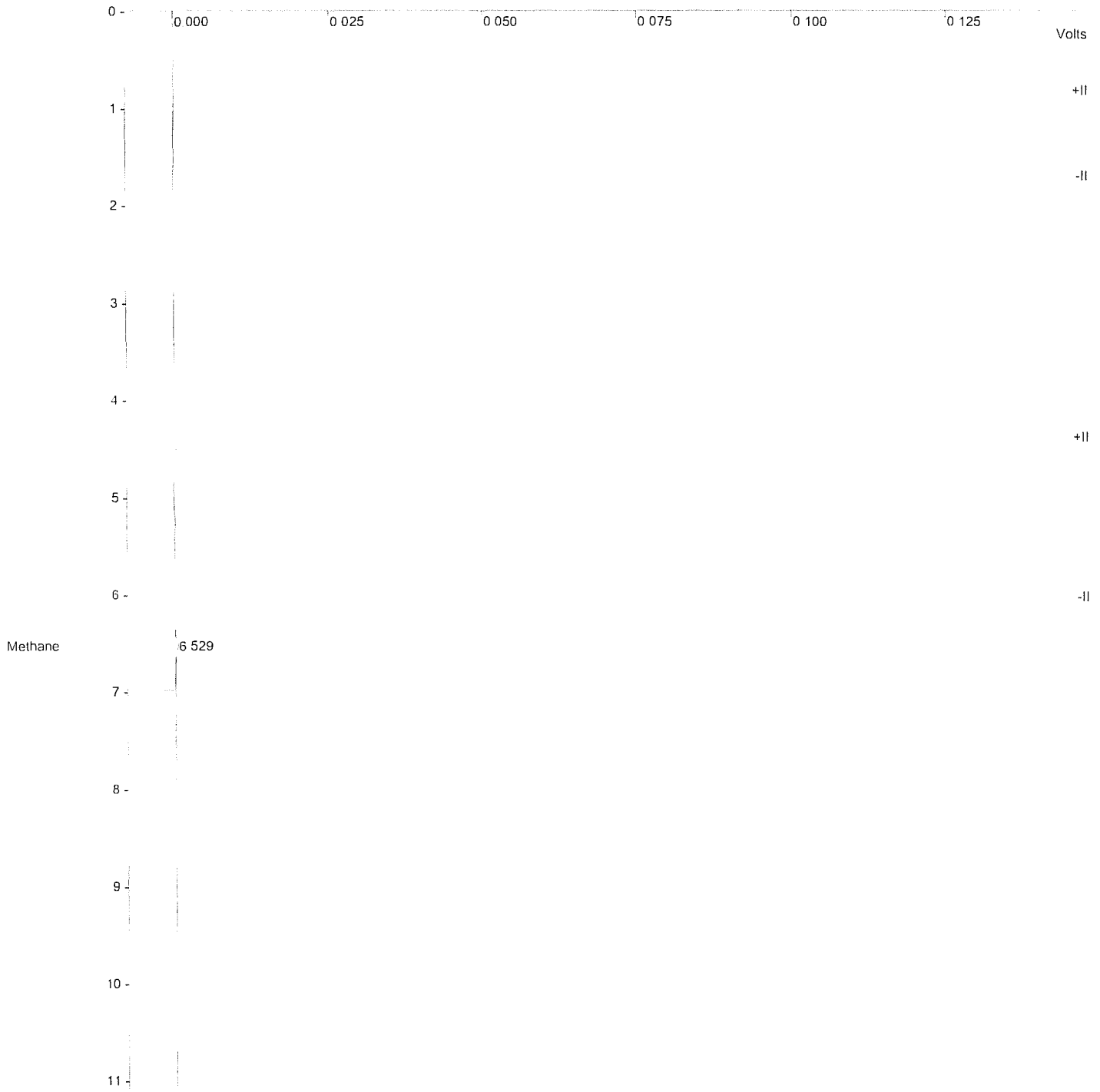
Injection Date: 11/5/2012 4:34 PM Calculation Date: 11/5/2012 4:46 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov017.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102603-12 EMAX

Injection Date: 11/5/2012 4:34 PM Calculation Date: 11/5/2012 4:46 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene		2.345					M
2	Ethane		2.642					M
3	Acetylene		3.286					M
4	Methane	2.778	6.529	0.043	4032	BB	9.8	
	Totals:	2.778		0.043	4032			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 1 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 28 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 15 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov040.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-01 EMAX

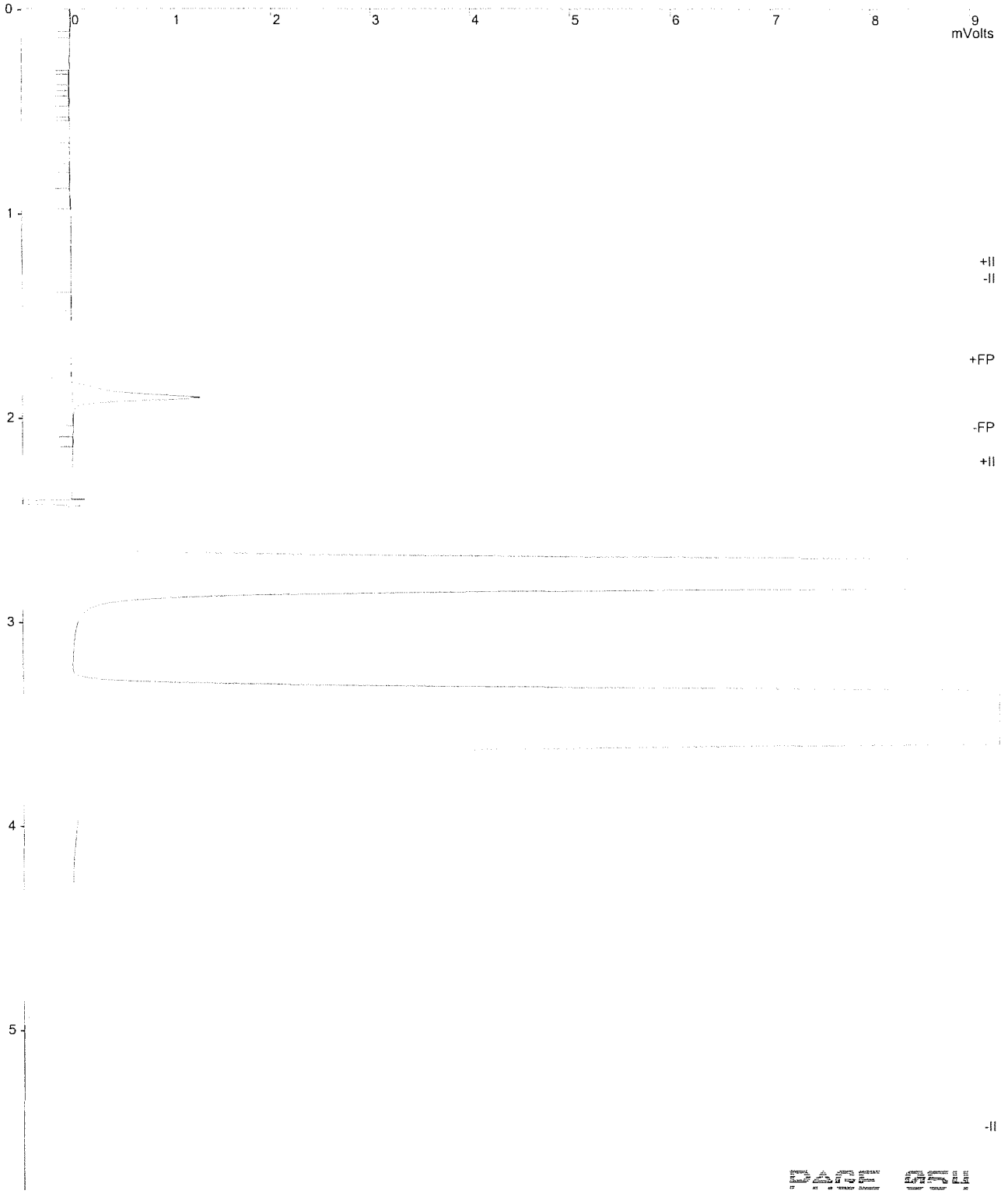
Injection Date: 11/6/2012 11:00 AM Calculation Date: 11/6/2012 11:06 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov040.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-01 EMAX

Injection Date: 11/6/2012 11:00 AM Calculation Date: 11/6/2012 11:06 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 3337 counts

Detected Peaks: 23 Rejected Peaks: 22 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 6 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 5 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov041.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-02 EMAX

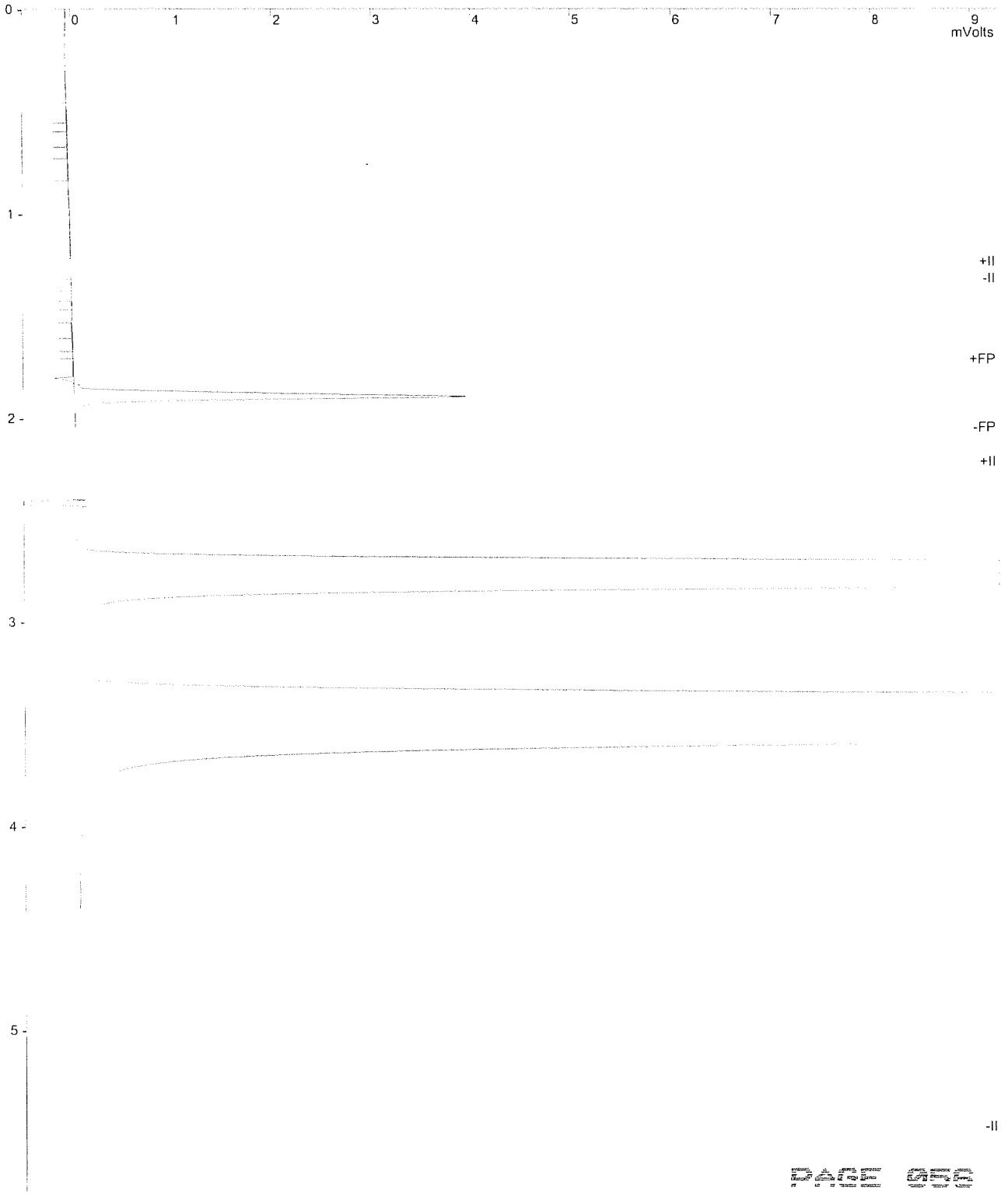
Injection Date: 11/6/2012 11:10 AM Calculation Date: 11/6/2012 11:15 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov041.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogenlll103a.mth
Sample ID : D102603-02 EMAX

Injection Date: 11/6/2012 11:10 AM Calculation Date: 11/6/2012 11:15 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 7967 counts

Detected Peaks: 22 Rejected Peaks: 20 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -48 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 18 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov032.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-03 EMAX

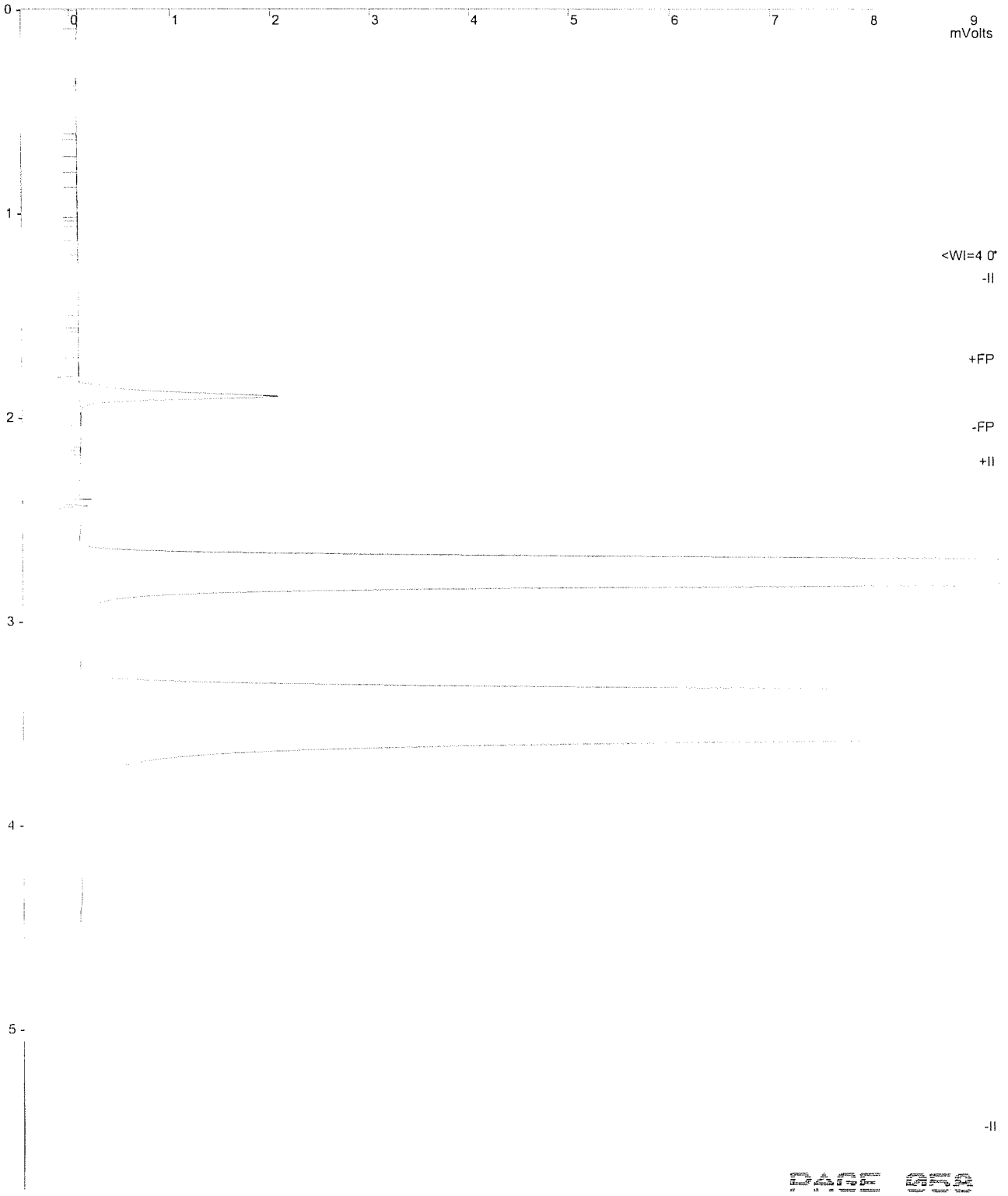
Injection Date: 11/6/2012 9:12 AM Calculation Date: 11/6/2012 9:17 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov032.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-03 EMAX

Injection Date: 11/6/2012 9:12 AM Calculation Date: 11/6/2012 9:17 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 4925 counts

Detected Peaks: 15 Rejected Peaks: 14 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 81 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 20 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov033.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-04 EMAX

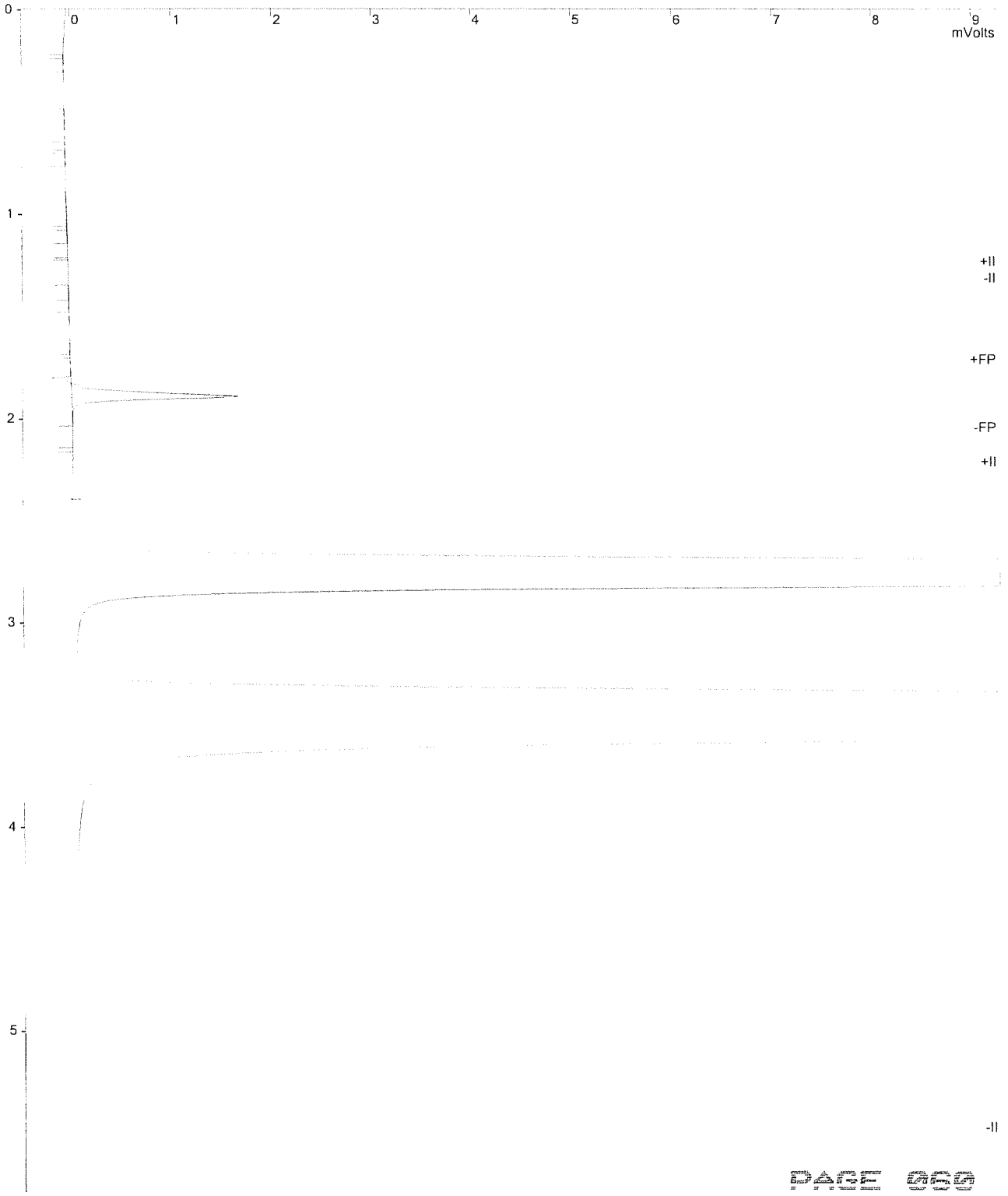
Injection Date: 11/6/2012 9:20 AM Calculation Date: 11/6/2012 9:26 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov033.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-04 EMAX

Injection Date: 11/6/2012 9:20 AM Calculation Date: 11/6/2012 9:26 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 3579 counts

Detected Peaks: 18 Rejected Peaks: 17 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -34 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov034.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-05 EMAX

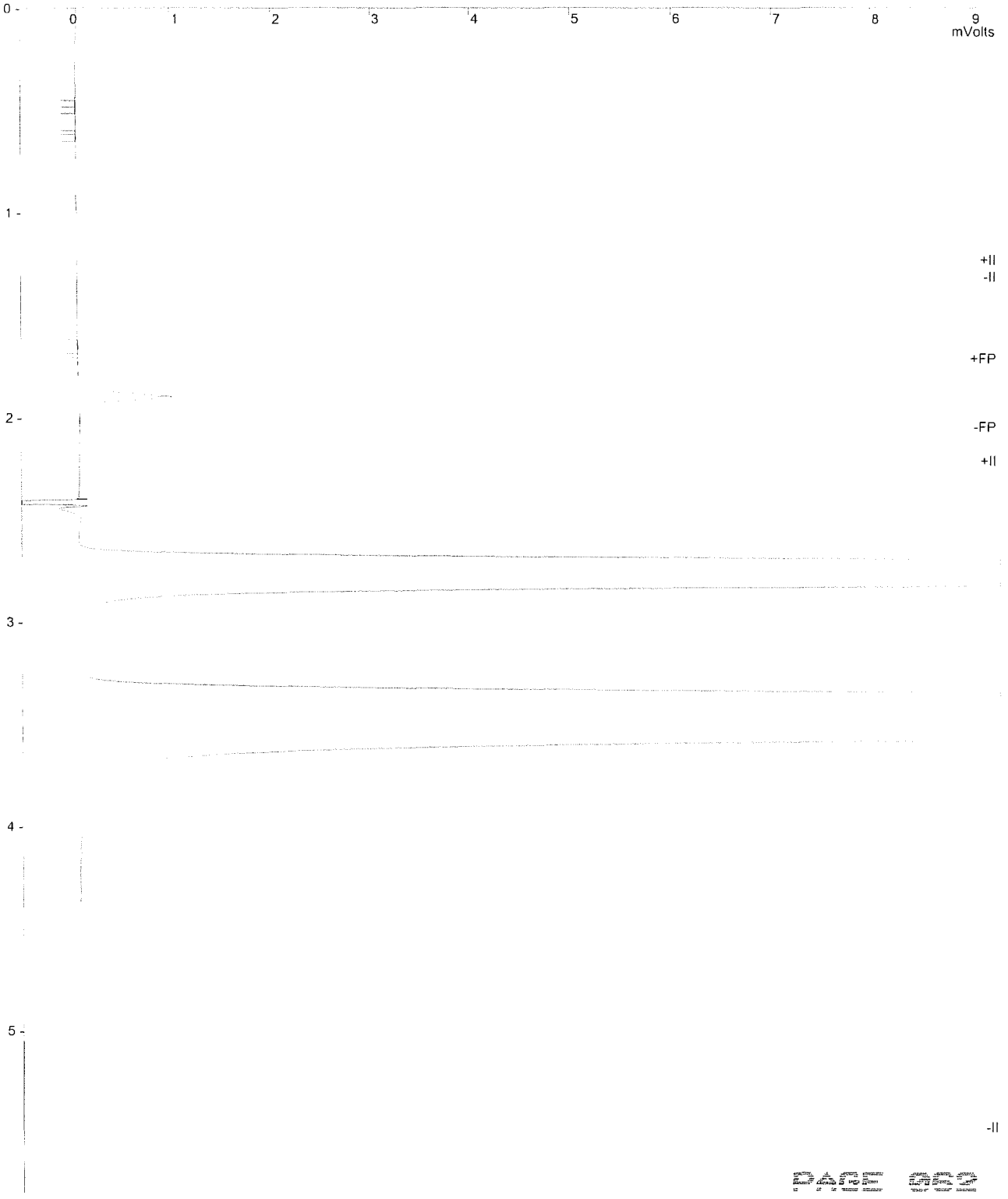
Injection Date: 11/6/2012 9:37 AM Calculation Date: 11/6/2012 9:43 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov034.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-05 EMAX

Injection Date: 11/6/2012 9:37 AM Calculation Date: 11/6/2012 9:43 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 2425 counts

Detected Peaks: 7 Rejected Peaks: 6 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 80 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov035.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-06 EMAX

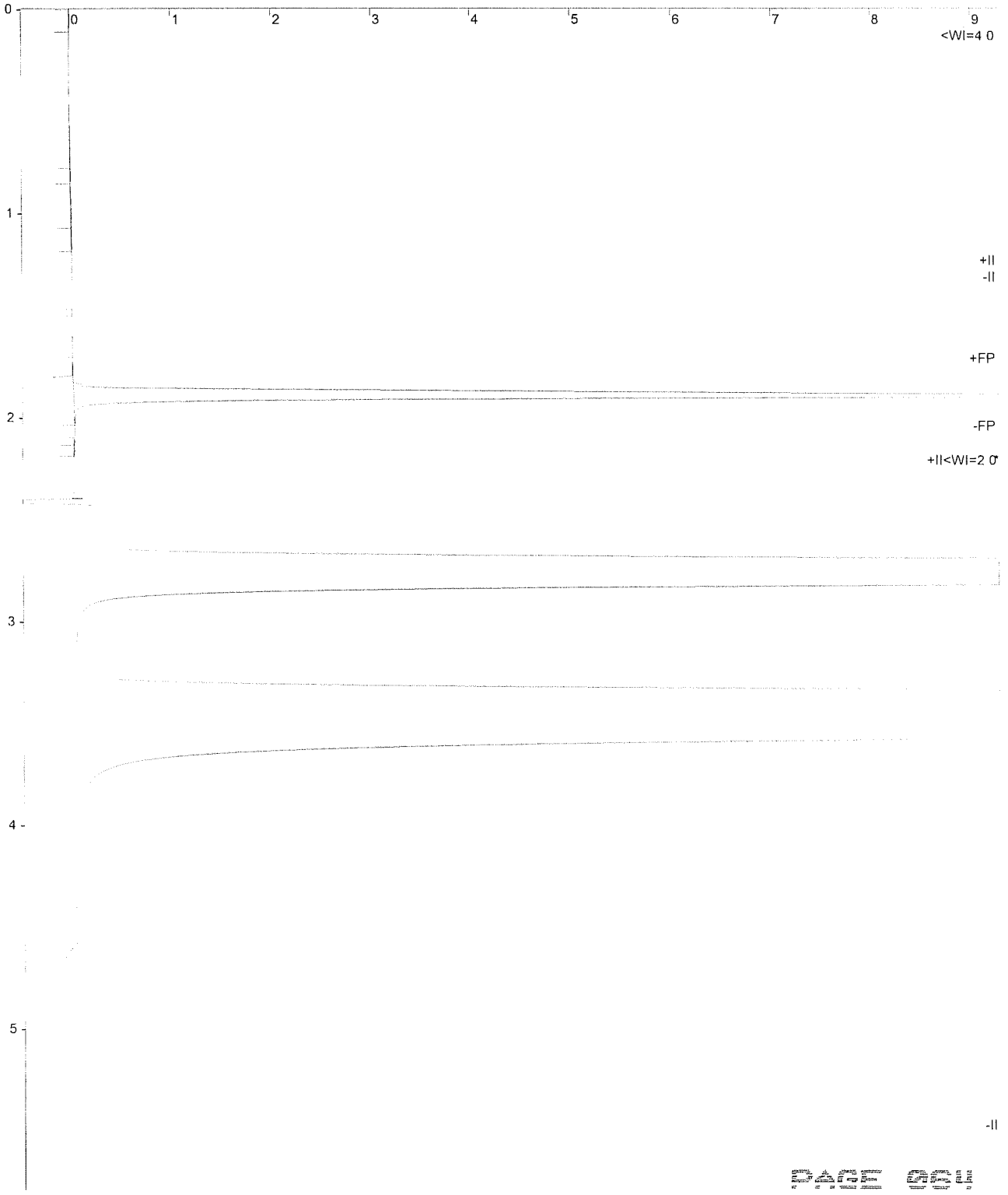
Injection Date: 11/6/2012 9:49 AM Calculation Date: 11/6/2012 9:55 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov035.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-06 EMAX

Injection Date: 11/6/2012 9:49 AM Calculation Date: 11/6/2012 9:55 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 23857 counts

Detected Peaks: 16 Rejected Peaks: 13 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 14 microVolts

Manual injection

.....

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov036.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-07 EMAX

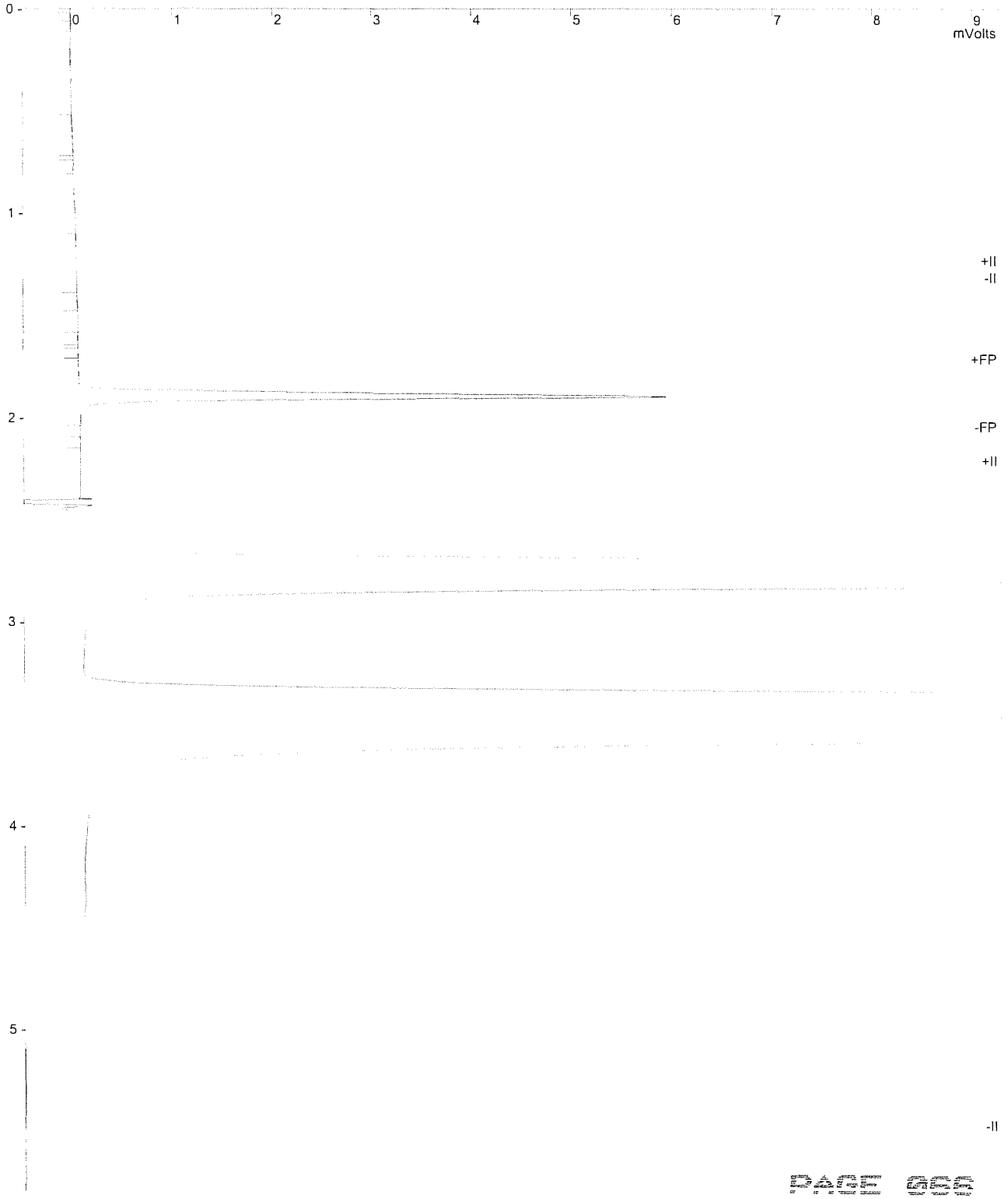
Injection Date: 11/6/2012 9:58 AM Calculation Date: 11/6/2012 10:04 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov036.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-07 EMAX

Injection Date: 11/6/2012 9:58 AM Calculation Date: 11/6/2012 10:04 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 11783 counts

Detected Peaks: 14 Rejected Peaks: 13 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov042.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-09B MS EMAX

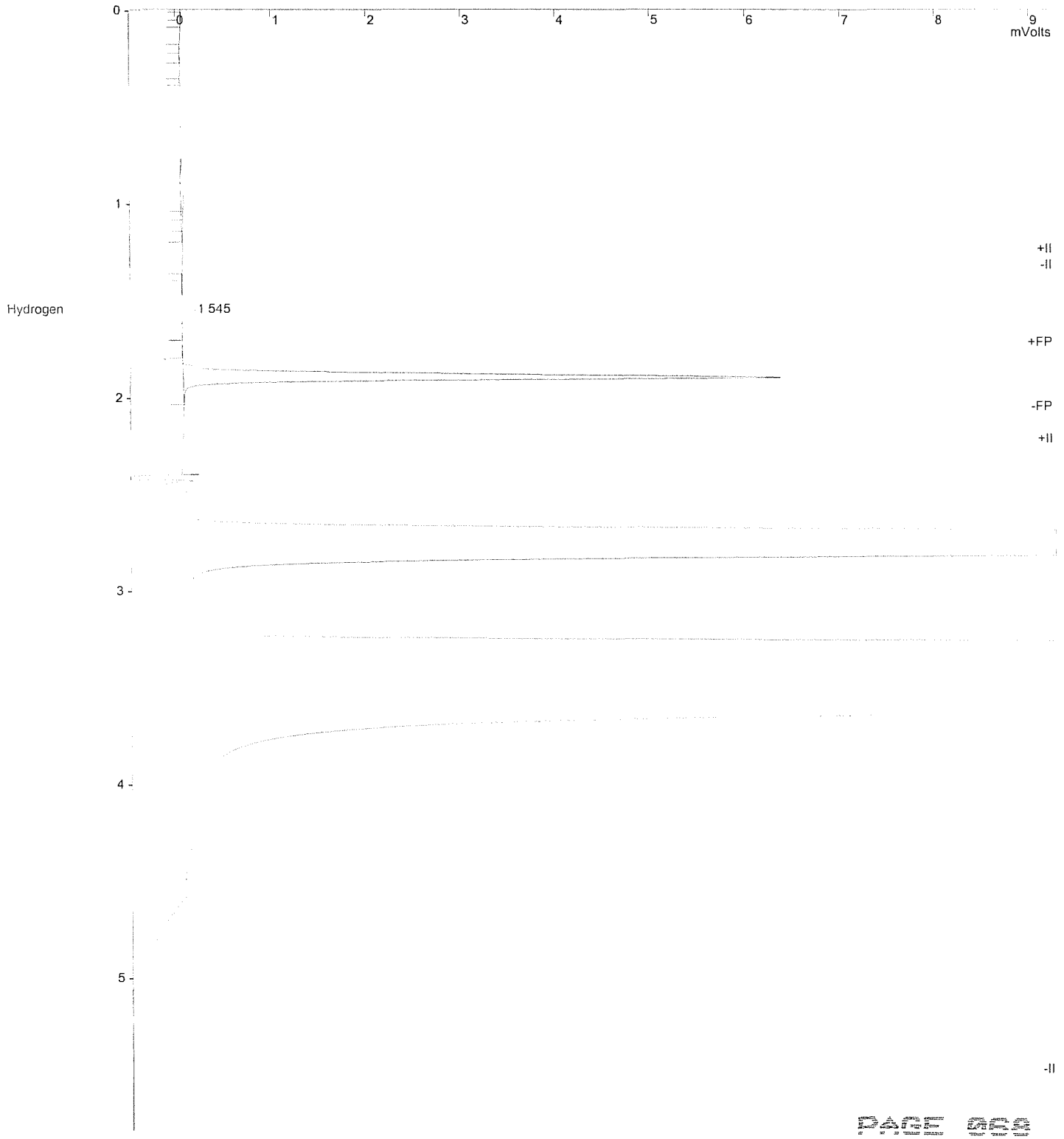
Injection Date: 11/6/2012 11:29 AM Calculation Date: 11/6/2012 11:34 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov042.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-09B MS EMAX

Injection Date: 11/6/2012 11:29 AM Calculation Date: 11/6/2012 11:34 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	8082.296	1.545	0.050	578	VB	3.6	
	Totals:	8082.296		0.050	578			

Total Unidentified Counts : 13396 counts

Detected Peaks: 17 Rejected Peaks: 14 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 61 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 33 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov044.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-10B MSD EMA

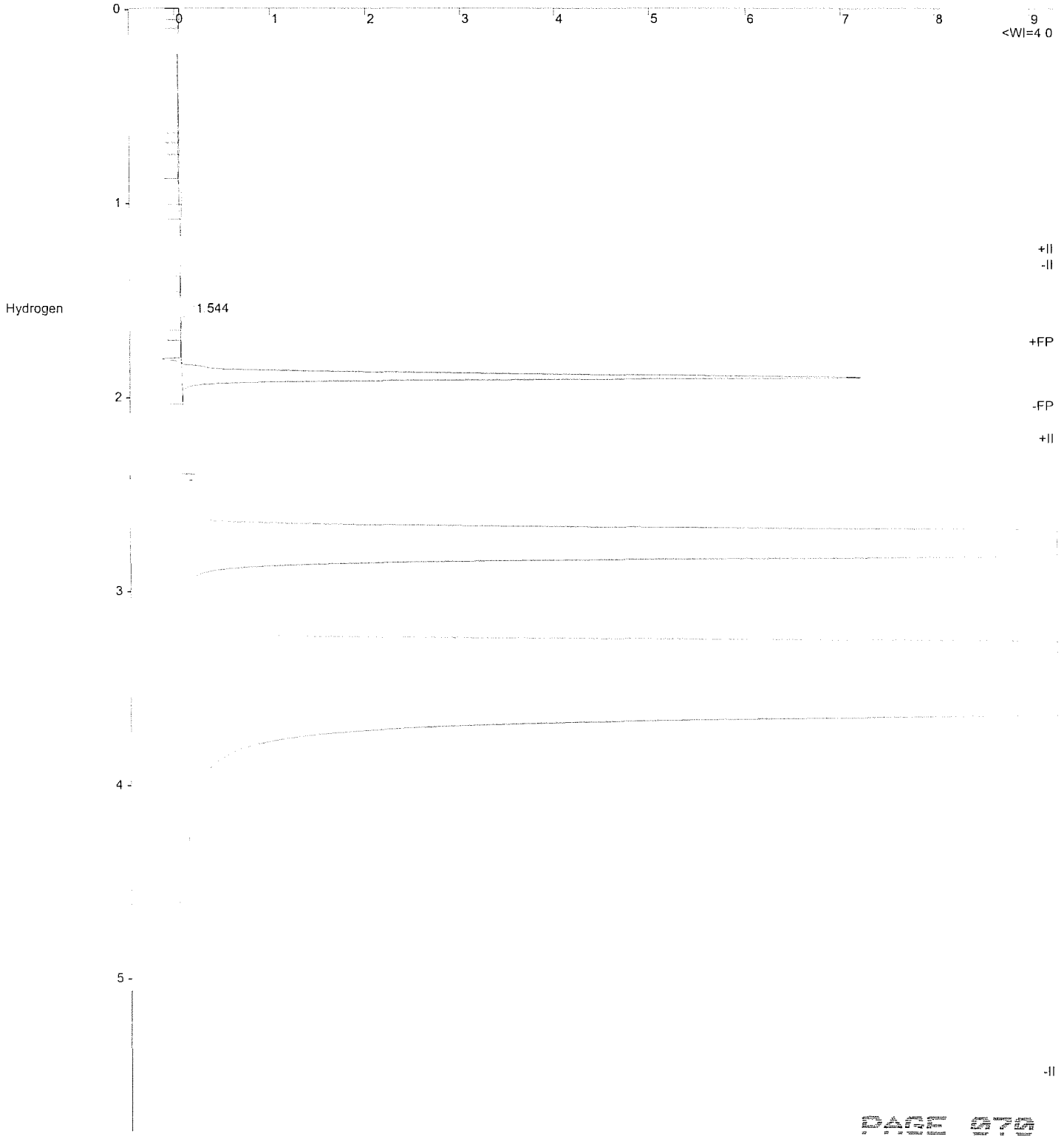
Injection Date: 11/6/2012 11:59 AM Calculation Date: 11/6/2012 12:05 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov044.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-10B MSD EMA

Injection Date: 11/6/2012 11:59 AM Calculation Date: 11/6/2012 12:05 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	8647.799	1.544	0.049	618	VB	3.7	
	Totals:	8647.799		0.049	618			

Total Unidentified Counts : 15438 counts

Detected Peaks: 16 Rejected Peaks: 10 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 51 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 5 microVolts

Manual injection

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov038.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-11 EMAX

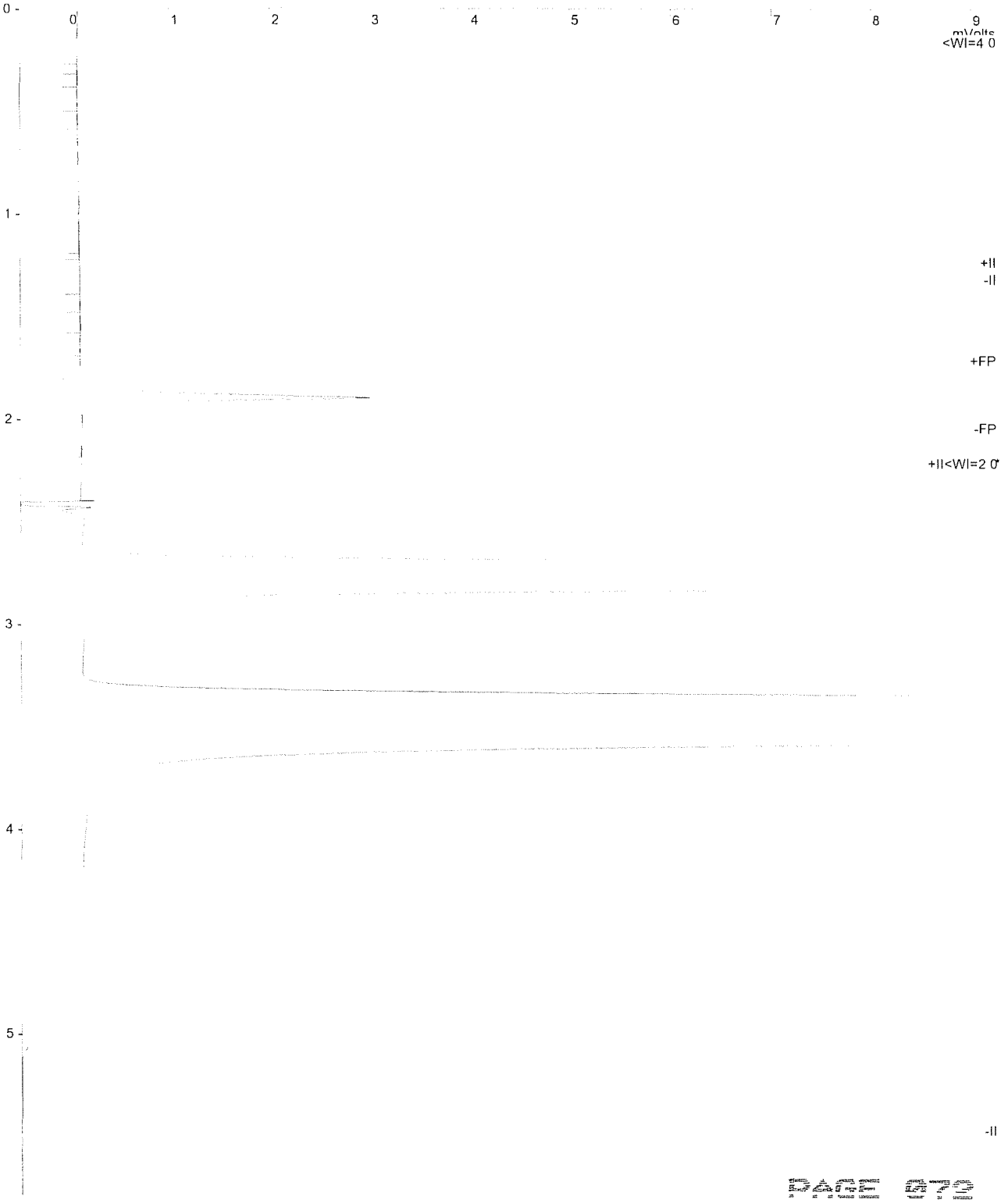
Injection Date: 11/6/2012 10:18 AM Calculation Date: 11/6/2012 10:23 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov038.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-11 EMAX

Injection Date: 11/6/2012 10:18 AM Calculation Date: 11/6/2012 10:23 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

'' GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 6214 counts

Detected Peaks: 18 Rejected Peaks: 16 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 93 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 4 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov039.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-12 EMAX

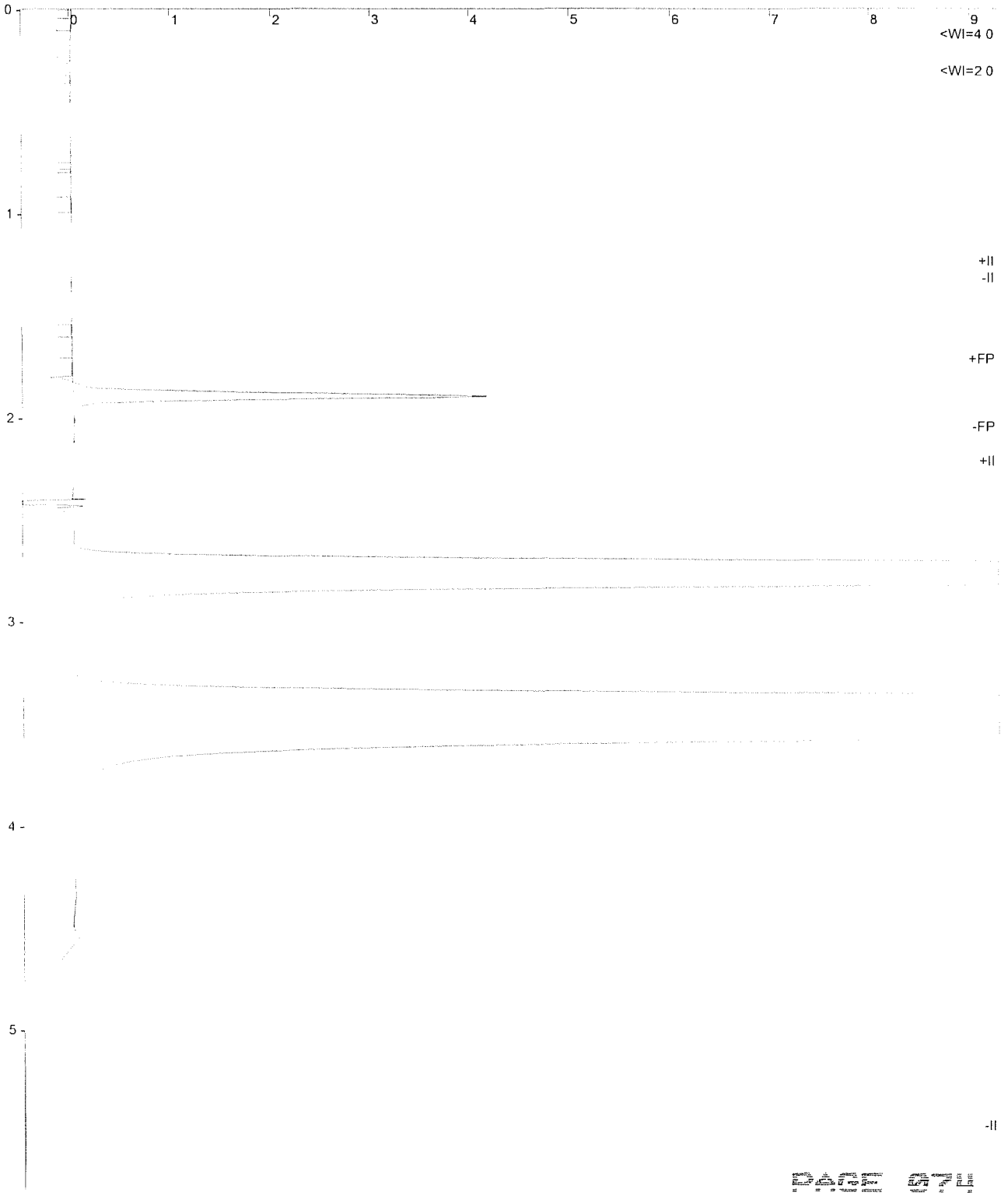
Injection Date: 11/6/2012 10:38 AM Calculation Date: 11/6/2012 10:44 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov039.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102603-12 EMAX

Injection Date: 11/6/2012 10:38 AM Calculation Date: 11/6/2012 10:44 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 9109 counts

Detected Peaks: 13 Rejected Peaks: 12 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 26 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 4 microVolts

Manual injection

****

3. Initial Calibration

a. ICAL Summary
b. Chromatograms/Results

Initial Calibration Criteria:

All compounds RSD <25%
or
r >0.995

Title : Calibration Block Report
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Data Method Time : 11/7/2011 6:30 PM

Requested Curve Type : linear
Requested Origin : force
Calibration Type : External Standard Analysis

Method Detector Type : 3800 GC
Method Bus Address : 44
Method Channel : Front

Calibration Dates
Last Injection Date : 11/3/2011 3:50 PM

Last Recalculation Date : 11/3/2011 3:59 PM

**********GC Workstation Multi Instrument**********Version 6.30**********

Retention Time (min)	Peak Name	Curve\ Origin	X^3	X^2	X	C	r^2	Cal. Range	No. of Points	Edit Codes
1.495	Hydrogen	1 F			+7.1458e-002	+0.0000e+000	+9.9982e-001	Locked		

Curve Codes	Origin Codes	Edit Codes
1 linear	I include	1 curve
2 quadratic	IG ignore	2 origin
3 cubic	F force	3 coefficient

Ret. Time: 1.495 min. Locked Peak Measurement: Area
Peak Name: Hydrogen Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	1000.000000	1	99	99.0	#
2	5000.000000	1	381	381.3	#
3	10000.000000	1	759	758.8	#
4	25000.000000	1	1809	1809.1	#
5	50000.000000	1	3550	3549.8	#

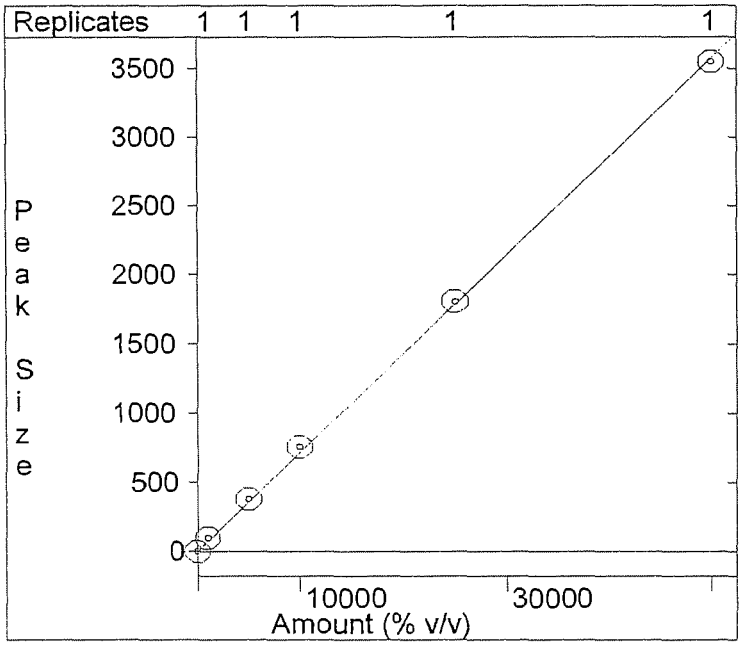
= Too few points to calculate.

Peak Name	Level	Rep.	Injection Date Time	Run Files
Hydrogen	1 L	1	11/3/2011 3:50 PM	c:\temp gc\gc8a\2011\november2011\03nov029.run
	2 L	1	11/3/2011 3:32 PM	c:\temp gc\gc8a\2011\november2011\03nov027.run
	3 L	1	11/3/2011 3:23 PM	c:\temp gc\gc8a\2011\november2011\03nov026.run
	4 L	1	11/3/2011 3:02 PM	c:\temp gc\gc8a\2011\november2011\03nov024.run
	5 L	1	11/3/2011 2:51 PM	c:\temp gc\gc8a\2011\november2011\03nov023.run

L = Locked Coefficients

Print Date: 08 Nov 2011 09:33:42
Calibration Curves Report
File: c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Detector: 3800 GC, Address: 44, Channel ID: Front

Hydrogen
External Standard Analysis - Locked
Resp. Fact. RSD: 14.50%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999818
y = +7.1458e-002x



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov029.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L1

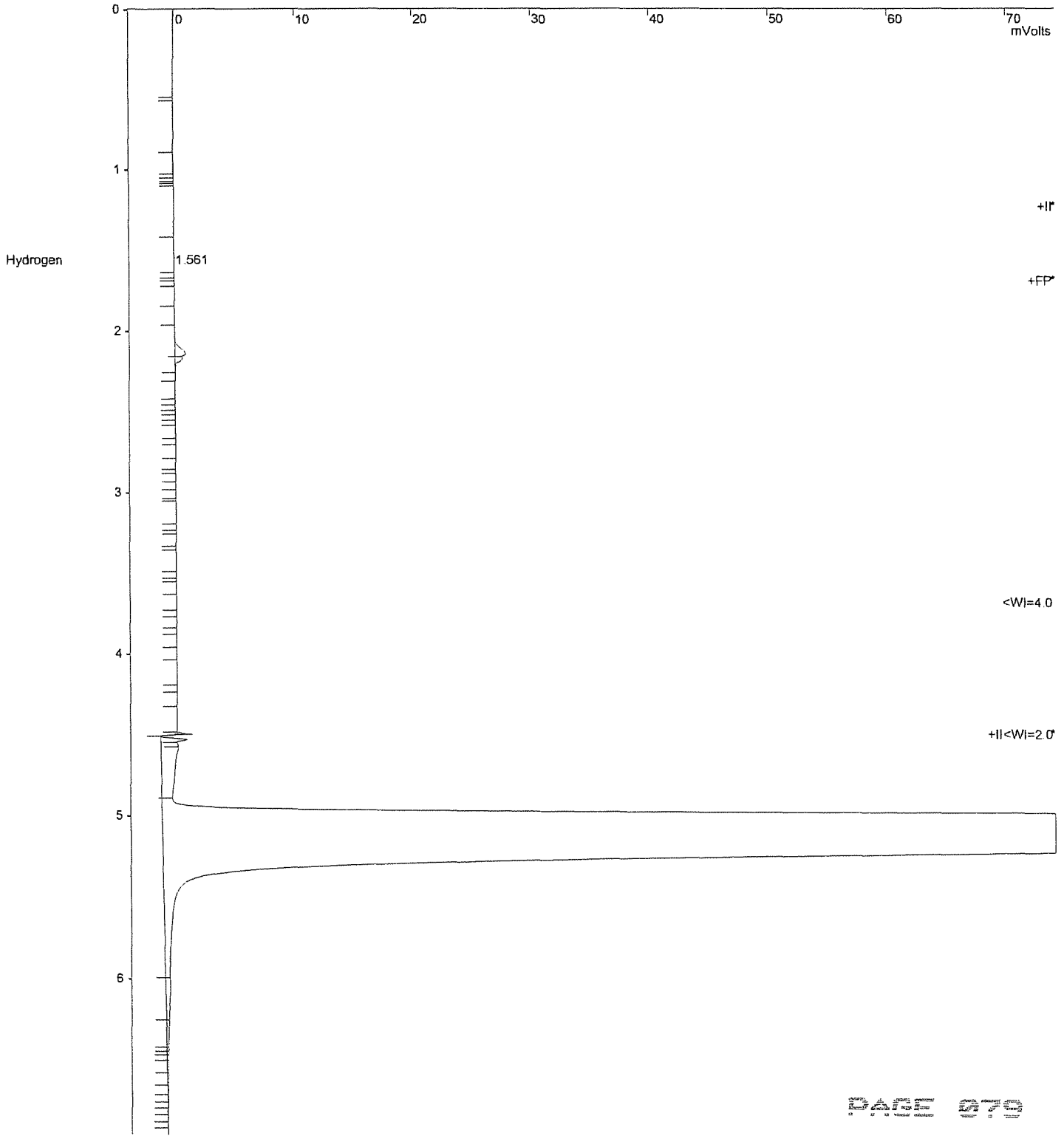
Injection Date: 11/3/2011 3:50 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 2.87 cm/min Attenuation = 32 Zero Offset = 5%
Start Time = 0.000 min End Time = 6.993 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov029.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L1

Injection Date: 11/3/2011 3:50 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 1

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.561	0.023	99	BV	4.6	
	Totals:		0.023	99			

Total Unidentified Counts : 4121291 counts

Detected Peaks: 62 Rejected Peaks: 33 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -62 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov027.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L2

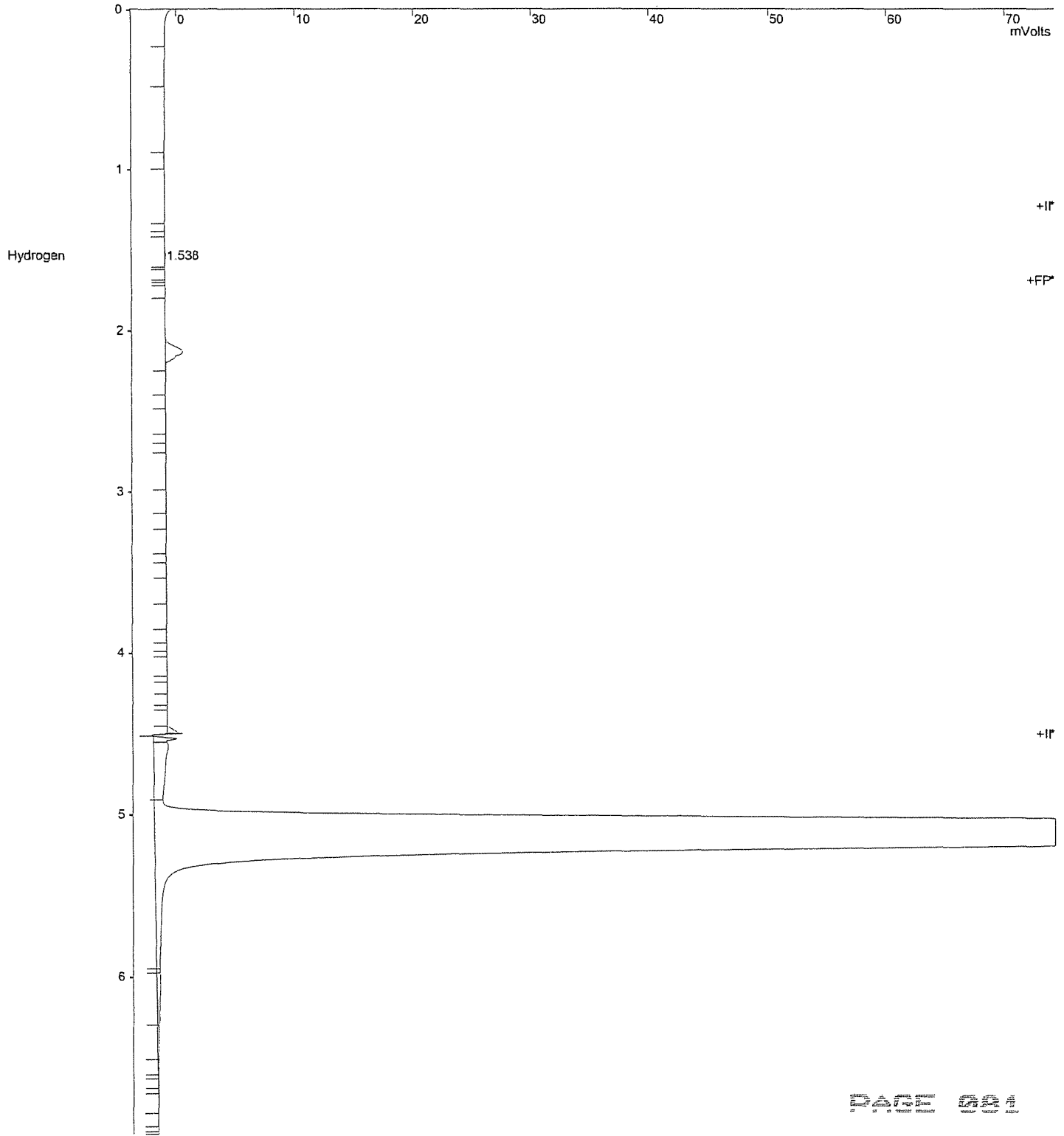
Injection Date: 11/3/2011 3:32 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 2.87 cm/min Attenuation = 32 Zero Offset = 5%
Start Time = 0.000 min End Time = 6.993 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov027.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L2

Injection Date: 11/3/2011 3:32 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 2

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.538	-0.002	381	BV	3.7	
	Totals:		-0.002	381			

Total Unidentified Counts : 2100910 counts

Detected Peaks: 44 Rejected Peaks: 14 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -298 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 39 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov026.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L3

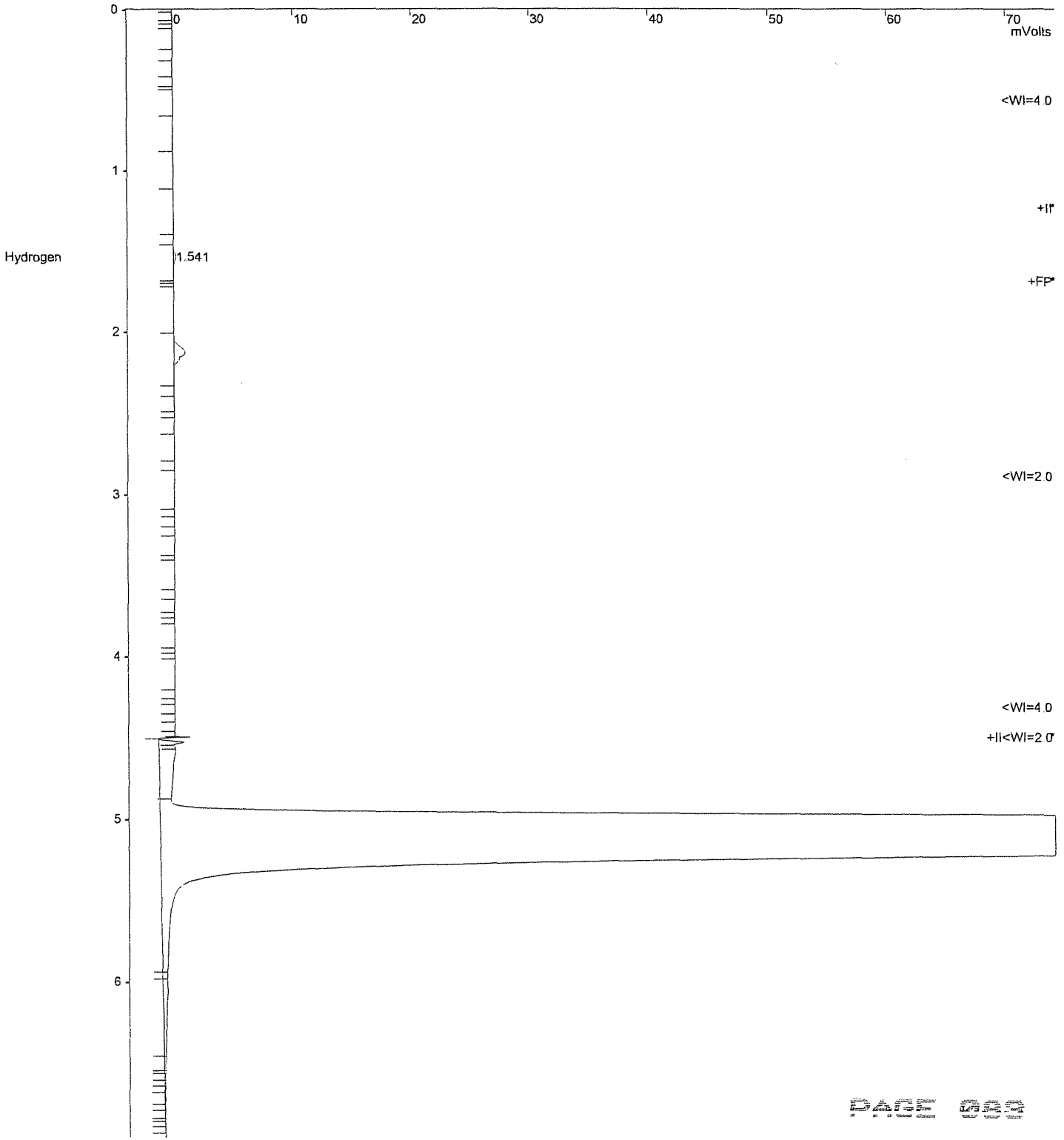
Injection Date: 11/3/2011 3:23 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 2.87 cm/min Attenuation = 32 Zero Offset = 5%
Start Time = 0.000 min End Time = 6.993 min Min / Tick = 1.00



Print Date: Tue Nov 08 11:34:50 2011 Page 1 of 1

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov026.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L3

Injection Date: 11/3/2011 3:23 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.541	-0.014	759	VB	3.7	
	Totals:		-0.014	759			

Total Unidentified Counts : 4135181 counts

Detected Peaks: 49 Rejected Peaks: 27 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 19 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 6 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov024.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L4

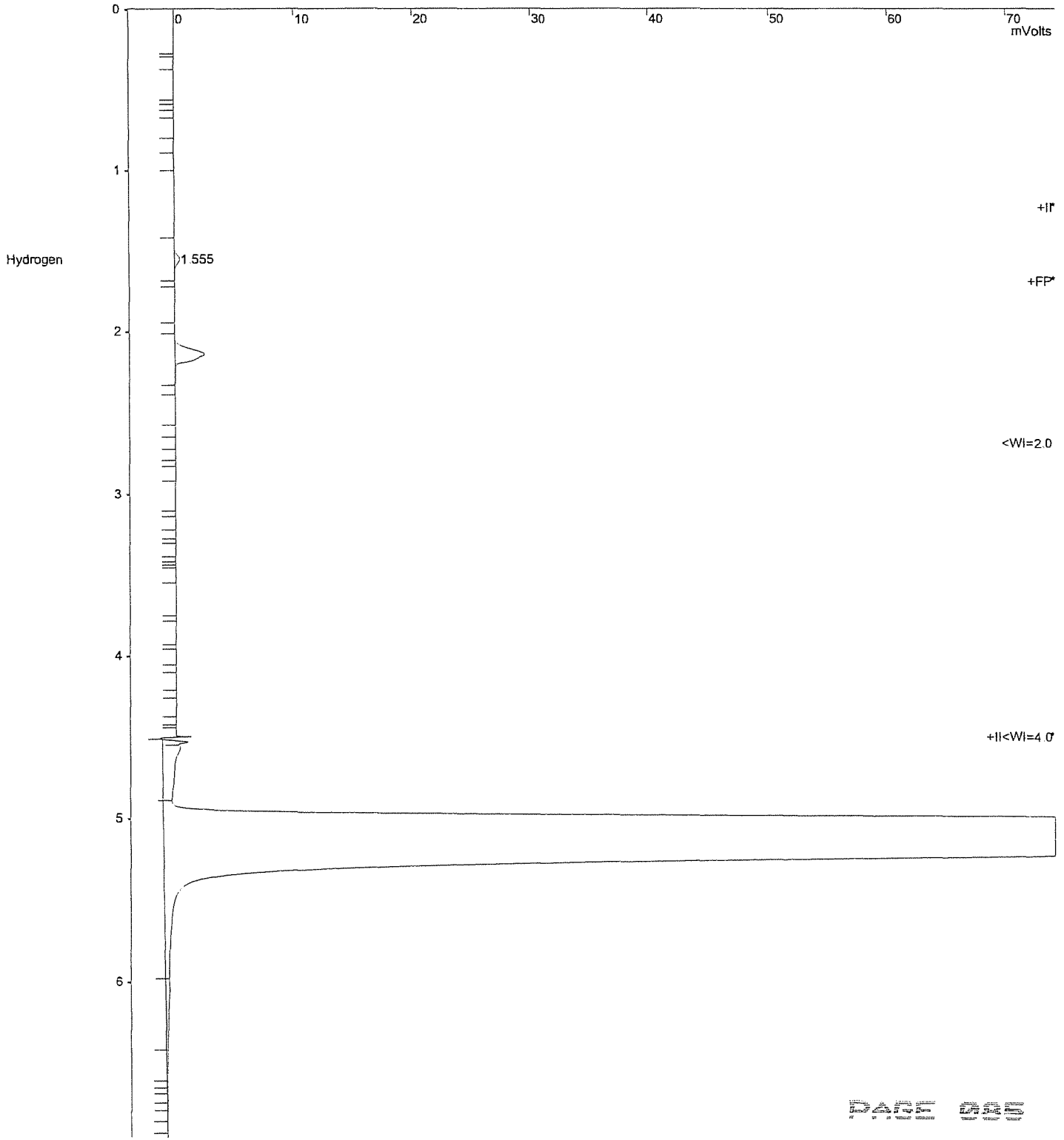
Injection Date: 11/3/2011 3:02 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 2.87 cm/min Attenuation = 32 Zero Offset = 5%
Start Time = 0.000 min End Time = 6.993 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov024.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L4

Injection Date: 11/3/2011 3:02 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 4

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.555	-0.025	1809	BB	3.7	
	Totals:		-0.025	1809			

Total Unidentified Counts : 3986325 counts

Detected Peaks: 43 Rejected Peaks: 29 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -11 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 27 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov023.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L5

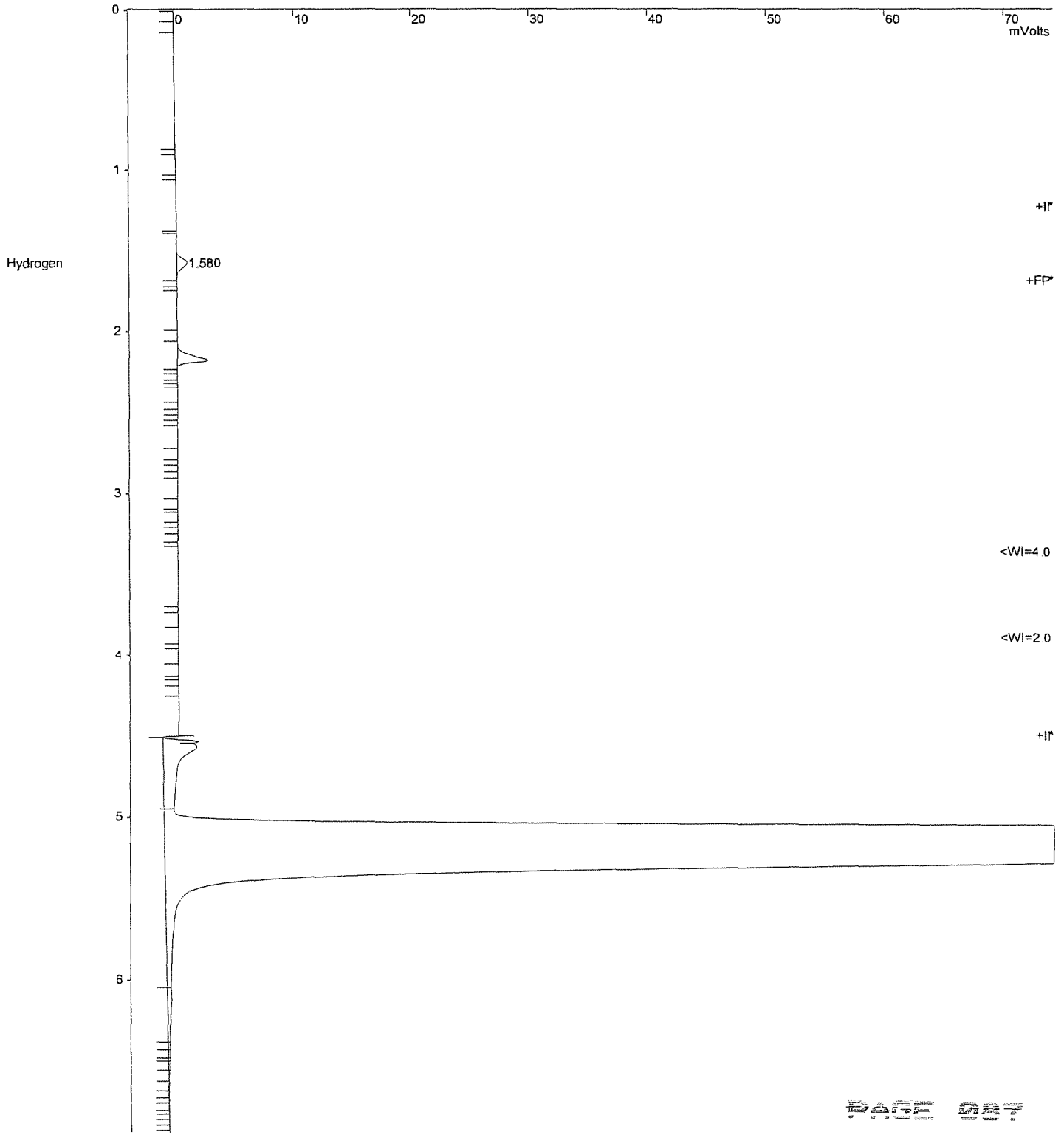
Injection Date: 11/3/2011 2:51 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 2.87 cm/min Attenuation = 32 Zero Offset = 5%
Start Time = 0.000 min End Time = 6.993 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov023.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L5

Injection Date: 11/3/2011 2:51 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.580	0.031	3550	PB	3.9	
	Totals:		0.031	3550			

Total Unidentified Counts : 3907451 counts

Detected Peaks: 56 Rejected Peaks: 36 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -11 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 44 microVolts

Manual injection

****

Title : Calibration Block Report
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Data Method Time : 4/25/2012 5:05 PM

Requested Curve Type : linear
Requested Origin : force
Calibration Type : External Standard Analysis

Method Detector Type : 3800 GC
Method Bus Address : 44
Method Channel : Middle

Calibration Dates
Last Injection Date : 2/27/2012 1:58 PM

Last Recalculation Date : 2/27/2012 2:22 PM

**********GC Workstation Multi Instrument**********Version 6.30**********

Retention Time (min)	Peak Name	Curve\ Origin	X^3	X^2	X	C	r^2	Cal. Range	No. of Points	Edit Codes
2.345	Ethylene	1 F			+2.7716e+003	+0.0000e+000	+9.9991e-001	1-6	6	
2.642	Ethane	1 F			+2.8291e+003	+0.0000e+000	+9.9993e-001	1-6	6	
3.286	Acetylene	1 F			+3.0275e+003	+0.0000e+000	+9.9996e-001	1-6	6	
6.486	Methane	1 F			+1.4513e+003	+0.0000e+000	+9.9999e-001	1-6	6	

Curve Codes	Origin Codes		Edit Codes
1 linear	I	include	1 curve
2 quadratic	IG	ignore	2 origin
3 cubic	F	force	3 coefficient

Ret. Time: 2.345 min.
Peak Name: Ethylene
Peak Measurement: Area
Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	9176	9175.7	#
2	10.000000	1	26855	26855.3	#
3	100.000000	1	270779	270779.4	#
4	1000.000000	1	2769311	2769310.8	#
5	5000.000000	1	14086629	14086629.0	#
6	10000.000000	1	27601932	27601932.0	#

Ret. Time: 2.642 min.
Peak Name: Ethane
Peak Measurement: Area
Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	9229	9229.5	#
2	10.000000	1	27372	27371.6	#
3	100.000000	1	276495	276494.9	#
4	1000.000000	1	2818590	2818589.8	#
5	5000.000000	1	14352904	14352904.0	#
6	10000.000000	1	28188930	28188930.0	#

Ret. Time: 3.286 min.
Peak Name: Acetylene
Peak Measurement: Area
Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	7648	7647.5	#
2	10.000000	1	22887	22886.7	#
3	100.000000	1	252976	252976.3	#
4	1000.000000	1	2834033	2834033.3	#
5	5000.000000	1	15151085	15151085.0	#
6	10000.000000	1	30287502	30287502.0	#

Ret. Time: 6.486 min.
Peak Name: Methane

Peak Measurement: Area
Curve\Origin: 1 F

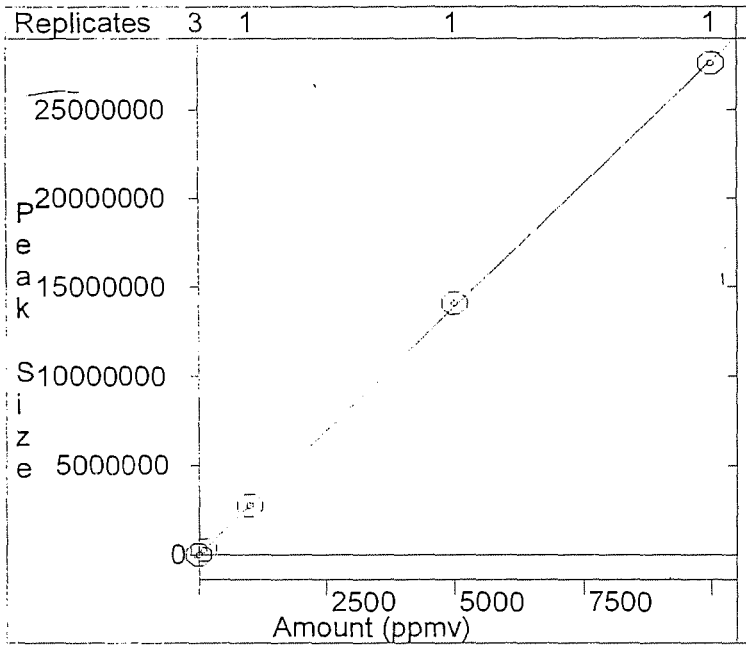
Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	4800	4800.2	#
2	10.000000	1	14255	14254.8	#
3	100.000000	1	141124	141124.3	#
4	1000.000000	1	1436624	1436623.9	#
5	5000.000000	1	7294931	7294930.5	#
6	10000.000000	1	14495398	14495398.0	#

= Too few points to calculate.

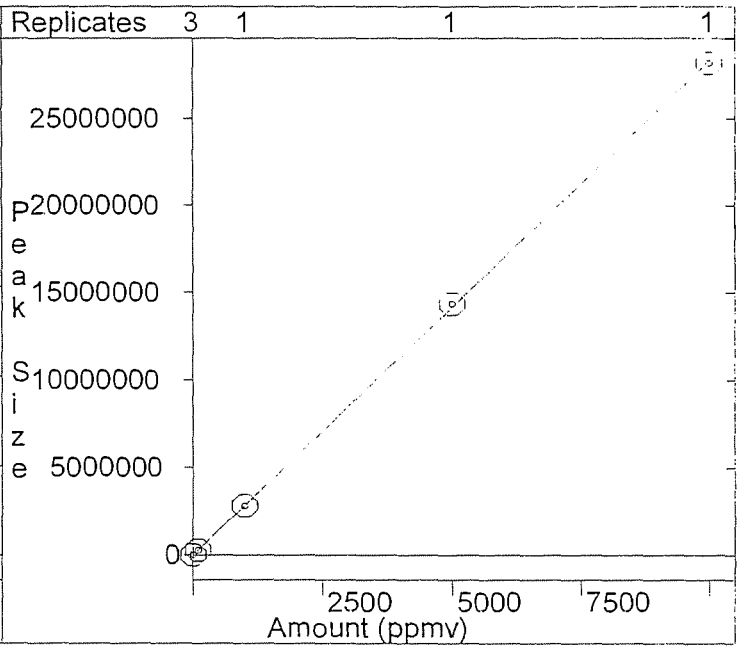
Peak Name	Level	Rep.	Injection Date Time	Run Files
Ethylene	1	1	2/27/2012 12:27 PM	c:\temp gc\gc8a\2012\feb\24feb008.run
	2	1	2/27/2012 12:43 PM	c:\temp gc\gc8a\2012\feb\27feb.run
	3	1	2/27/2012 12:57 PM	c:\temp gc\gc8a\2012\feb\27feb001.run
	4	1	2/27/2012 1:10 PM	c:\temp gc\gc8a\2012\feb\27feb002.run
	5	1	2/27/2012 1:25 PM	c:\temp gc\gc8a\2012\feb\27feb003.run
	6	1	2/27/2012 1:58 PM	c:\temp gc\gc8a\2012\feb\27feb004.run
Ethane	1	1	2/27/2012 12:27 PM	c:\temp gc\gc8a\2012\feb\24feb008.run
	2	1	2/27/2012 12:43 PM	c:\temp gc\gc8a\2012\feb\27feb.run
	3	1	2/27/2012 12:57 PM	c:\temp gc\gc8a\2012\feb\27feb001.run
	4	1	2/27/2012 1:10 PM	c:\temp gc\gc8a\2012\feb\27feb002.run
	5	1	2/27/2012 1:25 PM	c:\temp gc\gc8a\2012\feb\27feb003.run
	6	1	2/27/2012 1:58 PM	c:\temp gc\gc8a\2012\feb\27feb004.run
Acetylene	1	1	2/27/2012 12:27 PM	c:\temp gc\gc8a\2012\feb\24feb008.run
	2	1	2/27/2012 12:43 PM	c:\temp gc\gc8a\2012\feb\27feb.run
	3	1	2/27/2012 12:57 PM	c:\temp gc\gc8a\2012\feb\27feb001.run
	4	1	2/27/2012 1:10 PM	c:\temp gc\gc8a\2012\feb\27feb002.run
	5	1	2/27/2012 1:25 PM	c:\temp gc\gc8a\2012\feb\27feb003.run
	6	1	2/27/2012 1:58 PM	c:\temp gc\gc8a\2012\feb\27feb004.run
Methane	1	1	2/27/2012 12:27 PM	c:\temp gc\gc8a\2012\feb\24feb008.run
	2	1	2/27/2012 12:43 PM	c:\temp gc\gc8a\2012\feb\27feb.run
	3	1	2/27/2012 12:57 PM	c:\temp gc\gc8a\2012\feb\27feb001.run
	4	1	2/27/2012 1:10 PM	c:\temp gc\gc8a\2012\feb\27feb002.run
	5	1	2/27/2012 1:25 PM	c:\temp gc\gc8a\2012\feb\27feb003.run
	6	1	2/27/2012 1:58 PM	c:\temp gc\gc8a\2012\feb\27feb004.run

Print Date: 03 May 2012 16:10:34
Calibration Curves Report
File: c:\temp gc\gc8a\methods\rsk175fg120227.mth
Detector: 3800 GC, Address: 44, Channel ID: Middle

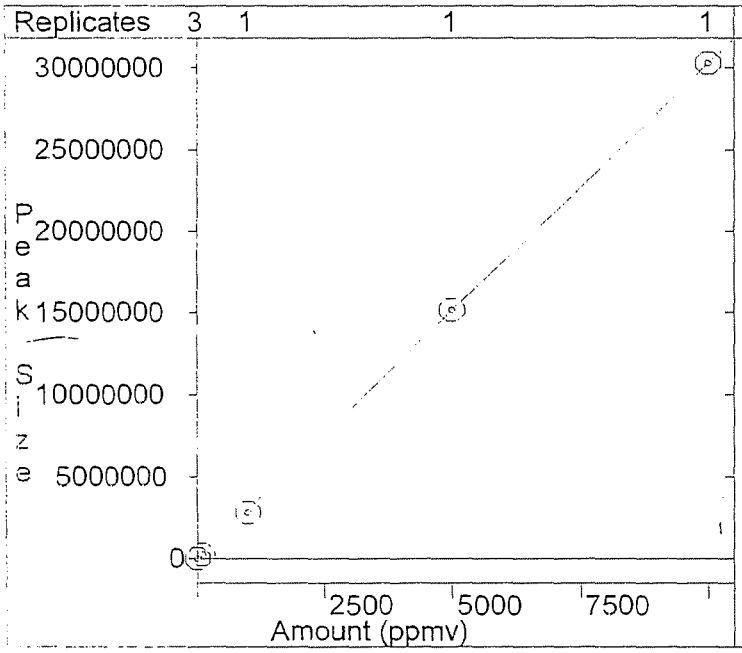
Ethylene
External Standard Analysis
Resp. Fact. RSD: 4.826%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999907
y = +2.7716e+003x



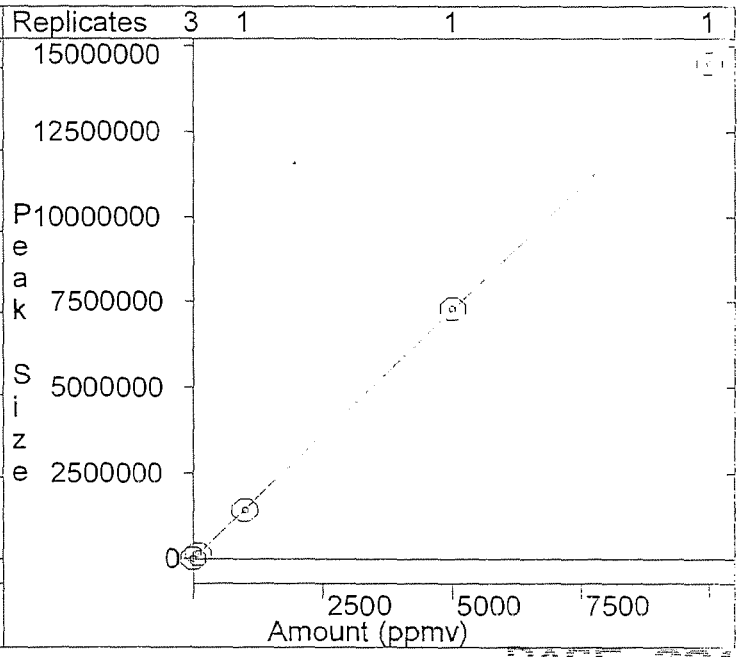
Ethane
External Standard Analysis
Resp. Fact. RSD: 4.261%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999927
y = +2.8291e+003x



Acetylene
External Standard Analysis
Resp. Fact. RSD: 11.14%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999963
y = +3.0275e+003x



Methane
External Standard Analysis
Resp. Fact. RSD: 4.710%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999989
y = +1.4513e+003x



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\24feb008.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 3.0 ppmv

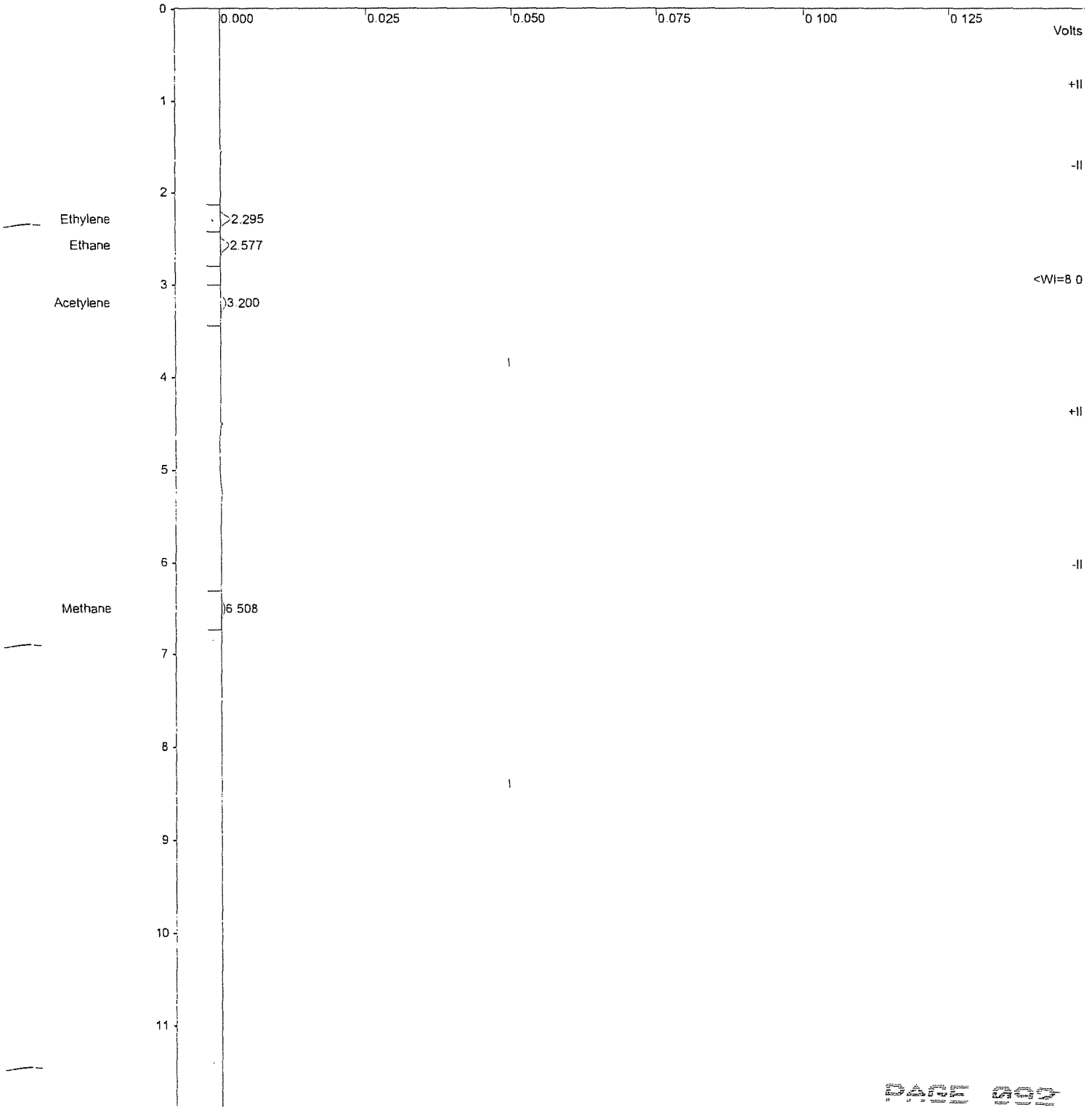
Injection Date: 2/27/2012 12:27 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Print Date: Thu May 03 16:14:34 2012 Page 1 of 1

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\24feb008.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 3.0 ppmv

Injection Date: 2/27/2012 12:27 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 1

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.295	-0.050	9176	BV	5.3	
2	Ethane	2.577	-0.065	9229	VB	5.9	
3	Acetylene	3.200	-0.086	7648	BB	7.7	
4	Methane	6.508	0.022	4800	BB	9.1	
	Totals:		-0.179	30853			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 39 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 15 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 10 ppmv

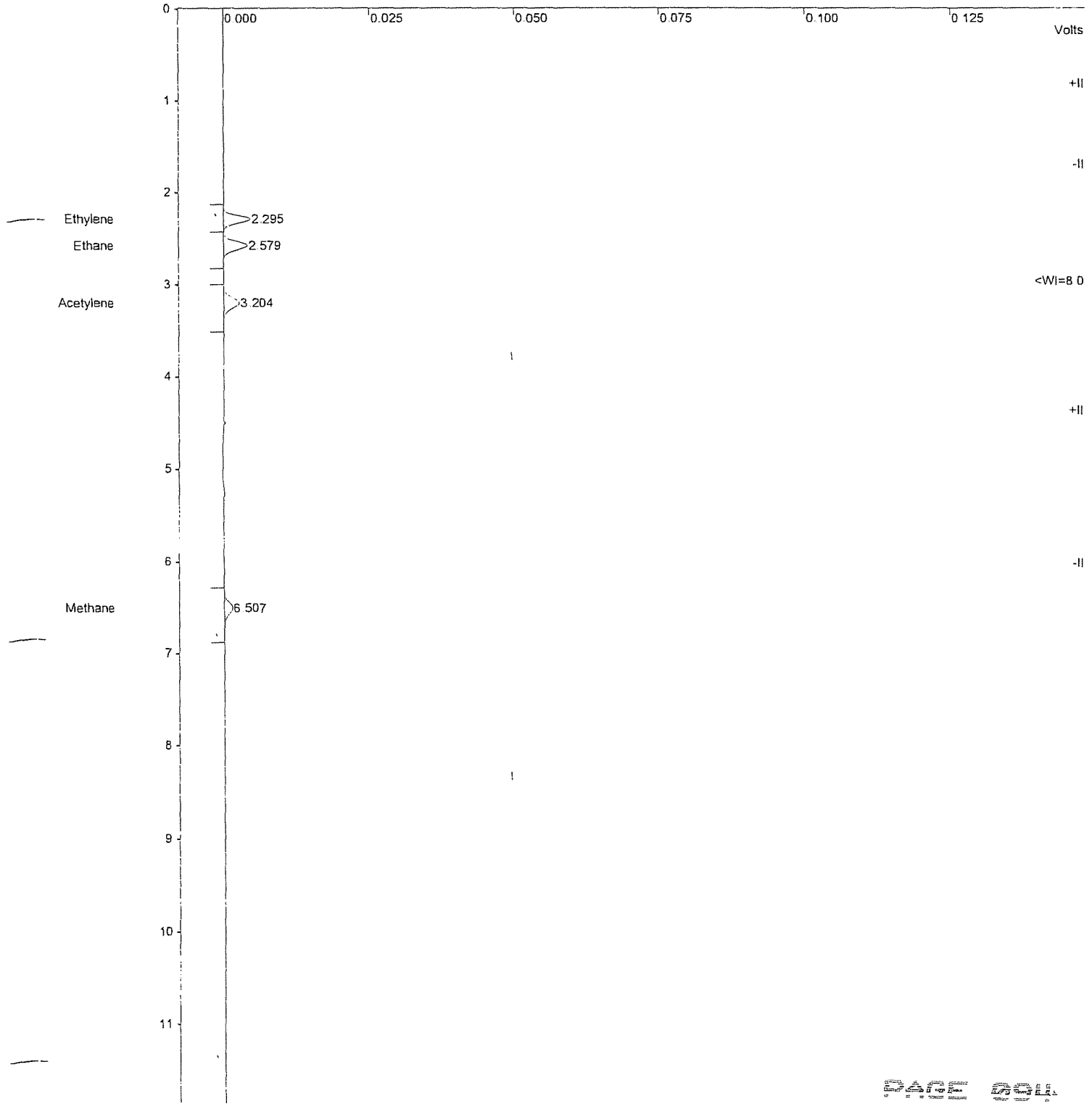
Injection Date: 2/27/2012 12:43 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 10 ppmv

Injection Date: 2/27/2012 12:43 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 2

~~Peak~~ No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.295	0.001	26855	BV	5.6	
2	Ethane	2.579	0.002	27372	VB	6.2	
3	Acetylene	3.204	0.006	22887	BB	7.9	
4	Methane	6.507	-0.001	14255	BB	9.2	
	Totals:		0.008	91369			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 17 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 24 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb001.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 100 ppmv

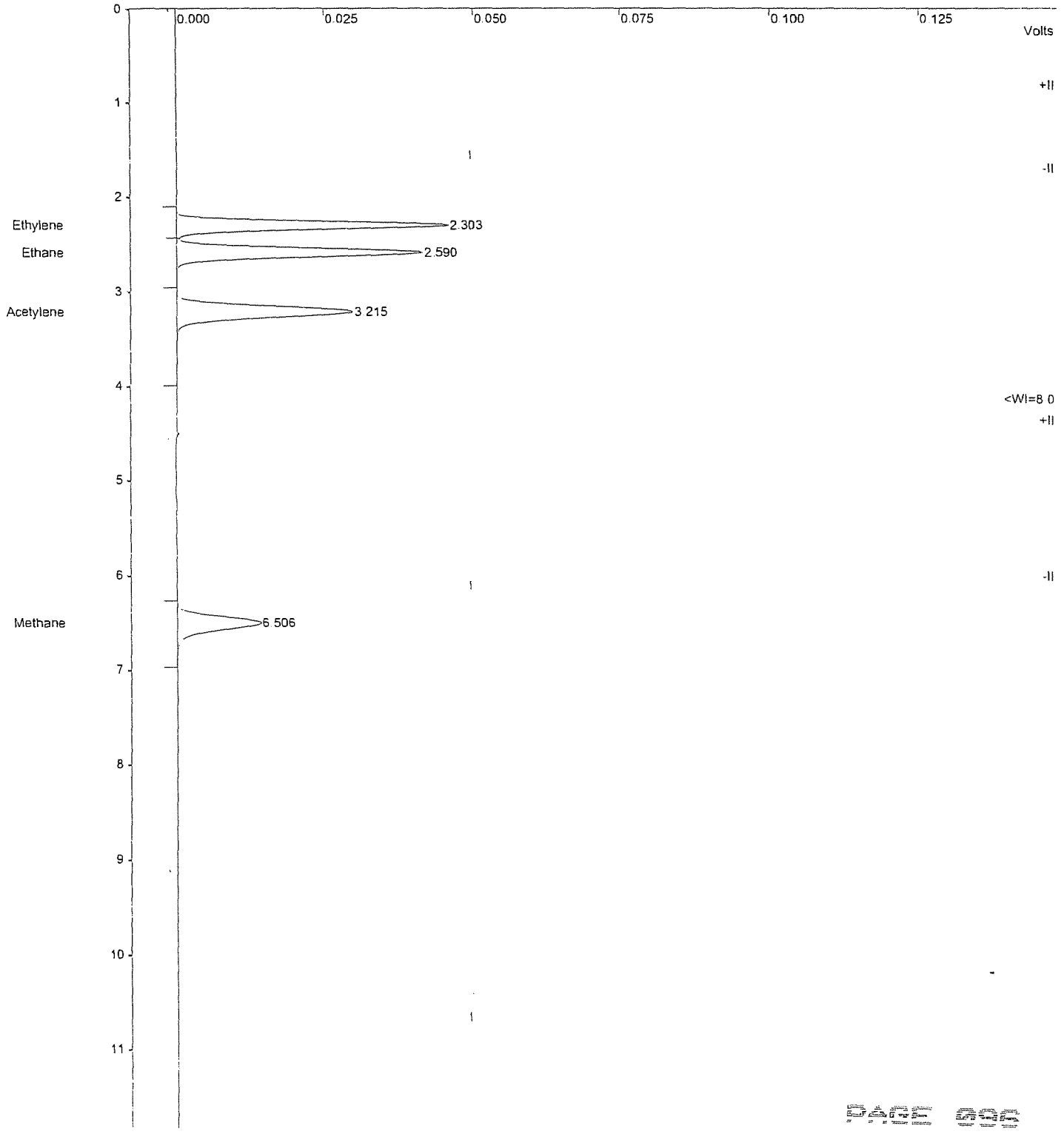
Injection Date: 2/27/2012 12:57 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb001.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 100 ppmv

Injection Date: 2/27/2012 12:57 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.303	0.008	270779	BV	5.6	
2	Ethane	2.590	0.011	276495	VV	6.3	
3	Acetylene	3.215	0.011	252976	VB	7.9	
4	Methane	6.506	-0.001	141124	BB	9.1	
	Totals:		0.029	941374			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -30 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 15 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb002.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 1000ppmv

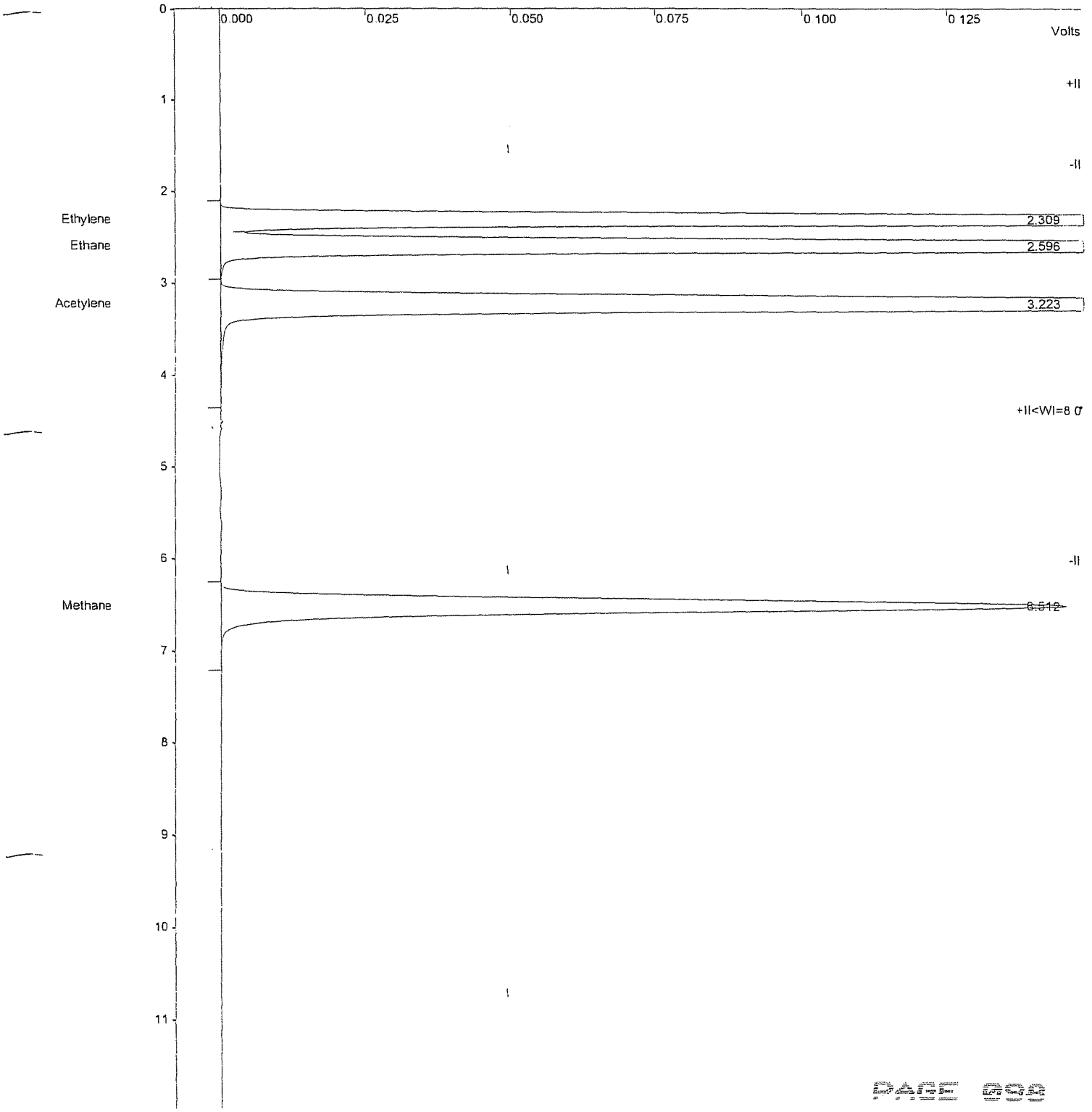
Injection Date: 2/27/2012 1:10 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb002.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 1000ppmv

Injection Date: 2/27/2012 1:10 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 4

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.309	0.007	2769311	BV	5.6	
2	Ethane	2.596	0.007	2818590	VV	6.3	
3	Acetylene	3.223	0.008	2834033	VB	7.9	
4	Methane	6.512	0.006	1436624	BB	9.1	
	Totals:		0.028	9858558			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 49 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb003.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 5000ppmv

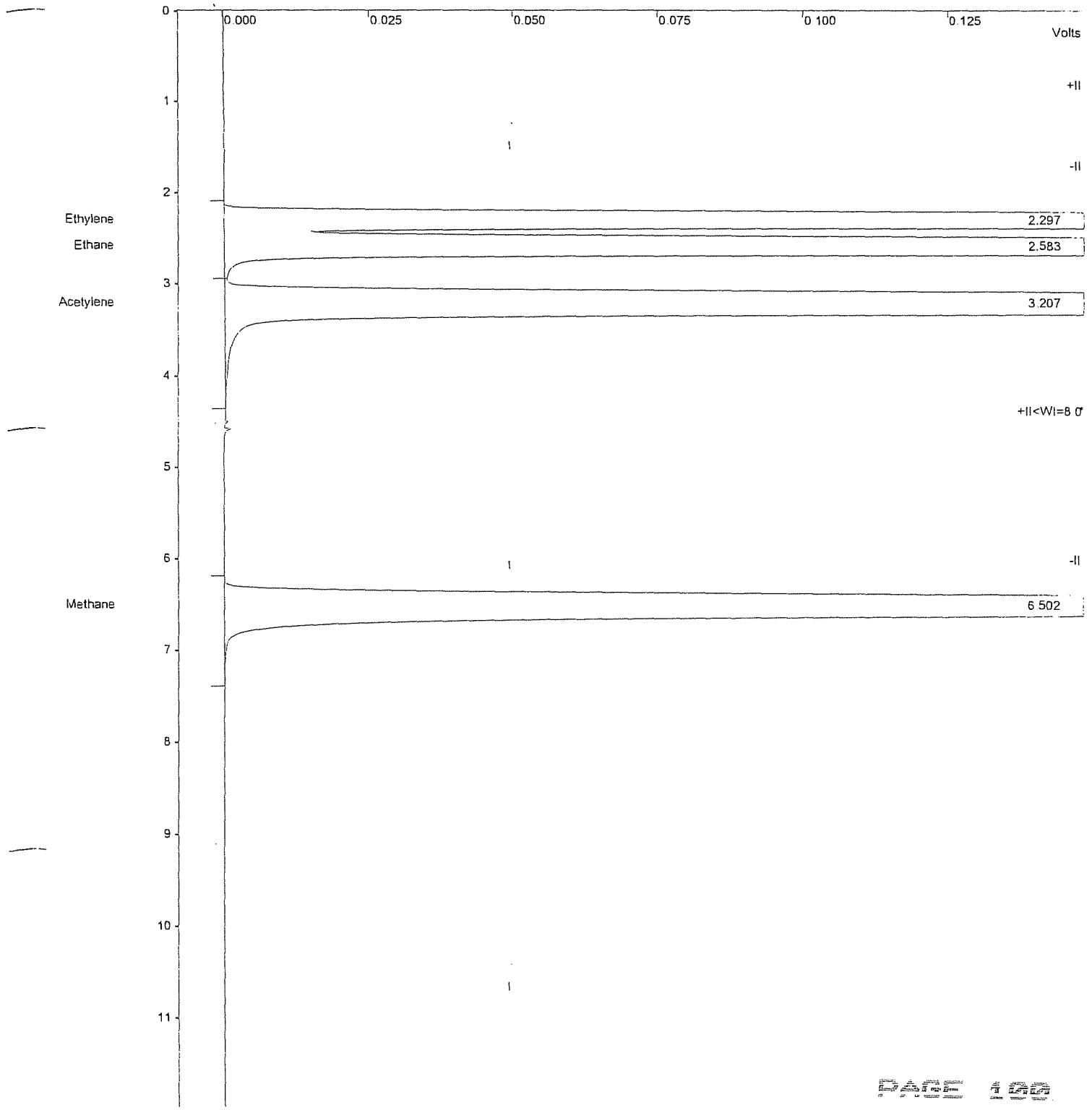
Injection Date: 2/27/2012 1:25 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb003.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 5000ppmv

Injection Date: 2/27/2012 1:25 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.297	-0.011	14086629	BV	5.3	
2	Ethane	2.583	-0.013	14352904	VV	6.1	
3	Acetylene	3.207	-0.016	15151085	VB	7.8	
4	Methane	6.502	-0.010	7294931	BB	9.0	
	Totals:		-0.050	50885549			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 94 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 18 microVolts

Manual injection

****

Title :
Run File : c:\temp gc\gc8a\2012\feb\27feb004.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 10000ppmv

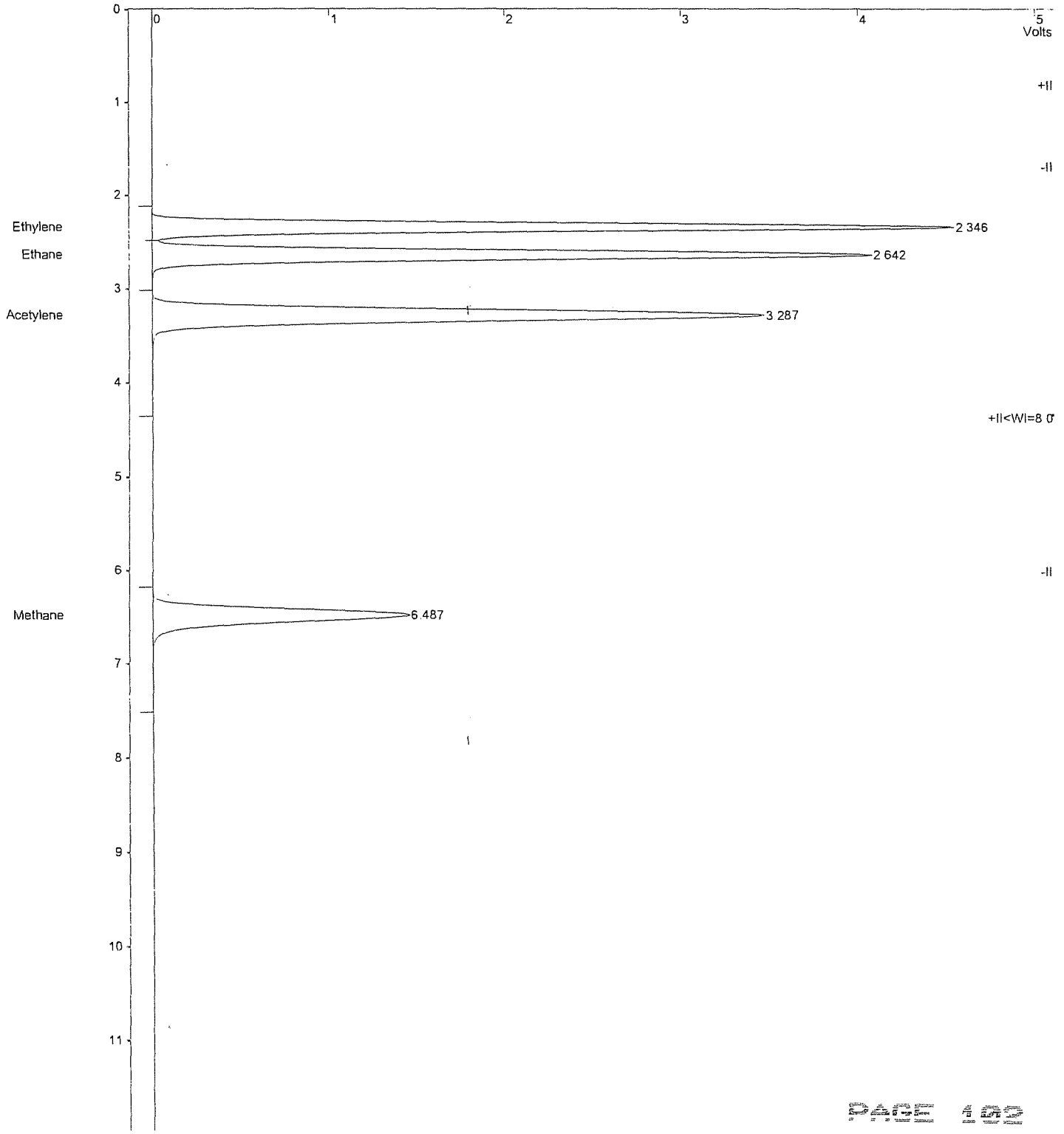
Injection Date: 2/27/2012 1:58 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 2152 Zero Offset = 2%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title :
Run File : c:\temp gc\gc8a\2012\feb\27feb004.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 10000ppmv

Injection Date: 2/27/2012 1:58 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 6

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.346	0.050	27601932	BV	5.8	
2	Ethane	2.642	0.059	28188930	VV	6.5	
3	Acetylene	3.287	0.080	30287502	VB	8.1	
4	Methane	6.487	-0.014	14495398	BB	9.1	
	Totals:		0.175	100573762			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -27 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

4. Continuing Calibration

a. CCAL Summary
b. Chromatograms/Results

Continuing Calibration Criteria:

All compounds <25% Diff

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 0.5% RSK CCV

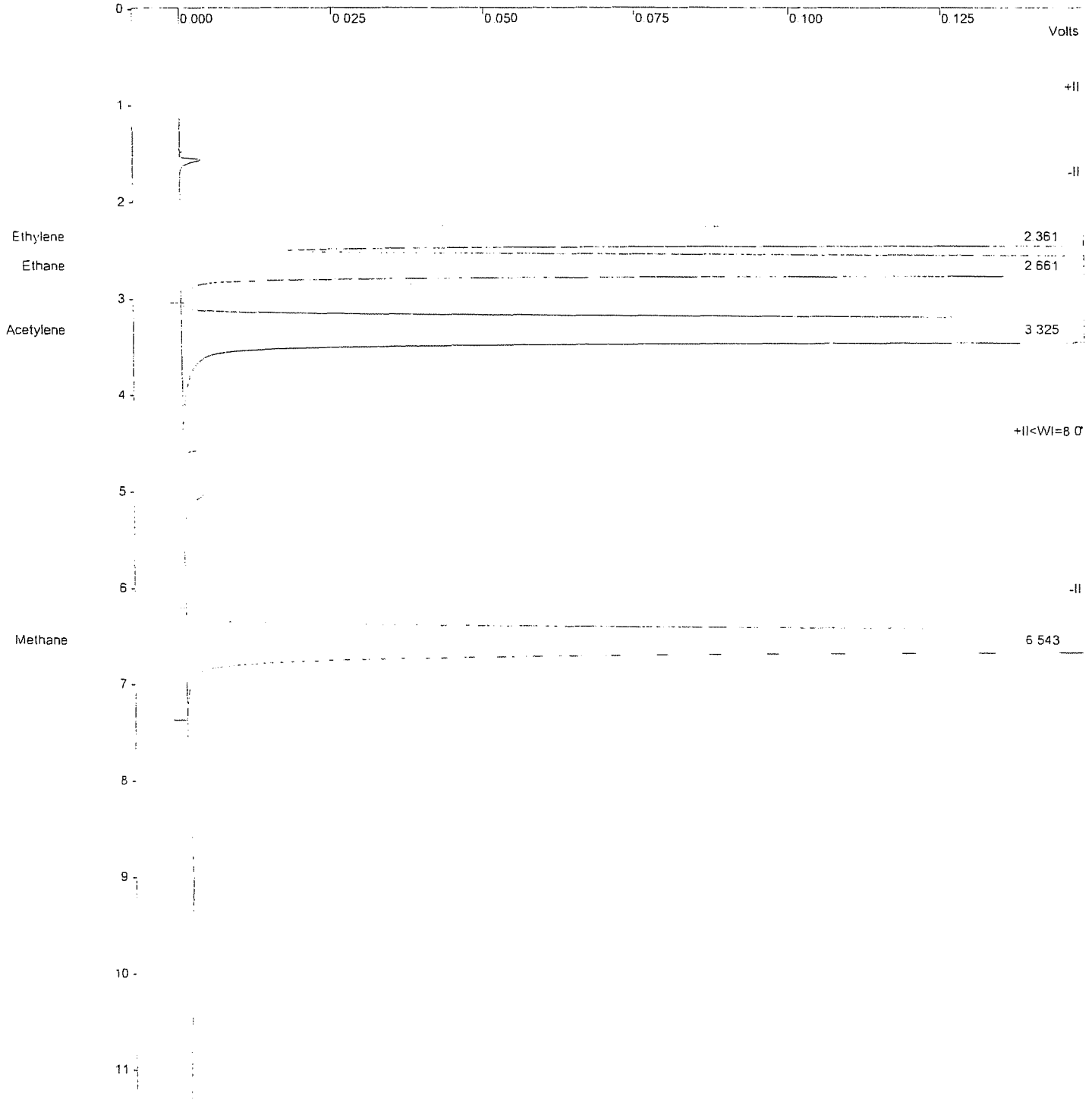
Injection Date: 11/5/2012 10:17 AM Calculation Date: 11/12/2012 4:32 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Verification Report

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 0.5% RSK CCV

Injection Date: 11/5/2012 10:17 AM Calculation Date: 11/12/2012 4:32 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Ethylene	5000.000	5203.299	4.1	2.361	0.016	14421445	
2	Ethane	5000.000	5199.789	4.0	2.661	0.019	14710936	
3	Acetylene	5000.000	5113.250	2.3	3.325	0.039	15480139	
4	Methane	5000.000	5151.674	3.0	6.543	0.057	7476667	
	Totals:		20668.012			0.131	52089187	

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 51 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 20 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov026.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 0.5% RSK CCV

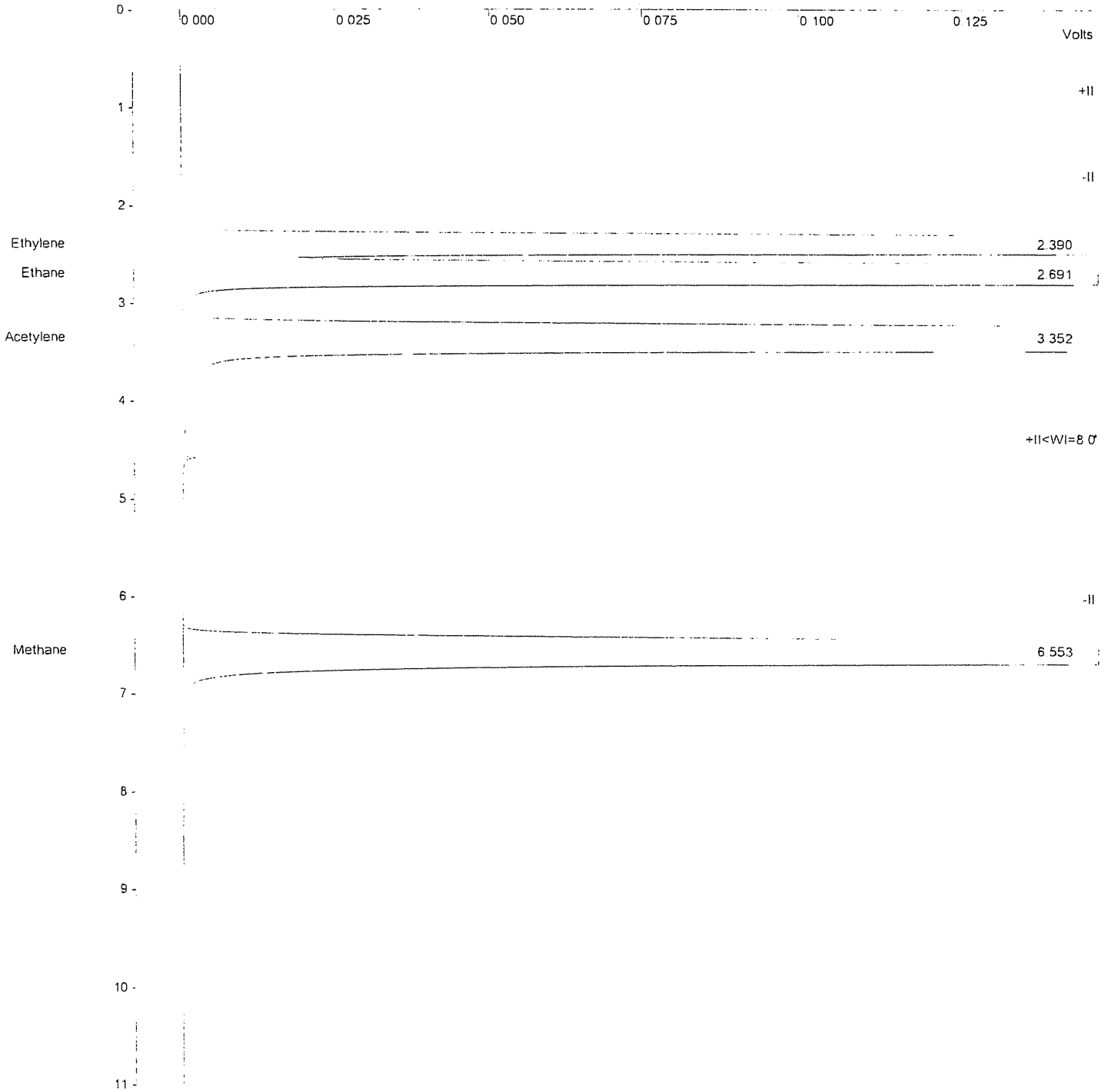
Injection Date: 11/5/2012 6:51 PM Calculation Date: 11/12/2012 4:36 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Verification Report

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov026.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 0.5% RSK CCV

Injection Date: 11/5/2012 6:51 PM Calculation Date: 11/12/2012 4:36 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Ethylene	5000.000	5075.921	1.5	2.390	0.045	14068404	
2	Ethane	5000.000	5090.501	1.8	2.691	0.049	14401744	
3	Acetylene	5000.000	4990.278	0.2	3.352	0.066	15107846	
4	Methane	5000.000	5010.111	0.2	6.553	0.067	7271216	
	Totals:		20166.811			0.227	50849210	

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 42 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov027.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : 1% H2 RSK CCV

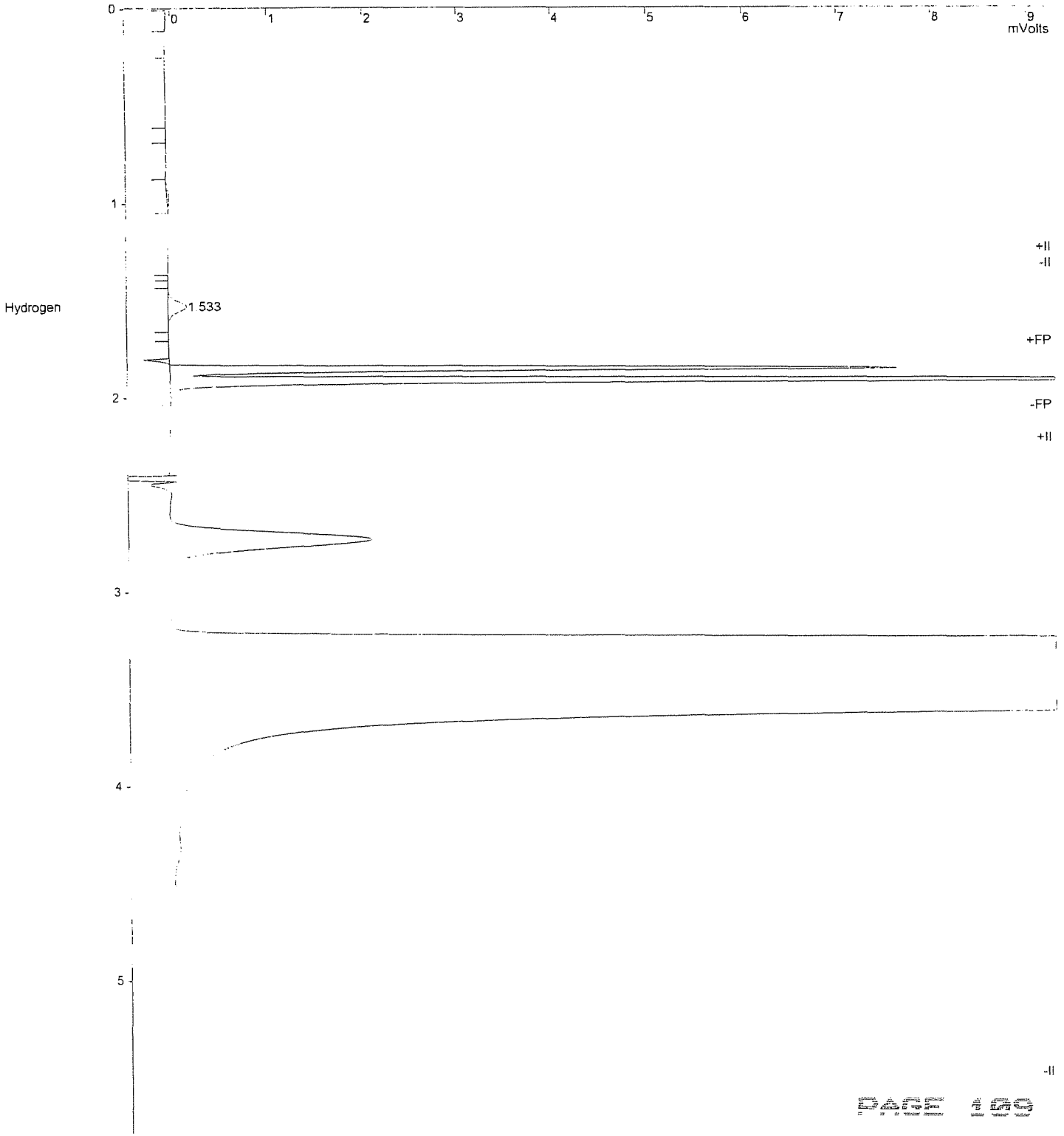
Injection Date: 11/6/2012 8:06 AM Calculation Date: 11/6/2012 8:12 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Verification Report

itle : RSK-175 TCD
un File : c:\temp gc\gc8a\2012\nov\05nov027.run
ethod File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
ample ID : 1% H2 RSK CCV

njection Date: 11/6/2012 8:06 AM Calculation Date: 11/6/2012 8:12 AM

perator : MJ
orkstation:
nstrument : GC8A
hannel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Hydrogen	10000.000	11219.563	12.2	1.533	0.038	802	
	Totals:		11219.563			0.038	802	

Total Unidentified Counts : 31710 counts

Detected Peaks: 9 Rejected Peaks: 6 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -47 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 5 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov056.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 RSK CCV

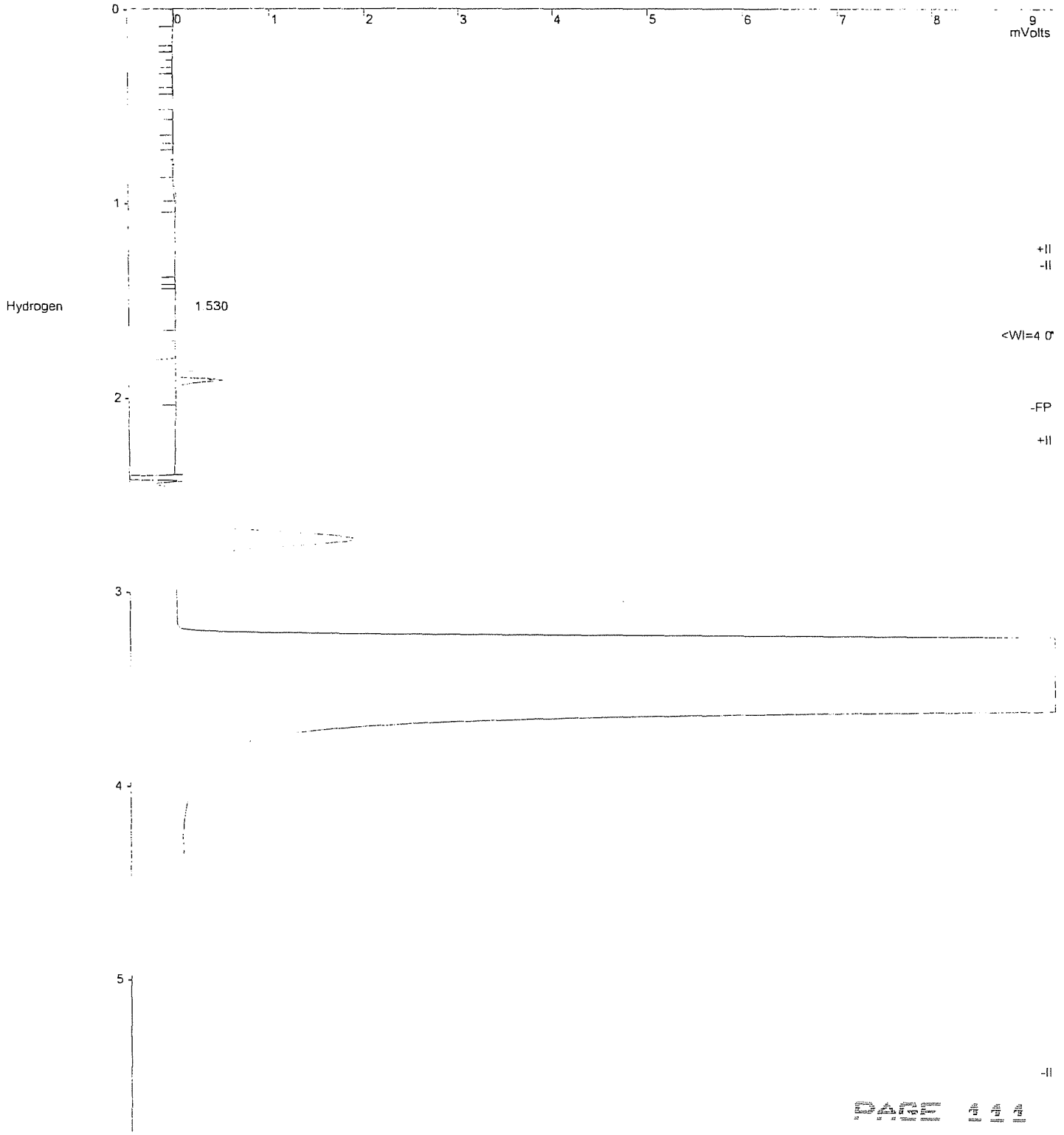
Injection Date: 11/6/2012 3:22 PM Calculation Date: 11/6/2012 3:27 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Verification Report

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov056.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 RSK CCV

Injection Date: 11/6/2012 3:22 PM Calculation Date: 11/6/2012 3:27 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Hydrogen	10000.000	10634.930	6.3	1.530	0.035	760	
	Totals:		10634.930			0.035	760	

Total Unidentified Counts : 1081 counts

Detected Peaks: 20 Rejected Peaks: 17 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 2 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 19 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 0.5% RSK CCV

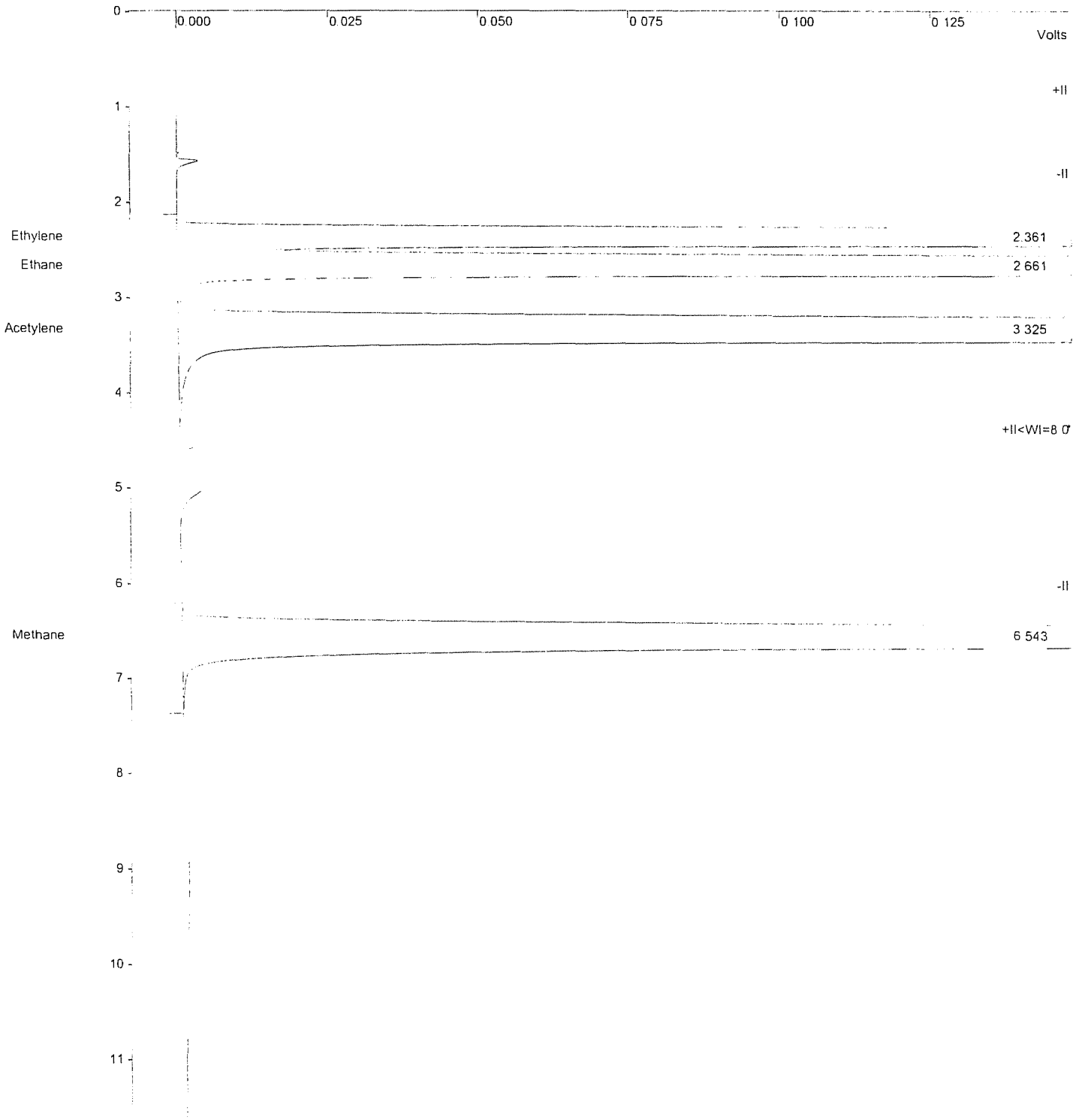
Injection Date: 11/5/2012 10:17 AM Calculation Date: 11/19/2012 2:37 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Verification Report

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 0.5% RSK CCV

Injection Date: 11/5/2012 10:17 AM Calculation Date: 11/19/2012 2:37 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Ethylene	5000.000	5203.299	4.1	2.361	0.016	14421445	
2	Ethane	5000.000	5199.789	4.0	2.661	0.019	14710936	
3	Acetylene	5000.000	5113.250	2.3	3.325	0.039	15480139	
4	Methane	5000.000	5151.674	3.0	6.543	0.057	7476667	
	Totals:		20668.012			0.131	52089187	

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 51 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 20 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov011.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : RSK CCV

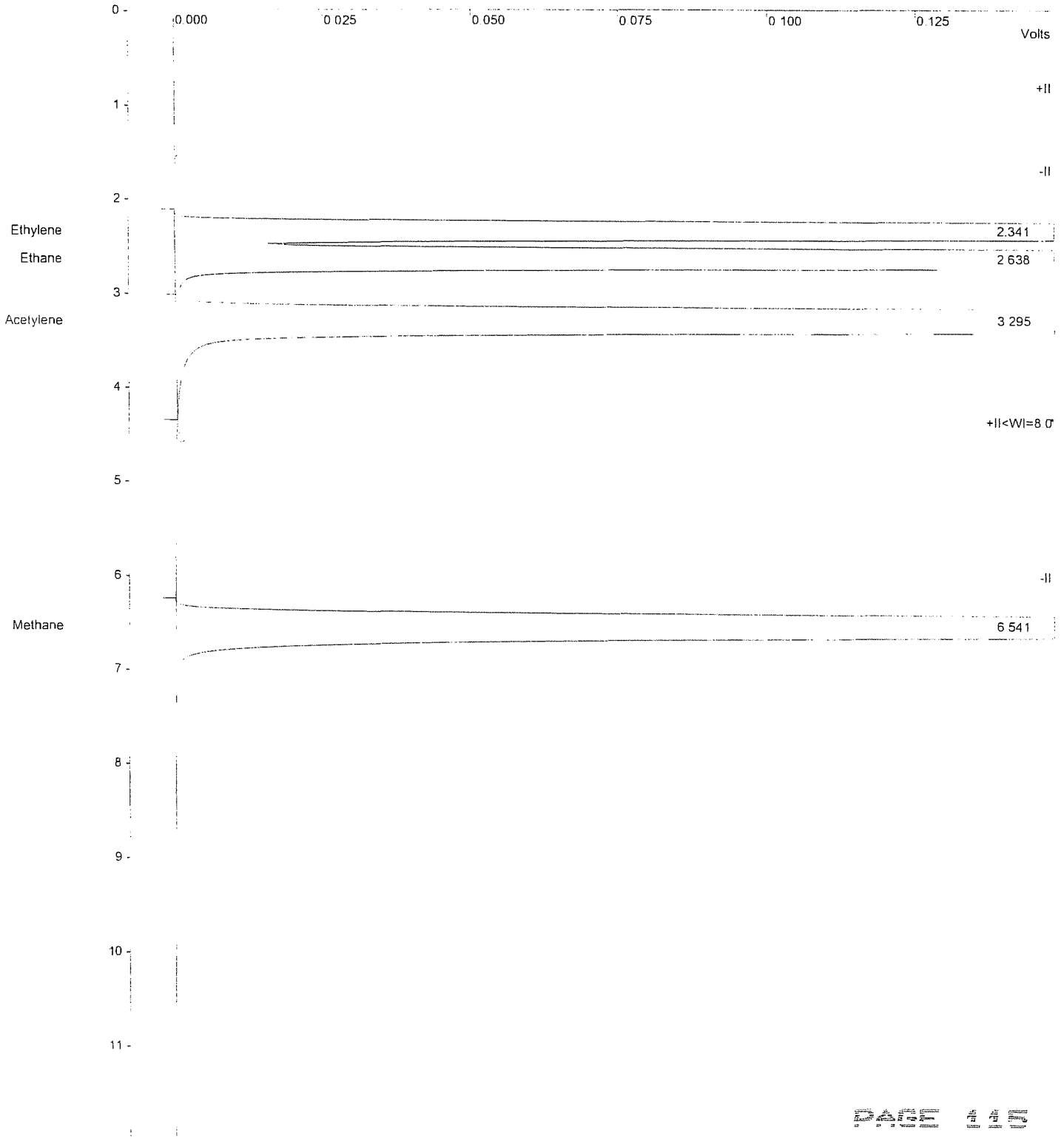
Injection Date: 11/7/2012 9:34 AM Calculation Date: 11/19/2012 2:37 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Verification Report

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov011.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : RSK CCV

Injection Date: 11/7/2012 9:34 AM Calculation Date: 11/19/2012 2:37 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Ethylene	5000.000	5072.439	1.4	2.341	-0.004	14058753	
2	Ethane	5000.000	5103.397	2.1	2.638	-0.004	14438229	
3	Acetylene	5000.000	4936.922	1.3	3.295	0.009	14946315	
4	Methane	5000.000	4900.523	2.0	6.541	0.055	7112171	
	Totals:		20013.281			0.056	50555468	

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -14 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

****

5. Method Blank

a. Chromatograms/ Results

Method Blank Criteria:

All compounds < Reporting Limit

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov005.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : Method Blank

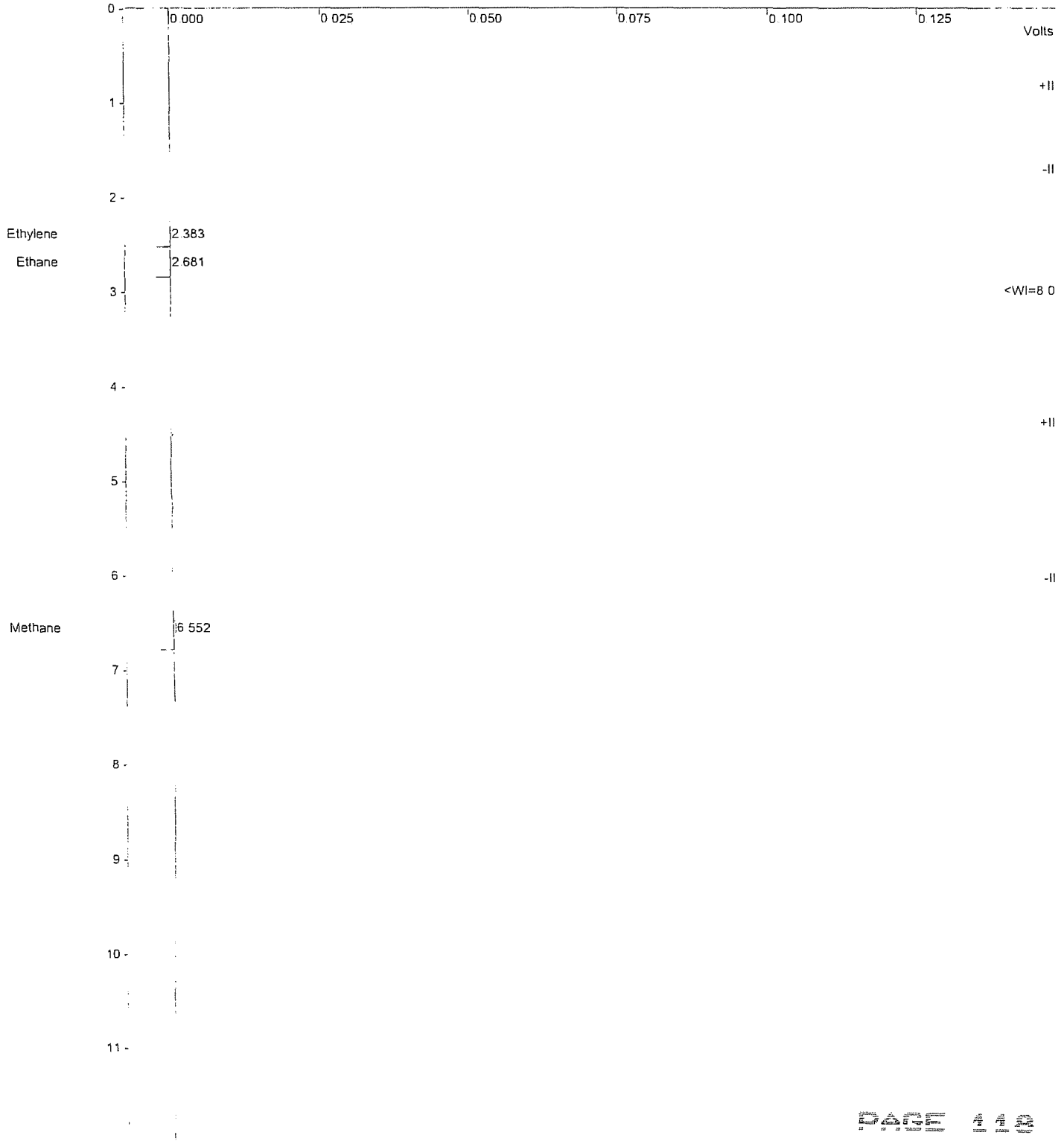
Injection Date: 11/5/2012 12:22 PM Calculation Date: 11/5/2012 12:34 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Print Date: Mon Nov 05 12:34:47 2012 Page 1 of 1

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov005.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : Method Blank

Injection Date: 11/5/2012 12:22 PM Calculation Date: 11/5/2012 12:34 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.187	2.383	0.038	517	BV	5.9	
2	Ethane	0.328	2.681	0.039	929	VB	6.7	
3	Acetylene		3.286					M
4	Methane	2.785	6.552	0.066	4042	BB	10.6	
	Totals:	3.300		0.143	5488			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -50 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 19 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov028.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : Method Blank

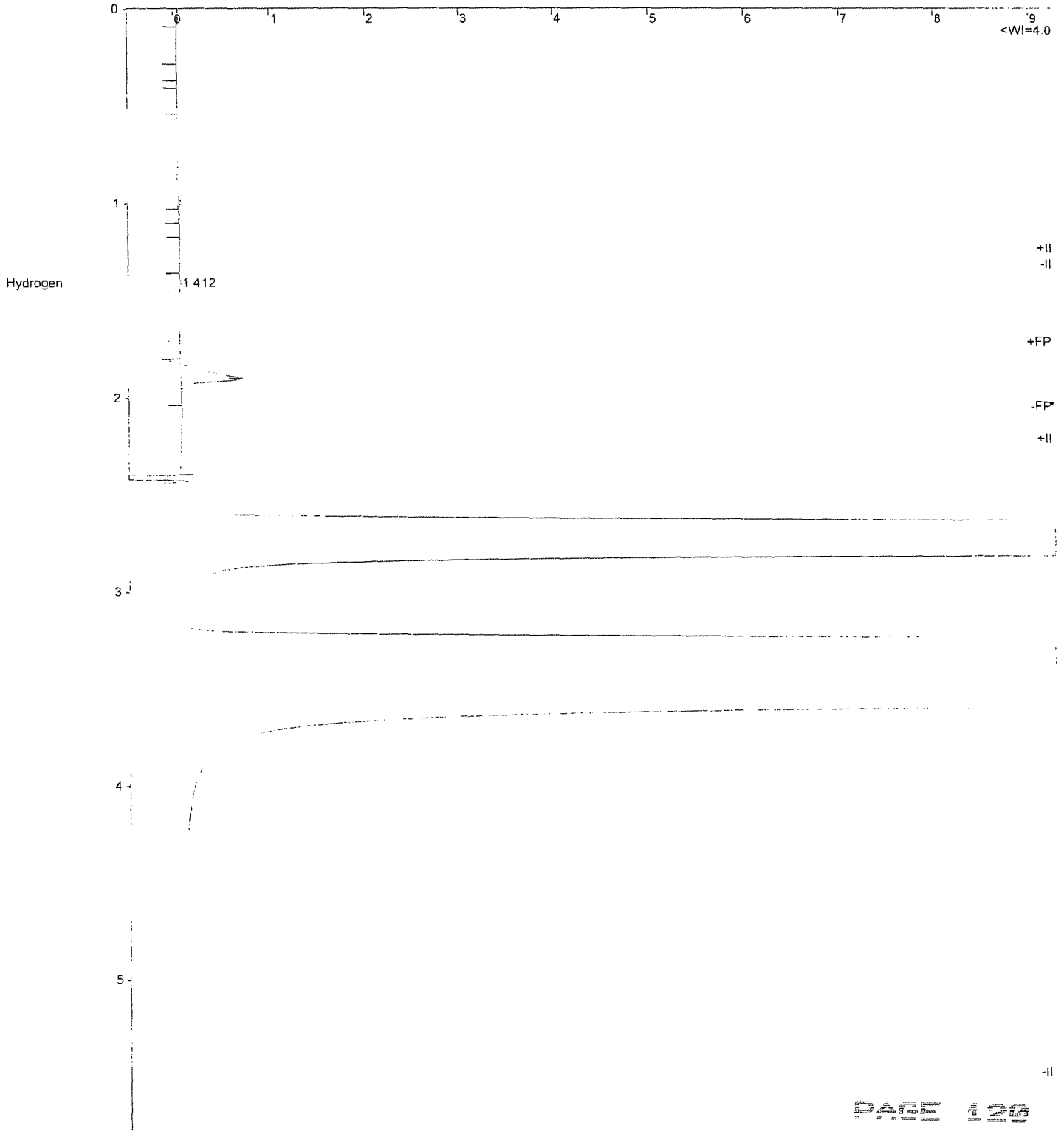
Injection Date: 11/6/2012 8:19 AM Calculation Date: 11/6/2012 8:25 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov028.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : Method Blank

Injection Date: 11/6/2012 8:19 AM Calculation Date: 11/6/2012 8:25 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	569.566	1.412	-0.083	41	BB	2.8	
	Totals:	569.566		-0.083	41			

Total Unidentified Counts : 2139 counts

Detected Peaks: 12 Rejected Peaks: 8 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 52 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov001.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : Method Blank

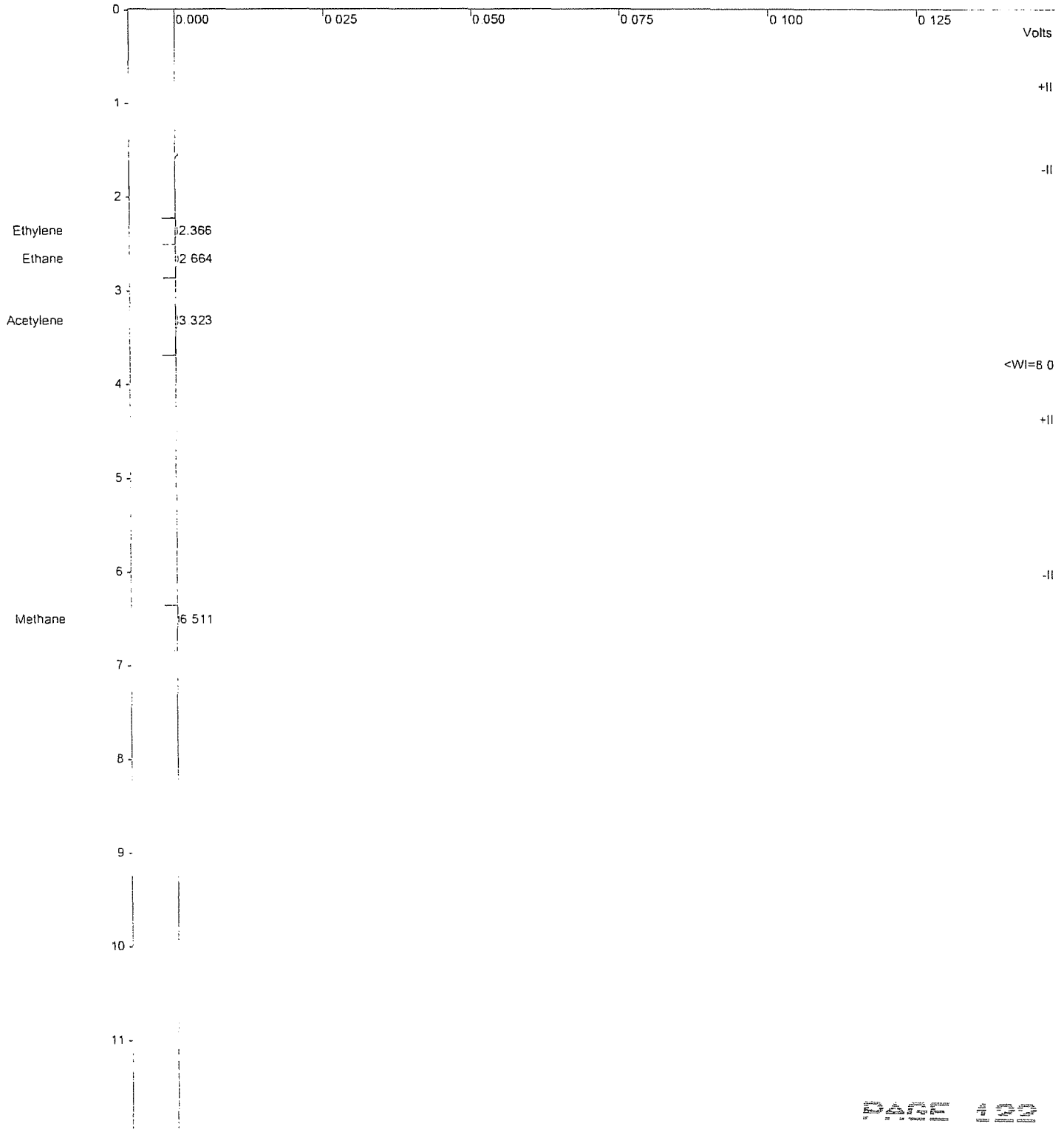
Injection Date: 11/6/2012 3:55 PM Calculation Date: 11/6/2012 4:06 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov001.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : Method Blank

Injection Date: 11/6/2012 3:55 PM Calculation Date: 11/6/2012 4:06 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.969	2.366	0.021	2686	BV	5.7	
2	Ethane	1.202	2.664	0.023	3400	VV	6.4	
3	Acetylene	1.184	3.323	0.037	3585	VB	8.3	
4	Methane	1.393	6.511	0.025	2022	BB	9.0	
	Totals:	4.748		0.106	11693			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

****

6. LCS/LCSD

a. Chromatograms/Results

Criteria as listed on report

LCS 05nov001 05nov055

Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	6814.5	NA	8388.99	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	0.0068145	#VALUE!	0.008389	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	1.65E-07	#VALUE!	1.187E-07	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	0.14652	#VALUE!	0.0131708	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	0.027258	#VALUE!	0.033556	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.4952121	#VALUE!	0.0762039	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.6417321	#VALUE!	0.0893747	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	641.73	#VALUE!	89.37	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L

LCS/D calculation

ug	spike amt. %	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	98.064693
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
42.535787	1	4	26	Acetylene	1.0633947	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	LCSD	05nov002	05nov054						
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	6778.5	NA	8198.47	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	0.0067785	#VALUE!	0.0081985	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	1.641E-07	#VALUE!	1.16E-07	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	0.145746	#VALUE!	0.0128717	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	0.027114	#VALUE!	0.0327939	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.492596	#VALUE!	0.0744732	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.638342	#VALUE!	0.0873449	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	638.34	#VALUE!	87.34	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L

LCS/D calculation

ug	spike amt. %	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	97.546632
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
42.535787	1	4	26	Acetylene	1.0633947	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov001.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : RSK LCS

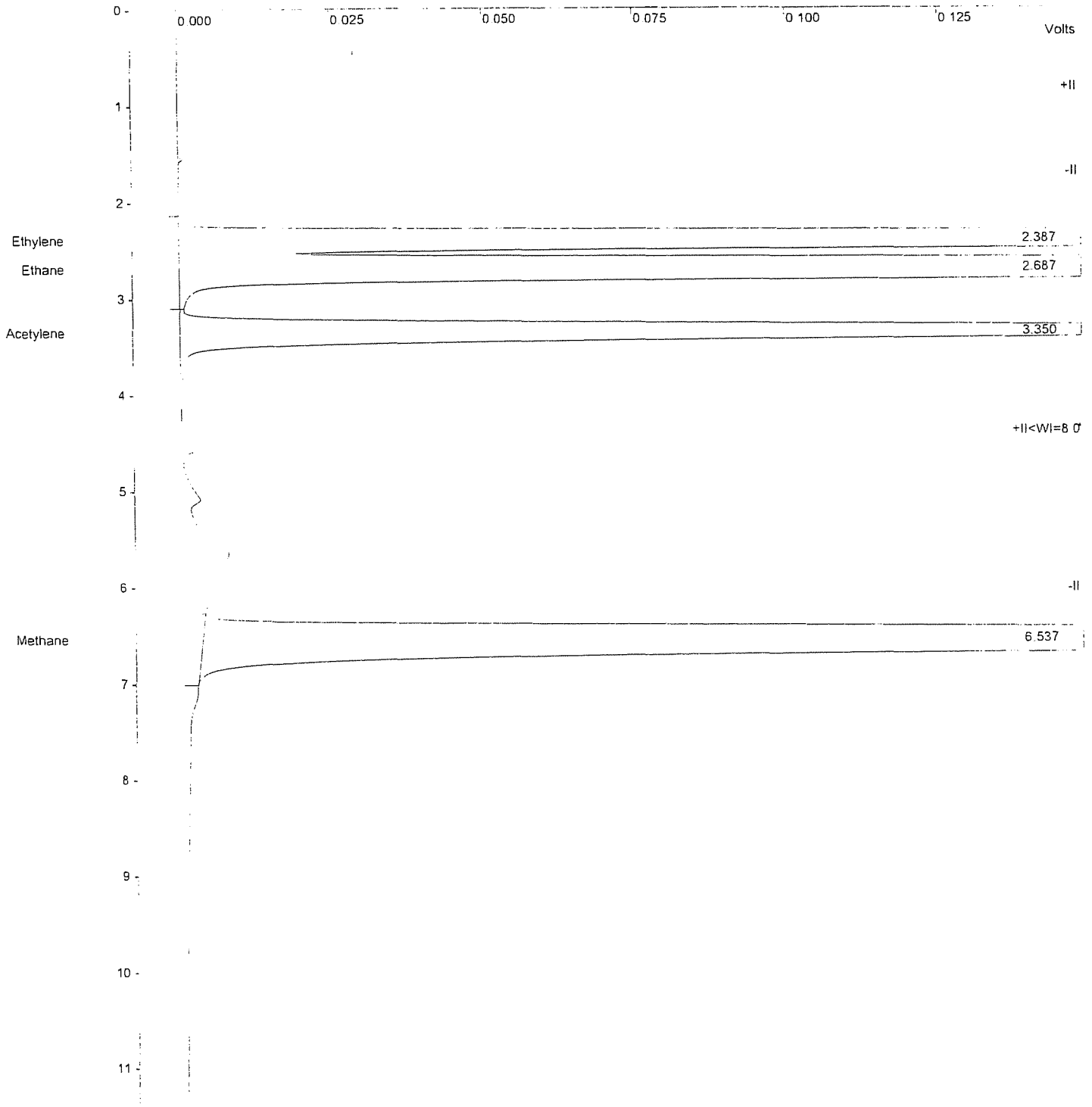
Injection Date: 11/5/2012 11:04 AM Calculation Date: 11/5/2012 11:16 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov001.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : RSK LCS

Injection Date: 11/5/2012 11:04 AM Calculation Date: 11/5/2012 11:16 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	4205.671	2.387	0.042	11656422	BV	5.9	
2	Ethane	6326.105	2.687	0.045	17897442	VV	6.6	
3	Acetylene	772.622	3.350	0.064	2339078	VB	8.4	
4	Methane	6814.535	6.537	0.051	9889991	BB	9.4	
	Totals:	18118.933		0.202	41782933			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -19 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov002.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : RSK LCSD

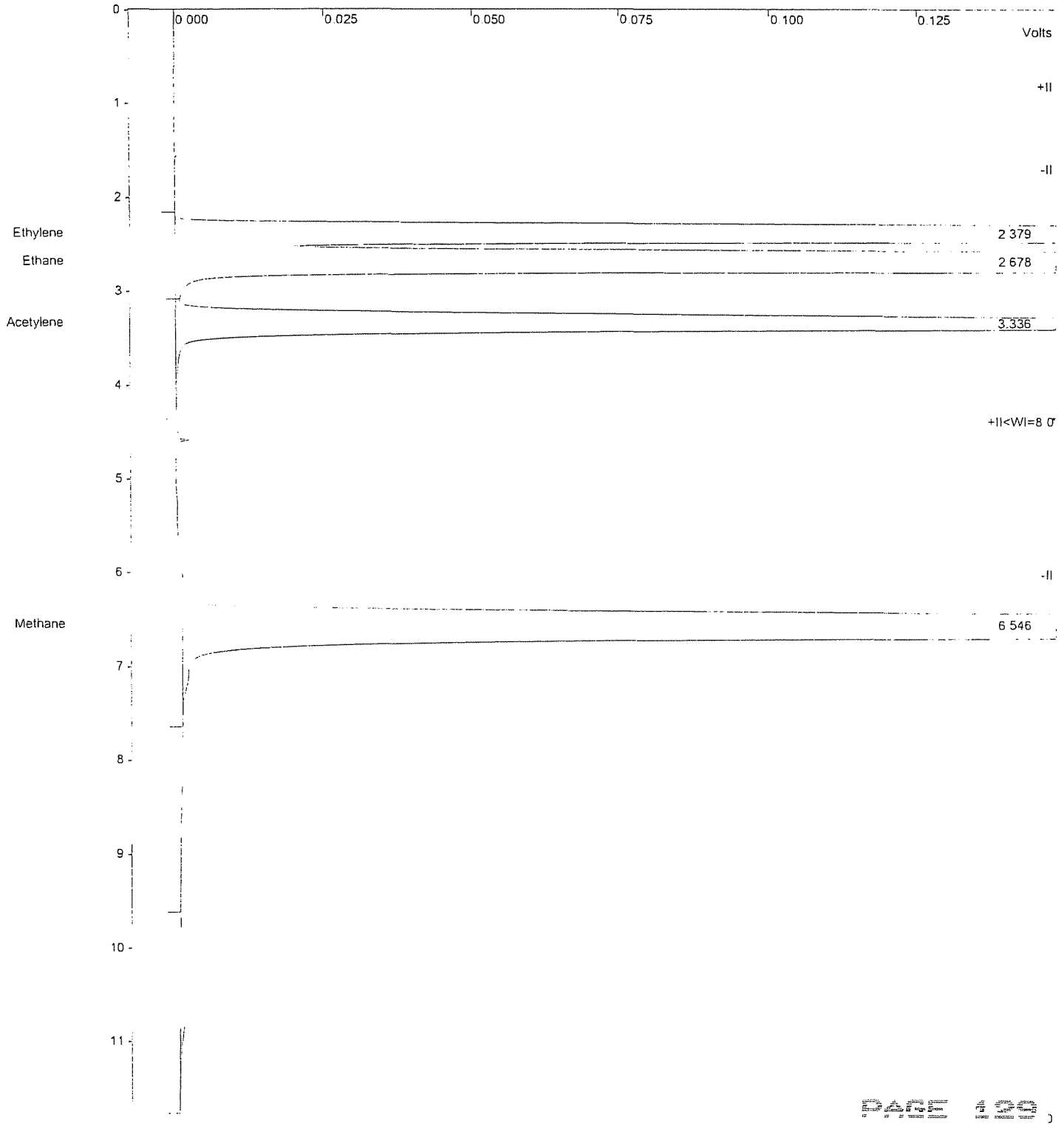
Injection Date: 11/5/2012 11:27 AM Calculation Date: 11/5/2012 11:39 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov002.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : RSK LCSD

Injection Date: 11/5/2012 11:27 AM Calculation Date: 11/5/2012 11:39 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	4242.358	2.379	0.034	11758105	BV	5.8	
2	Ethane	6311.933	2.678	0.036	17857346	VV	6.6	
3	Acetylene	799.231	3.336	0.050	2419637	VB	8.3	
4	Methane	6778.470	6.546	0.060	9837650	BB	9.4	
	Totals:	18131.992		0.180	41872738			

Total Unidentified Counts : 75613 counts

Detected Peaks: 5 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -51 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov055.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 RSK LCS

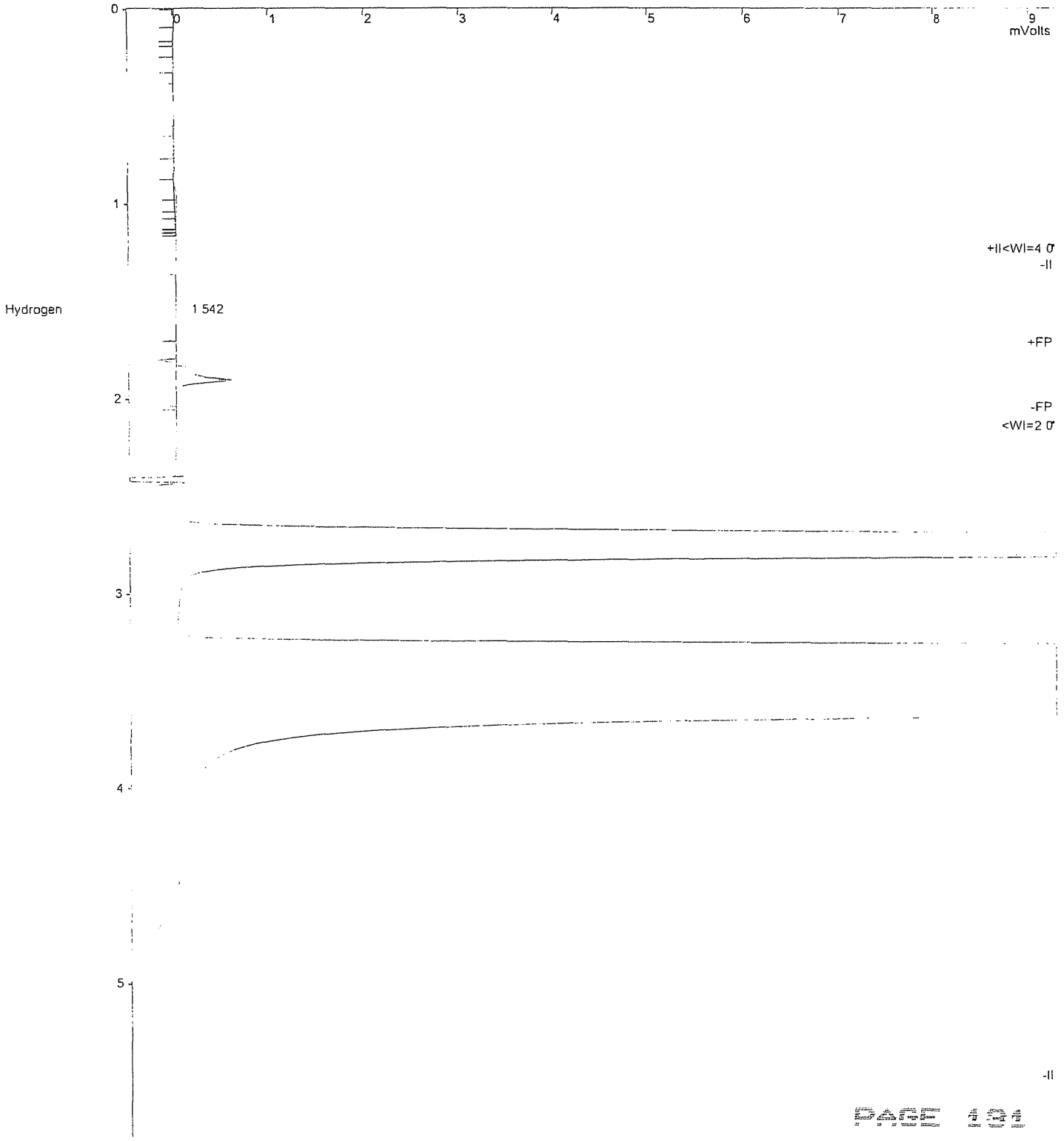
Injection Date: 11/6/2012 3:01 PM Calculation Date: 11/6/2012 3:07 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Print Date: Tue Nov 06 15:07:40 2012 Page 1 of 1

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov055.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 RSK LCS

Injection Date: 11/6/2012 3:01 PM Calculation Date: 11/6/2012 3:07 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	8388.986	1.542	0.047	599	BV	3.6	
	Totals:	8388.986		0.047	599			

Total Unidentified Counts : 1653 counts

Detected Peaks: 25 Rejected Peaks: 20 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 16 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 4 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov054.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogenlll103a.mth
Sample ID : H2 RSK LCSD

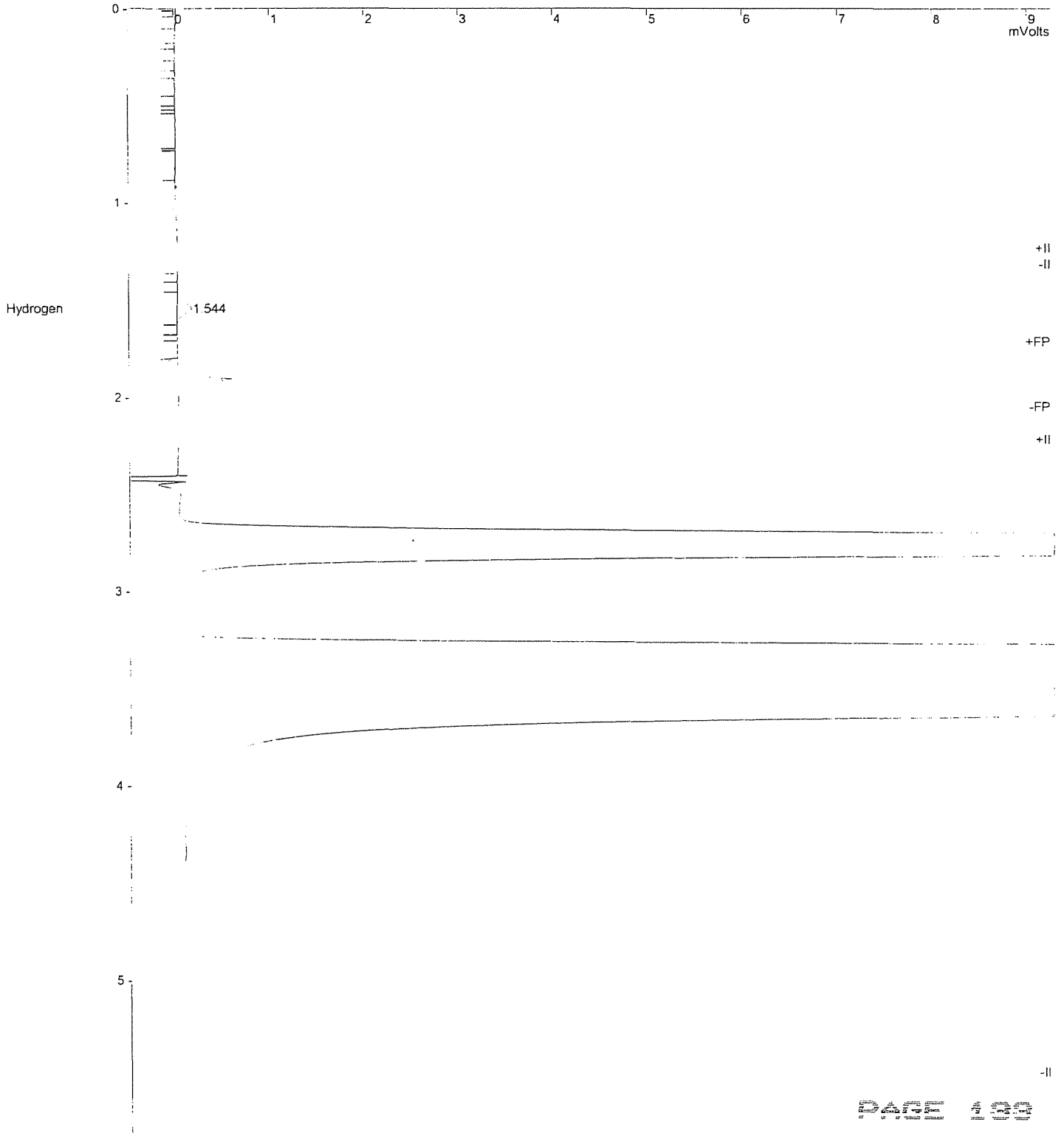
Injection Date: 11/6/2012 2:44 PM Calculation Date: 11/6/2012 2:49 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov054.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 RSK LCSD

Injection Date: 11/6/2012 2:44 PM Calculation Date: 11/6/2012 2:49 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	8198.470	1.544	0.049	586	VV	3.6	
	Totals:	8198.470		0.049	586			

Total Unidentified Counts : 1673 counts

Detected Peaks: 22 Rejected Peaks: 16 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 24 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

TABLE OF CONTENTS

CLIENT: **ECO & ASSOCIATES, INC.**

PROJECT: **BROWN & BRYANT SUPERFUND SITE**

SDG: **12J163**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1007
GC/MS-VOA	METHOD 5030B/8260B	2000 – 2118
	METHOD 5030B/8260B SIM	2119 – 2222
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 8151A	5000 – 5090
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 300.0	8000 – 8065
	METHOD 415.1	8066 – 8104
	METHOD SM4500S2D	8105 – 8109
	SM3500	8110 – 8117
OTHERS	METHANE AND DISSOLVED HYDROGEN	

** - Not Requested

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

Date: 11-21-2012
EMAX Batch No.: 12J163

Mitra Fiuzat

Eco & Associates, Inc.
1855 W. Katella Ave, Suite 340
Orange, CA 92867

Subject: Laboratory Report
Project: Brown & Bryant Superfund Site

Enclosed is the Laboratory report for samples received on 10/24/12.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
10-23-12 AMW-4R	J163-01	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 WB 2-4	J163-02	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 TB-1	J163-03	10/23/12	WATER	VOLATILE ORGANICS BY GC/MS
10-23-12 WB 2-1	J163-04	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES

Sample ID	Control #	Col Date	Matrix	Analysis
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 PWB-9	J163-05	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 PWB-11	J163-06	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 PWB-5	J163-07	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 PWB-8	J163-08	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-23-12 PWB-16	J163-09	10/23/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON

Sample ID	Control #	Col Date	Matrix	Analysis
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-24-12 PWB-12	J163-10	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-24-12 PWB-4	J163-11	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-24-12 PWB-13A	J163-12	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-24-12 PWB-14	J163-13	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-24-12 FDUP-2	J163-14	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM

Sample ID	Control #	Col Date	Matrix	Analysis
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-24-12 EB-1	J163-15	10/24/12	WATER	VOLATILE ORGANICS BY GC/MS

Note : METHANE AND DISSOLVED HYDROGEN were subcontracted to Air Technology Laboratories, Inc.

The results are summarized on the following pages.

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

Sincerely yours,

for

Caspar J. Pang
Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that results included in this report meets all NELAC & DOD requirements unless noted in the Case Narrative.

NELAC Accredited Certificate Number 02116CA
L-A-B Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: Eco-12-548
SAMPLE STORAGE: Coolers
EMAX CONTROL NO. * 12J163
PROJECT CODE:

CLIENT: Eco and Associates, Inc.
PROJECT: B+B Superfund - GW Monitoring
COORDINATOR: Jack Collender
TEL: 714-289-0995 FAX: 714-289-0965 EMAIL: jcollender@eco-inc.info
SEND REPORT TO: Mitra Fivizat
COMPANY: Eco and Associates, Inc.
ADDRESS: 1855 W. Katella Ave., Suite 340 Orange, CA 92867
EMAX PM: Richard Beauxil

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☒ Normal TAT

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	8260 B	8260 SIM	8151 (Diesel)	415.1 (TOC)	Ferrous Iron SM 3500	300 Sulfate/Nitrate/Nitrite	SM 4500 S2D (Sulfide)	RSK 175 (CH_4, H_2)	COMMENTS
1	10-23-12 AMW-4R	B zone	10-23-12	1240	14	Var	Var	GW		X	X	X	X	X	X	X	X	Level 4
2	10-23-12 WB 2-4	B zone	10-23-12	1056	14	Var	Var	GW		X	X	X	X	X	X	X	X	
3	10-23-12 TB-1	—	10-23-12	1200	3	40ml	VOA	W	✓	X								
4	10-23-12 WB 2-1	B zone	10-23-12	1506	14	Var	Var	GW		X	X	X	X	X	X	X	X	
5	10-23-12 PWB-9	B zone	10-23-12	1320	14	Var	Var	GW		X	X	X	X	X	X	X	X	
6	10-23-12 PWB-11	B zone	10-23-12	1552	14	Var	Var	GW		X	X	X	X	X	X	X	X	
7	10-23-12 PWB-5	B zone	10-23-12	1432	14	Var	Var	GW		X	X	X	X	X	X	X	X	
8	10-23-12 PWB-8	B zone	10-23-12	1320	14	Var	Var	GW		X	X	X	X	X	X	X	X	
9	10-23-12 PWB-16	B zone	10-23-12	1501	14	Var	Var	GW		X	X	X	X	X	X	X	X	
10	10-24-12 PWB-12	B zone	10-24-12	0922	14	Var	Var	GW		X	X	X	X	X	X	X	X	

Instructions

Cooler #	Temp. (°C)	Sample #s
5	3.4	
4	3.0	
3	4.3	
2	4.4	
7	2.9	
12	11:32	
1	4.0	

SAMPLER

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY	Date	Time
Jack Collender	10-24-12	1132	Kamal M.	10/24/12	11:32
K.M.	10/24/12		14:30		

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: Eco-12-548
SAMPLE STORAGE: Coolers
EMAX CONTROL NO. * 12J163
PROJECT CODE:

CLIENT: Eco and Associates, Inc.
PROJECT: B+B Superfund - GW Monitoring
COORDINATOR: Jack Collender
TEL: 714 289-0995 FAX: 714 289-0965 EMAIL: jcollender@ecoinc.info
SEND REPORT TO: Mina Fivzat
COMPANY: Eco and Associates, Inc.
ADDRESS: 1355 W. Katella Ave, Suite 340, Orange, CA 92867
EMAX PM: Richard Beauvil

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☒ Normal TAT

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	8260B	8260 SIM	8151 (Dioxin)	415.1 (TOC)	Ferrous Iron SM 3500	300 Sulfate/Nitrate/Nitrite	SM 4500 S2D (Sulfide)	RSK 175 (CH4, H2)	COMMENTS
*1	10-24-12 PWB-4	B-Zone	10-24-12	1000	14	Var	Var	GW		X	X	X	X	X	X	X	X	
*2	10-24-12 PWB-13A	B-Zone	10-24-12	0844	14	Var	Var	GW		X	X	X	X	X	X	X	X	
*3	10-24-12 PWB-14	B-Zone	10-24-12	0806	14	Var	Var	GW		X	X	X	X	X	X	X	X	
*4	10-24-12 FDUP-2	B-Zone	10-24-12	—	14	Var	Var	GW		X	X	X	X	X	X	X	X	
*5	10-24-12 EB-1	—	10-24-12	1121	3	40ml	VOA	W		X								
*6																		
*7																		
*8																		
*9																		
*0																		

Instructions

Cooler #	Temp. (°C)	Sample #s

SAMPLER

RELINQUISHED BY	Date	Time	RECEIVED BY	Date	Time
Jack Collender	10-24-12	1132	Kamal H.	10/24/12	14:32
K. H.	10/24/12	14:38	[illegible]		

COURIER/AIRBILL

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Airbill / Tracking Number	ECN 12 J163
☐ Fedex ☐ UPS ☐ GSO ☑ Others	Top line courier	Recipient I. PATEL
☐ EMAX Courier ☐ Client Delivery		Date 10/24/12 Time 1430

COC Inspection

☑ Client Name ☑ Client PM/FC NO ☑ Sampler Name ☑ Sampling Date/Time/Location ☑ Sample ID ☑ Matrix

☑ Address ☑ Tel # / Fax # ☐ Courier Signature ☑ Analysis Required ☐ Preservative (if any) ☑ TAT

Safety Issues (if any) ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container ☑ Coolers ☐ Box ☐ Other

Condition ☑ Custody Seal ☑ Intact ☐ Damaged

Packaging ☑ Bubble Pack ☐ Styrofoam ☐ Popcorn ☑ Sufficient — ☐ Plastic Bag

Temperatures (Cool, =6 °C but not frozen): ☑ Cooler 1 4.0 °C ☑ Cooler 2 4.4 °C C ☑ Cooler 3 4.3 °C C ☑ Cooler 4 3.0 °C C ☑ Cooler 5 3.4 °C ☐ Cooler 6 ____ °C ☑ Cooler 7 2.9 °C ☐ Cooler 8 ____ °C ☐ Cooler 9 ____ °C ☐ Cooler 10 ____ °C

Thermometer: *A - S/N 101541371* *B - S/N 101541382* *C - S/N 122091701* *D - S/N 122091758*

Comments: ☐ **Temperature is out of range. PM was informed IMMEDIATELY.**

Note: **pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time.**

DISCREPANCIES

LSID	LSCID	Description Code	Sample Label ID / Information	Corrective Action Code
3	29-31	A3, H1	Label Reads 8260 SIM	R2, R7
			No Pres Info on Label	
		H2		Use Amons Container
				RB

☐ **Continue to next page.**

REVIEWS

Sample Labeling [signature] Date 10/24/12 [signature] 10/24/12

SRF [signature] Date 10/24/12

PM RB Date 10/25/12

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC.
A2	Analysis is not indicated in label.
A3	Analysis is inconsistent in COC vis-à-vis label.
B1	Sample ID is not indicated in COC.
B2	Sample ID is not indicated in label.
B3	Sample ID is inconsistent in COC vis-à-vis label.
C1	Improper container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC.
D2	Date and/or time is not indicated in label.
D3	Date and/or time is inconsistent in COC vis-à-vis label.
F1	Improper preservation
F2	Insufficient Sample
F3	Bubble is > 6mm. Use vial with smallest bubble first.
F4	Bubble is > 6mm in all vials.
F5	>20 % solid particle
F6	Out of Holding Time

Code	Description-Sample Management
G1	Sample indicated in COC is not received.
G2	MS/MSD is not indicated in COC.
G3	No identified trip blank, proceed as indicated in COC.
G4	Trip Blank is designated in SDG _____
G5	Trip Blank has no sampling date & time. Log-in with earliest sampling date and 0:00 time.
H1	No Pres. Info on labels & vials
H2	No separate container for ferrous iron.

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC and inform client.
R3	Refer to attached instruction
R4	Cancel the analysis
R5	Inform client.
R6	Proceed as indicated in COC
R7	Analyze for 8260

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

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

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

SDG#: 12J163

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J163

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

A total of fifteen (15) water samples were received on 10/24/12 for Volatile Organics by GC/MS analysis, Method 5030B/8260B in accordance with Department of Defense Quality Systems Manual for Environmental Laboratories, Version 4.2 and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Instrument mass ratios were within specification. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Results were compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for VO06J19L/C were all within QC limits.

Matrix QC Sample
No matrix QC sample was designated in this SDG.

Surrogate
Surrogates were added on QC and field samples. Surrogate recoveries were within project QC limits. Refer to sample result forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE

SDG NO. : 12J163
Instrument ID : T-006

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V006J19B	1	NA	10/25/1216:52	10/25/1216:52	RJW478	RHW008	V006J19	Method Blank
LCS1W	V006J19L	1	NA	10/25/1215:23	10/25/1215:23	RJW475	RHW008	V006J19	Lab Control Sample (LCS)
LCD1W	V006J19C	1	NA	10/25/1215:53	10/25/1215:53	RJW476	RHW008	V006J19	LCS Duplicate
10-23-12 TB-1	J163-03	1	NA	10/25/1217:23	10/25/1217:23	RJW479	RHW008	V006J19	Field Sample
10-24-12 EB-1	J163-15	1	NA	10/25/1217:53	10/25/1217:53	RJW480	RHW008	V006J19	Field Sample
10-23-12 AMW-4R	J163-01	1	NA	10/25/1218:24	10/25/1218:24	RJW481	RHW008	V006J19	Field Sample
10-23-12 WB 2-4	J163-02	1	NA	10/25/1218:53	10/25/1218:53	RJW482	RHW008	V006J19	Field Sample
10-23-12 WB 2-1	J163-04	1	NA	10/25/1219:24	10/25/1219:24	RJW483	RHW008	V006J19	Field Sample
10-23-12 PWB-9	J163-05	1	NA	10/25/1219:54	10/25/1219:54	RJW484	RHW008	V006J19	Field Sample
10-23-12 PWB-11	J163-06	1	NA	10/25/1220:24	10/25/1220:24	RJW485	RHW008	V006J19	Field Sample
10-23-12 PWB-5	J163-07	1	NA	10/25/1220:54	10/25/1220:54	RJW486	RHW008	V006J19	Field Sample
10-23-12 PWB-8	J163-08	1	NA	10/25/1221:24	10/25/1221:24	RJW487	RHW008	V006J19	Field Sample
10-23-12 PWB-16	J163-09	1	NA	10/25/1221:54	10/25/1221:54	RJW488	RHW008	V006J19	Field Sample
10-24-12 PWB-12	J163-10	1	NA	10/25/1222:24	10/25/1222:24	RJW489	RHW008	V006J19	Field Sample
10-24-12 PWB-4	J163-11	1	NA	10/25/1222:54	10/25/1222:54	RJW490	RHW008	V006J19	Field Sample
10-24-12 PWB-13A	J163-12	1	NA	10/25/1223:24	10/25/1223:24	RJW491	RHW008	V006J19	Field Sample
10-24-12 PWB-14	J163-13	1	NA	10/25/1223:54	10/25/1223:54	RJW492	RHW008	V006J19	Field Sample
10-24-12 FDUP-2	J163-14	1	NA	10/26/1200:25	10/26/1200:25	RJW493	RHW008	V006J19	Field Sample

FN - Filename
% Moist - Percent Moisture

2982

SAMPLE RESULTS

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/25/12 18:24
Sample ID:	10-23-12 AMW-4R	Date Analyzed:	10/25/12 18:24
Lab Samp ID:	J163-01	Dilution Factor:	1
Lab File ID:	RJW481	Matrix	: WATER
Ext Btch ID:	VO06J19	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.47J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	0.40J	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.97	10.00	89.7	70-120
4-BROMOFLUOROBENZENE	8.43	10.00	84.3	75-120
TOLUENE-D8	10.5	10.00	105	85-120
DIBROMOFLUOROMETHANE	10.1	10.00	101	85-115

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J25\RJW481.D Vial: 9
Acq On : 25 Oct 2012 6:24 pm Operator: WL
Sample : 12J163-01 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 26 11:41 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

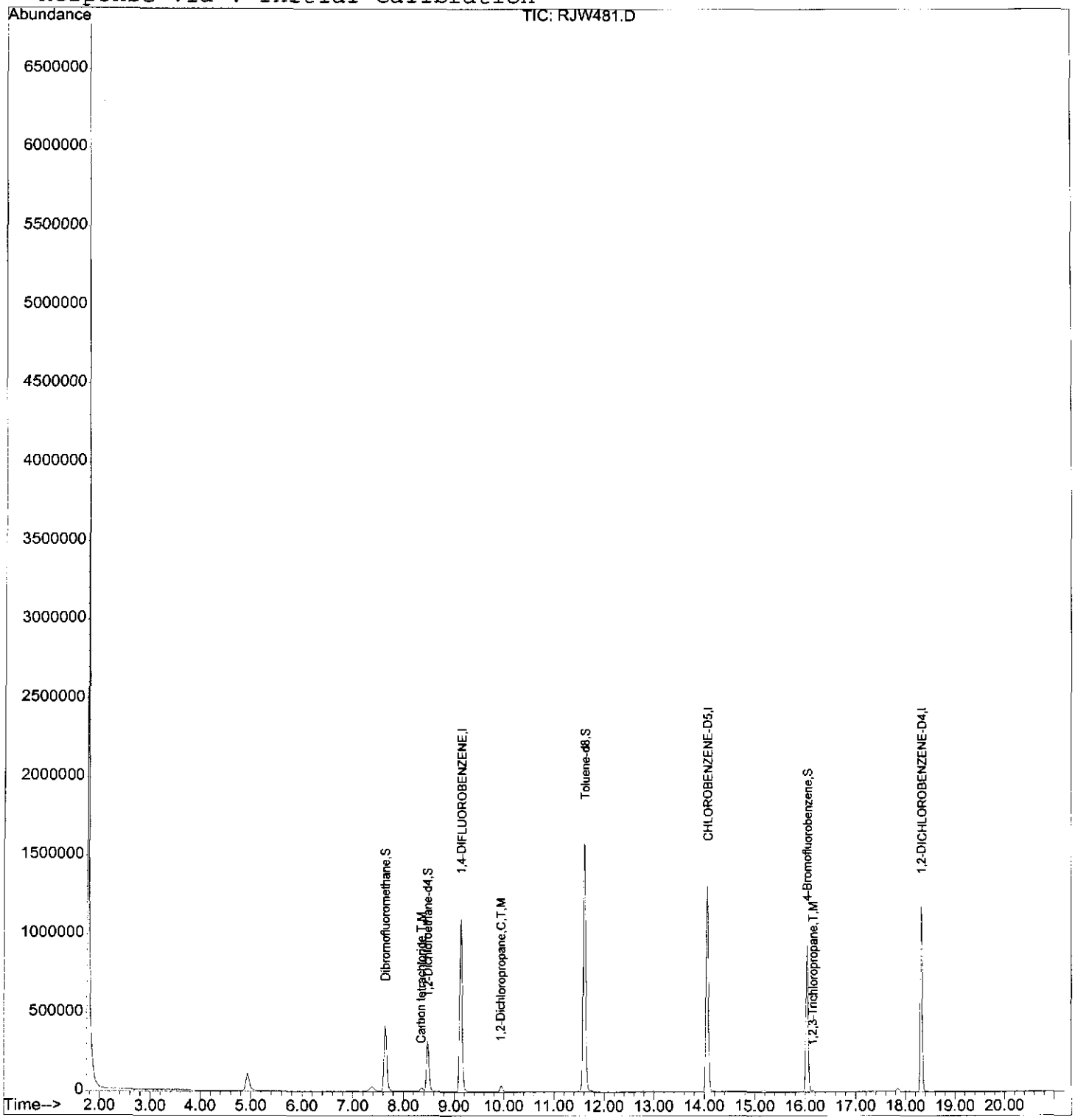
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.14	114	1699483	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.06	117	1435143	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.33	152	561300	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.64	111	518917	10.11	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	101.10%	
38) 1,2-Dichloroethane-d4	8.47	65	384634	8.97	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	89.70%	
54) Toluene-d8	11.61	98	1925714	10.52	ug/l	0.00
Spiked Amount 10.000			Recovery	=	105.20%	
76) 4-Bromofluorobenzene	16.04	95	588703	8.43	ug/l	0.00
Spiked Amount 10.000			Recovery	=	84.30%	
Target Compounds						Qvalue
42) Carbon tetrachloride	8.35	119	29013	0.40	ug/l	100
47) 1,2-Dichloropropane	9.94	63	26051	0.47	ug/l	96
77) 1,2,3-Trichloropropane	16.16	110	2656	0.28	ug/l	85

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

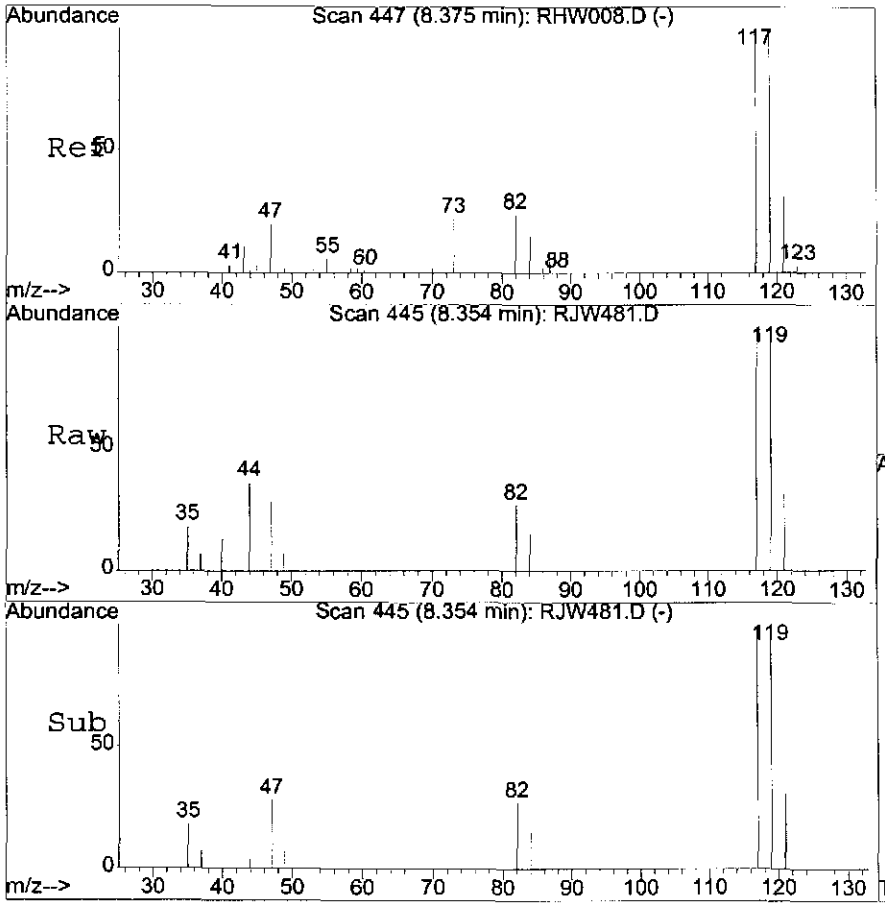
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J25\RJW481.D Vial: 9
Acq On : 25 Oct 2012 6:24 pm Operator: WL
Sample : 12J163-01 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 26 11:41 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



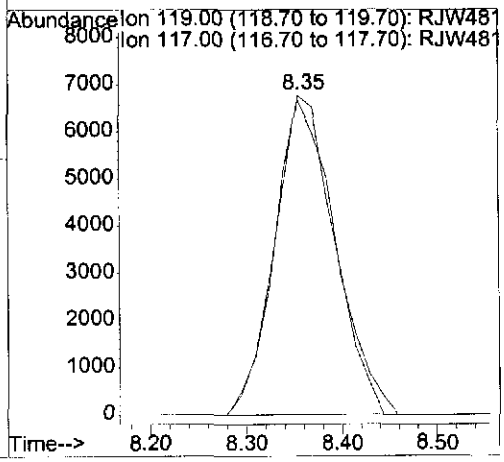
2906

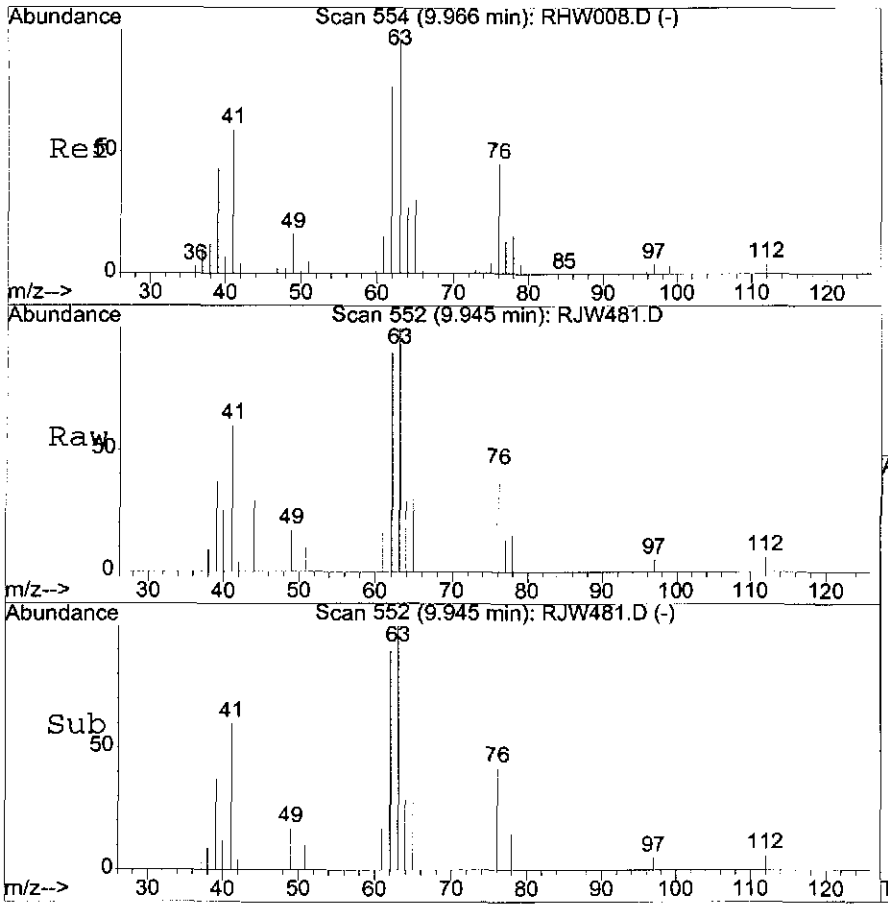


#42
Carbon tetrachloride
Concen: 0.40 ug/l
RT: 8.35 min Scan# 445
Delta R.T. -0.02 min
Lab File: RJW481.D
Acq: 25 Oct 2012 6:24 pm

Tgt Ion:119 Resp: 29013

Ion	Ratio	Lower	Upper
119	100		
117	102.1	72.6	132.6

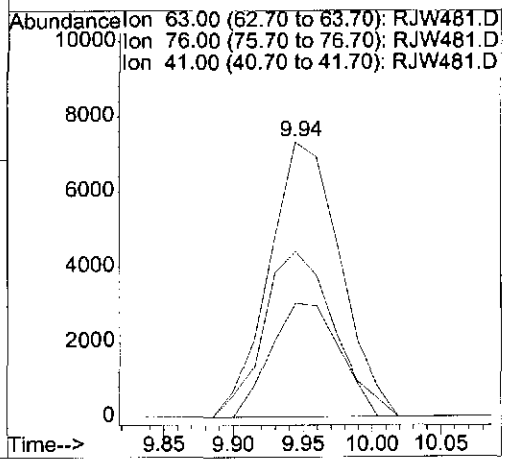


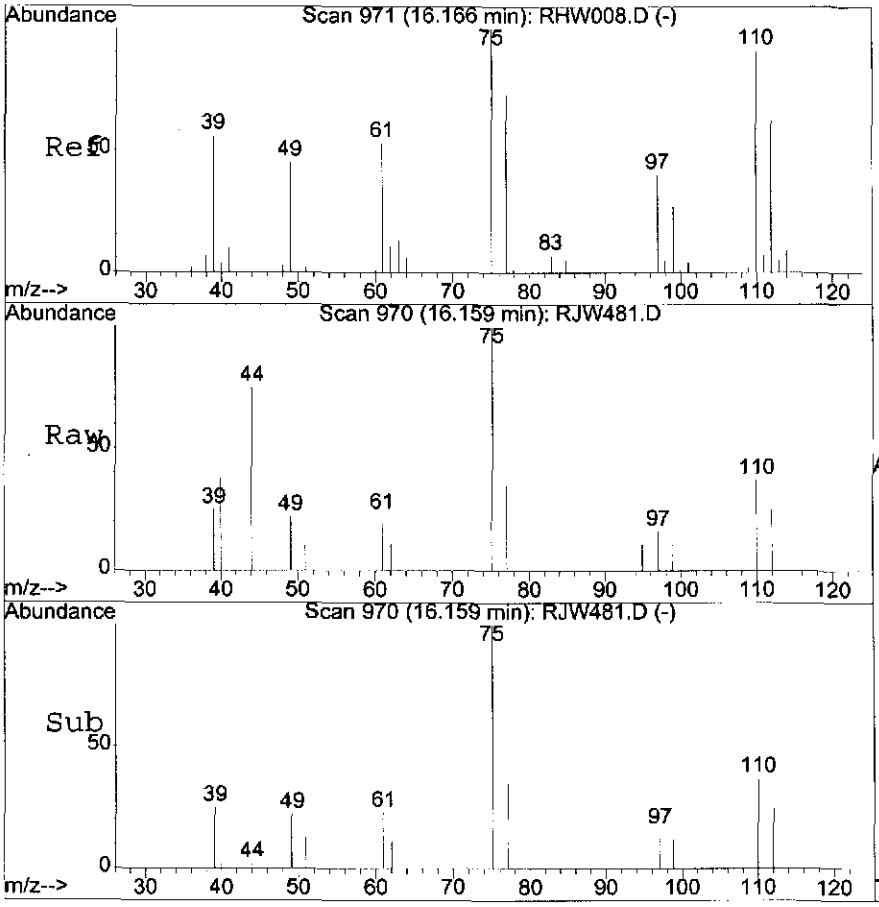


#47
1,2-Dichloropropane
Concen: 0.47 ug/l
RT: 9.94 min Scan# 552
Delta R.T. -0.02 min
Lab File: RJW481.D
Acq: 25 Oct 2012 6:24 pm

Tgt Ion: 63 Resp: 26051

Ion	Ratio	Lower	Upper
63	100		
76	40.0	15.3	75.3
41	59.9	30.0	90.0

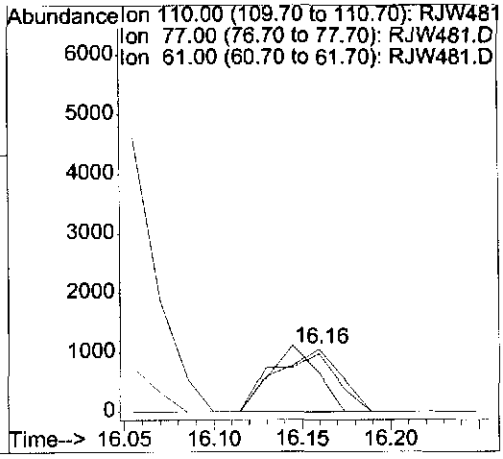




#77
1,2,3-Trichloropropane
Concen: 0.28 ug/l
RT: 16.16 min Scan# 970
Delta R.T. -0.01 min
Lab File: RJW481.D
Acq: 25 Oct 2012 6:24 pm

Tgt Ion:110 Resp: 2656

Ion	Ratio	Lower	Upper
110	100		
77	95.9	51.2	111.2
61	78.8	37.9	97.9



2008

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/25/12 18:53
Sample ID:	10-23-12 WB 2-4	Date Analyzed:	10/25/12 18:53
Lab Samp ID:	J163-02	Dilution Factor:	1
Lab File ID:	RJW482	Matrix	: WATER
Ext Btch ID:	V006J19	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	1.6	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.32J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.20	10.00	92.0	70-120
4-BROMOFLUOROBENZENE	8.47	10.00	84.7	75-120
TOLUENE-D8	10.1	10.00	101	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/25/12 17:23
Sample ID:	10-23-12 TB-1	Date Analyzed:	10/25/12 17:23
Lab Samp ID:	J163-03	Dilution Factor:	1
Lab File ID:	RJW479	Matrix	: WATER
Ext Btch ID:	V006J19	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.77	10.00	87.7	70-120
4-BROMOFLUOROBENZENE	8.52	10.00	85.2	75-120
TOLUENE-D8	10.2	10.00	102	85-120
DIBROMOFLUOROMETHANE	9.86	10.00	98.6	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/25/12 19:24
Sample ID:	10-23-12 WB 2-1	Date Analyzed:	10/25/12 19:24
Lab Samp ID:	J163-04	Dilution Factor:	1
Lab File ID:	RJW483	Matrix	: WATER
Ext Btch ID:	V006J19	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	0.69J	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.60J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.98	10.00	89.8	70-120
4-BROMOFLUOROBENZENE	8.62	10.00	86.2	75-120
TOLUENE-D8	10.8	10.00	108	85-120
DIBROMOFLUOROMETHANE	10.0	10.00	100	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/25/12 19:54
Sample ID:	10-23-12 PWB-9	Date Analyzed:	10/25/12 19:54
Lab Samp ID:	J163-05	Dilution Factor:	1
Lab File ID:	RJW484	Matrix	: WATER
Ext Btch ID:	VO06J19	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	2.0	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.63J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.53	10.00	95.3	70-120
4-BROMOFLUOROBENZENE	8.49	10.00	84.9	75-120
TOLUENE-D8	10.3	10.00	103	85-120
DIBROMOFLUOROMETHANE	10.5	10.00	105	85-115

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/23/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/24/12
Batch No. : 12J163	Date Extracted: 10/25/12 20:24
Sample ID: 10-23-12 PWB-11	Date Analyzed: 10/25/12 20:24
Lab Samp ID: J163-06	Dilution Factor: 1
Lab File ID: RJW485	Matrix : WATER
Ext Btch ID: V006J19	% Moisture : NA
Calib. Ref.: RHW008	Instrument ID : 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	2.4	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.68J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.32	10.00	93.2	70-120
4-BROMOFLUOROBENZENE	8.76	10.00	87.6	75-120
TOLUENE-D8	10.3	10.00	103	85-120
DIBROMOFLUOROMETHANE	10.2	10.00	102	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/25/12 20:54
Sample ID:	10-23-12 PWB-5	Date Analyzed:	10/25/12 20:54
Lab Samp ID:	J163-07	Dilution Factor:	1
Lab File ID:	RJW486	Matrix	: WATER
Ext Btch ID:	VO06J19	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	8.8	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	2.1	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.33J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.59	10.00	95.9	70-120
4-BROMOFLUOROBENZENE	8.71	10.00	87.1	75-120
TOLUENE-D8	10.4	10.00	104	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/25/12 21:24
Sample ID:	10-23-12 PWB-8	Date Analyzed:	10/25/12 21:24
Lab Samp ID:	J163-08	Dilution Factor:	1
Lab File ID:	RJW487	Matrix	: WATER
Ext Btch ID:	V006J19	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	9.3	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	2.7	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.39J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.40	10.00	94.0	70-120
4-BROMOFLUOROBENZENE	8.64	10.00	86.4	75-120
TOLUENE-D8	10.5	10.00	105	85-120
DIBROMOFLUOROMETHANE	10.2	10.00	102	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/25/12 21:54
Sample ID:	10-23-12 PWB-16	Date Analyzed:	10/25/12 21:54
Lab Samp ID:	J163-09	Dilution Factor:	1
Lab File ID:	RJW488	Matrix	: WATER
Ext Btch ID:	V006J19	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	2.4	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	8.6	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.93J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.75	10.00	97.5	70-120
4-BROMOFLUOROBENZENE	8.44	10.00	84.4	75-120
TOLUENE-D8	10.4	10.00	104	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/25/12 22:24
Sample ID:	10-24-12 PWB-12	Date Analyzed:	10/25/12 22:24
Lab Samp ID:	J163-10	Dilution Factor:	1
Lab File ID:	RJW489	Matrix	: WATER
Ext Btch ID:	V006J19	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	13	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	2.8	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	4.6	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.78J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.46	10.00	94.6	70-120
4-BROMOFLUOROBENZENE	8.48	10.00	84.8	75-120
TOLUENE-D8	10.5	10.00	105	85-120
DIBROMOFLUOROMETHANE	10.2	10.00	102	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/25/12 22:54
Sample ID:	10-24-12 PWB-4	Date Analyzed:	10/25/12 22:54
Lab Samp ID:	J163-11	Dilution Factor:	1
Lab File ID:	RJW490	Matrix	: WATER
Ext Btch ID:	V006J19	% Moisture	: NA
Calib. Ref.:	RHW0D8	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	9.4	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	3.4	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.30J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.71	10.00	97.1	70-120
4-BROMOFLUOROBENZENE	8.72	10.00	87.2	75-120
TOLUENE-D8	10.5	10.00	105	85-120
DIBROMOFLUOROMETHANE	10.7	10.00	107	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/25/12 23:24
Sample ID:	10-24-12 PWB-13A	Date Analyzed:	10/25/12 23:24
Lab Samp ID:	J163-12	Dilution Factor:	1
Lab File ID:	RJW491	Matrix	: WATER
Ext Btch ID:	VO06J19	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	8.6	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	1.2	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	11	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	14	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.67	10.00	96.7	70-120
4-BROMOFLUOROBENZENE	8.38	10.00	83.8	75-120
TOLUENE-D8	10.4	10.00	104	85-120
DIBROMOFLUOROMETHANE	10.5	10.00	105	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/25/12 23:54
Sample ID:	10-24-12 PWB-14	Date Analyzed:	10/25/12 23:54
Lab Samp ID:	J163-13	Dilution Factor:	1
Lab File ID:	RJW492	Matrix	: WATER
Ext Btch ID:	V006J19	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	2.3	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	17	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	10	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.59	10.00	95.9	70-120
4-BROMOFLUOROBENZENE	8.52	10.00	85.2	75-120
TOLUENE-D8	10.3	10.00	103	85-120
DIBROMOFLUOROMETHANE	10.4	10.00	104	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 00:25
Sample ID:	10-24-12 FDUP-2	Date Analyzed:	10/26/12 00:25
Lab Samp ID:	J163-14	Dilution Factor:	1
Lab File ID:	RJW493	Matrix	: WATER
Ext Btch ID:	V006J19	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	9.4	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	3.2	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.27J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.50	10.00	95.0	70-120
4-BROMOFLUOROBENZENE	8.58	10.00	85.8	75-120
TOLUENE-D8	10.5	10.00	105	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/25/12 17:53
Sample ID:	10-24-12 EB-1	Date Analyzed:	10/25/12 17:53
Lab Samp ID:	J163-15	Dilution Factor:	1
Lab File ID:	RJW480	Matrix	: WATER
Ext Btch ID:	V006J19	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.03	10.00	90.3	70-120
4-BROMOFLUOROBENZENE	8.37	10.00	83.7	75-120
TOLUENE-D8	9.85	10.00	98.5	85-120
DIBROMOFLUOROMETHANE	10.0	10.00	100	85-115

QC SUMMARIES

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	NA
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J163	Date Extracted:	10/25/12 16:52
Sample ID:	MBLK1W	Date Analyzed:	10/25/12 16:52
Lab Samp ID:	V006J19B	Dilution Factor:	1
Lab File ID:	RJW478	Matrix	: WATER
Ext Btch ID:	V006J19	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.02	10.00	90.2	70-120
4-BROMOFLUOROBENZENE	8.50	10.00	85.0	75-120
TOLUENE-D8	10.6	10.00	106	85-120
DIBROMOFLUOROMETHANE	10.1	10.00	101	85-115

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J163
METHOD: METHOD 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V006J19B	V006J19L	V006J19C		
LAB FILE ID:	RJW478	RJW475	RJW476		
DATE EXTRACTED:	10/25/1216:52	10/25/1215:23	10/25/1215:53	DATE COLLECTED:	NA
DATE ANALYZED:	10/25/1216:52	10/25/1215:23	10/25/1215:53	DATE RECEIVED:	10/25/12
PREP. BATCH:	V006J19	V006J19	V006J19		
CALIB. REF:	RHW008	RHW008	RHW008		

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	10.0	9.14	91	10.0	9.45	95	3	80-130	30
1,1,1-Trichloroethane	ND	10.0	8.12	81	10.0	8.18	82	1	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	8.42	84	10.0	8.54	85	1	65-130	30
1,1,2-Trichloroethane	ND	10.0	9.04	90	10.0	9.28	93	3	75-125	30
1,1-Dichloroethane	ND	10.0	9.00	90	10.0	9.08	91	1	70-135	30
1,1-Dichloroethene	ND	10.0	8.22	82	10.0	8.06	81	2	70-130	30
1,1-Dichloropropene	ND	10.0	9.38	94	10.0	9.56	96	2	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	7.77	78	10.0	8.40	84	8	55-140	30
1,2,3-Trichloropropane	ND	10.0	7.62	76	10.0	7.91	79	4	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	9.06	91	10.0	9.62	96	6	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	8.41	84	10.0	8.93	89	6	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	7.58	76	10.0	8.42	84	10	50-130	30
1,2-Dibromoethane	ND	10.0	8.34	83	10.0	8.73	87	5	80-120	30
1,2-Dichlorobenzene	ND	10.0	9.46	95	10.0	9.89	99	4	70-120	30
1,2-Dichloroethane	ND	10.0	7.53	75	10.0	7.76	78	3	70-130	30
1,2-Dichloropropane	ND	10.0	9.14	91	10.0	9.69	97	6	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	8.29	83	10.0	8.63	86	4	75-130	30
1,3-Dichlorobenzene	ND	10.0	9.53	95	10.0	9.99	100	5	75-125	30
1,3-Dichloropropane	ND	10.0	8.00	80	10.0	8.30	83	4	75-125	30
1,4-Dichlorobenzene	ND	10.0	9.37	94	10.0	9.82	98	5	75-125	30
2,2-Dichloropropane	ND	10.0	8.80	88	10.0	9.37	94	6	70-135	30
2-Butanone	ND	50.0	35.5	71	50.0	41.9	84	16	30-150	30
2-Chlorotoluene	ND	10.0	7.63	76	10.0	8.55	85	11	75-125	30
2-Hexanone	ND	50.0	38.8	78	50.0	44.0	88	13	55-130	30
4-Chlorotoluene	ND	10.0	8.76	88	10.0	8.19	82	7	75-130	30
Acetone	ND	50.0	37.0	74	50.0	41.8	84	12	40-140	30
Benzene	ND	10.0	8.80	88	10.0	8.90	89	1	80-120	30
Bromobenzene	ND	10.0	9.38	94	10.0	9.79	98	4	75-125	30
Bromochloromethane	ND	10.0	8.43	84	10.0	8.41	84	0	65-130	30
Bromodichloromethane	ND	10.0	8.16	82	10.0	8.36	84	2	75-120	30
Bromoform	ND	10.0	7.99	80	10.0	8.57	86	7	70-130	30
Bromomethane	ND	10.0	9.65	97	10.0	9.54	95	1	30-145	30
Carbon Disulfide	ND	10.0	8.79	88	10.0	8.44	84	4	35-160	30
Carbon Tetrachloride	ND	10.0	7.92	79	10.0	7.87	79	1	65-140	30
Chlorobenzene	ND	10.0	9.58	96	10.0	9.84	98	3	80-120	30
Chloroethane	ND	10.0	9.88	99	10.0	9.83	98	0	60-135	30
Chloroform	ND	10.0	8.76	88	10.0	8.93	89	2	65-135	30
Chloromethane	ND	10.0	9.99	100	10.0	9.79	98	2	40-125	30
cis-1,2-Dichloroethene	ND	10.0	8.47	85	10.0	8.69	87	3	70-125	30
cis-1,3-Dichloropropene	ND	10.0	8.61	86	10.0	9.00	90	4	70-130	30
Dibromochloromethane	ND	10.0	8.20	82	10.0	8.76	88	7	60-135	30
Dibromomethane	ND	10.0	8.30	83	10.0	8.63	86	4	75-125	30
Dichlorodifluoromethane	ND	10.0	9.50	95	10.0	8.84	88	7	30-155	30
Ethylbenzene	ND	10.0	8.83	88	10.0	8.96	90	1	75-125	30
Hexachlorobutadiene	ND	10.0	9.15	91	10.0	9.45	94	3	50-140	30
Isopropyl Benzene	ND	10.0	9.34	93	10.0	9.63	96	3	75-125	30
m,p-Xylenes	ND	20.0	16.6	83	20.0	17.0	85	2	75-130	30
MIBK	ND	50.0	38.5	77	50.0	43.1	86	11	60-135	30
Methylene Chloride	ND	10.0	10.1	101	10.0	10.3	103	2	55-140	30
MTBE	ND	10.0	8.12	81	10.0	8.46	85	4	65-125	30
Naphthalene	ND	10.0	7.54	75	10.0	8.33	83	10	55-140	30
n-Butylbenzene	ND	10.0	8.86	89	10.0	9.01	90	2	70-135	30
n-Propylbenzene	ND	10.0	8.61	86	10.0	8.68	87	1	70-130	30
o-Xylene	ND	10.0	8.60	86	10.0	8.81	88	2	80-120	30
p-Isopropyltoluene	ND	10.0	9.25	93	10.0	9.41	94	2	75-130	30
Sec-Butylbenzene	ND	10.0	8.85	88	10.0	9.15	91	3	70-125	30
Styrene	ND	10.0	9.72	97	10.0	9.75	97	0	65-135	30
Tert-Butylbenzene	ND	10.0	9.36	94	10.0	9.71	97	4	70-130	30
Tetrachloroethene	ND	10.0	9.65	97	10.0	9.88	99	2	45-150	30
Toluene	ND	10.0	8.75	87	10.0	9.00	90	3	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	7.99	80	10.0	7.92	79	1	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	8.12	81	10.0	8.35	84	3	55-140	30
Trichloroethene	ND	10.0	9.46	95	10.0	9.74	97	3	70-125	30
Trichlorofluoromethane	ND	10.0	7.96	80	10.0	7.75	77	3	60-145	30
Vinyl Chloride	ND	10.0	10.3	103	10.0	9.76	98	5	50-145	30
Freon113	ND	10.0	9.51	95	10.0	9.36	94	2	65-135	30
Vinyl Acetate	ND	10.0	8.41	84	10.0	8.88	89	5	65-135	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	10.0	8.34	83	10.0	8.18	82	70-120
4-Bromofluorobenzene	10.0	9.13	91	10.0	9.15	91	75-120
Toluene-d8	10.0	10.6	106	10.0	10.1	101	85-120
Dibromofluoromethane	10.0	9.87	99	10.0	9.76	98	85-115

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J25\RJW478.D Vial: 6
Acq On : 25 Oct 2012 4:52 pm Operator: WL
Sample : VO06J19B 25mL Inst : TO06
Misc : BLANK Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 26 11:12 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.14	114	1875896	10.00	ug/l	-0.01
39) CHLOROBENZENE-D5	14.06	117	1578577	10.00	ug/l	-0.01
72) 1,2-DICHLOROBENZENE-D4	18.33	152	605177	10.00	ug/l	-0.01
System Monitoring Compounds						
34) Dibromofluoromethane	7.65	111	572129	10.10	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	101.00%	
38) 1,2-Dichloroethane-d4	8.48	65	426887	9.02	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	90.20%	
54) Toluene-d8	11.61	98	2141114	10.63	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	106.30%	
76) 4-Bromofluorobenzene	16.04	95	640057	8.50	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	85.00%	

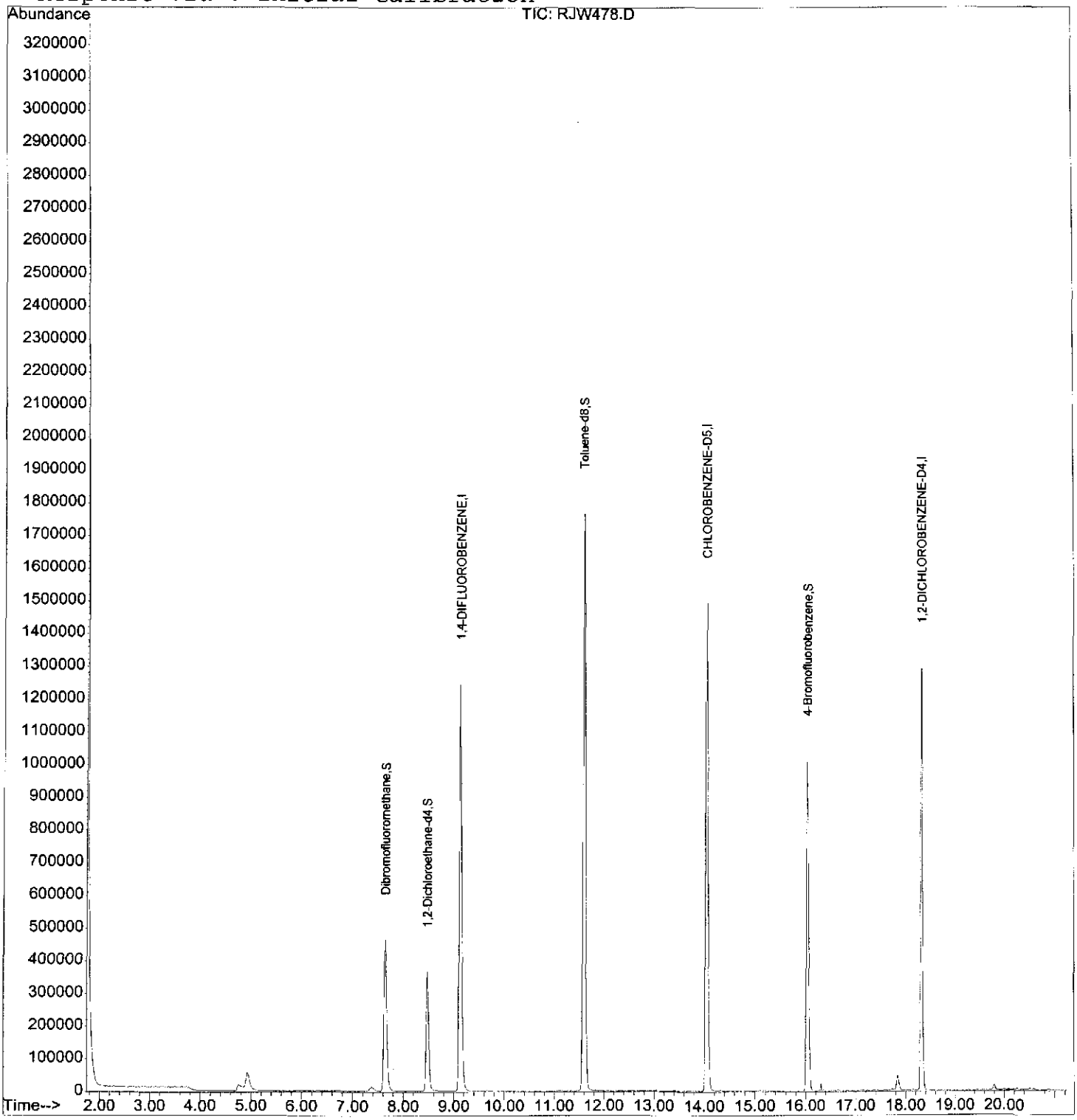
Target Compounds Qvalue

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J25\RJW478.D Vial: 6
Acq On : 25 Oct 2012 4:52 pm Operator: WL
Sample : VO06J19B 25mL Inst : TO06
Misc : BLANK Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 26 11:12 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



2028

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J25\RJW475.D Vial: 4
Acq On : 25 Oct 2012 3:23 pm Operator: WL
Sample : VO06J19L Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 26 11:13 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.14	114	1839479	10.00 ug/l	0.00
39) CHLOROBENZENE-D5	14.06	117	1566050	10.00 ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.33	152	549841	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	7.64	111	547886	9.87 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 98.70%	
38) 1,2-Dichloroethane-d4	8.47	65	386669	8.34 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 83.40%	
54) Toluene-d8	11.61	98	2119492	10.61 ug/l	0.00
Spiked Amount 10.000			Recovery	= 106.10%	
76) 4-Bromofluorobenzene	16.04	95	625010	9.13 ug/l	0.00
Spiked Amount 10.000			Recovery	= 91.30%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.89	85	450640	9.50 ug/l	99
3) Chloromethane	2.14	50	569368	9.99 ug/l	99
4) Vinyl chloride	2.29	62	441539	10.31 ug/l	100
5) Bromomethane	2.81	94	331102	9.65 ug/l	99
6) Chloroethane	2.93	64	289230	9.88 ug/l	93
7) Dichlorofluoromethane	2.96	67	818762	8.11 ug/l	100
8) Trichlorofluoromethane	3.22	101	520393	7.96 ug/l	100
9) Acrolein	3.76	56	113042	50.02 ug/l	99
10) 1,1,2-Trichloro-1,2,2-trif	3.82	151	294192	9.51 ug/l	99
11) Acetone	3.85	43	231613	36.97 ug/l	96
12) 1,1-Dichloroethene	4.04	61	793900	8.22 ug/l	94
13) tert-Butyl alcohol	4.15	59	81670	45.94 ug/l	89
16) Iodomethane	4.47	142	903745	10.91 ug/l	86
17) Methylene chloride	4.76	49	672194	10.09 ug/l	86
18) Carbon disulfide	4.77	76	1734676	8.79 ug/l	100
19) Acrylonitrile	4.96	53	329175	41.82 ug/l	99
20) tert-Butyl methyl ether (M	4.99	73	702417	8.12 ug/l	98
21) trans-1,2-Dichloroethene	5.22	61	817446	7.99 ug/l	91
22) Isopropyl ether (DIPE)	5.78	45	1779626	8.94 ug/l	98
23) Vinyl acetate	5.99	43	581694	8.41 ug/l	99
24) 1,1-Dichloroethane	5.96	63	1053526	9.00 ug/l	99
26) tert-Butyl ethyl ether (ET	6.49	59	1219840	8.38 ug/l	99
27) 2-Butanone	6.70	43	413142	35.53 ug/l	96
28) 2,2-Dichloropropane	6.93	77	516560	8.80 ug/l	98
29) cis-1,2-Dichloroethene	7.00	96	569508	8.47 ug/l	90
30) Chloroform	7.28	83	931902	8.76 ug/l	99
32) Bromochloromethane	7.55	49	394625	8.43 ug/l	94

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J25\RJW475.D Vial: 4
Acq On : 25 Oct 2012 3:23 pm Operator: WL
Sample : VO06J19L Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 26 11:13 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33)	Tetrahydrofuran	7.61	42	54464	7.04 ug/l	100
35)	1,1,1-Trichloroethane	7.94	97	702512	8.12 ug/l	91
37)	tert-Amyl methyl ether (TA	8.41	87	190075	8.38 ug/l	95
41)	1,1-Dichloropropene	8.20	110	285782	9.38 ug/l	98
42)	Carbon tetrachloride	8.35	119	627813	7.92 ug/l	99
43)	1,2-Dichloroethane	8.64	62	432715	7.53 ug/l	99
44)	Benzene	8.65	78	2083968	8.80 ug/l	98
45)	Trichloroethene	9.66	130	639298	9.46 ug/l	93
47)	1,2-Dichloropropane	9.94	63	548815	9.14 ug/l	91
48)	1,4-Dioxane	10.38	88	30102	161.75 ug/l	94
49)	Bromodichloromethane	10.33	83	595369	8.16 ug/l	100
50)	Dibromomethane	10.40	93	216341	8.30 ug/l	91
51)	2-Chloroethyl vinyl ether	10.85	63	142539	7.35 ug/l	98
52)	4-Methyl-2-pentanone	10.90	43	1190838	38.46 ug/l	99
53)	cis-1,3-Dichloropropene	11.22	75	726635	8.61 ug/l	96
55)	Toluene	11.73	91	2145223	8.75 ug/l	100
56)	Ethyl methacrylate	12.04	69	333879	8.30 ug/l	95
57)	trans-1,3-Dichloropropene	12.04	75	501604	8.12 ug/l	97
58)	1,1,2-Trichloroethane	12.29	97	278634	9.04 ug/l	97
59)	2-Hexanone	12.31	43	714987	38.80 ug/l	98
60)	1,3-Dichloropropane	12.69	76	512910	8.00 ug/l	100
61)	Tetrachloroethene	12.78	164	514792	9.65 ug/l	95
62)	Dibromochloromethane	13.13	129	340507	8.20 ug/l	98
64)	1,2-Dibromoethane	13.44	107	267484	8.34 ug/l	100
65)	1-Chlorohexane	13.71	91	982857	9.51 ug/l	95
66)	Chlorobenzene	14.12	112	1408903	9.58 ug/l	93
67)	1,1,1,2-Tetrachloroethane	14.20	131	425798	9.14 ug/l	97
68)	Ethylbenzene	14.21	91	2431297	8.83 ug/l	97
69)	m-Xylene & p-Xylene	14.33	91	3515206	16.62 ug/l	94
70)	o-Xylene	15.04	91	1820061	8.60 ug/l	95
71)	Styrene	15.10	104	1422975	9.72 ug/l	95
73)	Isopropylbenzene	15.62	105	2405540	9.34 ug/l	97
74)	Bromoform	15.65	173	169405	7.99 ug/l	99
75)	1,1,2,2-Tetrachloroethane	15.91	83	289564	8.42 ug/l	99
77)	1,2,3-Trichloropropane	16.16	110	70175	7.62 ug/l	99
78)	trans-1,4-Dichloro-2-buten	16.26	53	73016	7.06 ug/l	97
79)	n-Propylbenzene	16.28	91	2961258	8.61 ug/l	96
80)	Bromobenzene	16.35	156	503208	9.38 ug/l	86
81)	1,3,5-Trimethylbenzene	16.53	105	1714630	8.29 ug/l	93
82)	2-Chlorotoluene	16.57	91	1636898	7.63 ug/l	86
83)	4-Chlorotoluene	16.65	91	1524369	8.76 ug/l	99

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J25\RJW475.D Vial: 4
Acq On : 25 Oct 2012 3:23 pm Operator: WL
Sample : VO06J19L Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 26 11:13 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
84)	tert-Butylbenzene	17.11	134	444035	9.36 ug/l #	82
85)	1,2,4-Trimethylbenzene	17.17	105	1671442	8.41 ug/l	93
86)	sec-Butylbenzene	17.42	105	2524471	8.85 ug/l	97
87)	p-Isopropyltoluene	17.60	119	2019162	9.25 ug/l	95
88)	1,3-Dichlorobenzene	17.75	146	1010636	9.53 ug/l	97
89)	1,4-Dichlorobenzene	17.88	146	947955	9.37 ug/l	97
91)	n-Butylbenzene	18.14	91	1963671	8.86 ug/l	98
92)	1,2-Dichlorobenzene	18.36	146	768882	9.46 ug/l	96
93)	1,2-Dibromo-3-chloropropan	19.27	157	30225	7.58 ug/l	89
94)	1,2,4-Trichlorobenzene	20.26	180	462208	9.06 ug/l	98
95)	Hexachlorobutadiene	20.41	225	329532	9.15 ug/l	100
96)	Naphthalene	20.57	128	466426	7.54 ug/l	100
97)	1,2,3-Trichlorobenzene	20.87	180	296604	7.77 ug/l	98

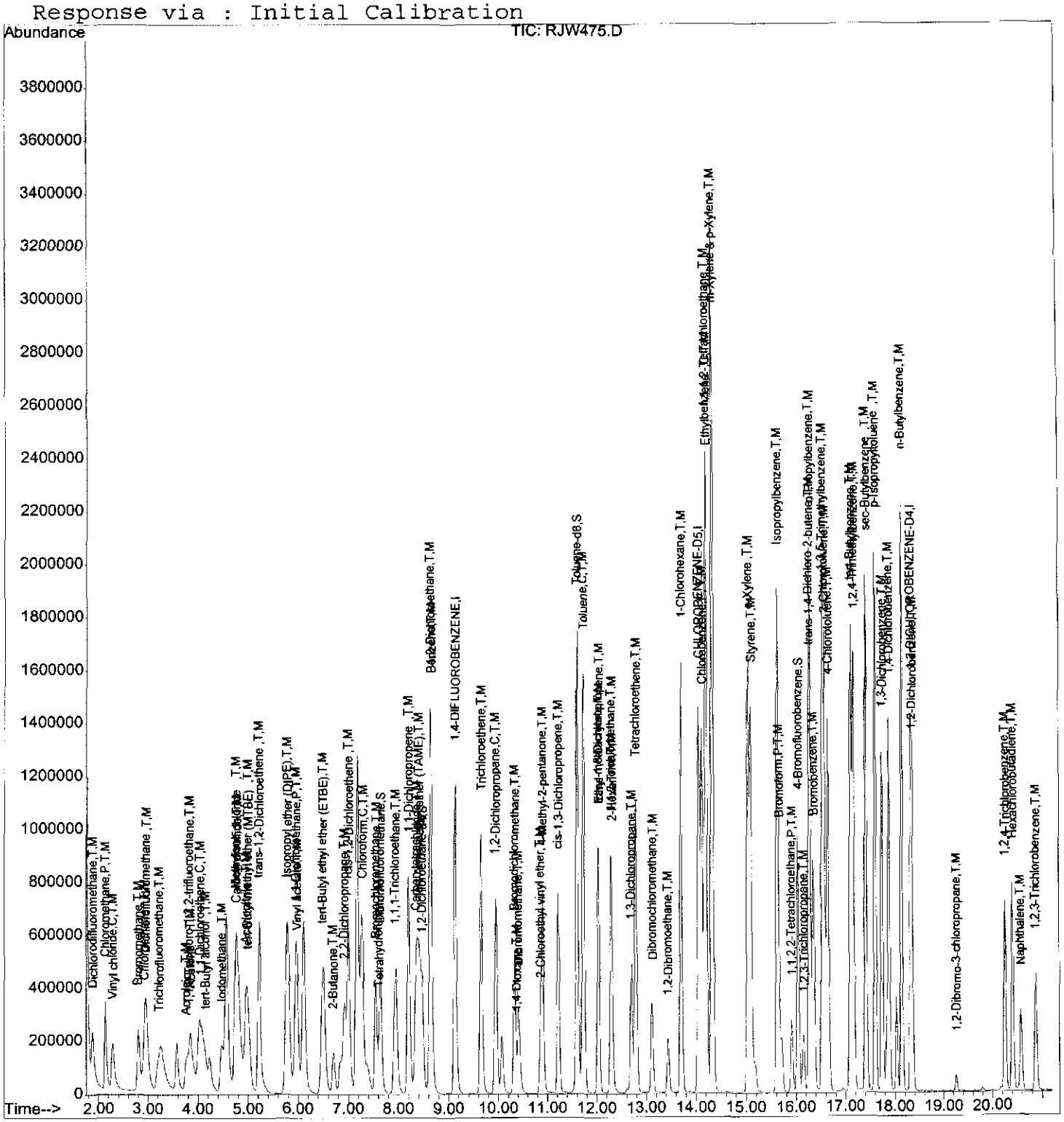
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J25\RJW475.D
Acq On : 25 Oct 2012 3:23 pm
Sample : VO06J19L
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Oct 26 11:13 2012

Vial: 4
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



2032

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J25\RJW476.D Vial: 4
Acq On : 25 Oct 2012 3:53 pm Operator: WL
Sample : VO06J19C Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 26 11:13 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.14	114	1808898	10.00	ug/l	-0.01
39) CHLOROBENZENE-D5	14.06	117	1535448	10.00	ug/l	-0.01
72) 1,2-DICHLOROBENZENE-D4	18.32	152	534757	10.00	ug/l	-0.01
System Monitoring Compounds						
34) Dibromofluoromethane	7.65	111	532961	9.76	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	97.60%	
38) 1,2-Dichloroethane-d4	8.48	65	373186	8.18	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	81.80%	
54) Toluene-d8	11.60	98	1980059	10.11	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	101.10%	
76) 4-Bromofluorobenzene	16.03	95	608883	9.15	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	91.50%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.88	85	412250	8.84	ug/l	100
3) Chloromethane	2.15	50	548703	9.79	ug/l	100
4) Vinyl chloride	2.28	62	411082	9.76	ug/l	99
5) Bromomethane	2.82	94	321755	9.54	ug/l	99
6) Chloroethane	2.92	64	283114	9.83	ug/l	92
7) Dichlorofluoromethane	2.97	67	796158	8.02	ug/l	99
8) Trichlorofluoromethane	3.22	101	497826	7.75	ug/l	98
9) Acrolein	3.77	56	130683	58.80	ug/l	93
10) 1,1,2-Trichloro-1,2,2-trif	3.84	151	284742	9.36	ug/l	98
11) Acetone	3.86	43	257597	41.81	ug/l	97
12) 1,1-Dichloroethene	4.05	61	765688	8.06	ug/l	94
13) tert-Butyl alcohol	4.16	59	82268	47.05	ug/l	94
16) Iodomethane	4.47	142	885542	10.87	ug/l	87
17) Methylene chloride	4.75	49	674147	10.30	ug/l	86
18) Carbon disulfide	4.77	76	1638797	8.44	ug/l	99
19) Acrylonitrile	4.96	53	375611	48.52	ug/l	98
20) tert-Butyl methyl ether (M	5.02	73	719400	8.46	ug/l	97
21) trans-1,2-Dichloroethene	5.23	61	797383	7.92	ug/l	93
22) Isopropyl ether (DIPE)	5.79	45	1845759	9.43	ug/l	98
23) Vinyl acetate	5.98	43	604117	8.88	ug/l	99
24) 1,1-Dichloroethane	5.95	63	1045964	9.08	ug/l	100
26) tert-Butyl ethyl ether (ET	6.50	59	1251820	8.75	ug/l	99
27) 2-Butanone	6.71	43	479231	41.91	ug/l	96
28) 2,2-Dichloropropane	6.92	77	540514	9.37	ug/l	98
29) cis-1,2-Dichloroethene	7.01	96	574373	8.69	ug/l	91
30) Chloroform	7.28	83	933903	8.93	ug/l	98
32) Bromochloromethane	7.55	49	387443	8.41	ug/l	94

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J25\RJW476.D Vial: 4
Acq On : 25 Oct 2012 3:53 pm Operator: WL
Sample : VO06J19C Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 26 11:13 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33)	Tetrahydrofuran	7.61	42	56908	7.52 ug/l	98
35)	1,1,1-Trichloroethane	7.95	97	695907	8.18 ug/l	91
37)	tert-Amyl methyl ether (TA	8.42	87	189086	8.48 ug/l	94
41)	1,1-Dichloropropene	8.20	110	285440	9.56 ug/l	98
42)	Carbon tetrachloride	8.36	119	611621	7.87 ug/l	99
43)	1,2-Dichloroethane	8.63	62	437111	7.76 ug/l	100
44)	Benzene	8.65	78	2065708	8.90 ug/l	99
45)	Trichloroethene	9.66	130	645831	9.74 ug/l	94
47)	1,2-Dichloropropane	9.95	63	570874	9.69 ug/l	90
48)	1,4-Dioxane	10.37	88	31832	174.46 ug/l	91
49)	Bromodichloromethane	10.33	83	597831	8.36 ug/l	99
50)	Dibromomethane	10.42	93	220630	8.63 ug/l	90
51)	2-Chloroethyl vinyl ether	10.86	63	149718	7.87 ug/l	99
52)	4-Methyl-2-pentanone	10.89	43	1309298	43.13 ug/l	98
53)	cis-1,3-Dichloropropene	11.22	75	744647	9.00 ug/l	95
55)	Toluene	11.74	91	2164656	9.00 ug/l	100
56)	Ethyl methacrylate	12.04	69	341669	8.66 ug/l	96
57)	trans-1,3-Dichloropropene	12.04	75	506026	8.35 ug/l	97
58)	1,1,2-Trichloroethane	12.29	97	280261	9.28 ug/l	98
59)	2-Hexanone	12.30	43	795918	44.05 ug/l	98
60)	1,3-Dichloropropane	12.70	76	521873	8.30 ug/l	99
61)	Tetrachloroethene	12.79	164	516787	9.88 ug/l	96
62)	Dibromochloromethane	13.12	129	356728	8.76 ug/l	99
64)	1,2-Dibromoethane	13.45	107	274602	8.73 ug/l	100
65)	1-Chlorohexane	13.70	91	980290	9.67 ug/l	96
66)	Chlorobenzene	14.12	112	1418347	9.84 ug/l	94
67)	1,1,1,2-Tetrachloroethane	14.19	131	431564	9.45 ug/l	96
68)	Ethylbenzene	14.21	91	2418803	8.96 ug/l	96
69)	m-Xylene & p-Xylene	14.33	91	3530154	17.02 ug/l	94
70)	o-Xylene	15.04	91	1829156	8.81 ug/l	94
71)	Styrene	15.10	104	1399428	9.75 ug/l	95
73)	Isopropylbenzene	15.62	105	2413402	9.63 ug/l	96
74)	Bromoform	15.65	173	176841	8.57 ug/l	99
75)	1,1,2,2-Tetrachloroethane	15.90	83	285416	8.54 ug/l	98
77)	1,2,3-Trichloropropane	16.15	110	70932	7.91 ug/l	97
78)	trans-1,4-Dichloro-2-buten	16.26	53	75828	7.54 ug/l	94
79)	n-Propylbenzene	16.27	91	2905111	8.68 ug/l	96
80)	Bromobenzene	16.36	156	510590	9.79 ug/l	87
81)	1,3,5-Trimethylbenzene	16.54	105	1735181	8.63 ug/l	93
82)	2-Chlorotoluene	16.57	91	1782812	8.55 ug/l	93
83)	4-Chlorotoluene	16.64	91	1384739	8.19 ug/l	93

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J25\RJW476.D Vial: 4
Acq On : 25 Oct 2012 3:53 pm Operator: WL
Sample : VO06J19C Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 26 11:13 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

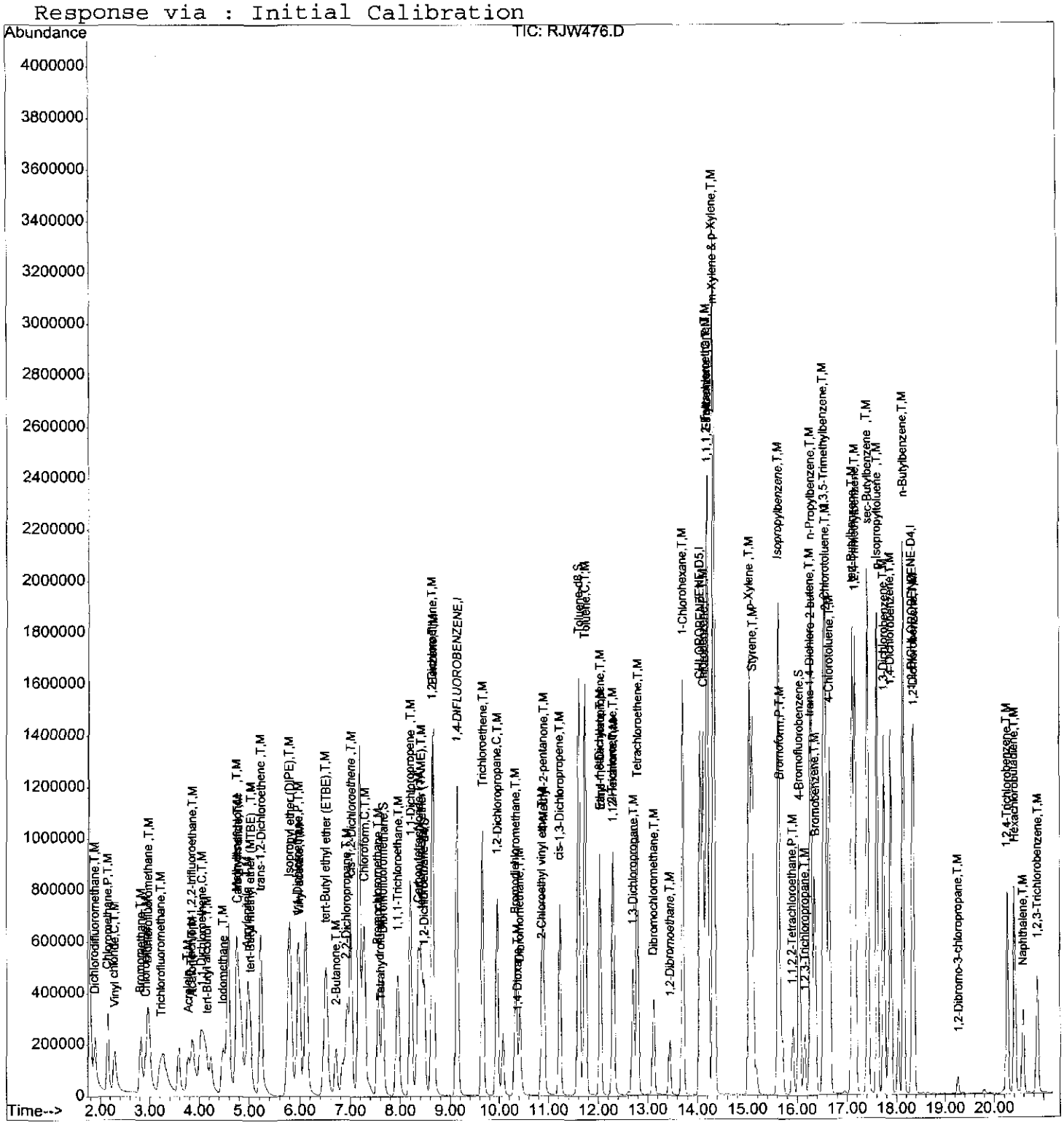
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
84)	tert-Butylbenzene	17.11	134	448156	9.71 ug/l	#	81
85)	1,2,4-Trimethylbenzene	17.16	105	1725038	8.93 ug/l		94
86)	sec-Butylbenzene	17.42	105	2538001	9.15 ug/l		96
87)	p-Isopropyltoluene	17.61	119	1997980	9.41 ug/l		95
88)	1,3-Dichlorobenzene	17.74	146	1029993	9.99 ug/l		97
89)	1,4-Dichlorobenzene	17.88	146	966251	9.82 ug/l		97
91)	n-Butylbenzene	18.15	91	1943207	9.01 ug/l		98
92)	1,2-Dichlorobenzene	18.35	146	781689	9.89 ug/l		97
93)	1,2-Dibromo-3-chloropropan	19.26	157	32623	8.42 ug/l		89
94)	1,2,4-Trichlorobenzene	20.26	180	477104	9.62 ug/l		99
95)	Hexachlorobutadiene	20.41	225	331034	9.45 ug/l		99
96)	Naphthalene	20.58	128	501131	8.33 ug/l		99
97)	1,2,3-Trichlorobenzene	20.88	180	311599	8.40 ug/l		99

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J25\RJW476.D Vial: 4
Acq On : 25 Oct 2012 3:53 pm Operator: WL
Sample : VO06J19C Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 26 11:13 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



2035

INITIAL CALIBRATION(S)

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RHW002
Instrument ID: 06
GC Column:RTX502.2ID:0.25mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J163
BFB Injection Date : 08/15/12
BFB Injection Time : 18:53
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.75
75	30.0 - 60.0% of mass 95	45.15
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	5.79
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	76.82
175	5.0 - 9.0% of mass 174	5.66(7.4)1
176	95.0 - 101.0% of mass 174	77.21(100.5)1
177	5.0 - 9.0% of mass 176	5.31(6.9)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	VSTD0.3	V006H151	RHW003	08/15/12	19:22
2	VSTD0.5	V006H152	RHW004	08/15/12	19:53
3	VSTD01	V006H153	RHW005	08/15/12	20:23
4	VSTD02	V006H154	RHW006	08/15/12	20:54
5	VSTD05	V006H155	RHW007	08/15/12	21:23
6	VSTD010	V006H156	RHW008	08/15/12	21:54
7	VSTD020	V006H157	RHW009	08/15/12	22:23
8	VSTD030	V006H158	RHW010	08/15/12	22:53
9	VSTD050	V006H159	RHW011	08/15/12	23:24
10	VSTD100	V006H1510	RHW012	08/15/12	23:53

FORM V VOA OLM02.0

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :T006
Beginning DateTime :08/15/12 19:22
Spike Units :PPB
IC File :rhw008

Column Spec :RTX502.2 ID :0.25MM
Ending DateTime :08/15/12 23:53
HPChem Method :vo06h15

M	IDX	Parameters	.3 19:22 rhw003	.5 19:53 rhw004	1 20:23 rhw005	2 20:54 rhw006	5 21:23 rhw007	10 21:54 rhw008	20 22:23 rhw009	30 22:53 rhw010	50 23:24 rhw011	100 23:53 rhw012	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	1	0	9.1495
	2	Dichlorodifluoromethane	0.287	0.246	0.236	0.255	0.283	0.258	0.244	0.257	0.261	0.251	0.258	6.32	1.8942
	3	Chloromethane	0.323	0.284	0.300	0.327	0.342	0.320	0.298	0.312	0.307	0.287	0.310	5.91	2.1470
	4	Vinyl chloride	0.237	0.239	0.230	0.264	0.275	0.236	0.200	0.181	------	------	0.233	13.19	2.2996
	5	Bromomethane	0.159	0.178	0.161	0.198	0.217	0.202	0.196	0.200	0.190	0.164	0.187	10.72	2.8115
	6	Chloroethane	0.161	0.140	0.144	0.173	0.177	0.174	0.163	0.164	0.161	0.134	0.159	9.41	2.9186
	7	Dichlorofluoromethane	0.581	0.572	0.599	0.516	0.558	0.574	0.564	0.559	0.533	0.433	0.549	8.55	2.9602
	8	Trichlorofluoromethane	0.328	0.320	0.313	0.371	0.414	0.374	0.359	0.365	0.364	0.345	0.355	8.43	3.2382
5	9	Acrolein	0.015	0.012	0.012	0.012	0.012	0.013	0.012	0.014	0.012	0.010	0.012	9.90	3.7720
	10	1,1,2-Trichloro-1,2,2-trifluoroethane	0.187	0.169	0.168	0.146	0.169	0.169	0.170	0.174	0.176	0.155	0.168	6.69	3.8255
5	11	Acetone	------	------	------	0.041	0.033	0.034	0.031	0.035	0.030	------	0.034	12.26	3.8594
	12	1,1-Dichloroethene	0.541	0.516	0.544	0.491	0.534	0.534	0.533	0.542	0.541	0.475	0.525	4.54	4.0634
5	13	tert-Butyl alcohol	------	0.008	0.009	0.009	0.010	0.011	0.010	0.012	0.009	0.009	0.010	12.01	4.1607
	14	Acetonitrile	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	15	Methyl acetate	------	0.139	0.122	0.119	0.118	0.104	0.098	0.116	0.097	0.088	0.111	14.21	4.5407
	16	Iodomethane	0.451	0.425	0.461	0.413	0.459	0.455	0.462	0.484	0.468	0.426	0.451	4.90	4.5258
	17	Methylene chloride	------	0.666	0.549	0.438	0.412	0.392	0.374	0.392	0.359	0.315	0.433	25.09	4.7885
	18	Carbon disulfide	0.929	0.919	1.035	1.105	1.134	1.134	1.090	1.152	1.192	1.042	1.073	8.57	4.7934
5	19	Acrylonitrile	0.042	0.045	0.043	0.046	0.042	0.044	0.041	0.048	0.040	0.037	0.043	7.45	4.9733
	20	tert-Butyl methyl ether (MTBE)	0.480	0.505	0.485	0.456	0.465	0.494	0.457	0.522	0.438	0.400	0.470	7.49	5.0178
	21	trans-1,2-Dichloroethene	0.595	0.552	0.584	0.529	0.574	0.559	0.566	0.572	0.552	0.482	0.556	5.77	5.2334
	22	Isopropyl ether (DIPE)	1.123	1.096	1.136	1.038	1.095	1.123	1.079	1.168	1.046	0.919	1.082	6.46	5.8043
	23	Vinyl acetate	------	0.349	0.355	0.410	0.409	0.397	0.364	0.406	0.361	0.334	0.376	7.83	6.0010
	24	1,1-Dichloroethane	0.639	0.646	0.669	0.623	0.665	0.649	0.642	0.650	0.628	0.556	0.637	5.00	5.9708
5	25	2-Butanol	------	------	0.009	0.010	0.010	0.009	0.009	0.011	0.009	0.009	0.009	9.21	6.3805
	26	tert-Butyl ethyl ether (ETBE)	0.810	0.803	0.811	0.770	0.784	0.814	0.794	0.876	0.767	0.679	0.791	6.29	6.5180
5	27	2-Butanone	0.078	0.068	0.068	0.063	0.057	0.062	0.057	0.069	0.058	0.053	0.063	11.92	6.7231
	28	2,2-Dichloropropane	0.368	0.337	0.356	0.310	0.339	0.331	0.317	0.310	0.292	0.232	0.319	11.92	6.9387
	29	cis-1,2-Dichloroethene	0.377	0.376	0.387	0.359	0.369	0.363	0.367	0.377	0.357	0.323	0.365	4.81	7.0235
	30	Chloroform	0.636	0.589	0.618	0.564	0.581	0.575	0.571	0.592	0.561	0.497	0.578	6.39	7.2911
5	31	tert-Amyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	32	Bromochloromethane	0.260	0.266	0.264	0.244	0.251	0.262	0.254	0.276	0.246	0.222	0.255	5.92	7.5587
	33	Tetrahydrofuran	------	------	0.069	0.049	0.042	0.041	0.036	0.042	------	------	0.047	25.79	7.6236
	34	Dibromofluoromethane	0.224	0.247	0.306	0.313	0.340	0.331	0.317	0.336	0.321	0.283	0.302	12.90	7.6568
	35	1,1,1-Trichloroethane	0.485	0.477	0.497	0.449	0.491	0.484	0.480	0.476	0.465	0.401	0.471	5.91	7.9571
	36	Cyclohexane	0.861	0.968	0.772	0.770	0.826	0.736	0.706	0.681	0.692	------	0.779	11.92	7.9733
	37	tert-Amyl methyl ether (TAME)	0.124	0.124	0.126	0.116	0.119	0.133	0.125	0.140	0.120	0.106	0.123	7.49	8.4329
	38	1,2-Dichloroethane-d4	0.201	0.223	0.272	0.266	0.279	0.278	0.257	0.275	0.249	0.222	0.252	11.03	8.4924
	39	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	1	0	14.0706
	40	2,2,4-Trimethylpentane	------	1.513	1.721	1.746	1.844	1.617	1.457	1.579	1.684	1.505	1.630	7.89	8.0906
	41	1,1-Dichloropropene	0.201	0.190	0.200	0.180	0.196	0.191	0.198	0.198	0.207	0.184	0.194	4.25	8.2203
	42	Carbon tetrachloride	0.511	0.485	0.518	0.443	0.509	0.510	0.524	0.522	0.552	0.486	0.506	5.79	8.3764
	43	1,2-Dichloroethane	0.401	0.381	0.396	0.352	0.365	0.366	0.361	0.381	0.352	0.315	0.367	6.76	8.6455
	44	Benzene	1.765	1.655	1.624	1.425	1.472	1.458	1.485	1.505	1.483	1.248	1.512	9.36	8.6589
	45	Trichloroethene	0.483	0.438	0.424	0.386	0.432	0.427	0.435	0.437	0.454	0.402	0.432	6.12	9.6699
	46	Methylcyclohexane	0.575	0.677	0.714	0.725	0.816	0.701	0.683	0.683	0.742	0.649	0.697	8.98	9.7576
	47	1,2-Dichloropropane	0.399	0.398	0.397	0.363	0.379	0.383	0.388	0.398	0.386	0.345	0.384	4.61	9.9642
20	48	1,4-Dioxane	------	------	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	11.65	10.3854
	49	Bromodichloromethane	0.463	0.438	0.453	0.426	0.461	0.477	0.494	0.509	0.488	0.449	0.466	5.58	10.3389
	50	Dibromomethane	0.171	0.167	0.169	0.152	0.165	0.168	0.171	0.183	0.167	0.152	0.166	5.54	10.4266
	51	2-Chloroethyl vinyl ether	0.116	0.112	0.116	0.111	0.123	0.132	0.129	0.147	0.129	0.125	0.124	8.84	10.8696
5	52	4-Methyl-2-pentanone	0.206	0.195	0.195	0.206	0.196	0.207	0.194	0.222	0.190	0.168	0.198	7.11	10.9068
	53	cis-1,3-Dichloropropene	0.539	0.516	0.516	0.494	0.543	0.558	0.560	0.596	0.560	0.505	0.539	5.79	11.2339
	54	Toluene-d8	1.073	1.150	1.304	1.319	1.454	1.354	1.289	1.334	1.325	1.158	1.276	8.94	11.6190
	55	Toluene	1.709	1.639	1.656	1.514	1.605	1.545	1.567	1.560	1.548	1.318	1.566	6.76	11.7483
	56	Ethyl methacrylate	0.261	0.249	0.249	0.236	0.252	0.273	0.264	0.294	0.260	0.231	0.257	7.04	12.0487
	57	trans-1,3-Dichloropropene	0.390	0.377	0.380	0.363	0.390	0.413	0.412	0.440	0.410	0.369	0.395	6.05	12.0487
	58	1,1,2-Trichloroethane	0.205	0.195	0.204	0.181	0.196	0.202	0.196	0.215	0.196	0.177	0.197	5.64	12.3014

FM 8/21/12

5	59	2-Hexanone	0.128	0.114	0.116	0.123	0.117	0.123	0.114	0.131	0.112	0.098	0.118	8.05	12.3207
	60	1,3-Dichloropropane	0.447	0.412	0.415	0.385	0.403	0.423	0.401	0.442	0.401	0.365	0.409	6.01	12.7147
	61	Tetrachloroethene	0.363	0.347	0.352	0.317	0.339	0.335	0.342	0.340	0.357	0.312	0.340	4.76	12.8039
	62	Dibromochloromethane	0.249	0.233	0.249	0.235	0.260	0.280	0.280	0.310	0.290	0.266	0.265	9.39	13.1339
	63	2-Ethyl-1-butanol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	64	1,2-Dibromoethane	0.198	0.197	0.198	0.190	0.203	0.213	0.209	0.232	0.213	0.193	0.205	6.02	13.4581
	65	1-Chlorohexane	0.685	0.649	0.673	0.604	0.676	0.678	0.674	0.677	0.699	0.585	0.660	5.61	13.7197
	66	Chlorobenzene	1.040	0.972	0.975	0.887	0.933	0.915	0.949	0.963	0.942	0.814	0.939	6.36	14.1316
	67	1,1,1,2-Tetrachloroethane	0.295	0.290	0.300	0.282	0.297	0.308	0.306	0.317	0.308	0.271	0.297	4.58	14.2044
	68	Ethylbenzene	2.007	1.855	1.918	1.728	1.800	1.767	1.739	1.733	1.691	1.349	1.759	9.90	14.2193
2	69	m-Xylene & p-Xylene	1.532	1.415	1.460	1.281	1.367	1.312	1.293	1.277	1.220	------	1.351	7.48	14.3415
	70	o-Xylene	1.419	1.362	1.424	1.308	1.410	1.381	1.370	1.384	1.342	1.118	1.352	6.63	15.0518
	71	Styrene	0.993	0.934	0.949	0.890	0.985	0.970	0.947	0.958	0.935	0.788	0.935	6.35	15.1113
	72	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	1	0	18.3375
	73	Isopropylbenzene	4.817	4.725	4.698	4.142	4.738	4.727	5.349	4.882	4.914	3.857	4.685	8.82	15.6391
	74	Bromoform	0.266	0.276	0.302	0.291	0.336	0.374	0.419	0.442	0.407	0.369	0.348	18.12	15.6733
	75	1,1,2,2-Tetrachloroethane	0.669	0.600	0.589	0.551	0.608	0.642	0.669	0.721	0.638	0.566	0.625	8.36	15.9260
	76	4-Bromofluorobenzene	1.199	1.104	1.211	1.160	1.341	1.297	1.381	1.352	1.302	1.100	1.245	8.32	16.0479
	77	1,2,3-Trichloropropane	0.152	0.159	0.159	0.154	0.167	0.175	0.179	0.200	0.175	0.156	0.168	8.94	16.1684
	78	trans-1,4-Dichloro-2-butene	------	0.187	0.181	0.154	0.188	0.198	0.210	0.218	0.194	0.164	0.188	10.76	16.2743
	79	n-Propylbenzene	6.526	6.372	6.494	5.677	6.439	6.376	6.983	6.429	6.432	4.826	6.255	9.47	16.2947
	80	Bromobenzene	1.016	0.938	0.977	0.873	0.950	0.979	1.083	1.051	1.014	0.874	0.975	7.12	16.3750
	81	1,3,5-Trimethylbenzene	3.974	3.801	3.943	3.418	3.821	3.725	4.133	3.854	3.840	3.096	3.761	7.92	16.5520
	82	2-Chlorotoluene	4.210	4.102	4.100	3.341	3.984	3.898	4.382	4.006	3.896	3.083	3.900	10.14	16.5847
	83	4-Chlorotoluene	3.413	3.269	3.388	3.069	3.028	3.084	3.349	3.188	3.200	2.644	3.163	7.18	16.6634
	84	tert-Butylbenzene	0.859	0.839	0.903	0.757	0.875	0.850	0.942	0.901	0.927	0.779	0.863	6.95	17.1184
	85	1,2,4-Trimethylbenzene	3.861	3.723	3.822	3.342	3.715	3.602	3.889	3.672	3.561	2.953	3.614	7.83	17.1779
	86	sec-Butylbenzene	5.526	5.294	5.427	4.864	5.364	5.139	5.573	5.267	5.291	4.137	5.188	8.10	17.4306
	87	p-Isopropyltoluene	4.295	3.940	4.162	3.688	4.082	3.947	4.234	3.991	4.044	3.310	3.969	7.26	17.6209
	88	1,3-Dichlorobenzene	2.082	1.903	2.018	1.757	1.921	1.909	2.097	2.021	1.957	1.621	1.929	7.62	17.7577
	89	1,4-Dichlorobenzene	2.002	1.877	1.880	1.671	1.847	1.822	1.971	1.917	1.851	1.555	1.839	7.30	17.8945
	90	Benzyl chloride	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	91	n-Butylbenzene	4.434	4.242	4.283	3.722	4.211	3.945	4.224	3.955	4.025	3.275	4.032	8.35	18.1531
	92	1,2-Dichlorobenzene	1.608	1.561	1.514	1.361	1.485	1.454	1.488	1.516	1.491	1.308	1.479	5.96	18.3673
	93	1,2-Dibromo-3-chloropropane	------	0.053	0.074	0.067	0.077	0.073	0.066	0.076	0.075	0.092	0.072	14.38	19.2726
	94	1,2,4-Trichlorobenzene	1.046	0.987	1.012	0.911	1.019	0.886	0.831	0.842	0.882	0.859	0.927	8.69	20.2703
	95	Hexachlorobutadiene	0.758	0.691	0.723	0.658	0.733	0.647	0.569	0.543	0.606	0.624	0.655	10.91	20.4204
	96	Naphthalene	------	1.272	1.306	1.174	1.268	1.128	0.961	1.029	0.977	1.014	1.125	12.07	20.5958
	97	1,2,3-Trichlorobenzene	0.768	0.746	0.786	0.708	0.773	0.661	0.563	0.547	------	------	0.694	13.66	20.8875

Spike Amount = Nominal Amount * M
Ave_%RSD : 8.6 Max_%RSD : 25.8

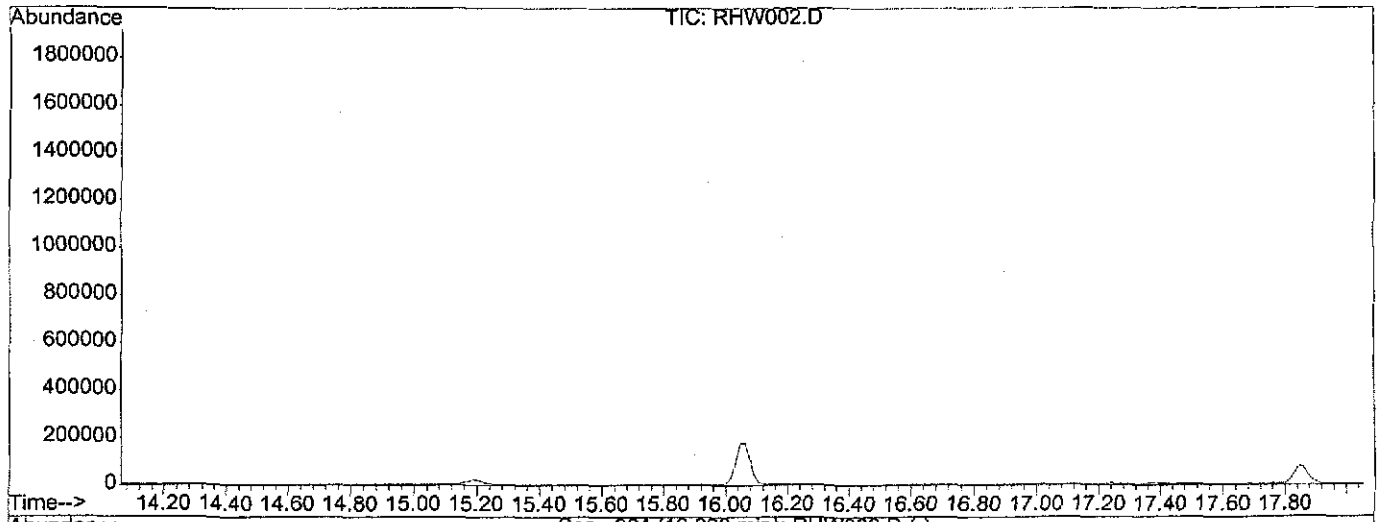
Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

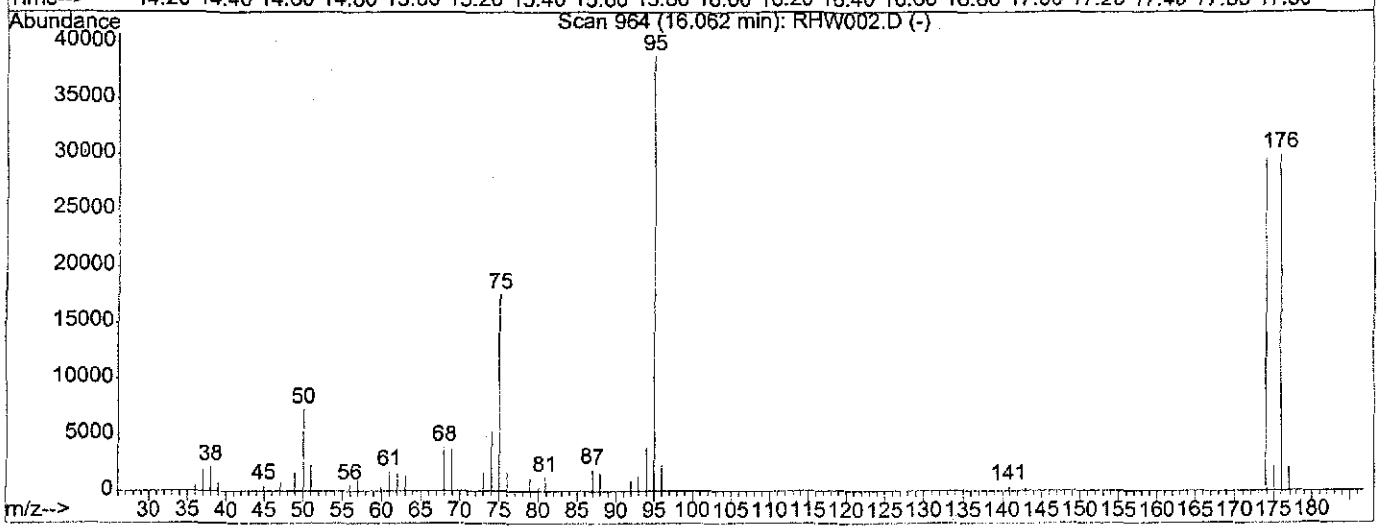
IDX	Parameter	x0	x1	CCF
17	Methylene chloride	0.02114	0.34115	0.9963
33	Tetrahydrofuran	0.00261	0.03837	0.9958
74	Bromoform	-0.00618	0.39310	0.9971

ac 8/21/11d

BFB

Data File : D:\HPCHEM\1\DATA\12H15\RHW002.D Vial: 2
Acq On : 15 Aug 2012 6:53 pm Operator: WL
Sample : BFB06H01 Inst : TO06
Misc : T/ CHK Multiplr: 1.00
MS Integration Params: RTE.P
Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260





Spectrum Information: Scan 964 - Background Scan 957

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.7	7264	PASS
75	95	30	60	45.1	17496	PASS
95	95	100	100	100.0	38752	PASS
96	95	5	9	5.8	2244	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	76.8	29768	PASS
175	174	5	9	7.4	2193	PASS
176	174	95	101	100.5	29920	PASS
177	176	5	9	6.9	2057	PASS

RHW002.D VO06H15.M Thu Aug 16 16:14:02 2012

8/21-12

Compound List Report TO06

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
Total Cpnds : 97

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-DIFLUOROBENZENE	114	9.15	1.000	A	1	A	B
2	T	Dichlorodifluoromethane	85	1.89	0.207	A	1	A	B
3	T	Chloromethane	50	2.15	0.235	A	1	A	B
4	T	Vinyl chloride	62	2.29	0.251	A	1	A	B
5	T	Bromomethane	94	2.81	0.308	A	1	A	B
6	T	Chloroethane	64	2.92	0.319	A	2	A	B
7	T	Dichlorofluoromethane	67	2.96	0.324	A	1	A	B
8	T	Trichlorofluoromethane	101	3.25	0.355	A	1	A	B
9	T	Acrolein	56	3.77	0.412	A	1	A	B
10	T	1,1,2-Trichloro-1,2,2-trifluor	151	3.83	0.418	A	1	A	B
11	T	Acetone	43	3.86	0.421	A	2	A	B
12	T	1,1-Dichloroethene	61	4.06	0.444	A	2	A	B
13	T	tert-Butyl alcohol	59	4.15	0.454	A	1	A	B
14	T	Acetonitrile	41	4.24	0.464	A	2	A	B
15	T	Methyl acetate	43	4.54	0.496	A	1	A	B
16	T	Iodomethane	142	4.52	0.495	A	1	A	B
17	T	Methylene chloride	49	4.76	0.521	L✓	2	A	B
18	T	Carbon disulfide	76	4.79	0.524	A	1	A	B
19	T	Acrylonitrile	53	4.97	0.543	A	2	A	B
20	T	tert-Butyl methyl ether (MTBE)	73	5.02	0.548	A	1	A	B
21	T	trans-1,2-Dichloroethene	61	5.24	0.573	A	2	A	B
22	T	Isopropyl ether (DIPE)	45	5.80	0.634	A	1	A	B
23	T	Vinyl acetate	43	6.00	0.655	A	1	A	B
24	T	1,1-Dichloroethane	63	5.97	0.652	A	2	A	B
25	T	2-Butanol	45	6.37	0.696	A	1	A	B
26	T	tert-Butyl ethyl ether (ETBE)	59	6.52	0.712	A	1	A	B
27	T	2-Butanone	43	6.72	0.735	A	1	A	B
28	T	2,2-Dichloropropane	77	6.93	0.758	A	2	A	B
29	T	cis-1,2-Dichloroethene	96	7.02	0.768	A	2	A	B
30	T	Chloroform	83	7.29	0.797	A	2	A	B
31	T	tert-Amyl alcohol	59	7.02	0.768	A	2	A	B
32	T	Bromochloromethane	49	7.56	0.826	A	2	A	B
33	T	Tetrahydrofuran	42	7.62	0.833	L✓	2	A	B
34	S	Dibromofluoromethane	111	7.66	0.837	A	2	A	B
35	T	1,1,1-Trichloroethane	97	7.96	0.870	A	2	A	B
36	T	Cyclohexane	56	7.97	0.872	A	2	A	B
37	T	tert-Amyl methyl ether (TAME)	87	8.43	0.922	A	2	A	B
38	S	1,2-Dichloroethane-d4	65	8.49	0.928	A	1	A	B
39	I	CHLOROBENZENE-D5	117	14.07	1.000	A	2	A	B
40	T	2,2,4-Trimethylpentane	57	8.09	0.575	A	3	A	B
41	T	1,1-Dichloropropene	110	8.21	0.584	A	1	A	B
42	T	Carbon tetrachloride	119	8.38	0.595	A	1	A	B
43	T	1,2-Dichloroethane	62	8.64	0.614	A	1	A	B
44	T	Benzene	78	8.66	0.615	A	2	A	B
45	T	Trichloroethene	130	9.67	0.687	A	3	A	B
46	T	Methylcyclohexane	83	9.76	0.694	A	2	A	B
47	T	1,2-Dichloropropane	63	9.97	0.708	A	2	A	B
48	T	1,4-Dioxane	88	10.38	0.738	A	1	A	B
49	T	Bromodichloromethane	83	10.34	0.735	A	1	A	B
50	T	Dibromomethane	93	10.43	0.741	A	2	A	B
51	T	2-Chloroethyl vinyl ether	63	10.87	0.773	A	2	A	B
52	T	4-Methyl-2-pentanone	43	10.90	0.775	A	3	A	B

JL 8-21-12

53	T	cis-1,3-Dichloropropene	75	11.23	0.798	A	3	A	B
54	S	Toluene-d8	98	11.62	0.826	A	1	A	B
55	T	Toluene	91	11.75	0.835	A	1	A	B
56	T	Ethyl methacrylate	69	12.05	0.856	A	2	A	B
57	T	trans-1,3-Dichloropropene	75	12.05	0.856	A	2	A	B
58	T	1,1,2-Trichloroethane	97	12.30	0.874	A	3	A	B
59	T	2-Hexanone	43	12.32	0.875	A	2	A	B
60	T	1,3-Dichloropropane	76	12.72	0.904	A	1	A	B
61	T	Tetrachloroethene	164	12.81	0.910	A	3	A	B
62	T	Dibromochloromethane	129	13.13	0.933	A	1	A	B
63	T	2-Ethyl-1-butanol	43	0.00	0.000	A	3	A	B
64	T	1,2-Dibromoethane	107	13.46	0.957	A	1	A	B
65	T	1-Chlorohexane	91	13.71	0.975	A	3	A	B
66	T	Chlorobenzene	112	14.13	1.004	A	3	A	B
67	T	1,1,1,2-Tetrachloroethane	131	14.20	1.010	A	3	A	B
68	T	Ethylbenzene	91	14.22	1.011	A	1	A	B
69	T	m-Xylene & p-Xylene	91	14.34	1.019	A	1	A	B
70	T	o-Xylene	91	15.05	1.070	A	1	A	B
71	T	Styrene	104	15.11	1.074	A	2	A	B
72	I	1,2-DICHLOROBENZENE-D4	152	18.34	1.000	A	1	A	B
73	T	Isopropylbenzene	105	15.63	0.852	A	3	A	B
74	T	Bromoform	173	15.68	0.855	L	2	A	B
75	T	1,1,2,2-Tetrachloroethane	83	15.93	0.869	A	1	A	B
76	S	4-Bromofluorobenzene	95	16.05	0.875	A	2	A	B
77	T	1,2,3-Trichloropropane	110	16.17	0.882	A	2	A	B
78	T	trans-1,4-Dichloro-2-butene	53	16.27	0.887	A	1	A	B
79	T	n-Propylbenzene	91	16.28	0.888	A	2	A	B
80	T	Bromobenzene	156	16.37	0.893	A	2	A	B
81	T	1,3,5-Trimethylbenzene	105	16.55	0.903	A	2	A	B
82	T	2-Chlorotoluene	91	16.58	0.904	A	1	A	B
83	T	4-Chlorotoluene	91	16.66	0.908	A	1	A	B
84	T	tert-Butylbenzene	134	17.12	0.934	A	2	A	B
85	T	1,2,4-Trimethylbenzene	105	17.18	0.937	A	1	A	B
86	T	sec-Butylbenzene	105	17.43	0.951	A	1	A	B
87	T	p-Isopropyltoluene	119	17.62	0.961	A	2	A	B
88	T	1,3-Dichlorobenzene	146	17.76	0.968	A	2	A	B
89	T	1,4-Dichlorobenzene	146	17.89	0.976	A	2	A	B
90	T	Benzyl chloride	91	0.00	0.000	A	3	A	B
91	T	n-Butylbenzene	91	18.16	0.990	A	2	A	B
92	T	1,2-Dichlorobenzene	146	18.37	1.002	A	2	A	B
93	T	1,2-Dibromo-3-chloropropane	157	19.27	1.051	A	2	A	B
94	T	1,2,4-Trichlorobenzene	180	20.27	1.105	A	2	A	B
95	T	Hexachlorobutadiene	225	20.42	1.114	A	2	A	B
96	T	Naphthalene	128	20.60	1.123	A	1	A	B
97	T	1,2,3-Trichlorobenzene	180	20.89	1.139	A	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

VO06H15.M Mon Aug 20 16:00:47 2012

8-21-12

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW003.D
Acq On : 15 Aug 2012 7:22 pm
Sample : VO06H151
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:18 2012

Vial: 2
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1684396	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1435167	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	517438	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.66	111	11318	0.22	ug/l	0.00
Spiked Amount 10.000			Recovery	=	2.20%	
38) 1,2-Dichloroethane-d4	8.49	65	10133	0.24	ug/l	0.00
Spiked Amount 10.000			Recovery	=	2.40%	
54) Toluene-d8	11.63	98	46216	0.25	ug/l	0.02
Spiked Amount 10.000			Recovery	=	2.50%	
76) 4-Bromofluorobenzene	16.05	95	18608	0.29	ug/l	0.00
Spiked Amount 10.000			Recovery	=	2.90%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	14507	0.33	ug/l	95
3) Chloromethane	2.15	50	16324	0.31	ug/l	95
4) Vinyl chloride	2.30	62	11960	0.31	ug/l	96
5) Bromomethane	2.82	94	8015	0.26	ug/l	91
6) Chloroethane	2.92	64	8121	0.30	ug/l	74
7) Dichlorofluoromethane	2.96	67	29367	0.32	ug/l	99
8) Trichlorofluoromethane	3.23	101	16595	0.28	ug/l	97
9) Acrolein	3.78	56	3687	1.78	ug/l	65
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	9428	0.33	ug/l	88
11) Acetone	3.86	43	24185	4.22	ug/l	99
12) 1,1-Dichloroethene	4.06	61	27348	0.31	ug/l	96
13) tert-Butyl alcohol	4.17	59	2685	1.65	ug/l #	1
16) Iodomethane	4.53	142	22767	0.30	ug/l	98
17) Methylene chloride	4.76	49	46456	0.19	ug/l	86
18) Carbon disulfide	4.79	76	46963	0.26	ug/l	98
19) Acrylonitrile	4.99	53	10545	1.46	ug/l	93
20) tert-Butyl methyl ether (M	5.02	73	24246	0.31	ug/l	91
21) trans-1,2-Dichloroethene	5.24	61	30059	0.32	ug/l	99
22) Isopropyl ether (DIPE)	5.80	45	56746	0.31	ug/l	98
24) 1,1-Dichloroethane	5.98	63	32299	0.30	ug/l	97
26) tert-Butyl ethyl ether (ET	6.52	59	40951	0.31	ug/l	98
27) 2-Butanone	6.73	43	19744	1.85	ug/l	86
28) 2,2-Dichloropropane	6.95	77	18576	0.35	ug/l	90
29) cis-1,2-Dichloroethene	7.02	96	19051	0.31	ug/l	97
30) Chloroform	7.29	83	32140	0.33	ug/l	96
32) Bromochloromethane	7.56	49	13143	0.31	ug/l	97
33) Tetrahydrofuran	7.63	42	7189	0.43	ug/l	91

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

8-21-12

2044

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW003.D Vial: 2
Acq On : 15 Aug 2012 7:22 pm Operator: WL
Sample : VO06H151 Inst : TO06
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:18 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
35)	1,1,1-Trichloroethane	7.96	97	24502	0.31 ug/l		88
36)	Cyclohexane	7.97	56	43516	0.33 ug/l		78
37)	tert-Amyl methyl ether (TA	8.44	87	6256	0.30 ug/l	#	70
40)	2,2,4-Trimethylpentane	8.09	57	63588	0.27 ug/l	#	35
41)	1,1-Dichloropropene	8.23	110	8665	0.31 ug/l		100
42)	Carbon tetrachloride	8.39	119	21990	0.30 ug/l		98
43)	1,2-Dichloroethane	8.64	62	17269	0.33 ug/l		98
44)	Benzene	8.66	78	75983	0.35 ug/l		97
45)	Trichloroethene	9.67	130	20780	0.34 ug/l		97
46)	Methylcyclohexane	9.76	83	24772	0.25 ug/l		96
47)	1,2-Dichloropropane	9.97	63	17165	0.31 ug/l		97
49)	Bromodichloromethane	10.34	83	19925	0.30 ug/l		96
50)	Dibromomethane	10.43	93	7349	0.31 ug/l		97
51)	2-Chloroethyl vinyl ether	10.87	63	4981	0.28 ug/l	#	73
52)	4-Methyl-2-pentanone	10.90	43	44301	1.56 ug/l		96
53)	cis-1,3-Dichloropropene	11.25	75	23209	0.30 ug/l		97
55)	Toluene	11.75	91	73602	0.33 ug/l		100
56)	Ethyl methacrylate	12.05	69	11235	0.30 ug/l		92
57)	trans-1,3-Dichloropropene	12.05	75	16807	0.30 ug/l		92
58)	1,1,2-Trichloroethane	12.30	97	8823	0.31 ug/l		98
59)	2-Hexanone	12.33	43	27617	1.64 ug/l		97
60)	1,3-Dichloropropane	12.72	76	19240	0.33 ug/l		94
61)	Tetrachloroethene	12.81	164	15621	0.32 ug/l		96
62)	Dibromochloromethane	13.13	129	10708	0.28 ug/l		95
64)	1,2-Dibromoethane	13.46	107	8536	0.29 ug/l		95
65)	1-Chlorohexane	13.73	91	29482	0.31 ug/l		97
66)	Chlorobenzene	14.14	112	44784	0.33 ug/l		88
67)	1,1,1,2-Tetrachloroethane	14.20	131	12704	0.30 ug/l	#	73
68)	Ethylbenzene	14.22	91	86427	0.34 ug/l		98
69)	m-Xylene & p-Xylene	14.34	91	131936	0.68 ug/l		98
70)	o-Xylene	15.05	91	61093	0.31 ug/l		98
71)	Styrene	15.11	104	42762	0.32 ug/l		98
73)	Isopropylbenzene	15.65	105	74776	0.31 ug/l		99
74)	Bromoform	15.68	173	4130	0.36 ug/l		96
75)	1,1,2,2-Tetrachloroethane	15.93	83	10379	0.32 ug/l		95
77)	1,2,3-Trichloropropane	16.18	110	2356	0.27 ug/l		78
78)	trans-1,4-Dichloro-2-buten	16.29	53	2717	0.28 ug/l	#	36
79)	n-Propylbenzene	16.30	91	101305	0.31 ug/l		100
80)	Bromobenzene	16.37	156	15773	0.31 ug/l		96
81)	1,3,5-Trimethylbenzene	16.55	105	61684	0.32 ug/l		97
82)	2-Chlorotoluene	16.58	91	65346	0.32 ug/l		99

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

2045

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW003.D Vial: 2
Acq On : 15 Aug 2012 7:22 pm Operator: WL
Sample : VO06H151 Inst : TO06
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:18 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
83) 4-Chlorotoluene	16.67	91	52975	0.32 ug/l	98
84) tert-Butylbenzene	17.12	134	13332	0.30 ug/l	97
85) 1,2,4-Trimethylbenzene	17.18	105	59939	0.32 ug/l	98
86) sec-Butylbenzene	17.43	105	85786	0.32 ug/l	98
87) p-Isopropyltoluene	17.62	119	66671	0.32 ug/l	99
88) 1,3-Dichlorobenzene	17.76	146	32320	0.32 ug/l	98
89) 1,4-Dichlorobenzene	17.89	146	31083	0.33 ug/l	100
91) n-Butylbenzene	18.16	91	68824	0.33 ug/l	97
92) 1,2-Dichlorobenzene	18.37	146	24955	0.33 ug/l	79
94) 1,2,4-Trichlorobenzene	20.27	180	16240	0.34 ug/l	97
95) Hexachlorobutadiene	20.42	225	11774	0.35 ug/l	97
96) Naphthalene	20.60	128	21918	0.38 ug/l	98
97) 1,2,3-Trichlorobenzene	20.89	180	11923	0.33 ug/l	93

8-21-12

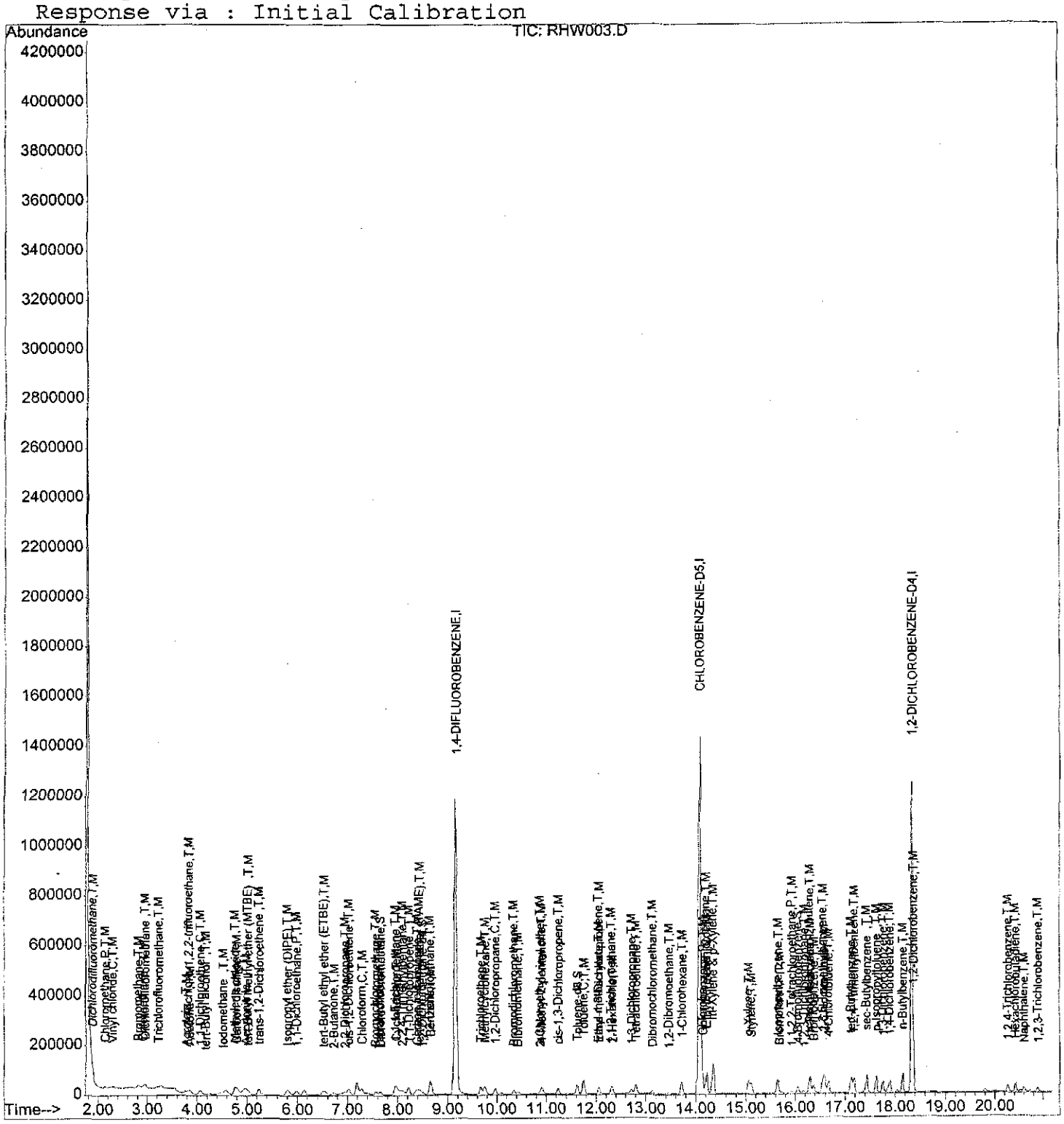
(#) = qualifier out of range (m) = manual integration

2016

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW003.D Vial: 2
Acq On : 15 Aug 2012 7:22 pm Operator: WL
Sample : VO06H151 Inst : TO06
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:18 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2047

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW004.D Vial: 3
Acq On : 15 Aug 2012 7:53 pm Operator: WL
Sample : VO06H152 Inst : TO06
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:22 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1703617	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1458151	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	509753	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.65	111	21073	0.41	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	4.10%	
38) 1,2-Dichloroethane-d4	8.50	65	19012	0.44	ug/l	0.00
Spiked Amount 10.000			Recovery	=	4.40%	
54) Toluene-d8	11.62	98	83846	0.45	ug/l	0.00
Spiked Amount 10.000			Recovery	=	4.50%	
76) 4-Bromofluorobenzene	16.05	95	28145	0.44	ug/l	0.00
Spiked Amount 10.000			Recovery	=	4.40%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	20953	0.48	ug/l	92
3) Chloromethane	2.15	50	24168	0.46	ug/l	90
4) Vinyl chloride	2.30	62	20387	0.51	ug/l	93
5) Bromomethane	2.82	94	15156	0.48	ug/l	90
6) Chloroethane	2.92	64	11949	0.44	ug/l	83
7) Dichlorofluoromethane	2.96	67	48762	0.52	ug/l	100
8) Trichlorofluoromethane	3.23	101	27297	0.45	ug/l	95
9) Acrolein	3.78	56	4937	2.36	ug/l	81
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	14418	0.50	ug/l	96
11) Acetone	3.87	43	26187	4.51	ug/l	98
12) 1,1-Dichloroethene	4.06	61	43979	0.49	ug/l	99
13) tert-Butyl alcohol	4.15	59	3512	2.13	ug/l	79
15) Methyl acetate	4.54	43	11855	0.63	ug/l	77
16) Iodomethane	4.53	142	36240	0.47	ug/l	99
17) Methylene chloride	4.76	49	56739	0.36	ug/l	88
18) Carbon disulfide	4.79	76	78256	0.43	ug/l	99
19) Acrylonitrile	4.97	53	19079	2.62	ug/l	91
20) tert-Butyl methyl ether (M	5.03	73	43051	0.54	ug/l	100
21) trans-1,2-Dichloroethene	5.22	61	47008	0.50	ug/l	99
22) Isopropyl ether (DIPE)	5.82	45	93324	0.51	ug/l	97
23) Vinyl acetate	6.01	43	29698	0.46	ug/l	95
24) 1,1-Dichloroethane	5.97	63	55031	0.51	ug/l	97
26) tert-Butyl ethyl ether (ET	6.52	59	68382	0.51	ug/l	98
27) 2-Butanone	6.73	43	28920	2.69	ug/l	92
28) 2,2-Dichloropropane	6.93	77	28690	0.53	ug/l	96
29) cis-1,2-Dichloroethene	7.02	96	31993	0.51	ug/l	89
30) Chloroform	7.29	83	50132	0.51	ug/l	99

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

2048

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW004.D Vial: 3
Acq On : 15 Aug 2012 7:53 pm Operator: WL
Sample : VO06H152 Inst : TO06
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:22 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
32)	Bromochloromethane	7.56	49	22619	0.52 ug/l		95
33)	Tetrahydrofuran	7.63	42	7871	0.52 ug/l		79
35)	1,1,1-Trichloroethane	7.96	97	40590	0.51 ug/l		99
36)	Cyclohexane	7.96	56	82429	0.62 ug/l		81
37)	tert-Amyl methyl ether (TA	8.44	87	10588	0.50 ug/l	#	85
40)	2,2,4-Trimethylpentane	8.08	57	110317	0.46 ug/l	#	65
41)	1,1-Dichloropropene	8.21	110	13848	0.49 ug/l		96
42)	Carbon tetrachloride	8.36	119	35393	0.48 ug/l		99
43)	1,2-Dichloroethane	8.64	62	27743	0.52 ug/l		97
44)	Benzene	8.66	78	120645	0.55 ug/l		99
45)	Trichloroethene	9.67	130	31959	0.51 ug/l		99
46)	Methylcyclohexane	9.76	83	49386	0.49 ug/l		98
47)	1,2-Dichloropropane	9.97	63	28981	0.52 ug/l		97
48)	1,4-Dioxane	10.40	88	1259	7.27 ug/l		98
49)	Bromodichloromethane	10.34	83	31930	0.47 ug/l		95
50)	Dibromomethane	10.41	93	12143	0.50 ug/l		98
51)	2-Chloroethyl vinyl ether	10.87	63	8158	0.45 ug/l		96
52)	4-Methyl-2-pentanone	10.92	43	71062	2.46 ug/l		98
53)	cis-1,3-Dichloropropene	11.23	75	37625	0.48 ug/l		97
55)	Toluene	11.75	91	119529	0.52 ug/l		98
56)	Ethyl methacrylate	12.05	69	18134	0.48 ug/l		95
57)	trans-1,3-Dichloropropene	12.05	75	27503	0.48 ug/l		95
58)	1,1,2-Trichloroethane	12.30	97	14233	0.50 ug/l		98
59)	2-Hexanone	12.33	43	41670	2.43 ug/l		98
60)	1,3-Dichloropropane	12.72	76	30041	0.50 ug/l		96
61)	Tetrachloroethene	12.81	164	25302	0.51 ug/l		99
62)	Dibromochloromethane	13.13	129	17004	0.44 ug/l		97
64)	1,2-Dibromoethane	13.46	107	14398	0.48 ug/l		98
65)	1-Chlorohexane	13.71	91	47313	0.49 ug/l		95
66)	Chlorobenzene	14.13	112	70862	0.52 ug/l		84
67)	1,1,1,2-Tetrachloroethane	14.20	131	21147	0.49 ug/l		90
68)	Ethylbenzene	14.22	91	135256	0.53 ug/l		99
69)	m-Xylene & p-Xylene	14.34	91	206361	1.05 ug/l		99
70)	o-Xylene	15.05	91	99288	0.50 ug/l		98
71)	Styrene	15.11	104	68116	0.50 ug/l		99
73)	Isopropylbenzene	15.65	105	120430	0.50 ug/l		99
74)	Bromoform	15.68	173	7043	0.51 ug/l		96
75)	1,1,2,2-Tetrachloroethane	15.91	83	15303	0.48 ug/l		97
77)	1,2,3-Trichloropropane	16.17	110	4052	0.47 ug/l		90
78)	trans-1,4-Dichloro-2-buten	16.29	53	4776	0.50 ug/l		81
79)	n-Propylbenzene	16.30	91	162398	0.51 ug/l		99

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW004.D Vial: 3
Acq On : 15 Aug 2012 7:53 pm Operator: WL
Sample : VO06H152 Inst : TO06
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:22 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
80)	Bromobenzene	16.37	156	23899	0.48 ug/l	93
81)	1,3,5-Trimethylbenzene	16.55	105	96883	0.51 ug/l	99
82)	2-Chlorotoluene	16.58	91	104548	0.53 ug/l	97
83)	4-Chlorotoluene	16.66	91	83320	0.52 ug/l	99
84)	tert-Butylbenzene	17.12	134	21385	0.49 ug/l	94
85)	1,2,4-Trimethylbenzene	17.18	105	94900	0.52 ug/l	98
86)	sec-Butylbenzene	17.43	105	134927	0.51 ug/l	99
87)	p-Isopropyltoluene	17.62	119	100414	0.50 ug/l	98
88)	1,3-Dichlorobenzene	17.76	146	48506	0.49 ug/l	97
89)	1,4-Dichlorobenzene	17.89	146	47842	0.51 ug/l	99
91)	n-Butylbenzene	18.16	91	108127	0.53 ug/l	98
92)	1,2-Dichlorobenzene	18.37	146	39789	0.53 ug/l	89
93)	1,2-Dibromo-3-chloropropan	19.27	157	1350	0.37 ug/l	90
94)	1,2,4-Trichlorobenzene	20.27	180	25155	0.53 ug/l	99
95)	Hexachlorobutadiene	20.42	225	17616	0.53 ug/l	98
96)	Naphthalene	20.60	128	32432	0.57 ug/l	97
97)	1,2,3-Trichlorobenzene	20.88	180	19010	0.54 ug/l	98

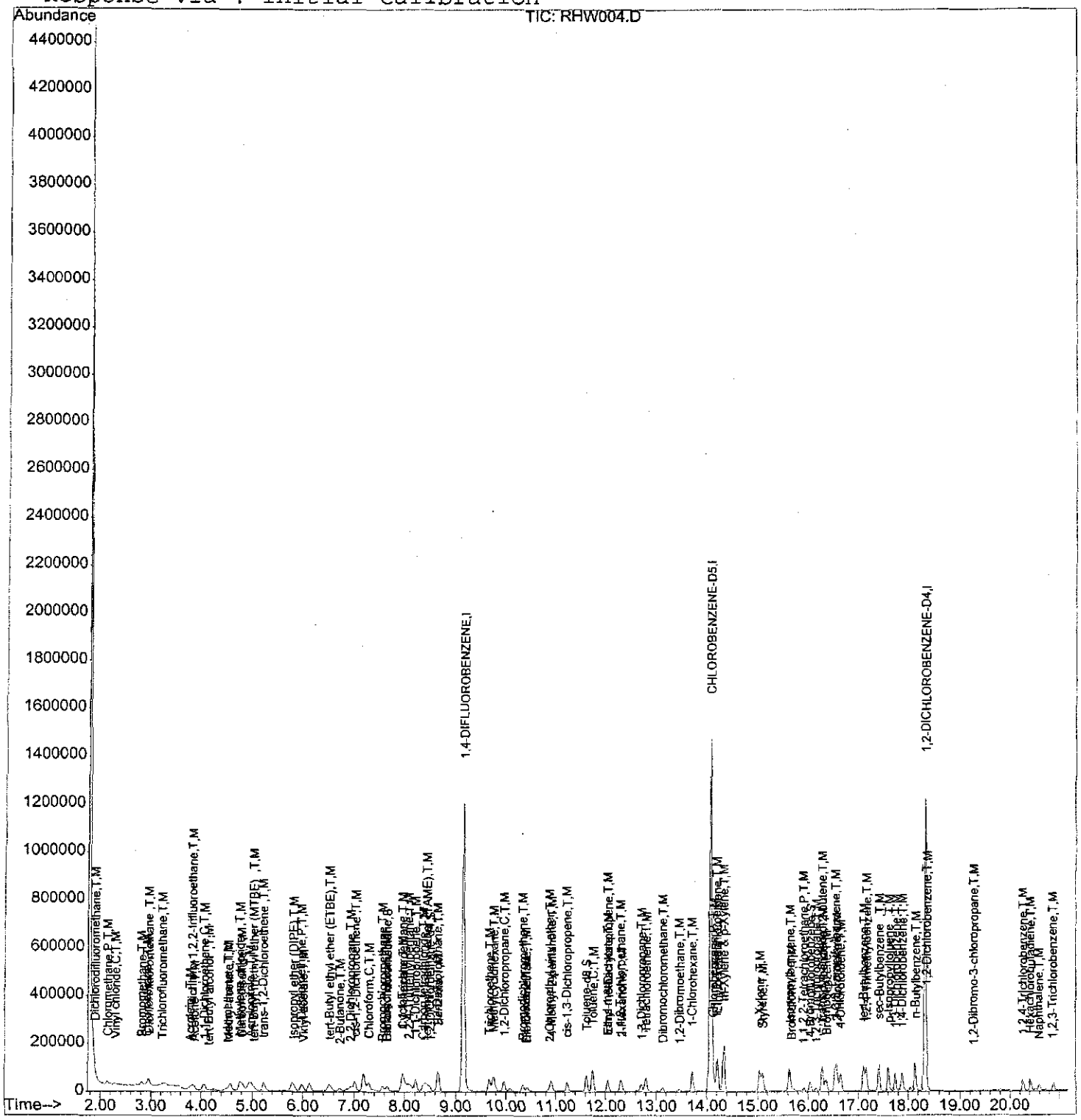
m 8-21-12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW004.D Vial: 3
Acq On : 15 Aug 2012 7:53 pm Operator: WL
Sample : VO06H152 Inst : TO06
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:22 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2051

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW005.D Vial: 4
Acq On : 15 Aug 2012 8:23 pm Operator: WL
Sample : VO06H153 Inst : TO06
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1673201	10.00 ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1429024	10.00 ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	505065	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	7.66	111	51245	1.01 ug/l	0.00
Spiked Amount 10.000			Recovery	= 10.10%	
38) 1,2-Dichloroethane-d4	8.50	65	45565	1.08 ug/l	0.00
Spiked Amount 10.000			Recovery	= 10.80%	
54) Toluene-d8	11.62	98	186357	1.02 ug/l	0.00
Spiked Amount 10.000			Recovery	= 10.20%	
76) 4-Bromofluorobenzene	16.05	95	61162	0.97 ug/l	0.00
Spiked Amount 10.000			Recovery	= 9.70%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.89	85	39436	0.91 ug/l	97
3) Chloromethane	2.15	50	50246	0.97 ug/l	98
4) Vinyl chloride	2.30	62	38471	0.99 ug/l	100
5) Bromomethane	2.82	94	26982	0.86 ug/l	97
6) Chloroethane	2.92	64	24082	0.90 ug/l	70
7) Dichlorofluoromethane	2.96	67	100275	1.09 ug/l	100
8) Trichlorofluoromethane	3.23	101	52299	0.88 ug/l	95
9) Acrolein	3.78	56	10247	4.98 ug/l	90
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	28048	1.00 ug/l	99
11) Acetone	3.87	43	40947	7.19 ug/l	94
12) 1,1-Dichloroethene	4.06	61	91023	1.04 ug/l	99
13) tert-Butyl alcohol	4.18	59	7773	4.81 ug/l #	1
15) Methyl acetate	4.54	43	20435	1.10 ug/l	88
16) Iodomethane	4.53	142	77217	1.02 ug/l	97
17) Methylene chloride	4.76	49	91847	0.99 ug/l	87
18) Carbon disulfide	4.79	76	173107	0.96 ug/l	99
19) Acrylonitrile	4.97	53	35595	4.97 ug/l	96
20) tert-Butyl methyl ether (M	5.02	73	81211	1.03 ug/l	96
21) trans-1,2-Dichloroethene	5.24	61	97779	1.05 ug/l	99
22) Isopropyl ether (DIPE)	5.80	45	190111	1.05 ug/l	100
23) Vinyl acetate	6.01	43	59347	0.94 ug/l	93
24) 1,1-Dichloroethane	5.98	63	111862	1.05 ug/l	98
25) 2-Butanol	6.40	45	7406	4.68 ug/l #	1
26) tert-Butyl ethyl ether (ET	6.52	59	135737	1.03 ug/l	99
27) 2-Butanone	6.73	43	56503	5.34 ug/l	95
28) 2,2-Dichloropropane	6.95	77	59565	1.12 ug/l	99
29) cis-1,2-Dichloroethene	7.02	96	64723	1.06 ug/l	92

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

8-21-12

2652

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW005.D
Acq On : 15 Aug 2012 8:23 pm
Sample : VO06H153
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012

Vial: 4
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	Chloroform	7.29	83	103368	1.07 ug/l		99
32)	Bromochloromethane	7.56	49	44249	1.04 ug/l		98
33)	Tetrahydrofuran	7.63	42	11616	1.13 ug/l		88
35)	1,1,1-Trichloroethane	7.96	97	83109	1.06 ug/l		98
36)	Cyclohexane	7.98	56	129179	0.99 ug/l		99
37)	tert-Amyl methyl ether (TA	8.44	87	20999	1.02 ug/l	#	87
40)	2,2,4-Trimethylpentane	8.08	57	245956	1.06 ug/l		98
41)	1,1-Dichloropropene	8.23	110	28608	1.03 ug/l		96
42)	Carbon tetrachloride	8.38	119	74094	1.02 ug/l		99
43)	1,2-Dichloroethane	8.66	62	56571	1.08 ug/l		98
44)	Benzene	8.66	78	232071	1.07 ug/l		99
45)	Trichloroethene	9.67	130	60521	0.98 ug/l		96
46)	Methylcyclohexane	9.76	83	102096	1.03 ug/l		100
47)	1,2-Dichloropropane	9.97	63	56714	1.03 ug/l		95
48)	1,4-Dioxane	10.40	88	2768	16.30 ug/l		83
49)	Bromodichloromethane	10.34	83	64730	0.97 ug/l		100
50)	Dibromomethane	10.43	93	24178	1.02 ug/l		99
51)	2-Chloroethyl vinyl ether	10.87	63	16592	0.94 ug/l		95
52)	4-Methyl-2-pentanone	10.92	43	139657	4.94 ug/l		98
53)	cis-1,3-Dichloropropene	11.25	75	73739	0.96 ug/l		97
55)	Toluene	11.75	91	236657	1.06 ug/l		97
56)	Ethyl methacrylate	12.05	69	35532	0.97 ug/l		96
57)	trans-1,3-Dichloropropene	12.05	75	54367	0.96 ug/l		99
58)	1,1,2-Trichloroethane	12.30	97	29119	1.04 ug/l		97
59)	2-Hexanone	12.33	43	83000	4.94 ug/l		97
60)	1,3-Dichloropropane	12.72	76	59265	1.01 ug/l		97
61)	Tetrachloroethene	12.81	164	50330	1.03 ug/l		98
62)	Dibromochloromethane	13.13	129	35608	0.94 ug/l		94
64)	1,2-Dibromoethane	13.46	107	28307	0.97 ug/l		95
65)	1-Chlorohexane	13.73	91	96208	1.02 ug/l		98
66)	Chlorobenzene	14.13	112	139335	1.04 ug/l		92
67)	1,1,1,2-Tetrachloroethane	14.20	131	42927	1.01 ug/l		95
68)	Ethylbenzene	14.22	91	274158	1.09 ug/l		100
69)	m-Xylene & p-Xylene	14.35	91	417376	2.16 ug/l		98
70)	o-Xylene	15.05	91	203488	1.05 ug/l		100
71)	Styrene	15.11	104	135649	1.02 ug/l		98
73)	Isopropylbenzene	15.65	105	237288	1.00 ug/l		99
74)	Bromoform	15.68	173	15268	0.93 ug/l		94
75)	1,1,2,2-Tetrachloroethane	15.93	83	29732	0.94 ug/l		95
77)	1,2,3-Trichloropropane	16.17	110	8010	0.95 ug/l		93
78)	trans-1,4-Dichloro-2-buten	16.29	53	9117	0.96 ug/l		85

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW005.D Vial: 4
Acq On : 15 Aug 2012 8:23 pm Operator: WL
Sample : VO06H153 Inst : TO06
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.30	91	327991	1.04 ug/l	99
80)	Bromobenzene	16.38	156	49366	1.00 ug/l	97
81)	1,3,5-Trimethylbenzene	16.55	105	199135	1.05 ug/l	100
82)	2-Chlorotoluene	16.58	91	207086	1.05 ug/l	100
83)	4-Chlorotoluene	16.67	91	171135	1.07 ug/l	98
84)	tert-Butylbenzene	17.12	134	45587	1.05 ug/l	98
85)	1,2,4-Trimethylbenzene	17.18	105	193048	1.06 ug/l	98
86)	sec-Butylbenzene	17.43	105	274112	1.05 ug/l	99
87)	p-Isopropyltoluene	17.62	119	210230	1.05 ug/l	99
88)	1,3-Dichlorobenzene	17.76	146	101947	1.05 ug/l	99
89)	1,4-Dichlorobenzene	17.91	146	94960	1.02 ug/l	100
91)	n-Butylbenzene	18.16	91	216306	1.06 ug/l	99
92)	1,2-Dichlorobenzene	18.37	146	76455	1.02 ug/l	92
93)	1,2-Dibromo-3-chloropropan	19.27	157	3715	1.01 ug/l	95
94)	1,2,4-Trichlorobenzene	20.27	180	51109	1.09 ug/l	100
95)	Hexachlorobutadiene	20.43	225	36524	1.10 ug/l	98
96)	Naphthalene	20.60	128	65964	1.16 ug/l	99
97)	1,2,3-Trichlorobenzene	20.89	180	39673	1.13 ug/l	97

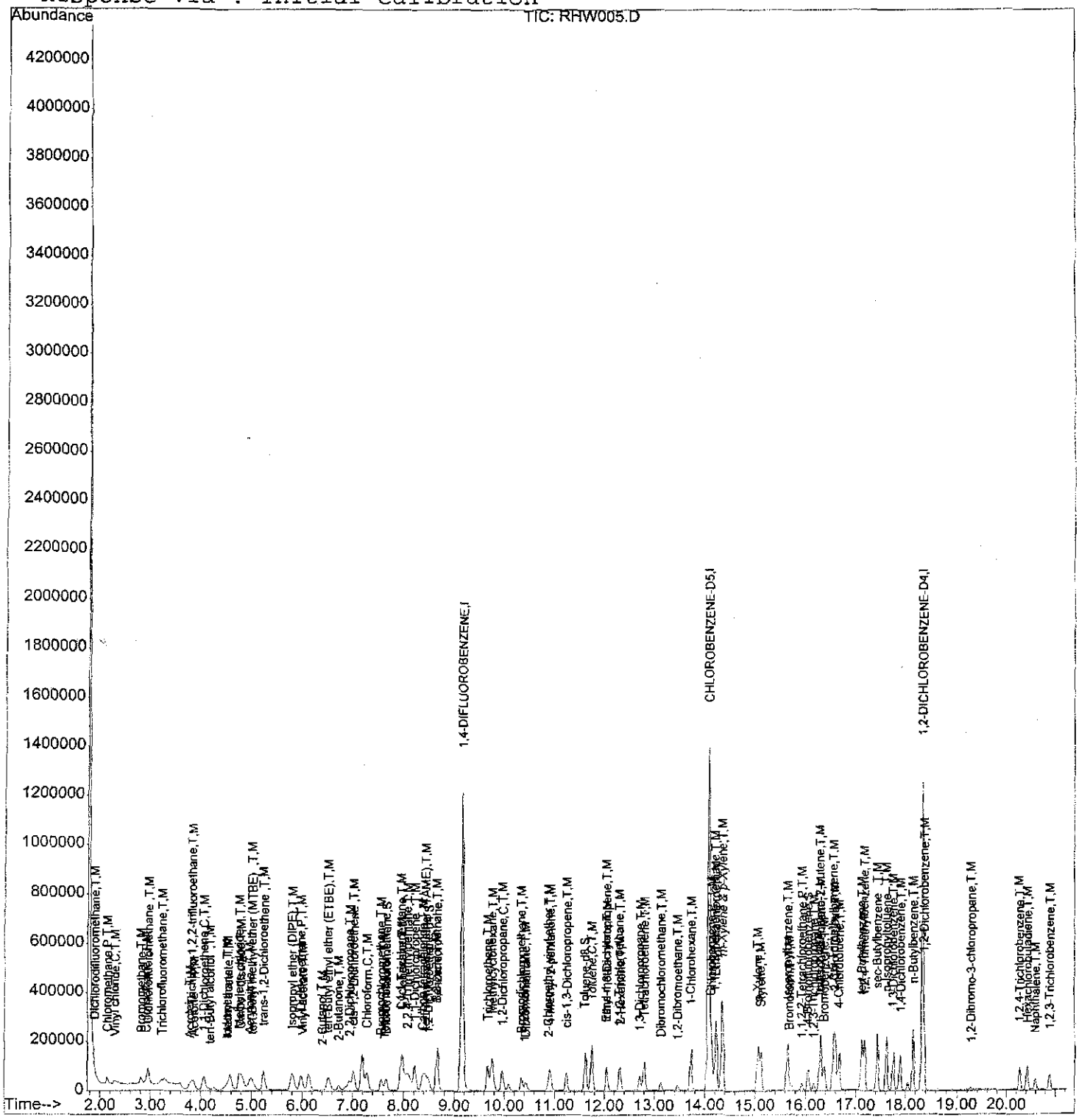
8-21-12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW005.D Vial: 4
Acq On : 15 Aug 2012 8:23 pm Operator: WL
Sample : VO06H153 Inst : TO06
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2955

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW006.D Vial: 5
Acq On : 15 Aug 2012 8:54 pm Operator: WL
Sample : VO06H154 Inst : TO06
Misc : 2.0ppb 8260/10ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1618568	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1396085	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	508493	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.65	111	101453	2.08	ug/l	0.00
Spiked Amount 10.000			Recovery	=	20.80%	
38) 1,2-Dichloroethane-d4	8.48	65	86205	2.11	ug/l	0.00
Spiked Amount 10.000			Recovery	=	21.10%	
54) Toluene-d8	11.62	98	368158	2.07	ug/l	0.00
Spiked Amount 10.000			Recovery	=	20.70%	
76) 4-Bromofluorobenzene	16.05	95	117946	1.86	ug/l	0.00
Spiked Amount 10.000			Recovery	=	18.60%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.90	85	82608	1.98	ug/l	96
3) Chloromethane	2.15	50	105880	2.11	ug/l	99
4) Vinyl chloride	2.30	62	85560	2.27	ug/l	99
5) Bromomethane	2.81	94	63968	2.12	ug/l	98
6) Chloroethane	2.92	64	55972	2.17	ug/l	96
7) Dichlorofluoromethane	2.95	67	167155	1.88	ug/l	99
8) Trichlorofluoromethane	3.24	101	120111	2.09	ug/l	99
9) Acrolein	3.77	56	19857	9.99	ug/l	88
10) 1,1,2-Trichloro-1,2,2-trif	3.82	151	47113	1.73	ug/l	99
11) Acetone	3.86	43	67002	12.15	ug/l	98
12) 1,1-Dichloroethene	4.07	61	159017	1.87	ug/l	99
13) tert-Butyl alcohol	4.16	59	14837	9.48	ug/l	89
15) Methyl acetate	4.54	43	38601	2.14	ug/l	93
16) Iodomethane	4.53	142	133840	1.84	ug/l	100
17) Methylene chloride	4.81	49	141893	1.95	ug/l	96
18) Carbon disulfide	4.80	76	357660	2.06	ug/l	98
19) Acrylonitrile	4.98	53	75207	10.86	ug/l	98
20) tert-Butyl methyl ether (M	5.02	73	147462	1.94	ug/l	98
21) trans-1,2-Dichloroethene	5.23	61	171235	1.90	ug/l	99
22) Isopropyl ether (DIPE)	5.81	45	335920	1.92	ug/l	100
23) Vinyl acetate	6.00	43	132604	2.18	ug/l	98
24) 1,1-Dichloroethane	5.97	63	201521	1.96	ug/l	98
25) 2-Butanol	6.39	45	16314	10.66	ug/l	100
26) tert-Butyl ethyl ether (ET	6.52	59	249404	1.95	ug/l	97
27) 2-Butanone	6.72	43	102090	9.98	ug/l	100
28) 2,2-Dichloropropane	6.94	77	100286	1.94	ug/l	97
29) cis-1,2-Dichloroethene	7.03	96	116215	1.96	ug/l	95

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

2056

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW006.D
Acq On : 15 Aug 2012 8:54 pm
Sample : VO06H154
Misc : 2.0ppb 8260/10ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012

Vial: 5
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	Chloroform	7.30	83	182486	1.95 ug/l		99
32)	Bromochloromethane	7.56	49	79143	1.92 ug/l		97
33)	Tetrahydrofuran	7.64	42	15988	1.89 ug/l		92
35)	1,1,1-Trichloroethane	7.95	97	145342	1.91 ug/l		98
36)	Cyclohexane	7.98	56	249186	1.98 ug/l		98
37)	tert-Amyl methyl ether (TA	8.43	87	37682	1.89 ug/l	#	92
40)	2,2,4-Trimethylpentane	8.10	57	487559	2.14 ug/l	#	72
41)	1,1-Dichloropropene	8.22	110	50224	1.85 ug/l		98
42)	Carbon tetrachloride	8.38	119	123566	1.75 ug/l		98
43)	1,2-Dichloroethane	8.65	62	98273	1.92 ug/l		98
44)	Benzene	8.66	78	397990	1.89 ug/l		100
45)	Trichloroethene	9.67	130	107729	1.79 ug/l		98
46)	Methylcyclohexane	9.76	83	202463	2.08 ug/l		99
47)	1,2-Dichloropropane	9.96	63	101276	1.89 ug/l		98
48)	1,4-Dioxane	10.39	88	5668	34.16 ug/l		86
49)	Bromodichloromethane	10.34	83	118900	1.83 ug/l		98
50)	Dibromomethane	10.43	93	42323	1.82 ug/l		96
51)	2-Chloroethyl vinyl ether	10.86	63	30948	1.79 ug/l		96
52)	4-Methyl-2-pentanone	10.91	43	287213	10.41 ug/l		100
53)	cis-1,3-Dichloropropene	11.24	75	137917	1.83 ug/l		98
55)	Toluene	11.74	91	422830	1.93 ug/l		100
56)	Ethyl methacrylate	12.05	69	65922	1.84 ug/l		99
57)	trans-1,3-Dichloropropene	12.05	75	101468	1.84 ug/l		99
58)	1,1,2-Trichloroethane	12.31	97	50525	1.84 ug/l		98
59)	2-Hexanone	12.32	43	172004	10.47 ug/l		99
60)	1,3-Dichloropropane	12.71	76	107465	1.88 ug/l		99
61)	Tetrachloroethene	12.80	164	88580	1.86 ug/l		99
62)	Dibromochloromethane	13.14	129	65524	1.77 ug/l		100
64)	1,2-Dibromoethane	13.45	107	53132	1.86 ug/l		98
65)	1-Chlorohexane	13.72	91	168675	1.83 ug/l		98
66)	Chlorobenzene	14.13	112	247756	1.89 ug/l		97
67)	1,1,1,2-Tetrachloroethane	14.21	131	78848	1.90 ug/l		97
68)	Ethylbenzene	14.22	91	482379	1.96 ug/l		99
69)	m-Xylene & p-Xylene	14.34	91	715107	3.79 ug/l		99
70)	o-Xylene	15.06	91	365341	1.94 ug/l		99
71)	Styrene	15.12	104	248576	1.90 ug/l		99
73)	Isopropylbenzene	15.64	105	421211	1.77 ug/l		99
74)	Bromoform	15.67	173	29596	1.64 ug/l		94
75)	1,1,2,2-Tetrachloroethane	15.92	83	56006	1.76 ug/l		98
77)	1,2,3-Trichloropropane	16.17	110	15679	1.84 ug/l		96
78)	trans-1,4-Dichloro-2-buten	16.28	53	15639	1.64 ug/l		98

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

8-21-12

2657

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW006.D
Acq On : 15 Aug 2012 8:54 pm
Sample : VO06H154
Misc : 2.0ppb 8260/10ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012

Vial: 5
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.29	91	577309	1.81 ug/l	100
80)	Bromobenzene	16.38	156	88741	1.79 ug/l	99
81)	1,3,5-Trimethylbenzene	16.54	105	347648	1.82 ug/l	100
82)	2-Chlorotoluene	16.59	91	339754	1.71 ug/l	94
83)	4-Chlorotoluene	16.66	91	312137	1.94 ug/l	92
84)	tert-Butylbenzene	17.12	134	77031	1.76 ug/l	94
85)	1,2,4-Trimethylbenzene	17.18	105	339828	1.85 ug/l	99
86)	sec-Butylbenzene	17.43	105	494666	1.88 ug/l	98
87)	p-Isopropyltoluene	17.61	119	375039	1.86 ug/l	99
88)	1,3-Dichlorobenzene	17.76	146	178657	1.82 ug/l	100
89)	1,4-Dichlorobenzene	17.90	146	169913	1.82 ug/l	99
91)	n-Butylbenzene	18.15	91	378504	1.85 ug/l	99
92)	1,2-Dichlorobenzene	18.37	146	138371	1.84 ug/l	96
93)	1,2-Dibromo-3-chloropropan	19.26	157	6831	1.85 ug/l	93
94)	1,2,4-Trichlorobenzene	20.27	180	92641	1.96 ug/l	100
95)	Hexachlorobutadiene	20.42	225	66920	2.01 ug/l	99
96)	Naphthalene	20.59	128	119352	2.09 ug/l	99
97)	1,2,3-Trichlorobenzene	20.88	180	71975	2.04 ug/l	100

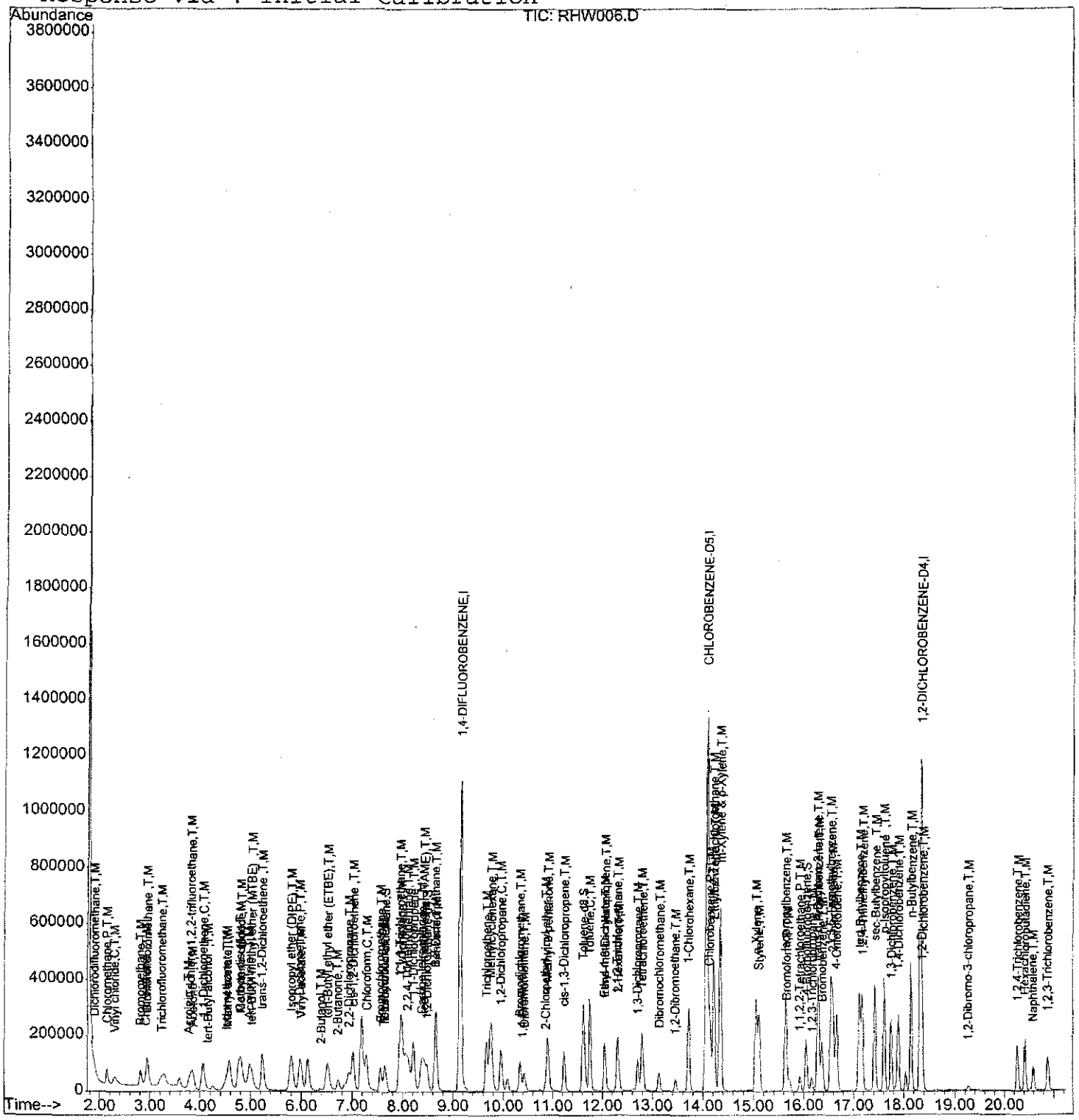
8-21-12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW006.D Vial: 5
Acq On : 15 Aug 2012 8:54 pm Operator: WL
Sample : VO06H154 Inst : TO06
Misc : 2.0ppb 8260/10ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2659

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW007.D Vial: 6
Acq On : 15 Aug 2012 9:23 pm Operator: WL
Sample : VO06H155 Inst : TO06
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1604526	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1363601	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	475284	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.66	111	272737	5.63	ug/l	0.00
Spiked Amount 10.000			Recovery	=	56.30%	
38) 1,2-Dichloroethane-d4	8.49	65	223713	5.53	ug/l	0.00
Spiked Amount 10.000			Recovery	=	55.30%	
54) Toluene-d8	11.62	98	991496	5.70	ug/l	0.00
Spiked Amount 10.000			Recovery	=	57.00%	
76) 4-Bromofluorobenzene	16.05	95	318737	5.39	ug/l	0.00
Spiked Amount 10.000			Recovery	=	53.90%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	227348	5.49	ug/l	99
3) Chloromethane	2.15	50	274065	5.51	ug/l	99
4) Vinyl chloride	2.29	62	220559	5.91	ug/l	100
5) Bromomethane	2.82	94	174139	5.82	ug/l	98
6) Chloroethane	2.92	64	142362	5.57	ug/l	99
7) Dichlorofluoromethane	2.96	67	447796	5.08	ug/l	99
8) Trichlorofluoromethane	3.25	101	332011	5.82	ug/l	100
9) Acrolein	3.77	56	48101	24.40	ug/l	98
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	135307	5.02	ug/l	98
11) Acetone	3.87	43	133634	24.45	ug/l	99
12) 1,1-Dichloroethene	4.06	61	428148	5.08	ug/l	99
13) tert-Butyl alcohol	4.15	59	38933	25.10	ug/l	96
15) Methyl acetate	4.54	43	94696	5.30	ug/l	95
16) Iodomethane	4.53	142	368460	5.10	ug/l	100
17) Methylene chloride	4.76	49	330793	5.42	ug/l	88
18) Carbon disulfide	4.79	76	909489	5.28	ug/l	98
19) Acrylonitrile	4.97	53	169870	24.74	ug/l	99
20) tert-Butyl methyl ether (M	5.02	73	373095	4.95	ug/l	99
21) trans-1,2-Dichloroethene	5.24	61	460561	5.16	ug/l	99
22) Isopropyl ether (DIPE)	5.80	45	878334	5.06	ug/l	99
23) Vinyl acetate	6.00	43	327957	5.44	ug/l	99
24) 1,1-Dichloroethane	5.97	63	533874	5.23	ug/l	99
25) 2-Butanol	6.38	45	40749	26.87	ug/l	100
26) tert-Butyl ethyl ether (ET	6.52	59	628638	4.95	ug/l	100
27) 2-Butanone	6.73	43	229024	22.58	ug/l	99
28) 2,2-Dichloropropane	6.95	77	271706	5.31	ug/l	99
29) cis-1,2-Dichloroethene	7.02	96	296030	5.05	ug/l	98

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

2060

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW007.D
Acq On : 15 Aug 2012 9:23 pm
Sample : VO06H155
Misc : 5.0ppb 8260/25ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012

Vial: 6
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	Chloroform	7.29	83	466289	5.02 ug/l		99
32)	Bromochloromethane	7.56	49	201195	4.93 ug/l		99
33)	Tetrahydrofuran	7.62	42	33501	4.76 ug/l		96
35)	1,1,1-Trichloroethane	7.96	97	394281	5.22 ug/l		99
36)	Cyclohexane	7.97	56	662284	5.30 ug/l		97
37)	tert-Amyl methyl ether (TA	8.44	87	95347	4.82 ug/l		97
40)	2,2,4-Trimethylpentane	8.06	57	1257309	5.66 ug/l	#	71
41)	1,1-Dichloropropene	8.23	110	133700	5.04 ug/l		99
42)	Carbon tetrachloride	8.38	119	347046	5.03 ug/l		100
43)	1,2-Dichloroethane	8.64	62	248640	4.97 ug/l		98
44)	Benzene	8.66	78	1003623	4.87 ug/l		99
45)	Trichloroethene	9.67	130	294680	5.01 ug/l		99
46)	Methylcyclohexane	9.74	83	556650	5.86 ug/l		99
47)	1,2-Dichloropropane	9.97	63	258681	4.95 ug/l		99
48)	1,4-Dioxane	10.38	88	17298	106.75 ug/l		93
49)	Bromodichloromethane	10.34	83	314611	4.95 ug/l		100
50)	Dibromomethane	10.43	93	112515	4.96 ug/l		100
51)	2-Chloroethyl vinyl ether	10.86	63	84096	4.98 ug/l		97
52)	4-Methyl-2-pentanone	10.90	43	666513	24.72 ug/l		99
53)	cis-1,3-Dichloropropene	11.23	75	370435	5.04 ug/l		99
55)	Toluene	11.75	91	1094034	5.12 ug/l		100
56)	Ethyl methacrylate	12.05	69	172024	4.91 ug/l		98
57)	trans-1,3-Dichloropropene	12.05	75	265645	4.94 ug/l		98
58)	1,1,2-Trichloroethane	12.30	97	133903	4.99 ug/l		99
59)	2-Hexanone	12.32	43	398004	24.80 ug/l		99
60)	1,3-Dichloropropane	12.72	76	274852	4.92 ug/l		99
61)	Tetrachloroethene	12.81	164	231048	4.98 ug/l		98
62)	Dibromochloromethane	13.13	129	177559	4.91 ug/l		100
64)	1,2-Dibromoethane	13.46	107	138373	4.96 ug/l		100
65)	1-Chlorohexane	13.71	91	460739	5.12 ug/l		99
66)	Chlorobenzene	14.13	112	636167	4.97 ug/l		99
67)	1,1,1,2-Tetrachloroethane	14.20	131	202193	4.99 ug/l		99
68)	Ethylbenzene	14.22	91	1226929	5.12 ug/l		99
69)	m-Xylene & p-Xylene	14.34	91	1863799	10.12 ug/l		99
70)	o-Xylene	15.05	91	961229	5.22 ug/l		98
71)	Styrene	15.11	104	671239	5.27 ug/l		99
73)	Isopropylbenzene	15.63	105	1125864	5.06 ug/l		100
74)	Bromoform	15.68	173	79924	4.44 ug/l		98
75)	1,1,2,2-Tetrachloroethane	15.93	83	144519	4.86 ug/l		99
77)	1,2,3-Trichloropropane	16.17	110	39777	4.99 ug/l		95
78)	trans-1,4-Dichloro-2-buten	16.27	53	44561	4.98 ug/l		94

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW007.D Vial: 6
Acq On : 15 Aug 2012 9:23 pm Operator: WL
Sample : VO06H155 Inst : TO06
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.29	91	1530106	5.15 ug/l	100
80)	Bromobenzene	16.37	156	225647	4.87 ug/l	100
81)	1,3,5-Trimethylbenzene	16.55	105	908147	5.08 ug/l	99
82)	2-Chlorotoluene	16.58	91	946708	5.11 ug/l	100
83)	4-Chlorotoluene	16.66	91	719573	4.79 ug/l	100
84)	tert-Butylbenzene	17.12	134	207964	5.07 ug/l	98
85)	1,2,4-Trimethylbenzene	17.18	105	882877	5.14 ug/l	99
86)	sec-Butylbenzene	17.43	105	1274782	5.17 ug/l	99
87)	p-Isopropyltoluene	17.62	119	969946	5.14 ug/l	99
88)	1,3-Dichlorobenzene	17.76	146	456443	4.98 ug/l	99
89)	1,4-Dichlorobenzene	17.89	146	438860	5.02 ug/l	100
91)	n-Butylbenzene	18.14	91	1000797	5.22 ug/l	99
92)	1,2-Dichlorobenzene	18.37	146	352899	5.02 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.27	157	18345	5.33 ug/l	98
94)	1,2,4-Trichlorobenzene	20.27	180	242082	5.49 ug/l	99
95)	Hexachlorobutadiene	20.42	225	174184	5.59 ug/l	99
96)	Naphthalene	20.60	128	301325	5.63 ug/l	100
97)	1,2,3-Trichlorobenzene	20.89	180	183762	5.57 ug/l	99

8-21-12

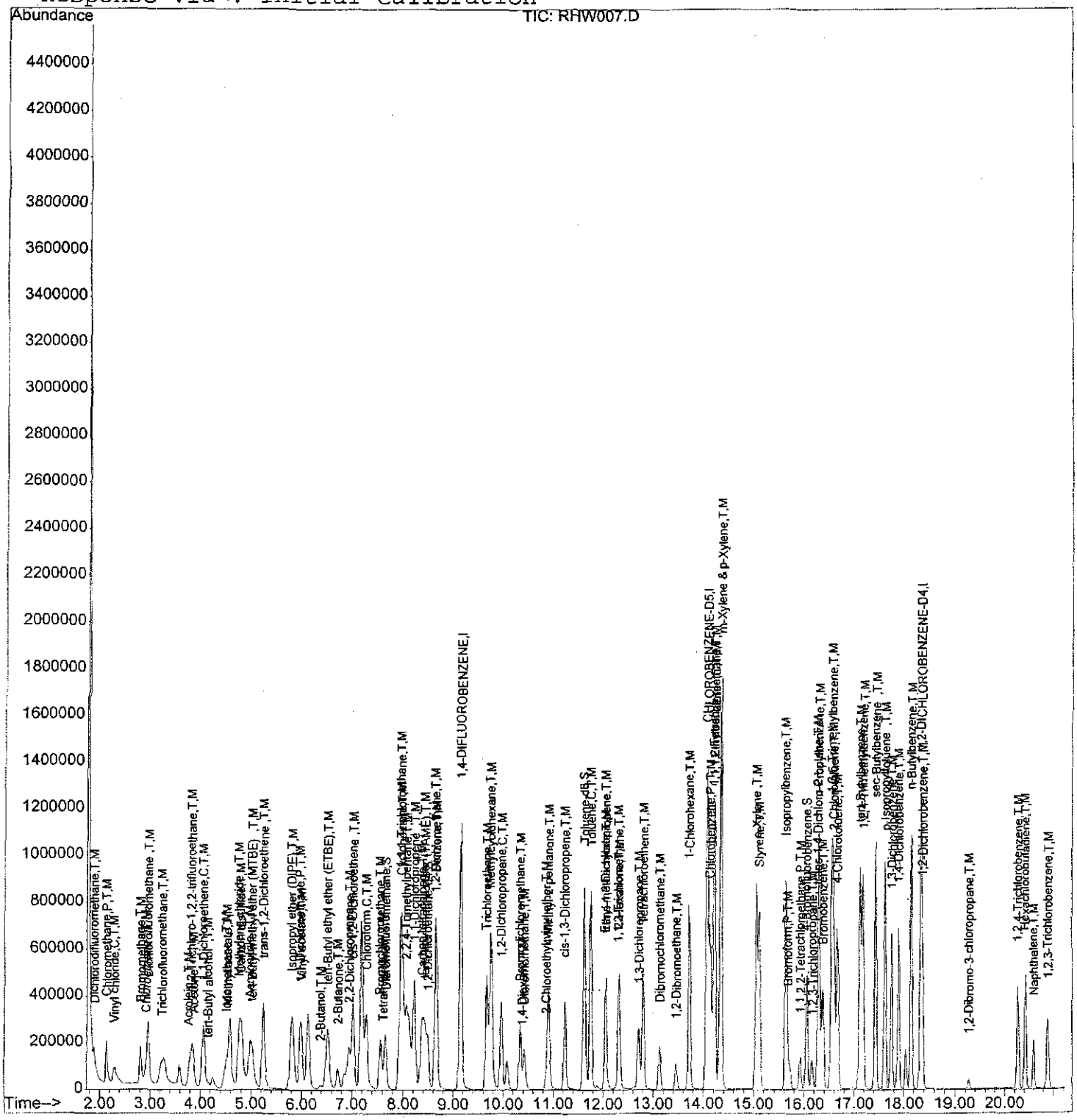
(#) = qualifier out of range (m) = manual integration

2062

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW007.D Vial: 6
Acq On : 15 Aug 2012 9:23 pm Operator: WL
Sample : VO06H155 Inst : TO06
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2883

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW008.D Vial: 7
Acq On : 15 Aug 2012 9:54 pm Operator: WL
Sample : VO06H156 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1654332	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1432235	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	489315	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.66	111	547360	10.96	ug/l	0.00
Spiked Amount 10.000			Recovery = 109.60%			
38) 1,2-Dichloroethane-d4	8.49	65	460705	11.04	ug/l	0.00
Spiked Amount 10.000			Recovery = 110.40%			
54) Toluene-d8	11.62	98	1938847	10.61	ug/l	0.00
Spiked Amount 10.000			Recovery = 106.10%			
76) 4-Bromofluorobenzene	16.05	95	634772	10.42	ug/l	0.00
Spiked Amount 10.000			Recovery = 104.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	427306	10.02	ug/l	100
3) Chloromethane	2.15	50	528794	10.31	ug/l	100
4) Vinyl chloride	2.29	62	390122	10.13	ug/l	100
5) Bromomethane	2.81	94	334700	10.85	ug/l	100
6) Chloroethane	2.92	64	288185	10.95	ug/l	100
7) Dichlorofluoromethane	2.96	67	949901	10.46	ug/l	100
8) Trichlorofluoromethane	3.25	101	618983	10.53	ug/l	100
9) Acrolein	3.77	56	103473	50.91	ug/l	100
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	279245	10.04	ug/l	100
11) Acetone	3.86	43	281216	49.91	ug/l	100
12) 1,1-Dichloroethene	4.06	61	883388	10.17	ug/l	100
13) tert-Butyl alcohol	4.15	59	91451	57.19	ug/l	100
15) Methyl acetate	4.54	43	172219	9.36	ug/l	100
16) Iodomethane	4.52	142	752457	10.10	ug/l	100
17) Methylene chloride	4.76	49	648778	10.88	ug/l	100
18) Carbon disulfide	4.79	76	1876655	10.57	ug/l	100
19) Acrylonitrile	4.97	53	362605	51.22	ug/l	100
20) tert-Butyl methyl ether (M	5.02	73	817115	10.50	ug/l	100
21) trans-1,2-Dichloroethene	5.24	61	924416	10.04	ug/l	100
22) Isopropyl ether (DIPE)	5.80	45	1857211	10.37	ug/l	100
23) Vinyl acetate	6.00	43	656451	10.55	ug/l	100
24) 1,1-Dichloroethane	5.97	63	1073447	10.19	ug/l	100
25) 2-Butanol	6.37	45	73836	47.22	ug/l	100
26) tert-Butyl ethyl ether (ET	6.52	59	1345996	10.29	ug/l	100
27) 2-Butanone	6.72	43	512648	49.02	ug/l	100
28) 2,2-Dichloropropane	6.93	77	546977	10.36	ug/l	100
29) cis-1,2-Dichloroethene	7.02	96	600621	9.93	ug/l	100

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

8-21-12

2064

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW008.D Vial: 7
Acq On : 15 Aug 2012 9:54 pm Operator: WL
Sample : VO06H156 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30)	Chloroform	7.29	83	951680	9.95 ug/l	100
32)	Bromochloromethane	7.56	49	433861	10.30 ug/l	100
33)	Tetrahydrofuran	7.62	42	67722	9.99 ug/l	100
35)	1,1,1-Trichloroethane	7.96	97	800820	10.29 ug/l	100
36)	Cyclohexane	7.97	56	1217420	9.45 ug/l	100
37)	tert-Amyl methyl ether (TA	8.43	87	219210	10.75 ug/l	100
40)	2,2,4-Trimethylpentane	8.09	57	2315931	9.92 ug/l	100
41)	1,1-Dichloropropene	8.21	110	273735	9.83 ug/l	100
42)	Carbon tetrachloride	8.38	119	729817	10.07 ug/l	100
43)	1,2-Dichloroethane	8.64	62	524892	9.98 ug/l	100
44)	Benzene	8.66	78	2088809	9.65 ug/l	100
45)	Trichloroethene	9.67	130	611201	9.89 ug/l	100
46)	Methylcyclohexane	9.76	83	1003583	10.06 ug/l	100
47)	1,2-Dichloropropane	9.97	63	548408	9.98 ug/l	100
48)	1,4-Dioxane	10.38	88	34812	204.54 ug/l	100
49)	Bromodichloromethane	10.34	83	683254	10.24 ug/l	100
50)	Dibromomethane	10.43	93	241256	10.12 ug/l	100
51)	2-Chloroethyl vinyl ether	10.87	63	188502	10.63 ug/l	100
52)	4-Methyl-2-pentanone	10.90	43	1480123	52.27 ug/l	100
53)	cis-1,3-Dichloropropene	11.23	75	798774	10.35 ug/l	100
55)	Toluene	11.75	91	2212675	9.86 ug/l	100
56)	Ethyl methacrylate	12.05	69	390843	10.62 ug/l	100
57)	trans-1,3-Dichloropropene	12.05	75	591390	10.47 ug/l	100
58)	1,1,2-Trichloroethane	12.30	97	289819	10.29 ug/l	100
59)	2-Hexanone	12.32	43	881961	52.33 ug/l	100
60)	1,3-Dichloropropane	12.72	76	606294	10.34 ug/l	100
61)	Tetrachloroethene	12.81	164	480324	9.85 ug/l	100
62)	Dibromochloromethane	13.13	129	400566	10.55 ug/l	100
64)	1,2-Dibromoethane	13.46	107	304845	10.39 ug/l	100
65)	1-Chlorohexane	13.71	91	970386	10.27 ug/l	100
66)	Chlorobenzene	14.13	112	1309865	9.74 ug/l	100
67)	1,1,1,2-Tetrachloroethane	14.20	131	440434	10.34 ug/l	100
68)	Ethylbenzene	14.22	91	2530951	10.05 ug/l	100
69)	m-Xylene & p-Xylene	14.34	91	3757093	19.42 ug/l	100
70)	o-Xylene	15.05	91	1977643	10.22 ug/l	100
71)	Styrene	15.11	104	1389288	10.38 ug/l	100
73)	Isopropylbenzene	15.63	105	2312854	10.09 ug/l	100
74)	Bromoform	15.68	173	182928	9.67 ug/l	100
75)	1,1,2,2-Tetrachloroethane	15.93	83	314044	10.27 ug/l	100
77)	1,2,3-Trichloropropane	16.17	110	85665	10.45 ug/l	100
78)	trans-1,4-Dichloro-2-buten	16.27	53	96916	10.53 ug/l	100

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

8-21-12

2065

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW008.D
Acq On : 15 Aug 2012 9:54 pm
Sample : VO06H156
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012

Vial: 7
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.28	91	3119921	10.19 ug/l	100
80)	Bromobenzene	16.37	156	478948	10.04 ug/l	100
81)	1,3,5-Trimethylbenzene	16.55	105	1822878	9.91 ug/l	100
82)	2-Chlorotoluene	16.58	91	1907368	9.99 ug/l	100
83)	4-Chlorotoluene	16.66	91	1509268	9.75 ug/l	100
84)	tert-Butylbenzene	17.12	134	415879	9.85 ug/l	100
85)	1,2,4-Trimethylbenzene	17.18	105	1762714	9.97 ug/l	100
86)	sec-Butylbenzene	17.43	105	2514703	9.91 ug/l	100
87)	p-Isopropyltoluene	17.62	119	1931202	9.94 ug/l	100
88)	1,3-Dichlorobenzene	17.76	146	934080	9.90 ug/l	100
89)	1,4-Dichlorobenzene	17.89	146	891765	9.91 ug/l	100
91)	n-Butylbenzene	18.16	91	1930358	9.79 ug/l	100
92)	1,2-Dichlorobenzene	18.37	146	711399	9.83 ug/l	100
93)	1,2-Dibromo-3-chloropropan	19.27	157	35677	10.06 ug/l	100
94)	1,2,4-Trichlorobenzene	20.27	180	433509	9.55 ug/l	100
95)	Hexachlorobutadiene	20.42	225	316442	9.87 ug/l	100
96)	Naphthalene	20.60	128	551804	10.02 ug/l	100
97)	1,2,3-Trichlorobenzene	20.89	180	323344	9.52 ug/l	100

8-21-12

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

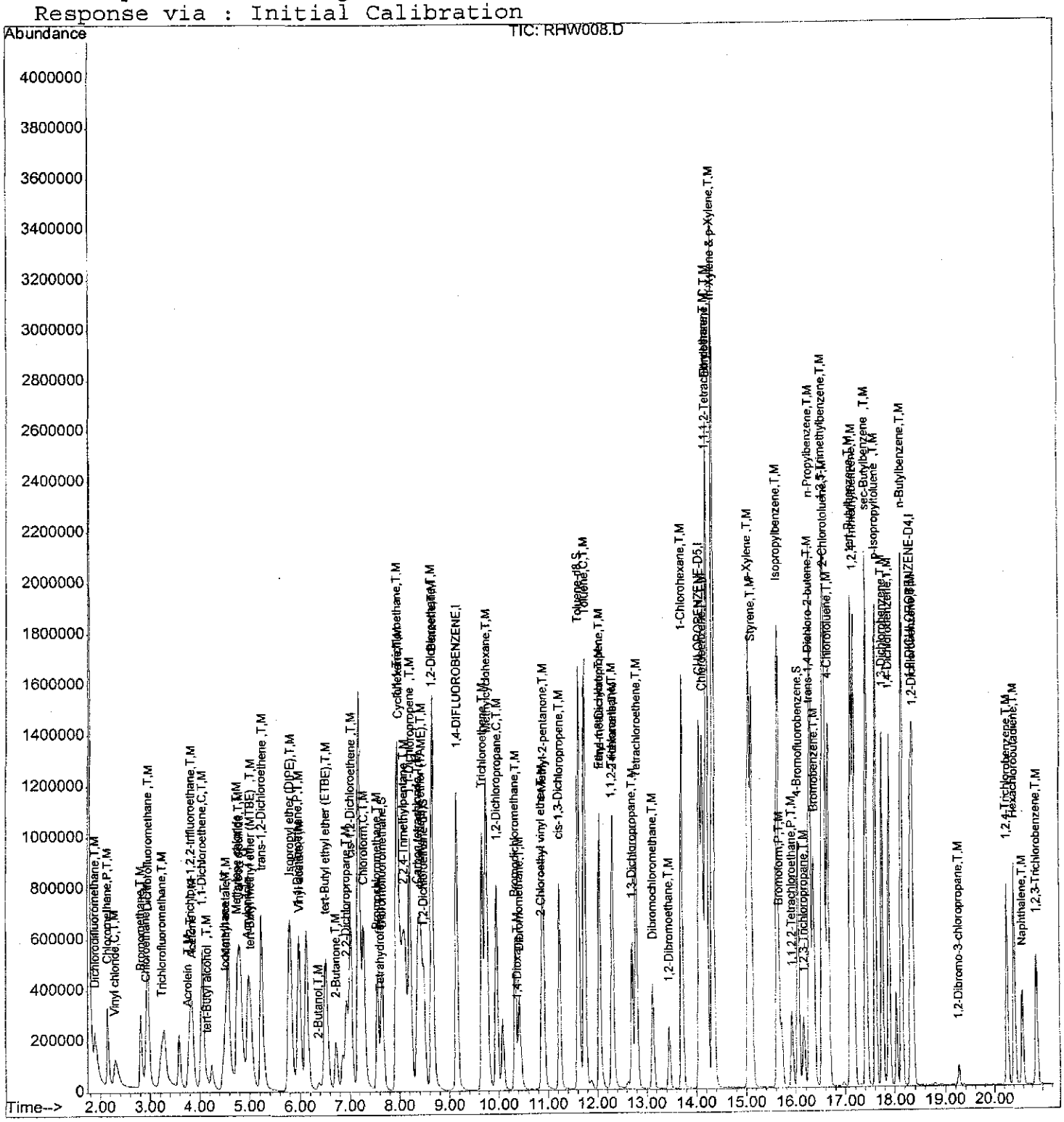
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW008.D
Acq On : 15 Aug 2012 9:54 pm
Sample : VO06H156
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012

Vial: 7
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8/21-4

2007

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW009.D Vial: 8
Acq On : 15 Aug 2012 10:23 pm Operator: WL
Sample : VO06H157 Inst : TO06
Misc : 20ppb 8260/100ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1702228	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1429844	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	426712	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.65	111	1079724	21.01	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	210.10%	
38) 1,2-Dichloroethane-d4	8.48	65	873390	20.35	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	203.50%	
54) Toluene-d8	11.62	98	3685826	20.20	ug/l	0.00
Spiked Amount 10.000			Recovery	=	202.00%	
76) 4-Bromofluorobenzene	16.05	95	1178645	22.19	ug/l	0.00
Spiked Amount 10.000			Recovery	=	221.90%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.90	85	830282	18.91	ug/l	99
3) Chloromethane	2.15	50	1015909	19.26	ug/l	100
4) Vinyl chloride	2.31	62	680702	17.18	ug/l	100
5) Bromomethane	2.82	94	668082	21.04	ug/l	100
6) Chloroethane	2.92	64	555917	20.52	ug/l	99
7) Dichlorofluoromethane	2.95	67	1919163	20.54	ug/l	100
8) Trichlorofluoromethane	3.23	101	1221096	20.19	ug/l	99
9) Acrolein	3.77	56	207737	99.33	ug/l	100
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	580247	20.27	ug/l	99
11) Acetone	3.86	43	524561	90.48	ug/l	99
12) 1,1-Dichloroethene	4.07	61	1814652	20.30	ug/l	99
13) tert-Butyl alcohol	4.16	59	162216	98.60	ug/l	100
15) Methyl acetate	4.54	43	332823	17.57	ug/l	100
16) Iodomethane	4.53	142	1574187	20.53	ug/l	100
17) Methylene chloride	4.81	49	1274511	21.33	ug/l	98
18) Carbon disulfide	4.79	76	3711027	20.31	ug/l	100
19) Acrylonitrile	4.97	53	699233	95.99	ug/l	99
20) tert-Butyl methyl ether (M	5.02	73	1555724	19.44	ug/l	99
21) trans-1,2-Dichloroethene	5.23	61	1927347	20.35	ug/l	98
22) Isopropyl ether (DIPE)	5.79	45	3673351	19.94	ug/l	100
23) Vinyl acetate	6.00	43	1240010	19.38	ug/l	100
24) 1,1-Dichloroethane	5.97	63	2187069	20.18	ug/l	100
25) 2-Butanol	6.37	45	145463	90.40	ug/l	98
26) tert-Butyl ethyl ether (ET	6.52	59	2702939	20.08	ug/l	99
27) 2-Butanone	6.71	43	962544	89.45	ug/l	98
28) 2,2-Dichloropropane	6.94	77	1079048	19.87	ug/l	99
29) cis-1,2-Dichloroethene	7.03	96	1248250	20.07	ug/l	97

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

2668

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW009.D Vial: 8
Acq On : 15 Aug 2012 10:23 pm Operator: WL
Sample : VO06H157 Inst : TO06
Misc : 20ppb 8260/100ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30)	Chloroform	7.29	83	1945597	19.76 ug/l	100
32)	Bromochloromethane	7.56	49	864341	19.95 ug/l	99
33)	Tetrahydrofuran	7.62	42	121803	17.97 ug/l	97
35)	1,1,1-Trichloroethane	7.95	97	1635104	20.42 ug/l	99
36)	Cyclohexane	7.98	56	2404745	18.13 ug/l	100
37)	tert-Amyl methyl ether (TA	8.42	87	425315	20.27 ug/l	97
40)	2,2,4-Trimethylpentane	8.10	57	4166860	17.88 ug/l	94
41)	1,1-Dichloropropene	8.21	110	566065	20.35 ug/l	100
42)	Carbon tetrachloride	8.38	119	1499346	20.72 ug/l	100
43)	1,2-Dichloroethane	8.65	62	1031493	19.65 ug/l	99
44)	Benzene	8.66	78	4245350	19.64 ug/l	100
45)	Trichloroethene	9.67	130	1242633	20.13 ug/l	99
46)	Methylcyclohexane	9.76	83	1952582	19.60 ug/l	100
47)	1,2-Dichloropropane	9.95	63	1110418	20.25 ug/l	100
48)	1,4-Dioxane	10.39	88	71568	421.20 ug/l	98
49)	Bromodichloromethane	10.34	83	1411441	21.19 ug/l	99
50)	Dibromomethane	10.43	93	487601	20.49 ug/l	99
51)	2-Chloroethyl vinyl ether	10.86	63	367735	20.77 ug/l	99
52)	4-Methyl-2-pentanone	10.91	43	2775791	98.19 ug/l	99
53)	cis-1,3-Dichloropropene	11.23	75	1602324	20.80 ug/l	99
55)	Toluene	11.74	91	4481231	20.01 ug/l	100
56)	Ethyl methacrylate	12.05	69	754073	20.53 ug/l	99
57)	trans-1,3-Dichloropropene	12.05	75	1179460	20.91 ug/l	97
58)	1,1,2-Trichloroethane	12.30	97	559496	19.89 ug/l	99
59)	2-Hexanone	12.32	43	1636610	97.26 ug/l	100
60)	1,3-Dichloropropane	12.70	76	1147791	19.60 ug/l	100
61)	Tetrachloroethene	12.79	164	978703	20.10 ug/l	100
62)	Dibromochloromethane	13.14	129	800309	21.10 ug/l	100
64)	1,2-Dibromoethane	13.45	107	599055	20.46 ug/l	99
65)	1-Chlorohexane	13.72	91	1928084	20.43 ug/l	99
66)	Chlorobenzene	14.13	112	2714035	20.21 ug/l	98
67)	1,1,1,2-Tetrachloroethane	14.21	131	874511	20.57 ug/l	99
68)	Ethylbenzene	14.22	91	4973785	19.78 ug/l	99
69)	m-Xylene & p-Xylene	14.34	91	7392958	38.28 ug/l	99
70)	o-Xylene	15.05	91	3917118	20.27 ug/l	100
71)	Styrene	15.11	104	2708432	20.26 ug/l	100
73)	Isopropylbenzene	15.63	105	4564697	22.83 ug/l	99
74)	Bromoform	15.66	173	357667	21.48 ug/l	99
75)	1,1,2,2-Tetrachloroethane	15.93	83	570540	21.39 ug/l	100
77)	1,2,3-Trichloropropane	16.17	110	152569	21.33 ug/l	99
78)	trans-1,4-Dichloro-2-buten	16.27	53	178995	22.30 ug/l	97

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW009.D
Acq On : 15 Aug 2012 10:23 pm
Sample : VO06H157
Misc : 20ppb 8260/100ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012

Vial: 8
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.29	91	5959397	22.33 ug/l	99
80)	Bromobenzene	16.38	156	924045	22.20 ug/l	99
81)	1,3,5-Trimethylbenzene	16.55	105	3527607	21.98 ug/l	99
82)	2-Chlorotoluene	16.58	91	3739562	22.47 ug/l	99
83)	4-Chlorotoluene	16.66	91	2857965	21.17 ug/l	100
84)	tert-Butylbenzene	17.12	134	803678	21.82 ug/l	97
85)	1,2,4-Trimethylbenzene	17.18	105	3319292	21.52 ug/l	100
86)	sec-Butylbenzene	17.43	105	4756148	21.48 ug/l	100
87)	p-Isopropyltoluene	17.61	119	3612980	21.33 ug/l	100
88)	1,3-Dichlorobenzene	17.76	146	1789970	21.75 ug/l	100
89)	1,4-Dichlorobenzene	17.89	146	1681857	21.43 ug/l	100
91)	n-Butylbenzene	18.15	91	3604934	20.95 ug/l	100
92)	1,2-Dichlorobenzene	18.37	146	1269889	20.13 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.28	157	56167	18.16 ug/l	98
94)	1,2,4-Trichlorobenzene	20.27	180	709001	17.91 ug/l	100
95)	Hexachlorobutadiene	20.42	225	485824	17.37 ug/l	99
96)	Naphthalene	20.60	128	820193	17.08 ug/l	100
97)	1,2,3-Trichlorobenzene	20.88	180	480501	16.23 ug/l	100

8-20-12

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

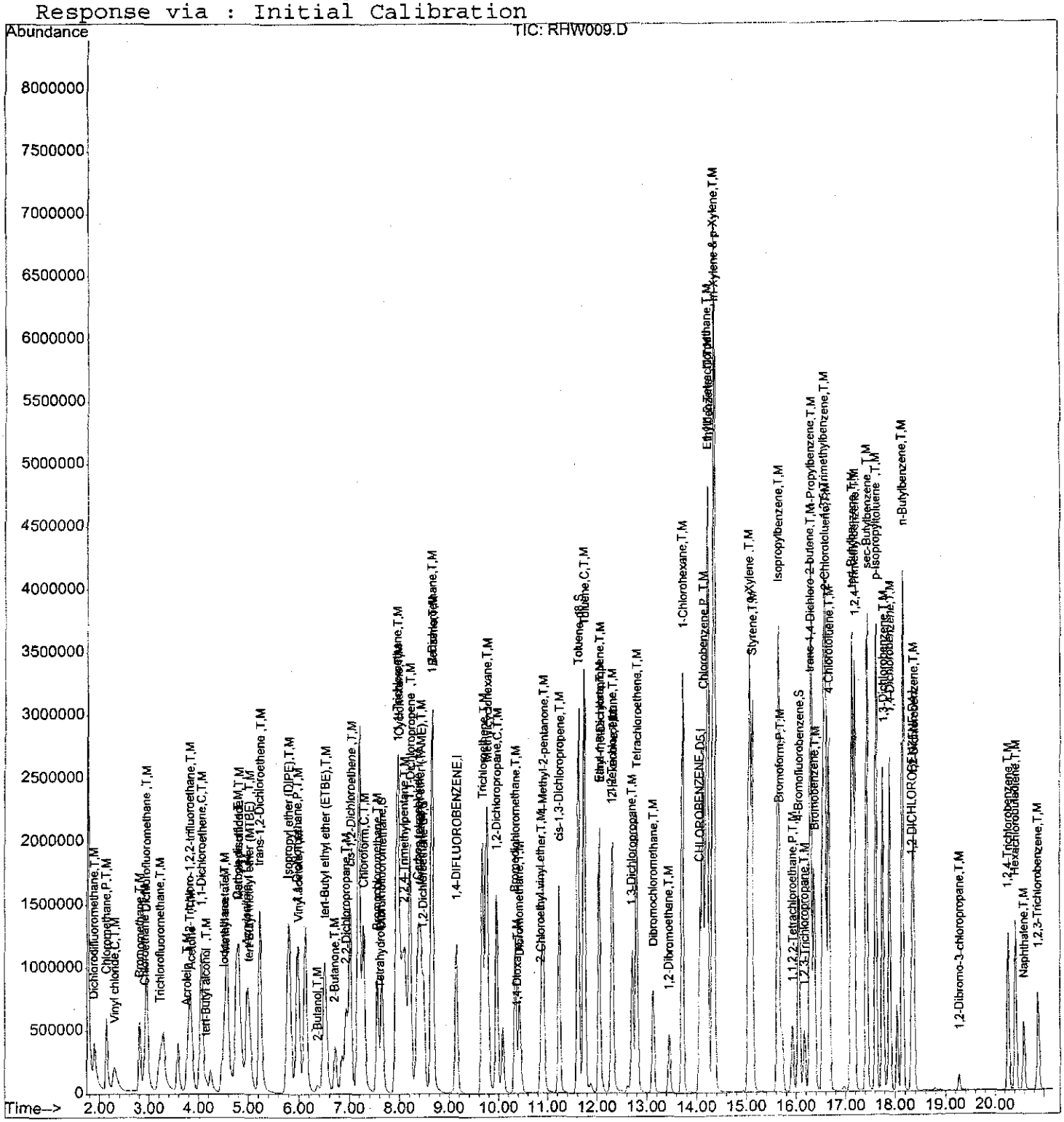
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW009.D
Acq On : 15 Aug 2012 10:23 pm
Sample : VO06H157
Misc : 20ppb 8260/100ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012

Vial: 8
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2071

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW010.D Vial: 9
Acq On : 15 Aug 2012 10:53 pm Operator: WL
Sample : VO06H158 Inst : TO06
Misc : 30ppb 8260/150ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1651261	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1410191	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	454935	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.66	111	1666483	33.43	ug/l	0.00
Spiked Amount 10.000			Recovery	=	334.30%	
38) 1,2-Dichloroethane-d4	8.49	65	1360934	32.68	ug/l	0.00
Spiked Amount 10.000			Recovery	=	326.80%	
54) Toluene-d8	11.62	98	5642516	31.36	ug/l	0.00
Spiked Amount 10.000			Recovery	=	313.60%	
76) 4-Bromofluorobenzene	16.05	95	1844820	32.58	ug/l	0.00
Spiked Amount 10.000			Recovery	=	325.80%	

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	1275311	29.95	ug/l	100
3) Chloromethane	2.15	50	1546366	30.21	ug/l	100
4) Vinyl chloride	2.31	62	897041	23.34	ug/l	100
5) Bromomethane	2.81	94	989584	32.13	ug/l	100
6) Chloroethane	2.92	64	811923	30.90	ug/l	99
7) Dichlorofluoromethane	2.96	67	2767050	30.52	ug/l	100
8) Trichlorofluoromethane	3.25	101	1806930	30.80	ug/l	100
9) Acrolein	3.77	56	339247	167.22	ug/l	96
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	861137	31.02	ug/l	99
11) Acetone	3.86	43	874803	155.54	ug/l	99
12) 1,1-Dichloroethene	4.06	61	2682690	30.94	ug/l	99
13) tert-Butyl alcohol	4.15	59	297116	186.16	ug/l	96
15) Methyl acetate	4.54	43	572747	31.18	ug/l	98
16) Iodomethane	4.52	142	2397720	32.23	ug/l	99
17) Methylene chloride	4.81	49	1939444	33.81	ug/l	99
18) Carbon disulfide	4.79	76	5705494	32.20	ug/l	100
19) Acrylonitrile	4.97	53	1191290	168.58	ug/l	99
20) tert-Butyl methyl ether (M	5.02	73	2585720	33.30	ug/l	99
21) trans-1,2-Dichloroethene	5.24	61	2831262	30.81	ug/l	97
22) Isopropyl ether (DIPE)	5.80	45	5786168	32.38	ug/l	99
23) Vinyl acetate	6.00	43	2013120	32.43	ug/l	99
24) 1,1-Dichloroethane	5.97	63	3219862	30.63	ug/l	100
25) 2-Butanol	6.37	45	273158	175.00	ug/l	97
26) tert-Butyl ethyl ether (ET	6.52	59	4341556	33.24	ug/l	100
27) 2-Butanone	6.72	43	1708067	163.63	ug/l	99
28) 2,2-Dichloropropane	6.93	77	1537998	29.19	ug/l	99
29) cis-1,2-Dichloroethene	7.02	96	1868651	30.97	ug/l	96

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

8-21-12

2072

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW010.D Vial: 9
Acq On : 15 Aug 2012 10:53 pm Operator: WL
Sample : VO06H158 Inst : TO06
Misc : 30ppb 8260/150ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30)	Chloroform	7.29	83	2931306	30.69 ug/l	99
32)	Bromochloromethane	7.56	49	1369146	32.57 ug/l	98
33)	Tetrahydrofuran	7.62	42	208700	32.26 ug/l	94
35)	1,1,1-Trichloroethane	7.96	97	2357923	30.35 ug/l	99
36)	Cyclohexane	7.97	56	3371958	26.21 ug/l	97
37)	tert-Amyl methyl ether (TA	8.43	87	695504	34.18 ug/l	96
40)	2,2,4-Trimethylpentane	8.09	57	6682091	29.08 ug/l	97
41)	1,1-Dichloropropene	8.23	110	837598	30.54 ug/l	100
42)	Carbon tetrachloride	8.38	119	2209232	30.96 ug/l	100
43)	1,2-Dichloroethane	8.64	62	1613405	31.17 ug/l	99
44)	Benzene	8.66	78	6368767	29.87 ug/l	100
45)	Trichloroethene	9.67	130	1847858	30.35 ug/l	99
46)	Methylcyclohexane	9.76	83	2890693	29.42 ug/l	99
47)	1,2-Dichloropropane	9.97	63	1684265	31.14 ug/l	98
48)	1,4-Dioxane	10.38	88	118429	706.71 ug/l	98
49)	Bromodichloromethane	10.34	83	2153010	32.78 ug/l	100
50)	Dibromomethane	10.43	93	775392	33.04 ug/l	99
51)	2-Chloroethyl vinyl ether	10.87	63	621401	35.58 ug/l	100
52)	4-Methyl-2-pentanone	10.90	43	4688824	168.17 ug/l	99
53)	cis-1,3-Dichloropropene	11.23	75	2520665	33.18 ug/l	99
55)	Toluene	11.75	91	6597671	29.87 ug/l	99
56)	Ethyl methacrylate	12.05	69	1243867	34.34 ug/l	100
57)	trans-1,3-Dichloropropene	12.05	75	1862112	33.47 ug/l	99
58)	1,1,2-Trichloroethane	12.30	97	907780	32.72 ug/l	99
59)	2-Hexanone	12.32	43	2768932	166.85 ug/l	99
60)	1,3-Dichloropropane	12.72	76	1870450	32.39 ug/l	99
61)	Tetrachloroethene	12.81	164	1440053	29.99 ug/l	100
62)	Dibromochloromethane	13.13	129	1313414	35.12 ug/l	99
64)	1,2-Dibromoethane	13.46	107	980338	33.95 ug/l	99
65)	1-Chlorohexane	13.71	91	2865406	30.79 ug/l	99
66)	Chlorobenzene	14.13	112	4073976	30.76 ug/l	99
67)	1,1,1,2-Tetrachloroethane	14.20	131	1342036	32.00 ug/l	99
68)	Ethylbenzene	14.22	91	7329738	29.55 ug/l	98
69)	m-Xylene & p-Xylene	14.34	91	10804861	56.73 ug/l	98
70)	o-Xylene	15.05	91	5855917	30.72 ug/l	99
71)	Styrene	15.11	104	4052241	30.74 ug/l	99
73)	Isopropylbenzene	15.63	105	6663214	31.26 ug/l	99
74)	Bromoform	15.68	173	603769	33.92 ug/l	99
75)	1,1,2,2-Tetrachloroethane	15.93	83	983894	34.59 ug/l	100
77)	1,2,3-Trichloropropane	16.17	110	273096	35.82 ug/l	98
78)	trans-1,4-Dichloro-2-buten	16.27	53	297132	34.72 ug/l	95

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

2073

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW010.D Vial: 9
Acq On : 15 Aug 2012 10:53 pm Operator: WL
Sample : VO06H158 Inst : TO06
Misc : 30ppb 8260/150ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.30	91	8774815	30.83 ug/l	98
80)	Bromobenzene	16.37	156	1434106	32.32 ug/l	98
81)	1,3,5-Trimethylbenzene	16.55	105	5260120	30.75 ug/l	99
82)	2-Chlorotoluene	16.58	91	5467680	30.82 ug/l	98
83)	4-Chlorotoluene	16.66	91	4350802	30.23 ug/l	99
84)	tert-Butylbenzene	17.12	134	1229405	31.31 ug/l	96
85)	1,2,4-Trimethylbenzene	17.18	105	5012006	30.48 ug/l	98
86)	sec-Butylbenzene	17.43	105	7187835	30.45 ug/l	98
87)	p-Isopropyltoluene	17.62	119	5446422	30.16 ug/l	99
88)	1,3-Dichlorobenzene	17.76	146	2758213	31.44 ug/l	100
89)	1,4-Dichlorobenzene	17.89	146	2616885	31.27 ug/l	100
91)	n-Butylbenzene	18.14	91	5398158	29.43 ug/l	99
92)	1,2-Dichlorobenzene	18.37	146	2069671	30.77 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.27	157	103996	31.54 ug/l	98
94)	1,2,4-Trichlorobenzene	20.27	180	1149323	27.24 ug/l	100
95)	Hexachlorobutadiene	20.42	225	741384	24.87 ug/l	100
96)	Naphthalene	20.60	128	1403953	27.42 ug/l	99
97)	1,2,3-Trichlorobenzene	20.88	180	746543	23.65 ug/l	99

TM 8-21-12

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

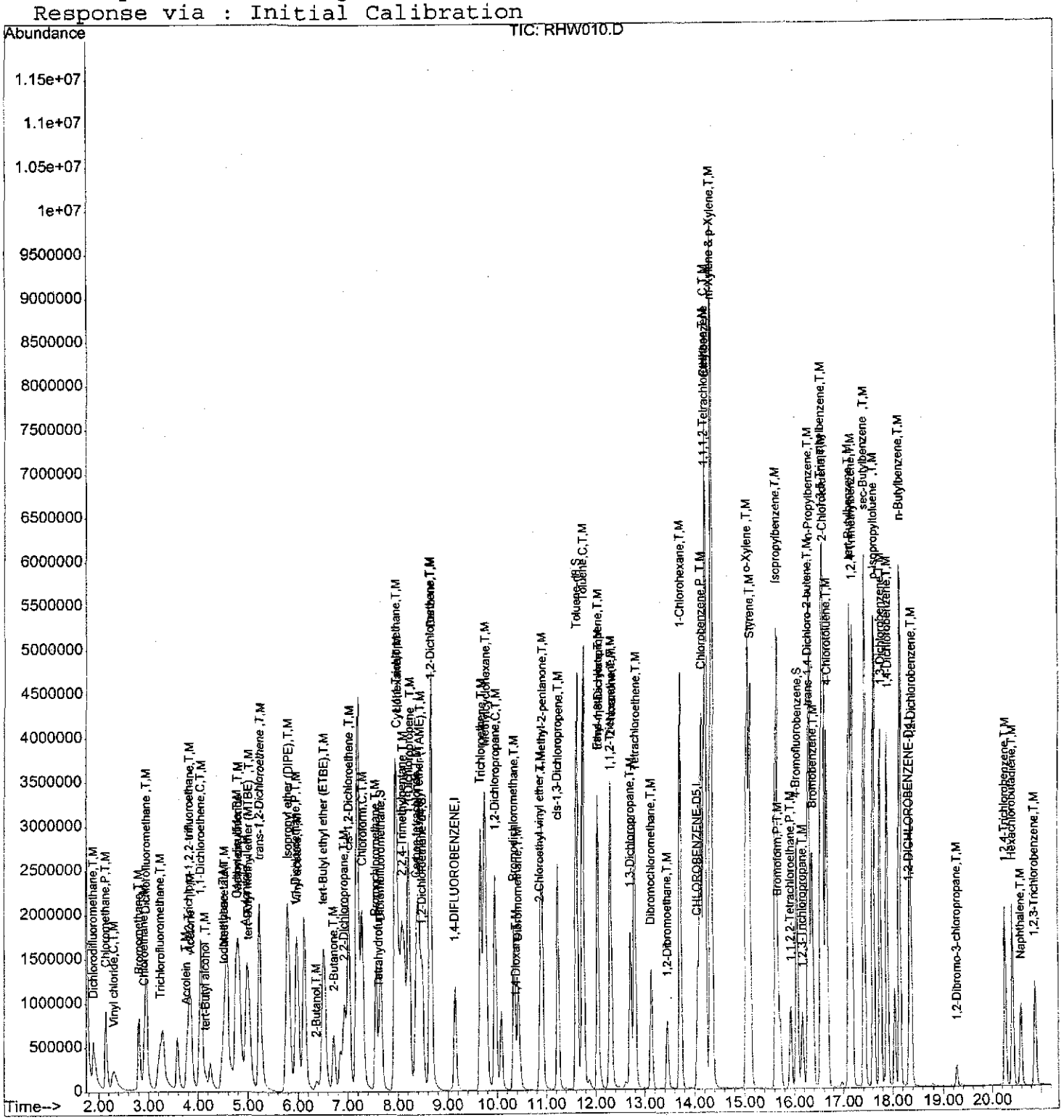
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW010.D
Acq On : 15 Aug 2012 10:53 pm
Sample : VO06H158
Misc : 30ppb 8260/150ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012

Vial: 9
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2075

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW011.D Vial: 10
Acq On : 15 Aug 2012 11:24 pm Operator: WL
Sample : VO06H159 Inst : TO06
Misc : 50ppb 8260/250ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1604978	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1309880	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	416256	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.66	111	2577109	53.18	ug/l	0.00
Spiked Amount 10.000			Recovery = 531.80%			
38) 1,2-Dichloroethane-d4	8.49	65	1996317	49.32	ug/l	0.00
Spiked Amount 10.000			Recovery = 493.20%			
54) Toluene-d8	11.62	98	8677452	51.92	ug/l	0.00
Spiked Amount 10.000			Recovery = 519.20%			
76) 4-Bromofluorobenzene	16.05	95	2709042	52.29	ug/l	0.00
Spiked Amount 10.000			Recovery = 522.90%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	2091234	50.53	ug/l	100
3) Chloromethane	2.15	50	2460705	49.47	ug/l	100
4) Vinyl chloride	2.31	62	1382123	37.00	ug/l	99
5) Bromomethane	2.80	94	1527871	51.04	ug/l	100
6) Chloroethane	2.92	64	1291157	50.55	ug/l	98
7) Dichlorofluoromethane	2.96	67	4273522	48.50	ug/l	100
8) Trichlorofluoromethane	3.25	101	2919370	51.19	ug/l	100
9) Acrolein	3.77	56	470119	238.41	ug/l	97
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	1413204	52.37	ug/l	100
11) Acetone	3.86	43	1184293	216.65	ug/l	99
12) 1,1-Dichloroethene	4.06	61	4342876	51.53	ug/l	98
13) tert-Butyl alcohol	4.17	59	370167	238.62	ug/l	95
15) Methyl acetate	4.54	43	780245	43.70	ug/l	97
16) Iodomethane	4.52	142	3754849	51.93	ug/l	99
17) Methylene chloride	4.81	49	2877389	51.93	ug/l	87
18) Carbon disulfide	4.79	76	9569287	55.56	ug/l	100
19) Acrylonitrile	4.97	53	1602092	233.26	ug/l	99
20) tert-Butyl methyl ether (M	5.01	73	3515638	46.58	ug/l	99
21) trans-1,2-Dichloroethene	5.24	61	4433671	49.64	ug/l	96
22) Isopropyl ether (DIPE)	5.80	45	8390456	48.31	ug/l	98
23) Vinyl acetate	6.00	43	2895132	47.98	ug/l	99
24) 1,1-Dichloroethane	5.97	63	5035917	49.29	ug/l	100
25) 2-Butanol	6.38	45	353232	232.83	ug/l	98
26) tert-Butyl ethyl ether (ET	6.52	59	6158753	48.52	ug/l	100
27) 2-Butanone	6.72	43	2317529	228.42	ug/l	98
28) 2,2-Dichloropropane	6.93	77	2339720	45.69	ug/l	98
29) cis-1,2-Dichloroethene	7.02	96	2868115	48.90	ug/l	96

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

8-21-12

2875

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW011.D Vial: 10
Acq On : 15 Aug 2012 11:24 pm Operator: WL
Sample : VO06H159 Inst : TO06
Misc : 50ppb 8260/250ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30)	Chloroform	7.29	83	4503324	48.51 ug/l	100
32)	Bromochloromethane	7.56	49	1970775	48.24 ug/l	97
33)	Tetrahydrofuran	7.62	42	266132	42.54 ug/l	93
35)	1,1,1-Trichloroethane	7.96	97	3730829	49.40 ug/l	99
36)	Cyclohexane	7.97	56	5554535	44.42 ug/l	95
37)	tert-Amyl methyl ether (TA	8.43	87	961306	48.60 ug/l	96
40)	2,2,4-Trimethylpentane	8.11	57	11028641	51.66 ug/l	98
41)	1,1-Dichloropropene	8.23	110	1354130	53.15 ug/l	100
42)	Carbon tetrachloride	8.37	119	3613270	54.51 ug/l	100
43)	1,2-Dichloroethane	8.64	62	2308306	48.01 ug/l	99
44)	Benzene	8.66	78	9709779	49.03 ug/l	99
45)	Trichloroethene	9.67	130	2976696	52.64 ug/l	99
46)	Methylcyclohexane	9.76	83	4861884	53.27 ug/l	98
47)	1,2-Dichloropropane	9.97	63	2531105	50.38 ug/l	98
48)	1,4-Dioxane	10.38	88	156804	1007.36 ug/l	96
49)	Bromodichloromethane	10.34	83	3193999	52.35 ug/l	99
50)	Dibromomethane	10.43	93	1095367	50.24 ug/l	99
51)	2-Chloroethyl vinyl ether	10.87	63	844103	52.04 ug/l	100
52)	4-Methyl-2-pentanone	10.90	43	6205771	239.62 ug/l	98
53)	cis-1,3-Dichloropropene	11.23	75	3664921	51.94 ug/l	98
55)	Toluene	11.75	91	10139191	49.42 ug/l	98
56)	Ethyl methacrylate	12.05	69	1701287	50.57 ug/l	99
57)	trans-1,3-Dichloropropene	12.05	75	2684174	51.93 ug/l	97
58)	1,1,2-Trichloroethane	12.30	97	1286163	49.91 ug/l	99
59)	2-Hexanone	12.31	43	3664526	237.73 ug/l	98
60)	1,3-Dichloropropane	12.72	76	2626624	48.97 ug/l	98
61)	Tetrachloroethene	12.81	164	2339199	52.45 ug/l	100
62)	Dibromochloromethane	13.13	129	1897530	54.62 ug/l	99
64)	1,2-Dibromoethane	13.46	107	1395880	52.04 ug/l	100
65)	1-Chlorohexane	13.73	91	4580273	52.98 ug/l	99
66)	Chlorobenzene	14.13	112	6172784	50.18 ug/l	98
67)	1,1,1,2-Tetrachloroethane	14.20	131	2017370	51.79 ug/l	99
68)	Ethylbenzene	14.22	91	11075532	48.08 ug/l	97
69)	m-Xylene & p-Xylene	14.35	91	15980464	90.32 ug/l	96
70)	o-Xylene	15.05	91	8788144	49.63 ug/l	98
71)	Styrene	15.11	104	6125199	50.02 ug/l	99
73)	Isopropylbenzene	15.64	105	10227480	52.45 ug/l	98
74)	Bromoform	15.67	173	846514	51.89 ug/l	99
75)	1,1,2,2-Tetrachloroethane	15.93	83	1327350	51.00 ug/l	99
77)	1,2,3-Trichloropropane	16.17	110	364678	52.27 ug/l	98
78)	trans-1,4-Dichloro-2-buten	16.27	53	403422	51.52 ug/l	95

(#) = qualifier out of range (m) = manual integration
RHW011.D VO06H15.M Mon Aug 20 17:26:05 2012 8-21-12

2077

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW011.D
Acq On : 15 Aug 2012 11:24 pm
Sample : VO06H159
Misc : 50ppb 8260/250ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012

Vial: 10
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.30	91	13386211	51.41 ug/l	97
80)	Bromobenzene	16.37	156	2111145	52.00 ug/l	98
81)	1,3,5-Trimethylbenzene	16.55	105	7992956	51.06 ug/l	98
82)	2-Chlorotoluene	16.58	91	8108671	49.95 ug/l	98
83)	4-Chlorotoluene	16.67	91	6659828	50.58 ug/l	99
84)	tert-Butylbenzene	17.12	134	1929431	53.70 ug/l	93
85)	1,2,4-Trimethylbenzene	17.18	105	7411906	49.27 ug/l	98
86)	sec-Butylbenzene	17.43	105	11011197	50.99 ug/l	97
87)	p-Isopropyltoluene	17.62	119	8415862	50.94 ug/l	98
88)	1,3-Dichlorobenzene	17.76	146	4073894	50.74 ug/l	99
89)	1,4-Dichlorobenzene	17.89	146	3853044	50.32 ug/l	99
91)	n-Butylbenzene	18.16	91	8378120	49.92 ug/l	98
92)	1,2-Dichlorobenzene	18.37	146	3102409	50.41 ug/l	100
93)	1,2-Dibromo-3-chloropropan	19.27	157	155509	51.54 ug/l	99
94)	1,2,4-Trichlorobenzene	20.27	180	1835825	47.55 ug/l	100
95)	Hexachlorobutadiene	20.42	225	1261884	46.26 ug/l	100
96)	Naphthalene	20.60	128	2033623	43.41 ug/l	99
97)	1,2,3-Trichlorobenzene	20.89	180	1108419	38.37 ug/l	99

RM 8-21-12

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

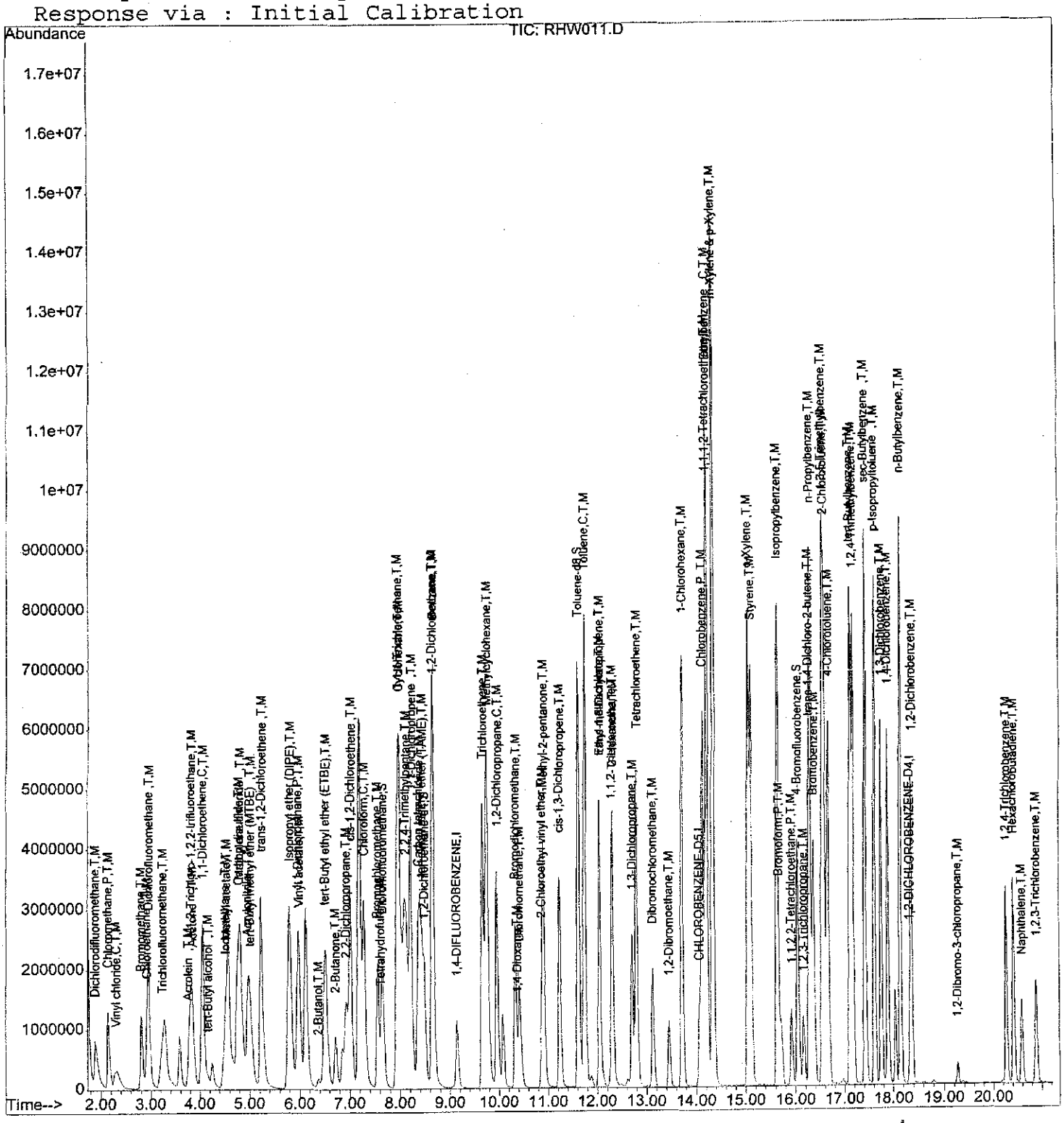
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW011.D
Acq On : 15 Aug 2012 11:24 pm
Sample : VO06H159
Misc : 50ppb 8260/250ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012

Vial: 10
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



2079

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW012.D Vial: 11
Acq On : 15 Aug 2012 11:53 pm Operator: WL
Sample : VO06H1510 Inst : TO06
Misc : 100ppb 8260/500ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1719664	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1382085	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	445959	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.65	111	4860243	93.61	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	936.10%	
38) 1,2-Dichloroethane-d4	8.50	65	3818725	88.06	ug/l	0.00
Spiked Amount 10.000			Recovery	=	880.60%	
54) Toluene-d8	11.62	98	16009776	90.78	ug/l	0.00
Spiked Amount 10.000			Recovery	=	907.80%	
76) 4-Bromofluorobenzene	16.05	95	4904141	88.35	ug/l	0.00
Spiked Amount 10.000			Recovery	=	883.50%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	4320687	97.43	ug/l	99
3) Chloromethane	2.15	50	4933116	92.55	ug/l	100
4) Vinyl chloride	2.28	62	2346491	58.62	ug/l	100
5) Bromomethane	2.80	94	2817812	87.86	ug/l	100
6) Chloroethane	2.91	64	2303160	84.15	ug/l	99
7) Dichlorofluoromethane	2.95	67	7454435	78.96	ug/l	99
8) Trichlorofluoromethane	3.23	101	5938361	97.19	ug/l	100
9) Acrolein	3.77	56	863307	408.61	ug/l	94
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	2658235	91.93	ug/l	99
11) Acetone	3.86	43	2222601	379.47	ug/l	98
12) 1,1-Dichloroethene	4.05	61	8165514	90.43	ug/l	98
13) tert-Butyl alcohol	4.17	59	754243	453.78	ug/l	93
15) Methyl acetate	4.54	43	1512729	79.07	ug/l	96
16) Iodomethane	4.53	142	7322859	94.52	ug/l	99
17) Methylene chloride	4.81	49	5424133	91.84	ug/l	87
18) Carbon disulfide	4.79	76	17915771	97.08	ug/l	99
19) Acrylonitrile	4.97	53	3190840	433.59	ug/l	99
20) tert-Butyl methyl ether (M	5.02	73	6879340	85.08	ug/l	100
21) trans-1,2-Dichloroethene	5.22	61	8282899	86.56	ug/l	95
22) Isopropyl ether (DIPE)	5.80	45	15797039	84.89	ug/l	97
23) Vinyl acetate	6.00	43	5737917	88.75	ug/l	98
24) 1,1-Dichloroethane	5.97	63	9558443	87.31	ug/l	99
25) 2-Butanol	6.38	45	793325	488.04	ug/l	97
26) tert-Butyl ethyl ether (ET	6.52	59	11681467	85.89	ug/l	99
27) 2-Butanone	6.73	43	4569976	420.39	ug/l	98
28) 2,2-Dichloropropane	6.93	77	3992236	72.76	ug/l	97
29) cis-1,2-Dichloroethene	7.02	96	5550329	88.32	ug/l	94

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

2086

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW012.D Vial: 11
Acq On : 15 Aug 2012 11:53 pm Operator: WL
Sample : VO06H1510 Inst : TO06
Misc : 100ppb 8260/500ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	Chloroform	7.29	83	8553553	85.99 ug/l		99
32)	Bromochloromethane	7.56	49	3817099	87.20 ug/l		97
33)	Tetrahydrofuran	7.62	42	509336	76.51 ug/l		92
35)	1,1,1-Trichloroethane	7.96	97	6900690	85.29 ug/l		94
36)	Cyclohexane	7.97	56	10261630	76.60 ug/l		93
37)	tert-Amyl methyl ether (TA	8.44	87	1822154	85.98 ug/l		92
40)	2,2,4-Trimethylpentane	8.11	57	20802353	92.36 ug/l	#	33
41)	1,1-Dichloropropene	8.21	110	2540445	94.51 ug/l		99
42)	Carbon tetrachloride	8.38	119	6717264	96.05 ug/l		100
43)	1,2-Dichloroethane	8.64	62	4358819	85.92 ug/l		98
44)	Benzene	8.66	78	17244630	82.52 ug/l		98
45)	Trichloroethene	9.67	130	5554293	93.09 ug/l		99
46)	Methylcyclohexane	9.76	83	8976625	93.22 ug/l		98
47)	1,2-Dichloropropane	9.97	63	4763576	89.86 ug/l		98
48)	1,4-Dioxane	10.38	88	329297	2004.99 ug/l		96
49)	Bromodichloromethane	10.34	83	6211336	96.49 ug/l		99
50)	Dibromomethane	10.43	93	2098696	91.24 ug/l		98
51)	2-Chloroethyl vinyl ether	10.87	63	1721581	100.58 ug/l		99
52)	4-Methyl-2-pentanone	10.90	43	11593873	424.27 ug/l		97
53)	cis-1,3-Dichloropropene	11.23	75	6973884	93.68 ug/l		98
55)	Toluene	11.75	91	18210927	84.13 ug/l		97
56)	Ethyl methacrylate	12.05	69	3198361	90.10 ug/l		98
57)	trans-1,3-Dichloropropene	12.05	75	5103338	93.58 ug/l		97
58)	1,1,2-Trichloroethane	12.30	97	2446955	90.00 ug/l		99
59)	2-Hexanone	12.32	43	6748509	414.93 ug/l		97
60)	1,3-Dichloropropane	12.72	76	5045895	89.16 ug/l		98
61)	Tetrachloroethene	12.81	164	4305847	91.50 ug/l		99
62)	Dibromochloromethane	13.13	129	3679972	100.39 ug/l		100
64)	1,2-Dibromoethane	13.46	107	2673316	94.46 ug/l		100
65)	1-Chlorohexane	13.73	91	8078546	88.57 ug/l		98
66)	Chlorobenzene	14.13	112	11254683	86.71 ug/l		98
67)	1,1,1,2-Tetrachloroethane	14.20	131	3745547	91.12 ug/l		98
68)	Ethylbenzene	14.22	91	18643656	76.70 ug/l		95
69)	m-Xylene & p-Xylene	14.35	91	25028802	134.07 ug/l		90
70)	o-Xylene	15.05	91	15444924	82.67 ug/l		96
71)	Styrene	15.11	104	10884514	84.24 ug/l		97
73)	Isopropylbenzene	15.65	105	17200094	82.33 ug/l		96
74)	Bromoform	15.68	173	1644719	93.98 ug/l		99
75)	1,1,2,2-Tetrachloroethane	15.93	83	2526155	90.60 ug/l		99
77)	1,2,3-Trichloropropane	16.17	110	695182	93.01 ug/l		99
78)	trans-1,4-Dichloro-2-buten	16.27	53	733068	87.39 ug/l		92

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW012.D Vial: 11
Acq On : 15 Aug 2012 11:53 pm Operator: WL
Sample : VO06H1510 Inst : TO06
Misc : 100ppb 8260/500ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.30	91	21521353	77.15 ug/l	94
80)	Bromobenzene	16.37	156	3896257	89.57 ug/l	96
81)	1,3,5-Trimethylbenzene	16.55	105	13805252	82.32 ug/l	96
82)	2-Chlorotoluene	16.60	91	13750578	79.06 ug/l	96
83)	4-Chlorotoluene	16.67	91	11789041	83.57 ug/l	97
84)	tert-Butylbenzene	17.12	134	3475053	90.28 ug/l	91
85)	1,2,4-Trimethylbenzene	17.18	105	13169518	81.71 ug/l	95
86)	sec-Butylbenzene	17.43	105	18451317	79.75 ug/l	94
87)	p-Isopropyltoluene	17.62	119	14759441	83.39 ug/l	95
88)	1,3-Dichlorobenzene	17.76	146	7229650	84.05 ug/l	98
89)	1,4-Dichlorobenzene	17.91	146	6936890	84.56 ug/l	98
91)	n-Butylbenzene	18.16	91	14604029	81.23 ug/l	96
92)	1,2-Dichlorobenzene	18.37	146	5834486	88.49 ug/l	100
93)	1,2-Dibromo-3-chloropropan	19.27	157	409436	126.67 ug/l	98
94)	1,2,4-Trichlorobenzene	20.27	180	3831247	92.63 ug/l	99
95)	Hexachlorobutadiene	20.42	225	2784008	95.26 ug/l	99
96)	Naphthalene	20.60	128	4523270	90.12 ug/l	98
97)	1,2,3-Trichlorobenzene	20.89	180	2189042	70.74 ug/l	99

8-21-12

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

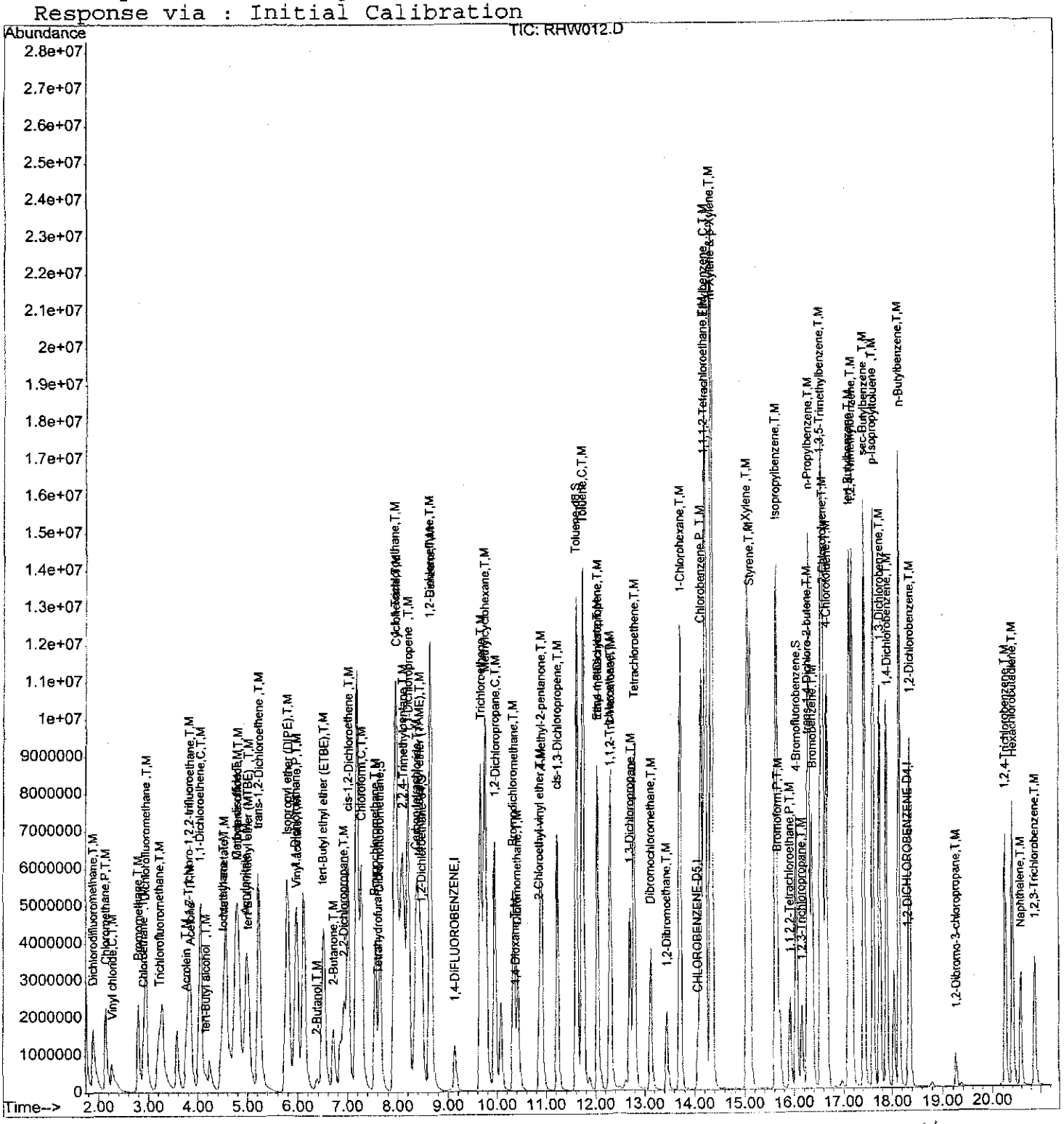
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW012.D
Acq On : 15 Aug 2012 11:53 pm
Sample : VO06H1510
Misc : 100ppb 8260/500ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012

Vial: 11
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



2083

SECOND SOURCE VERIFICATION

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RHW015
Instrument ID: 06
GC Column:RTX502.2ID:0.25mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J163
BFB Injection Date : 08/16/12
BFB Injection Time : 09:31
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.62
75	30.0 - 60.0% of mass 95	48.50
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.99
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	71.35
175	5.0 - 9.0% of mass 174	5.40(7.6)1
176	95.0 - 101.0% of mass 174	70.48(98.8)1
177	5.0 - 9.0% of mass 176	4.57(6.5)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	VSTD010	IV006H1501	RHW016	08/16/12	10:02

FORM V VOA OLM02.0

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T006
IC_Beginning DateTime :08/15/12 19:22
Spike Amount :10 PPB
CC/CV File :RHW016
IC File :RHW008

Column Spec :RTX502.2 ID :0.25MM
IC_Ending DateTime :08/15/12 23:53
HPChem Method :vo06h15
Date_Time :08/16/12 10:02

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,4-DIFLUOROBENZENE	10.000	0	1860809	1	1	9.148	9.149	0				
	2	Dichlorodifluoromethane	9.824	-1.8	471407	0.253	0.258	1.893	1.894	6.32				
	3	Chloromethane	10.472	4.7	603952	0.325	0.310	2.145	2.147	5.91				
	4	Vinyl chloride	10.328	3.3	447330	0.240	0.233	2.309	2.300	13.19				
	5	Bromomethane	10.472	4.7	363435	0.195	0.187	2.815	2.812	10.72				
	6	Chloroethane	10.573	5.7	313116	0.168	0.159	2.919	2.919	9.41				
	7	Dichlorofluoromethane	9.964	-0.4	1017847	0.547	0.549	2.963	2.960	8.55				
	8	Trichlorofluoromethane	10.192	1.9	673832	0.362	0.355	3.231	3.238	8.43				
5	9	Acrolein	57.206	14.4	130783	0.014	0.012	3.766	3.772	9.90				
	10	1,1,2-Trichloro-1,2,2-trifluoroethane	10.065	0.6	314914	0.169	0.168	3.826	3.826	6.69				
5	11	Acetone	51.048	2.1	323536	0.035	0.034	3.855	3.859	12.26				
	12	1,1-Dichloroethene	10.137	1.4	990521	0.532	0.525	4.049	4.063	4.54				
5	13	tert-Butyl alcohol	56.186	12.4	101052	0.011	0.010	4.153	4.161	12.01				
	14	Acetonitrile												
	15	Methyl acetate	10.068	0.7	208432	0.112	0.111	4.539	4.541	14.21				
	16	Iodomethane	10.290	2.9	862656	0.464	0.451	4.524	4.526	4.90				
	17	Methylene chloride	10.870	8.7	729403	0.392	0.433	4.807	4.788	25.09	0.0211	0.3411		0.9963
	18	Carbon disulfide	11.695	16.9	2335412	1.255	1.073	4.777	4.793	8.57				
5	19	Acrylonitrile	53.093	6.2	422792	0.045	0.043	4.970	4.973	7.45				
	20	tert-Butyl methyl ether (MTBE)	10.073	0.7	881351	0.474	0.470	5.015	5.018	7.49				
	21	trans-1,2-Dichloroethene	10.028	0.3	1038370	0.558	0.556	5.223	5.233	5.77				
	22	Isopropyl ether (DIPE)	9.940	-0.6	2001510	1.076	1.082	5.803	5.804	6.46				
	23	Vinyl acetate	10.735	7.4	751016	0.404	0.376	5.996	6.001	7.83				
	24	1,1-Dichloroethane	9.548	-4.5	1131093	0.608	0.637	5.966	5.971	5.00				
5	25	2-Butanol	54.187	8.4	95311	0.010	0.009	6.368	6.380	9.21				
	26	tert-Butyl ethyl ether (ETBE)	10.081	0.8	1483732	0.797	0.791	6.502	6.518	6.29				
5	27	2-Butanone	51.017	2.0	600112	0.065	0.063	6.710	6.723	11.92				
	28	2,2-Dichloropropane	10.821	8.2	642452	0.345	0.319	6.933	6.939	11.92				
	29	cis-1,2-Dichloroethene	10.088	0.9	686039	0.369	0.365	7.022	7.023	4.81				
	30	Chloroform	9.714	-2.9	1045522	0.562	0.578	7.275	7.291	6.39				
5	31	tert-Amyl alcohol												
	32	Bromochloromethane	10.016	0.2	474413	0.255	0.255	7.557	7.559	5.92				
	33	Tetrahydrofuran	9.889	-1.1	75461	0.041	0.047	7.617	7.624	25.79	0.0026	0.0384		0.9958
	34	Dibromofluoromethane	10.596	6.0	595307	0.320	0.302	7.646	7.657	12.90				
	35	1,1,1-Trichloroethane	9.918	-0.8	868363	0.467	0.471	7.944	7.957	5.91				
	36	Cyclohexane	10.698	7.0	1550794	0.833	0.779	7.959	7.973	11.92				
	37	tert-Amyl methyl ether (TAME)	10.642	6.4	244051	0.131	0.123	8.434	8.433	7.49				
	38	1,2-Dichloroethane-d4	10.073	0.7	472685	0.254	0.252	8.479	8.492	11.03				
	39	CHLOROBENZENE-D5	10.000	0	1581053	1	1	14.069	14.071	0				
	40	2,2,4-Trimethylpentane	8.293	-17.1	2136863	1.352	1.630	8.092	8.091	7.89				
	41	1,1-Dichloropropene	10.114	1.1	311010	0.197	0.194	8.211	8.220	4.25				
	42	Carbon tetrachloride	9.911	-0.9	792907	0.502	0.506	8.360	8.376	5.79				
	43	1,2-Dichloroethane	9.612	-3.9	557820	0.353	0.367	8.643	8.646	6.76				
	44	Benzene	9.816	-1.8	2346500	1.484	1.512	8.657	8.659	9.36				
	45	Trichloroethene	10.006	0.1	682938	0.432	0.432	9.668	9.670	6.12				
	46	Methylcyclohexane	10.131	1.3	1115968	0.706	0.697	9.743	9.758	8.98				
	47	1,2-Dichloropropane	9.994	-0.1	606068	0.383	0.384	9.951	9.964	4.61				
20	48	1,4-Dioxane	222.394	11.2	41784	0.001	0.001	10.382	10.385	11.65				
	49	Bromodichloromethane	10.149	1.5	747350	0.473	0.466	10.337	10.339	5.58				
	50	Dibromomethane	10.358	3.6	272570	0.172	0.166	10.427	10.427	5.54				
	51	2-Chloroethyl vinyl ether	10.536	5.4	206300	0.130	0.124	10.858	10.870	8.84				
5	52	4-Methyl-2-pentanone	53.865	7.7	1683849	0.213	0.198	10.902	10.907	7.11				
	53	cis-1,3-Dichloropropene	10.612	6.1	903757	0.572	0.539	11.229	11.234	5.79				
	54	Toluene-d8	10.605	6.0	2139440	1.353	1.276	11.616	11.619	8.94				
	55	Toluene	9.869	-1.3	2443694	1.546	1.566	11.750	11.748	6.76				
	56	Ethyl methacrylate	10.733	7.3	435851	0.276	0.257	12.047	12.049	7.04				
	57	trans-1,3-Dichloropropene	10.482	4.8	653879	0.414	0.395	12.047	12.049	6.05				
	58	1,1,2-Trichloroethane	10.369	3.7	322523	0.204	0.197	12.300	12.301	5.64				
5	59	2-Hexanone	55.018	10.0	1023658	0.129	0.118	12.315	12.321	8.05				
	60	1,3-Dichloropropane	10.199	2.0	660249	0.418	0.409	12.701	12.715	6.01				
	61	Tetrachloroethene	9.998	-0.0	538206	0.340	0.340	12.791	12.804	4.76				
	62	Dibromochloromethane	10.525	5.2	441326	0.279	0.265	13.132	13.134	9.39				
	63	2-Ethyl-1-butanol												
	64	1,2-Dibromoethane	10.651	6.5	344825	0.218	0.205	13.445	13.458	6.02				
	65	1-Chlorohexane	10.209	2.1	1065278	0.674	0.660	13.712	13.720	5.61				
	66	Chlorobenzene	9.966	-0.3	1479703	0.936	0.939	14.129	14.132	6.36				
	67	1,1,1,2-Tetrachloroethane	10.275	2.8	483160	0.306	0.297	14.203	14.204	4.58				
	68	Ethylbenzene	10.056	0.6	2796277	1.769	1.759	14.218	14.219	9.90				
2	69	m-Xylene & p-Xylene	19.384	-3.1	4139569	1.309	1.351	14.337	14.342	7.48				
	70	o-Xylene	10.008	0.1	2138774	1.353	1.352	15.050	15.052	6.63				
	71	Styrene	10.422	4.2	1540593	0.974	0.935	15.110	15.111	6.35				
	72	1,2-DICHLOROBENZENE-D4	10.000	0	526652	1	1	18.336	18.337	0				
	73	Isopropylbenzene	10.383	3.8	2561704	4.864	4.685	15.630	15.639	8.82				
	74	Bromoform	10.163	1.6	207142	0.393	0.348	15.660	15.673	18.12	-0.0062	0.3931		0.9971
	75	1,1,2,2-Tetrachloroethane	10.756	7.6	354162	0.672	0.625	15.913	15.926	8.36				
	76	4-Bromofluorobenzene	10.340	3.4	677781	1.287	1.245	16.046	16.048	8.32				
	77	1,2,3-Trichloropropane	10.734	7.3	94743	0.180	0.168	16.165	16.168	8.94				
	78	trans-1,4-Dichloro-2-butene	10.856	8.6	107548	0.204	0.188	16.270	16.274	10.76				
	79	n-Propylbenzene	10.233	2.3	3371039	6.401	6.255	16.284	16.295	9.47				

TW 8-21-12

80	Bromobenzene	10.213	2.1	524642	0.996	0.975	16.374	16.375	7.12				
81	1,3,5-Trimethylbenzene	10.066	0.7	1993640	3.785	3.761	16.552	16.552	7.92				
82	2-Chlorotoluene	10.344	3.4	2124758	4.034	3.900	16.582	16.585	10.14				
83	4-Chlorotoluene	9.430	-5.7	1570957	2.983	3.163	16.656	16.663	7.18				
84	tert-Butylbenzene	10.076	0.8	458066	0.870	0.863	17.117	17.118	6.95				
85	1,2,4-Trimethylbenzene	9.991	-0.1	1901812	3.611	3.614	17.176	17.178	7.83				
86	sec-Butylbenzene	9.937	-0.6	2715256	5.156	5.188	17.429	17.431	8.10				
87	p-Isopropyltoluene	10.031	0.3	2096778	3.981	3.969	17.608	17.621	7.26				
88	1,3-Dichlorobenzene	10.013	0.1	1017050	1.931	1.929	17.756	17.758	7.62				
89	1,4-Dichlorobenzene	10.199	2.0	988001	1.876	1.839	17.890	17.895	7.30				
90	Benzyl chloride												
91	n-Butylbenzene	10.078	0.8	2139780	4.063	4.032	18.143	18.153	8.35				
92	1,2-Dichlorobenzene	9.944	-0.6	774306	1.470	1.479	18.366	18.367	5.96				
93	1,2-Dibromo-3-chloropropane	10.737	7.4	40985	0.078	0.072	19.273	19.273	14.38				
94	1,2,4-Trichlorobenzene	9.828	-1.7	480032	0.911	0.927	20.269	20.270	8.69				
95	Hexachlorobutadiene	9.875	-1.3	340815	0.647	0.655	20.417	20.420	10.91				
96	Naphthalene	10.328	3.3	612170	1.162	1.125	20.596	20.596	12.07				
97	1,2,3-Trichlorobenzene	9.754	-2.5	356463	0.677	0.694	20.878	20.888	13.66				

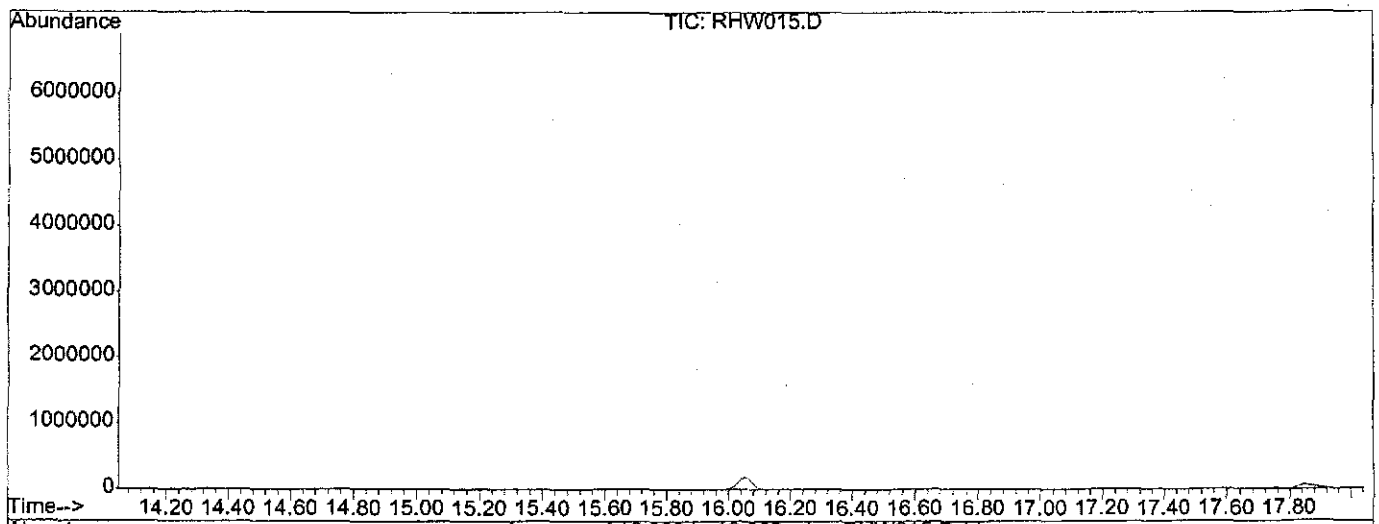
Spike Amount = Nominal Amount * M

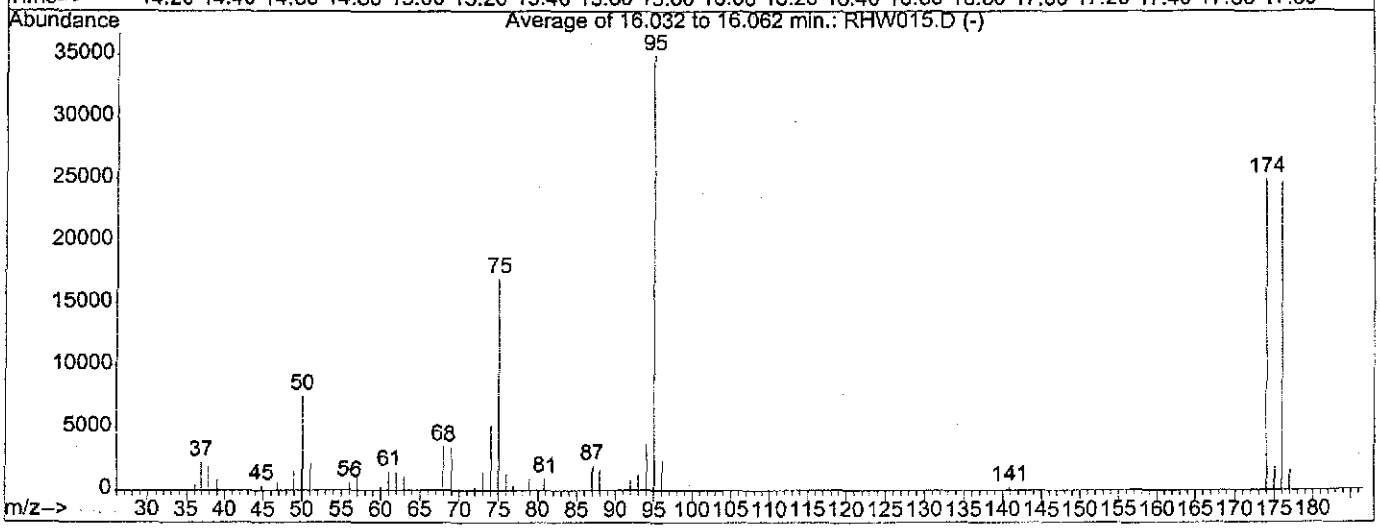
8-26-12

2087

BFB

Data File : D:\HPCHEM\1\DATA\12H16\RHW015.D Vial: 1
Acq On : 16 Aug 2012 9:31 am Operator: WL
Sample : BFB06H02 Inst : TO06
Misc : T/ CHK Multiplr: 1.00
MS Integration Params: RTE.P
Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260





AutoFind: Scans 962, 963, 964; Background Corrected with Scan 958

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.6	7573	PASS
75	95	30	60	48.5	16989	PASS
95	95	100	100	100.0	35029	PASS
96	95	5	9	7.0	2449	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	71.4	24994	PASS
175	174	5	9	7.6	1892	PASS
176	174	95	101	98.8	24687	PASS
177	176	5	9	6.5	1601	PASS

RHW015.D VO06H15.M Mon Aug 20 17:27:19 2012

2088

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	112	0.00
2	T,M	Dichlorodifluoromethane	10.000	9.824	1.8	110	0.00
3	P,T,M	Chloromethane	10.000	10.472	-4.7	114	0.00
4	C,T,M	Vinyl chloride	10.000	10.328	-3.3	115	0.02
5	T,M	Bromomethane	10.000	10.472	-4.7	109	0.00
6	T,M	Chloroethane	10.000	10.573	-5.7	109	0.00
7	T,M	Dichlorofluoromethane	10.000	9.964	0.4	107	0.00
8	T,M	Trichlorofluoromethane	10.000	10.192	-1.9	109	-0.02
9	T,M	Acrolein	50.000	57.206	-14.4	126	0.00
10	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	10.065	-0.6	113	0.00
11	T,M	Acetone	50.000	51.048	-2.1	115	0.00
12	C,T,M	1,1-Dichloroethene	10.000	10.137	-1.4	112	-0.02
13	T,M	tert-Butyl alcohol	50.000	56.186	-12.4	110	0.00
14	T,M	Acetonitrile	-1.000	0.000	0.0	113	0.00
15	T,M	Methyl acetate	10.000	10.068	-0.7	121	0.00
16	T,M	Iodomethane	10.000	10.290	-2.9	115	0.00
17	T,M	Methylene chloride	10.000	10.870	-8.7	112	0.04
18	T,M	Carbon disulfide	10.000	11.695	-17.0	124	-0.02
19	T,M	Acrylonitrile	50.000	53.093	-6.2	117	0.00
20	T,M	tert-Butyl methyl ether (MT	10.000	10.073	-0.7	108	0.00
21	T,M	trans-1,2-Dichloroethene	10.000	10.028	-0.3	112	-0.02
22	T,M	Isopropyl ether (DIPE)	10.000	9.940	0.6	108	0.00
23	T,M	Vinyl acetate	10.000	10.735	-7.3	114	0.00
24	P,T,M	1,1-Dichloroethane	10.000	9.548	4.5	105	0.00
25	T,M	2-Butanol	50.000	54.187	-8.4	129	0.00
26	T,M	tert-Butyl ethyl ether (ETB	10.000	10.081	-0.8	110	-0.02
27	T,M	2-Butanone	50.000	51.017	-2.0	117	-0.02
28	T,M	2,2-Dichloropropane	10.000	10.821	-8.2	117	0.00
29	T,M	cis-1,2-Dichloroethene	10.000	10.088	-0.9	114	0.00
30	C,T,M	Chloroform	10.000	9.714	2.9	110	-0.02
31	T,M	tert-Amyl alcohol	-1.000	0.000	0.0	105	0.00
32	T,M	Bromochloromethane	10.000	10.016	-0.2	109	0.00
33	T,M	Tetrahydrofuran	10.000	9.888	1.1	111	0.00
34	S	Dibromofluoromethane	10.000	10.596	-6.0	109	-0.02
35	T,M	1,1,1-Trichloroethane	10.000	9.918	0.8	108	-0.02
36	T,M	Cyclohexane	10.000	10.698	-7.0	127	-0.01
37	T,M	tert-Amyl methyl ether (TAM	10.000	10.642	-6.4	111	0.00
38	S	1,2-Dichloroethane-d4	10.000	10.073	-0.7	103	-0.02
39	I	CHLOROBENZENE-D5	10.000	10.000	0.0	110	0.00
40	T,M	2,2,4-Trimethylpentane	10.000	8.293	17.1	92	0.00

(#) = Out of Range

8-21-12

2089

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T,M	1,1-Dichloropropene	10.000	10.114	-1.1	114	0.00
42	T,M	Carbon tetrachloride	10.000	9.911	0.9	109	-0.02
43	T,M	1,2-Dichloroethane	10.000	9.612	3.9	106	0.00
44	T,M	Benzene	10.000	9.816	1.8	112	0.00
45	T,M	Trichloroethene	10.000	10.006	-0.1	112	0.00
46	T,M	Methylcyclohexane	10.000	10.131	-1.3	111	-0.02
47	C,T,M	1,2-Dichloropropane	10.000	9.994	0.1	111	-0.02
48	T,M	1,4-Dioxane	200.000	222.394	-11.2	120	0.00
49	T,M	Bromodichloromethane	10.000	10.149	-1.5	109	0.00
50	T,M	Dibromomethane	10.000	10.358	-3.6	113	0.00
51	T,M	2-Chloroethyl vinyl ether	10.000	10.536	-5.4	109	-0.02
52	T,M	4-Methyl-2-pentanone	50.000	53.865	-7.7	114	0.00
53	T,M	cis-1,3-Dichloropropene	10.000	10.612	-6.1	113	0.00
54	S	Toluene-d8	10.000	10.605	-6.1	110	0.00
55	C,T,M	Toluene	10.000	9.869	1.3	110	0.00
56	T,M	Ethyl methacrylate	10.000	10.733	-7.3	112	0.00
57	T,M	trans-1,3-Dichloropropene	10.000	10.482	-4.8	111	0.00
58	T,M	1,1,2-Trichloroethane	10.000	10.369	-3.7	111	0.00
59	T,M	2-Hexanone	50.000	55.018	-10.0	116	0.00
60	T,M	1,3-Dichloropropane	10.000	10.199	-2.0	109	-0.02
61	T,M	Tetrachloroethene	10.000	9.998	0.0	112	-0.02
62	T,M	Dibromochloromethane	10.000	10.525	-5.3	110	0.00
63	T,M	2-Ethyl-1-butanol	-1.000	0.000	0.0	0	0.00
64	T,M	1,2-Dibromoethane	10.000	10.651	-6.5	113	-0.02
65	T,M	1-Chlorohexane	10.000	10.209	-2.1	110	0.00
66	P, T,M	Chlorobenzene	10.000	9.966	0.3	113	0.00
67	T,M	1,1,1,2-Tetrachloroethane	10.000	10.275	-2.8	110	0.00
68	C,T,M	Ethylbenzene	10.000	10.056	-0.6	110	0.00
69	T,M	m-Xylene & p-Xylene	20.000	19.384	3.1	110	0.00
70	T,M	o-Xylene	10.000	10.008	-0.1	108	0.00
71	T,M	Styrene	10.000	10.422	-4.2	111	0.00
72	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	108	0.00
73	T,M	Isopropylbenzene	10.000	10.383	-3.8	111	0.00
74	P,T,M	Bromoform	10.000	10.163	-1.6	113	-0.02
75	P,T,M	1,1,2,2-Tetrachloroethane	10.000	10.756	-7.6	113	-0.02
76	S	4-Bromofluorobenzene	10.000	10.340	-3.4	107	0.00
77	T,M	1,2,3-Trichloropropane	10.000	10.734	-7.3	111	0.00
78	T,M	trans-1,4-Dichloro-2-butene	10.000	10.856	-8.6	111	0.00
79	T,M	n-Propylbenzene	10.000	10.233	-2.3	108	0.00
80	T,M	Bromobenzene	10.000	10.213	-2.1	110	0.00

(#) = Out of Range

2096

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	1,3,5-Trimethylbenzene	10.000	10.066	-0.7	109	0.00
82	T,M	2-Chlorotoluene	10.000	10.344	-3.4	111	0.00
83	T,M	4-Chlorotoluene	10.000	9.430	5.7	104	0.00
84	T,M	tert-Butylbenzene	10.000	10.076	-0.8	110	0.00
85	T,M	1,2,4-Trimethylbenzene	10.000	9.992	0.1	108	0.00
86	T,M	sec-Butylbenzene	10.000	9.937	0.6	108	0.00
87	T,M	p-Isopropyltoluene	10.000	10.031	-0.3	109	-0.02
88	T,M	1,3-Dichlorobenzene	10.000	10.013	-0.1	109	0.00
89	T,M	1,4-Dichlorobenzene	10.000	10.199	-2.0	111	0.00
90	T,M	Benzyl chloride	-1.000	0.000	0.0	0	0.00
91	T,M	n-Butylbenzene	10.000	10.078	-0.8	111	-0.02
92	T,M	1,2-Dichlorobenzene	10.000	9.944	0.6	109	0.00
93	T,M	1,2-Dibromo-3-chloropropane	10.000	10.737	-7.4	115	0.00
94	T,M	1,2,4-Trichlorobenzene	10.000	9.828	1.7	111	0.00
95	T,M	Hexachlorobutadiene	10.000	9.875	1.3	108	0.00
96	T,M	Naphthalene	10.000	10.328	-3.3	111	0.00
97	T,M	1,2,3-Trichlorobenzene	10.000	9.754	2.5	110	-0.02

8-21-12

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	112	0.00
2	T,M	Dichlorodifluoromethane	0.258	0.253	1.9	110	0.00
3	P,T,M	Chloromethane	0.310	0.325	-4.8	114	0.00
4	C,T,M	Vinyl chloride	0.233	0.240	-3.0	115	0.02
5	T,M	Bromomethane	0.187	0.195	-4.3	109	0.00
6	T,M	Chloroethane	0.159	0.168	-5.7	109	0.00
7	T,M	Dichlorofluoromethane	0.549	0.547	0.4	107	0.00
8	T,M	Trichlorofluoromethane	0.355	0.362	-2.0	109	-0.02
9	T,M	Acrolein	0.012	0.014	-16.7	126	0.00
10	T,M	1,1,2-Trichloro-1,2,2-trifl	0.168	0.169	-0.6	113	0.00
11	T,M	Acetone	0.034	0.035	-2.9	115	0.00
12	C,T,M	1,1-Dichloroethene	0.525	0.532	-1.3	112	-0.02
13	T,M	tert-Butyl alcohol	0.010	0.011	-10.0	110	0.00
14	T,M	Acetonitrile	0.000	0.000	0.0	113	0.00
15	T,M	Methyl acetate	0.111	0.112	-0.9	121	0.00
16	T,M	Iodomethane	0.451	0.464	-2.9	115	0.00
17	T,M	Methylene chloride	0.433	0.392	9.5	112	0.04
18	T,M	Carbon disulfide	1.073	1.255	-17.0	124	-0.02
19	T,M	Acrylonitrile	0.043	0.045	-4.7	117	0.00
20	T,M	tert-Butyl methyl ether (MT	0.470	0.474	-0.9	108	0.00
21	T,M	trans-1,2-Dichloroethene	0.556	0.558	-0.4	112	-0.02
22	T,M	Isopropyl ether (DIPE)	1.082	1.076	0.6	108	0.00
23	T,M	Vinyl acetate	0.376	0.404	-7.4	114	0.00
24	P,T,M	1,1-Dichloroethane	0.637	0.608	4.6	105	0.00
25	T,M	2-Butanol	0.009	0.010	-11.1	129	0.00
26	T,M	tert-Butyl ethyl ether (ETB	0.791	0.797	-0.8	110	-0.02
27	T,M	2-Butanone	0.063	0.065	-3.2	117	-0.02
28	T,M	2,2-Dichloropropane	0.319	0.345	-8.2	117	0.00
29	T,M	cis-1,2-Dichloroethene	0.365	0.369	-1.1	114	0.00
30	C,T,M	Chloroform	0.578	0.562	2.8	110	-0.02
31	T,M	tert-Amyl alcohol	0.000	0.000	0.0	105	0.00
32	T,M	Bromochloromethane	0.255	0.255	0.0	109	0.00
33	T,M	Tetrahydrofuran	0.047	0.041	12.8	111	0.00
34	S	Dibromofluoromethane	0.302	0.320	-6.0	109	-0.02
35	T,M	1,1,1-Trichloroethane	0.471	0.467	0.8	108	-0.02
36	T,M	Cyclohexane	0.779	0.833	-6.9	127	-0.01
37	T,M	tert-Amyl methyl ether (TAM	0.123	0.131	-6.5	111	0.00
38	S	1,2-Dichloroethane-d4	0.252	0.254	-0.8	103	-0.02
39	I	CHLOROBENZENE-D5	1.000	1.000	0.0	110	0.00
40	T,M	2,2,4-Trimethylpentane	1.630	1.352	17.1	92	0.00

(#) = Out of Range

8-21-12

2652

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T,M	1,1-Dichloropropene	0.194	0.197	-1.5	114	0.00
42	T,M	Carbon tetrachloride	0.506	0.502	0.8	109	-0.02
43	T,M	1,2-Dichloroethane	0.367	0.353	3.8	106	0.00
44	T,M	Benzene	1.512	1.484	1.9	112	0.00
45	T,M	Trichloroethene	0.432	0.432	0.0	112	0.00
46	T,M	Methylcyclohexane	0.697	0.706	-1.3	111	-0.02
47	C,T,M	1,2-Dichloropropane	0.384	0.383	0.3	111	-0.02
48	T,M	1,4-Dioxane	0.001	0.001	0.0	120	0.00
49	T,M	Bromodichloromethane	0.466	0.473	-1.5	109	0.00
50	T,M	Dibromomethane	0.166	0.172	-3.6	113	0.00
51	T,M	2-Chloroethyl vinyl ether	0.124	0.130	-4.8	109	-0.02
52	T,M	4-Methyl-2-pentanone	0.198	0.213	-7.6	114	0.00
53	T,M	cis-1,3-Dichloropropene	0.539	0.572	-6.1	113	0.00
54	S	Toluene-d8	1.276	1.353	-6.0	110	0.00
55	C,T,M	Toluene	1.566	1.546	1.3	110	0.00
56	T,M	Ethyl methacrylate	0.257	0.276	-7.4	112	0.00
57	T,M	trans-1,3-Dichloropropene	0.395	0.414	-4.8	111	0.00
58	T,M	1,1,2-Trichloroethane	0.197	0.204	-3.6	111	0.00
59	T,M	2-Hexanone	0.118	0.129	-9.3	116	0.00
60	T,M	1,3-Dichloropropane	0.409	0.418	-2.2	109	-0.02
61	T,M	Tetrachloroethene	0.340	0.340	0.0	112	-0.02
62	T,M	Dibromochloromethane	0.265	0.279	-5.3	110	0.00
63	T,M	2-Ethyl-1-butanol	0.000	0.000	0.0	0#	0.00
64	T,M	1,2-Dibromoethane	0.205	0.218	-6.3	113	-0.02
65	T,M	1-Chlorohexane	0.660	0.674	-2.1	110	0.00
66	P, T,M	Chlorobenzene	0.939	0.936	0.3	113	0.00
67	T,M	1,1,1,2-Tetrachloroethane	0.297	0.306	-3.0	110	0.00
68	C,T,M	Ethylbenzene	1.759	1.769	-0.6	110	0.00
69	T,M	m-Xylene & p-Xylene	1.351	1.309	3.1	110	0.00
70	T,M	o-Xylene	1.352	1.353	-0.1	108	0.00
71	T,M	Styrene	0.935	0.974	-4.2	111	0.00
72	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	108	0.00
73	T,M	Isopropylbenzene	4.685	4.864	-3.8	111	0.00
74	P,T,M	Bromoform	0.348	0.393	-12.9	113	-0.02
75	P,T,M	1,1,2,2-Tetrachloroethane	0.625	0.672	-7.5	113	-0.02
76	S	4-Bromofluorobenzene	1.245	1.287	-3.4	107	0.00
77	T,M	1,2,3-Trichloropropane	0.168	0.180	-7.1	111	0.00
78	T,M	trans-1,4-Dichloro-2-butene	0.188	0.204	-8.5	111	0.00
79	T,M	n-Propylbenzene	6.255	6.401	-2.3	108	0.00
80	T,M	Bromobenzene	0.975	0.996	-2.2	110	0.00

(#) = Out of Range

2003

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	1,3,5-Trimethylbenzene	3.761	3.785	-0.6	109	0.00
82	T,M	2-Chlorotoluene	3.900	4.034	-3.4	111	0.00
83	T,M	4-Chlorotoluene	3.163	2.983	5.7	104	0.00
84	T,M	tert-Butylbenzene	0.863	0.870	-0.8	110	0.00
85	T,M	1,2,4-Trimethylbenzene	3.614	3.611	0.1	108	0.00
86	T,M	sec-Butylbenzene	5.188	5.156	0.6	108	0.00
87	T,M	p-Isopropyltoluene	3.969	3.981	-0.3	109	-0.02
88	T,M	1,3-Dichlorobenzene	1.929	1.931	-0.1	109	0.00
89	T,M	1,4-Dichlorobenzene	1.839	1.876	-2.0	111	0.00
90	T,M	Benzyl chloride	0.000	0.000	0.0	0#	0.00
91	T,M	n-Butylbenzene	4.032	4.063	-0.8	111	-0.02
92	T,M	1,2-Dichlorobenzene	1.479	1.470	0.6	109	0.00
93	T,M	1,2-Dibromo-3-chloropropane	0.072	0.078	-8.3	115	0.00
94	T,M	1,2,4-Trichlorobenzene	0.927	0.911	1.7	111	0.00
95	T,M	Hexachlorobutadiene	0.655	0.647	1.2	108	0.00
96	T,M	Naphthalene	1.125	1.162	-3.3	111	0.00
97	T,M	1,2,3-Trichlorobenzene	0.694	0.677	2.4	110	-0.02

JM 8-21-12

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

2694

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 15:53 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1860809	10.00 ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1581053	10.00 ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	526652	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	7.65	111	595307	10.60 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 106.00%	
38) 1,2-Dichloroethane-d4	8.48	65	472685	10.07 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 100.70%	
54) Toluene-d8	11.62	98	2139440	10.60 ug/l	0.00
Spiked Amount 10.000			Recovery	= 106.00%	
76) 4-Bromofluorobenzene	16.05	95	677781	10.34 ug/l	0.00
Spiked Amount 10.000			Recovery	= 103.40%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.89	85	471407	9.82 ug/l	100
3) Chloromethane	2.15	50	603952	10.47 ug/l	100
4) Vinyl chloride	2.31	62	447330	10.33 ug/l	100
5) Bromomethane	2.81	94	363435	10.47 ug/l	97
6) Chloroethane	2.92	64	313116	10.57 ug/l	97
7) Dichlorofluoromethane	2.96	67	1017847	9.96 ug/l	99
8) Trichlorofluoromethane	3.23	101	673832	10.19 ug/l	99
9) Acrolein	3.77	56	130783	57.21 ug/l	99
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	314914	10.07 ug/l	100
11) Acetone	3.86	43	323536	51.05 ug/l	98
12) 1,1-Dichloroethene	4.05	61	990521	10.14 ug/l	98
13) tert-Butyl alcohol	4.15	59	101052	56.19 ug/l	95
15) Methyl acetate	4.54	43	208432	10.07 ug/l	100
16) Iodomethane	4.52	142	862656	10.29 ug/l	97
17) Methylene chloride	4.81	49	729403	10.87 ug/l	98
18) Carbon disulfide	4.78	76	2335412	11.69 ug/l	100
19) Acrylonitrile	4.97	53	422792	53.09 ug/l	99
20) tert-Butyl methyl ether (M	5.01	73	881351	10.07 ug/l	98
21) trans-1,2-Dichloroethene	5.22	61	1038370	10.03 ug/l	96
22) Isopropyl ether (DIPE)	5.80	45	2001510	9.94 ug/l	98
23) Vinyl acetate	6.00	43	751016	10.74 ug/l	98
24) 1,1-Dichloroethane	5.97	63	1131093	9.55 ug/l	98
25) 2-Butanol	6.37	45	95311	54.19 ug/l	98
26) tert-Butyl ethyl ether (ET	6.50	59	1483732	10.08 ug/l	100
27) 2-Butanone	6.71	43	600112	51.02 ug/l	100
28) 2,2-Dichloropropane	6.93	77	642452	10.82 ug/l	99
29) cis-1,2-Dichloroethene	7.02	96	686039	10.09 ug/l	96

(#) = qualifier out of range (m) = manual integration
RHW016.D VO06H15.M Mon Aug 20 16:00:28 2012 8-21-12

2695

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D
Acq On : 16 Aug 2012 10:02 am
Sample : IVO06H1501
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 15:53 2012

Vial: 2
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	Chloroform	7.27	83	1045522	9.71 ug/l		99
32)	Bromochloromethane	7.56	49	474413	10.02 ug/l		97
33)	Tetrahydrofuran	7.62	42	75461	9.89 ug/l		99
35)	1,1,1-Trichloroethane	7.94	97	868363	9.92 ug/l		99
36)	Cyclohexane	7.96	56	1550794	10.70 ug/l		92
37)	tert-Amyl methyl ether (TA	8.43	87	244051	10.64 ug/l		99
40)	2,2,4-Trimethylpentane	8.09	57	2136863	8.29 ug/l	#	47
41)	1,1-Dichloropropene	8.21	110	311010	10.11 ug/l		99
42)	Carbon tetrachloride	8.36	119	792907	9.91 ug/l		100
43)	1,2-Dichloroethane	8.64	62	557820	9.61 ug/l		98
44)	Benzene	8.66	78	2346500	9.82 ug/l		100
45)	Trichloroethene	9.67	130	682938	10.01 ug/l		99
46)	Methylcyclohexane	9.74	83	1115968	10.13 ug/l		98
47)	1,2-Dichloropropane	9.95	63	606068	9.99 ug/l		96
48)	1,4-Dioxane	10.38	88	41784	222.39 ug/l		99
49)	Bromodichloromethane	10.34	83	747350	10.15 ug/l		99
50)	Dibromomethane	10.43	93	272570	10.36 ug/l		99
51)	2-Chloroethyl vinyl ether	10.86	63	206300	10.54 ug/l		99
52)	4-Methyl-2-pentanone	10.90	43	1683849	53.87 ug/l		98
53)	cis-1,3-Dichloropropene	11.23	75	903757	10.61 ug/l		98
55)	Toluene	11.75	91	2443694	9.87 ug/l		100
56)	Ethyl methacrylate	12.05	69	435851	10.73 ug/l		98
57)	trans-1,3-Dichloropropene	12.05	75	653879	10.48 ug/l		98
58)	1,1,2-Trichloroethane	12.30	97	322523	10.37 ug/l		99
59)	2-Hexanone	12.31	43	1023658	55.02 ug/l		99
60)	1,3-Dichloropropane	12.70	76	660249	10.20 ug/l		100
61)	Tetrachloroethene	12.79	164	538206	10.00 ug/l		100
62)	Dibromochloromethane	13.13	129	441326	10.52 ug/l		100
64)	1,2-Dibromoethane	13.44	107	344825	10.65 ug/l		100
65)	1-Chlorohexane	13.71	91	1065278	10.21 ug/l		97
66)	Chlorobenzene	14.13	112	1479703	9.97 ug/l		97
67)	1,1,1,2-Tetrachloroethane	14.20	131	483160	10.28 ug/l		100
68)	Ethylbenzene	14.22	91	2796277	10.06 ug/l		99
69)	m-Xylene & p-Xylene	14.34	91	4139569	19.38 ug/l		99
70)	o-Xylene	15.05	91	2138774	10.01 ug/l		98
71)	Styrene	15.11	104	1540593	10.42 ug/l		98
73)	Isopropylbenzene	15.63	105	2561704	10.38 ug/l		99
74)	Bromoform	15.66	173	207142	10.16 ug/l		100
75)	1,1,2,2-Tetrachloroethane	15.91	83	354162	10.76 ug/l		99
77)	1,2,3-Trichloropropane	16.17	110	94743	10.73 ug/l		98
78)	trans-1,4-Dichloro-2-buten	16.27	53	107548	10.86 ug/l		99

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

2096

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 15:53 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.28	91	3371039	10.23 ug/l	99
80)	Bromobenzene	16.37	156	524642	10.21 ug/l	97
81)	1,3,5-Trimethylbenzene	16.55	105	1993640	10.07 ug/l	98
82)	2-Chlorotoluene	16.58	91	2124758	10.34 ug/l	99
83)	4-Chlorotoluene	16.66	91	1570957	9.43 ug/l	99
84)	tert-Butylbenzene	17.12	134	458066	10.08 ug/l	97
85)	1,2,4-Trimethylbenzene	17.18	105	1901812	9.99 ug/l	100
86)	sec-Butylbenzene	17.43	105	2715256	9.94 ug/l	100
87)	p-Isopropyltoluene	17.61	119	2096778	10.03 ug/l	99
88)	1,3-Dichlorobenzene	17.76	146	1017050	10.01 ug/l	100
89)	1,4-Dichlorobenzene	17.89	146	988001	10.20 ug/l	99
91)	n-Butylbenzene	18.14	91	2139780	10.08 ug/l	99
92)	1,2-Dichlorobenzene	18.37	146	774306	9.94 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.27	157	40985	10.74 ug/l	98
94)	1,2,4-Trichlorobenzene	20.27	180	480032	9.83 ug/l	100
95)	Hexachlorobutadiene	20.42	225	340815	9.87 ug/l	99
96)	Naphthalene	20.60	128	612170	10.33 ug/l	100
97)	1,2,3-Trichlorobenzene	20.88	180	356463	9.75 ug/l	100

8-21-12

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

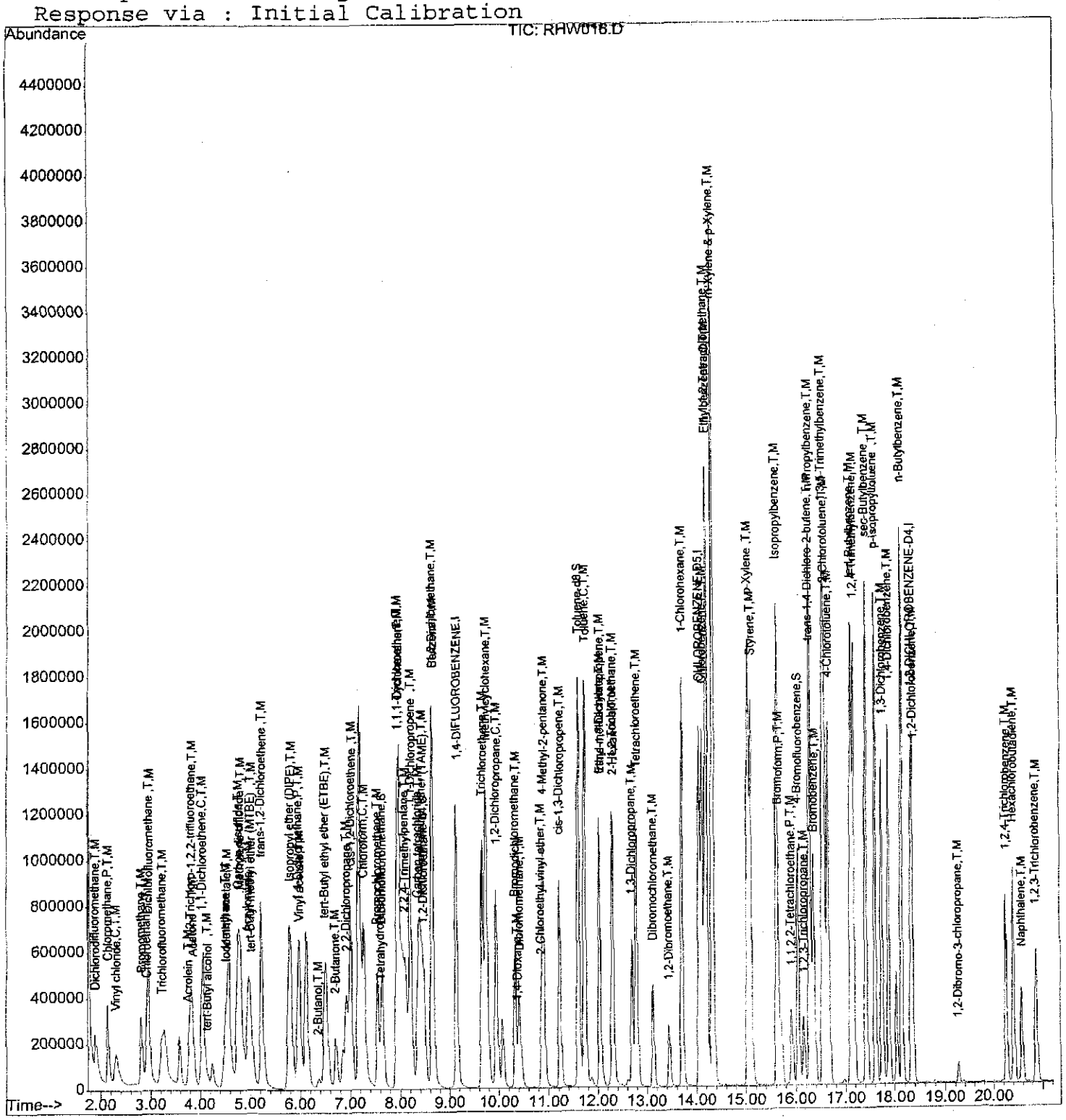
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D
Acq On : 16 Aug 2012 10:02 am
Sample : IVO06H1501
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 15:53 2012

Vial: 2
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2098

DAILY CALIBRATION(S)

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJW473
Instrument ID: 06
GC Column:RTX502.2I0:0.25mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J163
BFB Injection Date : 10/25/12
BFB Injection Time : 14:06
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.34
75	30.0 - 60.0% of mass 95	43.22
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.93
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	90.85
175	5.0 - 9.0% of mass 174	5.62(6.2)1
176	95.0 - 101.0% of mass 174	88.52(97.4)1
177	5.0 - 9.0% of mass 176	5.32(6.0)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	VSTD010	CV006H1549	RJW474	10/25/12	14:36
2	MBLK1W	V006J19B	RJW478	10/25/12	16:52
3	LCS1W	V006J19L	RJW475	10/25/12	15:23
4	LC01W	V006J19C	RJW476	10/25/12	15:53
5	10-23-12 TB-1	J163-03	RJW479	10/25/12	17:23
6	10-24-12 EB-1	J163-15	RJW480	10/25/12	17:53
7	10-23-12 AMW-4R	J163-01	RJW481	10/25/12	18:24
8	10-23-12 WB 2-4	J163-02	RJW482	10/25/12	18:53
9	10-23-12 WB 2-1	J163-04	RJW483	10/25/12	19:24
10	10-23-12 PWB-9	J163-05	RJW484	10/25/12	19:54
11	10-23-12 PWB-11	J163-06	RJW485	10/25/12	20:24
12	10-23-12 PWB-5	J163-07	RJW486	10/25/12	20:54
13	10-23-12 PWB-8	J163-08	RJW487	10/25/12	21:24
14	10-23-12 PWB-16	J163-09	RJW488	10/25/12	21:54
15	10-24-12 PWB-12	J163-10	RJW489	10/25/12	22:24
16	10-24-12 PWB-4	J163-11	RJW490	10/25/12	22:54
17	10-24-12 PWB-13A	J163-12	RJW491	10/25/12	23:24
18	10-24-12 PWB-14	J163-13	RJW492	10/25/12	23:54
19	10-24-12 FDUP-2	J163-14	RJW493	10/26/12	00:25

FORM V VOA OLM02.0

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RHW008
Instrument ID: 06
GC Column: RTX502.2 ID: 0.25mm (mm)

Project: BROWN & BRYANT SUPERFUND SITE
SDG No.: 12J163
Date Analyzed: 08/15/12
Time Analyzed: 21:54
Heated Purge: (Y/N) N

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1654332	9.15	1432235	14.07	489315	18.34
	UPPER LIMIT	3308664	9.65	2864470	14.57	978630	18.84
	LOWER LIMIT	827166	8.65	716118	13.57	244658	17.84
	SAMPLE ID						
1	VSTD010	1661238	9.14	1452182	14.06	518167	18.33
2	MBLK1W	1875896	9.14	1578577	14.06	605177	18.33
3	LCS1W	1839479	9.14	1566050	14.06	549841	18.33
4	LCD1W	1808898	9.14	1535448	14.06	534757	18.32
5	10-23-12 TB-1	1899977	9.14	1591889	14.06	606336	18.32
6	10-24-12 EB-1	1753820	9.14	1516899	14.06	566169	18.32
7	10-23-12 AMW-4R	1699483	9.14	1435143	14.06	561300	18.33
8	10-23-12 WB 2-4	1657091	9.14	1453416	14.06	553559	18.32
9	10-23-12 WB 2-1	1761998	9.14	1466014	14.06	551202	18.32
10	10-23-12 PWB-9	1705712	9.14	1512367	14.06	579314	18.33
11	10-23-12 PWB-11	1699526	9.14	1467996	14.06	550563	18.33
12	10-23-12 PWB-5	1678614	9.14	1433851	14.06	537880	18.33
13	10-23-12 PWB-8	1703600	9.14	1449595	14.06	556550	18.32
14	10-23-12 PWB-16	1629006	9.14	1411530	14.06	545888	18.33
15	10-24-12 PWB-12	1654319	9.14	1420637	14.06	552459	18.32
16	10-24-12 PWB-4	1612428	9.14	1418539	14.06	533752	18.32
17	10-24-12 PWB-13A	1589652	9.14	1407204	14.06	544347	18.31
18	10-24-12 PWB-14	1606387	9.13	1401416	14.05	544323	18.31
19	10-24-12 FDUP-2	1542619	9.13	1323962	14.06	507699	18.31

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
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

FORM VIII VOA-8260 1/2000

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T006
IC Beginning DateTime :08/15/12 19:22
SpTke Amount :10 PPB
CC/CV File :RJW474
IC File :RHW008

Column Spec :RTX502.2 ID :0.25MM
IC Ending DateTime :08/15/12 23:53
HPChem Method :vo06h15
Date_Time :10/25/12 14:36

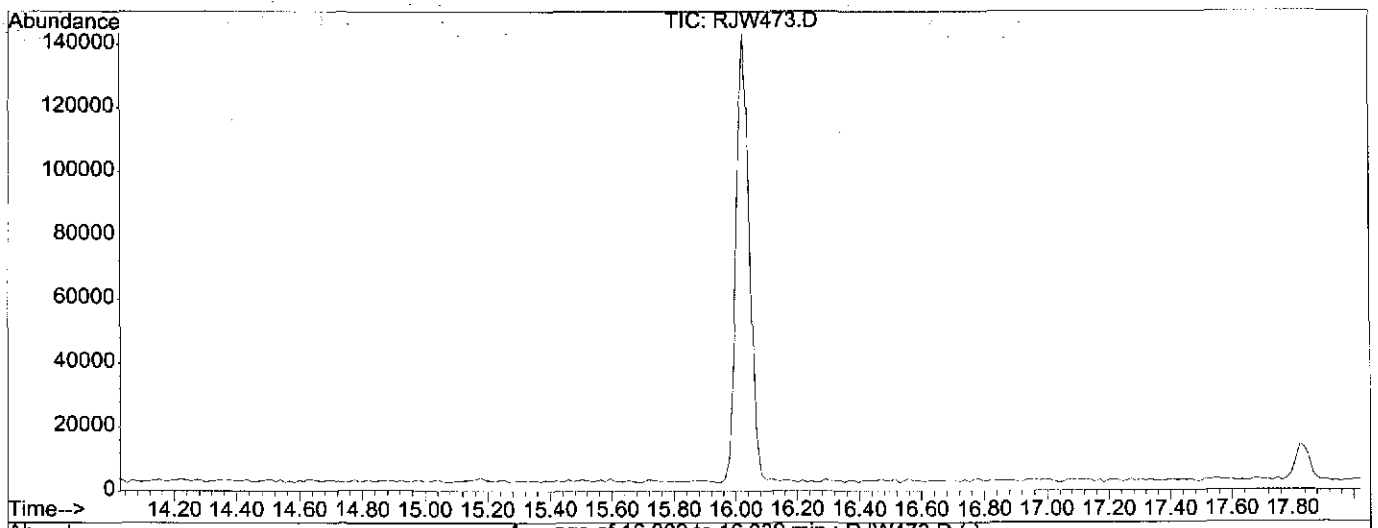
M	IDX	Parameters	CC Con	CC% D	CC Resp	CCRRF	AVRRF	CC Rtm	AVRtm	% RSD	Co X0	Co X1	Co X2	Co Cor
	1	1,4-DIFLUOROBENZENE	10.000	0	1661238	1	1	9.139	9.149	0				
	2	Dichlorodifluoromethane	10.216	2.2	437665	0.263	0.258	1.884	1.894	6.32				
	3	Chloromethane	11.077	10.8	570361	0.343	0.310	2.137	2.147	5.91				
	4	Vinyl chloride	11.586	15.9	448017	0.270	0.233	2.286	2.300	13.19				
	5	Bromomethane	10.914	9.1	338146	0.204	0.187	2.806	2.812	10.72				
	6	Chloroethane	10.943	9.4	289328	0.174	0.159	2.925	2.919	9.41				
	7	Dichlorofluoromethane	10.001	0.0	912106	0.549	0.549	2.955	2.960	8.55				
	8	Trichlorofluoromethane	8.692	-13.1	513064	0.309	0.355	3.222	3.238	8.43				
5	9	Acrolein	57.573	15.1	117507	0.014	0.012	3.757	3.772	9.90				
	10	1,1,2-Trichloro-1,2,2-trifluoroethane	9.951	-0.5	277976	0.167	0.168	3.832	3.826	6.69				
5	11	Acetone	45.201	-9.6	255757	0.031	0.034	3.847	3.859	12.26				
	12	1,1-Dichloroethene	9.386	-6.1	818751	0.493	0.525	4.040	4.063	4.54				
5	13	tert-Butyl alcohol	53.400	6.8	85743	0.010	0.010	4.159	4.161	12.01				
	14	Acetonitrile												
	15	Methyl acetate												
	16	Iodomethane	10.772	7.7	806221	0.485	0.451	4.471	4.526	4.90				
	17	Methylene chloride	10.791	7.9	646723	0.389	0.433	4.754	4.788	25.09	0.0211	0.3411		0.9963
	18	Carbon disulfide	8.646	-13.5	1541487	0.928	1.073	4.768	4.793	8.57				
5	19	Acrylonitrile	49.898	-0.2	354734	0.043	0.043	4.962	4.973	7.45				
	20	tert-Butyl methyl ether (MTBE)	9.238	-7.6	721664	0.434	0.470	5.006	5.018	7.49				
	21	trans-1,2-Dichloroethene	9.631	-3.7	890367	0.536	0.556	5.214	5.233	5.77				
	22	Isopropyl ether (DIPE)	10.308	3.1	1853152	1.116	1.082	5.794	5.804	6.46				
	23	Vinyl acetate	9.533	-4.7	595404	0.358	0.376	5.988	6.001	7.83				
	24	1,1-Dichloroethane	9.860	-1.4	1042871	0.628	0.637	5.958	5.971	5.00				
5	25	2-Butanol												
	26	tert-Butyl ethyl ether (ETBE)	9.523	-4.8	1251273	0.753	0.791	6.493	6.518	6.29				
5	27	2-Butanone	43.332	-13.3	455052	0.055	0.063	6.701	6.723	11.92				
	28	2,2-Dichloropropane	10.137	1.4	537353	0.323	0.319	6.924	6.939	11.92				
	29	cis-1,2-Dichloroethene	10.288	2.9	624587	0.376	0.365	7.014	7.023	4.81				
	30	Chloroform	9.259	-7.4	889771	0.536	0.578	7.281	7.291	6.39				
5	31	tert-Amyl alcohol												
	32	Bromochloromethane	9.440	-5.6	399187	0.240	0.255	7.549	7.559	5.92				
	33	Tetrahydrofuran	8.140	-18.6	56226	0.034	0.047	7.608	7.624	25.79	0.0026	0.0384		0.9958
	34	Dibromofluoromethane	10.054	0.5	504266	0.304	0.302	7.638	7.657	12.90				
	35	1,1,1-Trichloroethane	8.954	-10.5	699922	0.421	0.471	7.935	7.957	5.91				
	36	Cyclohexane												
	37	tert-Amyl methyl ether (TAME)	9.513	-4.9	194772	0.117	0.123	8.411	8.433	7.49				
	38	1,2-Dichloroethane-d4	8.561	-14.4	358678	0.216	0.252	8.470	8.492	11.03				
	39	CHLOROBENZENE-D5	10.000	0	1452182	1	1	14.061	14.071	0				
	40	2,2,4-Trimethylpentane												
	41	1,1-Dichloropropene	10.494	4.9	296423	0.204	0.194	8.203	8.220	4.25				
	42	Carbon tetrachloride	8.412	-15.9	618131	0.426	0.506	8.351	8.376	5.79				
	43	1,2-Dichloroethane	8.063	-19.4	429813	0.296	0.367	8.634	8.646	6.76				
	44	Benzene	9.505	-4.9	2087060	1.437	1.512	8.649	8.659	9.36				
	45	Trichloroethene	10.202	2.0	639601	0.440	0.432	9.660	9.670	6.12				
	46	Methylcyclohexane												
	47	1,2-Dichloropropane	10.135	1.4	564575	0.389	0.384	9.942	9.964	4.61				
20	48	1,4-Dioxane	177.448	-11.3	30622	0.001	0.001	10.373	10.385	11.65				
	49	Bromodichloromethane	9.084	-9.2	614454	0.423	0.466	10.329	10.339	5.58				
	50	Dibromomethane	9.423	-5.8	227764	0.157	0.166	10.403	10.427	5.54				
	51	2-Chloroethyl vinyl ether	7.940	-20.6	142798	0.098	0.124	10.849	10.870	8.84				
5	52	4-Methyl-2-pentanone	44.722	-10.6	1284076	0.177	0.198	10.894	10.907	7.11				
	53	cis-1,3-Dichloropropene	9.740	-2.6	761870	0.525	0.539	11.221	11.234	5.79				
	54	Toluene-d8	10.285	2.8	1905920	1.312	1.276	11.608	11.619	8.94				
	55	Toluene	9.787	-2.1	2225993	1.533	1.566	11.726	11.748	6.76				
	56	Ethyl methacrylate	9.196	-8.0	343019	0.236	0.257	12.039	12.049	7.04				
	57	trans-1,3-Dichloropropene	8.916	-10.8	510886	0.352	0.395	12.039	12.049	6.05				
	58	1,1,2-Trichloroethane	9.782	-2.2	279462	0.192	0.197	12.291	12.301	5.64				
5	59	2-Hexanone	45.688	-8.6	780784	0.108	0.118	12.306	12.321	8.05				
	60	1,3-Dichloropropane	9.218	-7.8	548115	0.377	0.409	12.693	12.715	6.01				
	61	Tetrachloroethene	10.762	7.6	532151	0.366	0.340	12.782	12.804	4.76				
	62	Dibromochloromethane	9.478	-5.2	365065	0.251	0.265	13.109	13.134	9.39				
	63	2-Ethyl-1-butanol												
	64	1,2-Dibromoethane	9.540	-4.6	283710	0.195	0.205	13.436	13.458	6.02				
	65	1-Chlorohexane	10.304	3.0	987576	0.680	0.660	13.704	13.720	5.61				
	66	Chlorobenzene	10.176	1.8	1387751	0.956	0.939	14.120	14.132	6.36				
	67	1,1,1,2-Tetrachloroethane	10.140	1.4	437940	0.302	0.297	14.194	14.204	4.58				
	68	Ethylbenzene	9.864	-1.4	2519321	1.735	1.759	14.209	14.219	9.90				
2	69	m-Xylene & p-Xylene	18.447	-7.8	3618467	1.246	1.351	14.328	14.342	7.48				
	70	o-Xylene	9.534	-4.7	1871539	1.289	1.352	15.042	15.052	6.63				
	71	Styrene	10.497	5.0	1425280	0.981	0.935	15.101	15.111	6.35				
	72	1,2-DICHLOROBENZENE-D4	10.000	0	518167	1	1	18.327	18.337	0				
	73	Isopropylbenzene	9.491	-5.1	2304176	4.447	4.685	15.622	15.639	8.82				
	74	Bromoform	8.954	-10.5	179185	0.346	0.348	15.651	15.673	18.12	-0.0062	0.3931		0.9971
	75	1,1,2,2-Tetrachloroethane	9.262	-7.4	300061	0.579	0.625	15.904	15.926	8.36				
	76	4-Bromofluorobenzene	8.913	-10.9	574880	1.109	1.245	16.038	16.048	8.32				
	77	1,2,3-Trichloropropane	8.409	-15.9	73029	0.141	0.168	16.142	16.168	8.94				
	78	trans-1,4-Dichloro-2-butene	8.285	-17.2	80760	0.156	0.188	16.261	16.274	10.76				
	79	n-Propylbenzene	9.539	-4.6	3092022	5.967	6.255	16.276	16.295	9.47				
	80	Bromobenzene	10.542	5.4	532805	1.028	0.975	16.350	16.375	7.12				
	81	1,3,5-Trimethylbenzene	9.359	-6.4	1823881	3.520	3.761	16.529	16.552	7.92				
	82	2-Chlorotoluene	8.634	-13.7	1744896	3.367	3.900	16.573	16.585	10.14				
	83	4-Chlorotoluene	9.367	-6.3	1535326	2.963	3.163	16.647	16.663	7.18				
	84	tert-Butylbenzene	10.548	5.5	471787	0.910	0.863	17.108	17.118	6.95				
	85	1,2,4-Trimethylbenzene	9.327	-6.7	1746840	3.371	3.614	17.153	17.178	7.83				
	86	sec-Butylbenzene	9.765	-2.3	2625373	5.067	5.188	17.421	17.431	8.10				
	87	p-Isopropyltoluene	10.013	0.1	2059479	3.975	3.969	17.599	17.621	7.26				
	88	1,3-Dichlorobenzene	10.488	4.9	1048172	2.023	1.929	17.733	17.758	7.62				
	89	1,4-Dichlorobenzene	10.577	5.8	1008179	1.946	1.839	17.882	17.895	7.30				
	90	Benzyl chloride												
	91	n-Butylbenzene	9.876	-1.2	2063242	3.982	4.032	18.134	18.153	8.35				
	92	1,2-Dichlorobenzene	10.411	4.1	797624	1.539	1.479	18.357	18.367	5.96				
	93	1,2-Dibromo-3-chloropropane	9.032	-9.7	33924	0.065	0.072	19.264	19.273	14.38				
	94	1,2,4-Trichlorobenzene	10.099	1.0	485386	0.937	0.927	20.260	20.270	8.69				
	95	Hexachlorobutadiene	10.508	5.1	356833	0.689	0.655	20.409	20.420	10.91				
	96	Naphthalene	9.292	-7.1	541915	1.046	1.125	20.573	20.596	12.07				
	97	1,2,3-Trichlorobenzene	9.314	-6.9	334923	0.646	0.694	20.870	20.888	13.66				

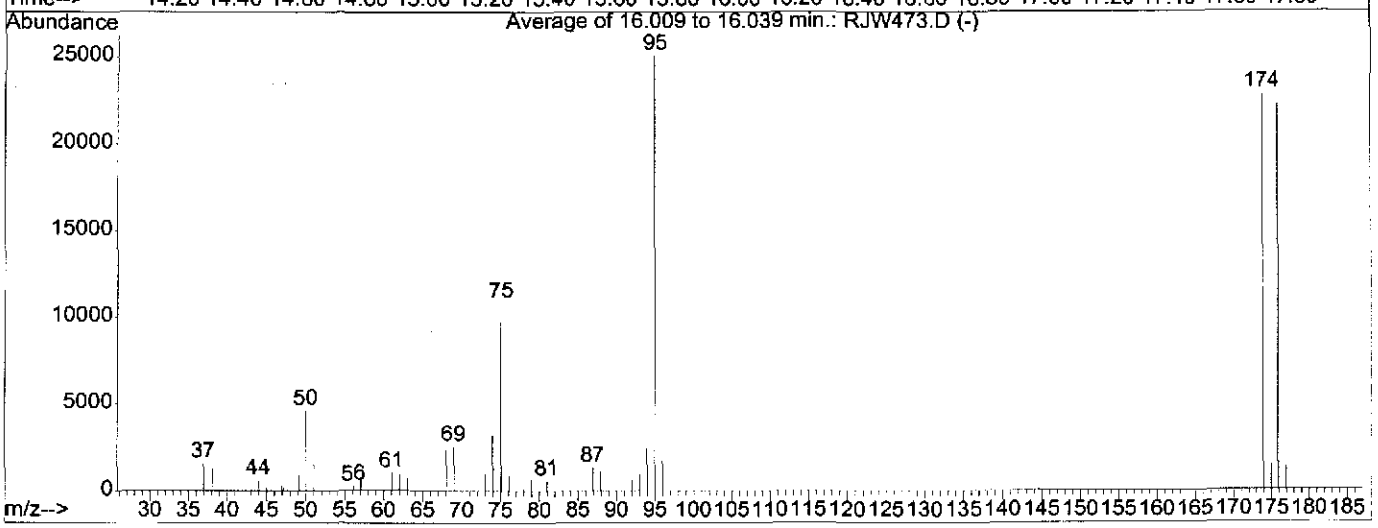
Spike Amount = Nominal Amount * M

BFB

Data File : D:\HPCHEM\1\DATA\12J25\RJW473.D
Acq On : 25 Oct 2012 2:06 pm
Sample : BFB06J19
Misc : T/CHK
MS Integration Params: RTE.P
Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260

Vial: 1
Operator: WL
Inst : TO06
Multiplr: 1.00





AutoFind: Scans 960, 961, 962; Background Corrected with Scan 955

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	4595	PASS
75	95	30	60	43.2	10828	PASS
95	95	100	100	100.0	25053	PASS
96	95	5	9	6.9	1736	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	90.9	22761	PASS
175	174	5	9	6.2	1409	PASS
176	174	95	101	97.4	22176	PASS
177	176	5	9	6.0	1334	PASS

RJW473.D VO06H15.M Fri Oct 26 11:09:52 2012

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J25\RJW474.D Vial: 2
Acq On : 25 Oct 2012 2:36 pm Operator: WL
Sample : CVO06H1549 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	100	0.00
2	T,M	Dichlorodifluoromethane	10.000	10.216	-2.2	102	0.00
3	P,T,M	Chloromethane	10.000	11.077	-10.8	108	0.00
4	C,T,M	Vinyl chloride	10.000	11.587	-15.9	115	0.00
5	T,M	Bromomethane	10.000	10.914	-9.1	101	0.00
6	T,M	Chloroethane	10.000	10.943	-9.4	100	0.00
7	T,M	Dichlorofluoromethane	10.000	10.001	-0.0	96	0.00
8	T,M	Trichlorofluoromethane	10.000	8.692	13.1	83	-0.02
9	T,M	Acrolein	50.000	57.574	-15.1	114	0.00
10	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	9.952	0.5	100	0.00
11	T,M	Acetone	50.000	45.202	9.6	91	0.00
12	C,T,M	1,1-Dichloroethene	10.000	9.386	6.1	93	-0.02
13	T,M	tert-Butyl alcohol	50.000	53.401	-6.8	94	0.00
14	T,M	Acetonitrile	-1.000	0.000	0.0	80	0.00
15	T,M	Methyl acetate	10.000	0.000	100.0#	0	-4.54#
16	T,M	Iodomethane	10.000	10.772	-7.7	107	-0.05
17	T,M	Methylene chloride	10.000	10.792	-7.9	100	0.00
18	T,M	Carbon disulfide	10.000	8.647	13.5	82	-0.02
19	T,M	Acrylonitrile	50.000	49.898	0.2	98	0.00
20	T,M	tert-Butyl methyl ether (MT	10.000	9.239	7.6	88	0.00
21	T,M	trans-1,2-Dichloroethene	10.000	9.631	3.7	96	-0.02
22	T,M	Isopropyl ether (DIPE)	10.000	10.309	-3.1	100	0.00
23	T,M	Vinyl acetate	10.000	9.533	4.7	91	0.00
24	P,T,M	1,1-Dichloroethane	10.000	9.861	1.4	97	0.00
25	T,M	2-Butanol	50.000	0.000	100.0#	0	-6.37#
26	T,M	tert-Butyl ethyl ether (ETB	10.000	9.523	4.8	93	-0.02
27	T,M	2-Butanone	50.000	43.332	13.3	89	-0.02
28	T,M	2,2-Dichloropropane	10.000	10.138	-1.4	98	0.00
29	T,M	cis-1,2-Dichloroethene	10.000	10.288	-2.9	104	0.00
30	C,T,M	Chloroform	10.000	9.260	7.4	93	0.00
31	T,M	tert-Amyl alcohol	-1.000	0.000	0.0	76	-0.02
32	T,M	Bromochloromethane	10.000	9.440	5.6	92	0.00
33	T,M	Tetrahydrofuran	10.000	8.140	18.6	83	0.00
34	S	Dibromofluoromethane	10.000	10.054	-0.5	92	-0.02
35	T,M	1,1,1-Trichloroethane	10.000	8.955	10.4	87	-0.02
36	T,M	Cyclohexane	10.000	0.000	100.0#	0	-7.97#
37	T,M	tert-Amyl methyl ether (TAM	10.000	9.513	4.9	89	-0.02
38	S	1,2-Dichloroethane-d4	10.000	8.562	14.4	78	-0.02
39	I	CHLOROBENZENE-D5	10.000	10.000	0.0	101	0.00
40	T,M	2,2,4-Trimethylpentane	10.000	0.000	100.0#	0	-8.09#

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J25\RJW474.D Vial: 2
Acq On : 25 Oct 2012 2:36 pm Operator: WL
Sample : CVO06H1549 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T,M	1,1-Dichloropropene	10.000	10.495	-4.9	108	0.00
42	T,M	Carbon tetrachloride	10.000	8.412	15.9	85	-0.02
43	T,M	1,2-Dichloroethane	10.000	8.064	19.4	82	0.00
44	T,M	Benzene	10.000	9.505	4.9	100	0.00
45	T,M	Trichloroethene	10.000	10.203	-2.0	105	0.00
46	T,M	Methylcyclohexane	10.000	0.000	100.0#	0	-9.76#
47	C,T,M	1,2-Dichloropropane	10.000	10.136	-1.4	103	-0.02
48	T,M	1,4-Dioxane	200.000	177.448	11.3	88	0.00
49	T,M	Bromodichloromethane	10.000	9.085	9.1	90	0.00
50	T,M	Dibromomethane	10.000	9.424	5.8	94	-0.02
51	T,M	2-Chloroethyl vinyl ether	10.000	7.940	20.6#M	76	-0.02
52	T,M	4-Methyl-2-pentanone	50.000	44.722	10.6	87	0.00
53	T,M	cis-1,3-Dichloropropene	10.000	9.740	2.6	95	0.00
54	S	Toluene-d8	10.000	10.286	-2.9	98	0.00
55	C,T,M	Toluene	10.000	9.788	2.1	101	-0.02
56	T,M	Ethyl methacrylate	10.000	9.196	8.0	88	0.00
57	T,M	trans-1,3-Dichloropropene	10.000	8.916	10.8	86	0.00
58	T,M	1,1,2-Trichloroethane	10.000	9.782	2.2	96	0.00
59	T,M	2-Hexanone	50.000	45.689	8.6	89	0.00
60	T,M	1,3-Dichloropropane	10.000	9.218	7.8	90	-0.02
61	T,M	Tetrachloroethene	10.000	10.762	-7.6	111	-0.02
62	T,M	Dibromochloromethane	10.000	9.479	5.2	91	-0.02
63	T,M	2-Ethyl-1-butanol	-1.000	0.000	0.0	0	0.00
64	T,M	1,2-Dibromoethane	10.000	9.541	4.6	93	-0.02
65	T,M	1-Chlorohexane	10.000	10.304	-3.0	102	0.00
66	P, T,M	Chlorobenzene	10.000	10.176	-1.8	106	0.00
67	T,M	1,1,1,2-Tetrachloroethane	10.000	10.140	-1.4	99	0.00
68	C,T,M	Ethylbenzene	10.000	9.864	1.4	100	0.00
69	T,M	m-Xylene & p-Xylene	20.000	18.448	7.8	96	0.00
70	T,M	o-Xylene	10.000	9.534	4.7	95	0.00
71	T,M	Styrene	10.000	10.498	-5.0	103	0.00
72	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	106	0.00
73	T,M	Isopropylbenzene	10.000	9.492	5.1	100	0.00
74	P,T,M	Bromoform	10.000	8.954	10.5	98	-0.02
75	P,T,M	1,1,2,2-Tetrachloroethane	10.000	9.262	7.4	96	-0.02
76	S	4-Bromofluorobenzene	10.000	8.914	10.9	91	0.00
77	T,M	1,2,3-Trichloropropane	10.000	8.409	15.9	85	-0.02
78	T,M	trans-1,4-Dichloro-2-butene	10.000	8.286	17.1	83	0.00
79	T,M	n-Propylbenzene	10.000	9.539	4.6	99	0.00
80	T,M	Bromobenzene	10.000	10.542	-5.4	111	-0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J25\RJW474.D Vial: 2
Acq On : 25 Oct 2012 2:36 pm Operator: WL
Sample : CVO06H1549 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	1,3,5-Trimethylbenzene	10.000	9.360	6.4	100	-0.02
82	T,M	2-Chlorotoluene	10.000	8.634	13.7	91	0.00
83	T,M	4-Chlorotoluene	10.000	9.367	6.3	102	0.00
84	T,M	tert-Butylbenzene	10.000	10.548	-5.5	113	0.00
85	T,M	1,2,4-Trimethylbenzene	10.000	9.328	6.7	99	-0.02
86	T,M	sec-Butylbenzene	10.000	9.766	2.3	104	0.00
87	T,M	p-Isopropyltoluene	10.000	10.014	-0.1	107	-0.02
88	T,M	1,3-Dichlorobenzene	10.000	10.488	-4.9	112	-0.02
89	T,M	1,4-Dichlorobenzene	10.000	10.577	-5.8	113	0.00
90	T,M	Benzyl chloride	-1.000	0.000	0.0	0	0.00
91	T,M	n-Butylbenzene	10.000	9.876	1.2	107	-0.02
92	T,M	1,2-Dichlorobenzene	10.000	10.411	-4.1	112	0.00
93	T,M	1,2-Dibromo-3-chloropropane	10.000	9.032	9.7	95	0.00
94	T,M	1,2,4-Trichlorobenzene	10.000	10.100	-1.0	112	0.00
95	T,M	Hexachlorobutadiene	10.000	10.508	-5.1	113	0.00
96	T,M	Naphthalene	10.000	9.293	7.1	98	-0.02
97	T,M	1,2,3-Trichlorobenzene	10.000	9.315	6.9	104	-0.02

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J25\RJW474.D Vial: 2
Acq On : 25 Oct 2012 2:36 pm Operator: WL
Sample : CVO06H1549 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	100	0.00
2	T,M	Dichlorodifluoromethane	0.258	0.263	-1.9	102	0.00
3	P,T,M	Chloromethane	0.310	0.343	-10.6	108	0.00
4	C,T,M	Vinyl chloride	0.233	0.270	-15.9	115	0.00
5	T,M	Bromomethane	0.187	0.204	-9.1	101	0.00
6	T,M	Chloroethane	0.159	0.174	-9.4	100	0.00
7	T,M	Dichlorofluoromethane	0.549	0.549	0.0	96	0.00
8	T,M	Trichlorofluoromethane	0.355	0.309	13.0	83	-0.02
9	T,M	Acrolein	0.012	0.014	-16.7	114	0.00
10	T,M	1,1,2-Trichloro-1,2,2-trifl	0.168	0.167	0.6	100	0.00
11	T,M	Acetone	0.034	0.031	8.8	91	0.00
12	C,T,M	1,1-Dichloroethene	0.525	0.493	6.1	93	-0.02
13	T,M	tert-Butyl alcohol	0.010	0.010	0.0	94	0.00
14	T,M	Acetonitrile	0.000	0.000	0.0	80	0.00
15	T,M	Methyl acetate	0.111	0.000	100.0#	0#	-4.54#
16	T,M	Iodomethane	0.451	0.485	-7.5	107	-0.05
17	T,M	Methylene chloride	0.433	0.389	10.2	100	0.00
18	T,M	Carbon disulfide	1.073	0.928	13.5	82	-0.02
19	T,M	Acrylonitrile	0.043	0.043	0.0	98	0.00
20	T,M	tert-Butyl methyl ether (MT	0.470	0.434	7.7	88	0.00
21	T,M	trans-1,2-Dichloroethene	0.556	0.536	3.6	96	-0.02
22	T,M	Isopropyl ether (DIPE)	1.082	1.116	-3.1	100	0.00
23	T,M	Vinyl acetate	0.376	0.358	4.8	91	0.00
24	P,T,M	1,1-Dichloroethane	0.637	0.628	1.4	97	0.00
25	T,M	2-Butanol	0.009	0.000	100.0#	0#	-6.37#
26	T,M	tert-Butyl ethyl ether (ETB	0.791	0.753	4.8	93	-0.02
27	T,M	2-Butanone	0.063	0.055	12.7	89	-0.02
28	T,M	2,2-Dichloropropane	0.319	0.323	-1.3	98	0.00
29	T,M	cis-1,2-Dichloroethene	0.365	0.376	-3.0	104	0.00
30	C,T,M	Chloroform	0.578	0.536	7.3	93	0.00
31	T,M	tert-Amyl alcohol	0.000	0.000	0.0	76	-0.02
32	T,M	Bromochloromethane	0.255	0.240	5.9	92	0.00
33	T,M	Tetrahydrofuran	0.047	0.034	27.7#	83	0.00
34	S	Dibromofluoromethane	0.302	0.304	-0.7	92	-0.02
35	T,M	1,1,1-Trichloroethane	0.471	0.421	10.6	87	-0.02
36	T,M	Cyclohexane	0.779	0.000	100.0#	0#	-7.97#
37	T,M	tert-Amyl methyl ether (TAM	0.123	0.117	4.9	89	-0.02
38	S	1,2-Dichloroethane-d4	0.252	0.216	14.3	78	-0.02
39	I	CHLOROBENZENE-D5	1.000	1.000	0.0	101	0.00
40	T,M	2,2,4-Trimethylpentane	1.630	0.000	100.0#	0#	-8.09#

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J25\RJW474.D Vial: 2
Acq On : 25 Oct 2012 2:36 pm Operator: WL
Sample : CVO06H1549 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T,M 1,1-Dichloropropene	0.194	0.204	-5.2	108	0.00
42	T,M Carbon tetrachloride	0.506	0.426	15.8	85	-0.02
43	T,M 1,2-Dichloroethane	0.367	0.296	19.3	82	0.00
44	T,M Benzene	1.512	1.437	5.0	100	0.00
45	T,M Trichloroethene	0.432	0.440	-1.9	105	0.00
46	T,M Methylcyclohexane	0.697	0.000	100.0#	0#	-9.76#
47	C,T,M 1,2-Dichloropropane	0.384	0.389	-1.3	103	-0.02
48	T,M 1,4-Dioxane	0.001	0.001	0.0	88	0.00
49	T,M Bromodichloromethane	0.466	0.423	9.2	90	0.00
50	T,M Dibromomethane	0.166	0.157	5.4	94	-0.02
51	T,M 2-Chloroethyl vinyl ether	0.124	0.098	21.0#	76	-0.02
52	T,M 4-Methyl-2-pentanone	0.198	0.177	10.6	87	0.00
53	T,M cis-1,3-Dichloropropene	0.539	0.525	2.6	95	0.00
54	S Toluene-d8	1.276	1.312	-2.8	98	0.00
55	C,T,M Toluene	1.566	1.533	2.1	101	-0.02
56	T,M Ethyl methacrylate	0.257	0.236	8.2	88	0.00
57	T,M trans-1,3-Dichloropropene	0.395	0.352	10.9	86	0.00
58	T,M 1,1,2-Trichloroethane	0.197	0.192	2.5	96	0.00
59	T,M 2-Hexanone	0.118	0.108	8.5	89	0.00
60	T,M 1,3-Dichloropropane	0.409	0.377	7.8	90	-0.02
61	T,M Tetrachloroethene	0.340	0.366	-7.6	111	-0.02
62	T,M Dibromochloromethane	0.265	0.251	5.3	91	-0.02
63	T,M 2-Ethyl-1-butanol	0.000	0.000	0.0	0#	0.00
64	T,M 1,2-Dibromoethane	0.205	0.195	4.9	93	-0.02
65	T,M 1-Chlorohexane	0.660	0.680	-3.0	102	0.00
66	P, T,M Chlorobenzene	0.939	0.956	-1.8	106	0.00
67	T,M 1,1,1,2-Tetrachloroethane	0.297	0.302	-1.7	99	0.00
68	C,T,M Ethylbenzene	1.759	1.735	1.4	100	0.00
69	T,M m-Xylene & p-Xylene	1.351	1.246	7.8	96	0.00
70	T,M o-Xylene	1.352	1.289	4.7	95	0.00
71	T,M Styrene	0.935	0.981	-4.9	103	0.00
72	I 1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	106	0.00
73	T,M Isopropylbenzene	4.685	4.447	5.1	100	0.00
74	P,T,M Bromoform	0.348	0.346	0.6	98	-0.02
75	P,T,M 1,1,2,2-Tetrachloroethane	0.625	0.579	7.4	96	-0.02
76	S 4-Bromofluorobenzene	1.245	1.109	10.9	91	0.00
77	T,M 1,2,3-Trichloropropane	0.168	0.141	16.1	85	-0.02
78	T,M trans-1,4-Dichloro-2-butene	0.188	0.156	17.0	83	0.00
79	T,M n-Propylbenzene	6.255	5.967	4.6	99	0.00
80	T,M Bromobenzene	0.975	1.028	-5.4	111	-0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J25\RJW474.D Vial: 2
Acq On : 25 Oct 2012 2:36 pm Operator: WL
Sample : CVO06H1549 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	1,3,5-Trimethylbenzene	3.761	3.520	6.4	100	-0.02
82	T,M	2-Chlorotoluene	3.900	3.367	13.7	91	0.00
83	T,M	4-Chlorotoluene	3.163	2.963	6.3	102	0.00
84	T,M	tert-Butylbenzene	0.863	0.910	-5.4	113	0.00
85	T,M	1,2,4-Trimethylbenzene	3.614	3.371	6.7	99	-0.02
86	T,M	sec-Butylbenzene	5.188	5.067	2.3	104	0.00
87	T,M	p-Isopropyltoluene	3.969	3.975	-0.2	107	-0.02
88	T,M	1,3-Dichlorobenzene	1.929	2.023	-4.9	112	-0.02
89	T,M	1,4-Dichlorobenzene	1.839	1.946	-5.8	113	0.00
90	T,M	Benzyl chloride	0.000	0.000	0.0	0#	0.00
91	T,M	n-Butylbenzene	4.032	3.982	1.2	107	-0.02
92	T,M	1,2-Dichlorobenzene	1.479	1.539	-4.1	112	0.00
93	T,M	1,2-Dibromo-3-chloropropane	0.072	0.065	9.7	95	0.00
94	T,M	1,2,4-Trichlorobenzene	0.927	0.937	-1.1	112	0.00
95	T,M	Hexachlorobutadiene	0.655	0.689	-5.2	113	0.00
96	T,M	Naphthalene	1.125	1.046	7.0	98	-0.02
97	T,M	1,2,3-Trichlorobenzene	0.694	0.646	6.9	104	-0.02

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J25\RJW474.D Vial: 2
Acq On : 25 Oct 2012 2:36 pm Operator: WL
Sample : CVO06H1549 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 26 11:11 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.14	114	1661238	10.00 ug/l	0.00
39) CHLOROBENZENE-D5	14.06	117	1452182	10.00 ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.33	152	518167	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	7.64	111	504266	10.05 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 100.50%	
38) 1,2-Dichloroethane-d4	8.47	65	358678	8.56 ug/l	-0.02
Spiked Amount 10.000			Recovery	= 85.60%	
54) Toluene-d8	11.61	98	1905920	10.29 ug/l	0.00
Spiked Amount 10.000			Recovery	= 102.90%	
76) 4-Bromofluorobenzene	16.04	95	574880	8.91 ug/l	0.00
Spiked Amount 10.000			Recovery	= 89.10%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.88	85	437663	10.22 ug/l	100
3) Chloromethane	2.14	50	570361	11.08 ug/l	100
4) Vinyl chloride	2.29	62	448017	11.59 ug/l	99
5) Bromomethane	2.81	94	338146	10.91 ug/l	99
6) Chloroethane	2.92	64	289328	10.94 ug/l	95
7) Dichlorofluoromethane	2.95	67	912106	10.00 ug/l	100
8) Trichlorofluoromethane	3.22	101	513064	8.69 ug/l	100
9) Acrolein	3.76	56	117507	57.57 ug/l	93
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	277976	9.95 ug/l	98
11) Acetone	3.85	43	255757	45.20 ug/l	96
12) 1,1-Dichloroethene	4.04	61	818751	9.39 ug/l	95
13) tert-Butyl alcohol	4.16	59	85743	53.40 ug/l	94
16) Iodomethane	4.47	142	806221	10.77 ug/l	87
17) Methylene chloride	4.75	49	646723	10.79 ug/l	85
18) Carbon disulfide	4.77	76	1541487	8.65 ug/l	99
19) Acrylonitrile	4.96	53	354734	49.90 ug/l	99
20) tert-Butyl methyl ether (M	5.01	73	721664	9.24 ug/l	97
21) trans-1,2-Dichloroethene	5.21	61	890367	9.63 ug/l	92
22) Isopropyl ether (DIPE)	5.79	45	1853152	10.31 ug/l	98
23) Vinyl acetate	5.99	43	595404	9.53 ug/l	99
24) 1,1-Dichloroethane	5.96	63	1042871	9.86 ug/l	99
26) tert-Butyl ethyl ether (ET	6.49	59	1251273	9.52 ug/l	98
27) 2-Butanone	6.70	43	455052	43.33 ug/l	98
28) 2,2-Dichloropropane	6.92	77	537353	10.14 ug/l	98
29) cis-1,2-Dichloroethene	7.01	96	624587	10.29 ug/l	92
30) Chloroform	7.28	83	889771	9.26 ug/l	99
32) Bromochloromethane	7.55	49	399187	9.44 ug/l	92

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J25\RJW474.D Vial: 2
Acq On : 25 Oct 2012 2:36 pm Operator: WL
Sample : CVO06H1549 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 26 11:11 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33) Tetrahydrofuran	7.61	42	56226	8.14 ug/l	96
35) 1,1,1-Trichloroethane	7.94	97	699922	8.95 ug/l	90
37) tert-Amyl methyl ether (TA	8.41	87	194772	9.51 ug/l	94
41) 1,1-Dichloropropene	8.20	110	296423	10.49 ug/l	99
42) Carbon tetrachloride	8.35	119	618131	8.41 ug/l	99
43) 1,2-Dichloroethane	8.63	62	429813	8.06 ug/l	98
44) Benzene	8.65	78	2087060	9.51 ug/l	99
45) Trichloroethene	9.66	130	639601	10.20 ug/l	94
47) 1,2-Dichloropropane	9.94	63	564575	10.14 ug/l	91
48) 1,4-Dioxane	10.37	88	30622	177.45 ug/l	97
49) Bromodichloromethane	10.33	83	614454	9.08 ug/l	99
50) Dibromomethane	10.40	93	227764	9.42 ug/l	92
51) 2-Chloroethyl vinyl ether	10.85	63	142798	7.94 ug/l	99
52) 4-Methyl-2-pentanone	10.89	43	1284076	44.72 ug/l	98
53) cis-1,3-Dichloropropene	11.22	75	761870	9.74 ug/l	97
55) Toluene	11.73	91	2225993	9.79 ug/l	100
56) Ethyl methacrylate	12.04	69	343019	9.20 ug/l	99
57) trans-1,3-Dichloropropene	12.04	75	510886	8.92 ug/l	97
58) 1,1,2-Trichloroethane	12.29	97	279462	9.78 ug/l	98
59) 2-Hexanone	12.31	43	780784	45.69 ug/l	98
60) 1,3-Dichloropropane	12.69	76	548115	9.22 ug/l	99
61) Tetrachloroethene	12.78	164	532151	10.76 ug/l	96
62) Dibromochloromethane	13.11	129	365065	9.48 ug/l	99
64) 1,2-Dibromoethane	13.44	107	283710	9.54 ug/l	99
65) 1-Chlorohexane	13.70	91	987576	10.30 ug/l	96
66) Chlorobenzene	14.12	112	1387751	10.18 ug/l	94
67) 1,1,1,2-Tetrachloroethane	14.19	131	437940	10.14 ug/l	98
68) Ethylbenzene	14.21	91	2519321	9.86 ug/l	96
69) m-Xylene & p-Xylene	14.33	91	3618467	18.45 ug/l	93
70) o-Xylene	15.04	91	1871539	9.53 ug/l	94
71) Styrene	15.10	104	1425280	10.50 ug/l	95
73) Isopropylbenzene	15.62	105	2304176	9.49 ug/l	97
74) Bromoform	15.65	173	179185	8.95 ug/l	99
75) 1,1,2,2-Tetrachloroethane	15.90	83	300061	9.26 ug/l	99
77) 1,2,3-Trichloropropane	16.14	110	73029	8.41 ug/l	98
78) trans-1,4-Dichloro-2-buten	16.26	53	80760	8.29 ug/l	97
79) n-Propylbenzene	16.28	91	3092022	9.54 ug/l	96
80) Bromobenzene	16.35	156	532805	10.54 ug/l	89
81) 1,3,5-Trimethylbenzene	16.53	105	1823881	9.36 ug/l	94
82) 2-Chlorotoluene	16.57	91	1744896	8.63 ug/l	93
83) 4-Chlorotoluene	16.65	91	1535326	9.37 ug/l	94

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J25\RJW474.D Vial: 2
Acq On : 25 Oct 2012 2:36 pm Operator: WL
Sample : CVO06H1549 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 26 11:11 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

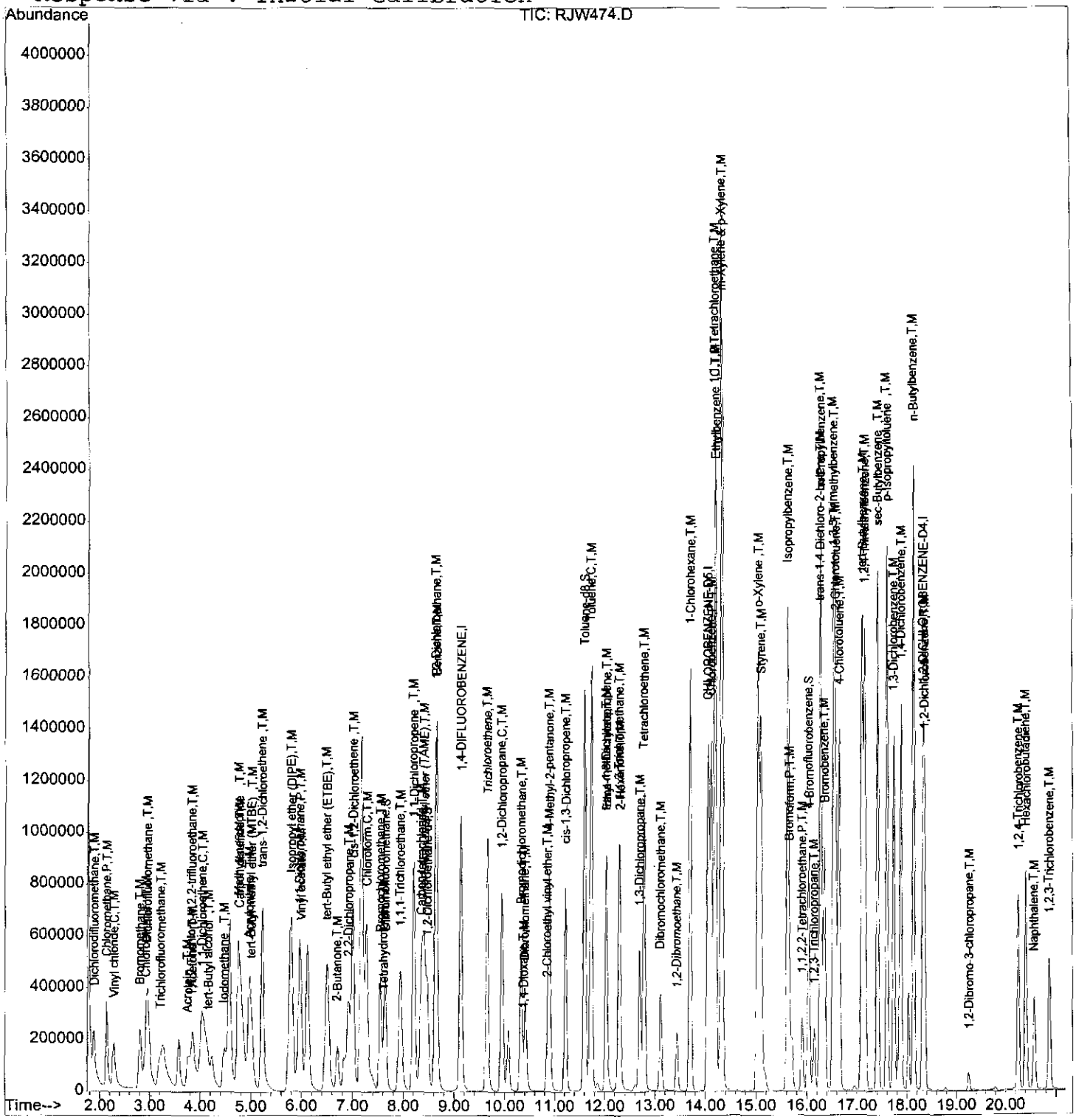
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
84)	tert-Butylbenzene	17.11	134	471787	10.55 ug/l #	81
85)	1,2,4-Trimethylbenzene	17.15	105	1746840	9.33 ug/l	93
86)	sec-Butylbenzene	17.42	105	2625373	9.77 ug/l	96
87)	p-Isopropyltoluene	17.60	119	2059479	10.01 ug/l	95
88)	1,3-Dichlorobenzene	17.73	146	1048172	10.49 ug/l	97
89)	1,4-Dichlorobenzene	17.88	146	1008179	10.58 ug/l	97
91)	n-Butylbenzene	18.13	91	2063242	9.88 ug/l	98
92)	1,2-Dichlorobenzene	18.36	146	797624	10.41 ug/l	96
93)	1,2-Dibromo-3-chloropropan	19.26	157	33924	9.03 ug/l	89
94)	1,2,4-Trichlorobenzene	20.26	180	485386	10.10 ug/l	98
95)	Hexachlorobutadiene	20.41	225	356833	10.51 ug/l	99
96)	Naphthalene	20.57	128	541915	9.29 ug/l	100
97)	1,2,3-Trichlorobenzene	20.87	180	334923	9.31 ug/l	97

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J25\RJW474.D Vial: 2
Acq On : 25 Oct 2012 2:36 pm Operator: WL
Sample : CVO06H1549 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 26 11:11 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



2119

ANALYTICAL LOG(S)

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/25/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book # A06 -051

BATCH V001H1549

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH ≤2	Matrix W Cl_2 < 5ppm	Matrix S	Notes
01	RJW 473	BFB06J19 ✓	0.5 mL					2:06 PM
02	474	CV0061H1549 ✓	1/1/5/5 mL					
03	475	V006J19h ✓	↓					
04	476	↓ c ✓						
05	477	Rinse						
06	478	V006J19B ✓	25 mL					
07	479	12J163 - 03 ✓	25 mL	1.0	✓	✓		
08	480	-15 ✓			✓	✓		
09	481	-01 ✓			✓	✓		
10	482	-02 ✓			✓	✓		
11	483	-04 ✓			✓	✓		
12	484	-05 ✓			✓	✓		
13	485	-06 ✓			✓	✓		
14	486	-07 ✓			✓	✓		
15	487	-08 ✓			✓	✓		
16	488	-09 ✓			✓	✓		
17	489	-10 ✓			✓	✓		
18	490	-11 ✓			✓	✓		
19	491	-12 ✓			✓	✓		
20	492	-13 ✓			✓	✓		
21	493	-14 ✓			✓	✓		12:25 AM
22	494-496	Rinse						
23								
24								
25								
26								
27								
28								
29								
30								WL 10/29/12

Instrument No.	06
INITIAL CALIBRATION REFERENCE	
DATE	8/15/12
ICAL ID	V006H15

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC	SV1- 20-8-1	1	
DCC	-18-3	1	
DCC	-19-2	5	
DCC	-10-2	5	
BFB	-22-1	0.5	50/250
IS/SURR.	-23-2	1	
ICV/LCS	-15-2	1	
ICV/LCS	-25-1	1	
ICV/LCS	-22-2	5	
ICV/LCS	-17-2	5	
Data File Folder	12J25		

	LOT #
pH strip	HC137671
Chlorine strip	2220
Methanol	
$NaHSO_4$	
Reagent Water	RW4-12-001
Sand	

Electronic Data Archival Location	Date
HPCHEM_VOA/T006	

Comments:

Analyzed By: WL

Date Disposed: 10/26/12 Disposed By: WL

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐

Start Date: 8/15/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book # A06 -050

BATCH V006H15B

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl <5ppm	Matrix S	Notes
01	RHW 001	Rinse		NA	NA	NA		
02	002	BFB06H01	1 µL					CS2, Gases, 8260, 224TMP, 4-Add KH/AA BA Hexane
03	003	V006H151	*a b c d e f µL .03/.03/.15/.15/.03/.03					~~0.5~~ (ppb) ~~1.5~~ ~~6~~ ~~0.5~~ 0.3 1.5 6
04	004	2	.05/.05/.25/.25/.05/.05				WL	~~1~~ 0.5 2.5 10
05	005	3	.1/.1/.5/.5/.1/.1				8/17/12	~~2~~ 1 5 20
06	006	4	.2/.2/1/1/.2/.2					~~5~~ 2 10 40
07	007	5	.5/.5/2.5/2.5/.5/.5					~~10~~ 5 25 100
08	008	6	1/1/5/5/1/1					~~20~~ 10 50 200
09	009	7	2/2/10/10/2/2					~~30~~ 20 100 400
10	010	8	3/3/15/15/3/3					30 150 600
11	011	9	5/5/25/25/5/5					50 250 1000
12	012	10	10/10/50/50/10/10					100 500 2000
13	013	IS/SS						
14	014	V006H15B						
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								WL 8/17/12

Instrument No.	06
INITIAL CALIBRATION REFERENCE	
DATE	~~V006H~~ 8/15/12
ICAL ID	V006H15

STANDARDS

NAME	ID	Amount (µL)	Conc. (mg/L)
(a) DCC CS2	SV1-20-8-2	250	*
(b) DCC Gases	-7-1	250	
(c,d) KH-AA DCC 8260	-9-2 / -9-3	250 / 50/250	
(e,f) 224TMP DCC 4-Add	SV1-19-79-2 / -94-2	250 / 250	
BFB	-68-2	50	1 µL
IS/SURR. IS SS IS/SS	SV1-20-7-3 / -8-1 / -6-1	250	1 / * / 1
ICV/LCS CS2	-1-2	250	1
ICV/LCS Gases	-4-1	250	1
ICV/LCS KH-AA 8260	SV1-20-5-3 / SV1-19-78-3	250 / 50/250	5 / 6
ICV/LCS 224TMP 3-Add	-80-1 / SV1-19-55-12	250 / 250	1 / 1
2-butanol	SV1-12-36-15	1000	~~0.75~~ 1.25 WL 8/17/12
DATA FILE FOLDER	12H15		

Electronic Data Archival

Location	Date
HPCHEM_VOA/T006	

Comments: * varied amount

Analyzed By: WL

Date Disposed: 8/16/12

Disposed By: WL

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐

Start Date: 8/16/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book # A06 -050

BATCH V006H1501

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl <5ppm	Matrix S	Notes
01	RHW015	BFB06H02	1mL					9:31 am
02	↓ 016	IV006H1501	1/1/5/1/1/0	25µL				10:02 am
03	↓ 017	Rinse						
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								WL 8/17/12

Instrument No.	06
INITIAL CALIBRATION REFERENCE	
DATE	8/15/12
ICAL ID	V006H15

STANDARDS

NAME	ID	Amount (µL)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC			
BFB	SV1-19-68-2	1	50
IS/SURR.	SV1-20-6-1	1	250
ICV/LCS	↓ -1-2	1	250
ICV/LCS	↓ -4-1	1	250
ICV/LCS	SV1-20-5-3 SV1-19-78-3	5 5	250 50/250
ICV/LCS	↓ -80-1 -55-2	1 1	250 250
	SV1-12-36-15	~~0.25~~ 1.25	1000
DATA FILE FOLDER	12H16	WL 8/17/12	

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO06	

Comments:

Analyzed By: WL

Date Disposed: 8/17/12

Disposed By: WL

Injection Log

Directory: D:\HPCHEM\1\DATA\12J25

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RJW473.D	1.	BFB06J19	T/CHK	25 Oct 2012 14:06
2	2	RJW474.D	1.	CVO06H1549	10ppb 8260/50ppb KET-AA-TBA	25 Oct 2012 14:36
3	4	RJW475.D	1.	VO06J19L	10ppb 8260/50ppb KET-AA-TBA	25 Oct 2012 15:23
4	4	RJW476.D	1.	VO06J19C	10ppb 8260/50ppb KET-AA-TBA	25 Oct 2012 15:53
5	5	RJW477.D	1.	RINSE	BLANK	25 Oct 2012 16:23
6	6	RJW478.D	1.	VO06J19B 25mL	BLANK	25 Oct 2012 16:52
7	7	RJW479.D	1.	12J163-03 25mL	DF=1.0	25 Oct 2012 17:23
8	8	RJW480.D	1.	12J163-15 25mL	DF=1.0	25 Oct 2012 17:53
9	9	RJW481.D	1.	12J163-01 25mL	DF=1.0	25 Oct 2012 18:24
10	10	RJW482.D	1.	12J163-02 25mL	DF=1.0	25 Oct 2012 18:53
11	11	RJW483.D	1.	12J163-04 25mL	DF=1.0	25 Oct 2012 19:24
12	12	RJW484.D	1.	12J163-05 25mL	DF=1.0	25 Oct 2012 19:54
13	13	RJW485.D	1.	12J163-06 25mL	DF=1.0	25 Oct 2012 20:24
14	14	RJW486.D	1.	12J163-07 25mL	DF=1.0	25 Oct 2012 20:54
15	15	RJW487.D	1.	12J163-08 25mL	DF=1.0	25 Oct 2012 21:24
16	16	RJW488.D	1.	12J163-09 25mL	DF=1.0	25 Oct 2012 21:54
17	17	RJW489.D	1.	12J163-10 25mL	DF=1.0	25 Oct 2012 22:24
18	18	RJW490.D	1.	12J163-11 25mL	DF=1.0	25 Oct 2012 22:54
19	19	RJW491.D	1.	12J163-12 25mL	DF=1.0	25 Oct 2012 23:24
20	20	RJW492.D	1.	12J163-13 25mL	DF=1.0	25 Oct 2012 23:54
21	21	RJW493.D	1.	12J163-14 25mL	DF=1.0	26 Oct 2012 00:25
22	22	RJW494.D	1.	RINSE	DF=1.0	26 Oct 2012 00:55
23	23	RJW495.D	1.	RINSE	DF=1.0	26 Oct 2012 01:26
24	24	RJW496.D	1.	RINSE	DF=1.0	26 Oct 2012 01:55

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

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

SDG#: 12J163

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J163

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

A total of thirteen (13) water samples were received on 10/24/12 for VOC SIM analysis, Method 5030B/8260B SIM in accordance with Department of Defense Quality Systems Manual for Environmental Laboratories, Version 4.2 and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Instrument mass ratios were within specification. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blanks were analyzed at the frequency required by the project. For this SDG, two (2) method blanks were analyzed with the samples. All results were compliant to project requirement. Refer to QC result summary forms for details.

Lab Control Sample
Two (2) sets of LCS/LCD were analyzed with the samples in this SDG.
Percent recoveries for VO05J20L/C were all within QC limits.
Percent recoveries for VO05J21L/C were all within QC limits.

Matrix QC Sample
No matrix QC sample was designated in this SDG.

Surrogate
Surrogate was added on QC and field samples. Surrogate recoveries were within project QC limits. Refer to sample result forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE

SDG NO. : 12J163
Instrument ID : T-005

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V005J20B	1	NA	10/26/1209:45	10/26/1209:45	RJQ379	RJQ091	V005J20	Method Blank
LCS1W	V005J20L	1	NA	10/26/1208:48	10/26/1208:48	RJQ377	RJQ091	V005J20	Lab Control Sample (LCS)
LCD1W	V005J20C	1	NA	10/26/1209:17	10/26/1209:17	RJQ378	RJQ091	V005J20	LCS Duplicate
10-23-12 AMW-4R	J163-01	1	NA	10/26/1210:14	10/26/1210:14	RJQ380	RJQ091	V005J20	Field Sample
10-23-12 WB 2-4	J163-02	1	NA	10/26/1210:43	10/26/1210:43	RJQ381	RJQ091	V005J20	Field Sample
10-23-12 WB 2-1	J163-04	1	NA	10/26/1211:13	10/26/1211:13	RJQ382	RJQ091	V005J20	Field Sample
10-23-12 PWB-9	J163-05	1	NA	10/26/1211:42	10/26/1211:42	RJQ383	RJQ091	V005J20	Field Sample
10-23-12 PWB-11	J163-06	1	NA	10/26/1212:12	10/26/1212:12	RJQ384	RJQ091	V005J20	Field Sample
10-23-12 PWB-5	J163-07	1	NA	10/26/1212:40	10/26/1212:40	RJQ385	RJQ091	V005J20	Field Sample
10-23-12 PWB-8	J163-08	1	NA	10/26/1213:10	10/26/1213:10	RJQ386	RJQ091	V005J20	Field Sample
10-23-12 PWB-16	J163-09	1	NA	10/26/1213:42	10/26/1213:42	RJQ387	RJQ091	V005J20	Field Sample
10-24-12 PWB-12	J163-10	1	NA	10/26/1214:11	10/26/1214:11	RJQ388	RJQ091	V005J20	Field Sample
10-24-12 PWB-4	J163-11	1	NA	10/26/1214:41	10/26/1214:41	RJQ389	RJQ091	V005J20	Field Sample
10-24-12 PWB-13A	J163-12	1	NA	10/26/1215:11	10/26/1215:11	RJQ390	RJQ091	V005J20	Field Sample
10-24-12 FDUP-2	J163-14	1	NA	10/26/1215:40	10/26/1215:40	RJQ391	RJQ091	V005J20	Field Sample
10-24-12 PWB-14	J163-13	1	NA	10/26/1216:09	10/26/1216:09	RJQ392	RJQ091	V005J20	Field Sample
10-24-12 PWB-14DL	J163-13T	10	NA	10/26/1216:40	10/26/1216:40	RJQ393	RJQ091	V005J20	Diluted Sample
10-24-12 PWB-12DL	J163-10T	50	NA	10/26/1217:09	10/26/1217:09	RJQ394	RJQ091	V005J20	Diluted Sample
10-24-12 PWB-13ADL	J163-12T	25	NA	10/26/1217:38	10/26/1217:38	RJQ395	RJQ091	V005J20	Diluted Sample
10-23-12 WB 2-1DL	J163-04T	10	NA	10/26/1218:07	10/26/1218:07	RJQ396	RJQ091	V005J20	Diluted Sample
10-23-12 PWB-9DL	J163-05T	25	NA	10/26/1218:36	10/26/1218:36	RJQ397	RJQ091	V005J20	Diluted Sample
10-23-12 PWB-11DL	J163-06T	25	NA	10/26/1219:05	10/26/1219:05	RJQ398	RJQ091	V005J20	Diluted Sample
MBLK2W	V005J21B	1	NA	10/29/1209:35	10/29/1209:35	RJQ403	RJQ091	V005J21	Method Blank
LCS2W	V005J21L	1	NA	10/29/1208:37	10/29/1208:37	RJQ401	RJQ091	V005J21	Lab Control Sample (LCS)
LCD2W	V005J21C	1	NA	10/29/1209:06	10/29/1209:06	RJQ402	RJQ091	V005J21	LCS Duplicate
10-23-12 PWB-5DL	J163-07T	100	NA	10/29/1216:00	10/29/1216:00	RJQ416	RJQ091	V005J21	Diluted Sample
10-23-12 PWB-8DL	J163-08T	100	NA	10/29/1216:29	10/29/1216:29	RJQ417	RJQ091	V005J21	Diluted Sample
10-23-12 PWB-16DL	J163-09T	25	NA	10/29/1216:58	10/29/1216:58	RJQ418	RJQ091	V005J21	Diluted Sample
10-24-12 PWB-4DL	J163-11T	100	NA	10/29/1217:30	10/29/1217:30	RJQ419	RJQ091	V005J21	Diluted Sample
10-24-12 FDUP-2DL	J163-14T	100	NA	10/29/1217:59	10/29/1217:59	RJQ420	RJQ091	V005J21	Diluted Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 10:14
Sample ID:	10-23-12 AMW-4R	Date Analyzed:	10/26/12 10:14
Lab Samp ID:	J163-01	Dilution Factor:	1
Lab File ID:	RJQ380	Matrix :	WATER
Ext Btch ID:	V005J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.55	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0958	0.1000	95.8	80-120

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJQ380.D
Acq On : 26 Oct 2012 10:14 am
Sample : 12J163-01 25mL
Misc : DF=1.0
MS Integration Params: 524INT.P
Quant Time: Oct 29 10:20 2012

Vial: 6
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2417	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	36888	95.76 ng/l	0.00
Spiked Amount 100.000			Recovery	= 95.76%	
Target Compounds					Qvalue
6) 1,2,3-Trichloropropane	8.77	75	23958	547.97 ng/l	91

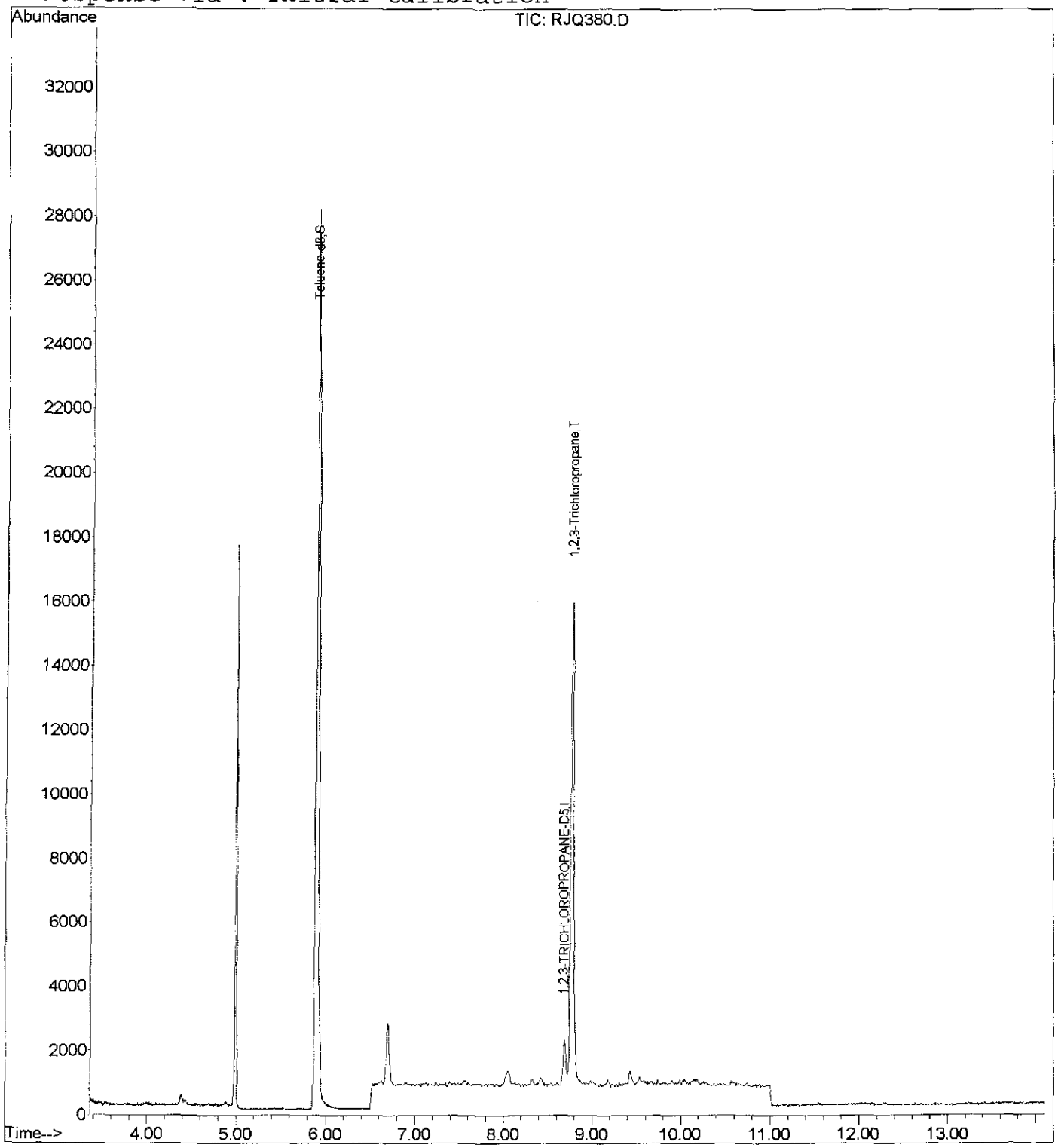
(#) = qualifier out of range (m) = manual integration

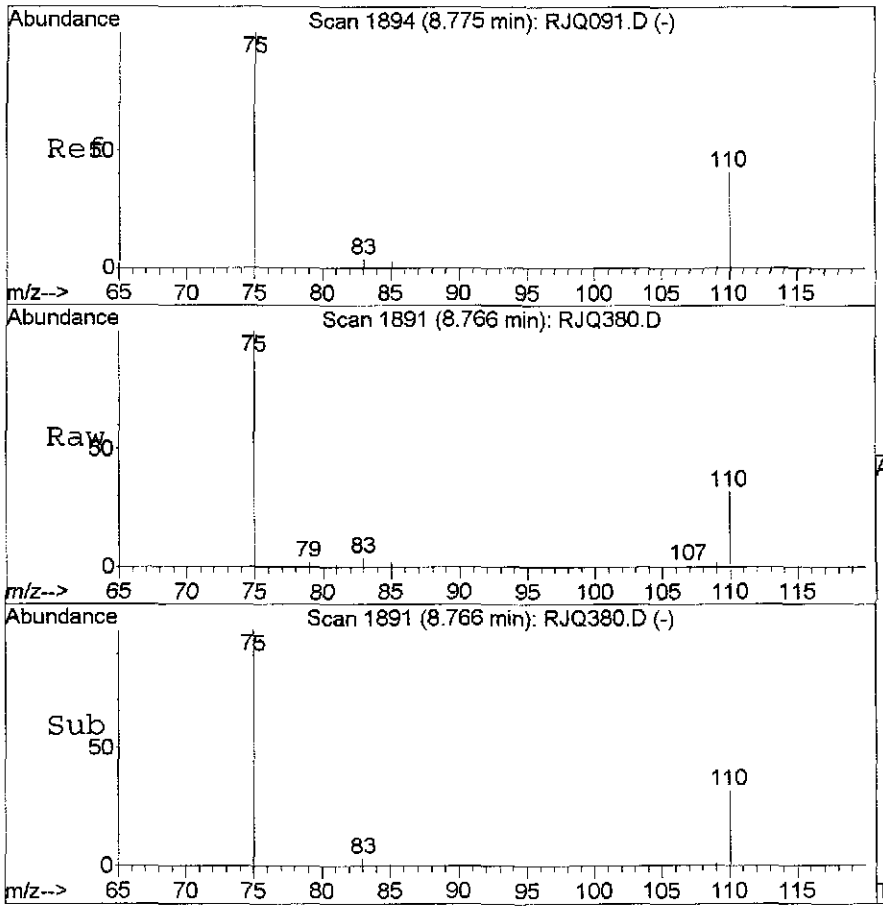
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJQ380.D
Acq On : 26 Oct 2012 10:14 am
Sample : 12J163-01 25mL
Misc : DF=1.0
MS Integration Params: 524INT.P
Quant Time: Oct 29 10:20 2012

Vial: 6
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration

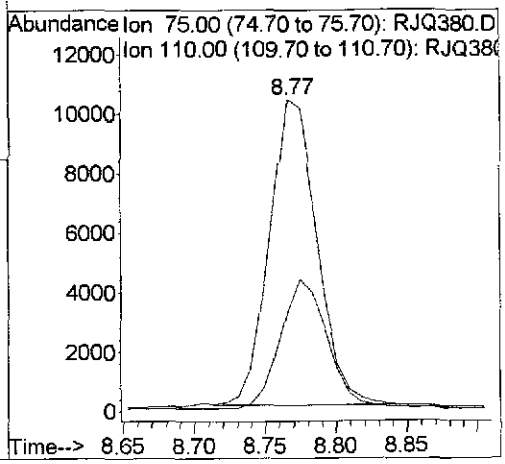




#6
1,2,3-Trichloropropane
Concen: 547.97 ng/l
RT: 8.77 min Scan# 1891
Delta R.T. -0.01 min
Lab File: RJQ380.D
Acq: 26 Oct 2012 10:14 am

Tgt Ion: 75 Resp: 23958

Ion	Ratio	Lower	Upper
75	100		
110	41.9	18.1	78.1



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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 10:43
Sample ID:	10-23-12 WB 2-4	Date Analyzed:	10/26/12 10:43
Lab Samp ID:	J163-02	Dilution Factor:	1
Lab File ID:	RJQ381	Matrix :	WATER
Ext Btch ID:	V005J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.10	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.105	0.1000	105	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 11:13 # 10/26/12 18:07
Sample ID:	10-23-12 WB 2-1	Date Analyzed:	10/26/12 11:13 # 10/26/12 18:07
Lab Samp ID:	J163-04 #J163-04T	Dilution Factor:	1 # 10
Lab File ID:	RJQ382 #RJQ396	Matrix	: WATER
Ext Btch ID:	VO05J20	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	1.1	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0893	0.1000	89.3	80-120
# TOLUENE-D8	0.956	1.000	95.6	80-120

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 11:13
Sample ID:	10-23-12 WB 2-1	Date Analyzed:	10/26/12 11:13
Lab Samp ID:	J163-04	Dilution Factor:	1
Lab File ID:	RJQ382	Matrix :	WATER
Ext Btch ID:	VO05J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	1.1E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0893	0.1000	89.3	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 18:07
Sample ID:	10-23-12 WB 2-1DL	Date Analyzed:	10/26/12 18:07
Lab Samp ID:	J163-04T	Dilution Factor:	10
Lab File ID:	RJQ396	Matrix :	WATER
Ext Btch ID:	VO05J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	1.1	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.50	0.20
1,2-DIBROMOETHANE	ND	0.50	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.956	1.000	95.6	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 11:42 # 10/26/12 18:36
Sample ID:	10-23-12 PWB-9	Date Analyzed:	10/26/12 11:42 # 10/26/12 18:36
Lab Samp ID:	J163-05 #J163-05T	Dilution Factor:	1 # 25
Lab File ID:	RJQ383 #RJQ397	Matrix	: WATER
Ext Btch ID:	VO05J20	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	3.4	0.12	0.063
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0897	0.1000	89.7	80-120
# TOLUENE-D8	2.43	2.500	97.1	80-120

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 11:42
Sample ID:	10-23-12 PWB-9	Date Analyzed:	10/26/12 11:42
Lab Samp ID:	J163-05	Dilution Factor:	1
Lab File ID:	RJQ383	Matrix :	WATER
Ext Btch ID:	V005J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	3.5E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0897	0.1000	89.7	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 18:36
Sample ID:	10-23-12 PWB-9DL	Date Analyzed:	10/26/12 18:36
Lab Samp ID:	J163-05T	Dilution Factor:	25
Lab File ID:	RJQ397	Matrix :	WATER
Ext Btch ID:	V005J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	3.4	0.12	0.063
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.2	0.50
1,2-DIBROMOETHANE	ND	1.2	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	2.43	2.500	97.1	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 12:12 # 10/26/12 19:05
Sample ID:	10-23-12 PWB-11	Date Analyzed:	10/26/12 12:12 # 10/26/12 19:05
Lab Samp ID:	J163-06 #J163-06T	Dilution Factor:	1 # 25
Lab File ID:	RJQ384 #RJQ398	Matrix	: WATER
Ext Btch ID:	V005J20	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	3.7	0.12	0.063
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0984	0.1000	98.4	80-120
# TOLUENE-D8	2.50	2.500	100	80-120

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 12:12
Sample ID:	10-23-12 PWB-11	Date Analyzed:	10/26/12 12:12
Lab Samp ID:	J163-06	Dilution Factor:	1
Lab File ID:	RJQ384	Matrix :	WATER
Ext Btch ID:	V005J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	4.4E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0984	0.1000	98.4	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 19:05
Sample ID:	10-23-12 PWB-11DL	Date Analyzed:	10/26/12 19:05
Lab Samp ID:	J163-06T	Dilution Factor:	25
Lab File ID:	RJQ398	Matrix :	WATER
Ext Btch ID:	V005J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	3.7	0.12	0.063
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.2	0.50
1,2-DIBROMOETHANE	ND	1.2	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	2.50	2.500	100	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 12:40 # 10/29/12 16:00
Sample ID:	10-23-12 PWB-5	Date Analyzed:	10/26/12 12:40 # 10/29/12 16:00
Lab Samp ID:	J163-07 #J163-07T	Dilution Factor:	1 # 100
Lab File ID:	RJQ385 #RJQ416	Matrix	: WATER
Ext Btch ID:	VO05J20 #VO05J21	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	13	0.50	0.25
1,2-DIBROMO-3-CHLOROPROPANE	0.42	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0972	0.1000	97.2	80-120
# TOLUENE-D8	10.9	10.00	109	80-120

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 12:40
Sample ID:	10-23-12 PWB-5	Date Analyzed:	10/26/12 12:40
Lab Samp ID:	J163-07	Dilution Factor:	1
Lab File ID:	RJQ385	Matrix :	WATER
Ext Btch ID:	V005J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	16E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.42	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0972	0.1000	97.2	80-120

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/23/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/24/12
Batch No. : 12J163	Date Extracted: 10/29/12 16:00
Sample ID: 10-23-12 PWB-5DL	Date Analyzed: 10/29/12 16:00
Lab Samp ID: J163-07T	Dilution Factor: 100
Lab File ID: RJQ416	Matrix : WATER
Ext Btch ID: VO05J21	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	13	0.50	0.25
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.0	2.0
1,2-DIBROMOETHANE	ND	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	10.9	10.00	109	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 13:10 # 10/29/12 16:29
Sample ID:	10-23-12 PWB-8	Date Analyzed:	10/26/12 13:10 # 10/29/12 16:29
Lab Samp ID:	J163-08 #J163-08T	Dilution Factor:	1 # 100
Lab File ID:	RJQ386 #RJQ417	Matrix	: WATER
Ext Btch ID:	VO05J20 #VO05J21	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	13	0.50	0.25
1,2-DIBROMO-3-CHLOROPROPANE	0.51	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0904	0.1000	90.4	80-120
# TOLUENE-D8	9.72	10.00	97.2	80-120

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 13:10
Sample ID:	10-23-12 PWB-8	Date Analyzed:	10/26/12 13:10
Lab Samp ID:	J163-08	Dilution Factor:	1
Lab File ID:	RJQ386	Matrix :	WATER
Ext Btch ID:	V005J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	15E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.51	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0904	0.1000	90.4	80-120

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/23/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/24/12
Batch No. : 12J163	Date Extracted: 10/29/12 16:29
Sample ID: 10-23-12 PWB-8DL	Date Analyzed: 10/29/12 16:29
Lab Samp ID: J163-08T	Dilution Factor: 100
Lab File ID: RJQ417	Matrix : WATER
Ext Btch ID: V005J21	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	13	0.50	0.25
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.0	2.0
1,2-DIBROMOETHANE	ND	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	9.72	10.00	97.2	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 13:42 # 10/29/12 16:58
Sample ID:	10-23-12 PWB-16	Date Analyzed:	10/26/12 13:42 # 10/29/12 16:58
Lab Samp ID:	J163-09 #J163-09T	Dilution Factor:	1 # 25
Lab File ID:	RJQ387 #RJQ418	Matrix	: WATER
Ext Btch ID:	VOO5J20 #VOO5J21	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	3.9	0.12	0.063
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.104	0.1000	104	80-120
# TOLUENE-D8	2.32	2.500	92.8	80-120

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 13:42
Sample ID:	10-23-12 PWB-16	Date Analyzed:	10/26/12 13:42
Lab Samp ID:	J163-09	Dilution Factor:	1
Lab File ID:	RJQ387	Matrix :	WATER
Ext Btch ID:	V005J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	4.2E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.104	0.1000	104	80-120

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/23/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/24/12
Batch No. : 12J163	Date Extracted: 10/29/12 16:58
Sample ID: 10-23-12 PWB-16DL	Date Analyzed: 10/29/12 16:58
Lab Samp ID: J163-09T	Dilution Factor: 25
Lab File ID: RJQ418	Matrix : WATER
Ext Btch ID: V005J21	% Moisture : NA
Calib. Ref.: RJQ091	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	3.9	0.12	0.063
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.2	0.50
1,2-DIBROMOETHANE	ND	1.2	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	2.32	2.500	92.8	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 14:11 # 10/26/12 17:09
Sample ID:	10-24-12 PWB-12	Date Analyzed:	10/26/12 14:11 # 10/26/12 17:09
Lab Samp ID:	J163-10 #J163-10T	Dilution Factor:	1 # 50
Lab File ID:	RJQ388 #RJQ394	Matrix :	WATER
Ext Btch ID:	VO05J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	20	0.25	0.12
# 1,2-DIBROMO-3-CHLOROPROPANE	2.6	2.5	1.0
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0840	0.1000	84.0	80-120
# TOLUENE-D8	4.65	5.000	93.0	80-120

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 14:11
Sample ID:	10-24-12 PWB-12	Date Analyzed:	10/26/12 14:11
Lab Samp ID:	J163-10	Dilution Factor:	1
Lab File ID:	RJQ388	Matrix :	WATER
Ext Btch ID:	V005J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	19E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	2.9E	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0840	0.1000	84.0	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 17:09
Sample ID:	10-24-12 PWB-12DL	Date Analyzed:	10/26/12 17:09
Lab Samp ID:	J163-10T	Dilution Factor:	50
Lab File ID:	RJQ394	Matrix :	WATER
Ext Btch ID:	V005J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	20	0.25	0.12
1,2-DIBROMO-3-CHLOROPROPANE	2.6	2.5	1.0
1,2-DIBROMOETHANE	ND	2.5	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	4.65	5.000	93.0	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 14:41 # 10/29/12 17:30
Sample ID:	10-24-12 PWB-4	Date Analyzed:	10/26/12 14:41 # 10/29/12 17:30
Lab Samp ID:	J163-11 #J163-11T	Dilution Factor:	1 # 100
Lab File ID:	RJQ389 #RJQ419	Matrix	: WATER
Ext Btch ID:	VO05J20 #VO05J21	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	14	0.50	0.25
1,2-DIBROMO-3-CHLOROPROPANE	0.26	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0891	0.1000	89.1	80-120
# TOLUENE-D8	10.3	10.00	103	80-120

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 14:41
Sample ID:	10-24-12 PWB-4	Date Analyzed:	10/26/12 14:41
Lab Samp ID:	J163-11	Dilution Factor:	1
Lab File ID:	RJQ389	Matrix :	WATER
Ext Btch ID:	V005J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	15E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.26	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0891	0.1000	89.1	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/29/12 17:30
Sample ID:	10-24-12 PWB-4DL	Date Analyzed:	10/29/12 17:30
Lab Samp ID:	J163-11T	Dilution Factor:	100
Lab File ID:	RJQ419	Matrix :	WATER
Ext Btch ID:	V005J21	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	14	0.50	0.25
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.0	2.0
1,2-DIBROMOETHANE	ND	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	10.3	10.00	103	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 15:11 # 10/26/12 17:38
Sample ID:	10-24-12 PWB-13A	Date Analyzed:	10/26/12 15:11 # 10/26/12 17:38
Lab Samp ID:	J163-12 #J163-12T	Dilution Factor:	1 # 25
Lab File ID:	RJQ390 #RJQ395	Matrix	: WATER
Ext Btch ID:	VO05J20	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	15	0.12	0.063
# 1,2-DIBROMO-3-CHLOROPROPANE	1.3	1.2	0.50
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.103	0.1000	103	80-120
# TOLUENE-D8	2.43	2.500	97.1	80-120

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 15:11
Sample ID:	10-24-12 PWB-13A	Date Analyzed:	10/26/12 15:11
Lab Samp ID:	J163-12	Dilution Factor:	1
Lab File ID:	RJQ390	Matrix :	WATER
Ext Btch ID:	V005J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	16E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	1.6E	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.103	0.1000	103	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 17:38
Sample ID:	10-24-12 PWB-13ADL	Date Analyzed:	10/26/12 17:38
Lab Samp ID:	J163-12T	Dilution Factor:	25
Lab File ID:	RJQ395	Matrix :	WATER
Ext Btch ID:	VO05J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	15	0.12	0.063
1,2-DIBROMO-3-CHLOROPROPANE	1.3	1.2	0.50
1,2-DIBROMOETHANE	ND	1.2	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	2.43	2.500	97.1	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 16:09 # 10/26/12 16:40
Sample ID:	10-24-12 PWB-14	Date Analyzed:	10/26/12 16:09 # 10/26/12 16:40
Lab Samp ID:	J163-13 #J163-13T	Dilution Factor:	1 # 10
Lab File ID:	RJQ392 #RJQ393	Matrix	: WATER
Ext Btch ID:	V005J20	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	3.9	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	0.20	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0921	0.1000	92.1	80-120
# TOLUENE-D8	1.04	1.000	104	80-120

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 16:09
Sample ID:	10-24-12 PWB-14	Date Analyzed:	10/26/12 16:09
Lab Samp ID:	J163-13	Dilution Factor:	1
Lab File ID:	RJQ392	Matrix	: WATER
Ext Btch ID:	V005J20	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	3.9E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.20	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0921	0.1000	92.1	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 16:40
Sample ID:	10-24-12 PWB-14DL	Date Analyzed:	10/26/12 16:40
Lab Samp ID:	J163-13T	Dilution Factor:	10
Lab File ID:	RJQ393	Matrix :	WATER
Ext Btch ID:	VO05J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	3.9	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	0.20J	0.50	0.20
1,2-DIBROMOETHANE	ND	0.50	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	1.04	1.000	104	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 15:40 # 10/29/12 17:59
Sample ID:	10-24-12 FDUP-2	Date Analyzed:	10/26/12 15:40 # 10/29/12 17:59
Lab Samp ID:	J163-14 #J163-14T	Dilution Factor:	1 # 100
Lab File ID:	RJQ391 #RJQ420	Matrix	: WATER
Ext Btch ID:	VO05J20 #VO05J21	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	14	0.50	0.25
1,2-DIBROMO-3-CHLOROPROPANE	0.26	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0906	0.1000	90.6	80-120
# TOLUENE-D8	9.72	10.00	97.2	80-120

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/26/12 15:40
Sample ID:	10-24-12 FDUP-2	Date Analyzed:	10/26/12 15:40
Lab Samp ID:	J163-14	Dilution Factor:	1
Lab File ID:	RJQ391	Matrix :	WATER
Ext Btch ID:	VO05J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	16E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.26	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0906	0.1000	90.6	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/29/12 17:59
Sample ID:	10-24-12 FDUP-2DL	Date Analyzed:	10/29/12 17:59
Lab Samp ID:	J163-14T	Dilution Factor:	100
Lab File ID:	RJQ420	Matrix :	WATER
Ext Btch ID:	VO05J21	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	14	0.50	0.25
1,2-DIBROMO-3-CHLOROPROPANE	ND	5.0	2.0
1,2-DIBROMOETHANE	ND	5.0	2.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	9.72	10.00	97.2	80-120

QC SUMMARIES

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	NA
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/26/12
Batch No.	: 12J163	Date Extracted:	10/26/12 09:45
Sample ID:	MBLK1W	Date Analyzed:	10/26/12 09:45
Lab Samp ID:	V005J20B	Dilution Factor:	1
Lab File ID:	RJQ379	Matrix :	WATER
Ext Btch ID:	V005J20	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	ND	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0931	0.1000	93.1	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J163
METHOD: METHOD 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V005J20B	V005J20L	V005J20C		
LAB FILE ID:	RJQ379	RJQ377	RJQ378		
DATE EXTRACTED:	10/26/1209:45	10/26/1208:48	10/26/1209:17	DATE COLLECTED:	NA
DATE ANALYZED:	10/26/1209:45	10/26/1208:48	10/26/1209:17	DATE RECEIVED:	10/26/12
PREP. BATCH:	V005J20	V005J20	V005J20		
CALIB. REF:	RJQ091	RJQ091	RJQ091		

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 (%)
1,2,3-Trichloropropane	ND	0.100	0.0948	95	0.100	0.100	100	5	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0840	84	0.100	0.0800	80	5	50-130	30
1,2-Dibromoethane	ND	0.100	0.0981	98	0.100	0.101	101	3	80-120	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 (%)
Toluene-d8	0.100	0.0975	97	0.100	0.100	100	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	NA
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/29/12
Batch No.	: 12J163	Date Extracted:	10/29/12 09:35
Sample ID:	MBLK2W	Date Analyzed:	10/29/12 09:35
Lab Samp ID:	V005J21B	Dilution Factor:	1
Lab File ID:	RJQ403	Matrix :	WATER
Ext Btch ID:	V005J21	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	ND	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0892	0.1000	89.2	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J163
METHOD: METHOD 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	V005J21B	V005J21L	V005J21C		
LAB FILE ID:	RJQ403	RJQ401	RJQ402		
DATE EXTRACTED:	10/29/1209:35	10/29/1208:37	10/29/1209:06	DATE COLLECTED:	NA
DATE ANALYZED:	10/29/1209:35	10/29/1208:37	10/29/1209:06	DATE RECEIVED:	10/29/12
PREP. BATCH:	V005J21	V005J21	V005J21		
CALIB. REF:	RJQ091	RJQ091	RJQ091		

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 (%)
1,2,3-Trichloropropane	ND	0.100	0.0931	93	0.100	0.0954	95	2	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0895	89	0.100	0.0853	85	5	50-130	30
1,2-Dibromoethane	ND	0.100	0.100	100	0.100	0.0937	94	7	80-120	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 (%)
Toluene-d8	0.100	0.101	101	0.100	0.0940	94	80-120

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJQ379.D
Acq On : 26 Oct 2012 9:45 am
Sample : VO05J20B
Misc : BLANK
MS Integration Params: 524INT.P
Quant Time: Oct 26 9:59 2012

Vial: 5
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2701	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	40084	93.12 ng/l	0.00
Spiked Amount 100.000			Recovery	= 93.12%	

Target Compounds Qvalue

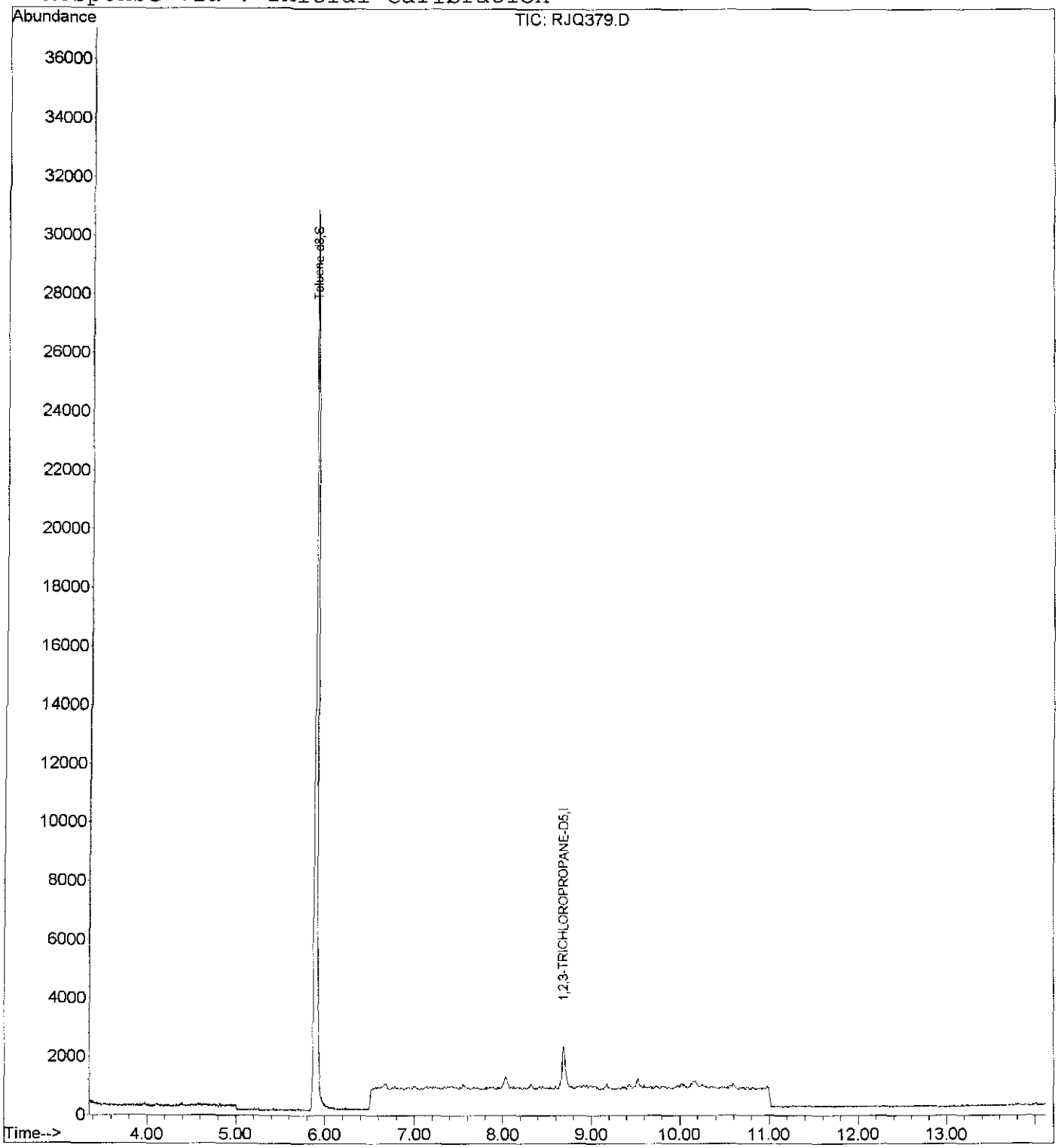
(#) = qualifier out of range (m) = manual integration
RJQ379.D VO05J09.M Mon Oct 29 10:18:05 2012

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJQ379.D
Acq On : 26 Oct 2012 9:45 am
Sample : VO05J20B
Misc : BLANK
MS Integration Params: 524INT.P
Quant Time: Oct 26 9:59 2012

Vial: 5
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJQ377.D Vial: 3
Acq On : 26 Oct 2012 8:48 am Operator: SD
Sample : VO05J20L Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 26 9:02 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

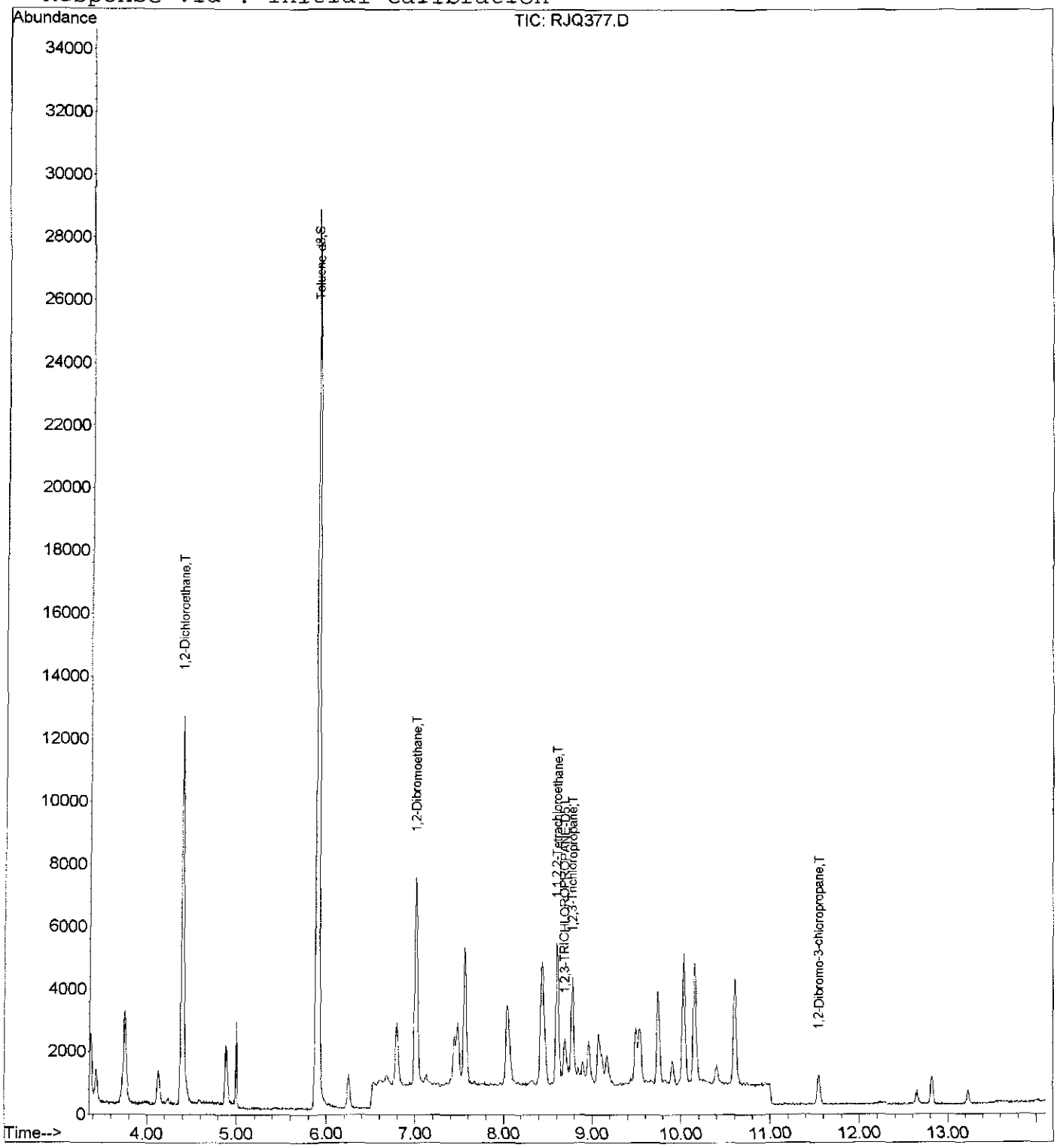
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2445	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	37986	97.48	ng/l	0.00
Spiked Amount 100.000			Recovery = 97.48%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	19195	118.33	ng/l	98
4) 1,2-Dibromoethane	7.00	107	6877	98.14	ng/l	98
5) 1,1,2,2-Tetrachloroethane	8.60	83	6634	98.44	ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	4194	94.83	ng/l	99
7) 1,2-Dibromo-3-chloropropan	11.54	157	839	84.05	ng/l	96

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJQ377.D Vial: 3
Acq On : 26 Oct 2012 8:48 am Operator: SD
Sample : VO05J20L Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 26 9:02 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJQ378.D Vial: 4
Acq On : 26 Oct 2012 9:17 am Operator: SD
Sample : VO05J20C Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 26 9:31 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

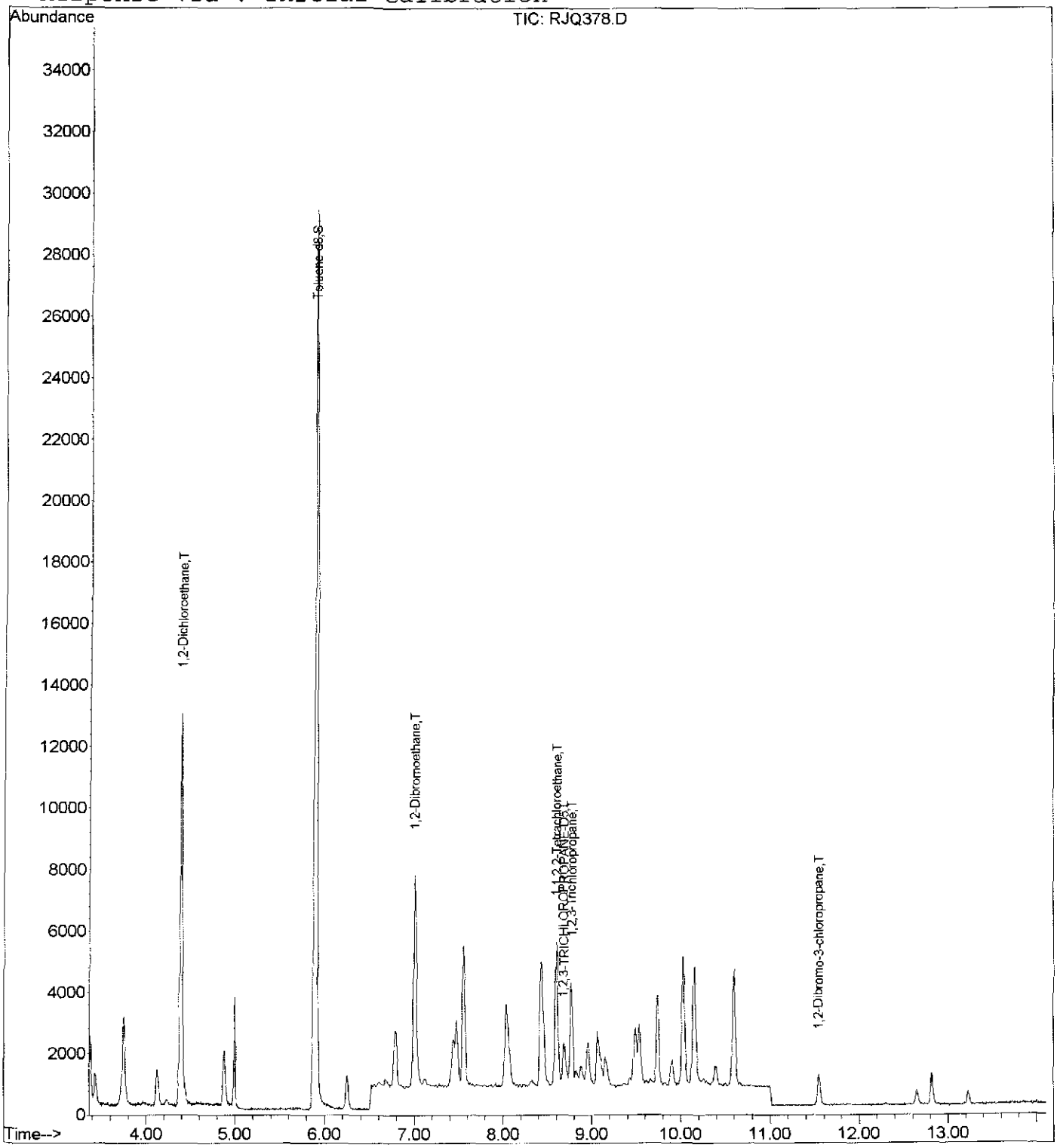
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2434	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.89	98	38977	100.48	ng/l	0.00
Spiked Amount 100.000			Recovery	=	100.48%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	19632	121.57	ng/l	97
4) 1,2-Dibromoethane	7.00	107	7062	101.24	ng/l	98
5) 1,1,2,2-Tetrachloroethane	8.60	83	6785	101.14	ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	4408	100.12	ng/l	96
7) 1,2-Dibromo-3-chloropropan	11.55	157	795	80.00	ng/l	94

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJQ378.D Vial: 4
Acq On : 26 Oct 2012 9:17 am Operator: SD
Sample : VO05J20C Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 26 9:31 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



INITIAL CALIBRATION(S)

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJQ085
Instrument ID: T005
GC Column:RTX502.2ID:0.32mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J163
BFB Injection Date : 10/09/12
BFB Injection Time : 18:19
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.27
75	30.0 - 60.0% of mass 95	53.41
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.32
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	86.71
175	5.0 - 9.0% of mass 174	6.06(7.0)1
176	95.0 - 101.0% of mass 174	83.47(96.3)1
177	5.0 - 9.0% of mass 176	5.95(7.1)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	VSTD05	V005J091	RJQ087	10/09/12	19:17
2	VSTD010	V005J092	RJQ088	10/09/12	19:46
3	VSTD020	V005J093	RJQ089	10/09/12	20:16
4	VSTD050	V005J094	RJQ090	10/09/12	20:45
5	VSTD100	V005J095	RJQ091	10/09/12	21:14
6	VSTD200	V005J096	RJQ092	10/09/12	21:43
7	VSTD400	V005J097	RJQ093	10/09/12	22:11
8	VSTD1000	V005J098	RJQ094	10/09/12	22:40

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :T005
Beginning DateTime :10/09/12 19:17
Spike Units :PPT
IC File :RJQ091

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :10/09/12 22:40
HPChem Method :V005J09

M IDX	Parameters	5 19:17 RJQ087	10 19:46 RJQ088	20 20:16 RJQ089	50 20:45 RJQ090	100 21:14 RJQ091	200 21:43 RJQ092	400 22:11 RJQ093	1000 22:40 RJQ094	Av_RRF	%_RSD	Av_Rt_M
1	1,2,3-TRICHLOROPROPANE-D5	1	1	1	1	1	1	1	1	1	0	8.6877
2	1,2-Dichloroethane	2.581	2.988	3.663	3.529	3.342	3.569	3.377	3.490	3.317	10.89	4.3934
3	Toluene-d8	9.402	7.923	7.658	7.948	7.512	7.920	7.464	7.922	7.969	7.68	5.8978
4	1,2-Dibromoethane	1.296	1.364	1.391	1.407	1.420	1.520	1.480	1.585	1.433	6.40	7.0058
5	1,1,2,2-Tetrachloroethane	------	1.402	1.406	1.323	1.321	1.354	1.397	1.445	1.378	3.38	8.6017
6	1,2,3-Trichloropropane	0.836	0.833	0.871	0.894	0.858	0.883	0.958	1.103	0.904	9.89	8.7749
7	1,2-Dibromo-3-chloropropane	------	------	0.247	0.212	0.183	0.185	0.190	0.207	0.204	11.79	11.5483

Ave_%RSD : 8.3 Max_%RSD : 11.8

SA
10/12/12

Compound List Report TO05

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
Total Cpnds : 7

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,2,3-TRICHLOROPROPANE-D5	79	8.69	1.000	A	1	A	B
2	T	1,2-Dichloroethane	62	4.39	0.505	A	1	A	B
3	S	Toluene-d8	98	5.90	0.679	A	1	A	B
4	T	1,2-Dibromoethane	107	7.00	0.806	A	1	A	B
5	T	1,1,2,2-Tetrachloroethane	83	8.60	0.990	A	1	A	B
6	T	1,2,3-Trichloropropane	75	8.78	1.010	A	1	A	B
7	T	1,2-Dibromo-3-chloropropane	157	11.55	1.329	A	2	A	B

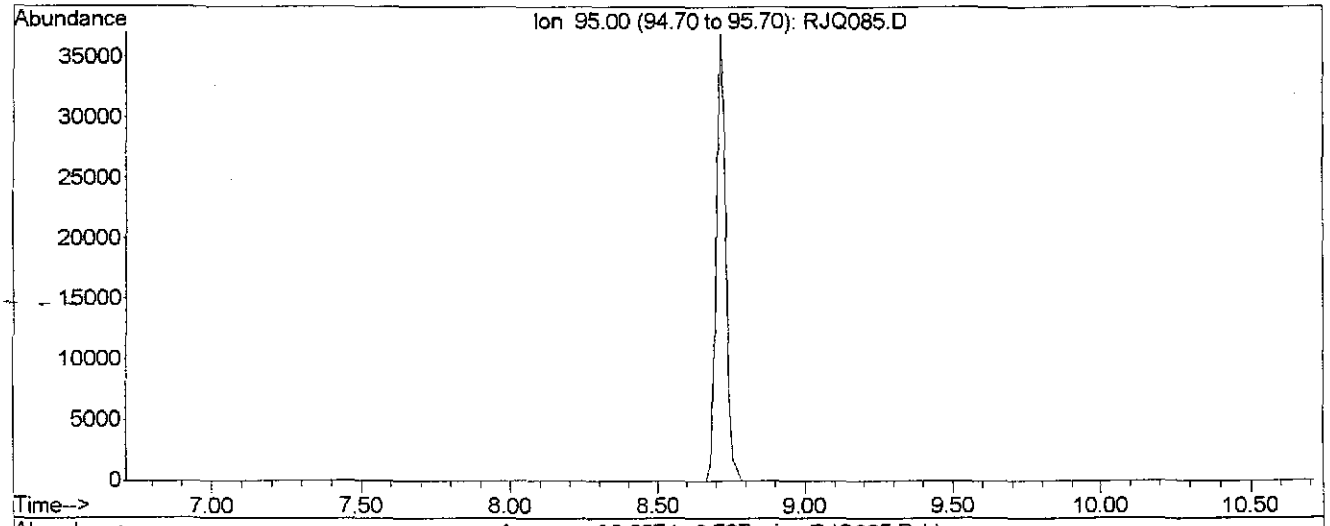
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

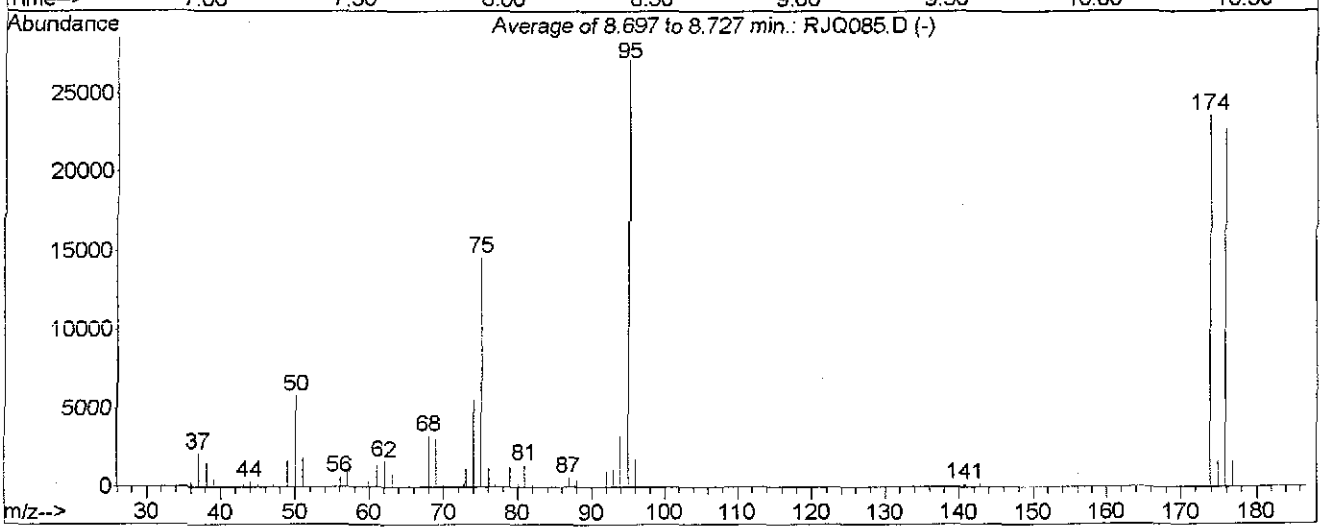
VO05J09.M Thu Oct 11 10:09:46 2012

SU
10/12/12

BFB

Data File : D:\HPCHEM\1\DATA\12J09\RJQ085.D Vial: 1
Acq On : 9 Oct 2012 6:19 pm Operator: SD
Sample : BFB05J06 Inst : TO05
Misc : T/CHK Multiplr: 1.00
MS Integration Params: 524INT.P
Method : D:\HPCHEM\1\METHODS\VO05J09A.M (RTE Integrator)
Title : METHOD 8260 SIM





AutoFind: Scans 360, 361, 362; Background Corrected with Scan 356

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.3	5791	PASS
75	95	30	60	53.4	14544	PASS
95	95	100	100	100.0	27230	PASS
96	95	5	9	6.3	1721	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	86.7	23612	PASS
175	174	5	9	7.0	1650	PASS
176	174	95	101	96.3	22728	PASS
177	176	5	9	7.1	1621	PASS

RJQ085.D VO05J09A.M Thu Oct 11 09:57:47 2012 Sa 10/12/12

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ087.D Vial: 3
Acq On : 9 Oct 2012 7:17 pm Operator: SD
Sample : VO05J091 Inst : TO05
Misc : 5.0ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:01 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2608	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	2452	5.90 ng/l	0.00
Spiked Amount - - 100.000			Recovery	= 5.90%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.40	62	673	3.89 ng/l	79
4) 1,2-Dibromoethane	7.01	107	338	4.52 ng/l	82
6) 1,2,3-Trichloropropane	8.78	75	218	4.62 ng/l	60

SU 10/12/12

(#) = qualifier out of range (m) = manual integration
RJQ087.D VO05J09.M Thu Oct 11 10:02:10 2012 Page 1

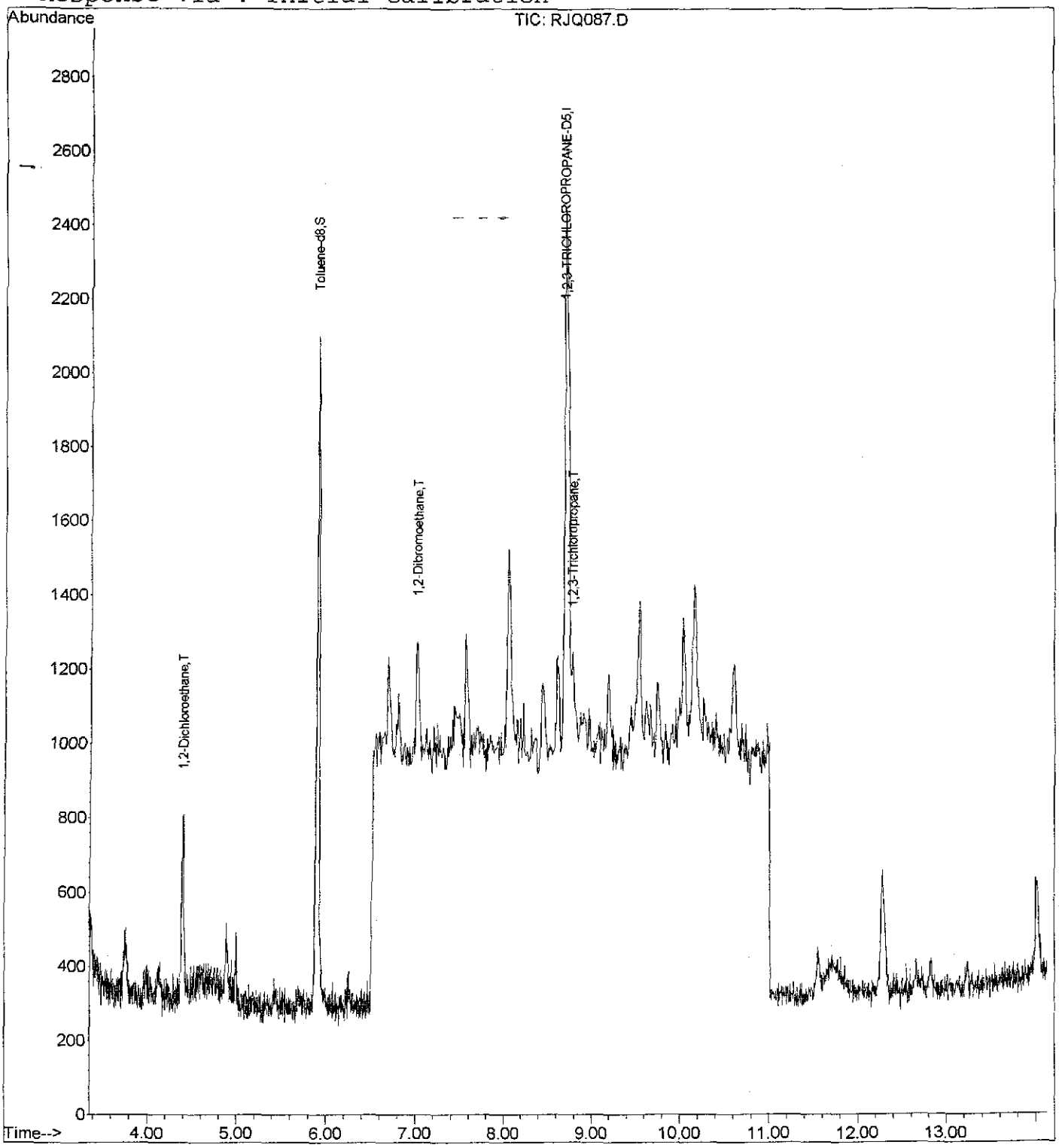
2178

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ087.D
Acq On : 9 Oct 2012 7:17 pm
Sample : VO05J091
Misc : 5.0ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:01 2012

Vial: 3
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



2179

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ088.D
Acq On : 9 Oct 2012 7:46 pm
Sample : VO05J092
Misc : 10ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:06 2012

Vial: 4
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2624	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	4158	9.94 ng/l	0.00
Spiked Amount 100.000			Recovery =	9.94%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.39	62	1568	9.01 ng/l	97
4) 1,2-Dibromoethane	7.00	107	716	9.52 ng/l	95
5) 1,1,2,2-Tetrachloroethane	8.61	83	736	10.18 ng/l	99
6) 1,2,3-Trichloropropane	8.78	75	437	9.21 ng/l	79

SG
10/12/12

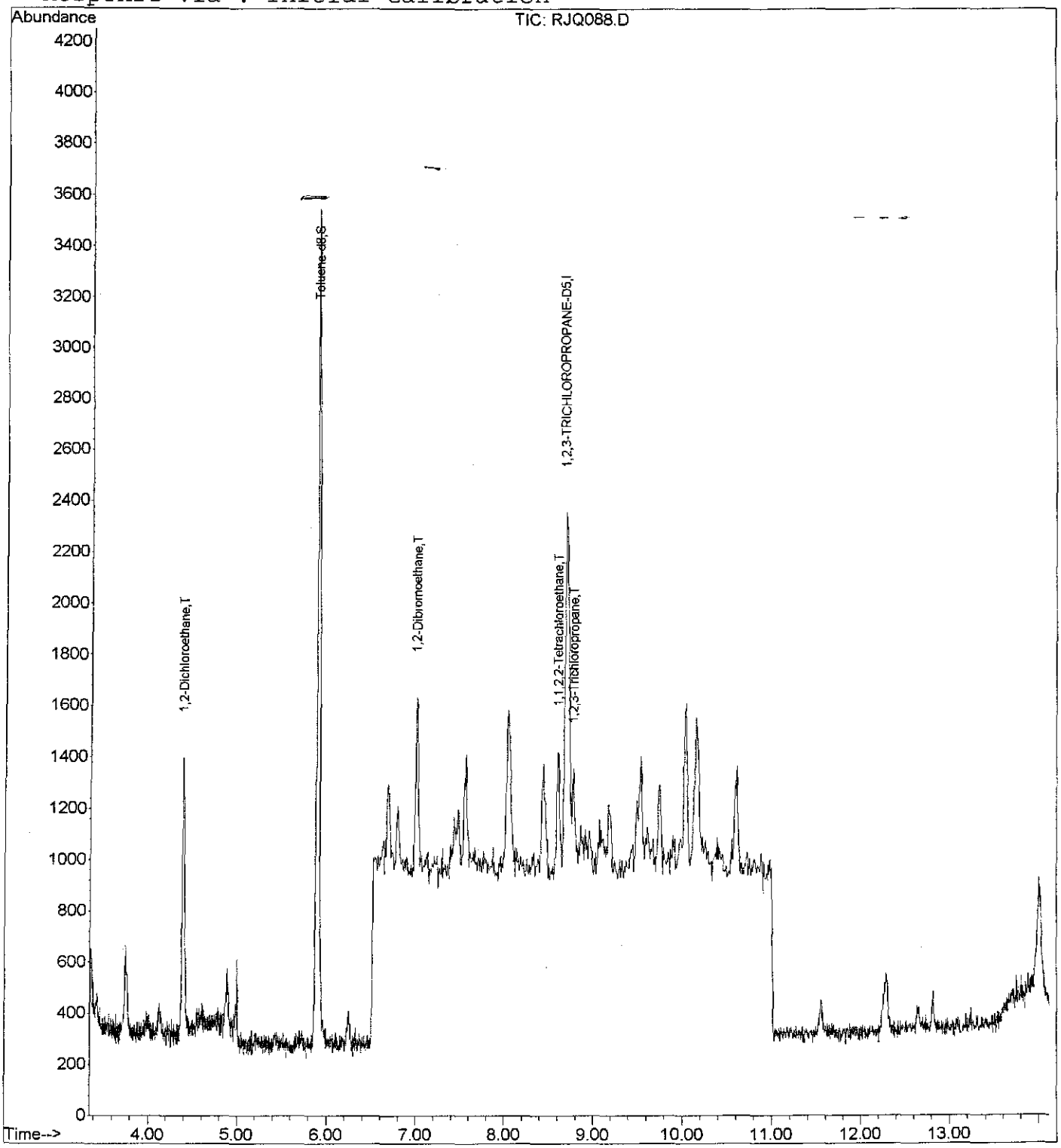
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ088.D
Acq On : 9 Oct 2012 7:46 pm
Sample : VO05J092
Misc : 10ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:06 2012

Vial: 4
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SA 10/12/12

2161

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ089.D Vial: 5
Acq On : 9 Oct 2012 8:16 pm Operator: SD
Sample : VO05J093 Inst : TO05
Misc : 20ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2643	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	8096	19.22 ng/l	0.00
Spiked Amount 100.000			Recovery	= 19.22%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.39	62	3873	22.09 ng/l	95
4) 1,2-Dibromoethane	7.00	107	1471	19.42 ng/l	100
5) 1,1,2,2-Tetrachloroethane	8.60	83	1486	20.40 ng/l	92
6) 1,2,3-Trichloropropane	8.77	75	921	19.26 ng/l	86
7) 1,2-Dibromo-3-chloropropan	11.55	157	261	24.19 ng/l	94

SH 10/12/12

(#) = qualifier out of range (m) = manual integration
RJQ089.D VO05J09.M Thu Oct 11 10:07:54 2012 Page 1

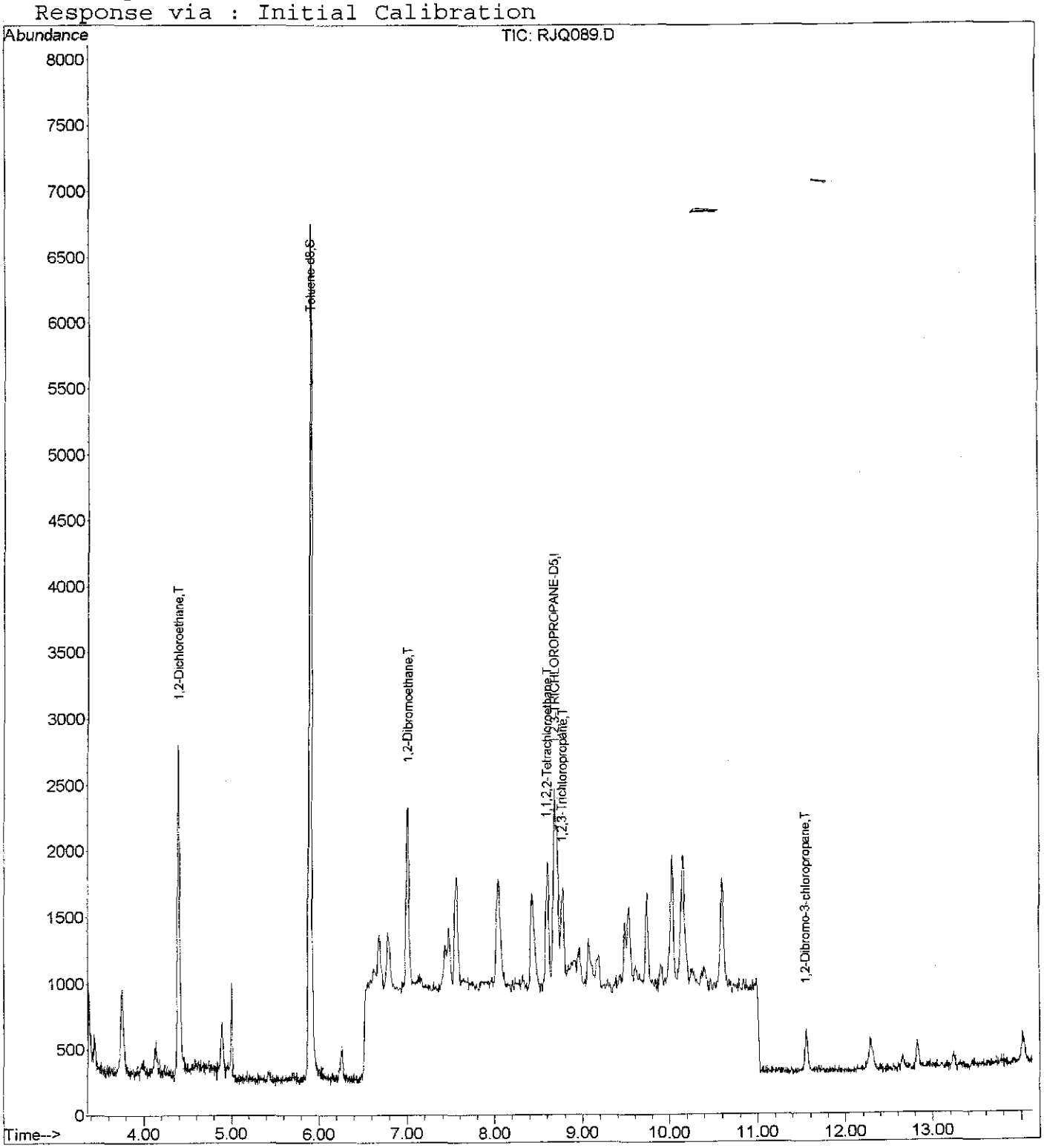
2182

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ089.D
Acq On : 9 Oct 2012 8:16 pm
Sample : VO05J093
Misc : 20ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 5
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SU 10/12/12

2183

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ090.D
Acq On : 9 Oct 2012 8:45 pm
Sample : VO05J094
Misc : 50ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 6
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2657	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	21117	49.87 ng/l	0.00
Spiked Amount 100.000			Recovery = 49.87%		
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.39	62	9376	53.19 ng/l	92
4) 1,2-Dibromoethane	7.01	107	3739	49.10 ng/l	96
5) 1,1,2,2-Tetrachloroethane	8.60	83	3514	47.98 ng/l	97
6) 1,2,3-Trichloropropane	8.78	75	2376	49.44 ng/l	97
7) 1,2-Dibromo-3-chloropropan	11.55	157	564	51.99 ng/l	86

SA
10/12/12

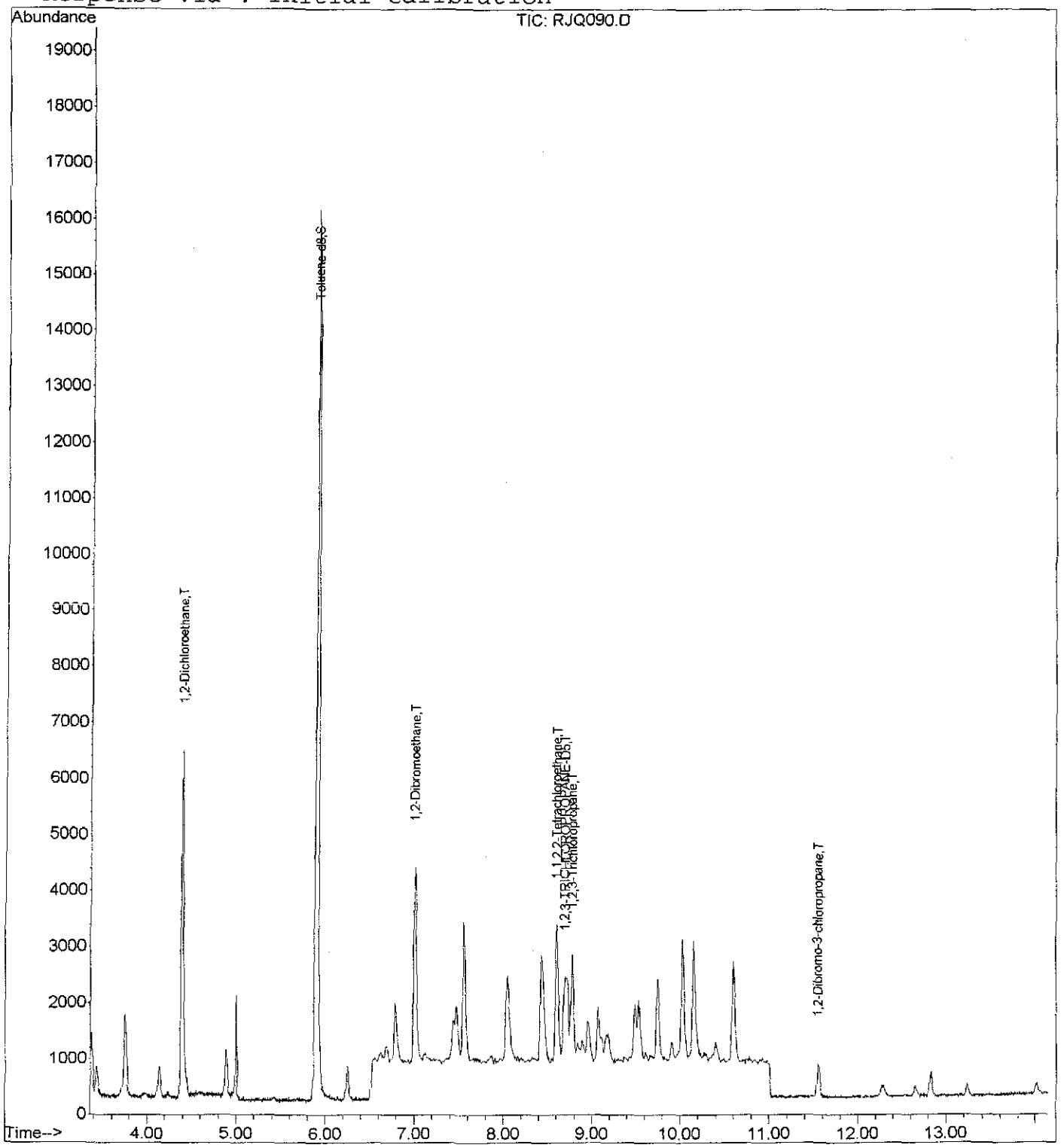
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ090.D
Acq On : 9 Oct 2012 8:45 pm
Sample : VO05J094
Misc : 50ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 6
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SG 10/24/12

2186

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ091.D
Acq On : 9 Oct 2012 9:14 pm
Sample : VO05J095
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 7
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2700	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	40565	94.27	ng/l	0.00
-Spiked Amount 100.000			Recovery	=	94.27%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	18048	100.75	ng/l	100
4) 1,2-Dibromoethane	7.00	107	7667	99.08	ng/l	100
5) 1,1,2,2-Tetrachloroethane	8.60	83	7136	95.89	ng/l	100
6) 1,2,3-Trichloropropane	8.78	75	4632	94.84	ng/l	100
7) 1,2-Dibromo-3-chloropropan	11.55	157	990	89.81	ng/l	100

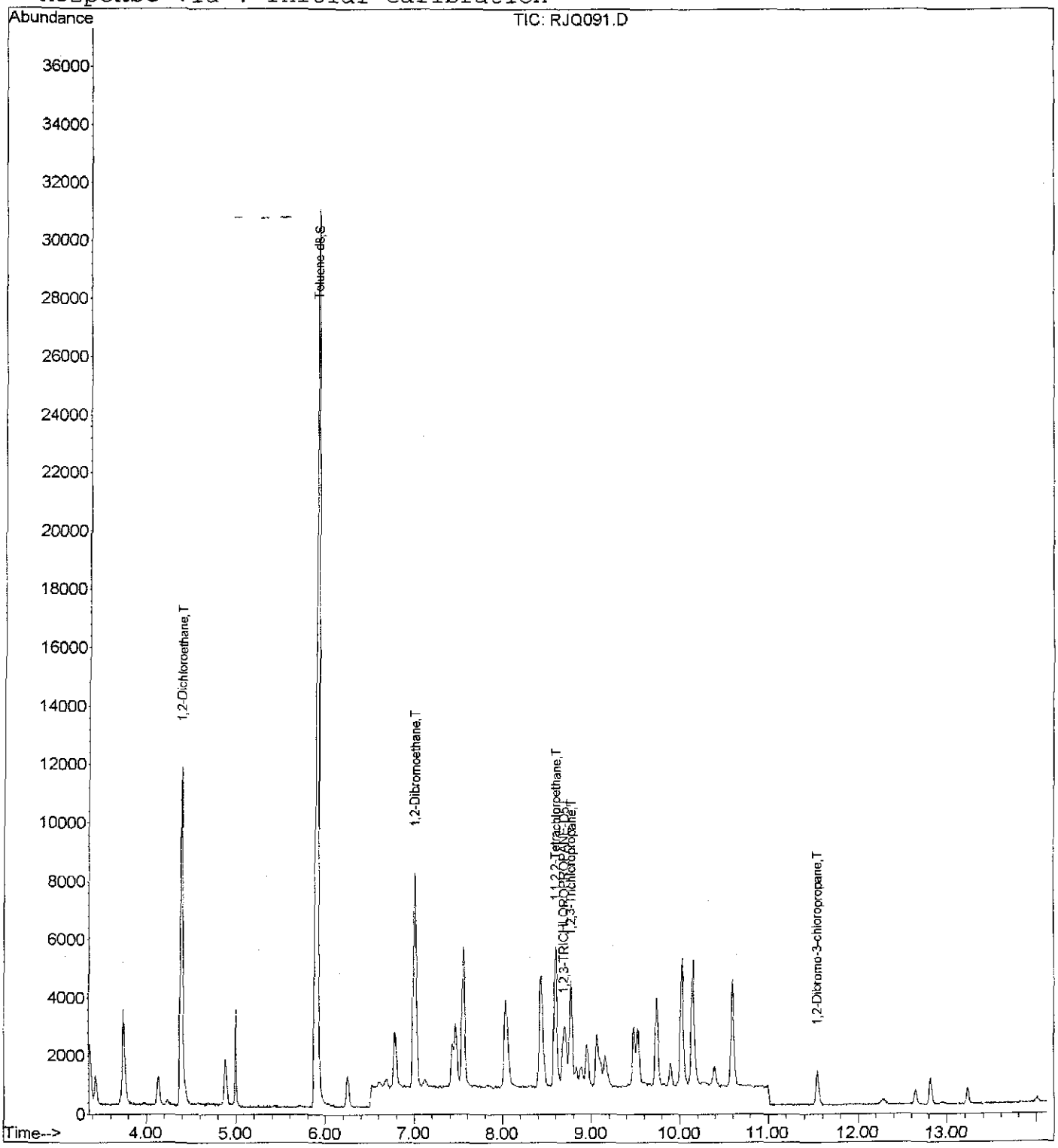
SG
10/12/12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ091.D Vial: 7
Acq On : 9 Oct 2012 9:14 pm Operator: SD
Sample : VO05J095 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SY 10/12/12

2187

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ092.D
Acq On : 9 Oct 2012 9:43 pm
Sample : VO05J096
Misc : 200ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 8
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2619	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	82966	198.77	ng/l	0.00
Spiked Amount 100.000			Recovery	=	198.77%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	37387	215.16	ng/l	99
4) 1,2-Dibromoethane	7.00	107	15926	212.18	ng/l	95
5) 1,1,2,2-Tetrachloroethane	8.60	83	14180	196.43	ng/l	97
6) 1,2,3-Trichloropropane	8.77	75	9248	195.21	ng/l	100
7) 1,2-Dibromo-3-chloropropan	11.54	157	1937	181.15	ng/l	93

Sa
10/12/12

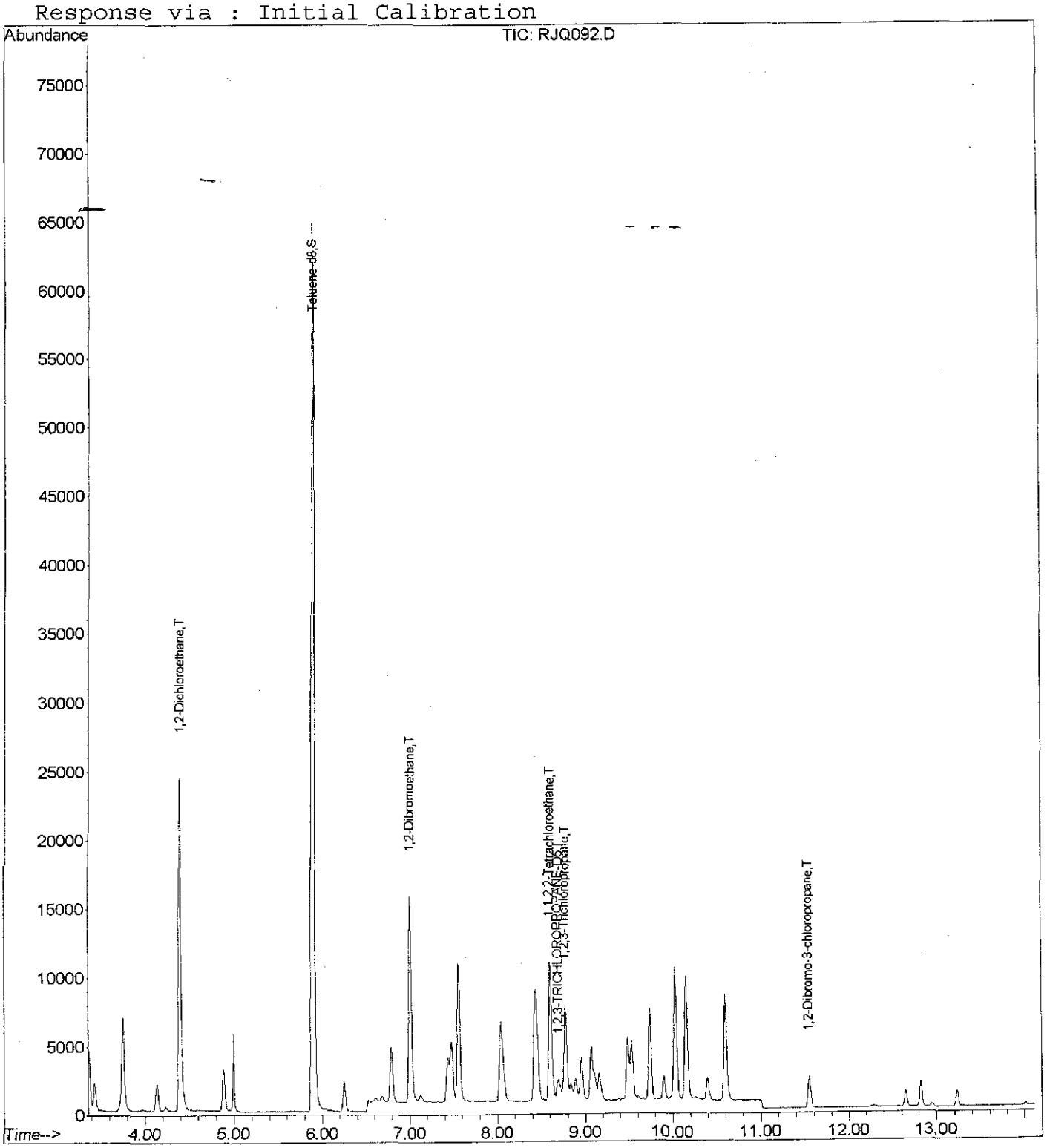
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ092.D
Acq On : 9 Oct 2012 9:43 pm
Sample : VO05J096
Misc : 200ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 8
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SW 10/12/12

2189

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ093.D Vial: 9
Acq On : 9 Oct 2012 10:11 pm Operator: SD
Sample : VO05J097 Inst : TO05
Misc : 400ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2816	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	168153	374.68	ng/l	0.00
Spiked Amount 100.000			Recovery =	374.68%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.40	62	76083	407.22	ng/l	99
4) 1,2-Dibromoethane	7.00	107	33350	413.23	ng/l	98
5) 1,1,2,2-Tetrachloroethane	8.60	83	31464	405.37	ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	21579	423.63	ng/l	94
7) 1,2-Dibromo-3-chloropropan	11.55	157	4286	372.80	ng/l	94

SW
10/12/12

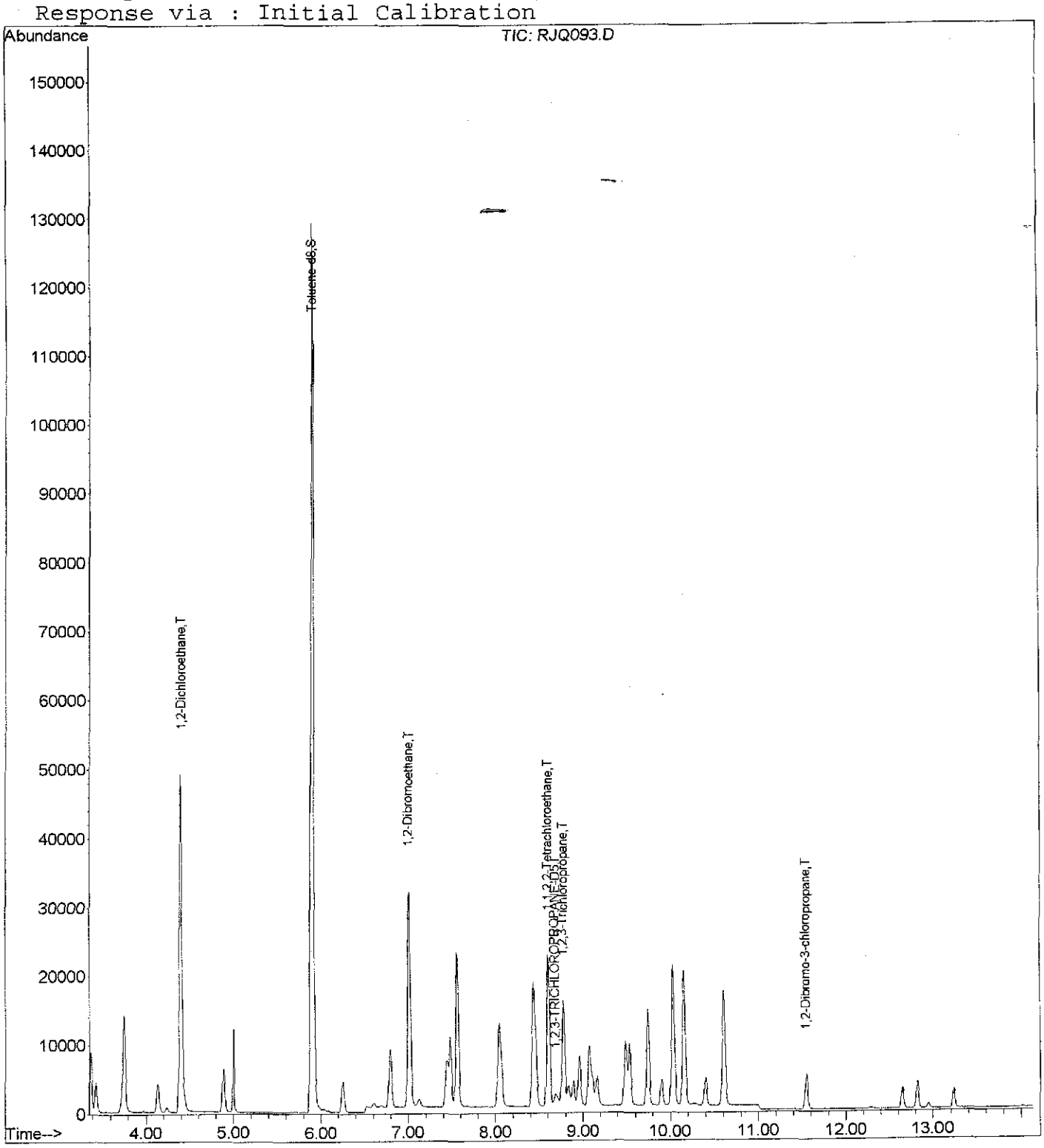
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ093.D
Acq On : 9 Oct 2012 10:11 pm
Sample : VO05J097
Misc : 400ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 9
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SW 10/12/12

2191

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ094.D Vial: 10
Acq On : 9 Oct 2012 10:40 pm Operator: SD
Sample : VO05J098 Inst : TO05
Misc : 1000ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2690	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	426210	994.17	ng/l	0.00
Spiked Amount 100.000			Recovery	=	994.17%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	187777	1052.11	ng/l	99
4) 1,2-Dibromoethane	7.00	107	85251	1105.79	ng/l	97
5) 1,1,2,2-Tetrachloroethane	8.60	83	77726	1048.31	ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	59351	1219.72	ng/l	90
7) 1,2-Dibromo-3-chloropropan	11.55	157	11146	1014.89	ng/l	96

SW
10/12/12

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

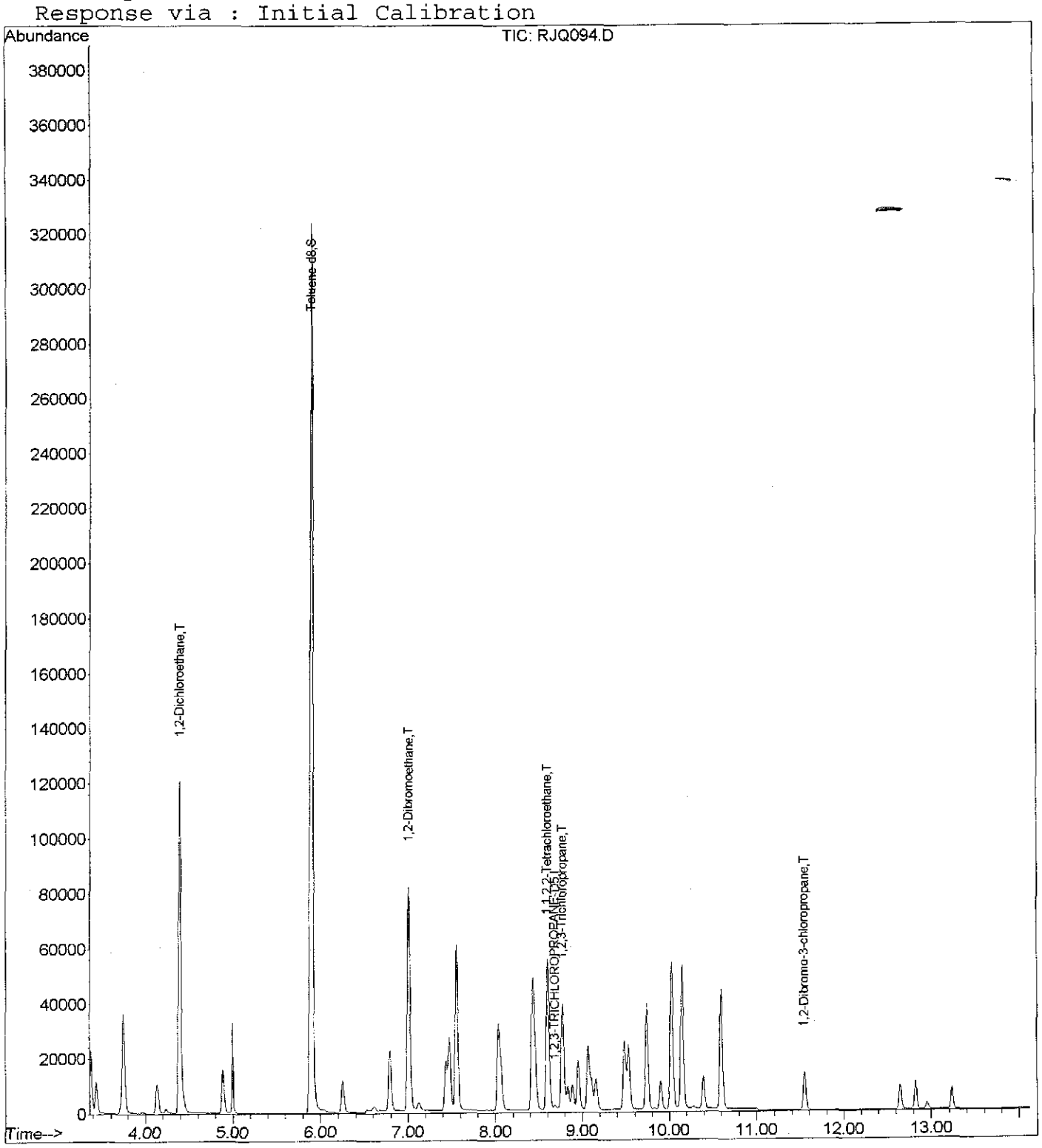
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ094.D
Acq On : 9 Oct 2012 10:40 pm
Sample : VO05J098
Misc : 1000ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 10
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



Sa 10/12/12

2193

SECOND SOURCE VERIFICATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJQ097
Instrument ID: T005
GC Column:RTX502.2ID:0.32mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J163
BFB Injection Date : 10/10/12
BFB Injection Time : 09:41
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.32
75	30.0 - 60.0% of mass 95	55.45
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.93
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	85.93
175	5.0 - 9.0% of mass 174	6.00(7.0)1
176	95.0 - 101.0% of mass 174	86.30(100.4)1
177	5.0 - 9.0% of mass 176	5.34(6.2)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	VSTD100	IV005J0902	RJQ098	10/10/12	10:23

FORM V VOA OLM02.0

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T005
IC_Beginning DateTime :10/09/12 19:17
Spike Amount :100 PPT
CC/CV File :RJQ098
IC File :RJQ091

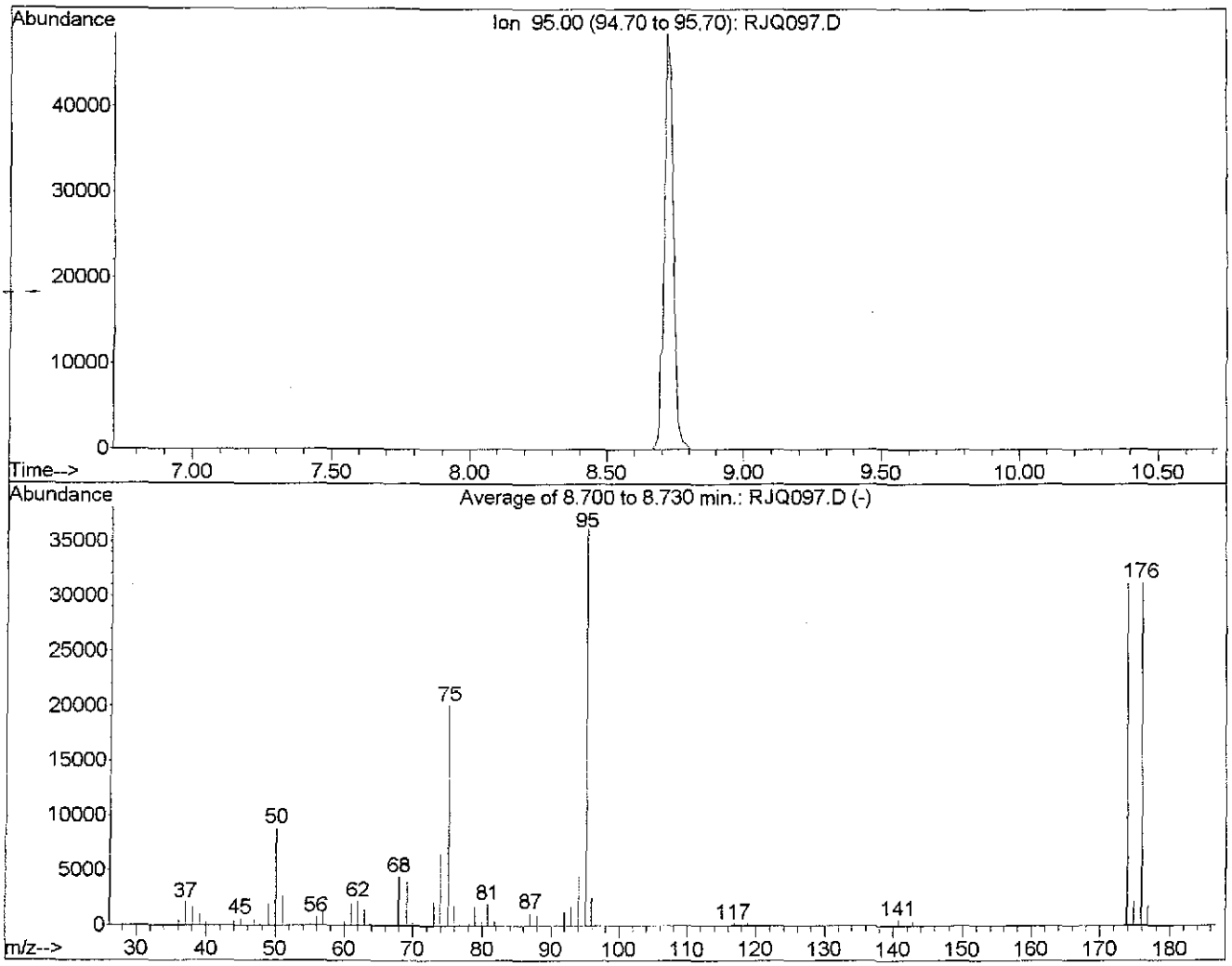
Column Spec :RTX502.2 ID :0.32MM
IC_Ending DateTime :10/09/12 22:40
HPChem Method :V005J09
Date_Time :10/10/12 10:23

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,2,3-TRICHLOROPROPANE-D5	50.000	0	2409	1	1	8.696	8.688	0				
	2	1,2-Dichloroethane	114.501	14.5	18301	3.798	3.317	4.400	4.393	10.89				
	3	Toluene-d8	118.197	18.2	45379	9.419	7.969	5.904	5.898	7.68				
	4	1,2-Dibromoethane	105.703	5.7	7298	1.515	1.433	7.013	7.006	6.40				
	5	1,1,2,2-Tetrachloroethane	102.637	2.6	6815	1.414	1.378	8.609	8.602	3.38				
	6	1,2,3-Trichloropropane	92.389	-7.6	4026	0.836	0.904	8.783	8.775	9.89				
	7	1,2-Dibromo-3-chloropropane	90.898	-9.1	894	0.186	0.204	11.553	11.548	11.79				

SG
10/12/12

BFB

Data File : D:\HPCHEM\1\DATA\12J10\RJQ097.D Vial: 1
Acq On : 10 Oct 2012 9:41 am Operator: SD
Sample : BFB05J07 Inst : TO05
Misc : T/CHK Multiplr: 1.00
MS Integration Params: 524INT.P
Method : D:\HPCHEM\1\METHODS\VO05J09A.M (RTE Integrator)
Title : METHOD 8260 SIM



AutoFind: Scans 360, 361, 362; Background Corrected with Scan 356

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.3	8805	PASS
75	95	30	60	55.5	20079	PASS
95	95	100	100	100.0	36211	PASS
96	95	5	9	6.9	2510	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	85.9	31116	PASS
175	174	5	9	7.0	2174	PASS
176	174	95	101	100.4	31250	PASS
177	176	5	9	6.2	1934	PASS

RJQ097.D VO05J09A.M Thu Oct 11 09:53:51 2012

SG 10/12/12

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J10\RJQ098.D Vial: 2
Acq On : 10 Oct 2012 10:23 am Operator: SD
Sample : IVO05J0902 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	50.000	50.000	0.0	89	0.00
2	T	1,2-Dichloroethane	100.000	114.501	-14.5	101	0.00
3	S	Toluene-d8	100.000	118.198	-18.2	112	0.00
4	T	1,2-Dibromoethane	100.000	105.704	-5.7	95	0.00
5	T	1,1,2,2-Tetrachloroethane	100.000	102.637	-2.6	96	0.00
6	T	1,2,3-Trichloropropane	100.000	92.389	7.6	87	0.00
7	T	1,2-Dibromo-3-chloropropane	100.000	90.898	9.1	90	0.00

SA 10/12/12

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J10\RJQ098.D Vial: 2
Acq On : 10 Oct 2012 10:23 am Operator: SD
Sample : IVO05J0902 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	89	0.00
2	T	1,2-Dichloroethane	3.317	3.798	-14.5	101	0.00
3	S	Toluene-d8	7.969	9.419	-18.2	112	0.00
4	T	1,2-Dibromoethane	1.433	1.515	-5.7	95	0.00
5	T	1,1,2,2-Tetrachloroethane	1.378	1.414	-2.6	96	0.00
6	T	1,2,3-Trichloropropane	0.904	0.836	7.5	87	0.00
7	T	1,2-Dibromo-3-chloropropane	0.204	0.186	8.8	90	0.00

10/12/12

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J10\RJQ098.D
Acq On : 10 Oct 2012 10:23 am
Sample : IVO05J0902
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:04 2012

Vial: 2
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.70	79	2409	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	45379	118.20	ng/l	0.00
Spiked Amount 100.000			Recovery	=	118.20%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.40	62	18301	114.50	ng/l	98
4) 1,2-Dibromoethane	7.01	107	7298	105.70	ng/l	98
5) 1,1,2,2-Tetrachloroethane	8.61	83	6815	102.64	ng/l	99
6) 1,2,3-Trichloropropane	8.78	75	4026	92.39	ng/l	95
7) 1,2-Dibromo-3-chloropropan	11.55	157	894	90.90	ng/l	92

SC 10/12/12

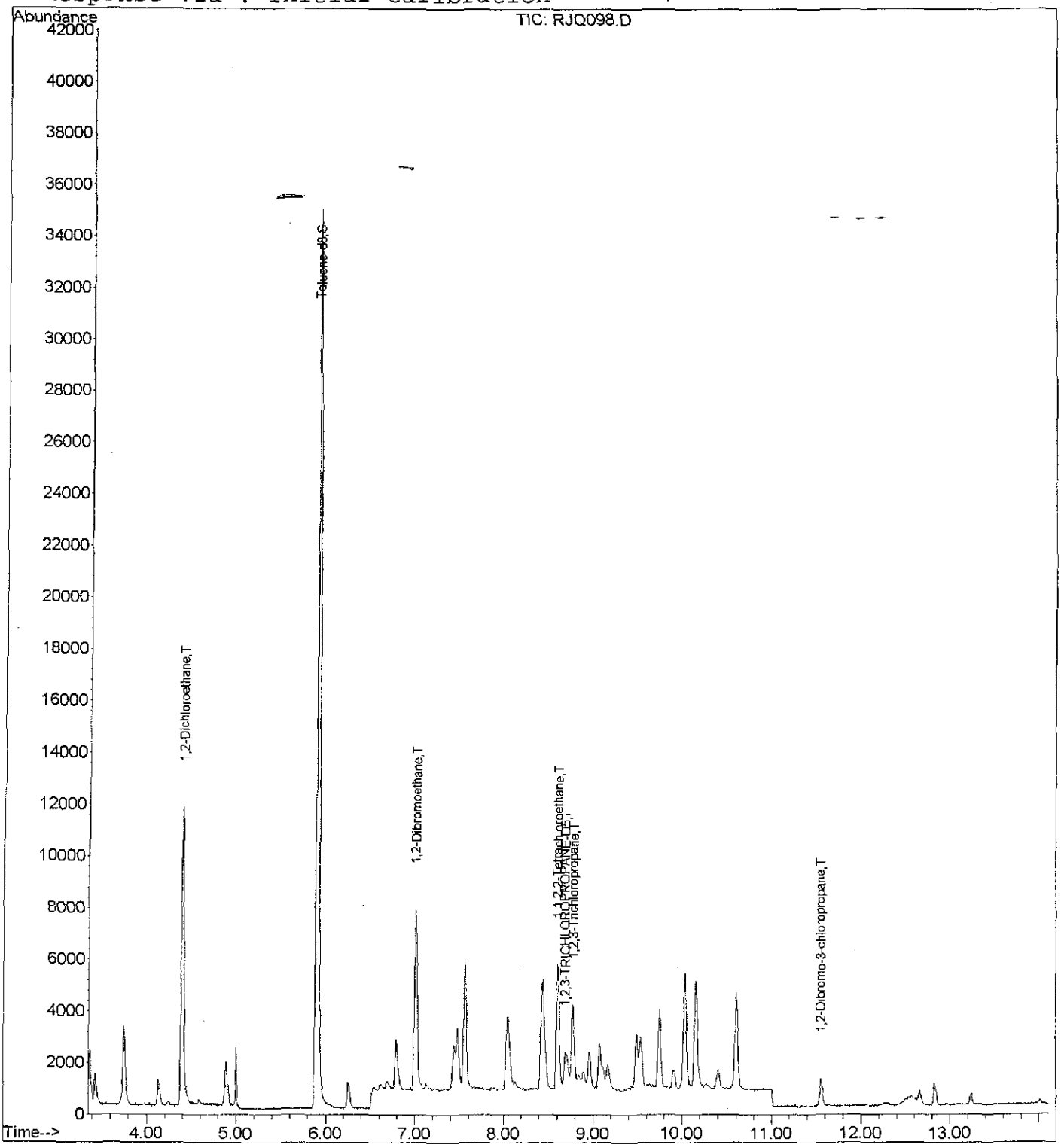
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J10\RJQ098.D
Acq On : 10 Oct 2012 10:23 am
Sample : IVO05J0902
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:04 2012

Vial: 2
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SA 10/24/12

DAILY CALIBRATION(S)

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T005
IC_Beginning DateTime :10/09/12 19:17
Spike Amount :100 PPT
CC/CV File :RJQ376
IC File :RJQ091

Column Spec :RTX502.2 ID :0.32MM
IC_Ending DateTime :10/09/12 22:40
HPChem Method :V005J09
Date_Time :10/26/12 07:55

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,2,3-TRICHLOROPROPANE-D5	50.000	0	2583	1	1	8.688	8.688	0				
	2	1,2-Dichloroethane	123.657	23.7	21192	4.102	3.317	4.390	4.393	10.89				
	3	Toluene-d8	100.608	0.6	41416	8.017	7.969	5.895	5.898	7.68				
	4	1,2-Dibromoethane	111.105	11.1	8225	1.592	1.433	7.005	7.006	6.40				
	5	1,1,2,2-Tetrachloroethane	102.493	2.5	7297	1.413	1.378	8.601	8.602	3.38				
	6	1,2,3-Trichloropropane	100.655	0.7	4703	0.910	0.904	8.767	8.775	9.89				
	7	1,2-Dibromo-3-chloropropane	85.059	-14.9	897	0.174	0.204	11.540	11.548	11.79				

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJQ375
Instrument ID: TO05
GC Column:RTX502.2ID:0.32mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J163
BFB Injection Date : 10/26/12
BFB Injection Time : 07:24
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.79
75	30.0 - 60.0% of mass 95	53.05
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.09
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	81.01
175	5.0 - 9.0% of mass 174	6.74(8.3)1
176	95.0 - 101.0% of mass 174	81.47(100.6)1
177	5.0 - 9.0% of mass 176	5.84(7.2)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	VSTD100	CV005J0903	RJQ376	10/26/12	07:55
2	MBLK1W	V005J20B	RJQ379	10/26/12	09:45
3	LCS1W	V005J20L	RJQ377	10/26/12	08:48
4	LCD1W	V005J20C	RJQ378	10/26/12	09:17
5	10-23-12 AMW-4R	J163-01	RJQ380	10/26/12	10:14
6	10-23-12 WB 2-4	J163-02	RJQ381	10/26/12	10:43
7	10-23-12 WB 2-1	J163-04	RJQ382	10/26/12	11:13
8	10-23-12 PWB-9	J163-05	RJQ383	10/26/12	11:42
9	10-23-12 PWB-11	J163-06	RJQ384	10/26/12	12:12
10	10-23-12 PWB-5	J163-07	RJQ385	10/26/12	12:40
11	10-23-12 PWB-8	J163-08	RJQ386	10/26/12	13:10
12	10-23-12 PWB-16	J163-09	RJQ387	10/26/12	13:42
13	10-24-12 PWB-12	J163-10	RJQ388	10/26/12	14:11
14	10-24-12 PWB-4	J163-11	RJQ389	10/26/12	14:41
15	10-24-12 PWB-13A	J163-12	RJQ390	10/26/12	15:11
16	10-24-12 FDUP-2	J163-14	RJQ391	10/26/12	15:40
17	10-24-12 PWB-14	J163-13	RJQ392	10/26/12	16:09
18	10-24-12 PWB-14DL	J163-13T	RJQ393	10/26/12	16:40
19	10-24-12 PWB-12DL	J163-10T	RJQ394	10/26/12	17:09
20	10-24-12 PWB-13ADL	J163-12T	RJQ395	10/26/12	17:38
21	10-23-12 WB 2-1DL	J163-04T	RJQ396	10/26/12	18:07
22	10-23-12 PWB-9DL	J163-05T	RJQ397	10/26/12	18:36
23	10-23-12 PWB-11OL	J163-06T	RJQ398	10/26/12	19:05

FORM V VOA OLM02.0

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RJQ091
Instrument ID: T005

Project: BROWN & BRYANT SUPERFUND SITE
SDG No.: 12J163
Date Analyzed: 10/09/12
Time Analyzed: 21:14

		IS1(TCP) AREA #	RT #
	12 HOUR STD	2700	8.69
	UPPER LIMIT	5400	9.19
	LOWER LIMIT	1350	8.19
	SAMPLE ID		
1	VSTD100	2583	8.69
2	MBLK1W	2701	8.69
3	LCS1W	2445	8.69
4	LCD1W	2434	8.69
5	10-23-12 AMW-4R	2417	8.69
6	10-23-12 WB 2-4	2185	8.69
7	10-23-12 WB 2-1	2718	8.69
8	10-23-12 PWB-9	2576	8.69
9	10-23-12 PWB-11	2320	8.69
10	10-23-12 PWB-5	2419	8.69
11	10-23-12 PWB-8	2728	8.69
12	10-23-12 PWB-16	2306	8.69
13	10-24-12 PWB-12	2849	8.70
14	10-24-12 PWB-4	2570	8.69
15	10-24-12 PWB-13A	2325	8.69
16	10-24-12 FDUP-2	2616	8.70
17	10-24-12 PWB-14	2605	8.70
18	10-24-12 PWB-14DL	2435	8.69
19	10-24-12 PWB-12DL	2528	8.70
20	10-24-12 PWB-13ADL	2395	8.70
21	10-23-12 WB 2-1DL	2555	8.70
22	10-23-12 PWB-9DL	2616	8.70
23	10-23-12 PWB-11DL	2529	8.69

IS1 (TCP) = 1,2,3-Trichloropropane-d5

AREA UPPER LIMIT = +100% of internal satndard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

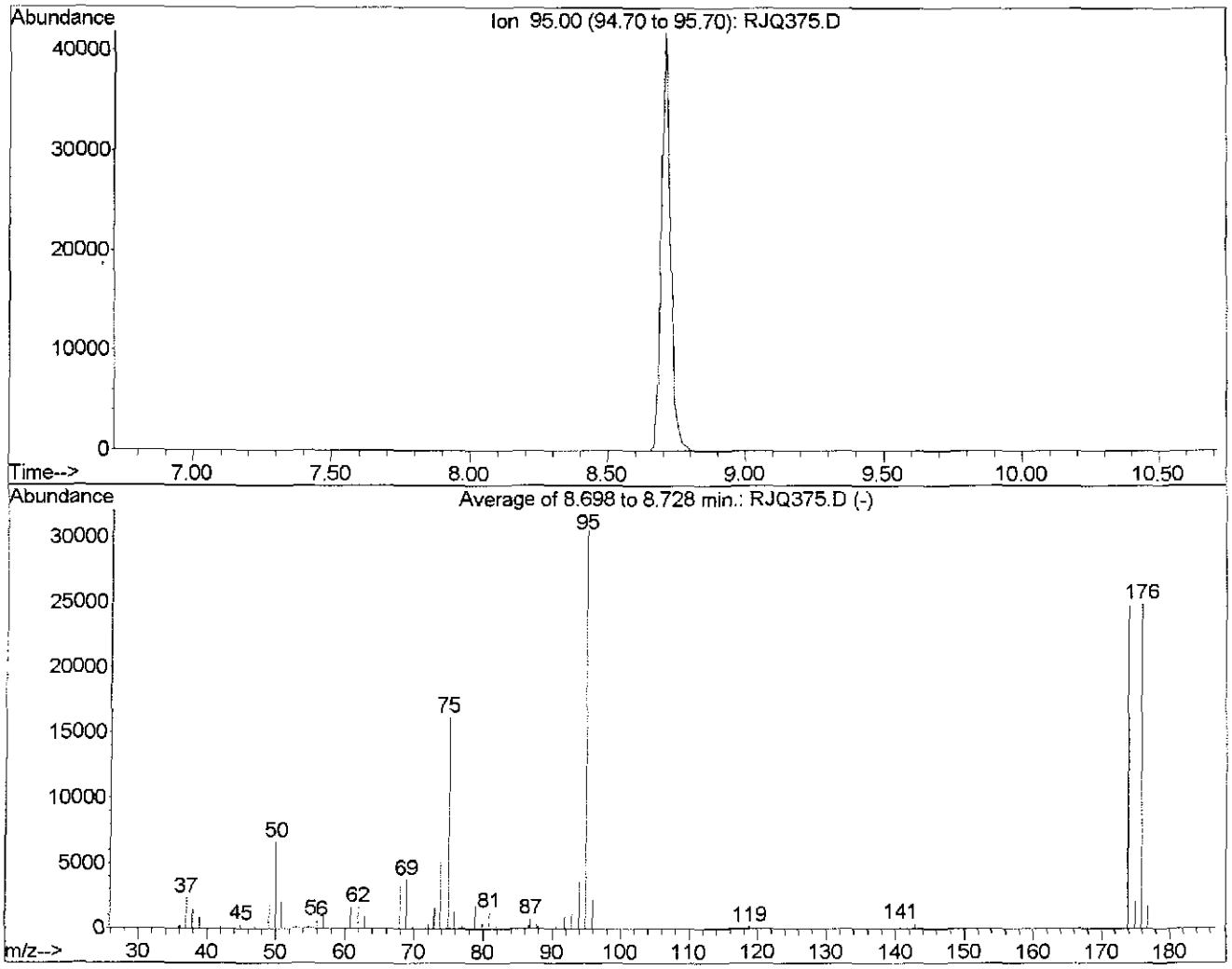
Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

FORM VIII VOSIM OLM02.0

BFB

Data File : D:\HPCHEM\1\DATA\12J26\RJQ375.D
Acq On : 26 Oct 2012 7:24 am
Sample : BFB05J20
Misc : T/CHK
MS Integration Params: 524INT.P
Method : D:\HPCHEM\1\METHODS\VO05J09A.M (RTE Integrator)
Title : METHOD 8260 SIM

Vial: 1
Operator: SD
Inst : TO05
Multiplr: 1.00



AutoFind: Scans 360, 361, 362; Background Corrected with Scan 355

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.8	6668	PASS
75	95	30	60	53.1	16234	PASS
95	95	100	100	100.0	30600	PASS
96	95	5	9	7.1	2168	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	81.0	24790	PASS
175	174	5	9	8.3	2061	PASS
176	174	95	101	100.6	24931	PASS
177	176	5	9	7.2	1787	PASS

RJQ375.D VO05J09A.M Mon Oct 29 10:13:33 2012

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J26\RJQ376.D Vial: 2
Acq On : 26 Oct 2012 7:55 am Operator: SD
Sample : CVO05J0903 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	Amount	Calc.		%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	50.000	50.000		0.0	96	0.00
2	T	1,2-Dichloroethane	100.000	123.657	N1	-23.7#	117	0.00
3	S	Toluene-d8	100.000	100.608		-0.6	102	0.00
4	T	1,2-Dibromoethane	100.000	111.105		-11.1	107	0.00
5	T	1,1,2,2-Tetrachloroethane	100.000	102.493		-2.5	102	0.00
6	T	1,2,3-Trichloropropane	100.000	100.655		-0.7	102	0.00
7	T	1,2-Dibromo-3-chloropropane	100.000	85.059		14.9	91	0.00

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J26\RJQ376.D Vial: 2
Acq On : 26 Oct 2012 7:55 am Operator: SD
Sample : CVO05J0903 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	96	0.00
2	T	1,2-Dichloroethane	3.317	4.102	-23.7#	117	0.00
3	S	Toluene-d8	7.969	8.017	-0.6	102	0.00
4	T	1,2-Dibromoethane	1.433	1.592	-11.1	107	0.00
5	T	1,1,2,2-Tetrachloroethane	1.378	1.413	-2.5	102	0.00
6	T	1,2,3-Trichloropropane	0.904	0.910	-0.7	102	0.00
7	T	1,2-Dibromo-3-chloropropane	0.204	0.174	14.7	91	0.00

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J26\RJQ376.D Vial: 2
Acq On : 26 Oct 2012 7:55 am Operator: SD
Sample : CVO05J0903 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 26 8:09 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

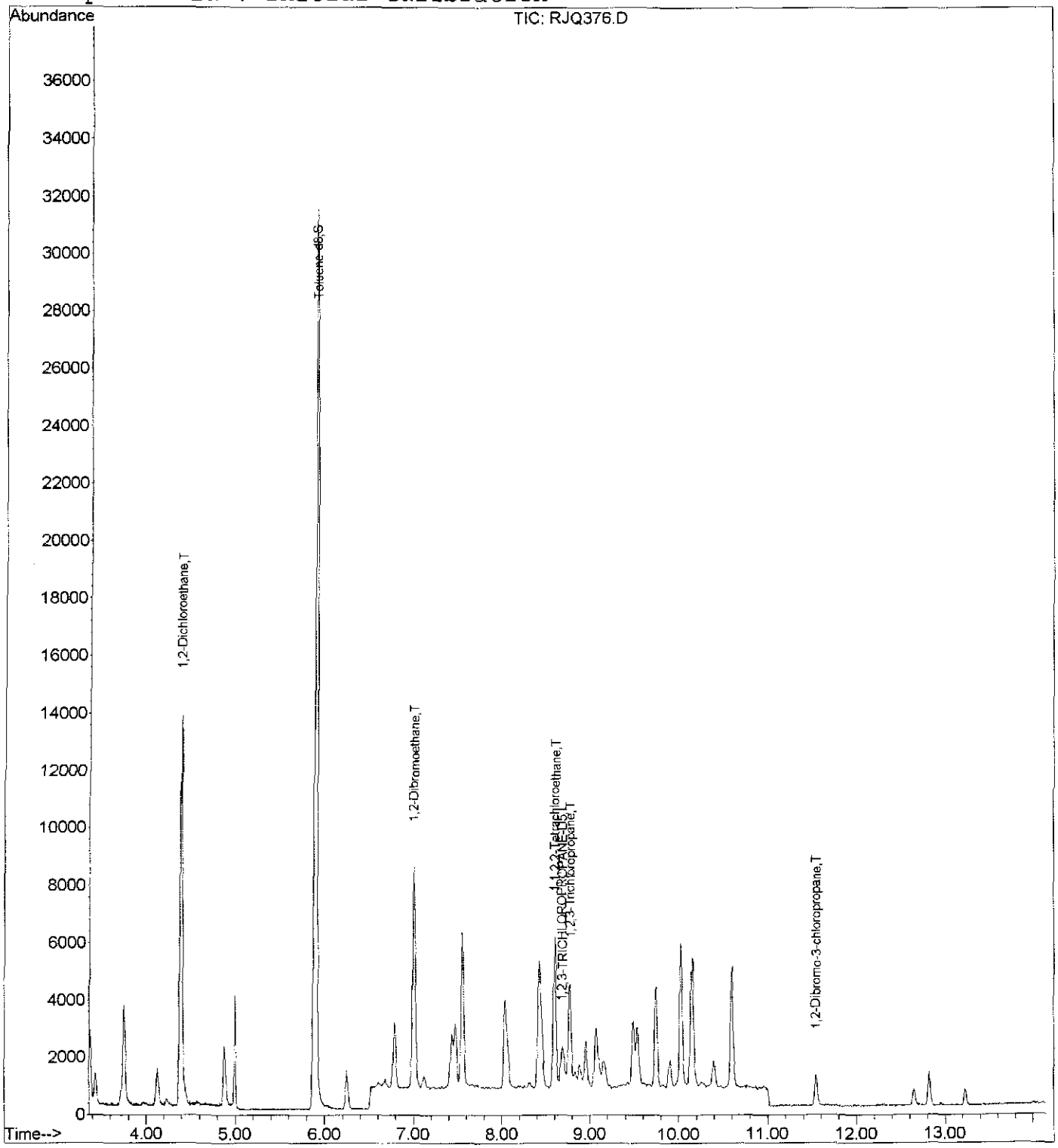
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2583	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.89	98	41416	100.61 ng/l	0.00
Spiked Amount 100.000			Recovery	= 100.61%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.39	62	21192	123.66 ng/l	99
4) 1,2-Dibromoethane	7.01	107	8225	111.11 ng/l	94
5) 1,1,2,2-Tetrachloroethane	8.60	83	7297	102.49 ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	4703	100.66 ng/l	98
7) 1,2-Dibromo-3-chloropropan	11.54	157	897	85.06 ng/l	99

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J26\RJQ376.D Vial: 2
Acq On : 26 Oct 2012 7:55 am Operator: SD
Sample : CVO05J0903 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 26 8:09 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



2210

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJQ399
Instrument ID: TD05
GC Column:RTX502.2ID:0.32mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J163
BFB Injection Date : 10/29/12
BFB Injection Time : 07:35
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.35
75	30.0 - 60.0% of mass 95	57.23
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.04
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	84.65
175	5.0 - 9.0% of mass 174	6.62(7.8)1
176	95.0 - 101.0% of mass 174	83.37(98.5)1
177	5.0 - 9.0% of mass 176	5.12(6.1)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	CV005J0904	RJQ400	10/29/12	08:05
2	MBLK2W	V005J21B	RJQ403	10/29/12	09:35
3	LCS2W	V005J21L	RJQ401	10/29/12	08:37
4	LCD2W	V005J21C	RJQ402	10/29/12	09:06
5	10-23-12 PWB-5DL	J163-07T	RJQ416	10/29/12	16:00
6	10-23-12 PWB-8DL	J163-08T	RJQ417	10/29/12	16:29
7	10-23-12 PWB-16DL	J163-09T	RJQ418	10/29/12	16:58
8	10-24-12 PWB-4DL	J163-11T	RJQ419	10/29/12	17:30
9	10-24-12 FDUP-2DL	J163-14T	RJQ420	10/29/12	17:59

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RJQ091
Instrument ID: T005

Project: BROWN & BRYANT SUPERFUND SITE
SDG No.: 12J163
Date Analyzed: 10/09/12
Time Analyzed: 21:14

		IS1(TCP) AREA #	RT #
	12 HOUR STD	2700	8.69
	UPPER LIMIT	5400	9.19
	LOWER LIMIT	1350	8.19
	SAMPLE ID		
1	VSTD100	2589	8.68
2	MBLK2W	3105	8.68
3	LCS2W	2664	8.68
4	LCD2W	2792	8.69
5	10-23-12 PWB-5DL	2346	8.69
6	10-23-12 PWB-8DL	2678	8.69
7	10-23-12 PWB-16DL	2694	8.69
8	10-24-12 PWB-4DL	2524	8.69
9	10-24-12 FDUP-2DL	2561	8.69

IS1 (TCP) = 1,2,3-Trichloropropane-d5

AREA UPPER LIMIT = +100% of internal satndard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

FORM VIII VOSIM OLM02.0

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :TQ05
IC_Beginning DateTime :10/09/12 19:17
Spike Amount :100 PPT
CC/CV File :RJQ400
IC File :RJQ091

Column Spec :RTX502.2 ID :0.32MM
IC_Ending DateTime :10/09/12 22:40
HPChem Method :VO05J09
Date_Time :10/29/12 08:05

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,2,3-TRICHLOROPROPANE-D5	50.000	0	2589	1	1	8.678	8.688	0				
	2	1,2-Dichloroethane	126.869	26.9	21793	4.209	3.317	4.387	4.393	10.89				
	3	Toluene-d8	108.336	8.3	44701	8.633	7.969	5.892	5.898	7.68				
	4	1,2-Dibromoethane	113.893	13.9	8451	1.632	1.433	7.004	7.006	6.40				
	5	1,1,2,2-Tetrachloroethane	102.031	2.0	7281	1.406	1.378	8.591	8.602	3.38				
	6	1,2,3-Trichloropropane	99.162	-0.8	4644	0.897	0.904	8.766	8.775	9.89				
	7	1,2-Dibromo-3-chloropropane	103.310	3.3	1092	0.211	0.204	11.540	11.548	11.79				

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J29\RJQ400.D Vial: 2
Acq On : 29 Oct 2012 8:05 am Operator: SD
Sample : CVO05J0904 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	Amount	Calc.		%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	50.000	50.000		0.0	96	0.00
2	T	1,2-Dichloroethane	100.000	126.870	M	-26.9#	121	0.00
3	S	Toluene-d8	100.000	108.337		-8.3	110	0.00
4	T	1,2-Dibromoethane	100.000	113.894		-13.9	110	0.00
5	T	1,1,2,2-Tetrachloroethane	100.000	102.031		-2.0	102	0.00
6	T	1,2,3-Trichloropropane	100.000	99.162		0.8	100	0.00
7	T	1,2-Dibromo-3-chloropropane	100.000	103.310		-3.3	110	0.00

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J29\RJQ400.D Vial: 2
Acq On : 29 Oct 2012 8:05 am Operator: SD
Sample : CVO05J0904 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	96	0.00
2	T	1,2-Dichloroethane	3.317	4.209	-26.9#	121	0.00
3	S	Toluene-d8	7.969	8.633	-8.3	110	0.00
4	T	1,2-Dibromoethane	1.433	1.632	-13.9	110	0.00
5	T	1,1,2,2-Tetrachloroethane	1.378	1.406	-2.0	102	0.00
6	T	1,2,3-Trichloropropane	0.904	0.897	0.8	100	0.00
7	T	1,2-Dibromo-3-chloropropane	0.204	0.211	-3.4	110	0.00

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

ANALYTICAL LOG(S)

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☐ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/9/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book # A05 -061

BATCH V005J095

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01		RQ085	RFB05J06	0.5mL	N/A	N/A	N/A		V005J09A 6:19pm
02		086	.05ppt test						
03		087	V005J091	0.05/0.05mL					5.0 ppt
04		088	2	0.1/0.1mL					10
05		089	3	0.2/0.2mL					20
06		090	4	0.5/0.5mL					50
07		091	5	1/1mL					100
08		092	6	2/2mL					200
09		093	7	4/4mL					400
10		094	8	10/10mL					1000
11		095	IS/SS						
12		096	IV005J092	1/1mL					100 ppt; 75 response; high RR, 11:39pm
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									sd 10/10/12

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	10/9/12
ICAL ID	V005J09

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC (a)	SV1-20 -13-03	varies	2.5
BFB	-22-01	0.5	50
IS/SURR (b) IS	-25-02	1	1.25
SS	-25-03	varies	2.5
ICV/LCS	-14-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	12J09		
	LOT #		
pH strip			
Chlorine strip			
Methanol			
$NaHSO_4$			
Reagent Water	RW4-12-001		
Sand			

Electronic Data Archival Location	Date
HPCHEM_VOA/TO05	

Comments:

☐ Refer to sample weight log

Analyzed By: sd

Date Disposed: 10/10/12 Disposed By: sd

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☐ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/10/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book # A05 -061

BATCH: V005TJ0901

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH < 2	Matrix W Cl_2 < 5ppm	Matrix S	Notes
01	Q0Q097	Q2ABA05J07	0.5mL					V005J09A 9:41am
02	098	IV005J0902	1/1mL					
03	099	CV005J0901						
04	100	V005J07L						
05	101	C						
06	102	B	.25mL					
07	103	LOD 25ppt	.025mL					
08	104-105	RINSE						1:50pm
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								vd 10/11/12

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	10/9/12
ICAL ID	V005J09

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	VV1-20-13-03	1	0.5
BFB	-22-01	0.5	50
IS/SURR.	-25-02	1	1.25
	-25-03	1	25
ICV/LCS	-14-03	1	0.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	12J10		
	LOT #		
pH strip			
Chlorine strip			
Methanol			
$NaHSO_4$			
Reagent Water	RW4-12-001		
Sand			

Electronic Data Archival Location	Date
HPCHEM_VOA/T005	

Comments:

☐ Refer to sample weight log

Analyzed By: vd

Date Disposed: 10/11/12 Disposed By: vd

0232

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☐ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/26/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book # A05 -061

BATCH CV0945T0903

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH < 2	Matrix W Cl_2 < 5ppm	Matrix S	Notes
01		QJQ325	QZB05J20	0.5mL					V005J09A 7:24am
02		326	CV005J0903						
03		327	V005J20L						
04		328	C						
05		329	B	25mL					
06		330	12J163-01		1.0	✓	✓		
07		331	-02			✓	✓		
08		332	-04			✓	✓		
09		333	-05			✓	✓		
10		334	-06			✓	✓		
11		335	-07			✓	✓		
12		336	-08			✓	✓		
13		337	-09			✓	✓		
14		338	-10			✓	✓		
15		339	-11			✓	✓		
16		340	-12			✓	✓		
17		341	-14			✓	✓		
18		342	-13			✓	✓		
19		343	-13T	2.5mL	10	✓	✓		
20		344	-10T	0.5mL	50	✓	✓		
21		345	-12T	1.0mL	25	✓	✓		
22		346	-04T	2.5mL	10	✓	✓		
23		347	-05T	1.0mL	25	✓	✓		
24		348	-06T	1.0mL	25	✓	✓		7:05pm
25									
26									
27									
28									
29									
30									nd 10/29/12

DW 11-5-12

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	10/9/12
ICAL ID	V005J09

STANDARDS

NAME	ID	Amount (ul)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	RV1-20-13-03	1	0.5
BFB	-22-01	0.5	50
IS/SURR.	-25-02 -25-03	1 1	1.25 2.5
ICV/LCS	-14-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	12J26		

LOT #	
pH strip	132671
Chlorine strip	2220
Methanol	
$NaHSO_4$	
Reagent Water	RW4-12-001
Sand	

Electronic Data Archival Location	Date
HPCHEM_VOA/TO05	

Comments:

☐ Refer to sample weight log

Analyzed By: VS

Date Disposed: 10/29/12 Disposed By: VS

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☐ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/29/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book # A05 -061

BATCH V005J09

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01		RTQ399	RFA05J21	0.5mL					V005J09A 7:35 am
02		400	CV005J09D4	1mL					
03		401	V005J21L	↓					
04		402	↓ C	↓					
05		403	B	25mL					
06		404	12J162-01		1.0	✓	✓		
07		405	02			✓	✓		
08		406	03			✓	✓		
09		407	04			✓	✓		
10		408	-05			✓	✓		
11		409	-06			✓	✓		
12		410	-07			✓	✓		
13		411	-09			✓	✓		
14		412	-10			✓	✓		
15		413	-08			✓	✓		
16		414	-08M			✓	✓		
17		415	↓ -03	↓	↓	✓	✓		
18		416	12J163-07T	0.25mL	100	✓	✓		
19		417	-08T	↓	↓	✓	✓		
20		418	-09T	1.0mL	25	✓	✓		
21		419	-11T	0.25mL	100	✓	✓		
22		420	-14T	↓	↓	✓	✓		5:59pm
23									
24									
25									
26									
27									
28									
29									
30									12/30/12

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	10/9/12
ICAL ID	V005J09

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SV1-20-13-03	1	2.5
BFB	↓ -22-01	0.5	50
IS/SURR.	-25-02	1	1.25
	-25-03	1	2.50
ICV/LCS	↓ -14-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	12J29		
	LOT #		
pH strip	13767/		
Chlorine strip	2220		
Methanol			
$NaHSO_4$			
Reagent Water	RW4-12-001 /		
Sand			

Electronic Data Archival Location	Date
HPCHEM_VOA/TO05	

Comments:

☐ Refer to sample weight log

Analyzed By: [illegible]

Date Disposed: 10/30/12 Disposed By: [illegible]

Injection Log

Directory: D:\HPCHEM\1\DATA\12J26

Line	Vial	FileName	Multiplier	SampleName		Misc Info	Injected
1	1	RJQ375.D	1.	BFB05J20		T/CHK	26 Oct 2012 0
2	2	RJQ376.D	1.	CVO05J0903		100ppt	26 Oct 2012 0
3	3	RJQ377.D	1.	VO05J20L		100ppt	26 Oct 2012 0
4	4	RJQ378.D	1.	VO05J20C		100ppt	26 Oct 2012 0
5	5	RJQ379.D	1.	VO05J20B		BLANK	26 Oct 2012 0
6	6	RJQ380.D	1.	12J163-01	25mL	DF=1.0	26 Oct 2012 1
7	7	RJQ381.D	1.	12J163-02	25mL	DF=1.0	26 Oct 2012 1
8	8	RJQ382.D	1.	12J163-04	25mL	DF=1.0	26 Oct 2012 1
9	9	RJQ383.D	1.	12J163-05	25mL	DF=1.0	26 Oct 2012 1
10	10	RJQ384.D	1.	12J163-06	25mL	DF=1.0	26 Oct 2012 1
11	11	RJQ385.D	1.	12J163-07	25mL	DF=1.0	26 Oct 2012 1
12	12	RJQ386.D	1.	12J163-08	25mL	DF=1.0	26 Oct 2012 1
13	13	RJQ387.D	1.	12J163-09	25mL	DF=1.0	26 Oct 2012 1
14	14	RJQ388.D	1.	12J163-10	25mL	DF=1.0	26 Oct 2012 1
15	15	RJQ389.D	1.	12J163-11	25mL	DF=1.0	26 Oct 2012 1
16	16	RJQ390.D	1.	12J163-12	25mL	DF=1.0	26 Oct 2012 1
17	17	RJQ391.D	1.	12J163-14	25mL	DF=1.0	26 Oct 2012 1
18	18	RJQ392.D	1.	12J163-13	25mL	DF=1.0	26 Oct 2012 1
19	19	RJQ393.D	1.	12J163-13T	2.5mL	DF=10	26 Oct 2012 1
20	20	RJQ394.D	1.	12J163-10T	0.50mL	DF=50	26 Oct 2012 1
21	21	RJQ395.D	1.	12J163-12T	1.0mL	DF=25	26 Oct 2012 1
22	22	RJQ396.D	1.	12J163-04T	2.5mL	DF=10	26 Oct 2012 1
23	23	RJQ397.D	1.	12J163-05T	1.0mL	DF=25	26 Oct 2012 1
24	24	RJQ398.D	1.	12J163-06T	1.0mL	DF=25	26 Oct 2012 1

Injection Log

Directory: D:\HPCHEM\1\DATA\12J29

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RJQ399.D	1.	BFB05J21	T/CHK	29 Oct 2012 0
2	2	RJQ400.D	1.	CVO05J0904	100ppt	29 Oct 2012 0
3	3	RJQ401.D	1.	VO05J21L	100ppt	29 Oct 2012 0
4	4	RJQ402.D	1.	VO05J21C	100ppt	29 Oct 2012 0
5	5	RJQ403.D	1.	VO05J21B	BLANK	29 Oct 2012 0
6	6	RJQ404.D	1.	12J162-01 25mL	DF=1.0	29 Oct 2012 1
7	7	RJQ405.D	1.	12J162-02 25mL	DF=1.0	29 Oct 2012 1
8	8	RJQ406.D	1.	12J162-03 25mL	DF=1.0	29 Oct 2012 1
9	9	RJQ407.D	1.	12J162-04 25mL	DF=1.0	29 Oct 2012 1
10	10	RJQ408.D	1.	12J162-05 25mL	DF=1.0	29 Oct 2012 1
11	11	RJQ409.D	1.	12J162-06 25mL	DF=1.0	29 Oct 2012 1
12	12	RJQ410.D	1.	12J162-07 25mL	DF=1.0	29 Oct 2012 1
13	13	RJQ411.D	1.	12J162-09 25mL	DF=1.0	29 Oct 2012 1
14	14	RJQ412.D	1.	12J162-10 25mL	DF=1.0	29 Oct 2012 1
15	15	RJQ413.D	1.	12J162-08 25mL	DF=1.0	29 Oct 2012 1
16	16	RJQ414.D	1.	12J162-08M 25mL	DF=1.0	29 Oct 2012 1
17	17	RJQ415.D	1.	12J162-08S 25mL	DF=1.0	29 Oct 2012 1
18	18	RJQ416.D	1.	12J163-07T 0.25mL	DF=100	29 Oct 2012 1
19	19	RJQ417.D	1.	12J163-08T 0.25mL	DF=100	29 Oct 2012 1
20	20	RJQ418.D	1.	12J163-09T 1.0mL	DF=25	29 Oct 2012 1
21	21	RJQ419.D	1.	12J163-11T 0.25mL	DF=100	29 Oct 2012 1
22	22	RJQ420.D	1.	12J163-14T 0.25mL	DF=100	29 Oct 2012 1

01 Nov 2012 13:30

2222

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

METHOD 8151A
HERBICIDES

SDG#: 12J163

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J163

METHOD 8151A
HERBICIDES

A total of thirteen (13) water samples were received on 10/24/12 for Chlorinated Herbicides analysis, Method 8151A in accordance with Department of Defense Quality Systems Manual for Environmental Laboratories, Version 4.2 and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for HEJ009WL/C were all within QC limits.

Matrix QC Sample
No matrix QC sample was designated in this SDG.

Surrogate
Surrogate was added on QC and field samples. Surrogate recoveries were within project QC limits.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
HERBICIDES

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE

SDG NO. : 12J163
Instrument ID : GCT009

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	HEJ009WB	1	NA	10/30/1218:03	10/29/1210:03	QJ30013A	QJ30012A	HEJ009W	Method Blank
LCS1W	HEJ009WL	1	NA	10/30/1218:23	10/29/1210:03	QJ30014A	QJ30012A	HEJ009W	Lab Control Sample (LCS)
LCD1W	HEJ009WC	1	NA	10/30/1218:43	10/29/1210:03	QJ30015A	QJ30012A	HEJ009W	LCS Duplicate
10-23-12 AMW-4R	J163-01	1	NA	10/30/1219:03	10/29/1210:03	QJ30016A	QJ30012A	HEJ009W	Field Sample
10-23-12 WB 2-4	J163-02	1	NA	10/30/1219:23	10/29/1210:03	QJ30017A	QJ30012A	HEJ009W	Field Sample
10-23-12 WB 2-1	J163-04	1	NA	10/30/1219:43	10/29/1210:03	QJ30018A	QJ30012A	HEJ009W	Field Sample
10-23-12 PWB-9	J163-05	1	NA	10/30/1220:04	10/29/1210:03	QJ30019A	QJ30012A	HEJ009W	Field Sample
10-23-12 PWB-11	J163-06	1	NA	10/30/1220:24	10/29/1210:03	QJ30020A	QJ30012A	HEJ009W	Field Sample
10-23-12 PWB-5	J163-07	1	NA	10/30/1220:45	10/29/1210:03	QJ30021A	QJ30012A	HEJ009W	Field Sample
10-23-12 PWB-8	J163-08	1	NA	10/30/1221:05	10/29/1210:03	QJ30022A	QJ30012A	HEJ009W	Field Sample
10-23-12 PWB-16	J163-09	1	NA	10/30/1222:06	10/29/1210:03	QJ30025A	QJ30024A	HEJ009W	Field Sample
10-24-12 PWB-12	J163-10J	20	NA	10/31/1214:08	10/29/1210:03	QJ30040A	QJ30039A	HEJ009W	Diluted Sample
10-24-12 PWB-4	J163-11	1	NA	10/30/1222:47	10/29/1210:03	QJ30027A	QJ30024A	HEJ009W	Field Sample
10-24-12 PWB-13A	J163-12J	5	NA	10/31/1214:28	10/29/1210:03	QJ30041A	QJ30039A	HEJ009W	Diluted Sample
10-24-12 PWB-14	J163-13	1	NA	10/30/1223:28	10/29/1210:03	QJ30029A	QJ30024A	HEJ009W	Field Sample
10-24-12 FDUP-2	J163-14	1	NA	10/30/1223:48	10/29/1210:03	QJ30030A	QJ30024A	HEJ009W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/29/12 10:03
Sample ID:	10-23-12 AMW-4R	Date Analyzed:	10/30/12 19:03
Lab Samp ID:	J163-01	Dilution Factor:	1
Lab File ID:	QJ30016A	Matrix	: WATER
Ext Btch ID:	HEJ009W	% Moisture	: NA
Calib. Ref.:	QJ30012A	Instrument ID	: GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.888)|9.569	10.00	(98.9)|95.7	40-140

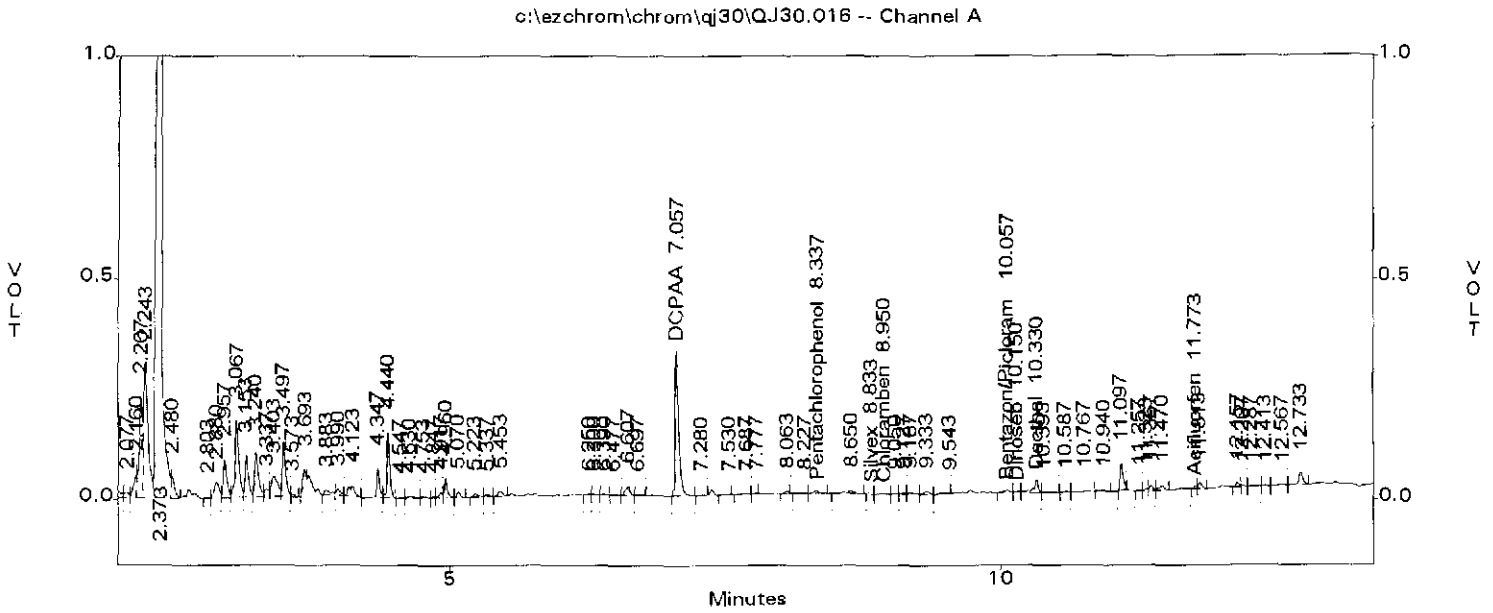
Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\QJ30.016
Method : c:\ezchrom\methods\HE09J30.MET
Sample ID : J163-01
Acquired : Oct 30, 2012 19:03:21
Printed : Oct 31, 2012 09:39:46
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	0.0	0.00	0.00	--
3,5 Dichlorobenzo	6.217	0.0	0.00	0.00	--
4-Nitrophenol	6.823	0.0	0.00	0.00	--
DCPAA	7.057	712491.0	720.54	988.82	BV
Dicamba	7.243	0.0	0.00	0.00	--
MCPP	7.440	0.0	0.00	0.00	--
MCPA	7.583	0.0	0.00	0.00	--
DCP	7.927	0.0	0.00	0.00	--
2,4-D	8.127	0.0	0.00	0.00	--
Pentachlorophenol	8.337	18708.0	12861.50	1.45	VB
Silvex	8.833	2197.0	5293.29	0.42	BV
Chloramben	8.950	10465.0	4064.33	2.57	VV
2,4,5-T	9.033	0.0	0.00	0.00	--
2,4-DB	9.430	0.0	0.00	0.00	--
Bentazon/Picloram	10.057	15294.0	4112.69	3.72	BV
Dinoseb	10.150	4301.0	4484.44	0.96	VV
Dacthal	10.330	77726.0	6368.69	12.20	VV
Acifluorfen	11.773	11993.0	5114.74	2.34	BS



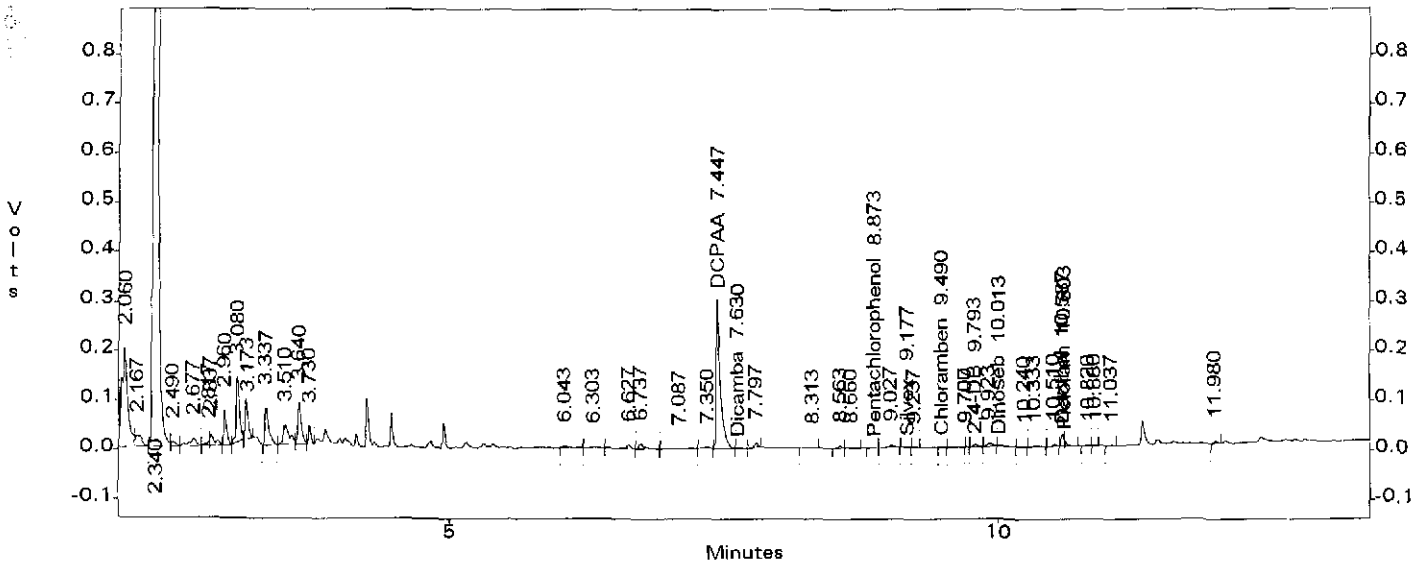
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\QJ30.016
Method : c:\ezchrom\methods\HE09J30.MET
Sample ID : J163-01
Acquired : Oct 30, 2012 19:03:21
Printed : Oct 31, 2012 09:39:46
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	0.0	0.00	0.00	--
3,5 Dichlorobenzoic	6.383	0.0	0.00	0.00	--
4-Nitrophenol	6.963	0.0	0.00	0.00	--
DCPAA	7.447	803568.0	839.77	956.90	SS
Dicamba	7.630	7544.0	3313.89	2.28	SV
MCPP	7.737	0.0	0.00	0.00	--
MCPA	7.957	0.0	0.00	0.00	--
DCP	8.260	0.0	0.00	0.00	--
2,4-D	8.527	0.0	0.00	0.00	--
Pentachlorophenol	8.873	2883.0	11988.79	0.24	SS
Silvex	9.177	7609.0	4946.26	1.54	VS
2,4,5-T	9.443	0.0	0.00	0.00	--
Chloramben	9.490	8268.0	4997.10	1.65	xV
2,4-DB	9.793	23212.0	771.68	30.08	xx
Dinoseb	10.013	19663.0	3449.00	5.70	SV
Bentazon	10.363	0.0	0.00	0.00	--
Dacthal	10.587	40210.0	4651.52	8.64	Sx
Picloram	10.603	15784.0	7623.47	2.07	xV
Acifluorfen	11.790	0.0	0.00	0.00	--

c:\ezchrom\chrom\qj30\QJ30.016 -- Channel B



METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/29/12 10:03
Sample ID:	10-23-12 WB 2-4	Date Analyzed:	10/30/12 19:23
Lab Samp ID:	J163-02	Dilution Factor:	1
Lab File ID:	QJ30017A	Matrix	: WATER
Ext Btch ID:	HEJ009W	% Moisture	: NA
Calib. Ref.:	QJ30012A	Instrument ID	: GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.807)|9.491	10.00	(98.1)|94.9	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/29/12 10:03
Sample ID:	10-23-12 WB 2-1	Date Analyzed:	10/30/12 19:43
Lab Samp ID:	J163-04	Dilution Factor:	1
Lab File ID:	QJ30018A	Matrix :	WATER
Ext Btch ID:	HEJ009W	% Moisture :	NA
Calib. Ref.:	QJ30012A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.192)|8.800	10.00	(91.9)|88.0	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/29/12 10:03
Sample ID:	10-23-12 PWB-9	Date Analyzed:	10/30/12 20:04
Lab Samp ID:	J163-05	Dilution Factor:	1
Lab File ID:	QJ30019A	Matrix :	WATER
Ext Btch ID:	HEJ009W	% Moisture :	NA
Calib. Ref.:	QJ30012A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	0.72|(0.77)	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(10.13)|9.822	10.00	(101)|98.2	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/29/12 10:03
Sample ID:	10-23-12 PWB-11	Date Analyzed:	10/30/12 20:24
Lab Samp ID:	J163-06	Dilution Factor:	1
Lab File ID:	QJ30020A	Matrix :	WATER
Ext Btch ID:	HEJ009W	% Moisture :	NA
Calib. Ref.:	QJ30012A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	0.33J|(0.35J)	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.814)|9.379	10.00	(98.1)|93.8	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/29/12 10:03
Sample ID:	10-23-12 PWB-5	Date Analyzed:	10/30/12 20:45
Lab Samp ID:	J163-07	*Dilution Factor:*	1
Lab File ID:	QJ30021A	Matrix	: WATER
Ext Btch ID:	HEJ009W	% Moisture	: NA
Calib. Ref.:	QJ30012A	Instrument ID	: GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(1.0)|1.0	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(8.928)|8.588	10.00	(89.3)|85.9	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/29/12 10:03
Sample ID:	10-23-12 PWB-8	Date Analyzed:	10/30/12 21:05
Lab Samp ID:	J163-08	Dilution Factor:	1
Lab File ID:	QJ30022A	Matrix :	WATER
Ext Btch ID:	HEJ009W	% Moisture :	NA
Calib. Ref.:	QJ30012A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(1.1)|1.1	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(8.891)|8.550	10.00	(88.9)|85.5	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/23/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/29/12 10:03
Sample ID:	10-23-12 PWB-16	Date Analyzed:	10/30/12 22:06
Lab Samp ID:	J163-09	Dilution Factor:	1
Lab File ID:	QJ30025A	Matrix :	WATER
Ext Btch ID:	HEJ009W	% Moisture :	NA
Calib. Ref.:	QJ30024A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(8.788)|8.330	10.00	(87.9)|83.3	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/24/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/24/12
Batch No. : 12J163	Date Extracted: 10/29/12 10:03
Sample ID: 10-24-12 PWB-12	Date Analyzed: 10/31/12 14:08
Lab Samp ID: J163-10J	Dilution Factor: 20
Lab File ID: QJ30040A	Matrix : WATER
Ext Btch ID: HEJ009W	% Moisture : NA
Calib. Ref.: QJ30039A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	22|(27)	8.0	4.0|4.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	13.91|(13.54)	10.00	139|(135)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/29/12 10:03
Sample ID:	10-24-12 PWB-4	Date Analyzed:	10/30/12 22:47
Lab Samp ID:	J163-11	Dilution Factor:	1
Lab File ID:	QJ30027A	Matrix :	WATER
Ext Btch ID:	HEJ009W	% Moisture :	NA
Calib. Ref.:	QJ30024A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(0.81)|0.77	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.644)|9.257	10.00	(96.4)|92.6	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/29/12 10:03
Sample ID:	10-24-12 PWB-13A	Date Analyzed:	10/31/12 14:28
Lab Samp ID:	J163-12J	Dilution Factor:	5
Lab File ID:	QJ30041A	Matrix	: WATER
Ext Btch ID:	HEJ009W	% Moisture	: NA
Calib. Ref.:	QJ30039A	Instrument ID	: GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	3.5|(4.3)	2.0	1.0|1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(12.76)|12.32	10.00	(128)|123	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/29/12 10:03
Sample ID:	10-24-12 PWB-14	Date Analyzed:	10/30/12 23:28
Lab Samp ID:	J163-13	Dilution Factor:	1
Lab File ID:	QJ30029A	Matrix	: WATER
Ext Btch ID:	HEJ009W	% Moisture	: NA
Calib. Ref.:	QJ30024A	Instrument ID	: GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	0.22J|(0.24J)	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.040)|8.648	10.00	(90.4)|86.5	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/24/12
Batch No.	: 12J163	Date Extracted:	10/29/12 10:03
Sample ID:	10-24-12 FDUP-2	Date Analyzed:	10/30/12 23:48
Lab Samp ID:	J163-14	Dilution Factor:	1
Lab File ID:	QJ30030A	Matrix	: WATER
Ext Btch ID:	HEJ009W	% Moisture	: NA
Calib. Ref.:	QJ30024A	Instrument ID	: GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(0.79)|0.74	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.809)|9.416	10.00	(98.1)|94.2	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

QC SUMMARIES

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	NA
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/29/12
Batch No.	: 12J163	Date Extracted:	10/29/12 10:03
Sample ID:	MBLK1W	Date Analyzed:	10/30/12 18:03
Lab Samp ID:	HEJ009WB	Dilution Factor:	1
Lab File ID:	QJ30013A	Matrix :	WATER
Ext Btch ID:	HEJ009W	% Moisture :	NA
Calib. Ref.:	QJ30012A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(10.83)|10.56	10.00	(108)|106	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J163
METHOD: METHOD 8151A

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	HEJ009WB	HEJ009WL	HEJ009WC		
LAB FILE ID:	QJ30013A	QJ30014A	QJ30015A		
DATE EXTRACTED:	10/29/1210:03	10/29/1210:03	10/29/1210:03	DATE COLLECTED:	NA
DATE ANALYZED:	10/30/1218:03	10/30/1218:23	10/30/1218:43	DATE RECEIVED:	10/29/12
PREP. BATCH:	HEJ009W	HEJ009W	HEJ009W		
CALIB. REF:	QJ30012A	QJ30012A	QJ30012A		

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 (%)
Dinoseb	(ND)|ND	1.00	0.686|(0.738)	69|(74)	1.00	0.607|(0.645)	61|(64)	12|(13)	20-100	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 (%)
2,4-DCPAA	10.00	(9.634)|9.475	(96.3)|94.8	10.00	(8.833)|8.667	(88.3)|86.7	40-140

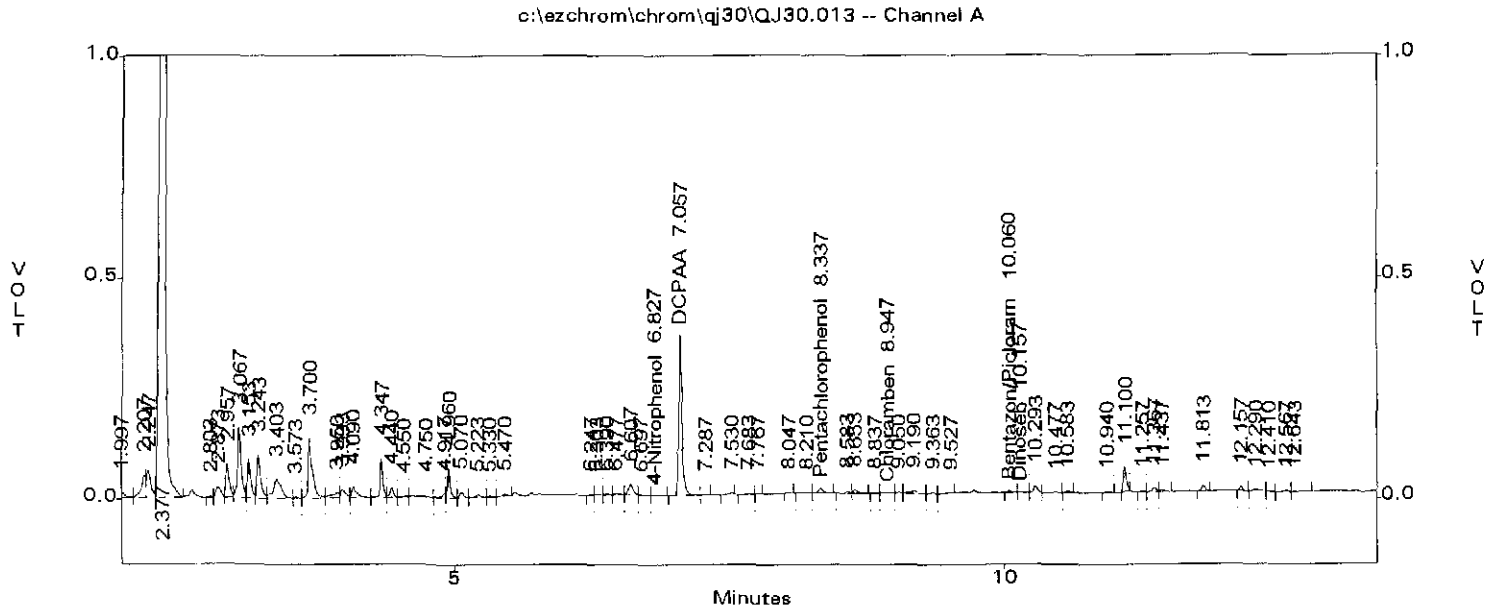
QC DATA

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\QJ30.013
Method : c:\ezchrom\methods\HE09J30.MET
Sample ID : HEJ009WB
Acquired : Oct 30, 2012 18:03:07
Printed : Oct 31, 2012 09:39:38
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	0.0	0.00	0.00	--
3,5 Dichlorobenzo	6.217	0.0	0.00	0.00	--
4-Nitrophenol	6.827	4714.0	1051.91	4.48	VV
DCPAA	7.057	780430.0	720.54	1083.11	VV
Dicamba	7.243	0.0	0.00	0.00	--
MCPP	7.440	0.0	0.00	0.00	--
MCPA	7.583	0.0	0.00	0.00	--
DCP	7.927	0.0	0.00	0.00	--
2,4-D	8.127	0.0	0.00	0.00	--
Pentachlorophenol	8.337	26784.0	12861.50	2.08	VV
Silvex	8.820	0.0	0.00	0.00	--
Chloramben	8.947	9399.0	4064.33	2.31	VV
2,4,5-T	9.033	0.0	0.00	0.00	--
2,4-DB	9.430	0.0	0.00	0.00	--
Bentazon/Picloram	10.060	10101.0	4112.69	2.46	BV
Dinoseb	10.157	5073.0	4484.44	1.13	VV
Dacthal	10.330	0.0	0.00	0.00	--
Acifluorfen	11.777	0.0	0.00	0.00	--



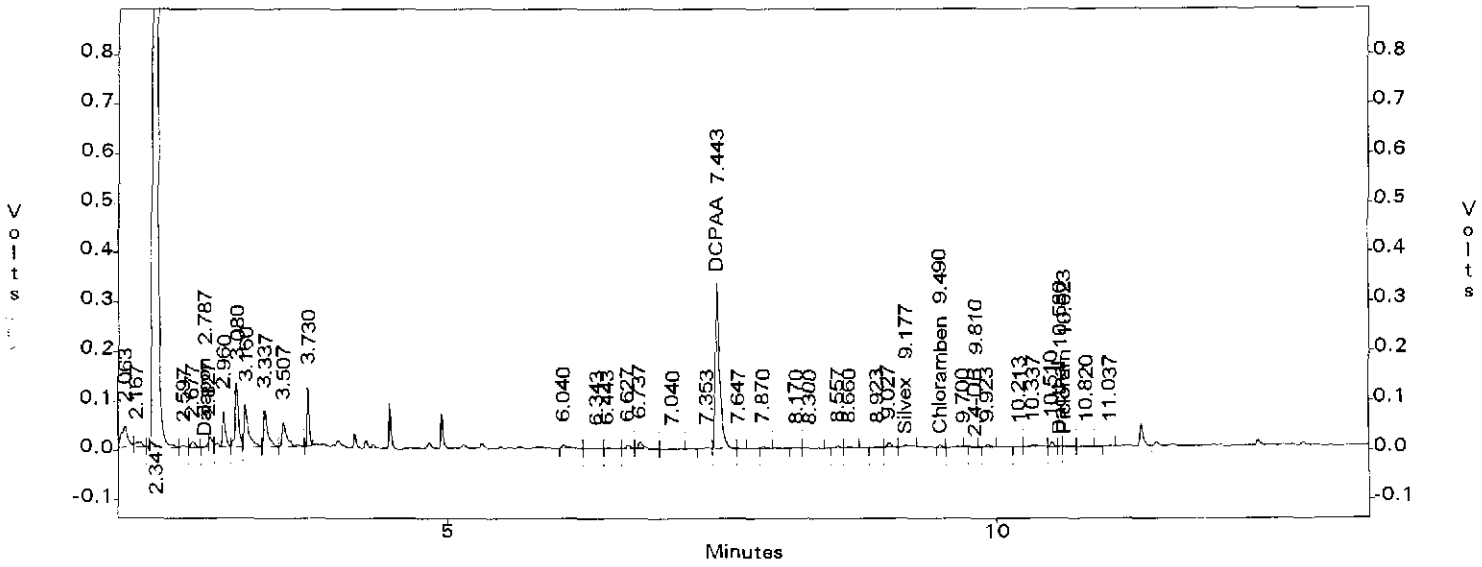
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\QJ30.013
Method : c:\ezchrom\methods\HE09J30.MET
Sample ID : HEJ009WB
Acquired : Oct 30, 2012 18:03:07
Printed : Oct 31, 2012 09:39:38
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	7976.0	1304.23	6.12	Vx
3,5 Dichlorobenzoic	6.383	0.0	0.00	0.00	--
4-Nitrophenol	6.963	0.0	0.00	0.00	--
DCPAA	7.443	886788.0	839.77	1055.99	SS
Dicamba	7.627	0.0	0.00	0.00	--
MCPP	7.737	0.0	0.00	0.00	--
MCPA	7.957	0.0	0.00	0.00	--
DCP	8.260	0.0	0.00	0.00	--
2,4-D	8.527	0.0	0.00	0.00	--
Pentachlorophenol	8.873	0.0	0.00	0.00	--
Silvex	9.177	12850.0	4946.26	2.60	VS
2,4,5-T	9.443	0.0	0.00	0.00	--
Chloramben	9.490	12200.0	4997.10	2.44	xV
2,4-DB	9.810	2034.0	771.68	2.64	xS
Dinoseb	10.007	0.0	0.00	0.00	--
Bentazon	10.363	0.0	0.00	0.00	--
Dacthal	10.580	5029.0	4651.52	1.08	Sx
Picloram	10.623	9090.0	7623.47	1.19	xV
Acifluorfen	11.790	0.0	0.00	0.00	--

c:\ezchrom\chrom\qj30\QJ30.013 -- Channel B

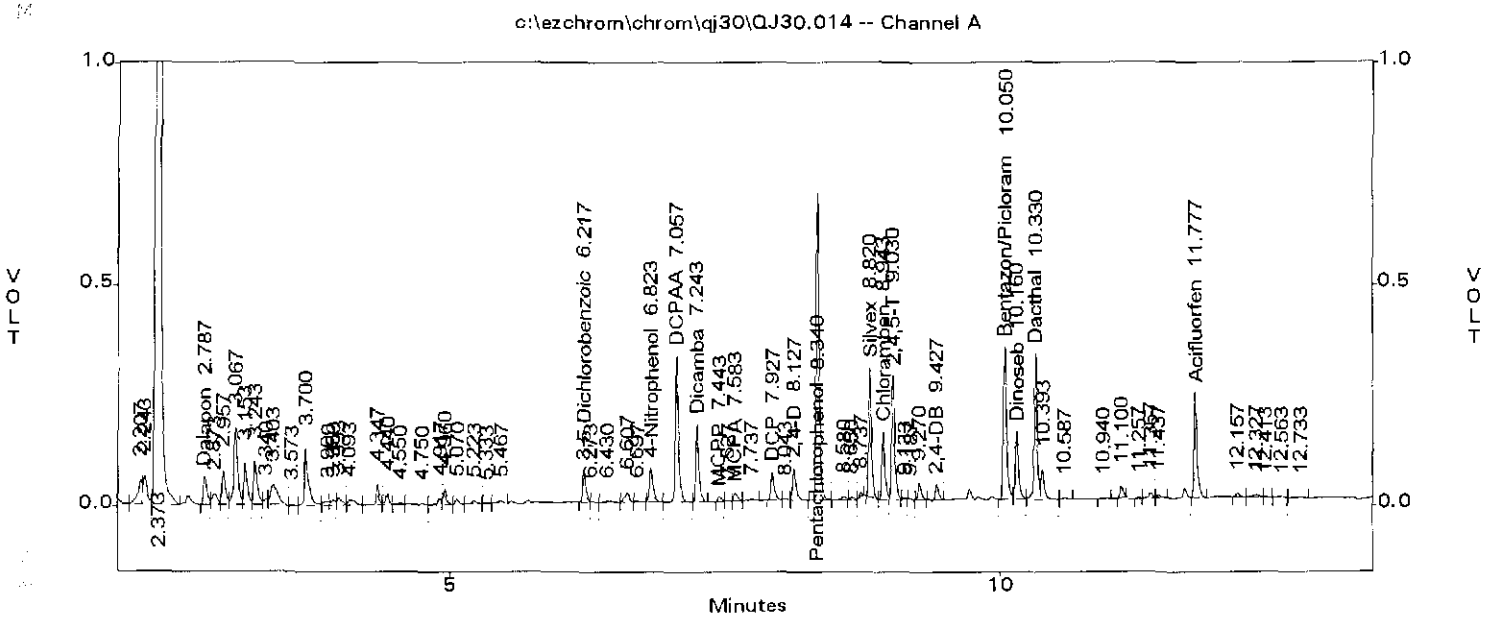


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\QJ30.014
Method : c:\ezchrom\methods\HE09J30.MET
Sample ID : HEJ009WL
Acquired : Oct 30, 2012 18:23:12
Printed : Oct 31, 2012 09:39:41
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	152308.0	1709.22	89.11	BV
3,5 Dichlorobenzo	6.217	146180.0	1507.56	96.96	Bx
4-Nitrophenol	6.823	179252.0	1051.91	170.41	VV
DCPAA	7.057	694139.0	720.54	963.35	VV
Dicamba	7.243	345848.0	3371.46	102.58	VV
MCPP	7.443	24736.0	4.57	5409.78	BV
MCPA	7.583	42829.0	8.27	5179.49	xV
DCP	7.927	133272.0	1182.11	112.74	BV
2,4-D	8.127	158320.0	1492.49	106.08	xV
Pentachlorophenol	8.340	1350608.0	12861.50	105.01	VV
Silvex	8.820	526132.0	5293.29	99.40	BV
Chloramben	8.943	299823.0	4064.33	73.77	VV
2,4,5-T	9.030	543032.0	5662.12	95.91	VV
2,4-DB	9.427	65831.0	746.33	88.21	SB
Bentazon/Picloram	10.050	711069.0	4112.69	172.90	BV
Dinoseb	10.160	307780.0	4484.44	68.63	VV
Dacthal	10.330	607848.0	6368.69	95.44	VV
Acifluorfen	11.777	459253.0	5114.74	89.79	BV



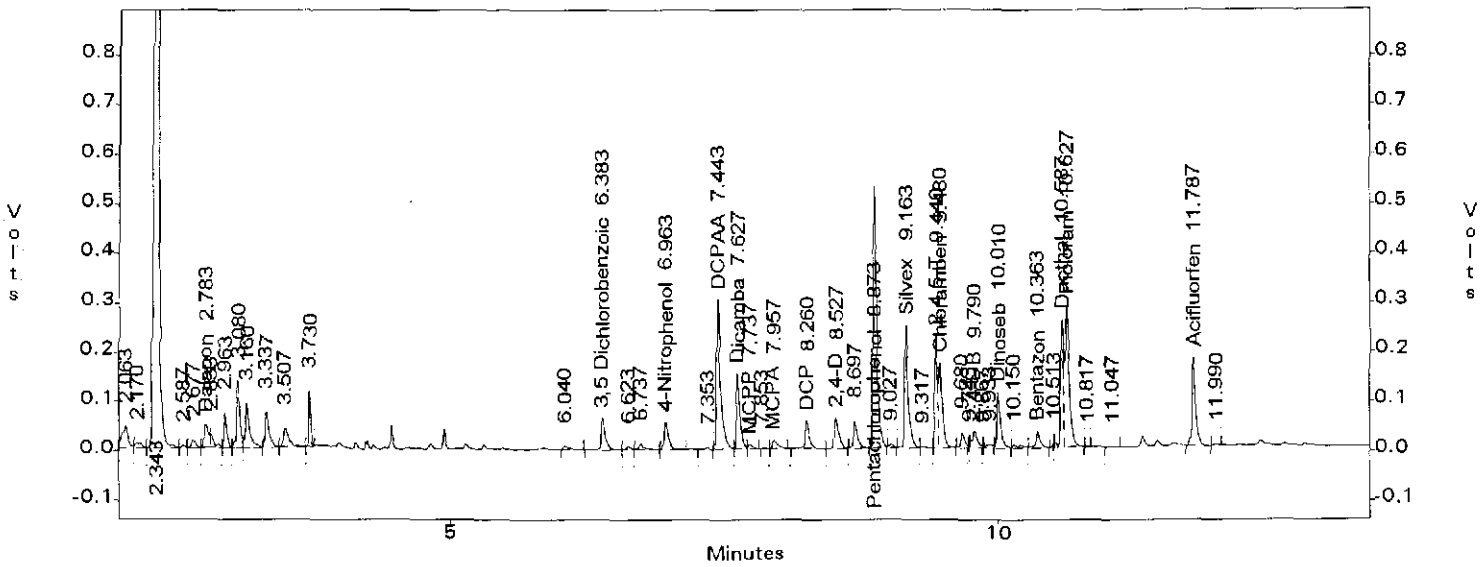
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\QJ30.014
Method : c:\ezchrom\methods\HE09J30.MET
Sample ID : HEJ009WL
Acquired : Oct 30, 2012 18:23:12
Printed : Oct 31, 2012 09:39:41
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	121956.0	1304.23	93.51	Vx
3,5 Dichlorobenzoic	6.383	171171.0	1647.29	103.91	VV
4-Nitrophenol	6.963	148538.0	884.30	167.97	VV
DCPAA	7.443	795703.0	839.77	947.53	SV
Dicamba	7.627	346544.0	3313.89	104.57	VS
MCPP	7.737	29283.0	5.44	5386.93	SV
MCPA	7.957	62520.0	10.48	5963.25	Sx
DCP	8.260	162100.0	1274.98	127.14	VV
2,4-D	8.527	166834.0	1451.63	114.93	VV
Pentachlorophenol	8.873	1242119.0	11988.79	103.61	VS
Silvex	9.163	594383.0	4946.26	120.17	VS
2,4,5-T	9.440	391586.0	3771.03	103.84	xx
Chloramben	9.480	416862.0	4997.10	83.42	xV
2,4-DB	9.790	112658.0	771.68	145.99	xx
Dinoseb	10.010	254413.0	3449.00	73.76	SV
Bentazon	10.363	87233.0	705.05	123.73	VV
Dacthal	10.587	426215.0	4651.52	91.63	Sx
Picloram	10.627	843535.0	7623.47	110.65	xS
Acifluorfen	11.787	387923.0	4033.72	96.17	BV

c:\ezchrom\chrom\qj30\QJ30.014 -- Channel B

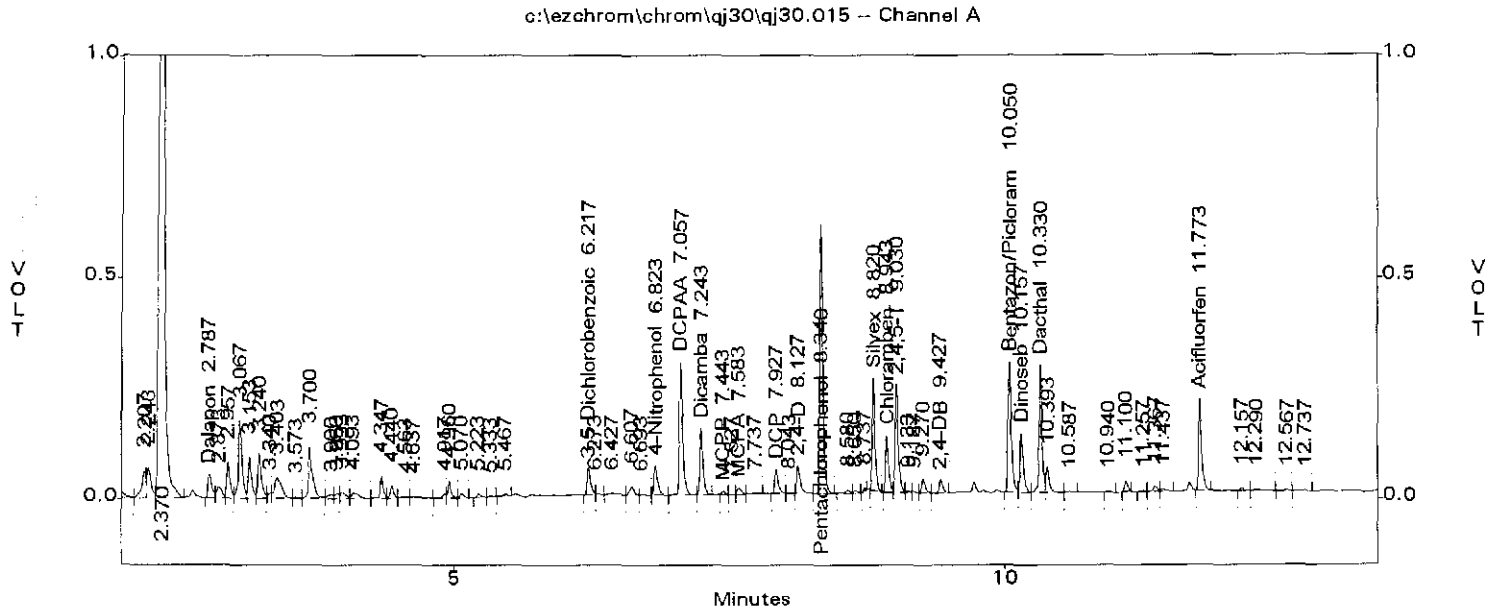


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.015
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HEJ009WC
Acquired : Oct 30, 2012 18:43:16
Printed : Oct 31, 2012 09:49:50
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	129860.0	1709.22	75.98	BV
3,5 Dichlorobenzo	6.217	127518.0	1507.56	84.59	Bx
4-Nitrophenol	6.823	154776.0	1051.91	147.14	VV
DCPAA	7.057	636468.0	720.54	883.32	VV
Dicamba	7.243	295400.0	3371.46	87.62	VV
MCPP	7.443	21042.0	4.57	4601.90	BV
MCPA	7.583	37243.0	8.27	4503.95	xV
DCP	7.927	116474.0	1182.11	98.53	BV
2,4-D	8.127	138535.0	1492.49	92.82	xV
Pentachlorophenol	8.340	1187437.0	12861.50	92.32	VV
Silvex	8.820	459322.0	5293.29	86.77	BV
Chloramben	8.943	252943.0	4064.33	62.23	VV
2,4,5-T	9.030	475567.0	5662.12	83.99	VV
2,4-DB	9.427	60815.0	746.33	81.49	SV
Bentazon/Picloram	10.050	620045.0	4112.69	150.76	BV
Dinoseb	10.157	272419.0	4484.44	60.75	VV
Dacthal	10.330	537528.0	6368.69	84.40	VS
Acifluorfen	11.773	400707.0	5114.74	78.34	BV

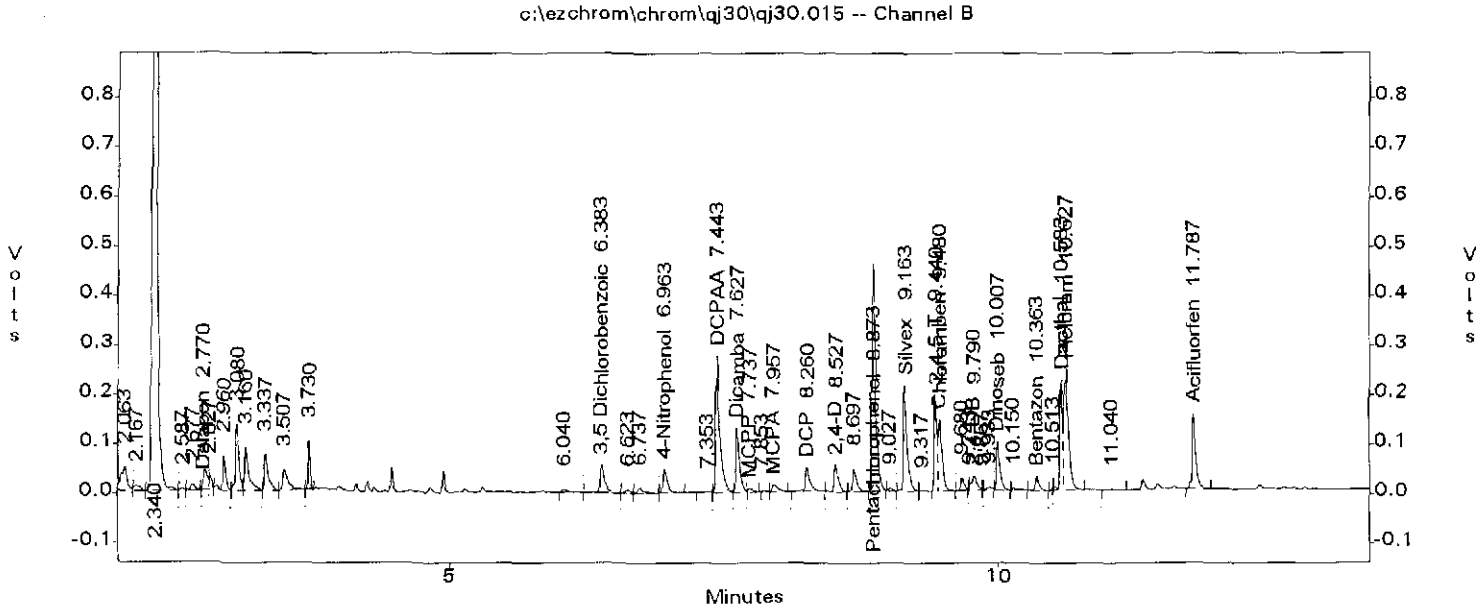


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.015
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HEJ009WC
Acquired : Oct 30, 2012 18:43:16
Printed : Oct 31, 2012 09:49:50
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.770	103282.0	1304.23	79.19	xx
3,5 Dichlorobenzoic	6.383	146051.0	1647.29	88.66	VV
4-Nitrophenol	6.963	128666.0	884.30	145.50	VV
DCPAA	7.443	727861.0	839.77	866.74	SV
Dicamba	7.627	295563.0	3313.89	89.19	VS
MCPP	7.737	24661.0	5.44	4536.66	SV
MCPA	7.957	54921.0	10.48	5238.44	Sx
DCP	8.260	140820.0	1274.98	110.45	VV
2,4-D	8.527	145683.0	1451.63	100.36	VV
Pentachlorophenol	8.873	1078783.0	11988.79	89.98	VS
Silvex	9.163	507916.0	4946.26	102.69	VS
2,4,5-T	9.440	342527.0	3771.03	90.83	xx
Chloramben	9.480	350450.0	4997.10	70.13	xV
2,4-DB	9.790	100417.0	771.68	130.13	xx
Dinoseb	10.007	222587.0	3449.00	64.54	SV
Bentazon	10.363	73569.0	705.05	104.35	VV
Dacthal	10.583	375176.0	4651.52	80.66	Sx
Picloram	10.627	712633.0	7623.47	93.48	xS
Acifluorfen	11.787	333022.0	4033.72	82.56	BS



INITIAL CALIBRATIONS

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
LFID & Datetime: QJ30002A 10/30/12 14:21
LFID & Datetime: QJ30003A 10/30/12 14:41
LFID & Datetime: QJ30004A 10/30/12 15:01
LFID & Datetime: QJ30005A 10/30/12 15:21
LFID & Datetime: QJ30006A 10/30/12 15:41
LFID & Datetime: QJ30007A 10/30/12 16:02
LFID & Datetime: QJ30008A 10/30/12 16:22
LFID & Datetime: QJ30009A 10/30/12 16:42
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA)/UNIT 1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
Dalapon	10.00	0	2100	1798	1725	1650	1604	1569	1518	1709.2	11.5
3,5-Dichlorobenzo	10.00	0	1849	1627	1530	1462	1403	1364	1318	1507.6	12.1
4-Nitrophenol	10.00	0	1262	1135	1076	1032	989	956	913	1051.9	11.3
Dicamba	10.00	0	3955	3470	3393	3306	3220	3176	3080	3371.5	8.6
MCPP	500.00	0	0	4	5	5	5	5	4	4.6	6.2
MCPA	500.00	0	0	9	9	8	8	8	7	8.3	9.8
Dichloroprop	10.00	0	1423	1286	1201	1152	1104	1076	1032	1182.1	11.4
2,4-D	10.00	0	1671	1733	1522	1470	1398	1357	1297	1492.5	10.8
Pentachlorophenol	10.00	13840	15310	13553	12814	12438	12041	11834	11063	12861.5	10.4
2,4,5-TP(Silvex)	10.00	0	5969	5442	5357	5250	5112	5047	4876	5293.3	6.7
Chloramben	10.00	0	4121	3929	4080	4122	4091	4095	4013	4064.3	1.7
2,4,5-T	10.00	0	6639	5993	5769	5570	5369	5250	5044	5662.1	9.5
2,4-DB	10.00	0	831	770	758	739	721	712	694	746.3	6.1
Bentazon/Picloram	20.00	4728	4333	4002	4063	4036	3964	3937	3839	4112.7	7.0
Dinoseb	10.00	0	5532	4816	4563	4357	4193	4052	3878	4484.4	12.4
Dacthal	10.00	0	7375	6677	6205	6304	6134	6048	5839	6368.7	8.0
Acifluorfen	10.00	0	5759	5138	5178	5049	4980	4912	4787	5114.7	6.1

SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
2,4-DCPAA	100.00	0	933	803	725	684	652	636	611	720.5	15.7

11/02/12

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: QJ30002B 10/30/12 14:21
LFID & Datetime: QJ30003B 10/30/12 14:41
LFID & Datetime: QJ30004B 10/30/12 15:01
LFID & Datetime: QJ30005B 10/30/12 15:21
LFID & Datetime: QJ30006B 10/30/12 15:41
LFID & Datetime: QJ30007B 10/30/12 16:02
LFID & Datetime: QJ30008B 10/30/12 16:22
LFID & Datetime: QJ30009B 10/30/12 16:42
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA)/UNIT 1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
Dalapon	10.00	0	1407	1328	1294	1240	1243	1311	1308	1304.2	4.3
3,5-Dichlorobenzo	10.00	0	1929	1757	1666	1612	1559	1531	1476	1647.3	9.4
4-Nitrophenol	10.00	0	1125	956	900	851	819	788	752	884.3	14.3
Dicamba	10.00	0	3638	3355	3325	3283	3226	3212	3159	3313.9	4.8
MCPP	500.00	0	0	5	6	5	5	5	6	5.4	4.2
MCPA	500.00	0	0	13	12	10	10	9	9	10.5	13.7
Dichloroprop	10.00	0	1587	1382	1285	1225	1177	1153	1117	1275.0	12.8
2,4-D	10.00	0	1722	1535	1462	1420	1373	1349	1300	1451.6	9.8
Pentachlorophenol	10.00	11146	13426	12254	12194	12026	11780	11702	11382	11988.8	5.8
2,4,5-TP(Silvex)	10.00	0	5375	4924	4938	4927	4860	4851	4749	4946.3	4.0
Chloramben	10.00	0	4992	4695	4801	5128	5144	5163	5057	4997.1	3.7
2,4,5-T	10.00	0	4317	3923	3974	3658	3556	3528	3441	3771.0	8.3
2,4-DB	10.00	0	830	820	770	759	781	734	709	771.7	5.6
Dinoseb	10.00	0	3822	3523	3387	3446	3355	3343	3268	3449.0	5.3
Bentazon	10.00	0	871	755	709	667	653	649	632	705.1	12.0
Dacthal	10.00	0	5222	4813	4764	4554	4460	4405	4342	4651.5	6.6
Picloram	10.00	0	7276	7015	7436	7872	7911	7992	7862	7623.5	5.0
Acifluorfen	10.00	0	4287	3920	4013	4021	4022	4010	3963	4033.7	2.9
SURROGATE	**X**	**1.00X**	**2.00X**	**4.00X**	**7.00X**	**10.00X**	**13.00X**	**16.00X**	**20.00X**	**MEAN**	**%RSD**
2,4-DCPAA	100.00	0	1079	907	841	802	770	753	726	839.8	14.5

JM 11/02/12

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
LFID & Datetime: QJ30002A 10/30/12 14:21
LFID & Datetime: QJ30003A 10/30/12 14:41
LFID & Datetime: QJ30004A 10/30/12 15:01
LFID & Datetime: QJ30005A 10/30/12 15:21
LFID & Datetime: QJ30006A 10/30/12 15:41
LFID & Datetime: QJ30007A 10/30/12 16:02
LFID & Datetime: QJ30008A 10/30/12 16:22
LFID & Datetime: QJ30009A 10/30/12 16:42

COMPOUND	RT OF STANDARDS (MIN) 1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	MEAN RT	RT WINDOW FROM	TO	RTWINDOW WIDTH
Dalapon	2.793	2.790	2.790	2.787	2.787	2.787	2.787	2.787	2.788	2.774	2.802	0.014
3,5-Dichlorobenzo	6.223	6.220	6.220	6.217	6.217	6.217	6.217	6.217	6.218	6.204	6.232	0.014
4-Nitrophenol	6.837	6.830	6.830	6.827	6.827	6.823	6.823	6.823	6.826	6.812	6.840	0.014
Dicamba	7.253	7.247	7.247	7.247	7.243	7.243	7.243	7.243	7.245	7.231	7.259	0.014
MCPP	0.000	7.447	7.447	7.443	7.443	7.443	7.440	7.440	7.443	7.429	7.457	0.014
MCPA	7.600	7.590	7.590	7.587	7.583	7.583	7.583	7.583	7.585	7.569	7.601	0.016
Dichloroprop	7.937	7.933	7.930	7.930	7.930	7.927	7.927	7.927	7.929	7.915	7.943	0.014
2,4-D	8.140	8.133	8.133	8.130	8.130	8.130	8.127	8.127	8.130	8.114	8.146	0.016
Pentachlorophenol	8.350	8.343	8.343	8.340	8.340	8.340	8.340	8.340	8.342	8.326	8.358	0.016
2,4,5-TP(Silvex)	8.830	8.827	8.823	8.823	8.823	8.820	8.820	8.820	8.822	8.806	8.838	0.016
Chloramben	8.953	8.950	8.950	8.947	8.943	8.943	8.943	8.943	8.946	8.930	8.962	0.016
2,4,5-T	9.040	9.037	9.037	9.033	9.033	9.033	9.033	9.030	9.034	9.018	9.050	0.016
2,4-DB	9.437	9.437	9.437	9.433	9.430	9.430	9.430	9.430	9.432	9.416	9.448	0.016
Bentazon/Picloram	10.060	10.060	10.057	10.053	10.053	10.053	10.053	10.050	10.055	10.041	10.069	0.014
Dinoseb	10.167	10.163	10.163	10.160	10.160	10.160	10.160	10.160	10.161	10.145	10.177	0.016
Dacthal	10.337	10.333	10.333	10.330	10.330	10.333	10.330	10.330	10.331	10.315	10.347	0.016
Acifluorfen	11.783	11.780	11.780	11.777	11.777	11.777	11.777	11.777	11.778	11.764	11.792	0.014

SURROGATE	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
2,4-DCPAA	7.070	7.063	7.060	7.057	7.057	7.057	7.057	7.057	7.058	7.042	7.074	0.016

11/02/12

5082

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: QJ30002B 10/30/12 14:21
LFID & Datetime: QJ30003B 10/30/12 14:41
LFID & Datetime: QJ30004B 10/30/12 15:01
LFID & Datetime: QJ30005B 10/30/12 15:21
LFID & Datetime: QJ30006B 10/30/12 15:41
LFID & Datetime: QJ30007B 10/30/12 16:02
LFID & Datetime: QJ30008B 10/30/12 16:22
LFID & Datetime: QJ30009B 10/30/12 16:42

COMPOUND	RT OF STANDARDS (MIN) 1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	MEAN RT	RT WINDOW FROM	TO	RTWINDOW WIDTH
Dalapon	2.783	2.787	2.787	2.783	2.783	2.783	2.783	2.783	2.784	2.768	2.800	0.016
3,5-Dichlorobenzo	6.387	6.390	6.387	6.387	6.387	6.387	6.387	6.383	6.387	6.371	6.403	0.016
4-Nitrophenol	6.967	6.970	6.967	6.967	6.963	6.963	6.963	6.963	6.965	6.949	6.981	0.016
Dicamba	7.630	7.630	7.630	7.627	7.627	7.627	7.627	7.627	7.628	7.612	7.644	0.016
MCPP	0.000	7.740	7.740	7.737	7.737	7.737	7.737	7.733	7.737	7.721	7.753	0.016
MCPA	0.000	7.963	7.960	7.960	7.957	7.957	7.957	7.957	7.958	7.942	7.974	0.016
Dichloroprop	8.263	8.263	8.263	8.263	8.260	8.260	8.260	8.260	8.261	8.247	8.275	0.014
2,4-D	8.530	8.530	8.530	8.527	8.527	8.527	8.527	8.527	8.528	8.514	8.542	0.014
Pentachlorophenol	8.873	8.877	8.873	8.873	8.873	8.873	8.873	8.873	8.874	8.860	8.888	0.014
2,4,5-TP(Silvex)	9.167	9.167	9.167	9.163	9.163	9.163	9.163	9.163	9.164	9.150	9.178	0.014
Chloramben	9.487	9.487	9.487	9.483	9.483	9.483	9.483	9.483	9.484	9.454	9.514	0.030
2,4,5-T	9.443	9.447	9.447	9.443	9.443	9.443	9.443	9.443	9.444	9.428	9.460	0.016
2,4-DB	9.813	9.797	9.797	9.793	9.793	9.793	9.793	9.793	9.794	9.770	9.818	0.024
Dinoseb	10.010	10.010	10.010	10.010	10.010	10.010	10.010	10.010	10.010	9.994	10.026	0.016
Bentazon	10.360	10.367	10.367	10.363	10.367	10.367	10.367	10.367	10.366	10.350	10.382	0.016
Dacthal	10.587	10.587	10.587	10.583	10.587	10.587	10.587	10.587	10.586	10.570	10.602	0.016
Picloram	10.630	10.633	10.630	10.627	10.627	10.627	10.627	10.627	10.628	10.604	10.652	0.024
Acifluorfen	11.790	11.790	11.790	11.787	11.790	11.790	11.790	11.790	11.790	11.776	11.804	0.014
SURROGATE	**1.0X**	**2.0X**	**4.0X**	**7.0X**	**10.0X**	**13.0X**	**16.0X**	**20.0X**	**RT**	**FROM**	**TO**	**WIDTH**
2,4-DCPAA	7.450	7.450	7.447	7.447	7.447	7.447	7.447	7.443	7.447	7.431	7.463	0.016

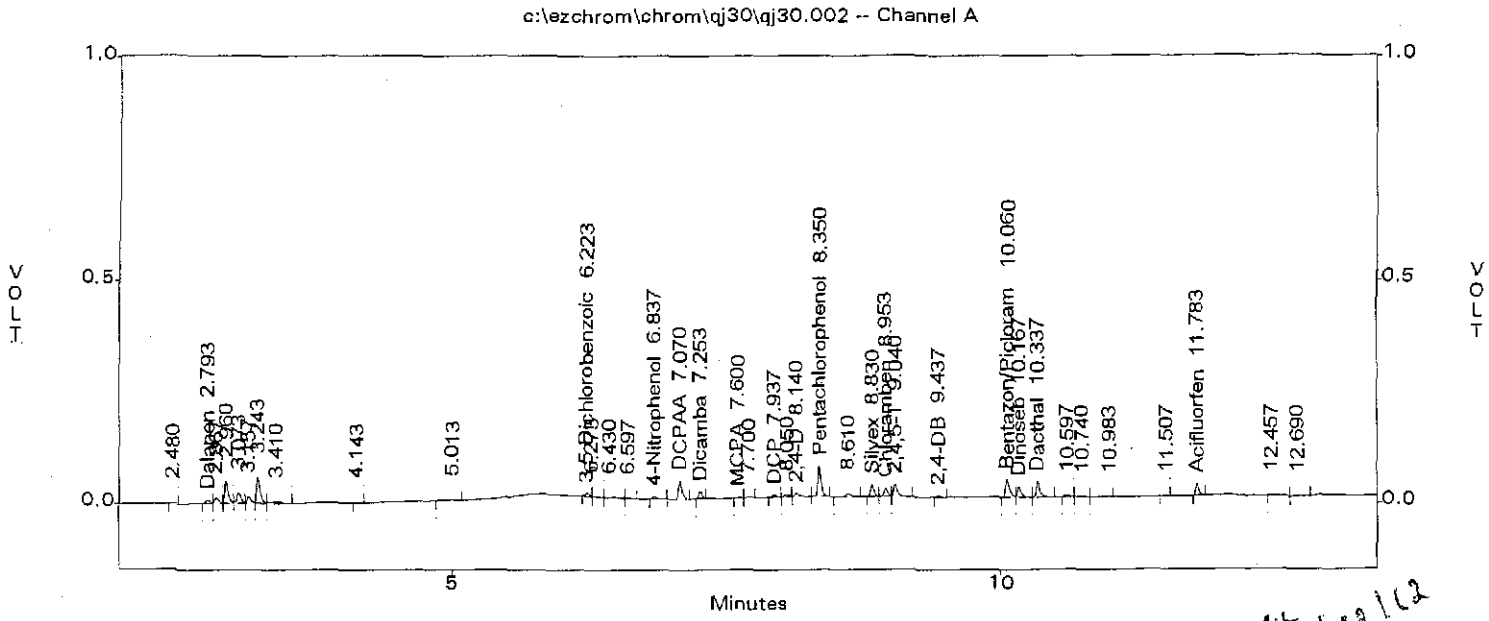
JWL 11/02/12

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.002
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3001
Acquired : Oct 30, 2012 14:21:31
Printed : Oct 31, 2012 09:27:33
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.793	19494.0	1709.22	-1.00	BV
3,5 Dichlorobenzo	6.223	19524.0	1507.56	-1.00	Bx
4-Nitrophenol	6.837	11506.0	1051.91	-1.00	BV
DCPAA	7.070	92342.0	720.54	-1.00	VV
Dicamba	7.253	32488.0	3371.46	-1.00	VV
MCPP	7.447	0.0	0.00	0.00	--
MCPA	7.600	5353.0	8.27	-1.00	BV
DCP	7.937	13857.0	1182.11	-1.00	BV
2,4-D	8.140	23163.0	1492.49	-1.00	VV
Pentachlorophenol	8.350	138397.0	12861.50	10.00	VV
Silvex	8.830	52990.0	5293.29	-1.00	BV
Chloramben	8.953	39232.0	4064.33	-1.00	VV
2,4,5-T	9.040	56557.0	5662.12	-1.00	VB
2,4-DB	9.437	7309.0	746.33	-1.00	BV
Bentazon/Picloram	10.060	94563.0	4112.69	20.00	BV
Dinoseb	10.167	51336.0	4484.44	-1.00	VV
Dacthal	10.337	71698.0	6368.69	-1.00	VB
Acifluorfen	11.783	51666.0	5114.74	-1.00	BV



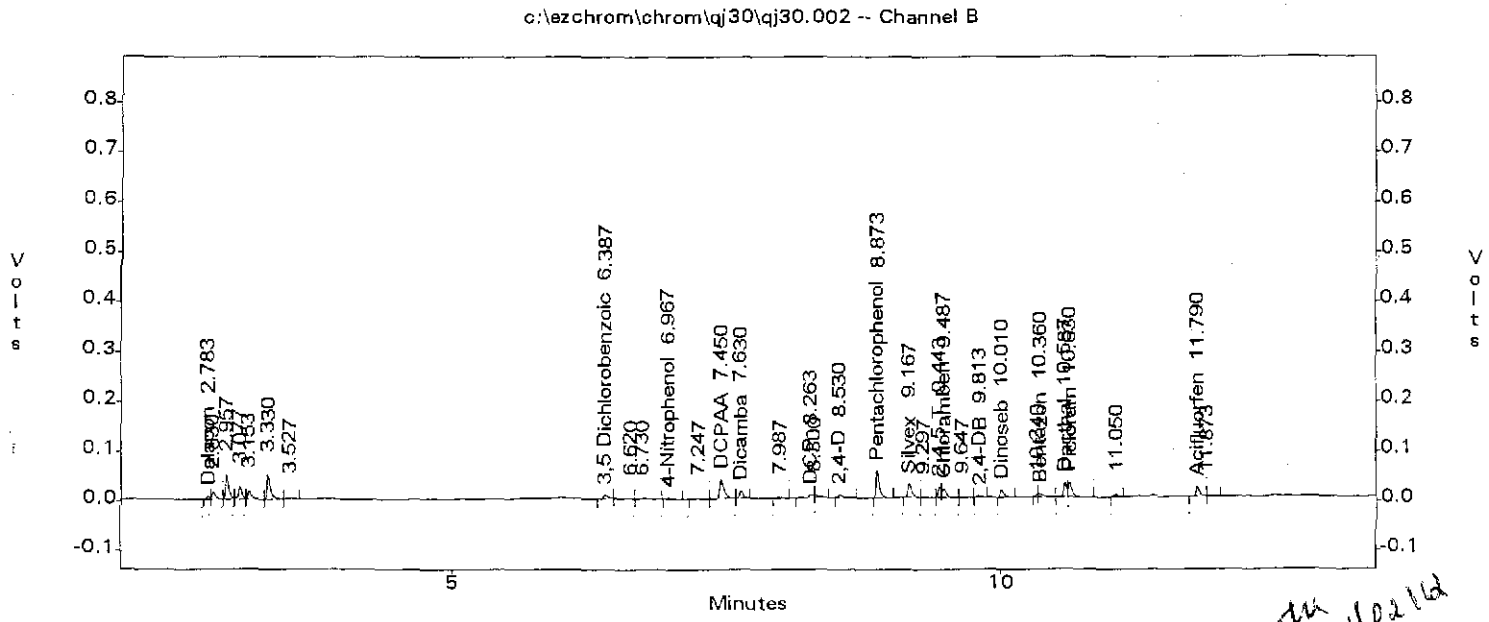
11/02/12

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.002
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3001
Acquired : Oct 30, 2012 14:21:31
Printed : Oct 31, 2012 09:27:33
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	12297.0	1304.23	-1.00	xx
3,5 Dichlorobenzoic	6.387	19388.0	1647.29	-1.00	BV
4-Nitrophenol	6.967	10528.0	884.30	-1.00	VV
DCPAA	7.450	101539.0	839.77	-1.00	SV
Dicamba	7.630	31621.0	3313.89	-1.00	VV
MCPP	7.740	0.0	0.00	0.00	--
MCPA	7.960	0.0	0.00	0.00	--
DCP	8.263	16055.0	1274.98	-1.00	Sx
2,4-D	8.530	16121.0	1451.63	-1.00	xS
Pentachlorophenol	8.873	111458.0	11988.79	10.00	BV
Silvex	9.167	68196.0	4946.26	-1.00	SS
2,4,5-T	9.443	37931.0	3771.03	-1.00	xx
Chloramben	9.487	44811.0	4997.10	-1.00	xV
2,4-DB	9.813	8580.0	771.68	-1.00	VS
Dinoseb	10.010	34253.0	3449.00	-1.00	SV
Bentazon	10.360	19615.0	705.05	-1.00	xV
Dacthal	10.587	50745.0	4651.52	-1.00	Vx
Picloram	10.630	65651.0	7623.47	-1.00	xB
Acifluorfen	11.790	40770.0	4033.72	-1.00	BS



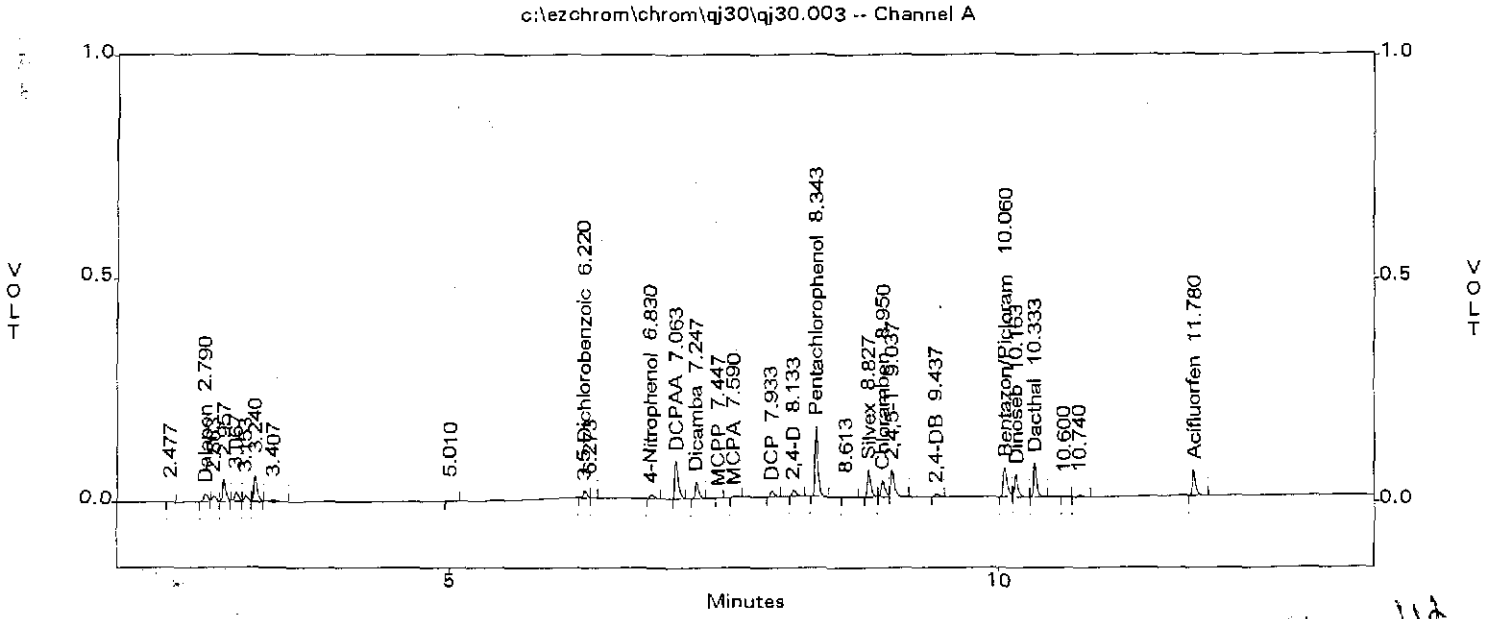
11/02/12

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.003
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3002
Acquired : Oct 30, 2012 14:41:30
Printed : Oct 31, 2012 09:27:39
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	42008.0	1709.22	20.00	BV
3,5 Dichlorobenzo	6.220	36980.0	1507.56	20.00	Bx
4-Nitrophenol	6.830	25236.0	1051.91	20.00	BI
DCPAA	7.063	186541.0	720.54	200.00	BI
Dicamba	7.247	79096.0	3371.46	20.00	BV
MCPP	7.447	3784.0	4.57	-1.00	BV
MCPA	7.590	11178.0	8.27	-1.00	xV
DCP	7.933	28457.0	1182.11	20.00	BV
2,4-D	8.133	33412.0	1492.49	20.00	xI
Pentachlorophenol	8.343	306192.0	12861.50	20.00	BI
Silvex	8.827	119387.0	5293.29	20.00	BV
Chloramben	8.950	82410.0	4064.33	20.00	VV
2,4,5-T	9.037	132784.0	5662.12	20.00	VI
2,4-DB	9.437	16612.0	746.33	20.00	Bx
Bentazon/Picloram	10.060	173336.0	4112.69	40.00	BV
Dinoseb	10.163	110643.0	4484.44	20.00	VV
Dacthal	10.333	147490.0	6368.69	20.00	vv
Acifluorfen	11.780	115187.0	5114.74	20.00	BI



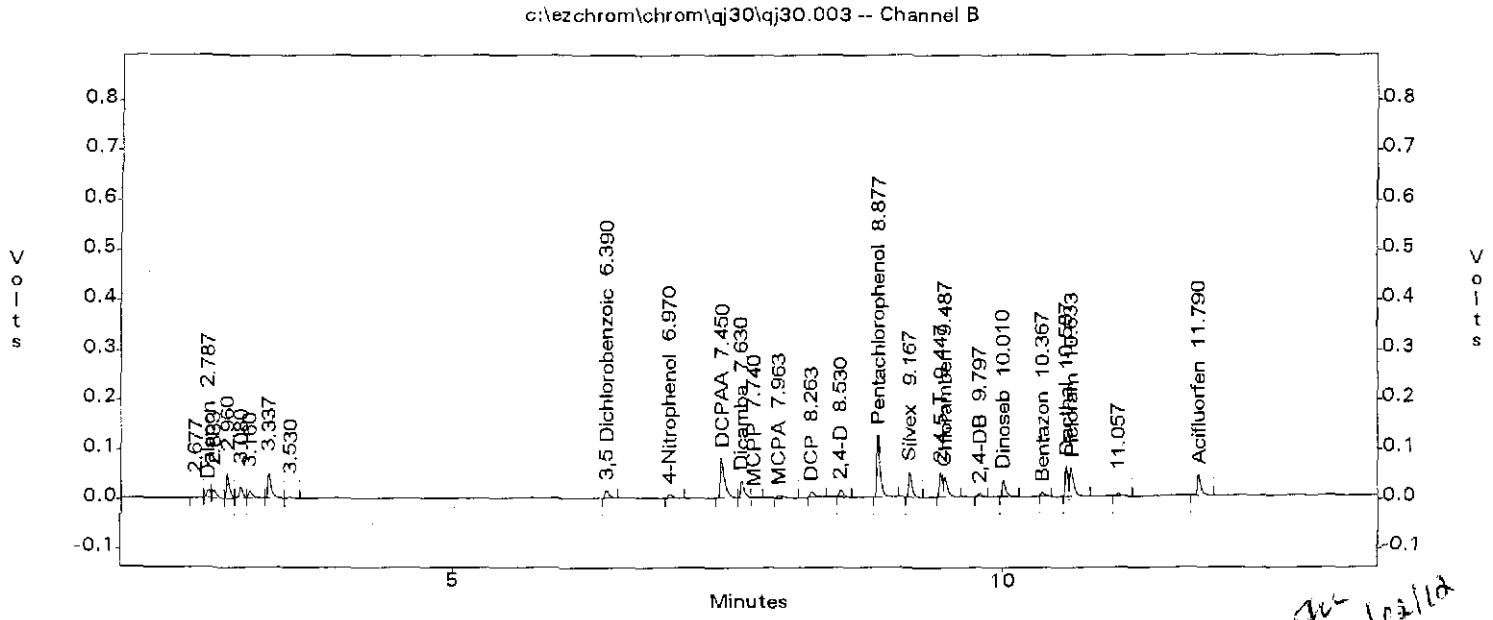
11/02/12

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.003
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3002
Acquired : Oct 30, 2012 14:41:30
Printed : Oct 31, 2012 09:27:39
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	28146.0	1304.23	20.00	xx
3,5 Dichlorobenzoic	6.390	38588.0	1647.29	20.00	BI
4-Nitrophenol	6.970	22501.0	884.30	20.00	BI
DCPAA	7.450	215830.0	839.77	200.00	BV
Dicamba	7.630	72757.0	3313.89	20.00	VS
MCPP	7.740	3396.0	5.44	-1.00	SI
MCPA	7.963	17375.0	10.48	-1.00	SV
DCP	8.263	31730.0	1274.98	20.00	BI
2,4-D	8.530	34430.0	1451.63	20.00	BI
Pentachlorophenol	8.877	268520.0	11988.79	20.00	SI
Silvex	9.167	107504.0	4946.26	20.00	BI
2,4,5-T	9.447	86345.0	3771.03	20.00	xx
Chloramben	9.487	99843.0	4997.10	20.00	xS
2,4-DB	9.797	16599.0	771.68	20.00	Bx
Dinoseb	10.010	76438.0	3449.00	20.00	vv
Bentazon	10.367	17429.0	705.05	20.00	xI
Dacthal	10.587	104439.0	4651.52	20.00	xx
Picloram	10.633	145524.0	7623.47	20.00	xS
Acifluorfen	11.790	85736.0	4033.72	20.00	BI



7cc 11/01/12

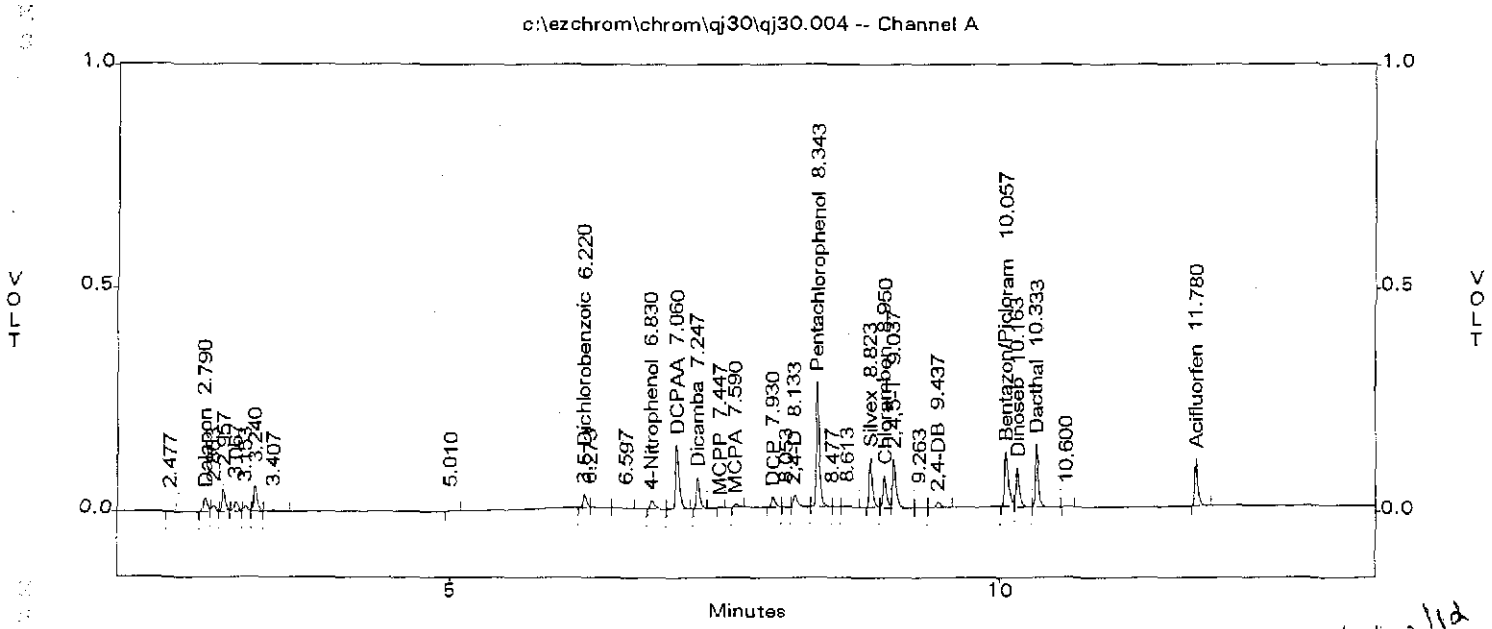
5037

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.004
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3003
Acquired : Oct 30, 2012 15:01:32
Printed : Oct 31, 2012 09:27:44
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	71936.0	1709.22	40.00	BV
3,5 Dichlorobenzo	6.220	65096.0	1507.56	40.00	Bx
4-Nitrophenol	6.830	45411.0	1051.91	40.00	BV
DCPAA	7.060	321280.0	720.54	400.00	VV
Dicamba	7.247	138815.0	3371.46	40.00	VV
MCPP	7.447	8179.0	4.57	2000.00	BV
MCPA	7.590	18961.0	8.27	2000.00	xV
DCP	7.930	51422.0	1182.11	40.00	BV
2,4-D	8.133	69308.0	1492.49	40.00	xV
Pentachlorophenol	8.343	542134.0	12861.50	40.00	Vx
Silvex	8.823	217661.0	5293.29	40.00	BV
Chloramben	8.950	157144.0	4064.33	40.00	VV
2,4,5-T	9.037	239739.0	5662.12	40.00	VV
2,4-DB	9.437	30786.0	746.33	40.00	VI
Bentazon/Picloram	10.057	320141.0	4112.69	80.00	BV
Dinoseb	10.163	192657.0	4484.44	40.00	VV
Dacthal	10.333	267073.0	6368.69	40.00	VV
Acifluorfen	11.780	205510.0	5114.74	40.00	BV



7u 11/02/12

5038

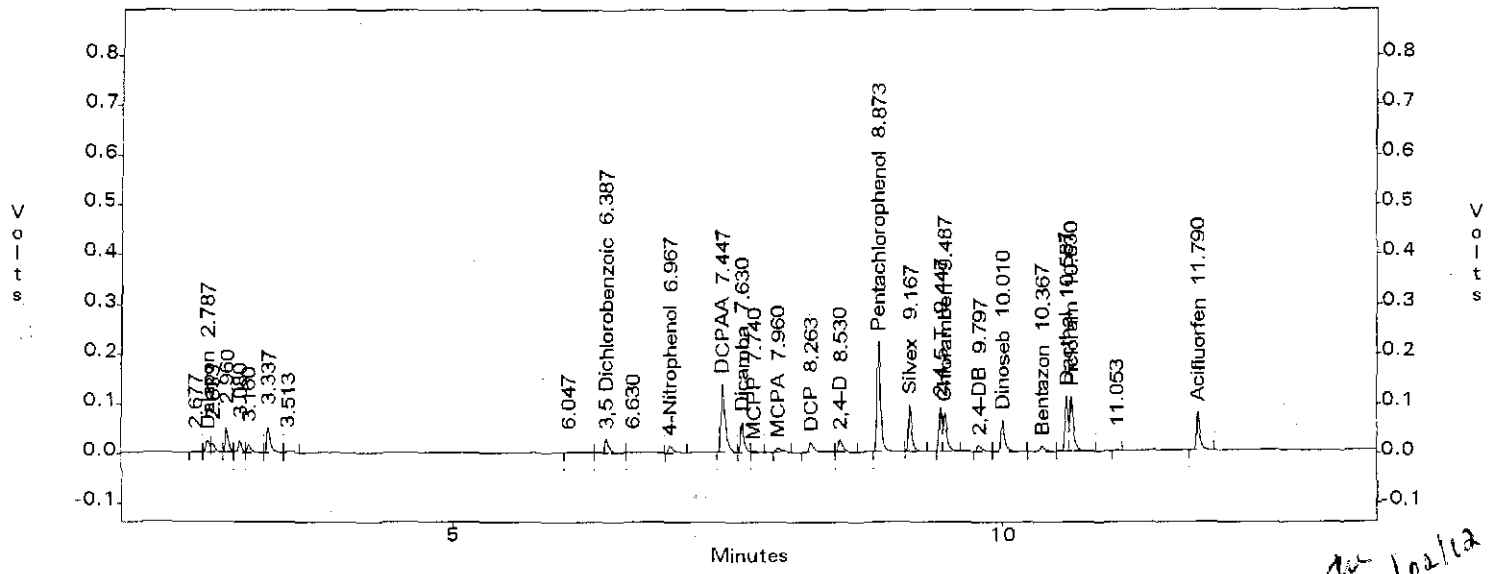
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.004
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3003
Acquired : Oct 30, 2012 15:01:32
Printed : Oct 31, 2012 09:27:44
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	53109.0	1304.23	40.00	xx
3,5 Dichlorobenzoic	6.387	70278.0	1647.29	40.00	VV
4-Nitrophenol	6.967	38227.0	884.30	40.00	VV
DCPAA	7.447	362697.0	839.77	400.00	SV
Dicamba	7.630	134187.0	3313.89	40.00	VS
MCPP	7.740	10560.0	5.44	2000.00	Sx
MCPA	7.960	25511.0	10.48	2000.00	SI
DCP	8.263	55271.0	1274.98	40.00	BV
2,4-D	8.530	61390.0	1451.63	40.00	VV
Pentachlorophenol	8.873	490157.0	11988.79	40.00	SV
Silvex	9.167	196944.0	4946.26	40.00	VS
2,4,5-T	9.447	156923.0	3771.03	40.00	xx
Chloramben	9.487	187806.0	4997.10	40.00	xS
2,4-DB	9.797	32802.0	771.68	40.00	BV
Dinoseb	10.010	140903.0	3449.00	40.00	VV
Bentazon	10.367	30212.0	705.05	40.00	VV
Dacthal	10.587	192512.0	4651.52	40.00	Vx
Picloram	10.630	280589.0	7623.47	40.00	xV
Acifluorfen	11.790	156819.0	4033.72	40.00	BS

c:\ezchrom\chrom\qj30\qj30.004 -- Channel B



11/02/12

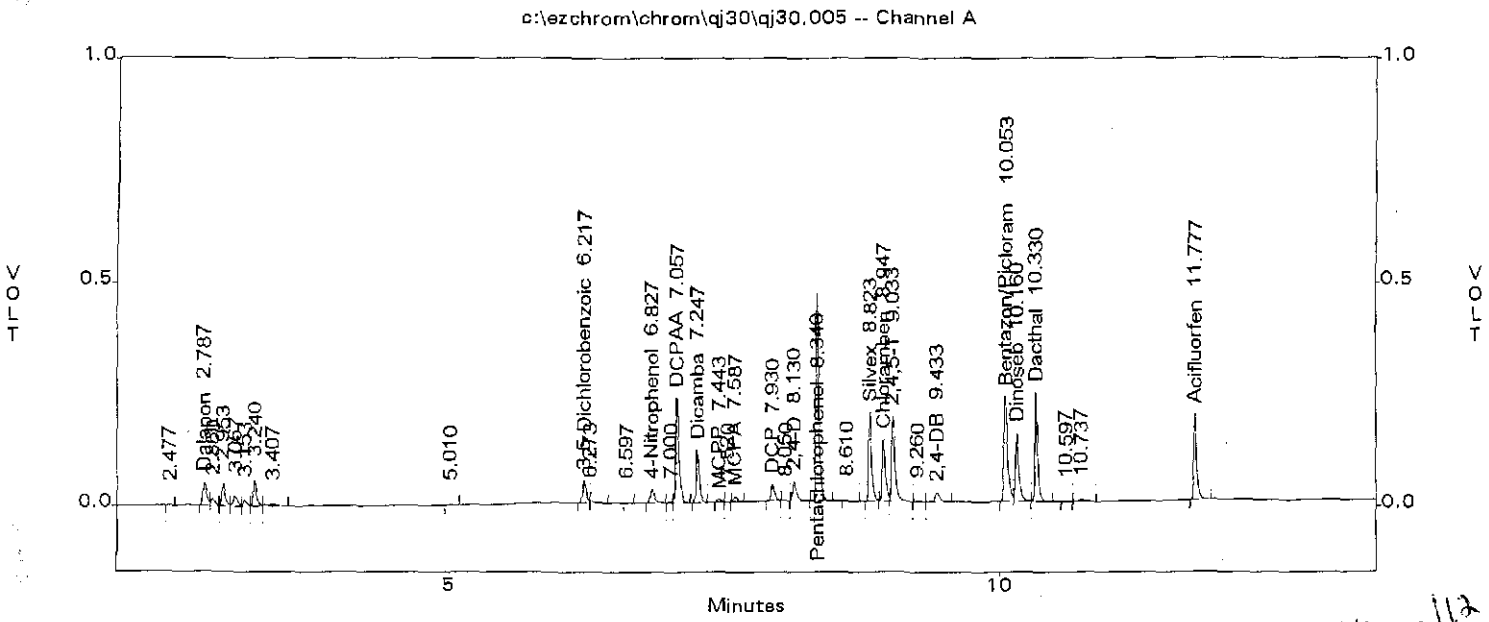
5035

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.005
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3004
Acquired : Oct 30, 2012 15:21:39
Printed : Oct 31, 2012 09:27:49
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	120776.0	1709.22	70.00	BV
3,5 Dichlorobenzo	6.217	107099.0	1507.56	70.00	Bx
4-Nitrophenol	6.827	75353.0	1051.91	70.00	BV
DCPAA	7.057	507212.0	720.54	700.00	SV
Dicamba	7.247	237524.0	3371.46	70.00	VV
MCPP	7.443	15906.0	4.57	3500.00	BV
MCPA	7.587	30370.0	8.27	3500.00	xV
DCP	7.930	84094.0	1182.11	70.00	BV
2,4-D	8.130	106570.0	1492.49	70.00	xV
Pentachlorophenol	8.340	897006.0	12861.50	70.00	Vx
Silvex	8.823	375007.0	5293.29	70.00	BV
Chloramben	8.947	285627.0	4064.33	70.00	VV
2,4,5-T	9.033	403833.0	5662.12	70.00	VV
2,4-DB	9.433	53091.0	746.33	70.00	VI
Bentazon/Picloram	10.053	568817.0	4112.69	140.00	BV
Dinoseb	10.160	319387.0	4484.44	70.00	VV
Dacthal	10.330	434347.0	6368.69	70.00	VB
Acifluorfen	11.777	362435.0	5114.74	70.00	BV



TV 11/02/12

5848

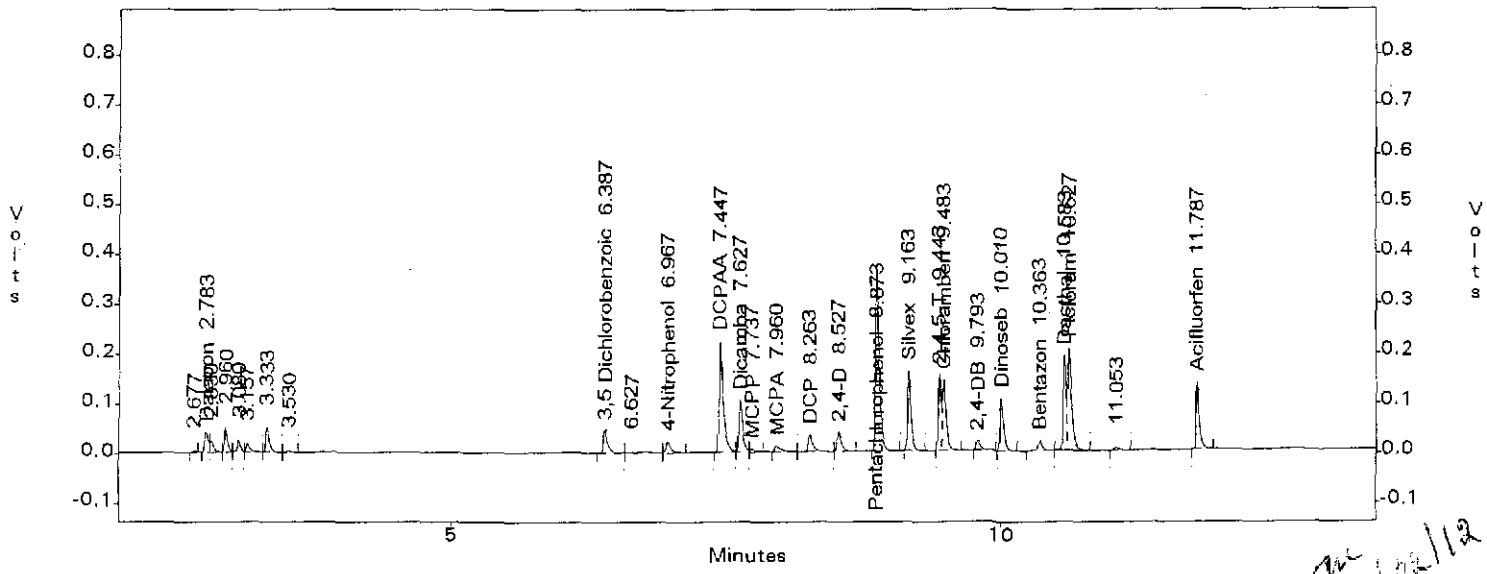
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.005
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3004
Acquired : Oct 30, 2012 15:21:39
Printed : Oct 31, 2012 09:27:50
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	90548.0	1304.23	70.00	xx
3,5 Dichlorobenzoic	6.387	116641.0	1647.29	70.00	BV
4-Nitrophenol	6.967	63008.0	884.30	70.00	VV
DCPAA	7.447	588999.0	839.77	700.00	SV
Dicamba	7.627	232716.0	3313.89	70.00	VS
MCPP	7.737	19726.0	5.44	3500.00	Sx
MCPA	7.960	40580.0	10.48	3500.00	SV
DCP	8.263	89956.0	1274.98	70.00	VV
2,4-D	8.527	102364.0	1451.63	70.00	VV
Pentachlorophenol	8.873	853588.0	11988.79	70.00	SV
Silvex	9.163	345635.0	4946.26	70.00	VS
2,4,5-T	9.443	278195.0	3771.03	70.00	xx
Chloramben	9.483	336035.0	4997.10	70.00	xS
2,4-DB	9.793	53892.0	771.68	70.00	BV
Dinoseb	10.010	237063.0	3449.00	70.00	SV
Bentazon	10.363	49597.0	705.05	70.00	VV
Dacthal	10.583	333504.0	4651.52	70.00	Vx
Picloram	10.627	520542.0	7623.47	70.00	xS
Acifluorfen	11.787	280896.0	4033.72	70.00	BS

c:\ezchrom\chrom\qj30\qj30.005 -- Channel B



11/02/12

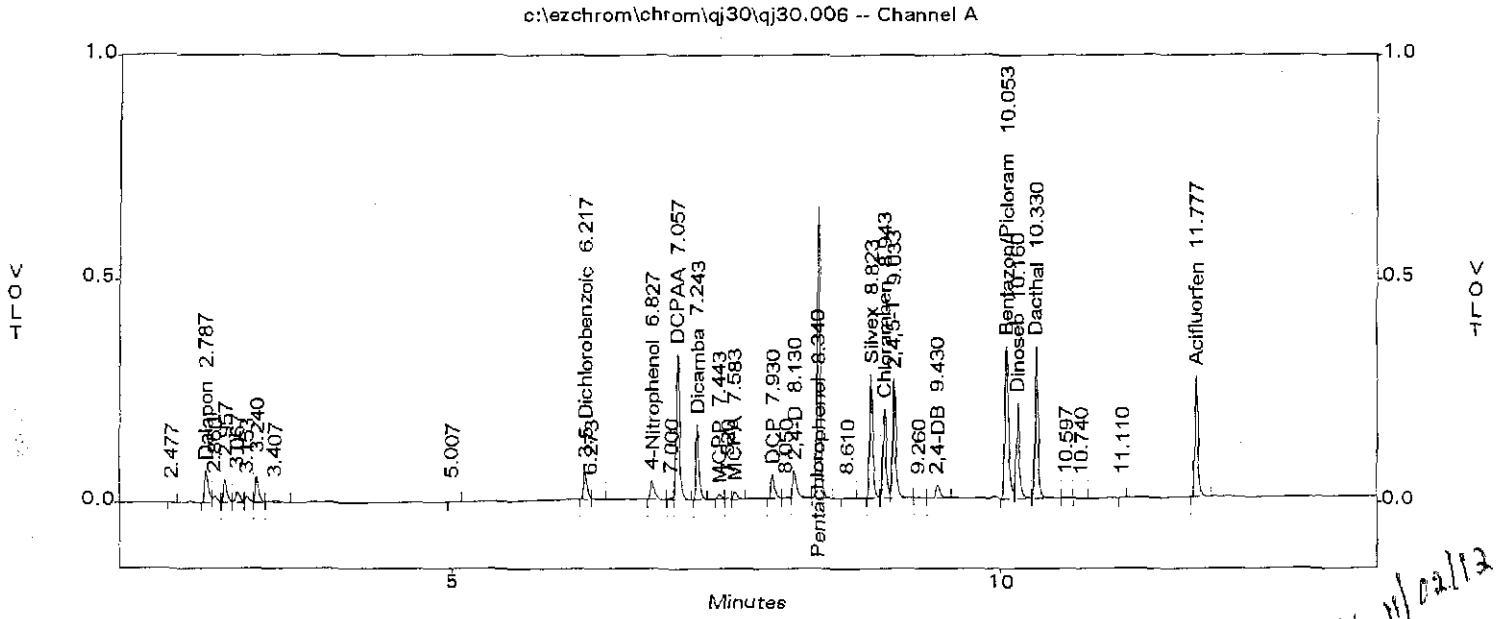
5011

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.006
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3005
Acquired : Oct 30, 2012 15:41:49
Printed : Oct 31, 2012 09:27:55
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	164957.0	1709.22	100.00	BS
3,5 Dichlorobenzo	6.217	146152.0	1507.56	100.00	Bx
4-Nitrophenol	6.827	103160.0	1051.91	100.00	BV
DCPAA	7.057	684156.0	720.54	1000.00	SV
Dicamba	7.243	330621.0	3371.46	100.00	VV
MCPP	7.443	23836.0	4.57	5000.00	BV
MCPA	7.583	41759.0	8.27	5000.00	xV
DCP	7.930	115207.0	1182.11	100.00	BV
2,4-D	8.130	147020.0	1492.49	100.00	xV
Pentachlorophenol	8.340	1243766.0	12861.50	100.00	Vx
Silvex	8.823	524981.0	5293.29	100.00	BV
Chloramben	8.943	412177.0	4064.33	100.00	VV
2,4,5-T	9.033	556952.0	5662.12	100.00	VV
2,4-DB	9.430	73863.0	746.33	100.00	VV
Bentazon/Picloram	10.053	807109.0	4112.69	200.00	BV
Dinoseb	10.160	435676.0	4484.44	100.00	VV
Dacthal	10.330	630355.0	6368.69	100.00	VV
Acifluorfen	11.777	504922.0	5114.74	100.00	BV



Tue 11/02/12

5042

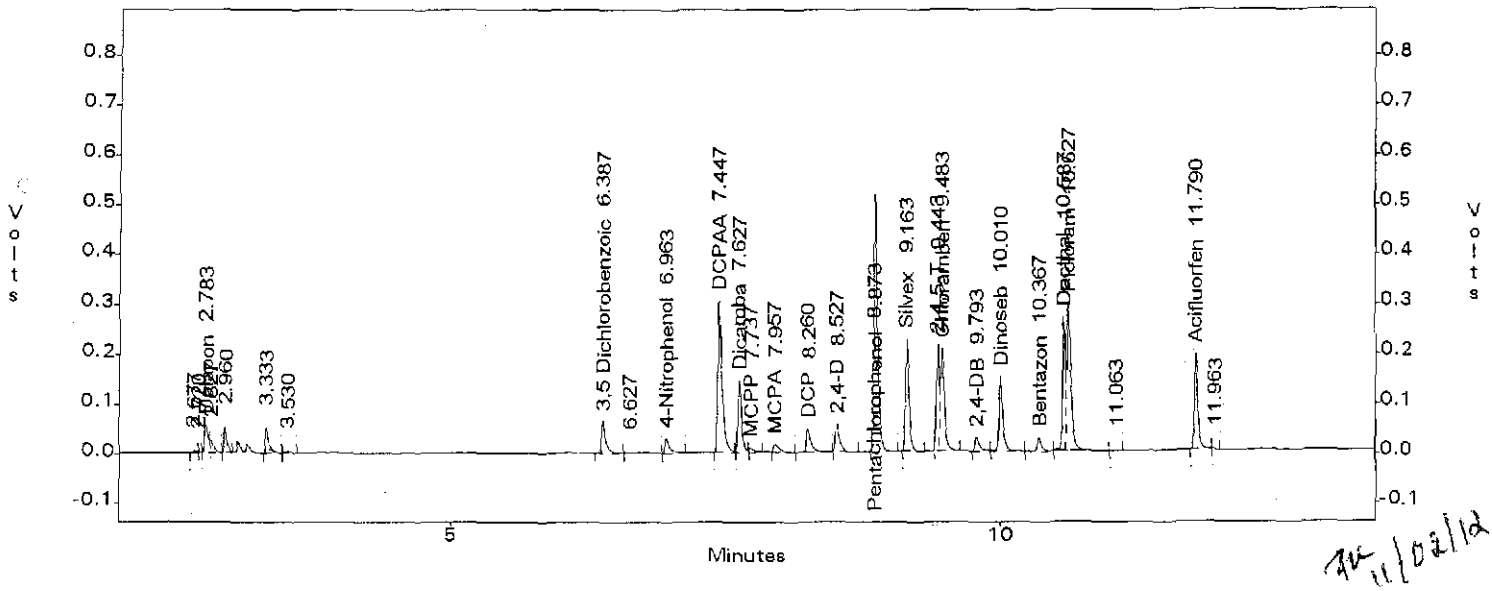
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.006
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3005
Acquired : Oct 30, 2012 15:41:49
Printed : Oct 31, 2012 09:27:56
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	123955.0	1304.23	100.00	xx
3,5 Dichlorobenzoic	6.387	161197.0	1647.29	100.00	BV
4-Nitrophenol	6.963	85120.0	884.30	100.00	VV
DCPAA	7.447	801839.0	839.77	1000.00	SV
Dicamba	7.627	328333.0	3313.89	100.00	VS
MCPP	7.737	26903.0	5.44	5000.00	Sx
MCPA	7.957	52178.0	10.48	5000.00	SV
DCP	8.260	122451.0	1274.98	100.00	VV
2,4-D	8.527	141988.0	1451.63	100.00	VB
Pentachlorophenol	8.873	1202639.0	11988.79	100.00	BV
Silvex	9.163	492672.0	4946.26	100.00	VS
2,4,5-T	9.443	365764.0	3771.03	100.00	xx
Chloramben	9.483	512773.0	4997.10	100.00	xS
2,4-DB	9.793	75908.0	771.68	100.00	BV
Dinoseb	10.010	344598.0	3449.00	100.00	VV
Bentazon	10.367	66651.0	705.05	100.00	VV
Dacthal	10.587	455435.0	4651.52	100.00	Vx
Picloram	10.627	787158.0	7623.47	100.00	xV
Acifluorfen	11.790	402054.0	4033.72	100.00	BS

c:\ezchrom\chrom\qj30\qj30.006 -- Channel B



11/02/12

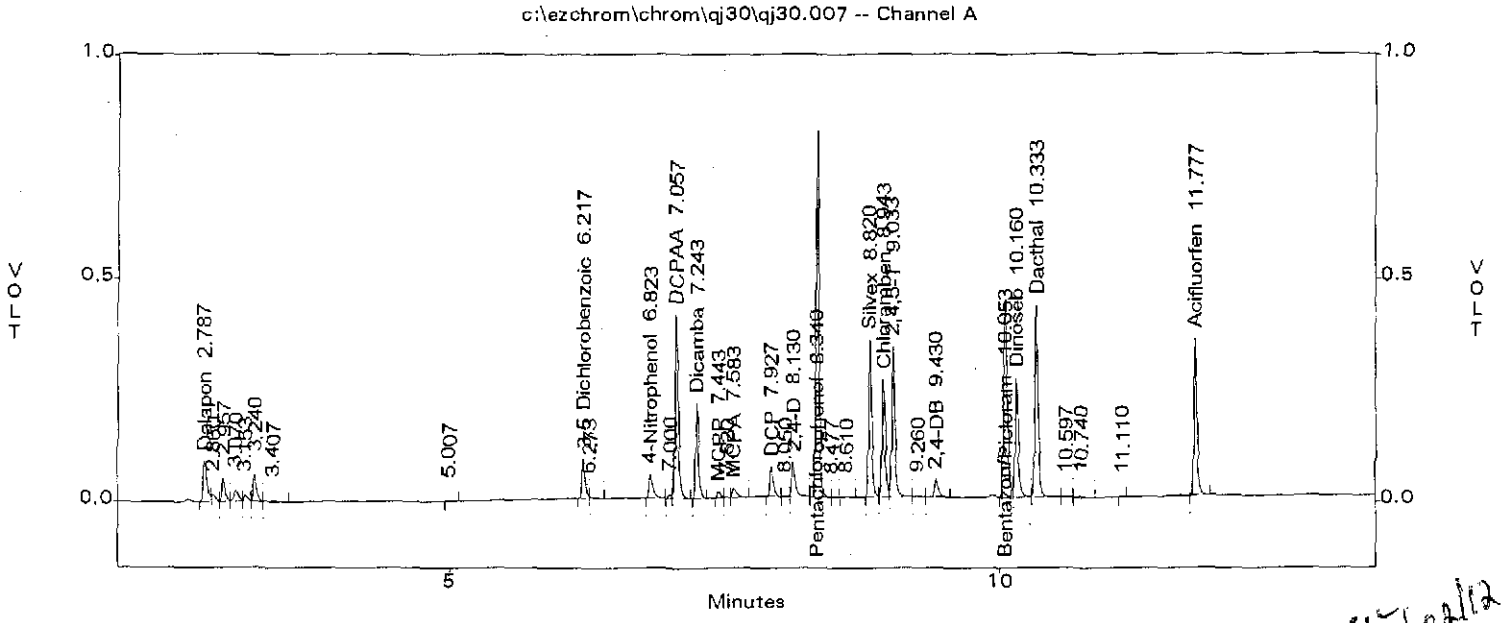
5243

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.007
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3006
Acquired : Oct 30, 2012 16:02:02
Printed : Oct 31, 2012 09:28:02
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	208464.0	1709.22	130.00	BS
3,5 Dichlorobenzo	6.217	182400.0	1507.56	130.00	Bx
4-Nitrophenol	6.823	128512.0	1051.91	130.00	BV
DCPAA	7.057	848032.0	720.54	1300.00	SV
Dicamba	7.243	418601.0	3371.46	130.00	VV
MCPP	7.443	31213.0	4.57	6500.00	BV
MCPA	7.583	53427.0	8.27	6500.00	xV
DCP	7.927	143584.0	1182.11	130.00	BV
2,4-D	8.130	181711.0	1492.49	130.00	xV
Pentachlorophenol	8.340	1565342.0	12861.50	130.00	Vx
Silvex	8.820	664603.0	5293.29	130.00	BV
Chloramben	8.943	531832.0	4064.33	130.00	VV
2,4,5-T	9.033	698031.0	5662.12	130.00	VV
2,4-DB	9.430	93694.0	746.33	130.00	VV
Bentazon/Picloram	10.053	1030714.0	4112.69	260.00	BV
Dinoseb	10.160	545061.0	4484.44	130.00	VV
Dacthal	10.333	797382.0	6368.69	130.00	VV
Acifluorfen	11.777	647398.0	5114.74	130.00	BV



11/02/12

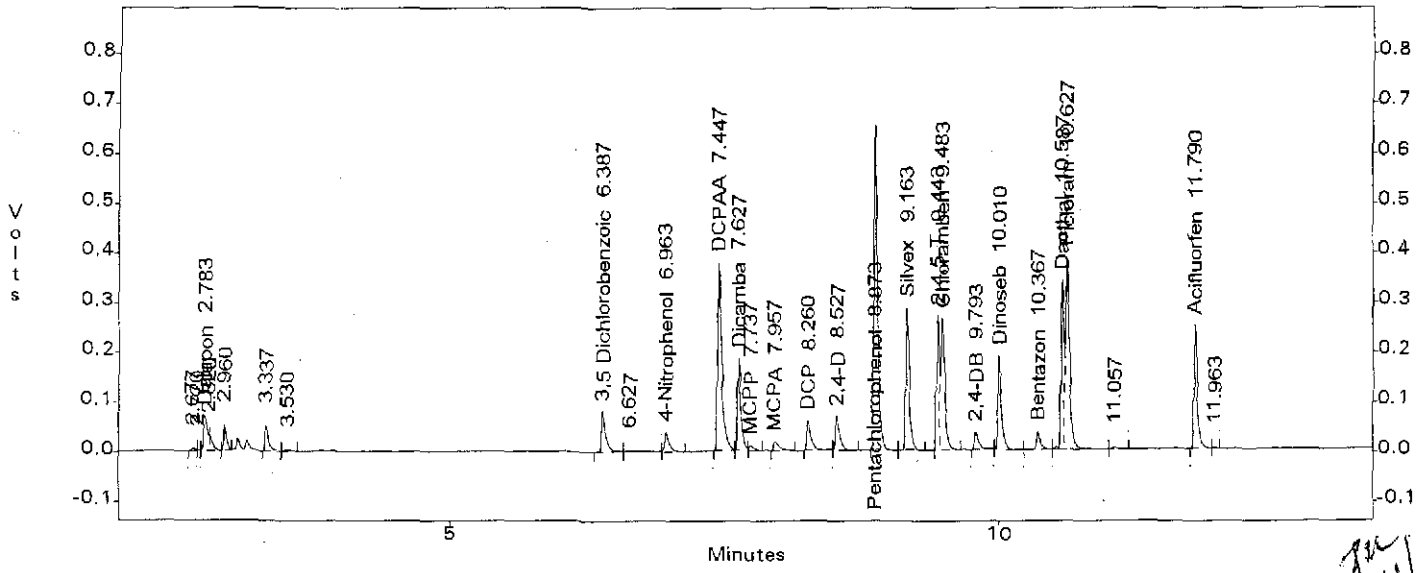
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.007
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3006
Acquired : Oct 30, 2012 16:02:02
Printed : Oct 31, 2012 09:28:02
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	161580.0	1304.23	130.00	xx
3,5 Dichlorobenzoic	6.387	202651.0	1647.29	130.00	BV
4-Nitrophenol	6.963	106437.0	884.30	130.00	VV
DCPAA	7.447	1001535.0	839.77	1300.00	SV
Dicamba	7.627	419337.0	3313.89	130.00	VS
MCPP	7.737	34156.0	5.44	6500.00	Sx
MCPA	7.957	62494.0	10.48	6500.00	SV
DCP	8.260	152956.0	1274.98	130.00	VV
2,4-D	8.527	178488.0	1451.63	130.00	VV
Pentachlorophenol	8.873	1531428.0	11988.79	130.00	SV
Silvex	9.163	631778.0	4946.26	130.00	VS
2,4,5-T	9.443	462279.0	3771.03	130.00	xx
Chloramben	9.483	668714.0	4997.10	130.00	xV
2,4-DB	9.793	101473.0	771.68	130.00	SV
Dinoseb	10.010	436123.0	3449.00	130.00	VV
Bentazon	10.367	84887.0	705.05	130.00	VV
Dacthal	10.587	579830.0	4651.52	130.00	Vx
Picloram	10.627	1028422.0	7623.47	130.00	xV
Acifluorfen	11.790	522821.0	4033.72	130.00	BS

c:\ezchrom\chrom\qj30\qj30.007 -- Channel B



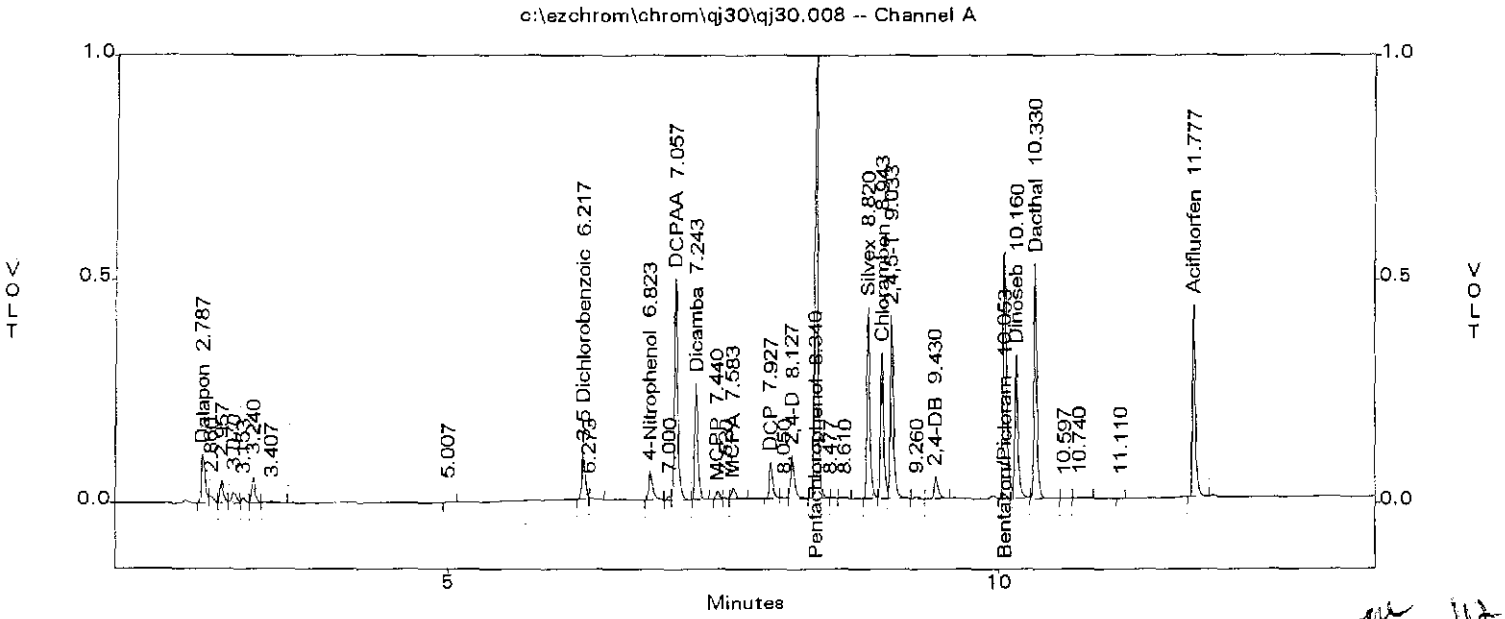
11/02/12

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.008
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3007
Acquired : Oct 30, 2012 16:22:16
Printed : Oct 31, 2012 09:28:08
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	251072.0	1709.22	160.00	BS
3,5 Dichlorobenzo	6.217	218258.0	1507.56	160.00	Bx
4-Nitrophenol	6.823	152991.0	1051.91	160.00	BV
DCPAA	7.057	1018051.0	720.54	1600.00	SV
Dicamba	7.243	508151.0	3371.46	160.00	VI
MCPP	7.440	38416.0	4.57	8000.00	BV
MCPA	7.583	62442.0	8.27	8000.00	xB
DCP	7.927	172235.0	1182.11	160.00	BV
2,4-D	8.127	217080.0	1492.49	160.00	xV
Pentachlorophenol	8.340	1893363.0	12861.50	160.00	Vx
Silvex	8.820	807466.0	5293.29	160.00	BV
Chloramben	8.943	655223.0	4064.33	160.00	VV
2,4,5-T	9.033	839989.0	5662.12	160.00	VV
2,4-DB	9.430	113964.0	746.33	160.00	VV
Bentazon/Picloram	10.053	1259693.0	4112.69	320.00	BV
Dinoseb	10.160	648306.0	4484.44	160.00	VV
Dacthal	10.330	967755.0	6368.69	160.00	VV
Acifluorfen	11.777	785999.0	5114.74	160.00	BV



11/02/12

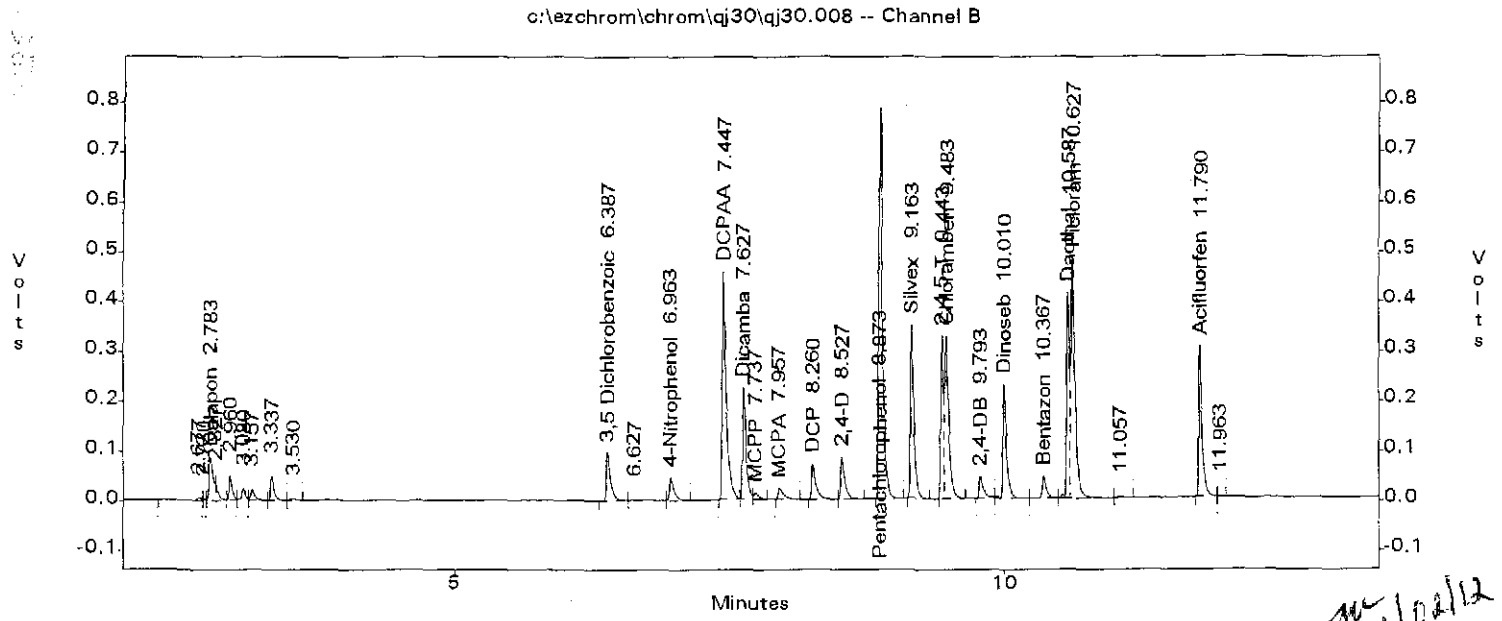
5646

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.008
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3007
Acquired : Oct 30, 2012 16:22:16
Printed : Oct 31, 2012 09:28:09
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	209763.0	1304.23	160.00	xx
3,5 Dichlorobenzoic	6.387	244981.0	1647.29	160.00	BV
4-Nitrophenol	6.963	126026.0	884.30	160.00	VV
DCPAA	7.447	1204712.0	839.77	1600.00	SV
Dicamba	7.627	513959.0	3313.89	160.00	VS
MCPP	7.737	42170.0	5.44	8000.00	Sx
MCPA	7.957	72576.0	10.48	8000.00	SV
DCP	8.260	184530.0	1274.98	160.00	VV
2,4-D	8.527	215913.0	1451.63	160.00	VB
Pentachlorophenol	8.873	1872331.0	11988.79	160.00	BV
Silvex	9.163	776218.0	4946.26	160.00	VS
2,4,5-T	9.443	564521.0	3771.03	160.00	xx
Chloramben	9.483	826110.0	4997.10	160.00	xV
2,4-DB	9.793	117363.0	771.68	160.00	SV
Dinoseb	10.010	534888.0	3449.00	160.00	VV
Bentazon	10.367	103829.0	705.05	160.00	VV
Dacthal	10.587	704749.0	4651.52	160.00	Vx
Picloram	10.627	1278779.0	7623.47	160.00	xV
Acifluorfen	11.790	641649.0	4033.72	160.00	BS



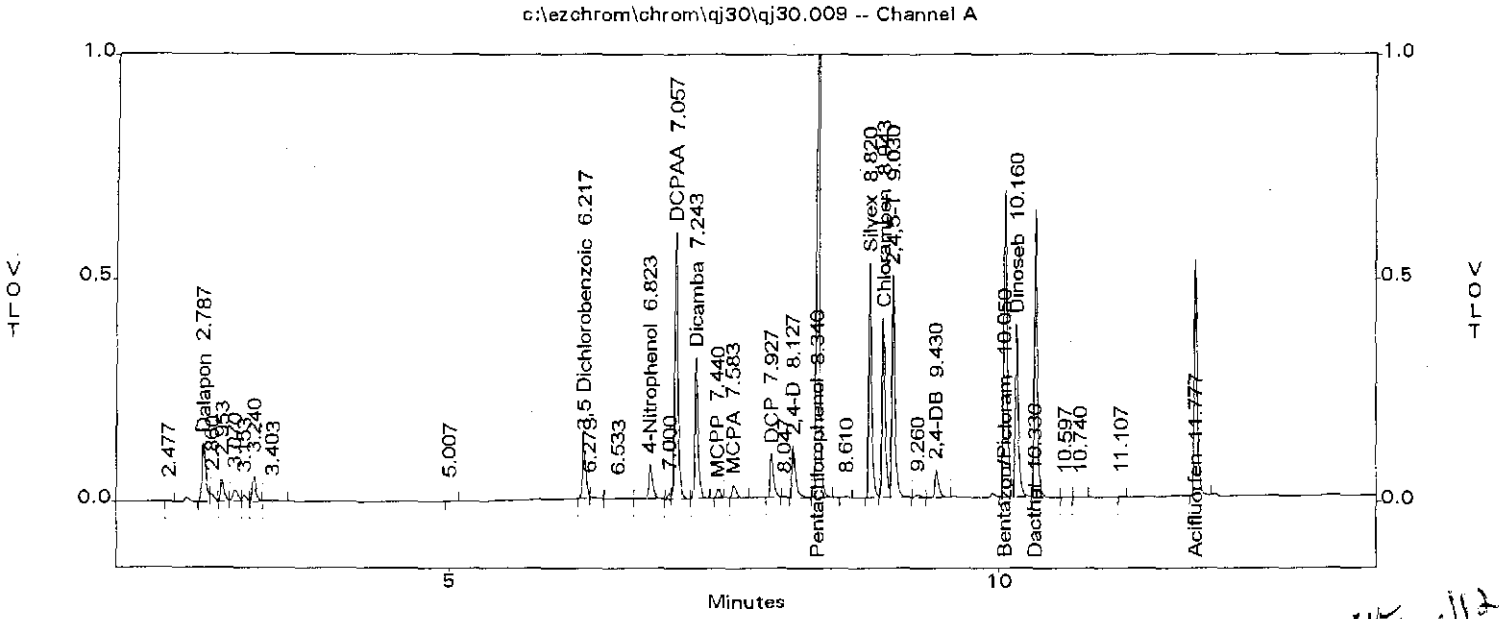
11/02/12

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.009
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3008
Acquired : Oct 30, 2012 16:42:27
Printed : Oct 31, 2012 09:28:15
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	303608.0	1709.22	200.00	BS
3,5 Dichlorobenzo	6.217	263558.0	1507.56	200.00	Bx
4-Nitrophenol	6.823	182698.0	1051.91	200.00	VV
DCPAA	7.057	1221098.0	720.54	2000.00	SV
Dicamba	7.243	615941.0	3371.46	200.00	VI
MCPP	7.440	44295.0	4.57	10000.00	BV
MCPA	7.583	70795.0	8.27	10000.00	xV
DCP	7.927	206406.0	1182.11	200.00	BV
2,4-D	8.127	259396.0	1492.49	200.00	xV
Pentachlorophenol	8.340	2212538.0	12861.50	200.00	Vx
Silvex	8.820	975224.0	5293.29	200.00	BV
Chloramben	8.943	802580.0	4064.33	200.00	VV
2,4,5-T	9.030	1008834.0	5662.12	200.00	VV
2,4-DB	9.430	138791.0	746.33	200.00	VV
Bentazon/Picloram	10.050	1535552.0	4112.69	400.00	BV
Dinoseb	10.160	775676.0	4484.44	200.00	VV
Dacthal	10.330	1167763.0	6368.69	200.00	VV
Acifluorfen	11.777	957348.0	5114.74	200.00	BV



TW 11/02/12

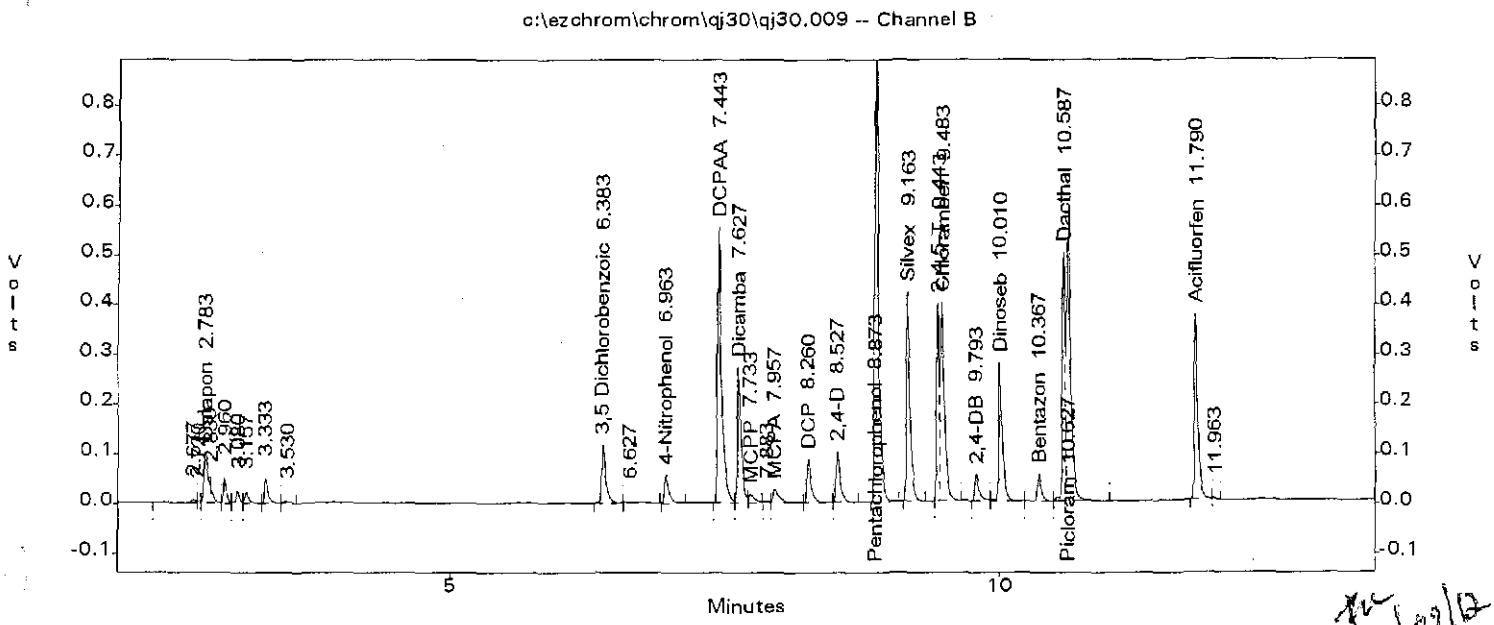
5048

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.009
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3008
Acquired : Oct 30, 2012 16:42:27
Printed : Oct 31, 2012 09:28:15
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	261515.0	1304.23	200.00	xx
3,5 Dichlorobenzoic	6.383	295290.0	1647.29	200.00	BV
4-Nitrophenol	6.963	150335.0	884.30	200.00	VV
DCPAA	7.443	1451691.0	839.77	2000.00	SV
Dicamba	7.627	631789.0	3313.89	200.00	VS
MCPP	7.733	57930.0	5.44	10000.00	Sx
MCPA	7.957	94335.0	10.48	10000.00	SV
DCP	8.260	223415.0	1274.98	200.00	VV
2,4-D	8.527	260094.0	1451.63	200.00	VS
Pentachlorophenol	8.873	2276364.0	11988.79	200.00	BV
Silvex	9.163	949893.0	4946.26	200.00	VS
2,4,5-T	9.443	688159.0	3771.03	200.00	xx
Chloramben	9.483	1011404.0	4997.10	200.00	xV
2,4-DB	9.793	141741.0	771.68	200.00	SV
Dinoseb	10.010	653616.0	3449.00	200.00	VV
Bentazon	10.367	126337.0	705.05	200.00	VV
Dacthal	10.587	868452.0	4651.52	200.00	Vx
Picloram	10.627	1572433.0	7623.47	200.00	xV
Acifluorfen	11.790	792677.0	4033.72	200.00	BS



11/02/12

SECOND SOURCE VERIFICATION

INITIAL CALIBRATION VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30010A 10/30/2012 17:02
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.787	2.773	2.801	100.0	1709.2	163796	95.83	-4		15
3,5-Dichlorobenzo	6.217	6.203	6.231	100.0	1507.6	138613	91.95	-8		15
4-Nitrophenol	6.823	6.809	6.837	100.0	1051.9	99244	94.35	-6		15
Dicamba	7.243	7.229	7.257	100.0	3371.5	314947	93.42	-7		15
Dichloroprop	7.927	7.913	7.941	100.0	1182.1	114858	97.16	-3		15
2,4-D	8.127	8.111	8.143	100.0	1492.5	140356	94.04	-6		15
Pentachlorophenol	8.340	8.324	8.356	100.0	12861.5	1232337	95.82	-4		15
2,4,5-TP(Silvex)	8.820	8.804	8.836	100.0	5293.3	512009	96.73	-3		15
Chloramben	8.943	8.927	8.959	100.0	4064.3	402054	98.92	-1		15
2,4,5-T	9.030	9.014	9.046	100.0	5662.1	560233	98.94	-1		15
2,4-DB	9.430	9.414	9.446	100.0	746.300	72859	97.62	-2		15
Bentazon/Picloram	10.053	10.039	10.067	200.0	4112.7	782861	190.35	-5		15
Dinoseb	10.157	10.141	10.173	100.0	4484.4	398101	88.77	-11		15
Dacthal	10.330	10.314	10.346	100.0	6368.7	634716	99.66	-0		15
Acifluorfen	11.777	11.763	11.791	100.0	5114.7	501676	98.08	-2		15

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.057	7.041	7.073	1000.0	720.500	671734	932.26	-7		15

11/02/12

5051

INITIAL CALIBRATION VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30010B 10/30/2012 17:02
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.783	2.767	2.799	100.0	1304.2	127117	97.46	-3		15
3,5-Dichlorobenzo	6.383	6.367	6.399	100.0	1647.3	149890	90.99	-9		15
4-Nitrophenol	6.963	6.947	6.979	100.0	884.300	81292	91.93	-8		15
Dicamba	7.627	7.611	7.643	100.0	3313.9	310627	93.74	-6		15
Dichloroprop	8.260	8.246	8.274	100.0	1275.0	121382	95.20	-5		15
2,4-D	8.527	8.513	8.541	100.0	1451.6	137340	94.61	-5		15
Pentachlorophenol	8.873	8.859	8.887	100.0	11988.8	1192104	99.43	-1		15
2,4,5-TP(Silvex)	9.163	9.149	9.177	100.0	4946.3	491024	99.27	-1		15
Chloramben	9.483	9.453	9.513	100.0	4997.1	509375	101.93	2		15
2,4,5-T	9.443	9.427	9.459	100.0	3771.0	375192	99.49	-1		15
2,4-DB	9.793	9.769	9.817	100.0	771.700	72938	94.52	-5		15
Dinoseb	10.010	9.994	10.026	100.0	3449.0	317757	92.13	-8		15
Bentazon	10.363	10.347	10.379	100.0	705.100	71292	101.12	1		15
Dacthal	10.587	10.571	10.603	100.0	4651.5	432387	92.96	-7		15
Picloram	10.627	10.603	10.651	100.0	7623.5	796747	104.51	5		15
Acifluorfen	11.787	11.773	11.801	100.0	4033.7	396927	98.40	-2		15

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.443	7.427	7.459	1000.0	839.800	775720	923.73	-8		15

11/02/12

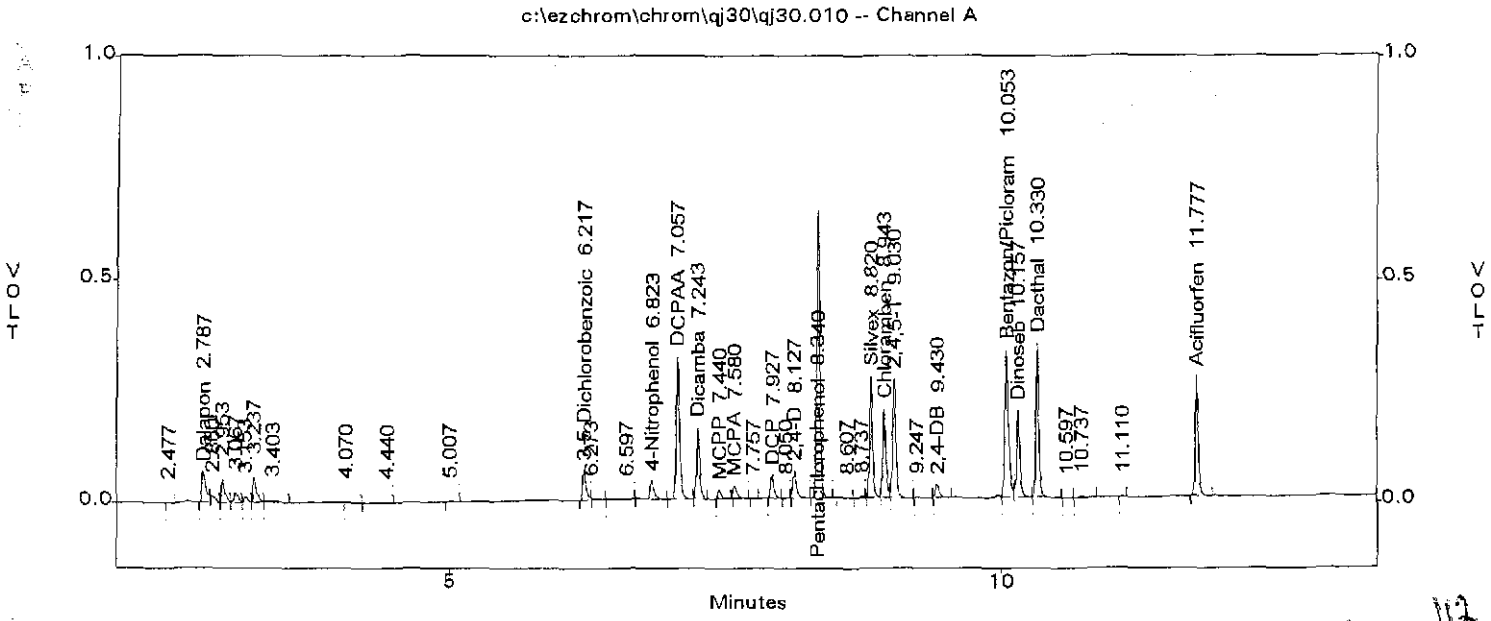
5052

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.010
Method : c:\ezchrom\methods\he09j30.met
Sample ID : IHE09J30001
Acquired : Oct 30, 2012 17:02:37
Printed : Oct 31, 2012 09:33:17
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	163796.0	1709.22	95.83	BS
3,5 Dichlorobenzo	6.217	138613.0	1507.56	91.95	Bx
4-Nitrophenol	6.823	99244.0	1051.91	94.35	VV
DCPAA	7.057	671734.0	720.54	932.26	VV
Dicamba	7.243	314947.0	3371.46	93.42	VV
MCPP	7.440	46739.0	4.57	10221.85	BV
MCPA	7.580	72312.0	8.27	8745.00	xV
DCP	7.927	114858.0	1182.11	97.16	BV
2,4-D	8.127	140356.0	1492.49	94.04	xV
Pentachlorophenol	8.340	1232337.0	12861.50	95.82	Vx
Silvex	8.820	512009.0	5293.29	96.73	BV
Chloramben	8.943	402054.0	4064.33	98.92	VV
2,4,5-T	9.030	560233.0	5662.12	98.94	VV
2,4-DB	9.430	72859.0	746.33	97.62	VV
Bentazon/Picloram	10.053	782861.0	4112.69	190.35	SV
Dinoseb	10.157	398101.0	4484.44	88.77	VV
Dacthal	10.330	634716.0	6368.69	99.66	VV
Acifluorfen	11.777	501676.0	5114.74	98.08	BV



11/02/12

5653

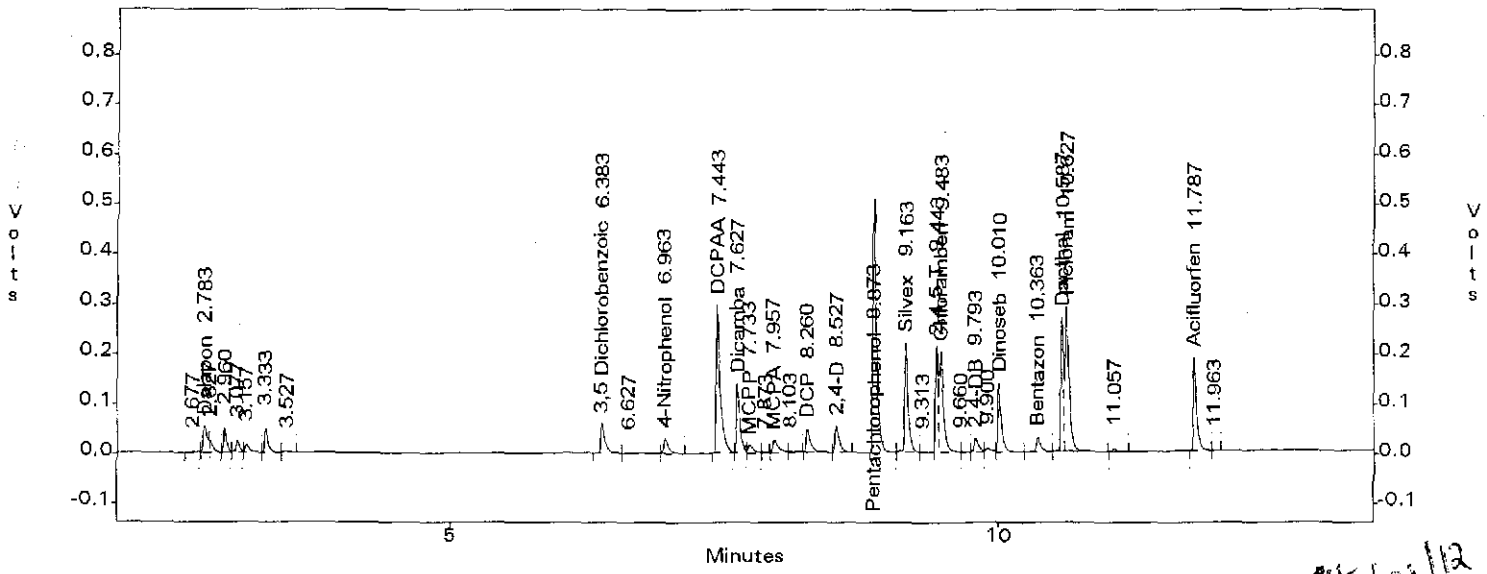
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.010
Method : c:\ezchrom\methods\he09j30.met
Sample ID : IHE09J30001
Acquired : Oct 30, 2012 17:02:37
Printed : Oct 31, 2012 09:33:17
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	127117.0	1304.23	97.46	xx
3,5 Dichlorobenzoic	6.383	149890.0	1647.29	90.99	BV
4-Nitrophenol	6.963	81292.0	884.30	91.93	VV
DCPAA	7.443	775720.0	839.77	923.73	SV
Dicamba	7.627	310627.0	3313.89	93.73	VS
MCPP	7.733	46897.0	5.44	8627.22	Sx
MCPA	7.957	82884.0	10.48	7905.59	Sx
DCP	8.260	121382.0	1274.98	95.20	SV
2,4-D	8.527	137340.0	1451.63	94.61	VS
Pentachlorophenol	8.873	1192104.0	11988.79	99.43	BV
Silvex	9.163	491024.0	4946.26	99.27	VS
2,4,5-T	9.443	375192.0	3771.03	99.49	xx
Chloramben	9.483	509375.0	4997.10	101.93	xS
2,4-DB	9.793	72938.0	771.68	94.52	xx
Dinoseb	10.010	317757.0	3449.00	92.13	SV
Bentazon	10.363	71292.0	705.05	101.12	VV
Dacthal	10.587	432387.0	4651.52	92.96	Vx
Picloram	10.627	796747.0	7623.47	104.51	xV
Acifluorfen	11.787	396927.0	4033.72	98.40	BS

c:\ezchrom\chrom\qj30\qj30.010 -- Channel B



11/02/12

5954

INITIAL CALIBRATION VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30011A 10/30/2012 17:22
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
MCPP	7.440	7.426	7.454	5000.0	4.600	23581	5157.18	3		15
MCPA	7.583	7.567	7.599	5000.0	8.300	44058	5328.12	7		15

11/02/12

5055

INITIAL CALIBRATION VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30011B 10/30/2012 17:22
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
MCPP	7.737	7.721	7.753	5000.0	5.400	26225	4824.38	-4		15
MCPA	7.957	7.941	7.973	5000.0	10.500	53080	5062.85	1		15

JLL 11/02/12

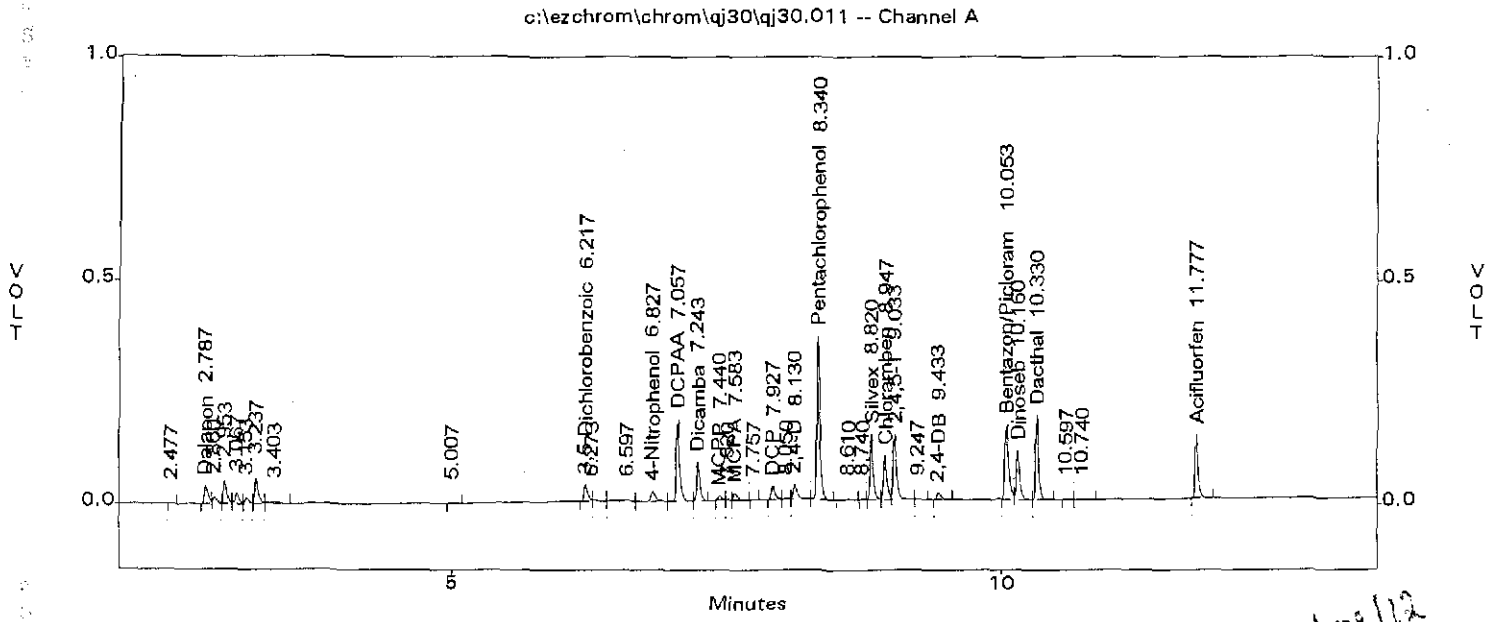
5856

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.011
Method : c:\ezchrom\methods\he09j30.met
Sample ID : IHE09J30002
Acquired : Oct 30, 2012 17:22:50
Printed : Oct 31, 2012 09:33:31
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	92802.0	1709.22	54.29	BV
3,5 Dichlorobenzo	6.217	80493.0	1507.56	53.39	Bx
4-Nitrophenol	6.827	58398.0	1051.91	55.52	VV
DCPAA	7.057	397673.0	720.54	551.91	VV
Dicamba	7.243	174706.0	3371.46	51.82	VV
MCPP	7.440	23581.0	4.57	5157.18	BV
MCPA	7.583	44058.0	8.27	5328.12	xV
DCP	7.927	66631.0	1182.11	56.37	BV
2,4-D	8.130	84036.0	1492.49	56.31	xV
Pentachlorophenol	8.340	702993.0	12861.50	54.66	Vx
Silvex	8.820	282161.0	5293.29	53.31	BV
Chloramben	8.947	211314.0	4064.33	51.99	VV
2,4,5-T	9.033	316763.0	5662.12	55.94	VV
2,4-DB	9.433	40453.0	746.33	54.20	VI
Bentazon/Picloram	10.053	420971.0	4112.69	102.36	SV
Dinoseb	10.160	228882.0	4484.44	51.04	VV
Dacthal	10.330	354217.0	6368.69	55.62	VB
Acifluorfen	11.777	273059.0	5114.74	53.39	BV



PW 11/02/12

5657

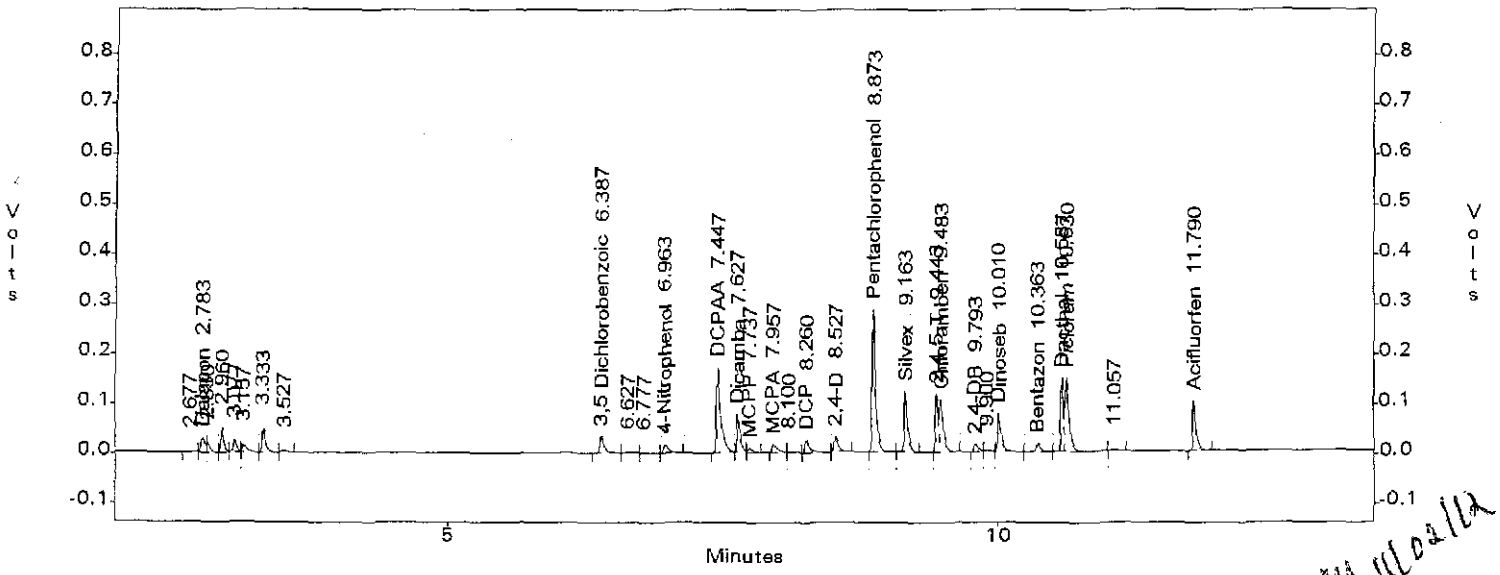
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.011
Method : c:\ezchrom\methods\he09j30.met
Sample ID : IHE09J30002
Acquired : Oct 30, 2012 17:22:50
Printed : Oct 31, 2012 09:33:31
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	72270.0	1304.23	55.41	xx
3,5 Dichlorobenzoic	6.387	85029.0	1647.29	51.62	BV
4-Nitrophenol	6.963	46927.0	884.30	53.07	VV
DCPAA	7.447	451330.0	839.77	537.45	SV
Dicamba	7.627	168983.0	3313.89	50.99	VS
MCPP	7.737	26225.0	5.44	4824.38	Sx
MCPA	7.957	53080.0	10.48	5062.84	Sx
DCP	8.260	70178.0	1274.98	55.04	SV
2,4-D	8.527	77987.0	1451.63	53.72	VB
Pentachlorophenol	8.873	648178.0	11988.79	54.07	BV
Silvex	9.163	258851.0	4946.26	52.33	VS
2,4,5-T	9.443	203121.0	3771.03	53.86	xx
Chloramben	9.483	258453.0	4997.10	51.72	xS
2,4-DB	9.793	39929.0	771.68	51.74	Bx
Dinoseb	10.010	171265.0	3449.00	49.66	SV
Bentazon	10.363	40119.0	705.05	56.90	VV
Dacthal	10.587	235668.0	4651.52	50.66	Vx
Picloram	10.630	408576.0	7623.47	53.59	xV
Acifluorfen	11.790	209434.0	4033.72	51.92	BS

c:\ezchrom\chrom\qj30\qj30.011 -- Channel B



TUL 11/02/12

5958

DAILY CALIBRATIONS

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30012A 10/30/2012 17:43
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.160	10.144	10.176	100.0	4484.4	442334	98.64	-1		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.057	7.041	7.073	1000.0	720.500	693562	962.55	-4		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30012B 10/30/2012 17:43
CONC UNIT : ppb

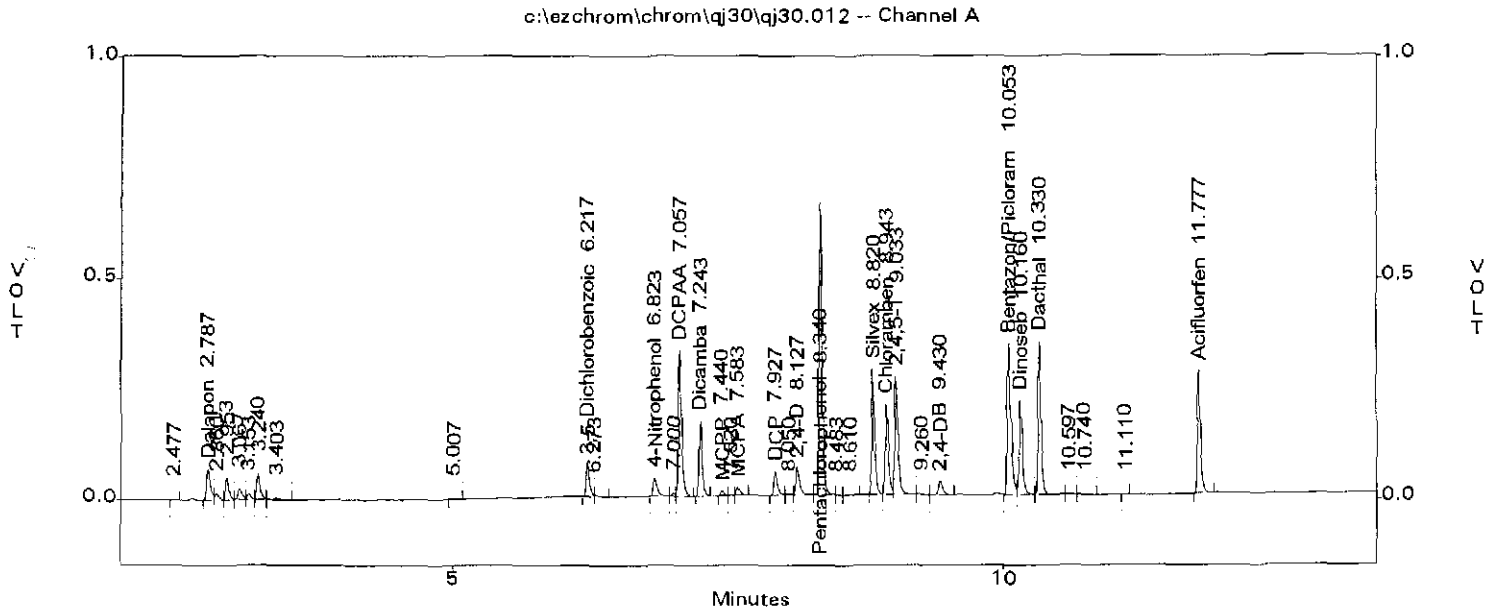
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.007	9.991	10.023	100.0	3449.0	337411	97.83	-2		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.443	7.427	7.459	1000.0	839.800	809276	963.69	-4		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.012
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30001
Acquired : Oct 30, 2012 17:43:00
Printed : Nov 01, 2012 18:00:52
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	167124.0	1709.22	97.78	BS
3,5 Dichlorobenzo	6.217	147973.0	1507.56	98.15	Bx
4-Nitrophenol	6.823	103725.0	1051.91	98.61	BV
DCPAA	7.057	693562.0	720.54	962.55	SV
Dicamba	7.243	335848.0	3371.46	99.61	VV
MCPP	7.440	24232.0	4.57	5299.55	BV
MCPA	7.583	42340.0	8.27	5120.36	xV
DCP	7.927	116855.0	1182.11	98.85	BV
2,4-D	8.127	148815.0	1492.49	99.71	xV
Pentachlorophenol	8.340	1264486.0	12861.50	98.32	Vx
Silvex	8.820	534065.0	5293.29	100.89	BV
Chloramben	8.943	421525.0	4064.33	103.71	VV
2,4,5-T	9.033	567817.0	5662.12	100.28	VV
2,4-DB	9.430	75113.0	746.33	100.64	VV
Bentazon/Picloram	10.053	822196.0	4112.69	199.92	BV
Dinoseb	10.160	442334.0	4484.44	98.64	VV
Dacthal	10.330	643887.0	6368.69	101.10	VV
Acifluorfen	11.777	515736.0	5114.74	100.83	BV



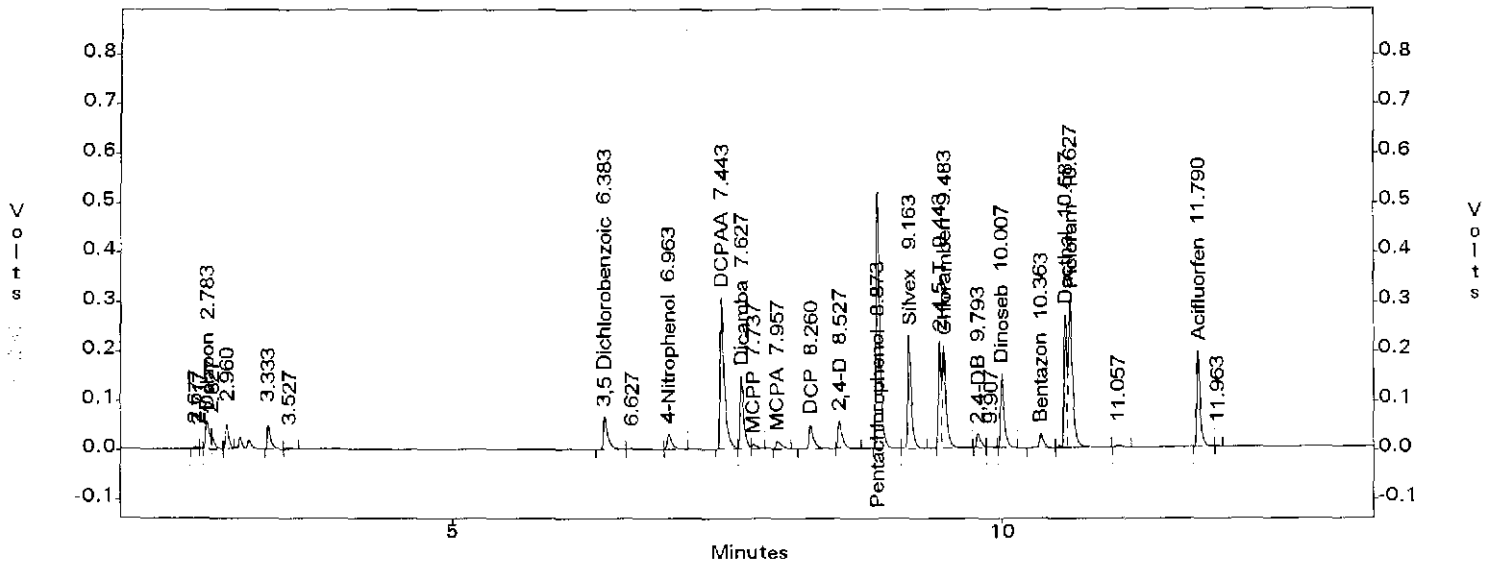
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.012
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30001
Acquired : Oct 30, 2012 17:43:00
Printed : Nov 01, 2012 18:00:52
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	130741.0	1304.23	100.24	xx
3,5 Dichlorobenzoic	6.383	162687.0	1647.29	98.76	BV
4-Nitrophenol	6.963	85688.0	884.30	96.90	VV
DCPAA	7.443	809276.0	839.77	963.69	SV
Dicamba	7.627	331787.0	3313.89	100.12	VS
MCPP	7.737	26367.0	5.44	4850.50	Sx
MCPA	7.957	51845.0	10.48	4945.05	Sx
DCP	8.260	123196.0	1274.98	96.63	VV
2,4-D	8.527	143544.0	1451.63	98.88	VV
Pentachlorophenol	8.873	1216542.0	11988.79	101.47	SV
Silvex	9.163	500812.0	4946.26	101.25	VS
2,4,5-T	9.443	377701.0	3771.03	100.16	xx
Chloramben	9.483	524263.0	4997.10	104.91	xx
2,4-DB	9.793	70073.0	771.68	90.81	Sx
Dinoseb	10.007	337411.0	3449.00	97.83	SV
Bentazon	10.363	67773.0	705.05	96.12	VV
Dacthal	10.587	439319.0	4651.52	94.45	Vx
Picloram	10.627	824029.0	7623.47	108.09	xV
Acifluorfen	11.790	409671.0	4033.72	101.56	BS

c:\ezchrom\chrom\qj30\qj30.012 -- Channel B



5963

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30024A 10/30/2012 21:46
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.150	10.134	10.166	100.0	4484.4	413225	92.15	-8		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.047	7.031	7.063	1000.0	720.500	696363	966.44	-3		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30024B 10/30/2012 21:46
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.000	9.984	10.016	100.0	3449.0	320578	92.95	-7		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.437	7.421	7.453	1000.0	839.800	805517	959.22	-4		20

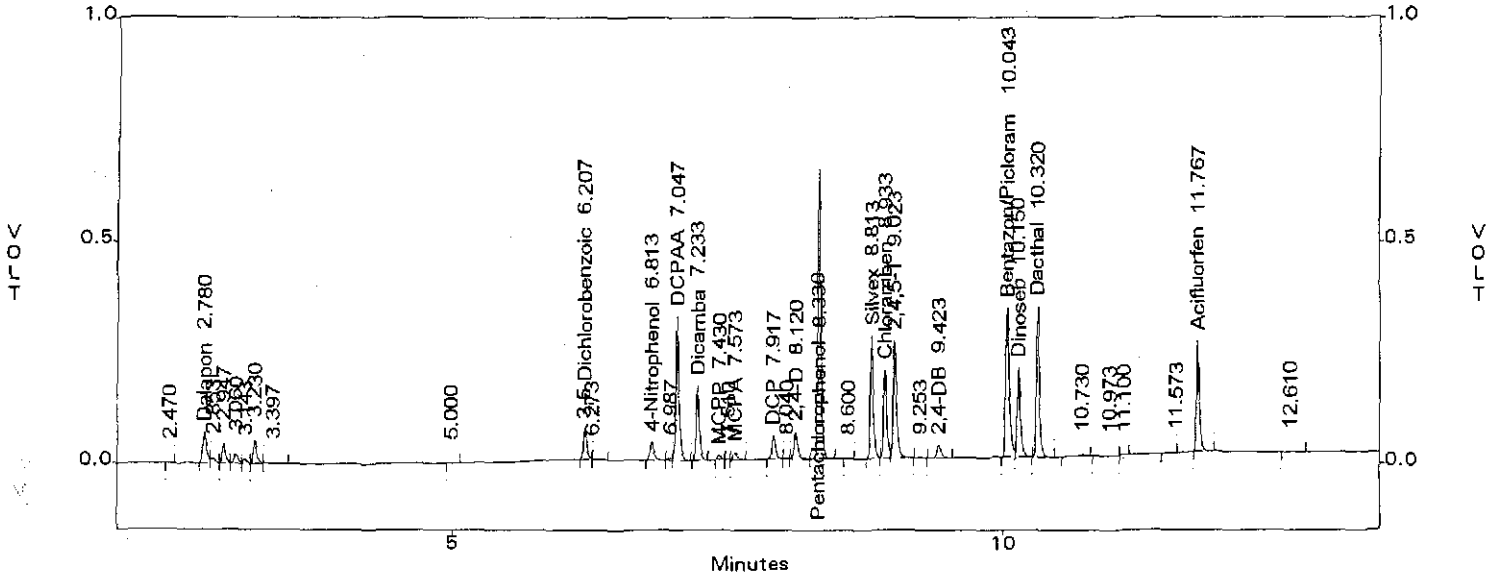
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.024
Method : c:\ezchrom\methods\HE09J30.MET
Sample ID : CHE09J30002
Acquired : Oct 30, 2012 21:46:22
Printed : Oct 31, 2012 09:43:38
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	165268.0	1709.22	96.69	BS
3,5 Dichlorobenzo	6.207	147667.0	1507.56	97.95	Bx
4-Nitrophenol	6.813	100767.0	1051.91	95.79	BV
DCPAA	7.047	696363.0	720.54	966.44	SV
Dicamba	7.233	335164.0	3371.46	99.41	VV
MCPP	7.430	23795.0	4.57	5203.98	BV
MCPA	7.573	41726.0	8.27	5046.10	xV
DCP	7.917	116162.0	1182.11	98.27	BV
2,4-D	8.120	143222.0	1492.49	95.96	xV
Pentachlorophenol	8.330	1250941.0	12861.50	97.26	Vx
Silvex	8.813	531186.0	5293.29	100.35	BV
Chloramben	8.933	418928.0	4064.33	103.07	VV
2,4,5-T	9.023	562048.0	5662.12	99.26	VV
2,4-DB	9.423	74142.0	746.33	99.34	VV
Bentazon/Picloram	10.043	804061.0	4112.69	195.51	BV
Dinoseb	10.150	413225.0	4484.44	92.15	VV
Dacthal	10.320	635014.0	6368.69	99.71	VB
Acifluorfen	11.767	474587.0	5114.74	92.79	BV

c:\ezchrom\chrom\qj30\qj30.024 -- Channel A

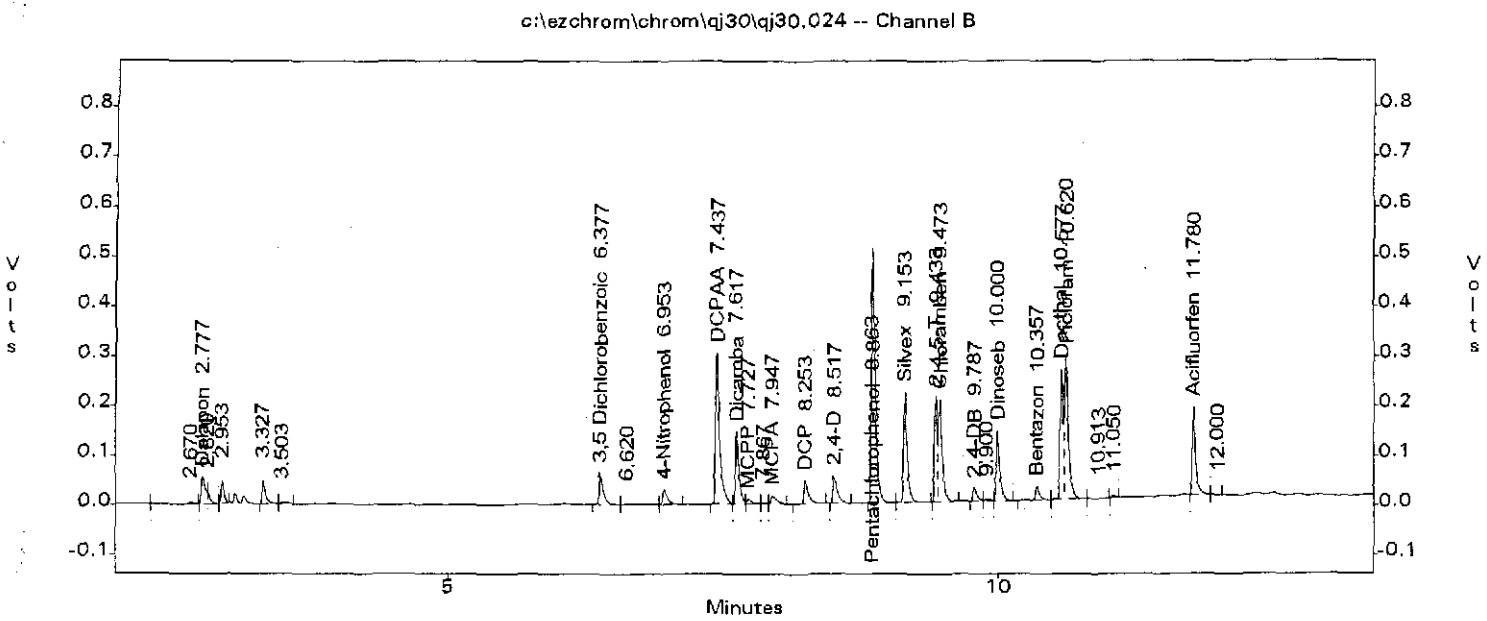


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.024
Method : c:\ezchrom\methods\HE09J30.MET
Sample ID : CHE09J30002
Acquired : Oct 30, 2012 21:46:22
Printed : Oct 31, 2012 09:43:38
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.777	138255.0	1304.23	106.00	xx
3,5 Dichlorobenzoic	6.377	160829.0	1647.29	97.63	BV
4-Nitrophenol	6.953	83938.0	884.30	94.92	VV
DCPAA	7.437	805517.0	839.77	959.22	SV
Dicamba	7.617	330796.0	3313.89	99.82	VS
MCPP	7.727	30615.0	5.44	5631.96	Sx
MCPA	7.947	55463.0	10.48	5290.14	Sx
DCP	8.253	122758.0	1274.98	96.28	VV
2,4-D	8.517	142322.0	1451.63	98.04	VV
Pentachlorophenol	8.863	1194178.0	11988.79	99.61	SV
Silvex	9.153	493311.0	4946.26	99.73	VV
2,4,5-T	9.433	379945.0	3771.03	100.75	xx
Chloramben	9.473	500877.0	4997.10	100.23	xV
2,4-DB	9.787	71877.0	771.68	93.14	xx
Dinoseb	10.000	320578.0	3449.00	92.95	SV
Bentazon	10.357	70612.0	705.05	100.15	VV
Dacthal	10.577	498706.0	4651.52	107.21	Vx
Picloram	10.620	716939.0	7623.47	94.04	xV
Acifluorfen	11.780	384159.0	4033.72	95.24	SV



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30032A 10/31/2012 00:29
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.150	10.134	10.166	100.0	4484.4	415017	92.55	-7		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.047	7.031	7.063	1000.0	720.500	714916	992.19	-1		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30032B 10/31/2012 00:29
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.000	9.984	10.016	100.0	3449.0	317417	92.03	-8		20

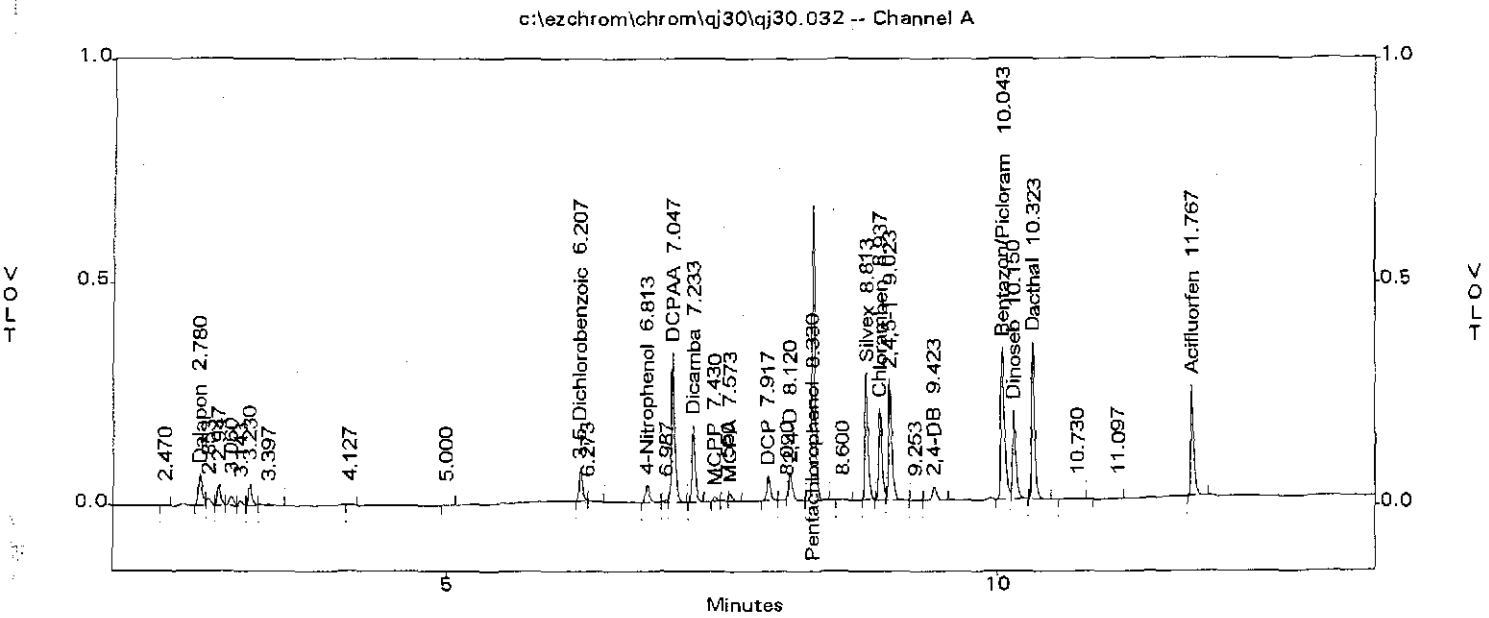
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.437	7.421	7.453	1000.0	839.800	826113	983.74	-2		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.032
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30003
Acquired : Oct 31, 2012 00:29:25
Printed : Oct 31, 2012 09:51:04
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	165232.0	1709.22	96.67	BS
3,5 Dichlorobenzo	6.207	149565.0	1507.56	99.21	Bx
4-Nitrophenol	6.813	98881.0	1051.91	94.00	BV
DCPAA	7.047	714916.0	720.54	992.19	SV
Dicamba	7.233	341343.0	3371.46	101.24	VV
MCPP	7.430	24656.0	4.57	5392.28	BV
MCPA	7.573	41505.0	8.27	5019.38	xV
DCP	7.917	119171.0	1182.11	100.81	BV
2,4-D	8.120	148853.0	1492.49	99.73	xV
Pentachlorophenol	8.330	1284674.0	12861.50	99.89	Vx
Silvex	8.813	536884.0	5293.29	101.43	BV
Chloramben	8.937	424407.0	4064.33	104.42	VV
2,4,5-T	9.023	569909.0	5662.12	100.65	VV
2,4-DB	9.423	76558.0	746.33	102.58	VV
Bentazon/Picloram	10.043	817004.0	4112.69	198.65	BV
Dinoseb	10.150	415017.0	4484.44	92.55	VV
Dacthal	10.323	654791.0	6368.69	102.81	VB
Acifluorfen	11.767	471247.0	5114.74	92.14	BV



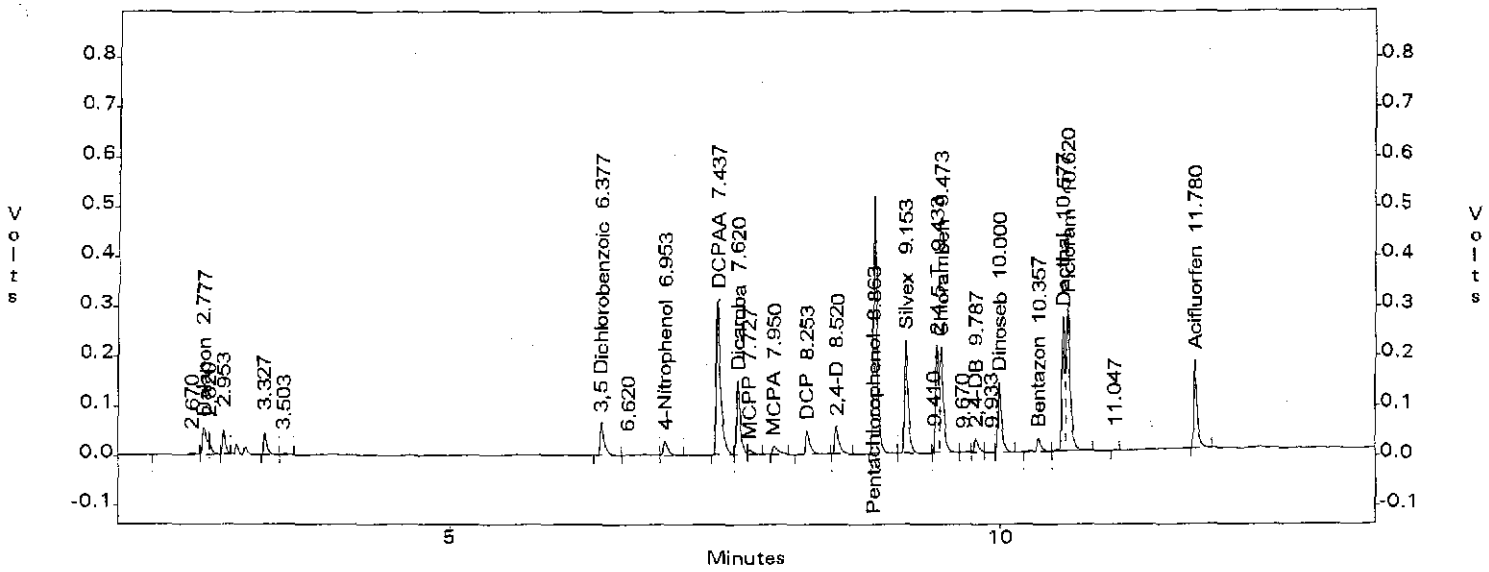
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.032
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30003
Acquired : Oct 31, 2012 00:29:25
Printed : Oct 31, 2012 09:51:04
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.777	139560.0	1304.23	107.01	xx
3,5 Dichlorobenzoic	6.377	162921.0	1647.29	98.90	BV
4-Nitrophenol	6.953	82201.0	884.30	92.96	VV
DCPAA	7.437	826113.0	839.77	983.74	SV
Dicamba	7.620	334476.0	3313.89	100.93	VS
MCPP	7.727	25770.0	5.44	4740.67	SV
MCPA	7.950	52249.0	10.48	4983.58	Sx
DCP	8.253	123274.0	1274.98	96.69	VV
2,4-D	8.520	145439.0	1451.63	100.19	VV
Pentachlorophenol	8.863	1217049.0	11988.79	101.52	SV
Silvex	9.153	507147.0	4946.26	102.53	VV
2,4,5-T	9.433	442945.0	3771.03	117.46	xx
Chloramben	9.473	462778.0	4997.10	92.61	xS
2,4-DB	9.787	72732.0	771.68	94.25	xx
Dinoseb	10.000	317417.0	3449.00	92.03	VV
Bentazon	10.357	68857.0	705.05	97.66	VV
Dacthal	10.577	510428.0	4651.52	109.73	Vx
Picloram	10.620	735476.0	7623.47	96.48	xV
Acifluorfen	11.780	377097.0	4033.72	93.49	SS

c:\ezchrom\chrom\qj30\qj30.032 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30035A 10/31/2012 12:22
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.170	10.154	10.186	100.0	4484.4	364895	91.66	-8		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.070	7.054	7.086	1000.0	720.500	692090	964.88	-4		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30035B 10/31/2012 12:22
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.020	10.004	10.036	100.0	3449.0	269140	103.33	3		20

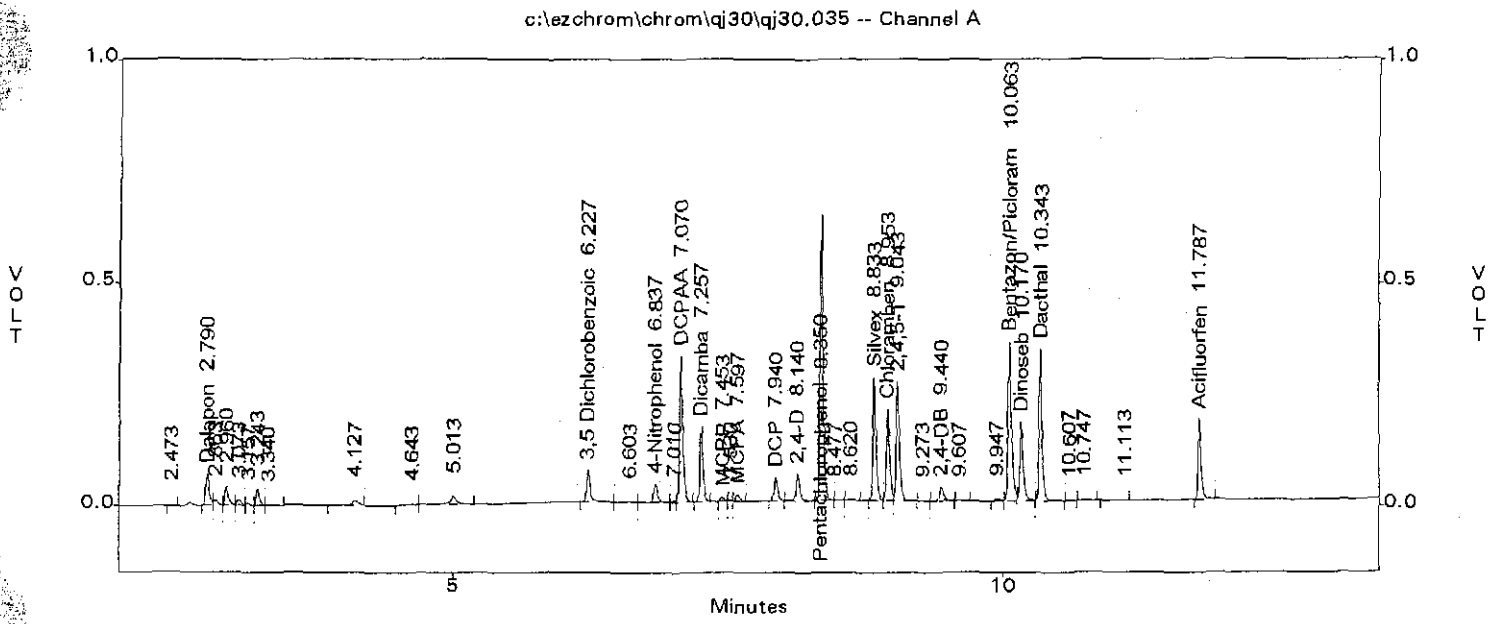
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.457	7.441	7.473	1000.0	839.800	805812	992.38	-1		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.035
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30004
Acquired : Oct 31, 2012 12:22:34
Printed : Oct 31, 2012 13:58:05
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	159701.0	1669.16	95.68	BS
3,5 Dichlorobenzo	6.227	162169.0	1582.76	102.46	BV
4-Nitrophenol	6.837	102509.0	994.81	103.04	VV
DCPAA	7.070	692090.0	717.28	964.88	SV
Dicamba	7.257	330804.0	3332.79	99.26	VV
MCPP	7.453	22098.0	3.75	5888.41	BV
MCPA	7.597	38428.0	7.75	4957.12	xV
DCP	7.940	114474.0	1133.12	101.03	BV
2,4-D	8.140	153589.0	1424.90	107.79	VV
Pentachlorophenol	8.350	1237151.0	12876.92	96.08	Vx
Silvex	8.833	528581.0	5252.30	100.64	BV
Chloramben	8.953	419635.0	4138.84	101.39	VV
2,4,5-T	9.043	557035.0	5436.08	102.47	VV
2,4-DB	9.440	78276.0	733.46	106.72	VV
Bentazon/Picloram	10.063	812060.0	3836.73	211.65	VV
Dinoseb	10.170	364895.0	3981.06	91.66	VV
Dacthal	10.343	636866.0	6309.82	100.93	VV
Acifluorfen	11.787	343281.0	4861.40	70.61	BV



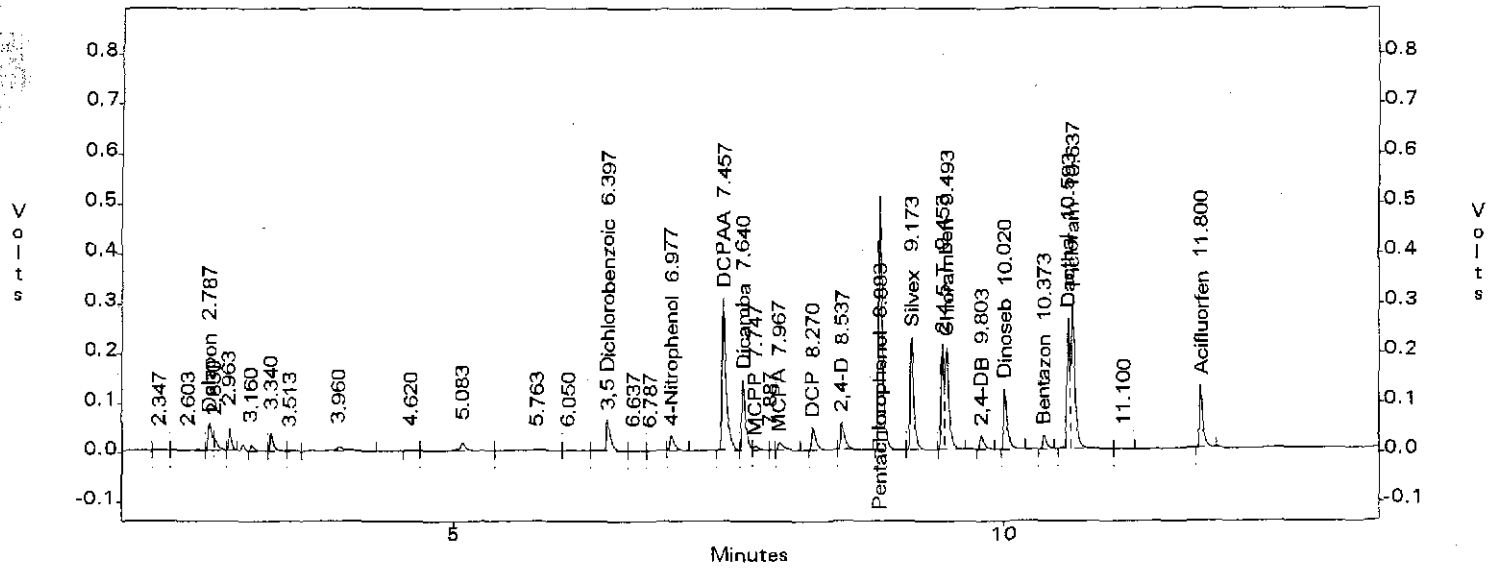
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.035
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30004
Acquired : Oct 31, 2012 12:22:34
Printed : Oct 31, 2012 13:58:05
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	124307.0	1263.67	98.37	Sx
3,5 Dichlorobenzoic	6.397	169507.0	1675.04	101.20	VV
4-Nitrophenol	6.977	84760.0	738.33	114.80	VV
DCPAA	7.457	805812.0	812.00	992.38	SV
Dicamba	7.640	324510.0	3231.74	100.41	VS
MCPP	7.747	26851.0	5.17	5194.65	Sx
MCPA	7.967	49793.0	10.00	4981.73	SV
DCP	8.270	121555.0	1198.60	101.41	VV
2,4-D	8.537	143205.0	1382.77	103.56	VV
Pentachlorophenol	8.883	1187900.0	11546.42	102.88	SV
Silvex	9.173	497087.0	4667.02	106.51	VV
2,4,5-T	9.453	375126.0	3607.14	104.00	Sx
Chloramben	9.493	512970.0	4751.55	107.96	xV
2,4-DB	9.803	69897.0	713.67	97.94	Sx
Dinoseb	10.020	269140.0	2604.65	103.33	BV
Bentazon	10.373	68397.0	620.24	110.28	xx
Dacthal	10.593	462490.0	4296.46	107.64	Vx
Picloram	10.637	774529.0	7077.91	109.43	xV
Acifluorfen	11.800	261270.0	2674.64	97.68	BS

c:\ezchrom\chrom\qj30\qj30.035 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30039A 10/31/2012 13:43
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.167	10.151	10.183	100.0	4484.4	391934	98.45	-2		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.067	7.051	7.083	1000.0	720.500	698157	973.33	-3		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30039B 10/31/2012 13:43
CONC UNIT : ppb

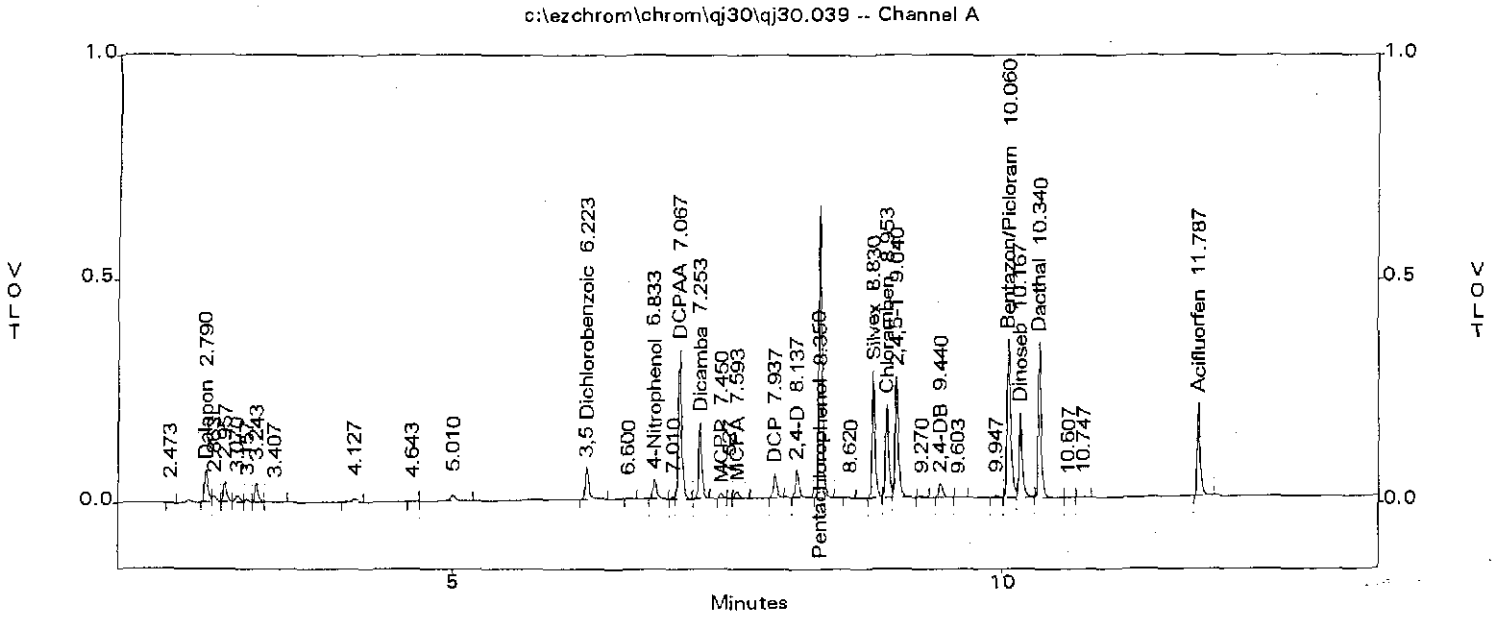
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.017	10.001	10.033	100.0	3449.0	293402	112.64	13		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.453	7.437	7.469	1000.0	839.800	810036	997.58	-0		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.039
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30005
Acquired : Oct 31, 2012 13:43:15
Printed : Oct 31, 2012 14:28:19
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	161470.0	1669.16	96.74	BS
3,5 Dichlorobenzo	6.223	156178.0	1582.76	98.67	BB
4-Nitrophenol	6.833	103764.0	994.81	104.31	VV
DCPAA	7.067	698157.0	717.28	973.33	SV
Dicamba	7.253	333674.0	3332.79	100.12	VV
MCPP	7.450	21928.0	3.75	5843.11	BV
MCPA	7.593	39268.0	7.75	5065.48	xB
DCP	7.937	113737.0	1133.12	100.38	BV
2,4-D	8.137	140948.0	1424.90	98.92	BV
Pentachlorophenol	8.350	1253068.0	12876.92	97.31	Vx
Silvex	8.830	534803.0	5252.30	101.82	BV
Chloramben	8.953	423594.0	4138.84	102.35	VV
2,4,5-T	9.040	563195.0	5436.08	103.60	VV
2,4-DB	9.440	74685.0	733.46	101.83	BV
Bentazon/Picloram	10.060	823289.0	3836.73	214.58	VV
Dinoseb	10.167	391934.0	3981.06	98.45	VV
Dacthal	10.340	646279.0	6309.82	102.42	VV
Acifluorfen	11.787	392958.0	4861.40	80.83	BV



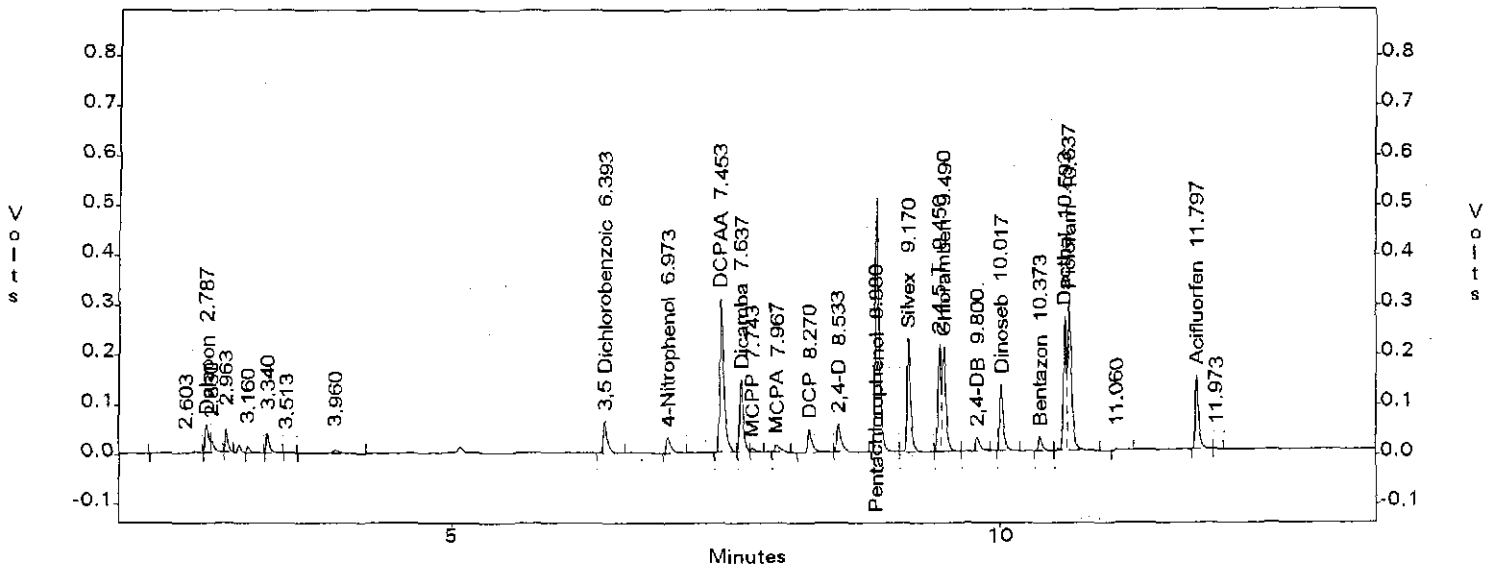
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.039
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30005
Acquired : Oct 31, 2012 13:43:15
Printed : Oct 31, 2012 14:28:19
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	126322.0	1263.67	99.96	Sx
3,5 Dichlorobenzoic	6.393	157447.0	1675.04	94.00	BV
4-Nitrophenol	6.973	84698.0	738.33	114.72	BV
DCPAA	7.453	810036.0	812.00	997.58	VV
Dicamba	7.637	326783.0	3231.74	101.12	VS
MCPP	7.743	24946.0	5.17	4826.10	SV
MCPA	7.967	47224.0	10.00	4724.70	MM
DCP	8.270	122013.0	1198.60	101.80	SV
2,4-D	8.533	144384.0	1382.77	104.42	VV
Pentachlorophenol	8.880	1199493.0	11546.42	103.88	VV
Silvex	9.170	501716.0	4667.02	107.50	VV
2,4,5-T	9.450	388784.0	3607.14	107.78	Vx
Chloramben	9.490	507414.0	4751.55	106.79	xV
2,4-DB	9.800	70854.0	713.67	99.28	Vx
Dinoseb	10.017	293402.0	2604.65	112.65	vv
Bentazon	10.373	67600.0	620.24	108.99	xV
Dacthal	10.593	480641.0	4296.46	111.87	Vx
Picloram	10.637	764341.0	7077.91	107.99	xB
Acifluorfen	11.797	306914.0	2674.64	114.75	BV

c:\ezchrom\chrom\qj30\qj30.039 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30043A 10/31/2012 15:08
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.167	10.151	10.183	100.0	4484.4	412351	103.58	4		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.063	7.047	7.079	1000.0	720.500	702166	978.92	-2		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30043B 10/31/2012 15:08
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.017	10.001	10.033	100.0	3449.0	309868	118.97	19		20

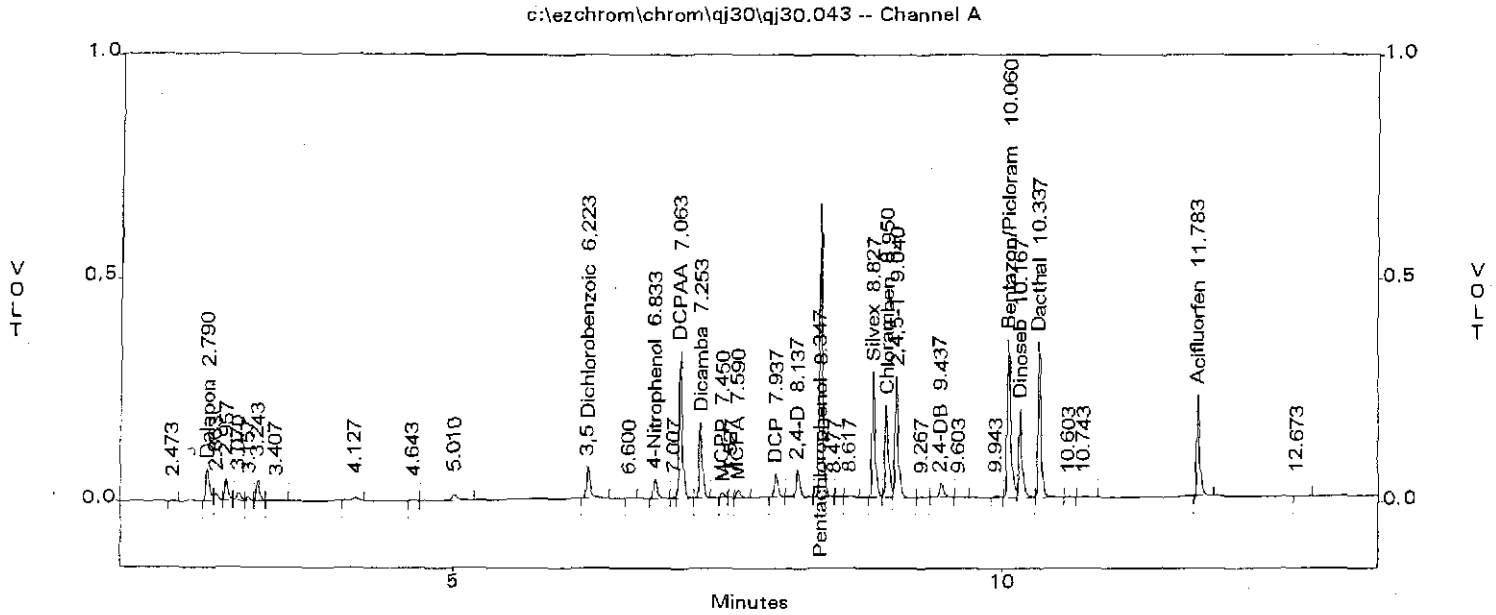
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.453	7.437	7.469	1000.0	839.800	814427	1002.99	0		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.043
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30006
Acquired : Oct 31, 2012 15:08:50
Printed : Nov 05, 2012 09:37:06
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	161879.0	1669.16	96.98	BV
3,5 Dichlorobenzo	6.223	157350.0	1582.76	99.42	BB
4-Nitrophenol	6.833	105028.0	994.81	105.58	VV
DCPAA	7.063	702166.0	717.28	978.92	SV
Dicamba	7.253	336012.0	3332.79	100.82	VV
MCPP	7.450	22267.0	3.75	5933.44	BV
MCPA	7.590	39962.0	7.75	5155.00	xB
DCP	7.937	117520.0	1133.12	103.71	BV
2,4-D	8.137	155633.0	1424.90	109.22	VV
Pentachlorophenol	8.347	1267440.0	12876.92	98.43	Vx
Silvex	8.827	541173.0	5252.30	103.04	BV
Chloramben	8.950	430063.0	4138.84	103.91	VV
2,4,5-T	9.040	571501.0	5436.08	105.13	VV
2,4-DB	9.437	80146.0	733.46	109.27	VV
Bentazon/Picloram	10.060	827290.0	3836.73	215.62	VV
Dinoseb	10.167	412351.0	3981.06	103.58	VV
Dacthal	10.337	654484.0	6309.82	103.72	VV
Acifluorfen	11.783	428681.0	4861.40	88.18	BV



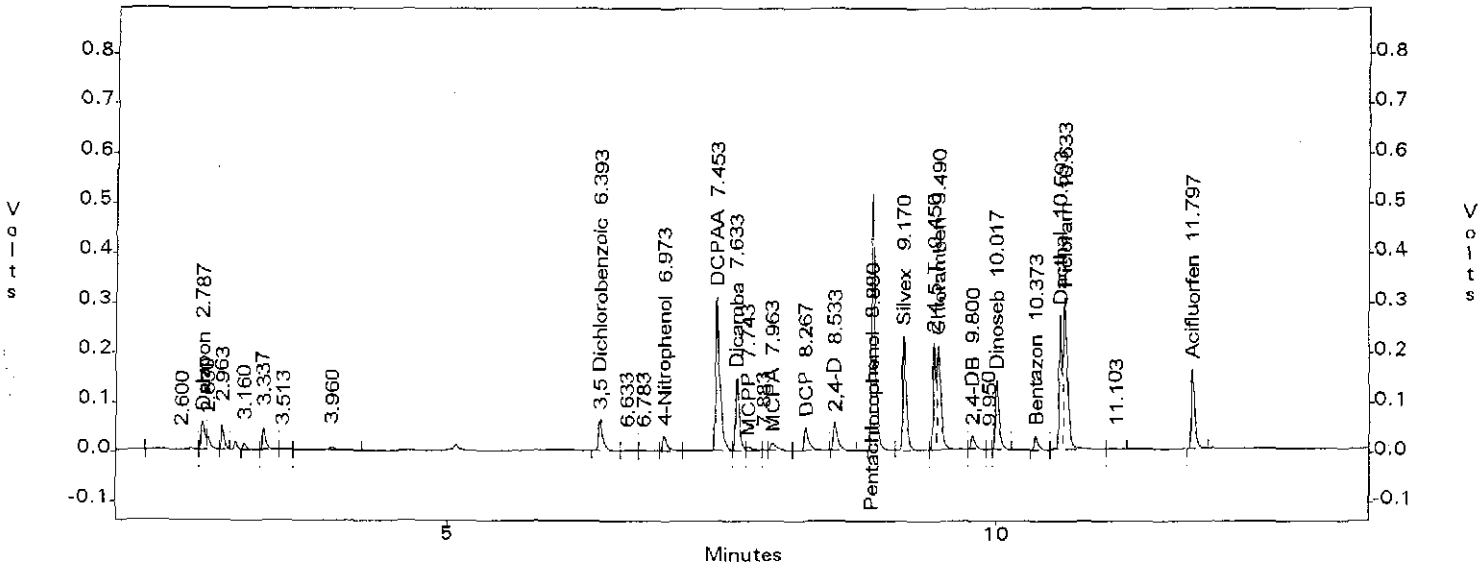
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.043
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30006
Acquired : Oct 31, 2012 15:08:50
Printed : Nov 05, 2012 09:37:06
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	127882.0	1263.67	101.20	Sx
3,5 Dichlorobenzoic	6.393	158576.0	1675.04	94.67	BV
4-Nitrophenol	6.973	85491.0	738.33	115.79	VV
DCPAA	7.453	814427.0	812.00	1002.99	VV
Dicamba	7.633	330933.0	3231.74	102.40	VS
MCPP	7.743	30901.0	5.17	5978.17	Sx
MCPA	7.963	56930.0	10.00	5695.78	VV
DCP	8.267	124691.0	1198.60	104.03	VV
2,4-D	8.533	143303.0	1382.77	103.63	VB
Pentachlorophenol	8.880	1208392.0	11546.42	104.66	BV
Silvex	9.170	503746.0	4667.02	107.94	VV
2,4,5-T	9.450	401828.0	3607.14	111.40	Vx
Chloramben	9.490	506894.0	4751.55	106.68	xV
2,4-DB	9.800	74413.0	713.67	104.27	Vx
Dinoseb	10.017	309868.0	2604.65	118.97	VI
Bentazon	10.373	66017.0	620.24	106.44	xV
Dacthal	10.593	499293.0	4296.46	116.21	Vx
Picloram	10.633	765046.0	7077.91	108.09	xV
Acifluorfen	11.797	335741.0	2674.64	125.53	BI

c:\ezchrom\chrom\qj30\qj30.043 -- Channel B



ANALYTICAL LOGS

ANALYSIS RUN LOG
for
PCB CONGENERS/HERBICIDES/EDB and DBCP

EMAX LABORATORIES, INC.

Note: For samples and relevant QC/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A09-015
Instrument No.: 09
Analytical Sequence: QJ30
Method File: HE09J30.MET
Analytical Batch: QJ30002

SOP #	Rev. #
☑ EMAX-8151	3
☐ EMAX-8082CON	0
☐ EMAX-504.1	3
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
HE09J30	QJ30	10/30/12

STANDARDS ID		Conc (µg/L)
Hexane	51257	NA
DCC	—	—
8151 ICAL	554B-03-53-03	10/500/100 to 200/10,000/20
8151 ICV	554B-03-54-01	100/10,000/100 to 50/5000/5
8151 DCC	554B-03-54-02	100/5000/100

Column	☐ A. STX CLPEST I	☑ STX CLPEST II

ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC6HERB	
☐	

Analyzed By: [signature] Date: 10/30/12

Disposed By: [signature] Date Disposed: 10/31/12

This page is checked during data review.

Run	Sample ID	Method	Filename	Mult.	Description
1	IB09J30001	HE09J30.MET	QJ30.001	1	
2	HE09J3001	HE09J30.MET	QJ30.002	1	
3	HE09J3002	HE09J30.MET	QJ30.003	1	
4	HE09J3003	HE09J30.MET	QJ30.004	1	
5	HE09J3004	HE09J30.MET	QJ30.005	1	
6	HE09J3005	HE09J30.MET	QJ30.006	1	
7	HE09J3006	HE09J30.MET	QJ30.007	1	
8	HE09J3007	HE09J30.MET	QJ30.008	1	
9	HE09J3008	HE09J30.MET	QJ30.009	1	
10	IHE09J30001	HE09J30.MET	QJ30.010	1	
11	IHE09J30002	HE09J30.MET	QJ30.011	1	
12	CHE09J30001	HE09J30.MET	QJ30.012	1	
13	HEJ009WB	HE09J30.MET	QJ30.013	1	
14	HEJ009WL	HE09J30.MET	QJ30.014	1	
15	HEJ009WC	HE09J30.MET	QJ30.015	1	
16	J163-01	HE09J30.MET	QJ30.016	1	
17	J163-02	HE09J30.MET	QJ30.017	1	
18	J163-04	HE09J30.MET	QJ30.018	1	
19	J163-05	HE09J30.MET	QJ30.019	1	
20	J163-06	HE09J30.MET	QJ30.020	1	
21	J163-07	HE09J30.MET	QJ30.021	1	
22	J163-08	HE09J30.MET	QJ30.022	1	
23	IB09J30002	HE09J30.MET	QJ30.023	1	
24	CHE09J30002	HE09J30.MET	QJ30.024	1	
25	J163-09	HE09J30.MET	QJ30.025	1	

Method: He09j30.met Batch: Qj30.seq Data: Qj30.041 - [Batch: qj30.seq]

File Edit Method Batch Options Analyze Control Window Help

Run	Sample Id	Method	Filename	Mult.	Description
25	J163-09	HE09J30.MET	QJ30.025	1	
26	J163-10	HE09J30.MET	QJ30.026	1	
27	J163-11	HE09J30.MET	QJ30.027	1	
28	J163-12	HE09J30.MET	QJ30.028	1	
29	J163-13	HE09J30.MET	QJ30.029	1	
30	J163-14	HE09J30.MET	QJ30.030	1	
31	IB09J30003	HE09J30.MET	QJ30.031	1	
32	CHE09J30003	HE09J30.MET	QJ30.032	1	
33	IB	HE09J30.MET	QJ30.033	1	
34	IB09J30004	HE09J30.MET	QJ30.034	1	
35	CHE09J30004	HE09J30.MET	QJ30.035	1	
36	J163-10I DF=10	HE09J30.MET	QJ30.036	10	
37	J163-12I DF=2	HE09J30.MET	QJ30.037	2	
38	IB09J30005	HE09J30.MET	QJ30.038	1	
39	CHE09J30005	HE09J30.MET	QJ30.039	1	
40	J163-10J DF=20	HE09J30.MET	QJ30.040	20	
41	J163-12J DF=5	HE09J30.MET	QJ30.041	5	
42	IB09J30006	HE09J30.MET	QJ30.042	1	
43	CHE09J30006	HE09J30.MET	QJ30.043	1	
44	IB	HE09J30.MET	QJ30.044	1	
45	IB	HE09J30.MET	QJ30.045	1	
46	IB	HE09J30.MET	QJ30.046	1	
47	IB	HE09J30.MET	QJ30.047	1	
48	IB	HE09J30.MET	QJ30.048	1	
49	IB	HE09J30.MET	QJ30.049	1	

Instrument 1 [T009] - Running J163-12J DF=5 (Run 41)...

Start | Chrom C... | Method: ... | Instrument... | Exploring ... | Method He... | Reprocess... | 2:32 PM

EXTRACTION LOGS

EMAX LABORATORIES, INC.

EXTRACTION LOG
for
HERBICIDES

SOP	Rev. #
☒ EMAX-8151	3
☐ EMAX-	

Note: For samples, relevant QCs/Standards extracted, refer to attached extraction sequence.

Comments:

Book #.: EHE-016
Preparation Batch: HEJ009W
Matrix WATER
Micropipette ID: PE00-04 (1000 ML)
Micropipette ID: —

Standards	ID	Amount Added (ml)
Surrogate	5548-03-01-01	1.0
LCS/MS	5548-02-50-3	0.25

Reagent	Lot # / ID
CH_2Cl_2	—
Hexane	52153
Ethyl Ether	DG659
Acified Na_2SO_4	SP1B-04-262
H_2SO_4	3111070
Diazo-methane	SP1B-05-03-04
Methanol	51145
Iso Octane	SP1A-03-035
Silica Sand	—
Silicic Acid	SP1A-03-041
Reagent Water	SW1A-04-571
Residual Chlorine Strip	20221
pH Strip	HC248798

Lab Sample ID	Sonicator #	Concentrator #
HEJ009-WB	N/A	1
-WL		1
-WC		1
J163-01		2
-02		2
-04		2
-05		2
-06		2
-07		2
-08		3
-09		3
-10		3
-11		3
-12		3
-13		3
-14		4

TUNING

Sonicator #	Reading
	N/A

Concentrator	Water Bath Temperature Setting(°C)	Thermometer Reading (°C)
1	35	35
2	35	35
3	35	35
4	35	35
5		
6		

Test Thermometer = SVOC-T1

Prepared By: ML / CS
Standard Added By: ML
Witnessed By: CS
Checked By: VM
Extract Received By: [illegible]
Extract Location: SE04-8151-02
Disposal Date:
Disposed By:

EMAX LABORATORIES, INC.

FileID: HEJ009W

EXTRACTION LOG FOR HERBICIDES

PrepBatchID	LabSampleID	Aliquot	Unit	DateTime	Ve(ml)	ExpAmt	ExpVe(ml)	PrepFctr	Comments
12HEJ009W01	HEJ009WB	500	ml	10/29/12 10:03	5	500	5	1	
12HEJ009W02	HEJ009WL	500	ml	10/29/12 10:03	5	500	5	1	
12HEJ009W03	HEJ009WC	500	ml	10/29/12 10:03	5	500	5	1	
12HEJ009W04	J163-01	500	ml	10/29/12 10:03	5	500	5	1	
12HEJ009W05	J163-02	500	ml	10/29/12 10:03	5	500	5	1	
12HEJ009W06	J163-04	500	ml	10/29/12 10:03	5	500	5	1	
12HEJ009W07	J163-05	500	ml	10/29/12 10:03	5	500	5	1	
12HEJ009W08	J163-06	500	ml	10/29/12 10:03	5	500	5	1	
12HEJ009W09	J163-07	500	ml	10/29/12 10:03	5	500	5	1	
12HEJ009W10	J163-08	500	ml	10/29/12 10:03	5	500	5	1	
12HEJ009W11	J163-09	500	ml	10/29/12 10:03	5	500	5	1	
12HEJ009W12	J163-10	500	ml	10/29/12 10:03	5	500	5	1	
12HEJ009W13	J163-11	500	ml	10/29/12 10:03	5	500	5	1	
12HEJ009W14	J163-12	500	ml	10/29/12 10:03	5	500	5	1	
12HEJ009W15	J163-13	500	ml	10/29/12 10:03	5	500	5	1	
12HEJ009W16	J163-14	500	ml	10/29/12 10:03	5	500	5	1	

Ve=extract volume

PrepFctr=(ExpAmt/Aliquot)(Ve/ExpVe)

☑ Extraction Started @ 10/29/12 10:03

Prepared By: ML

☑ Extraction Ended @ 10/29/12 16:30

Checked By:

Comments:

Date

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

WET CHEMICAL ANALYSES

SDG#: 12J163

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J163

METHOD 300.0
ANIONS BY IC

A total of thirteen (13) water samples were received on 10/24/12 for Anions (Nitrate-N, Nitrite-N and Sulfate) by IC analysis, Method 300.0 in accordance with Methods for the Determination of Inorganic Substances in Environmental Samples (EPA/600/R-93/100) and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source. Continuing calibration verifications were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blanks were analyzed at the frequency required by the project. For this SDG, three (3) method blanks were analyzed with the samples. All results were compliant to project requirement. Refer to QC result summary forms for details.

Lab Control Sample
Three (3) sets of LCS/LCD were analyzed with the samples in this SDG.
Percent recoveries for ICJ037WL/C were all within QC limits.
Percent recoveries for ICJ039WL/C were all within QC limits.
Percent recoveries for ICJ041WL/C were all within QC limits.

Matrix QC Sample
No matrix QC sample was designated for this SDG.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

SAMPLE RESULTS

METHOD 300.0
NITRATE-N

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J163

Matrix : WATER
Instrument ID : DO

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICJ037WB	ND	1	NA	0.100	0.0500	10/24/1215:17	NA	AJ31-03	AJ31-01	ICJ037W	NA	NA
LCS1W	ICJ037WL	1.00	1	NA	0.100	0.0500	10/24/1215:34	NA	AJ31-04	AJ31-01	ICJ037W	NA	NA
LCD1W	ICJ037WC	1.00	1	NA	0.100	0.0500	10/24/1215:51	NA	AJ31-05	AJ31-01	ICJ037W	NA	NA
10-23-12 WB 2-4	J163-02I	10.7	10	NA	1.00	0.500	10/24/1219:51	NA	AJ31-19	AJ31-13	ICJ037W	10/23/1210:56	10/24/12
10-23-12 AMW-4R	J163-01I	28.2	20	NA	2.00	1.00	10/24/1220:08	NA	AJ31-20	AJ31-13	ICJ037W	10/23/1212:40	10/24/12
10-23-12 PWB-9	J163-05I	29.1	20	NA	2.00	1.00	10/24/1220:26	NA	AJ31-21	AJ31-13	ICJ037W	10/23/1213:20	10/24/12
10-23-12 PWB-8	J163-08I	30.8	20	NA	2.00	1.00	10/24/1220:43	NA	AJ31-22	AJ31-13	ICJ037W	10/23/1213:20	10/24/12
10-23-12 PWB-5	J163-07I	43.1	20	NA	2.00	1.00	10/24/1221:00	NA	AJ31-23	AJ31-13	ICJ037W	10/23/1214:32	10/24/12
10-23-12 WB 2-1	J163-04I	27.1	20	NA	2.00	1.00	10/24/1221:17	NA	AJ31-24	AJ31-13	ICJ037W	10/23/1215:06	10/24/12
10-23-12 PWB-16	J163-09	1.04	1	NA	0.100	0.0500	10/24/1222:09	NA	AJ31-27	AJ31-25	ICJ037W	10/23/1215:01	10/24/12
10-23-12 PWB-11	J163-06I	34.9	20	NA	2.00	1.00	10/24/1222:26	NA	AJ31-28	AJ31-25	ICJ037W	10/23/1215:52	10/24/12
LCS2W	ICJ039WL	1.01	1	NA	0.100	0.0500	10/24/1223:34	NA	AJ31-32	AJ31-25	ICJ039W	NA	NA
LCD2W	ICJ039WC	1.01	1	NA	0.100	0.0500	10/24/1223:51	NA	AJ31-33	AJ31-25	ICJ039W	NA	NA
MBLK2W	ICJ039WB	ND	1	NA	0.100	0.0500	10/25/1200:09	NA	AJ31-34	AJ31-25	ICJ039W	NA	NA
10-24-12 PWB-12	J163-10I	61.2	20	NA	2.00	1.00	10/25/1207:35	NA	AJ31-60	AJ31-49	ICJ039W	10/24/1209:22	10/24/12
LCS3W	ICJ041WL	1.02	1	NA	0.100	0.0500	10/25/1208:43	NA	AJ31-64	AJ31-61	ICJ041W	NA	NA
LCD3W	ICJ041WC	1.01	1	NA	0.100	0.0500	10/25/1209:00	NA	AJ31-65	AJ31-61	ICJ041W	NA	NA
MBLK3W	ICJ041WB	ND	1	NA	0.100	0.0500	10/25/1209:18	NA	AJ31-66	AJ31-61	ICJ041W	NA	NA
10-24-12 PWB-4	J163-11I	39.0	20	NA	2.00	1.00	10/25/1210:43	NA	AJ31-71	AJ31-61	ICJ041W	10/24/1210:00	10/24/12
10-24-12 PWB-13A	J163-12I	37.0	20	NA	2.00	1.00	10/25/1211:00	NA	AJ31-72	AJ31-61	ICJ041W	10/24/1208:44	10/24/12
10-24-12 PWB-14	J163-13I	11.5	10	NA	1.00	0.500	10/25/1211:52	NA	AJ31-75	AJ31-73	ICJ041W	10/24/1208:06	10/24/12
10-24-12 FDUP-2	J163-14I	38.8	20	NA	2.00	1.00	10/25/1212:09	NA	AJ31-76	AJ31-73	ICJ041W	10/24/1200:00	10/24/12
10-23-12 PWB-16	J163-09I	1.31	10	NA	1.00	0.500	10/25/1214:26	NA	AJ31-84	AJ31-73	ICJ041W	10/23/1215:01	10/24/12

METHOD 300.0
NITRITE-N

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J163

Matrix : WATER
Instrument ID : DO

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICJ037WB	ND	1	NA	0.100	0.0500	10/24/1215:17	NA	AJ31-03	AJ31-01	ICJ037W	NA	NA
LCS1W	ICJ037WL	2.07	1	NA	0.100	0.0500	10/24/1215:34	NA	AJ31-04	AJ31-01	ICJ037W	NA	NA
LCD1W	ICJ037WC	2.07	1	NA	0.100	0.0500	10/24/1215:51	NA	AJ31-05	AJ31-01	ICJ037W	NA	NA
10-23-12 PWB-16	J163-09	ND	1	NA	0.100	0.0500	10/24/1222:09	NA	AJ31-27	AJ31-25	ICJ037W	10/23/1215:01	10/24/12
LCS2W	ICJ039WL	2.07	1	NA	0.100	0.0500	10/24/1223:34	NA	AJ31-32	AJ31-25	ICJ039W	NA	NA
LCD2W	ICJ039WC	2.08	1	NA	0.100	0.0500	10/24/1223:51	NA	AJ31-33	AJ31-25	ICJ039W	NA	NA
MBLK2W	ICJ039WB	ND	1	NA	0.100	0.0500	10/25/1200:09	NA	AJ31-34	AJ31-25	ICJ039W	NA	NA
10-23-12 WB 2-4	J163-02	ND	1	NA	0.100	0.0500	10/25/1202:43	NA	AJ31-43	AJ31-37	ICJ039W	10/23/1210:56	10/24/12
10-23-12 AMW-4R	J163-01	ND	1	NA	0.100	0.0500	10/25/1203:00	NA	AJ31-44	AJ31-37	ICJ039W	10/23/1212:40	10/24/12
10-23-12 PWB-9	J163-05	ND	1	NA	0.100	0.0500	10/25/1203:17	NA	AJ31-45	AJ31-37	ICJ039W	10/23/1213:20	10/24/12
10-23-12 PWB-8	J163-08	ND	1	NA	0.100	0.0500	10/25/1203:34	NA	AJ31-46	AJ31-37	ICJ039W	10/23/1213:20	10/24/12
10-23-12 PWB-5	J163-07	ND	1	NA	0.100	0.0500	10/25/1203:52	NA	AJ31-47	AJ31-37	ICJ039W	10/23/1214:32	10/24/12
10-23-12 WB 2-1	J163-04	ND	1	NA	0.100	0.0500	10/25/1204:09	NA	AJ31-48	AJ31-37	ICJ039W	10/23/1215:06	10/24/12
10-23-12 PWB-11	J163-06	ND	1	NA	0.100	0.0500	10/25/1205:00	NA	AJ31-51	AJ31-49	ICJ039W	10/23/1215:52	10/24/12
10-24-12 PWB-12	J163-10	ND	1	NA	0.100	0.0500	10/25/1208:26	NA	AJ31-63	AJ31-61	ICJ039W	10/24/1209:22	10/24/12
LCS3W	ICJ041WL	2.08	1	NA	0.100	0.0500	10/25/1208:43	NA	AJ31-64	AJ31-61	ICJ041W	NA	NA
LCD3W	ICJ041WC	2.08	1	NA	0.100	0.0500	10/25/1209:00	NA	AJ31-65	AJ31-61	ICJ041W	NA	NA
MBLK3W	ICJ041WB	ND	1	NA	0.100	0.0500	10/25/1209:18	NA	AJ31-66	AJ31-61	ICJ041W	NA	NA
10-24-12 PWB-4	J163-11	ND	1	NA	0.100	0.0500	10/25/1209:35	NA	AJ31-67	AJ31-61	ICJ041W	10/24/1210:00	10/24/12
10-24-12 PWB-13A	J163-12	ND	1	NA	0.100	0.0500	10/25/1209:52	NA	AJ31-68	AJ31-61	ICJ041W	10/24/1208:44	10/24/12
10-24-12 PWB-14	J163-13	ND	1	NA	0.100	0.0500	10/25/1210:09	NA	AJ31-69	AJ31-61	ICJ041W	10/24/1208:06	10/24/12
10-24-12 FDUP-2	J163-14	ND	1	NA	0.100	0.0500	10/25/1210:26	NA	AJ31-70	AJ31-61	ICJ041W	10/24/1200:00	10/24/12

METHOD 300.0
SULFATE

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J163

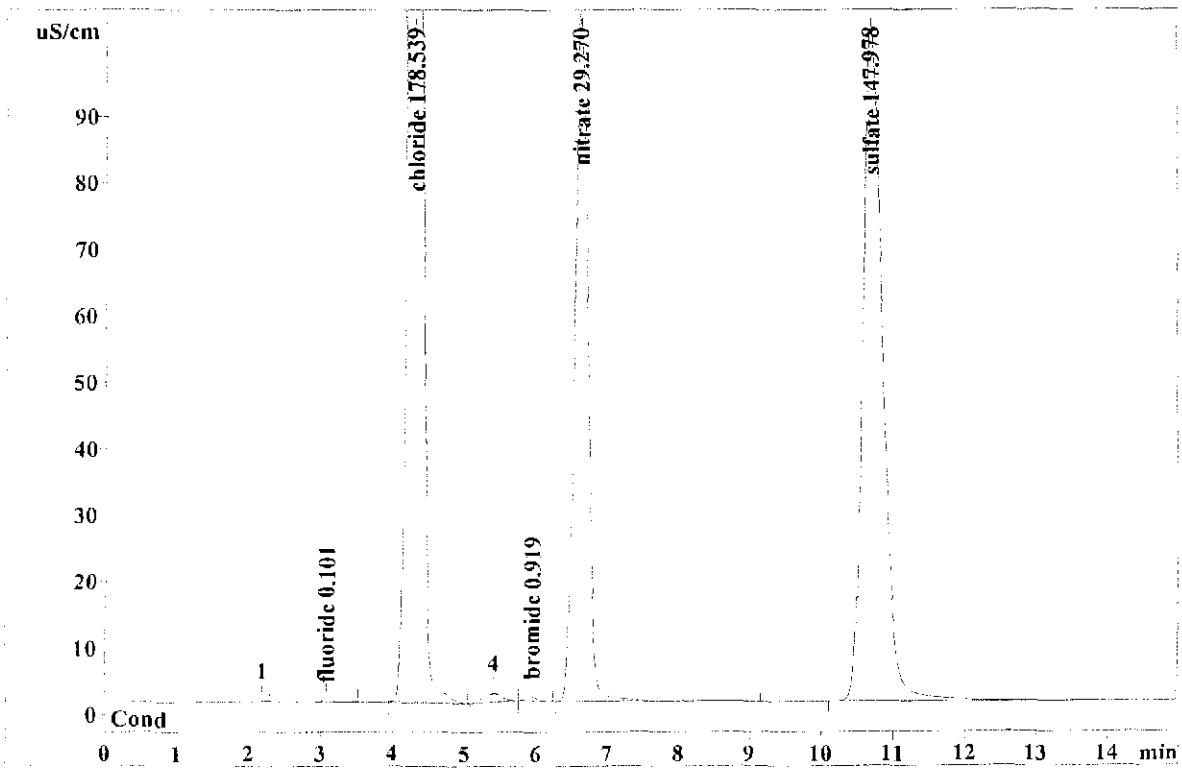
Matrix : WATER
Instrument ID : DO

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICJ037WB	ND	1	NA	0.500	0.250	10/24/1215:17	NA	AJ31-03	AJ31-01	ICJ037W	NA	NA
LCS1W	ICJ037WL	4.89	1	NA	0.500	0.250	10/24/1215:34	NA	AJ31-04	AJ31-01	ICJ037W	NA	NA
LCD1W	ICJ037WC	4.89	1	NA	0.500	0.250	10/24/1215:51	NA	AJ31-05	AJ31-01	ICJ037W	NA	NA
10-23-12 WB 2-4	J163-02I	43.9	10	NA	5.00	2.50	10/24/1219:51	NA	AJ31-19	AJ31-13	ICJ037W	10/23/1210:56	10/24/12
10-23-12 AMW-4R	J163-01I	141	20	NA	10.0	5.00	10/24/1220:08	NA	AJ31-20	AJ31-13	ICJ037W	10/23/1212:40	10/24/12
10-23-12 PWB-9	J163-05I	51.2	20	NA	10.0	5.00	10/24/1220:26	NA	AJ31-21	AJ31-13	ICJ037W	10/23/1213:20	10/24/12
10-23-12 PWB-8	J163-08I	160	20	NA	10.0	5.00	10/24/1220:43	NA	AJ31-22	AJ31-13	ICJ037W	10/23/1213:20	10/24/12
10-23-12 PWB-5	J163-07I	97.3	20	NA	10.0	5.00	10/24/1221:00	NA	AJ31-23	AJ31-13	ICJ037W	10/23/1214:32	10/24/12
10-23-12 WB 2-1	J163-04I	124	20	NA	10.0	5.00	10/24/1221:17	NA	AJ31-24	AJ31-13	ICJ037W	10/23/1215:06	10/24/12
10-23-12 PWB-11	J163-06I	78.0	20	NA	10.0	5.00	10/24/1222:26	NA	AJ31-28	AJ31-25	ICJ037W	10/23/1215:52	10/24/12
LCS2W	ICJ039WL	4.91	1	NA	0.500	0.250	10/24/1223:34	NA	AJ31-32	AJ31-25	ICJ039W	NA	NA
LCD2W	ICJ039WC	4.91	1	NA	0.500	0.250	10/24/1223:51	NA	AJ31-33	AJ31-25	ICJ039W	NA	NA
MBLK2W	ICJ039WB	ND	1	NA	0.500	0.250	10/25/1200:09	NA	AJ31-34	AJ31-25	ICJ039W	NA	NA
10-24-12 PWB-12	J163-10I	62.8	20	NA	10.0	5.00	10/25/1207:35	NA	AJ31-60	AJ31-49	ICJ039W	10/24/1209:22	10/24/12
LCS3W	ICJ041WL	4.98	1	NA	0.500	0.250	10/25/1208:43	NA	AJ31-64	AJ31-61	ICJ041W	NA	NA
LCD3W	ICJ041WC	4.95	1	NA	0.500	0.250	10/25/1209:00	NA	AJ31-65	AJ31-61	ICJ041W	NA	NA
MBLK3W	ICJ041WB	ND	1	NA	0.500	0.250	10/25/1209:18	NA	AJ31-66	AJ31-61	ICJ041W	NA	NA
10-24-12 PWB-4	J163-11I	107	20	NA	10.0	5.00	10/25/1210:43	NA	AJ31-71	AJ31-61	ICJ041W	10/24/1210:00	10/24/12
10-24-12 PWB-13A	J163-12I	144	20	NA	10.0	5.00	10/25/1211:00	NA	AJ31-72	AJ31-61	ICJ041W	10/24/1208:44	10/24/12
10-24-12 PWB-14	J163-13I	71.7	10	NA	5.00	2.50	10/25/1211:52	NA	AJ31-75	AJ31-73	ICJ041W	10/24/1208:06	10/24/12
10-24-12 FDUP-2	J163-14I	106	20	NA	10.0	5.00	10/25/1212:09	NA	AJ31-76	AJ31-73	ICJ041W	10/24/1200:00	10/24/12
10-23-12 PWB-16	J163-09I	82.6	10	NA	5.00	2.50	10/25/1214:26	NA	AJ31-84	AJ31-73	ICJ041W	10/23/1215:01	10/24/12

Report date: 10/25/2012 10:03:10 AM
Printed by: Jadelyn Chun

Ident: AJ31-44 J163-01
Analysis from: 10/25/2012 3:00:38 AM
File: wa250300.chw Last save: 10/25/2012 3:15:34 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83082

SAMPLE:
:
Vial number: 44
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.18	0.08	0.570	0.000	
2	3.09	0.29	2.736	0.101	fluoride
3	4.33	289.70	3219.313	178.539	chloride
4	5.40	1.25	22.907	0.000	
5	5.94	0.65	6.617	0.919	bromide
6	6.63	104.06	1329.383	29.270	nitrate
7	10.70	101.78	1960.930	147.978	sulfate
7	15.00	497.81	6542.456	356.807	

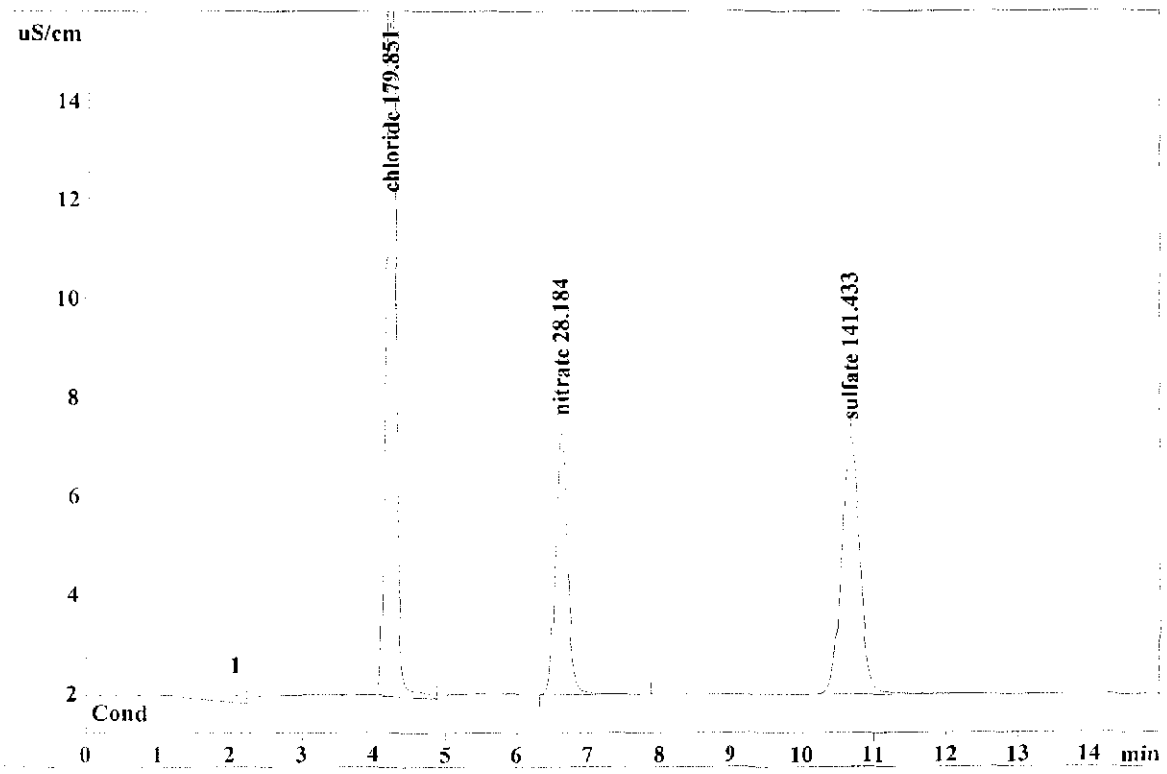
NO_3N

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 10:03:38 AM
Printed by: Jadelyn Chun

Ident: AJ31-20 J163-01I DF=20
Analysis from: 10/24/2012 8:08:57 PM
File: wa242008.chw Last save: 10/24/2012 8:23:54 PM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83058

SAMPLE:
:
Vial number: 20
Volume: 1.0 µL
Dilution: 20.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.06	0.15	5.677	0.000	
2	4.22	19.32	161.217	179.851	chloride
3	6.61	5.30	62.422	28.184	nitrate
4	10.66	5.20	92.859	141.433	sulfate
4	15.00	29.96	322.175	349.468	

This report has been created by IC Net
METROHM LTD

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J163
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICJ037WB	ICJ037WL	ICJ037WC		
LAB FILE ID:	AJ31-03	AJ31-04	AJ31-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/24/1215:17	10/24/1215:34	10/24/1215:51	DATE RECEIVED:	NA
PREP. BATCH:	ICJ037W	ICJ037W	ICJ037W		
CALIB. REF:	AJ31-01	AJ31-01	AJ31-01		

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 (%)
Nitrate-N	ND	1	1	100	1	1	100	0	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J163
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	ICJ039WB	ICJ039WL	ICJ039WC		
LAB FILE ID:	AJ31-34	AJ31-32	AJ31-33		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/25/1200:09	10/24/1223:34	10/24/1223:51	DATE RECEIVED:	NA
PREP. BATCH:	ICJ039W	ICJ039W	ICJ039W		
CALIB. REF:	AJ31-25	AJ31-25	AJ31-25		

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 (%)
Nitrate-N	ND	1	1.01	101	1	1.01	101	0	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J163
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK3W				
LAB SAMP ID:	ICJ041WB	ICJ041WL	ICJ041WC		
LAB FILE ID:	AJ31-66	AJ31-64	AJ31-65		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/25/1209:18	10/25/1208:43	10/25/1209:00	DATE RECEIVED:	NA
PREP. BATCH:	ICJ041W	ICJ041W	ICJ041W		
CALIB. REF:	AJ31-61	AJ31-61	AJ31-61		

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 (%)
Nitrate-N	ND	1	1.02	102	1	1.01	101	1	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J163
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICJ037WB	ICJ037WL	ICJ037WC		
LAB FILE ID:	AJ31-03	AJ31-04	AJ31-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/24/1215:17	10/24/1215:34	10/24/1215:51	DATE RECEIVED:	NA
PREP. BATCH:	ICJ037W	ICJ037W	ICJ037W		
CALIB. REF:	AJ31-01	AJ31-01	AJ31-01		

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 (%)
Nitrite-N	ND	2	2.07	104	2	2.07	104	0	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J163
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	ICJ039WB	ICJ039WL	ICJ039WC		
LAB FILE ID:	AJ31-34	AJ31-32	AJ31-33		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/25/1200:09	10/24/1223:34	10/24/1223:51	DATE RECEIVED:	NA
PREP. BATCH:	ICJ039W	ICJ039W	ICJ039W		
CALIB. REF:	AJ31-25	AJ31-25	AJ31-25		

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 (%)
Nitrite-N	ND	2	2.07	104	2	2.08	104	0	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J163
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK3W				
LAB SAMP ID:	ICJ041WB	ICJ041WL	ICJ041WC		
LAB FILE ID:	AJ31-66	AJ31-64	AJ31-65		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/25/1209:18	10/25/1208:43	10/25/1209:00	DATE RECEIVED:	NA
PREP. BATCH:	ICJ041W	ICJ041W	ICJ041W		
CALIB. REF:	AJ31-61	AJ31-61	AJ31-61		

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 (%)
Nitrite-N	ND	2	2.08	104	2	2.08	104	0	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J163
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICJ037WB	ICJ037WL	ICJ037WC		
LAB FILE ID:	AJ31-03	AJ31-04	AJ31-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/24/1215:17	10/24/1215:34	10/24/1215:51	DATE RECEIVED:	NA
PREP. BATCH:	ICJ037W	ICJ037W	ICJ037W		
CALIB. REF:	AJ31-01	AJ31-01	AJ31-01		

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 (%)
Sulfate	ND	5	4.89	98	5	4.89	98	0	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J163
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	ICJ039WB	ICJ039WL	ICJ039WC		
LAB FILE ID:	AJ31-34	AJ31-32	AJ31-33		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/25/1200:09	10/24/1223:34	10/24/1223:51	DATE RECEIVED:	NA
PREP. BATCH:	ICJ039W	ICJ039W	ICJ039W		
CALIB. REF:	AJ31-25	AJ31-25	AJ31-25		

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 (%)
Sulfate	ND	5	4.91	98	5	4.91	98	0	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J163
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK3W				
LAB SAMP ID:	ICJ041WB	ICJ041WL	ICJ041WC		
LAB FILE ID:	AJ31-66	AJ31-64	AJ31-65		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/25/1209:18	10/25/1208:43	10/25/1209:00	DATE RECEIVED:	NA
PREP. BATCH:	ICJ041W	ICJ041W	ICJ041W		
CALIB. REF:	AJ31-61	AJ31-61	AJ31-61		

ACCESSION:

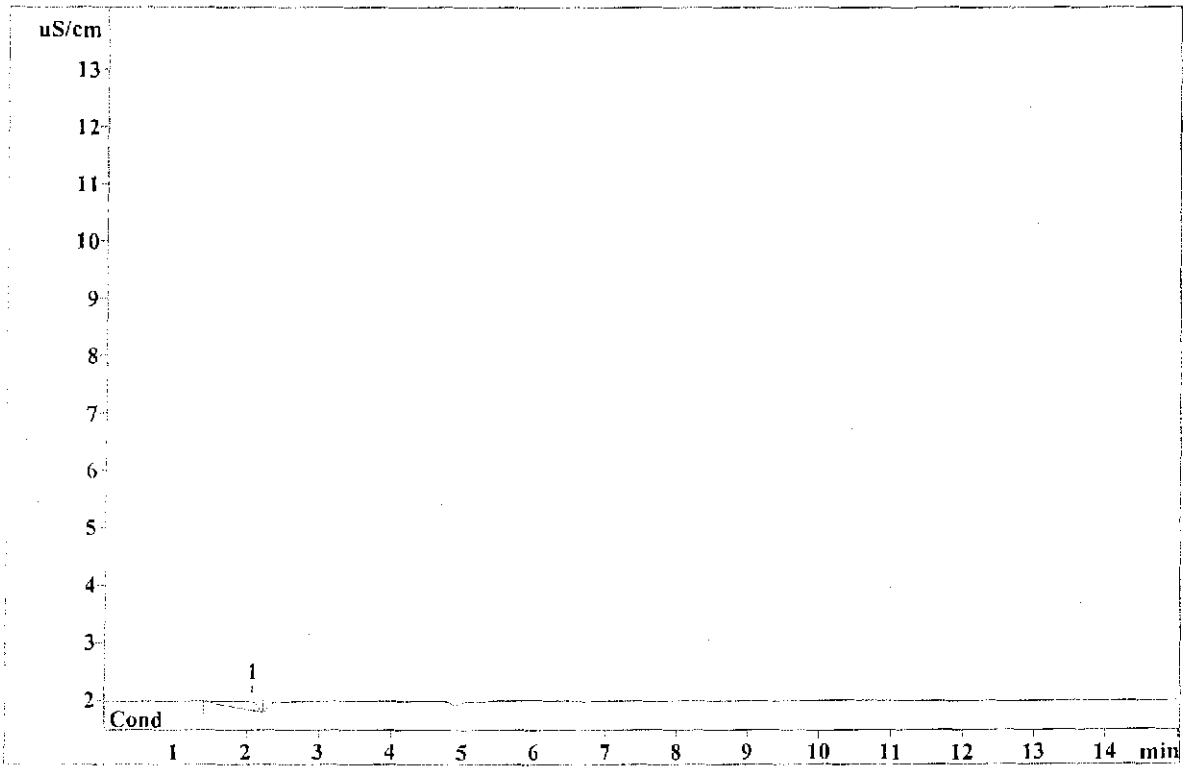
PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Sulfate	ND	5	4.98	100	5	4.95	99	1	90-110	20

QC DATA

Report date: 10/25/2012 9:10:52 AM
Printed by: Jadelyn Chun

Ident: AJ31-03 ICJ037WB
Analysis from: 10/24/2012 3:17:14 PM
File: wa241517.chw Last save: 10/24/2012 3:32:11 PM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83041

SAMPLE:
:
Vial number: 3
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.15	3.980	0.000	

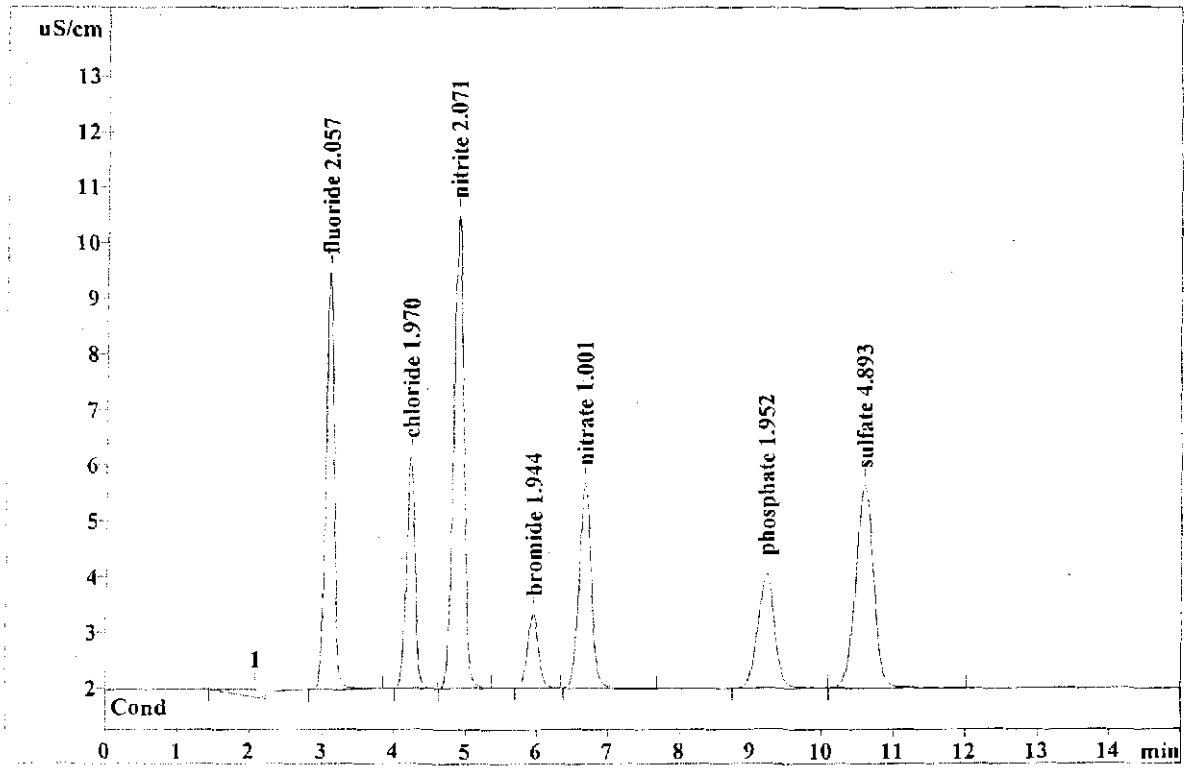
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 3:49:20 PM
Printed by: Jadelyn Chun

Ident: AJ31-04 ICJ037WL
Analysis from: 10/24/2012 3:34:23 PM
File: WA241534.CHW Last save: 10/24/2012 3:49:20 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83042

SAMPLE:
:
Vial number: 4
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	3.475	0.000	
2	3.09	7.49	60.077	2.057	fluoride
3	4.22	4.17	34.553	1.970	chloride
4	4.88	8.49	83.030	2.071	nitrite
5	5.95	1.33	14.258	1.944	bromide
6	6.67	3.68	43.849	1.001	nitrate
7	9.21	2.05	34.002	1.952	phosphate
8	10.59	3.64	63.981	4.893	sulfate
8	15.00	30.99	337.226	15.889	

This report has been created by IC Net
METROHM LTD

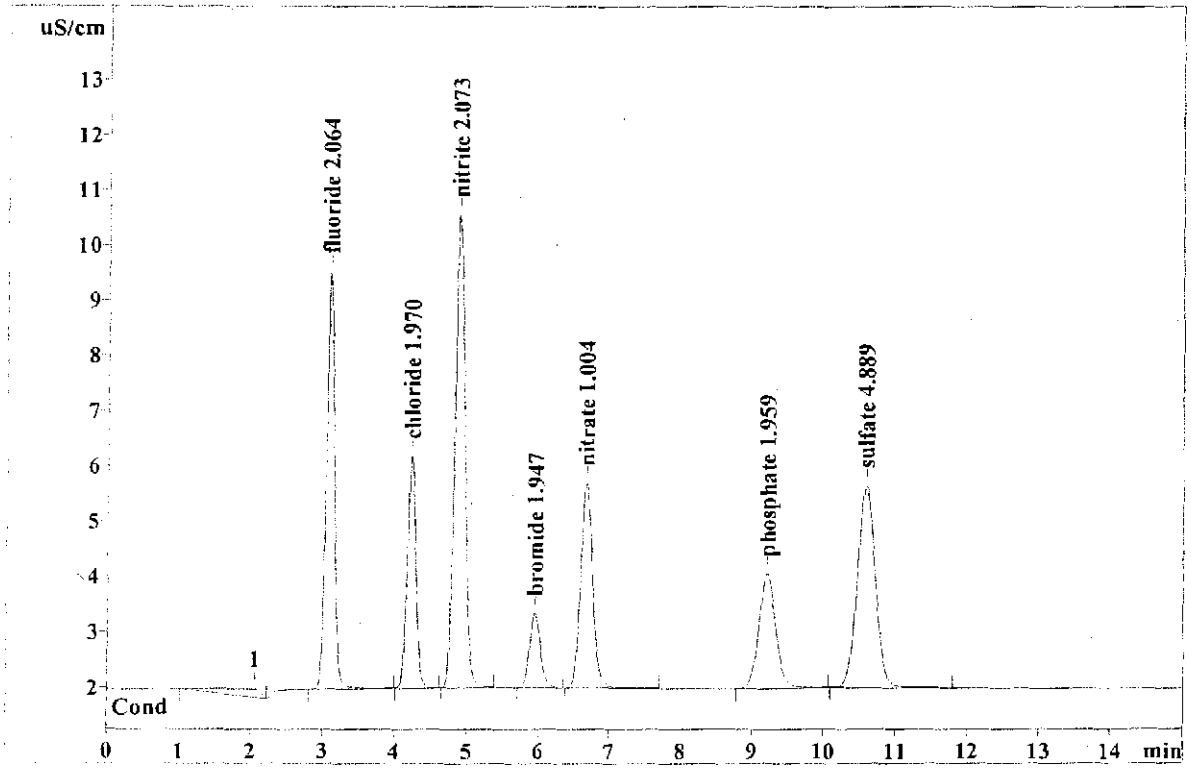
Report date: 10/24/2012 4:06:29 PM
Printed by: Jadelyn Chun

Ident: AJ31-05 ICJ037WC
Analysis from: 10/24/2012 3:51:32 PM
File: WA241551.CHW Last save: 10/24/2012 4:06:29 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83043

SAMPLE:

Vial number: 5
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.06	0.15	5.873	0.000	
2	3.09	7.55	60.256	2.064	fluoride
3	4.22	4.19	34.547	1.970	chloride
4	4.88	8.56	83.106	2.073	nitrite
5	5.95	1.33	14.284	1.947	bromide
6	6.67	3.69	43.985	1.004	nitrate
7	9.21	2.06	34.121	1.959	phosphate
8	10.59	3.64	63.923	4.889	sulfate
8	15.00	31.17	340.095	15.906	

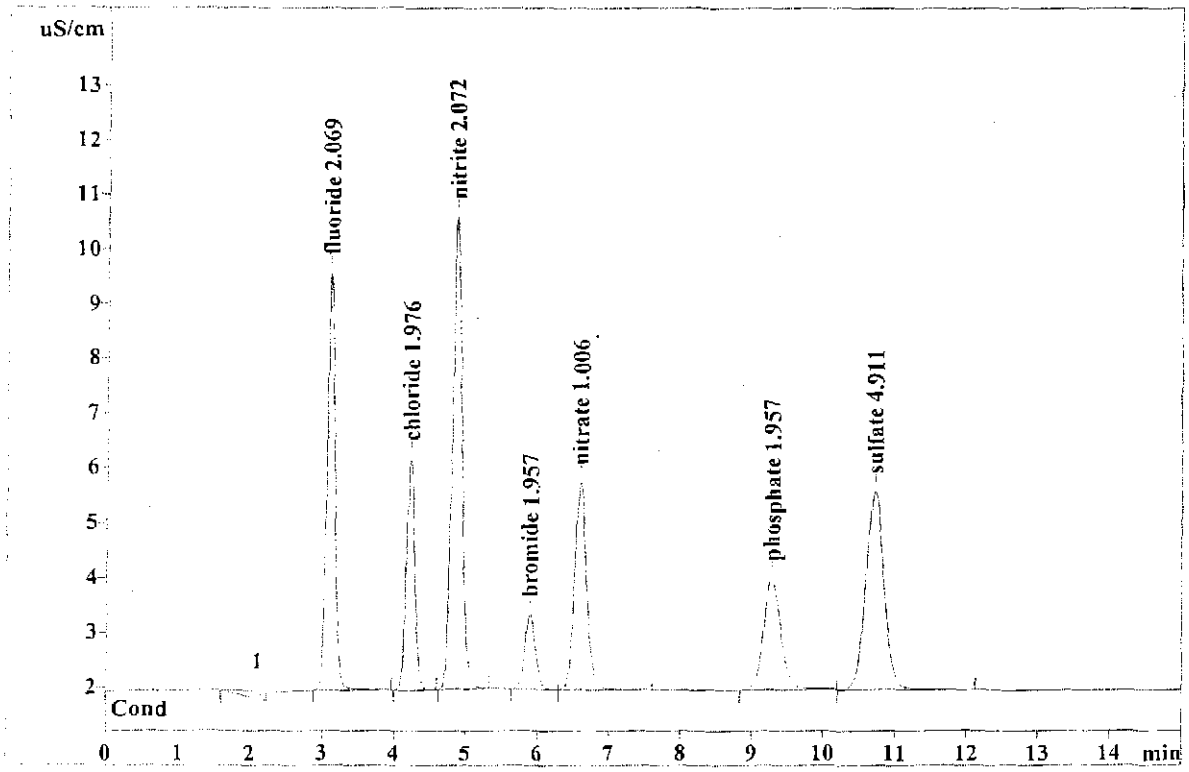
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 11:49:43 PM
Printed by: Jadelyn Chun

Ident: AJ31-32 ICJ039WL
Analysis from: 10/24/2012 11:34:46 PM
File: WA242334.CHW Last save: 10/24/2012 11:49:43 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83070

SAMPLE:
:
Vial number: 32
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	2.714	0.000	
2	3.09	7.61	60.423	2.069	fluoride
3	4.21	4.23	34.656	1.976	chloride
4	4.85	8.62	83.046	2.072	nitrite
5	5.89	1.36	14.355	1.957	bromide
6	6.58	3.77	44.092	1.006	nitrate
7	9.28	2.04	34.093	1.957	phosphate
8	10.72	3.61	64.212	4.911	sulfate
8	15.00	31.38	337.591	15.948	

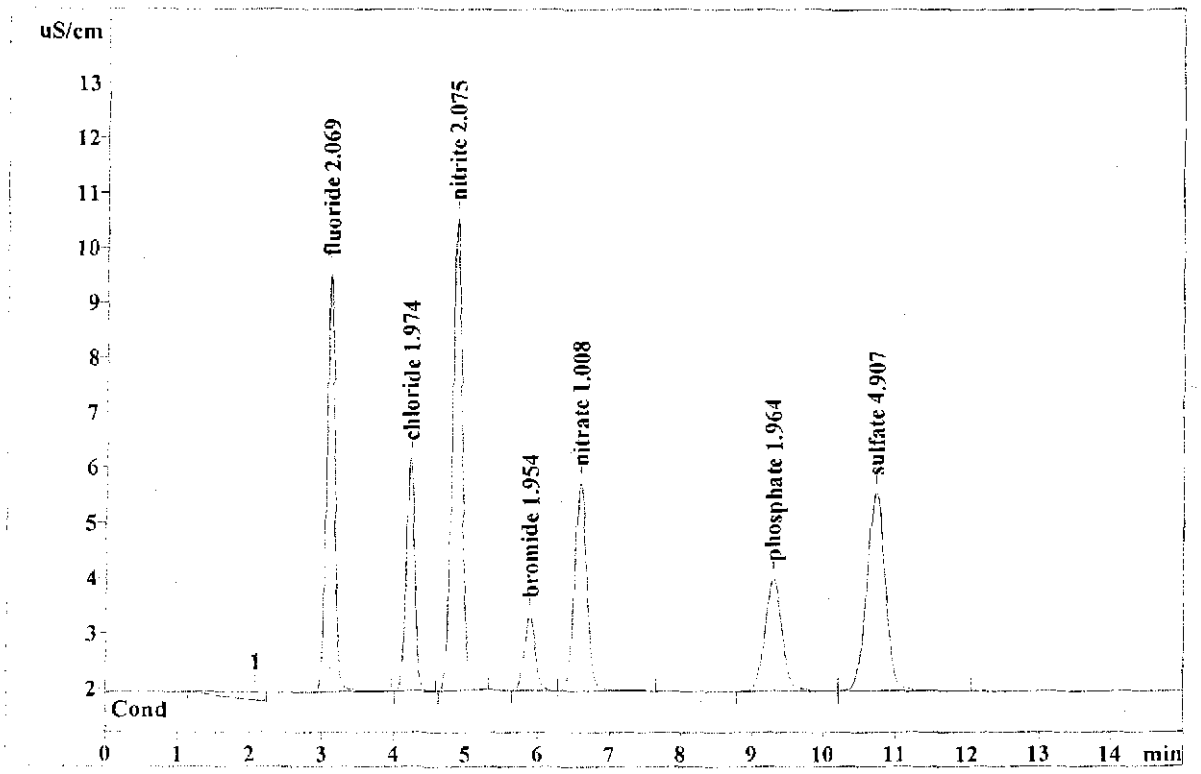
This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 12:06:52 AM
Printed by: Jadelyn Chun

Ident: AJ31-33 ICJ039WC
Analysis from: 10/24/2012 11:51:55 PM
File: WA242351.CHW Last save: 10/25/2012 12:06:52 AM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83071

SAMPLE:
:
Vial number: 33
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

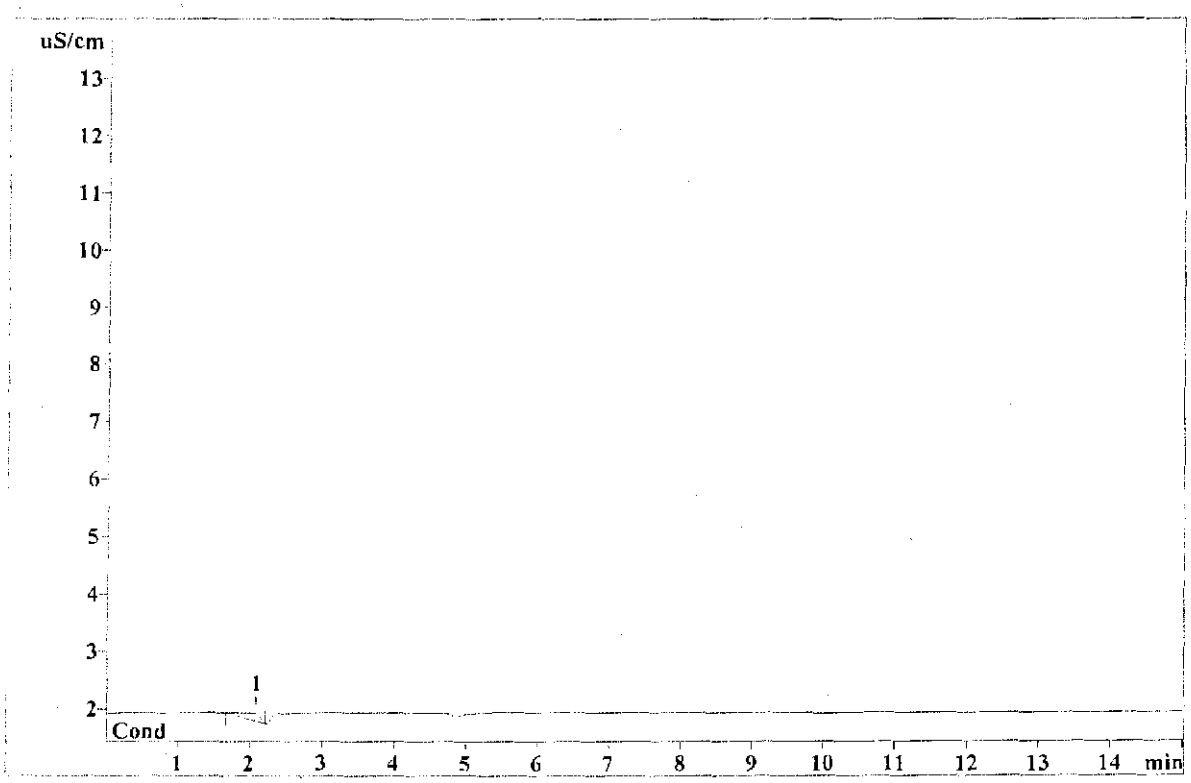
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.15	5.262	0.000	
2	3.10	7.59	60.401	2.069	fluoride
3	4.21	4.21	34.628	1.974	chloride
4	4.85	8.58	83.198	2.075	nitrite
5	5.89	1.36	14.337	1.954	bromide
6	6.58	3.76	44.156	1.008	nitrate
7	9.29	2.04	34.218	1.964	phosphate
8	10.73	3.59	64.163	4.907	sulfate
8	15.00	31.27	340.364	15.952	

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:14:02 AM
Printed by: Jadelyn Chun

Ident: AJ31-34 ICJ039WB
Analysis from: 10/25/2012 12:09:05 AM
File: wa250009.chw Last save: 10/25/2012 12:24:01 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83072

SAMPLE:
:
Vial number: 34
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.09	0.14	2.471	0.000	

This report has been created by IC Net
METROHM LTD

INITIAL CALIBRATION(S)

IC Result Check FormVersion : J23/AJ29(2012)

LFID	LSID	Selection	nitrite	fluoride	chloride	bromide	nitrate	phosphate	sulfate	RawNetID	DF
AJ29-01	IB	IFCBNPS	0	0	0	0	0	0	0	wa241041	1
AJ29-02	S0	IFCBNPS	0	0	0	0	0	0	0	wa241058	1
AJ29-03	S1	IFCBNPS	0.0329725	0.0547602	0.10038	0.0764202	0.0777669	0.105649	0.124282	wa241115	1
AJ29-04	S2	IFCBNPS	0.079829	0.101045	0.144404	0.123128	0.121245	0.142975	0.176245	wa241132	1
AJ29-05	S3	IFCBNPS	0.176216	0.195399	0.240614	0.210634	0.208746	0.224959	0.263737	wa241149	1
AJ29-06	S4	IFCBNPS	0.480514	0.494182	0.508132	0.494586	0.490103	0.484643	0.528509	wa241207	1
AJ29-07	S5	IFCBNPS	0.997189	1.0008	0.980634	0.969565	0.976174	0.940499	0.987607	wa241224	1
AJ29-08	S6	IFCBNPS	2.02578	2.0055	1.94419	1.95204	1.95364	1.90707	1.92803	wa241241	1
AJ29-09	S7	IFCBNPS	5.12583	4.99831	4.92111	5.02363	5.02232	5.04421	4.84749	wa241258	1
AJ29-10	S8	IFCBNPS	9.93166	9.63232	9.97226	10.3392	10.1675	10.4038	9.90628	wa241315	1
AJ29-11	S9	IFCBNPS	18.5771	18.0074	20.0383	21.0431	20.4024	21.096	20.0878	wa241332	1
AJ29-12	ICV	IFCBNPS	101.2%	102.9%	100.5%	97.2%	100.2%	97.9%	99.8%	wa241400	1
AJ29-13	ICB	IFCBNPS	0	0	0	0	0	0	0	wa241417	1

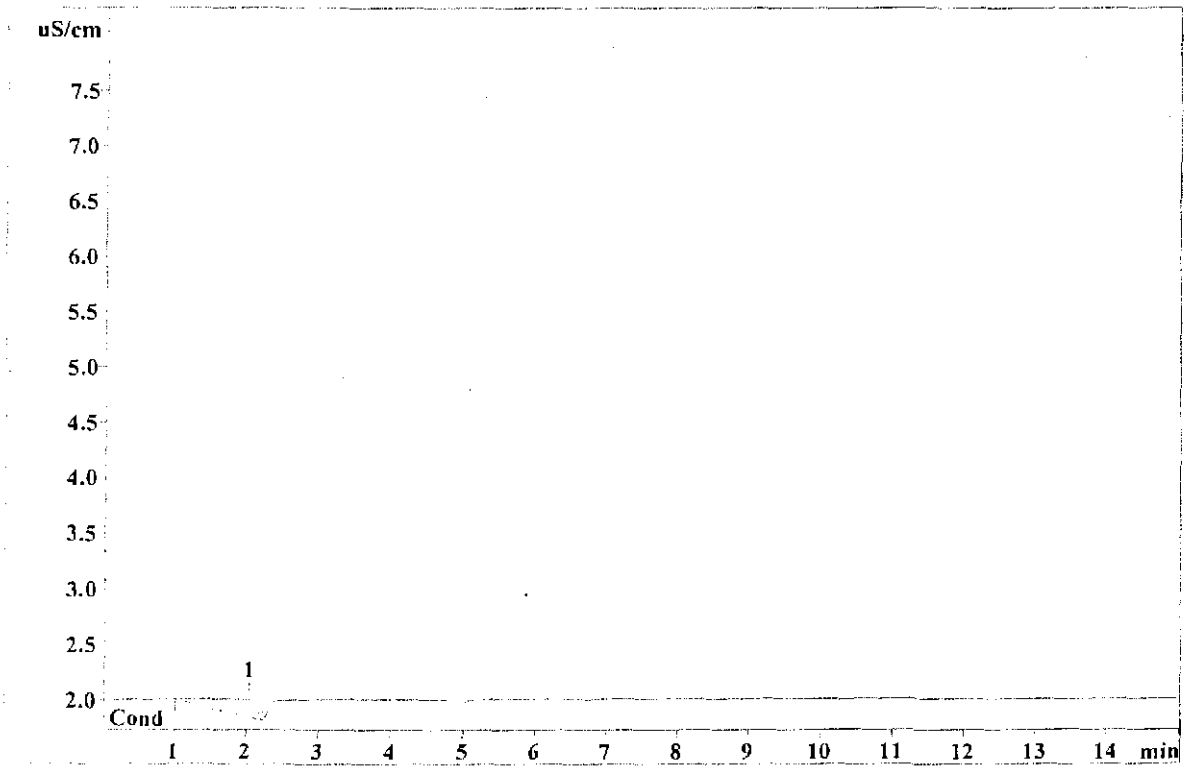
AS 10/25/12

Report date: 10/24/2012 2:37:15 PM
Printed by: Jadelyn Chun

Ident: AJ29-02 S0
Analysis from: 10/24/2012 10:58:21 AM
File: wa241058.chw Last save: 10/24/2012 2:36:20 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83027

SAMPLE:
:
Vial number: 2
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.05	0.15	6.174	0.000	

This report has been created by IC Net
METROHM LTD

AJ
10/25/12

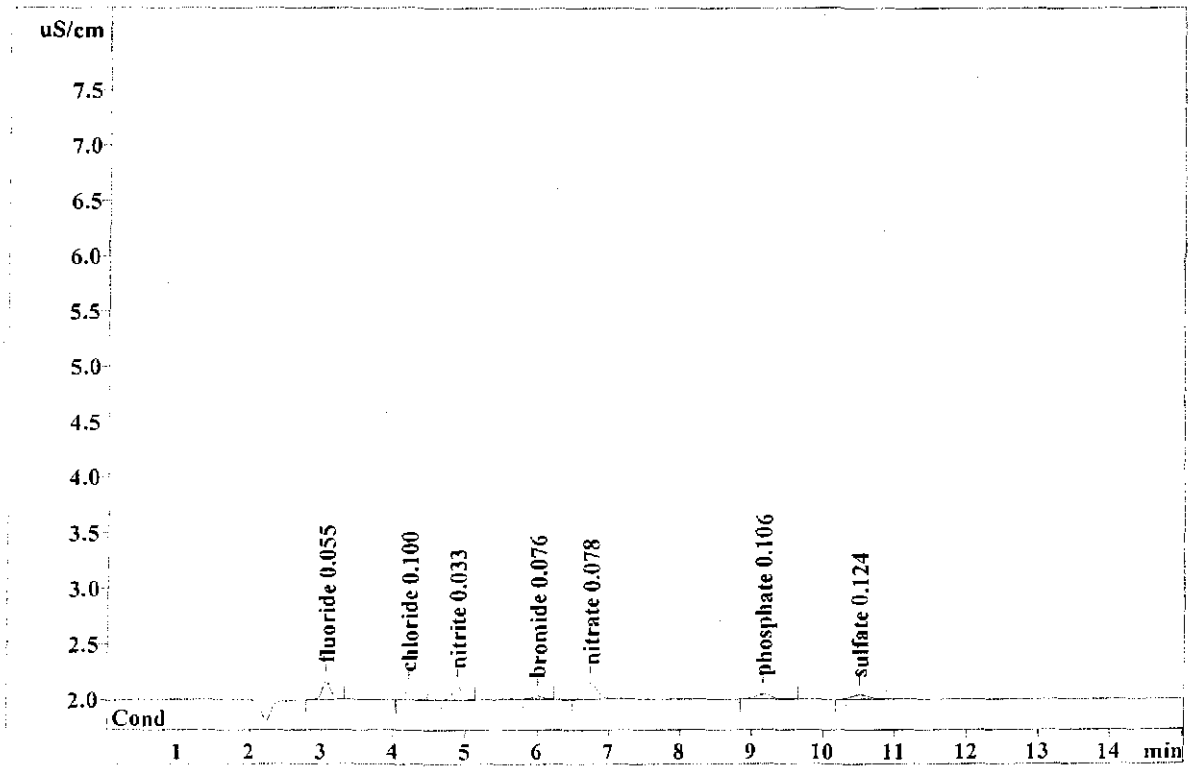
Report date: 10/24/2012 2:37:18 PM
Printed by: Jadelyn Chun

Ident: AJ29-03 S1
Analysis from: 10/24/2012 11:15:30 AM
File: wa241115.chw Last save: 10/24/2012 2:36:20 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83028

SAMPLE: 0.05PPM

Vial number: 3
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	3.07	0.17	1.379	0.055	fluoride
2	4.23	0.10	0.830	0.100	chloride
3	4.89	0.12	1.161	0.033	nitrite
4	6.01	0.03	0.334	0.076	bromide
5	6.75	0.15	1.875	0.078	nitrate
6	9.18	0.04	0.701	0.106	phosphate
7	10.52	0.04	0.754	0.124	sulfate
7	15.00	0.64	7.035	0.572	

This report has been created by IC Net
METROHM LTD

AS 10/25/12

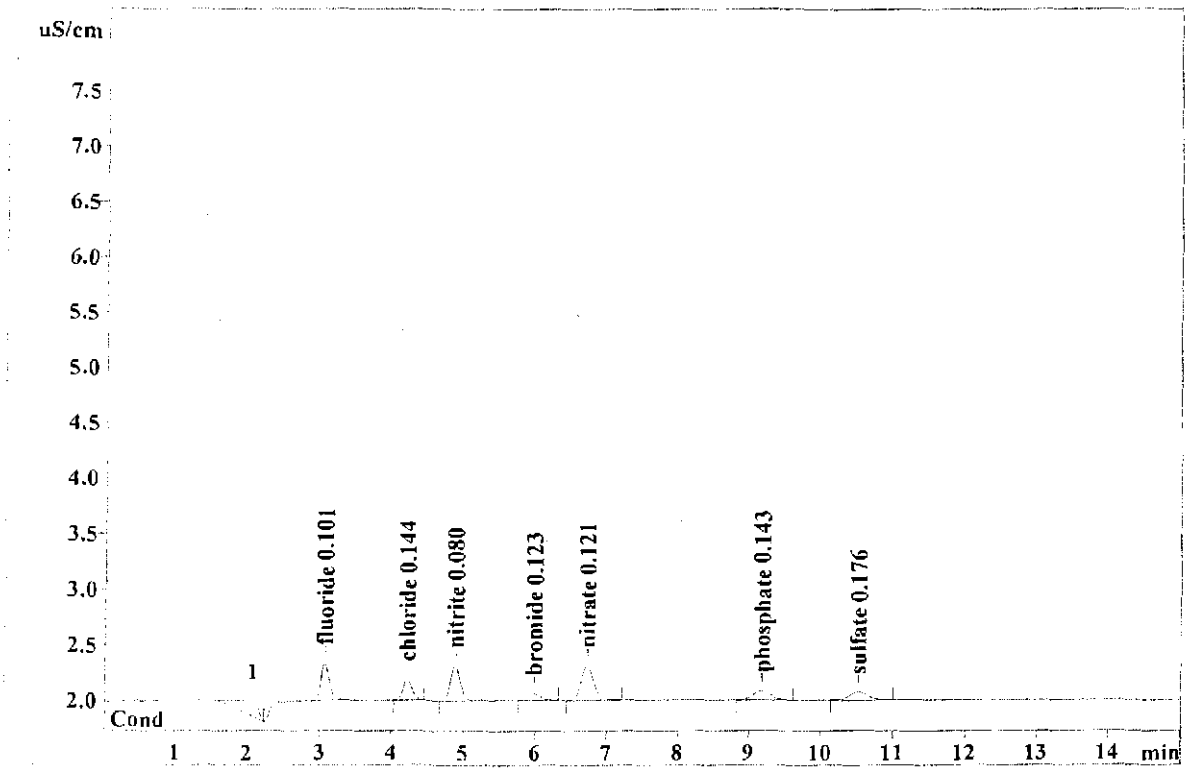
8028

Report date: 10/24/2012 2:37:21 PM
Printed by: Jadelyn Chun

Ident: AJ29-04 S2
Analysis from: 10/24/2012 11:32:40 AM
File: wa241132.chw Last save: 10/24/2012 2:36:20 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83029

SAMPLE: 0.1PPM
:
Vial number: 4
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	2.725	0.000	
2	3.08	0.33	2.736 ✓	0.101 ✓	fluoride
3	4.23	0.19	1.624	0.144	chloride
4	4.89	0.32	3.043 ✓	0.080 ✓	nitrite
5	5.99	0.06	0.683	0.123	bromide
6	6.74	0.31	3.852 ✓	0.121 ✓	nitrate
7	9.18	0.08	1.374	0.143	phosphate
8	10.53	0.08	1.443	0.176	sulfate
8	15.00	1.50	17.480	0.889	

This report has been created by IC Net
METROHM LTD

AS 10/25/12

8829

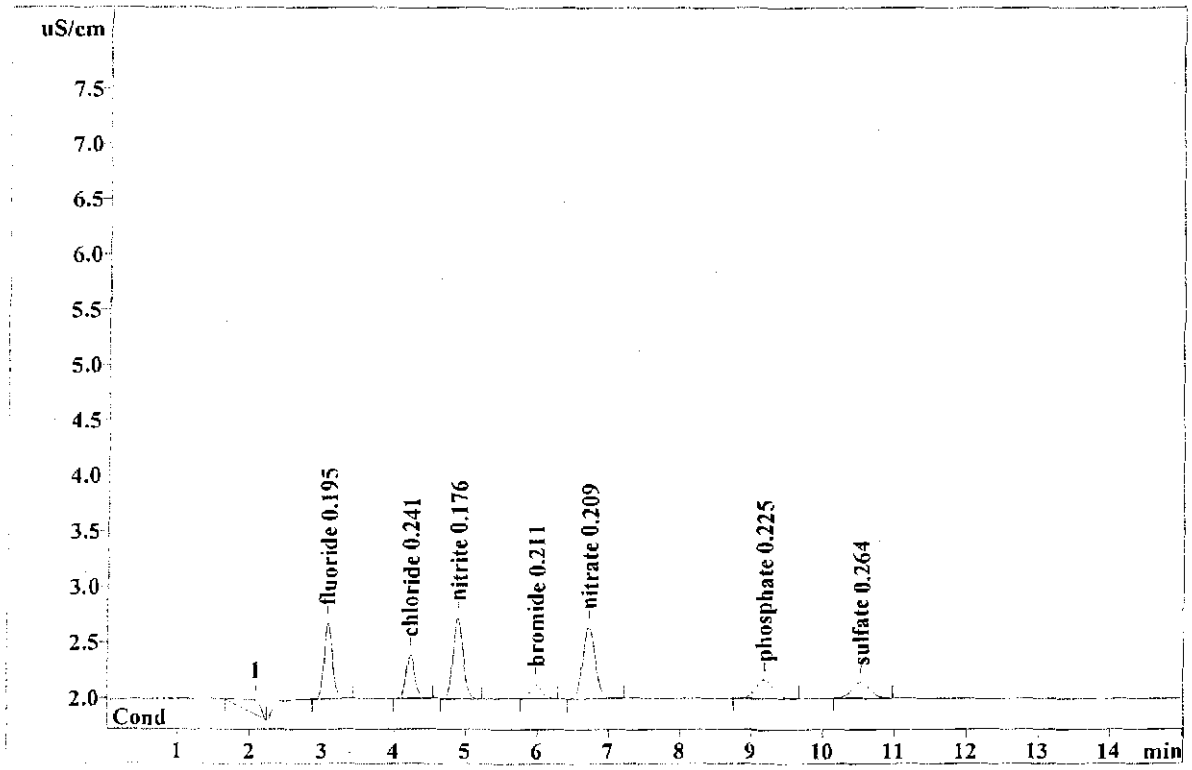
Report date: 10/24/2012 2:37:24 PM
Printed by: Jadelyn Chun

Ident: AJ29-05 S3
Analysis from: 10/24/2012 11:49:49 AM
File: wa241149.chw Last save: 10/24/2012 2:36:20 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83030

SAMPLE: 0.2PPM

Vial number: 5
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	2.424	0.000	
2	3.08	0.68	5.501	0.195	fluoride
3	4.23	0.39	3.359 ✓	0.241 ✓	chloride
4	4.89	0.72	6.915	0.176	nitrite
5	5.98	0.12	1.335	0.211	bromide
6	6.72	0.64	7.831	0.209	nitrate
7	9.18	0.17	2.853	0.225	phosphate
8	10.54	0.14	2.603	0.264	sulfate
8	15.00	2.99	32.820	1.520	

AS 10/25/12

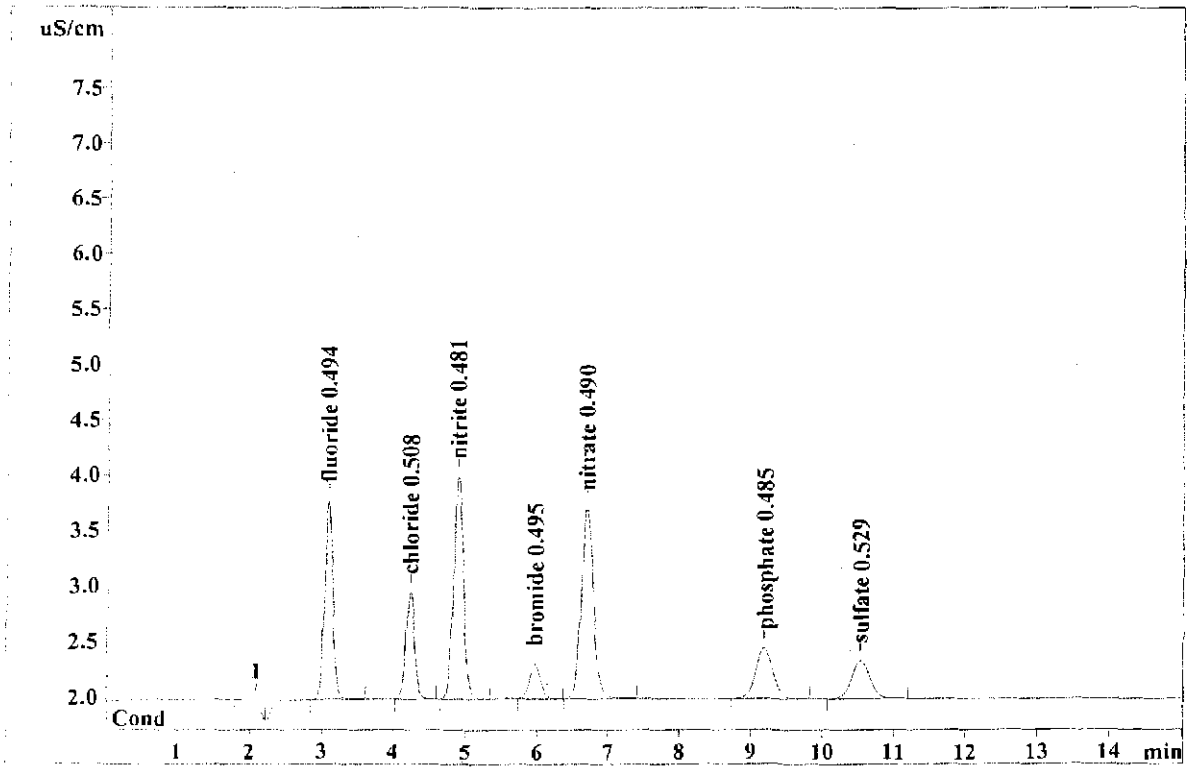
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 2:37:27 PM
Printed by: Jadelyn Chun

Ident: AJ29-06 S4
Analysis from: 10/24/2012 12:07:00 PM
File: wa241207.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83031

SAMPLE: 0.5PPM
:
Vial number: 6
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec		Conc. mg/L		Name
1	2.09	0.11	1.565		0.000		
2	3.07	1.78	14.258		0.494		fluoride
3	4.22	0.97	8.184		0.508		chloride
4	4.88	2.00	19.137		0.481		nitrite
5	5.97	0.31	3.452	✓	0.495	✓	bromide
6	6.69	1.72	20.626		0.490		nitrate
7	9.18	0.45	7.535	✓	0.485	✓	phosphate
8	10.54	0.34	6.113	✓	0.529	✓	sulfate
8	15.00	7.69	80.871		3.481		

AS
10/25/12

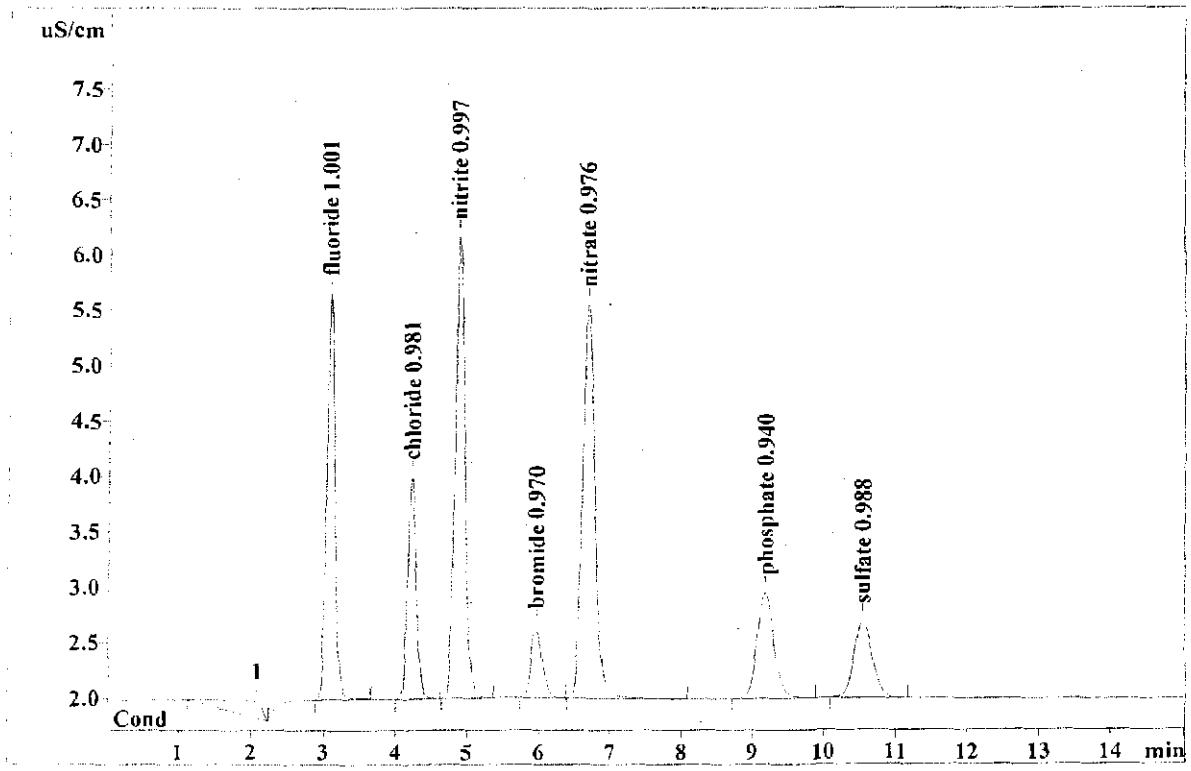
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 2:37:31 PM
Printed by: Jadelyn Chun

Ident: AJ29-07 S5
Analysis from: 10/24/2012 12:24:09 PM
File: wa241224.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83032

SAMPLE: 1.0PPM
:
Vial number: 7
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.15	5.364	0.000	
2	3.08	3.66	29.107	1.001	fluoride
3	4.22	2.00	16.707	0.981	chloride
4	4.89	4.15	39.889	0.997	nitrite
5	5.97	0.64	6.994	0.970	bromide
6	6.69	3.55	42.730	0.976	nitrate
7	9.19	0.95	15.755	0.940	phosphate
8	10.55	0.69	12.200	0.988	sulfate
8	15.00	15.79	168.745	6.852	

10/25/12

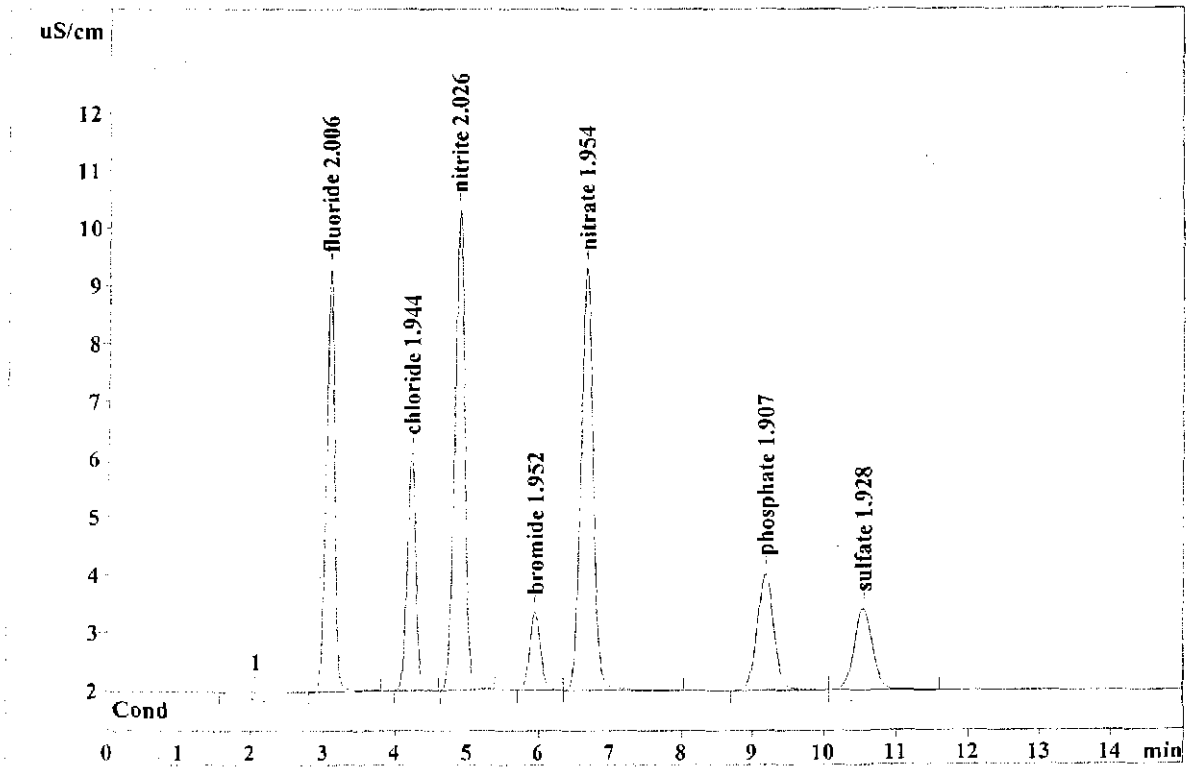
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 2:37:34 PM
Printed by: Jadelyn Chun

Ident: AJ29-08 S6
Analysis from: 10/24/2012 12:41:18 PM
File: wa241241.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83033

SAMPLE: 2.0PPM
:
Vial number: 8
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	2.670	0.000	
2	3.08	7.29	58.554	2.006	fluoride
3	4.22	4.11	34.087	1.944	chloride
4	4.88	8.30	81.202	2.026	nitrite
5	5.95	1.33	14.319	1.952	bromide
6	6.66	7.30	87.180	1.954	nitrate
7	9.19	2.00	33.185	1.907	phosphate
8	10.55	1.40	24.667	1.928	sulfate
8	15.00	31.86	335.864	13.716	

10/25/12

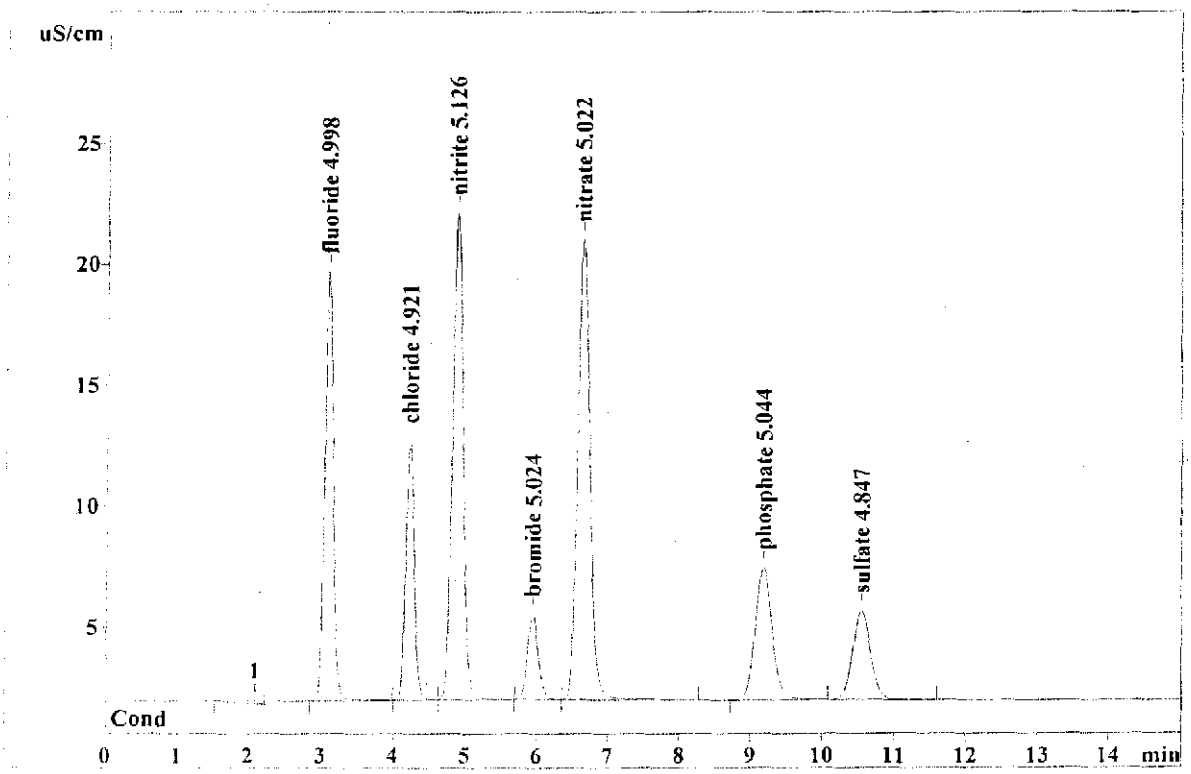
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 2:37:38 PM
Printed by: Jadelyn Chun

Ident: AJ29-09 S7
Analysis from: 10/24/2012 12:58:28 PM
File: wa241258.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83034

SAMPLE: 5.0PPM
:
Vial number: 9
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.11	2.622	0.000	
2	3.09	17.72	146.272	4.998	fluoride
3	4.22	10.70	87.781	4.921	chloride
4	4.87	20.09	205.715	5.126	nitrite
5	5.95	3.51	37.221	5.024	bromide
6	6.65	18.98	226.728	5.022	nitrate
7	9.18	5.43	89.754	5.044	phosphate
8	10.55	3.65	63.372	4.847	sulfate
8	15.00	80.20	859.465	34.983	

AS
10/25/12

This report has been created by IC Net
METROHM LTD

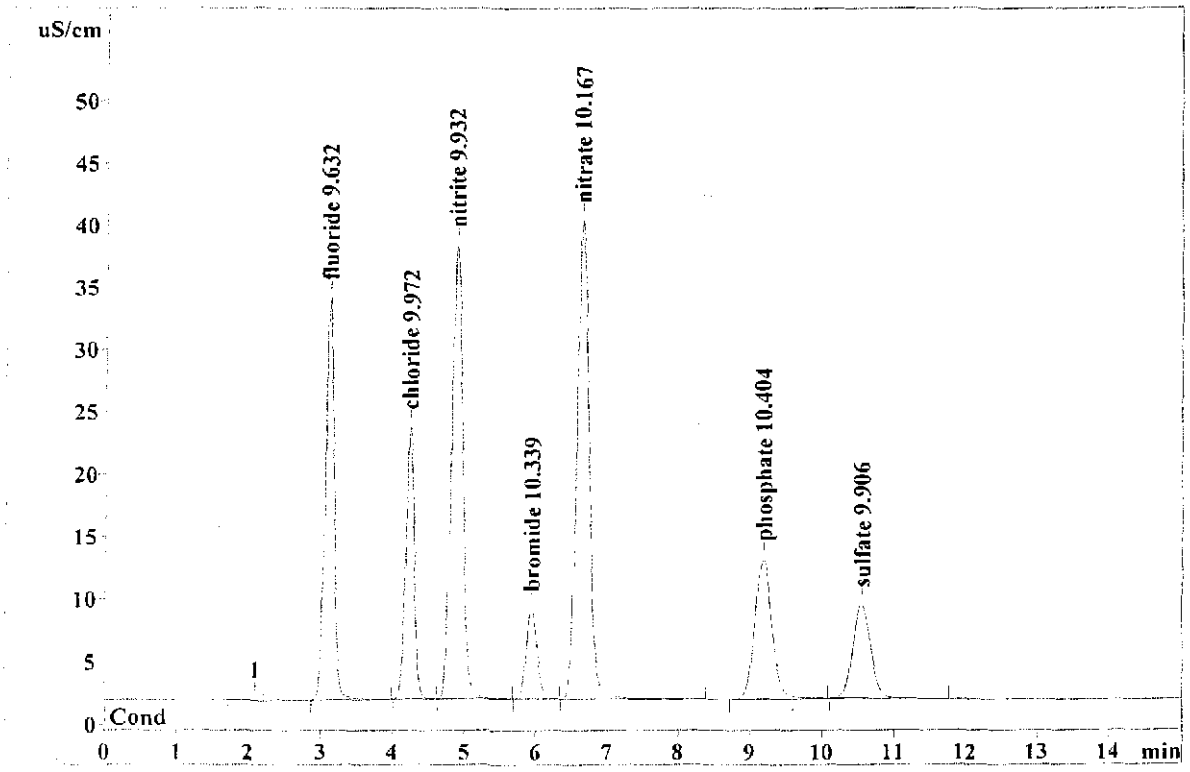
Report date: 10/24/2012 2:37:41 PM
Printed by: Jadelyn Chun

Ident: AJ29-10 S8
Analysis from: 10/24/2012 1:15:37 PM
File: wa241315.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83035

SAMPLE: 10.0PPM

Vial number: 10
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.08	1.308	0.000	
2	3.11	32.18	282.092	9.632	fluoride
3	4.22	21.75	178.888	9.972	chloride
4	4.87	36.32	398.741	9.932	nitrite
5	5.94	7.14	76.854	10.339	bromide
6	6.63	38.40	460.703	10.167	nitrate
7	9.18	11.19	186.399	10.404	phosphate
8	10.56	7.53	130.439	9.906	sulfate
8	15.00	154.59	1715.424	70.353	

AJ
10/25/12

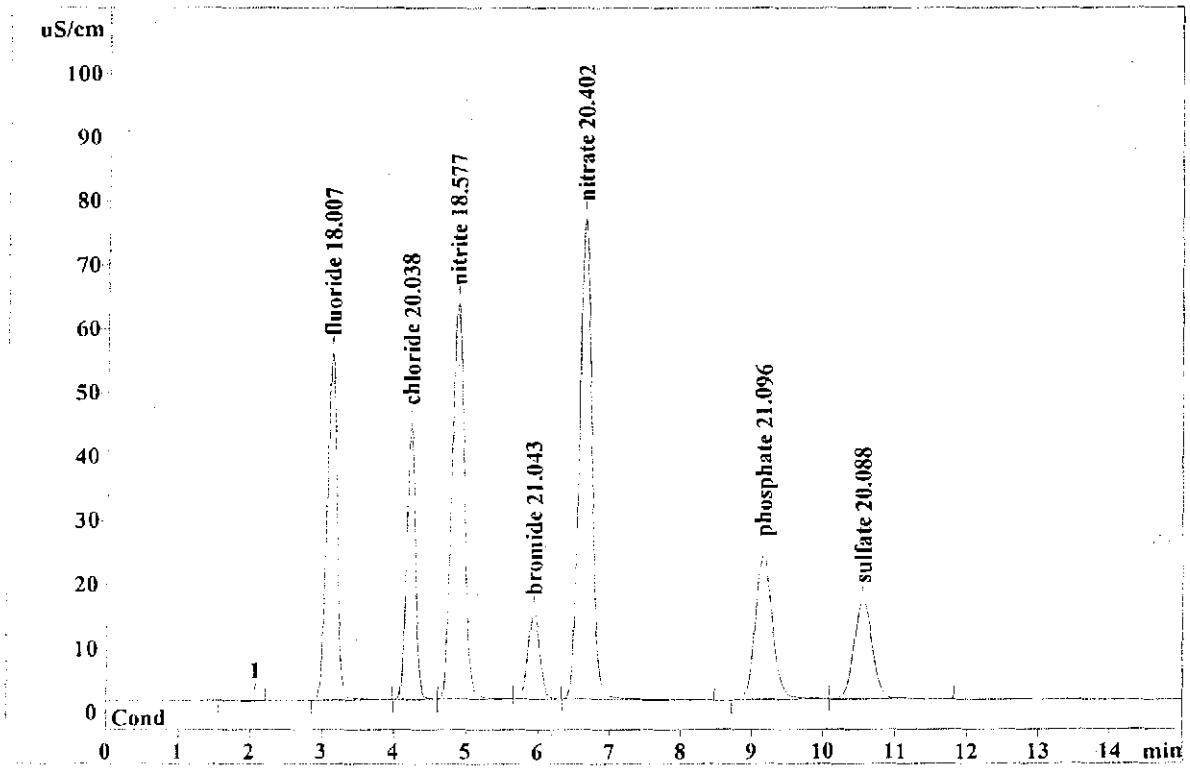
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 2:37:44 PM
Printed by: Jadelyn Chun

Ident: AJ29-11 S9
Analysis from: 10/24/2012 1:32:46 PM
File: wa241332.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83036

SAMPLE: 20.0PPM
:
Vial number: 11
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

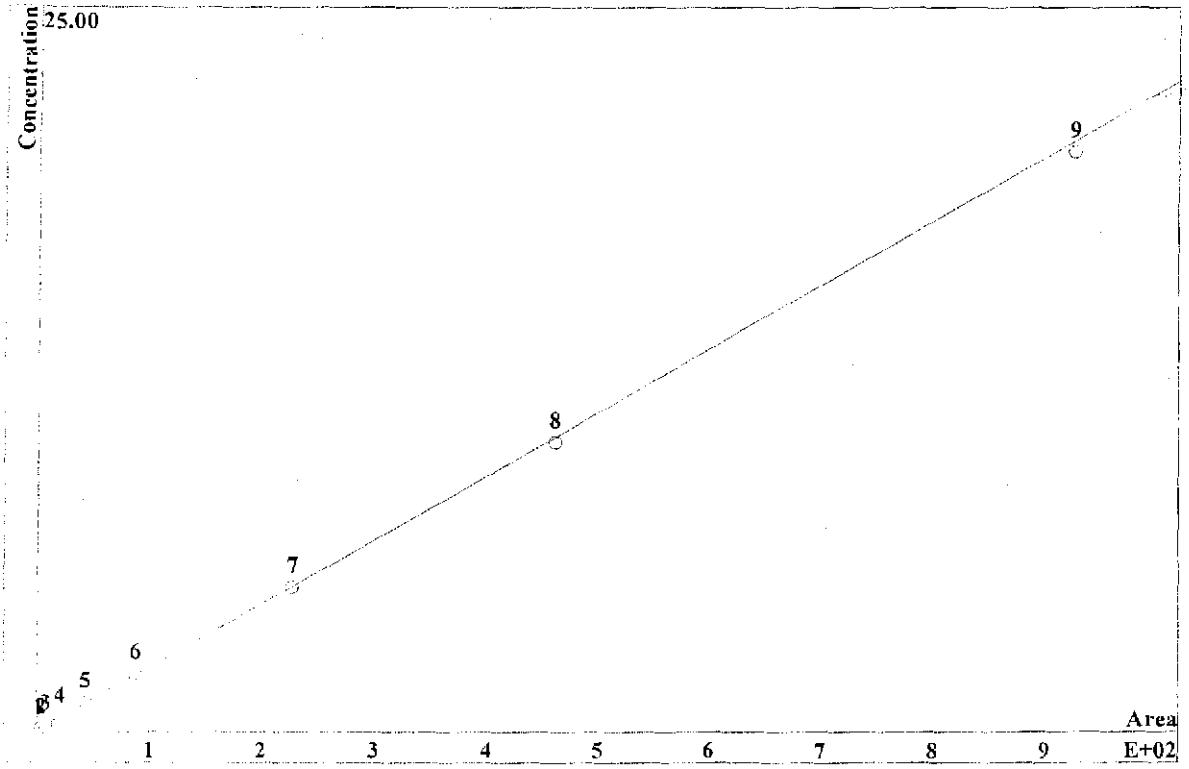
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.06	0.03	0.631	0.000	
2	3.12	54.06	527.560	18.007	fluoride
3	4.22	43.28	360.448	20.038	chloride
4	4.87	61.86	745.984	18.577	nitrite
5	5.93	13.42	156.664	21.043	bromide
6	6.64	75.02	926.137	20.402	nitrate
7	9.16	22.49	379.202	21.096	phosphate
8	10.55	15.30	265.422	20.088	sulfate
8	15.00	285.46	3362.048	139.252	

AJ 10/25/12

This report has been created by IC Net
METROHM LTD

CALIBRATION OF COMPONENT nitrate

Method: ICD0-J23.mtw
Equation: Q = 0.0219902·A + 0.0365389
RSD: 2.402 %
Correlation coefficient: 0.999879



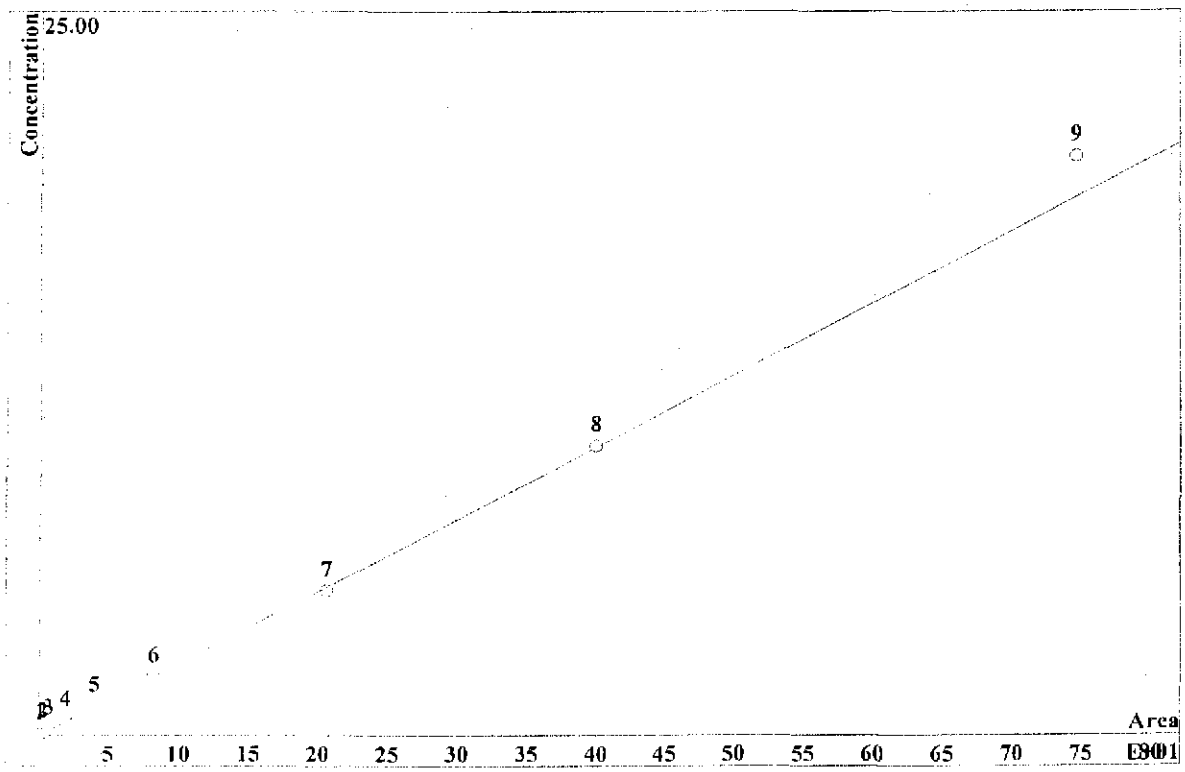
K3 = 0 K2 = 0 K1 = 0.0219902 K0 = 0.0365389
Base: Area
Ref.channel: Cond
ISTD:
Formula: Linear
Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.1509	1.875	0.05	1	6.69	Yes	wa241115.chw
2	0.3128	3.852	0.1	1	6.69	Yes	wa241132.chw
3	0.6444	7.831	0.2	1	6.69	Yes	wa241149.chw
4	1.716	20.63	0.5	1	6.69	Yes	wa241207.chw
5	3.554	42.73	1	1	6.69	Yes	wa241224.chw
6	7.297	87.18	2	1	6.69	Yes	wa241241.chw
7	18.98	226.7	5	1	6.69	Yes	wa241258.chw
8	38.4	460.7	10	1	6.69	No	wa241315.chw
9	75.02	926.1	20	1	6.69	No	wa241332.chw

AS 10/25/12

CALIBRATION OF COMPONENT nitrite

Method: ICD0-J23.mtw ✓ ✓
Equation: Q = 0.0248974·A + 0.00406002
RSD: 2.617 %
Correlation coefficient: 0.999867



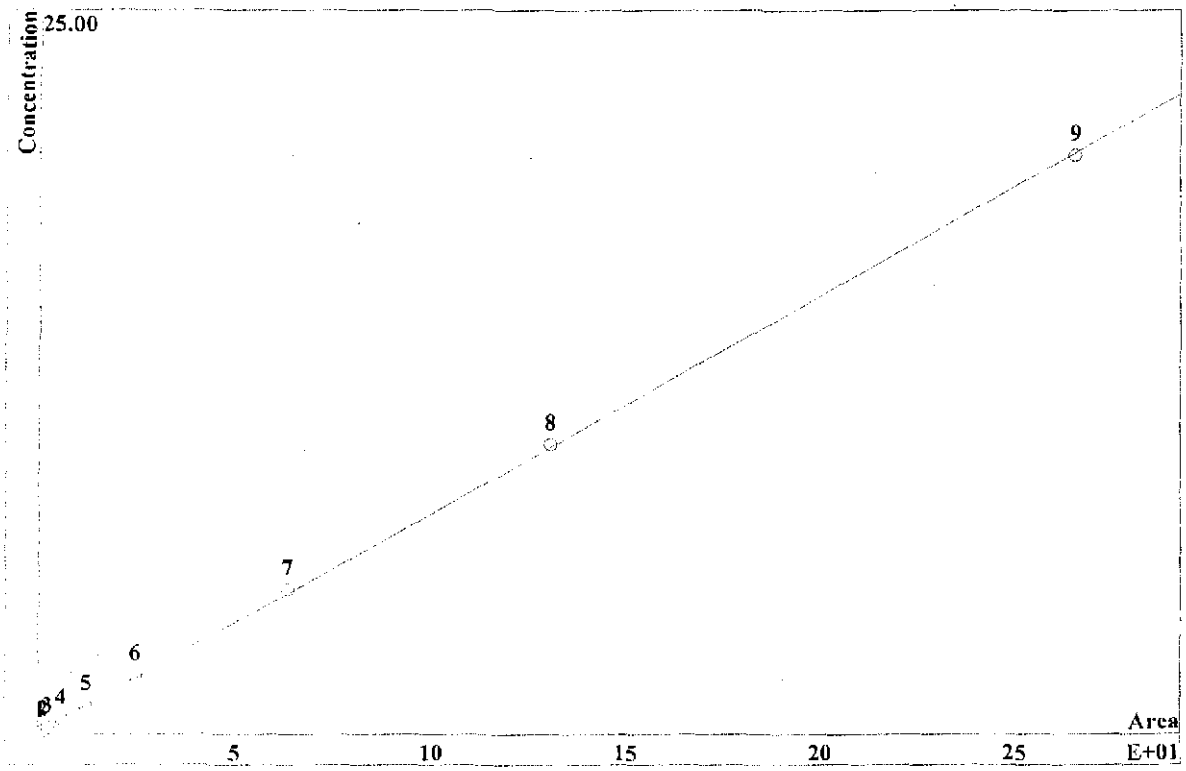
K3 = 0 K2 = 0 K1 = 0.0248974 K0 = 0.00406002
Base: Area
Ref.channel: Cond
ISTD:
Formula: Linear
Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.1229	1.161 ✓	0.05	1	4.88	Yes	wa241115.chw
2	0.317	3.043 ✓	0.1	1	4.88	Yes	wa241132.chw
3	0.7175	6.915 ✓	0.2	1	4.88	Yes	wa241149.chw
4	2.003	19.14 ✓	0.5	1	4.88	Yes	wa241207.chw
5	4.153	39.89 ✓	1	1	4.88	Yes	wa241224.chw
6	8.302	81.2 ✓	2	1	4.88	Yes	wa241241.chw
7	20.09	205.7 ✓	5	1	4.88	Yes	wa241258.chw
8	36.32	398.7 ✓	10	1	4.88	Yes	wa241315.chw
9	61.86	746 ✓	20	1	4.88	No	wa241332.chw

AS 25/12.

CALIBRATION OF COMPONENT sulfate

Method: ICD0-J23.mtw
Equation: Q = 0.0754287·A + 0.0673977
RSD: 2.168 %
Correlation coefficient: 0.999915



K3 = 0 K2 = 0 K1 = 0.0754287 K0 = 0.0673977
Base: Area
Ref.channel: Cond
ISTD:
Formula: Linear
Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.04232	0.7541	0.05	1	10.54	Yes	wa241115.chw
2	0.07896	1.443	0.1	1	10.54	Yes	wa241132.chw
3	0.1451	2.603	0.2	1	10.54	Yes	wa241149.chw
4	0.342	6.113	0.5	1	10.54	Yes	wa241207.chw
5	0.6887	12.2	1	1	10.54	Yes	wa241224.chw
6	1.4	24.67	2	1	10.54	Yes	wa241241.chw
7	3.649	63.37	5	1	10.54	Yes	wa241258.chw
8	7.53	130.4	10	1	10.54	Yes	wa241315.chw
9	15.3	265.4	20	1	10.54	Yes	wa241332.chw

10/25/12.

SECOND SOURCE VERIFICATION

IC Result Check FormVersion : J23/AJ29(2012)

LFID	LSID	Selection	bromide	chloride	sulfate	nitrate	nitrite	phosphate	fluoride	RawNetID	DF
AJ29-01	IB	BCSNIPF	0	0	0	0	0	0	0	wa241041	1
AJ29-12	ICV	BCSNIPF	97.2%	100.5%	99.8%	100.2%	101.2%	97.9%	102.9%	wa241400	1
AJ29-13	ICB	BCSNIPF	0	0	0	0	0	0	0	wa241417	1

RD
10/25/12

8041

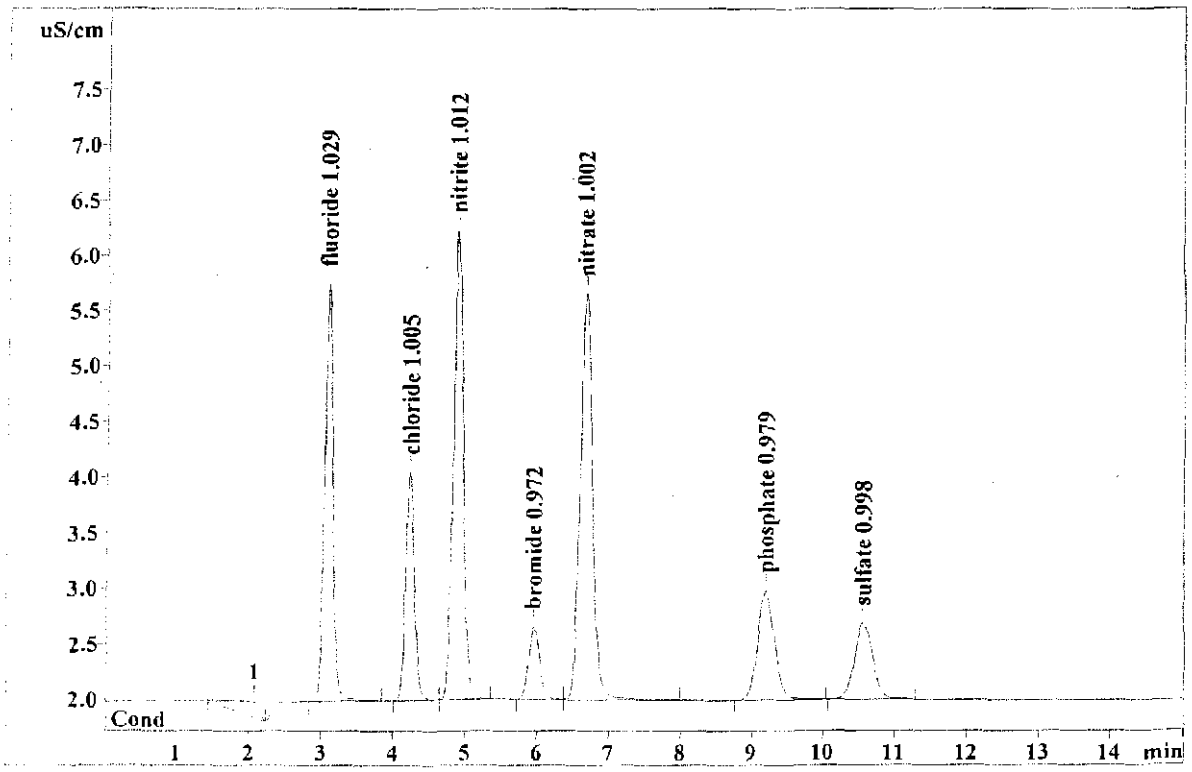
Report date: 10/24/2012 2:37:52 PM
Printed by: Jadelyn Chun

Ident: AJ29-12 ICV
Analysis from: 10/24/2012 2:00:27 PM
File: wa241400.chw Last save: 10/24/2012 2:36:22 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83037

SAMPLE: 1.0PPM

Vial number: 12
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.14	3.647	0.000	
2	3.08	3.76	29.948 ✓	1.029 ✓	fluoride
3	4.22	2.05	17.149 ✓	1.005 ✓	chloride
4	4.88	4.23	40.479 ✓	1.012 ✓	nitrite
5	5.95	0.65	7.011 ✓	0.972 ✓	bromide
6	6.67	3.66	43.902 ✓	1.002 ✓	nitrate
7	9.20	0.98	16.450 ✓	0.979 ✓	phosphate
8	10.57	0.69	12.344 ✓	0.998 ✓	sulfate
8	15.00	16.17	170.931	6.998	

RS
10/25/12

This report has been created by IC Net
METROHM LTD

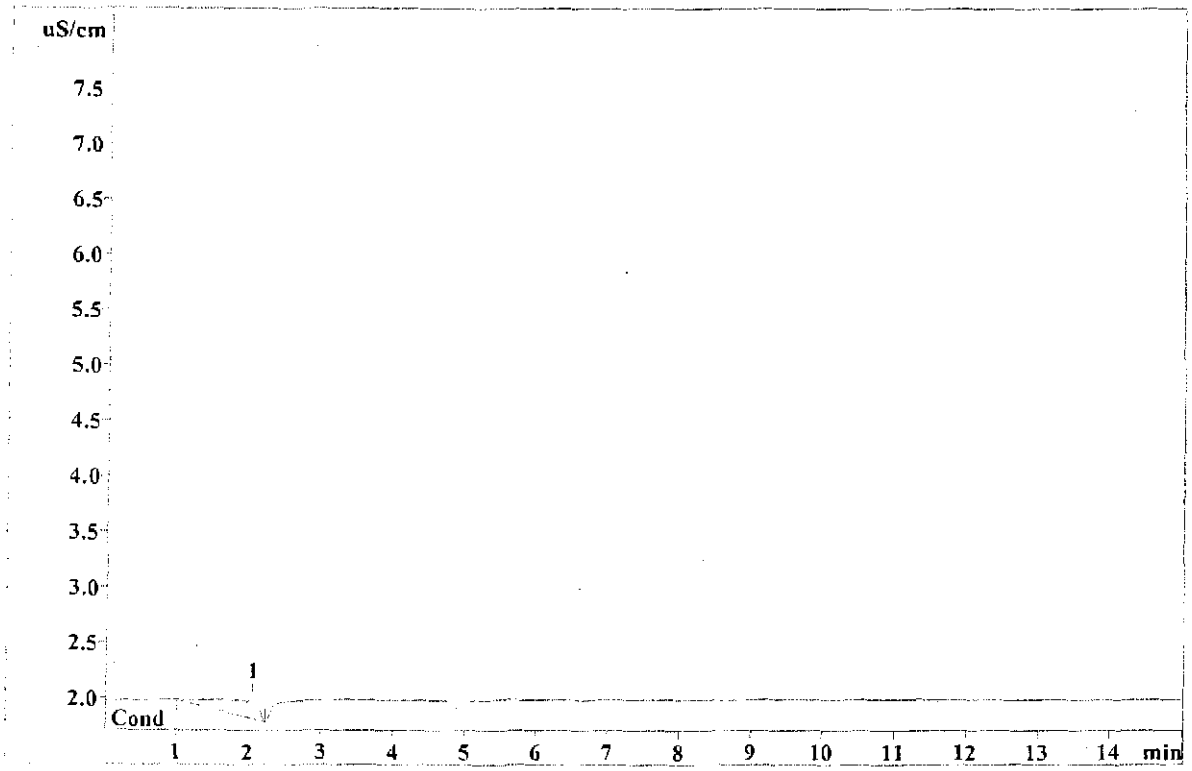
Report date: 10/24/2012 2:37:56 PM
Printed by: Jadelyn Chun

Ident: AJ29-13 ICB
Analysis from: 10/24/2012 2:17:36 PM
File: wa241417.chw Last save: 10/24/2012 2:36:22 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83038

SAMPLE:

Vial number: 13
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.06	0.16	6.360	0.000	

This report has been created by IC Net
METROHM LTD

AJ 10/26/12

DAILY CALIBRATION(S)

IC Result Check FormVersion : J23/AJ29(2012)

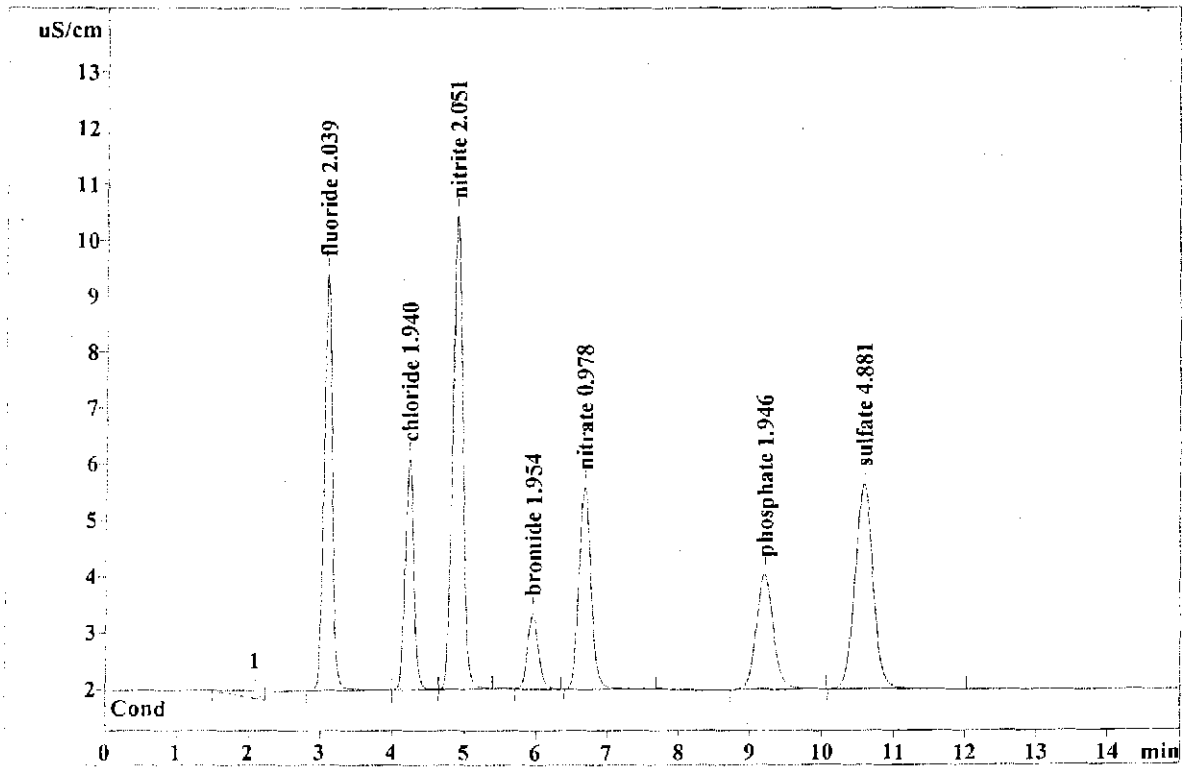
LFID	LSID	Selection	bromide	chloride	fluoride	nitrate	nitrite	phosphate	sulfate	RawNetID	DF
AJ31-01	CCV1	BCFNIPS	97.7%	97%	102%	97.8%	102.6%	97.3%	97.6%	wa241442	1
AJ31-02	CCB1	BCFNIPS	0	0	0	0	0	0	0	wa241500	1
AJ31-13	CCV3	BCFNIPS	98.3%	97.5%	102.1%	98.6%	102.4%	96.5%	98.1%	wa241808	1
AJ31-14	CCB3	BCFNIPS	0	0	0	0	0	0	0	wa241826	1
AJ31-25	CCV5	BCFNIPS	98.1%	97.6%	102.3%	98.4%	102.5%	96.8%	97.9%	wa242134	1
AJ31-26	CCB5	BCFNIPS	0	0	0	0	0	0	0	wa242151	1
AJ31-37	CCV7	BCFNIPS	98.3%	97.6%	102.7%	98.6%	102.7%	98.1%	98%	wa250100	1
AJ31-38	CCB7	BCFNIPS	0	0	0	0	0	0	0	wa250117	1
AJ31-49	CCV9	BCFNIPS	98.7%	98.4%	102.7%	99.2%	102.5%	96.1%	98.7%	wa250426	1
AJ31-50	CCB9	BCFNIPS	0	0	0	0	0	0	0	wa250443	1
AJ31-61	CCV11	BCFNIPS	98.6%	97.8%	102.6%	98.8%	103%	96.8%	98.7%	wa250752	1
AJ31-62	CCB11	BCFNIPS	0	0	0	0	0	0	0	wa250809	1
AJ31-73	CCV13	BCFNIPS	98.7%	98%	102.8%	98.6%	103%	96.9%	98.2%	wa251118	1
AJ31-74	CCB13	BCFNIPS	0	0	0	0	0	0	0	wa251135	1
AJ31-85	CCV15	BCFNIPS	98.4%	100.6%	104.1%	101%	104.1%	98.2%	99%	wa251443	1
AJ31-86	CCB15	BCFNIPS	0	0	0	0	0	0	0	wa251519	1
AJ31-93	CCV17	BCFNIPS	87.1%*	91%	97.5%	91.1%	100.1%	88.2%*	90.7%	wa251720	1
AJ31-94	CCB17	BCFNIPS	0	0	0	0	0	0	0	wa251737	1

Report date: 10/24/2012 2:57:53 PM
Printed by: Jadelyn Chun

Ident: AJ31-01 CCV1
Analysis from: 10/24/2012 2:42:56 PM
File: WA241442.CHW Last save: 10/24/2012 2:57:53 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83039

SAMPLE:
:
Vial number: 1
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

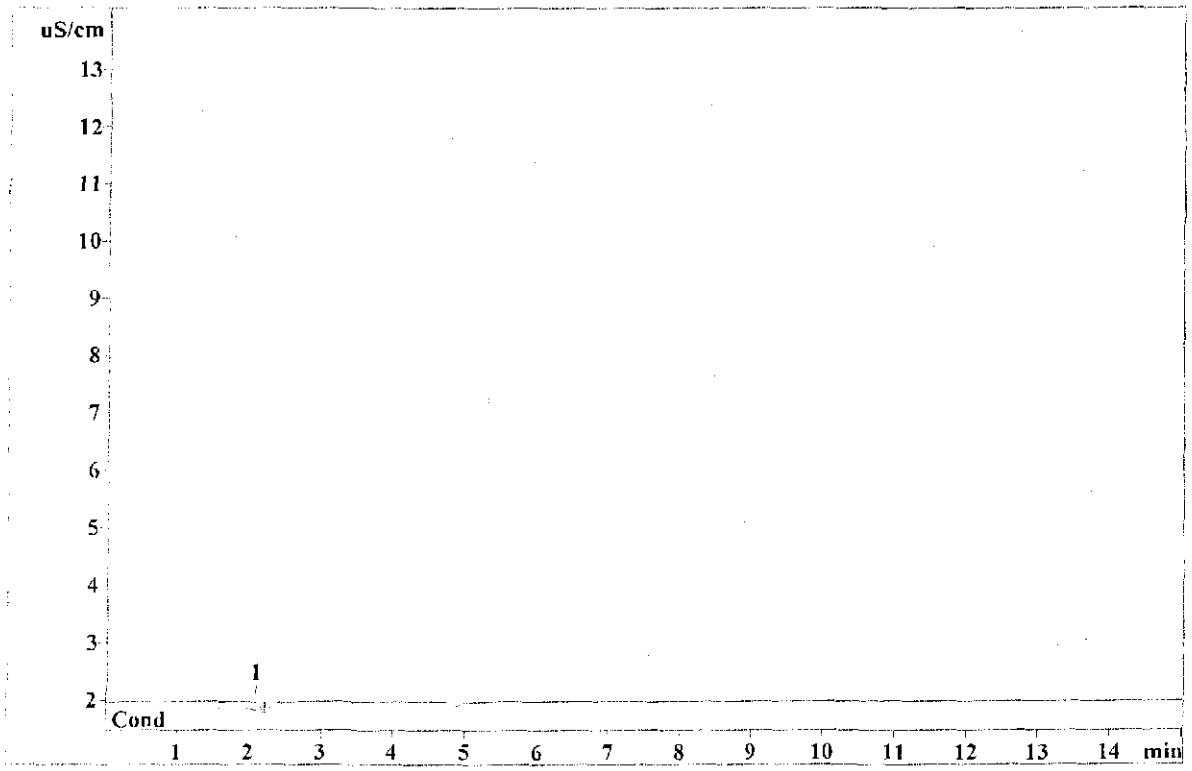
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	3.137	0.000	
2	3.09	7.40	59.546	2.039	fluoride
3	4.22	4.10	34.010	1.940	chloride
4	4.88	8.41	82.229	2.051	nitrite
5	5.95	1.34	14.337	1.954	bromide
6	6.67	3.59	42.832	0.978	nitrate
7	9.21	2.04	33.885	1.946	phosphate
8	10.58	3.63	63.814	4.881	sulfate
8	15.00	30.64	333.791	15.790	

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:10:29 AM
Printed by: Jadelyn Chun

Ident: AJ31-02 CCB1
Analysis from: 10/24/2012 3:00:05 PM
File: wa241500.chw Last save: 10/24/2012 3:15:02 PM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83040

SAMPLE:
:
Vial number: 2
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.14	2.832	0.000	

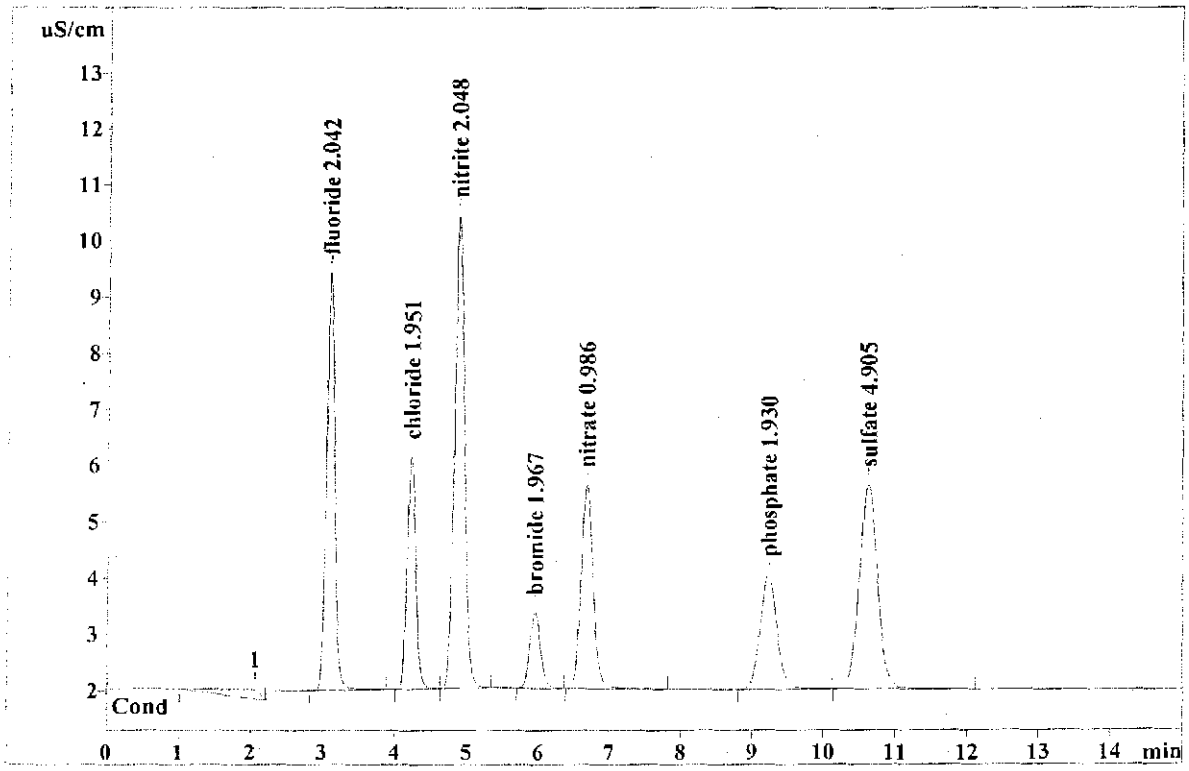
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 6:23:50 PM
Printed by: Jadelyn Chun

Ident: AJ31-13 CCV3
Analysis from: 10/24/2012 6:08:53 PM
File: WA241808.CHW Last save: 10/24/2012 6:23:50 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83051

SAMPLE:
:
Vial number: 13
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

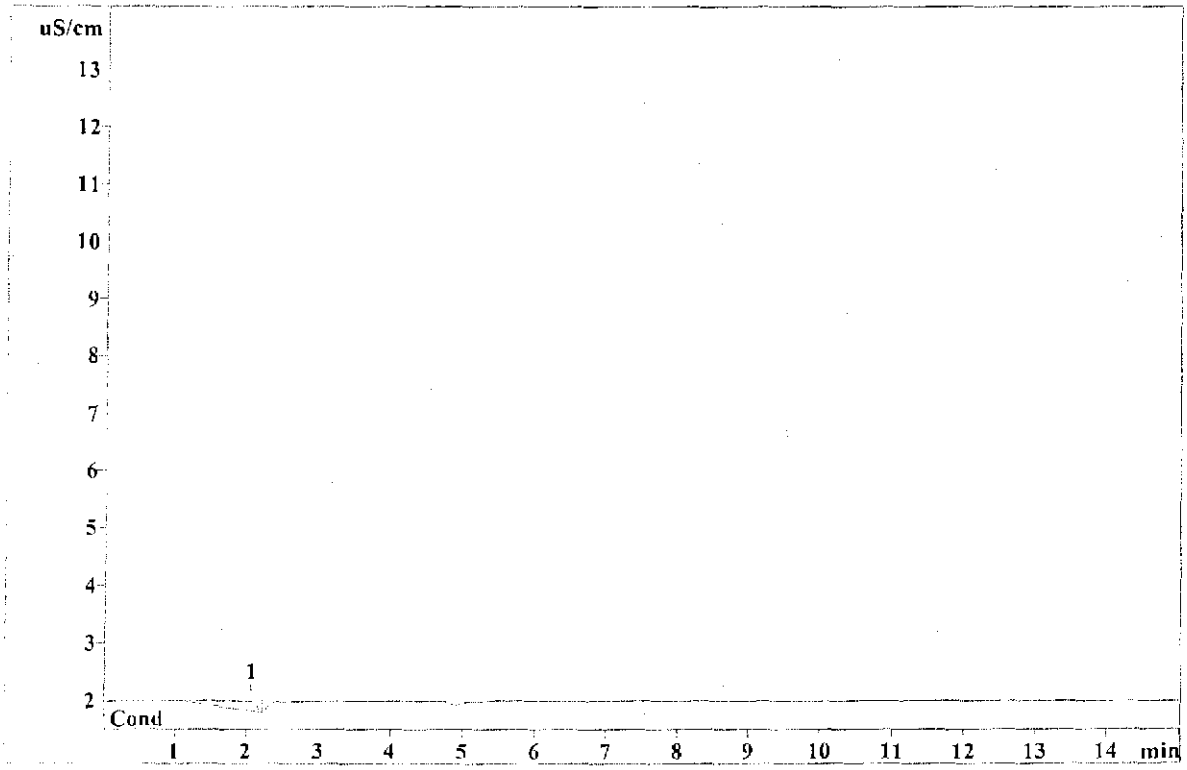
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.05	0.16	6.169	0.000	
2	3.09	7.41	59.626	2.042	fluoride
3	4.23	4.13	34.207	1.951	chloride
4	4.88	8.40	82.092	2.048	nitrite
5	5.95	1.34	14.429	1.967	bromide
6	6.67	3.61	43.164	0.986	nitrate
7	9.23	2.03	33.596	1.930	phosphate
8	10.62	3.63	64.135	4.905	sulfate
8	15.00	30.71	337.418	15.828	

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:11:41 AM
Printed by: Jadelyn Chun

Ident: AJ31-14 CCB3
Analysis from: 10/24/2012 6:26:02 PM
File: wa241826.chw Last save: 10/24/2012 6:40:59 PM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83052

SAMPLE:
:
Vial number: 14
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.06	0.16	6.185	0.000	

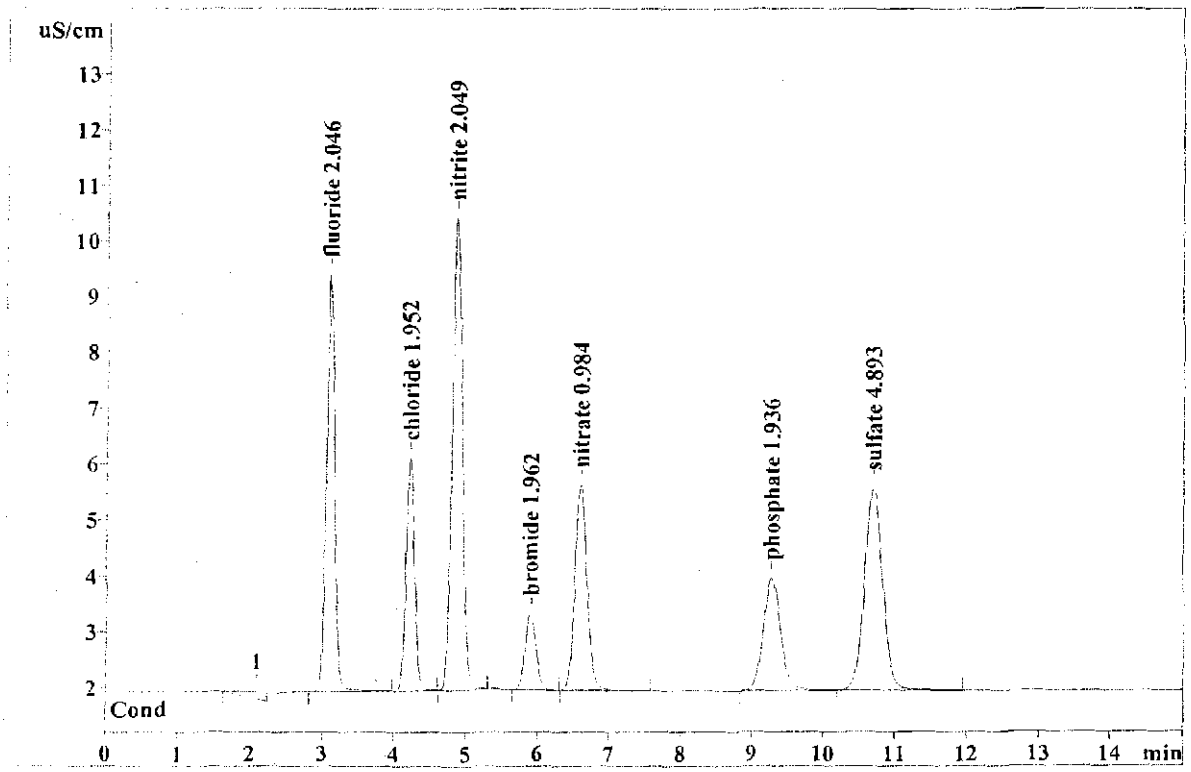
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 9:49:39 PM
Printed by: Jadelyn Chun

Ident: AJ31-25 CCV5
Analysis from: 10/24/2012 9:34:42 PM
File: WA242134.CHW Last save: 10/24/2012 9:49:39 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83063

SAMPLE:
:
Vial number: 25
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

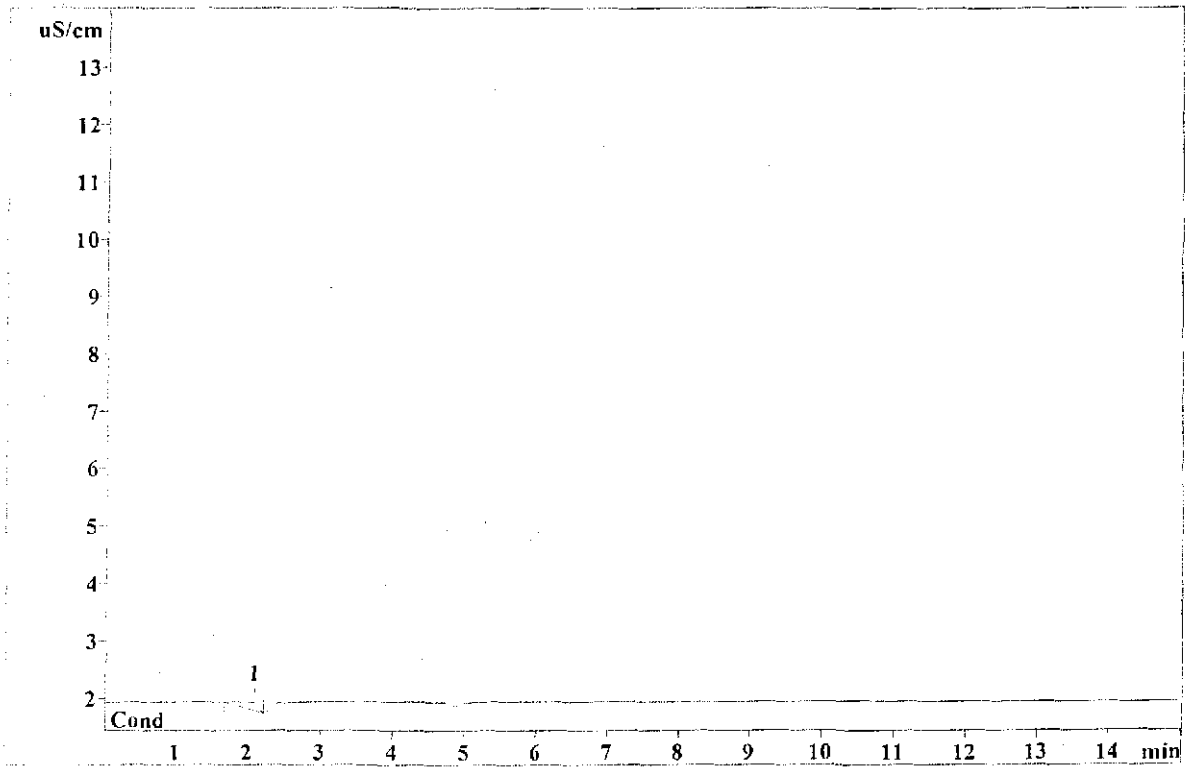
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	2.524	0.000	
2	3.09	7.46	59.735	2.046	fluoride
3	4.22	4.16	34.235	1.952	chloride
4	4.86	8.46	82.152	2.049	nitrite
5	5.90	1.36	14.394	1.962	bromide
6	6.60	3.67	43.092	0.984	nitrate
7	9.27	2.01	33.705	1.936	phosphate
8	10.70	3.60	63.982	4.893	sulfate
8	15.00	30.85	333.818	15.823	

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:13:25 AM
Printed by: Jadelyn Chun

Ident: AJ31-26 CCB5
Analysis from: 10/24/2012 9:51:52 PM
File: wa242151.chw Last save: 10/24/2012 10:06:49 PM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83064

SAMPLE:
:
Vial number: 26
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.09	0.13	2.446	0.000	

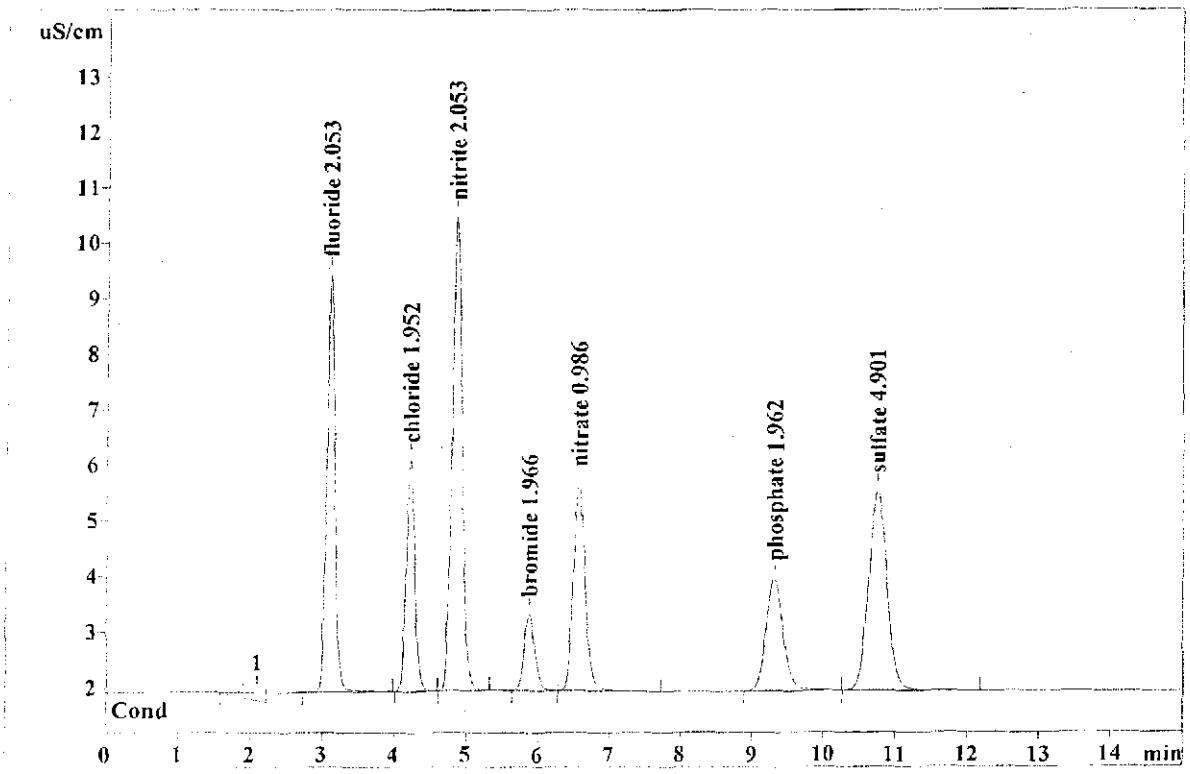
This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 1:15:30 AM
Printed by: Jadelyn Chun

Ident: AJ31-37 CCV7
Analysis from: 10/25/2012 1:00:33 AM
File: WA250100.CHW Last save: 10/25/2012 1:15:30 AM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83075

SAMPLE:
:
Vial number: 37
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

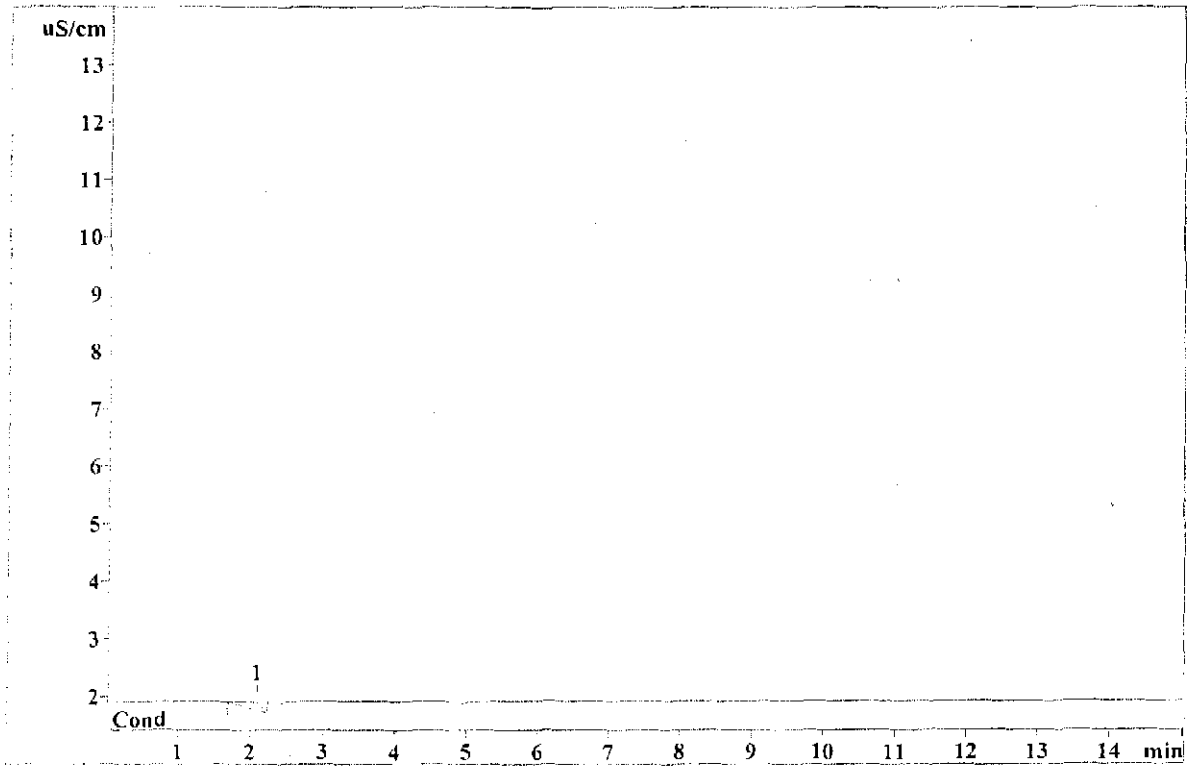
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	2.846	0.000	
2	3.10	7.50	59.953	2.053	fluoride
3	4.21	4.16	34.226	1.952	chloride
4	4.85	8.50	82.300	2.053	nitrite
5	5.87	1.37	14.424	1.966	bromide
6	6.56	3.70	43.171	0.986	nitrate
7	9.31	2.03	34.166	1.962	phosphate
8	10.75	3.58	64.087	4.901	sulfate
8	15.00	30.97	335.173	15.873	

This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:14:24 AM
Printed by: Jadelyn Chun

Ident: AJ31-38 CCB7
Analysis from: 10/25/2012 1:17:42 AM
File: wa250117.chw Last save: 10/25/2012 1:32:39 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83076

SAMPLE:
:
Vial number: 38
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.09	0.13	2.380	0.000	

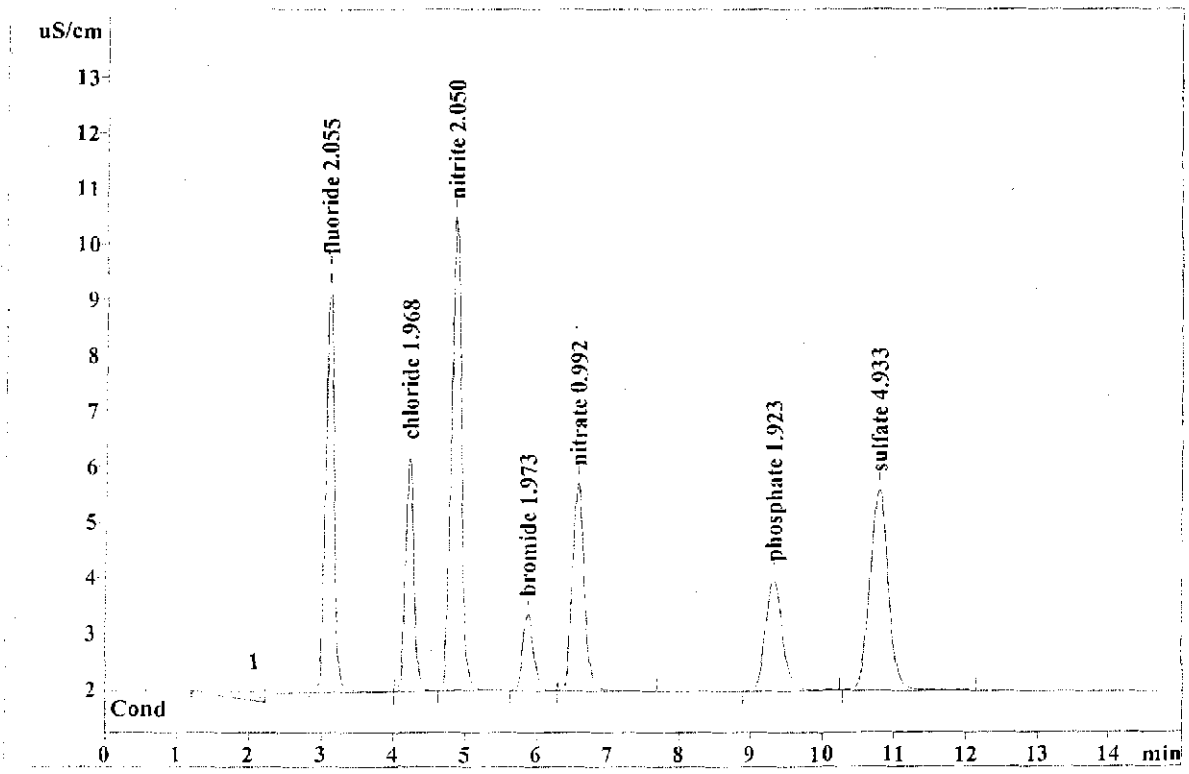
This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 4:41:20 AM
Printed by: Jadelyn Chun

Ident: AJ31-49 CCV9
Analysis from: 10/25/2012 4:26:23 AM
File: WA250426.CHW Last save: 10/25/2012 4:41:20 AM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83087

SAMPLE:
:
Vial number: 49
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.16	5.133	0.000	
2	3.10	7.52	60.003	2.055	fluoride
3	4.22	4.20	34.509	1.968	chloride
4	4.85	8.49	82.193	2.050	nitrite
5	5.88	1.37	14.476	1.973	bromide
6	6.58	3.71	43.465	0.992	nitrate
7	9.32	2.01	33.470	1.923	phosphate
8	10.79	3.59	64.508	4.933	sulfate
8	15.00	31.06	337.758	15.895	

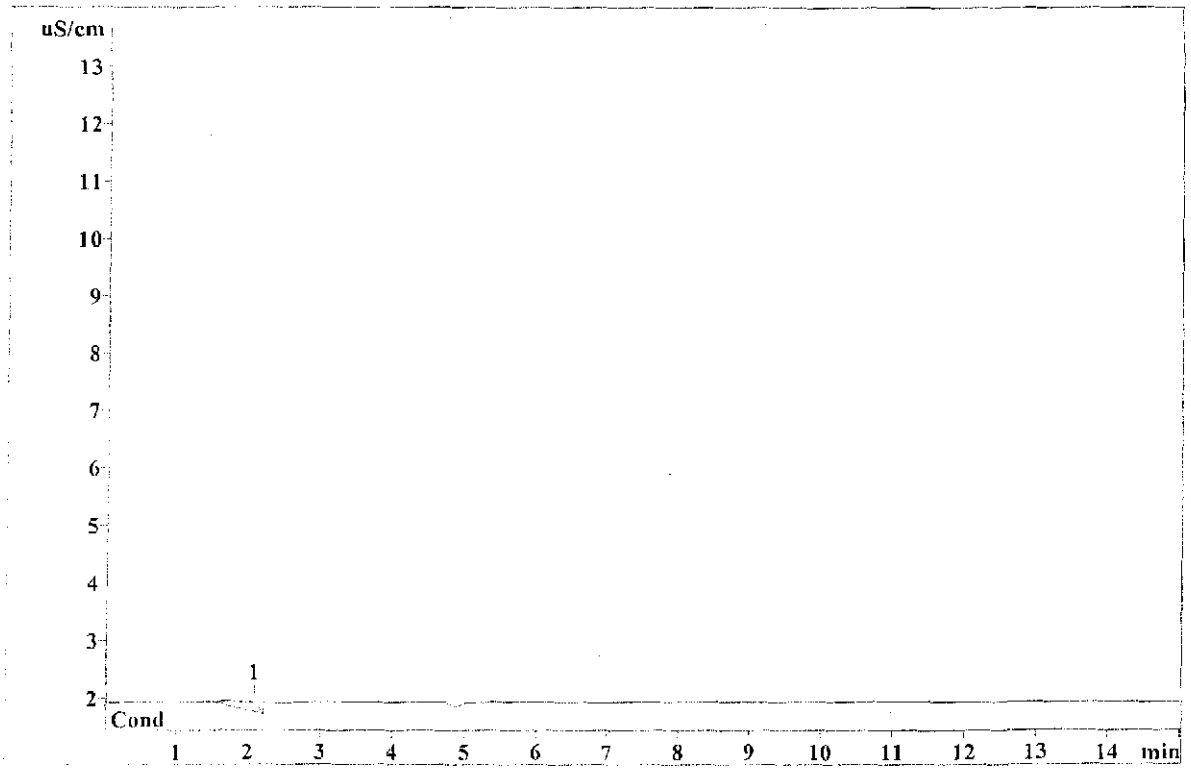
This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:14:58 AM
Printed by: Jadelyn Chun

Ident: AJ31-50 CCB9
Analysis from: 10/25/2012 4:43:32 AM
File: wa250443.chw Last save: 10/25/2012 4:58:29 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83088

SAMPLE:

Vial number: 50
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.15	3.625	0.000	

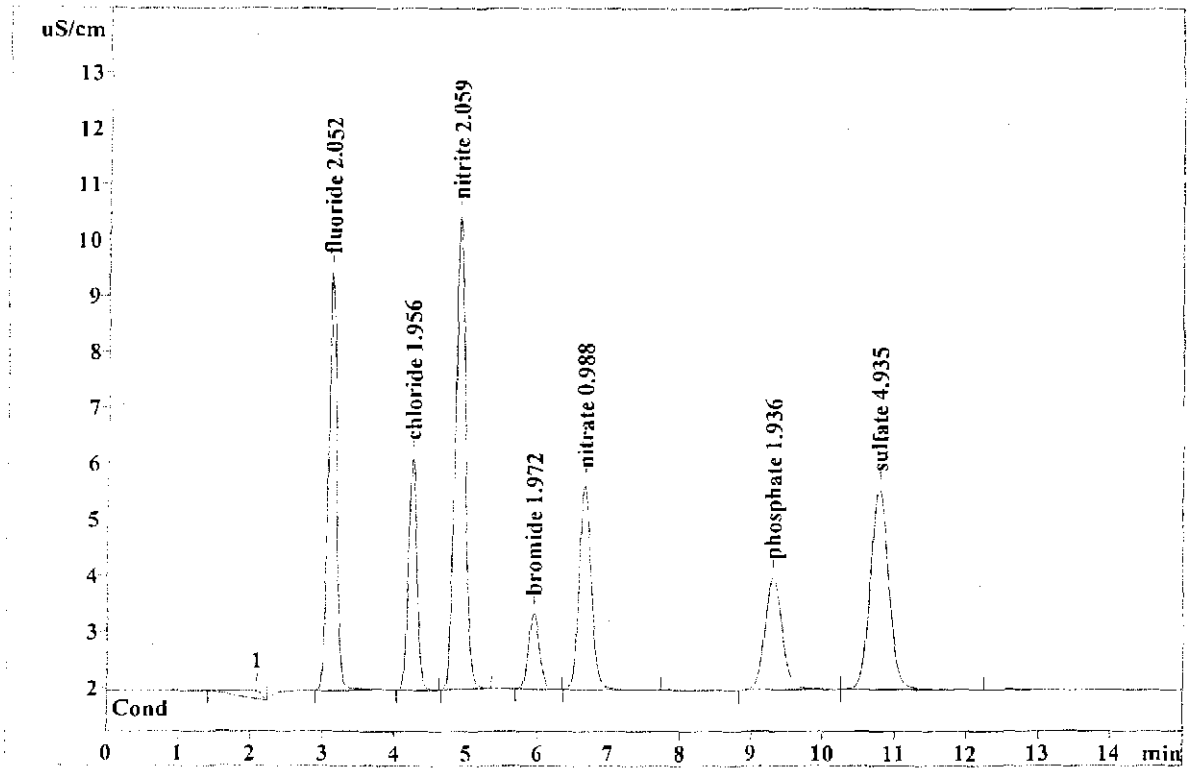
This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 8:07:11 AM
Printed by: Jadelyn Chun

Ident: AJ31-61 CCV11
Analysis from: 10/25/2012 7:52:14 AM
File: WA250752.CHW Last save: 10/25/2012 8:07:11 AM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83099

SAMPLE:
:
Vial number: 61
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.14	3.712	0.000	
2	3.10	7.47	59.926	2.052	fluoride
3	4.23	4.14	34.305	1.956	chloride
4	4.88	8.43	82.536	2.059	nitrite
5	5.94	1.35	14.471	1.972	bromide
6	6.65	3.64	43.282	0.988	nitrate
7	9.30	2.00	33.701	1.936	phosphate
8	10.78	3.58	64.531	4.935	sulfate
8	15.00	30.75	336.465	15.899	

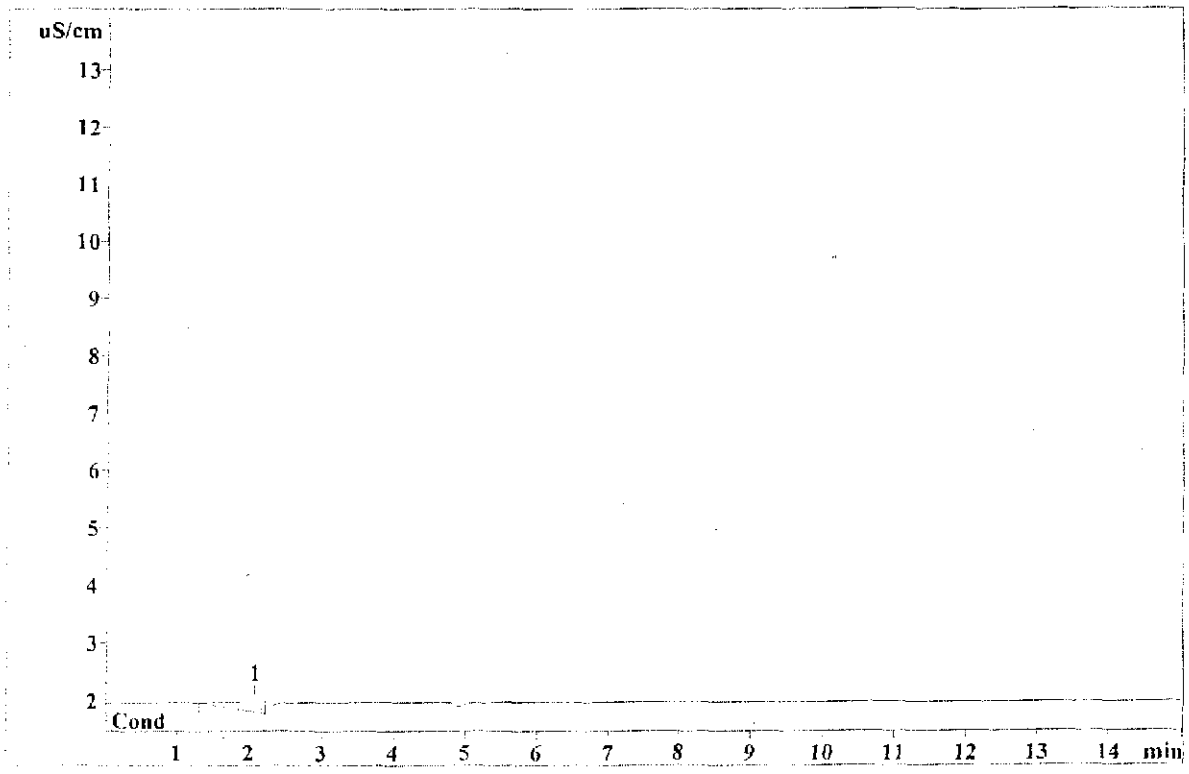
This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:15:25 AM
Printed by: Jadelyn Chun

Ident: AJ31-62 CCB11
Analysis from: 10/25/2012 8:09:23 AM
File: wa250809.chw Last save: 10/25/2012 8:24:20 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83100

SAMPLE:

Vial number: 62
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.16	4.653	0.000	

This report has been created by IC Net
METROHM LTD

ANALYTICAL LOG(S)

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Concentrations of (ppm):

S_1 — 0.05
S_2 — 0.1
S_3 — 0.2
S_4 — 0.5
S_5 — 1.0
S_6 — 2.0
S_7 — 5.0
S_8 — 10.0
S_9 — 20.0

Linearity (ppm):

F^- — 5
Cl^- — 20
NO_2N — 10
Br^- — 5
PO_4P — 5
NO_3N — 5
SO_4^{2-} — 20

Column: Metrosep A Supp 5-100 # 7108270

Flow Rate: 0.70 ml/min Metrosep RP2 Guard # D103 0022

IC Eluent:
SW4-02-01-04
(320 mM Na_2CO_3 / 100 mM $NaHCO_3$) 20 ml → 2 L reagent water

IC Regenerant:
SW4-02-01-03 (1000 mM H_2SO_4) 100 ml → 1 L reagent water

Reagent Water: RW1-12-001

Book #:	AD0-037
Instrument No.:	D0
Pipette ID's:	039380124
	SW8A-02-12
	SW8A-02-13
Balance ID #:	40706360
Analytical Sequence:	AJ29
Method File:	IcDO-J23.mtw
Analytical Batch:	NA

SOP #	Rev. #
☑ EMAX-300.0	9
☐ EMAX-4110B	3
☑ EMAX-9056	6
☐ EMAX-	

STANDARDS ID	
ICAL	SI1B-21-41-02
ICV	SI1B-21-41-03
CCV	NA
LCS	↓
MS	↓

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ IC-METROHM	

Analyzed By: JC

Date: 10/24/12

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2
wa241041.chw	ICD0-J23.mtw	AJ29-01 IB	1	1.0	1.0	1.0	100.0	0		
wa241058.chw	ICD0-J23.mtw	AJ29-02 S0	2	1.0	1.0	1.0	100.0	0		
wa241115.chw	ICD0-J23.mtw	AJ29-03 S1	3	1.0	1.0	1.0	100.0	1	0.05PPM	
wa241132.chw	ICD0-J23.mtw	AJ29-04 S2	4	1.0	1.0	1.0	100.0	2	0.1PPM	
wa241149.chw	ICD0-J23.mtw	AJ29-05 S3	5	1.0	1.0	1.0	100.0	3	0.3PPM	
wa241207.chw	ICD0-J23.mtw	AJ29-06 S4	6	1.0	1.0	1.0	100.0	4	0.5PPM	
wa241224.chw	ICD0-J23.mtw	AJ29-07 S5	7	1.0	1.0	1.0	100.0	5	1.0PPM	
wa241241.chw	ICD0-J23.mtw	AJ29-08 S6	8	1.0	1.0	1.0	100.0	6	2.0PPM	
wa241258.chw	ICD0-J23.mtw	AJ29-09 S7	9	1.0	1.0	1.0	100.0	7	5.0PPM	
wa241315.chw	ICD0-J23.mtw	AJ29-10 S8	10	1.0	1.0	1.0	100.0	8	10.0PPM	
wa241332.chw	ICD0-J23.mtw	AJ29-11 S9	11	1.0	1.0	1.0	100.0	9	20.0PPM	
wa241400.chw	ICD0-J23.mtw	AJ29-12 ICV	12	1.0	1.0	1.0	100.0	0	1.0PPM	
wa241417.chw	ICD0-J23.mtw	AJ29-13 ICB	13	1.0	1.0	1.0	100.0	0		

FINAL

F1

JC 10/24/12

10/25/12

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #:	AD0-037
Instrument No.:	D0
Pipette ID's:	039380124
	SW8A-02-12
	SW8A-02-13
Balance ID #:	40706360
Analytical Sequence:	AJ31
Method File:	ICDO -J23.mtw
Analytical Batch:	ICJ037W; ICJ039W ICJ041W

SOP #	Rev. #
☑ EMAX-300.0	9
☐ EMAX-4110B	3
☑ EMAX-90S6	6
☐ EMAX-	

STANDARDS ID	
ICAL	—
ICV	—
CCV	SI1B -21-42-01
LCS	SI1B -21-42-02
MS	SCP Refer to LCS Parent ID

Column: Metrosep A Supp 5-100 Filter 0.45 µm: 218 03739

Flow Rate: 0.70 ml/min 0.20 µm: 21801546

IC Eluent:

SW4-02-01-04
(320 mM Na_2CO_3 / 100 mM $NaHCO_3$) 20 ml → 2 L reagent water

IC Regenerant:

SW4-02-01-03 (1000 mM H_2SO_4) 100 ml → 1 L reagent water

Reagent Water: RW1-12-001

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ IC-METROHM	

Analyzed By: JK

Date: 10/24/12

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2
wa241442.chw	ICD0-J23.mtw	AJ31-01 CCV1	1	1.0	1.0	1.0	100.0	0		
wa241500.chw	ICD0-J23.mtw	AJ31-02 CCB1	2	1.0	1.0	1.0	100.0	0		
wa241517.chw	ICD0-J23.mtw	AJ31-03 ICJ037WB	3	1.0	1.0	1.0	100.0	0		
wa241534.chw	ICD0-J23.mtw	AJ31-04 ICJ037WL	4	1.0	1.0	1.0	100.0	0		
wa241551.chw	ICD0-J23.mtw	AJ31-05 ICJ037WC	5	1.0	1.0	1.0	100.0	0		
wa241608.chw	ICD0-J23.mtw	AJ31-06 J150-01	6	1.0	1.0	1.0	100.0	0		
wa241625.chw	ICD0-J23.mtw	AJ31-07 J164-01	7	1.0	1.0	1.0	100.0	0		
wa241643.chw	ICD0-J23.mtw	AJ31-08 J162-09	8	1.0	1.0	1.0	100.0	0		
wa241700.chw	ICD0-J23.mtw	AJ31-09 J162-08	9	1.0	1.0	1.0	100.0	0		
wa241717.chw	ICD0-J23.mtw	AJ31-10 J162-08D	10	1.0	1.0	1.0	100.0	0		
wa241734.chw	ICD0-J23.mtw	AJ31-11 J162-08M	11	1.0	1.0	1.0	100.0	0		
wa241751.chw	ICD0-J23.mtw	AJ31-12 J162-08S	12	1.0	1.0	1.0	100.0	0		
wa241808.chw	ICD0-J23.mtw	AJ31-13 CCV3	13	1.0	1.0	1.0	100.0	0		
wa241826.chw	ICD0-J23.mtw	AJ31-14 CCB3	14	1.0	1.0	1.0	100.0	0		
wa241843.chw	ICD0-J23.mtw	AJ31-15 J162-07	15	1.0	1.0	1.0	100.0	0		
wa241900.chw	ICD0-J23.mtw	AJ31-16 J162-10	16	1.0	1.0	1.0	100.0	0		
wa241917.chw	ICD0-J23.mtw	AJ31-17 J162-05I DF=10	17	1.0	10.0	1.0	100.0	0		
wa241934.chw	ICD0-J23.mtw	AJ31-18 J162-06I DF=20	18	1.0	20.0	1.0	100.0	0		
wa241951.chw	ICD0-J23.mtw	AJ31-19 J163-02I DF=10	19	1.0	10.0	1.0	100.0	0		
wa242008.chw	ICD0-J23.mtw	AJ31-20 J163-01I DF=20	20	1.0	20.0	1.0	100.0	0		
wa242026.chw	ICD0-J23.mtw	AJ31-21 J163-05I DF=20	21	1.0	20.0	1.0	100.0	0		
wa242043.chw	ICD0-J23.mtw	AJ31-22 J163-08I DF=20	22	1.0	20.0	1.0	100.0	0		
wa242100.chw	ICD0-J23.mtw	AJ31-23 J163-07I DF=20	23	1.0	20.0	1.0	100.0	0		
wa242117.chw	ICD0-J23.mtw	AJ31-24 J163-04I DF=20	24	1.0	20.0	1.0	100.0	0		
wa242134.chw	ICD0-J23.mtw	AJ31-25 CCV5	25	1.0	1.0	1.0	100.0	0		
wa242151.chw	ICD0-J23.mtw	AJ31-26 CCB5	26	1.0	1.0	1.0	100.0	0		
wa242209.chw	ICD0-J23.mtw	AJ31-27 J163-09	27	1.0	1.0	1.0	100.0	0		
wa242226.chw	ICD0-J23.mtw	AJ31-28 J163-06I DF=20	28	1.0	20.0	1.0	100.0	0		
wa242243.chw	ICD0-J23.mtw	AJ31-29 J162-09I DF=20	29	1.0	20.0	1.0	100.0	0		
wa242300.chw	ICD0-J23.mtw	AJ31-30 J162-07I DF=20	30	1.0	20.0	1.0	100.0	0		
wa242317.chw	ICD0-J23.mtw	AJ31-31 J162-10I DF=20	31	1.0	20.0	1.0	100.0	0		
wa242334.chw	ICD0-J23.mtw	AJ31-32 ICJ039WL	32	1.0	1.0	1.0	100.0	0		
wa242351.chw	ICD0-J23.mtw	AJ31-33 ICJ039WC	33	1.0	1.0	1.0	100.0	0		
wa250009.chw	ICD0-J23.mtw	AJ31-34 ICJ039WB	34	1.0	1.0	1.0	100.0	0		
wa250026.chw	ICD0-J23.mtw	AJ31-35 J162-08I DF=20	35	1.0	20.0	1.0	100.0	0		
wa250043.chw	ICD0-J23.mtw	AJ31-36 J162-08D DF=20	36	1.0	20.0	1.0	100.0	0		
wa250100.chw	ICD0-J23.mtw	AJ31-37 CCV7	37	1.0	1.0	1.0	100.0	0		
wa250117.chw	ICD0-J23.mtw	AJ31-38 CCB7	38	1.0	1.0	1.0	100.0	0		
wa250134.chw	ICD0-J23.mtw	AJ31-39 J163-08M DF=20	39	1.0	20.0	1.0	100.0	0		
wa250152.chw	ICD0-J23.mtw	AJ31-40 J163-08S DF=20	40	1.0	20.0	1.0	100.0	0		
wa250209.chw	ICD0-J23.mtw	AJ31-41 J162-05	41	1.0	1.0	1.0	100.0	0		
wa250226.chw	ICD0-J23.mtw	AJ31-42 J162-06	42	1.0	1.0	1.0	100.0	0		
wa250243.chw	ICD0-J23.mtw	AJ31-43 J163-02	43	1.0	1.0	1.0	100.0	0		
wa250300.chw	ICD0-J23.mtw	AJ31-44 J163-01	44	1.0	1.0	1.0	100.0	0		
wa250317.chw	ICD0-J23.mtw	AJ31-45 J163-05	45	1.0	1.0	1.0	100.0	0		
wa250334.chw	ICD0-J23.mtw	AJ31-46 J163-08	46	1.0	1.0	1.0	100.0	0		
wa250352.chw	ICD0-J23.mtw	AJ31-47 J163-07	47	1.0	1.0	1.0	100.0	0		
wa250409.chw	ICD0-J23.mtw	AJ31-48 J163-04	48	1.0	1.0	1.0	100.0	0		
wa250426.chw	ICD0-J23.mtw	AJ31-49 CCV9	49	1.0	1.0	1.0	100.0	0		
wa250443.chw	ICD0-J23.mtw	AJ31-50 CCB9	50	1.0	1.0	1.0	100.0	0		
wa250500.chw	ICD0-J23.mtw	AJ31-51 J163-06	51	1.0	1.0	1.0	100.0	0		
wa250517.chw	ICD0-J23.mtw	AJ31-52 J162-01	52	1.0	1.0	1.0	100.0	0		
wa250535.chw	ICD0-J23.mtw	AJ31-53 J162-02	53	1.0	1.0	1.0	100.0	0		
wa250552.chw	ICD0-J23.mtw	AJ31-54 J162-03	54	1.0	1.0	1.0	100.0	0		
wa250609.chw	ICD0-J23.mtw	AJ31-55 J162-04	55	1.0	1.0	1.0	100.0	0		
wa250626.chw	ICD0-J23.mtw	AJ31-56 J162-01I DF=20	56	1.0	20.0	1.0	100.0	0		
wa250643.chw	ICD0-J23.mtw	AJ31-57 J162-02I DF=20	57	1.0	20.0	1.0	100.0	0		
wa250700.chw	ICD0-J23.mtw	AJ31-58 J162-03I DF=20	58	1.0	20.0	1.0	100.0	0		

FINAL

JC 10/26/12

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2
wa250717.chw	ICD0-J23.mtw	AJ31-59 J162-04I DF=20	59	1.0	20.0	1.0	100.0	0		
wa250735.chw	ICD0-J23.mtw	AJ31-60 J163-10I DF=20	60	1.0	20.0	1.0	100.0	0		
wa250752.chw	ICD0-J23.mtw	AJ31-61 CCV11	61	1.0	1.0	1.0	100.0	0		
wa250809.chw	ICD0-J23.mtw	AJ31-62 CCB11	62	1.0	1.0	1.0	100.0	0		
wa250826.chw	ICD0-J23.mtw	AJ31-63 J163-10	63	1.0	1.0	1.0	100.0	0		
wa250843.chw	ICD0-J23.mtw	AJ31-64 ICJ041WL	64	1.0	1.0	1.0	100.0	0		
wa250900.chw	ICD0-J23.mtw	AJ31-65 ICJ041WC	65	1.0	1.0	1.0	100.0	0		
wa250918.chw	ICD0-J23.mtw	AJ31-66 ICJ041WB	66	1.0	1.0	1.0	100.0	0		
wa250935.chw	ICD0-J23.mtw	AJ31-67 J163-11	67	1.0	1.0	1.0	100.0	0		
wa250952.chw	ICD0-J23.mtw	AJ31-68 J163-12	68	1.0	1.0	1.0	100.0	0		
wa251009.chw	ICD0-J23.mtw	AJ31-69 J163-13	69	1.0	1.0	1.0	100.0	0		
wa251026.chw	ICD0-J23.mtw	AJ31-70 J163-14	70	1.0	1.0	1.0	100.0	0		
wa251043.chw	ICD0-J23.mtw	AJ31-71 J163-11I DF=20	71	1.0	20.0	1.0	100.0	0		
wa251100.chw	ICD0-J23.mtw	AJ31-72 J163-12I DF=20	72	1.0	20.0	1.0	100.0	0		
wa251118.chw	ICD0-J23.mtw	AJ31-73 CCV13	73	1.0	1.0	1.0	100.0	0		
wa251135.chw	ICD0-J23.mtw	AJ31-74 CCB13	74	1.0	1.0	1.0	100.0	0		
wa251152.chw	ICD0-J23.mtw	AJ31-75 J163-13I DF=10	75	1.0	10.0	1.0	100.0	0		
wa251209.chw	ICD0-J23.mtw	AJ31-76 J163-14I DF=20	76	1.0	20.0	1.0	100.0	0		
wa251226.chw	ICD0-J23.mtw	AJ31-77 J164-03	77	1.0	1.0	1.0	100.0	0		
wa251243.chw	ICD0-J23.mtw	AJ31-78 J164-04	78	1.0	1.0	1.0	100.0	0		
wa251300.chw	ICD0-J23.mtw	AJ31-79 J164-06I DF=10	79	1.0	10.0	1.0	100.0	0		
wa251318.chw	ICD0-J23.mtw	AJ31-80 J164-01I DF=5	80	1.0	5.0	1.0	100.0	0		
wa251335.chw	ICD0-J23.mtw	AJ31-81 J164-03I DF=10	81	1.0	10.0	1.0	100.0	0		
wa251352.chw	ICD0-J23.mtw	AJ31-82 J164-04I DF=5	82	1.0	5.0	1.0	100.0	0		
wa251409.chw	ICD0-J23.mtw	AJ31-83 J164-01J DF=100	83	1.0	100.0	1.0	100.0	0		
wa251426.chw	ICD0-J23.mtw	AJ31-84 J163-09I DF=10	84	1.0	10.0	1.0	100.0	0		
wa251443.chw	ICD0-J23.mtw	AJ31-85 CCV15	85	1.0	1.0	1.0	100.0	0		
wa251519.chw	ICD0-J23.mtw	AJ31-86 CCB15	86	1.0	1.0	1.0	100.0	0		
wa251537.chw	ICD0-J23.mtw	AJ31-87 J164-03J DF=200	87	1.0	200.0	1.0	100.0	0		
wa251554.chw	ICD0-J23.mtw	AJ31-88 J164-04J DF=100	88	1.0	100.0	1.0	100.0	0		
wa251611.chw	ICD0-J23.mtw	AJ31-89 J164-06J DF=200	89	1.0	200.0	1.0	100.0	0	FINAL	
wa251628.chw	ICD0-J23.mtw	AJ31-90 J155-13I DF=20	90	1.0	20.0	1.0	100.0	0		
wa251646.chw	ICD0-J23.mtw	AJ31-91 J155-13M DF=20	91	1.0	20.0	1.0	100.0	0		
wa251703.chw	ICD0-J23.mtw	AJ31-92 J155-13S DF=20	92	1.0	20.0	1.0	100.0	0		
wa251720.chw	ICD0-J23.mtw	AJ31-93 CCV17	93	1.0	1.0	1.0	100.0	0		
wa251737.chw	ICD0-J23.mtw	AJ31-94 CCB17	94	1.0	1.0	1.0	100.0	0		

F2

JC 10/26/12

RETENTION TIME WINDOW

RETENTION TIME WINDOW
METHOD 300.0

Lab name:	**EMAX**	**Method:**	**EMAX-300.0**
Instrument ID:	IC100 (761 IC)	IC column:	METROSEP A SUPP 5
		Column size:	100X4.0mm

Compound	Retention time Window
FLUORIDE	0.234
CHLORIDE	0.407
NTIRITE	0.52
BROMIDE	0.688
NTIRATE	0.836
PHOSPHATE	0.678
SULFATE	0.915
IODIDE	1.078

AL 10-17-07

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J163

METHOD 415.1
TOC

A total of thirteen (13) water samples were received on 10/24/12 for Total Organic Carbon analysis, Method 415.1 in accordance with Methods for the Chemical Analysis of Water and Wastes (MCAWW) (EPA/600/4-79/020) and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source. Continuing calibration verifications were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blanks were analyzed at the frequency required by the project. For this SDG, two (2) method blanks were analyzed with the samples. All results were compliant to project requirement. Refer to QC result summary forms for details.

Lab Control Sample
Two (2) sets of LCS/LCD were analyzed with the samples in this SDG.
Percent recoveries for TCJ006WL/C were all within QC limits.
Percent recoveries for TCJ007WL/C were all within QC limits.

Matrix QC Sample
No matrix QC sample was designated for this SDG.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

METHOD 415.1
TOC

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J163

Matrix : WATER
Instrument ID : 162

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	TCJ006WB	ND	1	NA	1.00	0.500	10/26/1215:38	NA	TCJ006-05	TCJ006-02	TCJ006W	NA	NA
LCS1W	TCJ006WL	22.9	1	NA	1.00	0.500	10/26/1215:51	NA	TCJ006-06	TCJ006-02	TCJ006W	NA	NA
LCD1W	TCJ006WC	23.0	1	NA	1.00	0.500	10/26/1216:04	NA	TCJ006-07	TCJ006-02	TCJ006W	NA	NA
10-23-12 AMW-4R	J163-01	0.739J	1	NA	1.00	0.500	10/26/1220:09	NA	TCJ006-28	TCJ006-26	TCJ006W	10/23/1212:40	10/24/12
10-23-12 WB 2-4	J163-02	ND	1	NA	1.00	0.500	10/26/1220:19	NA	TCJ006-29	TCJ006-26	TCJ006W	10/23/1210:56	10/24/12
10-23-12 WB 2-1	J163-04	0.666J	1	NA	1.00	0.500	10/26/1220:30	NA	TCJ006-30	TCJ006-26	TCJ006W	10/23/1215:06	10/24/12
10-23-12 PWB-9	J163-05	0.732J	1	NA	1.00	0.500	10/26/1220:40	NA	TCJ006-31	TCJ006-26	TCJ006W	10/23/1213:20	10/24/12
10-23-12 PWB-11	J163-06	0.605J	1	NA	1.00	0.500	10/26/1220:51	NA	TCJ006-32	TCJ006-26	TCJ006W	10/23/1215:52	10/24/12
10-23-12 PWB-5	J163-07	0.712J	1	NA	1.00	0.500	10/26/1221:01	NA	TCJ006-33	TCJ006-26	TCJ006W	10/23/1214:32	10/24/12
LCS2W	TCJ007WL	23.0	1	NA	1.00	0.500	10/26/1221:14	NA	TCJ006-34	TCJ006-26	TCJ007W	NA	NA
LCD2W	TCJ007WC	23.0	1	NA	1.00	0.500	10/26/1221:27	NA	TCJ006-35	TCJ006-26	TCJ007W	NA	NA
MBLK2W	TCJ007WB	ND	1	NA	1.00	0.500	10/26/1221:38	NA	TCJ006-36	TCJ006-26	TCJ007W	NA	NA
10-23-12 PWB-8	J163-08	0.671J	1	NA	1.00	0.500	10/26/1221:49	NA	TCJ006-37	TCJ006-26	TCJ007W	10/23/1213:20	10/24/12
10-23-12 PWB-16	J163-09	0.842J	1	NA	1.00	0.500	10/26/1222:23	NA	TCJ006-40	TCJ006-38	TCJ007W	10/23/1215:01	10/24/12
10-24-12 PWB-12	J163-10	0.705J	1	NA	1.00	0.500	10/26/1222:34	NA	TCJ006-41	TCJ006-38	TCJ007W	10/24/1209:22	10/24/12
10-24-12 PWB-4	J163-11	0.721J	1	NA	1.00	0.500	10/26/1222:45	NA	TCJ006-42	TCJ006-38	TCJ007W	10/24/1210:00	10/24/12
10-24-12 PWB-13A	J163-12	0.883J	1	NA	1.00	0.500	10/26/1222:55	NA	TCJ006-43	TCJ006-38	TCJ007W	10/24/1208:44	10/24/12
10-24-12 PWB-14	J163-13	0.570J	1	NA	1.00	0.500	10/26/1223:06	NA	TCJ006-44	TCJ006-38	TCJ007W	10/24/1208:06	10/24/12
10-24-12 FDUP-2	J163-14	0.693J	1	NA	1.00	0.500	10/26/1223:16	NA	TCJ006-45	TCJ006-38	TCJ007W	10/24/1200:00	10/24/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J163
METHOD: METHOD 415.1

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	TCJ006WB	TCJ006WL	TCJ006WC		
LAB FILE ID:	TCJ006-05	TCJ006-06	TCJ006-07		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/26/1215:38	10/26/1215:51	10/26/1216:04	DATE RECEIVED:	NA
PREP. BATCH:	TCJ006W	TCJ006W	TCJ006W		
CALIB. REF:	TCJ006-02	TCJ006-02	TCJ006-02		

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 (%)
TOC	ND	25	22.9	92	25	23	92	1	80-120	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J163
METHOD: METHOD 415.1

==========

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	TCJ007WB	TCJ007WL	TCJ007WC		
LAB FILE ID:	TCJ006-36	TCJ006-34	TCJ006-35		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/26/1221:38	10/26/1221:14	10/26/1221:27	DATE RECEIVED:	NA
PREP. BATCH:	TCJ007W	TCJ007W	TCJ007W		
CALIB. REF:	TCJ006-26	TCJ006-26	TCJ006-26		

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 (%)
TOC	ND	25	23	92	25	23	92	0	80-120	20

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
TOC

	Date	Time
Start	10/26/12	13:20
End	10/27/12	02:50

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

TCJ006W: J162, J164, J163
TCJ007W: J163, J155*

J155-01 DF = 5
-03 DF = 2
-04 04 K 10/24/12 DF = 2
-10 DF = 2
-12 DF = 5
-13 DF = 2
due to odor

~~*All samples associated with J155 were filtered prior to analysis.~~ K 10/26/12

Book #:	A62-023
Instrument No.:	62
Pipette ID:	039380025
	SW3-01-33
	SI1A-01-4
Balance ID:	40706360
Analytical Sequence:	TCJ006
Method File:	TCJ006
Analytical Batch:	TCJ006W/7W

SOP #	Rev. #
☑ EMAX-415.1	3
☐ EMAX-5310B	2
☐ EMAX-9060	3
☐ EMAX-	

STANDARDS ID		CONC. (mg/L)
S0	RW1-12-001	0
S1	SW10B-04-286 K 10/26/12	1
S2		5
S3		10
S4		40
S5		80
S6	—	—
ICV/LCS	SW10B-04-289	25
CCV	287	25

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ TOC	
☐	

Reagent Water ID #:	RW1-12-001
pH Strips Lot #:	HC248798
2 M HCl	SW4-01-256

Analyzed By: K
Date: 10/26/12

6070

	Type	Analysis	Sample Nam	Sample ID	ObjectID	Origin	Dilutio	Result	Comment
1	Standard	NPOC	ICAL	TCJ006-01	0A-12345	C:\Progra	1.000		
2	Control	NPOC	ICV	TCJ006-02	0A-12345	C:\Progra	1.000	NPOC:24.61 mg/L	
3	Unknown	NPOC	ICB	TCJ006-03	0A-12345	C:\Progra	1.000	NPOC:0.05741 mg/	
4	Unknown	NPOC	HCO3/CO3	TCJ006-04	0A-12345	C:\Progra	1.000	NPOC:0.2505 mg/L	
5	Unknown	NPOC	TCJ006WB	TCJ006-05	0A-12345	C:\Progra	1.000	NPOC:0.08730 mg/	
6	Unknown	NPOC	TCJ006WL	TCJ006-06	0A-12345	C:\Progra	1.000	NPOC:22.89 mg/L	
7	Unknown	NPOC	TCJ006WC	TCJ006-07	0A-12345	C:\Progra	1.000	NPOC:23.01 mg/L	
8	Unknown	NPOC	J162-01	TCJ006-08	0A-12345	C:\Progra	1.000	NPOC:0.6144 mg/L	PH<2
9	Unknown	NPOC	J162-02	TCJ006-09	0A-12345	C:\Progra	1.000	NPOC:0.8403 mg/L	PH<2
10	Unknown	NPOC	J162-03	TCJ006-10	0A-12345	C:\Progra	1.000	NPOC:0.7251 mg/L	PH<2
11	Unknown	NPOC	J162-04	TCJ006-11	0A-12345	C:\Progra	1.000	NPOC:0.5671 mg/L	PH<2
12	Unknown	NPOC	J162-05	TCJ006-12	0A-12345	C:\Progra	1.000	NPOC:0.5638 mg/L	PH<2
13	Unknown	NPOC	J162-06	TCJ006-13	0A-12345	C:\Progra	1.000	NPOC:0.8198 mg/L	PH<2
14	Control	NPOC	CCV1	TCJ006-14	0A-12345	C:\Progra	1.000	NPOC:22.87 mg/L	
15	Unknown	NPOC	CCB2	TCJ006-15	0A-12345	C:\Progra	1.000	NPOC:0.05561 mg/	
16	Unknown	NPOC	J162-07	TCJ006-16	0A-12345	C:\Progra	1.000	NPOC:0.7943 mg/L	PH<2
17	Unknown	NPOC	J162-08	TCJ006-17	0A-12345	C:\Progra	1.000	NPOC:0.9508 mg/L	PH<2
18	Unknown	NPOC	J162-08M	TCJ006-18	0A-12345	C:\Progra	1.000	NPOC:22.52 mg/L	PH<2
19	Unknown	NPOC	J162-08S	TCJ006-19	0A-12345	C:\Progra	1.000	NPOC:22.95 mg/L	PH<2
20	Unknown	NPOC	J162-09	TCJ006-20	0A-12345	C:\Progra	1.000	NPOC:0.6829 mg/L	PH<2
21	Unknown	NPOC	J162-10	TCJ006-21	0A-12345	C:\Progra	1.000	NPOC:0.7723 mg/L	PH<2
22	Unknown	NPOC	J164-01	TCJ006-22	0A-12345	C:\Progra	1.000	NPOC:3.517 mg/L	PH<2
23	Unknown	NPOC	J164-03	TCJ006-23	0A-12345	C:\Progra	1.000	NPOC:2.711 mg/L	PH<2
24	Unknown	NPOC	J164-04	TCJ006-24	0A-12345	C:\Progra	1.000	NPOC:1.957 mg/L	PH<2
25	Unknown	NPOC	J164-06	TCJ006-25	0A-12345	C:\Progra	1.000	NPOC:10.17 mg/L	PH<2
26	Control	NPOC	CCV2	TCJ006-26	0A-12345	C:\Progra	1.000	NPOC:22.74 mg/L	
27	Unknown	NPOC	CCB2	TCJ006-27	0A-12345	C:\Progra	1.000	NPOC:0.05442 mg/	
28	Unknown	NPOC	J163-01	TCJ006-28	0A-12345	C:\Progra	1.000	NPOC:0.7385 mg/L	PH<2
29	Unknown	NPOC	J163-02	TCJ006-29	0A-12345	C:\Progra	1.000	NPOC:0.4761 mg/L	PH<2
30	Unknown	NPOC	J163-04	TCJ006-30	0A-12345	C:\Progra	1.000	NPOC:0.6663 mg/L	PH<2
31	Unknown	NPOC	J163-05	TCJ006-31	0A-12345	C:\Progra	1.000	NPOC:0.7324 mg/L	PH<2
32	Unknown	NPOC	J163-06	TCJ006-32	0A-12345	C:\Progra	1.000	NPOC:0.6055 mg/L	PH<2
33	Unknown	NPOC	J163-07	TCJ006-33	0A-12345	C:\Progra	1.000	NPOC:0.7116 mg/L	PH<2
34	Unknown	NPOC	TCJ007WL	TCJ006-34	0A-12345	C:\Progra	1.000	NPOC:23.03 mg/L	
35	Unknown	NPOC	TCJ007WC	TCJ006-35	0A-12345	C:\Progra	1.000	NPOC:22.99 mg/L	
36	Unknown	NPOC	TCJ007WB	TCJ006-36	0A-12345	C:\Progra	1.000	NPOC:0.04555 mg/	
37	Unknown	NPOC	J163-08	TCJ006-37	0A-12345	C:\Progra	1.000	NPOC:0.6712 mg/L	PH<2
38	Control	NPOC	CCV3	TCJ006-38	0A-12345	C:\Progra	1.000	NPOC:22.99 mg/L	
39	Unknown	NPOC	CCB3	TCJ006-39	0A-12345	C:\Progra	1.000	NPOC:0.03050 mg/	
40	Unknown	NPOC	J163-09	TCJ006-40	0A-12345	C:\Progra	1.000	NPOC:0.8416 mg/L	PH<2
41	Unknown	NPOC	J163-10	TCJ006-41	0A-12345	C:\Progra	1.000	NPOC:0.7049 mg/L	PH<2
42	Unknown	NPOC	J163-11	TCJ006-42	0A-12345	C:\Progra	1.000	NPOC:0.7208 mg/L	PH<2
43	Unknown	NPOC	J163-12	TCJ006-43	0A-12345	C:\Progra	1.000	NPOC:0.8831 mg/L	PH<2
44	Unknown	NPOC	J163-13	TCJ006-44	0A-12345	C:\Progra	1.000	NPOC:0.5697 mg/L	PH<2
45	Unknown	NPOC	J163-14	TCJ006-45	0A-12345	C:\Progra	1.000	NPOC:0.6929 mg/L	PH<2
46	Unknown	NPOC	J155-01I	TCJ006-46	0A-12345	C:\Progra	5.000	NPOC:1092 mg/L	PH<2; DF=5 *
47	Unknown	NPOC	J155-02	TCJ006-47	0A-12345	C:\Progra	1.000	NPOC:8.325 mg/L	PH<2 **
48	Unknown	NPOC	J155-03I	TCJ006-48	0A-12345	C:\Progra	2.000	NPOC:521.1 mg/L	PH<2; DF=2 *
49	Control	NPOC	CCV4	TCJ006-49	0A-12345	C:\Progra	1.000	NPOC:23.94 mg/L	
50	Unknown	NPOC	CCB4	TCJ006-50	0A-12345	C:\Progra	1.000	NPOC:0.1760 mg/L	
51	Unknown	NPOC	J155-04I	TCJ006-51	0A-12345	C:\Progra	2.000	NPOC:14.96 mg/L	PH<2; DF=2
52	Unknown	NPOC	J155-05	TCJ006-52	0A-12345	C:\Progra	1.000	NPOC:16.90 mg/L	PH<2
53	Unknown	NPOC	J155-06	TCJ006-53	0A-12345	C:\Progra	1.000	NPOC:7.612 mg/L	PH<2
54	Unknown	NPOC	J155-07	TCJ006-54	0A-12345	C:\Progra	1.000	NPOC:18.98 mg/L	PH<2
55	Unknown	NPOC	J155-10I	TCJ006-55	0A-12345	C:\Progra	2.000	NPOC:13.26 mg/L	PH<2; DF=2
56	Unknown	NPOC	J155-12I	TCJ006-56	0A-12345	C:\Progra	5.000	NPOC:170.1 mg/L	PH<2; DF=5
57	Unknown	NPOC	J155-13I	TCJ006-57	0A-12345	C:\Progra	2.000	NPOC:244.4 mg/L	PH<2; DF=2 *
58	Unknown	NPOC	J155-13M	TCJ006-58	0A-12345	C:\Progra	2.000	NPOC:302.7 mg/L	PH<2; DF=2 *
59	Unknown	NPOC	J155-13S	TCJ006-59	0A-12345	C:\Progra	2.000	NPOC:303.9 mg/L	PH<2; DF=2 *
60	Unknown	NPOC	J155-14	TCJ006-60	0A-12345	C:\Progra	1.000	NPOC:12.73 mg/L	PH<2 **
61	Control	NPOC	CCV5	TCJ006-61	0A-12345	C:\Progra	1.000	NPOC:23.47 mg/L	
62	Unknown	NPOC	CCB5	TCJ006-62	0A-12345	C:\Progra	1.000	NPOC:0.1204 mg/L	
63									
64									
65									
66									FINAL
67									

10/31/12 02:40:29 PM

W 10/31/12

* RR over range

** RR carry over

8871

Instr.Information

System	toc
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Cal. Curve

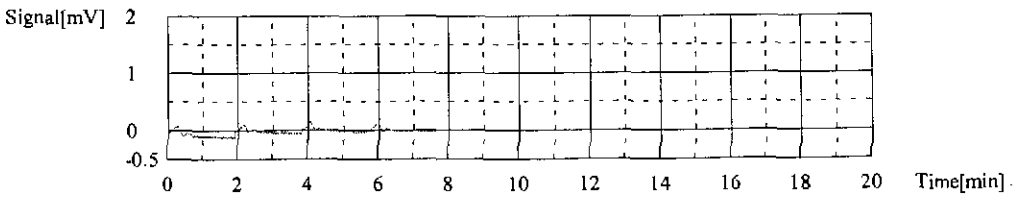
Sample Name:	ICAL
Sample ID:	TCJ006-01
Cal. Curve:	TCJ006.2012_10_26_13_11_55.cal

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.000	50uL	1	*******		10/26/12 01:20:06 PM
2	0.000	50uL	1	*******		10/26/12 01:22:12 PM
3	0.000	50uL	1	*******		10/26/12 01:24:18 PM
4	0.000	50uL	1	*******		10/26/12 01:26:24 PM

Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 0.000

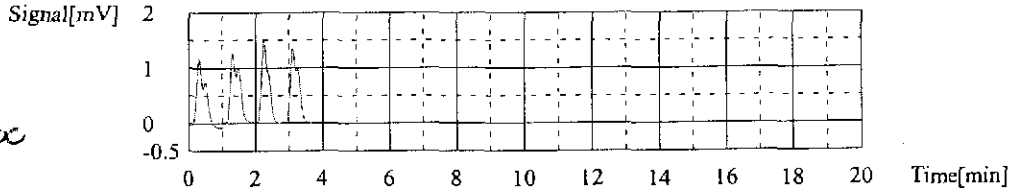


Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	2.134	50uL	10	*******		10/26/12 01:34:37 PM
2	2.252	50uL	10	*******		10/26/12 01:35:44 PM
3	2.284	50uL	10	*******		10/26/12 01:36:47 PM
4	2.243	50uL	10	*******		10/26/12 01:37:53 PM

Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 2.228

2.228 / 2.228 = 1.000

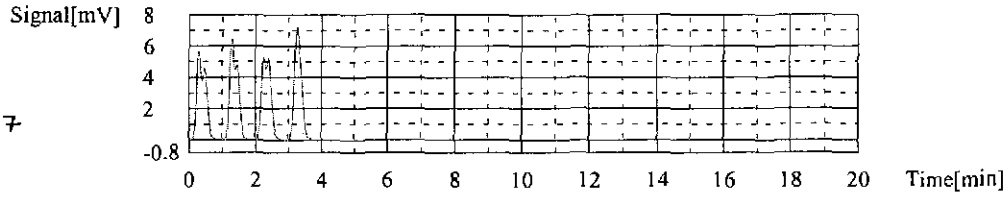


Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	10.66	50uL	2	*******		10/26/12 01:44:08 PM
2	11.12	50uL	2	*******		10/26/12 01:45:16 PM
3	11.06	50uL	2	*******		10/26/12 01:46:27 PM
4	11.14	50uL	2	*******		10/26/12 01:47:33 PM

Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 11.00

11.00/2.228 = 4.937

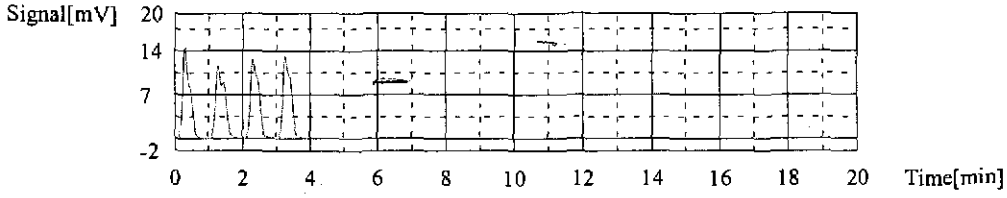


Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	21.56	50uL	1	*******		10/26/12 01:53:04 PM
2	21.95	50uL	1	*******		10/26/12 01:54:18 PM
3	22.02	50uL	1	*******		10/26/12 01:55:27 PM
4	22.12	50uL	1	*******		10/26/12 01:56:36 PM

Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 21.91

21.91/2.228 = 9.834

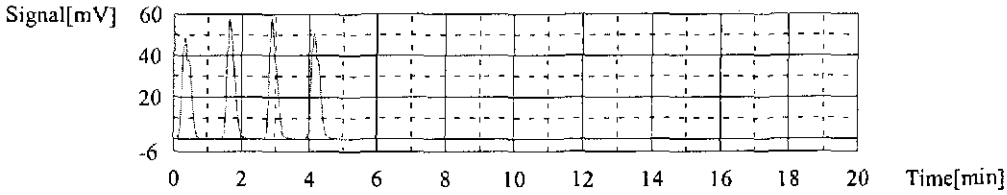


Conc: 40.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	85.09	50uL	2	*******		10/26/12 02:05:07 PM
2	88.84	50uL	2	*******		10/26/12 02:06:34 PM
3	88.27	50uL	2	*******		10/26/12 02:08:00 PM
4	88.88	50uL	2	*******		10/26/12 02:09:32 PM

Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 87.77

87.77/2.228 = 39.39

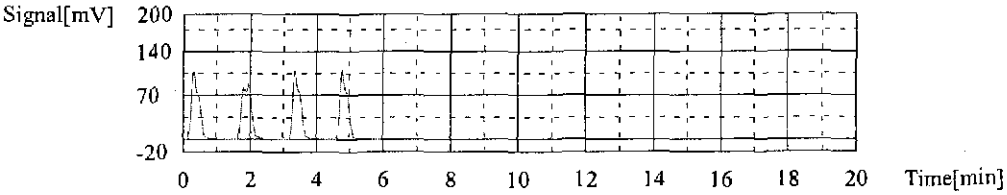


Conc: 80.00mg/L

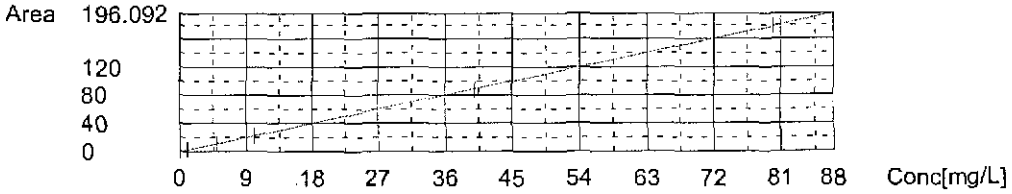
No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	175.3	50uL	1	*******		10/26/12 02:15:35 PM
2	177.7	50uL	1	*******		10/26/12 02:17:20 PM
3	180.6	50uL	1	*******		10/26/12 02:18:57 PM
4	180.6	50uL	1	*******		10/26/12 02:20:36 PM

Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 178.6

178.6/2.228 = 80.16



Slope: 2.228
Intercept 0.000
r^2 0.999933



8873

Control Sample

Sample Name: ICV
Sample ID: TCJ006-02
Method: TCJ006.tpl
Chk. Result Control value: 24.61 / Control exceeds range!

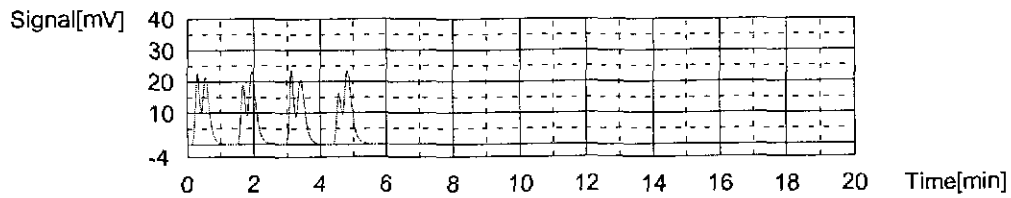
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:24.61 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.19	23.87mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 02:28:43 PM
2	54.89	24.63mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 02:30:22 PM
3	55.87	25.07mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 02:31:59 PM
4	55.42	24.87mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 02:33:39 PM

Mean Area 54.84
Mean Conc. 24.61mg/L



Sample

Sample Name: ICB
Sample ID: TCJ006-03
Origin: TCJ006.cal
Chk. Result

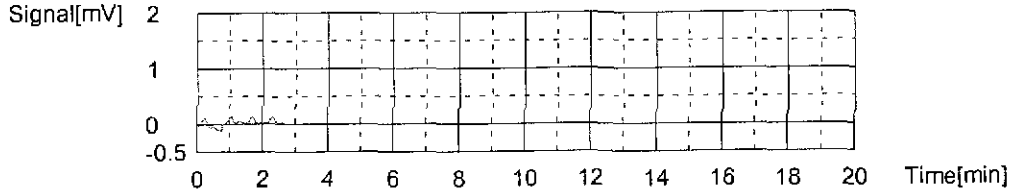
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.05741 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1600	0.07180mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 02:40:58 PM
2	0.1342	0.06022mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 02:41:49 PM
3	0.1104	0.04954mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 02:42:37 PM
4	0.1071	0.04806mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 02:43:27 PM

Mean Area 0.1279
Mean Conc. 0.05741mg/L



8074

Sample

Sample Name: HCO3/CO3
Sample ID: TCJ006-04
Origin: TCJ006.cal
Chk. Result

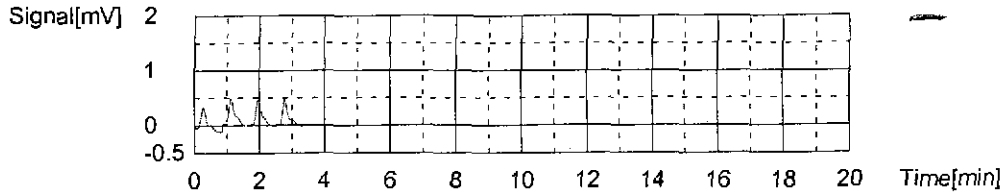
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2505 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4620	0.2073mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:25:32 PM
2	0.6022	0.2702mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:26:33 PM
3	0.6068	0.2723mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:27:34 PM
4	0.5615	0.2520mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:28:36 PM

Mean Area 0.5581
Mean Conc. *0.2505mg/L*



Sample

Sample Name: TCJ006WB
Sample ID: TCJ006-05
Origin: TCJ006.cal
Chk. Result

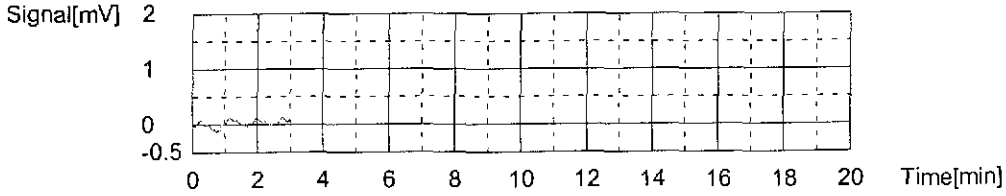
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.08730 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1638	0.07351mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:35:58 PM
2	0.2582	0.1159mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:36:59 PM
3	0.1703	0.07643mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:37:58 PM
4	0.1858	0.08338mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:38:57 PM

Mean Area 0.1945
Mean Conc. 0.08730mg/L



Sample

8875

Sample Name: TCJ006WL
Sample ID: TCJ006-06
Origin: TCJ006.cal
Chk. Result

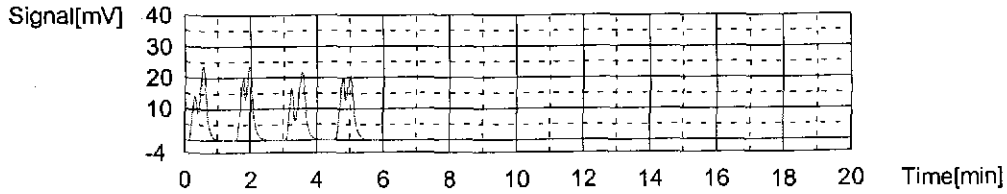
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:22.89 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	49.90	22.39mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:46:54 PM
2	51.75	23.22mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:48:35 PM
3	50.14	22.50mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:50:17 PM
4	52.27	23.46mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:51:55 PM

Mean Area 51.02
Mean Conc. 22.89mg/L



Sample

Sample Name: TCJ006WC
Sample ID: TCJ006-07
Origin: TCJ006.cal
Chk. Result

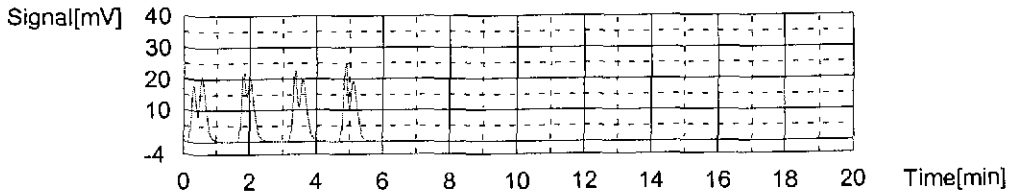
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:23.01 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	50.22	22.54mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 03:59:56 PM
2	50.34	22.59mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:01:39 PM
3	52.78	23.69mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:03:22 PM
4	51.71	23.21mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:04:59 PM

Mean Area 51.26
Mean Conc. 23.01mg/L



Sample

Sample Name: J162-01
Sample ID: TCJ006-08
Origin: TCJ006.cal
Chk. Result

8076

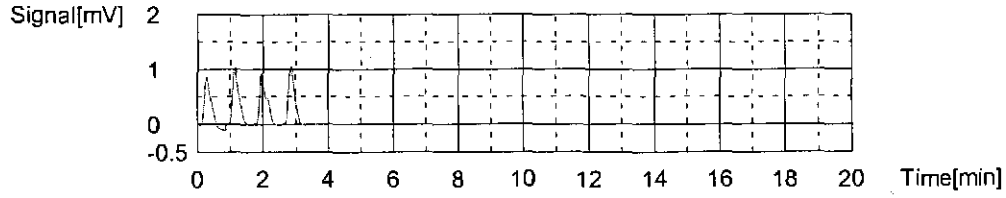
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6144 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.306	0.5861mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:27:56 PM
2	1.399	0.6278mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:28:57 PM
3	1.362	0.6112mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:30:01 PM
4	1.409	0.6323mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:30:59 PM

Mean Area 1.369
Mean Conc. 0.6144mg/L



Sample

Sample Name: J162-02
Sample ID: TCJ006-09
Origin: TCJ006.cal
Chk. Result

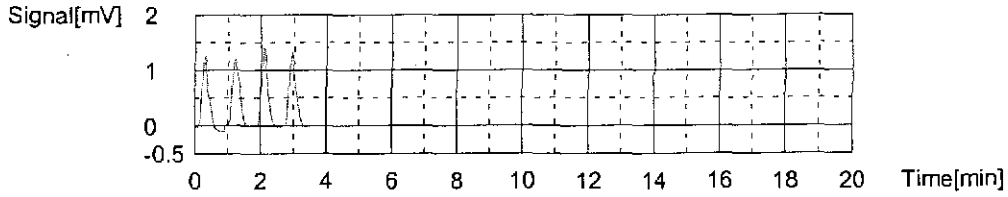
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8403 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.798	0.8069mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:38:24 PM
2	1.924	0.8634mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:39:28 PM
3	1.835	0.8235mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:40:30 PM
4	1.933	0.8675mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:41:33 PM

Mean Area 1.873
Mean Conc. 0.8403mg/L



Sample

Sample Name: J162-03
Sample ID: TCJ006-10
Origin: TCJ006.cal
Chk. Result

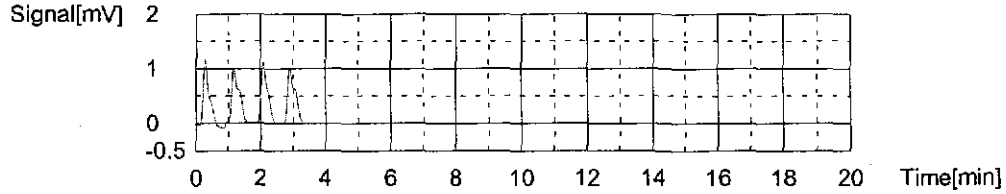
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7251 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.592	0.7144mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:48:56 PM
2	1.603	0.7194mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:50:01 PM
3	1.643	0.7373mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:51:02 PM
4	1.625	0.7293mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:52:06 PM

Mean Area 1.616
Mean Conc. 0.7251mg/L



Sample

Sample Name: J162-04
Sample ID: TCJ006-11
Origin: TCJ006.cal
Chk. Result

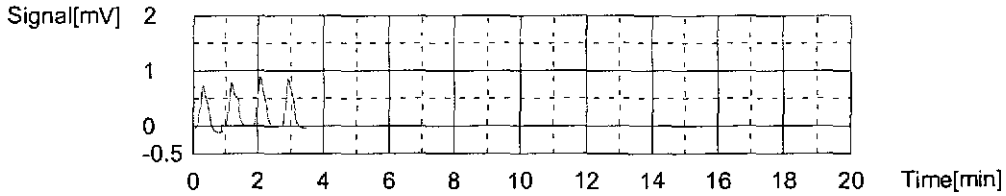
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.5671 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.218	0.5466mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 04:59:29 PM
2	1.267	0.5686mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:00:33 PM
3	1.258	0.5646mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:01:36 PM
4	1.312	0.5888mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:02:38 PM

Mean Area 1.264
Mean Conc. 0.5671mg/L



Sample

Sample Name: J162-05
Sample ID: TCJ006-12
Origin: TCJ006.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.5638 mg/L

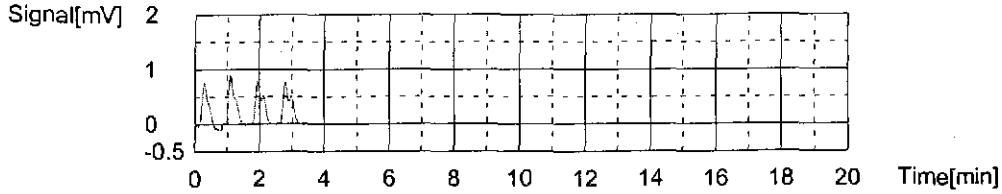
1. Det

Anal.: NPOC

8678

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.157	0.5192mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:09:57 PM
2	1.285	0.5767mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:10:58 PM
3	1.267	0.5686mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:12:01 PM
4	1.316	0.5906mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:13:06 PM

Mean Area 1.256
Mean Conc. 0.5638mg/L



Sample

Sample Name: J162-06
Sample ID: TCJ006-13
Origin: TCJ006.cal
Chk. Result

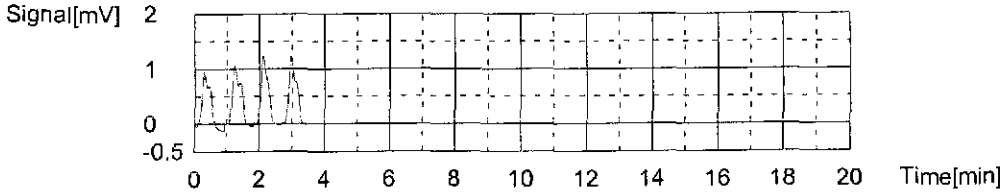
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8198 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.734	0.7782mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:20:31 PM
2	1.869	0.8388mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:21:35 PM
3	1.799	0.8073mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:22:38 PM
4	1.905	0.8549mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:23:39 PM

Mean Area 1.827
Mean Conc. 0.8198mg/L



Control Sample

Sample Name: CCV1
Sample ID: TCJ006-14
Method: TCJ006.tpl
Chk. Result Control value: 22.87 / Control exceeds range!

Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:22.87 mg/L

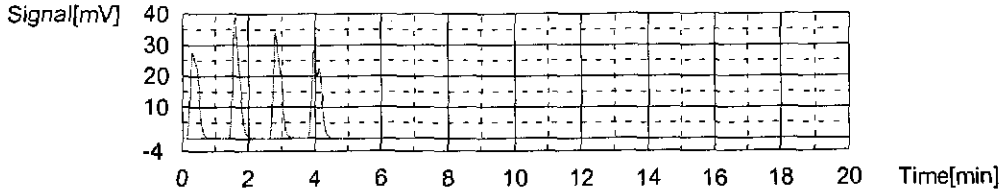
1. Det.

Anal.: NPOC

8879

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	48.04	21.56mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:31:26 PM
2	52.73	23.66mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:32:50 PM
3	51.38	23.06mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:34:11 PM
4	51.68	23.19mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:35:33 PM

Mean Area 50.96
Mean Conc. 22.87mg/L



Sample

Sample Name: CCB2
Sample ID: TCJ006-15
Origin: TCJ006.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.05561 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.05610	0.02518mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:42:38 PM
2	0.1517	0.06808mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:43:39 PM
3	0.1697	0.07616mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:44:30 PM
4	0.1182	0.05304mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:45:20 PM

Mean Area 0.1239
Mean Conc. 0.05561mg/L

Sample

Sample Name: J162-07
Sample ID: TCJ006-16
Origin: TCJ006.cal
Chk. Result

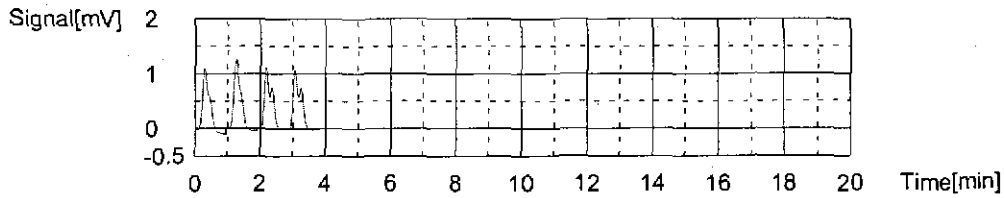
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7943 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.668	0.7485mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:52:44 PM
2	1.847	0.8289mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:53:51 PM
3	1.787	0.8020mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:54:55 PM
4	1.778	0.7979mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 05:56:00 PM

Mean Area 1.770
Mean Conc. 0.7943mg/L



Sample

Sample Name: J162-08
Sample ID: TCJ006-17
Origin: TCJ006.cal
Chk. Result

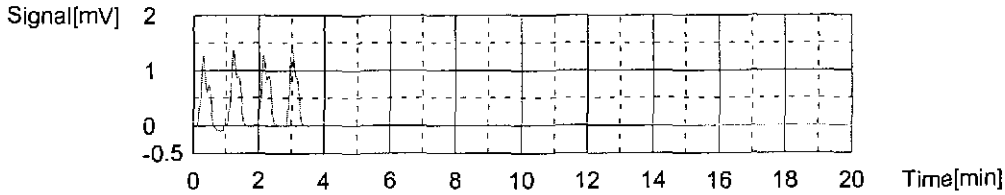
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9508 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.960	0.8796mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:03:25 PM
2	2.145	0.9626mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:04:31 PM
3	2.142	0.9613mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:05:35 PM
4	2.228	0.9999mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:06:37 PM

Mean Area 2.119
Mean Conc. 0.9508mg/L



Sample

Sample Name: J162-08M
Sample ID: TCJ006-18
Origin: TCJ006.cal
Chk. Result

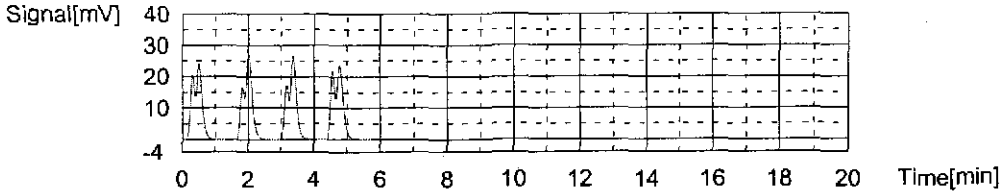
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:22.52 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	49.12	22.04mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:14:38 PM
2	50.63	22.72mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:16:09 PM
3	49.23	22.09mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:17:45 PM
4	51.74	23.22mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:19:23 PM

Mean Area 50.18
Mean Conc. 22.52mg/L



Sample

Sample Name: J162-08S
Sample ID: TCJ006-19
Origin: TCJ006.cal
Chk. Result

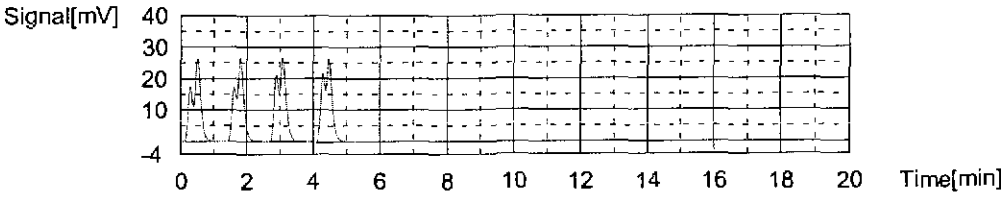
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:22.95 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	49.96	22.42mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:27:12 PM
2	49.21	22.08mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:28:39 PM
3	53.25	23.90mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:30:15 PM
4	52.10	23.38mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:31:43 PM

Mean Area 51.13
Mean Conc. 22.95mg/L



Sample

Sample Name: J162-09
Sample ID: TCJ006-20
Origin: TCJ006.cal
Chk. Result

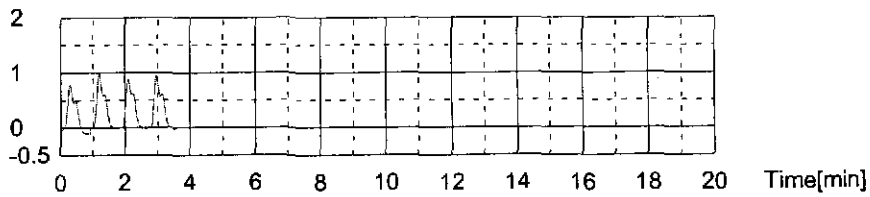
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6829 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.440	0.6462mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:39:07 PM
2	1.556	0.6983mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:40:12 PM
3	1.467	0.6583mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:41:16 PM
4	1.624	0.7288mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:42:21 PM

Mean Area 1.522
Mean Conc. 0.6829mg/L



Sample

Sample Name: J162-10
Sample ID: TCJ006-21
Origin: TCJ006.cal
Chk. Result

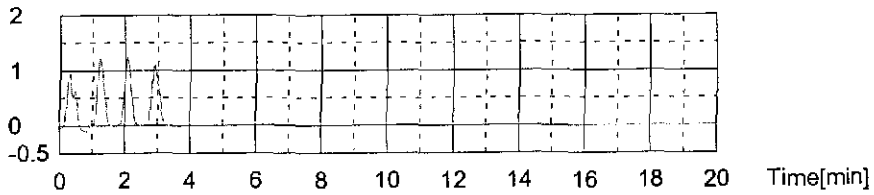
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7723 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.630	0.7315mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:49:45 PM
2	1.794	0.8051mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:50:47 PM
3	1.736	0.7791mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:51:49 PM
4	1.724	0.7737mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 06:52:50 PM

Mean Area 1.721
Mean Conc. 0.7723mg/L



Sample

Sample Name: J164-01
Sample ID: TCJ006-22
Origin: TCJ006.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.517 mg/L

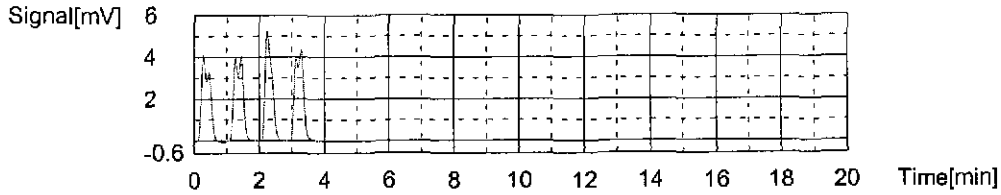
1. Det

Anal.: NPOC

8083

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.397	3.320mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:00:19 PM
2	7.967	3.575mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:01:28 PM
3	7.870	3.532mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:02:34 PM
4	8.114	3.641mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:03:47 PM

Mean Area 7.837
Mean Conc. 3.517mg/L



Sample

Sample Name: J164-03
Sample ID: TCJ006-23
Origin: TCJ006.cal
Chk. Result

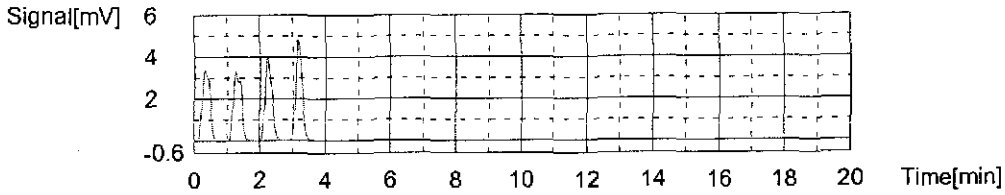
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.711 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.840	2.621mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:11:13 PM
2	5.826	2.615mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:12:23 PM
3	5.954	2.672mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:13:31 PM
4	6.544	2.937mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:14:36 PM

Mean Area 6.041
Mean Conc. 2.711mg/L



Sample

Sample Name: J164-04
Sample ID: TCJ006-24
Origin: TCJ006.cal
Chk. Result

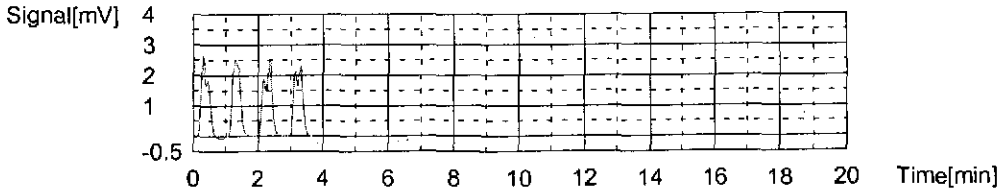
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.957 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.328	1.942mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:22:02 PM
2	4.330	1.943mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:23:09 PM
3	4.364	1.958mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:24:19 PM
4	4.419	1.983mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:25:28 PM

Mean Area 4.360
Mean Conc. 1.957mg/L



Sample

Sample Name: J164-06
Sample ID: TCJ006-25
Origin: TCJ006.cal
Chk. Result

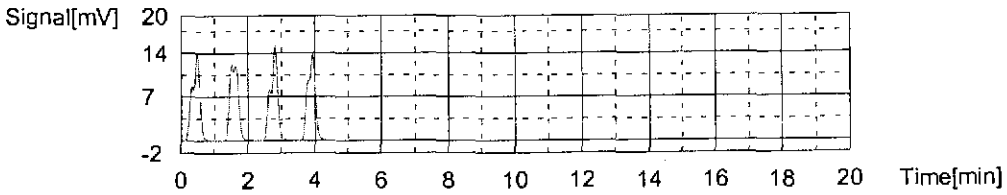
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:10.17 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.32	10.02mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:33:08 PM
2	23.05	10.34mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:34:29 PM
3	22.82	10.24mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:35:50 PM
4	22.47	10.08mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:37:09 PM

Mean Area 22.66
Mean Conc. 10.17mg/L



Control Sample

Sample Name: CCV2
Sample ID: TCJ006-26
Method: TCJ006.tpl
Chk. Result Control value: 22.74 / Control exceeds range!

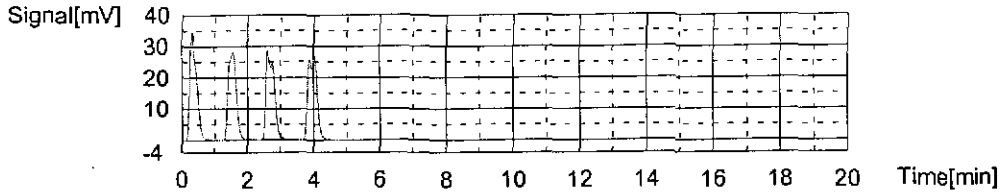
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:22.74 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.40	23.07mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:44:47 PM
2	49.23	22.09mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:46:09 PM
3	50.19	22.52mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:47:36 PM
4	51.87	23.28mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:49:01 PM

Mean Area 50.67
Mean Conc. 22.74mg/L



Sample

Sample Name: CCB2
Sample ID: TCJ006-27
Origin: TCJ006.cal
Chk. Result

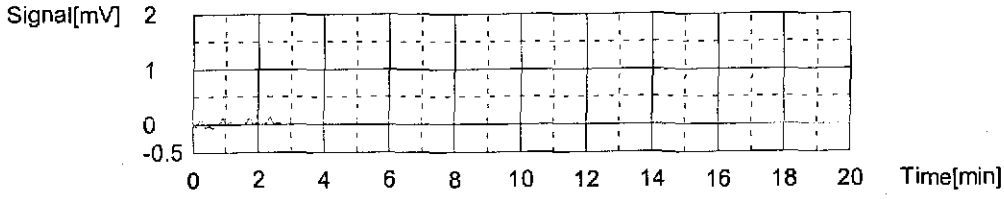
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.05442 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1352	0.06067mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:56:09 PM
2	0.1316	0.05906mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:57:10 PM
3	0.1001	0.04492mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:58:00 PM
4	0.1182	0.05304mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 07:58:52 PM

Mean Area 0.1213
Mean Conc. 0.05442mg/L



Sample

Sample Name: J163-01
Sample ID: TCJ006-28
Origin: TCJ006.cal
Chk. Result

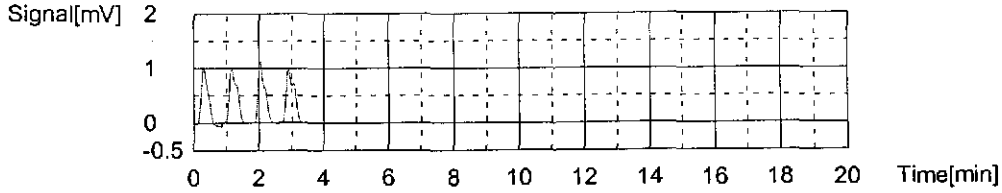
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7385 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.548	0.6947mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:06:12 PM
2	1.658	0.7441mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:07:17 PM
3	1.679	0.7535mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:08:21 PM
4	1.697	0.7616mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:09:25 PM

Mean Area 1.646
Mean Conc. 0.7385mg/L



Sample

Sample Name: J163-02
Sample ID: TCJ006-29
Origin: TCJ006.cal
Chk. Result

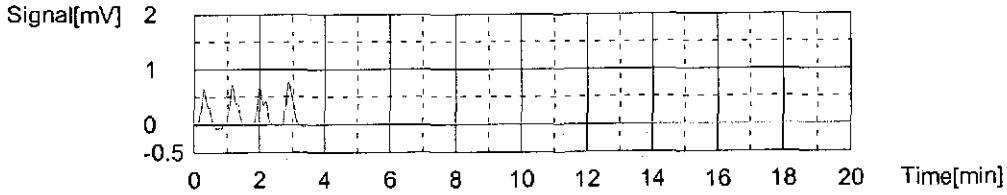
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4761 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9686	0.4347mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:16:45 PM
2	1.061	0.4761mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:17:48 PM
3	1.095	0.4914mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:18:52 PM
4	1.119	0.5022mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:19:53 PM

Mean Area 1.061
Mean Conc. 0.4761mg/L



Sample

Sample Name: J163-04
Sample ID: TCJ006-30
Origin: TCJ006.cal
Chk. Result

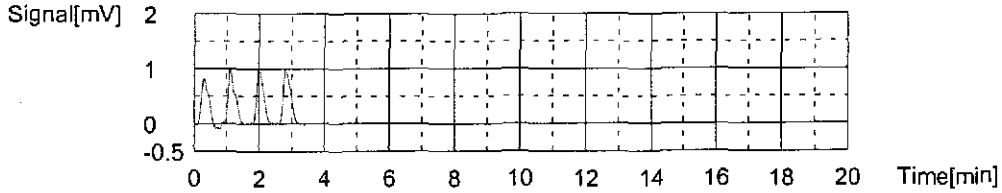
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6663 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.407	0.6314mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:27:12 PM
2	1.489	0.6682mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:28:16 PM
3	1.487	0.6673mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:29:16 PM
4	1.556	0.6983mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:30:20 PM

Mean Area 1.485
Mean Conc. 0.6663mg/L



Sample

Sample Name: J163-05
Sample ID: TCJ006-31
Origin: TCJ006.cal
Chk. Result

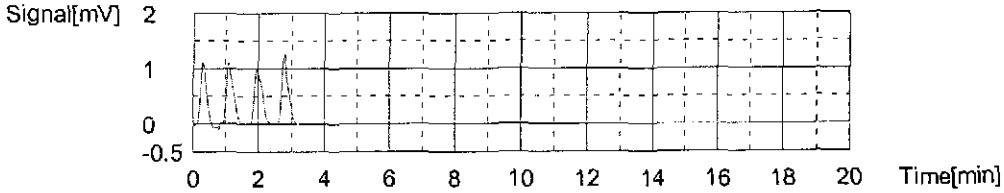
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7324 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.533	0.6880mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:37:38 PM
2	1.649	0.7400mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:38:41 PM
3	1.643	0.7373mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:39:43 PM
4	1.703	0.7643mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:40:45 PM

Mean Area 1.632
Mean Conc. 0.7324mg/L



Sample

Sample Name: J163-06
Sample ID: TCJ006-32
Origin: TCJ006.cal
Chk. Result

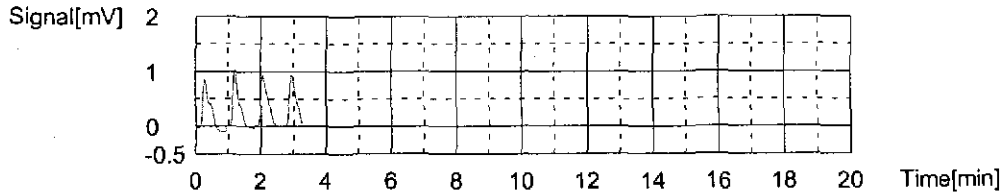
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6055 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.290	0.5789mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:48:10 PM
2	1.351	0.6063mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:49:14 PM
3	1.394	0.6256mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:50:18 PM
4	1.362	0.6112mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:51:23 PM

Mean Area 1.349
Mean Conc. 0.6055mg/L



Sample

Sample Name: J163-07
Sample ID: TCJ006-33
Origin: TCJ006.cal
Chk. Result

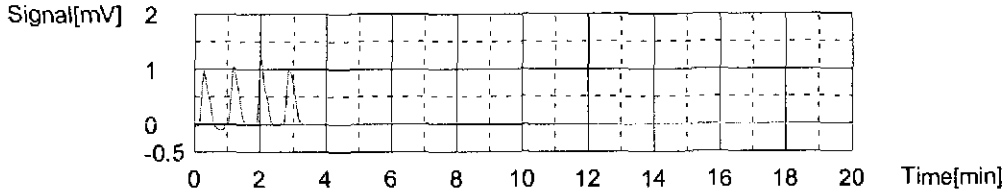
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7116 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.486	0.6669mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:58:47 PM
2	1.586	0.7117mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 08:59:50 PM
3	1.629	0.7310mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:00:52 PM
4	1.642	0.7369mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:01:54 PM

Mean Area 1.586
Mean Conc. 0.7116mg/L



Sample

Sample Name: TCJ007WL
Sample ID: TCJ006-34
Origin: TCJ006.cal
Chk. Result

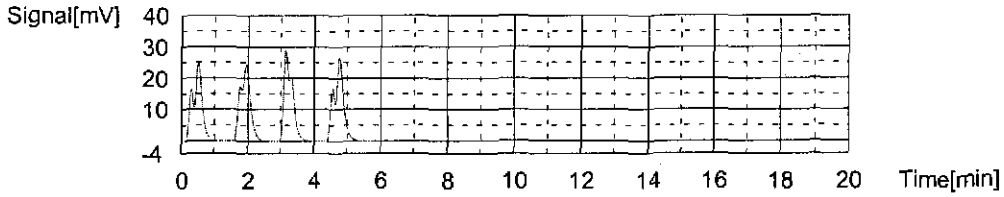
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:23.03 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	48.90	21.94mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:09:51 PM
2	52.18	23.42mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:11:26 PM
3	51.28	23.01mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:13:03 PM
4	52.88	23.73mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:14:44 PM

Mean Area 51.31
Mean Conc. 23.03mg/L



Sample

Sample Name: TCJ007WC
Sample ID: TCJ006-35
Origin: TCJ006.cal
Chk. Result

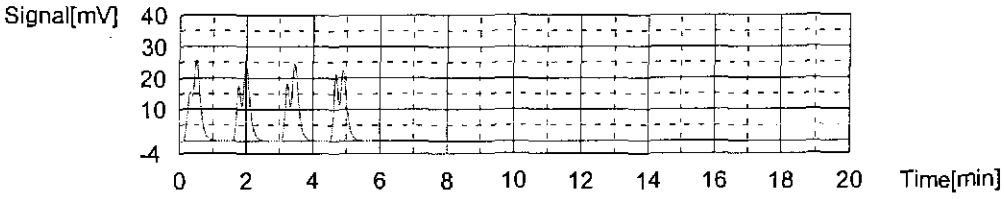
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:22.99 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.62	23.17mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:22:43 PM
2	50.86	22.82mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:24:22 PM
3	52.28	23.46mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:26:01 PM
4	50.20	22.53mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:27:33 PM

Mean Area 51.24
Mean Conc. 22.99mg/L



Sample

Sample Name: TCJ007WB
Sample ID: TCJ006-36
Origin: TCJ006.cal
Chk. Result

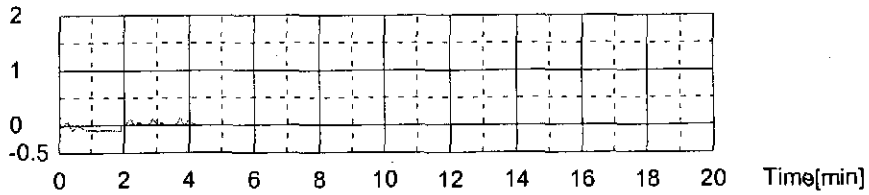
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.04555 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	0.000mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:35:57 PM
2	0.1347	0.06045mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:36:51 PM
3	0.1317	0.05910mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:37:53 PM
4	0.1396	0.06265mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:38:54 PM

Mean Area 0.1015
Mean Conc. 0.04555mg/L



Sample

Sample Name: J163-08
Sample ID: TCJ006-37
Origin: TCJ006.cal
Chk. Result

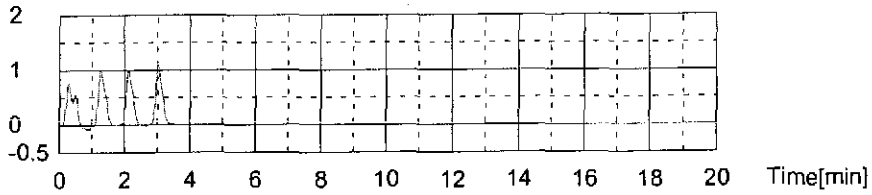
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6712 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.458	0.6543mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:46:22 PM
2	1.545	0.6933mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:47:25 PM
3	1.460	0.6552mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:48:31 PM
4	1.520	0.6821mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:49:32 PM

Mean Area 1.496
Mean Conc. 0.6712mg/L



Control Sample

Sample Name: CCV3
Sample ID: TCJ006-38
Method: TCJ006.tpl
Chk. Result Control value: 22.99 / Control exceeds range!

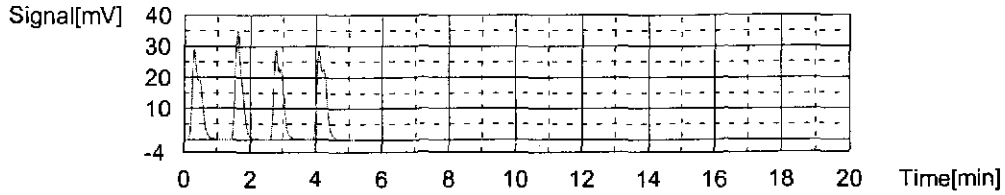
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:22.99 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	49.94	22.41mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:57:19 PM
2	50.04	22.46mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 09:58:42 PM
3	52.65	23.63mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:00:12 PM
4	52.25	23.45mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:01:45 PM

Mean Area 51.22
Mean Conc. 22.99mg/L



Sample

Sample Name: CCB3
Sample ID: TCJ006-39
Origin: TCJ006.cal
Chk. Result

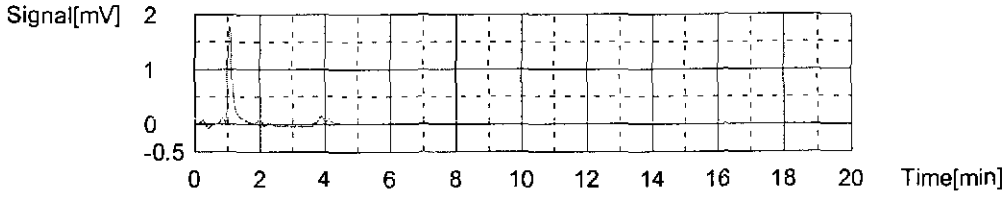
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.03050 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.01840	0.00826mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:08:49 PM
2	1.895	0.8504mg/L	50uL	1	E	TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:10:10 PM
3	0.000	0.000mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:12:15 PM
4	0.1855	0.08325mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:13:16 PM

Mean Area 0.06797
Mean Conc. 0.03050mg/L



Sample

Sample Name: J163-09
Sample ID: TCJ006-40
Origin: TCJ006.cal
Chk. Result

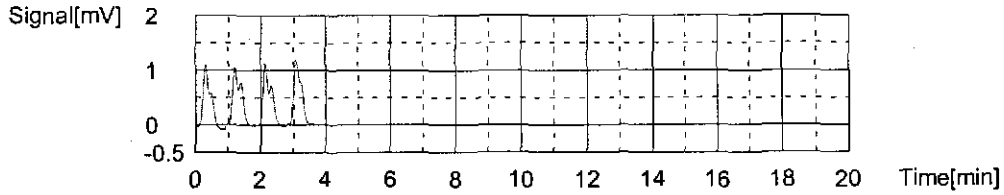
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8416 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.808	0.8114mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:20:40 PM
2	1.885	0.8459mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:21:47 PM
3	1.875	0.8414mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:22:54 PM
4	1.933	0.8675mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:23:57 PM

Mean Area 1.875
Mean Conc. 0.8416mg/L



Sample

Sample Name: J163-10
Sample ID: TCJ006-41
Origin: TCJ006.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7049 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.532	0.6875mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:31:22 PM
2	1.646	0.7387mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:32:26 PM
3	1.551	0.6960mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:33:30 PM
4	1.554	0.6974mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:34:35 PM

Mean Area 1.571
Mean Conc. 0.7049mg/L

Sample

Sample Name: J163-11
Sample ID: TCJ006-42
Origin: TCJ006.cal
Chk. Result

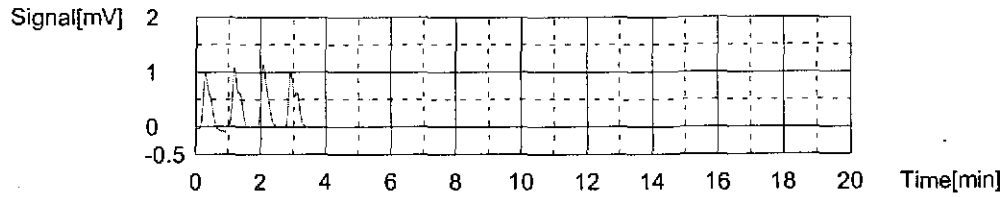
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7208 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.569	0.7041mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:41:59 PM
2	1.655	0.7427mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:43:03 PM
3	1.588	0.7126mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:44:05 PM
4	1.613	0.7239mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:45:09 PM

Mean Area 1.606
Mean Conc. 0.7208mg/L



Sample

Sample Name: J163-12
Sample ID: TCJ006-43
Origin: TCJ006.cal
Chk. Result

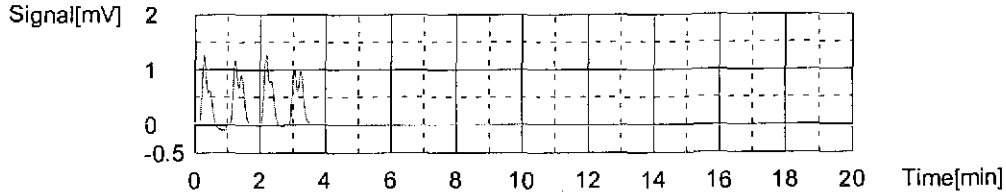
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8831 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.893	0.8495mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:52:37 PM
2	2.025	0.9088mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:53:44 PM
3	1.989	0.8926mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:54:47 PM
4	1.964	0.8814mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 10:55:53 PM

Mean Area 1.968
Mean Conc. 0.8831mg/L



Sample

Sample Name: J163-13
Sample ID: TCJ006-44
Origin: TCJ006.cal
Chk. Result

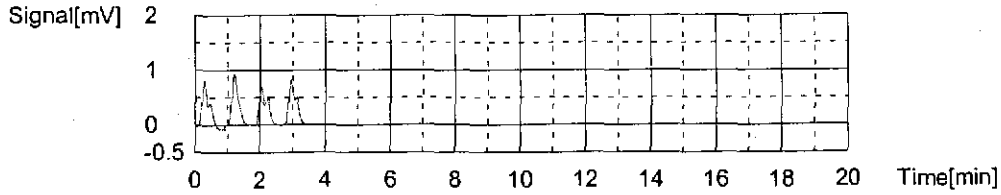
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.5697 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.283	0.5758mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:03:17 PM
2	1.287	0.5776mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:04:19 PM
3	1.229	0.5515mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:05:24 PM
4	1.279	0.5740mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:06:28 PM

Mean Area 1.270
Mean Conc. 0.5697mg/L



Sample

Sample Name: J163-14
Sample ID: TCJ006-45
Origin: TCJ006.cal
Chk. Result

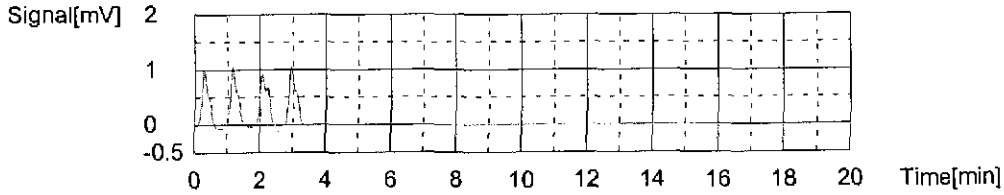
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6929 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.463	0.6566mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:13:49 PM
2	1.535	0.6889mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:14:54 PM
3	1.581	0.7095mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:15:58 PM
4	1.597	0.7167mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:16:59 PM

Mean Area 1.544
Mean Conc. 0.6929mg/L



Sample

Sample Name: J155-01I
Sample ID: TCJ006-46
Origin: TCJ006.cal
Chk. Result

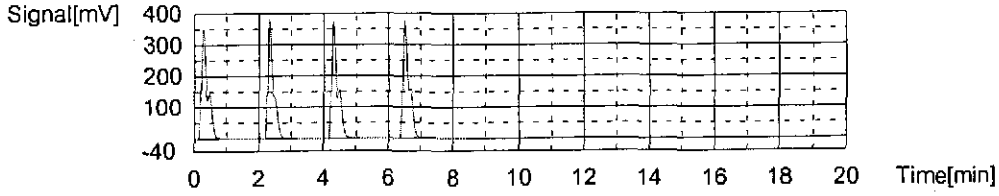
Type	Anal.	Dil.	Result
Unknown	NPOC	5.000	NPOC:1.092 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	470.5	1056mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:25:32 PM
2	475.2	1066mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:27:41 PM
3	497.4	1116mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:30:05 PM
4	503.6	1130mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:32:28 PM

Mean Area 486.7
Mean Conc. 1092mg/L



Sample

Sample Name: J155-02
Sample ID: TCJ006-47
Origin: TCJ006.cal
Chk. Result

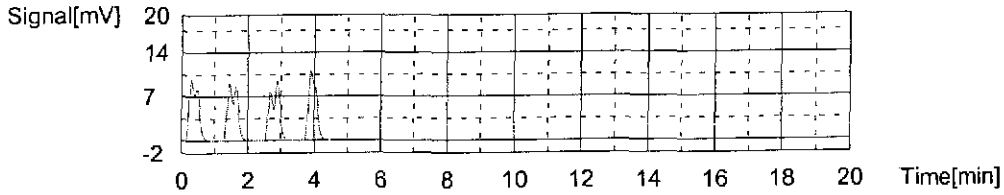
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:8.325 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.58	8.338mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:40:06 PM
2	18.40	8.257mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:41:31 PM
3	18.30	8.212mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:42:54 PM
4	18.92	8.491mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:44:12 PM

Mean Area 18.55
Mean Conc. 8.325mg/L



Sample

Sample Name: J155-03I
Sample ID: TCJ006-48
Origin: TCJ006.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	2.000	NPOC:521.1 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	570.5	512.0mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:52:47 PM
2	571.1	512.6mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:55:04 PM
3	589.4	529.0mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:57:29 PM
4	591.5	530.9mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/26/12 11:59:58 PM

Mean Area 580.6
Mean Conc. 521.1mg/L

Control Sample

Sample Name: CCV4
Sample ID: TCJ006-49
Method: TCJ006.tpl
Chk. Result Control value: 23.94 / Control exceeds range!

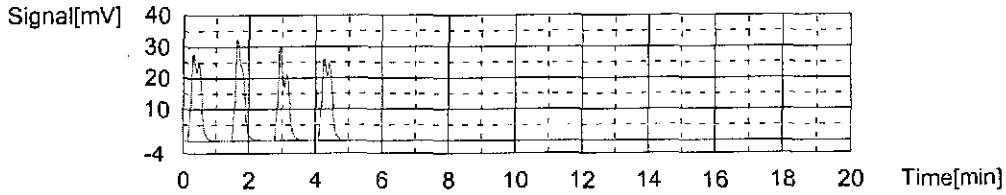
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:23.94 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.68	24.09mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:07:48 AM
2	54.51	24.46mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:09:17 AM
3	53.51	24.01mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:10:47 AM
4	51.70	23.20mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:12:15 AM

Mean Area 53.35
Mean Conc. 23.94mg/L



Sample

Sample Name: CCB4
Sample ID: TCJ006-50
Origin: TCJ006.cal
Chk. Result

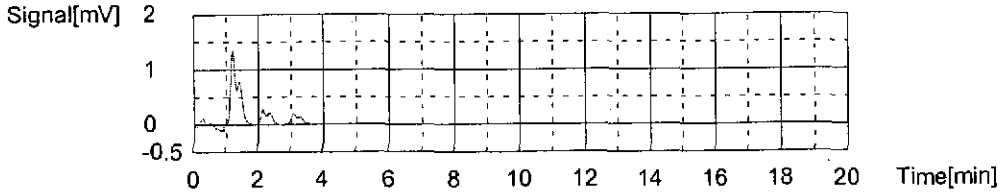
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1760 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2875	0.1290mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:19:40 AM
2	2.180	0.9783mg/L	50uL	1	E	TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:20:47 AM
3	0.5332	0.2393mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:21:54 AM
4	0.3561	0.1598mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:22:59 AM

Mean Area 0.3923
Mean Conc. 0.1760mg/L



Sample

Sample Name: J155-04I
Sample ID: TCJ006-51
Origin: TCJ006.cal
Chk. Result

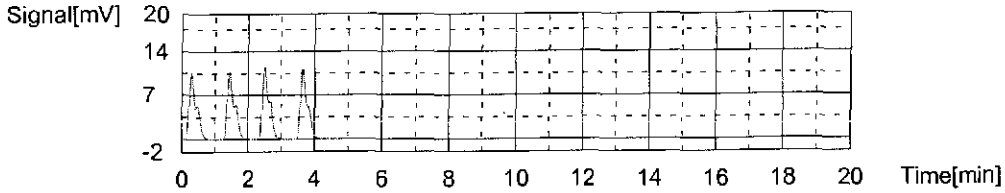
Type	Anal.	Dil.	Result
Unknown	NPOC	2.000	NPOC:14.96 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.38	14.70mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:30:38 AM
2	16.58	14.88mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:31:53 AM
3	16.97	15.23mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:33:12 AM
4	16.76	15.04mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:34:32 AM

Mean Area 16.67
Mean Conc. 14.96mg/L



Sample

Sample Name: J155-05
Sample ID: TCJ006-52
Origin: TCJ006.cal
Chk. Result

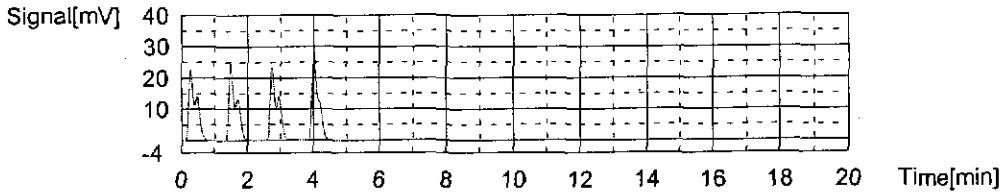
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:16.90 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	36.99	16.60mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:42:15 AM
2	38.12	17.11mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:43:41 AM
3	37.20	16.69mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:45:08 AM
4	38.32	17.20mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:46:28 AM

Mean Area 37.66
Mean Conc. 16.90mg/L



Sample

Sample Name: J155-06
Sample ID: TCJ006-53
Origin: TCJ006.cal
Chk. Result

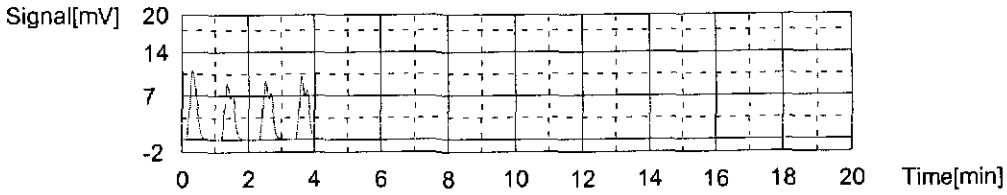
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:7.612 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.39	7.355mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:54:01 AM
2	16.50	7.405mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:55:21 AM
3	16.95	7.607mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:56:38 AM
4	18.01	8.082mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 12:57:58 AM

Mean Area 16.96
Mean Conc. 7.612mg/L



Sample

Sample Name: J155-07
Sample ID: TCJ006-54
Origin: TCJ006.cal
Chk. Result

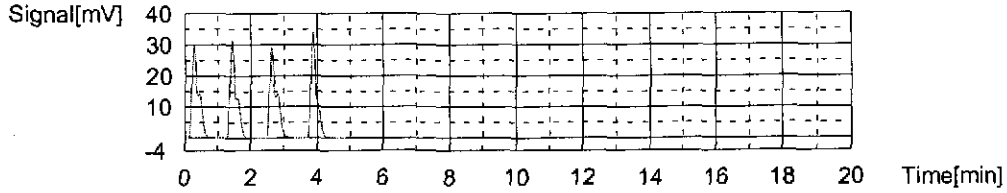
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:18.98 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	42.96	19.28mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:05:37 AM
2	42.58	19.11mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:07:00 AM
3	42.41	19.03mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:08:25 AM
4	41.23	18.50mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:09:50 AM

Mean Area 42.30
Mean Conc. 18.98mg/L



Sample

Sample Name: J155-10I
Sample ID: TCJ006-55
Origin: TCJ006.cal
Chk. Result

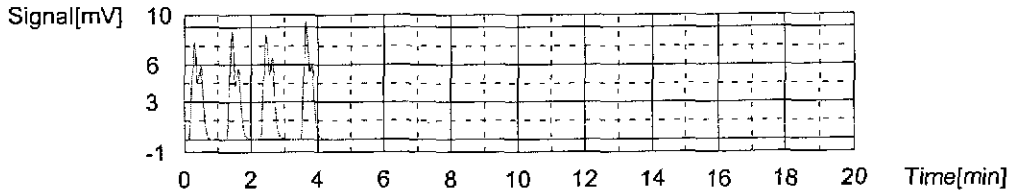
Type	Anal.	Dil.	Result
Unknown	NPOC	2.000	NPOC:13.26 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.15	12.70mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:17:28 AM
2	14.32	12.85mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:18:40 AM
3	15.37	13.80mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:20:03 AM
4	15.26	13.70mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:21:21 AM

Mean Area 14.78
Mean Conc. 13.26mg/L



Sample

Sample Name: J155-12I
Sample ID: TCJ006-56
Origin: TCJ006.cal
Chk. Result

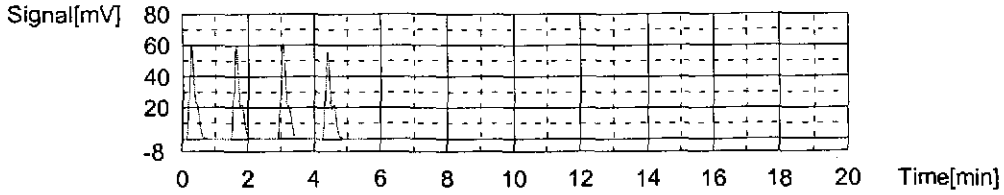
Type	Anal.	Dil.	Result
Unknown	NPOC	5.000	NPOC:170.1 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.25	173.3mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:29:13 AM
2	76.62	171.9mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:30:49 AM
3	76.58	171.8mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:32:21 AM
4	72.75	163.2mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:33:54 AM

Mean Area 75.80
Mean Conc. 170.1mg/L



Sample

Sample Name: J155-13I
Sample ID: TCJ006-57
Origin: TCJ006.cal
Chk. Result

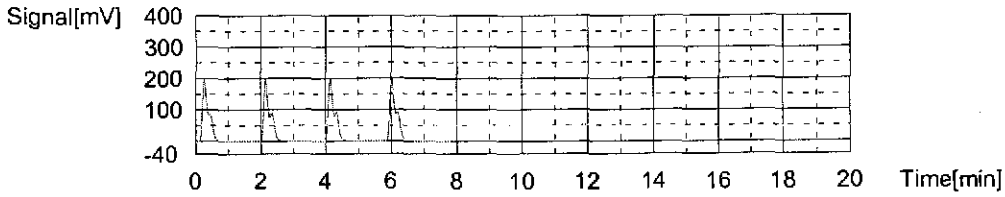
Type	Anal.	Dil.	Result
Unknown	NPOC	2.000	NPOC:244.4 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	265.4	238.2mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:42:18 AM
2	271.0	243.2mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:44:28 AM
3	273.9	245.8mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:46:32 AM
4	278.8	250.2mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:48:45 AM

Mean Area 272.3
Mean Conc. 244.4mg/L



Sample

Sample Name: J155-13M
Sample ID: TCJ006-58
Origin: TCJ006.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	2.000	NPOC:302.7 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	339.0	304.3mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:57:12 AM
2	337.1	302.6mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 01:59:27 AM
3	332.7	298.6mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:01:38 AM
4	340.0	305.2mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:03:48 AM

Mean Area 337.2
Mean Conc. 302.7mg/L

Sample

Sample Name: J155-13S
Sample ID: TCJ006-59
Origin: TCJ006.cal
Chk. Result

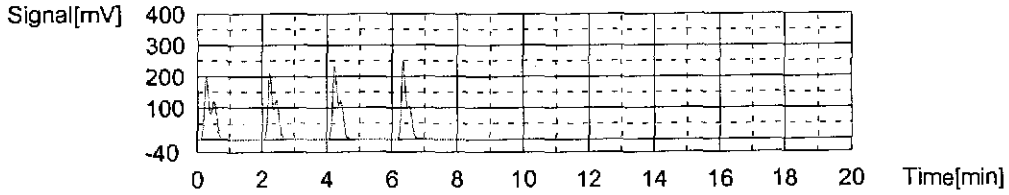
Type	Anal.	Dil.	Result
Unknown	NPOC	2.000	NPOC:303.9 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	334.6	300.3mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:12:17 AM
2	333.6	299.4mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:14:27 AM
3	348.3	312.6mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:16:45 AM
4	338.0	303.4mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:19:09 AM

Mean Area 338.6
Mean Conc. 303.9mg/L



Sample

Sample Name: J155-14
Sample ID: TCJ006-60
Origin: TCJ006.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:12.73 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.05	12.59mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:26:53 AM
2	27.12	12.17mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:28:10 AM
3	28.30	12.70mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:29:35 AM
4	30.02	13.47mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:31:14 AM

Mean Area 28.37
Mean Conc. 12.73mg/L

Control Sample

Sample Name: CCV5
Sample ID: TCJ006-61
Method: TCJ006.tpl
Chk. Result Control value: 23.47 / Control exceeds range!

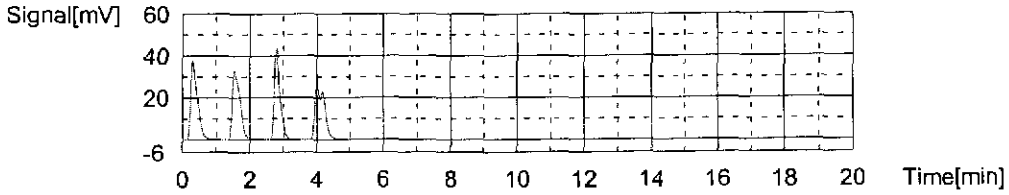
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:23.47 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.85	23.72mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:38:59 AM
2	52.54	23.58mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:40:25 AM
3	51.45	23.09mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:41:49 AM
4	52.36	23.50mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:43:17 AM

Mean Area 52.30
Mean Conc. 23.47mg/L



Sample

Sample Name: CCB5
Sample ID: TCJ006-62
Origin: *TCJ006.cal*
Chk. Result

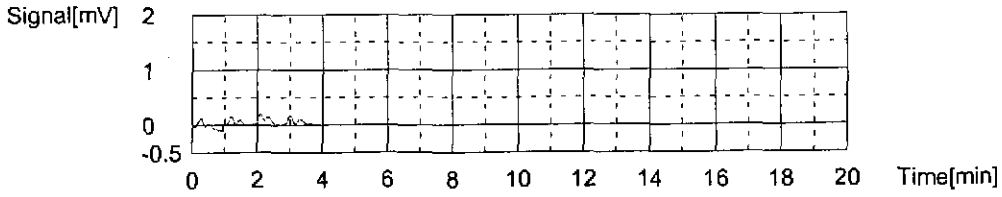
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1204 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2516	0.1129mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:50:43 AM
2	0.2337	0.1049mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:51:48 AM
3	0.3468	0.1556mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:52:54 AM
4	0.2408	0.1081mg/L	50uL	1		TCJ006.2012_10_26_13_11_55.cal	10/27/12 02:54:01 AM

Mean Area 0.2682
Mean Conc. 0.1204mg/L



6104

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J163

METHOD SM4500S2D
SULFIDE

A total of thirteen (13) water samples were received on 10/24/12 for Total Sulfide by Std Method analysis, Method SM4500S2D in accordance with Standard Methods for the Examination of Water and Wastewater, 20th Edition and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for SFJ010WL/C were all within QC limits.

Matrix QC Sample
No matrix QC sample was designated for this SDG.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

METHOD SM4500S2D
SULFIDE

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J163

Matrix : WATER
InstrumentID : 70

CLIENT SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	PREP. FACTOR	MOIST (%)	LOQ (mg/L)	LOD (mg/L)	ANALYSIS DATETIME	PREPARATION DATETIME	DATA FILE ID	CAL REF	PREP BATCH	COLLECTION DATETIME	RECEIVED DATETIME
MBLK1W	SFJ010WB	ND	1	NA	0.1	0.02	10/29/1215:28	NA	12SFJ01009	12SFJ010	SFJ010W	NA	NA
LCS1W	SFJ010WL	0.465	1	NA	0.1	0.02	10/29/1215:28	NA	12SFJ01010	12SFJ010	SFJ010W	NA	NA
LCD1W	SFJ010WC	0.477	1	NA	0.1	0.02	10/29/1215:29	NA	12SFJ01011	12SFJ010	SFJ010W	NA	NA
10-23-12 AMW-4R	J163-01	ND	1	NA	0.1	0.02	10/29/1215:29	NA	12SFJ01012	12SFJ010	SFJ010W	10/23/1212:40	10/24/12
10-23-12 WB 2-4	J163-02	ND	1	NA	0.1	0.02	10/29/1215:29	NA	12SFJ01013	12SFJ010	SFJ010W	10/23/1210:56	10/24/12
10-23-12 WB 2-1	J163-04	ND	1	NA	0.1	0.02	10/29/1215:29	NA	12SFJ01014	12SFJ010	SFJ010W	10/23/1215:06	10/24/12
10-23-12 PWB-9	J163-05	0.0380J	1	NA	0.1	0.02	10/29/1215:29	NA	12SFJ01015	12SFJ010	SFJ010W	10/23/1213:20	10/24/12
10-23-12 PWB-11	J163-06	ND	1	NA	0.1	0.02	10/29/1215:30	NA	12SFJ01016	12SFJ010	SFJ010W	10/23/1215:52	10/24/12
10-23-12 PWB-5	J163-07	ND	1	NA	0.1	0.02	10/29/1215:30	NA	12SFJ01017	12SFJ010	SFJ010W	10/23/1214:32	10/24/12
10-23-12 PWB-8	J163-08	ND	1	NA	0.1	0.02	10/29/1215:31	NA	12SFJ01018	12SFJ010	SFJ010W	10/23/1213:20	10/24/12
10-23-12 PWB-16	J163-09	ND	1	NA	0.1	0.02	10/29/1215:31	NA	12SFJ01021	12SFJ010	SFJ010W	10/23/1215:01	10/24/12
10-24-12 PWB-12	J163-10	ND	1	NA	0.1	0.02	10/29/1215:31	NA	12SFJ01022	12SFJ010	SFJ010W	10/24/1209:22	10/24/12
10-24-12 PWB-4	J163-11	ND	1	NA	0.1	0.02	10/29/1215:32	NA	12SFJ01023	12SFJ010	SFJ010W	10/24/1210:00	10/24/12
10-24-12 PWB-13A	J163-12	ND	1	NA	0.1	0.02	10/29/1215:32	NA	12SFJ01024	12SFJ010	SFJ010W	10/24/1208:44	10/24/12
10-24-12 PWB-14	J163-13	ND	1	NA	0.1	0.02	10/29/1215:32	NA	12SFJ01025	12SFJ010	SFJ010W	10/24/1208:06	10/24/12
10-24-12 FDUP-2	J163-14	ND	1	NA	0.1	0.02	10/29/1215:32	NA	12SFJ01026	12SFJ010	SFJ010W	10/24/1200:00	10/24/12

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : BROWN & BRYANT SUPERFUND SITE
BATCH NO. : 12J163
METHOD : METHOD SM4500S2D

MATRIX : WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1
SAMPLE ID :	MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID :	SFJ010WB	SFJ010WL	SFJ010WC
LAB FILE ID :	12SFJ01009	12SFJ01010	12SFJ01011
DATE PREPARED :	NA	NA	NA
DATE ANALYZED :	10/29/1215:28	10/29/1215:28	10/29/1215:29
PREP BATCH :	SFJ010W	SFJ010W	SFJ010W
CALIBRATION REF:	12SFJ010	12SFJ010	12SFJ010

ACCESSION:

PARAMETER	MB RESULT (mg/L)	SPIKE AMT (mg/L)	BS RESULT (mg/L)	BS REC (%)	SPIKE AMT (mg/L)	BSD RESULT (mg/L)	BSD REC (%)	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Sulfide	ND	.5	.465	93	.5	.477	95	3	80-120	20

SULFIDE ANALYSIS
(COLORIMETRY)

DataFileID	LabSampleID	Result	Flag	RUnit	SampleAmt	SUnit	PDateTime	FinalVol (ml)	WL	Abs	ADateTime	Sample Blgnd	DF	%M	RC	Dilution Factor	Notes	Analyst	pH check
12SFJ01009	SFJ010WB	ND		mg/L	7.5	ml	NA	7.5	664NM	0.003	10/29/12 15:28	0	1		-0.00829	1		MJM	
12SFJ01010	SFJ010WL	0.465		mg/L	7.5	ml	NA	7.5	664NM	0.35	10/29/12 15:28	0	1		0.4648436	1		MJM	
12SFJ01011	SFJ010WC	0.477		mg/L	7.5	ml	NA	7.5	664NM	0.359	10/29/12 15:29	0	1		0.4771151	1		MJM	
12SFJ01012	J163-01	ND		mg/L	7.5	ml	NA	7.5	664NM	0	10/29/12 15:29	0	1		-0.012381	1		MJM	>9
12SFJ01013	J163-02	ND		mg/L	7.5	ml	NA	7.5	664NM	0.002	10/29/12 15:29	0	1		-0.009654	1		MJM	>9
12SFJ01014	J163-04	ND		mg/L	7.5	ml	NA	7.5	664NM	0.002	10/29/12 15:29	0	1		-0.009654	1		MJM	>9
12SFJ01015	J163-05	0.038	J	mg/L	7.5	ml	NA	7.5	664NM	0.25	10/29/12 15:29	0.213	1		0.0380686	1		MJM	>9
12SFJ01016	J163-06	ND		mg/L	7.5	ml	NA	7.5	664NM	0.002	10/29/12 15:30	0	1		-0.009654	1		MJM	>9
12SFJ01017	J163-07	ND		mg/L	7.5	ml	NA	7.5	664NM	0.043	10/29/12 15:30	0.015	1		0.0121623	1		MJM	>9
12SFJ01018	J163-08	ND		mg/L	7.5	ml	NA	7.5	664NM	0.008	10/29/12 15:31	0	1		-0.001473	1		MJM	>9
12SFJ01019	CCV1	0.519		mg/L	7.5	ml	NA	7.5	664NM	0.39	10/29/12 15:31	0	1		0.5193835	1		MJM	
12SFJ01020	CCB1	ND		mg/L	7.5	ml	NA	7.5	664NM	0.003	10/29/12 15:31	0	1		-0.00829	1		MJM	
12SFJ01021	J163-09	ND		mg/L	7.5	ml	NA	7.5	664NM	0.003	10/29/12 15:31	0	1		-0.00829	1		MJM	>9
12SFJ01022	J163-10	ND		mg/L	7.5	ml	NA	7.5	664NM	0.021	10/29/12 15:31	0	1		0.0162527	1		MJM	>9
12SFJ01023	J163-11	ND		mg/L	7.5	ml	NA	7.5	664NM	0.004	10/29/12 15:32	0	1		-0.006927	1		MJM	>9
12SFJ01024	J163-12	ND		mg/L	7.5	ml	NA	7.5	664NM	0.002	10/29/12 15:32	0	1		-0.009654	1		MJM	>9
12SFJ01025	J163-13	ND		mg/L	7.5	ml	NA	7.5	664NM	0.002	10/29/12 15:32	0	1		-0.009654	1		MJM	>9
12SFJ01026	J163-14	ND		mg/L	7.5	ml	NA	7.5	664NM	0.004	10/29/12 15:32	0	1		-0.006927	1		MJM	>9
12SFJ01027	J182-02	ND		mg/L	7.5	ml	NA	7.5	664NM	0.005	10/29/12 15:32	0	1		-0.005563	1		MJM	>9
12SFJ01028	J182-02D	ND		mg/L	7.5	ml	NA	7.5	664NM	0.005	10/29/12 15:32	0	1		-0.005563	1		MJM	>9
12SFJ01029	J182-02M	0.383		mg/L	7.5	ml	NA	7.5	664NM	0.29	10/29/12 15:33	0	1		0.3830337	1		MJM	>9
12SFJ01030	J182-03	ND		mg/L	7.5	ml	NA	7.5	664NM	0.015	10/29/12 15:34	0	1		0.0080717	1		MJM	>9
12SFJ01031	CCV2	0.522		mg/L	7.5	ml	NA	7.5	664NM	0.392	10/29/12 15:35	0	1		0.5221105	1		MJM	
12SFJ01032	CCB2	ND		mg/L	7.5	ml	NA	7.5	664NM	0.003	10/29/12 15:35	0	1		-0.00829	1		MJM	
12SFJ01033	J182-04	ND		mg/L	7.5	ml	NA	7.5	664NM	0.012	10/29/12 15:35	0	1		0.0039812	1		MJM	>9
12SFJ01034	J182-05	ND		mg/L	7.5	ml	NA	7.5	664NM	0.023	10/29/12 15:35	0	1		0.0189797	1		MJM	>9
12SFJ01035	J182-06	ND		mg/L	7.5	ml	NA	7.5	664NM	0.002	10/29/12 15:36	0	1		-0.009654	1		MJM	>9
12SFJ01036	J182-07	ND		mg/L	7.5	ml	NA	7.5	664NM	0	10/29/12 15:36	0	1		-0.012381	1		MJM	>9
12SFJ01037	CCV3	0.519		mg/L	7.5	ml	NA	7.5	664NM	0.39	10/29/12 15:36	0	1		0.5193835	1		MJM	
12SFJ01038	CCB3	ND		mg/L	7.5	ml	NA	7.5	664NM	0.004	10/29/12 15:36	0	1		-0.006927	1		MJM	

MJM
10/29/12

Reviewed by: [illegible]
10/30/12

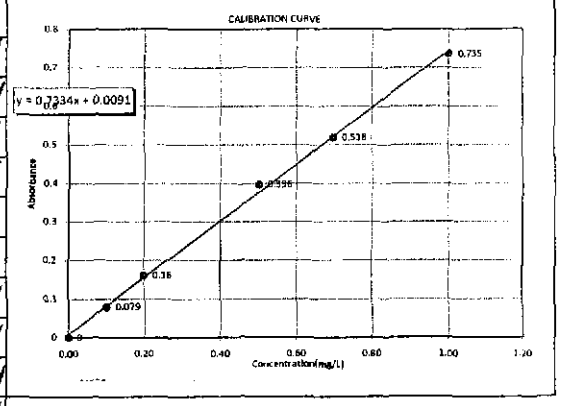
EMAX LABORATORIES, INC.

SULFIDE ANALYSIS
(COLORIMETRY)

Data File Name	Calibration ID	Conc mg/L	WL	Abs	CalDate	FC	%Rec
12SFJ01001	S0	0.00	664NM	0	10/29/12 15:25	-0.012380608	ND
12SFJ01002	S1	0.10	664NM	0.079	10/29/12 15:25	0.09533656	95
12SFJ01003	S2	0.30	664NM	0.16	10/29/12 15:25	0.205778925	103
12SFJ01004	S3	0.50	664NM	0.396	10/29/12 15:26	0.527564531	106
12SFJ01005	S4	0.70	664NM	0.518	10/29/12 15:26	0.693911327	99
12SFJ01006	S5	1.00	664NM	0.735	10/29/12 15:26	0.989790465	99
12SFJ01007	ICV	0.50	664NM	0.35	10/29/12 15:27	0.466843608	93
12SFJ01008	ICB	0.00	664NM	0.003	10/29/12 15:28	-0.008290313	ND
12SFJ01019	CCV1	0.50	664NM	0.39	10/29/12 15:31	0.519383541	104
12SFJ01020	CCB1	0.00	664NM	0.003	10/29/12 15:31	-0.008290313	ND
12SFJ01031	CCV2	0.50	664NM	0.392	10/29/12 15:35	0.522110538	104
12SFJ01032	CCB2	0.00	664NM	0.003	10/29/12 15:35	-0.008290313	ND
12SFJ01037	CCV3	0.50	664NM	0.39	10/29/12 15:36	0.519383541	104
12SFJ01038	CCB3	0.00	664NM	0.004	10/29/12 15:36	-0.006928814	ND

$$FC = [(A * CF) - Y] * DF$$

InstrumentID: 70



CF= 1.88349833 Y= 0.01238 r= 0.999259

LOD Water(mg/L) 0.02 LOD Soil(mg/Kg)

LOQ Water(mg/L) 0.1 LOQ Soil(mg/Kg)

SOP

☐ EMAX-376.2 Rev. 2

☑ EMAX-4500-S2D Rev. 2

Standard / Reagent ID	Description	Conc.	Exp.Date
SW2-03-56-06	Intermediate ICAL CCV High Low Std (mg/L)	10	10/29/12
SW2-03-56-07	Intermediate ICV1 CR MS Std (mg/L)	2.15	10/29/12
SW1-01-495	MS Spike	215	05/01/15
RW1-12-001	Reagent Water	NA	NA
SWR1-01-595	Amino Sulfuric Acid	ASSAY	07/01/13
SWR1-01-582	Ferric Chloride (%)	100	09/01/13
SWR1-08-33-02	Diammonium Phosphate	RGT	10/01/13
SWR1-09-44-04	Sulfuric Acid,%	50	02/02/13
HC(K)41-99	pH strip	0-14	10/01/13

Standard Prep	Intermediate Std Aliquot (mg/L)	Final Vol (ml)	DateTime
S0	0	7.5	10/29/12 14:59
S1	0.075	7.5	10/29/12 14:59
S2	0.15	7.5	10/29/12 14:59
S3	0.375	7.5	10/29/12 14:59
S4	0.525	7.5	10/29/12 14:59
S5	0.75	7.5	10/29/12 14:59
ICV/LCS	1.74	7.5	10/29/12 15:00
CCV	0.375	7.5	10/29/12 15:00
MS	0.0174	7.5	10/29/12 15:00

LAB QC CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
12SFJ01009	SFJ01DWB	ND	ND	MB Passed
12SFJ01010	SFJ010WL	0.465	0.5	%R=93
12SFJ01011	SFJ010WC	0.477	0.5	%R=95

MS CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
12SFJ01027	J182-02	ND	0	
12SFJ01029	J182-02M	0.383	0.5	%R=77

DUP CHECK

DataFileID	LabSampleID	Result	Expected Value	RPD
12SFJ01027	J182-02	ND	0	0
12SFJ01028	J182-02D	ND		

Notes:

MicropipetteID: 242780099, 2846967, ICP01, GFAA-07

Analyzed by: MJM

Reviewed by: 10/30/12

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J163

SM3500
FERROUS IRON

A total of thirteen (13) water samples were received on 10/24/12 for Ferrous Iron analysis, MethodSM3500 in accordance with Standard Methods for the Examination of Water and Wastewater, 20th Edition and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source. Continuing calibration verifications were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for FEJ005WL/C were all within QC limits.

Matrix QC Sample
Matrix QC sample was analyzed at the frequency prescribed by the project.
Percent recoveries for J163-14M/S were within project QC limits.
Sample duplicate was also analyzed with the samples. RPD was within project limit.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

SM3500
FERROUS IRON

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J163

Matrix : WATER
InstrumentID : 70

CLIENT SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	PREP. FACTOR	MOIST (%)	LOQ (mg/L)	LOD (mg/L)	ANALYSIS DATETIME	PREPARATION DATETIME	DATA FILE ID	CAL REF	PREP BATCH	COLLECTION DATETIME	RECEIVED DATETIME
MBLK1W	FEJ005WB	ND	1	NA	2	0.5	10/24/1219:08	NA	12FEJ00509	12FEJ005	FEJ005W	NA	NA
LCS1W	FEJ005WL	14.9	1	NA	2	0.5	10/24/1219:08	NA	12F EJ00510	12FEJ005	FEJ005W	NA	NA
LCD1W	FEJ005WC	15.0	1	NA	2	0.5	10/24/1219:09	NA	12F EJ00511	12FEJ005	FEJ005W	NA	NA
10-23-12 AMW-4R	J163-01	ND	1	NA	2	0.5	10/24/1219:09	NA	12F EJ00512	12FEJ005	FEJ005W	10/23/1212:40	10/24/12
10-23-12 WB 2-4	J163-02	ND	1	NA	2	0.5	10/24/1219:09	NA	12F EJ00513	12FEJ005	FEJ005W	10/23/1210:56	10/24/12
10-23-12 WB 2-1	J163-04	ND	1	NA	2	0.5	10/24/1219:09	NA	12F EJ00514	12FEJ005	FEJ005W	10/23/1215:06	10/24/12
10-23-12 PWB-9	J163-05	ND	1	NA	2	0.5	10/24/1219:09	NA	12F EJ00515	12FEJ005	FEJ005W	10/23/1213:20	10/24/12
10-23-12 PWB-11	J163-06	0.551J	1	NA	2	0.5	10/24/1219:10	NA	12F EJ00516	12FEJ005	FEJ005W	10/23/1215:52	10/24/12
10-23-12 PWB-5	J163-07	ND	1	NA	2	0.5	10/24/1219:10	NA	12F EJ00517	12FEJ005	FEJ005W	10/23/1214:32	10/24/12
10-23-12 PWB-8	J163-08	ND	1	NA	2	0.5	10/24/1219:11	NA	12F EJ00518	12FEJ005	FEJ005W	10/23/1213:20	10/24/12
10-23-12 PWB-16	J163-09	ND	1	NA	2	0.5	10/24/1219:14	NA	12F EJ00521	12FEJ005	FEJ005W	10/23/1215:01	10/24/12
10-24-12 PWB-12	J163-10	ND	1	NA	2	0.5	10/24/1219:14	NA	12F EJ00522	12FEJ005	FEJ005W	10/24/1209:22	10/24/12
10-24-12 PWB-4	J163-11	ND	1	NA	2	0.5	10/24/1219:14	NA	12F EJ00523	12FEJ005	FEJ005W	10/24/1210:00	10/24/12
10-24-12 PWB-13A	J163-12	ND	1	NA	2	0.5	10/24/1219:14	NA	12F EJ00524	12FEJ005	FEJ005W	10/24/1208:44	10/24/12
10-24-12 PWB-14	J163-13	ND	1	NA	2	0.5	10/24/1219:15	NA	12F EJ00525	12FEJ005	FEJ005W	10/24/1208:06	10/24/12
10-24-12 FDUP-2	J163-14	ND	1	NA	2	0.5	10/24/1219:15	NA	12F EJ00526	12FEJ005	FEJ005W	10/24/1200:00	10/24/12
10-24-12 FDUP-2DUP	J163-14D	ND	1	NA	2	0.5	10/24/1219:15	NA	12F EJ00527	12FEJ005	FEJ005W	10/24/1200:00	10/24/12
10-24-12 FDUP-2MS	J163-14M	12.7	1	NA	2	0.5	10/24/1219:15	NA	12F EJ00528	12FEJ005	FEJ005W	10/24/1200:00	10/24/12
10-24-12 FDUP-2MSD	J163-14S	12.5	1	NA	2	0.5	10/24/1219:15	NA	12F EJ00529	12FEJ005	FEJ005W	10/24/1200:00	10/24/12

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : BROWN & BRYANT SUPERFUND SITE
BATCH NO. : 12J163
METHOD : SM3500

MATRIX : WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1
SAMPLE ID :	MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID :	FEJ0D5WB	FEJ005WL	FEJ005WC
LAB FILE ID :	12FEJ00509	12FEJ00510	12FEJ00511
DATE PREPARED :	NA	NA	NA
DATE ANALYZED :	10/24/1219:08	10/24/1219:08	10/24/1219:09
PREP BATCH :	FEJ005W	FEJ005W	FEJ005W
CALIBRATION REF:	12FEJ005	12FEJ005	12FEJ005

ACCESSION:

PARAMETER	MB RESULT (mg/L)	SPIKE AMT (mg/L)	BS RESULT (mg/L)	BS REC (%)	SPIKE AMT (mg/L)	BSD RESULT (mg/L)	BSD REC (%)	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ferrous Iron	ND	15	14.9	99	15	15	100	1	80-120	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : BROWN & BRYANT SUPERFUND SITE
BATCH NO. : 12J163
METHOD : SM3500

MATRIX	: WATER		% MOISTURE:
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 10-24-12 FDUP-2	10-24-12 FDUP-2MS	10-24-12 FDUP-2MSD
LAB SAMPLE ID	: J163-14	J163-14M	J163-14S
LAB FILE ID	: 12FEJ00526	12FEJ00528	12FEJ00529
DATE PREPARED	: NA	NA	NA
DATE ANALYZED	: 10/24/1219:15	10/24/1219:15	1D/24/1219:15
PREP BATCH	: FEJ005W	FEJ005W	FEJ005W
CALIBRATION REF	: 12FEJ005	12FEJ005	12FEJ005

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	SPIKE AMT (mg/L)	MS RESULT (mg/L)	MS REC (%)	SPIKE AMT (mg/L)	MSD RESULT (mg/L)	MSD REC (%)	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ferrous Iron	ND	15	12.7	85	15	12.5	83	2	80-120	20

EMAX QUALITY CONTROL DATA
SAMPLE DUPLICATE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : BROWN & BRYANT SUPERFUND SITE
BATCH NO. : 12J163
METHOD : SM3500

==========

MATRIX :	WATER	% MOISTURE:
DILUTION FACTOR:	1	1
SAMPLE ID :	10-24-12 FDUP-2	10-24-12 FDUP-2DUP
LAB SAMPLE ID :	J163-14	J163-14D
LAB FILE ID :	12FEJ00526	12FEJ00527
DATE PREPARED :	NA	NA
DATE ANALYZED :	10/24/1219:15	10/24/1219:15
PREP BATCH :	FEJ005W	FEJ005W
CALIBRATION REF:	12FEJ005	12FEJ005

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	DUP RESULT (mg/L)	RPD (%)	MAX DIFF (%)
Ferrous Iron	ND	ND	0	20

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
FERROUS IRON

Calibration	Stock Conc.	Exp Date
ICAL	200 ppm	9/14/13
ICV/LCS/MS	200 ppm	10/24/12

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Micropipette ID: 54146034, 939380239

Comments:

Book #:	A70-Fe B-006
Instrument No.:	70
Analytical Batch:	FEJ005

SOP #	Rev. #
☒ EMAX-3500-Fe B	2
☐ EMAX-	

STANDARDS ID	aliquot (mL) in 10 final vol.	Conc. (mg/L)
S0 Reagent H2O (RW1-12-001)	0	0
S1 SW2-03-47-08	0.1	2
S2 SW2-03-47-08	0.5	10
S3 SW2-03-47-08	0.75	15
S4 SW2-03-47-08	1.0	20
S5 SW2-03-47-08	1.25	25
CCV SW2-03-47-08	0.75	15
ICV/LCS/MS SW2-03-55-07	0.75	15

Prep Date: 10/24/12 Exp Date: 10/24/12

REAGENT	ID
HCl	SWA-08-555
$NH_4C_2H_3O_2$ Buffer	SWP1-09-80-02
Phenanthroline Solution	SWA-09-80-01
Hydroxyalamine-HCL Solution	SWP1-007-93-04

Analyzed By: CJS

Date: 10/24/12

8115

FERROUS ANALYSIS

EMAX LABORATORIES, INC.

DataFileID	LabSampleID	Result	Flag	RUnit	SampleAmt	SUnit	PDateTime	FinalVol (ml)	WL	Abs	ADateTime	Sample Blkgnd	DF	%M	Conc.	DFxPrep Factor	Notes	Analyst	Sample pH
12FEJ00509	FEJ005WB	ND		mg/L	10	ml	NA	10	510NM	0	10/24/12 19:08	0	1		-0.00889	1		CJS	
12FEJ00510	FEJ005WL	14.9		mg/L	10	ml	NA	10	510NM	0.32	10/24/12 19:08	0	1		14.92444	1		CJS	
12FEJ00511	FEJ005WC	15		mg/L	10	ml	NA	10	510NM	0.321	10/24/12 19:09	0	1		14.97111	1		CJS	
12FEJ00512	J163-01	ND		mg/L	10	ml	NA	10	510NM	0	10/24/12 19:09	0	1		-0.00889	1		CJS	
12FEJ00513	J163-02	ND		mg/L	10	ml	NA	10	510NM	0.001	10/24/12 19:09	0	1		0.037778	1		CJS	
12FEJ00514	J163-04	ND		mg/L	10	ml	NA	10	510NM	0.01	10/24/12 19:09	0	1		0.457778	1		CJS	
12FEJ00515	J163-05	ND		mg/L	10	ml	NA	10	510NM	0.075	10/24/12 19:09	0.066	1		0.411111	1		CJS	
12FEJ00516	J163-06	0.5511	J	mg/L	10	ml	NA	10	510NM	0.012	10/24/12 19:10	0	1		0.551111	1		CJS	
12FEJ00517	J163-07	ND		mg/L	10	ml	NA	10	510NM	0.001	10/24/12 19:10	0	1		0.037778	1		CJS	
12FEJ00518	J163-08	ND		mg/L	10	ml	NA	10	510NM	0.001	10/24/12 19:11	0	1		0.037778	1		CJS	
12FEJ00519	CCV1	15		mg/L	10	ml	NA	10	510NM	0.322	10/24/12 19:12	0	1		15.01778	1		CJS	
12FEJ00520	CCB1	ND		mg/L	10	ml	NA	10	510NM	0.001	10/24/12 19:12	0	1		0.037778	1		CJS	
12FEJ00521	J163-09	ND		mg/L	10	ml	NA	10	510NM	0	10/24/12 19:14	0	1		-0.00889	1		CJS	
12FEJ00522	J163-10	ND		mg/L	10	ml	NA	10	510NM	0	10/24/12 19:14	0	1		-0.00889	1		CJS	
12FEJ00523	J163-11	ND		mg/L	10	ml	NA	10	510NM	0.002	10/24/12 19:14	0	1		0.084444	1		CJS	
12FEJ00524	J163-12	ND		mg/L	10	ml	NA	10	510NM	0.006	10/24/12 19:14	0	1		0.271111	1		CJS	
12FEJ00525	J163-13	ND		mg/L	10	ml	NA	10	510NM	0.005	10/24/12 19:15	0	1		0.224444	1		CJS	
12FEJ00526	J163-14	ND		mg/L	10	ml	NA	10	510NM	0.005	10/24/12 19:15	0	1		0.224444	1		CJS	
12FEJ00527	J163-14D	ND		mg/L	10	ml	NA	10	510NM	0.005	10/24/12 19:15	0	1		0.224444	1		CJS	
12FEJ00528	J163-14M	12.7		mg/L	10	ml	NA	10	510NM	0.273	10/24/12 19:15	0	1		12.73111	1		CJS	
12FEJ00529	J163-14S	12.5		mg/L	10	ml	NA	10	510NM	0.267	10/24/12 19:15	0	1		12.45111	1		CJS	
12FEJ00530	CCV2	15.1		mg/L	10	ml	NA	10	510NM	0.324	10/24/12 19:16	0	1		15.11111	1		CJS	
12FEJ00531	CCB2	ND		mg/L	10	ml	NA	10	510NM	0	10/24/12 19:16	0	1		-0.00889	1		CJS	

10/24/12

Reviewed by: MJM

Date: 10/24/12

EMAX LABORATORIES, INC.

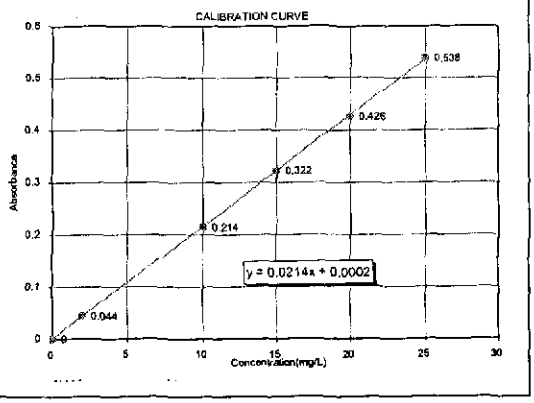
FERROUS ANALYSIS

Data File Name	Calibration ID	Conc. mg/L	WL	Abs	CalDate	FC	%Rec
12FEJ00501	S0	0	510NM	0	10/24/12 19:06	-0.008888889	ND
12FEJ00502	S1	2	510NM	0.044	10/24/12 19:06	2.044444444	102
12FEJ00503	S2	10	510NM	0.214	10/24/12 19:07	9.977777778	100
12FEJ00504	S3	15	510NM	0.322	10/24/12 19:07	15.01777778	100
12FEJ00505	S4	20	510NM	0.426	10/24/12 19:07	19.87111111	99
12FEJ00506	S5	25	510NM	0.538	10/24/12 19:07	25.09777778	100
12FEJ00507	ICV	15	510NM	0.333	10/24/12 19:08	15.53111111	104
12FEJ00508	ICB	0	510NM	0	10/24/12 19:08	-0.008888889	ND
12FEJ00519	CCV1	15	510NM	0.322	10/24/12 19:12	15.01777778	100
12FEJ00520	CCB1	0	510NM	0.001	10/24/12 19:12	0.037777778	0
12FEJ00530	CCV2	15	510NM	0.324	10/24/12 19:16	15.11111111	101
12FEJ00531	CCB2	0	510NM	0	10/24/12 19:16	-0.008888889	ND

10/24/12

$$FC = [(A * CF) - Y] * DF$$

InstrumentID: 70



CF= 46.86666667 Y= 0.00889 r= 0.999970

LOQ Water(mg/L) 0.5 LOQ Soil(mg/Kg)

LOQ Water(mg/L) 2 LOQ Soil(mg/Kg)

SOP

☐ EMAX-3500 Fe B Rev. 3

Standard / Reagent ID	Description	Conc.	Exp Date
SW2-03-47-08	Intermediate ICAL CCV Std (mg/L)	200	09/14/13
SW2-03-55-07	Intermediate ICV LCS MS Std (mg/L)	200	10/24/12
RW1-12-001	Reagent Water	NA	NA
NA	Reagent Water		
SW1A-04-555	HCl	ASSAY	06/01/14
SWP1-09-80-02	$NH_4C_2H_3O_2$ Buffer	NA	09/28/13
SWP1-09-80-01	Phenanthroline Solution	NA	09/28/12
SWP1-007-93-04	Hydroxylamine-HCl Solution	NA	12/01/12
HC248798	pH Strip	NA	09/17/13

10/24/12

Standard Prep	Intermediate Std Aliquot (ml)	Final Vol (ml)	DateTime
S0	0	10	10/24/12 18:39
S1	0.1	10	10/24/12 18:39
S2	0.5	10	10/24/12 18:39
S3	0.75	10	10/24/12 18:39
S4	1	10	10/24/12 18:40
S5	1.25	10	10/24/12 18:40
ICV	0.75	10	10/24/12 18:40
CCV	0.75	10	10/24/12 18:40
LCS	0.75	10	10/24/12 18:40

MicropipetteID: 541460054 939380239

Expected Sample Amount 10

LAB QC CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
12FEJ00509	FEJ005WB	ND	ND	MB Passed
12FEJ00510	FEJ005WL	14.9	15	%R=99
12FEJ00511	FEJ005WC	15	15	%R=100

MS CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
12FEJ00528	J163-14	ND	0	RPD=2
12FEJ00528	J163-14M	12.7	15	%R=85
12FEJ00529	J163-14S	12.5	15	%R=83

DUP CHECK

DataFileID	LabSampleID	Result	Expected Value	RPD
12FEJ00526	J163-14	ND		
12FEJ00527	J163-14D	ND	ND	#VALUE!

☐ Distillation DateTime Start: NA ☐ End:

Analyzed by: CJS

Reviewed by: MJM

Date: 11/14/12

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

METHANE AND DISSOLVED HYDROGEN

SDG#: 12J163

AirTECHNOLOGY Laboratories, Inc.

November 19, 2012

ACLASS DoD ELAP
ADE-1461
EPA Methods TO-3, TO14A,TO15 SIM & Scan, ASTM D1946

nelac
LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175
TX Cert T104704450-09-TX
EPA Methods TO14A, TO15

EMAX Laboratories, Inc.
ATTN: Richard Beauvil
1835 205th St.
Torrance, CA 90501

LABORATORY TEST RESULTS

Project Reference: 12J163, Eco & Associates, Inc.
Lab Number: D102604-01/13

Enclosed are results for sample(s) received 10/26/12 by Air Technology Laboratories. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

Total Number of Pages: 133

CHAIN OF CUSTODY

D102604-01\13

EMAX LABORATORIES, INC.
Tel#: 310-618-8889 FAX#: 310-618-0818
email: info@emaxlabs.com

EMAX CONTROL NO	12J163
PROJECT CODE	ECO1101
TURN-AROUND-TIME	STANDARD

SEND REPORT TO:
EMAX LABORATORIES, INC.
1835 W. 205TH ST. CA 90501

ATTN: **Richard Beauvil**

CLIENT: Eco & Associates, Inc.
PROJECT: Brown & Bryant Superfund

SEND SAMPLES TO:
Air Technology Labs
18501 E. Gale Ave, Suite 130
City of Industry, CA 91748

	EMAX Sample ID	Client Sample ID	Collection Date	CollectionTime	Matrix	Method		COMMENTS
01	J163-01	10-23-12 AMW-4R	10/23/2012	12:40:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	LEVEL 4
02	J163-02	10-23-12 WB 2-4	10/23/2012	10:56:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
03	J163-04	10-23-12 WB 2-1	10/23/2012	3:06:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
04	J163-05	10-23-12 PWB-9	10/23/2012	1:20:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
05	J163-06	10-23-12 PWB-11	10/23/2012	3:52:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
06	J163-07	10-23-12 PWB-5	10/23/2012	2:32:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
07	J163-08	10-23-12 PWB-8	10/23/2012	1:20:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
08	J163-09	10-23-12 PWB-16	10/23/2012	3:01:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
09	J163-10	10-24-12 PWB-12	10/24/2012	9:22:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
10	J163-11	10-24-12 PWB-4	10/24/2012	10:00:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
11	J163-12	10-24-12 PWB-13A	10/24/2012	8:44:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
12	J163-13	10-24-12 PWB-14	10/24/2012	8:06:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
13	J163-14	10-24-12 FDUP-2	10/24/2012	12:00:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	

CHAIN OF CUSTODY

D102604-01/13

EMAX LABORATORIES, INC.
Tel#: 310-618-8889 FAX#: 310-618-0818
email: info@emaxlabs.com

EMAX CONTROL NO	12J163
PROJECT CODE	ECO1101_
TURN-AROUND-TIME	STANDARD

SEND REPORT TO:
EMAX LABORATORIES, INC.
1835 W. 205TH ST. CA 90501

ATTN: **Richard Beauvil**

CLIENT: **Eco & Associates, Inc.**
PROJECT: **Brown & Bryant Superfund**

SEND SAMPLES TO:

EMAX Sample ID	Client Sample ID	Collection Date	CollectionTime	Matrix	Method	COMMENTS

INSTRUCTION:

DATA PACKAGE: 2 HARD COPIES, 1 CD, LEVEL III with 10% LEVEL IV. EDD: ADR 1A/3A.

COOLER TEMPERATURE

8°C

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[illegible]	10/26/12	~~1130~~ 1200	[illegible]	10/26/12	1200

Client: EMAX Laboratories, Inc.
Attn: Richard Beauvil
Project Name: Eco & Associates, Inc.
Project No.: 12J163
Date Received: 10/26/12
Matrix: Air
Reporting Units: ug/L

RSK175

Lab No.:	D102604-01		D102604-02		D102604-03		D102604-04	
Client Sample I.D.:	J163-01 / 10-23-12 AMW-4R		J163-02 / 10-23-12 WB 2-4		J163-04 / 10-23-12 WB 2-1		J163-05 / 10-23-12 PWB-9	
Date Sampled:	10/23/12		10/23/12		10/23/12		10/23/12	
Date Analyzed:	10/31/12		10/31/12		10/31/12		10/31/12	
QC Batch No.:	121031GC8A1		121031GC8A1		121031GC8A1		121031GC8A1	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result ug/L	RL ug/L	Result ug/L	RL ug/L	Result ug/L	RL ug/L	Result ug/L	RL ug/L
Methane	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Hydrogen	ND	10	ND	10	ND	10	ND	10

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 11-18-12
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ◆ City of Industry, CA 91748 ◆ Ph: (626) 964-4032 ◆ Fx: (626) 964-5832

Client: EMAX Laboratories, Inc.
Attn: Richard Beauvil
Project Name: Eco & Associates, Inc.
Project No.: 12J163
Date Received: 10/26/12
Matrix: Air
Reporting Units: ug/L

RSK175

Lab No.:	D102604-05		D102604-06		D102604-07		D102604-08	
Client Sample I.D.:	J163-06 / 10-23-12 PWB-11		J163-07 / 10-23-12 PWB-5		J163-08 / 10-23-12 PWB-8		J163-09 / 10-23-12 PWB-16	
Date Sampled:	10/23/12		10/23/12		10/23/12		10/23/12	
Date Analyzed:	10/31/12		10/31/12		10/31/12		10/31/12	
QC Batch No.:	121031GC8A1		121031GC8A1		121031GC8A1		121031GC8A1	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result ug/L	RL ug/L	Result ug/L	RL ug/L	Result ug/L	RL ug/L	Result ug/L	RL ug/L
Methane	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Hydrogen	ND	10	ND	10	ND	10	ND	10

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 11-18-12
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: EMAX Laboratories, Inc.
Attn: Richard Beauvil
Project Name: Eco & Associates, Inc.
Project No.: 12J163
Date Received: 10/26/12
Matrix: Air
Reporting Units: ug/L

RSK175

Lab No.:	D102604-09		D102604-10		D102604-11		D102604-12	
Client Sample I.D.:	J163-10 / 10-24-12 PWB-12		J163-11 / 10-24-12 PWB-4		J163-12 / 10-24-12 PWB-13A		J163-13 / 10-24-12 PWB-14	
Date Sampled:	10/24/12		10/24/12		10/24/12		10/24/12	
Date Analyzed:	10/31/12		10/31/12		11/01/12		11/01/12	
QC Batch No.:	121031GC8A1		121031GC8A1		121031GC8A1		121031GC8A1	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result ug/L	RL ug/L	Result ug/L	RL ug/L	Result ug/L	RL ug/L	Result ug/L	RL ug/L
Methane	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Hydrogen	ND	10	ND	10	ND	10	ND	10

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 11-18-12

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client:	EMAX Laboratories, Inc.
Attn:	Richard Beauvil
Project Name:	Eco & Associates, Inc.
Project No.:	12J163
Date Received:	10/26/12
Matrix:	Air
Reporting Units:	ug/L

RSK175

Lab No.:	D102604-13							
Client Sample I.D.:	J163-14 / 10-24-12 FDUP-2							
Date Sampled:	10/24/12							
Date Analyzed:	11/01/12							
QC Batch No.:	121031GC8A1							
Analyst Initials:	MJ							
Dilution Factor:	1.0							
ANALYTE	Result ug/L	RL ug/L						
Methane	ND	1.0						
Hydrogen	ND	10						

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 11-18-12

Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 121031GC8A1
Matrix: Water
Units: ug/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date Analyzed:		10/31/12		10/31/12		10/31/12			
Analyst Initials:		MJ		MJ		MJ			
Datafile:		30oct032/053		30oct029/052		30oct030/051			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	1.0	1.0	ND	108	70-130%	108	70-130%	0.5	<30
Hydrogen	10	10	ND	103	70-130%	106	70-130%	3.4	<30

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL).
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ Date: 11-18-12
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report

GC Raw Data Index
General Information

Method: RSK

Section	Page #
1. Supporting Documents	10
2. Sample Raw Data	16
3. Initial Calibration	81
4. Continuing Calibration	109
5. Method Blank	118
6. LCS/LCSD	123

Conventions and Conversions

1 ppbv = 0.001 ppmv = 0.0000001% v/v
1% v/v = 10,000 ppmv = 10,000,000 ppbv

1 ug/m^3 = 1 ng/L = ppbv x MW/24.45
1 ug/L = 1 mg/m^3 = ppmv x MW/24.45

Where **MW** is the molecular weight of the compound and 24.45 is the molar volume of ideal gas at 1 atmosphere and 25° C.

1 atmosphere = 14.6 psia = 0 psig
30" Hg = 0 psia = -14.6 psig

Standard pressure is taken as 14.6 psia at Air Technology Labs' facility.

1. Supporting Documents

a. Pressurization log (if applicable)

b. ICAL run log

c. CCAL/QC/Samples run log

d. Miscellaneous documents

GC Injection Logbook

Instrument ID: GC 8A

Analytical Method: TSE175

Datafile Directory: C:\Terragon\GC8A\2011\November\Day

Chemist: [illegible]

Blank Lot #: [illegible]

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	11-3-11	11:39	03 nov 013	C102003 - 08	EMAX	250 ml	–	–	1.0	D.T.	OK	pH = 7.0	111103GCBA
2		11:53	014	-09									
3		12:06	015	-10									
4		12:20	016	Preface	–						OK		
5		13:28	017	Preface	–						OK		
6		13:42	018	Preface	–						OK		
7		13:57	019	C102003 - 01	EMAX MS						OK		
8		14:10	020	-0	EMAX MSD						OK		
9		14:23	021	0.50% CH4	AW117606						OK		
10	11-3-11	14:40	03 nov 022	H2 BSIL VOAL L5	AW117613	250 ml	–	–	1.0	D.T.	NO	noise	111103GCBAL
11		14:51	023	L5	AW117613						OK		
12		15:02	024	L4	AW117614						OK		
13		15:10	025	L3	AW117615						NO	noise	
14		15:23	026	L3	AW117615						OK		
15		15:32	027	L2	AW117616						OK		
16		15:41	028	L1	AW117617						NO	noise	
17		15:50	029	L1	AW117617						OK		
18		16:02	030	2.5% H2 CO	AW117618	250 ml					OK		
19		16:12	031	Method Blank	AW117609						OK		
20		16:23	032	C102003 - 01	EMAX						OK		

Approved by/Date:_____

GC Injection Logbook

Instrument ID: GC 8A

Analytical Method: TSK AS 120227

Datafile Directory: GC8\2012\Feb.

Chemist: [illegible]

Blank Lot #: 118F129

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	2/27/12	12:27	24feb008	3.0 ppmv C_1C_3	AW119015	75	-	-	1.0		OK		120227GC8A
2		12:43	27feb.	10 ppmv C_1C_3	↓	200							
3		12:57	27feb001	100 ppmv C_1C_3	AW119016	250						use for TCE ICAL also CO_2, CH_4	
4		13:10	002	1000 ppmv C_1C_3	AW119017	250							
5		13:25	003	5,000 ppmv C_1C_3	AS014107	125							
6		13:58	004	10,000 ppmv C_1C_3	↓	200							
7		15:36	005	100,000 ppmv CO_2 CH_4	AW119018	50							
8		15:30	006	500,000 ppmv CO_2 CH_4	↓	200							
9	↓	14:02	007	10,000 ppmv C_1C_3	AS014107	200	↓	↓	↓		OK	not use	↓
10													
11													
12													
13													
14													
15												[illegible]	
16												3/1/12	
17													
18													
19													
20												[illegible]	

Approved by/Date: [illegible] 3/1/12

Air Technology Laboratories, Inc.
GC8A #26

Instrument ID: GC 8A

GC Injection Logbook

Chemist: MT

Analytical Method: omneac fixed 110824b, rsk175fg 120227

Blank Lot #: ~~Room Air 14126912150~~ 10-31-12

Datafile Directory: gc8a \ 2012 \ oct

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	10/30/12	1559	30oct019	Room Air	—	Std loop	10g	—	1.0	2	—		121031GC8A1
2		1619	020	D102901-01	Lamar			1000/100	27.32	14	No	bag leak	
3		1648	021	-01	↓			↓	27.32	14	OK		
4		1708	022	Room Air	—			—	1.0	1	—		
5		1728	023	0.1% CH4 CO2 CO CZ	AW111420					5	OK		
6		1747	024	O2 N2 CCV	—					1			
7		1802	025	25% CH4 CO2 78HD	AW111502					4			
8		1817	026	0.1% CH4 CO2 CO	AW111420					5			
9	10/31/12	0951	30oct027	RSK TCD CCV	A5O1M107	250	—	—	1.0	DI	OK		121031GC8A1
10		1016	028	RSK FID CCV	↓	250		1000/10			OK		
11		1101	029	RSK LCS	AW111516			—					
12		1116	030	RSK LCSD	↓								
13		1134	031	Method Blank	—						No	bad inject	
14		1310	032	↓	—						OK		
15		1411	033	D102604-01a	EMAX								
16		1443	034	-02a									
17		1518	035	-03a									
18		1550	036	-04a									
19		1603	037	-05a									
20		1621	038	-06a									

Approved by/Date:

GC Injection Logbook

Instrument ID: GC 8A

Analytical Method: RSK175 fg 120227

Datafile Directory: gc8a \ 2012 \ oct

Chemist: MT

Blank Lot #: 1412651 2A50

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	10/31/12	1635	30oct039	D102604-07a	EMAX	250	—	—	1.0	01	okay		121031GC8A1
2		1650	040	-08a									
3		1704	041	-09a									
4		1719	042	-10a									
5	11/1/12	0807	043	-11a									
6		0830	044	-12a									
7		0845	045	-13a									
8		0902	046	RSK CH4 CCV 0.5%	AS0114107	125							
9		0925	047	H2 RSK CCV	—	125					No	reprep	
10		0937	048	H2 RSK CCV	AW111517						No	bad inject	
11		0955	049								okay		
12		1003	050	H2 RSK LCS	AW111518	250					No	interference	
13		1021	051	H2 RSK LCSD							okay		
14		1143	052	H2 RSK LCS									
15		1213	053	H2 Method Blank	—						okay		
16		1229	054	D102604-01a	E MAX						okay		
17		1243	055	-02a									
18		1344	056	-03a							No	interfer	
19		1354	057	-04a							okay		
20		1401	058	-05a									

Approved by/Date:

Instrument ID: GC 8A

GC Injection Logbook

Chemist: MT

Analytical Method: cok hydrogen 111103

Blank Lot #: 147269, 2ASO

Datafile Directory: ~~30 oct~~ 30 10/16/12 gc8a\2012\oct

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	11/1/12	1409	30 oct059	D1026604-069	EMAY	250	—	—	1.0	DI	0123		121031GC8A1
2		1430	060	-07a									
3		1436	061	-08a							NO	interfer	
4		1459	062	-09a							0123		
5		1506	063	-10a							NO	interfer	
6		1513	064	-11a									
7		1537	065	-12a							0123		
8		1555	066	-13b							0123		
9		1602	067	-03b							NO	interf	
10		1621	068	-03b							0123		
11		1634	069	-08b									
12		1707	070	-10b									
13		1727	071	-11b									
14		1737	072	H2 RGK CCV	AW111517	250							
15													
16													
17								100	11/6/12				
18													
19													
20													

Air Technology Laboratories, Inc.
GC8A #28

Approved by/Date:

2. Sample Raw Data

a. Calculations (if applicable)

b. Chromatograms/Results

	D102604-01	30oct033							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	4.543	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	4.543E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	1.1E-10	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	0.00009768	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	1.8172E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.00033014	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.00042782	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.43	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.43	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.1758691	1	4	16	Methane	0.65439673	0.06537646
49.0797546	1	4	30	Ethane	1.22699387	#VALUE!
45.807771	1	4	28	Ethene	1.14519427	#VALUE!
42.5357873	1	4	26	Acetylene	1.06339468	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.9836401	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	D102604-02	30oct034							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	3.307	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	3.307E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	8.0073E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	7.1105E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	1.3228E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.00024032	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.00031143	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.31	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.31	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.1758691	1	4	16	Methane	0.65439673	0.04758969		
	49.0797546	1	4	30	Ethane	1.22699387	#VALUE!		
	45.807771	1	4	28	Ethene	1.14519427	#VALUE!		
	42.5357873	1	4	26	Acetylene	1.06339468	#VALUE!		
	#VALUE!	NA	4	44	Propane	#VALUE!			
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.9836401	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

	D102604-03	30oct035							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	3.063	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	3.063E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	7.4165E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	6.5858E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	1.2252E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.00022259	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.00028845	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.29	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.29	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.1758691	1	4	16	Methane	0.65439673	0.04407838
49.0797546	1	4	30	Ethane	1.22699387	#VALUE!
45.807771	1	4	28	Ethene	1.14519427	#VALUE!
42.5357873	1	4	26	Acetylene	1.06339468	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.9836401	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	D102604-04	30oct036							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	3.646	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	3.646E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	8.8281E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	7.8393E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	1.4584E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.00026496	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.00034335	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.34	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.34	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.1758691	1	4	16	Methane	0.65439673	0.0524681
49.0797546	1	4	30	Ethane	1.22699387	#VALUE!
45.807771	1	4	28	Ethene	1.14519427	#VALUE!
42.5357873	1	4	26	Acetylene	1.06339468	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.9836401	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	D102604-05	30oct037							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	3.642	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	3.642E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	8.8184E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	7.8307E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	1.4568E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.00026467	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.00034297	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.34	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.34	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.1758691	1	4	16	Methane	0.65439673	0.05241054		
	49.0797546	1	4	30	Ethane	1.22699387	#VALUE!		
	45.807771	1	4	28	Ethene	1.14519427	#VALUE!		
	42.5357873	1	4	26	Acetylene	1.06339468	#VALUE!		
	#VALUE!	NA	4	44	Propane	#VALUE!			
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.9836401	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

	D102604-06	30oct038							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	3.956	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	3.956E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	9.5787E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	8.5059E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	1.5824E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.00028748	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.00037254	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.37	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.37	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.1758691	1	4	16	Methane	0.65439673	0.05692918		
	49.0797546	1	4	30	Ethane	1.22699387	#VALUE!		
	45.807771	1	4	28	Ethene	1.14519427	#VALUE!		
	42.5357873	1	4	26	Acetylene	1.06339468	#VALUE!		
	#VALUE!	NA	4	44	Propane	#VALUE!			
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.9836401	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

	D102604-07	30oct039							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	3.738	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	3.738E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	9.0508E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	8.0372E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	1.4952E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.00027164	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.00035201	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.35	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.35	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.1758691	1	4	16	Methane	0.65439673	0.05379203		
	49.0797546	1	4	30	Ethane	1.22699387	#VALUE!		
	45.807771	1	4	28	Ethene	1.14519427	#VALUE!		
	42.5357873	1	4	26	Acetylene	1.06339468	#VALUE!		
	#VALUE!	NA	4	44	Propane	#VALUE!			
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.9836401	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

	D102604-08	30oct040							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	3.645	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	3.645E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	8.8257E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	7.8372E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	0.00001458	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.00026488	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.00034326	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.34	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.34	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.1758691	1	4	16	Methane	0.65439673	0.05245371		
	49.0797546	1	4	30	Ethane	1.22699387	#VALUE!		
	45.807771	1	4	28	Ethene	1.14519427	#VALUE!		
	42.5357873	1	4	26	Acetylene	1.06339468	#VALUE!		
	#VALUE!	NA	4	44	Propane	#VALUE!			
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.9836401	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

	D102604-09	30oct041							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	3.275	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	3.275E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	7.9298E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	7.0416E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	0.0000131	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.000238	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.00030841	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.31	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.31	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.1758691	1	4	16	Methane	0.65439673	0.04712919		
	49.0797546	1	4	30	Ethane	1.22699387	#VALUE!		
	45.807771	1	4	28	Ethene	1.14519427	#VALUE!		
	42.5357873	1	4	26	Acetylene	1.06339468	#VALUE!		
	#VALUE!	NA	4	44	Propane	#VALUE!			
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.9836401	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

	D102604-10	30oct042							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	3.441	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	3.441E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	8.3317E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	7.3986E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	1.3764E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.00025006	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.00032404	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.32	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.32	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.1758691	1	4	16	Methane	0.65439673	0.04951803		
	49.0797546	1	4	30	Ethane	1.22699387	#VALUE!		
	45.807771	1	4	28	Ethene	1.14519427	#VALUE!		
	42.5357873	1	4	26	Acetylene	1.06339468	#VALUE!		
	#VALUE!	NA	4	44	Propane	#VALUE!			
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.9836401	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

	D102604-11	30oct043							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	5.02	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	0.00000502	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	1.2155E-10	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	0.00010794	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	0.00002008	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.00036481	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.00047274	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.47	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.47	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.1758691	1	4	16	Methane	0.65439673	0.07224077
49.0797546	1	4	30	Ethane	1.22699387	#VALUE!
45.807771	1	4	28	Ethene	1.14519427	#VALUE!
42.5357873	1	4	26	Acetylene	1.06339468	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.9836401	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	D102604-12	30oct044							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	3.325	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	3.325E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	8.0508E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	7.1492E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	0.0000133	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.00024163	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.00031312	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.31	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.31	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.1758691	1	4	16	Methane	0.65439673	0.04784872		
	49.0797546	1	4	30	Ethane	1.22699387	#VALUE!		
	45.807771	1	4	28	Ethene	1.14519427	#VALUE!		
	42.5357873	1	4	26	Acetylene	1.06339468	#VALUE!		
	#VALUE!	NA	4	44	Propane	#VALUE!			
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.9836401	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

	D102604-13	30oct045							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	3.367	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	3.367E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	8.1525E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	7.2395E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	1.3468E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.00024468	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.00031708	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.32	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	0.32	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.						
ug	%	mL	MW		mg/L	%R	
26.1758691	1	4	16	Methane	0.65439673	0.04845313	
49.0797546	1	4	30	Ethane	1.22699387	#VALUE!	
45.807771	1	4	28	Ethene	1.14519427	#VALUE!	
42.5357873	1	4	26	Acetylene	1.06339468	#VALUE!	
#VALUE!	NA	4	44	Propane	#VALUE!		
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!	
71.9836401	1	4	44	CO2	1.799591	#VALUE!	
		4	28	Nitrogen			

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct033.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : D102604-01a EMAX

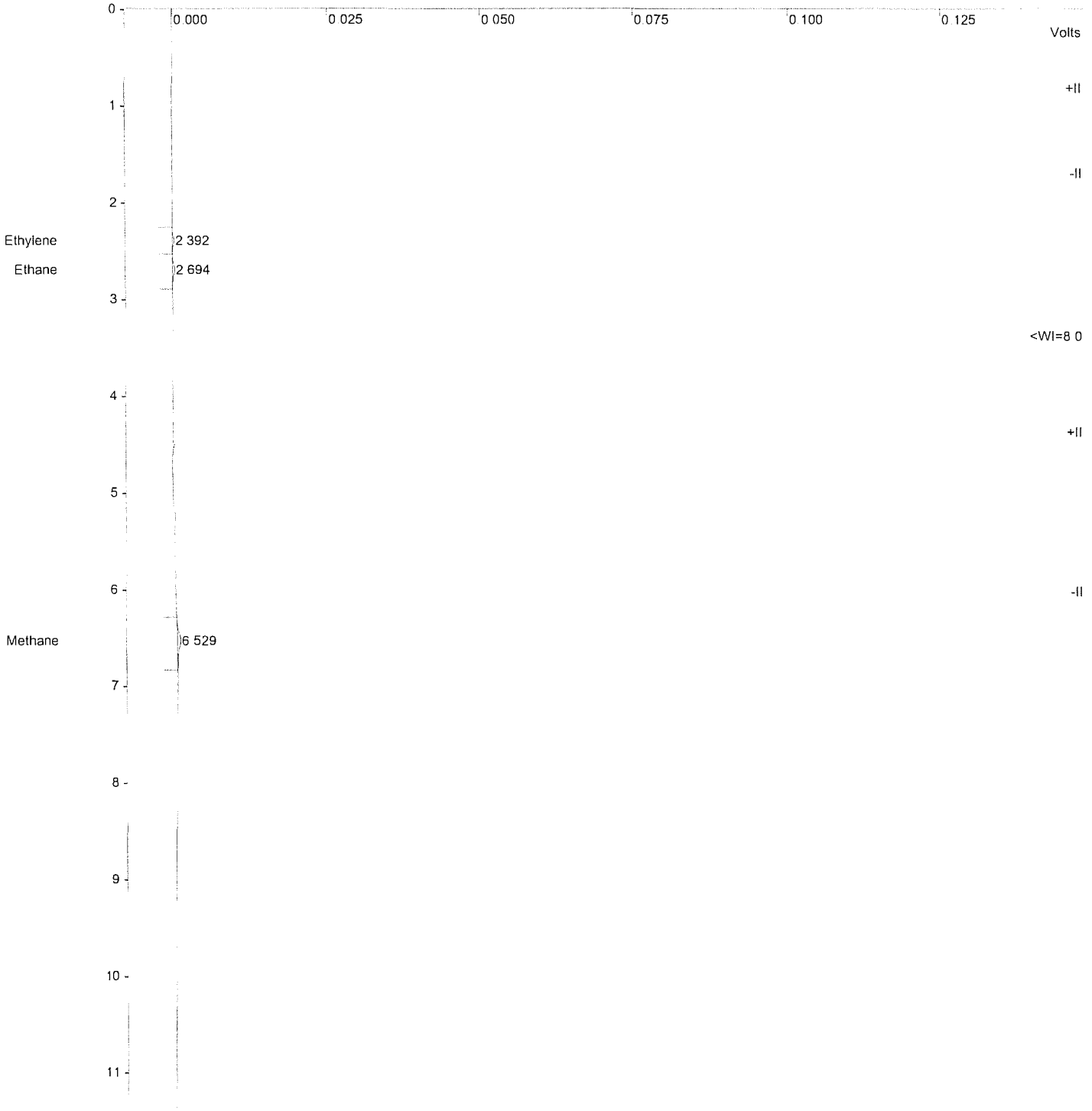
Injection Date: 10/31/2012 2:11 PM Calculation Date: 10/31/2012 2:23 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct033.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-01a EMAX

Injection Date: 10/31/2012 2:11 PM Calculation Date: 10/31/2012 2:23 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.641	2.392	0.047	1775	BV	6.0	
2	Ethane	0.959	2.694	0.052	2713	VB	6.8	
3	Acetylene		3.286					M
4	Methane	4.543	6.529	0.043	6593	BB	11.0	
	Totals:	6.143		0.142	11081			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -49 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct034.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : D102604-02a EMAX

Injection Date: 10/31/2012 2:43 PM Calculation Date: 10/31/2012 2:55 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.268	2.397	0.052	743	BV	5.9	
2	Ethane	0.511	2.697	0.055	1445	VB	6.6	
3	Acetylene		3.286					M
4	Methane	3.307	6.531	0.045	4800	BB	9.8	
	Totals:	4.086		0.152	6988			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -4 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct035.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : D102604-03a EMAX

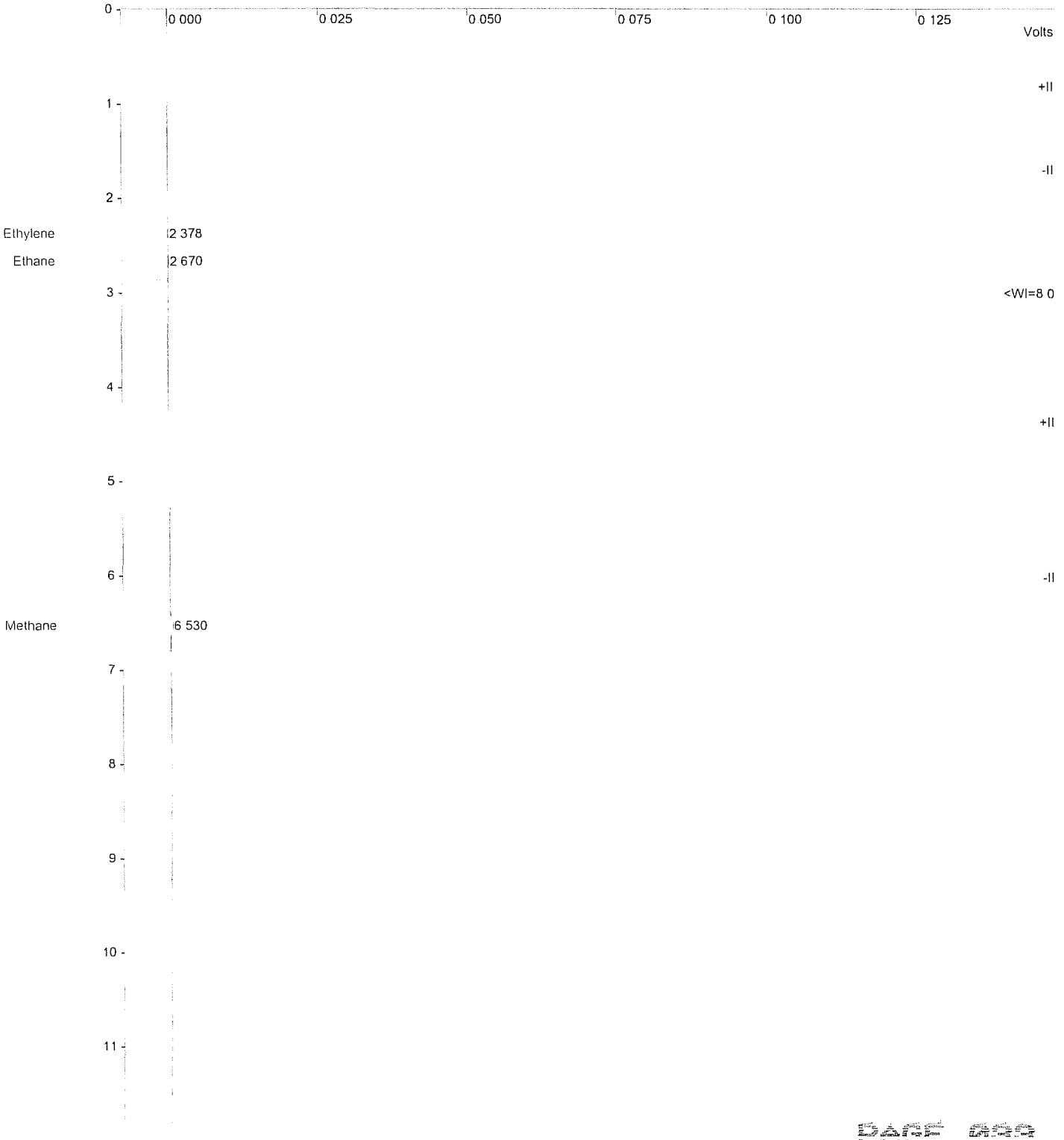
Injection Date: 10/31/2012 3:18 PM Calculation Date: 10/31/2012 3:30 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct035.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-03a EMAX

Injection Date: 10/31/2012 3:18 PM Calculation Date: 10/31/2012 3:30 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.157	2.378	0.033	436	BV	6.0	
2	Ethane	0.263	2.670	0.028	743	VB	6.4	
3	Acetylene		3.286					M
4	Methane	3.063	6.530	0.044	4445	BB	9.9	
	Totals:	3.483		0.105	5624			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -36 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct036.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-04a EMAX

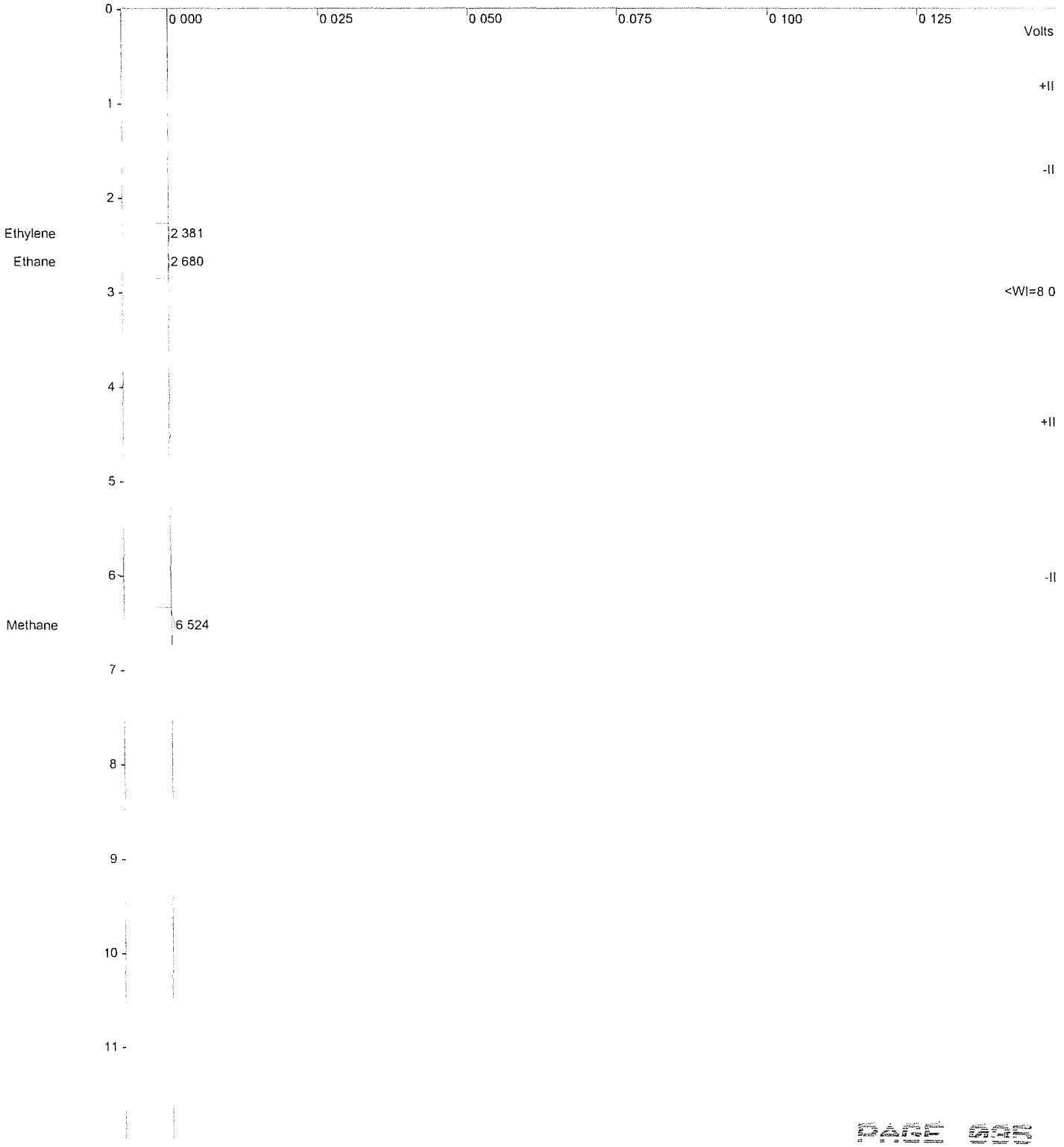
Injection Date: 10/31/2012 3:50 PM Calculation Date: 10/31/2012 4:01 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct036.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-04a EMAX

Injection Date: 10/31/2012 3:50 PM Calculation Date: 10/31/2012 4:01 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.337	2.381	0.036	933	BP	5.8	
2	Ethane	0.384	2.680	0.038	1087	PB	6.5	
3	Acetylene		3.286					M
4	Methane	3.646	6.524	0.038	5291	BB	9.7	
	Totals:	4.367		0.112	7311			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -50 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 18 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct037.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-05a EMAX

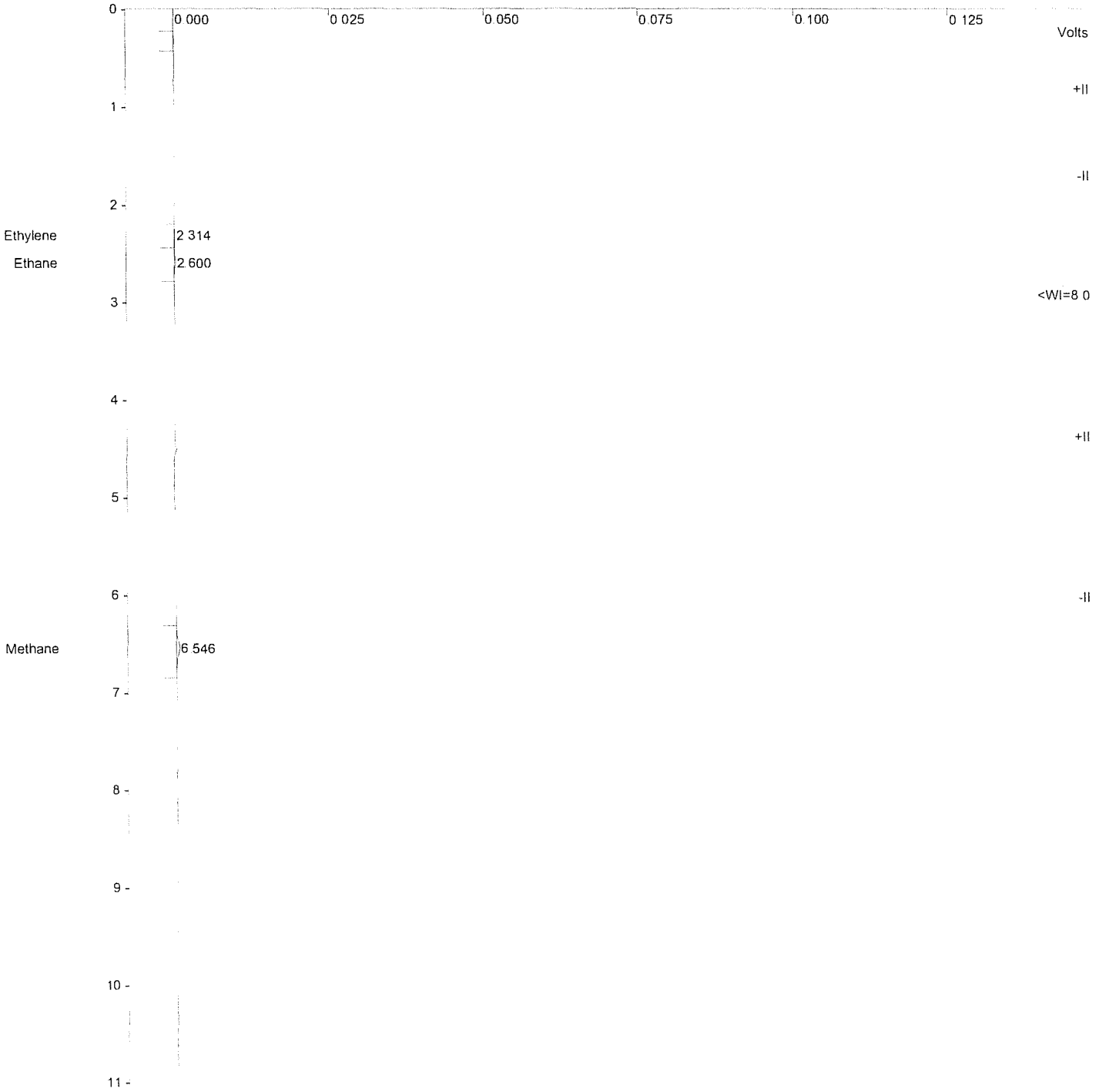
Injection Date: 10/31/2012 4:03 PM Calculation Date: 10/31/2012 4:15 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct037.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-05a EMAX

Injection Date: 10/31/2012 4:03 PM Calculation Date: 10/31/2012 4:15 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.245	2.314	-0.031	678	BP	5.3	
2	Ethane	0.453	2.600	-0.042	1282	PB	5.8	
3	Acetylene		3.286					M
4	Methane	3.642	6.546	0.060	5286	BB	9.6	
	Totals:	4.340		-0.013	7246			

Status Codes:
M - Missing peak

Total Unidentified Counts : 264 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 22 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 26 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct038.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-06a EMAX

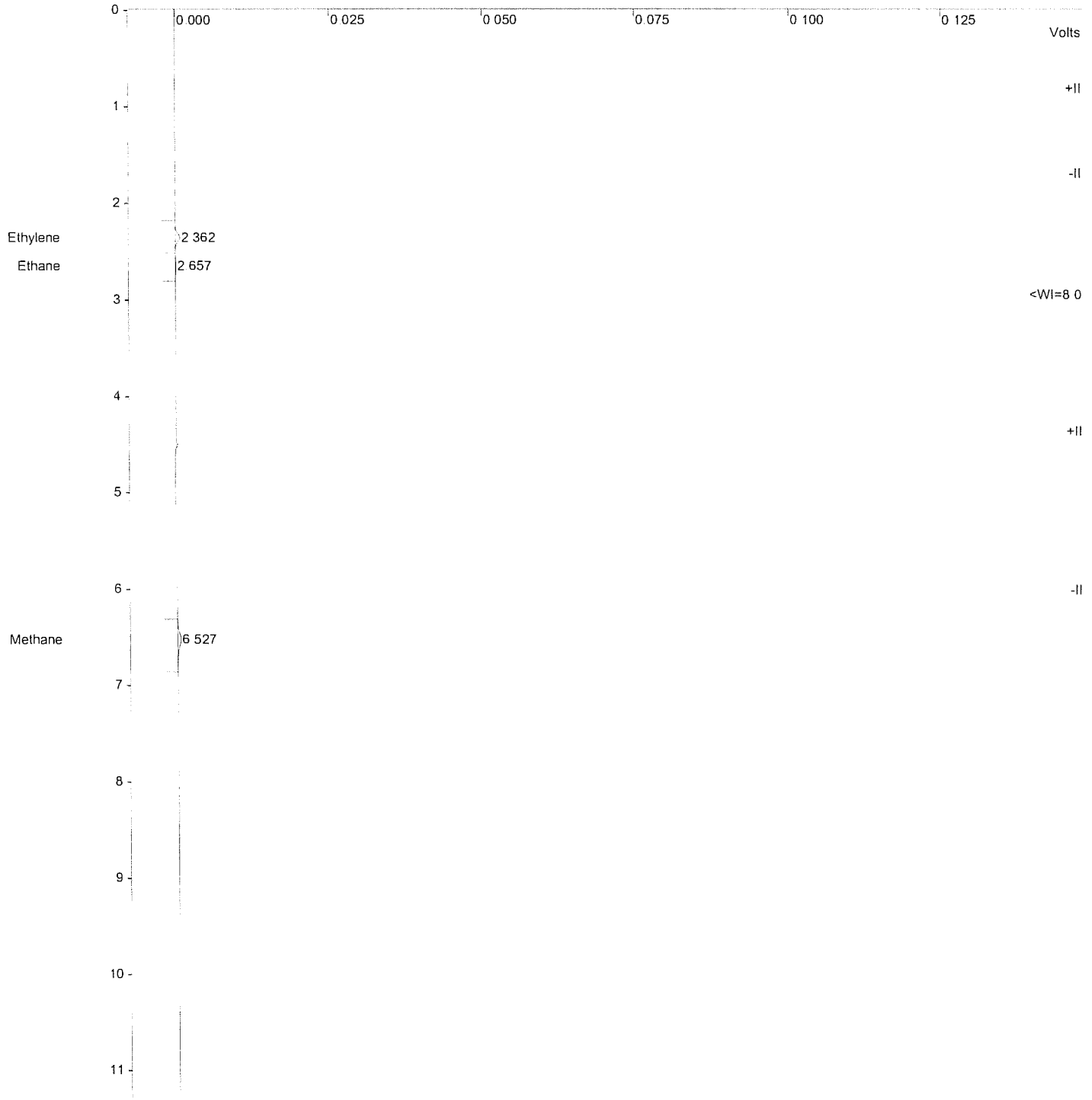
Injection Date: 10/31/2012 4:21 PM Calculation Date: 10/31/2012 4:33 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct038.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-06a EMAX

Injection Date: 10/31/2012 4:21 PM Calculation Date: 10/31/2012 4:33 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	1.689	2.362	0.017	4682	BV	5.8	
2	Ethane	0.253	2.657	0.015	716	VB	6.8	
3	Acetylene		3.286					M
4	Methane	3.956	6.527	0.041	5741	BB	9.7	
	Totals:	5.898		0.073	11139			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -40 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct039.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-07a EMAX

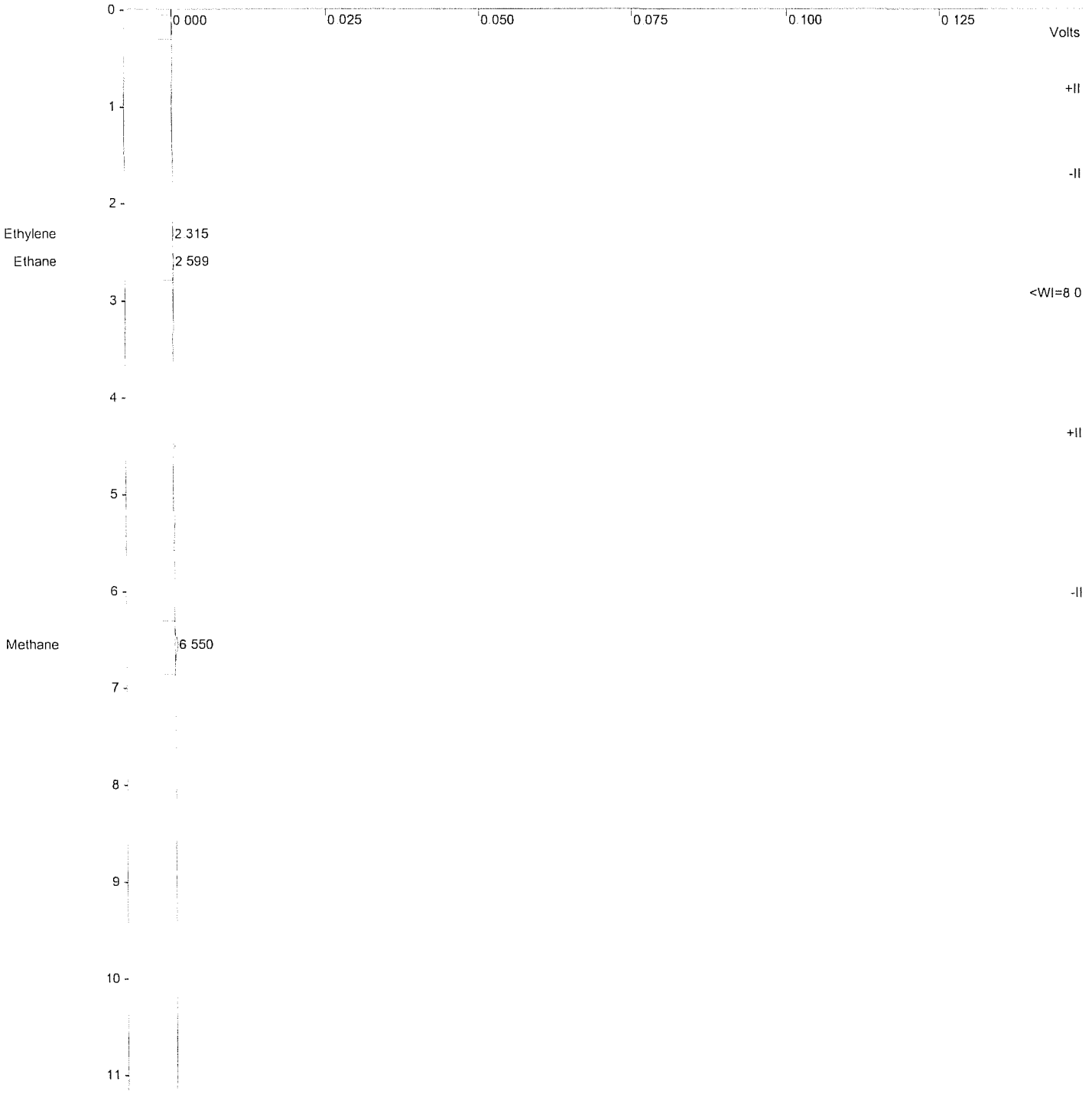
Injection Date: 10/31/2012 4:35 PM Calculation Date: 10/31/2012 4:47 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct039.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-07a EMAX

Injection Date: 10/31/2012 4:35 PM Calculation Date: 10/31/2012 4:47 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.201	2.315	-0.030	556	BV	5.2	
2	Ethane	0.403	2.599	-0.043	1140	VB	5.9	
3	Acetylene		3.286					M
4	Methane	3.738	6.550	0.064	5425	BB	9.8	
	Totals:	4.342		-0.009	7121			

Status Codes:
M - Missing peak

Total Unidentified Counts : 282 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 8 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct040.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-08a EMAX

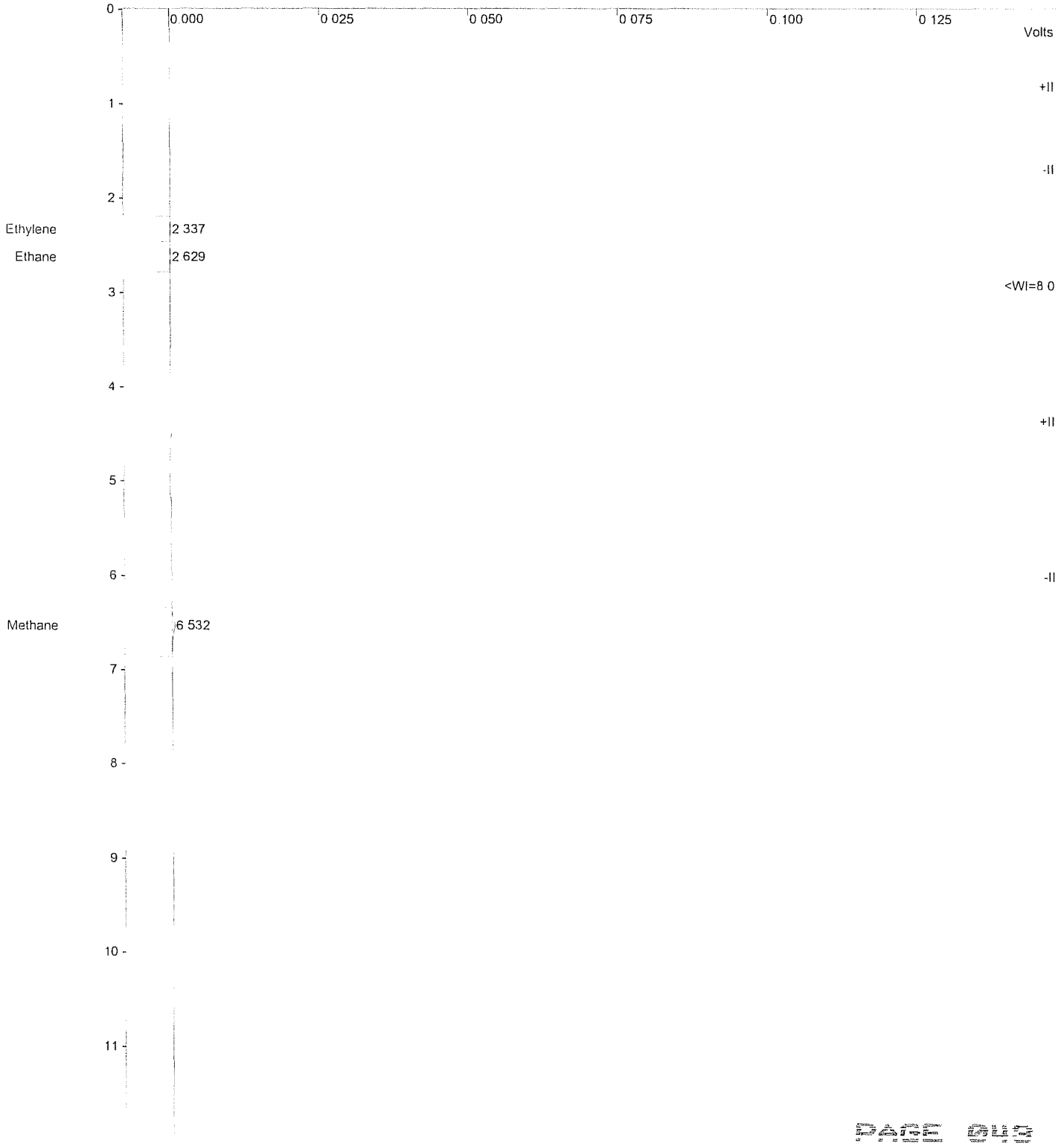
Injection Date: 10/31/2012 4:50 PM Calculation Date: 10/31/2012 5:02 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct040.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-08a EMAX

Injection Date: 10/31/2012 4:50 PM Calculation Date: 10/31/2012 5:02 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.235	2.337	-0.008	651	BP	5.7	
2	Ethane	0.392	2.629	-0.013	1109	PB	5.9	
3	Acetylene		3.286					M
4	Methane	3.645	6.532	0.046	5290	BB	9.5	
	Totals:	4.272		0.025	7050			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 55 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 22 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct041.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-09a EMAX

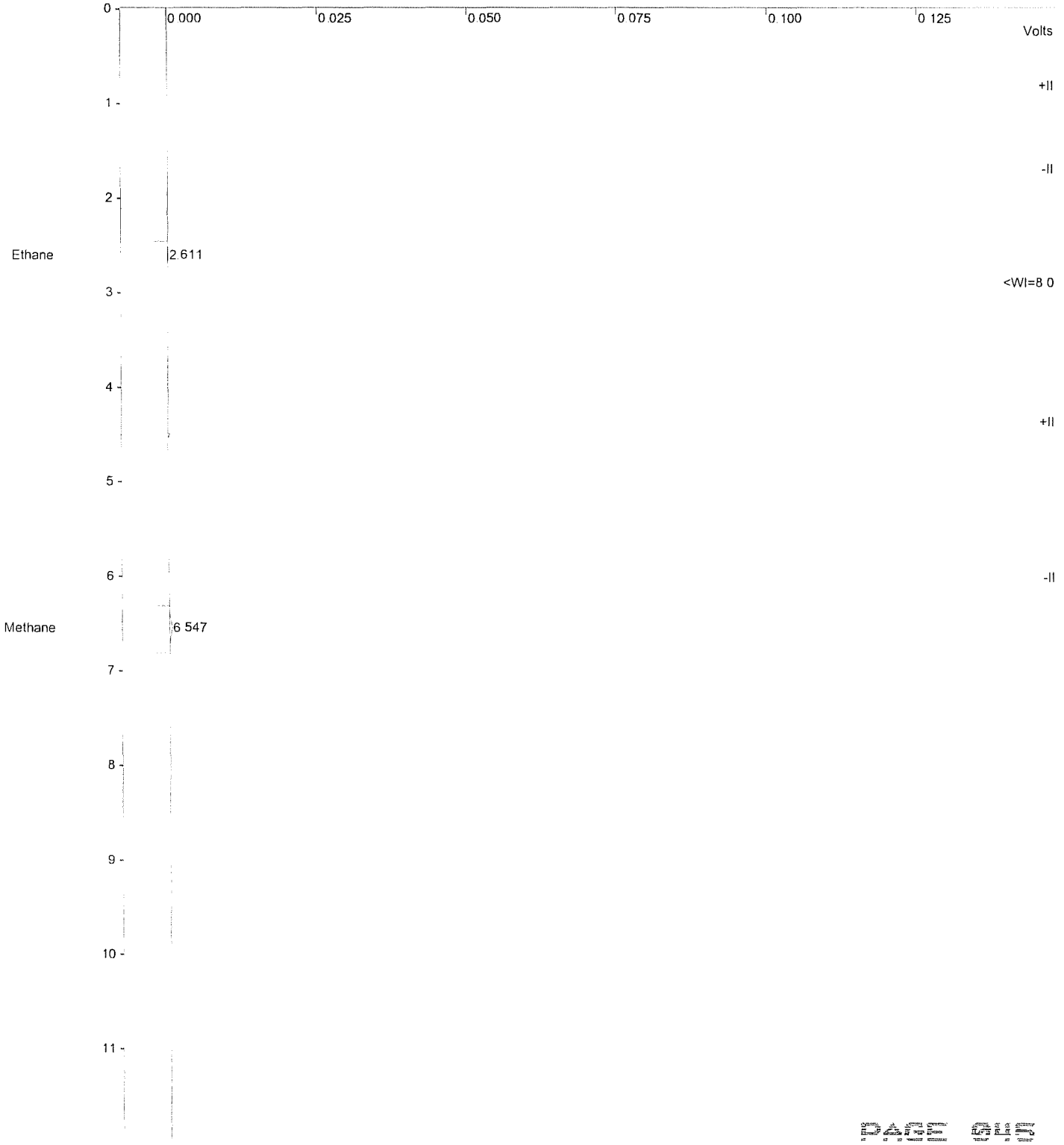
Injection Date: 10/31/2012 5:04 PM Calculation Date: 10/31/2012 5:16 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct041.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-09a EMAX

Injection Date: 10/31/2012 5:04 PM Calculation Date: 10/31/2012 5:16 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene		2.345					M
2	Ethane	0.274	2.611	-0.031	775	BB	6.2	
3	Acetylene		3.286					M
4	Methane	3.275	6.547	0.061	4753	BB	9.6	
	Totals:	3.549		0.030	5528			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 2 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 56 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 15 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct042.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-10a EMAX

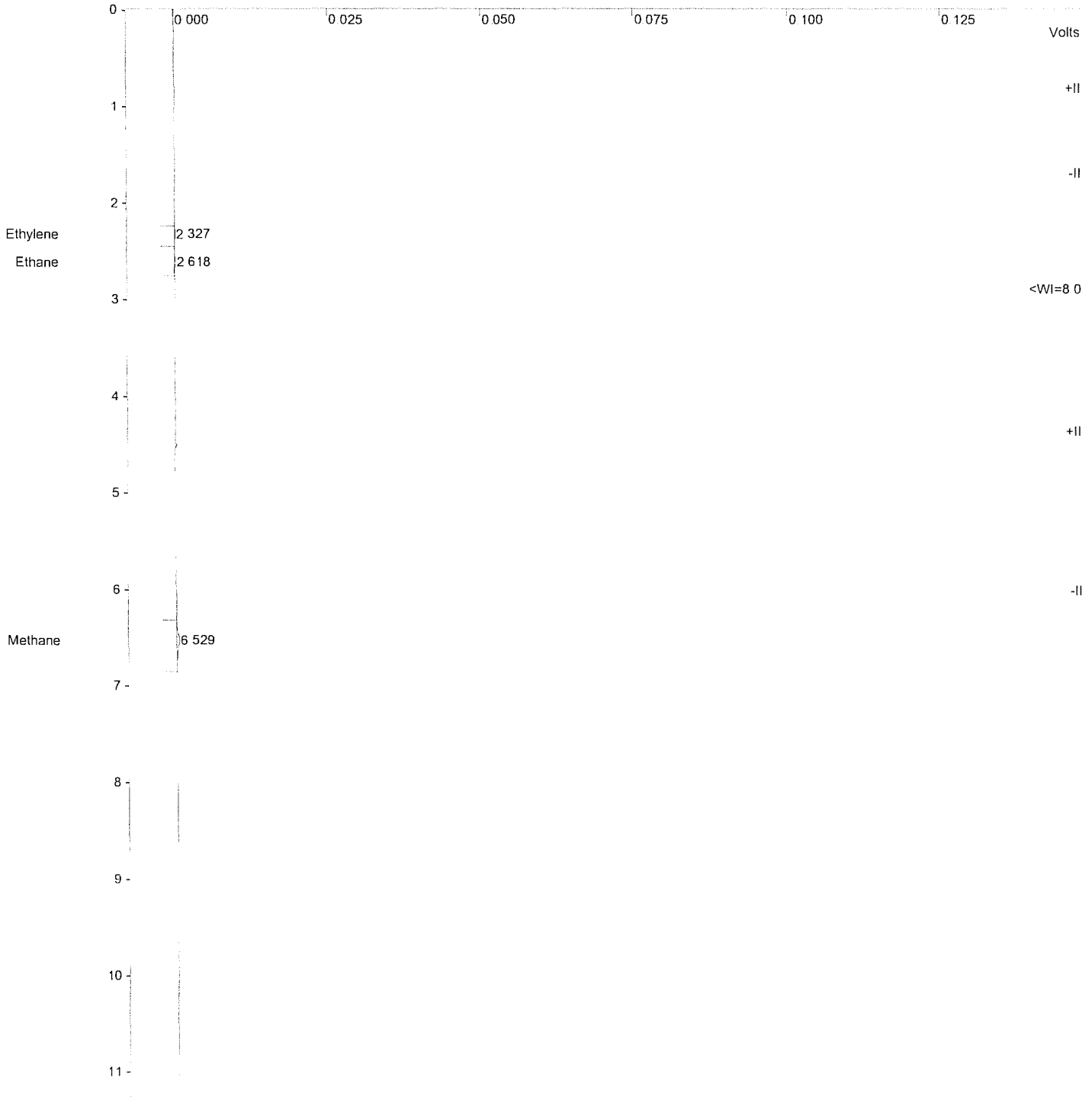
Injection Date: 10/31/2012 5:19 PM Calculation Date: 10/31/2012 5:30 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



PAGE OUT

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct042.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-10a EMAX

Injection Date: 10/31/2012 5:19 PM Calculation Date: 10/31/2012 5:30 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.127	2.327	-0.018	352	BP	5.2	
2	Ethane	0.303	2.618	-0.023	858	PB	5.6	
3	Acetylene		3.286					M
4	Methane	3.441	6.529	0.043	4994	BB	9.8	
	Totals:	3.871		0.002	6204			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 76 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 18 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct043.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : D102604-11a EMAX

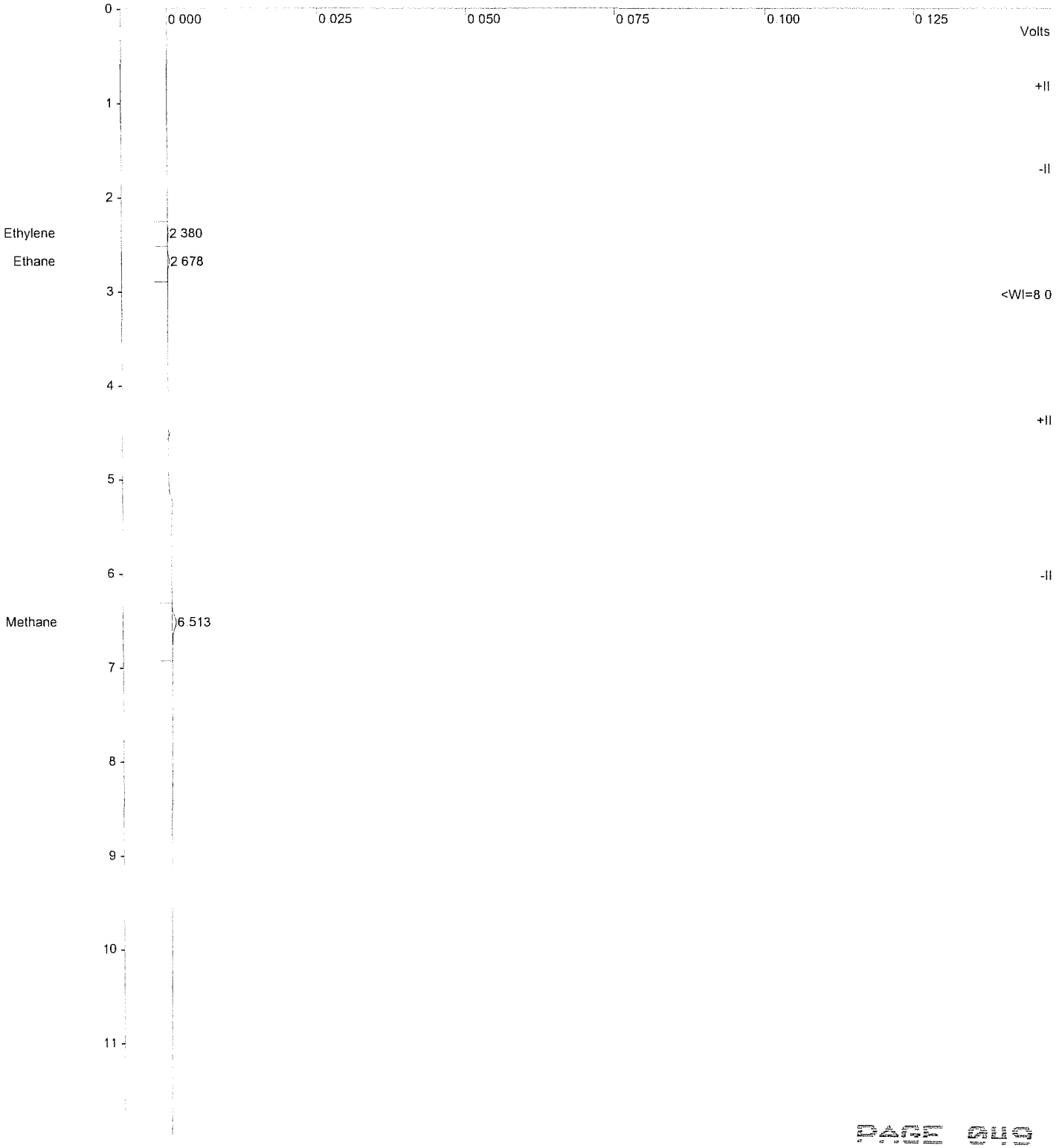
Injection Date: 11/1/2012 8:07 AM Calculation Date: 11/1/2012 8:19 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct043.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-11a EMAX

Injection Date: 11/1/2012 8:07 AM Calculation Date: 11/1/2012 8:19 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.388	2.380	0.035	1075	BV	6.0	
2	Ethane	0.744	2.678	0.036	2106	VB	6.6	
3	Acetylene		3.286					M
4	Methane	5.020	6.513	0.027	7285	BB	9.6	
	Totals:	6.152		0.098	10466			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -17 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct044.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-12a EMAX

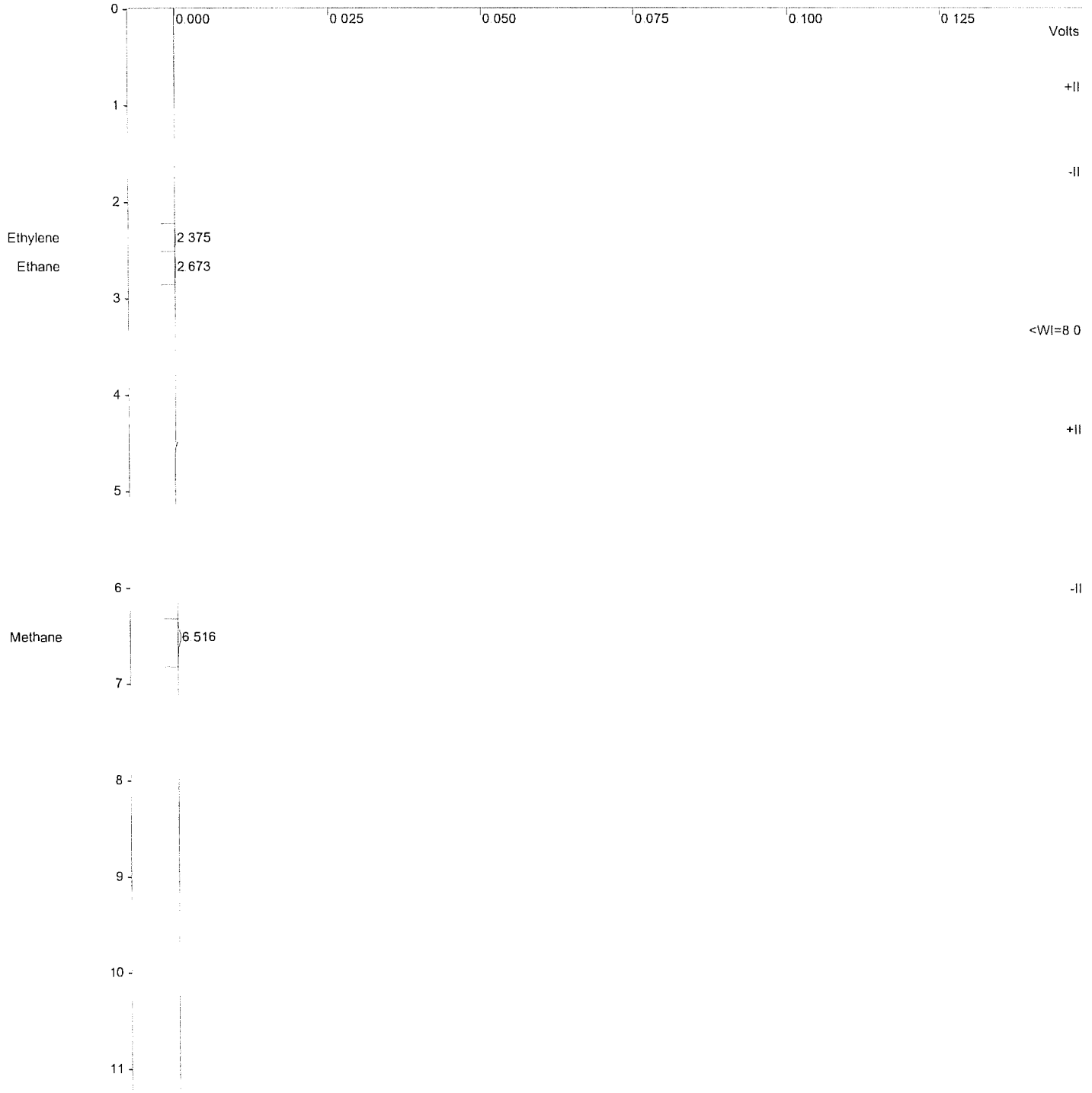
Injection Date: 11/1/2012 8:30 AM Calculation Date: 11/1/2012 8:42 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct044.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-12a EMAX

Injection Date: 11/1/2012 8:30 AM Calculation Date: 11/1/2012 8:42 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.227	2.375	0.030	629	BP	6.2	
2	Ethane	0.317	2.673	0.031	896	PB	6.8	
3	Acetylene		3.286					M
4	Methane	3.325	6.516	0.030	4825	BB	9.5	
	Totals:	3.869		0.091	6350			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -79 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 20 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct045.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-13a EMAX

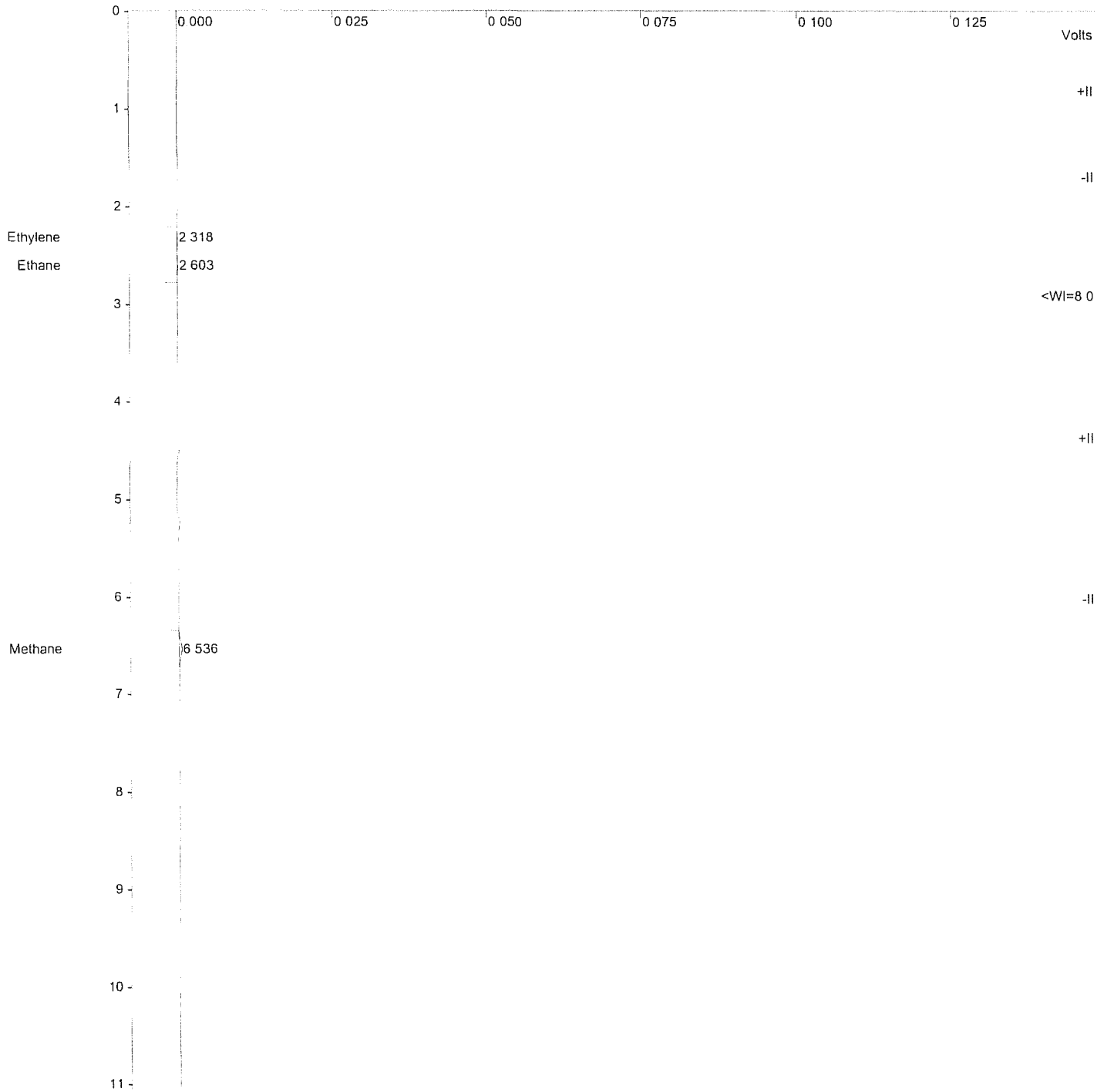
Injection Date: 11/1/2012 8:45 AM Calculation Date: 11/1/2012 8:56 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct045.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102604-13a EMAX

Injection Date: 11/1/2012 8:45 AM Calculation Date: 11/1/2012 8:56 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.127	2.318	-0.027	353	BV	5.3	
2	Ethane	0.315	2.603	-0.039	892	VB	5.9	
3	Acetylene		3.286					M
4	Methane	3.367	6.536	0.049	4887	BB	9.5	
	Totals:	3.809		-0.017	6132			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 30 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 20 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct054.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-01a EMAX

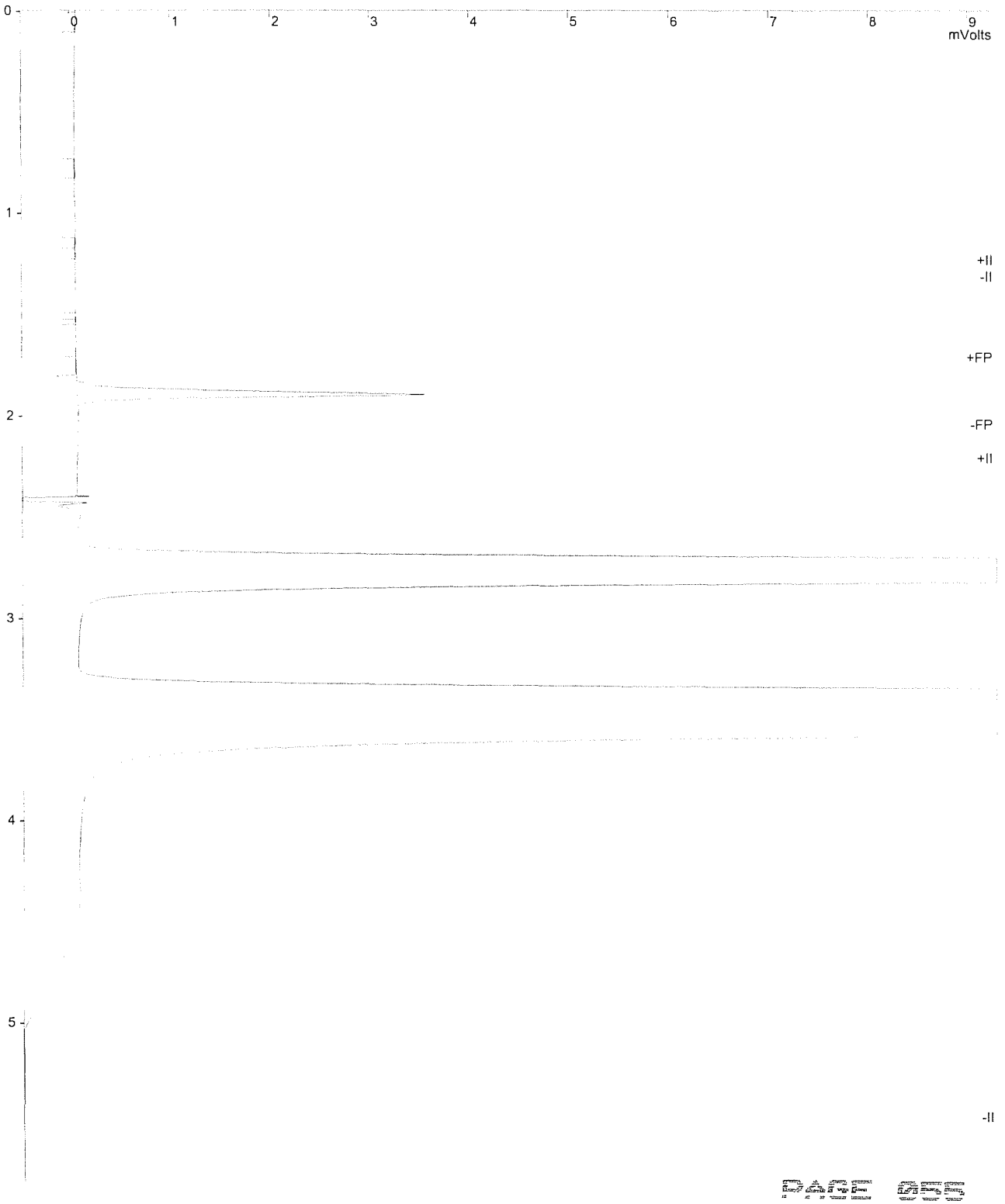
Injection Date: 11/1/2012 12:29 PM Calculation Date: 11/1/2012 12:35 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct054.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-01a EMAX

Injection Date: 11/1/2012 12:29 PM Calculation Date: 11/1/2012 12:35 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 7417 counts

Detected Peaks: 7 Rejected Peaks: 6 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 65 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 19 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct055.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-02a EMAX

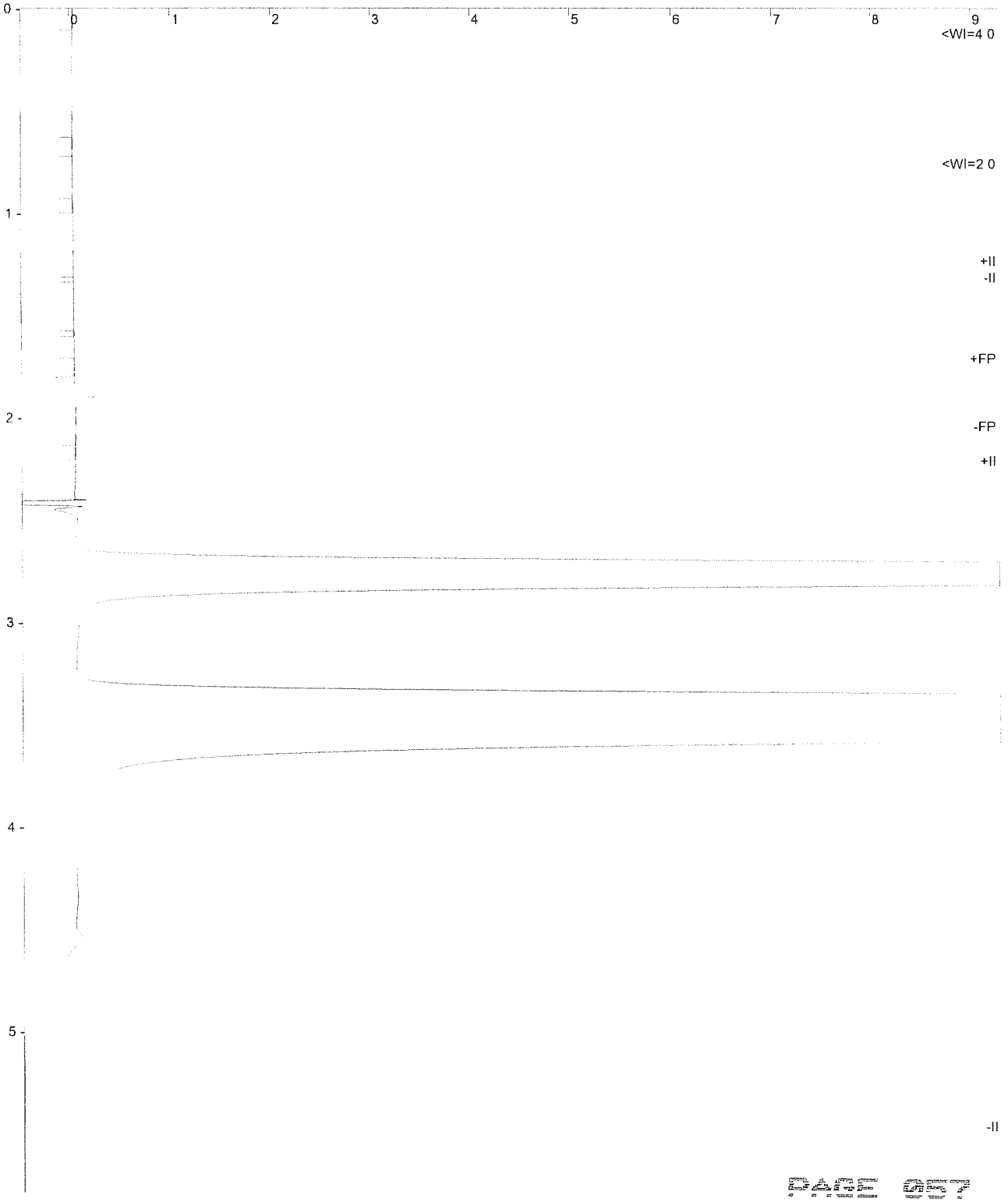
Injection Date: 11/1/2012 12:43 PM Calculation Date: 11/1/2012 12:48 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct055.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-02a EMAX

Injection Date: 11/1/2012 12:43 PM Calculation Date: 11/1/2012 12:48 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 484 counts

Detected Peaks: 12 Rejected Peaks: 11 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 36 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct068.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-03b EMAX

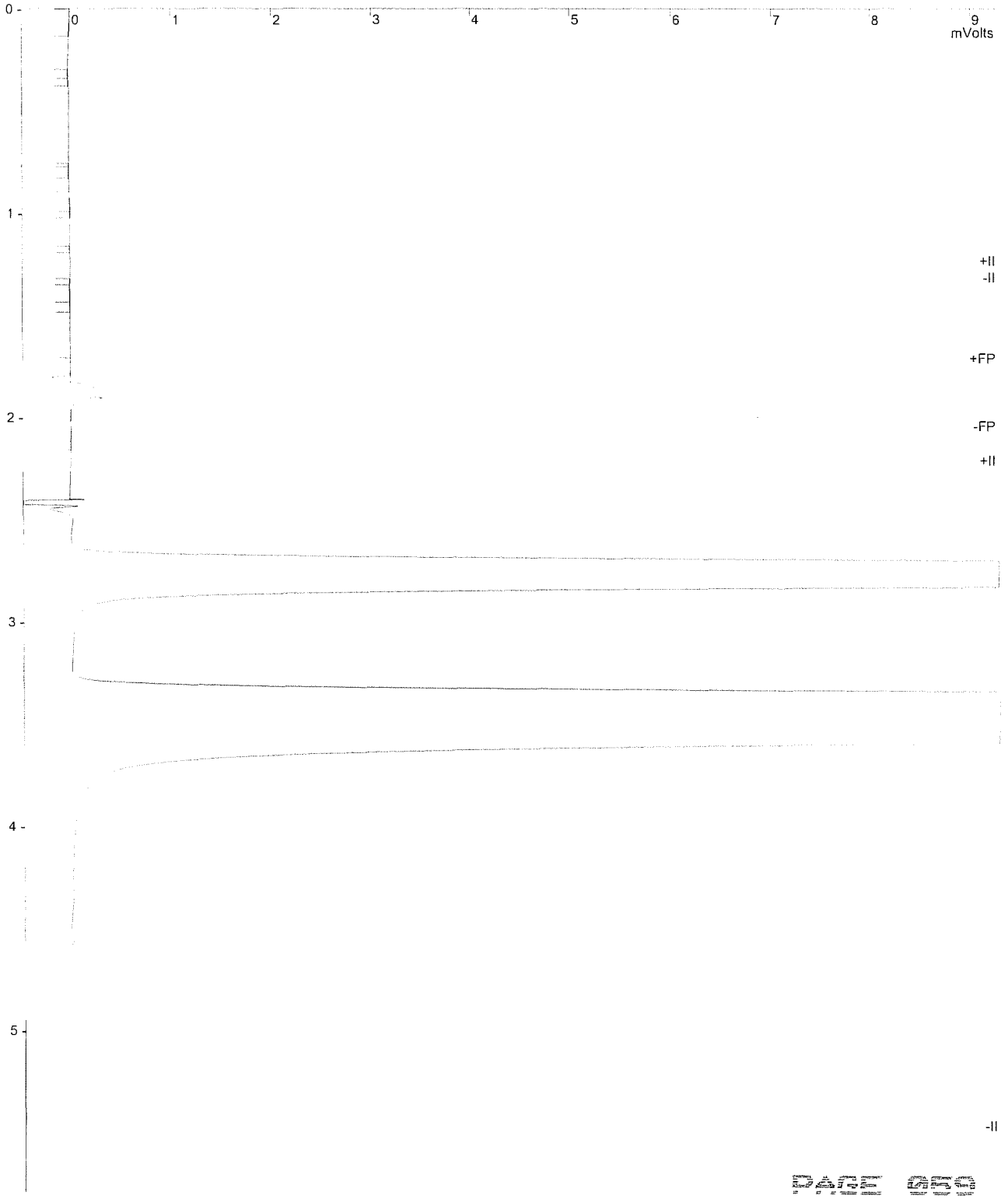
Injection Date: 11/1/2012 4:21 PM Calculation Date: 11/1/2012 4:27 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct068.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-03b EMAX

Injection Date: 11/1/2012 4:21 PM Calculation Date: 11/1/2012 4:27 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 1048 counts

Detected Peaks: 18 Rejected Peaks: 16 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -4 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 4 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct057.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-04a EMAX

Injection Date: 11/1/2012 1:54 PM Calculation Date: 11/1/2012 1:59 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct057.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-04a EMAX

Injection Date: 11/1/2012 1:54 PM Calculation Date: 11/1/2012 1:59 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 1679 counts

Detected Peaks: 16 Rejected Peaks: 10 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -73 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 27 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct058.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-05a EMAX

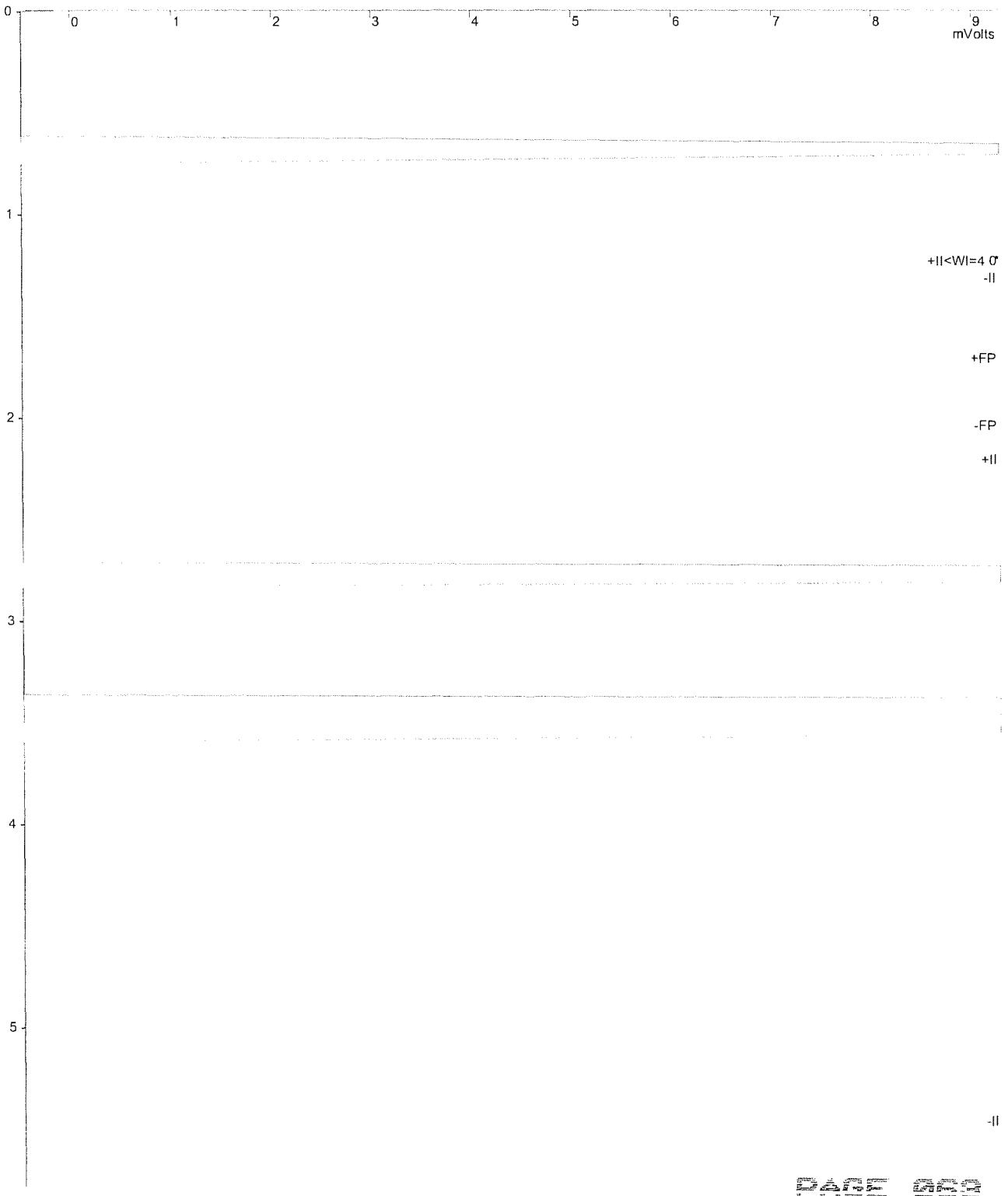
Injection Date: 11/1/2012 2:01 PM Calculation Date: 11/1/2012 2:07 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct058.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-05a EMAX

Injection Date: 11/1/2012 2:01 PM Calculation Date: 11/1/2012 2:07 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 170534 counts

Detected Peaks: 8 Rejected Peaks: 6 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -140 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 21 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct059.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103a.mth
Sample ID : D102604-06a EMAX

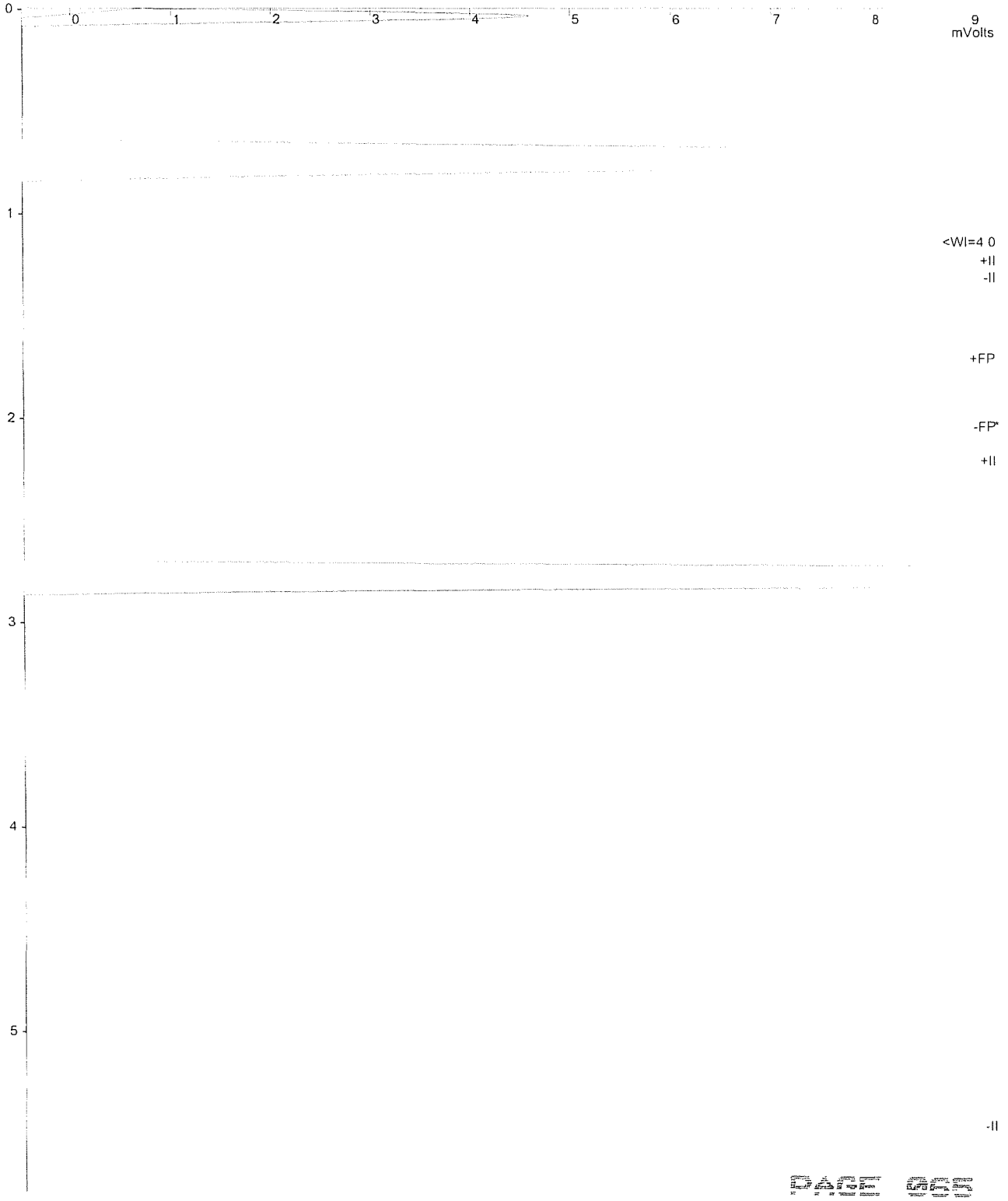
Injection Date: 11/1/2012 2:09 PM Calculation Date: 11/12/2012 2:25 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct059.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103a.mth
Sample ID : D102604-06a EMAX

Injection Date: 11/1/2012 2:09 PM Calculation Date: 11/12/2012 2:25 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 153899 counts

Detected Peaks: 12 Rejected Peaks: 9 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 722 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 18 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct060.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-07a EMAX

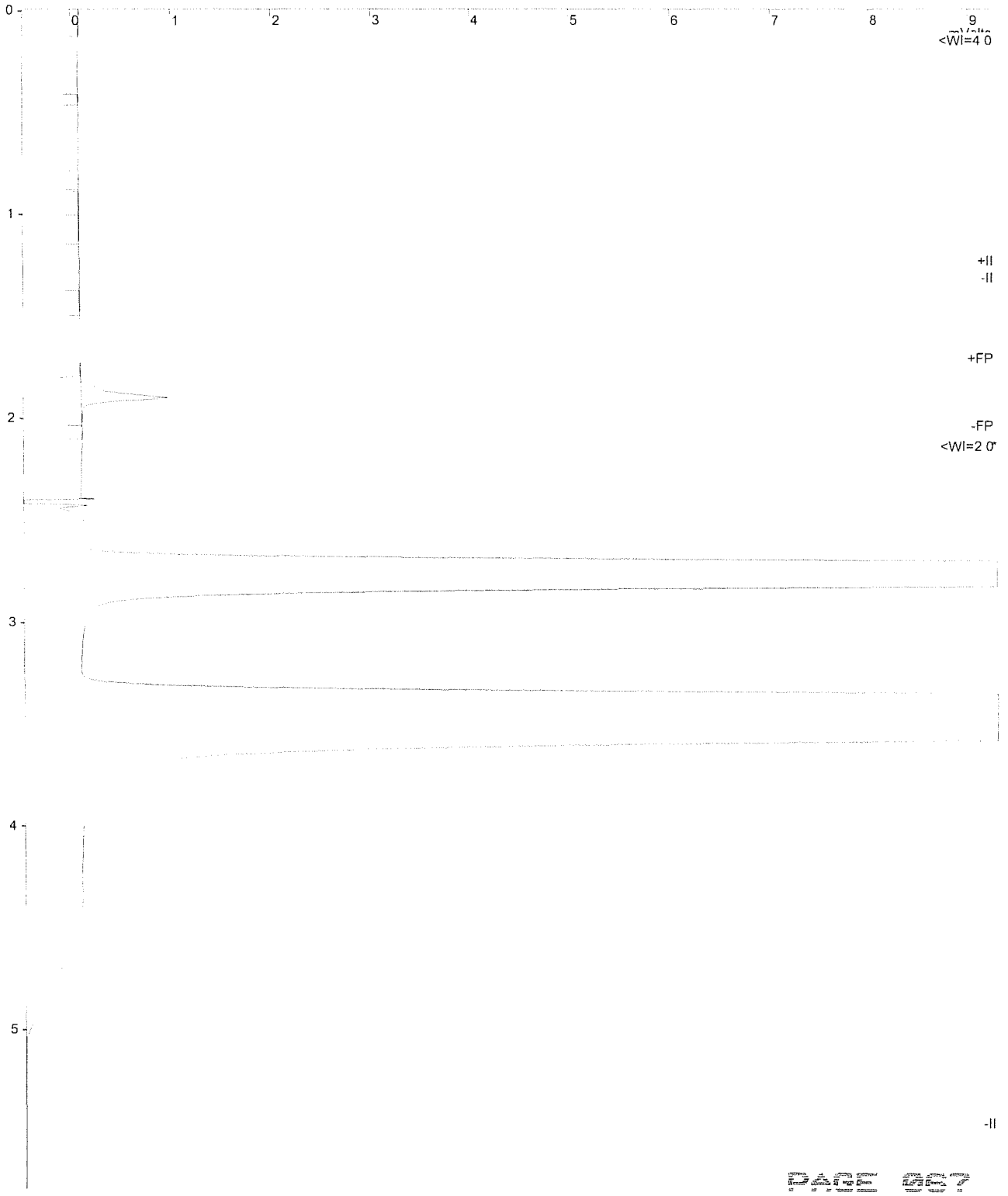
Injection Date: 11/1/2012 2:30 PM Calculation Date: 11/1/2012 2:35 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct060.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-07a EMAX

Injection Date: 11/1/2012 2:30 PM Calculation Date: 11/1/2012 2:35 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 2256 counts

Detected Peaks: 8 Rejected Peaks: 6 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 84 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 23 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct069.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-08b EMAX

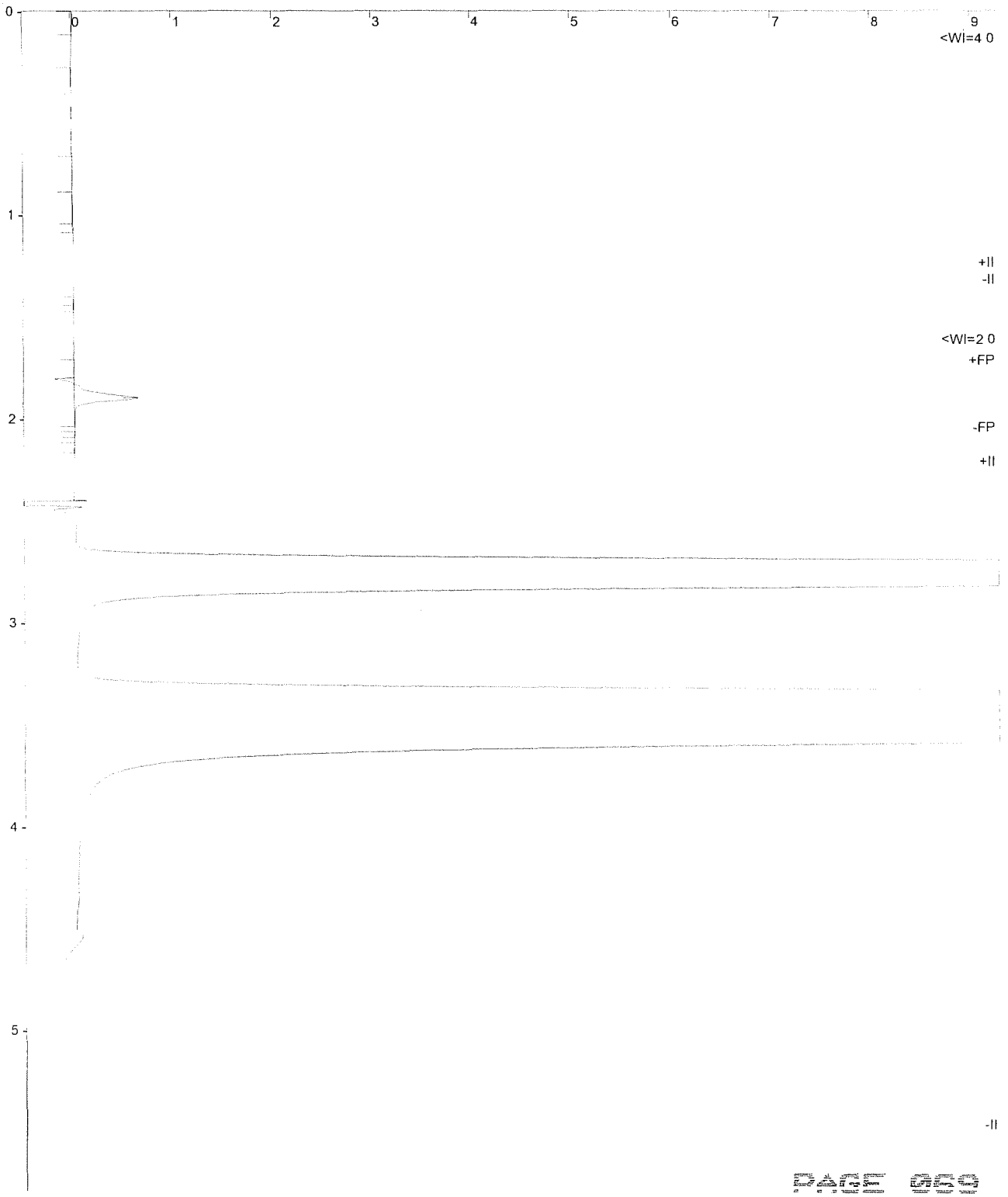
Injection Date: 11/1/2012 4:34 PM Calculation Date: 11/1/2012 4:40 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct069.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-08b EMAX

Injection Date: 11/1/2012 4:34 PM Calculation Date: 11/1/2012 4:40 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 1510 counts

Detected Peaks: 12 Rejected Peaks: 11 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 17 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 32 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct062.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-09a EMAX

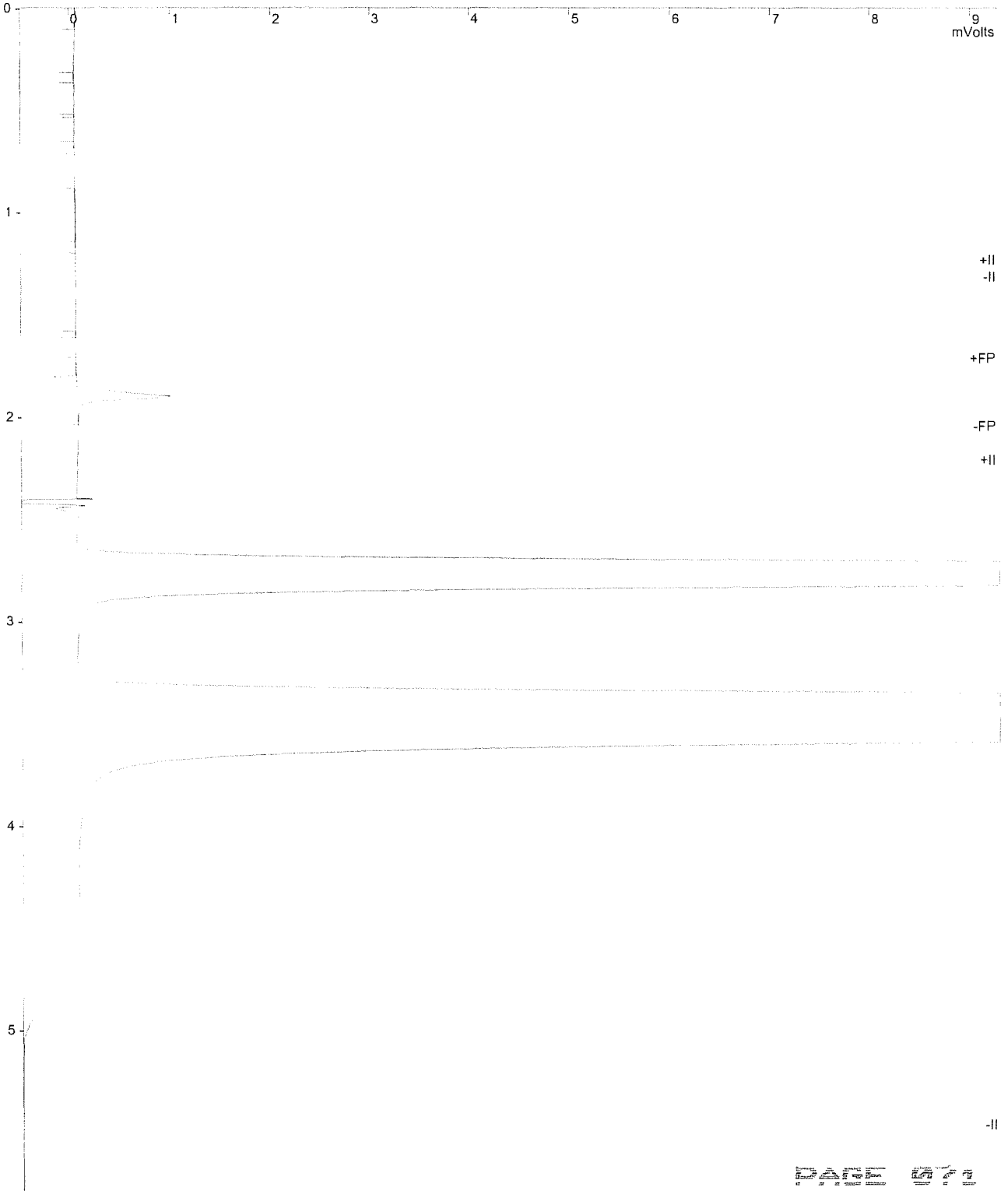
Injection Date: 11/1/2012 2:59 PM Calculation Date: 11/1/2012 3:05 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct062.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-09a EMAX

Injection Date: 11/1/2012 2:59 PM Calculation Date: 11/1/2012 3:05 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 2344 counts

Detected Peaks: 14 Rejected Peaks: 13 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 64 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 30 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct070.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-10b EMAX

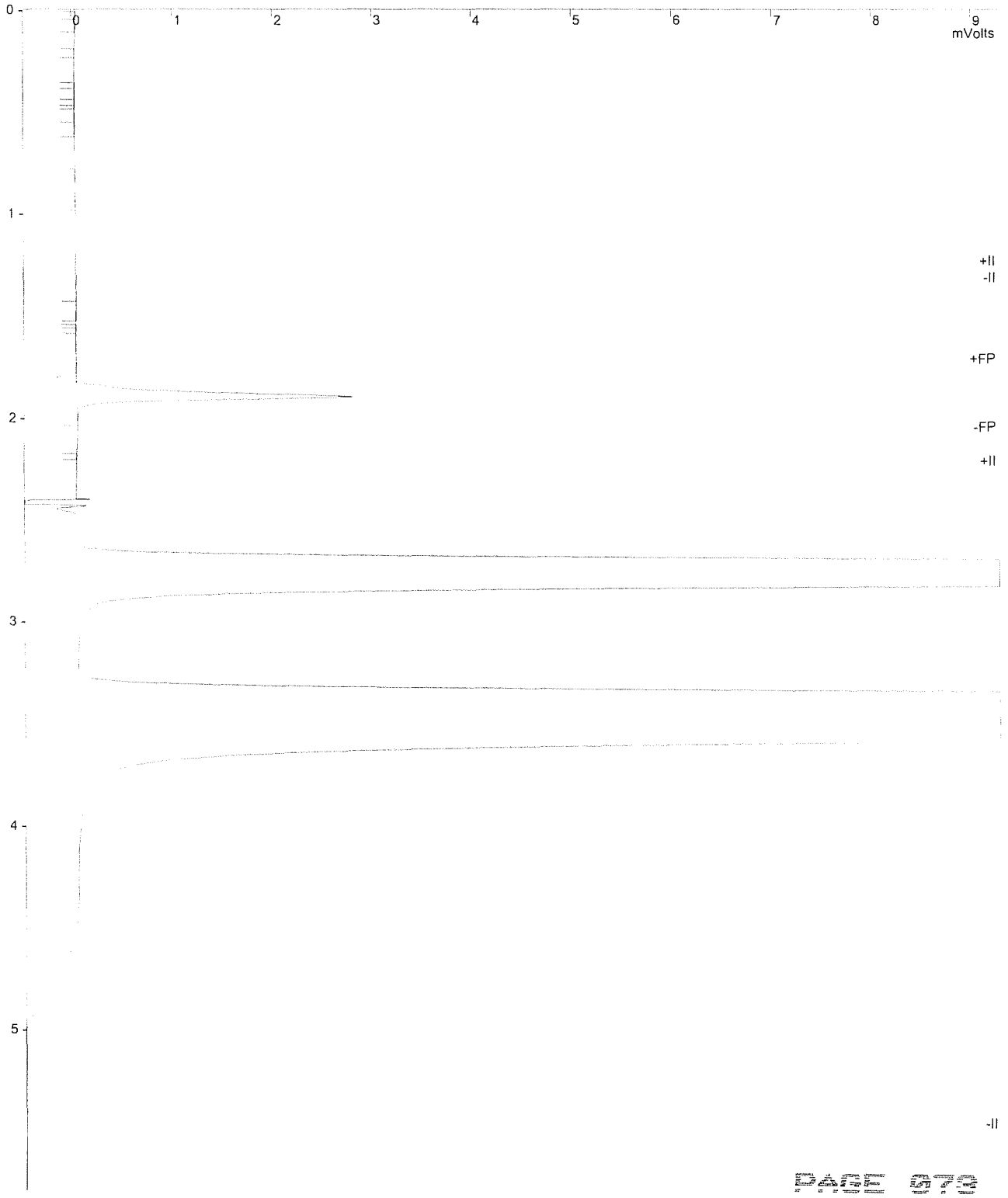
Injection Date: 11/1/2012 5:07 PM Calculation Date: 11/1/2012 5:13 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct070.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-10b EMAX

Injection Date: 11/1/2012 5:07 PM Calculation Date: 11/1/2012 5:13 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 6800 counts

Detected Peaks: 21 Rejected Peaks: 20 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 43 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct071.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-11b EMAX

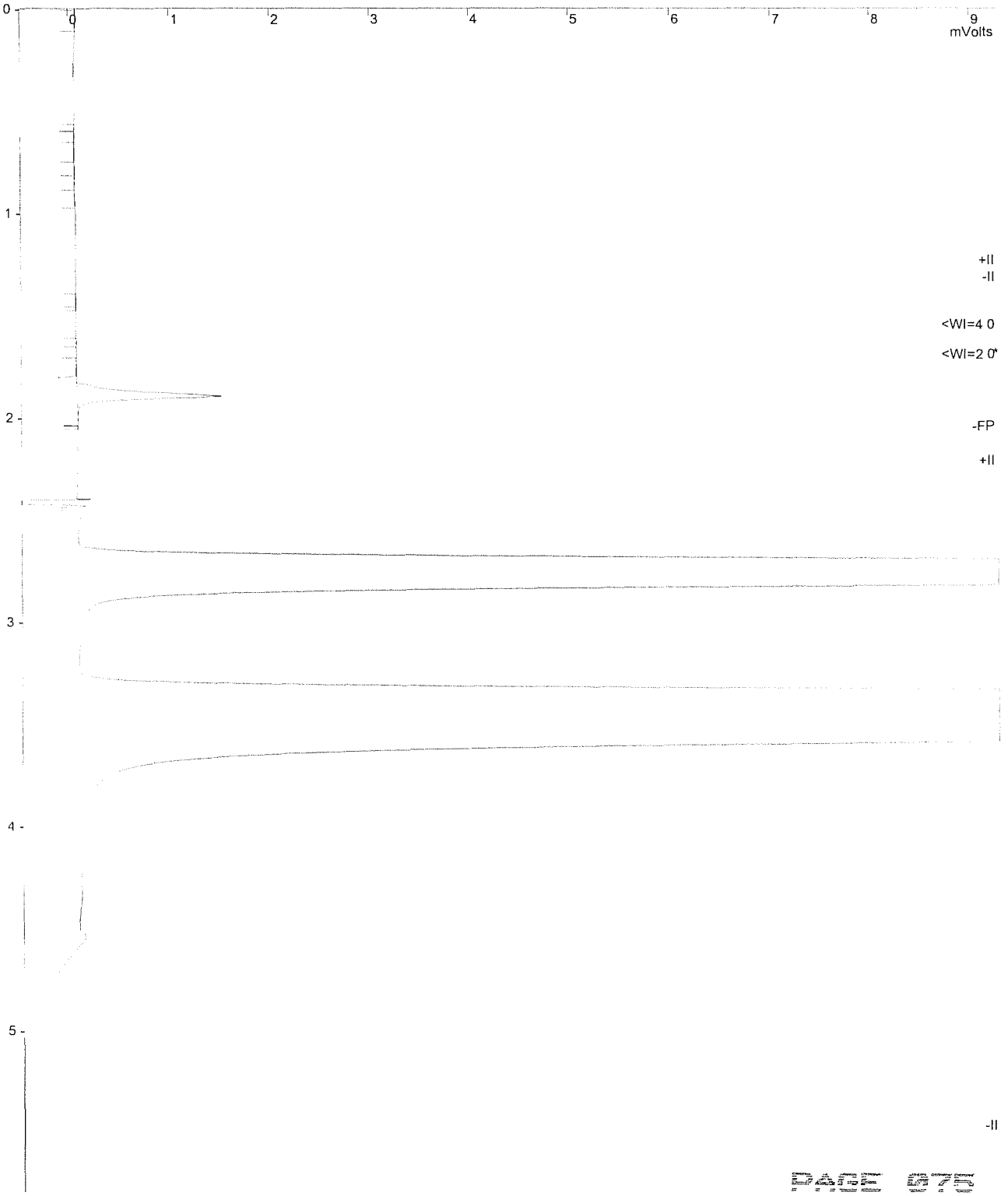
Injection Date: 11/1/2012 5:22 PM Calculation Date: 11/1/2012 5:27 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct071.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-11b EMAX

Injection Date: 11/1/2012 5:22 PM Calculation Date: 11/1/2012 5:27 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 3317 counts

Detected Peaks: 14 Rejected Peaks: 13 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 71 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct065.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-12a EMAX

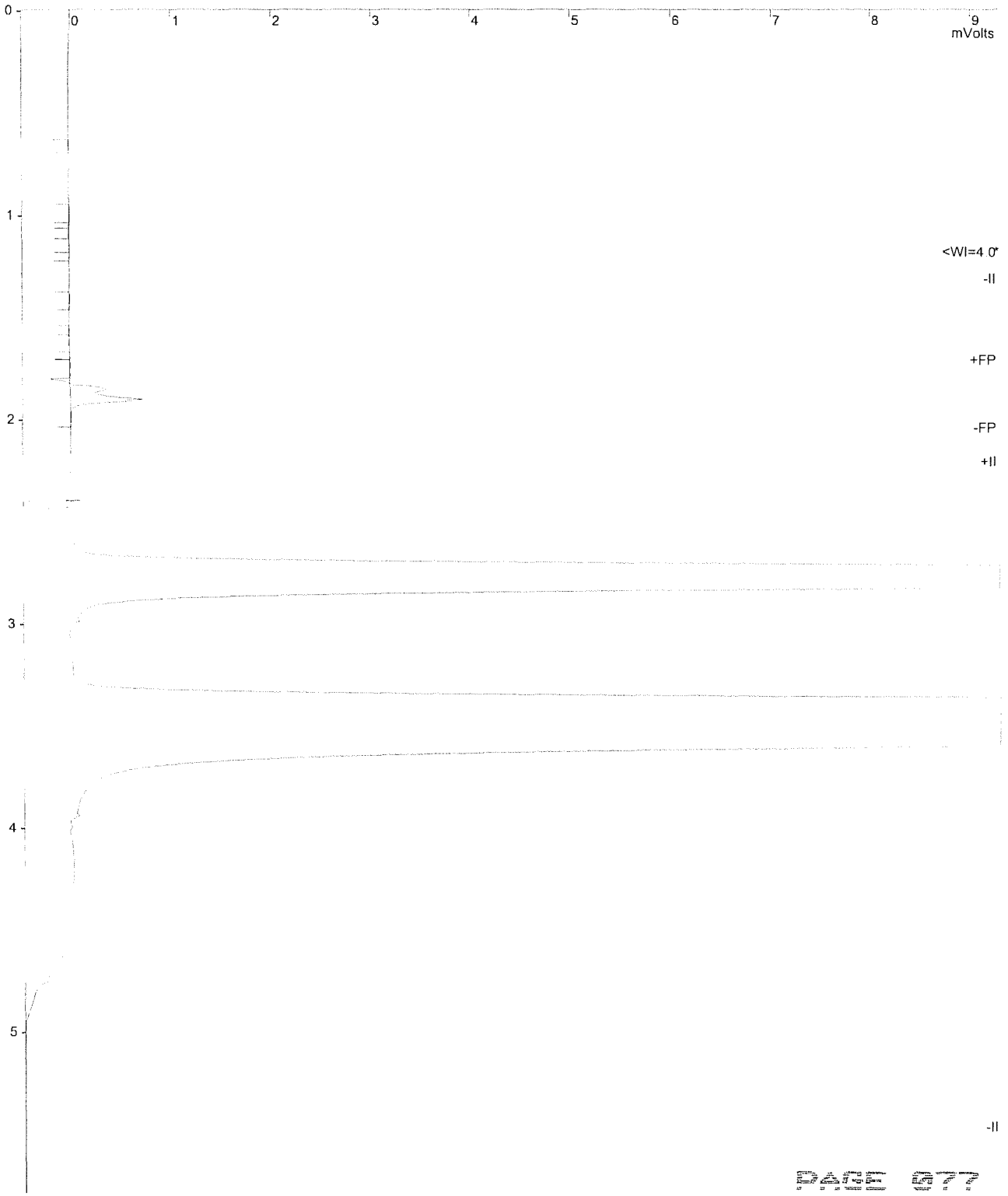
Injection Date: 11/1/2012 3:37 PM Calculation Date: 11/1/2012 3:43 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct065.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-12a EMAX

Injection Date: 11/1/2012 3:37 PM Calculation Date: 11/1/2012 3:43 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 2273 counts

Detected Peaks: 15 Rejected Peaks: 12 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 30 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct066.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-13b EMAX

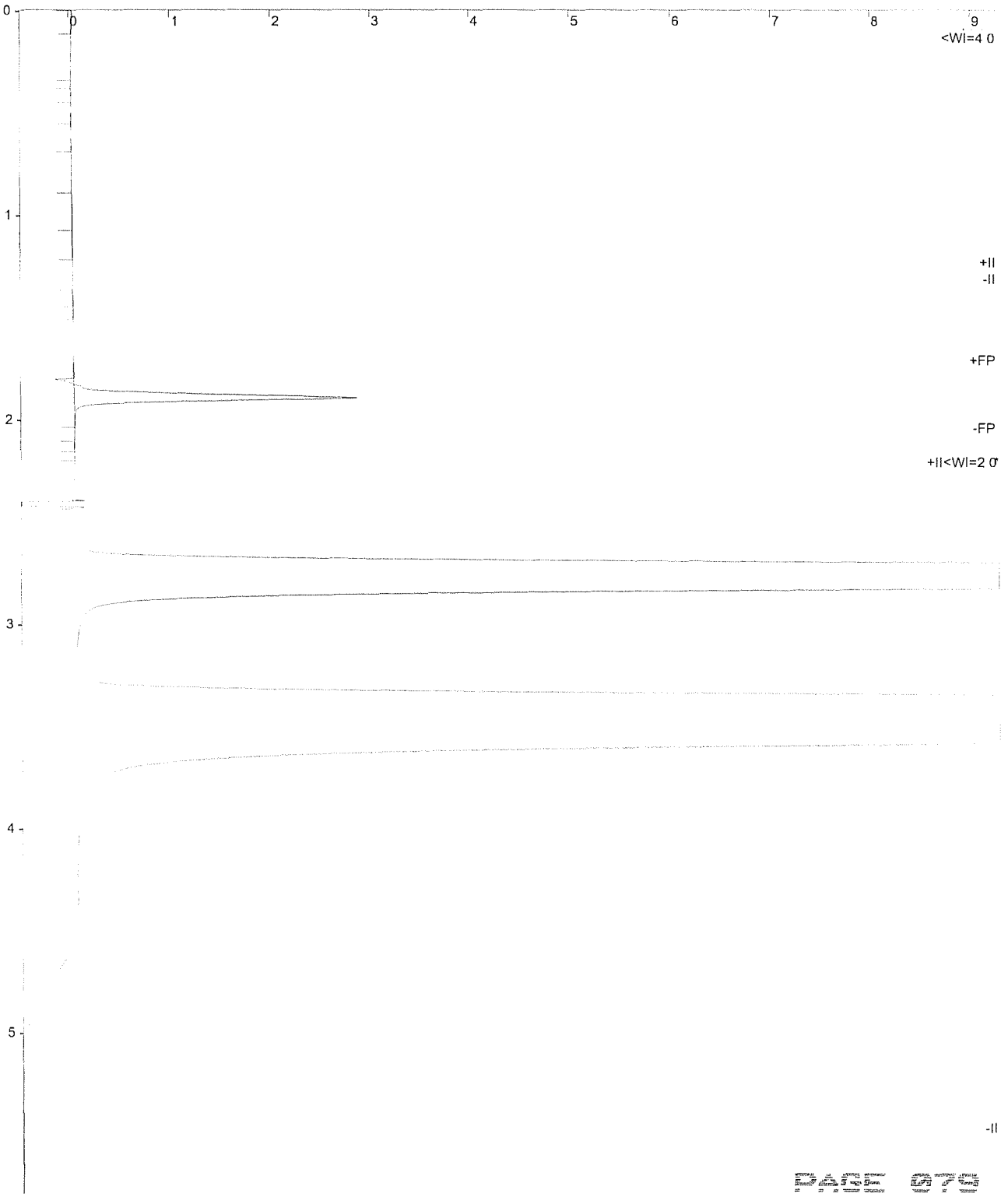
Injection Date: 11/1/2012 3:55 PM Calculation Date: 11/1/2012 4:01 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct066.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102604-13b EMAX

Injection Date: 11/1/2012 3:55 PM Calculation Date: 11/1/2012 4:01 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 6025 counts

Detected Peaks: 12 Rejected Peaks: 10 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 35 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 18 microVolts

Manual injection

****

3. Initial Calibration

a. ICAL Summary
b. Chromatograms/Results

Initial Calibration Criteria:

All compounds RSD <25%
or
r >0.995

Title : Calibration Block Report
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Data Method Time : 11/7/2011 6:30 PM

Requested Curve Type : linear
Requested Origin : force
Calibration Type : External Standard Analysis

Method Detector Type : 3800 GC
Method Bus Address : 44
Method Channel : Front

Calibration Dates
Last Injection Date : 11/3/2011 3:50 PM

Last Recalculation Date : 11/3/2011 3:59 PM

**********GC Workstation Multi Instrument**********Version 6.30**********

Retention Time (min)	Peak Name	Curve\ Origin	X³	X²	X	C	r²	Cal. Range	No. of Points	Edit Codes
1.495	Hydrogen	1 F			+7.1458e-002	+0.0000e+000	+9.9982e-001	Locked		

Curve Codes	Origin Codes	Edit Codes
1 linear	I include	1 curve
2 quadratic	IG ignore	2 origin
3 cubic	F force	3 coefficient

Ret. Time: 1.495 min. Locked Peak Measurement: Area
Peak Name: Hydrogen Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	1000.000000	1	99	99.0	#
2	5000.000000	1	381	381.3	#
3	10000.000000	1	759	758.8	#
4	25000.000000	1	1809	1809.1	#
5	50000.000000	1	3550	3549.8	#

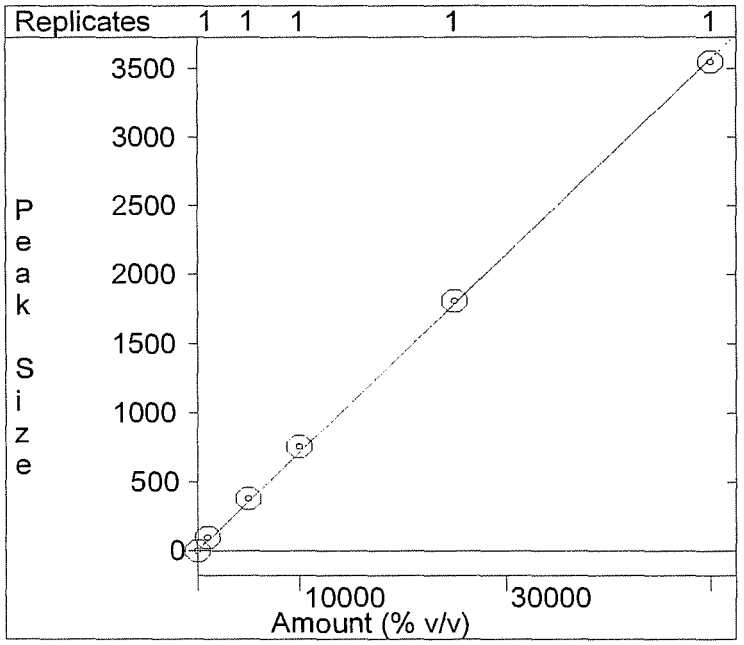
= Too few points to calculate.

Peak Name	Level	Rep.	Injection Date Time	Run Files
Hydrogen	1 L	1	11/3/2011 3:50 PM	c:\temp gc\gc8a\2011\november2011\03nov029.run
	2 L	1	11/3/2011 3:32 PM	c:\temp gc\gc8a\2011\november2011\03nov027.run
	3 L	1	11/3/2011 3:23 PM	c:\temp gc\gc8a\2011\november2011\03nov026.run
	4 L	1	11/3/2011 3:02 PM	c:\temp gc\gc8a\2011\november2011\03nov024.run
	5 L	1	11/3/2011 2:51 PM	c:\temp gc\gc8a\2011\november2011\03nov023.run

L = Locked Coefficients

Print Date: 08 Nov 2011 09:33:42
Calibration Curves Report
File: c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Detector: 3800 GC, Address: 44, Channel ID: Front

Hydrogen
External Standard Analysis - Locked
Resp. Fact. RSD: 14.50%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999818
y = +7.1458e-002x



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov029.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L1

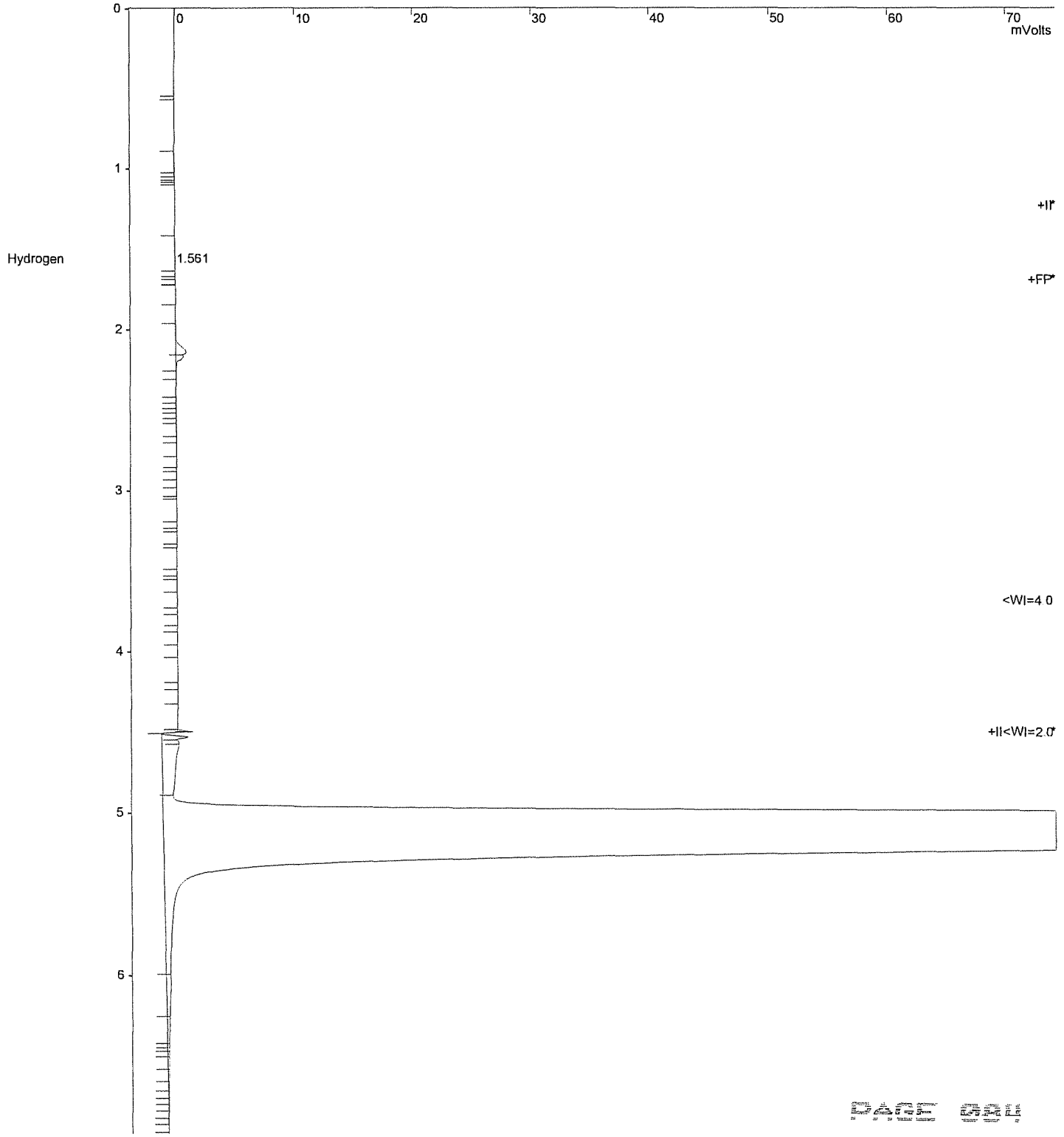
Injection Date: 11/3/2011 3:50 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 2.87 cm/min Attenuation = 32 Zero Offset = 5%
Start Time = 0.000 min End Time = 6.993 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov029.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L1

Injection Date: 11/3/2011 3:50 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 1

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.561	0.023	99	BV	4.6	
	Totals:		0.023	99			

Total Unidentified Counts : 4121291 counts

Detected Peaks: 62 Rejected Peaks: 33 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -62 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov027.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L2

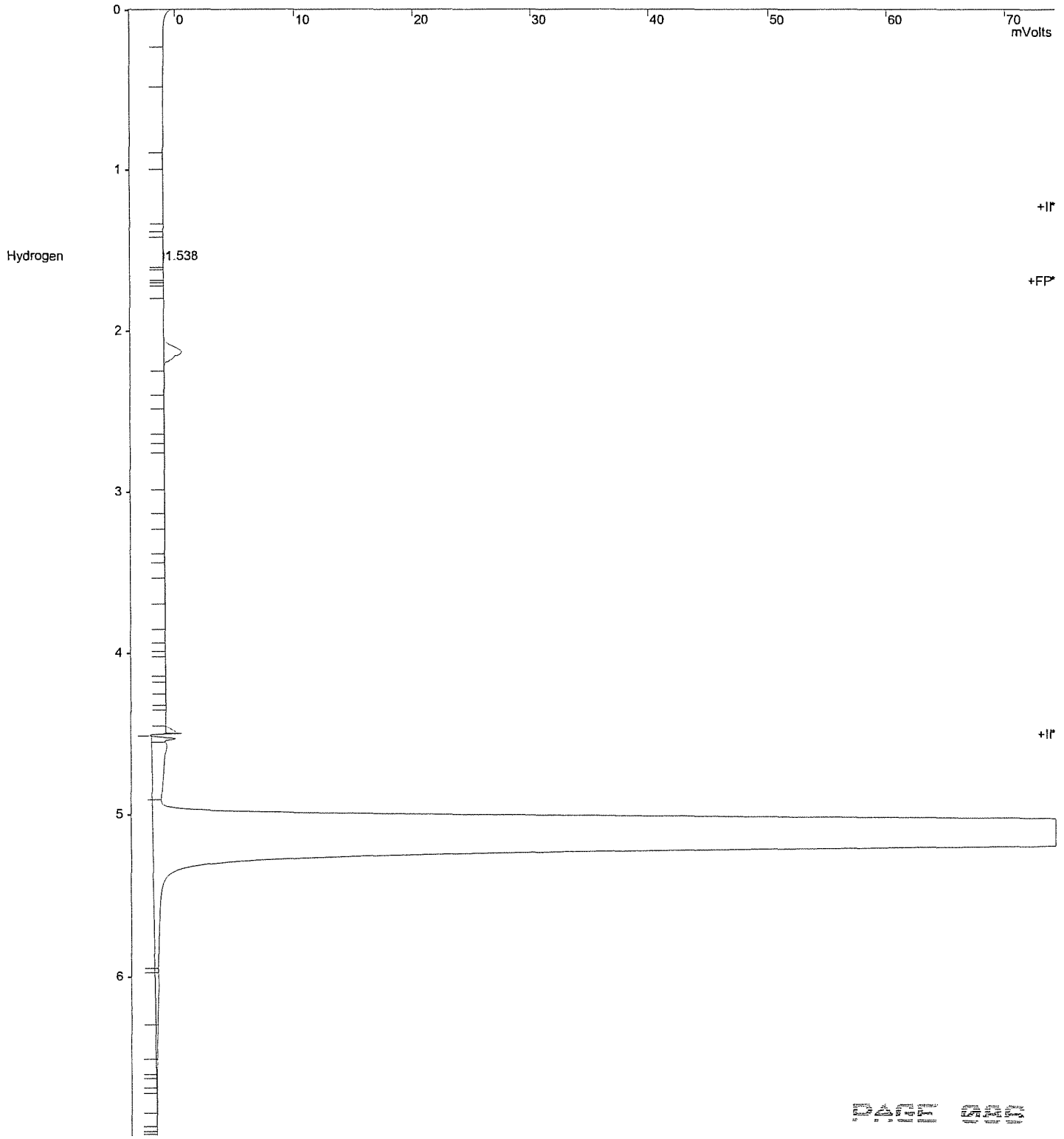
Injection Date: 11/3/2011 3:32 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 2.87 cm/min Attenuation = 32 Zero Offset = 5%
Start Time = 0.000 min End Time = 6.993 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov027.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L2

Injection Date: 11/3/2011 3:32 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 2

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.538	-0.002	381	BV	3.7	
	Totals:		-0.002	381			

Total Unidentified Counts : 2100910 counts

Detected Peaks: 44 Rejected Peaks: 14 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -298 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 39 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov026.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L3

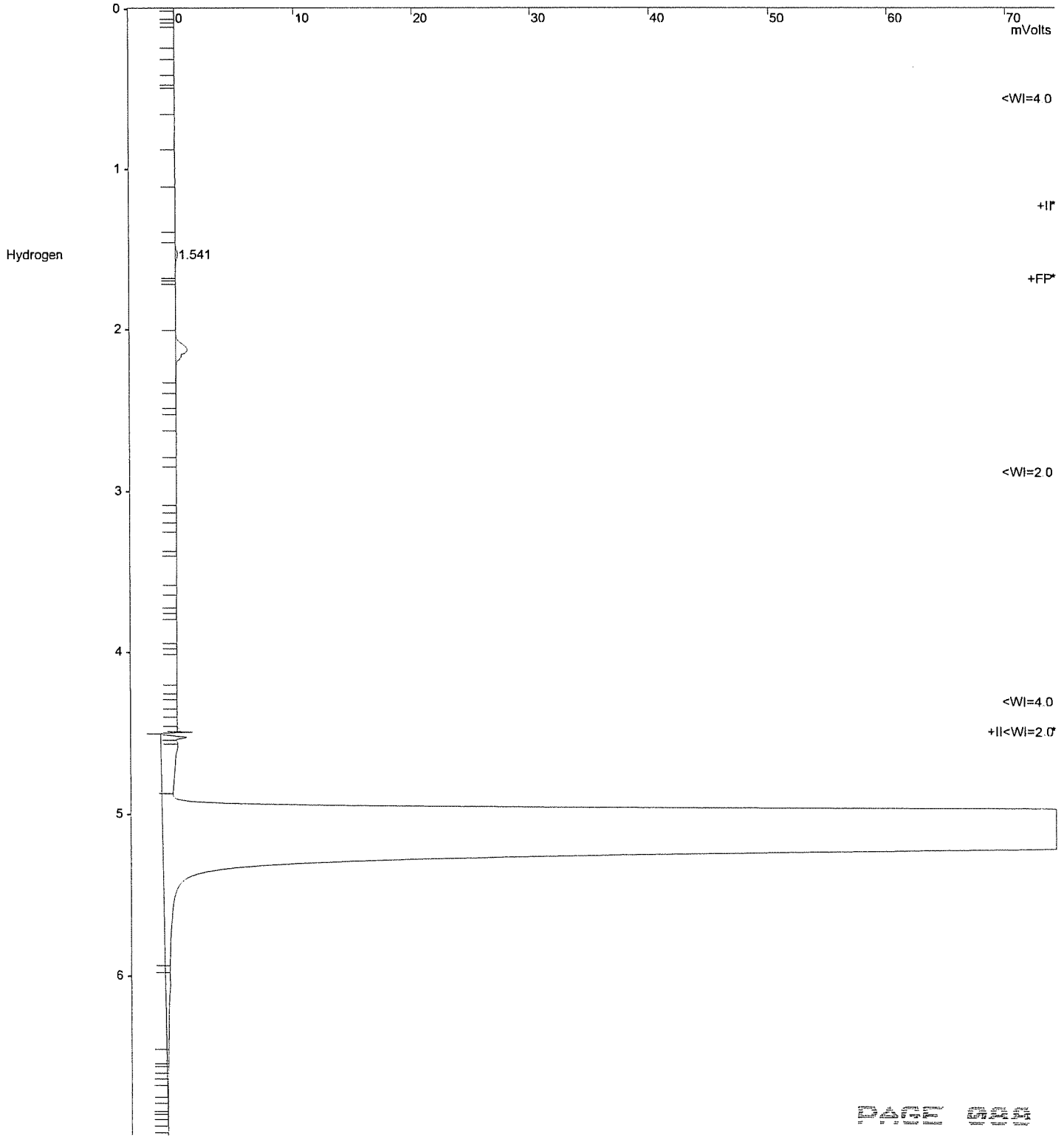
Injection Date: 11/3/2011 3:23 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 2.87 cm/min Attenuation = 32 Zero Offset = 5%
Start Time = 0.000 min End Time = 6.993 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov026.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L3

Injection Date: 11/3/2011 3:23 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.541	-0.014	759	VB	3.7	
	Totals:		-0.014	759			

Total Unidentified Counts : 4135181 counts

Detected Peaks: 49 Rejected Peaks: 27 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 19 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 6 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov024.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L4

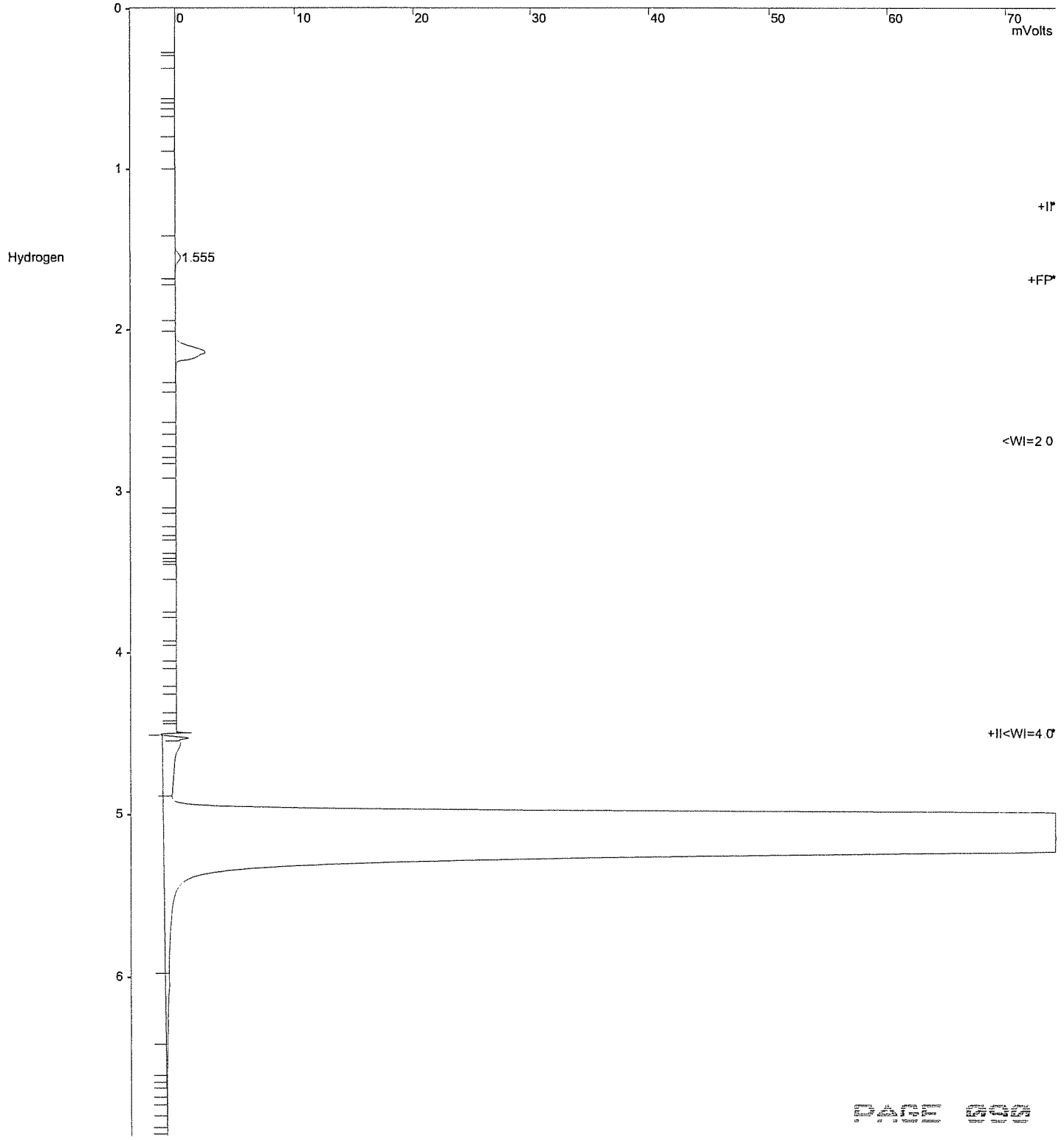
Injection Date: 11/3/2011 3:02 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 2.87 cm/min Attenuation = 32 Zero Offset = 5%
Start Time = 0.000 min End Time = 6.993 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov024.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L4

Injection Date: 11/3/2011 3:02 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 4

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.555	-0.025	1809	BB	3.7	
	Totals:		-0.025	1809			

Total Unidentified Counts : 3986325 counts

Detected Peaks: 43 Rejected Peaks: 29 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -11 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 27 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov023.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L5

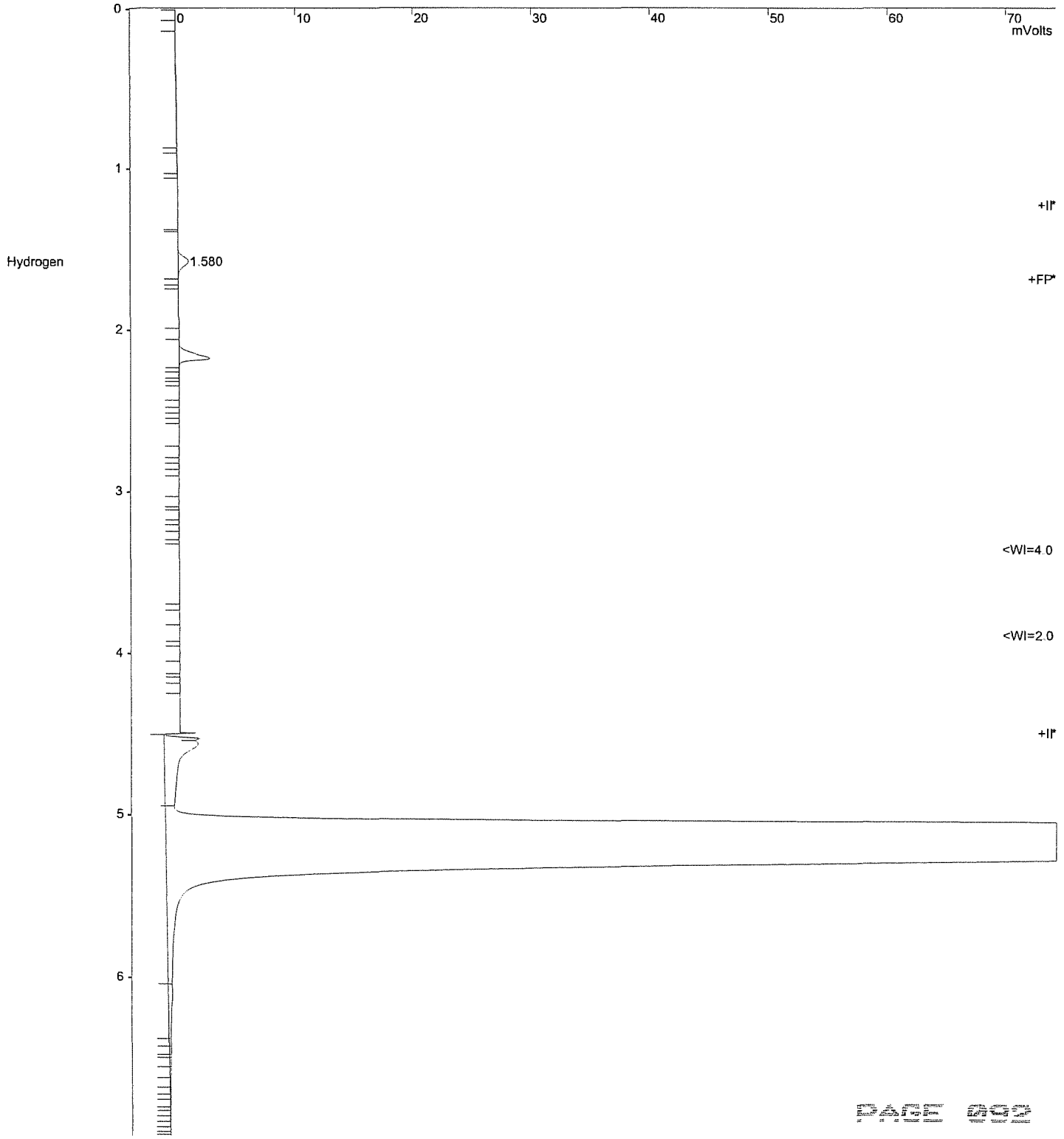
Injection Date: 11/3/2011 2:51 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 2.87 cm/min Attenuation = 32 Zero Offset = 5%
Start Time = 0.000 min End Time = 6.993 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov023.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L5

Injection Date: 11/3/2011 2:51 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.580	0.031	3550	PB	3.9	
	Totals:		0.031	3550			

Total Unidentified Counts : 3907451 counts

Detected Peaks: 56 Rejected Peaks: 36 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -11 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 44 microVolts

Manual injection

****

Title : Calibration Block Report
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Data Method Time : 4/25/2012 5:05 PM

Requested Curve Type : linear
Requested Origin : force
Calibration Type : External Standard Analysis

Method Detector Type : 3800 GC
Method Bus Address : 44
Method Channel : Middle

Calibration Dates
Last Injection Date : 2/27/2012 1:58 PM

Last Recalculation Date : 2/27/2012 2:22 PM

**********GC Workstation Multi Instrument**********Version 6.30**********

Retention Time (min)	Peak Name	Curve\ Origin	X^3	X^2	X	C	r^2	Cal. Range	No. of Points	Edit Codes
2.345	Ethylene	1 F			+2.7716e+003	+0.0000e+000	+9.9991e-001	1-6	6	
2.642	Ethane	1 F			+2.8291e+003	+0.0000e+000	+9.9993e-001	1-6	6	
3.286	Acetylene	1 F			+3.0275e+003	+0.0000e+000	+9.9996e-001	1-6	6	
6.486	Methane	1 F			+1.4513e+003	+0.0000e+000	+9.9999e-001	1-6	6	

Curve Codes	Origin Codes	Edit Codes
1 linear	I include	1 curve
2 quadratic	IG ignore	2 origin
3 cubic	F force	3 coefficient

Ret. Time: 2.345 min.
Peak Name: Ethylene
Peak Measurement: Area
Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	9176	9175.7	#
2	10.000000	1	26855	26855.3	#
3	100.000000	1	270779	270779.4	#
4	1000.000000	1	2769311	2769310.8	#
5	5000.000000	1	14086629	14086629.0	#
6	10000.000000	1	27601932	27601932.0	#

Ret. Time: 2.642 min.
Peak Name: Ethane
Peak Measurement: Area
Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	9229	9229.5	#
2	10.000000	1	27372	27371.6	#
3	100.000000	1	276495	276494.9	#
4	1000.000000	1	2818590	2818589.8	#
5	5000.000000	1	14352904	14352904.0	#
6	10000.000000	1	28188930	28188930.0	#

Ret. Time: 3.286 min.
Peak Name: Acetylene
Peak Measurement: Area
Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	7648	7647.5	#
2	10.000000	1	22887	22886.7	#
3	100.000000	1	252976	252976.3	#
4	1000.000000	1	2834033	2834033.3	#
5	5000.000000	1	15151085	15151085.0	#
6	10000.000000	1	30287502	30287502.0	#

Ret. Time: 6.486 min.
Peak Name: Methane

Peak Measurement: Area
Curve\Origin: 1 F

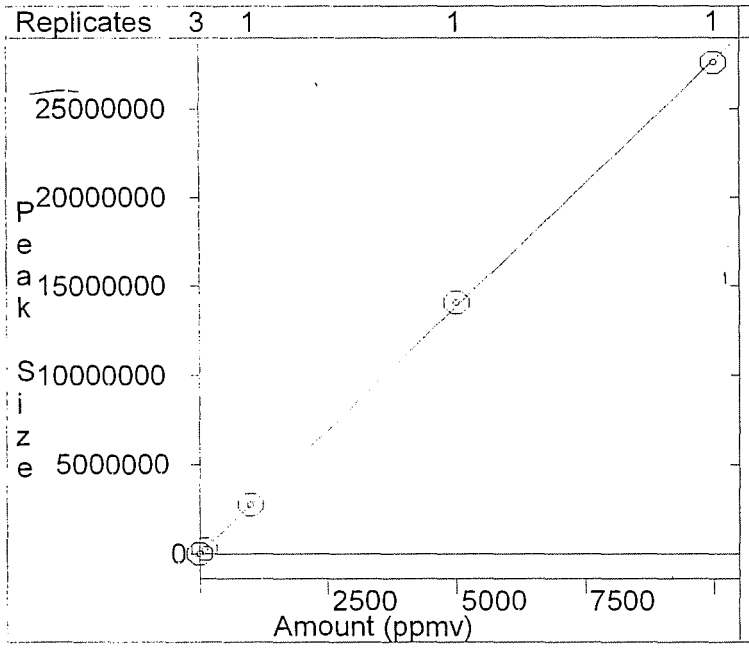
Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	4800	4800.2	#
2	10.000000	1	14255	14254.8	#
3	100.000000	1	141124	141124.3	#
4	1000.000000	1	1436624	1436623.9	#
5	5000.000000	1	7294931	7294930.5	#
6	10000.000000	1	14495398	14495398.0	#

= Too few points to calculate.

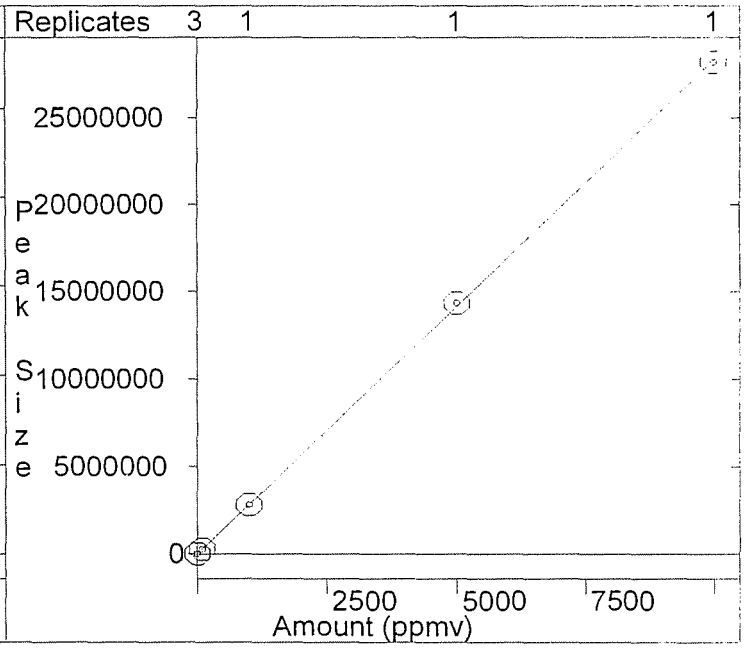
Peak Name	Level	Rep.	Injection Date Time	Run Files
Ethylene	1	1	2/27/2012 12:27 PM	c:\temp gc\gc8a\2012\feb\24feb008.run
	2	1	2/27/2012 12:43 PM	c:\temp gc\gc8a\2012\feb\27feb.run
	3	1	2/27/2012 12:57 PM	c:\temp gc\gc8a\2012\feb\27feb001.run
	4	1	2/27/2012 1:10 PM	c:\temp gc\gc8a\2012\feb\27feb002.run
	5	1	2/27/2012 1:25 PM	c:\temp gc\gc8a\2012\feb\27feb003.run
	6	1	2/27/2012 1:58 PM	c:\temp gc\gc8a\2012\feb\27feb004.run
Ethane	1	1	2/27/2012 12:27 PM	c:\temp gc\gc8a\2012\feb\24feb008.run
	2	1	2/27/2012 12:43 PM	c:\temp gc\gc8a\2012\feb\27feb.run
	3	1	2/27/2012 12:57 PM	c:\temp gc\gc8a\2012\feb\27feb001.run
	4	1	2/27/2012 1:10 PM	c:\temp gc\gc8a\2012\feb\27feb002.run
	5	1	2/27/2012 1:25 PM	c:\temp gc\gc8a\2012\feb\27feb003.run
	6	1	2/27/2012 1:58 PM	c:\temp gc\gc8a\2012\feb\27feb004.run
Acetylene	1	1	2/27/2012 12:27 PM	c:\temp gc\gc8a\2012\feb\24feb008.run
	2	1	2/27/2012 12:43 PM	c:\temp gc\gc8a\2012\feb\27feb.run
	3	1	2/27/2012 12:57 PM	c:\temp gc\gc8a\2012\feb\27feb001.run
	4	1	2/27/2012 1:10 PM	c:\temp gc\gc8a\2012\feb\27feb002.run
	5	1	2/27/2012 1:25 PM	c:\temp gc\gc8a\2012\feb\27feb003.run
	6	1	2/27/2012 1:58 PM	c:\temp gc\gc8a\2012\feb\27feb004.run
Methane	1	1	2/27/2012 12:27 PM	c:\temp gc\gc8a\2012\feb\24feb008.run
	2	1	2/27/2012 12:43 PM	c:\temp gc\gc8a\2012\feb\27feb.run
	3	1	2/27/2012 12:57 PM	c:\temp gc\gc8a\2012\feb\27feb001.run
	4	1	2/27/2012 1:10 PM	c:\temp gc\gc8a\2012\feb\27feb002.run
	5	1	2/27/2012 1:25 PM	c:\temp gc\gc8a\2012\feb\27feb003.run
	6	1	2/27/2012 1:58 PM	c:\temp gc\gc8a\2012\feb\27feb004.run

Print Date: 03 May 2012 16:10:34
Calibration Curves Report
File: c:\temp gc\gc8a\methods\rsk175fg120227.mth
Detector: 3800 GC, Address: 44, Channel ID: Middle

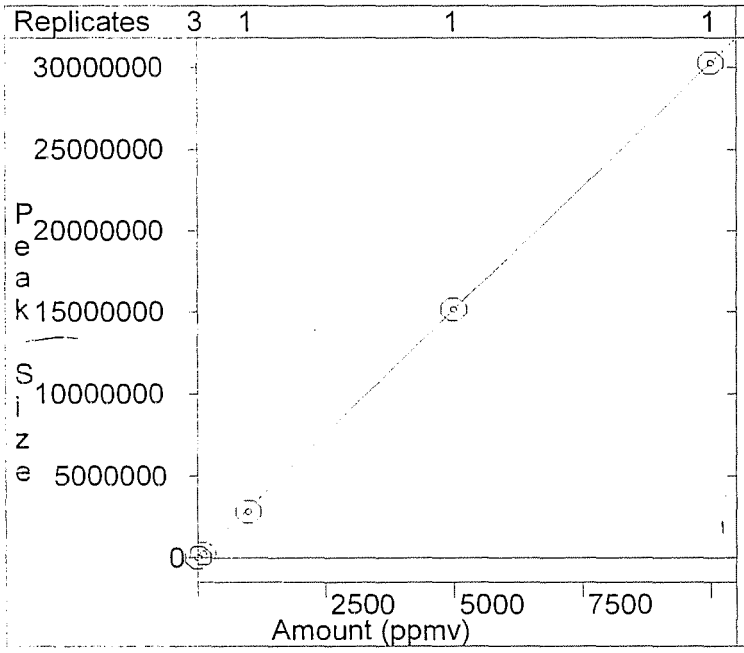
Ethylene
External Standard Analysis
Resp. Fact. RSD: 4.826%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999907
y = +2.7716e+003x



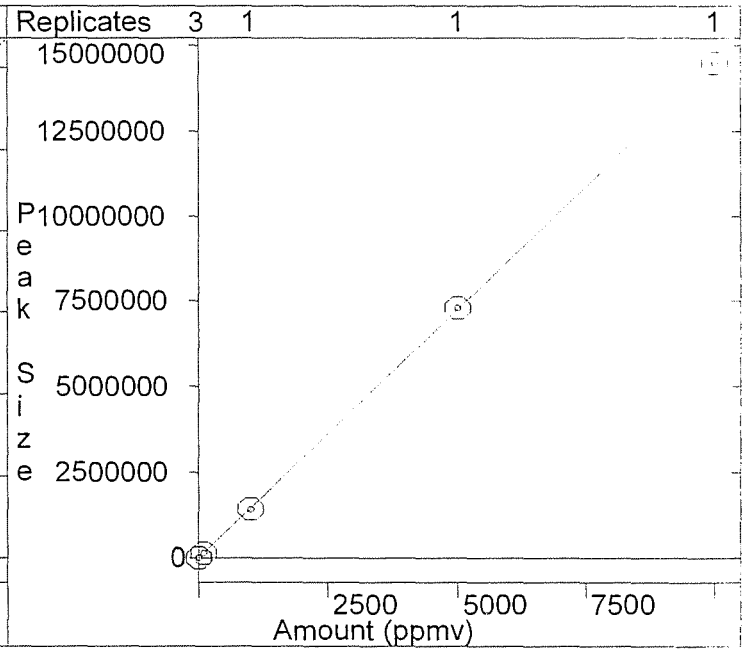
Ethane
External Standard Analysis
Resp. Fact. RSD: 4.261%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999927
y = +2.8291e+003x



Acetylene
External Standard Analysis
Resp. Fact. RSD: 11.14%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999963
y = +3.0275e+003x



Methane
External Standard Analysis
Resp. Fact. RSD: 4.710%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999989
y = +1.4513e+003x



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\24feb008.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 3.0 ppmv

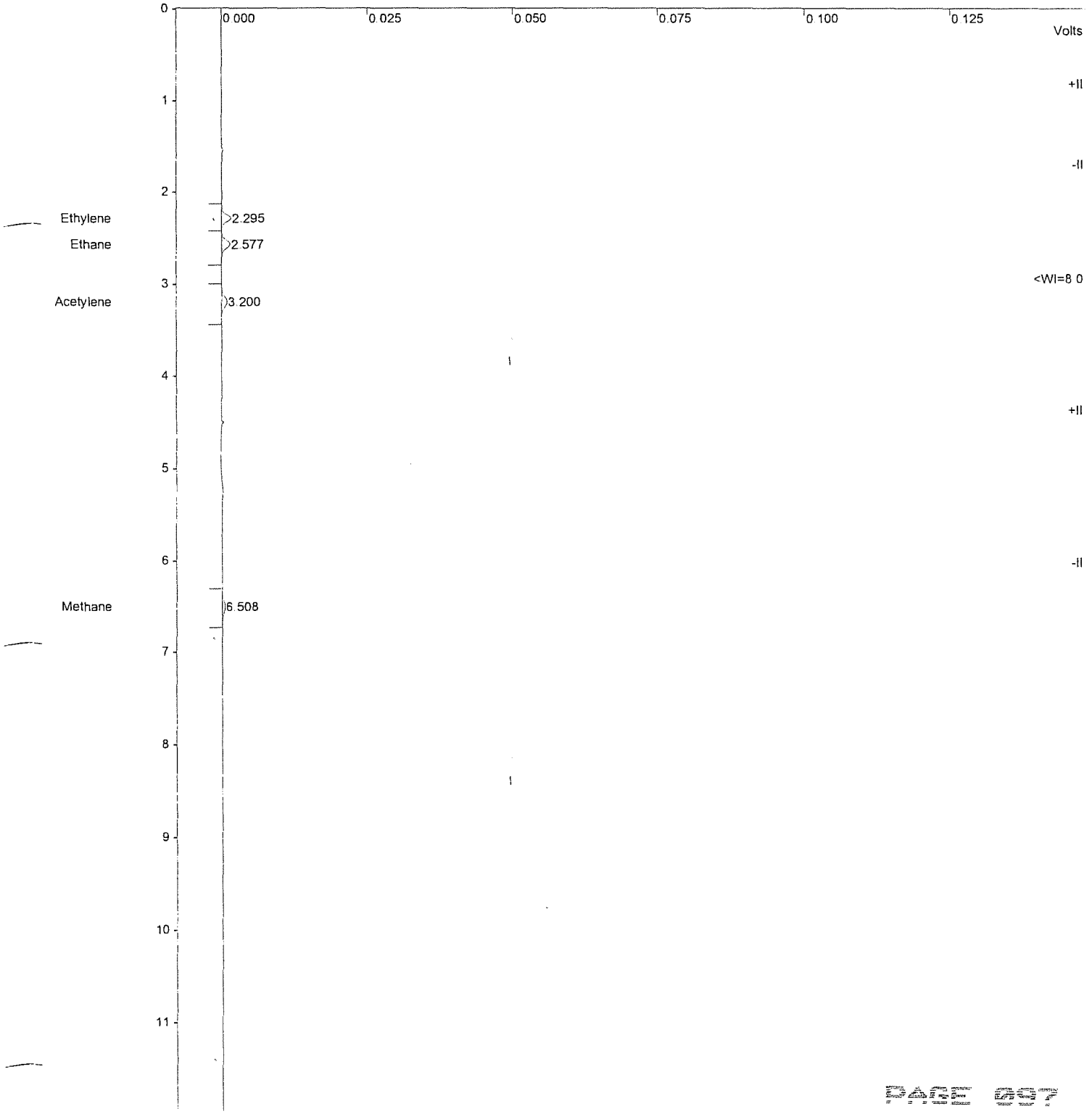
Injection Date: 2/27/2012 12:27 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\24feb008.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 3.0 ppmv

Injection Date: 2/27/2012 12:27 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 1

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.295	-0.050	9176	BV	5.3	
2	Ethane	2.577	-0.065	9229	VB	5.9	
3	Acetylene	3.200	-0.086	7648	BB	7.7	
4	Methane	6.508	0.022	4800	BB	9.1	
	Totals:		-0.179	30853			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 39 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 15 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 10 ppmv

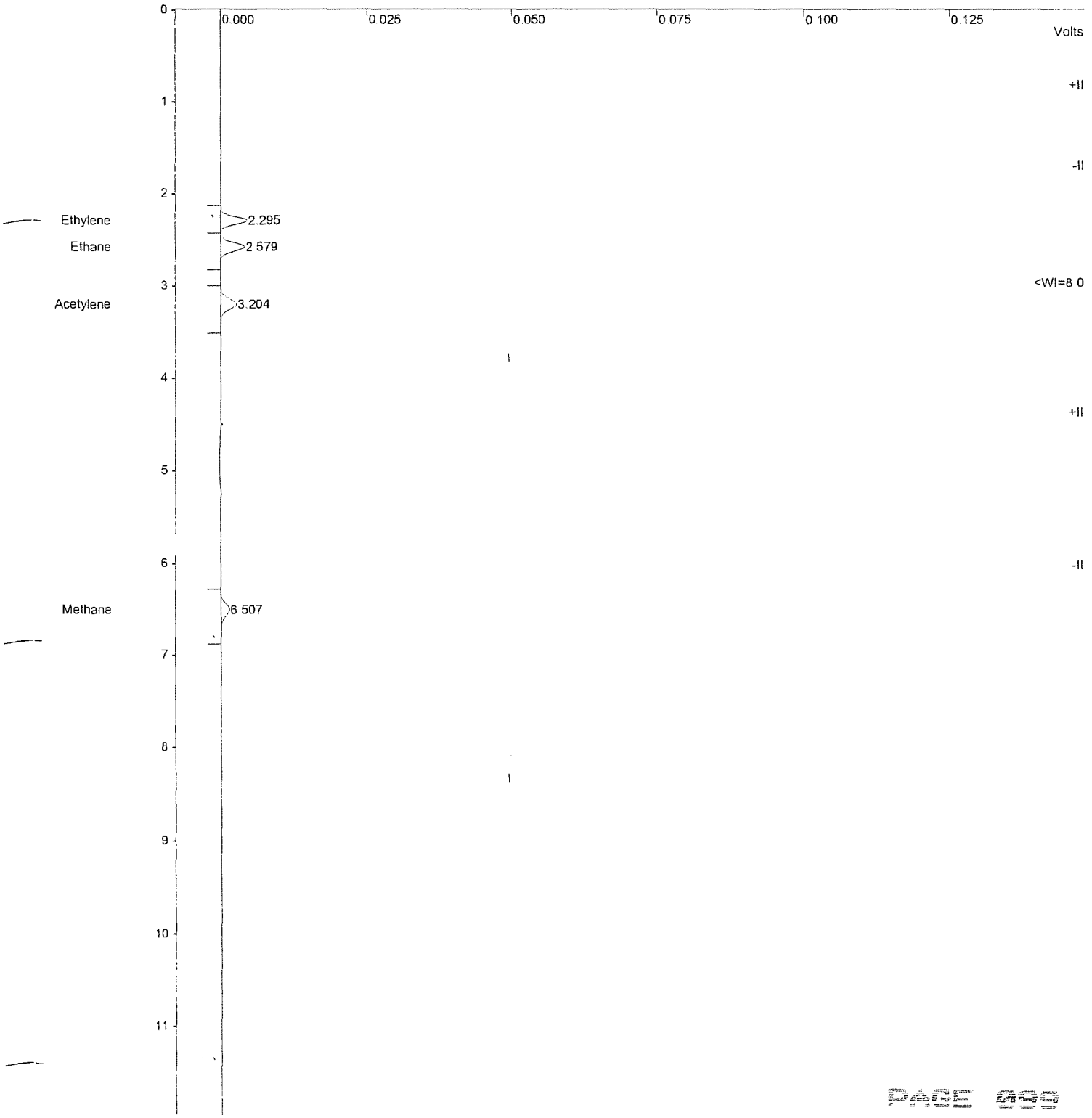
Injection Date: 2/27/2012 12:43 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 10 ppmv

Injection Date: 2/27/2012 12:43 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 2

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.295	0.001	26855	BV	5.6	
2	Ethane	2.579	0.002	27372	VB	6.2	
3	Acetylene	3.204	0.006	22887	BB	7.9	
4	Methane	6.507	-0.001	14255	BB	9.2	
	Totals:		0.008	91369			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 17 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 24 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb001.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 100 ppmv

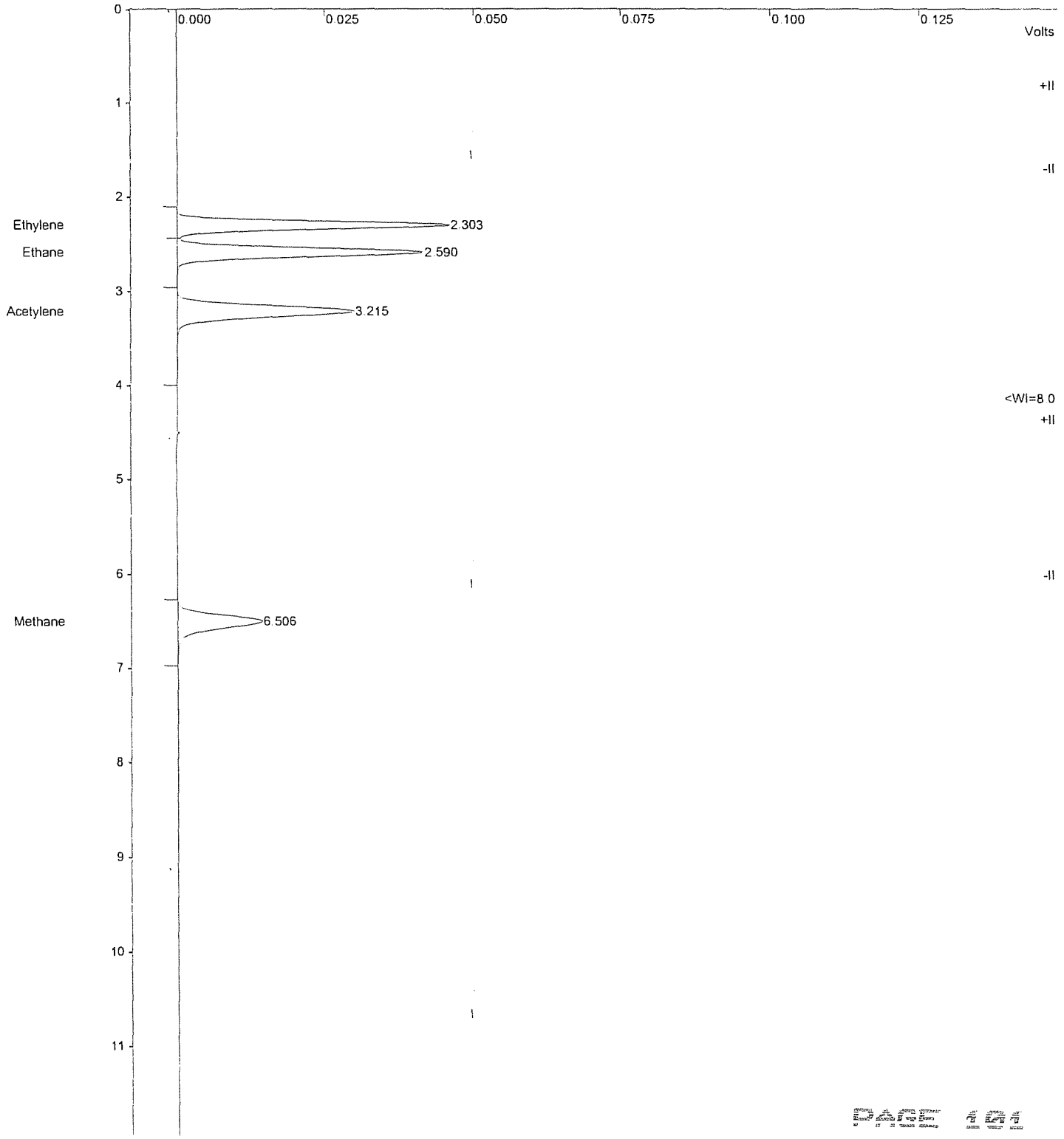
Injection Date: 2/27/2012 12:57 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb001.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 100 ppmv

Injection Date: 2/27/2012 12:57 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.303	0.008	270779	BV	5.6	
2	Ethane	2.590	0.011	276495	VV	6.3	
3	Acetylene	3.215	0.011	252976	VB	7.9	
4	Methane	6.506	-0.001	141124	BB	9.1	
	Totals:		0.029	941374			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -30 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 15 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb002.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 1000ppmv

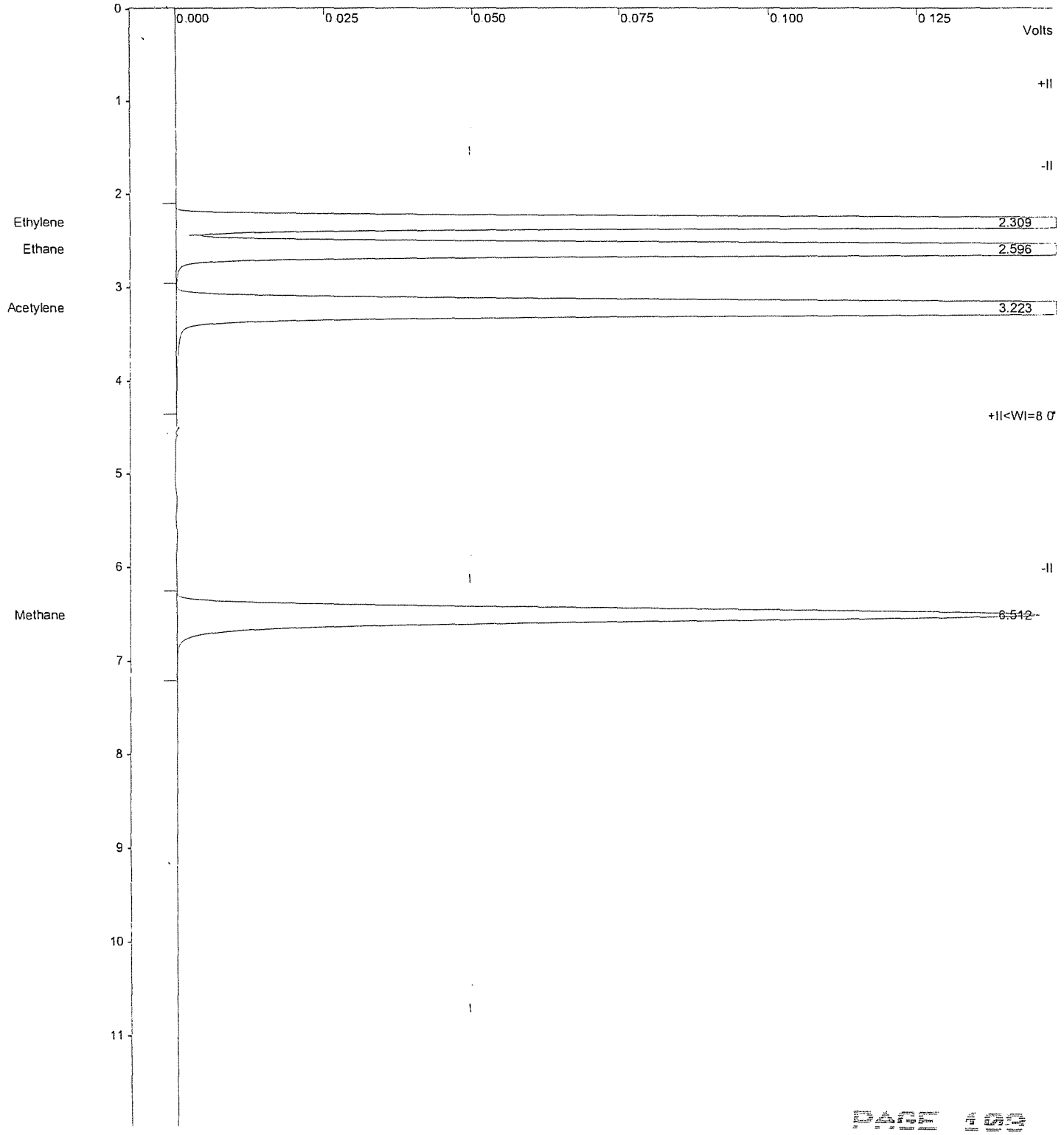
Injection Date: 2/27/2012 1:10 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb002.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 1000ppmv

Injection Date: 2/27/2012 1:10 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 4

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.309	0.007	2769311	BV	5.6	
2	Ethane	2.596	0.007	2818590	VV	6.3	
3	Acetylene	3.223	0.008	2834033	VB	7.9	
4	Methane	6.512	0.006	1436624	BB	9.1	
	Totals:		0.028	9858558			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 49 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb003.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 5000ppmv

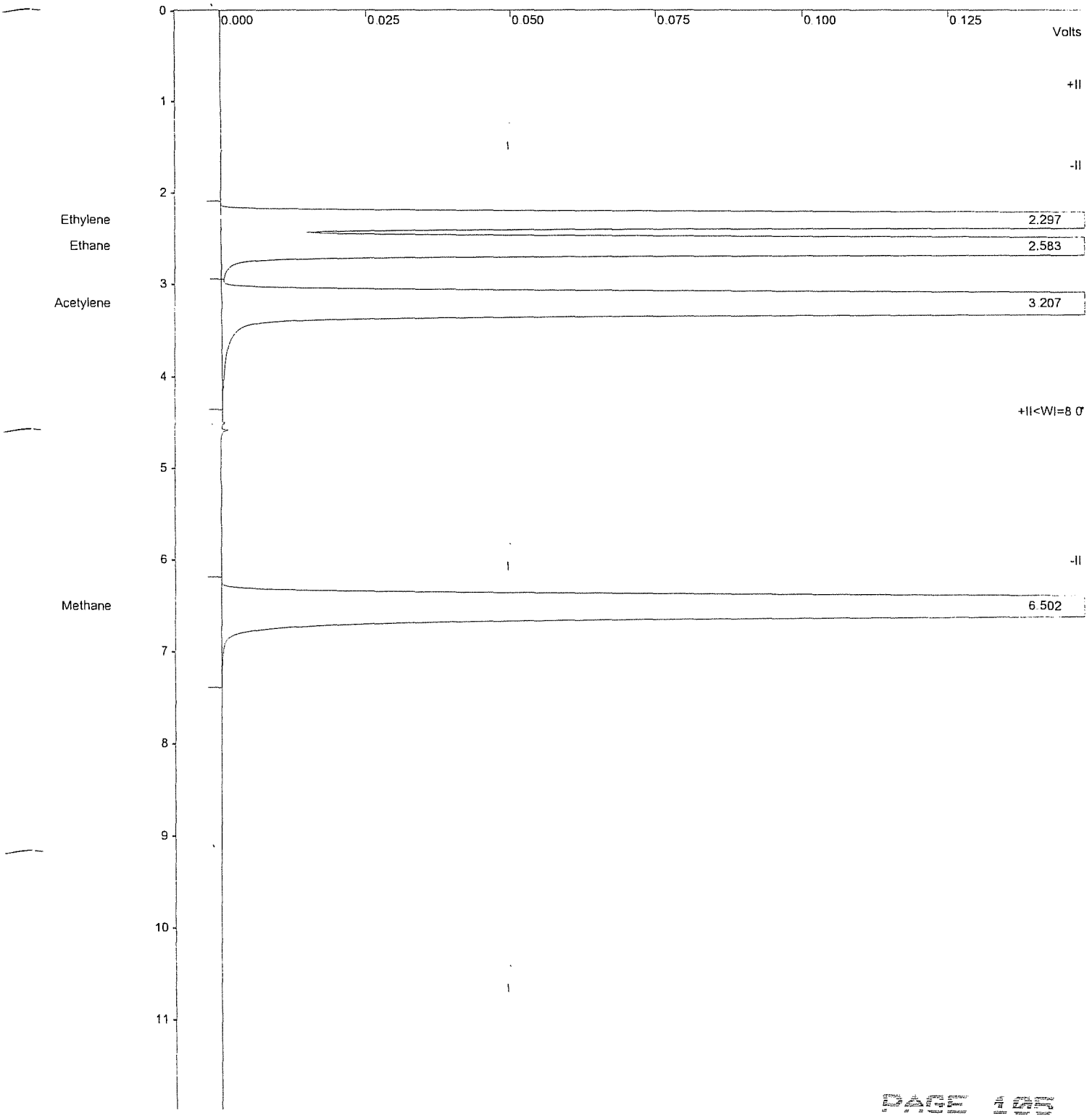
Injection Date: 2/27/2012 1:25 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb003.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 5000ppmv

Injection Date: 2/27/2012 1:25 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.297	-0.011	14086629	BV	5.3	
2	Ethane	2.583	-0.013	14352904	VV	6.1	
3	Acetylene	3.207	-0.016	15151085	VB	7.8	
4	Methane	6.502	-0.010	7294931	BB	9.0	
	Totals:		-0.050	50885549			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 94 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 18 microVolts

Manual injection

****

Title :
Run File : c:\temp gc\gc8a\2012\feb\27feb004.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 10000ppmv

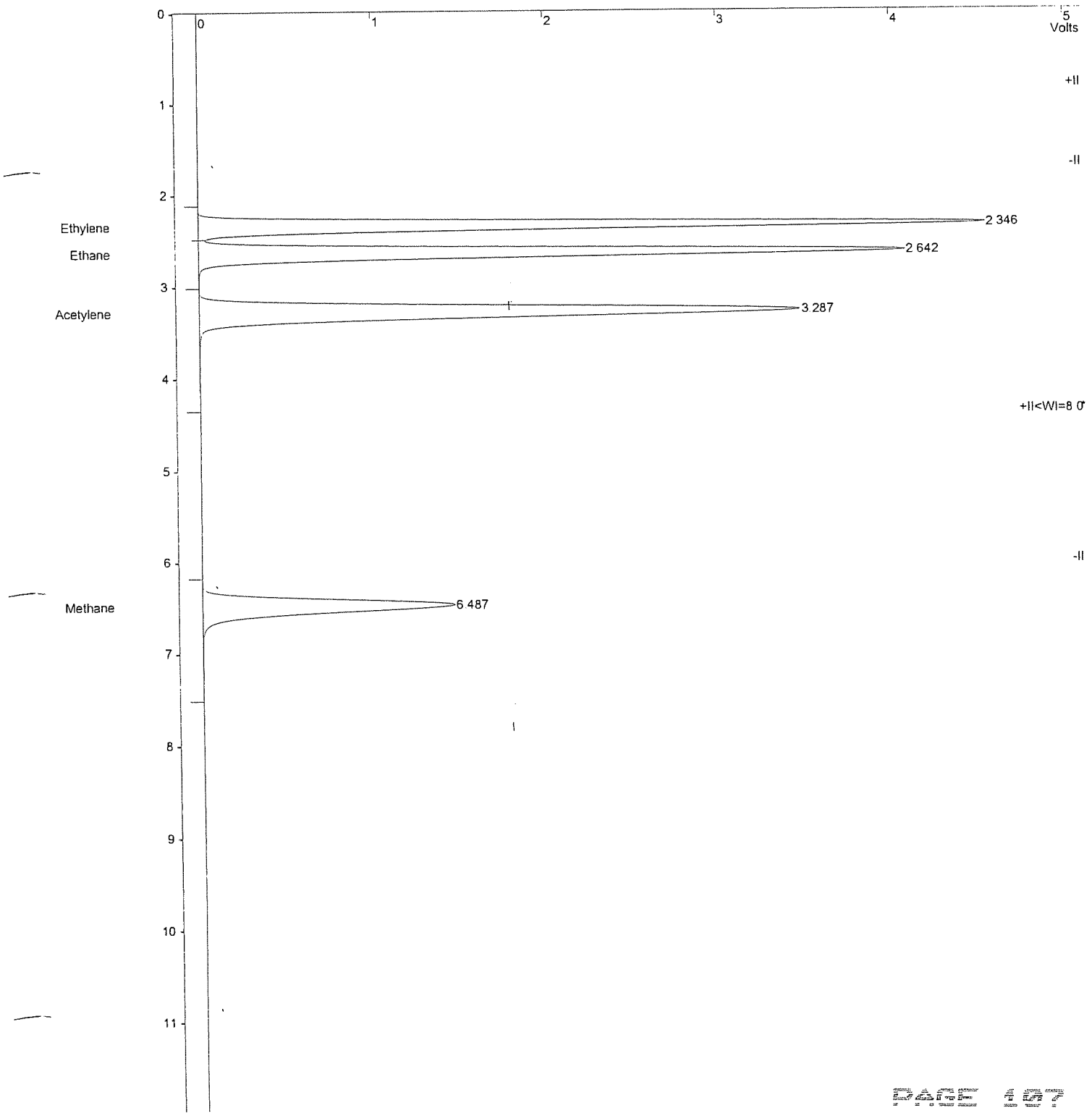
Injection Date: 2/27/2012 1:58 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 2152 Zero Offset = 2%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title :
Run File : c:\temp gc\gc8a\2012\feb\27feb004.run
Method File : c:\temp gc\gc8a\methods\rskl75fg120227.mth
Sample ID : 10000ppmv

Injection Date: 2/27/2012 1:58 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 6

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.346	0.050	27601932	BV	5.8	
2	Ethane	2.642	0.059	28188930	VV	6.5	
3	Acetylene	3.287	0.080	30287502	VB	8.1	
4	Methane	6.487	-0.014	14495398	BB	9.1	
	Totals:		0.175	100573762			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -27 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

4. Continuing Calibration

a. CCAL Summary
b. Chromatograms/Results

Continuing Calibration Criteria:

All compounds <25% Diff

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct028.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : RSK FID CCV

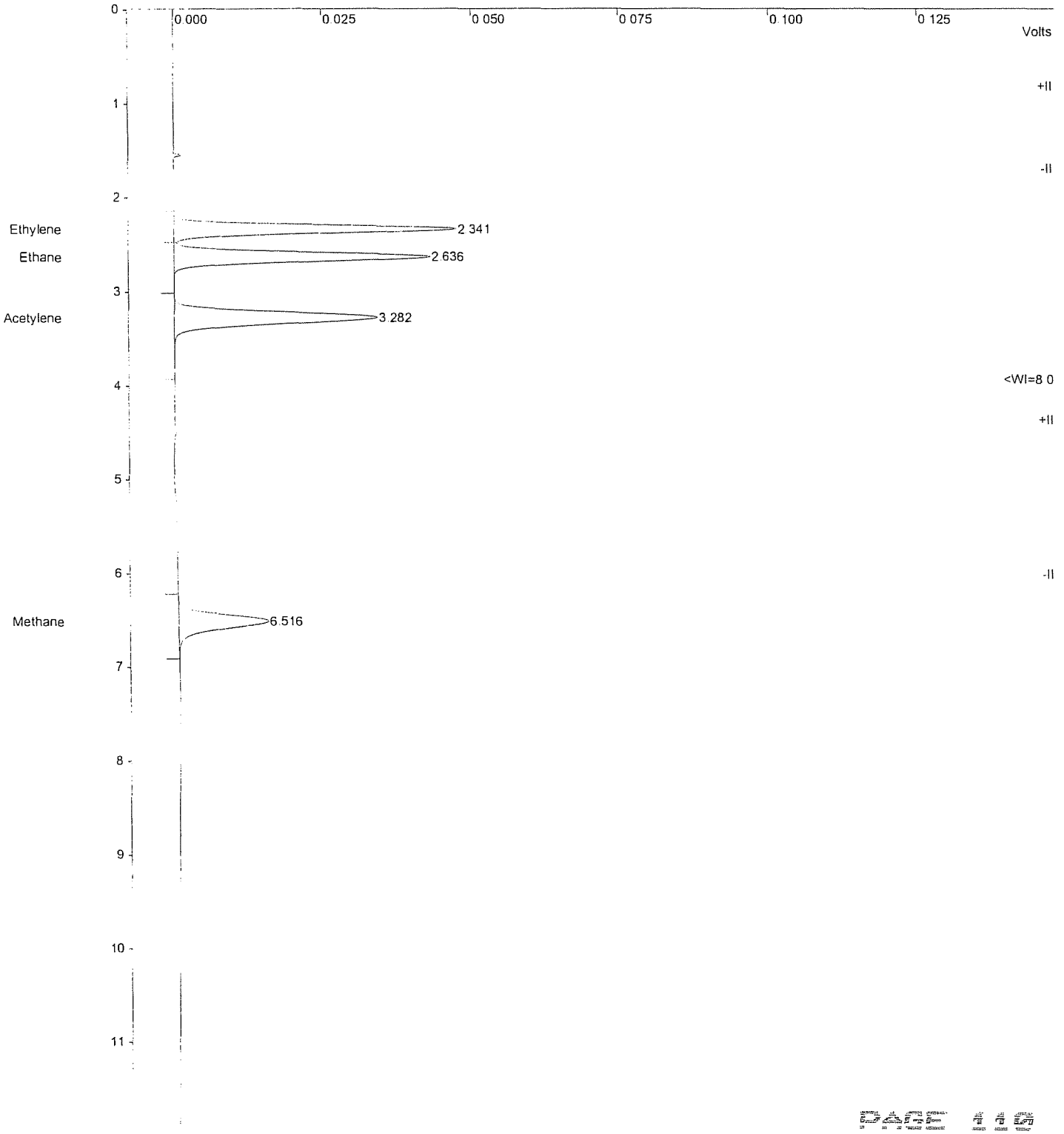
Injection Date: 10/31/2012 10:16 AM Calculation Date: 10/31/2012 10:28 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Verification Report

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct028.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : RSK FID CCV

Injection Date: 10/31/2012 10:16 AM Calculation Date: 10/31/2012 10:28 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Ethylene	100.000	104.724	4.7	2.341	-0.004	290253	
2	Ethane	100.000	104.728	4.7	2.636	-0.006	296290	
3	Acetylene	100.000	98.801	1.2	3.282	-0.004	299115	
4	Methane	100.000	106.471	6.5	6.516	0.030	154522	
	Totals:		414.724			0.016	1040180	

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -90 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct046.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : RSK CH4 CCV 0.5%

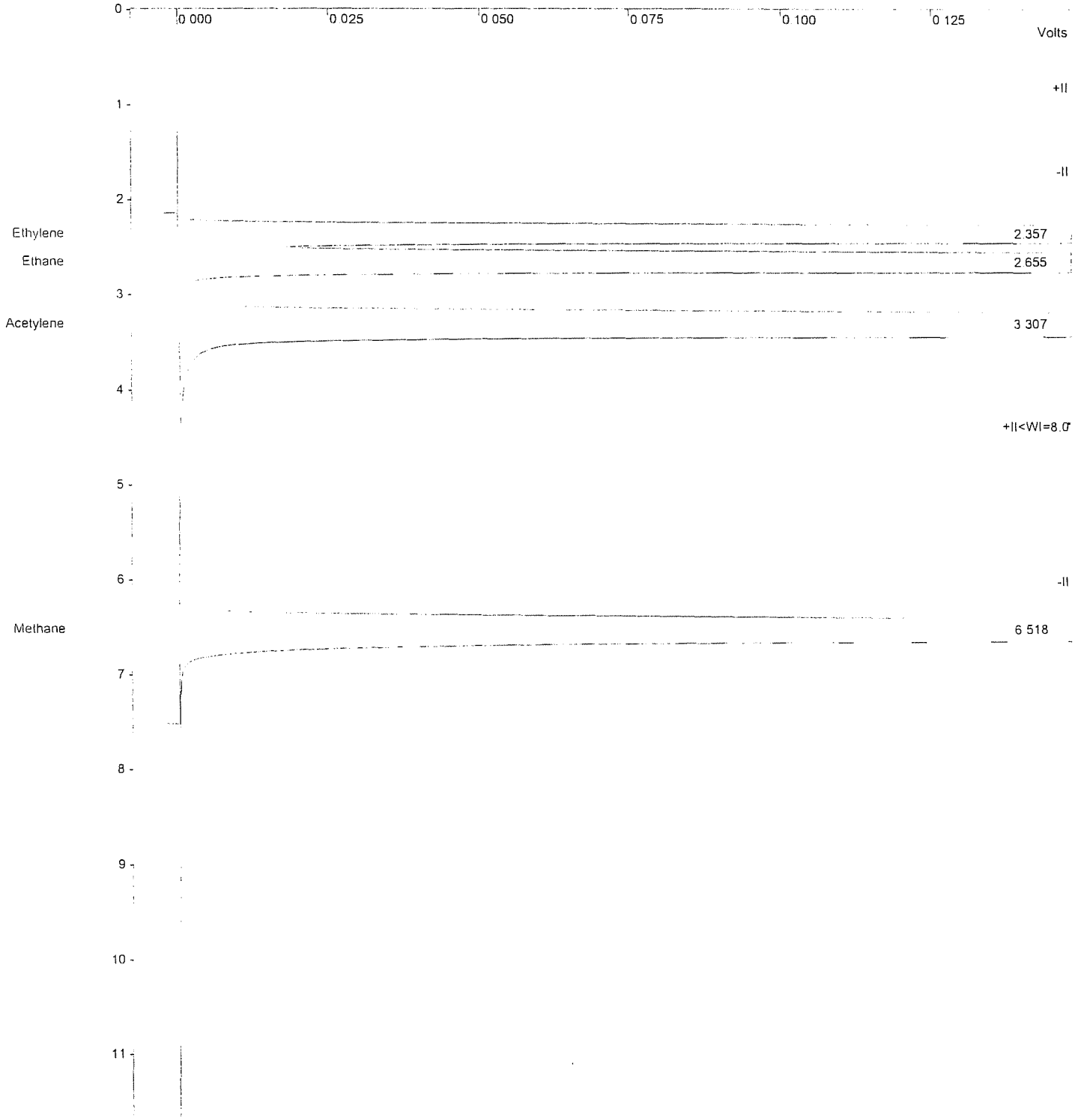
Injection Date: 11/1/2012 9:02 AM Calculation Date: 11/12/2012 2:13 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Verification Report

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct046.run
Method File : c:\temp gc\gc8a\methods\rskl75fgl20227.mth
Sample ID : RSK CH4 CCV 0.5%

Injection Date: 11/1/2012 9:02 AM Calculation Date: 11/12/2012 2:13 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Ethylene	5000.000	5166.984	3.3	2.357	0.012	14320794	
2	Ethane	5000.000	5183.338	3.7	2.655	0.013	14664394	
3	Acetylene	5000.000	5033.516	0.7	3.307	0.021	15238748	
4	Methane	5000.000	5089.284	1.8	6.518	0.032	7386120	
	Totals:		20473.122			0.078	51610056	

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 23 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 14 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct049.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103a.mth
Sample ID : H2 RSK CCV

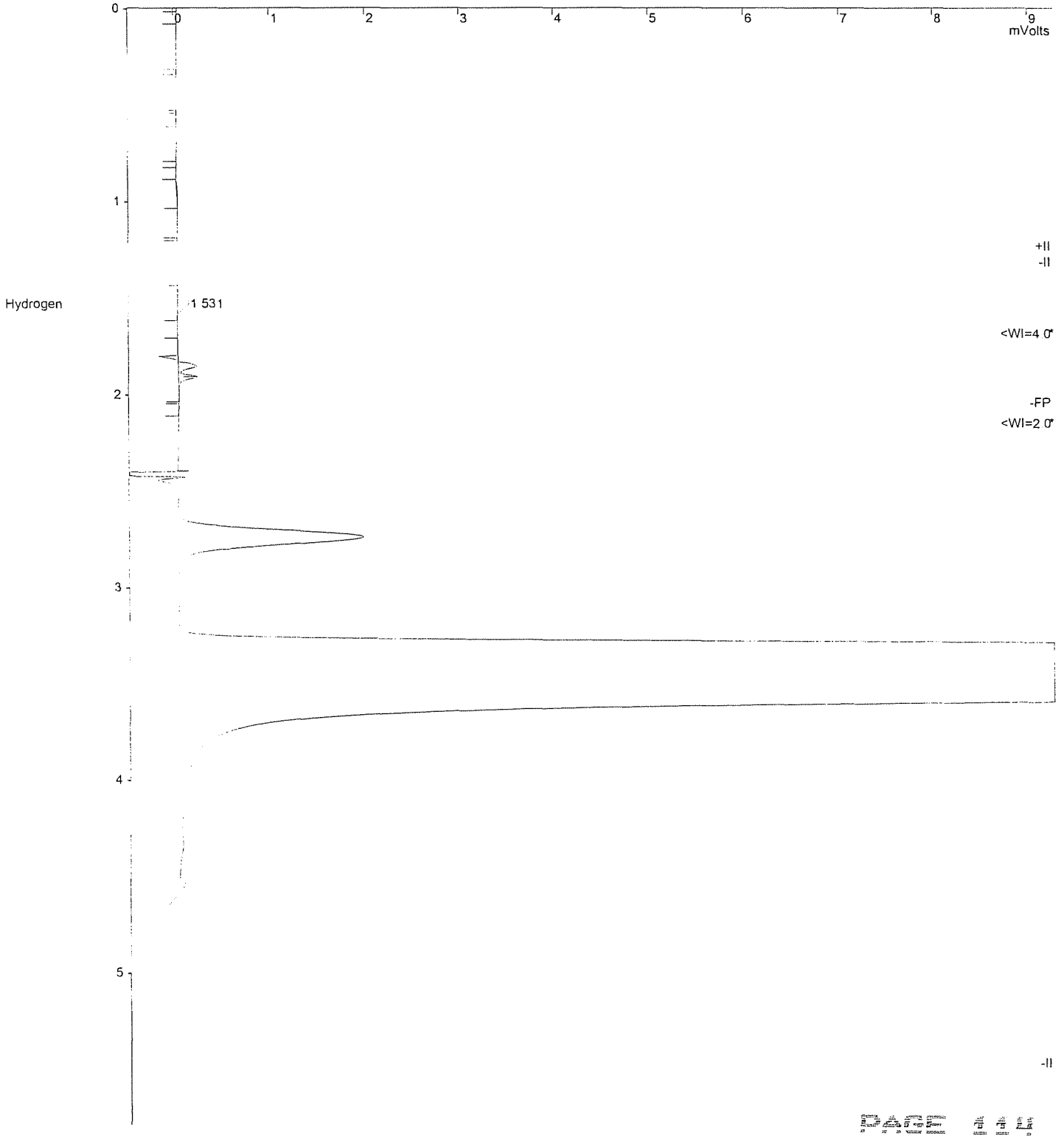
Injection Date: 11/1/2012 9:55 AM Calculation Date: 11/1/2012 10:01 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Verification Report

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct049.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103a.mth
Sample ID : H2 RSK CCV

Injection Date: 11/1/2012 9:55 AM Calculation Date: 11/1/2012 10:01 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 2
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Hydrogen	5000.000	6176.012	23.5	1.531	0.036	441	
	Totals:		6176.012			0.036	441	

Total Unidentified Counts : 583 counts

Detected Peaks: 11 Rejected Peaks: 8 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 38 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 3 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct072.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 RSK CCV

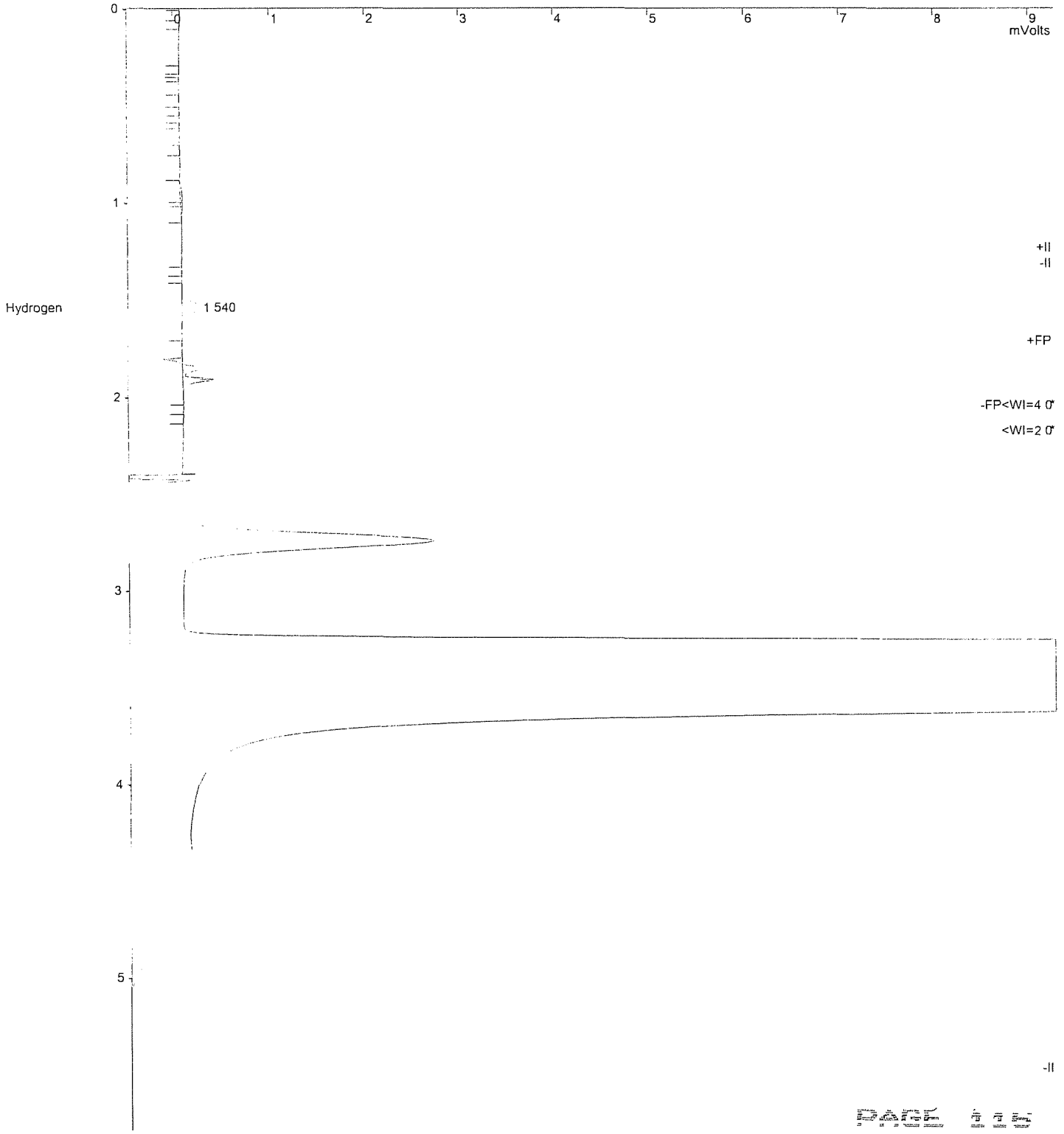
Injection Date: 11/1/2012 5:37 PM Calculation Date: 11/1/2012 5:42 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Verification Report

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct072.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 RSK CCV

Injection Date: 11/1/2012 5:37 PM Calculation Date: 11/1/2012 5:42 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Hydrogen	10000.000	11133.476	11.3	1.540	0.045	796	
	Totals:		11133.476			0.045	796	

Total Unidentified Counts : 825 counts

Detected Peaks: 17 Rejected Peaks: 13 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 75 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 33 microVolts

Manual injection

****

5. Method Blank

a. Chromatograms/ Results

Method Blank Criteria:

All compounds < Reporting Limit

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct032.run
Method File : C:\Temp GC\GC8A\Methods\rskl75fg120227.mth
Sample ID : Method Blank

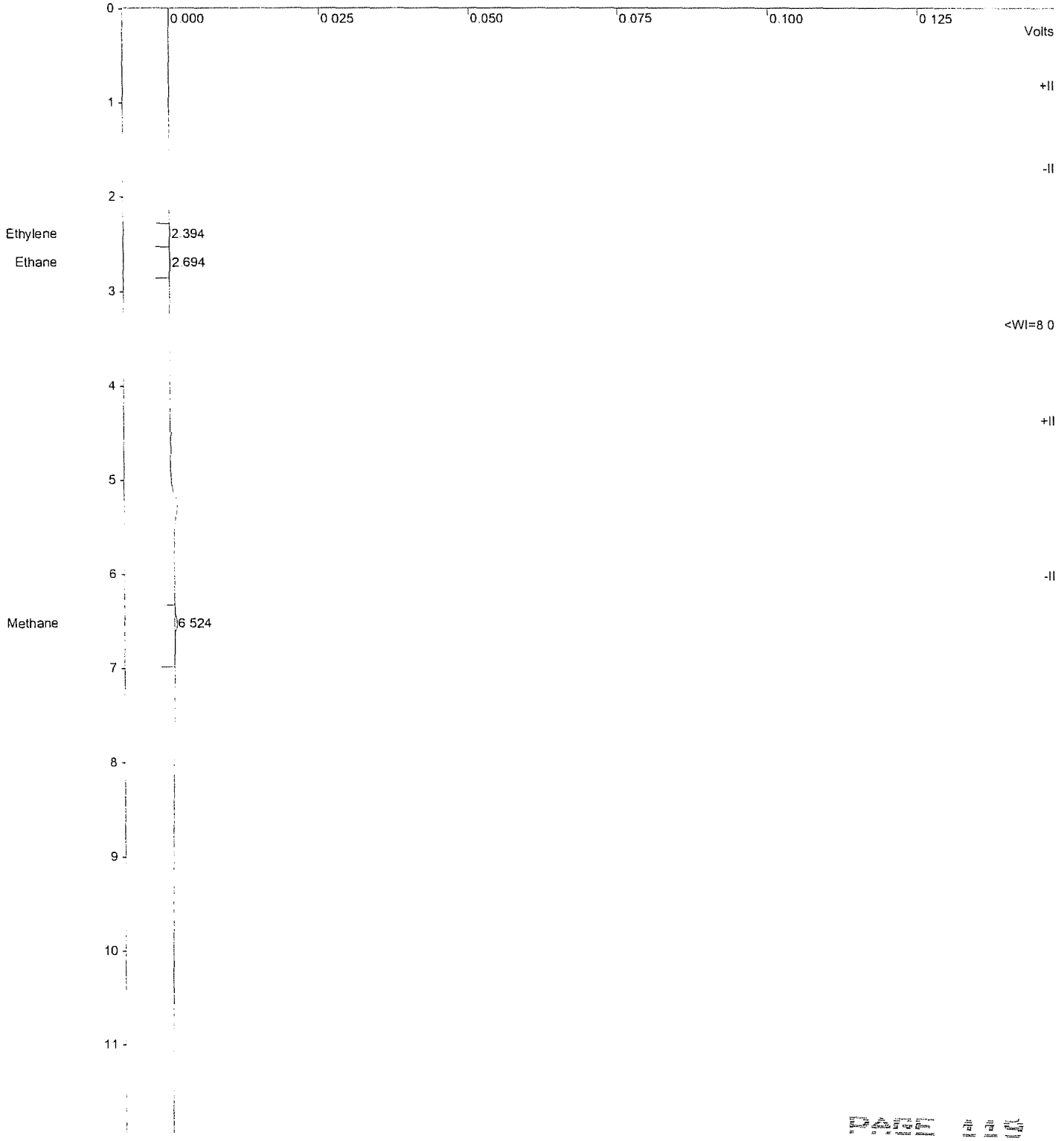
Injection Date: 10/31/2012 1:10 PM Calculation Date: 10/31/2012 1:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct032.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : Method Blank

Injection Date: 10/31/2012 1:10 PM Calculation Date: 10/31/2012 1:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.186	2.394	0.049	517	BV	6.0	
2	Ethane	0.332	2.694	0.052	939	VB	6.9	
3	Acetylene		3.286					M
4	Methane	2.960	6.524	0.038	4296	BB	9.7	
	Totals:	3.478		0.139	5752			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -45 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 20 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct053.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 Method Blank

Injection Date: 11/1/2012 12:13 PM Calculation Date: 11/1/2012 12:19 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct053.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 Method Blank

Injection Date: 11/1/2012 12:13 PM Calculation Date: 11/1/2012 12:19 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 2395 counts

Detected Peaks: 12 Rejected Peaks: 11 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 10 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 9 microVolts

Manual injection

****

6. LCS/LCSD

a. Chromatograms/Results

Criteria as listed on report

	LCS	30oct029	30oct052						
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	7490.1	NA	7897.9	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	0.0074901	#VALUE!	0.0078979	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	1.814E-07	#VALUE!	1.117E-07	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	0.1610462	#VALUE!	0.0123998	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	0.0299604	#VALUE!	0.0315916	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.5443082	#VALUE!	0.0717429	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.7053545	#VALUE!	0.0841427	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	705.35	#VALUE!	84.14	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L

LCS/D calculation

ug	spike amt. %	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	107.78698
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
42.535787	1	4	26	Acetylene	1.0633947	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	LCSD	30oct030	30oct051						
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	7525.3	NA	8168.1	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	0.0075253	#VALUE!	0.0081681	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	1.822E-07	#VALUE!	1.155E-07	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	0.1618031	#VALUE!	0.012824	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	0.0301012	#VALUE!	0.0326724	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.5468662	#VALUE!	0.0741973	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.7086693	#VALUE!	0.0870214	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	708.67	#VALUE!	87.02	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L

LCS/D calculation

ug	spike amt. %	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	108.29353
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
42.535787	1	4	26	Acetylene	1.0633947	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct052.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 RSK LCS

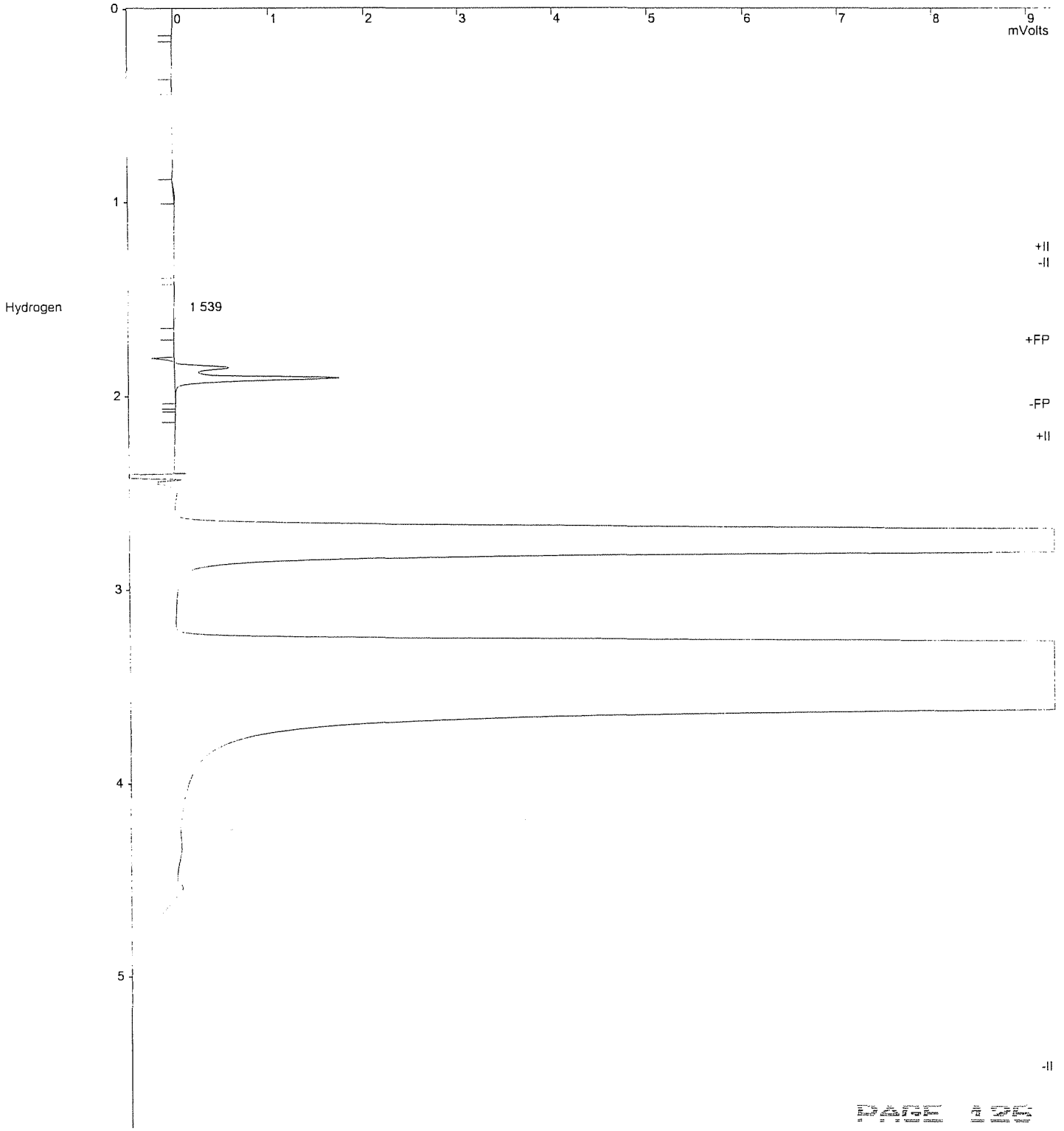
Injection Date: 11/1/2012 11:43 AM Calculation Date: 11/1/2012 11:49 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct052.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 RSK LCS

Injection Date: 11/1/2012 11:43 AM Calculation Date: 11/1/2012 11:49 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	7897.948	1.539	0.044	564	VB	3.6	
	Totals:	7897.948		0.044	564			

Total Unidentified Counts : 3806 counts

Detected Peaks: 8 Rejected Peaks: 5 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 4 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct051.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 RSK LCSD

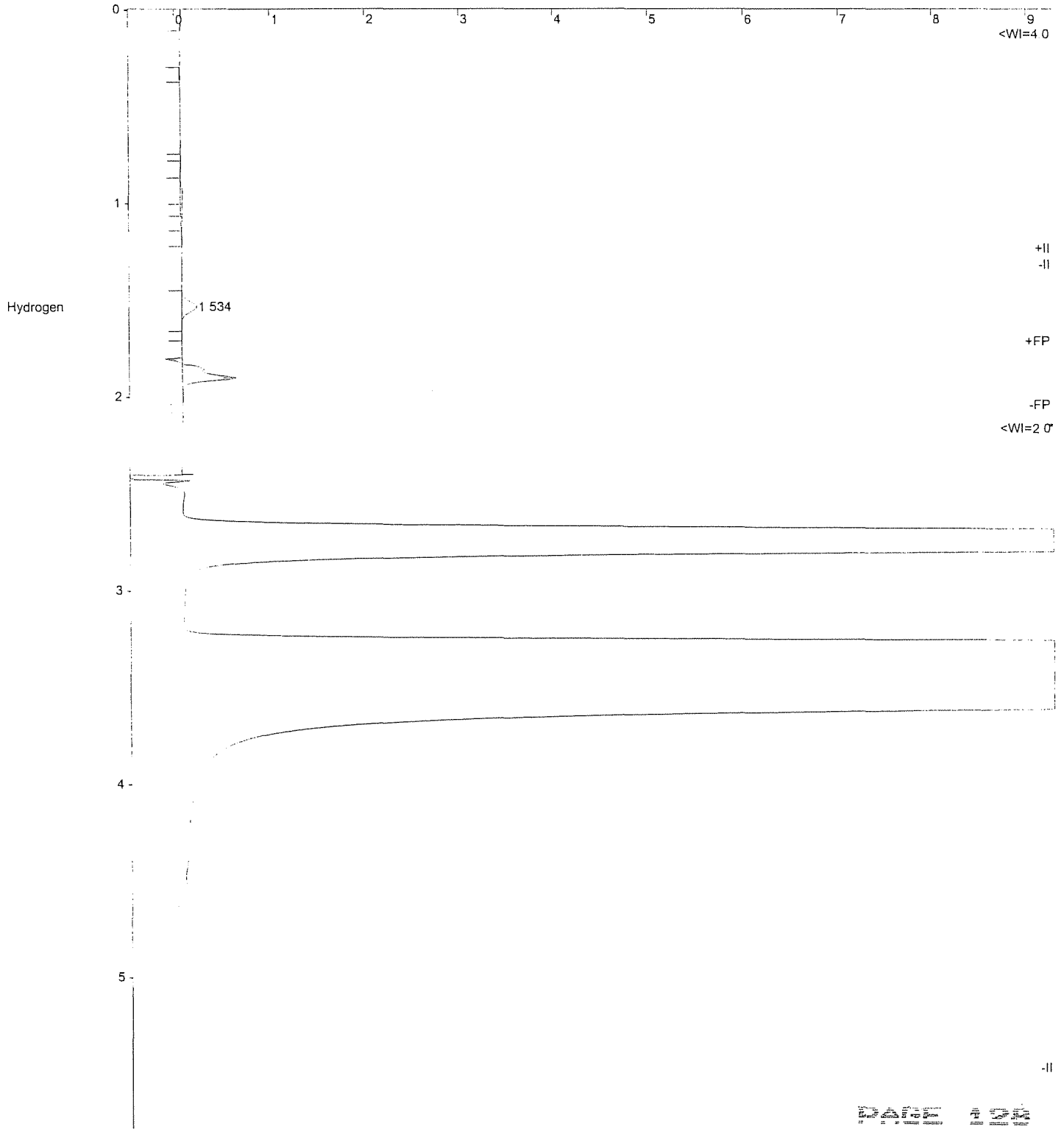
Injection Date: 11/1/2012 10:21 AM Calculation Date: 11/1/2012 10:27 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\oct\30oct051.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 RSK LCSD

Injection Date: 11/1/2012 10:21 AM Calculation Date: 11/1/2012 10:27 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	8168.093	1.534	0.039	584	BB	3.5	
	Totals:	8168.093		0.039	584			

Total Unidentified Counts : 1847 counts

Detected Peaks: 11 Rejected Peaks: 6 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 71 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 33 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct029.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : RSK LCS

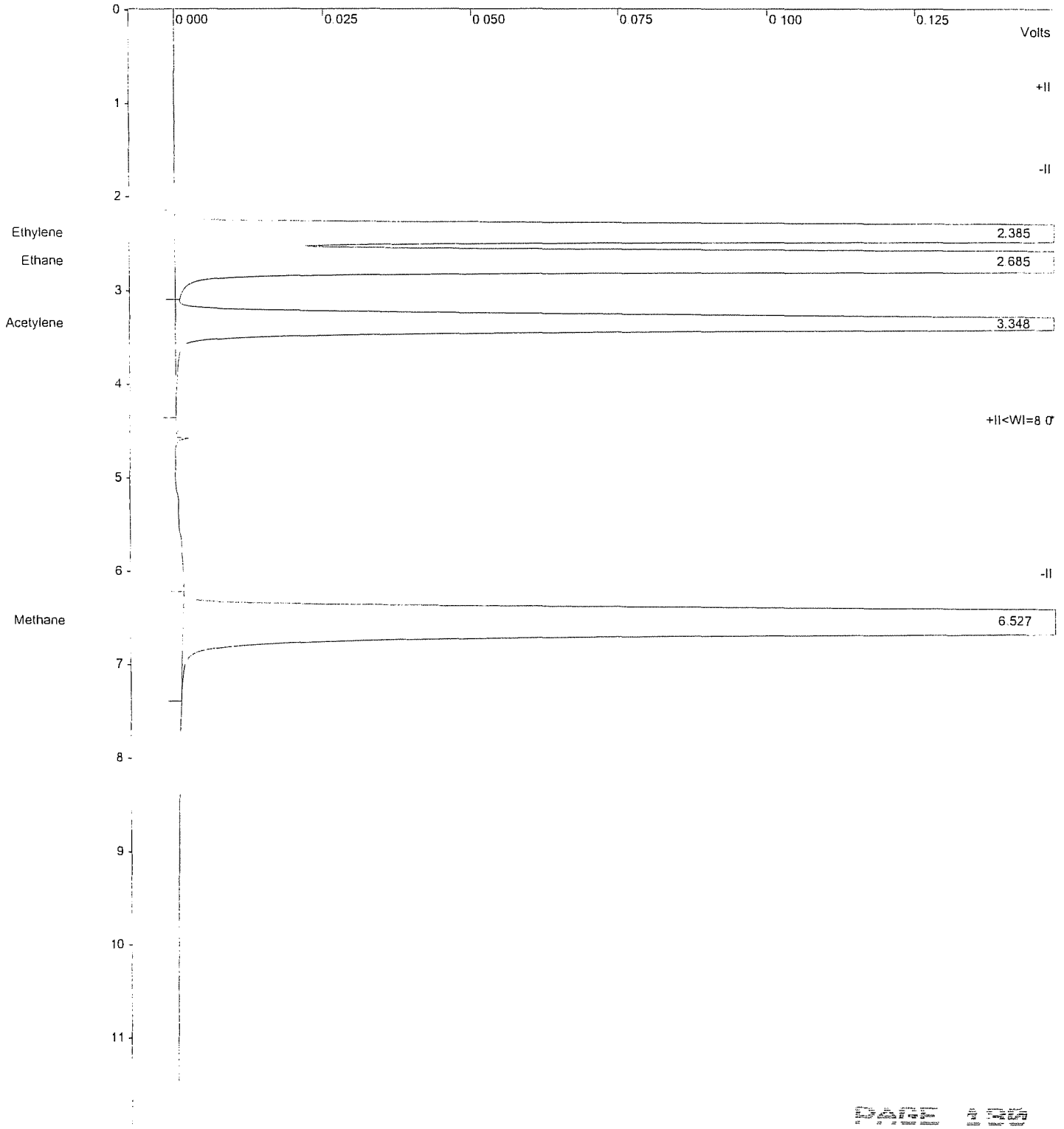
Injection Date: 10/31/2012 11:01 AM Calculation Date: 10/31/2012 11:13 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct029.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : RSK LCS

Injection Date: 10/31/2012 11:01 AM Calculation Date: 10/31/2012 11:13 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	4630.164	2.385	0.040	12832944	BV	5.9	
2	Ethane	7035.074	2.685	0.043	19903214	VV	6.6	
3	Acetylene	850.437	3.348	0.062	2574661	VB	8.4	
4	Methane	7490.102	6.527	0.041	10870447	BB	9.4	
	Totals:	20005.777		0.186	46181266			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -73 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 14 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct030.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : RSK LCSD

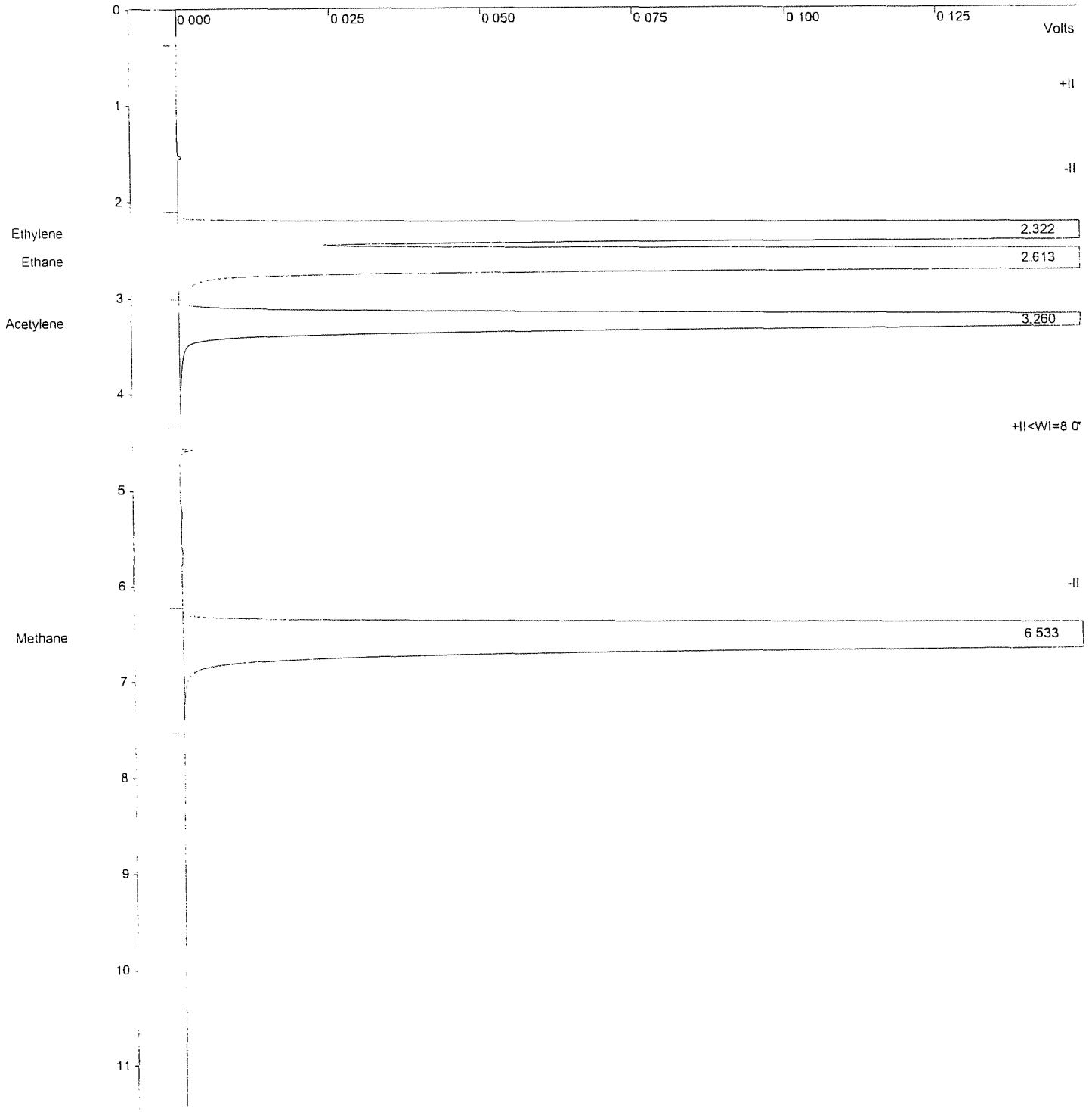
Injection Date: 10/31/2012 11:16 AM Calculation Date: 10/31/2012 11:28 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\oct\30oct030.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : RSK LCSD

Injection Date: 10/31/2012 11:16 AM Calculation Date: 10/31/2012 11:28 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	4617.080	2.322	-0.023	12796682	BV	5.7	
2	Ethane	7060.297	2.613	-0.029	19974574	VV	6.5	
3	Acetylene	831.800	3.260	-0.026	2518238	VB	8.2	
4	Methane	7525.333	6.533	0.047	10921579	BB	9.4	
	Totals:	20034.510		-0.031	46211073			

Total Unidentified Counts : 887 counts

Detected Peaks: 5 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 70 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 14 microVolts

Manual injection

****

TABLE OF CONTENTS

CLIENT: **ECO & ASSOCIATES, INC.**

PROJECT: **BROWN & BRYANT SUPERFUND SITE**

SDG: **12J182**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1004
GC/MS-VOA	METHOD 5030B/8260B	2000 – 2123
	METHOD 5030B/8260B SIM	2124 – 2214
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 8151A	5000 – 5092
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 300.0	8000 – 8068
	METHOD 415.1	8069 – 8093
	METHOD SM4500S2D	8094 – 8100
	SM3500	8101 – 8108
OTHERS	METHANE AND DISSOLVED HYDROGEN	

** - Not Requested

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

Date: 11-21-2012
EMAX Batch No.: 12J182

Mitra Fiuzat

Eco & Associates, Inc.
1855 W. Katella Ave, Suite 340
Orange, CA 92867

Subject: Laboratory Report
Project: Brown & Bryant Superfund Site

Enclosed is the Laboratory report for samples received on 10/25/12.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
10-24-12 TB-2	J182-01	10/24/12	WATER	VOLATILE ORGANICS BY GC/MS
10-24-12 WB 2-3	J182-02	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-24-12 PWB-15	J182-03	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-24-12 PWB-2	J182-04	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES

Sample ID	Control #	Col Date	Matrix	Analysis
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-24-12 PWB-7A	J182-05	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-24-12 WB 2-2	J182-06	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-24-12 FDUP-3	J182-07	10/24/12	WATER	ANIONS BY IC
				CHLORINATED HERBICIDES
				TOTAL ORGANIC CARBON
				VOC SIM
				VOLATILE ORGANICS BY GC/MS
				FERROUS IRON
				TOTAL SULFIDE BY STD METHOD
				METHANE AND DISSOLVED HYDROGEN
10-24-12 WB 2-3DUP	J182-02D	10/24/12	WATER	FERROUS IRON
				TOTAL SULFIDE BY STD METHOD

Note : METHANE AND DISSOLVED HYDROGEN were subcontracted to Air Technology Laboratories, Inc.

The results are summarized on the following pages.

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

Sincerely yours,

Caspar J. Pang
Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that results included in this report meets all NELAC & DOD requirements unless noted in the Case Narrative.

NELAC Accredited Certificate Number 02116CA
L-A-B Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing

1 of 1

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER: Eco-12-548
SAMPLE STORAGE: Coolers
EMAX CONTROL NO. *: 12J182
PROJECT CODE:

CLIENT: Eco and Associates, Inc.
PROJECT: B+B Superfund - GW Monitoring
COORDINATOR: Jack Collender
TEL: 714 289-0995 FAX: 714-289-0965 EMAIL: jcollender@eco-inc.info
SEND REPORT TO: Mitra Fivzat
COMPANY: Eco and Associates, Inc.
ADDRESS: 1855 W. Katella Ave., Suite 340, Orange, CA 92867
EMAX PM: Richard Beauvil

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☒ Normal TAT

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	8260B	8260 SIM	8151 (Diuresel)	415.1 (TOC)	Ferrous Iron - SM 3500	300 Sulfate/P.Mate/Nitrate	SM 4500 SZ D (Sulfide)	RSK 175 (CH4, H2)	COMMENTS
1	10-24-12 TB-2	—	10-24-12	1200	3	40ml	VOA	W	✓	X								
2	10-24-12 WB 2-3	B-Zone	10-24-12	1334	42	Var	Var	GW		X	X	X	X	X	X	X	X	MS/MSD
3	10-24-12 PWB-15	B-Zone	10-24-12	1315	14	Var	Var	GW		X	X	X	X	X	X	X	X	
4	10-24-12 PWB-2	B-Zone	10-24-12	1522	14	Var	Var	GW		X	X	X	X	X	X	X	X	
5	10-24-12 PWB-7A	B-Zone	10-24-12	1450	14	Var	Var	GW		X	X	X	X	X	X	X	X	Level 4
6	10-24-12 WB 2-2	B-Zone	10-24-12	1448	14	Var	Var	GW		X	X	X	X	X	X	X	X	
7	10-24-12 FDUP-3	B-Zone	10-24-12	—	14	Var	Var	GW		X	X	X	X	X	X	X	X	
8																		
9																		
10																		

Instructions

Cooler #	Temp. (°C)	Sample #s
1	2.0	therm-0
2	2.0	
3	2.0	

SAMPLER

RELINQUISHED BY	Date	Time	RECEIVED BY	Date	Time
Jack Collender	10-25-12	1420	Kamal M.	10/25/12	14:20
K. M.	10/25/12	17:20			

COURIER/AIRBILL

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Airbill / Tracking Number	ECN 12J182
☐ Fedex ☐ UPS ☐ GSO ☑ Others	Top Line Courier	Recipient I. PATEL
☐ EMAX Courier ☐ Client Delivery		Date 10/25/12 Time 1720

COC Inspection

~~☐ Client Name~~ ~~☐ Client PM/FC~~ NO ~~☐ Sampler Name~~ ☐ Sampling Date/Time/Location ~~☐ Sample ID~~ ~~☐ Matrix~~

~~☑ Address~~ ~~☐ Tel # / Fax #~~ ~~☐ Courier Signature~~ ~~☐ Analysis Required~~ ☐ Preservative (if any) ~~☐ PAT~~

Safety Issues (if any) ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container ~~☐ Coolers~~ (3) ☐ Box ☐ Other

Condition ☐ Custody Seal ~~☐ Intact~~ ☐ Damaged

Packaging ~~☐ Bubble Pack~~ ☐ Styrofoam ☐ Popcorn ~~☐ Sufficient~~ ☑ Plastic Bag

Temperatures (Cool, -6 °C but not frozen): D ~~☐ Cooler 1~~ 2.0 °C; D ~~☐ Cooler 2~~ 2.0 °C; D ~~☐ Cooler 3~~ 2.0 °C; ☐ Cooler 4 ____ °C; ☐ Cooler 5 ____ °C; ☐ Cooler 6 ____ °C; ☐ Cooler 7 ____ °C; ☐ Cooler 8 ____ °C; ☐ Cooler 9 ____ °C; ☐ Cooler 10 ____ °C

Thermometer: *A - S/N 101541371* *B - S/N 101541382* *C - S/N 122091701* *D - S/N 122091758*

Comments: ☐ **Temperature is out of range. PM was informed IMMEDIATELY.**

Note: **pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time.**

DISCREPANCIES

LSID	LSCID	Description Code	Sample Label ID / Information	Corrective Action Code
1	1-3	H1	10-24-12 TB-2	OK. R2

RB

☐ **Continue to next page.**

REVIEWS

Sample Labeling: Date 10/25/12 10/25/12

SRF: Date 10/26/12

PM: RB Date 10/26/12

LEGEND:

Code	Description- Sample Management	Code	Description-Sample Management	Code	Description-Project Management
A1	Analysis is not indicated in COC.	G1	Sample indicated in COC is not received.	R1	Hold sample(s); wait for further instructions
A2	Analysis is not indicated in label.	G2	MS/MSD is not indicated in COC.	R2	Proceed as indicated in COC and inform client.
A3	Analysis is inconsistent in COC vis-à-vis label.	G3	No identified trip blank, proceed as indicated in COC.	R3	Refer to attached instruction
B1	Sample ID is not indicated in COC.	G4	Trip Blank is designated in SDG _____	R4	Cancel the analysis
B2	Sample ID is not indicated in label.	G5	Trip Blank has no sampling date & time. Log-in with earliest sampling date and 0:00 time.	R5	Inform client.
B3	Sample ID is inconsistent in COC vis-à-vis label.	H1	NO Preservative Info on COC or labels	R6	Proceed as indicated in COC
C1	Improper container				
C2	Broken container				
C3	Leaking container				
D1	Date and/or time is not indicated in COC.				
D2	Date and/or time is not indicated in label.				
D3	Date and/or time is inconsistent in COC vis-à-vis label.				
F1	Improper preservation				
F2	Insufficient Sample				
F3	Bubble is > 6mm. Use vial with smallest bubble first.				
F4	Bubble is > 6mm in all vials.				
F5	>20 % solid particle				
F6	Out of Holding Time				

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

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

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

SDG#: 12J182

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J182

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

A total of seven (7) water samples were received on 10/25/12 for Volatile Organics by GC/MS analysis, Method 5030B/8260B in accordance with Department of Defense Quality Systems Manual for Environmental Laboratories, Version 4.2 and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time except for sample. The sample was analyzed upon client advice to proceed with the analysis.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Instrument mass ratios were within specification. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Results were compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for VO06J22L/C were all within QC limits.

Matrix QC Sample
A set of MS/MSD was analyzed with the samples in this SDG.
Percent recoveries for J182-02M/S were within project QC limits.

Surrogate
Surrogates were added on QC and field samples. Surrogate recoveries were within project QC limits. Refer to sample result forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE

SDG NO. : 12J182
Instrument ID : T-006

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V006J22B	1	NA	10/30/1214:55	10/30/1214:55	RJW557	RHW008	V006J22	Method Blank
LCS1W	V006J22L	1	NA	10/30/1213:26	10/30/1213:26	RJW554	RHW008	V006J22	Lab Control Sample (LCS)
LCD1W	V006J22C	1	NA	10/30/1213:56	10/30/1213:56	RJW555	RHW008	V006J22	LCS Duplicate
10-24-12 TB-2	J182-01	1	NA	10/30/1215:25	10/30/1215:25	RJW558	RHW008	V006J22	Field Sample
10-24-12 WB 2-3	J182-02	1	NA	10/30/1215:54	10/30/1215:54	RJW559	RHW008	V006J22	Field Sample
10-24-12 WB 2-3MS	J182-02M	1	NA	10/30/1216:24	10/30/1216:24	RJW560	RHW008	V006J22	Matrix Spike Sample (MS)
10-24-12 WB 2-3MSD	J182-02S	1	NA	10/30/1216:53	10/30/1216:53	RJW561	RHW008	V006J22	MS Duplicate (MSD)
10-24-12 PWB-15	J182-03	1	NA	10/30/1217:53	10/30/1217:53	RJW563	RHW008	V006J22	Field Sample
10-24-12 PWB-2	J182-04	1	NA	10/30/1218:24	10/30/1218:24	RJW564	RHW008	V006J22	Field Sample
10-24-12 PWB-7A	J182-05	1	NA	10/30/1218:53	10/30/1218:53	RJW565	RHW008	V006J22	Field Sample
10-24-12 WB 2-2	J182-06	1	NA	10/30/1219:23	10/30/1219:23	RJW566	RHW008	V006J22	Field Sample
10-24-12 FDUP-3	J182-07	1	NA	10/30/1219:53	10/30/1219:53	RJW567	RHW008	V006J22	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/30/12 15:25
Sample ID:	10-24-12 TB-2	Date Analyzed:	10/30/12 15:25
Lab Samp ID:	J182-01	Dilution Factor:	1
Lab File ID:	RJW558	Matrix :	WATER
Ext Btch ID:	V006J22	% Moisture :	NA
Calib. Ref.:	RHW008	Instrument ID :	06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.75	10.00	87.5	70-120
4-BROMOFLUOROBENZENE	8.81	10.00	88.1	75-120
TOLUENE-D8	10.5	10.00	105	85-120
DIBROMOFLUOROMETHANE	10.1	10.00	101	85-115

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/24/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J182	Date Extracted: 10/30/12 15:54
Sample ID: 10-24-12 WB 2-3	Date Analyzed: 10/30/12 15:54
Lab Samp ID: J182-02	Dilution Factor: 1
Lab File ID: RJW559	Matrix : WATER
Ext Btch ID: VO06J22	% Moisture : NA
Calib. Ref.: RHW008	Instrument ID : 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	1.1	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.52J	1.0	0.20
CHLOROMETHANE	0.42J	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	NO	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.98	10.00	89.8	70-120
4-BROMOFLUOROBENZENE	8.71	10.00	87.1	75-120
TOLUENE-D8	10.4	10.00	104	85-120
DIBROMOFLUOROMETHANE	10.1	10.00	101	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/30/12 17:53
Sample ID:	10-24-12 PWB-15	Date Analyzed:	10/30/12 17:53
Lab Samp ID:	J182-03	Dilution Factor:	1
Lab File ID:	RJW563	Matrix	: WATER
Ext Btch ID:	V006J22	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	0.74J	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	7.9	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	8.7	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.91	10.00	89.1	70-120
4-BROMOFLUOROBENZENE	8.68	10.00	86.8	75-120
TOLUENE-D8	10.5	10.00	105	85-120
DIBROMOFLUOROMETHANE	10.1	10.00	101	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/30/12 18:24
Sample ID:	10-24-12 PWB-2	Date Analyzed:	10/30/12 18:24
Lab Samp ID:	J182-04	Dilution Factor:	1
Lab File ID:	RJW564	Matrix	: WATER
Ext Btch ID:	V006J22	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	0.54J	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	6.6	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	2.1	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	0.24J	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.08	10.00	90.8	70-120
4-BROMOFLUOROBENZENE	8.43	10.00	84.3	75-120
TOLUENE-D8	10.5	10.00	105	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115

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

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/24/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J182	Date Extracted: 10/30/12 18:53
Sample ID: 10-24-12 PWB-7A	Date Analyzed: 10/30/12 18:53
Lab Samp ID: J182-05	Dilution Factor: 1
Lab File ID: RJW565	Matrix : WATER
Ext Btch ID: V006J22	% Moisture : NA
Calib. Ref.: RHW008	Instrument ID : 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	35	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	1.3	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	17	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	0.54J	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.12	10.00	91.2	70-120
4-BROMOFLUOROBENZENE	8.32	10.00	83.2	75-120
TOLUENE-D8	10.7	10.00	107	85-120
DIBROMOFLUOROMETHANE	10.2	10.00	102	85-115

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW565.D
Acq On : 30 Oct 2012 6:53 pm
Sample : 12J182-05 25mL
Misc : DF=1.0
MS Integration Params: RTE.P
Quant Time: Oct 31 11:11 2012

Vial: 15
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

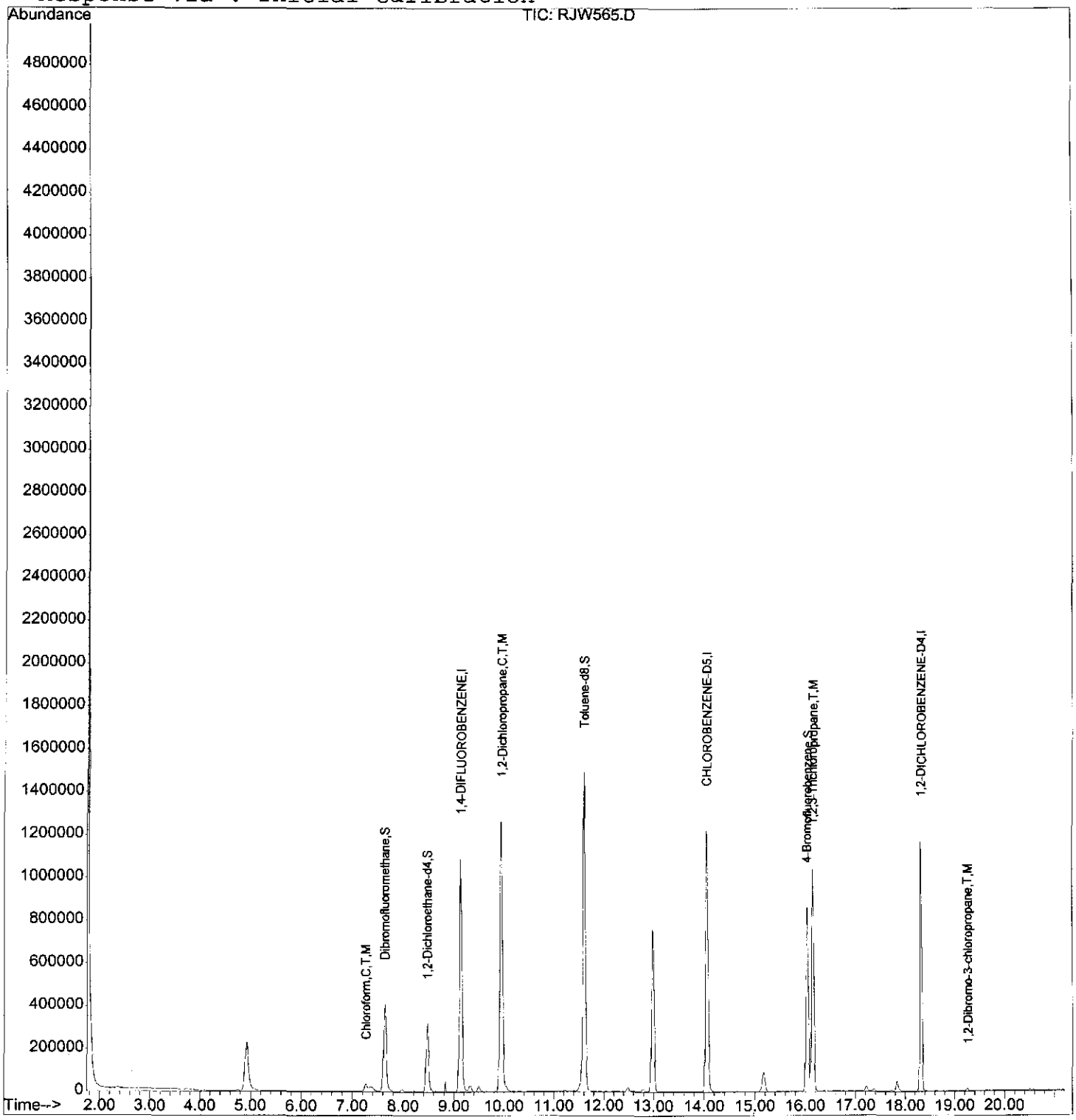
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.13	114	1599760	10.00	ug/l	-0.02
39) CHLOROBENZENE-D5	14.05	117	1341915	10.00	ug/l	-0.02
72) 1,2-DICHLOROBENZENE-D4	18.31	152	538059	10.00	ug/l	-0.02
System Monitoring Compounds						
34) Dibromofluoromethane	7.64	111	493915	10.23	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	102.30%	
38) 1,2-Dichloroethane-d4	8.47	65	368124	9.12	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	91.20%	
54) Toluene-d8	11.59	98	1827496	10.67	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	106.70%	
76) 4-Bromofluorobenzene	16.04	95	557467	8.32	ug/l	0.00
Spiked Amount 10.000			Recovery	=	83.20%	
Target Compounds						Qvalue
30) Chloroform	7.27	83	50041	0.54	ug/l	89
47) 1,2-Dichloropropane	9.94	63	898902	17.46	ug/l	96
77) 1,2,3-Trichloropropane	16.14	110	317681	35.23	ug/l	96
93) 1,2-Dibromo-3-chloropropan	19.27	157	4975	1.28	ug/l	81

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

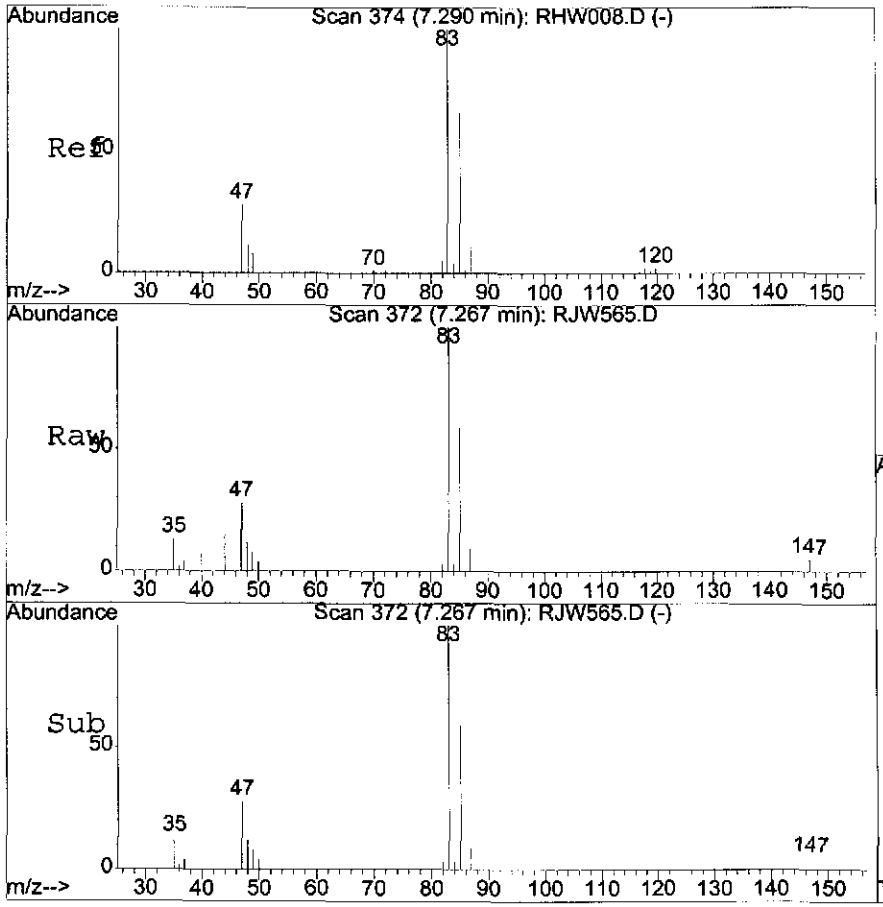
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J30\RJW565.D Vial: 15
Acq On : 30 Oct 2012 6:53 pm Operator: WL
Sample : 12J182-05 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 31 11:11 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



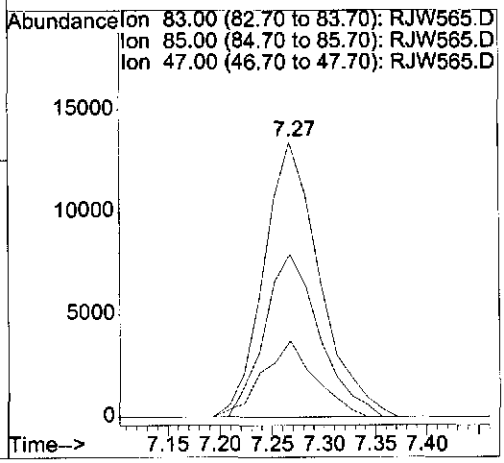
2010

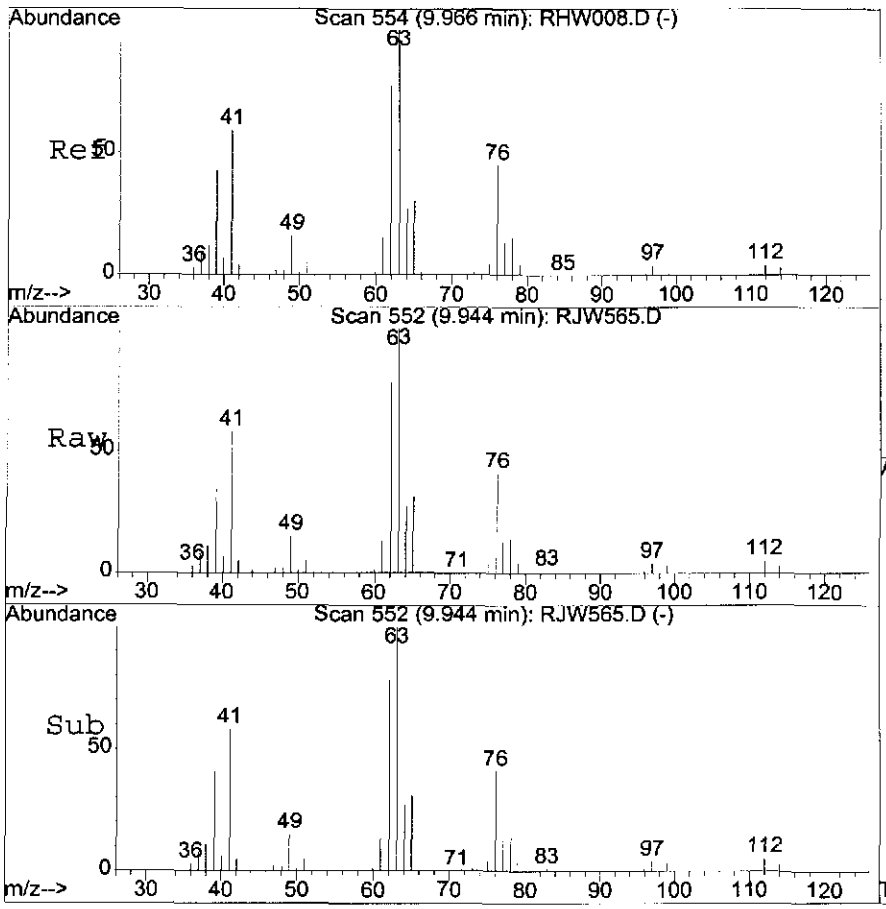


#30
Chloroform
Concen: 0.54 ug/l
RT: 7.27 min Scan# 372
Delta R.T. -0.02 min
Lab File: RJW565.D
Acq: 30 Oct 2012 6:53 pm

Tgt Ion: 83 Resp: 50041

Ion	Ratio	Lower	Upper
83	100		
85	58.5	39.1	99.1
47	26.3	0.0	58.8

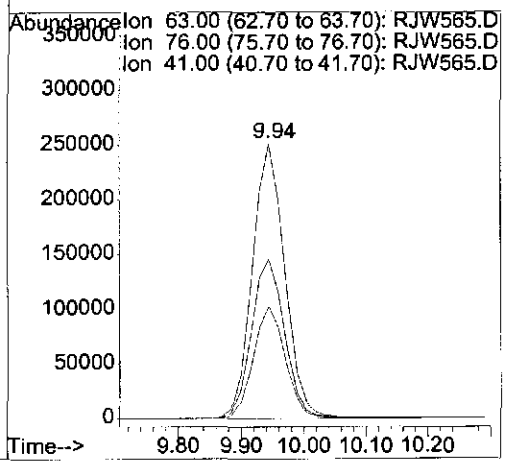


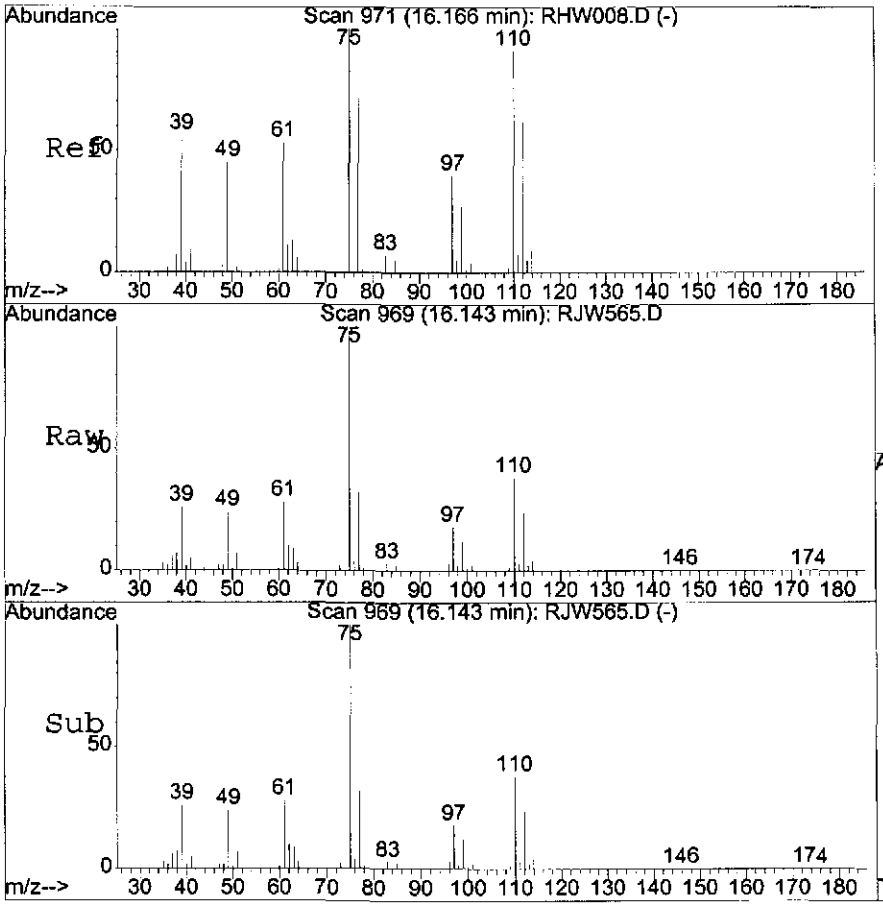


#47
1,2-Dichloropropane
Concen: 17.46 ug/l
RT: 9.94 min Scan# 552
Delta R.T. -0.02 min
Lab File: RJW565.D
Acq: 30 Oct 2012 6:53 pm

Tgt Ion: 63 Resp: 898902

Ion	Ratio	Lower	Upper
63	100		
76	40.5	15.3	75.3
41	59.1	30.0	90.0

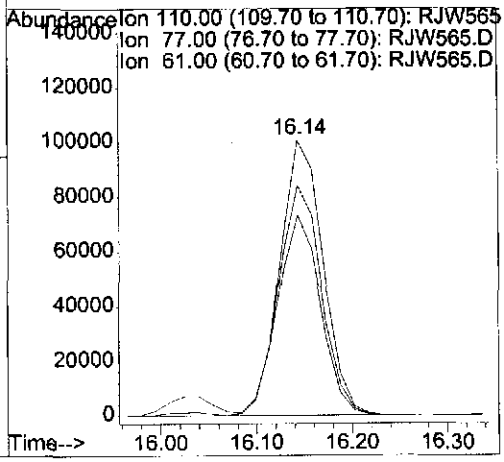


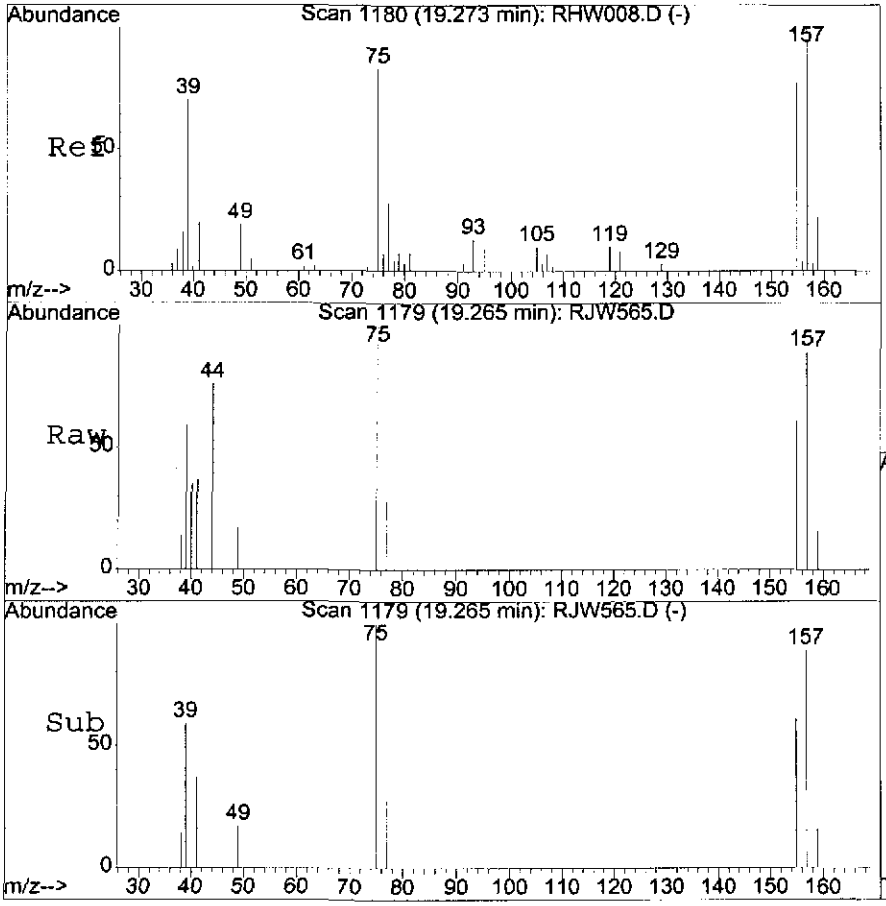


#77
1,2,3-Trichloropropane
Concen: 35.23 ug/l
RT: 16.14 min Scan# 969
Delta R.T. -0.02 min
Lab File: RJW565.D
Acq: 30 Oct 2012 6:53 pm

Tgt Ion:110 Resp: 317681

Ion	Ratio	Lower	Upper
110	100		
77	83.7	51.2	111.2
61	72.4	37.9	97.9

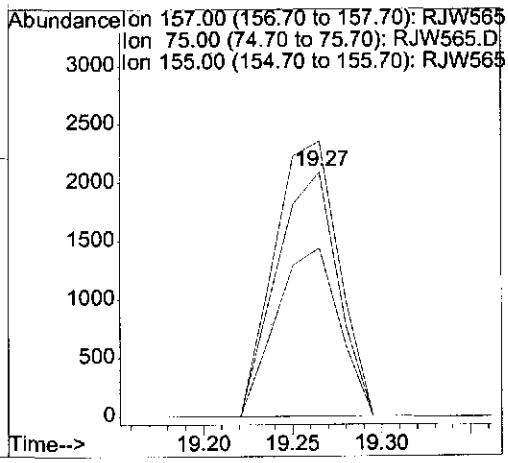




#93
1,2-Dibromo-3-chloropropane
Concen: 1.28 ug/l
RT: 19.27 min Scan# 1179
Delta R.T. -0.01 min
Lab File: RJW565.D
Acq: 30 Oct 2012 6:53 pm

Tgt Ion:157 Resp: 4975

Ion	Ratio	Lower	Upper
157	100		
75	118.5	61.6	121.6
155	70.8	48.0	108.0



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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/30/12 19:23
Sample ID:	10-24-12 WB 2-2	Date Analyzed:	10/30/12 19:23
Lab Samp ID:	J182-06	Dilution Factor:	1
Lab File ID:	RJW566	Matrix	: WATER
Ext Btch ID:	V006J22	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	5.7	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	0.99J	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.11	10.00	91.1	70-120
4-BROMOFLUOROBENZENE	8.64	10.00	86.4	75-120
TOLUENE-D8	10.5	10.00	105	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/30/12 19:53
Sample ID:	10-24-12 FDUP-3	Date Analyzed:	10/30/12 19:53
Lab Samp ID:	J182-07	Dilution Factor:	1
Lab File ID:	RJW567	Matrix	: WATER
Ext Btch ID:	V006J22	% Moisture	: NA
Calib. Ref.:	RHW008	Instrument ID	: 06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	5.6	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	1.1	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.51	10.00	95.1	70-120
4-BROMOFLUOROBENZENE	8.48	10.00	84.8	75-120
TOLUENE-D8	10.4	10.00	104	85-120
DIBROMOFLUOROMETHANE	10.6	10.00	106	85-115

QC SUMMARIES

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	NA
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/30/12
Batch No.	: 12J182	Date Extracted:	10/30/12 14:55
Sample ID:	MBLK1W	Date Analyzed:	10/30/12 14:55
Lab Samp ID:	V006J22B	Dilution Factor:	1
Lab File ID:	RJW557	Matrix :	WATER
Ext Btch ID:	V006J22	% Moisture :	NA
Calib. Ref.:	RHW008	Instrument ID :	06

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,1-DICHLOROPROPENE	ND	1.0	0.20
1,2,3-TRICHLOROBENZENE	ND	1.0	0.30
1,2,3-TRICHLOROPROPANE	ND	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,2,4-TRIMETHYLBENZENE	ND	1.0	0.20
1,2-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,2-DIBROMOETHANE	ND	1.0	0.20
1,2-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
1,3,5-TRIMETHYLBENZENE	ND	1.0	0.20
1,3-DICHLOROBENZENE	ND	1.0	0.20
1,3-DICHLOROPROPANE	ND	0.50	0.20
1,4-DICHLOROBENZENE	ND	1.0	0.20
2,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	10	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMOBENZENE	ND	1.0	0.20
BROMOCHLOROMETHANE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.30
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.30
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.30
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
DIBROMOMETHANE	ND	1.0	0.20
DICHLORODIFLUOROMETHANE	ND	1.0	0.30
ETHYLBENZENE	ND	1.0	0.20
HEXACHLOROBUTADIENE	ND	1.0	0.30
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	ND	1.0	0.50
MTBE	ND	1.0	0.20
NAPHTHALENE	ND	1.0	0.50
N-BUTYLBENZENE	ND	1.0	0.20
N-PROPYLBENZENE	ND	1.0	0.20
O-XYLENE	ND	1.0	0.20
P-ISOPROPYLTOLUENE	ND	1.0	0.20
SEC-BUTYLBENZENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TERT-BUTYLBENZENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
TRICHLOROFLUOROMETHANE	ND	1.0	0.30
VINYL CHLORIDE	ND	1.0	0.20
FREON113	ND	1.0	0.30
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	8.84	10.00	88.4	70-120
4-BROMOFLUOROBENZENE	8.72	10.00	87.2	75-120
TOLUENE-D8	10.4	10.00	104	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V006J22B	V006J22L	V006J22C		
LAB FILE ID:	RJW557	RJW554	RJW555		
DATE EXTRACTED:	10/30/1214:55	10/30/1213:26	10/30/1213:56	DATE COLLECTED:	NA
DATE ANALYZED:	10/30/1214:55	10/30/1213:26	10/30/1213:56	DATE RECEIVED:	10/30/12
PREP. BATCH:	V006J22	V006J22	V006J22		
CALIB. REF:	RHW008	RHW008	RHW008		

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	10.0	10.2	102	10.0	10.7	107	5	80-130	30
1,1,1-Trichloroethane	ND	10.0	9.14	91	10.0	9.58	96	5	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	8.90	89	10.0	9.74	97	9	65-130	30
1,1,2-Trichloroethane	ND	10.0	9.72	97	10.0	10.5	105	8	75-125	30
1,1-Dichloroethane	ND	10.0	9.64	96	10.0	10.4	104	7	70-135	30
1,1-Dichloroethene	ND	10.0	9.60	96	10.0	10.1	101	5	70-130	30
1,1-Dichloropropene	ND	10.0	10.7	107	10.0	11.4	114	6	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	8.75	87	10.0	8.79	88	0	55-140	30
1,2,3-Trichloropropane	ND	10.0	8.29	83	10.0	8.68	87	5	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	9.90	99	10.0	9.86	99	0	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	9.54	95	10.0	10.1	101	5	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	8.97	90	10.0	8.96	90	0	50-130	30
1,2-Dibromoethane	ND	10.0	9.74	97	10.0	10.4	104	6	80-120	30
1,2-Dichlorobenzene	ND	10.0	10.3	103	10.0	10.9	109	5	70-120	30
1,2-Dichloroethane	ND	10.0	8.33	83	10.0	8.79	88	5	70-130	30
1,2-Dichloropropane	ND	10.0	10.3	103	10.0	10.9	109	6	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	9.44	94	10.0	10.2	102	8	75-130	30
1,3-Dichlorobenzene	ND	10.0	10.5	105	10.0	11.2	112	6	75-125	30
1,3-Dichloropropane	ND	10.0	9.12	91	10.0	9.84	98	8	75-125	30
1,4-Dichlorobenzene	ND	10.0	10.4	104	10.0	11.1	111	7	75-125	30
2,2-Dichloropropane	ND	10.0	10.1	101	10.0	10.9	109	8	70-135	30
2-Butanone	ND	50.0	38.8	78	50.0	43.7	87	12	30-150	30
2-Chlorotoluene	ND	10.0	8.96	90	10.0	9.55	95	6	75-125	30
2-Hexanone	ND	50.0	43.0	86	50.0	46.7	93	8	55-130	30
4-Chlorotoluene	ND	10.0	9.21	92	10.0	10.0	100	8	75-130	30
Acetone	ND	50.0	40.6	81	50.0	45.0	90	10	40-140	30
Benzene	ND	10.0	10.3	103	10.0	10.8	108	5	80-120	30
Bromobenzene	ND	10.0	10.4	104	10.0	11.3	113	8	75-125	30
Bromochloromethane	ND	10.0	9.40	94	10.0	10.2	102	8	65-130	30
Bromodichloromethane	ND	10.0	9.14	91	10.0	9.76	98	7	75-120	30
Bromoform	ND	10.0	8.43	84	10.0	9.52	95	12	70-130	30
Bromomethane	ND	10.0	10.4	104	10.0	10.4	104	1	30-145	30
Carbon Disulfide	ND	10.0	11.1	111	10.0	11.5	115	3	35-160	30
Carbon Tetrachloride	ND	10.0	8.90	89	10.0	9.28	93	4	65-140	30
Chlorobenzene	ND	10.0	10.5	105	10.0	11.3	113	7	80-120	30
Chloroethane	ND	10.0	10.4	104	10.0	9.87	99	5	60-135	30
Chloroform	ND	10.0	9.14	91	10.0	9.67	97	6	65-135	30
Chloromethane	ND	10.0	10.4	104	10.0	9.97	100	4	40-125	30
cis-1,2-Dichloroethene	ND	10.0	10.4	104	10.0	11.0	110	6	70-125	30
cis-1,3-Dichloropropene	ND	10.0	9.92	99	10.0	10.3	103	4	70-130	30
Dibromochloromethane	ND	10.0	9.60	96	10.0	10.2	102	6	60-135	30
Dibromomethane	ND	10.0	9.38	94	10.0	9.95	99	6	75-125	30
Dichlorodifluoromethane	ND	10.0	9.70	97	10.0	9.15	91	6	30-155	30
Ethylbenzene	ND	10.0	10.1	101	10.0	10.7	107	6	75-125	30
Hexachlorobutadiene	ND	10.0	10.3	103	10.0	10.2	102	1	50-140	30
Isopropyl Benzene	ND	10.0	9.50	95	10.0	10.2	102	7	75-125	30
m,p-Xylenes	ND	20.0	19.4	97	20.0	20.3	102	5	75-130	30
MIBK	ND	50.0	42.5	85	50.0	46.4	93	9	60-135	30
Methylene Chloride	ND	10.0	10.9	109	10.0	11.8	118	7	55-140	30
MTBE	ND	10.0	8.89	89	10.0	9.54	95	7	65-125	30
Naphthalene	ND	10.0	8.84	88	10.0	8.77	88	1	55-140	30
n-Butylbenzene	ND	10.0	10.1	101	10.0	10.5	105	5	70-135	30
n-Propylbenzene	ND	10.0	9.76	98	10.0	10.3	103	6	70-130	30
o-Xylene	ND	10.0	10.0	100	10.0	10.6	106	5	80-120	30
p-Isopropyltoluene	ND	10.0	9.74	97	10.0	10.4	104	7	75-130	30
Sec-Butylbenzene	ND	10.0	10.0	100	10.0	10.3	103	3	70-125	30
Styrene	ND	10.0	10.7	107	10.0	11.5	115	7	65-135	30
Tert-Butylbenzene	ND	10.0	10.8	108	10.0	11.4	114	5	70-130	30
Tetrachloroethene	ND	10.0	11.3	113	10.0	11.8	118	5	45-150	30
Toluene	ND	10.0	10.4	104	10.0	10.7	107	3	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	9.90	99	10.0	10.5	105	5	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	8.94	89	10.0	9.52	95	6	55-140	30
Trichloroethene	ND	10.0	10.6	106	10.0	11.3	113	6	70-125	30
Trichlorofluoromethane	ND	10.0	8.30	83	10.0	7.99	80	4	60-145	30
Vinyl Chloride	ND	10.0	10.9	109	10.0	10.4	104	4	50-145	30
Freon113	ND	10.0	9.90	99	10.0	10.8	108	9	65-135	30
Vinyl Acetate	ND	10.0	8.93	89	10.0	9.02	90	1	65-135	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	10.0	8.47	85	10.0	8.38	84	70-120
4-Bromofluorobenzene	10.0	9.03	90	10.0	9.42	94	75-120
Toluene-d8	10.0	10.6	106	10.0	10.6	106	85-120
Dibromofluoromethane	10.0	9.95	100	10.0	10.1	101	85-115

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 5030B/8260B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1
SAMPLE ID:	10-24-12 WB 2-3		
LAB SAMP ID:	J182-02	J182-02M	J182-02S
LAB FILE ID:	RJW559	RJW560	RJW561
DATE EXTRACTED:	10/30/1215:54	10/30/1216:24	10/30/1216:53
DATE ANALYZED:	10/30/1215:54	10/30/1216:24	10/30/1216:53
PREP. BATCH:	VO06J22	VO06J22	VO06J22
CALIB. REF:	RHW008	RHW008	RHW008

DATE COLLECTED: 10/24/12
DATE RECEIVED: 10/25/12

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	10.0	10.4	104	10.0	10.4	104	0	80-130	30
1,1,1-Trichloroethane	ND	10.0	9.69	97	10.0	9.71	97	0	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	9.34	93	10.0	9.47	95	1	65-130	30
1,1,2-Trichloroethane	ND	10.0	10.0	100	10.0	10.1	101	1	75-125	30
1,1-Dichloroethane	ND	10.0	10.1	101	10.0	10.5	105	4	70-135	30
1,1-Dichloroethene	ND	10.0	9.43	94	10.0	9.39	94	0	70-130	30
1,1-Dichloropropene	ND	10.0	11.2	112	10.0	11.0	110	2	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	8.91	89	10.0	9.21	92	3	55-140	30
1,2,3-Trichloropropane	ND	10.0	9.10	91	10.0	9.45	95	4	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	9.72	97	10.0	10.3	103	6	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	10.3	103	10.0	10.0	100	3	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	8.24	82	10.0	9.09	91	10	50-130	30
1,2-Dibromoethane	ND	10.0	9.83	98	10.0	10.1	101	2	80-120	30
1,2-Dichlorobenzene	ND	10.0	10.6	106	10.0	10.3	103	3	70-120	30
1,2-Dichloroethane	ND	10.0	8.74	87	10.0	8.68	87	1	70-130	30
1,2-Dichloropropane	1.08	10.0	11.6	105	10.0	11.7	106	0	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	10.3	103	10.0	9.89	99	4	75-130	30
1,3-Dichlorobenzene	ND	10.0	11.1	111	10.0	11.1	111	0	75-125	30
1,3-Dichloropropane	ND	10.0	9.34	93	10.0	9.48	95	1	75-125	30
1,4-Dichlorobenzene	ND	10.0	11.0	110	10.0	10.9	109	1	75-125	30
2,2-Dichloropropane	ND	10.0	10.5	105	10.0	10.5	105	0	70-135	30
2-Butanone	ND	50.0	38.7	77	50.0	44.0	88	13	30-150	30
2-Chlorotoluene	ND	10.0	9.94	99	10.0	10.1	101	2	75-125	30
2-Hexanone	ND	50.0	42.7	85	50.0	46.4	93	8	55-130	30
4-Chlorotoluene	ND	10.0	9.82	98	10.0	9.07	91	8	75-130	30
Acetone	ND	50.0	41.8	84	50.0	46.5	93	11	40-140	30
Benzene	ND	10.0	10.7	107	10.0	10.5	105	2	80-120	30
Bromobenzene	ND	10.0	11.3	113	10.0	11.2	112	1	75-125	30
Bromochloromethane	ND	10.0	9.56	96	10.0	10.3	103	7	65-130	30
Bromodichloromethane	ND	10.0	9.59	96	10.0	9.66	97	1	75-120	30
Bromoform	ND	10.0	9.13	91	10.0	9.64	96	5	70-130	30
Bromomethane	ND	10.0	10.9	109	10.0	11.6	116	6	30-145	30
Carbon Disulfide	ND	10.0	10.8	108	10.0	10.8	108	0	35-160	30
Carbon Tetrachloride	ND	10.0	9.57	96	10.0	9.17	92	4	65-140	30
Chlorobenzene	ND	10.0	11.0	110	10.0	10.8	108	2	80-120	30
Chloroethane	ND	10.0	10.1	101	10.0	10.5	105	4	60-135	30
Chloroform	0.524J	10.0	9.85	93	10.0	10.2	97	3	65-135	30
Chloromethane	0.421J	10.0	10.1	97	10.0	10.3	99	2	40-125	30
cis-1,2-Dichloroethene	ND	10.0	10.4	104	10.0	10.6	106	2	70-125	30
cis-1,3-Dichloropropene	ND	10.0	9.97	100	10.0	10.1	101	1	70-130	30
Dibromochloromethane	ND	10.0	9.73	97	10.0	9.98	100	3	60-135	30
Dibromomethane	ND	10.0	9.44	94	10.0	9.67	97	2	75-125	30
Dichlorodifluoromethane	ND	10.0	9.31	93	10.0	9.01	90	3	30-155	30
Ethylbenzene	ND	10.0	10.4	104	10.0	10.2	102	3	75-125	30
Hexachlorobutadiene	ND	10.0	10.6	106	10.0	10.1	101	4	50-140	30
Isopropyl Benzene	ND	10.0	10.2	102	10.0	10.1	101	2	75-125	30
m,p-Xylenes	ND	20.0	20.5	103	20.0	19.5	98	5	75-130	30
MIBK	ND	50.0	39.2	78	50.0	41.8	84	6	60-135	30
Methylene Chloride	ND	10.0	11.0	110	10.0	11.7	117	6	55-140	30
MTBE	ND	10.0	8.72	87	10.0	9.68	97	10	65-125	30
Naphthalene	ND	10.0	8.32	83	10.0	8.96	90	7	55-140	30
n-Butylbenzene	ND	10.0	10.5	105	10.0	10.1	101	3	70-135	30
n-Propylbenzene	ND	10.0	10.7	107	10.0	10.3	103	3	70-130	30
o-Xylene	ND	10.0	10.4	104	10.0	9.98	100	4	80-120	30
p-Isopropyltoluene	ND	10.0	10.3	103	10.0	10.0	100	3	75-130	30
Sec-Butylbenzene	ND	10.0	10.6	106	10.0	10.3	103	3	70-125	30
Styrene	ND	10.0	9.15	91	10.0	8.82	88	4	65-135	30
Tert-Butylbenzene	ND	10.0	11.3	113	10.0	11.1	111	2	70-130	30
Tetrachloroethene	ND	10.0	11.5	115	10.0	11.4	114	1	45-150	30
Toluene	ND	10.0	10.8	108	10.0	10.6	106	1	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	10.1	101	10.0	10.3	103	1	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	9.29	93	10.0	9.41	94	1	55-140	30
Trichloroethene	ND	10.0	10.9	109	10.0	10.6	106	3	70-125	30
Trichlorofluoromethane	ND	10.0	8.30	83	10.0	8.20	82	1	60-145	30
Vinyl Chloride	ND	10.0	9.64	96	10.0	10.0	100	4	50-145	30
Freon113	ND	10.0	10.4	104	10.0	10.1	101	3	65-135	30
Vinyl Acetate	ND	10.0	8.57	86	10.0	9.45	94	10	65-135	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	10.0	8.53	85	10.0	8.81	88	70-120
4-Bromofluorobenzene	10.0	9.70	97	10.0	9.30	93	75-120
Toluene-d8	10.0	10.6	106	10.0	10.2	102	85-120
Dibromofluoromethane	10.0	10.0	100	10.0	10.4	104	85-115

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW557.D
Acq On : 30 Oct 2012 2:55 pm
Sample : VO06J22B 25mL
Misc : BLANK
MS Integration Params: RTE.P
Quant Time: Nov 1 10:39 2012

Vial: 7
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.13	114	1718465	10.00	ug/l	-0.02
39) CHLOROBENZENE-D5	14.05	117	1463393	10.00	ug/l	-0.02
72) 1,2-DICHLOROBENZENE-D4	18.31	152	557510	10.00	ug/l	-0.02
System Monitoring Compounds						
34) Dibromofluoromethane	7.64	111	534675	10.31	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	103.10%	
38) 1,2-Dichloroethane-d4	8.47	65	383157	8.84	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	88.40%	
54) Toluene-d8	11.59	98	1936817	10.37	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	103.70%	
76) 4-Bromofluorobenzene	16.02	95	604962	8.72	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	87.20%	

Target Compounds Qvalue

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

2020

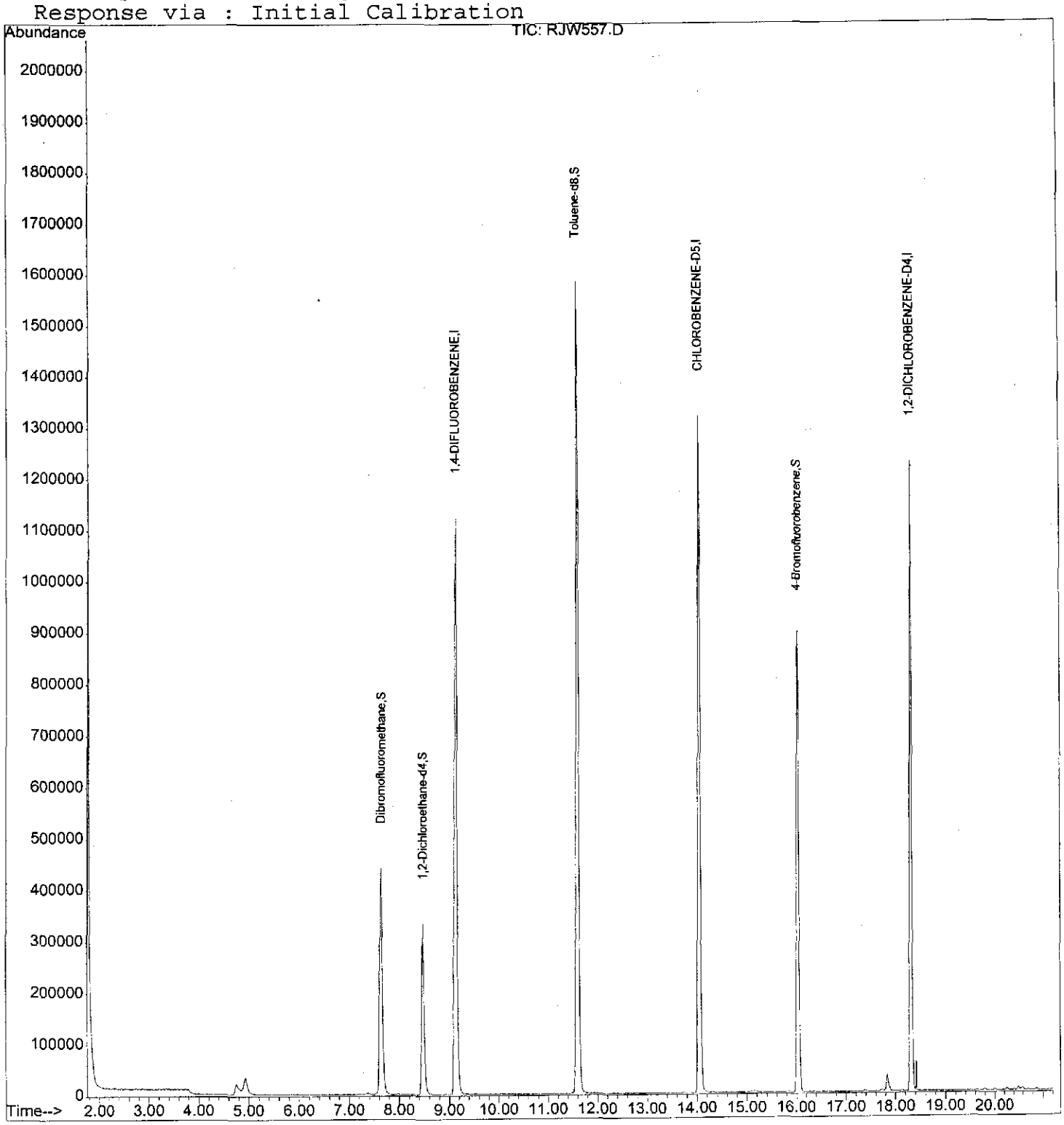
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J30\RJW557.D
Acq On : 30 Oct 2012 2:55 pm
Sample : VO06J22B 25mL
Misc : BLANK
MS Integration Params: RTE.P
Quant Time: Nov 1 10:39 2012

Vial: 7
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



2021

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW554.D Vial: 4
Acq On : 30 Oct 2012 1:26 pm Operator: WL
Sample : VO06J22L Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Nov 1 10:41 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.13	114	1651582	10.00	ug/l	-0.02
39) CHLOROBENZENE-D5	14.05	117	1403073	10.00	ug/l	-0.02
72) 1,2-DICHLOROBENZENE-D4	18.31	152	510811	10.00	ug/l	-0.02
System Monitoring Compounds						
34) Dibromofluoromethane	7.64	111	496244	9.95	ug/l	-0.02
Spiked Amount 10.000			Recovery = 99.50%			
38) 1,2-Dichloroethane-d4	8.47	65	352628	8.47	ug/l	-0.02
Spiked Amount 10.000			Recovery = 84.70%			
54) Toluene-d8	11.59	98	1899612	10.61	ug/l	-0.02
Spiked Amount 10.000			Recovery = 106.10%			
76) 4-Bromofluorobenzene	16.02	95	574417	9.03	ug/l	-0.02
Spiked Amount 10.000			Recovery = 90.30%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.88	85	413334	9.70	ug/l	99
3) Chloromethane	2.14	50	529828	10.35	ug/l	99
4) Vinyl chloride	2.29	62	417766	10.87	ug/l	100
5) Bromomethane	2.81	94	321039	10.42	ug/l	100
6) Chloroethane	2.91	64	272677	10.37	ug/l	96
7) Dichlorofluoromethane	2.96	67	926415	10.22	ug/l	100
8) Trichlorofluoromethane	3.21	101	486979	8.30	ug/l	99
9) Acrolein	3.74	56	102899	50.71	ug/l	100
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	274816	9.90	ug/l	100
11) Acetone	3.83	43	228441	40.61	ug/l	96
12) 1,1-Dichloroethene	4.03	61	832254	9.60	ug/l	94
13) tert-Butyl alcohol	4.14	59	77457	48.52	ug/l	95
16) Iodomethane	4.52	142	817861	10.99	ug/l	87
17) Methylene chloride	4.74	49	649574	10.91	ug/l	86
18) Carbon disulfide	4.75	76	1975874	11.15	ug/l	100
19) Acrylonitrile	4.95	53	330724	46.79	ug/l	98
20) tert-Butyl methyl ether (M	4.99	73	690522	8.89	ug/l	96
21) trans-1,2-Dichloroethene	5.22	61	910300	9.90	ug/l	93
22) Isopropyl ether (DIPE)	5.78	45	1735549	9.71	ug/l	98
23) Vinyl acetate	5.97	43	554742	8.93	ug/l	99
24) 1,1-Dichloroethane	5.96	63	1013780	9.64	ug/l	99
26) tert-Butyl ethyl ether (ET	6.49	59	1190873	9.12	ug/l	100
27) 2-Butanone	6.70	43	405462	38.84	ug/l	97
28) 2,2-Dichloropropane	6.92	77	532138	10.10	ug/l	97
29) cis-1,2-Dichloroethene	7.00	96	625782	10.37	ug/l	90
30) Chloroform	7.27	83	872716	9.14	ug/l	99
32) Bromochloromethane	7.53	49	395096	9.40	ug/l	93

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW554.D
Acq On : 30 Oct 2012 1:26 pm
Sample : VO06J22L
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Nov 1 10:41 2012

Vial: 4
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33)	Tetrahydrofuran	7.59	42	51258	7.41 ug/l		99
35)	1,1,1-Trichloroethane	7.94	97	710150	9.14 ug/l		91
37)	tert-Amyl methyl ether (TA	8.41	87	180084	8.85 ug/l	#	92
41)	1,1-Dichloropropene	8.19	110	292986	10.74 ug/l		100
42)	Carbon tetrachloride	8.35	119	631726	8.90 ug/l		100
43)	1,2-Dichloroethane	8.62	62	428915	8.33 ug/l		98
44)	Benzene	8.63	78	2181952	10.29 ug/l		98
45)	Trichloroethene	9.65	130	642696	10.61 ug/l		94
47)	1,2-Dichloropropane	9.94	63	552499	10.27 ug/l		92
48)	1,4-Dioxane	10.36	88	29763	178.51 ug/l		89
49)	Bromodichloromethane	10.31	83	597483	9.14 ug/l		99
50)	Dibromomethane	10.40	93	219089	9.38 ug/l		90
51)	2-Chloroethyl vinyl ether	10.85	63	132994	7.65 ug/l		98
52)	4-Methyl-2-pentanone	10.88	43	1178935	42.50 ug/l		98
53)	cis-1,3-Dichloropropene	11.22	75	749941	9.92 ug/l		97
55)	Toluene	11.73	91	2286789	10.41 ug/l		99
56)	Ethyl methacrylate	12.02	69	319503	8.87 ug/l		99
57)	trans-1,3-Dichloropropene	12.04	75	495077	8.94 ug/l		98
58)	1,1,2-Trichloroethane	12.28	97	268400	9.72 ug/l		98
59)	2-Hexanone	12.31	43	709772	42.99 ug/l		98
60)	1,3-Dichloropropane	12.69	76	523672	9.12 ug/l		97
61)	Tetrachloroethene	12.78	164	537616	11.25 ug/l		96
62)	Dibromochloromethane	13.11	129	357173	9.60 ug/l		100
64)	1,2-Dibromoethane	13.44	107	279865	9.74 ug/l		98
65)	1-Chlorohexane	13.70	91	967425	10.45 ug/l		97
66)	Chlorobenzene	14.12	112	1384762	10.51 ug/l		94
67)	1,1,1,2-Tetrachloroethane	14.18	131	425457	10.20 ug/l		97
68)	Ethylbenzene	14.19	91	2484289	10.07 ug/l		97
69)	m-Xylene & p-Xylene	14.31	91	3668353	19.36 ug/l		95
70)	o-Xylene	15.03	91	1902861	10.03 ug/l		94
71)	Styrene	15.09	104	1408702	10.74 ug/l		95
73)	Isopropylbenzene	15.62	105	2273501	9.50 ug/l		97
74)	Bromoform	15.65	173	166032	8.43 ug/l		99
75)	1,1,2,2-Tetrachloroethane	15.90	83	284123	8.90 ug/l		99
77)	1,2,3-Trichloropropane	16.14	110	70988	8.29 ug/l		99
78)	trans-1,4-Dichloro-2-buten	16.26	53	78765	8.20 ug/l		96
79)	n-Propylbenzene	16.28	91	3119618	9.76 ug/l		96
80)	Bromobenzene	16.35	156	516326	10.36 ug/l		89
81)	1,3,5-Trimethylbenzene	16.53	105	1812793	9.44 ug/l		94
82)	2-Chlorotoluene	16.57	91	1784681	8.96 ug/l		93
83)	4-Chlorotoluene	16.65	91	1487621	9.21 ug/l		94

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW554.D Vial: 4
Acq On : 30 Oct 2012 1:26 pm Operator: WL
Sample : VO06J22L Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Nov 1 10:41 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
84)	tert-Butylbenzene	17.11	134	474803	10.77 ug/l	#	81
85)	1,2,4-Trimethylbenzene	17.15	105	1762128	9.54 ug/l		93
86)	sec-Butylbenzene	17.41	105	2650277	10.00 ug/l		97
87)	p-Isopropyltoluene	17.60	119	1974391	9.74 ug/l		95
88)	1,3-Dichlorobenzene	17.73	146	1032170	10.48 ug/l		97
89)	1,4-Dichlorobenzene	17.88	146	974804	10.37 ug/l		98
91)	n-Butylbenzene	18.13	91	2072477	10.06 ug/l		98
92)	1,2-Dichlorobenzene	18.36	146	779744	10.32 ug/l		97
93)	1,2-Dibromo-3-chloropropan	19.25	157	33219	8.97 ug/l		91
94)	1,2,4-Trichlorobenzene	20.25	180	469102	9.90 ug/l		98
95)	Hexachlorobutadiene	20.41	225	344096	10.28 ug/l		99
96)	Naphthalene	20.57	128	507982	8.84 ug/l		100
97)	1,2,3-Trichlorobenzene	20.87	180	310088	8.75 ug/l		98

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

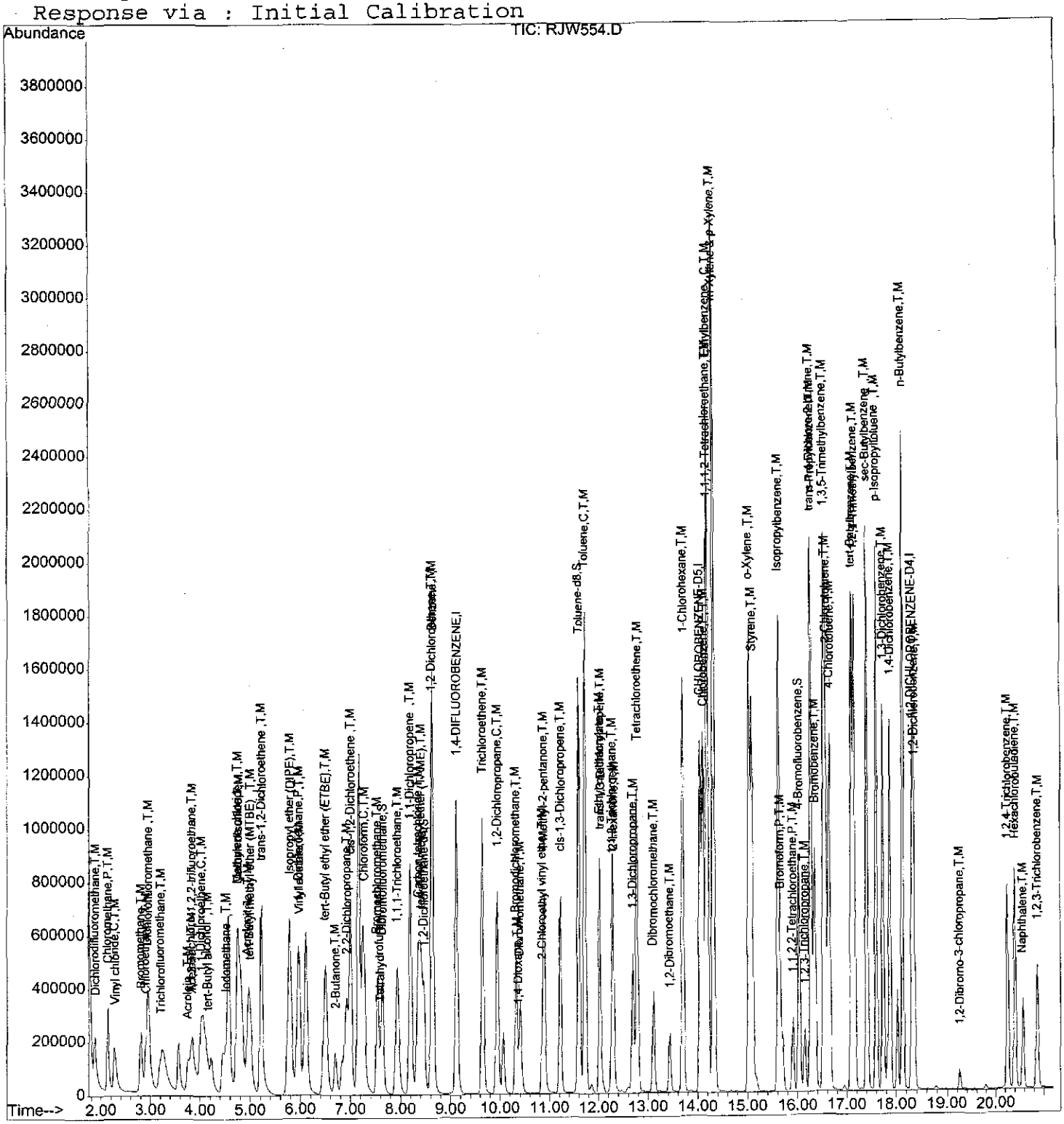
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J30\RJW554.D
Acq On : 30 Oct 2012 1:26 pm
Sample : VO06J22L
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Nov 1 10:41 2012

Vial: 4
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



2625

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW555.D
Acq On : 30 Oct 2012 1:56 pm
Sample : VO06J22C
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Nov 1 10:49 2012

Vial: 5
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.13	114	1632785	10.00	ug/l	-0.02
39) CHLOROBENZENE-D5	14.05	117	1398221	10.00	ug/l	-0.02
72) 1,2-DICHLOROBENZENE-D4	18.31	152	499481	10.00	ug/l	-0.02
System Monitoring Compounds						
34) Dibromofluoromethane	7.64	111	495462	10.05	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	100.50%	
38) 1,2-Dichloroethane-d4	8.47	65	345069	8.38	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	83.80%	
54) Toluene-d8	11.59	98	1897370	10.63	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	106.30%	
76) 4-Bromofluorobenzene	16.04	95	585894	9.42	ug/l	0.00
Spiked Amount 10.000			Recovery	=	94.20%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	385119	9.15	ug/l	100
3) Chloromethane	2.14	50	504792	9.97	ug/l	98
4) Vinyl chloride	2.29	62	396763	10.44	ug/l	100
5) Bromomethane	2.81	94	315311	10.35	ug/l	99
6) Chloroethane	2.93	64	256360	9.87	ug/l	96
7) Dichlorofluoromethane	2.96	67	933968	10.42	ug/l	99
8) Trichlorofluoromethane	3.22	101	463781	7.99	ug/l	100
9) Acrolein	3.76	56	113435	56.55	ug/l	96
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	297384	10.83	ug/l	100
11) Acetone	3.85	43	250378	45.02	ug/l	96
12) 1,1-Dichloroethene	4.04	61	863568	10.07	ug/l	94
13) tert-Butyl alcohol	4.15	59	76747	48.63	ug/l	90
16) Iodomethane	4.52	142	854569	11.62	ug/l	87
17) Methylene chloride	4.74	49	689453	11.76	ug/l	85
18) Carbon disulfide	4.77	76	2016222	11.51	ug/l	100
19) Acrylonitrile	4.95	53	354750	50.77	ug/l	99
20) tert-Butyl methyl ether (M	4.99	73	732440	9.54	ug/l	96
21) trans-1,2-Dichloroethene	5.22	61	950256	10.46	ug/l	92
22) Isopropyl ether (DIPE)	5.78	45	1879246	10.64	ug/l	98
23) Vinyl acetate	5.99	43	553792	9.02	ug/l	99
24) 1,1-Dichloroethane	5.96	63	1076733	10.36	ug/l	100
26) tert-Butyl ethyl ether (ET	6.50	59	1242413	9.62	ug/l	99
27) 2-Butanone	6.70	43	451119	43.71	ug/l	97
28) 2,2-Dichloropropane	6.91	77	568303	10.91	ug/l	98
29) cis-1,2-Dichloroethene	7.00	96	657105	11.01	ug/l	91
30) Chloroform	7.27	83	913412	9.67	ug/l	98
32) Bromochloromethane	7.54	49	424460	10.21	ug/l	93

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW555.D
Acq On : 30 Oct 2012 1:56 pm
Sample : VO06J22C
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Nov 1 10:49 2012

Vial: 5
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33)	Tetrahydrofuran	7.60	42	55879	8.24 ug/l		99
35)	1,1,1-Trichloroethane	7.94	97	735863	9.58 ug/l		92
37)	tert-Amyl methyl ether (TA	8.41	87	194597	9.67 ug/l	#	91
41)	1,1-Dichloropropene	8.21	110	310244	11.41 ug/l		99
42)	Carbon tetrachloride	8.35	119	656366	9.28 ug/l		99
43)	1,2-Dichloroethane	8.62	62	451324	8.79 ug/l		99
44)	Benzene	8.64	78	2288835	10.83 ug/l		99
45)	Trichloroethene	9.65	130	681656	11.29 ug/l		93
47)	1,2-Dichloropropane	9.94	63	583122	10.87 ug/l		92
48)	1,4-Dioxane	10.36	88	31718	190.89 ug/l		88
49)	Bromodichloromethane	10.32	83	635695	9.76 ug/l		99
50)	Dibromomethane	10.41	93	231482	9.95 ug/l		90
51)	2-Chloroethyl vinyl ether	10.85	63	142505	8.23 ug/l		98
52)	4-Methyl-2-pentanone	10.90	43	1284036	46.45 ug/l		97
53)	cis-1,3-Dichloropropene	11.22	75	777462	10.32 ug/l		97
55)	Toluene	11.73	91	2352755	10.74 ug/l		100
56)	Ethyl methacrylate	12.03	69	344659	9.60 ug/l		99
57)	trans-1,3-Dichloropropene	12.04	75	525202	9.52 ug/l		96
58)	1,1,2-Trichloroethane	12.28	97	289263	10.52 ug/l		98
59)	2-Hexanone	12.31	43	768562	46.71 ug/l		98
60)	1,3-Dichloropropane	12.70	76	563085	9.84 ug/l		99
61)	Tetrachloroethene	12.78	164	562395	11.81 ug/l		95
62)	Dibromochloromethane	13.11	129	378691	10.21 ug/l		99
64)	1,2-Dibromoethane	13.44	107	297577	10.39 ug/l		99
65)	1-Chlorohexane	13.71	91	1021398	11.07 ug/l		96
66)	Chlorobenzene	14.12	112	1484284	11.30 ug/l		93
67)	1,1,1,2-Tetrachloroethane	14.20	131	444177	10.68 ug/l		96
68)	Ethylbenzene	14.20	91	2622701	10.67 ug/l		97
69)	m-Xylene & p-Xylene	14.33	91	3840056	20.33 ug/l		94
70)	o-Xylene	15.03	91	2002641	10.60 ug/l		95
71)	Styrene	15.09	104	1505562	11.52 ug/l		95
73)	Isopropylbenzene	15.62	105	2377055	10.16 ug/l		96
74)	Bromoform	15.65	173	183821	9.52 ug/l		98
75)	1,1,2,2-Tetrachloroethane	15.91	83	304072	9.74 ug/l		99
77)	1,2,3-Trichloropropane	16.14	110	72663	8.68 ug/l		93
78)	trans-1,4-Dichloro-2-buten	16.26	53	81288	8.65 ug/l		97
79)	n-Propylbenzene	16.28	91	3226022	10.33 ug/l		96
80)	Bromobenzene	16.35	156	548460	11.26 ug/l		88
81)	1,3,5-Trimethylbenzene	16.53	105	1912874	10.18 ug/l		94
82)	2-Chlorotoluene	16.58	91	1860370	9.55 ug/l		92
83)	4-Chlorotoluene	16.65	91	1580160	10.00 ug/l		94

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW555.D Vial: 5
Acq On : 30 Oct 2012 1:56 pm Operator: WL
Sample : VO06J22C Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Nov 1 10:49 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
84)	tert-Butylbenzene	17.11	134	490286	11.37 ug/l	#	81
85)	1,2,4-Trimethylbenzene	17.16	105	1820156	10.08 ug/l		93
86)	sec-Butylbenzene	17.41	105	2663042	10.28 ug/l		97
87)	p-Isopropyltoluene	17.60	119	2069214	10.44 ug/l		95
88)	1,3-Dichlorobenzene	17.74	146	1075688	11.17 ug/l		97
89)	1,4-Dichlorobenzene	17.88	146	1018387	11.08 ug/l		97
91)	n-Butylbenzene	18.14	91	2120508	10.53 ug/l		98
92)	1,2-Dichlorobenzene	18.36	146	801992	10.86 ug/l		97
93)	1,2-Dibromo-3-chloropropan	19.27	157	32428	8.96 ug/l		90
94)	1,2,4-Trichlorobenzene	20.25	180	456564	9.86 ug/l		98
95)	Hexachlorobutadiene	20.41	225	332677	10.16 ug/l		99
96)	Naphthalene	20.57	128	492743	8.77 ug/l		100
97)	1,2,3-Trichlorobenzene	20.87	180	304543	8.79 ug/l		98

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

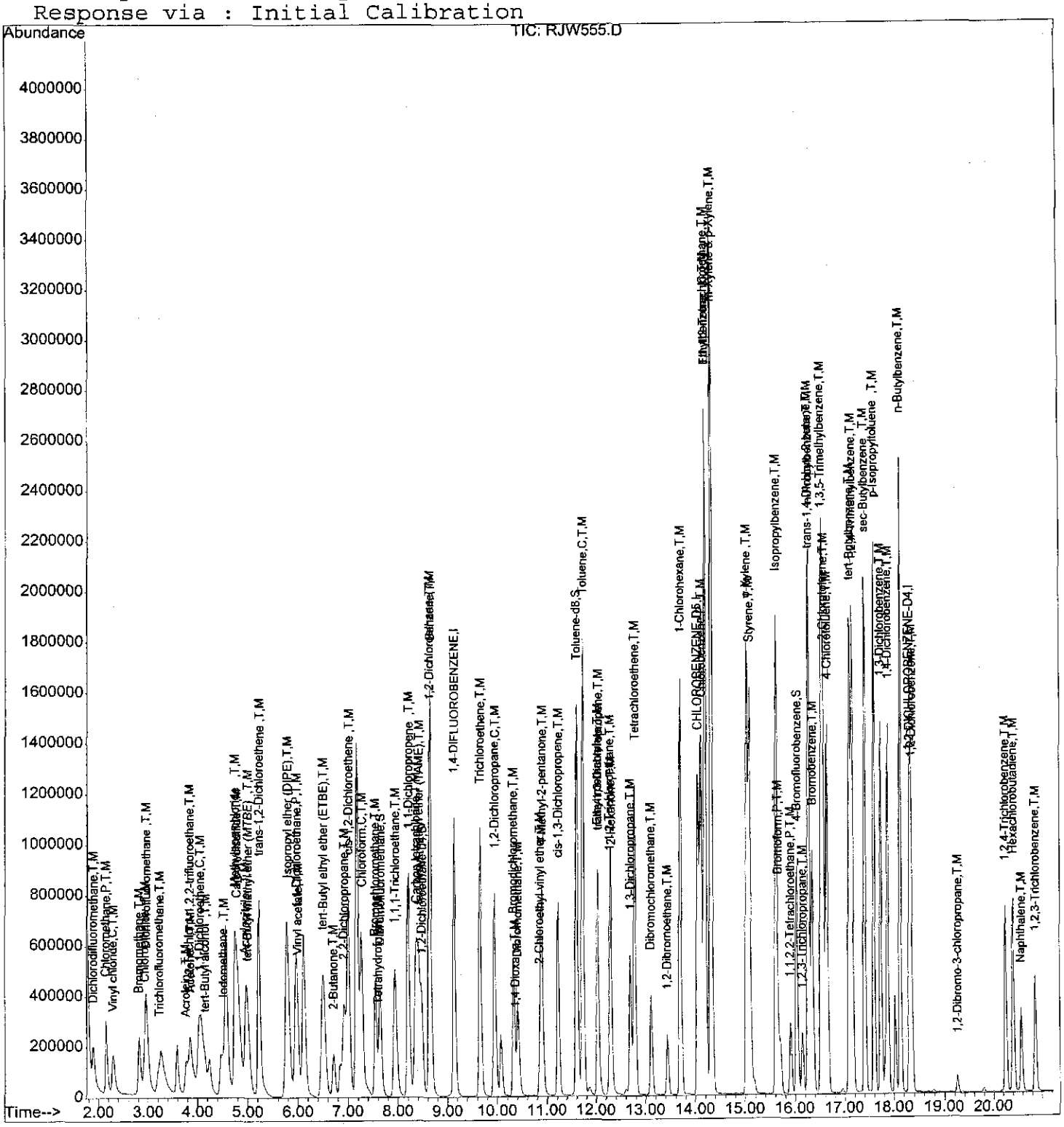
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J30\RJW555.D
Acq On : 30 Oct 2012 1:56 pm
Sample : VO06J22C
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Nov 1 10:49 2012

Vial: 5
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



2825

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW559.D
Acq On : 30 Oct 2012 3:54 pm
Sample : 12J182-02 25mL
Misc : DF=1.0
MS Integration Params: RTE.P
Quant Time: Oct 31 11:07 2012

Vial: 9
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

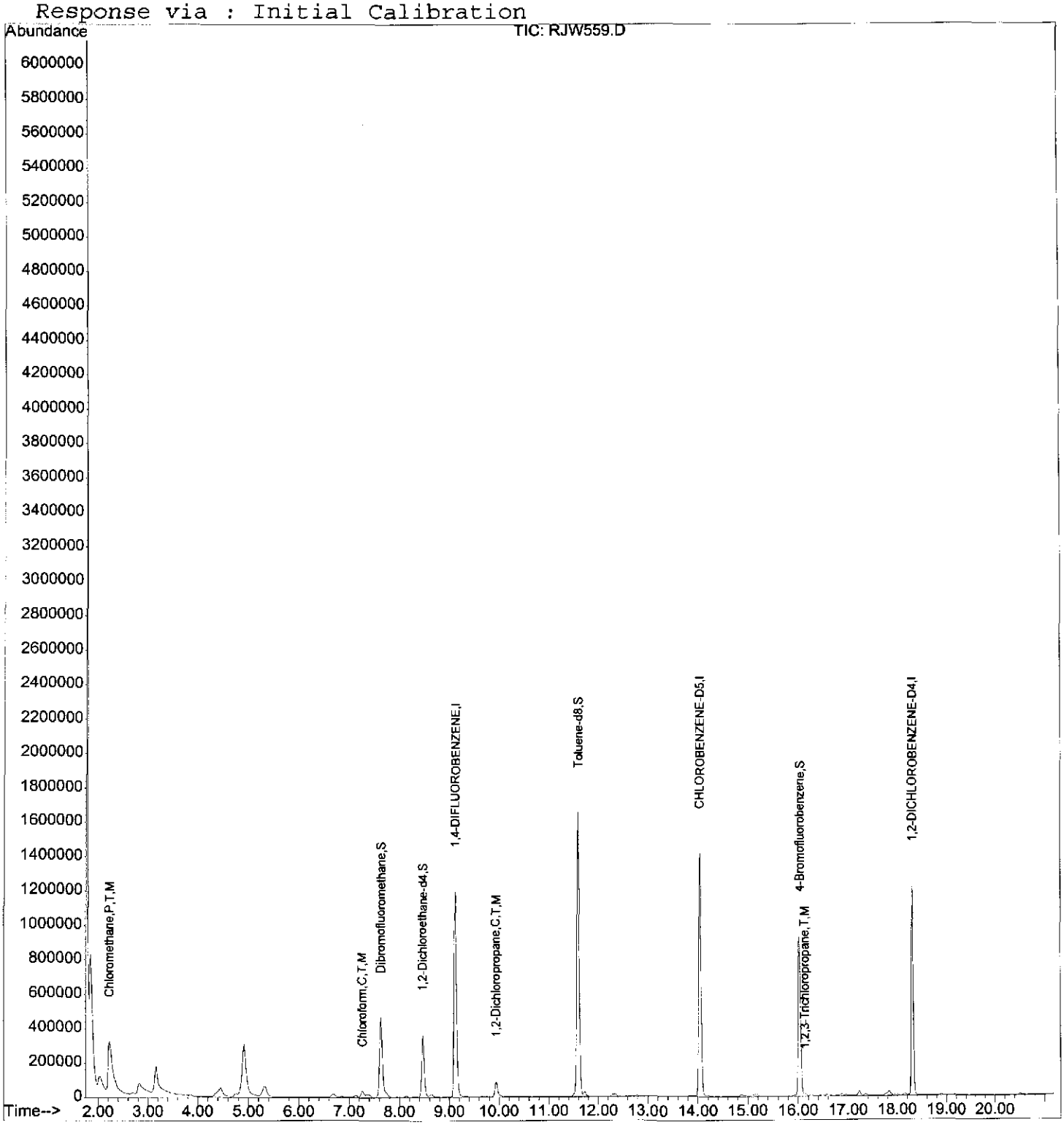
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.12	114	1766600	10.00	ug/l	-0.02
39) CHLOROBENZENE-D5	14.05	117	1515780	10.00	ug/l	-0.02
72) 1,2-DICHLOROBENZENE-D4	18.31	152	564456	10.00	ug/l	-0.02
System Monitoring Compounds						
34) Dibromofluoromethane	7.64	111	541274	10.15	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	101.50%	
38) 1,2-Dichloroethane-d4	8.47	65	399954	8.98	ug/l	0.02
Spiked Amount 10.000			Recovery	=	89.80%	
54) Toluene-d8	11.59	98	2017435	10.43	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	104.30%	
76) 4-Bromofluorobenzene	16.04	95	611736	8.71	ug/l	0.00
Spiked Amount 10.000			Recovery	=	87.10%	
Target Compounds						Qvalue
3) Chloromethane	2.23	50	23066	0.42	ug/l	87
30) Chloroform	7.27	83	53525	0.52	ug/l	94
47) 1,2-Dichloropropane	9.94	63	62654	1.08	ug/l	94
77) 1,2,3-Trichloropropane	16.14	110	2759	0.29	ug/l	82

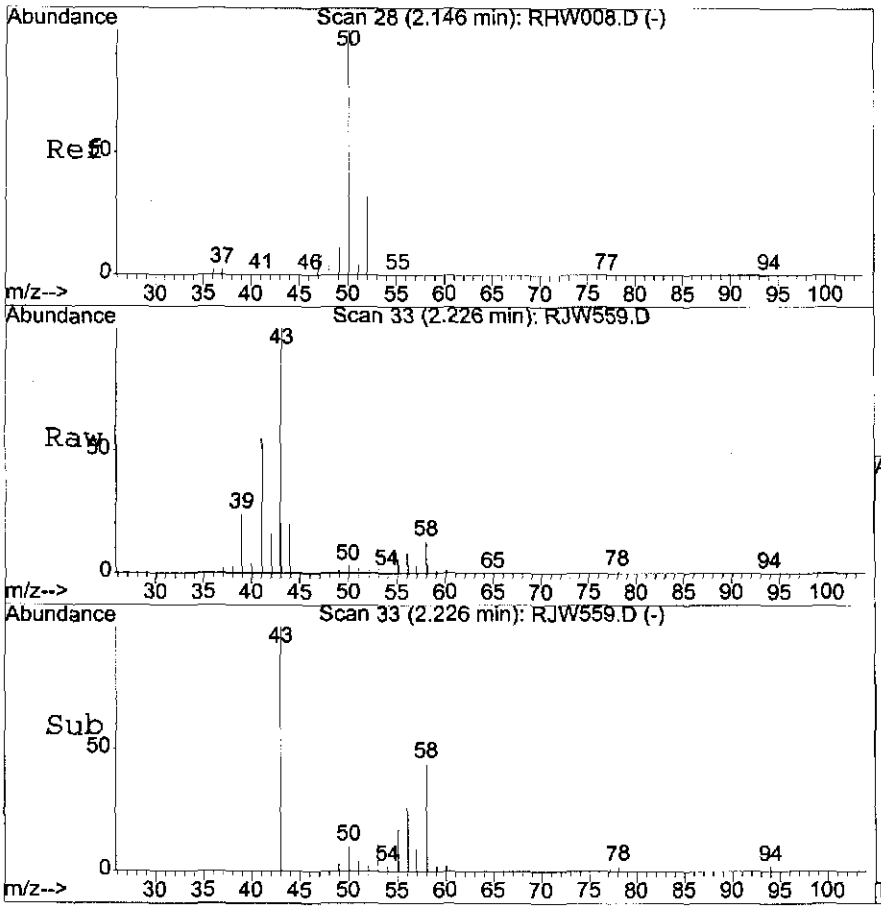
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J30\RJW559.D Vial: 9
Acq On : 30 Oct 2012 3:54 pm Operator: WL
Sample : 12J182-02 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 31 11:07 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration

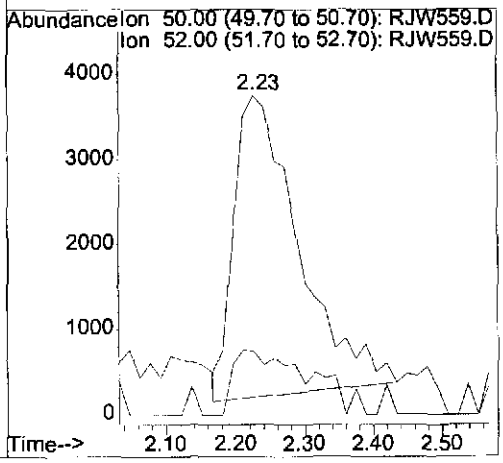


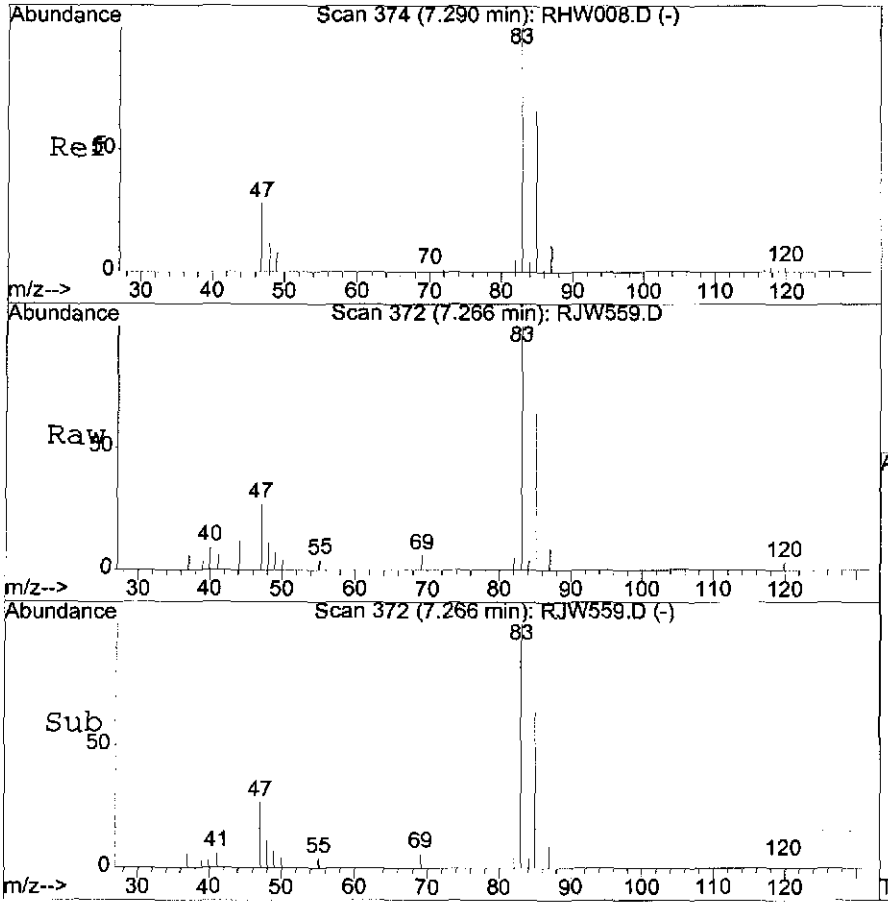


#3
Chloromethane
Concen: 0.42 ug/l
RT: 2.23 min Scan# 33
Delta R.T. 0.08 min
Lab File: RJW559.D
Acq: 30 Oct 2012 3:54 pm

Tgt Ion: 50 Resp: 23066

Ion	Ratio	Lower	Upper
50	100		
52	25.6	3.0	63.0

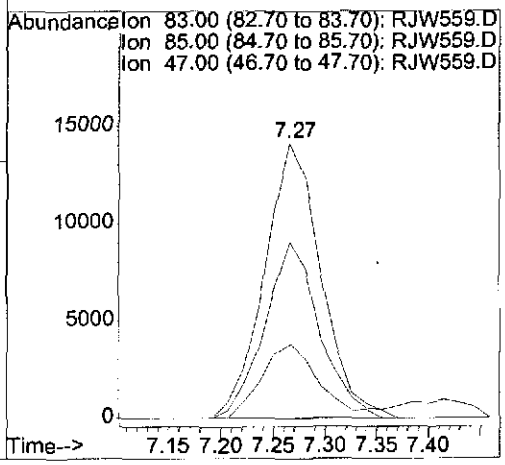


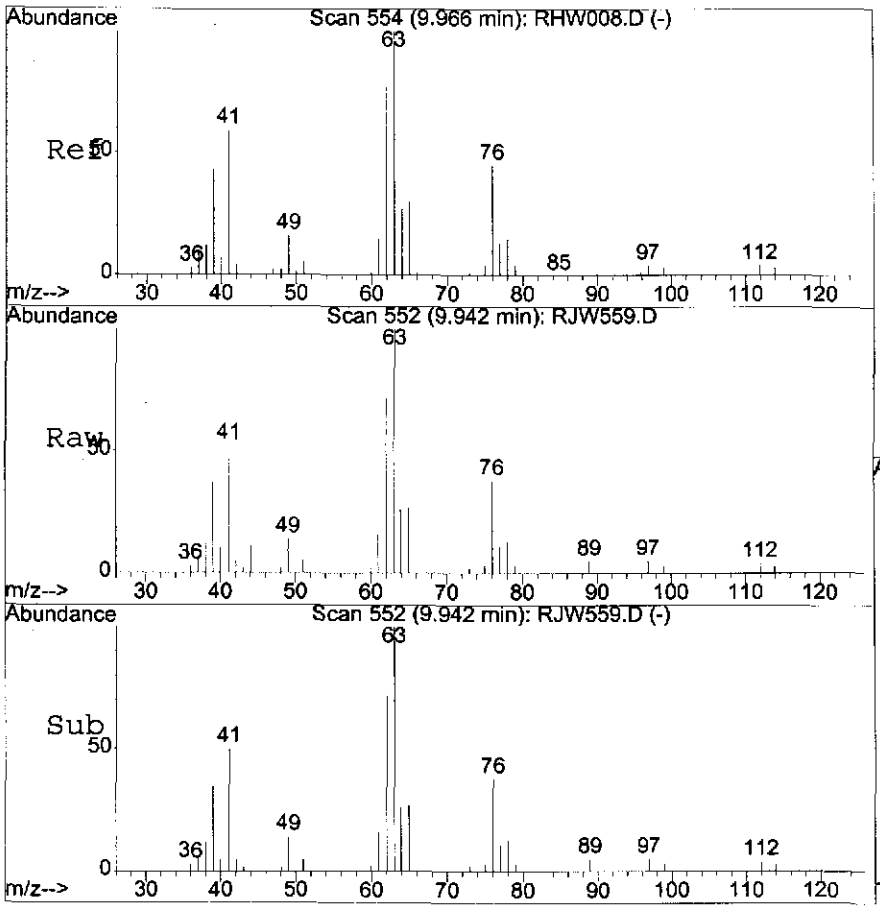


#30
Chloroform
Concen: 0.52 ug/l
RT: 7.27 min Scan# 372
Delta R.T. -0.02 min
Lab File: RJW559.D
Acq: 30 Oct 2012 3:54 pm

Tgt Ion: 83 Resp: 53525

Ion	Ratio	Lower	Upper
83	100		
85	62.8	39.1	99.1
47	27.2	0.0	58.8

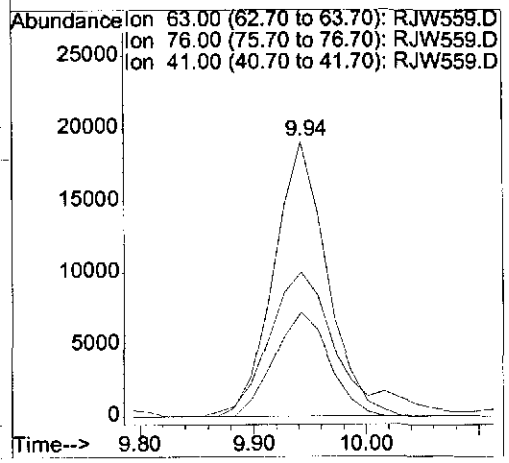


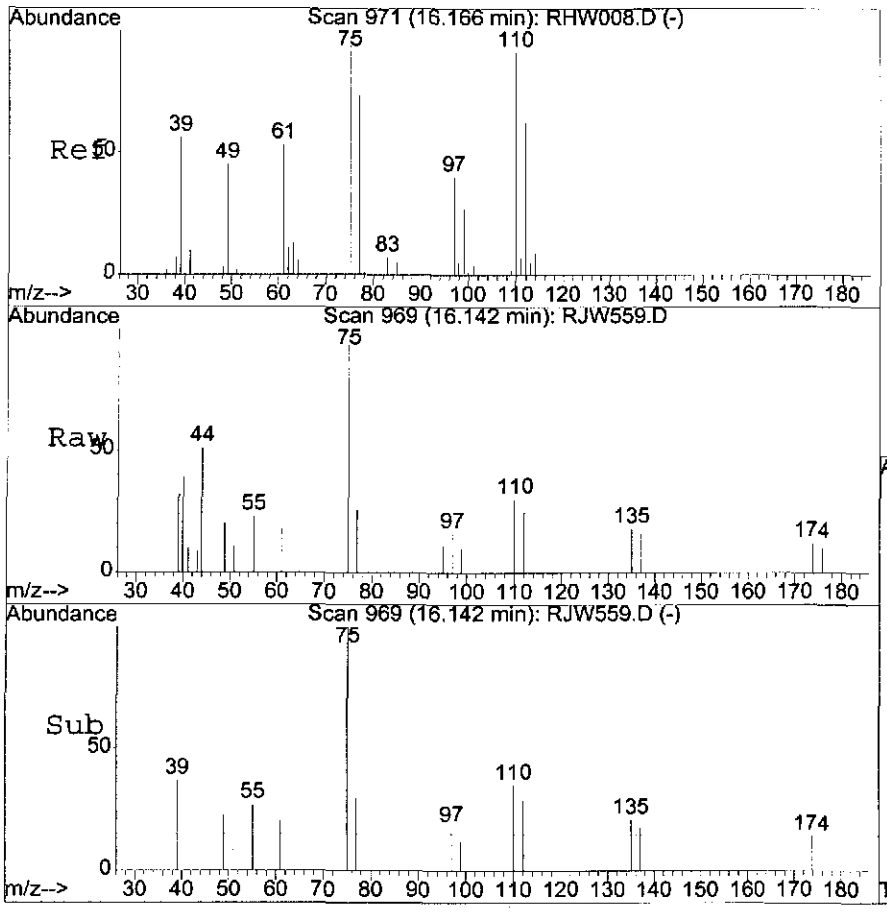


#47
1,2-Dichloropropane
Concen: 1.08 ug/l
RT: 9.94 min Scan# 552
Delta R.T. -0.02 min
Lab File: RJW559.D
Acq: 30 Oct 2012 3:54 pm

Tgt Ion: 63 Resp: 62654

Ion	Ratio	Lower	Upper
63	100		
76	39.1	15.3	75.3
41	62.6	30.0	90.0

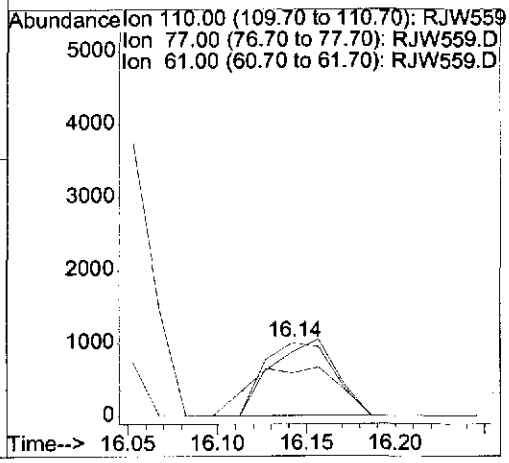




#77
1,2,3-Trichloropropane
Concen: 0.29 ug/l
RT: 16.14 min Scan# 969
Delta R.T. -0.02 min
Lab File: RJW559.D
Acq: 30 Oct 2012 3:54 pm

Tgt Ion:110 Resp: 2759

Ion	Ratio	Lower	Upper
110	100		
77	106.1	51.2	111.2
61	72.9	37.9	97.9



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW560.D
Acq On : 30 Oct 2012 4:24 pm
Sample : 12J182-02M 25mL
Misc : DF=1.0
MS Integration Params: RTE.P
Quant Time: Oct 31 11:06 2012

Vial: 10
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.13	114	1661531	10.00	ug/l	-0.02
39) CHLOROBENZENE-D5	14.05	117	1391046	10.00	ug/l	-0.02
72) 1,2-DICHLOROBENZENE-D4	18.31	152	489187	10.00	ug/l	-0.02
System Monitoring Compounds						
34) Dibromofluoromethane	7.64	111	504073	10.05	ug/l	-0.02
Spiked Amount 10.000			Recovery = 100.50%			
38) 1,2-Dichloroethane-d4	8.47	65	357388	8.53	ug/l	-0.02
Spiked Amount 10.000			Recovery = 85.30%			
54) Toluene-d8	11.59	98	1881507	10.60	ug/l	-0.02
Spiked Amount 10.000			Recovery = 106.00%			
76) 4-Bromofluorobenzene	16.03	95	590811	9.70	ug/l	-0.02
Spiked Amount 10.000			Recovery = 97.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	399000	9.31	ug/l	100
3) Chloromethane	2.15	50	522352	10.14	ug/l	99
4) Vinyl chloride	2.29	62	372852	9.64	ug/l	99
5) Bromomethane	2.81	94	338870	10.94	ug/l	98
6) Chloroethane	2.91	64	268372	10.15	ug/l	99
7) Dichlorofluoromethane	2.96	67	938578	10.29	ug/l	99
8) Trichlorofluoromethane	3.22	101	490195	8.30	ug/l	100
9) Acrolein	3.76	56	92605	45.36	ug/l	93
10) 1,1,2-Trichloro-1,2,2-trif	3.85	151	290284	10.39	ug/l	99
11) Acetone	3.85	43	236340	41.76	ug/l	95
12) 1,1-Dichloroethene	4.04	61	822768	9.43	ug/l	96
13) tert-Butyl alcohol	4.15	59	73150	45.55	ug/l	97
16) Iodomethane	4.47	142	695507	9.29	ug/l	88
17) Methylene chloride	4.74	49	658772	11.00	ug/l	87
18) Carbon disulfide	4.77	76	1919023	10.76	ug/l	100
19) Acrylonitrile	4.96	53	324438	45.63	ug/l	97
20) tert-Butyl methyl ether (M	4.99	73	680971	8.72	ug/l	96
21) trans-1,2-Dichloroethene	5.22	61	937976	10.14	ug/l	95
22) Isopropyl ether (DIPE)	5.78	45	1797835	10.00	ug/l	99
23) Vinyl acetate	5.99	43	535600	8.57	ug/l	100
24) 1,1-Dichloroethane	5.96	63	1065526	10.07	ug/l	100
26) tert-Butyl ethyl ether (ET	6.50	59	1183726	9.01	ug/l	99
27) 2-Butanone	6.70	43	406484	38.70	ug/l	98
28) 2,2-Dichloropropane	6.93	77	555238	10.47	ug/l	98
29) cis-1,2-Dichloroethene	7.00	96	630482	10.38	ug/l	92
30) Chloroform	7.27	83	946583	9.85	ug/l	99
32) Bromochloromethane	7.54	49	404131	9.56	ug/l	94

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW560.D Vial: 10
Acq On : 30 Oct 2012 4:24 pm Operator: WL
Sample : 12J182-02M 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 31 11:06 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33)	Tetrahydrofuran	7.61	42	55159	7.97 ug/l		96
35)	1,1,1-Trichloroethane	7.94	97	757714	9.69 ug/l		91
37)	tert-Amyl methyl ether (TA	8.41	87	184738	9.02 ug/l		95
41)	1,1-Dichloropropene	8.21	110	304308	11.25 ug/l		99
42)	Carbon tetrachloride	8.35	119	673622	9.57 ug/l		100
43)	1,2-Dichloroethane	8.64	62	446483	8.74 ug/l		100
44)	Benzene	8.64	78	2258435	10.74 ug/l		99
45)	Trichloroethene	9.65	130	653890	10.89 ug/l		95
47)	1,2-Dichloropropane	9.94	63	620247	11.62 ug/l		95
48)	1,4-Dioxane	10.38	88	29516	178.56 ug/l		94
49)	Bromodichloromethane	10.33	83	621448	9.59 ug/l		98
50)	Dibromomethane	10.41	93	218594	9.44 ug/l		92
51)	2-Chloroethyl vinyl ether	11.09	63	5868	0.34 ug/l	#	71
52)	4-Methyl-2-pentanone	10.90	43	1079013	39.23 ug/l		94
53)	cis-1,3-Dichloropropene	11.22	75	747027	9.97 ug/l		98
55)	Toluene	11.73	91	2351696	10.79 ug/l		100
56)	Ethyl methacrylate	12.03	69	335426	9.39 ug/l		97
57)	trans-1,3-Dichloropropene	12.04	75	509905	9.29 ug/l		97
58)	1,1,2-Trichloroethane	12.28	97	274190	10.02 ug/l		97
59)	2-Hexanone	12.31	43	699575	42.74 ug/l		99
60)	1,3-Dichloropropane	12.69	76	532203	9.34 ug/l		98
61)	Tetrachloroethene	12.78	164	546626	11.54 ug/l		96
62)	Dibromochloromethane	13.11	129	358927	9.73 ug/l		99
64)	1,2-Dibromoethane	13.44	107	279870	9.83 ug/l		100
65)	1-Chlorohexane	13.71	91	1018637	11.10 ug/l		97
66)	Chlorobenzene	14.12	112	1437844	11.01 ug/l		94
67)	1,1,1,2-Tetrachloroethane	14.18	131	429916	10.39 ug/l		96
68)	Ethylbenzene	14.20	91	2551848	10.43 ug/l		97
69)	m-Xylene & p-Xylene	14.33	91	3855405	20.52 ug/l		95
70)	o-Xylene	15.03	91	1959377	10.42 ug/l		95
71)	Styrene	15.09	104	1189505	9.15 ug/l		96
73)	Isopropylbenzene	15.62	105	2345755	10.24 ug/l		97
74)	Bromoform	15.65	173	172563	9.13 ug/l		99
75)	1,1,2,2-Tetrachloroethane	15.91	83	285551	9.34 ug/l		99
77)	1,2,3-Trichloropropane	16.14	110	74580	9.10 ug/l		99
78)	trans-1,4-Dichloro-2-buten	16.26	53	78412	8.52 ug/l		96
79)	n-Propylbenzene	16.28	91	3268588	10.68 ug/l		97
80)	Bromobenzene	16.35	156	540405	11.33 ug/l		89
81)	1,3,5-Trimethylbenzene	16.53	105	1899439	10.32 ug/l		95
82)	2-Chlorotoluene	16.56	91	1896133	9.94 ug/l		94
83)	4-Chlorotoluene	16.65	91	1520050	9.82 ug/l		94

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW560.D Vial: 10
Acq On : 30 Oct 2012 4:24 pm Operator: WL
Sample : 12J182-02M 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 31 11:06 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

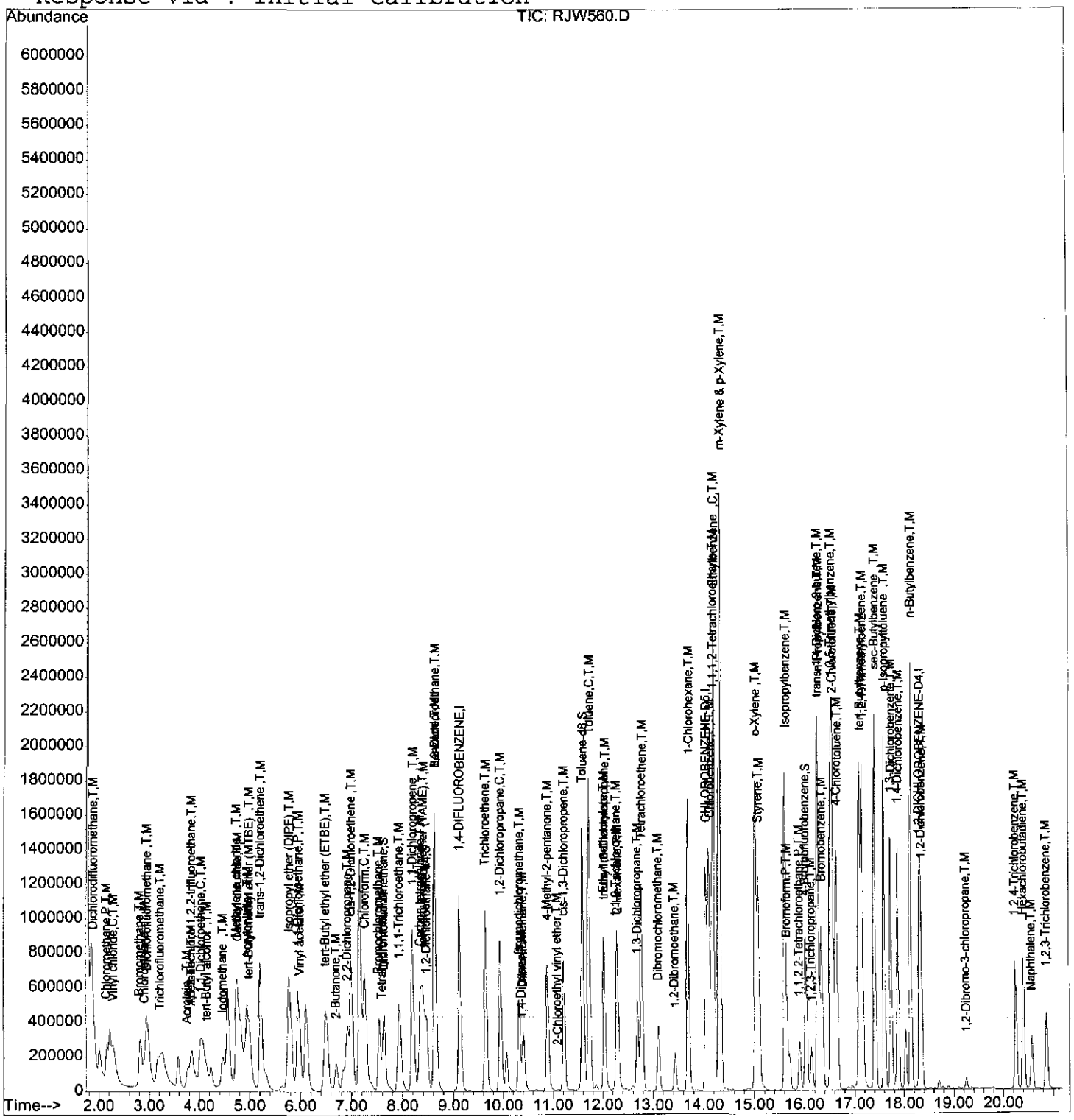
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
84)	tert-Butylbenzene	17.11	134	478243	11.33 ug/l	#	84
85)	1,2,4-Trimethylbenzene	17.16	105	1827875	10.34 ug/l		95
86)	sec-Butylbenzene	17.41	105	2700141	10.64 ug/l		97
87)	p-Isopropyltoluene	17.60	119	2001725	10.31 ug/l		96
88)	1,3-Dichlorobenzene	17.73	146	1047113	11.10 ug/l		98
89)	1,4-Dichlorobenzene	17.88	146	988637	10.99 ug/l		97
91)	n-Butylbenzene	18.14	91	2063330	10.46 ug/l		98
92)	1,2-Dichlorobenzene	18.36	146	768413	10.62 ug/l		96
93)	1,2-Dibromo-3-chloropropan	19.25	157	29231	8.24 ug/l		92
94)	1,2,4-Trichlorobenzene	20.25	180	441142	9.72 ug/l		98
95)	Hexachlorobutadiene	20.41	225	338356	10.55 ug/l		99
96)	Naphthalene	20.57	128	457818	8.32 ug/l		99
97)	1,2,3-Trichlorobenzene	20.87	180	302440	8.91 ug/l		97

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J30\RJW560.D Vial: 10
Acq On : 30 Oct 2012 4:24 pm Operator: WL
Sample : 12J182-02M 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 31 11:06 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW561.D
Acq On : 30 Oct 2012 4:53 pm
Sample : 12J182-02S 25mL
Misc : DF=1.0
MS Integration Params: RTE.P
Quant Time: Oct 31 11:08 2012

Vial: 11
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.14	114	1655259	10.00	ug/l	-0.01
39) CHLOROBENZENE-D5	14.06	117	1442224	10.00	ug/l	-0.01
72) 1,2-DICHLOROBENZENE-D4	18.32	152	494977	10.00	ug/l	-0.01
System Monitoring Compounds						
34) Dibromofluoromethane	7.63	111	518667	10.38	ug/l	-0.03
Spiked Amount 10.000			Recovery = 103.80%			
38) 1,2-Dichloroethane-d4	8.47	65	367632	8.81	ug/l	-0.03
Spiked Amount 10.000			Recovery = 88.10%			
54) Toluene-d8	11.60	98	1878324	10.21	ug/l	-0.01
Spiked Amount 10.000			Recovery = 102.10%			
76) 4-Bromofluorobenzene	16.03	95	572635	9.30	ug/l	-0.01
Spiked Amount 10.000			Recovery = 93.00%			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.88	85	384596	9.01	ug/l	100
3) Chloromethane	2.16	50	530855	10.35	ug/l	98
4) Vinyl chloride	2.30	62	385892	10.02	ug/l	100
5) Bromomethane	2.82	94	358242	11.60	ug/l	99
6) Chloroethane	2.92	64	277203	10.52	ug/l	97
7) Dichlorofluoromethane	2.97	67	941782	10.36	ug/l	100
8) Trichlorofluoromethane	3.22	101	481970	8.20	ug/l	100
9) Acrolein	3.75	56	101964	50.14	ug/l	100
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	282035	10.13	ug/l	98
11) Acetone	3.84	43	262082	46.49	ug/l	97
12) 1,1-Dichloroethene	4.05	61	816124	9.39	ug/l	94
13) tert-Butyl alcohol	4.14	59	85412	53.39	ug/l	95
16) Iodomethane	4.47	142	628440	8.43	ug/l	87
17) Methylene chloride	4.75	49	697248	11.73	ug/l	88
18) Carbon disulfide	4.76	76	1915089	10.78	ug/l	100
19) Acrylonitrile	4.96	53	352566	49.77	ug/l	98
20) tert-Butyl methyl ether (M	5.00	73	753146	9.68	ug/l	96
21) trans-1,2-Dichloroethene	5.21	61	944854	10.26	ug/l	95
22) Isopropyl ether (DIPE)	5.78	45	1882084	10.51	ug/l	99
23) Vinyl acetate	5.98	43	587909	9.45	ug/l	99
24) 1,1-Dichloroethane	5.95	63	1106022	10.50	ug/l	99
26) tert-Butyl ethyl ether (ET	6.50	59	1297653	9.91	ug/l	99
27) 2-Butanone	6.70	43	460017	43.96	ug/l	97
28) 2,2-Dichloropropane	6.92	77	553615	10.48	ug/l	97
29) cis-1,2-Dichloroethene	6.99	96	642756	10.63	ug/l	93
30) Chloroform	7.28	83	974729	10.18	ug/l	99
32) Bromochloromethane	7.54	49	432322	10.26	ug/l	94

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW561.D Vial: 11
Acq On : 30 Oct 2012 4:53 pm Operator: WL
Sample : 12J182-02S 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 31 11:08 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33)	Tetrahydrofuran	7.60	42	63868	9.38 ug/l		95
35)	1,1,1-Trichloroethane	7.93	97	756519	9.71 ug/l		91
37)	tert-Amyl methyl ether (TA	8.42	87	200223	9.81 ug/l	#	92
41)	1,1-Dichloropropene	8.20	110	308219	10.99 ug/l		99
42)	Carbon tetrachloride	8.35	119	669098	9.17 ug/l		99
43)	1,2-Dichloroethane	8.63	62	459655	8.68 ug/l		98
44)	Benzene	8.64	78	2285243	10.48 ug/l		99
45)	Trichloroethene	9.66	130	660557	10.61 ug/l		95
47)	1,2-Dichloropropane	9.94	63	645837	11.67 ug/l		93
48)	1,4-Dioxane	10.37	88	31309	182.68 ug/l		97
49)	Bromodichloromethane	10.32	83	649178	9.66 ug/l		100
50)	Dibromomethane	10.41	93	232156	9.67 ug/l		91
51)	2-Chloroethyl vinyl ether	11.10	63	3191	0.18 ug/l	#	78
52)	4-Methyl-2-pentanone	10.89	43	1192971	41.84 ug/l		93
53)	cis-1,3-Dichloropropene	11.22	75	781543	10.06 ug/l		98
55)	Toluene	11.72	91	2405341	10.65 ug/l		99
56)	Ethyl methacrylate	12.03	69	357786	9.66 ug/l		99
57)	trans-1,3-Dichloropropene	12.03	75	535637	9.41 ug/l		99
58)	1,1,2-Trichloroethane	12.29	97	287532	10.13 ug/l		99
59)	2-Hexanone	12.30	43	787841	46.42 ug/l		98
60)	1,3-Dichloropropane	12.69	76	559558	9.48 ug/l		100
61)	Tetrachloroethene	12.78	164	559210	11.39 ug/l		96
62)	Dibromochloromethane	13.12	129	381650	9.98 ug/l		100
64)	1,2-Dibromoethane	13.43	107	297321	10.07 ug/l		99
65)	1-Chlorohexane	13.70	91	994318	10.45 ug/l		97
66)	Chlorobenzene	14.12	112	1461367	10.79 ug/l		94
67)	1,1,1,2-Tetrachloroethane	14.19	131	447285	10.43 ug/l		97
68)	Ethylbenzene	14.20	91	2576042	10.16 ug/l		96
69)	m-Xylene & p-Xylene	14.32	91	3799503	19.50 ug/l		95
70)	o-Xylene	15.04	91	1945408	9.98 ug/l		96
71)	Styrene	15.10	104	1189275	8.82 ug/l		96
73)	Isopropylbenzene	15.62	105	2333710	10.06 ug/l		97
74)	Bromoform	15.65	173	184555	9.64 ug/l		98
75)	1,1,2,2-Tetrachloroethane	15.90	83	293049	9.47 ug/l		100
77)	1,2,3-Trichloropropane	16.15	110	78396	9.45 ug/l		98
78)	trans-1,4-Dichloro-2-buten	16.26	53	85004	9.13 ug/l		93
79)	n-Propylbenzene	16.27	91	3202072	10.34 ug/l		97
80)	Bromobenzene	16.36	156	539332	11.17 ug/l		87
81)	1,3,5-Trimethylbenzene	16.54	105	1840484	9.89 ug/l		95
82)	2-Chlorotoluene	16.57	91	1953214	10.12 ug/l		94
83)	4-Chlorotoluene	16.64	91	1420469	9.07 ug/l		93

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW561.D Vial: 11
Acq On : 30 Oct 2012 4:53 pm Operator: WL
Sample : 12J182-02S 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 31 11:08 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

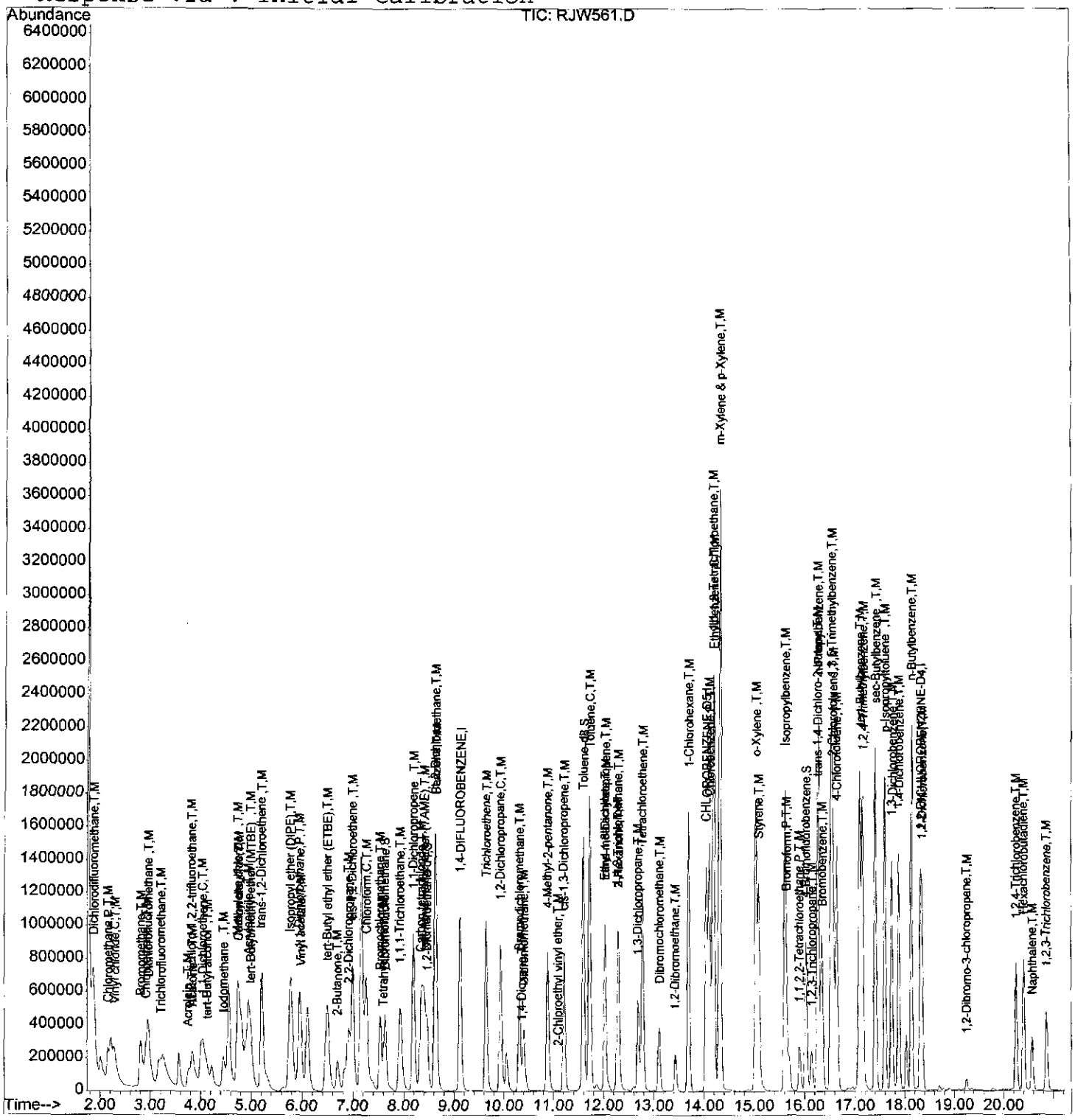
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
84)	tert-Butylbenzene	17.10	134	476132	11.14 ug/l	#	83
85)	1,2,4-Trimethylbenzene	17.16	105	1793604	10.03 ug/l		95
86)	sec-Butylbenzene	17.42	105	2645909	10.30 ug/l		97
87)	p-Isopropyltoluene	17.59	119	1971260	10.03 ug/l		96
88)	1,3-Dichlorobenzene	17.74	146	1060504	11.11 ug/l		97
89)	1,4-Dichlorobenzene	17.88	146	993879	10.92 ug/l		97
91)	n-Butylbenzene	18.13	91	2023841	10.14 ug/l		98
92)	1,2-Dichlorobenzene	18.35	146	754044	10.30 ug/l		97
93)	1,2-Dibromo-3-chloropropan	19.26	157	32623	9.09 ug/l		89
94)	1,2,4-Trichlorobenzene	20.26	180	472405	10.29 ug/l		98
95)	Hexachlorobutadiene	20.40	225	329170	10.15 ug/l		100
96)	Naphthalene	20.58	128	499185	8.96 ug/l		100
97)	1,2,3-Trichlorobenzene	20.87	180	316297	9.21 ug/l		98

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J30\RJW561.D Vial: 11
Acq On : 30 Oct 2012 4:53 pm Operator: WL
Sample : 12J182-02S 25mL Inst : TO06
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Oct 31 11:08 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



2041

INITIAL CALIBRATIONS

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RHW002
Instrument ID: 06
GC Column:RTX502.2ID:0.25mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J182
BFB Injection Date : 08/15/12
BFB Injection Time : 18:53
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.75
75	30.0 - 60.0% of mass 95	45.15
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	5.79
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	76.82
175	5.0 - 9.0% of mass 174	5.66(7.4)1
176	95.0 - 101.0% of mass 174	77.21(100.5)1
177	5.0 - 9.0% of mass 176	5.31(6.9)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	VSTD0.3	V006H151	RHW003	08/15/12	19:22
2	VSTD0.5	V006H152	RHW004	08/15/12	19:53
3	VSTD01	V006H153	RHW005	08/15/12	20:23
4	VSTD02	V006H154	RHW006	08/15/12	20:54
5	VSTD05	V006H155	RHW007	08/15/12	21:23
6	VSTD010	V006H156	RHW008	08/15/12	21:54
7	VSTD020	V006H157	RHW009	08/15/12	22:23
8	VSTD030	V006H158	RHW010	08/15/12	22:53
9	VSTD050	V006H159	RHW011	08/15/12	23:24
10	VSTD100	V006H1510	RHW012	08/15/12	23:53

FORM V VOA OLM02.0

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :T006
Beginning DateTime :08/15/12 19:22
Spike Units :PPB
IC File :rhw008

Column Spec :RTX502.2 ID :0.25MM
Ending DateTime :08/15/12 23:53
HPChem Method :vo06h15

M	IDX	Parameters	.3 19:22 rhw003	.5 19:53 rhw004	1 20:23 rhw005	2 20:54 rhw006	5 21:23 rhw007	10 21:54 rhw008	20 22:23 rhw009	30 22:53 rhw010	50 23:24 rhw011	100 23:53 rhw012	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	1	0	9.1495
	2	Dichlorodifluoromethane	0.287	0.246	0.236	0.255	0.283	0.258	0.244	0.257	0.261	0.251	0.258	6.32	1.8942
	3	Chloromethane	0.323	0.284	0.300	0.327	0.342	0.320	0.298	0.312	0.307	0.287	0.310	5.91	2.1470
	4	Vinyl chloride	0.237	0.239	0.230	0.264	0.275	0.236	0.200	0.181	------	------	0.233	13.19	2.2996
	5	Bromomethane	0.159	0.178	0.161	0.198	0.217	0.202	0.196	0.200	0.190	0.164	0.187	10.72	2.8115
	6	Chloroethane	0.161	0.140	0.144	0.173	0.177	0.174	0.163	0.164	0.161	0.134	0.159	9.41	2.9186
	7	Dichlorofluoromethane	0.581	0.572	0.599	0.516	0.558	0.574	0.564	0.559	0.533	0.433	0.549	8.55	2.9602
	8	Trichlorofluoromethane	0.328	0.320	0.313	0.371	0.414	0.374	0.359	0.365	0.364	0.345	0.355	8.43	3.2382
5	9	Acrolein	0.015	0.012	0.012	0.012	0.012	0.013	0.012	0.014	0.012	0.010	0.012	9.90	3.7720
	10	1,1,2-Trichloro-1,2,2-trifluoroethane	0.187	0.169	0.168	0.146	0.169	0.169	0.170	0.174	0.176	0.155	0.168	6.69	3.8255
5	11	Acetone	------	------	------	0.041	0.033	0.034	0.031	0.035	0.030	------	0.034	12.26	3.8594
	12	1,1-Dichloroethene	0.541	0.516	0.544	0.491	0.534	0.534	0.533	0.542	0.541	0.475	0.525	4.54	4.0634
5	13	tert-Butyl alcohol	------	0.008	0.009	0.009	0.010	0.011	0.010	0.012	0.009	0.009	0.010	12.01	4.1607
	14	Acetonitrile	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	15	Methyl acetate	------	0.139	0.122	0.119	0.118	0.104	0.098	0.116	0.097	0.088	0.111	14.21	4.5407
	16	Iodomethane	0.451	0.425	0.461	0.413	0.459	0.455	0.462	0.484	0.468	0.426	0.451	4.90	4.5258
	17	Methylene chloride	------	0.666	0.549	0.438	0.412	0.392	0.374	0.392	0.359	0.315	0.433	25.09	4.7885
	18	Carbon disulfide	0.929	0.919	1.035	1.105	1.134	1.134	1.090	1.152	1.192	1.042	1.073	8.57	4.7934
5	19	Acrylonitrile	0.042	0.045	0.043	0.046	0.042	0.044	0.041	0.048	0.040	0.037	0.043	7.45	4.9733
	20	tert-Butyl methyl ether (MTBE)	0.480	0.505	0.485	0.456	0.465	0.494	0.457	0.522	0.438	0.400	0.470	7.49	5.0178
	21	trans-1,2-Dichloroethene	0.595	0.552	0.584	0.529	0.574	0.559	0.566	0.572	0.552	0.482	0.556	5.77	5.2334
	22	Isopropyl ether (DIPE)	1.123	1.096	1.136	1.038	1.095	1.123	1.079	1.168	1.046	0.919	1.082	6.46	5.8043
	23	Vinyl acetate	------	0.349	0.355	0.410	0.409	0.397	0.364	0.406	0.361	0.334	0.376	7.83	6.0010
	24	1,1-Dichloroethane	0.639	0.646	0.669	0.623	0.665	0.649	0.642	0.650	0.628	0.556	0.637	5.00	5.9708
5	25	2-Butanol	------	------	0.009	0.010	0.010	0.009	0.009	0.011	0.009	0.009	0.009	9.21	6.3805
	26	tert-Butyl ethyl ether (ETBE)	0.810	0.803	0.811	0.770	0.784	0.814	0.794	0.876	0.767	0.679	0.791	6.29	6.5180
5	27	2-Butanone	0.078	0.068	0.068	0.063	0.057	0.062	0.057	0.069	0.058	0.053	0.063	11.92	6.7231
	28	2,2-Dichloropropane	0.368	0.337	0.356	0.310	0.339	0.331	0.317	0.310	0.292	0.232	0.319	11.92	6.9387
	29	cis-1,2-Dichloroethene	0.377	0.376	0.387	0.359	0.369	0.363	0.367	0.377	0.357	0.323	0.365	4.81	7.0235
	30	Chloroform	0.636	0.589	0.618	0.564	0.581	0.575	0.571	0.592	0.561	0.497	0.578	6.39	7.2911
5	31	tert-Amyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	32	Bromochloromethane	0.260	0.266	0.264	0.244	0.251	0.262	0.254	0.276	0.246	0.222	0.255	5.92	7.5587
	33	Tetrahydrofuran	------	------	0.069	0.049	0.042	0.041	0.036	0.042	------	------	0.047	25.79	7.6236
	34	Dibromofluoromethane	0.224	0.247	0.306	0.313	0.340	0.331	0.317	0.336	0.321	0.283	0.302	12.90	7.6568
	35	1,1,1-Trichloroethane	0.485	0.477	0.497	0.449	0.491	0.484	0.480	0.476	0.465	0.401	0.471	5.91	7.9571
	36	Cyclohexane	0.861	0.968	0.772	0.770	0.826	0.736	0.706	0.681	0.692	------	0.779	11.92	7.9733
	37	tert-Amyl methyl ether (TAME)	0.124	0.124	0.126	0.116	0.119	0.133	0.125	0.140	0.120	0.106	0.123	7.49	8.4329
	38	1,2-Dichloroethane-d4	0.201	0.223	0.272	0.266	0.279	0.278	0.257	0.275	0.249	0.222	0.252	11.03	8.4924
	39	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	1	0	14.0706
	40	2,2,4-Trimethylpentane	------	1.513	1.721	1.746	1.844	1.617	1.457	1.579	1.684	1.505	1.630	7.89	8.0906
	41	1,1-Dichloropropene	0.201	0.190	0.200	0.180	0.196	0.191	0.198	0.198	0.207	0.184	0.194	4.25	8.2203
	42	Carbon tetrachloride	0.511	0.485	0.518	0.443	0.509	0.510	0.524	0.522	0.552	0.486	0.506	5.79	8.3764
	43	1,2-Dichloroethane	0.401	0.381	0.396	0.352	0.365	0.366	0.361	0.381	0.352	0.315	0.367	6.76	8.6455
	44	Benzene	1.765	1.655	1.624	1.425	1.472	1.458	1.485	1.505	1.483	1.248	1.512	9.36	8.6589
	45	Trichloroethene	0.483	0.438	0.424	0.386	0.432	0.427	0.435	0.437	0.454	0.402	0.432	6.12	9.6699
	46	Methylcyclohexane	0.575	0.677	0.714	0.725	0.816	0.701	0.683	0.683	0.742	0.649	0.697	8.98	9.7576
	47	1,2-Dichloropropane	0.399	0.398	0.397	0.363	0.379	0.383	0.388	0.398	0.386	0.345	0.384	4.61	9.9642
20	48	1,4-Dioxane	------	------	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	11.65	10.3854
	49	Bromodichloromethane	0.463	0.438	0.453	0.426	0.461	0.477	0.494	0.509	0.488	0.449	0.466	5.58	10.3389
	50	Dibromomethane	0.171	0.167	0.169	0.152	0.165	0.168	0.171	0.183	0.167	0.152	0.166	5.54	10.4266
	51	2-Chloroethyl vinyl ether	0.116	0.112	0.116	0.111	0.123	0.132	0.129	0.147	0.129	0.125	0.124	8.84	10.8696
5	52	4-Methyl-2-pentanone	0.206	0.195	0.195	0.206	0.196	0.207	0.194	0.222	0.190	0.168	0.198	7.11	10.9068
	53	cis-1,3-Dichloropropene	0.539	0.516	0.516	0.494	0.543	0.558	0.560	0.596	0.560	0.505	0.539	5.79	11.2339
	54	Toluene-d8	1.073	1.150	1.304	1.319	1.454	1.354	1.289	1.334	1.325	1.158	1.276	8.94	11.6190
	55	Toluene	1.709	1.639	1.656	1.514	1.605	1.545	1.567	1.560	1.548	1.318	1.566	6.76	11.7483
	56	Ethyl methacrylate	0.261	0.249	0.249	0.236	0.252	0.273	0.264	0.294	0.260	0.231	0.257	7.04	12.0487
	57	trans-1,3-Dichloropropene	0.390	0.377	0.380	0.363	0.390	0.413	0.412	0.440	0.410	0.369	0.395	6.05	12.0487
	58	1,1,2-Trichloroethane	0.205	0.195	0.204	0.181	0.196	0.202	0.196	0.215	0.196	0.177	0.197	5.64	12.3014

FU 8/21/12

5	59	2-Hexanone	0.128	0.114	0.116	0.123	0.117	0.123	0.114	0.131	0.112	0.098	0.118	8.05	12.3207
	60	1,3-Dichloropropane	0.447	0.412	0.415	0.385	0.403	0.423	0.401	0.442	0.401	0.365	0.409	6.01	12.7147
	61	Tetrachloroethene	0.363	0.347	0.352	0.317	0.339	0.335	0.342	0.340	0.357	0.312	0.340	4.76	12.8039
	62	Dibromochloromethane	0.249	0.233	0.249	0.235	0.260	0.280	0.280	0.310	0.290	0.266	0.265	9.39	13.1339
	63	2-Ethyl-1-butanol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	64	1,2-Dibromoethane	0.198	0.197	0.198	0.190	0.203	0.213	0.209	0.232	0.213	0.193	0.205	6.02	13.4581
	65	1-Chlorohexane	0.685	0.649	0.673	0.604	0.676	0.678	0.674	0.677	0.699	0.585	0.660	5.61	13.7197
	66	Chlorobenzene	1.040	0.972	0.975	0.887	0.933	0.915	0.949	0.963	0.942	0.814	0.939	6.36	14.1316
	67	1,1,1,2-Tetrachloroethane	0.295	0.290	0.300	0.282	0.297	0.308	0.306	0.317	0.308	0.271	0.297	4.58	14.2044
	68	Ethylbenzene	2.007	1.855	1.918	1.728	1.800	1.767	1.739	1.733	1.691	1.349	1.759	9.90	14.2193
2	69	m-Xylene & p-Xylene	1.532	1.415	1.460	1.281	1.367	1.312	1.293	1.277	1.220	------	1.351	7.48	14.3415
	70	o-Xylene	1.419	1.362	1.424	1.308	1.410	1.381	1.370	1.384	1.342	1.118	1.352	6.63	15.0518
	71	Styrene	0.993	0.934	0.949	0.890	0.985	0.970	0.947	0.958	0.935	0.788	0.935	6.35	15.1113
	72	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	1	0	18.3375
	73	Isopropylbenzene	4.817	4.725	4.698	4.142	4.738	4.727	5.349	4.882	4.914	3.857	4.685	8.82	15.6391
	74	Bromoform	0.266	0.276	0.302	0.291	0.336	0.374	0.419	0.442	0.407	0.369	0.348	18.12	15.6733
	75	1,1,2,2-Tetrachloroethane	0.669	0.600	0.589	0.551	0.608	0.642	0.669	0.721	0.638	0.566	0.625	8.36	15.9260
	76	4-Bromofluorobenzene	1.199	1.104	1.211	1.160	1.341	1.297	1.381	1.352	1.302	1.100	1.245	8.32	16.0479
	77	1,2,3-Trichloropropane	0.152	0.159	0.159	0.154	0.167	0.175	0.179	0.200	0.175	0.156	0.168	8.94	16.1684
	78	trans-1,4-Dichloro-2-butene	------	0.187	0.181	0.154	0.188	0.198	0.210	0.218	0.194	0.164	0.188	10.76	16.2743
	79	n-Propylbenzene	6.526	6.372	6.494	5.677	6.439	6.376	6.983	6.429	6.432	4.826	6.255	9.47	16.2947
	80	Bromobenzene	1.016	0.938	0.977	0.873	0.950	0.979	1.083	1.051	1.014	0.874	0.975	7.12	16.3750
	81	1,3,5-Trimethylbenzene	3.974	3.801	3.943	3.418	3.821	3.725	4.133	3.854	3.840	3.096	3.761	7.92	16.5520
	82	2-Chlorotoluene	4.210	4.102	4.100	3.341	3.984	3.898	4.382	4.006	3.896	3.083	3.900	10.14	16.5847
	83	4-Chlorotoluene	3.413	3.269	3.388	3.069	3.028	3.084	3.349	3.188	3.200	2.644	3.163	7.18	16.6634
	84	tert-Butylbenzene	0.859	0.839	0.903	0.757	0.875	0.850	0.942	0.901	0.927	0.779	0.863	6.95	17.1184
	85	1,2,4-Trimethylbenzene	3.861	3.723	3.822	3.342	3.715	3.602	3.889	3.672	3.561	2.953	3.614	7.83	17.1779
	86	sec-Butylbenzene	5.526	5.294	5.427	4.864	5.364	5.139	5.573	5.267	5.291	4.137	5.188	8.10	17.4306
	87	p-Isopropyltoluene	4.295	3.940	4.162	3.688	4.082	3.947	4.234	3.991	4.044	3.310	3.969	7.26	17.6209
	88	1,3-Dichlorobenzene	2.082	1.903	2.018	1.757	1.921	1.909	2.097	2.021	1.957	1.621	1.929	7.62	17.7577
	89	1,4-Dichlorobenzene	2.002	1.877	1.880	1.671	1.847	1.822	1.971	1.917	1.851	1.555	1.839	7.30	17.8945
	90	Benzyl chloride	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	91	n-Butylbenzene	4.434	4.242	4.283	3.722	4.211	3.945	4.224	3.955	4.025	3.275	4.032	8.35	18.1531
	92	1,2-Dichlorobenzene	1.608	1.561	1.514	1.361	1.485	1.454	1.488	1.516	1.491	1.308	1.479	5.96	18.3673
	93	1,2-Dibromo-3-chloropropane	------	0.053	0.074	0.067	0.077	0.073	0.066	0.076	0.075	0.092	0.072	14.38	19.2726
	94	1,2,4-Trichlorobenzene	1.046	0.987	1.012	0.911	1.019	0.886	0.831	0.842	0.882	0.859	0.927	8.69	20.2703
	95	Hexachlorobutadiene	0.758	0.691	0.723	0.658	0.733	0.647	0.569	0.543	0.606	0.624	0.655	10.91	20.4204
	96	Naphthalene	------	1.272	1.306	1.174	1.268	1.128	0.961	1.029	0.977	1.014	1.125	12.07	20.5958
	97	1,2,3-Trichlorobenzene	0.768	0.746	0.786	0.708	0.773	0.661	0.563	0.547	------	------	0.694	13.66	20.8875

Spike Amount = Nominal Amount * M
Ave_%RSD : 8.6 Max_%RSD : 25.8

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

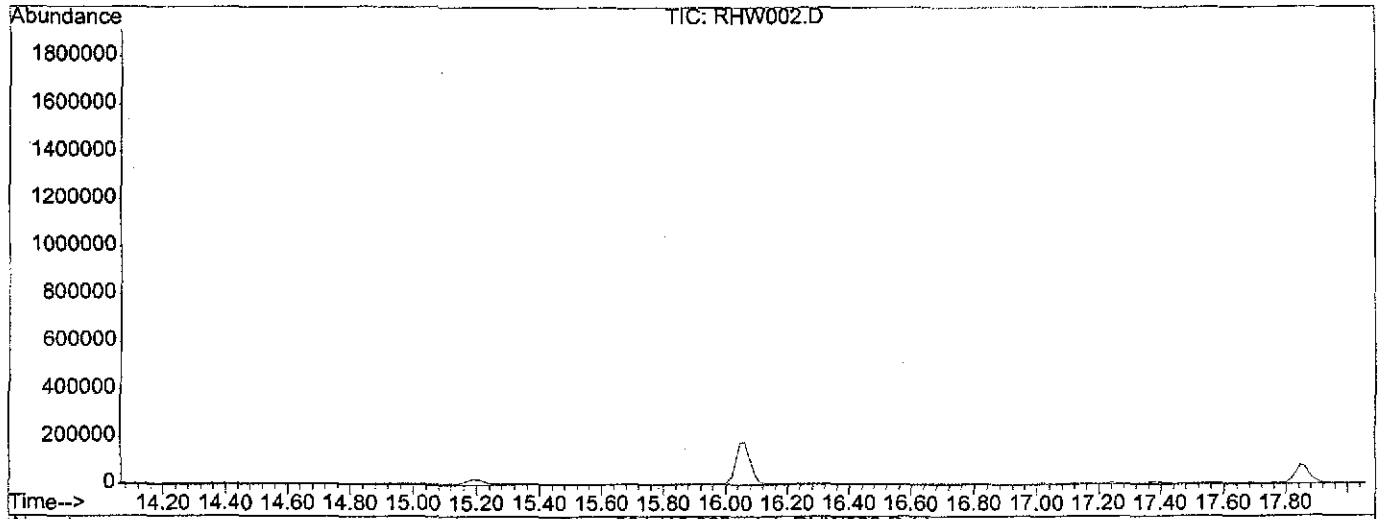
IDX	Parameter	x0	x1	CCF
17	Methylene chloride	0.02114	0.34115	0.9963
33	Tetrahydrofuran	0.00261	0.03837	0.9958
74	Bromoform	-0.00618	0.39310	0.9971

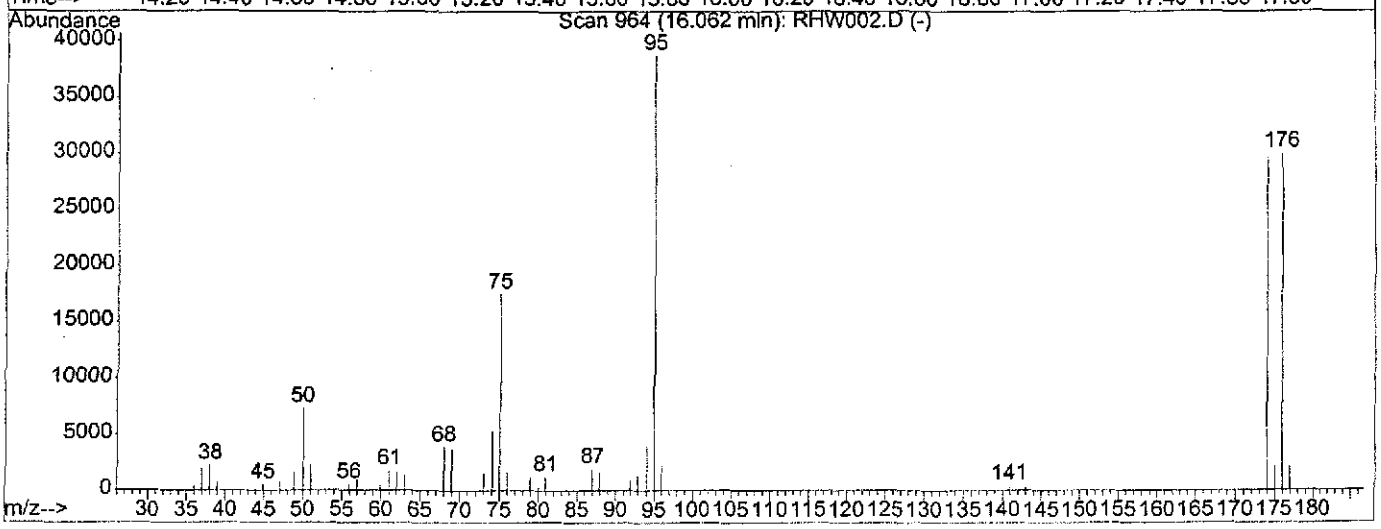
gu 8/21/11d

BFB

Data File : D:\HPCHEM\1\DATA\12H15\RHW002.D
Acq On : 15 Aug 2012 6:53 pm
Sample : BFB06H01
Misc : T/ CHK
MS Integration Params: RTE.P
Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260

Vial: 2
Operator: WL
Inst : TO06
Multiplr: 1.00





Spectrum Information: Scan 964 - Background Scan 957

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.7	7264	PASS
75	95	30	60	45.1	17496	PASS
95	95	100	100	100.0	38752	PASS
96	95	5	9	5.8	2244	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	76.8	29768	PASS
175	174	5	9	7.4	2193	PASS
176	174	95	101	100.5	29920	PASS
177	176	5	9	6.9	2057	PASS

RHW002.D VO06H15.M Thu Aug 16 16:14:02 2012

AU 8-21-12

2046

Compound List Report TO06

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
Total Cpnds : 97

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-DIFLUOROBENZENE	114	9.15	1.000	A	1	A	B
2	T	Dichlorodifluoromethane	85	1.89	0.207	A	1	A	B
3	T	Chloromethane	50	2.15	0.235	A	1	A	B
4	T	Vinyl chloride	62	2.29	0.251	A	1	A	B
5	T	Bromomethane	94	2.81	0.308	A	1	A	B
6	T	Chloroethane	64	2.92	0.319	A	2	A	B
7	T	Dichlorofluoromethane	67	2.96	0.324	A	1	A	B
8	T	Trichlorofluoromethane	101	3.25	0.355	A	1	A	B
9	T	Acrolein	56	3.77	0.412	A	1	A	B
10	T	1,1,2-Trichloro-1,2,2-trifluor	151	3.83	0.418	A	1	A	B
11	T	Acetone	43	3.86	0.421	A	2	A	B
12	T	1,1-Dichloroethene	61	4.06	0.444	A	2	A	B
13	T	tert-Butyl alcohol	59	4.15	0.454	A	1	A	B
14	T	Acetonitrile	41	4.24	0.464	A	2	A	B
15	T	Methyl acetate	43	4.54	0.496	A	1	A	B
16	T	Iodomethane	142	4.52	0.495	A	1	A	B
17	T	Methylene chloride	49	4.76	0.521	L	2	A	B
18	T	Carbon disulfide	76	4.79	0.524	A	1	A	B
19	T	Acrylonitrile	53	4.97	0.543	A	2	A	B
20	T	tert-Butyl methyl ether (MTBE)	73	5.02	0.548	A	1	A	B
21	T	trans-1,2-Dichloroethene	61	5.24	0.573	A	2	A	B
22	T	Isopropyl ether (DIPE)	45	5.80	0.634	A	1	A	B
23	T	Vinyl acetate	43	6.00	0.655	A	1	A	B
24	T	1,1-Dichloroethane	63	5.97	0.652	A	2	A	B
25	T	2-Butanol	45	6.37	0.696	A	1	A	B
26	T	tert-Butyl ethyl ether (ETBE)	59	6.52	0.712	A	1	A	B
27	T	2-Butanone	43	6.72	0.735	A	1	A	B
28	T	2,2-Dichloropropane	77	6.93	0.758	A	2	A	B
29	T	cis-1,2-Dichloroethene	96	7.02	0.768	A	2	A	B
30	T	Chloroform	83	7.29	0.797	A	2	A	B
31	T	tert-Amyl alcohol	59	7.02	0.768	A	2	A	B
32	T	Bromochloromethane	49	7.56	0.826	A	2	A	B
33	T	Tetrahydrofuran	42	7.62	0.833	L	2	A	B
34	S	Dibromofluoromethane	111	7.66	0.837	A	2	A	B
35	T	1,1,1-Trichloroethane	97	7.96	0.870	A	2	A	B
36	T	Cyclohexane	56	7.97	0.872	A	2	A	B
37	T	tert-Amyl methyl ether (TAME)	87	8.43	0.922	A	2	A	B
38	S	1,2-Dichloroethane-d4	65	8.49	0.928	A	1	A	B
39	I	CHLOROBENZENE-D5	117	14.07	1.000	A	2	A	B
40	T	2,2,4-Trimethylpentane	57	8.09	0.575	A	3	A	B
41	T	1,1-Dichloropropene	110	8.21	0.584	A	1	A	B
42	T	Carbon tetrachloride	119	8.38	0.595	A	1	A	B
43	T	1,2-Dichloroethane	62	8.64	0.614	A	1	A	B
44	T	Benzene	78	8.66	0.615	A	2	A	B
45	T	Trichloroethene	130	9.67	0.687	A	3	A	B
46	T	Methylcyclohexane	83	9.76	0.694	A	2	A	B
47	T	1,2-Dichloropropane	63	9.97	0.708	A	2	A	B
48	T	1,4-Dioxane	88	10.38	0.738	A	1	A	B
49	T	Bromodichloromethane	83	10.34	0.735	A	1	A	B
50	T	Dibromomethane	93	10.43	0.741	A	2	A	B
51	T	2-Chloroethyl vinyl ether	63	10.87	0.773	A	2	A	B
52	T	4-Methyl-2-pentanone	43	10.90	0.775	A	3	A	B

2047

53	T	cis-1,3-Dichloropropene	75	11.23	0.798	A	3	A	B
54	S	Toluene-d8	98	11.62	0.826	A	1	A	B
55	T	Toluene	91	11.75	0.835	A	1	A	B
56	T	Ethyl methacrylate	69	12.05	0.856	A	2	A	B
57	T	trans-1,3-Dichloropropene	75	12.05	0.856	A	2	A	B
58	T	1,1,2-Trichloroethane	97	12.30	0.874	A	3	A	B
59	T	2-Hexanone	43	12.32	0.875	A	2	A	B
60	T	1,3-Dichloropropane	76	12.72	0.904	A	1	A	B
61	T	Tetrachloroethene	164	12.81	0.910	A	3	A	B
62	T	Dibromochloromethane	129	13.13	0.933	A	1	A	B
63	T	2-Ethyl-1-butanol	43	0.00	0.000	A	3	A	B
64	T	1,2-Dibromoethane	107	13.46	0.957	A	1	A	B
65	T	1-Chlorohexane	91	13.71	0.975	A	3	A	B
66	T	Chlorobenzene	112	14.13	1.004	A	3	A	B
67	T	1,1,1,2-Tetrachloroethane	131	14.20	1.010	A	3	A	B
68	T	Ethylbenzene	91	14.22	1.011	A	1	A	B
69	T	m-Xylene & p-Xylene	91	14.34	1.019	A	1	A	B
70	T	o-Xylene	91	15.05	1.070	A	1	A	B
71	T	Styrene	104	15.11	1.074	A	2	A	B
72	I	1,2-DICHLOROBENZENE-D4	152	18.34	1.000	A	1	A	B
73	T	Isopropylbenzene	105	15.63	0.852	A	3	A	B
74	T	Bromoform	173	15.68	0.855	L	2	A	B
75	T	1,1,2,2-Tetrachloroethane	83	15.93	0.869	A	1	A	B
76	S	4-Bromofluorobenzene	95	16.05	0.875	A	2	A	B
77	T	1,2,3-Trichloropropane	110	16.17	0.882	A	2	A	B
78	T	trans-1,4-Dichloro-2-butene	53	16.27	0.887	A	1	A	B
79	T	n-Propylbenzene	91	16.28	0.888	A	2	A	B
80	T	Bromobenzene	156	16.37	0.893	A	2	A	B
81	T	1,3,5-Trimethylbenzene	105	16.55	0.903	A	2	A	B
82	T	2-Chlorotoluene	91	16.58	0.904	A	1	A	B
83	T	4-Chlorotoluene	91	16.66	0.908	A	1	A	B
84	T	tert-Butylbenzene	134	17.12	0.934	A	2	A	B
85	T	1,2,4-Trimethylbenzene	105	17.18	0.937	A	1	A	B
86	T	sec-Butylbenzene	105	17.43	0.951	A	1	A	B
87	T	p-Isopropyltoluene	119	17.62	0.961	A	2	A	B
88	T	1,3-Dichlorobenzene	146	17.76	0.968	A	2	A	B
89	T	1,4-Dichlorobenzene	146	17.89	0.976	A	2	A	B
90	T	Benzyl chloride	91	0.00	0.000	A	3	A	B
91	T	n-Butylbenzene	91	18.16	0.990	A	2	A	B
92	T	1,2-Dichlorobenzene	146	18.37	1.002	A	2	A	B
93	T	1,2-Dibromo-3-chloropropane	157	19.27	1.051	A	2	A	B
94	T	1,2,4-Trichlorobenzene	180	20.27	1.105	A	2	A	B
95	T	Hexachlorobutadiene	225	20.42	1.114	A	2	A	B
96	T	Naphthalene	128	20.60	1.123	A	1	A	B
97	T	1,2,3-Trichlorobenzene	180	20.89	1.139	A	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

VO06H15.M Mon Aug 20 16:00:47 2012

8-20-12

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW003.D Vial: 2
Acq On : 15 Aug 2012 7:22 pm Operator: WL
Sample : VO06H151 Inst : TO06
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:18 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1684396	10.00 ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1435167	10.00 ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	517438	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	7.66	111	11318	0.22 ug/l	0.00
Spiked Amount 10.000			Recovery	= 2.20%	
38) 1,2-Dichloroethane-d4	8.49	65	10133	0.24 ug/l	0.00
Spiked Amount 10.000			Recovery	= 2.40%	
54) Toluene-d8	11.63	98	46216	0.25 ug/l	0.02
Spiked Amount 10.000			Recovery	= 2.50%	
76) 4-Bromofluorobenzene	16.05	95	18608	0.29 ug/l	0.00
Spiked Amount 10.000			Recovery	= 2.90%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.89	85	14507	0.33 ug/l	95
3) Chloromethane	2.15	50	16324	0.31 ug/l	95
4) Vinyl chloride	2.30	62	11960	0.31 ug/l	96
5) Bromomethane	2.82	94	8015	0.26 ug/l	91
6) Chloroethane	2.92	64	8121	0.30 ug/l	74
7) Dichlorofluoromethane	2.96	67	29367	0.32 ug/l	99
8) Trichlorofluoromethane	3.23	101	16595	0.28 ug/l	97
9) Acrolein	3.78	56	3687	1.78 ug/l	65
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	9428	0.33 ug/l	88
11) Acetone	3.86	43	24185	4.22 ug/l	99
12) 1,1-Dichloroethene	4.06	61	27348	0.31 ug/l	96
13) tert-Butyl alcohol	4.17	59	2685	1.65 ug/l #	1
16) Iodomethane	4.53	142	22767	0.30 ug/l	98
17) Methylene chloride	4.76	49	46456	0.19 ug/l	86
18) Carbon disulfide	4.79	76	46963	0.26 ug/l	98
19) Acrylonitrile	4.99	53	10545	1.46 ug/l	93
20) tert-Butyl methyl ether (M	5.02	73	24246	0.31 ug/l	91
21) trans-1,2-Dichloroethene	5.24	61	30059	0.32 ug/l	99
22) Isopropyl ether (DIPE)	5.80	45	56746	0.31 ug/l	98
24) 1,1-Dichloroethane	5.98	63	32299	0.30 ug/l	97
26) tert-Butyl ethyl ether (ET	6.52	59	40951	0.31 ug/l	98
27) 2-Butanone	6.73	43	19744	1.85 ug/l	86
28) 2,2-Dichloropropane	6.95	77	18576	0.35 ug/l	90
29) cis-1,2-Dichloroethene	7.02	96	19051	0.31 ug/l	97
30) Chloroform	7.29	83	32140	0.33 ug/l	96
32) Bromochloromethane	7.56	49	13143	0.31 ug/l	97
33) Tetrahydrofuran	7.63	42	7189	0.43 ug/l	91

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

8-21-12

2049

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW003.D Vial: 2
Acq On : 15 Aug 2012 7:22 pm Operator: WL
Sample : VO06H151 Inst : TO06
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:18 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
35)	1,1,1-Trichloroethane	7.96	97	24502	0.31 ug/l		88
36)	Cyclohexane	7.97	56	43516	0.33 ug/l		78
37)	tert-Amyl methyl ether (TA	8.44	87	6256	0.30 ug/l	#	70
40)	2,2,4-Trimethylpentane	8.09	57	63588	0.27 ug/l	#	35
41)	1,1-Dichloropropene	8.23	110	8665	0.31 ug/l		100
42)	Carbon tetrachloride	8.39	119	21990	0.30 ug/l		98
43)	1,2-Dichloroethane	8.64	62	17269	0.33 ug/l		98
44)	Benzene	8.66	78	75983	0.35 ug/l		97
45)	Trichloroethene	9.67	130	20780	0.34 ug/l		97
46)	Methylcyclohexane	9.76	83	24772	0.25 ug/l		96
47)	1,2-Dichloropropane	9.97	63	17165	0.31 ug/l		97
49)	Bromodichloromethane	10.34	83	19925	0.30 ug/l		96
50)	Dibromomethane	10.43	93	7349	0.31 ug/l		97
51)	2-Chloroethyl vinyl ether	10.87	63	4981	0.28 ug/l	#	73
52)	4-Methyl-2-pentanone	10.90	43	44301	1.56 ug/l		96
53)	cis-1,3-Dichloropropene	11.25	75	23209	0.30 ug/l		97
55)	Toluene	11.75	91	73602	0.33 ug/l		100
56)	Ethyl methacrylate	12.05	69	11235	0.30 ug/l		92
57)	trans-1,3-Dichloropropene	12.05	75	16807	0.30 ug/l		92
58)	1,1,2-Trichloroethane	12.30	97	8823	0.31 ug/l		98
59)	2-Hexanone	12.33	43	27617	1.64 ug/l		97
60)	1,3-Dichloropropane	12.72	76	19240	0.33 ug/l		94
61)	Tetrachloroethene	12.81	164	15621	0.32 ug/l		96
62)	Dibromochloromethane	13.13	129	10708	0.28 ug/l		95
64)	1,2-Dibromoethane	13.46	107	8536	0.29 ug/l		95
65)	1-Chlorohexane	13.73	91	29482	0.31 ug/l		97
66)	Chlorobenzene	14.14	112	44784	0.33 ug/l		88
67)	1,1,1,2-Tetrachloroethane	14.20	131	12704	0.30 ug/l	#	73
68)	Ethylbenzene	14.22	91	86427	0.34 ug/l		98
69)	m-Xylene & p-Xylene	14.34	91	131936	0.68 ug/l		98
70)	o-Xylene	15.05	91	61093	0.31 ug/l		98
71)	Styrene	15.11	104	42762	0.32 ug/l		98
73)	Isopropylbenzene	15.65	105	74776	0.31 ug/l		99
74)	Bromoform	15.68	173	4130	0.36 ug/l		96
75)	1,1,2,2-Tetrachloroethane	15.93	83	10379	0.32 ug/l		95
77)	1,2,3-Trichloropropane	16.18	110	2356	0.27 ug/l		78
78)	trans-1,4-Dichloro-2-buten	16.29	53	2717	0.28 ug/l	#	36
79)	n-Propylbenzene	16.30	91	101305	0.31 ug/l		100
80)	Bromobenzene	16.37	156	15773	0.31 ug/l		96
81)	1,3,5-Trimethylbenzene	16.55	105	61684	0.32 ug/l		97
82)	2-Chlorotoluene	16.58	91	65346	0.32 ug/l		99

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

8-21-12

2050

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW003.D Vial: 2
Acq On : 15 Aug 2012 7:22 pm Operator: WL
Sample : VO06H151 Inst : TO06
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:18 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
83)	4-Chlorotoluene	16.67	91	52975	0.32 ug/l	98
84)	tert-Butylbenzene	17.12	134	13332	0.30 ug/l	97
85)	1,2,4-Trimethylbenzene	17.18	105	59939	0.32 ug/l	98
86)	sec-Butylbenzene	17.43	105	85786	0.32 ug/l	98
87)	p-Isopropyltoluene	17.62	119	66671	0.32 ug/l	99
88)	1,3-Dichlorobenzene	17.76	146	32320	0.32 ug/l	98
89)	1,4-Dichlorobenzene	17.89	146	31083	0.33 ug/l	100
91)	n-Butylbenzene	18.16	91	68824	0.33 ug/l	97
92)	1,2-Dichlorobenzene	18.37	146	24955	0.33 ug/l	79
94)	1,2,4-Trichlorobenzene	20.27	180	16240	0.34 ug/l	97
95)	Hexachlorobutadiene	20.42	225	11774	0.35 ug/l	97
96)	Naphthalene	20.60	128	21918	0.38 ug/l	98
97)	1,2,3-Trichlorobenzene	20.89	180	11923	0.33 ug/l	93

8-21-12

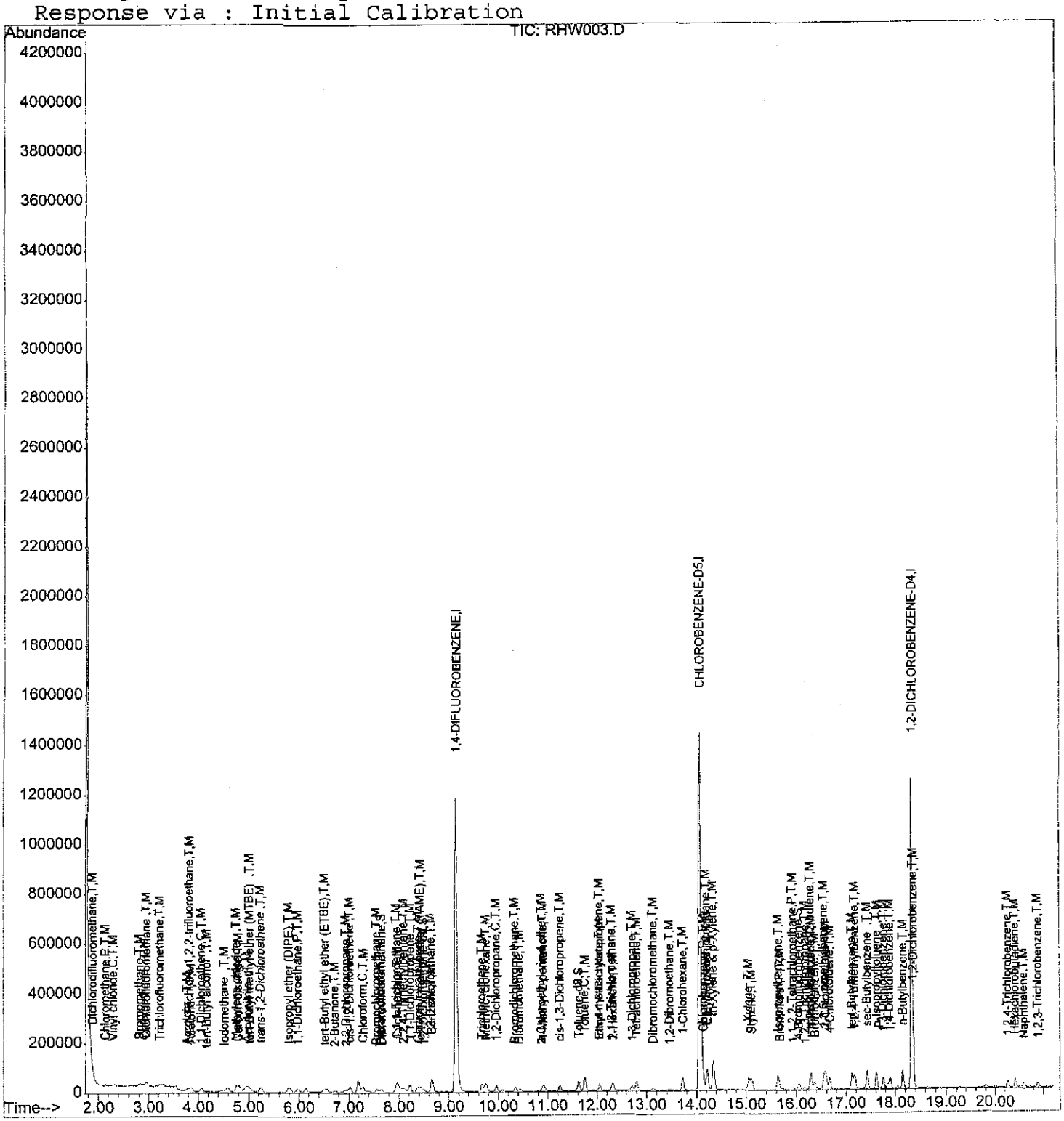
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW003.D
Acq On : 15 Aug 2012 7:22 pm
Sample : VO06H151
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:18 2012

Vial: 2
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2052

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW004.D Vial: 3
Acq On : 15 Aug 2012 7:53 pm Operator: WL
Sample : VO06H152 Inst : TO06
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:22 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1703617	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1458151	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	509753	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.65	111	21073	0.41	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	4.10%	
38) 1,2-Dichloroethane-d4	8.50	65	19012	0.44	ug/l	0.00
Spiked Amount 10.000			Recovery	=	4.40%	
54) Toluene-d8	11.62	98	83846	0.45	ug/l	0.00
Spiked Amount 10.000			Recovery	=	4.50%	
76) 4-Bromofluorobenzene	16.05	95	28145	0.44	ug/l	0.00
Spiked Amount 10.000			Recovery	=	4.40%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	20953	0.48	ug/l	92
3) Chloromethane	2.15	50	24168	0.46	ug/l	90
4) Vinyl chloride	2.30	62	20387	0.51	ug/l	93
5) Bromomethane	2.82	94	15156	0.48	ug/l	90
6) Chloroethane	2.92	64	11949	0.44	ug/l	83
7) Dichlorofluoromethane	2.96	67	48762	0.52	ug/l	100
8) Trichlorofluoromethane	3.23	101	27297	0.45	ug/l	95
9) Acrolein	3.78	56	4937	2.36	ug/l	81
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	14418	0.50	ug/l	96
11) Acetone	3.87	43	26187	4.51	ug/l	98
12) 1,1-Dichloroethene	4.06	61	43979	0.49	ug/l	99
13) tert-Butyl alcohol	4.15	59	3512	2.13	ug/l	79
15) Methyl acetate	4.54	43	11855	0.63	ug/l	77
16) Iodomethane	4.53	142	36240	0.47	ug/l	99
17) Methylene chloride	4.76	49	56739	0.36	ug/l	88
18) Carbon disulfide	4.79	76	78256	0.43	ug/l	99
19) Acrylonitrile	4.97	53	19079	2.62	ug/l	91
20) tert-Butyl methyl ether (M	5.03	73	43051	0.54	ug/l	100
21) trans-1,2-Dichloroethene	5.22	61	47008	0.50	ug/l	99
22) Isopropyl ether (DIPE)	5.82	45	93324	0.51	ug/l	97
23) Vinyl acetate	6.01	43	29698	0.46	ug/l	95
24) 1,1-Dichloroethane	5.97	63	55031	0.51	ug/l	97
26) tert-Butyl ethyl ether (ET	6.52	59	68382	0.51	ug/l	98
27) 2-Butanone	6.73	43	28920	2.69	ug/l	92
28) 2,2-Dichloropropane	6.93	77	28690	0.53	ug/l	96
29) cis-1,2-Dichloroethene	7.02	96	31993	0.51	ug/l	89
30) Chloroform	7.29	83	50132	0.51	ug/l	99

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW004.D Vial: 3
Acq On : 15 Aug 2012 7:53 pm Operator: WL
Sample : VO06H152 Inst : TO06
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:22 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
32)	Bromochloromethane	7.56	49	22619	0.52 ug/l		95
33)	Tetrahydrofuran	7.63	42	7871	0.52 ug/l		79
35)	1,1,1-Trichloroethane	7.96	97	40590	0.51 ug/l		99
36)	Cyclohexane	7.96	56	82429	0.62 ug/l		81
37)	tert-Amyl methyl ether (TA	8.44	87	10588	0.50 ug/l	#	85
40)	2,2,4-Trimethylpentane	8.08	57	110317	0.46 ug/l	#	65
41)	1,1-Dichloropropene	8.21	110	13848	0.49 ug/l		96
42)	Carbon tetrachloride	8.36	119	35393	0.48 ug/l		99
43)	1,2-Dichloroethane	8.64	62	27743	0.52 ug/l		97
44)	Benzene	8.66	78	120645	0.55 ug/l		99
45)	Trichloroethene	9.67	130	31959	0.51 ug/l		99
46)	Methylcyclohexane	9.76	83	49386	0.49 ug/l		98
47)	1,2-Dichloropropane	9.97	63	28981	0.52 ug/l		97
48)	1,4-Dioxane	10.40	88	1259	7.27 ug/l		98
49)	Bromodichloromethane	10.34	83	31930	0.47 ug/l		95
50)	Dibromomethane	10.41	93	12143	0.50 ug/l		98
51)	2-Chloroethyl vinyl ether	10.87	63	8158	0.45 ug/l		96
52)	4-Methyl-2-pentanone	10.92	43	71062	2.46 ug/l		98
53)	cis-1,3-Dichloropropene	11.23	75	37625	0.48 ug/l		97
55)	Toluene	11.75	91	119529	0.52 ug/l		98
56)	Ethyl methacrylate	12.05	69	18134	0.48 ug/l		95
57)	trans-1,3-Dichloropropene	12.05	75	27503	0.48 ug/l		95
58)	1,1,2-Trichloroethane	12.30	97	14233	0.50 ug/l		98
59)	2-Hexanone	12.33	43	41670	2.43 ug/l		98
60)	1,3-Dichloropropane	12.72	76	30041	0.50 ug/l		96
61)	Tetrachloroethene	12.81	164	25302	0.51 ug/l		99
62)	Dibromochloromethane	13.13	129	17004	0.44 ug/l		97
64)	1,2-Dibromoethane	13.46	107	14398	0.48 ug/l		98
65)	1-Chlorohexane	13.71	91	47313	0.49 ug/l		95
66)	Chlorobenzene	14.13	112	70862	0.52 ug/l		84
67)	1,1,1,2-Tetrachloroethane	14.20	131	21147	0.49 ug/l		90
68)	Ethylbenzene	14.22	91	135256	0.53 ug/l		99
69)	m-Xylene & p-Xylene	14.34	91	206361	1.05 ug/l		99
70)	o-Xylene	15.05	91	99288	0.50 ug/l		98
71)	Styrene	15.11	104	68116	0.50 ug/l		99
73)	Isopropylbenzene	15.65	105	120430	0.50 ug/l		99
74)	Bromoform	15.68	173	7043	0.51 ug/l		96
75)	1,1,2,2-Tetrachloroethane	15.91	83	15303	0.48 ug/l		97
77)	1,2,3-Trichloropropane	16.17	110	4052	0.47 ug/l		90
78)	trans-1,4-Dichloro-2-buten	16.29	53	4776	0.50 ug/l		81
79)	n-Propylbenzene	16.30	91	162398	0.51 ug/l		99

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

8-21-12

2054

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW004.D Vial: 3
Acq On : 15 Aug 2012 7:53 pm Operator: WL
Sample : VO06H152 Inst : TO06
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:22 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
80)	Bromobenzene	16.37	156	23899	0.48 ug/l	93
81)	1,3,5-Trimethylbenzene	16.55	105	96883	0.51 ug/l	99
82)	2-Chlorotoluene	16.58	91	104548	0.53 ug/l	97
83)	4-Chlorotoluene	16.66	91	83320	0.52 ug/l	99
84)	tert-Butylbenzene	17.12	134	21385	0.49 ug/l	94
85)	1,2,4-Trimethylbenzene	17.18	105	94900	0.52 ug/l	98
86)	sec-Butylbenzene	17.43	105	134927	0.51 ug/l	99
87)	p-Isopropyltoluene	17.62	119	100414	0.50 ug/l	98
88)	1,3-Dichlorobenzene	17.76	146	48506	0.49 ug/l	97
89)	1,4-Dichlorobenzene	17.89	146	47842	0.51 ug/l	99
91)	n-Butylbenzene	18.16	91	108127	0.53 ug/l	98
92)	1,2-Dichlorobenzene	18.37	146	39789	0.53 ug/l	89
93)	1,2-Dibromo-3-chloropropan	19.27	157	1350	0.37 ug/l	90
94)	1,2,4-Trichlorobenzene	20.27	180	25155	0.53 ug/l	99
95)	Hexachlorobutadiene	20.42	225	17616	0.53 ug/l	98
96)	Naphthalene	20.60	128	32432	0.57 ug/l	97
97)	1,2,3-Trichlorobenzene	20.88	180	19010	0.54 ug/l	98

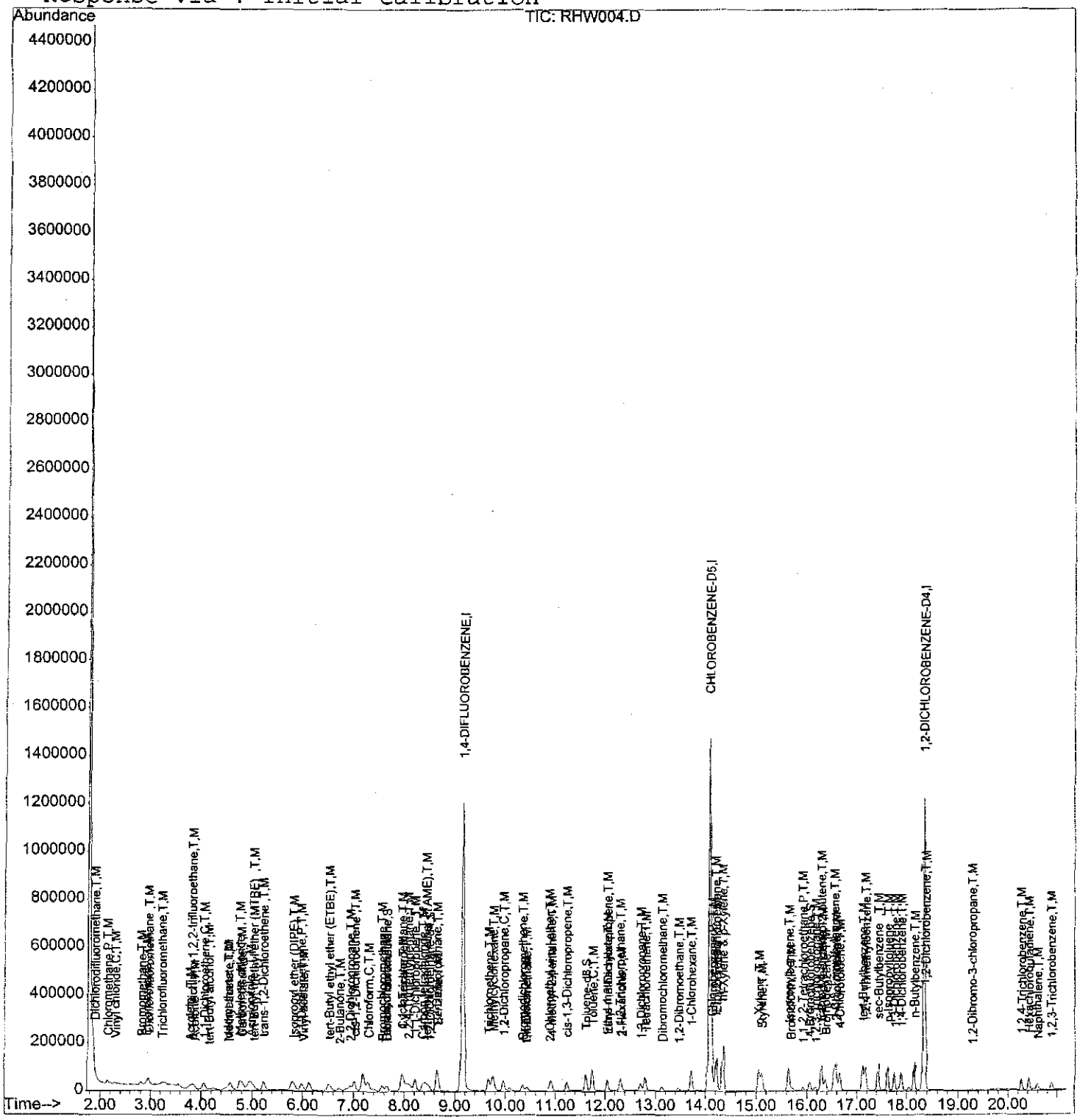
m 8-21-12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW004.D Vial: 3
Acq On : 15 Aug 2012 7:53 pm Operator: WL
Sample : VO06H152 Inst : TO06
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:22 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2056

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW005.D Vial: 4
Acq On : 15 Aug 2012 8:23 pm Operator: WL
Sample : VO06H153 Inst : TO06
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1673201	10.00 ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1429024	10.00 ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	505065	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	7.66	111	51245	1.01 ug/l	0.00
Spiked Amount 10.000			Recovery	= 10.10%	
38) 1,2-Dichloroethane-d4	8.50	65	45565	1.08 ug/l	0.00
Spiked Amount 10.000			Recovery	= 10.80%	
54) Toluene-d8	11.62	98	186357	1.02 ug/l	0.00
Spiked Amount 10.000			Recovery	= 10.20%	
76) 4-Bromofluorobenzene	16.05	95	61162	0.97 ug/l	0.00
Spiked Amount 10.000			Recovery	= 9.70%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.89	85	39436	0.91 ug/l	97
3) Chloromethane	2.15	50	50246	0.97 ug/l	98
4) Vinyl chloride	2.30	62	38471	0.99 ug/l	100
5) Bromomethane	2.82	94	26982	0.86 ug/l	97
6) Chloroethane	2.92	64	24082	0.90 ug/l	70
7) Dichlorofluoromethane	2.96	67	100275	1.09 ug/l	100
8) Trichlorofluoromethane	3.23	101	52299	0.88 ug/l	95
9) Acrolein	3.78	56	10247	4.98 ug/l	90
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	28048	1.00 ug/l	99
11) Acetone	3.87	43	40947	7.19 ug/l	94
12) 1,1-Dichloroethene	4.06	61	91023	1.04 ug/l	99
13) tert-Butyl alcohol	4.18	59	7773	4.81 ug/l #	1
15) Methyl acetate	4.54	43	20435	1.10 ug/l	88
16) Iodomethane	4.53	142	77217	1.02 ug/l	97
17) Methylene chloride	4.76	49	91847	0.99 ug/l	87
18) Carbon disulfide	4.79	76	173107	0.96 ug/l	99
19) Acrylonitrile	4.97	53	35595	4.97 ug/l	96
20) tert-Butyl methyl ether (M	5.02	73	81211	1.03 ug/l	96
21) trans-1,2-Dichloroethene	5.24	61	97779	1.05 ug/l	99
22) Isopropyl ether (DIPE)	5.80	45	190111	1.05 ug/l	100
23) Vinyl acetate	6.01	43	59347	0.94 ug/l	93
24) 1,1-Dichloroethane	5.98	63	111862	1.05 ug/l	98
25) 2-Butanol	6.40	45	7406	4.68 ug/l #	1
26) tert-Butyl ethyl ether (ET	6.52	59	135737	1.03 ug/l	99
27) 2-Butanone	6.73	43	56503	5.34 ug/l	95
28) 2,2-Dichloropropane	6.95	77	59565	1.12 ug/l	99
29) cis-1,2-Dichloroethene	7.02	96	64723	1.06 ug/l	92

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

8-21-12

2857

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW005.D Vial: 4
Acq On : 15 Aug 2012 8:23 pm Operator: WL
Sample : VO06H153 Inst : TO06
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	Chloroform	7.29	83	103368	1.07 ug/l		99
32)	Bromochloromethane	7.56	49	44249	1.04 ug/l		98
33)	Tetrahydrofuran	7.63	42	11616	1.13 ug/l		88
35)	1,1,1-Trichloroethane	7.96	97	83109	1.06 ug/l		98
36)	Cyclohexane	7.98	56	129179	0.99 ug/l		99
37)	tert-Amyl methyl ether (TA	8.44	87	20999	1.02 ug/l	#	87
40)	2,2,4-Trimethylpentane	8.08	57	245956	1.06 ug/l		98
41)	1,1-Dichloropropene	8.23	110	28608	1.03 ug/l		96
42)	Carbon tetrachloride	8.38	119	74094	1.02 ug/l		99
43)	1,2-Dichloroethane	8.66	62	56571	1.08 ug/l		98
44)	Benzene	8.66	78	232071	1.07 ug/l		99
45)	Trichloroethene	9.67	130	60521	0.98 ug/l		96
46)	Methylcyclohexane	9.76	83	102096	1.03 ug/l		100
47)	1,2-Dichloropropane	9.97	63	56714	1.03 ug/l		95
48)	1,4-Dioxane	10.40	88	2768	16.30 ug/l		83
49)	Bromodichloromethane	10.34	83	64730	0.97 ug/l		100
50)	Dibromomethane	10.43	93	24178	1.02 ug/l		99
51)	2-Chloroethyl vinyl ether	10.87	63	16592	0.94 ug/l		95
52)	4-Methyl-2-pentanone	10.92	43	139657	4.94 ug/l		98
53)	cis-1,3-Dichloropropene	11.25	75	73739	0.96 ug/l		97
55)	Toluene	11.75	91	236657	1.06 ug/l		97
56)	Ethyl methacrylate	12.05	69	35532	0.97 ug/l		96
57)	trans-1,3-Dichloropropene	12.05	75	54367	0.96 ug/l		99
58)	1,1,2-Trichloroethane	12.30	97	29119	1.04 ug/l		97
59)	2-Hexanone	12.33	43	83000	4.94 ug/l		97
60)	1,3-Dichloropropane	12.72	76	59265	1.01 ug/l		97
61)	Tetrachloroethene	12.81	164	50330	1.03 ug/l		98
62)	Dibromochloromethane	13.13	129	35608	0.94 ug/l		94
64)	1,2-Dibromoethane	13.46	107	28307	0.97 ug/l		95
65)	1-Chlorohexane	13.73	91	96208	1.02 ug/l		98
66)	Chlorobenzene	14.13	112	139335	1.04 ug/l		92
67)	1,1,1,2-Tetrachloroethane	14.20	131	42927	1.01 ug/l		95
68)	Ethylbenzene	14.22	91	274158	1.09 ug/l		100
69)	m-Xylene & p-Xylene	14.35	91	417376	2.16 ug/l		98
70)	o-Xylene	15.05	91	203488	1.05 ug/l		100
71)	Styrene	15.11	104	135649	1.02 ug/l		98
73)	Isopropylbenzene	15.65	105	237288	1.00 ug/l		99
74)	Bromoform	15.68	173	15268	0.93 ug/l		94
75)	1,1,2,2-Tetrachloroethane	15.93	83	29732	0.94 ug/l		95
77)	1,2,3-Trichloropropane	16.17	110	8010	0.95 ug/l		93
78)	trans-1,4-Dichloro-2-buten	16.29	53	9117	0.96 ug/l		85

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

8-21-12

2058

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW005.D Vial: 4
Acq On : 15 Aug 2012 8:23 pm Operator: WL
Sample : VO06H153 Inst : TO06
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.30	91	327991	1.04 ug/l	99
80)	Bromobenzene	16.38	156	49366	1.00 ug/l	97
81)	1,3,5-Trimethylbenzene	16.55	105	199135	1.05 ug/l	100
82)	2-Chlorotoluene	16.58	91	207086	1.05 ug/l	100
83)	4-Chlorotoluene	16.67	91	171135	1.07 ug/l	98
84)	tert-Butylbenzene	17.12	134	45587	1.05 ug/l	98
85)	1,2,4-Trimethylbenzene	17.18	105	193048	1.06 ug/l	98
86)	sec-Butylbenzene	17.43	105	274112	1.05 ug/l	99
87)	p-Isopropyltoluene	17.62	119	210230	1.05 ug/l	99
88)	1,3-Dichlorobenzene	17.76	146	101947	1.05 ug/l	99
89)	1,4-Dichlorobenzene	17.91	146	94960	1.02 ug/l	100
91)	n-Butylbenzene	18.16	91	216306	1.06 ug/l	99
92)	1,2-Dichlorobenzene	18.37	146	76455	1.02 ug/l	92
93)	1,2-Dibromo-3-chloropropan	19.27	157	3715	1.01 ug/l	95
94)	1,2,4-Trichlorobenzene	20.27	180	51109	1.09 ug/l	100
95)	Hexachlorobutadiene	20.43	225	36524	1.10 ug/l	98
96)	Naphthalene	20.60	128	65964	1.16 ug/l	99
97)	1,2,3-Trichlorobenzene	20.89	180	39673	1.13 ug/l	97

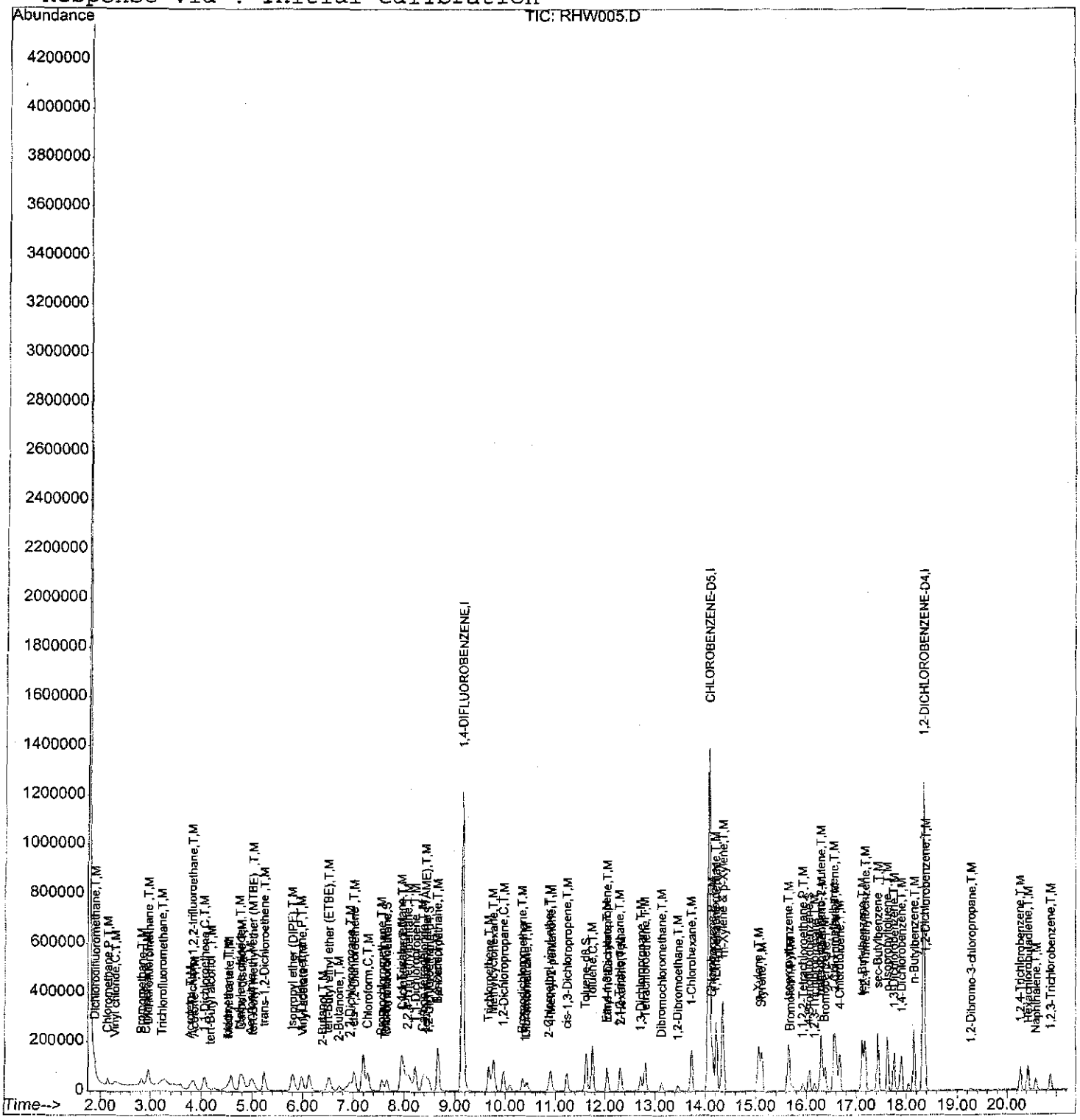
8-21-12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW005.D Vial: 4
Acq On : 15 Aug 2012 8:23 pm Operator: WL
Sample : VO06H153 Inst : TO06
Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2066

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW006.D
Acq On : 15 Aug 2012 8:54 pm
Sample : VO06H154
Misc : 2.0ppb 8260/10ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012

Vial: 5
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1618568	10.00 ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1396085	10.00 ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	508493	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	7.65	111	101453	2.08 ug/l	0.00
Spiked Amount 10.000			Recovery	= 20.80%	
38) 1,2-Dichloroethane-d4	8.48	65	86205	2.11 ug/l	0.00
Spiked Amount 10.000			Recovery	= 21.10%	
54) Toluene-d8	11.62	98	368158	2.07 ug/l	0.00
Spiked Amount 10.000			Recovery	= 20.70%	
76) 4-Bromofluorobenzene	16.05	95	117946	1.86 ug/l	0.00
Spiked Amount 10.000			Recovery	= 18.60%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.90	85	82608	1.98 ug/l	96
3) Chloromethane	2.15	50	105880	2.11 ug/l	99
4) Vinyl chloride	2.30	62	85560	2.27 ug/l	99
5) Bromomethane	2.81	94	63968	2.12 ug/l	98
6) Chloroethane	2.92	64	55972	2.17 ug/l	96
7) Dichlorofluoromethane	2.95	67	167155	1.88 ug/l	99
8) Trichlorofluoromethane	3.24	101	120111	2.09 ug/l	99
9) Acrolein	3.77	56	19857	9.99 ug/l	88
10) 1,1,2-Trichloro-1,2,2-trif	3.82	151	47113	1.73 ug/l	99
11) Acetone	3.86	43	67002	12.15 ug/l	98
12) 1,1-Dichloroethene	4.07	61	159017	1.87 ug/l	99
13) tert-Butyl alcohol	4.16	59	14837	9.48 ug/l	89
15) Methyl acetate	4.54	43	38601	2.14 ug/l	93
16) Iodomethane	4.53	142	133840	1.84 ug/l	100
17) Methylene chloride	4.81	49	141893	1.95 ug/l	96
18) Carbon disulfide	4.80	76	357660	2.06 ug/l	98
19) Acrylonitrile	4.98	53	75207	10.86 ug/l	98
20) tert-Butyl methyl ether (M	5.02	73	147462	1.94 ug/l	98
21) trans-1,2-Dichloroethene	5.23	61	171235	1.90 ug/l	99
22) Isopropyl ether (DIPE)	5.81	45	335920	1.92 ug/l	100
23) Vinyl acetate	6.00	43	132604	2.18 ug/l	98
24) 1,1-Dichloroethane	5.97	63	201521	1.96 ug/l	98
25) 2-Butanol	6.39	45	16314	10.66 ug/l	100
26) tert-Butyl ethyl ether (ET	6.52	59	249404	1.95 ug/l	97
27) 2-Butanone	6.72	43	102090	9.98 ug/l	100
28) 2,2-Dichloropropane	6.94	77	100286	1.94 ug/l	97
29) cis-1,2-Dichloroethene	7.03	96	116215	1.96 ug/l	95

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

8-21-12

2661

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW006.D
Acq On : 15 Aug 2012 8:54 pm
Sample : VO06H154
Misc : 2.0ppb 8260/10ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012

Vial: 5
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	Chloroform	7.30	83	182486	1.95 ug/l		99
32)	Bromochloromethane	7.56	49	79143	1.92 ug/l		97
33)	Tetrahydrofuran	7.64	42	15988	1.89 ug/l		92
35)	1,1,1-Trichloroethane	7.95	97	145342	1.91 ug/l		98
36)	Cyclohexane	7.98	56	249186	1.98 ug/l		98
37)	tert-Amyl methyl ether (TA	8.43	87	37682	1.89 ug/l	#	92
40)	2,2,4-Trimethylpentane	8.10	57	487559	2.14 ug/l	#	72
41)	1,1-Dichloropropene	8.22	110	50224	1.85 ug/l		98
42)	Carbon tetrachloride	8.38	119	123566	1.75 ug/l		98
43)	1,2-Dichloroethane	8.65	62	98273	1.92 ug/l		98
44)	Benzene	8.66	78	397990	1.89 ug/l		100
45)	Trichloroethene	9.67	130	107729	1.79 ug/l		98
46)	Methylcyclohexane	9.76	83	202463	2.08 ug/l		99
47)	1,2-Dichloropropane	9.96	63	101276	1.89 ug/l		98
48)	1,4-Dioxane	10.39	88	5668	34.16 ug/l		86
49)	Bromodichloromethane	10.34	83	118900	1.83 ug/l		98
50)	Dibromomethane	10.43	93	42323	1.82 ug/l		96
51)	2-Chloroethyl vinyl ether	10.86	63	30948	1.79 ug/l		96
52)	4-Methyl-2-pentanone	10.91	43	287213	10.41 ug/l		100
53)	cis-1,3-Dichloropropene	11.24	75	137917	1.83 ug/l		98
55)	Toluene	11.74	91	422830	1.93 ug/l		100
56)	Ethyl methacrylate	12.05	69	65922	1.84 ug/l		99
57)	trans-1,3-Dichloropropene	12.05	75	101468	1.84 ug/l		99
58)	1,1,2-Trichloroethane	12.31	97	50525	1.84 ug/l		98
59)	2-Hexanone	12.32	43	172004	10.47 ug/l		99
60)	1,3-Dichloropropane	12.71	76	107465	1.88 ug/l		99
61)	Tetrachloroethene	12.80	164	88580	1.86 ug/l		99
62)	Dibromochloromethane	13.14	129	65524	1.77 ug/l		100
64)	1,2-Dibromoethane	13.45	107	53132	1.86 ug/l		98
65)	1-Chlorohexane	13.72	91	168675	1.83 ug/l		98
66)	Chlorobenzene	14.13	112	247756	1.89 ug/l		97
67)	1,1,1,2-Tetrachloroethane	14.21	131	78848	1.90 ug/l		97
68)	Ethylbenzene	14.22	91	482379	1.96 ug/l		99
69)	m-Xylene & p-Xylene	14.34	91	715107	3.79 ug/l		99
70)	o-Xylene	15.06	91	365341	1.94 ug/l		99
71)	Styrene	15.12	104	248576	1.90 ug/l		99
73)	Isopropylbenzene	15.64	105	421211	1.77 ug/l		99
74)	Bromoform	15.67	173	29596	1.64 ug/l		94
75)	1,1,2,2-Tetrachloroethane	15.92	83	56006	1.76 ug/l		98
77)	1,2,3-Trichloropropane	16.17	110	15679	1.84 ug/l		96
78)	trans-1,4-Dichloro-2-buten	16.28	53	15639	1.64 ug/l		98

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

8-21-12

2062

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW006.D Vial: 5
Acq On : 15 Aug 2012 8:54 pm Operator: WL
Sample : VO06H154 Inst : TO06
Misc : 2.0ppb 8260/10ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79) n-Propylbenzene	16.29	91	577309	1.81 ug/l	100
80) Bromobenzene	16.38	156	88741	1.79 ug/l	99
81) 1,3,5-Trimethylbenzene	16.54	105	347648	1.82 ug/l	100
82) 2-Chlorotoluene	16.59	91	339754	1.71 ug/l	94
83) 4-Chlorotoluene	16.66	91	312137	1.94 ug/l	92
84) tert-Butylbenzene	17.12	134	77031	1.76 ug/l	94
85) 1,2,4-Trimethylbenzene	17.18	105	339828	1.85 ug/l	99
86) sec-Butylbenzene	17.43	105	494666	1.88 ug/l	98
87) p-Isopropyltoluene	17.61	119	375039	1.86 ug/l	99
88) 1,3-Dichlorobenzene	17.76	146	178657	1.82 ug/l	100
89) 1,4-Dichlorobenzene	17.90	146	169913	1.82 ug/l	99
91) n-Butylbenzene	18.15	91	378504	1.85 ug/l	99
92) 1,2-Dichlorobenzene	18.37	146	138371	1.84 ug/l	96
93) 1,2-Dibromo-3-chloropropan	19.26	157	6831	1.85 ug/l	93
94) 1,2,4-Trichlorobenzene	20.27	180	92641	1.96 ug/l	100
95) Hexachlorobutadiene	20.42	225	66920	2.01 ug/l	99
96) Naphthalene	20.59	128	119352	2.09 ug/l	99
97) 1,2,3-Trichlorobenzene	20.88	180	71975	2.04 ug/l	100

8-21-12

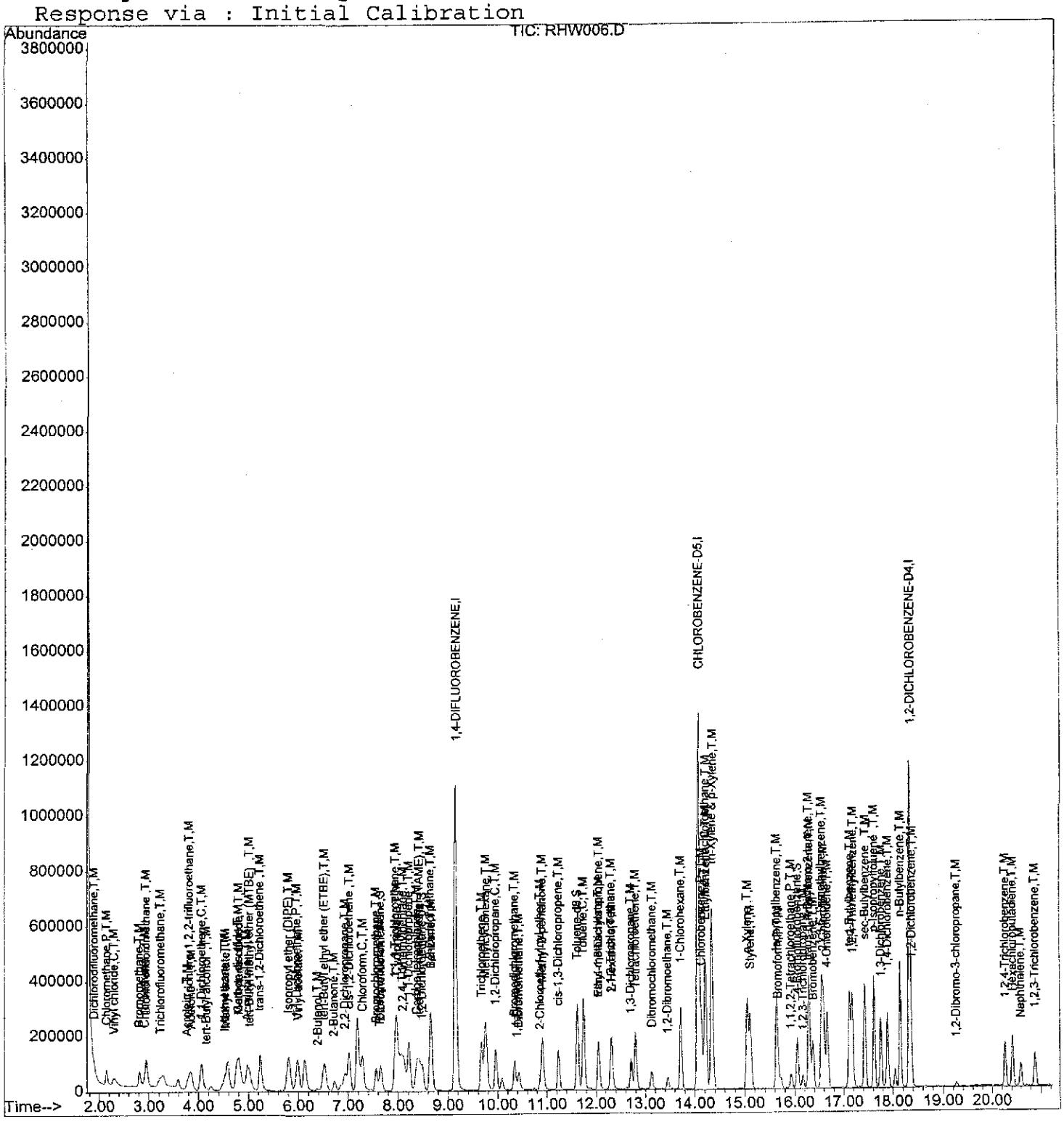
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW006.D
Acq On : 15 Aug 2012 8:54 pm
Sample : VO06H154
Misc : 2.0ppb 8260/10ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012

Vial: 5
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW007.D Vial: 6
Acq On : 15 Aug 2012 9:23 pm Operator: WL
Sample : VO06H155 Inst : TO06
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1604526	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1363601	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	475284	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.66	111	272737	5.63	ug/l	0.00
Spiked Amount 10.000			Recovery	=	56.30%	
38) 1,2-Dichloroethane-d4	8.49	65	223713	5.53	ug/l	0.00
Spiked Amount 10.000			Recovery	=	55.30%	
54) Toluene-d8	11.62	98	991496	5.70	ug/l	0.00
Spiked Amount 10.000			Recovery	=	57.00%	
76) 4-Bromofluorobenzene	16.05	95	318737	5.39	ug/l	0.00
Spiked Amount 10.000			Recovery	=	53.90%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	227348	5.49	ug/l	99
3) Chloromethane	2.15	50	274065	5.51	ug/l	99
4) Vinyl chloride	2.29	62	220559	5.91	ug/l	100
5) Bromomethane	2.82	94	174139	5.82	ug/l	98
6) Chloroethane	2.92	64	142362	5.57	ug/l	99
7) Dichlorofluoromethane	2.96	67	447796	5.08	ug/l	99
8) Trichlorofluoromethane	3.25	101	332011	5.82	ug/l	100
9) Acrolein	3.77	56	48101	24.40	ug/l	98
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	135307	5.02	ug/l	98
11) Acetone	3.87	43	133634	24.45	ug/l	99
12) 1,1-Dichloroethene	4.06	61	428148	5.08	ug/l	99
13) tert-Butyl alcohol	4.15	59	38933	25.10	ug/l	96
15) Methyl acetate	4.54	43	94696	5.30	ug/l	95
16) Iodomethane	4.53	142	368460	5.10	ug/l	100
17) Methylene chloride	4.76	49	330793	5.42	ug/l	88
18) Carbon disulfide	4.79	76	909489	5.28	ug/l	98
19) Acrylonitrile	4.97	53	169870	24.74	ug/l	99
20) tert-Butyl methyl ether (M	5.02	73	373095	4.95	ug/l	99
21) trans-1,2-Dichloroethene	5.24	61	460561	5.16	ug/l	99
22) Isopropyl ether (DIPE)	5.80	45	878334	5.06	ug/l	99
23) Vinyl acetate	6.00	43	327957	5.44	ug/l	99
24) 1,1-Dichloroethane	5.97	63	533874	5.23	ug/l	99
25) 2-Butanol	6.38	45	40749	26.87	ug/l	100
26) tert-Butyl ethyl ether (ET	6.52	59	628638	4.95	ug/l	100
27) 2-Butanone	6.73	43	229024	22.58	ug/l	99
28) 2,2-Dichloropropane	6.95	77	271706	5.31	ug/l	99
29) cis-1,2-Dichloroethene	7.02	96	296030	5.05	ug/l	98

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

RW 8-21-12

2065

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW007.D Vial: 6
Acq On : 15 Aug 2012 9:23 pm Operator: WL
Sample : VO06H155 Inst : TO06
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	Chloroform	7.29	83	466289	5.02 ug/l		99
32)	Bromochloromethane	7.56	49	201195	4.93 ug/l		99
33)	Tetrahydrofuran	7.62	42	33501	4.76 ug/l		96
35)	1,1,1-Trichloroethane	7.96	97	394281	5.22 ug/l		99
36)	Cyclohexane	7.97	56	662284	5.30 ug/l		97
37)	tert-Amyl methyl ether (TA	8.44	87	95347	4.82 ug/l		97
40)	2,2,4-Trimethylpentane	8.06	57	1257309	5.66 ug/l	#	71
41)	1,1-Dichloropropene	8.23	110	133700	5.04 ug/l		99
42)	Carbon tetrachloride	8.38	119	347046	5.03 ug/l		100
43)	1,2-Dichloroethane	8.64	62	248640	4.97 ug/l		98
44)	Benzene	8.66	78	1003623	4.87 ug/l		99
45)	Trichloroethene	9.67	130	294680	5.01 ug/l		99
46)	Methylcyclohexane	9.74	83	556650	5.86 ug/l		99
47)	1,2-Dichloropropane	9.97	63	258681	4.95 ug/l		99
48)	1,4-Dioxane	10.38	88	17298	106.75 ug/l		93
49)	Bromodichloromethane	10.34	83	314611	4.95 ug/l		100
50)	Dibromomethane	10.43	93	112515	4.96 ug/l		100
51)	2-Chloroethyl vinyl ether	10.86	63	84096	4.98 ug/l		97
52)	4-Methyl-2-pentanone	10.90	43	666513	24.72 ug/l		99
53)	cis-1,3-Dichloropropene	11.23	75	370435	5.04 ug/l		99
55)	Toluene	11.75	91	1094034	5.12 ug/l		100
56)	Ethyl methacrylate	12.05	69	172024	4.91 ug/l		98
57)	trans-1,3-Dichloropropene	12.05	75	265645	4.94 ug/l		98
58)	1,1,2-Trichloroethane	12.30	97	133903	4.99 ug/l		99
59)	2-Hexanone	12.32	43	398004	24.80 ug/l		99
60)	1,3-Dichloropropane	12.72	76	274852	4.92 ug/l		99
61)	Tetrachloroethene	12.81	164	231048	4.98 ug/l		98
62)	Dibromochloromethane	13.13	129	177559	4.91 ug/l		100
64)	1,2-Dibromoethane	13.46	107	138373	4.96 ug/l		100
65)	1-Chlorohexane	13.71	91	460739	5.12 ug/l		99
66)	Chlorobenzene	14.13	112	636167	4.97 ug/l		99
67)	1,1,1,2-Tetrachloroethane	14.20	131	202193	4.99 ug/l		99
68)	Ethylbenzene	14.22	91	1226929	5.12 ug/l		99
69)	m-Xylene & p-Xylene	14.34	91	1863799	10.12 ug/l		99
70)	o-Xylene	15.05	91	961229	5.22 ug/l		98
71)	Styrene	15.11	104	671239	5.27 ug/l		99
73)	Isopropylbenzene	15.63	105	1125864	5.06 ug/l		100
74)	Bromoform	15.68	173	79924	4.44 ug/l		98
75)	1,1,2,2-Tetrachloroethane	15.93	83	144519	4.86 ug/l		99
77)	1,2,3-Trichloropropane	16.17	110	39777	4.99 ug/l		95
78)	trans-1,4-Dichloro-2-buten	16.27	53	44561	4.98 ug/l		94

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW007.D Vial: 6
Acq On : 15 Aug 2012 9:23 pm Operator: WL
Sample : VO06H155 Inst : TO06
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.29	91	1530106	5.15 ug/l	100
80)	Bromobenzene	16.37	156	225647	4.87 ug/l	100
81)	1,3,5-Trimethylbenzene	16.55	105	908147	5.08 ug/l	99
82)	2-Chlorotoluene	16.58	91	946708	5.11 ug/l	100
83)	4-Chlorotoluene	16.66	91	719573	4.79 ug/l	100
84)	tert-Butylbenzene	17.12	134	207964	5.07 ug/l	98
85)	1,2,4-Trimethylbenzene	17.18	105	882877	5.14 ug/l	99
86)	sec-Butylbenzene	17.43	105	1274782	5.17 ug/l	99
87)	p-Isopropyltoluene	17.62	119	969946	5.14 ug/l	99
88)	1,3-Dichlorobenzene	17.76	146	456443	4.98 ug/l	99
89)	1,4-Dichlorobenzene	17.89	146	438860	5.02 ug/l	100
91)	n-Butylbenzene	18.14	91	1000797	5.22 ug/l	99
92)	1,2-Dichlorobenzene	18.37	146	352899	5.02 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.27	157	18345	5.33 ug/l	98
94)	1,2,4-Trichlorobenzene	20.27	180	242082	5.49 ug/l	99
95)	Hexachlorobutadiene	20.42	225	174184	5.59 ug/l	99
96)	Naphthalene	20.60	128	301325	5.63 ug/l	100
97)	1,2,3-Trichlorobenzene	20.89	180	183762	5.57 ug/l	99

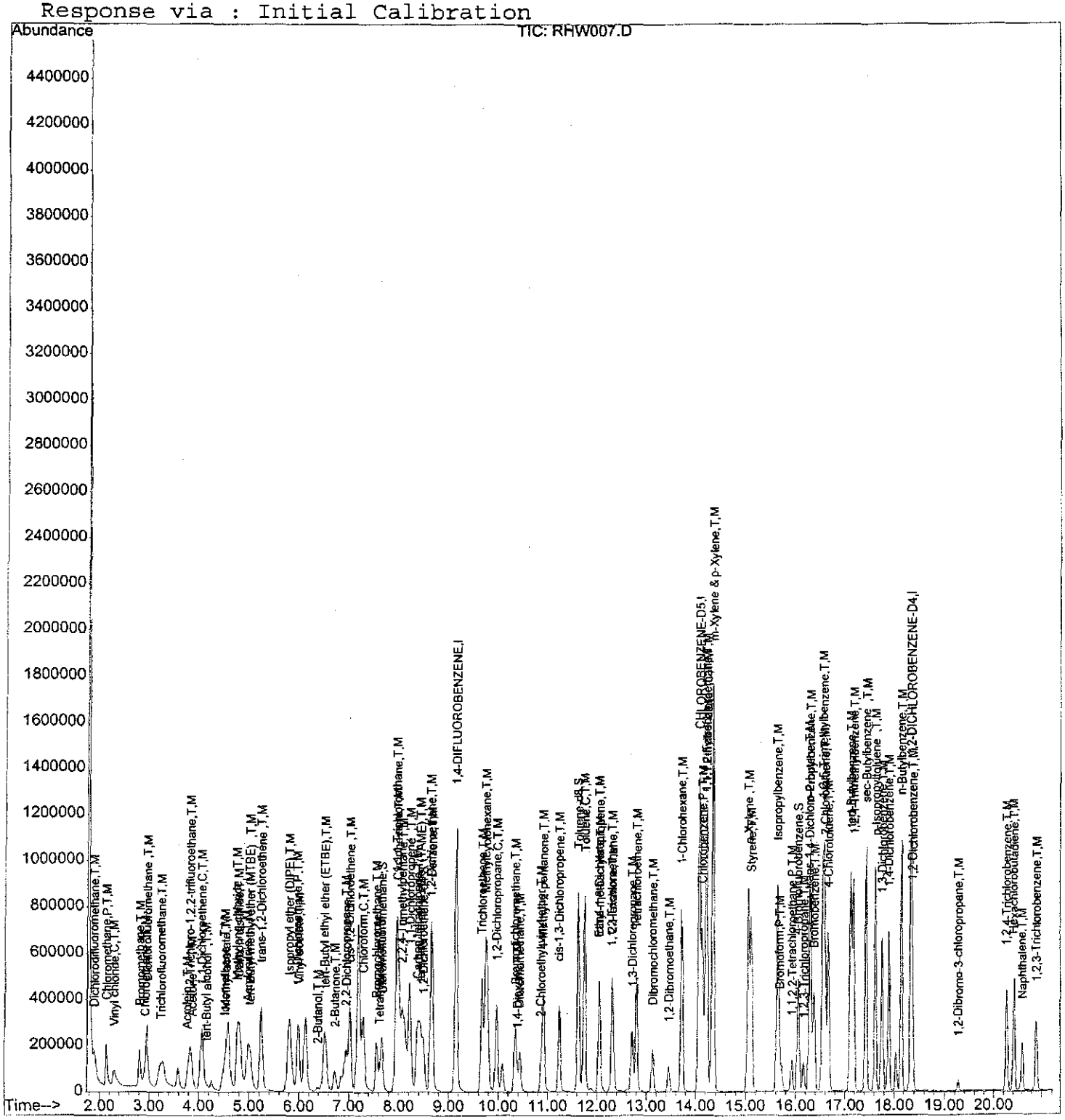
8-21-12

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW007.D Vial: 6
Acq On : 15 Aug 2012 9:23 pm Operator: WL
Sample : VO06H155 Inst : TO06
Misc : 5.0ppb 8260/25ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-22-12

2668

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW008.D Vial: 7
Acq On : 15 Aug 2012 9:54 pm Operator: WL
Sample : VO06H156 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1654332	10.00 ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1432235	10.00 ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	489315	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	7.66	111	547360	10.96 ug/l	0.00
Spiked Amount 10.000			Recovery	= 109.60%	
38) 1,2-Dichloroethane-d4	8.49	65	460705	11.04 ug/l	0.00
Spiked Amount 10.000			Recovery	= 110.40%	
54) Toluene-d8	11.62	98	1938847	10.61 ug/l	0.00
Spiked Amount 10.000			Recovery	= 106.10%	
76) 4-Bromofluorobenzene	16.05	95	634772	10.42 ug/l	0.00
Spiked Amount 10.000			Recovery	= 104.20%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.89	85	427306	10.02 ug/l	100
3) Chloromethane	2.15	50	528794	10.31 ug/l	100
4) Vinyl chloride	2.29	62	390122	10.13 ug/l	100
5) Bromomethane	2.81	94	334700	10.85 ug/l	100
6) Chloroethane	2.92	64	288185	10.95 ug/l	100
7) Dichlorofluoromethane	2.96	67	949901	10.46 ug/l	100
8) Trichlorofluoromethane	3.25	101	618983	10.53 ug/l	100
9) Acrolein	3.77	56	103473	50.91 ug/l	100
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	279245	10.04 ug/l	100
11) Acetone	3.86	43	281216	49.91 ug/l	100
12) 1,1-Dichloroethene	4.06	61	883388	10.17 ug/l	100
13) tert-Butyl alcohol	4.15	59	91451	57.19 ug/l	100
15) Methyl acetate	4.54	43	172219	9.36 ug/l	100
16) Iodomethane	4.52	142	752457	10.10 ug/l	100
17) Methylene chloride	4.76	49	648778	10.88 ug/l	100
18) Carbon disulfide	4.79	76	1876655	10.57 ug/l	100
19) Acrylonitrile	4.97	53	362605	51.22 ug/l	100
20) tert-Butyl methyl ether (M	5.02	73	817115	10.50 ug/l	100
21) trans-1,2-Dichloroethene	5.24	61	924416	10.04 ug/l	100
22) Isopropyl ether (DIPE)	5.80	45	1857211	10.37 ug/l	100
23) Vinyl acetate	6.00	43	656451	10.55 ug/l	100
24) 1,1-Dichloroethane	5.97	63	1073447	10.19 ug/l	100
25) 2-Butanol	6.37	45	73836	47.22 ug/l	100
26) tert-Butyl ethyl ether (ET	6.52	59	1345996	10.29 ug/l	100
27) 2-Butanone	6.72	43	512648	49.02 ug/l	100
28) 2,2-Dichloropropane	6.93	77	546977	10.36 ug/l	100
29) cis-1,2-Dichloroethene	7.02	96	600621	9.93 ug/l	100

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW008.D Vial: 7
Acq On : 15 Aug 2012 9:54 pm Operator: WL
Sample : VO06H156 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30)	Chloroform	7.29	83	951680	9.95 ug/l	100
32)	Bromochloromethane	7.56	49	433861	10.30 ug/l	100
33)	Tetrahydrofuran	7.62	42	67722	9.99 ug/l	100
35)	1,1,1-Trichloroethane	7.96	97	800820	10.29 ug/l	100
36)	Cyclohexane	7.97	56	1217420	9.45 ug/l	100
37)	tert-Amyl methyl ether (TA	8.43	87	219210	10.75 ug/l	100
40)	2,2,4-Trimethylpentane	8.09	57	2315931	9.92 ug/l	100
41)	1,1-Dichloropropene	8.21	110	273735	9.83 ug/l	100
42)	Carbon tetrachloride	8.38	119	729817	10.07 ug/l	100
43)	1,2-Dichloroethane	8.64	62	524892	9.98 ug/l	100
44)	Benzene	8.66	78	2088809	9.65 ug/l	100
45)	Trichloroethene	9.67	130	611201	9.89 ug/l	100
46)	Methylcyclohexane	9.76	83	1003583	10.06 ug/l	100
47)	1,2-Dichloropropane	9.97	63	548408	9.98 ug/l	100
48)	1,4-Dioxane	10.38	88	34812	204.54 ug/l	100
49)	Bromodichloromethane	10.34	83	683254	10.24 ug/l	100
50)	Dibromomethane	10.43	93	241256	10.12 ug/l	100
51)	2-Chloroethyl vinyl ether	10.87	63	188502	10.63 ug/l	100
52)	4-Methyl-2-pentanone	10.90	43	1480123	52.27 ug/l	100
53)	cis-1,3-Dichloropropene	11.23	75	798774	10.35 ug/l	100
55)	Toluene	11.75	91	2212675	9.86 ug/l	100
56)	Ethyl methacrylate	12.05	69	390843	10.62 ug/l	100
57)	trans-1,3-Dichloropropene	12.05	75	591390	10.47 ug/l	100
58)	1,1,2-Trichloroethane	12.30	97	289819	10.29 ug/l	100
59)	2-Hexanone	12.32	43	881961	52.33 ug/l	100
60)	1,3-Dichloropropane	12.72	76	606294	10.34 ug/l	100
61)	Tetrachloroethene	12.81	164	480324	9.85 ug/l	100
62)	Dibromochloromethane	13.13	129	400566	10.55 ug/l	100
64)	1,2-Dibromoethane	13.46	107	304845	10.39 ug/l	100
65)	1-Chlorohexane	13.71	91	970386	10.27 ug/l	100
66)	Chlorobenzene	14.13	112	1309865	9.74 ug/l	100
67)	1,1,1,2-Tetrachloroethane	14.20	131	440434	10.34 ug/l	100
68)	Ethylbenzene	14.22	91	2530951	10.05 ug/l	100
69)	m-Xylene & p-Xylene	14.34	91	3757093	19.42 ug/l	100
70)	o-Xylene	15.05	91	1977643	10.22 ug/l	100
71)	Styrene	15.11	104	1389288	10.38 ug/l	100
73)	Isopropylbenzene	15.63	105	2312854	10.09 ug/l	100
74)	Bromoform	15.68	173	182928	9.67 ug/l	100
75)	1,1,2,2-Tetrachloroethane	15.93	83	314044	10.27 ug/l	100
77)	1,2,3-Trichloropropane	16.17	110	85665	10.45 ug/l	100
78)	trans-1,4-Dichloro-2-buten	16.27	53	96916	10.53 ug/l	100

(#) = qualifier out of range (m) = manual integration
RHW008.D VO06H15.M Mon Aug 20 17:23:44 2012 8-21-12 Page 2

2070

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW008.D Vial: 7
Acq On : 15 Aug 2012 9:54 pm Operator: WL
Sample : VO06H156 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.28	91	3119921	10.19 ug/l	100
80)	Bromobenzene	16.37	156	478948	10.04 ug/l	100
81)	1,3,5-Trimethylbenzene	16.55	105	1822878	9.91 ug/l	100
82)	2-Chlorotoluene	16.58	91	1907368	9.99 ug/l	100
83)	4-Chlorotoluene	16.66	91	1509268	9.75 ug/l	100
84)	tert-Butylbenzene	17.12	134	415879	9.85 ug/l	100
85)	1,2,4-Trimethylbenzene	17.18	105	1762714	9.97 ug/l	100
86)	sec-Butylbenzene	17.43	105	2514703	9.91 ug/l	100
87)	p-Isopropyltoluene	17.62	119	1931202	9.94 ug/l	100
88)	1,3-Dichlorobenzene	17.76	146	934080	9.90 ug/l	100
89)	1,4-Dichlorobenzene	17.89	146	891765	9.91 ug/l	100
91)	n-Butylbenzene	18.16	91	1930358	9.79 ug/l	100
92)	1,2-Dichlorobenzene	18.37	146	711399	9.83 ug/l	100
93)	1,2-Dibromo-3-chloropropan	19.27	157	35677	10.06 ug/l	100
94)	1,2,4-Trichlorobenzene	20.27	180	433509	9.55 ug/l	100
95)	Hexachlorobutadiene	20.42	225	316442	9.87 ug/l	100
96)	Naphthalene	20.60	128	551804	10.02 ug/l	100
97)	1,2,3-Trichlorobenzene	20.89	180	323344	9.52 ug/l	100

8-21-12

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

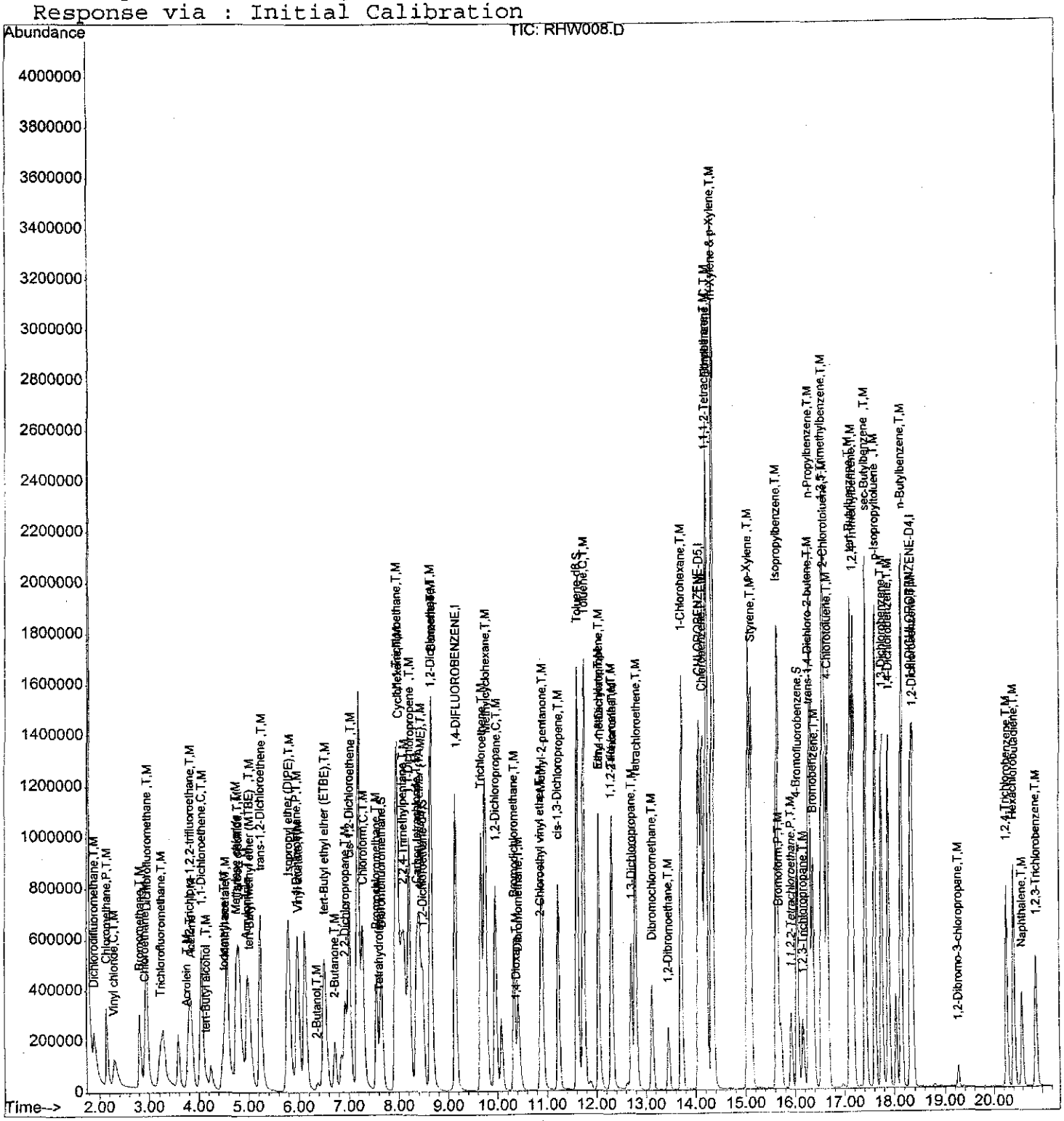
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW008.D
Acq On : 15 Aug 2012 9:54 pm
Sample : VO06H156
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:16 2012

Vial: 7
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8/21-4

2072

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW009.D Vial: 8
Acq On : 15 Aug 2012 10:23 pm Operator: WL
Sample : VO06H157 Inst : TO06
Misc : 20ppb 8260/100ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1702228	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1429844	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	426712	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.65	111	1079724	21.01	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	210.10%	
38) 1,2-Dichloroethane-d4	8.48	65	873390	20.35	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	203.50%	
54) Toluene-d8	11.62	98	3685826	20.20	ug/l	0.00
Spiked Amount 10.000			Recovery	=	202.00%	
76) 4-Bromofluorobenzene	16.05	95	1178645	22.19	ug/l	0.00
Spiked Amount 10.000			Recovery	=	221.90%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.90	85	830282	18.91	ug/l	99
3) Chloromethane	2.15	50	1015909	19.26	ug/l	100
4) Vinyl chloride	2.31	62	680702	17.18	ug/l	100
5) Bromomethane	2.82	94	668082	21.04	ug/l	100
6) Chloroethane	2.92	64	555917	20.52	ug/l	99
7) Dichlorofluoromethane	2.95	67	1919163	20.54	ug/l	100
8) Trichlorofluoromethane	3.23	101	1221096	20.19	ug/l	99
9) Acrolein	3.77	56	207737	99.33	ug/l	100
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	580247	20.27	ug/l	99
11) Acetone	3.86	43	524561	90.48	ug/l	99
12) 1,1-Dichloroethene	4.07	61	1814652	20.30	ug/l	99
13) tert-Butyl alcohol	4.16	59	162216	98.60	ug/l	100
15) Methyl acetate	4.54	43	332823	17.57	ug/l	100
16) Iodomethane	4.53	142	1574187	20.53	ug/l	100
17) Methylene chloride	4.81	49	1274511	21.33	ug/l	98
18) Carbon disulfide	4.79	76	3711027	20.31	ug/l	100
19) Acrylonitrile	4.97	53	699233	95.99	ug/l	99
20) tert-Butyl methyl ether (M	5.02	73	1555724	19.44	ug/l	99
21) trans-1,2-Dichloroethene	5.23	61	1927347	20.35	ug/l	98
22) Isopropyl ether (DIPE)	5.79	45	3673351	19.94	ug/l	100
23) Vinyl acetate	6.00	43	1240010	19.38	ug/l	100
24) 1,1-Dichloroethane	5.97	63	2187069	20.18	ug/l	100
25) 2-Butanol	6.37	45	145463	90.40	ug/l	98
26) tert-Butyl ethyl ether (ET	6.52	59	2702939	20.08	ug/l	99
27) 2-Butanone	6.71	43	962544	89.45	ug/l	98
28) 2,2-Dichloropropane	6.94	77	1079048	19.87	ug/l	99
29) cis-1,2-Dichloroethene	7.03	96	1248250	20.07	ug/l	97

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

2073

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW009.D Vial: 8
Acq On : 15 Aug 2012 10:23 pm Operator: WL
Sample : VO06H157 Inst : TO06
Misc : 20ppb 8260/100ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30)	Chloroform	7.29	83	1945597	19.76 ug/l	100
32)	Bromochloromethane	7.56	49	864341	19.95 ug/l	99
33)	Tetrahydrofuran	7.62	42	121803	17.97 ug/l	97
35)	1,1,1-Trichloroethane	7.95	97	1635104	20.42 ug/l	99
36)	Cyclohexane	7.98	56	2404745	18.13 ug/l	100
37)	tert-Amyl methyl ether (TA	8.42	87	425315	20.27 ug/l	97
40)	2,2,4-Trimethylpentane	8.10	57	4166860	17.88 ug/l	94
41)	1,1-Dichloropropene	8.21	110	566065	20.35 ug/l	100
42)	Carbon tetrachloride	8.38	119	1499346	20.72 ug/l	100
43)	1,2-Dichloroethane	8.65	62	1031493	19.65 ug/l	99
44)	Benzene	8.66	78	4245350	19.64 ug/l	100
45)	Trichloroethene	9.67	130	1242633	20.13 ug/l	99
46)	Methylcyclohexane	9.76	83	1952582	19.60 ug/l	100
47)	1,2-Dichloropropane	9.95	63	1110418	20.25 ug/l	100
48)	1,4-Dioxane	10.39	88	71568	421.20 ug/l	98
49)	Bromodichloromethane	10.34	83	1411441	21.19 ug/l	99
50)	Dibromomethane	10.43	93	487601	20.49 ug/l	99
51)	2-Chloroethyl vinyl ether	10.86	63	367735	20.77 ug/l	99
52)	4-Methyl-2-pentanone	10.91	43	2775791	98.19 ug/l	99
53)	cis-1,3-Dichloropropene	11.23	75	1602324	20.80 ug/l	99
55)	Toluene	11.74	91	4481231	20.01 ug/l	100
56)	Ethyl methacrylate	12.05	69	754073	20.53 ug/l	99
57)	trans-1,3-Dichloropropene	12.05	75	1179460	20.91 ug/l	97
58)	1,1,2-Trichloroethane	12.30	97	559496	19.89 ug/l	99
59)	2-Hexanone	12.32	43	1636610	97.26 ug/l	100
60)	1,3-Dichloropropane	12.70	76	1147791	19.60 ug/l	100
61)	Tetrachloroethene	12.79	164	978703	20.10 ug/l	100
62)	Dibromochloromethane	13.14	129	800309	21.10 ug/l	100
64)	1,2-Dibromoethane	13.45	107	599055	20.46 ug/l	99
65)	1-Chlorohexane	13.72	91	1928084	20.43 ug/l	99
66)	Chlorobenzene	14.13	112	2714035	20.21 ug/l	98
67)	1,1,1,2-Tetrachloroethane	14.21	131	874511	20.57 ug/l	99
68)	Ethylbenzene	14.22	91	4973785	19.78 ug/l	99
69)	m-Xylene & p-Xylene	14.34	91	7392958	38.28 ug/l	99
70)	o-Xylene	15.05	91	3917118	20.27 ug/l	100
71)	Styrene	15.11	104	2708432	20.26 ug/l	100
73)	Isopropylbenzene	15.63	105	4564697	22.83 ug/l	99
74)	Bromoform	15.66	173	357667	21.48 ug/l	99
75)	1,1,2,2-Tetrachloroethane	15.93	83	570540	21.39 ug/l	100
77)	1,2,3-Trichloropropane	16.17	110	152569	21.33 ug/l	99
78)	trans-1,4-Dichloro-2-buten	16.27	53	178995	22.30 ug/l	97

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

8-21-12

2074

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW009.D Vial: 8
Acq On : 15 Aug 2012 10:23 pm Operator: WL
Sample : VO06H157 Inst : TO06
Misc : 20ppb 8260/100ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.29	91	5959397	22.33 ug/l	99
80)	Bromobenzene	16.38	156	924045	22.20 ug/l	99
81)	1,3,5-Trimethylbenzene	16.55	105	3527607	21.98 ug/l	99
82)	2-Chlorotoluene	16.58	91	3739562	22.47 ug/l	99
83)	4-Chlorotoluene	16.66	91	2857965	21.17 ug/l	100
84)	tert-Butylbenzene	17.12	134	803678	21.82 ug/l	97
85)	1,2,4-Trimethylbenzene	17.18	105	3319292	21.52 ug/l	100
86)	sec-Butylbenzene	17.43	105	4756148	21.48 ug/l	100
87)	p-Isopropyltoluene	17.61	119	3612980	21.33 ug/l	100
88)	1,3-Dichlorobenzene	17.76	146	1789970	21.75 ug/l	100
89)	1,4-Dichlorobenzene	17.89	146	1681857	21.43 ug/l	100
91)	n-Butylbenzene	18.15	91	3604934	20.95 ug/l	100
92)	1,2-Dichlorobenzene	18.37	146	1269889	20.13 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.28	157	56167	18.16 ug/l	98
94)	1,2,4-Trichlorobenzene	20.27	180	709001	17.91 ug/l	100
95)	Hexachlorobutadiene	20.42	225	485824	17.37 ug/l	99
96)	Naphthalene	20.60	128	820193	17.08 ug/l	100
97)	1,2,3-Trichlorobenzene	20.88	180	480501	16.23 ug/l	100

RW 8-21-12

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

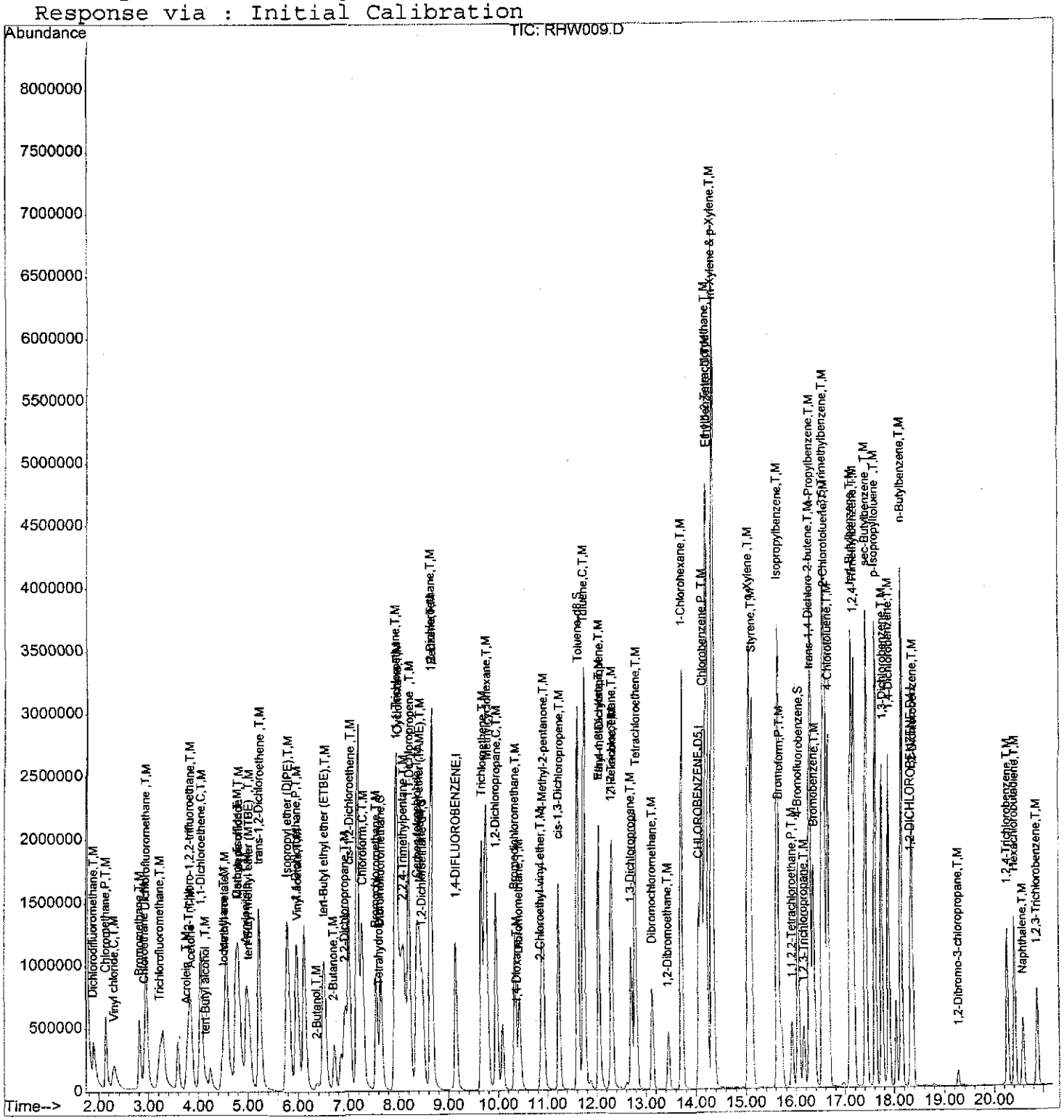
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW009.D
Acq On : 15 Aug 2012 10:23 pm
Sample : VO06H157
Misc : 20ppb 8260/100ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012

Vial: 8
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2876

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW010.D Vial: 9
Acq On : 15 Aug 2012 10:53 pm Operator: WL
Sample : VO06H158 Inst : TO06
Misc : 30ppb 8260/150ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1651261	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1410191	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	454935	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.66	111	1666483	33.43	ug/l	0.00
Spiked Amount 10.000			Recovery	=	334.30%	
38) 1,2-Dichloroethane-d4	8.49	65	1360934	32.68	ug/l	0.00
Spiked Amount 10.000			Recovery	=	326.80%	
54) Toluene-d8	11.62	98	5642516	31.36	ug/l	0.00
Spiked Amount 10.000			Recovery	=	313.60%	
76) 4-Bromofluorobenzene	16.05	95	1844820	32.58	ug/l	0.00
Spiked Amount 10.000			Recovery	=	325.80%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	1275311	29.95	ug/l	100
3) Chloromethane	2.15	50	1546366	30.21	ug/l	100
4) Vinyl chloride	2.31	62	897041	23.34	ug/l	100
5) Bromomethane	2.81	94	989584	32.13	ug/l	100
6) Chloroethane	2.92	64	811923	30.90	ug/l	99
7) Dichlorofluoromethane	2.96	67	2767050	30.52	ug/l	100
8) Trichlorofluoromethane	3.25	101	1806930	30.80	ug/l	100
9) Acrolein	3.77	56	339247	167.22	ug/l	96
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	861137	31.02	ug/l	99
11) Acetone	3.86	43	874803	155.54	ug/l	99
12) 1,1-Dichloroethene	4.06	61	2682690	30.94	ug/l	99
13) tert-Butyl alcohol	4.15	59	297116	186.16	ug/l	96
15) Methyl acetate	4.54	43	572747	31.18	ug/l	98
16) Iodomethane	4.52	142	2397720	32.23	ug/l	99
17) Methylene chloride	4.81	49	1939444	33.81	ug/l	99
18) Carbon disulfide	4.79	76	5705494	32.20	ug/l	100
19) Acrylonitrile	4.97	53	1191290	168.58	ug/l	99
20) tert-Butyl methyl ether (M	5.02	73	2585720	33.30	ug/l	99
21) trans-1,2-Dichloroethene	5.24	61	2831262	30.81	ug/l	97
22) Isopropyl ether (DIPE)	5.80	45	5786168	32.38	ug/l	99
23) Vinyl acetate	6.00	43	2013120	32.43	ug/l	99
24) 1,1-Dichloroethane	5.97	63	3219862	30.63	ug/l	100
25) 2-Butanol	6.37	45	273158	175.00	ug/l	97
26) tert-Butyl ethyl ether (ET	6.52	59	4341556	33.24	ug/l	100
27) 2-Butanone	6.72	43	1708067	163.63	ug/l	99
28) 2,2-Dichloropropane	6.93	77	1537998	29.19	ug/l	99
29) cis-1,2-Dichloroethene	7.02	96	1868651	30.97	ug/l	96

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

8-21-12

2077

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW010.D
Acq On : 15 Aug 2012 10:53 pm
Sample : VO06H158
Misc : 30ppb 8260/150ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012

Vial: 9
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30)	Chloroform	7.29	83	2931306	30.69 ug/l	99
32)	Bromochloromethane	7.56	49	1369146	32.57 ug/l	98
33)	Tetrahydrofuran	7.62	42	208700	32.26 ug/l	94
35)	1,1,1-Trichloroethane	7.96	97	2357923	30.35 ug/l	99
36)	Cyclohexane	7.97	56	3371958	26.21 ug/l	97
37)	tert-Amyl methyl ether (TA	8.43	87	695504	34.18 ug/l	96
40)	2,2,4-Trimethylpentane	8.09	57	6682091	29.08 ug/l	97
41)	1,1-Dichloropropene	8.23	110	837598	30.54 ug/l	100
42)	Carbon tetrachloride	8.38	119	2209232	30.96 ug/l	100
43)	1,2-Dichloroethane	8.64	62	1613405	31.17 ug/l	99
44)	Benzene	8.66	78	6368767	29.87 ug/l	100
45)	Trichloroethene	9.67	130	1847858	30.35 ug/l	99
46)	Methylcyclohexane	9.76	83	2890693	29.42 ug/l	99
47)	1,2-Dichloropropane	9.97	63	1684265	31.14 ug/l	98
48)	1,4-Dioxane	10.38	88	118429	706.71 ug/l	98
49)	Bromodichloromethane	10.34	83	2153010	32.78 ug/l	100
50)	Dibromomethane	10.43	93	775392	33.04 ug/l	99
51)	2-Chloroethyl vinyl ether	10.87	63	621401	35.58 ug/l	100
52)	4-Methyl-2-pentanone	10.90	43	4688824	168.17 ug/l	99
53)	cis-1,3-Dichloropropene	11.23	75	2520665	33.18 ug/l	99
55)	Toluene	11.75	91	6597671	29.87 ug/l	99
56)	Ethyl methacrylate	12.05	69	1243867	34.34 ug/l	100
57)	trans-1,3-Dichloropropene	12.05	75	1862112	33.47 ug/l	99
58)	1,1,2-Trichloroethane	12.30	97	907780	32.72 ug/l	99
59)	2-Hexanone	12.32	43	2768932	166.85 ug/l	99
60)	1,3-Dichloropropane	12.72	76	1870450	32.39 ug/l	99
61)	Tetrachloroethene	12.81	164	1440053	29.99 ug/l	100
62)	Dibromochloromethane	13.13	129	1313414	35.12 ug/l	99
64)	1,2-Dibromoethane	13.46	107	980338	33.95 ug/l	99
65)	1-Chlorohexane	13.71	91	2865406	30.79 ug/l	99
66)	Chlorobenzene	14.13	112	4073976	30.76 ug/l	99
67)	1,1,1,2-Tetrachloroethane	14.20	131	1342036	32.00 ug/l	99
68)	Ethylbenzene	14.22	91	7329738	29.55 ug/l	98
69)	m-Xylene & p-Xylene	14.34	91	10804861	56.73 ug/l	98
70)	o-Xylene	15.05	91	5855917	30.72 ug/l	99
71)	Styrene	15.11	104	4052241	30.74 ug/l	99
73)	Isopropylbenzene	15.63	105	6663214	31.26 ug/l	99
74)	Bromoform	15.68	173	603769	33.92 ug/l	99
75)	1,1,2,2-Tetrachloroethane	15.93	83	983894	34.59 ug/l	100
77)	1,2,3-Trichloropropane	16.17	110	273096	35.82 ug/l	98
78)	trans-1,4-Dichloro-2-buten	16.27	53	297132	34.72 ug/l	95

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

2078

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW010.D Vial: 9
Acq On : 15 Aug 2012 10:53 pm Operator: WL
Sample : VO06H158 Inst : TO06
Misc : 30ppb 8260/150ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.30	91	8774815	30.83 ug/l	98
80)	Bromobenzene	16.37	156	1434106	32.32 ug/l	98
81)	1,3,5-Trimethylbenzene	16.55	105	5260120	30.75 ug/l	99
82)	2-Chlorotoluene	16.58	91	5467680	30.82 ug/l	98
83)	4-Chlorotoluene	16.66	91	4350802	30.23 ug/l	99
84)	tert-Butylbenzene	17.12	134	1229405	31.31 ug/l	96
85)	1,2,4-Trimethylbenzene	17.18	105	5012006	30.48 ug/l	98
86)	sec-Butylbenzene	17.43	105	7187835	30.45 ug/l	98
87)	p-Isopropyltoluene	17.62	119	5446422	30.16 ug/l	99
88)	1,3-Dichlorobenzene	17.76	146	2758213	31.44 ug/l	100
89)	1,4-Dichlorobenzene	17.89	146	2616885	31.27 ug/l	100
91)	n-Butylbenzene	18.14	91	5398158	29.43 ug/l	99
92)	1,2-Dichlorobenzene	18.37	146	2069671	30.77 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.27	157	103996	31.54 ug/l	98
94)	1,2,4-Trichlorobenzene	20.27	180	1149323	27.24 ug/l	100
95)	Hexachlorobutadiene	20.42	225	741384	24.87 ug/l	100
96)	Naphthalene	20.60	128	1403953	27.42 ug/l	99
97)	1,2,3-Trichlorobenzene	20.88	180	746543	23.65 ug/l	99

TM 8-21-12

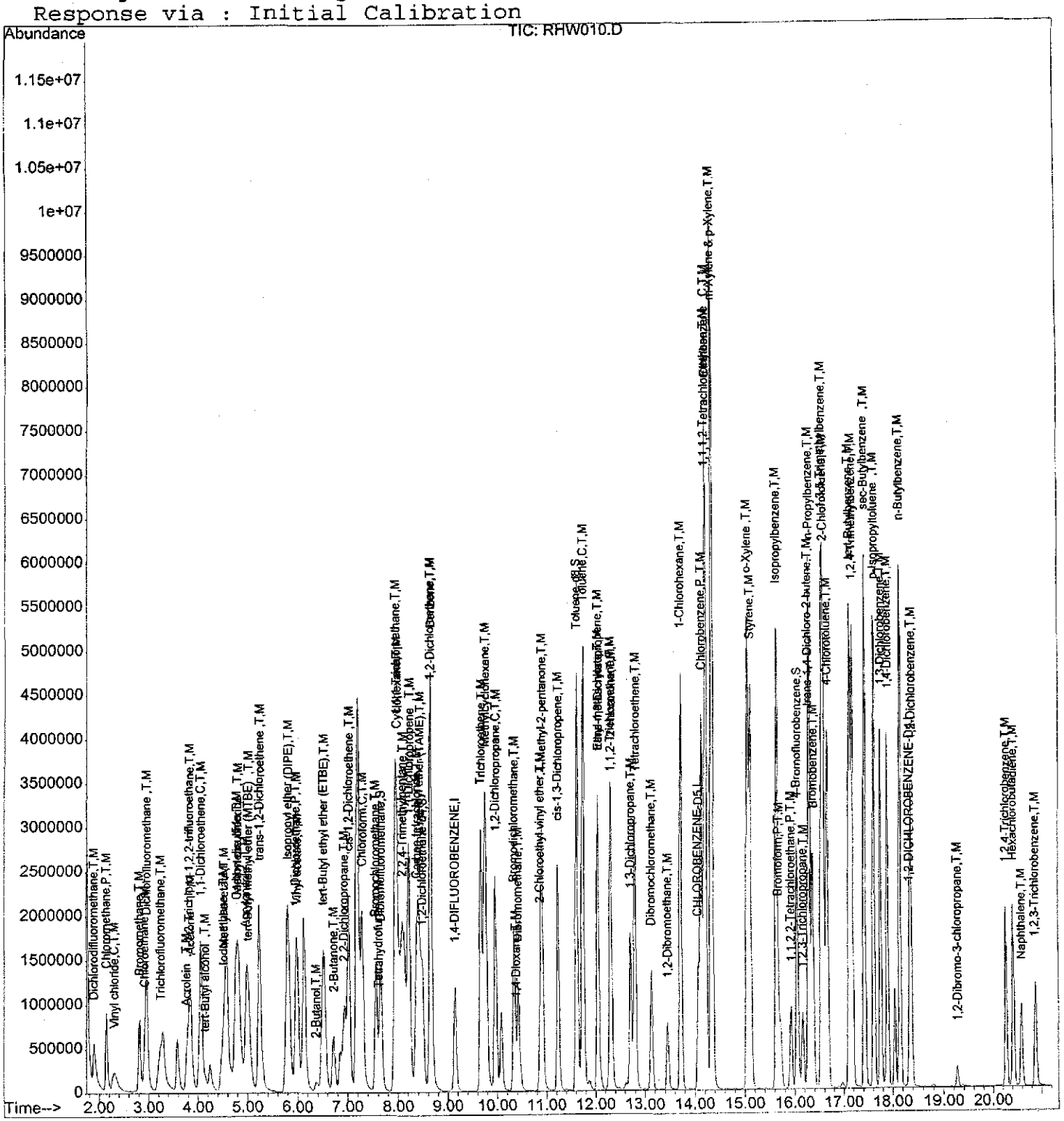
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW010.D
Acq On : 15 Aug 2012 10:53 pm
Sample : VO06H158
Misc : 30ppb 8260/150ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:29 2012

Vial: 9
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2080

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW011.D Vial: 10
Acq On : 15 Aug 2012 11:24 pm Operator: WL
Sample : VO06H159 Inst : TO06
Misc : 50ppb 8260/250ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1604978	10.00 ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1309880	10.00 ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	416256	10.00 ug/l	0.00
System Monitoring Compounds					
34) Dibromofluoromethane	7.66	111	2577109	53.18 ug/l	0.00
Spiked Amount 10.000			Recovery	= 531.80%	
38) 1,2-Dichloroethane-d4	8.49	65	1996317	49.32 ug/l	0.00
Spiked Amount 10.000			Recovery	= 493.20%	
54) Toluene-d8	11.62	98	8677452	51.92 ug/l	0.00
Spiked Amount 10.000			Recovery	= 519.20%	
76) 4-Bromofluorobenzene	16.05	95	2709042	52.29 ug/l	0.00
Spiked Amount 10.000			Recovery	= 522.90%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.89	85	2091234	50.53 ug/l	100
3) Chloromethane	2.15	50	2460705	49.47 ug/l	100
4) Vinyl chloride	2.31	62	1382123	37.00 ug/l	99
5) Bromomethane	2.80	94	1527871	51.04 ug/l	100
6) Chloroethane	2.92	64	1291157	50.55 ug/l	98
7) Dichlorofluoromethane	2.96	67	4273522	48.50 ug/l	100
8) Trichlorofluoromethane	3.25	101	2919370	51.19 ug/l	100
9) Acrolein	3.77	56	470119	238.41 ug/l	97
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	1413204	52.37 ug/l	100
11) Acetone	3.86	43	1184293	216.65 ug/l	99
12) 1,1-Dichloroethene	4.06	61	4342876	51.53 ug/l	98
13) tert-Butyl alcohol	4.17	59	370167	238.62 ug/l	95
15) Methyl acetate	4.54	43	780245	43.70 ug/l	97
16) Iodomethane	4.52	142	3754849	51.93 ug/l	99
17) Methylene chloride	4.81	49	2877389	51.93 ug/l	87
18) Carbon disulfide	4.79	76	9569287	55.56 ug/l	100
19) Acrylonitrile	4.97	53	1602092	233.26 ug/l	99
20) tert-Butyl methyl ether (M	5.01	73	3515638	46.58 ug/l	99
21) trans-1,2-Dichloroethene	5.24	61	4433671	49.64 ug/l	96
22) Isopropyl ether (DIPE)	5.80	45	8390456	48.31 ug/l	98
23) Vinyl acetate	6.00	43	2895132	47.98 ug/l	99
24) 1,1-Dichloroethane	5.97	63	5035917	49.29 ug/l	100
25) 2-Butanol	6.38	45	353232	232.83 ug/l	98
26) tert-Butyl ethyl ether (ET	6.52	59	6158753	48.52 ug/l	100
27) 2-Butanone	6.72	43	2317529	228.42 ug/l	98
28) 2,2-Dichloropropane	6.93	77	2339720	45.69 ug/l	98
29) cis-1,2-Dichloroethene	7.02	96	2868115	48.90 ug/l	96

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

2081

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW011.D
Acq On : 15 Aug 2012 11:24 pm
Sample : VO06H159
Misc : 50ppb 8260/250ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012

Vial: 10
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
30)	Chloroform	7.29	83	4503324	48.51 ug/l	100
32)	Bromochloromethane	7.56	49	1970775	48.24 ug/l	97
33)	Tetrahydrofuran	7.62	42	266132	42.54 ug/l	93
35)	1,1,1-Trichloroethane	7.96	97	3730829	49.40 ug/l	99
36)	Cyclohexane	7.97	56	5554535	44.42 ug/l	95
37)	tert-Amyl methyl ether (TA	8.43	87	961306	48.60 ug/l	96
40)	2,2,4-Trimethylpentane	8.11	57	11028641	51.66 ug/l	98
41)	1,1-Dichloropropene	8.23	110	1354130	53.15 ug/l	100
42)	Carbon tetrachloride	8.37	119	3613270	54.51 ug/l	100
43)	1,2-Dichloroethane	8.64	62	2308306	48.01 ug/l	99
44)	Benzene	8.66	78	9709779	49.03 ug/l	99
45)	Trichloroethene	9.67	130	2976696	52.64 ug/l	99
46)	Methylcyclohexane	9.76	83	4861884	53.27 ug/l	98
47)	1,2-Dichloropropane	9.97	63	2531105	50.38 ug/l	98
48)	1,4-Dioxane	10.38	88	156804	1007.36 ug/l	96
49)	Bromodichloromethane	10.34	83	3193999	52.35 ug/l	99
50)	Dibromomethane	10.43	93	1095367	50.24 ug/l	99
51)	2-Chloroethyl vinyl ether	10.87	63	844103	52.04 ug/l	100
52)	4-Methyl-2-pentanone	10.90	43	6205771	239.62 ug/l	98
53)	cis-1,3-Dichloropropene	11.23	75	3664921	51.94 ug/l	98
55)	Toluene	11.75	91	10139191	49.42 ug/l	98
56)	Ethyl methacrylate	12.05	69	1701287	50.57 ug/l	99
57)	trans-1,3-Dichloropropene	12.05	75	2684174	51.93 ug/l	97
58)	1,1,2-Trichloroethane	12.30	97	1286163	49.91 ug/l	99
59)	2-Hexanone	12.31	43	3664526	237.73 ug/l	98
60)	1,3-Dichloropropane	12.72	76	2626624	48.97 ug/l	98
61)	Tetrachloroethene	12.81	164	2339199	52.45 ug/l	100
62)	Dibromochloromethane	13.13	129	1897530	54.62 ug/l	99
64)	1,2-Dibromoethane	13.46	107	1395880	52.04 ug/l	100
65)	1-Chlorohexane	13.73	91	4580273	52.98 ug/l	99
66)	Chlorobenzene	14.13	112	6172784	50.18 ug/l	98
67)	1,1,1,2-Tetrachloroethane	14.20	131	2017370	51.79 ug/l	99
68)	Ethylbenzene	14.22	91	11075532	48.08 ug/l	97
69)	m-Xylene & p-Xylene	14.35	91	15980464	90.32 ug/l	96
70)	o-Xylene	15.05	91	8788144	49.63 ug/l	98
71)	Styrene	15.11	104	6125199	50.02 ug/l	99
73)	Isopropylbenzene	15.64	105	10227480	52.45 ug/l	98
74)	Bromoform	15.67	173	846514	51.89 ug/l	99
75)	1,1,2,2-Tetrachloroethane	15.93	83	1327350	51.00 ug/l	99
77)	1,2,3-Trichloropropane	16.17	110	364678	52.27 ug/l	98
78)	trans-1,4-Dichloro-2-buten	16.27	53	403422	51.52 ug/l	95

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW011.D Vial: 10
Acq On : 15 Aug 2012 11:24 pm Operator: WL
Sample : VO06H159 Inst : TO06
Misc : 50ppb 8260/250ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.30	91	13386211	51.41 ug/l	97
80)	Bromobenzene	16.37	156	2111145	52.00 ug/l	98
81)	1,3,5-Trimethylbenzene	16.55	105	7992956	51.06 ug/l	98
82)	2-Chlorotoluene	16.58	91	8108671	49.95 ug/l	98
83)	4-Chlorotoluene	16.67	91	6659828	50.58 ug/l	99
84)	tert-Butylbenzene	17.12	134	1929431	53.70 ug/l	93
85)	1,2,4-Trimethylbenzene	17.18	105	7411906	49.27 ug/l	98
86)	sec-Butylbenzene	17.43	105	11011197	50.99 ug/l	97
87)	p-Isopropyltoluene	17.62	119	8415862	50.94 ug/l	98
88)	1,3-Dichlorobenzene	17.76	146	4073894	50.74 ug/l	99
89)	1,4-Dichlorobenzene	17.89	146	3853044	50.32 ug/l	99
91)	n-Butylbenzene	18.16	91	8378120	49.92 ug/l	98
92)	1,2-Dichlorobenzene	18.37	146	3102409	50.41 ug/l	100
93)	1,2-Dibromo-3-chloropropan	19.27	157	155509	51.54 ug/l	99
94)	1,2,4-Trichlorobenzene	20.27	180	1835825	47.55 ug/l	100
95)	Hexachlorobutadiene	20.42	225	1261884	46.26 ug/l	100
96)	Naphthalene	20.60	128	2033623	43.41 ug/l	99
97)	1,2,3-Trichlorobenzene	20.89	180	1108419	38.37 ug/l	99

RM 8-21-12

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

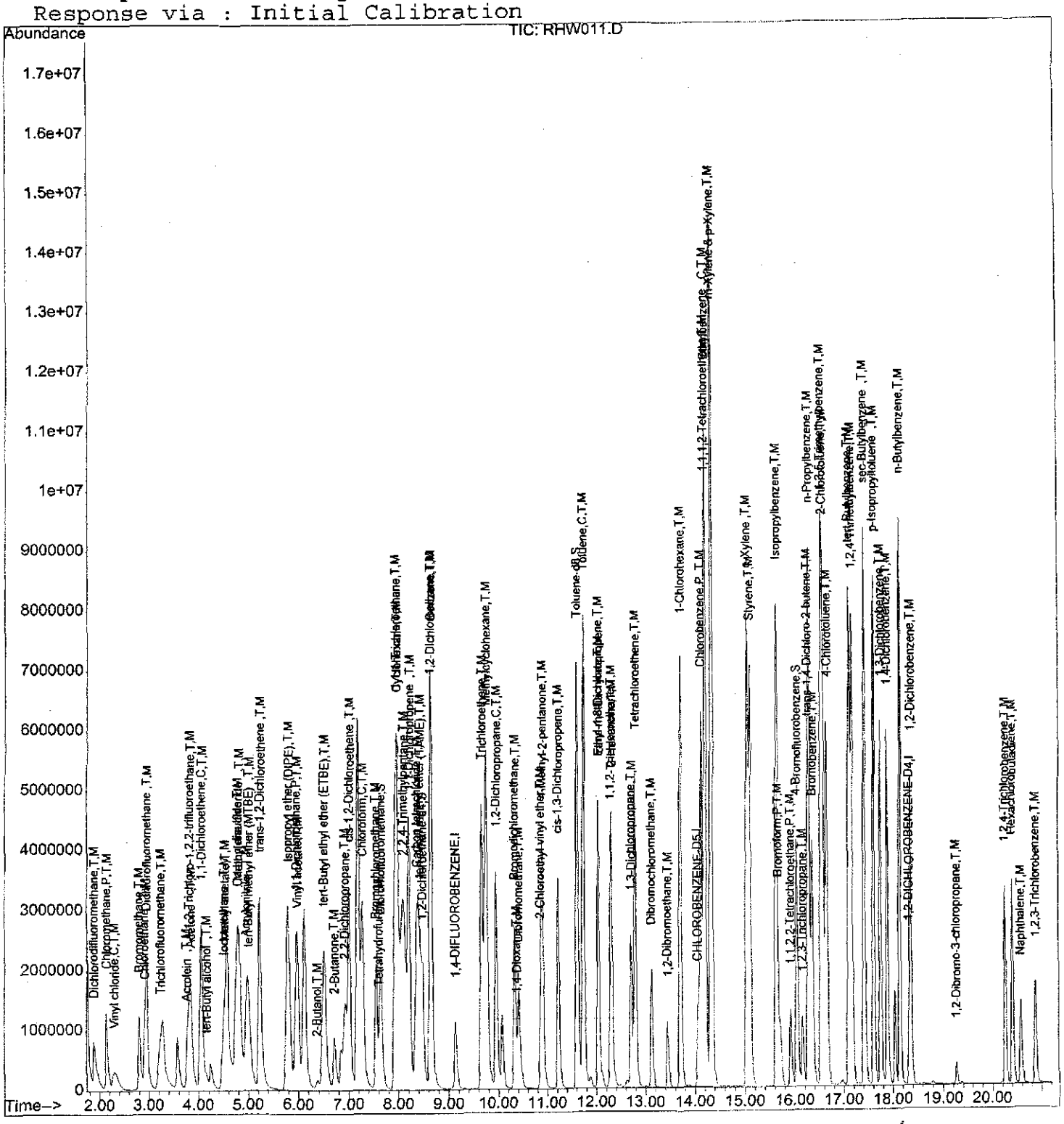
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW011.D
Acq On : 15 Aug 2012 11:24 pm
Sample : VO06H159
Misc : 50ppb 8260/250ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012

Vial: 10
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



2884

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW012.D Vial: 11
Acq On : 15 Aug 2012 11:53 pm Operator: WL
Sample : VO06H1510 Inst : TO06
Misc : 100ppb 8260/500ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1719664	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1382085	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	445959	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.65	111	4860243	93.61	ug/l	-0.01
Spiked Amount 10.000			Recovery	=	936.10%	
38) 1,2-Dichloroethane-d4	8.50	65	3818725	88.06	ug/l	0.00
Spiked Amount 10.000			Recovery	=	880.60%	
54) Toluene-d8	11.62	98	16009776	90.78	ug/l	0.00
Spiked Amount 10.000			Recovery	=	907.80%	
76) 4-Bromofluorobenzene	16.05	95	4904141	88.35	ug/l	0.00
Spiked Amount 10.000			Recovery	=	883.50%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	4320687	97.43	ug/l	99
3) Chloromethane	2.15	50	4933116	92.55	ug/l	100
4) Vinyl chloride	2.28	62	2346491	58.62	ug/l	100
5) Bromomethane	2.80	94	2817812	87.86	ug/l	100
6) Chloroethane	2.91	64	2303160	84.15	ug/l	99
7) Dichlorofluoromethane	2.95	67	7454435	78.96	ug/l	99
8) Trichlorofluoromethane	3.23	101	5938361	97.19	ug/l	100
9) Acrolein	3.77	56	863307	408.61	ug/l	94
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	2658235	91.93	ug/l	99
11) Acetone	3.86	43	2222601	379.47	ug/l	98
12) 1,1-Dichloroethene	4.05	61	8165514	90.43	ug/l	98
13) tert-Butyl alcohol	4.17	59	754243	453.78	ug/l	93
15) Methyl acetate	4.54	43	1512729	79.07	ug/l	96
16) Iodomethane	4.53	142	7322859	94.52	ug/l	99
17) Methylene chloride	4.81	49	5424133	91.84	ug/l	87
18) Carbon disulfide	4.79	76	17915771	97.08	ug/l	99
19) Acrylonitrile	4.97	53	3190840	433.59	ug/l	99
20) tert-Butyl methyl ether (M	5.02	73	6879340	85.08	ug/l	100
21) trans-1,2-Dichloroethene	5.22	61	8282899	86.56	ug/l	95
22) Isopropyl ether (DIPE)	5.80	45	15797039	84.89	ug/l	97
23) Vinyl acetate	6.00	43	5737917	88.75	ug/l	98
24) 1,1-Dichloroethane	5.97	63	9558443	87.31	ug/l	99
25) 2-Butanol	6.38	45	793325	488.04	ug/l	97
26) tert-Butyl ethyl ether (ET	6.52	59	11681467	85.89	ug/l	99
27) 2-Butanone	6.73	43	4569976	420.39	ug/l	98
28) 2,2-Dichloropropane	6.93	77	3992236	72.76	ug/l	97
29) cis-1,2-Dichloroethene	7.02	96	5550329	88.32	ug/l	94

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

2085

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW012.D
Acq On : 15 Aug 2012 11:53 pm
Sample : VO06H1510
Misc : 100ppb 8260/500ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012

Vial: 11
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	Chloroform	7.29	83	8553553	85.99 ug/l		99
32)	Bromochloromethane	7.56	49	3817099	87.20 ug/l		97
33)	Tetrahydrofuran	7.62	42	509336	76.51 ug/l		92
35)	1,1,1-Trichloroethane	7.96	97	6900690	85.29 ug/l		94
36)	Cyclohexane	7.97	56	10261630	76.60 ug/l		93
37)	tert-Amyl methyl ether (TA	8.44	87	1822154	85.98 ug/l		92
40)	2,2,4-Trimethylpentane	8.11	57	20802353	92.36 ug/l	#	33
41)	1,1-Dichloropropene	8.21	110	2540445	94.51 ug/l		99
42)	Carbon tetrachloride	8.38	119	6717264	96.05 ug/l		100
43)	1,2-Dichloroethane	8.64	62	4358819	85.92 ug/l		98
44)	Benzene	8.66	78	17244630	82.52 ug/l		98
45)	Trichloroethene	9.67	130	5554293	93.09 ug/l		99
46)	Methylcyclohexane	9.76	83	8976625	93.22 ug/l		98
47)	1,2-Dichloropropane	9.97	63	4763576	89.86 ug/l		98
48)	1,4-Dioxane	10.38	88	329297	2004.99 ug/l		96
49)	Bromodichloromethane	10.34	83	6211336	96.49 ug/l		99
50)	Dibromomethane	10.43	93	2098696	91.24 ug/l		98
51)	2-Chloroethyl vinyl ether	10.87	63	1721581	100.58 ug/l		99
52)	4-Methyl-2-pentanone	10.90	43	11593873	424.27 ug/l		97
53)	cis-1,3-Dichloropropene	11.23	75	6973884	93.68 ug/l		98
55)	Toluene	11.75	91	18210927	84.13 ug/l		97
56)	Ethyl methacrylate	12.05	69	3198361	90.10 ug/l		98
57)	trans-1,3-Dichloropropene	12.05	75	5103338	93.58 ug/l		97
58)	1,1,2-Trichloroethane	12.30	97	2446955	90.00 ug/l		99
59)	2-Hexanone	12.32	43	6748509	414.93 ug/l		97
60)	1,3-Dichloropropane	12.72	76	5045895	89.16 ug/l		98
61)	Tetrachloroethene	12.81	164	4305847	91.50 ug/l		99
62)	Dibromochloromethane	13.13	129	3679972	100.39 ug/l		100
64)	1,2-Dibromoethane	13.46	107	2673316	94.46 ug/l		100
65)	1-Chlorohexane	13.73	91	8078546	88.57 ug/l		98
66)	Chlorobenzene	14.13	112	11254683	86.71 ug/l		98
67)	1,1,1,2-Tetrachloroethane	14.20	131	3745547	91.12 ug/l		98
68)	Ethylbenzene	14.22	91	18643656	76.70 ug/l		95
69)	m-Xylene & p-Xylene	14.35	91	25028802	134.07 ug/l		90
70)	o-Xylene	15.05	91	15444924	82.67 ug/l		96
71)	Styrene	15.11	104	10884514	84.24 ug/l		97
73)	Isopropylbenzene	15.65	105	17200094	82.33 ug/l		96
74)	Bromoform	15.68	173	1644719	93.98 ug/l		99
75)	1,1,2,2-Tetrachloroethane	15.93	83	2526155	90.60 ug/l		99
77)	1,2,3-Trichloropropane	16.17	110	695182	93.01 ug/l		99
78)	trans-1,4-Dichloro-2-buten	16.27	53	733068	87.39 ug/l		92

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

8-21-12

2085

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H15\RHW012.D Vial: 11
Acq On : 15 Aug 2012 11:53 pm Operator: WL
Sample : VO06H1510 Inst : TO06
Misc : 100ppb 8260/500ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.30	91	21521353	77.15 ug/l	94
80)	Bromobenzene	16.37	156	3896257	89.57 ug/l	96
81)	1,3,5-Trimethylbenzene	16.55	105	13805252	82.32 ug/l	96
82)	2-Chlorotoluene	16.60	91	13750578	79.06 ug/l	96
83)	4-Chlorotoluene	16.67	91	11789041	83.57 ug/l	97
84)	tert-Butylbenzene	17.12	134	3475053	90.28 ug/l	91
85)	1,2,4-Trimethylbenzene	17.18	105	13169518	81.71 ug/l	95
86)	sec-Butylbenzene	17.43	105	18451317	79.75 ug/l	94
87)	p-Isopropyltoluene	17.62	119	14759441	83.39 ug/l	95
88)	1,3-Dichlorobenzene	17.76	146	7229650	84.05 ug/l	98
89)	1,4-Dichlorobenzene	17.91	146	6936890	84.56 ug/l	98
91)	n-Butylbenzene	18.16	91	14604029	81.23 ug/l	96
92)	1,2-Dichlorobenzene	18.37	146	5834486	88.49 ug/l	100
93)	1,2-Dibromo-3-chloropropan	19.27	157	409436	126.67 ug/l	98
94)	1,2,4-Trichlorobenzene	20.27	180	3831247	92.63 ug/l	99
95)	Hexachlorobutadiene	20.42	225	2784008	95.26 ug/l	99
96)	Naphthalene	20.60	128	4523270	90.12 ug/l	98
97)	1,2,3-Trichlorobenzene	20.89	180	2189042	70.74 ug/l	99

8-21-12

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

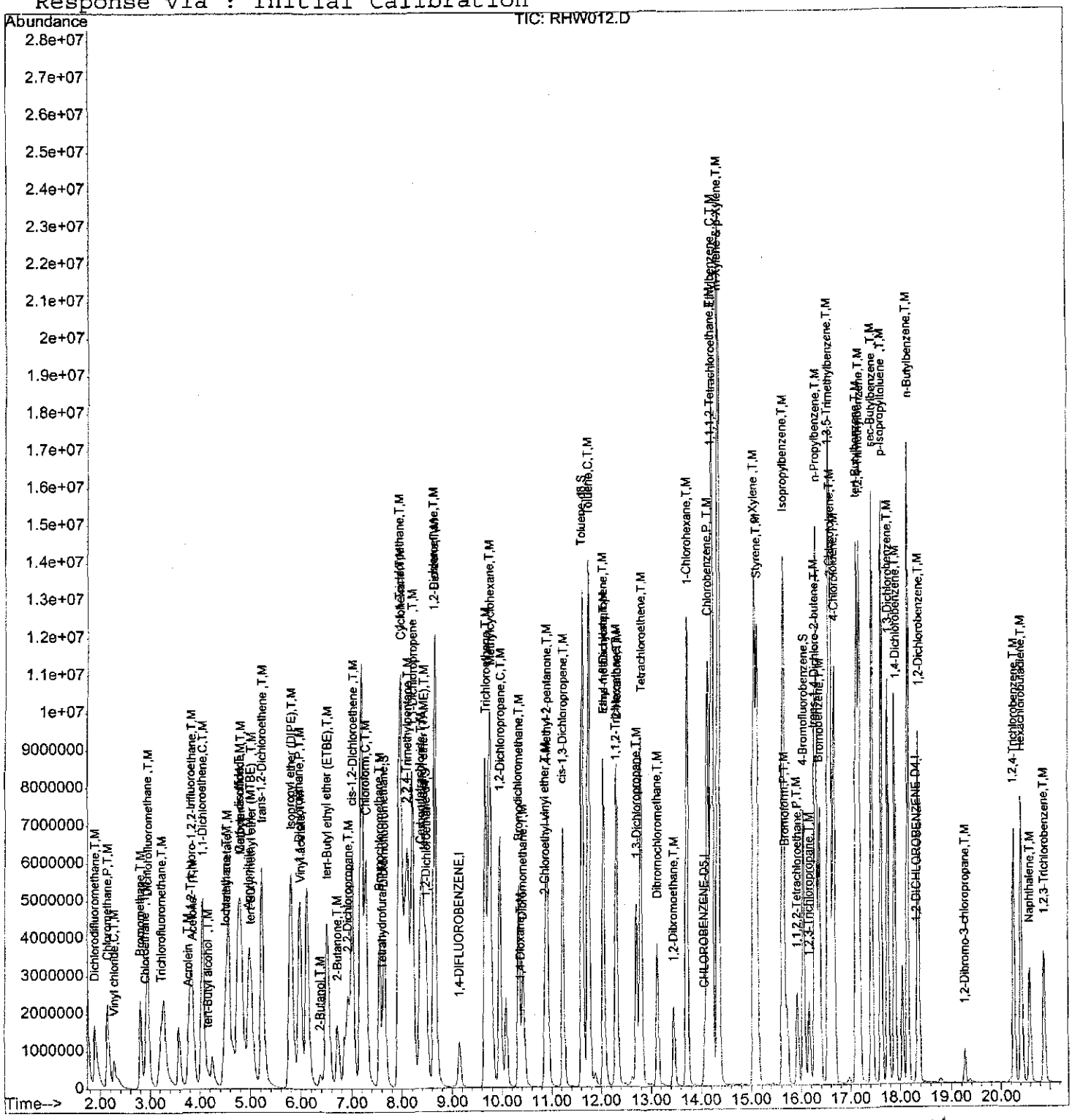
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H15\RHW012.D
Acq On : 15 Aug 2012 11:53 pm
Sample : VO06H1510
Misc : 100ppb 8260/500ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 16:17 2012

Vial: 11
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



2688

SECOND SOURCE VERIFICATION

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RHW015
Instrument ID: 06
GC Column:RTX502.2ID:0.25mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J182
BFB Injection Date : 08/16/12
BFB Injection Time : 09:31
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.62
75	30.0 - 60.0% of mass 95	48.50
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.99
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	71.35
175	5.0 - 9.0% of mass 174	5.40(7.6)1
176	95.0 - 101.0% of mass 174	70.48(98.8)1
177	5.0 - 9.0% of mass 176	4.57(6.5)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	VSTD010	IV006H1501	RHW016	08/16/12	10:02

FORM V VOA OLM02.0

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T006
IC_Beginning DateTime :08/15/12 19:22
Spike Amount :10 PPB
CC/CV File :RHW016
IC File :RHW008

Column Spec :RTX502.2 ID :0.25MM
IC_Ending DateTime :08/15/12 23:53
HPChem Method :vo06h15
Date_Time :08/16/12 10:02

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,4-DIFLUOROBENZENE	10.000	0	1860809	1	1	9.148	9.149	0				
	2	Dichlorodifluoromethane	9.824	-1.8	471407	0.253	0.258	1.893	1.894	6.32				
	3	Chloromethane	10.472	4.7	603952	0.325	0.310	2.145	2.147	5.91				
	4	Vinyl chloride	10.328	3.3	447330	0.240	0.233	2.309	2.300	13.19				
	5	Bromomethane	10.472	4.7	363435	0.195	0.187	2.815	2.812	10.72				
	6	Chloroethane	10.573	5.7	313116	0.168	0.159	2.919	2.919	9.41				
	7	Dichlorofluoromethane	9.964	-0.4	1017847	0.547	0.549	2.963	2.960	8.55				
	8	Trichlorofluoromethane	10.192	1.9	673832	0.362	0.355	3.231	3.238	8.43				
5	9	Acrolein	57.206	14.4	130783	0.014	0.012	3.766	3.772	9.90				
	10	1,1,2-Trichloro-1,2,2-trifluoroethane	10.065	0.6	314914	0.169	0.168	3.826	3.826	6.69				
5	11	Acetone	51.048	2.1	323536	0.035	0.034	3.855	3.859	12.26				
	12	1,1-Dichloroethene	10.137	1.4	990521	0.532	0.525	4.049	4.063	4.54				
5	13	tert-Butyl alcohol	56.186	12.4	101052	0.011	0.010	4.153	4.161	12.01				
	14	Acetonitrile												
	15	Methyl acetate	10.068	0.7	208432	0.112	0.111	4.539	4.541	14.21				
	16	Iodomethane	10.290	2.9	862656	0.464	0.451	4.524	4.526	4.90				
	17	Methylene chloride	10.870	8.7	729403	0.392	0.433	4.807	4.788	25.09	0.0211	0.3411		0.9963
	18	Carbon disulfide	11.695	16.9	2335412	1.255	1.073	4.777	4.793	8.57				
5	19	Acrylonitrile	53.093	6.2	422792	0.045	0.043	4.970	4.973	7.45				
	20	tert-Butyl methyl ether (MTBE)	10.073	0.7	881351	0.474	0.470	5.015	5.018	7.49				
	21	trans-1,2-Dichloroethene	10.028	0.3	1038370	0.558	0.556	5.223	5.233	5.77				
	22	Isopropyl ether (DIPE)	9.940	-0.6	2001510	1.076	1.082	5.803	5.804	6.46				
	23	Vinyl acetate	10.735	7.4	751016	0.404	0.376	5.996	6.001	7.83				
	24	1,1-Dichloroethane	9.548	-4.5	1131093	0.608	0.637	5.966	5.971	5.00				
5	25	2-Butanol	54.187	8.4	95311	0.010	0.009	6.368	6.380	9.21				
	26	tert-Butyl ethyl ether (ETBE)	10.081	0.8	1483732	0.797	0.791	6.502	6.518	6.29				
5	27	2-Butanone	51.017	2.0	600112	0.065	0.063	6.710	6.723	11.92				
	28	2,2-Dichloropropane	10.821	8.2	642452	0.345	0.319	6.933	6.939	11.92				
	29	cis-1,2-Dichloroethene	10.088	0.9	686039	0.369	0.365	7.022	7.023	4.81				
	30	Chloroform	9.714	-2.9	1045522	0.562	0.578	7.275	7.291	6.39				
5	31	tert-Amyl alcohol												
	32	Bromochloromethane	10.016	0.2	474413	0.255	0.255	7.557	7.559	5.92				
	33	Tetrahydrofuran	9.889	-1.1	75461	0.041	0.047	7.617	7.624	25.79	0.0026	0.0384		0.9958
	34	Dibromofluoromethane	10.596	6.0	595307	0.320	0.302	7.646	7.657	12.90				
	35	1,1,1-Trichloroethane	9.918	-0.8	868363	0.467	0.471	7.944	7.957	5.91				
	36	Cyclohexane	10.698	7.0	1550794	0.833	0.779	7.959	7.973	11.92				
	37	tert-Amyl methyl ether (TAME)	10.642	6.4	244051	0.131	0.123	8.434	8.433	7.49				
	38	1,2-Dichloroethane-d4	10.073	0.7	472685	0.254	0.252	8.479	8.492	11.03				
	39	CHLOROBENZENE-D5	10.000	0	1581053	1	1	14.069	14.071	0				
	40	2,2,4-Trimethylpentane	8.293	-17.1	2136863	1.352	1.630	8.092	8.091	7.89				
	41	1,1-Dichloropropene	10.114	1.1	311010	0.197	0.194	8.211	8.220	4.25				
	42	Carbon tetrachloride	9.911	-0.9	792907	0.502	0.506	8.360	8.376	5.79				
	43	1,2-Dichloroethane	9.612	-3.9	557820	0.353	0.367	8.643	8.646	6.76				
	44	Benzene	9.816	-1.8	2346500	1.484	1.512	8.657	8.659	9.36				
	45	Trichloroethene	10.006	0.1	682938	0.432	0.432	9.668	9.670	6.12				
	46	Methylcyclohexane	10.131	1.3	1115968	0.706	0.697	9.743	9.758	8.98				
	47	1,2-Dichloropropane	9.994	-0.1	606068	0.383	0.384	9.951	9.964	4.61				
20	48	1,4-Dioxane	222.394	11.2	41784	0.001	0.001	10.382	10.385	11.65				
	49	Bromodichloromethane	10.149	1.5	747350	0.473	0.466	10.337	10.339	5.58				
	50	Dibromomethane	10.358	3.6	272570	0.172	0.166	10.427	10.427	5.54				
	51	2-Chloroethyl vinyl ether	10.536	5.4	206300	0.130	0.124	10.858	10.870	8.84				
5	52	4-Methyl-2-pentanone	53.865	7.7	1683849	0.213	0.198	10.902	10.907	7.11				
	53	cis-1,3-Dichloropropene	10.612	6.1	903757	0.572	0.539	11.229	11.234	5.79				
	54	Toluene-d8	10.605	6.0	2139440	1.353	1.276	11.616	11.619	8.94				
	55	Toluene	9.869	-1.3	2443694	1.546	1.566	11.750	11.748	6.76				
	56	Ethyl methacrylate	10.733	7.3	435851	0.276	0.257	12.047	12.049	7.04				
	57	trans-1,3-Dichloropropene	10.482	4.8	653879	0.414	0.395	12.047	12.049	6.05				
	58	1,1,2-Trichloroethane	10.369	3.7	322523	0.204	0.197	12.300	12.301	5.64				
5	59	2-Hexanone	55.018	10.0	1023658	0.129	0.118	12.315	12.321	8.05				
	60	1,3-Dichloropropane	10.199	2.0	660249	0.418	0.409	12.701	12.715	6.01				
	61	Tetrachloroethene	9.998	-0.0	538206	0.340	0.340	12.791	12.804	4.76				
	62	Dibromochloromethane	10.525	5.2	441326	0.279	0.265	13.132	13.134	9.39				
	63	2-Ethyl-1-butanol												
	64	1,2-Dibromoethane	10.651	6.5	344825	0.218	0.205	13.445	13.458	6.02				
	65	1-Chlorohexane	10.209	2.1	1065278	0.674	0.660	13.712	13.720	5.61				
	66	Chlorobenzene	9.966	-0.3	1479703	0.936	0.939	14.129	14.132	6.36				
	67	1,1,1,2-Tetrachloroethane	10.275	2.8	483160	0.306	0.297	14.203	14.204	4.58				
	68	Ethylbenzene	10.056	0.6	2796277	1.769	1.759	14.218	14.219	9.90				
2	69	m-Xylene & p-Xylene	19.384	-3.1	4139569	1.309	1.351	14.337	14.342	7.48				
	70	o-Xylene	10.008	0.1	2138774	1.353	1.352	15.050	15.052	6.63				
	71	Styrene	10.422	4.2	1540593	0.974	0.935	15.110	15.111	6.35				
	72	1,2-DICHLOROBENZENE-D4	10.000	0	526652	1	1	18.336	18.337	0				
	73	Isopropylbenzene	10.383	3.8	2561704	4.864	4.685	15.630	15.639	8.82				
	74	Bromoform	10.163	1.6	207142	0.393	0.348	15.660	15.673	18.12	-0.0062	0.3931		0.9971
	75	1,1,2,2-Tetrachloroethane	10.756	7.6	354162	0.672	0.625	15.913	15.926	8.36				
	76	4-Bromofluorobenzene	10.340	3.4	677781	1.287	1.245	16.046	16.048	8.32				
	77	1,2,3-Trichloropropane	10.734	7.3	94743	0.180	0.168	16.165	16.168	8.94				
	78	trans-1,4-Dichloro-2-butene	10.856	8.6	107548	0.204	0.188	16.270	16.274	10.76				
	79	n-Propylbenzene	10.233	2.3	3371039	6.401	6.255	16.284	16.295	9.47				

8-21-12

80	Bromobenzene	10.213	2.1	524642	0.996	0.975	16.374	16.375	7.12				
81	1,3,5-Trimethylbenzene	10.066	0.7	1993640	3.785	3.761	16.552	16.552	7.92				
82	2-Chlorotoluene	10.344	3.4	2124758	4.034	3.900	16.582	16.585	10.14				
83	4-Chlorotoluene	9.430	-5.7	1570957	2.983	3.163	16.656	16.663	7.18				
84	tert-Butylbenzene	10.076	0.8	458066	0.870	0.863	17.117	17.118	6.95				
85	1,2,4-Trimethylbenzene	9.991	-0.1	1901812	3.611	3.614	17.176	17.178	7.83				
86	sec-Butylbenzene	9.937	-0.6	2715256	5.156	5.188	17.429	17.431	8.10				
87	p-Isopropyltoluene	10.031	0.3	2096778	3.981	3.969	17.608	17.621	7.26				
88	1,3-Dichlorobenzene	10.013	0.1	1017050	1.931	1.929	17.756	17.758	7.62				
89	1,4-Dichlorobenzene	10.199	2.0	988001	1.876	1.839	17.890	17.895	7.30				
90	Benzyl chloride												
91	n-Butylbenzene	10.078	0.8	2139780	4.063	4.032	18.143	18.153	8.35				
92	1,2-Dichlorobenzene	9.944	-0.6	774306	1.470	1.479	18.366	18.367	5.96				
93	1,2-Dibromo-3-chloropropane	10.737	7.4	40985	0.078	0.072	19.273	19.273	14.38				
94	1,2,4-Trichlorobenzene	9.828	-1.7	480032	0.911	0.927	20.269	20.270	8.69				
95	Hexachlorobutadiene	9.875	-1.3	340815	0.647	0.655	20.417	20.420	10.91				
96	Naphthalene	10.328	3.3	612170	1.162	1.125	20.596	20.596	12.07				
97	1,2,3-Trichlorobenzene	9.754	-2.5	356463	0.677	0.694	20.878	20.888	13.66				

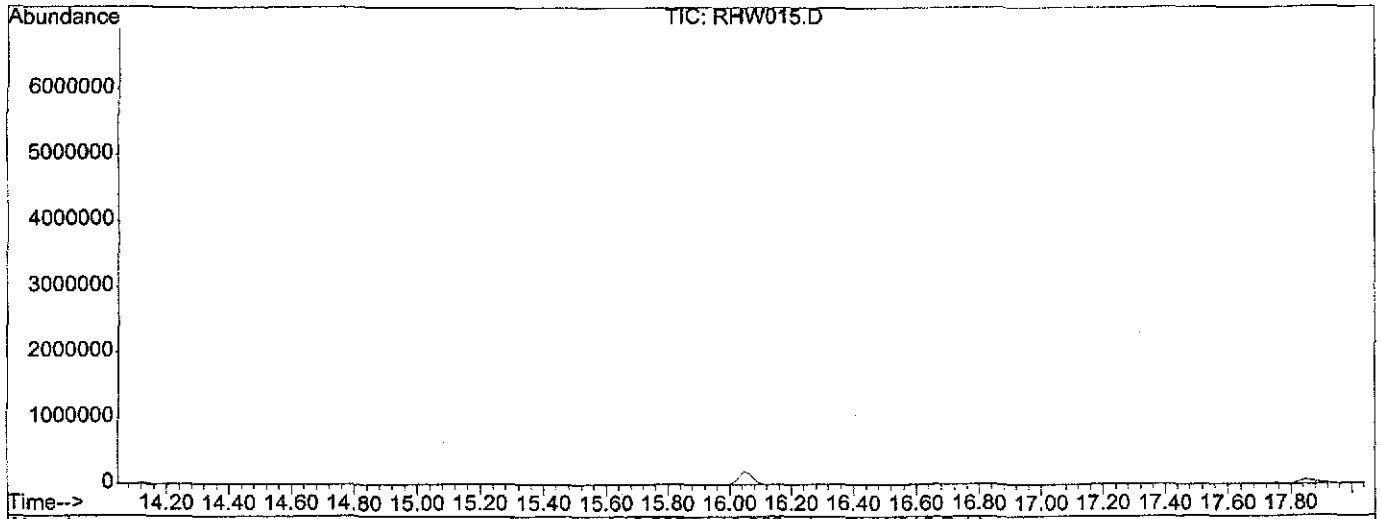
Spike Amount = Nominal Amount * M

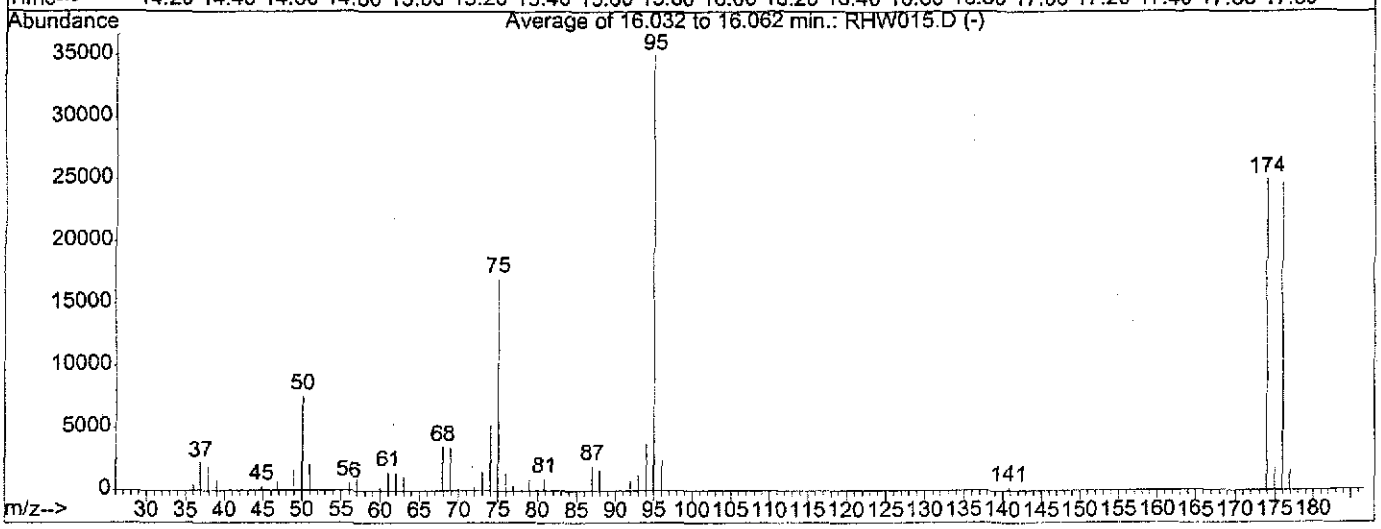
RC 8-26-12

2992

BFB

Data File : D:\HPCHEM\1\DATA\12H16\RHW015.D Vial: 1
Acq On : 16 Aug 2012 9:31 am Operator: WL
Sample : BFB06H02 Inst : TO06
Misc : T/ CHK Multiplr: 1.00
MS Integration Params: RTE.P
Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260





AutoFind: Scans 962, 963, 964; Background Corrected with Scan 958

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.6	7573	PASS
75	95	30	60	48.5	16989	PASS
95	95	100	100	100.0	35029	PASS
96	95	5	9	7.0	2449	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	71.4	24994	PASS
175	174	5	9	7.6	1892	PASS
176	174	95	101	98.8	24687	PASS
177	176	5	9	6.5	1601	PASS

RHW015.D VO06H15.M Mon Aug 20 17:27:19 2012

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	112	0.00
2	T,M	Dichlorodifluoromethane	10.000	9.824	1.8	110	0.00
3	P,T,M	Chloromethane	10.000	10.472	-4.7	114	0.00
4	C,T,M	Vinyl chloride	10.000	10.328	-3.3	115	0.02
5	T,M	Bromomethane	10.000	10.472	-4.7	109	0.00
6	T,M	Chloroethane	10.000	10.573	-5.7	109	0.00
7	T,M	Dichlorofluoromethane	10.000	9.964	0.4	107	0.00
8	T,M	Trichlorofluoromethane	10.000	10.192	-1.9	109	-0.02
9	T,M	Acrolein	50.000	57.206	-14.4	126	0.00
10	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	10.065	-0.6	113	0.00
11	T,M	Acetone	50.000	51.048	-2.1	115	0.00
12	C,T,M	1,1-Dichloroethene	10.000	10.137	-1.4	112	-0.02
13	T,M	tert-Butyl alcohol	50.000	56.186	-12.4	110	0.00
14	T,M	Acetonitrile	-1.000	0.000	0.0	113	0.00
15	T,M	Methyl acetate	10.000	10.068	-0.7	121	0.00
16	T,M	Iodomethane	10.000	10.290	-2.9	115	0.00
17	T,M	Methylene chloride	10.000	10.870	-8.7	112	0.04
18	T,M	Carbon disulfide	10.000	11.695	-17.0	124	-0.02
19	T,M	Acrylonitrile	50.000	53.093	-6.2	117	0.00
20	T,M	tert-Butyl methyl ether (MT	10.000	10.073	-0.7	108	0.00
21	T,M	trans-1,2-Dichloroethene	10.000	10.028	-0.3	112	-0.02
22	T,M	Isopropyl ether (DIPE)	10.000	9.940	0.6	108	0.00
23	T,M	Vinyl acetate	10.000	10.735	-7.3	114	0.00
24	P,T,M	1,1-Dichloroethane	10.000	9.548	4.5	105	0.00
25	T,M	2-Butanol	50.000	54.187	-8.4	129	0.00
26	T,M	tert-Butyl ethyl ether (ETB	10.000	10.081	-0.8	110	-0.02
27	T,M	2-Butanone	50.000	51.017	-2.0	117	-0.02
28	T,M	2,2-Dichloropropane	10.000	10.821	-8.2	117	0.00
29	T,M	cis-1,2-Dichloroethene	10.000	10.088	-0.9	114	0.00
30	C,T,M	Chloroform	10.000	9.714	2.9	110	-0.02
31	T,M	tert-Amyl alcohol	-1.000	0.000	0.0	105	0.00
32	T,M	Bromochloromethane	10.000	10.016	-0.2	109	0.00
33	T,M	Tetrahydrofuran	10.000	9.888	1.1	111	0.00
34	S	Dibromofluoromethane	10.000	10.596	-6.0	109	-0.02
35	T,M	1,1,1-Trichloroethane	10.000	9.918	0.8	108	-0.02
36	T,M	Cyclohexane	10.000	10.698	-7.0	127	-0.01
37	T,M	tert-Amyl methyl ether (TAM	10.000	10.642	-6.4	111	0.00
38	S	1,2-Dichloroethane-d4	10.000	10.073	-0.7	103	-0.02
39	I	CHLOROBENZENE-D5	10.000	10.000	0.0	110	0.00
40	T,M	2,2,4-Trimethylpentane	10.000	8.293	17.1	92	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T,M	1,1-Dichloropropene	10.000	10.114	-1.1	114	0.00
42	T,M	Carbon tetrachloride	10.000	9.911	0.9	109	-0.02
43	T,M	1,2-Dichloroethane	10.000	9.612	3.9	106	0.00
44	T,M	Benzene	10.000	9.816	1.8	112	0.00
45	T,M	Trichloroethene	10.000	10.006	-0.1	112	0.00
46	T,M	Methylcyclohexane	10.000	10.131	-1.3	111	-0.02
47	C,T,M	1,2-Dichloropropane	10.000	9.994	0.1	111	-0.02
48	T,M	1,4-Dioxane	200.000	222.394	-11.2	120	0.00
49	T,M	Bromodichloromethane	10.000	10.149	-1.5	109	0.00
50	T,M	Dibromomethane	10.000	10.358	-3.6	113	0.00
51	T,M	2-Chloroethyl vinyl ether	10.000	10.536	-5.4	109	-0.02
52	T,M	4-Methyl-2-pentanone	50.000	53.865	-7.7	114	0.00
53	T,M	cis-1,3-Dichloropropene	10.000	10.612	-6.1	113	0.00
54	S	Toluene-d8	10.000	10.605	-6.1	110	0.00
55	C,T,M	Toluene	10.000	9.869	1.3	110	0.00
56	T,M	Ethyl methacrylate	10.000	10.733	-7.3	112	0.00
57	T,M	trans-1,3-Dichloropropene	10.000	10.482	-4.8	111	0.00
58	T,M	1,1,2-Trichloroethane	10.000	10.369	-3.7	111	0.00
59	T,M	2-Hexanone	50.000	55.018	-10.0	116	0.00
60	T,M	1,3-Dichloropropane	10.000	10.199	-2.0	109	-0.02
61	T,M	Tetrachloroethene	10.000	9.998	0.0	112	-0.02
62	T,M	Dibromochloromethane	10.000	10.525	-5.3	110	0.00
63	T,M	2-Ethyl-1-butanol	-1.000	0.000	0.0	0	0.00
64	T,M	1,2-Dibromoethane	10.000	10.651	-6.5	113	-0.02
65	T,M	1-Chlorohexane	10.000	10.209	-2.1	110	0.00
66	P, T,M	Chlorobenzene	10.000	9.966	0.3	113	0.00
67	T,M	1,1,1,2-Tetrachloroethane	10.000	10.275	-2.8	110	0.00
68	C,T,M	Ethylbenzene	10.000	10.056	-0.6	110	0.00
69	T,M	m-Xylene & p-Xylene	20.000	19.384	3.1	110	0.00
70	T,M	o-Xylene	10.000	10.008	-0.1	108	0.00
71	T,M	Styrene	10.000	10.422	-4.2	111	0.00
72	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	108	0.00
73	T,M	Isopropylbenzene	10.000	10.383	-3.8	111	0.00
74	P,T,M	Bromoform	10.000	10.163	-1.6	113	-0.02
75	P,T,M	1,1,2,2-Tetrachloroethane	10.000	10.756	-7.6	113	-0.02
76	S	4-Bromofluorobenzene	10.000	10.340	-3.4	107	0.00
77	T,M	1,2,3-Trichloropropane	10.000	10.734	-7.3	111	0.00
78	T,M	trans-1,4-Dichloro-2-butene	10.000	10.856	-8.6	111	0.00
79	T,M	n-Propylbenzene	10.000	10.233	-2.3	108	0.00
80	T,M	Bromobenzene	10.000	10.213	-2.1	110	0.00

(#) = Out of Range

2055

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	1,3,5-Trimethylbenzene	10.000	10.066	-0.7	109	0.00
82	T,M	2-Chlorotoluene	10.000	10.344	-3.4	111	0.00
83	T,M	4-Chlorotoluene	10.000	9.430	5.7	104	0.00
84	T,M	tert-Butylbenzene	10.000	10.076	-0.8	110	0.00
85	T,M	1,2,4-Trimethylbenzene	10.000	9.992	0.1	108	0.00
86	T,M	sec-Butylbenzene	10.000	9.937	0.6	108	0.00
87	T,M	p-Isopropyltoluene	10.000	10.031	-0.3	109	-0.02
88	T,M	1,3-Dichlorobenzene	10.000	10.013	-0.1	109	0.00
89	T,M	1,4-Dichlorobenzene	10.000	10.199	-2.0	111	0.00
90	T,M	Benzyl chloride	-1.000	0.000	0.0	0	0.00
91	T,M	n-Butylbenzene	10.000	10.078	-0.8	111	-0.02
92	T,M	1,2-Dichlorobenzene	10.000	9.944	0.6	109	0.00
93	T,M	1,2-Dibromo-3-chloropropane	10.000	10.737	-7.4	115	0.00
94	T,M	1,2,4-Trichlorobenzene	10.000	9.828	1.7	111	0.00
95	T,M	Hexachlorobutadiene	10.000	9.875	1.3	108	0.00
96	T,M	Naphthalene	10.000	10.328	-3.3	111	0.00
97	T,M	1,2,3-Trichlorobenzene	10.000	9.754	2.5	110	-0.02

8-21-12

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IV006H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	112	0.00
2	T,M	Dichlorodifluoromethane	0.258	0.253	1.9	110	0.00
3	P,T,M	Chloromethane	0.310	0.325	-4.8	114	0.00
4	C,T,M	Vinyl chloride	0.233	0.240	-3.0	115	0.02
5	T,M	Bromomethane	0.187	0.195	-4.3	109	0.00
6	T,M	Chloroethane	0.159	0.168	-5.7	109	0.00
7	T,M	Dichlorofluoromethane	0.549	0.547	0.4	107	0.00
8	T,M	Trichlorofluoromethane	0.355	0.362	-2.0	109	-0.02
9	T,M	Acrolein	0.012	0.014	-16.7	126	0.00
10	T,M	1,1,2-Trichloro-1,2,2-trifl	0.168	0.169	-0.6	113	0.00
11	T,M	Acetone	0.034	0.035	-2.9	115	0.00
12	C,T,M	1,1-Dichloroethene	0.525	0.532	-1.3	112	-0.02
13	T,M	tert-Butyl alcohol	0.010	0.011	-10.0	110	0.00
14	T,M	Acetonitrile	0.000	0.000	0.0	113	0.00
15	T,M	Methyl acetate	0.111	0.112	-0.9	121	0.00
16	T,M	Iodomethane	0.451	0.464	-2.9	115	0.00
17	T,M	Methylene chloride	0.433	0.392	9.5	112	0.04
18	T,M	Carbon disulfide	1.073	1.255	-17.0	124	-0.02
19	T,M	Acrylonitrile	0.043	0.045	-4.7	117	0.00
20	T,M	tert-Butyl methyl ether (MT	0.470	0.474	-0.9	108	0.00
21	T,M	trans-1,2-Dichloroethene	0.556	0.558	-0.4	112	-0.02
22	T,M	Isopropyl ether (DIPE)	1.082	1.076	0.6	108	0.00
23	T,M	Vinyl acetate	0.376	0.404	-7.4	114	0.00
24	P,T,M	1,1-Dichloroethane	0.637	0.608	4.6	105	0.00
25	T,M	2-Butanol	0.009	0.010	-11.1	129	0.00
26	T,M	tert-Butyl ethyl ether (ETB	0.791	0.797	-0.8	110	-0.02
27	T,M	2-Butanone	0.063	0.065	-3.2	117	-0.02
28	T,M	2,2-Dichloropropane	0.319	0.345	-8.2	117	0.00
29	T,M	cis-1,2-Dichloroethene	0.365	0.369	-1.1	114	0.00
30	C,T,M	Chloroform	0.578	0.562	2.8	110	-0.02
31	T,M	tert-Amyl alcohol	0.000	0.000	0.0	105	0.00
32	T,M	Bromochloromethane	0.255	0.255	0.0	109	0.00
33	T,M	Tetrahydrofuran	0.047	0.041	12.8	111	0.00
34	S	Dibromofluoromethane	0.302	0.320	-6.0	109	-0.02
35	T,M	1,1,1-Trichloroethane	0.471	0.467	0.8	108	-0.02
36	T,M	Cyclohexane	0.779	0.833	-6.9	127	-0.01
37	T,M	tert-Amyl methyl ether (TAM	0.123	0.131	-6.5	111	0.00
38	S	1,2-Dichloroethane-d4	0.252	0.254	-0.8	103	-0.02
39	I	CHLOROBENZENE-D5	1.000	1.000	0.0	110	0.00
40	T,M	2,2,4-Trimethylpentane	1.630	1.352	17.1	92	0.00

(#) = Out of Range

8-21-12

2697

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T,M	1,1-Dichloropropene	0.194	0.197	-1.5	114	0.00
42	T,M	Carbon tetrachloride	0.506	0.502	0.8	109	-0.02
43	T,M	1,2-Dichloroethane	0.367	0.353	3.8	106	0.00
44	T,M	Benzene	1.512	1.484	1.9	112	0.00
45	T,M	Trichloroethene	0.432	0.432	0.0	112	0.00
46	T,M	Methylcyclohexane	0.697	0.706	-1.3	111	-0.02
47	C,T,M	1,2-Dichloropropane	0.384	0.383	0.3	111	-0.02
48	T,M	1,4-Dioxane	0.001	0.001	0.0	120	0.00
49	T,M	Bromodichloromethane	0.466	0.473	-1.5	109	0.00
50	T,M	Dibromomethane	0.166	0.172	-3.6	113	0.00
51	T,M	2-Chloroethyl vinyl ether	0.124	0.130	-4.8	109	-0.02
52	T,M	4-Methyl-2-pentanone	0.198	0.213	-7.6	114	0.00
53	T,M	cis-1,3-Dichloropropene	0.539	0.572	-6.1	113	0.00
54	S	Toluene-d8	1.276	1.353	-6.0	110	0.00
55	C,T,M	Toluene	1.566	1.546	1.3	110	0.00
56	T,M	Ethyl methacrylate	0.257	0.276	-7.4	112	0.00
57	T,M	trans-1,3-Dichloropropene	0.395	0.414	-4.8	111	0.00
58	T,M	1,1,2-Trichloroethane	0.197	0.204	-3.6	111	0.00
59	T,M	2-Hexanone	0.118	0.129	-9.3	116	0.00
60	T,M	1,3-Dichloropropane	0.409	0.418	-2.2	109	-0.02
61	T,M	Tetrachloroethene	0.340	0.340	0.0	112	-0.02
62	T,M	Dibromochloromethane	0.265	0.279	-5.3	110	0.00
63	T,M	2-Ethyl-1-butanol	0.000	0.000	0.0	0#	0.00
64	T,M	1,2-Dibromoethane	0.205	0.218	-6.3	113	-0.02
65	T,M	1-Chlorohexane	0.660	0.674	-2.1	110	0.00
66	P, T,M	Chlorobenzene	0.939	0.936	0.3	113	0.00
67	T,M	1,1,1,2-Tetrachloroethane	0.297	0.306	-3.0	110	0.00
68	C,T,M	Ethylbenzene	1.759	1.769	-0.6	110	0.00
69	T,M	m-Xylene & p-Xylene	1.351	1.309	3.1	110	0.00
70	T,M	o-Xylene	1.352	1.353	-0.1	108	0.00
71	T,M	Styrene	0.935	0.974	-4.2	111	0.00
72	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	108	0.00
73	T,M	Isopropylbenzene	4.685	4.864	-3.8	111	0.00
74	P,T,M	Bromoform	0.348	0.393	-12.9	113	-0.02
75	P,T,M	1,1,2,2-Tetrachloroethane	0.625	0.672	-7.5	113	-0.02
76	S	4-Bromofluorobenzene	1.245	1.287	-3.4	107	0.00
77	T,M	1,2,3-Trichloropropane	0.168	0.180	-7.1	111	0.00
78	T,M	trans-1,4-Dichloro-2-butene	0.188	0.204	-8.5	111	0.00
79	T,M	n-Propylbenzene	6.255	6.401	-2.3	108	0.00
80	T,M	Bromobenzene	0.975	0.996	-2.2	110	0.00

(#) = Out of Range

2098

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	1,3,5-Trimethylbenzene	3.761	3.785	-0.6	109	0.00
82	T,M	2-Chlorotoluene	3.900	4.034	-3.4	111	0.00
83	T,M	4-Chlorotoluene	3.163	2.983	5.7	104	0.00
84	T,M	tert-Butylbenzene	0.863	0.870	-0.8	110	0.00
85	T,M	1,2,4-Trimethylbenzene	3.614	3.611	0.1	108	0.00
86	T,M	sec-Butylbenzene	5.188	5.156	0.6	108	0.00
87	T,M	p-Isopropyltoluene	3.969	3.981	-0.3	109	-0.02
88	T,M	1,3-Dichlorobenzene	1.929	1.931	-0.1	109	0.00
89	T,M	1,4-Dichlorobenzene	1.839	1.876	-2.0	111	0.00
90	T,M	Benzyl chloride	0.000	0.000	0.0	0#	0.00
91	T,M	n-Butylbenzene	4.032	4.063	-0.8	111	-0.02
92	T,M	1,2-Dichlorobenzene	1.479	1.470	0.6	109	0.00
93	T,M	1,2-Dibromo-3-chloropropane	0.072	0.078	-8.3	115	0.00
94	T,M	1,2,4-Trichlorobenzene	0.927	0.911	1.7	111	0.00
95	T,M	Hexachlorobutadiene	0.655	0.647	1.2	108	0.00
96	T,M	Naphthalene	1.125	1.162	-3.3	111	0.00
97	T,M	1,2,3-Trichlorobenzene	0.694	0.677	2.4	110	-0.02

8-21-12

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D
Acq On : 16 Aug 2012 10:02 am
Sample : IVO06H1501
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 15:53 2012

Vial: 2
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.15	114	1860809	10.00	ug/l	0.00
39) CHLOROBENZENE-D5	14.07	117	1581053	10.00	ug/l	0.00
72) 1,2-DICHLOROBENZENE-D4	18.34	152	526652	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.65	111	595307	10.60	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	106.00%	
38) 1,2-Dichloroethane-d4	8.48	65	472685	10.07	ug/l	-0.02
Spiked Amount 10.000			Recovery	=	100.70%	
54) Toluene-d8	11.62	98	2139440	10.60	ug/l	0.00
Spiked Amount 10.000			Recovery	=	106.00%	
76) 4-Bromofluorobenzene	16.05	95	677781	10.34	ug/l	0.00
Spiked Amount 10.000			Recovery	=	103.40%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	471407	9.82	ug/l	100
3) Chloromethane	2.15	50	603952	10.47	ug/l	100
4) Vinyl chloride	2.31	62	447330	10.33	ug/l	100
5) Bromomethane	2.81	94	363435	10.47	ug/l	97
6) Chloroethane	2.92	64	313116	10.57	ug/l	97
7) Dichlorofluoromethane	2.96	67	1017847	9.96	ug/l	99
8) Trichlorofluoromethane	3.23	101	673832	10.19	ug/l	99
9) Acrolein	3.77	56	130783	57.21	ug/l	99
10) 1,1,2-Trichloro-1,2,2-trif	3.83	151	314914	10.07	ug/l	100
11) Acetone	3.86	43	323536	51.05	ug/l	98
12) 1,1-Dichloroethene	4.05	61	990521	10.14	ug/l	98
13) tert-Butyl alcohol	4.15	59	101052	56.19	ug/l	95
15) Methyl acetate	4.54	43	208432	10.07	ug/l	100
16) Iodomethane	4.52	142	862656	10.29	ug/l	97
17) Methylene chloride	4.81	49	729403	10.87	ug/l	98
18) Carbon disulfide	4.78	76	2335412	11.69	ug/l	100
19) Acrylonitrile	4.97	53	422792	53.09	ug/l	99
20) tert-Butyl methyl ether (M	5.01	73	881351	10.07	ug/l	98
21) trans-1,2-Dichloroethene	5.22	61	1038370	10.03	ug/l	96
22) Isopropyl ether (DIPE)	5.80	45	2001510	9.94	ug/l	98
23) Vinyl acetate	6.00	43	751016	10.74	ug/l	98
24) 1,1-Dichloroethane	5.97	63	1131093	9.55	ug/l	98
25) 2-Butanol	6.37	45	95311	54.19	ug/l	98
26) tert-Butyl ethyl ether (ET	6.50	59	1483732	10.08	ug/l	100
27) 2-Butanone	6.71	43	600112	51.02	ug/l	100
28) 2,2-Dichloropropane	6.93	77	642452	10.82	ug/l	99
29) cis-1,2-Dichloroethene	7.02	96	686039	10.09	ug/l	96

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

per 8-21-12

2100

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D
Acq On : 16 Aug 2012 10:02 am
Sample : IVO06H1501
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 15:53 2012

Vial: 2
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
30)	Chloroform	7.27	83	1045522	9.71 ug/l		99
32)	Bromochloromethane	7.56	49	474413	10.02 ug/l		97
33)	Tetrahydrofuran	7.62	42	75461	9.89 ug/l		99
35)	1,1,1-Trichloroethane	7.94	97	868363	9.92 ug/l		99
36)	Cyclohexane	7.96	56	1550794	10.70 ug/l		92
37)	tert-Amyl methyl ether (TA	8.43	87	244051	10.64 ug/l		99
40)	2,2,4-Trimethylpentane	8.09	57	2136863	8.29 ug/l	#	47
41)	1,1-Dichloropropene	8.21	110	311010	10.11 ug/l		99
42)	Carbon tetrachloride	8.36	119	792907	9.91 ug/l		100
43)	1,2-Dichloroethane	8.64	62	557820	9.61 ug/l		98
44)	Benzene	8.66	78	2346500	9.82 ug/l		100
45)	Trichloroethene	9.67	130	682938	10.01 ug/l		99
46)	Methylcyclohexane	9.74	83	1115968	10.13 ug/l		98
47)	1,2-Dichloropropane	9.95	63	606068	9.99 ug/l		96
48)	1,4-Dioxane	10.38	88	41784	222.39 ug/l		99
49)	Bromodichloromethane	10.34	83	747350	10.15 ug/l		99
50)	Dibromomethane	10.43	93	272570	10.36 ug/l		99
51)	2-Chloroethyl vinyl ether	10.86	63	206300	10.54 ug/l		99
52)	4-Methyl-2-pentanone	10.90	43	1683849	53.87 ug/l		98
53)	cis-1,3-Dichloropropene	11.23	75	903757	10.61 ug/l		98
55)	Toluene	11.75	91	2443694	9.87 ug/l		100
56)	Ethyl methacrylate	12.05	69	435851	10.73 ug/l		98
57)	trans-1,3-Dichloropropene	12.05	75	653879	10.48 ug/l		98
58)	1,1,2-Trichloroethane	12.30	97	322523	10.37 ug/l		99
59)	2-Hexanone	12.31	43	1023658	55.02 ug/l		99
60)	1,3-Dichloropropane	12.70	76	660249	10.20 ug/l		100
61)	Tetrachloroethene	12.79	164	538206	10.00 ug/l		100
62)	Dibromochloromethane	13.13	129	441326	10.52 ug/l		100
64)	1,2-Dibromoethane	13.44	107	344825	10.65 ug/l		100
65)	1-Chlorohexane	13.71	91	1065278	10.21 ug/l		97
66)	Chlorobenzene	14.13	112	1479703	9.97 ug/l		97
67)	1,1,1,2-Tetrachloroethane	14.20	131	483160	10.28 ug/l		100
68)	Ethylbenzene	14.22	91	2796277	10.06 ug/l		99
69)	m-Xylene & p-Xylene	14.34	91	4139569	19.38 ug/l		99
70)	o-Xylene	15.05	91	2138774	10.01 ug/l		98
71)	Styrene	15.11	104	1540593	10.42 ug/l		98
73)	Isopropylbenzene	15.63	105	2561704	10.38 ug/l		99
74)	Bromoform	15.66	173	207142	10.16 ug/l		100
75)	1,1,2,2-Tetrachloroethane	15.91	83	354162	10.76 ug/l		99
77)	1,2,3-Trichloropropane	16.17	110	94743	10.73 ug/l		98
78)	trans-1,4-Dichloro-2-buten	16.27	53	107548	10.86 ug/l		99

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

2101

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D Vial: 2
Acq On : 16 Aug 2012 10:02 am Operator: WL
Sample : IVO06H1501 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Aug 20 15:53 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	n-Propylbenzene	16.28	91	3371039	10.23 ug/l	99
80)	Bromobenzene	16.37	156	524642	10.21 ug/l	97
81)	1,3,5-Trimethylbenzene	16.55	105	1993640	10.07 ug/l	98
82)	2-Chlorotoluene	16.58	91	2124758	10.34 ug/l	99
83)	4-Chlorotoluene	16.66	91	1570957	9.43 ug/l	99
84)	tert-Butylbenzene	17.12	134	458066	10.08 ug/l	97
85)	1,2,4-Trimethylbenzene	17.18	105	1901812	9.99 ug/l	100
86)	sec-Butylbenzene	17.43	105	2715256	9.94 ug/l	100
87)	p-Isopropyltoluene	17.61	119	2096778	10.03 ug/l	99
88)	1,3-Dichlorobenzene	17.76	146	1017050	10.01 ug/l	100
89)	1,4-Dichlorobenzene	17.89	146	988001	10.20 ug/l	99
91)	n-Butylbenzene	18.14	91	2139780	10.08 ug/l	99
92)	1,2-Dichlorobenzene	18.37	146	774306	9.94 ug/l	99
93)	1,2-Dibromo-3-chloropropan	19.27	157	40985	10.74 ug/l	98
94)	1,2,4-Trichlorobenzene	20.27	180	480032	9.83 ug/l	100
95)	Hexachlorobutadiene	20.42	225	340815	9.87 ug/l	99
96)	Naphthalene	20.60	128	612170	10.33 ug/l	100
97)	1,2,3-Trichlorobenzene	20.88	180	356463	9.75 ug/l	100

JM 8-21-12

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

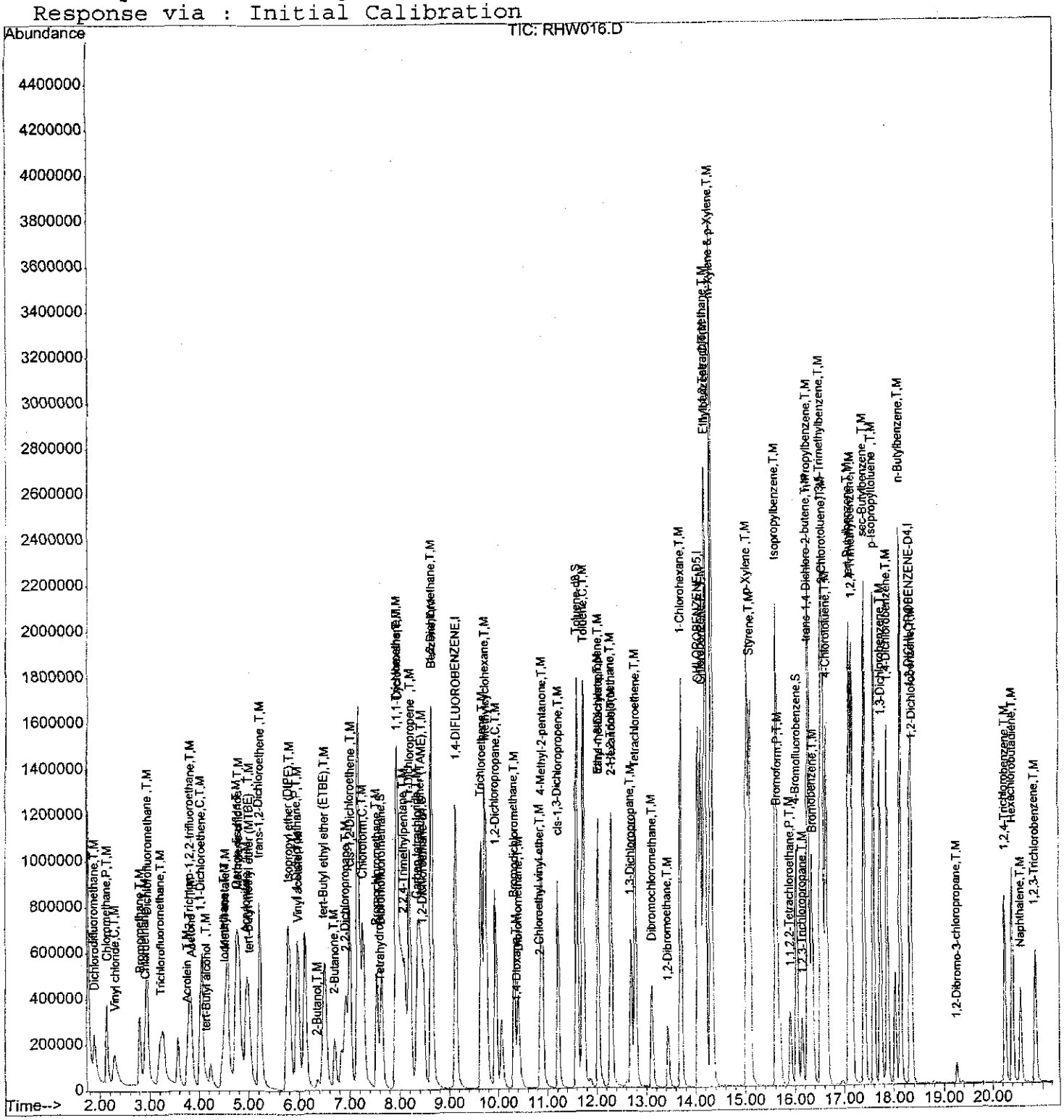
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12H16\RHW016.D
Acq On : 16 Aug 2012 10:02 am
Sample : IVO06H1501
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Aug 20 15:53 2012

Vial: 2
Operator: WL
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



8-21-12

2108

DAILY CALIBRATIONS

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJW551
Instrument ID: 06
GC Column:RTX502.2ID:0.25mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J182
BFB Injection Date : 10/30/12
BFB Injection Time : 11:40
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.28
75	30.0 - 60.0% of mass 95	45.06
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.60
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	93.17
175	5.0 - 9.0% of mass 174	7.05(7.6)1
176	95.0 - 101.0% of mass 174	89.21(95.8)1
177	5.0 - 9.0% of mass 176	5.72(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	VSTD010	CV006H1552	RJW553	10/30/12	12:49
2	MBLK1W	V006J22B	RJW557	10/30/12	14:55
3	LCS1W	V006J22L	RJW554	10/30/12	13:26
4	LCD1W	V006J22C	RJW555	10/30/12	13:56
5	10-24-12 TB-2	J182-01	RJW558	10/30/12	15:25
6	10-24-12 WB 2-3	J182-02	RJW559	10/30/12	15:54
7	10-24-12 WB 2-3MS	J182-02M	RJW560	10/30/12	16:24
8	10-24-12 WB 2-3MSD	J182-02S	RJW561	10/30/12	16:53
9	10-24-12 PWB-15	J182-03	RJW563	10/30/12	17:53
10	10-24-12 PWB-2	J182-04	RJW564	10/30/12	18:24
11	10-24-12 PWB-7A	J182-05	RJW565	10/30/12	18:53
12	10-24-12 WB 2-2	J182-06	RJW566	10/30/12	19:23
13	10-24-12 FDUP-3	J182-07	RJW567	10/30/12	19:53

FORM V VOA OLM02.0

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RHW008
Instrument ID: 06
GC Column: RTX502.2 ID: 0.25mm (mm)

Project: BROWN & BRYANT SUPERFUND SITE
SDG No.: 12J182
Date Analyzed: 08/15/12
Time Analyzed: 21:54
Heated Purge: (Y/N) N

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1654332	9.15	1432235	14.07	489315	18.34
	UPPER LIMIT	3308664	9.65	2864470	14.57	978630	18.84
	LOWER LIMIT	827166	8.65	716118	13.57	244658	17.84
	SAMPLE ID						
1	VSTD010	1628715	9.13	1428755	14.05	513140	18.31
2	MBLK1W	1718465	9.13	1463393	14.05	557510	18.31
3	LCS1W	1651582	9.13	1403073	14.05	510811	18.31
4	LCD1W	1632785	9.13	1398221	14.05	499481	18.31
5	10-24-12 TB-2	1802692	9.13	1517741	14.05	555968	18.32
6	10-24-12 WB 2-3	1766600	9.12	1515780	14.05	564456	18.31
7	10-24-12 WB 2-3MS	1661531	9.13	1391046	14.05	489187	18.31
8	10-24-12 WB 2-3MSD	1655259	9.14	1442224	14.06	494977	18.32
9	10-24-12 PWB-15	1755278	9.14	1474217	14.06	551744	18.32
10	10-24-12 PWB-2	1707567	9.14	1454320	14.06	569538	18.33
11	10-24-12 PWB-7A	1599760	9.13	1341915	14.05	538059	18.31
12	10-24-12 WB 2-2	1639035	9.14	1382397	14.06	535920	18.33
13	10-24-12 FDUP-3	1561166	9.13	1374629	14.05	523150	18.31

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
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

FORM VIII VOA-8260 1/2000

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T006
IC Beginning DateTime :08/15/12 19:22
SpTke Amount :10 PPB
CC/CV File :RJW553
IC File :RHW008

Column Spec :RTX502.2 ID :0.25MM
IC Ending DateTime :08/15/12 23:53
HPChem Method :vo06h15
Date_Time :10/30/12 12:49

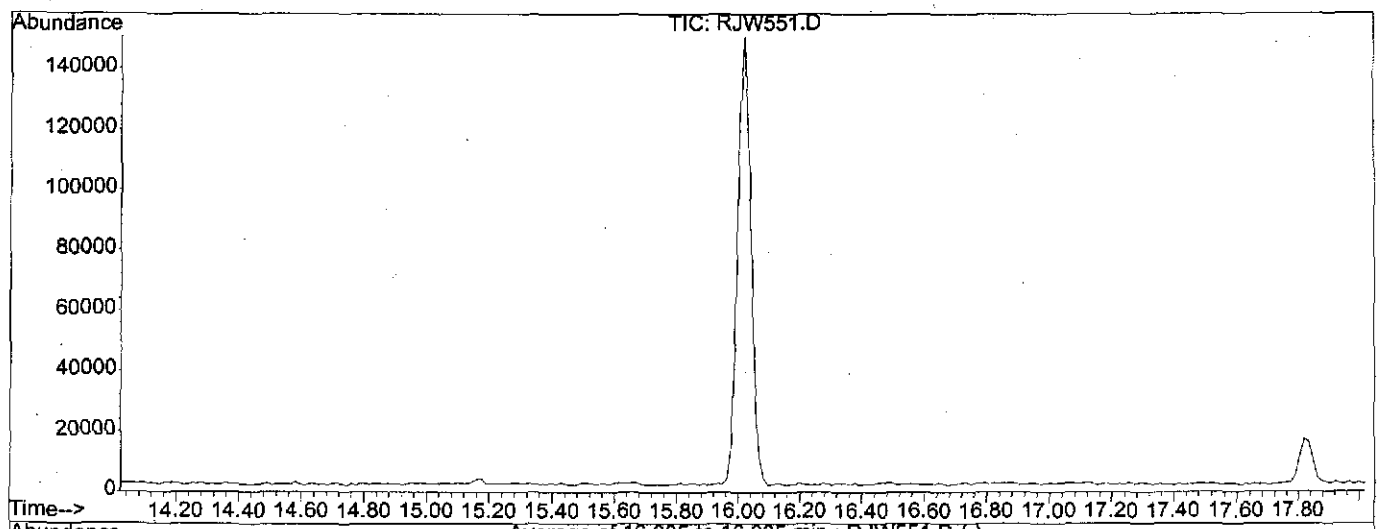
M	IDX	Parameters	CC_Con	CC% D	CC_Resp	CCRRF	AVRRF	CC_Rtm	AVRtm	% RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,4-DIFLUOROBENZENE	10.000	0	1628715	1	1	9.127	9.149	0				
	2	Dichlorodifluoromethane	9.862	-1.4	414246	0.254	0.258	1.887	1.894	6.32				
	3	Chloromethane	10.624	6.2	536351	0.329	0.310	2.139	2.147	5.91				
	4	Vinyl chloride	10.740	7.4	407164	0.250	0.233	2.273	2.300	13.19				
	5	Bromomethane	10.643	6.4	323307	0.199	0.187	2.808	2.812	10.72				
	6	Chloroethane	10.675	6.8	276718	0.170	0.159	2.912	2.919	9.41				
	7	Dichlorofluoromethane	10.746	7.5	960898	0.590	0.549	2.957	2.960	8.55				
	8	Trichlorofluoromethane	8.679	-13.2	502244	0.308	0.355	3.210	3.238	8.43				
5	9	Acrolein	59.210	18.4	118482	0.015	0.012	3.745	3.772	9.90				
	10	1,1,2-Trichloro-1,2,2-trifluoroethane	10.852	8.5	297212	0.182	0.168	3.819	3.826	6.69				
5	11	Acetone	49.370	-1.3	273877	0.034	0.034	3.834	3.859	12.26				
	12	1,1-Dichloroethene	10.161	1.6	869069	0.534	0.525	4.027	4.063	4.54				
5	13	tert-Butyl alcohol	54.837	9.7	86325	0.011	0.010	4.131	4.161	12.01				
	14	Acetonitrile												
	15	Methyl acetate												
	16	Iodomethane	11.441	14.4	839508	0.515	0.451	4.459	4.526	4.90				
	17	Methylene chloride	11.608	16.1	679439	0.417	0.433	4.741	4.788	25.09	0.0211	0.3411		0.9963
	18	Carbon disulfide	11.411	14.1	1994636	1.225	1.073	4.756	4.793	8.57				
5	19	Acrylonitrile	53.061	6.1	369832	0.045	0.043	4.949	4.973	7.45				
	20	tert-Butyl methyl ether (MTBE)	9.771	-2.3	748320	0.459	0.470	4.994	5.018	7.49				
	21	trans-1,2-Dichloroethene	10.167	1.7	921513	0.566	0.556	5.217	5.233	5.77				
	22	Isopropyl ether (DIPE)	10.554	5.5	1860124	1.142	1.082	5.782	5.804	6.46				
	23	Vinyl acetate	9.588	-4.1	587131	0.360	0.376	5.975	6.001	7.83				
	24	1,1-Dichloroethane	10.283	2.8	1066314	0.655	0.637	5.945	5.971	5.00				
5	25	2-Butanol												
	26	tert-Butyl ethyl ether (ETBE)	9.756	-2.4	1256779	0.772	0.791	6.481	6.518	6.29				
5	27	2-Butanone	47.198	-5.6	485952	0.060	0.063	6.703	6.723	11.92				
	28	2,2-Dichloropropane	10.739	7.4	558111	0.343	0.319	6.912	6.939	11.92				
	29	cis-1,2-Dichloroethene	10.842	8.4	645374	0.396	0.365	7.001	7.023	4.81				
	30	Chloroform	9.555	-4.4	900213	0.553	0.578	7.268	7.291	6.39				
5	31	tert-Amyl alcohol												
	32	Bromochloromethane	10.290	2.9	426619	0.262	0.255	7.536	7.559	5.92				
	33	Tetrahydrofuran	8.587	-14.1	57918	0.036	0.047	7.596	7.624	25.79	0.0026	0.0384		0.9958
	34	Dibromofluoromethane	10.285	2.8	505783	0.311	0.302	7.625	7.657	12.90				
	35	1,1,1-Trichloroethane	9.549	-4.5	731769	0.449	0.471	7.938	7.957	5.91				
	36	Cyclohexane												
	37	tert-Amyl methyl ether (TAME)	9.861	-1.4	197941	0.122	0.123	8.413	8.433	7.49				
	38	1,2-Dichloroethane-d4	8.808	-11.9	361773	0.222	0.252	8.458	8.492	11.03				
	39	CHLOROBENZENE-D5	10.000	0	1428755	1	1	14.048	14.071	0				
	40	2,2,4-Trimethylpentane												
	41	1,1-Dichloropropene	10.946	9.5	304191	0.213	0.194	8.190	8.220	4.25				
	42	Carbon tetrachloride	9.088	-9.1	657075	0.460	0.506	8.354	8.376	5.79				
	43	1,2-Dichloroethane	8.812	-11.9	462122	0.323	0.367	8.621	8.646	6.76				
	44	Benzene	10.267	2.7	2217918	1.552	1.512	8.636	8.659	9.36				
	45	Trichloroethene	10.751	7.5	663147	0.464	0.432	9.647	9.670	6.12				
	46	Methylcyclohexane												
	47	1,2-Dichloropropane	10.224	2.2	560309	0.392	0.384	9.945	9.964	4.61				
20	48	1,4-Dioxane	206.431	3.2	35049	0.001	0.001	10.361	10.385	11.65				
	49	Bromodichloromethane	9.685	-3.1	644557	0.451	0.466	10.316	10.339	5.58				
	50	Dibromomethane	9.877	-1.2	234885	0.164	0.166	10.406	10.427	5.54				
	51	2-Chloroethyl vinyl ether	8.220	-17.8	145458	0.102	0.124	10.851	10.870	8.84				
5	52	4-Methyl-2-pentanone	48.361	-3.3	1366175	0.191	0.198	10.881	10.907	7.11				
	53	cis-1,3-Dichloropropene	9.925	-0.7	763819	0.535	0.539	11.208	11.234	5.79				
	54	Toluene-d8	10.320	3.2	1881450	1.317	1.276	11.595	11.619	8.94				
	55	Toluene	10.324	3.2	2310177	1.617	1.566	11.729	11.748	6.76				
	56	Ethyl methacrylate	10.020	0.2	367734	0.257	0.257	12.026	12.049	7.04				
	57	trans-1,3-Dichloropropene	9.713	-2.9	547564	0.383	0.395	12.026	12.049	6.05				
	58	1,1,2-Trichloroethane	10.308	3.1	289752	0.203	0.197	12.279	12.301	5.64				
5	59	2-Hexanone	49.102	-1.8	825583	0.116	0.118	12.294	12.321	8.05				
	60	1,3-Dichloropropane	9.814	-1.9	574187	0.402	0.409	12.695	12.715	6.01				
	61	Tetrachloroethene	11.181	11.8	543957	0.381	0.340	12.784	12.804	4.76				
	62	Dibromochloromethane	10.084	0.8	382115	0.267	0.265	13.111	13.134	9.39				
	63	2-Ethyl-1-butanol												
	64	1,2-Dibromoethane	10.019	0.2	293135	0.205	0.205	13.439	13.458	6.02				
	65	1-Chlorohexane	10.813	8.1	1019651	0.714	0.660	13.706	13.720	5.61				
	66	Chlorobenzene	10.819	8.2	1451630	1.016	0.939	14.108	14.132	6.36				
	67	1,1,1,2-Tetrachloroethane	10.628	6.3	451606	0.316	0.297	14.182	14.204	4.58				
	68	Ethylbenzene	10.424	4.2	2619400	1.833	1.759	14.197	14.219	9.90				
2	69	m-Xylene & p-Xylene	19.763	-1.2	3813929	1.335	1.351	14.316	14.342	7.48				
	70	o-Xylene	10.094	0.9	1949460	1.364	1.352	15.029	15.052	6.63				
	71	Styrene	11.006	10.1	1470238	1.029	0.935	15.089	15.111	6.35				
	72	1,2-DICHLOROBENZENE-D4	10.000	0	513140	1	1	18.315	18.337	0				
	73	Isopropylbenzene	9.836	-1.6	2364689	4.608	4.685	15.609	15.639	8.82				
	74	Bromoform	9.516	-4.8	188783	0.368	0.348	15.654	15.673	18.12	-0.0062	0.3931		0.9971
	75	1,1,2,2-Tetrachloroethane	9.729	-2.7	312122	0.608	0.625	15.906	15.926	8.36				
	76	4-Bromofluorobenzene	9.169	-8.3	585630	1.141	1.245	16.025	16.048	8.32				
	77	1,2,3-Trichloropropane	8.871	-11.3	76295	0.149	0.168	16.144	16.168	8.94				
	78	trans-1,4-Dichloro-2-butene	9.064	-9.4	87490	0.170	0.188	16.248	16.274	10.76				
	79	n-Propylbenzene	9.971	-0.3	3200625	6.237	6.255	16.278	16.295	9.47				
	80	Bromobenzene	10.900	9.0	545563	1.063	0.975	16.353	16.375	7.12				
	81	1,3,5-Trimethylbenzene	9.621	-3.8	1856669	3.618	3.761	16.531	16.552	7.92				
	82	2-Chlorotoluene	9.495	-5.1	1900370	3.703	3.900	16.561	16.585	10.14				
	83	4-Chlorotoluene	9.325	-6.8	1513625	2.950	3.163	16.635	16.663	7.18				
	84	tert-Butylbenzene	10.709	7.1	474359	0.924	0.863	17.096	17.118	6.95				
	85	1,2,4-Trimethylbenzene	9.566	-4.3	1774254	3.458	3.614	17.155	17.178	7.83				
	86	sec-Butylbenzene	10.266	2.7	2733146	5.326	5.188	17.408	17.431	8.10				
	87	p-Isopropyltoluene	10.290	2.9	2095892	4.084	3.969	17.601	17.621	7.26				
	88	1,3-Dichlorobenzene	10.924	9.2	1081212	2.107	1.929	17.735	17.758	7.62				
	89	1,4-Dichlorobenzene	10.833	8.3	1022542	1.993	1.839	17.884	17.895	7.30				
	90	Benzyl chloride												
	91	n-Butylbenzene	9.913	-0.9	2050983	3.997	4.032	18.136	18.153	8.35				
	92	1,2-Dichlorobenzene	10.472	4.7	794537	1.548	1.479	18.345	18.367	5.96				
	93	1,2-Dibromo-3-chloropropane	9.333	-6.7	34715	0.068	0.072	19.252	19.273	14.38				
	94	1,2,4-Trichlorobenzene	9.699	-3.0	461637	0.900	0.927	20.248	20.270	8.69				
	95	Hexachlorobutadiene	9.990	-0.1	335953	0.655	0.655	20.396	20.420	10.91				
	96	Naphthalene	8.904	-11.0	514265	1.002	1.125	20.575	20.596	12.07				
	97	1,2,3-Trichlorobenzene	8.847	-11.5	315040	0.614	0.694	20.872	20.888	13.66				

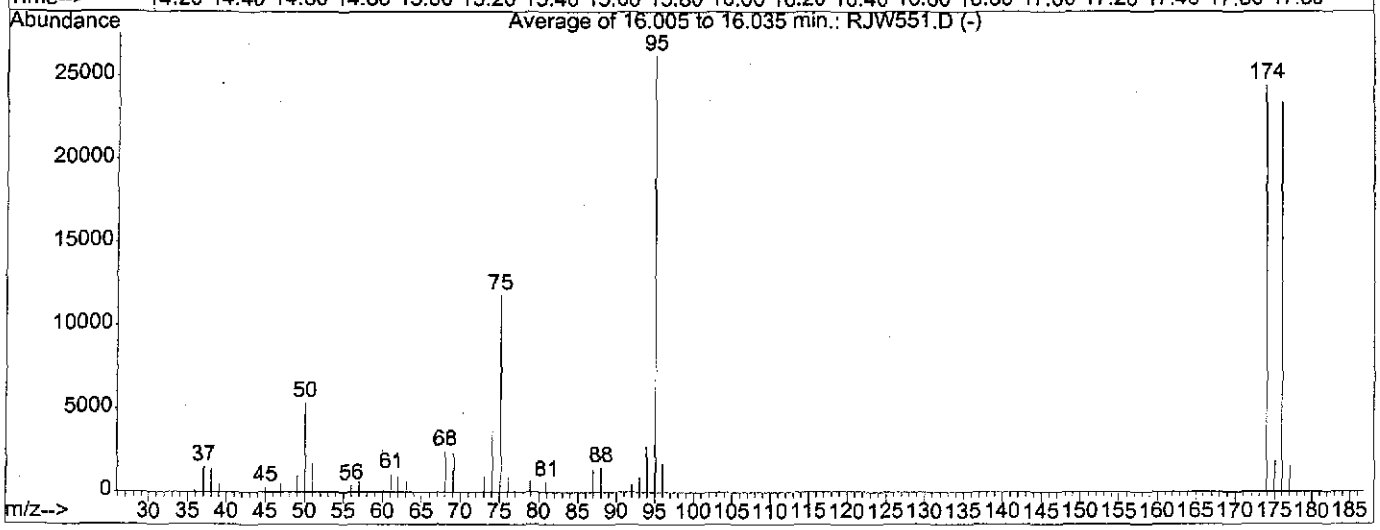
Spike Amount = Nominal Amount * M

BFB

Data File : D:\HPCHEM\1\DATA\12J30\RJW551.D
Acq On : 30 Oct 2012 11:40 am
Sample : BFB06J22
Misc : T/CHK
MS Integration Params: RTE.P
Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260

Vial: 1
Operator: WL
Inst : TO06
Multiplr: 1.00





AutoFind: Scans 960, 961, 962; Background Corrected with Scan 955

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.3	5321	PASS
75	95	30	60	45.1	11821	PASS
95	95	100	100	100.0	26235	PASS
96	95	5	9	6.6	1732	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	93.2	24443	PASS
175	174	5	9	7.6	1850	PASS
176	174	95	101	95.8	23405	PASS
177	176	5	9	6.4	1502	PASS

RJW551.D VO06H15.M Thu Nov 01 10:36:45 2012

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J30\RJW553.D Vial: 3
Acq On : 30 Oct 2012 12:49 pm Operator: WL
Sample : CVO06H1552 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	98	-0.02
2	T,M	Dichlorodifluoromethane	10.000	9.863	1.4	97	0.00
3	P,T,M	Chloromethane	10.000	10.625	-6.3	101	0.00
4	C,T,M	Vinyl chloride	10.000	10.741	-7.4	104	-0.02
5	T,M	Bromomethane	10.000	10.643	-6.4	97	0.00
6	T,M	Chloroethane	10.000	10.676	-6.8	96	0.00
7	T,M	Dichlorofluoromethane	10.000	10.746	-7.5	101	0.00
8	T,M	Trichlorofluoromethane	10.000	8.679	13.2	81	-0.04
9	T,M	Acrolein	50.000	59.211	-18.4	115	-0.02
10	T,M	1,1,2-Trichloro-1,2,2-trifl	10.000	10.853	-8.5	106	0.00
11	T,M	Acetone	50.000	49.371	1.3	97	-0.02
12	C,T,M	1,1-Dichloroethene	10.000	10.162	-1.6	98	-0.04
13	T,M	tert-Butyl alcohol	50.000	54.837	-9.7	94	-0.02
14	T,M	Acetonitrile	-1.000	0.000	0.0	89	-0.02
15	T,M	Methyl acetate	10.000	0.000	100.0#	0	-4.54#
16	T,M	Iodomethane	10.000	11.441	-14.4	112	-0.07
17	T,M	Methylene chloride	10.000	11.608	-16.1	105	-0.02
18	T,M	Carbon disulfide	10.000	11.412	-14.1	106	-0.04
19	T,M	Acrylonitrile	50.000	53.061	-6.1	102	-0.02
20	T,M	tert-Butyl methyl ether (MT	10.000	9.771	2.3	92	-0.02
21	T,M	trans-1,2-Dichloroethene	10.000	10.167	-1.7	100	-0.02
22	T,M	Isopropyl ether (DIPE)	10.000	10.554	-5.5	100	-0.02
23	T,M	Vinyl acetate	10.000	9.589	4.1	89	-0.02
24	P,T,M	1,1-Dichloroethane	10.000	10.284	-2.8	99	-0.02
25	T,M	2-Butanol	50.000	0.000	100.0#	0	-6.37#
26	T,M	tert-Butyl ethyl ether (ETB	10.000	9.756	2.4	93	-0.04
27	T,M	2-Butanone	50.000	47.199	5.6	95	-0.02
28	T,M	2,2-Dichloropropane	10.000	10.740	-7.4	102	-0.02
29	T,M	cis-1,2-Dichloroethene	10.000	10.843	-8.4	107	-0.02
30	C,T,M	Chloroform	10.000	9.555	4.5	95	-0.02
31	T,M	tert-Amyl alcohol	-1.000	0.000	0.0	86	-0.04
32	T,M	Bromochloromethane	10.000	10.290	-2.9	98	-0.02
33	T,M	Tetrahydrofuran	10.000	8.587	14.1	86	-0.02
34	S	Dibromofluoromethane	10.000	10.286	-2.9	92	-0.04
35	T,M	1,1,1-Trichloroethane	10.000	9.549	4.5	91	-0.02
36	T,M	Cyclohexane	10.000	0.000	100.0#	0	-7.97#
37	T,M	tert-Amyl methyl ether (TAM	10.000	9.861	1.4	90	-0.02
38	S	1,2-Dichloroethane-d4	10.000	8.808	11.9	79	-0.04
39	I	CHLOROBENZENE-D5	10.000	10.000	0.0	100	-0.02
40	T,M	2,2,4-Trimethylpentane	10.000	0.000	100.0#	0	-8.09#

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J30\RJW553.D Vial: 3
Acq On : 30 Oct 2012 12:49 pm Operator: WL
Sample : CVO06H1552 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T,M	1,1-Dichloropropene	10.000	10.946	-9.5	111	-0.02
42	T,M	Carbon tetrachloride	10.000	9.089	9.1	90	-0.02
43	T,M	1,2-Dichloroethane	10.000	8.812	11.9	88	-0.02
44	T,M	Benzene	10.000	10.267	-2.7	106	-0.02
45	T,M	Trichloroethene	10.000	10.752	-7.5	108	-0.02
46	T,M	Methylcyclohexane	10.000	0.000	100.0#	0	-9.76#
47	C,T,M	1,2-Dichloropropane	10.000	10.224	-2.2	102	-0.02
48	T,M	1,4-Dioxane	200.000	206.432	-3.2	101	-0.02
49	T,M	Bromodichloromethane	10.000	9.686	3.1	94	-0.02
50	T,M	Dibromomethane	10.000	9.877	1.2	97	-0.02
51	T,M	2-Chloroethyl vinyl ether	10.000	8.221	17.8	77	-0.02
52	T,M	4-Methyl-2-pentanone	50.000	48.362	3.3	92	-0.02
53	T,M	cis-1,3-Dichloropropene	10.000	9.925	0.7	96	-0.02
54	S	Toluene-d8	10.000	10.320	-3.2	97	-0.02
55	C,T,M	Toluene	10.000	10.324	-3.2	104	-0.02
56	T,M	Ethyl methacrylate	10.000	10.021	-0.2	94	-0.02
57	T,M	trans-1,3-Dichloropropene	10.000	9.713	2.9	93	-0.02
58	T,M	1,1,2-Trichloroethane	10.000	10.309	-3.1	100	-0.02
59	T,M	2-Hexanone	50.000	49.102	1.8	94	-0.02
60	T,M	1,3-Dichloropropane	10.000	9.815	1.9	95	-0.02
61	T,M	Tetrachloroethene	10.000	11.182	-11.8	113	-0.02
62	T,M	Dibromochloromethane	10.000	10.084	-0.8	95	-0.02
63	T,M	2-Ethyl-1-butanol	-1.000	0.000	0.0	0	0.00
64	T,M	1,2-Dibromoethane	10.000	10.020	-0.2	96	-0.02
65	T,M	1-Chlorohexane	10.000	10.814	-8.1	105	0.00
66	P, T,M	Chlorobenzene	10.000	10.819	-8.2	111	-0.02
67	T,M	1,1,1,2-Tetrachloroethane	10.000	10.628	-6.3	103	-0.02
68	C,T,M	Ethylbenzene	10.000	10.424	-4.2	103	-0.02
69	T,M	m-Xylene & p-Xylene	20.000	19.763	1.2	102	-0.02
70	T,M	o-Xylene	10.000	10.094	-0.9	99	-0.02
71	T,M	Styrene	10.000	11.007	-10.1	106	-0.02
72	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	105	-0.02
73	T,M	Isopropylbenzene	10.000	9.837	1.6	102	-0.02
74	P,T,M	Bromoform	10.000	9.516	4.8	103	-0.02
75	P,T,M	1,1,2,2-Tetrachloroethane	10.000	9.729	2.7	99	-0.02
76	S	4-Bromofluorobenzene	10.000	9.170	8.3	92	-0.02
77	T,M	1,2,3-Trichloropropane	10.000	8.872	11.3	89	-0.02
78	T,M	trans-1,4-Dichloro-2-butene	10.000	9.064	9.4	90	-0.02
79	T,M	n-Propylbenzene	10.000	9.971	0.3	103	0.00
80	T,M	Bromobenzene	10.000	10.900	-9.0	114	-0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J30\RJW553.D Vial: 3
Acq On : 30 Oct 2012 12:49 pm Operator: WL
Sample : CVO06H1552 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M	1,3,5-Trimethylbenzene	10.000	9.621	3.8	102	-0.02
82	T,M	2-Chlorotoluene	10.000	9.496	5.0	100	-0.02
83	T,M	4-Chlorotoluene	10.000	9.325	6.8	100	-0.02
84	T,M	tert-Butylbenzene	10.000	10.710	-7.1	114	-0.02
85	T,M	1,2,4-Trimethylbenzene	10.000	9.567	4.3	101	-0.02
86	T,M	sec-Butylbenzene	10.000	10.266	-2.7	109	-0.02
87	T,M	p-Isopropyltoluene	10.000	10.291	-2.9	109	-0.02
88	T,M	1,3-Dichlorobenzene	10.000	10.925	-9.3	116	-0.02
89	T,M	1,4-Dichlorobenzene	10.000	10.833	-8.3	115	0.00
90	T,M	Benzyl chloride	-1.000	0.000	0.0	0	0.00
91	T,M	n-Butylbenzene	10.000	9.914	0.9	106	-0.02
92	T,M	1,2-Dichlorobenzene	10.000	10.472	-4.7	112	-0.02
93	T,M	1,2-Dibromo-3-chloropropane	10.000	9.334	6.7	97	-0.02
94	T,M	1,2,4-Trichlorobenzene	10.000	9.700	3.0	106	-0.02
95	T,M	Hexachlorobutadiene	10.000	9.990	0.1	106	-0.02
96	T,M	Naphthalene	10.000	8.905	11.0	93	-0.02
97	T,M	1,2,3-Trichlorobenzene	10.000	8.848	11.5	97	-0.02

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J30\RJW553.D Vial: 3
Acq On : 30 Oct 2012 12:49 pm Operator: WL
Sample : CVO06H1552 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	98	-0.02
2	T,M	Dichlorodifluoromethane	0.258	0.254	1.6	97	0.00
3	P,T,M	Chloromethane	0.310	0.329	-6.1	101	0.00
4	C,T,M	Vinyl chloride	0.233	0.250	-7.3	104	-0.02
5	T,M	Bromomethane	0.187	0.199	-6.4	97	0.00
6	T,M	Chloroethane	0.159	0.170	-6.9	96	0.00
7	T,M	Dichlorofluoromethane	0.549	0.590	-7.5	101	0.00
8	T,M	Trichlorofluoromethane	0.355	0.308	13.2	81	-0.04
9	T,M	Acrolein	0.012	0.015	-25.0#	115	-0.02
10	T,M	1,1,2-Trichloro-1,2,2-trifl	0.168	0.182	-8.3	106	0.00
11	T,M	Acetone	0.034	0.034	0.0	97	-0.02
12	C,T,M	1,1-Dichloroethene	0.525	0.534	-1.7	98	-0.04
13	T,M	tert-Butyl alcohol	0.010	0.011	-10.0	94	-0.02
14	T,M	Acetonitrile	0.000	0.000	0.0	89	-0.02
15	T,M	Methyl acetate	0.111	0.000	100.0#	0#	-4.54#
16	T,M	Iodomethane	0.451	0.515	-14.2	112	-0.07
17	T,M	Methylene chloride	0.433	0.417	3.7	105	-0.02
18	T,M	Carbon disulfide	1.073	1.225	-14.2	106	-0.04
19	T,M	Acrylonitrile	0.043	0.045	-4.7	102	-0.02
20	T,M	tert-Butyl methyl ether (MT	0.470	0.459	2.3	92	-0.02
21	T,M	trans-1,2-Dichloroethene	0.556	0.566	-1.8	100	-0.02
22	T,M	Isopropyl ether (DIPE)	1.082	1.142	-5.5	100	-0.02
23	T,M	Vinyl acetate	0.376	0.360	4.3	89	-0.02
24	P,T,M	1,1-Dichloroethane	0.637	0.655	-2.8	99	-0.02
25	T,M	2-Butanol	0.009	0.000	100.0#	0#	-6.37#
26	T,M	tert-Butyl ethyl ether (ETB	0.791	0.772	2.4	93	-0.04
27	T,M	2-Butanone	0.063	0.060	4.8	95	-0.02
28	T,M	2,2-Dichloropropane	0.319	0.343	-7.5	102	-0.02
29	T,M	cis-1,2-Dichloroethene	0.365	0.396	-8.5	107	-0.02
30	C,T,M	Chloroform	0.578	0.553	4.3	95	-0.02
31	T,M	tert-Amyl alcohol	0.000	0.000	0.0	86	-0.04
32	T,M	Bromochloromethane	0.255	0.262	-2.7	98	-0.02
33	T,M	Tetrahydrofuran	0.047	0.036	23.4#	86	-0.02
34	S	Dibromofluoromethane	0.302	0.311	-3.0	92	-0.04
35	T,M	1,1,1-Trichloroethane	0.471	0.449	4.7	91	-0.02
36	T,M	Cyclohexane	0.779	0.000	100.0#	0#	-7.97#
37	T,M	tert-Amyl methyl ether (TAM	0.123	0.122	0.8	90	-0.02
38	S	1,2-Dichloroethane-d4	0.252	0.222	11.9	79	-0.04
39	I	CHLOROBENZENE-D5	1.000	1.000	0.0	100	-0.02
40	T,M	2,2,4-Trimethylpentane	1.630	0.000	100.0#	0#	-8.09#

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J30\RJW553.D Vial: 3
Acq On : 30 Oct 2012 12:49 pm Operator: WL
Sample : CVO06H1552 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T,M	1,1-Dichloropropene	0.194	0.213	-9.8	111	-0.02
42	T,M	Carbon tetrachloride	0.506	0.460	9.1	90	-0.02
43	T,M	1,2-Dichloroethane	0.367	0.323	12.0	88	-0.02
44	T,M	Benzene	1.512	1.552	-2.6	106	-0.02
45	T,M	Trichloroethene	0.432	0.464	-7.4	108	-0.02
46	T,M	Methylcyclohexane	0.697	0.000	100.0#	0#	-9.76#
47	C,T,M	1,2-Dichloropropane	0.384	0.392	-2.1	102	-0.02
48	T,M	1,4-Dioxane	0.001	0.001	0.0	101	-0.02
49	T,M	Bromodichloromethane	0.466	0.451	3.2	94	-0.02
50	T,M	Dibromomethane	0.166	0.164	1.2	97	-0.02
51	T,M	2-Chloroethyl vinyl ether	0.124	0.102	17.7	77	-0.02
52	T,M	4-Methyl-2-pentanone	0.198	0.191	3.5	92	-0.02
53	T,M	cis-1,3-Dichloropropene	0.539	0.535	0.7	96	-0.02
54	S	Toluene-d8	1.276	1.317	-3.2	97	-0.02
55	C,T,M	Toluene	1.566	1.617	-3.3	104	-0.02
56	T,M	Ethyl methacrylate	0.257	0.257	0.0	94	-0.02
57	T,M	trans-1,3-Dichloropropene	0.395	0.383	3.0	93	-0.02
58	T,M	1,1,2-Trichloroethane	0.197	0.203	-3.0	100	-0.02
59	T,M	2-Hexanone	0.118	0.116	1.7	94	-0.02
60	T,M	1,3-Dichloropropane	0.409	0.402	1.7	95	-0.02
61	T,M	Tetrachloroethene	0.340	0.381	-12.1	113	-0.02
62	T,M	Dibromochloromethane	0.265	0.267	-0.8	95	-0.02
63	T,M	2-Ethyl-1-butanol	0.000	0.000	0.0	0#	0.00
64	T,M	1,2-Dibromoethane	0.205	0.205	0.0	96	-0.02
65	T,M	1-Chlorohexane	0.660	0.714	-8.2	105	0.00
66	P, T,M	Chlorobenzene	0.939	1.016	-8.2	111	-0.02
67	T,M	1,1,1,2-Tetrachloroethane	0.297	0.316	-6.4	103	-0.02
68	C,T,M	Ethylbenzene	1.759	1.833	-4.2	103	-0.02
69	T,M	m-Xylene & p-Xylene	1.351	1.335	1.2	102	-0.02
70	T,M	o-Xylene	1.352	1.364	-0.9	99	-0.02
71	T,M	Styrene	0.935	1.029	-10.1	106	-0.02
72	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	105	-0.02
73	T,M	Isopropylbenzene	4.685	4.608	1.6	102	-0.02
74	P,T,M	Bromoform	0.348	0.368	-5.7	103	-0.02
75	P,T,M	1,1,2,2-Tetrachloroethane	0.625	0.608	2.7	99	-0.02
76	S	4-Bromofluorobenzene	1.245	1.141	8.4	92	-0.02
77	T,M	1,2,3-Trichloropropane	0.168	0.149	11.3	89	-0.02
78	T,M	trans-1,4-Dichloro-2-butene	0.188	0.170	9.6	90	-0.02
79	T,M	n-Propylbenzene	6.255	6.237	0.3	103	0.00
80	T,M	Bromobenzene	0.975	1.063	-9.0	114	-0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J30\RJW553.D Vial: 3
Acq On : 30 Oct 2012 12:49 pm Operator: WL
Sample : CVO06H1552 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M	1,3,5-Trimethylbenzene	3.761	3.618	3.8	102	-0.02
82	T,M	2-Chlorotoluene	3.900	3.703	5.1	100	-0.02
83	T,M	4-Chlorotoluene	3.163	2.950	6.7	100	-0.02
84	T,M	tert-Butylbenzene	0.863	0.924	-7.1	114	-0.02
85	T,M	1,2,4-Trimethylbenzene	3.614	3.458	4.3	101	-0.02
86	T,M	sec-Butylbenzene	5.188	5.326	-2.7	109	-0.02
87	T,M	p-Isopropyltoluene	3.969	4.084	-2.9	109	-0.02
88	T,M	1,3-Dichlorobenzene	1.929	2.107	-9.2	116	-0.02
89	T,M	1,4-Dichlorobenzene	1.839	1.993	-8.4	115	0.00
90	T,M	Benzyl chloride	0.000	0.000	0.0	0#	0.00
91	T,M	n-Butylbenzene	4.032	3.997	0.9	106	-0.02
92	T,M	1,2-Dichlorobenzene	1.479	1.548	-4.7	112	-0.02
93	T,M	1,2-Dibromo-3-chloropropane	0.072	0.068	5.6	97	-0.02
94	T,M	1,2,4-Trichlorobenzene	0.927	0.900	2.9	106	-0.02
95	T,M	Hexachlorobutadiene	0.655	0.655	0.0	106	-0.02
96	T,M	Naphthalene	1.125	1.002	10.9	93	-0.02
97	T,M	1,2,3-Trichlorobenzene	0.694	0.614	11.5	97	-0.02

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW553.D Vial: 3
Acq On : 30 Oct 2012 12:49 pm Operator: WL
Sample : CVO06H1552 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Nov 1 10:37 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	9.13	114	1628715	10.00	ug/l	-0.02
39) CHLOROBENZENE-D5	14.05	117	1428755	10.00	ug/l	-0.02
72) 1,2-DICHLOROBENZENE-D4	18.31	152	513140	10.00	ug/l	-0.02
System Monitoring Compounds						
34) Dibromofluoromethane	7.63	111	505783	10.29	ug/l	-0.04
Spiked Amount 10.000			Recovery = 102.90%			
38) 1,2-Dichloroethane-d4	8.46	65	361773	8.81	ug/l	-0.04
Spiked Amount 10.000			Recovery = 88.10%			
54) Toluene-d8	11.59	98	1881450	10.32	ug/l	-0.02
Spiked Amount 10.000			Recovery = 103.20%			
76) 4-Bromofluorobenzene	16.03	95	585630	9.17	ug/l	-0.02
Spiked Amount 10.000			Recovery = 91.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.89	85	414246	9.86	ug/l	100
3) Chloromethane	2.14	50	536351	10.62	ug/l	100
4) Vinyl chloride	2.27	62	407164	10.74	ug/l	100
5) Bromomethane	2.81	94	323307	10.64	ug/l	99
6) Chloroethane	2.91	64	276718	10.68	ug/l	97
7) Dichlorofluoromethane	2.96	67	960898	10.75	ug/l	100
8) Trichlorofluoromethane	3.21	101	502244	8.68	ug/l	99
9) Acrolein	3.74	56	118482	59.21	ug/l	99
10) 1,1,2-Trichloro-1,2,2-trif	3.82	151	297212	10.85	ug/l	99
11) Acetone	3.83	43	273877	49.37	ug/l	98
12) 1,1-Dichloroethene	4.03	61	869069	10.16	ug/l	95
13) tert-Butyl alcohol	4.13	59	86325	54.84	ug/l	96
16) Iodomethane	4.46	142	839508	11.44	ug/l	87
17) Methylene chloride	4.74	49	679439	11.61	ug/l	85
18) Carbon disulfide	4.76	76	1994636	11.41	ug/l	100
19) Acrylonitrile	4.95	53	369832	53.06	ug/l	99
20) tert-Butyl methyl ether (M	4.99	73	748320	9.77	ug/l	96
21) trans-1,2-Dichloroethene	5.22	61	921513	10.17	ug/l	92
22) Isopropyl ether (DIPE)	5.78	45	1860124	10.55	ug/l	99
23) Vinyl acetate	5.98	43	587131	9.59	ug/l	99
24) 1,1-Dichloroethane	5.95	63	1066314	10.28	ug/l	99
26) tert-Butyl ethyl ether (ET	6.48	59	1256779	9.76	ug/l	100
27) 2-Butanone	6.70	43	485952	47.20	ug/l	97
28) 2,2-Dichloropropane	6.91	77	558111	10.74	ug/l	98
29) cis-1,2-Dichloroethene	7.00	96	645374	10.84	ug/l	92
30) Chloroform	7.27	83	900213	9.56	ug/l	99
32) Bromochloromethane	7.54	49	426619	10.29	ug/l	94

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW553.D Vial: 3
Acq On : 30 Oct 2012 12:49 pm Operator: WL
Sample : CVO06H1552 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Nov 1 10:37 2012 Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
33)	Tetrahydrofuran	7.60	42	57918	8.59 ug/l		98
35)	1,1,1-Trichloroethane	7.94	97	731769	9.55 ug/l		91
37)	tert-Amyl methyl ether (TA	8.41	87	197941	9.86 ug/l	#	91
41)	1,1-Dichloropropene	8.19	110	304191	10.95 ug/l		99
42)	Carbon tetrachloride	8.35	119	657075	9.09 ug/l		100
43)	1,2-Dichloroethane	8.62	62	462122	8.81 ug/l		99
44)	Benzene	8.64	78	2217918	10.27 ug/l		99
45)	Trichloroethene	9.65	130	663147	10.75 ug/l		94
47)	1,2-Dichloropropane	9.94	63	560309	10.22 ug/l		94
48)	1,4-Dioxane	10.36	88	35049	206.43 ug/l		91
49)	Bromodichloromethane	10.32	83	644557	9.69 ug/l		99
50)	Dibromomethane	10.41	93	234885	9.88 ug/l		90
51)	2-Chloroethyl vinyl ether	10.85	63	145458	8.22 ug/l		98
52)	4-Methyl-2-pentanone	10.88	43	1366175	48.36 ug/l		98
53)	cis-1,3-Dichloropropene	11.21	75	763819	9.93 ug/l		97
55)	Toluene	11.73	91	2310177	10.32 ug/l		99
56)	Ethyl methacrylate	12.03	69	367734	10.02 ug/l		97
57)	trans-1,3-Dichloropropene	12.03	75	547564	9.71 ug/l		98
58)	1,1,2-Trichloroethane	12.28	97	289752	10.31 ug/l		98
59)	2-Hexanone	12.29	43	825583	49.10 ug/l		99
60)	1,3-Dichloropropane	12.70	76	574187	9.81 ug/l		100
61)	Tetrachloroethene	12.78	164	543957	11.18 ug/l		96
62)	Dibromochloromethane	13.11	129	382115	10.08 ug/l		100
64)	1,2-Dibromoethane	13.44	107	293135	10.02 ug/l		98
65)	1-Chlorohexane	13.71	91	1019651	10.81 ug/l		96
66)	Chlorobenzene	14.11	112	1451630	10.82 ug/l		95
67)	1,1,1,2-Tetrachloroethane	14.18	131	451606	10.63 ug/l		98
68)	Ethylbenzene	14.20	91	2619400	10.42 ug/l		96
69)	m-Xylene & p-Xylene	14.32	91	3813929	19.76 ug/l		95
70)	o-Xylene	15.03	91	1949460	10.09 ug/l		95
71)	Styrene	15.09	104	1470238	11.01 ug/l		96
73)	Isopropylbenzene	15.61	105	2364689	9.84 ug/l		97
74)	Bromoform	15.65	173	188783	9.52 ug/l		98
75)	1,1,2,2-Tetrachloroethane	15.91	83	312122	9.73 ug/l		100
77)	1,2,3-Trichloropropane	16.14	110	76295	8.87 ug/l		95
78)	trans-1,4-Dichloro-2-buten	16.25	53	87490	9.06 ug/l		94
79)	n-Propylbenzene	16.28	91	3200625	9.97 ug/l		97
80)	Bromobenzene	16.35	156	545563	10.90 ug/l		88
81)	1,3,5-Trimethylbenzene	16.53	105	1856669	9.62 ug/l		94
82)	2-Chlorotoluene	16.56	91	1900370	9.50 ug/l		94
83)	4-Chlorotoluene	16.63	91	1513625	9.33 ug/l		94

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J30\RJW553.D
Acq On : 30 Oct 2012 12:49 pm
Sample : CVO06H1552
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Nov 1 10:37 2012

Vial: 3
Operator: WL
Inst : TO06
Multiplr: 1.00
Quant Results File: VO06H15.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration
DataAcq Meth : VO06H15

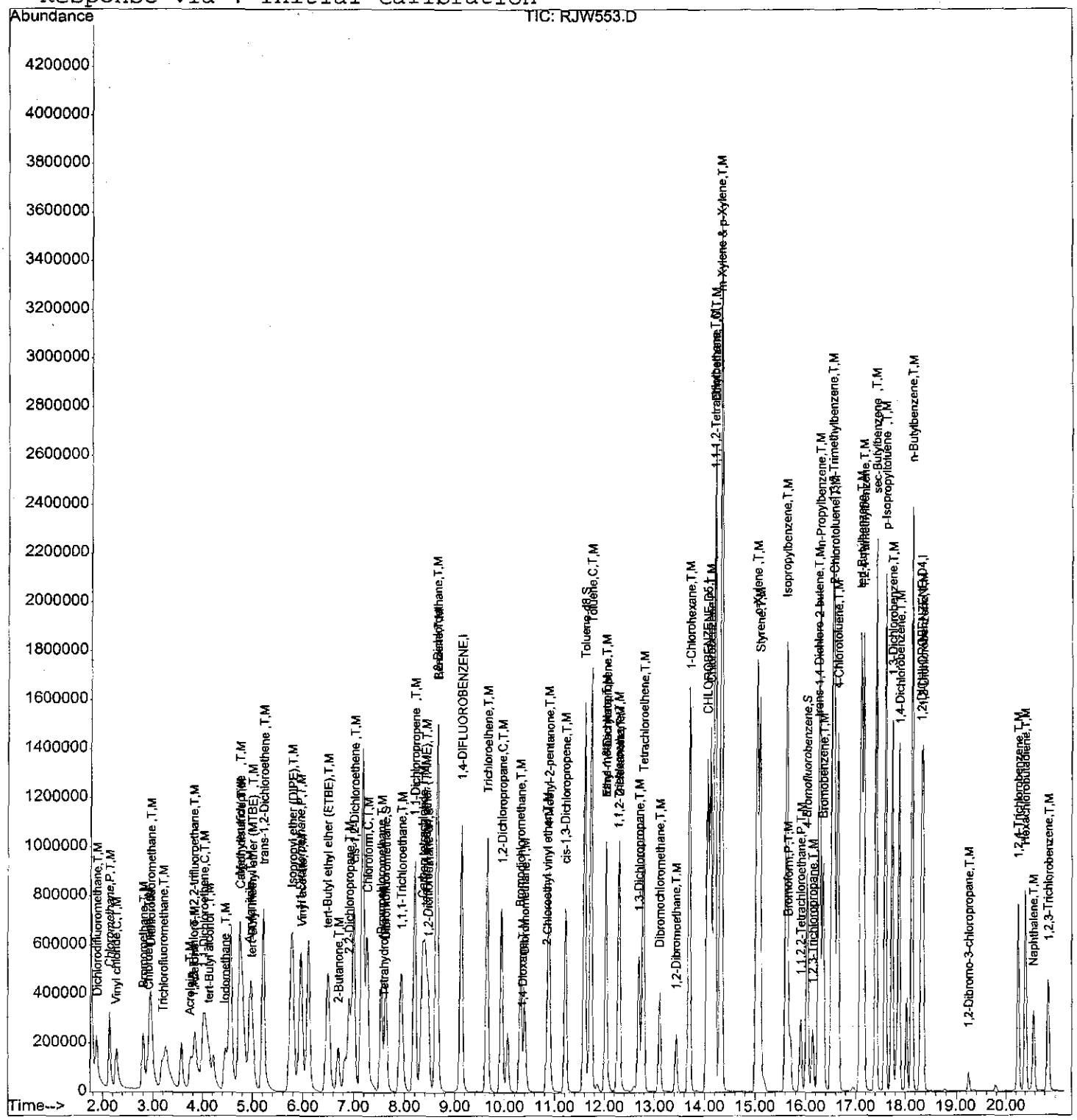
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
84)	tert-Butylbenzene	17.10	134	474359	10.71	ug/l	#	82
85)	1,2,4-Trimethylbenzene	17.16	105	1774254	9.57	ug/l		93
86)	sec-Butylbenzene	17.41	105	2733146	10.27	ug/l		97
87)	p-Isopropyltoluene	17.60	119	2095892	10.29	ug/l		96
88)	1,3-Dichlorobenzene	17.74	146	1081212	10.92	ug/l		97
89)	1,4-Dichlorobenzene	17.88	146	1022542	10.83	ug/l		97
91)	n-Butylbenzene	18.14	91	2050983	9.91	ug/l		98
92)	1,2-Dichlorobenzene	18.34	146	794537	10.47	ug/l		97
93)	1,2-Dibromo-3-chloropropan	19.25	157	34715	9.33	ug/l		86
94)	1,2,4-Trichlorobenzene	20.25	180	461637	9.70	ug/l		98
95)	Hexachlorobutadiene	20.40	225	335953	9.99	ug/l		99
96)	Naphthalene	20.57	128	514265	8.90	ug/l		100
97)	1,2,3-Trichlorobenzene	20.87	180	315040	8.85	ug/l		98

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J30\RJW553.D Vial: 3
Acq On : 30 Oct 2012 12:49 pm Operator: WL
Sample : CVO06H1552 Inst : TO06
Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
MS Integration Params: RTE.P
Quant Time: Nov 1 10:37 2012 Quant Results File: VO06H15.RES

Method : D:\HPCHEM\1\METHODS\VO06H15.M (RTE Integrator)
Title : METHOD 8260
Last Update : Mon Aug 20 15:50:24 2012
Response via : Initial Calibration



ANALYTICAL LOGS

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/30/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge Book # A06 -051

BATCH CV01H1552

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH ≤ 2	Matrix W Cl_2 < 5ppm	Matrix S	Notes
01	RJW 551	BFB06J22 ✓	0.5 µL					11:40am
02	552	Std cnk						
03	553	CV006H1552 ✓	1/1/5/5 µL					
04	554	V006J22L ✓	↓					
05	555	↓ C ✓	↓					
06	556	Rinse						
07	557	V006J22B ✓	25mL					
08	558	12J182-01 ✓	25mL	1.0	✓	✓		
09	559	↓ -02 ✓	↓	↓	✓	✓		
10	560	-02M ✓			✓	✓		
11	561	↓ -02S ✓	↓	↓	✓	✓		
12	562	Rinse						
13	563	12J182-03 ✓	25mL	1.0	✓	✓		
14	564	↓ -04 ✓	↓	↓	✓	✓		
15	565	-05 ✓			✓	✓		
16	566	-06 ✓			✓	✓		
17	567	↓ -07 ✓			✓	✓		
18	568	~~12J186-10~~ ✓			✓	✓		
19	↓ 569	10/31/12 ↓ -11 ✓	↓	↓	✓	✓		8:53 pm
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								WL 10/31/12

Instrument No.	06
INITIAL CALIBRATION REFERENCE	
DATE	8/15/12
ICAL ID	V006H15

STANDARDS

NAME	ID	Amount (µl)	Conc. (mg/L)
DCC	SV1-20-8-1	1	
DCC	-18-3	1	
DCC	-19-2	5	
DCC	-10-2	5	50/250
BFB	-22-1	0.5	
IS/SURR.	-23-2	1	
ICV/LCS	-15-2	1	
ICV/LCS	-25-1	1	
ICV/LCS	-22-2	5	
ICV/LCS	↓ -17-2	5	
Data File Folder	12J30		
	LOT #		
pH strip	HC137671		
Chlorine strip	2220		
Methanol			
$NaHSO_4$			
Reagent Water	RW4-12-001		
Sand			

Electronic Data Archival Location	Date
HPCHEM_VOA/TO06	

Comments:

Analyzed By: WL

Date Disposed: 10/31/12 Disposed By: WL

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐

Start Date: 8/15/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book # A06 -050

BATCH V006H15B

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl <5ppm	Matrix S	Notes
01	RHW 001	Rinse		NA	NA	NA		
02	002	BFB06H01	1 µL					CS2, Gases, 8260, 224TMP, 4-Add KH/AA/BA 1-Butanol
03	003	V006H151	a b c d e f ml .03/.03/.15/.15/.03/.03					~~0.3~~ (apple?) ~~1.5~~ ~~6~~
04	004	2	.05/.05/.25/.25/.05/.05				WL	~~0.5~~ 0.3 1.5 6
05	005	3	.1/.1/.5/.5/.1/.1			8/17/12		~~1~~ 0.5 2.5 10
06	006	4	.2/.2/1/1/.2/.2					~~2~~ 1 5 20
07	007	5	.5/.5/2.5/2.5/.5/.5					~~5~~ 2 10 40
08	008	6	1/1/5/5/1/1					~~10~~ 5 25 100
09	009	7	2/2/10/10/2/2					~~20~~ 10 50 200
10	010	8	3/3/15/15/3/3					~~30~~ 20 100 400
11	011	9	5/5/25/25/5/5					30 150 600
12	012	10	10/10/50/50/10/10					50 250 1000
13	013	15/SS						100 500 2000
14	014	V006H15B						
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								WL 8/17/12

Instrument No.	06
INITIAL CALIBRATION REFERENCE	
DATE	~~V006H~~ 8/15/12 (WL 8/16/12)
ICAL ID	V006H15

STANDARDS (WL 8/16/12)

NAME	ID	Amount (µL)	Conc. (mg/L)
(a) DCC CS2	5V1-20-8-2	250	*
(b) DCC Gases	-7-1	250	
(c,d) KH-AA DCC 8260	-9-2	250	
	-9-3	50/250	
(e,f) 224TMP DCC 4-Add	5V1-19-79-2	250	
	-94-2	250	
BFB	-68-2	50	1 µL
IS/SURR. IS, SS, IS/SS	5V1-20-7-3	250	1
	-8-1		*
ICV/LCS CS2	-1-2	250	1
ICV/LCS Gases	-4-1	250	1
ICV/LCS KH-AA 8260	5V1-20-5-3	250	5
	5V1-19-78-3	50/250	5
ICV/LCS 224TMP 3-Add	-80-1	250	1
	5V1-19-55-02	250	1
2-butanol	5V1-12-36-15	1000	~~0.25~~ 1.25 (WL 8/17/12)
DATA FILE FOLDER	12H15		

Electronic Data Archival

Location	Date
HPCHEM_VOA/T006	

Comments: * varied amount

Analyzed By: WL

Date Disposed: 8/16/12

Disposed By: WL

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☐ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐

Start Date: 8/16/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book # A06 -050

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl <5ppm	Matrix S	Notes
01	RHW015	BFB06H02	1mL					9:31 am
02	↓ 016	IV006H1501	1/1/5/5/1/1/0.5mL					10:02 am
03	↓ 017	Rinse						
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								WL 8/17/12

BATCH IV006H1501

Instrument No.	06
INITIAL CALIBRATION REFERENCE	
DATE	8/15/12
ICAL ID	V006H15

STANDARDS

NAME	ID	Amount (µL)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC			
BFB	SV1-19-68-2	1	50
IS/SURR.	SV1-20-6-1	1	250
ICV/LCS	↓ -1-2	1	250
ICV/LCS	↓ -4-1	1	250
ICV/LCS	SV1-20-5-3 SV1-19-78-3	5 5	250 50/250
ICV/LCS	↓ -80-1 -55-2	1 1	250 250
	SV1-12-36-15	~~0.75~~ 1.25	1000
DATA FILE FOLDER	12H16	WL 8/17/12	

Electronic Data Archival

Location	Date
HPCHEM_VOA/T006	

Comments:

Analyzed By: WL

Date Disposed: 8/17/12

Disposed By: WL

Injection Log

Directory: D:\HPCHEM\1\DATA\12J30

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RJW551.D	1.	BFB06J22	T/CHK	30 Oct 2012 11:40
2	2	RJW552.D	1.	STD CHK	10ppb 8260/50ppb KET-AA-TBA	30 Oct 2012 12:11
3	3	RJW553.D	1.	CVO06H1552	10ppb 8260/50ppb KET-AA-TBA	30 Oct 2012 12:49
4	4	RJW554.D	1.	VO06J22L	10ppb 8260/50ppb KET-AA-TBA	30 Oct 2012 13:26
5	5	RJW555.D	1.	VO06J22C	10ppb 8260/50ppb KET-AA-TBA	30 Oct 2012 13:56
6	6	RJW556.D	1.	RINSE	BLANK	30 Oct 2012 14:25
7	7	RJW557.D	1.	VO06J22B 25mL	BLANK	30 Oct 2012 14:55
8	8	RJW558.D	1.	12J182-01 25mL	DF=1.0	30 Oct 2012 15:25
9	9	RJW559.D	1.	12J182-02 25mL	DF=1.0	30 Oct 2012 15:54
10	10	RJW560.D	1.	12J182-02M 25mL	DF=1.0	30 Oct 2012 16:24
11	11	RJW561.D	1.	12J182-02S 25mL	DF=1.0	30 Oct 2012 16:53
12	12	RJW562.D	1.	RINSE	DF=1.0	30 Oct 2012 17:23
13	13	RJW563.D	1.	12J182-03 25mL	DF=1.0	30 Oct 2012 17:53
14	14	RJW564.D	1.	12J182-04 25mL	DF=1.0	30 Oct 2012 18:24
15	15	RJW565.D	1.	12J182-05 25mL	DF=1.0	30 Oct 2012 18:53
16	16	RJW566.D	1.	12J182-06 25mL	DF=1.0	30 Oct 2012 19:23
17	17	RJW567.D	1.	12J182-07 25mL	DF=1.0	30 Oct 2012 19:53
18	18	RJW568.D	1.	12J186-10 25mL	DF=1.0	30 Oct 2012 20:23
19	19	RJW569.D	1.	12J186-11 25mL	DF=1.0	30 Oct 2012 20:53

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

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

SDG#: 12J182

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J182

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

A total of six (6) water samples were received on 10/25/12 for VOC SIM analysis, Method 5030B/8260B SIM in accordance with Department of Defense Quality Systems Manual for Environmental Laboratories, Version 4.2 and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration
Instrument tune check was performed prior to calibration. Instrument mass ratios were within specification. Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using secondary source (ICV). Continuing calibration (CCV) was carried on at a frequency required by the project. All project calibration requirements were satisfied. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Results were compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for VO05J23L/C were all within QC limits.

Matrix QC Sample
A set of MS/MSD was analyzed with the samples in this SDG.
Percent recoveries were within project QC limits except for results qualified with [*] in J182-02 M/S summary form, most likely due to matrix interference. Check QC summary form for details.

Surrogate
Surrogate was added on QC and field samples. Surrogate recoveries were within project QC limits. Refer to sample result forms for details.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE

SDG NO. : 12J182
Instrument ID : T-005

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V005J23B	1	NA	10/31/1209:38	10/31/1209:38	RJQ457	RJQ091	V005J23	Method Blank
LCS1W	V005J23L	1	NA	10/31/1208:04	10/31/1208:04	RJQ454	RJQ091	V005J23	Lab Control Sample (LCS)
LCD1W	V005J23C	1	NA	10/31/1208:36	10/31/1208:36	RJQ455	RJQ091	V005J23	LCS Duplicate
10-24-12 PWB-15	J182-03	1	NA	10/31/1210:26	10/31/1210:26	RJQ458	RJQ091	V005J23	Field Sample
10-24-12 PWB-2	J182-04	1	NA	10/31/1211:16	10/31/1211:16	RJQ459	RJQ091	V005J23	Field Sample
10-24-12 WB 2-3	J182-02	1	NA	10/31/1211:44	10/31/1211:44	RJQ460	RJQ091	V005J23	Field Sample
10-24-12 WB 2-3MS	J182-02M	1	NA	10/31/1212:13	10/31/1212:13	RJQ461	RJQ091	V005J23	Matrix Spike Sample (MS)
10-24-12 WB 2-3MSD	J182-02S	1	NA	10/31/1212:45	10/31/1212:45	RJQ462	RJQ091	V005J23	MS Duplicate (MSD)
10-24-12 WB 2-2	J182-06	1	NA	10/31/1213:14	10/31/1213:14	RJQ463	RJQ091	V005J23	Field Sample
10-24-12 FDUP-3	J182-07	1	NA	10/31/1213:42	10/31/1213:42	RJQ464	RJQ091	V005J23	Field Sample
10-24-12 PWB-7A	J182-05	1	NA	10/31/1214:11	10/31/1214:11	RJQ465	RJQ091	V005J23	Field Sample
10-24-12 PWB-7ADL	J182-05T	10	NA	10/31/1214:40	10/31/1214:40	RJQ466	RJQ091	V005J23	Diluted Sample
10-24-12 PWB-7ADL	J182-05I	250	NA	10/31/1215:39	10/31/1215:39	RJQ468	RJQ091	V005J23	Diluted Sample
10-24-12 PWB-15DL	J182-03T	10	NA	10/31/1216:09	10/31/1216:09	RJQ469	RJQ091	V005J23	Diluted Sample
10-24-12 PWB-2DL	J182-04T	10	NA	10/31/1216:38	10/31/1216:38	RJQ470	RJQ091	V005J23	Diluted Sample
10-24-12 WB 2-2DL	J182-06T	50	NA	10/31/1217:07	10/31/1217:07	RJQ471	RJQ091	V005J23	Diluted Sample
10-24-12 FDUP-3DL	J182-07T	50	NA	10/31/1217:36	10/31/1217:36	RJQ472	RJQ091	V005J23	Diluted Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 11:44
Sample ID:	10-24-12 WB 2-3	Date Analyzed:	10/31/12 11:44
Lab Samp ID:	J182-02	Dilution Factor:	1
Lab File ID:	RJQ460	Matrix :	WATER
Ext Btch ID:	V005J23	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.50	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0957	0.1000	95.7	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 10:26 # 10/31/12 16:09
Sample ID:	10-24-12 PW8-15	Date Analyzed:	10/31/12 10:26 # 10/31/12 16:09
Lab Samp ID:	J182-03 #J182-03T	Dilution Factor:	1 # 10
Lab File ID:	RJQ458 #RJQ469	Matrix	: WATER
Ext Btch ID:	V005J23	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	1.2	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	0.11	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0915	0.1000	91.5	80-120
# TOLUENE-D8	0.893	1.000	89.3	80-120

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 10:26
Sample ID:	10-24-12 PWB-15	Date Analyzed:	10/31/12 10:26
Lab Samp ID:	J182-03	Dilution Factor:	1
Lab File ID:	RJQ458	Matrix :	WATER
Ext Btch ID:	V005J23	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	1.3E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.11	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0915	0.1000	91.5	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 16:09
Sample ID:	10-24-12 PWB-15DL	Date Analyzed:	10/31/12 16:09
Lab Samp ID:	J182-03T	Dilution Factor:	10
Lab File ID:	RJQ469	Matrix :	WATER
Ext Btch ID:	V005J23	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	1.2	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.50	0.20
1,2-DIBROMOETHANE	ND	0.50	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.893	1.000	89.3	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 11:16 # 10/31/12 16:38
Sample ID:	10-24-12 PWB-2	Date Analyzed:	10/31/12 11:16 # 10/31/12 16:38
Lab Samp ID:	J182-04 #J182-04T	Dilution Factor:	1 # 10
Lab File ID:	RJQ459 #RJQ470	Matrix	: WATER
Ext Btch ID:	VO05J23	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	1.1	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0922	0.1000	92.2	80-120
# TOLUENE-D8	1.06	1.000	106	80-120

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 11:16
Sample ID:	10-24-12 PWB-2	Date Analyzed:	10/31/12 11:16
Lab Samp ID:	J182-04	Dilution Factor:	1
Lab File ID:	RJQ459	Matrix :	WATER
Ext Btch ID:	V005J23	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	1.0E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0922	0.1000	92.2	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 16:38
Sample ID:	10-24-12 PWB-2DL	Date Analyzed:	10/31/12 16:38
Lab Samp ID:	J182-04T	Dilution Factor:	10
Lab File ID:	RJQ470	Matrix	: WATER
Ext Btch ID:	VO05J23	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	1.1	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.50	0.20
1,2-DIBROMOETHANE	ND	0.50	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	1.06	1.000	106	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 14:11 # 10/31/12 14:40 ## 10/31/12 15:39
Sample ID:	10-24-12 PWB-7A	Date Analyzed:	10/31/12 14:11 # 10/31/12 14:40 ## 10/31/12 15:39
Lab Samp ID:	J182-05 #J182-05T ##J182-05I	Dilution Factor:	1 # 10 ## 250
Lab File ID:	RJQ465 #RJQ466 ##RJQ468	Matrix	: WATER
Ext Btch ID:	VO05J23	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
##1,2,3-TRICHLOROPROPANE	55	1.2	0.62
# 1,2-DIBROMO-3-CHLOROPROPANE	1.3	0.50	0.20
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0851	0.1000	85.1	80-120
# TOLUENE-D8	1.00	1.000	100	80-120
##TOLUENE-D8	24.1	25.00	96.6	80-120

Members of the First Associated File
Members of the Second Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 14:11
Sample ID:	10-24-12 PWB-7A	Date Analyzed:	10/31/12 14:11
Lab Samp ID:	J182-05	Dilution Factor:	1
Lab File ID:	RJQ465	Matrix :	WATER
Ext Btch ID:	V005J23	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	54E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	1.4E	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0851	0.1000	85.1	80-120

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J31\RJQ465.D
Acq On : 31 Oct 2012 2:11 pm
Sample : 12J182-05 25mL
Misc : DF=1.0
MS Integration Params: 524INT.P
Quant Time: Nov 1 12:11 2012

Vial: 14
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

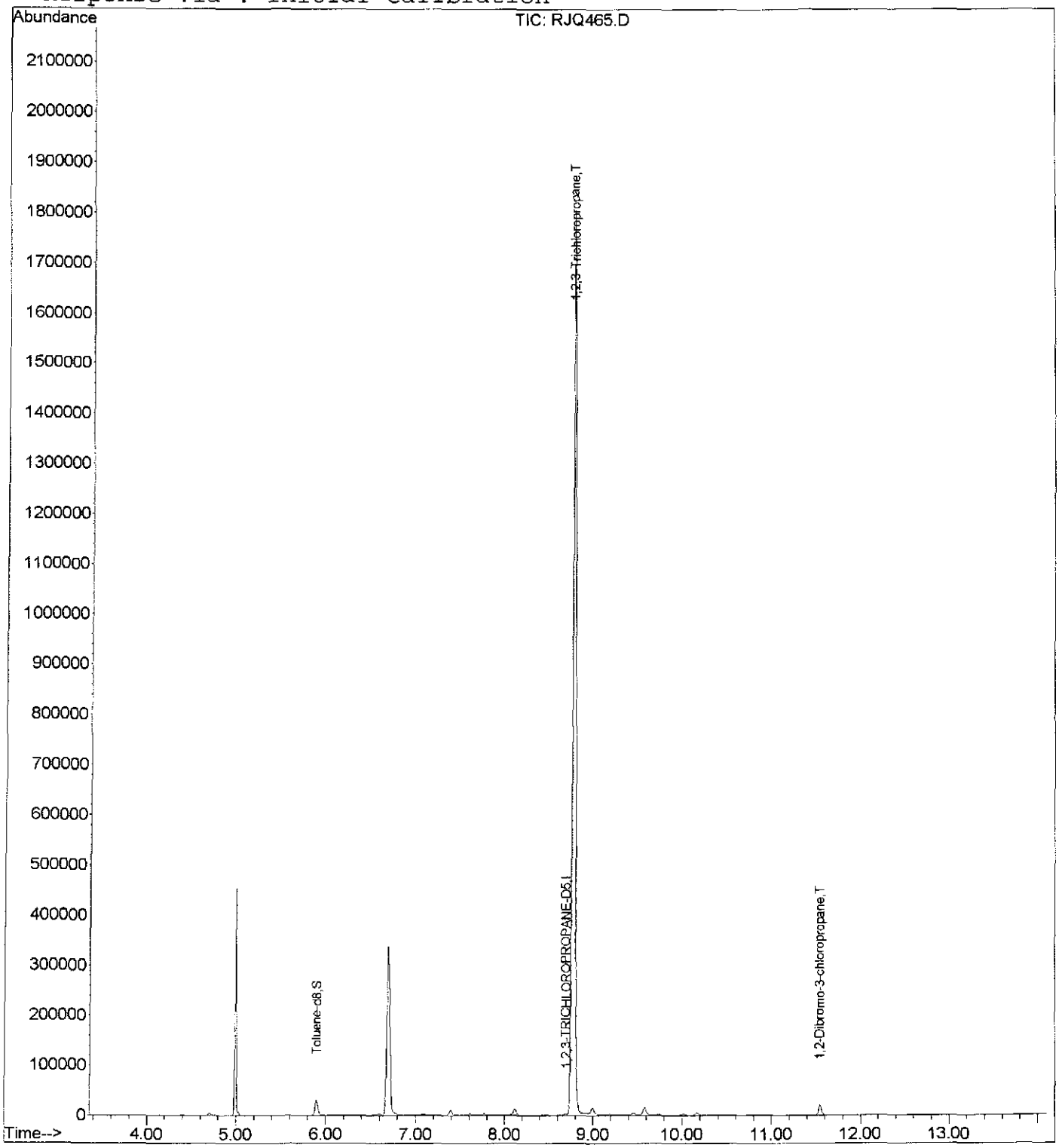
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2889	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	39197	85.13 ng/l	0.00
Spiked Amount 100.000			Recovery	= 85.13%	
Target Compounds					Qvalue
6) 1,2,3-Trichloropropane	8.77	75	2809903	53768.59 ng/l E	90
7) 1,2-Dibromo-3-chloropropan	11.55	157	16195	1373.05 ng/l E	97

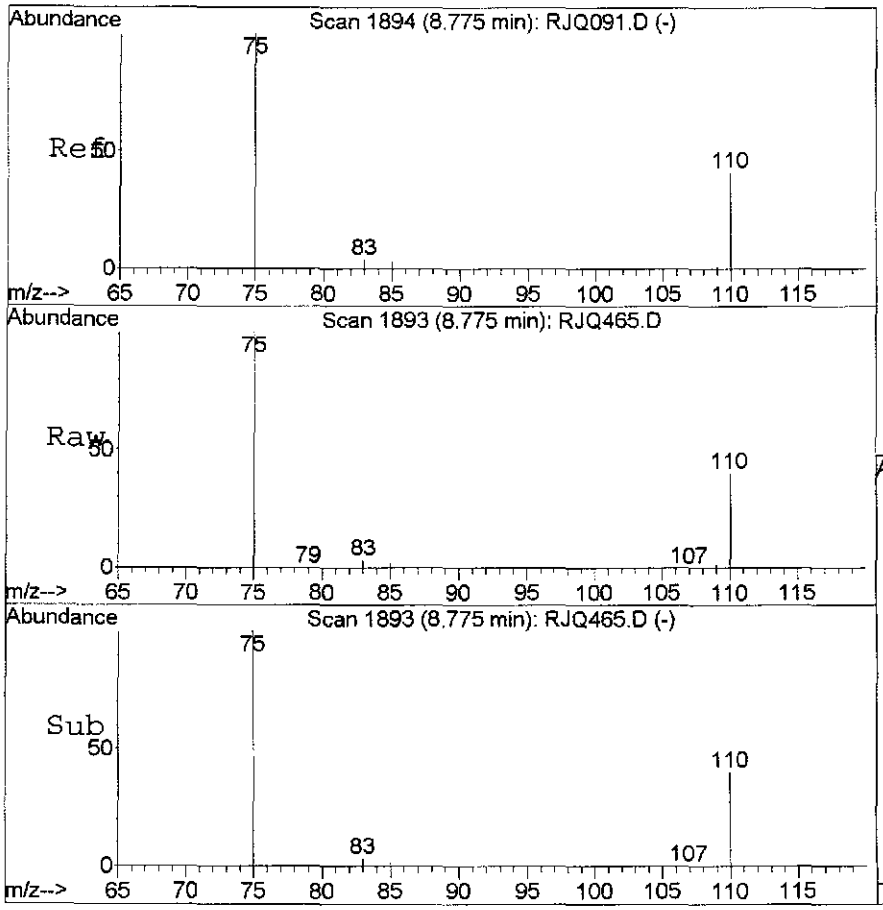
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J31\RJQ465.D Vial: 14
Acq On : 31 Oct 2012 2:11 pm Operator: SD
Sample : 12J182-05 25mL Inst : TO05
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 12:11 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration

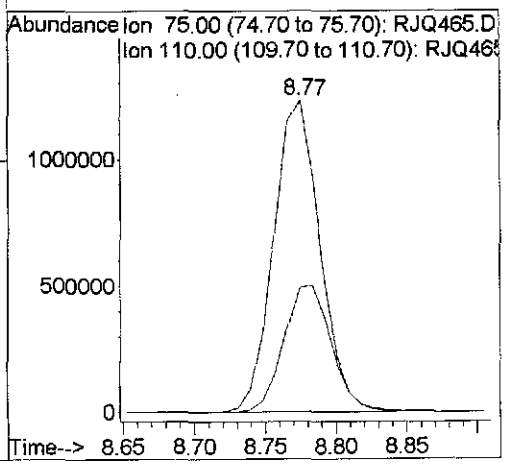


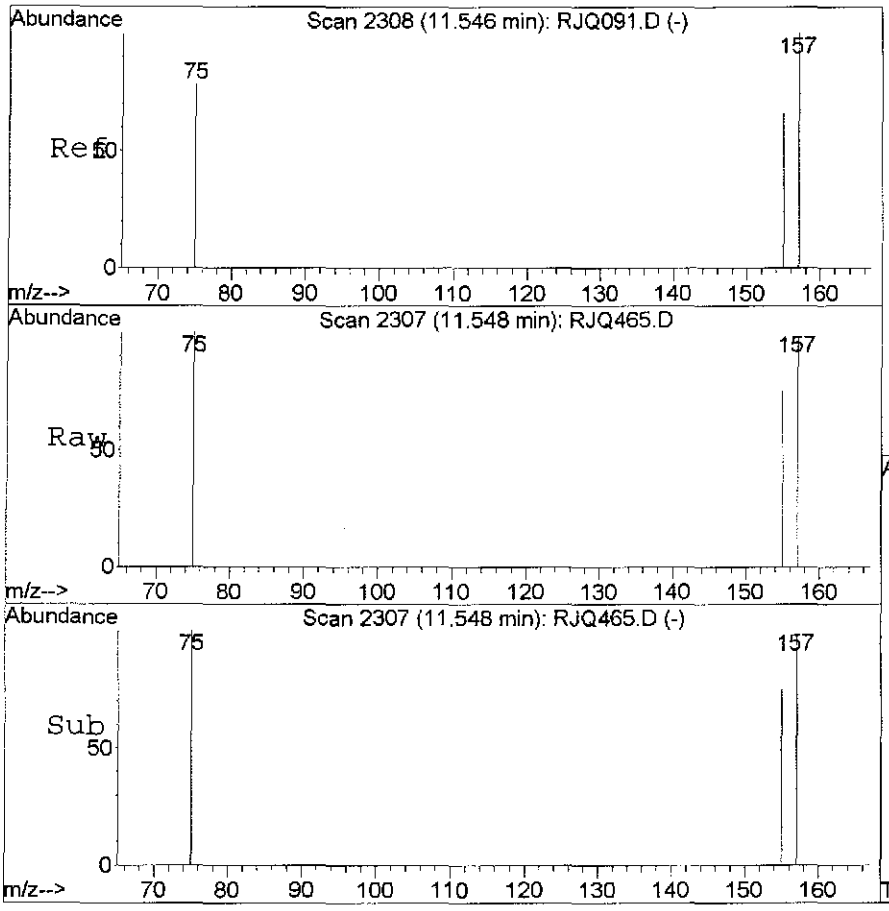


#6
1,2,3-Trichloropropane
Concen: 53768.59 ng/l
RT: 8.77 min Scan# 1893
Delta R.T. -0.00 min
Lab File: RJQ465.D
Acq: 31 Oct 2012 2:11 pm

Tgt Ion: 75 Resp: 2809903

Ion	Ratio	Lower	Upper
75	100		
110	41.4	18.1	78.1

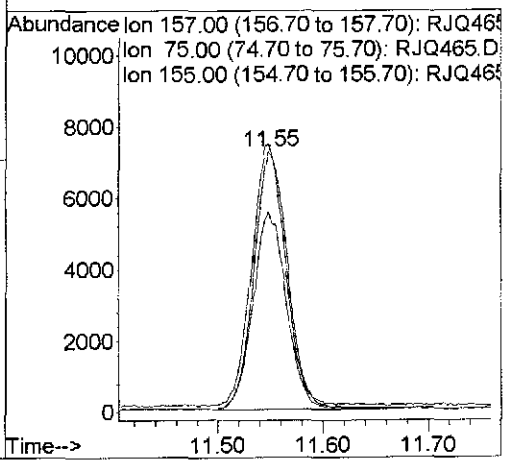




#7
1,2-Dibromo-3-chloropropane
Concen: 1373.05 ng/l
RT: 11.55 min Scan# 2307
Delta R.T. 0.00 min
Lab File: RJQ465.D
Acq: 31 Oct 2012 2:11 pm

Tgt Ion:157 Resp: 16195

Ion	Ratio	Lower	Upper
157	100		
75	99.1	72.4	134.5
155	76.3	52.1	96.9



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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 14:40
Sample ID:	10-24-12 PWB-7ADL	Date Analyzed:	10/31/12 14:40
Lab Samp ID:	J182-05T	Dilution Factor:	10
Lab File ID:	RJQ466	Matrix :	WATER
Ext Btch ID:	V005J23	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	62E	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	1.3	0.50	0.20
1,2-DIBROMOETHANE	ND	0.50	0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	1.00	1.000	100	80-120

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J31\RJQ466.D
Acq On : 31 Oct 2012 2:40 pm
Sample : 12J182-05T 2.5mL
Misc : DF=10
MS Integration Params: 524INT.P
Quant Time: Nov 1 6:29 2012

Vial: 15
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

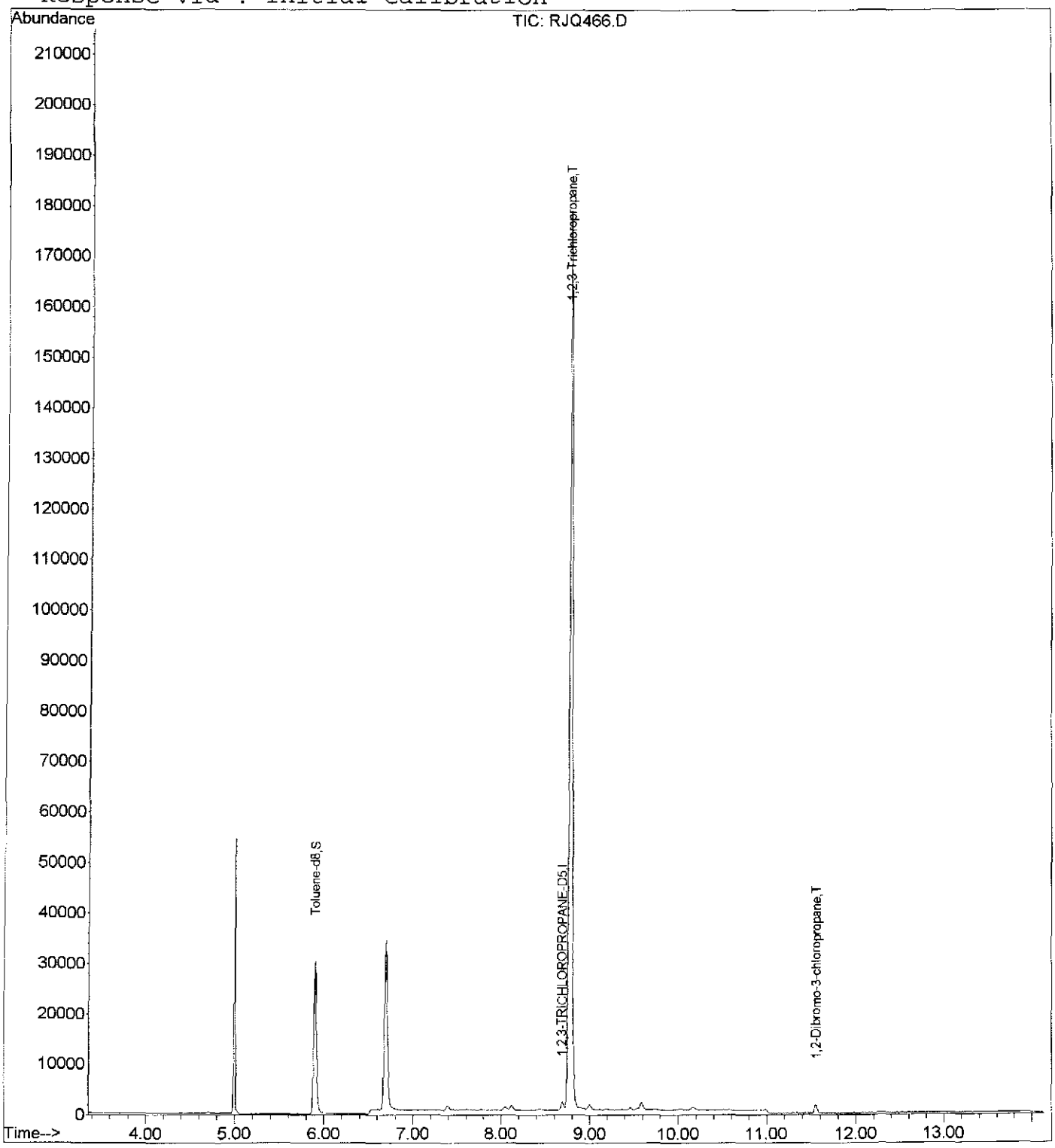
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2481	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	39698	100.40	ng/l	0.00
Spiked Amount 100.000			Recovery	=	100.40%	
Target Compounds						Qvalue
6) 1,2,3-Trichloropropane	8.78	75	277370	6180.41	ng/l	90
7) 1,2-Dibromo-3-chloropropan	11.55	157	1366	134.86	ng/l	90

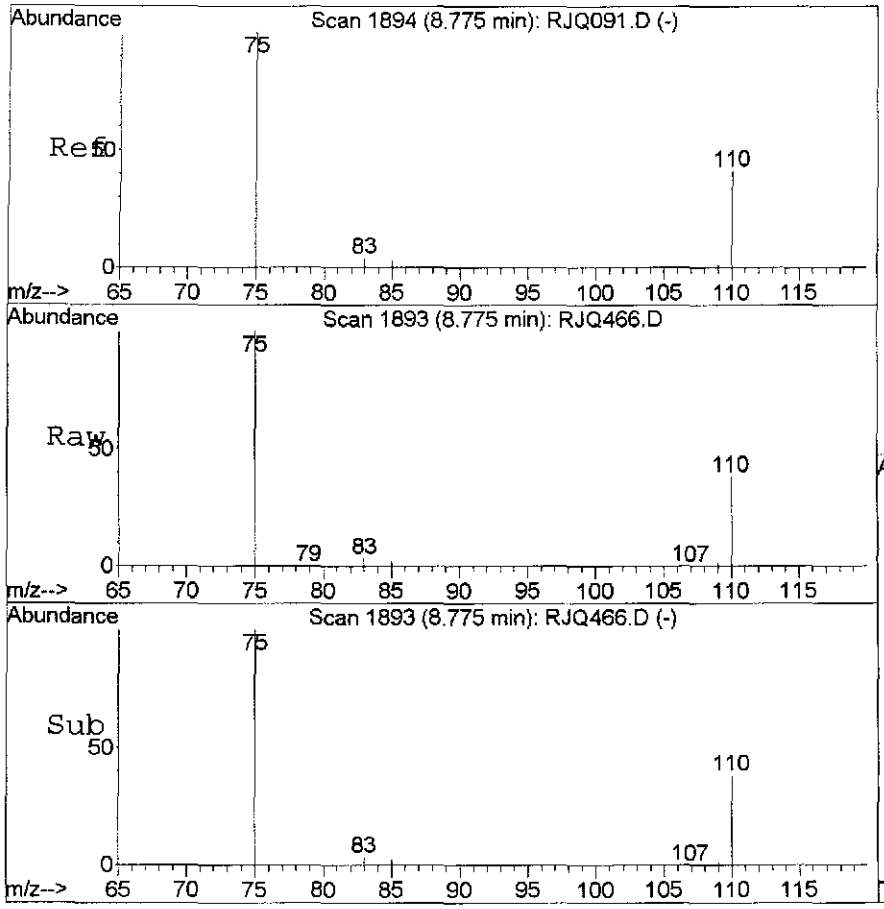
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J31\RJQ466.D Vial: 15
Acq On : 31 Oct 2012 2:40 pm Operator: SD
Sample : 12J182-05T 2.5mL Inst : TO05
Misc : DF=10 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 6:29 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration

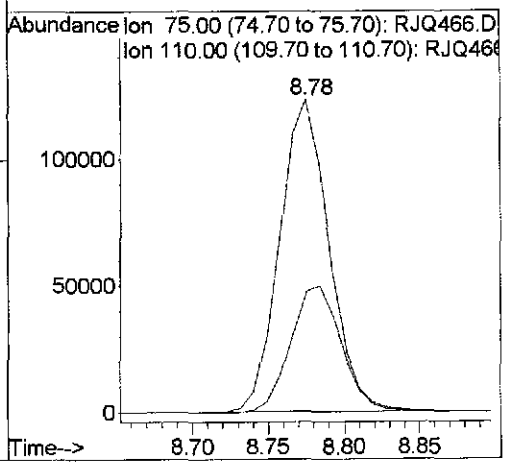


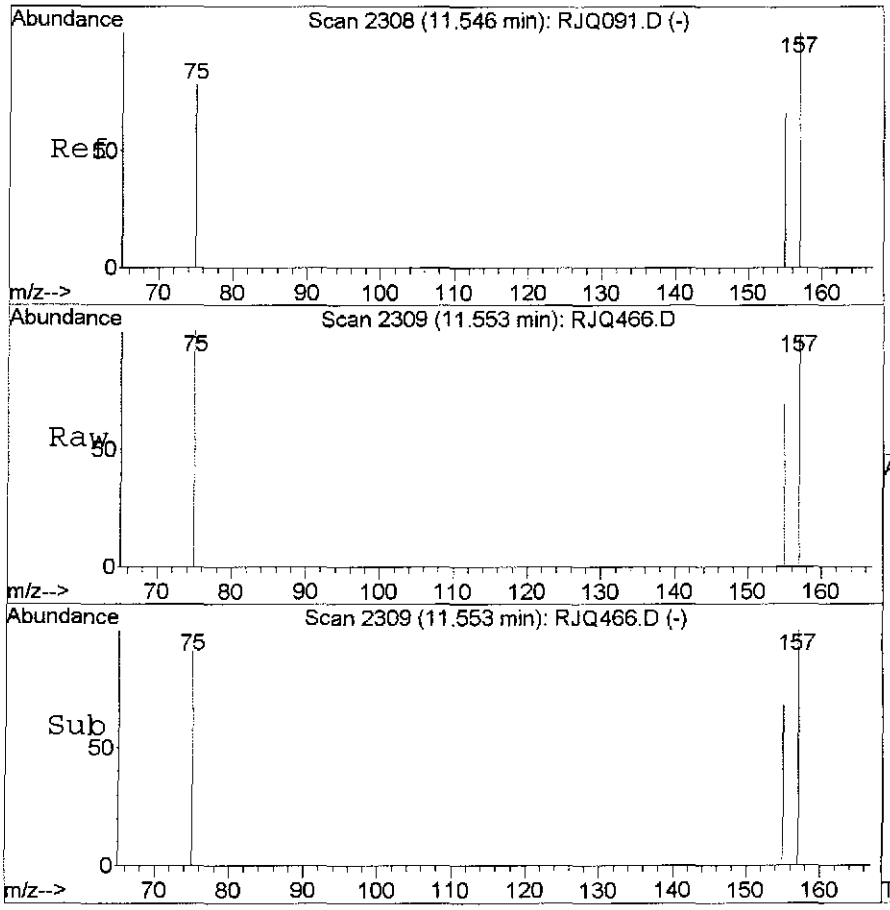


#6
1,2,3-Trichloropropane
Concen: 6180.41 ng/l
RT: 8.78 min Scan# 1893
Delta R.T. 0.00 min
Lab File: RJQ466.D
Acq: 31 Oct 2012 2:40 pm

Tgt Ion: 75 Resp: 277370

Ion	Ratio	Lower	Upper
75	100		
110	41.4	18.1	78.1

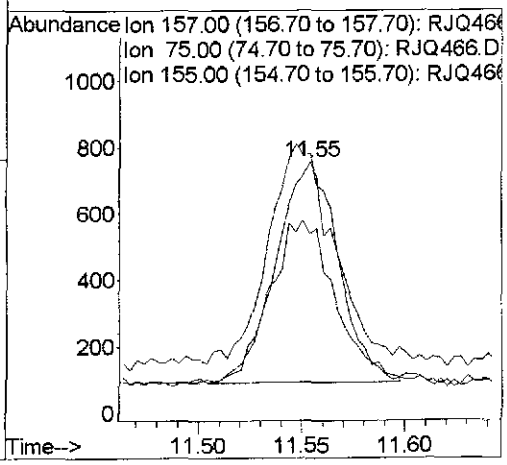




#7
1,2-Dibromo-3-chloropropane
Concen: 134.86 ng/l
RT: 11.55 min Scan# 2309
Delta R.T. 0.01 min
Lab File: RJQ466.D
Acq: 31 Oct 2012 2:40 pm

Tgt Ion:157 Resp: 1366

Ion	Ratio	Lower	Upper
157	100		
75	115.4	72.4	134.5
155	82.0	52.1	96.9



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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 15:39
Sample ID:	10-24-12 PWB-7ADL	Date Analyzed:	10/31/12 15:39
Lab Samp ID:	J182-05I	Dilution Factor:	250
Lab File ID:	RJQ468	Matrix :	WATER
Ext Btch ID:	VO05J23	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	55	1.2	0.62
1,2-DIBROMO-3-CHLOROPROPANE	ND	12	5.0
1,2-DIBROMOETHANE	ND	12	5.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	24.1	25.00	96.6	80-120

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J31\RJQ468.D
Acq On : 31 Oct 2012 3:39 pm
Sample : 12J182-05I 0.10mL
Misc : DF=250
MS Integration Params: 524INT.P
Quant Time: Nov 1 6:29 2012

Vial: 17
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

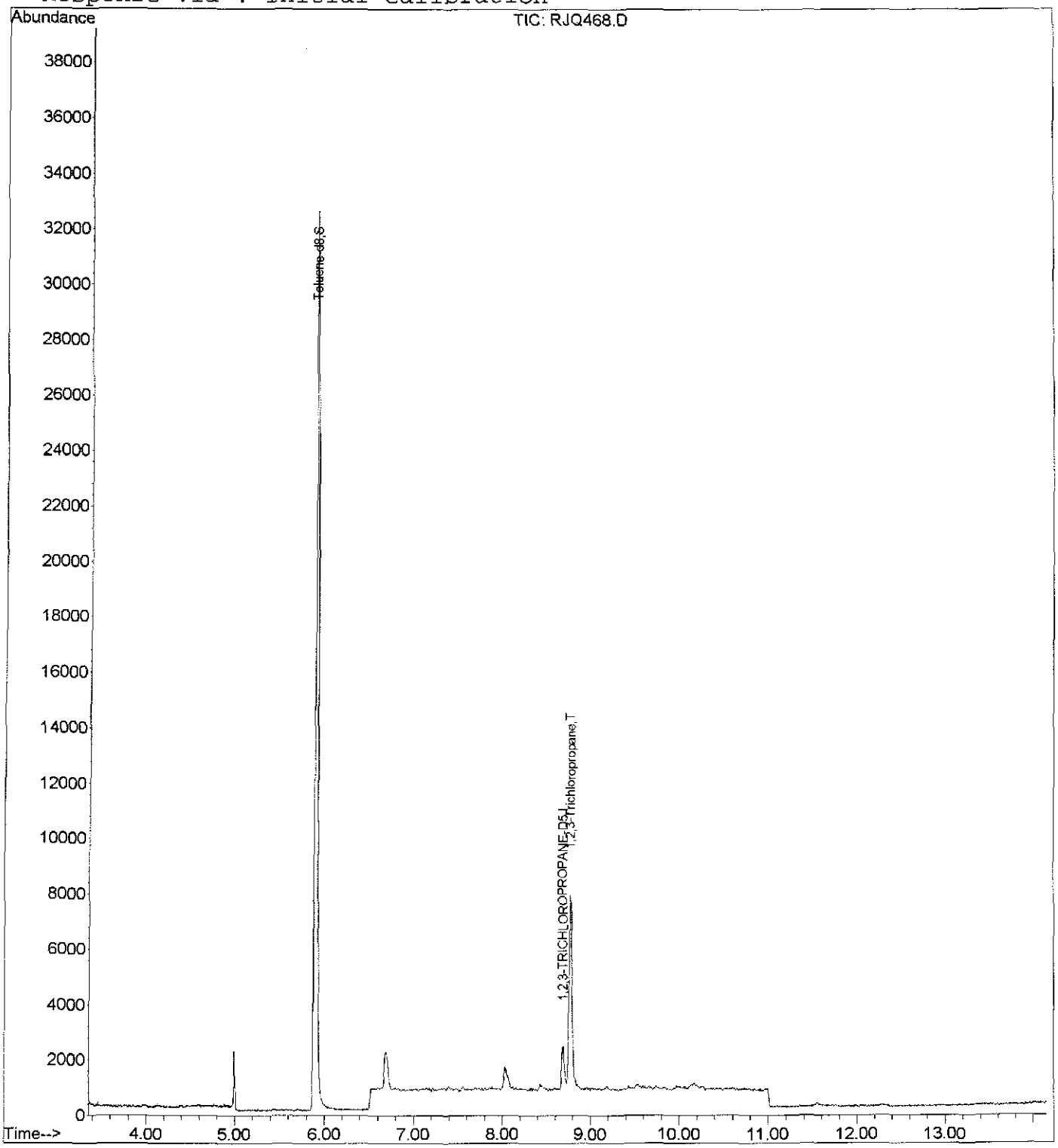
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2765	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	42548	96.55	ng/l	0.00
Spiked Amount 100.000			Recovery	=	96.55%	
Target Compounds						Qvalue
6) 1,2,3-Trichloropropane	8.77	75	11009	220.11	ng/l	91

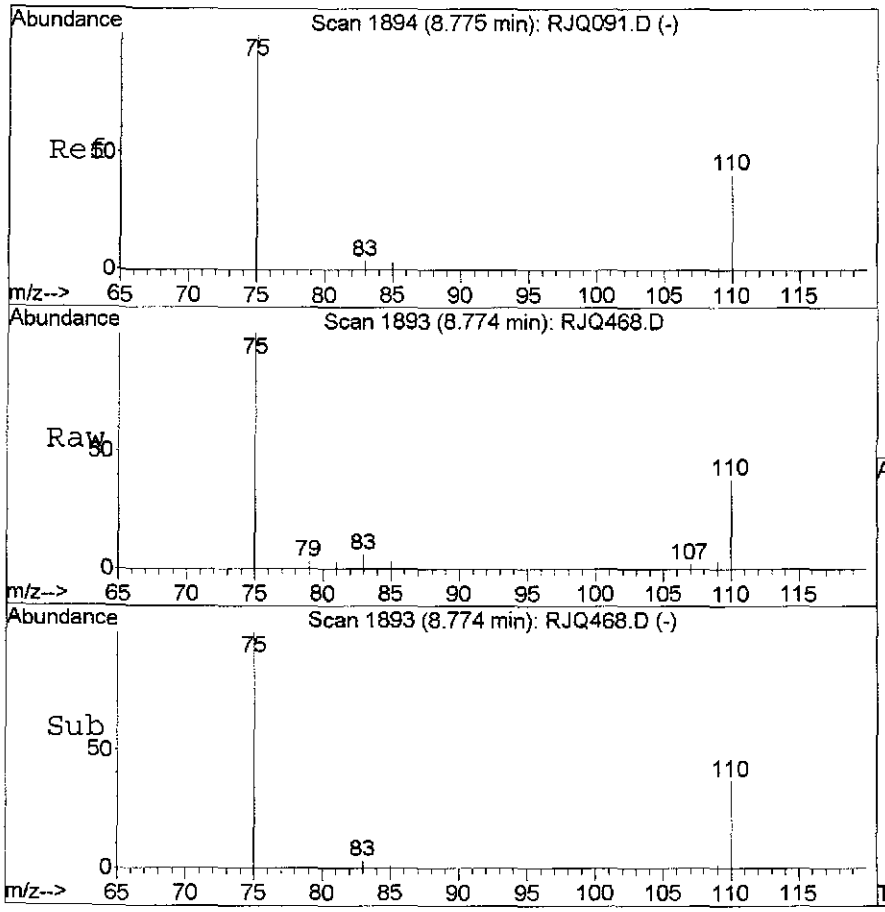
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J31\RJQ468.D Vial: 17
Acq On : 31 Oct 2012 3:39 pm Operator: SD
Sample : 12J182-05I 0.10mL Inst : TO05
Misc : DF=250 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 6:29 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration

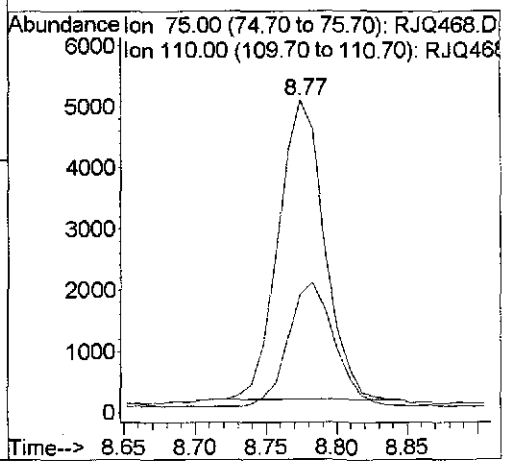




#6
1,2,3-Trichloropropane
Concen: 220.11 ng/l
RT: 8.77 min Scan# 1893
Delta R.T. -0.00 min
Lab File: RJQ468.D
Acq: 31 Oct 2012 3:39 pm

Tgt Ion: 75 Resp: 11009

Ion	Ratio	Lower	Upper
75	100		
110	42.3	18.1	78.1



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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 13:14 # 10/31/12 17:07
Sample ID:	10-24-12 WB 2-2	Date Analyzed:	10/31/12 13:14 # 10/31/12 17:07
Lab Samp ID:	J182-06 #J182-06T	Dilution Factor:	1 # 50
Lab File ID:	RJQ463 #RJQ471	Matrix	: WATER
Ext Btch ID:	VO05J23	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	9.3	0.25	0.12
1,2-DIBROMO-3-CHLOROPROPANE	0.30	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0884	0.1000	88.4	80-120
# TOLUENE-D8	5.12	5.000	102	80-120

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 13:14
Sample ID:	10-24-12 WB 2-2	Date Analyzed:	10/31/12 13:14
Lab Samp ID:	J182-06	Dilution Factor:	1
Lab File ID:	RJQ463	Matrix :	WATER
Ext Btch ID:	V005J23	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	9.1E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.30	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0884	0.1000	88.4	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 17:07
Sample ID:	10-24-12 WB 2-2DL	Date Analyzed:	10/31/12 17:07
Lab Samp ID:	J182-06T	Dilution Factor:	50
Lab File ID:	RJQ471	Matrix :	WATER
Ext Btch ID:	VO05J23	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	9.3	0.25	0.12
1,2-DIBROMO-3-CHLOROPROPANE	ND	2.5	1.0
1,2-DIBROMOETHANE	ND	2.5	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	5.12	5.000	102	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 13:42 # 10/31/12 17:36
Sample ID:	10-24-12 FDUP-3	Date Analyzed:	10/31/12 13:42 # 10/31/12 17:36
Lab Samp ID:	J182-07 #J182-07T	Dilution Factor:	1 # 50
Lab File ID:	RJQ464 #RJQ472	Matrix	: WATER
Ext Btch ID:	V005J23	% Moisture	: NA
Calib. Ref.:	RJQ091	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	8.6	0.25	0.12
1,2-DIBROMO-3-CHLOROPROPANE	0.29	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0954	0.1000	95.4	80-120
# TOLUENE-D8	5.06	5.000	101	80-120

Members of the Associated File

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 13:42
Sample ID:	10-24-12 FDUP-3	Date Analyzed:	10/31/12 13:42
Lab Samp ID:	J182-07	Dilution Factor:	1
Lab File ID:	RJQ464	Matrix :	WATER
Ext Btch ID:	V005J23	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	9.5E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.29	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0954	0.1000	95.4	80-120

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/31/12 17:36
Sample ID:	10-24-12 FDUP-3DL	Date Analyzed:	10/31/12 17:36
Lab Samp ID:	J182-07T	Dilution Factor:	50
Lab File ID:	RJQ472	Matrix :	WATER
Ext Btch ID:	VO05J23	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	8.6	0.25	0.12
1,2-DIBROMO-3-CHLOROPROPANE	ND	2.5	1.0
1,2-DIBROMOETHANE	ND	2.5	1.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	5.06	5.000	101	80-120

QC SUMMARIES

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

Client	: ECO & ASSOCIATES, INC.	Date Collected:	NA
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/31/12
Batch No.	: 12J182	Date Extracted:	10/31/12 09:38
Sample ID:	MBLK1W	Date Analyzed:	10/31/12 09:38
Lab Samp ID:	V005J23B	Dilution Factor:	1
Lab File ID:	RJQ457	Matrix :	WATER
Ext Btch ID:	V005J23	% Moisture :	NA
Calib. Ref.:	RJQ091	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	ND	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	ND	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0905	0.1000	90.5	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V005J23B	V005J23L	V005J23C		
LAB FILE ID:	RJQ457	RJQ454	RJQ455		
DATE EXTRACTED:	10/31/1209:38	10/31/1208:04	10/31/1208:36	DATE COLLECTED:	NA
DATE ANALYZED:	10/31/1209:38	10/31/1208:04	10/31/1208:36	DATE RECEIVED:	10/31/12
PREP. BATCH:	V005J23	V005J23	V005J23		
CALIB. REF:	RJQ091	RJQ091	RJQ091		

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 (%)
1,2,3-Trichloropropane	ND	0.100	0.0819	82	0.100	0.0932	93	13	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0742	74	0.100	0.0784	78	5	50-130	30
1,2-Dibromoethane	ND	0.100	0.0870	87	0.100	0.0964	96	10	80-120	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 (%)
Toluene-d8	0.100	0.0934	93	0.100	0.0954	95	80-120

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 5030B/8260B SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	10-24-12 WB 2-3				
LAB SAMP ID:	J182-02	J182-02M	J182-02S		
LAB FILE ID:	RJQ460	RJQ461	RJQ462		
DATE EXTRACTED:	10/31/1211:44	10/31/1212:13	10/31/1212:45	DATE COLLECTED:	10/24/12
DATE ANALYZED:	10/31/1211:44	10/31/1212:13	10/31/1212:45	DATE RECEIVED:	10/25/12
PREP. BATCH:	V005J23	V005J23	V005J23		
CALIB. REF:	RJQ091	RJQ091	RJQ091		

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 (%)
1,2,3-Trichloropropane	0.501	0.100	0.635	134*	0.100	0.603	102	5	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0963	96	0.100	0.0882	88	9	50-130	30
1,2-Dibromoethane	ND	0.100	0.0996	100	0.100	0.0920	92	8	80-120	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 (%)
Toluene-d8	0.100	0.0879	88	0.100	0.0892	89	80-120

QC DATA

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J31\RJQ457.D Vial: 6
Acq On : 31 Oct 2012 9:38 am Operator: SD
Sample : VO05J23B Inst : TO05
Misc : BLANK Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 10:59 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2995	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.89	98	43182	90.47	ng/l	0.00
Spiked Amount 100.000			Recovery = 90.47%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
RJQ457.D VO05J09.M Thu Nov 01 10:59:33 2012 Page 1

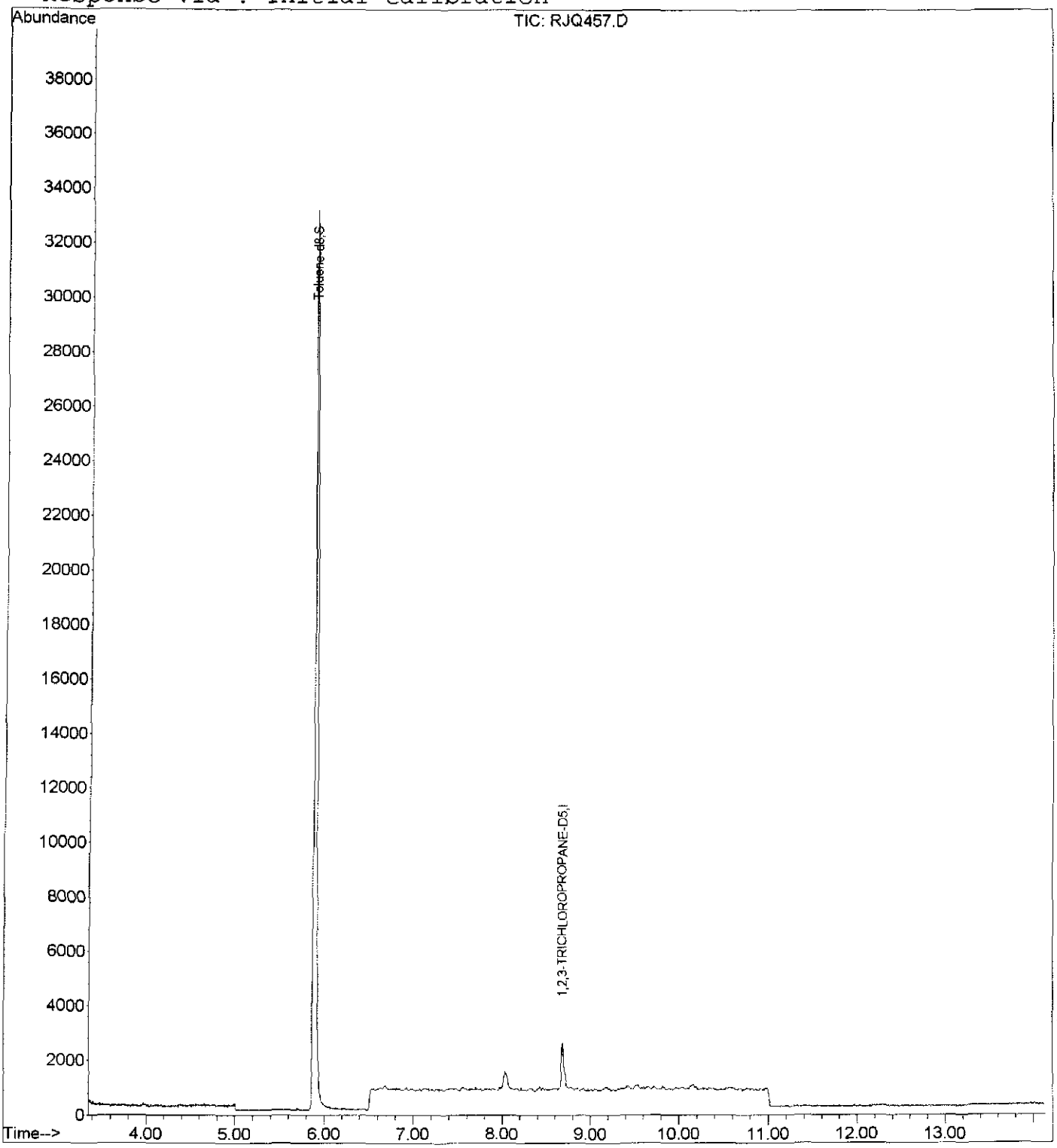
2159

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J31\RJQ457.D
Acq On : 31 Oct 2012 9:38 am
Sample : VO05J23B
Misc : BLANK
MS Integration Params: 524INT.P
Quant Time: Nov 1 10:59 2012

Vial: 6
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J31\RJQ454.D Vial: 3
Acq On : 31 Oct 2012 8:04 am Operator: SD
Sample : VO05J23L Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 31 8:18 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

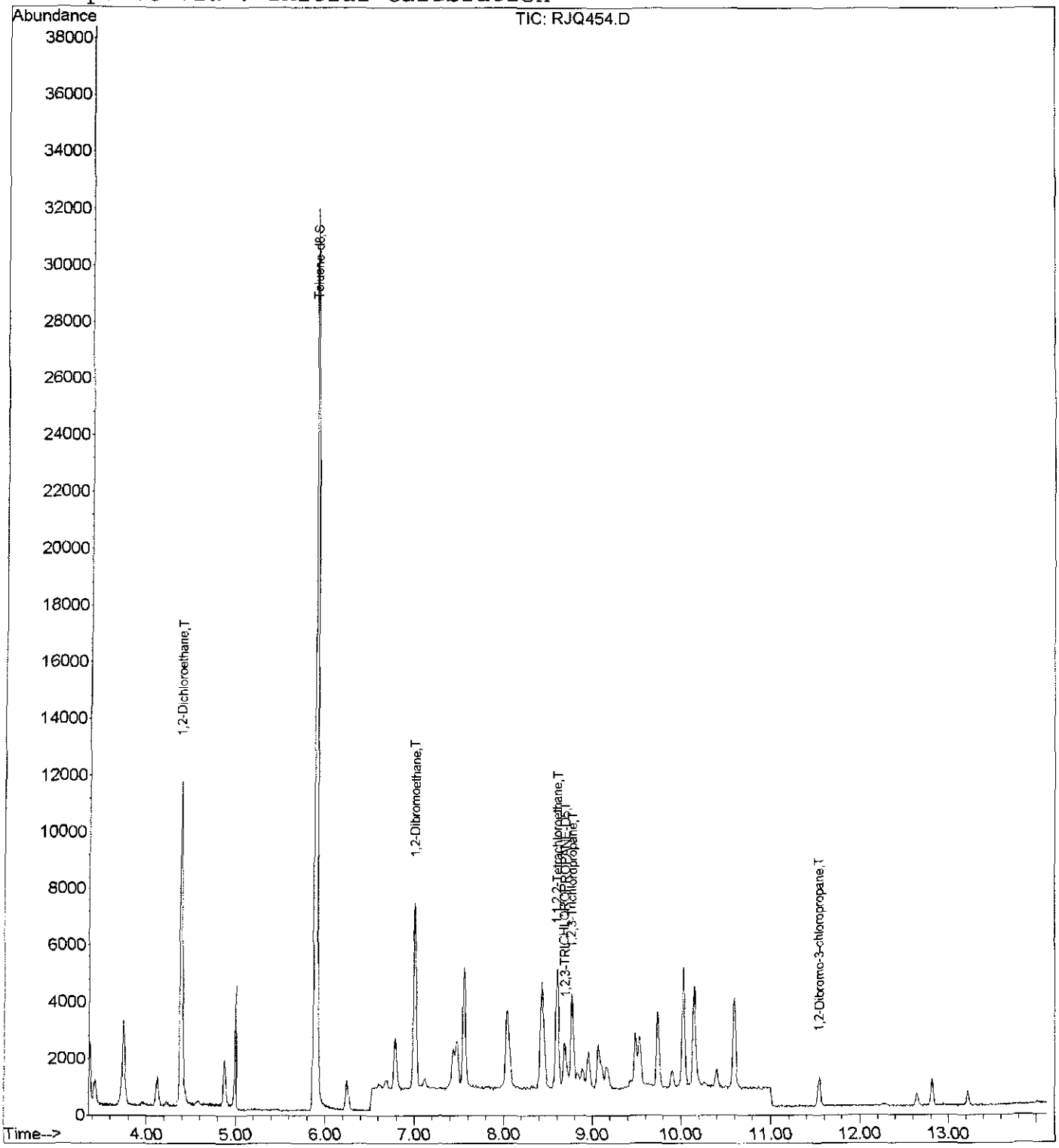
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.68	79	2825	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.89	98	42067	93.44	ng/l	0.00
Spiked Amount 100.000			Recovery	=	93.44%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	17382	92.74	ng/l	98
4) 1,2-Dibromoethane	7.00	107	7046	87.03	ng/l	96
5) 1,1,2,2-Tetrachloroethane	8.60	83	6010	77.18	ng/l	96
6) 1,2,3-Trichloropropane	8.77	75	4185	81.90	ng/l	94
7) 1,2-Dibromo-3-chloropropan	11.54	157	856	74.22	ng/l	96

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J31\RJQ454.D Vial: 3
Acq On : 31 Oct 2012 8:04 am Operator: SD
Sample : VO05J23L Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 31 8:18 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J31\RJQ455.D Vial: 4
Acq On : 31 Oct 2012 8:36 am Operator: SD
Sample : VO05J23C Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 31 8:51 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.68	79	2855	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.89	98	43392	95.37	ng/l	0.00
Spiked Amount 100.000			Recovery = 95.37%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.38	62	20270	107.01	ng/l	99
4) 1,2-Dibromoethane	7.00	107	7890	96.43	ng/l	93
5) 1,1,2,2-Tetrachloroethane	8.60	83	6903	87.72	ng/l	96
6) 1,2,3-Trichloropropane	8.77	75	4814	93.21	ng/l	99
7) 1,2-Dibromo-3-chloropropan	11.54	157	914	78.41	ng/l	98

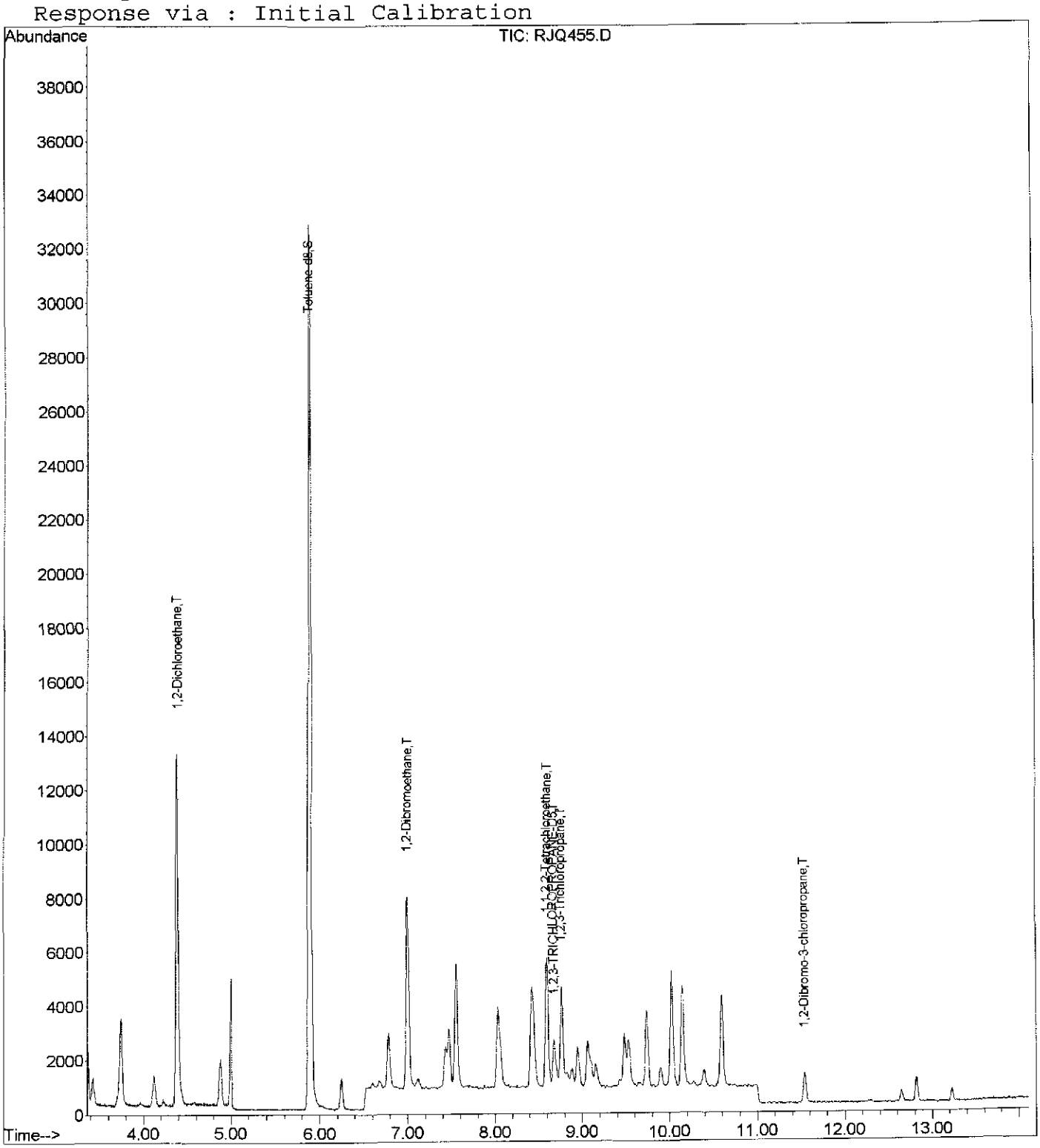
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J31\RJQ455.D
Acq On : 31 Oct 2012 8:36 am
Sample : VO05J23C
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 31 8:51 2012

Vial: 4
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



216H

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J31\RJQ460.D Vial: 9
Acq On : 31 Oct 2012 11:44 am Operator: SD
Sample : 12J182-02 25mL Inst : TO05
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 12:10 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.68	79	2573	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	39246	95.71 ng/l	0.00
Spiked Amount 100.000			Recovery =	95.71%	
Target Compounds					Qvalue
6) 1,2,3-Trichloropropane	8.77	75	23318	501.00 ng/l	90

(#) = qualifier out of range (m) = manual integration
RJQ460.D VO05J09.M Thu Nov 01 12:10:24 2012 Page 1

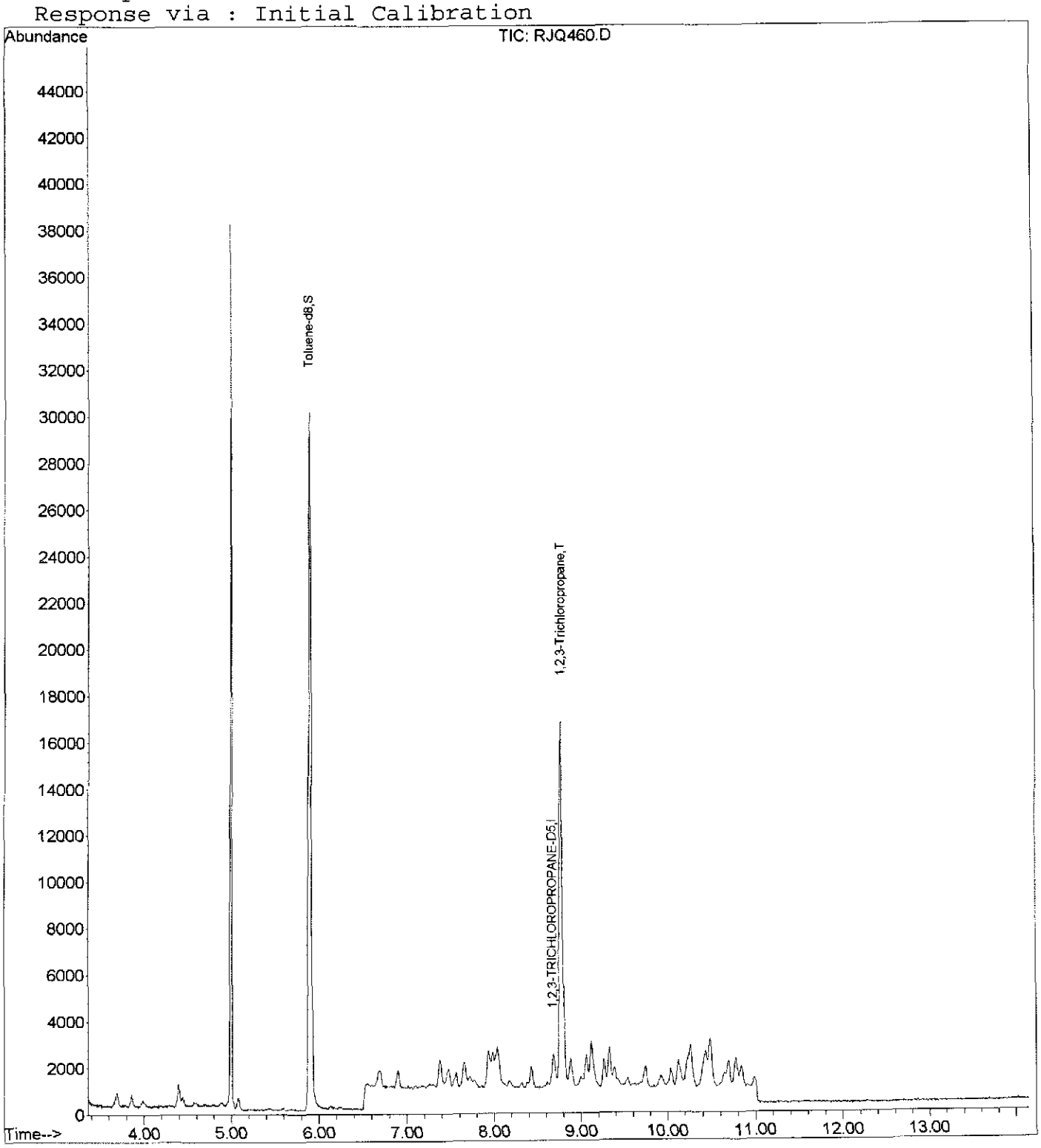
2165

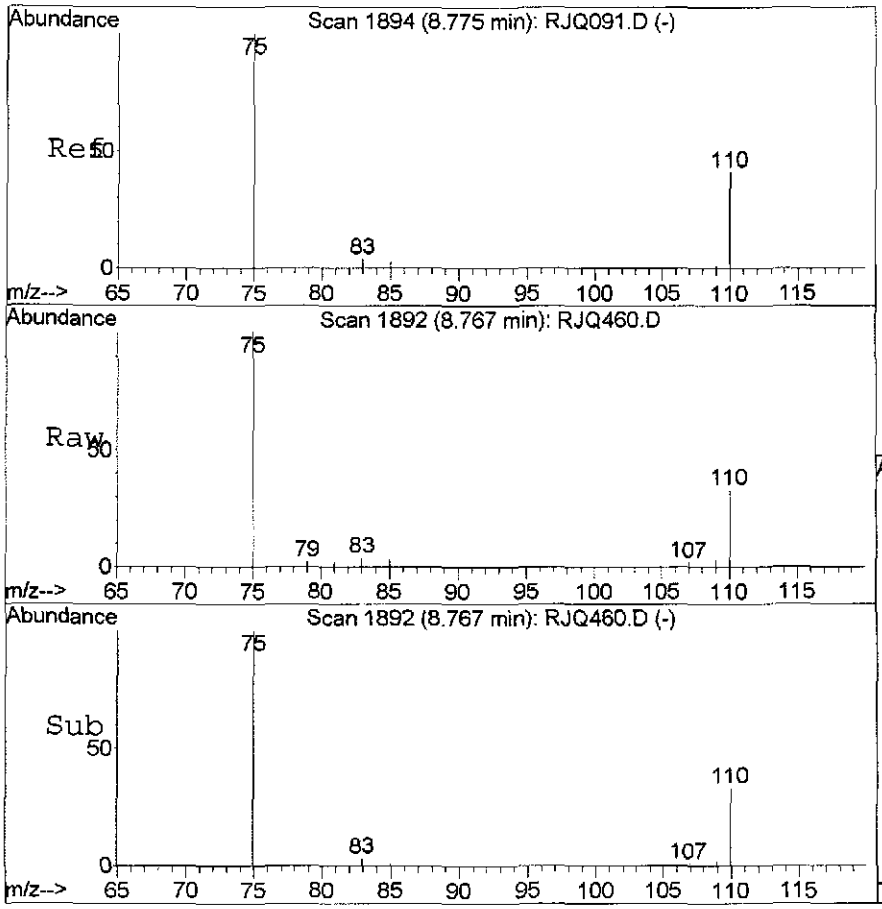
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J31\RJQ460.D
Acq On : 31 Oct 2012 11:44 am
Sample : 12J182-02 25mL
Misc : DF=1.0
MS Integration Params: 524INT.P
Quant Time: Nov 1 12:10 2012

Vial: 9
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration

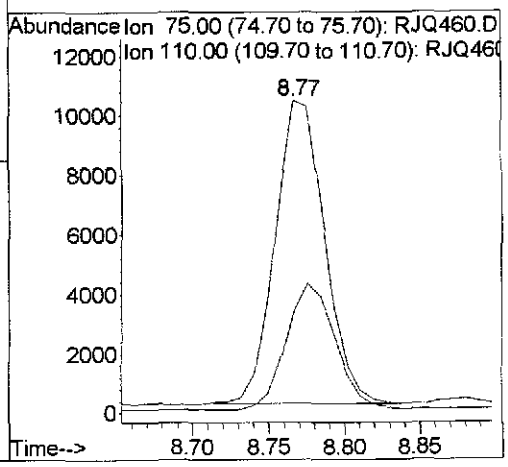




#6
1,2,3-Trichloropropane
Concen: 501.00 ng/l
RT: 8.77 min Scan# 1892
Delta R.T. -0.01 min
Lab File: RJQ460.D
Acq: 31 Oct 2012 11:44 am

Tgt Ion: 75 Resp: 23318

Ion	Ratio	Lower	Upper
75	100		
110	41.5	18.1	78.1



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J31\RJQ461.D Vial: 10
Acq On : 31 Oct 2012 12:13 pm Operator: SD
Sample : 12J182-02M 25mL Inst : TO05
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 6:29 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2883	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.89	98	40405	87.94	ng/l	0.00
Spiked Amount 100.000			Recovery	=	87.94%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	23878	124.83	ng/l	99
4) 1,2-Dibromoethane	7.00	107	8226	99.56	ng/l	96
5) 1,1,2,2-Tetrachloroethane	8.60	83	8131	102.32	ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	33128	635.24	ng/l	93
7) 1,2-Dibromo-3-chloropropan	11.54	157	1134	96.34	ng/l	97

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

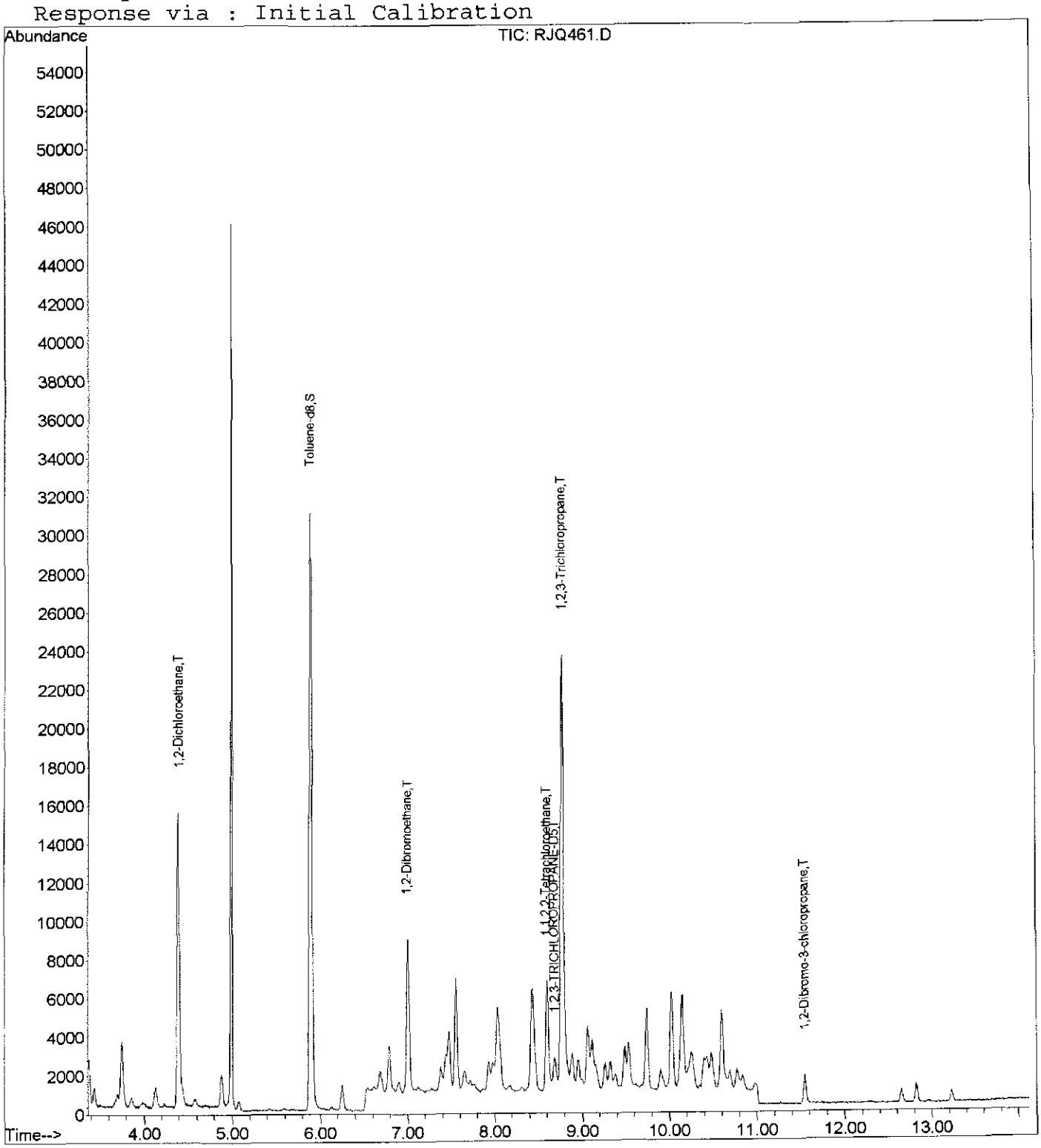
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J31\RJQ461.D
Acq On : 31 Oct 2012 12:13 pm
Sample : 12J182-02M 25mL
Misc : DF=1.0
MS Integration Params: 524INT.P
Quant Time: Nov 1 6:29 2012

Vial: 10
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J31\RJQ462.D Vial: 11
Acq On : 31 Oct 2012 12:45 pm Operator: SD
Sample : 12J182-02S 25mL Inst : TO05
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 6:29 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

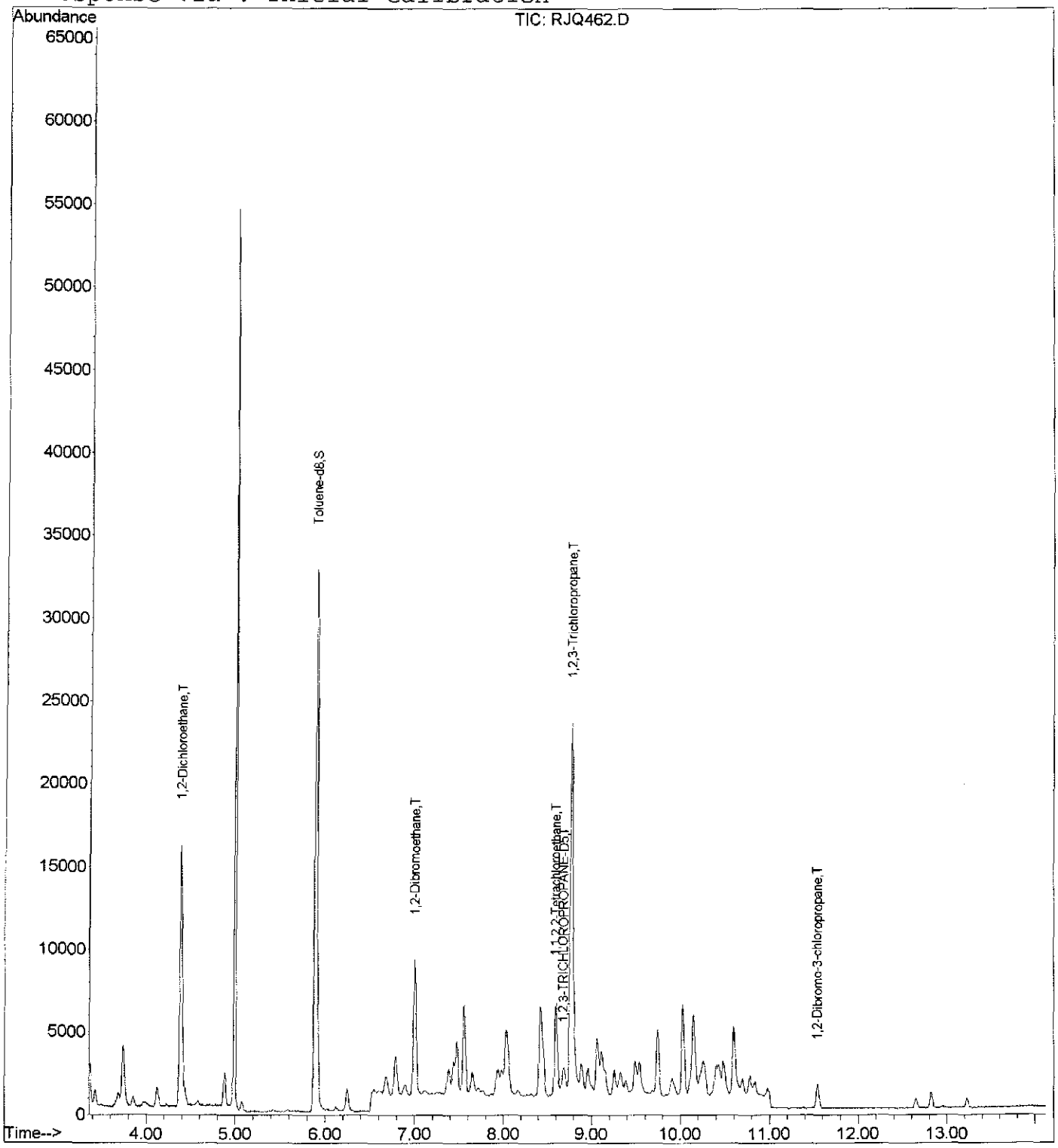
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	3023	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.89	98	42997	89.25 ng/l	0.00
Spiked Amount 100.000			Recovery = 89.25%		
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.39	62	24915	124.22 ng/l	98
4) 1,2-Dibromoethane	7.00	107	7968	91.97 ng/l	99
5) 1,1,2,2-Tetrachloroethane	8.60	83	7605	91.27 ng/l	94
6) 1,2,3-Trichloropropane	8.77	75	32960	602.75 ng/l	91
7) 1,2-Dibromo-3-chloropropan	11.54	157	1089	88.24 ng/l	94

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J31\RJQ462.D Vial: 11
Acq On : 31 Oct 2012 12:45 pm Operator: SD
Sample : 12J182-02S 25mL Inst : TO05
Misc : DF=1.0 Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Nov 1 6:29 2012 Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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: RJQ085
Instrument ID: TQ05
GC Column:RTX502.2ID:0.32mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J182
BFB Injection Date : 10/09/12
BFB Injection Time : 18:19
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.27
75	30.0 - 60.0% of mass 95	53.41
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.32
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	86.71
175	5.0 - 9.0% of mass 174	6.06(7.0)1
176	95.0 - 101.0% of mass 174	83.47(96.3)1
177	5.0 - 9.0% of mass 176	5.95(7.1)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	VSTD05	V005J091	RJQ087	10/09/12	19:17
2	VSTD010	V005J092	RJQ088	10/09/12	19:46
3	VSTD020	V005J093	RJQ089	10/09/12	20:16
4	VSTD050	V005J094	RJQ090	10/09/12	20:45
5	VSTD100	V005J095	RJQ091	10/09/12	21:14
6	VSTD200	V005J096	RJQ092	10/09/12	21:43
7	VSTD400	V005J097	RJQ093	10/09/12	22:11
8	VSTD1000	V005J098	RJQ094	10/09/12	22:40

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :T005
Beginning DateTime :10/09/12 19:17
Spike Units :PPT
IC File :RJQ091

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :10/09/12 22:40
HPChem Method :V005J09

M IDX	Parameters	5 19:17 RJQ087	10 19:46 RJQ088	20 20:16 RJQ089	50 20:45 RJQ090	100 21:14 RJQ091	200 21:43 RJQ092	400 22:11 RJQ093	1000 22:40 RJQ094	Av_RRF	%_RSD	Av_Rt_M
1	1,2,3-TRICHLOROPROPANE-D5	1	1	1	1	1	1	1	1	1	0	8.6877
2	1,2-Dichloroethane	2.581	2.988	3.663	3.529	3.342	3.569	3.377	3.490	3.317	10.89	4.3934
3	Toluene-d8	9.402	7.923	7.658	7.948	7.512	7.920	7.464	7.922	7.969	7.68	5.8978
4	1,2-Dibromoethane	1.296	1.364	1.391	1.407	1.420	1.520	1.480	1.585	1.433	6.40	7.0058
5	1,1,2,2-Tetrachloroethane	------	1.402	1.406	1.323	1.321	1.354	1.397	1.445	1.378	3.38	8.6017
6	1,2,3-Trichloropropane	0.836	0.833	0.871	0.894	0.858	0.883	0.958	1.103	0.904	9.89	8.7749
7	1,2-Dibromo-3-chloropropane	------	------	0.247	0.212	0.183	0.185	0.190	0.207	0.204	11.79	11.5483

Ave_%RSD : 8.3 Max_%RSD : 11.8

SA
10/12/12

Compound List Report TO05

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
Total Cpnds : 7

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,2,3-TRICHLOROPROPANE-D5	79	8.69	1.000	A	1	A	B
2	T	1,2-Dichloroethane	62	4.39	0.505	A	1	A	B
3	S	Toluene-d8	98	5.90	0.679	A	1	A	B
4	T	1,2-Dibromoethane	107	7.00	0.806	A	1	A	B
5	T	1,1,2,2-Tetrachloroethane	83	8.60	0.990	A	1	A	B
6	T	1,2,3-Trichloropropane	75	8.78	1.010	A	1	A	B
7	T	1,2-Dibromo-3-chloropropane	157	11.55	1.329	A	2	A	B

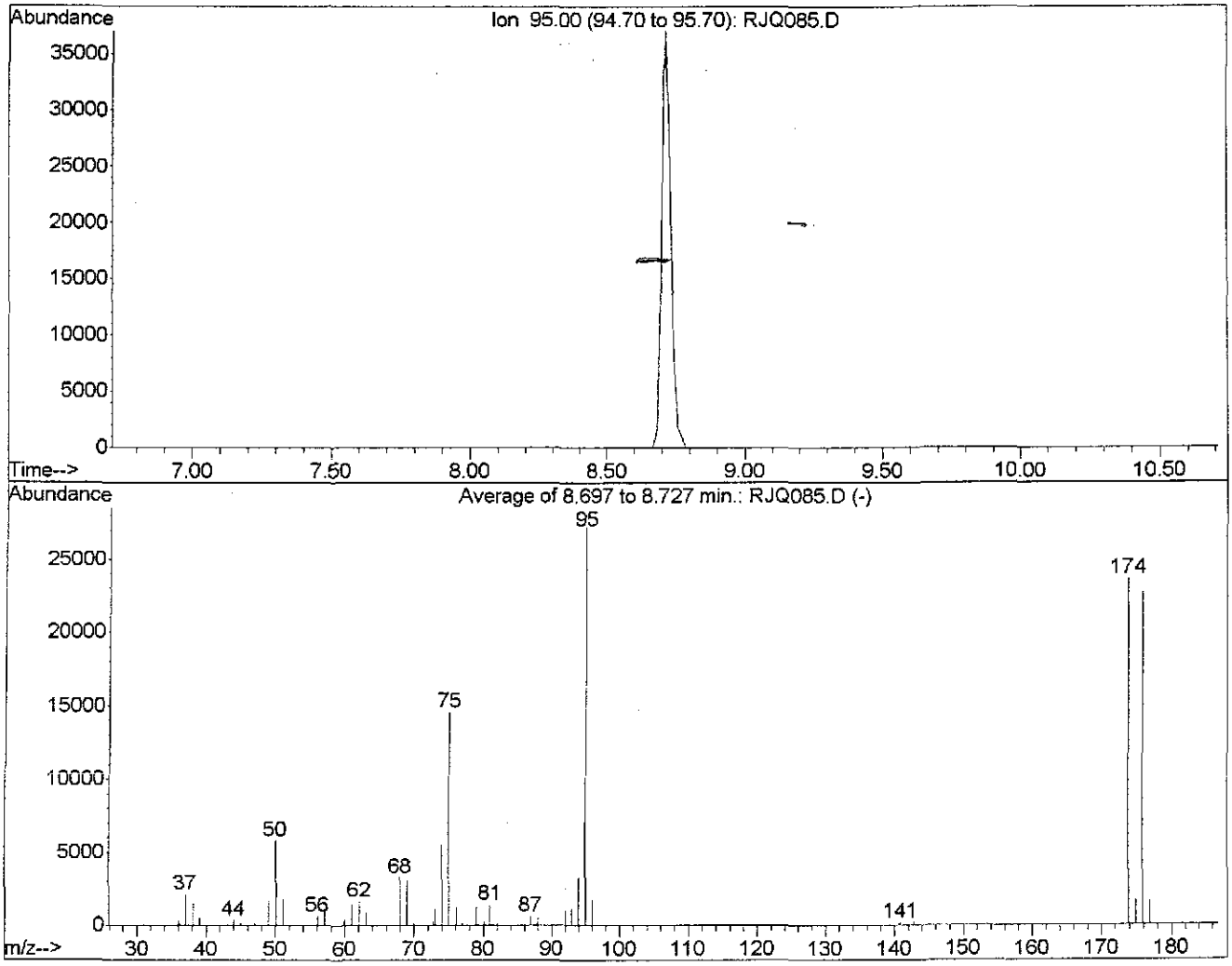
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

VO05J09.M Thu Oct 11 10:09:46 2012

SU
10/12/12

BFB

Data File : D:\HPCHEM\1\DATA\12J09\RJQ085.D Vial: 1
Acq On : 9 Oct 2012 6:19 pm Operator: SD
Sample : BFB05J06 Inst : TO05
Misc : T/CHK Multiplr: 1.00
MS Integration Params: 524INT.P
Method : D:\HPCHEM\1\METHODS\VO05J09A.M (RTE Integrator)
Title : METHOD 8260 SIM



AutoFind: Scans 360, 361, 362; Background Corrected with Scan 356

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.3	5791	PASS
75	95	30	60	53.4	14544	PASS
95	95	100	100	100.0	27230	PASS
96	95	5	9	6.3	1721	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	86.7	23612	PASS
175	174	5	9	7.0	1650	PASS
176	174	95	101	96.3	22728	PASS
177	176	5	9	7.1	1621	PASS

RJQ085.D VO05J09A.M Thu Oct 11 09:57:47 2012 SG 10/12/12

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ087.D
Acq On : 9 Oct 2012 7:17 pm
Sample : VO05J091
Misc : 5.0ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:01 2012

Vial: 3
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2608	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	2452	5.90	ng/l	0.00
Spiked Amount 100.000			Recovery	=	5.90%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.40	62	673	3.89	ng/l	79
4) 1,2-Dibromoethane	7.01	107	338	4.52	ng/l	82
6) 1,2,3-Trichloropropane	8.78	75	218	4.62	ng/l	60

SM 10/12/12

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

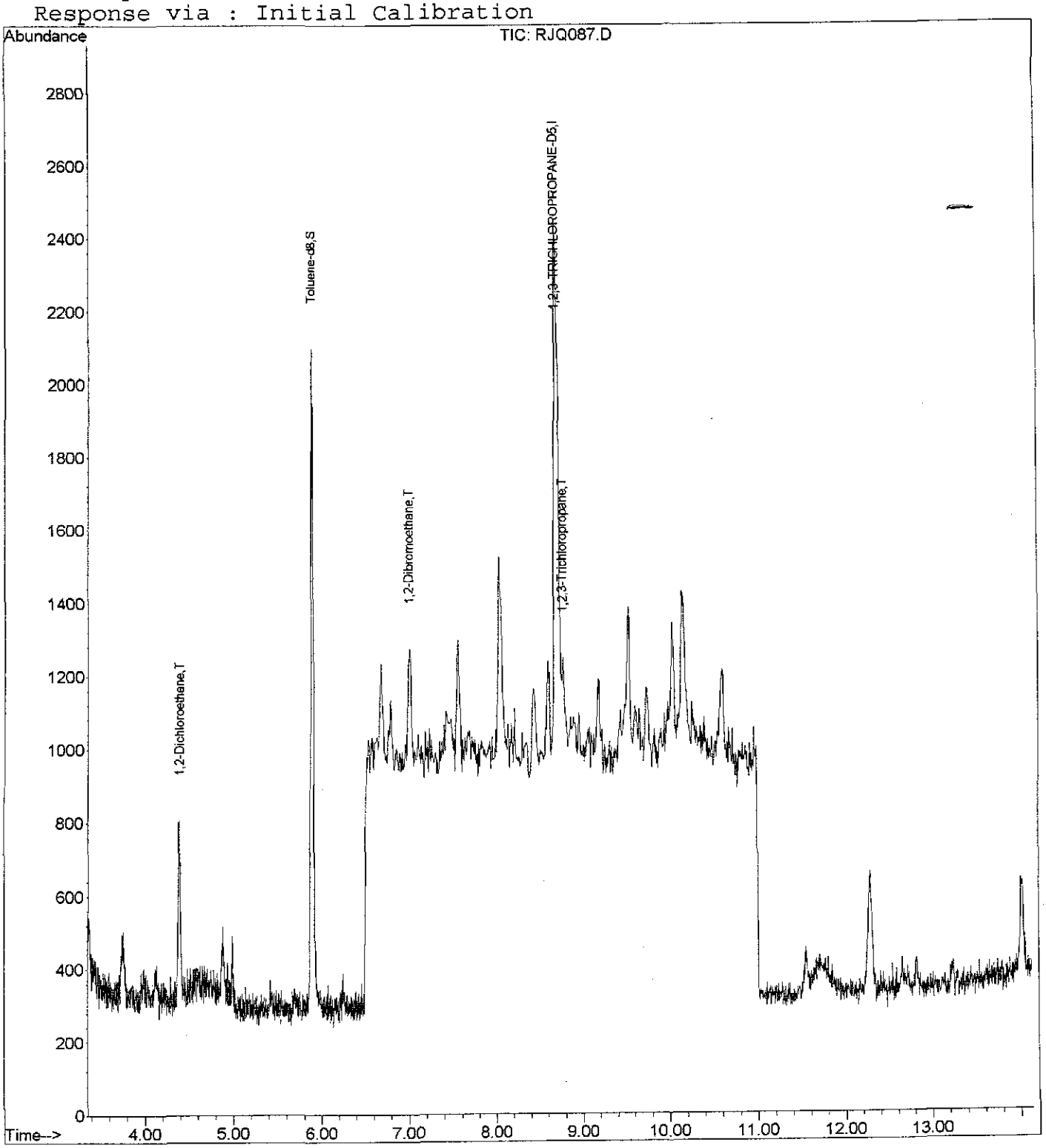
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ087.D
Acq On : 9 Oct 2012 7:17 pm
Sample : VO05J091
Misc : 5.0ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:01 2012

Vial: 3
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



2178

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ088.D Vial: 4
Acq On : 9 Oct 2012 7:46 pm Operator: SD
Sample : VO05J092 Inst : TO05
Misc : 10ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:06 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2624	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	4158	9.94 ng/l	0.00
Spiked Amount 100.000			Recovery =	9.94%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.39	62	1568	9.01 ng/l	97
4) 1,2-Dibromoethane	7.00	107	716	9.52 ng/l	95
5) 1,1,2,2-Tetrachloroethane	8.61	83	736	10.18 ng/l	99
6) 1,2,3-Trichloropropane	8.78	75	437	9.21 ng/l	79

SG
10/12/12

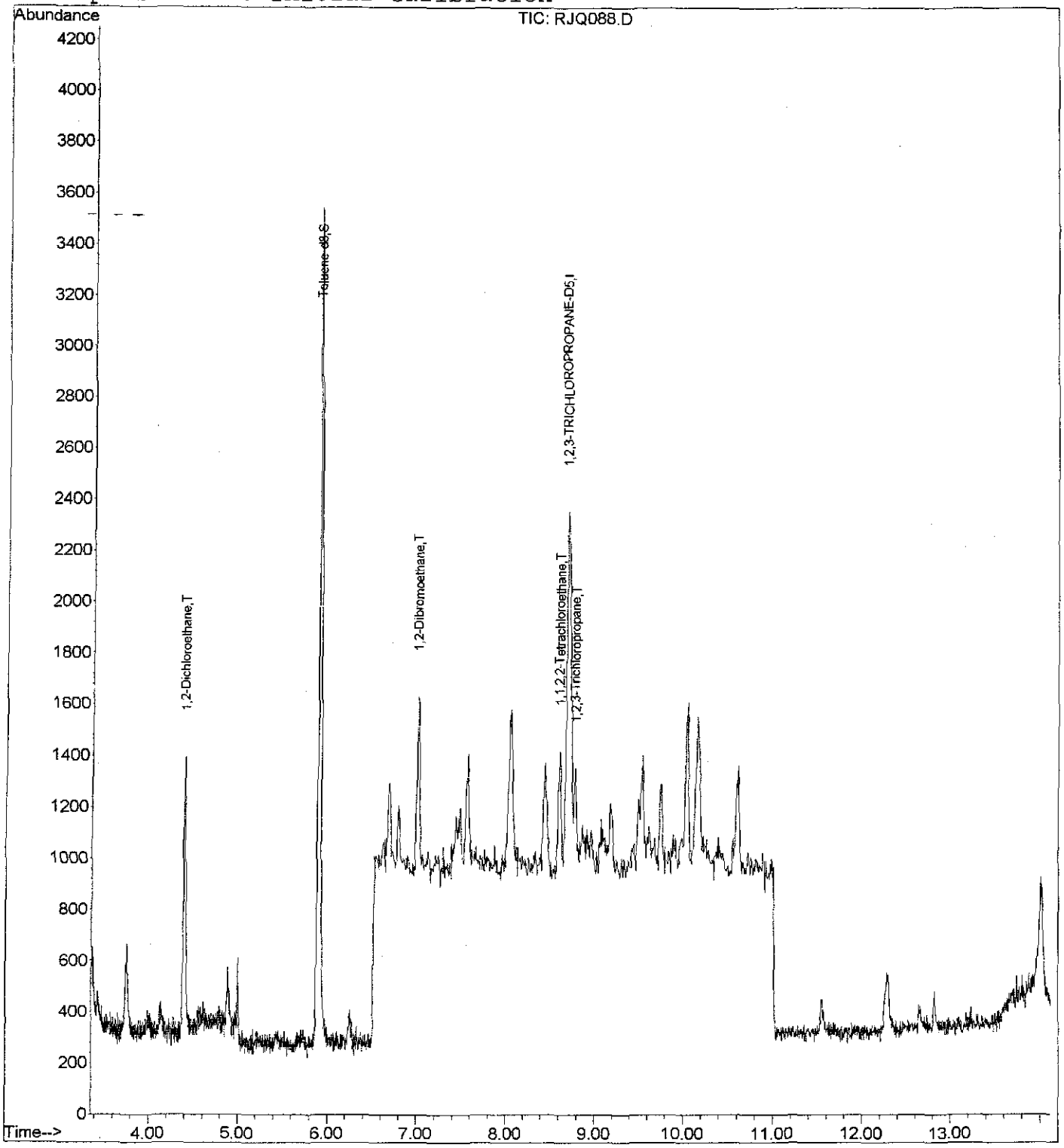
(#) = qualifier out of range (m) = manual integration
RJQ088.D VO05J09.M Thu Oct 11 10:07:50 2012 Page 1

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ088.D
Acq On : 9 Oct 2012 7:46 pm
Sample : VO05J092
Misc : 10ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:06 2012

Vial: 4
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SA 10/12/12

2100

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ089.D
Acq On : 9 Oct 2012 8:16 pm
Sample : VO05J093
Misc : 20ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 5
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2643	50.00 ng/l	0.00
System Monitoring Compounds					
3) Toluene-d8	5.90	98	8096	19.22 ng/l	0.00
Spiked Amount 100.000			Recovery =	19.22%	
Target Compounds					Qvalue
2) 1,2-Dichloroethane	4.39	62	3873	22.09 ng/l	95
4) 1,2-Dibromoethane	7.00	107	1471	19.42 ng/l	100
5) 1,1,2,2-Tetrachloroethane	8.60	83	1486	20.40 ng/l	92
6) 1,2,3-Trichloropropane	8.77	75	921	19.26 ng/l	86
7) 1,2-Dibromo-3-chloropropan	11.55	157	261	24.19 ng/l	94

SG 10/12/12

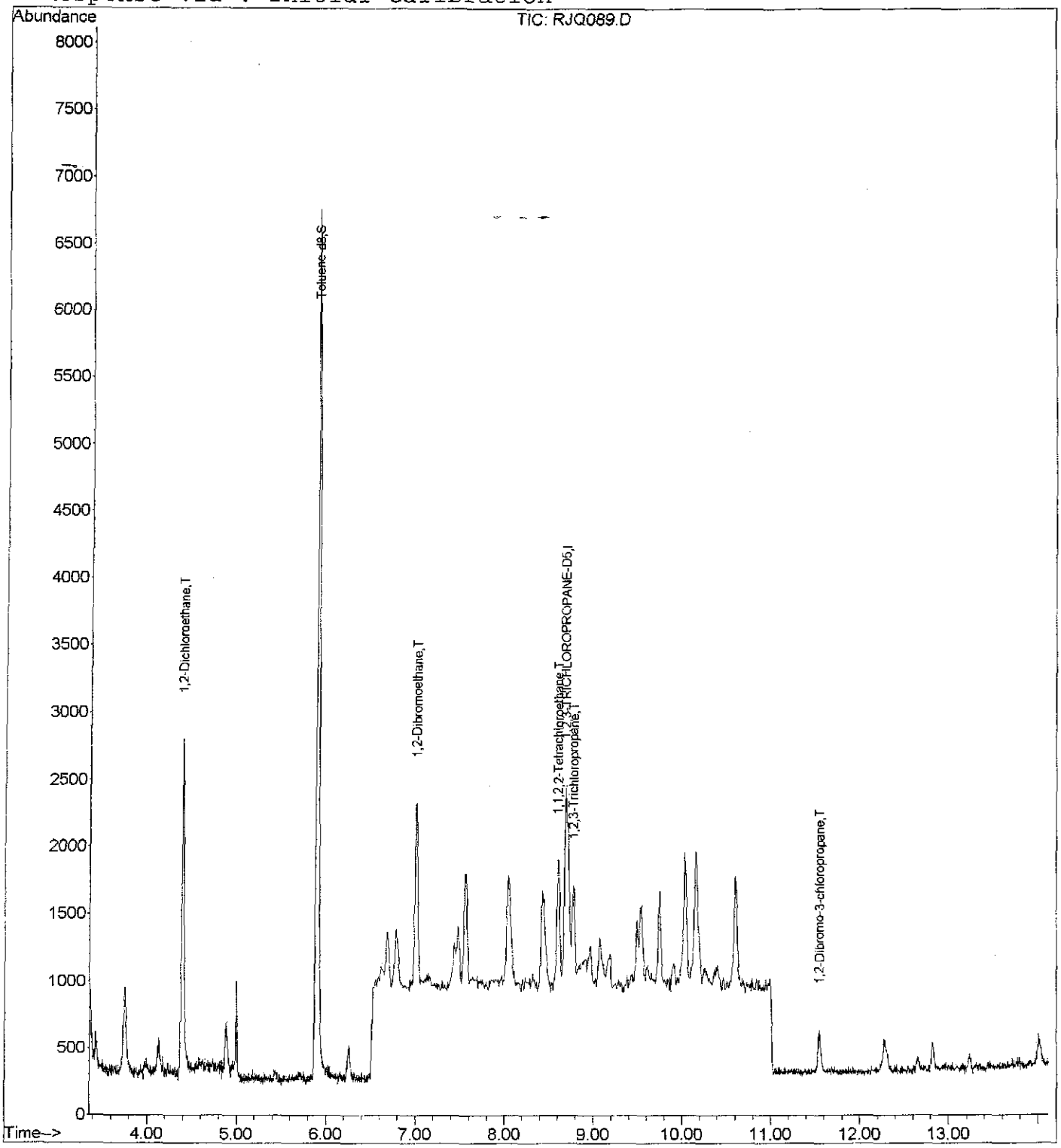
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ089.D
Acq On : 9 Oct 2012 8:16 pm
Sample : VO05J093
Misc : 20ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 5
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SU 10/12/12

2182

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ090.D
Acq On : 9 Oct 2012 8:45 pm
Sample : VO05J094
Misc : 50ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 6
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2657	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	21117	49.87	ng/l	0.00
Spiked Amount 100.000			Recovery = 49.87%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	9376	53.19	ng/l	92
4) 1,2-Dibromoethane	7.01	107	3739	49.10	ng/l	96
5) 1,1,2,2-Tetrachloroethane	8.60	83	3514	47.98	ng/l	97
6) 1,2,3-Trichloropropane	8.78	75	2376	49.44	ng/l	97
7) 1,2-Dibromo-3-chloropropan	11.55	157	564	51.99	ng/l	86

SA 10/12/12

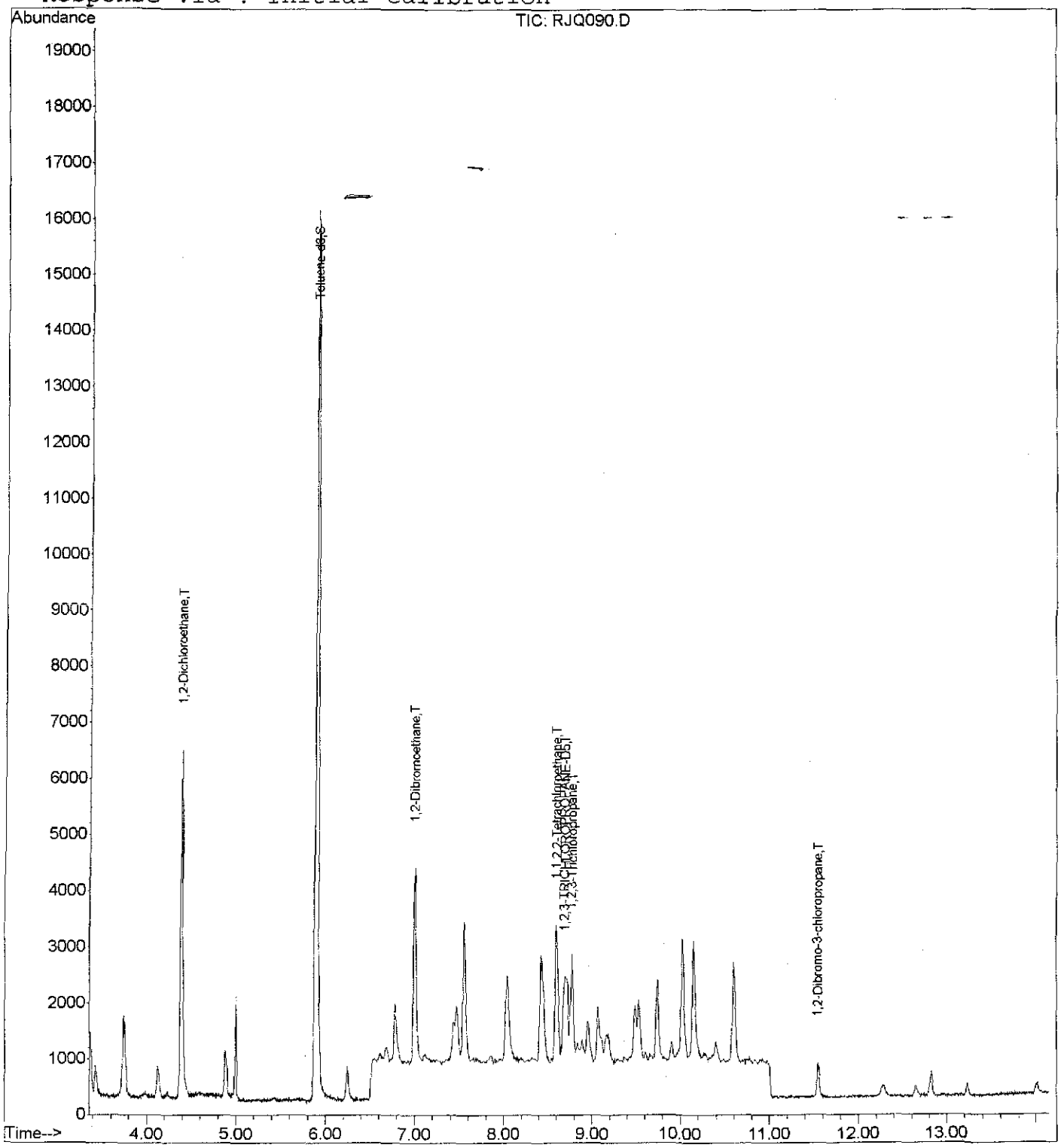
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ090.D
Acq On : 9 Oct 2012 8:45 pm
Sample : VO05J094
Misc : 50ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 6
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SG 10/24/12

2184

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ091.D
Acq On : 9 Oct 2012 9:14 pm
Sample : VO05J095
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 7
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2700	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	40565	94.27	ng/l	0.00
Spiked Amount 100.000			Recovery =	94.27%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	18048	100.75	ng/l	100
4) 1,2-Dibromoethane	7.00	107	7667	99.08	ng/l	100
5) 1,1,2,2-Tetrachloroethane	8.60	83	7136	95.89	ng/l	100
6) 1,2,3-Trichloropropane	8.78	75	4632	94.84	ng/l	100
7) 1,2-Dibromo-3-chloropropan	11.55	157	990	89.81	ng/l	100

SG
10/12/12

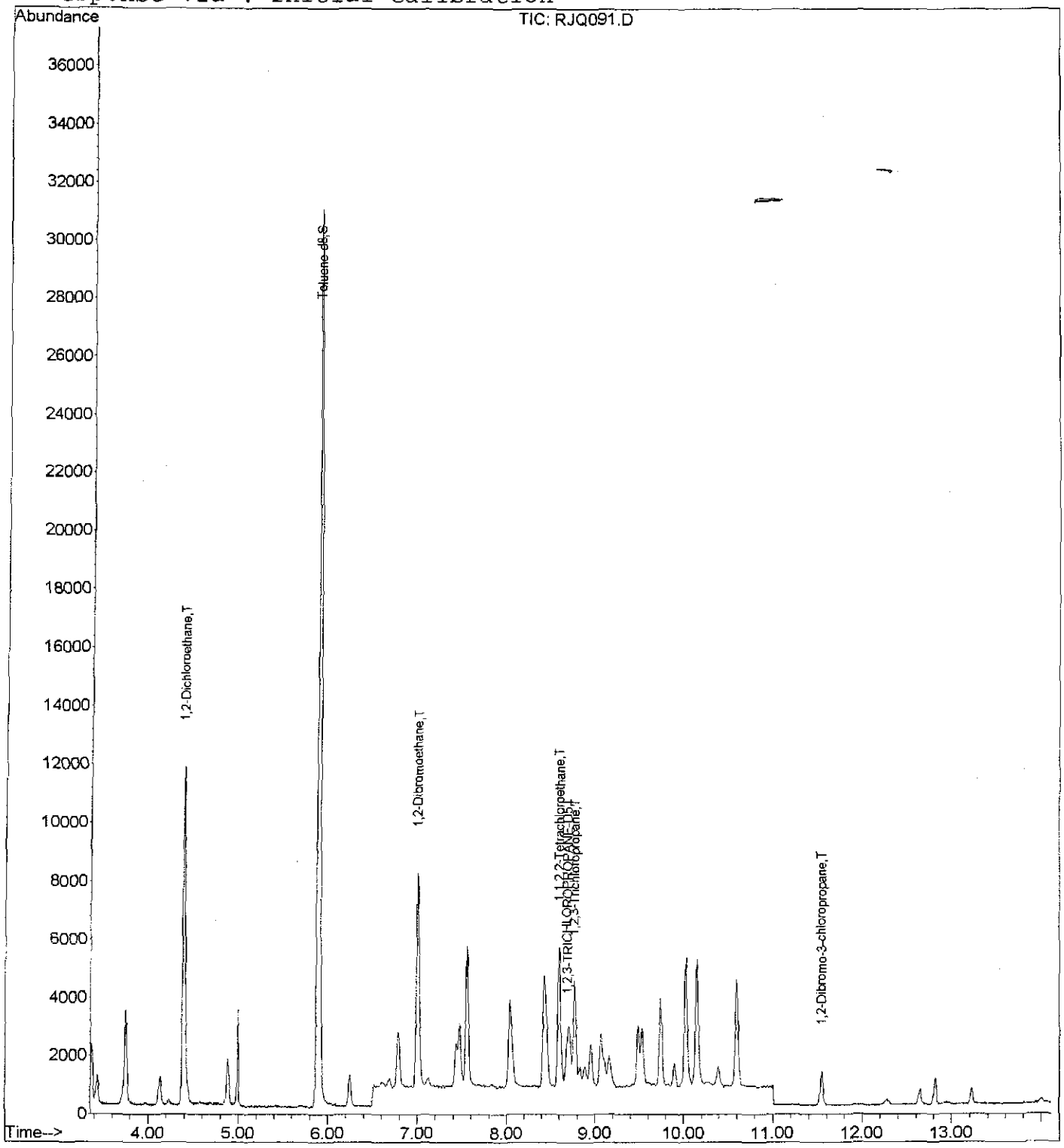
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ091.D
Acq On : 9 Oct 2012 9:14 pm
Sample : VO05J095
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 7
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SY 10/12/12

2166

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ092.D
Acq On : 9 Oct 2012 9:43 pm
Sample : VO05J096
Misc : 200ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 8
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2619	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	82966	198.77	ng/l	0.00
Spiked Amount 100.000			Recovery	=	198.77%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	37387	215.16	ng/l	99
4) 1,2-Dibromoethane	7.00	107	15926	212.18	ng/l	95
5) 1,1,2,2-Tetrachloroethane	8.60	83	14180	196.43	ng/l	97
6) 1,2,3-Trichloropropane	8.77	75	9248	195.21	ng/l	100
7) 1,2-Dibromo-3-chloropropan	11.54	157	1937	181.15	ng/l	93

Sa
10/12/12

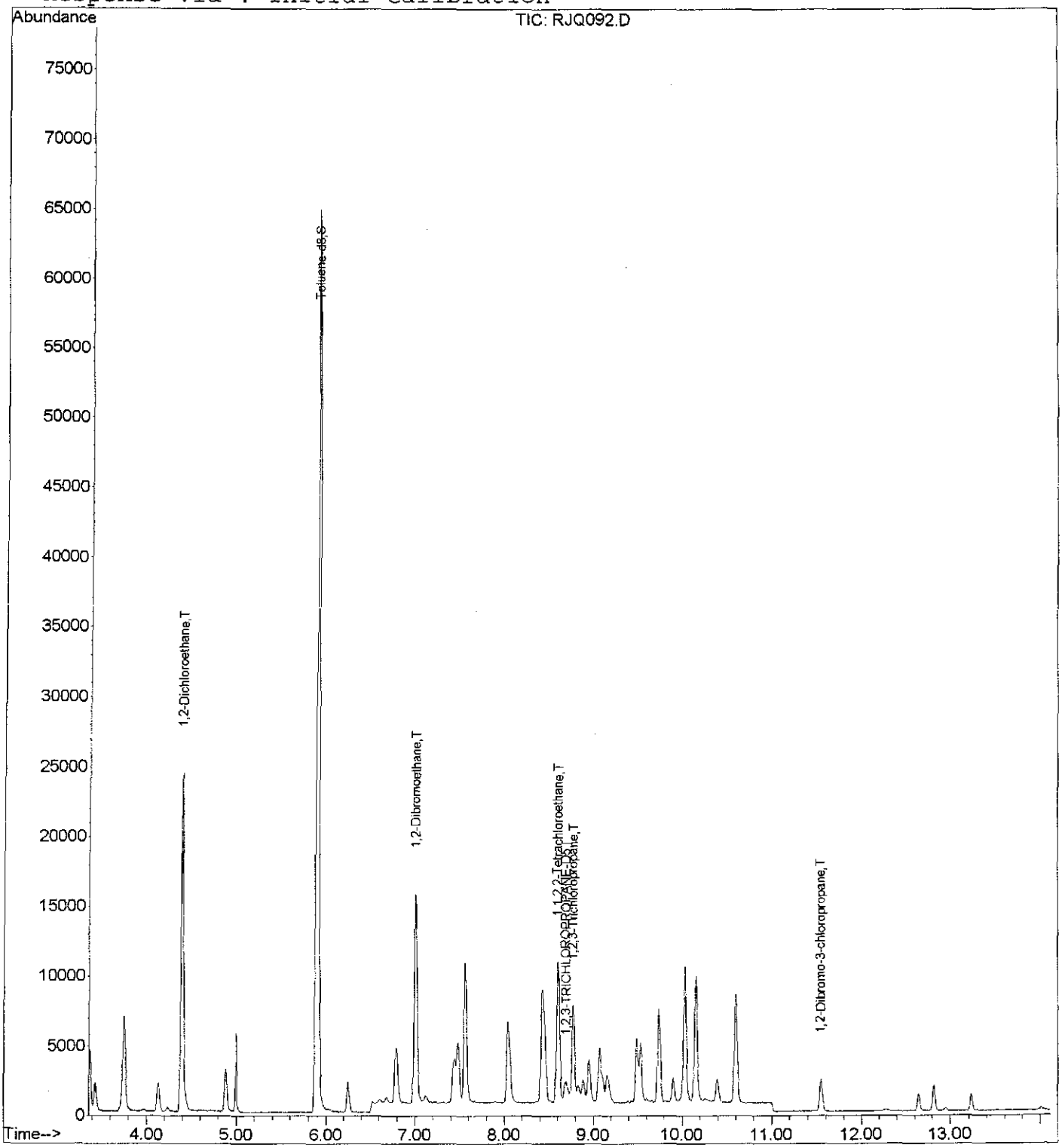
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ092.D
Acq On : 9 Oct 2012 9:43 pm
Sample : VO05J096
Misc : 200ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 8
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SW 10/12/12

2188

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ093.D Vial: 9
Acq On : 9 Oct 2012 10:11 pm Operator: SD
Sample : VO05J097 Inst : TO05
Misc : 400ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2816	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	168153	374.68	ng/l	0.00
Spiked Amount 100.000			Recovery	=	374.68%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.40	62	76083	407.22	ng/l	99
4) 1,2-Dibromoethane	7.00	107	33350	413.23	ng/l	98
5) 1,1,2,2-Tetrachloroethane	8.60	83	31464	405.37	ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	21579	423.63	ng/l	94
7) 1,2-Dibromo-3-chloropropan	11.55	157	4286	372.80	ng/l	94

SW
10/12/12

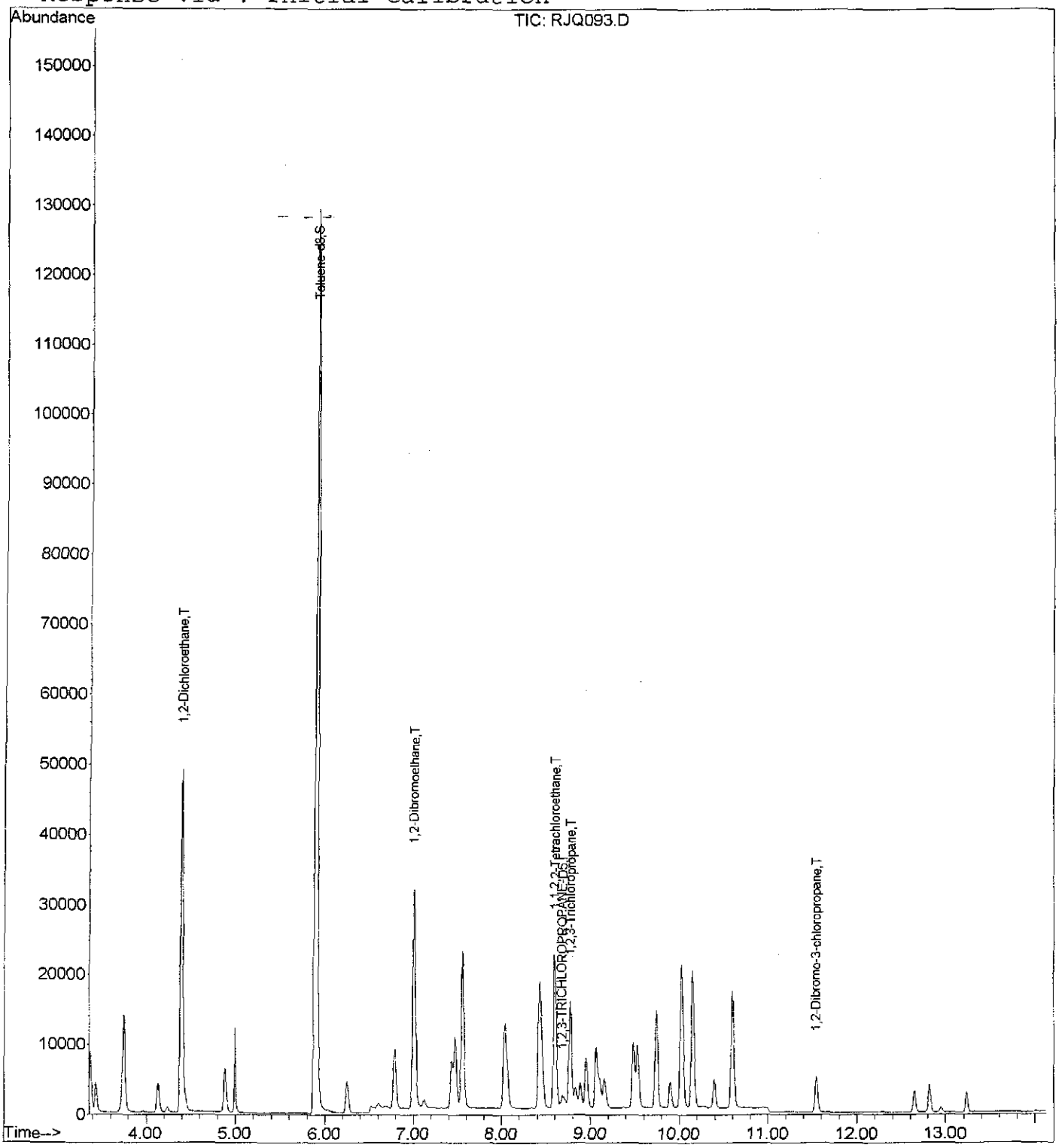
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ093.D
Acq On : 9 Oct 2012 10:11 pm
Sample : VO05J097
Misc : 400ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 9
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SW 10/12/12

2190

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J09\RJQ094.D Vial: 10
Acq On : 9 Oct 2012 10:40 pm Operator: SD
Sample : VO05J098 Inst : TO05
Misc : 1000ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.69	79	2690	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	426210	994.17	ng/l	0.00
Spiked Amount 100.000	---		Recovery	=	994.17%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	187777	1052.11	ng/l	99
4) 1,2-Dibromoethane	7.00	107	85251	1105.79	ng/l	97
5) 1,1,2,2-Tetrachloroethane	8.60	83	77726	1048.31	ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	59351	1219.72	ng/l	90
7) 1,2-Dibromo-3-chloropropan	11.55	157	11146	1014.89	ng/l	96

SC
10/12/12

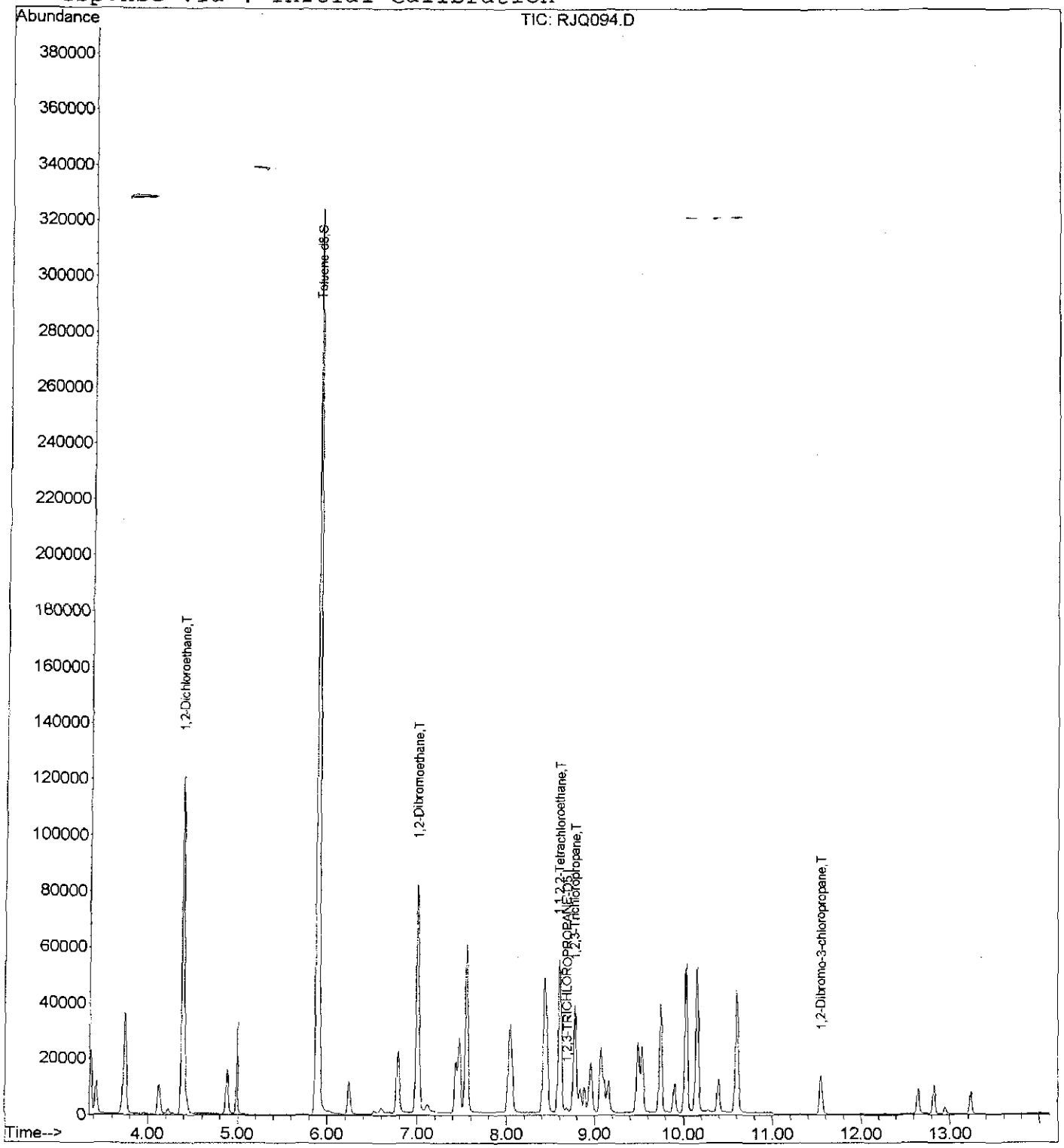
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J09\RJQ094.D
Acq On : 9 Oct 2012 10:40 pm
Sample : VO05J098
Misc : 1000ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:07 2012

Vial: 10
Operator: SD
Inst : TO05
Multiplr: 1.00
Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SCM 10/10/12

2192

SECOND SOURCE VERIFICATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJQ097
Instrument ID: TO05
GC Column:RTX502.2ID:0.32mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J182
BFB Injection Date : 10/10/12
BFB Injection Time : 09:41
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.32
75	30.0 - 60.0% of mass 95	55.45
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.93
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	85.93
175	5.0 - 9.0% of mass 174	6.00(7.0)1
176	95.0 - 101.0% of mass 174	86.30(100.4)1
177	5.0 - 9.0% of mass 176	5.34(6.2)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	VSTD100	IV005J0902	RJQ098	10/10/12	10:23

FORM V VOA OLM02.0

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T005
IC_Beginning DateTime :10/09/12 19:17
Spike Amount :100 PPT
CC/CV File :RJQ098
IC File :RJQ091

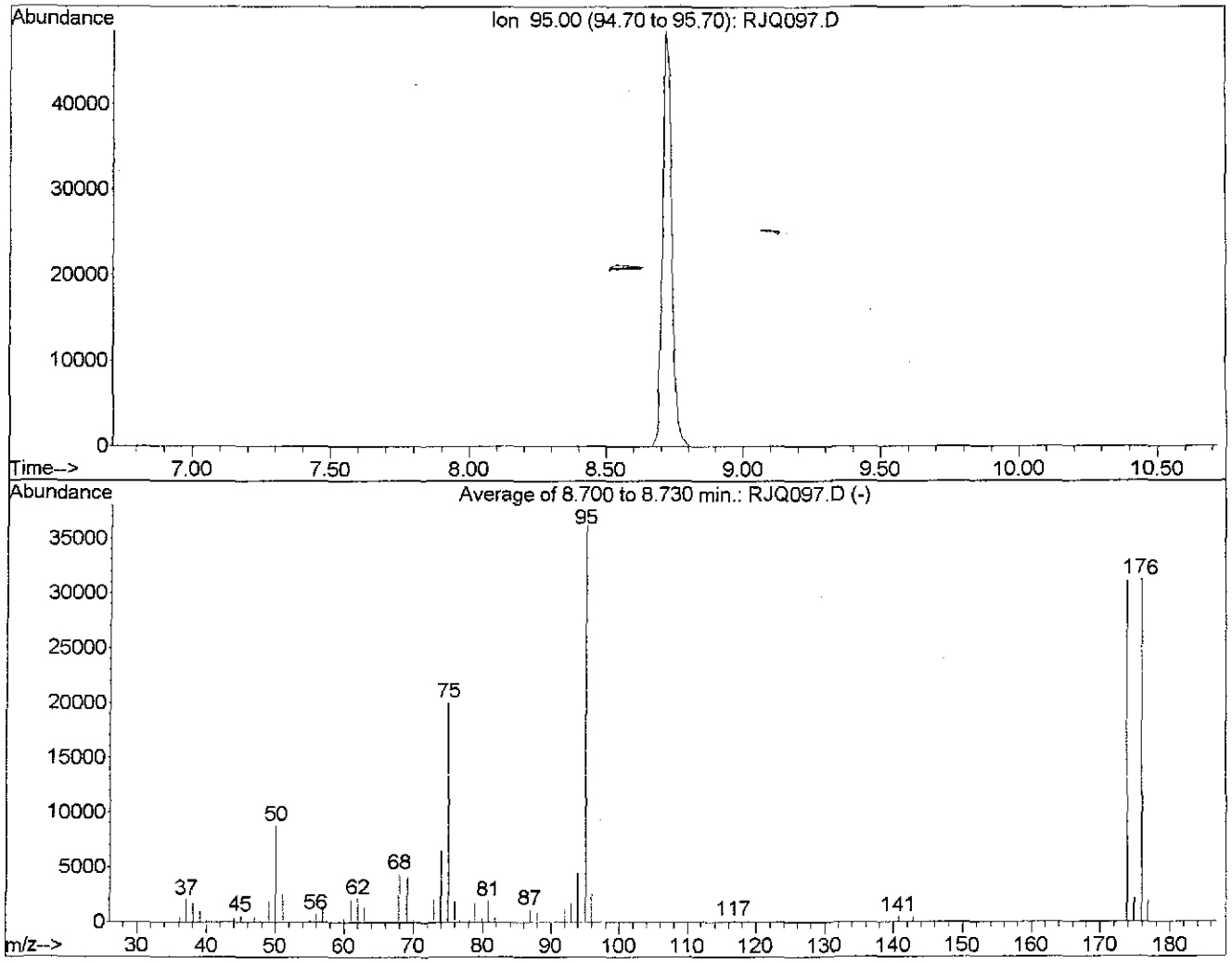
Column Spec :RTX502.2 ID :0.32MM
IC_Ending DateTime :10/09/12 22:40
HPChem Method :V005J09
Date_Time :10/10/12 10:23

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,2,3-TRICHLOROPROPANE-D5	50.000	0	2409	1	1	8.696	8.688	0				
	2	1,2-Dichloroethane	114.501	14.5	18301	3.798	3.317	4.400	4.393	10.89				
	3	Toluene-d8	118.197	18.2	45379	9.419	7.969	5.904	5.898	7.68				
	4	1,2-Dibromoethane	105.703	5.7	7298	1.515	1.433	7.013	7.006	6.40				
	5	1,1,2,2-Tetrachloroethane	102.637	2.6	6815	1.414	1.378	8.609	8.602	3.38				
	6	1,2,3-Trichloropropane	92.389	-7.6	4026	0.836	0.904	8.783	8.775	9.89				
	7	1,2-Dibromo-3-chloropropane	90.898	-9.1	894	0.186	0.204	11.553	11.548	11.79				

SA
10/12/12

BFB

Data File : D:\HPCHEM\1\DATA\12J10\RJQ097.D Vial: 1
Acq On : 10 Oct 2012 9:41 am Operator: SD
Sample : BFB05J07 Inst : TO05
Misc : T/CHK Multiplr: 1.00
MS Integration Params: 524INT.P
Method : D:\HPCHEM\1\METHODS\VO05J09A.M (RTE Integrator)
Title : METHOD 8260 SIM



AutoFind: Scans 360, 361, 362; Background Corrected with Scan 356

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.3	8805	PASS
75	95	30	60	55.5	20079	PASS
95	95	100	100	100.0	36211	PASS
96	95	5	9	6.9	2510	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	85.9	31116	PASS
175	174	5	9	7.0	2174	PASS
176	174	95	101	100.4	31250	PASS
177	176	5	9	6.2	1934	PASS

RJQ097.D VO05J09A.M Thu Oct 11 09:53:51 2012

SG 10/12/12

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J10\RJQ098.D Vial: 2
Acq On : 10 Oct 2012 10:23 am Operator: SD
Sample : IVO05J0902 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	50.000	50.000	0.0	89	0.00
2	T	1,2-Dichloroethane	100.000	114.501	-14.5	101	0.00
3	S	Toluene-d8	100.000	118.198	-18.2	112	0.00
4	T	1,2-Dibromoethane	100.000	105.704	-5.7	95	0.00
5	T	1,1,2,2-Tetrachloroethane	100.000	102.637	-2.6	96	0.00
6	T	1,2,3-Trichloropropane	100.000	92.389	7.6	87	0.00
7	T	1,2-Dibromo-3-chloropropane	100.000	90.898	9.1	90	0.00

SA 10/12/12

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J10\RJQ098.D Vial: 2
Acq On : 10 Oct 2012 10:23 am Operator: SD
Sample : IVO05J0902 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	89	0.00
2	T	1,2-Dichloroethane	3.317	3.798	-14.5	101	0.00
3	S	Toluene-d8	7.969	9.419	-18.2	112	0.00
4	T	1,2-Dibromoethane	1.433	1.515	-5.7	95	0.00
5	T	1,1,2,2-Tetrachloroethane	1.378	1.414	-2.6	96	0.00
6	T	1,2,3-Trichloropropane	0.904	0.836	7.5	87	0.00
7	T	1,2-Dibromo-3-chloropropane	0.204	0.186	8.8	90	0.00

10/12/12

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J10\RJQ098.D
Acq On : 10 Oct 2012 10:23 am
Sample : IVO05J0902
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:04 2012

Vial: 2
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.70	79	2409	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.90	98	45379	118.20	ng/l	0.00
Spiked Amount 100.000			Recovery	=	118.20%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.40	62	18301	114.50	ng/l	98
4) 1,2-Dibromoethane	7.01	107	7298	105.70	ng/l	98
5) 1,1,2,2-Tetrachloroethane	8.61	83	6815	102.64	ng/l	99
6) 1,2,3-Trichloropropane	8.78	75	4026	92.39	ng/l	95
7) 1,2-Dibromo-3-chloropropan	11.55	157	894	90.90	ng/l	92

SC 10/12/12

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

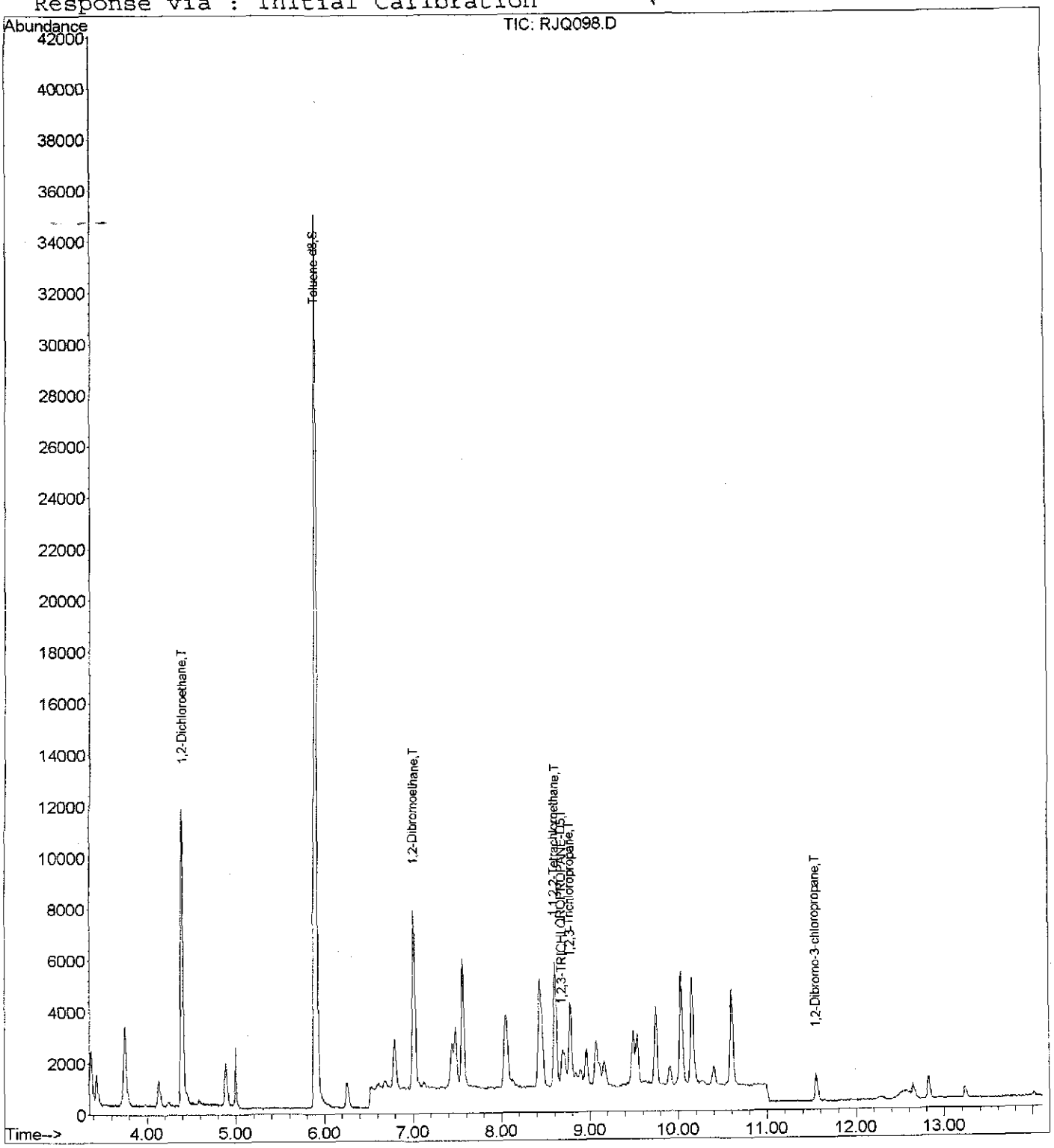
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J10\RJQ098.D
Acq On : 10 Oct 2012 10:23 am
Sample : IVO05J0902
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 11 10:04 2012

Vial: 2
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



SA 10/11/12 2206

DAILY CALIBRATIONS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RJQ452
Instrument ID: TO05
GC Column:RTX502.2ID:0.32mm (mm)

Contract: BROWN & BRYANT SUPERFUND SITE
SAS No.: SDG No.: 12J182
BFB Injection Date : 10/31/12
BFB Injection Time : 07:00
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.60
75	30.0 - 60.0% of mass 95	51.21
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.77
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	84.77
175	5.0 - 9.0% of mass 174	5.26(6.2)1
176	95.0 - 101.0% of mass 174	85.58(101.0)1
177	5.0 - 9.0% of mass 176	6.28(7.3)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	VSTD100	CV005J0906	RJQ453	10/31/12	07:32
2	MBLK1W	V005J23B	RJQ457	10/31/12	09:38
3	LCS1W	V005J23L	RJQ454	10/31/12	08:04
4	LCD1W	V005J23C	RJQ455	10/31/12	08:36
5	10-24-12 PWB-15	J182-03	RJQ458	10/31/12	10:26
6	10-24-12 PWB-2	J182-04	RJQ459	10/31/12	11:16
7	10-24-12 WB 2-3	J182-02	RJQ460	10/31/12	11:44
8	10-24-12 WB 2-3MS	J182-02M	RJQ461	10/31/12	12:13
9	10-24-12 WB 2-3MSD	J182-02S	RJQ462	10/31/12	12:45
10	10-24-12 WB 2-2	J182-06	RJQ463	10/31/12	13:14
11	10-24-12 FDUP-3	J182-07	RJQ464	10/31/12	13:42
12	10-24-12 PWB-7A	J182-05	RJQ465	10/31/12	14:11
13	10-24-12 PWB-7ADL	J182-05T	RJQ466	10/31/12	14:40
14	10-24-12 PWB-7ADL	J182-05I	RJQ468	10/31/12	15:39
15	10-24-12 PWB-15DL	J182-03T	RJQ469	10/31/12	16:09
16	10-24-12 PWB-2DL	J182-04T	RJQ470	10/31/12	16:38
17	10-24-12 WB 2-2DL	J182-06T	RJQ471	10/31/12	17:07
18	10-24-12 FDUP-3DL	J182-07T	RJQ472	10/31/12	17:36

FORM V VOA OLM02.0

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RJQ091
Instrument ID: T005

Project: BROWN & BRYANT SUPERFUND SITE
SDG No.: 12J182
Date Analyzed: 10/09/12
Time Analyzed: 21:14

		IS1(TCP) AREA #	RT #
	12 HOUR STD	2700	8.69
	UPPER LIMIT	5400	9.19
	LOWER LIMIT	1350	8.19
	SAMPLE ID		
1	VSTD100	2628	8.68
2	MBLK1W	2995	8.69
3	LCS1W	2825	8.68
4	LCD1W	2855	8.68
5	10-24-12 PWB-15	2681	8.69
6	10-24-12 PWB-2	2815	8.69
7	10-24-12 WB 2-3	2573	8.68
8	10-24-12 WB 2-3MS	2883	8.69
9	10-24-12 WB 2-3MSD	3023	8.69
10	10-24-12 WB 2-2	2802	8.69
11	10-24-12 FDUP-3	2577	8.69
12	10-24-12 PWB-7A	2889	8.69
13	10-24-12 PWB-7ADL	2481	8.69
14	10-24-12 PWB-7ADL	2765	8.69
15	10-24-12 PWB-15DL	2884	8.69
16	10-24-12 PWB-2DL	2407	8.70
17	10-24-12 WB 2-2DL	2574	8.69
18	10-24-12 FDUP-3DL	2522	8.69

IS1 (TCP) = 1,2,3-Trichloropropane-d5

AREA UPPER LIMIT = +100% of internal satndard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T005
IC_Beginning DateTime :10/09/12 19:17
Spike Amount :100 PPT
CC/CV File :RJQ453
IC File :RJQ091

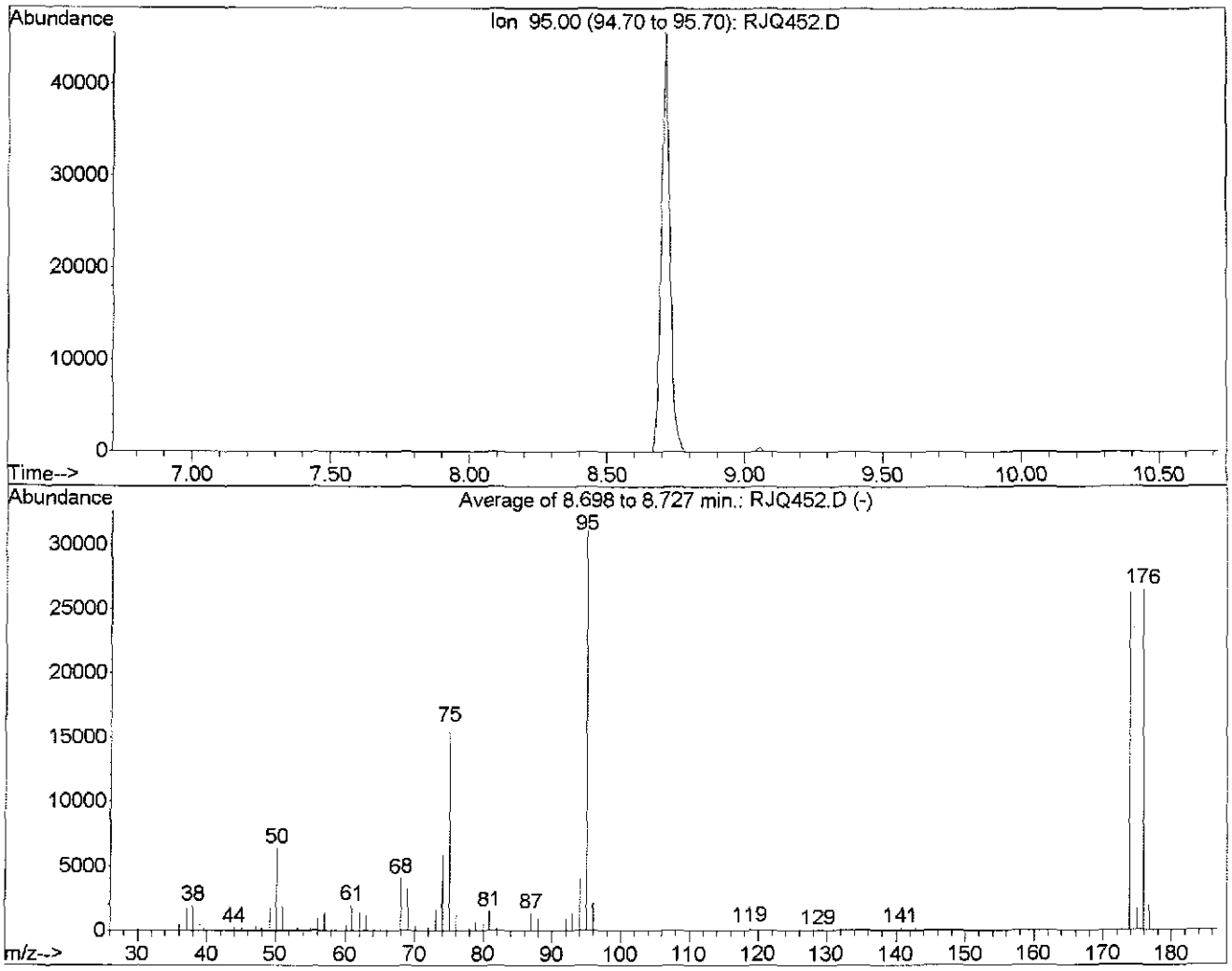
Column Spec :RTX502.2 ID :0.32MM
IC_Ending DateTime :10/09/12 22:40
HPChem Method :V005J09
Date_Time :10/31/12 07:32

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,2,3-TRICHLOROPROPANE-D5	50.000	0	2628	1	1	8.679	8.688	0				
	2	1,2-Dichloroethane	113.711	13.7	19827	3.772	3.317	4.394	4.393	10.89				
	3	Toluene-d8	99.227	-0.8	41559	7.907	7.969	5.893	5.898	7.68				
	4	1,2-Dibromoethane	103.122	3.1	7767	1.478	1.433	7.005	7.006	6.40				
	5	1,1,2,2-Tetrachloroethane	96.513	-3.5	6991	1.330	1.378	8.601	8.602	3.38				
	6	1,2,3-Trichloropropane	97.038	-3.0	4613	0.878	0.904	8.767	8.775	9.89				
	7	1,2-Dibromo-3-chloropropane	89.288	-10.7	958	0.182	0.204	11.544	11.548	11.79				

BFB

Data File : D:\HPCHEM\1\DATA\12J31\RJQ452.D
Acq On : 31 Oct 2012 7:00 am
Sample : BFB05J23
Misc : T/CHK
MS Integration Params: 524INT.P
Method : D:\HPCHEM\1\METHODS\VO05J09A.M (RTE Integrator)
Title : METHOD 8260 SIM

Vial: 1
Operator: SD
Inst : TO05
Multiplr: 1.00



AutoFind: Scans 360, 361, 362; Background Corrected with Scan 356

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.6	6394	PASS
75	95	30	60	51.2	15895	PASS
95	95	100	100	100.0	31040	PASS
96	95	5	9	6.8	2101	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	84.8	26312	PASS
175	174	5	9	6.2	1633	PASS
176	174	95	101	101.0	26563	PASS
177	176	5	9	7.3	1950	PASS

RJQ452.D VO05J09A.M Thu Nov 01 10:52:11 2012

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J31\RJQ453.D Vial: 2
Acq On : 31 Oct 2012 7:32 am Operator: SD
Sample : CVO05J0906 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	50.000	50.000	0.0	97	0.00
2	T	1,2-Dichloroethane	100.000	113.712	-13.7	110	0.00
3	S	Toluene-d8	100.000	99.227	0.8	102	0.00
4	T	1,2-Dibromoethane	100.000	103.122	-3.1	101	0.00
5	T	1,1,2,2-Tetrachloroethane	100.000	96.514	3.5	98	0.00
6	T	1,2,3-Trichloropropane	100.000	97.038	3.0	100	0.00
7	T	1,2-Dibromo-3-chloropropane	100.000	89.288	10.7	97	0.00

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\12J31\RJQ453.D Vial: 2
Acq On : 31 Oct 2012 7:32 am Operator: SD
Sample : CVO05J0906 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
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 : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,2,3-TRICHLOROPROPANE-D5	1.000	1.000	0.0	97	0.00
2	T	1,2-Dichloroethane	3.317	3.772	-13.7	110	0.00
3	S	Toluene-d8	7.969	7.907	0.8	102	0.00
4	T	1,2-Dibromoethane	1.433	1.478	-3.1	101	0.00
5	T	1,1,2,2-Tetrachloroethane	1.378	1.330	3.5	98	0.00
6	T	1,2,3-Trichloropropane	0.904	0.878	2.9	100	0.00
7	T	1,2-Dibromo-3-chloropropane	0.204	0.182	10.8	97	0.00

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

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\12J31\RJQ453.D Vial: 2
Acq On : 31 Oct 2012 7:32 am Operator: SD
Sample : CVO05J0906 Inst : TO05
Misc : 100ppt Multiplr: 1.00
MS Integration Params: 524INT.P
Quant Time: Oct 31 7:46 2012 Quant Results File: VO05J09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration
DataAcq Meth : VO05J09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	8.68	79	2628	50.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	5.89	98	41559	99.23	ng/l	0.00
Spiked Amount 100.000			Recovery = 99.23%			
Target Compounds						Qvalue
2) 1,2-Dichloroethane	4.39	62	19827	113.71	ng/l	97
4) 1,2-Dibromoethane	7.01	107	7767	103.12	ng/l	99
5) 1,1,2,2-Tetrachloroethane	8.60	83	6991	96.51	ng/l	99
6) 1,2,3-Trichloropropane	8.77	75	4613	97.04	ng/l	95
7) 1,2-Dibromo-3-chloropropan	11.54	157	958	89.29	ng/l	98

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

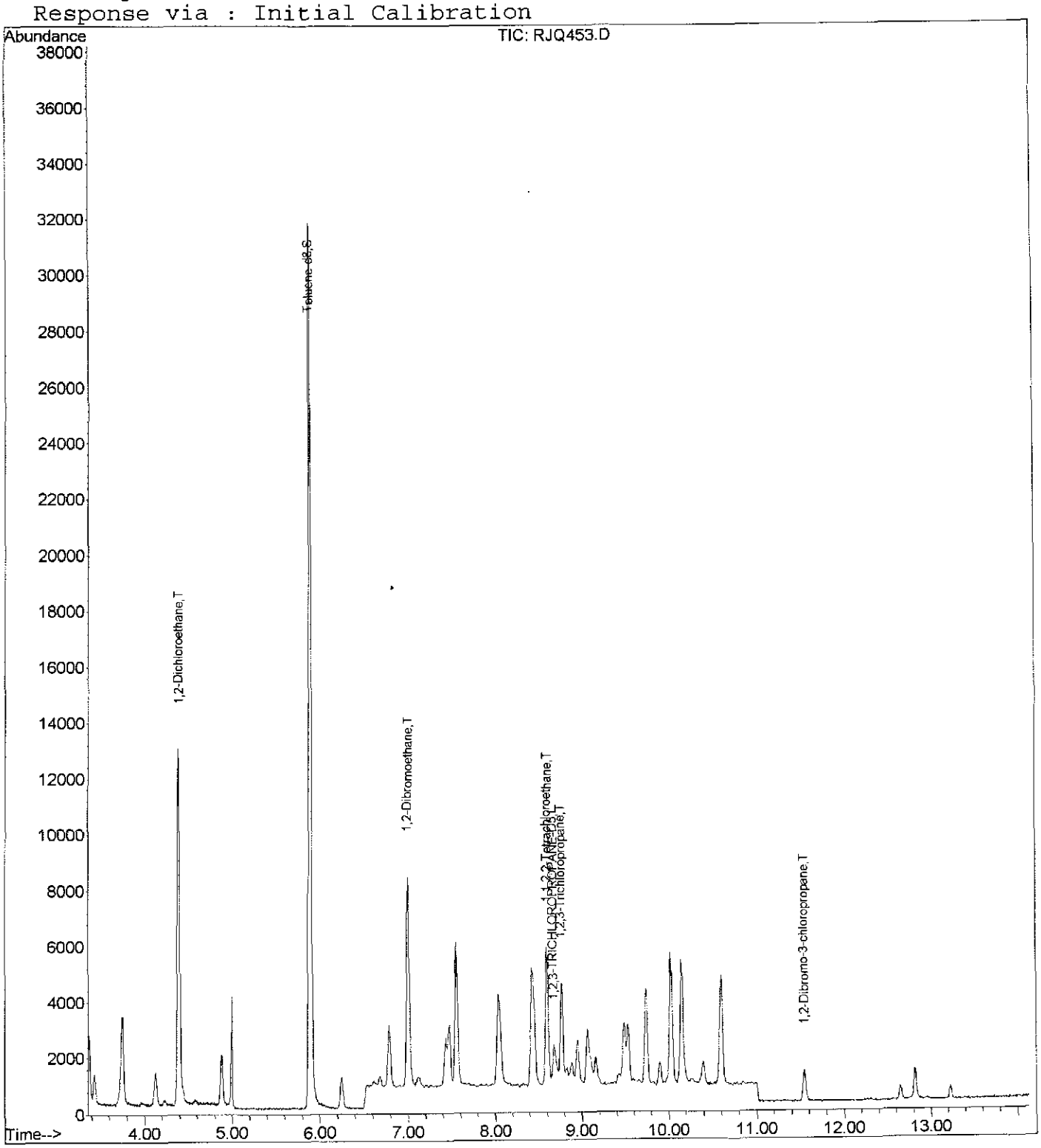
Quantitation Report

Data File : D:\HPCHEM\1\DATA\12J31\RJQ453.D
Acq On : 31 Oct 2012 7:32 am
Sample : CVO05J0906
Misc : 100ppt
MS Integration Params: 524INT.P
Quant Time: Oct 31 7:46 2012

Vial: 2
Operator: SD
Inst : TO05
Multiplr: 1.00

Quant Results File: VO05J09.RE

Method : D:\HPCHEM\1\METHODS\VO05J09.M (RTE Integrator)
Title : METHOD 8260 SIM
Last Update : Wed Oct 10 09:35:02 2012
Response via : Initial Calibration



2209

ANALYTICAL LOGS

ANALYSIS LOG FOR VOLATILES

SOP ☐ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/9/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book # A05 -061

BATCH V005J095

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl2 <5ppm	Matrix S	Notes
01	RQ085	RFB05J06	0.5mL	N/A	N/A	N/A		V005J09A 6:19pm
02	086	0.5ppt test						
03	087	V005J091	0.05/0.05mL					5.0 ppt
04	088	2	0.1/0.1mL					10
05	089	3	0.2/0.2mL					20
06	090	4	0.5/0.5mL					50
07	091	5	1/1mL					100
08	092	6	2/2mL					200
09	093	7	4/4mL					400
10	094	8	10/10mL					1000
11	095	IS/SS						
12	096	IV005J091	1/1mL					100 ppt; IS response 11:39pm
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								sd 10/10/12

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	10/9/12
ICAL ID	V005J09

STANDARDS

NAME	ID	Amount (ul)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC (a)	SV1-20-13-03	varies	2.5
BFB	-22-01	0.5	50
IS/SURR. (b) IS	-25-02	1	1.25
SS	-25-03	varies	2.5
ICV/LCS	-14-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	12J09		
LOT #			
pH strip			
Chlorine strip			
Methanol			
$NaHSO_4$			
Reagent Water	RW4-12-001		
Sand			

Electronic Data Archival Location	Date
HPCHEM_VOA/T005	

Comments:

☐ Refer to sample weight log

Analyzed By: sd

Date Disposed: 10/10/12 Disposed By: sd

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☐ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/10/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book # A05 -061

BATCH: V005TO90

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01		RQTQ097	RQABOSJ07	0.5mL					V005TO9A 9:41am
02		098	IV005TO902	1/1mL					
03		099	CV005TO901						
04		100	V005TO7L						
05		101	C						
06		102	B	.25mL					
07		103	LOD 2.5ppt	.025mL					
08		104-105	RINSE						1:50pm
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									sd 10/11/12

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	10/9/12
ICAL ID	V005TO9

STANDARDS

NAME	ID	Amount (ul)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SV1-20-13-03	1	2.5
BFB	-22-01	0.5	5.0
IS/SURR.	-25-02 -25-03	1 1	1.25 2.5
ICV/LCS	-14-03	1	0.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	12J10		
LOT #			
pH strip			
Chlorine strip			
Methanol			
$NaHSO_4$			
Reagent Water	RW4-12-001		
Sand			

Electronic Data Archival Location	Date
HPCHEM_VOA/TO05	

Comments:

☐ Refer to sample weight log

Analyzed By: sd

Date Disposed: 10/11/12 Disposed By: sd

2212

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☐ EMAX-8260 Rev.No. 8 ☐ EMAX-524.2 Rev.No. 7 ☐ EMAX-624 Rev.No. 4 ☐ EMAX-8260SIM Rev.No. 1 ☑ EMAX-TCPSIM Rev.No. 2 ☐ EMAX-M8260SIM Rev.No. 0 ☐ EMAX-8260C Rev. No. 0

Start Date: 10/31/12 ☐ 5-mL Purge ☐ 10-mL Purge ☑ 25-mL Purge

Book # A05 -061

BATCH cv005J0906

	Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix W pH <2	Matrix W Cl_2 <5ppm	Matrix S	Notes
01		RTQ452	RFB005J23	0.5mL					v005J09A
02		453	cv005J0906	1mL					
03		454	v005J23L	↓					
04		455	↓ C	↓					
05		456	RINSE						
06		457	v005J23B	25mL					
07		458	12J182-03	↓	1.0	✓	✓		
08		459	-04	↓	↓	✓	✓		
09		460	-02	↓	↓	✓	✓		
10		461	-02M	↓	↓	✓	✓		
11		462	-02S	↓	↓	✓	✓		
12		463	-06	↓	↓	✓	✓		
13		464	-07	↓	↓	✓	✓		
14		465	-05	↓	↓	✓	✓		
15		466	↓ -05T	2.5mL	10	✓	✓		
16		467	RINSE						
17		468	12J182-01	0.10mL	250	✓	✓		
18		469	-03T	25mL	10	✓	✓		
19		470	-04T	↓	↓	✓	✓		
20		471	-06T	0.50mL	50	✓	✓		
21		472	↓ -07T	↓	↓	✓	✓		5:36pm
22		↓ 473-489	RINSE						
23									
24									
25									
26									
27									
28									
29									
30									Vd 11/1/12

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	10/9/12
ICAL ID	v005J09

STANDARDS

NAME	ID	Amount (ul)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SV1-20-13-03	1	2.5
BFB	↓ -22-01	0.5	50
IS/SURR.	-25-02 -25-03	1 1	1.25 2.5
ICV/LCS	↓ -14-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	12J31		
LOT #			
pH strip	137671		
Chlorine strip	2220		
Methanol			
$NaHSO_4$			
Reagent Water	RW4-12-001		
Sand			

Electronic Data Archival Location	Date
HPCHEM_VOA/TO05	

Comments:

☐ Refer to sample weight log

Analyzed By: [illegible]

Date Disposed: 11/1/12 Disposed By: [illegible]

Injection Log

Directory: D:\HPCHEM\1\DATA\12J31

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RJQ452.D	1.	BFB05J23	T/CHK	31 Oct 2012 0
2	2	RJQ453.D	1.	CVO05J0906	100ppt	31 Oct 2012 0
3	3	RJQ454.D	1.	VO05J23L	100ppt	31 Oct 2012 0
4	4	RJQ455.D	1.	VO05J23C	100ppt	31 Oct 2012 0
5	5	RJQ456.D	1.	RINSE	BLANK	31 Oct 2012 0
6	6	RJQ457.D	1.	VO05J23B	BLANK	31 Oct 2012 0
7	7	RJQ458.D	1.	12J182-03 25mL	DF=1.0	31 Oct 2012 1
8	8	RJQ459.D	1.	12J182-04 25mL	DF=1.0	31 Oct 2012 1
9	9	RJQ460.D	1.	12J182-02 25mL	DF=1.0	31 Oct 2012 1
10	10	RJQ461.D	1.	12J182-02M 25mL	DF=1.0	31 Oct 2012 1
11	11	RJQ462.D	1.	12J182-02S 25mL	DF=1.0	31 Oct 2012 1
12	12	RJQ463.D	1.	12J182-06 25mL	DF=1.0	31 Oct 2012 1
13	13	RJQ464.D	1.	12J182-07 25mL	DF=1.0	31 Oct 2012 1
14	14	RJQ465.D	1.	12J182-05 25mL	DF=1.0	31 Oct 2012 1
15	15	RJQ466.D	1.	12J182-05T 2.5mL	DF=10	31 Oct 2012 1
16	16	RJQ467.D	1.	RINSE	DF=10	31 Oct 2012 1
17	17	RJQ468.D	1.	12J182-05I 0.10mL	DF=250	31 Oct 2012 1
18	18	RJQ469.D	1.	12J182-03T 2.5mL	DF=10	31 Oct 2012 1
19	19	RJQ470.D	1.	12J182-04T 2.5mL	DF=10	31 Oct 2012 1
20	20	RJQ471.D	1.	12J182-06T 0.50mL	DF=50	31 Oct 2012 1
21	21	RJQ472.D	1.	12J182-07T 0.50mL	DF=50	31 Oct 2012 1
22	1	RJQ473.D	1.	RINSE		31 Oct 2012 1
23	2	RJQ474.D	1.	RINSE		31 Oct 2012 1
24	3	RJQ475.D	1.	RINSE		31 Oct 2012 1
25	4	RJQ476.D	1.	RINSE		31 Oct 2012 1
26	5	RJQ477.D	1.	RINSE		31 Oct 2012 2
27	6	RJQ478.D	1.	RINSE		31 Oct 2012 2
28	7	RJQ479.D	1.	RINSE		31 Oct 2012 2
29	8	RJQ480.D	1.	RINSE		31 Oct 2012 2
30	9	RJQ481.D	1.	RINSE		31 Oct 2012 2
31	10	RJQ482.D	1.	DRY PURGE		31 Oct 2012 2
32	11	RJQ483.D	1.	DRY PURGE		31 Oct 2012 2
33	12	RJQ484.D	1.	DRY PURGE		31 Oct 2012 2
34	13	RJQ485.D	1.	DRY PURGE		31 Oct 2012 2
35	14	RJQ486.D	1.	DRY PURGE		1 Nov 2012 0
36	15	RJQ487.D	1.	DRY PURGE		1 Nov 2012 0
37	16	RJQ488.D	1.	DRY PURGE		1 Nov 2012 0
38	17	RJQ489.D	1.	DRY PURGE		1 Nov 2012 0

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

METHOD 8151A
HERBICIDES

SDG#: 12J182

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J182

METHOD 8151A
HERBICIDES

A total of six (6) water samples were received on 10/25/12 for Chlorinated Herbicides analysis, Method 8151A in accordance with Department of Defense Quality Systems Manual for Environmental Laboratories, Version 4.2 and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried on a frequency specified by the project. All calibration requirements were within acceptance criteria except recoveries of Dinoseb in CCV-QJ31026 and QJ31033 were biased high in column B. Results of the associated samples J182-02, 03, 04, 06 and 07 were reported from in-control column A. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Results were compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for HEJ010WL/C were all within QC limits.

Matrix QC Sample
A set of MS/MSD was analyzed with the samples in this SDG.
Percent recovery was within project QC limits for J182-02S but recovery in J182-02M and its %RPD were out of the limits and were qualified with [*] in J182-02 M/S summary form. Check QC summary form for details.

Surrogate
Surrogate was added on QC and field samples. Surrogate recoveries were within project QC limits.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

LAB CHRONICLE
HERBICIDES

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE

SDG NO. : 12J182
Instrument ID : GCT009

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	HEJ010WB	1	NA	10/31/1216:31	10/30/1210:50	QJ31003A	QJ31002A	HEJ010W	Method Blank
LCS1W	HEJ010WL	1	NA	10/31/1216:51	10/30/1210:50	QJ31004A	QJ31002A	HEJ010W	Lab Control Sample (LCS)
LCD1W	HEJ010WC	1	NA	10/31/1217:11	10/30/1210:50	QJ31005A	QJ31002A	HEJ010W	LCS Duplicate
10-24-12 WB 2-3	J182-02	1	NA	10/31/1222:36	10/30/1210:50	QJ31021A	QJ31014A	HEJ010W	Field Sample
10-24-12 WB 2-3MS	J182-02M	1	NA	10/31/1222:56	10/30/1210:50	QJ31022A	QJ31014A	HEJ010W	Matrix Spike Sample (MS)
10-24-12 WB 2-3MSD	J182-02S	1	NA	10/31/1223:17	10/30/1210:50	QJ31023A	QJ31014A	HEJ010W	MS Duplicate (MSD)
10-24-12 PWB-15	J182-03	1	NA	10/31/1223:37	10/30/1210:50	QJ31024A	QJ31014A	HEJ010W	Field Sample
10-24-12 PWB-2	J182-04	1	NA	11/01/1200:38	10/30/1210:50	QJ31027A	QJ31026A	HEJ010W	Field Sample
10-24-12 PWB-7A	J182-05I	20	NA	11/01/1215:17	10/30/1210:50	QJ31042A	QJ31036A	HEJ010W	Diluted Sample
10-24-12 WB 2-2	J182-06	1	NA	11/01/1201:19	10/30/1210:50	QJ31029A	QJ31026A	HEJ010W	Field Sample
10-24-12 FDUP-3	J182-07	1	NA	11/01/1201:40	10/30/1210:50	QJ31030A	QJ31026A	HEJ010W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 8151A
HERBICIDES

Client : ECO & ASSOCIATES, INC.	Date Collected: 10/24/12
Project : BROWN & BRYANT SUPERFUND SITE	Date Received: 10/25/12
Batch No. : 12J182	Date Extracted: 10/30/12 10:50
Sample ID: 10-24-12 WB 2-3	Date Analyzed: 10/31/12 22:36
Lab Samp ID: J182-02	Dilution Factor: 1
Lab File ID: QJ31021A	Matrix : WATER
Ext Btch ID: HEJ010W	% Moisture : NA
Calib. Ref.: QJ31014A	Instrument ID : GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(5.914)|5.405	10.00	(59.1)|54.1	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/30/12 10:50
Sample ID:	10-24-12 PWB-15	Date Analyzed:	10/31/12 23:37
Lab Samp ID:	J182-03	Dilution Factor:	1
Lab File ID:	QJ31024A	Matrix :	WATER
Ext Btch ID:	HEJ010W	% Moisture :	NA
Calib. Ref.:	QJ31014A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(0.36J)|0.42	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.586)|9.348	10.00	(95.9)|93.5	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/30/12 10:50
Sample ID:	10-24-12 PWB-2	Date Analyzed:	11/01/12 00:38
Lab Samp ID:	J182-04	Dilution Factor:	1
Lab File ID:	QJ31027A	Matrix :	WATER
Ext Btch ID:	HEJ010W	% Moisture :	NA
Calib. Ref.:	QJ31026A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(10.11)|9.783	10.00	(101)|97.8	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/30/12 10:50
Sample ID:	10-24-12 PWB-7A	Date Analyzed:	11/01/12 15:17
Lab Samp ID:	J182-05I	Dilution Factor:	20
Lab File ID:	QJ31042A	Matrix :	WATER
Ext Btch ID:	HEJ010W	% Moisture :	NA
Calib. Ref.:	QJ31036A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	15|(17)	8.0	4.0|4.0

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	14.21|(13.60)	10.00	142*|(136)	40-140

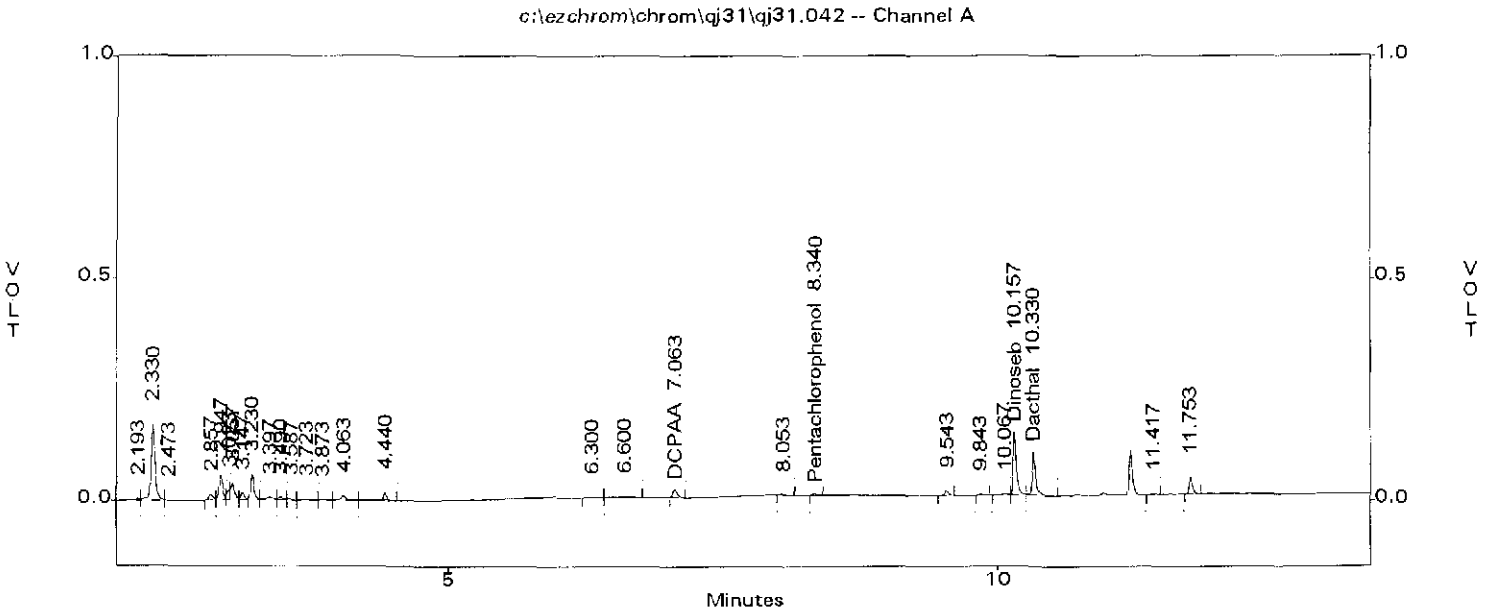
Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.042
Method : c:\ezchrom\methods\he09j30.met
Sample ID : J182-05I DF=20
Acquired : Nov 01, 2012 15:17:48
Printed : Nov 05, 2012 12:18:38
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.777	0.0	0.00	0.00	--
3,5 Dichlorobenzo	6.213	0.0	0.00	0.00	--
4-Nitrophenol	6.820	0.0	0.00	0.00	--
DCPAA	7.063	50947.0	717.28	1420.55	BI
Dicamba	7.240	0.0	0.00	0.00	--
MCPP	7.437	0.0	0.00	0.00	--
MCPA	7.580	0.0	0.00	0.00	--
DCP	7.923	0.0	0.00	0.00	--
2,4-D	8.127	0.0	0.00	0.00	--
Pentachlorophenol	8.340	10452.0	12876.92	16.23	BV
Silvex	8.817	0.0	0.00	0.00	--
Chloramben	8.940	0.0	0.00	0.00	--
2,4,5-T	9.030	0.0	0.00	0.00	--
2,4-DB	9.430	0.0	0.00	0.00	--
Bentazon/Picloram	10.050	0.0	0.00	0.00	--
Dinoseb	10.157	289389.0	3981.06	1453.83	VV
Dacthal	10.330	212603.0	6309.82	673.88	VI
Acifluorfen	11.773	0.0	0.00	0.00	--



5088

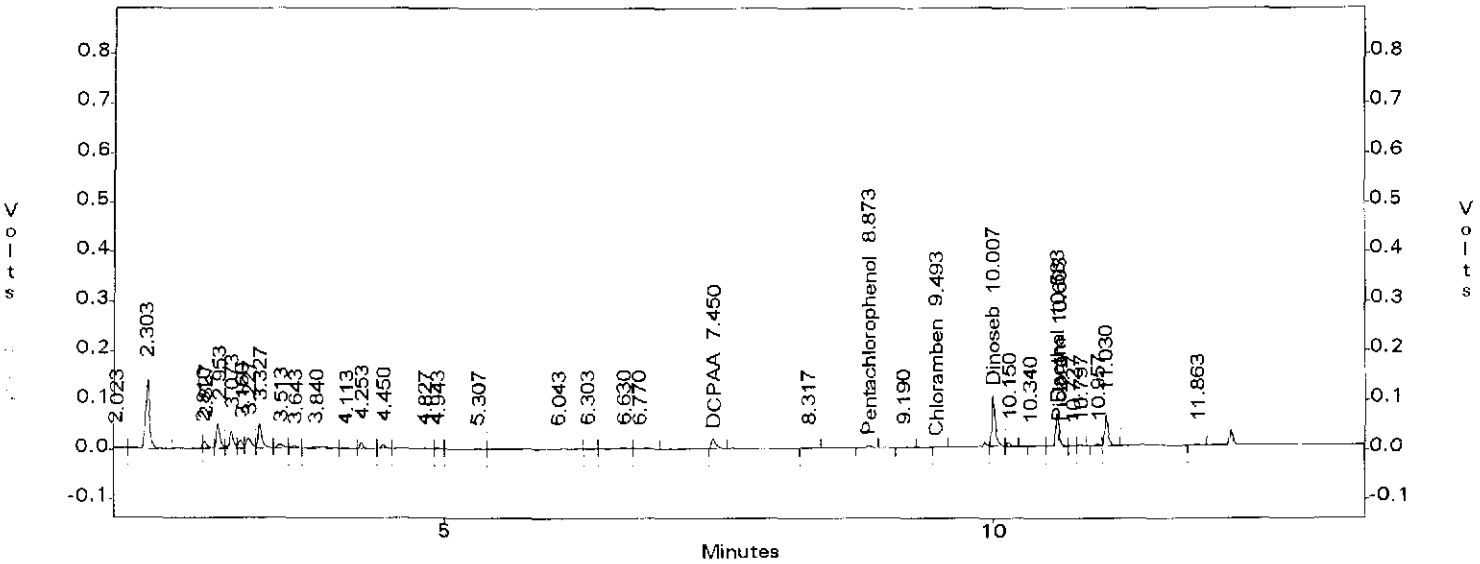
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.042
Method : c:\ezchrom\methods\he09j30.met
Sample ID : J182-05I DF=20
Acquired : Nov 01, 2012 15:17:48
Printed : Nov 05, 2012 12:18:38
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.773	0.0	0.00	0.00	--
3,5 Dichlorobenzoic	6.380	0.0	0.00	0.00	--
4-Nitrophenol	6.960	0.0	0.00	0.00	--
DCPAA	7.450	55230.0	812.00	1360.35	BI
Dicamba	7.623	0.0	0.00	0.00	--
MCPP	7.730	0.0	0.00	0.00	--
MCPA	7.953	0.0	0.00	0.00	--
DCP	8.257	0.0	0.00	0.00	--
2,4-D	8.523	0.0	0.00	0.00	--
Pentachlorophenol	8.873	8231.0	11546.42	14.26	SV
Silvex	9.160	0.0	0.00	0.00	--
2,4,5-T	9.440	0.0	0.00	0.00	--
Chloramben	9.493	2711.0	4751.55	11.41	xS
2,4-DB	9.790	0.0	0.00	0.00	--
Dinoseb	10.007	224843.0	2604.65	1726.47	BV
Bentazon	10.360	0.0	0.00	0.00	--
Dacthal	10.583	109154.0	4296.46	508.11	Vx
Picloram	10.603	29761.0	7077.91	84.10	xV
Acifluorfen	11.787	0.0	0.00	0.00	--

c:\ezchrom\chrom\qj31\qj31.042 -- Channel B



METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/30/12 10:50
Sample ID:	10-24-12 WB 2-2	Date Analyzed:	11/01/12 01:19
Lab Samp ID:	J182-06	Dilution Factor:	1
Lab File ID:	QJ31029A	Matrix	: WATER
Ext Btch ID:	HEJ010W	% Moisture	: NA
Calib. Ref.:	QJ31026A	Instrument ID	: GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(0.90)|1.1	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.860)|9.602	10.00	(98.6)|96.0	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	10/24/12
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/25/12
Batch No.	: 12J182	Date Extracted:	10/30/12 10:50
Sample ID:	10-24-12 FDUP-3	Date Analyzed:	11/01/12 01:40
Lab Samp ID:	J182-07	Dilution Factor:	1
Lab File ID:	QJ31030A	Matrix :	WATER
Ext Btch ID:	HEJ010W	% Moisture :	NA
Calib. Ref.:	QJ31026A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(0.91)|1.1	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.530)|9.259	10.00	(95.3)|92.6	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

QC SUMMARIES

METHOD 8151A
HERBICIDES

Client	: ECO & ASSOCIATES, INC.	Date Collected:	NA
Project	: BROWN & BRYANT SUPERFUND SITE	Date Received:	10/30/12
Batch No.	: 12J182	Date Extracted:	10/30/12 10:50
Sample ID:	MBLK1W	Date Analyzed:	10/31/12 16:31
Lab Samp ID:	HEJ010WB	Dilution Factor:	1
Lab File ID:	QJ31003A	Matrix :	WATER
Ext Btch ID:	HEJ010W	% Moisture :	NA
Calib. Ref.:	QJ31002A	Instrument ID :	GCT009

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
DINOSEB	(ND)|ND	0.40	0.20|0.20

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.911)|9.499	10.00	(99.1)|95.0	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ( )

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 8151A

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	HEJ010WB	HEJ010WL	HEJ010WC		
LAB FILE ID:	QJ31003A	QJ31004A	QJ31005A		
DATE EXTRACTED:	10/30/1210:50	10/30/1210:50	10/30/1210:50	DATE COLLECTED:	NA
DATE ANALYZED:	10/31/1216:31	10/31/1216:51	10/31/1217:11	DATE RECEIVED:	10/30/12
PREP. BATCH:	HEJ010W	HEJ010W	HEJ010W		
CALIB. REF:	QJ31002A	QJ31002A	QJ31002A		

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 (%)
Dinoseb	(ND)|ND	1.00	0.745|(0.891)	74|(89)	1.00	0.737|(0.911)	74|(91)	1|(2)	20-100	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 (%)
2,4-DCPAA	10.00	(9.940)|9.870	(99.4)|98.7	10.00	9.780|(9.833)	97.8|(98.3)	40-140

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 8151A

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	10-24-12 WB 2-3				
LAB SAMP ID:	J182-02	J182-02M	J182-02S		
LAB FILE ID:	QJ31021A	QJ31022A	QJ31023A		
DATE EXTRACTED:	10/30/1210:50	10/30/1210:50	10/30/1210:50	DATE COLLECTED:	10/24/12
DATE ANALYZED:	10/31/1222:36	10/31/1222:56	10/31/1223:17	DATE RECEIVED:	10/25/12
PREP. BATCH:	HEJ010W	HEJ010W	HEJ010W		
CALIB. REF:	QJ31014A	QJ31014A	QJ31014A		

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 (%)
Dinoseb	(ND)|ND	1.00	(0.169J)|0.188J	(17*)|19*	1.00	(0.395J)|0.466	(40)|47	(80*)|85*	20-100	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 (%)
2,4-DCPAA	10.00	(5.244)|4.820	(52.4)|48.2	10.00	(8.638)|8.358	(86.4)|83.6	40-140

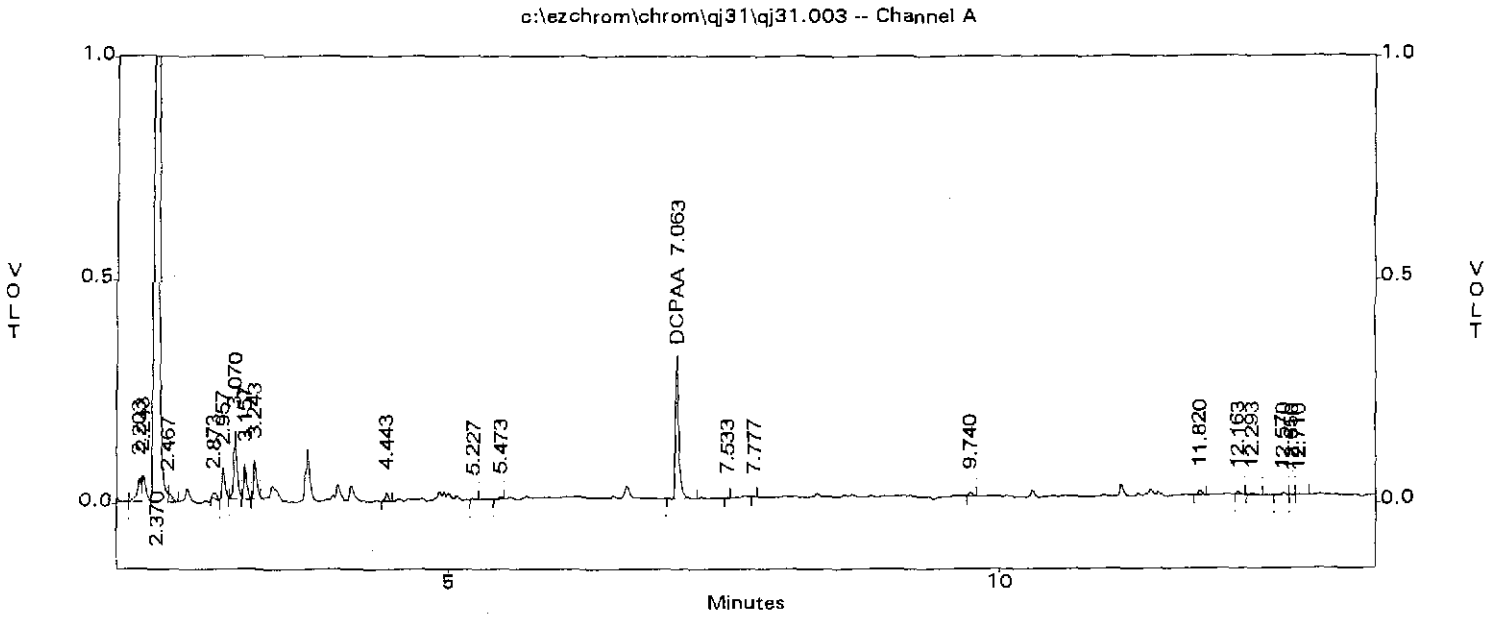
QC DATA

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.003
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HEJ010WB
Acquired : Oct 31, 2012 16:31:01
Printed : Nov 01, 2012 09:36:11
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	0.0	0.00	0.00	--
3,5 Dichlorobenzo	6.223	0.0	0.00	0.00	--
4-Nitrophenol	6.830	0.0	0.00	0.00	--
DCPAA	7.063	710888.0	717.28	991.08	BV
Dicamba	7.250	0.0	0.00	0.00	--
MCPP	7.447	0.0	0.00	0.00	--
MCPA	7.590	0.0	0.00	0.00	--
DCP	7.933	0.0	0.00	0.00	--
2,4-D	8.133	0.0	0.00	0.00	--
Pentachlorophenol	8.347	0.0	0.00	0.00	--
Silvex	8.827	0.0	0.00	0.00	--
Chloramben	8.950	0.0	0.00	0.00	--
2,4,5-T	9.040	0.0	0.00	0.00	--
2,4-DB	9.437	0.0	0.00	0.00	--
Bentazon/Picloram	10.057	0.0	0.00	0.00	--
Dinoseb	10.163	0.0	0.00	0.00	--
Dacthal	10.337	0.0	0.00	0.00	--
Acifluorfen	11.783	0.0	0.00	0.00	--



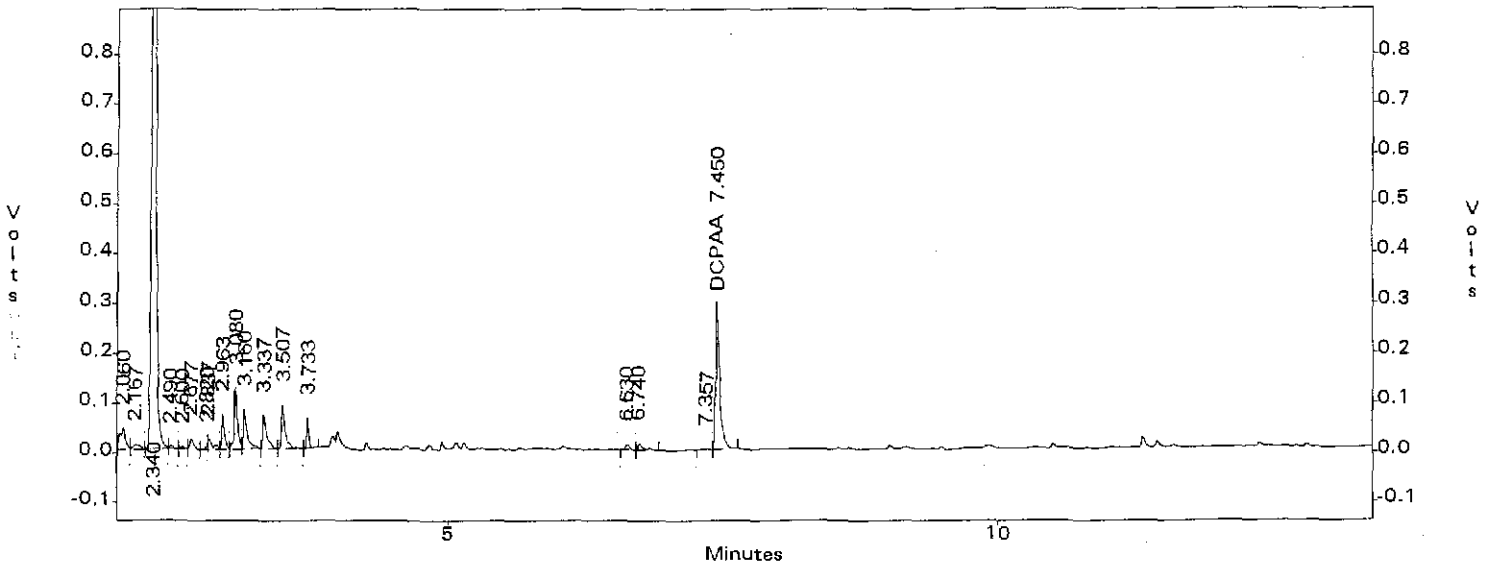
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.003
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HEJ010WB
Acquired : Oct 31, 2012 16:31:01
Printed : Nov 01, 2012 09:36:11
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	0.0	0.00	0.00	--
3,5 Dichlorobenzoic	6.390	0.0	0.00	0.00	--
4-Nitrophenol	6.970	0.0	0.00	0.00	--
DCPAA	7.450	771329.0	812.00	949.91	SI
Dicamba	7.633	0.0	0.00	0.00	--
MCPP	7.740	0.0	0.00	0.00	--
MCPA	7.960	0.0	0.00	0.00	--
DCP	8.267	0.0	0.00	0.00	--
2,4-D	8.530	0.0	0.00	0.00	--
Pentachlorophenol	8.877	0.0	0.00	0.00	--
Silvex	9.167	0.0	0.00	0.00	--
2,4,5-T	9.447	0.0	0.00	0.00	--
Chloramben	9.487	0.0	0.00	0.00	--
2,4-DB	9.797	0.0	0.00	0.00	--
Dinoseb	10.013	0.0	0.00	0.00	--
Bentazon	10.370	0.0	0.00	0.00	--
Dacthal	10.590	0.0	0.00	0.00	--
Picloram	10.633	0.0	0.00	0.00	--
Acifluorfen	11.793	0.0	0.00	0.00	--

c:\ezchrom\chrom\qj31\qj31.003 -- Channel B

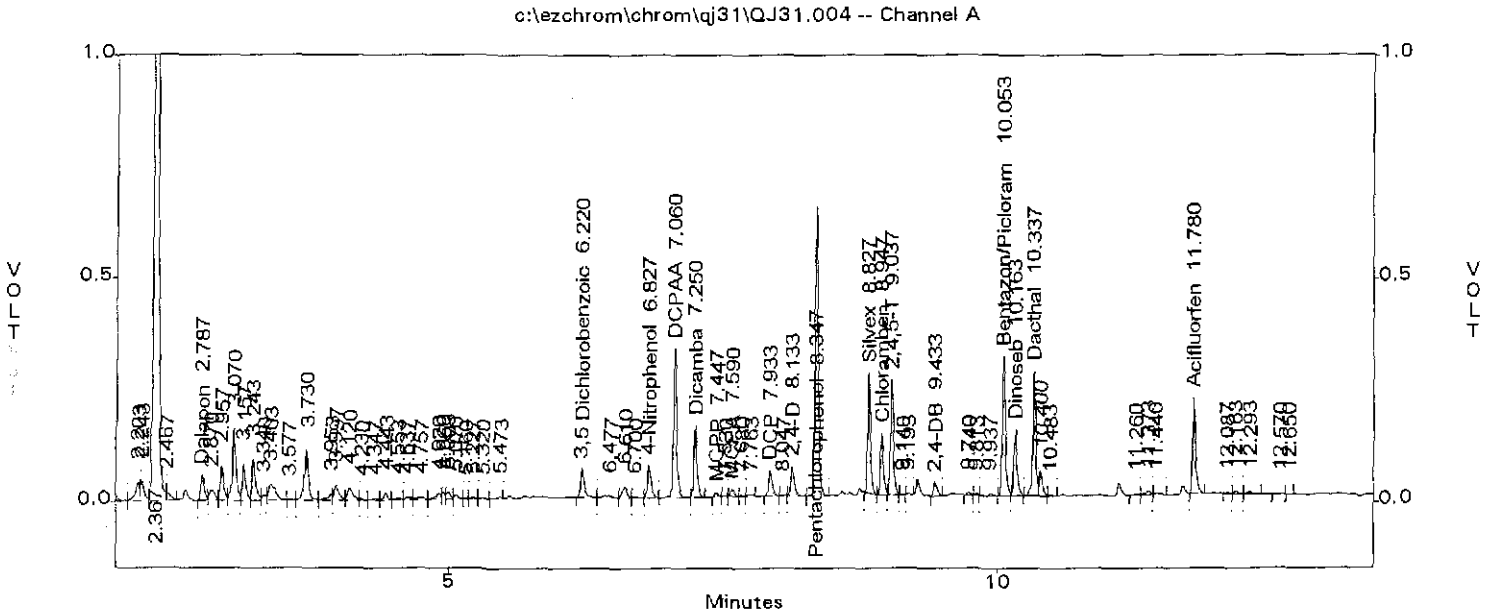


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\QJ31.004
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HEJ010WL
Acquired : Oct 31, 2012 16:51:12
Printed : Nov 01, 2012 08:28:36
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	134400.0	1669.16	80.52	BV
3,5 Dichlorobenzo	6.220	148414.0	1582.76	93.77	BV
4-Nitrophenol	6.827	171279.0	994.81	172.17	VV
DCPAA	7.060	712969.0	717.28	993.98	VV
Dicamba	7.250	330179.0	3332.79	99.07	VV
MCPP	7.447	21055.0	3.75	5610.49	BV
MCPA	7.590	36737.0	7.75	4738.98	xV
DCP	7.933	125050.0	1133.12	110.36	BV
2,4-D	8.133	151806.0	1424.90	106.54	VV
Pentachlorophenol	8.347	1280250.0	12876.92	99.42	VV
Silvex	8.827	491867.0	5252.30	93.65	BV
Chloramben	8.947	270723.0	4138.84	65.41	VV
2,4,5-T	9.037	505568.0	5436.08	93.00	VV
2,4-DB	9.433	71136.0	733.46	96.99	BV
Bentazon/Picloram	10.053	651494.0	3836.73	169.80	VV
Dinoseb	10.163	296747.0	3981.06	74.54	VV
Dacthal	10.337	526665.0	6309.82	83.47	VV
Acifluorfen	11.780	422020.0	4861.40	86.81	BV

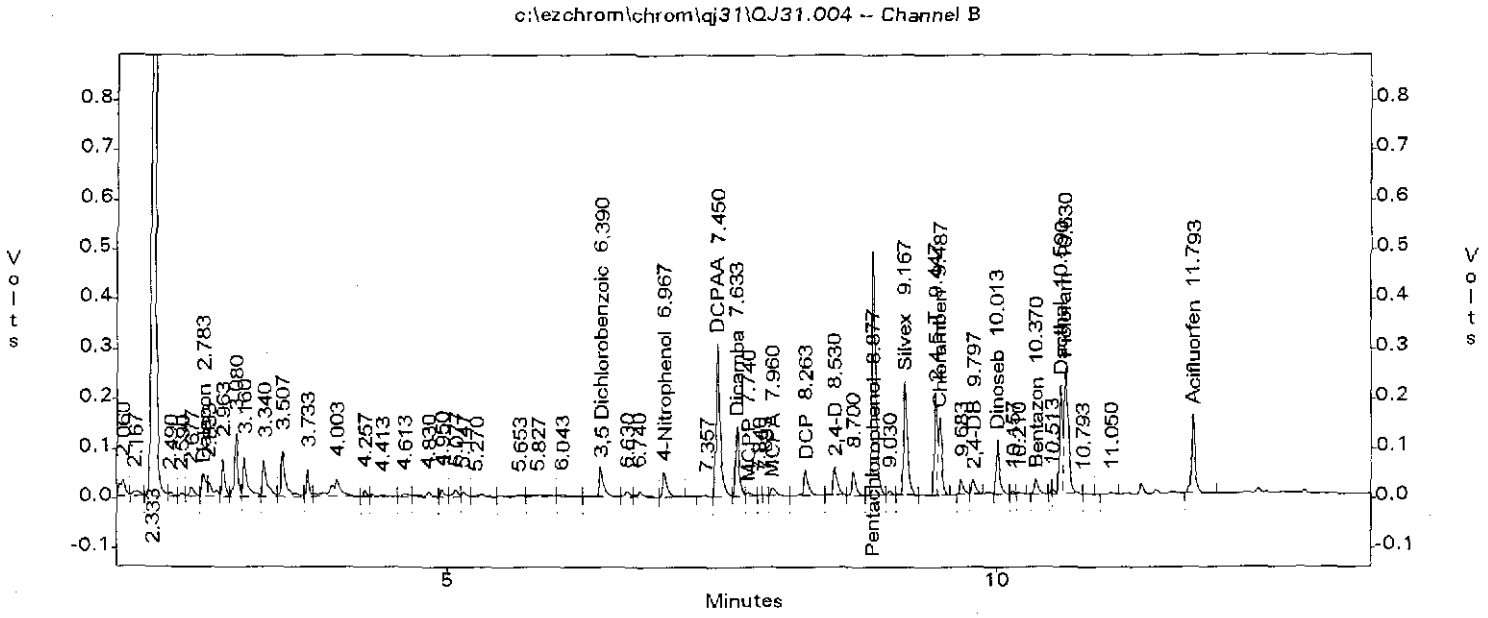


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\QJ31.004
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HEJ010WL
Acquired : Oct 31, 2012 16:51:12
Printed : Nov 01, 2012 08:28:36
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	121716.0	1263.67	96.32	Vx
3,5 Dichlorobenzoic	6.390	163345.0	1675.04	97.52	VV
4-Nitrophenol	6.967	137660.0	738.33	186.45	VV
DCPAA	7.450	801454.0	812.00	987.01	SV
Dicamba	7.633	318512.0	3231.74	98.56	VS
MCPP	7.740	25889.0	5.17	5008.54	SV
MCPA	7.960	58341.0	10.00	5836.95	SV
DCP	8.263	145713.0	1198.60	121.57	VV
2,4-D	8.530	150516.0	1382.77	108.85	VV
Pentachlorophenol	8.877	1150541.0	11546.42	99.64	VS
Silvex	9.167	538038.0	4667.02	115.29	VS
2,4,5-T	9.447	359573.0	3607.14	99.68	Sx
Chloramben	9.487	370066.0	4751.55	77.88	xV
2,4-DB	9.797	67993.0	713.67	95.27	VV
Dinoseb	10.013	232092.0	2604.65	89.11	BV
Bentazon	10.370	73235.0	620.24	118.08	xV
Dacthal	10.590	382378.0	4296.46	89.00	Sx
Picloram	10.630	712325.0	7077.91	100.64	xS
Acifluorfen	11.793	349347.0	2674.64	130.61	BI

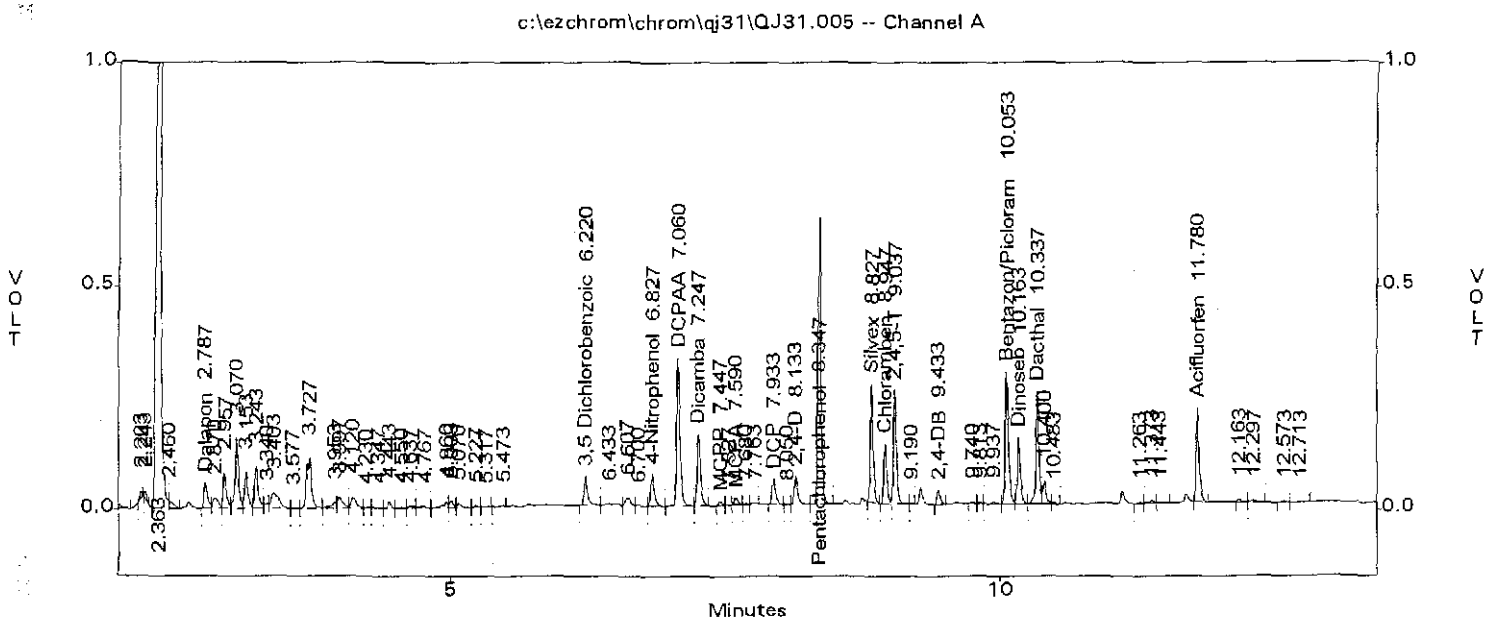


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\QJ31.005
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HEJ010WC
Acquired : Oct 31, 2012 17:11:25
Printed : Nov 01, 2012 08:28:39
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	133606.0	1669.16	80.04	BV
3,5 Dichlorobenzo	6.220	141037.0	1582.76	89.11	BV
4-Nitrophenol	6.827	165502.0	994.81	166.36	VV
DCPAA	7.060	701486.0	717.28	977.97	VV
Dicamba	7.247	322040.0	3332.79	96.63	VV
MCPP	7.447	20904.0	3.75	5570.25	BV
MCPA	7.590	36121.0	7.75	4659.52	xV
DCP	7.933	123012.0	1133.12	108.56	BV
2,4-D	8.133	145860.0	1424.90	102.37	VV
Pentachlorophenol	8.347	1262105.0	12876.92	98.01	Vx
Silvex	8.827	484057.0	5252.30	92.16	BV
Chloramben	8.947	265052.0	4138.84	64.04	VV
2,4,5-T	9.037	502322.0	5436.08	92.41	VV
2,4-DB	9.433	70401.0	733.46	95.99	BV
Bentazon/Picloram	10.053	623485.0	3836.73	162.50	VV
Dinoseb	10.163	293346.0	3981.06	73.69	VV
Dacthal	10.337	470954.0	6309.82	74.64	VV
Acifluorfen	11.780	409011.0	4861.40	84.13	BV

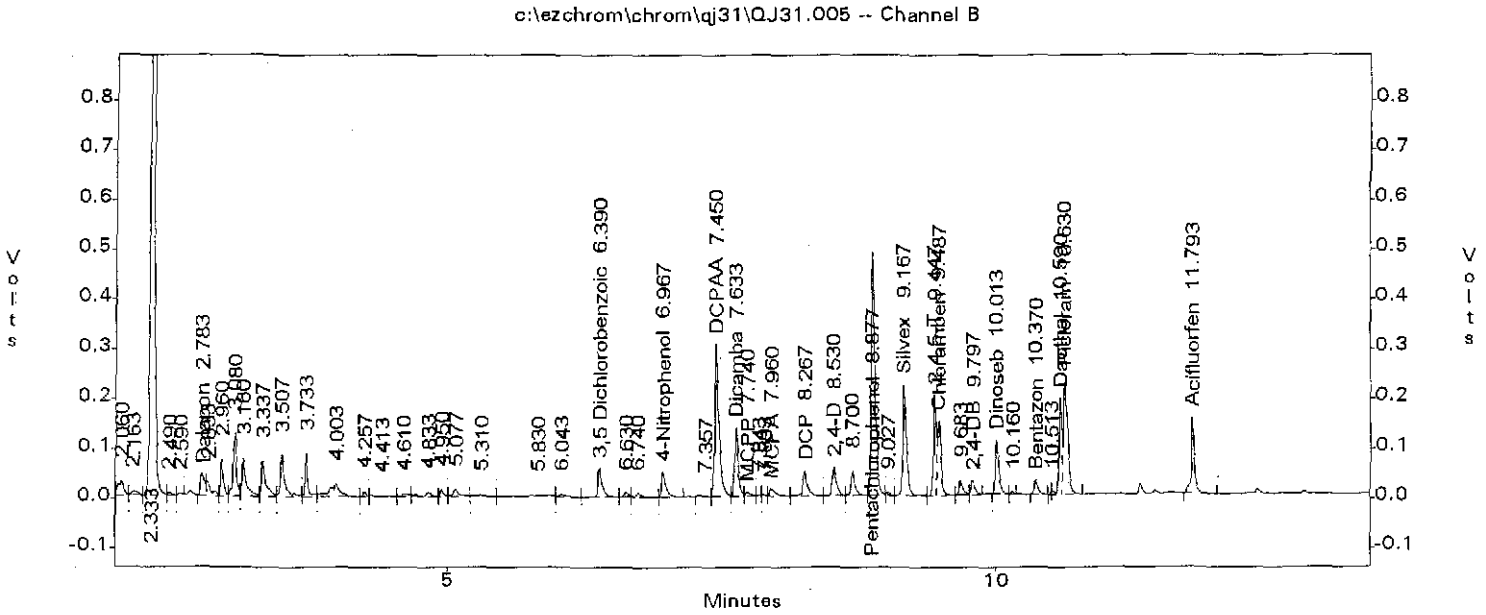


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\QJ31.005
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HEJ010WC
Acquired : Oct 31, 2012 17:11:25
Printed : Nov 01, 2012 08:28:39
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	112625.0	1263.67	89.13	Sx
3,5 Dichlorobenzoic	6.390	157703.0	1675.04	94.15	VV
4-Nitrophenol	6.967	137250.0	738.33	185.89	VV
DCPAA	7.450	798405.0	812.00	983.26	SV
Dicamba	7.633	313997.0	3231.74	97.16	VS
MCPP	7.740	25910.0	5.17	5012.60	SV
MCPA	7.960	56746.0	10.00	5677.37	SV
DCP	8.267	142193.0	1198.60	118.63	VV
2,4-D	8.530	145924.0	1382.77	105.53	VV
Pentachlorophenol	8.877	1139927.0	11546.42	98.73	VS
Silvex	9.167	525947.0	4667.02	112.69	VV
2,4,5-T	9.447	342952.0	3607.14	95.08	Sx
Chloramben	9.487	366401.0	4751.55	77.11	xV
2,4-DB	9.797	68038.0	713.67	95.34	VV
Dinoseb	10.013	237349.0	2604.65	91.12	BV
Bentazon	10.370	68216.0	620.24	109.98	xV
Dacthal	10.590	338117.0	4296.46	78.70	Sx
Picloram	10.630	662897.0	7077.91	93.66	xS
Acifluorfen	11.793	340679.0	2674.64	127.37	BI

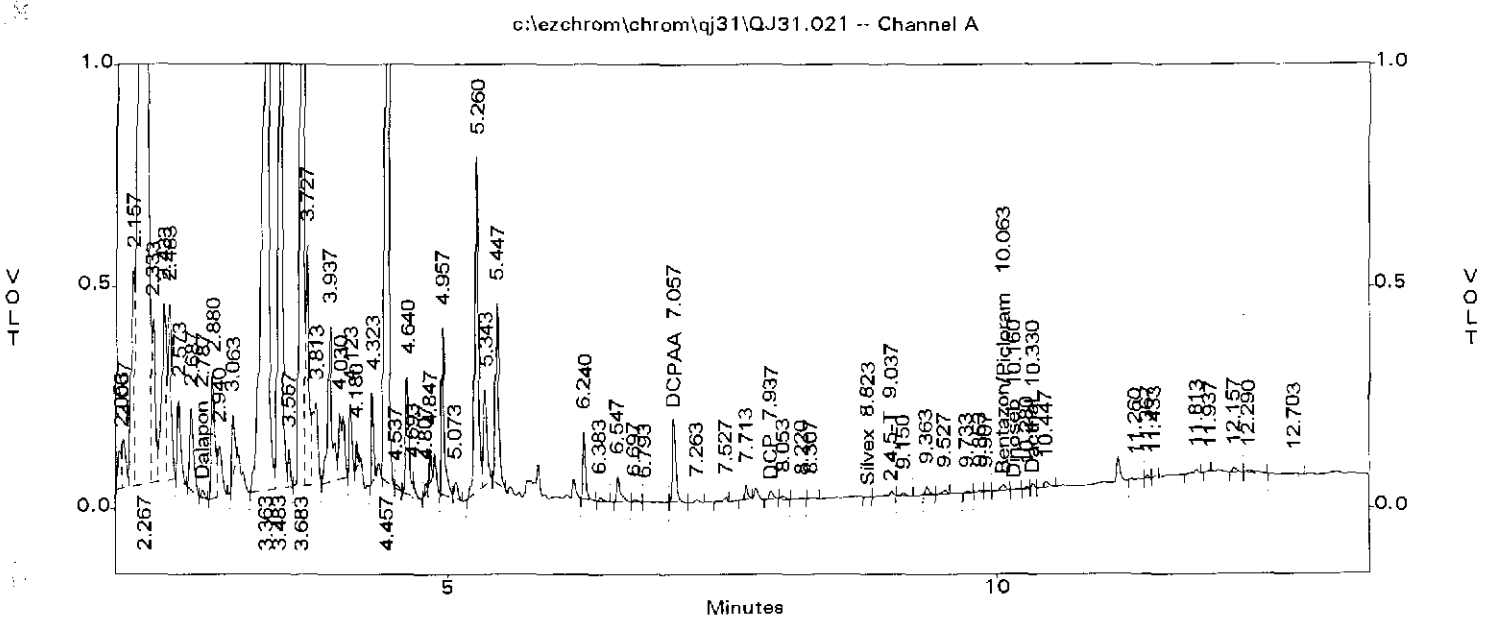


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\QJ31.021
Method : c:\ezchrom\methods\he09j30.met
Sample ID : J182-02
Acquired : Oct 31, 2012 22:36:23
Printed : Nov 01, 2012 08:33:33
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	32886.0	1669.16	19.70	VV
3,5 Dichlorobenzo	6.217	0.0	0.00	0.00	--
4-Nitrophenol	6.823	0.0	0.00	0.00	--
DCPAA	7.057	424208.0	717.28	591.41	VV
Dicamba	7.243	0.0	0.00	0.00	--
MCPP	7.440	0.0	0.00	0.00	--
MCPA	7.583	0.0	0.00	0.00	--
DCP	7.937	48548.0	1133.12	42.84	BV
2,4-D	8.130	0.0	0.00	0.00	--
Pentachlorophenol	8.340	0.0	0.00	0.00	--
Silvex	8.823	3553.0	5252.30	0.68	BV
Chloramben	8.943	0.0	0.00	0.00	--
2,4,5-T	9.037	21978.0	5436.08	4.04	VV
2,4-DB	9.430	0.0	0.00	0.00	--
Bentazon/Picloram	10.063	43845.0	3836.73	11.43	VV
Dinoseb	10.160	7740.0	3981.06	1.94	VV
Dacthal	10.330	21834.0	6309.82	3.46	SV
Acifluorfen	11.777	0.0	0.00	0.00	--



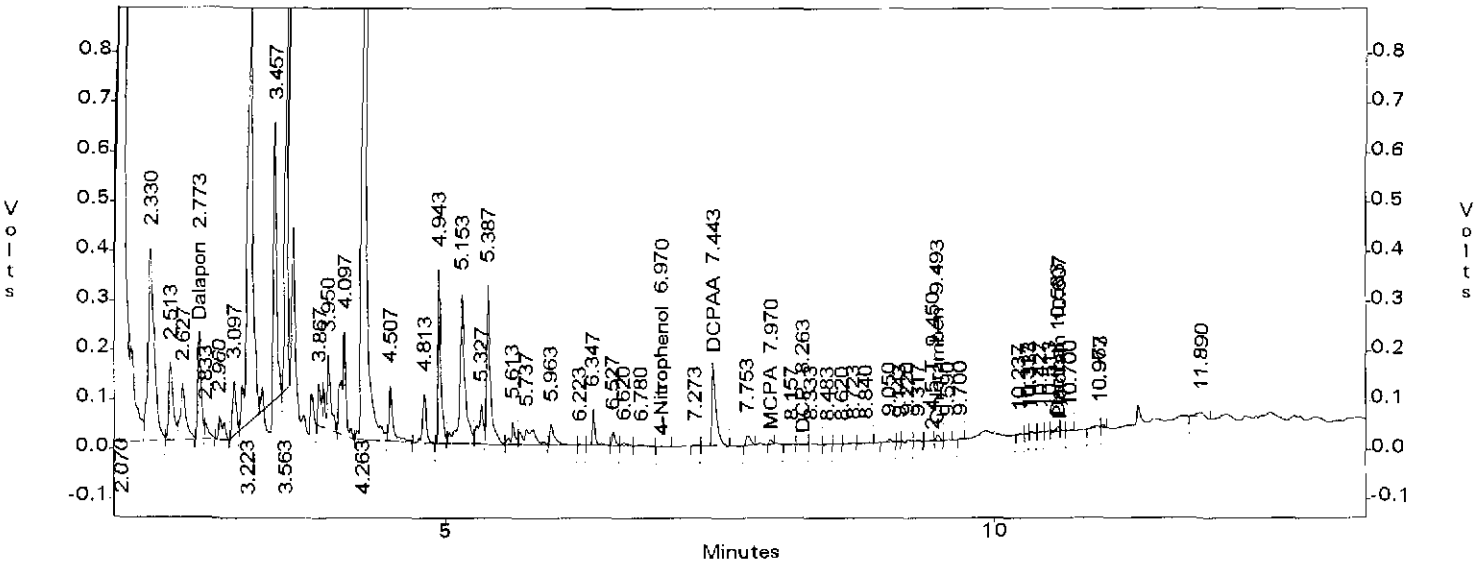
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\QJ31.021
Method : c:\ezchrom\methods\he09j30.met
Sample ID : J182-02
Acquired : Oct 31, 2012 22:36:23
Printed : Nov 01, 2012 08:33:33
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.773	503313.0	1263.67	398.30	Vx
3,5 Dichlorobenzoic	6.387	0.0	0.00	0.00	--
4-Nitrophenol	6.970	5320.0	738.33	7.21	VV
DCPAA	7.443	438891.0	812.00	540.51	SS
Dicamba	7.627	0.0	0.00	0.00	--
MCPP	7.737	0.0	0.00	0.00	--
MCPA	7.970	16023.0	10.00	1603.08	SS
DCP	8.263	6493.0	1198.60	5.42	SS
2,4-D	8.527	0.0	0.00	0.00	--
Pentachlorophenol	8.873	0.0	0.00	0.00	--
Silvex	9.163	0.0	0.00	0.00	--
2,4,5-T	9.450	3612.0	3607.14	1.00	Vx
Chloramben	9.493	24793.0	4751.55	5.22	xV
2,4-DB	9.793	0.0	0.00	0.00	--
Dinoseb	10.010	0.0	0.00	0.00	--
Bentazon	10.367	0.0	0.00	0.00	--
Dacthal	10.583	29674.0	4296.46	6.91	Sx
Picloram	10.607	5025.0	7077.91	0.71	xV
Acifluorfen	11.790	0.0	0.00	0.00	--

c:\ezchrom\chrom\qj31\QJ31.021 -- Channel B

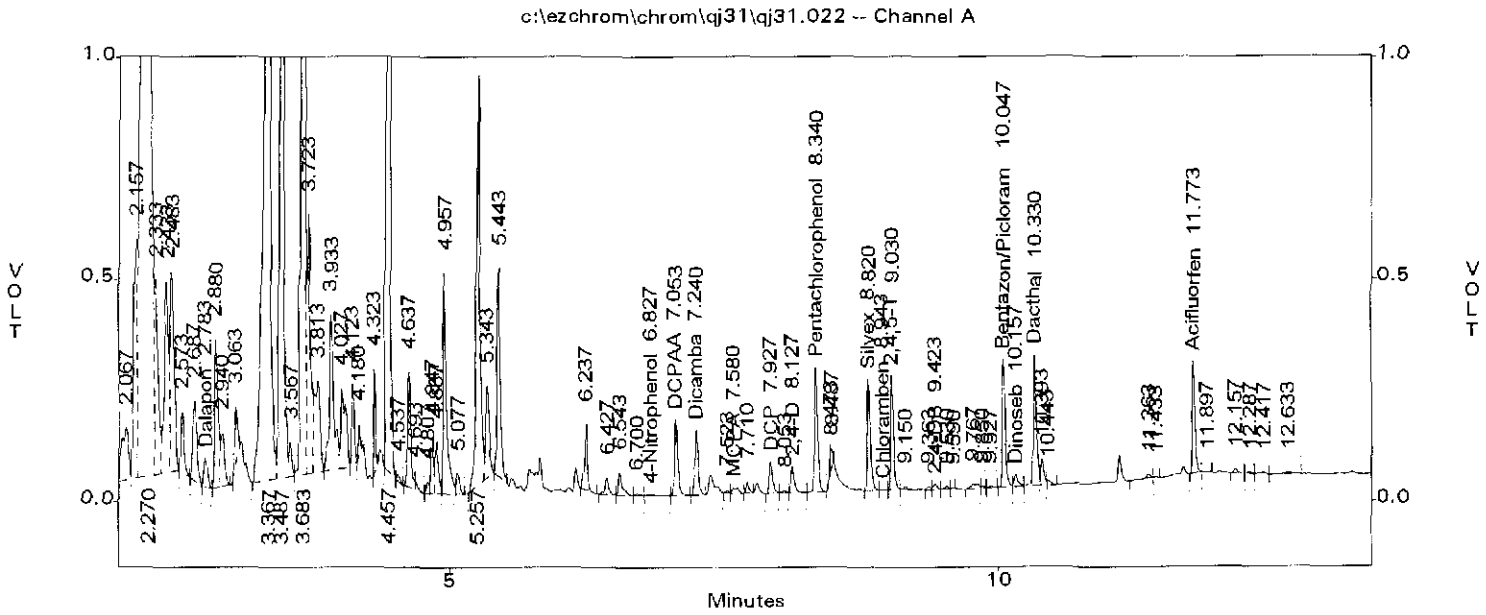


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.022
Method : c:\ezchrom\methods\he09j30.met
Sample ID : J182-02M
Acquired : Oct 31, 2012 22:56:40
Printed : Nov 07, 2012 15:15:36
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	133779.0	1669.16	80.15	VV
3,5 Dichlorobenzo	6.217	0.0	0.00	0.00	--
4-Nitrophenol	6.827	18647.0	994.81	18.74	VV
DCPAA	7.053	376156.0	717.28	524.42	VV
Dicamba	7.240	304390.0	3332.79	91.33	VV
MCPP	7.440	0.0	0.00	0.00	--
MCPA	7.580	44342.0	7.75	5720.01	VV
DCP	7.927	159666.0	1133.12	140.91	BV
2,4-D	8.127	135625.0	1424.90	95.18	VV
Pentachlorophenol	8.340	566689.0	12876.92	44.01	VV
Silvex	8.820	475979.0	5252.30	90.62	BV
Chloramben	8.943	4835.0	4138.84	1.17	VV
2,4,5-T	9.030	493852.0	5436.08	90.85	VV
2,4-DB	9.423	28179.0	733.46	38.42	SV
Bentazon/Picloram	10.047	598978.0	3836.73	156.12	VV
Dinoseb	10.157	67093.0	3981.06	16.85	VV
Dacthal	10.330	553815.0	6309.82	87.77	VS
Acifluorfen	11.773	471520.0	4861.40	96.99	BV

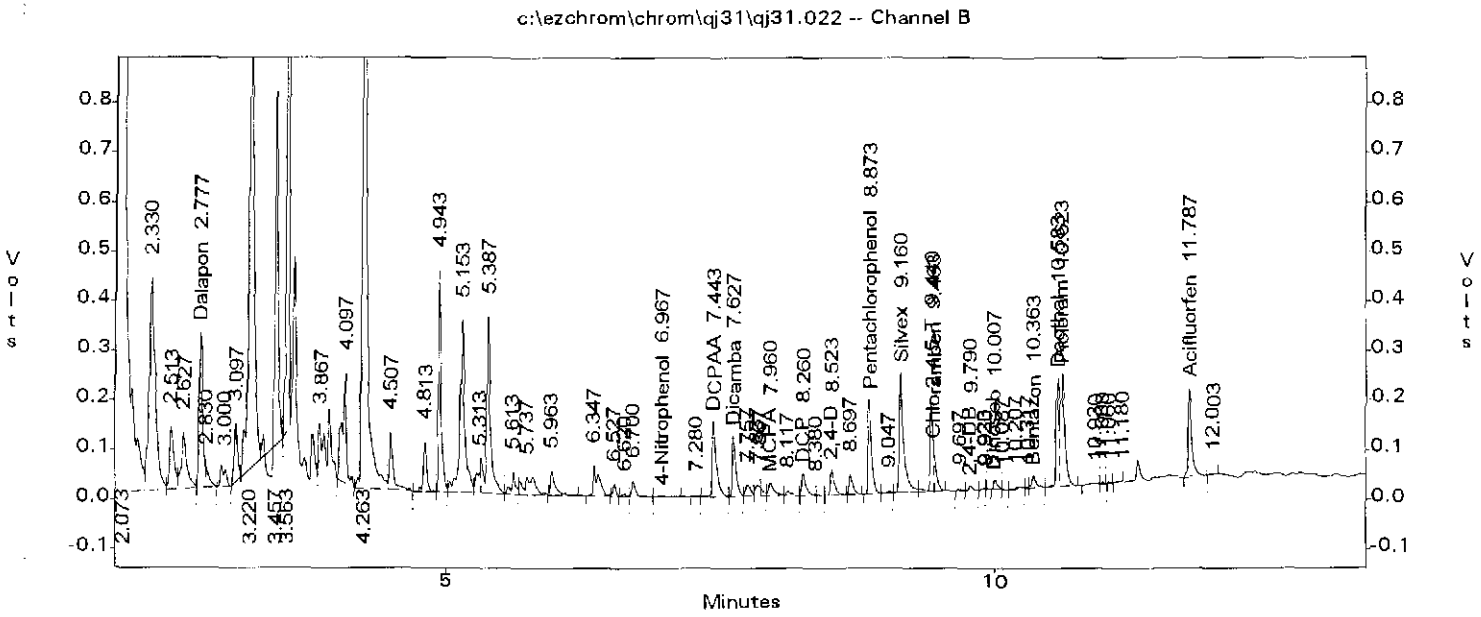


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.022
Method : c:\ezchrom\methods\he09j30.met
Sample ID : J182-02M
Acquired : Oct 31, 2012 22:56:40
Printed : Nov 07, 2012 15:15:36
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.777	736186.0	1263.67	582.58	Vx
3,5 Dichlorobenzoic	6.387	0.0	0.00	0.00	--
4-Nitrophenol	6.967	7767.0	738.33	10.52	VV
DCPAA	7.443	391350.0	812.00	481.96	SV
Dicamba	7.627	275441.0	3231.74	85.23	VV
MCPP	7.737	0.0	0.00	0.00	--
MCPA	7.960	91151.0	10.00	9119.55	VV
DCP	8.260	120177.0	1198.60	100.26	VS
2,4-D	8.523	124803.0	1382.77	90.26	VV
Pentachlorophenol	8.873	415008.0	11546.42	35.94	VV
Silvex	9.160	676090.0	4667.02	144.87	SS
2,4,5-T	9.440	362425.0	3607.14	100.47	Sx
Chloramben	9.463	114843.0	4751.55	24.17	xS
2,4-DB	9.790	27957.0	713.67	39.17	MM
Dinoseb	10.007	48965.0	2604.65	18.80	MM
Bentazon	10.363	76115.0	620.24	122.72	xV
Dacthal	10.583	398670.0	4296.46	92.79	Vx
Picloram	10.623	624838.0	7077.91	88.28	xV
Acifluorfen	11.787	404146.0	2674.64	151.10	SV

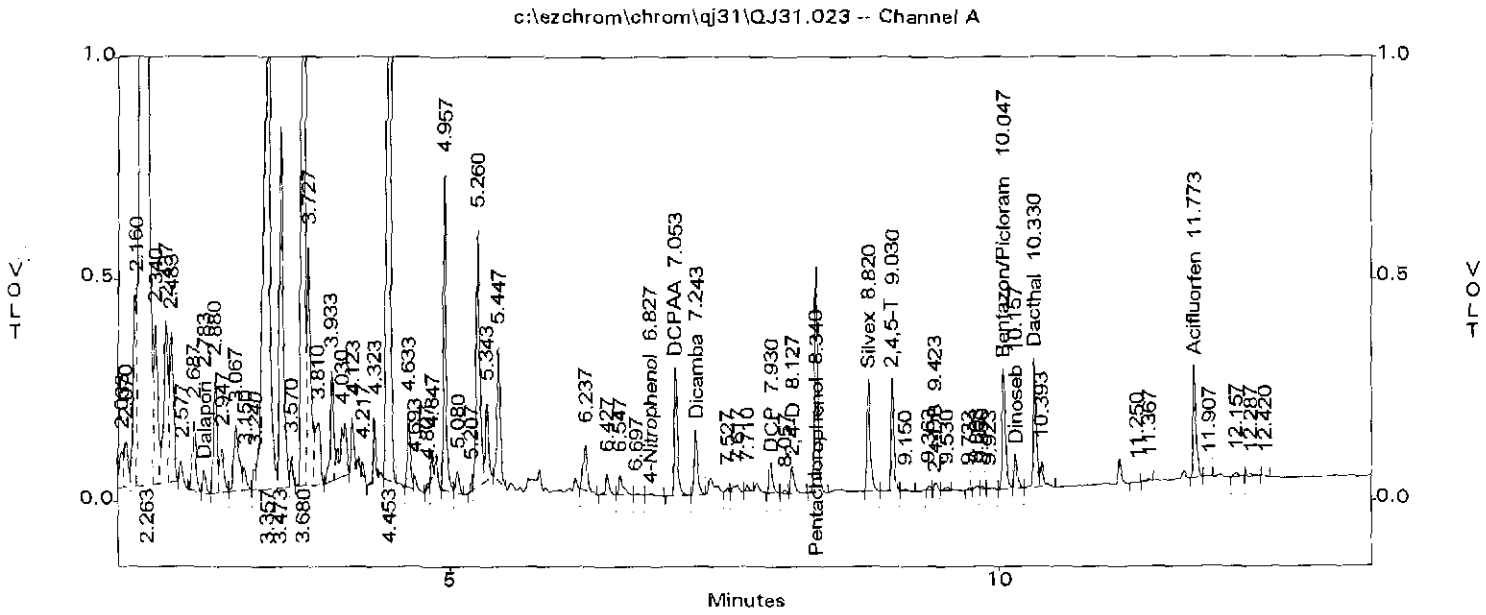


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\QJ31.023
Method : c:\ezchrom\methods\he09j30.met
Sample ID : J182-02S
Acquired : Oct 31, 2012 23:17:05
Printed : Nov 01, 2012 08:33:38
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	105126.0	1669.16	62.98	VV
3,5 Dichlorobenzo	6.217	0.0	0.00	0.00	--
4-Nitrophenol	6.827	13300.0	994.81	13.37	VV
DCPAA	7.053	619584.0	717.28	863.79	VV
Dicamba	7.243	304953.0	3332.79	91.50	VV
MCPP	7.440	0.0	0.00	0.00	--
MCPA	7.583	0.0	0.00	0.00	--
DCP	7.930	158445.0	1133.12	139.83	BV
2,4-D	8.127	138760.0	1424.90	97.38	SV
Pentachlorophenol	8.340	1020348.0	12876.92	79.24	VV
Silvex	8.820	480242.0	5252.30	91.43	BV
Chloramben	8.943	0.0	0.00	0.00	--
2,4,5-T	9.030	487505.0	5436.08	89.68	VV
2,4-DB	9.423	34875.0	733.46	47.55	VV
Bentazon/Picloram	10.047	569119.0	3836.73	148.33	VV
Dinoseb	10.157	157159.0	3981.06	39.48	VV
Dacthal	10.330	543375.0	6309.82	86.12	VS
Acifluorfen	11.773	485040.0	4861.40	99.77	BV



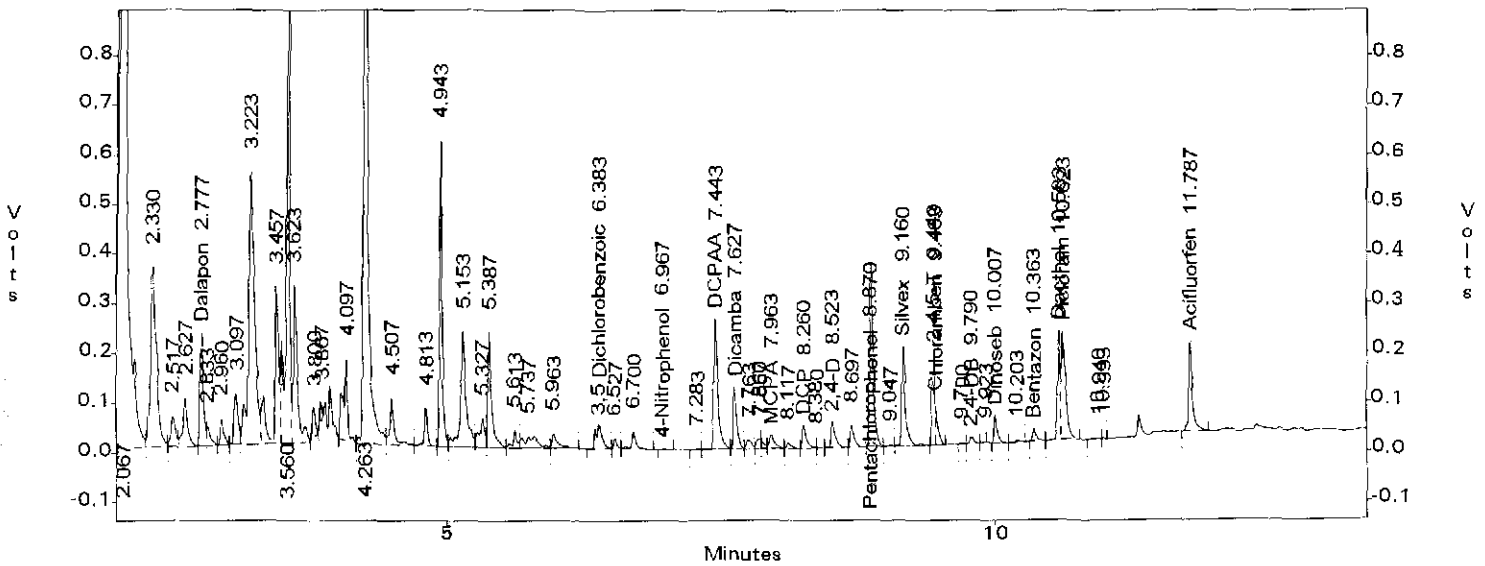
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\QJ31.023
Method : c:\ezchrom\methods\he09j30.met
Sample ID : J182-02S
Acquired : Oct 31, 2012 23:17:05
Printed : Nov 01, 2012 08:33:39
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.777	528574.0	1263.67	418.29	Vx
3,5 Dichlorobenzoic	6.383	189213.0	1675.04	112.96	VV
4-Nitrophenol	6.967	5616.0	738.33	7.61	VV
DCPAA	7.443	678656.0	812.00	835.78	SV
Dicamba	7.627	279725.0	3231.74	86.56	VV
MCPP	7.737	0.0	0.00	0.00	--
MCPA	7.963	97073.0	10.00	9712.04	VV
DCP	8.260	122709.0	1198.60	102.38	VS
2,4-D	8.523	131688.0	1382.77	95.23	VV
Pentachlorophenol	8.870	854288.0	11546.42	73.99	VV
Silvex	9.160	498374.0	4667.02	106.79	SV
2,4,5-T	9.440	329587.0	3607.14	91.37	Sx
Chloramben	9.463	114707.0	4751.55	24.14	xS
2,4-DB	9.790	32611.0	713.67	45.69	SV
Dinoseb	10.007	121312.0	2604.65	46.58	BV
Bentazon	10.363	60159.0	620.24	96.99	xV
Dacthal	10.583	393342.0	4296.46	91.55	Vx
Picloram	10.623	603029.0	7077.91	85.20	xV
Acifluorfen	11.787	429547.0	2674.64	160.60	SV

c:\ezchrom\chrom\qj31\QJ31.023 -- Channel B



INITIAL CALIBRATIONS

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
LFID & Datetime: QJ30002A 10/30/12 14:21
LFID & Datetime: QJ30003A 10/30/12 14:41
LFID & Datetime: QJ30004A 10/30/12 15:01
LFID & Datetime: QJ30005A 10/30/12 15:21
LFID & Datetime: QJ30006A 10/30/12 15:41
LFID & Datetime: QJ30007A 10/30/12 16:02
LFID & Datetime: QJ30008A 10/30/12 16:22
LFID & Datetime: QJ30009A 10/30/12 16:42
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA)/UNIT 1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
Dalapon	10.00	0	2100	1798	1725	1650	1604	1569	1518	1709.2	11.5
3,5-Dichlorobenzo	10.00	0	1849	1627	1530	1462	1403	1364	1318	1507.6	12.1
4-Nitrophenol	10.00	0	1262	1135	1076	1032	989	956	913	1051.9	11.3
Dicamba	10.00	0	3955	3470	3393	3306	3220	3176	3080	3371.5	8.6
MCPP	500.00	0	0	4	5	5	5	5	4	4.6	6.2
MCPA	500.00	0	0	9	9	8	8	8	7	8.3	9.8
Dichloroprop	10.00	0	1423	1286	1201	1152	1104	1076	1032	1182.1	11.4
2,4-D	10.00	0	1671	1733	1522	1470	1398	1357	1297	1492.5	10.8
Pentachlorophenol	10.00	13840	15310	13553	12814	12438	12041	11834	11063	12861.5	10.4
2,4,5-TP(Silvex)	10.00	0	5969	5442	5357	5250	5112	5047	4876	5293.3	6.7
Chloramben	10.00	0	4121	3929	4080	4122	4091	4095	4013	4064.3	1.7
2,4,5-T	10.00	0	6639	5993	5769	5570	5369	5250	5044	5662.1	9.5
2,4-DB	10.00	0	831	770	758	739	721	712	694	746.3	6.1
Bentazon/Picloram	20.00	4728	4333	4002	4063	4036	3964	3937	3839	4112.7	7.0
Dinoseb	10.00	0	5532	4816	4563	4357	4193	4052	3878	4484.4	12.4
Dacthal	10.00	0	7375	6677	6205	6304	6134	6048	5839	6368.7	8.0
Acifluorfen	10.00	0	5759	5138	5178	5049	4980	4912	4787	5114.7	6.1

SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
2,4-DCPAA	100.00	0	933	803	725	684	652	636	611	720.5	15.7

11/02/12

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: QJ30002B 10/30/12 14:21
LFID & Datetime: QJ30003B 10/30/12 14:41
LFID & Datetime: QJ30004B 10/30/12 15:01
LFID & Datetime: QJ30005B 10/30/12 15:21
LFID & Datetime: QJ30006B 10/30/12 15:41
LFID & Datetime: QJ30007B 10/30/12 16:02
LFID & Datetime: QJ30008B 10/30/12 16:22
LFID & Datetime: QJ30009B 10/30/12 16:42
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA)/UNIT 1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
Dalapon	10.00	0	1407	1328	1294	1240	1243	1311	1308	1304.2	4.3
3,5-Dichlorobenzo	10.00	0	1929	1757	1666	1612	1559	1531	1476	1647.3	9.4
4-Nitrophenol	10.00	0	1125	956	900	851	819	788	752	884.3	14.3
Dicamba	10.00	0	3638	3355	3325	3283	3226	3212	3159	3313.9	4.8
MCPP	500.00	0	0	5	6	5	5	5	6	5.4	4.2
MCPA	500.00	0	0	13	12	10	10	9	9	10.5	13.7
Dichloroprop	10.00	0	1587	1382	1285	1225	1177	1153	1117	1275.0	12.8
2,4-D	10.00	0	1722	1535	1462	1420	1373	1349	1300	1451.6	9.8
Pentachlorophenol	10.00	11146	13426	12254	12194	12026	11780	11702	11382	11988.8	5.8
2,4,5-TP(Silvex)	10.00	0	5375	4924	4938	4927	4860	4851	4749	4946.3	4.0
Chloramben	10.00	0	4992	4695	4801	5128	5144	5163	5057	4997.1	3.7
2,4,5-T	10.00	0	4317	3923	3974	3658	3556	3528	3441	3771.0	8.3
2,4-DB	10.00	0	830	820	770	759	781	734	709	771.7	5.6
Dinoseb	10.00	0	3822	3523	3387	3446	3355	3343	3268	3449.0	5.3
Bentazon	10.00	0	871	755	709	667	653	649	632	705.1	12.0
Dacthal	10.00	0	5222	4813	4764	4554	4460	4405	4342	4651.5	6.6
Picloram	10.00	0	7276	7015	7436	7872	7911	7992	7862	7623.5	5.0
Acifluorfen	10.00	0	4287	3920	4013	4021	4022	4010	3963	4033.7	2.9

SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
2,4-DCPAA	100.00	0	1079	907	841	802	770	753	726	839.8	14.5

jm 11/02/12

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
LFID & Datetime: QJ30002A 10/30/12 14:21
LFID & Datetime: QJ30003A 10/30/12 14:41
LFID & Datetime: QJ30004A 10/30/12 15:01
LFID & Datetime: QJ30005A 10/30/12 15:21
LFID & Datetime: QJ30006A 10/30/12 15:41
LFID & Datetime: QJ30007A 10/30/12 16:02
LFID & Datetime: QJ30008A 10/30/12 16:22
LFID & Datetime: QJ30009A 10/30/12 16:42

COMPOUND	RT OF STANDARDS (MIN) 1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	MEAN RT	RT WINDOW FROM	TO	RTWINDOW WIDTH
Dalapon	2.793	2.790	2.790	2.787	2.787	2.787	2.787	2.787	2.788	2.774	2.802	0.014
3,5-Dichlorobenzo	6.223	6.220	6.220	6.217	6.217	6.217	6.217	6.217	6.218	6.204	6.232	0.014
4-Nitrophenol	6.837	6.830	6.830	6.827	6.827	6.823	6.823	6.823	6.826	6.812	6.840	0.014
Dicamba	7.253	7.247	7.247	7.247	7.243	7.243	7.243	7.243	7.245	7.231	7.259	0.014
MCPP	0.000	7.447	7.447	7.443	7.443	7.443	7.440	7.440	7.443	7.429	7.457	0.014
MCPA	7.600	7.590	7.590	7.587	7.583	7.583	7.583	7.583	7.585	7.569	7.601	0.016
Dichloroprop	7.937	7.933	7.930	7.930	7.930	7.927	7.927	7.927	7.929	7.915	7.943	0.014
2,4-D	8.140	8.133	8.133	8.130	8.130	8.130	8.127	8.127	8.130	8.114	8.146	0.016
Pentachlorophenol	8.350	8.343	8.343	8.340	8.340	8.340	8.340	8.340	8.342	8.326	8.358	0.016
2,4,5-TP(Silvex)	8.830	8.827	8.823	8.823	8.823	8.820	8.820	8.820	8.822	8.806	8.838	0.016
Chloramben	8.953	8.950	8.950	8.947	8.943	8.943	8.943	8.943	8.946	8.930	8.962	0.016
2,4,5-T	9.040	9.037	9.037	9.033	9.033	9.033	9.033	9.030	9.034	9.018	9.050	0.016
2,4-DB	9.437	9.437	9.437	9.433	9.430	9.430	9.430	9.430	9.432	9.416	9.448	0.016
Bentazon/Picloram	10.060	10.060	10.057	10.053	10.053	10.053	10.053	10.050	10.055	10.041	10.069	0.014
Dinoseb	10.167	10.163	10.163	10.160	10.160	10.160	10.160	10.160	10.161	10.145	10.177	0.016
Dacthal	10.337	10.333	10.333	10.330	10.330	10.333	10.330	10.330	10.331	10.315	10.347	0.016
Acifluorfen	11.783	11.780	11.780	11.777	11.777	11.777	11.777	11.777	11.778	11.764	11.792	0.014
SURROGATE	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
2,4-DCPAA	7.070	7.063	7.060	7.057	7.057	7.057	7.057	7.057	7.058	7.042	7.074	0.016

11/02/12

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: QJ30002B 10/30/12 14:21
LFID & Datetime: QJ30003B 10/30/12 14:41
LFID & Datetime: QJ30004B 10/30/12 15:01
LFID & Datetime: QJ30005B 10/30/12 15:21
LFID & Datetime: QJ30006B 10/30/12 15:41
LFID & Datetime: QJ30007B 10/30/12 16:02
LFID & Datetime: QJ30008B 10/30/12 16:22
LFID & Datetime: QJ30009B 10/30/12 16:42

COMPOUND	RT OF STANDARDS (MIN) 1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	MEAN RT	RT WINDOW FROM	TO	RTWINDOW WIDTH
Dalapon	2.783	2.787	2.787	2.783	2.783	2.783	2.783	2.783	2.784	2.768	2.800	0.016
3,5-Dichlorobenzo	6.387	6.390	6.387	6.387	6.387	6.387	6.387	6.383	6.387	6.371	6.403	0.016
4-Nitrophenol	6.967	6.970	6.967	6.967	6.963	6.963	6.963	6.963	6.965	6.949	6.981	0.016
Dicamba	7.630	7.630	7.630	7.627	7.627	7.627	7.627	7.627	7.628	7.612	7.644	0.016
MCPP	0.000	7.740	7.740	7.737	7.737	7.737	7.737	7.733	7.737	7.721	7.753	0.016
MCPA	0.000	7.963	7.960	7.960	7.957	7.957	7.957	7.957	7.958	7.942	7.974	0.016
Dichloroprop	8.263	8.263	8.263	8.263	8.260	8.260	8.260	8.260	8.261	8.247	8.275	0.014
2,4-D	8.530	8.530	8.530	8.527	8.527	8.527	8.527	8.527	8.528	8.514	8.542	0.014
Pentachlorophenol	8.873	8.877	8.873	8.873	8.873	8.873	8.873	8.873	8.874	8.860	8.888	0.014
2,4,5-TP(Silvex)	9.167	9.167	9.167	9.163	9.163	9.163	9.163	9.163	9.164	9.150	9.178	0.014
Chloramben	9.487	9.487	9.487	9.483	9.483	9.483	9.483	9.483	9.484	9.454	9.514	0.030
2,4,5-T	9.443	9.447	9.447	9.443	9.443	9.443	9.443	9.443	9.444	9.428	9.460	0.016
2,4-DB	9.813	9.797	9.797	9.793	9.793	9.793	9.793	9.793	9.794	9.770	9.818	0.024
Dinoseb	10.010	10.010	10.010	10.010	10.010	10.010	10.010	10.010	10.010	9.994	10.026	0.016
Bentazon	10.360	10.367	10.367	10.363	10.367	10.367	10.367	10.367	10.366	10.350	10.382	0.016
Dacthal	10.587	10.587	10.587	10.583	10.587	10.587	10.587	10.587	10.586	10.570	10.602	0.016
Picloram	10.630	10.633	10.630	10.627	10.627	10.627	10.627	10.627	10.628	10.604	10.652	0.024
Acifluorfen	11.790	11.790	11.790	11.787	11.790	11.790	11.790	11.790	11.790	11.776	11.804	0.014
SURROGATE	**1.0X**	**2.0X**	**4.0X**	**7.0X**	**10.0X**	**13.0X**	**16.0X**	**20.0X**	**RT**	**FROM**	**TO**	**WIDTH**
2,4-DCPAA	7.450	7.450	7.447	7.447	7.447	7.447	7.447	7.443	7.447	7.431	7.463	0.016

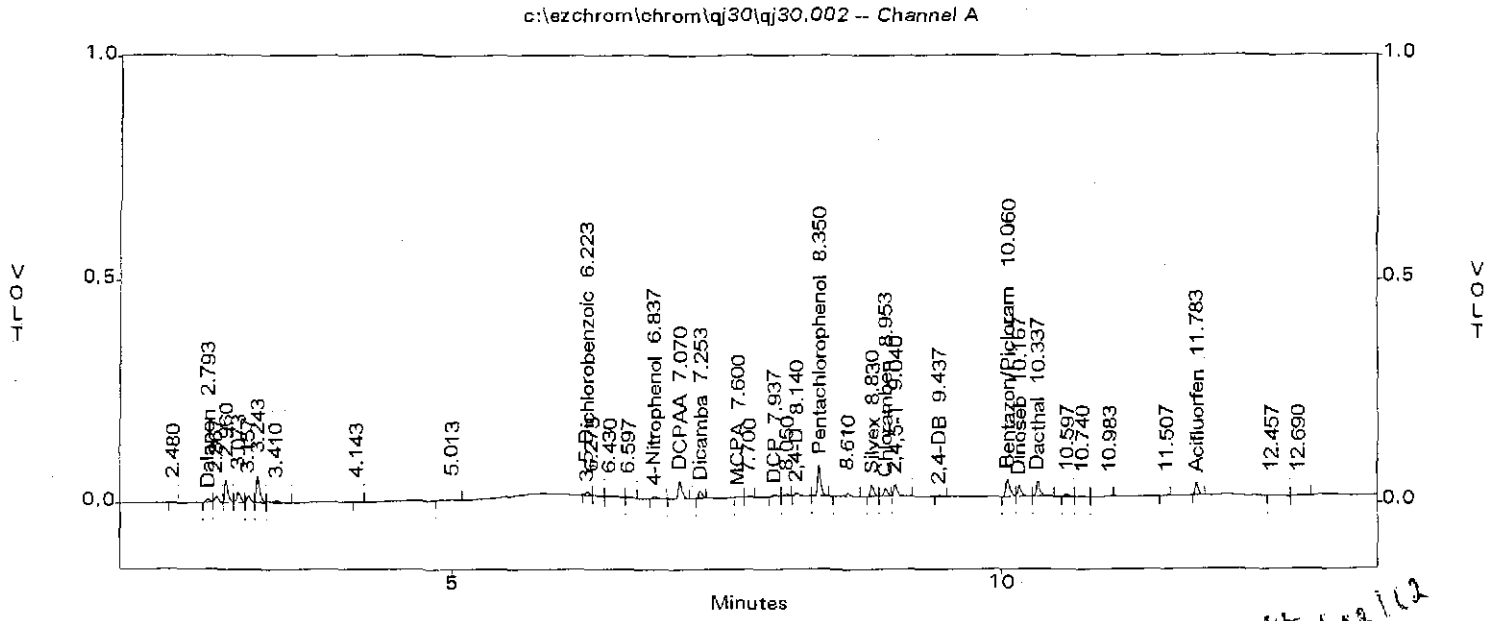
JL 11/02/12

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.002
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3001
Acquired : Oct 30, 2012 14:21:31
Printed : Oct 31, 2012 09:27:33
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.793	19494.0	1709.22	-1.00	BV
3,5 Dichlorobenzo	6.223	19524.0	1507.56	-1.00	Bx
4-Nitrophenol	6.837	11506.0	1051.91	-1.00	BV
DCPAA	7.070	92342.0	720.54	-1.00	VV
Dicamba	7.253	32488.0	3371.46	-1.00	VV
MCPP	7.447	0.0	0.00	0.00	--
MCPA	7.600	5353.0	8.27	-1.00	BV
DCP	7.937	13857.0	1182.11	-1.00	BV
2,4-D	8.140	23163.0	1492.49	-1.00	VV
Pentachlorophenol	8.350	138397.0	12861.50	10.00	VV
Silvex	8.830	52990.0	5293.29	-1.00	BV
Chloramben	8.953	39232.0	4064.33	-1.00	VV
2,4,5-T	9.040	56557.0	5662.12	-1.00	VB
2,4-DB	9.437	7309.0	746.33	-1.00	BV
Bentazon/Picloram	10.060	94563.0	4112.69	20.00	BV
Dinoseb	10.167	51336.0	4484.44	-1.00	VV
Dacthal	10.337	71698.0	6368.69	-1.00	VB
Acifluorfen	11.783	51666.0	5114.74	-1.00	BV



11/02/12

5934

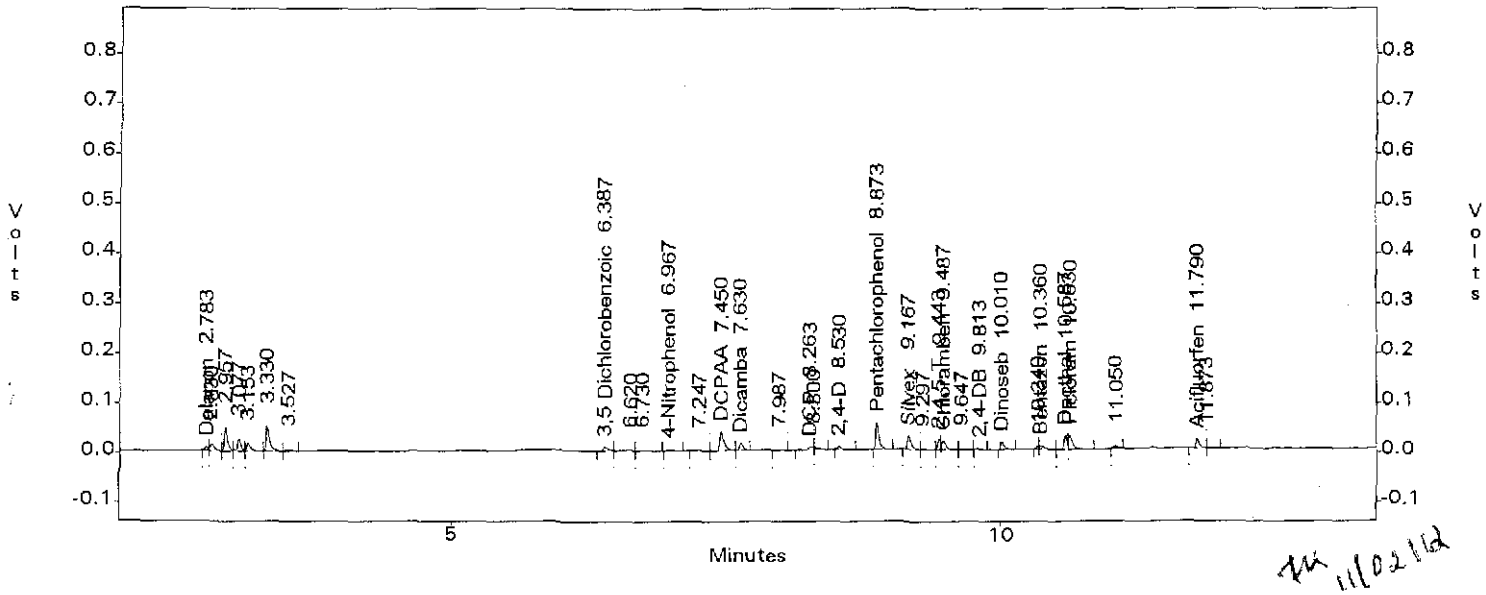
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.002
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3001
Acquired : Oct 30, 2012 14:21:31
Printed : Oct 31, 2012 09:27:33
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	12297.0	1304.23	-1.00	xx
3,5 Dichlorobenzoic	6.387	19388.0	1647.29	-1.00	BV
4-Nitrophenol	6.967	10528.0	884.30	-1.00	VV
DCPAA	7.450	101539.0	839.77	-1.00	SV
Dicamba	7.630	31621.0	3313.89	-1.00	VV
MCPP	7.740	0.0	0.00	0.00	--
MCPA	7.960	0.0	0.00	0.00	--
DCP	8.263	16055.0	1274.98	-1.00	Sx
2,4-D	8.530	16121.0	1451.63	-1.00	xS
Pentachlorophenol	8.873	111458.0	11988.79	10.00	BV
Silvex	9.167	68196.0	4946.26	-1.00	SS
2,4,5-T	9.443	37931.0	3771.03	-1.00	xx
Chloramben	9.487	44811.0	4997.10	-1.00	xV
2,4-DB	9.813	8580.0	771.68	-1.00	VS
Dinoseb	10.010	34253.0	3449.00	-1.00	SV
Bentazon	10.360	19615.0	705.05	-1.00	xV
Dacthal	10.587	50745.0	4651.52	-1.00	Vx
Picloram	10.630	65651.0	7623.47	-1.00	xB
Acifluorfen	11.790	40770.0	4033.72	-1.00	BS

c:\ezchrom\chrom\qj30\qj30.002 -- Channel B



11/02/12

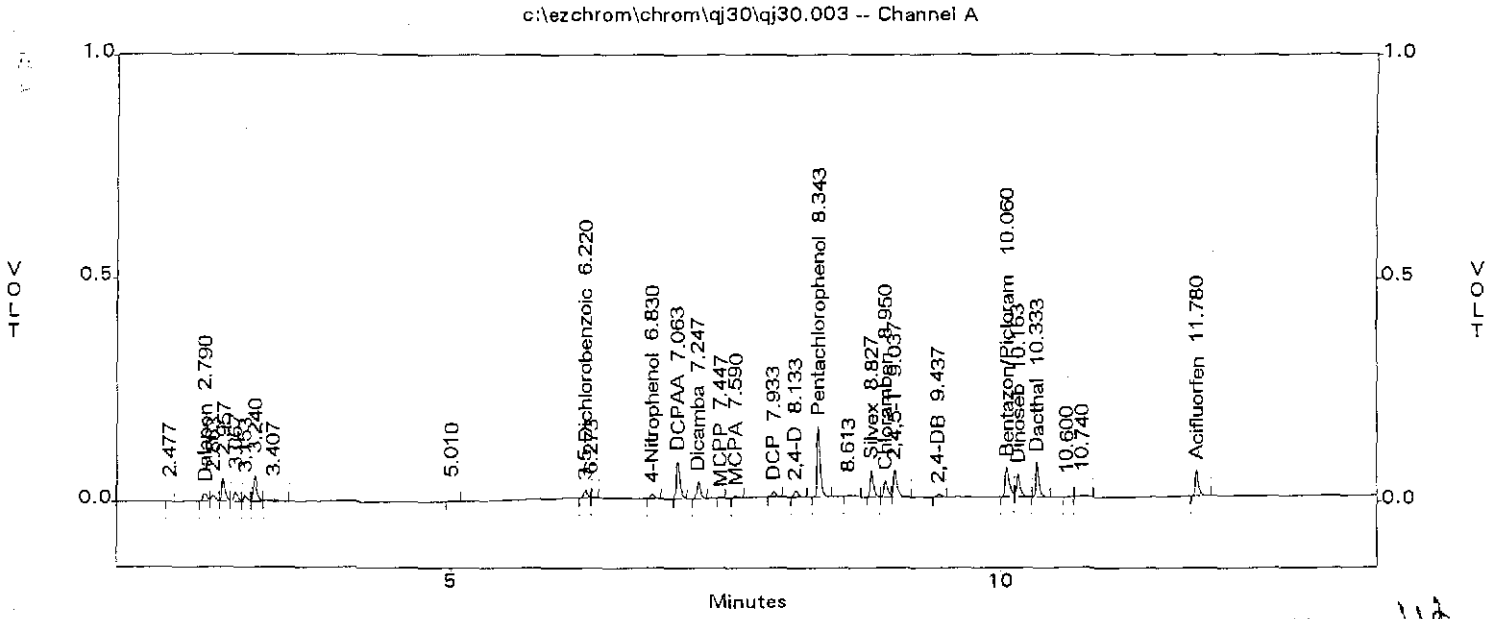
5835

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.003
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3002
Acquired : Oct 30, 2012 14:41:30
Printed : Oct 31, 2012 09:27:39
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	42008.0	1709.22	20.00	BV
3,5 Dichlorobenzo	6.220	36980.0	1507.56	20.00	Bx
4-Nitrophenol	6.830	25236.0	1051.91	20.00	BI
DCPAA	7.063	186541.0	720.54	200.00	BI
Dicamba	7.247	79096.0	3371.46	20.00	BV
MCPP	7.447	3784.0	4.57	-1.00	BV
MCPA	7.590	11178.0	8.27	-1.00	xV
DCP	7.933	28457.0	1182.11	20.00	BV
2,4-D	8.133	33412.0	1492.49	20.00	xI
Pentachlorophenol	8.343	306192.0	12861.50	20.00	BI
Silvex	8.827	119387.0	5293.29	20.00	BV
Chloramben	8.950	82410.0	4064.33	20.00	VV
2,4,5-T	9.037	132784.0	5662.12	20.00	VI
2,4-DB	9.437	16612.0	746.33	20.00	Bx
Bentazon/Picloram	10.060	173336.0	4112.69	40.00	BV
Dinoseb	10.163	110643.0	4484.44	20.00	VV
Dacthal	10.333	147490.0	6368.69	20.00	vv
Acifluorfen	11.780	115187.0	5114.74	20.00	BI



11/02/12

5086

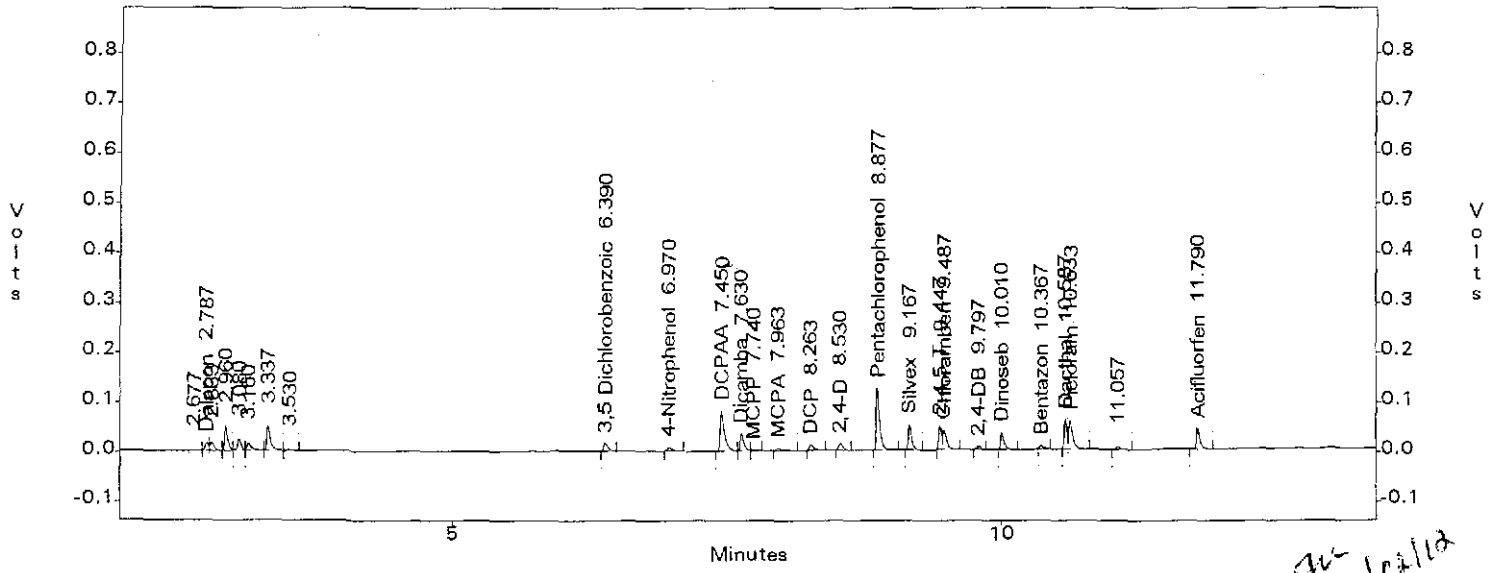
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.003
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3002
Acquired : Oct 30, 2012 14:41:30
Printed : Oct 31, 2012 09:27:39
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	28146.0	1304.23	20.00	xx
3,5 Dichlorobenzoic	6.390	38588.0	1647.29	20.00	BI
4-Nitrophenol	6.970	22501.0	884.30	20.00	BI
DCPAA	7.450	215830.0	839.77	200.00	BV
Dicamba	7.630	72757.0	3313.89	20.00	VS
MCPP	7.740	3396.0	5.44	-1.00	SI
MCPA	7.963	17375.0	10.48	-1.00	SV
DCP	8.263	31730.0	1274.98	20.00	BI
2,4-D	8.530	34430.0	1451.63	20.00	BI
Pentachlorophenol	8.877	268520.0	11988.79	20.00	SI
Silvex	9.167	107504.0	4946.26	20.00	BI
2,4,5-T	9.447	86345.0	3771.03	20.00	xx
Chloramben	9.487	99843.0	4997.10	20.00	xS
2,4-DB	9.797	16599.0	771.68	20.00	Bx
Dinoseb	10.010	76438.0	3449.00	20.00	vv
Bentazon	10.367	17429.0	705.05	20.00	xI
Dacthal	10.587	104439.0	4651.52	20.00	xx
Picloram	10.633	145524.0	7623.47	20.00	xS
Acifluorfen	11.790	85736.0	4033.72	20.00	BI

c:\ezchrom\chrom\qj30\qj30.003 -- Channel B



7u 11/02/12

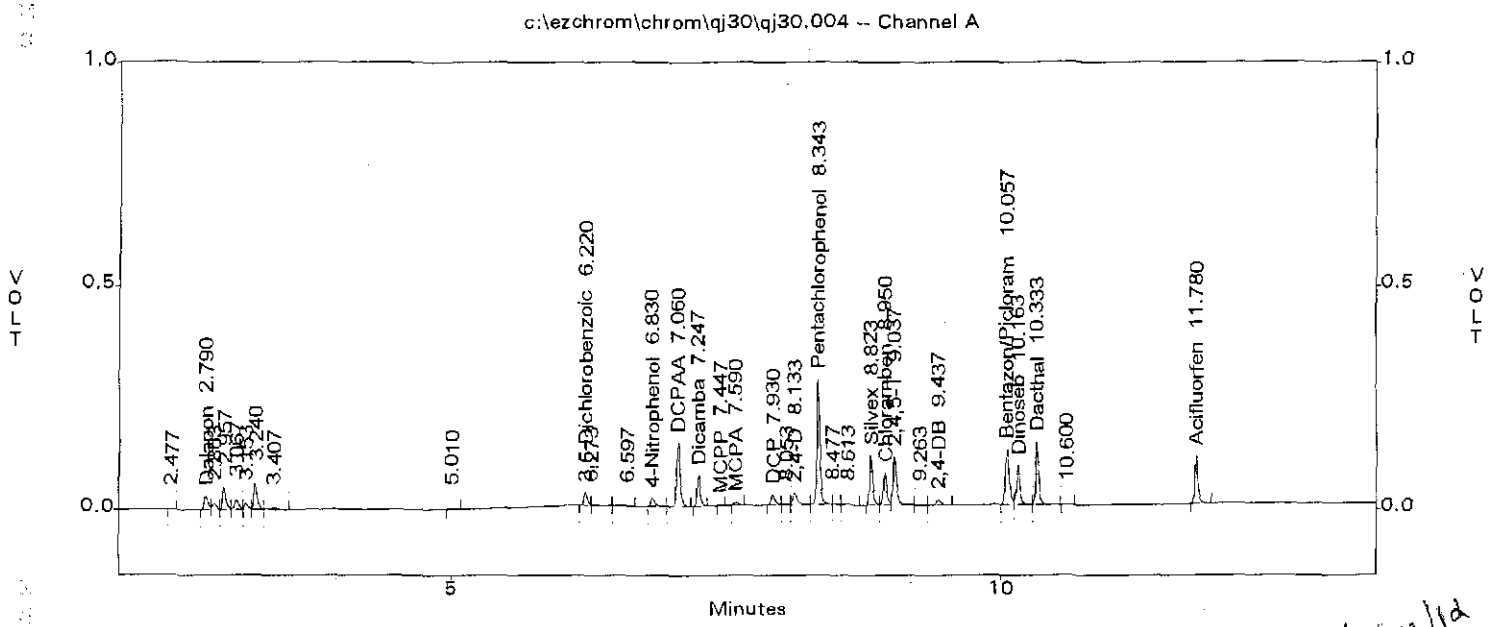
5037

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.004
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3003
Acquired : Oct 30, 2012 15:01:32
Printed : Oct 31, 2012 09:27:44
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	71936.0	1709.22	40.00	BV
3,5 Dichlorobenzo	6.220	65096.0	1507.56	40.00	Bx
4-Nitrophenol	6.830	45411.0	1051.91	40.00	BV
DCPAA	7.060	321280.0	720.54	400.00	VV
Dicamba	7.247	138815.0	3371.46	40.00	VV
MCPP	7.447	8179.0	4.57	2000.00	BV
MCPA	7.590	18961.0	8.27	2000.00	xV
DCP	7.930	51422.0	1182.11	40.00	BV
2,4-D	8.133	69308.0	1492.49	40.00	xV
Pentachlorophenol	8.343	542134.0	12861.50	40.00	Vx
Silvex	8.823	217661.0	5293.29	40.00	BV
Chloramben	8.950	157144.0	4064.33	40.00	VV
2,4,5-T	9.037	239739.0	5662.12	40.00	VV
2,4-DB	9.437	30786.0	746.33	40.00	VI
Bentazon/Picloram	10.057	320141.0	4112.69	80.00	BV
Dinoseb	10.163	192657.0	4484.44	40.00	VV
Dacthal	10.333	267073.0	6368.69	40.00	VV
Acifluorfen	11.780	205510.0	5114.74	40.00	BV



7K 11/02/12

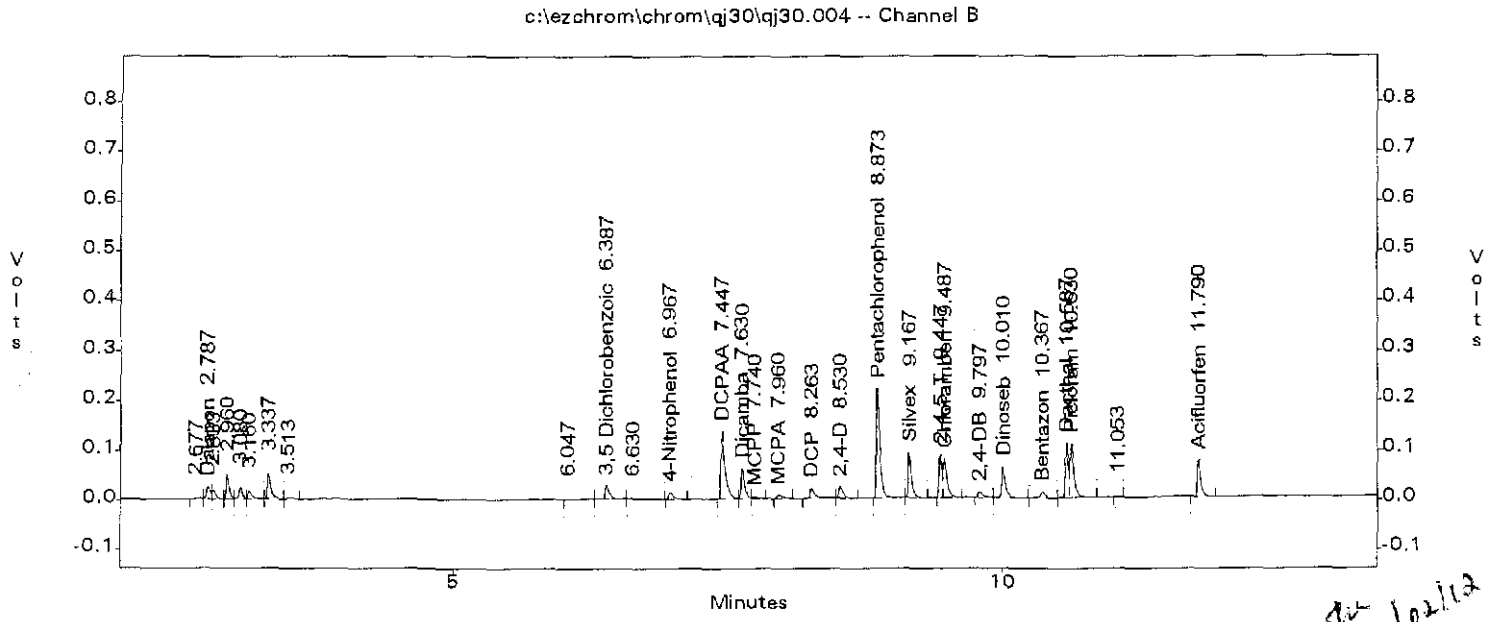
5898

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.004
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3003
Acquired : Oct 30, 2012 15:01:32
Printed : Oct 31, 2012 09:27:44
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	53109.0	1304.23	40.00	xx
3,5 Dichlorobenzoic	6.387	70278.0	1647.29	40.00	VV
4-Nitrophenol	6.967	38227.0	884.30	40.00	VV
DCPAA	7.447	362697.0	839.77	400.00	SV
Dicamba	7.630	134187.0	3313.89	40.00	VS
MCPP	7.740	10560.0	5.44	2000.00	Sx
MCPA	7.960	25511.0	10.48	2000.00	SI
DCP	8.263	55271.0	1274.98	40.00	BV
2,4-D	8.530	61390.0	1451.63	40.00	VV
Pentachlorophenol	8.873	490157.0	11988.79	40.00	SV
Silvex	9.167	196944.0	4946.26	40.00	VS
2,4,5-T	9.447	156923.0	3771.03	40.00	xx
Chloramben	9.487	187806.0	4997.10	40.00	xS
2,4-DB	9.797	32802.0	771.68	40.00	BV
Dinoseb	10.010	140903.0	3449.00	40.00	VV
Bentazon	10.367	30212.0	705.05	40.00	VV
Dacthal	10.587	192512.0	4651.52	40.00	Vx
Picloram	10.630	280589.0	7623.47	40.00	xV
Acifluorfen	11.790	156819.0	4033.72	40.00	BS



11/02/12

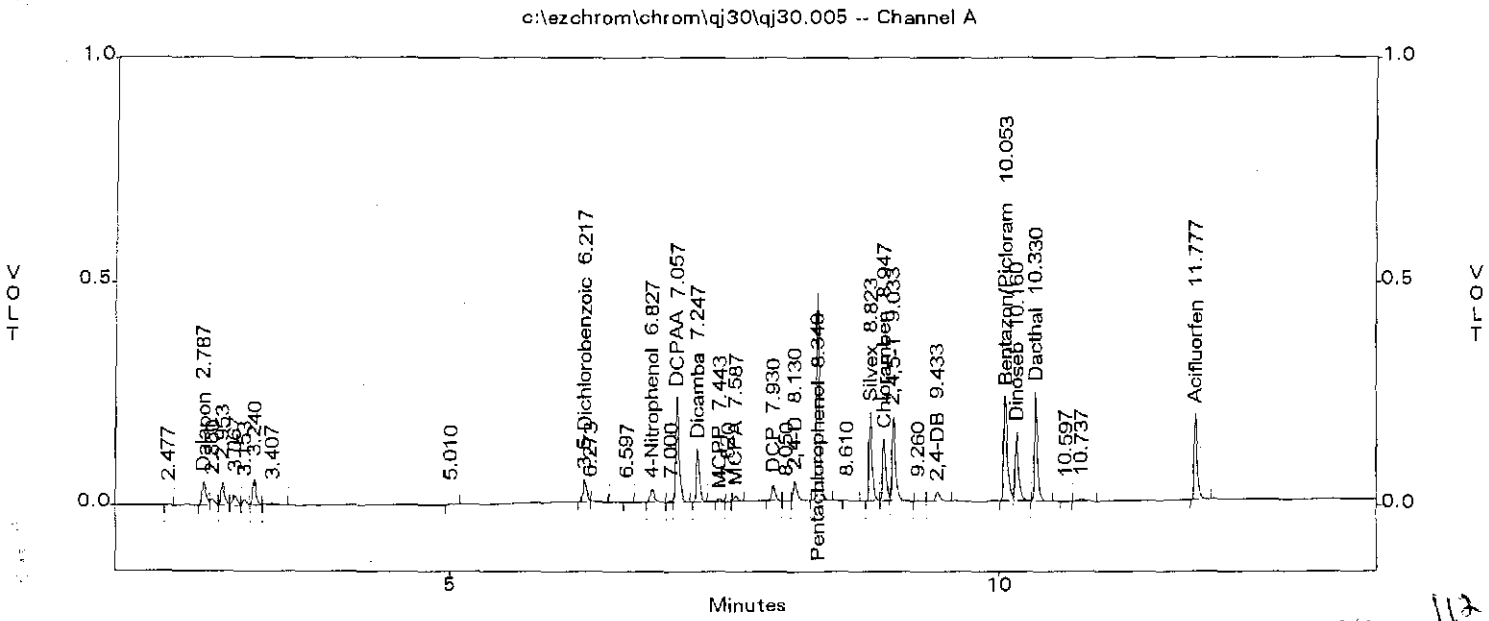
5039

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.005
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3004
Acquired : Oct 30, 2012 15:21:39
Printed : Oct 31, 2012 09:27:49
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	120776.0	1709.22	70.00	BV
3,5 Dichlorobenzo	6.217	107099.0	1507.56	70.00	Bx
4-Nitrophenol	6.827	75353.0	1051.91	70.00	BV
DCPAA	7.057	507212.0	720.54	700.00	SV
Dicamba	7.247	237524.0	3371.46	70.00	VV
MCPP	7.443	15906.0	4.57	3500.00	BV
MCPA	7.587	30370.0	8.27	3500.00	xV
DCP	7.930	84094.0	1182.11	70.00	BV
2,4-D	8.130	106570.0	1492.49	70.00	xV
Pentachlorophenol	8.340	897006.0	12861.50	70.00	Vx
Silvex	8.823	375007.0	5293.29	70.00	BV
Chloramben	8.947	285627.0	4064.33	70.00	VV
2,4,5-T	9.033	403833.0	5662.12	70.00	VV
2,4-DB	9.433	53091.0	746.33	70.00	VI
Bentazon/Picloram	10.053	568817.0	4112.69	140.00	BV
Dinoseb	10.160	319387.0	4484.44	70.00	VV
Dacthal	10.330	434347.0	6368.69	70.00	VB
Acifluorfen	11.777	362435.0	5114.74	70.00	BV



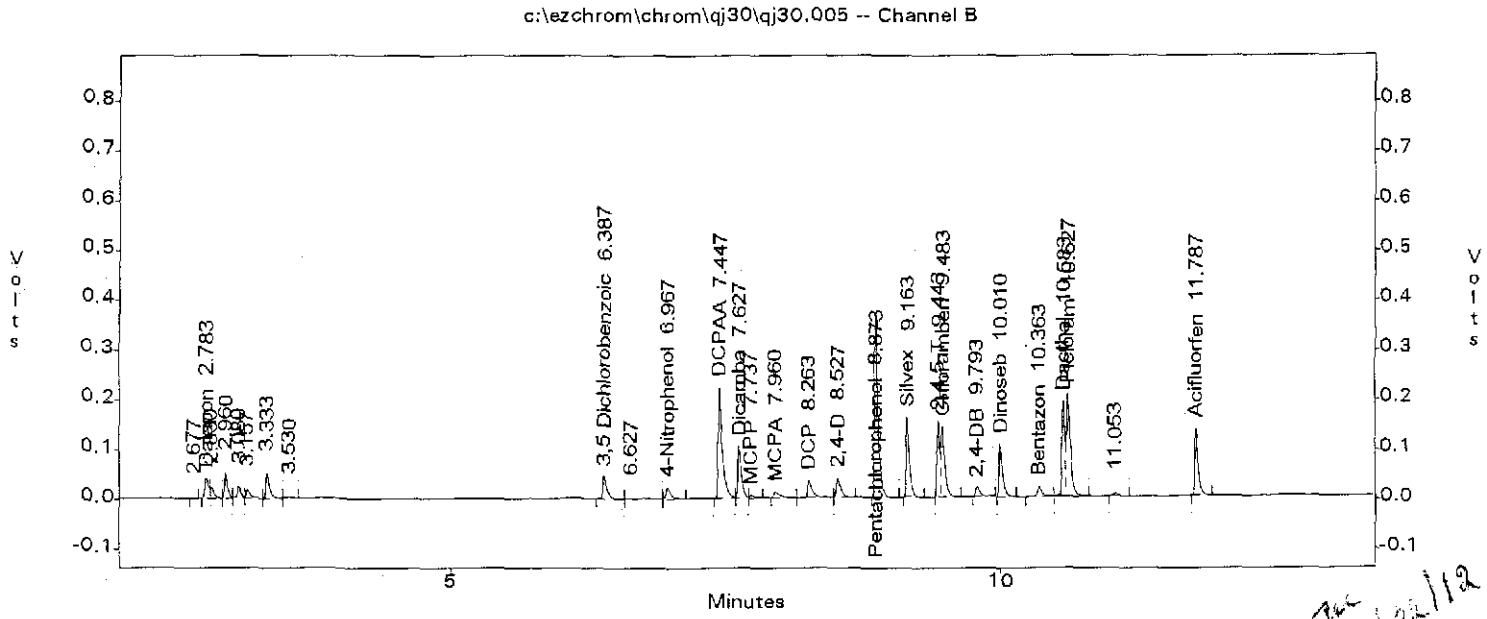
5946

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.005
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3004
Acquired : Oct 30, 2012 15:21:39
Printed : Oct 31, 2012 09:27:50
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	90548.0	1304.23	70.00	xx
3,5 Dichlorobenzoic	6.387	116641.0	1647.29	70.00	BV
4-Nitrophenol	6.967	63008.0	884.30	70.00	VV
DCPAA	7.447	588999.0	839.77	700.00	SV
Dicamba	7.627	232716.0	3313.89	70.00	VS
MCPP	7.737	19726.0	5.44	3500.00	Sx
MCPA	7.960	40580.0	10.48	3500.00	SV
DCP	8.263	89956.0	1274.98	70.00	VV
2,4-D	8.527	102364.0	1451.63	70.00	VV
Pentachlorophenol	8.873	853588.0	11988.79	70.00	SV
Silvex	9.163	345635.0	4946.26	70.00	VS
2,4,5-T	9.443	278195.0	3771.03	70.00	xx
Chloramben	9.483	336035.0	4997.10	70.00	xS
2,4-DB	9.793	53892.0	771.68	70.00	BV
Dinoseb	10.010	237063.0	3449.00	70.00	SV
Bentazon	10.363	49597.0	705.05	70.00	VV
Dacthal	10.583	333504.0	4651.52	70.00	Vx
Picloram	10.627	520542.0	7623.47	70.00	xS
Acifluorfen	11.787	280896.0	4033.72	70.00	BS



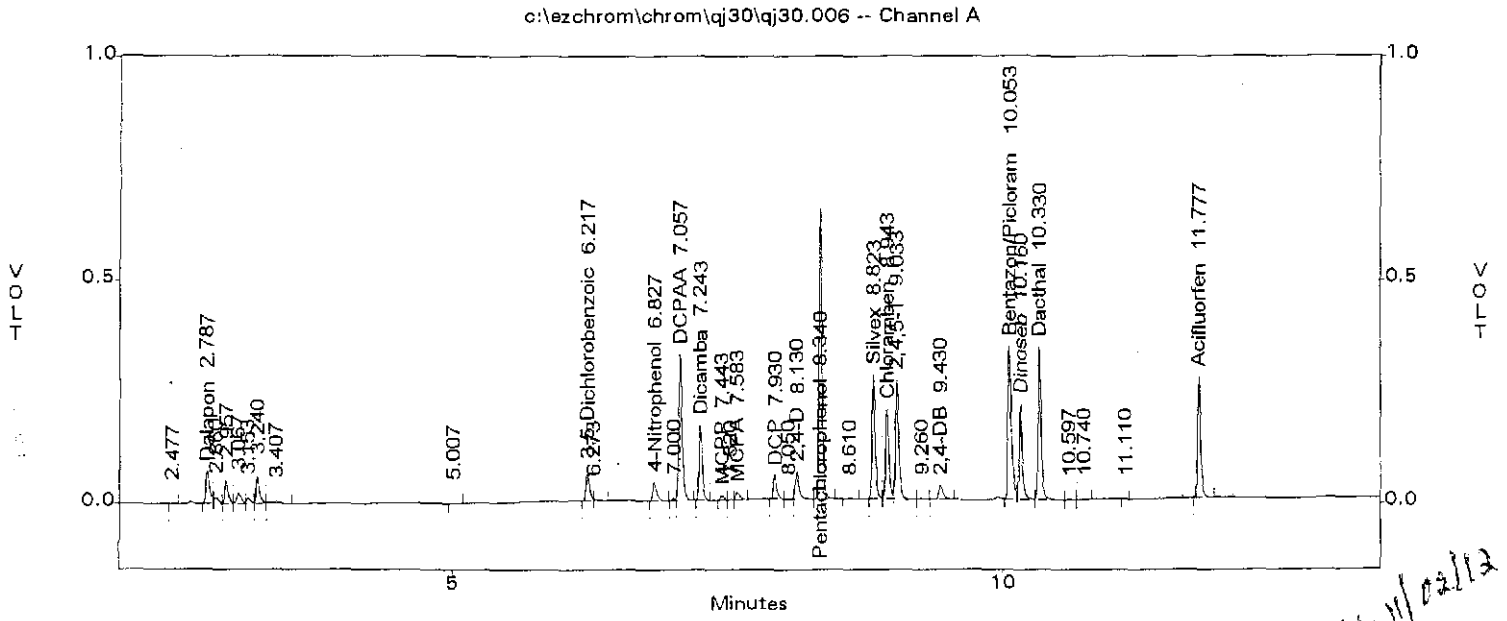
11/02/12

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.006
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3005
Acquired : Oct 30, 2012 15:41:49
Printed : Oct 31, 2012 09:27:55
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	164957.0	1709.22	100.00	BS
3,5 Dichlorobenzo	6.217	146152.0	1507.56	100.00	Bx
4-Nitrophenol	6.827	103160.0	1051.91	100.00	BV
DCPAA	7.057	684156.0	720.54	1000.00	SV
Dicamba	7.243	330621.0	3371.46	100.00	VV
MCPP	7.443	23836.0	4.57	5000.00	BV
MCPA	7.583	41759.0	8.27	5000.00	xV
DCP	7.930	115207.0	1182.11	100.00	BV
2,4-D	8.130	147020.0	1492.49	100.00	xV
Pentachlorophenol	8.340	1243766.0	12861.50	100.00	Vx
Silvex	8.823	524981.0	5293.29	100.00	BV
Chloramben	8.943	412177.0	4064.33	100.00	VV
2,4,5-T	9.033	556952.0	5662.12	100.00	VV
2,4-DB	9.430	73863.0	746.33	100.00	VV
Bentazon/Picloram	10.053	807109.0	4112.69	200.00	BV
Dinoseb	10.160	435676.0	4484.44	100.00	VV
Dacthal	10.330	630355.0	6368.69	100.00	VV
Acifluorfen	11.777	504922.0	5114.74	100.00	BV



TK 11/02/12

5042

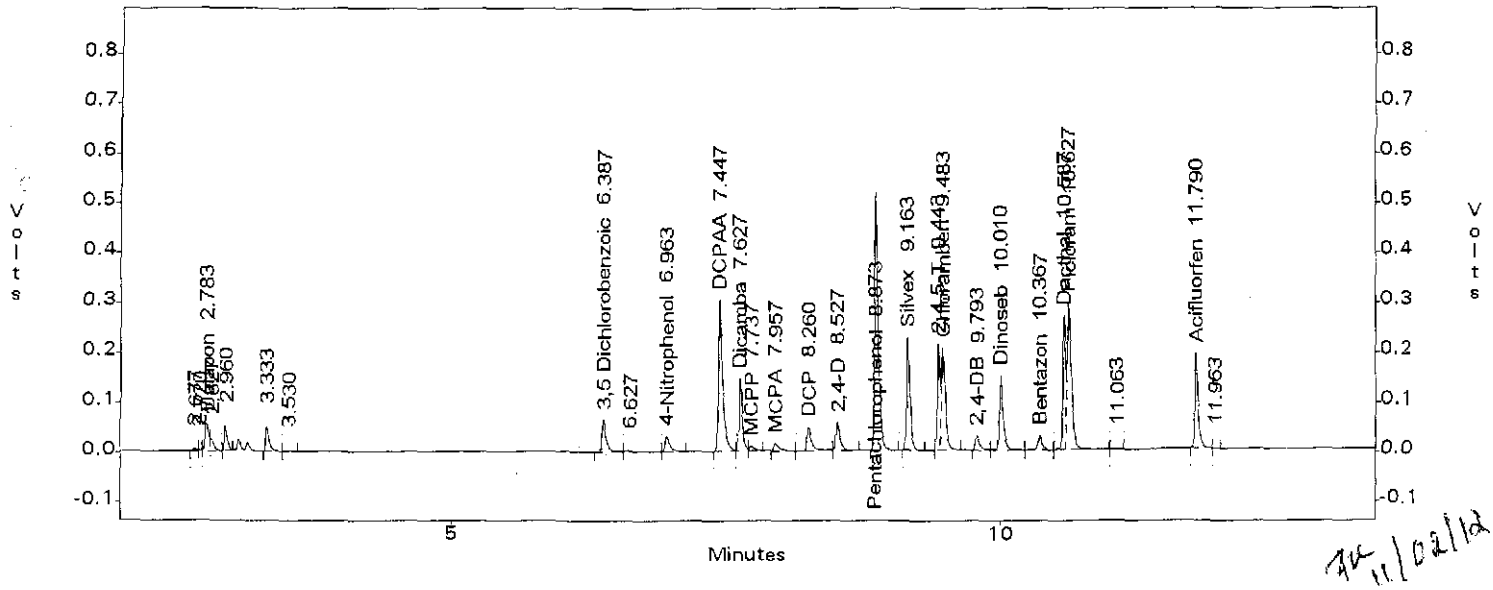
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.006
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3005
Acquired : Oct 30, 2012 15:41:49
Printed : Oct 31, 2012 09:27:56
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	123955.0	1304.23	100.00	xx
3,5 Dichlorobenzoic	6.387	161197.0	1647.29	100.00	BV
4-Nitrophenol	6.963	85120.0	884.30	100.00	VV
DCPAA	7.447	801839.0	839.77	1000.00	SV
Dicamba	7.627	328333.0	3313.89	100.00	VS
MCPP	7.737	26903.0	5.44	5000.00	Sx
MCPA	7.957	52178.0	10.48	5000.00	SV
DCP	8.260	122451.0	1274.98	100.00	VV
2,4-D	8.527	141988.0	1451.63	100.00	VB
Pentachlorophenol	8.873	1202639.0	11988.79	100.00	BV
Silvex	9.163	492672.0	4946.26	100.00	VS
2,4,5-T	9.443	365764.0	3771.03	100.00	xx
Chloramben	9.483	512773.0	4997.10	100.00	xS
2,4-DB	9.793	75908.0	771.68	100.00	BV
Dinoseb	10.010	344598.0	3449.00	100.00	VV
Bentazon	10.367	66651.0	705.05	100.00	VV
Dacthal	10.587	455435.0	4651.52	100.00	Vx
Picloram	10.627	787158.0	7623.47	100.00	xV
Acifluorfen	11.790	402054.0	4033.72	100.00	BS

c:\ezchrom\chrom\qj30\qj30.006 -- Channel B



TK 11/02/12

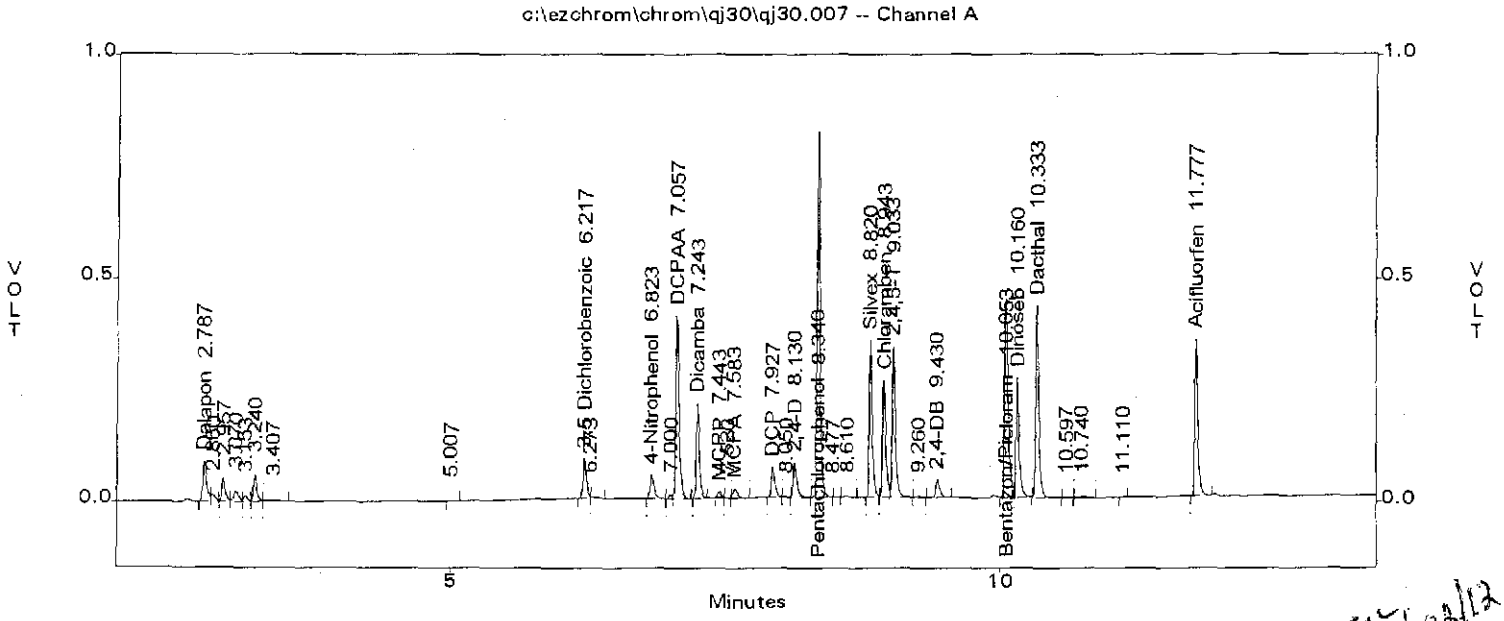
5043

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.007
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3006
Acquired : Oct 30, 2012 16:02:02
Printed : Oct 31, 2012 09:28:02
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	208464.0	1709.22	130.00	BS
3,5 Dichlorobenzo	6.217	182400.0	1507.56	130.00	Bx
4-Nitrophenol	6.823	128512.0	1051.91	130.00	BV
DCPAA	7.057	848032.0	720.54	1300.00	SV
Dicamba	7.243	418601.0	3371.46	130.00	VV
MCPP	7.443	31213.0	4.57	6500.00	BV
MCPA	7.583	53427.0	8.27	6500.00	xV
DCP	7.927	143584.0	1182.11	130.00	BV
2,4-D	8.130	181711.0	1492.49	130.00	xV
Pentachlorophenol	8.340	1565342.0	12861.50	130.00	Vx
Silvex	8.820	664603.0	5293.29	130.00	BV
Chloramben	8.943	531832.0	4064.33	130.00	VV
2,4,5-T	9.033	698031.0	5662.12	130.00	VV
2,4-DB	9.430	93694.0	746.33	130.00	VV
Bentazon/Picloram	10.053	1030714.0	4112.69	260.00	BV
Dinoseb	10.160	545061.0	4484.44	130.00	VV
Dacthal	10.333	797382.0	6368.69	130.00	VV
Acifluorfen	11.777	647398.0	5114.74	130.00	BV



11/02/12

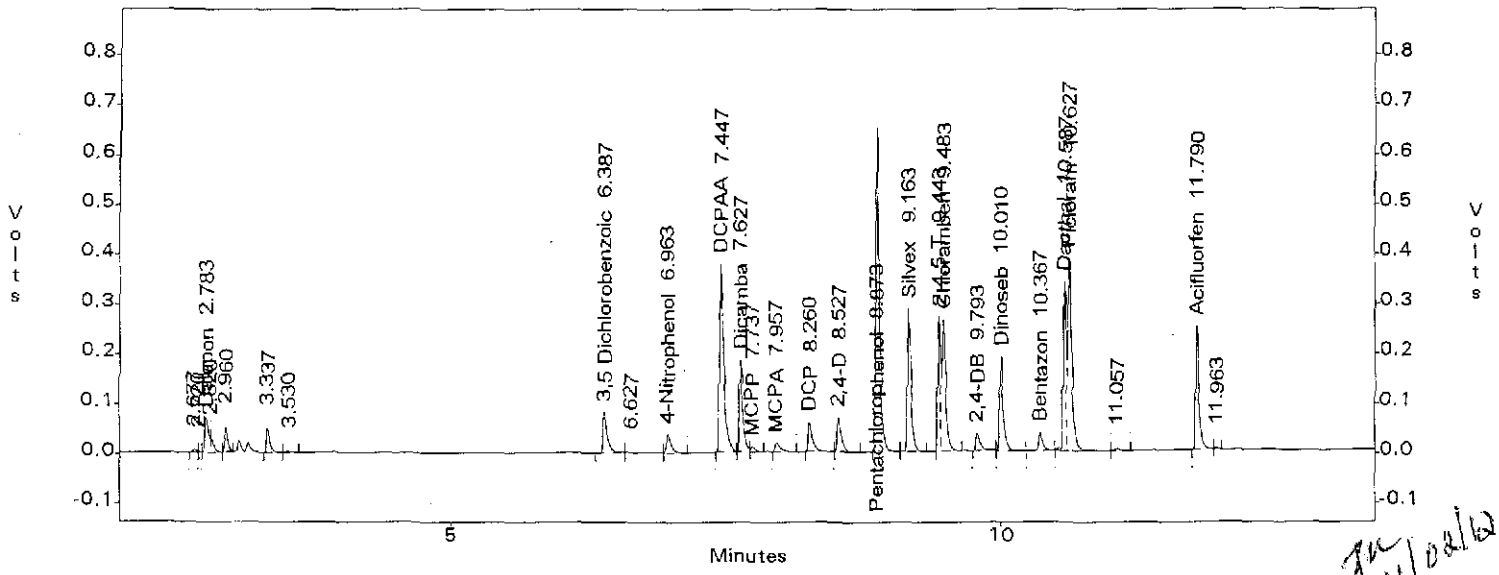
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.007
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3006
Acquired : Oct 30, 2012 16:02:02
Printed : Oct 31, 2012 09:28:02
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	161580.0	1304.23	130.00	xx
3,5 Dichlorobenzoic	6.387	202651.0	1647.29	130.00	BV
4-Nitrophenol	6.963	106437.0	884.30	130.00	VV
DCPAA	7.447	1001535.0	839.77	1300.00	SV
Dicamba	7.627	419337.0	3313.89	130.00	VS
MCPP	7.737	34156.0	5.44	6500.00	Sx
MCPA	7.957	62494.0	10.48	6500.00	SV
DCP	8.260	152956.0	1274.98	130.00	VV
2,4-D	8.527	178488.0	1451.63	130.00	VV
Pentachlorophenol	8.873	1531428.0	11988.79	130.00	SV
Silvex	9.163	631778.0	4946.26	130.00	VS
2,4,5-T	9.443	462279.0	3771.03	130.00	xx
Chloramben	9.483	668714.0	4997.10	130.00	xV
2,4-DB	9.793	101473.0	771.68	130.00	SV
Dinoseb	10.010	436123.0	3449.00	130.00	VV
Bentazon	10.367	84887.0	705.05	130.00	VV
Dacthal	10.587	579830.0	4651.52	130.00	Vx
Picloram	10.627	1028422.0	7623.47	130.00	xV
Acifluorfen	11.790	522821.0	4033.72	130.00	BS

c:\ezchrom\chrom\qj30\qj30.007 -- Channel B



TM 11/08/12

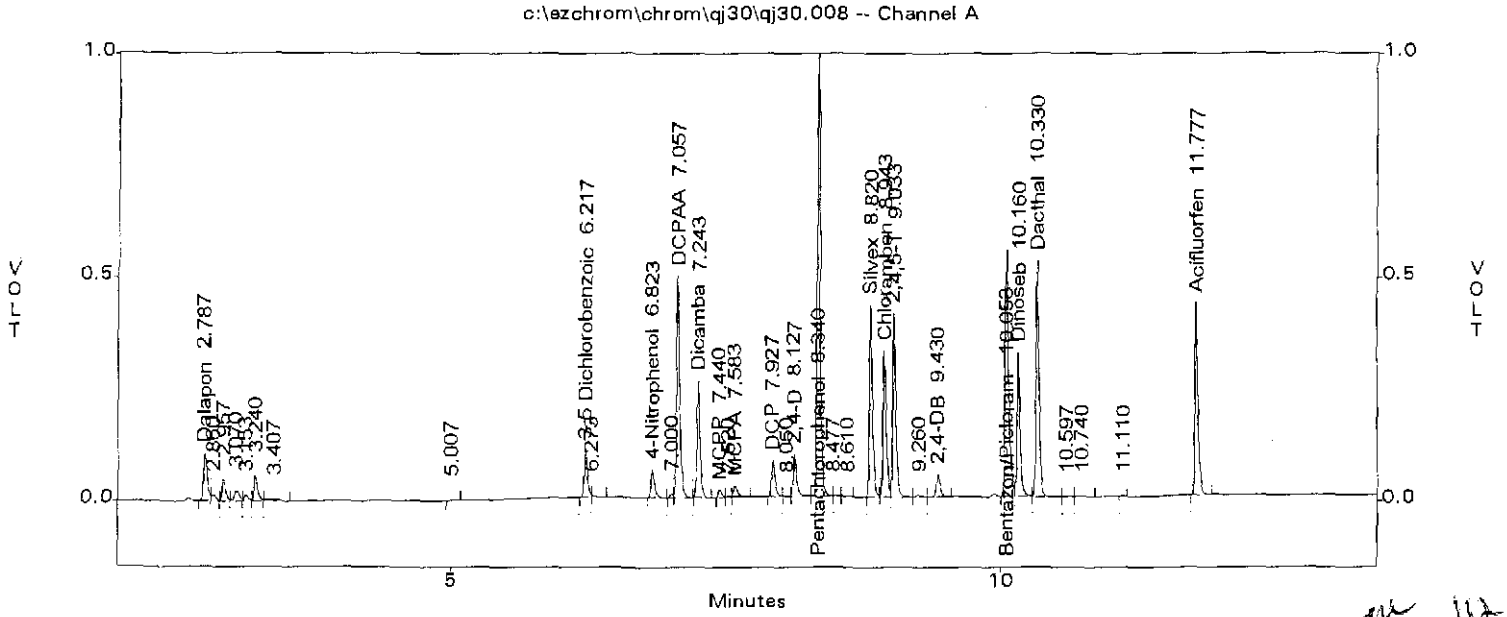
5045

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.008
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3007
Acquired : Oct 30, 2012 16:22:16
Printed : Oct 31, 2012 09:28:08
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	251072.0	1709.22	160.00	BS
3,5 Dichlorobenzo	6.217	218258.0	1507.56	160.00	Bx
4-Nitrophenol	6.823	152991.0	1051.91	160.00	BV
DCPAA	7.057	1018051.0	720.54	1600.00	SV
Dicamba	7.243	508151.0	3371.46	160.00	VI
MCPP	7.440	38416.0	4.57	8000.00	BV
MCPA	7.583	62442.0	8.27	8000.00	xB
DCP	7.927	172235.0	1182.11	160.00	BV
2,4-D	8.127	217080.0	1492.49	160.00	xV
Pentachlorophenol	8.340	1893363.0	12861.50	160.00	Vx
Silvex	8.820	807466.0	5293.29	160.00	BV
Chloramben	8.943	655223.0	4064.33	160.00	VV
2,4,5-T	9.033	839989.0	5662.12	160.00	VV
2,4-DB	9.430	113964.0	746.33	160.00	VV
Bentazon/Picloram	10.053	1259693.0	4112.69	320.00	BV
Dinoseb	10.160	648306.0	4484.44	160.00	VV
Dacthal	10.330	967755.0	6368.69	160.00	VV
Acifluorfen	11.777	785999.0	5114.74	160.00	BV



TM 11/02/12

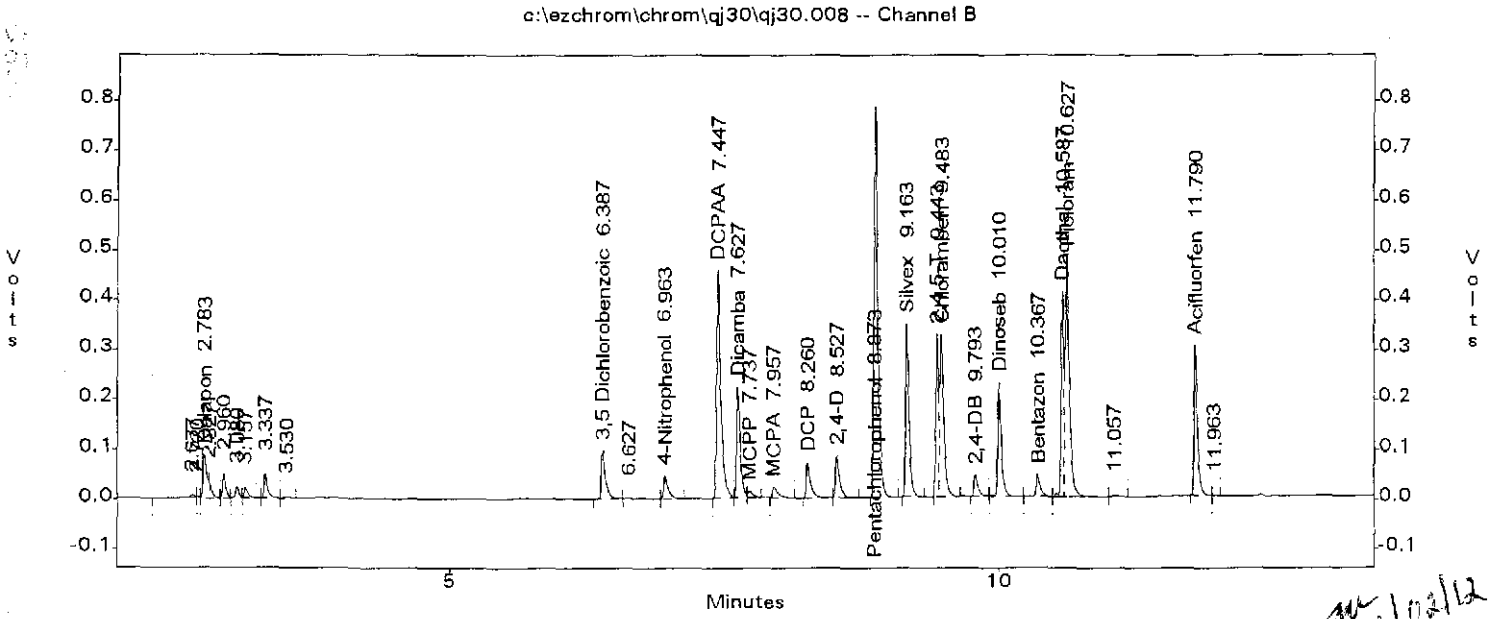
SGS

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.008
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3007
Acquired : Oct 30, 2012 16:22:16
Printed : Oct 31, 2012 09:28:09
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	209763.0	1304.23	160.00	xx
3,5 Dichlorobenzoic	6.387	244981.0	1647.29	160.00	BV
4-Nitrophenol	6.963	126026.0	884.30	160.00	VV
DCPAA	7.447	1204712.0	839.77	1600.00	SV
Dicamba	7.627	513959.0	3313.89	160.00	VS
MCPP	7.737	42170.0	5.44	8000.00	Sx
MCPA	7.957	72576.0	10.48	8000.00	SV
DCP	8.260	184530.0	1274.98	160.00	VV
2,4-D	8.527	215913.0	1451.63	160.00	VB
Pentachlorophenol	8.873	1872331.0	11988.79	160.00	BV
Silvex	9.163	776218.0	4946.26	160.00	VS
2,4,5-T	9.443	564521.0	3771.03	160.00	xx
Chloramben	9.483	826110.0	4997.10	160.00	xV
2,4-DB	9.793	117363.0	771.68	160.00	SV
Dinoseb	10.010	534888.0	3449.00	160.00	VV
Bentazon	10.367	103829.0	705.05	160.00	VV
Dacthal	10.587	704749.0	4651.52	160.00	Vx
Picloram	10.627	1278779.0	7623.47	160.00	xV
Acifluorfen	11.790	641649.0	4033.72	160.00	BS



11/02/12

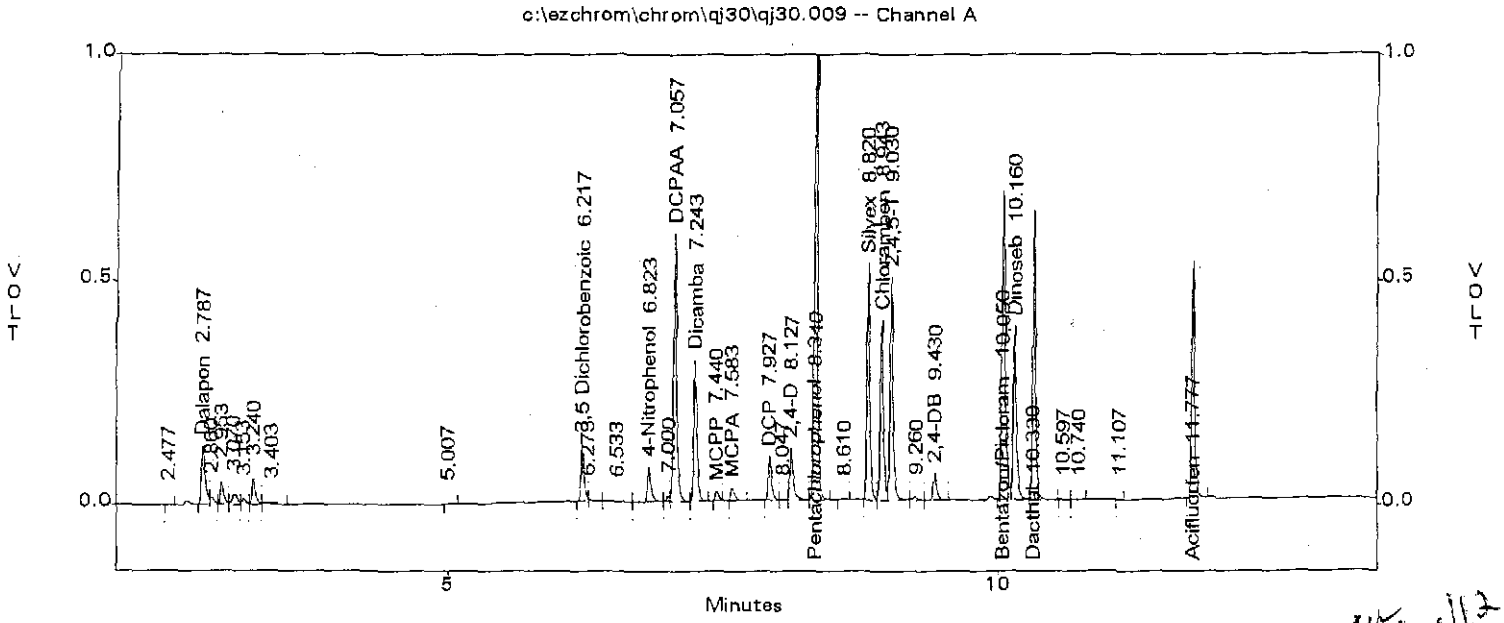
5047

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.009
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3008
Acquired : Oct 30, 2012 16:42:27
Printed : Oct 31, 2012 09:28:15
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	303608.0	1709.22	200.00	BS
3,5 Dichlorobenzo	6.217	263558.0	1507.56	200.00	Bx
4-Nitrophenol	6.823	182698.0	1051.91	200.00	VV
DCPAA	7.057	1221098.0	720.54	2000.00	SV
Dicamba	7.243	615941.0	3371.46	200.00	VI
MCPP	7.440	44295.0	4.57	10000.00	BV
MCPA	7.583	70795.0	8.27	10000.00	xV
DCP	7.927	206406.0	1182.11	200.00	BV
2,4-D	8.127	259396.0	1492.49	200.00	xV
Pentachlorophenol	8.340	2212538.0	12861.50	200.00	Vx
Silvex	8.820	975224.0	5293.29	200.00	BV
Chloramben	8.943	802580.0	4064.33	200.00	VV
2,4,5-T	9.030	1008834.0	5662.12	200.00	VV
2,4-DB	9.430	138791.0	746.33	200.00	VV
Bentazon/Picloram	10.050	1535552.0	4112.69	400.00	BV
Dinoseb	10.160	775676.0	4484.44	200.00	VV
Dacthal	10.330	1167763.0	6368.69	200.00	VV
Acifluorfen	11.777	957348.0	5114.74	200.00	BV



11/02/12

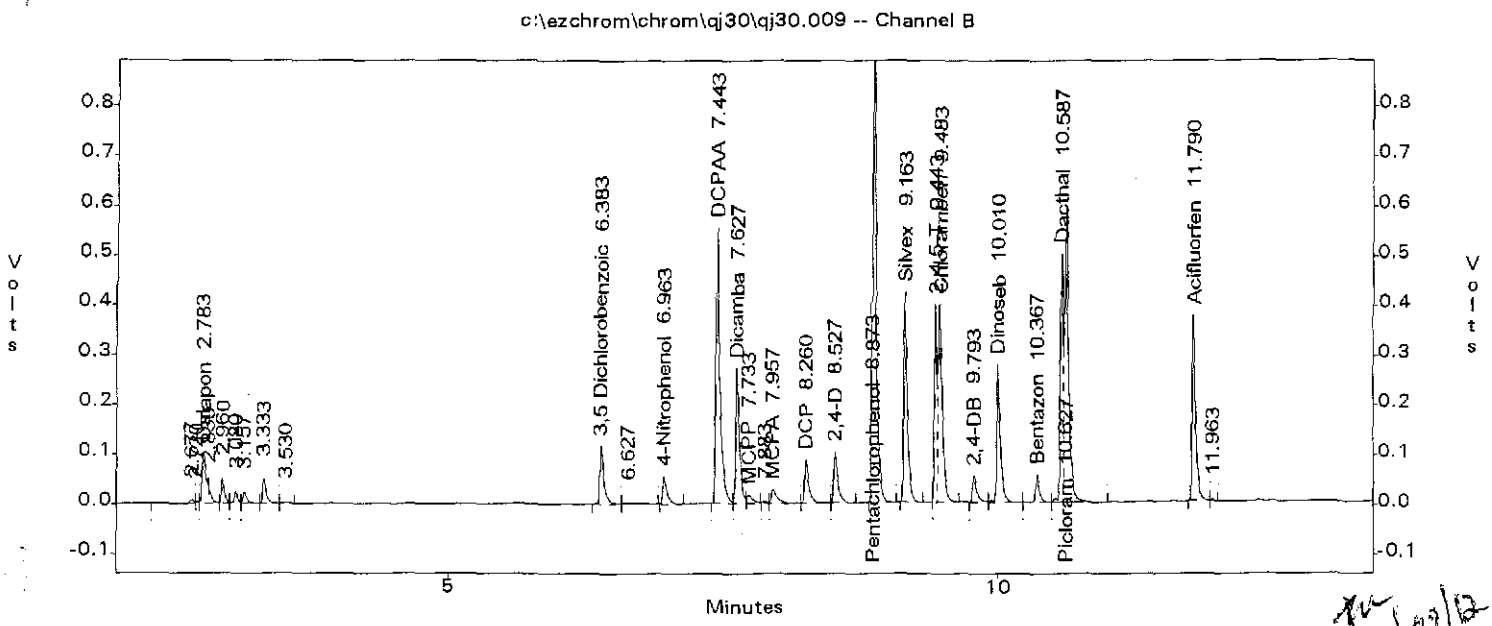
5848

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.009
Method : c:\ezchrom\methods\he09j30.met
Sample ID : HE09J3008
Acquired : Oct 30, 2012 16:42:27
Printed : Oct 31, 2012 09:28:15
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	261515.0	1304.23	200.00	xx
3,5 Dichlorobenzoic	6.383	295290.0	1647.29	200.00	BV
4-Nitrophenol	6.963	150335.0	884.30	200.00	VV
DCPAA	7.443	1451691.0	839.77	2000.00	SV
Dicamba	7.627	631789.0	3313.89	200.00	VS
MCPP	7.733	57930.0	5.44	10000.00	Sx
MCPA	7.957	94335.0	10.48	10000.00	SV
DCP	8.260	223415.0	1274.98	200.00	VV
2,4-D	8.527	260094.0	1451.63	200.00	VS
Pentachlorophenol	8.873	2276364.0	11988.79	200.00	BV
Silvex	9.163	949893.0	4946.26	200.00	VS
2,4,5-T	9.443	688159.0	3771.03	200.00	xx
Chloramben	9.483	1011404.0	4997.10	200.00	xV
2,4-DB	9.793	141741.0	771.68	200.00	SV
Dinoseb	10.010	653616.0	3449.00	200.00	VV
Bentazon	10.367	126337.0	705.05	200.00	VV
Dacthal	10.587	868452.0	4651.52	200.00	Vx
Picloram	10.627	1572433.0	7623.47	200.00	xV
Acifluorfen	11.790	792677.0	4033.72	200.00	BS



11/02/12

SECOND SOURCE VERIFICATION

INITIAL CALIBRATION VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30010A 10/30/2012 17:02
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.787	2.773	2.801	100.0	1709.2	163796	95.83	-4		15
3,5-Dichlorobenzo	6.217	6.203	6.231	100.0	1507.6	138613	91.95	-8		15
4-Nitrophenol	6.823	6.809	6.837	100.0	1051.9	99244	94.35	-6		15
Dicamba	7.243	7.229	7.257	100.0	3371.5	314947	93.42	-7		15
Dichloroprop	7.927	7.913	7.941	100.0	1182.1	114858	97.16	-3		15
2,4-D	8.127	8.111	8.143	100.0	1492.5	140356	94.04	-6		15
Pentachlorophenol	8.340	8.324	8.356	100.0	12861.5	1232337	95.82	-4		15
2,4,5-TP(Silvex)	8.820	8.804	8.836	100.0	5293.3	512009	96.73	-3		15
Chloramben	8.943	8.927	8.959	100.0	4064.3	402054	98.92	-1		15
2,4,5-T	9.030	9.014	9.046	100.0	5662.1	560233	98.94	-1		15
2,4-DB	9.430	9.414	9.446	100.0	746.300	72859	97.62	-2		15
Bentazon/Picloram	10.053	10.039	10.067	200.0	4112.7	782861	190.35	-5		15
Dinoseb	10.157	10.141	10.173	100.0	4484.4	398101	88.77	-11		15
Dacthal	10.330	10.314	10.346	100.0	6368.7	634716	99.66	-0		15
Acifluorfen	11.777	11.763	11.791	100.0	5114.7	501676	98.08	-2		15

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.057	7.041	7.073	1000.0	720.500	671734	932.26	-7		15

TLC 11/02/12

5651

INITIAL CALIBRATION VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30010B 10/30/2012 17:02
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dalapon	2.783	2.767	2.799	100.0	1304.2	127117	97.46	-3		15
3,5-Dichlorobenzo	6.383	6.367	6.399	100.0	1647.3	149890	90.99	-9		15
4-Nitrophenol	6.963	6.947	6.979	100.0	884.300	81292	91.93	-8		15
Dicamba	7.627	7.611	7.643	100.0	3313.9	310627	93.74	-6		15
Dichloroprop	8.260	8.246	8.274	100.0	1275.0	121382	95.20	-5		15
2,4-D	8.527	8.513	8.541	100.0	1451.6	137340	94.61	-5		15
Pentachlorophenol	8.873	8.859	8.887	100.0	11988.8	1192104	99.43	-1		15
2,4,5-TP(Silvex)	9.163	9.149	9.177	100.0	4946.3	491024	99.27	-1		15
Chloramben	9.483	9.453	9.513	100.0	4997.1	509375	101.93	2		15
2,4,5-T	9.443	9.427	9.459	100.0	3771.0	375192	99.49	-1		15
2,4-DB	9.793	9.769	9.817	100.0	771.700	72938	94.52	-5		15
Dinoseb	10.010	9.994	10.026	100.0	3449.0	317757	92.13	-8		15
Bentazon	10.363	10.347	10.379	100.0	705.100	71292	101.12	1		15
Dacthal	10.587	10.571	10.603	100.0	4651.5	432387	92.96	-7		15
Picloram	10.627	10.603	10.651	100.0	7623.5	796747	104.51	5		15
Acifluorfen	11.787	11.773	11.801	100.0	4033.7	396927	98.40	-2		15

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.443	7.427	7.459	1000.0	839.800	775720	923.73	-8		15

11/02/12

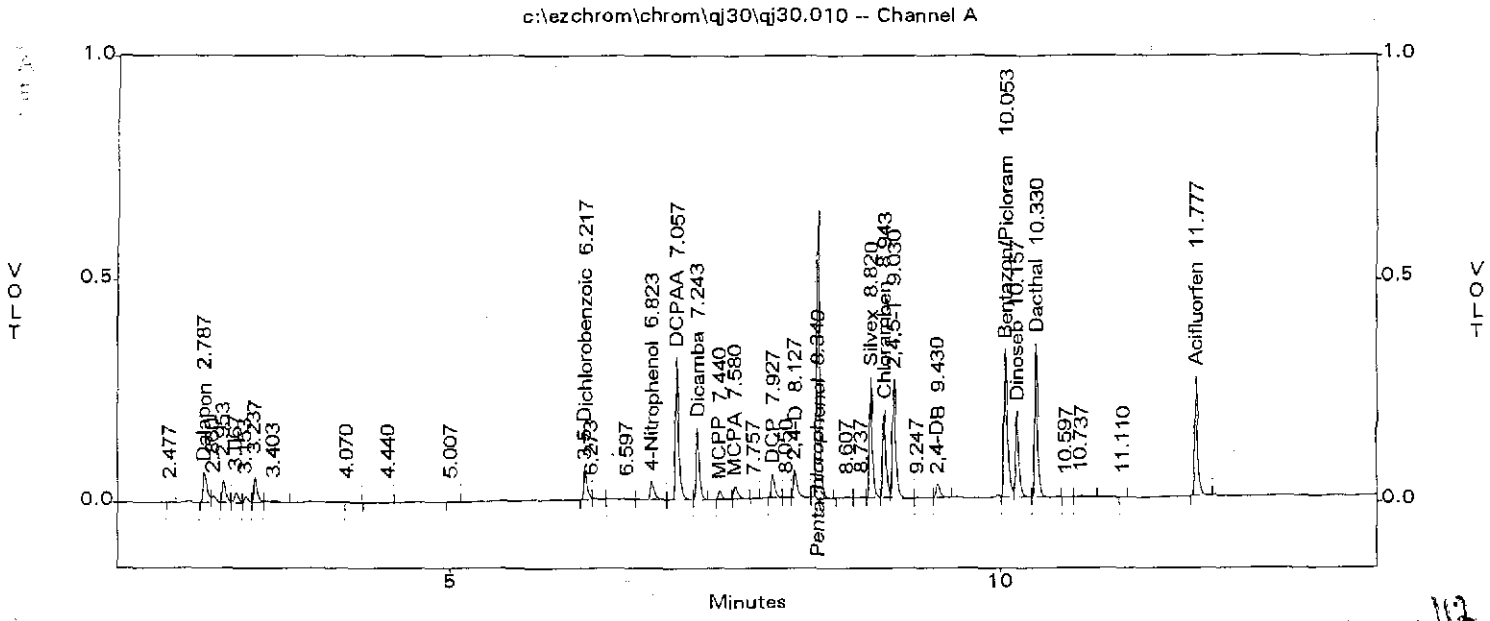
5652

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.010
Method : c:\ezchrom\methods\he09j30.met
Sample ID : IHE09J30001
Acquired : Oct 30, 2012 17:02:37
Printed : Oct 31, 2012 09:33:17
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	163796.0	1709.22	95.83	BS
3,5 Dichlorobenzo	6.217	138613.0	1507.56	91.95	Bx
4-Nitrophenol	6.823	99244.0	1051.91	94.35	VV
DCPAA	7.057	671734.0	720.54	932.26	VV
Dicamba	7.243	314947.0	3371.46	93.42	VV
MCPP	7.440	46739.0	4.57	10221.85	BV
MCPA	7.580	72312.0	8.27	8745.00	xV
DCP	7.927	114858.0	1182.11	97.16	BV
2,4-D	8.127	140356.0	1492.49	94.04	xV
Pentachlorophenol	8.340	1232337.0	12861.50	95.82	Vx
Silvex	8.820	512009.0	5293.29	96.73	BV
Chloramben	8.943	402054.0	4064.33	98.92	VV
2,4,5-T	9.030	560233.0	5662.12	98.94	VV
2,4-DB	9.430	72859.0	746.33	97.62	VV
Bentazon/Picloram	10.053	782861.0	4112.69	190.35	SV
Dinoseb	10.157	398101.0	4484.44	88.77	VV
Dacthal	10.330	634716.0	6368.69	99.66	VV
Acifluorfen	11.777	501676.0	5114.74	98.08	BV



11/02/12

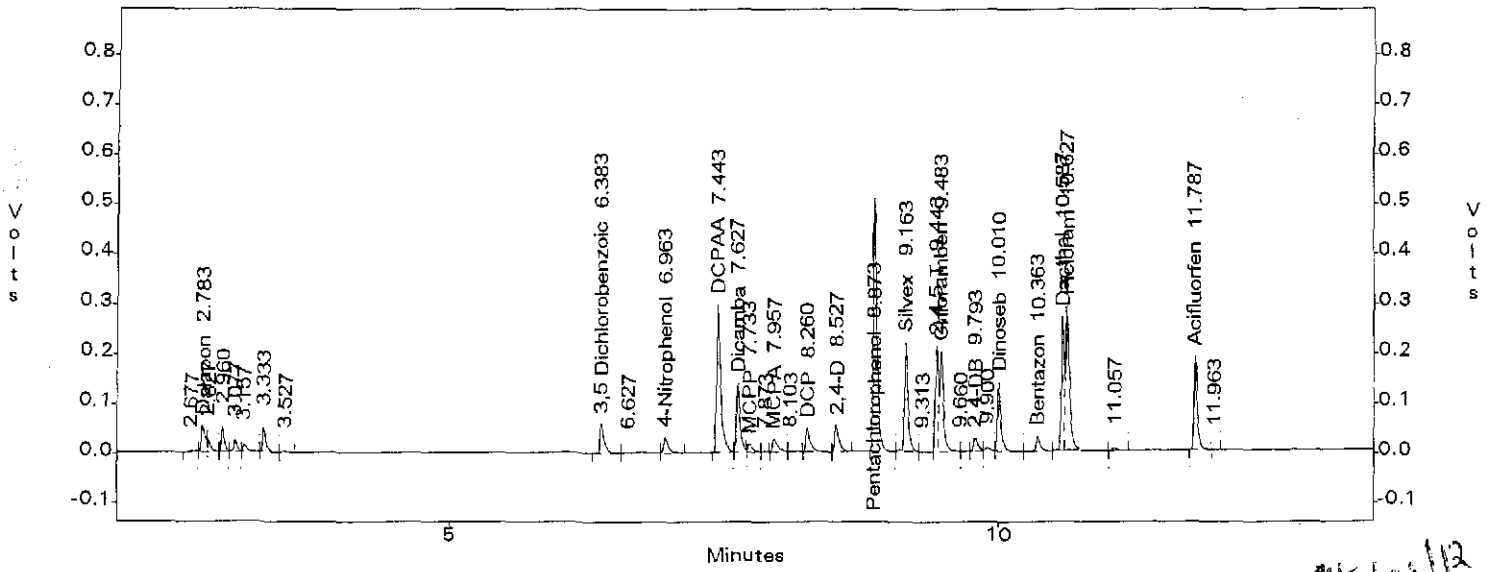
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.010
Method : c:\ezchrom\methods\he09j30.met
Sample ID : IHE09J30001
Acquired : Oct 30, 2012 17:02:37
Printed : Oct 31, 2012 09:33:17
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	127117.0	1304.23	97.46	xx
3,5 Dichlorobenzoic	6.383	149890.0	1647.29	90.99	BV
4-Nitrophenol	6.963	81292.0	884.30	91.93	VV
DCPAA	7.443	775720.0	839.77	923.73	SV
Dicamba	7.627	310627.0	3313.89	93.73	VS
MCPP	7.733	46897.0	5.44	8627.22	Sx
MCPA	7.957	82884.0	10.48	7905.59	Sx
DCP	8.260	121382.0	1274.98	95.20	SV
2,4-D	8.527	137340.0	1451.63	94.61	VS
Pentachlorophenol	8.873	1192104.0	11988.79	99.43	BV
Silvex	9.163	491024.0	4946.26	99.27	VS
2,4,5-T	9.443	375192.0	3771.03	99.49	xx
Chloramben	9.483	509375.0	4997.10	101.93	xS
2,4-DB	9.793	72938.0	771.68	94.52	xx
Dinoseb	10.010	317757.0	3449.00	92.13	SV
Bentazon	10.363	71292.0	705.05	101.12	VV
Dacthal	10.587	432387.0	4651.52	92.96	Vx
Picloram	10.627	796747.0	7623.47	104.51	xV
Acifluorfen	11.787	396927.0	4033.72	98.40	BS

c:\ezchrom\chrom\qj30\qj30.010 -- Channel B



11/02/12

INITIAL CALIBRATION VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30011A 10/30/2012 17:22
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
MCPP	7.440	7.426	7.454	5000.0	4.600	23581	5157.18	3		15
MCPA	7.583	7.567	7.599	5000.0	8.300	44058	5328.12	7		15

JMC 11/02/12

5055

INITIAL CALIBRATION VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ30011B 10/30/2012 17:22
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
MCPP	7.737	7.721	7.753	5000.0	5.400	26225	4824.38	-4		15
MCPA	7.957	7.941	7.973	5000.0	10.500	53080	5062.85	1		15

JW 11/02/12

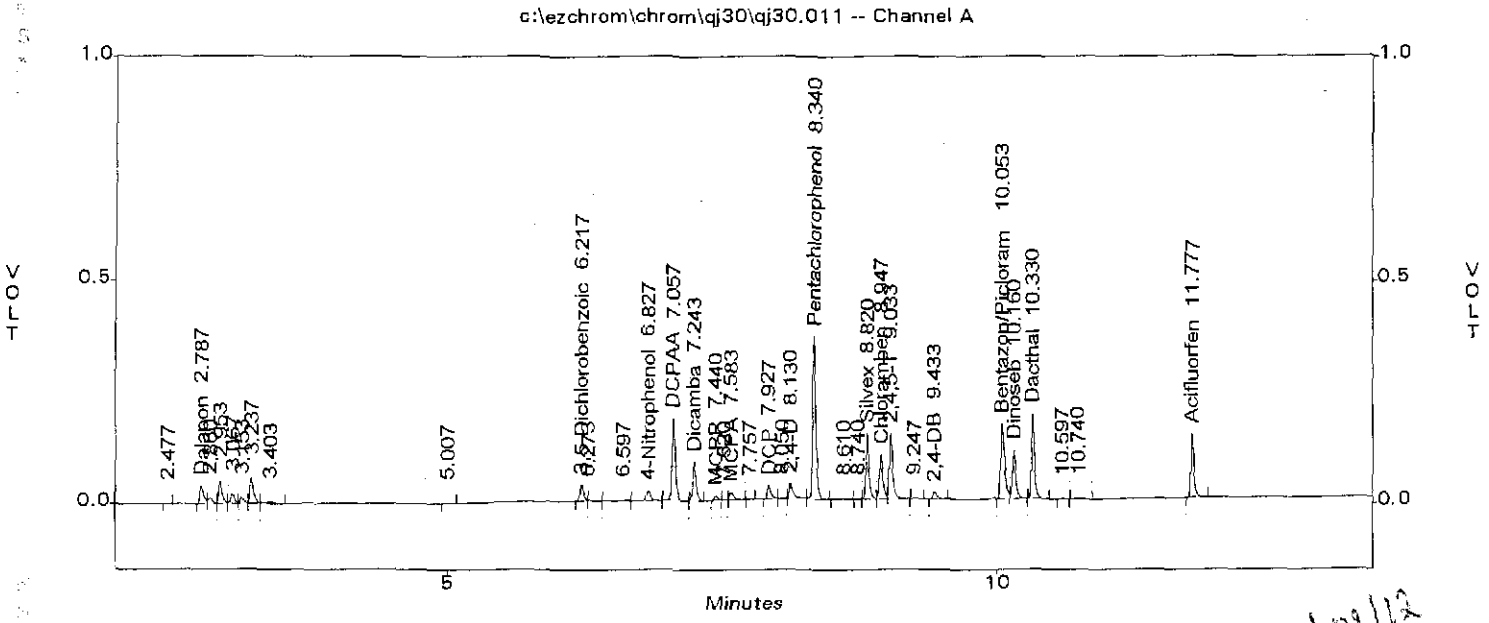
5656

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.011
Method : c:\ezchrom\methods\he09j30.met
Sample ID : IHE09J30002
Acquired : Oct 30, 2012 17:22:50
Printed : Oct 31, 2012 09:33:31
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.787	92802.0	1709.22	54.29	BV
3,5 Dichlorobenzo	6.217	80493.0	1507.56	53.39	Bx
4-Nitrophenol	6.827	58398.0	1051.91	55.52	VV
DCPAA	7.057	397673.0	720.54	551.91	VV
Dicamba	7.243	174706.0	3371.46	51.82	VV
MCPP	7.440	23581.0	4.57	5157.18	BV
MCPA	7.583	44058.0	8.27	5328.12	xV
DCP	7.927	66631.0	1182.11	56.37	BV
2,4-D	8.130	84036.0	1492.49	56.31	xV
Pentachlorophenol	8.340	702993.0	12861.50	54.66	Vx
Silvex	8.820	282161.0	5293.29	53.31	BV
Chloramben	8.947	211314.0	4064.33	51.99	VV
2,4,5-T	9.033	316763.0	5662.12	55.94	VV
2,4-DB	9.433	40453.0	746.33	54.20	VI
Bentazon/Picloram	10.053	420971.0	4112.69	102.36	SV
Dinoseb	10.160	228882.0	4484.44	51.04	VV
Dacthal	10.330	354217.0	6368.69	55.62	VB
Acifluorfen	11.777	273059.0	5114.74	53.39	BV



JR 11/02/12

5657

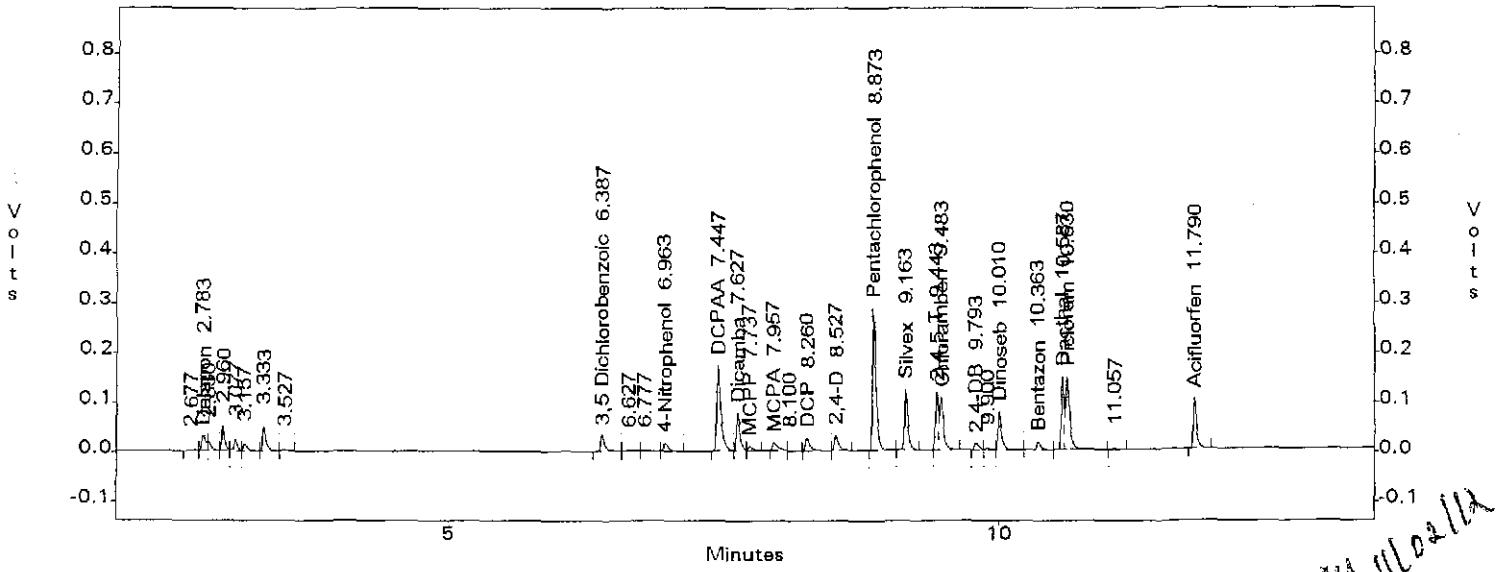
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj30\qj30.011
Method : c:\ezchrom\methods\he09j30.met
Sample ID : IHE09J30002
Acquired : Oct 30, 2012 17:22:50
Printed : Oct 31, 2012 09:33:31
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	72270.0	1304.23	55.41	xx
3,5 Dichlorobenzoic	6.387	85029.0	1647.29	51.62	BV
4-Nitrophenol	6.963	46927.0	884.30	53.07	VV
DCPAA	7.447	451330.0	839.77	537.45	SV
Dicamba	7.627	168983.0	3313.89	50.99	VS
MCPP	7.737	26225.0	5.44	4824.38	Sx
MCPA	7.957	53080.0	10.48	5062.84	Sx
DCP	8.260	70178.0	1274.98	55.04	SV
2,4-D	8.527	77987.0	1451.63	53.72	VB
Pentachlorophenol	8.873	648178.0	11988.79	54.07	BV
Silvex	9.163	258851.0	4946.26	52.33	VS
2,4,5-T	9.443	203121.0	3771.03	53.86	xx
Chloramben	9.483	258453.0	4997.10	51.72	xS
2,4-DB	9.793	39929.0	771.68	51.74	Bx
Dinoseb	10.010	171265.0	3449.00	49.66	SV
Bentazon	10.363	40119.0	705.05	56.90	VV
Dacthal	10.587	235668.0	4651.52	50.66	Vx
Picloram	10.630	408576.0	7623.47	53.59	xV
Acifluorfen	11.790	209434.0	4033.72	51.92	BS

c:\ezchrom\chrom\qj30\qj30.011 -- Channel B



TW 11/02/12

5058

DAILY CALIBRATIONS

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31002A 10/31/2012 16:10
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.163	10.147	10.179	100.0	4484.4	406178	102.03	2		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.063	7.047	7.079	1000.0	720.500	671865	936.68	-6		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31002B 10/31/2012 16:10
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.013	9.997	10.029	100.0	3449.0	307094	117.90	18		20

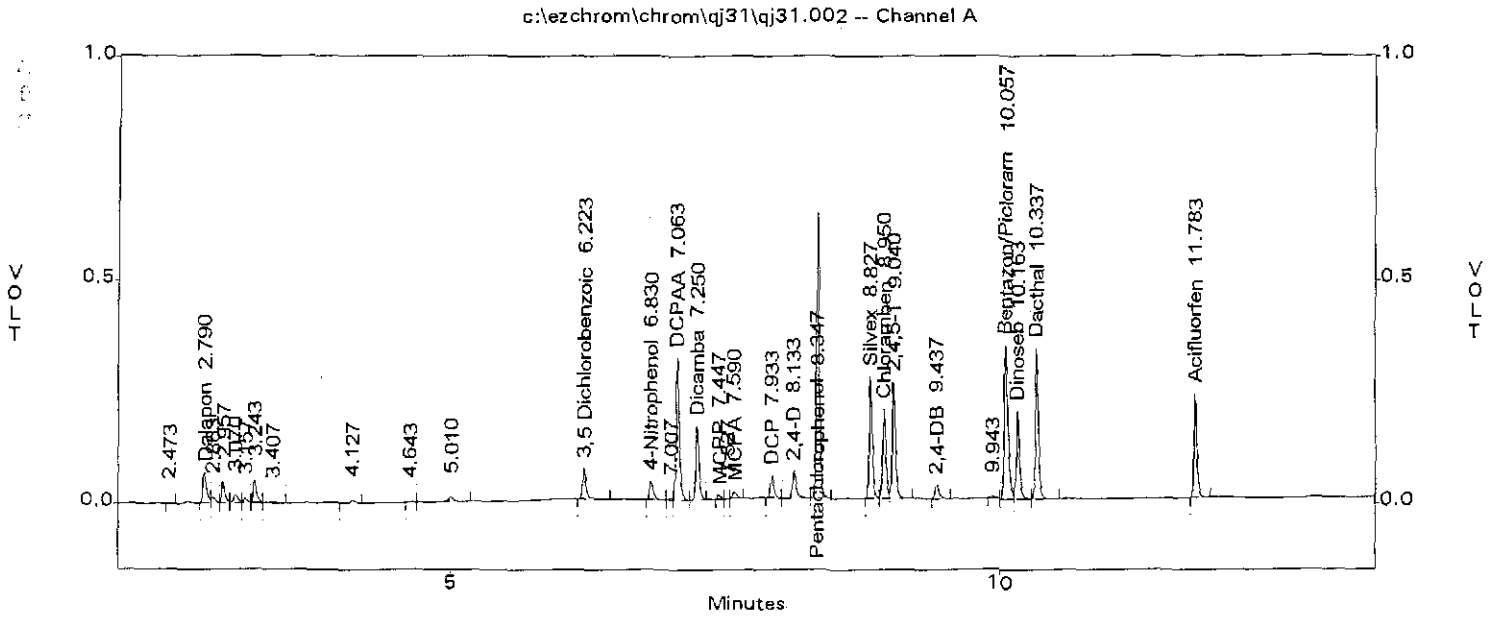
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.450	7.434	7.466	1000.0	839.800	777447	957.45	-4		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.002
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30007
Acquired : Oct 31, 2012 16:10:45
Printed : Nov 01, 2012 08:25:45
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.790	155207.0	1669.16	92.98	BS
3,5 Dichlorobenzo	6.223	152853.0	1582.76	96.57	BV
4-Nitrophenol	6.830	101645.0	994.81	102.17	BV
DCPAA	7.063	671865.0	717.28	936.68	SV
Dicamba	7.250	324228.0	3332.79	97.28	VV
MCPP	7.447	22631.0	3.75	6030.44	BV
MCPA	7.590	39017.0	7.75	5033.10	xV
DCP	7.933	112876.0	1133.12	99.62	BV
2,4-D	8.133	147460.0	1424.90	103.49	VV
Pentachlorophenol	8.347	1223311.0	12876.92	95.00	Vx
Silvex	8.827	522482.0	5252.30	99.48	BV
Chloramben	8.950	413516.0	4138.84	99.91	VV
2,4,5-T	9.040	548724.0	5436.08	100.94	VV
2,4-DB	9.437	72806.0	733.46	99.26	BV
Bentazon/Picloram	10.057	803526.0	3836.73	209.43	VV
Dinoseb	10.163	406178.0	3981.06	102.03	VV
Dacthal	10.337	627606.0	6309.82	99.47	VI
Acifluorfen	11.783	444675.0	4861.40	91.47	BV

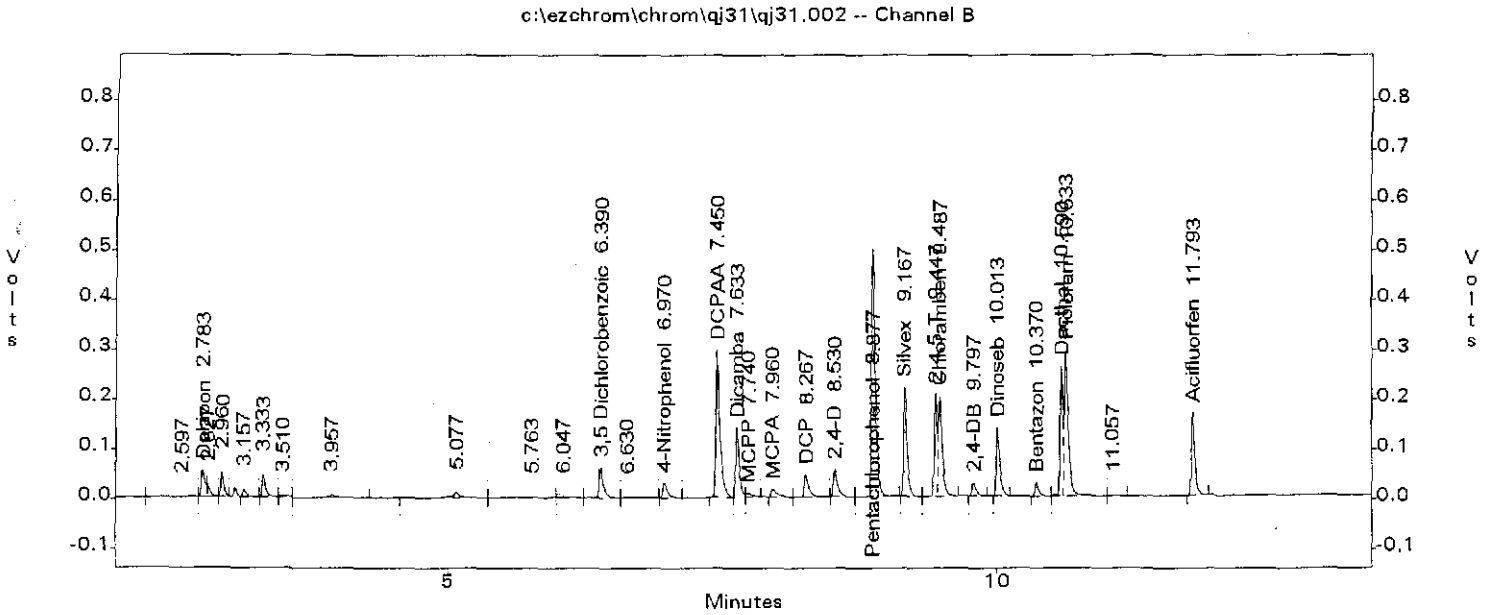


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.002
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30007
Acquired : Oct 31, 2012 16:10:45
Printed : Nov 01, 2012 08:25:46
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	126005.0	1263.67	99.71	Sx
3,5 Dichlorobenzoic	6.390	163620.0	1675.04	97.68	VV
4-Nitrophenol	6.970	83120.0	738.33	112.58	VV
DCPAA	7.450	777447.0	812.00	957.45	SV
Dicamba	7.633	315803.0	3231.74	97.72	VS
MCPP	7.740	24527.0	5.17	4745.04	SV
MCPA	7.960	49753.0	10.00	4977.73	SV
DCP	8.267	118106.0	1198.60	98.54	VV
2,4-D	8.530	138851.0	1382.77	100.42	VS
Pentachlorophenol	8.877	1161272.0	11546.42	100.57	SV
Silvex	9.167	478804.0	4667.02	102.59	VS
2,4,5-T	9.447	348966.0	3607.14	96.74	Sx
Chloramben	9.487	509146.0	4751.55	107.15	xS
2,4-DB	9.797	66830.0	713.67	93.64	Bx
Dinoseb	10.013	307094.0	2604.65	117.90	BI
Bentazon	10.370	62216.0	620.24	100.31	xV
Dacthal	10.590	439788.0	4296.46	102.36	Vx
Picloram	10.633	781179.0	7077.91	110.37	xV
Acifluorfen	11.793	349217.0	2674.64	130.57	BS



5653

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31014A 10/31/2012 20:13
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.160	10.144	10.176	100.0	4484.4	401425	100.83	1		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.057	7.041	7.073	1000.0	720.500	674597	940.49	-6		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31014B 10/31/2012 20:13
CONC UNIT : ppb

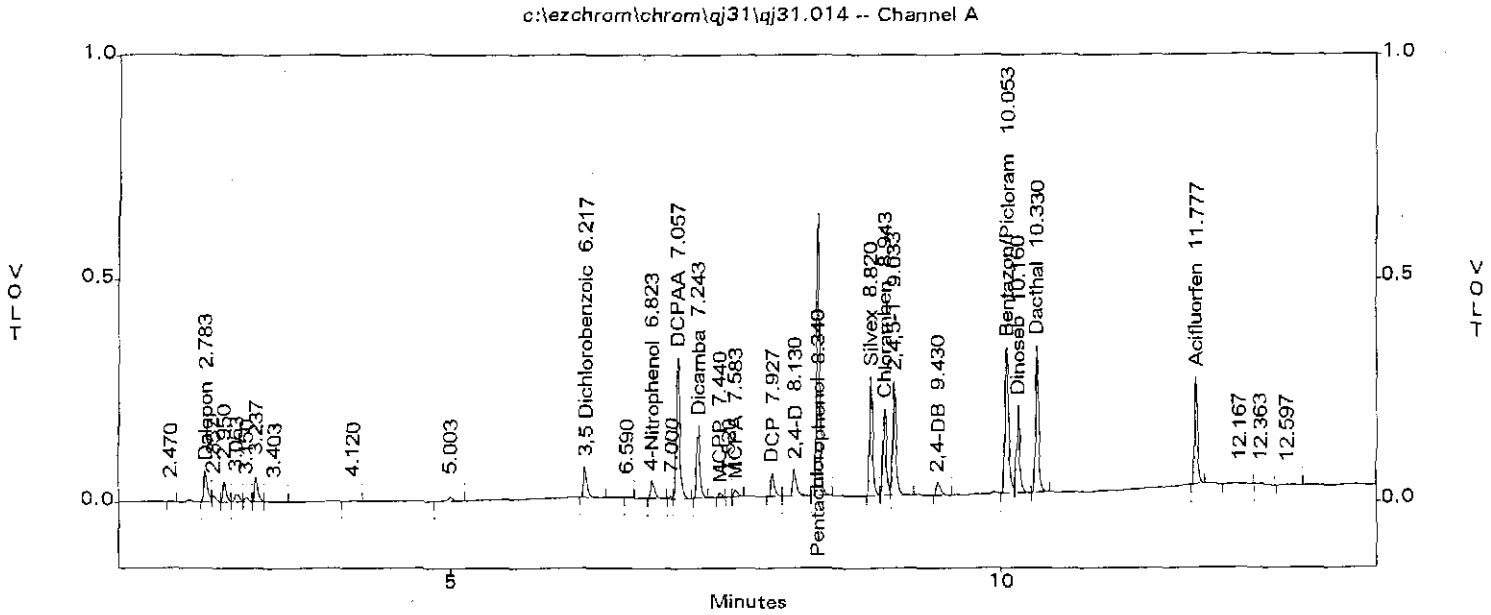
COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.010	9.994	10.026	100.0	3449.0	302035	115.96	16		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.443	7.427	7.459	1000.0	839.800	771902	950.62	-5		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.014
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30008
Acquired : Oct 31, 2012 20:13:55
Printed : Nov 01, 2012 09:06:52
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.783	154970.0	1669.16	92.84	BS
3,5 Dichlorobenzo	6.217	150356.0	1582.76	95.00	BB
4-Nitrophenol	6.823	100377.0	994.81	100.90	BV
DCPAA	7.057	674597.0	717.28	940.49	SV
Dicamba	7.243	324233.0	3332.79	97.29	VV
MCPP	7.440	22293.0	3.75	5940.37	BV
MCPA	7.583	38437.0	7.75	4958.28	xV
DCP	7.927	112906.0	1133.12	99.64	BV
2,4-D	8.130	144917.0	1424.90	101.70	VV
Pentachlorophenol	8.340	1224004.0	12876.92	95.05	Vx
Silvex	8.820	519086.0	5252.30	98.83	BV
Chloramben	8.943	410646.0	4138.84	99.22	VV
2,4,5-T	9.033	548510.0	5436.08	100.90	VV
2,4-DB	9.430	71232.0	733.46	97.12	BV
Bentazon/Picloram	10.053	785128.0	3836.73	204.63	BV
Dinoseb	10.160	401425.0	3981.06	100.83	VV
Dacthal	10.330	613874.0	6309.82	97.29	VV
Acifluorfen	11.777	451019.0	4861.40	92.78	BV



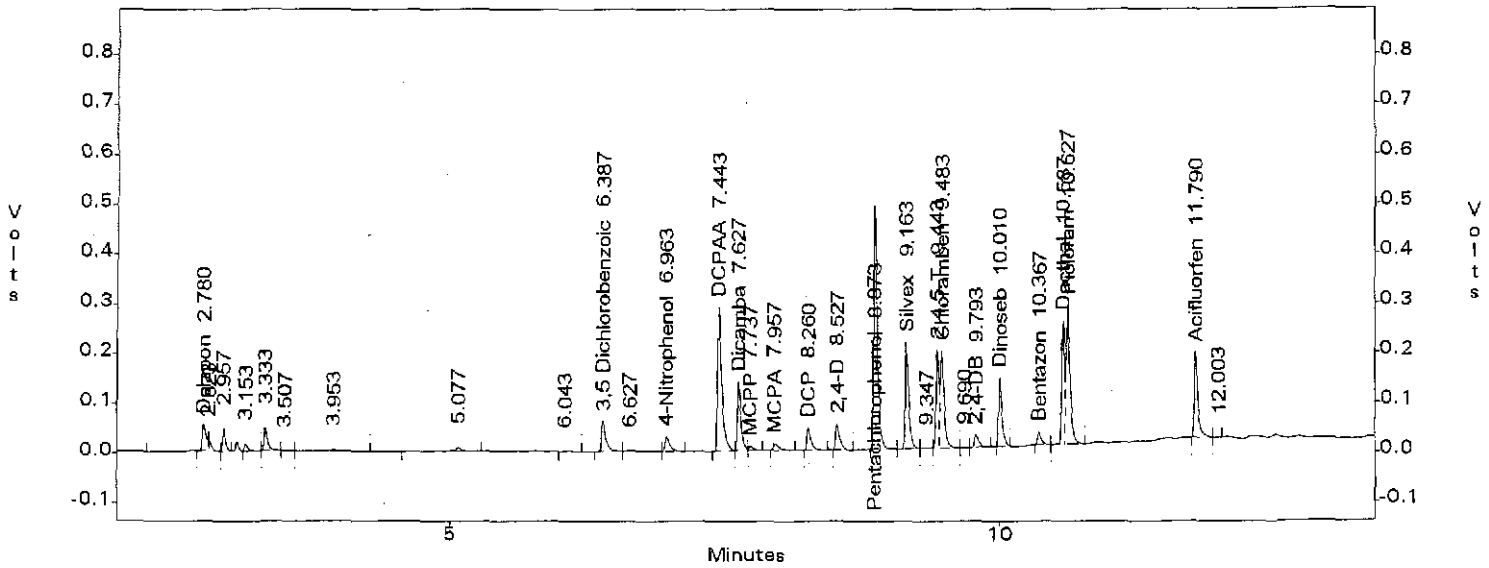
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.014
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30008
Acquired : Oct 31, 2012 20:13:55
Printed : Nov 01, 2012 09:06:52
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	125596.0	1263.67	99.39	Bx
3,5 Dichlorobenzoic	6.387	151634.0	1675.04	90.53	BV
4-Nitrophenol	6.963	82263.0	738.33	111.42	VV
DCPAA	7.443	771902.0	812.00	950.62	SV
Dicamba	7.627	312939.0	3231.74	96.83	VS
MCPP	7.737	23299.0	5.17	4507.47	SV
MCPA	7.957	49232.0	10.00	4925.60	SV
DCP	8.260	115076.0	1198.60	96.01	VV
2,4-D	8.527	136472.0	1382.77	98.69	VV
Pentachlorophenol	8.873	1144005.0	11546.42	99.08	SV
Silvex	9.163	472357.0	4667.02	101.21	VV
2,4,5-T	9.443	350547.0	3607.14	97.18	Sx
Chloramben	9.483	497442.0	4751.55	104.69	xV
2,4-DB	9.793	67910.0	713.67	95.16	Sx
Dinoseb	10.010	302035.0	2604.65	115.96	BI
Bentazon	10.367	54873.0	620.24	88.47	BV
Dacthal	10.587	428661.0	4296.46	99.77	Vx
Picloram	10.627	730509.0	7077.91	103.21	xV
Acifluorfen	11.790	390254.0	2674.64	145.91	SV

c:\ezchrom\chrom\qj31\qj31.014 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31026A 11/01/2012 00:18
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.153	10.137	10.169	100.0	4484.4	432731	108.70	9		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.050	7.034	7.066	1000.0	720.500	701266	977.67	-2		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 3DMX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31026B 11/01/2012 00:18
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.007	9.991	10.023	100.0	3449.0	328655	126.18	26	*	20

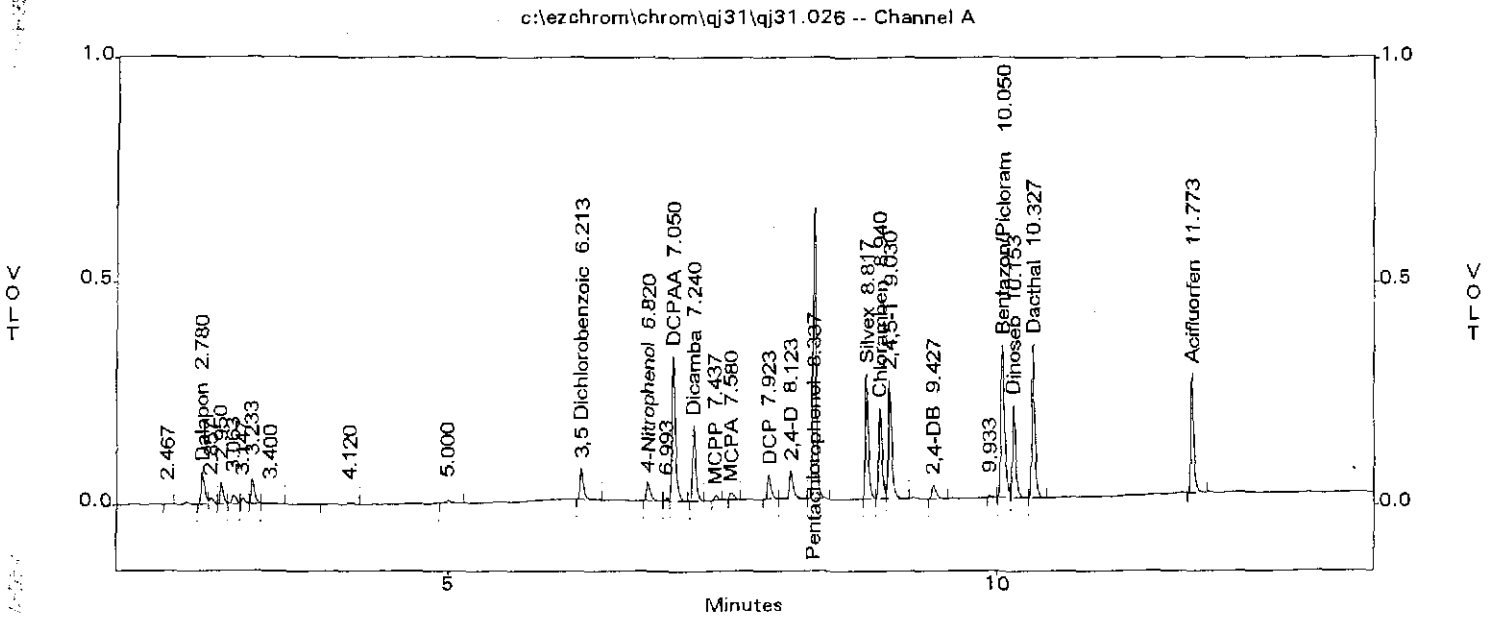
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.440	7.424	7.456	1000.0	839.800	805397	991.87	-1		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.026
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30009
Acquired : Nov 01, 2012 00:18:24
Printed : Nov 01, 2012 08:44:42
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	160009.0	1669.16	95.86	BS
3,5 Dichlorobenzo	6.213	153204.0	1582.76	96.80	BB
4-Nitrophenol	6.820	104218.0	994.81	104.76	BV
DCPAA	7.050	701266.0	717.28	977.67	SV
Dicamba	7.240	337007.0	3332.79	101.12	VV
MCPP	7.437	22267.0	3.75	5933.44	BI
MCPA	7.580	38539.0	7.75	4971.44	xV
DCP	7.923	117774.0	1133.12	103.94	BV
2,4-D	8.123	150148.0	1424.90	105.37	VV
Pentachlorophenol	8.337	1275654.0	12876.92	99.07	Vx
Silvex	8.817	541170.0	5252.30	103.03	BV
Chloramben	8.940	430003.0	4138.84	103.89	VV
2,4,5-T	9.030	572685.0	5436.08	105.35	VV
2,4-DB	9.427	74993.0	733.46	102.25	BV
Bentazon/Picloram	10.050	824369.0	3836.73	214.86	VV
Dinoseb	10.153	432731.0	3981.06	108.70	VV
Dacthal	10.327	644735.0	6309.82	102.18	VI
Acifluorfen	11.773	511131.0	4861.40	105.14	BV

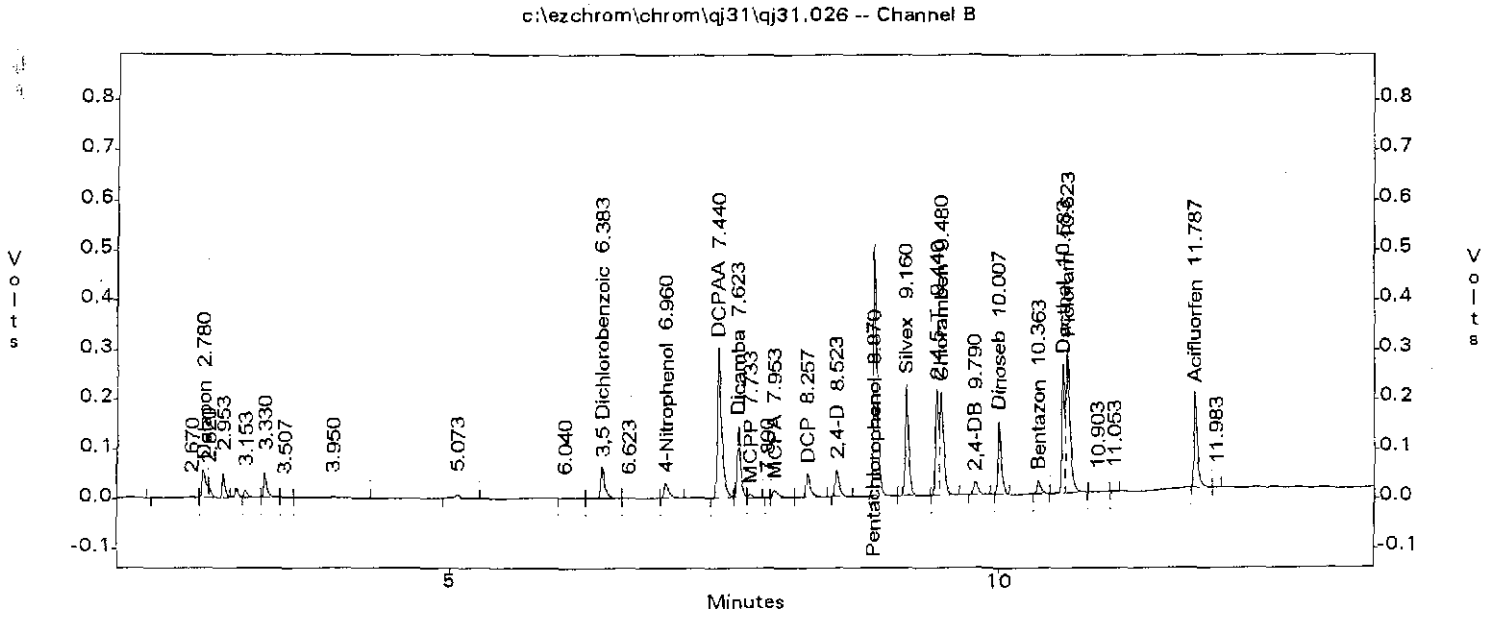


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.026
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30009
Acquired : Nov 01, 2012 00:18:24
Printed : Nov 01, 2012 08:44:43
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	130869.0	1263.67	103.56	SS
3,5 Dichlorobenzoic	6.383	158376.0	1675.04	94.55	VV
4-Nitrophenol	6.960	85997.0	738.33	116.47	VV
DCPAA	7.440	805397.0	812.00	991.87	SV
Dicamba	7.623	329561.0	3231.74	101.98	VS
MCPP	7.733	29290.0	5.17	5666.50	SV
MCPA	7.953	56563.0	10.00	5659.06	SV
DCP	8.257	121914.0	1198.60	101.71	VV
2,4-D	8.523	142009.0	1382.77	102.70	VV
Pentachlorophenol	8.870	1191045.0	11546.42	103.15	SV
Silvex	9.160	496159.0	4667.02	106.31	VV
2,4,5-T	9.440	370103.0	3607.14	102.60	Sx
Chloramben	9.480	527292.0	4751.55	110.97	xV
2,4-DB	9.790	72970.0	713.67	102.25	Sx
Dinoseb	10.007	328655.0	2604.65	126.18	BI
Bentazon	10.363	59295.0	620.24	95.60	xV
Dacthal	10.583	449627.0	4296.46	104.65	Vx
Picloram	10.623	774431.0	7077.91	109.42	xV
Acifluorfen	11.787	411465.0	2674.64	153.84	SV



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31033A 11/01/2012 02:41
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.153	10.137	10.169	100.0	4484.4	451269	113.35	13		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.050	7.034	7.066	1000.0	720.500	728453	1015.57	2		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31033B 11/01/2012 02:41
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.007	9.991	10.023	100.0	3449.0	347507	133.42	33	*	20

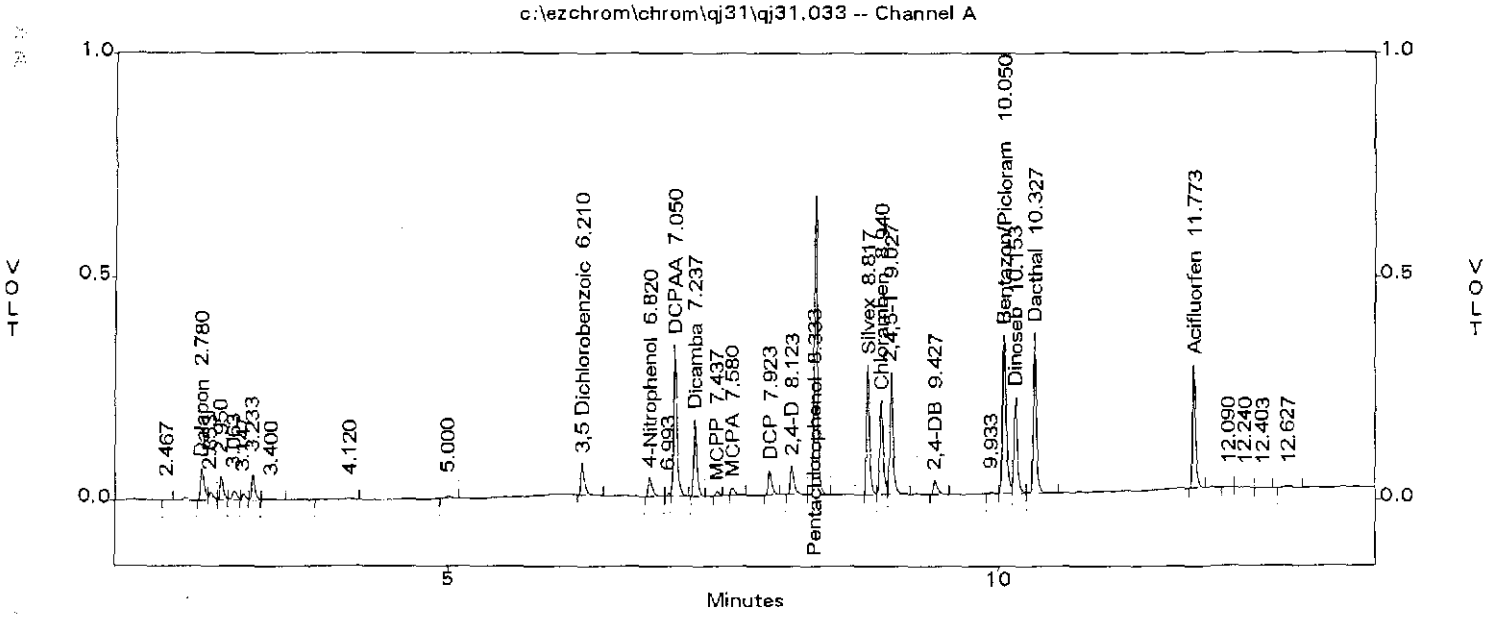
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.440	7.424	7.456	1000.0	839.800	832784	1025.60	3		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.033
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30010
Acquired : Nov 01, 2012 02:41:42
Printed : Nov 01, 2012 09:00:48
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.780	163889.0	1669.16	98.19	BV
3,5 Dichlorobenzo	6.210	157435.0	1582.76	99.47	BB
4-Nitrophenol	6.820	107174.0	994.81	107.73	BV
DCPAA	7.050	728453.0	717.28	1015.57	SV
Dicamba	7.237	347399.0	3332.79	104.24	VV
MCPP	7.437	22921.0	3.75	6107.72	BV
MCPA	7.580	41080.0	7.75	5299.22	xB
DCP	7.923	119492.0	1133.12	105.45	BV
2,4-D	8.123	148674.0	1424.90	104.34	BV
Pentachlorophenol	8.333	1313068.0	12876.92	101.97	Vx
Silvex	8.817	558638.0	5252.30	106.36	BV
Chloramben	8.940	443454.0	4138.84	107.14	VV
2,4,5-T	9.027	592825.0	5436.08	109.05	VV
2,4-DB	9.427	77883.0	733.46	106.19	BV
Bentazon/Picloram	10.050	855495.0	3836.73	222.98	VV
Dinoseb	10.153	451269.0	3981.06	113.35	VV
Dacthal	10.327	691963.0	6309.82	109.66	VV
Acifluorfen	11.773	521534.0	4861.40	107.28	BI



5874

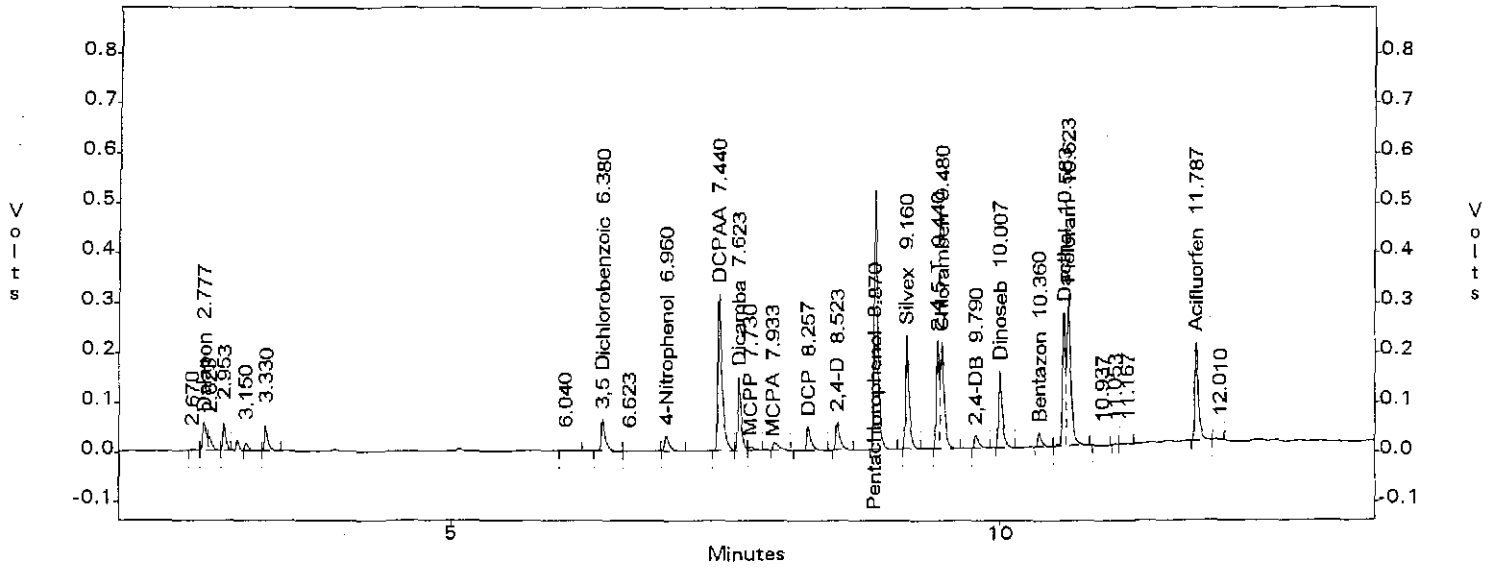
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.033
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30010
Acquired : Nov 01, 2012 02:41:42
Printed : Nov 01, 2012 09:00:48
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.777	126465.0	1263.67	100.08	Sx
3,5 Dichlorobenzoic	6.380	162249.0	1675.04	96.86	BV
4-Nitrophenol	6.960	88570.0	738.33	119.96	VV
DCPAA	7.440	832784.0	812.00	1025.60	SV
Dicamba	7.623	336153.0	3231.74	104.02	VS
MCPP	7.730	25073.0	5.17	4850.67	SV
MCPA	7.933	52121.0	10.00	5214.64	xx
DCP	8.257	122498.0	1198.60	102.20	SV
2,4-D	8.523	146759.0	1382.77	106.13	VV
Pentachlorophenol	8.870	1221686.0	11546.42	105.81	SV
Silvex	9.160	500545.0	4667.02	107.25	VV
2,4,5-T	9.440	376689.0	3607.14	104.43	Sx
Chloramben	9.480	541220.0	4751.55	113.90	xV
2,4-DB	9.790	71732.0	713.67	100.51	SV
Dinoseb	10.007	347507.0	2604.65	133.42	BV
Bentazon	10.360	67913.0	620.24	109.49	xV
Dacthal	10.583	469208.0	4296.46	109.21	Vx
Picloram	10.623	811166.0	7077.91	114.61	xV
Acifluorfen	11.787	426733.0	2674.64	159.55	SV

c:\ezchrom\chrom\qj31\qj31.033 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31036A 11/01/2012 13:16
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.157	10.141	10.173	100.0	4484.4	399512	100.35	0		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.053	7.037	7.069	1000.0	720.500	613073	854.71	-15		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31036B 11/01/2012 13:16
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.007	9.991	10.023	100.0	3449.0	304354	116.85	17		20

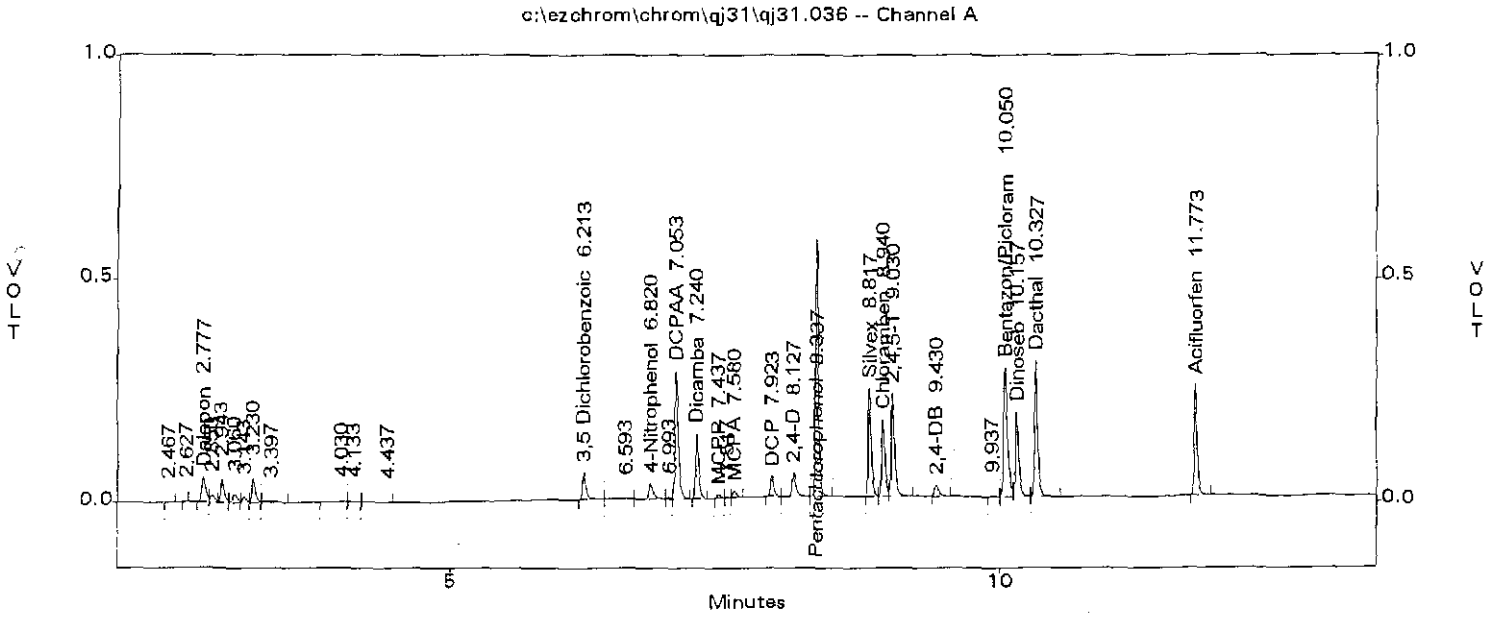
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.440	7.424	7.456	1000.0	839.800	708604	872.67	-13		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.036
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30011
Acquired : Nov 01, 2012 13:16:43
Printed : Nov 01, 2012 14:22:26
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.777	146323.0	1669.16	87.66	BV
3,5 Dichlorobenzo	6.213	139859.0	1582.76	88.36	BV
4-Nitrophenol	6.820	91249.0	994.81	91.72	VV
DCPAA	7.053	613073.0	717.28	854.71	SV
Dicamba	7.240	287927.0	3332.79	86.39	VV
MCPP	7.437	20083.0	3.75	5351.48	BV
MCPA	7.580	36354.0	7.75	4689.58	xV
DCP	7.923	101547.0	1133.12	89.62	BV
2,4-D	8.127	134932.0	1424.90	94.70	VV
Pentachlorophenol	8.337	1108275.0	12876.92	86.07	Vx
Silvex	8.817	467568.0	5252.30	89.02	BV
Chloramben	8.940	364954.0	4138.84	88.18	VV
2,4,5-T	9.030	498511.0	5436.08	91.70	VV
2,4-DB	9.430	63718.0	733.46	86.87	BV
Bentazon/Picloram	10.050	710478.0	3836.73	185.18	VV
Dinoseb	10.157	399512.0	3981.06	100.35	VV
Dacthal	10.327	574151.0	6309.82	90.99	VI
Acifluorfen	11.773	469746.0	4861.40	96.63	BV



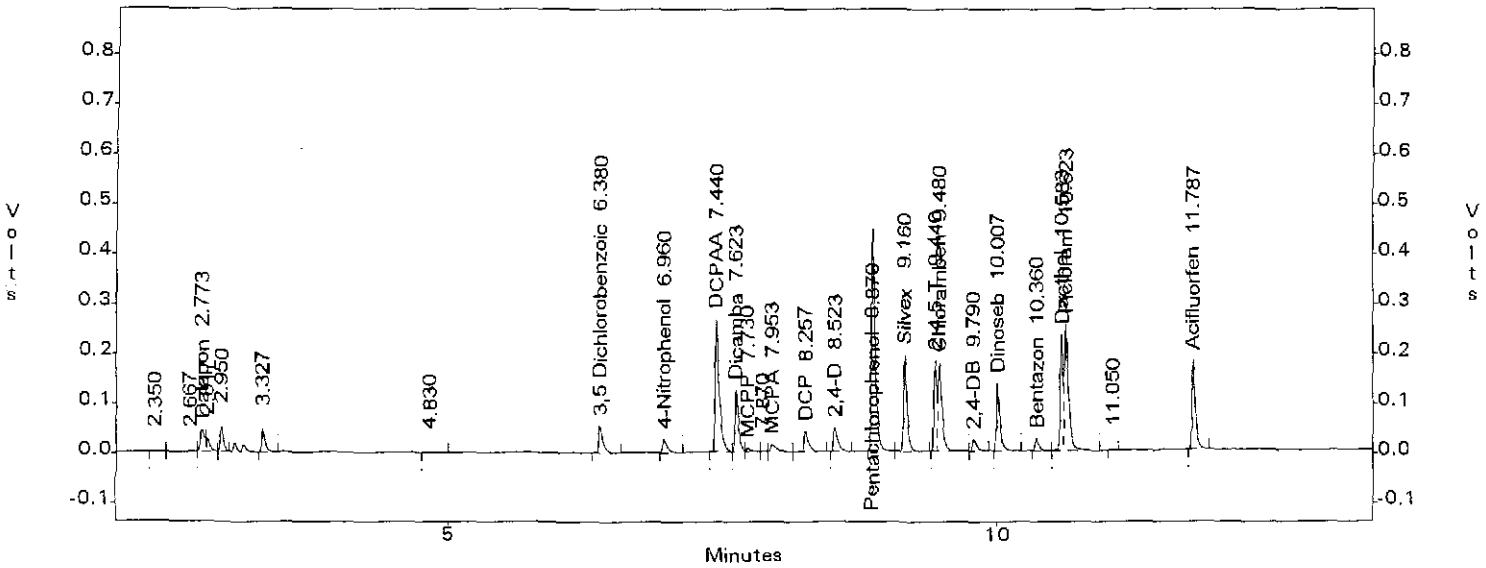
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.036
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30011
Acquired : Nov 01, 2012 13:16:43
Printed : Nov 01, 2012 14:22:27
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.773	118188.0	1263.67	93.53	Sx
3,5 Dichlorobenzoic	6.380	137386.0	1675.04	82.02	BV
4-Nitrophenol	6.960	75300.0	738.33	101.99	BV
DCPAA	7.440	708604.0	812.00	872.67	SV
Dicamba	7.623	282874.0	3231.74	87.53	VS
MCPP	7.730	28280.0	5.17	5471.11	Sx
MCPA	7.953	52532.0	10.00	5255.76	SV
DCP	8.257	107941.0	1198.60	90.06	VV
2,4-D	8.523	123154.0	1382.77	89.06	VV
Pentachlorophenol	8.870	1036100.0	11546.42	89.73	SV
Silvex	9.160	427573.0	4667.02	91.62	VV
2,4,5-T	9.440	318062.0	3607.14	88.18	Sx
Chloramben	9.480	452383.0	4751.55	95.21	xV
2,4-DB	9.790	65132.0	713.67	91.26	Sx
Dinoseb	10.007	304354.0	2604.65	116.85	BV
Bentazon	10.360	59762.0	620.24	96.35	xV
Dacthal	10.583	401868.0	4296.46	93.53	Vx
Picloram	10.623	677646.0	7077.91	95.74	xV
Acifluorfen	11.787	375541.0	2674.64	140.41	BS

c:\ezchrom\chrom\qj31\qj31.036 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GCT09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: QJ30006A 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31048A 11/01/2012 17:59
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.157	10.141	10.173	100.0	4484.4	405809	90.49	-10		20
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
2,4-DCPAA	7.053	7.037	7.069	1000.0	720.500	620640	861.35	-14		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GCT09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: QJ30006B 10/30/2012 15:41
Conc Cont LFID & Datetime: QJ31048B 11/01/2012 17:59
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
Dinoseb	10.007	9.991	10.023	100.0	3449.0	311128	90.21	-10		20

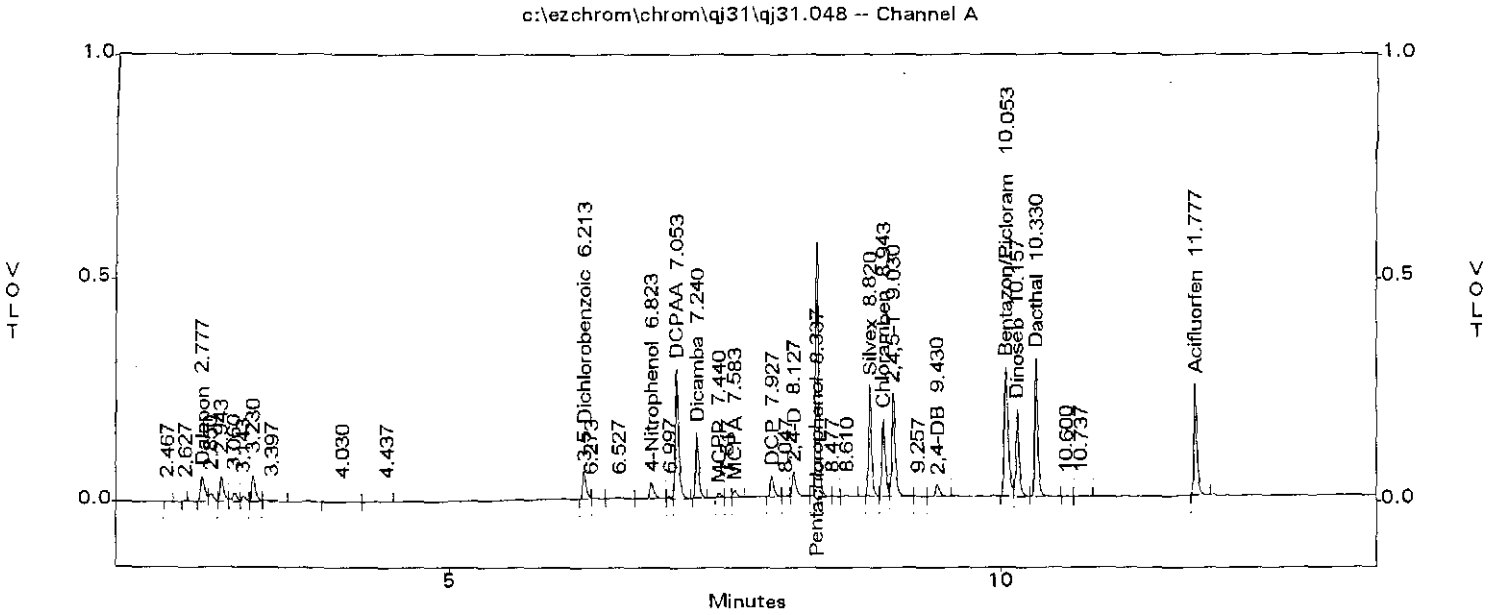
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	7.443	7.427	7.459	1000.0	839.800	714795	851.18	-15		20

EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.048
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30012
Acquired : Nov 01, 2012 17:59:17
Printed : Nov 01, 2012 18:15:23
User : RENEE

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.777	146673.0	1709.22	85.81	BV
3,5 Dichlorobenzo	6.213	131017.0	1507.56	86.91	Bx
4-Nitrophenol	6.823	92466.0	1051.91	87.90	VV
DCPAA	7.053	620640.0	720.54	861.35	SV
Dicamba	7.240	291763.0	3371.46	86.54	VV
MCPP	7.440	20570.0	4.57	4498.67	BV
MCPA	7.583	37043.0	8.27	4479.77	xV
DCP	7.927	104467.0	1182.11	88.37	BV
2,4-D	8.127	136169.0	1492.49	91.24	xV
Pentachlorophenol	8.337	1123923.0	12861.50	87.39	Vx
Silvex	8.820	476555.0	5293.29	90.03	BV
Chloramben	8.943	371596.0	4064.33	91.43	VV
2,4,5-T	9.030	513261.0	5662.12	90.65	VV
2,4-DB	9.430	66405.0	746.33	88.98	VI
Bentazon/Picloram	10.053	722757.0	4112.69	175.74	BV
Dinoseb	10.157	405809.0	4484.44	90.49	VV
Dacthal	10.330	583041.0	6368.69	91.55	VV
Acifluorfen	11.777	480352.0	5114.74	93.92	BV

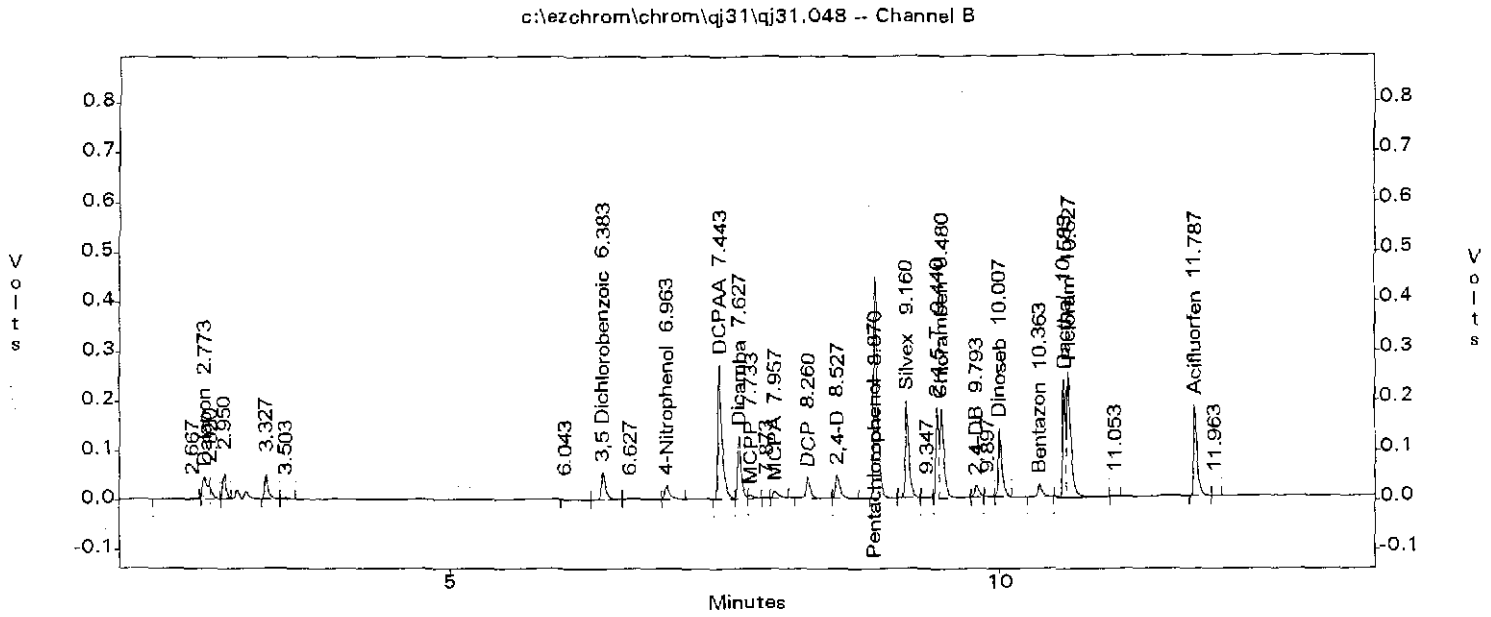


EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qj31\qj31.048
Method : c:\ezchrom\methods\he09j30.met
Sample ID : CHE09J30012
Acquired : Nov 01, 2012 17:59:17
Printed : Nov 01, 2012 18:15:23
User : RENEE

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.773	128604.0	1304.23	98.61	xx
3,5 Dichlorobenzoic	6.383	140469.0	1647.29	85.27	VV
4-Nitrophenol	6.963	76330.0	884.30	86.32	VV
DCPAA	7.443	714795.0	839.77	851.18	SV
Dicamba	7.627	285378.0	3313.89	86.12	VS
MCPP	7.733	23205.0	5.44	4268.81	Sx
MCPA	7.957	46973.0	10.48	4480.35	Sx
DCP	8.260	107406.0	1274.98	84.24	VV
2,4-D	8.527	125841.0	1451.63	86.69	VV
Pentachlorophenol	8.870	1043846.0	11988.79	87.07	SV
Silvex	9.160	434252.0	4946.26	87.79	VV
2,4,5-T	9.440	331145.0	3771.03	87.81	xx
Chloramben	9.480	451477.0	4997.10	90.35	xx
2,4-DB	9.793	61464.0	771.68	79.65	Sx
Dinoseb	10.007	311128.0	3449.00	90.21	SI
Bentazon	10.363	59295.0	705.05	84.10	BV
Dacthal	10.583	395011.0	4651.52	84.92	Vx
Picloram	10.627	702779.0	7623.47	92.19	xV
Acifluorfen	11.787	388684.0	4033.72	96.36	BS



ANALYTICAL LOGS

ANALYSIS RUN LOG
for
PCB CONGENERS/HERBICIDES/EDB and DBCP

EMAX LABORATORIES, INC.

Note: For samples and relevant QC/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #:	A09-015
Instrument No.:	09
Analytical Sequence:	QJ30
Method File:	HE0QJ30.MET
Analytical Batch:	QJ30002

SOP #	Rev. #
☑ EMAX-8151	3
☐ EMAX-8082CON	0
☐ EMAX-504.1	3
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
HE0QJ30	QJ30	10/30/12

STANDARDS ID		Conc (µg/L)
Hexane	5125	NA
DCC	—	—
8151 ICAL	554B-03-53-03	10/500/100 to 200/10,000/2000
8151 ICV	554B-03-54-01	100/10,000/1000 to 50/5000/500
8151 DCC	554B-03-54-02	100/5000/1000

Column	☐ A. STX CLPEST I ☑ STX CLPEST II

ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC6HERB	
☐	

Analyzed By: [illegible] Date: 10/30/12

Disposed By: [illegible] Date Disposed: 10/31/12

This page is checked during data review.

Run	Sample ID	Method	Filename	Mult.	Description
1	IB09J30001	HE09J30.MET	QJ30.001	1	
2	HE09J3001	HE09J30.MET	QJ30.002	1	
3	HE09J3002	HE09J30.MET	QJ30.003	1	
4	HE09J3003	HE09J30.MET	QJ30.004	1	
5	HE09J3004	HE09J30.MET	QJ30.005	1	
6	HE09J3005	HE09J30.MET	QJ30.006	1	
7	HE09J3006	HE09J30.MET	QJ30.007	1	
8	HE09J3007	HE09J30.MET	QJ30.008	1	
9	HE09J3008	HE09J30.MET	QJ30.009	1	
10	IHE09J30001	HE09J30.MET	QJ30.010	1	
11	IHE09J30002	HE09J30.MET	QJ30.011	1	
12	CHE09J30001	HE09J30.MET	QJ30.012	1	
13	HEJ009WB	HE09J30.MET	QJ30.013	1	
14	HEJ009WL	HE09J30.MET	QJ30.014	1	
15	HEJ009WC	HE09J30.MET	QJ30.015	1	
16	J163-01	HE09J30.MET	QJ30.016	1	
17	J163-02	HE09J30.MET	QJ30.017	1	
18	J163-04	HE09J30.MET	QJ30.018	1	
19	J163-05	HE09J30.MET	QJ30.019	1	
20	J163-06	HE09J30.MET	QJ30.020	1	
21	J163-07	HE09J30.MET	QJ30.021	1	
22	J163-08	HE09J30.MET	QJ30.022	1	
23	IB09J30002	HE09J30.MET	QJ30.023	1	
24	CHE09J30002	HE09J30.MET	QJ30.024	1	
25	J163-09	HE09J30.MET	QJ30.025	1	

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
PCB CONGENERS/HERBICIDES/EDB and DBCP

Note: For samples and relevant QC/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A09-015
Instrument No.: 09
Analytical Sequence: QJ31
Method File: HE09J30.met
Analytical Batch: QJ31002

SOP #	Rev. #
☑ EMAX-8151	3
☐ EMAX-8082CON	0
☐ EMAX-504.1	3
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
HE09J30	QJ30	10/30/12

STANDARDS ID		Conc (µg/L)
Hexane	V7257	NA
DCC	SS4B-03-S4-02	100/5000/1000

Column	☑ A. STX CLPEST I	☑ STX CLPEST II

ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC6HERB	
☐	

Analyzed By: [signature] Date: 10/31/12
Disposed By: [signature] Date Disposed: 11/1/12

This page is checked during data review.

5687

Run	Sample ID	Method	Filename	Mult.	Description
1	IB09J30007	he09j30.met	QJ31.001	1	
2	CHE09J30007	he09j30.met	QJ31.002	1	✓ OK
3	HEJ010WB	he09j30.met	QJ31.003	1	
4	HEJ010WL	he09j30.met	QJ31.004	1	
5	HEJ010WC	he09j30.met	QJ31.005	1	
6	J181-01	he09j30.met	QJ31.006	1	
7	J181-02	he09j30.met	QJ31.007	1	
8	J181-03	he09j30.met	QJ31.008	1	
9	J181-04	he09j30.met	QJ31.009	1	
10	J181-04M	he09j30.met	QJ31.010	1	
11	J181-04S	he09j30.met	QJ31.011	1	
12	J181-05	he09j30.met	QJ31.012	1	
13	IB09J30008	he09j30.met	QJ31.013	1	
14	CHE09J30008	he09j30.met	QJ31.014	1	✓ OK
15	J181-06	he09j30.met	QJ31.015	1	Report from Col. A.
16	J181-07	he09j30.met	QJ31.016	1	
17	J181-08	he09j30.met	QJ31.017	1	
18	J181-09	he09j30.met	QJ31.018	1	
19	J181-10I DF=10	he09j30.met	QJ31.019	10	
20	J181-11	he09j30.met	QJ31.020	1	
21	J182-02	he09j30.met	QJ31.021	1	
22	J182-02M	he09j30.met	QJ31.022	1	
23	J182-02S	he09j30.met	QJ31.023	1	
24	J182-03	he09j30.met	QJ31.024	1	
25	IB09J30009	he09j30.met	QJ31.025	1	

Run	Sample ID	Method	Filename	Mult.	Description
25	IB09J30009	he09j30.met	QJ31.025	1	
26	CHE09J30009	he09j30.met	QJ31.026	1	Dimoseb in col. B high.
27	J182-04 ✓	he09j30.met	QJ31.027	1	Report from col. A
28	J182-05	he09j30.met	QJ31.028	1	dilution
29	J182-06 ✓	he09j30.met	QJ31.029	1	Report from col. A.
30	J182-07 ✓	he09j30.met	QJ31.030	1	↓
31	J181-09I DF=5	he09j30.met	QJ31.031	5	
32	IB09J30010	he09j30.met	QJ31.032	1	
33	CHE09J30010	he09j30.met	QJ31.033	1	Dimoseb in col. B high.
34	no data	he09j30.met	QJ31.034	1	
35	IB09J30011	he09j30.met	QJ31.035	1	
36	CHE09J30011	he09j30.met	QJ31.036	1	✓ ok
37	J181-01I DF=50	he09j30.met	QJ31.037	50	
38	J181-07I DF=20	he09j30.met	QJ31.038	20	
39	J181-09I DF=100	he09j30.met	QJ31.039	100	
40	J181-10I DF=100	he09j30.met	QJ31.040	100	
41	J181-11I DF=20	he09j30.met	QJ31.041	20	
42	J182-05I DF=20 ✓	he09j30.met	QJ31.042	20	
43	J181-07J DF=10	he09j30.met	QJ31.043	10	
44	J181-09J DF=2000	he09j30.met	QJ31.044	2000	
45	J181-10J DF=8000	he09j30.met	QJ31.045	8000	
46	J181-11J DF=10	he09j30.met	QJ31.046	10	
47	IB09J30012	he09j30.met	QJ31.047	1	
48	CHE09J30012	he09j30.met	QJ31.048	1	✓ ok
49	IB	he09j30.met	QJ31.049	1	

EXTRACTION LOGS

EMAX LABORATORIES, INC.

EXTRACTION LOG
for
HERBICIDES

SOP	Rev. #
☒ EMAX-8151	3
☐ EMAX-	

Note: For samples, relevant QCs/Standards extracted, *refer to attached extraction sequence.*

Comments:

Book #.: EHE-016
Preparation Batch: HEJ010W
Matrix WATER
Micropipette ID: PE00-04 (1000 uL)
Micropipette ID:

Standards	ID	Amount Added (ml)
Surrogate	554B-03-01-01	1.0
LCS/MS	554B-02-50-3	0.25

Reagent	Lot # / ID
CH_2Cl_2	—
Hexane	52153
Ethyl Ether	DG659
Acified Na_2SO_4	SP1B-04-262
H_2SO_4	3111070
Diazo-methane	SP1B-05-04-01
Methanol	51145
Iso Octane	SP1A-03-035
Silica Sand	—
Silicic Acid	SP1A-03-041
Reagent Water	SW1A-04-571
Residual Chlorine Strip	20221
pH Strip	HC248798

TUNING

Sonicator #	Reading
	N/A
	↓
	↓

Concentrator	Water Bath Temperature Setting (°C)	Thermometer Reading (°C)
1	35	35
2	35	35
3	35	35
4	35	35
5		
6		

Lab Sample ID	Sonicator #	Concentrator #
HEJ010-WB	N/A	1
-WL		1
-WC		1
J181-01		2
-02		2
-03		2
-04		2
-04M		2
-04S		2
-05		3
-06		3
-07		3
-08		3
-09		3
-10		3
-11		4
J182-02		4
-02M		4
-02S		4
-03		4
-04		4
-05		1
-06		1
-07	↓	1

Test Thermometer = SVOC-T1

Prepared By: ML cs
Standard Added By: ML
Witnessed By: cs
Checked By: JM
Extract Received By: JM
Extract Location: SE04-8151-4
Disposal Date:
Disposed By:

EMAX LABORATORIES, INC.

FileID: HEJ010W

EXTRACTION LOG FOR HERBICIDES

PrepBatchID	LabSampleID	Aliquot	Unit	DateTime	Ve(ml)	ExpAmt	ExpVe(ml)	PrepFctr	Comments
12HEJ010W01	HEJ010WB	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W02	HEJ010WL	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W03	HEJ010WC	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W04	J181-01	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W05	J181-02	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W06	J181-03	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W07	J181-04	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W08	J181-04M	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W09	J181-04S	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W10	J181-05	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W11	J181-06	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W12	J181-07	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W13	J181-08	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W14	J181-09	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W15	J181-10	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W16	J181-11	500	ml	10/30/12 10:50	5	500	5	1	
12HEJ010W17	J182-02	500	ml	10/30/12 13:06	5	500	5	1	CHLORINE DETECTED >5
12HEJ010W18	J182-02M	500	ml	10/30/12 13:06	5	500	5	1	CHLORINE DETECTED >5
12HEJ010W19	J182-02S	460	ml	10/30/12 13:06	5	500	5	1.09	CHLORINE DETECTED >5
12HEJ010W20	J182-03	500	ml	10/30/12 13:06	5	500	5	1	
12HEJ010W21	J182-04	500	ml	10/30/12 13:07	5	500	5	1	
12HEJ010W22	J182-05	500	ml	10/30/12 13:07	5	500	5	1	
12HEJ010W23	J182-06	500	ml	10/30/12 13:07	5	500	5	1	
12HEJ010W24	J182-07	500	ml	10/30/12 13:07	5	500	5	1	

Ve=extract volume

PrepFctr=(ExpAmt/Aliquot)(Ve/ExpVe

☑ Extraction Started @ 10/30/12 10:50

Prepared By: ML

☑ Extraction Ended @ 10/30/12 16:25

Checked By: [illegible]

Comments:

Date 10/30/12

5662

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

WET CHEMICAL ANALYSES

SDG#: 12J182

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J182

METHOD 300.0
ANIONS BY IC

A total of six (6) water samples were received on 10/25/12 for Anions (Nitrate-N, Nitrite-N and Sulfate) by IC analysis, Method 300.0 in accordance with Methods for the Determination of Inorganic Substances in Environmental Samples (EPA/600/R-93/100) and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source. Continuing calibration verifications were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blanks were analyzed at the frequency required by the project. For this SDG, two (2) method blanks were analyzed with the samples. All results were compliant to project requirement. Refer to QC result summary forms for details.

Lab Control Sample
Two (2) sets of LCS/LCD were analyzed with the samples in this SDG.
Percent recoveries for ICJ043WL/C were all within QC limits.
Percent recoveries for ICJ047WL/C were all within QC limits.

Matrix QC Sample
Matrix QC sample was analyzed at the frequency prescribed by the project.
Percent recoveries for J182-02M/S were within project QC limits.
Sample duplicate was also analyzed with the samples. RPD was within project limit.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

SAMPLE RESULTS

METHOD 300.0
NITRATE-N

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J182

Matrix : WATER
Instrument ID : DO

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICJ043WB	ND	1	NA	0.100	0.0500	10/25/1218:31	NA	AJ33-03	AJ33-01	ICJ043W	NA	NA
LCS1W	ICJ043WL	0.932	1	NA	0.100	0.0500	10/25/1218:48	NA	AJ33-04	AJ33-01	ICJ043W	NA	NA
LCD1W	ICJ043WC	0.936	1	NA	0.100	0.0500	10/25/1219:05	NA	AJ33-05	AJ33-01	ICJ043W	NA	NA
10-24-12 PWB-15	J182-03I	24.6	20	NA	2.00	1.00	10/25/1221:05	NA	AJ33-12	AJ33-01	ICJ043W	10/24/1213:15	10/25/12
10-24-12 PWB-2	J182-04I	29.6	20	NA	2.00	1.00	10/25/1222:31	NA	AJ33-17	AJ33-13	ICJ043W	10/24/1215:22	10/25/12
10-24-12 PWB-7A	J182-05I	53.6	20	NA	2.00	1.00	10/25/1223:05	NA	AJ33-19	AJ33-13	ICJ043W	10/24/1214:50	10/25/12
10-24-12 WB 2-2	J182-06I	38.6	20	NA	2.00	1.00	10/25/1223:39	NA	AJ33-21	AJ33-13	ICJ043W	10/24/1214:48	10/25/12
10-24-12 FDUP-3	J182-07I	38.6	20	NA	2.00	1.00	10/26/1200:14	NA	AJ33-23	AJ33-13	ICJ043W	10/24/1200:00	10/25/12
MBLK2W	ICJ047WB	ND	1	NA	0.100	0.0500	10/26/1210:33	NA	AJ35-03	AJ35-01	ICJ047W	NA	NA
LCS2W	ICJ047WX	0.907	1	NA	0.100	0.0500	10/26/1212:33	NA	AJ35-10	AJ35-01	ICJ047W	NA	NA
LCD2W	ICJ047WC	0.915	1	NA	0.100	0.0500	10/26/1211:07	NA	AJ35-05	AJ35-01	ICJ047W	NA	NA
10-24-12 WB 2-3	J182-02I	5.22	5	NA	0.500	0.25D	10/26/1211:24	NA	AJ35-06	AJ35-01	ICJ047W	10/24/1213:34	10/25/12
10-24-12 WB 2-3DUP	J182-02D	5.21	5	NA	0.500	0.250	10/26/1211:42	NA	AJ35-07	AJ35-01	ICJ047W	10/24/1213:34	10/25/12
10-24-12 WB 2-3MS	J182-02M	10.3	5	NA	0.500	0.250	10/26/1211:59	NA	AJ35-08	AJ35-01	ICJ047W	10/24/1213:34	10/25/12
10-24-12 WB 2-3MSD	J182-02S	10.3	5	NA	0.500	0.250	10/26/1212:16	NA	AJ35-09	AJ35-01	ICJ047W	10/24/1213:34	10/25/12

METHOD 300.0
NITRITE-N

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J182

Matrix : WATER
Instrument ID : DO

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICJ043WB	ND	1	NA	0.100	0.0500	10/25/1218:31	NA	AJ33-03	AJ33-01	ICJ043W	NA	NA
LCS1W	ICJ043WL	2.03	1	NA	0.100	0.0500	10/25/1218:48	NA	AJ33-04	AJ33-01	ICJ043W	NA	NA
LCD1W	ICJ043WC	2.03	1	NA	0.100	0.0500	10/25/1219:05	NA	AJ33-05	AJ33-01	ICJ043W	NA	NA
10-24-12 PWB-15	J182-03	ND	1	NA	0.100	0.0500	10/25/1221:56	NA	AJ33-15	AJ33-13	ICJ043W	10/24/1213:15	10/25/12
10-24-12 PWB-2	J182-04	ND	1	NA	0.100	0.0500	10/25/1222:14	NA	AJ33-16	AJ33-13	ICJ043W	10/24/1215:22	10/25/12
10-24-12 PWB-7A	J182-05	ND	1	NA	0.100	0.0500	10/25/1222:48	NA	AJ33-18	AJ33-13	ICJ043W	10/24/1214:50	10/25/12
10-24-12 WB 2-2	J182-06	ND	1	NA	0.100	0.0500	10/25/1223:22	NA	AJ33-20	AJ33-13	ICJ043W	10/24/1214:48	10/25/12
10-24-12 FDUP-3	J182-07	ND	1	NA	0.100	0.0500	10/25/1223:57	NA	AJ33-22	AJ33-13	ICJ043W	10/24/1200:00	10/25/12
MBLK2W	ICJ047WB	ND	1	NA	0.100	0.0500	10/26/1210:33	NA	AJ35-03	AJ35-01	ICJ047W	NA	NA
LCS2W	ICJ047WX	1.99	1	NA	0.100	0.0500	10/26/1212:33	NA	AJ35-10	AJ35-01	ICJ047W	NA	NA
LCD2W	ICJ047WC	2.01	1	NA	0.100	0.0500	10/26/1211:07	NA	AJ35-05	AJ35-01	ICJ047W	NA	NA
10-24-12 WB 2-3	J182-02I	12.0	5	NA	0.500	0.250	10/26/1211:24	NA	AJ35-06	AJ35-01	ICJ047W	10/24/1213:34	10/25/12
10-24-12 WB 2-3DUP	J182-02D	12.0	5	NA	0.500	0.250	10/26/1211:42	NA	AJ35-07	AJ35-01	ICJ047W	10/24/1213:34	10/25/12
10-24-12 WB 2-3MS	J182-02M	22.3	5	NA	0.500	0.250	10/26/1211:59	NA	AJ35-08	AJ35-01	ICJ047W	10/24/1213:34	10/25/12
10-24-12 WB 2-3MSD	J182-02S	22.3	5	NA	0.500	0.250	10/26/1212:16	NA	AJ35-09	AJ35-01	ICJ047W	10/24/1213:34	10/25/12

METHOD 300.0
SULFATE

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J182

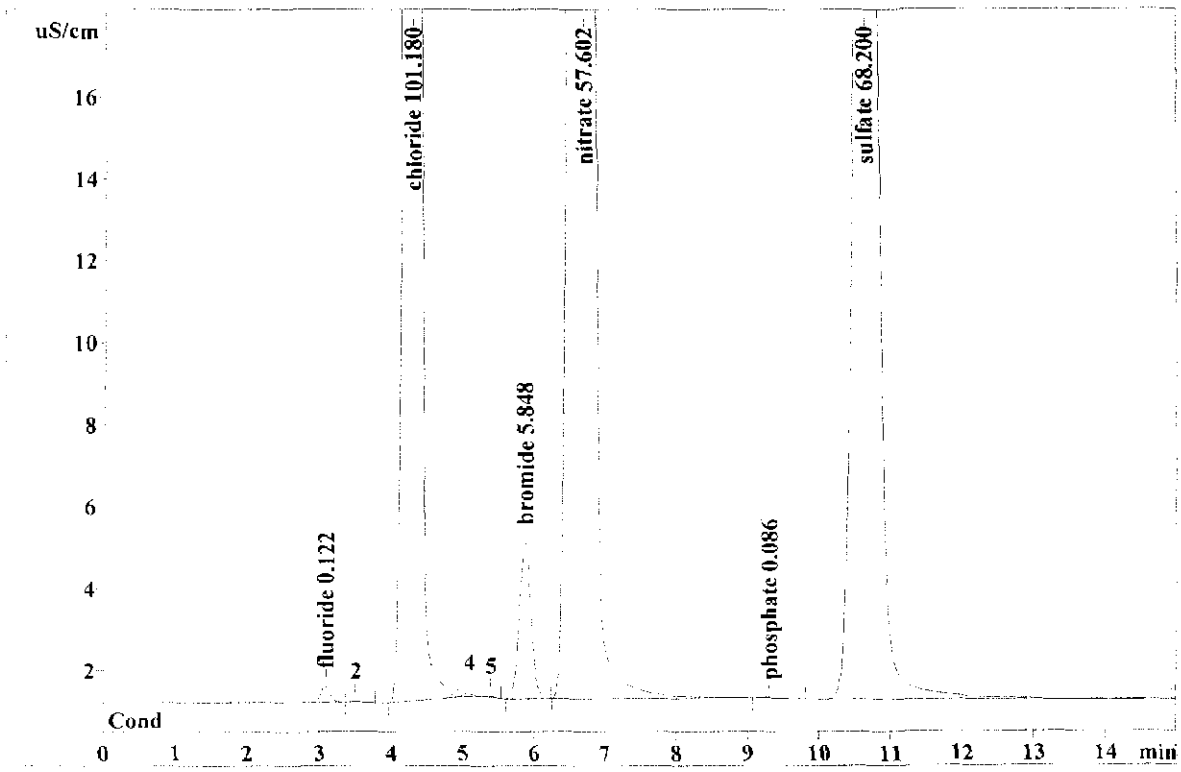
Matrix : WATER
Instrument ID : DO

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	ICJ043WB	ND	1	NA	0.500	0.250	10/25/1218:31	NA	AJ33-03	AJ33-01	ICJ043W	NA	NA
LCS1W	ICJ043WL	4.54	1	NA	0.500	0.250	10/25/1218:48	NA	AJ33-04	AJ33-01	ICJ043W	NA	NA
LCD1W	ICJ043WC	4.55	1	NA	0.500	0.250	10/25/1219:05	NA	AJ33-05	AJ33-01	ICJ043W	NA	NA
10-24-12 WB 2-3	J182-02I	95.6	20	NA	10.0	5.00	10/25/1219:56	NA	AJ33-08	AJ33-01	ICJ043W	10/24/1213:34	10/25/12
10-24-12 WB 2-3DUP	J182-02D	95.5	20	NA	10.0	5.00	10/25/1220:14	NA	AJ33-09	AJ33-01	ICJ043W	10/24/1213:34	10/25/12
10-24-12 WB 2-3MS	J182-02M	193	20	NA	10.0	5.00	10/25/1220:31	NA	AJ33-10	AJ33-01	ICJ043W	10/24/1213:34	10/25/12
10-24-12 WB 2-3MSD	J182-02S	192	20	NA	10.0	5.00	10/25/1220:48	NA	AJ33-11	AJ33-01	ICJ043W	10/24/1213:34	10/25/12
10-24-12 PWB-15	J182-03I	77.6	20	NA	10.0	5.00	10/25/1221:05	NA	AJ33-12	AJ33-01	ICJ043W	10/24/1213:15	10/25/12
10-24-12 PWB-2	J182-04I	98.7	20	NA	10.0	5.00	10/25/1222:31	NA	AJ33-17	AJ33-13	ICJ043W	10/24/1215:22	10/25/12
10-24-12 PWB-7A	J182-05I	57.4	20	NA	10.0	5.00	10/25/1223:05	NA	AJ33-19	AJ33-13	ICJ043W	10/24/1214:50	10/25/12
10-24-12 WB 2-2	J182-06I	97.0	20	NA	10.0	5.00	10/25/1223:39	NA	AJ33-21	AJ33-13	ICJ043W	10/24/1214:48	10/25/12
10-24-12 FDUP-3	J182-07I	98.7	20	NA	10.0	5.00	10/26/1200:14	NA	AJ33-23	AJ33-13	ICJ043W	10/24/1200:00	10/25/12

Report date: 10/26/2012 10:43:27 AM
Printed by: Jadelyn Chun

Ident: AJ33-18 J182-05
Analysis from: 10/25/2012 10:48:25 PM
File: wa252248.chw Last save: 10/26/2012 10:27:53 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83151

SAMPLE:
:
Vial number: 18
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	3.08	0.39	3.346	0.122	fluoride
2	3.50	0.02	0.201	0.000	
3	4.28	188.00	1824.000	101.180	chloride
4	5.08	0.07	0.762	0.000	
5	5.40	0.03	0.215	0.000	
6	5.86	3.81	43.369	5.848	bromide
7	6.68	168.42	2617.773	57.602	nitrate
8	9.30	0.02	0.347	0.086	phosphate
9	10.62	49.69	903.267	68.200	sulfate
9	15.00	410.45	5393.280	233.038	

NO_2 N ✓

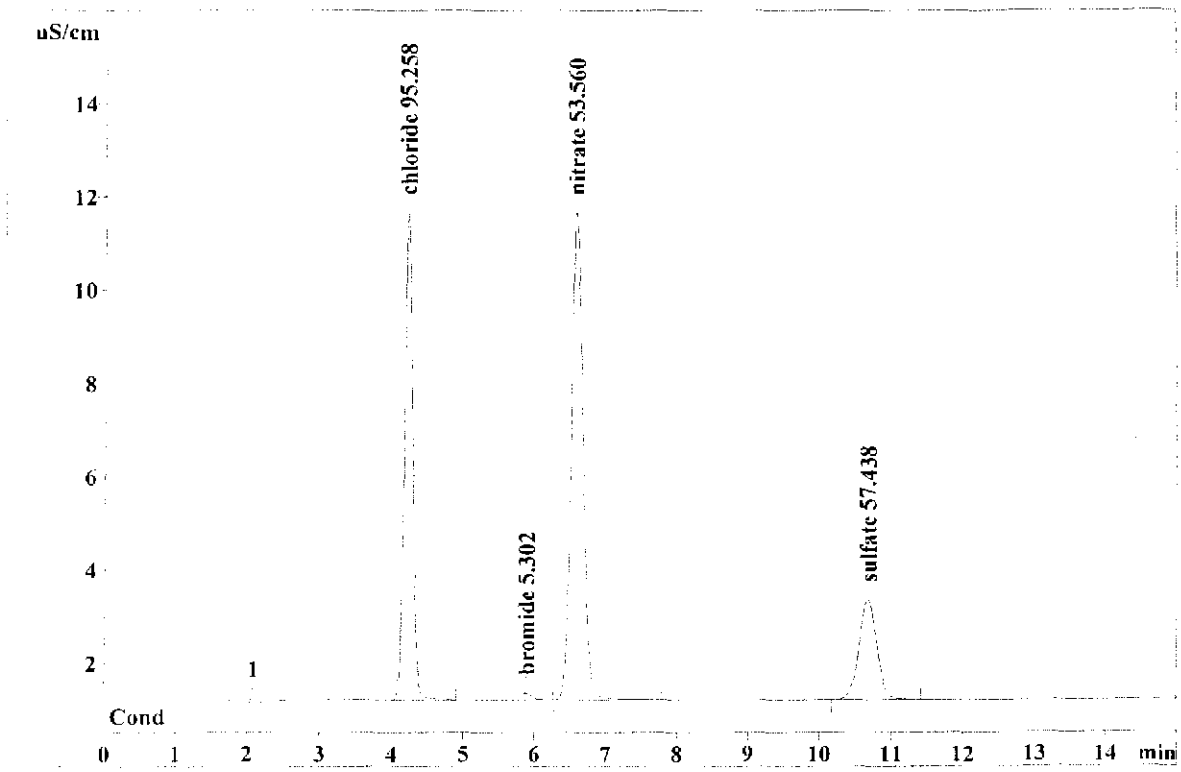
This report has been created by IC Net
METROHM LTD

8605

Report date: 10/26/2012 10:43:49 AM
Printed by: Jadelyn Chun

Ident: AJ33-19 J182-05I DF=20
Analysis from: 10/25/2012 11:05:34 PM
File: wa252305.chw Last save: 10/26/2012 10:28:43 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83152

SAMPLE:
:
Vial number: 19
Volume: 1.0 µL
Dilution: 20.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.06	1.648	0.000	
2	4.22	10.44	84.927	95.258	chloride
3	5.88	0.15	1.741	5.302	bromide
4	6.58	10.46	120.120	53.560	nitrate
5	10.67	2.15	37.181	57.438	sulfate
5	15.00	23.26	245.617	211.558	

This report has been created by IC Net
METROHM LTD

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	1CJ043WB	1CJ043WL	1CJ043WC		
LAB FILE ID:	AJ33-03	AJ33-04	AJ33-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/25/1218:31	10/25/1218:48	10/25/1219:05	DATE RECEIVED:	NA
PREP. BATCH:	1CJ043W	1CJ043W	1CJ043W		
CALIB. REF:	AJ33-01	AJ33-01	AJ33-01		

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 (%)
Nitrate-N	ND	1	.932	93	1	.936	94	0	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	ICJ047WB	ICJ047WX	ICJ047WC		
LAB FILE ID:	AJ35-03	AJ35-10	AJ35-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/26/1210:33	10/26/1212:33	10/26/1211:07	DATE RECEIVED:	NA
PREP. BATCH:	ICJ047W	ICJ047W	ICJ047W		
CALIB. REF:	AJ35-01	AJ35-01	AJ35-01		

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 (%)
Nitrate-N	ND	1	.907	91	1	.915	91	1	90-110	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	5	5	5		
SAMPLE ID:	10-24-12 WB 2-3				
LAB SAMP ID:	J182-02I	J182-02M	J182-02S		
LAB FILE ID:	AJ35-06	AJ35-08	AJ35-09		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	10/24/12 13:34
DATE ANALYZED:	10/26/1211:24	10/26/1211:59	10/26/1212:16	DATE RECEIVED:	10/25/12
PREP. BATCH:	ICJ047W	ICJ047W	ICJ047W		
CALIB. REF:	AJ35-01	AJ35-01	AJ35-01		

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 (%)
Nitrate-N	5.22	5	10.3	102	5	10.3	102	0	80-120	20

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 300.0

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	5	5		
SAMPLE ID:	10-24-12 WB 2-3			
EMAX SAMP ID:	J182-021	J182-02D		
LAB FILE ID:	AJ35-06	AJ35-07		
DATE EXTRACTED:	NA	NA	DATE COLLECTED:	10/24/12 13:34
DATE ANALYZED:	10/26/1211:24	10/26/1211:42	DATE RECEIVED:	10/25/12
PREP. BATCH:	ICJ047W	ICJ047W		
CALIB. REF:	AJ35-01	AJ35-01		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	DUPL RSLT (mg/L)	RPD RSLT %	QC LIMIT (%)
Nitrate-N	5.22	5.21	0	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICJ043WB	ICJ043WL	ICJ043WC		
LAB FILE ID:	AJ33-03	AJ33-04	AJ33-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/25/1218:31	10/25/1218:48	10/25/1219:05	DATE RECEIVED:	NA
PREP. BATCH:	ICJ043W	ICJ043W	ICJ043W		
CALIB. REF:	AJ33-01	AJ33-01	AJ33-01		

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 (%)
Nitrite-N	ND	2	2.03	101	2	2.03	101	0	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	ICJ047WB	ICJ047WX	ICJ047WC		
LAB FILE ID:	AJ35-03	AJ35-10	AJ35-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/26/1210:33	10/26/1212:33	10/26/1211:07	DATE RECEIVED:	NA
PREP. BATCH:	ICJ047W	ICJ047W	ICJ047W		
CALIB. REF:	AJ35-01	AJ35-01	AJ35-01		

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 (%)
Nitrite-N	ND	2	1.99	99	2	2.01	100	1	90-110	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	5	5	5		
SAMPLE ID:	10-24-12 WB 2-3				
LAB SAMP ID:	J182-02I	J182-02M	J182-02S		
LAB FILE ID:	AJ35-06	AJ35-08	AJ35-09		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	10/24/12 13:34
DATE ANALYZED:	10/26/1211:24	10/26/1211:59	10/26/1212:16	DATE RECEIVED:	10/25/12
PREP. BATCH:	ICJ047W	ICJ047W	ICJ047W		
CALIB. REF:	AJ35-01	AJ35-01	AJ35-01		

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 (%)
Nitrite-N	12	10	22.3	103	10	22.3	103	0	80-120	20

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 300.0

==========

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	5	5		
SAMPLE ID:	10-24-12 WB 2-3			
EMAX SAMP ID:	J182-021	J182-02D		
LAB FILE ID:	AJ35-06	AJ35-07		
DATE EXTRACTED:	NA	NA	DATE COLLECTED:	10/24/12 13:34
DATE ANALYZED:	10/26/1211:24	10/26/1211:42	DATE RECEIVED:	10/25/12
PREP. BATCH:	ICJ047W	ICJ047W		
CALIB. REF:	AJ35-01	AJ35-01		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	DUPL RSLT (mg/L)	RPD RSLT %	QC LIMIT (%)
Nitrite-N	12	12	0	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	ICJ043WB	ICJ043WL	ICJ043WC		
LAB FILE ID:	AJ33-D3	AJ33-04	AJ33-05		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/25/1218:31	10/25/1218:48	10/25/1219:05	DATE RECEIVED:	NA
PREP. BATCH:	ICJ043W	ICJ043W	ICJ043W		
CALIB. REF:	AJ33-01	AJ33-01	AJ33-01		

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 (%)
Sulfate	ND	5	4.54	91	5	4.55	91	0	90-110	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 300.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	20	20	20		
SAMPLE ID:	10-24-12 WB 2-3				
LAB SAMP ID:	J182-02I	J1B2-02M	J182-02S		
LAB FILE ID:	AJ33-08	AJ33-10	AJ33-11		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	10/24/12 13:34
DATE ANALYZED:	10/25/1219:56	10/25/1220:31	10/25/1220:48	DATE RECEIVED:	10/25/12
PREP. BATCH:	ICJ043W	ICJ043W	ICJ043W		
CALIB. REF:	AJ33-01	AJ33-01	AJ33-01		

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 (%)
Sulfate	95.6	100	193	97	100	192	97	0	80-120	20

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 300.0

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	20	20		
SAMPLE ID:	10-24-12 WB 2-3			
EMAX SAMP ID:	J182-02I	J182-02D		
LAB FILE ID:	AJ33-08	AJ33-09		
DATE EXTRACTED:	NA	NA	DATE COLLECTED:	10/24/12 13:34
DATE ANALYZED:	10/25/1219:56	10/25/1220:14	DATE RECEIVED:	10/25/12
PREP. BATCH:	ICJ043W	ICJ043W		
CALIB. REF:	AJ33-01	AJ33-01		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	DUPL RSLT (mg/L)	RPD RSLT %	QC LIMIT (%)
Sulfate	95.6	95.5	0	20

QC DATA

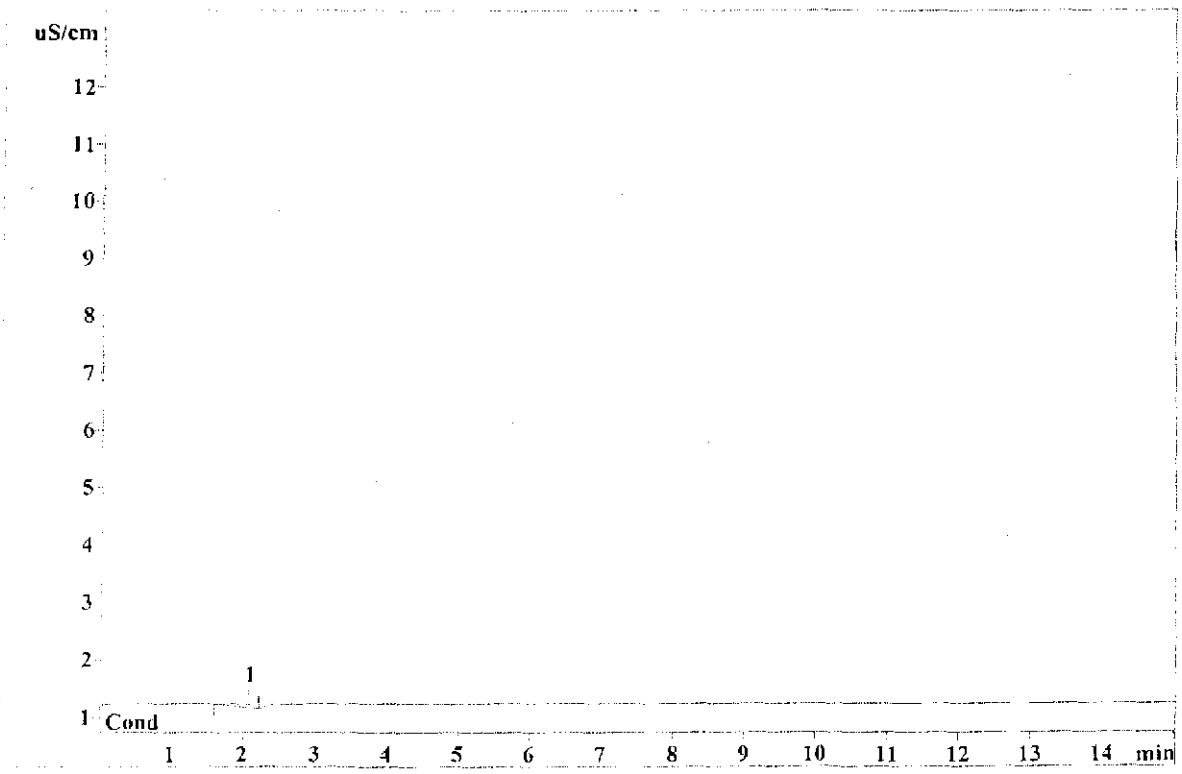
Report date: 10/26/2012 9:41:57 AM
Printed by: Jadelyn Chun

Ident: AJ33-03 ICJ043WB
Analysis from: 10/25/2012 6:31:08 PM
File: wa251831.chw Last save: 10/25/2012 6:46:05 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83136

SAMPLE:

Vial number: 3
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.06	1.225	0.000	

This report has been created by IC Net
METROHM LTD

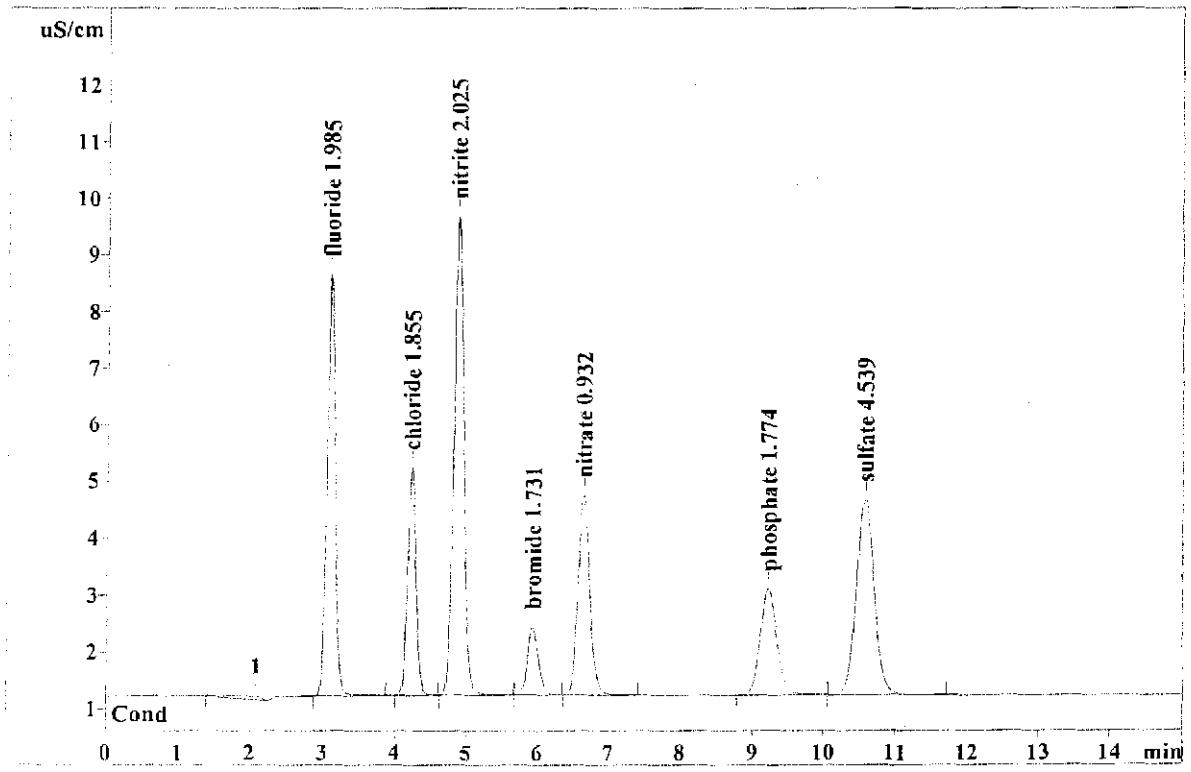
Report date: 10/25/2012 7:03:14 PM
Printed by: Jadelyn Chun

Ident: AJ33-04 ICJ043WL
Analysis from: 10/25/2012 6:48:17 PM
File: WA251848.CHW Last save: 10/25/2012 7:03:14 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83137

SAMPLE:

Vial number: 4
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.06	1.670	0.000	
2	3.09	7.41	57.940	1.985	fluoride
3	4.22	4.01	32.475	1.855	chloride
4	4.87	8.44	81.171	2.025	nitrite
5	5.93	1.20	12.673	1.731	bromide
6	6.64	3.51	40.730	0.932	nitrate
7	9.23	1.88	30.780	1.774	phosphate
8	10.59	3.43	59.284	4.539	sulfate
8	15.00	29.93	316.723	14.841	

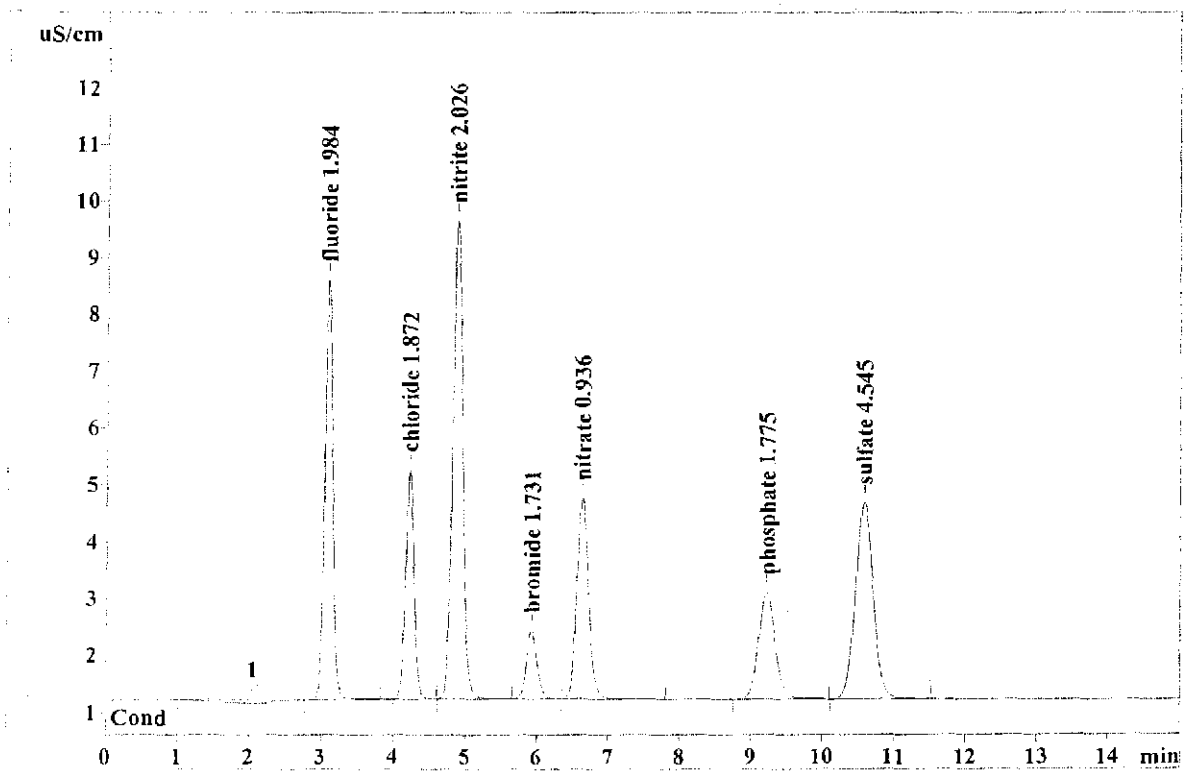
This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 7:20:23 PM
Printed by: Jadelyn Chun

Ident: AJ33-05 ICJ043WC
Analysis from: 10/25/2012 7:05:26 PM
File: WA251905.CHW Last save: 10/25/2012 7:20:23 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83138

SAMPLE:
:
Vial number: 5
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

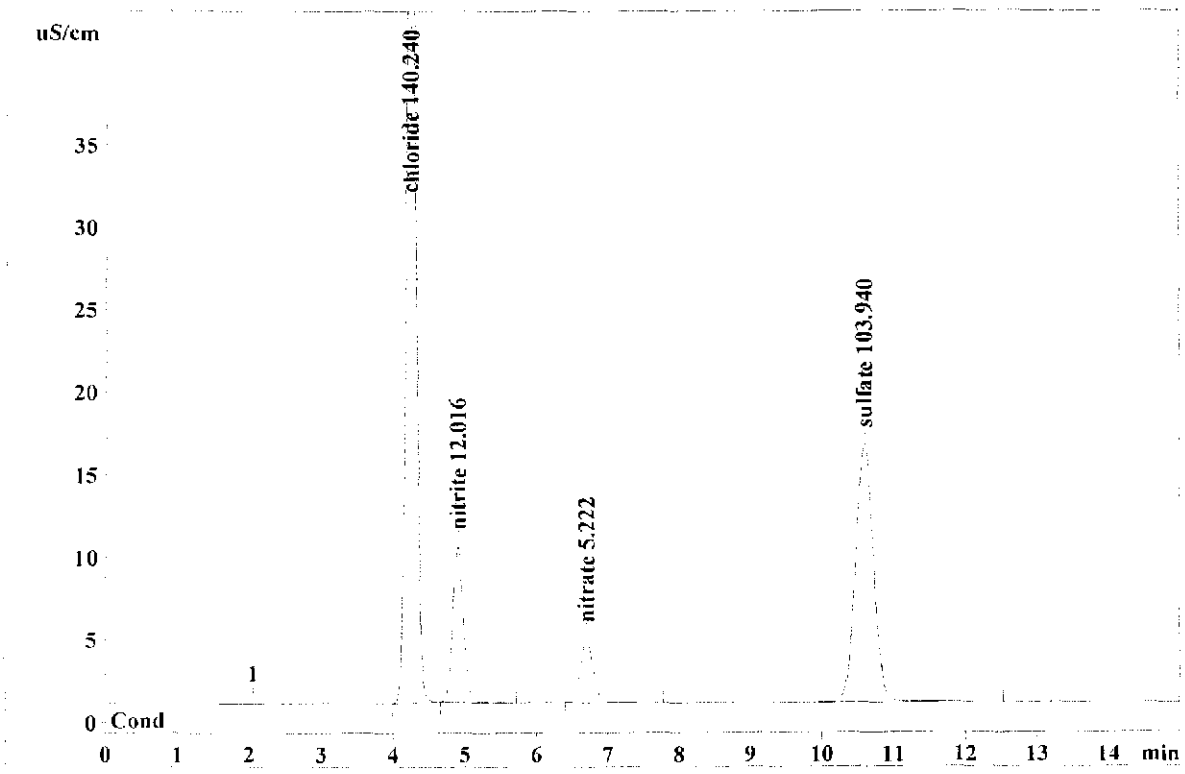
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.05	0.06	2.709	0.000	
2	3.09	7.38	57.922	1.984	fluoride
3	4.22	4.04	32.780	1.872	chloride
4	4.87	8.41	81.191	2.026	nitrite
5	5.92	1.20	12.674	1.731	bromide
6	6.63	3.52	40.885	0.936	nitrate
7	9.23	1.88	30.809	1.775	phosphate
8	10.59	3.45	59.366	4.545	sulfate
8	15.00	29.95	318.337	14.869	

This report has been created by IC Net
METROHM LTD

Report date: 10/26/2012 3:20:53 PM
Printed by: Jadelyn Chun

Ident: AJ35-06 J182-02I DF=5
Analysis from: 10/26/2012 11:24:53 AM
File: wa261124.chw Last save: 10/26/2012 11:39:50 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/26/2012 9:48:25 AM
Run operator: Jadelyn Chun
Analysis number: 83189

SAMPLE:
:
Vial number: 6
Volume: 1.0 µL
Dilution: 5.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.04	0.03	0.893	0.000	
2	4.24	58.22	504.918	140.240	chloride
3	4.89	9.38	96.364	12.016	nitrite
4	6.70	3.81	45.833	5.222	nitrate
5	10.59	15.61	274.704	103.940	sulfate
5	15.00	87.05	922.712	261.418	

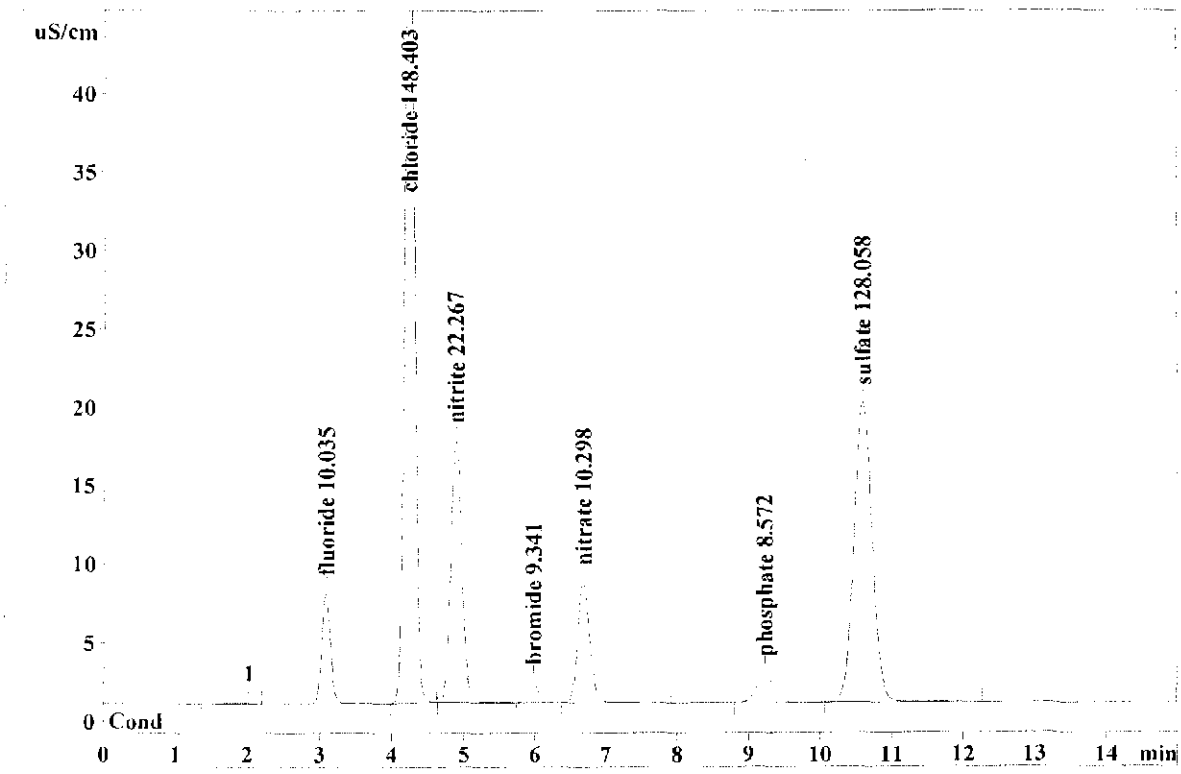
This report has been created by IC Net
METROHM LTD

Report date: 10/26/2012 3:21:31 PM
Printed by: Jadelyn Chun

Ident: AJ35-08 J182-02M DF=5
Analysis from: 10/26/2012 11:59:12 AM
File: wa261159.chw Last save: 10/26/2012 12:14:09 PM

Method: ICD0-J23.mtw Last save: 10/26/2012 9:48:25 AM
Run operator: Jadelyn Chun
Analysis number: 83191

SAMPLE:
:
Vial number: 8
Volume: 1.0 µL
Dilution: 5.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.04	0.03	0.918	0.000	
2	3.08	7.00	58.597	10.035	fluoride
3	4.24	61.30	534.365	148.403	chloride
4	4.89	16.65	178.706	22.267	nitrite
5	5.98	1.27	13.694	9.341	bromide
6	6.68	7.64	91.994	10.298	nitrate
7	9.23	1.81	29.710	8.572	phosphate
8	10.59	19.13	338.653	128.058	sulfate
8	15.00	114.82	1246.638	336.973	

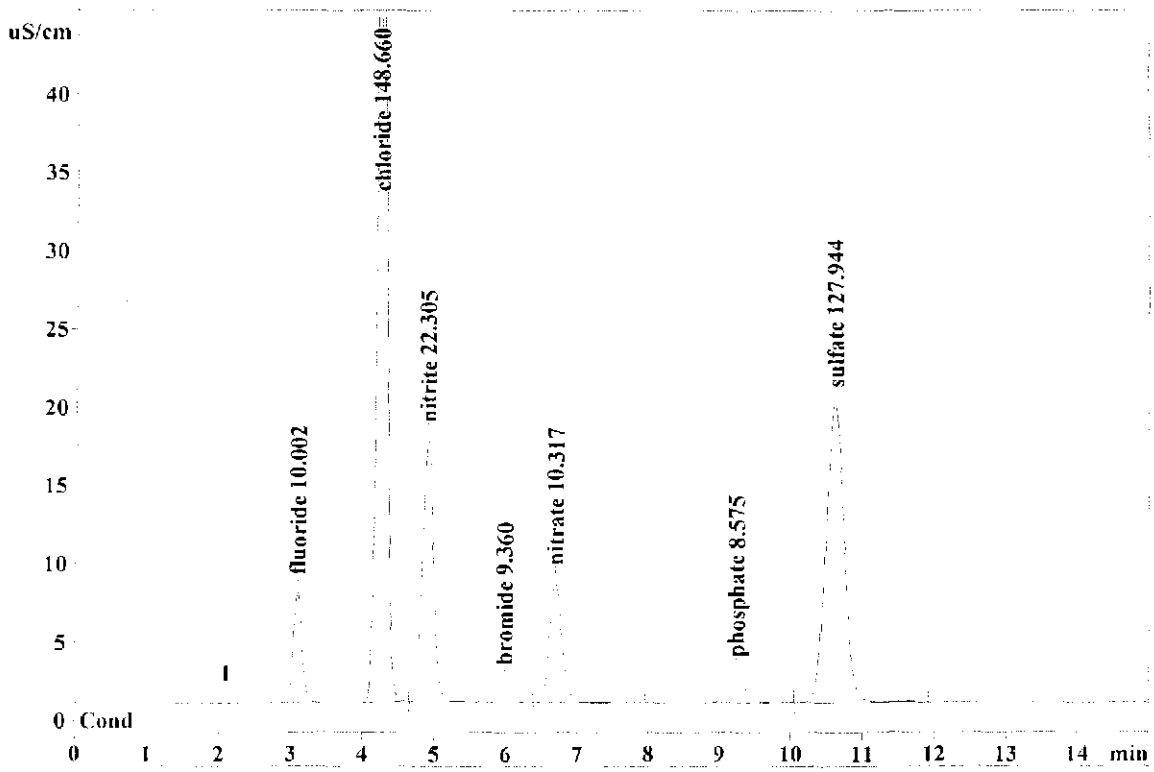
This report has been created by IC Net
METROHM LTD

Report date: 10/26/2012 3:21:38 PM
Printed by: Jadelyn Chun

Ident: AJ35-09 J182-02S DF=5
Analysis from: 10/26/2012 12:16:21 PM
File: wa261216.chw Last save: 10/26/2012 12:31:18 PM

Method: ICD0-J23.mtw Last save: 10/26/2012 9:48:25 AM
Run operator: Jadelyn Chun
Analysis number: 83192

SAMPLE:
:
Vial number: 9
Volume: 1.0 µL
Dilution: 5.00
Amount: 1.0000



Quantitation method: Custom

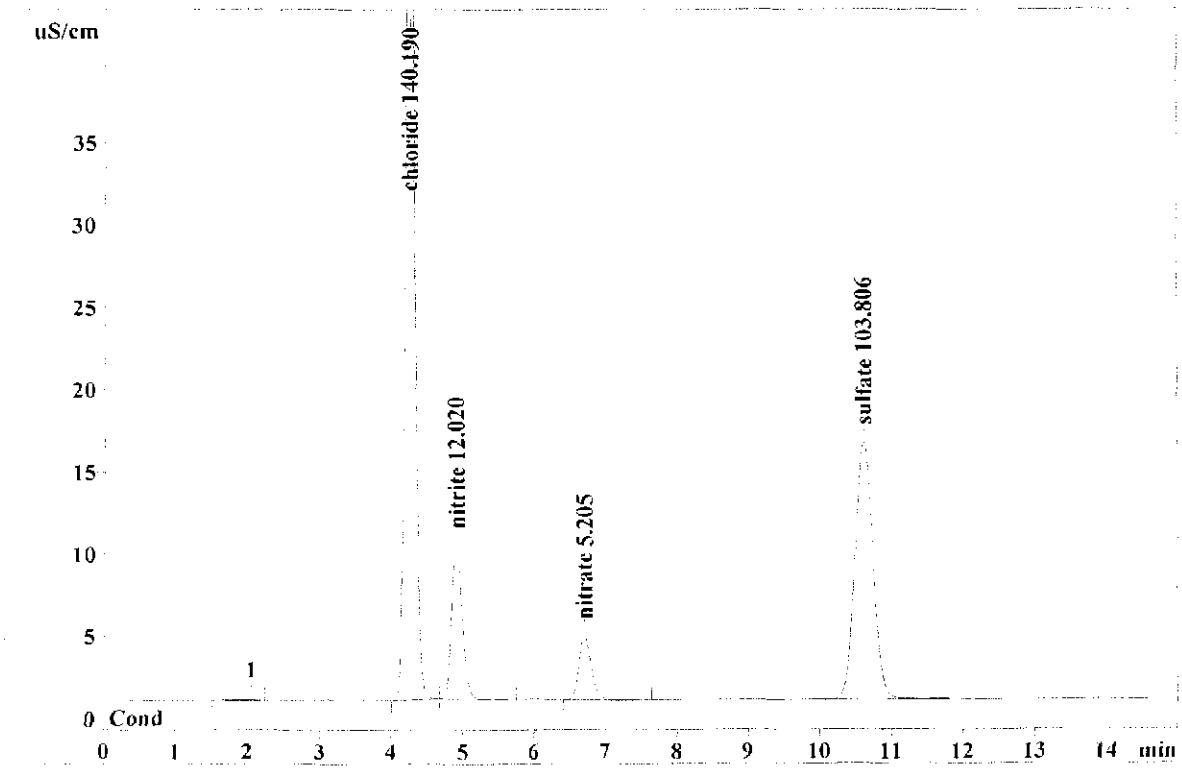
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.09	0.02	0.185	0.000	
2	3.09	7.02	58.406	10.002	fluoride
3	4.24	61.40	535.294	148.660	chloride
4	4.89	16.73	179.015	22.305	nitrite
5	5.98	1.27	13.723	9.360	bromide
6	6.69	7.64	92.172	10.317	nitrate
7	9.23	1.80	29.721	8.575	phosphate
8	10.60	19.05	338.352	127.944	sulfate
8	15.00	114.92	1246.869	337.165	

This report has been created by IC Net
METROHM LTD

Report date: 10/26/2012 3:21:13 PM
Printed by: Jadelyn Chun

Ident: AJ35-07 J182-02D DF=5
Analysis from: 10/26/2012 11:42:03 AM
File: wa261142.chw Last save: 10/26/2012 11:57:00 AM
Modified!
Method: ICD0-J23.mtw Last save: 10/26/2012 9:48:25 AM
Run operator: Jadelyn Chun
Analysis number: 83190

SAMPLE:
:
Vial number: 7
Volume: 1.0 µL
Dilution: 5.00
Amount: 1.0000



Quantitation method: Custom

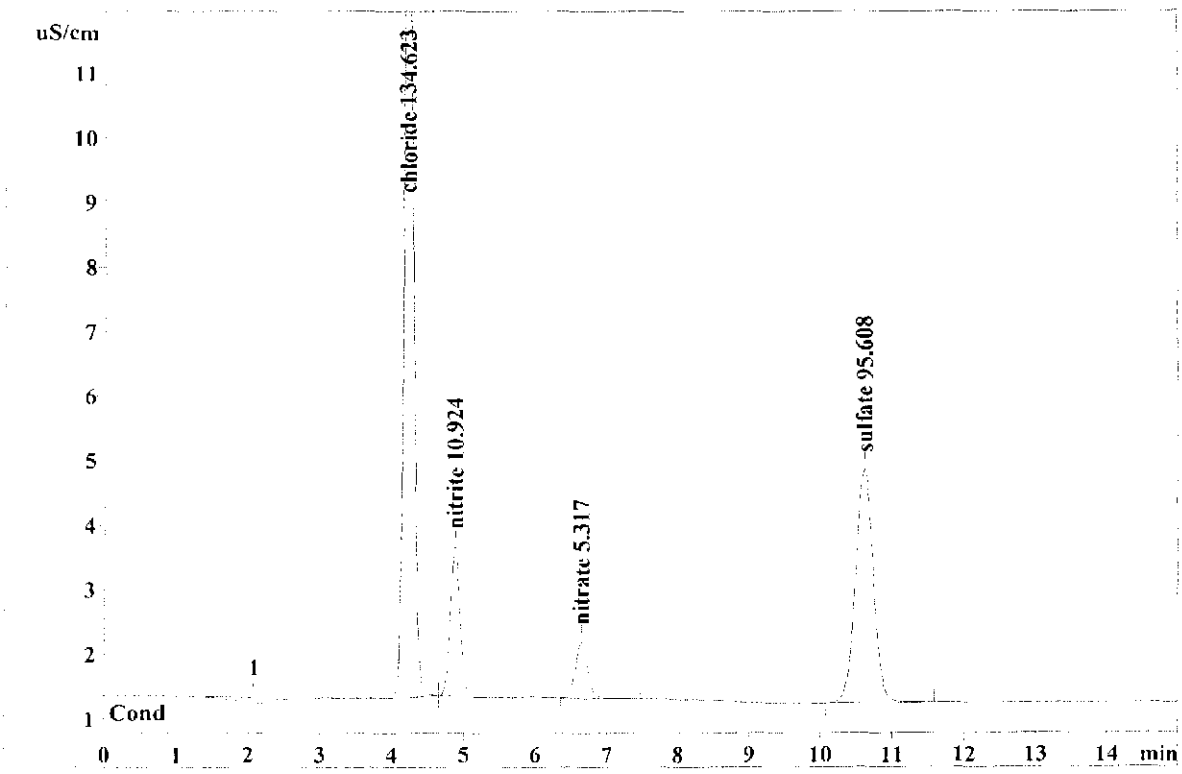
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.05	0.03	0.858	0.000	
2	4.24	58.24	504.739	140.190	chloride
3	4.90	9.37	96.397	12.020	nitrite
4	6.70	3.81	45.680	5.205	nitrate
5	10.60	15.61	274.349	103.806	sulfate
5	15.00	87.05	922.022	261.222	

This report has been created by IC Net
METROHM LTD

Report date: 10/26/2012 10:20:30 AM
Printed by: Jadelyn Chun

Ident: AJ33-08 J182-02I DF=20
Analysis from: 10/25/2012 7:56:54 PM
File: wa251956.chw Last save: 10/25/2012 8:11:51 PM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83141

SAMPLE:
:
Vial number: 8
Volume: 1.0 µL
Dilution: 20.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.08	2.109	0.000	
2	4.22	14.81	120.429	134.623	chloride
3	4.87	2.31	21.774	10.924	nitrite
4	6.64	0.87	10.427	5.317	nitrate
5	10.61	3.63	62.483	95.608	sulfate ✓
5	15.00	21.69	217.222	246.472	

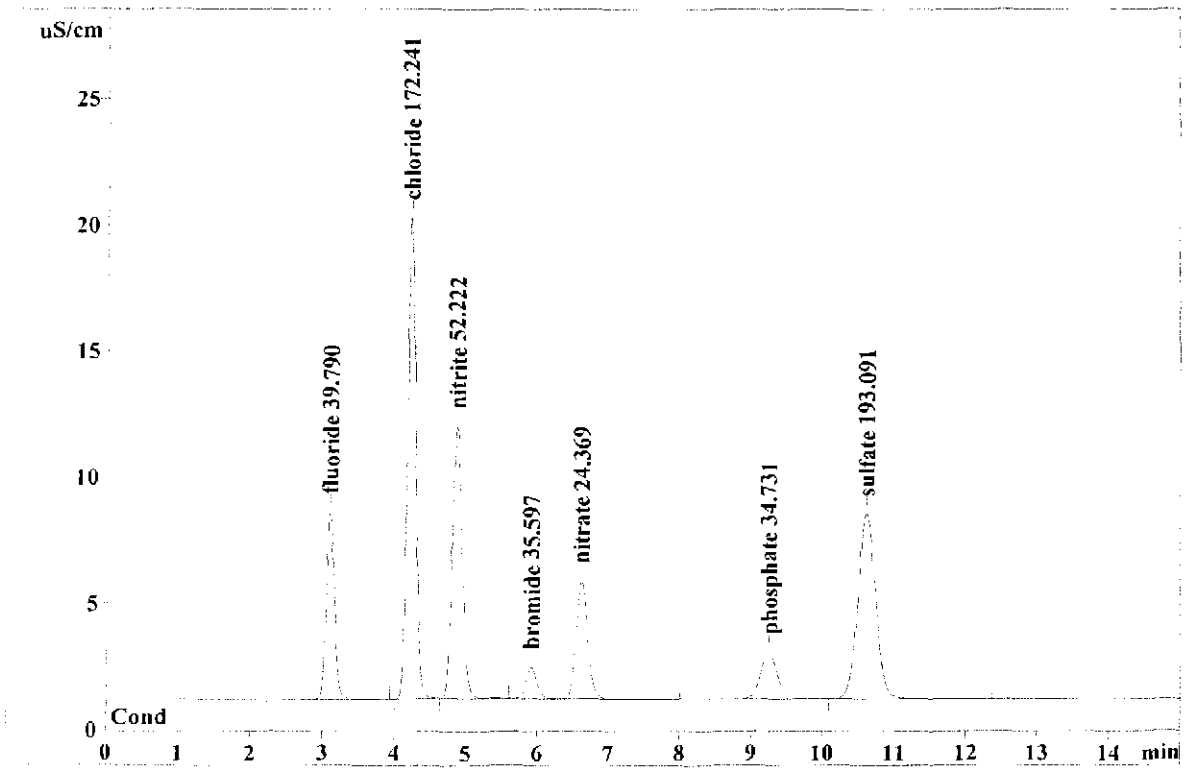
This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 8:46:09 PM
Printed by: Jadelyn Chun

Ident: AJ33-10 J182-02M DF=20
Analysis from: 10/25/2012 8:31:12 PM
File: WA252031.CHW Last save: 10/25/2012 8:46:09 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83143

SAMPLE:
:
Vial number: 10
Volume: 1.0 µL
Dilution: 20.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	3.09	7.42	58.085	39.790	fluoride
2	4.22	19.08	154.354	172.241	chloride
3	4.86	10.80	104.711	52.222	nitrite
4	5.91	1.25	13.035	35.597	bromide
5	6.61	4.66	53.747	24.369	nitrate
6	9.24	1.86	30.110	34.731	phosphate
7	10.61	7.34	127.102	193.091	sulfate
7	15.00	52.40	541.145	552.041	

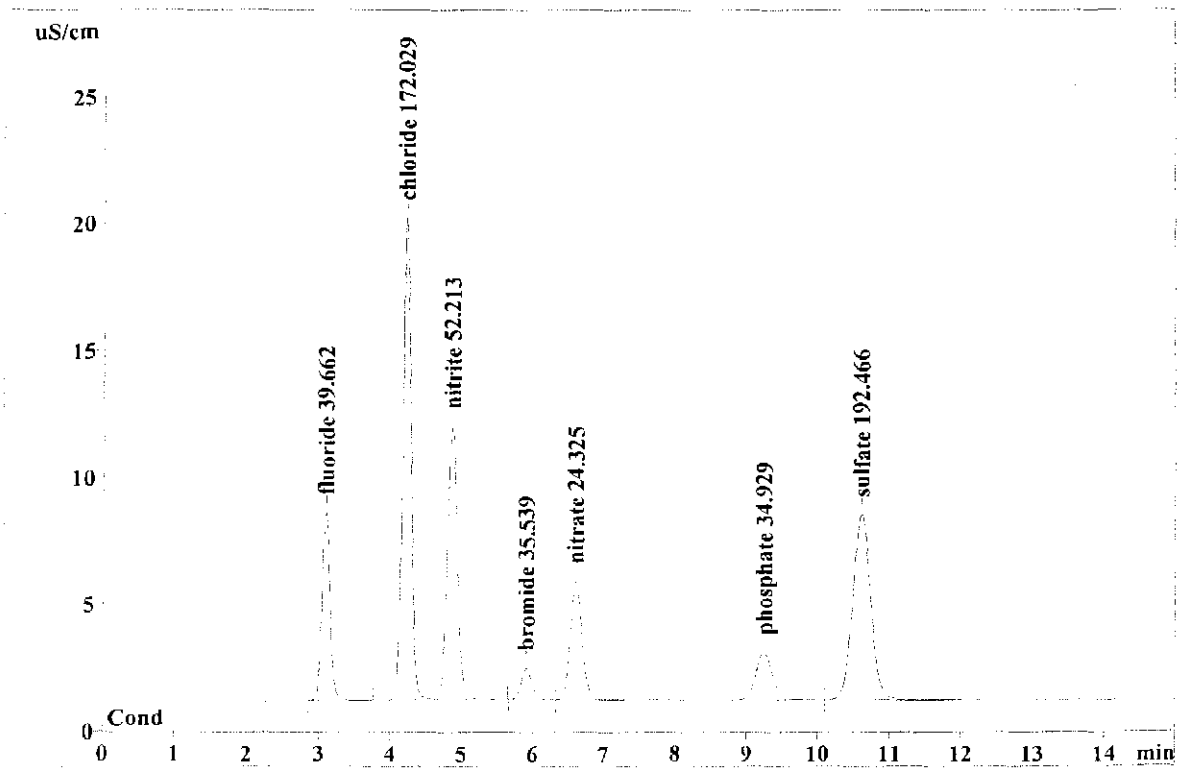
This report has been created by IC Net
METROHM LTD

Report date: 10/25/2012 9:03:18 PM
Printed by: Jadelyn Chun

Ident: AJ33-11 J182-02S DF=20
Analysis from: 10/25/2012 8:48:21 PM
File: WA252048.CHW Last save: 10/25/2012 9:03:18 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83144

SAMPLE:
:
Vial number: 11
Volume: 1.0 µL
Dilution: 20.00
Amount: 1.0000



Quantitation method: Custom

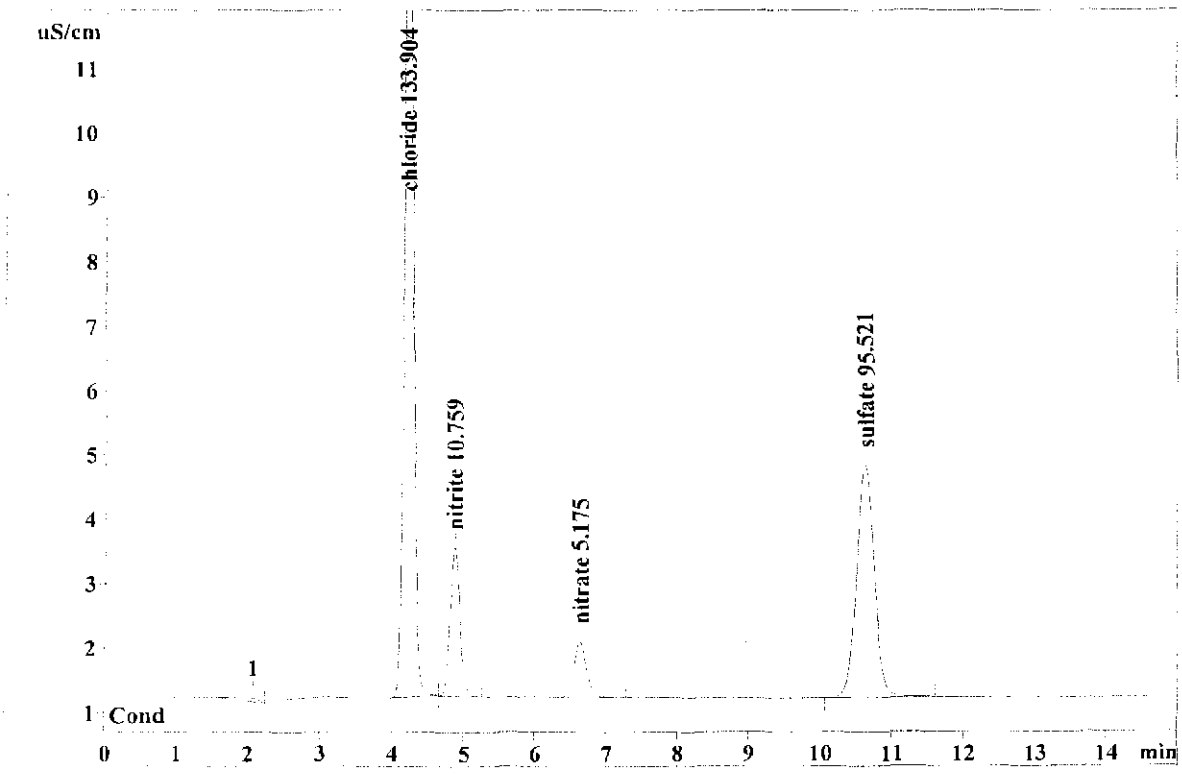
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	3.09	7.38	57.898	39.662	fluoride
2	4.22	19.01	154.163	172.029	chloride
3	4.86	10.76	104.693	52.213	nitrite
4	5.91	1.25	13.013	35.539	bromide
5	6.60	4.65	53.647	24.325	nitrate
6	9.24	1.86	30.288	34.929	phosphate
7	10.61	7.32	126.688	192.466	sulfate
7	15.00	52.24	540.391	551.163	

This report has been created by IC Net
METROHM LTD

Report date: 10/26/2012 10:20:56 AM
Printed by: Jadelyn Chun

Ident: AJ33-09 J182-02D DF=20
Analysis from: 10/25/2012 8:14:03 PM
File: wa252014.chw Last save: 10/25/2012 8:29:00 PM
Modified!
Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83142

SAMPLE:
:
Vial number: 9
Volume: 1.0 µL
Dilution: 20.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.06	1.194	0.000	
2	4.22	14.86	119.780	133.904	chloride
3	4.87	2.31	21.443	10.759	nitrite
4	6.63	0.85	10.105	5.175	nitrate
5	10.62	3.62	62.425	95.521	sulfate
5	15.00	21.70	214.947	245.359	

This report has been created by IC Net
METROHM LTD

INITIAL CALIBRATION(S)

IC Result Check FormVersion : J23/AJ29(2012)

LFID	LSID	Selection	nitrite	fluoride	chloride	bromide	nitrate	phosphate	sulfate	RawNetID	DF
AJ29-01	IB	IFCBNPS	0	0	0	0	0	0	0	wa241041	1
AJ29-02	S0	IFCBNPS	0	0	0	0	0	0	0	wa241058	1
AJ29-03	S1	IFCBNPS	0.0329725	0.0547602	0.10038	0.0764202	0.0777669	0.105649	0.124282	wa241115	1
AJ29-04	S2	IFCBNPS	0.079829	0.101045	0.144404	0.123128	0.121245	0.142975	0.176245	wa241132	1
AJ29-05	S3	IFCBNPS	0.176216	0.195399	0.240614	0.210634	0.208746	0.224959	0.263737	wa241149	1
AJ29-06	S4	IFCBNPS	0.480514	0.494182	0.508132	0.494586	0.490103	0.484643	0.528509	wa241207	1
AJ29-07	S5	IFCBNPS	0.997189	1.0008	0.980634	0.969565	0.976174	0.940499	0.987607	wa241224	1
AJ29-08	S6	IFCBNPS	2.02578	2.0055	1.94419	1.95204	1.95364	1.90707	1.92803	wa241241	1
AJ29-09	S7	IFCBNPS	5.12583	4.99831	4.92111	5.02363	5.02232	5.04421	4.84749	wa241258	1
AJ29-10	S8	IFCBNPS	9.93166	9.63232	9.97226	10.3392	10.1675	10.4038	9.90628	wa241315	1
AJ29-11	S9	IFCBNPS	18.5771	18.0074	20.0383	21.0431	20.4024	21.096	20.0878	wa241332	1
AJ29-12	ICV	IFCBNPS	101.2%	102.9%	100.5%	97.2%	100.2%	97.9%	99.8%	wa241400	1
AJ29-13	ICB	IFCBNPS	0	0	0	0	0	0	0	wa241417	1

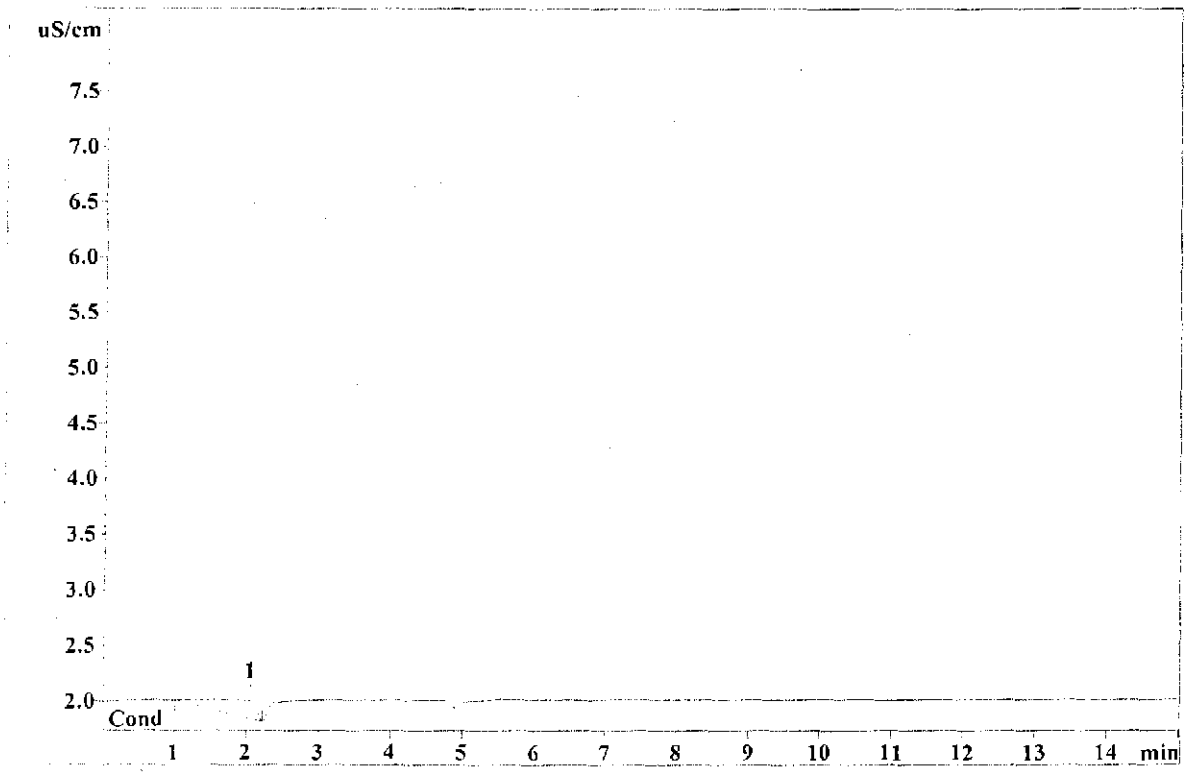
AS
10/25/12

Report date: 10/24/2012 2:37:15 PM
Printed by: Jadelyn Chun

Ident: AJ29-02 S0
Analysis from: 10/24/2012 10:58:21 AM
File: wa241058.chw Last save: 10/24/2012 2:36:20 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83027

SAMPLE:
:
Vial number: 2
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.05	0.15	6.174	0.000	

This report has been created by IC Net
METROHM LTD

AS
10/25/12

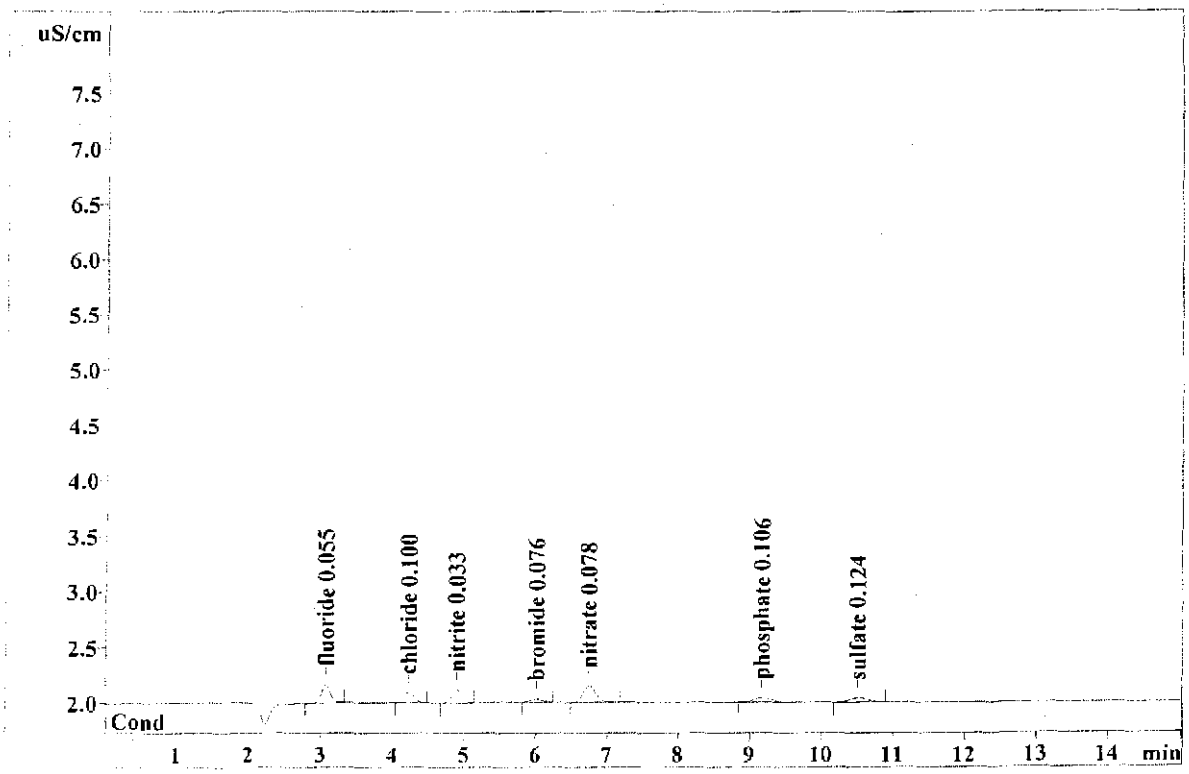
8034

Report date: 10/24/2012 2:37:18 PM
Printed by: Jadelyn Chun

Ident: AJ29-03 S1
Analysis from: 10/24/2012 11:15:30 AM
File: wa241115.chw Last save: 10/24/2012 2:36:20 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83028

SAMPLE: 0.05PPM
:
Vial number: 3
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	3.07	0.17	1.379	0.055	fluoride
2	4.23	0.10	0.830	0.100	chloride
3	4.89	0.12	1.161	0.033	nitrite
4	6.01	0.03	0.334	0.076	bromide
5	6.75	0.15	1.875	0.078	nitrate
6	9.18	0.04	0.701	0.106	phosphate
7	10.52	0.04	0.754	0.124	sulfate
7	15.00	0.64	7.035	0.572	

This report has been created by IC Net
METROHM LTD

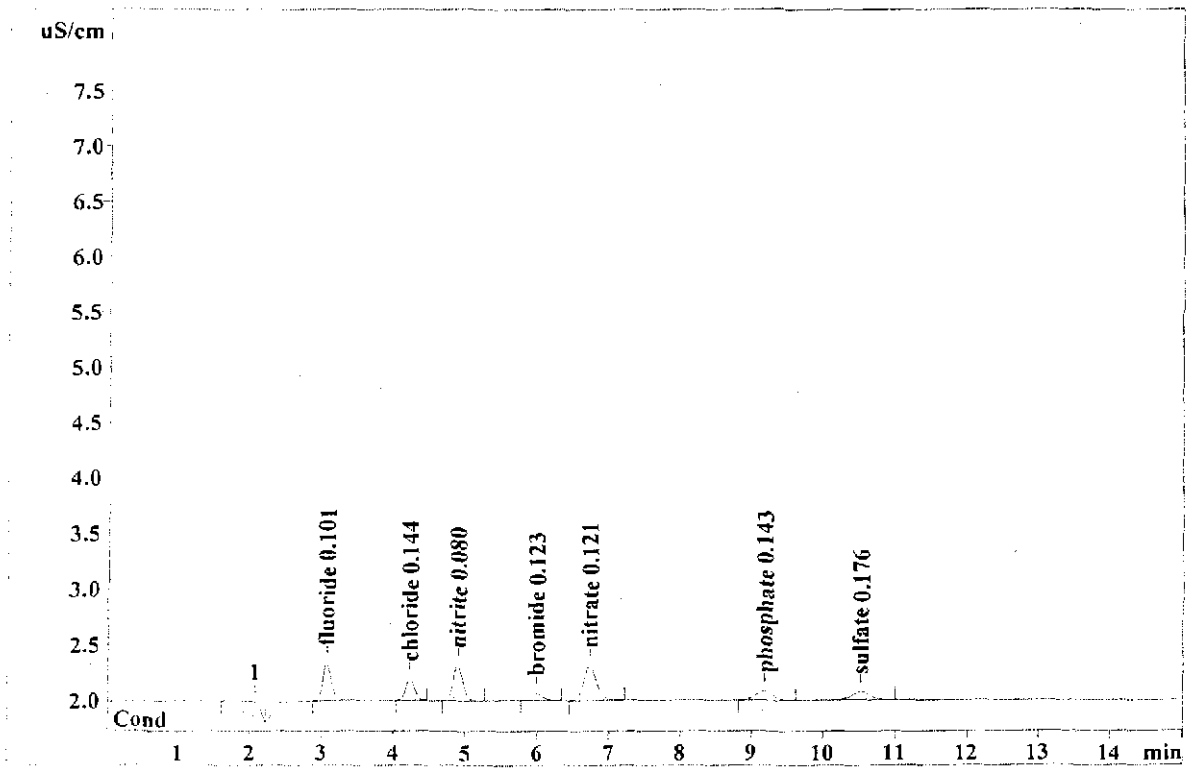
AS 10/25/12

Report date: 10/24/2012 2:37:21 PM
Printed by: Jadelyn Chun

Ident: AJ29-04 S2
Analysis from: 10/24/2012 11:32:40 AM
File: wa241132.chw Last save: 10/24/2012 2:36:20 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83029

SAMPLE: 0.1PPM
:
Vial number: 4
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	2.725	0.000	
2	3.08	0.33	2.736 ✓	0.101 ✓	fluoride
3	4.23	0.19	1.624	0.144	chloride
4	4.89	0.32	3.043 ✓	0.080 ✓	nitrite
5	5.99	0.06	0.683	0.123	bromide
6	6.74	0.31	3.852 ✓	0.121 ✓	nitrate
7	9.18	0.08	1.374	0.143	phosphate
8	10.53	0.08	1.443	0.176	sulfate
8	15.00	1.50	17.480	0.889	

This report has been created by IC Net
METROHM LTD

AS 10/25/12

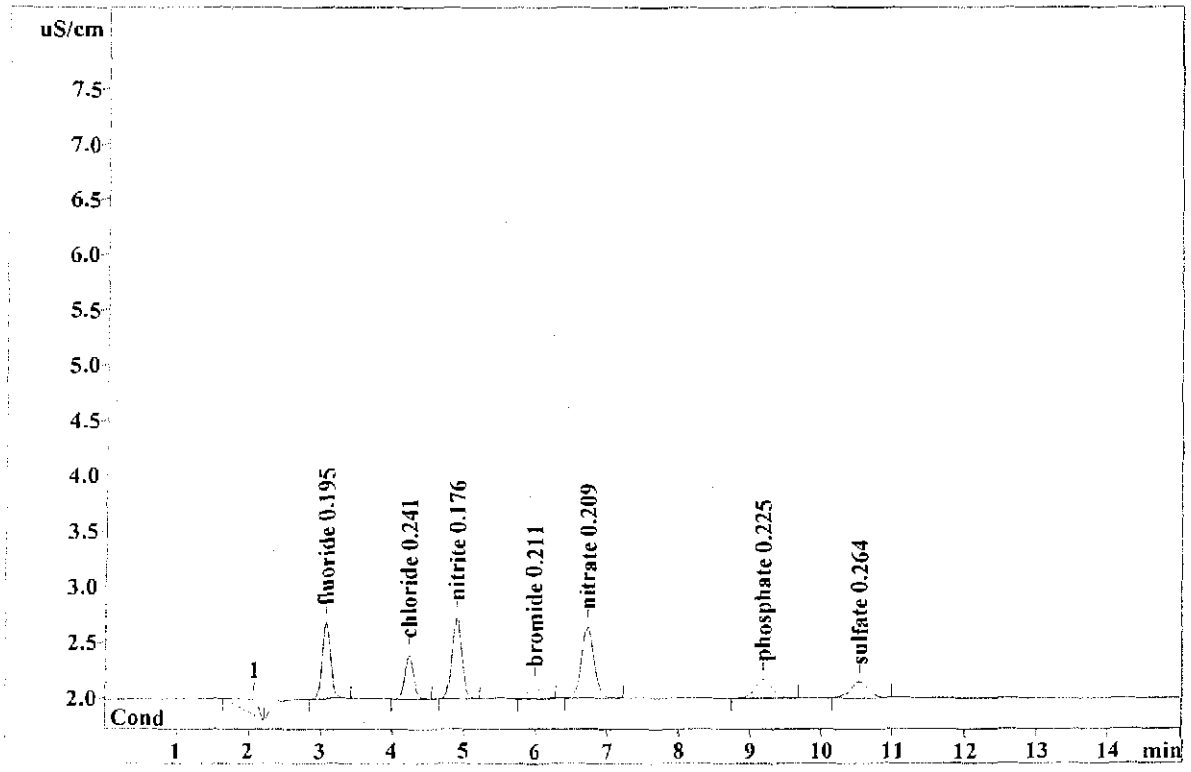
Report date: 10/24/2012 2:37:24 PM
Printed by: Jadelyn Chun

Ident: AJ29-05 S3
Analysis from: 10/24/2012 11:49:49 AM
File: wa241149.chw Last save: 10/24/2012 2:36:20 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83030

SAMPLE: 0.2PPM

Vial number: 5
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	2.424	0.000	
2	3.08	0.68	5.501	0.195	fluoride
3	4.23	0.39	3.359 ✓	0.241 ✓	chloride
4	4.89	0.72	6.915	0.176	nitrite
5	5.98	0.12	1.335	0.211	bromide
6	6.72	0.64	7.831	0.209	nitrate
7	9.18	0.17	2.853	0.225	phosphate
8	10.54	0.14	2.603	0.264	sulfate
8	15.00	2.99	32.820	1.520	

AS 10/25/12

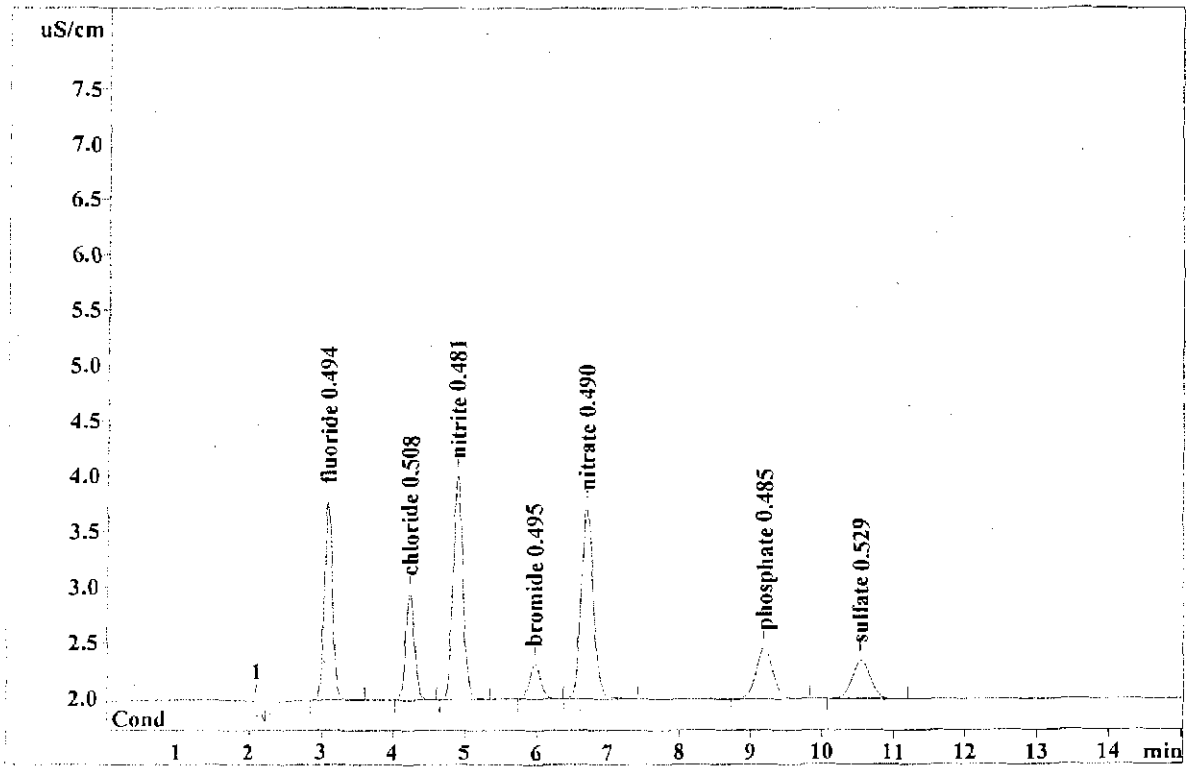
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 2:37:27 PM
Printed by: Jadelyn Chun

Ident: AJ29-06 S4
Analysis from: 10/24/2012 12:07:00 PM
File: wa241207.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83031

SAMPLE: 0.5PPM
:
Vial number: 6
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec		Conc. mg/L		Name
1	2.09	0.11	1.565		0.000		
2	3.07	1.78	14.258		0.494		fluoride
3	4.22	0.97	8.184		0.508		chloride
4	4.88	2.00	19.137		0.481		nitrite
5	5.97	0.31	3.452	✓	0.495	✓	bromide
6	6.69	1.72	20.626		0.490		nitrate
7	9.18	0.45	7.535	✓	0.485	✓	phosphate
8	10.54	0.34	6.113	/	0.529	✓	sulfate
8	15.00	7.69	80.871		3.481		

lt
10/25/12

This report has been created by IC Net
METROHM LTD

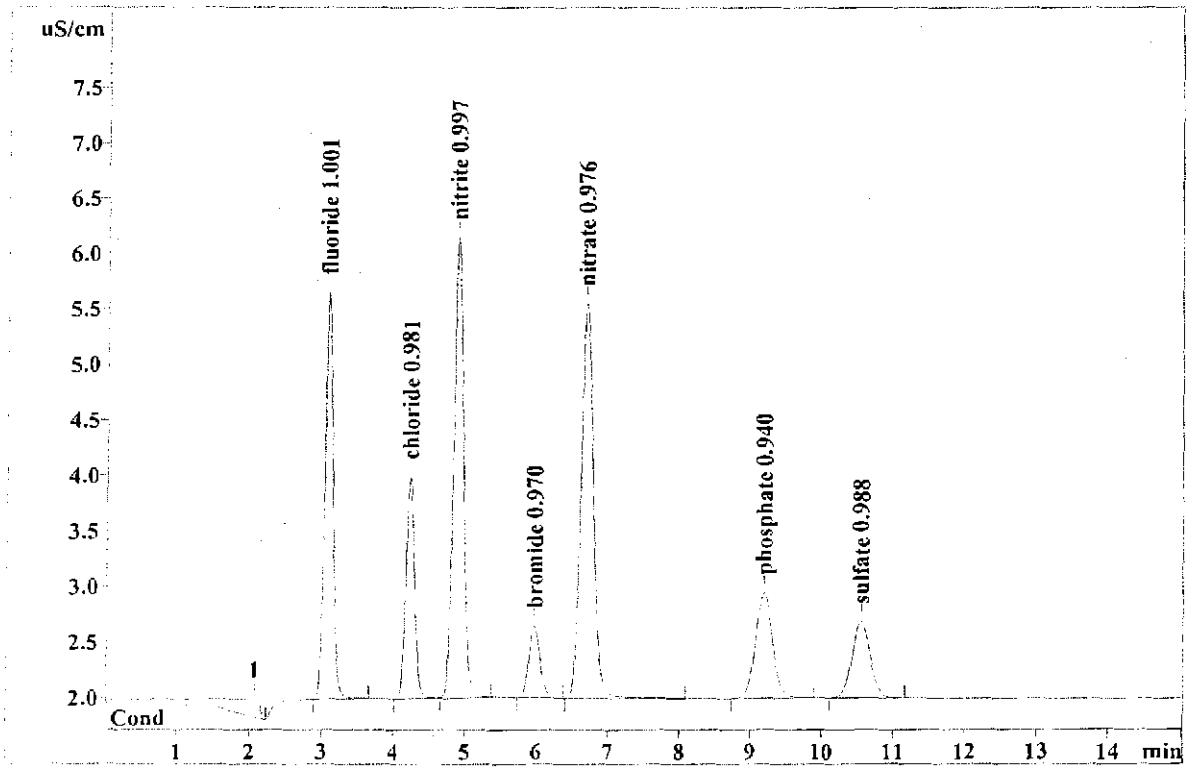
Report date: 10/24/2012 2:37:31 PM
Printed by: Jadelyn Chun

Ident: AJ29-07 S5
Analysis from: 10/24/2012 12:24:09 PM
File: wa241224.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83032

SAMPLE: 1.0PPM

Vial number: 7
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.15	5.364	0.000	
2	3.08	3.66	29.107	1.001	fluoride
3	4.22	2.00	16.707	0.981	chloride
4	4.89	4.15	39.889	0.997	nitrite
5	5.97	0.64	6.994	0.970	bromide
6	6.69	3.55	42.730	0.976	nitrate
7	9.19	0.95	15.755	0.940	phosphate
8	10.55	0.69	12.200	0.988	sulfate
8	15.00	15.79	168.745	6.852	

AS 10/25/12

This report has been created by IC Net
METROHM LTD

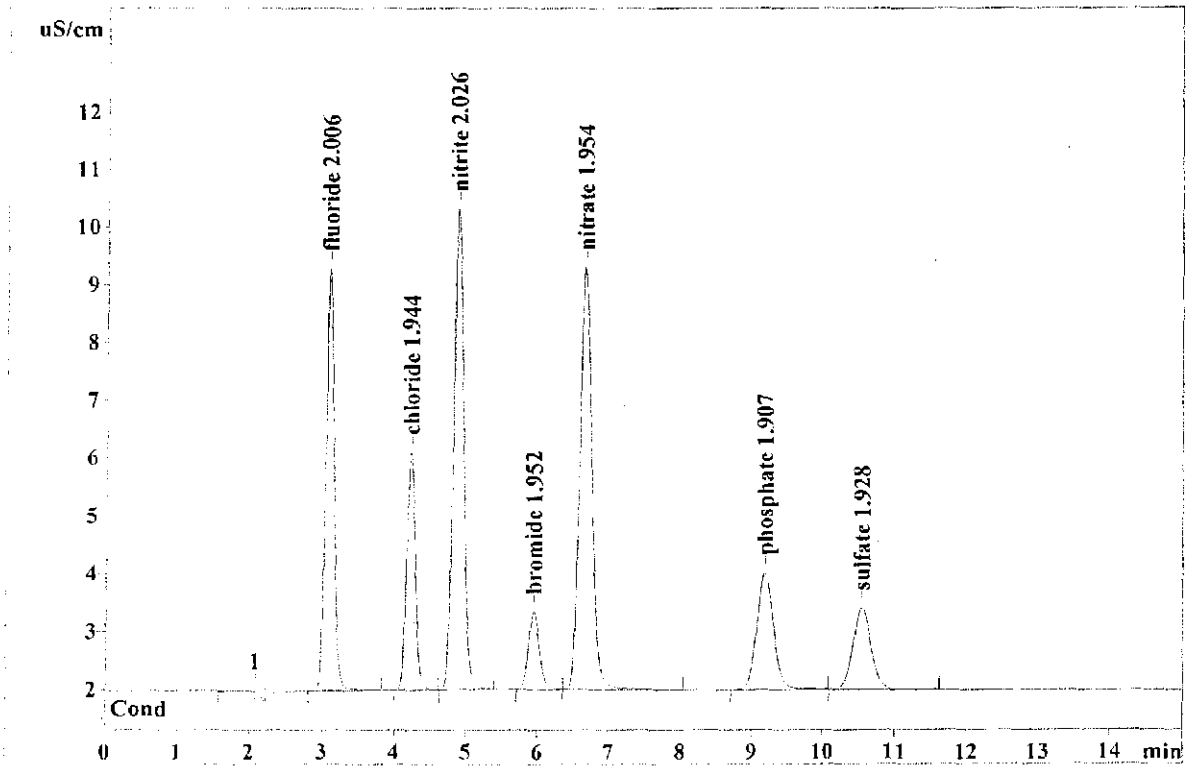
8888

Report date: 10/24/2012 2:37:34 PM
Printed by: Jadelyn Chun

Ident: AJ29-08 S6
Analysis from: 10/24/2012 12:41:18 PM
File: wa241241.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83033

SAMPLE: 2.0PPM
:
Vial number: 8
Volume: 1.0 μL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.13	2.670	0.000	
2	3.08	7.29	58.554	2.006	fluoride
3	4.22	4.11	34.087	1.944	chloride
4	4.88	8.30	81.202	2.026	nitrite
5	5.95	1.33	14.319	1.952	bromide
6	6.66	7.30	87.180	1.954	nitrate
7	9.19	2.00	33.185	1.907	phosphate
8	10.55	1.40	24.667	1.928	sulfate
8	15.00	31.86	335.864	13.716	

JJ
10/25/12

This report has been created by IC Net
METROHM LTD

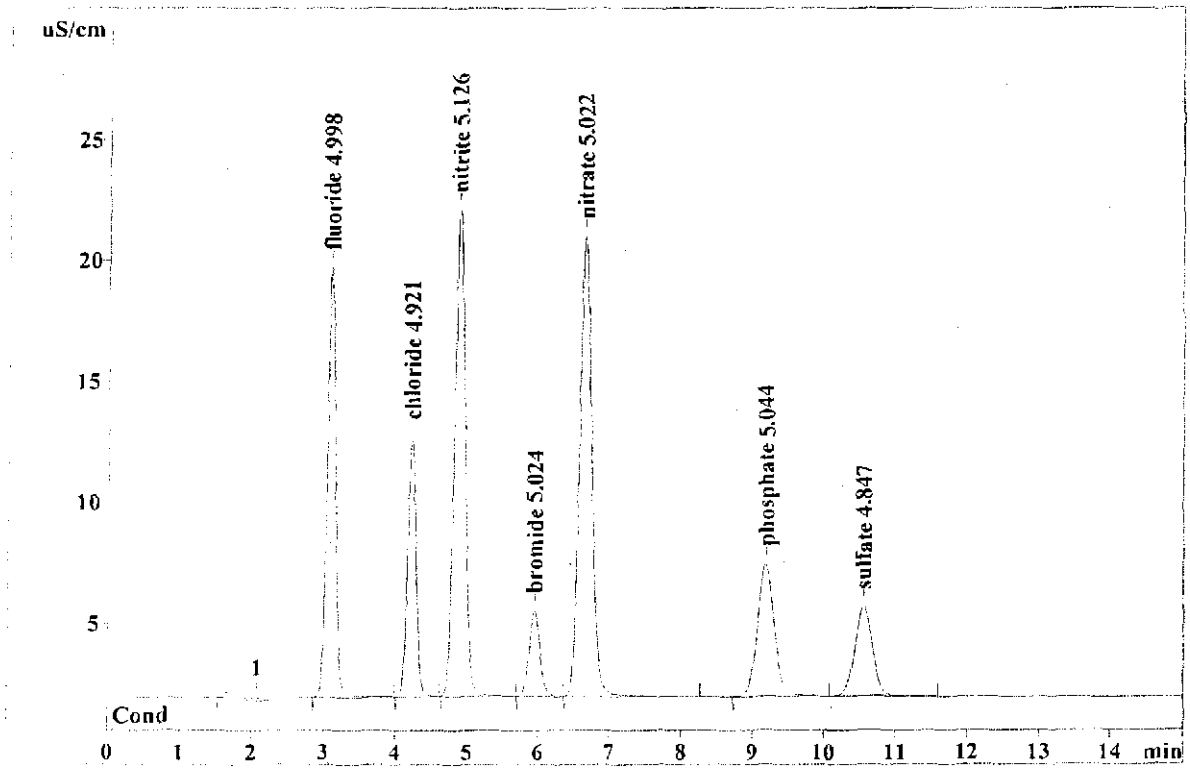
Report date: 10/24/2012 2:37:38 PM
Printed by: Jadelyn Chun

Ident: AJ29-09 S7
Analysis from: 10/24/2012 12:58:28 PM
File: wa241258.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83034

SAMPLE: 5.0PPM

Vial number: 9
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.11	2.622	0.000	
2	3.09	17.72	146.272	4.998	fluoride
3	4.22	10.70	87.781	4.921	chloride
4	4.87	20.09	205.715	5.126	nitrite
5	5.95	3.51	37.221	5.024	bromide
6	6.65	18.98	226.728	5.022	nitrate
7	9.18	5.43	89.754	5.044	phosphate
8	10.55	3.65	63.372	4.847	sulfate
8	15.00	80.20	859.465	34.983	

RS
10/25/12

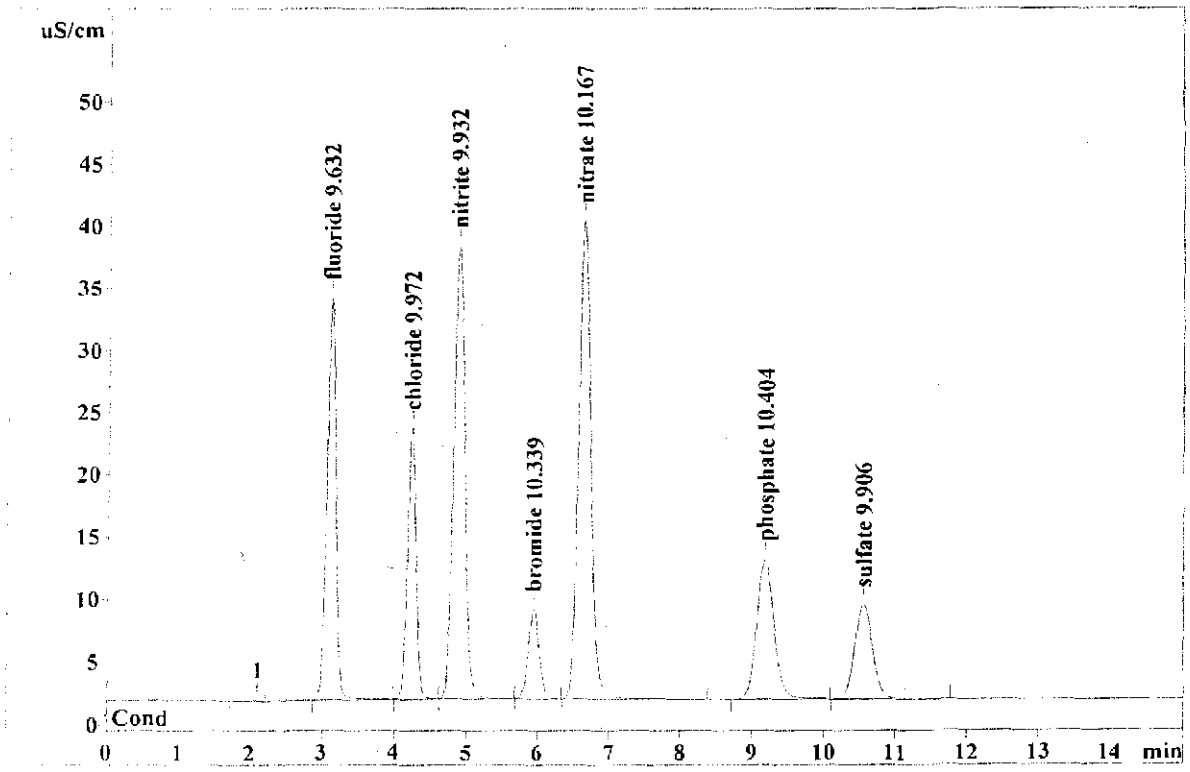
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 2:37:41 PM
Printed by: Jadelyn Chun

Ident: AJ29-10 S8
Analysis from: 10/24/2012 1:15:37 PM
File: wa241315.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83035

SAMPLE: 10.0PPM
:
Vial number: 10
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.08	1.308	0.000	
2	3.11	32.18	282.092	9.632	fluoride
3	4.22	21.75	178.888	9.972	chloride
4	4.87	36.32	398.741	9.932	nitrite
5	5.94	7.14	76.854	10.339	bromide
6	6.63	38.40	460.703	10.167	nitrate
7	9.18	11.19	186.399	10.404	phosphate
8	10.56	7.53	130.439	9.906	sulfate
8	15.00	154.59	1715.424	70.353	

10/25/12

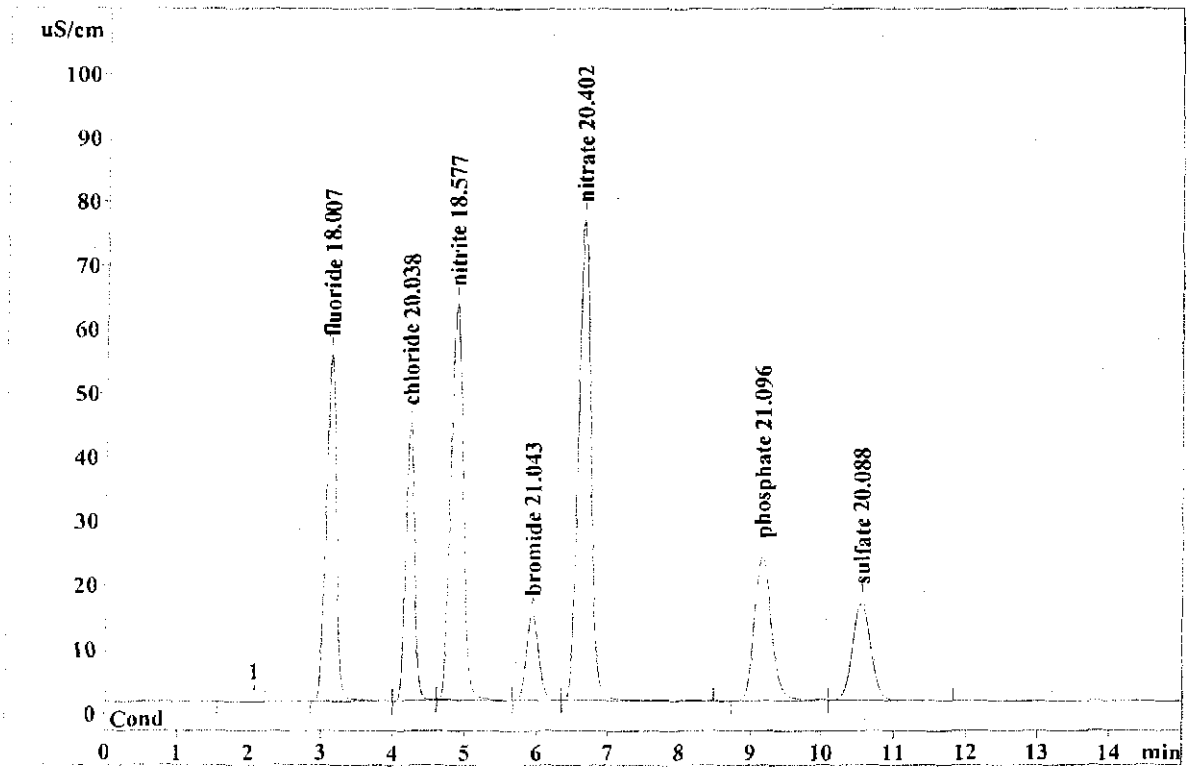
This report has been created by IC Net
METROHM LTD

Report date: 10/24/2012 2:37:44 PM
Printed by: Jadelyn Chun

Ident: AJ29-11 S9
Analysis from: 10/24/2012 1:32:46 PM
File: wa241332.chw Last save: 10/24/2012 2:36:21 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83036

SAMPLE: 20.0PPM
:
Vial number: 11
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

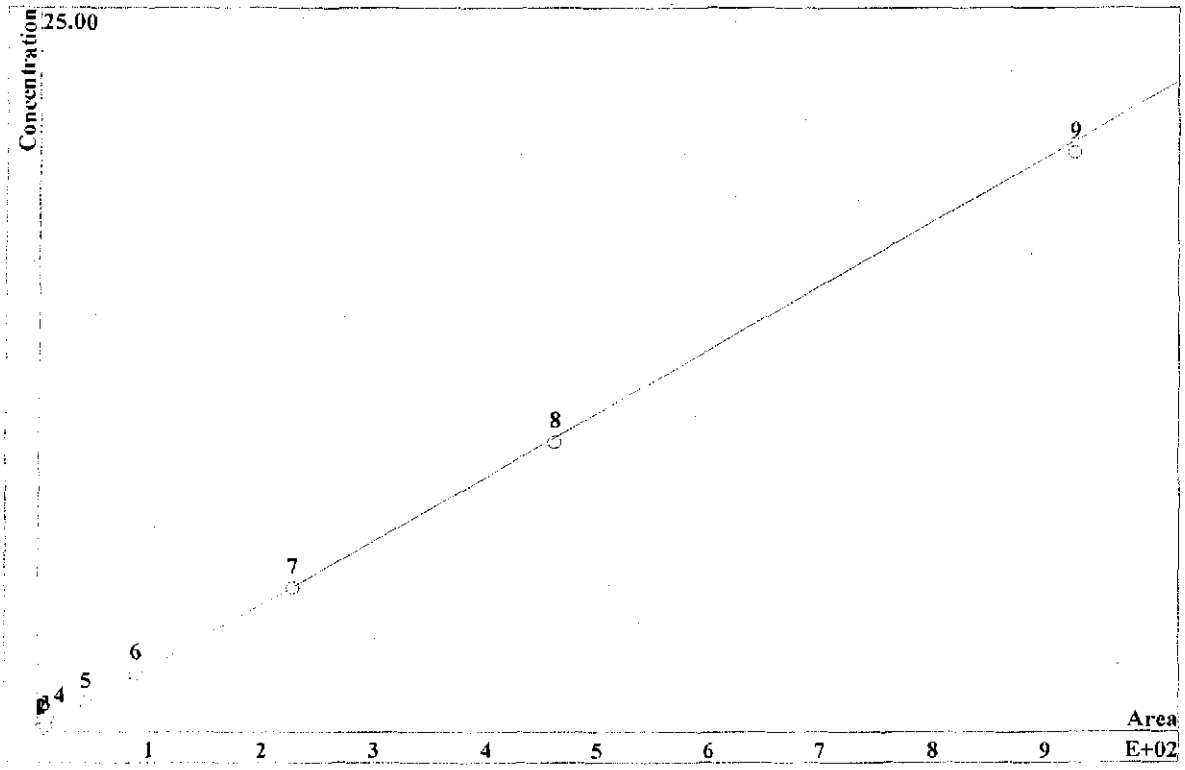
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.06	0.03	0.631	0.000	
2	3.12	54.06	527.560	18.007	fluoride
3	4.22	43.28	360.448	20.038	chloride
4	4.87	61.86	745.984	18.577	nitrite
5	5.93	13.42	156.664	21.043	bromide
6	6.64	75.02	926.137	20.402	nitrate
7	9.16	22.49	379.202	21.096	phosphate
8	10.55	15.30	265.422	20.088	sulfate
8	15.00	285.46	3362.048	139.252	

10/25/12

This report has been created by IC Net
METROHM LTD

CALIBRATION OF COMPONENT nitrate

Method: ICD0-J23.mtw
Equation: Q = 0.0219902·A + 0.0365389
RSD: 2.402 %
Correlation coefficient: 0.999879



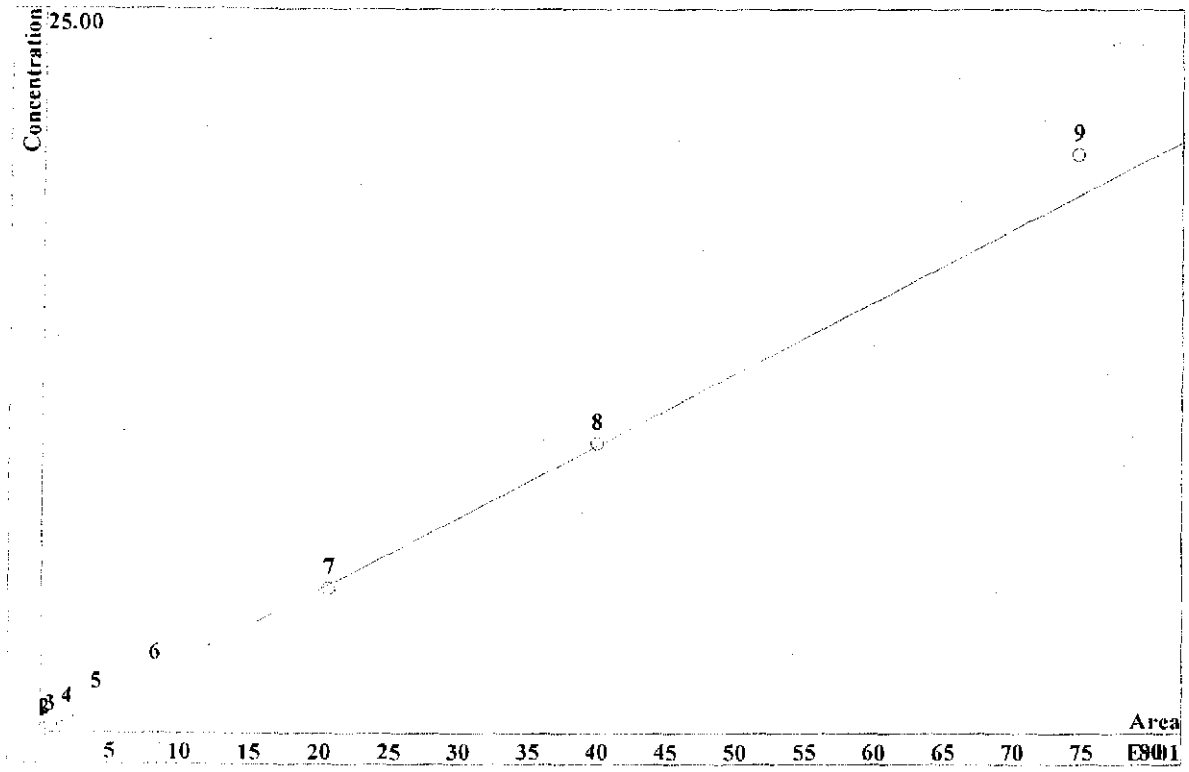
K3 = 0 K2 = 0 K1 = 0.0219902 K0 = 0.0365389
Base: Area
Ref.channel: Cond
ISTD:
Formula: Linear
Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.1509	1.875	0.05	1	6.69	Yes	wa241115.chw
2	0.3128	3.852	0.1	1	6.69	Yes	wa241132.chw
3	0.6444	7.831	0.2	1	6.69	Yes	wa241149.chw
4	1.716	20.63	0.5	1	6.69	Yes	wa241207.chw
5	3.554	42.73	1	1	6.69	Yes	wa241224.chw
6	7.297	87.18	2	1	6.69	Yes	wa241241.chw
7	18.98	226.7	5	1	6.69	Yes	wa241258.chw
8	38.4	460.7	10	1	6.69	No	wa241315.chw
9	75.02	926.1	20	1	6.69	No	wa241332.chw

AS 10/25/12

CALIBRATION OF COMPONENT nitrite

Method: ICD0-J23.mtw ✓ ✓
Equation: Q = 0.0248974·A + 0.00406002
RSD: 2.617 %
Correlation coefficient: 0.999867



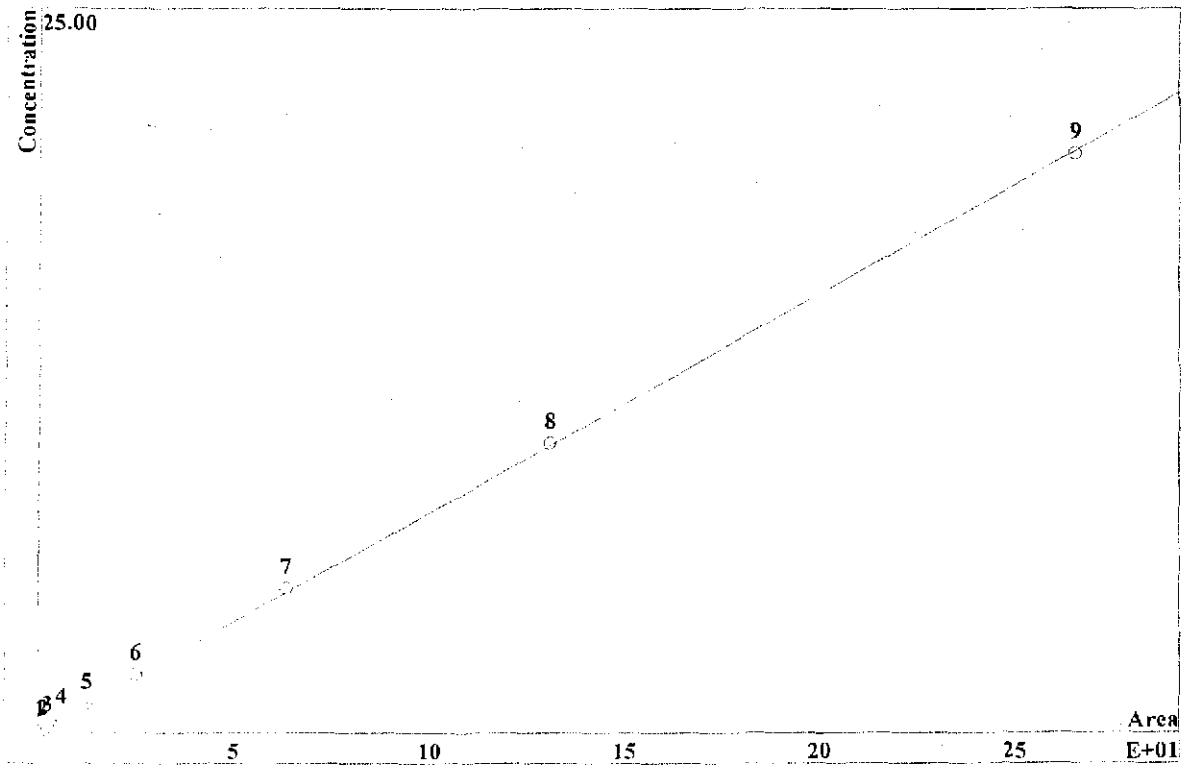
K3 = 0 K2 = 0 K1 = 0.0248974 K0 = 0.00406002
Base: Area
Ref.channel: Cond
ISTD:
Formula: Linear
Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.1229	1.161 ✓	0.05	1	4.88	Yes	wa241115.chw
2	0.317	3.043 ✓	0.1	1	4.88	Yes	wa241132.chw
3	0.7175	6.915 ✓	0.2	1	4.88	Yes	wa241149.chw
4	2.003	19.14 ✓	0.5	1	4.88	Yes	wa241207.chw
5	4.153	39.89 ✓	1	1	4.88	Yes	wa241224.chw
6	8.302	81.2 ✓	2	1	4.88	Yes	wa241241.chw
7	20.09	205.7 ✓	5	1	4.88	Yes	wa241258.chw
8	36.32	398.7 ✓	10	1	4.88	Yes	wa241315.chw
9	61.86	746 ✓	20	1	4.88	No	wa241332.chw

AS 25/12.

CALIBRATION OF COMPONENT sulfate

Method: ICD0-J23.mtw
Equation: Q = 0.0754287·A + 0.0673977
RSD: 2.168 %
Correlation coefficient: 0.999915



K3 = 0 K2 = 0 K1 = 0.0754287 K0 = 0.0673977
Base: Area
Ref.channel: Cond
ISTD:
Formula: Linear
Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.04232	0.7541	0.05	1	10.54	Yes	wa241115.chw
2	0.07896	1.443	0.1	1	10.54	Yes	wa241132.chw
3	0.1451	2.603	0.2	1	10.54	Yes	wa241149.chw
4	0.342	6.113	0.5	1	10.54	Yes	wa241207.chw
5	0.6887	12.2	1	1	10.54	Yes	wa241224.chw
6	1.4	24.67	2	1	10.54	Yes	wa241241.chw
7	3.649	63.37	5	1	10.54	Yes	wa241258.chw
8	7.53	130.4	10	1	10.54	Yes	wa241315.chw
9	15.3	265.4	20	1	10.54	Yes	wa241332.chw

10/25/12.

SECOND SOURCE VERIFICATION

IC Result Check FormVersion : J23/AJ29(2012)

LFID	LSID	Selection	bromide	chloride	sulfate	nitrate	nitrite	phosphate	fluoride	RawNetID	DF
AJ29-01	IB	BCSNIPF	0	0	0	0	0	0	0	wa241041	1
AJ29-12	ICV	BCSNIPF	97.2%	100.5%	99.8%	100.2%	101.2%	97.9%	102.9%	wa241400	1
AJ29-13	ICB	BCSNIPF	0	0	0	0	0	0	0	wa241417	1

RD
10/25/12

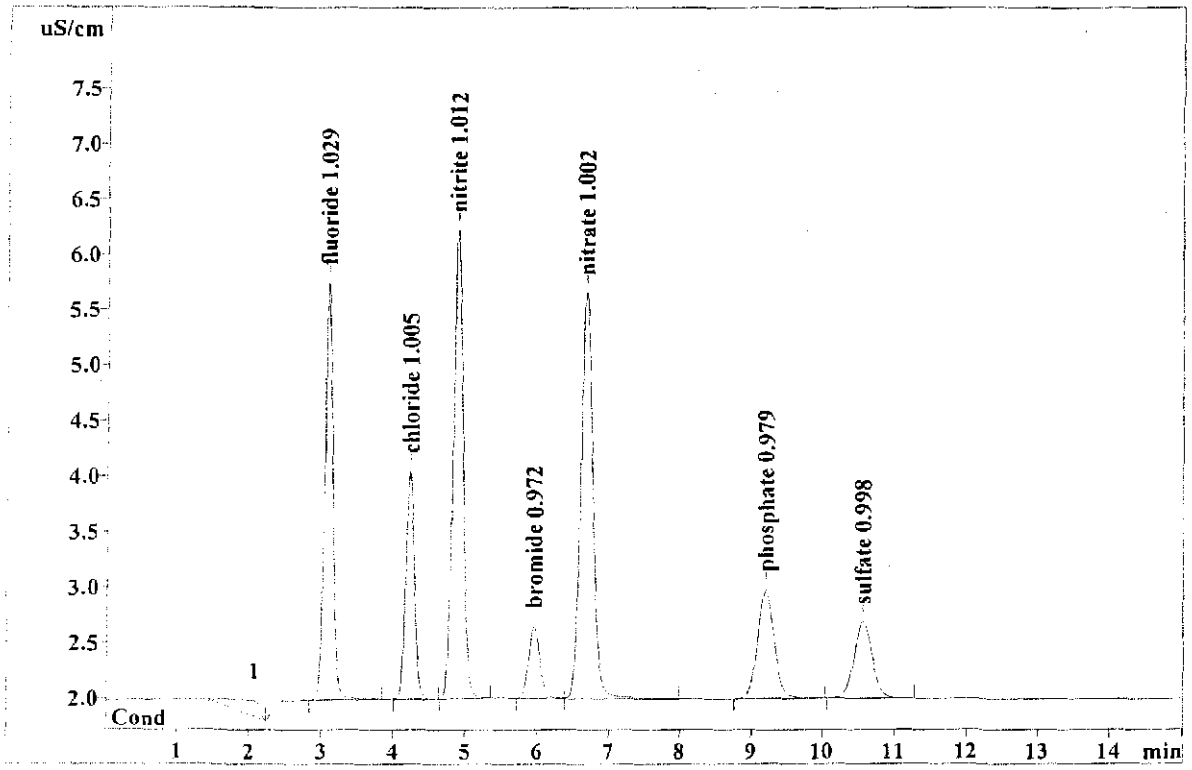
8OH8

Report date: 10/24/2012 2:37:52 PM
Printed by: Jadelyn Chun

Ident: AJ29-12 ICV
Analysis from: 10/24/2012 2:00:27 PM
File: wa241400.chw Last save: 10/24/2012 2:36:22 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83037

SAMPLE: 1.0PPM
:
Vial number: 12
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.07	0.14	3.647	0.000	
2	3.08	3.76	29.948 ✓	1.029 ✓	fluoride
3	4.22	2.05	17.149 ✓	1.005 ✓	chloride
4	4.88	4.23	40.479 ✓	1.012 ✓	nitrite
5	5.95	0.65	7.011 ✓	0.972 ✓	bromide
6	6.67	3.66	43.902 ✓	1.002 ✓	nitrate
7	9.20	0.98	16.450 ✓	0.979 ✓	phosphate
8	10.57	0.69	12.344 ✓	0.998 ✓	sulfate
8	15.00	16.17	170.931	6.998	

RS 10/25/12

This report has been created by IC Net
METROHM LTD

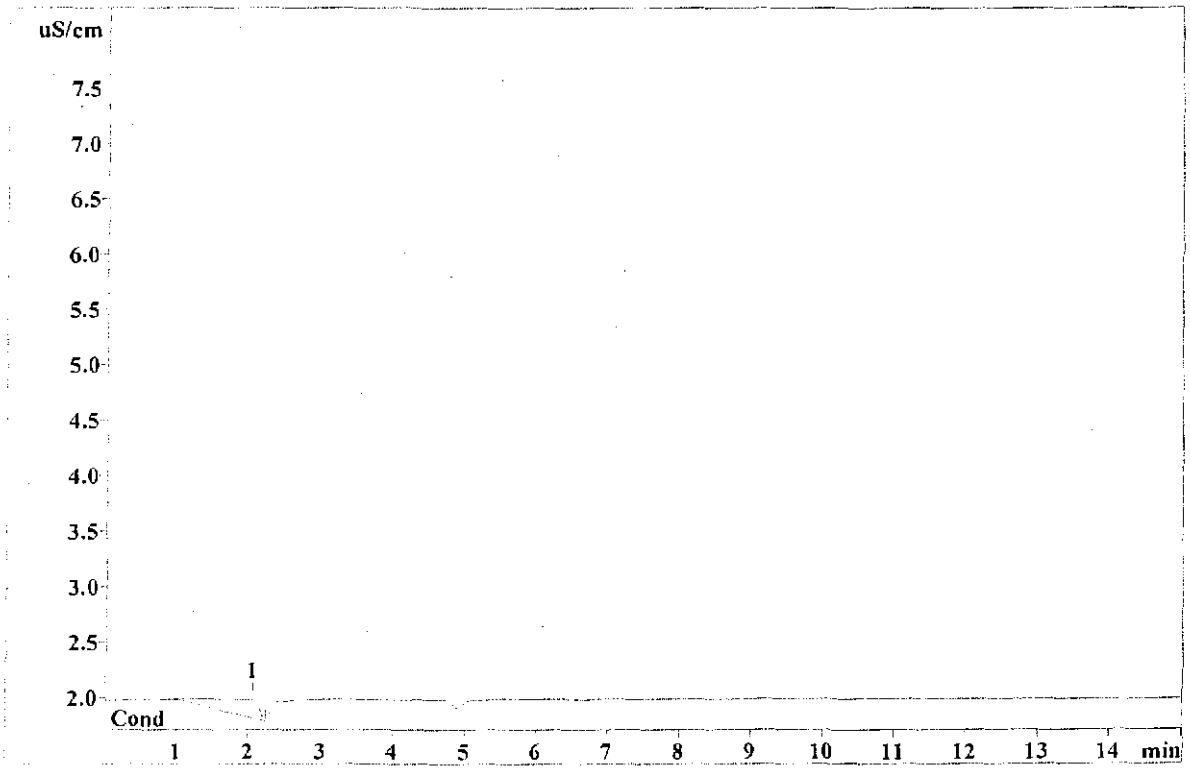
Report date: 10/24/2012 2:37:56 PM
Printed by: Jadelyn Chun

Ident: AJ29-13 ICB
Analysis from: 10/24/2012 2:17:36 PM
File: wa241417.chw Last save: 10/24/2012 2:36:22 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 12:04:46 PM
Run operator: Jadelyn Chun
Analysis number: 83038

SAMPLE:

Vial number: 13
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.06	0.16	6.360	0.000	

This report has been created by IC Net
METROHM LTD

AJ 10/25/12

8050

DAILY CALIBRATION(S)

IC Result Check FormVersion : J23/AJ29(2012)

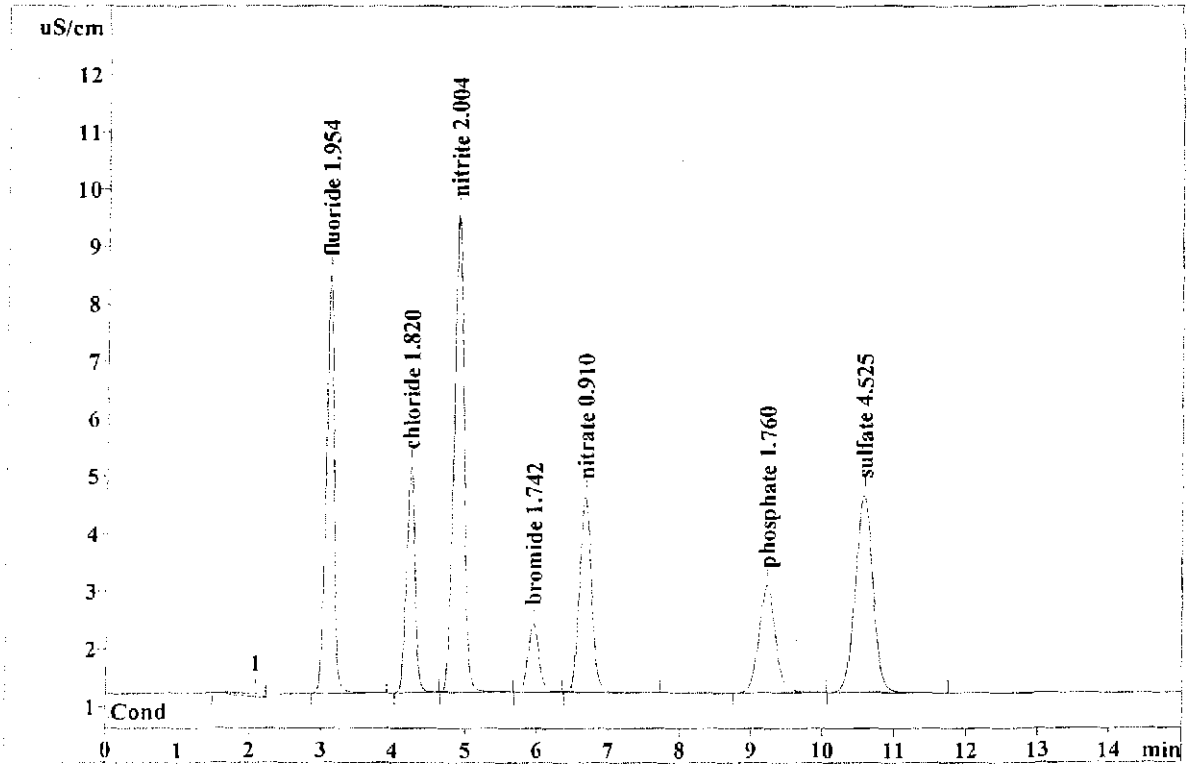
LFID	LSID	Selection	phosphate	chloride	nitrate	fluoride	nitrite	bromide	sulfate	RawNetID	DF
AJ33-01	CCV19	PCNFIBS	88%*	91%	91%	97.7%	100.2%	87.1%*	90.5%	wa251756	1
AJ33-02	CCB19	PCNFIBS	0	0	0	0	0	0	0	wa251813	1
AJ33-13	CCV21	PCNFIBS	87.3%*	91.3%	91.2%	97.6%	100.2%	87.3%*	90.8%	wa252122	1
AJ33-14	CCB21	PCNFIBS	0	0	0	0	0	0	0	wa252139	1
AJ33-25	CCV23	PCNFIBS	86.5%*	91.4%	91.4%	97.9%	100.3%	87.5%*	90.8%	wa260048	1
AJ33-26	CCB23	PCNFIBS	0	0	0	0	0	0	0	wa260105	1
AJ33-37	CCV25	PCNFIBS	89.4%*	92%	92%	98.5%	100.8%	88.1%*	91.6%	wa260414	1
AJ33-38	CCB25	PCNFIBS	0	0	0	0	0	0	0	wa260431	1
AJ33-47	CCV27	PCNFIBS	88.1%*	91.7%	91.7%	98.3%	100.7%	87.8%*	91.3%	wa260705	1
AJ33-48	CCB27	PCNFIBS	0	0	0	0	0	0	0	wa260723	1

Report date: 10/25/2012 6:11:36 PM
Printed by: Jadelyn Chun

Ident: AJ33-01 CCV19
Analysis from: 10/25/2012 5:56:39 PM
File: WA251756.CHW Last save: 10/25/2012 6:11:36 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83134

SAMPLE:
:
Vial number: 1
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.06	1.447	0.000	
2	3.10	7.28	57.054	1.954	fluoride
3	4.23	3.92	31.851	1.820	chloride
4	4.88	8.32	80.312	2.004	nitrite
5	5.95	1.20	12.756	1.742	bromide
6	6.66	3.39	39.735	0.910	nitrate
7	9.22	1.86	30.537	1.760	phosphate
8	10.57	3.42	59.103	4.525	sulfate
8	15.00	29.44	312.795	14.717	

This report has been created by IC Net
METROHM LTD

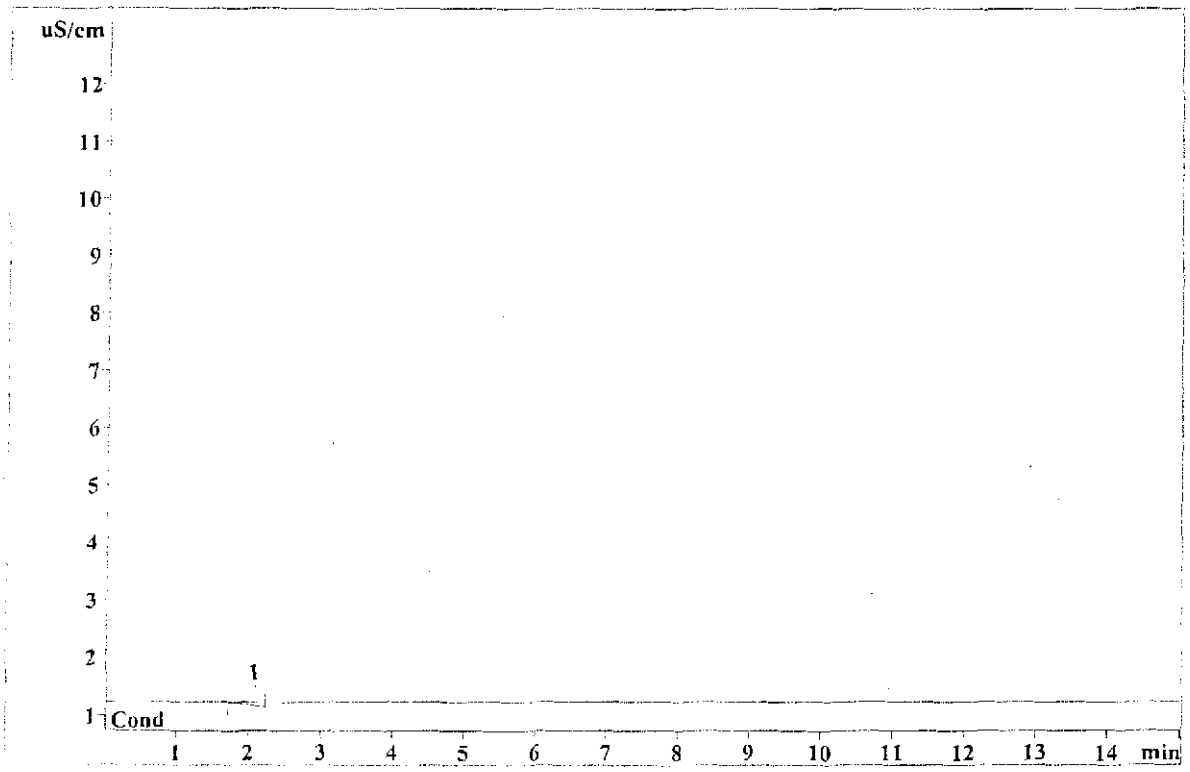
Report date: 10/26/2012 9:41:48 AM
Printed by: Jadelyn Chun

Ident: AJ33-02 CCB19
Analysis from: 10/25/2012 6:13:59 PM
File: wa251813.chw Last save: 10/25/2012 6:28:56 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83135

SAMPLE:

Vial number: 2
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.08	0.05	0.913	0.000	

This report has been created by IC Net
METROHM LTD

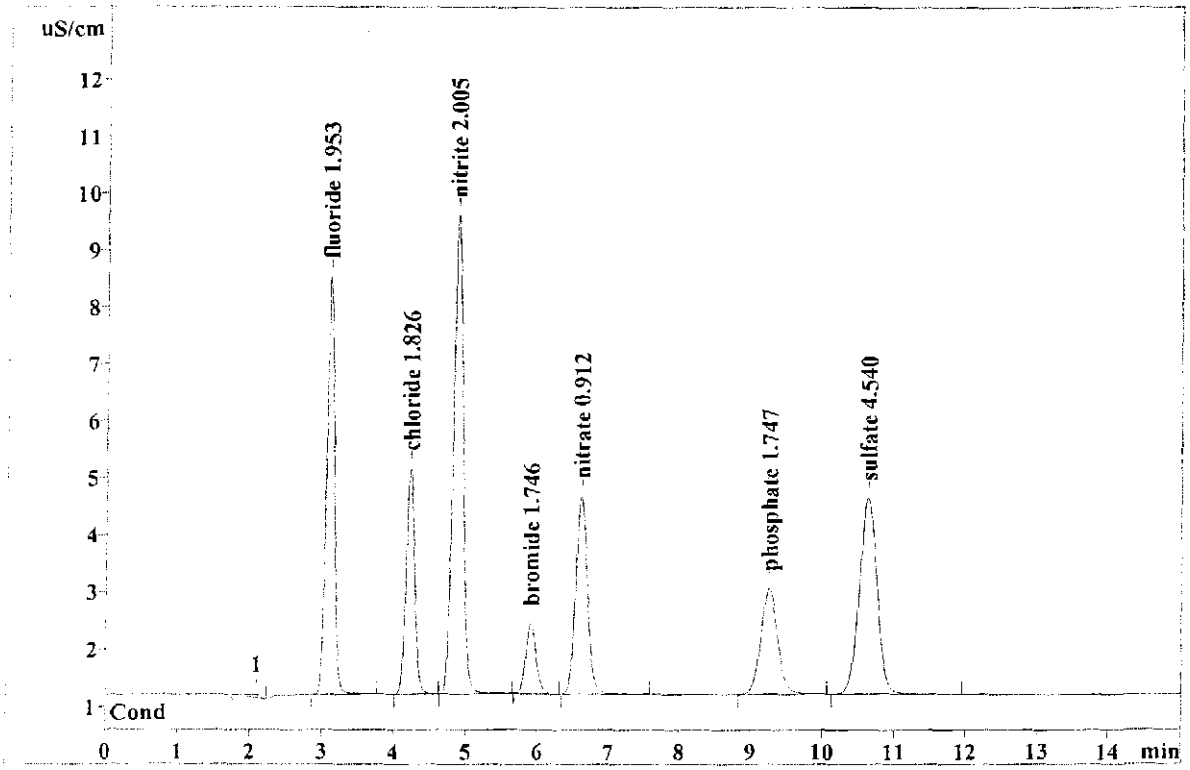
Report date: 10/25/2012 9:37:36 PM
Printed by: Jadelyn Chun

Ident: AJ33-13 CCV21
Analysis from: 10/25/2012 9:22:39 PM
File: WA252122.CHW Last save: 10/25/2012 9:37:36 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83146

SAMPLE:

Vial number: 13
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.09	0.05	0.774	0.000	
2	3.10	7.33	57.012	1.953	fluoride
3	4.22	3.96	31.949	1.826	chloride
4	4.86	8.40	80.349	2.005	nitrite
5	5.90	1.22	12.784	1.746	bromide
6	6.61	3.46	39.829	0.912	nitrate
7	9.25	1.85	30.290	1.747	phosphate
8	10.63	3.43	59.300	4.540	sulfate
8	15.00	29.70	312.287	14.729	

This report has been created by IC Net
METROHM LTD

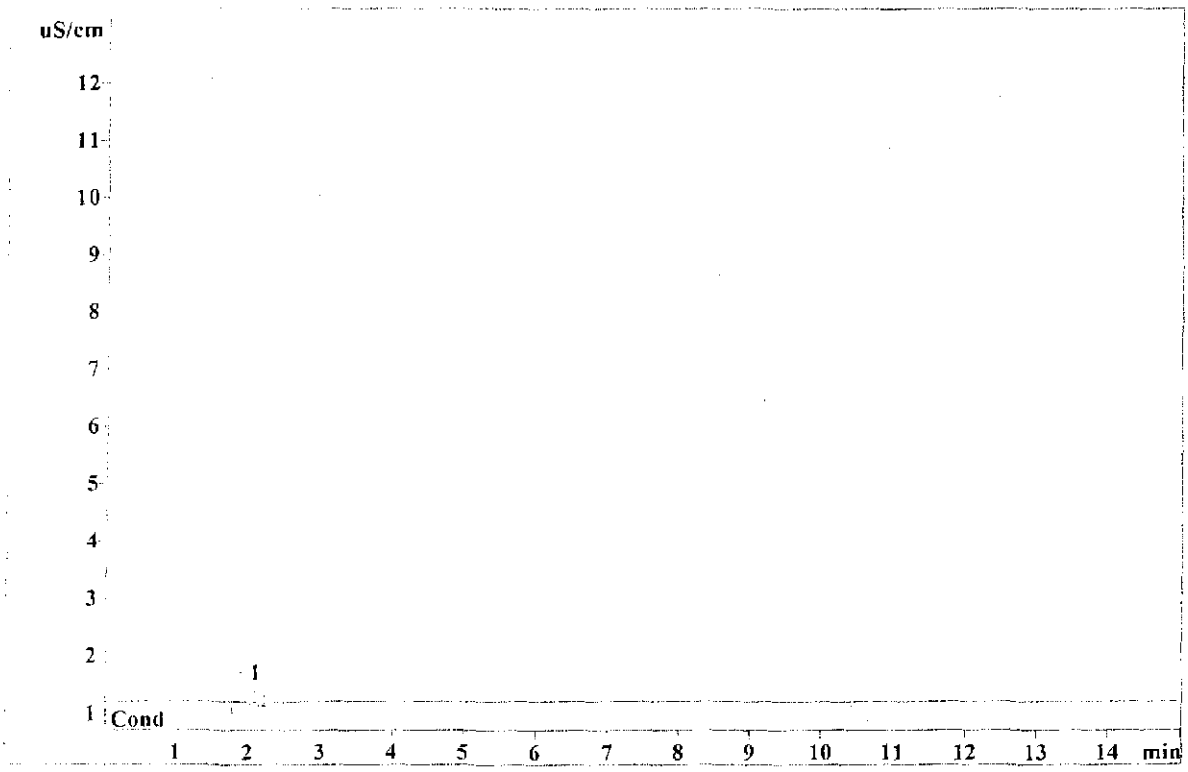
Report date: 10/26/2012 9:42:38 AM
Printed by: Jadelyn Chun

Ident: AJ33-14 CCB21
Analysis from: 10/25/2012 9:39:48 PM
File: wa252139.chw Last save: 10/25/2012 9:54:45 PM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83147

SAMPLE:

Vial number: 14
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.09	0.05	0.768	0.000	

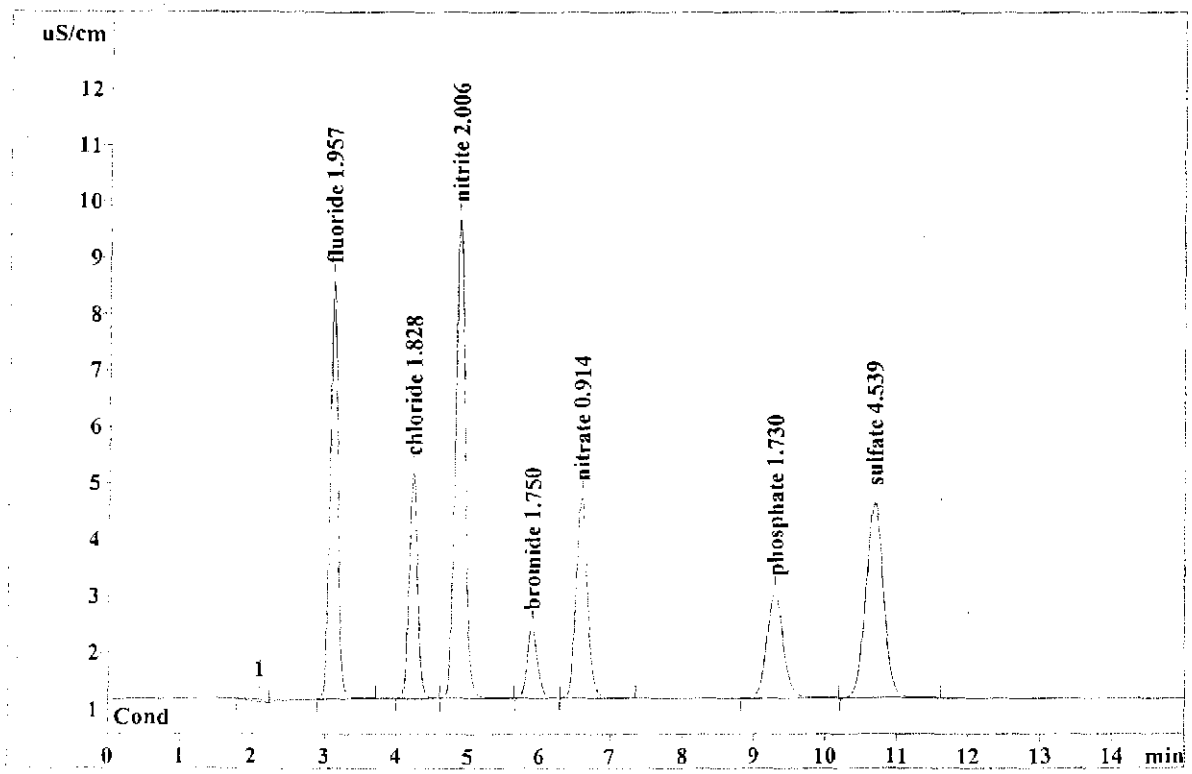
This report has been created by IC Net
METROHM LTD

Report date: 10/26/2012 1:03:25 AM
Printed by: Jadelyn Chun

Ident: AJ33-25 CCV23
Analysis from: 10/26/2012 12:48:28 AM
File: WA260048.CHW Last save: 10/26/2012 1:03:25 AM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83158

SAMPLE:
:
Vial number: 25
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.10	0.05	0.705	0.000	
2	3.11	7.38	57.135	1.957	fluoride
3	4.22	3.99	31.990	1.828	chloride
4	4.86	8.46	80.424	2.006	nitrite
5	5.89	1.24	12.814	1.750	bromide
6	6.58	3.52	39.887	0.914	nitrate
7	9.30	1.85	29.997	1.730	phosphate
8	10.69	3.44	59.284	4.539	sulfate
8	15.00	29.92	312.238	14.725	

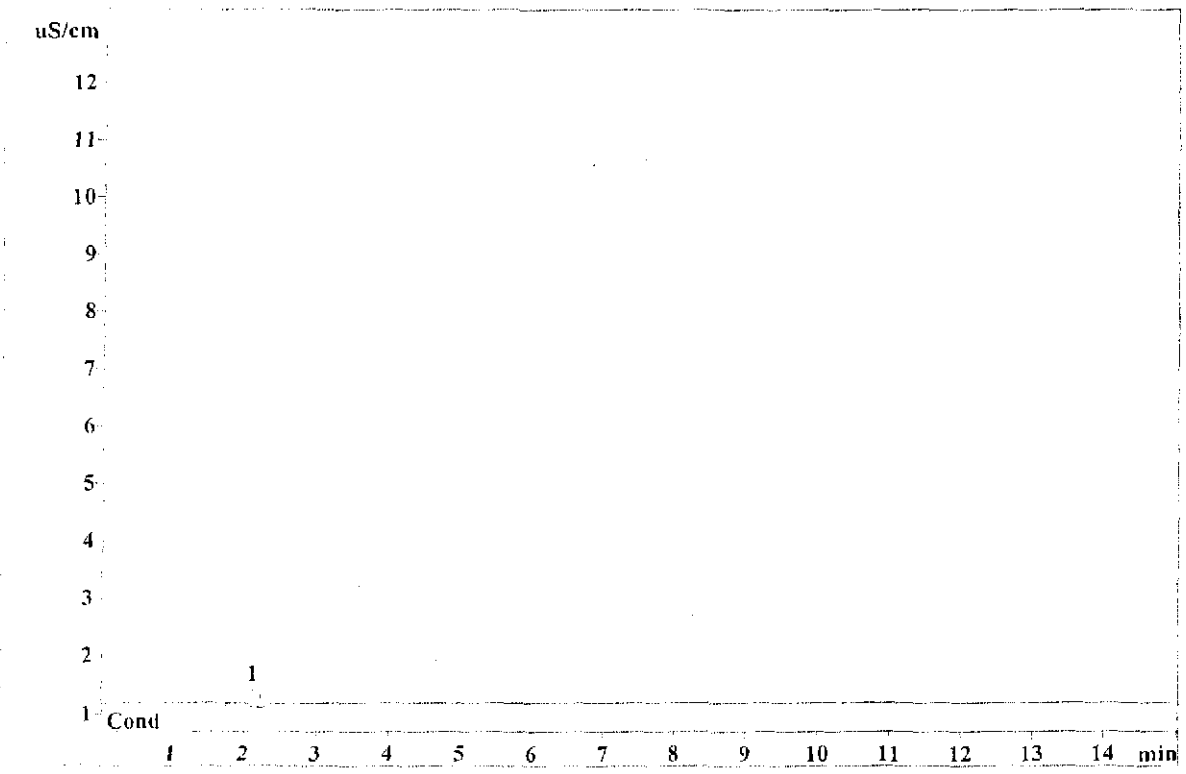
This report has been created by IC Net
METROHM LTD

Report date: 10/26/2012 9:45:00 AM
Printed by: Jadelyn Chun

Ident: AJ33-26 CCB23
Analysis from: 10/26/2012 1:05:38 AM
File: wa260105.chw Last save: 10/26/2012 1:20:35 AM

Method: ICD0-J23.mtw Last save: 10/24/2012 2:52:08 PM
Run operator: Jadelyn Chun
Analysis number: 83159

SAMPLE:
:
Vial number: 26
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.10	0.05	0.848	0.000	

This report has been created by IC Net
METROHM LTD

IC Result Check FormVersion : J23/AJ29(2012)

LFID	LSID	Selection	phosphate	chloride	fluoride	sulfate	nitrite	bromide	nitrate	RawNetID	DF
AJ35-01	CCV29	PCFSIBN	86%*	91.4%	97.6%	89.6%*	100%	84.9%*	91.4%	wa260958	1
AJ35-02	CCB29	PCFSIBN	0	0	0	0	0	0	0	wa261016	1
AJ35-11	CCV31	PCFSIBN	85%*	91.3%	97.7%	89.7%*	100.4%	84.5%*	91.1%	wa261250	1
AJ35-12	CCB31	PCFSIBN	0	0	0	0	0	0	0	wa261307	1
AJ35-22	CCV33	PCFSIBN	85.4%*	91.9%	98.1%	89.6%*	100.5%	85.4%*	92.1%	wa261559	1
AJ35-23	CCB33	PCFSIBN	0	0	0	0	0	0	0	wa261616	1

ANALYTICAL LOG(S)

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Concentrations of (ppm):

S_1 — 0.05
S_2 — 0.1
S_3 — 0.2
S_4 — 0.5
S_5 — 1.0
S_6 — 2.0
S_7 — 5.0
S_8 — 10.0
S_9 — 20.0

Linearity (ppm):

F^- — 5
Cl^- — 20
NO_2N — 10
Br^- — 5
PO_4P — 5
NO_3N — 5
SO_4^{2-} — 20

Column: Metrosep A Supp 5-100 # 71082170

Flow Rate: 0.70 ml/min Metrosep RP2 Guard # D103 0022

IC Eluent:
SW4-02-01-04
(320 mM Na_2CO_3 / 100 mM $NaHCO_3$) 20 ml → 2 L reagent water

IC Regenerant:
SW4-02-01-03 (1000 mM H_2SO_4) 100 ml → 1 L reagent water

Reagent Water: RW1-12-001

Book #:	AD0-037
Instrument No.:	D0
Pipette ID's:	039380124
	SW8A-02-12
	SW8A-02-13
Balance ID #:	40706360
Analytical Sequence:	AJ29
Method File:	ICDO-J23.mtw
Analytical Batch:	NA

SOP #	Rev. #
☑ EMAX-300.0	9
☐ EMAX-4110B	3
☑ EMAX-9056	6
☐ EMAX-	

STANDARDS ID	
ICAL	SI1B-21-41-02
ICV	SI1B-21-41-03
CCV	NA
LCS	↓
MS	↓

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ IC-METROHM	

Analyzed By: JC

Date: 10/24/12

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2
wa241041.chw	ICD0-J23.mtw	AJ29-01 IB	1	1.0	1.0	1.0	100.0	0		
wa241058.chw	ICD0-J23.mtw	AJ29-02 S0	2	1.0	1.0	1.0	100.0	0		
wa241115.chw	ICD0-J23.mtw	AJ29-03 S1	3	1.0	1.0	1.0	100.0	1	0.05PPM	
wa241132.chw	ICD0-J23.mtw	AJ29-04 S2	4	1.0	1.0	1.0	100.0	2	0.1PPM	
wa241149.chw	ICD0-J23.mtw	AJ29-05 S3	5	1.0	1.0	1.0	100.0	3	0.2PPM	
wa241207.chw	ICD0-J23.mtw	AJ29-06 S4	6	1.0	1.0	1.0	100.0	4	0.5PPM	
wa241224.chw	ICD0-J23.mtw	AJ29-07 S5	7	1.0	1.0	1.0	100.0	5	1.0PPM	
wa241241.chw	ICD0-J23.mtw	AJ29-08 S6	8	1.0	1.0	1.0	100.0	6	2.0PPM	
wa241258.chw	ICD0-J23.mtw	AJ29-09 S7	9	1.0	1.0	1.0	100.0	7	5.0PPM	
wa241315.chw	ICD0-J23.mtw	AJ29-10 S8	10	1.0	1.0	1.0	100.0	8	10.0PPM	
wa241332.chw	ICD0-J23.mtw	AJ29-11 S9	11	1.0	1.0	1.0	100.0	9	20.0PPM	
wa241400.chw	ICD0-J23.mtw	AJ29-12 ICV	12	1.0	1.0	1.0	100.0	0	1.0PPM	
wa241417.chw	ICD0-J23.mtw	AJ29-13 ICB	13	1.0	1.0	1.0	100.0	0		

FINAL

JC 10/24/12

11/26/12

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #:	AD0-037
Instrument No.:	D0
Pipette ID's:	039380124
	SW8A-02-12
	SW8A-02-13
Balance ID #:	40706360
Analytical Sequence:	AJ33
Method File:	ICD0-J23.mtw
Analytical Batch:	ICJ043WR; ICJ045W (J-13 RST/m)

SOP #	Rev. #
☑ EMAX-300.0	9
☐ EMAX-4110B	3
☑ EMAX-9056	6
☐ EMAX-	

STANDARDS ID	
ICAL	—
ICV	—
CCV	SIB-21-45-03
LCS	SIB-21-46-01
MS	SCP Refer to LCS Parent ID

Column: Metrosep A Supp 5-100 Filter 0.45µm: 21BC3739

Flow Rate: 0.70 ml/min 0.20 µm: 21801546

IC Eluent:

SW4-02-01-04

(320 mM Na_2CO_3 / 100 mM $NaHCO_3$) 20 ml → 2 L reagent water

IC Regenerant:

SW4-01-02-01-03 (1000 mM H_2SO_4) 100 ml → 1 L reagent water

Reagent Water: RW1-12-001

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ IC-METROHM	

Analyzed By: JC

Date: 10/25/12

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2
wa251756.chw	ICD0-J23.mtw	AJ33-01 CCV19	1	1.0	1.0	1.0	100.0	0		
wa251813.chw	ICD0-J23.mtw	AJ33-02 CCB19	2	1.0	1.0	1.0	100.0	0		
wa251831.chw	ICD0-J23.mtw	AJ33-03 ICJ043WB	3	1.0	1.0	1.0	100.0	0		
wa251848.chw	ICD0-J23.mtw	AJ33-04 ICJ043WL	4	1.0	1.0	1.0	100.0	0		
wa251905.chw	ICD0-J23.mtw	AJ33-05 ICJ043WC	5	1.0	1.0	1.0	100.0	0		
wa251922.chw	ICD0-J23.mtw	AJ33-06 J526-02	6	1.0	1.0	1.0	100.0	0		
wa251939.chw	ICD0-J23.mtw	AJ33-07 J526-02I DF=2	7	1.0	2.0	1.0	100.0	0		
wa251956.chw	ICD0-J23.mtw	AJ33-08 J182-02I DF=20	8	1.0	20.0	1.0	100.0	0		
wa252014.chw	ICD0-J23.mtw	AJ33-09 J182-02D DF=20	9	1.0	20.0	1.0	100.0	0		
wa252031.chw	ICD0-J23.mtw	AJ33-10 J182-02M DF=20	10	1.0	20.0	1.0	100.0	0		
wa252048.chw	ICD0-J23.mtw	AJ33-11 J182-02S DF=20	11	1.0	20.0	1.0	100.0	0		
wa252105.chw	ICD0-J23.mtw	AJ33-12 J182-03I DF=20	12	1.0	20.0	1.0	100.0	0		
wa252122.chw	ICD0-J23.mtw	AJ33-13 CCV21	13	1.0	1.0	1.0	100.0	0		
wa252139.chw	ICD0-J23.mtw	AJ33-14 CCB21	14	1.0	1.0	1.0	100.0	0		
wa252156.chw	ICD0-J23.mtw	AJ33-15 J182-03	15	1.0	1.0	1.0	100.0	0		
wa252214.chw	ICD0-J23.mtw	AJ33-16 J182-04	16	1.0	1.0	1.0	100.0	0		
wa252231.chw	ICD0-J23.mtw	AJ33-17 J182-04I DF=20	17	1.0	20.0	1.0	100.0	0		
wa252248.chw	ICD0-J23.mtw	AJ33-18 J182-05	18	1.0	1.0	1.0	100.0	0		
wa252305.chw	ICD0-J23.mtw	AJ33-19 J182-05I DF=20	19	1.0	20.0	1.0	100.0	0		
wa252322.chw	ICD0-J23.mtw	AJ33-20 J182-06	20	1.0	1.0	1.0	100.0	0		
wa252339.chw	ICD0-J23.mtw	AJ33-21 J182-06I DF=20	21	1.0	20.0	1.0	100.0	0		
wa252357.chw	ICD0-J23.mtw	AJ33-22 J182-07	22	1.0	1.0	1.0	100.0	0		
wa260014.chw	ICD0-J23.mtw	AJ33-23 J182-07I DF=20	23	1.0	20.0	1.0	100.0	0		
wa260031.chw	ICD0-J23.mtw	AJ33-24 ICJ043WQ	24	1.0	1.0	1.0	100.0	0		
wa260048.chw	ICD0-J23.mtw	AJ33-25 CCV23	25	1.0	1.0	1.0	100.0	0		
wa260105.chw	ICD0-J23.mtw	AJ33-26 CCB23	26	1.0	1.0	1.0	100.0	0		
wa260122.chw	ICD0-J23.mtw	AJ33-27 J155-01I DF=20	27	1.0	20.0	1.0	100.0	0		
wa260139.chw	ICD0-J23.mtw	AJ33-28 J155-02I DF=20	28	1.0	20.0	1.0	100.0	0		
wa260157.chw	ICD0-J23.mtw	AJ33-29 J155-03I DF=20	29	1.0	20.0	1.0	100.0	0		
wa260214.chw	ICD0-J23.mtw	AJ33-30 J155-04I DF=10	30	1.0	10.0	1.0	100.0	0		
wa260231.chw	ICD0-J23.mtw	AJ33-31 J155-05I DF=10	31	1.0	10.0	1.0	100.0	0		
wa260248.chw	ICD0-J23.mtw	AJ33-32 J155-06I DF=10	32	1.0	10.0	1.0	100.0	0		
wa260305.chw	ICD0-J23.mtw	AJ33-33 ICJ045WL	33	1.0	1.0	1.0	100.0	0		
wa260322.chw	ICD0-J23.mtw	AJ33-34 ICJ045WC	34	1.0	1.0	1.0	100.0	0		
wa260340.chw	ICD0-J23.mtw	AJ33-35 ICJ045WB	35	1.0	1.0	1.0	100.0	0		
wa260357.chw	ICD0-J23.mtw	AJ33-36 J155-07I DF=20	36	1.0	20.0	1.0	100.0	0		
wa260414.chw	ICD0-J23.mtw	AJ33-37 CCV25	37	1.0	1.0	1.0	100.0	0		
wa260431.chw	ICD0-J23.mtw	AJ33-38 CCB25	38	1.0	1.0	1.0	100.0	0		
wa260448.chw	ICD0-J23.mtw	AJ33-39 J182-02J DF=100	39	1.0	100.0	1.0	100.0	0		
wa260505.chw	ICD0-J23.mtw	AJ33-40 J182-02D DF=100	40	1.0	100.0	1.0	100.0	0		
wa260522.chw	ICD0-J23.mtw	AJ33-41 J182-02M DF=100	41	1.0	100.0	1.0	100.0	0		
wa260540.chw	ICD0-J23.mtw	AJ33-42 J182-02S DF=100	42	1.0	100.0	1.0	100.0	0		
wa260557.chw	ICD0-J23.mtw	AJ33-43 J155-10I DF=20	43	1.0	20.0	1.0	100.0	0		
wa260614.chw	ICD0-J23.mtw	AJ33-44 J155-12I DF=20	44	1.0	20.0	1.0	100.0	0		
wa260631.chw	ICD0-J23.mtw	AJ33-45 J155-14I DF=20	45	1.0	20.0	1.0	100.0	0		
wa260648.chw	ICD0-J23.mtw	AJ33-46 ICJ045WQ	46	1.0	1.0	1.0	100.0	0	FINAL	
wa260705.chw	ICD0-J23.mtw	AJ33-47 CCV27	47	1.0	1.0	1.0	100.0	0		
wa260723.chw	ICD0-J23.mtw	AJ33-48 CCB27	48	1.0	1.0	1.0	100.0	0		

JC 10/26/12

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #:	AD0-037
Instrument No.:	D0
Pipette ID's:	039380124
	SW8A-02-12
	SW8A-02-13
Balance ID #:	40706360
Analytical Sequence:	AJ35
Method File:	IC D0 J23.mtw
Analytical Batch:	IC3047W

SOP #	Rev. #
☑ EMAX-300.0	9
☐ EMAX-4110B	3
☑ EMAX-9056	6
☐ EMAX-	

STANDARDS ID	
ICAL	—
ICV	—
CCV	SIIB-21-46-02
LCS	SIIB-21-46-03
MS	SLP Refer to LCS Parent ID

Column: Metrosep A Supp 5-100 Filter 0.45µm: 21803739

Flow Rate: 0.70 ml/min 0.20µm: 21801546

IC Eluent:
SW4-02-01-04
(320 mM Na_2CO_3 / 100 mM $NaHCO_3$) 20 ml → 2 L reagent water

IC Regenerant:
SW4-02-01-03 (1000 mM H_2SO_4) 100 ml → 1 L reagent water

Reagent Water: RW1-12-001

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ IC-METROHM	

Analyzed By: JZ

Date: 11/26/12

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2
wa260958.chw	ICD0-J23.mtw	AJ35-01 CCV29	1	1.0	1.0	1.0	100.0	0		
wa261016.chw	ICD0-J23.mtw	AJ35-02 CCB29	2	1.0	1.0	1.0	100.0	0		
wa261033.chw	ICD0-J23.mtw	AJ35-03 ICJ047WB	3	1.0	1.0	1.0	100.0	0		
wa261050.chw	ICD0-J23.mtw	AJ35-04 ICJ047WL	4	1.0	1.0	1.0	100.0	0		
wa261107.chw	ICD0-J23.mtw	AJ35-05 ICJ047WC	5	1.0	1.0	1.0	100.0	0		
wa261124.chw	ICD0-J23.mtw	AJ35-06 J182-02I DF=5	6	1.0	5.0	1.0	100.0	0		
wa261142.chw	ICD0-J23.mtw	AJ35-07 J182-02D DF=5	7	1.0	5.0	1.0	100.0	0		
wa261159.chw	ICD0-J23.mtw	AJ35-08 J182-02M DF=5	8	1.0	5.0	1.0	100.0	0		
wa261216.chw	ICD0-J23.mtw	AJ35-09 J182-02S DF=5	9	1.0	5.0	1.0	100.0	0		
wa261233.chw	ICD0-J23.mtw	AJ35-10 ICJ047WX	10	1.0	1.0	1.0	100.0	0		
wa261250.chw	ICD0-J23.mtw	AJ35-11 CCV31	11	1.0	1.0	1.0	100.0	0		
wa261307.chw	ICD0-J23.mtw	AJ35-12 CCB31	12	1.0	1.0	1.0	100.0	0		
wa261324.chw	ICD0-J23.mtw	AJ35-13 J146-01I DF=800	13	1.0	800.0	1.0	100.0	0		
wa261342.chw	ICD0-J23.mtw	AJ35-14 J155-07	14	1.0	1.0	1.0	100.0	0		
wa261359.chw	ICD0-J23.mtw	AJ35-15 J155-12	15	1.0	1.0	1.0	100.0	0		
wa261416.chw	ICD0-J23.mtw	AJ35-16 J155-13	16	1.0	1.0	1.0	100.0	0		
wa261433.chw	ICD0-J23.mtw	AJ35-17 J155-13M	17	1.0	1.0	1.0	100.0	0		
wa261450.chw	ICD0-J23.mtw	AJ35-18 J155-13S	18	1.0	1.0	1.0	100.0	0		
wa261507.chw	ICD0-J23.mtw	AJ35-19 J155-14	19	1.0	1.0	1.0	100.0	0		
wa261525.chw	ICD0-J23.mtw	AJ35-20 J155-01I DF=5	20	1.0	5.0	1.0	100.0	0		
wa261542.chw	ICD0-J23.mtw	AJ35-21 J155-02I DF=40	21	1.0	40.0	1.0	100.0	0		
wa261559.chw	ICD0-J23.mtw	AJ35-22 CCV33	22	1.0	1.0	1.0	100.0	0		
wa261616.chw	ICD0-J23.mtw	AJ35-23 CCB33	23	1.0	1.0	1.0	100.0	0		

FINAL

JC 10/26/12

RETENTION TIME WINDOW

RETENTION TIME WINDOW
METHOD 300.0

Lab name:	**EMAX**	**Method:**	**EMAX-300.0**
Instrument ID:	IC100 (761 IC)	IC column:	METROSEP A SUPP 5
		Column size:	100X4.0mm

Compound	Retention time Window
FLUORIDE	0.234
CHLORIDE	0.407
NTIRITE	0.52
BROMIDE	0.688
NTIRATE	0.836
PHOSPHATE	0.678
SULFATE	0.915
IODIDE	1.078

10-17-01

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J182

METHOD 415.1
TOC

A total of six (6) water samples were received on 10/25/12 for Total Organic Carbon analysis, Method 415.1 in accordance with Methods for the Chemical Analysis of Water and Wastes (MCAWW) (EPA/600/4-79/020) and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source. Continuing calibration verifications were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for TCJ008WL/C were all within QC limits.

Matrix QC Sample
Matrix QC sample was analyzed at the frequency prescribed by the project.
Percent recoveries for J182-02M/S were within project QC limits.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

METHOD 415.1
TOC

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J182

Matrix : WATER
Instrument ID : I62

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	TCJ008WB	ND	1	NA	1.00	0.500	10/29/1218:51	NA	TCJ007-05	TCJ007-02	TCJ008W	NA	NA
LCS1W	TCJ008WL	24.8	1	NA	1.00	0.500	10/29/1219:05	NA	TCJ007-06	TCJ007-02	TCJ008W	NA	NA
LCD1W	TCJ008WC	24.5	1	NA	1.00	0.500	10/29/1219:18	NA	TCJ007-07	TCJ007-02	TCJ008W	NA	NA
10-24-12 WB 2-3	J182-02	0.946J	1	NA	1.00	0.500	10/29/1222:07	NA	TCJ007-21	TCJ007-14	TCJ008W	10/24/1213:34	10/25/12
10-24-12 WB 2-3MS	J182-02M	25.7	1	NA	1.00	0.500	10/29/1222:19	NA	TCJ007-22	TCJ007-14	TCJ008W	10/24/1213:34	10/25/12
10-24-12 WB 2-3MSD	J182-02S	25.8	1	NA	1.00	0.500	10/29/1222:32	NA	TCJ007-23	TCJ007-14	TCJ008W	10/24/1213:34	10/25/12
10-24-12 PWB-15	J182-03	0.740J	1	NA	1.00	0.500	10/29/1222:46	NA	TCJ007-24	TCJ007-14	TCJ008W	10/24/1213:15	10/25/12
10-24-12 PWB-2	J182-04	0.735J	1	NA	1.00	0.500	10/29/1222:56	NA	TCJ007-25	TCJ007-14	TCJ008W	10/24/1215:22	10/25/12
10-24-12 PWB-7A	J182-05	0.959J	1	NA	1.00	0.500	10/29/1223:30	NA	TCJ007-28	TCJ007-26	TCJ008W	10/24/1214:50	10/25/12
10-24-12 WB 2-2	J182-06	0.798J	1	NA	1.00	0.500	10/29/1223:40	NA	TCJ007-29	TCJ007-26	TCJ008W	10/24/1214:48	10/25/12
10-24-12 FDUP-3	J182-07	0.851J	1	NA	1.00	0.500	10/29/1223:51	NA	TCJ007-30	TCJ007-26	TCJ008W	10/24/1200:00	10/25/12

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 415.1

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	TCJ008WB	TCJ008WL	TCJ008WC		
LAB FILE ID:	TCJ007-05	TCJ007-06	TCJ007-07		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	10/29/1218:51	10/29/1219:05	10/29/1219:18	DATE RECEIVED:	NA
PREP. BATCH:	TCJ008W	TCJ008W	TCJ008W		
CALIB. REF:	TCJ007-02	TCJ007-02	TCJ007-02		

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 (%)
TOC	ND	25	24.8	99	25	24.5	98	1	80-120	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: BROWN & BRYANT SUPERFUND SITE
BATCH NO.: 12J182
METHOD: METHOD 415.1

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	10-24-12 WB 2-3				
LAB SAMP ID:	J182-02	J182-02M	J182-02S		
LAB FILE ID:	TCJ007-21	TCJ007-22	TCJ007-23		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	10/24/12 13:34
DATE ANALYZED:	10/29/1222:07	10/29/1222:19	10/29/1222:32	DATE RECEIVED:	10/25/12
PREP. BATCH:	TCJ008W	TCJ008W	TCJ008W		
CALIB. REF:	TCJ007-14	TCJ007-14	TCJ007-14		

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 (%)
TOC	.946	25	25.7	99	25	25.8	100	1	75-125	20

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
TOC

	Date	Time
Start	10/29/12	14:41
End	10/30/12	00:32

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

TCJ008W: J155, J166, J182, J924, J965

Book #:	A62-023
Instrument No.:	62
Pipette ID:	039380025
	SW3-01-33
	SI1A-01-4
Balance ID:	40706360
Analytical Sequence:	TCJ 007
Method File:	W 10/29/12 TCJ~~008~~W TCJ007
Analytical Batch:	TCJ008W

SOP #	Rev. #
☐ EMAX-415.1	3
☐ EMAX-5310B	2
☐ EMAX-9060	3
☐ EMAX-	

STANDARDS ID		CONC. (mg/L)
S0	W 10/30/12 ~~SC~~ RW1-12-001	0
S1	SW10B-04-286	1
S2	↓	5
S3	↓	10
S4	↓	40
S5	↓	80
S6	—	—
ICV/LCS	SW10B-04-289	25
CCV	↓ 287	25

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ TOC	
☐	

Reagent Water ID #:	RW1-12-001
pH Strips Lot #:	HC248798
2 M HCl	SW4-01-256

Analyzed By: VL

Date: 10/29/12

	Type	Analysis	Sample Nam	Sample ID	ObjectID	Origin	Dilutio	Result	Comment
1	Standard	NPOC	ICAL	TCJ007-01	0A-12345	C:\Progra	1.000		
2	Control	NPOC	ICV	TCJ007-02	0A-12345	C:\Progra	1.000	NPOC:24.50 mg/L	
3	Unknown	NPOC	ICB	TCJ007-03	0A-12345	C:\Progra	1.000	NPOC:0.03155 mg/	
4	Unknown	NPOC	HCO3/CO3	TCJ007-04	0A-12345	C:\Progra	1.000	NPOC:0.5230 mg/L	
5	Unknown	NPOC	TCJ008WB	TCJ007-05	0A-12345	C:\Progra	1.000	NPOC:0.03008 mg/	
6	Unknown	NPOC	TCJ008WL	TCJ007-06	0A-12345	C:\Progra	1.000	NPOC:24.76 mg/L	
7	Unknown	NPOC	TCJ008WC	TCJ007-07	0A-12345	C:\Progra	1.000	NPOC:24.47 mg/L	
8	Unknown	NPOC	J155-02	TCJ007-08	0A-12345	C:\Progra	1.000	NPOC:8.285 mg/L	PH<2
9	Unknown	NPOC	J155-14	TCJ007-09	0A-12345	C:\Progra	1.000	NPOC:13.39 mg/L	PH<2
10	Unknown	NPOC	J155-13	TCJ007-10	0A-12345	C:\Progra	10.00	NPOC:256.6 mg/L	PH<2; DF=10
11	Unknown	NPOC	J155-13M	TCJ007-11	0A-12345	C:\Progra	10.00	NPOC:499.9 mg/L	PH<2; DF=10
12	Unknown	NPOC	J155-13S	TCJ007-12	0A-12345	C:\Progra	10.00	NPOC:501.3 mg/L	PH<2; DF=10
13	Unknown	NPOC	J155-01	TCJ007-13	0A-12345	C:\Progra	50.00	NPOC:1047 mg/L	PH<2; DF=50
14	Control	NPOC	CCV1	TCJ007-14	0A-12345	C:\Progra	1.000	NPOC:24.36 mg/L	
15	Unknown	NPOC	CCB1	TCJ007-15	0A-12345	C:\Progra	1.000	NPOC:0.03640 mg/	
16	Unknown	NPOC	J155-03	TCJ007-16	0A-12345	C:\Progra	20.00	NPOC:505.6 mg/L	PH<2; DF=20
17	Unknown	NPOC	J166-01	TCJ007-17	0A-12345	C:\Progra	1.000	NPOC:37.53 mg/L	PH<2
18	Unknown	NPOC	J166-02	TCJ007-18	0A-12345	C:\Progra	1.000	NPOC:7.318 mg/L	PH<2
19	Unknown	NPOC	J166-03	TCJ007-19	0A-12345	C:\Progra	1.000	NPOC:8.103 mg/L	PH<2
20	Unknown	NPOC	J166-04	TCJ007-20	0A-12345	C:\Progra	1.000	NPOC:28.73 mg/L	PH<2
21	Unknown	NPOC	J182-02	TCJ007-21	0A-12345	C:\Progra	1.000	NPOC:0.9455 mg/L	PH<2
22	Unknown	NPOC	J182-02M	TCJ007-22	0A-12345	C:\Progra	1.000	NPOC:25.67 mg/L	PH<2
23	Unknown	NPOC	J182-02S	TCJ007-23	0A-12345	C:\Progra	1.000	NPOC:25.84 mg/L	PH<2
24	Unknown	NPOC	J182-03	TCJ007-24	0A-12345	C:\Progra	1.000	NPOC:0.7402 mg/L	PH<2
25	Unknown	NPOC	J182-04	TCJ007-25	0A-12345	C:\Progra	1.000	NPOC:0.7354 mg/L	PH<2
26	Control	NPOC	CCV2	TCJ007-26	0A-12345	C:\Progra	1.000	NPOC:24.52 mg/L	
27	Unknown	NPOC	CCB2	TCJ007-27	0A-12345	C:\Progra	1.000	NPOC:0.06518 mg/	
28	Unknown	NPOC	J182-05	TCJ007-28	0A-12345	C:\Progra	1.000	NPOC:0.9589 mg/L	PH<2
29	Unknown	NPOC	J182-06	TCJ007-29	0A-12345	C:\Progra	1.000	NPOC:0.7983 mg/L	PH<2
30	Unknown	NPOC	J182-07	TCJ007-30	0A-12345	C:\Progra	1.000	NPOC:0.8507 mg/L	PH<2
31	Unknown	NPOC	J924-01	TCJ007-31	0A-12345	C:\Progra	1.000	NPOC:5.691 mg/L	PH<2
32	Unknown	NPOC	J965-01	TCJ007-32	0A-12345	C:\Progra	1.000	NPOC:1.078 mg/L	PH<2
33	Control	NPOC	CCV3	TCJ007-33	0A-12345	C:\Progra	1.000	NPOC:24.81 mg/L	
34	Unknown	NPOC	CCB3	TCJ007-34	0A-12345	C:\Progra	1.000	NPOC:0.09493 mg/	
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									
57									
58									
59								FINAL	
60									
61									
62									
63									
64									
65									
66									
67									

VL 10/31/12

8974

Instr.Information

System	toc
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Cal. Curve

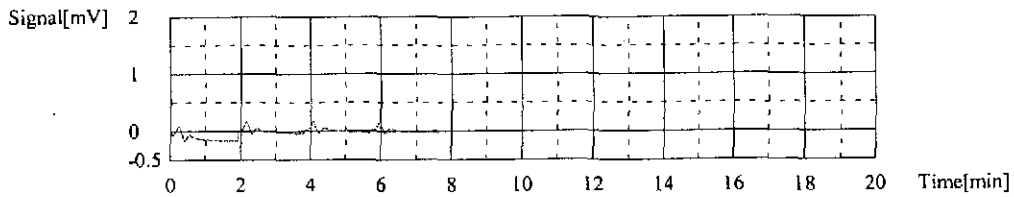
Sample Name:	ICAL
Sample ID:	TCJ007-01
Cal. Curve:	TCJ007.2012_10_29_14_33_39.cal

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.000	50uL	1	*******		10/29/12 02:41:50 PM
2	0.000	50uL	1	*******		10/29/12 02:43:55 PM
3	0.000	50uL	1	*******		10/29/12 02:46:00 PM
4	0.000	50uL	1	*******		10/29/12 02:48:05 PM

Acid Add.	2.500%
Sp. Time	90.00sec
Mean Area	0.000

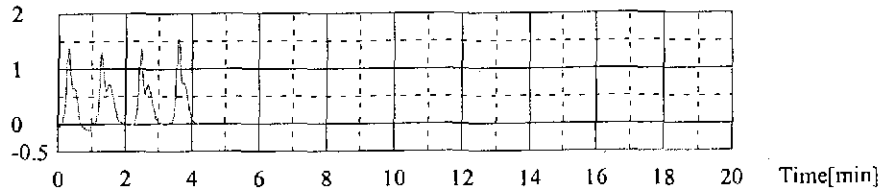


Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	2.202	50uL	10	*******		10/29/12 02:56:15 PM
2	2.436	50uL	10	*******		10/29/12 02:57:36 PM
3	2.419	50uL	10	*******		10/29/12 02:58:55 PM
4	2.419	50uL	10	*******		10/29/12 03:00:07 PM

Acid Add.	2.500%
Sp. Time	90.00sec
Mean Area	2.369

2.369/2.385 = 0.9933



Conc: 5.000mg/L

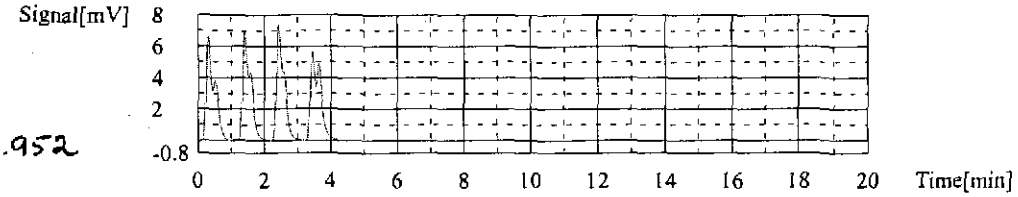
No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	11.80	50uL	2	*******		10/29/12 03:06:29 PM
2	11.78	50uL	2	*******		10/29/12 03:07:41 PM
3	11.93	50uL	2	*******		10/29/12 03:08:53 PM
4	11.72	50uL	2	*******		10/29/12 03:10:13 PM

2.369
K 10/30/12

8075

Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 11.81

11.81 / 2.385 = 4.952

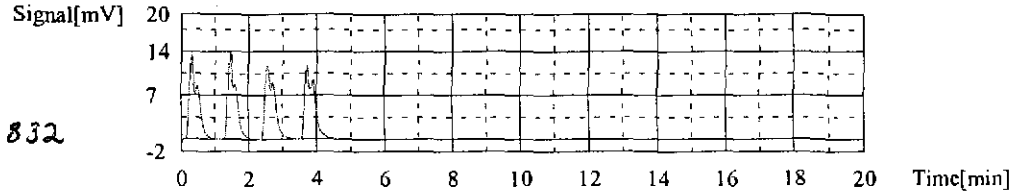


Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	23.31	50uL	1	*******		10/29/12 03:15:53 PM
2	23.47	50uL	1	*******		10/29/12 03:17:11 PM
3	23.45	50uL	1	*******		10/29/12 03:18:32 PM
4	23.56	50uL	1	*******		10/29/12 03:19:53 PM

Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 23.45

23.45 / 2.385 = 9.832

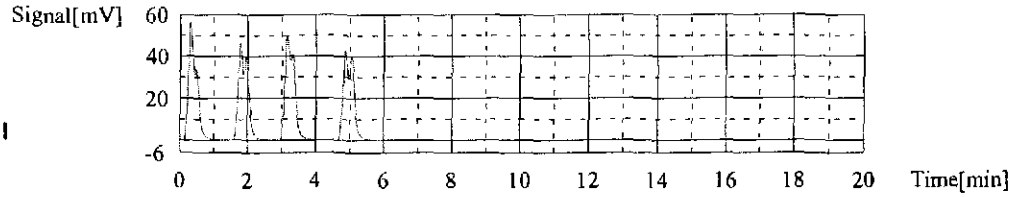


Conc: 40.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	92.52	50uL	2	*******		10/29/12 03:28:32 PM
2	92.55	50uL	2	*******		10/29/12 03:30:05 PM
3	94.60	50uL	2	*******		10/29/12 03:31:59 PM
4	93.39	50uL	2	*******		10/29/12 03:33:33 PM

Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 93.27

93.27 / 2.385 = 39.11

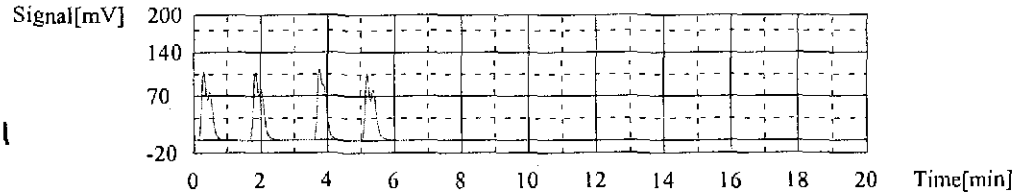


Conc: 80.00mg/L

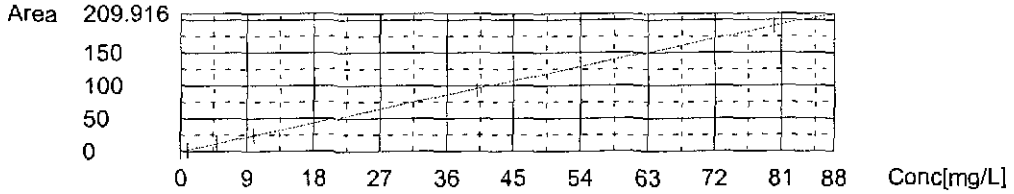
No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	189.7	50uL	1	*******		10/29/12 03:39:38 PM
2	192.8	50uL	1	*******		10/29/12 03:41:44 PM
3	191.3	50uL	1	*******		10/29/12 03:43:21 PM
4	191.6	50uL	1	*******		10/29/12 03:45:02 PM

Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 191.3

191.3 / 2.385 = 80.21



Slope: 2.385
Intercept 0.000
r^2 0.999851



8076

Control Sample

Sample Name: ICV
Sample ID: TCJ007-02
Method: TCJ007.tpl
Chk. Result Control value: 24.50 / Control exceeds range!

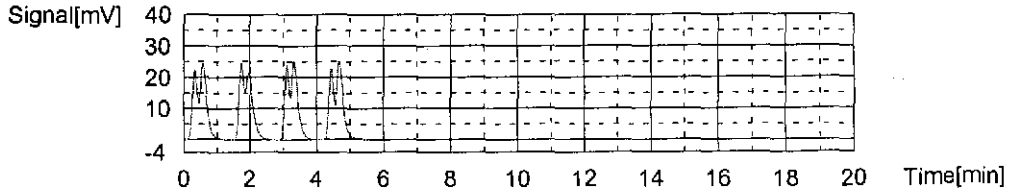
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:24.50 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	58.52	24.53mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:16:55 PM
2	58.31	24.44mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:18:28 PM
3	58.69	24.60mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:19:59 PM
4	58.26	24.42mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:21:34 PM

Mean Area 58.45
Mean Conc. 24.50mg/L



Sample

Sample Name: ICB
Sample ID: TCJ007-03
Origin: TCJ007.cal
Chk. Result

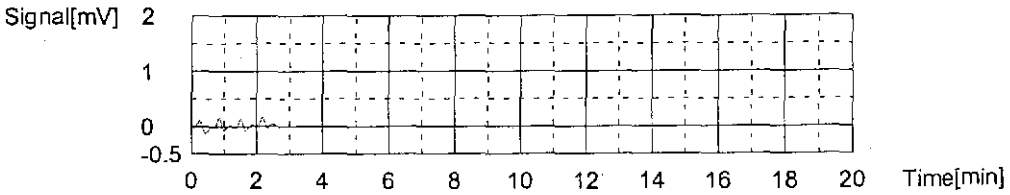
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.03155 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	0.000mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:28:40 PM
2	0.09720	0.04075mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:29:32 PM
3	0.05970	0.02503mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:30:22 PM
4	0.1441	0.06041mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:31:17 PM

Mean Area 0.07525
Mean Conc. 0.03155mg/L



8077

Sample

Sample Name: HCO3/CO3
Sample ID: TCJ007-04
Origin: TCJ007.cal
Chk. Result

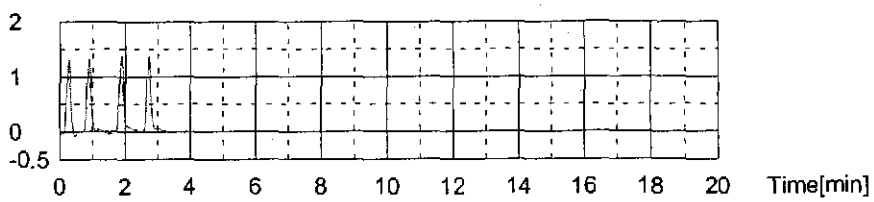
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.5230 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.106	0.4637mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:38:24 PM
2	1.279	0.5362mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:39:34 PM
3	1.326	0.5559mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:40:36 PM
4	1.279	0.5362mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:41:39 PM

Mean Area 1.248
Mean Conc. 0.5230mg/L



Sample

Sample Name: TCJ008WB
Sample ID: TCJ007-05
Origin: TCJ007.cal
Chk. Result

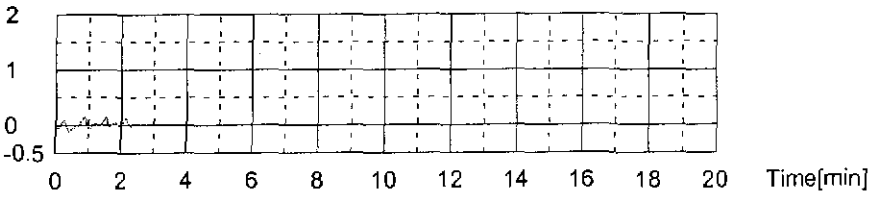
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.03008 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.07280	0.03052mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:48:42 PM
2	0.04670	0.01958mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:49:32 PM
3	0.06970	0.02922mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:50:20 PM
4	0.09780	0.04100mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:51:10 PM

Mean Area 0.07175
Mean Conc. 0.03008mg/L



Sample

Sample Name: TCJ008WL
Sample ID: TCJ007-06
Origin: TCJ007.cal
Chk. Result

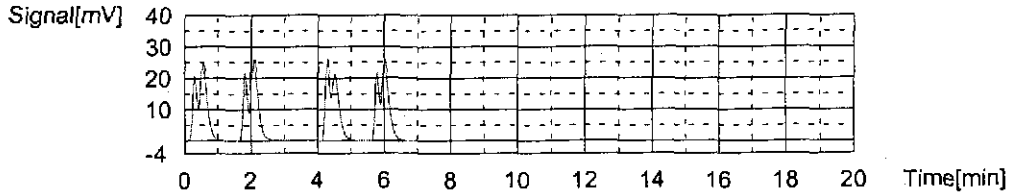
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:24.76 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	58.51	24.53mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 06:59:10 PM
2	61.02	25.58mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:01:49 PM
3	58.85	24.67mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:03:30 PM
4	57.90	24.27mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:05:07 PM

Mean Area 59.07
Mean Conc. 24.76mg/L



Sample

Sample Name: TCJ008WC
Sample ID: TCJ007-07
Origin: TCJ007.cal
Chk. Result

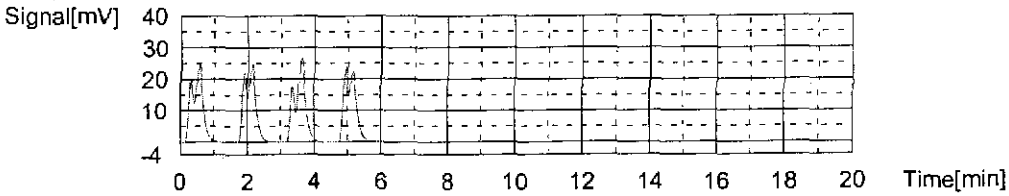
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:24.47 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	58.08	24.35mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:13:12 PM
2	58.36	24.47mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:14:50 PM
3	58.73	24.62mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:16:35 PM
4	58.30	24.44mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:18:14 PM

Mean Area 58.37
Mean Conc. 24.47mg/L



Sample

Sample Name: J155-02
Sample ID: TCJ007-08
Origin: TCJ007.cal
Chk. Result

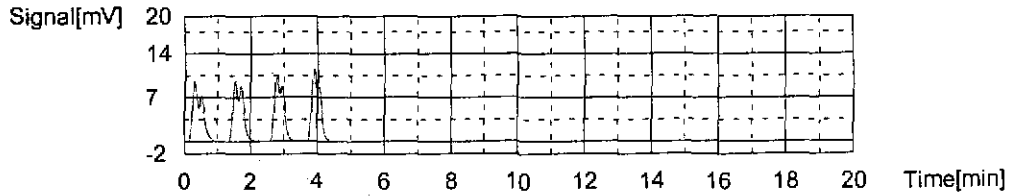
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:8.285 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.99	7.961mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:25:56 PM
2	19.72	8.267mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:27:22 PM
3	20.31	8.514mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:28:40 PM
4	20.03	8.397mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:29:58 PM

Mean Area 19.76
Mean Conc. 8.285mg/L



Sample

Sample Name: J155-14
Sample ID: TCJ007-09
Origin: TCJ007.cal
Chk. Result

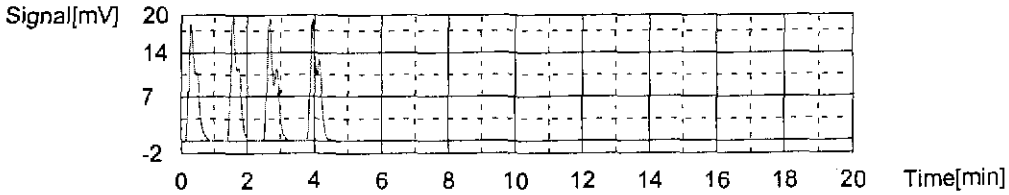
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:13.39 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	30.70	12.87mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:37:43 PM
2	31.77	13.32mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:39:00 PM
3	32.49	13.62mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:40:28 PM
4	32.76	13.73mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:41:54 PM

Mean Area 31.93
Mean Conc. 13.39mg/L



Sample

Sample Name: J155-13
Sample ID: TCJ007-10
Origin: TCJ007.cal
Chk. Result

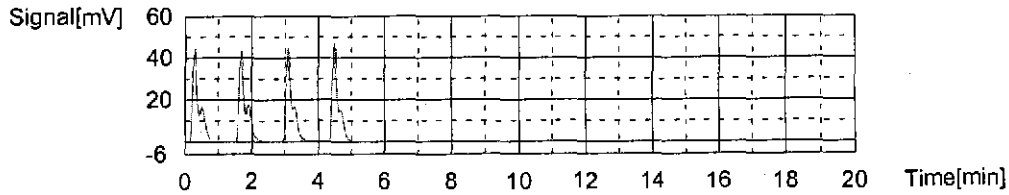
Type	Anal.	Dil.	Result
Unknown	NPOC	10.00	NPOC:256.6 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	61.15	256.4mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:49:47 PM
2	60.98	255.6mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:51:22 PM
3	61.49	257.8mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:52:57 PM
4	61.22	256.6mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 07:54:28 PM

Mean Area 61.21
Mean Conc. 256.6mg/L



Sample

Sample Name: J155-13M
Sample ID: TCJ007-11
Origin: TCJ007.cal
Chk. Result

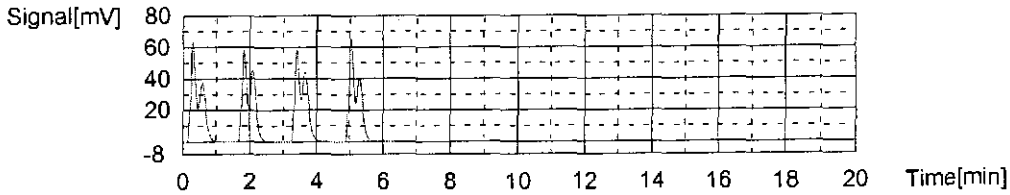
Type	Anal.	Dil.	Result
Unknown	NPOC	10.00	NPOC:499.9 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	119.8	502.2mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:02:29 PM
2	118.3	495.9mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:04:15 PM
3	119.7	501.8mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:06:04 PM
4	119.2	499.7mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:07:49 PM

Mean Area 119.3
Mean Conc. 499.9mg/L



Sample

Sample Name: J155-13S
Sample ID: TCJ007-12
Origin: TCJ007.cal
Chk. Result

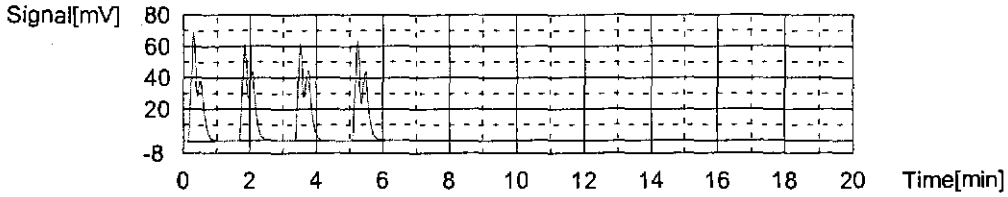
Type	Anal.	Dil.	Result
Unknown	NPOC	10.00	NPOC:501.3 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	118.6	497.2mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:15:50 PM
2	119.7	501.8mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:17:42 PM
3	120.1	503.5mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:19:36 PM
4	119.9	502.6mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:21:25 PM

Mean Area 119.6
Mean Conc. 501.3mg/L



Sample

Sample Name: J155-01
Sample ID: TCJ007-13
Origin: TCJ007.cal
Chk. Result

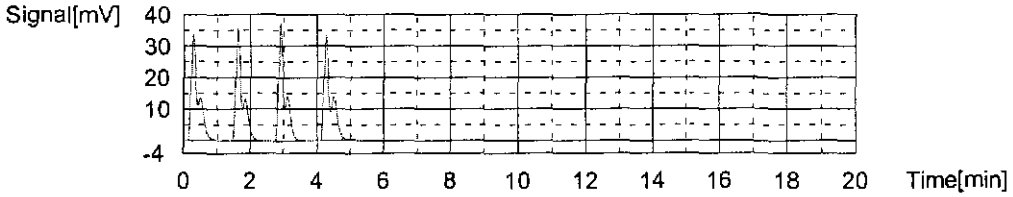
Type	Anal.	Dil.	Result
Unknown	NPOC	50.00	NPOC:1047 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	50.10	1050mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:29:14 PM
2	49.78	1043mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:30:42 PM
3	50.32	1055mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:32:15 PM
4	49.62	1040mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:33:51 PM

Mean Area 49.95
Mean Conc. 1047mg/L



Control Sample

Sample Name: CCV1
Sample ID: TCJ007-14
Method: TCJ007.tpl
Chk. Result Control value: 24.36 / Control exceeds range!

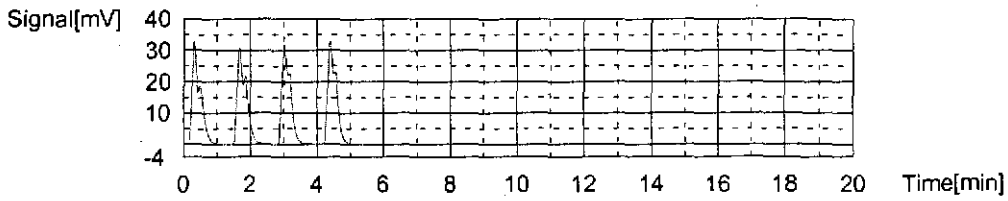
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:24.36 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	56.32	23.61mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:41:41 PM
2	58.20	24.40mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:43:12 PM
3	59.15	24.80mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:44:45 PM
4	58.81	24.65mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:46:15 PM

Mean Area 58.12
Mean Conc. 24.36mg/L



Sample

Sample Name: CCB1
Sample ID: TCJ007-15
Origin: TCJ007.cal
Chk. Result

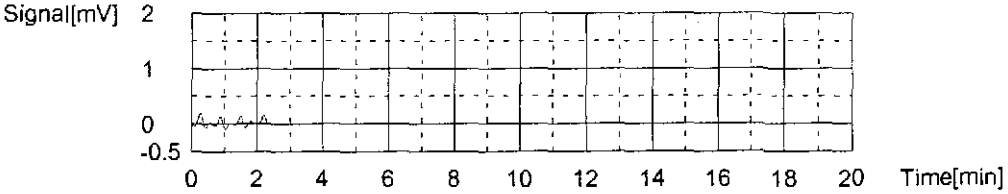
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.03640 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1228	0.05148mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:53:20 PM
2	0.04890	0.02050mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:54:07 PM
3	0.05420	0.02272mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:55:00 PM
4	0.1214	0.05089mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 08:55:48 PM

Mean Area 0.08683
Mean Conc. 0.03640mg/L



Sample

Sample Name: J155-03
Sample ID: TCJ007-16
Origin: TCJ007.cal
Chk. Result

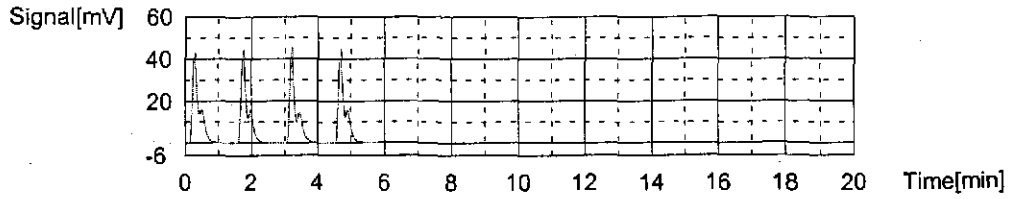
Type	Anal.	Dil.	Result
Unknown	NPOC	20.00	NPOC:505.6 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	60.39	506.3mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:03:44 PM
2	59.84	501.7mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:05:22 PM
3	60.69	508.8mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:07:01 PM
4	60.30	505.6mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:08:34 PM

Mean Area 60.31
Mean Conc. 505.6mg/L



Sample

Sample Name: J166-01
Sample ID: TCJ007-17
Origin: TCJ007.cal
Chk. Result

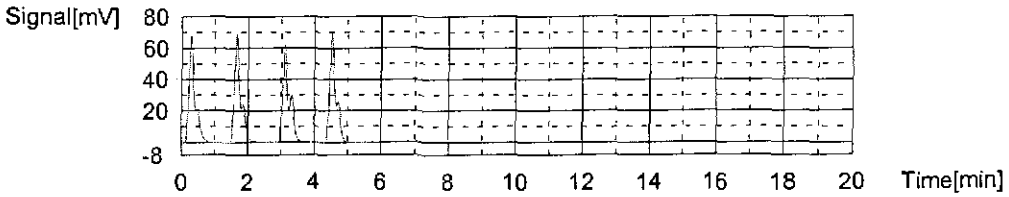
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:37.53 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	85.93	36.02mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:16:25 PM
2	90.88	38.10mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:18:02 PM
3	90.40	37.90mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:19:38 PM
4	90.88	38.10mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:21:13 PM

Mean Area 89.52
Mean Conc. 37.53mg/L



Sample

Sample Name: J166-02
Sample ID: TCJ007-18
Origin: TCJ007.cal
Chk. Result

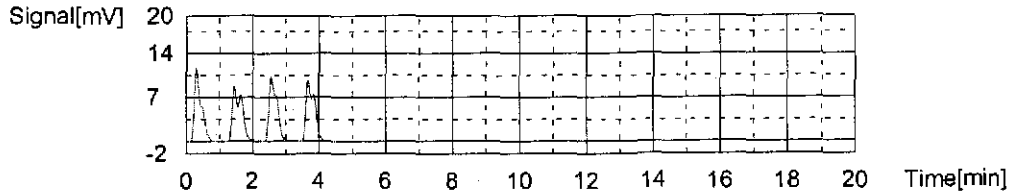
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:7.318 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.52	7.345mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:28:50 PM
2	17.15	7.190mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:30:06 PM
3	17.49	7.332mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:31:24 PM
4	17.67	7.408mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:32:42 PM

Mean Area 17.46
Mean Conc. 7.318mg/L



Sample

Sample Name: J166-03
Sample ID: TCJ007-19
Origin: TCJ007.cal
Chk. Result

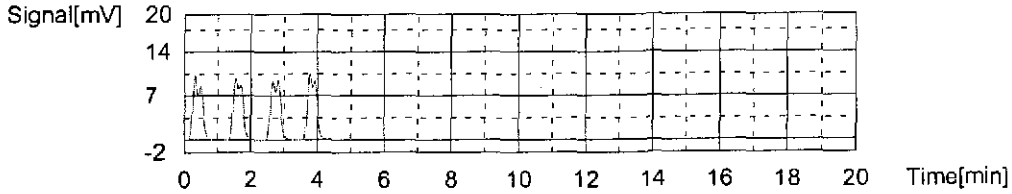
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:8.103 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.14	8.024mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:40:24 PM
2	19.24	8.066mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:41:41 PM
3	19.48	8.166mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:42:59 PM
4	19.46	8.158mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:44:12 PM

Mean Area 19.33
Mean Conc. 8.103mg/L



Sample

Sample Name: J166-04
Sample ID: TCJ007-20
Origin: TCJ007.cal
Chk. Result

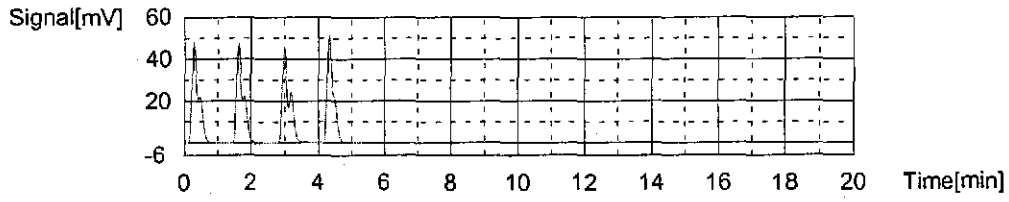
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:28.73 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	68.74	28.82mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:52:01 PM
2	67.97	28.49mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:53:33 PM
3	68.70	28.80mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:55:04 PM
4	68.68	28.79mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 09:56:31 PM

Mean Area 68.52
Mean Conc. 28.73mg/L



Sample

Sample Name: J182-02
Sample ID: TCJ007-21
Origin: TCJ007.cal
Chk. Result

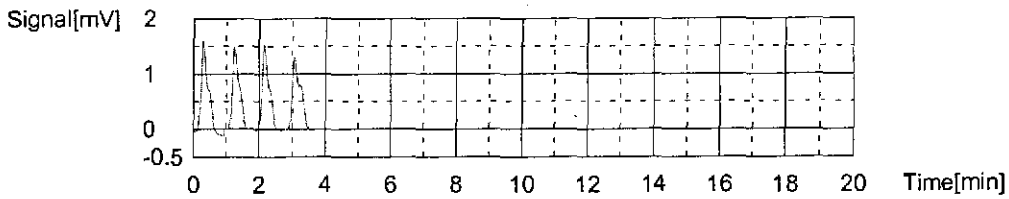
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9455 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.385	0.9998mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:03:56 PM
2	2.199	0.9219mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:05:00 PM
3	2.253	0.9445mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:06:06 PM
4	2.185	0.9160mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:07:10 PM

Mean Area 2.256
Mean Conc. 0.9455mg/L



Sample

Sample Name: J182-02M
Sample ID: TCJ007-22
Origin: TCJ007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.67 mg/L

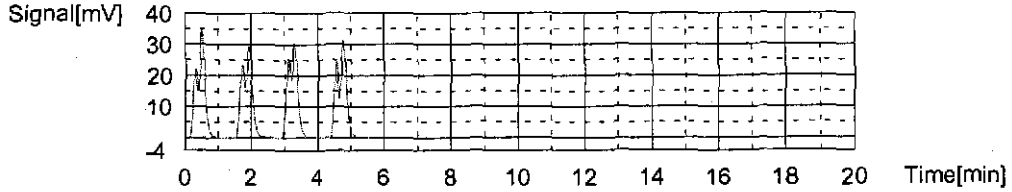
1. Det

Anal.: NPOC

6086

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	61.49	25.78mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:15:03 PM
2	61.15	25.64mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:16:36 PM
3	61.27	25.69mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:18:15 PM
4	61.07	25.60mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:19:46 PM

Mean Area 61.25
Mean Conc. 25.67mg/L



Sample

Sample Name: J182-02S
Sample ID: TCJ007-23
Origin: TCJ007.cal
Chk. Result

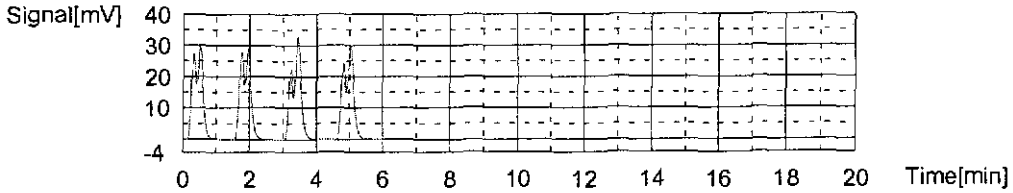
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.84 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	61.89	25.95mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:27:39 PM
2	61.87	25.94mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:29:19 PM
3	61.39	25.74mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:31:05 PM
4	61.39	25.74mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:32:47 PM

Mean Area 61.64
Mean Conc. 25.84mg/L



Sample

Sample Name: J182-03
Sample ID: TCJ007-24
Origin: TCJ007.cal
Chk. Result

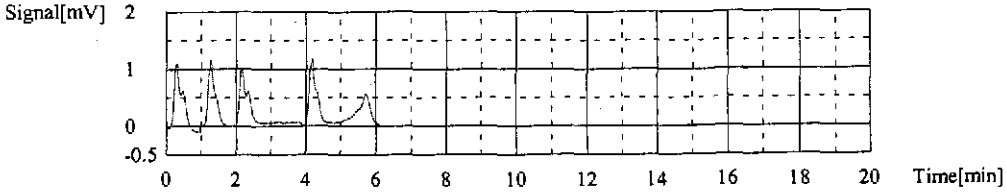
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9173 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.871	0.7844mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:40:13 PM
2	1.607	0.6737mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:41:18 PM
3	1.819	0.7626mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:43:29 PM
4	3.456	1.449mg/L	50uL	1	E	TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:46:05 PM

Mean Area 1.766
Mean Conc. 0.7402mg/L



Sample

Sample Name: J182-04
Sample ID: TCJ007-25
Origin: TCJ007.cal
Chk. Result

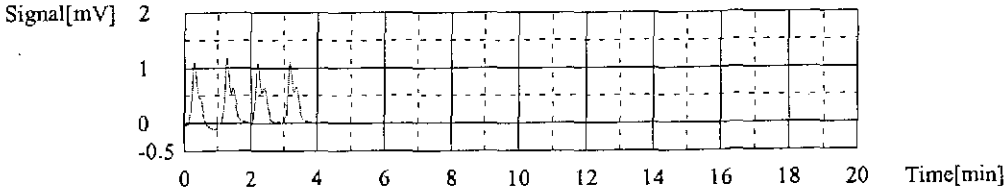
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7354 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.693	0.7097mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:53:31 PM
2	1.795	0.7525mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:54:38 PM
3	1.757	0.7366mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:55:47 PM
4	1.772	0.7429mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 10:56:52 PM

Mean Area 1.754
Mean Conc. 0.7354mg/L



Control Sample

Sample Name: CCV2
Sample ID: TCJ007-26
Method: TCJ007.tpl
Chk. Result Control value: 24.52 / Control exceeds range!

Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:24.52 mg/L

1. Det.

Anal.: NPOC

8066

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	56.11	23.52mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:04:37 PM
2	59.09	24.77mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:06:04 PM
3	59.35	24.88mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:07:33 PM
4	59.43	24.91mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:09:02 PM

Mean Area 58.50
Mean Conc. 24.52mg/L

Sample

Sample Name: CCB2
Sample ID: TCJ007-27
Origin: TCJ007.cal
Chk. Result

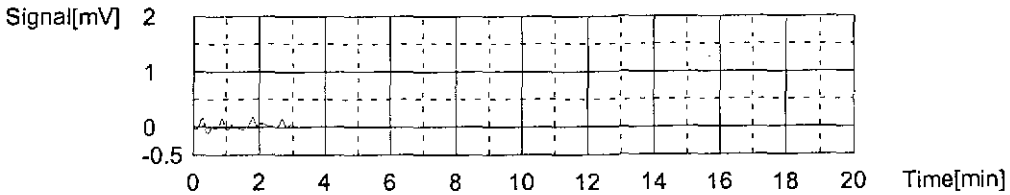
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.06518 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.06100	0.02557mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:16:06 PM
2	0.2043	0.08565mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:17:12 PM
3	0.2160	0.09055mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:18:16 PM
4	0.1406	0.05894mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:19:07 PM

Mean Area 0.1555
Mean Conc. 0.06518mg/L



Sample

Sample Name: J182-05
Sample ID: TCJ007-28
Origin: TCJ007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9589 mg/L

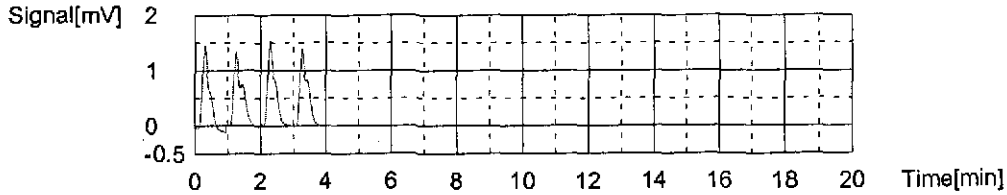
1. Det

Anal.: NPOC

8889

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.236	0.9374mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:26:32 PM
2	2.321	0.9730mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:27:45 PM
3	2.301	0.9646mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:28:55 PM
4	2.291	0.9604mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:30:03 PM

Mean Area 2.287
Mean Conc. 0.9589mg/L



Sample

Sample Name: J182-06
Sample ID: TCJ007-29
Origin: TCJ007.cal
Chk. Result

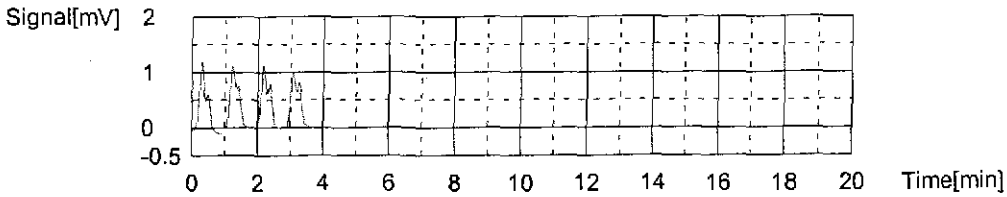
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7983 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.858	0.7789mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:37:25 PM
2	1.909	0.8003mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:38:33 PM
3	1.957	0.8204mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:39:38 PM
4	1.893	0.7936mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:40:47 PM

Mean Area 1.904
Mean Conc. 0.7983mg/L



Sample

Sample Name: J182-07
Sample ID: TCJ007-30
Origin: TCJ007.cal
Chk. Result

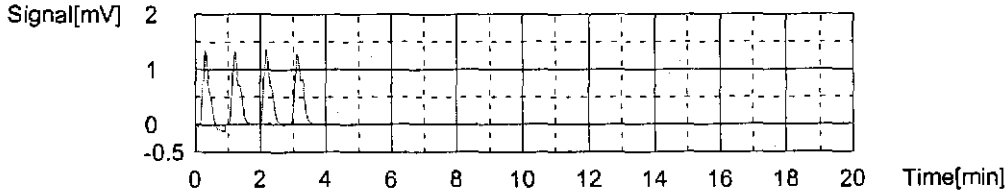
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8507 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.980	0.8300mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:48:09 PM
2	2.051	0.8598mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:49:18 PM
3	2.033	0.8523mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:50:26 PM
4	2.053	0.8607mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:51:32 PM

Mean Area 2.029
Mean Conc. 0.8507mg/L



Sample

Sample Name: J924-01
Sample ID: TCJ007-31
Origin: TCJ007.cal
Chk. Result

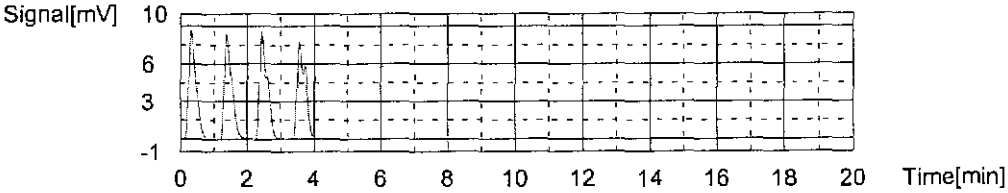
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.691 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.48	5.651mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/29/12 11:59:05 PM
2	13.41	5.622mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/30/12 12:00:20 AM
3	13.74	5.760mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/30/12 12:01:38 AM
4	13.67	5.731mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/30/12 12:02:50 AM

Mean Area 13.58
Mean Conc. 5.691mg/L



Sample

Sample Name: J965-01
Sample ID: TCJ007-32
Origin: TCJ007.cal
Chk. Result

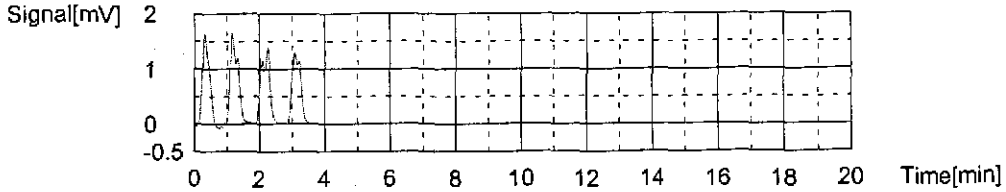
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.078 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.581	1.082mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/30/12 12:10:11 AM
2	2.708	1.135mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/30/12 12:11:16 AM
3	2.625	1.100mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/30/12 12:12:26 AM
4	2.373	0.9948mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/30/12 12:13:33 AM

Mean Area 2.572
Mean Conc. 1.078mg/L



Control Sample

Sample Name: CCV3
Sample ID: TCJ007-33
Method: TCJ007.tpl
Chk. Result *Control value: 24.81 / Control exceeds range!*

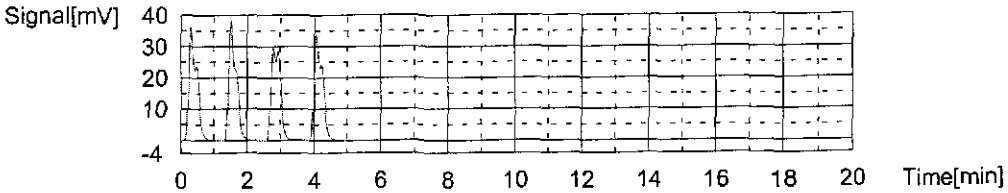
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:24.81 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	59.46	24.93mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/30/12 12:21:14 AM
2	59.38	24.89mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/30/12 12:22:41 AM
3	59.00	24.73mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/30/12 12:24:09 AM
4	58.86	24.68mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/30/12 12:25:33 AM

Mean Area 59.17
Mean Conc. 24.81mg/L



Sample

Sample Name: CCB3
Sample ID: TCJ007-34
Origin: TCJ007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.09493 mg/L

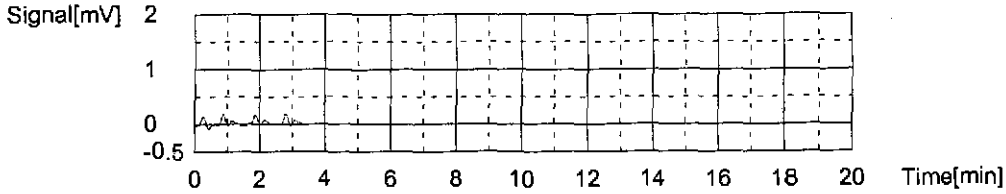
1. Det

Anal.: NPOC

8692

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.07830	0.03282mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/30/12 12:32:38 AM
2	0.2913	0.1221mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/30/12 12:33:49 AM
3	0.2577	0.1080mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/30/12 12:34:56 AM
4	0.2785	0.1168mg/L	50uL	1		TCJ007.2012_10_29_14_33_39.cal	10/30/12 12:36:00 AM

Mean Area 0.2264
Mean Conc. 0.09493mg/L



CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J182

METHOD SM4500S2D
SULFIDE

A total of six (6) water samples were received on 10/25/12 for Total Sulfide by Std Method analysis, Method SM4500S2D in accordance with Standard Methods for the Examination of Water and Wastewater, 20th Edition and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for SFJ010WL/C were all within QC limits.

Matrix QC Sample
Matrix QC sample was analyzed at the frequency prescribed by the project.
Percent recovery for J182-02M was within project QC limits.
Sample duplicate was also analyzed with the samples. RPD was within project limit.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

METHOD SM4500S2D
SULFIDE

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J182

Matrix : WATER
InstrumentID : 70

CLIENT SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	PREP. FACTOR	MOIST (%)	LOQ (mg/L)	LOD (mg/L)	ANALYSIS DATETIME	PREPARATION DATETIME	DATA FILE ID	CAL REF	PREP BATCH	COLLECTION DATETIME	RECEIVED DATETIME
MBLK1W	SFJ010WB	ND	1	NA	0.1	0.02	10/29/1215:28	NA	12SFJ01009	12SFJ010	SFJ010W	NA	NA
LCS1W	SFJ010WL	0.465	1	NA	0.1	0.02	10/29/1215:28	NA	12SFJ01010	12SFJ010	SFJ010W	NA	NA
LCD1W	SFJ010WC	0.477	1	NA	0.1	0.02	10/29/1215:29	NA	12SFJ01011	12SFJ010	SFJ010W	NA	NA
10-24-12 WB 2-3	J182-02	ND	1	NA	0.1	0.02	10/29/1215:32	NA	12SFJ01027	12SFJ010	SFJ010W	10/24/1213:34	10/25/12
10-24-12 WB 2-3DUP	J182-02D	ND	1	NA	0.1	0.02	10/29/1215:32	NA	12SFJ01028	12SFJ010	SFJ010W	10/24/1213:34	10/25/12
10-24-12 WB 2-3MS	J182-02M	0.383	1	NA	0.1	0.02	10/29/1215:33	NA	12SFJ01029	12SFJ010	SFJ010W	10/24/1213:34	10/25/12
10-24-12 PWB-15	J182-03	ND	1	NA	0.1	0.02	10/29/1215:34	NA	12SFJ01030	12SFJ010	SFJ010W	10/24/1213:15	10/25/12
10-24-12 PWB-2	J182-04	ND	1	NA	0.1	0.02	10/29/1215:35	NA	12SFJ01033	12SFJ010	SFJ010W	10/24/1215:22	10/25/12
10-24-12 PWB-7A	J182-05	ND	1	NA	0.1	0.02	10/29/1215:35	NA	12SFJ01034	12SFJ010	SFJ010W	10/24/1214:50	10/25/12
10-24-12 WB 2-2	J182-06	ND	1	NA	0.1	0.02	10/29/1215:36	NA	12SFJ01035	12SFJ010	SFJ010W	10/24/1214:48	10/25/12
10-24-12 FDUP-3	J182-07	ND	1	NA	0.1	0.02	10/29/1215:36	NA	12SFJ01036	12SFJ010	SFJ010W	10/24/1200:00	10/25/12

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : BROWN & BRYANT SUPERFUND SITE
BATCH NO. : 12J182
METHOD : METHOD SM4500S2D

MATRIX : WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1
SAMPLE ID :	MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID :	SFJ010WB	SFJ010WL	SFJ010WC
LAB FILE ID :	12SFJ01009	12SFJ01010	12SFJ01011
DATE PREPARED :	NA	NA	NA
DATE ANALYZED :	10/29/1215:28	10/29/1215:28	10/29/1215:29
PREP BATCH :	SFJ010W	SFJ010W	SFJ010W
CALIBRATION REF:	12SFJ010	12SFJ010	12SFJ010

ACCESSION:

PARAMETER	MB RESULT (mg/L)	SPIKE AMT (mg/L)	BS RESULT (mg/L)	BS REC (%)	SPIKE AMT (mg/L)	BSD RESULT (mg/L)	BSD REC (%)	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Sulfide	ND	.5	.465	93	.5	.477	95	3	80-120	20

EMAX QUALITY CONTROL DATA
SAMPLE DUPLICATE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : BROWN & BRYANT SUPERFUND SITE
BATCH NO. : 12J182
METHOD : METHOD SM4500S2D

==========

MATRIX : WATER % MOISTURE:

DILUTION FACTOR:	1	1
SAMPLE ID :	10-24-12 WB 2-3	10-24-12 WB 2-3DUP
LAB SAMPLE ID :	J182-02	J182-02D
LAB FILE ID :	12SFJ01027	12SFJ01028
DATE PREPARED :	NA	NA
DATE ANALYZED :	10/29/1215:32	10/29/1215:32
PREP BATCH :	SFJ010W	SFJ010W
CALIBRATION REF:	12SFJ010	12SFJ010

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	DUP RESULT (mg/L)	RPD (%)	MAX DIFF (%)
Sulfide	ND	ND	0	20

EMAX QUALITY CONTROL DATA
MATRIX SPIKE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : BROWN & BRYANT SUPERFUND SITE
BATCH NO. : 12J182
METHOD : METHOD SM4500S2D

MATRIX : WATER % MOISTURE:

DILUTION FACTOR:	1	1
SAMPLE ID :	10-24-12 WB 2-3	10-24-12 WB 2-3MS
LAB SAMPLE ID :	J182-02	J182-02M
LAB FILE ID :	12SFJ01027	12SFJ01029
DATE PREPARED :	NA	NA
DATE ANALYZED :	10/29/1215:32	10/29/1215:33
PREP BATCH :	SFJ010W	SFJ010W
CALIBRATION REF:	12SFJ010	12SFJ010

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	SPIKE AMT (mg/L)	MS RESULT (mg/L)	MS REC (%)	QC LIMIT (%)
Sulfide	ND	.5	.383	77	75-125

SULFIDE ANALYSIS
(COLORIMETRY)

DataFileID	LabSampleID	Result	Flag	RUnit	SampleAmt	SUnit	PDateTime	FinalVol (ml)	WL	Abs	ADateTime	Sample Blkgnd	DF	%M	FC	DFxPrep Factor	Notes	Analyst	pH check
12SFJ01009	SFJ010WB	ND		mg/L	7.5	ml	NA	7.5	664NM	0.003	10/29/12 15:28	0	1		-0.00829	1		MJM	
12SFJ01010	SFJ010WL	0.465		mg/L	7.5	ml	NA	7.5	664NM	0.35	10/29/12 15:28	0	1		0.4648436	1		MJM	
12SFJ01011	SFJ010WC	0.477		mg/L	7.5	ml	NA	7.5	664NM	0.359	10/29/12 15:29	0	1		0.4771151	1		MJM	
12SFJ01012	J163-01	ND		mg/L	7.5	ml	NA	7.5	664NM	0	10/29/12 15:29	0	1		-0.012381	1		MJM	>9
12SFJ01013	J163-02	ND		mg/L	7.5	ml	NA	7.5	664NM	0.002	10/29/12 15:29	0	1		-0.009654	1		MJM	>9
12SFJ01014	J163-04	ND		mg/L	7.5	ml	NA	7.5	664NM	0.002	10/29/12 15:29	0	1		-0.009654	1		MJM	>9
12SFJ01015	J163-05	0.038	J	mg/L	7.5	ml	NA	7.5	664NM	0.25	10/29/12 15:29	0.213	1		0.0380686	1		MJM	>9
12SFJ01016	J163-06	ND		mg/L	7.5	ml	NA	7.5	664NM	0.002	10/29/12 15:30	0	1		-0.009654	1		MJM	>9
12SFJ01017	J163-07	ND		mg/L	7.5	ml	NA	7.5	664NM	0.043	10/29/12 15:30	0.025	1		0.0121622	1		MJM	>9
12SFJ01018	J163-08	ND		mg/L	7.5	ml	NA	7.5	664NM	0.008	10/29/12 15:31	0	1		-0.001473	1		MJM	>9
12SFJ01019	CCV1	0.519		mg/L	7.5	ml	NA	7.5	664NM	0.39	10/29/12 15:31	0	1		0.5193835	1		MJM	
12SFJ01020	CCB1	ND		mg/L	7.5	ml	NA	7.5	664NM	0.003	10/29/12 15:31	0	1		-0.00829	1		MJM	
12SFJ01021	J163-09	ND		mg/L	7.5	ml	NA	7.5	664NM	0.003	10/29/12 15:31	0	1		-0.00829	1		MJM	>9
12SFJ01022	J163-10	ND		mg/L	7.5	ml	NA	7.5	664NM	0.021	10/29/12 15:31	0	1		0.0162527	1		MJM	>9
12SFJ01023	J163-11	ND		mg/L	7.5	ml	NA	7.5	664NM	0.004	10/29/12 15:32	0	1		-0.006927	1		MJM	>9
12SFJ01024	J163-12	ND		mg/L	7.5	ml	NA	7.5	664NM	0.002	10/29/12 15:32	0	1		-0.009654	1		MJM	>9
12SFJ01025	J163-13	ND		mg/L	7.5	ml	NA	7.5	664NM	0.002	10/29/12 15:32	0	1		-0.009654	1		MJM	>9
12SFJ01026	J163-14	ND		mg/L	7.5	ml	NA	7.5	664NM	0.004	10/29/12 15:32	0	1		-0.006927	1		MJM	>9
12SFJ01027	J182-02	ND		mg/L	7.5	ml	NA	7.5	664NM	0.005	10/29/12 15:32	0	1		-0.005563	1		MJM	>9
12SFJ01028	J182-02D	ND		mg/L	7.5	ml	NA	7.5	664NM	0.005	10/29/12 15:32	0	1		-0.005563	1		MJM	>9
12SFJ01029	J182-02M	0.383		mg/L	7.5	ml	NA	7.5	664NM	0.29	10/29/12 15:33	0	1		0.3830337	1		MJM	>9
12SFJ01030	J182-03	ND		mg/L	7.5	ml	NA	7.5	664NM	0.015	10/29/12 15:34	0	1		0.0080717	1		MJM	>9
12SFJ01031	CCV2	0.522		mg/L	7.5	ml	NA	7.5	664NM	0.392	10/29/12 15:35	0	1		0.5221105	1		MJM	
12SFJ01032	CCB2	ND		mg/L	7.5	ml	NA	7.5	664NM	0.003	10/29/12 15:35	0	1		-0.00829	1		MJM	
12SFJ01033	J182-04	ND		mg/L	7.5	ml	NA	7.5	664NM	0.012	10/29/12 15:35	0	1		0.0039812	1		MJM	>9
12SFJ01034	J182-05	ND		mg/L	7.5	ml	NA	7.5	664NM	0.023	10/29/12 15:35	0	1		0.0189797	1		MJM	>9
12SFJ01035	J182-06	ND		mg/L	7.5	ml	NA	7.5	664NM	0.002	10/29/12 15:36	0	1		-0.009654	1		MJM	>9
12SFJ01036	J182-07	ND		mg/L	7.5	ml	NA	7.5	664NM	0	10/29/12 15:36	0	1		-0.012381	1		MJM	>9
12SFJ01037	CCV3	0.519		mg/L	7.5	ml	NA	7.5	664NM	0.39	10/29/12 15:36	0	1		0.5193835	1		MJM	
12SFJ01038	CCB3	ND		mg/L	7.5	ml	NA	7.5	664NM	0.004	10/29/12 15:36	0	1		-0.006927	1		MJM	

MJM
10/29/12

Reviewed by: 7u
10/30/12

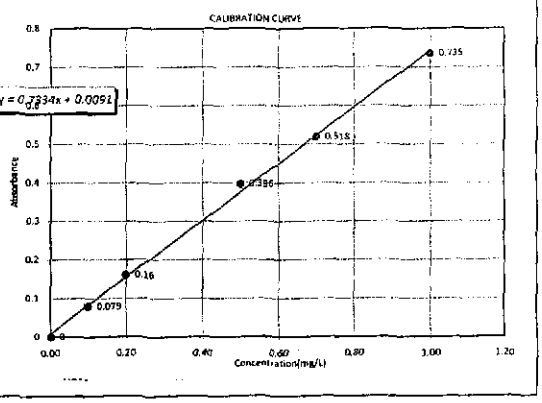
EMAX LABORATORIES, INC.

SULFIDE ANALYSIS
(COLORIMETRY)

Data File Name	Calibration ID	Conc. mg/L	WL	Abs	CalDate	FC	%Rec
12SFJ01001	S0	0.00	664NM	0	10/29/12 15:25	-0.012380808	ND
12SFJ01002	S1	0.10	664NM	0.079	10/29/12 15:25	0.09538556	95
12SFJ01003	S2	0.20	664NM	0.16	10/29/12 15:25	0.205778925	103
12SFJ01004	S3	0.50	664NM	0.396	10/29/12 15:26	0.527564531	106
12SFJ01005	S4	0.70	664NM	0.518	10/29/12 15:26	0.693911327	99
12SFJ01006	S5	1.00	664NM	0.735	10/29/12 15:26	0.989790465	99
12SFJ01007	ICV	0.50	664NM	0.35	10/29/12 15:27	0.464843808	93
12SFJ01008	ICB	0.00	664NM	0.003	10/29/12 15:28	-0.008290313	ND
12SFJ01019	CCV1	0.50	664NM	0.39	10/29/12 15:31	0.519383541	104
12SFJ01020	CCB1	0.00	664NM	0.003	10/29/12 15:31	-0.008290313	ND
12SFJ01031	CCV2	0.50	664NM	0.392	10/29/12 15:35	0.522110538	104
12SFJ01032	CCB2	0.00	664NM	0.003	10/29/12 15:35	-0.008290313	ND
12SFJ01037	CCV3	0.50	664NM	0.39	10/29/12 15:36	0.519383541	104
12SFJ01038	CCB3	0.00	664NM	0.004	10/29/12 15:36	-0.006926814	ND

$$FC = [(A * CF) - Y] * DF$$

InstrumentID: 70



CF= 1.38349833 Y= 0.01238 r= 0.999259

LOD Water(mg/L) 0.02 LOD Soil(mg/Kg)

LOQ Water(mg/L) 0.1 LOQ Soil(mg/Kg)

SOP

☐ EMAX-376.2 Rev. 2

☑ EMAX-4500-S2D Rev. 2

Standard / Reagent ID	Description	Conc.	Exp.Date
SW2-03-56-06	Intermediate ICAL CCV High Low std (mg/L)	10	10/29/12
SW2-03-56-07	Intermediate ICV / MS Std (mg/L)	2.15	10/29/12
SW1-01-495	MS Spike	215	05/01/15
RW1-12-001	Reagent Water	NA	NA
SWR1-01-595	Amresco Sulfuric Acid	ASSAY	07/01/13
SWR1-01-582	Ferric Chloride (%)	100	09/01/13
SWR1-09-87-02	Diammonium Phosphate	RGT	10/01/13
SWR1-09-44-04	Sulfuric Acid,%	50	02/02/13
HCDH149	pH strip	0-14	10/01/13

Standard Prep	Intermediate Std Aliquot (mg/L)	Final Vol (ml)	DateTime
S0	0	7.5	10/29/12 14:59
S1	0.075	7.5	10/29/12 14:59
S2	0.15	7.5	10/29/12 14:59
S3	0.375	7.5	10/29/12 14:59
S4	0.525	7.5	10/29/12 14:59
S5	0.75	7.5	10/29/12 14:59
ICV/LCS	1.74	7.5	10/29/12 15:00
CCV	0.375	7.5	10/29/12 15:00
MS	0.0174	7.5	10/29/12 15:00

Notes:

LAB QC CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
12SFJ01009	SFJ010WB	ND	ND	MB Passed
12SFJ01010	SFJ010WL	0.465	0.5	%R=93
12SFJ01011	SFJ010WC	0.477	0.5	%R=95

MS CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
12SFJ01027	J182-02	ND	0	
12SFJ01029	J182-02M	0.383	0.5	%R=77

DUP CHECK

DataFileID	LabSampleID	Result	Expected Value	RPD
12SFJ01027	J182-02	ND	0	0
12SFJ01028	J182-02D	ND		

MicropipetteID: 242780099, 2846967, ICP01, GFAA-07

Analyzed by: MJM

Reviewed by: [illegible] 10/30/12

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project : BROWN & BRYANT SUPERFUND SITE

SDG : 12J182

SM3500
FERROUS IRON

A total of six (6) water samples were received on 10/25/12 for Ferrous Iron analysis, MethodSM3500 in accordance with Standard Methods for the Examination of Water and Wastewater, 20th Edition and QAPP09.

Holding Time
Samples were analyzed within the prescribed holding time.

Calibration
Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source. Continuing calibration verifications were carried out at the frequency specified by the project. All calibration requirements were within acceptance criteria.

Method Blank
Method blank was analyzed at the frequency required by the project. For this SDG, one method blank was analyzed with the samples. Result was compliant to project requirement.

Lab Control Sample
A set of LCS/LCD was analyzed with the samples in this SDG.
Percent recoveries for FEJ006WL/C were all within QC limits.

Matrix QC Sample
Matrix QC sample was analyzed at the frequency prescribed by the project.
Percent recoveries were within project QC limits except for results qualified with [*] in J182-02M/S summary form, most likely due to matrix interference.
Check QC summary form for details.
Sample duplicate was also analyzed with the samples. RPD was within project limit.

Sample Analysis
Samples were analyzed according to prescribed analytical procedures. All project requirements were met; otherwise, anomalies were discussed within the associated QC parameter.

SM3500
FERROUS IRON

Client : ECO & ASSOCIATES, INC.
Project : BROWN & BRYANT SUPERFUND SITE
Batch No. : 12J182

Matrix : WATER
InstrumentID : 70

CLIENT SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	PREP. FACTOR	MOIST (%)	LOQ (mg/L)	LOD (mg/L)	ANALYSIS DATETIME	PREPARATION DATETIME	DATA FILE ID	CAL REF	PREP BATCH	COLLECTION DATETIME	RECEIVED DATETIME
MBLK1W	FEJ006WB	ND	1	NA	2	0.5	10/26/1215:28	NA	12FEJ00609	12FEJ006	FEJ006W	NA	NA
LCS1W	FEJ006WL	14.6	1	NA	2	0.5	10/26/1215:29	NA	12FEJ00610	12FEJ006	FEJ006W	NA	NA
LCD1W	FEJ006WC	14.5	1	NA	2	0.5	10/26/1215:29	NA	12FEJ00611	12FEJ006	FEJ006W	NA	NA
10-24-12 WB 2-3	J182-02	ND	1	NA	2	0.5	10/26/1215:29	NA	12FEJ00612	12FEJ006	FEJ006W	10/24/1213:34	10/25/12
10-24-12 WB 2-3DUP	J182-02D	ND	1	NA	2	0.5	10/26/1215:29	NA	12FEJ00613	12FEJ006	FEJ006W	10/24/1213:34	10/25/12
10-24-12 WB 2-3MS	J182-02M	4.42	1	NA	2	0.5	10/26/1215:30	NA	12FEJ00614	12FEJ006	FEJ006W	10/24/1213:34	10/25/12
10-24-12 WB 2-3MSD	J182-02S	4.42	1	NA	2	0.5	10/26/1215:30	NA	12FEJ00615	12FEJ006	FEJ006W	10/24/1213:34	10/25/12
10-24-12 PWB-15	J182-03	ND	1	NA	2	0.5	10/26/1215:30	NA	12FEJ00616	12FEJ006	FEJ006W	10/24/1213:15	10/25/12
10-24-12 PWB-2	J182-04	ND	1	NA	2	0.5	10/26/1215:30	NA	12FEJ00617	12FEJ006	FEJ006W	10/24/1215:22	10/25/12
10-24-12 PWB-7A	J182-05	ND	1	NA	2	0.5	10/26/1215:30	NA	12FEJ00618	12FEJ006	FEJ006W	10/24/1214:50	10/25/12
10-24-12 WB 2-2	J182-06	ND	1	NA	2	0.5	10/26/1215:31	NA	12FEJ00621	12FEJ006	FEJ006W	10/24/1214:48	10/25/12
10-24-12 FDUP-3	J182-07	ND	1	NA	2	0.5	10/26/1215:31	NA	12FEJ00622	12FEJ006	FEJ006W	10/24/1200:00	10/25/12

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : BROWN & BRYANT SUPERFUND SITE
BATCH NO. : 12J182
METHOD : SM3500

MATRIX : WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1
SAMPLE ID :	MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID :	FEJ006WB	FEJ006WL	FEJ006WC
LAB FILE ID :	12FEJ00609	12FEJ00610	12FEJ00611
DATE PREPARED :	NA	NA	NA
DATE ANALYZED :	10/26/1215:28	10/26/1215:29	10/26/1215:29
PREP BATCH :	FEJ006W	FEJ006W	FEJ006W
CALIBRATION REF:	12FEJ006	12FEJ006	12FEJ006

ACCESSION:

PARAMETER	MB RESULT (mg/L)	SPIKE AMT (mg/L)	BS RESULT (mg/L)	BS REC (%)	SPIKE AMT (mg/L)	BSD RESULT (mg/L)	BSD REC (%)	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ferrous Iron	ND	15	14.6	97	15	14.5	97	1	80-120	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : BROWN & BRYANT SUPERFUND SITE
BATCH NO. : 12J182
METHOD : SM3500

MATRIX	: WATER		% MOISTURE:
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 10-24-12 WB 2-3	10-24-12 WB 2-3MS	10-24-12 WB 2-3MSD
LAB SAMPLE ID	: J182-02	J182-02M	J182-02S
LAB FILE ID	: 12FEJ00612	12FEJ00614	12FEJ00615
DATE PREPARED	: NA	NA	NA
DATE ANALYZED	: 10/26/1215:29	10/26/1215:30	10/26/1215:30
PREP BATCH	: FEJ006W	FEJ006W	FEJ006W
CALIBRATION REF	: 12FEJ006	12FEJ006	12FEJ006

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	SPIKE AMT (mg/L)	MS RESULT (mg/L)	MS REC (%)	SPIKE AMT (mg/L)	MSD RESULT (mg/L)	MSD REC (%)	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ferrous Iron	ND	15	4.42	29*	15	4.42	29*	0	80-120	20

* Out of MS QC limit.

EMAX QUALITY CONTROL DATA
SAMPLE DUPLICATE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : BROWN & BRYANT SUPERFUND SITE
BATCH NO. : 12J182
METHOD : SM3500

==========

MATRIX : WATER % MOISTURE:

DILUTION FACTOR:	1	1
SAMPLE ID :	10-24-12 WB 2-3	10-24-12 WB 2-3DUP
LAB SAMPLE ID :	J182-02	J182-02D
LAB FILE ID :	12FEJ00612	12FEJ00613
DATE PREPARED :	NA	NA
DATE ANALYZED :	10/26/1215:29	10/26/1215:29
PREP BATCH :	FEJ006W	FEJ006W
CALIBRATION REF:	12FEJ006	12FEJ006

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	DUP RESULT (mg/L)	RPD (%)	MAX DIFF (%)
Ferrous Iron	ND	ND	0	20

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
FERROUS IRON

Calibration	Stock Conc.	Exp Date
ICAL	200 ppm	9/14/13
ICV/LCS/MS	200 ppm	10/26/12

Book #:	A70-Fe B-006
Instrument No.:	70
Analytical Batch:	FE1006

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Micropipette ID: 541460-54, 939380239

SOP #	Rev. #
☒ EMAX-3500-Fe B	2
☐ EMAX-	

Comments:

STANDARDS ID	aliquot (mL) in 10 final vol.	Conc. (mg/L)
S0 Reagent H2O (RW-12-001)	0	0
S1 SW2-03-47-08	0.1	2
S2 SW2-03-47-08	0.5	10
S3 SW2-03-47-08	0.75	15
S4 SW2-03-47-08	1.0	20
S5 SW2-03-47-08	1.25	25
CCV SW2-03-47-08	0.75	15
ICV/LCS/MS ~~SW2-07-55-07~~ 10/26/12	0.75	15

Prep Date: 10/26/12 Exp Date: 10/26/12

REAGENT	ID
HCl	SWA-04-555
$NH_4C_2H_3O_2$ Buffer	
Phenanthroline Solution	
Hydroxyalamine-HCL Solution	SW01-007-93-04

Analyzed By: [illegible]

Date: 10/26/12

EMAX LABORATORIES, INC.

FERROUS ANALYSIS

DateFileID	LabSampleID	Result	Flag	RUnit	SampleAmt	SUnit	PDateTime	FinalVol (ml)	WL	Abs	ADateTime	Sample Bkgnd	DF	%M	Conc.	DFxPrep Factor	Notes	Analyst	Sample pH
12FEJ00609	FEJ006WB	ND		mg/L	10	ml	NA	10	510nm	0	10/26/12 15:28	0	1		-0.24287	1		CJS	
12FEJ00610	FEJ006WL	14.6		mg/L	10	ml	NA	10	510nm	0.312	10/26/12 15:29	0	1		14.59121	1		CJS	
12FEJ00611	FEJ006WC	14.5		mg/L	10	ml	NA	10	510nm	0.31	10/26/12 15:29	0	1		14.49812	1		CJS	
12FEJ00612	J182-02	ND		mg/L	10	ml	NA	10	510nm	0	10/26/12 15:29	0	1		-0.24287	1		CJS	
12FEJ00613	J182-02D	ND		mg/L	10	ml	NA	10	510nm	0	10/26/12 15:29	0	1		-0.24287	1		CJS	
12FEJ00614	J182-02M	4.42		mg/L	10	ml	NA	10	510nm	0.098	10/26/12 15:30	0	1		4.416553	1		CJS	
12FEJ00615	J182-02S	4.42		mg/L	10	ml	NA	10	510nm	0.098	10/26/12 15:30	0	1		4.416553	1		CJS	
12FEJ00616	J182-03	ND		mg/L	10	ml	NA	10	510nm	0.007	10/26/12 15:30	0	1		0.089948	1		CJS	
12FEJ00617	J182-04	ND		mg/L	10	ml	NA	10	510nm	0.005	10/26/12 15:30	0	1		-0.00514	1		CJS	
12FEJ00618	J182-05	ND		mg/L	10	ml	NA	10	510nm	0.004	10/26/12 15:30	0	1		-0.05269	1		CJS	
12FEJ00619	CCV1	15.2		mg/L	10	ml	NA	10	510nm	0.325	10/26/12 15:31	0	1		15.2093	1		CJS	
12FEJ00620	CCB1	ND		mg/L	10	ml	NA	10	510nm	0	10/26/12 15:31	0	1		-0.24287	1		CJS	
12FEJ00621	J182-06	ND		mg/L	10	ml	NA	10	510nm	0.002	10/26/12 15:31	0	1		-0.14776	1		CJS	
12FEJ00622	J182-07	ND		mg/L	10	ml	NA	10	510nm	0	10/26/12 15:31	0	1		-0.24287	1		CJS	
12FEJ00623	CCV2	15.4		mg/L	10	ml	NA	10	510nm	0.33	10/26/12 15:32	0	1		15.44702	1		CJS	
12FEJ00624	CCB2	ND		mg/L	10	ml	NA	10	510nm	0	10/26/12 15:32	0	1		-0.24287	1		CJS	
12FEJ00625	J182-02I	ND		mg/L	10	ml	NA	10	510nm	0	10/26/12 15:32	0	1		-0.24287	1		CJS	
12FEJ00626	J182-02DI	ND		mg/L	10	ml	NA	10	510nm	0	10/26/12 15:32	0	1		-0.24287	1		CJS	
12FEJ00627	J182-02MI	14.4		mg/L	10	ml	NA	10	510nm	0.309	10/26/12 15:32	0	1		14.44857	1		CJS	
12FEJ00628	J182-02SI	14.3		mg/L	10	ml	NA	10	510nm	0.305	10/26/12 15:33	0	1		14.25839	1		CJS	
12FEJ00629	CCV3	15		mg/L	10	ml	NA	10	510nm	0.32	10/26/12 15:33	0	1		14.97157	1		CJS	
12FEJ00630	CCB3	ND		mg/L	10	ml	NA	10	510nm	0	10/26/12 15:33	0	1		-0.24287	1		CJS	

10/26/12

Reviewed by: MJW
Date: 11/1/12

EMAX LABORATORIES, INC.

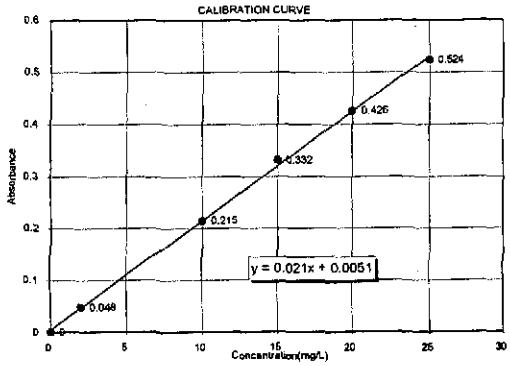
FERROUS ANALYSIS

Data File Name	Calibration ID	Conc. mg/L	WL	Abs	CalDate	FC	%Rec
12FEJ00601	S0	0	510nm	0	10/26/12 15:26	-0.242868232	ND
12FEJ00602	S1	2	510nm	0.048	10/26/12 15:26	2.039297497	102
12FEJ00603	S2	10	510nm	0.215	10/26/12 15:26	9.979032428	100
12FEJ00604	S3	15	510nm	0.332	10/26/12 15:26	15.54211139	104
12FEJ00605	S4	20	510nm	0.426	10/26/12 15:27	20.01135261	100
12FEJ00606	S5	25	510nm	0.524	10/26/12 15:27	24.67077431	99
12FEJ00607	ICV	15	510nm	0.31	10/26/12 15:27	14.49611677	97
12FEJ00608	ICB	0	510nm	0	10/26/12 15:26	-0.242868232	ND
12FEJ00619	CCV1	15	510nm	0.326	10/26/12 15:31	15.20929556	101
12FEJ00620	CCB1	0	510nm	0	10/26/12 15:31	-0.242868232	ND
12FEJ00623	CCV2	15	510nm	0.33	10/26/12 15:32	15.44702115	103
12FEJ00624	CCB2	0	510nm	0	10/26/12 15:32	-0.242868232	ND
12FEJ00629	CCV3	15	510nm	0.32	10/26/12 15:33	14.97158995	100
12FEJ00630	CCB3	0	510nm	0	10/26/12 15:33	-0.242868232	ND

10/26/12

$$FC = [(A * CF) - Y] * DF$$

InstrumentID: 70



CF= 47.54511935 Y= 0.24287 r= 0.999528

LOD Water(mg/L)	0.5	LOD Soil(mg/Kg)	5
LOQ Water(mg/L)	2	LOQ Soil(mg/Kg)	20

SOP

☐ EMAX-3500 Fe B Rev. 3

Standard / Reagent ID	Description	Conc.	Exp.Date
SW2-03-47-06	Intermediate ICAL CCV Std (mg/L)	200	09/14/13
SW2-03-56-03	Intermediate ICV LCS Std (mg/L)	200	10/26/12
SW2-03-56-03	MS Std (mg/L)	200	10/26/12
RW1-12-001	Reagent Water	NA	NA
NA	Reagent Water		
SW1A-04-555	HCl	ASSAY	06/01/14
SWP1-09-80-02	$NH_4C_2H_3O_2$ Buffer	NA	09/28/13
SWP1-09-80-01	Phenanthroline Solution	NA	09/28/12
SWP1-007-93-04	Hydroxylamine-HCl Solution	NA	12/01/12
HC248798	pH Strip	NA	09/17/13

10/26/12

Standard Prep	Intermediate Std Aliquot (ml)	Final Vol (ml)	DateTime
S0	0	10	10/26/12 14:55
S1	0.1	10	10/26/12 14:55
S2	0.5	10	10/26/12 14:55
S3	0.75	10	10/26/12 14:55
S4	1	10	10/26/12 14:55
S5	1.25	10	10/26/12 14:55
ICV	0.75	10	10/26/12 14:55
CCV	0.75	10	10/26/12 14:55
LCS EV (mg/L)	0.75	10	10/26/12 14:55
MS EV (mg/L)	1	10	10/26/12 14:55

MicropipetteID: 541460054 939360239

Expected Sample Amount: 10

Comments: Sample J182-02 turned a greenish/yellow color upon addition of the ferrous spike. Matrix spike did not recover due to matrix effects.

LAB QC CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
12FEJ00609	FEJ006WB	ND	ND	MB Passed
12FEJ00610	FEJ006WL	14.6	15	%R=97
12FEJ00611	FEJ006WC	14.5	15	%R=97

MS CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
12FEJ00612	J182-02	ND		RPD=0
12FEJ00614	J182-02M	4.42	20	%R=22
12FEJ00615	J182-02S	4.42	20	%R=22

DUP CHECK

DataFileID	LabSampleID	Result	Expected Value	RPD
12FEJ00612	J182-02	ND		0
12FEJ00613	J182-02D	ND	ND	

☐ Leaching DateTime Start: NA ☐ End:

Analyzed by CJS

Reviewed by: MM
Date: 10/26/12

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

BROWN AND BRYANT SUPERFUND SITE

METHANE AND DISSOLVED HYDROGEN

SDG#: 12J182

Air TECHNOLOGY Laboratories, Inc.

November 19, 2012

ADE-1461
EPA Methods TO-3, TO14A,TO15 SIM & Scan, ASTM D1946

LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

TX Cert T104704450-09-TX
EPA Methods TO14A, TO15

EMAX Laboratories, Inc.
ATTN: Richard Beauvil
1835 205th St.
Torrance, CA 90501

LABORATORY TEST RESULTS

Project Reference: 12J182, Eco & Associates, Inc.
Lab Number: D102605-01/08

Enclosed are results for sample(s) received 10/26/12 by Air Technology Laboratories. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

Total Number of Pages: 110

CHAIN OF CUSTODY

D102605-01|08

EMAX LABORATORIES, INC.
Tel#: 310-618-8889 FAX#: 310-618-0818
email: info@emaxlabs.com

EMAX CONTROL NO	12J182
PROJECT CODE	ECO1101
TURN-AROUND-TIME	STANDARD

SEND REPORT TO:
EMAX LABORATORIES, INC.
1835 W. 205TH ST. CA 90501

ATTN: **Richard Beauvil**

CLIENT: Eco & Associates, Inc.
PROJECT: Brown & Bryant Superfund

SEND SAMPLES TO:
Air Technology Labs
18501 E. Gale Ave, Suite 130
City of Industry, CA 91748

	EMAX Sample ID	Client Sample ID	Collection Date	CollectionTime	Matrix	Method		COMMENTS
01	J182-02	10-24-12 WB 2-3	10/24/2012	1:34:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
02	J182-02M	10-24-12 WB 2-3MS	10/24/2012	1:34:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
03	J182-02S	10-24-12 WB 2-3MSD	10/24/2012	1:34:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
04	J182-03	10-24-12 PWB-15	10/24/2012	1:15:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
05	J182-04	10-24-12 PWB-2	10/24/2012	3:22:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
06	J182-05	10-24-12 PWB-7A	10/24/2012	2:50:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	LEVEL A
07	J182-06	10-24-12 WB 2-2	10/24/2012	2:48:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
08	J182-07	10-24-12 FDUP-3	10/24/2012	12:00:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	

INSTRUCTION:

DATA PACKAGE: 2 COPIES, 1 CD. LEVEL III with 10% LEVEL IV. EDD: ADR 1A/3A.

COOLER TEMPERATURE: 8°C

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	10/26/12	~~1130~~ 1200	[signature]	10/26/12	1200

Client: EMAX Laboratories, Inc.
Attn: Richard Beauvil
Project Name: Eco & Associates, Inc.
Project No.: 12J182
Date Received: 10/26/12
Matrix: Air
Reporting Units: ug/L

RSK175

Lab No.:	D102605-01		D102605-04		D102605-05		D102605-06	
Client Sample I.D.:	J182-02 / 10-24-12 WB 2-3		J182-03 / 10-24-12 PWB-15		J182-04 / 10-24-12 PWB-2		J182-05 / 10-24-12 PWB-7A	
Date Sampled:	10/24/12		10/24/12		10/24/12		10/24/12	
Date Analyzed:	11/06/12		11/05/12		11/05/12		11/05/12	
QC Batch No.:	121105GC8A1		121105GC8A1		121105GC8A1		121105GC8A1	
Analyst Initials:	MJ		MJ		MJ		MJ	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result ug/L	RL ug/L	Result ug/L	RL ug/L	Result ug/L	RL ug/L	Result ug/L	RL ug/L
Methane	8.8	1.0	ND	1.0	ND	1.0	ND	1.0
Hydrogen	ND	10	ND	10	ND	10	ND	10

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 11-18-12
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: EMAX Laboratories, Inc.
Attn: Richard Beauvil
Project Name: Eco & Associates, Inc.
Project No.: 12J182
Date Received: 10/26/12
Matrix: Air
Reporting Units: ug/L

RSK175

Lab No.:	D102605-07		D102605-08					
Client Sample I.D.:	J182-06 / 10-24-12 WB 2-2		J182-07 / 10-24-12 FDUP-3					
Date Sampled:	10/24/12		10/24/12					
Date Analyzed:	11/05/12		11/05/12					
QC Batch No.:	121105GC8A1		121105GC8A1					
Analyst Initials:	MJ		MJ					
Dilution Factor:	1.0		1.0					
ANALYTE	Result ug/L	RL ug/L	Result ug/L	RL ug/L				
Methane	ND	1.0	ND	1.0				
Hydrogen	ND	10	ND	10				

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date 11-18-12
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No.: 121105GC8A1
Matrix: Water
Units: ug/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		D102605-01		D102605-02MS		D102605-03MSD			
Date Analyzed:		11/05/12		11/05/12		11/05/12			
Analyst Initials:		MJ		MJ		MJ			
Datafile:		05nov045/06nov05		05nov046/06nov007		05nov047/06nov008			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	1.0	1.0	8.8	91	70-130%	103	70-130%	11.8	<30
Hydrogen	10	10	ND	115	70-130%	109	70-130%	5.7	<30

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL).
RL = PQL X Dilution Factor

Reviewed/Approved By: Mark J. Johnson
Operations Manager

Date: 11-18-12

The cover letter is an integral part of this analytical report

QC Batch No.: 121105GC8A1
Matrix: Water
Units: ug/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date Analyzed:		11/05/12		11/05/12		11/05/12			
Analyst Initials:		MJ		MJ		MJ			
Datafile:		05nov005/028		05nov001/055		05nov002/054			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	1.0	1.0	ND	98	70-130%	98	70-130%	0.5	<30
Hydrogen	10	10	ND	109	70-130%	107	70-130%	2.3	<30

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL).
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ Date: 11-18-12
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report

GC Raw Data Index
General Information

Method: RSK

Section	Page #
1. Supporting Documents	8
2. Sample Raw Data	11
3. Initial Calibration	52
4. Continuing Calibration	80
5. Method Blank	93
6. LCS/LCSD	

Conventions and Conversions

1 ppbv = 0.001 ppmv = 0.0000001% v/v
1% v/v = 10,000 ppmv = 10,000,000 ppbv

1 ug/m^3 = 1 ng/L = ppbv x MW/24.45
1 ug/L = 1 mg/m^3 = ppmv x MW/24.45

Where **MW** is the molecular weight of the compound and 24.45 is the molar volume of ideal gas at 1 atmosphere and 25° C.

1 atmosphere = 14.6 psia = 0 psig
30" Hg = 0 psia = -14.6 psig

Standard pressure is taken as 14.6 psia at Air Technology Labs' facility.

1. Supporting Documents

a. Pressurization log (if applicable)

b. ICAL run log

c. CCAL/QC/Samples run log

d. Miscellaneous documents

GC Injection Logbook

Instrument ID: GC 8A

Analytical Method: RSK175

Datafile Directory: C:\Terra gas gc8a\2011\November\Low

Chemist: [illegible]

Blank Lot #: [illegible]

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	11-3-11	11:39	03 nov 013	C102803 - 08	EMAX	250 ml	–	–	1.0	D.Z.	OK	pH = 7.2	11-4 ~~11-3~~ 111103GLBA1
2		11:53	014	-09									
3		12:06	015	-10									
4		12:20	016	Preface	–						OK		
5		12:28	017	Preface	–						OK		
6		12:42	018	Preface	–						OK		
7		13:17	019	C102803 - 01	EMAX MS						OK		
8		13:10	020	-0	EMAX MSD						OK		
9		14:23	021	0.50% CH4	AW117606						OK		
10	11-3-11	14:50	03 nov 022	H2 BSIL VOAL L5	AW117613	250 ml	–	–	1.0	D.Z.	NO	noise	111103GLBAL
11		14:51	023	L5	AW117613						OK		
12		15:02	024	L4	AW117614						OK		
13		15:10	025	L3	AW117615						NO	noise	
14		15:23	026	L3	AW117615						OK		
15		15:32	027	L2	AW117616						OK		
16		15:41	028	L1	AW117617						NO	noise	
17		15:50	029	L1	AW117617						OK		
18		16:06	030	2.5% H2 CO	AW117618	250 ml					OK		
19		17:12	031	Method Blank	AW117609						OK		
20		16:20	032	C102803 - 01	EMAX						OK		

Approved by/Date:_____

Instrument ID: GC 8A

Analytical Method: KSK AS 120227

Datafile Directory: GC8\2012\Feb.

GC Injection Logbook

Chemist: [illegible]

Blank Lot #: 118F129

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	2/27/12	12:27	24feb005	3.0 ppmv C_1C_3	AW119015	75	-	-	1.0		OK		120227GC8A1
2		12:43	27feb.	10 ppmv C_1C_3	↓	200							
3		12:57	27feb001	100 ppmv C_1C_3	AW119016	200						use for TCE ICAL also CO_2, CH_4	
4		13:10	002	1000 ppmv C_1C_3	AW119017	250							
5		13:25	003	5,000 ppmv C_1C_3	AS014107	125							
6		13:58	004	10,000 ppmv C_1C_3	↓	200							
7		15:16 15:30	005	100,000 ppmv CO_2 CH_4	AW119018	50							
8		15:30	006	500,000 ppmv CO_2 CH_4	↓	200							
9	↓	14:02	007	10,000 ppmv C_1C_3	AS014107	200	↓	↓	↓		OK	not use	↓
10													
11													
12													
13													
14													
15												[illegible]	
16												3/1/12	
17													
18													
19													
20												[illegible]	

Air Technology Laboratories, Inc.
GC8A #26

Approved by/Date: [illegible] 3/1/12

2. Sample Raw Data

a. Calculations (if applicable)

b. Chromatograms/Results

	D102605-01	06nov005							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	0	92.88	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	0	9.288E-05	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	0	2.249E-09	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	0	0.001997	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	0	0.0003715	#VALUE!	0	#VALUE!	#VALUE!	ml
A_t	#VALUE!	#VALUE!	0	0.0067496	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	0	0.0087467	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	0.00	8.75	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	0.00	8.75	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

ug	spike amt. %	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	1.3365982
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
42.535787	1	4	26	Acetylene	1.0633947	0
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

D102605-02MS	06nov007	05NOV046							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	0	6442.9	NA	8845	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	0	0.0064429	#VALUE!	0.008845	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	0	1.56E-07	#VALUE!	1.251E-07	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	0	0.1385302	#VALUE!	0.0138868	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	0	0.0257716	#VALUE!	0.03538	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	0	0.4682078	#VALUE!	0.0803462	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	0	0.606738	#VALUE!	0.0942329	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	0.00	606.74	#VALUE!	94.23	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	0.00	606.74	#VALUE!	94.23	#VALUE!	#VALUE!	ug/L

LCS/D calculation

ug	spike amt. %	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	92.717149
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
42.535787	1	4	26	Acetylene	1.0633947	0
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

D102605-03MSD		06nov008	05NOV047						
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	0	7239.2	NA	8354.3	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	0	0.0072392	#VALUE!	0.0083543	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	0	1.753E-07	#VALUE!	1.182E-07	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	0	0.1556516	#VALUE!	0.0131164	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	0	0.0289568	#VALUE!	0.0334172	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	0	0.5260752	#VALUE!	0.0758887	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	0	0.6817268	#VALUE!	0.0890051	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	0.00	681.73	#VALUE!	89.01	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	#VALUE!	#VALUE!	0.00	681.73	#VALUE!	89.01	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.					
ug	%	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	104.17638
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
42.535787	1	4	26	Acetylene	1.0633947	0
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

PAGE 011

	D102605-04	05nov021							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	0	0	0	3.294	NA	0	NA	NA	ppmv
p_g	0	0	0	3.294E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	0	0	0	7.9758E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	0	0	0	7.0825E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	0	0	0	1.3176E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	0	0	0	0.00023938	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	0	0	0	0.0003102	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	0.00	0.00	0.00	0.31	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	0.00	0.00	0.00	0.31	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.						
ug	%	mL	MW		mg/L	%R	
26.1758691	1	4	16	Methane	0.65439673	0.04740261	
49.0797546	1	4	30	Ethane	1.22699387	0	
45.807771	1	4	28	Ethene	1.14519427	0	
42.5357873	1	4	26	Acetylene	1.06339468	0	
#VALUE!	NA	4	44	Propane	#VALUE!		
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!	
71.9836401	1	4	44	CO2	1.799591	#VALUE!	
		4	28	Nitrogen			

D102605-05 05nov022

Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	0	0.31	0	8.405	NA	0	NA	NA	ppmv
p_g	0	0.00000031	0	8.405E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	0	1.0265E-11	0	2.0351E-10	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	0	1.7091E-05	0	0.00018072	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	.0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	0	0.00000124	0	0.00003362	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	0	4.224E-05	0	0.00061079	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	0	5.9331E-05	0	0.00079151	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	0.00	0.06	0.00	0.79	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	0.00	0.06	0.00	0.79	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

ug	spike amt. %	mL	MW		mg/L	%R
26.1758691	1	4	16	Methane	0.65439673	0.12095293
49.0797546	1	4	30	Ethane	1.22699387	0.00483545
45.807771	1	4	28	Ethene	1.14519427	0
42.5357873	1	4	26	Acetylene	1.06339468	0
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.9836401	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

D102605-06 05nov023

Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	0	0.282	0	7.006	NA	0	NA	NA	ppmv
p_g	0	2.82E-07	0	7.006E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	0	9.3377E-12	0	1.6964E-10	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	0	1.5547E-05	0	0.00015064	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	0	1.128E-06	0	2.8024E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	0	3.8424E-05	0	0.00050913	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	0	5.3972E-05	0	0.00065977	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	0.00	0.05	0.00	0.66	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	0.00	0.05	0.00	0.66	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

ug	spike amt. %	mL	MW		mg/L	%R
26.1758691	1	4	16	Methane	0.65439673	0.10082049
49.0797546	1	4	30	Ethane	1.22699387	0.0043987
45.807771	1	4	28	Ethene	1.14519427	0
42.5357873	1	4	26	Acetylene	1.06339468	0
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.9836401	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	D102605-07	05nov024							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	0	0.77	0	10.13	NA	0	NA	NA	ppmv
p_g	0	0.00000077	0	0.00001013	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	0	2.5497E-11	0	2.4528E-10	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	0	4.2452E-05	0	0.00021781	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	0	0.00000308	0	0.00004052	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	0	0.00010492	0	0.00073615	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	0	0.00014737	0	0.00095396	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	0.00	0.15	0.00	0.95	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L
Final Result	0.00	0.15	0.00	0.95	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

	spike amt.						
ug	%	mL	MW		mg/L	%R	
26.1758691	1	4	16	Methane	0.65439673	0.1457767	
49.0797546	1	4	30	Ethane	1.22699387	0.01201064	
45.807771	1	4	28	Ethene	1.14519427	0	
42.5357873	1	4	26	Acetylene	1.06339468	0	
#VALUE!	NA	4	44	Propane	#VALUE!		
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!	
71.9836401	1	4	44	CO2	1.799591	#VALUE!	
		4	28	Nitrogen			

PAGE 013

D102605-08 05nov025

Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	0	0.508	0	3.027	NA	0	NA	NA	ppmv
p_g	0	5.08E-07	0	3.027E-06	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	0	1.6821E-11	0	7.3293E-11	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	0	2.8007E-05	0	6.5084E-05	#VALUE!	0	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.14455811	1.22631226	1.79859131	0.6540332	1.30806641	0.08175415	1.79859131	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	0	2.032E-06	0	1.2108E-05	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	0	6.9219E-05	0	0.00021997	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	0	9.7226E-05	0	0.00028506	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	0.00	0.10	0.00	0.29	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000 00	10.00	46	1500.00	ug/L
Final Result	0.00	0.10	0.00	0.29	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L

LCS/D calculation

ug	spike amt. %	mL	MW		mg/L	%R
26.1758691	1	4	16	Methane	0.65439673	0.04356032
49.0797546	1	4	30	Ethane	1.22699387	0.0079239
45.807771	1	4	28	Ethene	1.14519427	0
42.5357873	1	4	26	Acetylene	1.06339468	0
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.9836401	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

PAGE 819

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov005.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102605-01 EMAX

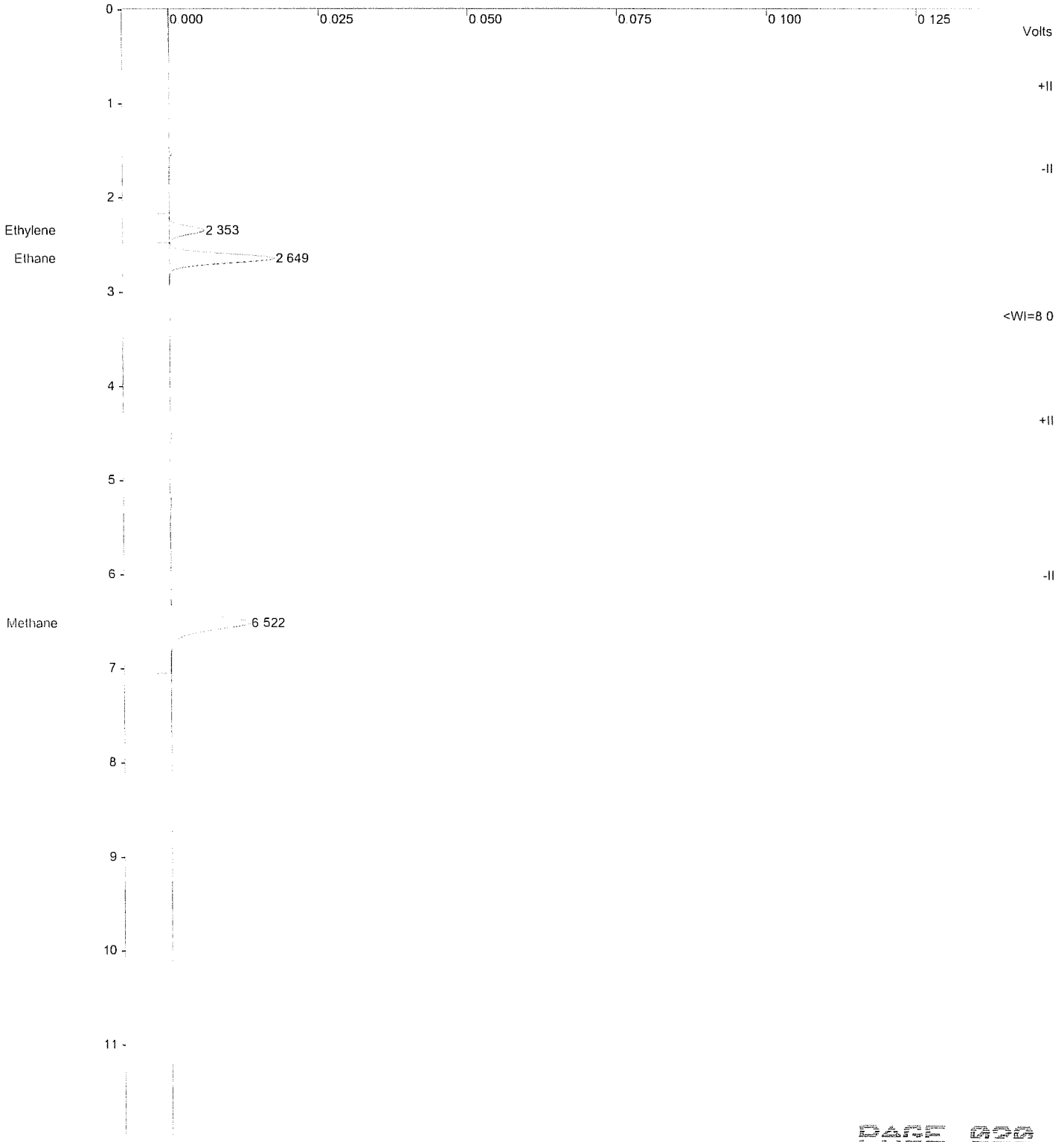
Injection Date: 11/6/2012 5:05 PM Calculation Date: 11/6/2012 5:17 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov005.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102605-01 EMAX

Injection Date: 11/6/2012 5:05 PM Calculation Date: 11/6/2012 5:17 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	12.894	2.353	0.008	35738	BV	5.8	
2	Ethane	42.757	2.649	0.007	120964	VB	6.5	
3	Acetylene		3.286					M
4	Methane	92.880	6.522	0.036	134797	BB	9.4	
	Totals:	148.531		0.051	291499			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 63 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov007.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : D102605-02MS EMAX

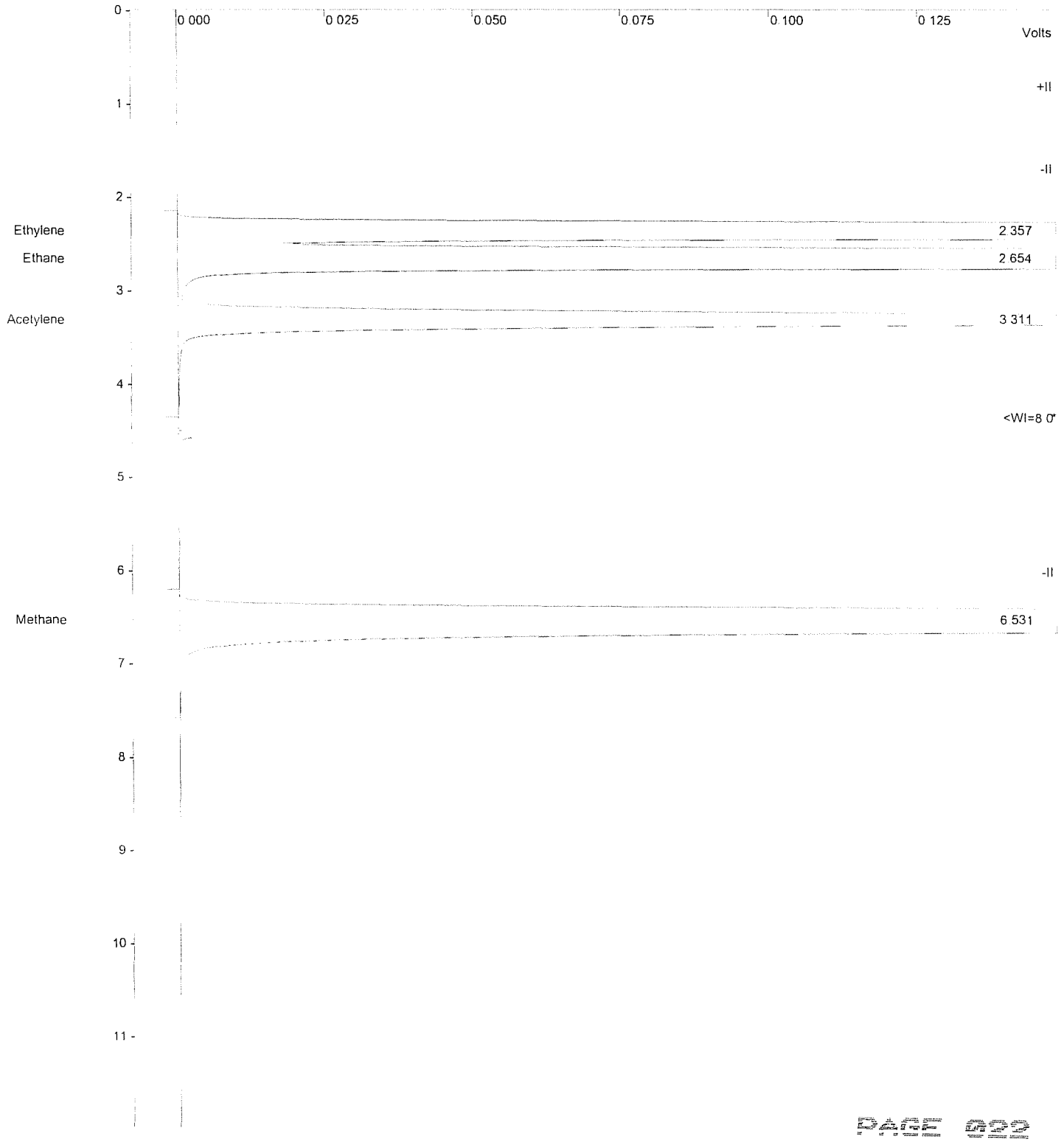
Injection Date: 11/6/2012 5:39 PM Calculation Date: 11/6/2012 5:51 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov007.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102605-02MS EMAX

Injection Date: 11/6/2012 5:39 PM Calculation Date: 11/6/2012 5:51 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	3902.368	2.357	0.012	10815788	BV	5.8	
2	Ethane	5974.853	2.654	0.012	16903700	VV	6.6	
3	Acetylene	682.884	3.311	0.025	2067400	VB	8.3	
4	Methane	6442.939	6.531	0.045	9350692	BB	9.4	
	Totals:	17003.044		0.094	39137580			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 63 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov008.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : D102605-03 MSD EMAX

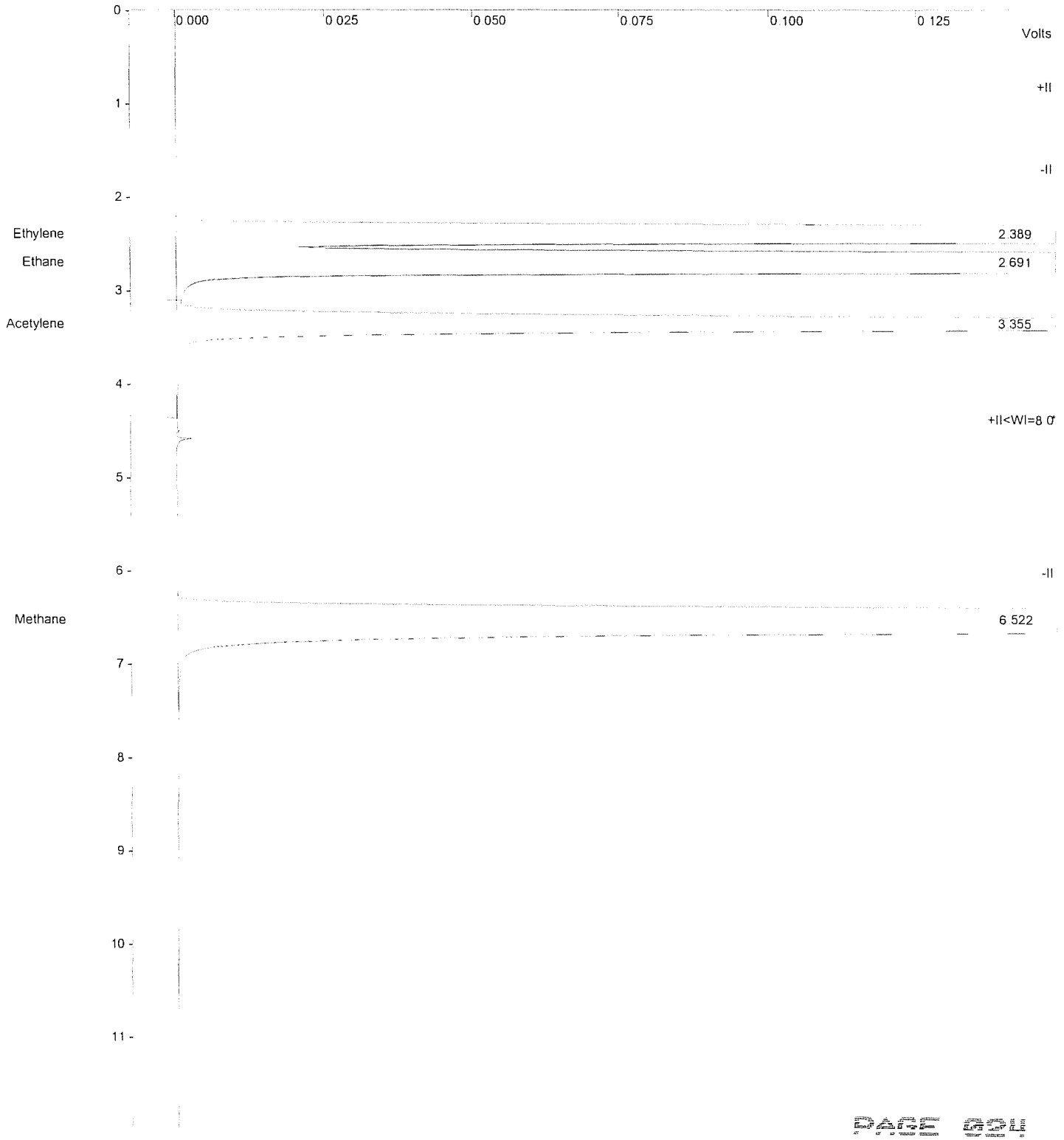
Injection Date: 11/6/2012 6:09 PM Calculation Date: 11/7/2012 8:52 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov008.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : D102605-03 MSD EMAX

Injection Date: 11/6/2012 6:09 PM Calculation Date: 11/7/2012 8:52 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	4459.811	2.389	0.044	12360794	BV	5.9	
2	Ethane	6752.721	2.691	0.049	19104398	VV	6.7	
3	Acetylene	806.408	3.355	0.069	2441365	VB	8.3	
4	Methane	7239.187	6.522	0.036	10506292	BB	9.4	
	Totals:	19258.127		0.198	44412849			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 55 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov021.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102605-04 EMAX

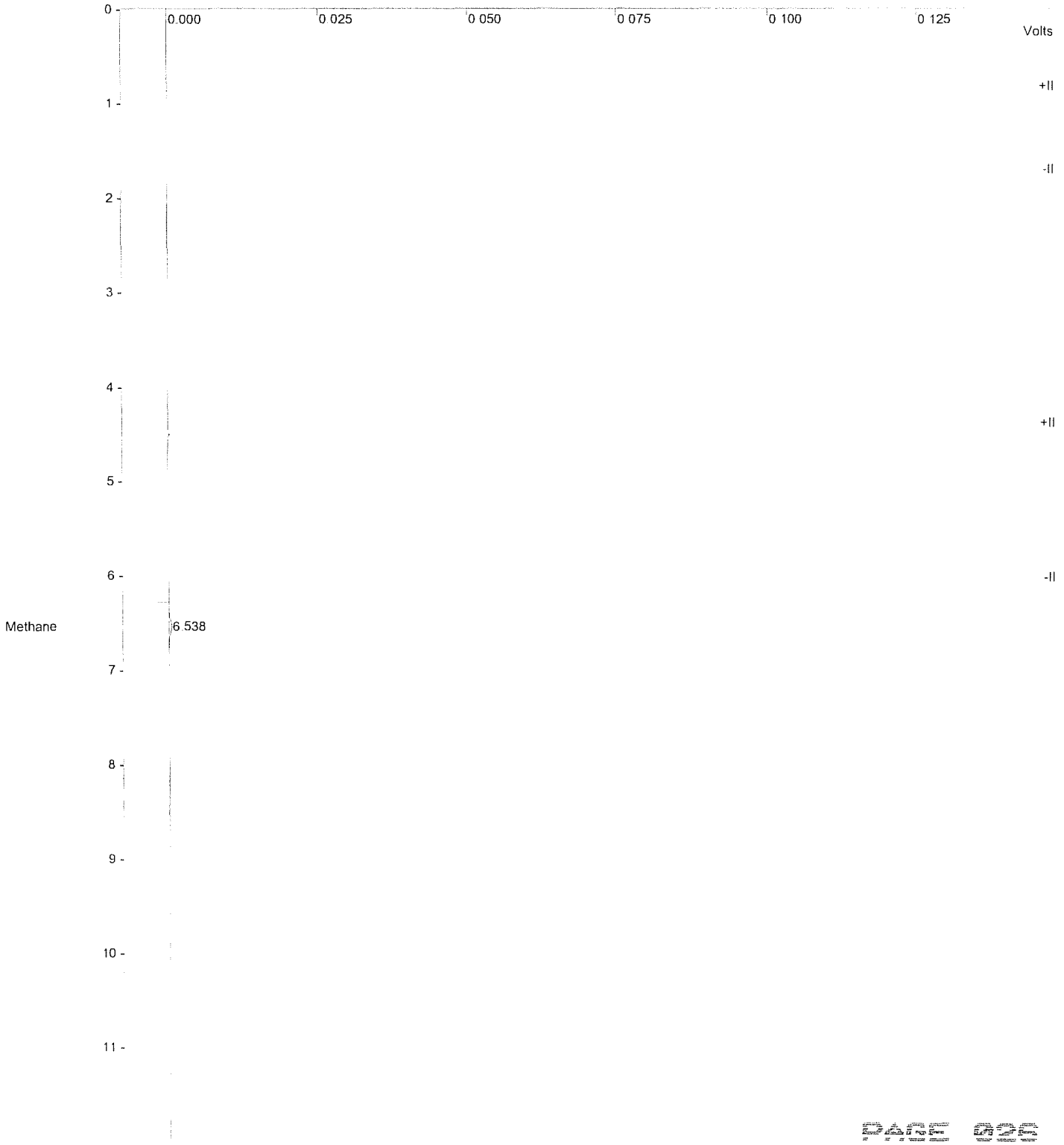
Injection Date: 11/5/2012 5:39 PM Calculation Date: 11/5/2012 5:51 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov021.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102605-04 EMAX

Injection Date: 11/5/2012 5:39 PM Calculation Date: 11/5/2012 5:51 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene		2.345					M
2	Ethane		2.642					M
3	Acetylene		3.286					M
4	Methane	3.294	6.538	0.052	4780	BB	9.7	
	Totals:	3.294		0.052	4780			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 1 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -28 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 19 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov022.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102605-05 EMAX

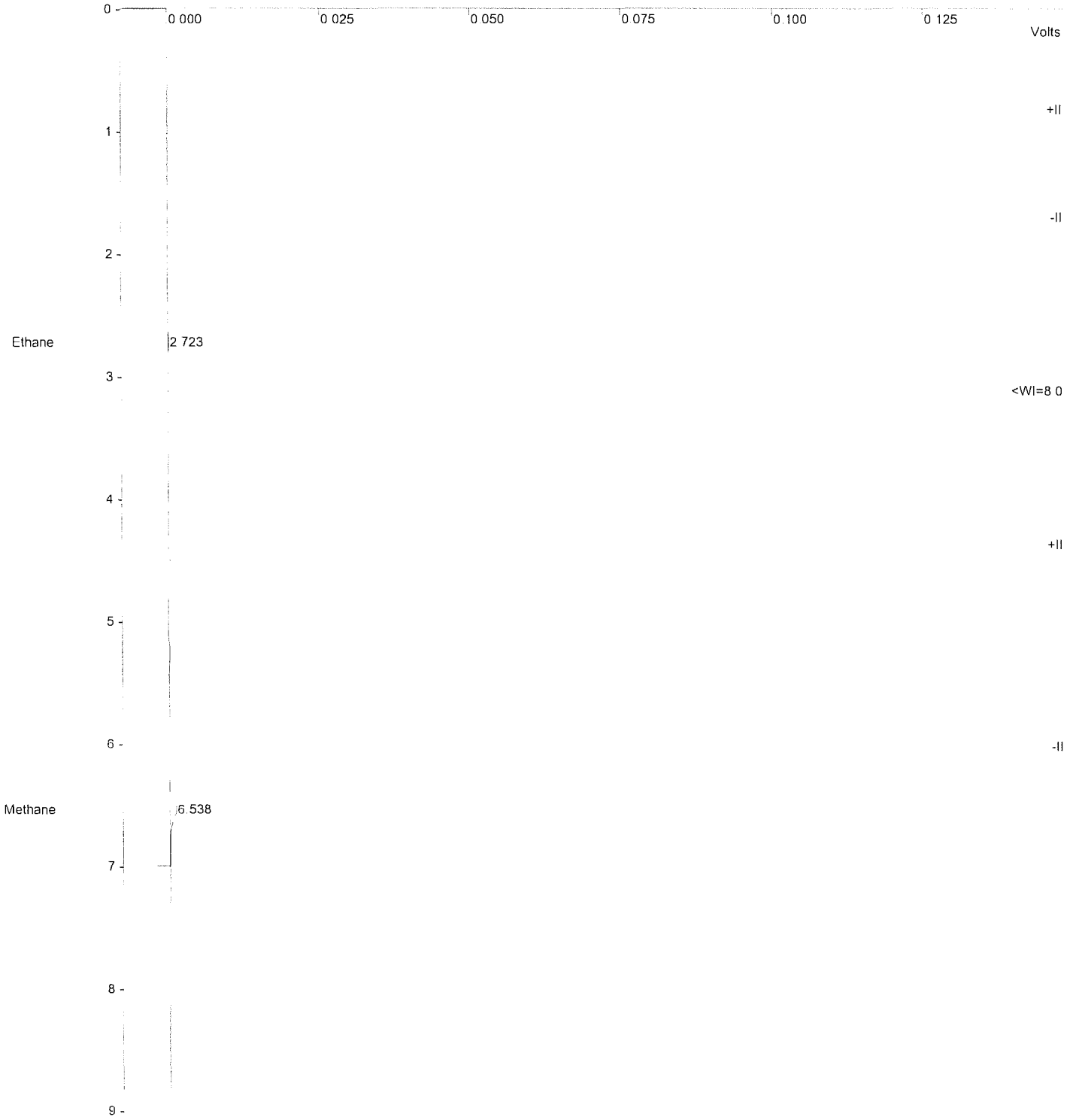
Injection Date: 11/5/2012 5:59 PM Calculation Date: 11/5/2012 6:08 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 9.328 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 2.15 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 9.328 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov022.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102605-05 EMAX

Injection Date: 11/5/2012 5:59 PM Calculation Date: 11/5/2012 6:08 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 9.328 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene		2.345					M
2	Ethane	0.310	2.723	0.081	877	BB	7.0	
3	Acetylene		3.286					M
4	Methane	8.405	6.538	0.052	12199	BB	9.6	
	Totals:	8.715		0.133	13076			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 2 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -33 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov023.run
Method File : C:\Temp GC\GC8A\Methods\rskl75fg120227.mth
Sample ID : D102605-06 EMAX

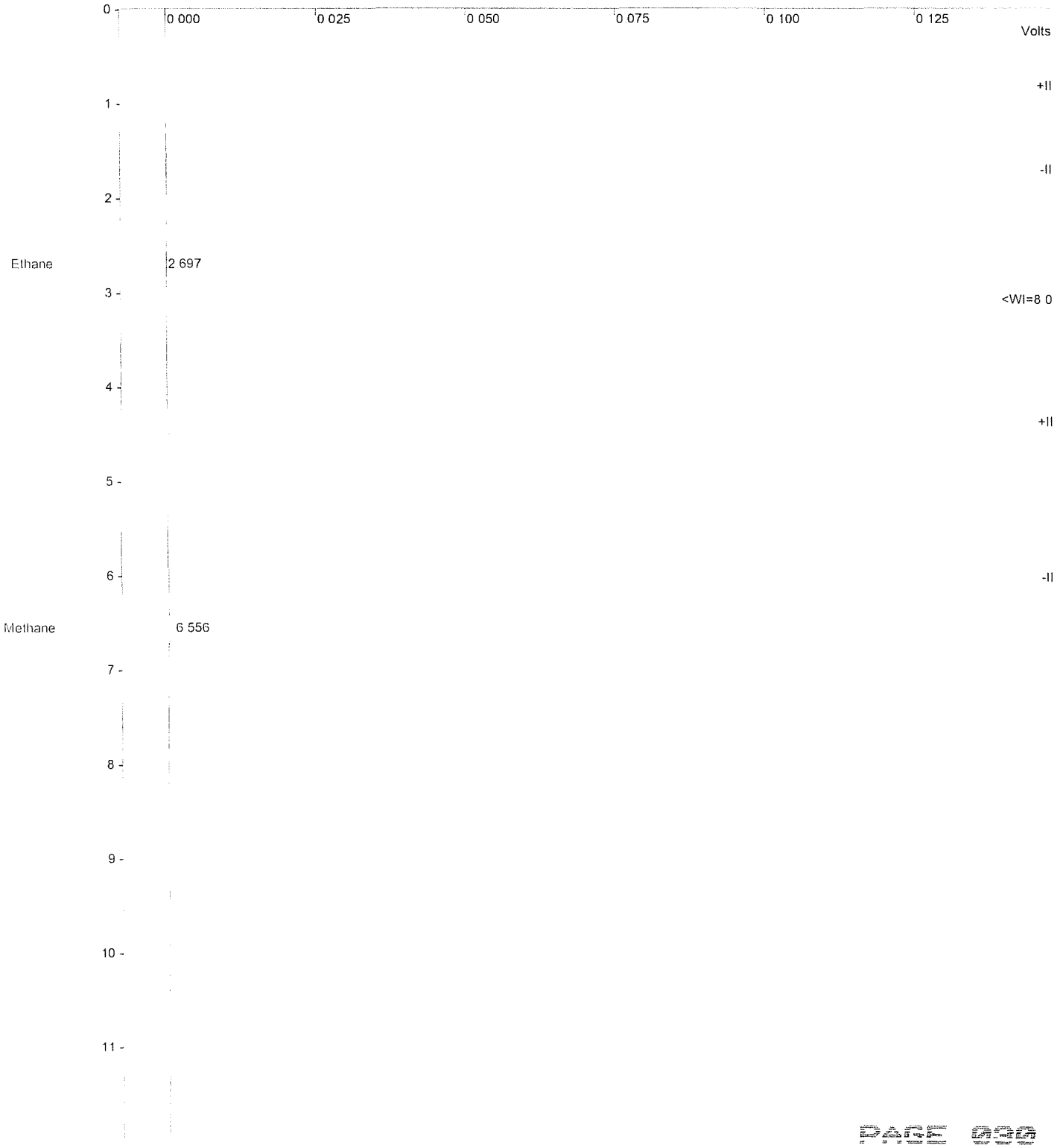
Injection Date: 11/5/2012 6:10 PM Calculation Date: 11/5/2012 6:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov023.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102605-06 EMAX

Injection Date: 11/5/2012 6:10 PM Calculation Date: 11/5/2012 6:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene		2.345					M
2	Ethane	0.282	2.697	0.055	797	BB	7.1	
3	Acetylene		3.286					M
4	Methane	7.006	6.556	0.070	10168	BB	9.3	
	Totals:	7.288		0.125	10965			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 2 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -64 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov024.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102605-07 EMAX

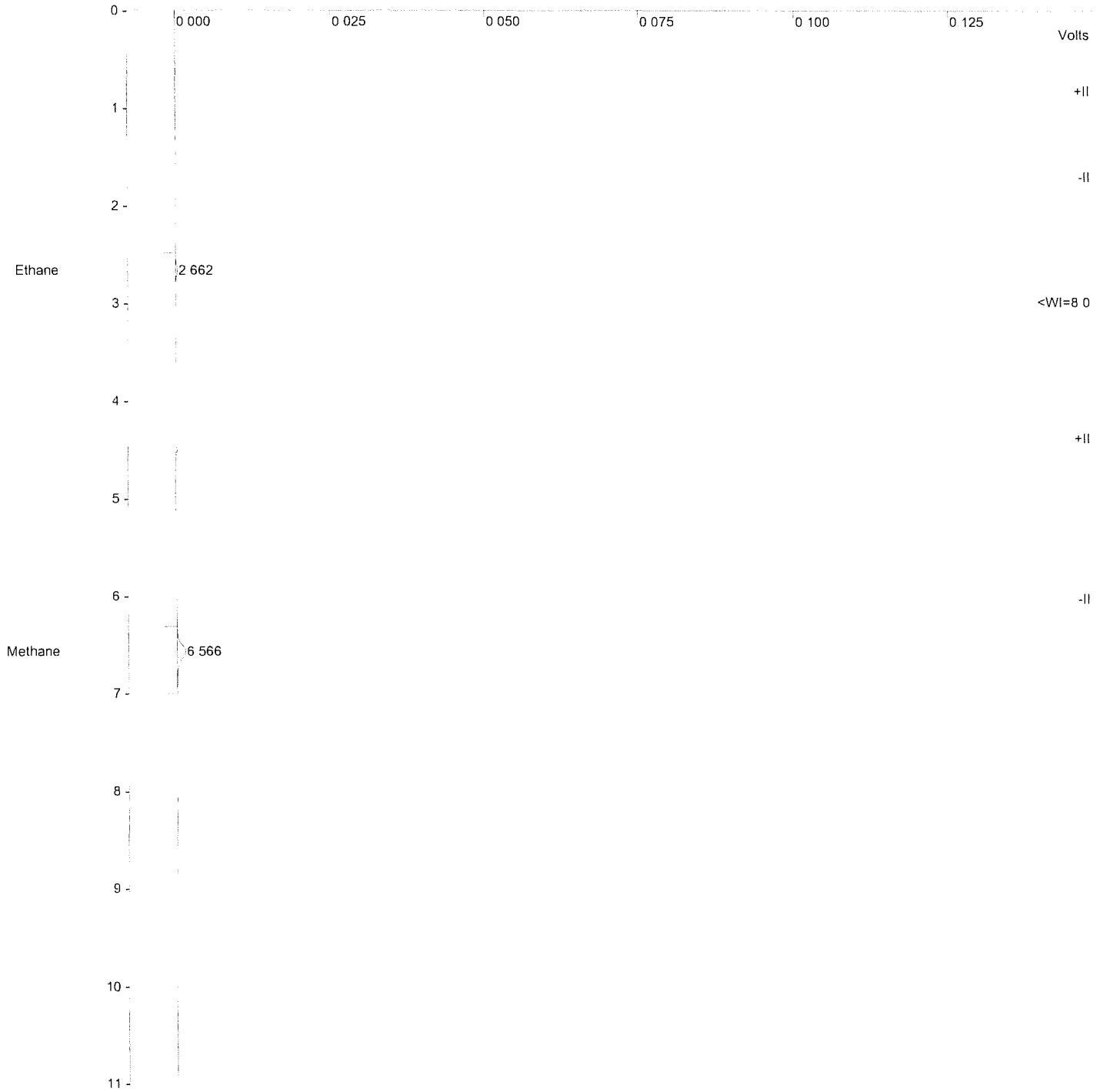
Injection Date: 11/5/2012 6:23 PM Calculation Date: 11/5/2012 6:35 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov024.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102605-07 EMAX

Injection Date: 11/5/2012 6:23 PM Calculation Date: 11/5/2012 6:35 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene		2.345					M
2	Ethane	0.770	2.662	0.020	2177	BB	6.6	
3	Acetylene		3.286					M
4	Methane	10.130	6.566	0.080	14701	BB	9.5	
	Totals:	10.900		0.100	16878			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 2 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 29 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 15 microVolts

Manual injection

.....

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov025.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102605-08 EMAX

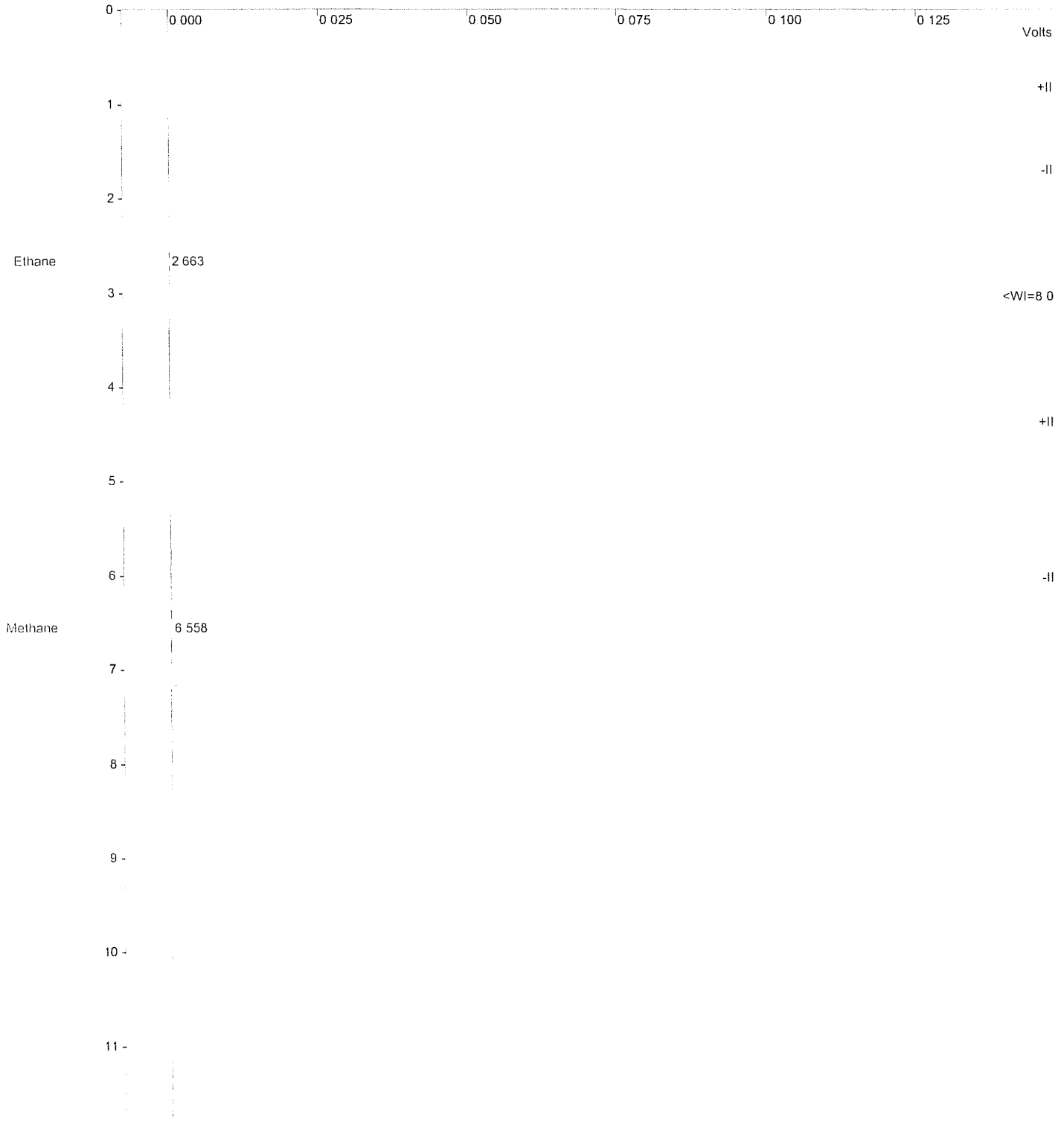
Injection Date: 11/5/2012 6:36 PM Calculation Date: 11/5/2012 6:48 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov025.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : D102605-08 EMAX

Injection Date: 11/5/2012 6:36 PM Calculation Date: 11/5/2012 6:48 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene		2.345					M
2	Ethane	0.508	2.663	0.021	1436	BB	6.9	
3	Acetylene		3.286					M
4	Methane	3.027	6.558	0.072	4393	BB	9.3	
	Totals:	3.535		0.093	5829			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 2 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 35 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov045.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102605-01 EMAX

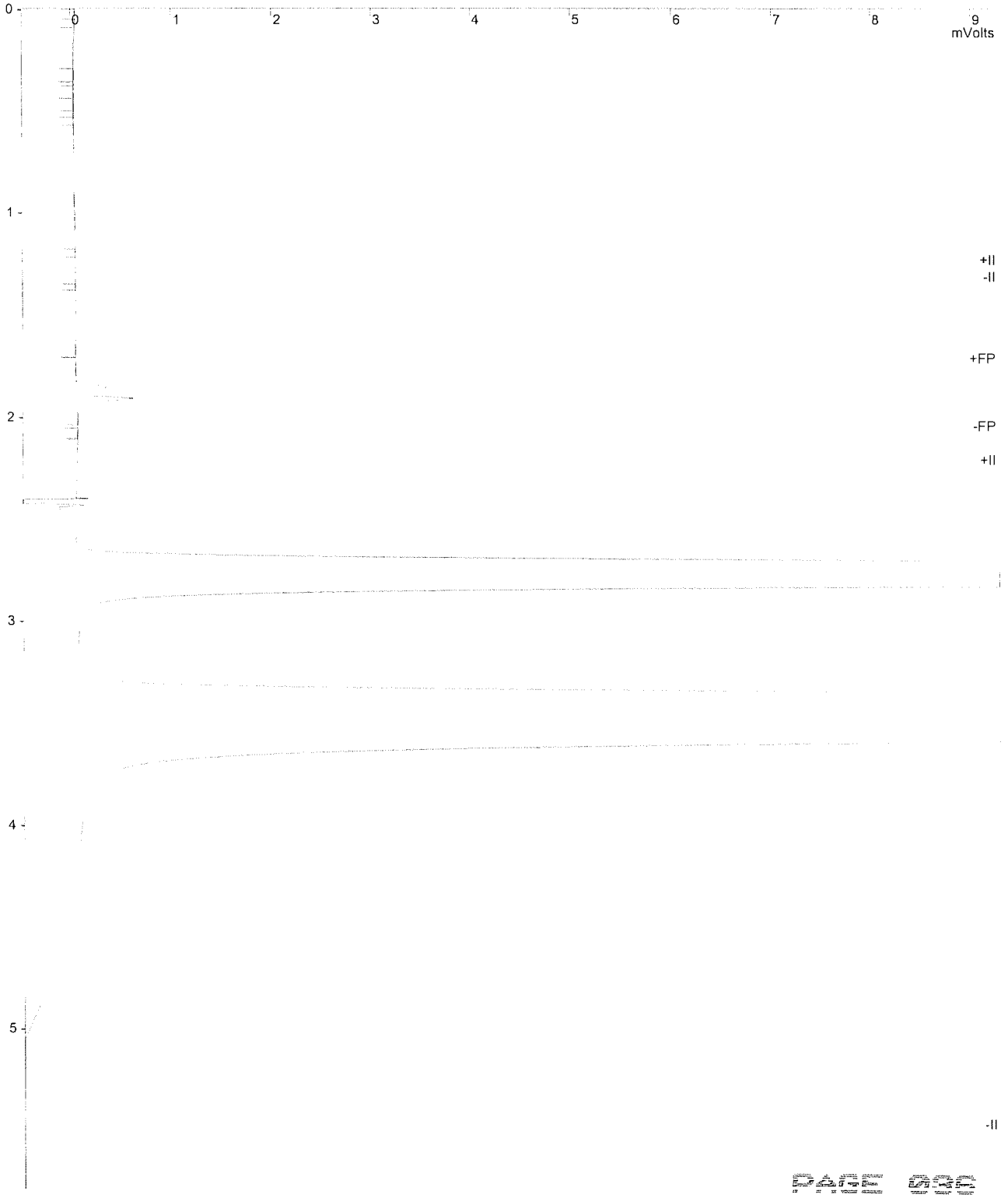
Injection Date: 11/6/2012 12:29 PM Calculation Date: 11/6/2012 12:35 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov045.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102605-01 EMAX

Injection Date: 11/6/2012 12:29 PM Calculation Date: 11/6/2012 12:35 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 1353 counts

Detected Peaks: 19 Rejected Peaks: 17 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 47 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 18 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov046.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102605-02 MS EMAX

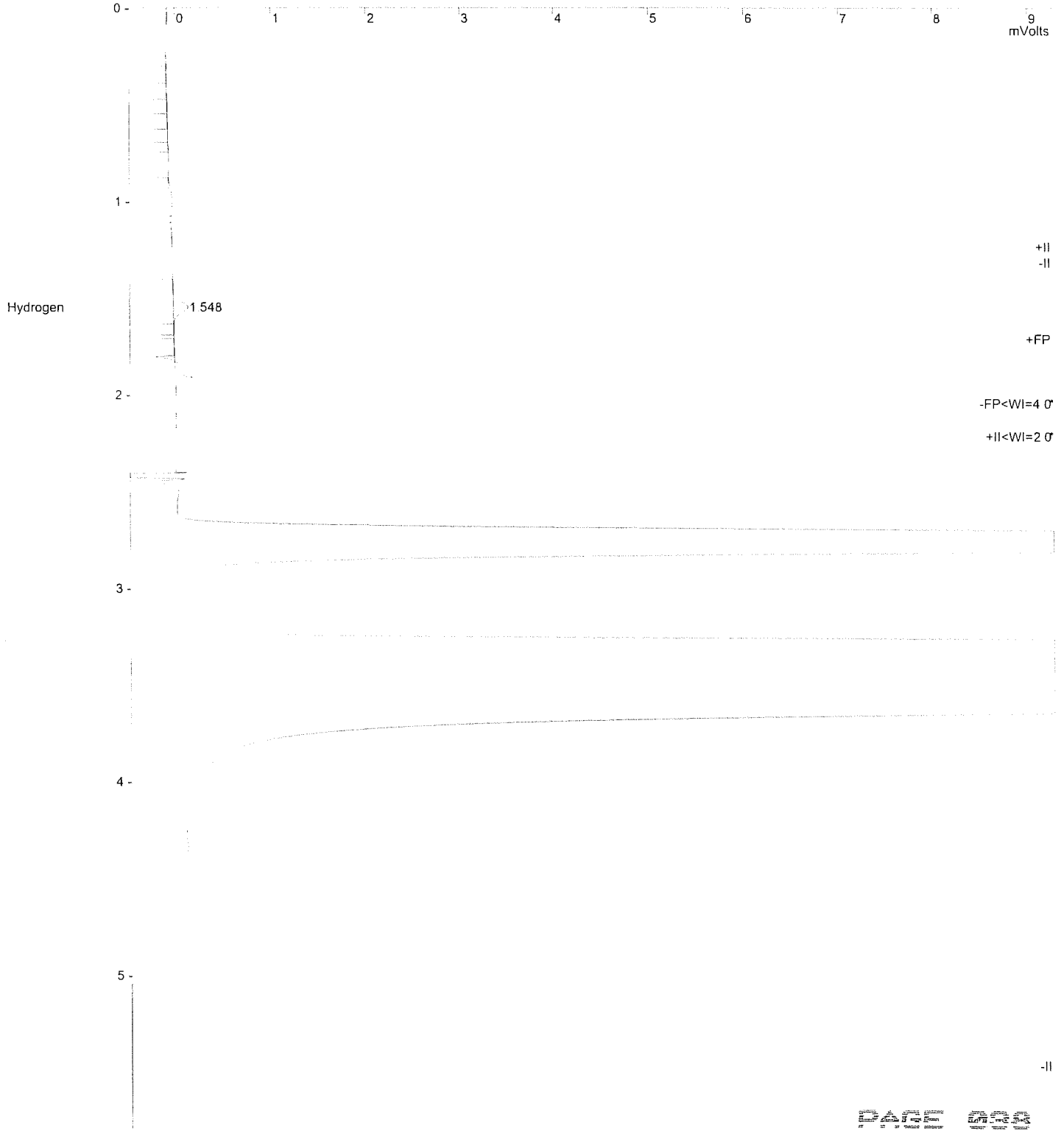
Injection Date: 11/6/2012 12:38 PM Calculation Date: 11/6/2012 12:44 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov046.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102605-02 MS EMAX

Injection Date: 11/6/2012 12:38 PM Calculation Date: 11/6/2012 12:44 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	8845.065	1.548	0.053	632	BV	3.8	
	Totals:	8845.065		0.053	632			

Total Unidentified Counts : 620 counts

Detected Peaks: 21 Rejected Peaks: 16 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -80 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 25 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov047.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102605-03 MSD EMAX

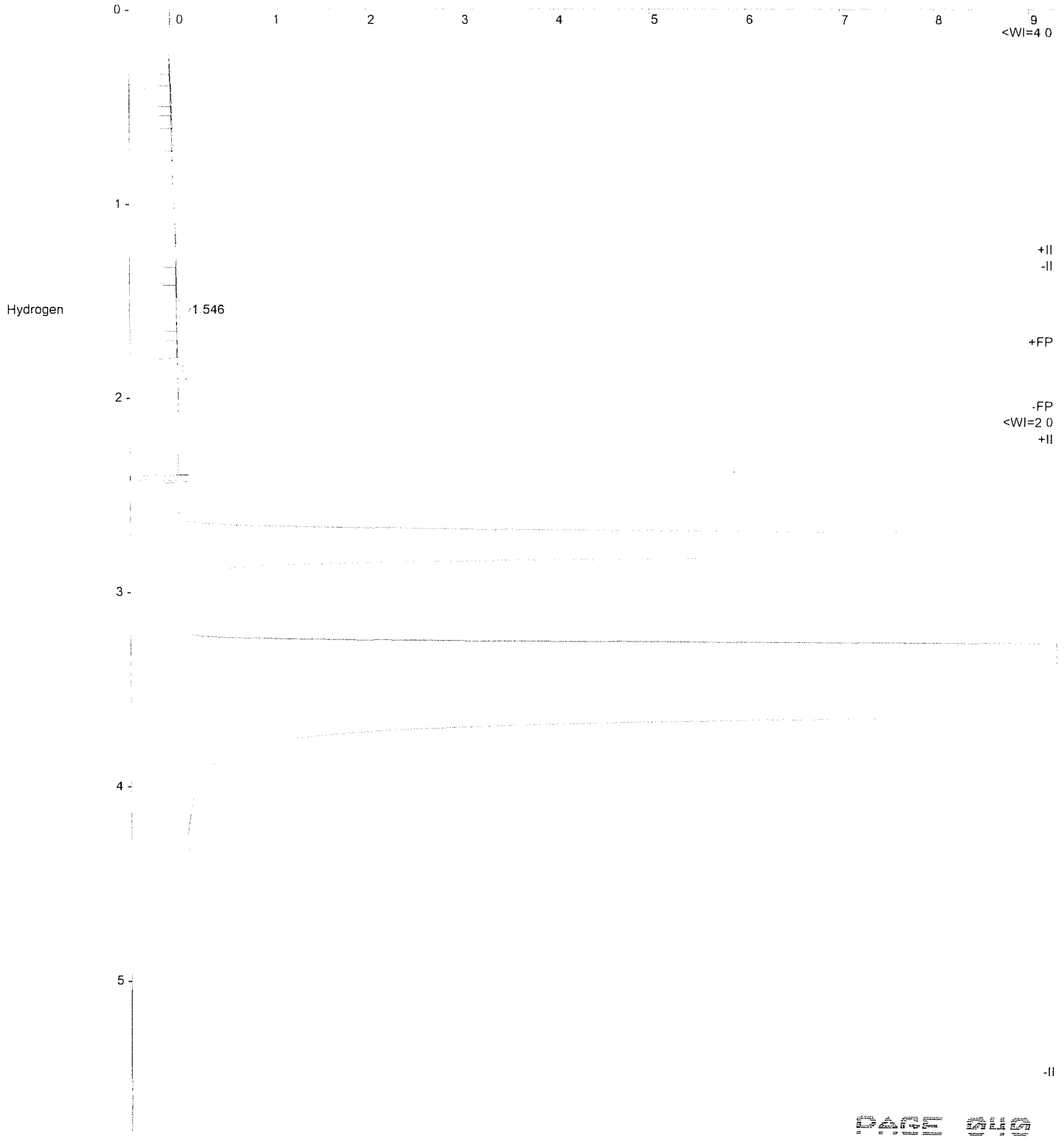
Injection Date: 11/6/2012 12:48 PM Calculation Date: 11/6/2012 12:54 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov047.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102605-03 MSD EMAX

Injection Date: 11/6/2012 12:48 PM Calculation Date: 11/6/2012 12:54 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	8354.344	1.546	0.051	597	VB	3.8	
	Totals:	8354.344		0.051	597			

Total Unidentified Counts : 629 counts

Detected Peaks: 24 Rejected Peaks: 17 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -51 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 23 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov048.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102605-04 EMAX

Injection Date: 11/6/2012 1:16 PM Calculation Date: 11/6/2012 1:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov048.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogenl11103a.mth
Sample ID : D102605-04 EMAX

Injection Date: 11/6/2012 1:16 PM Calculation Date: 11/6/2012 1:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 2193 counts

Detected Peaks: 9 Rejected Peaks: 8 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 4 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 30 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov049.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102605-05 EMAX

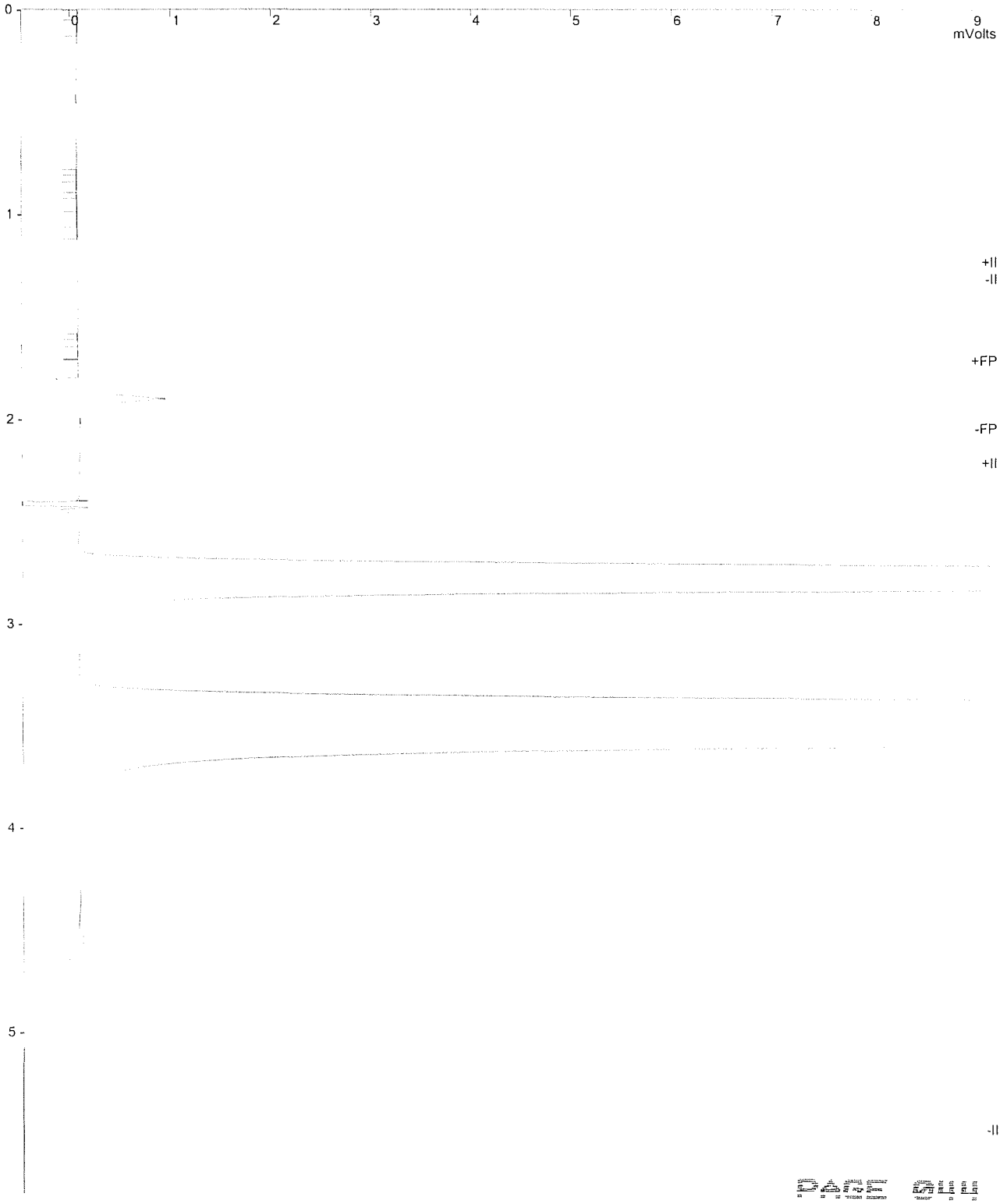
Injection Date: 11/6/2012 1:36 PM Calculation Date: 11/6/2012 1:42 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov049.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102605-05 EMAX

Injection Date: 11/6/2012 1:36 PM Calculation Date: 11/6/2012 1:42 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 2256 counts

Detected Peaks: 18 Rejected Peaks: 16 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 80 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 25 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov050.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102605-06 EMAX

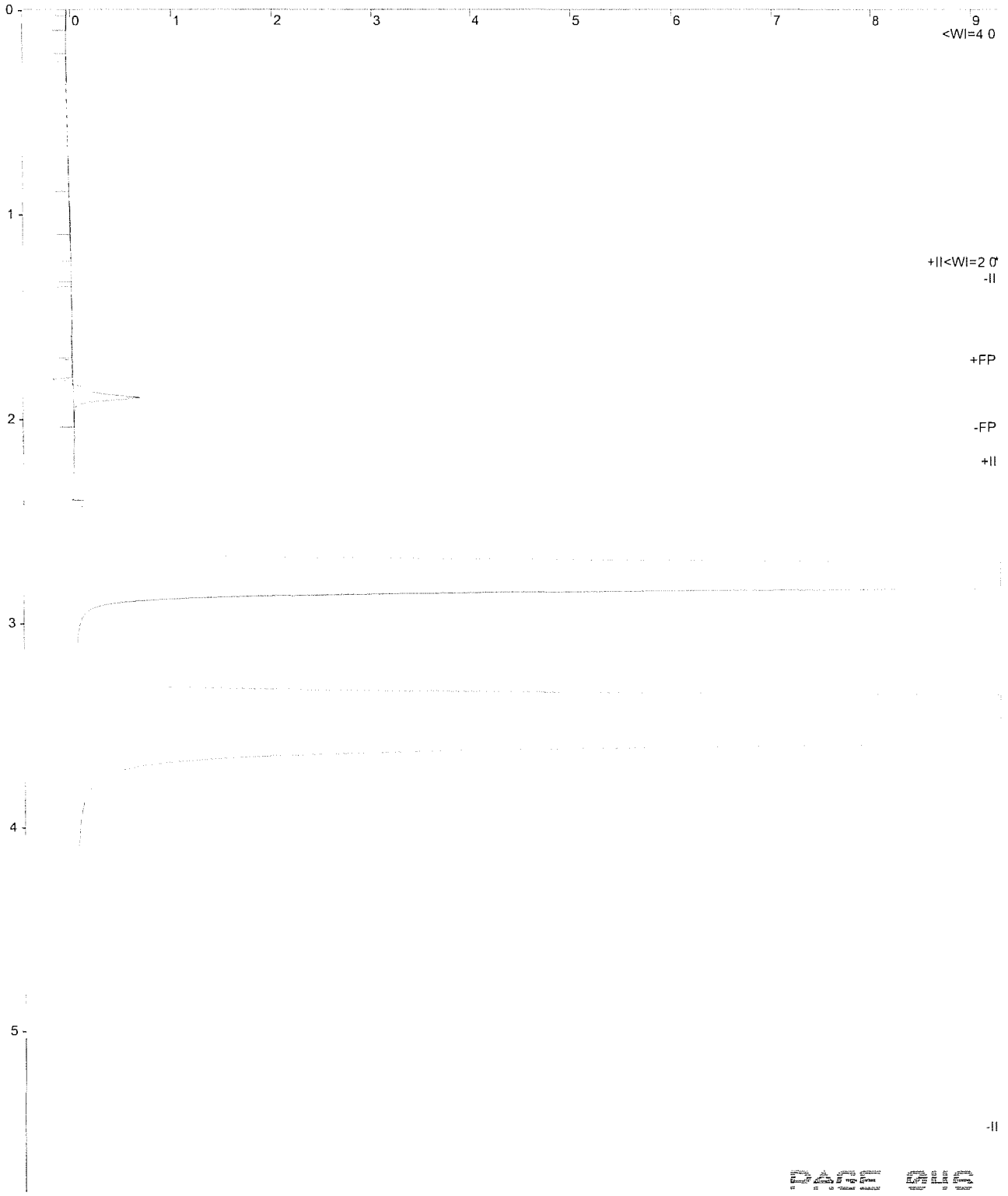
Injection Date: 11/6/2012 1:46 PM Calculation Date: 11/6/2012 1:52 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov050.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102605-06 EMAX

Injection Date: 11/6/2012 1:46 PM Calculation Date: 11/6/2012 1:52 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 1476 counts

Detected Peaks: 20 Rejected Peaks: 18 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -38 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov051.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102605-07 EMAX

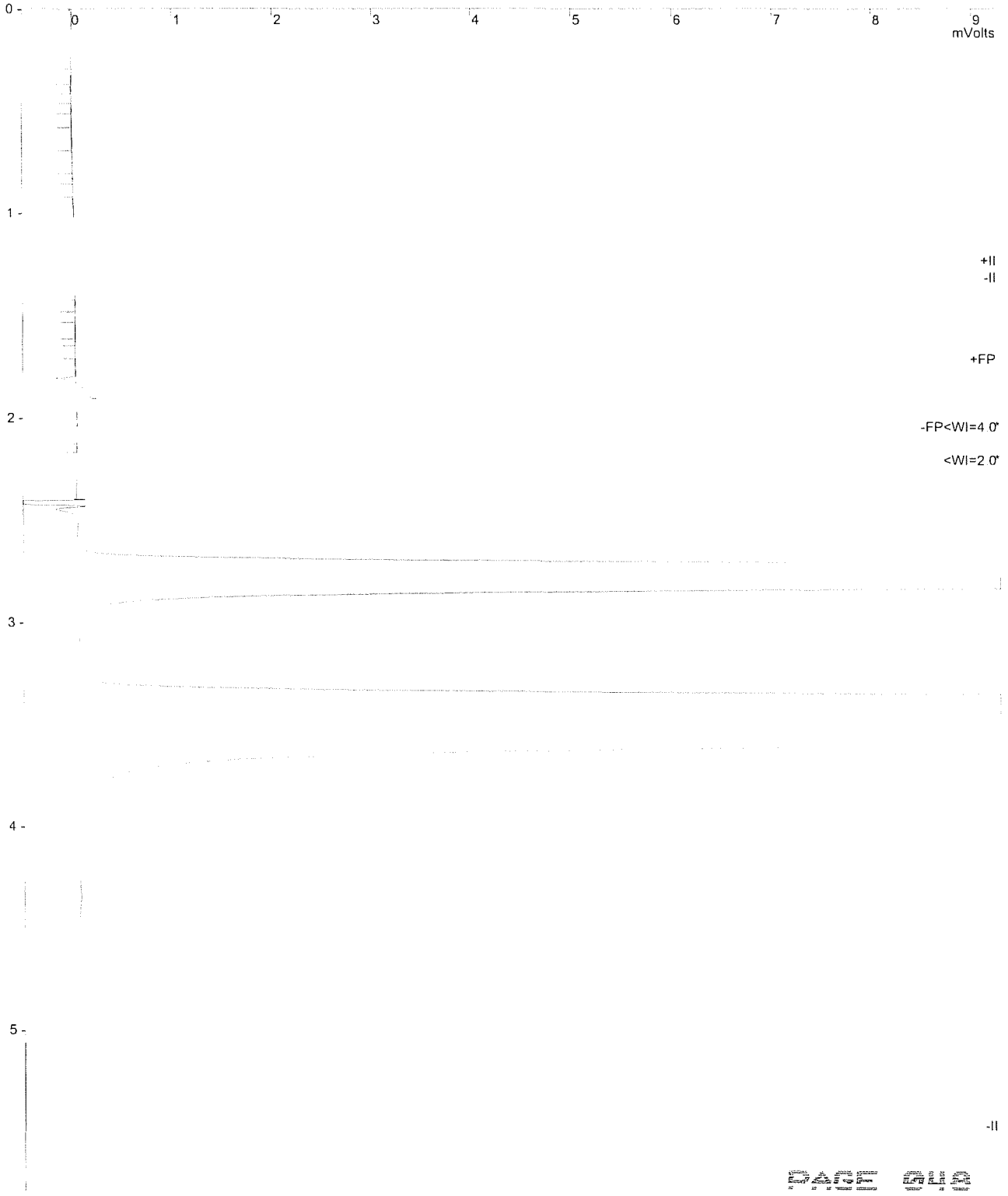
Injection Date: 11/6/2012 1:57 PM Calculation Date: 11/6/2012 2:03 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov051.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102605-07 EMAX

Injection Date: 11/6/2012 1:57 PM Calculation Date: 11/6/2012 2:03 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 390 counts

Detected Peaks: 15 Rejected Peaks: 14 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 15 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov052.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102605-08 EMAX

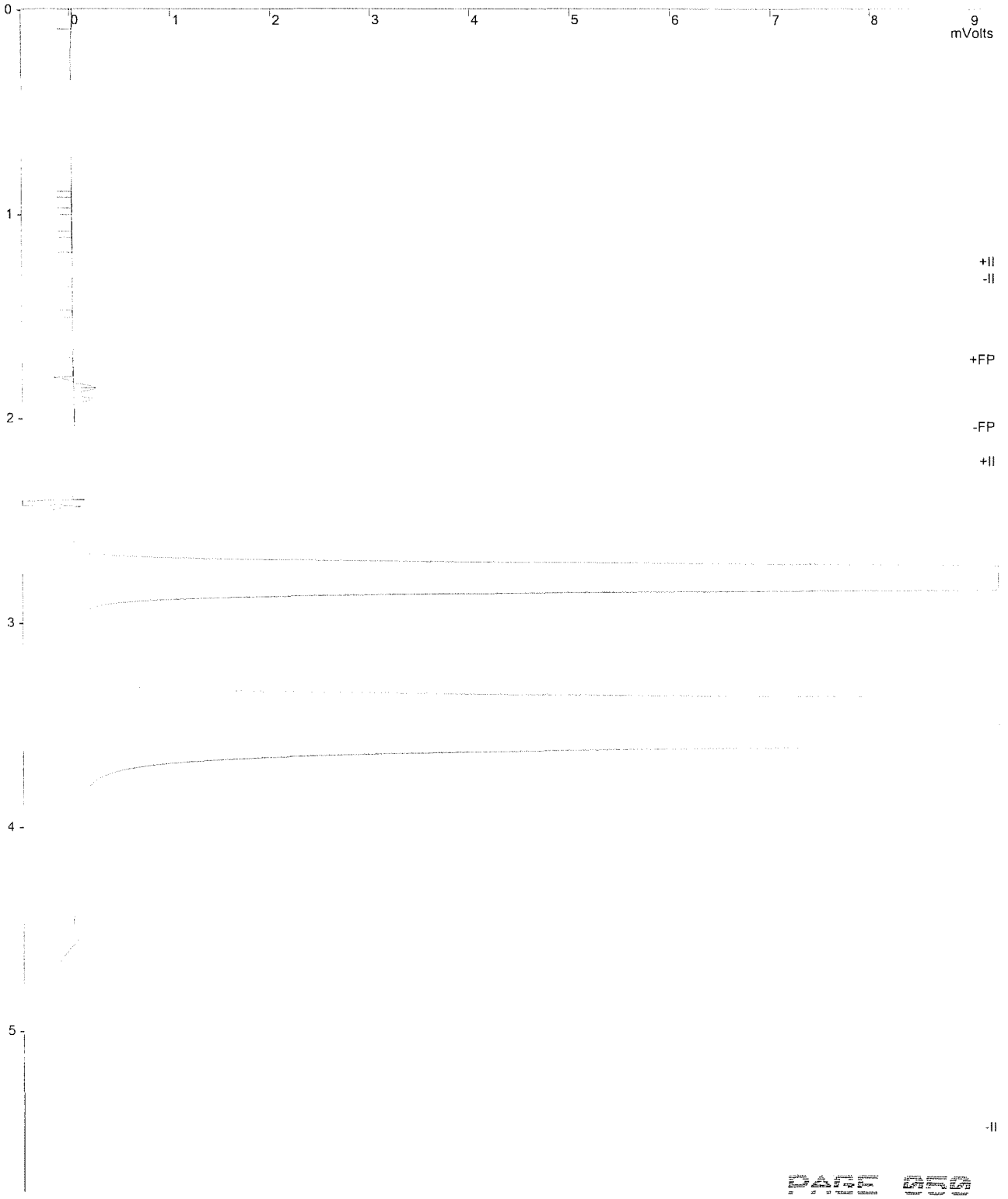
Injection Date: 11/6/2012 2:17 PM Calculation Date: 11/6/2012 2:23 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov052.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : D102605-08 EMAX

Injection Date: 11/6/2012 2:17 PM Calculation Date: 11/6/2012 2:23 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen		1.495					M
	Totals:	0.000		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 623 counts

Detected Peaks: 12 Rejected Peaks: 11 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 23 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 74 microVolts

Manual injection

****

3. Initial Calibration

a. ICAL Summary
b. Chromatograms/Results

Initial Calibration Criteria:

All compounds RSD <25%
or
r >0.995

Title : Calibration Block Report
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Data Method Time : 11/7/2011 6:30 PM

Requested Curve Type : linear
Requested Origin : force
Calibration Type : External Standard Analysis

Method Detector Type : 3800 GC
Method Bus Address : 44
Method Channel : Front

Calibration Dates
Last Injection Date : 11/3/2011 3:50 PM

Last Recalculation Date : 11/3/2011 3:59 PM

**********GC Workstation Multi Instrument**********Version 6.30**********

Retention Time (min)	Peak Name	Curve\ Origin	X³	X²	X	C	r²	Cal. Range	No. of Points	Edit Codes
1.495	Hydrogen	1 F			+7.1458e-002	+0.0000e+000	+9.9982e-001	Locked		

Curve Codes	Origin Codes	Edit Codes
1 linear	I include	1 curve
2 quadratic	IG ignore	2 origin
3 cubic	F force	3 coefficient

Ret. Time: 1.495 min. Locked Peak Measurement: Area
Peak Name: Hydrogen Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	1000.000000	1	99	99.0	#
2	5000.000000	1	381	381.3	#
3	10000.000000	1	759	758.8	#
4	25000.000000	1	1809	1809.1	#
5	50000.000000	1	3550	3549.8	#

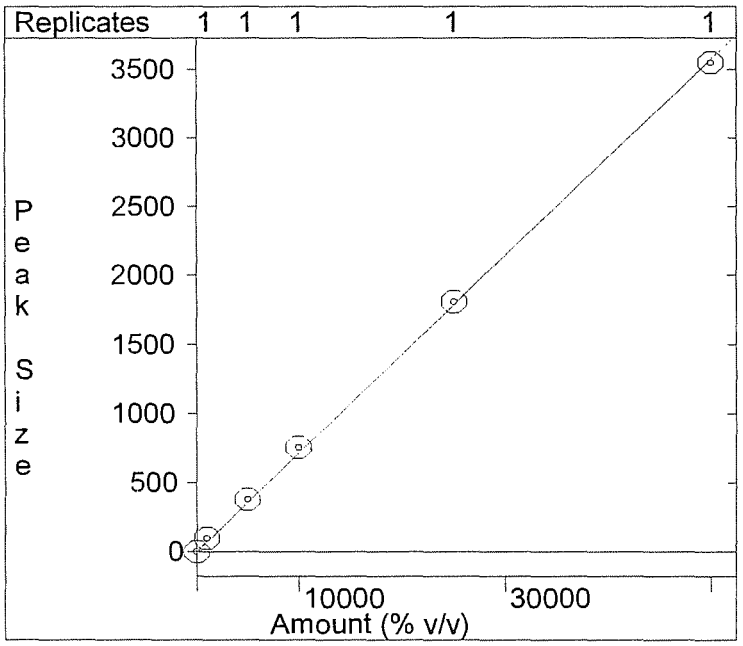
= Too few points to calculate.

Peak Name	Level	Rep.	Injection Date Time	Run Files
Hydrogen	1 L	1	11/3/2011 3:50 PM	c:\temp gc\gc8a\2011\november2011\03nov029.run
	2 L	1	11/3/2011 3:32 PM	c:\temp gc\gc8a\2011\november2011\03nov027.run
	3 L	1	11/3/2011 3:23 PM	c:\temp gc\gc8a\2011\november2011\03nov026.run
	4 L	1	11/3/2011 3:02 PM	c:\temp gc\gc8a\2011\november2011\03nov024.run
	5 L	1	11/3/2011 2:51 PM	c:\temp gc\gc8a\2011\november2011\03nov023.run

L = Locked Coefficients

Print Date: 08 Nov 2011 09:33:42
Calibration Curves Report
File: c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Detector: 3800 GC, Address: 44, Channel ID: Front

Hydrogen
External Standard Analysis - Locked
Resp. Fact. RSD: 14.50%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999818
y = +7.1458e-002x



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov029.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L1

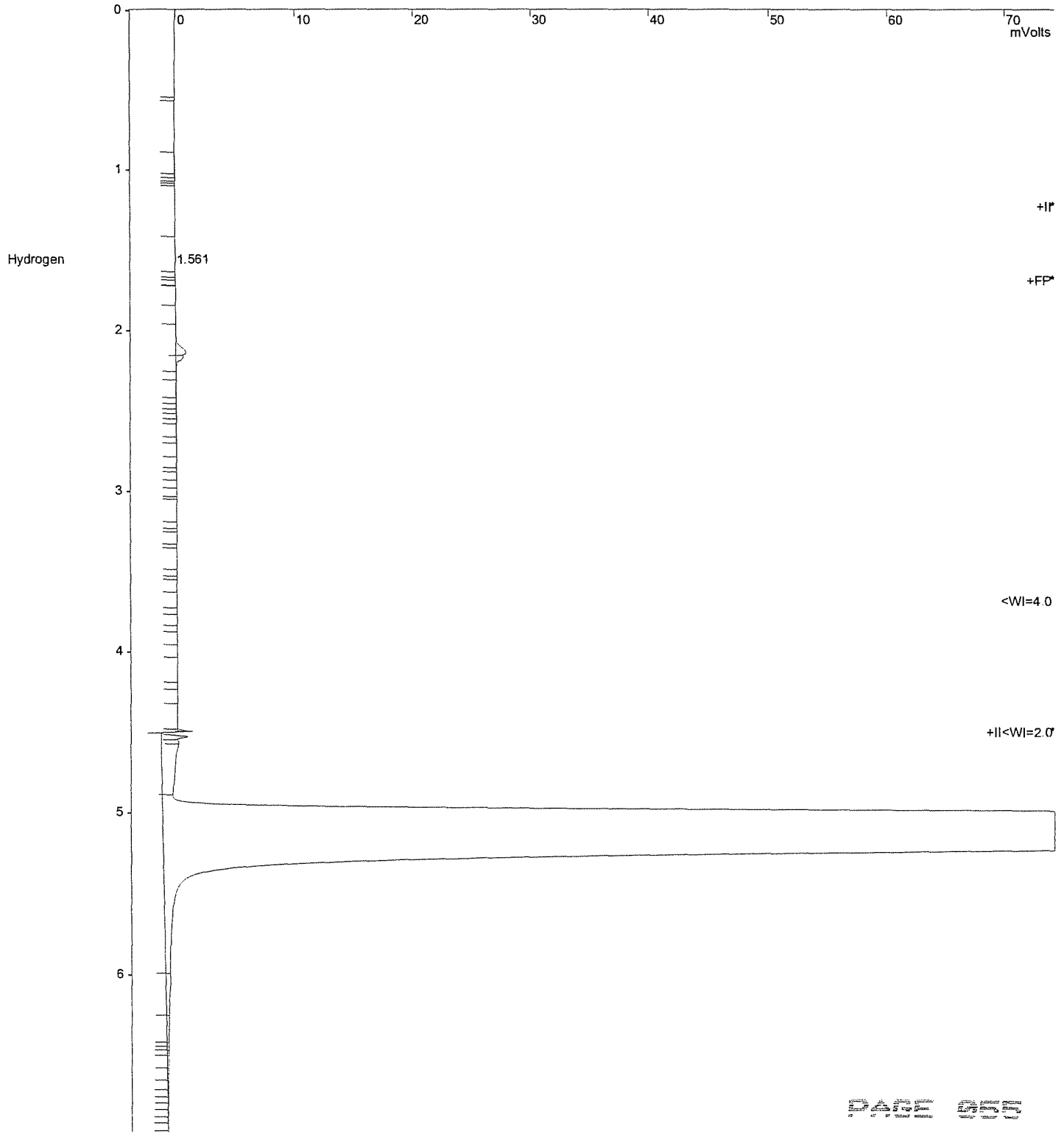
Injection Date: 11/3/2011 3:50 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 2.87 cm/min Attenuation = 32 Zero Offset = 5%
Start Time = 0.000 min End Time = 6.993 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov029.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L1

Injection Date: 11/3/2011 3:50 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 1

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.561	0.023	99	BV	4.6	
	Totals:		0.023	99			

Total Unidentified Counts : 4121291 counts

Detected Peaks: 62 Rejected Peaks: 33 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -62 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov027.run
Method File : c:\temp gc\gc8a\methods\rskhydrogenlll103.mth
Sample ID : H2 RSK ICAL L2

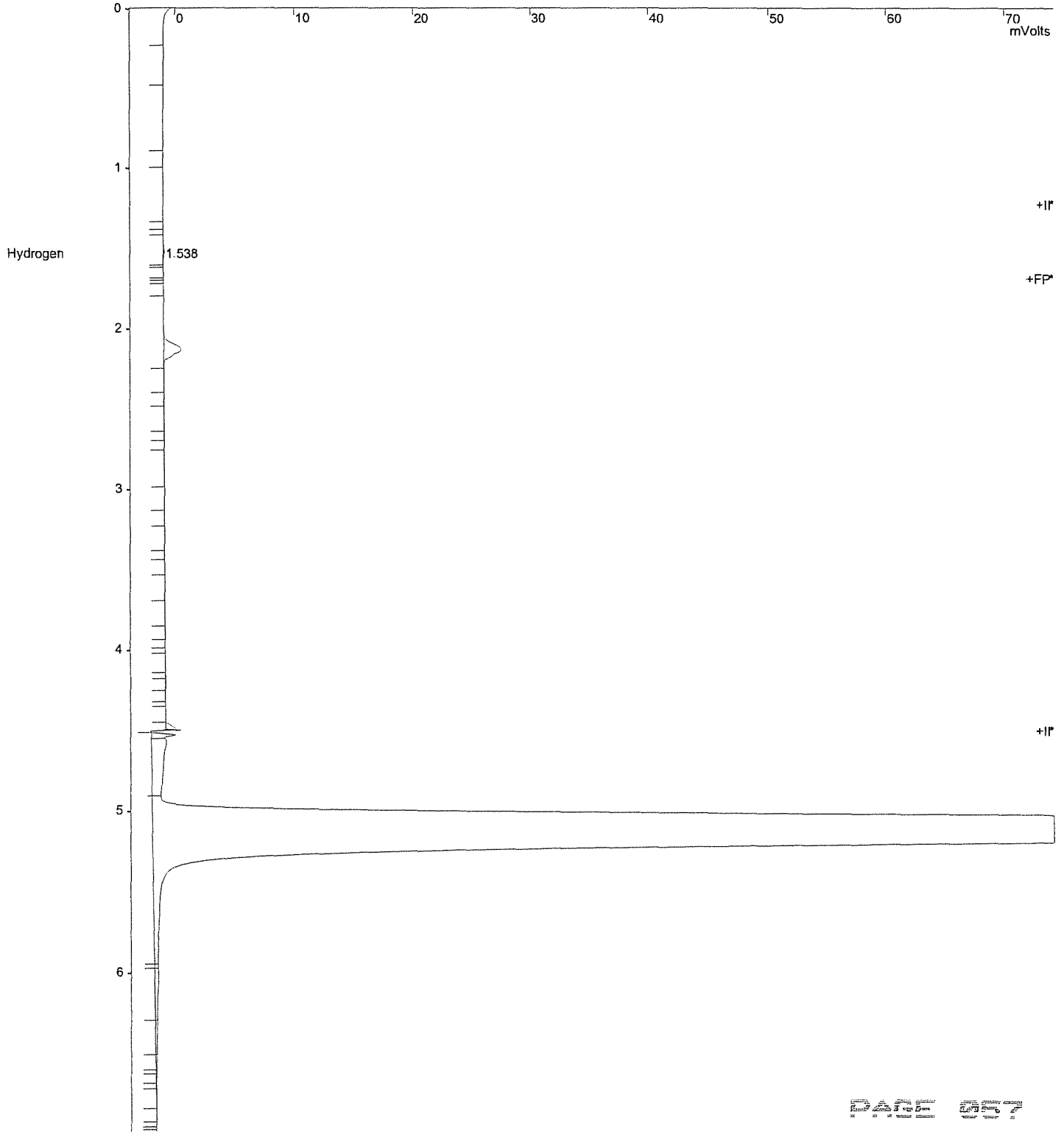
Injection Date: 11/3/2011 3:32 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 2.87 cm/min Attenuation = 32 Zero Offset = 5%
Start Time = 0.000 min End Time = 6.993 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov027.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L2

Injection Date: 11/3/2011 3:32 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 2

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.538	-0.002	381	BV	3.7	
	Totals:		-0.002	381			

Total Unidentified Counts : 2100910 counts

Detected Peaks: 44 Rejected Peaks: 14 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -298 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 39 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov026.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L3

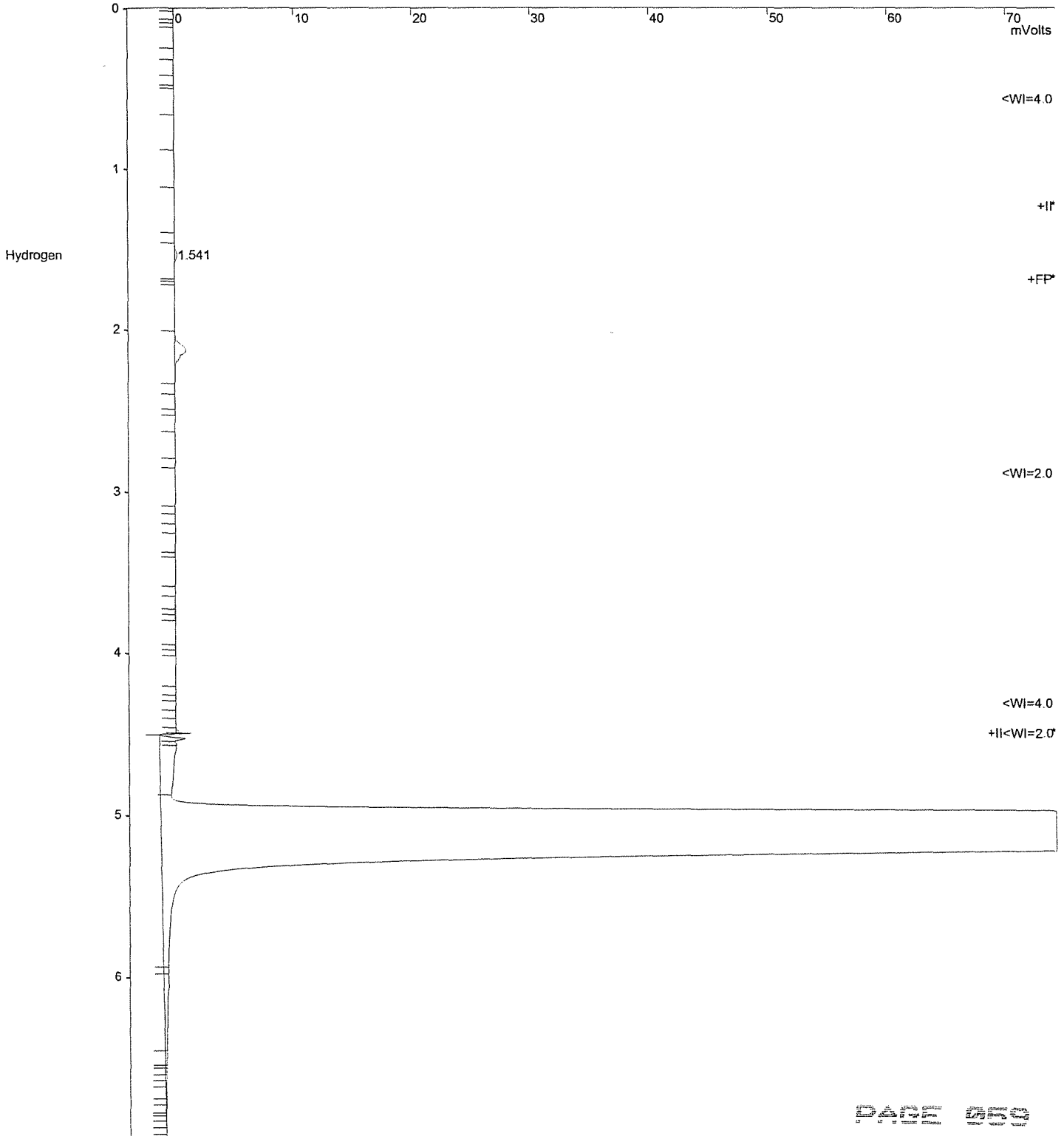
Injection Date: 11/3/2011 3:23 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 2.87 cm/min Attenuation = 32 Zero Offset = 5%
Start Time = 0.000 min End Time = 6.993 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov026.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L3

Injection Date: 11/3/2011 3:23 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.541	-0.014	759	VB	3.7	
	Totals:		-0.014	759			

Total Unidentified Counts : 4135181 counts

Detected Peaks: 49 Rejected Peaks: 27 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 19 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 6 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov024.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L4

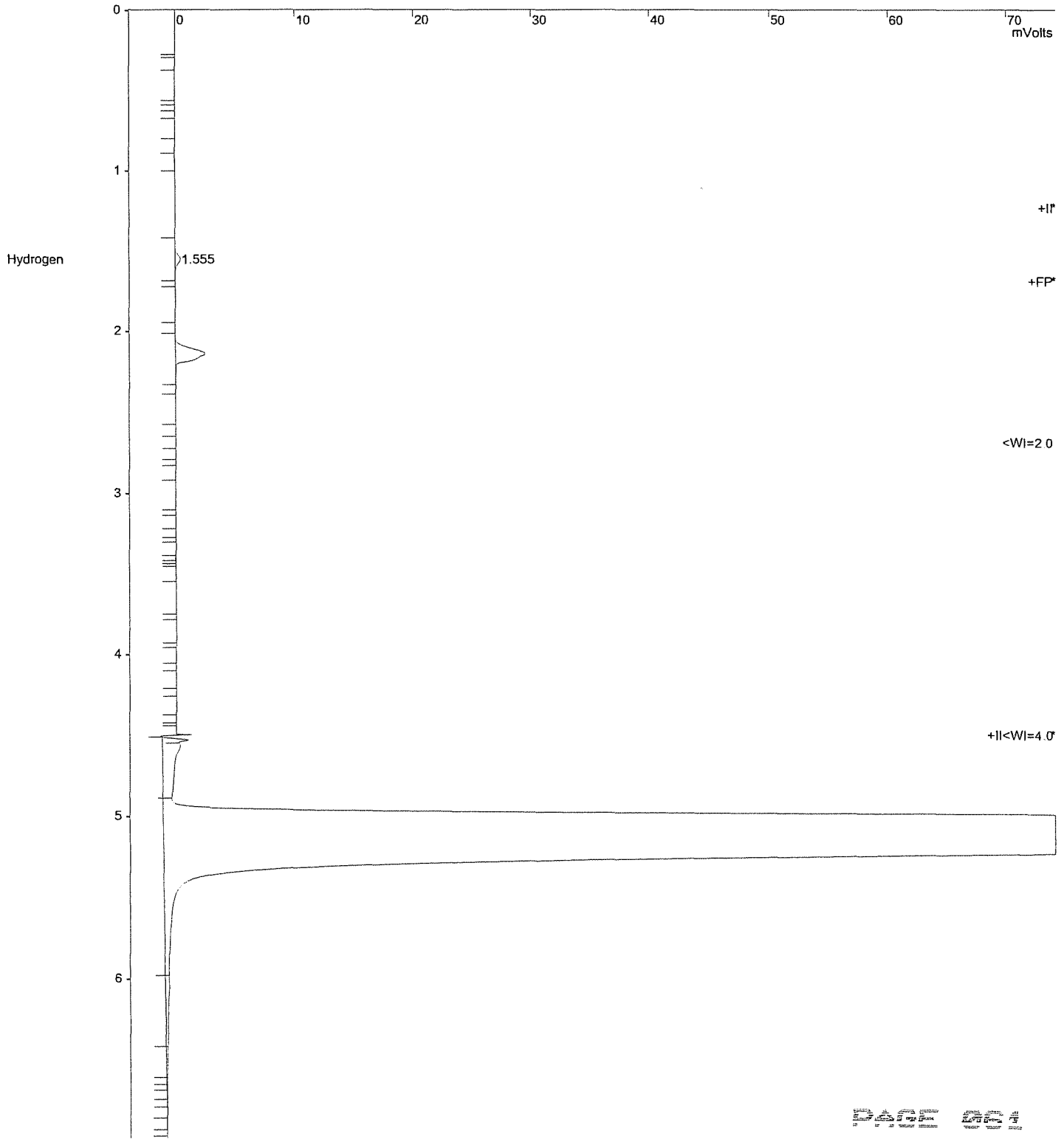
Injection Date: 11/3/2011 3:02 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 2.87 cm/min Attenuation = 32 Zero Offset = 5%
Start Time = 0.000 min End Time = 6.993 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov024.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L4

Injection Date: 11/3/2011 3:02 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 4

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.555	-0.025	1809	BB	3.7	
	Totals:		-0.025	1809			

Total Unidentified Counts : 3986325 counts

Detected Peaks: 43 Rejected Peaks: 29 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -11 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 27 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov023.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L5

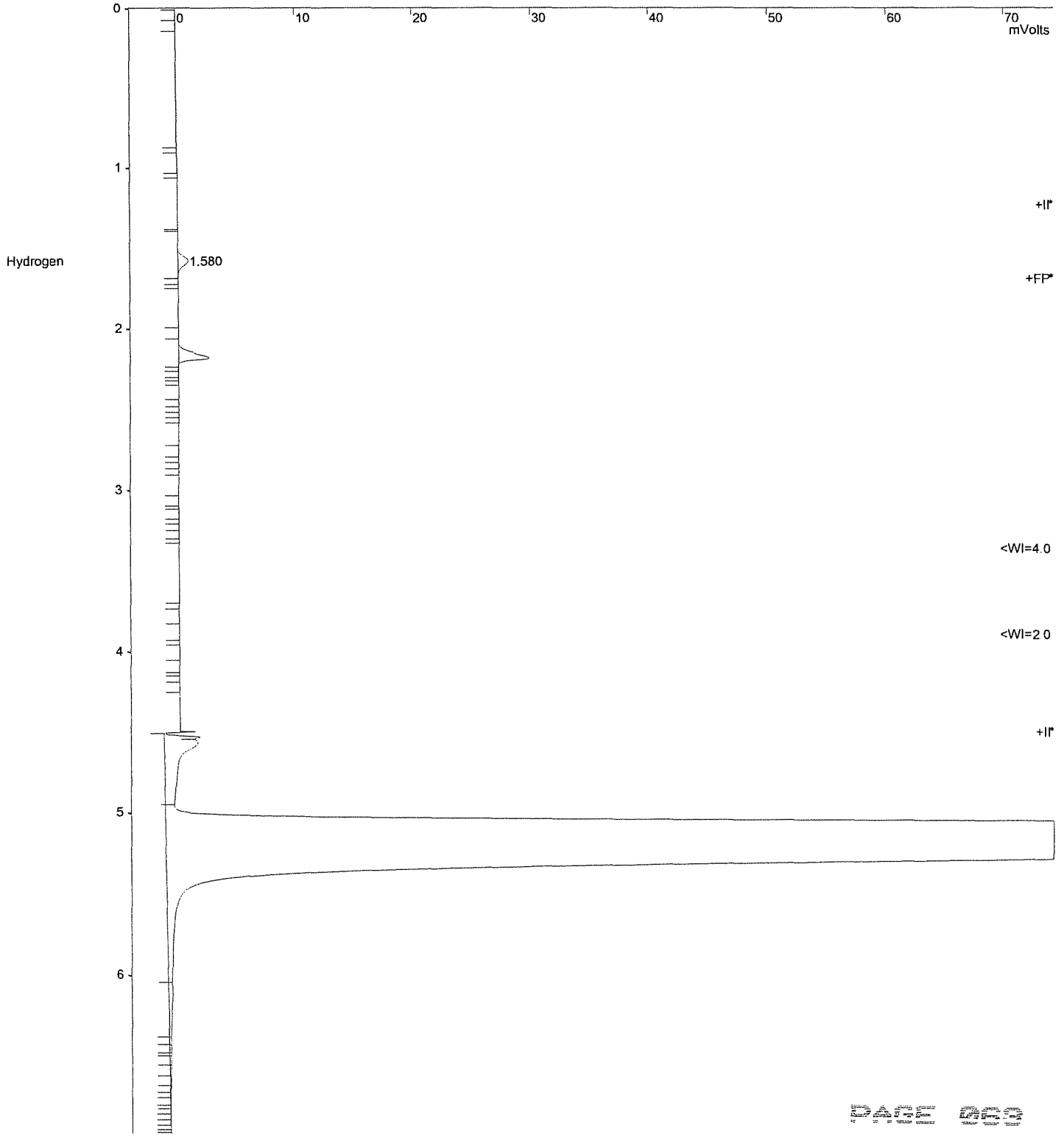
Injection Date: 11/3/2011 2:51 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 2.87 cm/min Attenuation = 32 Zero Offset = 5%
Start Time = 0.000 min End Time = 6.993 min Min / Tick = 1.00



Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2011\november2011\03nov023.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen111103.mth
Sample ID : H2 RSK ICAL L5

Injection Date: 11/3/2011 2:51 PM Calculation Date: 11/3/2011 3:59 PM

Operator : ZK
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 6.993 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	1.580	0.031	3550	PB	3.9	
	Totals:		0.031	3550			

Total Unidentified Counts : 3907451 counts

Detected Peaks: 56 Rejected Peaks: 36 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -11 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 44 microVolts

Manual injection

****

Title : Calibration Block Report
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Data Method Time : 4/25/2012 5:05 PM

Requested Curve Type : linear
Requested Origin : force
Calibration Type : External Standard Analysis

Method Detector Type : 3800 GC
Method Bus Address : 44
Method Channel : Middle

Calibration Dates
Last Injection Date : 2/27/2012 1:58 PM

Last Recalculation Date : 2/27/2012 2:22 PM

**********GC Workstation Multi Instrument**********Version 6.30**********

Retention Time (min)	Peak Name	Curve\ Origin	X^3	X^2	X	C	r^2	Cal. Range	No. of Points	Edit Codes
2.345	Ethylene	1 F			+2.7716e+003	+0.0000e+000	+9.9991e-001	1-6	6	
2.642	Ethane	1 F			+2.8291e+003	+0.0000e+000	+9.9993e-001	1-6	6	
3.286	Acetylene	1 F			+3.0275e+003	+0.0000e+000	+9.9996e-001	1-6	6	
6.486	Methane	1 F			+1.4513e+003	+0.0000e+000	+9.9999e-001	1-6	6	

Curve Codes	Origin Codes	Edit Codes
1 linear	I include	1 curve
2 quadratic	IG ignore	2 origin
3 cubic	F force	3 coefficient

Ret. Time: 2.345 min.
Peak Name: Ethylene
Peak Measurement: Area
Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	9176	9175.7	#
2	10.000000	1	26855	26855.3	#
3	100.000000	1	270779	270779.4	#
4	1000.000000	1	2769311	2769310.8	#
5	5000.000000	1	14086629	14086629.0	#
6	10000.000000	1	27601932	27601932.0	#

Ret. Time: 2.642 min.
Peak Name: Ethane
Peak Measurement: Area
Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	9229	9229.5	#
2	10.000000	1	27372	27371.6	#
3	100.000000	1	276495	276494.9	#
4	1000.000000	1	2818590	2818589.8	#
5	5000.000000	1	14352904	14352904.0	#
6	10000.000000	1	28188930	28188930.0	#

Ret. Time: 3.286 min.
Peak Name: Acetylene
Peak Measurement: Area
Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	7648	7647.5	#
2	10.000000	1	22887	22886.7	#
3	100.000000	1	252976	252976.3	#
4	1000.000000	1	2834033	2834033.3	#
5	5000.000000	1	15151085	15151085.0	#
6	10000.000000	1	30287502	30287502.0	#

Ret. Time: 6.486 min.
Peak Name: Methane

Peak Measurement: Area
Curve\Origin: 1 F

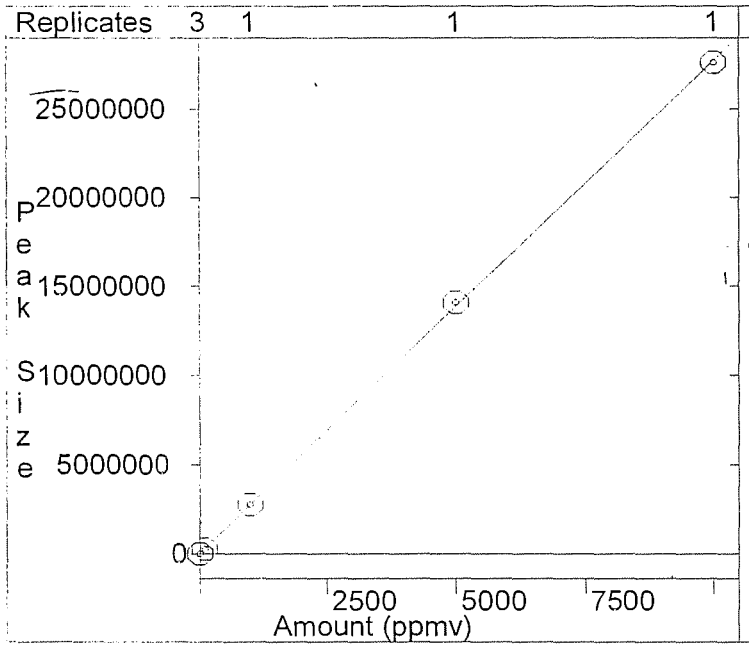
Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	4800	4800.2	#
2	10.000000	1	14255	14254.8	#
3	100.000000	1	141124	141124.3	#
4	1000.000000	1	1436624	1436623.9	#
5	5000.000000	1	7294931	7294930.5	#
6	10000.000000	1	14495398	14495398.0	#

= Too few points to calculate.

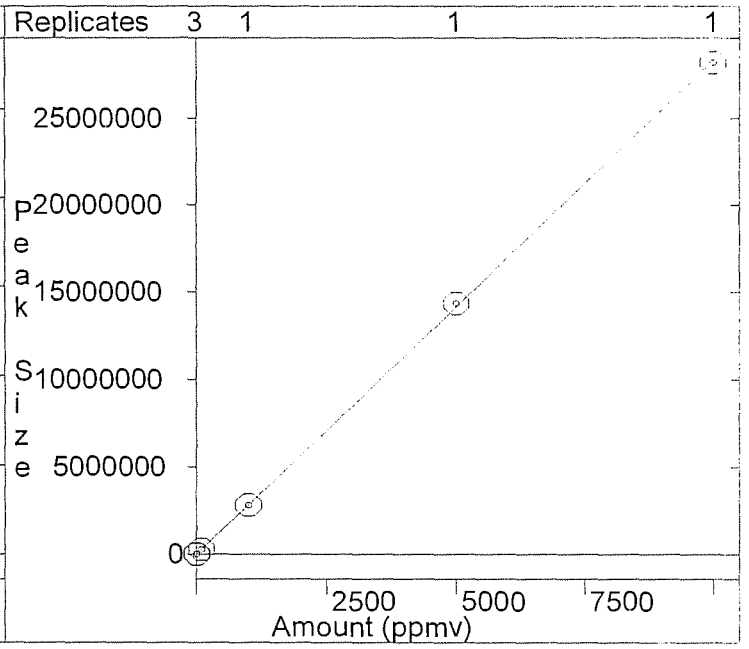
Peak Name	Level	Rep.	Injection Date Time	Run Files
Ethylene	1	1	2/27/2012 12:27 PM	c:\temp gc\gc8a\2012\feb\24feb008.run
	2	1	2/27/2012 12:43 PM	c:\temp gc\gc8a\2012\feb\27feb.run
	3	1	2/27/2012 12:57 PM	c:\temp gc\gc8a\2012\feb\27feb001.run
	4	1	2/27/2012 1:10 PM	c:\temp gc\gc8a\2012\feb\27feb002.run
	5	1	2/27/2012 1:25 PM	c:\temp gc\gc8a\2012\feb\27feb003.run
	6	1	2/27/2012 1:58 PM	c:\temp gc\gc8a\2012\feb\27feb004.run
Ethane	1	1	2/27/2012 12:27 PM	c:\temp gc\gc8a\2012\feb\24feb008.run
	2	1	2/27/2012 12:43 PM	c:\temp gc\gc8a\2012\feb\27feb.run
	3	1	2/27/2012 12:57 PM	c:\temp gc\gc8a\2012\feb\27feb001.run
	4	1	2/27/2012 1:10 PM	c:\temp gc\gc8a\2012\feb\27feb002.run
	5	1	2/27/2012 1:25 PM	c:\temp gc\gc8a\2012\feb\27feb003.run
	6	1	2/27/2012 1:58 PM	c:\temp gc\gc8a\2012\feb\27feb004.run
Acetylene	1	1	2/27/2012 12:27 PM	c:\temp gc\gc8a\2012\feb\24feb008.run
	2	1	2/27/2012 12:43 PM	c:\temp gc\gc8a\2012\feb\27feb.run
	3	1	2/27/2012 12:57 PM	c:\temp gc\gc8a\2012\feb\27feb001.run
	4	1	2/27/2012 1:10 PM	c:\temp gc\gc8a\2012\feb\27feb002.run
	5	1	2/27/2012 1:25 PM	c:\temp gc\gc8a\2012\feb\27feb003.run
	6	1	2/27/2012 1:58 PM	c:\temp gc\gc8a\2012\feb\27feb004.run
Methane	1	1	2/27/2012 12:27 PM	c:\temp gc\gc8a\2012\feb\24feb008.run
	2	1	2/27/2012 12:43 PM	c:\temp gc\gc8a\2012\feb\27feb.run
	3	1	2/27/2012 12:57 PM	c:\temp gc\gc8a\2012\feb\27feb001.run
	4	1	2/27/2012 1:10 PM	c:\temp gc\gc8a\2012\feb\27feb002.run
	5	1	2/27/2012 1:25 PM	c:\temp gc\gc8a\2012\feb\27feb003.run
	6	1	2/27/2012 1:58 PM	c:\temp gc\gc8a\2012\feb\27feb004.run

Print Date: 03 May 2012 16:10:34
Calibration Curves Report
File: c:\temp gc\gc8a\methods\rsk175fg120227.mth
Detector: 3800 GC, Address: 44, Channel ID: Middle

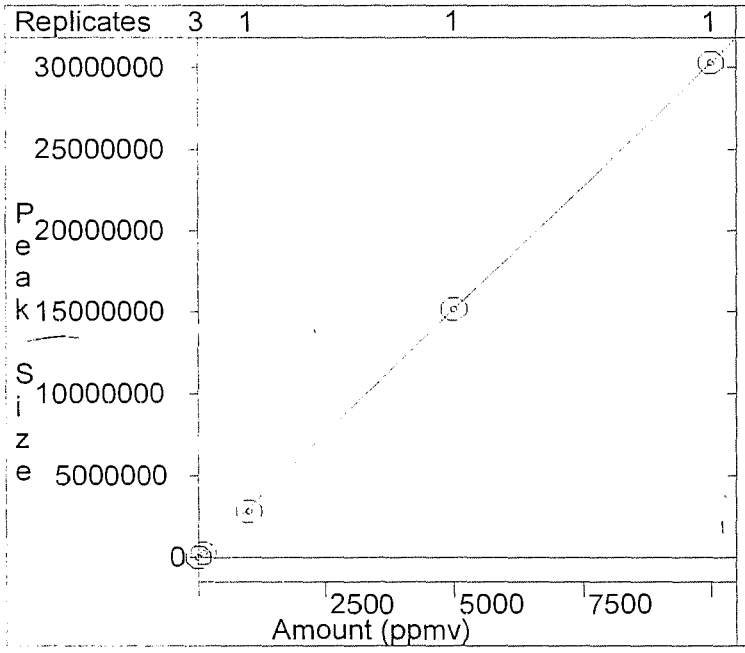
Ethylene
External Standard Analysis
Resp. Fact. RSD: 4.826%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999907
y = +2.7716e+003x



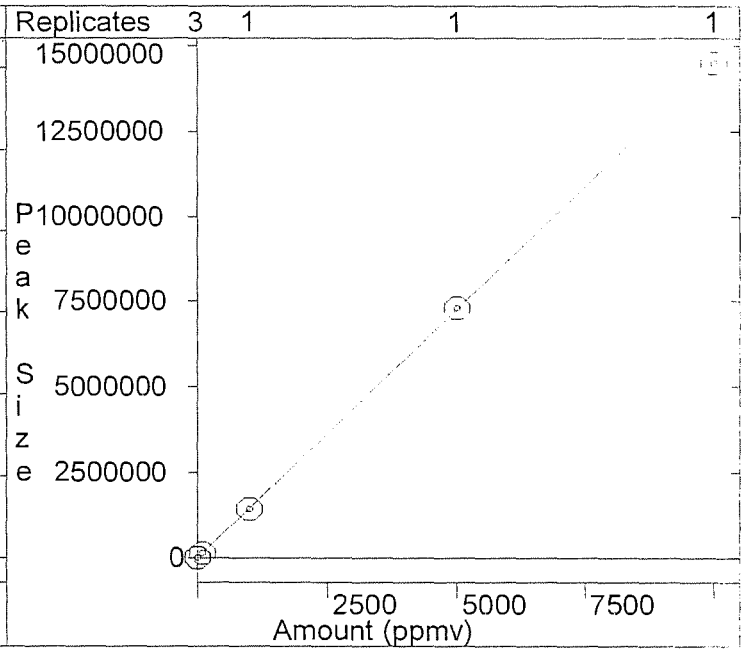
Ethane
External Standard Analysis
Resp. Fact. RSD: 4.261%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999927
y = +2.8291e+003x



Acetylene
External Standard Analysis
Resp. Fact. RSD: 11.14%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999963
y = +3.0275e+003x



Methane
External Standard Analysis
Resp. Fact. RSD: 4.710%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999989
y = +1.4513e+003x



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\24feb008.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 3.0 ppmv

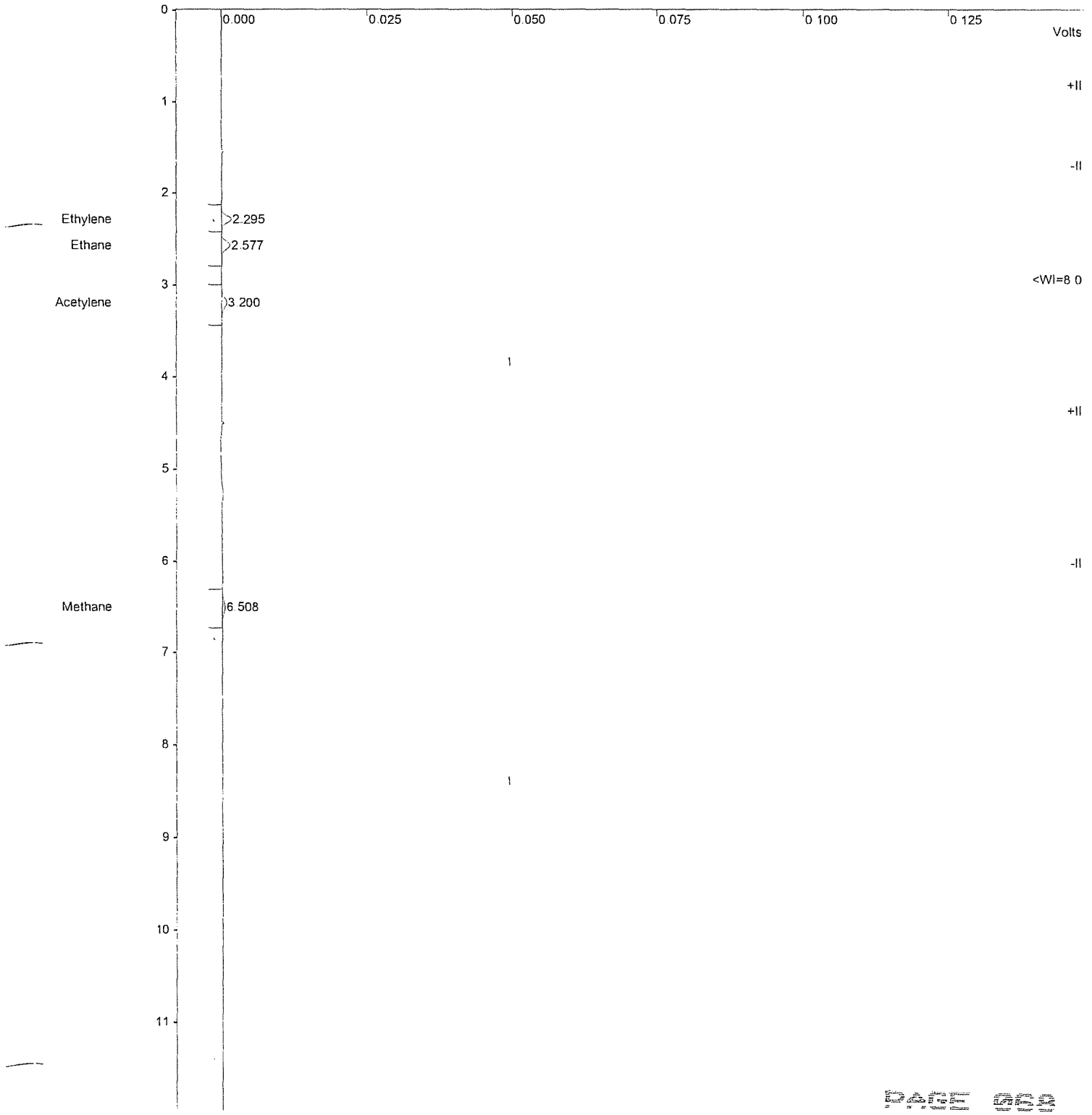
Injection Date: 2/27/2012 12:27 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\24feb008.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 3.0 ppmv

Injection Date: 2/27/2012 12:27 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 1

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.295	-0.050	9176	BV	5.3	
2	Ethane	2.577	-0.065	9229	VB	5.9	
3	Acetylene	3.200	-0.086	7648	BB	7.7	
4	Methane	6.508	0.022	4800	BB	9.1	
	Totals:		-0.179	30853			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 39 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 15 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 10 ppmv

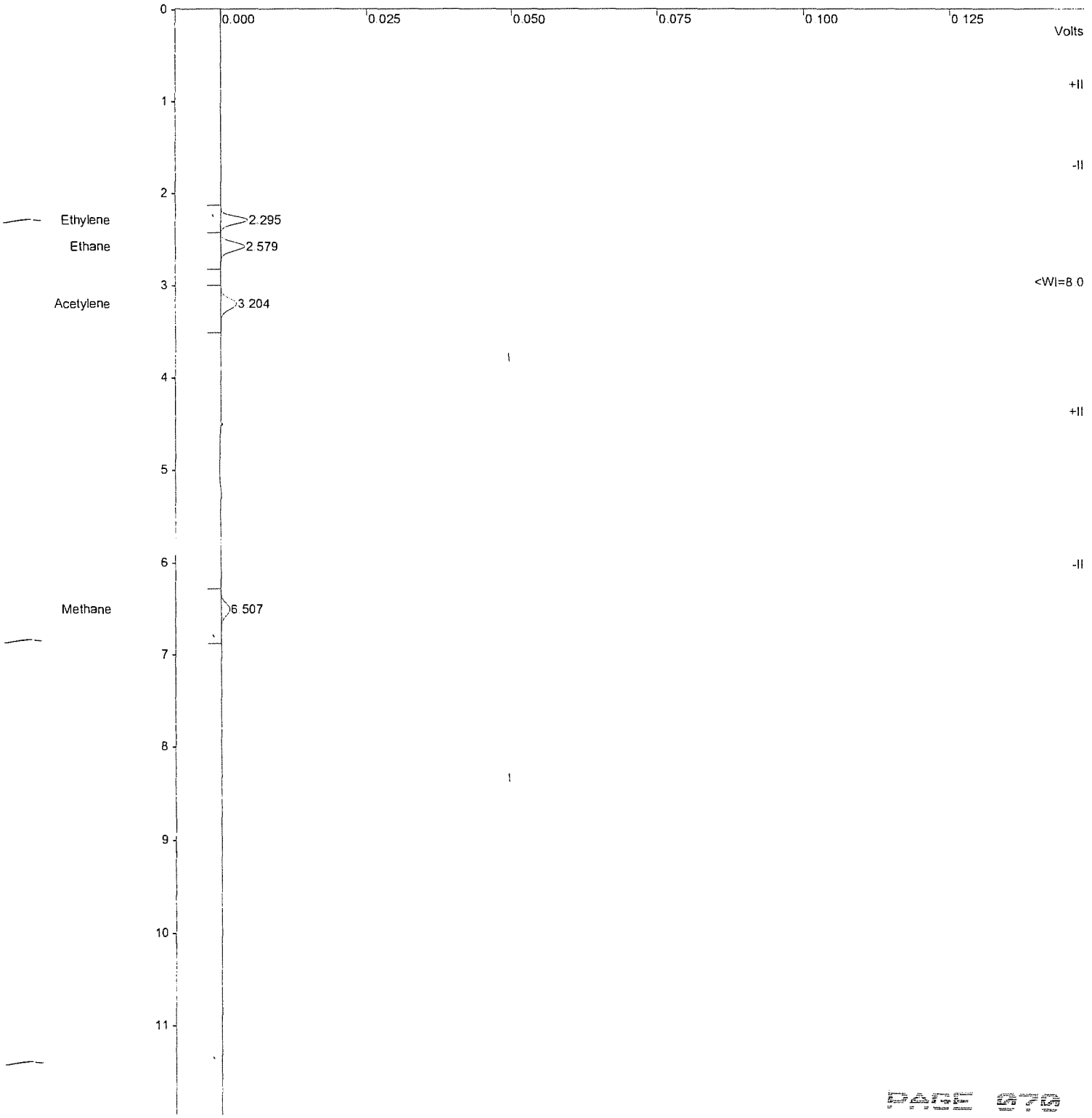
Injection Date: 2/27/2012 12:43 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 10 ppmv

Injection Date: 2/27/2012 12:43 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 2

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.295	0.001	26855	BV	5.6	
2	Ethane	2.579	0.002	27372	VB	6.2	
3	Acetylene	3.204	0.006	22887	BB	7.9	
4	Methane	6.507	-0.001	14255	BB	9.2	
	Totals:		0.008	91369			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 17 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 24 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb001.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 100 ppmv

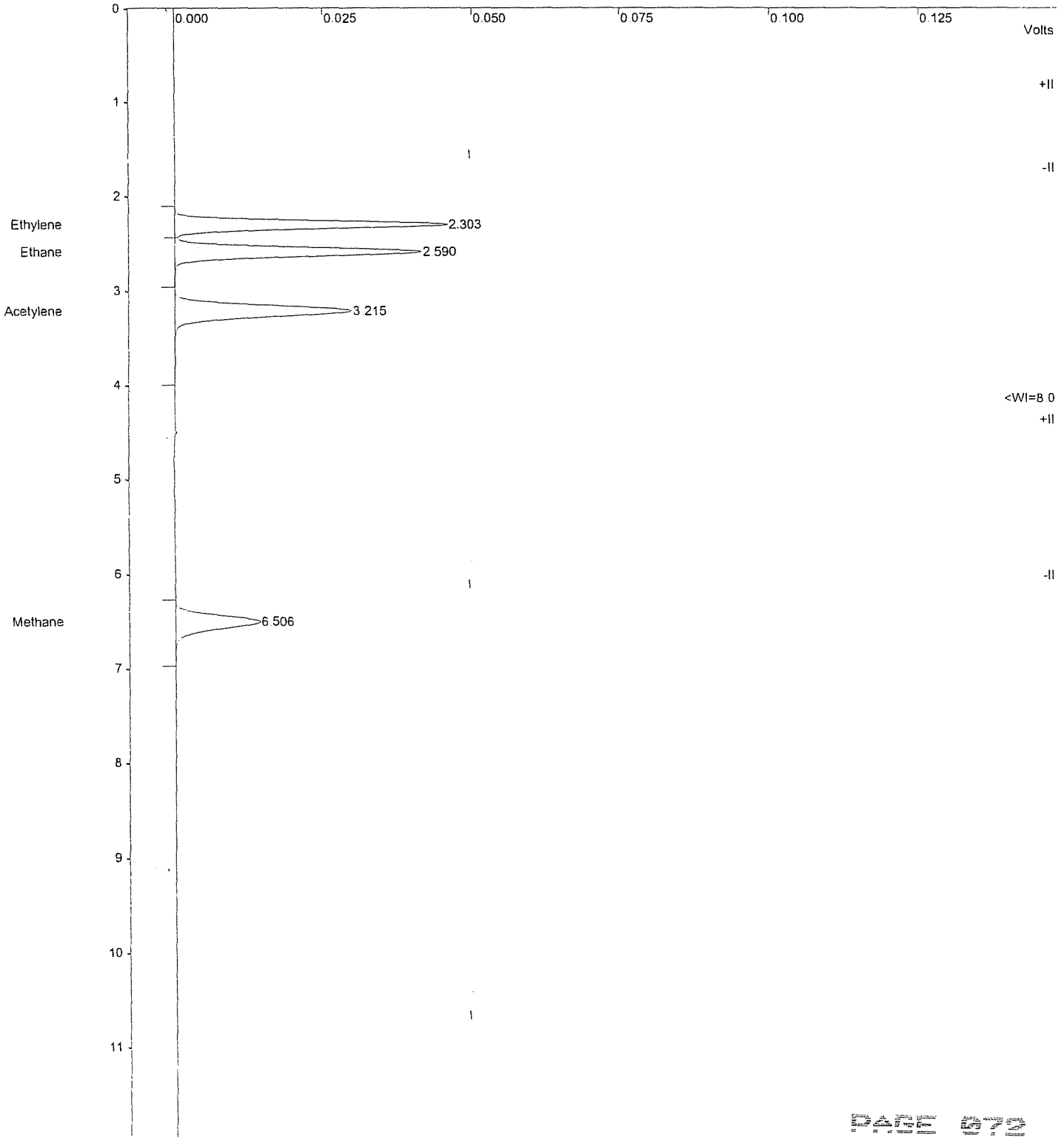
Injection Date: 2/27/2012 12:57 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb001.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 100 ppmv

Injection Date: 2/27/2012 12:57 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.303	0.008	270779	BV	5.6	
2	Ethane	2.590	0.011	276495	VV	6.3	
3	Acetylene	3.215	0.011	252976	VB	7.9	
4	Methane	6.506	-0.001	141124	BB	9.1	
	Totals:		0.029	941374			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -30 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 15 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb002.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 1000ppmv

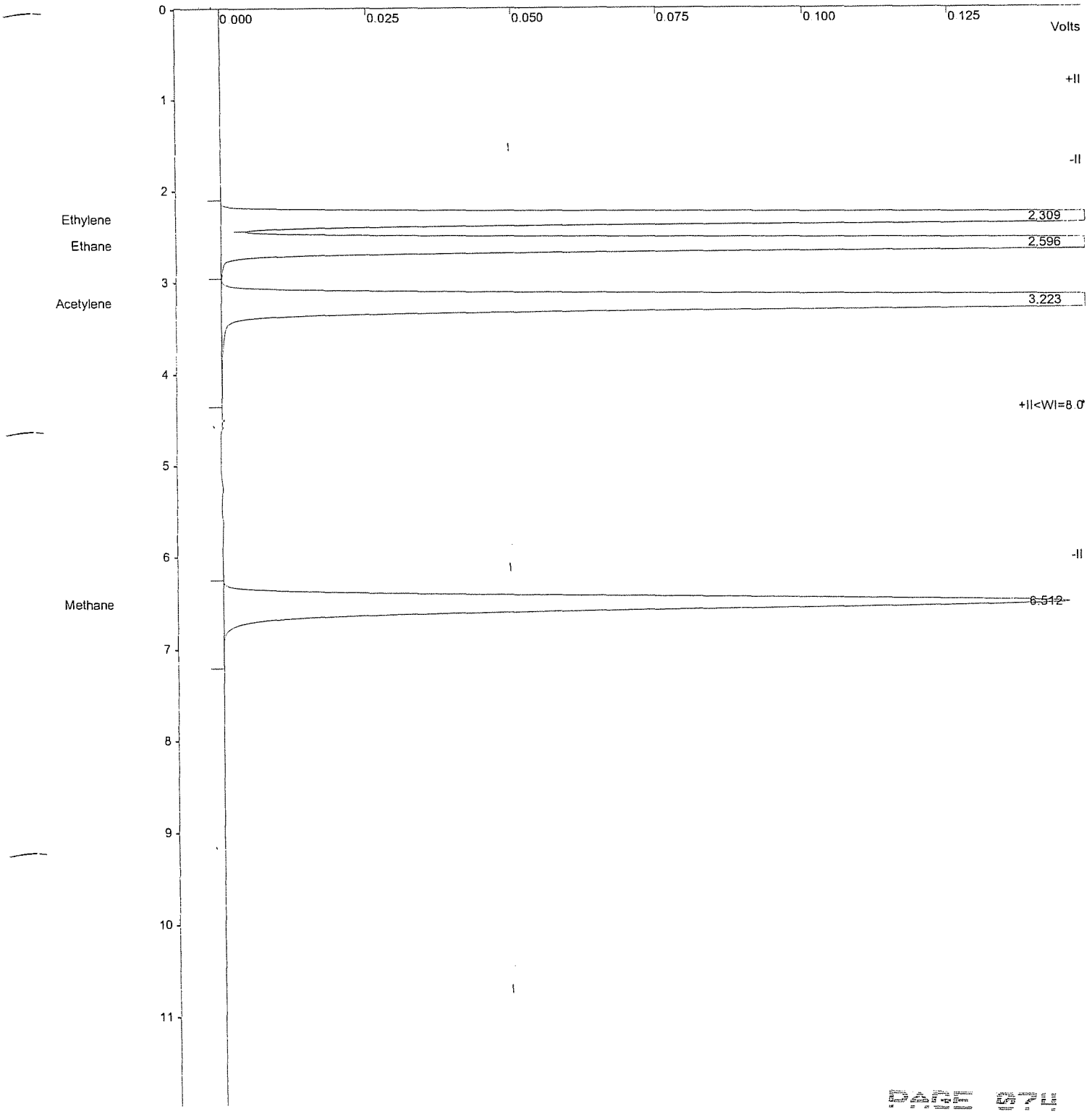
Injection Date: 2/27/2012 1:10 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb002.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 1000ppmv

Injection Date: 2/27/2012 1:10 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 4

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.309	0.007	2769311	BV	5.6	
2	Ethane	2.596	0.007	2818590	VV	6.3	
3	Acetylene	3.223	0.008	2834033	VB	7.9	
4	Methane	6.512	0.006	1436624	BB	9.1	
	Totals:		0.028	9858558			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 49 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb003.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 5000ppmv

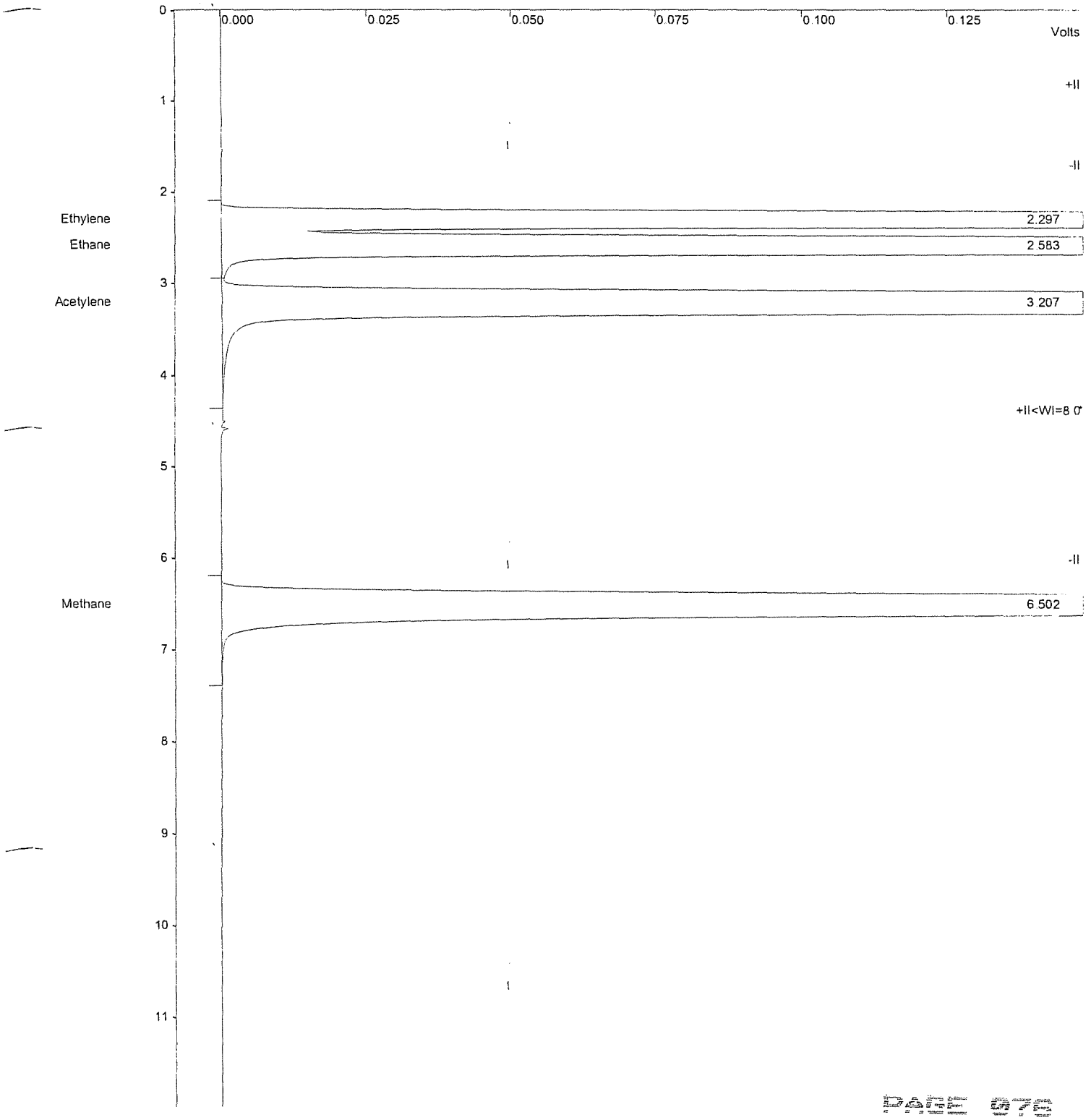
Injection Date: 2/27/2012 1:25 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\feb\27feb003.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 5000ppmv

Injection Date: 2/27/2012 1:25 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.297	-0.011	14086629	BV	5.3	
2	Ethane	2.583	-0.013	14352904	VV	6.1	
3	Acetylene	3.207	-0.016	15151085	VB	7.8	
4	Methane	6.502	-0.010	7294931	BB	9.0	
	Totals:		-0.050	50885549			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 94 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 18 microVolts

Manual injection

****

Title :
Run File : c:\temp gc\gc8a\2012\feb\27feb004.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 10000ppmv

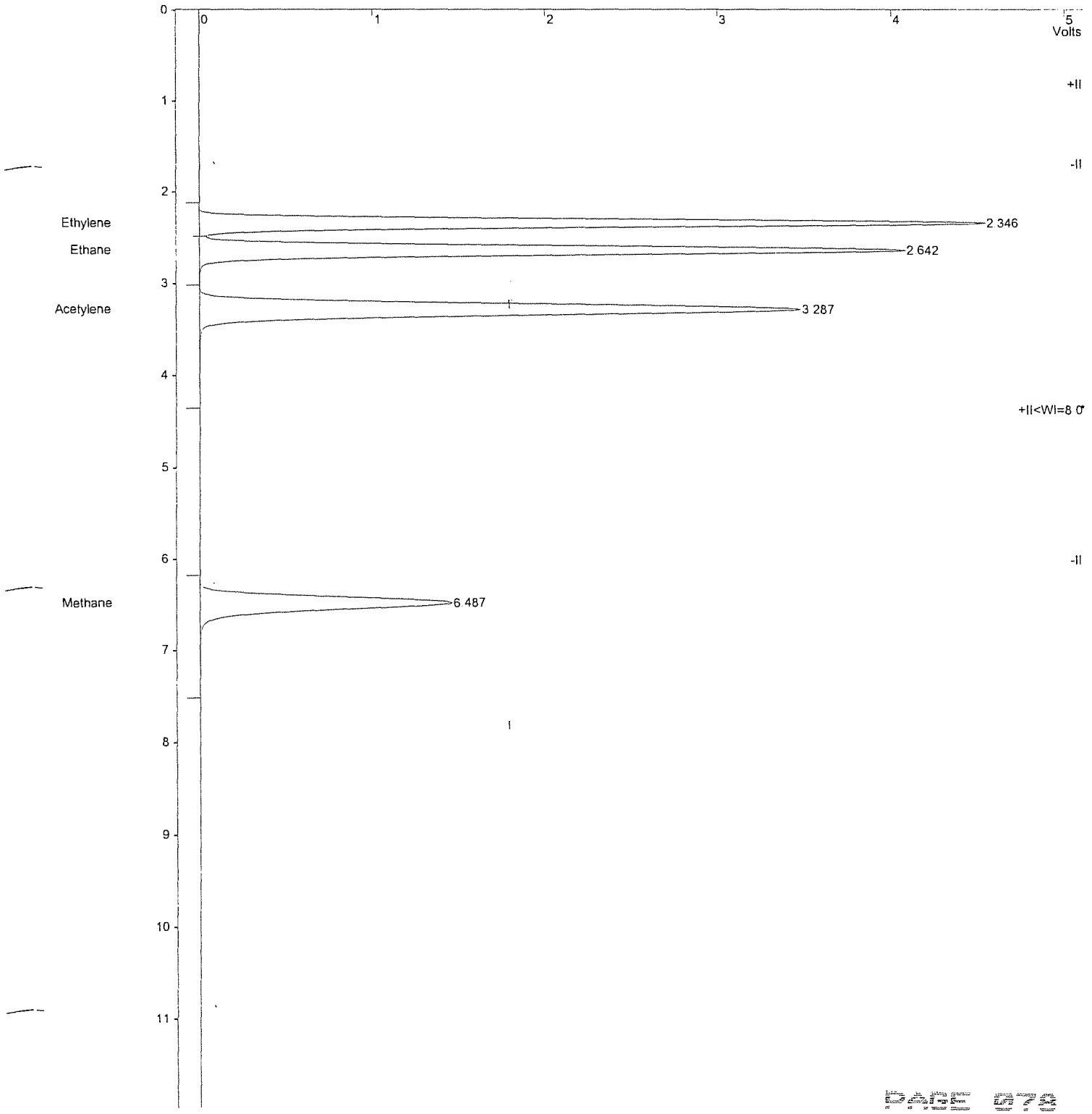
Injection Date: 2/27/2012 1:58 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 2152 Zero Offset = 2%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title :
Run File : c:\temp gc\gc8a\2012\feb\27feb004.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 10000ppmv

Injection Date: 2/27/2012 1:58 PM Calculation Date: 2/27/2012 2:22 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 6

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	2.346	0.050	27601932	BV	5.8	
2	Ethane	2.642	0.059	28188930	VV	6.5	
3	Acetylene	3.287	0.080	30287502	VB	8.1	
4	Methane	6.487	-0.014	14495398	BB	9.1	
	Totals:		0.175	100573762			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -27 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

4. Continuing Calibration

a. CCAL Summary
b. Chromatograms/Results

Continuing Calibration Criteria:

All compounds <25% Diff

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 0.5% RSK CCV

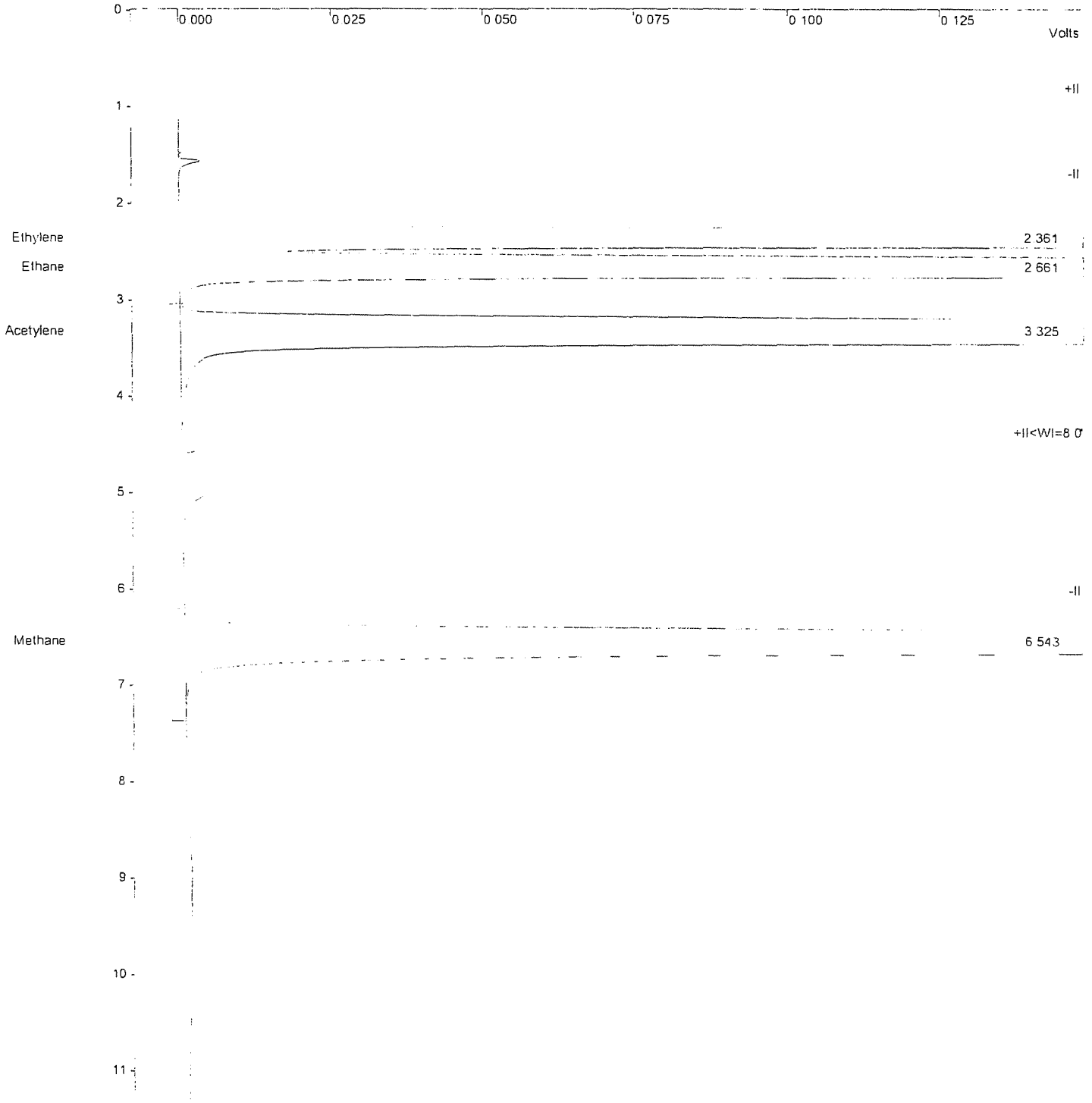
Injection Date: 11/5/2012 10:17 AM Calculation Date: 11/12/2012 4:32 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Verification Report

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 0.5% RSK CCV

Injection Date: 11/5/2012 10:17 AM Calculation Date: 11/12/2012 4:32 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Ethylene	5000.000	5203.299	4.1	2.361	0.016	14421445	
2	Ethane	5000.000	5199.789	4.0	2.661	0.019	14710936	
3	Acetylene	5000.000	5113.250	2.3	3.325	0.039	15480139	
4	Methane	5000.000	5151.674	3.0	6.543	0.057	7476667	
	Totals:		20668.012			0.131	52089187	

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 51 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 20 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov026.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 0.5% RSK CCV

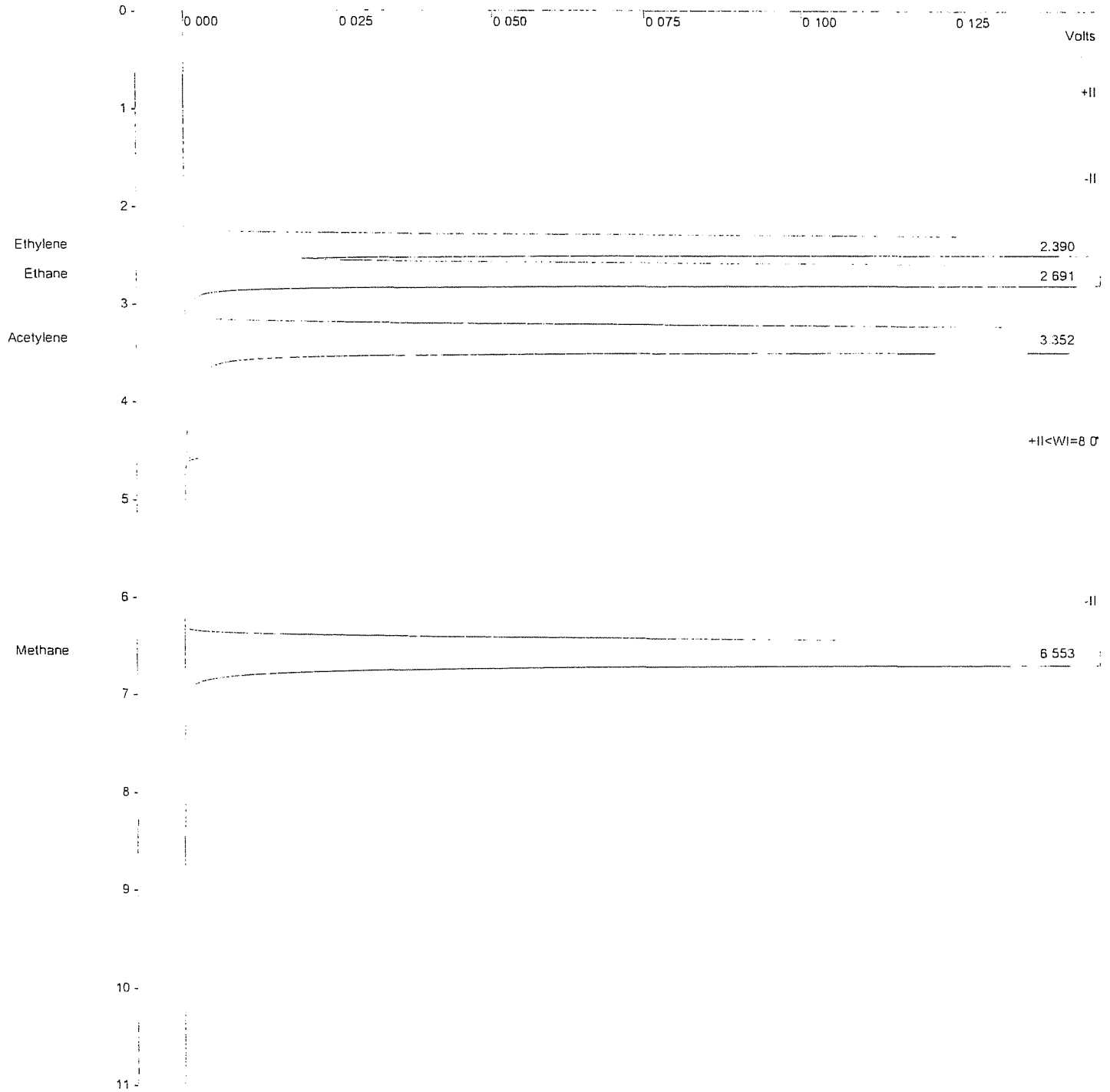
Injection Date: 11/5/2012 6:51 PM Calculation Date: 11/12/2012 4:36 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Verification Report

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov026.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 0.5% RSK CCV

Injection Date: 11/5/2012 6:51 PM Calculation Date: 11/12/2012 4:36 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Ethylene	5000.000	5075.921	1.5	2.390	0.045	14068404	
2	Ethane	5000.000	5090.501	1.8	2.691	0.049	14401744	
3	Acetylene	5000.000	4990.278	0.2	3.352	0.066	15107846	
4	Methane	5000.000	5010.111	0.2	6.553	0.067	7271216	
	Totals:		20166.811			0.227	50849210	

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 42 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov027.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : 1% H2 RSK CCV

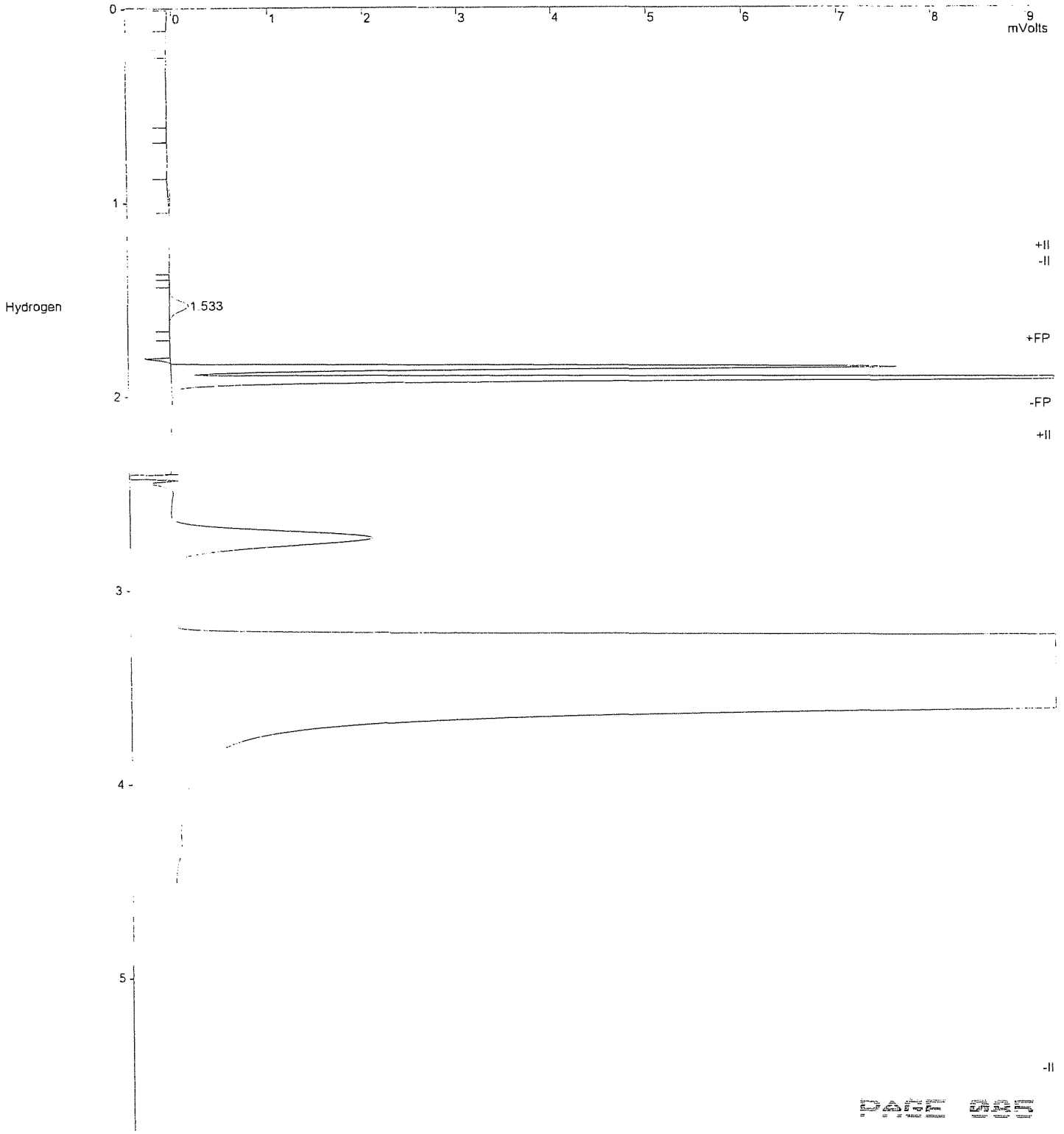
Injection Date: 11/6/2012 8:06 AM Calculation Date: 11/6/2012 8:12 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Verification Report

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov027.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : 1% H2 RSK CCV

Injection Date: 11/6/2012 8:06 AM Calculation Date: 11/6/2012 8:12 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Hydrogen	10000.000	11219.563	12.2	1.533	0.038	802	
	Totals:		11219.563			0.038	802	

Total Unidentified Counts : 31710 counts

Detected Peaks: 9 Rejected Peaks: 6 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -47 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 5 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov056.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 RSK CCV

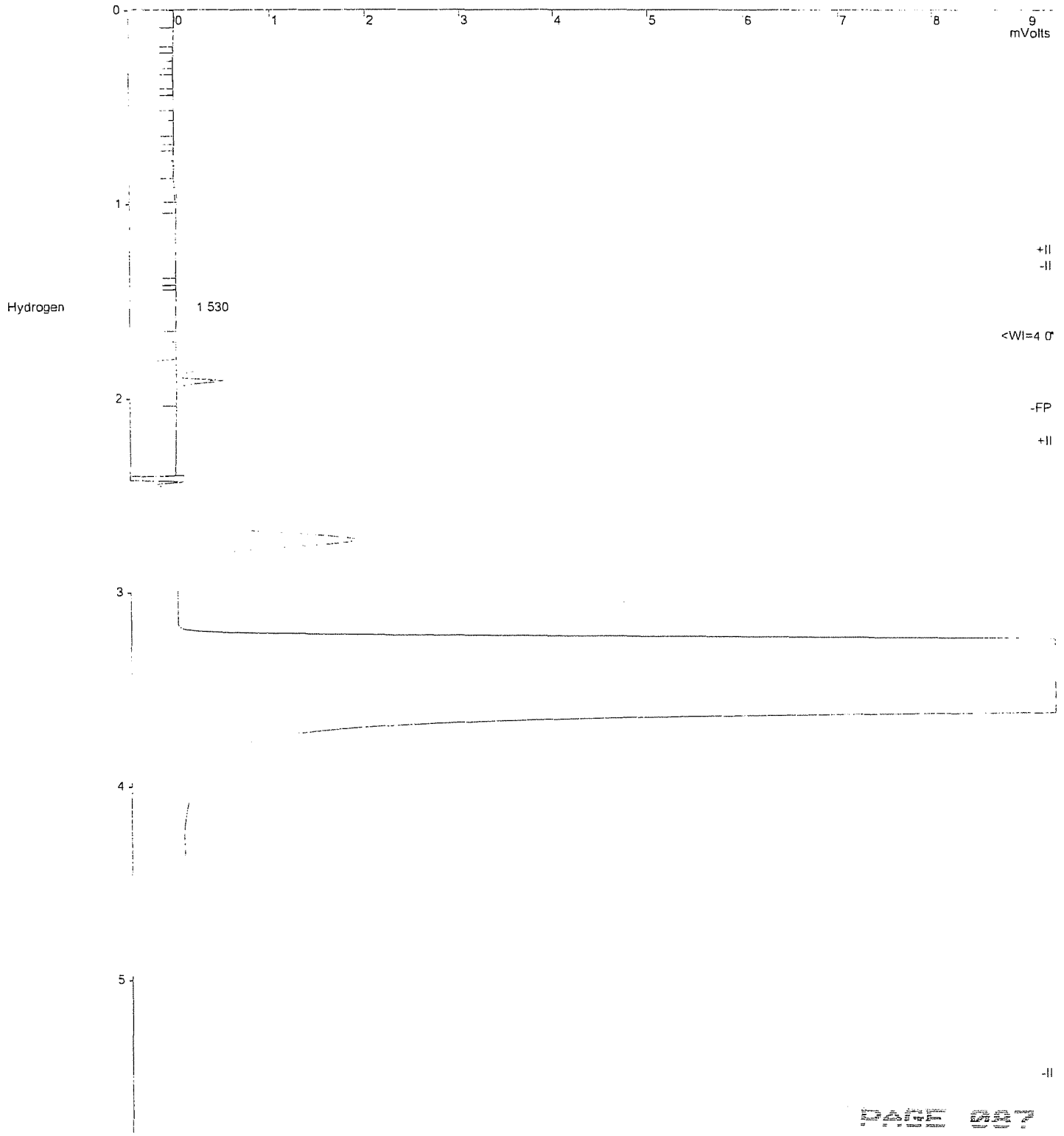
Injection Date: 11/6/2012 3:22 PM Calculation Date: 11/6/2012 3:27 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Verification Report

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov056.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 RSK CCV

Injection Date: 11/6/2012 3:22 PM Calculation Date: 11/6/2012 3:27 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Hydrogen	10000.000	10634.930	6.3	1.530	0.035	760	
	Totals:		10634.930			0.035	760	

Total Unidentified Counts : 1081 counts

Detected Peaks: 20 Rejected Peaks: 17 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 2 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 19 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov.run
Method File : c:\temp gc\gc8a\methods\rsk175fg120227.mth
Sample ID : 0.5% RSK CCV

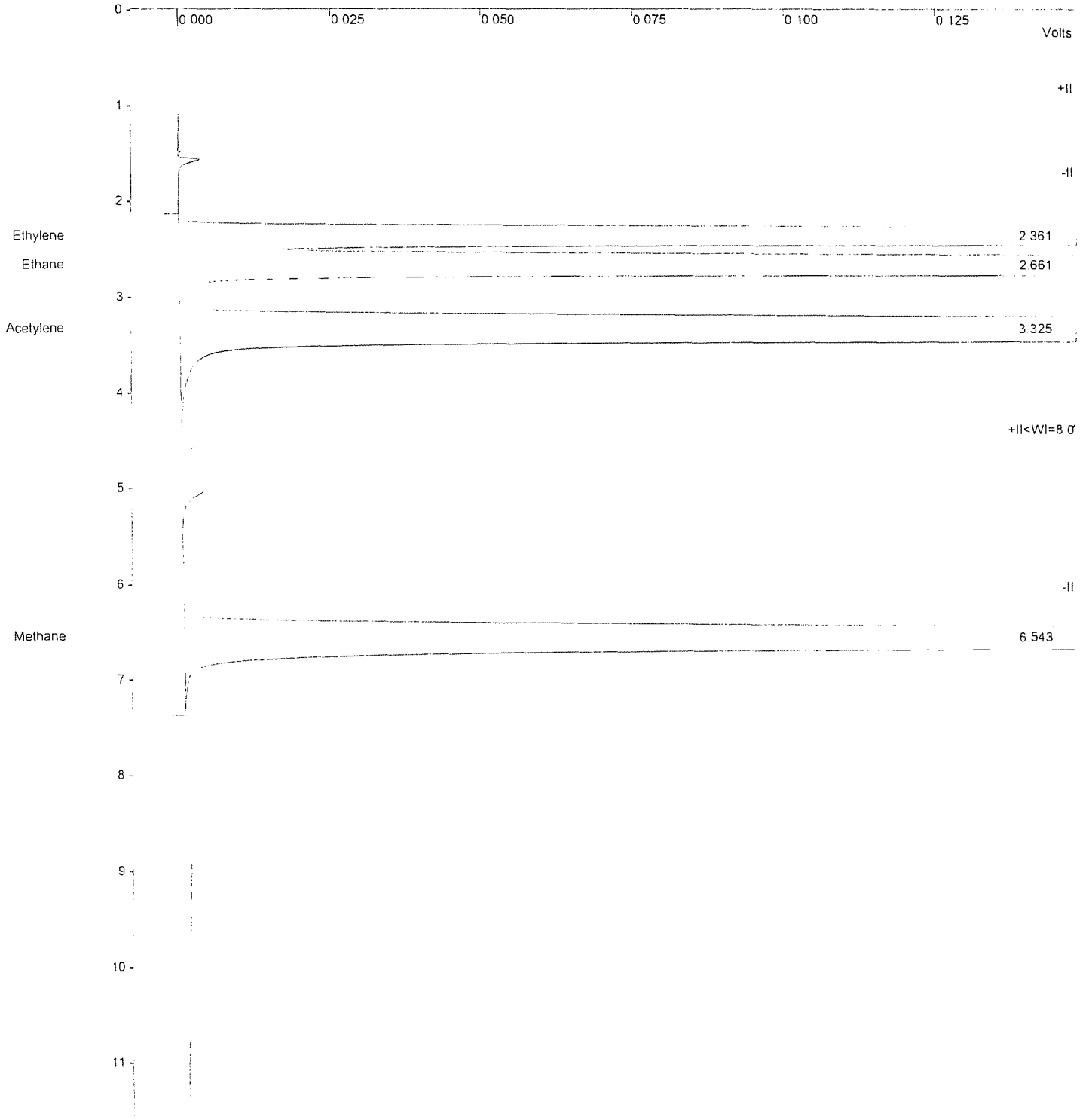
Injection Date: 11/5/2012 10:17 AM Calculation Date: 11/19/2012 2:37 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Verification Report

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : 0.5% RSK CCV

Injection Date: 11/5/2012 10:17 AM Calculation Date: 11/19/2012 2:37 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Ethylene	5000.000	5203.299	4.1	2.361	0.016	14421445	
2	Ethane	5000.000	5199.789	4.0	2.661	0.019	14710936	
3	Acetylene	5000.000	5113.250	2.3	3.325	0.039	15480139	
4	Methane	5000.000	5151.674	3.0	6.543	0.057	7476667	
	Totals:		20668.012			0.131	52089187	

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 51 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 20 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov011.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : RSK CCV

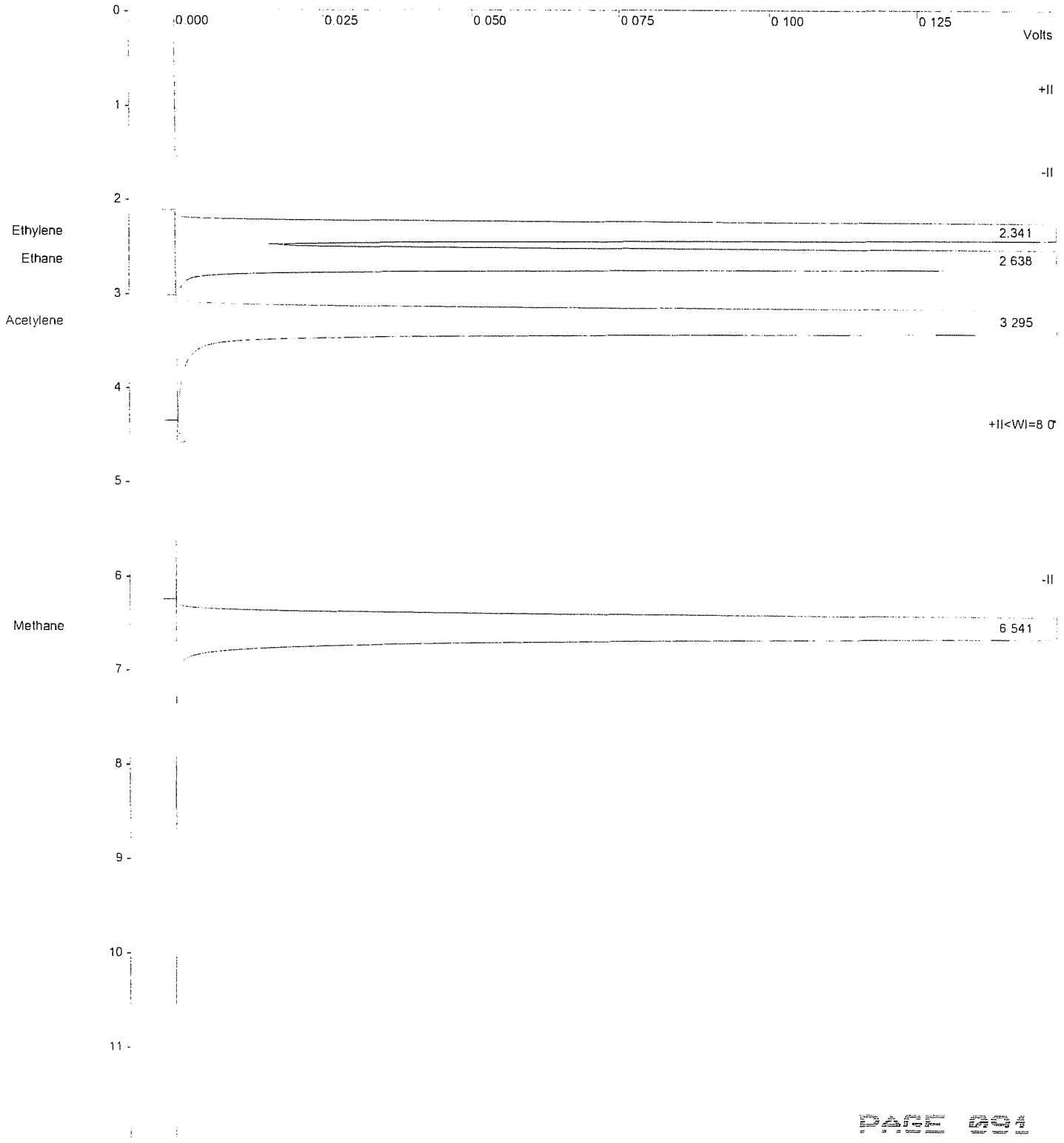
Injection Date: 11/7/2012 9:34 AM Calculation Date: 11/19/2012 2:37 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Verification Report

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov011.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl20227.mth
Sample ID : RSK CCV

Injection Date: 11/7/2012 9:34 AM Calculation Date: 11/19/2012 2:37 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Verification
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5
Tolerance : 25.0%

Peak No.	Peak Name	Expected Result (ppmv)	Calculated Result (ppmv)	Dev. %	Ret. Time (min)	Time Offset (min)	Area (counts)	Status Codes
1	Ethylene	5000.000	5072.439	1.4	2.341	-0.004	14058753	
2	Ethane	5000.000	5103.397	2.1	2.638	-0.004	14438229	
3	Acetylene	5000.000	4936.922	1.3	3.295	0.009	14946315	
4	Methane	5000.000	4900.523	2.0	6.541	0.055	7112171	
	Totals:		20013.281			0.056	50555468	

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -14 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

****

5. Method Blank

a. Chromatograms/ Results

Method Blank Criteria:

All compounds < Reporting Limit

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov005.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : Method Blank

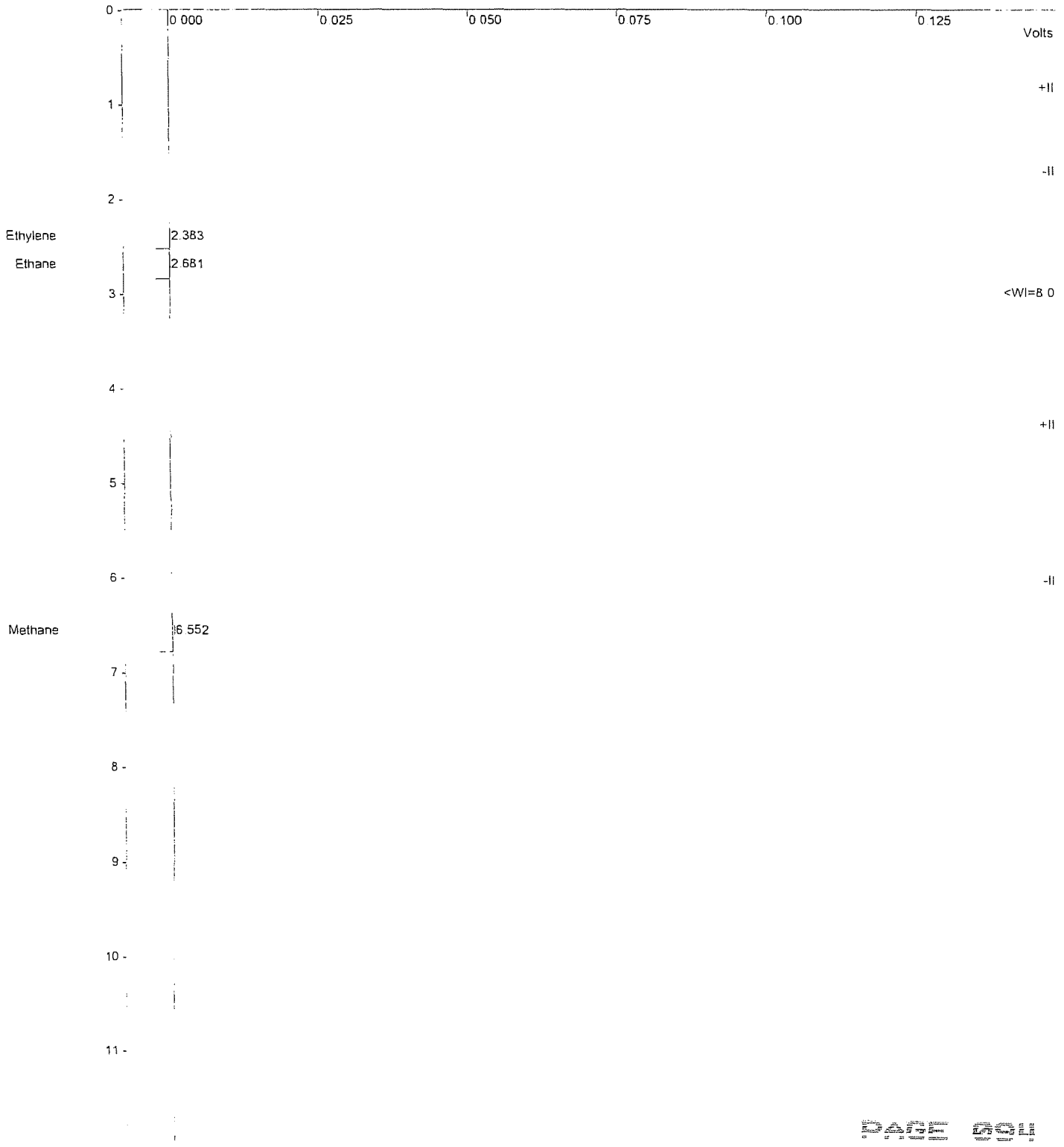
Injection Date: 11/5/2012 12:22 PM Calculation Date: 11/5/2012 12:34 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov005.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : Method Blank

Injection Date: 11/5/2012 12:22 PM Calculation Date: 11/5/2012 12:34 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.187	2.383	0.038	517	BV	5.9	
2	Ethane	0.328	2.681	0.039	929	VB	6.7	
3	Acetylene		3.286					M
4	Methane	2.785	6.552	0.066	4042	BB	10.6	
	Totals:	3.300		0.143	5488			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -50 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 19 microVolts

Manual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov028.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : Method Blank

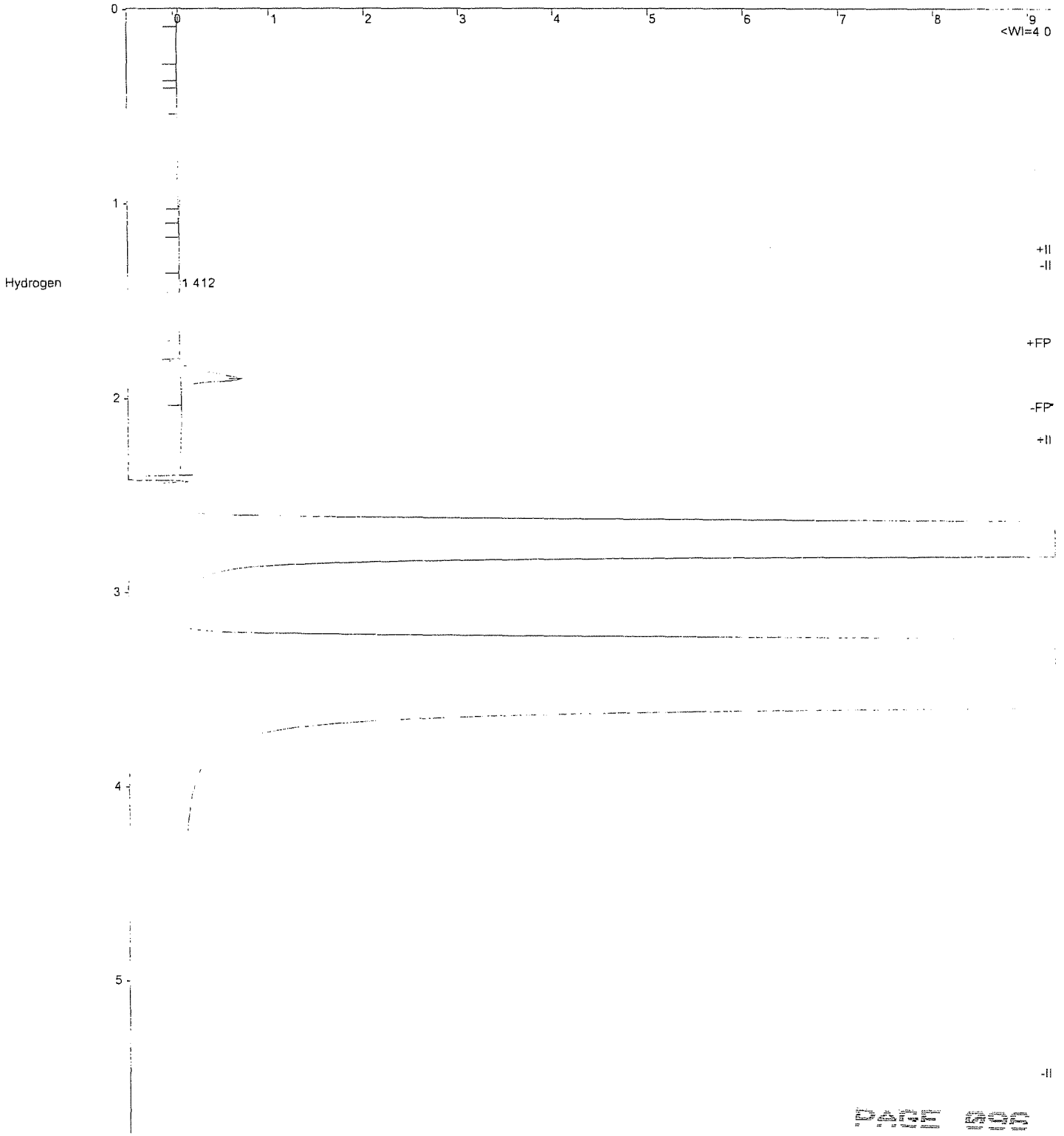
Injection Date: 11/6/2012 8:19 AM Calculation Date: 11/6/2012 8:25 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Print Date: Tue Nov 06 08:25:28 2012 Page 1 of 1

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov028.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogenlll103a.mth
Sample ID : Method Blank

Injection Date: 11/6/2012 8:19 AM Calculation Date: 11/6/2012 8:25 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	569.566	1.412	-0.083	41	BB	2.8	
	Totals:	569.566		-0.083	41			

Total Unidentified Counts : 2139 counts

Detected Peaks: 12 Rejected Peaks: 8 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 52 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov001.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : Method Blank

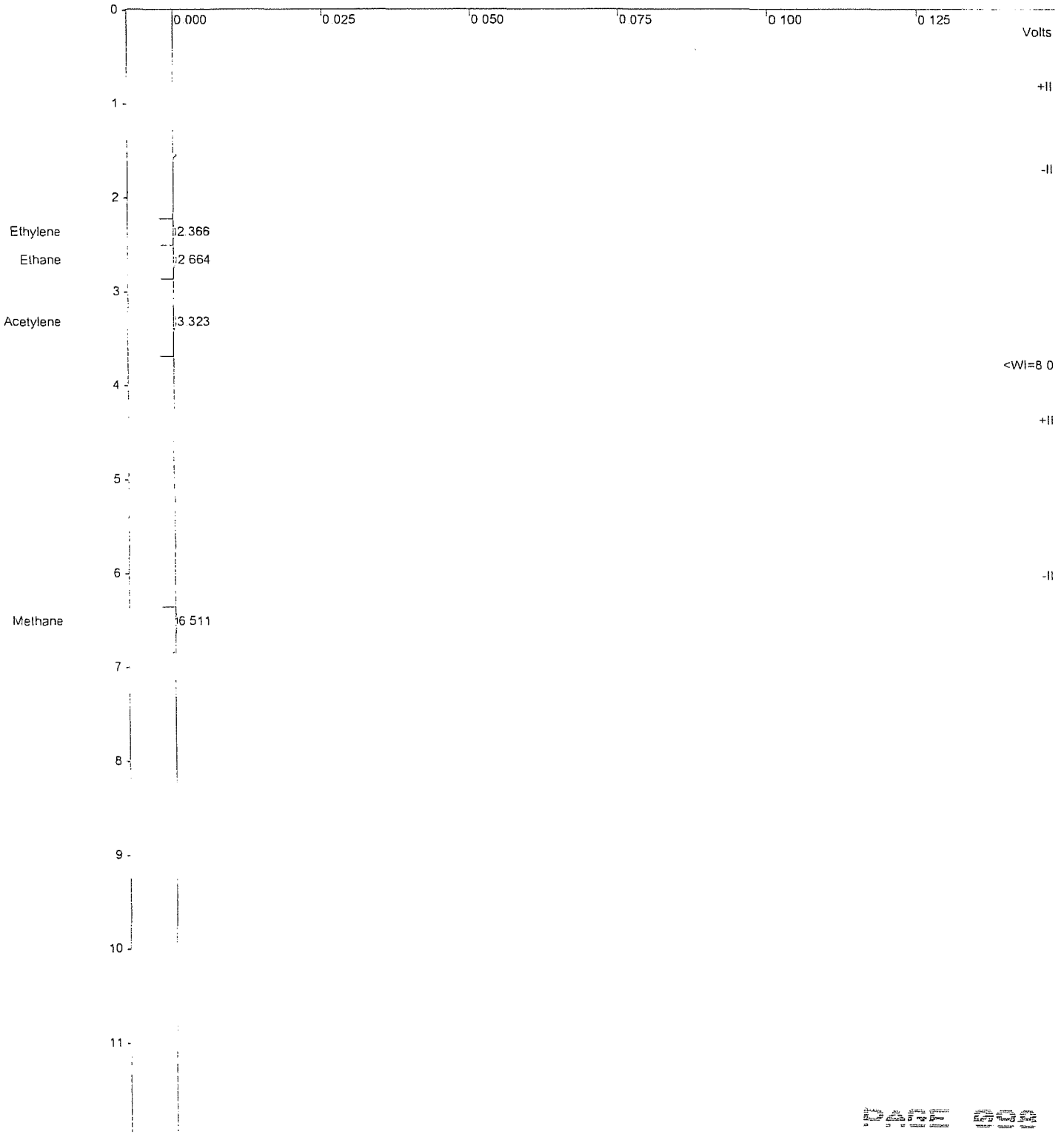
Injection Date: 11/6/2012 3:55 PM Calculation Date: 11/6/2012 4:06 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\06nov001.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : Method Blank

Injection Date: 11/6/2012 3:55 PM Calculation Date: 11/6/2012 4:06 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	0.969	2.366	0.021	2686	BV	5.7	
2	Ethane	1.202	2.664	0.023	3400	VV	6.4	
3	Acetylene	1.184	3.323	0.037	3585	VB	8.3	
4	Methane	1.393	6.511	0.025	2022	BB	9.0	
	Totals:	4.748		0.106	11693			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

****

6. LCS/LCSD

a. Chromatograms/Results

Criteria as listed on report

	LCS	05nov001	05nov055						
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	6814.5	NA	8388.99	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	0.0068145	#VALUE!	0.008389	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	1.65E-07	#VALUE!	1.187E-07	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	0.14652	#VALUE!	0.0131708	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	0.027258	#VALUE!	0.033556	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.4952121	#VALUE!	0.0762039	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.6417321	#VALUE!	0.0893747	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	641.73	#VALUE!	89.37	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L

LCS/D calculation

	spike amt.						
ug	%	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	98.064693
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
42.535787	1	4	26	Acetylene	1.0633947	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

	LCSD	05nov002	05nov054						
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	6778.5	NA	8198.47	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	0.0067785	#VALUE!	0.0081985	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	1.641E-07	#VALUE!	1.16E-07	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n_g									
n_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	0.145746	#VALUE!	0.0128717	#VALUE!	#VALUE!	mg/L
MW	28	30	44	16	32	2	44	28	g/mole
ST	25	25	25	25	25	25	25	25	°C
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	0.027114	#VALUE!	0.0327939	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.492596	#VALUE!	0.0744732	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.638342	#VALUE!	0.0873449	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	638.34	#VALUE!	87.34	#VALUE!	#VALUE!	ug/L
Reporting limit	0.33	0.50	20.00	0.39	1000.00	10.00	46	1500.00	ug/L

LCS/D calculation

ug	spike amt. %	mL	MW		mg/L	%R
26.175869	1	4	16	Methane	0.6543967	97.546632
49.079755	1	4	30	Ethane	1.2269939	#VALUE!
45.807771	1	4	28	Ethene	1.1451943	#VALUE!
42.535787	1	4	26	Acetylene	1.0633947	#VALUE!
#VALUE!	NA	4	44	Propane	#VALUE!	
#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!
71.98364	1	4	44	CO2	1.799591	#VALUE!
		4	28	Nitrogen		

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov001.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : RSK LCS

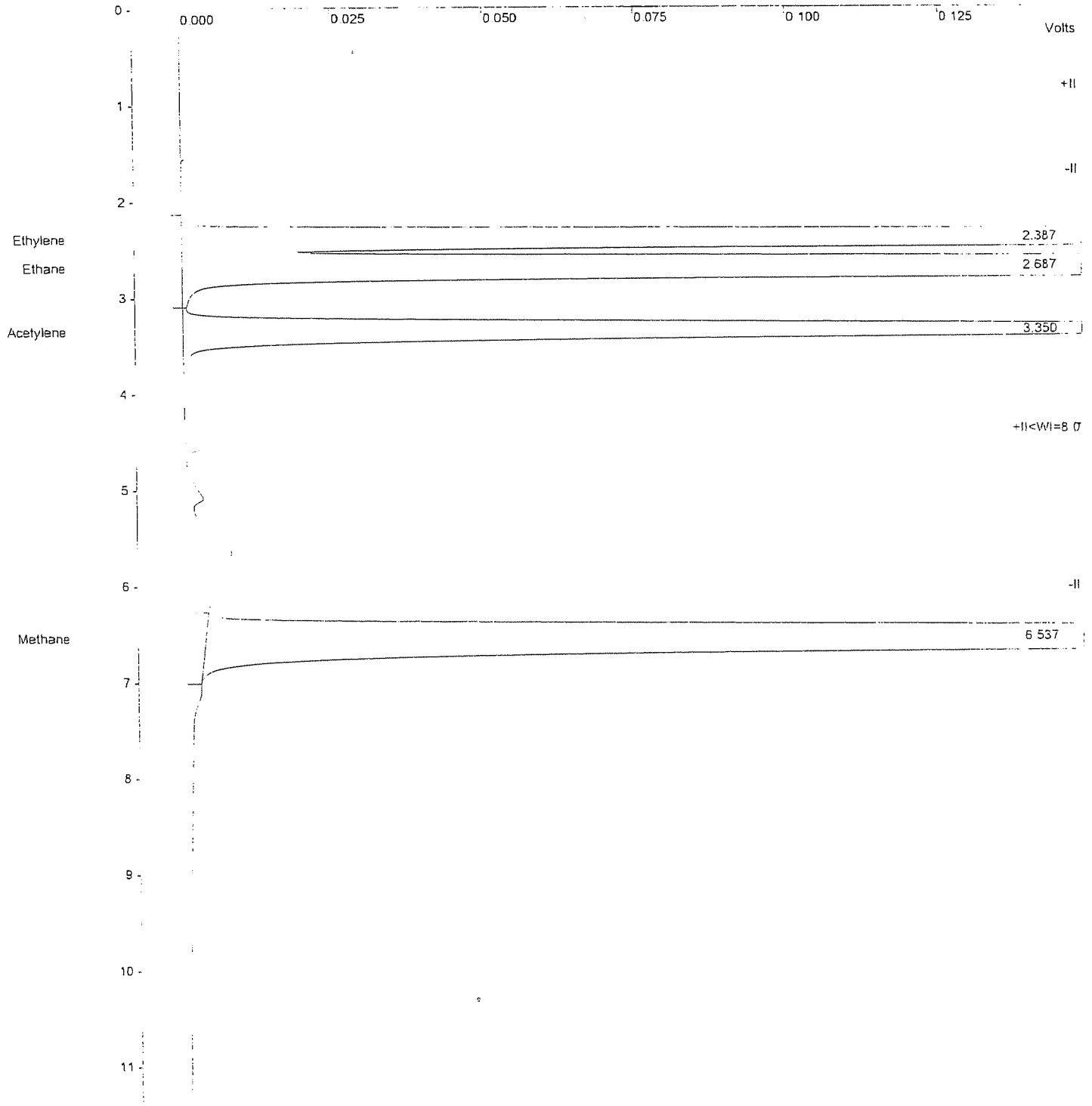
Injection Date: 11/5/2012 11:04 AM Calculation Date: 11/5/2012 11:16 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Print Date: Mon Nov 05 11:16:13 2012

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov001.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : RSK LCS

Injection Date: 11/5/2012 11:04 AM Calculation Date: 11/5/2012 11:16 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	4205.671	2.387	0.042	11656422	BV	5.9	
2	Ethane	6326.105	2.687	0.045	17897442	VV	6.6	
3	Acetylene	772.622	3.350	0.064	2339078	VB	8.4	
4	Methane	6814.535	6.537	0.051	9889991	BB	9.4	
	Totals:	18118.933		0.202	41782933			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -19 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov002.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fg120227.mth
Sample ID : RSK LCSD

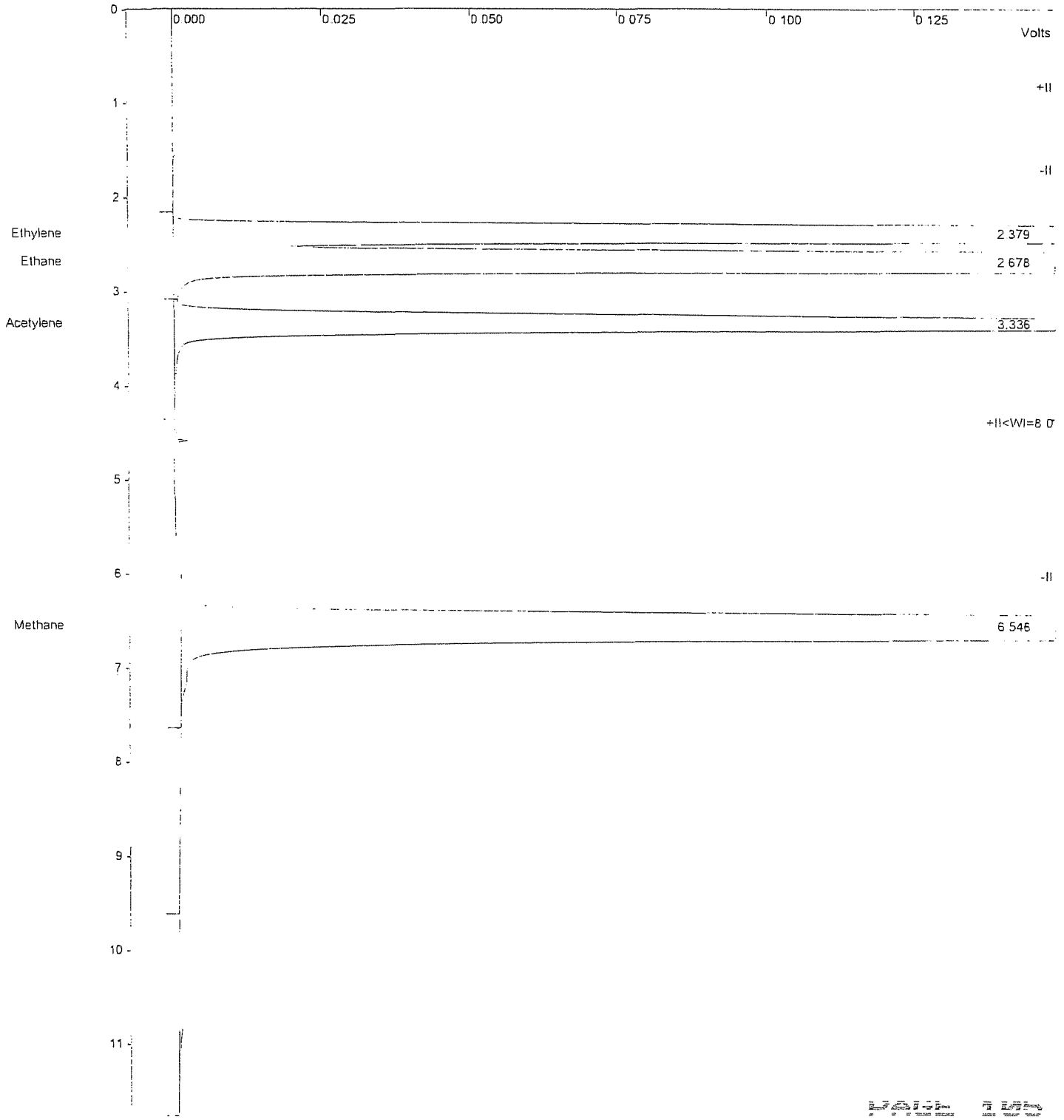
Injection Date: 11/5/2012 11:27 AM Calculation Date: 11/5/2012 11:39 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 1.67 cm/min Attenuation = 64 Zero Offset = 5%
Start Time = 0.000 min End Time = 11.988 min Min / Tick = 1.00



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2012\nov\05nov002.run
Method File : C:\Temp GC\GC8A\Methods\rsk175fgl20227.mth
Sample ID : RSK LCSD

Injection Date: 11/5/2012 11:27 AM Calculation Date: 11/5/2012 11:39 AM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Middle = FID

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 11.988 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Ethylene	4242.358	2.379	0.034	11758105	BV	5.8	
2	Ethane	6311.933	2.678	0.036	17857346	VV	6.6	
3	Acetylene	799.231	3.336	0.050	2419637	VB	8.3	
4	Methane	6778.470	6.546	0.060	9837650	BB	9.4	
	Totals:	18131.992		0.180	41872738			

Total Unidentified Counts : 75613 counts

Detected Peaks: 5 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -51 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

****

itle : RSK-175 TCD
un File : c:\temp gc\gc8a\2012\nov\05nov055.run
ethod File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
ample ID : H2 RSK LCS

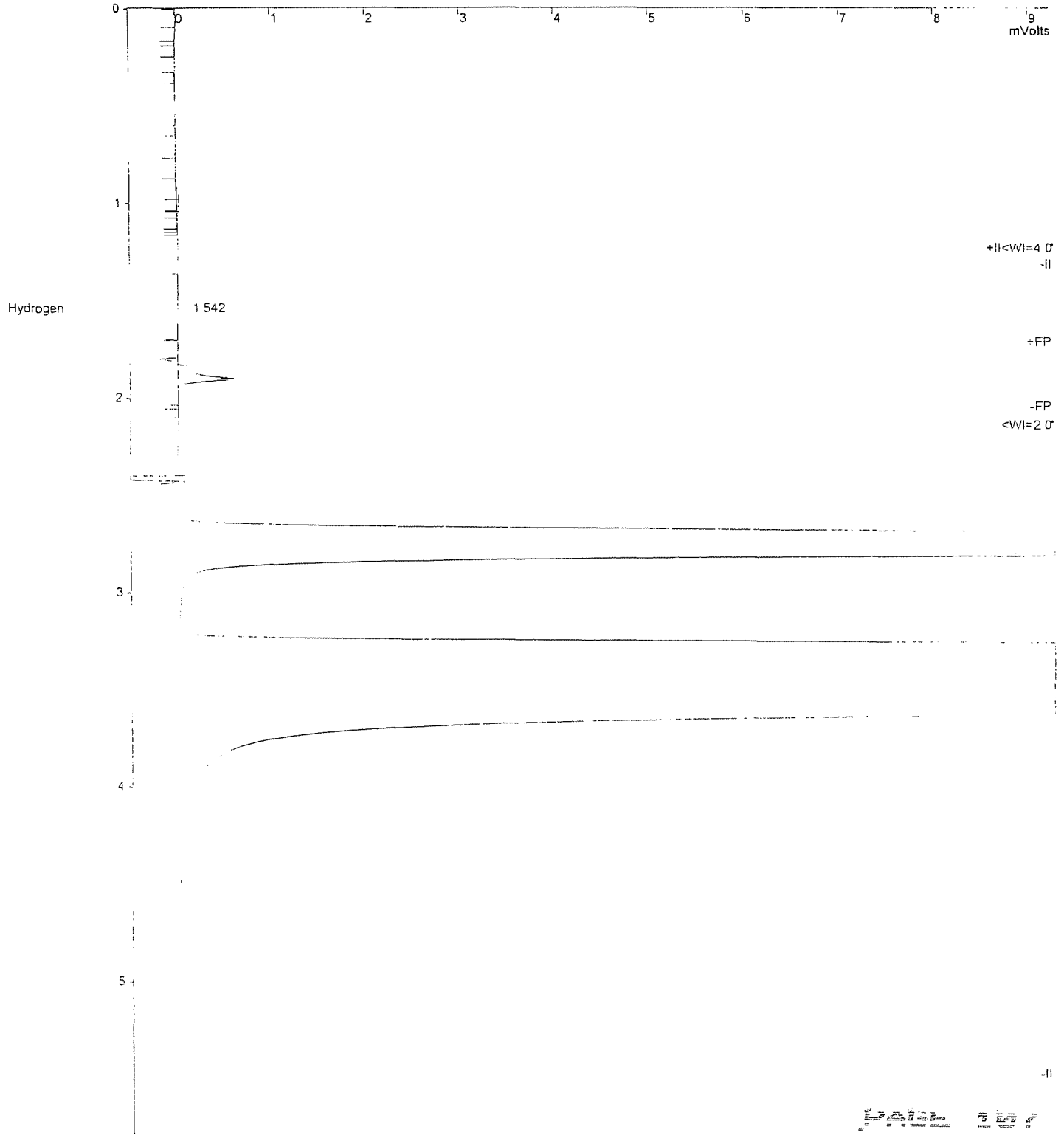
njection Date: 11/6/2012 3:01 PM Calculation Date: 11/6/2012 3:07 PM

perator : MJ
orkstation:
nstrument : GC8A
hannel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

hart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
tart Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



itle : RSK-175 TCD
un File : c:\temp gc\gc8a\2012\nov\05nov055.run
ethod File : C:\Temp GC\GC8A\Methods\rskhydrogenl11103a.mth
ample ID : H2 RSK LCS

njection Date: 11/6/2012 3:01 PM Calculation Date: 11/6/2012 3:07 PM

perator : MJ
orkstation:
nstrument : GC8A
hannel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

* GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

un Mode : Analysis
eak Measurement: Peak Area
alculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	8388.986	1.542	0.047	599	BV	3.6	
	Totals:	8388.986		0.047	599			

otal Unidentified Counts : 1653 counts

etected Peaks: 25 Rejected Peaks: 20 Identified Peaks: 1

ultiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

aseline Offset: 16 microVolts LSB: 1 microVolts

oise (used): 5 microVolts - fixed value
oise (monitored before this run): 4 microVolts

anual injection

****

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov054.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 RSK LCSD

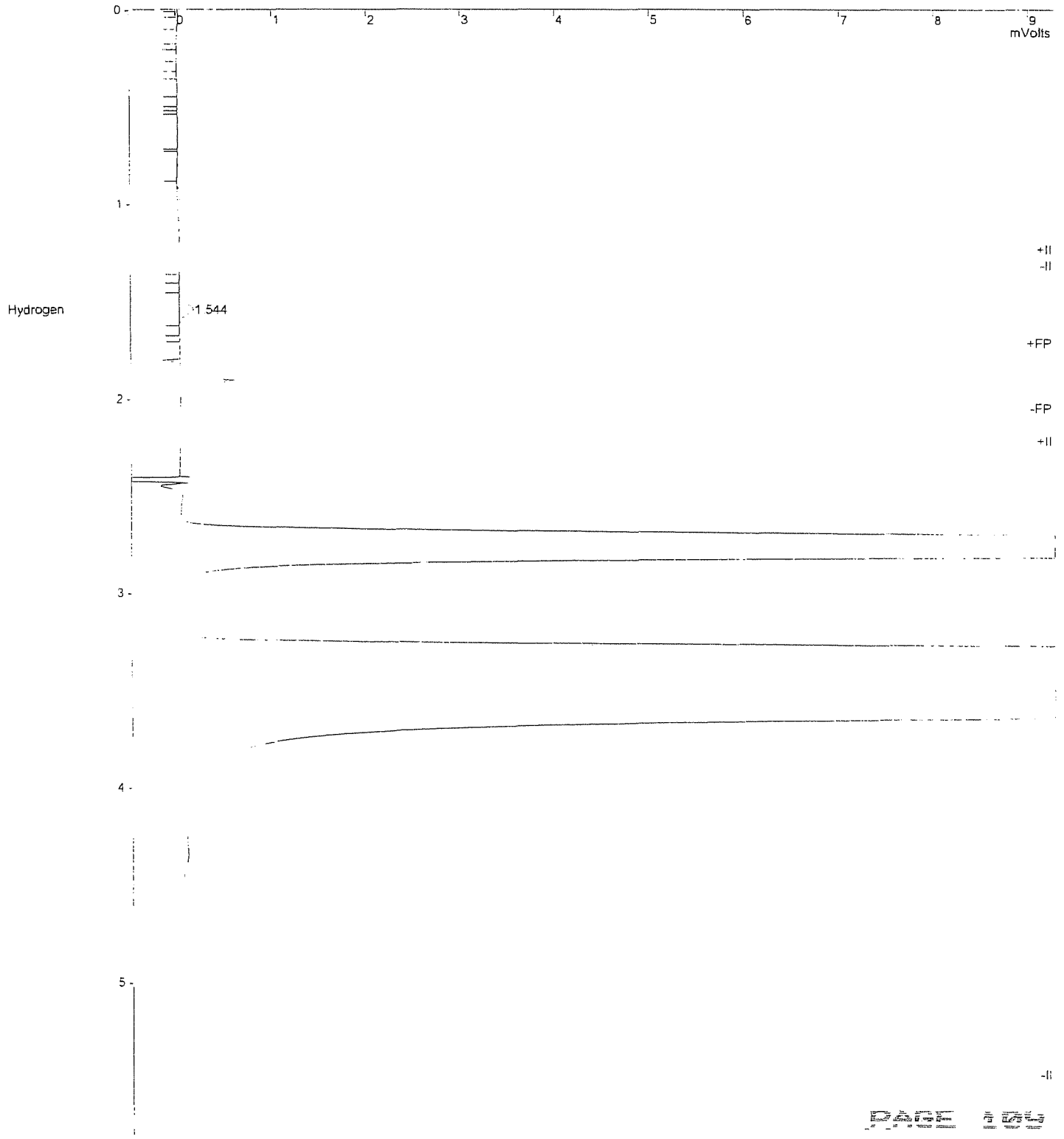
Injection Date: 11/6/2012 2:44 PM Calculation Date: 11/6/2012 2:49 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Chart Speed = 3.46 cm/min Attenuation = 4 Zero Offset = 5%
Start Time = 0.000 min End Time = 5.795 min Min / Tick = 1.00



Print Date: Tue Nov 06 14:49:48 2012 Page 1 of 1

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2012\nov\05nov054.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen111103a.mth
Sample ID : H2 RSK LCSD

Injection Date: 11/6/2012 2:44 PM Calculation Date: 11/6/2012 2:49 PM

Operator : MJ
Workstation:
Instrument : GC8A
Channel : Front = TCD

Detector Type: 3800 (10 Volts)
Bus Address : 44
Sample Rate : 10.00 Hz
Run Time : 5.795 min

** GC Workstation Multi Instrument Version 6.30 ** 01147-7588-C69-24B1 **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmv)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Hydrogen	8198.470	1.544	0.049	586	VV	3.6	
	Totals:	8198.470		0.049	586			

Total Unidentified Counts : 1673 counts

Detected Peaks: 22 Rejected Peaks: 16 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 24 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****