

SECOND SOURCE VERIFICATION

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T001
 IC_Beginning DateTime :01/13/15 10:27
 Spike Amount :100 PPT
 CC/CV File :RAV184
 IC File :RAV178

Column Spec :RXI-624SILMS ID :0.25MM
 IC_Ending DateTime :01/13/15 13:39
 HPChem Method :V001A13
 Date_Time :01/13/15 14:26

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	100.000	0	5387	1	1	10.956	10.950	0				
2	1,2-Dichloroethane	109.281	9.3	12690	2.356	2.156	5.194	5.188	8.99				
3	Toluene-d8	94.453	-5.5	45988	8.537	9.038	7.311	7.306	11.97				
4	1,2-Dibromoethane	108.576	8.6	7960	1.478	1.361	8.743	8.738	7.45				
5	1,1,2,2-Tetrachloroethane	111.897	11.9	9371	1.740	1.555	10.949	10.946	9.16				
6	1,2,3-Trichloropropane	108.840	8.8	6262	1.162	1.068	11.022	11.015	8.35				
7	1,2-Dibromo-3-chloropropane	104.191	4.2	1058	0.196	0.188	13.074	13.071	9.17				

54
 1/14/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
 Acq On : 13 Jan 2015 2:26 pm
 Sample : IVO01A1301
 Misc : 100ppt
 MS Integration Params: 524C.P

Vial: 12
 Operator: DNguye
 Inst : TO01
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	1,2,3-TRICHLOROPROPANE-D5	100.000	100.000	0.0	106	0.00
2 T,M	1,2-Dichloroethane	100.000	109.281	-9.3	115	0.00
3 S	Toluene-d8	100.000	94.453	5.5	112	0.00
4 T,M	1,2-Dibromoethane	100.000	108.576	-8.6	117	0.00
5 P,T,M	1,1,2,2-Tetrachloroethane	100.000	111.897	-11.9	120	0.00
6 T,M	1,2,3-Trichloropropane	100.000	108.840	-8.8	123	0.00
7 T,M	1,2-Dibromo-3-chloropropane	100.000	104.191	-4.2	122	0.00

Sm 1/14/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
 Acq On : 13 Jan 2015 2:26 pm
 Sample : IVO01A1301
 Misc : 100ppt
 MS Integration Params: 524C.P

Vial: 12
 Operator: DNguye
 Inst : TO01
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 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	106	0.00
2 T,M	1,2-Dichloroethane	2.156	2.356	-9.3	115	0.00
3 S	Toluene-d8	9.038	8.537	5.5	112	0.00
4 T,M	1,2-Dibromoethane	1.361	1.478	-8.6	117	0.00
5 P,T,M	1,1,2,2-Tetrachloroethane	1.555	1.740	-11.9	120	0.00
6 T,M	1,2,3-Trichloropropane	1.068	1.162	-8.8	123	0.00
7 T,M	1,2-Dibromo-3-chloropropane	0.188	0.196	-4.3	122	0.00

3a
 1/14/15

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
 Acq On : 13 Jan 2015 2:26 pm
 Sample : IVO01A1301
 Misc : 100ppt
 MS Integration Params: 524C.P
 Quant Time: Jan 14 10:33 2015

Vial: 12
 Operator: DNguye
 Inst : TO01
 Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Initial Calibration
 DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5387	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	45988	94.45	ng/l	0.00
Spiked Amount	100.000		Recovery	=	94.45%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	12690	109.28	ng/l	98
4) 1,2-Dibromoethane	8.74	107	7960	108.58	ng/l	98
5) 1,1,2,2-Tetrachloroethane	10.95	83	9371	111.90	ng/l	99
6) 1,2,3-Trichloropropane	11.02	75	6262	108.84	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	1058	104.19	ng/l	97

See 11/14/15

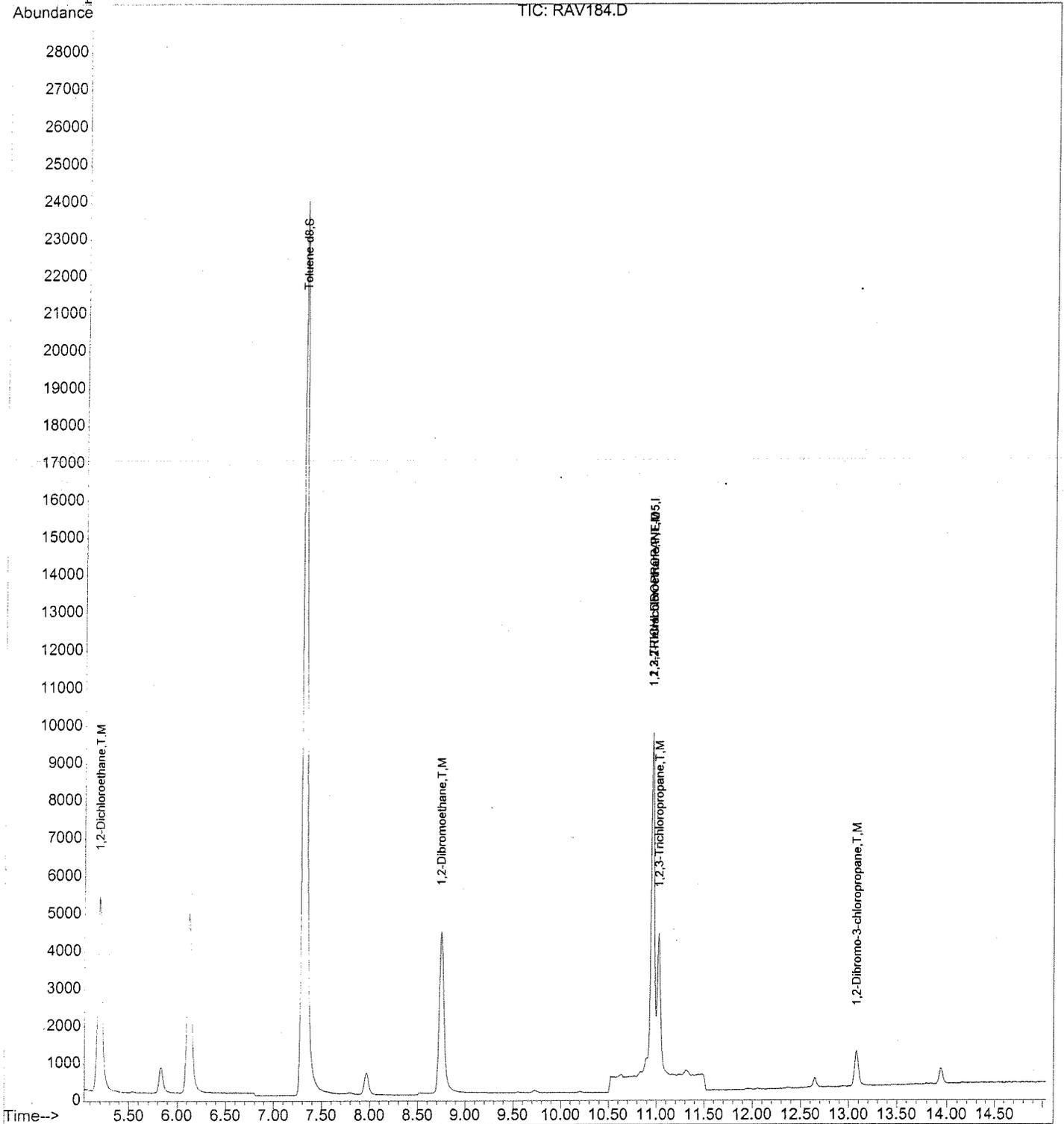
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
Acq On : 13 Jan 2015 2:26 pm
Sample : IVO01A1301
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 12
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



59 1/14/15

DAILY CALIBRATION(S)

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
 Lab Code: EMXT
 Lab File ID: RAV178
 Instrument ID: T001

Project: B & B GROUNDWATER SAMPLING
 SDG No.: 15D156
 Date Analyzed: 01/13/15
 Time Analyzed: 12:03

	IS1(TCP)	
	AREA #	RT #
=====	=====	=====
12 HOUR STD	5060	10.95
UPPER LIMIT	10120	11.45
LOWER LIMIT	2530	10.45
=====	=====	=====
SAMPLE ID		
=====	=====	=====
1 VSTD100	4983	10.96
2 MBLK1W	5184	10.97
3 LCS1W	4680	10.96
4 LCD1W	5410	10.97
5 04-22-15-WB2-3	5558	10.97
6 04-22-15-PWB-2	5441	10.97
7 04-22-15-PWB-6	5049	10.97
8 04-23-15-EB-2	5054	10.98
9 04-23-15-PWB-3	5769	10.97
10 04-23-15-BBW-1	5534	10.97
11 04-23-15-BBW-2	5370	10.97
12 04-23-15-PWB-8	5703	10.97
13 04-23-15-PWB-11	5671	10.97
14 04-23-15-PWB-8DL	5213	10.98
15 04-23-15-PWB-11DL	5173	10.97

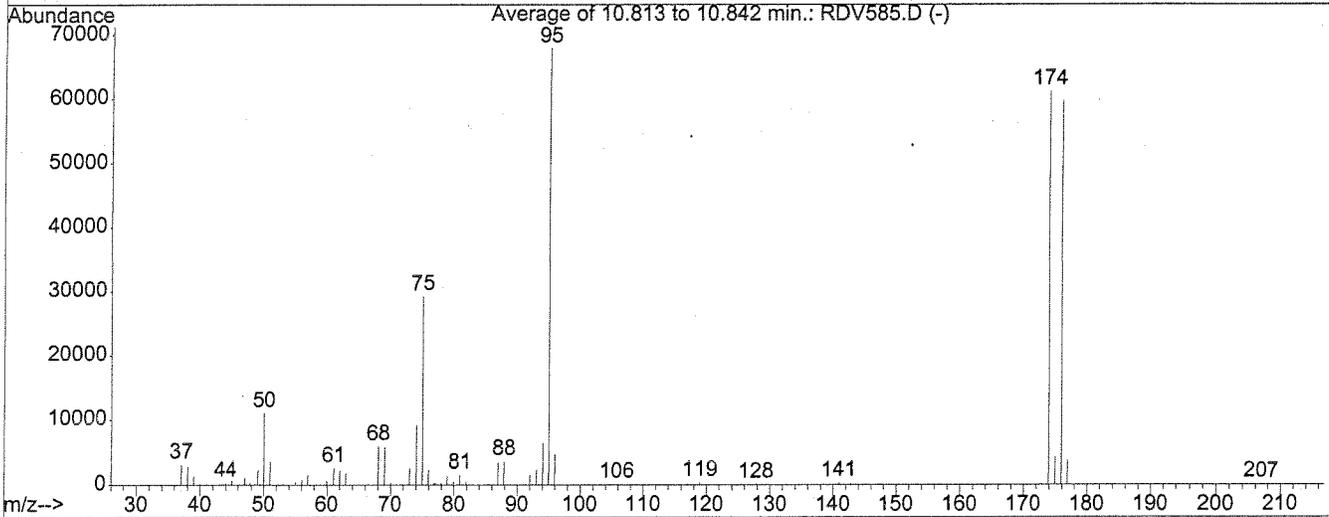
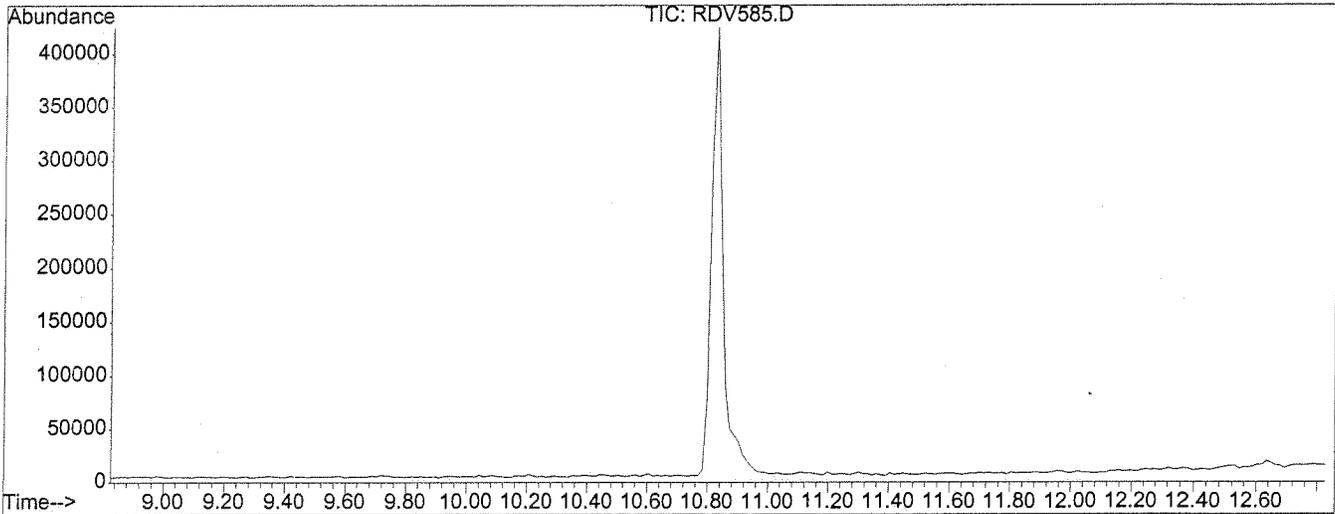
IS1 (TCP) = 1,2,3-Trichloropropane-d5

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.

Data File : D:\HPCHEM\1\DATA\15D29\RDV585.D
 Acq On : 29 Apr 2015 10:06 am
 Sample : BFB01D25
 Misc : T/CHK
 MS Integration Params: 524C.P
 Method : D:\HPCHEM\1\METHODS\VO01A13A.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls

Vial: 1
 Operator: WLau
 Inst : TO01
 Multiplr: 1.00



AutoFind: Scans 391, 392, 393; Background Corrected with Scan 386

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.3 ✓	11094	PASS
75	95	30	60	43.2 ✓	29299	PASS
95	95	100	100	100.0	67893	PASS
96	95	5	9	6.9 ✓	4674	PASS
173	174	0.00	2	0.2	113	PASS
174	95	50	100	90.2 ✓	61219	PASS
175	174	5	9	6.9 ✓	4195	PASS
176	174	95	101	97.5 ✓	59696	PASS
177	176	5	9	6.3 ✓	3785	PASS

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D29\RDV586.D
 Acq On : 29 Apr 2015 10:31 am
 Sample : CVO01A1312
 Misc : 100ppt
 MS Integration Params: 524C.P

Vial: 2
 Operator: WLau
 Inst : TO01
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound		Amount	Calc.	%Dev	Area%	Dev (min)
1	I 1,2,3-TRICHLOROPROPANE-D5	100.000	100.000	0.0	98	0.01
2	T,M 1,2-Dichloroethane	100.000	110.172	-10.2	107	0.01
3	S Toluene-d8	100.000	101.789	-1.8	112	0.02
4	T,M 1,2-Dibromoethane	100.000	107.765	-7.8	107	0.01
5	P,T,M 1,1,2,2-Tetrachloroethane	100.000	104.342	-4.3	104	0.01
6	T,M 1,2,3-Trichloropropane	100.000	103.609	-3.6	109	0.01
7	T,M 1,2-Dibromo-3-chloropropane	100.000	82.509	17.5	89	0.01

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D29\RDV586.D
 Acq On : 29 Apr 2015 10:31 am
 Sample : CVO01A1312
 Misc : 100ppt
 MS Integration Params: 524C.P

Vial: 2
 Operator: WLau
 Inst : TO01
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 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	98	0.01
2 T,M 1,2-Dichloroethane	2.156	2.375	-10.2	107	0.01
3 S Toluene-d8	9.038	9.200	-1.8	112	0.02
4 T,M 1,2-Dibromoethane	1.361	1.467	-7.8	107	0.01
5 P,T,M 1,1,2,2-Tetrachloroethane	1.555	1.622	-4.3	104	0.01
6 T,M 1,2,3-Trichloropropane	1.068	1.107	-3.7	109	0.01
7 T,M 1,2-Dibromo-3-chloropropane	0.188	0.156	17.0	89	0.01

Data File : D:\HPCHEM\1\DATA\15D29\RDV586.D
 Acq On : 29 Apr 2015 10:31 am
 Sample : CVO01A1312
 Misc : 100ppt
 MS Integration Params: 524C.P
 Quant Time: Apr 29 10:46 2015

Vial: 2
 Operator: WLau
 Inst : TO01
 Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Initial Calibration
 DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	4983	100.00	ng/l	0.01
System Monitoring Compounds						
3) Toluene-d8	7.32	98	45843	101.79	ng/l	0.02
Spiked Amount	100.000		Recovery	=	101.79%	
Target Compounds						
2) 1,2-Dichloroethane	5.20	62	11834	110.17	ng/l	97
4) 1,2-Dibromoethane	8.75	107	7308	107.76	ng/l	99
5) 1,1,2,2-Tetrachloroethane	10.96	83	8083	104.34	ng/l	98
6) 1,2,3-Trichloropropane	11.03	75	5514	103.61	ng/l	99
7) 1,2-Dibromo-3-chloropropan	13.09	157	775	82.51	ng/l #	81

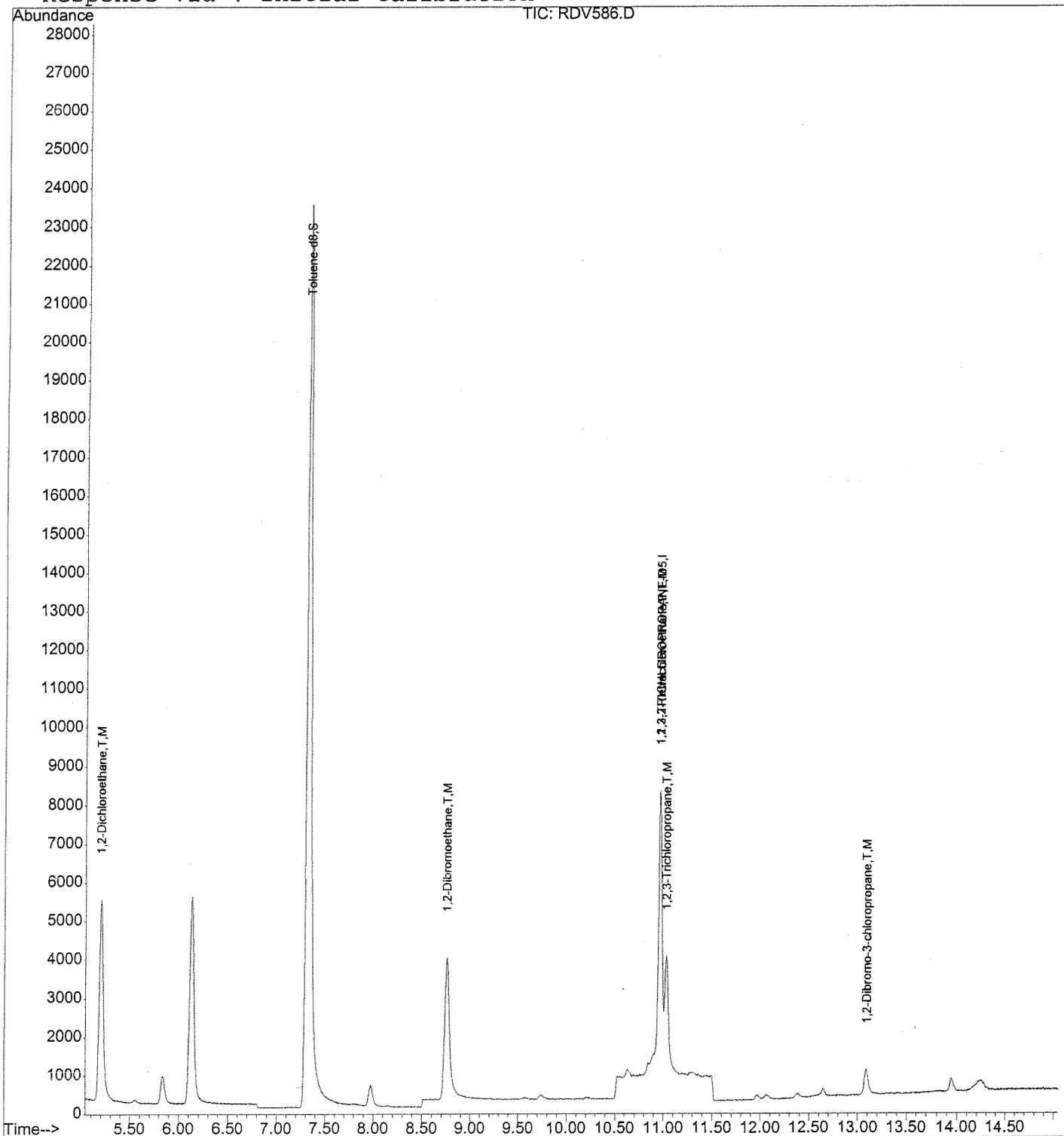
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D29\RDV586.D
Acq On : 29 Apr 2015 10:31 am
Sample : CVO01A1312
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 29 10:46 2015

Vial: 2
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



ANALYTICAL LOG(S)



ANALYSIS LOG FOR VOLATILES

SOP EMAX-8260 Rev.No. 10 EMAX-8260C Rev. No. 0 EMAX-8260SIM Rev.No. 1 EMAX-M8260SIM Rev.No. 0 EMAX-TCP5IM Rev.No. 2 EMAX-624 Rev.No. 4

Start Date: 1/13/15 5-mL Purge 10-mL Purge 25-mL Purge

Book #: A01-048

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix			Notes
					W		S	
					pH <2	Cl ₂ <5ppm		
01	RAV173	BFB01A11	1 mL	N/A	N/A	N/A	V001A13A 9:57am	
02	174	V001A131	0.05 mL				5 ppt	
03	175	2	0.1				10	
04	176	3	0.2				20	
05	177	4	0.5				50	
06	178	5	1				100	
07	179	6	2				200	
08	180	7	4				400	
09	181	8	10				1000	
10	182	9	20				2000	
11	183	Rinse	10 mL					
12	184	V001A1301	1				100 ppt 12-2-26pm	
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

BATCH V001A135

2182

Instrument No.		01	
INITIAL CALIBRATION REFERENCE			
DATE	1/13/15		
ICAL ID	V001A13		
STANDARDS			
NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SVI-24-10-02	*	2.5
BFB	SVI-23-02-02	1	50
IS/SURR.	SVI-24-09-03	*	2.5
ICV/LCS	-10-01	1	2.5
ICV/LCS	-10-03	1	2.5
ICV/LCS			
ICV/LCS			
Data File Folder	15A13		
	LOT #	Syringe Lot #	
pH strip	-	M06-2487-04	
Chlorine strip	-	1-05	
Methanol		MSV01-01-08-01	
NaHSO ₄		M04-A3652	
Reagent Water	RW4-14-001	N63-66327	
Sand			
Electronic Data Archival Location		Date	
HPCHEM_VOA/T001			
Comments:			
* varied amount			

Analyzed By: *w*
 Date Disposed: 1/14/15
 Disposed By: *w*



ANALYSIS LOG FOR VOLATILES

SOP EMAX-8260 Rev.No. 10 EMAX-8260C Rev. No. 0 EMAX-8260SIM Rev.No. 1 EMAX-M8260SIM Rev.No. 0 EMAX-TCPSIM Rev.No. 2 EMAX-624 Rev.No. 4

Start Date: 4/29/15 5-mL Purge 10-mL Purge 25-mL Purge

Book #: A01-048

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix			Notes
					W		S	
					pH < 2	Cl ₂ < 5ppm		
01	RDV585	BFB01D25	-					
02	586	CV001A1312	-					10: 20pm
03	587	V001D25L	-					
04	588	↓ C	-					
05	589	↓ B	-	25mL				
06	590	15D157-12I	-	0.25mL	100	✓	✓	
07	591	↓ -13I	-	0.1mL	250	✓	✓	
08	592	↓ -14I	-	2.5mL	10	✓	✓	
09	593	↓ -14I	-	1.0mL	25	✓	✓	
10	594	15D156-01	-	2.5mL	1.0	✓	✓	
11	595	↓ -02	-			✓	✓	
12	596	↓ -03	-			✓	✓	
13	597	↓ -06	-			✓	✓	
14	598	↓ -07	-			✓	✓	
15	599	↓ -10	-			✓	✓	
16	600	↓ -11	-			✓	✓	
17	601	↓ -05	-			✓	✓	
18	602	↓ -08	-			✓	✓	
19	603	↓ -05I	-	2.5mL	10	✓	✓	
20	604	↓ -08I	-	↓	↓	✓	✓	6: 20pm
21	605	V001D26L	-					For training purpose
22	606	↓ C	-					↓
23								
24								
25								
26								
27								
28								
29								
30								WL 4/30/15

BATCH CV001A1312

2182

Instrument No.		01	
INITIAL CALIBRATION REFERENCE			
DATE	1/13/15		
ICAL ID	VD01A13		
STANDARDS			
NAME	ID	Amount (µl)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SVI-24-10-02	↓	2.5
BFB	↓ -17-01	↓	50
IS/SURR.	↓ -09-03	↓	2.5
	↓ -10-01	↓	2.5
ICV/LCS	↓ -10-03	↓	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	15D29		
	LOT #	Syringe Lot #	
pH strip	HC413032	M1WA-01-08-01	
Chlorine strip	40719	M06-F2487-04	
Methanol		↓ -05	
NaHSO ₄		M3W01-01-03-01	
Reagent Water	RW4-14-001		
Sand			
Electronic Data Archival Location		Date	
HPCHEM_VOA/TO01			

Comments: _____

Analyzed By: WL

Date Disposed: 4/30/15

Disposed By: WL

Injection Log

Directory: D:\HPCHEM\1\DATA\15D29

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RDV585.D	1.	BFB01D25	T/CHK	29 Apr 2015 10:06
2	2	RDV586.D	1.	CVO01A1312	100ppt	29 Apr 2015 10:31
3	3	RDV587.D	1.	VO01D25L	100ppt	29 Apr 2015 11:07
4	4	RDV588.D	1.	VO01D25C	100ppt	29 Apr 2015 11:32
5	5	RDV589.D	1.	VO01D25B 25mL	BLANK	29 Apr 2015 11:57
6	6	RDV590.D	1.	15D157-12I 0.25mL	DF=100	29 Apr 2015 12:32
7	7	RDV591.D	1.	15D157-13I 0.1mL	DF=250	29 Apr 2015 12:56
8	8	RDV592.D	1.	15D157-14I 2.5mL	DF=10	29 Apr 2015 13:21
9	9	RDV593.D	1.	15D157-19I 1.0mL	DF=25	29 Apr 2015 13:46
10	10	RDV594.D	1.	15D156-01 25mL	DF=1.0	29 Apr 2015 14:11
11	11	RDV595.D	1.	15D156-02 25mL	DF=1.0	29 Apr 2015 14:36
12	12	RDV596.D	1.	15D156-03 25mL	DF=1.0	29 Apr 2015 15:01
13	13	RDV597.D	1.	15D156-06 25mL	DF=1.0	29 Apr 2015 15:26
14	14	RDV598.D	1.	15D156-07 25mL	DF=1.0	29 Apr 2015 15:51
15	15	RDV599.D	1.	15D156-10 25mL	DF=1.0	29 Apr 2015 16:16
16	16	RDV600.D	1.	15D156-11 25mL	DF=1.0	29 Apr 2015 16:40
17	17	RDV601.D	1.	15D156-05 25mL	DF=1.0	29 Apr 2015 17:05
18	18	RDV602.D	1.	15D156-08 25mL	DF=1.0	29 Apr 2015 17:30
19	19	RDV603.D	1.	15D156-05I 2.5mL	DF=10	29 Apr 2015 17:55
20	20	RDV604.D	1.	15D156-08I 2.5mL	DF=10	29 Apr 2015 18:20
21	21	RDV605.D	1.	VO01D26L		29 Apr 2015 18:45
22	22	RDV606.D	1.	VO01D26C		29 Apr 2015 19:10

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

METHOD 8151A
HERBICIDES

SDG#: 15D156

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D156

METHOD 8151A
HERBICIDES

A total of nine (9) water samples were received on 04/23/15 to be analyzed for Herbicides in accordance with Method 8151A and project specific requirements.

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 in column A of CCV - WD27015 was bias high. Detected results in associates samples were reported from column B. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. HED010WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. Dinoseb was within LCS QC limits in HED010WL/HED010WC. Refer to LCS summary form for details.

Matrix QC Sample

No matrix QC sample was designated on this SDG.

Surrogate

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

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
HERBICIDES

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING

SDG NO. : 15D156
Instrument ID : GCT016

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	HED010WB	1	NA	04/27/1518:13	04/27/1511:30	WD27003B	WD27002B	HED010W	Method Blank
LCS1W	HED010WL	1	NA	04/27/1518:41	04/27/1511:30	WD27004B	WD27002B	HED010W	Lab Control Sample (LCS)
LCD1W	HED010WC	1	NA	04/27/1519:09	04/27/1511:30	WD27005B	WD27002B	HED010W	LCS Duplicate
04-22-15-WB2-3	D156-01	1	NA	04/28/1500:14	04/27/1511:30	WD27016B	WD27015B	HED010W	Field Sample
04-22-15-PWB-2	D156-02	1	NA	04/28/1500:42	04/27/1511:30	WD27017B	WD27015B	HED010W	Field Sample
04-22-15-PWB-6	D156-03	1	NA	04/28/1501:09	04/27/1511:30	WD27018B	WD27015B	HED010W	Field Sample
04-23-15-PWB-8	D156-05	1	NA	04/28/1501:37	04/27/1511:30	WD27019B	WD27015B	HED010W	Field Sample
04-23-15-EB-2	D156-06	1	NA	04/28/1502:05	04/27/1511:30	WD27020B	WD27015B	HED010W	Field Sample
04-23-15-PWB-3	D156-07	1	NA	04/28/1502:33	04/27/1511:30	WD27021B	WD27015B	HED010W	Field Sample
04-23-15-PWB-11	D156-08	1	NA	04/28/1503:00	04/27/1511:30	WD27022B	WD27015B	HED010W	Field Sample
04-23-15-BBW-1	D156-10	1	NA	04/28/1503:28	04/27/1511:30	WD27023B	WD27015B	HED010W	Field Sample
04-23-15-BBW-2	D156-11	1	NA	04/28/1503:56	04/27/1511:30	WD27024B	WD27015B	HED010W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 8151A
HERBICIDES

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D156                          Date Extracted: 04/27/15 11:30
Sample ID: 04-22-15-WB2-3                    Date Analyzed: 04/28/15 00:14
Lab Samp ID: D156-01                         Dilution Factor: 1
Lab File ID: WD27016B                        Matrix          : WATER
Ext Btch ID: HED010W                         % Moisture      : NA
Calib. Ref.: WD27015B                       Instrument ID   : GCT016
=====
  
```

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	9.343 (8.943)	10.00	93.4 (89.4)	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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D156                          Date Extracted: 04/27/15 11:30
Sample ID: 04-22-15-PWB-2                    Date Analyzed: 04/28/15 00:42
Lab Samp ID: D156-02                         Dilution Factor: 1
Lab File ID: WD27017B                       Matrix          : WATER
Ext Btch ID: HED010W                        % Moisture      : NA
Calib. Ref.: WD27015B                       Instrument ID   : GCT016
=====

```

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	9.152 (8.959)	10.00	91.5 (89.6)	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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D156                          Date Extracted: 04/27/15 11:30
Sample ID: 04-22-15-PWB-6                     Date Analyzed: 04/28/15 01:09
Lab Samp ID: D156-03                          Dilution Factor: 1
Lab File ID: WD27018B                         Matrix          : WATER
Ext Btch ID: HED010W                          % Moisture     : NA
Calib. Ref.: WD27015B                         Instrument ID  : GCT016
=====

```

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	8.832 (8.867)	10.00	88.3 (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: 04/23/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D156                          Date Extracted: 04/27/15 11:30
Sample ID: 04-23-15-PWB-8                    Date Analyzed: 04/28/15 01:37
Lab Samp ID: D156-05                         Dilution Factor: 1
Lab File ID: WD27019B                        Matrix          : WATER
Ext Btch ID: HED010W                         % Moisture     : NA
Calib. Ref.: WD27015B                       Instrument ID  : GCT016
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)	
DINOSEB	0.26J (ND)	0.40	0.20 0.20	
SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	9.178 (9.098)	10.00	91.8 (91.0)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ()

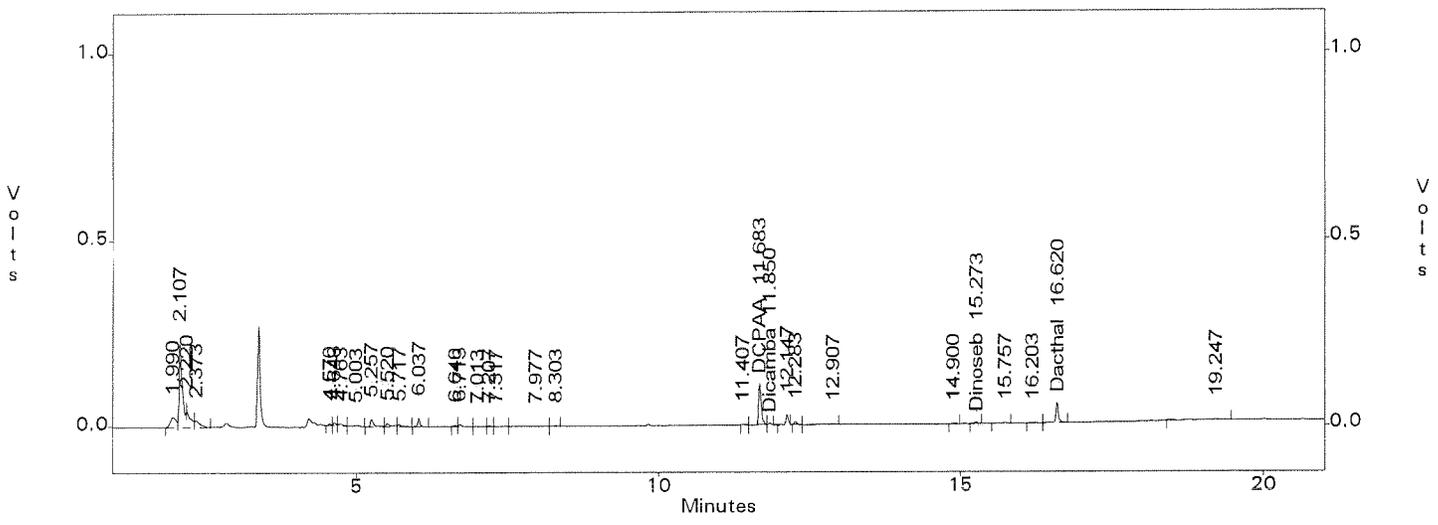
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd27\wd27.019
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : D156-05
 Acquired : Apr 28, 2015 01:37:38
 Printed : Apr 28, 2015 11:51:03
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	3.857	0.0	0.00	0.000	--
3,5 Dichlorobenzoic	10.057	0.0	0.00	0.000	--
4-Nitrophenol	10.927	0.0	0.00	0.000	--
DCPAA	11.683	343321.0	374.06	917.820	VV
Dicamba	11.850	15480.0	1227.72	12.609	Vx
MCPP	11.947	0.0	0.00	0.000	--
MCPA	12.443	0.0	0.00	0.000	--
DCP	12.797	0.0	0.00	0.000	--
2,4-D	13.360	0.0	0.00	0.000	--
Pentachlorophenol	14.060	0.0	0.00	0.000	--
Silvex	14.223	0.0	0.00	0.000	--
2,4,5-T	14.860	0.0	0.00	0.000	--
Chloramben	15.113	0.0	0.00	0.000	--
Dinoseb	15.273	10825.0	423.54	25.558	vv
2,4-DB	15.450	0.0	0.00	0.000	--
Bentazon	16.347	0.0	0.00	0.000	--
Dacthal	16.620	159575.0	1871.17	85.281	VV
Picloram	17.133	0.0	0.00	0.000	--
Acifluorfen	18.830	0.0	0.00	0.000	--

c:\ezchrom\chrom\wd27\wd27.019 -- Channel A



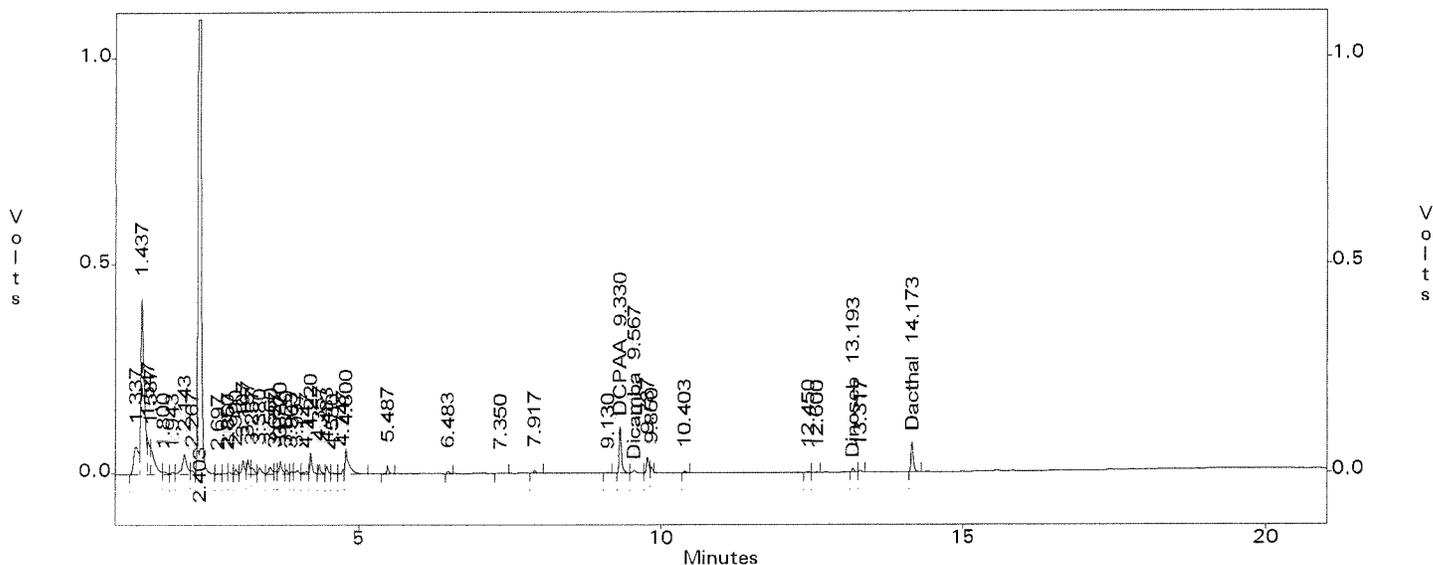
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd27\wd27.019
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : D156-05
 Acquired : Apr 28, 2015 01:37:38
 Printed : Apr 28, 2015 11:51:03
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.807	0.0	0.00	0.000	--
3,5 Dichlorobenzoic	7.857	0.0	0.00	0.000	--
4-Nitrophenol	8.653	0.0	0.00	0.000	--
DCPAA	9.330	286616.0	315.03	909.800	VV
Dicamba	9.567	21909.0	1259.50	17.395	VV
MCPP	9.747	0.0	0.00	0.000	--
MCPA	10.050	0.0	0.00	0.000	--
DCP	10.483	0.0	0.00	0.000	--
2,4-D	10.873	0.0	0.00	0.000	--
Pentachlorophenol	11.330	0.0	0.00	0.000	--
Silvex	11.833	0.0	0.00	0.000	--
2,4,5-T	12.277	0.0	0.00	0.000	--
Chloramben	12.307	0.0	0.00	0.000	--
2,4-DB	12.850	0.0	0.00	0.000	--
Dinoseb	13.193	19718.0	1375.76	14.332	VV
Bentazon	13.763	0.0	0.00	0.000	--
Dacthal	14.173	172347.0	2020.01	85.320	BB
Picloram	14.230	0.0	0.00	0.000	--
Acifluorfen	16.453	0.0	0.00	0.000	--

c:\ezchrom\chrom\wd27\wd27.019 -- Channel B



METHOD 8151A
HERBICIDES

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/23/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D156                          Date Extracted: 04/27/15 11:30
Sample ID: 04-23-15-EB-2                     Date Analyzed: 04/28/15 02:05
Lab Samp ID: D156-06                          Dilution Factor: 1
Lab File ID: WD270208                         Matrix          : WATER
Ext Btch ID: HED010W                          % Moisture     : NA
Calib. Ref.: WD27015B                         Instrument ID  : GCT016
=====

```

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	8.294 (8.182)	10.00	82.9 (81.8)	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: 04/23/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D156                          Date Extracted: 04/27/15 11:30
Sample ID: 04-23-15-PWB-3                    Date Analyzed: 04/28/15 02:33
Lab Samp ID: D156-07                         Dilution Factor: 1
Lab File ID: WD27021B                        Matrix          : WATER
Ext Btch ID: HED010W                         % Moisture      : NA
Calib. Ref.: WD27015B                        Instrument ID   : GCT016
=====
  
```

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	9.680 (9.455)	10.00	96.8 (94.5)	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: 04/23/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D156                          Date Extracted: 04/27/15 11:30
Sample ID: 04-23-15-PWB-11                   Date Analyzed: 04/28/15 03:00
Lab Samp ID: D156-08                         Dilution Factor: 1
Lab File ID: WD27022B                        Matrix          : WATER
Ext Btch ID: HED010W                         % Moisture      : NA
Calib. Ref.: WD27015B                        Instrument ID   : GCT016
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)	
DINOSEB	1.3 (0.77)	0.40	0.20 0.20	
SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	10.44 (10.14)	10.00	104 (101)	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: 04/23/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D156                          Date Extracted: 04/27/15 11:30
Sample ID: 04-23-15-BBW-1                    Date Analyzed: 04/28/15 03:28
Lab Samp ID: D156-10                         Dilution Factor: 1
Lab File ID: WD27023A                        Matrix          : WATER
Ext Btch ID: HED010W                         % Moisture      : NA
Calib. Ref.: WD27015A                        Instrument ID   : GCT016
=====
  
```

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	8.980 (8.691)	10.00	89.8 (86.9)	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: 04/23/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D156                          Date Extracted: 04/27/15 11:30
Sample ID: 04-23-15-BBW-2                    Date Analyzed: 04/28/15 03:56
Lab Samp ID: D156-11                         Dilution Factor: 1
Lab File ID: WD27024B                        Matrix          : WATER
Ext Btch ID: HED010W                         % Moisture      : NA
Calib. Ref.: WD27015B                        Instrument ID   : GCT016
=====

```

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	9.434 (9.155)	10.00	94.3 (91.5)	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     : B & B GROUNDWATER SAMPLING      Date Received: 04/27/15
Batch No.   : 15D156                          Date Extracted: 04/27/15 11:30
Sample ID:  MBLK1W                            Date Analyzed: 04/27/15 18:13
Lab Samp ID: HED010WB                        Dilution Factor: 1
Lab File ID: WD27003B                        Matrix          : WATER
Ext Btch ID: HED010W                         % Moisture      : NA
Calib. Ref.: WD27002B                        Instrument ID   : GCT016
=====

```

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	8.129 (7.761)	10.00	81.3 (77.6)	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: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D156
METHOD: METHOD 8151A

MATRIX: WATER
DILUTION FACTOR: 1 1 1 % MOISTURE: NA
SAMPLE ID: MBLK1W
LAB SAMP ID: HED010WB HED010WL HED010WC
LAB FILE ID: WD27003B WD27004B WD27005B
DATE EXTRACTED: 04/27/1511:30 04/27/1511:30 04/27/1511:30 DATE COLLECTED: NA
DATE ANALYZED: 04/27/1518:13 04/27/1518:41 04/27/1519:09 DATE RECEIVED: 04/27/15
PREP. BATCH: HED010W HED010W HED010W
CALIB. REF: WD27002B WD27002B WD27002B

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	0.649 (0.283J)	65 (28)	1.00	0.716 (0.300J)	72 (30)	10 (6)	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	8.112 (7.763)	81.1 (77.6)	10.00	8.143 (7.927)	81.4 (79.3)	40-140

5017

QC DATA

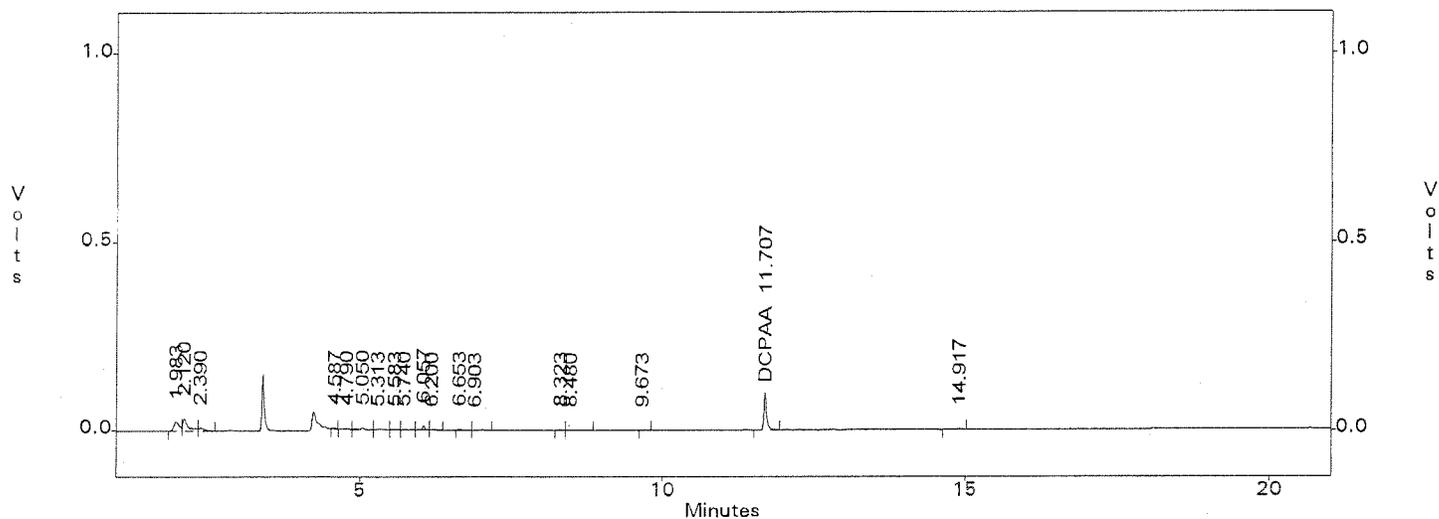
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd27\wd27.003
Method : c:\ezchrom\methods\hel6d08.met
Sample ID : HED010WB
Acquired : Apr 27, 2015 18:13:53
Printed : Apr 28, 2015 11:36:54
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	3.873	0.0	0.00	0.000	--
3,5 Dichlorobenzoic	10.080	0.0	0.00	0.000	--
4-Nitrophenol	10.953	0.0	0.00	0.000	--
DCPAA	11.707	304059.0	374.06	812.859	Vx
Dicamba	11.873	0.0	0.00	0.000	--
MCPPP	11.970	0.0	0.00	0.000	--
MCPA	12.473	0.0	0.00	0.000	--
DCP	12.823	0.0	0.00	0.000	--
2,4-D	13.387	0.0	0.00	0.000	--
Pentachlorophenol	14.087	0.0	0.00	0.000	--
Silvex	14.250	0.0	0.00	0.000	--
2,4,5-T	14.887	0.0	0.00	0.000	--
Chloramben	15.140	0.0	0.00	0.000	--
Dinoseb	15.300	0.0	0.00	0.000	--
2,4-DB	15.473	0.0	0.00	0.000	--
Bentazon	16.373	0.0	0.00	0.000	--
Dacthal	16.647	0.0	0.00	0.000	--
Picloram	17.157	0.0	0.00	0.000	--
Acifluorfen	18.857	0.0	0.00	0.000	--

c:\ezchrom\chrom\wd27\wd27.003 -- Channel A



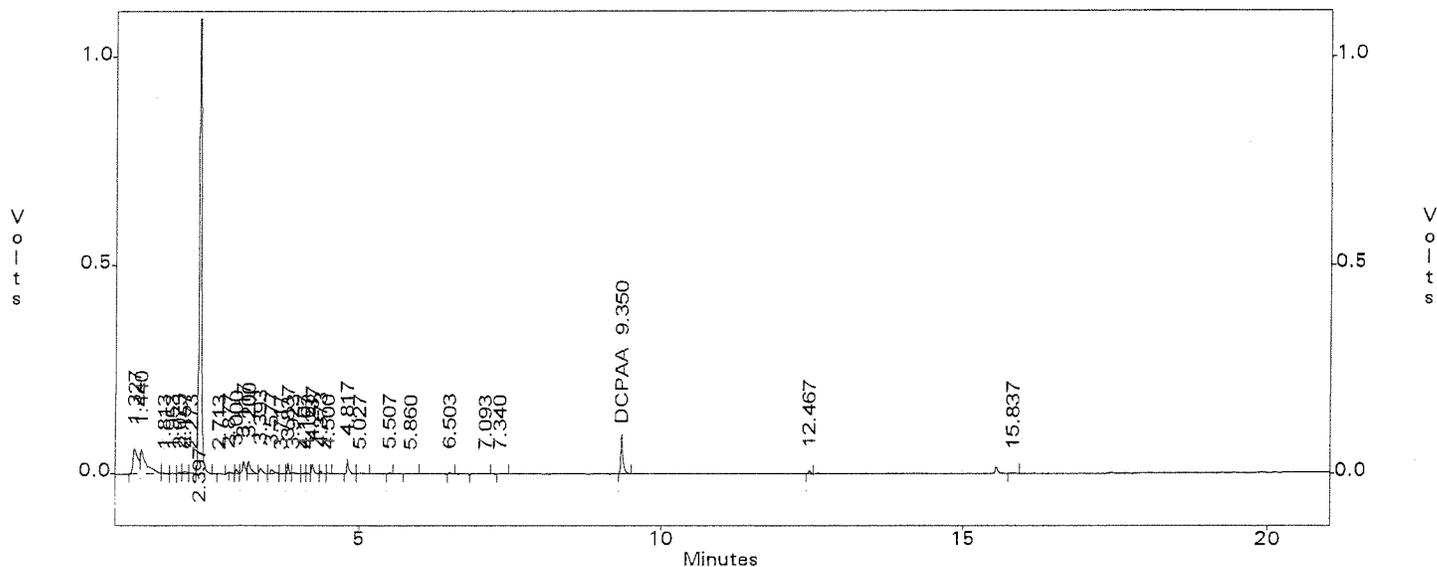
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd27\wd27.003
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : HED010WB
 Acquired : Apr 27, 2015 18:13:53
 Printed : Apr 28, 2015 11:36:55
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.817	0.0	0.00	0.000	--
3,5 Dichlorobenzoic	7.873	0.0	0.00	0.000	--
4-Nitrophenol	8.673	0.0	0.00	0.000	--
DCPAA	9.350	244509.0	315.03	776.140	VV
Dicamba	9.587	0.0	0.00	0.000	--
MCPD	9.763	0.0	0.00	0.000	--
MCPA	10.070	0.0	0.00	0.000	--
DCP	10.503	0.0	0.00	0.000	--
2,4-D	10.893	0.0	0.00	0.000	--
Pentachlorophenol	11.353	0.0	0.00	0.000	--
Silvex	11.857	0.0	0.00	0.000	--
2,4,5-T	12.297	0.0	0.00	0.000	--
Chloramben	12.327	0.0	0.00	0.000	--
2,4-DB	12.870	0.0	0.00	0.000	--
Dinoseb	13.217	0.0	0.00	0.000	--
Bentazon	13.783	0.0	0.00	0.000	--
Dacthal	14.200	0.0	0.00	0.000	--
Picloram	14.250	0.0	0.00	0.000	--
Acifluorfen	16.473	0.0	0.00	0.000	--

c:\ezchrom\chrom\wd27\wd27.003 -- Channel B



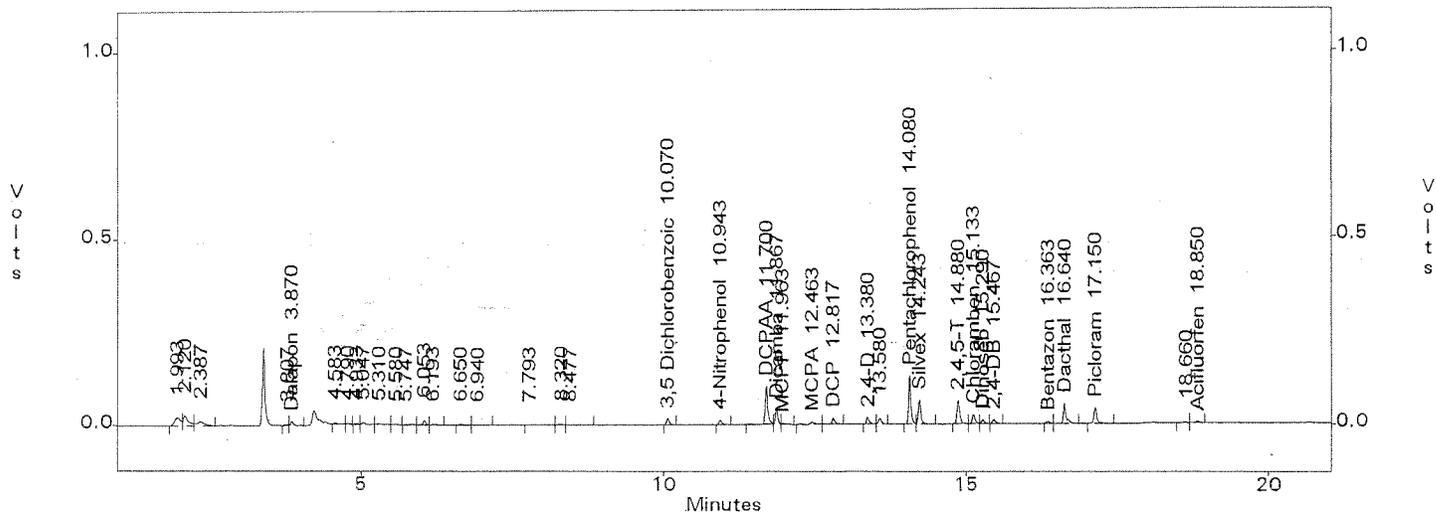
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd27\wd27.004
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : HED010WL
 Acquired : Apr 27, 2015 18:41:37
 Printed : May 05, 2015 11:06:26
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	3.870	34603.0	385.06	89.865	xI
3,5 Dichlorobenzoic	10.070	52245.0	686.43	76.111	VV
4-Nitrophenol	10.943	39213.0	158.16	247.932	xI
DCPAA	11.700	303422.0	374.06	811.156	xV
Dicamba	11.867	114667.0	1227.72	93.399	Vx
MCCP	11.963	10950.0	1.91	5733.639	xV
MCPA	12.463	25905.0	4.63	5596.993	xV
DCP	12.817	55191.0	476.91	115.725	VV
2,4-D	13.380	56039.0	535.32	104.682	VV
Pentachlorophenol	14.080	354151.0	4242.68	83.473	VV
Silvex	14.243	167051.0	1646.95	101.431	VV
2,4,5-T	14.880	176274.0	1656.21	106.432	BV
Chloramben	15.133	68839.0	1062.59	64.784	vv
Dinoseb	15.290	27502.0	423.54	64.933	vv
2,4-DB	15.467	31440.0	292.39	107.528	vv
Bentazon	16.363	16151.0	180.30	89.577	BV
Dacthal	16.640	172968.0	1871.17	92.438	VV
Picloram	17.150	125122.0	1455.06	85.991	VV
Acifluorfen	18.850	12841.0	460.27	27.899	VV

c:\ezchrom\chrom\wd27\wd27.004 -- Channel A



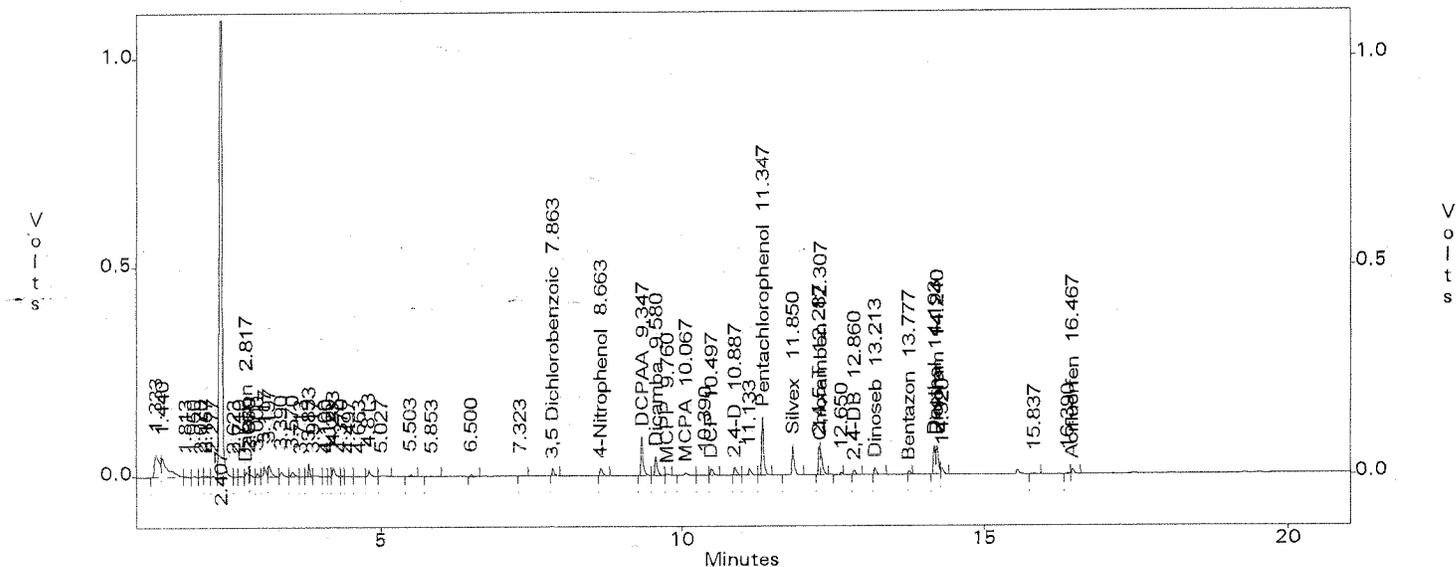
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd27\wd27.004
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : HED010WL
 Acquired : Apr 27, 2015 18:41:37
 Printed : May 05, 2015 11:06:27
 User : RZhou

Channel B Results

Peak Name	RT (min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	2.817	32592.0	490.63	66.429	VS
3,5 Dichlorobenzoic	7.863	45608.0	606.49	75.200	vv
4-Nitrophenol	8.663	50344.0	387.92	129.779	vv
DCPAA	9.347	244545.0	315.03	776.255	VV
Dicamba	9.580	114352.0	1259.50	90.791	VV
MCPA	9.760	9964.0	2.39	4172.389	VV
MCPA	10.067	22932.0	4.44	5159.309	VV
DCP	10.497	44200.0	465.54	94.944	VB
2,4-D	10.887	51443.0	590.91	87.057	BV
Pentachlorophenol	11.347	345793.0	4488.93	77.032	VV
Silvex	11.850	184949.0	1898.45	97.421	VV
2,4,5-T	12.287	142242.0	1300.86	109.344	Bx
Chloramben	12.307	129814.0	2268.31	57.229	xV
2,4-DB	12.860	28771.0	325.68	88.340	xV
Dinoseb	13.213	38957.0	1375.76	28.317	VV
Bentazon	13.777	22577.0	263.99	85.523	xV
Dacthal	14.193	147392.0	2020.01	72.966	VS
Picloram	14.240	194161.0	2967.34	65.433	SV
Acifluorfen	16.467	29293.0	1775.02	16.503	VB

c:\ezchrom\chrom\wd27\wd27.004 -- Channel B



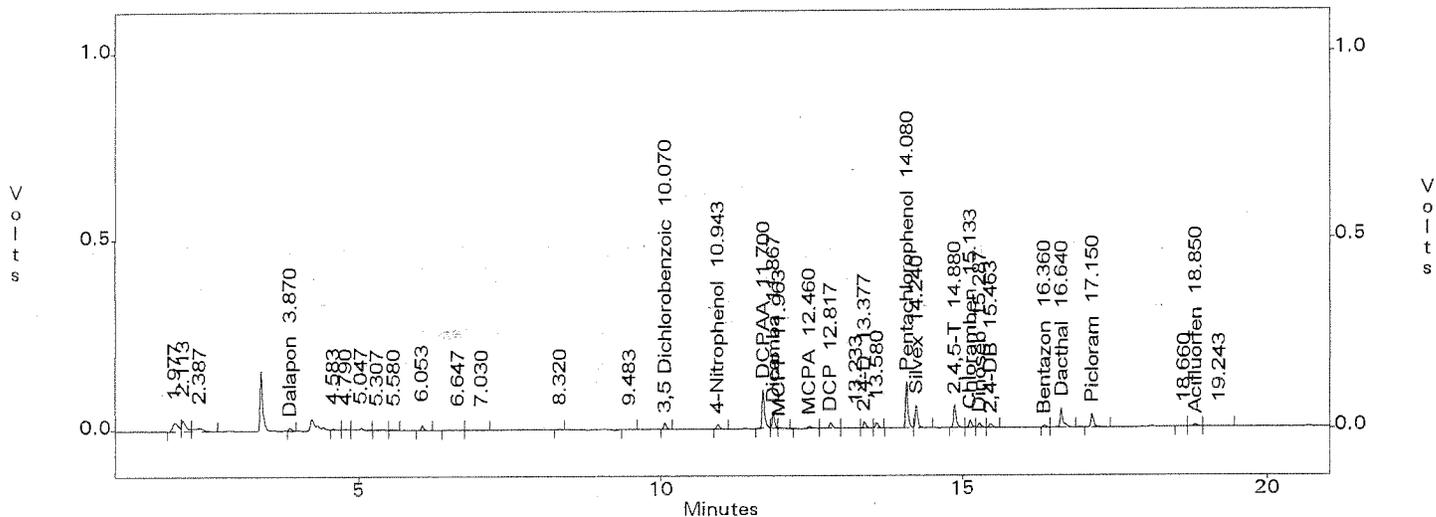
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd27\wd27.005
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : HED010WC
 Acquired : Apr 27, 2015 19:09:05
 Printed : May 05, 2015 11:06:54
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	3.870	26678.0	385.06	69.284	xV
3,5 Dichlorobenzoic	10.070	48779.0	686.43	71.062	VV
4-Nitrophenol	10.943	39654.0	158.16	250.720	xI
DCPAA	11.700	304601.0	374.06	814.308	VV
Dicamba	11.867	109542.0	1227.72	89.224	Vx
MCPPP	11.963	10679.0	1.91	5591.737	xV
MCPA	12.460	24489.0	4.63	5291.055	xV
DCP	12.817	51119.0	476.91	107.187	VV
2,4-D	13.377	52681.0	535.32	98.409	VV
Pentachlorophenol	14.080	334734.0	4242.68	78.897	VV
Silvex	14.240	159402.0	1646.95	96.786	VV
2,4,5-T	14.880	166176.0	1656.21	100.335	BV
Chloramben	15.133	53205.0	1062.59	50.071	vv
Dinoseb	15.287	30333.0	423.54	71.617	vv
2,4-DB	15.463	29616.0	292.39	101.290	vv
Bentazon	16.360	14503.0	180.30	80.437	BV
Dacthal	16.640	162010.0	1871.17	86.582	VV
Picloram	17.150	105906.0	1455.06	72.785	VV
Acifluorfen	18.850	16952.0	460.27	36.830	VV

c:\ezchrom\chrom\wd27\wd27.005 -- Channel A



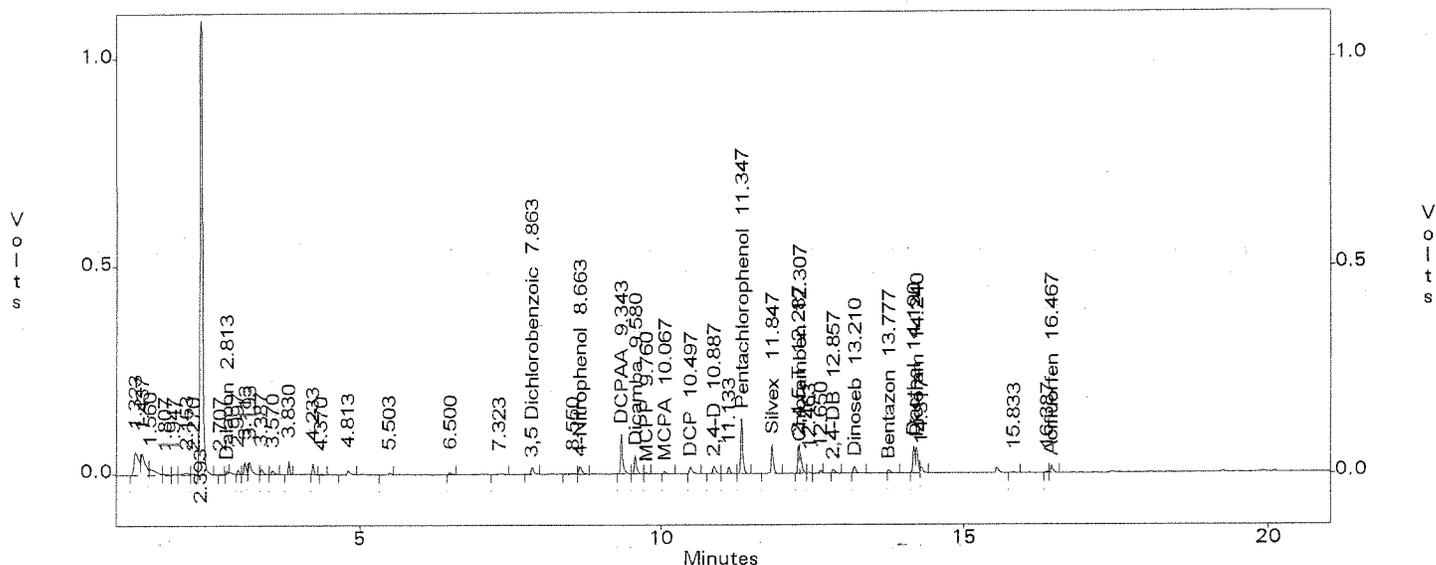
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd27\wd27.005
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : HED010WC
 Acquired : Apr 27, 2015 19:09:05
 Printed : May 05, 2015 11:06:54
 User : RZhou

Channel B Results

Peak Name	RT (min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	2.813	13755.0	490.63	28.035	VS
3,5 Dichlorobenzoic	7.863	51130.0	606.49	84.305	vv
4-Nitrophenol	8.663	50855.0	387.92	131.096	vv
DCPAA	9.343	249741.0	315.03	792.748	VV
Dicamba	9.580	111352.0	1259.50	88.410	VV
MCPA	9.760	8767.0	2.39	3671.149	VV
MCPA	10.067	19963.0	4.44	4491.334	BV
DCP	10.497	45057.0	465.54	96.784	VB
2,4-D	10.887	53946.0	590.91	91.293	BV
Pentachlorophenol	11.347	329245.0	4488.93	73.346	VV
Silvex	11.847	178450.0	1898.45	93.998	VV
2,4,5-T	12.287	136895.0	1300.86	105.234	Bx
Chloramben	12.307	111270.0	2268.31	49.054	xV
2,4-DB	12.857	27128.0	325.68	83.295	xV
Dinoseb	13.210	41273.0	1375.76	30.000	VV
Bentazon	13.777	24279.0	263.99	91.970	xV
Dacthal	14.190	141110.0	2020.01	69.856	VS
Picloram	14.240	165127.0	2967.34	55.648	SV
Acifluorfen	16.467	39795.0	1775.02	22.419	VB

c:\ezchrom\chrom\wd27\wd27.005 -- Channel B



INITIAL CALIBRATIONS

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-W GC16
 GC Column : ZB-35HT
 Column size ID : 30MX0.25MM 0.25UM
 LFID & Datetime: WD08002A 04/08/15 11:26
 LFID & Datetime: WD08003A 04/08/15 11:53
 LFID & Datetime: WD08004A 04/08/15 12:21
 LFID & Datetime: WD08005A 04/08/15 12:48
 LFID & Datetime: WD08006A 04/08/15 13:16
 LFID & Datetime: WD08007A 04/08/15 13:43
 LFID & Datetime: WD08008A 04/08/15 14:11
 LFID & Datetime: WD08009A 04/08/15 14:38
 CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS					(AREA)/UNIT				MEAN	%RSD
		1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X			
Dalapon	9.10	0	385	406	392	383	373	385	373	385.1	2.9	
3,5-Dichlorobenzo	9.31	0	734	719	695	685	668	659	644	686.4	4.7	
4-Nitrophenol	9.09	0	166	167	161	161	155	150	148	158.2	4.7	
Dicamba	9.40	0	1181	1249	1232	1240	1237	1227	1227	1227.7	1.8	
MCPP	469.30	0	0	2	2	2	2	2	2	1.9	11.5	
MCPA	467.30	0	0	5	5	5	4	4	4	4.6	11.6	
Dichloroprop	9.44	0	513	499	482	475	464	457	448	476.9	4.8	
2,4-D	9.40	0	577	558	542	534	516	514	505	535.3	4.8	
Pentachlorophenol	9.50	3344	3794	4209	4463	4553	4523	4528	4528	4242.7	10.5	
2,4,5-TP(Silvex)	9.50	0	1461	1560	1648	1694	1713	1724	1728	1646.9	6.1	
Chloramben	9.36	0	971	1020	1049	1083	1092	1113	1111	1062.6	4.9	
2,4,5-T	9.48	0	1488	1589	1656	1699	1712	1721	1728	1656.2	5.3	
2,4-DB	9.47	0	293	315	296	294	286	284	279	292.4	3.9	
Dinoseb	9.45	0	500	482	430	416	393	378	367	423.5	12.0	
Bentazon	9.45	0	173	176	178	181	181	186	187	180.3	2.8	
Dacthal	9.15	0	1603	1712	1855	1949	1951	2007	2022	1871.2	8.5	
Picloram	9.45	0	1282	1316	1407	1482	1517	1572	1609	1455.1	8.6	
Acifluorfen	9.63	0	506	489	469	459	443	431	424	460.3	6.5	
SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD	
2,4-DCPAA	93.58	0	452	414	381	363	347	336	326	374.1	12.1	

mu 4/10/15

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-W GC16
 GC Column : STX-CLPESTII
 Column size ID : 30MX0.32MM 0.32UM
 LFID & Datetime: WD08002B 04/08/15 11:26
 LFID & Datetime: WD08003B 04/08/15 11:53
 LFID & Datetime: WD08004B 04/08/15 12:21
 LFID & Datetime: WD08005B 04/08/15 12:48
 LFID & Datetime: WD08006B 04/08/15 13:16
 LFID & Datetime: WD08007B 04/08/15 13:43
 LFID & Datetime: WD08008B 04/08/15 14:11
 LFID & Datetime: WD08009B 04/08/15 14:38
 CONC UNIT: ppb

COMPOUND	CONC	CALIBRATION FACTORS								(AREA)/UNIT	
	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
Dalapon	9.10	0	440	466	475	502	522	525	505	490.6	6.4
3,5-Dichlorobenzo	9.31	0	735	672	619	589	561	545	524	606.5	12.4
4-Nitrophenol	9.09	0	497	439	402	374	351	334	318	387.9	16.3
Dicamba	9.40	0	1413	1328	1272	1246	1207	1191	1160	1259.5	6.9
MCPP	469.30	0	0	3	2	2	2	2	2	2.4	6.0
MCPA	467.30	0	0	6	5	5	4	4	4	4.4	15.0
Dichloroprop	9.44	0	547	501	466	461	441	427	417	465.5	9.8
2,4-D	9.40	0	692	637	605	580	557	540	526	590.9	10.0
Pentachlorophenol	9.50	4879	4912	4724	4510	4391	4256	4177	4061	4488.9	7.2
2,4,5-TP(Silvex)	9.50	0	1975	1967	1943	1911	1860	1837	1796	1898.5	3.6
Chloramben	9.36	0	2383	2414	2294	2232	2254	2176	2125	2268.3	4.6
2,4,5-T	9.48	0	1372	1323	1359	1346	1222	1247	1237	1300.9	4.9
2,4-DB	9.47	0	361	346	331	323	312	306	301	325.7	6.7
Dinoseb	9.45	0	1597	1470	1395	1355	1309	1263	1241	1375.8	9.1
Bentazon	9.45	0	272	263	262	265	260	263	262	264.0	1.5
Dacthal	9.15	0	2232	2211	2049	2013	1897	1868	1869	2020.0	7.6
Picloram	9.45	0	2803	2884	3044	3027	3045	3029	2939	2967.3	3.2
Acifluorfen	9.63	0	1852	1805	1788	1785	1747	1730	1718	1775.0	2.6
SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD
2,4-DCPAA	93.58	0	393	348	318	302	289	282	272	315.0	13.6

m 4/10/15

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-W GC16
GC Column : ZB-35HT
Column size ID : 30MX0.25MM 0.25UM
LFID & Datetime: WD08002A 04/08/15 11:26
LFID & Datetime: WD08003A 04/08/15 11:53
LFID & Datetime: WD08004A 04/08/15 12:21
LFID & Datetime: WD08005A 04/08/15 12:48
LFID & Datetime: WD08006A 04/08/15 13:16
LFID & Datetime: WD08007A 04/08/15 13:43
LFID & Datetime: WD08008A 04/08/15 14:11
LFID & Datetime: WD08009A 04/08/15 14:38

COMPOUND	RT OF STANDARDS (MIN)								MEAN RT	RT WINDOW		RTWINDOW WIDTH
	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X		FROM	TO	
Dalapon	3.783	3.783	3.783	3.783	3.780	3.783	3.780	3.777	3.781	3.765	3.797	0.016
3,5-Dichlorobenzo	9.950	9.943	9.943	9.940	9.933	9.933	9.933	9.930	9.936	9.915	9.957	0.021
4-Nitrophenol	0.000	10.810	10.810	10.803	10.797	10.800	10.797	10.793	10.801	10.781	10.821	0.020
Dicamba	11.733	11.730	11.730	11.727	11.720	11.723	11.723	11.720	11.725	11.702	11.748	0.023
MCPP	0.000	0.000	11.830	11.827	11.820	11.823	11.823	11.820	11.824	11.801	11.847	0.023
MCPA	12.330	12.327	12.327	12.323	12.317	12.317	12.317	12.313	12.319	12.297	12.341	0.022
Dichloroprop	12.683	12.677	12.680	12.677	12.670	12.670	12.670	12.667	12.673	12.651	12.695	0.022
2,4-D	13.250	13.243	13.243	13.237	13.230	13.230	13.230	13.227	13.234	13.207	13.261	0.027
Pentachlorophenol	13.933	13.930	13.933	13.930	13.923	13.923	13.923	13.920	13.927	13.900	13.954	0.027
2,4,5-TP(Silvex)	14.107	14.100	14.100	14.097	14.090	14.093	14.090	14.087	14.094	14.073	14.115	0.021
Chloramben	14.990	14.987	14.987	14.983	14.973	14.977	14.977	14.970	14.979	14.957	15.001	0.022
2,4,5-T	14.743	14.740	14.737	14.733	14.727	14.727	14.727	14.723	14.731	14.709	14.753	0.022
2,4-DB	15.337	15.330	15.327	15.320	15.313	15.313	15.313	15.307	15.318	15.297	15.339	0.021
Dinoseb	15.150	15.147	15.147	15.143	15.137	15.140	15.140	15.133	15.141	15.120	15.162	0.021
Bentazon	0.000	16.210	16.210	16.207	16.200	16.203	16.203	16.197	16.204	16.183	16.225	0.021
Dacthal	16.490	16.487	16.490	16.483	16.477	16.480	16.480	16.477	16.482	16.461	16.503	0.021
Picloram	17.003	17.000	17.000	16.993	16.987	16.987	16.987	16.980	16.991	16.970	17.012	0.021
Acifluorfen	18.703	18.700	18.700	18.697	18.690	18.690	18.690	18.683	18.693	18.672	18.714	0.021
SURROGATE	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
2,4-DCPAA	11.570	11.567	11.567	11.563	11.557	11.557	11.557	11.553	11.560	11.537	11.583	0.023

pu 4/10/15

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-W GC16
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.32UM
LFID & Datetime: WD08002B 04/08/15 11:26
LFID & Datetime: WD08003B 04/08/15 11:53
LFID & Datetime: WD08004B 04/08/15 12:21
LFID & Datetime: WD08005B 04/08/15 12:48
LFID & Datetime: WD08006B 04/08/15 13:16
LFID & Datetime: WD08007B 04/08/15 13:43
LFID & Datetime: WD08008B 04/08/15 14:11
LFID & Datetime: WD08009B 04/08/15 14:38

COMPOUND	RT OF STANDARDS (MIN)								MEAN RT	RT WINDOW		RTWINDOW WIDTH
	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X		FROM	TO	
Dalapon	2.773	2.773	2.773	2.773	2.767	2.770	2.770	2.767	2.770	2.754	2.786	0.016
3,5-Dichlorobenzo	7.797	7.790	7.787	7.783	7.777	7.780	7.780	7.773	7.781	7.760	7.802	0.021
4-Nitrophenol	8.597	8.590	8.587	8.583	8.573	8.577	8.577	8.570	8.580	8.549	8.611	0.031
Dicamba	9.500	9.497	9.497	9.493	9.487	9.490	9.490	9.487	9.492	9.468	9.516	0.024
MCPP	9.680	9.677	9.677	9.673	9.667	9.670	9.670	9.667	9.671	9.650	9.692	0.021
MCPA	9.990	9.987	9.983	9.980	9.973	9.977	9.977	9.973	9.977	9.953	10.001	0.024
Dichloroprop	10.420	10.417	10.417	10.413	10.407	10.407	10.407	10.403	10.410	10.384	10.436	0.026
2,4-D	10.817	10.810	10.810	10.803	10.797	10.797	10.797	10.793	10.801	10.779	10.823	0.022
Pentachlorophenol	11.260	11.257	11.260	11.257	11.250	11.250	11.250	11.247	11.254	11.230	11.278	0.024
2,4,5-TP(Silvex)	11.770	11.767	11.763	11.760	11.753	11.757	11.757	11.753	11.759	11.735	11.783	0.024
Chloramben	12.237	12.233	12.233	12.230	12.223	12.223	12.223	12.220	12.226	12.200	12.252	0.026
2,4,5-T	0.000	12.210	12.207	12.203	12.197	12.197	12.197	12.193	12.201	12.177	12.225	0.024
2,4-DB	12.790	12.783	12.780	12.773	12.767	12.767	12.767	12.763	12.771	12.745	12.797	0.026
Dinoseb	13.127	13.123	13.123	13.120	13.113	13.117	13.117	13.113	13.118	13.094	13.142	0.024
Bentazon	13.690	13.687	13.690	13.687	13.680	13.680	13.680	13.677	13.683	13.656	13.710	0.027
Dacthal	14.107	14.103	14.103	14.100	14.093	14.097	14.097	14.093	14.098	14.071	14.125	0.027
Picloram	14.167	14.160	14.157	14.150	14.143	14.143	14.143	14.137	14.148	14.122	14.174	0.026
Acifluorfen	16.383	16.380	16.380	16.377	16.370	16.370	16.370	16.367	16.373	16.349	16.397	0.024
SURROGATE	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
2,4-DCPAA	9.267	9.263	9.263	9.260	9.253	9.257	9.257	9.253	9.258	9.234	9.282	0.024

ru 4/10/15

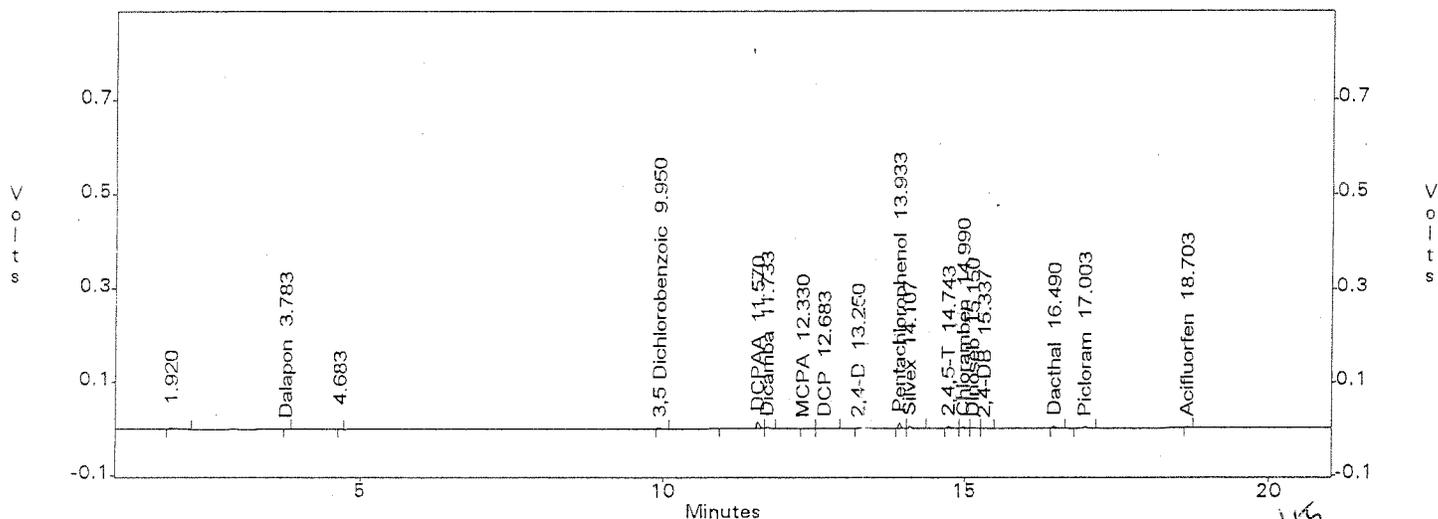
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.002
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : HE16D0801
 Acquired : Apr 08, 2015 11:26:16
 Printed : Apr 08, 2015 17:22:42
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	3.783	3589.0	385.06	-1.000	BV
3,5 Dichlorobenzoic	9.950	6917.0	686.43	-1.000	BV
4-Nitrophenol	10.810	0.0	0.00	0.000	--
DCPAA	11.570	46939.0	374.06	-1.000	VV
Dicamba	11.733	11737.0	1227.72	-1.000	VV
MCPA	11.833	0.0	0.00	0.000	--
MCPA	12.330	3473.0	4.63	-1.000	BV
DCP	12.683	5435.0	476.91	-1.000	VV
2,4-D	13.250	5467.0	535.32	-1.000	BB
Pentachlorophenol	13.933	31751.0	4242.68	9.496	BV
Silvex	14.107	13541.0	1646.95	-1.000	VB
2,4,5-T	14.743	13791.0	1656.21	-1.000	BV
Chloramben	14.990	9297.0	1062.59	-1.000	VV
Dinoseb	15.150	5098.0	423.54	-1.000	VV
2,4-DB	15.337	2782.0	292.39	-1.000	VV
Bentazon	16.213	0.0	0.00	0.000	--
Dacthal	16.490	13927.0	1871.17	-1.000	BV
Picloram	17.003	11292.0	1455.06	-1.000	VB
Acifluorfen	18.703	4519.0	460.27	-1.000	BV

c:\ezchrom\chrom\wd08\wd08.002 -- Channel A



4/10/15

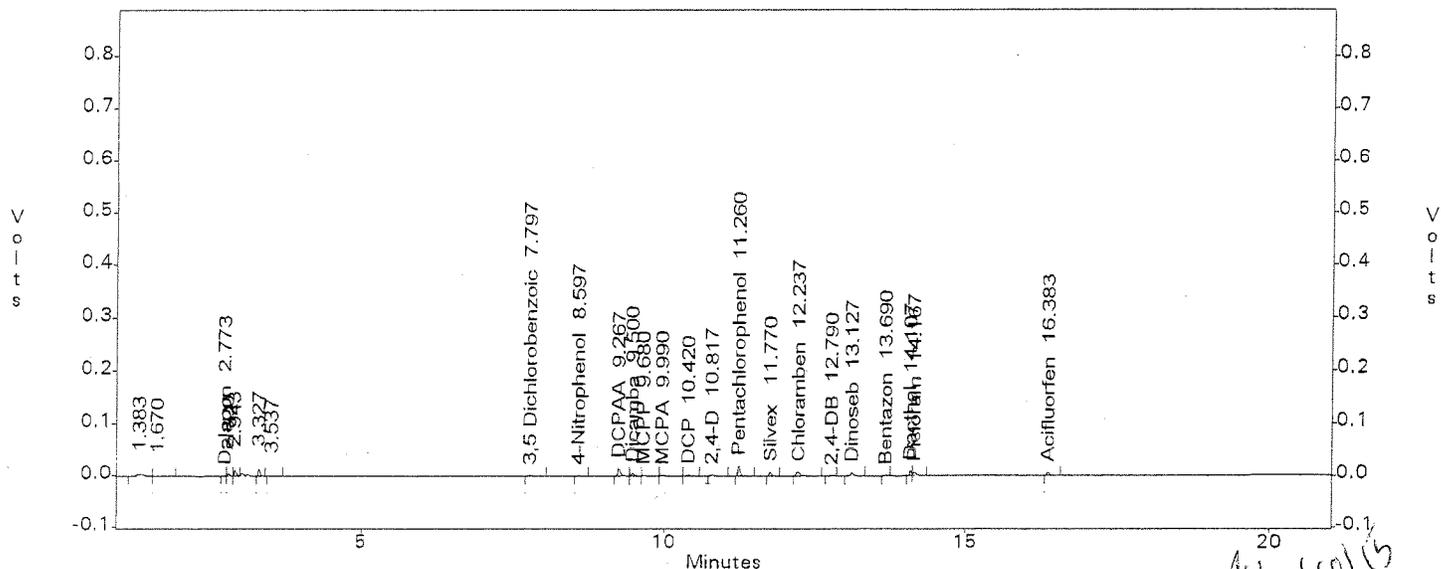
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.002
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : HE16D0801
 Acquired : Apr 08, 2015 11:26:16
 Printed : Apr 08, 2015 17:22:42
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.773	3473.0	490.63	-1.000	Bx
3,5 Dichlorobenzoic	7.797	7419.0	606.49	-1.000	vv
4-Nitrophenol	8.597	4773.0	387.92	-1.000	vv
DCPAA	9.267	41354.0	315.03	-1.000	BV
Dicamba	9.500	14297.0	1259.50	-1.000	VV
MCPP	9.680	2206.0	2.39	-1.000	Vx
MCPA	9.990	4778.0	4.44	-1.000	xV
DCP	10.420	5867.0	465.54	-1.000	VV
2,4-D	10.817	6963.0	590.91	-1.000	xB
Pentachlorophenol	11.260	46335.0	4488.93	9.496	BB
Silvex	11.770	18301.0	1898.45	-1.000	BB
2,4,5-T	12.207	0.0	0.00	0.000	--
Chloramben	12.237	35115.0	2268.31	-1.000	BV
2,4-DB	12.790	3407.0	325.68	-1.000	xx
Dinoseb	13.127	15895.0	1375.76	-1.000	VV
Bentazon	13.690	2789.0	263.99	-1.000	xx
Dacthal	14.107	20623.0	2020.01	-1.000	MM
Picloram	14.167	24316.0	2967.34	-1.000	MM
Acifluorfen	16.383	17688.0	1775.02	-1.000	BV

c:\ezchrom\chrom\wd08\wd08.002 -- Channel B



4/10/15

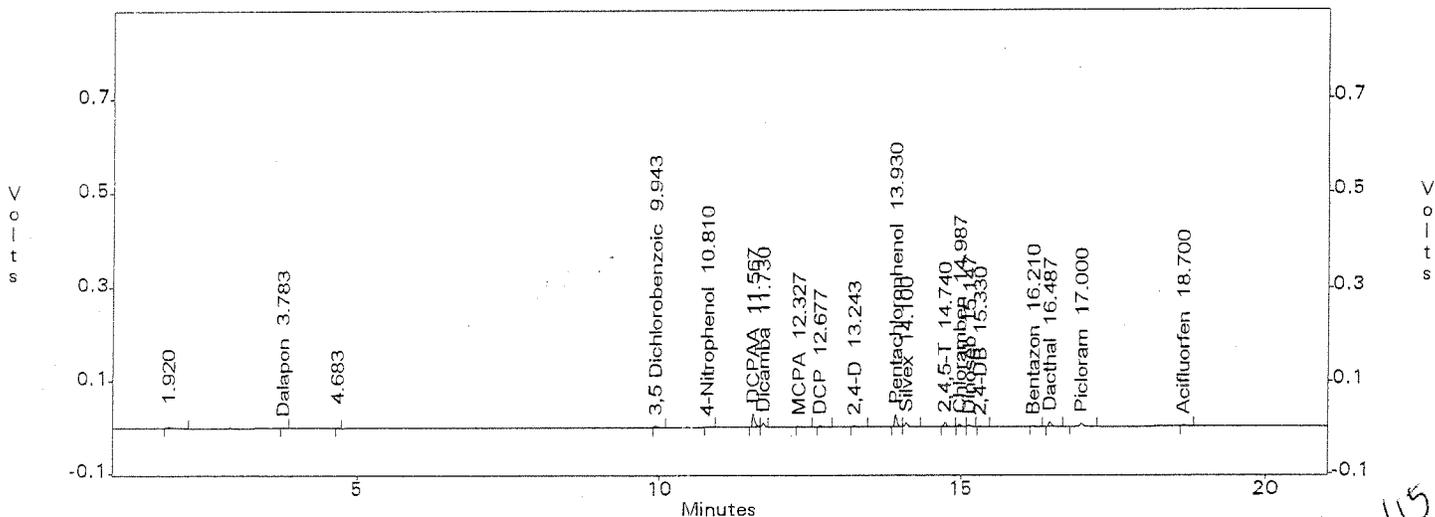
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.003
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : HE16D0802
 Acquired : Apr 08, 2015 11:53:47
 Printed : Apr 08, 2015 17:22:47
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	3.783	7004.0	385.06	18.206	BV
3,5 Dichlorobenzoic	9.943	13678.0	686.43	18.628	BV
4-Nitrophenol	10.810	3020.0	158.16	18.170	BV
DCPAA	11.567	84543.0	374.06	187.160	BV
Dicamba	11.730	22212.0	1227.72	18.804	VI
MCPPP	11.833	0.0	0.00	0.000	--
MCPA	12.327	5859.0	4.63	-1.000	BB
DCP	12.677	9677.0	476.91	18.870	BV
2,4-D	13.243	10854.0	535.32	18.804	BB
Pentachlorophenol	13.930	72060.0	4242.68	18.992	BV
Silvex	14.100	27776.0	1646.95	19.006	VB
2,4,5-T	14.740	28200.0	1656.21	18.954	BV
Chloramben	14.987	18177.0	1062.59	18.722	BV
Dinoseb	15.147	9450.0	423.54	18.898	VI
2,4-DB	15.330	5552.0	292.39	18.932	BV
Bentazon	16.210	3267.0	180.30	18.898	BI
Dacthal	16.487	29343.0	1871.17	18.302	BV
Picloram	17.000	24228.0	1455.06	18.898	VB
Acifluorfen	18.700	9736.0	460.27	19.254	BV

c:\ezchrom\chrom\wd08\wd08.003 -- Channel A



RZ
4/10/15

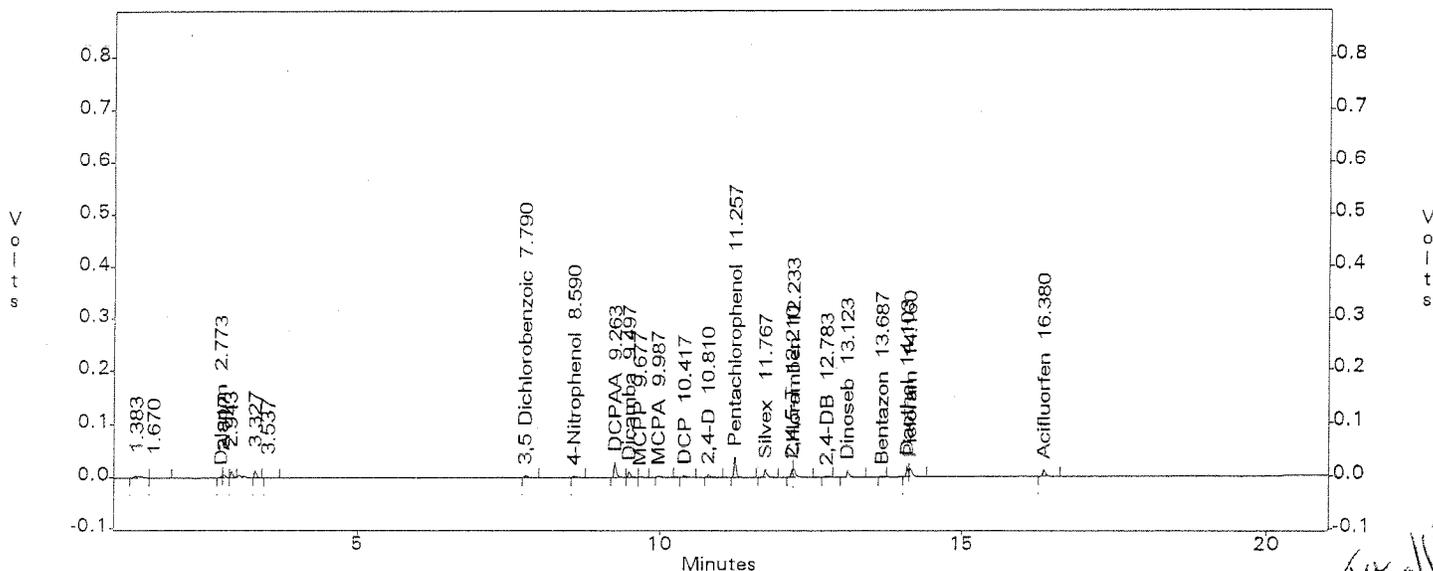
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.003
 Method : c:\ezchrom\methods\he16d08.met
 Sample ID : HE16D0802
 Acquired : Apr 08, 2015 11:53:47
 Printed : Apr 08, 2015 17:22:47
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.773	8010.0	490.63	18.206	xx
3,5 Dichlorobenzoic	7.790	13697.0	606.49	18.628	vv
4-Nitrophenol	8.590	9036.0	387.92	18.170	vv
DCPAA	9.263	73642.0	315.03	187.160	BV
Dicamba	9.497	26566.0	1259.50	18.804	VV
MCPP	9.677	2729.0	2.39	-1.000	VV
MCPA	9.987	6595.0	4.44	-1.000	xB
DCP	10.417	10318.0	465.54	18.870	BV
2,4-D	10.810	13020.0	590.91	18.804	xB
Pentachlorophenol	11.257	93288.0	4488.93	18.992	BV
Silvex	11.767	37542.0	1898.45	19.006	VB
2,4,5-T	12.210	26012.0	1300.86	18.954	Bx
Chloramben	12.233	44608.0	2268.31	18.722	xB
2,4-DB	12.783	6838.0	325.68	18.932	Bx
Dinoseb	13.123	30183.0	1375.76	18.898	VV
Bentazon	13.687	5146.0	263.99	18.898	xx
Dacthal	14.103	40848.0	2020.01	18.302	xx
Picloram	14.160	52978.0	2967.34	18.898	xI
Acifluorfen	16.380	35666.0	1775.02	19.254	BB

c:\ezchrom\chrom\wd08\wd08.003 -- Channel B



See file 4/10/15
5033

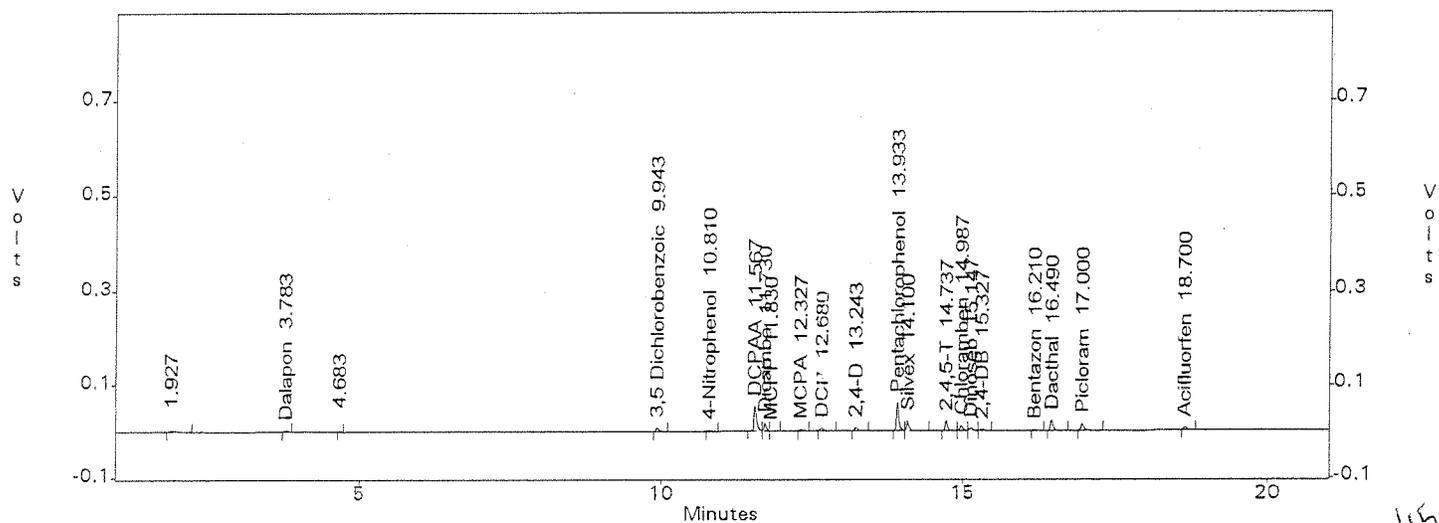
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.004
Method : c:\ezchrom\methods\hel6d08.met
Sample ID : HE16D0803
Acquired : Apr 08, 2015 12:21:22
Printed : Apr 08, 2015 17:22:53
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	3.783	14768.0	385.06	36.412	xV
3,5 Dichlorobenzoic	9.943	26805.0	686.43	37.256	BV
4-Nitrophenol	10.810	6051.0	158.16	36.340	BV
DCPAA	11.567	155095.0	374.06	374.320	MM
Dicamba	11.730	46961.0	1227.72	37.608	MM
MCPP	11.830	2902.0	1.91	1876.600	MM
MCPA	12.327	10080.0	4.63	1869.200	BI
DCP	12.680	18825.0	476.91	37.740	BV
2,4-D	13.243	20993.0	535.32	37.608	VB
Pentachlorophenol	13.933	159879.0	4242.68	37.984	BV
Silvex	14.100	59300.0	1646.95	38.012	VV
2,4,5-T	14.737	60252.0	1656.21	37.908	BV
Chloramben	14.987	38181.0	1062.59	37.444	VV
Dinoseb	15.147	18213.0	423.54	37.796	VV
2,4-DB	15.327	11915.0	292.39	37.864	VV
Bentazon	16.210	6654.0	180.30	37.796	BI
Dacthal	16.490	62667.0	1871.17	36.604	BB
Picloram	17.000	49725.0	1455.06	37.796	BV
Acifluorfen	18.700	18833.0	460.27	38.508	BI

c:\ezchrom\chrom\wd08\wd08.004 -- Channel A



4/10/15
5034

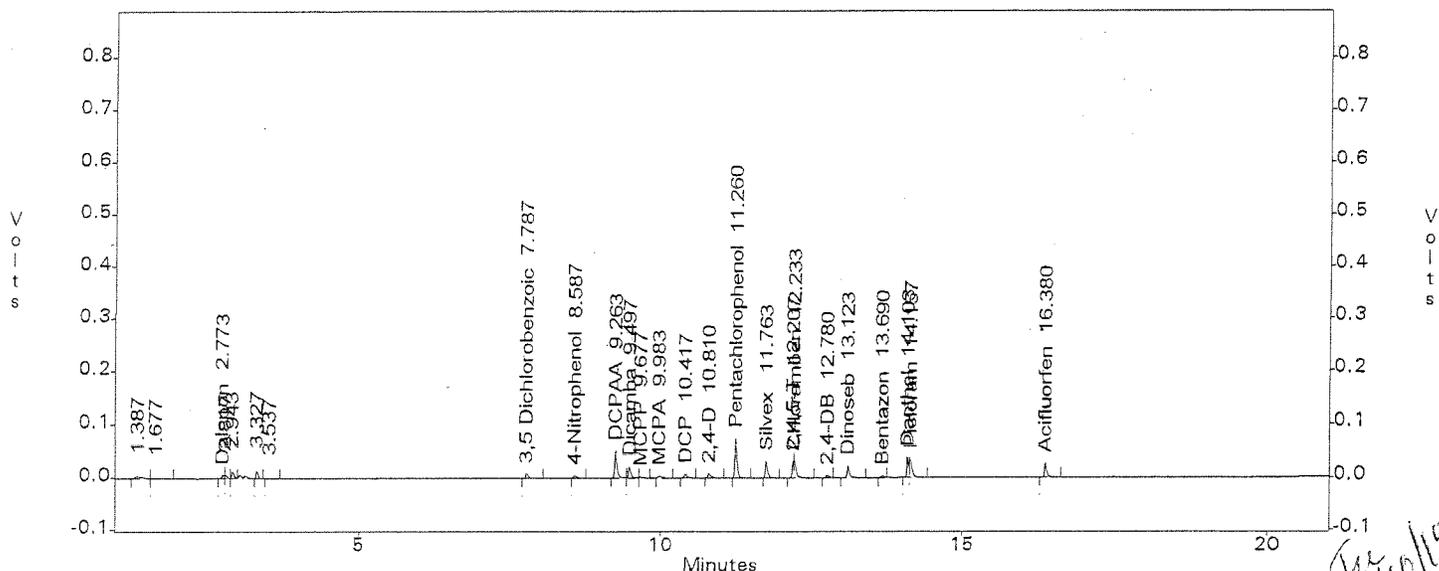
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.004
 Method : c:\ezchrom\methods\hel6d08.met
 Sample-ID : HE16D0803
 Acquired : Apr 08, 2015 12:21:22
 Printed : Apr 08, 2015 17:22:53
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.773	16950.0	490.63	36.412	xx
3,5 Dichlorobenzoic	7.787	25043.0	606.49	37.256	vv
4-Nitrophenol	8.587	15954.0	387.92	36.340	vv
DCPAA	9.263	130208.0	315.03	374.320	BV
Dicamba	9.497	49939.0	1259.50	37.608	VV
MCPP	9.677	4847.0	2.39	1876.600	VV
MCPA	9.983	10396.0	4.44	1869.200	xB
DCP	10.417	18902.0	465.54	37.740	BV
2,4-D	10.810	23971.0	590.91	37.608	xB
Pentachlorophenol	11.260	179441.0	4488.93	37.984	BB
Silvex	11.763	74787.0	1898.45	38.012	BB
2,4,5-T	12.207	50140.0	1300.86	37.908	Bx
Chloramben	12.233	90398.0	2268.31	37.444	xB
2,4-DB	12.780	13097.0	325.68	37.864	Bx
Dinoseb	13.123	55571.0	1375.76	37.796	VV
Bentazon	13.690	9958.0	263.99	37.796	xx
Dacthal	14.103	80928.0	2020.01	36.604	xx
Picloram	14.157	108998.0	2967.34	37.796	xi
Acifluorfen	16.380	69488.0	1775.02	38.508	BB

c:\ezchrom\chrom\wd08\wd08.004 -- Channel B



See 4/10/15
5035

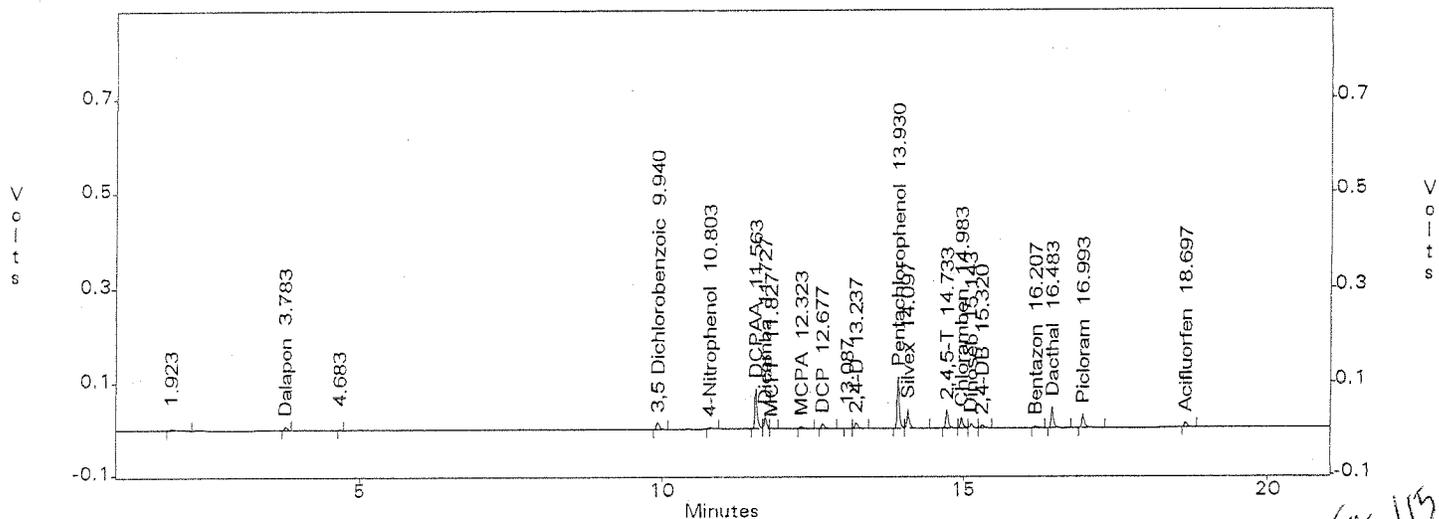
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.005
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : HE16D0804
 Acquired : Apr 08, 2015 12:48:54
 Printed : Apr 08, 2015 17:22:59
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	3.783	24953.0	385.06	63.721	xV
3,5 Dichlorobenzoic	9.940	45327.0	686.43	65.198	BV
4-Nitrophenol	10.803	10225.0	158.16	63.595	BV
DCPAA	11.563	249516.0	374.06	655.060	BV
Dicamba	11.727	81108.0	1227.72	65.814	VV
MCPA	11.827	5715.0	1.91	3284.050	VI
MCPA	12.323	16514.0	4.63	3271.100	BB
DCP	12.677	31843.0	476.91	66.045	BV
2,4-D	13.237	35654.0	535.32	65.814	VB
Pentachlorophenol	13.930	296670.0	4242.68	66.472	BV
Silvex	14.097	109652.0	1646.95	66.521	VV
2,4,5-T	14.733	109887.0	1656.21	66.339	BV
Chloramben	14.983	68768.0	1062.59	65.527	VV
Dinoseb	15.143	28427.0	423.54	66.143	VV
2,4-DB	15.320	19587.0	292.39	66.262	VV
Bentazon	16.207	11748.0	180.30	66.143	BI
Dacthal	16.483	118802.0	1871.17	64.057	BV
Picloram	16.993	93069.0	1455.06	66.143	VB
Acifluorfen	18.697	31612.0	460.27	67.389	BI

c:\ezchrom\chrom\wd08\wd08.005 -- Channel A



*For
4/10/15*

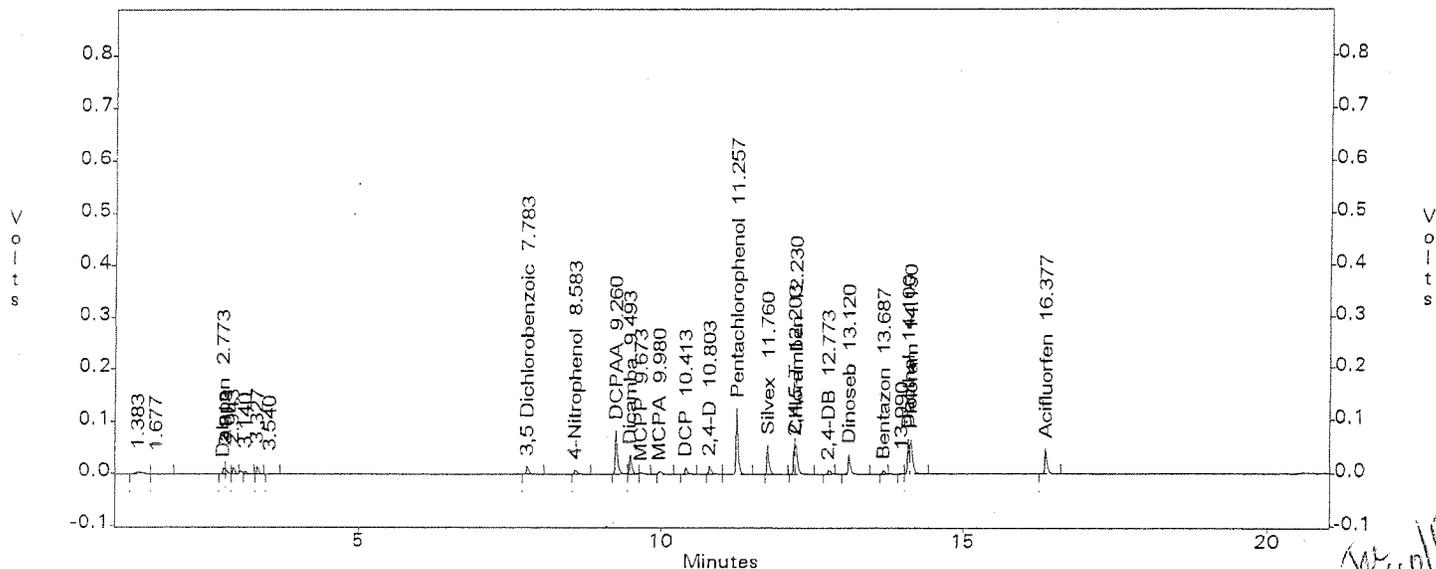
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.005
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : HE16D0804
 Acquired : Apr 08, 2015 12:48:54
 Printed : Apr 08, 2015 17:22:59
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.773	30271.0	490.63	63.721	xx
3,5 Dichlorobenzoic	7.783	40332.0	606.49	65.198	vv
4-Nitrophenol	8.583	25545.0	387.92	63.595	vv
DCPAA	9.260	208294.0	315.03	655.060	BV
Dicamba	9.493	83720.0	1259.50	65.814	VV
MCPP	9.673	8009.0	2.39	3284.050	VV
MCPA	9.980	15414.0	4.44	3271.100	xB
DCP	10.413	30779.0	465.54	66.045	BV
2,4-D	10.803	39789.0	590.91	65.814	xV
Pentachlorophenol	11.257	299805.0	4488.93	66.472	VB
Silvex	11.760	129260.0	1898.45	66.521	BB
2,4,5-T	12.203	90133.0	1300.86	66.339	Bx
Chloramben	12.230	150326.0	2268.31	65.527	xB
2,4-DB	12.773	21941.0	325.68	66.262	Bx
Dinoseb	13.120	92263.0	1375.76	66.143	VB
Bentazon	13.687	17348.0	263.99	66.143	xx
Dacthal	14.100	131276.0	2020.01	64.057	xx
Picloram	14.150	201360.0	2967.34	66.143	xI
Acifluorfen	16.377	120480.0	1775.02	67.389	VB

c:\ezchrom\chrom\wd08\wd08.005 -- Channel B



Handwritten: 4/10/15
5037

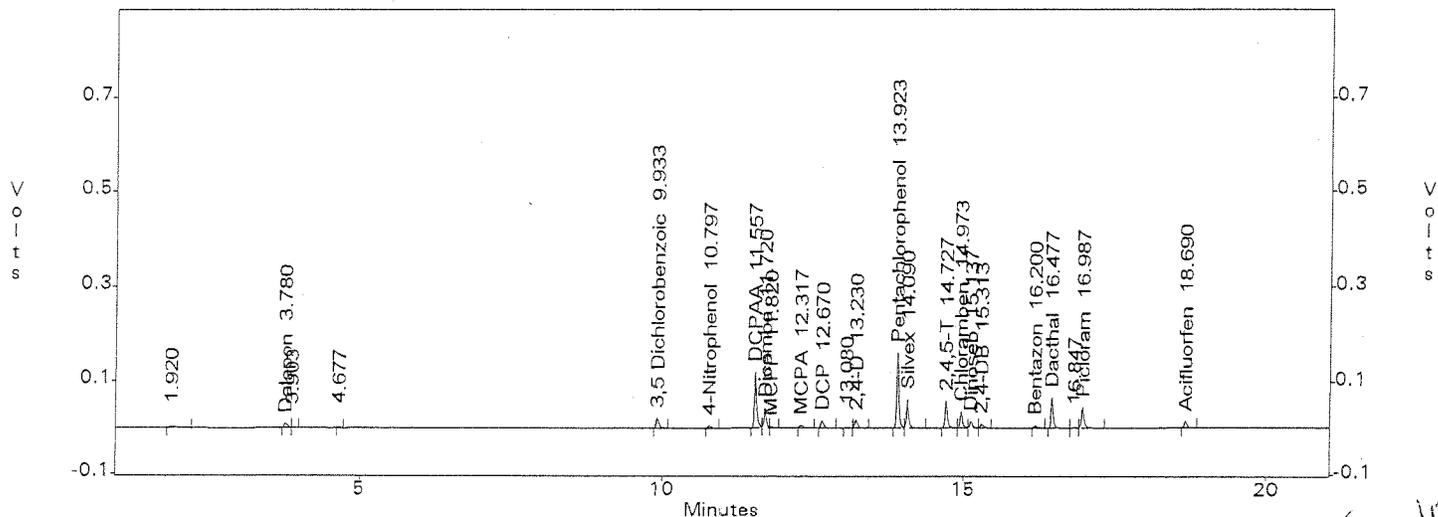
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.006
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : HE16D0805
 Acquired : Apr 08, 2015 13:16:27
 Printed : Apr 08, 2015 17:23:05
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	3.780	34830.0	385.06	91.030	xV
3,5 Dichlorobenzoic	9.933	63831.0	686.43	93.140	BV
4-Nitrophenol	10.797	14609.0	158.16	90.850	BV
DCPAA	11.557	339479.0	374.06	935.800	BV
Dicamba	11.720	116564.0	1227.72	94.020	VV
MCPP	11.820	9244.0	1.91	4691.500	VI
MCPA	12.317	22121.0	4.63	4673.000	BB
DCP	12.670	44820.0	476.91	94.350	BV
2,4-D	13.230	50236.0	535.32	94.020	VB
Pentachlorophenol	13.923	432345.0	4242.68	94.960	BV
Silvex	14.090	160957.0	1646.95	95.030	VB
2,4,5-T	14.727	161024.0	1656.21	94.770	BV
Chloramben	14.973	101357.0	1062.59	93.610	VV
Dinoseb	15.137	39275.0	423.54	94.490	VV
2,4-DB	15.313	27818.0	292.39	94.660	VV
Bentazon	16.200	17147.0	180.30	94.490	BI
Dacthal	16.477	178357.0	1871.17	91.510	BV
Picloram	16.987	140053.0	1455.06	94.490	VB
Acifluorfen	18.690	44217.0	460.27	96.270	BI

c:\ezchrom\chrom\wd08\wd08.006 -- Channel A



Tu
4/10/15

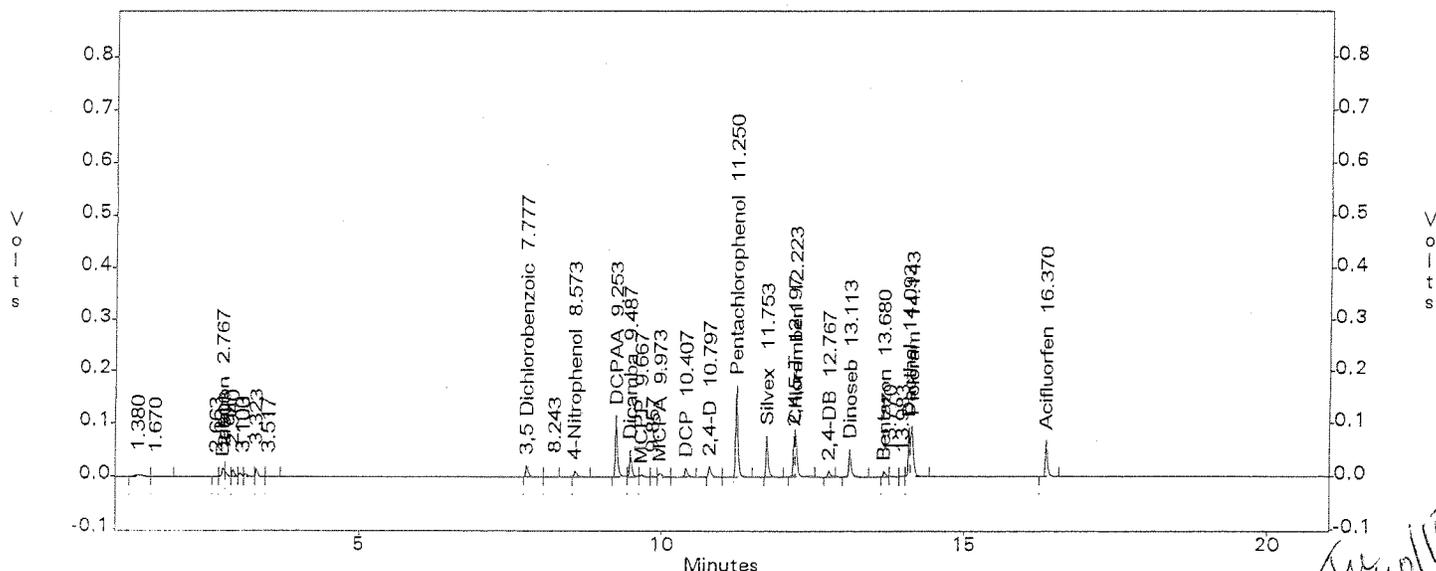
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.006
 Method : c:\ezchrom\methods\hel6d08.met
 Sample-ID : HE16D0805
 Acquired : Apr 08, 2015 13:16:27
 Printed : Apr 08, 2015 17:23:05
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.767	45740.0	490.63	91.030	xx
3,5 Dichlorobenzoic	7.777	54869.0	606.49	93.140	vv
4-Nitrophenol	8.573	34003.0	387.92	90.850	vv
DCPAA	9.253	282960.0	315.03	935.800	BV
Dicamba	9.487	117169.0	1259.50	94.020	VV
MCPP	9.667	11660.0	2.39	4691.500	VV
MCPA	9.973	21335.0	4.44	4673.000	xV
DCP	10.407	43508.0	465.54	94.350	VV
2,4-D	10.797	54510.0	590.91	94.020	xV
Pentachlorophenol	11.250	416980.0	4488.93	94.960	VB
Silvex	11.753	181584.0	1898.45	95.030	BB
2,4,5-T	12.197	127514.0	1300.86	94.770	Bx
Chloramben	12.223	208959.0	2268.31	93.610	xB
2,4-DB	12.767	30534.0	325.68	94.660	Bx
Dinoseb	13.113	128008.0	1375.76	94.490	VB
Bentazon	13.680	25048.0	263.99	94.490	xx
Dacthal	14.093	184251.0	2020.01	91.510	xx
Picloram	14.143	286017.0	2967.34	94.490	xI
Acifluorfen	16.370	171834.0	1775.02	96.270	VB

c:\ezchrom\chrom\wd08\wd08.006 -- Channel B



Tru
4/10/15
5039

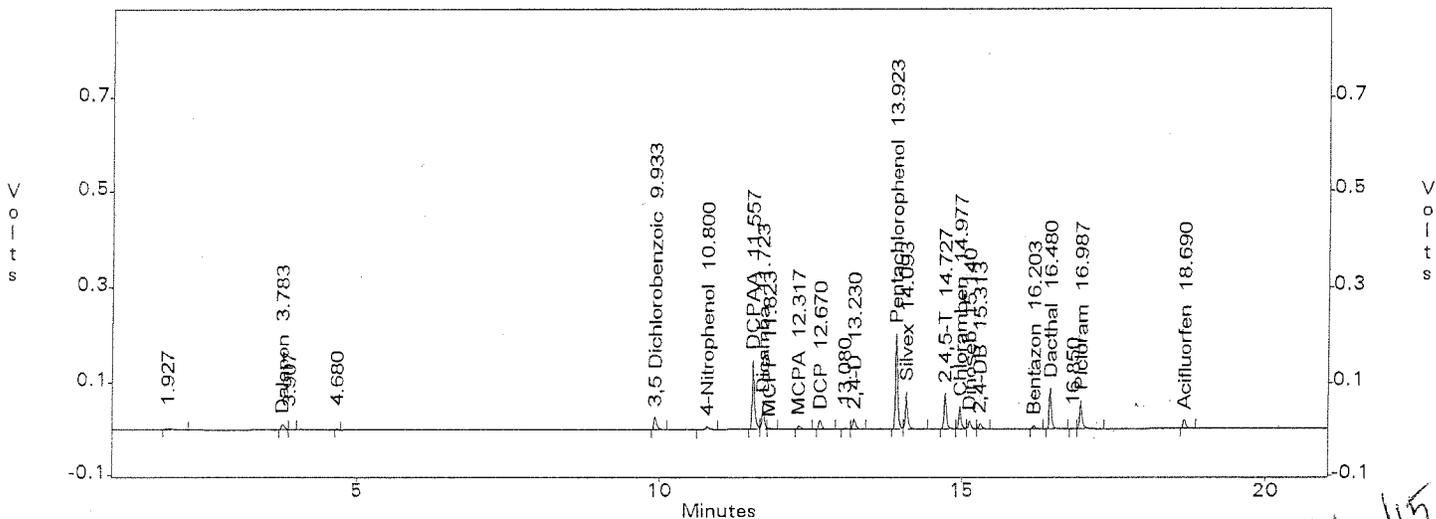
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.007
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : HE16D0806
 Acquired : Apr 08, 2015 13:43:57
 Printed : Apr 08, 2015 17:23:11
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	3.783	44165.0	385.06	118.339	xx
3,5 Dichlorobenzoic	9.933	80852.0	686.43	121.082	BV
4-Nitrophenol	10.800	18359.0	158.16	118.105	VV
DCPAA	11.557	421827.0	374.06	1216.540	BV
Dicamba	11.723	151225.0	1227.72	122.226	VV
MCPP	11.823	12294.0	1.91	6098.950	VI
MCPA	12.317	26892.0	4.63	6074.900	VB
DCP	12.670	56949.0	476.91	122.655	BV
2,4-D	13.230	63077.0	535.32	122.226	VB
Pentachlorophenol	13.923	558305.0	4242.68	123.448	BV
Silvex	14.093	211567.0	1646.95	123.539	VV
2,4,5-T	14.727	210896.0	1656.21	123.201	BV
Chloramben	14.977	132828.0	1062.59	121.693	VV
Dinoseb	15.140	48245.0	423.54	122.837	VV
2,4-DB	15.313	35178.0	292.39	123.058	VV
Bentazon	16.203	22285.0	180.30	122.837	BI
Dacthal	16.480	232057.0	1871.17	118.963	BV
Picloram	16.987	186402.0	1455.06	122.837	VB
Acifluorfen	18.690	55456.0	460.27	125.151	BI

c:\ezchrom\chrom\wd08\wd08.007 -- Channel A



RZ
4/10/15

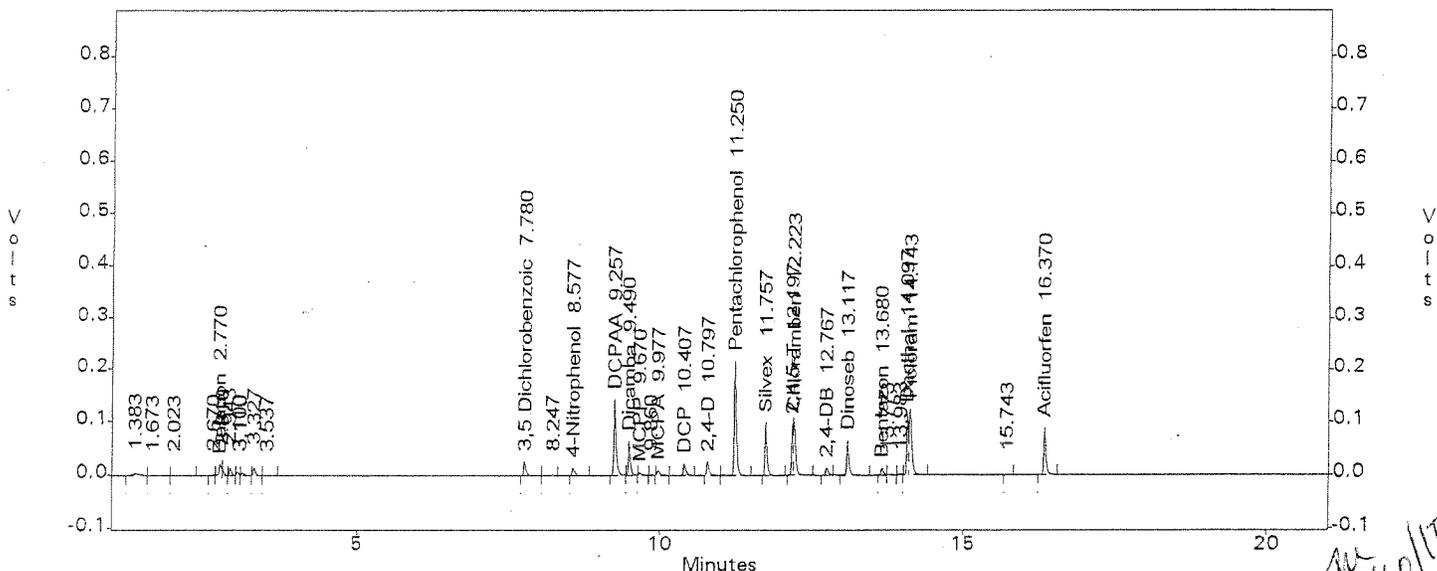
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.007
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : HE16D0806
 Acquired : Apr 08, 2015 13:43:57
 Printed : Apr 08, 2015 17:23:12
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.770	61726.0	490.63	118.339	xx
3,5 Dichlorobenzoic	7.780	67975.0	606.49	121.082	vv
4-Nitrophenol	8.577	41486.0	387.92	118.105	vv
DCPAA	9.257	351878.0	315.03	1216.540	BV
Dicamba	9.490	147583.0	1259.50	122.226	VV
MCPP	9.670	14399.0	2.39	6098.950	VV
MCPA	9.977	25514.0	4.44	6074.900	xV
DCP	10.407	54056.0	465.54	122.655	VV
2,4-D	10.797	68089.0	590.91	122.226	xV
Pentachlorophenol	11.250	525449.0	4488.93	123.448	VB
Silvex	11.757	229748.0	1898.45	123.539	BB
2,4,5-T	12.197	150574.0	1300.86	123.201	Bx
Chloramben	12.223	274260.0	2268.31	121.693	xB
2,4-DB	12.767	38368.0	325.68	123.058	Bx
Dinoseb	13.117	160847.0	1375.76	122.837	VB
Bentazon	13.680	31917.0	263.99	122.837	xx
Dacthal	14.097	225696.0	2020.01	118.963	xx
Picloram	14.143	373979.0	2967.34	122.837	xI
Acifluorfen	16.370	218685.0	1775.02	125.151	VB

c:\ezchrom\chrom\wd08\wd08.007 -- Channel B



Handwritten:
 5041
 4/10/15

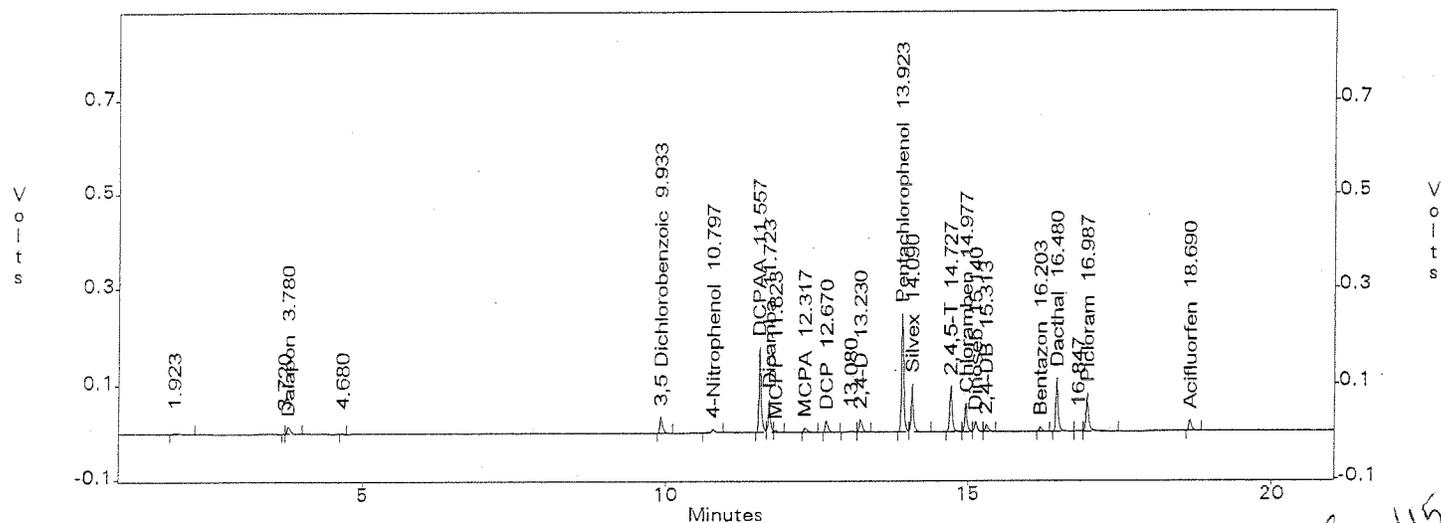
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.008
Method : c:\ezchrom\methods\he16d08.met
Sample ID : HE16D0807
Acquired : Apr 08, 2015 14:11:28
Printed : Apr 08, 2015 17:23:18
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	3.780	56012.0	385.06	145.648	xV
3,5 Dichlorobenzoic	9.933	98203.0	686.43	149.024	BV
4-Nitrophenol	10.797	21766.0	158.16	145.360	VV
DCPAA	11.557	503368.0	374.06	1497.280	BV
Dicamba	11.723	184621.0	1227.72	150.432	VV
MCPP	11.823	15694.0	1.91	7506.400	VI
MCPA	12.317	31379.0	4.63	7476.800	VB
DCP	12.670	68960.0	476.91	150.960	BV
2,4-D	13.230	77368.0	535.32	150.432	VB
Pentachlorophenol	13.923	687978.0	4242.68	151.936	BV
Silvex	14.090	262156.0	1646.95	152.048	VB
2,4,5-T	14.727	260990.0	1656.21	151.632	BV
Chloramben	14.977	166754.0	1062.59	149.776	VV
Dinoseb	15.140	57101.0	423.54	151.184	VV
2,4-DB	15.313	43054.0	292.39	151.456	VV
Bentazon	16.203	28081.0	180.30	151.184	BI
Dacthal	16.480	293840.0	1871.17	146.416	BV
Picloram	16.987	237636.0	1455.06	151.184	VI
Acifluorfen	18.690	66457.0	460.27	154.032	BI

c:\ezchrom\chrom\wd08\wd08.008 -- Channel A



70
4/10/15

5042

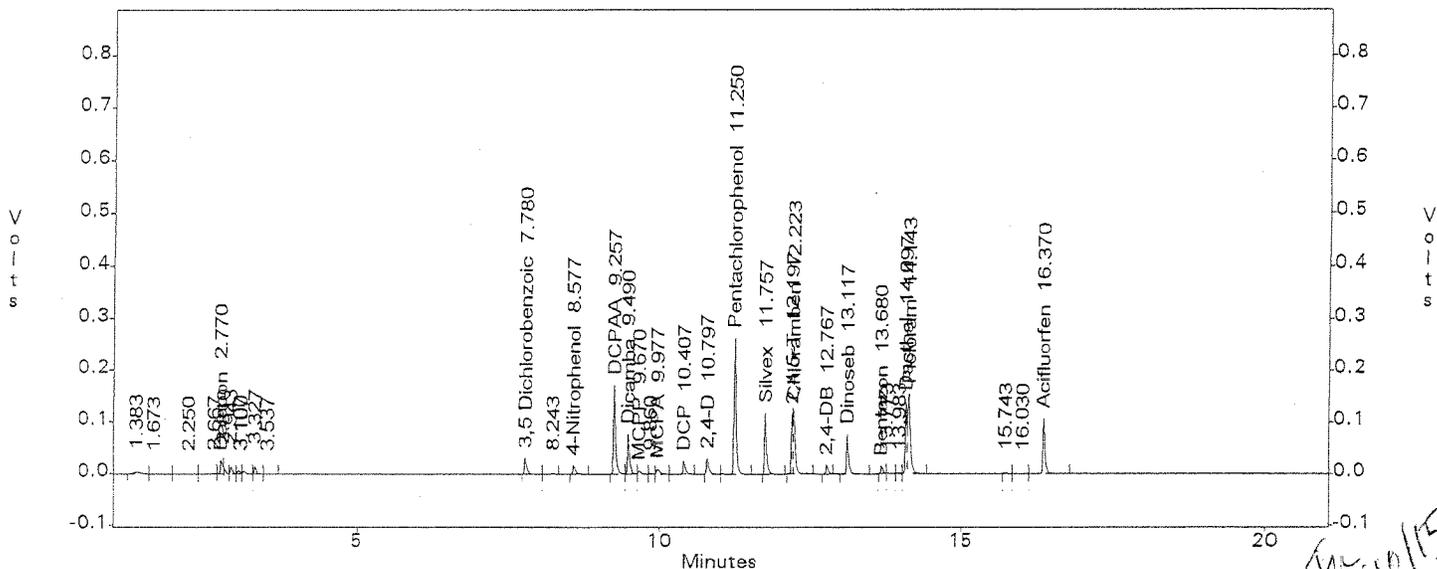
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.008
 Method : c:\ezchrom\methods\hel16d08.met
 Sample ID : HE16D0807
 Acquired : Apr 08, 2015 14:11:28
 Printed : Apr 08, 2015 17:23:18
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.770	76473.0	490.63	145.648	xx
3,5 Dichlorobenzoic	7.780	81176.0	606.49	149.024	vv
4-Nitrophenol	8.577	48520.0	387.92	145.360	vv
DCPAA	9.257	421954.0	315.03	1497.280	BV
Dicamba	9.490	179092.0	1259.50	150.432	VV
MCPP	9.670	17008.0	2.39	7506.400	VV
MCPA	9.977	29385.0	4.44	7476.800	xV
DCP	10.407	64413.0	465.54	150.960	VV
2,4-D	10.797	81170.0	590.91	150.432	xV
Pentachlorophenol	11.250	634666.0	4488.93	151.936	VB
Silvex	11.757	279248.0	1898.45	152.048	BB
2,4,5-T	12.197	189152.0	1300.86	151.632	Bx
Chloramben	12.223	325984.0	2268.31	149.776	xB
2,4-DB	12.767	46362.0	325.68	151.456	Bx
Dinoseb	13.117	190985.0	1375.76	151.184	VB
Bentazon	13.680	39724.0	263.99	151.184	xx
Dacthal	14.097	273531.0	2020.01	146.416	xx
Picloram	14.143	457959.0	2967.34	151.184	xI
Acifluorfen	16.370	266489.0	1775.02	154.032	VB

c:\ezchrom\chrom\wd08\wd08.008 -- Channel B



Tru
4/10/15

5043

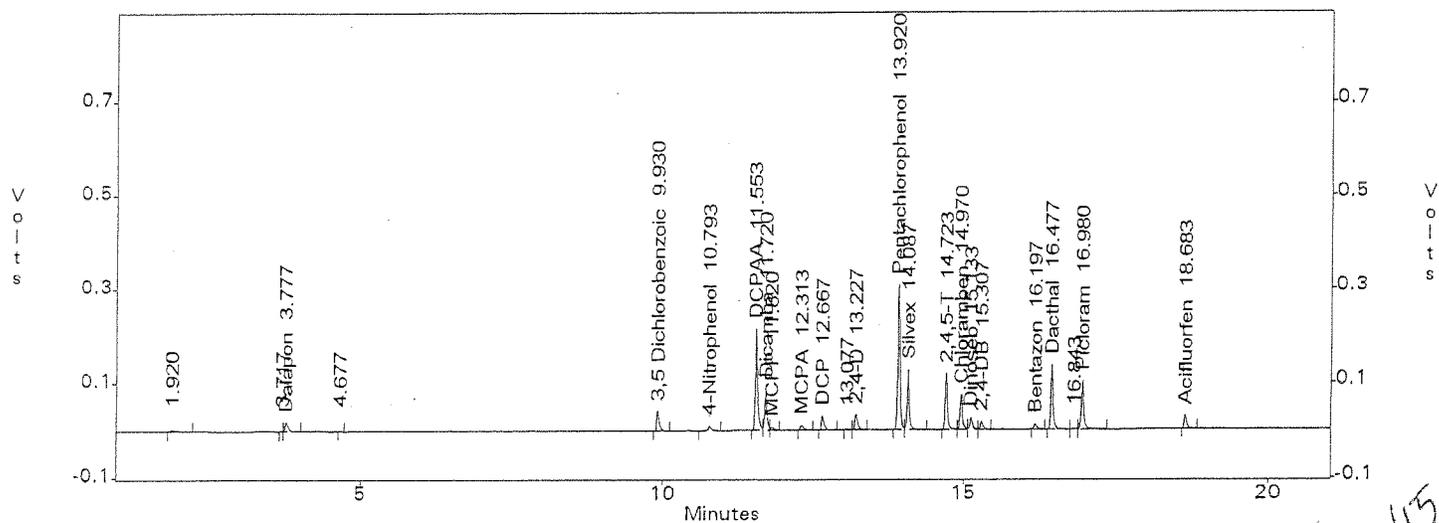
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.009
Method : c:\ezchrom\methods\he16d08.met
Sample ID : HE16D0808
Acquired : Apr 08, 2015 14:38:55
Printed : Apr 08, 2015 17:23:24
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	3.777	67927.0	385.06	182.060	xV
3,5 Dichlorobenzoic	9.930	119962.0	686.43	186.280	BV
4-Nitrophenol	10.793	26825.0	158.16	181.700	VV
DCPAA	11.553	609712.0	374.06	1871.600	BV
Dicamba	11.720	230799.0	1227.72	188.040	VV
MCPP	11.820	19659.0	1.91	9383.000	VI
MCPA	12.313	37120.0	4.63	9346.000	vv
DCP	12.667	84627.0	476.91	188.700	VV
2,4-D	13.227	95040.0	535.32	188.040	VV
Pentachlorophenol	13.920	859921.0	4242.68	189.920	BV
Silvex	14.087	328486.0	1646.95	190.060	VB
2,4,5-T	14.723	327462.0	1656.21	189.540	BV
Chloramben	14.970	207910.0	1062.59	187.220	VV
Dinoseb	15.133	69354.0	423.54	188.980	VV
2,4-DB	15.307	52853.0	292.39	189.320	VV
Bentazon	16.197	35329.0	180.30	188.980	BI
Dacthal	16.477	370007.0	1871.17	183.020	BV
Picloram	16.980	304100.0	1455.06	188.980	VB
Acifluorfen	18.683	81677.0	460.27	192.540	BI

c:\ezchrom\chrom\wd08\wd08.009 -- Channel A



Tue
4/10/15

5044

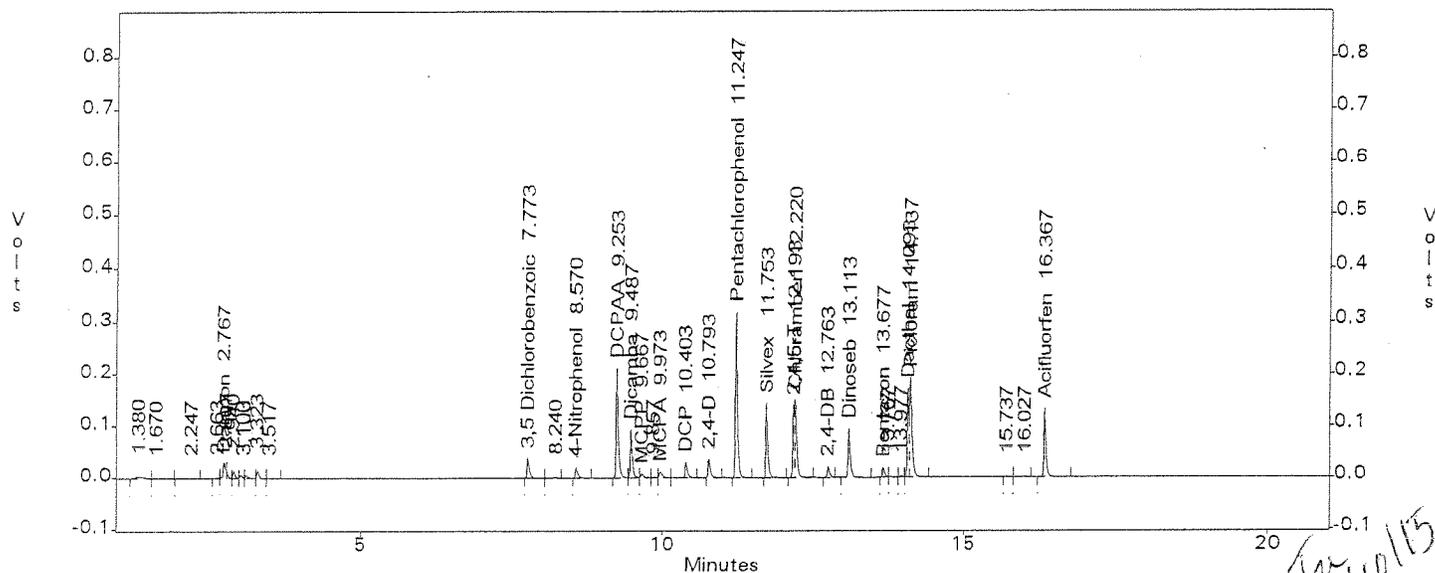
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.009
Method : c:\ezchrom\methods\hel6d08.met
Sample ID : HE16D0808
Acquired : Apr 08, 2015 14:38:55
Printed : Apr 08, 2015 17:23:24
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.767	91899.0	490.63	182.060	xx
3,5 Dichlorobenzoic	7.773	97629.0	606.49	186.280	vv
4-Nitrophenol	8.570	57800.0	387.92	181.700	vv
DCPAA	9.253	509998.0	315.03	1871.600	BV
Dicamba	9.487	218048.0	1259.50	188.040	VV
MCPP	9.667	20594.0	2.39	9383.000	VV
MCPA	9.973	34572.0	4.44	9346.000	xV
DCP	10.403	78606.0	465.54	188.700	VV
2,4-D	10.793	98832.0	590.91	188.040	xV
Pentachlorophenol	11.247	771257.0	4488.93	189.920	VB
Silvex	11.753	341382.0	1898.45	190.060	BB
2,4,5-T	12.193	234497.0	1300.86	189.540	Bx
Chloramben	12.220	397804.0	2268.31	187.220	xV
2,4-DB	12.763	57009.0	325.68	189.320	xx
Dinoseb	13.113	234439.0	1375.76	188.980	VB
Bentazon	13.677	49548.0	263.99	188.980	xx
Dacthal	14.093	342080.0	2020.01	183.020	Sx
Picloram	14.137	555452.0	2967.34	188.980	xI
Acifluorfen	16.367	330788.0	1775.02	192.540	VB

c:\ezchrom\chrom\wd08\wd08.009 -- Channel B



5045
4/10/15

SECOND SOURCE VERIFICATION

SECOND SOURCE VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-W GC16
 GC Column : ZB-35HT
 Column size ID : 30MX0.25MM 0.25UM
 Mid Conc Init LFID & Datetime: WD08006A 04/08/2015 13:16
 Conc Cont LFID & Datetime: WD08010A 04/08/2015 15:06
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE	AVERAGE	RESULT		%D	QL	%D
	MINUTES	FROM	TO	CONC	CF	AREA	CONC			
Dalapon	3.780	3.764	3.796	91.0	385.100	35948	93.36	3		20
3,5-Dichlorobenzo	9.933	9.912	9.954	93.1	686.400	57669	84.01	-10		20
4-Nitrophenol	10.797	10.777	10.817	90.8	158.200	16189	102.36	13		20
Dicamba	11.720	11.697	11.743	94.0	1227.7	120803	98.40	5		20
Dichloroprop	12.670	12.648	12.692	94.3	476.900	50385	105.65	12		20
2,4-D	13.230	13.203	13.257	94.0	535.300	51523	96.25	2		20
Pentachlorophenol	13.923	13.896	13.950	95.0	4242.7	441316	104.02	10		20
2,4,5-TP(Silvex)	14.090	14.069	14.111	95.0	1646.9	166873	101.32	7		20
Chloramben	14.973	14.951	14.995	93.6	1062.6	110296	103.80	11		20
2,4,5-T	14.727	14.705	14.749	94.8	1656.2	173523	104.77	11		20
2,4-DB	15.313	15.292	15.334	94.7	292.400	29480	100.82	7		20
Dinoseb	15.140	15.119	15.161	94.5	423.500	40574	95.80	1		20
Bentazon	16.200	16.179	16.221	94.5	180.300	17576	97.48	3		20
Dacthal	16.480	16.459	16.501	91.5	1871.2	186399	99.62	9		20
Picloram	16.987	16.966	17.008	94.5	1455.1	148848	102.30	8		20
Acifluorfen	18.690	18.669	18.711	96.3	460.300	44629	96.96	1		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
=====										
2,4-DCPAA	11.557	11.534	11.580	935.8	374.100	354430	947.52	1		20

Tue
4/10/15

SECOND SOURCE VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-W GC16
 GC Column : STX-CLPESTII
 Column size ID : 30MX0.32MM 0.32UM
 Mid Conc Init LFID & Datetime: WD08006B 04/08/2015 13:16
 Conc Cont LFID & Datetime: WD08010B 04/08/2015 15:06
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE	AVERAGE	RESULT		%D	QL	%D	LIMITS
	MINUTES	FROM	TO	CONC	CF	AREA	CONC				
Dalapon	2.770	2.754	2.786	91.0	490.600	43237	88.13	-3			20
3,5-Dichlorobenzo	7.777	7.756	7.798	93.1	606.500	49640	81.85	-12			20
4-Nitrophenol	8.573	8.542	8.604	90.8	387.900	34983	90.18	-1			20
Dicamba	9.490	9.466	9.514	94.0	1259.5	121873	96.76	3			20
Dichloroprop	10.407	10.381	10.433	94.3	465.500	46874	100.69	7			20
2,4-D	10.797	10.775	10.819	94.0	590.900	53941	91.28	-3			20
Pentachlorophenol	11.250	11.226	11.274	95.0	4488.9	424916	94.66	-0			20
2,4,5-TP(Silvex)	11.757	11.733	11.781	95.0	1898.5	187460	98.74	4			20
Chloramben	12.223	12.197	12.249	93.6	2268.3	223713	98.63	5			20
2,4,5-T	12.197	12.173	12.221	94.8	1300.9	130418	100.25	6			20
2,4-DB	12.767	12.741	12.793	94.7	325.700	30561	93.84	-1			20
Dinoseb	13.117	13.093	13.141	94.5	1375.8	129942	94.45	-0			20
Bentazon	13.680	13.653	13.707	94.5	264.000	25228	95.57	1			20
Dacthal	14.097	14.070	14.124	91.5	2020.0	194783	96.43	5			20
Picloram	14.143	14.117	14.169	94.5	2967.3	287850	97.01	3			20
Acifluorfen	16.370	16.346	16.394	96.3	1775.0	168644	95.01	-1			20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS	
2,4-DCPAA	9.253	9.229	9.277	935.8	315.000	287641	913.05	-2		20	

Tu
4/10/15

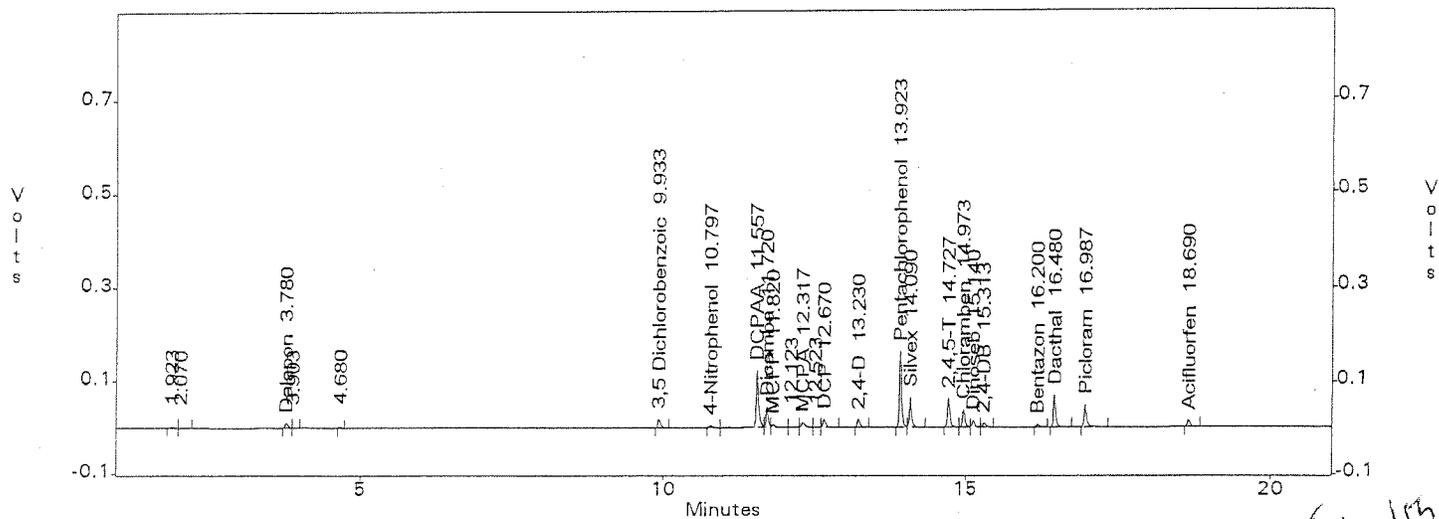
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.010
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : IHE16D08001
 Acquired : Apr 08, 2015 15:06:27
 Printed : Apr 08, 2015 17:21:16
 User : RZhou

Channel A Results

Peak Name	RT (min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	3.780	35948.0	385.06	93.358	xV
3,5 Dichlorobenzoic	9.933	57669.0	686.43	84.013	BV
4-Nitrophenol	10.797	16189.0	158.16	102.358	BV
DCPAA	11.557	354430.0	374.06	947.518	VV
Dicamba	11.720	120803.0	1227.72	98.396	VV
MCPP	11.820	23205.0	1.91	12150.602	VV
MCPA	12.317	40361.0	4.63	8720.334	VV
DCP	12.670	50385.0	476.91	105.648	VV
2,4-D	13.230	51523.0	535.32	96.246	BV
Pentachlorophenol	13.923	441316.0	4242.68	104.018	BV
Silvex	14.090	166873.0	1646.95	101.322	VB
2,4,5-T	14.727	173523.0	1656.21	104.771	BV
Chloramben	14.973	110296.0	1062.59	103.799	VV
Dinoseb	15.140	40574.0	423.54	95.797	VV
2,4-DB	15.313	29480.0	292.39	100.825	VV
Bentazon	16.200	17576.0	180.30	97.481	BI
Dacthal	16.480	186399.0	1871.17	99.616	BV
Picloram	16.987	148848.0	1455.06	102.297	VB
Acifluorfen	18.690	44629.0	460.27	96.962	BI

c:\ezchrom\chrom\wd08\wd08.010 -- Channel A



Tru
4/10/13

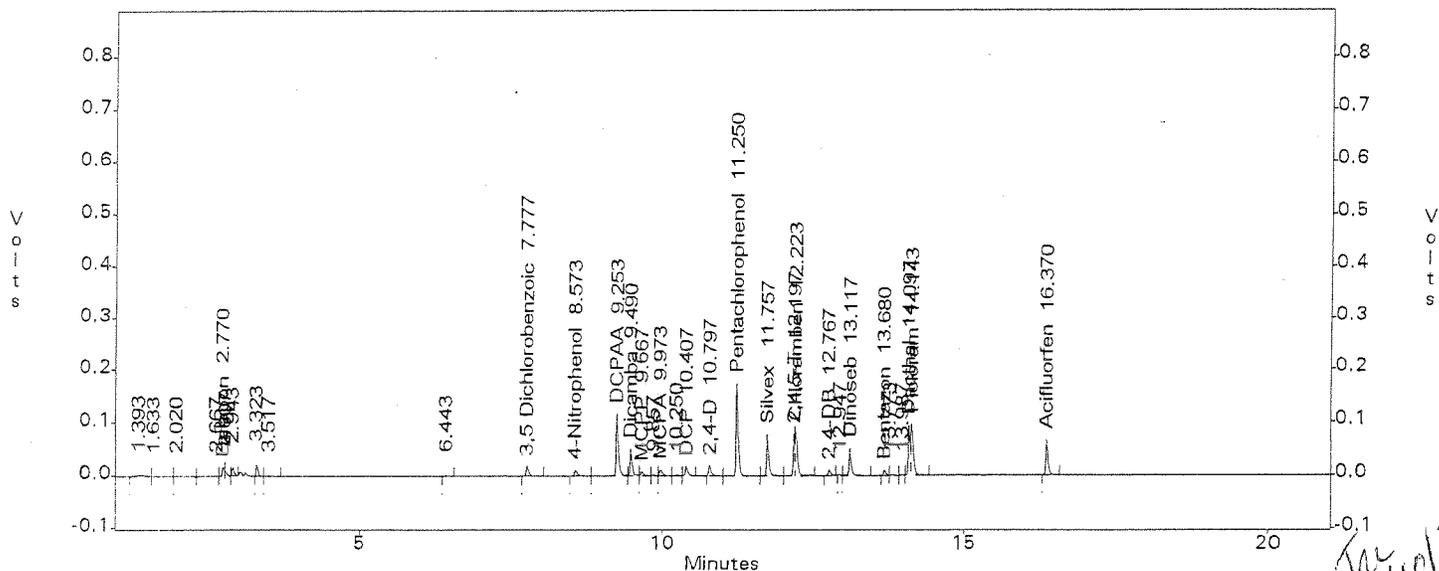
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.010
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : IHE16D08001
 Acquired : Apr 08, 2015 15:06:27
 Printed : Apr 08, 2015 17:21:16
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.770	43237.0	490.63	88.125	xx
3,5 Dichlorobenzoic	7.777	49640.0	606.49	81.849	vv
4-Nitrophenol	8.573	34983.0	387.92	90.181	vv
DCPAA	9.253	287641.0	315.03	913.053	VV
Dicamba	9.490	121873.0	1259.50	96.763	VV
MCPP	9.667	21352.0	2.39	8941.071	VV
MCPA	9.973	36500.0	4.44	8211.879	xV
DCP	10.407	46874.0	465.54	100.687	VV
2,4-D	10.797	53941.0	590.91	91.284	xV
Pentachlorophenol	11.250	424916.0	4488.93	94.659	VV
Silvex	11.757	187460.0	1898.45	98.744	VV
2,4,5-T	12.197	130418.0	1300.86	100.255	Vx
Chloramben	12.223	223713.0	2268.31	98.625	xB
2,4-DB	12.767	30561.0	325.68	93.836	Bx
Dinoseb	13.117	129942.0	1375.76	94.451	VB
Bentazon	13.680	25228.0	263.99	95.565	xx
Dacthal	14.097	194783.0	2020.01	96.427	xx
Picloram	14.143	287850.0	2967.34	97.006	xI
Acifluorfen	16.370	168644.0	1775.02	95.010	VB

c:\ezchrom\chrom\wd08\wd08.010 -- Channel B



Tac
4/10/15
5050

SECOND SOURCE VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-W GC16
 GC Column : ZB-35HT
 Column size ID : 30MX0.25MM 0.25UM
 Mid Conc Init LFID & Datetime: WD08006A 04/08/2015 13:16
 Conc Cont LFID & Datetime: WD08011A 04/08/2015 15:34
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE CONC	AVERAGE CF	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO			AREA	CONC			
MCP	11.820	11.797	11.843	4693.0	1.900	9788	5125.19	9		20
MCPA	12.313	12.291	12.335	4673.0	4.600	22642	4892.00	5		20

*For
4/10/15*

SECOND SOURCE VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-W GC16
 GC Column : STX-CLPESTII
 Column size ID : 30MX0.32MM 0.32UM
 Mid Conc Init LFID & Datetime: WD08006B 04/08/2015 13:16
 Conc Cont LFID & Datetime: WD08011B 04/08/2015 15:34
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE	AVERAGE	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO	CONC	CF	AREA	CONC			
MCP	9.667	9.646	9.688	4693.0	2.400	10024	4197.51	-11		20
MCPA	9.973	9.949	9.997	4673.0	4.400	20973	4718.57	1		20

TW
4/10/15

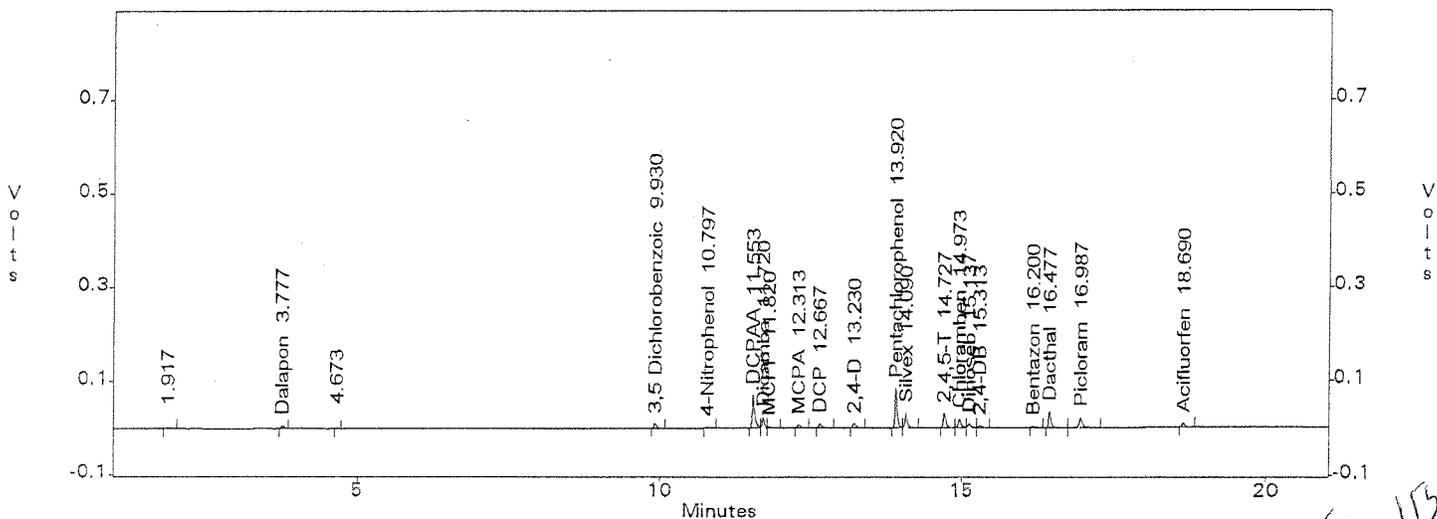
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.011
 Method : c:\ezchrom\methods\he16d08.met
 Sample ID : IHE16D08002
 Acquired : Apr 08, 2015 15:34:00
 Printed : Apr 09, 2015 16:51:34
 User : RZhou

Channel A Results

Peak Name	RT (min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	3.777	19738.0	385.06	51.260	xV
3,5 Dichlorobenzoic	9.930	30915.0	686.43	45.037	BV
4-Nitrophenol	10.797	8352.0	158.16	52.807	BV
DCPAA	11.553	198516.0	374.06	530.704	BV
Dicamba	11.720	61505.0	1227.72	50.097	VV
MCPP	11.820	9788.0	1.91	5125.192	VI
MCPA	12.313	22642.0	4.63	4891.995	BV
DCP	12.667	26206.0	476.91	54.949	BV
2,4-D	13.230	27259.0	535.32	50.921	BV
Pentachlorophenol	13.920	217312.0	4242.68	51.220	BV
Silvex	14.090	80663.0	1646.95	48.977	VV
2,4,5-T	14.727	86542.0	1656.21	52.253	BV
Chloramben	14.973	54243.0	1062.59	51.048	VV
Dinoseb	15.137	22479.0	423.54	53.074	VV
2,4-DB	15.313	14841.0	292.39	50.758	VV
Bentazon	16.200	8800.0	180.30	48.807	BI
Dacthal	16.477	88770.0	1871.17	47.441	BV
Picloram	16.987	71870.0	1455.06	49.393	VV
Acifluorfen	18.690	25088.0	460.27	54.507	BI

c:\ezchrom\chrom\wd08\wd08.011 -- Channel A



Tru
4/10/15

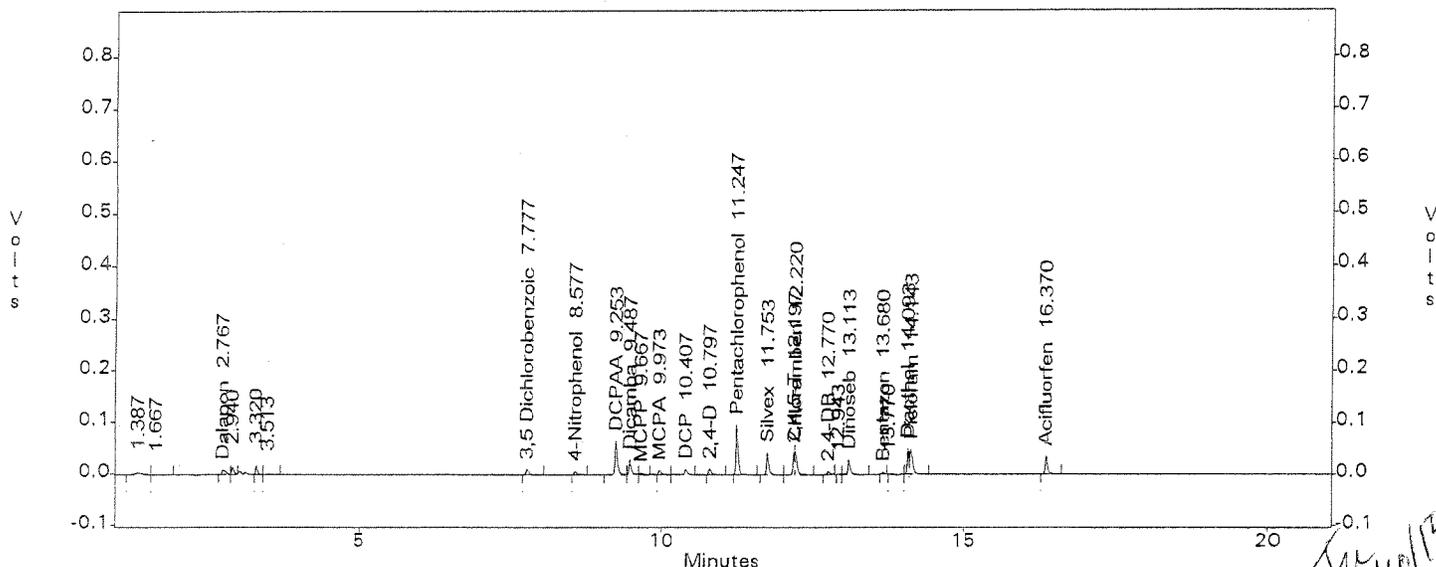
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.011
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : IHE16D08002
 Acquired : Apr 08, 2015 15:34:00
 Printed : Apr 09, 2015 16:51:34
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.767	43476.0	490.63	88.612	xV
3,5 Dichlorobenzoic	7.777	28273.0	606.49	46.618	vv
4-Nitrophenol	8.577	20346.0	387.92	52.449	vv
DCPAA	9.253	163074.0	315.03	517.643	VV
Dicamba	9.487	64199.0	1259.50	50.972	VV
MCPP	9.667	10024.0	2.39	4197.513	VV
MCPA	9.973	20973.0	4.44	4718.568	xV
DCP	10.407	26320.0	465.54	56.537	VV
2,4-D	10.797	29718.0	590.91	50.292	xB
Pentachlorophenol	11.247	233072.0	4488.93	51.921	BV
Silvex	11.753	100439.0	1898.45	52.906	VV
2,4,5-T	12.197	71040.0	1300.86	54.610	Vx
Chloramben	12.220	119200.0	2268.31	52.550	xB
2,4-DB	12.770	16906.0	325.68	51.909	Bx
Dinoseb	13.113	73096.0	1375.76	53.131	VB
Bentazon	13.680	10724.0	263.99	40.623	xS
Dacthal	14.093	100561.0	2020.01	49.782	xx
Picloram	14.143	150767.0	2967.34	50.809	xI
Acifluorfen	16.370	91819.0	1775.02	51.728	BB

c:\ezchrom\chrom\wd08\wd08.011 -- Channel B



Tue 4/10/15

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-W GC16
 GC Column : ZB-35HT
 Column size ID : 30MX0.25MM 0.25UM
 Mid Conc Init LFID & Datetime: WD08006A 04/08/2015 13:16
 Conc Cont LFID & Datetime: WD08012A 04/08/2015 16:01
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE	AVERAGE	RESULT		%D	QL	%D
	MINUTES	FROM	TO	CONC	CF	AREA	CONC			
Dalapon	3.780	3.764	3.796	91.0	385.100	35707	92.73	2		20
3,5-Dichlorobenzo	9.930	9.909	9.951	93.1	686.400	63929	93.13	-0		20
4-Nitrophenol	10.797	10.777	10.817	90.8	158.200	15060	95.22	5		20
Dicamba	11.720	11.697	11.743	94.0	1227.7	120124	97.84	4		20
MCPPP	11.820	11.797	11.843	4693.0	1.900	10765	5636.77	20		20
MCPA	12.317	12.295	12.339	4673.0	4.600	22703	4905.17	5		20
Dichloroprop	12.670	12.648	12.692	94.3	476.900	46302	97.09	3		20
2,4-D	13.230	13.203	13.257	94.0	535.300	52000	97.14	3		20
Pentachlorophenol	13.923	13.896	13.950	95.0	4242.7	445293	104.96	11		20
2,4,5-TP(Silvex)	14.090	14.069	14.111	95.0	1646.9	167498	101.70	7		20
Chloramben	14.973	14.951	14.995	93.6	1062.6	107489	101.16	8		20
2,4,5-T	14.727	14.705	14.749	94.8	1656.2	167979	101.42	7		20
2,4-DB	15.313	15.292	15.334	94.7	292.400	28902	98.85	4		20
Dinoseb	15.137	15.116	15.158	94.5	423.500	41317	97.55	3		20
Bentazon	16.200	16.179	16.221	94.5	180.300	17822	98.85	5		20
Dacthal	16.480	16.459	16.501	91.5	1871.2	186422	99.63	9		20
Picloram	16.987	16.966	17.008	94.5	1455.1	150011	103.10	9		20
Acifluorfen	18.690	18.669	18.711	96.3	460.300	46326	100.65	5		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	11.557	11.534	11.580	935.8	374.100	339493	907.59	-3		20

Tac
4/10/15

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-W GC16
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.32UM
Mid Conc Init LFID & Datetime: WD08006B 04/08/2015 13:16
Conc Cont LFID & Datetime: WD08012B 04/08/2015 16:01
CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE	AVERAGE	RESULT		%D	QL	%D
	MINUTES	FROM	TO	CONC	CF	AREA	CONC			
Dalapon	2.770	2.754	2.786	91.0	490.600	44352	90.40	-1		20
3,5-Dichlorobenzo	7.777	7.756	7.798	93.1	606.500	55006	90.70	-3		20
4-Nitrophenol	8.577	8.546	8.608	90.8	387.900	34378	88.62	-2		20
Dicamba	9.490	9.466	9.514	94.0	1259.5	119036	94.51	1		20
MCPD	9.670	9.649	9.691	4693.0	2.400	11992	5021.61	7		20
MCPA	9.973	9.949	9.997	4673.0	4.400	22073	4966.05	6		20
Dichloroprop	10.407	10.381	10.433	94.3	465.500	45129	96.94	3		20
2,4-D	10.797	10.775	10.819	94.0	590.900	56158	95.04	1		20
Pentachlorophenol	11.250	11.226	11.274	95.0	4488.9	425659	94.82	-0		20
2,4,5-TP(Silvex)	11.757	11.733	11.781	95.0	1898.5	186746	98.37	4		20
Chloramben	12.223	12.197	12.249	93.6	2268.3	218759	96.44	3		20
2,4,5-T	12.197	12.173	12.221	94.8	1300.9	126832	97.50	3		20
2,4-DB	12.767	12.741	12.793	94.7	325.700	31384	96.36	2		20
Dinoseb	13.117	13.093	13.141	94.5	1375.8	132417	96.25	2		20
Bentazon	13.680	13.653	13.707	94.5	264.000	25894	98.09	4		20
Dacthal	14.093	14.066	14.120	91.5	2020.0	186411	92.28	1		20
Picloram	14.143	14.117	14.169	94.5	2967.3	297160	100.14	6		20
Acifluorfen	16.370	16.346	16.394	96.3	1775.0	175690	98.98	3		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.253	9.229	9.277	935.8	315.000	281556	893.74	-4		20

Trc
4/10/15

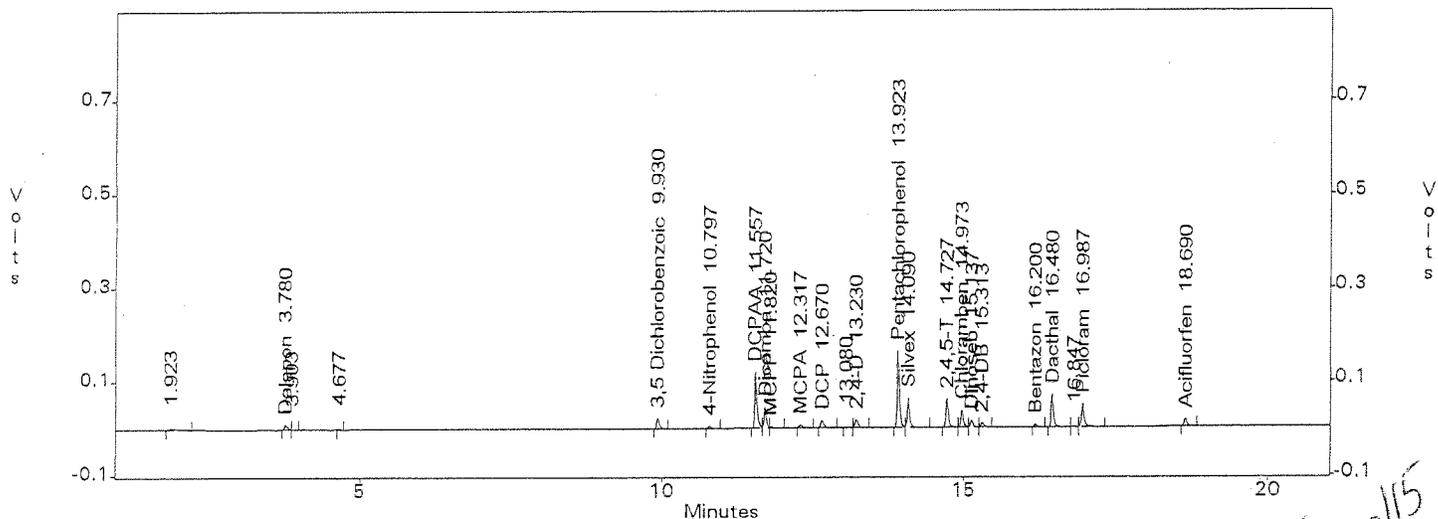
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.012
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : CHE16D08001
 Acquired : Apr 08, 2015 16:01:30
 Printed : Apr 08, 2015 17:22:08
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	3.780	35707.0	385.06	92.732	xV
3,5 Dichlorobenzoic	9.930	63929.0	686.43	93.133	BV
4-Nitrophenol	10.797	15060.0	158.16	95.220	BV
DCPAA	11.557	339493.0	374.06	907.586	BV
Dicamba	11.720	120124.0	1227.72	97.843	VV
MCPP	11.820	10765.0	1.91	5636.769	VB
MCPA	12.317	22703.0	4.63	4905.174	VB
DCP	12.670	46302.0	476.91	97.087	BV
2,4-D	13.230	52000.0	535.32	97.137	VB
Pentachlorophenol	13.923	445293.0	4242.68	104.956	BV
Silvex	14.090	167498.0	1646.95	101.702	VV
2,4,5-T	14.727	167979.0	1656.21	101.424	BV
Chloramben	14.973	107489.0	1062.59	101.157	VV
Dinoseb	15.137	41317.0	423.54	97.551	VV
2,4-DB	15.313	28902.0	292.39	98.848	VV
Bentazon	16.200	17822.0	180.30	98.845	BI
Dacthal	16.480	186422.0	1871.17	99.629	BV
Picloram	16.987	150011.0	1455.06	103.096	VB
Acifluorfen	18.690	46326.0	460.27	100.649	BI

c:\ezchrom\chrom\wd08\wd08.012 -- Channel A



File 4/10/15

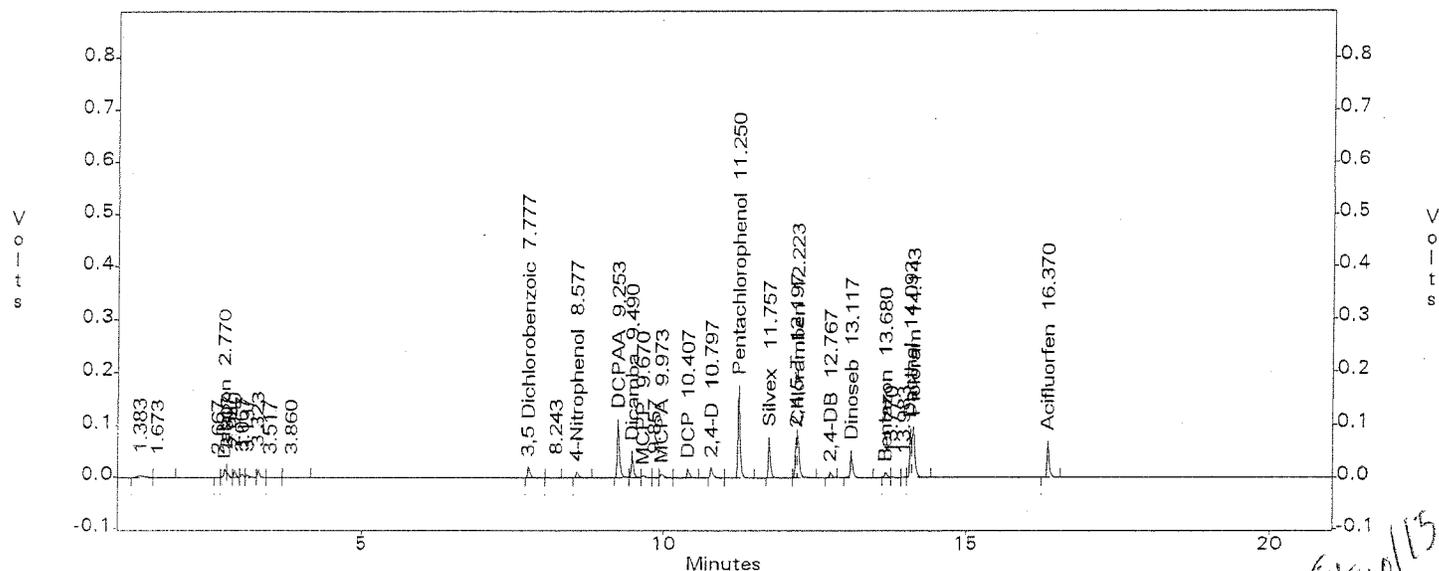
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd08\wd08.012
Method : c:\ezchrom\methods\hel6d08.met
Sample ID : CHE16D08001
Acquired : Apr 08, 2015 16:01:30
Printed : Apr 08, 2015 17:22:08
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.770	44352.0	490.63	90.398	xx
3,5 Dichlorobenzoic	7.777	55006.0	606.49	90.696	vv
4-Nitrophenol	8.577	34378.0	387.92	88.621	vv
DCPAA	9.253	281556.0	315.03	893.738	BV
Dicamba	9.490	119036.0	1259.50	94.510	VV
MCPP	9.670	11992.0	2.39	5021.606	VV
MCPA	9.973	22073.0	4.44	4966.049	xV
DCP	10.407	45129.0	465.54	96.939	VV
2,4-D	10.797	56158.0	590.91	95.036	xV
Pentachlorophenol	11.250	425659.0	4488.93	94.824	VB
Silvex	11.757	186746.0	1898.45	98.368	BV
2,4,5-T	12.197	126832.0	1300.86	97.498	Vx
Chloramben	12.223	218759.0	2268.31	96.441	xB
2,4-DB	12.767	31384.0	325.68	96.363	Bx
Dinoseb	13.117	132417.0	1375.76	96.250	VB
Bentazon	13.680	25894.0	263.99	98.088	xx
Dacthal	14.093	186411.0	2020.01	92.282	xx
Picloram	14.143	297160.0	2967.34	100.144	xI
Acifluorfen	16.370	175690.0	1775.02	98.979	VB

c:\ezchrom\chrom\wd08\wd08.012 -- Channel B



File
4/10/15
5058

DAILY CALIBRATIONS

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-W GC16
GC Column : ZB-35HT
Column size ID : 30MX0.25MM 0.25UM
Mid Conc Init LFID & Datetime: WD08006A 04/08/2015 13:16
Conc Cont LFID & Datetime: WD27002A 04/27/2015 17:46
CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE CONC	AVERAGE CF	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO			AREA	CONC			
Dalapon	3.873	3.857	3.889	91.0	385.100	40244	104.51	15		20
3,5-Dichlorobenzo	10.080	10.059	10.101	93.1	686.400	61667	89.84	-4		20
4-Nitrophenol	10.953	10.933	10.973	90.8	158.200	21325	134.83	48	*	20
Dicamba	11.873	11.850	11.896	94.0	1227.7	114932	93.61	-0		20
MCPP	11.970	11.947	11.993	4693.0	1.900	9453	4949.78	5		20
MCPA	12.467	12.445	12.489	4673.0	4.600	23240	5021.20	7		20
Dichloroprop	12.823	12.801	12.845	94.3	476.900	44883	94.11	-0		20
2,4-D	13.387	13.360	13.414	94.0	535.300	51922	96.99	3		20
Pentachlorophenol	14.087	14.060	14.114	95.0	4242.7	410237	96.69	2		20
2,4,5-TP(Silvex)	14.250	14.229	14.271	95.0	1646.9	154212	93.64	-1		20
Chloramben	15.140	15.118	15.162	93.6	1062.6	109744	103.28	10		20
2,4,5-T	14.887	14.865	14.909	94.8	1656.2	167835	101.34	7		20
2,4-DB	15.473	15.452	15.494	94.7	292.400	28902	98.85	4		20
Dinoseb	15.300	15.279	15.321	94.5	423.500	44684	105.50	12	✓	20
Bentazon	16.373	16.352	16.394	94.5	180.300	20662	114.60	21	*	20
Dacthal	16.647	16.626	16.668	91.5	1871.2	177673	94.95	4		20
Picloram	17.157	17.136	17.178	94.5	1455.1	167309	114.98	22	*	20
Acifluorfen	18.857	18.836	18.878	96.3	460.300	36802	79.96	-17		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	11.707	11.684	11.730	935.8	374.100	340952	911.49	-3		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-W GC16
 GC Column : STX-CLPESTII
 Column size ID : 30MX0.32MM 0.32UM
 Mid Conc Init LFID & Datetime: WD08006B 04/08/2015 13:16
 Conc Cont LFID & Datetime: WD27002B 04/27/2015 17:46
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE CONC	AVERAGE CF	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO			AREA	CONC			
Dalapon	2.817	2.801	2.833	91.0	490.600	53736	109.52	20		20
3,5-Dichlorobenzo	7.873	7.852	7.894	93.1	606.500	53735	88.60	-5		20
4-Nitrophenol	8.673	8.642	8.704	90.8	387.900	35304	91.01	0		20
Dicamba	9.587	9.563	9.611	94.0	1259.5	112057	88.97	-5		20
MCPP	9.763	9.742	9.784	4693.0	2.400	10939	4580.67	-2		20
MCPA	10.070	10.046	10.094	4673.0	4.400	20668	4649.95	-0		20
Dichloroprop	10.503	10.477	10.529	94.3	465.500	40765	87.57	-7		20
2,4-D	10.893	10.871	10.915	94.0	590.900	51966	87.94	-6		20
Pentachlorophenol	11.353	11.329	11.377	95.0	4488.9	397829	88.62	-7		20
2,4,5-TP(Silvex)	11.857	11.833	11.881	95.0	1898.5	172334	90.78	-4		20
Chloramben	12.327	12.301	12.353	93.6	2268.3	193896	85.48	-9		20
2,4,5-T	12.297	12.273	12.321	94.8	1300.9	126403	97.17	3		20
2,4-DB	12.870	12.844	12.896	94.7	325.700	29940	91.93	-3		20
Dinoseb	13.217	13.193	13.241	94.5	1375.8	110205	80.11	-15		20
Bentazon	13.783	13.756	13.810	94.5	264.000	23248	88.07	-7		20
Dacthal	14.200	14.173	14.227	91.5	2020.0	172754	85.52	-7		20
Picloram	14.250	14.224	14.276	94.5	2967.3	256242	86.35	-9		20
Acifluorfen	16.473	16.449	16.497	96.3	1775.0	107691	60.67	-37	*	20

SURROGATE	MINUTES	FROM	TO	TRUECONC	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.350	9.326	9.374	935.8	315.000	276861	878.84	-6		20

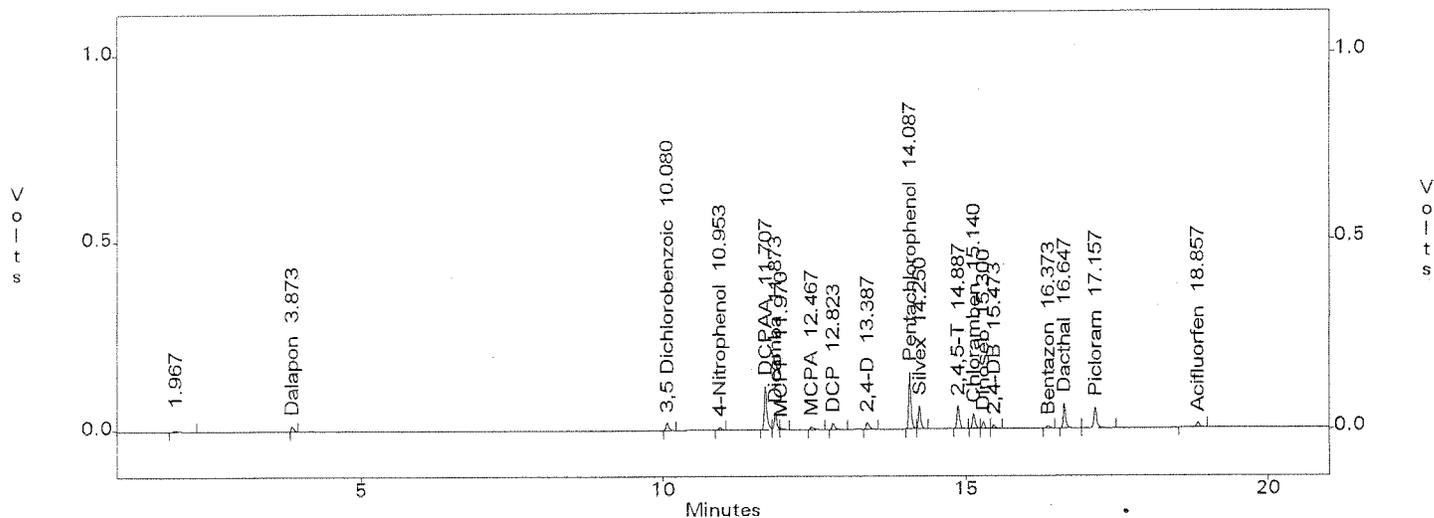
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd27\wd27.002
Method : c:\ezchrom\methods\hel6d08.met
Sample ID : CHE16D08017
Acquired : Apr 27, 2015 17:46:30
Printed : Apr 30, 2015 17:31:55
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	3.873	40244.0	385.06	104.515	BI
3,5 Dichlorobenzoic	10.080	61667.0	686.43	89.837	BV
4-Nitrophenol	10.953	21325.0	158.16	134.831	xI
DCPAA	11.707	340952.0	374.06	911.487	BV
Dicamba	11.873	114932.0	1227.72	93.614	Vx
MCPA	11.970	9453.0	1.91	4949.779	xI
MCPA	12.467	23240.0	4.63	5021.198	BI
DCP	12.823	44883.0	476.91	94.111	BV
2,4-D	13.387	51922.0	535.32	96.992	VV
Pentachlorophenol	14.087	410237.0	4242.68	96.693	BV
Silvex	14.250	154212.0	1646.95	93.635	VI
2,4,5-T	14.887	167835.0	1656.21	101.337	BV
Chloramben	15.140	109744.0	1062.59	103.279	vv
Dinoseb	15.300	44684.0	423.54	105.500	vv
2,4-DB	15.473	28902.0	292.39	98.848	vv
Bentazon	16.373	20662.0	180.30	114.596	BI
Dacthal	16.647	177673.0	1871.17	94.953	BV
Picloram	17.157	167309.0	1455.06	114.984	VI
Acifluorfen	18.857	36802.0	460.27	79.957	BV

c:\ezchrom\chrom\wd27\wd27.002 -- Channel A



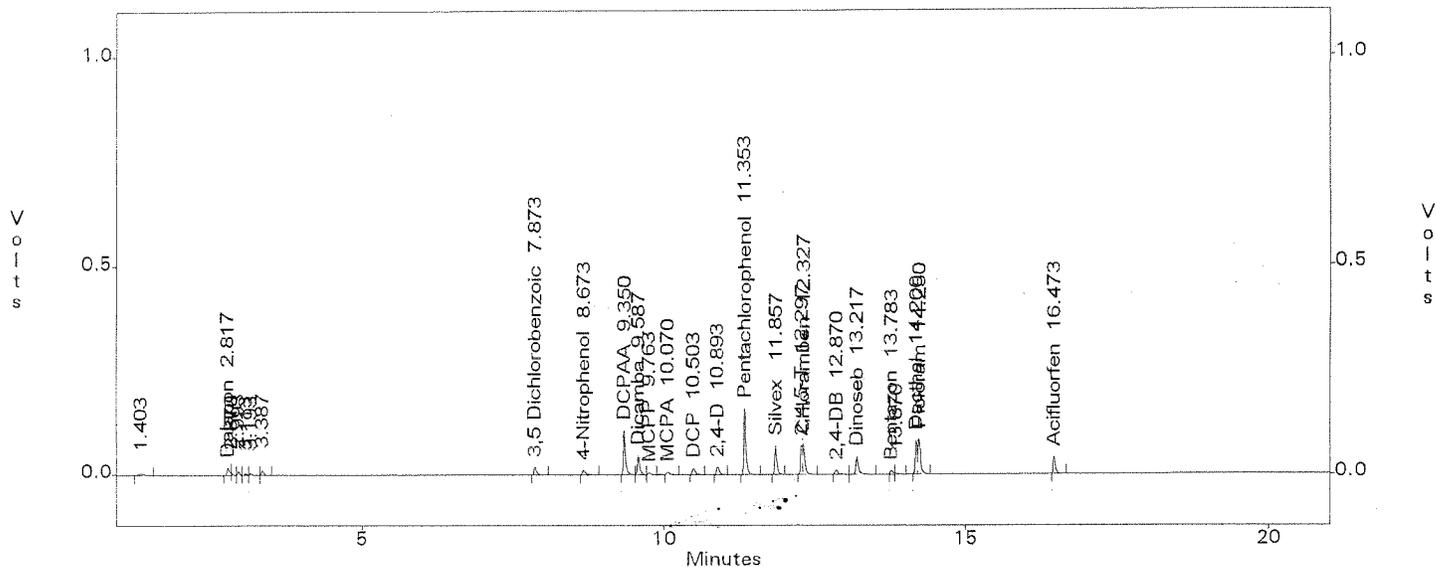
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd27\wd27.002
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : CHE16D08017
 Acquired : Apr 27, 2015 17:46:30
 Printed : Apr 30, 2015 17:31:55
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.817	53736.0	490.63	109.524	Vx
3,5 Dichlorobenzoic	7.873	53735.0	606.49	88.601	vv
4-Nitrophenol	8.673	35304.0	387.92	91.008	VV
DCPAA	9.350	276861.0	315.03	878.835	BV
Dicamba	9.587	112057.0	1259.50	88.969	VV
MCPD	9.763	10939.0	2.39	4580.666	Vx
MCPA	10.070	20668.0	4.44	4649.947	VV
DCP	10.503	40765.0	465.54	87.565	BV
2,4-D	10.893	51966.0	590.91	87.942	VB
Pentachlorophenol	11.353	397829.0	4488.93	88.624	BB
Silvex	11.857	172334.0	1898.45	90.776	BV
2,4,5-T	12.297	126403.0	1300.86	97.169	Bx
Chloramben	12.327	193896.0	2268.31	85.480	xB
2,4-DB	12.870	29940.0	325.68	91.929	xV
Dinoseb	13.217	110205.0	1375.76	80.105	VB
Bentazon	13.783	23248.0	263.99	88.065	xV
Dacthal	14.200	172754.0	2020.01	85.521	VS
Picloram	14.250	256242.0	2967.34	86.354	SI
Acifluorfen	16.473	107691.0	1775.02	60.670	BV

c:\ezchrom\chrom\wd27\wd27.002 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-W GC16
 GC Column : ZB-35HT
 Column size ID : 30MX0.25MM 0.25UM
 Mid Conc Init LFID & Datetime: WD08006A 04/08/2015 13:16
 Conc Cont LFID & Datetime: WD27015A 04/27/2015 23:46
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE CONC	AVERAGE CF	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO			AREA	CONC			
Dalapon	3.857	3.841	3.873	91.0	385.100	39866	103.53	14		20
3,5-Dichlorobenzo	10.057	10.036	10.078	93.1	686.400	57903	84.35	-9		20
4-Nitrophenol	10.927	10.907	10.947	90.8	158.200	20695	130.85	44	*	20
Dicamba	11.850	11.827	11.873	94.0	1227.7	110918	90.35	-4		20
MCPP	11.947	11.924	11.970	4693.0	1.900	10399	5445.12	16		20
MCPA	12.443	12.421	12.465	4673.0	4.600	22280	4813.78	3		20
Dichloroprop	12.797	12.775	12.819	94.3	476.900	41887	87.83	-7		20
2,4-D	13.360	13.333	13.387	94.0	535.300	49374	92.23	-2		20
Pentachlorophenol	14.060	14.033	14.087	95.0	4242.7	397109	93.60	-1		20
2,4,5-TP(Silvex)	14.223	14.202	14.244	95.0	1646.9	157395	95.57	1		20
Chloramben	15.113	15.091	15.135	93.6	1062.6	105876	99.64	6		20
2,4,5-T	14.860	14.838	14.882	94.8	1656.2	162977	98.40	4		20
2,4-DB	15.450	15.429	15.471	94.7	292.400	25939	88.71	-6		20
Dinoseb	15.273	15.252	15.294	94.5	423.500	52819	124.71	32	*	20
Bentazon	16.347	16.326	16.368	94.5	180.300	17924	99.41	5		20
Dacthal	16.620	16.599	16.641	91.5	1871.2	166955	89.22	-2		20
Picloram	17.133	17.112	17.154	94.5	1455.1	156238	107.38	14		20
Acifluorfen	18.830	18.809	18.851	96.3	460.300	67366	146.36	52	*	20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	11.683	11.660	11.706	935.8	374.100	329218	880.12	-6		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-W GC16
 GC Column : STX-CLPESTII
 Column size ID : 30MX0.32MM 0.32UM
 Mid Conc Init LFID & Datetime: WD08006B 04/08/2015 13:16
 Conc Cont LFID & Datetime: WD27015B 04/27/2015 23:46
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE CONC	AVERAGE CF	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO			AREA	CONC			
Dalapon	2.807	2.791	2.823	91.0	490.600	51258	104.47	15		20
3,5-Dichlorobenzo	7.857	7.836	7.878	93.1	606.500	54457	89.79	-4		20
4-Nitrophenol	8.653	8.622	8.684	90.8	387.900	34483	88.89	-2		20
Dicamba	9.567	9.543	9.591	94.0	1259.5	113413	90.05	-4		20
MCP	9.747	9.726	9.768	4693.0	2.400	10004	4189.14	-11		20
MCPA	10.050	10.026	10.074	4673.0	4.400	20113	4525.08	-3		20
Dichloroprop	10.483	10.457	10.509	94.3	465.500	40920	87.90	-7		20
2,4-D	10.873	10.851	10.895	94.0	590.900	53747	90.96	-3		20
Pentachlorophenol	11.330	11.306	11.354	95.0	4488.9	406428	90.54	-5		20
2,4,5-TP(Silvex)	11.833	11.809	11.857	95.0	1898.5	175213	92.29	-3		20
Chloramben	12.307	12.281	12.333	93.6	2268.3	193617	85.36	-9		20
2,4,5-T	12.277	12.253	12.301	94.8	1300.9	132813	102.10	8		20
2,4-DB	12.850	12.824	12.876	94.7	325.700	28622	87.88	-7		20
Dinoseb	13.193	13.169	13.217	94.5	1375.8	121455	88.28	-7		20
Bentazon	13.763	13.736	13.790	94.5	264.000	23281	88.19	-7		20
Dacthal	14.177	14.150	14.204	91.5	2020.0	177863	88.05	-4		20
Picloram	14.230	14.204	14.256	94.5	2967.3	252117	84.96	-10		20
Acifluorfen	16.453	16.429	16.477	96.3	1775.0	153772	86.63	-10		20

SURROGATE	MINUTES	FROM	TO	TRUECONC	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.330	9.306	9.354	935.8	315.000	281612	893.92	-4		20

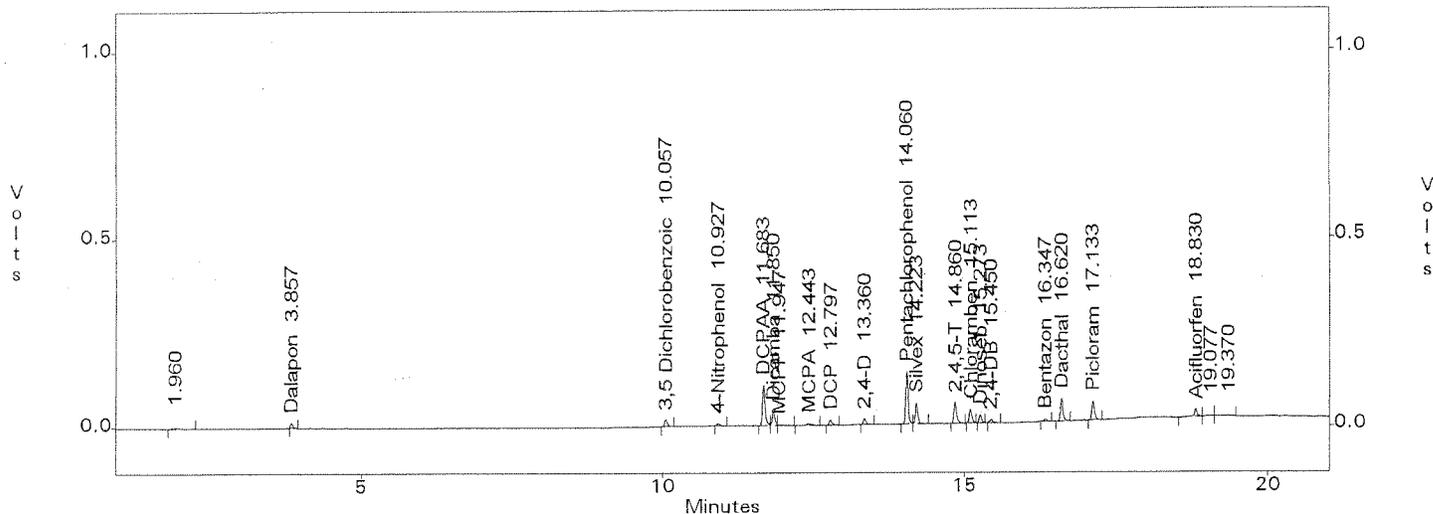
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd27\wd27.015
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : CHE16D08018
 Acquired : Apr 27, 2015 23:46:43
 Printed : Apr 30, 2015 17:37:38
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	3.857	39866.0	385.06	103.533	xI
3,5 Dichlorobenzoic	10.057	57903.0	686.43	84.354	BV
4-Nitrophenol	10.927	20695.0	158.16	130.848	xV
DCPAA	11.683	329218.0	374.06	880.118	BV
Dicamba	11.850	110918.0	1227.72	90.345	Vx
MCPD	11.947	10399.0	1.91	5445.124	xx
MCPA	12.443	22280.0	4.63	4813.782	VV
DCP	12.797	41887.0	476.91	87.829	VV
2,4-D	13.360	49374.0	535.32	92.232	VV
Pentachlorophenol	14.060	397109.0	4242.68	93.599	VV
Silvex	14.223	157395.0	1646.95	95.568	VV
2,4,5-T	14.860	162977.0	1656.21	98.404	BV
Chloramben	15.113	105876.0	1062.59	99.639	vv
Dinoseb	15.273	52819.0	423.54	124.707	vv
2,4-DB	15.450	25939.0	292.39	88.714	vv
Bentazon	16.347	17924.0	180.30	99.411	BI
Dacthal	16.620	166955.0	1871.17	89.225	BV
Picloram	17.133	156238.0	1455.06	107.376	BV
Acifluorfen	18.830	67366.0	460.27	146.362	BV

c:\ezchrom\chrom\wd27\wd27.015 -- Channel A



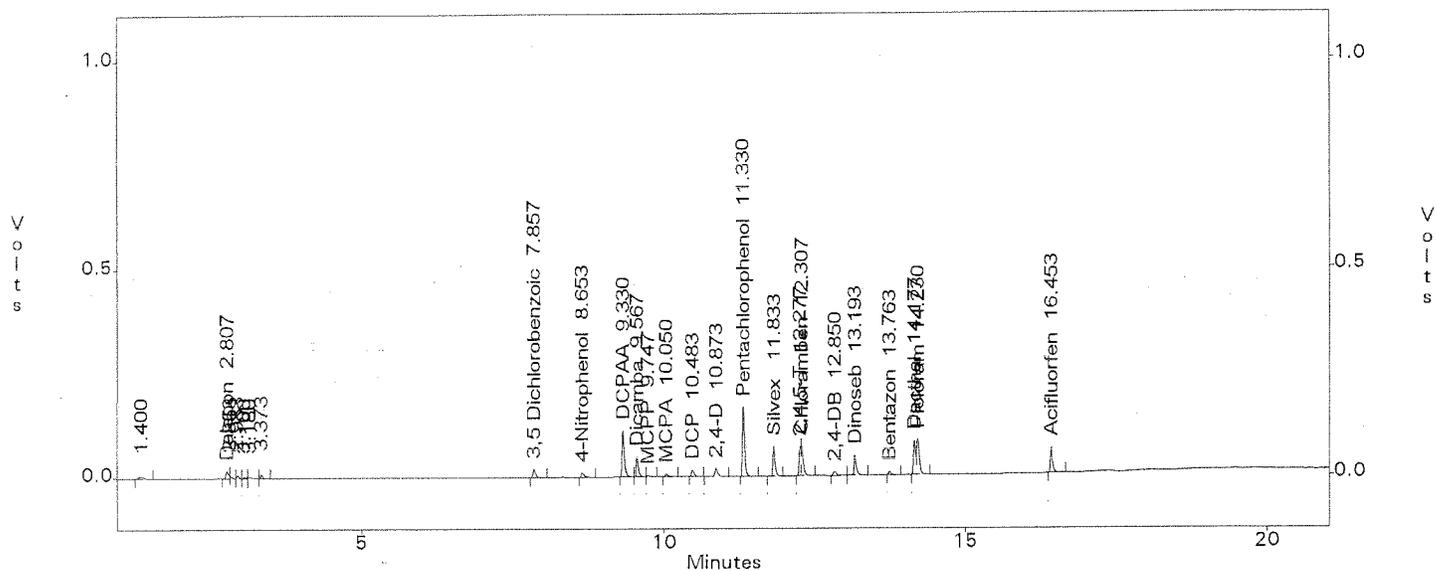
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd27\wd27.015
Method : c:\ezchrom\methods\hel6d08.met
Sample ID : CHE16D08018
Acquired : Apr 27, 2015 23:46:43
Printed : Apr 30, 2015 17:37:38
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.807	51258.0	490.63	104.473	Vx
3,5 Dichlorobenzoic	7.857	54457.0	606.49	89.791	vv
4-Nitrophenol	8.653	34483.0	387.92	88.892	vv
DCPAA	9.330	281612.0	315.03	893.916	BV
Dicamba	9.567	113413.0	1259.50	90.046	VV
MCPD	9.747	10004.0	2.39	4189.138	VV
MCPA	10.050	20113.0	4.44	4525.082	VV
DCP	10.483	40920.0	465.54	87.898	BV
2,4-D	10.873	53747.0	590.91	90.956	VV
Pentachlorophenol	11.330	406428.0	4488.93	90.540	BV
Silvex	11.833	175213.0	1898.45	92.293	VV
2,4,5-T	12.277	132813.0	1300.86	102.096	Bx
Chloramben	12.307	193617.0	2268.31	85.357	xV
2,4-DB	12.850	28622.0	325.68	87.882	BV
Dinoseb	13.193	121455.0	1375.76	88.282	VV
Bentazon	13.763	23281.0	263.99	88.190	xV
Dacthal	14.177	177863.0	2020.01	88.051	VS
Picloram	14.230	252117.0	2967.34	84.964	SI
Acifluorfen	16.453	153772.0	1775.02	86.631	BB

c:\ezchrom\chrom\wd27\wd27.015 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-W GC16
 GC Column : ZB-35HT
 Column size ID : 30MX0.25MM 0.25UM
 Mid Conc Init LFID & Datetime: WD08006A 04/08/2015 13:16
 Conc Cont LFID & Datetime: WD27027A 04/28/2015 05:19
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE CONC	AVERAGE CF	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO			AREA	CONC			
Dalapon	3.863	3.847	3.879	91.0	385.100	40452	105.06	15		20
3,5-Dichlorobenzo	10.063	10.042	10.084	93.1	686.400	58428	85.12	-9		20
4-Nitrophenol	10.937	10.917	10.957	90.8	158.200	21867	138.26	52	*	20
Dicamba	11.857	11.834	11.880	94.0	1227.7	111792	91.06	-3		20
MCPP	11.953	11.930	11.976	4693.0	1.900	9721	5090.11	8		20
MCPA	12.453	12.431	12.475	4673.0	4.600	23550	5088.18	9		20
Dichloroprop	12.807	12.785	12.829	94.3	476.900	42900	89.95	-5		20
2,4-D	13.367	13.340	13.394	94.0	535.300	50371	94.09	0		20
Pentachlorophenol	14.067	14.040	14.094	95.0	4242.7	397208	93.62	-1		20
2,4,5-TP(Silvex)	14.233	14.212	14.254	95.0	1646.9	150901	91.63	-4		20
Chloramben	15.123	15.101	15.145	93.6	1062.6	108844	102.43	9		20
2,4,5-T	14.870	14.848	14.892	94.8	1656.2	165551	99.96	5		20
2,4-DB	15.460	15.439	15.481	94.7	292.400	27709	94.77	0		20
Dinoseb	15.283	15.262	15.304	94.5	423.500	53829	127.09	35	*	20
Bentazon	16.357	16.336	16.378	94.5	180.300	18470	102.44	8		20
Dacthal	16.627	16.606	16.648	91.5	1871.2	174357	93.18	2		20
Picloram	17.143	17.122	17.164	94.5	1455.1	161459	110.96	17		20
Acifluorfen	18.840	18.819	18.861	96.3	460.300	49043	106.55	11		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	11.690	11.667	11.713	935.8	374.100	329750	881.54	-6		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-W GC16
 GC Column : STX-CLPESTII
 Column size ID : 30MX0.32MM 0.32UM
 Mid Conc Init LFID & Datetime: WD08006B 04/08/2015 13:16
 Conc Cont LFID & Datetime: WD27027B 04/28/2015 05:19
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE CONC	AVERAGE CF	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO			AREA	CONC			
Dalapon	2.810	2.794	2.826	91.0	490.600	48900	99.67	9		20
3,5-Dichlorobenzo	7.860	7.839	7.881	93.1	606.500	54850	90.44	-3		20
4-Nitrophenol	8.660	8.629	8.691	90.8	387.900	35283	90.95	0		20
Dicamba	9.570	9.546	9.594	94.0	1259.5	112788	89.55	-5		20
MCPP	9.750	9.729	9.771	4693.0	2.400	11142	4665.67	-1		20
MCPA	10.057	10.033	10.081	4673.0	4.400	21122	4752.09	2		20
Dichloroprop	10.490	10.464	10.516	94.3	465.500	41075	88.23	-6		20
2,4-D	10.880	10.858	10.902	94.0	590.900	52901	89.52	-5		20
Pentachlorophenol	11.333	11.309	11.357	95.0	4488.9	402100	89.58	-6		20
2,4,5-TP(Silvex)	11.840	11.816	11.864	95.0	1898.5	174267	91.79	-3		20
Chloramben	12.310	12.284	12.336	93.6	2268.3	207809	91.61	-2		20
2,4,5-T	12.283	12.259	12.307	94.8	1300.9	117181	90.08	-5		20
2,4-DB	12.860	12.834	12.886	94.7	325.700	30272	92.95	-2		20
Dinoseb	13.200	13.176	13.224	94.5	1375.8	120640	87.69	-7		20
Bentazon	13.773	13.746	13.800	94.5	264.000	26485	100.33	6		20
Dacthal	14.180	14.153	14.207	91.5	2020.0	177315	87.78	-4		20
Picloram	14.240	14.214	14.266	94.5	2967.3	254730	85.85	-9		20
Acifluorfen	16.460	16.436	16.484	96.3	1775.0	143646	80.93	-16		20

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.337	9.313	9.361	935.8	315.000	279172	886.17	-5		20

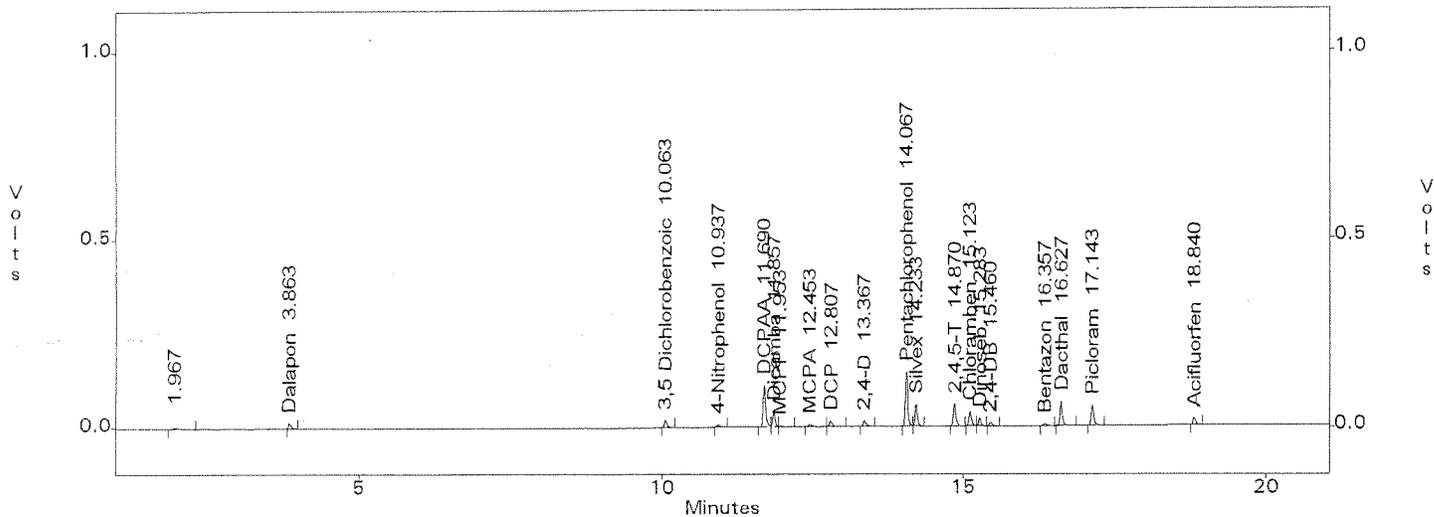
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd27\wd27.027
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : CHE16D08019
 Acquired : Apr 28, 2015 05:19:16
 Printed : Apr 30, 2015 17:38:09
 User : RZhou

Channel A Results

Peak Name	RT (min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	3.863	40452.0	385.06	105.055	xI
3,5 Dichlorobenzoic	10.063	58428.0	686.43	85.119	BV
4-Nitrophenol	10.937	21867.0	158.16	138.258	xV
DCPAA	11.690	329750.0	374.06	881.540	BV
Dicamba	11.857	111792.0	1227.72	91.057	Vx
MCPP	11.953	9721.0	1.91	5090.110	xx
MCPA	12.453	23550.0	4.63	5088.176	vv
DCP	12.807	42900.0	476.91	89.953	VV
2,4-D	13.367	50371.0	535.32	94.094	VV
Pentachlorophenol	14.067	397208.0	4242.68	93.622	BV
Silvex	14.233	150901.0	1646.95	91.625	VI
2,4,5-T	14.870	165551.0	1656.21	99.958	BV
Chloramben	15.123	108844.0	1062.59	102.432	vv
Dinoseb	15.283	53829.0	423.54	127.092	vv
2,4-DB	15.460	27709.0	292.39	94.768	vv
Bentazon	16.357	18470.0	180.30	102.439	BV
Dacthal	16.627	174357.0	1871.17	93.181	VV
Picloram	17.143	161459.0	1455.06	110.964	BI
Acifluorfen	18.840	49043.0	460.27	106.552	BV

c:\ezchrom\chrom\wd27\wd27.027 -- Channel A



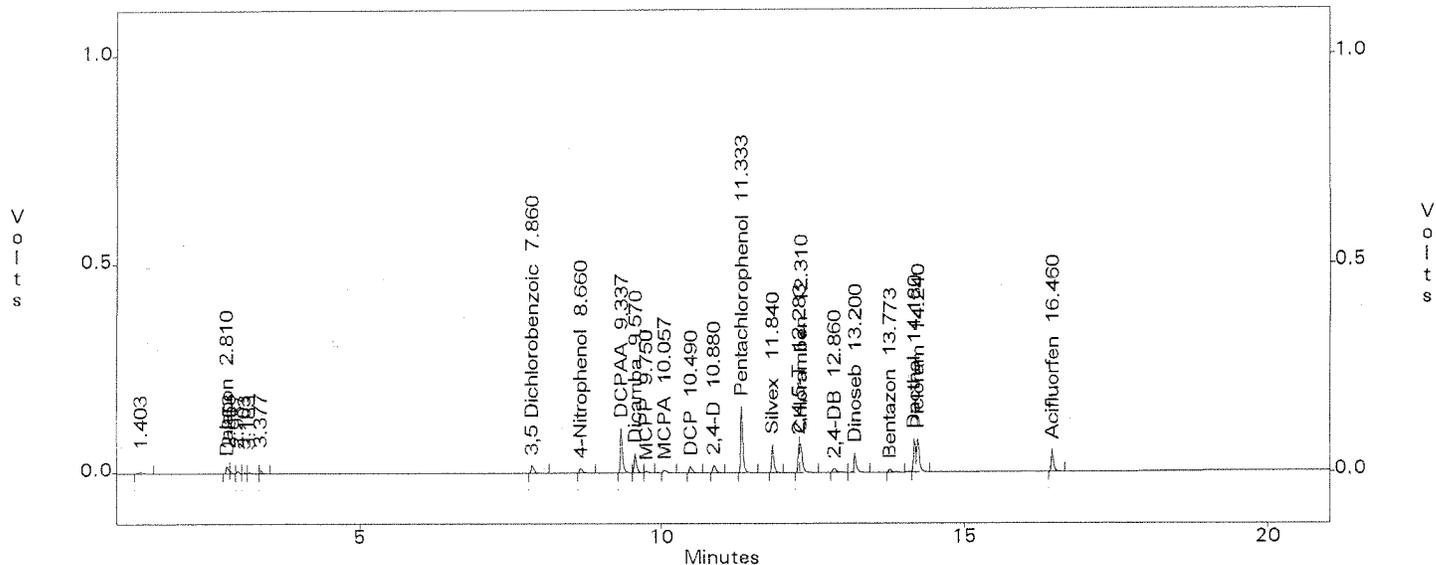
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\wd27\wd27.027
 Method : c:\ezchrom\methods\hel6d08.met
 Sample ID : CHE16D08019
 Acquired : Apr 28, 2015 05:19:16
 Printed : Apr 30, 2015 17:38:09
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.810	48900.0	490.63	99.667	Vx
3,5 Dichlorobenzoic	7.860	54850.0	606.49	90.439	vv
4-Nitrophenol	8.660	35283.0	387.92	90.954	vv
DCPAA	9.337	279172.0	315.03	886.170	BV
Dicamba	9.570	112788.0	1259.50	89.550	VV
MCPFP	9.750	11142.0	2.39	4665.672	VV
MCPA	10.057	21122.0	4.44	4752.089	VV
DCP	10.490	41075.0	465.54	88.231	BV
2,4-D	10.880	52901.0	590.91	89.524	VB
Pentachlorophenol	11.333	402100.0	4488.93	89.576	BB
Silvex	11.840	174267.0	1898.45	91.794	BB
2,4,5-T	12.283	117181.0	1300.86	90.079	Bx
Chloramben	12.310	207809.0	2268.31	91.614	xV
2,4-DB	12.860	30272.0	325.68	92.949	BV
Dinoseb	13.200	120640.0	1375.76	87.690	VB
Bentazon	13.773	26485.0	263.99	100.327	xV
Dacthal	14.180	177315.0	2020.01	87.779	VS
Picloram	14.240	254730.0	2967.34	85.845	SI
Acifluorfen	16.460	143646.0	1775.02	80.926	BV

c:\ezchrom\chrom\wd27\wd27.027 -- Channel B



ANALYTICAL LOGS



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 #: A16-026

Instrument No.: 16

Analytical Sequence: WDO8

Method File: HE16D08

Analytical Batch: WDO8 006

SOP #	Rev. #
<input checked="" type="checkbox"/> EMAX-8151	4
<input type="checkbox"/> EMAX-8082CON	1
<input type="checkbox"/> EMAX-504.1	4
<input type="checkbox"/> EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
HE16D08	WDO8	4/8/15

STANDARDS ID

Conc (µg/L)

DCC	554B-03- 75-01 75-02	100-5000 4/8/15
ZCAL	75-02	10/500-200/10,000
ZCV	75-03	100-10,000 50-5000

Hexane Lot # 54297

Column

A. ZB-35HT B. RTX CLPEST II

ELECTRONIC DATA ARCHIVAL

Location

Date

E2C_4_Pesticides

Analyzed By: RZ Date: 4/8/15

Disposed By: RZ Date Disposed: 4/9/15

This page is checked during data review.

Syringe Lot #: 430353 454251
 475284 354311

Run	Sample ID	Method	Filename	Mult.	Description
1	IB16D08001	he16d08.met	WD08.001	1	
2	HE16D0801	he16d08.met	WD08.002	1	
3	HE16D0802	he16d08.met	WD08.003	1	
4	HE16D0803	he16d08.met	WD08.004	1	
5	HE16D0804	he16d08.met	WD08.005	1	
6	HE16D0805	he16d08.met	WD08.006	1	
7	HE16D0806	he16d08.met	WD08.007	1	
8	HE16D0807	he16d08.met	WD08.008	1	
9	HE16D0808	he16d08.met	WD08.009	1	
10	IHE16D08001	he16d08.met	WD08.010	1	
11	IHE16D08002	he16d08.met	WD08.011	1	
12	CHE16D08001	he16d08.met	WD08.012	1	
13	IB	he16d08.met	WD08.013	1	

Run	Sample ID	Method	Filename	Mult.	Description
1	IB16D08017	he16d08.met	WD27.001	1	
2	CHE16D08017	he16d08.met	WD27.002	1	
3	HED010WB	he16d08.met	WD27.003	1	
4	HED010WL	he16d08.met	WD27.004	1	
5	HED010WC	he16d08.met	WD27.005	1	
6	D179-01	he16d08.met	WD27.006	1	
7	D180-01	he16d08.met	WD27.007	1	
8	D148-01	he16d08.met	WD27.008	1	
9	D149-14	he16d08.met	WD27.009	1	
10	D149-15	he16d08.met	WD27.010	1	
11	D149-20	he16d08.met	WD27.011	1	
12	D149-21	he16d08.met	WD27.012	1	
13	BLANK	he16d08.met	WD27.013	1	
14	IB16D08018	he16d08.met	WD27.014	1	
15	CHE16D08018	he16d08.met	WD27.015	1	<i>ch. A = Drnoseb high</i>
16	D156-01	he16d08.met	WD27.016	1	
17	D156-02	he16d08.met	WD27.017	1	
18	D156-03	he16d08.met	WD27.018	1	
19	D156-05	he16d08.met	WD27.019	1	
20	D156-06	he16d08.met	WD27.020	1	
21	D156-07	he16d08.met	WD27.021	1	
22	D156-08	he16d08.met	WD27.022	1	
23	D156-10	he16d08.met	WD27.023	1	
24	D156-11	he16d08.met	WD27.024	1	

Run	Sample ID	Method	Filename	Mult.	Description
25	BLANK	he16d08.met	WD27.025	1	
26	IB16D08019	he16d08.met	WD27.026	1	
27	CHE16D08019	he16d08.met	WD27.027	1	ch.N. - Dineseb high

EXTRACTION LOGS



EXTRACTION LOG
for
HERBICIDES

SOP	Rev. #
<input checked="" type="checkbox"/> EMAX-8151	4
<input type="checkbox"/> EMAX-	

Note: For samples, relevant QCs/Standards extracted, refer to attached extraction sequence.

Comments:

Lab Sample ID	Sonicator #	Concentrator #
HED010 -WB	N/A	3
-WL		3
-WC		3
D148 -01	/	4
D149 -14	/	4
-15	/	4
-20	/	4
-21	/	4
D156 -01	/	4
-02	/	4
-03	/	4
-05	/	4
-06	/	4
-07	/	4
-08	/	4
-10	/	3
-11	/	3
D179 -01	/	3
D182 -01	/	3

Book #: EHE-019
 Preparation Batch: HED010 W
 Matrix: WATER
 Micropipette ID: PE00-04 (1000 µL)
 Micropipette ID: PE97C-03 (100 µL)

Standards	ID	Amount Added (ml)
Surrogate	SS4B-03-09-02	1.0 ✓
LCS/MS	SS4A-02-155	0.1 ✓
Reagent	Lot # / ID	
CH ₂ Cl ₂	-	
Hexane	54297	
Ethyl Ether	DM087	
Acified Na ₂ SO ₄	SP1B-08-02-02	
H ₂ SO ₄	3113040	
Diazo-methane	SP1B-08-09-02	
Silica Sand	-	
Silicic Acid	-	
Reagent Water	SWIA-005-12-02	
Residual Chlorine Strip	my 1/7-29 4406	
pH Strip	HC413032	
TUNING		
Sonicator #	Reading	
Concentrator	Water Bath Temperature Setting (°C)	Thermometer Reading (°C)
1		
2		
3	35	35
4	35	35
5		
6		

Test Thermometer = SVOC-T1

Prepared By: my Standard Added By: my
 Witnessed By: AGG Checked By: JM
 Extract Received By: RZ Extract Location: SE04- Herb-01
 Disposal Date: Disposed By:

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

WET CHEMICAL ANALYSES

SDG#: 15D156

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D156

METHOD 300.0
ANIONS BY IC

A total of nine (9) water samples were received on 04/23/15 to be analyzed for Nitrate-N, Nitrite-N and Sulfate in accordance with Method 300.0 and project specific requirements.

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.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, three (3) method blanks were analyzed. ICD026WB, ICD028WB and ICD030WB were compliant to project requirement. Refer to sample result summary forms for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, three (3) sets of LCS/LCD were analyzed. Nitrate-N, Nitrite-N and Sulfate were within LCS QC limits in ICD026WL/ICD026WC. Nitrate-N and Sulfate were within LCS QC limits in ICD028WL/ICD028WC. Nitrate-N and Sulfate were within LCS QC limits in ICD030WL/ICD030WC. Refer to LCS summary forms for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed. Nitrate-N, Nitrite-N and Sulfate were within MS QC limits in D156-11IM/S. Refer to Matrix QC summary form for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

SAMPLE RESULTS

METHOD 300.0
NITRATE-N

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D156

Matrix : WATER
Instrument ID : D7

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	ICD026WB	ND	1	NA	0.100	0.0500	04/23/1511:17	NA	AD20-03	AD20-01	ICD026W	NA	NA
LCS1W	ICD026WL	0.972	1	NA	0.100	0.0500	04/23/1511:36	NA	AD20-04	AD20-01	ICD026W	NA	NA
LCD1W	ICD026WC	1.03	1	NA	0.100	0.0500	04/23/1514:06	NA	AD20-12	AD20-01	ICD026W	NA	NA
04-22-15-WB2-3	D156-01	1.51	1	NA	0.100	0.0500	04/23/1516:56	NA	AD20-21	AD20-13	ICD026W	04/22/1515:20	04/23/15
04-23-15-EB-2	D156-06	0.0502J	1	NA	0.100	0.0500	04/23/1518:48	NA	AD20-27	AD20-25	ICD026W	04/23/1509:05	04/23/15
LCS2W	ICD028WL	1.00	1	NA	0.100	0.0500	04/23/1520:41	NA	AD20-33	AD20-25	ICD028W	NA	NA
LCD2W	ICD028WC	0.980	1	NA	0.100	0.0500	04/23/1520:59	NA	AD20-34	AD20-25	ICD028W	NA	NA
MBLK2W	ICD028WB	ND	1	NA	0.100	0.0500	04/23/1521:18	NA	AD20-35	AD20-25	ICD028W	NA	NA
04-22-15-PWB-2	D156-02I	13.0	10	NA	1.00	0.500	04/23/1523:29	NA	AD20-42	AD20-37	ICD028W	04/22/1514:35	04/23/15
04-22-15-PWB-6	D156-03I	16.7	10	NA	1.00	0.500	04/23/1523:48	NA	AD20-43	AD20-37	ICD028W	04/22/1513:45	04/23/15
04-23-15-PWB-3	D156-07I	18.1	10	NA	1.00	0.500	04/24/1500:26	NA	AD20-45	AD20-37	ICD028W	04/23/1508:10	04/23/15
04-23-15-PWB-11	D156-08I	38.7	10	NA	1.00	0.500	04/24/1500:44	NA	AD20-46	AD20-37	ICD028W	04/23/1508:55	04/23/15
04-23-15-BBW-1	D156-10I	37.6	10	NA	1.00	0.500	04/24/1501:03	NA	AD20-47	AD20-37	ICD028W	04/23/1509:20	04/23/15
04-23-15-BBW-2	D156-11I	32.8	40	NA	4.00	2.00	04/24/1501:59	NA	AD20-50	AD20-48	ICD028W	04/23/1508:40	04/23/15
04-23-15-BBW-2MS	D156-11IM	75.0	40	NA	4.00	2.00	04/24/1502:18	NA	AD20-51	AD20-48	ICD028W	04/23/1508:40	04/23/15
04-23-15-BBW-2MSD	D156-11IS	74.9	40	NA	4.00	2.00	04/24/1502:37	NA	AD20-52	AD20-48	ICD028W	04/23/1508:40	04/23/15
04-22-15-WB2-3	D156-01I	1.61	10	NA	1.00	0.500	04/24/1502:56	NA	AD20-53	AD20-48	ICD028W	04/22/1515:20	04/23/15
MBLK3W	ICD030WB	ND	1	NA	0.100	0.0500	04/24/1510:11	NA	AD22-03	AD22-01	ICD030W	NA	NA
LCS3W	ICD030WL	1.02	1	NA	0.100	0.0500	04/24/1510:30	NA	AD22-04	AD22-01	ICD030W	NA	NA
LCD3W	ICD030WC	1.01	1	NA	0.100	0.0500	04/24/1510:49	NA	AD22-05	AD22-01	ICD030W	NA	NA
04-23-15-PWB-8	D156-05I	25.5	10	NA	1.00	0.500	04/24/1511:07	NA	AD22-06	AD22-01	ICD030W	04/23/1508:00	04/23/15

METHOD 300.0
NITRITE-N

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D156

Matrix : WATER
Instrument ID : D7

SAMPLE ID	EMAX SAMPLE ID	RESULTS		RL		MDL	Analysis DATETIME	Extraction		CAL REF	Collection		Received DATETIME
		(mg/L)	DLF MOIST	(mg/L)	(mg/L)			DATETIME	LFID		DATETIME	DATETIME	
MBLK1W	ICD026WB	ND	1 NA	0.100	0.0500	04/23/1511:17	NA	AD20-03	AD20-01	ICD026W	NA	NA	
LCS1W	ICD026WL	2.06	1 NA	0.100	0.0500	04/23/1511:36	NA	AD20-04	AD20-01	ICD026W	NA	NA	
LCD1W	ICD026WC	2.07	1 NA	0.100	0.0500	04/23/1514:06	NA	AD20-12	AD20-01	ICD026W	NA	NA	
04-22-15-PWB-6	D156-03	ND	1 NA	0.100	0.0500	04/23/1516:18	NA	AD20-19	AD20-13	ICD026W	04/22/1513:45	04/23/15	
04-22-15-PWB-2	D156-02	ND	1 NA	0.100	0.0500	04/23/1516:37	NA	AD20-20	AD20-13	ICD026W	04/22/1514:35	04/23/15	
04-22-15-WB2-3	D156-01	1.33	1 NA	0.100	0.0500	04/23/1516:56	NA	AD20-21	AD20-13	ICD026W	04/22/1515:20	04/23/15	
04-23-15-PWB-8	D156-05	ND	1 NA	0.100	0.0500	04/23/1517:15	NA	AD20-22	AD20-13	ICD026W	04/23/1508:00	04/23/15	
04-23-15-PWB-3	D156-07	ND	1 NA	0.100	0.0500	04/23/1517:33	NA	AD20-23	AD20-13	ICD026W	04/23/1508:10	04/23/15	
04-23-15-EB-2	D156-06	ND	1 NA	0.100	0.0500	04/23/1518:48	NA	AD20-27	AD20-25	ICD026W	04/23/1509:05	04/23/15	
04-23-15-PWB-11	D156-08	ND	1 NA	0.100	0.0500	04/23/1519:07	NA	AD20-28	AD20-25	ICD026W	04/23/1508:55	04/23/15	
04-23-15-BBW-1	D156-10	ND	1 NA	0.100	0.0500	04/23/1519:26	NA	AD20-29	AD20-25	ICD026W	04/23/1509:20	04/23/15	
04-23-15-BBW-2	D156-11	ND	1 NA	0.100	0.0500	04/23/1519:44	NA	AD20-30	AD20-25	ICD026W	04/23/1508:40	04/23/15	
04-23-15-BBW-2MS	D156-11M	2.22	1 NA	0.100	0.0500	04/23/1520:03	NA	AD20-31	AD20-25	ICD026W	04/23/1508:40	04/23/15	
04-23-15-BBW-2MSD	D156-11S	2.22	1 NA	0.100	0.0500	04/23/1520:22	NA	AD20-32	AD20-25	ICD026W	04/23/1508:40	04/23/15	

METHOD 300.0
SULFATE

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D156

Matrix : WATER
Instrument ID : D7

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	ICD026WB	ND	1	NA	0.500	0.250	04/23/1511:17	NA	AD20-03	AD20-01	ICD026W	NA	NA
LCS1W	ICD026WL	4.76	1	NA	0.500	0.250	04/23/1511:36	NA	AD20-04	AD20-01	ICD026W	NA	NA
LCD1W	ICD026WC	4.93	1	NA	0.500	0.250	04/23/1514:06	NA	AD20-12	AD20-01	ICD026W	NA	NA
04-23-15-EB-2	D156-06	0.845	1	NA	0.500	0.250	04/23/1518:48	NA	AD20-27	AD20-25	ICD026W	04/23/1509:05	04/23/15
LCS2W	ICD028WL	4.80	1	NA	0.500	0.250	04/23/1520:41	NA	AD20-33	AD20-25	ICD028W	NA	NA
LCD2W	ICD028WC	4.80	1	NA	0.500	0.250	04/23/1520:59	NA	AD20-34	AD20-25	ICD028W	NA	NA
MBLK2W	ICD028WB	ND	1	NA	0.500	0.250	04/23/1521:18	NA	AD20-35	AD20-25	ICD028W	NA	NA
04-22-15-PWB-2	D156-02I	135	10	NA	5.00	2.50	04/23/1523:29	NA	AD20-42	AD20-37	ICD028W	04/22/1514:35	04/23/15
04-22-15-PWB-6	D156-03I	152	10	NA	5.00	2.50	04/23/1523:48	NA	AD20-43	AD20-37	ICD028W	04/22/1513:45	04/23/15
04-23-15-PWB-3	D156-07I	84.5	10	NA	5.00	2.50	04/24/1500:26	NA	AD20-45	AD20-37	ICD028W	04/23/1508:10	04/23/15
04-23-15-PWB-11	D156-08I	91.1	10	NA	5.00	2.50	04/24/1500:44	NA	AD20-46	AD20-37	ICD028W	04/23/1508:55	04/23/15
04-23-15-BBW-1	D156-10I	172	10	NA	5.00	2.50	04/24/1501:03	NA	AD20-47	AD20-37	ICD028W	04/23/1509:20	04/23/15
04-23-15-BBW-2	D156-11I	217	40	NA	20.0	10.0	04/24/1501:59	NA	AD20-50	AD20-48	ICD028W	04/23/1508:40	04/23/15
04-23-15-BBW-2MS	D156-11IM	425	40	NA	20.0	10.0	04/24/1502:18	NA	AD20-51	AD20-48	ICD028W	04/23/1508:40	04/23/15
04-23-15-BBW-2MSD	D156-11IS	429	40	NA	20.0	10.0	04/24/1502:37	NA	AD20-52	AD20-48	ICD028W	04/23/1508:40	04/23/15
04-22-15-WB2-3	D156-01I	104	10	NA	5.00	2.50	04/24/1502:56	NA	AD20-53	AD20-48	ICD028W	04/22/1515:20	04/23/15
MBLK3W	ICD030WB	ND	1	NA	0.500	0.250	04/24/1510:11	NA	AD22-03	AD22-01	ICD030W	NA	NA
LCS3W	ICD030WL	5.12	1	NA	0.500	0.250	04/24/1510:30	NA	AD22-04	AD22-01	ICD030W	NA	NA
LCD3W	ICD030WC	4.95	1	NA	0.500	0.250	04/24/1510:49	NA	AD22-05	AD22-01	ICD030W	NA	NA
04-23-15-PWB-8	D156-05I	130	10	NA	5.00	2.50	04/24/1511:07	NA	AD22-06	AD22-01	ICD030W	04/23/1508:00	04/23/15

Report date: 4/24/2015 4:32:02 PM
Printed by: JChun

Ident: AD20-22 D156-05
Analysis from: 4/23/2015 5:15:00 PM
File: z4231715.chw

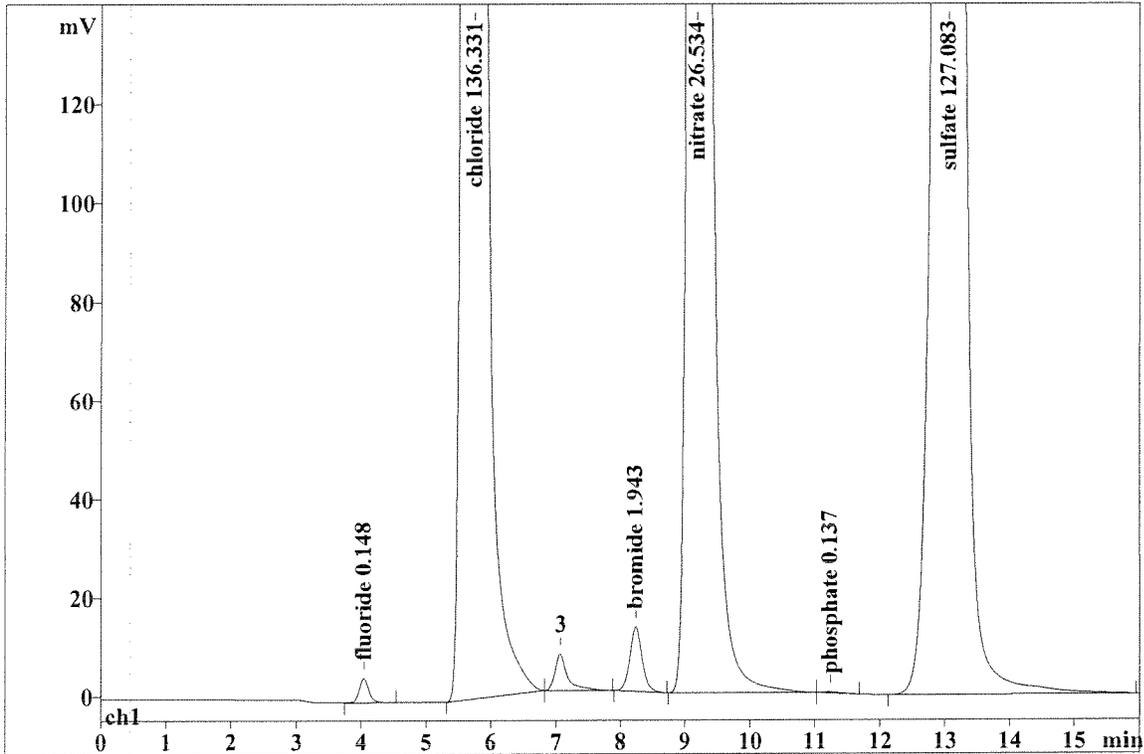
Last save: 4/23/2015 5:31:00 PM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80518

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 22
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.04	4.89	49.593	0.148	fluoride
2	5.75	1772.59	31390.194	136.331	chloride
3	7.07	7.35	101.177	0.000	
4	8.23	13.11	174.515	1.943	bromide
5	9.19	979.82	14948.265	26.534	nitrate
6	11.25	0.19	3.325	0.137	phosphate
7	13.07	1054.12	21163.947	127.083	sulfate
7	16.00	3832.06	67831.018	292.177	

Handwritten signature: NIOSH

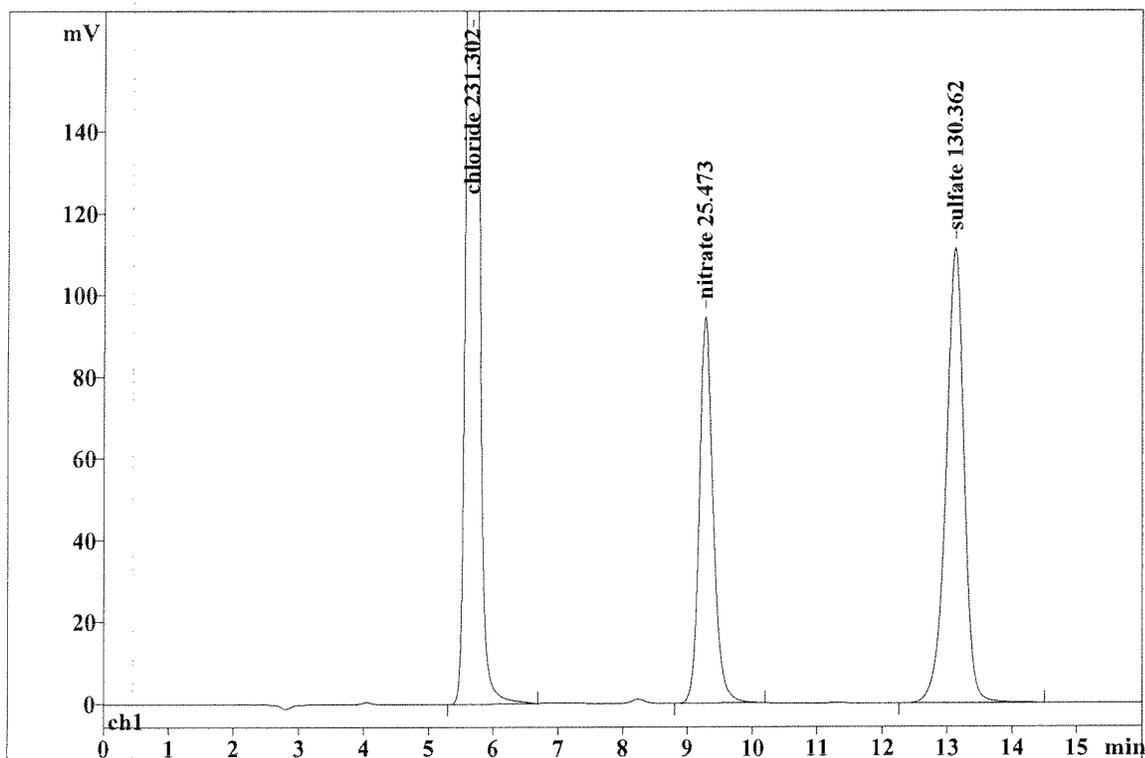
This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 4:43:08 PM
Printed by: JChun

Ident: AD22-06 D156-05I DF=10 ✓
Analysis from: 4/24/2015 11:07:56 AM
File: z4241107.chw Last save: 4/24/2015 11:23:56 AM
Modified!
Method: ICD7-B26.mtw Last save: 4/24/2015 9:59:51 AM
Run operator: JChun
Analysis number: 80558

SAMPLE:

Vial number: 6
Volume: 1.0 µL
Dilution: 10.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	5.67	534.09	5318.219	231.302	chloride
2	9.27	94.64	1413.333	25.473	nitrate ✓
3	13.13	111.51	2170.647	130.362	sulfate ✓
3	16.00	740.23	8902.199	387.138	

This report has been created by IC Net
METROHM LTD

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D156
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: ICD026WB ICD026WL ICD026WC
LAB FILE ID: AD20-03 AD20-04 AD20-12
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 04/23/1511:17 04/23/1511:36 04/23/1514:06 DATE RECEIVED: NA
PREP. BATCH: ICD026W ICD026W ICD026W
CALIB. REF: AD20-01 AD20-01 AD20-01

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	.972	97	1	1.03	103	6	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D156
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK2W
LAB SAMP ID: ICD028WB ICD028WL ICD028WC
LAB FILE ID: AD20-35 AD20-33 AD20-34
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 04/23/1521:18 04/23/1520:41 04/23/1520:59 DATE RECEIVED: NA
PREP. BATCH: ICD028W ICD028W ICD028W
CALIB. REF: AD20-25 AD20-25 AD20-25

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	100	1	.98	98	2	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D156
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK3W
LAB SAMP ID: ICD030WB ICD030WL ICD030WC
LAB FILE ID: AD22-03 AD22-04 AD22-05
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 04/24/1510:11 04/24/1510:30 04/24/1510:49 DATE RECEIVED: NA
PREP. BATCH: ICD030W ICD030W ICD030W
CALIB. REF: AD22-01 AD22-01 AD22-01

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	1.02	102	1	1.01	101	1	90-110	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D156
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 40 40 40
SAMPLE ID: 04-23-15-BBW-2
LAB SAMP ID: D156-11I D156-11IM D156-11IS
LAB FILE ID: AD20-50 AD20-51 AD20-52
DATE EXTRACTED: NA NA NA DATE COLLECTED: 04/23/15 08:40
DATE ANALYZED: 04/24/1501:59 04/24/1502:18 04/24/1502:37 DATE RECEIVED: 04/23/15
PREP. BATCH: ICD028W ICD028W ICD028W
CALIB. REF: AD20-48 AD20-48 AD20-48

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	32.8	40	75	105	40	74.9	105	0	80-120	20

8012

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D156
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: ICD026WB ICD026WL ICD026WC
LAB FILE ID: AD20-03 AD20-04 AD20-12
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 04/23/1511:17 04/23/1511:36 04/23/1514:06 DATE RECEIVED: NA
PREP. BATCH: ICD026W ICD026W ICD026W
CALIB. REF: AD20-01 AD20-01 AD20-01

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	2.06	103	2	2.07	104	0	90-110	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 150156
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: 04-23-15-BBW-2
LAB SAMP ID: D156-11 D156-11M D156-11S
LAB FILE ID: AD20-30 AD20-31 AD20-32
DATE EXTRACTED: NA NA NA DATE COLLECTED: 04/23/15 08:40
DATE ANALYZED: 04/23/1519:44 04/23/1520:03 04/23/1520:22 DATE RECEIVED: 04/23/15
PREP. BATCH: ICD026W ICD026W ICD026W
CALIB. REF: AD20-25 AD20-25 AD20-25

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	2.22	111	2	2.22	111	0	80-120	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D156
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: ICD026WB ICD026WL ICD026WC
LAB FILE ID: AD20-03 AD20-04 AD20-12
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 04/23/1511:17 04/23/1511:36 04/23/1514:06 DATE RECEIVED: NA
PREP. BATCH: ICD026W ICD026W ICD026W
CALIB. REF: AD20-01 AD20-01 AD20-01

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	4.76	95	5	4.93	99	3	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 150156
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK2W
LAB SAMP ID: ICD028WB ICD028WL ICD028WC
LAB FILE ID: AD20-35 AD20-33 AD20-34
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 04/23/1521:18 04/23/1520:41 04/23/1520:59 DATE RECEIVED: NA
PREP. BATCH: ICD028W ICD028W ICD028W
CALIB. REF: AD20-25 AD20-25 AD20-25

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	4.8	96	5	4.8	96	0	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D156
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK3W
LAB SAMP ID: ICD030WB ICD030WL ICD030WC
LAB FILE ID: AD22-03 AD22-04 AD22-05
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 04/24/1510:11 04/24/1510:30 04/24/1510:49 DATE RECEIVED: NA
PREP. BATCH: ICD030W ICD030W ICD030W
CALIB. REF: AD22-01 AD22-01 AD22-01

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	5.12	102	5	4.95	99	3	90-110	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D156
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 40 40 40
SAMPLE ID: 04-23-15-BBW-2
LAB SAMP ID: D156-11I D156-11IM D156-11IS
LAB FILE ID: AD20-50 AD20-51 AD20-52
DATE EXTRACTED: NA NA NA DATE COLLECTED: 04/23/15 08:40
DATE ANALYZED: 04/24/1501:59 04/24/1502:18 04/24/1502:37 DATE RECEIVED: 04/23/15
PREP. BATCH: ICD028W ICD028W ICD028W
CALIB. REF: AD20-48 AD20-48 AD20-48

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	217	200	425	104	200	429	106	1	80-120	20

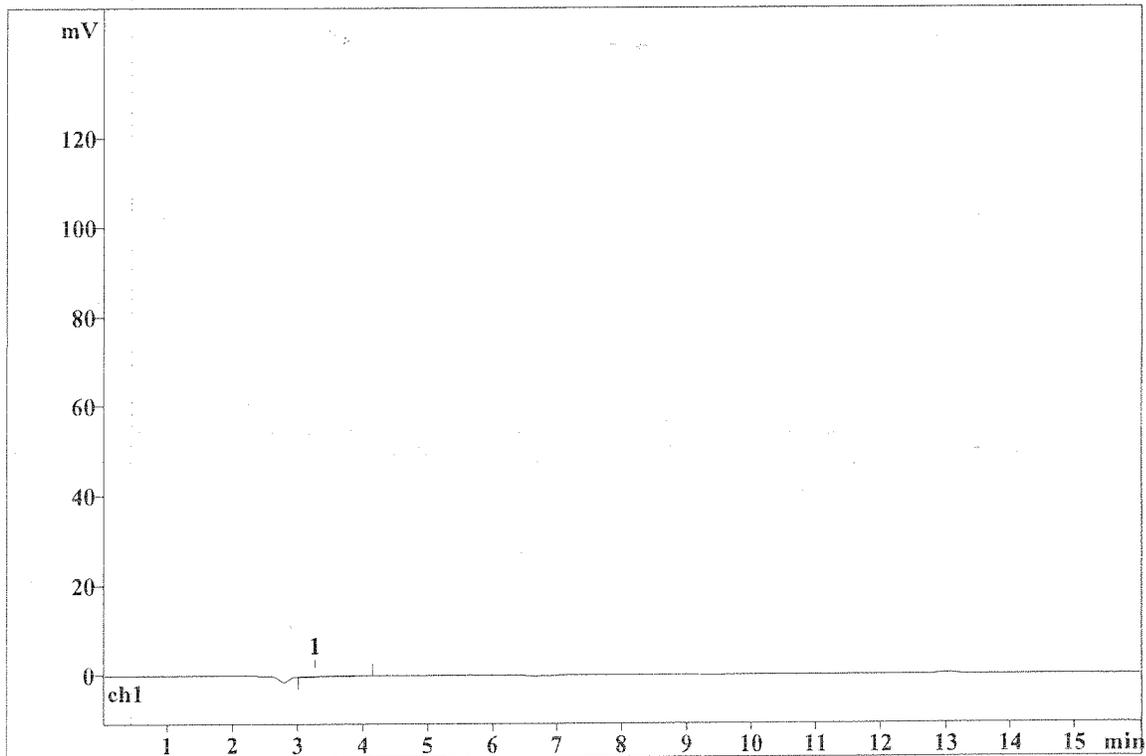
QC DATA

Report date: 4/24/2015 9:56:07 AM
Printed by: JChun

Ident: AD20-03 ICD026WB
Analysis from: 4/23/2015 11:17:36 AM
File: z4231117.chw Last save: 4/23/2015 11:33:37 AM
Modified!
Method: ICD7-B26.mtw Last save: 4/23/2015 10:48:10 AM
Run operator: JChun
Analysis number: 80499

SAMPLE:

Vial number: 3
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.27	0.09	3.789	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 11:52:21 AM
Printed by: JChun

Ident: AD20-04 ICD026WL
Analysis from: 4/23/2015 11:36:21 AM
File: Z4231136.CHW

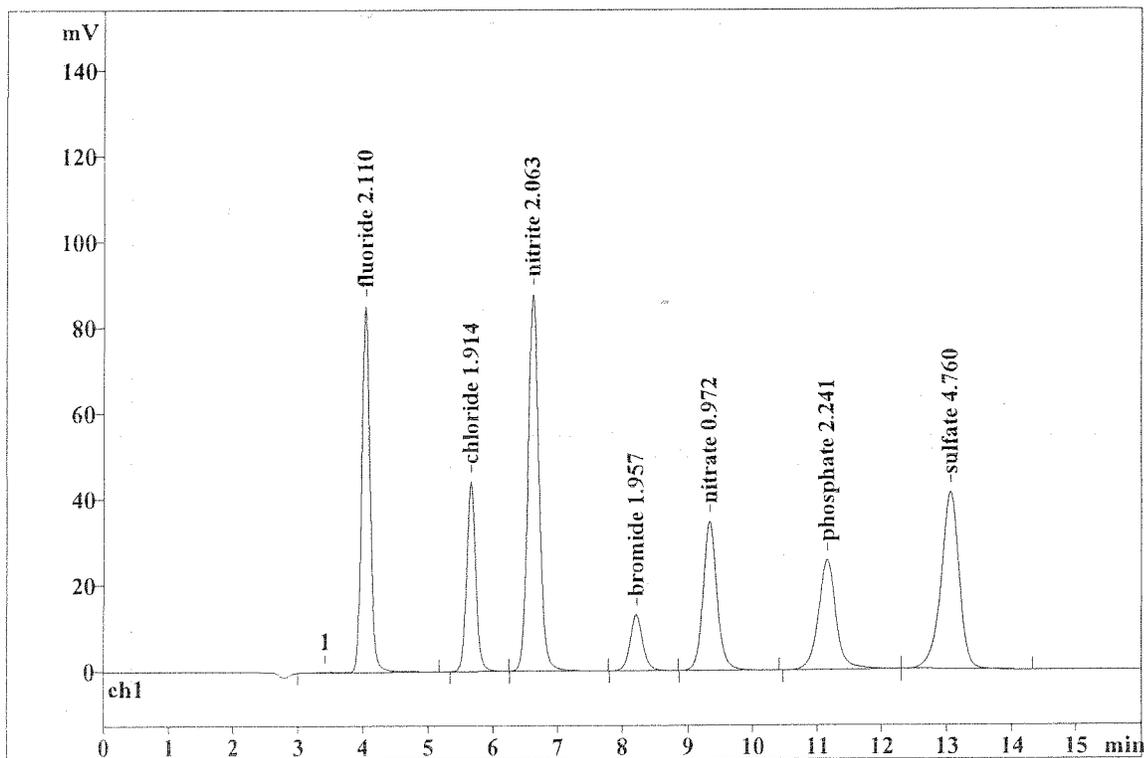
Last save: 4/23/2015 11:52:21 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80500

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 4
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.40	0.10	3.517	0.000	
2	4.04	85.41	776.014	2.110	fluoride
3	5.66	44.16	431.845	1.914	chloride
4	6.62	87.71	1053.560	2.063	nitrite ✓
5	8.21	13.04	175.820	1.957	bromide
6	9.33	34.70	524.250	0.972	nitrate ✓
7	11.16	25.59	488.132	2.241	phosphate
8	13.06	41.18	792.405	4.760	sulfate
8	16.00	331.90	4245.543	16.017	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 2:22:50 PM
Printed by: JChun

Ident: AD20-12 ICD026WC
Analysis from: 4/23/2015 2:06:50 PM
File: Z4231406.CHW

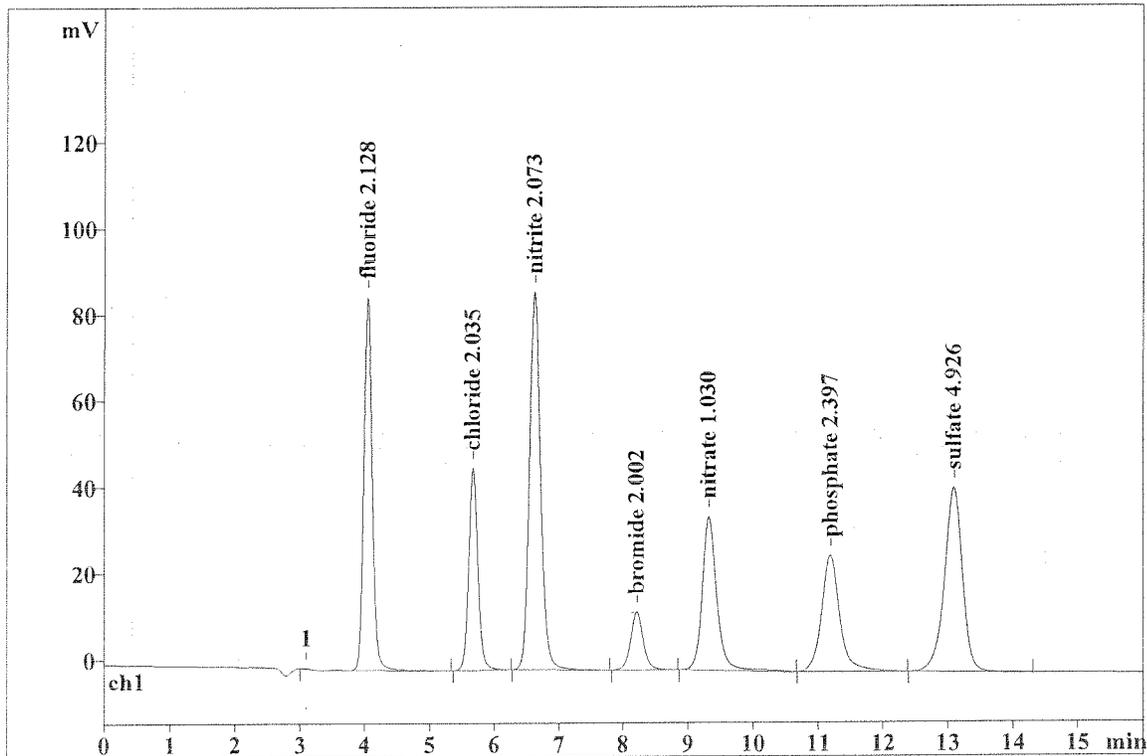
Last save: 4/23/2015 2:22:50 PM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80508

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 12
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.10	0.14	0.931	0.000	
2	4.05	86.64	782.745	2.128	fluoride
3	5.67	46.90	459.717	2.035	chloride
4	6.62	87.60	1058.483	2.073	nitrite
5	8.21	13.46	180.276	2.002	bromide
6	9.33	35.68	556.944	1.030	nitrate
7	11.19	27.06	524.162	2.397	phosphate
8	13.10	42.67	820.030	4.926	sulfate
8	16.00	340.16	4383.289	16.592	

This report has been created by IC Net
METROHM LTD

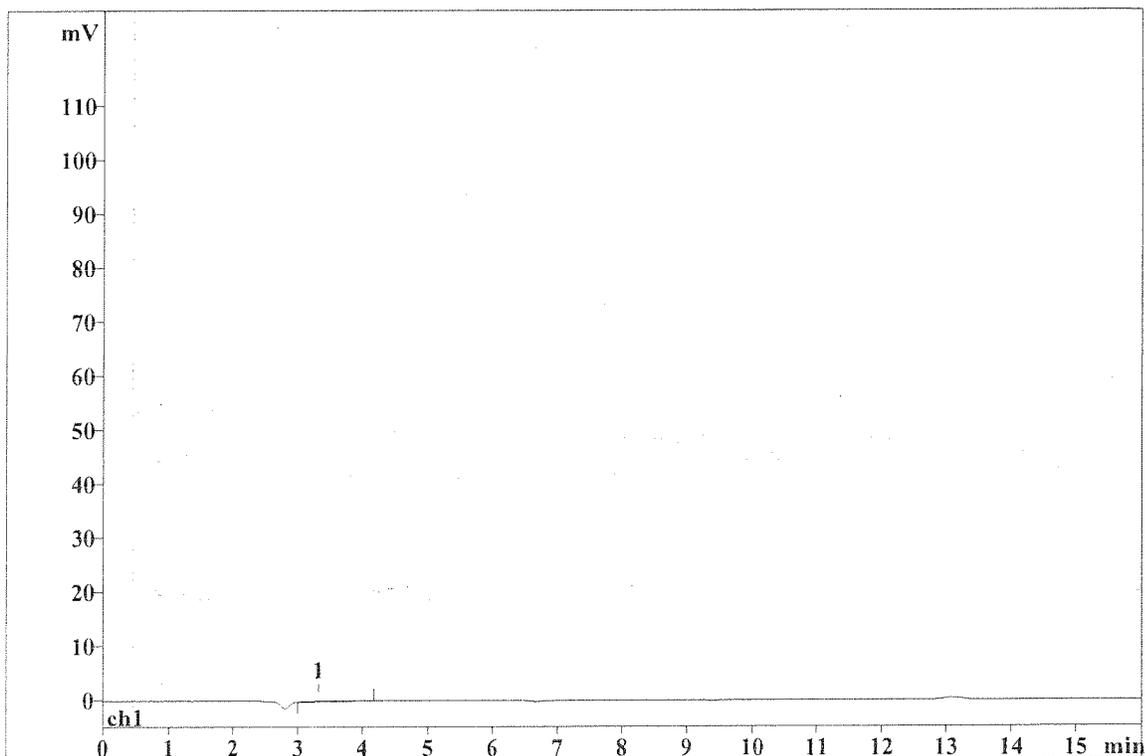
Report date: 4/27/2015 8:45:49 AM
Printed by: JChun

Ident: AD22-03 ICD030WB
Analysis from: 4/24/2015 10:11:41 AM
File: z4241011.chw
Modified!
Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80555

Last save: 4/24/2015 10:27:41 AM
Last save: 4/24/2015 9:59:51 AM

SAMPLE:

Vial number: 3
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.29	0.11	4.813	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 10:46:26 AM
Printed by: JChun

Ident: AD22-04 ICD030WL
Analysis from: 4/24/2015 10:30:26 AM
File: Z4241030.CHW

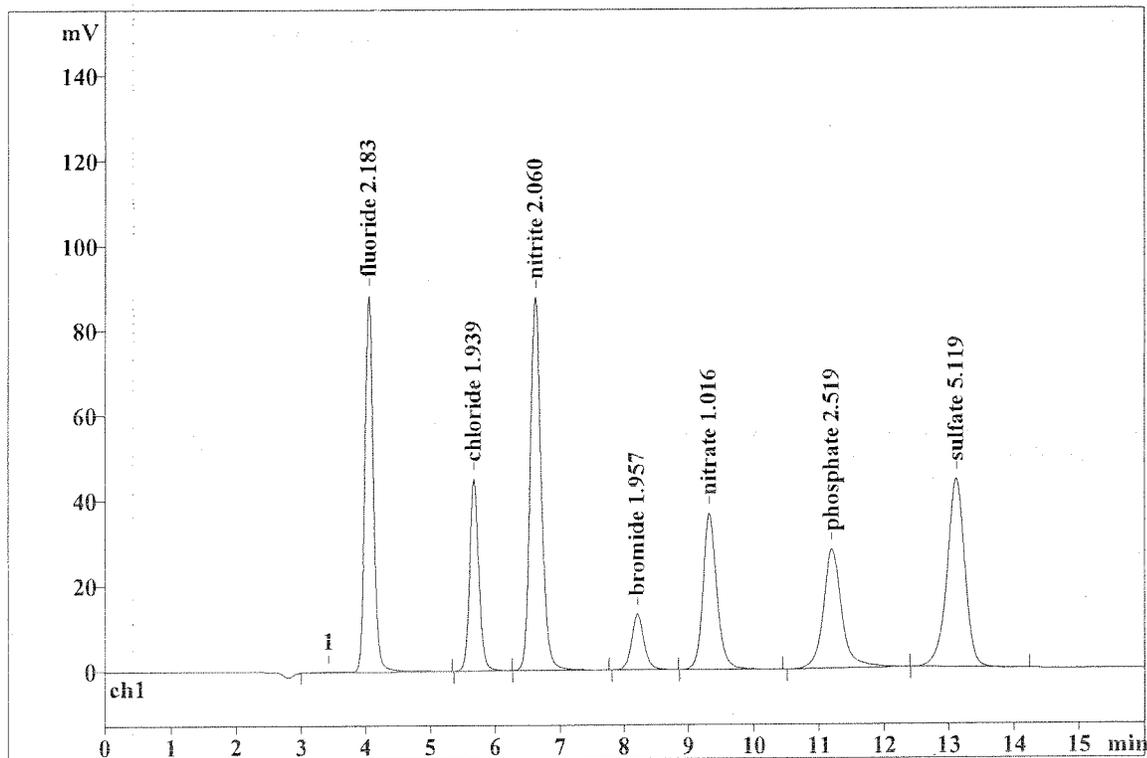
Last save: 4/24/2015 10:46:26 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80556

Last save: 4/24/2015 9:59:51 AM

SAMPLE:

Vial number: 4
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.45	0.11	3.905	0.000	
2	4.05	88.60	803.034	2.183	fluoride
3	5.67	45.01	437.528	1.939	chloride
4	6.62	87.85	1051.608	2.060	nitrite
5	8.20	13.16	175.836	1.957	bromide
6	9.32	36.69	549.329	1.016	nitrate
7	11.20	28.01	552.101	2.519	phosphate
8	13.12	44.22	852.080	5.119	sulfate
8	16.00	343.65	4425.419	16.792	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 11:05:11 AM
Printed by: JChun

Ident: AD22-05 ICD030WC
Analysis from: 4/24/2015 10:49:11 AM
File: Z4241049.CHW

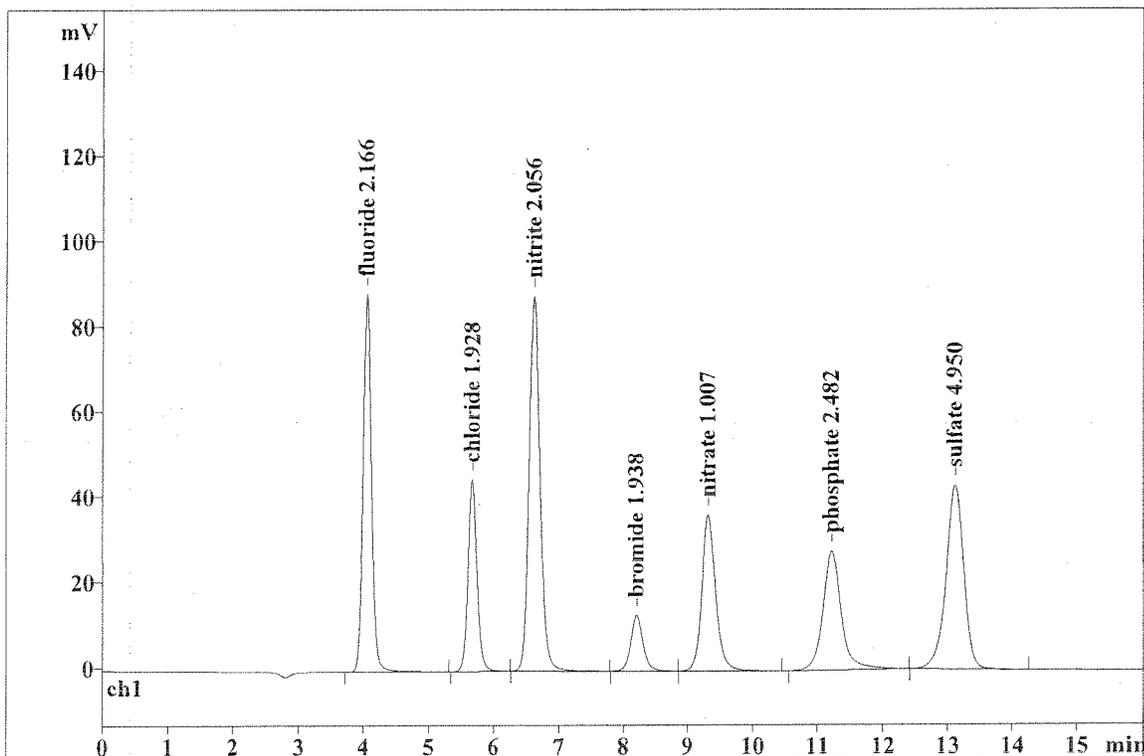
Last save: 4/24/2015 11:05:11 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80557

Last save: 4/24/2015 9:59:51 AM

SAMPLE:

Vial number: 5
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.06	88.46	796.878	2.166	fluoride
2	5.68	44.82	434.980	1.928	chloride
3	6.62	88.07	1049.712	2.056	nitrite
4	8.20	13.05	173.956	1.938	bromide
5	9.31	36.54	544.354	1.007	nitrate
6	11.22	27.82	543.665	2.482	phosphate
7	13.12	43.05	823.999	4.950	sulfate
7	16.00	341.82	4367.546	16.527	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 4:45:17 PM
Printed by: JChun

Ident: AD20-30 D156-11
Analysis from: 4/23/2015 7:44:59 PM
File: z4231944.chw

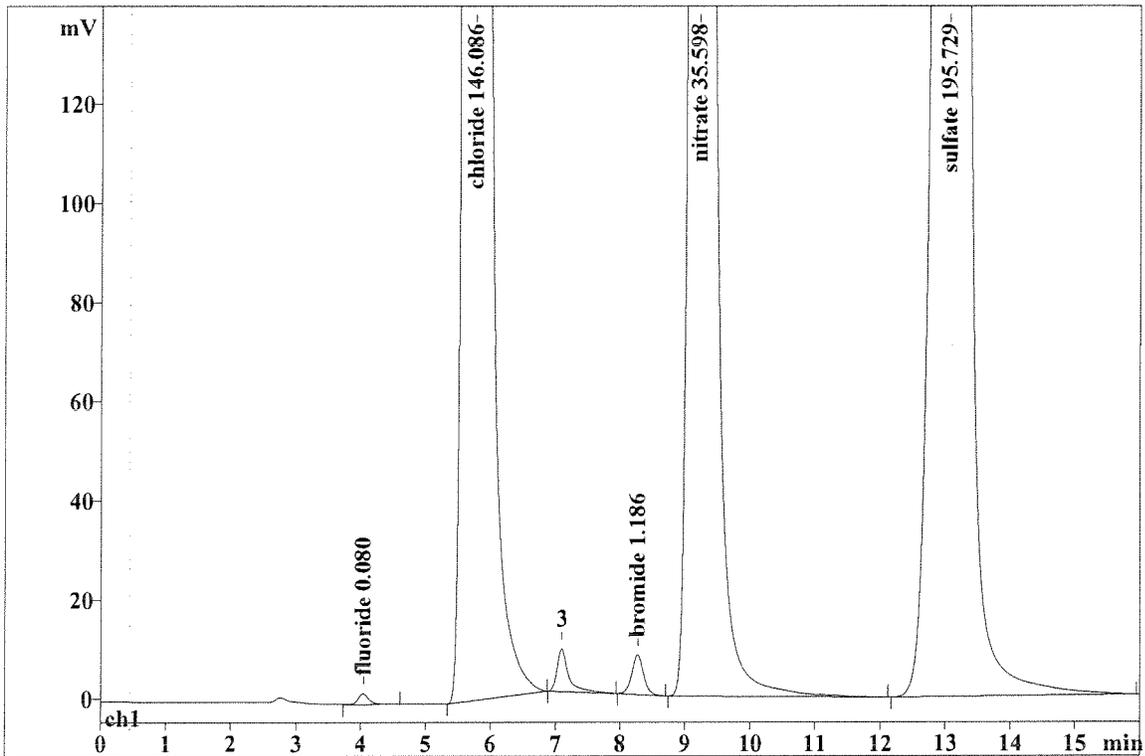
Last save: 4/23/2015 8:00:59 PM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80526

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 30
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.04	2.18	24.417	0.080	fluoride
2	5.76	1765.29	33636.902	146.086	chloride
3	7.10	8.69	107.581	0.000	
4	8.27	8.02	100.726	1.186	bromide
5	9.22	1303.93	20062.648	35.598	nitrate
6	13.07	1468.22	32596.110	195.729	sulfate
6	16.00	4556.33	86528.383	378.679	

NO2N

This report has been created by IC Net
METROHM LTD

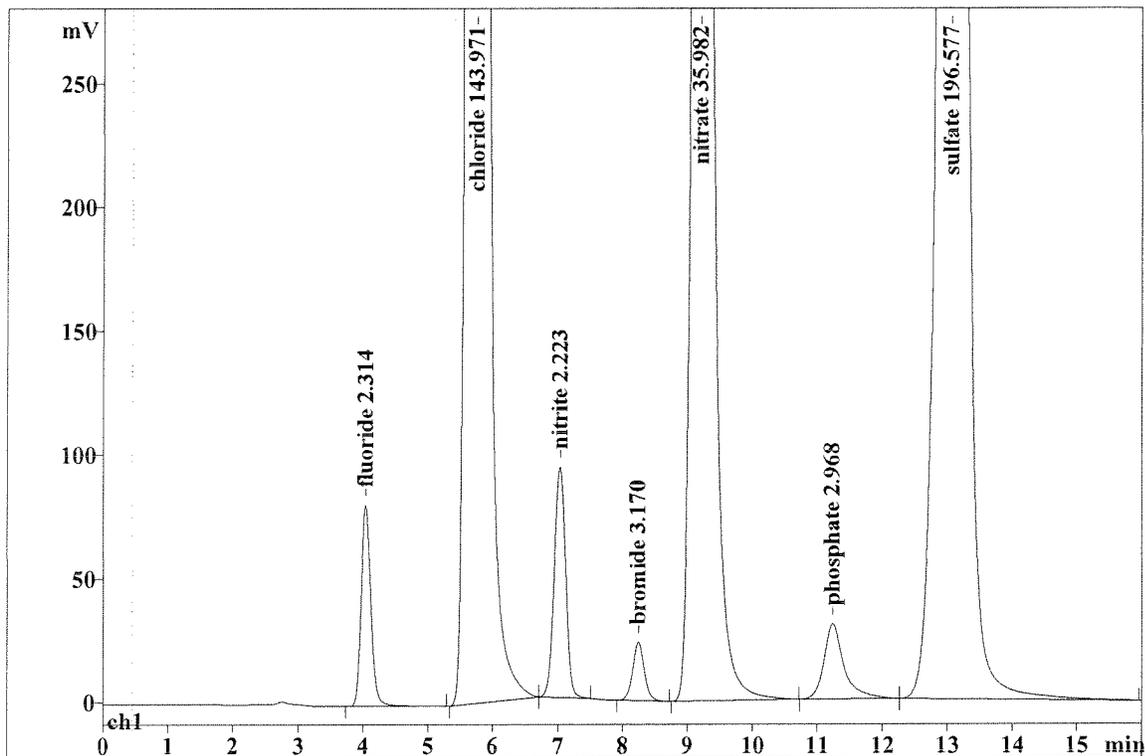
Report date: 4/24/2015 4:45:49 PM
Printed by: JChun

Ident: AD20-31 D156-11M
Analysis from: 4/23/2015 8:03:43 PM
File: z4232003.chw
Modified!
Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80527

Last save: 4/23/2015 8:19:43 PM
Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 31
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.04	81.30	851.552	2.314	fluoride
2	5.76	1764.53	33149.629	143.971	chloride
3	7.04	93.12	1135.204	2.223	nitrite
4	8.24	23.66	294.004	3.170	bromide
5	9.21	1315.79	20279.180	35.982	nitrate
6	11.24	30.47	655.641	2.968	phosphate
7	13.07	1470.56	32737.442	196.577	sulfate
7	16.00	4779.42	89102.653	387.204	

This report has been created by IC Net
METROHM LTD

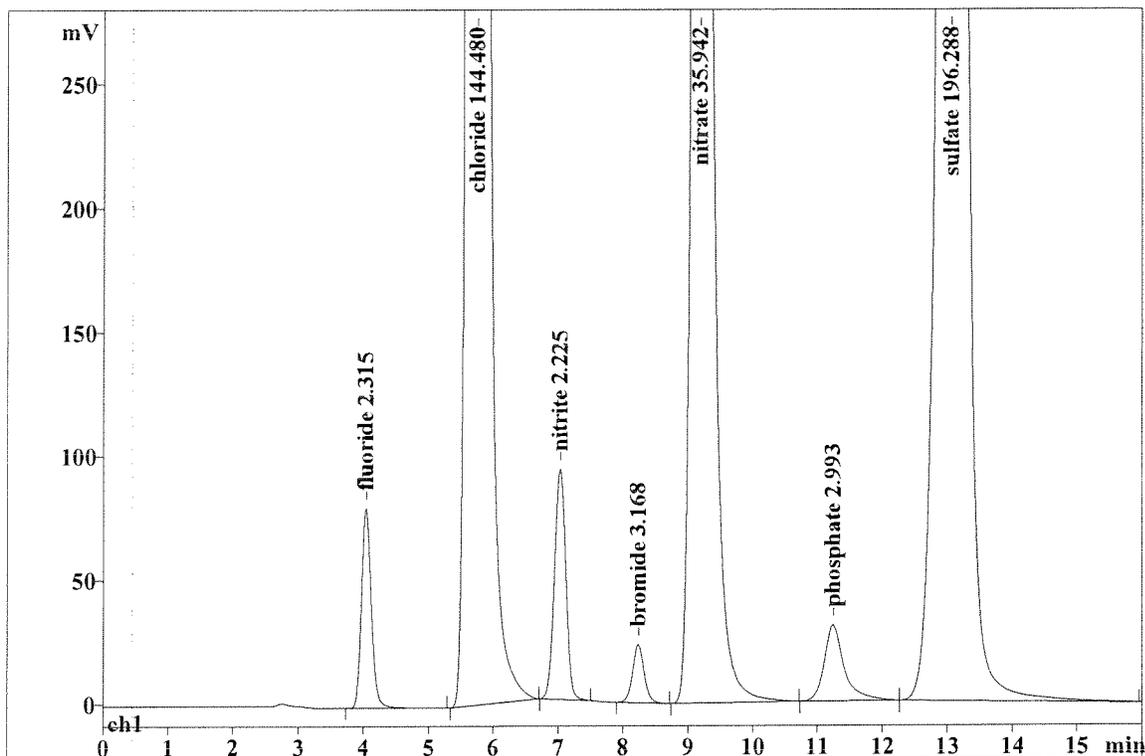
Report date: 4/24/2015 4:46:29 PM
Printed by: JChun

Ident: AD20-32 D156-11S
Analysis from: 4/23/2015 8:22:28 PM
File: z4232022.chw
Modified!
Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80528

Last save: 4/23/2015 8:38:28 PM
Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 32
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

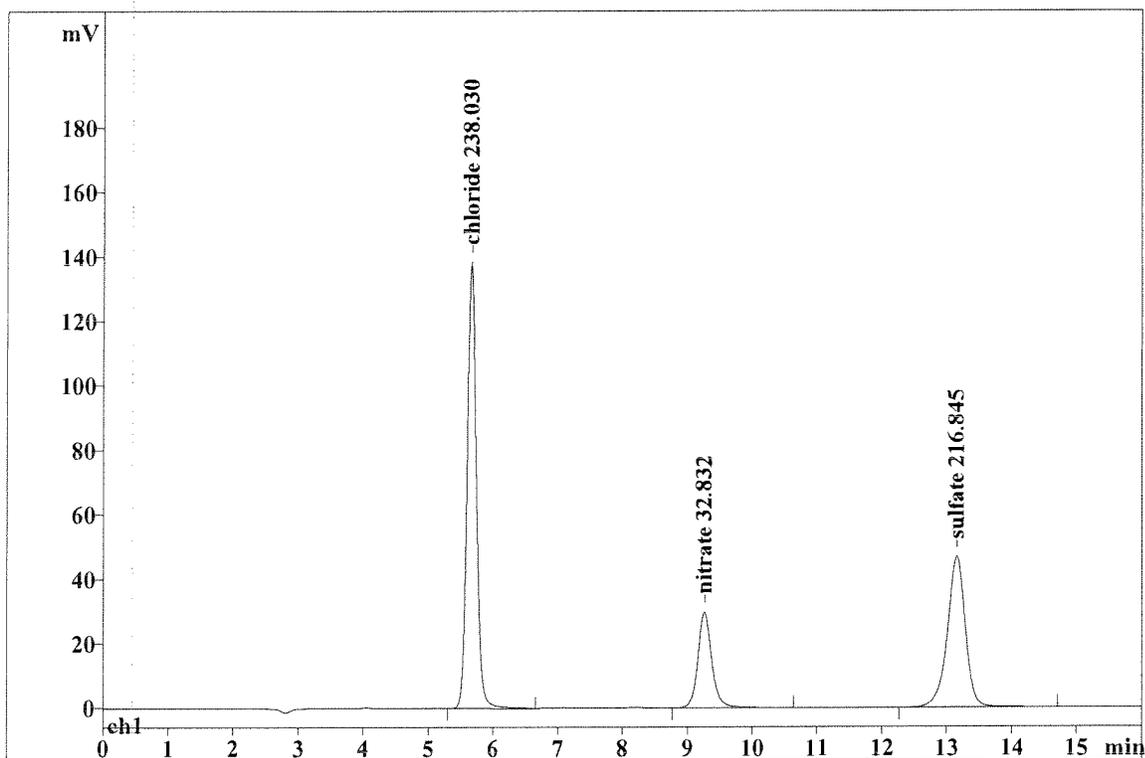
No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.04	80.74	851.820	2.315	fluoride
2	5.76	1764.94	33266.841	144.480	chloride
3	7.04	92.94	1135.928	2.225	nitrite
4	8.24	23.60	293.812	3.168	bromide
5	9.20	1314.68	20256.948	35.942	nitrate
6	11.24	30.79	661.485	2.993	phosphate
7	13.07	1469.97	32689.280	196.288	sulfate
7	16.00	4777.66	89156.114	387.410	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 4:47:37 PM
Printed by: JChun

Ident: AD20-50 D156-11I DF=40
Analysis from: 4/24/2015 1:59:57 AM
File: z4240159.chw Last save: 4/24/2015 2:15:57 AM
Modified!
Method: ICD7-B26.mtw Last save: 4/23/2015 10:48:10 AM
Run operator: JChun
Analysis number: 80546

SAMPLE:
:
Vial number: 50
Volume: 1.0 µL
Dilution: 40.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	5.66	138.46	1361.516	238.030	chloride
2	9.26	29.68	439.111	32.832	nitrate ✓
3	13.16	46.72	902.433	216.845	sulfate ✓
<hr/>					
3	16.00	214.86	2703.059	487.707	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 2:34:42 AM
Printed by: JChun

Ident: AD20-51 D156-11IM DF=40
Analysis from: 4/24/2015 2:18:41 AM
File: Z4240218.CHW

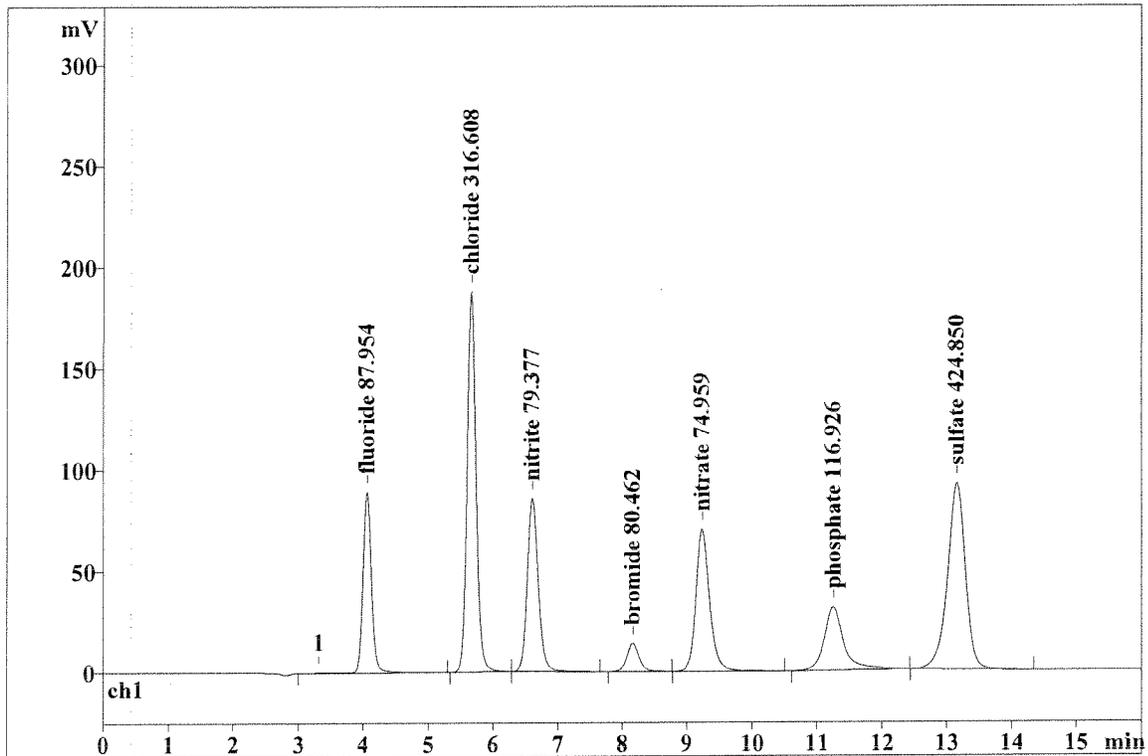
Last save: 4/24/2015 2:34:42 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80547

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 51
Volume: 1.0 µL
Dilution: 40.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.33	0.10	3.464	0.000	
2	4.06	89.49	808.925	87.954	fluoride
3	5.67	187.89	1813.958	316.608	chloride
4	6.61	85.52	1013.170	79.377	nitrite
5	8.16	13.91	181.164	80.462	bromide
6	9.23	70.38	1033.381	74.959	nitrate ✓
7	11.26	31.24	645.291	116.926	phosphate
8	13.16	92.10	1768.458	424.850	sulfate ✓
8	16.00	570.63	7267.811	1181.135	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 2:53:26 AM
Printed by: JChun

Ident: AD20-52 D156-11IS DF=40
Analysis from: 4/24/2015 2:37:26 AM
File: Z4240237.CHW

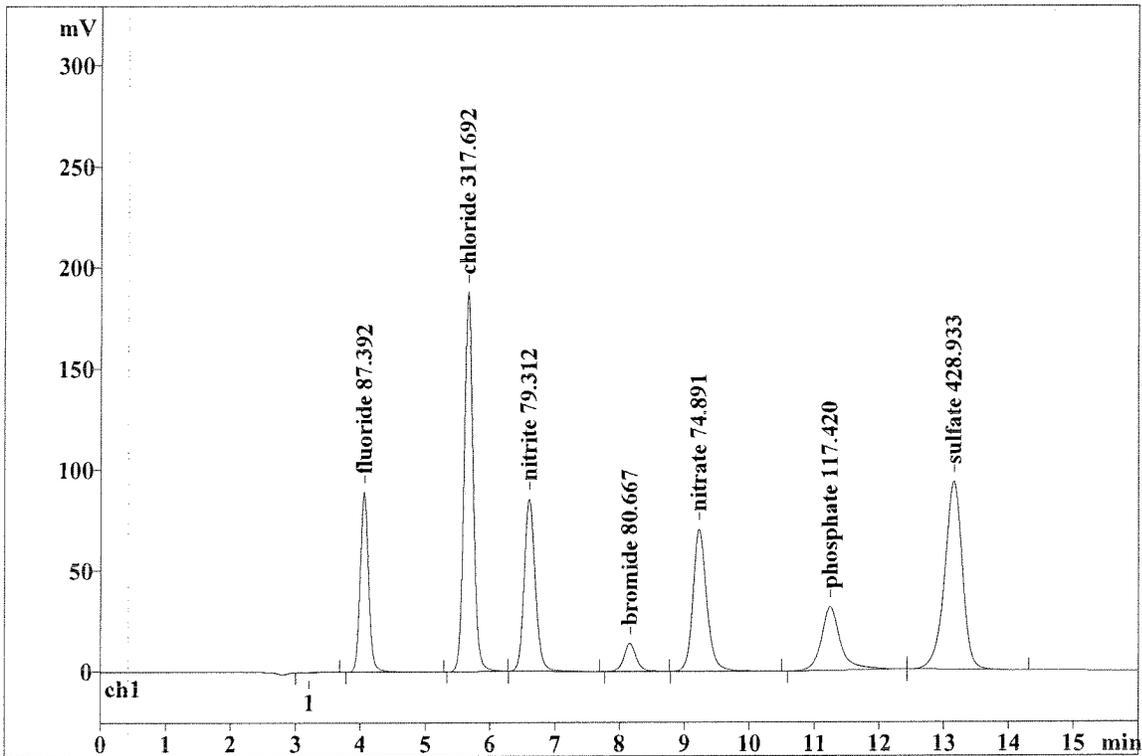
Last save: 4/24/2015 2:53:26 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80548

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 52
Volume: 1.0 µL
Dilution: 40.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.19	0.06	1.588	0.000	
2	4.06	89.09	803.728	87.392	fluoride
3	5.66	188.17	1820.203	317.692	chloride
4	6.60	85.38	1012.335	79.312	nitrite
5	8.16	13.92	181.663	80.667	bromide
6	9.23	70.33	1032.425	74.891	nitrate
7	11.25	31.42	648.133	117.420	phosphate
8	13.16	92.95	1785.458	428.933	sulfate
8	16.00	571.33	7285.534	1186.307	

This report has been created by IC Net
METROHM LTD

INITIAL CALIBRATION(S)

IC Result Check FormVersion : B26/AB02(2015)

LFID	LSID	Selection	phosphate	iodide	fluoride	chloride	nitrite	bromide	nitrate	sulfate	RawNetID	DF
AB02-01	IB	POFCIBNS	0	0	0	0	0	0	0	0	z2261436	1
AB02-02	S0	POFCIBNS	0	0	0	0	0	0	0	0	z2261501	1
AB02-03	S1	POFCIBNS	0.156628	0	0.0560121	0.0885108	0.0424721	0.192396	0.081939	0.078677	z2261527	1
AB02-04	S2	POFCIBNS	0.19585	0	0.0995603	0.13986	0.0851461	0.231869	0.123177	0.151005	z2261553	1
AB02-05	S3	POFCIBNS	0.275456	0	0.190113	0.244672	0.176289	0.30949	0.208241	0.291219	z2261619	1
AB02-06	S4	POFCIBNS	0.520043	0	0.484631	0.506127	0.476143	0.555107	0.481496	0.541167	z2261645	1
AB02-07	S5	POFCIBNS	0.958595	0	0.997267	1.01757	0.993505	0.97932	0.964975	1.0939	z2261710	1
AB02-08	S6	POFCIBNS	1.89713	0	2.03387	1.96124	2.04434	1.87916	1.97215	1.95588	z2261736	1
AB02-09	S7	POFCIBNS	4.83494	0	4.98855	4.87395	5.07932	4.73336	5.01802	4.73278	z2261802	1
AB02-10	S8	POFCIBNS	9.92734	0	9.61765	9.97148	9.95278	9.80631	10.2109	9.89415	z2261828	1
AB02-11	S9	POFCIBNS	20.084	0	18.1695	20.0466	18.9516	20.163	20.5611	20.1112	z2261854	1
AB02-12	ICV	POFCIBNS	96.6%	0%*	105.6%	94.2%	102.5%	95.1%	99.6%	95.8%	z2261919	1
AB02-13	ICV1	POFCIBNS	98.6%	0%*	102.7%	92.8%	100.2%	99.2%	98.9%	96%	z2261945	1
AB02-14	ICB	POFCIBNS	0	0	0	0	0	0	0	0	z2262011	1

AS
02/27/15

Report date: 2/27/2015 10:05:24 AM
Printed by: JChun

Ident: AB02-02 S0
Analysis from: 2/26/2015 3:01:54 PM
File: z2261501.chw

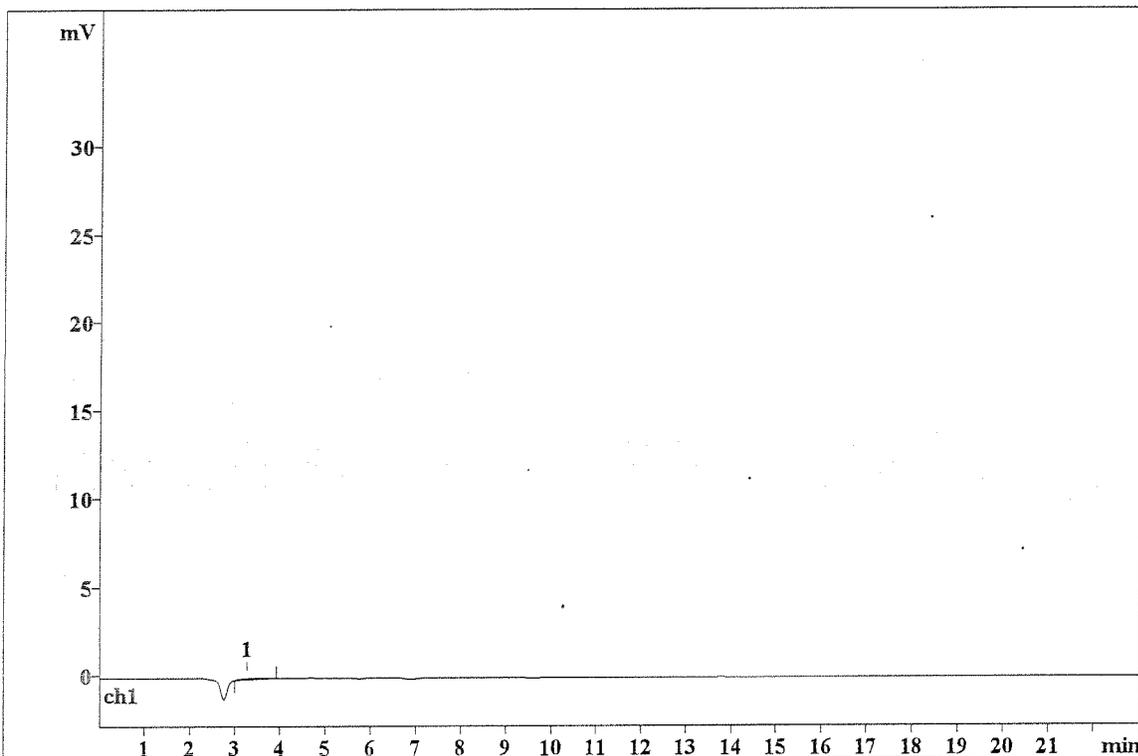
Last save: 2/27/2015 10:04:05 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 79840

Last save: 2/26/2015 4:42:17 PM

SAMPLE:

Vial number: 2
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.28	0.06	2.211	0.000	

This report has been created by IC Net
METROHM LTD

AA
02/27/15

Report date: 2/27/2015 10:05:32 AM
Printed by: JChun

Ident: AB02-03 S1
Analysis from: 2/26/2015 3:27:41 PM
File: z2261527.chw

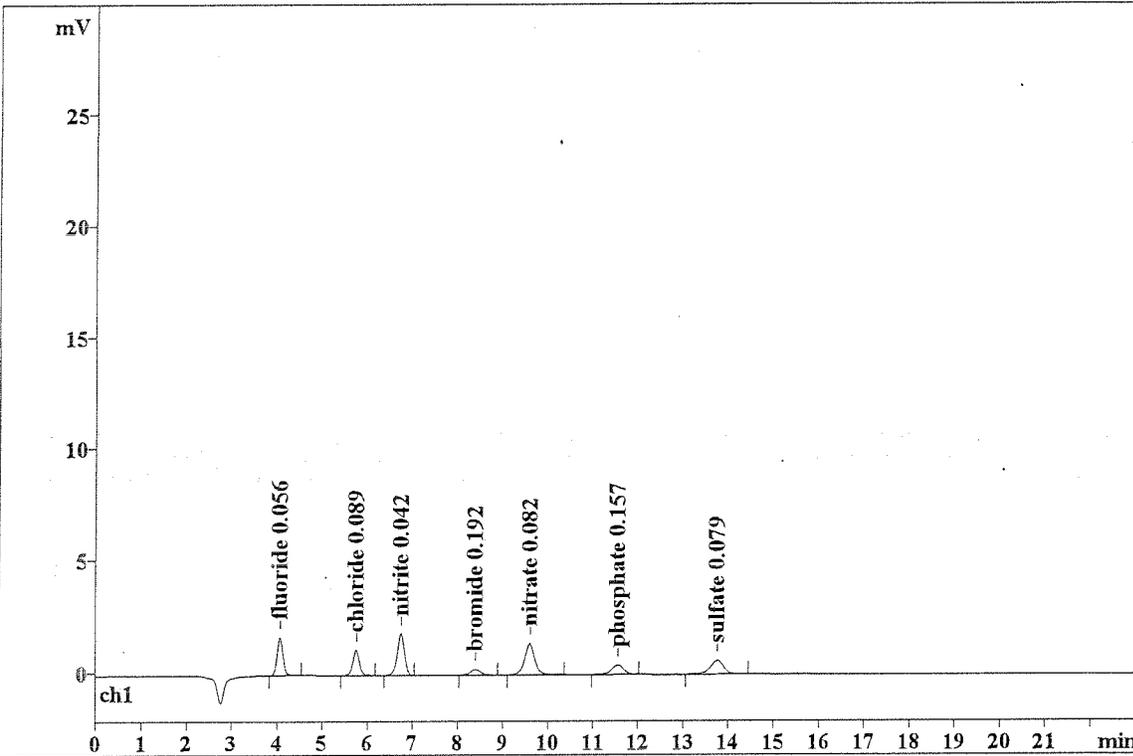
Last save: 2/27/2015 10:04:05 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 79841

Last save: 2/26/2015 4:42:17 PM

SAMPLE: 0.05PPM

Vial number: 3
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.07	1.70	15.423 ✓	0.056	fluoride
2	5.75	1.13	11.352 ✓	0.089	chloride
3	6.74	1.86	20.431 ✓	0.042	nitrite
4	8.40	0.26	3.908 ✓	0.192	bromide
5	9.60	1.38	22.197 ✓	0.082	nitrate
6	11.56	0.43	7.955 ✓	0.157	phosphate
7	13.77	0.62	12.705 ✓	0.079	sulfate
7	23.00	7.38	93.971	0.697	

RA
02/27/15

This report has been created by IC Net
METROHM LTD

Report date: 2/27/2015 10:05:39 AM
Printed by: JChun

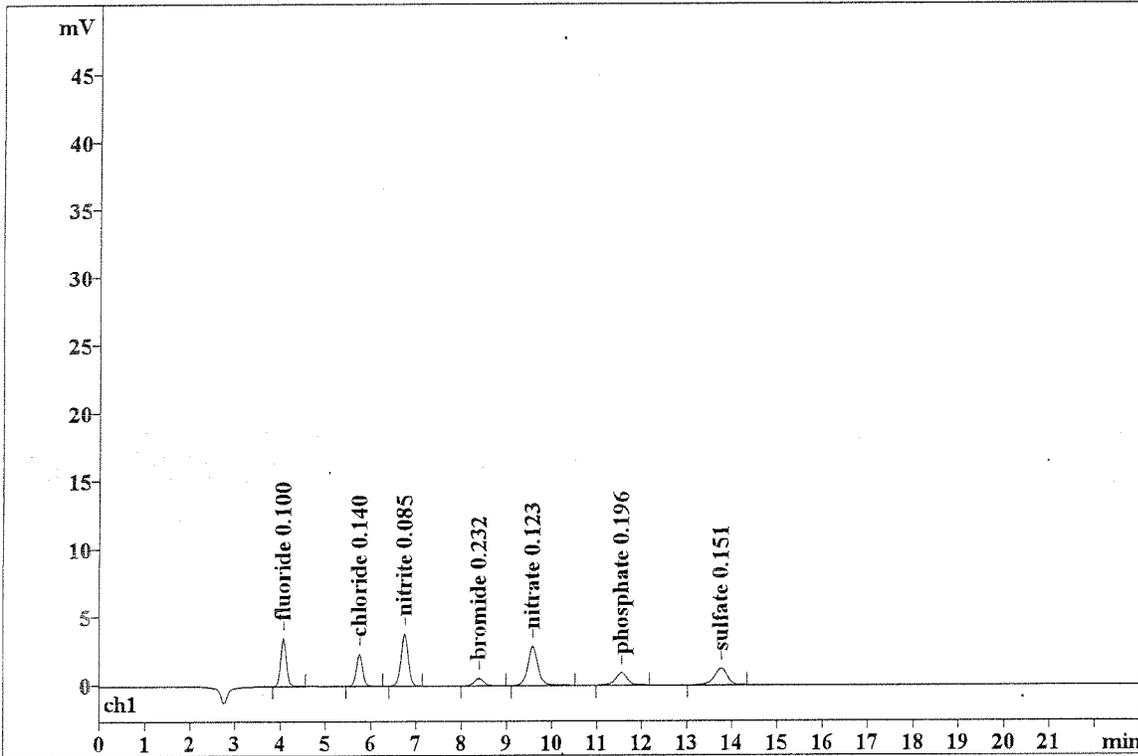
Ident: AB02-04 S2
Analysis from: 2/26/2015 3:53:28 PM
File: z2261553.chw

Last save: 2/27/2015 10:04:05 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 79842

Last save: 2/26/2015 4:42:17 PM

SAMPLE: 0.10PPM
Vial number: 4
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.07	3.52	31.549	0.100	fluoride ✓
2	5.75	2.33	23.179	0.140	chloride
3	6.74	3.84	42.247	0.085	nitrite ✓
4	8.39	0.53	7.754	0.232	bromide
5	9.59	2.87	45.466	0.123	nitrate ✓
6	11.56	0.92	16.991	0.196	phosphate
7	13.77	1.22	24.750	0.151	sulfate
7	23.00	15.24	191.936	1.026	

AS
02/27/15

This report has been created by IC Net
METROHM LTD

Report date: 2/27/2015 10:05:45 AM
Printed by: JChun

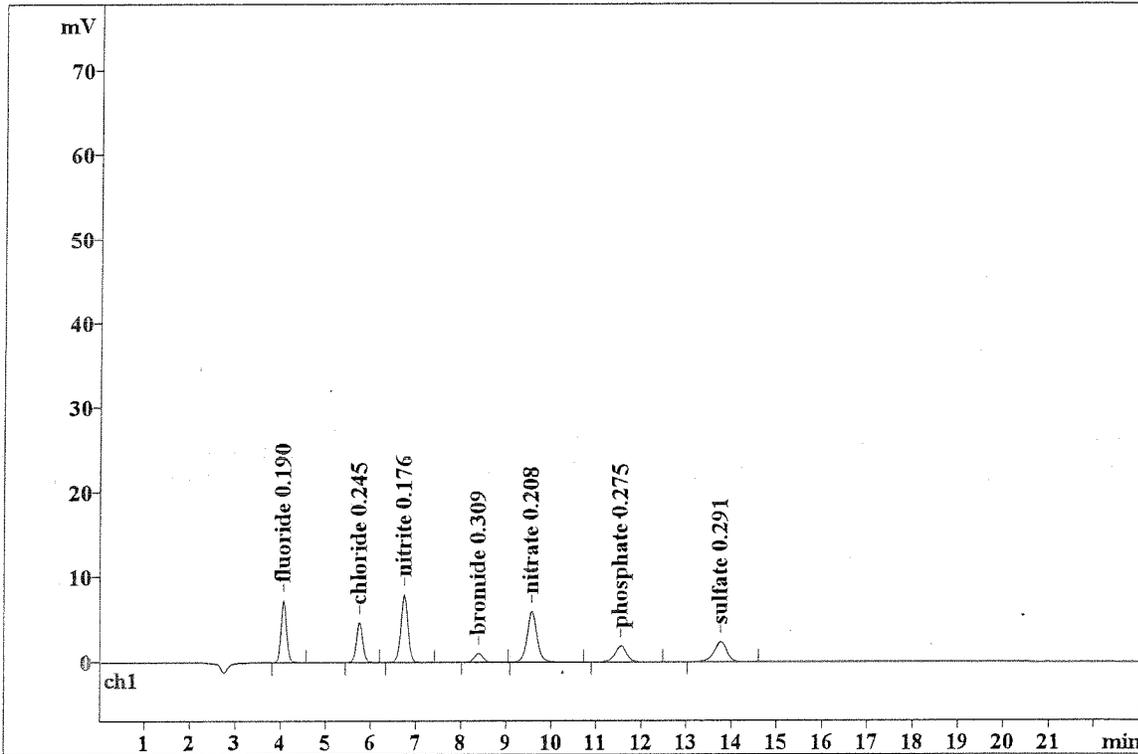
Ident: AB02-05 S3
Analysis from: 2/26/2015 4:19:17 PM
File: z2261619.chw

Last save: 2/27/2015 10:04:05 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 79843

Last save: 2/26/2015 4:42:17 PM

SAMPLE: 0.20PPM
Vial number: 5
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.07	7.35	65.081	0.190	fluoride
2	5.75	4.81	47.319	0.245	chloride
3	6.74	8.00	88.839	0.176	nitrite
4	8.38	1.07	15.317	0.309	bromide
5	9.57	6.01	93.465	0.208	nitrate
6	11.55	1.89	35.330	0.275	phosphate
7	13.76	2.38	48.102	0.291	sulfate
7	23.00	31.52	393.453	1.695	

RA
02/27/15

This report has been created by IC Net
METROHM LTD

Report date: 2/27/2015 10:05:50 AM
Printed by: JChun

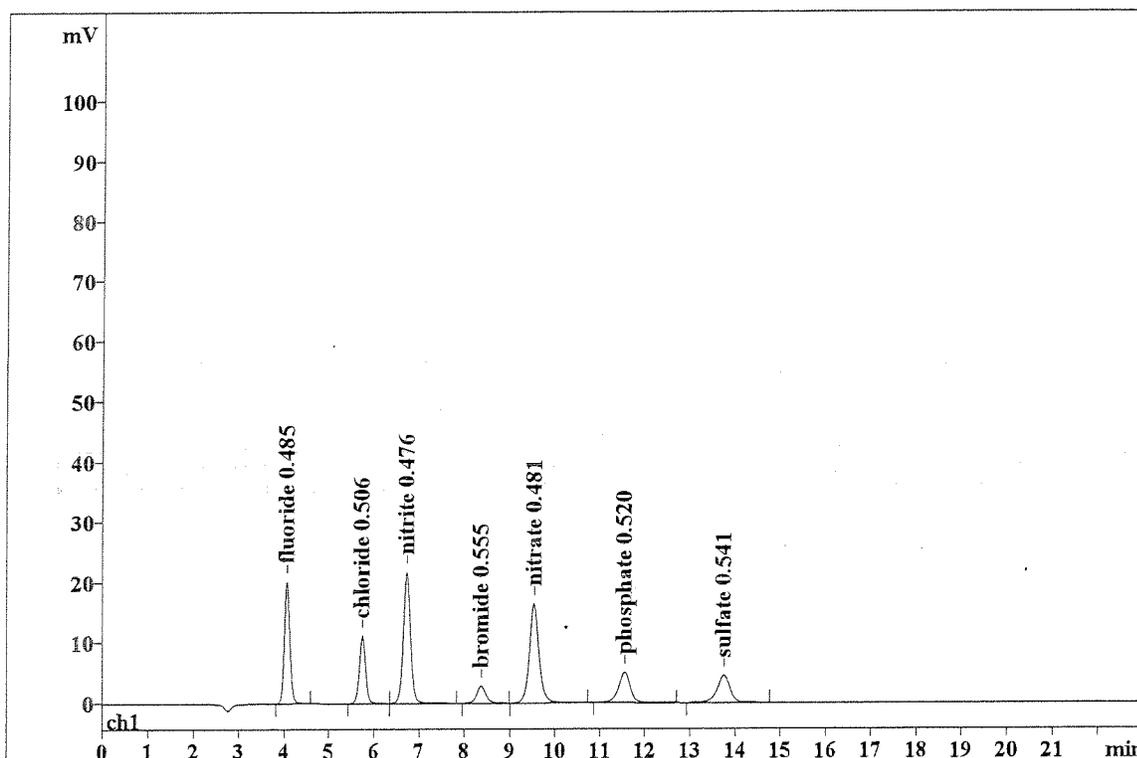
Ident: AB02-06 S4
Analysis from: 2/26/2015 4:45:04 PM
File: z2261645.chw

Last save: 2/27/2015 10:04:05 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 79844

Last save: 2/26/2015 4:42:17 PM

SAMPLE: 0.50PPM
:
Vial number: 6
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.07	20.28	174.143	0.485	fluoride
2	5.74	11.19	107.536	0.506	chloride
3	6.73	21.74	242.127	0.476	nitrite
4	8.37	2.84	39.250	0.555	bromide ✓
5	9.54	16.46	247.653	0.481	nitrate
6	11.55	5.02	91.676	0.520	phosphate ✓
7	13.76	4.50	89.728	0.541	sulfate ✓
7	23.00	82.04	992.113	3.565	

Act
02/27/15

This report has been created by IC Net
METROHM LTD

Report date: 2/27/2015 10:05:56 AM
Printed by: JChun

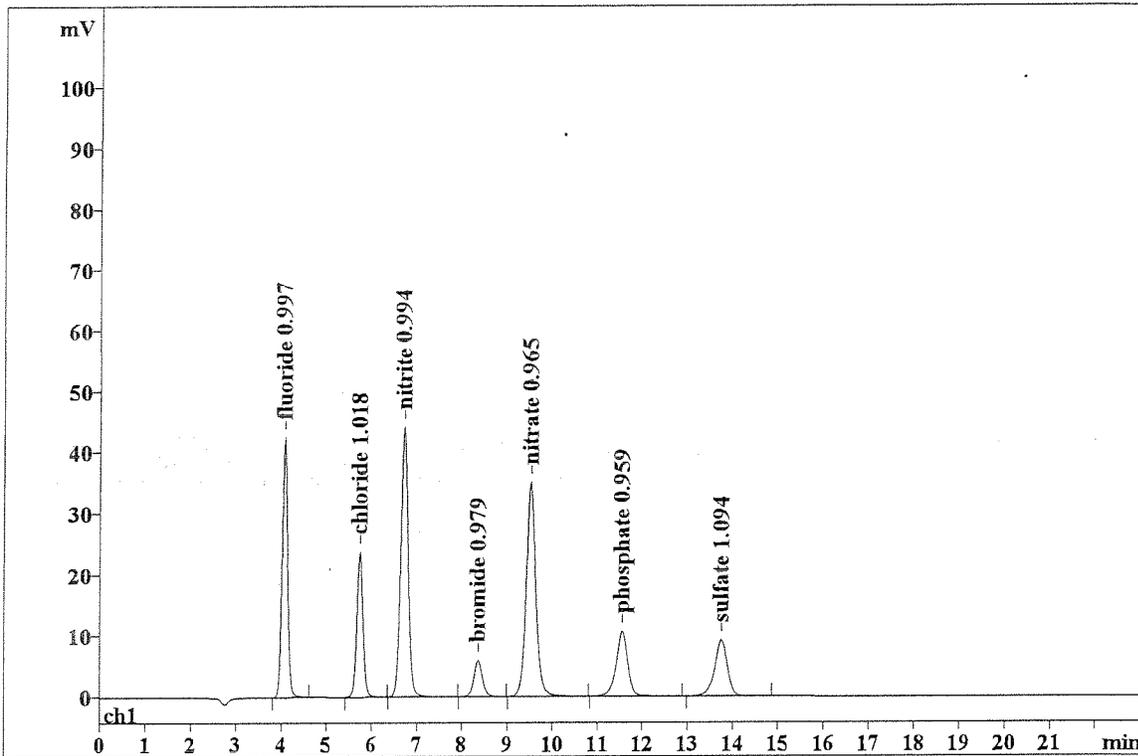
Ident: AB02-07 S5
Analysis from: 2/26/2015 5:10:52 PM
File: z2261710.chw

Last save: 2/27/2015 10:04:05 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 79845

Last save: 2/26/2015 4:42:17 PM

SAMPLE: 1.00PPM
:
Vial number: 7
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.07	42.50	363.975	0.997	fluoride
2	5.74	23.77	225.330	1.018	chloride
3	6.72	44.19	506.606	0.994	nitrite
4	8.37	5.95	80.585	0.979	bromide
5	9.52	35.04	520.464	0.965	nitrate
6	11.55	10.69	192.707	0.959	phosphate
7	13.76	9.27	181.780	1.094	sulfate
7	23.00	171.42	2071.447	7.005	

AS
02/27/15

This report has been created by IC Net
METROHM LTD

Report date: 2/27/2015 10:06:12 AM
Printed by: JChun

Ident: AB02-08 S6
Analysis from: 2/26/2015 5:36:39 PM
File: z2261736.chw

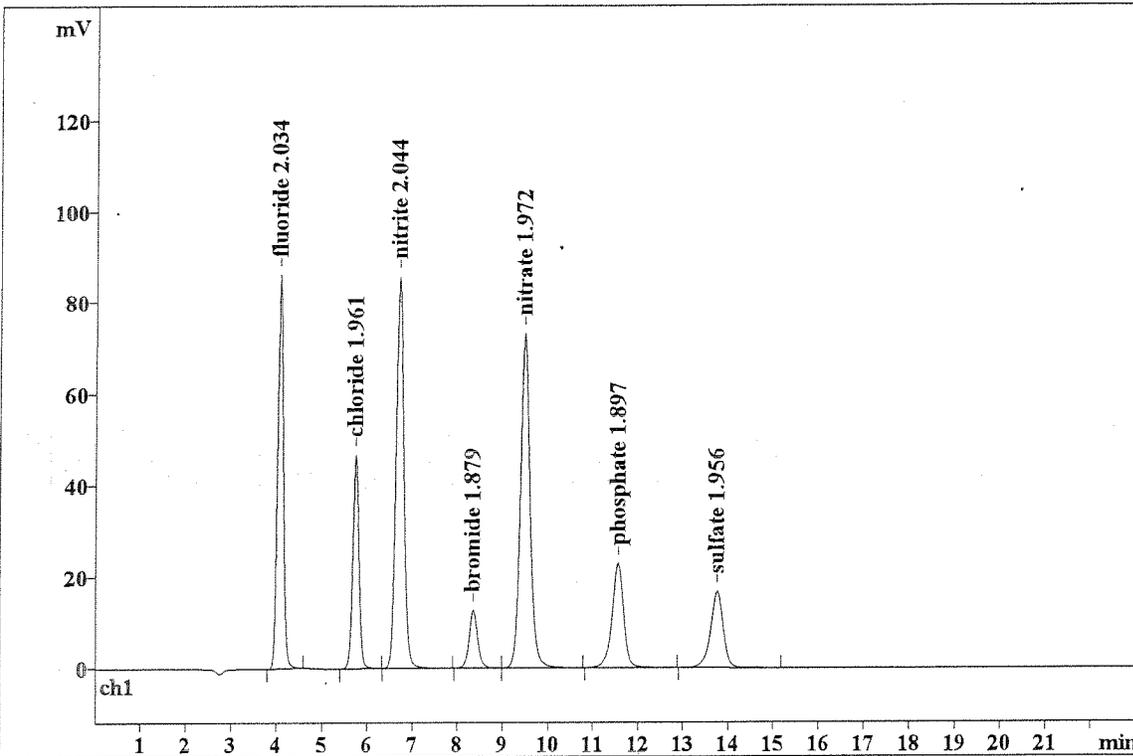
Last save: 2/27/2015 10:04:05 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 79846

Last save: 2/26/2015 4:42:17 PM

SAMPLE: 2.00PPM

Vial number: 8
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.07	86.15	747.833	2.034	fluoride
2	5.74	46.91	442.671	1.961	chloride
3	6.70	85.78	1043.802	2.044	nitrite
4	8.35	12.72	168.264	1.879	bromide
5	9.48	73.18	1088.778	1.972	nitrate
6	11.55	22.86	408.921	1.897	phosphate
7	13.76	16.75	325.333	1.956	sulfate
7	23.00	344.36	4225.600	13.744	

Handwritten signature: Rg
02/27/15

This report has been created by IC Net
METROHM LTD

Report date: 2/27/2015 11:13:10 AM
Printed by: JChun

Ident: AB02-09 S7
Analysis from: 2/26/2015 6:02:26 PM
File: z2261802.chw

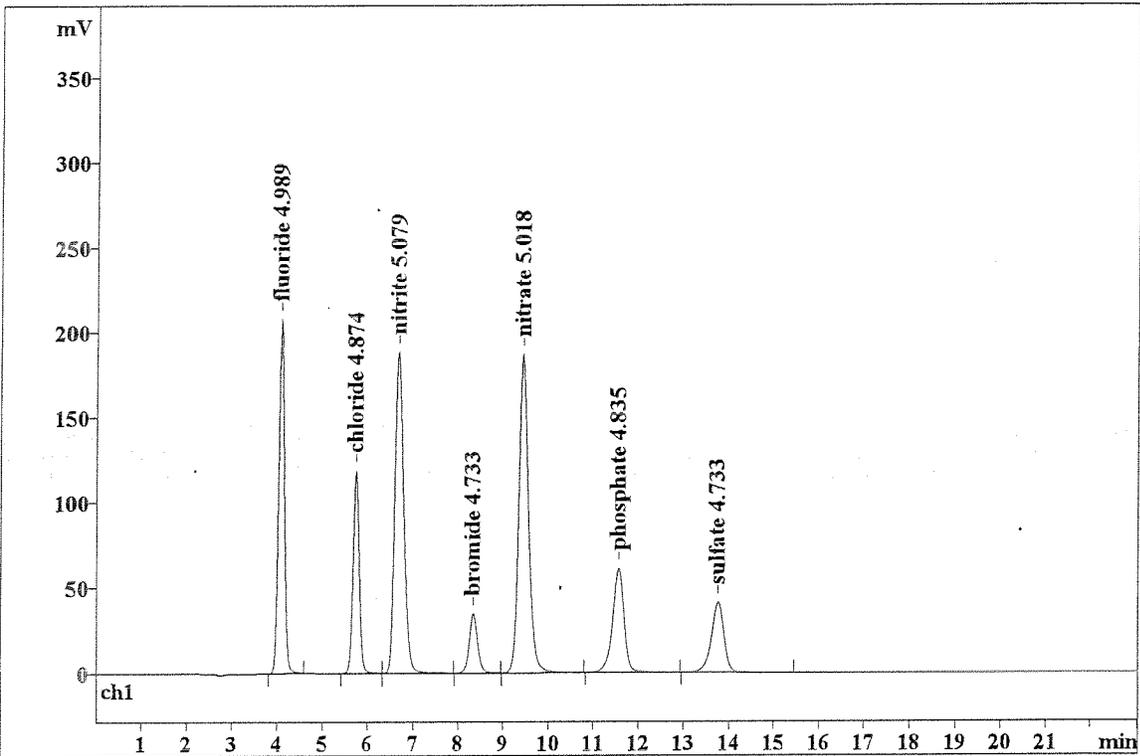
Last save: 2/27/2015 11:09:00 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 79847

Last save: 2/26/2015 4:42:17 PM

SAMPLE: 5.00PPM

Vial number: 9
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.08	207.85	1841.968	4.989	fluoride
2	5.73	118.97	1113.514	4.874	chloride
3	6.66	188.47	2595.305	5.079	nitrite
4	8.33	34.68	446.373	4.733	bromide
5	9.43	186.72	2807.463	5.018	nitrate
6	11.56	60.88	1085.717	4.835	phosphate
7	13.76	41.08	787.796	4.733	sulfate
7	23.00	838.66	10678.135	34.261	

This report has been created by IC Net
METROHM LTD

AA
02/27/15

Report date: 2/27/2015 11:12:30 AM
Printed by: JChun

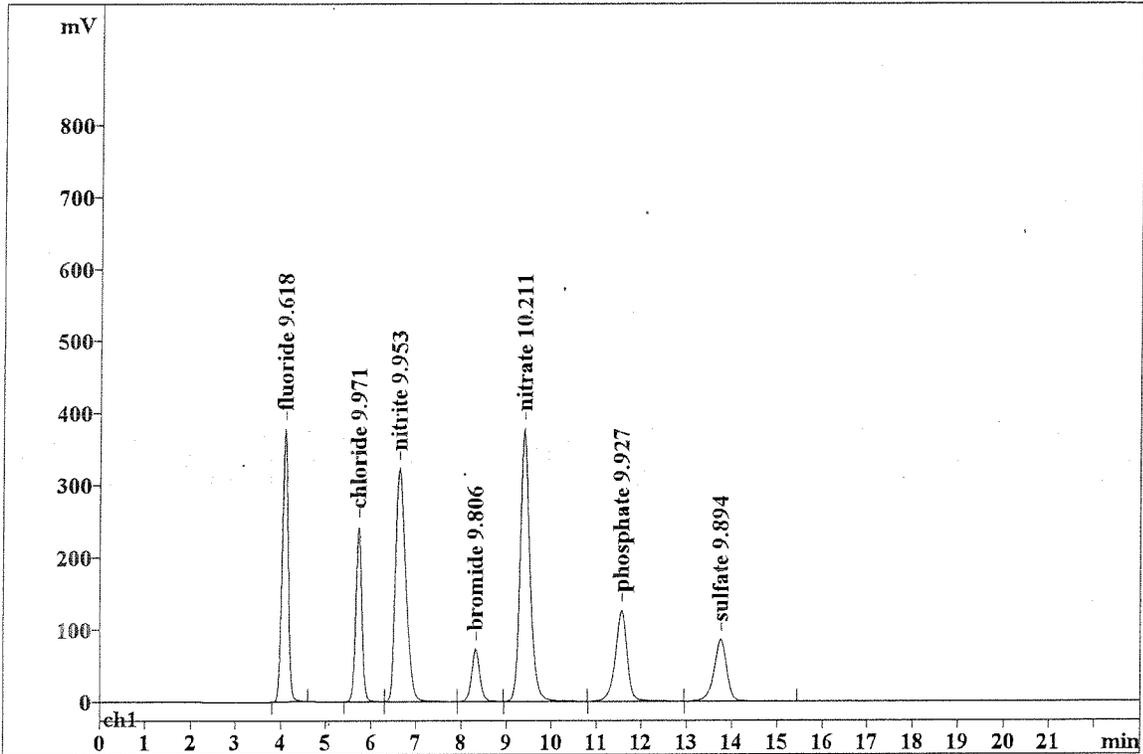
Ident: AB02-10 S8
Analysis from: 2/26/2015 6:28:13 PM
File: z2261828.chw

Last save: 2/27/2015 11:09:00 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 79848

Last save: 2/26/2015 4:42:17 PM

SAMPLE: 10.0PPM
:
Vial number: 10
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.09	378.44	3556.147	9.618	fluoride
2	5.73	242.52	2287.552	9.971	chloride
3	6.62	322.32	5086.648	9.953	nitrite
4	8.32	72.99	940.675	9.806	bromide
5	9.39	376.76	5737.645	10.211	nitrate
6	11.56	125.72	2258.873	9.927	phosphate
7	13.75	85.79	1647.368	9.894	sulfate
7	23.00	1604.54	21514.908	69.381	

JA
02/27/15

This report has been created by IC Net
METROHM LTD

Report date: 2/27/2015 11:12:22 AM
Printed by: JChun

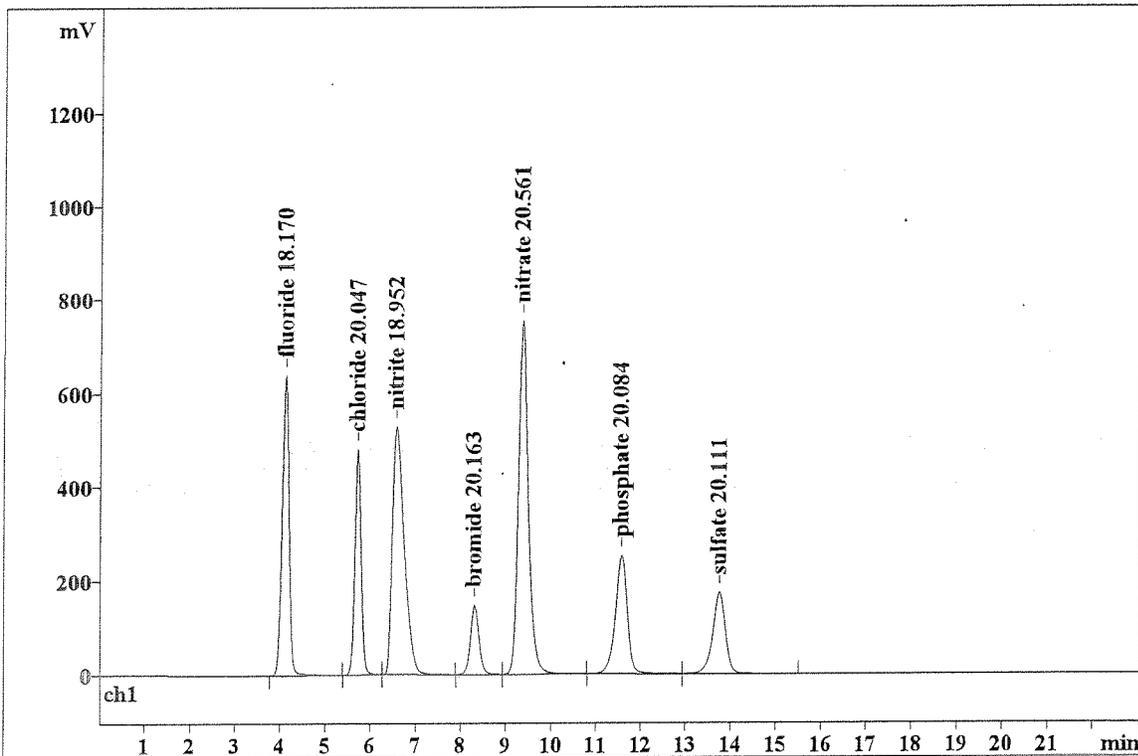
Ident: AB02-11 S9
Analysis from: 2/26/2015 6:54:01 PM
File: z2261854.chw

Last save: 2/27/2015 11:09:00 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 79849

Last save: 2/26/2015 4:42:17 PM

SAMPLE: 20.0PPM
Vial number: 11
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

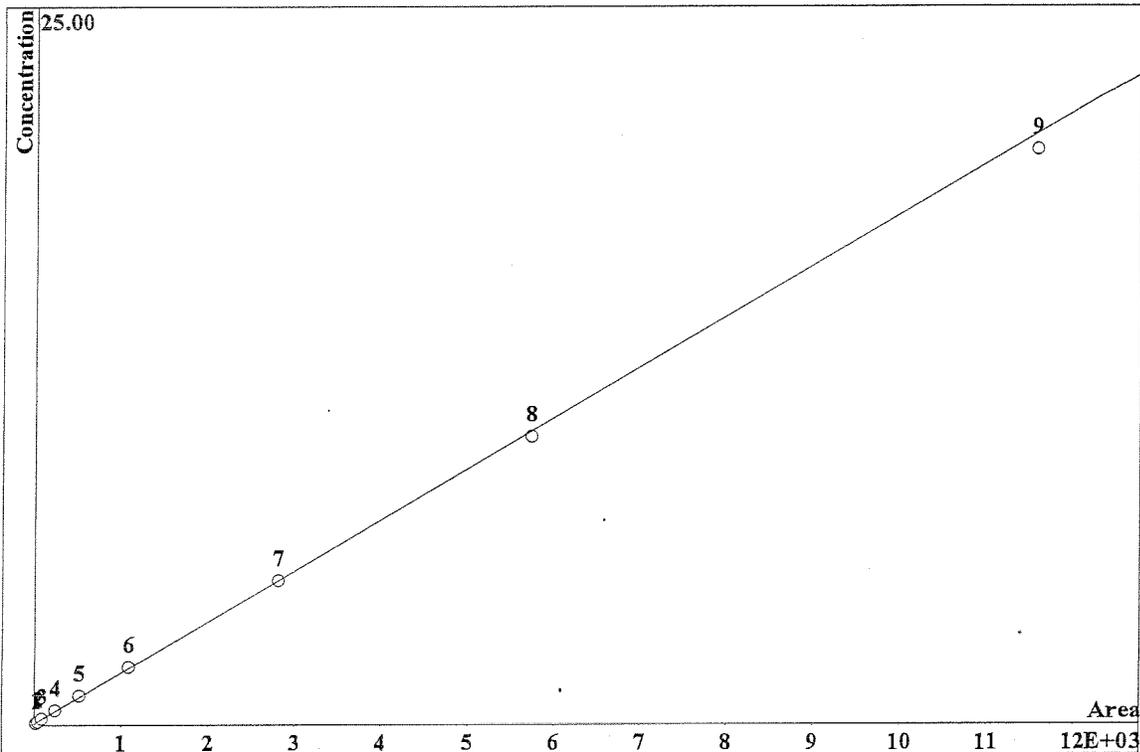
No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.12	639.30	6722.951	18.170	fluoride
2	5.72	480.72	4608.005	20.047	chloride
3	6.58	528.54	9686.929	18.952	nitrite
4	8.30	146.62	1949.815	20.163	bromide
5	9.37	753.25	11577.902	20.561	nitrate
6	11.58	252.67	4598.711	20.084	phosphate
7	13.75	173.16	3348.912	20.111	sulfate
7	23.00	2974.25	42493.225	138.087	

This report has been created by IC Net
METROHM LTD

AS
02/27/15

CALIBRATION OF COMPONENT nitrate

Method: ICD7-B26.mtw ✓
 Equation: $Q = 0.00177221 \cdot A + 0.0426012$ ✓
 RSD: 2.318 %
 Correlation coefficient: 0.999888



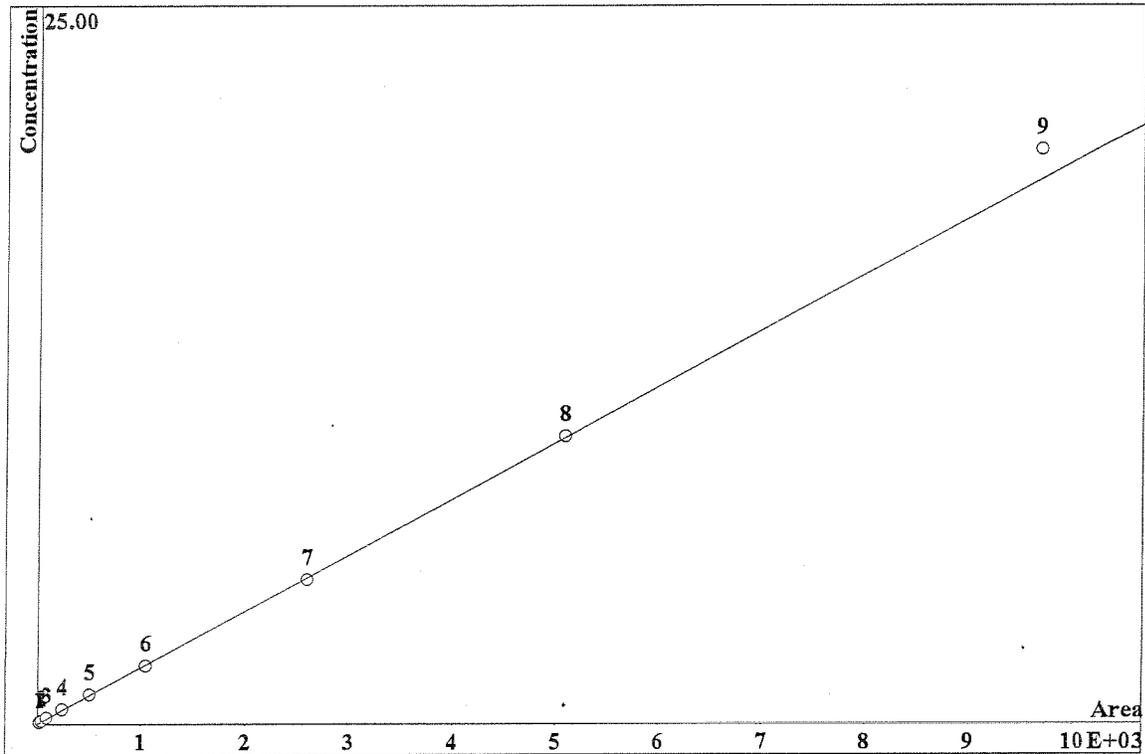
K3 = 0 K2 = 0 K1 = 0.00177221 K0 = 0.0426012
 Base: Area
 Ref.channel: ch1
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	1.381	22.2 ✓	0.05	1	9.478	Yes	z2261527.chw
2	2.872	45.47 ✓	0.1	1	9.478	Yes	z2261553.chw
3	6.01	93.47 ✓	0.2	1	9.478	Yes	z2261619.chw
4	16.46	247.7 ✓	0.5	1	9.478	Yes	z2261645.chw
5	35.04	520.5 ✓	1	1	9.478	Yes	z2261710.chw
6	73.18	1089 ✓	2	1	9.478	Yes	z2261736.chw
7	186.7	2807 ✓	5	1	9.478	Yes	z2261802.chw
8	376.8	5738 ✓	10	1	9.478	No	z2261828.chw
9	753.3	1.158e+04 ✓	20	1	9.478	No	z2261854.chw

RA
02/27/15

CALIBRATION OF COMPONENT nitrite

Method: ICD7-B26.mtw ✓ ✓
 Equation: $Q = 0.00195616 \cdot A + 0.00250527$
 RSD: 1.893 %
 Correlation coefficient: 0.999930

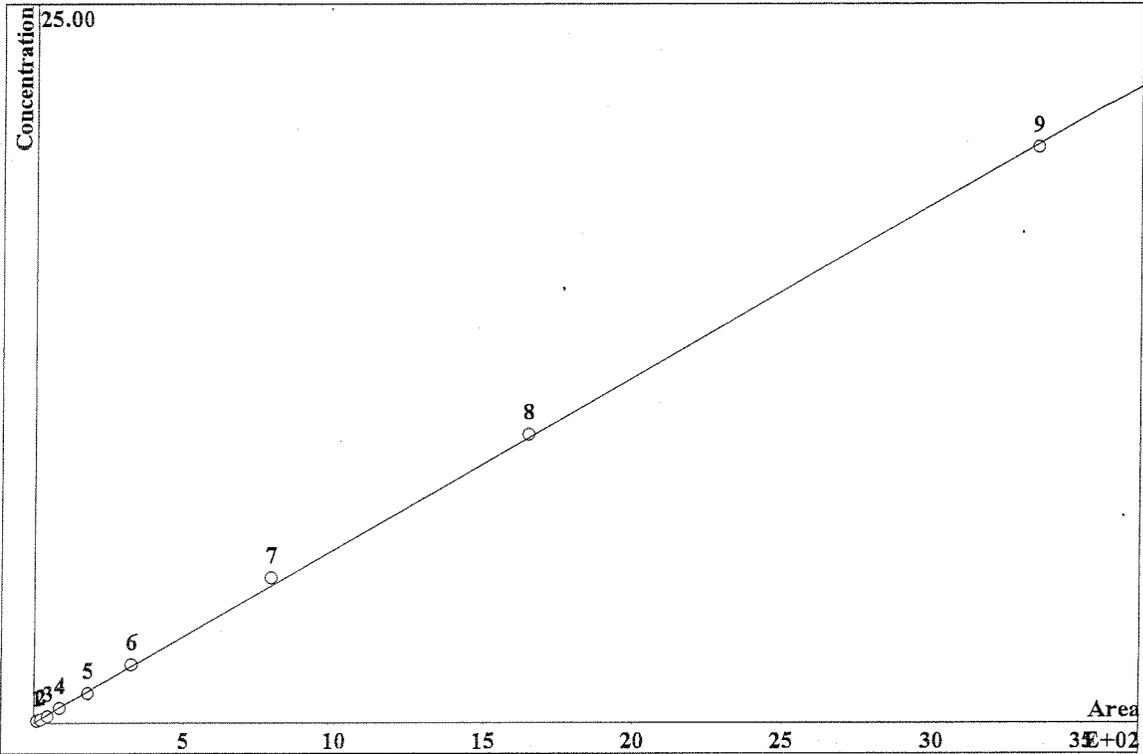


K3 = 0 K2 = 0 K1 = 0.00195616 K0 = 0.00250527
 Base: Area
 Ref.channel: ch1
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	1.86	20.43 ✓	0.05	1	6.51	Yes	z2261527.chw
2	3.845	42.25 ✓	0.1	1	6.51	Yes	z2261553.chw
3	8.002	88.84 ✓	0.2	1	6.51	Yes	z2261619.chw
4	21.74	242.1 ✓	0.5	1	6.51	Yes	z2261645.chw
5	44.2	506.6 ✓	1	1	6.51	Yes	z2261710.chw
6	85.78	1044 ✓	2	1	6.51	Yes	z2261736.chw
7	188.5	2595 ✓	5	1	6.51	Yes	z2261802.chw
8	322.3	5087 ✓	10	1	6.51	Yes	z2261828.chw
9	528.6	9687 ✓	20	1	6.51	No	z2261854.chw

CALIBRATION OF COMPONENT sulfate

Method: ICD7-B26.mtw
 Equation: $Q = 0.00600459 \cdot A + 0.00238898$
 RSD: 3.023 %
 Correlation coefficient: 0.999836



K3 = 0 K2 = 0 K1 = 0.00600459 K0 = 0.00238898
 Base: Area
 Ref.channel: chl
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.6209	12.7 ✓	0.05	1	13.09	Yes	z2261527.chw
2	1.221	24.75 ✓	0.1	1	13.09	Yes	z2261553.chw
3	2.384	48.1 ✓	0.2	1	13.09	Yes	z2261619.chw
4	4.497	89.73 ✓	0.5	1	13.09	Yes	z2261645.chw
5	9.269	181.8 ✓	1	1	13.09	Yes	z2261710.chw
6	16.75	325.3 ✓	2	1	13.09	Yes	z2261736.chw
7	41.08	787.8 ✓	5	1	13.09	Yes	z2261802.chw
8	85.79	1647 ✓	10	1	13.09	Yes	z2261828.chw
9	173.2	3349 ✓	20	1	13.09	Yes	z2261854.chw

DA
 02/27/15

SECOND SOURCE VERIFICATION

IC Result Check FormVersion : B26/AB02(2015)

LFID	LSID	Selection	nitrite	phosphate	iodide	fluoride	chloride	bromide	nitrate	sulfate	RawNetID	DF
AB02-12	ICV	IPOFCBNS	102.5%	96.6%	0%*	105.6%	94.2%	95.1%	99.6%	95.8%	z2261919	1
AB02-13	ICV1	IPOFCBNS	100.2%	98.6%	0%*	102.7%	92.8%	99.2%	98.9%	96%	z2261945	1
AB02-14	ICB	IPOFCBNS	0	0	0	0	0	0	0	0	z2262011	1

As
02/27/15

Report date: 2/27/2015 10:06:36 AM
Printed by: JChun

Ident: AB02-12 ICV
Analysis from: 2/26/2015 7:19:47 PM
File: z2261919.chw

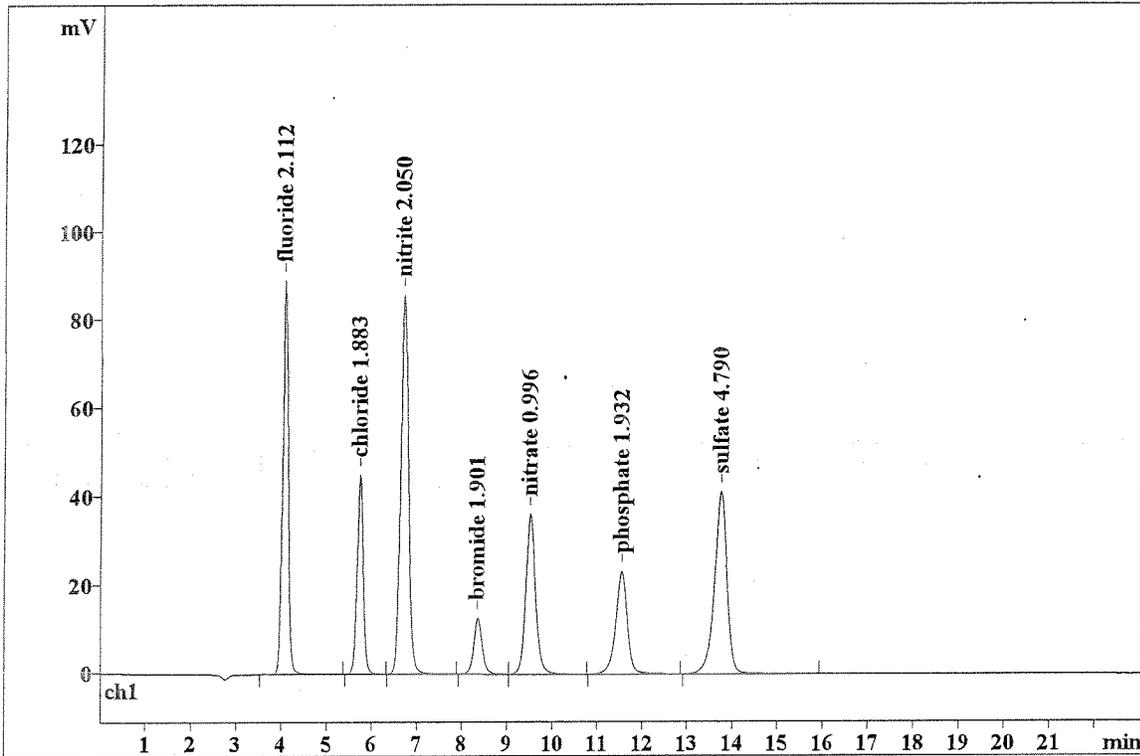
Last save: 2/27/2015 10:04:06 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 79850

Last save: 2/26/2015 4:42:17 PM

SAMPLE:

Vial number: 12
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.07	89.41	776.771 ✓	2.112 ✓	fluoride
2	5.74	45.21	424.684 ✓	1.883 ✓	chloride
3	6.70	86.07	1046.757 ✓	2.050 ✓	nitrite
4	8.35	12.85	170.424 ✓	1.901 ✓	bromide
5	9.51	36.29	537.754 ✓	0.996 ✓	nitrate
6	11.55	23.36	416.959 ✓	1.932 ✓	phosphate
7	13.75	41.38	797.378 ✓	4.790 ✓	sulfate
7	23.00	334.56	4170.727	15.665	

This report has been created by IC Net
METROHM LTD

Handwritten: 02/27/15

Report date: 2/27/2015 10:06:44 AM
Printed by: JChun

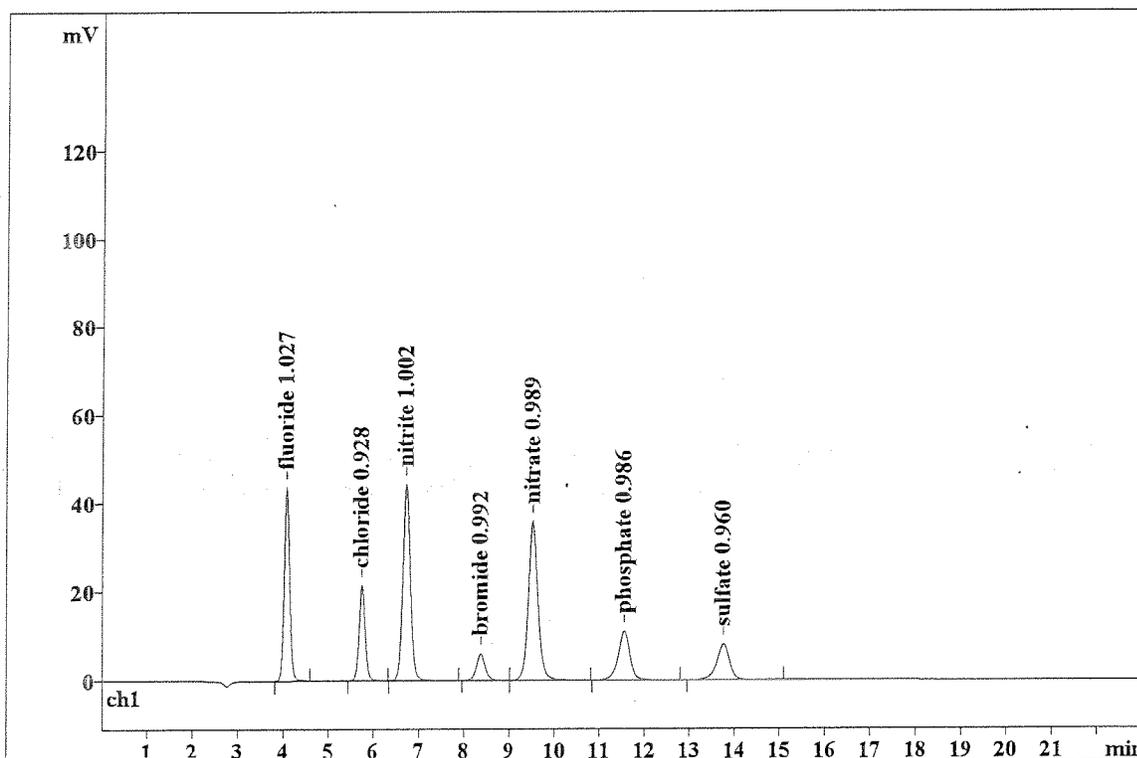
Ident: AB02-13 ICV1
Analysis from: 2/26/2015 7:45:35 PM
File: z2261945.chw

Last save: 2/27/2015 10:04:06 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 79851

Last save: 2/26/2015 4:42:17 PM

SAMPLE: 1.00PPM
Vial number: 13
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.07	43.78	374.899 ✓	1.027 ✓	fluoride
2	5.74	21.56	204.661 ✓	0.928 ✓	chloride
3	6.72	44.54	510.739 ✓	1.002 ✓	nitrite
4	8.36	6.03	81.803 ✓	0.992 ✓	bromide
5	9.51	35.95	534.067 ✓	0.989 ✓	nitrate
6	11.55	11.05	198.936 ✓	0.986 ✓	phosphate
7	13.76	8.08	159.468 ✓	0.960 ✓	sulfate
7	23.00	170.99	2064.574	6.883	

This report has been created by IC Net
METROHM LTD

AA
02/27/15

Report date: 2/27/2015 10:06:49 AM
Printed by: JChun

Ident: AB02-14 ICB
Analysis from: 2/26/2015 8:11:23 PM
File: z2262011.chw

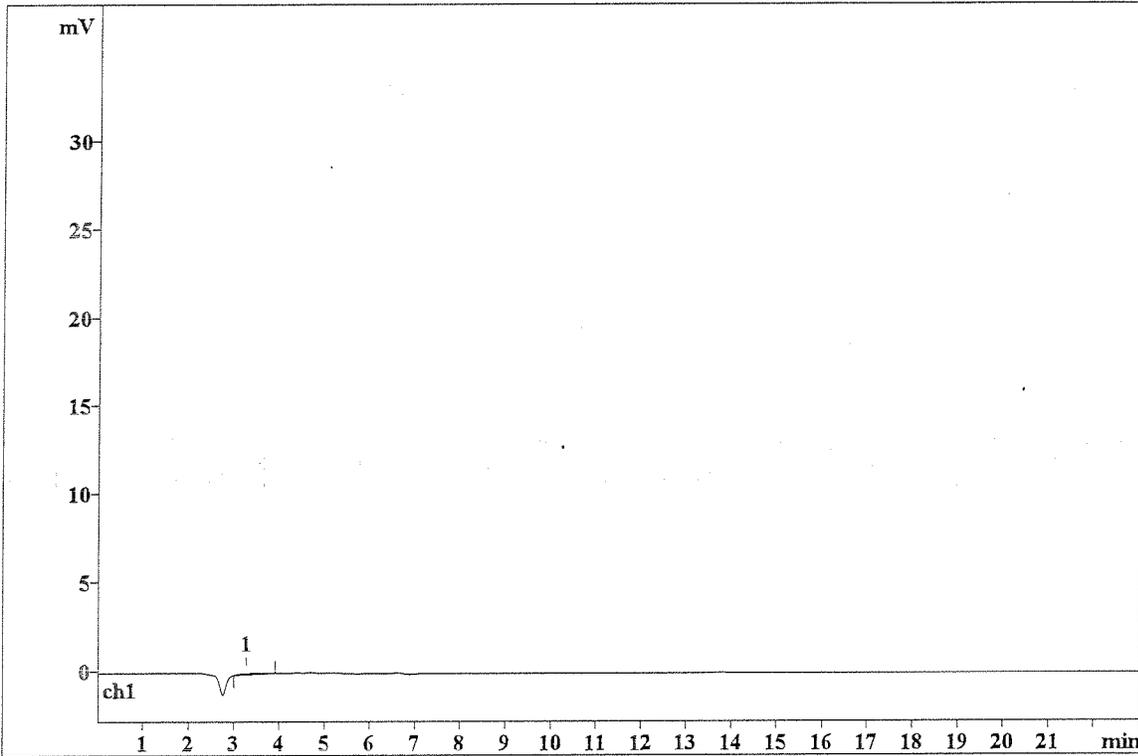
Last save: 2/27/2015 10:04:06 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 79852

Last save: 2/26/2015 4:42:17 PM

SAMPLE:

Vial number: 14
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.24	0.06	2.054	0.000	

This report has been created by IC Net
METROHM LTD

AS
02/27/15

DAILY CALIBRATION(S)

IC Result Check FormVersion : B26/AB02(2015)

LFID	LSID	Selection	phosphate	chloride	iodide	fluoride	nitrite	bromide	nitrate	sulfate	RawNetID	DF
AD20-01	CCV140	PCOFIBNS	114.8%*	96.8%	0%*	106.2%	102.2% ✓	97.2%	97.3% ✓	96.5% ✓	z4231040	1
AD20-02	CCB140	PCOFIBNS	0	0	0	0	0	0	0	0	z4231058	1
AD20-03	ICD026WB	PCOFIBNS	0	0	0	0	0	0	0	0	z4231117	1
AD20-04	ICD026WL	PCOFIBNS	2.24096	1.91424	0	2.10997	2.06343	1.95671	0.971684	4.76045	z4231136	1
AD20-05	D149-04	P*OFIBN*	0.146387	228.062E	0	0.427301	0.0418905	1.29094	0.0472187	404.043E	z4231155	1
AD20-06	D149-06	P*OFIBNS	2.81941	27.11E	0	1.20365	0	0.265423	0.0463335	0.771082	z4231214	1
AD20-07	D149-07I	P*OFIBN*	0	2131.6E	0	0	0	0	0.135999	384.712E	z4231233	2
AD20-08	D149-07J	P*OFIBN*	0	3690.44E	0	1.1489	0	0	0	387.469E	z4231251	10
AD20-09	D149-10	P*OFIBNS	3.57572	32.7988E	0	1.51091	0	0.309293	0.0462162	1.0783	z4231310	1
AD20-10	D149-14I	P*OFIBN*	0	1156.84E	0	0.753308	0	1.34345	13.3365	615.504E	z4231329	4
AD20-11	D149-16	P*OFIBN*	0.136984	134.852E	0	0.901371	0.0197718	0.449593	0.0459896	328.058E	z4231348	1
AD20-12	ICD026WC	PCOFIBNS	2.39736	2.03525	0	2.12815	2.07306	2.00244	1.02963	4.92633	z4231406	1
AD20-13	CCV142	PCOFIBNS	121.5%*	100.3%	0%*	105.8%	103.3% ✓	98.9%	98.1% ✓	97.7% ✓	z4231425	1
AD20-14	CCB142	PCOFIBNS	0	0.0651228	0	0	0	0	0	0	z4231444	1
AD20-15	D149-18	P*OFIBN*	0.130769	144.56E	0	0.940039	0	0.38474	0.871222	250.107E	z4231503	1
AD20-16	D149-20	P*OFIBN*	0.314076	127.06E	0	0.116247	0	0.704233	0.202885	29.2678E	z4231521	1
AD20-17	D149-21	P*OFIBN*	0.128104	367.466E	0	0.480208	0	1.76468	0.28214	520.288E	z4231540	1
AD20-18	D149-21I	P*OFIBN*	0	563.309E	0	0.517337	0	1.94749	0	897.855E	z4231600	3
AD20-19	D156-03	P*OFIB**	0.15832	130.938E	0	0.133911	0	0.945409	17.8724E	154.397E	z4231618	1
AD20-20	D156-02	P*OFIB**	0.136713	139.886E	0	0.128166	0	1.06646	13.8758E	136.288E	z4231637	1
AD20-21	D156-01	P*OFIBN*	0	128.97E	0	0.183589	1.33367	1.00951	1.50971	105.793E	z4231656	1
AD20-22	D156-05	P*OFIB**	0.136531	136.331E	0	0.148288	0	1.94332	26.5341E	127.083E	z4231715	1
AD20-23	D156-07	P*OFIB**	0.136098	92.857E	0	0.121175	0	0.662518	19.3522E	85.6388E	z4231733	1
AD20-24	ICD026WQ	PCOFIBNS	0	0	0	0	0	0	0	0	z4231752	1
AD20-25	CCV144	PCOFIBNS	129.4%*	97.4%	0%*	106.1%	103.4% ✓	98.6%	98.1% ✓	96.1% ✓	z4231811	1
AD20-26	CCB144	PCOFIBNS	0	0	0	0	0	0	0	0	z4231829	1
AD20-27	D156-06	PCOFIBNS	0	0.451452	0	0	0	0	0.0501862	0.845024	z4231848	1
AD20-28	D156-08	P*OFIB**	0.137916	83.3605E	0	0.14863	0	0.93677	39.8692E	91.6057E	z4231907	1
AD20-29	D156-10	P*OFIB**	0.142985	92.9848E	0	0.141078	0	0.768842	38.1991E	163.58E	z4231926	1
AD20-30	D156-11	P*OFIB**	0	146.086E	0	0.0802997	0	1.18602	35.5979E	195.729E	z4231944	1
AD20-31	D156-11M	P*OFIB**	2.96808	143.971E	0	2.31396	2.22314	3.16961	35.9816E	196.577E	z4232003	1
AD20-32	D156-11S	P*OFIB**	2.99345	144.48E	0	2.31468	2.22456	3.16765	35.9422E	196.288E	z4232022	1
AD20-33	ICD028WL	PCOFIBNS	2.61235	1.95518	0	2.12228	2.06312	1.99573	1.00098	4.80491	z4232041	1
AD20-34	ICD028WC	PCOFIBNS	2.60336	1.94391	0	2.11324	2.06182	1.97921	0.979894	4.80488	z4232059	1
AD20-35	ICD028WB	PCOFIBNS	0	0	0	0	0	0	0	0	z4232118	1
AD20-36	D161-01I	PCOFIBNS	18.2454	173.038	0	0.970124	0	0	32.3483	118.253	z4232137	20
AD20-37	CCV146	PCOFIBNS	130.5%*	96.4%	0%*	105.9%	102.7% ✓	98.5%	97.6% ✓	95.1% ✓	z4232156	1
AD20-38	CCB146	PCOFIBNS	0	0	0	0	0	0	0	0	z4232214	1
AD20-39	D160-01	P*OFIBN*	0.138087	252.725E	0	0.63651	0	1.79913	2.17388	218.352E	z4232233	1
AD20-40	D160-03	P*OFIBN*	0.185736	153.418E	0	0.663123	0	0.988982	0.045258	147.446E	z4232252	1
AD20-41	D160-04	P*OFIBN*	0.130202	243.657E	0	0.612989	0	1.63127	2.31011	236.568E	z4232311	1
AD20-42	D156-02I	P*OFIBNS	0	234.357E	0	0	0	0	13.028	134.974	z4232329	10
AD20-43	D156-03I	P*OFIBNS	0	202.556E	0	0	0	0	16.6883	151.87	z4232348	10
AD20-44	D156-05I	P*OFIB*S	0	231.958E	0	0	0	3.1464	64.2033E	131.666	z4240007	10
AD20-45	D156-07I	PCOFIBNS	0	104.976	0	0	0	0	18.1405	84.5315	z4240026	10
AD20-46	D156-08I	PCOFIBNS	0	91.2694	0	0	0	0	38.717	91.1408	z4240044	10
AD20-47	D156-10I	PCOFIBNS	0	112.91	0	0	0	0	37.5746	172.283	z4240103	10
AD20-48	CCV148	PCOFIBNS	127.1%*	96.9%	0%*	104.4%	101.7%	97.5%	97.1% ✓	95.8% ✓	z4240122	1
AD20-49	CCB148	PCOFIBNS	0	0	0	0	0	0	0	0	z4240141	1
AD20-50	D156-11I	PCOFIBNS	0	238.03	0	0	0	0	32.832	216.845	z4240159	40
AD20-51	D156-11IM	PCOFIBNS	116.926	316.608	0	87.9538	79.3769	80.4622	74.9589	424.85	z4240218	40
AD20-52	D156-11IS	PCOFIBNS	117.42	317.692	0	87.3924	79.3116	80.6671	74.8911	428.933	z4240237	40
AD20-53	D156-01I	P*OFIBNS	0	204.581E	0	0	1.81274	0	1.6125	104.27	z4240256	10
AD20-54	CCV150	PCOFIBNS	126.8%*	96%	0%*	104.9%	102%	97.8%	97% ✓	94.5% ✓	z4240314	1
AD20-55	CCB150	PCOFIBNS	0	0	0	0	0	0	0	0	z4240333	1

IC Result Check FormVersion : B26/AB02(2015)

LFID	LSID	Selection	nitrate	chloride	fluoride	iodide	nitrite	bromide	phosphate	sulfate	RawNetID	DF
AD20-01	CCV140	NCFOIBPS	97.3%	96.8%	106.2%	0%*	102.2%	97.2%	114.8%*	96.5%	z4231040	1
AD20-02	CCB140	NCFOIBPS	0	0	0	0	0	0	0	0	z4231058	1
AD20-13	CCV142	NCFOIBPS	98.1%	100.3%	105.8%	0%*	103.3%	98.9%	121.5%*	97.7%	z4231425	1
AD20-14	CCB142	NCFOIBPS	0	0.0651228	0	0	0	0	0	0	z4231444	1
AD20-25	CCV144	NCFOIBPS	98.1%	97.4%	106.1%	0%*	103.4%	98.6%	129.4%*	96.1%	z4231811	1
AD20-26	CCB144	NCFOIBPS	0	0	0	0	0	0	0	0	z4231829	1
AD20-37	CCV146	NCFOIBPS	97.6%	96.4%	105.9%	0%*	102.7%	98.5%	130.5%*	95.1%	z4232156	1
AD20-38	CCB146	NCFOIBPS	0	0	0	0	0	0	0	0	z4232214	1
AD20-48	CCV148	NCFOIBPS	97.1%	96.9%	104.4%	0%*	101.7%	97.5%	127.1%*	95.8%	z4240122	1
AD20-49	CCB148	NCFOIBPS	0	0	0	0	0	0	0	0	z4240141	1
AD20-54	CCV150	NCFOIBPS	97%	96%	104.9%	0%*	102%	97.8%	126.8%*	94.5%	z4240314	1
AD20-55	CCB150	NCFOIBPS	0	0	0	0	0	0	0	0	z4240333	1

Report date: 4/23/2015 10:56:06 AM
Printed by: JChun

Ident: AD20-01 CCV140
Analysis from: 4/23/2015 10:40:06 AM
File: Z4231040.CHW

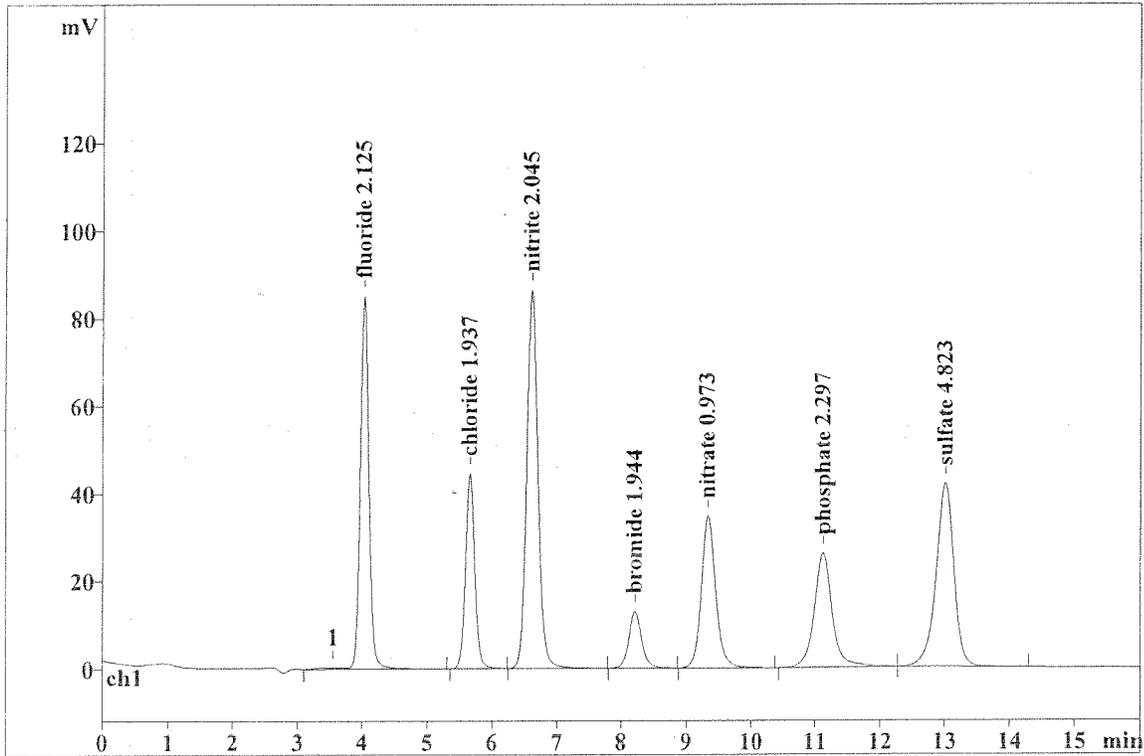
Last save: 4/23/2015 10:56:06 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80497

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 1
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.55	0.43	11.789	0.000	
2	4.03	85.00	781.555	2.125	fluoride
3	5.66	44.45	437.070	1.937	chloride
4	6.61	86.36	1044.006	2.045	nitrite ✓
5	8.21	12.87	174.600	1.944	bromide
6	9.34	34.52	525.038	0.973	nitrate ✓
7	11.13	26.02	501.025	2.297	phosphate
8	13.02	41.69	802.850	4.823	sulfate
8	16.00	331.34	4277.933	16.144	

This report has been created by IC Net
METROHM LTD

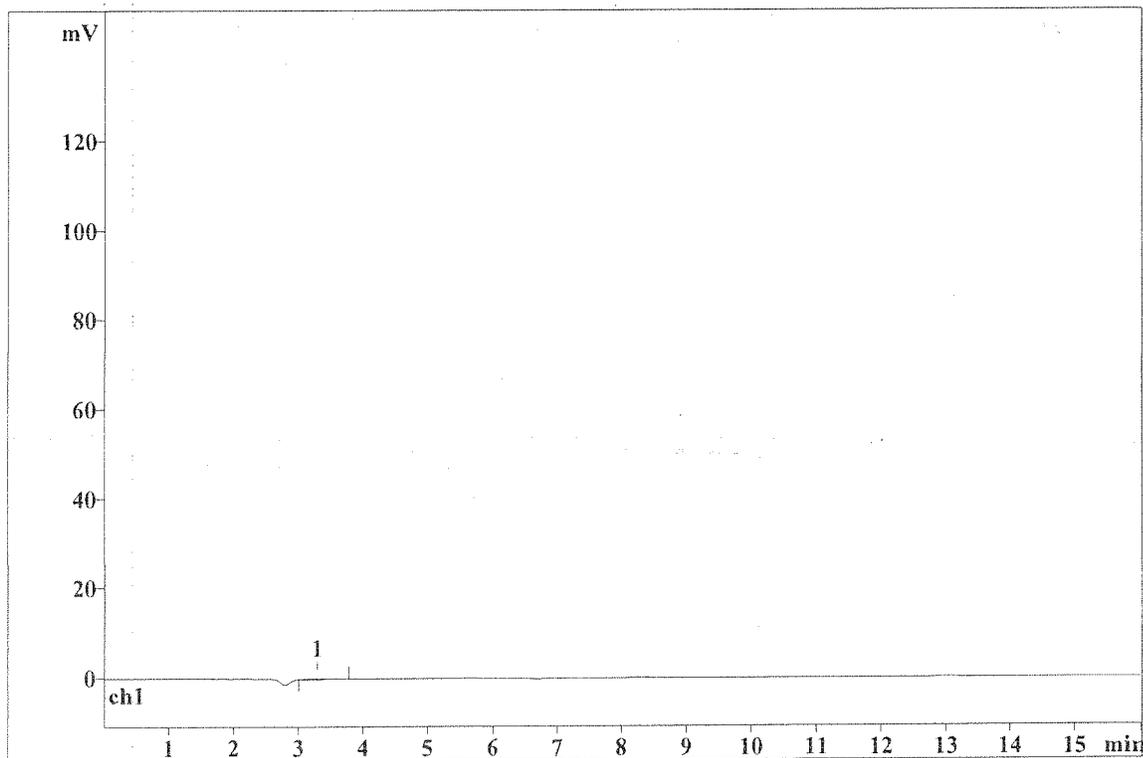
Report date: 4/24/2015 9:52:55 AM
Printed by: JChun

Ident: AD20-02 CCB140
Analysis from: 4/23/2015 10:58:51 AM
File: z4231058.chw
Modified!
Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80498

Last save: 4/23/2015 11:14:51 AM
Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 2
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.28	0.08	2.407	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 2:41:34 PM
Printed by: JChun

Ident: AD20-13 CCV142
Analysis from: 4/23/2015 2:25:34 PM
File: Z4231425.CHW

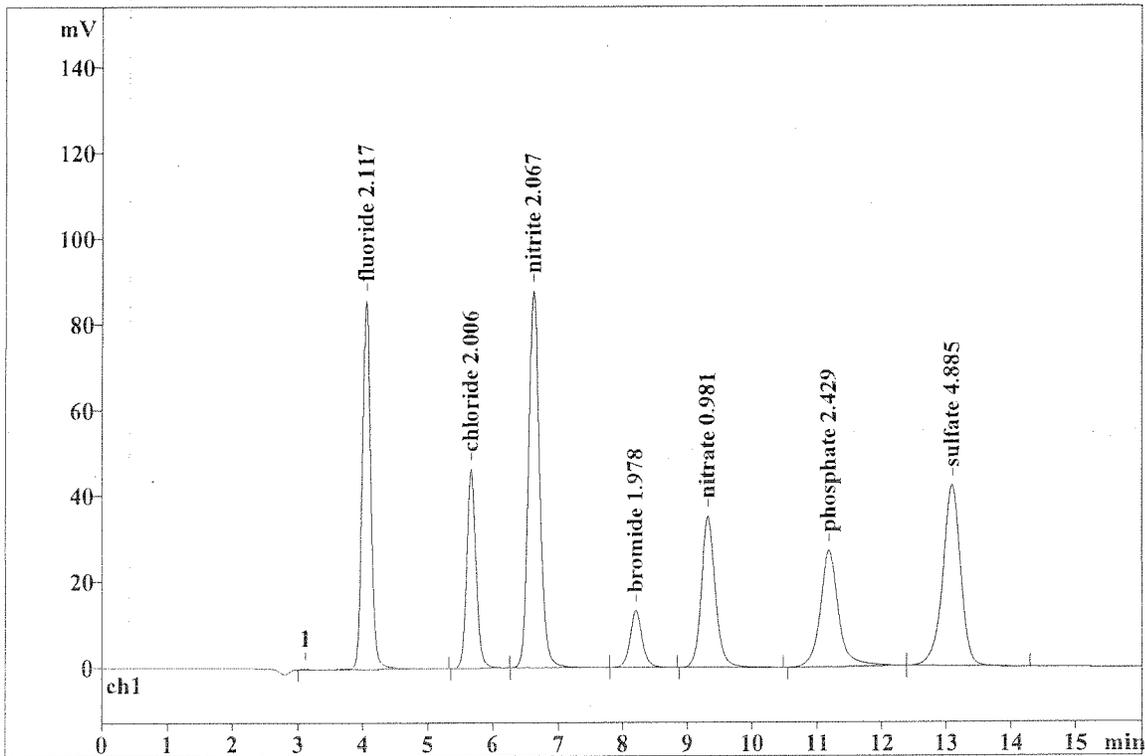
Last save: 4/23/2015 2:41:34 PM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80509

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 13
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.11	0.06	0.548	0.000	
2	4.05	86.18	778.531	2.117	fluoride
3	5.67	46.41	452.954	2.006	chloride
4	6.62	87.87	1055.256	2.067	nitrite ✓
5	8.20	13.28	177.869	1.978	bromide
6	9.32	35.26	529.319	0.981	nitrate ✓
7	11.19	27.09	531.554	2.429	phosphate
8	13.10	42.19	813.203	4.885	sulfate
8	16.00	338.35	4339.235	16.463	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 9:56:34 AM
Printed by: JChun

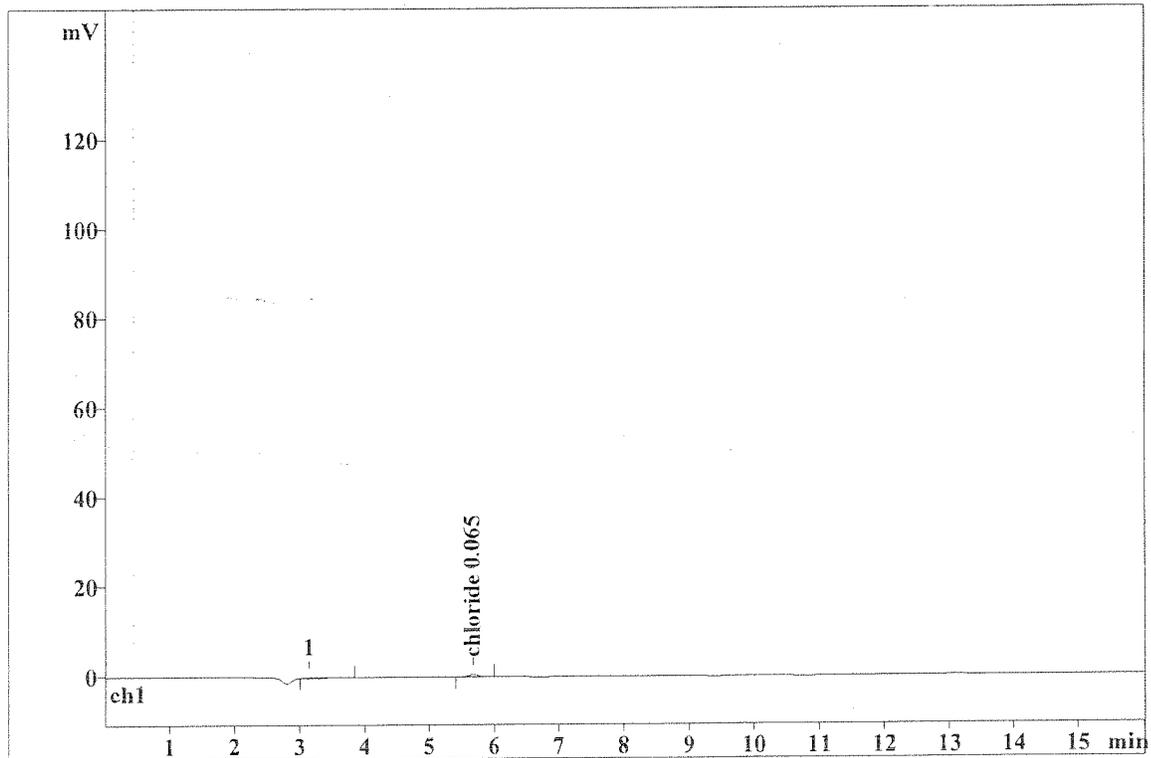
Ident: AD20-14 CCB142
Analysis from: 4/23/2015 2:44:19 PM
File: z4231444.chw
Modified!
Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80510

Last save: 4/23/2015 3:00:19 PM

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 14
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.14	0.07	2.147	0.000	
2	5.67	0.57	5.966	0.065	chloride
2	16.00	0.64	8.113	0.065	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 6:27:14 PM
Printed by: JChun

Ident: AP20-25 CCV144
Analysis from: 4/23/2015 6:11:13 PM
File: Z4231811.CHW

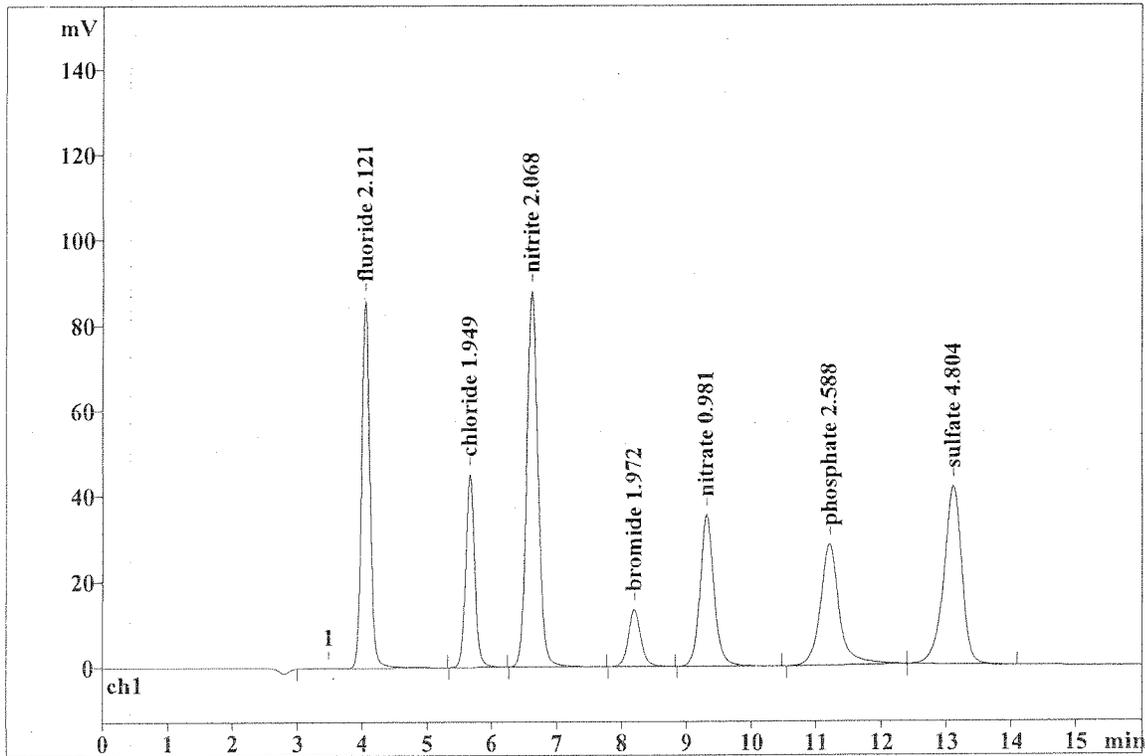
Last save: 4/23/2015 6:27:14 PM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80521

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 25
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.48	0.08	2.837	0.000	
2	4.05	86.30	780.134	2.121	fluoride
3	5.67	45.18	439.844	1.949	chloride
4	6.62	88.11	1056.001	2.068	nitrite
5	8.20	13.30	177.316	1.972	bromide
6	9.31	35.40	529.493	0.981	nitrate
7	11.20	28.31	568.093	2.588	phosphate
8	13.11	41.64	799.591	4.804	sulfate
8	16.00	338.32	4353.307	16.483	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 9:57:39 AM
Printed by: JChun

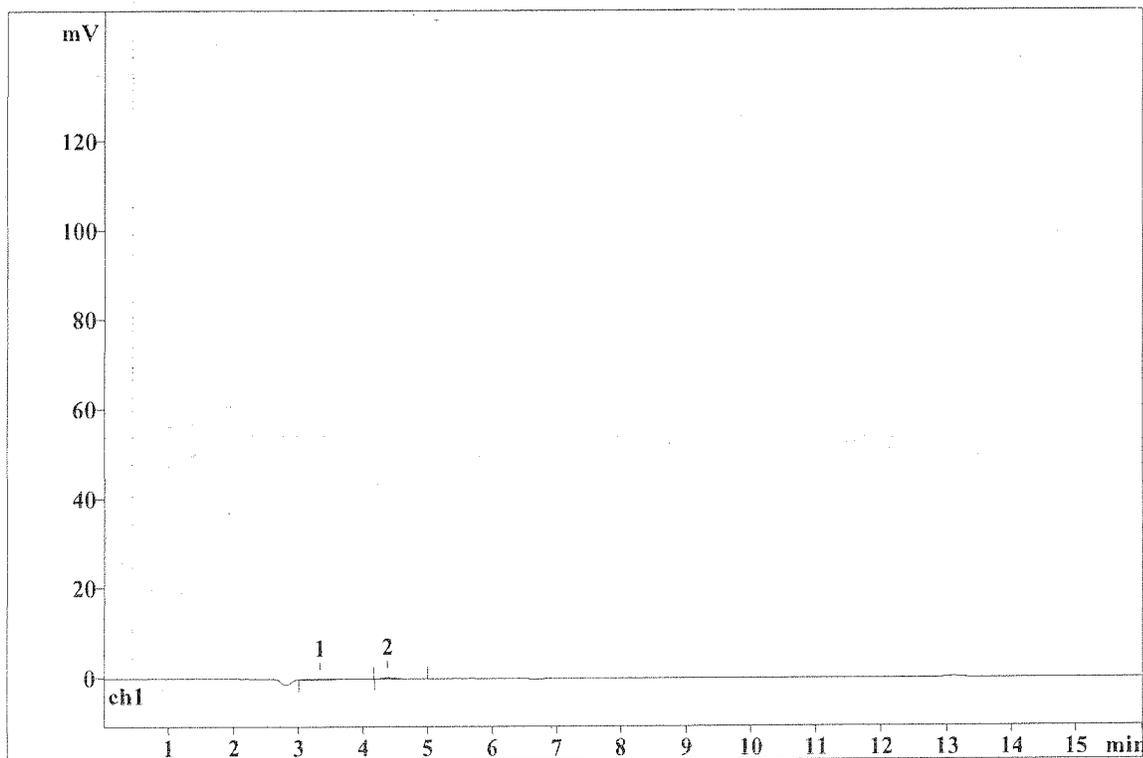
Ident: AD20-26 CCB144
Analysis from: 4/23/2015 6:29:58 PM
File: z4231829.chw
Modified!
Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80522

Last save: 4/23/2015 6:45:58 PM

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 26
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.34	0.10	4.628	0.000	
2	4.38	0.21	2.897	0.000	
2	16.00	0.31	7.525	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 10:12:13 PM
Printed by: JChun

Ident: AD20-37 CCV146
Analysis from: 4/23/2015 9:56:12 PM
File: Z4232156.CHW

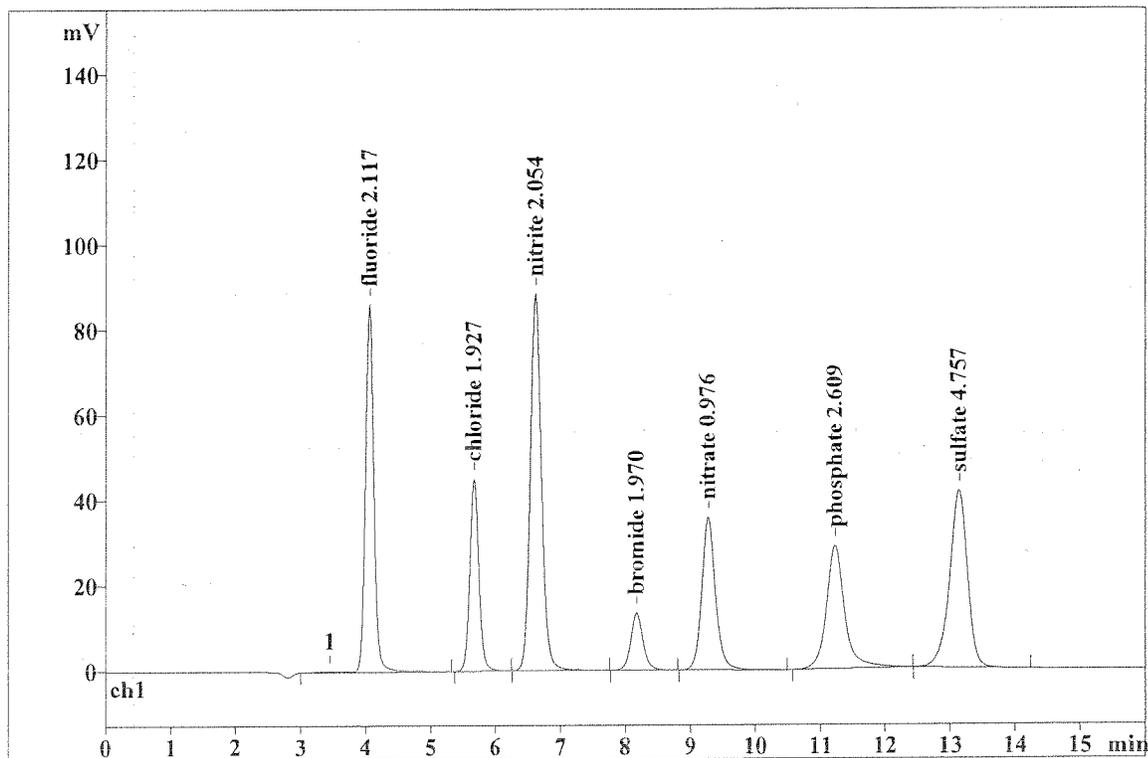
Last save: 4/23/2015 10:12:13 PM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80533

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 37
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.43	0.10	3.397	0.000	
2	4.06	86.23	778.755	2.117	fluoride
3	5.67	44.97	434.826	1.927	chloride
4	6.61	88.38	1048.989	2.054	nitrite
5	8.17	13.44	177.071	1.970	bromide
6	9.27	35.78	526.792	0.976	nitrate
7	11.23	28.81	572.985	2.609	phosphate
8	13.14	41.47	791.867	4.757	sulfate
8	16.00	339.17	4334.680	16.411	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 9:58:26 AM
Printed by: JChun

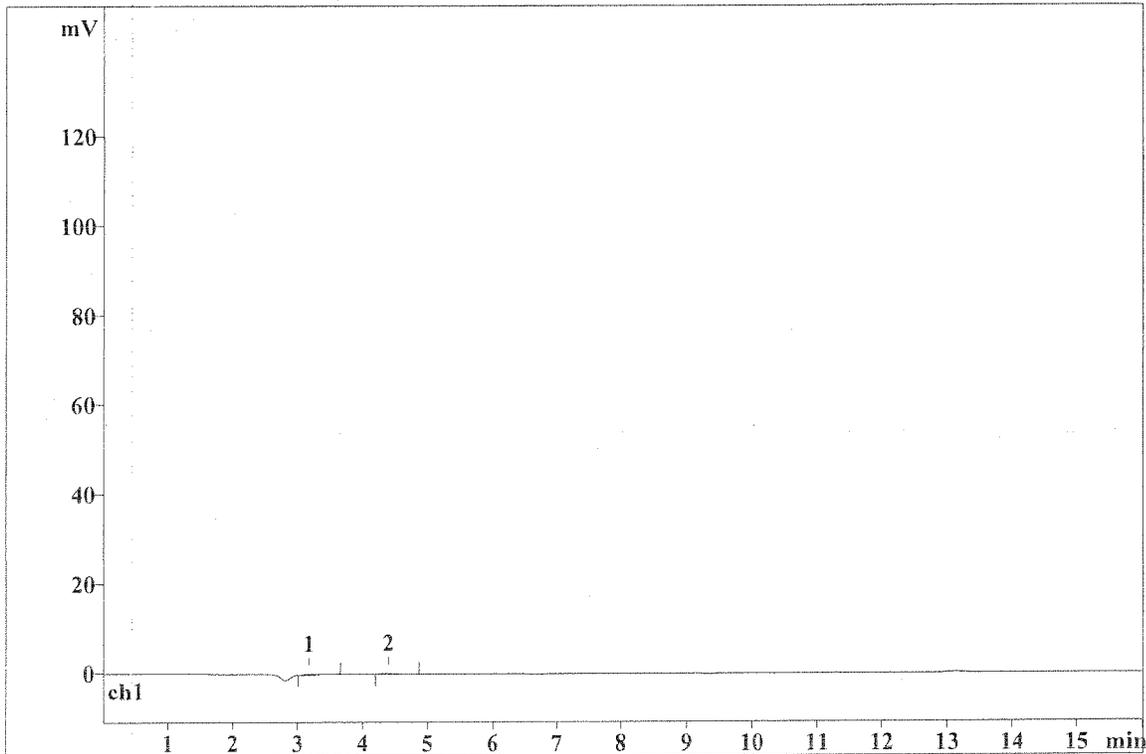
Ident: AD20-38 CCB146
Analysis from: 4/23/2015 10:14:57 PM
File: z4232214.chw
Modified!
Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80534

Last save: 4/23/2015 10:30:57 PM

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 38
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.19	0.08	1.997	0.000	
2	4.39	0.13	1.764	0.000	
2	16.00	0.21	3.761	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 1:38:26 AM
Printed by: JChun

Ident: AD20-48 CCV148
Analysis from: 4/24/2015 1:22:26 AM
File: Z4240122.CHW

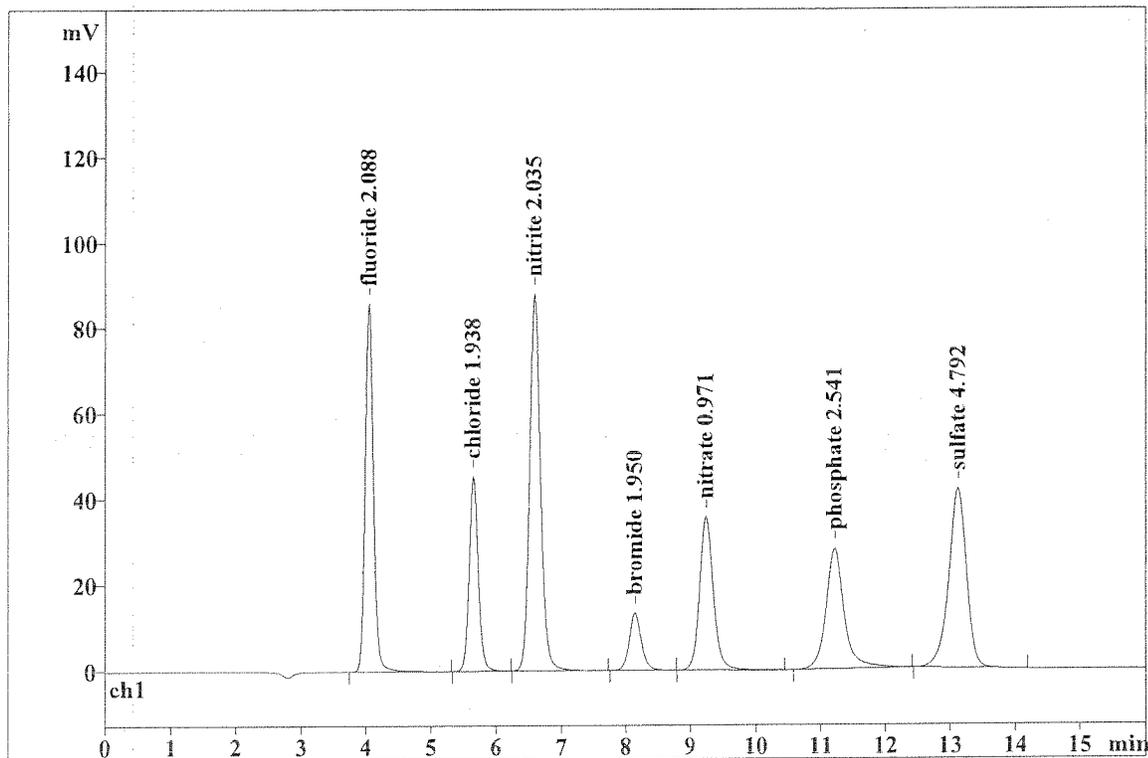
Last save: 4/24/2015 1:38:26 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80544

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 48
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	4.05	85.88	768.050	2.088	fluoride
2	5.65	45.49	437.238	1.938	chloride
3	6.59	87.99	1038.947	2.035	nitrite ✓
4	8.14	13.40	175.193	1.950	bromide
5	9.24	35.74	523.588	0.971	nitrate ✓
6	11.22	28.09	557.323	2.541	phosphate
7	13.13	41.79	797.647	4.792	sulfate
7	16.00	338.39	4297.986	16.315	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 9:58:46 AM
Printed by: JChun

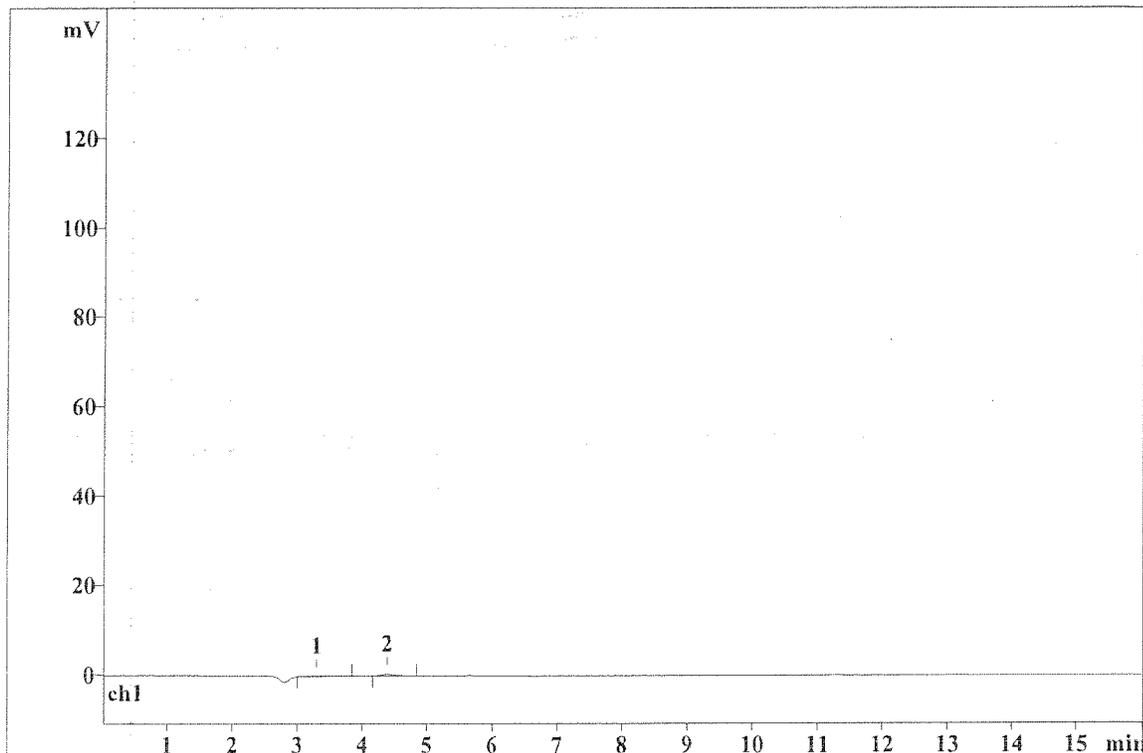
Ident: AD20-49 CCB148
Analysis from: 4/24/2015 1:41:11 AM
File: z4240141.chw
Modified!
Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80545

Last save: 4/24/2015 1:57:12 AM

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 49
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.29	0.08	2.676	0.000	
2	4.38	0.33	4.394	0.000	
2	16.00	0.41	7.071	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 3:30:56 AM
Printed by: JChun

Ident: AD20-54 CCV150
Analysis from: 4/24/2015 3:14:56 AM
File: Z4240314.CHW

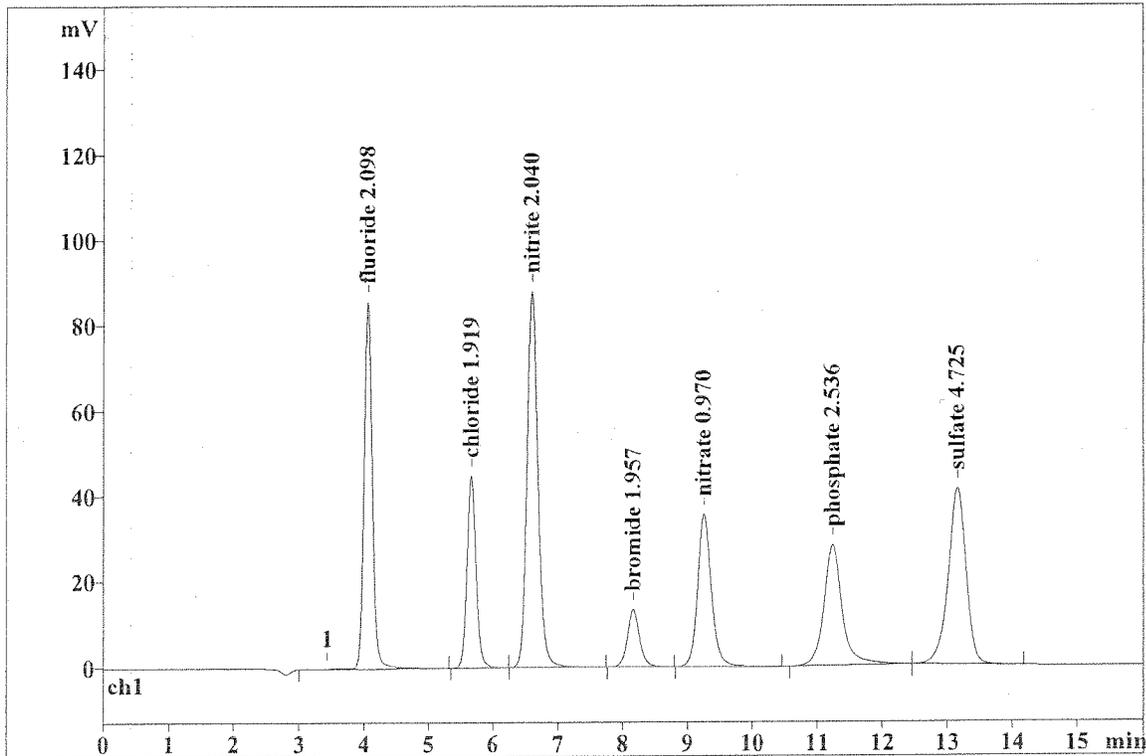
Last save: 4/24/2015 3:30:56 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80550

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 54
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.42	0.08	2.943	0.000	
2	4.06	85.99	771.729	2.098	fluoride
3	5.67	45.05	432.992	1.919	chloride
4	6.60	88.15	1041.429	2.040	nitrite ✓
5	8.16	13.43	175.836	1.957	bromide
6	9.26	35.71	523.029	0.970	nitrate ✓
7	11.25	28.18	556.078	2.536	phosphate
8	13.16	41.26	786.457	4.725	sulfate
8	16.00	337.85	4290.493	16.244	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 9:55:45 AM
Printed by: JChun

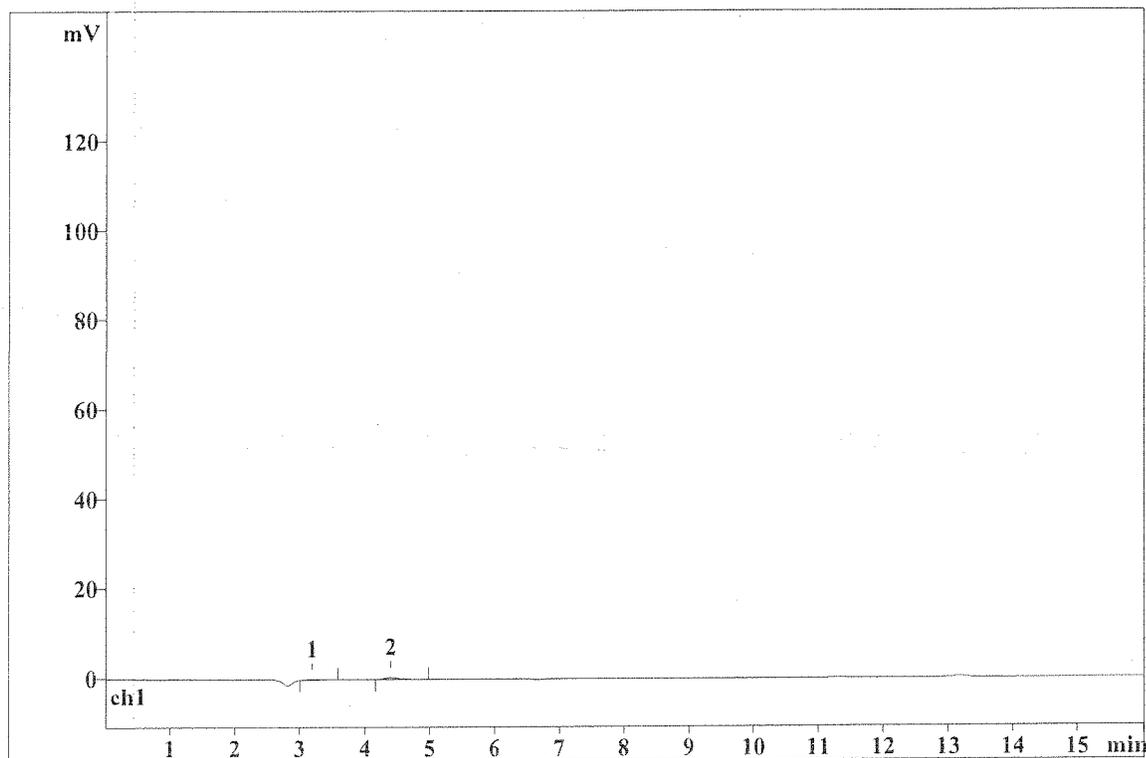
Ident: AD20-55 CCB150
Analysis from: 4/24/2015 3:33:41 AM
File: z4240333.chw
Modified!
Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80551

Last save: 4/24/2015 3:49:41 AM

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 55
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.21	0.07	1.621	0.000	
2	4.39	0.40	5.474	0.000	
2	16.00	0.47	7.095	0.000	

This report has been created by IC Net
METROHM LTD

IC Result Check FormVersion : B26/AB02(2015)

LFID	LSID	Selection	bromide	nitrite	phosphate	iodide	fluoride	chloride	nitrate	sulfate	RawNetID	DF
AD22-01	CCV152	BIPOFCNS	97.7%	102.1%	130.4%*	0%*	106.1%	96.4%	98%	96.1%	z4240934	1
AD22-02	CCB152	BIPOFCNS	0	0	0	0	0	0	0	0	z4240952	1
AD22-03	ICD030WB	BIPOFCNS	0	0	0	0	0	0	0	0	z4241011	1
AD22-04	ICD030WL	BIPOFCNS	1.95687	2.05961	2.51864	0	2.18294	1.93891	1.01613	5.11877	z4241030	1
AD22-05	ICD030WC	BIPOFCNS	1.93758	2.05591	2.48202	0	2.16631	1.92785	1.00731	4.95016	z4241049	1
AD22-06	D156-05I	BIPOF*NS	0	0	0	0	0	231.303E	25.4733	130.362	z4241107	10
AD22-07	D167-02	BIPOF*NS	0.700455	0	0.137694	0	0.176121	199.777E	0.335744	133.572E	z4241127	1
AD22-08	D167-03	BIPOF*NS	1.84145	0	0	0	0.782851	201.779E	0.0594592	515.291E	z4241145	1
AD22-09	D167-04	BIPOF*NS	8.93643	0	0	0	1.07813	356.244E	0	373.756E	z4241204	1
AD22-10	D167-06	BIPOF*NS	8.93368	0	0	0	1.06697	355.514E	0	373.188E	z4241223	1
AD22-11	D167-08	BIPOF*NS	1.29957	0	0	0	0.718532	316.717E	1.69779	491.782E	z4241242	1
AD22-12	D167-05	BIPOFCNS	0	0	0	0	0	0.343141	0	0.53748	z4241300	1
AD22-13	CCV154	BIPOFCNS	97.8%	103.3%	136.5%*	0%*	105.3%	102.6%	97.4%	102.5%	z4241319	1
AD22-14	CCB154	BIPOFCNS	0	0	0	0	0	0	0	0	z4241338	1
AD22-15	D167-09	BIPOF*NS	2.91204	0	0.152441	0	0.936548	272.13E	0.0472993	402.984E	z4241413	1
AD22-16	D167-10	BIPOF*NS	0.271213	0	3.67381	0	1.22316	31.5944E	0.0507674	1.67531	z4241432	1
AD22-17	D167-07	BIPOF*NS	1.28318	0	0.12982	0	0.704118	310.182E	1.73438	491.994E	z4241451	1
AD22-18	D167-07D	BIPOF*NS	1.3138	0	0	0	0.722859	315.124E	1.73433	491.884E	z4241509	1
AD22-19	D167-07M	BIPOF*NS	3.29708	1.98714	3.10263	0	3.02993	313.643E	2.82588	488.333E	z4241528	1
AD22-20	D169-01	BIPOF***	2.61579	0	0.325382	0	1.5055	305.024E	25.184E	364.675E	z4241547	1
AD22-21	D169-02	BIPOF***	2.59692	0	0.297522	0	1.48805	303.333E	25.1074E	364.02E	z4241606	1
AD22-22	D169-04I	BIPOF***	9.1233	0	0.321454	0	1.25537	875.343E	41.1161E	543.939E	z4241624	2
AD22-23	D169-05	BIPOF*NS	1.7249	0	0.137827	0	0.679675	253.411E	2.93447	240.229E	z4241643	1
AD22-24	D167-04I	BIPOF*NS	8.38626	0	0	0	1.02169	513.887E	0	592.367E	z4241702	3
AD22-25	CCV156	BIPOFCNS	98.7%	103.6%	143.2%*	0%*	105.8%	103%	98.8%	98.6%	z4241721	1
AD22-26	CCB156	BIPOFCNS	0	0	0	0	0	0.0599138	0	0	z4241739	1
AD22-27	D167-06I	BIPOF*NS	8.44135	0	0.391355	0	1.01884	516.431E	0	597.751E	z4241758	3
AD22-28	D169-04J	BIPOF***	8.89242	0	0	0	1.24285	1144.66E	39.5197E	652.046E	z4241817	4
AD22-29	D169-01I	BIPOF*NS	3.59127	0	0	0	1.4611	817.628E	23.444E	602.602E	z4241836	10
AD22-30	D169-02I	BIPOF*NS	3.59801	0	0	0	1.45164	821.938E	23.6956	612.708E	z4241855	10
AD22-31	D169-04K	BIPOF*NS	13.4096	0	0	0	1.8875	3329.37E	37.852	674.641	z4241914	40
AD22-32	ICD032WL	BIPOFCNS	1.95214	2.06541	2.81448	0	2.1072	1.93906	0.966428	4.73292	z4241932	1
AD22-33	ICD032WC	BIPOFCNS	1.95877	2.06694	2.80972	0	2.10851	1.93097	0.964722	4.77872	z4241951	1
AD22-34	ICD032WB	BIPOFCNS	0	0	0	0	0	0	0	0	z4242010	1
AD22-35	CCV158	BIPOFCNS	97.7%	103.4%	140.4%*	0%*	106.3%	97.1%	96.5%	97.3%	z4242029	1
AD22-36	CCB158	BIPOFCNS	0	0	0	0	0	0	0	0	z4242047	1
AD22-37	D160-01I	BIPOFCNS	0	0	0	0	0	674.991	0	232.08	z4242106	50
AD22-38	D160-03I	BIPOFCNS	0	0	0	0	0.87694	232.424	0	157.48	z4242125	20
AD22-39	D160-04I	BIPOFCNS	0	0	0	0	0	625.319	3.58961	273.945	z4242144	50
AD22-40	D169-01J	BIPOFCNS	0	0	0	0	0	913.47	23.0059	606.168	z4242202	80
AD22-41	D169-02J	BIPOFCNS	0	0	0	0	0	905.066	22.9487	585.602	z4242221	80
AD22-42	D169-04T	BIPOFCNS	0	0	0	0	0	3736.59	40.0798	644.37	z4242240	200
AD22-43	D169-05I	BIPOFCNS	0	0	0	0	0	644.971	4.18065	263.58	z4242259	50
AD22-44	CCV160	BIPOFCNS	97.3%	102.8%	142.8%*	0%*	106%	97.5%	97.1%	95.4%	z4242317	1
AD22-45	CCB160	BIPOFCNS	0	0	0	0	0	0.101994	0	0.317873	z4242336	1
AD22-46	D167-02I	BIPOF*NS	0	0	0	0	0	431.24E	0	138.665	z4242355	20
AD22-47	D167-03I	BIPOFCNS	0	0	0	0	0	394.065	0	1219.89	z4250014	125
AD22-48	D167-04J	BIPOFCNS	0	0	0	0	0	1026.31	0	611.228	z4250032	80
AD22-49	D167-06J	BIPOFCNS	0	0	0	0	0	1039.48	0	648.508	z4250051	80
AD22-50	D167-07I	BIPOFCNS	0	0	0	0	0	896.148	0	1091.71	z4250110	200
AD22-51	D167-07ID	BIPOFCNS	0	0	0	0	0	894	0	1078.64	z4250129	200
AD22-52	D167-07IM	BIPOFCNS	381.816	390.052	633.603	0	439.073	1265.78	205.375	2100.17	z4250147	200
AD22-53	D167-08I	BIPOFCNS	0	0	0	0	0	895.351	0	1103.39	z4250206	100
AD22-54	D167-09I	BIPOFCNS	0	0	0	0	0	664.309	0	724.752	z4250225	100
AD22-55	ICD032WQ	BIPOFCNS	0	0	0	0	0	0	0	0	z4250243	1
AD22-56	CCV162	BIPOFCNS	97.2%	102.9%	137.7%*	0%*	106.2%	96%	97%	96.2%	z4250302	1
AD22-57	CCB162	BIPOFCNS	0	0	0	0	0	0	0	0	z4250321	1

IC Result Check FormVersion : B26/AB02(2015)

LFID	LSID	Selection	nitrate	iodide	fluoride	chloride	nitrite	bromide	phosphate	sulfate	RawNetID	DF
AD22-01	CCV152	NOFCIBPS	98%	0%*	106.1%	96.4%	102.1%	97.7%	130.4%*	96.1%	z4240934	1
AD22-02	CCB152	NOFCIBPS	0	0	0	0	0	0	0	0	z4240952	1
AD22-13	CCV154	NOFCIBPS	97.4%	0%*	105.3%	102.6%	103.3%	97.8%	136.5%*	102.5%	z4241319	1
AD22-14	CCB154	NOFCIBPS	0	0	0	0	0	0	0	0	z4241338	1
AD22-25	CCV156	NOFCIBPS	98.8%	0%*	105.8%	103%	103.6%	98.7%	143.2%*	98.6%	z4241721	1
AD22-26	CCB156	NOFCIBPS	0	0	0	0.0599138	0	0	0	0	z4241739	1
AD22-35	CCV158	NOFCIBPS	96.5%	0%*	106.3%	97.1%	103.4%	97.7%	140.4%*	97.3%	z4242029	1
AD22-36	CCB158	NOFCIBPS	0	0	0	0	0	0	0	0	z4242047	1
AD22-44	CCV160	NOFCIBPS	97.1%	0%*	106%	97.5%	102.8%	97.3%	142.8%*	95.4%	z4242317	1
AD22-45	CCB160	NOFCIBPS	0	0	0	0.101994	0	0	0	0.317873	z4242336	1
AD22-56	CCV162	NOFCIBPS	97%	0%*	106.2%	96%	102.9%	97.2%	137.7%*	96.2%	z4250302	1
AD22-57	CCB162	NOFCIBPS	0	0	0	0	0	0	0	0	z4250321	1

Report date: 4/24/2015 9:50:11 AM
Printed by: JChun

Ident: AD22-01 CCV152
Analysis from: 4/24/2015 9:34:11 AM
File: Z4240934.CHW

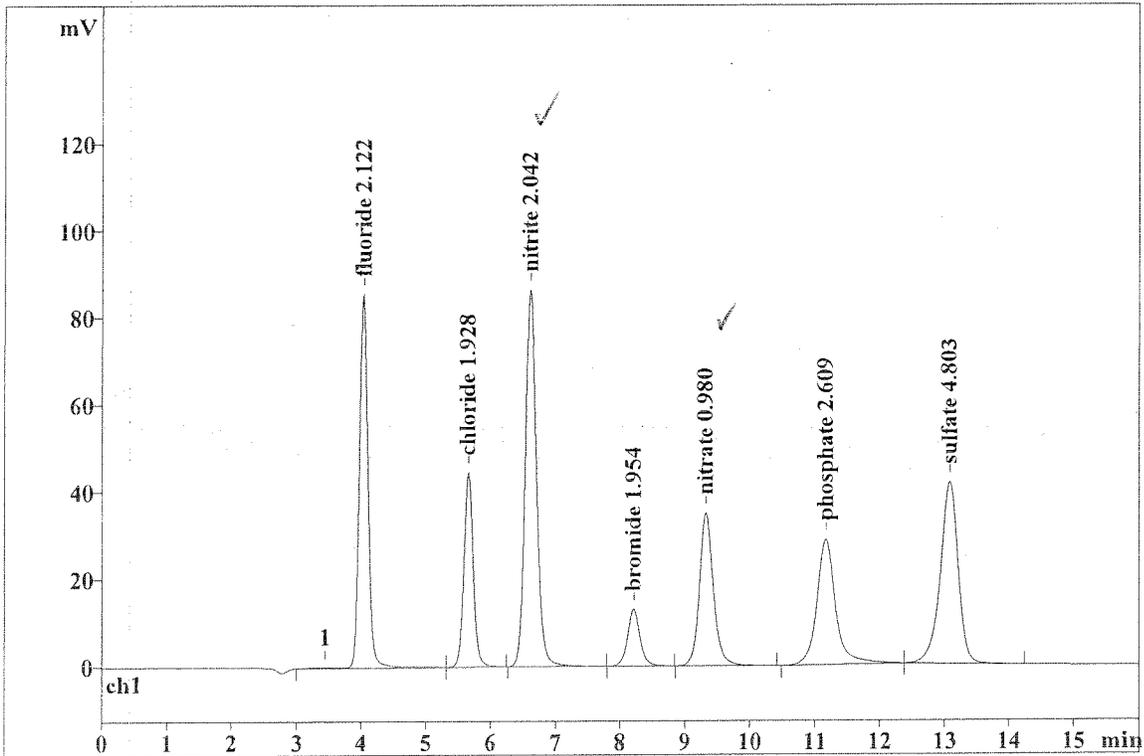
Last save: 4/24/2015 9:50:11 AM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80553

Last save: 4/23/2015 10:48:10 AM

SAMPLE:

Vial number: 1
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.44	0.10	3.604	0.000	
2	4.04	85.57	780.538	2.122	fluoride
3	5.66	44.49	434.923	1.928	chloride
4	6.61	86.39	1042.711	2.042	nitrite
5	8.21	13.06	175.549	1.954	bromide
6	9.33	35.06	528.928	0.980	nitrate
7	11.18	28.68	572.863	2.609	phosphate
8	13.09	41.52	799.457	4.803	sulfate
8	16.00	334.86	4338.573	16.437	

This report has been created by IC Net
METROHM LTD

Report date: 4/27/2015 8:45:17 AM
Printed by: JChun

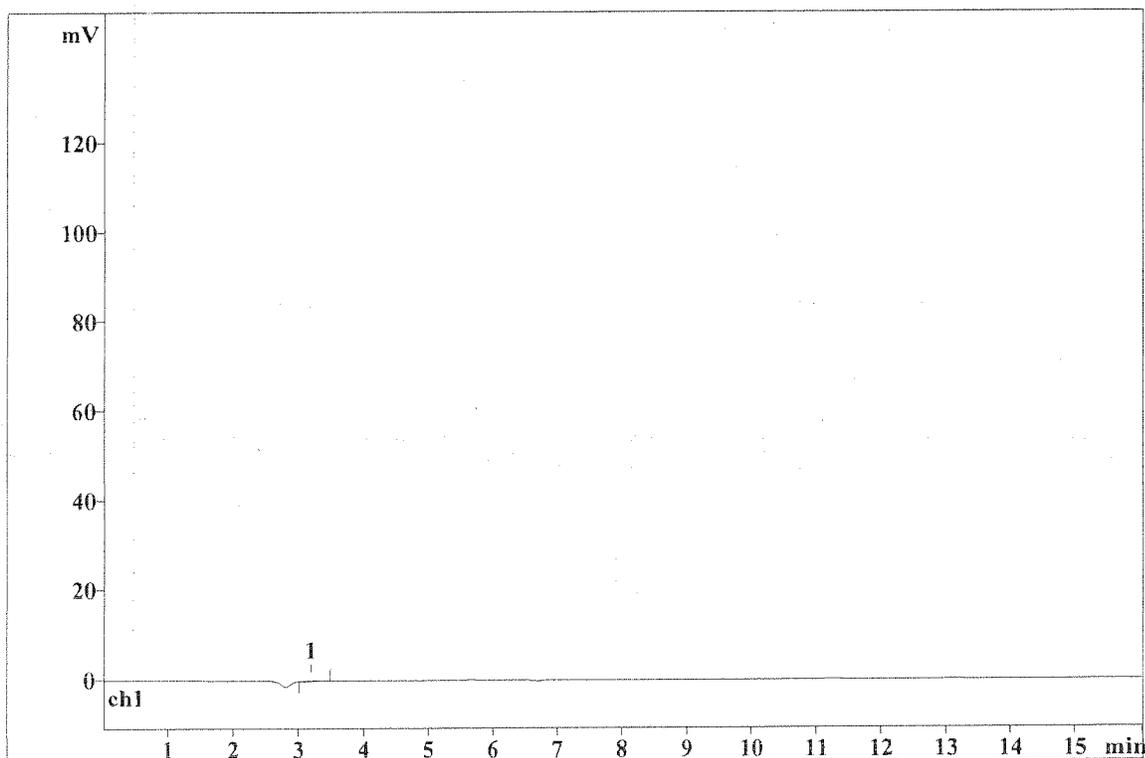
Ident: AD22-02 CCB152
Analysis from: 4/24/2015 9:52:56 AM
File: z4240952.chw
Modified!
Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80554

Last save: 4/24/2015 10:08:56 AM

Last save: 4/24/2015 9:59:51 AM

SAMPLE:

Vial number: 2
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.18	0.06	1.158	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 1:35:37 PM
Printed by: JChun

Ident: AD22-13 CCV154
Analysis from: 4/24/2015 1:19:37 PM
File: Z4241319.CHW

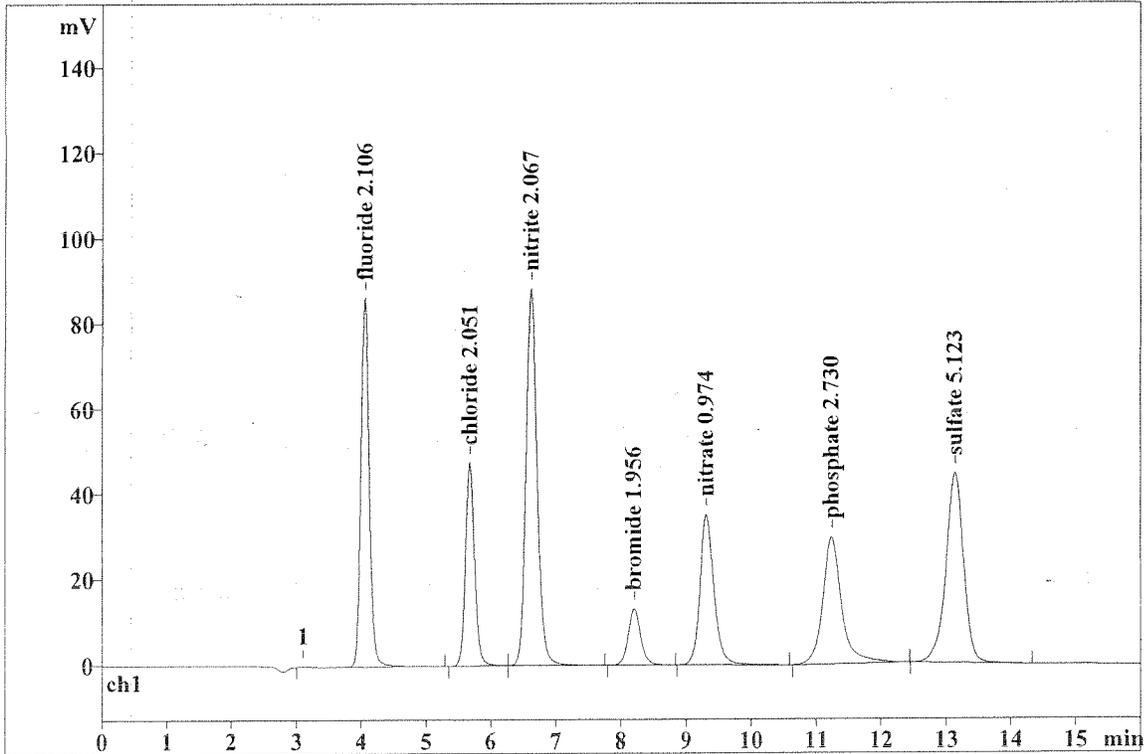
Last save: 4/24/2015 1:35:37 PM

Method: ICD7-B26.mtw
Run operator: JChun
Analysis number: 80565

Last save: 4/24/2015 9:59:51 AM

SAMPLE:

Vial number: 13
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.10	0.06	-0.351	0.000	
2	4.05	86.41	774.650	2.106	fluoride
3	5.67	47.73	463.423	2.051	chloride
4	6.62	88.38	1055.145	2.067	nitrite
5	8.20	13.25	175.775	1.956	bromide
6	9.31	35.21	525.721	0.974	nitrate
7	11.24	29.69	600.882	2.730	phosphate
8	13.15	44.44	852.835	5.123	sulfate
8	15.99	345.16	4448.782	17.008	

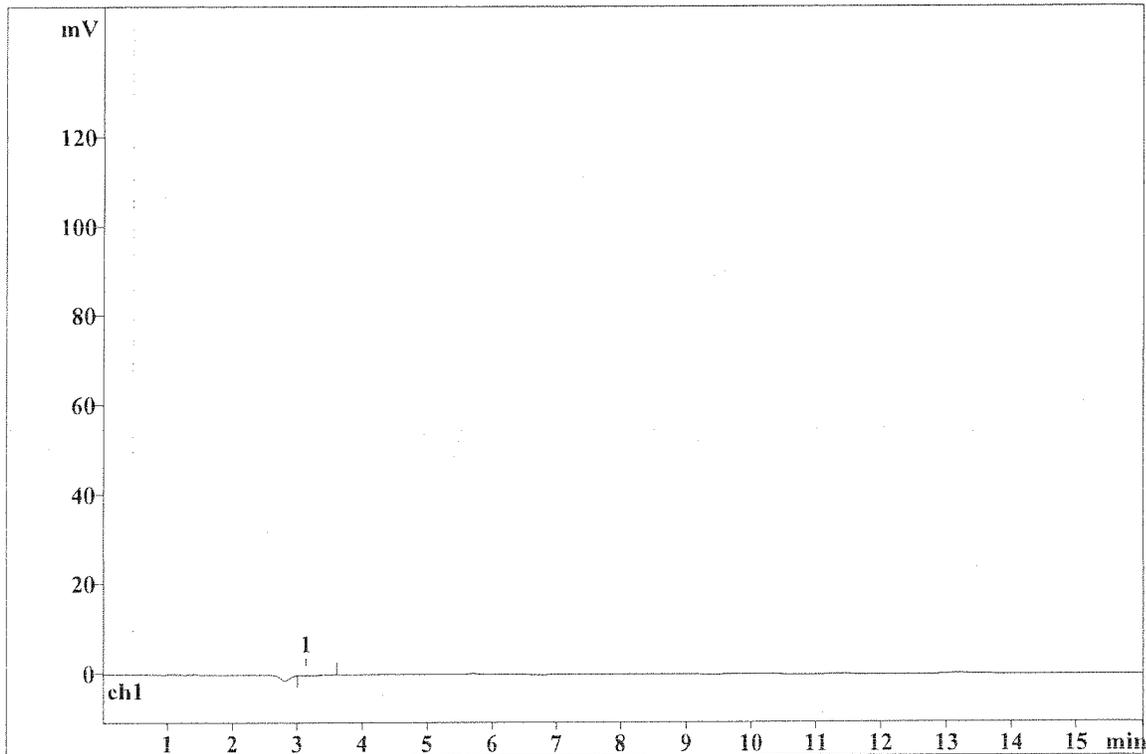
This report has been created by IC Net
METROHM LTD

Report date: 4/27/2015 8:46:35 AM
Printed by: JChun

Ident: AD22-14 CCB154
Analysis from: 4/24/2015 1:38:21 PM
File: z4241338.chw Last save: 4/24/2015 1:54:22 PM
Modified!
Method: ICD7-B26.mtw Last save: 4/24/2015 9:59:51 AM
Run operator: JChun
Analysis number: 80566

SAMPLE:

Vial number: 14
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height mV	Area mV*sec	Conc. mg/L	Name
1	3.13	0.07	1.178	0.000	

This report has been created by IC Net
METROHM LTD

ANALYTICAL LOG(S)



ANALYSIS RUN LOG

for
ION CHROMATOGRAPHY

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Concentrations of (ppm): S1 - 0.05

S2 - 0.1

S3 - 0.2

S4 - 0.5

S5 - 1.0

S6 - 2.0

S7 - 5.0

S8 - 10.0

S9 - 20.0

Linearity (ppm): F⁻ - 5

Cl⁻ - 20

NO₂N - 10

Br⁻ - 20

NO₃N - 5

PO₄P - 20

SO₄²⁻ - 20

ICB002W: LOQ & LOD Verification

Column: # 7403575 Metrosep RP2 Guard # 0026.1217
(350 mM Na₂CO₃ / 100 mM NaHCO₃)

Flow Rate: 0.70 ml/min

IC Eluent:

SW4-02-47-03 (350 mM Na₂CO₃ / 100 mM NaHCO₃) 20 ml → 2 L reagent water

SW4-02-47-04 (100 mM NaHCO₃) 20 ml → 2 L reagent water

IC Regenerant:

SW4-02-48-04 (1000 mM H₂SO₄) 100 ml → 1 L reagent water

Reagent Water: RW1-13-002

Book #: AD7-020

Instrument No.: D7

Pipette ID's: 039380124

SW3-02-02-02

SW8A-02-13

Analytical Sequence: AB02

Method File: ICD7-B26.mtw

Analytical Batch: ICB002W

SOP #	Rev. #
<input checked="" type="checkbox"/> EMAX-300.0	10
<input checked="" type="checkbox"/> EMAX-4110B	4
<input checked="" type="checkbox"/> EMAX-9056	7
<input type="checkbox"/> EMAX-	

STANDARDS ID	
ICAL	SI1B-29-34-02
ICV 1	-34-03
CCV	-33-01
LCS / ICV	↓ -33-02
MS	NA

ELECTRONIC DATA ARCHIVAL	
Location	Date
<input type="checkbox"/> IC-METHROHM	
<input type="checkbox"/> External Hard Drive	

Filters: Snap Seal Container:

0.45 μm: ϕ ^{cd 02/26/15} 4 oz: 194/4007

0.2 μm: 1.5 oz:

Analyzed By: JC / CD

Date: 02/26/15

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2	Fl
z2261436.chw	ICD7-B26.mtw	AB02-01 IB	1	1.0	1.0	1.0	100.0	0			
z2261501.chw	ICD7-B26.mtw	AB02-02 S0	2	1.0	1.0	1.0	100.0	0			
z2261527.chw	ICD7-B26.mtw	AB02-03 S1	3	1.0	1.0	1.0	100.0	1	0.05PPM		
z2261553.chw	ICD7-B26.mtw	AB02-04 S2	4	1.0	1.0	1.0	100.0	2	0.10PPM		
z2261619.chw	ICD7-B26.mtw	AB02-05 S3	5	1.0	1.0	1.0	100.0	3	0.20PPM		
z2261645.chw	ICD7-B26.mtw	AB02-06 S4	6	1.0	1.0	1.0	100.0	4	0.50PPM		
z2261710.chw	ICD7-B26.mtw	AB02-07 S5	7	1.0	1.0	1.0	100.0	5	1.00PPM		
z2261736.chw	ICD7-B26.mtw	AB02-08 S6	8	1.0	1.0	1.0	100.0	6	2.00PPM		
z2261802.chw	ICD7-B26.mtw	AB02-09 S7	9	1.0	1.0	1.0	100.0	7	5.00PPM		
z2261828.chw	ICD7-B26.mtw	AB02-10 S8	10	1.0	1.0	1.0	100.0	8	10.0PPM		
z2261854.chw	ICD7-B26.mtw	AB02-11 S9	11	1.0	1.0	1.0	100.0	9	20.0PPM		
z2261919.chw	ICD7-B26.mtw	AB02-12 ICV	12	1.0	1.0	1.0	100.0	0			
z2261945.chw	ICD7-B26.mtw	AB02-13 ICV1	13	1.0	1.0	1.0	100.0	0	1.00PPM		
z2262011.chw	ICD7-B26.mtw	AB02-14 ICB	14	1.0	1.0	1.0	100.0	0			
z2262037.chw	ICD7-B26.mtw	AB02-15 CCV2	15	1.0	1.0	1.0	100.0	0			
z2262102.chw	ICD7-B26.mtw	AB02-16 CCB2	16	1.0	1.0	1.0	100.0	0			
z2262128.chw	ICD7-B26.mtw	AB02-17 ICB002WB	17	1.0	1.0	1.0	100.0	0			
z2262154.chw	ICD7-B26.mtw	AB02-18 ICB002WL	18	1.0	1.0	1.0	100.0	0			
z2262220.chw	ICD7-B26.mtw	AB02-19 ICB002WC	19	1.0	1.0	1.0	100.0	0			
z2262246.chw	ICD7-B26.mtw	AB02-20 LOQ-01	20	1.0	1.0	1.0	100.0	0			
z2262311.chw	ICD7-B26.mtw	AB02-21 LOD-01	21	1.0	1.0	1.0	100.0	0			
z2262337.chw	ICD7-B26.mtw	AB02-22 CCV4	22	1.0	1.0	1.0	100.0	0			
z2270003.chw	ICD7-B26.mtw	AB02-23 CCB4	23	1.0	1.0	1.0	100.0	0			

AS
02/27/15

FINAL el 02/2

8075



ANALYSIS RUN LOG

for
ION CHROMATOGRAPHY

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

AD20-14 CCB142 Cl⁻ = 0.065 ppm
 AD20-44 DISI-PSI DF<10 Bed injection & run

Book #: AD7-020

Instrument No.: D7

Pipette ID's: 039380124

SW3-02-02-02

SW8A-02-13

Analytical Sequence: AD20

Method File: ICD7-B26.mvw

Analytical Batch: ICD026W ICD028W

SOP #	Rev. #
<input checked="" type="checkbox"/> EMAX-300.0	10
<input type="checkbox"/> EMAX-4110B	4
<input checked="" type="checkbox"/> EMAX-9056	7
<input type="checkbox"/> EMAX-	

STANDARDS ID	
ICAL	—
ICV	—
CCV	SI18-30-26-03
LCS	SI18-30-27-01
MS	SOP Refer to LCS Reagent 10

ELECTRONIC DATA ARCHIVAL	
Location	Date
<input type="checkbox"/> IC-METHROHM	
<input type="checkbox"/> External Hard Drive	

Column: Metrosep A Supp 5-150

Flow Rate: 0.70 ml/min

IC Eluent:

^{SW3-02-07-03}
 (350 mM Na₂CO₃ / 100 mM NaHCO₃) 20 ml → 2 L reagent water
^{SW3-02-07-04}
 (100 mM NaHCO₃) 20 ml → 2 L reagent water

IC Regenerant:

^{SW4-02-05-04} (1000 mM H₂SO₄) 100 ml → 1 L reagent water

Reagent Water: ^{RW1-15-001}

Filters: Snap Seal Container:

0.45 µm: 21861623 4 oz: 19414007

0.2 µm: 21864670 1.5 oz: 20814007

Analyzed By: Jc

Date: 4/23/15

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2
z4231040.chw	ICD7-B26.mtw	AD20-01 CCV140	1	1.0	1.0	1.0	100.0	0		
z4231058.chw	ICD7-B26.mtw	AD20-02 CCB140	2	1.0	1.0	1.0	100.0	0		
z4231117.chw	ICD7-B26.mtw	AD20-03 ICD026WB	3	1.0	1.0	1.0	100.0	0		
z4231136.chw	ICD7-B26.mtw	AD20-04 ICD026WL	4	1.0	1.0	1.0	100.0	0		
z4231155.chw	ICD7-B26.mtw	AD20-05 D149-04	5	1.0	1.0	1.0	100.0	0		
z4231214.chw	ICD7-B26.mtw	AD20-06 D149-06	6	1.0	1.0	1.0	100.0	0		
z4231233.chw	ICD7-B26.mtw	AD20-07 D149-07I DF=2	7	1.0	2.0	1.0	100.0	0	YELLOW	
z4231251.chw	ICD7-B26.mtw	AD20-08 D149-07J DF=10	8	1.0	10.0	1.0	100.0	0		
z4231310.chw	ICD7-B26.mtw	AD20-09 D149-10	9	1.0	1.0	1.0	100.0	0		
z4231329.chw	ICD7-B26.mtw	AD20-10 D149-14I DF=4	10	1.0	4.0	1.0	100.0	0		
z4231348.chw	ICD7-B26.mtw	AD20-11 D149-16	11	1.0	1.0	1.0	100.0	0		
z4231406.chw	ICD7-B26.mtw	AD20-12 ICD026WC	12	1.0	1.0	1.0	100.0	0		
z4231425.chw	ICD7-B26.mtw	AD20-13 CCV142	13	1.0	1.0	1.0	100.0	0		
z4231444.chw	ICD7-B26.mtw	AD20-14 CCB142	14	1.0	1.0	1.0	100.0	0	Cl ⁻ = 0.005 ppm	
z4231503.chw	ICD7-B26.mtw	AD20-15 D149-18	15	1.0	1.0	1.0	100.0	0		
z4231521.chw	ICD7-B26.mtw	AD20-16 D149-20	16	1.0	1.0	1.0	100.0	0		
z4231540.chw	ICD7-B26.mtw	AD20-17 D149-21	17	1.0	1.0	1.0	100.0	0		
z4231600.chw	ICD7-B26.mtw	AD20-18 D149-21I DF=3	18	1.0	3.0	1.0	100.0	0		
z4231618.chw	ICD7-B26.mtw	AD20-19 D156-03	19	1.0	1.0	1.0	100.0	0		
z4231637.chw	ICD7-B26.mtw	AD20-20 D156-02	20	1.0	1.0	1.0	100.0	0		
z4231656.chw	ICD7-B26.mtw	AD20-21 D156-01	21	1.0	1.0	1.0	100.0	0		
z4231715.chw	ICD7-B26.mtw	AD20-22 D156-05	22	1.0	1.0	1.0	100.0	0		
z4231753.chw	ICD7-B26.mtw	AD20-23 D156-07	23	1.0	1.0	1.0	100.0	0		
z4231752.chw	ICD7-B26.mtw	AD20-24 ICD026WQ	24	1.0	1.0	1.0	100.0	0		
z4231811.chw	ICD7-B26.mtw	AD20-25 CCV144	25	1.0	1.0	1.0	100.0	0		
z4231829.chw	ICD7-B26.mtw	AD20-26 CCB144	26	1.0	1.0	1.0	100.0	0		
z4231848.chw	ICD7-B26.mtw	AD20-27 D156-06	27	1.0	1.0	1.0	100.0	0		
z4231907.chw	ICD7-B26.mtw	AD20-28 D156-08	28	1.0	1.0	1.0	100.0	0		
z4231926.chw	ICD7-B26.mtw	AD20-29 D156-10	29	1.0	1.0	1.0	100.0	0		
z4231944.chw	ICD7-B26.mtw	AD20-30 D156-11	30	1.0	1.0	1.0	100.0	0		
z4232003.chw	ICD7-B26.mtw	AD20-31 D156-11M	31	1.0	1.0	1.0	100.0	0		
z4232022.chw	ICD7-B26.mtw	AD20-32 D156-11S	32	1.0	1.0	1.0	100.0	0		
z4232041.chw	ICD7-B26.mtw	AD20-33 ICD028WL	33	1.0	1.0	1.0	100.0	0		
z4232059.chw	ICD7-B26.mtw	AD20-34 ICD028WC	34	1.0	1.0	1.0	100.0	0		
z4232118.chw	ICD7-B26.mtw	AD20-35 ICD028WB	35	1.0	1.0	1.0	100.0	0		
z4232137.chw	ICD7-B26.mtw	AD20-36 D161-01I DF=20	36	1.0	20.0	1.0	100.0	0		
z4232156.chw	ICD7-B26.mtw	AD20-37 CCV146	37	1.0	1.0	1.0	100.0	0		
z4232214.chw	ICD7-B26.mtw	AD20-38 CCB146	38	1.0	1.0	1.0	100.0	0		
z4232233.chw	ICD7-B26.mtw	AD20-39 D160-01	39	1.0	1.0	1.0	100.0	0		
z4232252.chw	ICD7-B26.mtw	AD20-40 D160-03	40	1.0	1.0	1.0	100.0	0		
z4232311.chw	ICD7-B26.mtw	AD20-41 D160-04	41	1.0	1.0	1.0	100.0	0		
z4232329.chw	ICD7-B26.mtw	AD20-42 D156-02I DF=10	42	1.0	10.0	1.0	100.0	0		
z4232348.chw	ICD7-B26.mtw	AD20-43 D156-03I DF=10	43	1.0	10.0	1.0	100.0	0		
z4240007.chw	ICD7-B26.mtw	AD20-44 D156-05I DF=10	44	1.0	10.0	1.0	100.0	0	Bad Injection; Re-run	
z4240026.chw	ICD7-B26.mtw	AD20-45 D156-07I DF=10	45	1.0	10.0	1.0	100.0	0		
z4240044.chw	ICD7-B26.mtw	AD20-46 D156-08I DF=10	46	1.0	10.0	1.0	100.0	0		
z4240103.chw	ICD7-B26.mtw	AD20-47 D156-10I DF=10	47	1.0	10.0	1.0	100.0	0		
z4240122.chw	ICD7-B26.mtw	AD20-48 CCV148	48	1.0	1.0	1.0	100.0	0		
z4240141.chw	ICD7-B26.mtw	AD20-49 CCB148	49	1.0	1.0	1.0	100.0	0		
z4240159.chw	ICD7-B26.mtw	AD20-50 D156-11I DF=40	50	1.0	40.0	1.0	100.0	0		
z4240218.chw	ICD7-B26.mtw	AD20-51 D156-11M DF=40	51	1.0	40.0	1.0	100.0	0		
z4240237.chw	ICD7-B26.mtw	AD20-52 D156-11S DF=40	52	1.0	40.0	1.0	100.0	0		
z4240256.chw	ICD7-B26.mtw	AD20-53 D156-01I DF=10	53	1.0	10.0	1.0	100.0	0		
z4240314.chw	ICD7-B26.mtw	AD20-54 CCV150	54	1.0	1.0	1.0	100.0	0		
z4240333.chw	ICD7-B26.mtw	AD20-55 CCB150	55	1.0	1.0	1.0	100.0	0		

3. 4/24/15

FINAL

8077



ANALYSIS RUN LOG

for
ION CHROMATOGRAPHY

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

AD22-26 CCB 156 Cl⁻ = 0.060 ppm
 AD22-45 CCB 160 Cl⁻ = 0.102 ppm, SO₄²⁻ = 0.318 ppm

Book #: AD7-020

Instrument No.: D7

Pipette ID's: 039380124

SW3-02-02-02

SW8A-02-13

Analytical Sequence: AD22

Method File: IC07-B26.mtw

Analytical Batch: IC0030W, IC0032W

SOP #	Rev. #
<input type="checkbox"/> EMAX-300.0	10
<input type="checkbox"/> EMAX-4110B	4
<input checked="" type="checkbox"/> EMAX-9056	7
<input type="checkbox"/> EMAX-	

STANDARDS ID	
ICAL	---
ICV	---
CCV	SI18-30-27-02
LCS	SI18-30-27-03
MS	⁵⁶⁰ Refer to LCS Parent ID

ELECTRONIC DATA ARCHIVAL	
Location	Date
<input type="checkbox"/> IC-METHROHM	
<input type="checkbox"/> External Hard Drive	

Column: Metrosep A Supp 5-150

Flow Rate: 0.70 ml/min

IC Eluent:

^{SW4-02-47-03}
 (350 mM Na₂CO₃ / 100 mM NaHCO₃) 20 ml → 2 L reagent water
^{SW4-02-47-04}
 (100 mM NaHCO₃) 20 ml → 2 L reagent water

IC Regenerant:

^{SW4-02-50-04} (1000 mM H₂SO₄) 100 ml → 1 L reagent water

Reagent Water:

^{RW1-15-101}

Filters: Snap Seal Container:

0.45 µm: 21864623 4 oz: 19M4007

0.2 µm: 21864678 1.5 oz: 20814007

Analyzed By: JC

Date: 4/24/15

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2	...
z4240934.chw	ICD7-B26.mtw	AD22-01 CCV152	1	1.0	1.0	1.0	100.0	0			
z4240952.chw	ICD7-B26.mtw	AD22-02 CCB152	2	1.0	1.0	1.0	100.0	0			
z4241011.chw	ICD7-B26.mtw	AD22-03 ICD030WB	3	1.0	1.0	1.0	100.0	0			
z4241030.chw	ICD7-B26.mtw	AD22-04 ICD030WL	4	1.0	1.0	1.0	100.0	0			
z4241049.chw	ICD7-B26.mtw	AD22-05 ICD030WC	5	1.0	1.0	1.0	100.0	0			
z4241107.chw	ICD7-B26.mtw	AD22-06 D156-05I DF=10	6	1.0	10.0	1.0	100.0	0			
z4241127.chw	ICD7-B26.mtw	AD22-07 D167-02	7	1.0	1.0	1.0	100.0	0			
z4241145.chw	ICD7-B26.mtw	AD22-08 D167-03	8	1.0	1.0	1.0	100.0	0			
z4241204.chw	ICD7-B26.mtw	AD22-09 D167-04	9	1.0	1.0	1.0	100.0	0			
z4241223.chw	ICD7-B26.mtw	AD22-10 D167-06	10	1.0	1.0	1.0	100.0	0			
z4241242.chw	ICD7-B26.mtw	AD22-11 D167-08	11	1.0	1.0	1.0	100.0	0			
z4241300.chw	ICD7-B26.mtw	AD22-12 D167-05	12	1.0	1.0	1.0	100.0	0			
z4241319.chw	ICD7-B26.mtw	AD22-13 CCV154	13	1.0	1.0	1.0	100.0	0			
z4241338.chw	ICD7-B26.mtw	AD22-14 CCB154	14	1.0	1.0	1.0	100.0	0			
z4241413.chw	ICD7-B26.mtw	AD22-15 D167-09	15	1.0	1.0	1.0	100.0	0			
z4241432.chw	ICD7-B26.mtw	AD22-16 D167-10	16	1.0	1.0	1.0	100.0	0			
z4241451.chw	ICD7-B26.mtw	AD22-17 D167-07	17	1.0	1.0	1.0	100.0	0			
z4241509.chw	ICD7-B26.mtw	AD22-18 D167-07D	18	1.0	1.0	1.0	100.0	0			
z4241528.chw	ICD7-B26.mtw	AD22-19 D167-07M	19	1.0	1.0	1.0	100.0	0			
z4241547.chw	ICD7-B26.mtw	AD22-20 D169-01	20	1.0	1.0	1.0	100.0	0			
z4241606.chw	ICD7-B26.mtw	AD22-21 D169-02	21	1.0	1.0	1.0	100.0	0			
z4241624.chw	ICD7-B26.mtw	AD22-22 D169-04I DF=2	22	1.0	2.0	1.0	100.0	0			
z4241643.chw	ICD7-B26.mtw	AD22-23 D169-05	23	1.0	1.0	1.0	100.0	0			
z4241702.chw	ICD7-B26.mtw	AD22-24 D167-04I DF=3	24	1.0	3.0	1.0	100.0	0			
z4241721.chw	ICD7-B26.mtw	AD22-25 CCV156	25	1.0	1.0	1.0	100.0	0			
z4241739.chw	ICD7-B26.mtw	AD22-26 CCB156	26	1.0	1.0	1.0	100.0	0			
z4241758.chw	ICD7-B26.mtw	AD22-27 D167-06I DF=3	27	1.0	3.0	1.0	100.0	0		Cl ⁻ 0.060 ppm	
z4241817.chw	ICD7-B26.mtw	AD22-28 D169-04I DF=4	28	1.0	4.0	1.0	100.0	0			
z4241836.chw	ICD7-B26.mtw	AD22-29 D169-01I DF=10	29	1.0	10.0	1.0	100.0	0			
z4241855.chw	ICD7-B26.mtw	AD22-30 D169-02I DF=10	30	1.0	10.0	1.0	100.0	0			
z4241914.chw	ICD7-B26.mtw	AD22-31 D169-04K DF=40	31	1.0	40.0	1.0	100.0	0			
z4241932.chw	ICD7-B26.mtw	AD22-32 ICD032WL	32	1.0	1.0	1.0	100.0	0			
z4241951.chw	ICD7-B26.mtw	AD22-33 ICD032WC	33	1.0	1.0	1.0	100.0	0			
z4242010.chw	ICD7-B26.mtw	AD22-34 ICD032WB	34	1.0	1.0	1.0	100.0	0			
z4242029.chw	ICD7-B26.mtw	AD22-35 CCV158	35	1.0	1.0	1.0	100.0	0			
z4242047.chw	ICD7-B26.mtw	AD22-36 CCB158	36	1.0	1.0	1.0	100.0	0			
z4242106.chw	ICD7-B26.mtw	AD22-37 D160-01I DF=50	37	1.0	50.0	1.0	100.0	0			
z4242125.chw	ICD7-B26.mtw	AD22-38 D160-03I DF=20	38	1.0	20.0	1.0	100.0	0			
z4242144.chw	ICD7-B26.mtw	AD22-39 D160-04I DF=50	39	1.0	50.0	1.0	100.0	0			
z4242202.chw	ICD7-B26.mtw	AD22-40 D169-01J DF=80	40	1.0	80.0	1.0	100.0	0			
z4242221.chw	ICD7-B26.mtw	AD22-41 D169-02J DF=80	41	1.0	80.0	1.0	100.0	0			
z4242240.chw	ICD7-B26.mtw	AD22-42 D169-04T DF=200	42	1.0	200.0	1.0	100.0	0			
z4242259.chw	ICD7-B26.mtw	AD22-43 D169-05I DF=50	43	1.0	50.0	1.0	100.0	0			
z4242317.chw	ICD7-B26.mtw	AD22-44 CCV160	44	1.0	1.0	1.0	100.0	0			
z4242336.chw	ICD7-B26.mtw	AD22-45 CCB160	45	1.0	1.0	1.0	100.0	0			
z4242355.chw	ICD7-B26.mtw	AD22-46 D167-02I DF=20	46	1.0	20.0	1.0	100.0	0			
z4250014.chw	ICD7-B26.mtw	AD22-47 D167-03I DF=125	47	1.0	125.0	1.0	100.0	0			
z4250032.chw	ICD7-B26.mtw	AD22-48 D167-04J DF=80	48	1.0	80.0	1.0	100.0	0			
z4250051.chw	ICD7-B26.mtw	AD22-49 D167-06J DF=80	49	1.0	80.0	1.0	100.0	0			
z4250110.chw	ICD7-B26.mtw	AD22-50 D167-07I DF=200	50	1.0	200.0	1.0	100.0	0			
z4250129.chw	ICD7-B26.mtw	AD22-51 D167-07ID DF=200	51	1.0	200.0	1.0	100.0	0			
z4250147.chw	ICD7-B26.mtw	AD22-52 D167-07IM DF=200	52	1.0	200.0	1.0	100.0	0			
z4250206.chw	ICD7-B26.mtw	AD22-53 D167-08I DF=100	53	1.0	100.0	1.0	100.0	0			
z4250225.chw	ICD7-B26.mtw	AD22-54 D167-09I DF=100	54	1.0	100.0	1.0	100.0	0			
z4250243.chw	ICD7-B26.mtw	AD22-55 ICD032WQ	55	1.0	1.0	1.0	100.0	0			
z4250302.chw	ICD7-B26.mtw	AD22-56 CCV162	56	1.0	1.0	1.0	100.0	0			
z4250321.chw	ICD7-B26.mtw	AD22-57 CCB162	57	1.0	1.0	1.0	100.0	0			

304122115

Cl⁻ 0.102 ppm, SO₄²⁻ 0.318 ppm

8079

RETENTION TIME WINDOW

RETENTION TIME WINDOW
METHOD 300.0

Lab name: EMAX Method: EMAX-300.0
Instrument ID: D7 (800IC) IC column: METROSEP A SUPP 5
Column size: 150X4.0mm

Compound Retention time Window

FLUORIDE	(+/-)	0.151
CHLORIDE	(+/-)	0.195
NITRITE	(+/-)	0.242
BROMIDE	(+/-)	0.345
NITRATE	(+/-)	0.420
PHOSPHATE	(+/-)	0.601
SULFATE	(+/-)	0.840
IODIDE	(+/-)	0.920

AS
06/13/14

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D156

METHOD 415.1
TOC

A total of nine (9) water samples were received on 04/23/15 to be analyzed for TOC in accordance with Method 415.1 and project specific requirements.

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.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. TOC was not detected in TCD008WB. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. TOC was within LCS QC limits in TCD008WL/TCD008WC. Refer to LCS summary form for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

METHOD 415.1
TOC

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D156

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	TCDO08WB	ND	1	NA	1.00	0.500	04/25/1503:56	NA	TCDO07-39	TCDO07-37	TCDO08W	NA	NA
LCS1W	TCDO08WL	25.2	1	NA	1.00	0.500	04/25/1504:09	NA	TCDO07-40	TCDO07-37	TCDO08W	NA	NA
LCD1W	TCDO08WC	25.1	1	NA	1.00	0.500	04/25/1504:22	NA	TCDO07-41	TCDO07-37	TCDO08W	NA	NA
04-22-15-WB2-3	D156-01	1.06	1	NA	1.00	0.500	04/25/1506:32	NA	TCDO07-52	TCDO07-49	TCDO08W	04/22/1515:20	04/23/15
04-22-15-PWB-2	D156-02	0.781J	1	NA	1.00	0.500	04/25/1506:43	NA	TCDO07-53	TCDO07-49	TCDO08W	04/22/1514:35	04/23/15
04-22-15-PWB-6	D156-03	2.28	1	NA	1.00	0.500	04/25/1506:53	NA	TCDO07-54	TCDO07-49	TCDO08W	04/22/1513:45	04/23/15
04-23-15-PWB-8	D156-05	0.880J	1	NA	1.00	0.500	04/25/1507:04	NA	TCDO07-55	TCDO07-49	TCDO08W	04/23/1508:00	04/23/15
04-23-15-EB-2	D156-06	ND	1	NA	1.00	0.500	04/25/1507:14	NA	TCDO07-56	TCDO07-49	TCDO08W	04/23/1509:05	04/23/15
04-23-15-PWB-3	D156-07	0.845J	1	NA	1.00	0.500	04/25/1507:25	NA	TCDO07-57	TCDO07-49	TCDO08W	04/23/1508:10	04/23/15
04-23-15-PWB-11	D156-08	0.784J	1	NA	1.00	0.500	04/25/1507:36	NA	TCDO07-58	TCDO07-49	TCDO08W	04/23/1508:55	04/23/15
04-23-15-BBW-1	D156-10	0.968J	1	NA	1.00	0.500	04/25/1507:46	NA	TCDO07-59	TCDO07-49	TCDO08W	04/23/1509:20	04/23/15
04-23-15-BBW-2	D156-11	1.13	1	NA	1.00	0.500	04/25/1507:57	NA	TCDO07-60	TCDO07-49	TCDO08W	04/23/1508:40	04/23/15

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D156
METHOD: METHOD 415.1

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: TCD008WB TCD008WL TCD008WC
LAB FILE ID: TCD007-39 TCD007-40 TCD007-41
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 04/25/1503:56 04/25/1504:09 04/25/1504:22 DATE RECEIVED: NA
PREP. BATCH: TCD008W TCD008W TCD008W
CALIB. REF: TCD007-37 TCD007-37 TCD007-37

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	25.2	101	25	25.1	100	0	80-120	20



ANALYSIS RUN LOG

for
TOC

	Date	Time
Start	4/24/15	19:35
End	4/25/15	13:17

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Sample was filtered. Filter ID:

Comments:

TC0007W L D571
D133
D157
TC0008W D142
D156
D144
D583
TC0009W D160
D169
D584

D583-01 ⇒ Turbid, strong color ⇒ 20x
D584-01 ⇒ Turbid ⇒ 5x

Reagent Water ID #: RW1-15-001
pH Strips Lot #: H270245
2 M HCl SW4-02-49-01

Book #: A62-029
Instrument No.: 62
Pipette ID: 39380025
SW3-01-33
S11A-01-4

Analytical Sequence: TC0007
Method File: TC0007
Analytical Batch: TC0007W, TC0008W, TC0009W

SOP #	Rev. #
<input checked="" type="checkbox"/> EMAX-415.1	4
<input checked="" type="checkbox"/> EMAX-5310B	3
<input checked="" type="checkbox"/> EMAX-9060	3
<input type="checkbox"/> EMAX-	

STANDARDS ID	CONC. (mg/L)
S0 RW1-15-001	0
S1 SW10B-06-64-05	1
S2	5
S3	10
S4	40
S5	80
S6	-
ICV/LCS SW10B-06-64-06	25
CCV SW10B-06-64-07	25

ELECTRONIC DATA ARCHIVAL	
Location	Date
<input type="checkbox"/> TOC	
<input type="checkbox"/>	

Analyzed By: EUL
Date: 4/2

	Type	Analysis	Sample Na	Sample ID	ObjectID	Origin	Diluti	Result	Comment
68	Unknown	NPOC	D583-01	TCD007-68	0A-123456	C:\Program	20.0	NPOC:360.3 mg/L	PH<2; DF=20
69	Unknown	NPOC	TCD009WL	TCD007-69	0A-123456	C:\Program	1.00	NPOC:25.43 mg/L	
70	Unknown	NPOC	TCD009WC	TCD007-70	0A-123456	C:\Program	1.00	NPOC:25.30 mg/L	
71	Unknown	NPOC	TCD009WB	TCD007-71	0A-123456	C:\Program	1.00	NPOC:0.04007 mg/L	
72	Control	NPOC	CCV6	TCD007-72	0A-123456	C:\Program	1.00	NPOC:25.22 mg/L	
73	Unknown	NPOC	CCB6	TCD007-73	0A-123456	C:\Program	1.00	NPOC:0.3420 mg/L	
74	Unknown	NPOC	D160-01	TCD007-74	0A-123456	C:\Program	1.00	NPOC:3.695 mg/L	PH<2
75	Unknown	NPOC	D160-03	TCD007-75	0A-123456	C:\Program	1.00	NPOC:2.970 mg/L	PH<2
76	Unknown	NPOC	D160-04	TCD007-76	0A-123456	C:\Program	1.00	NPOC:4.159 mg/L	PH<2
77	Unknown	NPOC	D160-04D	TCD007-77	0A-123456	C:\Program	1.00	NPOC:4.048 mg/L	PH<2
78	Unknown	NPOC	D160-04M	TCD007-78	0A-123456	C:\Program	1.00	NPOC:29.06 mg/L	PH<2
79	Unknown	NPOC	D169-01	TCD007-79	0A-123456	C:\Program	1.00	NPOC:13.57 mg/L	PH<2
80	Unknown	NPOC	D169-02	TCD007-80	0A-123456	C:\Program	1.00	NPOC:13.68 mg/L	PH<2
81	Unknown	NPOC	D169-04	TCD007-81	0A-123456	C:\Program	1.00	NPOC:9.378 mg/L	PH<2
82	Unknown	NPOC	D169-05	TCD007-82	0A-123456	C:\Program	1.00	NPOC:3.819 mg/L	PH<2
83	Unknown	NPOC	D584-01I	TCD007-83	0A-123456	C:\Program	5.00	NPOC:37.02 mg/L	PH<2; DF=5
84	Control	NPOC	CCV7	TCD007-84	0A-123456	C:\Program	1.00	NPOC:25.26 mg/L	
85	Unknown	NPOC	CCB7	TCD007-85	0A-123456	C:\Program	1.00	NPOC:0.2665 mg/L	FINAL

km 417/15

Instr. Information

System toc
 Detector Combustion
 Catalyst Regular Sensitivity
 Cell Length long

Cal. Curve

Sample Name: ICAL
 Sample ID: TCD007-01
 Cal. Curve: TCD007.2015_04_24_19_28_16.cal

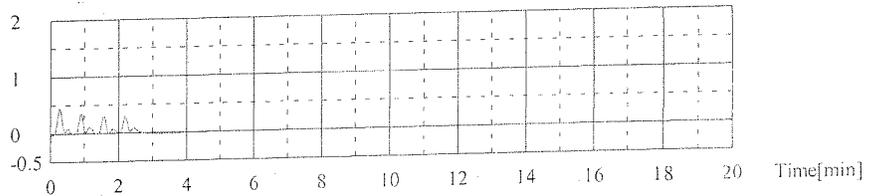
Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.4775	50uL	1	*****		04/24/15 07:35:31 PM
2	0.3938	50uL	1	*****		04/24/15 07:36:23 PM
3	0.2484	50uL	1	*****		04/24/15 07:37:13 PM
4	0.000	50uL	1	*****		04/24/15 07:39:19 PM

Acid Add. 2.500%
 Sp. Time 90.00sec
 Mean Area 0.2799

Signal[mV] 2

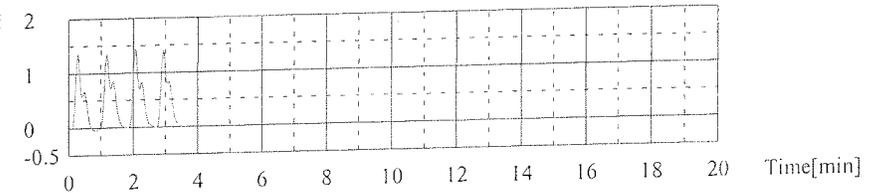


Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	2.201	50uL	1	*****		04/24/15 07:46:42 PM
2	2.424	50uL	1	*****		04/24/15 07:47:47 PM
3	2.393	50uL	1	*****		04/24/15 07:48:51 PM
4	2.336	50uL	1	*****		04/24/15 07:49:55 PM

Acid Add. 2.500%
 Sp. Time 90.00sec
 Mean Area 2.339

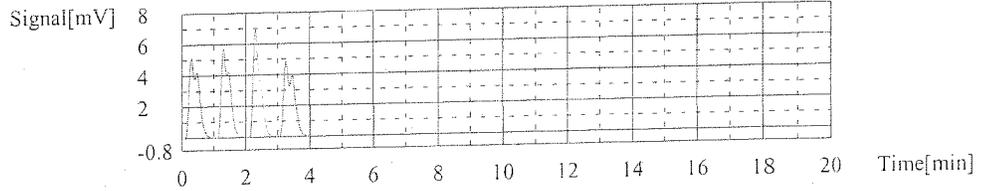
Signal[mV] 2



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	10.64	50uL	1	*****		04/24/15 07:57:25 PM
2	10.63	50uL	1	*****		04/24/15 07:58:37 PM
3	10.81	50uL	1	*****		04/24/15 07:59:46 PM
4	10.68	50uL	1	*****		04/24/15 08:01:01 PM

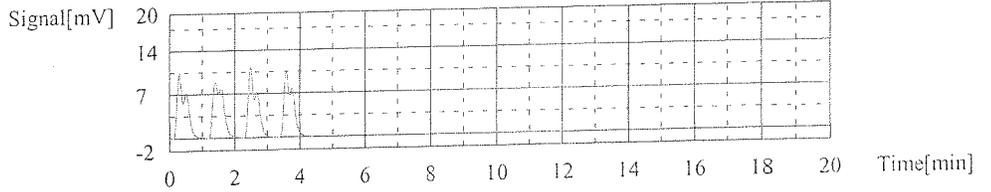
Acid Add. 2.500%
 Sp. Time 90.00sec
 Mean Area 10.69



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	20.25	50uL	1	*****		04/24/15 08:08:38 PM
2	20.26	50uL	1	*****		04/24/15 08:09:56 PM
3	20.78	50uL	1	*****		04/24/15 08:11:13 PM
4	20.41	50uL	1	*****		04/24/15 08:12:30 PM

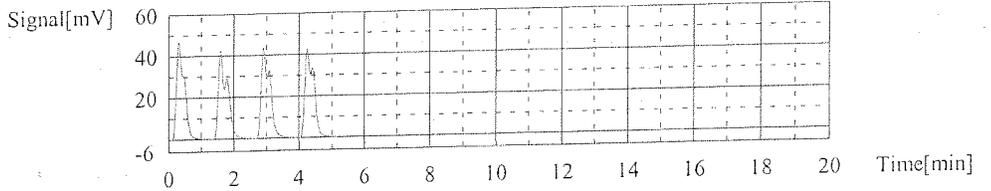
Acid Add. 2.500%
 Sp. Time 90.00sec
 Mean Area 20.43



Conc: 40.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	80.23	50uL	1	*****		04/24/15 08:20:21 PM
2	81.60	50uL	1	*****		04/24/15 08:21:52 PM
3	82.18	50uL	1	*****		04/24/15 08:23:24 PM
4	80.45	50uL	1	*****		04/24/15 08:24:49 PM

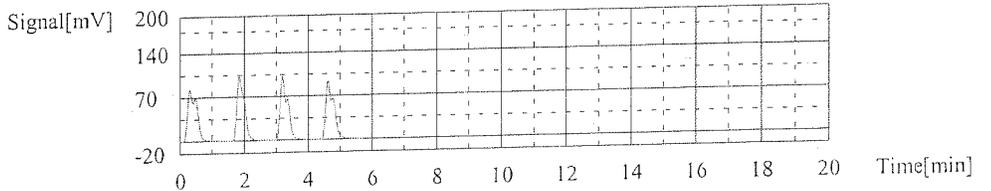
Acid Add. 2.500%
 Sp. Time 90.00sec
 Mean Area 81.12



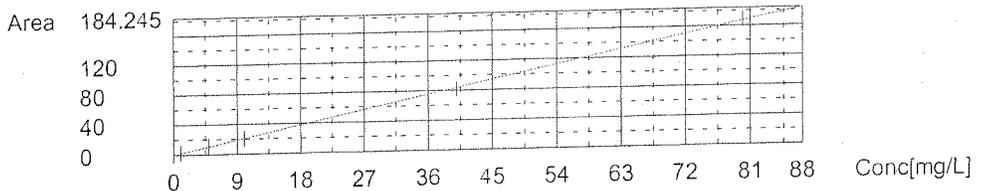
Conc: 80.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	166.2	50uL	1	*****		04/24/15 08:32:55 PM
2	169.3	50uL	1	*****		04/24/15 08:34:28 PM
3	170.7	50uL	1	*****		04/24/15 08:36:05 PM
4	167.6	50uL	1	*****		04/24/15 08:37:43 PM

Acid Add. 2.500%
 Sp. Time 90.00sec
 Mean Area 168.5



Slope: 2.094
 Intercept 0.000
 r^2 0.999641



Control Sample

Sample Name: ICV
 Sample ID: TCD007-02
 Method: Tcd007.tpl
 Chk. Result: Control value: 24.61 / Control exceeds range!

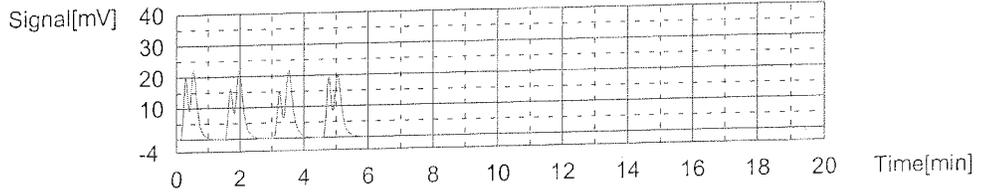
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:24.61 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.13	24.42mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:45:48 PM
2	51.64	24.66mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:47:31 PM
3	51.74	24.71mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:49:15 PM
4	51.57	24.63mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:50:58 PM

Mean Area 51.52
 Mean Conc. 24.61mg/L



Sample

Sample Name: ICB
 Sample ID: TCD007-03
 Origin: TCD007.cal
 Chk. Result:

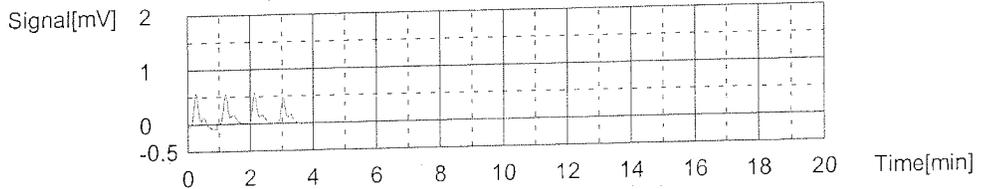
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3522 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7984	0.3813mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:56:19 PM
2	0.7375	0.3522mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:57:27 PM
3	0.7759	0.3706mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:58:33 PM
4	0.6374	0.3044mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:59:40 PM

Mean Area 0.7373
 Mean Conc. 0.3522mg/L



Sample

Sample Name: HC03/CO3
 Sample ID: TCD007-04
 Origin: TCD007.cal
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1948 mg/L

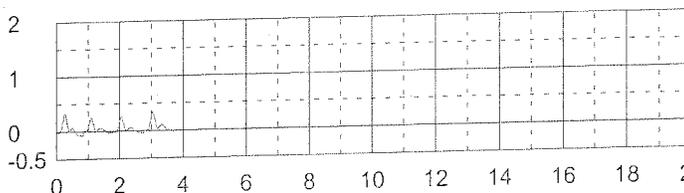
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4390	0.2097mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:07:02 PM
2	0.3306	0.1579mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:08:11 PM
3	0.3917	0.1871mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:09:22 PM
4	0.4703	0.2246mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:10:32 PM

Mean Area 0.4079
 Mean Conc. 0.1948mg/L

Signal[mV] 2



Sample

Sample Name: TCD007WB
 Sample ID: TCD007-05
 Origin: TCD007.cal
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3386 mg/L

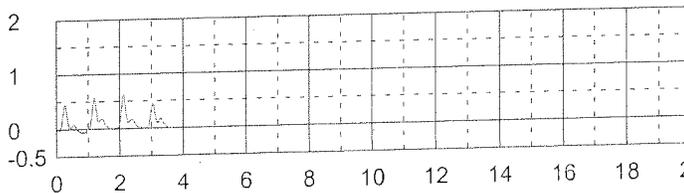
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6043	0.2886mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:15:53 PM
2	0.7823	0.3736mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:17:00 PM
3	0.8211	0.3922mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:18:08 PM
4	0.6284	0.3001mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:19:15 PM

Mean Area 0.7090
 Mean Conc. 0.3386mg/L

Signal[mV] 2



Sample

Sample Name: TCD007WL
 Sample ID: TCD007-06
 Origin: TCD007.cal
 Chk. Result

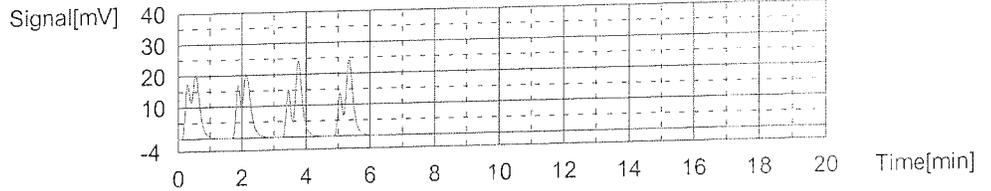
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:24.94 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.95	24.81mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:27:19 PM
2	52.32	24.99mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:29:05 PM
3	52.58	25.11mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:30:54 PM
4	52.05	24.86mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:32:36 PM

Mean Area 52.23
 Mean Conc. 24.94mg/L



Sample

Sample Name: TCD007WC
 Sample ID: TCD007-07
 Origin: TCD007.cal
 Chk. Result

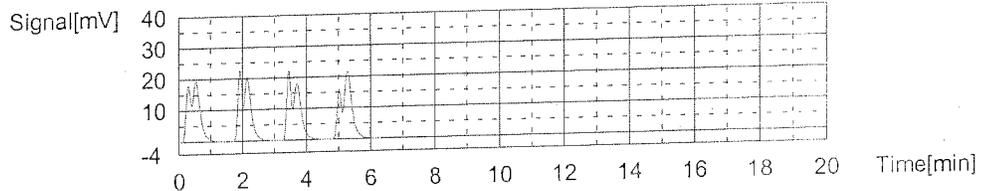
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:24.84 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	50.78	24.25mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:40:42 PM
2	52.46	25.06mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:42:26 PM
3	52.74	25.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:44:12 PM
4	52.09	24.88mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:45:59 PM

Mean Area 52.02
 Mean Conc. 24.84mg/L



Sample

Sample Name: D571-01
 Sample ID: TCD007-08
 Origin: TCD007.cal
 Chk. Result

KLinn

04/27/15 11:29:35 AM

TCD007.132

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.513 mg/L

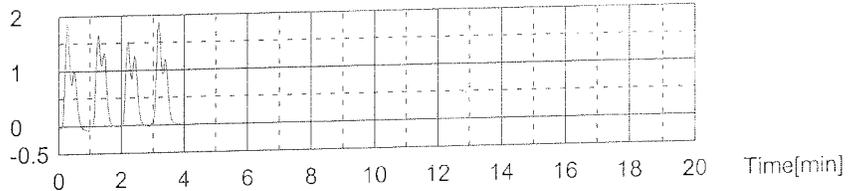
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.143	1.501mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:53:27 PM
2	3.153	1.506mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:54:36 PM
3	3.097	1.479mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:55:46 PM
4	3.282	1.568mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:56:56 PM

Mean Area 3.169
Mean Conc. 1.513mg/L

Signal[mV] 2



Sample

Sample Name: D571-02
Sample ID: TCD007-09
Origin: TCD007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.314 mg/L

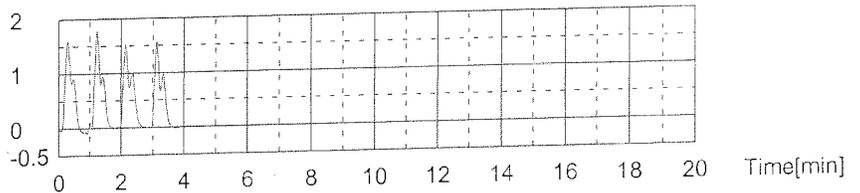
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.769	1.323mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:04:22 PM
2	2.768	1.322mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:05:29 PM
3	2.781	1.328mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:06:40 PM
4	2.687	1.283mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:07:51 PM

Mean Area 2.751
Mean Conc. 1.314mg/L

Signal[mV] 2



Sample

Sample Name: D571-03
Sample ID: TCD007-10
Origin: TCD007.cal
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.560 mg/L

KLinn

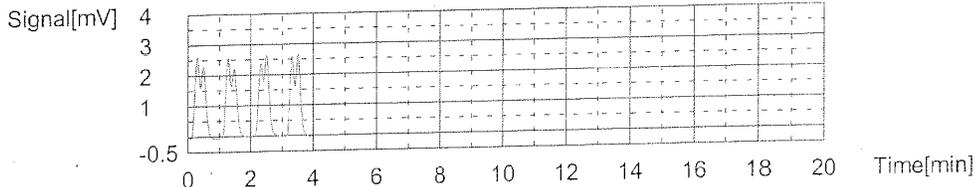
04/27/15 11:29:35 AM

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.367	2.563mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:15:19 PM
2	5.386	2.572mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:16:34 PM
3	5.329	2.545mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:17:46 PM
4	5.356	2.558mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:18:57 PM

Mean Area 5.360
Mean Conc. 2.560mg/L



Sample

Sample Name: D571-03D
Sample ID: TCD007-11
Origin: TCD007.cal
Chk. Result

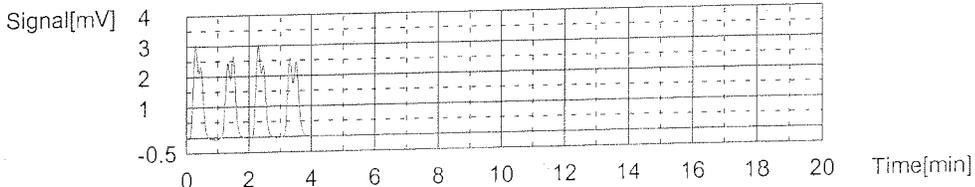
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.625 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.539	2.646mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:26:27 PM
2	5.409	2.583mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:27:38 PM
3	5.534	2.643mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:28:51 PM
4	5.499	2.626mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:30:02 PM

Mean Area 5.495
Mean Conc. 2.625mg/L



Sample

Sample Name: D571-03M
Sample ID: TCD007-12
Origin: TCD007.cal
Chk. Result

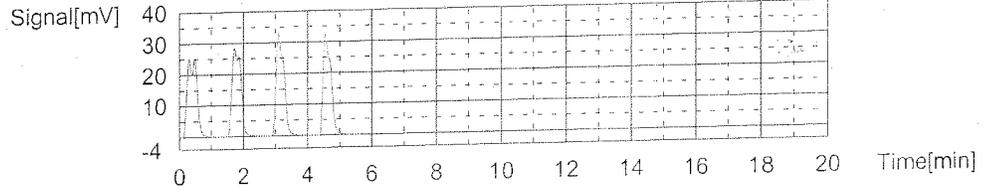
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:26.63 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	55.10	26.32mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:37:55 PM
2	55.57	26.54mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:39:30 PM
3	56.13	26.81mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:41:10 PM
4	56.23	26.86mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:42:45 PM

Mean Area 55.76
 Mean Conc. 26.63mg/L



Sample

Sample Name: D133-01
 Sample ID: TCD007-13
 Origin: TCD007.cal
 Chk. Result

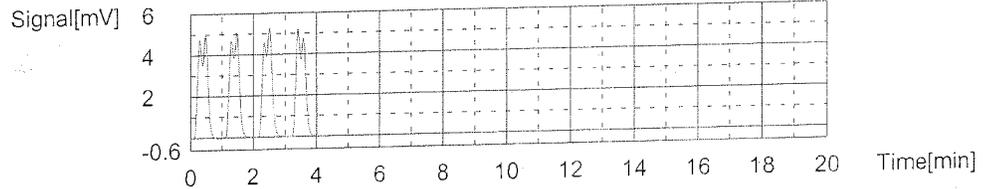
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.851 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.19	4.867mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:50:14 PM
2	10.09	4.819mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:51:29 PM
3	10.12	4.834mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:52:45 PM
4	10.23	4.886mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:54:01 PM

Mean Area 10.16
 Mean Conc. 4.851mg/L



Control Sample

Sample Name: CCV1
 Sample ID: TCD007-14
 Method: Tcd007.tpl
 Chk. Result: Control value: 24.92 / Control exceeds range!

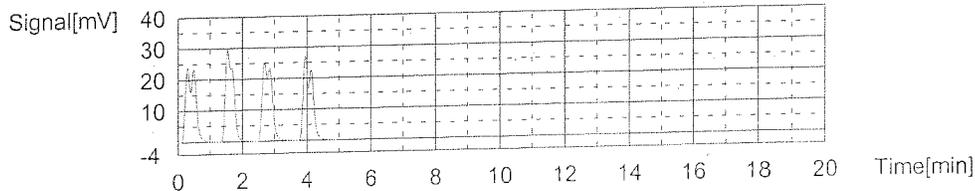
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:24.92 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.42	24.56mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:01:44 PM
2	52.38	25.02mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:03:05 PM
3	52.91	25.27mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:04:33 PM
4	51.98	24.83mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:06:02 PM

Mean Area 52.17
 Mean Conc. 24.92mg/L



Sample

Sample Name: CCB1
 Sample ID: TCD007-15
 Origin: TCD007.cal
 Chk. Result

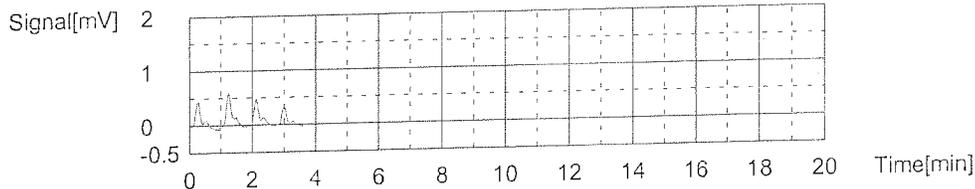
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2970 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6377	0.3046mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:20:05 PM
2	0.7823	0.3736mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:21:10 PM
3	0.6482	0.3096mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:22:15 PM
4	0.4194	0.2003mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:23:18 PM

Mean Area 0.6219
 Mean Conc. 0.2970mg/L



Sample

Sample Name: D133-03
 Sample ID: TCD007-16
 Origin: TCD007.cal
 Chk. Result

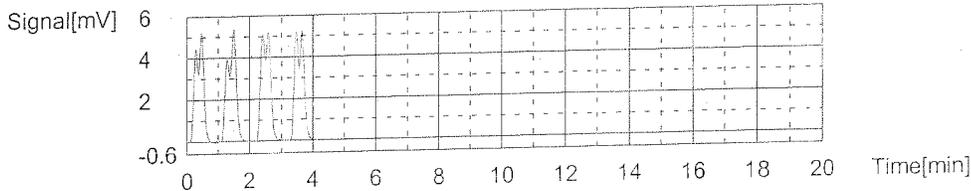
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.959 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.850	4.705mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:30:48 PM
2	10.45	4.991mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:32:07 PM
3	10.63	5.077mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:33:23 PM
4	10.60	5.063mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:34:35 PM

Mean Area 10.38
 Mean Conc. 4.959mg/L



Sample

Sample Name: D133-04
 Sample ID: TCD007-17
 Origin: TCD007.cal
 Chk. Result

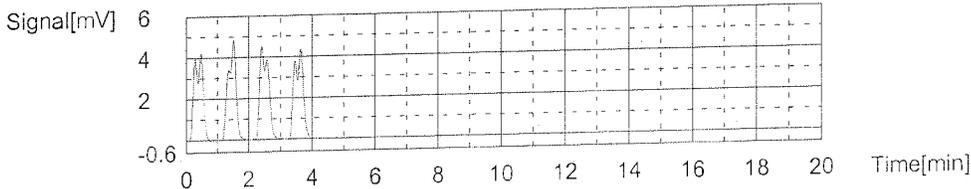
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.102 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.674	4.143mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:42:07 PM
2	8.573	4.095mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:43:23 PM
3	8.508	4.064mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:44:38 PM
4	8.597	4.106mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:45:51 PM

Mean Area 8.588
 Mean Conc. 4.102mg/L



Sample

Sample Name: D157-01
 Sample ID: TCD007-18
 Origin: TCD007.cal
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9586 mg/L

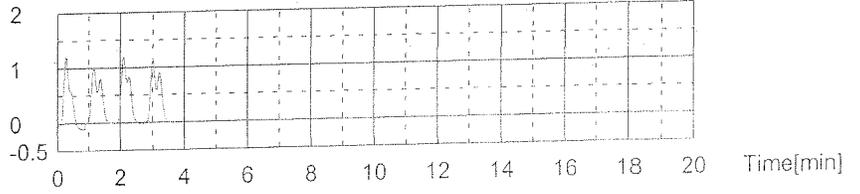
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.866	0.8912mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:53:13 PM
2	1.917	0.9156mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:54:21 PM
3	2.120	1.013mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:55:28 PM
4	2.125	1.015mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:56:35 PM

Mean Area 2.007
 Mean Conc. 0.9586mg/L

Signal[mV] 2



Sample

Sample Name: D157-02
 Sample ID: TCD007-19
 Origin: TCD007.cal
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7809 mg/L

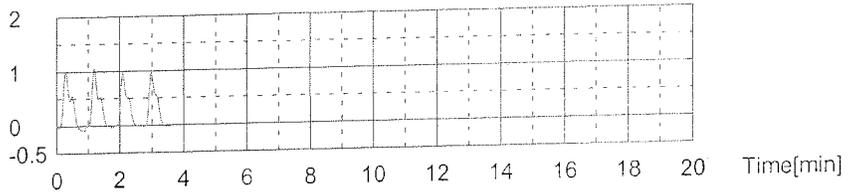
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.813	0.8659mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:04:00 AM
2	1.660	0.7929mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:05:06 AM
3	1.498	0.7155mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:06:11 AM
4	1.569	0.7494mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:07:15 AM

Mean Area 1.635
 Mean Conc. 0.7809mg/L

Signal[mV] 2



Sample

Sample Name: D157-04
 Sample ID: TCD007-20
 Origin: TCD007.cal
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8044 mg/L

1. Det

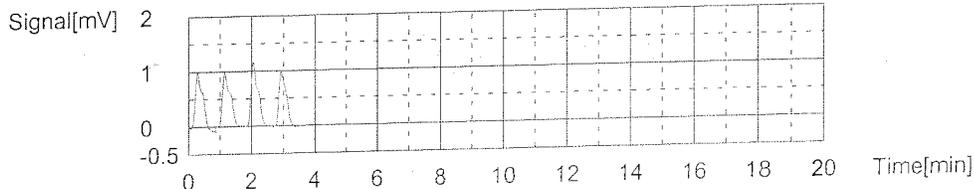
Anal.: NPOC

KLinn

04/27/15 11:29:35 AM

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.658	0.7919mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:14:36 AM
2	1.709	0.8163mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:15:42 AM
3	1.788	0.8540mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:16:47 AM
4	1.582	0.7556mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:17:49 AM

Mean Area 1.684
 Mean Conc. 0.8044mg/L



Sample

Sample Name: D157-05
 Sample ID: TCD007-21
 Origin: TCD007.cal
 Chk. Result

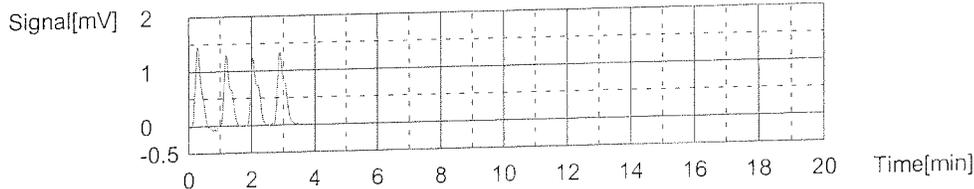
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9579 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.077	0.9920mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:25:14 AM
2	1.937	0.9252mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:26:17 AM
3	1.958	0.9352mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:27:20 AM
4	2.050	0.9791mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:28:24 AM

Mean Area 2.006
 Mean Conc. 0.9579mg/L



Sample

Sample Name: D157-07
 Sample ID: TCD007-22
 Origin: TCD007.cal
 Chk. Result

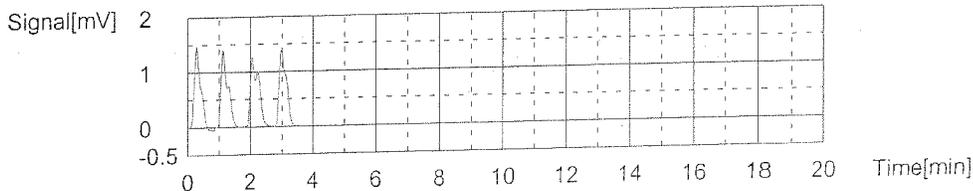
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.076 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.109	1.007mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:35:45 AM
2	2.189	1.046mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:36:53 AM
3	2.418	1.155mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:38:00 AM
4	2.294	1.096mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:39:03 AM

Mean Area 2.252
 Mean Conc. 1.076mg/L



Sample

Sample Name: D157-08
 Sample ID: TCD007-23
 Origin: TCD007.cal
 Chk. Result

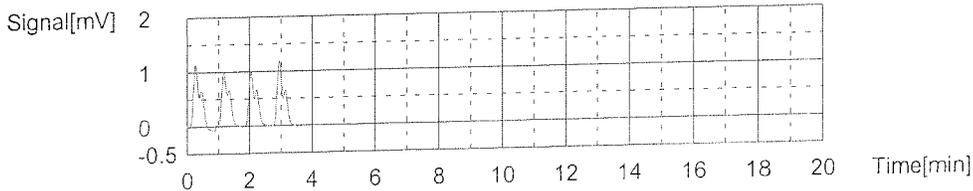
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8437 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.892	0.9037mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:46:27 AM
2	1.639	0.7828mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:47:31 AM
3	1.690	0.8072mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:48:37 AM
4	1.845	0.8812mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:49:44 AM

Mean Area 1.767
 Mean Conc. 0.8437mg/L



Sample

Sample Name: D157-09
 Sample ID: TCD007-24
 Origin: TCD007.cal
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9429 mg/L

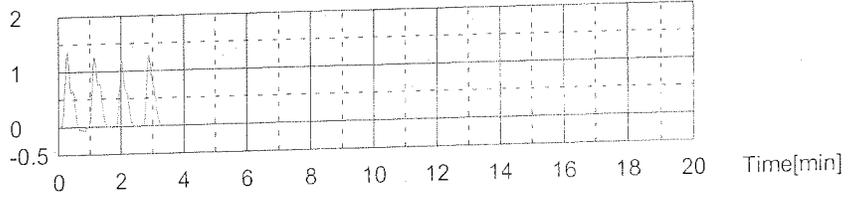
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.071	0.9892mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:57:06 AM
2	2.087	0.9968mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:58:10 AM
3	1.832	0.8750mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:59:14 AM
4	1.907	0.9108mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:00:15 AM

Mean Area 1.974
 Mean Conc. 0.9429mg/L

Signal[mV] 2



Sample

Sample Name: D157-11
 Sample ID: TCD007-25
 Origin: TCD007.cal
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8477 mg/L

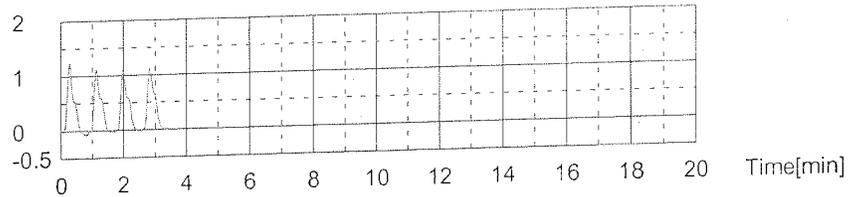
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.769	0.8449mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:07:36 AM
2	1.753	0.8373mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:08:39 AM
3	1.806	0.8626mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:09:42 AM
4	1.771	0.8459mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:10:45 AM

Mean Area 1.775
 Mean Conc. 0.8477mg/L

Signal[mV] 2



Control Sample

Sample Name: CCV2
 Sample ID: TCD007-26
 Method: Tcd007.tpl
 Chk. Result: Control value: 25.02 / Control exceeds range!

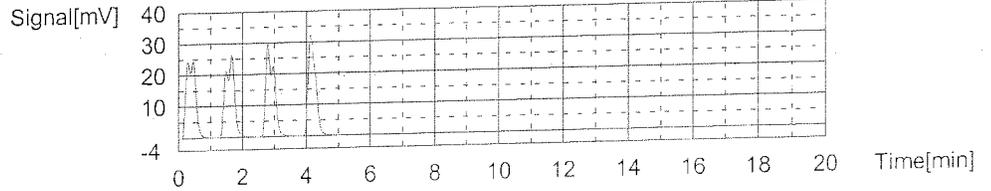
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.02 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.56	24.63mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:18:26 AM
2	51.91	24.79mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:19:57 AM
3	53.32	25.47mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:21:28 AM
4	52.74	25.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:22:52 AM

Mean Area 52.38
 Mean Conc. 25.02mg/L



Sample

Sample Name: CCB2
 Sample ID: TCD007-26
 Origin: TCD007.cal
 Chk. Result

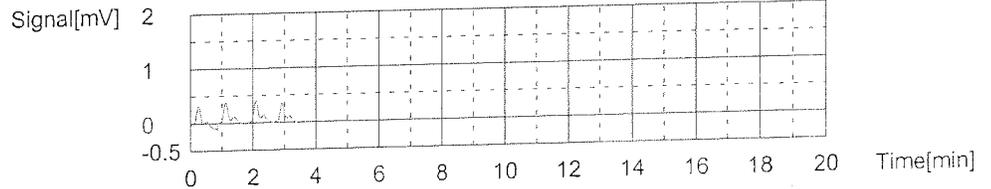
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2279 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4848	0.2316mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:28:10 AM
2	0.4695	0.2242mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:29:20 AM
3	0.5136	0.2453mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:30:22 AM
4	0.4410	0.2106mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:31:23 AM

Mean Area 0.4772
 Mean Conc. 0.2279mg/L



Sample

Sample Name: D157-12
 Sample ID: TCD007-28
 Origin: TCD007.cal
 Chk. Result

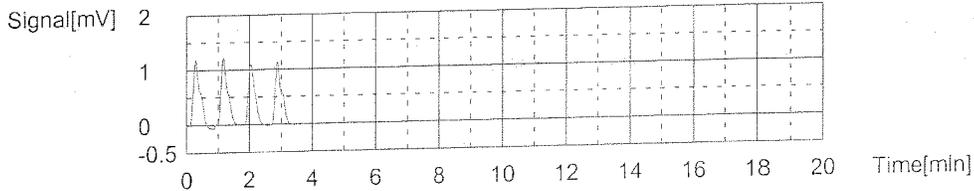
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8436 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.866	0.8912mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:47:23 AM
2	1.787	0.8535mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:48:27 AM
3	1.692	0.8081mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:49:29 AM
4	1.720	0.8215mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:50:33 AM

Mean Area 1.766
 Mean Conc. 0.8436mg/L



Sample

Sample Name: D157-13
 Sample ID: TCD007-29
 Origin: TCD007.cal
 Chk. Result

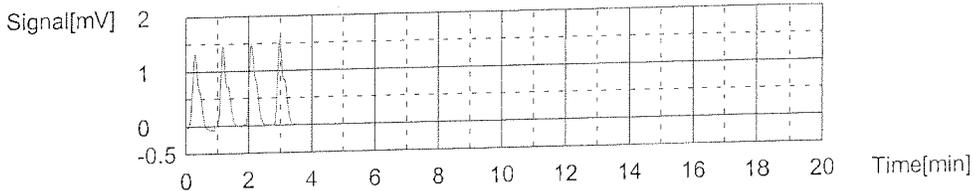
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.045 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.012	0.9610mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:57:57 AM
2	2.127	1.016mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:59:03 AM
3	2.260	1.079mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:00:08 AM
4	2.350	1.122mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:01:12 AM

Mean Area 2.187
 Mean Conc. 1.045mg/L



Sample

Sample Name: D157-14
 Sample ID: TCD007-30
 Origin: TCD007.cal
 Chk. Result

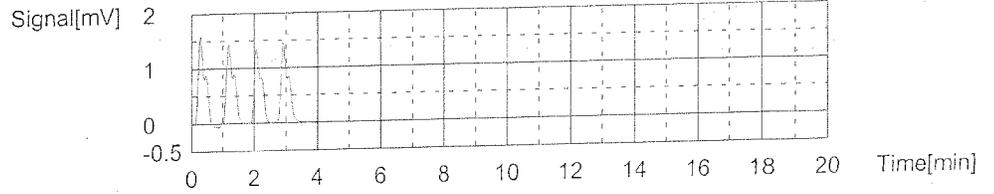
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.124 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.573	1.229mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:08:36 AM
2	2.362	1.128mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:09:41 AM
3	2.167	1.035mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:10:43 AM
4	2.311	1.104mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:11:51 AM

Mean Area 2.353
 Mean Conc. 1.124mg/L



Sample

Sample Name: D157-16
 Sample ID: TCD007-31
 Origin: TCD007.cal
 Chk. Result

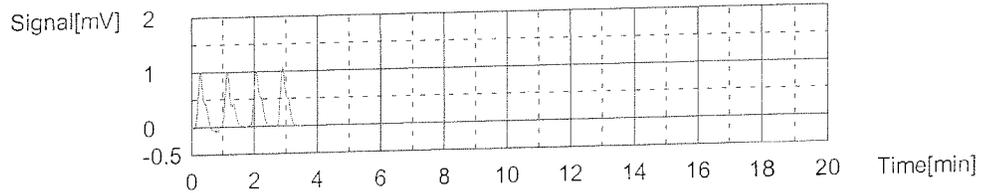
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7158 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.473	0.7035mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:19:14 AM
2	1.423	0.6797mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:20:20 AM
3	1.531	0.7312mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:21:22 AM
4	1.568	0.7489mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:22:24 AM

Mean Area 1.499
 Mean Conc. 0.7158mg/L



Sample

Sample Name: D157-17
 Sample ID: TCD007-32
 Origin: TCD007.cal
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8751 mg/L

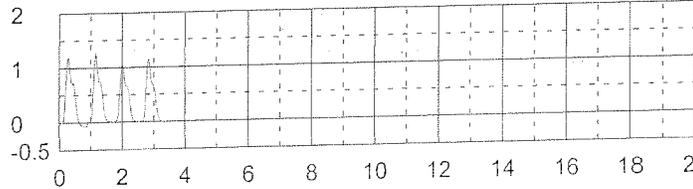
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.026	0.9677mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:29:48 AM
2	1.877	0.8965mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:30:50 AM
3	1.669	0.7972mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:31:52 AM
4	1.757	0.8392mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:32:54 AM

Mean Area 1.832
 Mean Conc. 0.8751mg/L

Signal[mV] 2



Sample

Sample Name: D157-17D
 Sample ID: TCD007-33
 Origin: TCD007.cal
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.031 mg/L

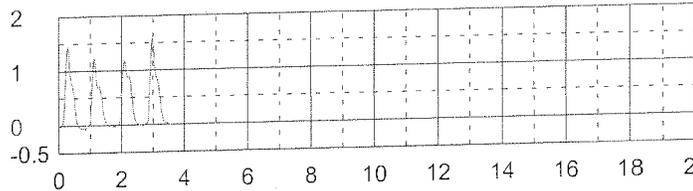
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.108	1.007mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:40:16 AM
2	1.981	0.9462mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:41:25 AM
3	2.168	1.035mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:42:30 AM
4	2.377	1.135mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:43:36 AM

Mean Area 2.159
 Mean Conc. 1.031mg/L

Signal[mV] 2



Sample

Sample Name: D157-17M
 Sample ID: TCD007-34
 Origin: TCD007.cal
 Chk. Result

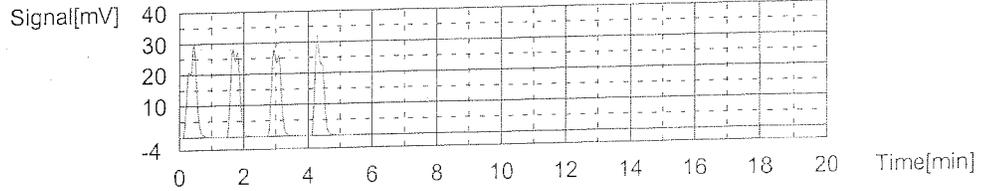
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.57 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.64	25.14mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:51:29 AM
2	53.77	25.68mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:52:57 AM
3	54.41	25.99mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:54:29 AM
4	53.32	25.47mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:56:05 AM

Mean Area 53.53
 Mean Conc. 25.57mg/L



Sample

Sample Name: D157-17S
 Sample ID: TCD007-35
 Origin: TCD007.cal
 Chk. Result

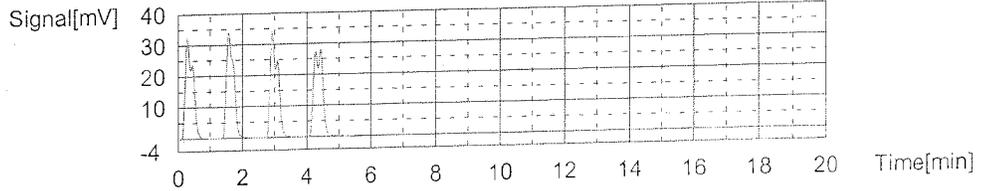
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:26.60 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.84	26.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:03:53 AM
2	55.85	26.68mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:05:27 AM
3	56.70	27.08mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:06:58 AM
4	55.42	26.47mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:08:32 AM

Mean Area 55.70
 Mean Conc. 26.60mg/L



Sample

Sample Name: D157-19
 Sample ID: TCD007-36
 Origin: TCD007.cal
 Chk. Result

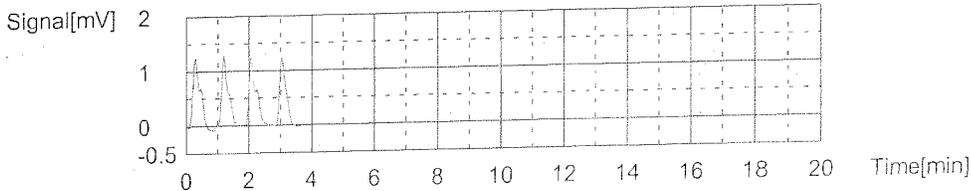
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9125 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.020	0.9648mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:15:58 AM
2	1.860	0.8884mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:17:02 AM
3	1.954	0.9333mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:18:11 AM
4	1.808	0.8635mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:19:16 AM

Mean Area 1.910
 Mean Conc. 0.9125mg/L



Control Sample

Sample Name: CCV3
 Sample ID: TCD007-37
 Method: Tcd007.tpl
 Chk. Result: Control value: 25.05 / Control exceeds range!

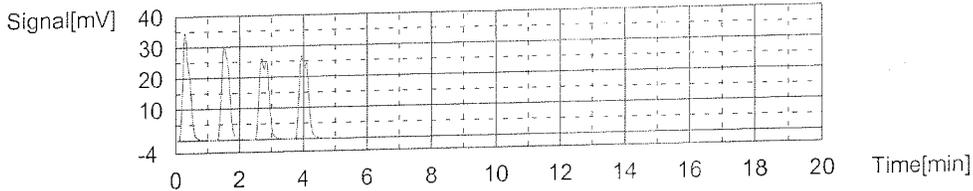
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.05 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.25	24.96mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:26:59 AM
2	52.16	24.91mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:28:21 AM
3	53.03	25.33mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:29:48 AM
4	52.39	25.02mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:31:15 AM

Mean Area 52.46
 Mean Conc. 25.05mg/L



Sample

Sample Name: CCB3
 Sample ID: TCD007-38
 Origin: TCD007.cal
 Chk. Result:

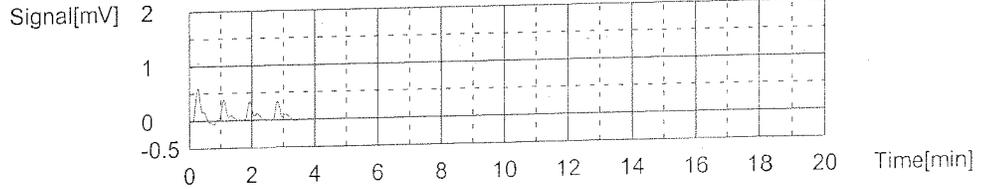
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2647 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8264	0.3947mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:44:59 AM
2	0.4105	0.1961mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:46:00 AM
3	0.4904	0.2342mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:47:05 AM
4	0.4896	0.2338mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:48:12 AM

Mean Area 0.5542
 Mean Conc. 0.2647mg/L



Sample

Sample Name: TCD008WB
 Sample ID: TCD007-39
 Origin: TCD007.cal
 Chk. Result

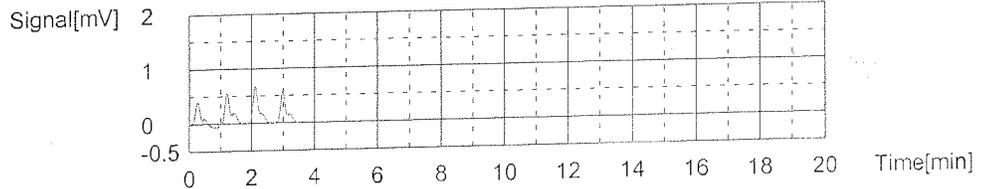
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3514 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5475	0.2615mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:53:35 AM
2	0.8049	0.3844mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:54:40 AM
3	0.8885	0.4244mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:55:45 AM
4	0.7017	0.3351mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:56:49 AM

Mean Area 0.7356
 Mean Conc. 0.3514mg/L



Sample

Sample Name: TCD008WL
 Sample ID: TCD007.40
 Origin: TCD007.cal
 Chk. Result

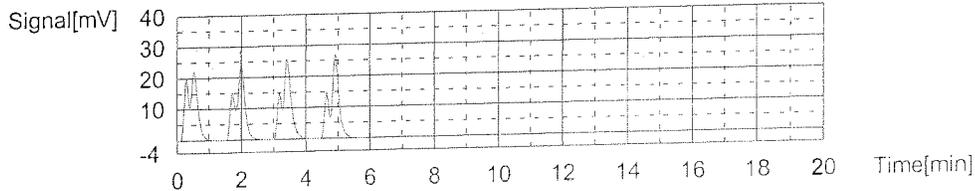
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.21 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.44	25.05mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:04:47 AM
2	52.85	25.24mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:06:26 AM
3	53.26	25.44mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:08:06 AM
4	52.54	25.09mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:09:46 AM

Mean Area 52.77
 Mean Conc. 25.21mg/L



Sample

Sample Name: TCD008WC
 Sample ID: TCD007.41
 Origin: TCD007.cal
 Chk. Result

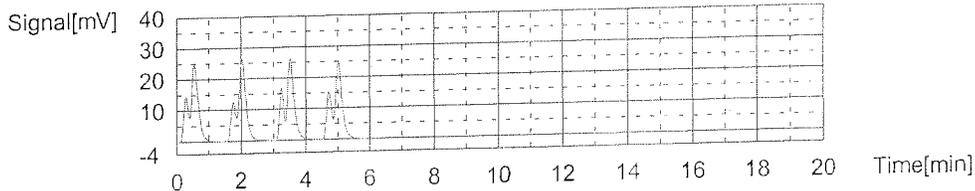
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.11 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.69	24.69mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:17:44 AM
2	52.57	25.11mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:19:26 AM
3	53.30	25.46mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:21:06 AM
4	52.75	25.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:22:50 AM

Mean Area 52.58
 Mean Conc. 25.11mg/L



Sample

Sample Name: D142-01
 Sample ID: TCD007.42
 Origin: TCD007.cal
 Chk. Result

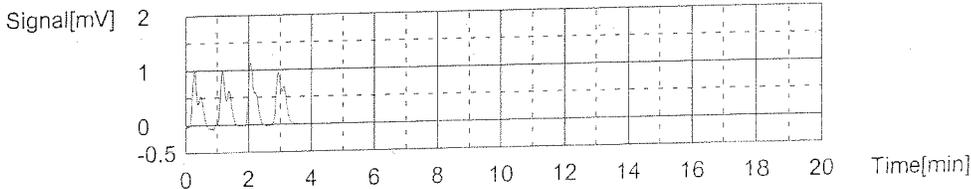
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7958 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.634	0.7804mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:30:16 AM
2	1.583	0.7561mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:31:20 AM
3	1.767	0.8440mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:32:25 AM
4	1.681	0.8029mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:33:30 AM

Mean Area 1.666
 Mean Conc. 0.7958mg/L



Sample

Sample Name: D142-02
 Sample ID: TCD007-43
 Origin: TCD007.cal
 Chk. Result

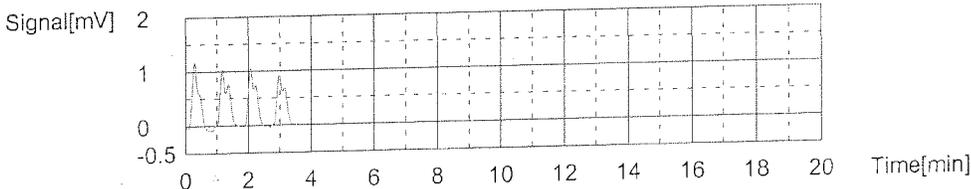
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8596 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.843	0.8803mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:40:54 AM
2	1.848	0.8826mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:41:59 AM
3	1.869	0.8927mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:43:06 AM
4	1.639	0.7828mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:44:10 AM

Mean Area 1.800
 Mean Conc. 0.8596mg/L



Sample

Sample Name: D142-03
 Sample ID: TCD007-44
 Origin: TCD007.cal
 Chk. Result

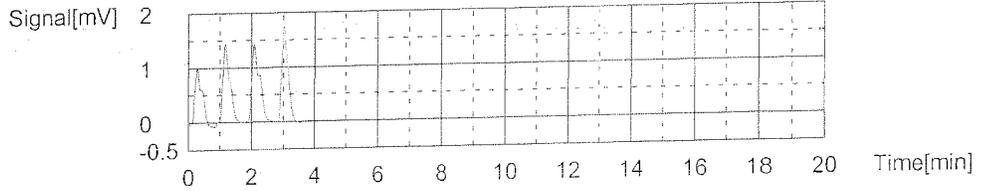
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.119 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.717	0.8201mg/L	50uL	1	E	TCD007.2015_04_24_19_28_16.cal	04/25/15 04:51:34 AM
2	2.184	1.043mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:52:41 AM
3	2.405	1.149mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:53:49 AM
4	2.439	1.165mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:54:52 AM

Mean Area 2.343
 Mean Conc. 1.119mg/L



Sample

Sample Name: D142-03M
 Sample ID: TCD007.45
 Origin: TCD007.cal
 Chk. Result

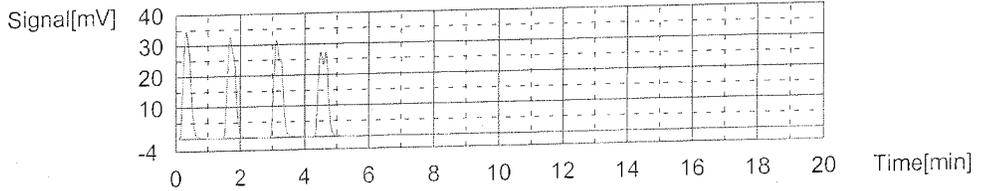
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:26.46 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.63	26.09mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:02:45 AM
2	55.58	26.55mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:04:23 AM
3	55.88	26.69mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:05:58 AM
4	55.50	26.51mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:07:33 AM

Mean Area 55.40
 Mean Conc. 26.46mg/L



Sample

Sample Name: D142-03S
 Sample ID: TCD007.46
 Origin: TCD007.cal
 Chk. Result

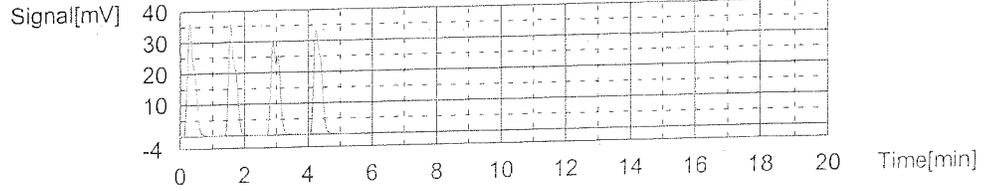
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.99 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.88	25.73mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:15:21 AM
2	54.61	26.08mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:16:52 AM
3	54.71	26.13mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:18:25 AM
4	54.42	25.99mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:19:56 AM

Mean Area 54.41
 Mean Conc. 25.99mg/L



Sample

Sample Name: D142-05
 Sample ID: TCD007-47
 Origin: TCD007.cal
 Chk. Result

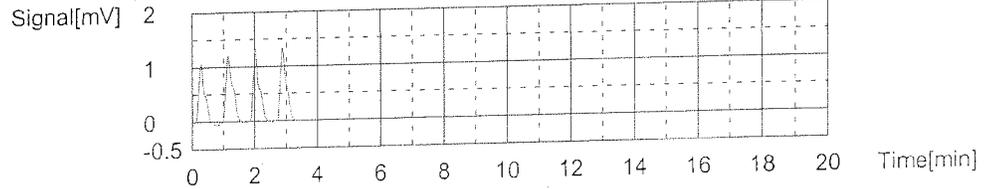
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8278 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.503	0.7179mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:27:19 AM
2	1.773	0.8468mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:28:23 AM
3	1.877	0.8965mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:29:27 AM
4	1.780	0.8502mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:30:31 AM

Mean Area 1.733
 Mean Conc. 0.8278mg/L



Sample

Sample Name: D142-07
 Sample ID: TCD007-48
 Origin: TCD007.cal
 Chk. Result

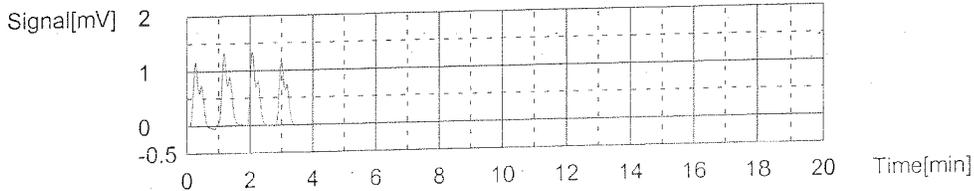
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9788 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.934	0.9237mg/L	50uL		1	TCD007.2015_04_24_19_28_16.cal	04/25/15 05:37:56 AM
2	2.131	1.018mg/L	50uL		1	TCD007.2015_04_24_19_28_16.cal	04/25/15 05:39:01 AM
3	2.182	1.042mg/L	50uL		1	TCD007.2015_04_24_19_28_16.cal	04/25/15 05:40:09 AM
4	1.950	0.9314mg/L	50uL		1	TCD007.2015_04_24_19_28_16.cal	04/25/15 05:41:12 AM

Mean Area 2.049
 Mean Conc. 0.9788mg/L



Control Sample

Sample Name: CCV4
 Sample ID: TCD007.49
 Method: Tcd007.tpl
 Chk. Result: Control value: 25.01 / Control exceeds range!

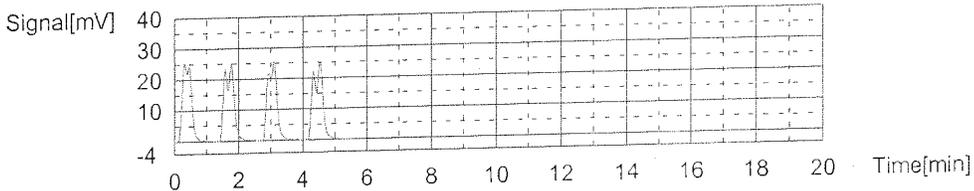
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.01 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.64	24.66mg/L	50uL		1	TCD007.2015_04_24_19_28_16.cal	04/25/15 05:49:00 AM
2	52.50	25.08mg/L	50uL		1	TCD007.2015_04_24_19_28_16.cal	04/25/15 05:50:33 AM
3	52.79	25.21mg/L	50uL		1	TCD007.2015_04_24_19_28_16.cal	04/25/15 05:52:10 AM
4	52.56	25.10mg/L	50uL		1	TCD007.2015_04_24_19_28_16.cal	04/25/15 05:53:40 AM

Mean Area 52.37
 Mean Conc. 25.01mg/L



Sample

Sample Name: CCB4
 Sample ID: TCD007.50
 Origin: TCD007.cal
 Chk. Result:

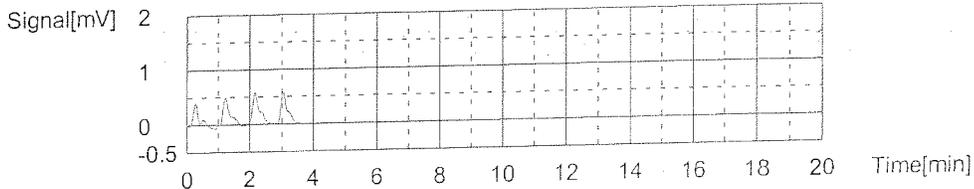
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3597 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5809	0.2775mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:59:03 AM
2	0.7566	0.3614mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:00:11 AM
3	0.8274	0.3952mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:01:16 AM
4	0.8476	0.4048mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:02:24 AM

Mean Area 0.7531
 Mean Conc. 0.3597mg/L



Sample

Sample Name: D142-09
 Sample ID: TCD007-51
 Origin: TCD007.cal
 Chk. Result

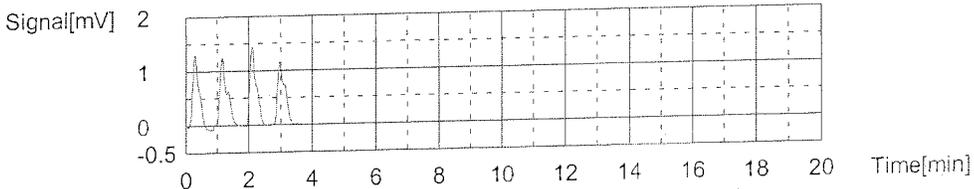
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9359 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.945	0.9290mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:18:27 AM
2	1.910	0.9123mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:19:35 AM
3	2.062	0.9849mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:20:39 AM
4	1.921	0.9175mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:21:43 AM

Mean Area 1.960
 Mean Conc. 0.9359mg/L



Sample

Sample Name: D156-01
 Sample ID: TCD007-52
 Origin: TCD007.cal
 Chk. Result

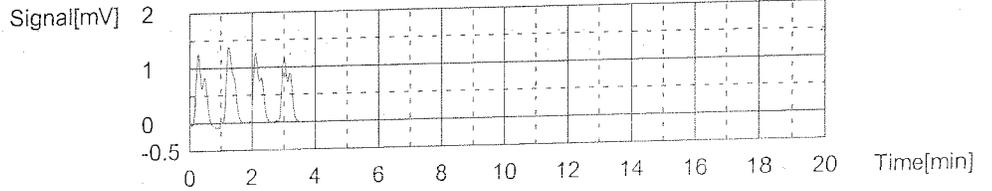
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.064 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.339	1.117mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:29:12 AM
2	2.304	1.100mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:30:16 AM
3	2.144	1.024mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:31:22 AM
4	2.123	1.014mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:32:28 AM

Mean Area 2.228
 Mean Conc. 1.064mg/L



Sample

Sample Name: D156-02
 Sample ID: TCD007-53
 Origin: TCD007.cal
 Chk. Result

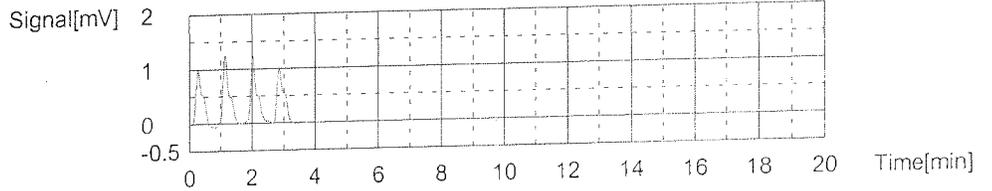
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7813 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.603	0.7656mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:39:51 AM
2	1.709	0.8163mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:40:56 AM
3	1.620	0.7738mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:41:58 AM
4	1.611	0.7695mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:43:02 AM

Mean Area 1.636
 Mean Conc. 0.7813mg/L



Sample

Sample Name: D156-03
 Sample ID: TCD007-54
 Origin: TCD007.cal
 Chk. Result

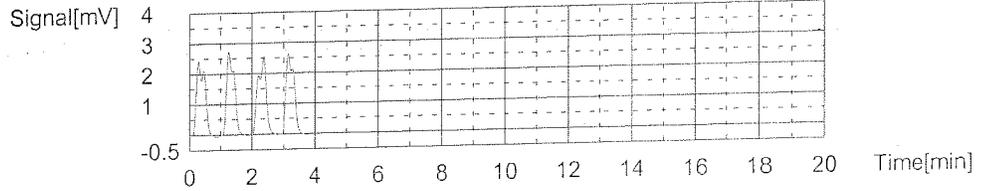
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.280 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.717	2.253mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:50:31 AM
2	4.781	2.284mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:51:40 AM
3	4.695	2.242mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:52:48 AM
4	4.898	2.339mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:53:57 AM

Mean Area 4.773
 Mean Conc. 2.280mg/L



Sample

Sample Name: D156-05
 Sample ID: TCD007:55
 Origin: TCD007.cal
 Chk. Result

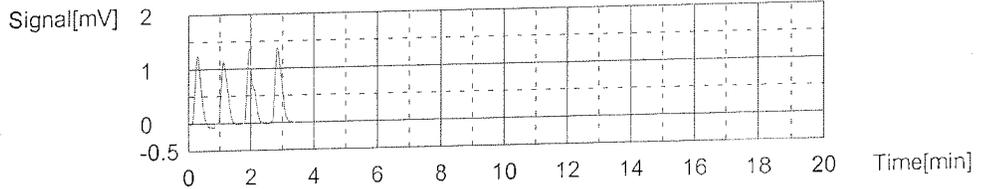
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8798 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.709	0.8163mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:01:18 AM
2	1.688	0.8062mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:02:20 AM
3	1.943	0.9280mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:03:25 AM
4	2.028	0.9686mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:04:26 AM

Mean Area 1.842
 Mean Conc. 0.8798mg/L



Sample

Sample Name: D156-06
 Sample ID: TCD007:56
 Origin: TCD007.cal
 Chk. Result

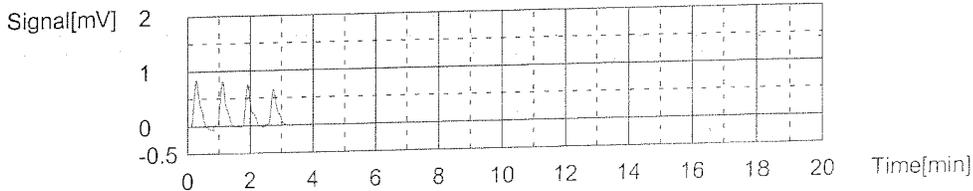
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4998 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.216	0.5808mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:11:47 AM
2	1.067	0.5096mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:12:48 AM
3	1.021	0.4877mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:13:49 AM
4	0.8820	0.4213mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:14:52 AM

Mean Area 1.047
 Mean Conc. 0.4998mg/L



Sample

Sample Name: D156-07
 Sample ID: TCD007-57
 Origin: TCD007.cal
 Chk. Result

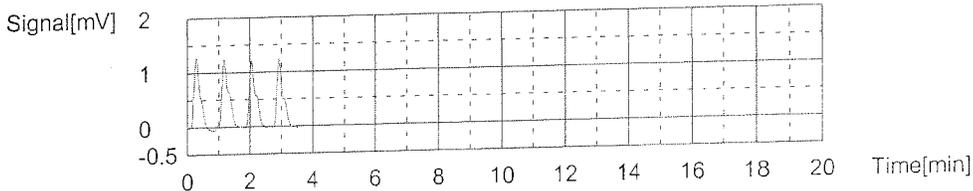
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8455 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.825	0.8717mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:22:18 AM
2	1.801	0.8602mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:23:22 AM
3	1.716	0.8196mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:24:27 AM
4	1.739	0.8306mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:25:31 AM

Mean Area 1.770
 Mean Conc. 0.8455mg/L



Sample

Sample Name: D156-08
 Sample ID: TCD007-58
 Origin: TCD007.cal
 Chk. Result

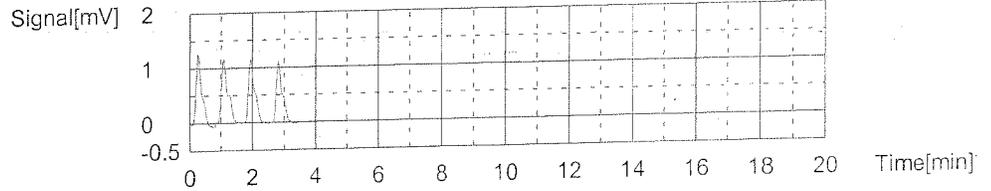
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7843 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.669	0.7972mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:32:52 AM
2	1.649	0.7876mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:33:55 AM
3	1.652	0.7890mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:34:59 AM
4	1.598	0.7632mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:36:04 AM

Mean Area 1.642
 Mean Conc. 0.7843mg/L



Sample

Sample Name: D156-10
 Sample ID: TCD007-59
 Origin: TCD007.cal
 Chk. Result

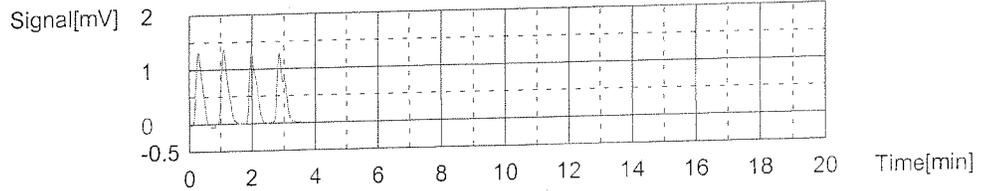
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9678 mg/L ✓

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.954	0.9333mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:43:25 AM
2	1.978	0.9447mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:44:30 AM
3	2.056	0.9820mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:45:34 AM
4	2.117	1.011mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:46:43 AM

Mean Area 2.026
 Mean Conc. 0.9678mg/L



Sample

Sample Name: D156-11
 Sample ID: TCD007-60
 Origin: TCD007.cal
 Chk. Result

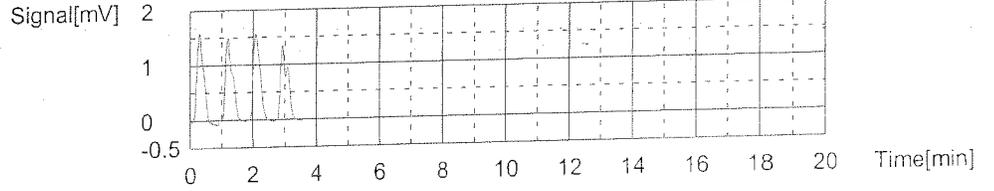
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.129 mg/L ✓

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.407	1.150mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:54:09 AM
2	2.352	1.123mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:55:14 AM
3	2.422	1.157mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:56:17 AM
4	2.272	1.085mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:57:22 AM

Mean Area 2.363
 Mean Conc. 1.129mg/L



Control Sample

Sample Name: CCV5
 Sample ID: TCD007-61
 Method: Tcd007.tpl
 Chk. Result: Control value: 25.13 / Control exceeds range!

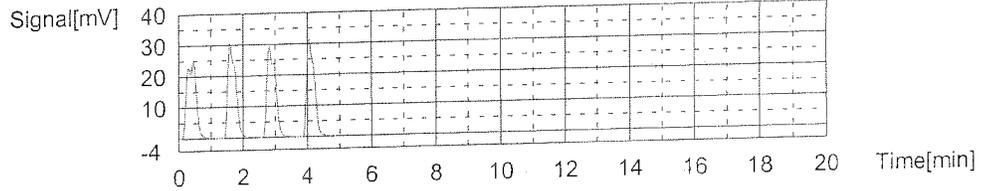
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.13 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.40	24.55mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:05:12 AM
2	52.73	25.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:06:37 AM
3	53.49	25.55mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:08:03 AM
4	52.87	25.25mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:09:25 AM

Mean Area 52.62
 Mean Conc. 25.13mg/L



Sample

Sample Name: CCB5
 Sample ID: TCD007-62
 Origin: TCD007.cal
 Chk. Result:

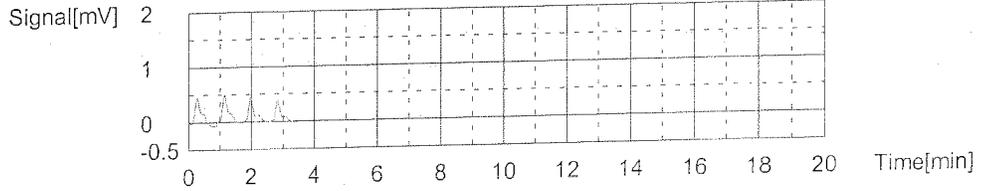
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2819 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6758	0.3228mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:14:44 AM
2	0.6666	0.3184mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:15:46 AM
3	0.5491	0.2623mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:16:49 AM
4	0.4696	0.2243mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:17:53 AM

Mean Area 0.5903
 Mean Conc. 0.2819mg/L



Sample

Sample Name: D144-01
 Sample ID: TCD007-63
 Origin: TCD007.cal
 Chk. Result

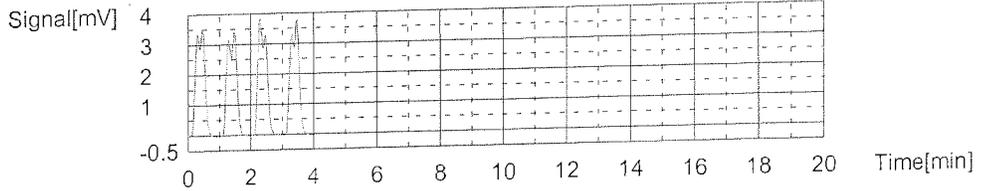
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.471 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.202	3.440mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:34:05 AM
2	7.252	3.464mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:35:17 AM
3	7.260	3.468mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:36:29 AM
4	7.359	3.515mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:37:41 AM

Mean Area 7.268
 Mean Conc. 3.471mg/L



Sample

Sample Name: D144-03
 Sample ID: TCD007-64
 Origin: TCD007.cal
 Chk. Result

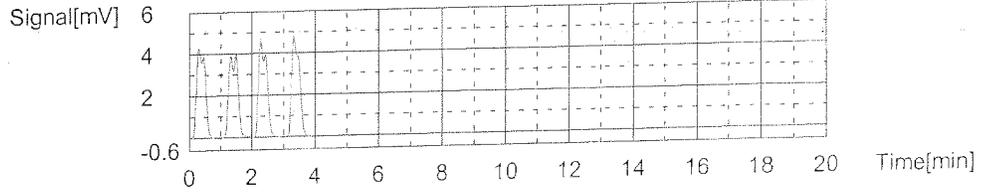
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.960 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.179	3.906mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:45:14 AM
2	8.156	3.896mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:46:24 AM
3	8.438	4.030mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:47:39 AM
4	8.387	4.006mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:48:50 AM

Mean Area 8.290
 Mean Conc. 3.960mg/L



Sample

Sample Name: D144-04
 Sample ID: TCD007-65
 Origin: TCD007.cal
 Chk. Result

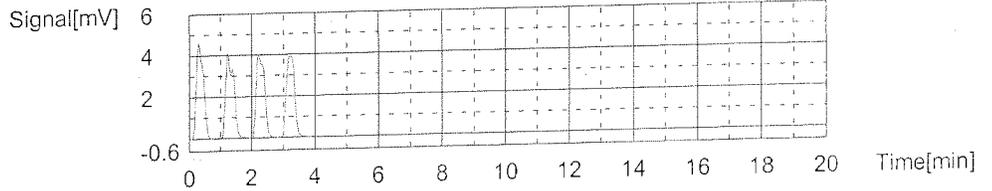
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.541 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.444	3.555mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:56:18 AM
2	7.366	3.518mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:57:29 AM
3	7.407	3.538mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:58:37 AM
4	7.437	3.552mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:59:50 AM

Mean Area 7.414
 Mean Conc. 3.541mg/L



Sample

Sample Name: D144-04D
 Sample ID: TCD007-66
 Origin: TCD007.cal
 Chk. Result

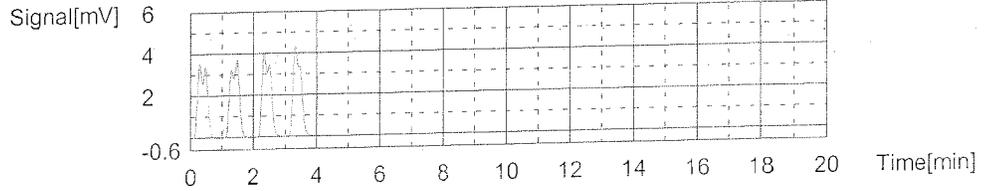
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.515 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.187	3.433mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:07:22 AM
2	7.330	3.501mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:08:36 AM
3	7.442	3.554mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:09:46 AM
4	7.482	3.574mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:10:58 AM

Mean Area 7.360
 Mean Conc. 3.515mg/L



Sample

Sample Name: D144-04M
 Sample ID: TCD007-67
 Origin: TCD007.cal
 Chk. Result

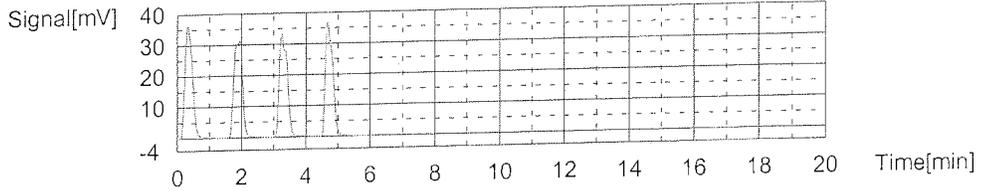
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:28.67 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	59.39	28.37mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:19:01 AM
2	59.98	28.65mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:20:38 AM
3	60.27	28.79mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:22:17 AM
4	60.45	28.87mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:24:01 AM

Mean Area 60.02
 Mean Conc. 28.67mg/L



Sample

Sample Name: D583-01
 Sample ID: TCD007-68
 Origin: TCD007.cal
 Chk. Result

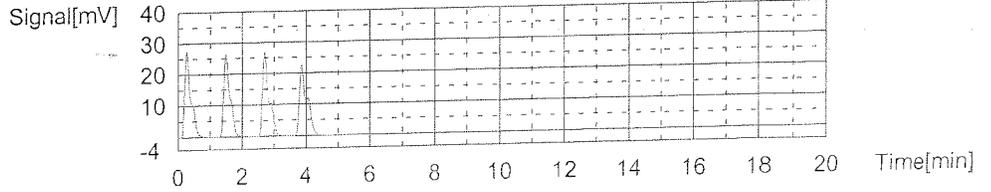
Type	Anal.	Dil.	Result
Unknown	NPOC	20.00	NPOC:360.3 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.83	361.4mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:42:47 AM
2	37.54	358.6mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:44:13 AM
3	38.07	363.7mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:45:34 AM
4	37.42	357.5mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:47:00 AM

Mean Area 37.72
 Mean Conc. 360.3mg/L



Sample

Sample Name: TCD009WL
 Sample ID: TCD007-69
 Origin: TCD007.cal
 Chk. Result

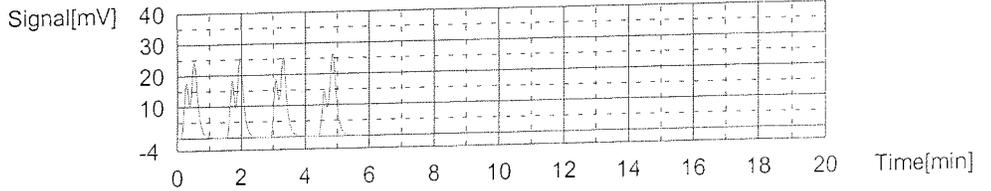
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.43 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.15	24.91mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:54:58 AM
2	53.40	25.51mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:56:32 AM
3	53.75	25.67mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:58:14 AM
4	53.68	25.64mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:59:53 AM

Mean Area 53.25
 Mean Conc. 25.43mg/L



Sample

Sample Name: TCD009WC
 Sample ID: TCD007-70
 Origin: TCD007.cal
 Chk. Result

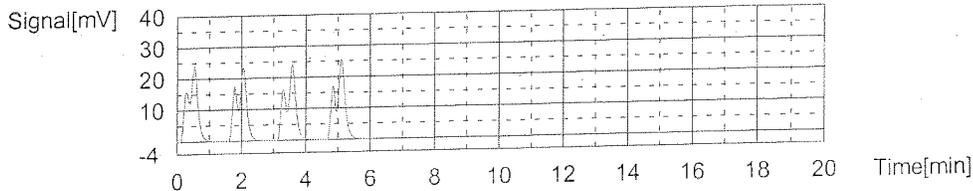
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.30 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.37	25.01mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:07:55 AM
2	52.83	25.23mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:09:37 AM
3	53.62	25.61mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:11:24 AM
4	53.10	25.36mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:13:06 AM

Mean Area 52.98
 Mean Conc. 25.30mg/L



Sample

Sample Name: TCD009WB
 Sample ID: TCD007-71
 Origin: TCD007.cal
 Chk. Result

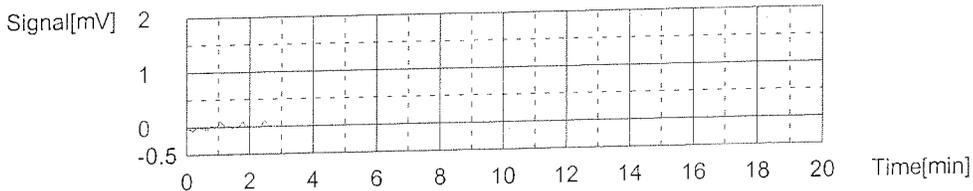
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.04007 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.06860	0.03277mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:20:21 AM
2	0.08470	0.04045mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:21:15 AM
3	0.09510	0.04542mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:22:10 AM
4	0.08720	0.04165mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:23:04 AM

Mean Area 0.08390
 Mean Conc. 0.04007mg/L



Control Sample

Sample Name: CCV6
 Sample ID: TCD007-72
 Method: Tcd007.tpl
 Chk. Result: Control value: 25.22 / Control exceeds range!

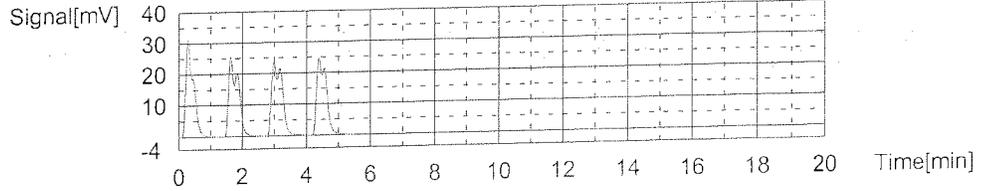
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.22 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.58	25.11mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 10:30:58 AM
2	52.49	25.07mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 10:32:30 AM
3	53.51	25.56mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 10:34:07 AM
4	52.63	25.14mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 10:35:43 AM

Mean Area 52.80
 Mean Conc. 25.22mg/L



Sample

Sample Name: CCB6
 Sample ID: TC0007-73
 Origin: TC0007.cal
 Chk. Result

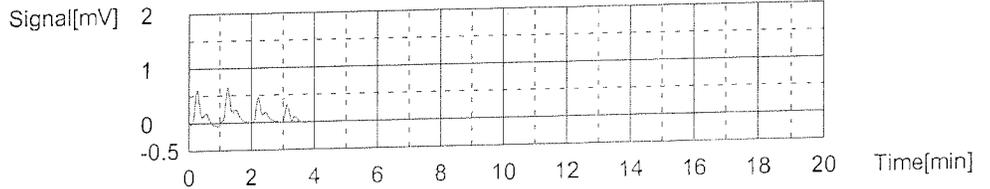
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3420 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8967	0.4283mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 10:41:09 AM
2	0.9133	0.4362mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 10:42:20 AM
3	0.6351	0.3033mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 10:43:28 AM
4	0.4188	0.2000mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 10:44:31 AM

Mean Area 0.7160
 Mean Conc. 0.3420mg/L



Sample

Sample Name: D160-01
 Sample ID: TC0007-74
 Origin: TC0007.cal
 Chk. Result

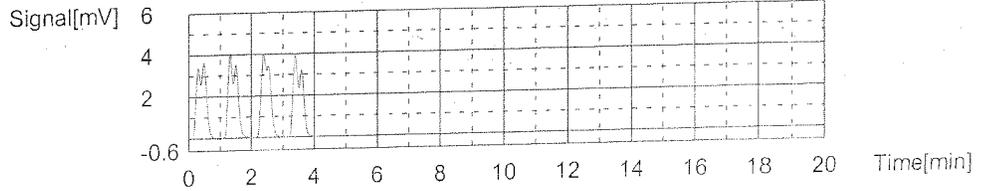
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.695 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.739	3.696mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:00:52 AM
2	7.955	3.800mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:02:07 AM
3	7.703	3.679mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:03:20 AM
4	7.549	3.606mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:04:35 AM

Mean Area 7.737
 Mean Conc. 3.695mg/L



Sample

Sample Name: D160-03
 Sample ID: TCD007-75
 Origin: TCD007.cal
 Chk. Result

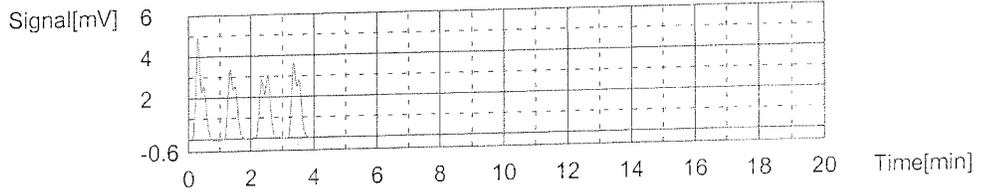
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.970 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.487	3.576mg/L	50uL	1	E	TCD007.2015_04_24_19_28_16.cal	04/25/15 11:12:10 AM
2	6.018	2.874mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:13:23 AM
3	6.206	2.964mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:14:36 AM
4	6.433	3.073mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:15:45 AM

Mean Area 6.219
 Mean Conc. 2.970mg/L



Sample

Sample Name: D160-04
 Sample ID: TCD007-76
 Origin: TCD007.cal
 Chk. Result

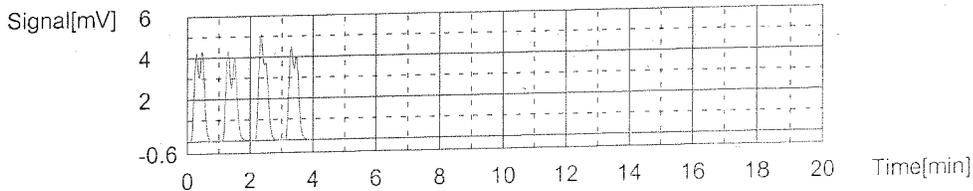
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.159 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.837	4.221mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:23:19 AM
2	8.706	4.158mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:24:33 AM
3	8.632	4.123mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:25:42 AM
4	8.654	4.133mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:26:54 AM

Mean Area 8.707
 Mean Conc. 4.159mg/L



Sample

Sample Name: D160-04D
 Sample ID: TCD007-77
 Origin: TCD007.cal
 Chk. Result

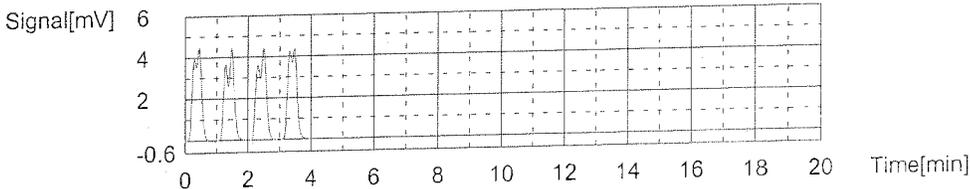
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.048 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.451	4.036mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:34:27 AM
2	8.346	3.986mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:35:40 AM
3	8.534	4.076mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:36:53 AM
4	8.573	4.095mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:38:05 AM

Mean Area 8.476
 Mean Conc. 4.048mg/L



Sample

Sample Name: D160-04M
 Sample ID: TCD007-78
 Origin: TCD007.cal
 Chk. Result

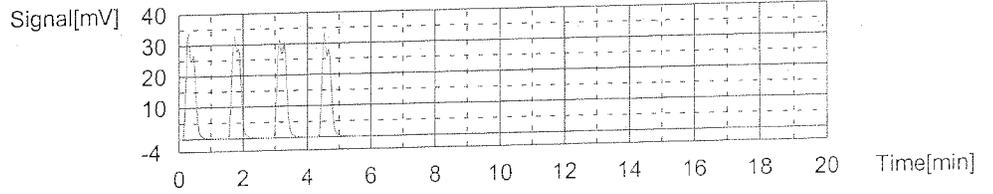
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:29.06 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	59.96	28.64mg/L	50uL	1		TC007.2015_04_24_19_28_16.cal	04/25/15 11:46:04 AM
2	60.56	28.92mg/L	50uL	1		TC007.2015_04_24_19_28_16.cal	04/25/15 11:47:41 AM
3	61.61	29.43mg/L	50uL	1		TC007.2015_04_24_19_28_16.cal	04/25/15 11:49:17 AM
4	61.20	29.23mg/L	50uL	1		TC007.2015_04_24_19_28_16.cal	04/25/15 11:50:57 AM

Mean Area 60.83
 Mean Conc. 29.06mg/L



Sample

Sample Name: D169-01
 Sample ID: TC007-79
 Origin: TC007.cal
 Chk. Result

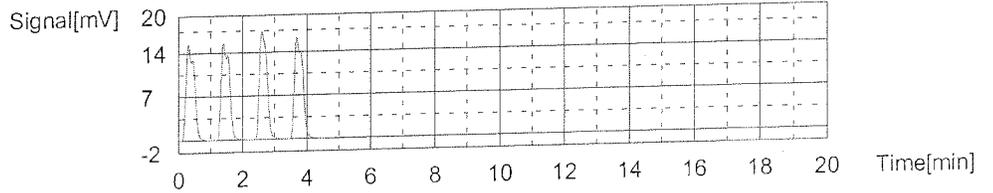
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:13.57 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.69	13.23mg/L	50uL	1		TC007.2015_04_24_19_28_16.cal	04/25/15 11:58:36 AM
2	28.17	13.45mg/L	50uL	1		TC007.2015_04_24_19_28_16.cal	04/25/15 12:00:00 PM
3	28.85	13.78mg/L	50uL	1		TC007.2015_04_24_19_28_16.cal	04/25/15 12:01:17 PM
4	28.91	13.81mg/L	50uL	1		TC007.2015_04_24_19_28_16.cal	04/25/15 12:02:39 PM

Mean Area 28.41
 Mean Conc. 13.57mg/L



Sample

Sample Name: D169-02
 Sample ID: TC007-80
 Origin: TC007.cal
 Chk. Result

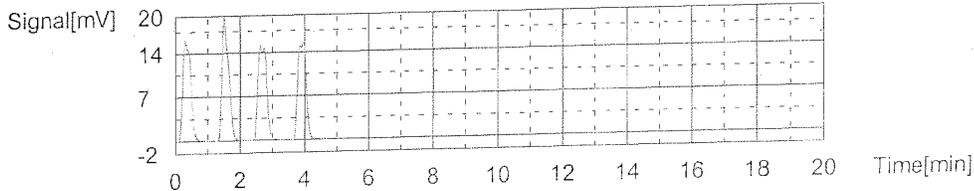
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:13.68 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.07	13.41mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:10:25 PM
2	28.77	13.74mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:11:42 PM
3	28.81	13.76mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:13:08 PM
4	28.93	13.82mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:14:36 PM

Mean Area 28.65
 Mean Conc. 13.68mg/L



Sample

Sample Name: D169-04
 Sample ID: TCD007-81
 Origin: TCD007.cal
 Chk. Result

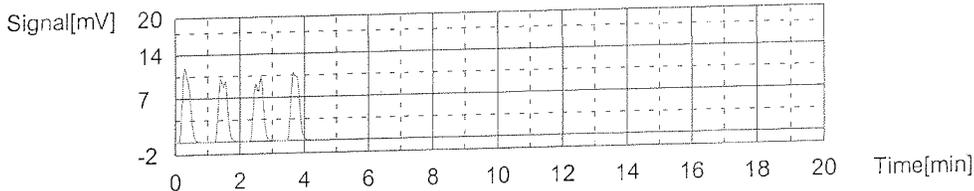
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:9.378 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.33	9.232mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:22:09 PM
2	19.33	9.232mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:23:25 PM
3	19.84	9.476mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:24:46 PM
4	20.04	9.572mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:26:03 PM

Mean Area 19.64
 Mean Conc. 9.378mg/L



Sample

Sample Name: D169-05
 Sample ID: TCD007-82
 Origin: TCD007.cal
 Chk. Result

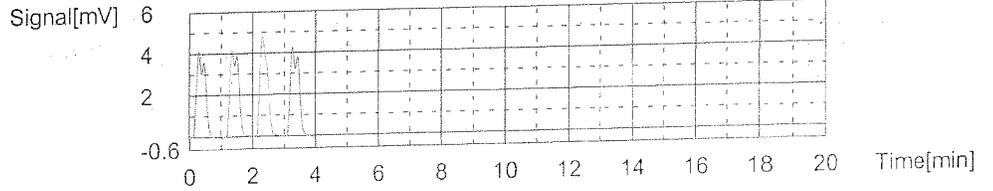
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.819 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.976	3.810mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:33:39 PM
2	8.013	3.827mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:34:47 PM
3	7.980	3.811mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:35:57 PM
4	8.017	3.829mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:37:07 PM

Mean Area 7.997
 Mean Conc. 3.819mg/L



Sample

Sample Name: D584-01f
 Sample ID: TCD007-83
 Origin: TCD007.cal
 Chk. Result

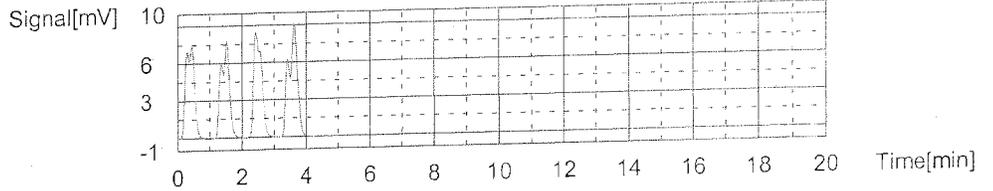
Type	Anal.	Dil.	Result
Unknown	NPOC	5.000	NPOC:37.02 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.71	35.13mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:44:43 PM
2	14.44	34.48mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:45:59 PM
3	14.99	35.80mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:47:11 PM
4	17.87	42.68mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:48:31 PM

Mean Area 15.50
 Mean Conc. 37.02mg/L



Control Sample

Sample Name: CCV7
 Sample ID: TCD007-84
 Method: Tcd007.tpl
 Chk. Result: Control value: 25.26 / Control exceeds range!

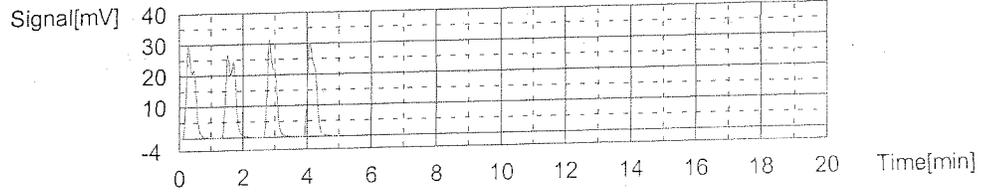
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.26 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.16	24.91mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:56:17 PM
2	52.74	25.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:57:47 PM
3	53.49	25.55mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:59:14 PM
4	53.18	25.40mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:00:39 PM

Mean Area 52.89
 Mean Conc. 25.26mg/L



Sample

Sample Name: CCB7
 Sample ID: TCD007-85
 Origin: TCD007.cal
 Chk. Result

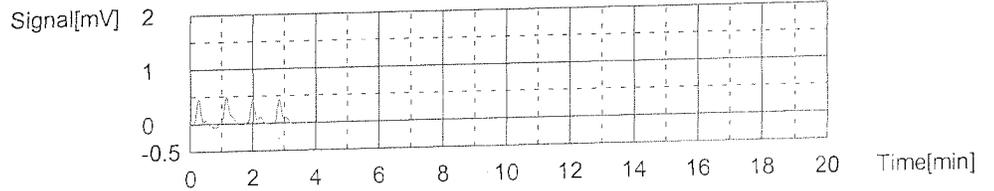
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2665 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5357	0.2559mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:14:24 PM
2	0.6261	0.2990mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:15:26 PM
3	0.5041	0.2408mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:16:29 PM
4	0.5662	0.2704mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:17:30 PM

Mean Area 0.5580
 Mean Conc. 0.2665mg/L



CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D156

METHOD SM3500
FERROUS IRON

A total of nine (9) water samples were received on 04/23/15 to be analyzed for Ferrous Iron in accordance with Method SM3500 and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

Calibration was performed as prescribed by the method and was verified using a secondary source (ICV). All calibration requirements were within acceptance criteria.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. Ferrous Iron was not detected in FED002WB. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. Ferrous Iron was within LCS QC limits in FED002WL/FED002WC. Refer to LCS summary form for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed. Ferrous Iron was within MS QC limits in D156-01M/S. Sample duplicate was analyzed and RPD was within expected value. Refer to Matrix QC summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

SM3500
FERROUS IRON

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D156

Matrix : WATER
InstrumentID : 70

CLIENT SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DFxPREP FACTOR	MOIST (%)	RL (mg/L)	MDL (mg/L)	ANALYSIS DATETIME	PREPARATION DATETIME	DATA FILE ID	CAL REF	PREP BATCH	COLLECTION DATETIME	RECEIVED DATETIME
MBLK1W	FED002WB	ND	1	NA	2	0.5	04/23/1519:47	NA	15FED00209	15FED002	FED002W	NA	NA
LCS1W	FED002WL	15.8	1	NA	2	0.5	04/23/1519:47	NA	15FED00210	15FED002	FED002W	NA	NA
LCD1W	FED002WC	15.6	1	NA	2	0.5	04/23/1519:47	NA	15FED00211	15FED002	FED002W	NA	NA
04-22-15-WB2-3	D156-01	ND	1	NA	2	0.5	04/23/1519:47	NA	15FED00212	15FED002	FED002W	04/22/1515:20	04/23/15
04-22-15-WB2-3DUP	D156-01D	ND	1	NA	2	0.5	04/23/1519:47	NA	15FED00213	15FED002	FED002W	04/22/1515:20	04/23/15
04-22-15-WB2-3MS	D156-01M	14.2	1	NA	2	0.5	04/23/1519:47	NA	15FED00214	15FED002	FED002W	04/22/1515:20	04/23/15
04-22-15-WB2-3MSD	D156-01S	13.9	1	NA	2	0.5	04/23/1519:48	NA	15FED00215	15FED002	FED002W	04/22/1515:20	04/23/15
04-22-15-PWB-2	D156-02	ND	1	NA	2	0.5	04/23/1519:48	NA	15FED00216	15FED002	FED002W	04/22/1514:35	04/23/15
04-22-15-PWB-6	D156-03	ND	1	NA	2	0.5	04/23/1519:48	NA	15FED00217	15FED002	FED002W	04/22/1513:45	04/23/15
04-23-15-PWB-8	D156-05	ND	1	NA	2	0.5	04/23/1519:48	NA	15FED00218	15FED002	FED002W	04/23/1508:00	04/23/15
04-23-15-EB-2	D156-06	ND	1	NA	2	0.5	04/23/1519:57	NA	15FED00221	15FED002	FED002W	04/23/1509:05	04/23/15
04-23-15-PWB-3	D156-07	ND	1	NA	2	0.5	04/23/1519:57	NA	15FED00222	15FED002	FED002W	04/23/1508:10	04/23/15
04-23-15-PWB-11	D156-08	ND	1	NA	2	0.5	04/23/1519:57	NA	15FED00223	15FED002	FED002W	04/23/1508:55	04/23/15
04-23-15-BBW-1	D156-10	ND	1	NA	2	0.5	04/23/1519:57	NA	15FED00224	15FED002	FED002W	04/23/1509:20	04/23/15
04-23-15-BBW-2	D156-11	ND	1	NA	2	0.5	04/23/1519:58	NA	15FED00225	15FED002	FED002W	04/23/1508:40	04/23/15

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : B & B GROUNDWATER SAMPLING
BATCH NO. : 15D156
METHOD : SM3500

MATRIX : WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID : MBLK1W LCS1W LCD1W
LAB SAMPLE ID : FED002WB FED002WL FED002WC
LAB FILE ID : 15FED00209 15FED00210 15FED00211
DATE PREPARED : NA NA NA
DATE ANALYZED : 04/23/1519:47 04/23/1519:47 04/23/1519:47
PREP BATCH : FED002W FED002W FED002W
CALIBRATION REF: 15FED002 15FED002 15FED002

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	15.8	105	15	15.6	104	1	80-120	20

EMAX QUALITY CONTROL DATA
SAMPLE DUPLICATE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : B & B GROUNDWATER SAMPLING
BATCH NO. : 15D156
METHOD : SM3500

MATRIX : WATER
DILUTION FACTOR: 1 1
SAMPLE ID : 04-22-15-WB2-3 04-22-15-WB2-3DUP
LAB SAMPLE ID : D156-01 D156-01D
LAB FILE ID : 15FED00212 15FED00213
DATE PREPARED : NA NA
DATE ANALYZED : 04/23/1519:47 04/23/1519:47
PREP BATCH : FED002W FED002W
CALIBRATION REF: 15FED002 15FED002

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	DUP RESULT (mg/L)	RPD (%)	MAX RPD (%)
----- Ferrous Iron	ND	ND	0	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : B & B GROUNDWATER SAMPLING
BATCH NO. : 15D156
METHOD : SM3500

MATRIX	: WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	1		1
SAMPLE ID	: 04-22-15-WB2-3	04-22-15-WB2-3MS		04-22-15-WB2-3MSD
LAB SAMPLE ID	: D156-01	D156-01M		D156-01S
LAB FILE ID	: 15FED00212	15FED00214		15FED00215
DATE PREPARED	: NA	NA		NA
DATE ANALYZED	: 04/23/1519:47	04/23/1519:47		04/23/1519:48
PREP BATCH	: FED002W	FED002W		FED002W
CALIBRATION REF:	15FED002	15FED002		15FED002

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	14.2	95	15	13.9	93	2	75-125	20



FERROUS IRON ANALYSIS

DataFileID	LabSampleID	Result	Flag	RUnit	SampleAmt	SUnit	PDate/Time	FinalVol (ml)	WL	Abs	ADate/Time	Sample Bknd	DF	%M	Conc.	DFXPrep Factor	Notes	Analyst	Sample pH	Coloring Time
15FED00209	FED002WB	ND		mg/L	10	mL	NA	10	510nm	0	4/23/15 19:47	0	1		-0.00091	1		TKosak		4/23/15 19:40
15FED00210	FED002WL	15.76		mg/L	10	mL	NA	10	510nm	0.33	4/23/15 19:47	0	1		15.75625	1		TKosak		4/23/15 19:40
15FED00211	FED002WC	15.57		mg/L	10	mL	NA	10	510nm	0.326	4/23/15 19:47	0	1		15.56526	1		TKosak		4/23/15 19:40
15FED00212	D156-01	ND		mg/L	10	mL	NA	10	510nm	0	4/23/15 19:47	0	1		-0.00091	1		TKosak	7	4/23/15 19:40
15FED00213	D156-01D	ND		mg/L	10	mL	NA	10	510nm	0	4/23/15 19:47	0	1		-0.00091	1		TKosak	7	4/23/15 19:40
15FED00214	D156-01M	14.23		mg/L	10	mL	NA	10	510nm	0.298	4/23/15 19:47	0	1		14.22829	1		TKosak	7	4/23/15 19:40
15FED00215	D156-01S	13.94		mg/L	10	mL	NA	10	510nm	0.292	4/23/15 19:48	0	1		13.94179	1		TKosak	7	4/23/15 19:40
15FED00216	D156-02	ND		mg/L	10	mL	NA	10	510nm	0	4/23/15 19:48	0	1		-0.00091	1		TKosak	7	4/23/15 19:40
15FED00217	D156-03	ND		mg/L	10	mL	NA	10	510nm	0	4/23/15 19:48	0	1		-0.00091	1		TKosak	7	4/23/15 19:40
15FED00218	D156-05	ND		mg/L	10	mL	NA	10	510nm	0.004	4/23/15 19:48	0	1		0.190086	1		TKosak	7	4/23/15 19:40
15FED00219	CCV1	15.18		mg/L	10	mL	NA	10	510nm	0.318	4/23/15 19:48	0	1		15.18327	1		TKosak		4/23/15 19:40
15FED00220	CCB1	ND		mg/L	10	mL	NA	10	510nm	0	4/23/15 19:48	0	1		-0.00091	1		TKosak		4/23/15 19:40
15FED00221	D156-06	ND		mg/L	10	mL	NA	10	510nm	0.001	4/23/15 19:57	0	1		0.046839	1		TKosak	6	4/23/15 19:51
15FED00222	D156-07	ND		mg/L	10	mL	NA	10	510nm	0	4/23/15 19:57	0	1		-0.00091	1		TKosak	7	4/23/15 19:51
15FED00223	D156-08	ND		mg/L	10	mL	NA	10	510nm	0	4/23/15 19:57	0	1		-0.00091	1		TKosak	7	4/23/15 19:51
15FED00224	D156-10	ND		mg/L	10	mL	NA	10	510nm	0.01	4/23/15 19:57	0.007	1		0.142337	1		TKosak	7	4/23/15 19:51
15FED00225	D156-11	0.333	J	mg/L	10	mL	NA	10	510nm	0.019	4/23/15 19:58	0.012	1		0.333333	1		TKosak	7	4/23/15 19:51
15FED00226	CCV2	15.09		mg/L	10	mL	NA	10	510nm	0.316	4/23/15 19:58	0	1		15.09777	1		TKosak		4/23/15 19:51
15FED00227	CCB2	ND		mg/L	10	mL	NA	10	510nm	0	4/23/15 19:58	0	1		-0.00091	1		TKosak		4/23/15 19:51

Reviewed by: TK
Date: 05/05/15



FERROUS IRON ANALYSIS

15FED002W
1 of 3

Data File Name	Calibration ID	Conc. mg/L	WL	Abs	CalDate	FC	%Rec	Coloring Time	FC = $[(A * CF) - Y] * DF$	InstrumentID: 70	
15FED00201	S0	0	510nm	0	4/23/15 19:36	-0.000906504	ND	4/23/15 19:30			
15FED00202	S1	2	510nm	0.044	4/23/15 19:36	2.100045475	105	4/23/15 19:30			
15FED00203	S2	10	510nm	0.208	4/23/15 19:37	9.930877672	99	4/23/15 19:30			
15FED00204	S3	15	510nm	0.31	4/23/15 19:37	14.80127331	99	4/23/15 19:30			
15FED00205	S4	20	510nm	0.422	4/23/15 19:37	20.14915871	101	4/23/15 19:30			
15FED00206	S5	25	510nm	0.524	4/23/15 19:37	25.01955434	100	4/23/15 19:30			
15FED00207	ICV	15	510nm	0.33	4/23/15 19:38	15.75825284	105 ✓	4/23/15 19:30			
15FED00208	ICB	0	510nm	0	4/23/15 19:38	-0.000909504	ND ✓	4/23/15 19:30			
15FED00219	CCV1	15	510nm	0.318	4/23/15 19:48	15.18326512	101 ✓	CF= 47.74897881		Y= 0.00091	r= 0.999922 ✓
15FED00220	CCB1	0	510nm	0	4/23/15 19:48	-0.000909504	ND ✓	DL Water(mg/L) 0.25		DL Soil(mg/Kg) 2.5	
15FED00228	CCV2	15	510nm	0.316	4/23/15 19:58	15.08776717	101 ✓	LOD Water(mg/L) 0.5	LOD Soil(mg/Kg) 5		
15FED00227	CCB2	0	510nm	0	4/23/15 19:58	-0.000909504	ND ✓	LOQ Water(mg/L) 2	LOQ Soil(mg/Kg) 20		
<p>SOP</p> <p><input checked="" type="checkbox"/> EMAX-3500 Fe B Rev. 4</p> <p>Comment:</p> <p>*Concentrations can be found in Reagent Log SWP1-14.</p>											

Standard / Reagent ID	Description	Conc.	Exp. Date
SW2-04-89-09	Intermediate ICAL CCV Std (mg/L)	200	05/12/15
SW2-08-16-04	Intermediate ICV LCS Std (mg/L)	500	04/23/15
SW2-08-16-04	MS Std (mg/L)	500	04/23/15
RW1-15-001	Reagent Water	NA	NA
NA	Reagent Water	NA	NA
SW1A-005-08-04	HCl	Conc.	10/02/16
SWP1-14-86-02	NH ₄ C ₂ H ₃ O ₂ Buffer	**	09/12/15
SWP1-18-20-02	Phenanthroline Solution	0.1%	09/17/15
SWP1-18-03-01	Hydroxylamine-HCl Solution	10%	12/11/15
HC413032	pH Strip	0-14	04/21/25
NA	Sand	NA	NA

Standard Prep	Intermediate Std Aliquot (ml)	Final Vol (ml)	Date/Time
S0	0	10	4/23/15 19:12
S1	0.1	10	4/23/15 19:12
S2	0.5	10	4/23/15 19:12
S3	0.75	10	4/23/15 19:12
S4	1	10	4/23/15 19:12
S5	1.25	10	4/23/15 19:12
ICV	0.3	10	4/23/15 19:12
CCV	0.75	10	4/23/15 19:12
LCS EV (mg/L)	0.3	10	4/23/15 19:12
MS EV (mg/L)	0.3	10	4/23/15 19:12
A EV			

Expected Sample Amount: 10

Sample Lot: 19414007

Balance ID: NA

Micropipette ID: PE97C-02 541460054 442781398

Leaching Date/Time Start: End:

Reviewed by: TR

Date: 05/10/15

Reviewed by: TR
Date: 05/10/15

LAB QC CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
15FED00209	FED002WB	ND	ND	MS Passed ✓
15FED00210	FED002WL	15.76	15	%R=105 ✓
15FED00211	FED002WC	15.57	15	%R=104 ✓

MS CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
15FED00212	D156-01	ND		RPD=2
15FED00214	D156-01M	14.23	15.00	%R=95 ✓
15FED00215	D156-01S	13.94	15.00	%R=93 ✓

DUP CHECK

DataFileID	LabSampleID	Result	Expected Value	RPD
15FED00212	D156-01	ND		0 ✓
15FED00213	D156-01D	ND	ND	

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D156

METHOD SM4500S2D
SULFIDE

A total of nine(9) water samples were received on 04/23/15 to be analyzed for Sulfide in accordance with Method SM4500S2D and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

Calibration was performed as prescribed by the method and was verified using a secondary source (ICV). All calibration requirements were within acceptance criteria.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. Sulfide was not detected in SFD004WB. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of LCS/LCD was analyzed. Sulfide was within LCS QC limits in SFD004WL/SFD004WC. Refer to LCS summary form for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

METHOD SM4500S2D
SULFIDE

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D156

Matrix : WATER
InstrumentID : 70

CLIENT SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DFxPREP FACTOR (%)	MOIST RL (mg/L)	MDL (mg/L)	ANALYSIS DATETIME	PREPARATION DATETIME	DATA FILE ID	CAL REF	PREP BATCH	COLLECTION DATETIME	RECEIVED DATETIME	
MBLK1W	SFD004WB	ND	1	NA	0.1	0.02	04/27/1514:01	NA	15SFD00410	15SFD004	SFD004W	NA	NA
LCS1W	SFD004WL	0.420	1	NA	0.1	0.02	04/27/1514:01	NA	15SFD00411	15SFD004	SFD004W	NA	NA
LCD1W	SFD004WC	0.416	1	NA	0.1	0.02	04/27/1514:01	NA	15SFD00412	15SFD004	SFD004W	NA	NA
04-22-15-WB2-3	D156-01	ND	1	NA	0.1	0.02	04/27/1514:09	NA	15SFD00423	15SFD004	SFD004W	04/22/1515:20	04/23/15
04-22-15-PWB-2	D156-02	ND	1	NA	0.1	0.02	04/27/1514:10	NA	15SFD00424	15SFD004	SFD004W	04/22/1514:35	04/23/15
04-22-15-PWB-6	D156-03	ND	1	NA	0.1	0.02	04/27/1514:11	NA	15SFD00425	15SFD004	SFD004W	04/22/1513:45	04/23/15
04-23-15-PWB-8	D156-05	ND	1	NA	0.1	0.02	04/27/1514:12	NA	15SFD00426	15SFD004	SFD004W	04/23/1508:00	04/23/15
04-23-15-EB-2	D156-06	ND	1	NA	0.1	0.02	04/27/1514:13	NA	15SFD00427	15SFD004	SFD004W	04/23/1509:05	04/23/15
04-23-15-PWB-3	D156-07	ND	1	NA	0.1	0.02	04/27/1514:13	NA	15SFD00428	15SFD004	SFD004W	04/23/1508:10	04/23/15
04-23-15-PWB-11	D156-08	ND	1	NA	0.1	0.02	04/27/1514:13	NA	15SFD00429	15SFD004	SFD004W	04/23/1508:55	04/23/15
04-23-15-BBW-1	D156-10	0.0609J	1	NA	0.1	0.02	04/27/1514:14	NA	15SFD00430	15SFD004	SFD004W	04/23/1509:20	04/23/15
04-23-15-BBW-2	D156-11	0.0304J	1	NA	0.1	0.02	04/27/1514:14	NA	15SFD00431	15SFD004	SFD004W	04/23/1508:40	04/23/15

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : B & B GROUNDWATER SAMPLING
BATCH NO. : 15D156
METHOD : SM4500S2D

MATRIX : WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID : MBLK1W LCS1W LCD1W
LAB SAMPLE ID : SFD004WB SFD004WL SFD004WC
LAB FILE ID : 15SFD00410 15SFD00411 15SFD00412
DATE PREPARED : NA NA NA
DATE ANALYZED : 04/27/1514:01 04/27/1514:01 04/27/1514:01
PREP BATCH : SFD004W SFD004W SFD004W
CALIBRATION REF: 15SFD004 15SFD004 15SFD004

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	0.4	0.420	105	0.4	0.416	104	1	80-120	20



SULFIDE ANALYSIS
(COLORIMETRY)

15SFD004W
2 of 3

DateFileID	LabSampleID	Result	Flag	RUnit	SampleAmount	SUnit	PDateTime	FinalVol (ml)	WL	Abs	ADateTime	Sample Bkgnd	DF	%M	FC	DFxProp Factor	Notes	Analyst	pH check	Coloring Time
15SFD00410	SFD004WB	ND		mg/L	7.5	ml	NA	7.5	654nm	0	4/27/15 14:01	0	1		0	1		TKosak		4/27/15 13:16
15SFD00411	SFD004WL	0.42		mg/L	7.5	ml	NA	7.5	654nm	0.331	4/27/15 14:01	0	1		0.419942	1		TKosak		4/27/15 13:16
15SFD00412	SFD004WC	0.416		mg/L	7.5	ml	NA	7.5	654nm	0.328	4/27/15 14:01	0	1		0.416136	1		TKosak		4/27/15 13:16
15SFD00413	D142-01	0.0152	J	mg/L	7.5	ml	NA	7.5	654nm	0.012	4/27/15 14:02	0	1		0.015224	1		TKosak	>9	4/27/15 13:16
15SFD00414	D142-02	0.014	J	mg/L	7.5	ml	NA	7.5	654nm	0.011	4/27/15 14:02	0	1		0.013956	1		TKosak	>9	4/27/15 13:16
15SFD00415	D142-03	ND		mg/L	7.5	ml	NA	7.5	654nm	0.002	4/27/15 14:03	0	1		0.002537	1		TKosak	>9	4/27/15 13:16
15SFD00416	D142-03D	ND		mg/L	7.5	ml	NA	7.5	654nm	0.003	4/27/15 14:04	0	1		0.003806	1		TKosak	>9	4/27/15 13:16
15SFD00417	D142-03M	0.417		mg/L	7.5	ml	NA	7.5	654nm	0.329	4/27/15 14:04	0	1		0.417405	1		TKosak	>9	4/27/15 13:16
15SFD00418	D142-05	ND		mg/L	7.5	ml	NA	7.5	654nm	0.002	4/27/15 14:05	0	1		0.002537	1		TKosak	>9	4/27/15 13:16
15SFD00419	D142-07	ND		mg/L	7.5	ml	NA	7.5	654nm	0.003	4/27/15 14:05	0	1		0.003806	1		TKosak	>9	4/27/15 13:16
15SFD00420	CCV1	0.397		mg/L	7.5	ml	NA	7.5	654nm	0.313	4/27/15 14:05	0	1		0.397105	1		TKosak		4/27/15 13:16
15SFD00421	CCB1	ND		mg/L	7.5	ml	NA	7.5	654nm	0	4/27/15 14:05	0	1		0	1		TKosak		4/27/15 13:16
15SFD00422	D142-09	ND		mg/L	7.5	ml	NA	7.5	654nm	0.004	4/27/15 14:09	0	1		0.005075	1		TKosak	>9	4/27/15 13:33
15SFD00423	D156-01	ND		mg/L	7.5	ml	NA	7.5	654nm	0.004	4/27/15 14:09	0	1		0.005075	1		TKosak	>9	4/27/15 13:33
15SFD00424	D156-02	ND		mg/L	7.5	ml	NA	7.5	654nm	0.003	4/27/15 14:10	0	1		0.003806	1		TKosak	>9	4/27/15 13:33
15SFD00425	D156-03	0.0152	J	mg/L	7.5	ml	NA	7.5	654nm	0.076	4/27/15 14:11	0.064	1		0.015224	1		TKosak	>9	4/27/15 13:33
15SFD00426	D156-05	0.0152	J	mg/L	7.5	ml	NA	7.5	654nm	0.02	4/27/15 14:12	0.008	1		0.015224	1		TKosak	>9	4/27/15 13:33
15SFD00427	D156-06	ND		mg/L	7.5	ml	NA	7.5	654nm	0.002	4/27/15 14:13	0	1		0.002537	1		TKosak	>9	4/27/15 13:33
15SFD00428	D156-07	ND		mg/L	7.5	ml	NA	7.5	654nm	0.003	4/27/15 14:13	0	1		0.003806	1		TKosak	>9	4/27/15 13:33
15SFD00429	D156-08	ND		mg/L	7.5	ml	NA	7.5	654nm	0.003	4/27/15 14:13	0	1		0.003806	1		TKosak	>9	4/27/15 13:33
15SFD00430	D156-10	0.0609	J	mg/L	7.5	ml	NA	7.5	654nm	0.23	4/27/15 14:14	0.162	1		0.060896	1		TKosak	>9	4/27/15 13:33
15SFD00431	D156-11	0.0304	J	mg/L	7.5	ml	NA	7.5	654nm	0.141	4/27/15 14:14	0.117	1		0.030449	1		TKosak	>9	4/27/15 13:33
15SFD00432	CCV2	0.396		mg/L	7.5	ml	NA	7.5	654nm	0.312	4/27/15 14:14	0	1		0.395837	1		TKosak		4/27/15 13:33
15SFD00433	CCB2	ND		mg/L	7.5	ml	NA	7.5	654nm	0	4/27/15 14:14	0	1		0	1		TKosak		4/27/15 13:33

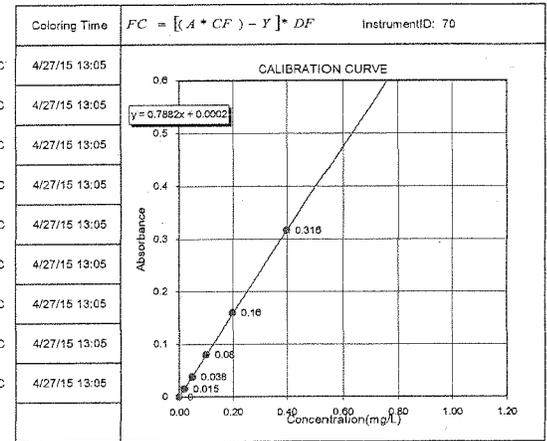
Reviewed by: *TK*
Date: *04/27/15*



SULFIDE ANALYSIS
(COLORIMETRY)

15SFD004W
1 of 3

Data File Name	Calibration ID	Conc. mg/L	WL	Abs	CalDate	FC	%Rec
15SFD00401	S0	0.00	664nm	0	4/27/15 13:53	0	ND
15SFD00402	S1	0.02	664nm	0.015	4/27/15 13:54	0.019030608	95
15SFD00403	S2	0.05	664nm	0.036	4/27/15 13:55	0.048210875	96
15SFD00404	S3	0.10	664nm	0.08	4/27/15 13:56	0.101496576	101
15SFD00405	S4	0.20	664nm	0.16	4/27/15 13:56	0.202993156	101
15SFD00406	S5	0.40	664nm	0.316	4/27/15 13:56	0.400911483	100
15SFD00407	S6	0.80	664nm	0.63	4/27/15 13:56	0.799285551	100
15SFD00408	ICV	0.40	664nm	0.333	4/27/15 13:57	0.422479506	106 ✓
15SFD00409	ICB	0.00	664nm	0	4/27/15 13:57	0	ND ✓
15SFD00420	CCV1	0.40	664nm	0.313	4/27/15 14:05	0.397105361	99 ✓
15SFD00421	CCB1	0.00	664nm	0	4/27/15 14:05	0	ND ✓
15SFD00432	CCV2	0.40	664nm	0.312	4/27/15 14:14	0.395836654	99 ✓
15SFD00433	CCB2	0.00	664nm	0	4/27/15 14:14	0	ND ✓
<i>TR 05/04/15</i>							



DL Water(mg/L)	0.01	DL Sol(mg/Kg)	
LOD Water(mg/L)	0.02	LOD Sol(mg/Kg)	
LOQ Water(mg/L)	0.1	LOQ Sol(mg/Kg)	

SOP

- EMAX-376.2 Rev. 2
- EMAX-4500-52D Rev. 2

Comment:

**Concentration can be found in Reagent Prep Log SWP1-18.

Standard / Reagent ID	Description	Conc.	Exp. Date	Standard Prep	Intermediate Std Aliquot (mg/L)	Final Vol (ml)	Date/Time
SW2-08-16-10	Intermediate ICAL CCV Std (mg/L)	10	04/27/15	S0	0	7.5	4/27/15 12:59
SW2-08-17-01	Intermediate ICV LCS Std (mg/L)	10	04/27/15	S1	0.015	7.5	4/27/15 12:59
SW1-01-562	MS Spike	1000	03/22/16	S2	0.0375	7.5	4/27/15 12:59
RW1-15-001	Reagent Water	NA	NA	S3	0.075	7.5	4/27/15 12:59
NA	Sand	NA	NA	S4	0.15	7.5	4/27/15 12:59
SWR1-01-784	Amine Sulfuric Acid	CRT RGT	07/01/15	S5	0.3	7.5	4/27/15 12:59
SWR1-01-795	Ferric Chloride (%)	100	10/01/16	S6	0.6	7.5	4/27/15 12:59
SWP1-16-03-02	Diammonium Phosphate	**	12/12/15				
SWP1-15-02-01	Sulfuric Acid, %	50	10/17/15	ICV/LCS	0.3	7.5	4/27/15 12:59
HC413032	pH strip	0-14	04/21/25	CCV	0.3	7.5	4/27/15 12:59
				MS	0.006	15	4/27/15 12:59

Balance ID: NA
Micropipette ID: GFAA-07 PE97C-02
541460054 442781398

Snapshot Lot: 26414009

Analyzed by: TKosak

Reviewed by: *TR*
Date: 05/04/15



SULFIDE ANALYSIS
(COLORIMETRY)

LAB QC CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
15SFD00410	SFD004WB	ND	ND	MB Passed ✓
15SFD00411	SFD004WL	0.42	0.4	%R=105 ✓
15SFD00412	SFD004WC	0.416	0.4	%R=104 ✓

MS CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
15SFD00415	D142-03	ND	0	
15SFD00417	D142-03M	0.417	0.4	%R=104 ✓

DUP CHECK

DataFileID	LabSampleID	Result	Expected Value	RPD
15SFD00415	D142-03	ND	0	0 ✓
15SFD00416	D142-03D	ND		

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

METHANE AND DISSOLVED HYDROGEN

SDG#: 15D156

May 15, 2015

EMAX Laboratories, Inc.
ATTN: Richard Beauvil
1835 205th St.
Torrance, CA 90501



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

UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 15D156; Eco & Associates, Inc.
Lab Number: G042704-01/09

Enclosed are results for sample(s) received 4/27/15 by Air Technology Laboratories. Samples were received intact and properly chilled. 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).

Preliminary results were e-mailed to Richard Beauvil on 5/14/15.

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,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

CHAIN OF CUSTODY

G042704-01/09



Tel#: 310-618-8889 FAX#: 310-618-0818
email: info@emaxlabs.com

EMAX CONTROL NO	15D156
PROJECT CODE	ECO1302
TURN-AROUND-TIME	STANDARD

SEND REPORT TO:
EMAX LABORATORIES, INC.
1835 W. 205TH ST. CA 90501

CLIENT: Eco & Associates, Inc.
PROJECT: B & B Groundwater Sampli

SEND SAMPLES TO:

AIR TECHNOLOGY LAB
1850 E. Gale Ave, Suite 130
City of Industry, CA 91748

ATTN: Richard Beauvil

EMAX Sample ID	Client Sample ID	Collection Date	Collection Time	Matrix	Method		COMMENTS
01 D156-01	04-22-15-WB2-3	4/22/2015	3:20:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
02 D156-02	04-22-15-PWB-2	4/22/2015	2:35:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
03 D156-03	04-22-15-PWB-6	4/22/2015	1:45:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
04 D156-05	04-23-15-PWB-8	4/23/2015	8:00:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
05 D156-06	04-23-15-EB-2	4/23/2015	9:05:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
06 D156-07	04-23-15-PWB-3	4/23/2015	8:10:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
07 D156-08	04-23-15-PWB-11	4/23/2015	8:55:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
08 D156-10	04-23-15-BBW-1	4/23/2015	9:20:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	
09 D156-11	04-23-15-BBW-2	4/23/2015	8:40:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN	

INSTRUCTION:

DATA PACKAGES: 2 HARDCOPIES AND 1 CD IN .PDF. EDDs: ADR & EXCEL

COOLER TEMPERATURE

4°C

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	4/27/15	12:00		04/23/15	12
	4/27/15	12:08		4/27/15	1305

Client: EMAX Laboratories
Attn: Richard Beauvil
Project Name: Eco & Associates, Inc.
Project No.: 15D156
Date Received: 04/27/15
Matrix: Water
Reporting Units: ug/L

RSK175

Lab No.:	G042704-05	G042704-06	G042704-07	G042704-08				
Client Sample I.D.:	D156-06 / 04-23-15 EB-2	D156-07 / 04-23-15 PWB-3	D156-08 / 04-23-15 PWB-11	D156-10 / 04-23-15 BBW-1				
Date/Time Sampled:	4/23/15 9:05	4/23/15 8:10	4/23/15 8:55	4/23/15 9:20				
Date/Time Analyzed:	4/29/15 9:22	4/29/15 9:50	4/29/15 10:24	4/29/15 10:37				
QC Batch No.:	150428GC8A1	150428GC8A1	150428GC8A1	150428GC8A1				
Analyst Initials:	AS	AS	AS	AS				
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

ND = Not Detected (below RL)
 RL = Reporting Limit

Reviewed/Approved By: 
 Mark Johnson
 Operations Manager

Date 5/13/15

The cover letter is an integral part of this analytical report



GC Raw Data Index

General Information

Method: RSK 175

Lab Project No.: G042704

<u>Section</u>	<u>Page #</u>
1. Supporting Documents	<u>12</u>
2. Sample Raw Data	<u>19</u>
3. Initial Calibration	<u>74</u>
4. Continuing Calibration	<u>103</u>
5. Method Blank	<u>112</u>
6. LCS/LCSD	<u>121</u>

Conventions and Conversions

$$1 \text{ ppbv} = 0.001 \text{ ppmv} = 0.0000001\% \text{ v/v}$$
$$1\% \text{ v/v} = 10,000 \text{ ppmv} = 10,000,000 \text{ ppbv}$$

$$1 \text{ ug/m}^3 = 1 \text{ ng/L} = \text{ppbv} \times \text{MW}/24.45$$
$$1 \text{ ug/L} = 1 \text{ mg/m}^3 = \text{ppmv} \times \text{MW}/24.45$$

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.

$$1 \text{ atmosphere} = 14.6 \text{ psia} = 0 \text{ psig}$$
$$30'' \text{ Hg} = 0 \text{ psia} = -14.6 \text{ psig}$$

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
 Analytical Method: nmoc-fid-150105_rsk175fg150428 (cal)
 Datafile Directory: GC8A\2015\Apr

GC Injection Logbook

Chemist: AS
 Blank Lot #: 3005F54628A

Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
4/28/15	0843	27apr04	FG LO ₂ H ₂ N ₂ O ₂	AW120883	STP loop	-	-	1.0	2	ok	NR	150427GC8A2
	0828	045										
	0843	046								No	Air out	
4/28/15	0913	28apr	3ppmv 1cal	AW120884	250µl	-	-	1.0	-	ok	RSK 1cal	150428GC8A1
	0927	28apr001	10ppmv 1cal	AW1208809								
	0941	002	100ppmv 1cal	AW1208808								
	0956	003	1000ppmv 1cal	AW1208802								
	1011	004	5000ppmv 1cal	AS014319	125µl							
	1026	005	1% 1cal	AS014319	250µl						10000ppmv	
	1039	006	10% CH ₄ CO ₂ 1cal	AW1208815							100000	
	1057	007	50% CH ₄ CO ₂ 1cal	AW1208816							500000	
	1117	008	0.5% RSK 1CV	AS014513	125µl							

13 of 129

Air Technology Laboratories, Inc.

Approved by/Date: _____

Instrument ID:

GC 8A

GC Injection Logbook

Chemist: AS

Analytical Method: nroc fixed-140106; rsk hydrogen

Blank Lot #: 1205FS462A

Datafile Directory: GC8A\2014\Jun

Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
6/27/14	1646	27Jun020	300ppm nroc	AS014301	STD 300pp	-	-	1.0	4	ok		140627GC8A1
6/29/14	0828	30Jun	0.1% H ₂	AW120234	250ul	-	-	1.0	-	No		140630GC8A1
	0839	30Jun001	0.1% H ₂	AW120234								
	0851	002	0.5% H ₂	AW120235								
	0900	003	0.1% H ₂	AW120234								
	0908	004	100% H ₂	GC45FS1163						No	too high	
	0925	005	0.1% H ₂	AW120234								
	0937	006	100% H ₂	GC45FS1163						No	too high	
	0950	007	5% H ₂	AW120236						ok	NR	
	1013	008	5% H ₂	AW120236						ok	rsk hydrogen 140630 load	
	1022	009	2.5% H ₂	AW120237								
	1030	010	1% H ₂	AW120238								
	1043	011	0.5% H ₂	AW120239								
	1056	012	0.1% H ₂	AW120240								
	1104	013	0.1% H ₂	AW120240						No	NR	
	1119	014	1% H ₂ CV	AW120241						OK		

Air Technology Laboratories, Inc.

GC8A Logbook #32

Approved by/Date: _____

Page 62 of 202

Instrument ID: GC 8A
 Analytical Method: rsk175fg150428
 Datafile Directory: GC8A\2015\Apr

GC Injection Logbook

Chemist: AS
 Blank Lot #: 300SFS4628A

Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
4/28/15	1320	28apr014	RSK 0.5%COU	RS014319	125µl	-	-	1.0	-	OK		150428GC8A1
	1334	015	RSK LCS	AW1208819	250µl							
	1350	016	RSK LCSD	AW1208820								
	1403	017	Method Blank	-							NR	
	1417	018	↓	↓							↓	
	1432	019	He Blank									
	1512	020	Method Blank	↓							↓	
	1512	021	G042702-01	Emark						OK		
	1525	022	-02									
	1538	023	-03									
	1551	024	-03MS									
	1604	025	-03MSD									
	1618	026	-04									
	1631	027	-05									
4/29/15	0810	028	↓ -06	↓							↓	
	0829	029	G042704-01	Emark						OK		
	0842	030	-02									
	0855	031	-03									
	0909	032	-04									
	0922	033	-05									

Instrument ID: GC 8A
 Analytical Method: RSK175Fg150428
 Datafile Directory: GC8A\2015\1Apr

GC Injection Logbook

Chemist: AS
 Blank Lot #: 300SESH628A

	Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
1	4/29/15	0936	28apr034	G042704-06	Emax	25µL	-	-	1.0	-	No	baseline	150428GC8A1
2		0950	035	-06							ok		
3		1024	036	-07									
4		1037	037	-08									
5		1050	038	-09									
6		1106	29apr	RSK0.5%COV	RSK153M	125µL					ok		150429GC8A1
7													
8													
9													
0													
1													
2													
3													
4													
5													
6													
7													
8													
9													
0													

Instrument ID: GC 8A
 Analytical Method: rsk175fg150428, rskhydrogen140630
 Datafile Directory: GC8A\2015\Apr

GC Injection Logbook

Chemist: AS
 Blank Lot #: 3005FS4628A

Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
4/29/15	1445	29apr015	G042705-09	Emax	250µl	-	-	1.0	-	ok		150429GC8A1
	1458	016	-10									
	1512	017	-11									
	1525	018	-12									
	1539	019	-13									
	1552	020	-14									
	1605	021	-13MS									
	1618	022	-13MSD									
	1631	023	RSK 0.5% CCV	AS015319	125µl							
4/30/15	0824	30apr	1% RSK H ₂ CCV	Munro8905	250µl	-	-	1.0	-	ok		150430GC8A1
	0840	30apr001	H ₂ RSK LCS	Munro8905								
	0848	002	H ₂ RSK LSD	Munro8905								
	0856	003	Method Blank	-								
	0904	004	He Blank	-								
	0912	005	G042702-01	Emax								
	0922	006	-02									
	0929	007	-03									
	0936	008	-03MS							No	Wrong Vile	
	0957	009	-03MS							ok		
	1004	010	-03MSD							No	Bad Inject	

17 of 129

Instrument ID: GC 8A
 Analytical Method: RSK hydrogen 140x30
 Datafile Directory: GC8A\2015\Apr

GC Injection Logbook

Chemist: AS
 Blank Lot #: 300SFS462RA

Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
4/30/15	1012	30Apr011	G042702-GBMSD	Emax	25µl	-	-	1.0	-	ok		150430GC8A1
	1019	012	-04							↓		
	1026	013	-05							No	% comb. ← late inject	
	1034	014	-05							No	baseline drop	
	1042	015	-05				40/1	40.0		ok	not needed	
	1049	016	-05				-	1.0		ok	Reported	
	1056	017	-06							ok		
	1103	018	G042702-01	Emax						No	shift	
	1111	019	-01							ok		
	1118	020	-02									
	1126	021	-03									
	1132	022	-04									
	1142	023	-05									
	1149	024	-06							No	baseline	
	1159	025	-06							ok		
	1206	026	-07									
	1212	027	-08									
	1219	028	-09									
	1226	029	1% Hz RSK CCW	AWH28905						No	shift	150430GC8A2
	1234	030								ok		

18 of 129

2. Sample Raw Data

- a. Calculations (if applicable)
- b. Chromatograms/Results

G042704-01		28apr029							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	99.7097	NA	NA	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	9.971E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x _g	#VALUE!	#VALUE!	#VALUE!	2.414E-09	#VALUE!	#VALUE!	#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!	0.0021439	#VALUE!	#VALUE!	#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!	0.0003988	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A ₁	#VALUE!	#VALUE!	#VALUE!	0.0072459	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	0.0093898	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	9.39	#VALUE!	#VALUE!	#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!	9.39	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	1.4348716		
	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!		
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.98364	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

	G042704-02	28apr030							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	4.051	NA	NA	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	4.051E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x _g	#VALUE!	#VALUE!	#VALUE!	9.809E-11	#VALUE!	#VALUE!	#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!	8.71E-05	#VALUE!	#VALUE!	#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!	1.62E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mi
A ₁	#VALUE!	#VALUE!	#VALUE!	0.0002944	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	0.0003815	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	0.38	#VALUE!	#VALUE!	#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!	0.38	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	0.0582963		
	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!		
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.98364	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

G042704-03		28apr031							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	1.086	NA	NA	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	1.086E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x _g	#VALUE!	#VALUE!	#VALUE!	2.63E-11	#VALUE!	#VALUE!	#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!	2.335E-05	#VALUE!	#VALUE!	#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!	4.344E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A ₁	#VALUE!	#VALUE!	#VALUE!	7.892E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	0.0001023	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	0.10	#VALUE!	#VALUE!	#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!	0.10	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
spike amt.									
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	0.0156282		
	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				

G04270404		28apr032							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	0.783	NA	NA	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	7.83E-07	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x _g	#VALUE!	#VALUE!	#VALUE!	1.896E-11	#VALUE!	#VALUE!	#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!	1.684E-05	#VALUE!	#VALUE!	#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!	3.132E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A _i	#VALUE!	#VALUE!	#VALUE!	5.69E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	7.374E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	0.07	#VALUE!	#VALUE!	#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!	0.07	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	0.0112678		
	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				

		G042704-05		28apr033							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units		
ppmv in headspace	NA	NA	NA	1.029	NA	NA	NA	NA	ppmv		
p _g	#VALUE!	#VALUE!	#VALUE!	1.029E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none		
m _b											
x _g	#VALUE!	#VALUE!	#VALUE!	2.492E-11	#VALUE!	#VALUE!	#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!	2.212E-05	#VALUE!	#VALUE!	#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!	4.116E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml		
A ₁	#VALUE!	#VALUE!	#VALUE!	7.478E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L		
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	9.69E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L		
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	0.10	#VALUE!	#VALUE!	#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!	0.10	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L		
LCS/D calculation											
		spike amt.									
		ug	%	mL	MW	mg/L	%R				
		26.175869	1	4	16 Methane	0.6543967	0.0148079				
		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!				
		#VALUE!	NA	4	32 Oxygen	#VALUE!	#VALUE!				
		71.98364	1	4	44 CO2	1.799591	#VALUE!				
				4	28 Nitrogen						

G042704-06		28apr035									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units		
ppmv in headspace	NA	NA	NA	5.611	NA	NA	NA	NA	ppmv		
p _g	#VALUE!	#VALUE!	#VALUE!	5.611E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none		
m											
b											
x _g	#VALUE!	#VALUE!	#VALUE!	1.359E-10	#VALUE!	#VALUE!	#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!	0.0001206	#VALUE!	#VALUE!	#VALUE!	#VALUE!			
MW	28	30	44	16	32	2	44	28	mg/L		
ST	25	25	25	25	25	25	25	25	g/mole		
p	1.1445581	1.2263123	1.7985913	0.6540332	1.3080664	0.0817542	1.7985913	1.1445581	°C		
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 _n	#VALUE!	#VALUE!	#VALUE!	2.244E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml		
A _t	#VALUE!	#VALUE!	#VALUE!	0.0004078	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L		
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	0.0005284	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L		
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	0.53	#VALUE!	#VALUE!	#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!	0.53	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L		
LCS/D calculation											
		spike amt.									
	ug	%	mL	MW		mg/L	%R				
	26.175869	1	4	16 Methane		0.6543967	0.0807456				
	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							

G042704-07		28apr036							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	4.258	NA	NA	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	4.258E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x _g	#VALUE!	#VALUE!	#VALUE!	1.031E-10	#VALUE!	#VALUE!	#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!	9.155E-05	#VALUE!	#VALUE!	#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!	1.703E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A ₁	#VALUE!	#VALUE!	#VALUE!	0.0003094	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	0.000401	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	0.40	#VALUE!	#VALUE!	#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!	0.40	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16 Methane	0.6543967	0.0612751			
	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					

G042704-08		28apr037							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	5.565	NA	NA	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	5.565E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x _g	#VALUE!	#VALUE!	#VALUE!	1.347E-10	#VALUE!	#VALUE!	#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!	0.0001197	#VALUE!	#VALUE!	#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!	2.226E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A ₁	#VALUE!	#VALUE!	#VALUE!	0.0004044	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	0.0005241	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	0.52	#VALUE!	#VALUE!	#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!	0.52	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
spike amt.									
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	0.0800836		
	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				

		G042704-09		28apr038							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units		
ppmv in headspace	NA	NA	NA	3.913	NA	NA	NA	NA	ppmv		
p _g	#VALUE!	#VALUE!	#VALUE!	3.913E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none		
m											
b											
x _g	#VALUE!	#VALUE!	#VALUE!	9.475E-11	#VALUE!	#VALUE!	#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!	8.413E-05	#VALUE!	#VALUE!	#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 _n	#VALUE!	#VALUE!	#VALUE!	1.565E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml		
A _i	#VALUE!	#VALUE!	#VALUE!	0.0002844	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L		
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	0.0003685	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L		
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	0.37	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	ug/L		
LCS/D calculation											
		spike amt.									
	ug	%	mL	MW		mg/L	%R				
	26.175869	1	4	16	Methane	0.6543967	0.0563104				
	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						

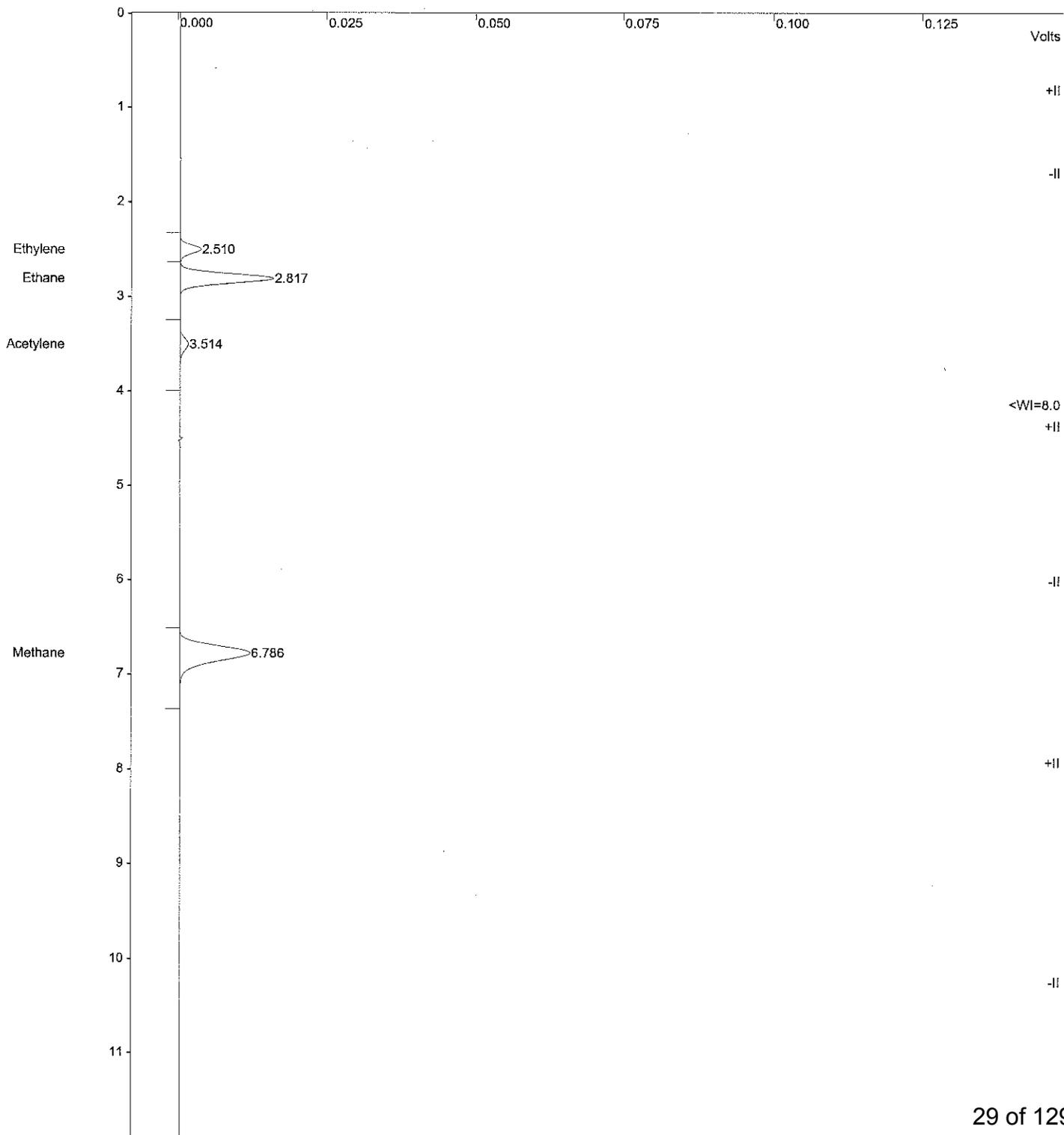
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr029.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042704-01 Emax

Injection Date: 4/29/2015 08:29 Calculation Date: 4/29/2015 08:41

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr029.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042704-01 Emax

Injection Date: 4/29/2015 08:29 Calculation Date: 4/29/2015 08:41

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 337 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 5 microVolts

Manual injection

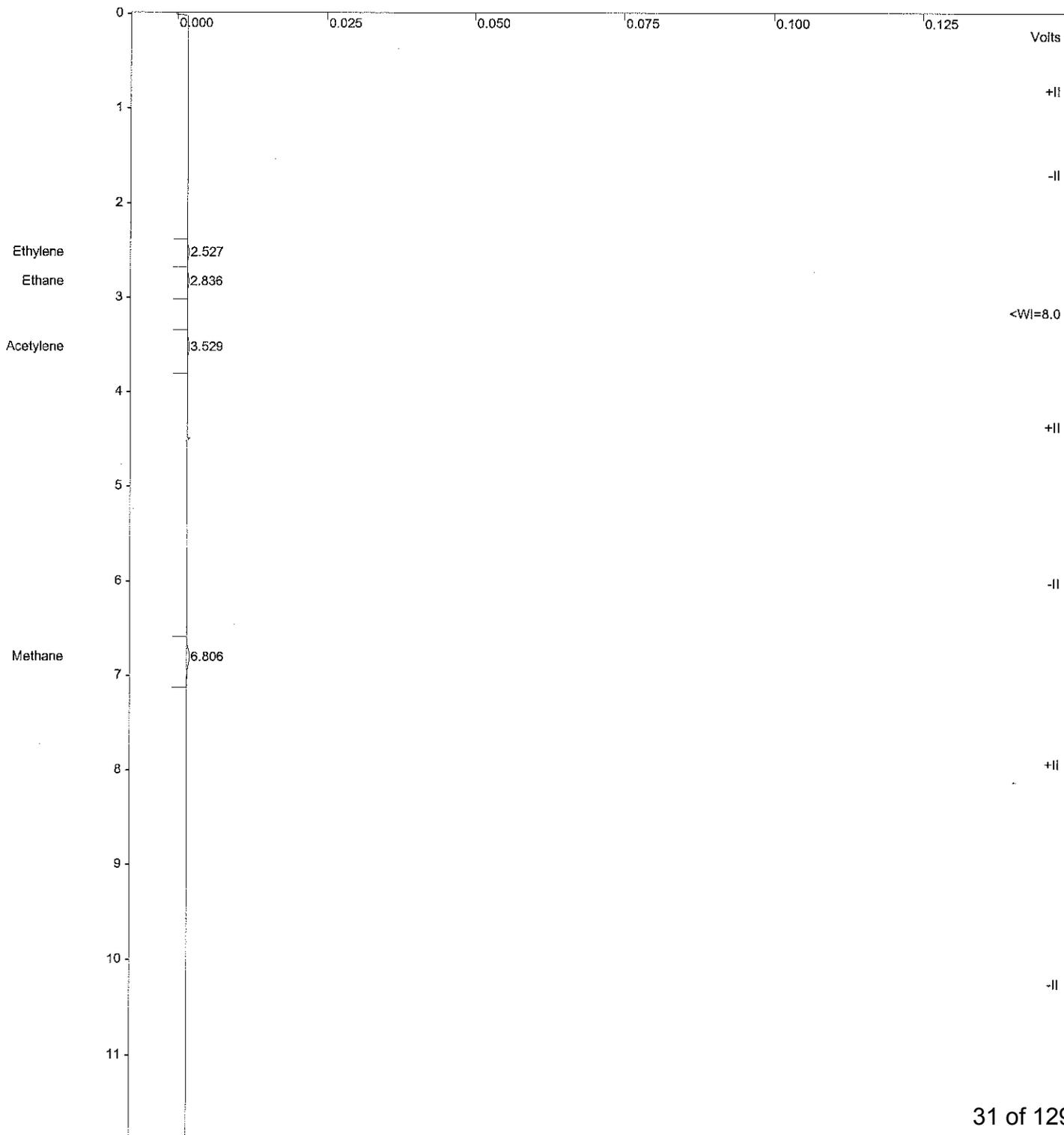
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr030.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl50428.mth
Sample ID : G042704-02 Emax

Injection Date: 4/29/2015 08:42 Calculation Date: 4/29/2015 08:54

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr030.run
 Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
 Sample ID : G042704-02 Emax

Injection Date: 4/29/2015 08:42 Calculation Date: 4/29/2015 08:54

Operator : AS Detector Type: 3800 (10 Volts)
 Workstation: Bus Address : 44
 Instrument : GC8A Sample Rate : 10.00 Hz
 Channel : Middle = FID 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	0.618	2.527	0.014	1636	BV	6.0	
2	Ethane	0.540	2.836	0.016	1468	VB	6.7	
3	Acetylene	0.908	3.529	0.016	2600	BB	8.7	
4	Methane	4.051	6.806	0.007	5506	BB	10.7	
Totals:		6.117		0.053	11210			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -227 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
 Noise (monitored before this run): 13 microVolts

Manual injection

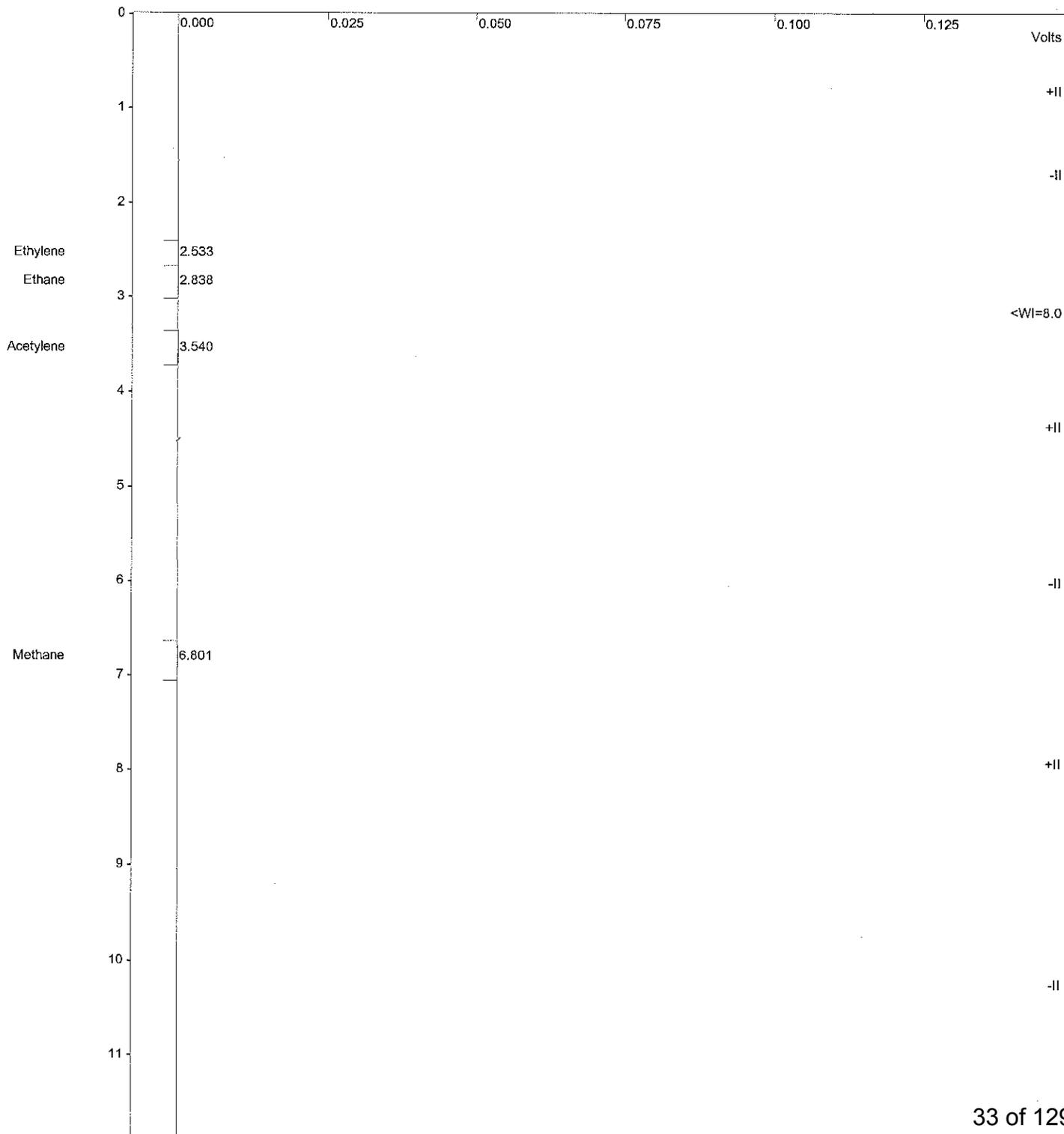
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr031.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042704-03 Emax

Injection Date: 4/29/2015 08:55 Calculation Date: 4/29/2015 09:07

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr031.run
 Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
 Sample ID : G042704-03 Emax

Injection Date: 4/29/2015 08:55 Calculation Date: 4/29/2015 09:07

Operator : AS Detector Type: 3800 (10 Volts)
 Workstation: Bus Address : 44
 Instrument : GC8A Sample Rate : 10.00 Hz
 Channel : Middle = FID 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	0.284	2.533	0.020	753	BV	6.1	
2	Ethane	0.234	2.838	0.018	636	VB	6.7	
3	Acetylene	0.356	3.540	0.027	1020	BB	8.8	
4	Methane	1.086	6.801	0.002	1476	BB	10.4	
Totals:		1.960		0.067	3885			

Total Unidentified Counts : 0 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): 9 microVolts

Manual injection

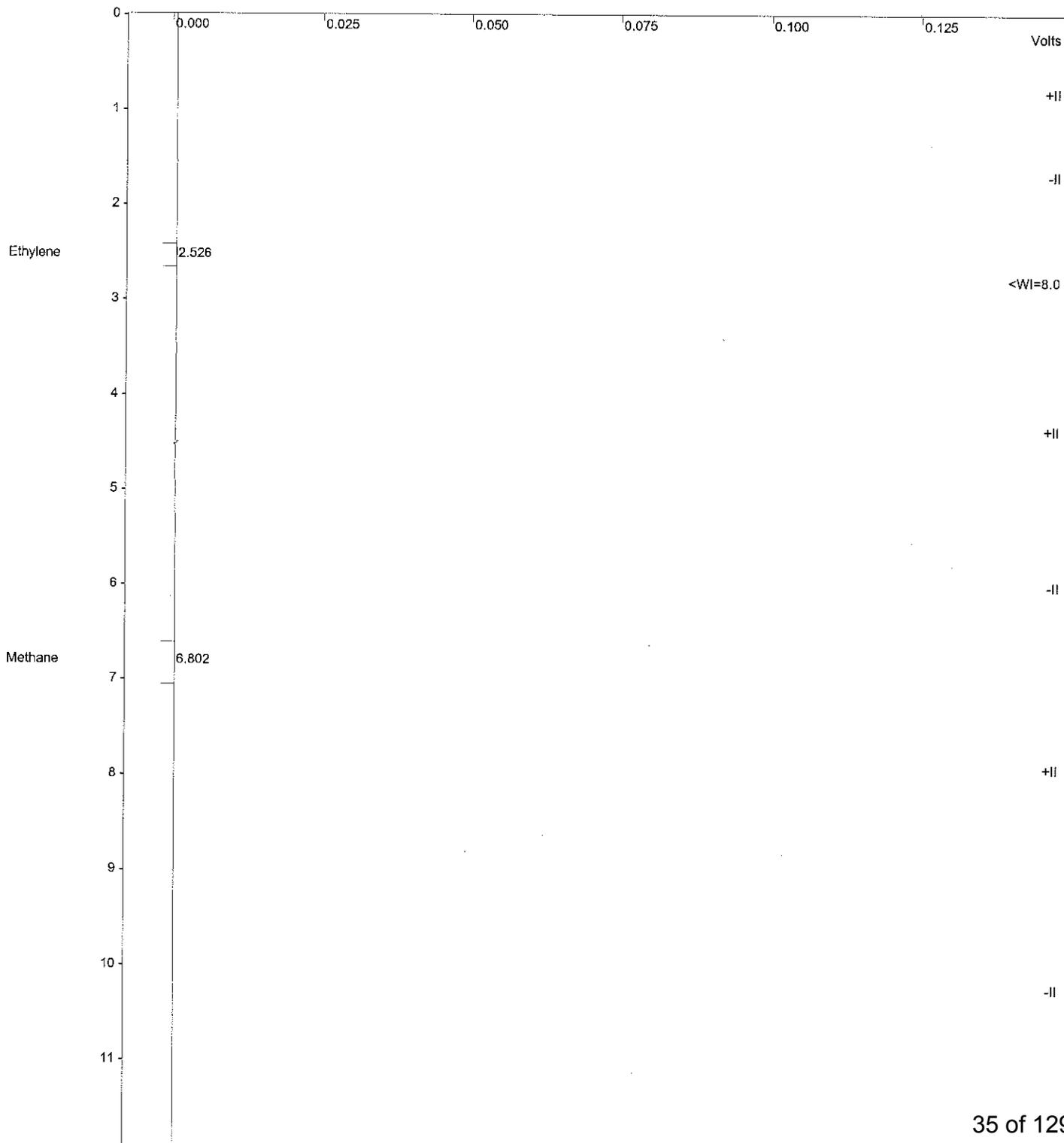
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr032.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042704-04 Emax

Injection Date: 4/29/2015 09:09 Calculation Date: 4/29/2015 09:21

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr032.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl50428.mth
Sample ID : G042704-04 Emax

Injection Date: 4/29/2015 09:09 Calculation Date: 4/29/2015 09:21

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 500 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

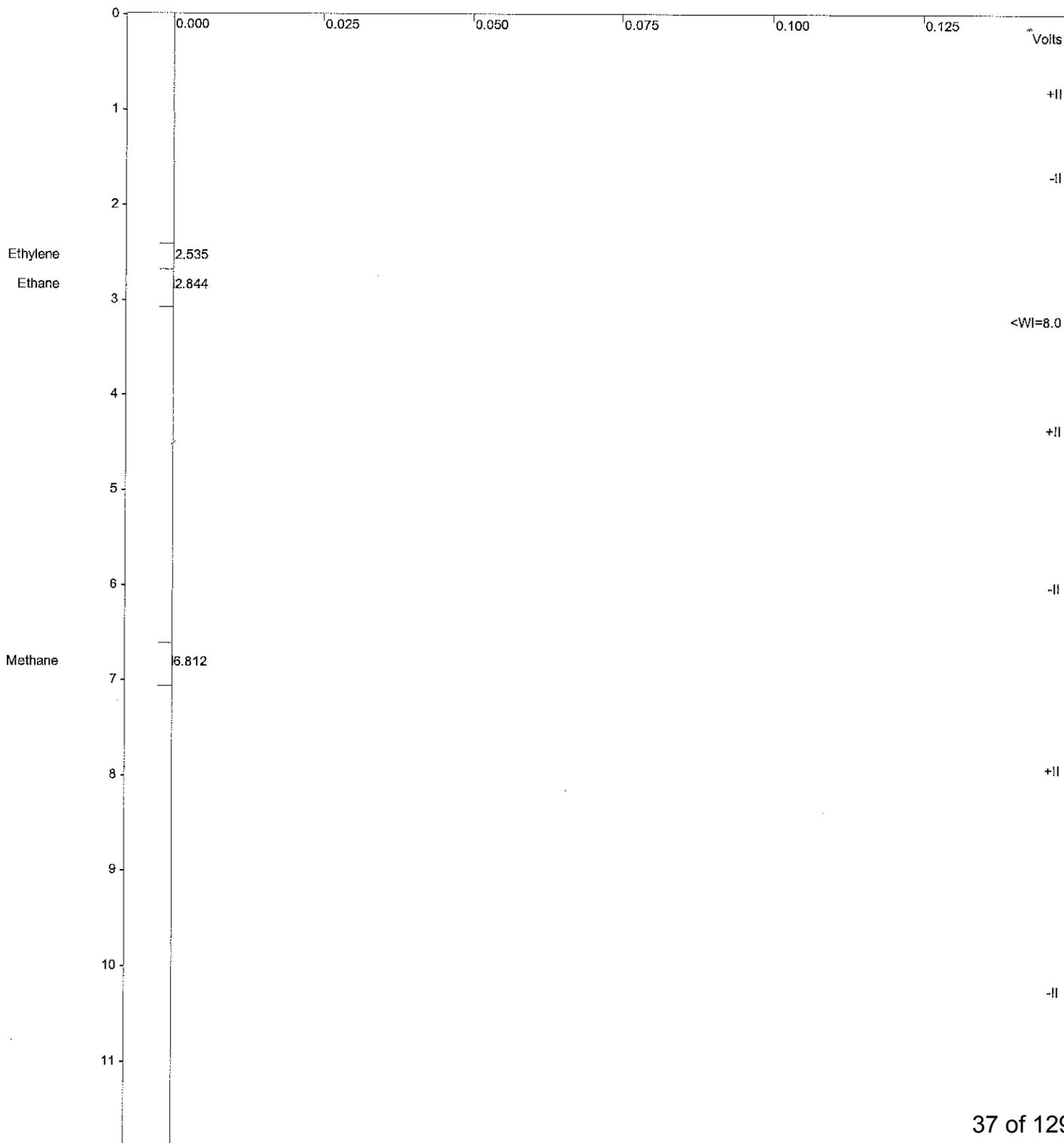
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr033.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042704-05 Emax

Injection Date: 4/29/2015 09:22 Calculation Date: 4/29/2015 09:34

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr033.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042704-05 Emax

Injection Date: 4/29/2015 09:22 Calculation Date: 4/29/2015 09:34

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 22 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

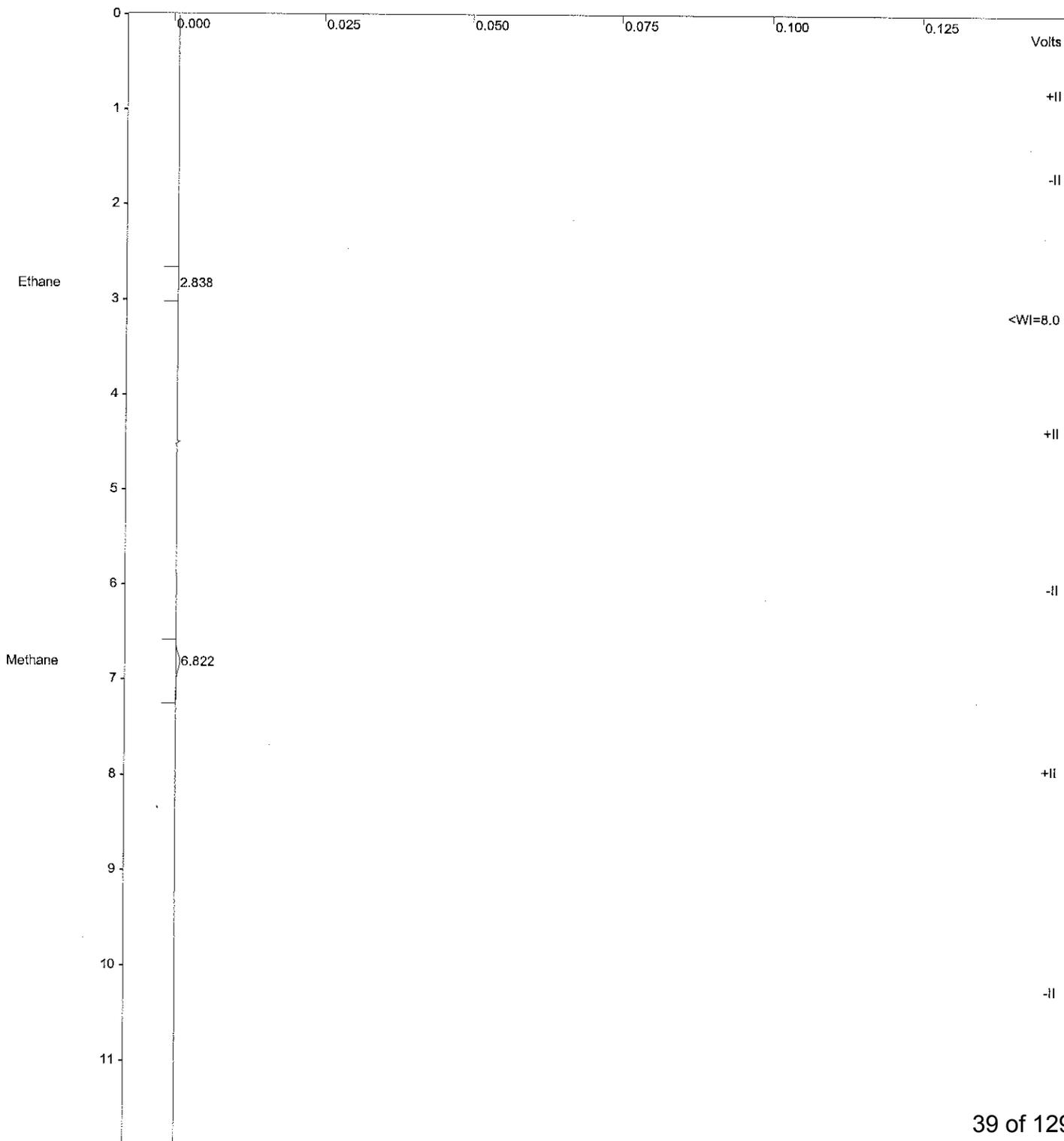
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr035.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042704-06 Emax

Injection Date: 4/29/2015 09:50 Calculation Date: 4/29/2015 10:02

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr035.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042704-06 Emax

Injection Date: 4/29/2015 09:50 Calculation Date: 4/29/2015 10:02

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 9 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 733 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 6 microVolts

Manual injection

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr036.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042704-07 Emax

Injection Date: 4/29/2015 10:24 Calculation Date: 4/29/2015 10:36

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 9 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 12 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

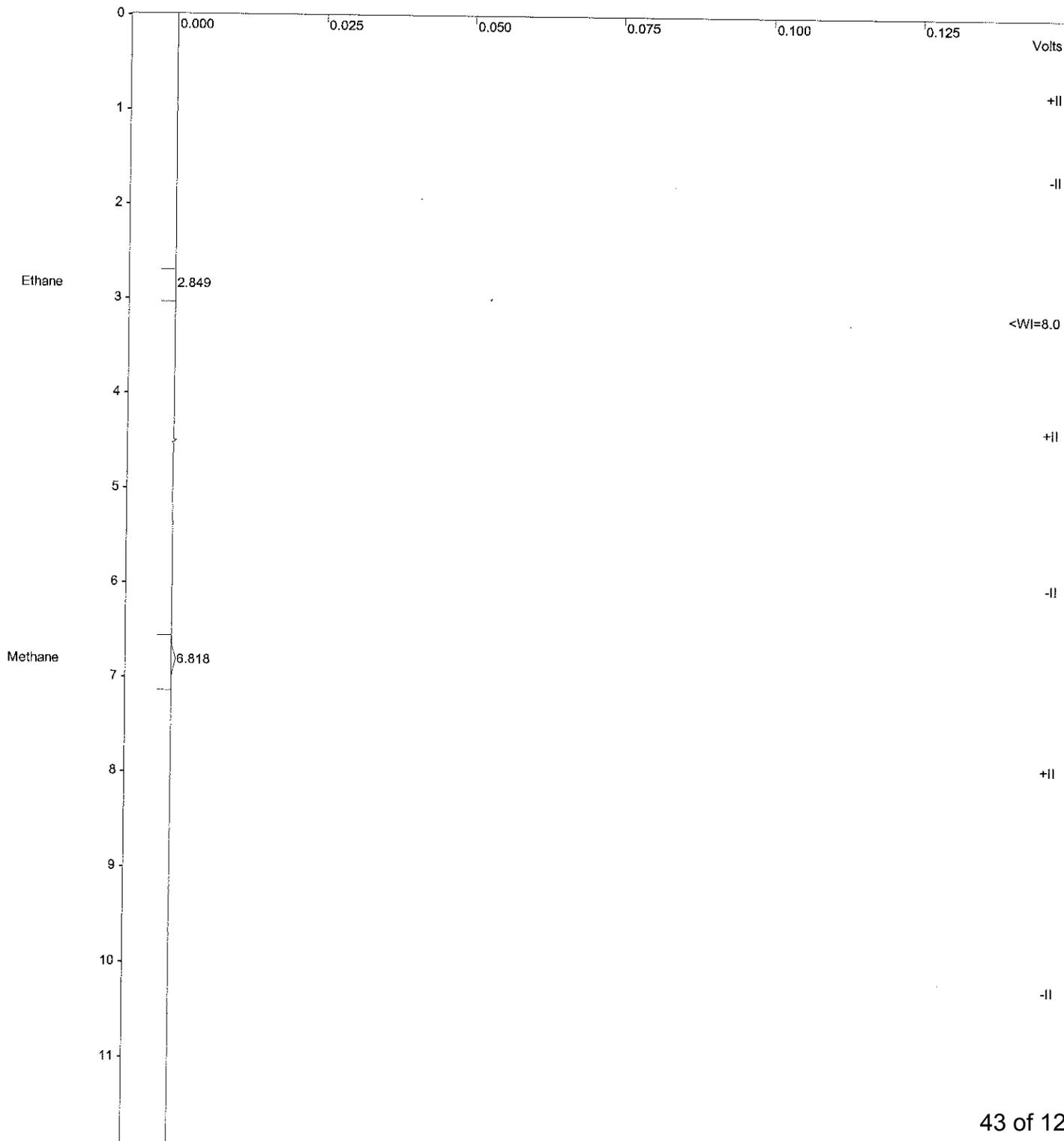
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr037.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042704-08 Emax

Injection Date: 4/29/2015 10:37 Calculation Date: 4/29/2015 10:49

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr037.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042704-08 Emax

Injection Date: 4/29/2015 10:37 Calculation Date: 4/29/2015 10:49

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: -21 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 19 microVolts

Manual injection

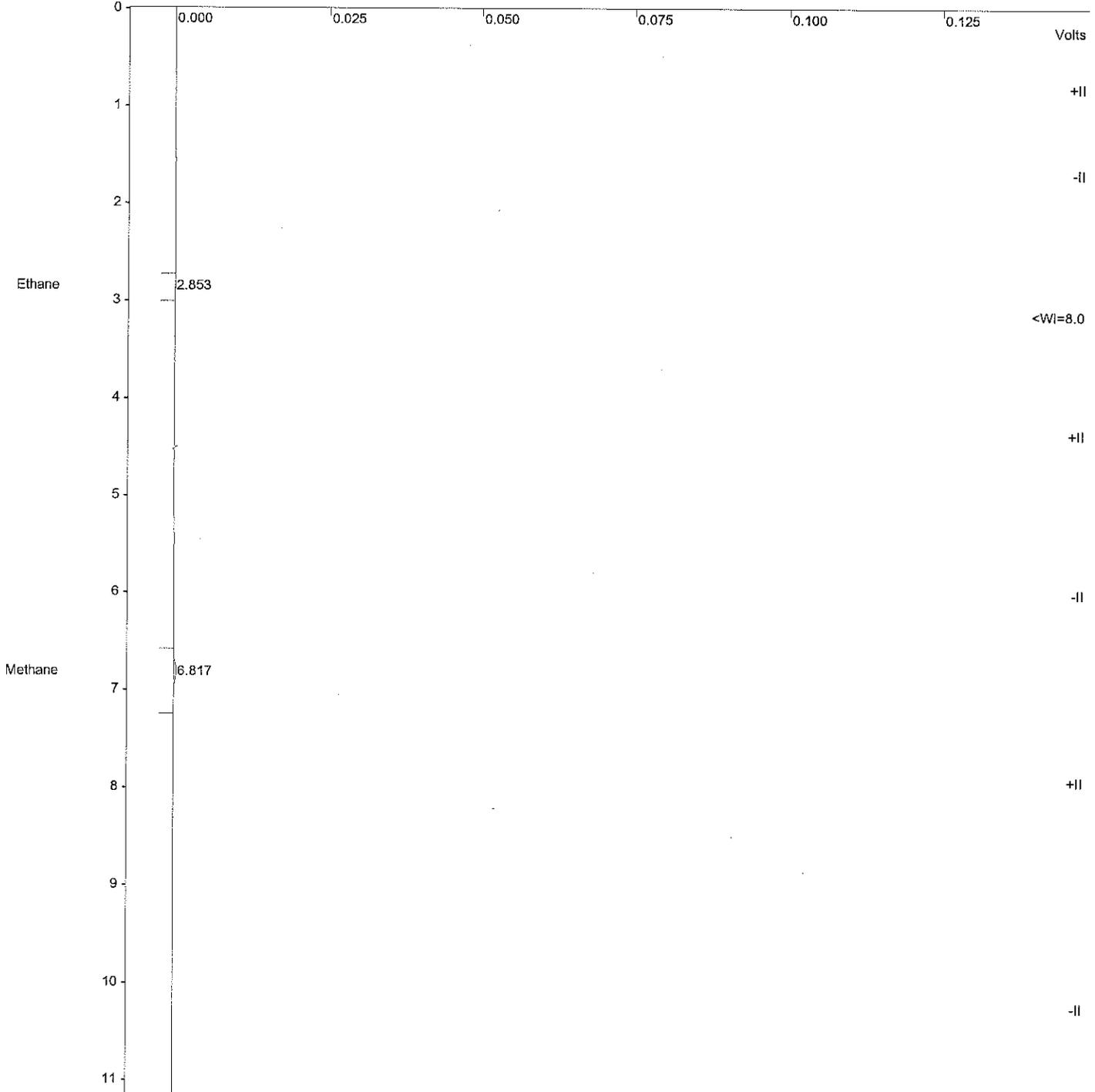
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr038.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042704-09 Emax

Injection Date: 4/29/2015 10:50 Calculation Date: 4/29/2015 11:02

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr038.run
 Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
 Sample ID : G042704-09 Emax

Injection Date: 4/29/2015 10:50 Calculation Date: 4/29/2015 11:02

Operator : AS Detector Type: 3800 (10 Volts)
 Workstation: Bus Address : 44
 Instrument : GC8A Sample Rate : 10.00 Hz
 Channel : Middle = FID 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		2.513					M
2	Ethane	0.145	2.853	0.033	396	BB	6.8	
3	Acetylene		3.513					M
4	Methane	3.913	6.817	0.018	5317	BB	10.8	
Totals:		4.058		0.051	5713			

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: -21 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
 Noise (monitored before this run): 11 microVolts

Manual injection

		G042704-01	30apr019							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units	
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv	
ρ_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none	
m										
b										
x_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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_n	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L	
A_i	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L	
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L	
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L	
LCS/D calculation										
		spike amt.								
	ug	%	mL	MW		mg/L	%R			
	26.175869	1	4	16	Methane	0.6543967	#VALUE!			
	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					

G042704-02 30apr020									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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	mi
A_h	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A_i	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16 Methane	0.6543967	#VALUE!			
	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					

		G042704-03		30apr021							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units		
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv		
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none		
m _b											
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml		
A _i	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L		
LCS/D calculation											
		spike amt.									
	ug	%	mL	MW		mg/L	%R				
	26.175869	1	4	16 Methane		0.6543967	#VALUE!				
	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!				
	#VALUE!	NA	4	32 Oxygen		#VALUE!	#VALUE!				
	71.98364	1	4	44 CO2		1.799591	#VALUE!				
			4	28 Nitrogen							

		G042704/04		30apr022							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units		
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv		
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none		
m											
b											
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml		
A _i	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L		
LCS/D calculation											
		spike amt.									
ug		%		mL		MW		mg/L		%R	
26.175869		1		4		16 Methane		0.6543967		#VALUE!	
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					

G042704-05 30apr023									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n _g									none
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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A _i	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16 Methane	0.6543967	#VALUE!			
	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					

G042704-06 30apr025									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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 _n	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A _i	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16 Methane		0.6543967	#VALUE!		
	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					

G042704-07 30apr026									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m _b									
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n _g									none
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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A ₁	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
spike amt.									
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16 Methane	0.6543967	#VALUE!			
	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					

		G042704-08 30apr027									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units		
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv		
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none		
m _b											
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml		
A ₁	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L		
LCS/D calculation											
spike amt.											
ug		%		mL		MW		mg/L		%R	
26.175869		1		4		16 Methane		0.6543967		#VALUE!	
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					

		G042704-09 30apr028									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units		
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv		
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none		
m											
b											
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml		
A _t	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L		
LCS/D calculation											
spike amt.											
ug % mL MW mg/L %R											
26.175869 1 4 16 Methane 0.6543967 #VALUE!											
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											

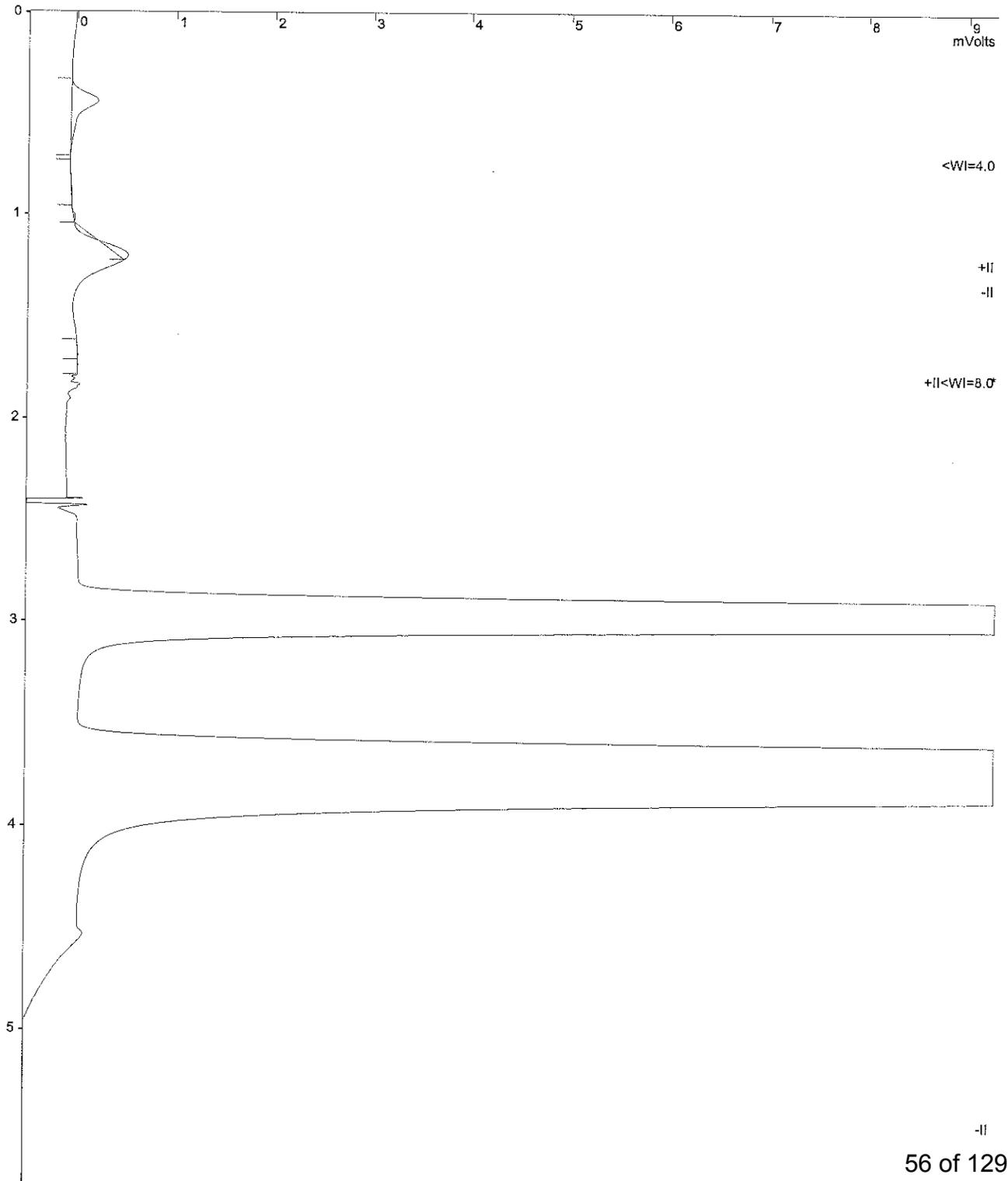
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr019.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
Sample ID : G042704-01 Emax

Injection Date: 4/30/2015 11:11 Calculation Date: 4/30/2015 11:17

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr019.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
Sample ID : G042704-01 Emax

Injection Date: 4/30/2015 11:11 Calculation Date: 4/30/2015 11:17

Operator : AS
Workstation : GC8A
Instrument : 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		1.684					M
Totals:		0.000		0.000			0	

Status Codes:
M - Missing peak

Total Unidentified Counts : 2065 counts

Detected Peaks: 6 Rejected Peaks: 3 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): 8 microVolts

Manual injection

Revision Log:

4/30/2015 11:16: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 11:10:36 4/30/2015 11:17: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen140630.mth'

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr020.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042704-02 Emax

Injection Date: 4/30/2015 11:18 Calculation Date: 4/30/2015 11:24

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, 0.000, 0.000, 0, M.

Status Codes:
M - Missing peak

Total Unidentified Counts : 55142 counts

Detected Peaks: 6 Rejected Peaks: 5 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): 26 microVolts

Manual injection

Revision Log:

4/30/2015 11:24: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 11:16:43

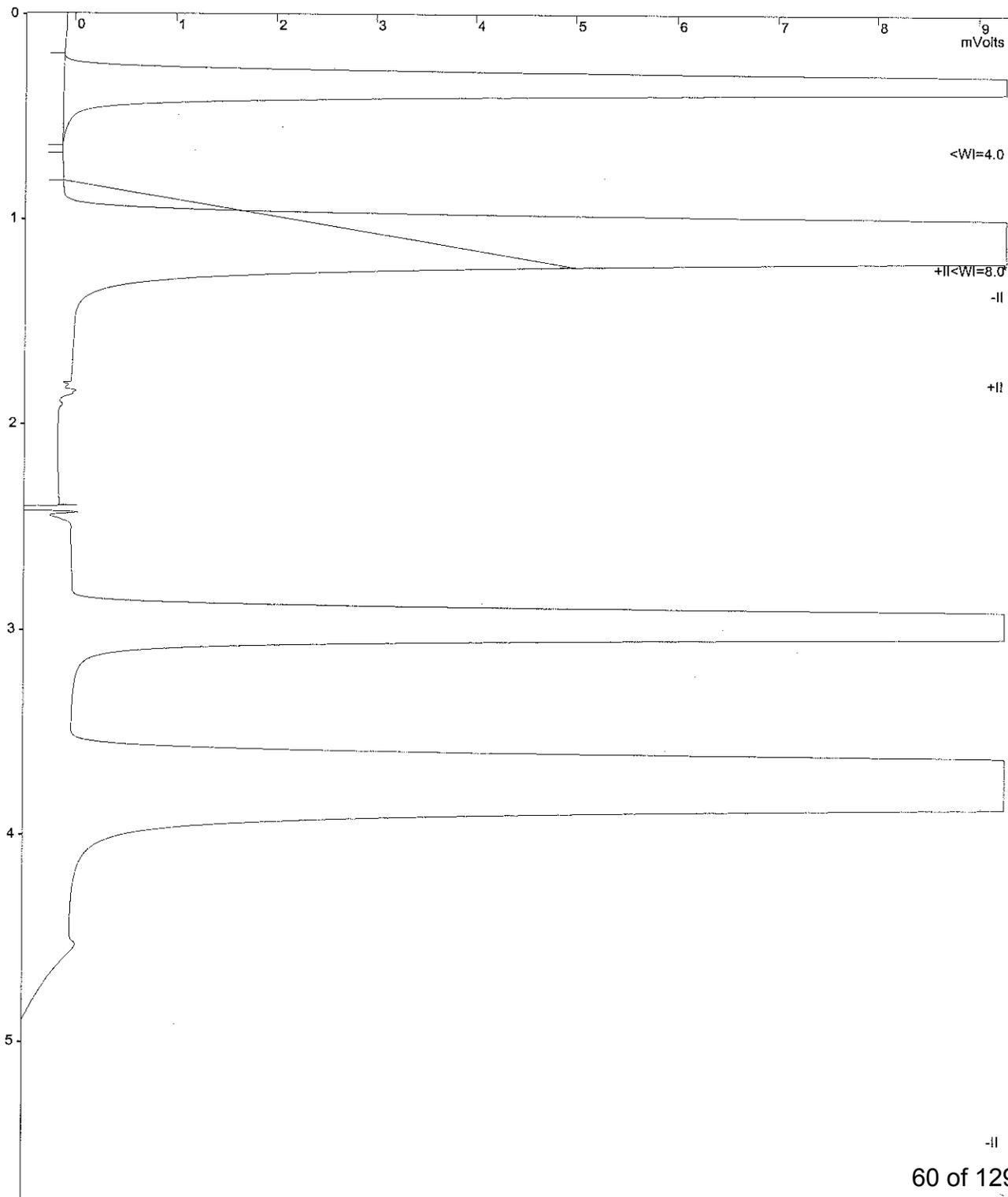
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr021.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042704-03 Emax

Injection Date: 4/30/2015 11:26 Calculation Date: 4/30/2015 11:31

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr021.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042704-03 Emax

Injection Date: 4/30/2015 11:26 Calculation Date: 4/30/2015 11:31

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 408626 counts

Detected Peaks: 3 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -79 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 37 microVolts

Manual injection

Revision Log:

4/30/2015 11:31: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 11:24:12

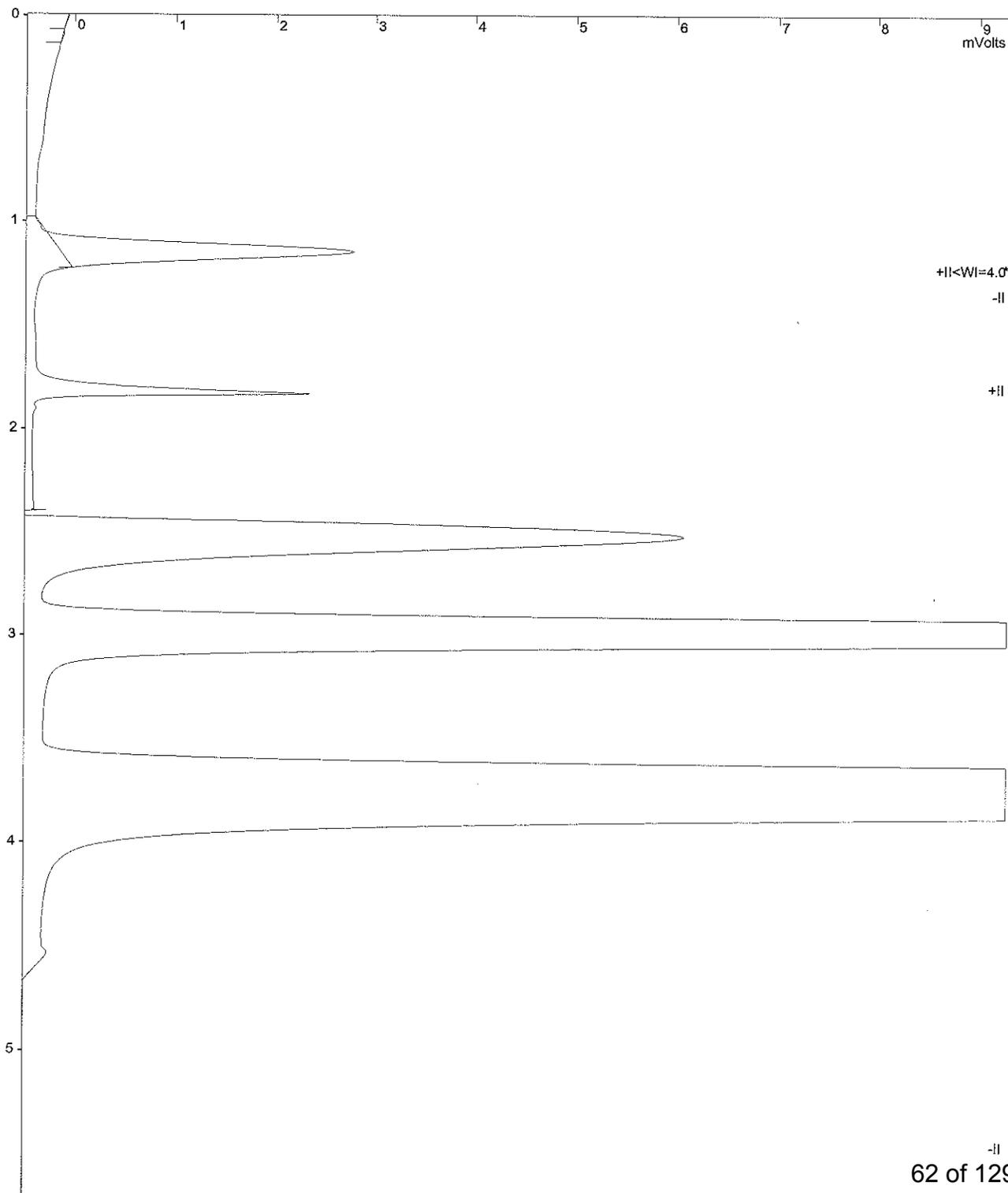
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr022.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042704-04 Emax

Injection Date: 4/30/2015 11:32 Calculation Date: 4/30/2015 11:38

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr022.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042704-04 Emax

Injection Date: 4/30/2015 11:32 Calculation Date: 4/30/2015 11:38

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 14314 counts

Detected Peaks: 3 Rejected Peaks: 2 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -68 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 28 microVolts

Manual injection

Revision Log:

4/30/2015 11:38: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 11:31:43

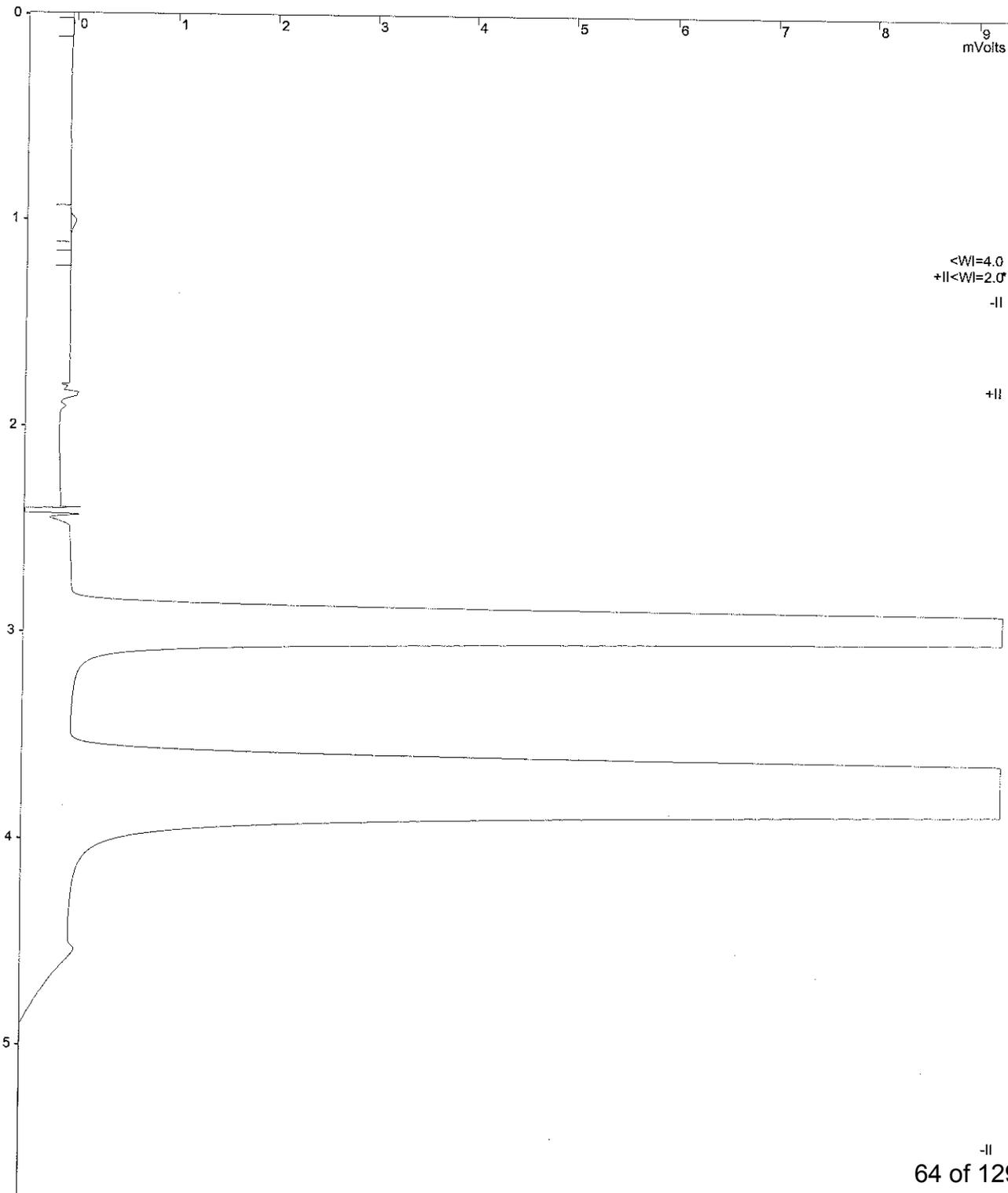
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr023.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042704-05 Emax

Injection Date: 4/30/2015 11:42 Calculation Date: 4/30/2015 11:48

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr023.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042704-05 Emax

Injection Date: 4/30/2015 11:42 Calculation Date: 4/30/2015 11:48

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. 1/2 Code (sec), Width, Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 192 counts

Detected Peaks: 3 Rejected Peaks: 2 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -41 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 26 microVolts

Manual injection

Revision Log:

4/30/2015 11:48: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 11:38:26

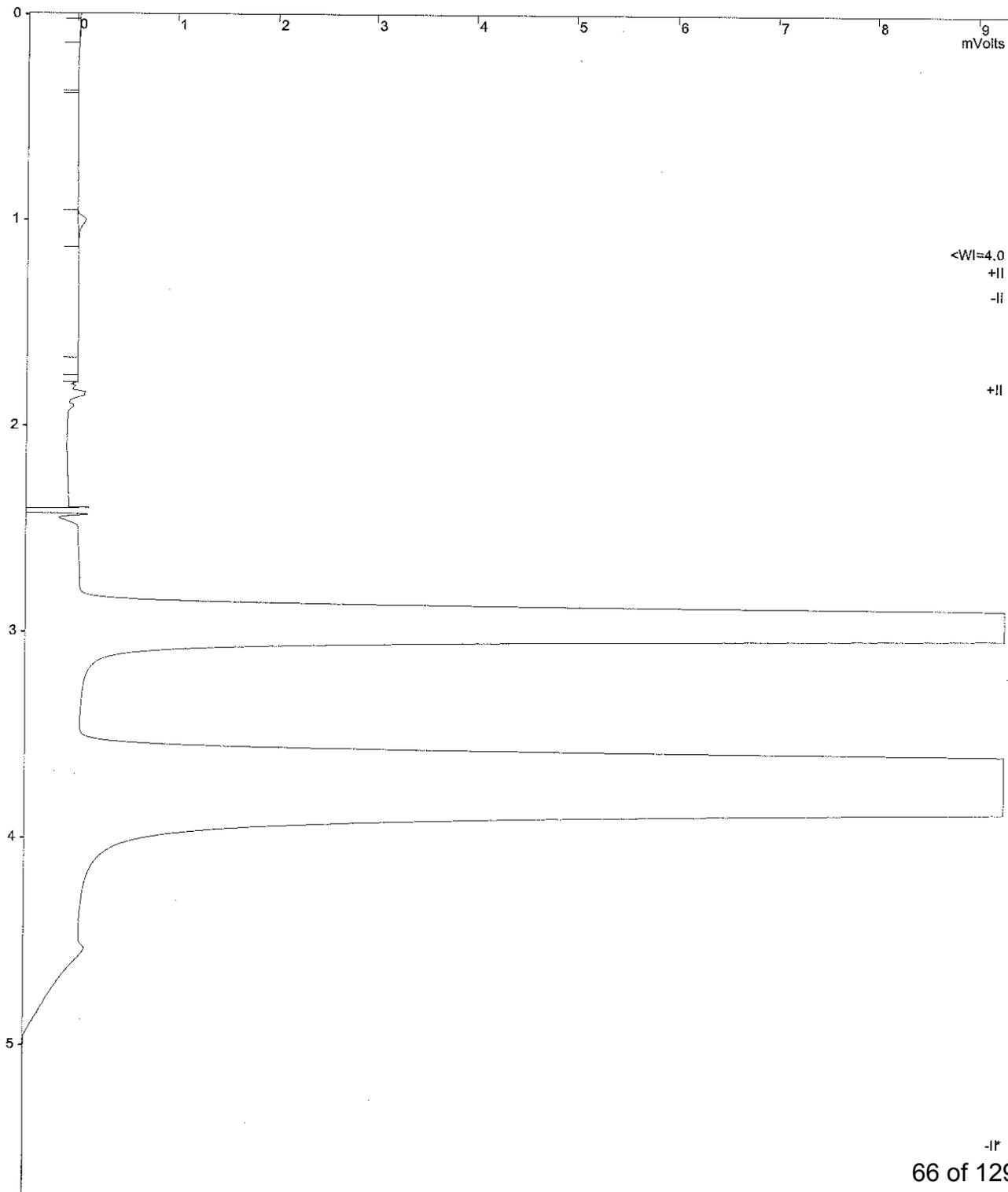
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr025.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042704-06 Emax

Injection Date: 4/30/2015 11:59 Calculation Date: 4/30/2015 12:05

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr025.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042704-06 Emax

Injection Date: 4/30/2015 11:59 Calculation Date: 4/30/2015 12:05

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 264 counts

Detected Peaks: 6 Rejected Peaks: 5 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 28 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 68 microVolts

Manual injection

Revision Log:

4/30/2015 12:05: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 11:58:43

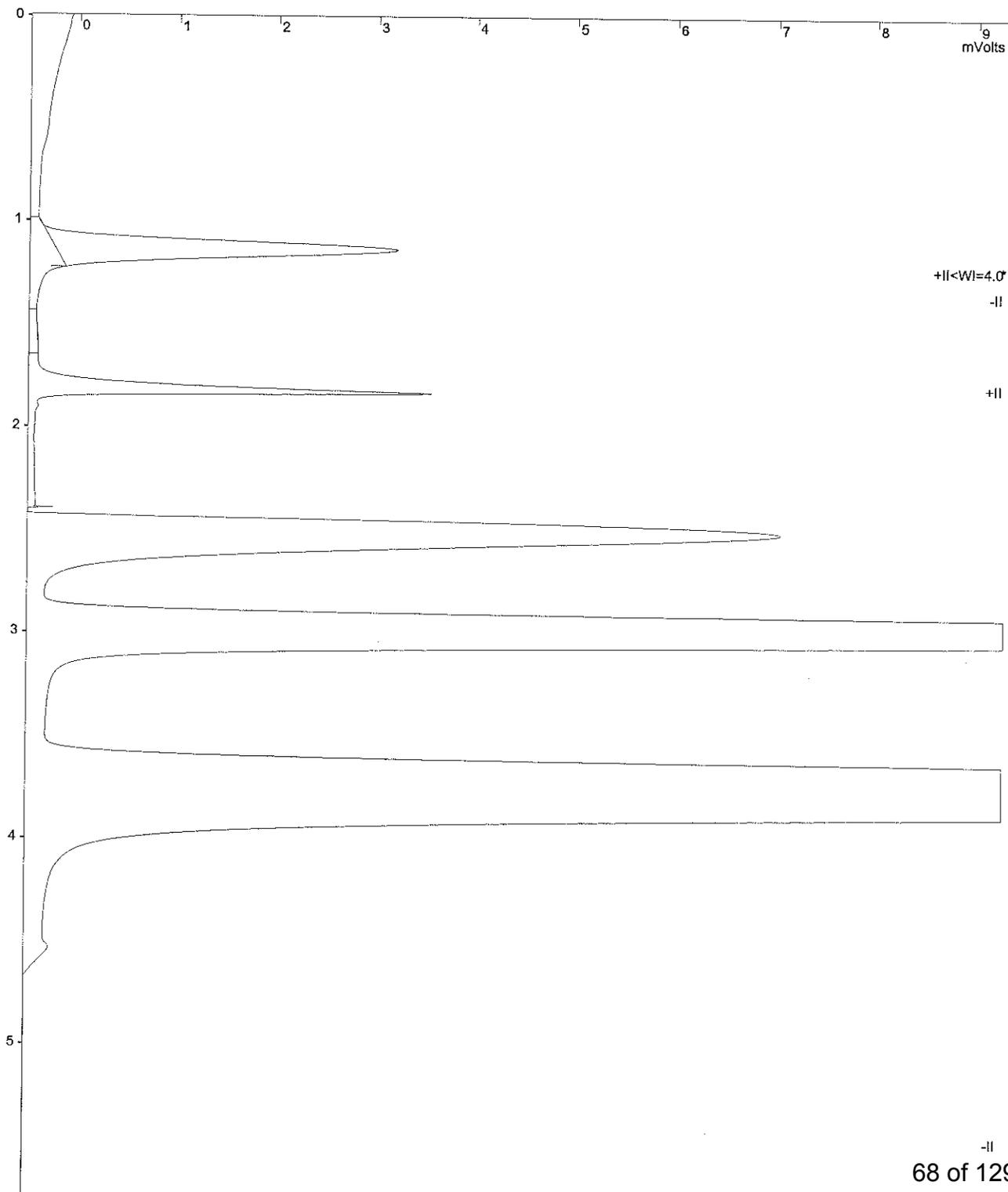
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr026.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042704-07 Emax

Injection Date: 4/30/2015 12:06 Calculation Date: 4/30/2015 12:11

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr026.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042704-07 Emax

Injection Date: 4/30/2015 12:06 Calculation Date: 4/30/2015 12:11

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 0.000, 1.684, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 17577 counts

Detected Peaks: 2 Rejected Peaks: 1 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): 15 microVolts

Manual injection

Revision Log:

4/30/2015 12:11: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 12:04:51

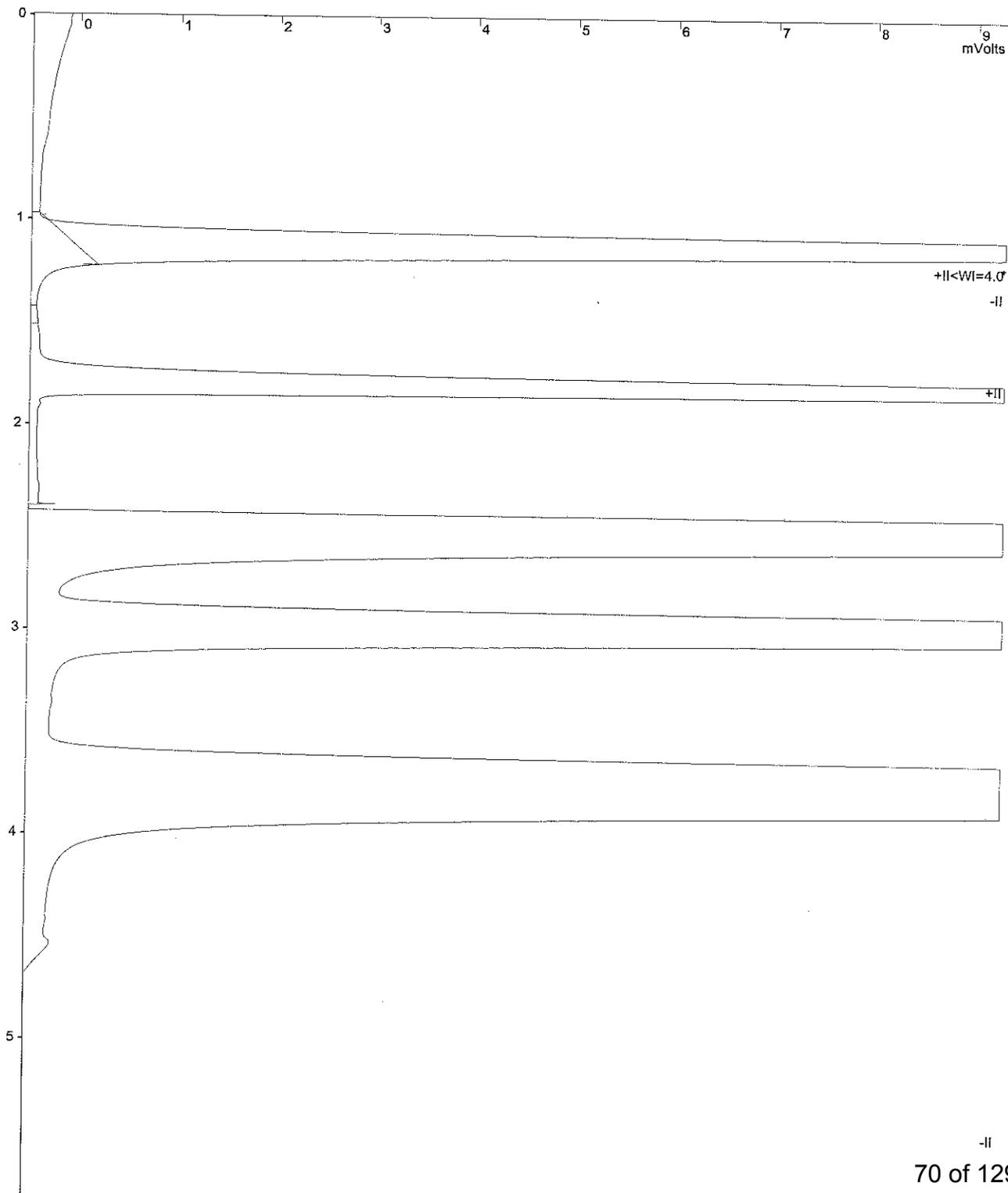
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr027.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042704-08 Emax

Injection Date: 4/30/2015 12:12 Calculation Date: 4/30/2015 12:18

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr027.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042704-08 Emax

Injection Date: 4/30/2015 12:12 Calculation Date: 4/30/2015 12:18

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 98605 counts

Detected Peaks: 3 Rejected Peaks: 1 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): 20 microVolts

Manual injection

Revision Log:

4/30/2015 12:18: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 12:11:36

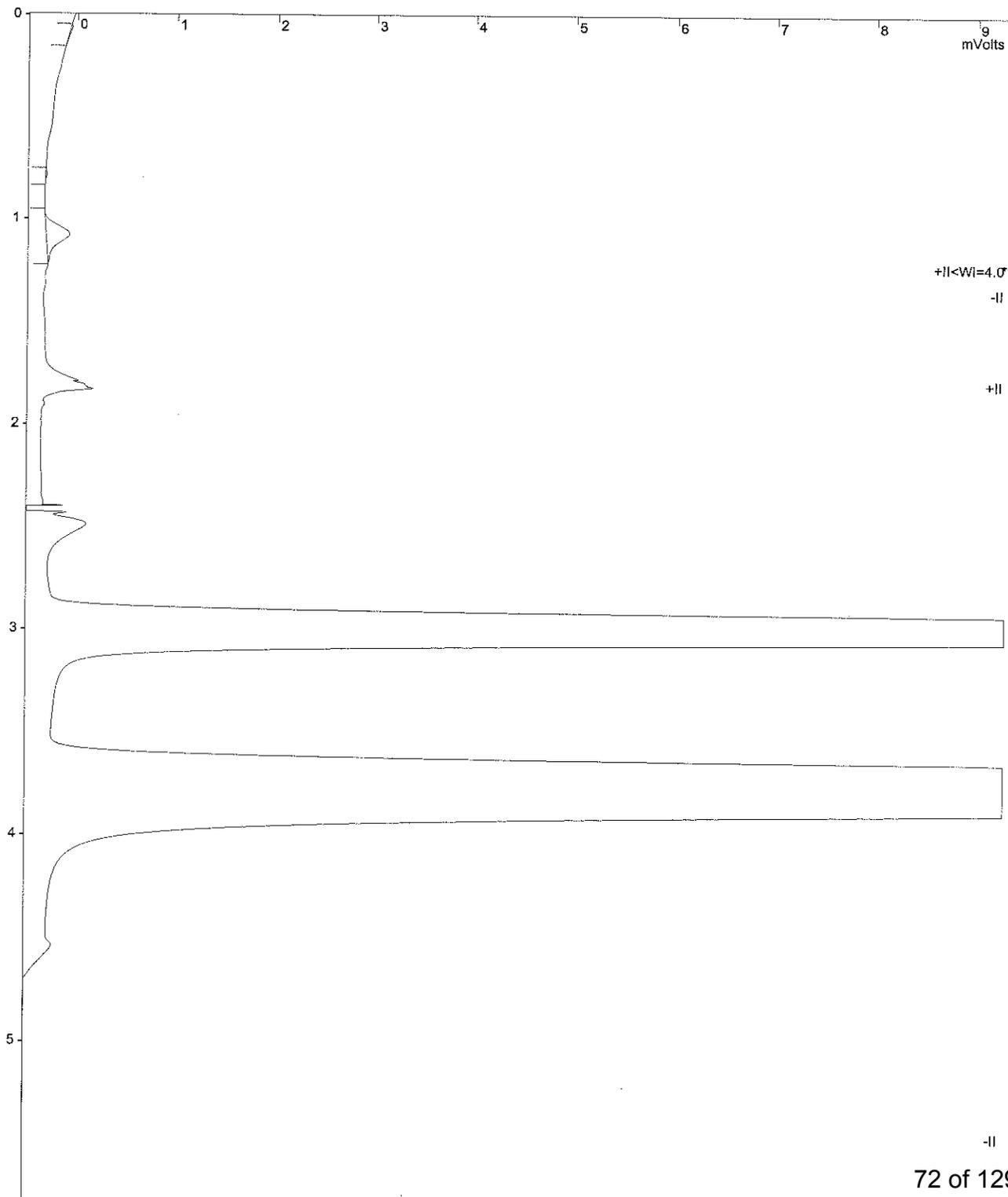
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr028.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042704-09 Emax

Injection Date: 4/30/2015 12:19 Calculation Date: 4/30/2015 12:25

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr028.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042704-09 Emáx

Injection Date: 4/30/2015 12:19 Calculation Date: 4/30/2015 12:25

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 1415 counts

Detected Peaks: 3 Rejected Peaks: 1 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): 19 microVolts

Manual injection

Revision Log:

4/30/2015 12:25: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 12:18:22

3. Initial Calibration

- a. ICAL Summary**
- b. Chromatograms/Results**

Title : Calibration Block Report
 Method File : c:\temp gc\gc8a\methods\vrsk175fg150428.mth
 Data Method Time : 4/28/2015 10:58

Requested Curve Type : linear Method Detector Type : 3800 GC
 Requested Origin : force Method Bus Address : 44
 Calibration Type : External Standard Analysis Method Channel : Middle

Calibration Dates :
 Last Injection Date : 4/28/2015 10:26 Last Recalculation Date : 4/28/2015 10:58

*****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
2.513	Ethylene	1 F			+2.6486e+003	+0.0000e+000	+9.9994e-001	1-6	6	
2.820	Ethane	1 F			+2.7193e+003	+0.0000e+000	+9.9991e-001	1-6	6	
3.513	Acetylene	1 F			+2.8642e+003	+0.0000e+000	+9.9945e-001	1-6	6	
6.799	Methane	1 F			+1.3589e+003	+0.0000e+000	+9.9985e-001	1-6	6	

Curve Codes	Origin Codes	Edit Codes
1 linear	1 include	1 curve
2 quadratic	IG ignore	2 origin
3 cubic	F force	3 coefficient

Ret. Time: 2.513 min. Peak Name: Ethylene Peak Measurement: Area Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	7166	7166.3	#
2	10.000000	1	27376	27376.0	#
3	100.000000	1	270463	270463.2	#
4	1000.000000	1	2618394	2618394.3	#
5	5000.000000	1	13061288	13061288.0	#
6	10000.000000	1	26579418	26579418.0	#

Ret. Time: 2.820 min. Peak Name: Ethane Peak Measurement: Area Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	7755	7755.3	#
2	10.000000	1	28699	28698.8	#
3	100.000000	1	278523	278523.3	#
4	1000.000000	1	2689042	2689041.8	#
5	5000.000000	1	13380106	13380106.0	#
6	10000.000000	1	27304472	27304472.0	#

Ret. Time: 3.513 min. Peak Name: Acetylene Peak Measurement: Area Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	6309	6309.0	#
2	10.000000	1	23753	23752.9	#
3	100.000000	1	245499	245498.7	#
4	1000.000000	1	2557204	2557203.5	#
5	5000.000000	1	13780426	13780426.0	#
6	10000.000000	1	28943272	28943272.0	#

75 of 109

Ret. Time: 6.799 min.

Peak Name: Methane

Peak Measurement: Area

Curve\Origin: 1 F

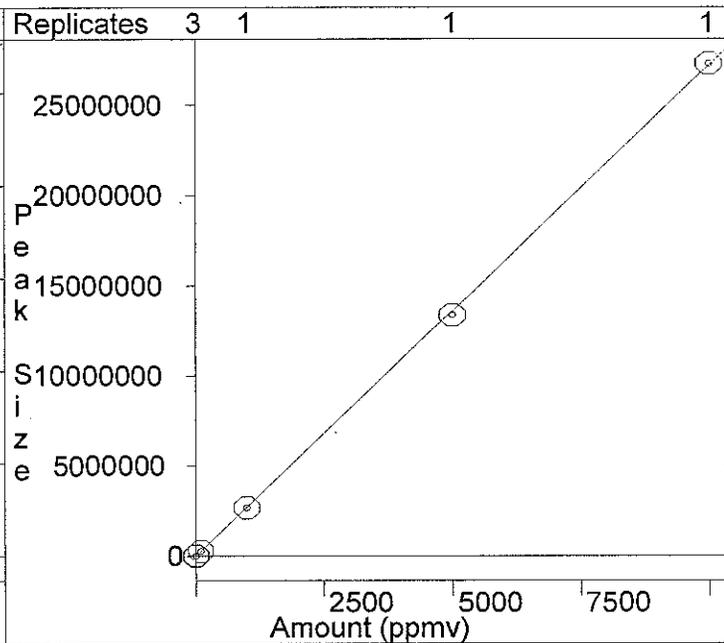
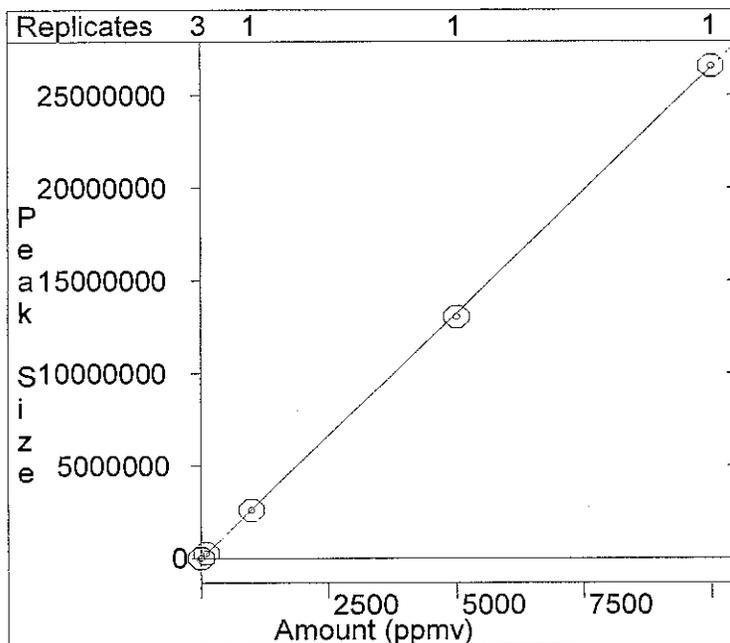
Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	3842	3841.7	#
2	10.000000	1	18252	18251.6	#
3	100.000000	1	137914	137913.6	#
4	1000.000000	1	1313784	1313783.8	#
5	5000.000000	1	6653391	6653391.0	#
6	10000.000000	1	13664368	13664368.0	#

= Too few points to calculate.

Peak Name	Level	Rep.	Injection Date Time	Run Files
Ethylene	1	1	4/28/2015 09:13	c:\temp\gc\gc8a\2015\apr\28apr.run
	2	1	4/28/2015 09:27	c:\temp\gc\gc8a\2015\apr\28apr001.run
	3	1	4/28/2015 09:41	c:\temp\gc\gc8a\2015\apr\28apr002.run
	4	1	4/28/2015 09:56	c:\temp\gc\gc8a\2015\apr\28apr003.run
	5	1	4/28/2015 10:11	c:\temp\gc\gc8a\2015\apr\28apr004.run
	6	1	4/28/2015 10:26	c:\temp\gc\gc8a\2015\apr\28apr005.run
Ethane	1	1	4/28/2015 09:13	c:\temp\gc\gc8a\2015\apr\28apr.run
	2	1	4/28/2015 09:27	c:\temp\gc\gc8a\2015\apr\28apr001.run
	3	1	4/28/2015 09:41	c:\temp\gc\gc8a\2015\apr\28apr002.run
	4	1	4/28/2015 09:56	c:\temp\gc\gc8a\2015\apr\28apr003.run
	5	1	4/28/2015 10:11	c:\temp\gc\gc8a\2015\apr\28apr004.run
	6	1	4/28/2015 10:26	c:\temp\gc\gc8a\2015\apr\28apr005.run
Acetylene	1	1	4/28/2015 09:13	c:\temp\gc\gc8a\2015\apr\28apr.run
	2	1	4/28/2015 09:27	c:\temp\gc\gc8a\2015\apr\28apr001.run
	3	1	4/28/2015 09:41	c:\temp\gc\gc8a\2015\apr\28apr002.run
	4	1	4/28/2015 09:56	c:\temp\gc\gc8a\2015\apr\28apr003.run
	5	1	4/28/2015 10:11	c:\temp\gc\gc8a\2015\apr\28apr004.run
	6	1	4/28/2015 10:26	c:\temp\gc\gc8a\2015\apr\28apr005.run
Methane	1	1	4/28/2015 09:13	c:\temp\gc\gc8a\2015\apr\28apr.run
	2	1	4/28/2015 09:27	c:\temp\gc\gc8a\2015\apr\28apr001.run
	3	1	4/28/2015 09:41	c:\temp\gc\gc8a\2015\apr\28apr002.run
	4	1	4/28/2015 09:56	c:\temp\gc\gc8a\2015\apr\28apr003.run
	5	1	4/28/2015 10:11	c:\temp\gc\gc8a\2015\apr\28apr004.run
	6	1	4/28/2015 10:26	c:\temp\gc\gc8a\2015\apr\28apr005.run

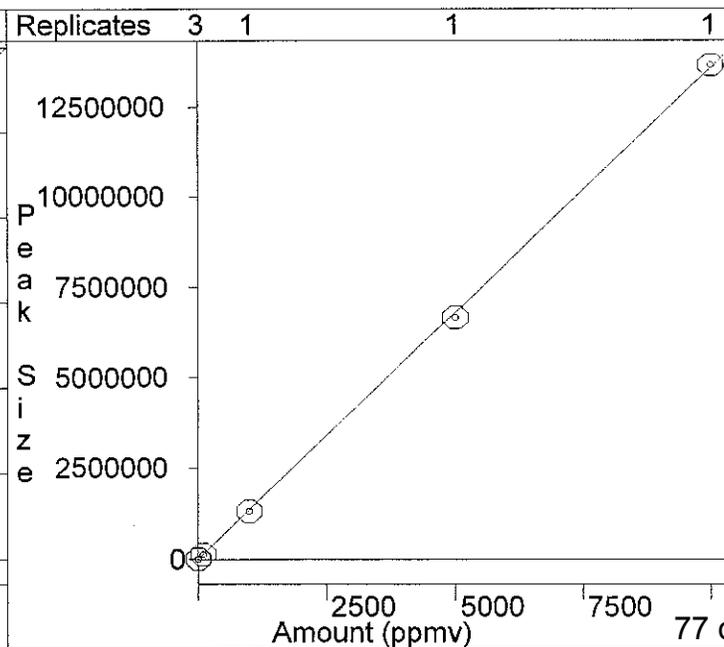
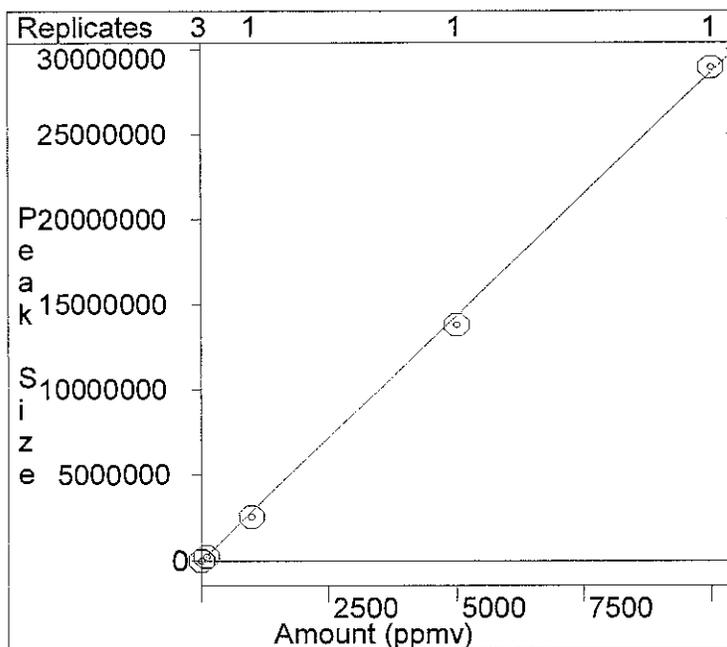
Ethylene
 External Standard Analysis
 Resp. Fact. RSD: 4.704%
 Curve Type: Linear
 Origin: Force
 Coeff. Det.(r²): 0.999936
 y = +2.6486e+003x

Ethane
 External Standard Analysis
 Resp. Fact. RSD: 3.594%
 Curve Type: Linear
 Origin: Force
 Coeff. Det.(r²): 0.999914
 y = +2.7193e+003x



Acetylene
 External Standard Analysis
 Resp. Fact. RSD: 11.16%
 Curve Type: Linear
 Origin: Force
 Coeff. Det.(r²): 0.999448
 y = +2.8642e+003x

Methane
 External Standard Analysis
 Resp. Fact. RSD: 14.38%
 Curve Type: Linear
 Origin: Force
 Coeff. Det.(r²): 0.999846
 y = +1.3589e+003x



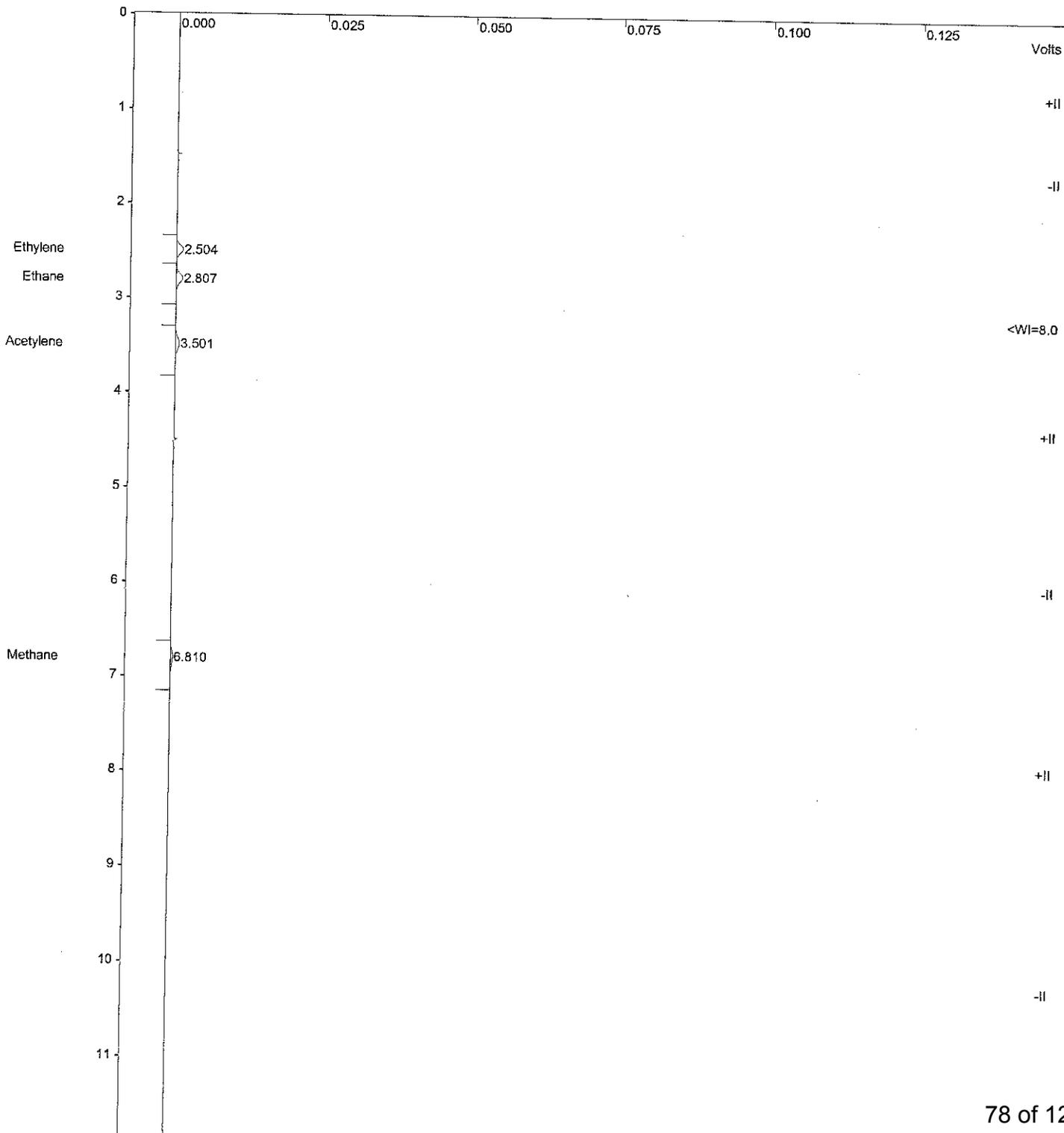
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 3 ppmv ICAL

Injection Date: 4/28/2015 09:13 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr.run
 Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
 Sample ID : 3 ppmv ICAL

Injection Date: 4/28/2015 09:13 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
 Workstation: Bus Address : 44
 Instrument : GC8A Sample Rate : 10.00 Hz
 Channel : Middle = FID 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	2.504	0.055	7166	BV	6.0	
2	Ethane	2.807	-0.016	7755	VB	6.6	
3	Acetylene	3.501	0.005	6309	BB	8.8	
4	Methane	6.810	0.142	3842	BB	10.3	
Totals:			0.186	25072			

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: -15 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
 Noise (monitored before this run): 13 microVolts

Manual injection

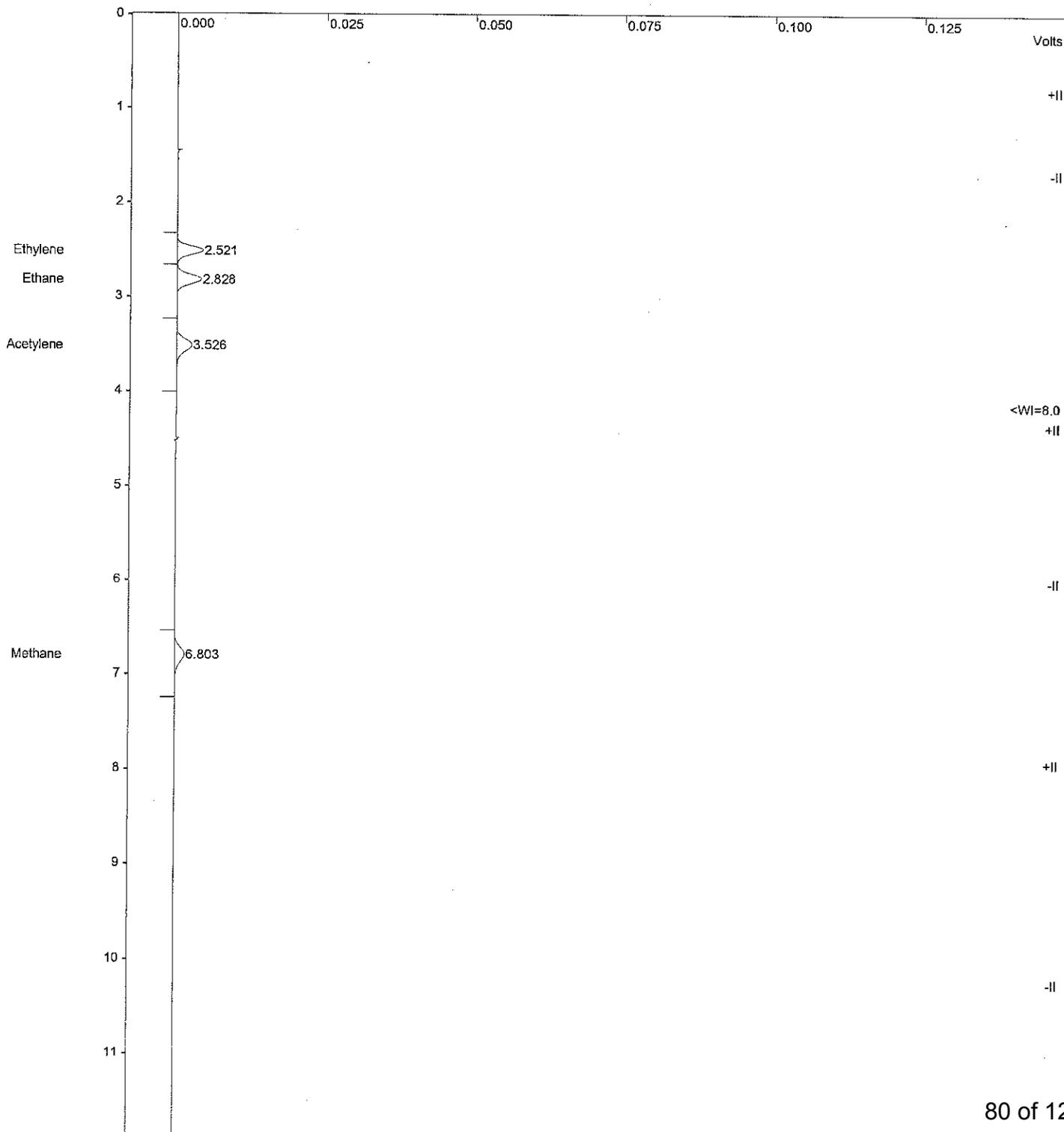
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr001.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 10 ppmv ICAL

Injection Date: 4/28/2015 09:27 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr001.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl40429.mth
Sample ID : 10 ppmv ICAL

Injection Date: 4/28/2015 09:27 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: -36 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 10 microVolts

Manual injection

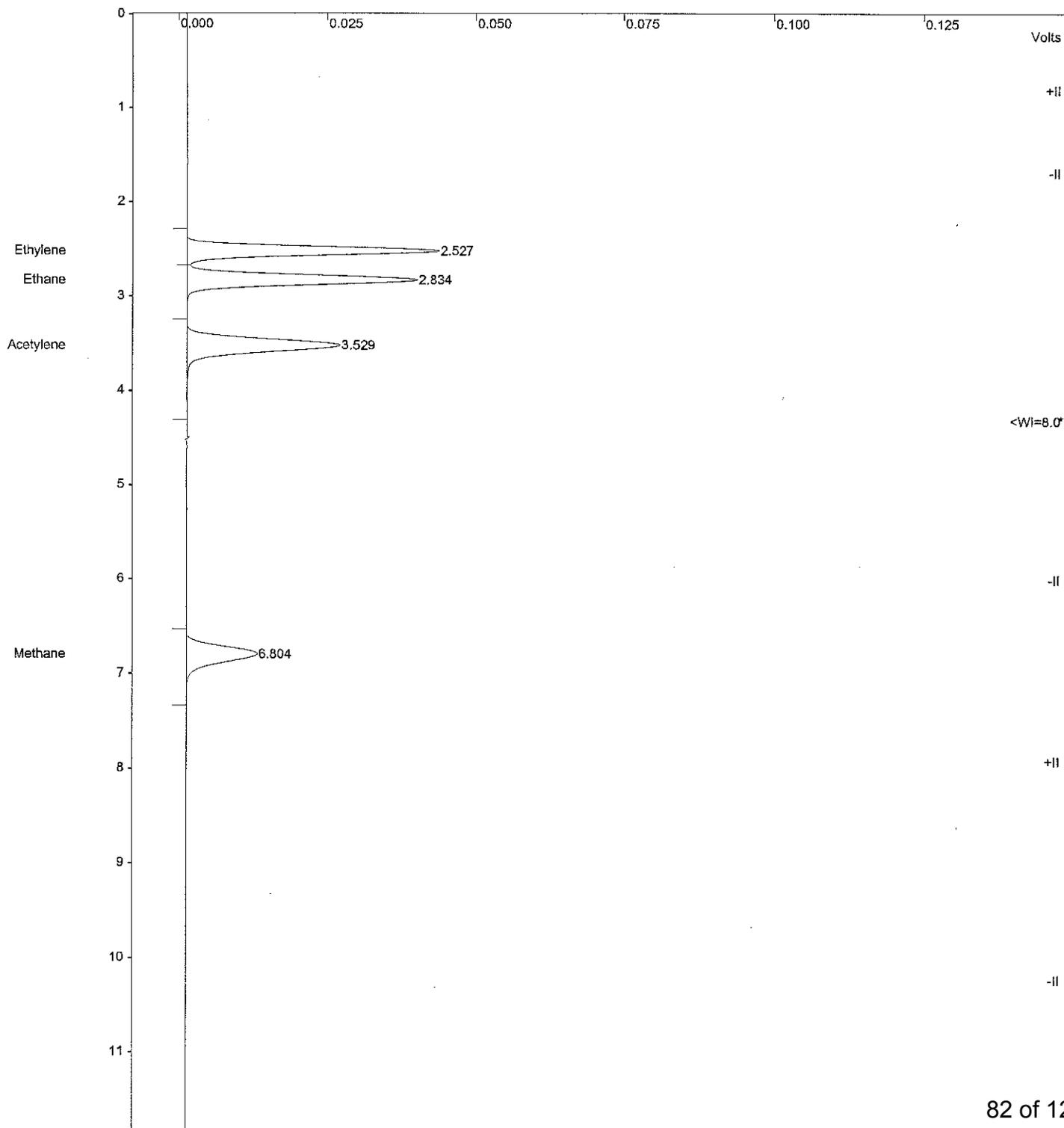
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr002.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 100 ppmv ICAL

Injection Date: 4/28/2015 09:41 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr002.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 100 ppmv ICAL

Injection Date: 4/28/2015 09:41 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 1083 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

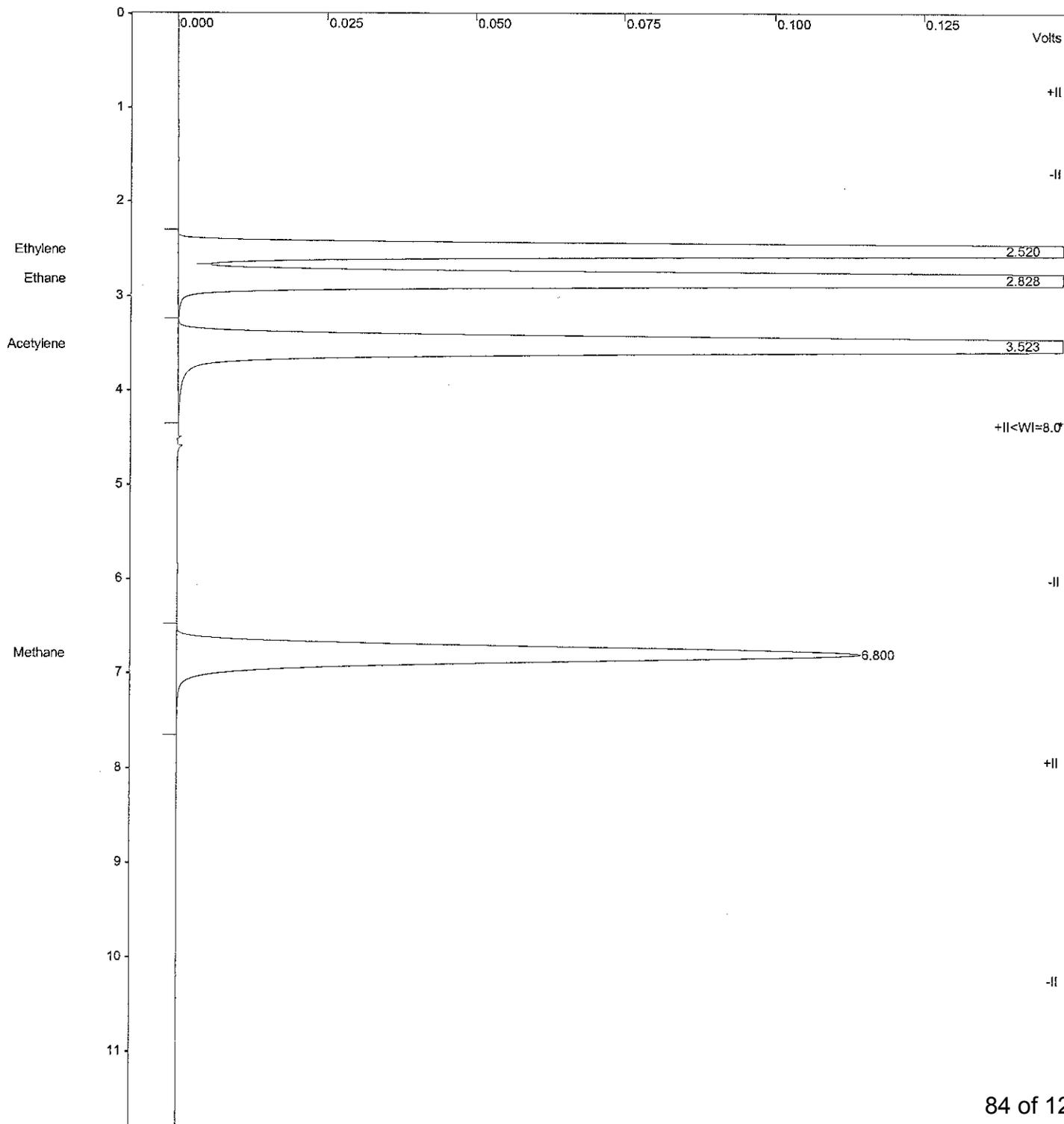
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr003.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 1000 ppmv ICAL

Injection Date: 4/28/2015 09:56 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr003.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl40429.mth
Sample ID : 1000 ppmv ICAL

Injection Date: 4/28/2015 09:56 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 7 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 14 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

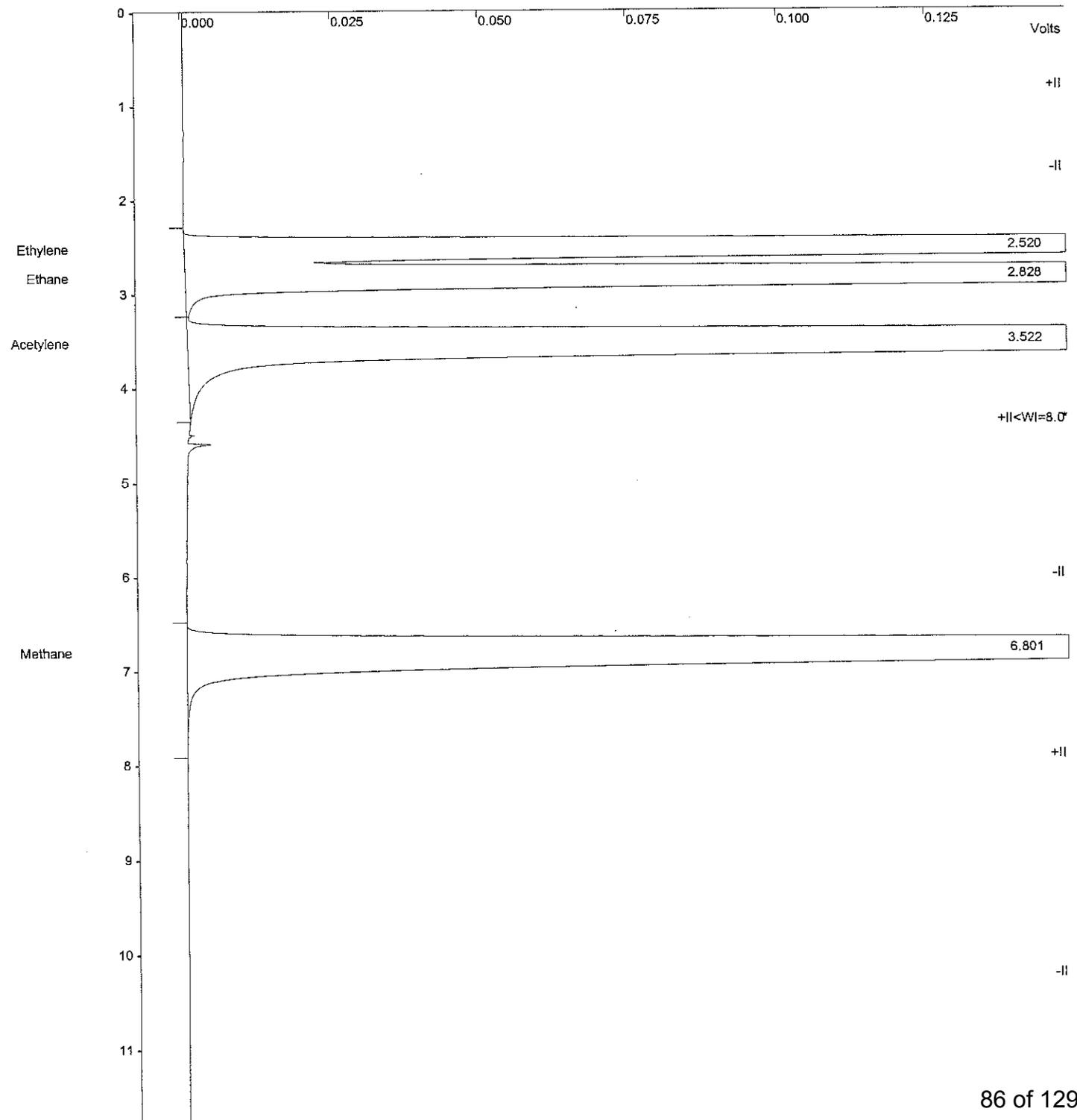
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr004.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl40429.mth
Sample ID : 5000 ppmv ICAL

Injection Date: 4/28/2015 10:11 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr004.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl40429.mth
Sample ID : 5000 ppmv ICAL

Injection Date: 4/28/2015 10:11 Calculation Date: 4/28/2015 10:58

Operator : AS
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

Table with 8 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 413 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

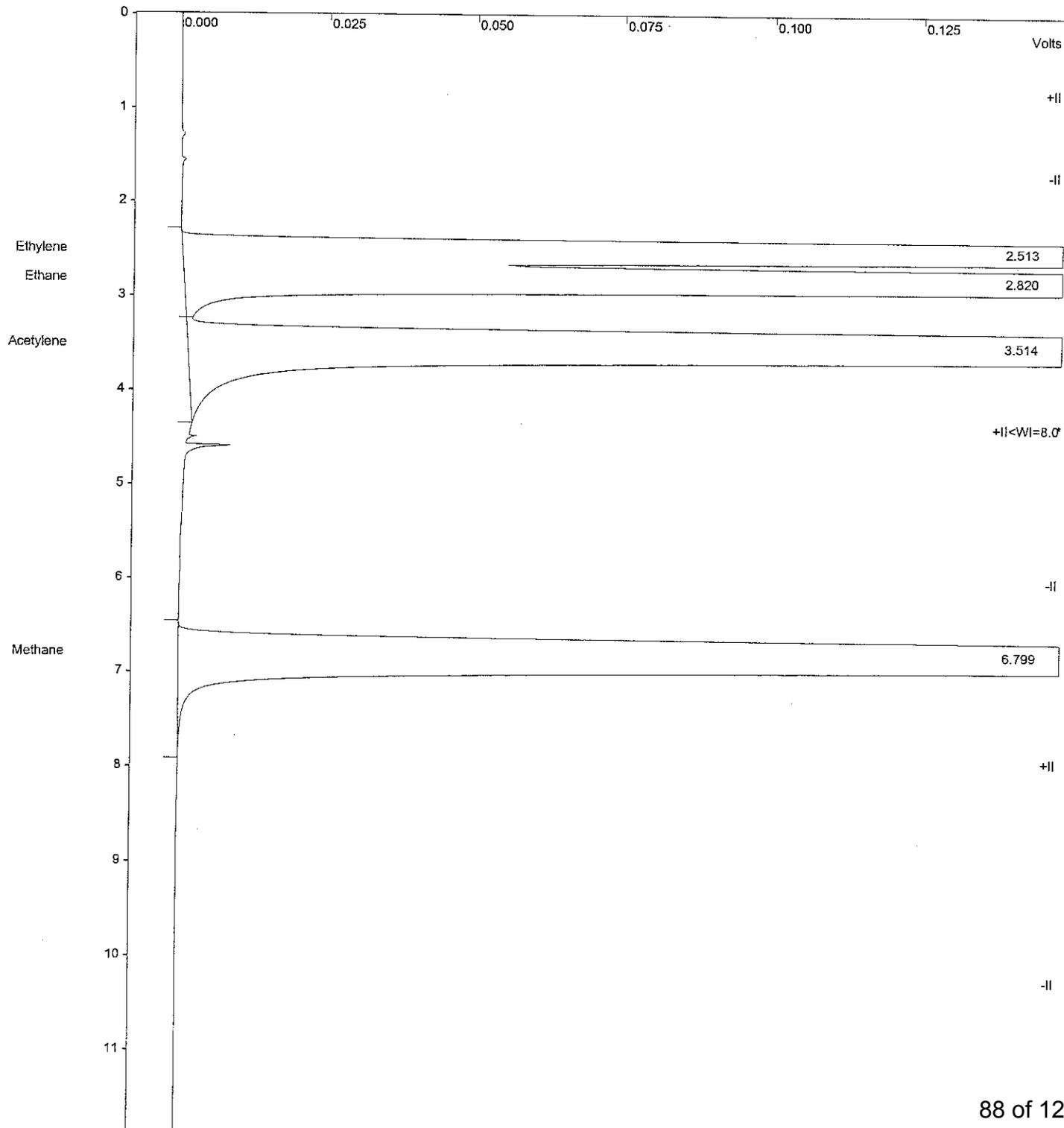
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr005.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 1% (10000ppmv) ICAL

Injection Date: 4/28/2015 10:26 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr005.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl40429.mth
Sample ID : 1% (10000ppmv) ICAL

Injection Date: 4/28/2015 10:26 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 7 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 24 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

Title : Calibration Block Report
 Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
 Data Method Time : 6/30/2014 3:29 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 : 6/30/2014 10:56 AM
 Last Recalculation Date : 6/30/2014 11:14 AM

*****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
1.739	Hydrogen	1 F			+7.7423e-002	+0.0000e+000	+9.9929e-001	1-5	5	

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: 1.739 min.
 Peak Name: Hydrogen

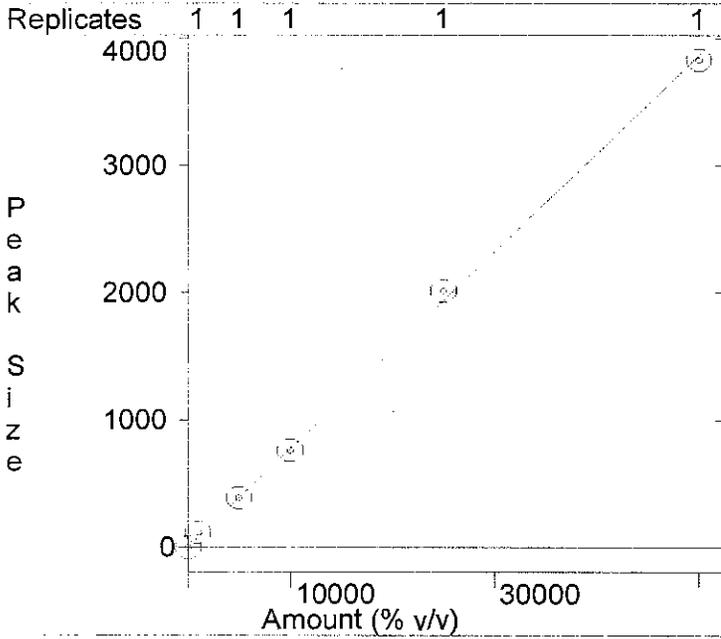
Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	1000.000000	1	116	115.7	#
2	5000.000000	1	388	387.5	#
3	10000.000000	1	763	762.5	#
4	25000.000000	1	2014	2013.9	#
5	50000.000000	1	3834	3833.5	#

Peak Measurement: Area
 Curve\Origin: 1 F

= Too few points to calculate.

Peak Name	Level	Rep.	Injection Date Time	Run Files
Hydrogen	1	1	6/30/2014 10:56 AM	c:\temp gc\gc8a\2014\jun\30jun012.run
	2	1	6/30/2014 10:43 AM	c:\temp gc\gc8a\2014\jun\30jun011.run
	3	1	6/30/2014 10:30 AM	c:\temp gc\gc8a\2014\jun\30jun010.run
	4	1	6/30/2014 10:22 AM	c:\temp gc\gc8a\2014\jun\30jun009.run
	5	1	6/30/2014 10:13 AM	c:\temp gc\gc8a\2014\jun\30jun008.run

Hydrogen
External Standard Analysis
Resp. Fact. RSD: 19.97%
Curve Type: Linear
Origin: Force
Coeff. Det. (r²): 0.999293
y = +7.7423e-002x



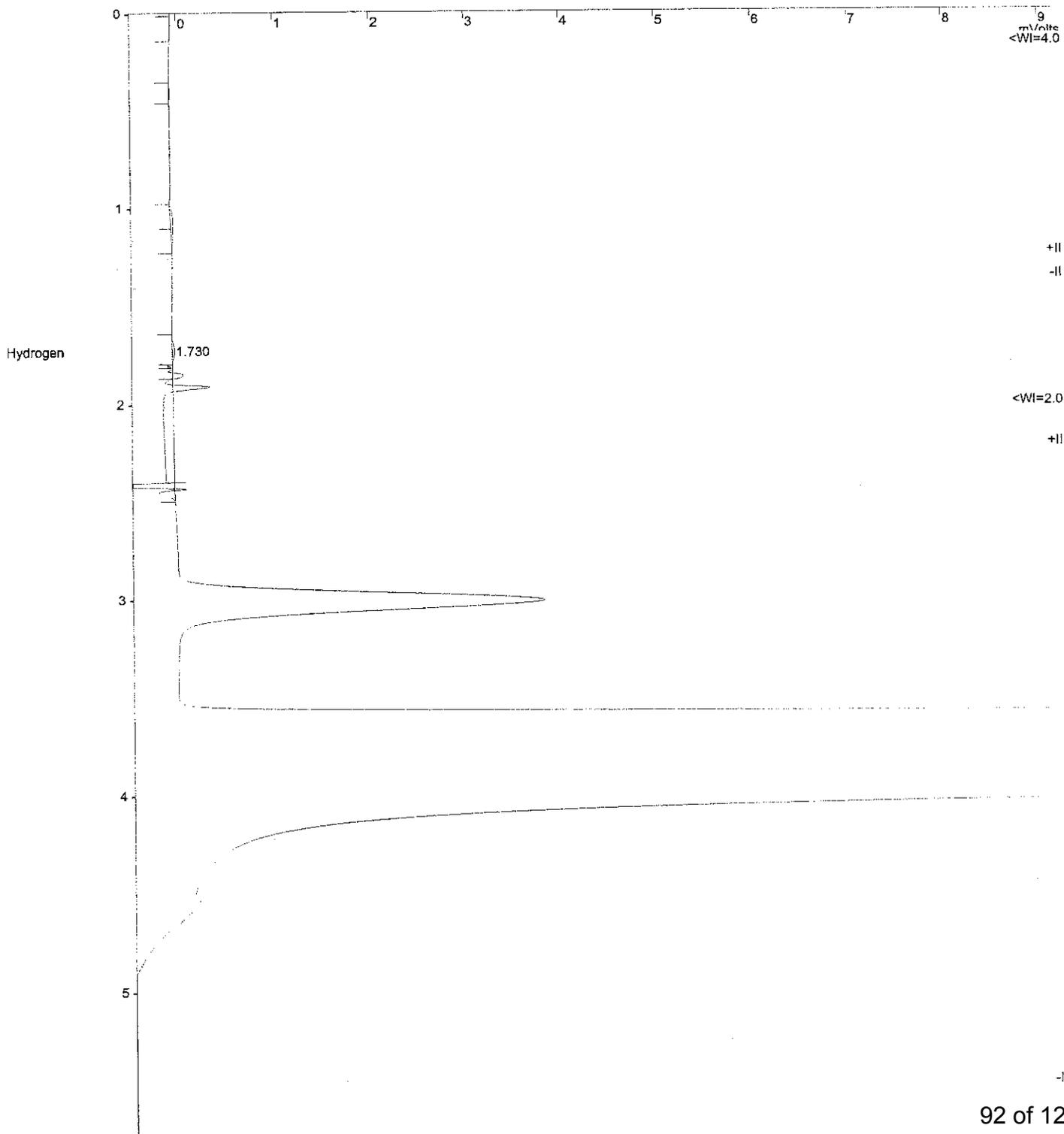
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun012.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 0.1 % h2

Injection Date: 6/30/2014 10:56 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2014\jun\30jun012.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 0.1 % h2

Injection Date: 6/30/2014 10:56 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD Run Time : 5.795 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

Table with 7 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.730, 0.019, 116, BV, 4.5, U. Totals: 0.019, 116.

Status Codes:
J - User-defined peak endpoint(s)

Total Unidentified Counts : 345 counts

Detected Peaks: 8 Rejected Peaks: 4 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -57 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 3 microVolts

Manual injection

Revision Log:

6/30/2014 11:01 AM: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen130428.mth'
Stream: 1, Advance Time: 10:43:15 AM 6/30/2014 11:02 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:02 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:02 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:02 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:03 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:14 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'

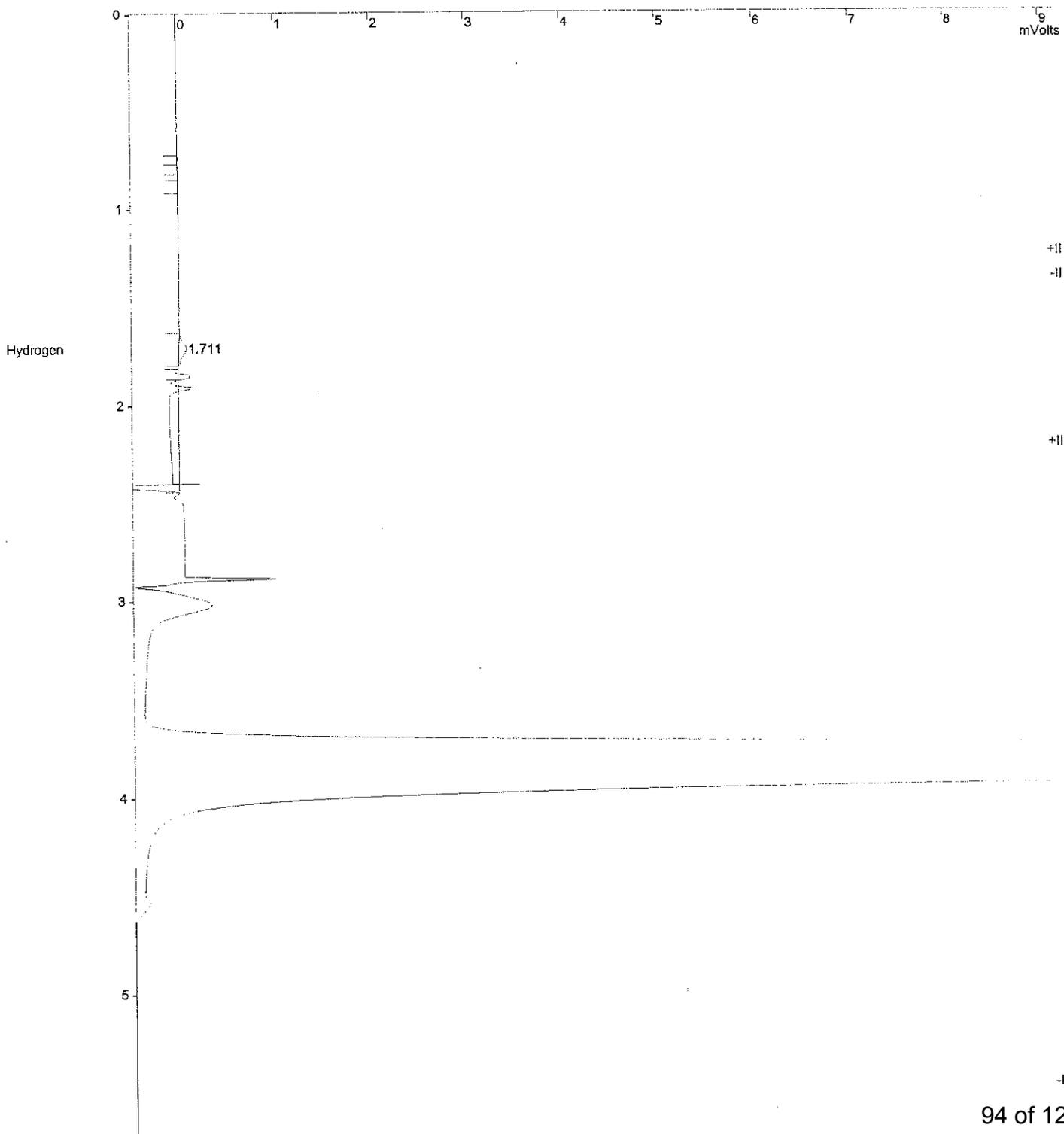
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun011.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 0.5 % h2

Injection Date: 6/30/2014 10:43 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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



File Name : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun011.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 0.5 % h2

Injection Date: 6/30/2014 10:43 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD Run Time : 5.795 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

Table with 8 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.711, -0.019, 388, BV, 4.1, U. Totals: -0.019, 388.

Status Codes:
1 - User-defined peak endpoint(s)

Total Unidentified Counts : 132 counts

Detected Peaks: 7 Rejected Peaks: 5 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 3 microVolts

Manual Injection

Revision Log:

6/30/2014 10:49 AM: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen130428.mth'
Stream: 1, Advance Time: 10:29:51 AM 6/30/2014 10:50 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:50 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:51 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:51 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:03 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:14 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'

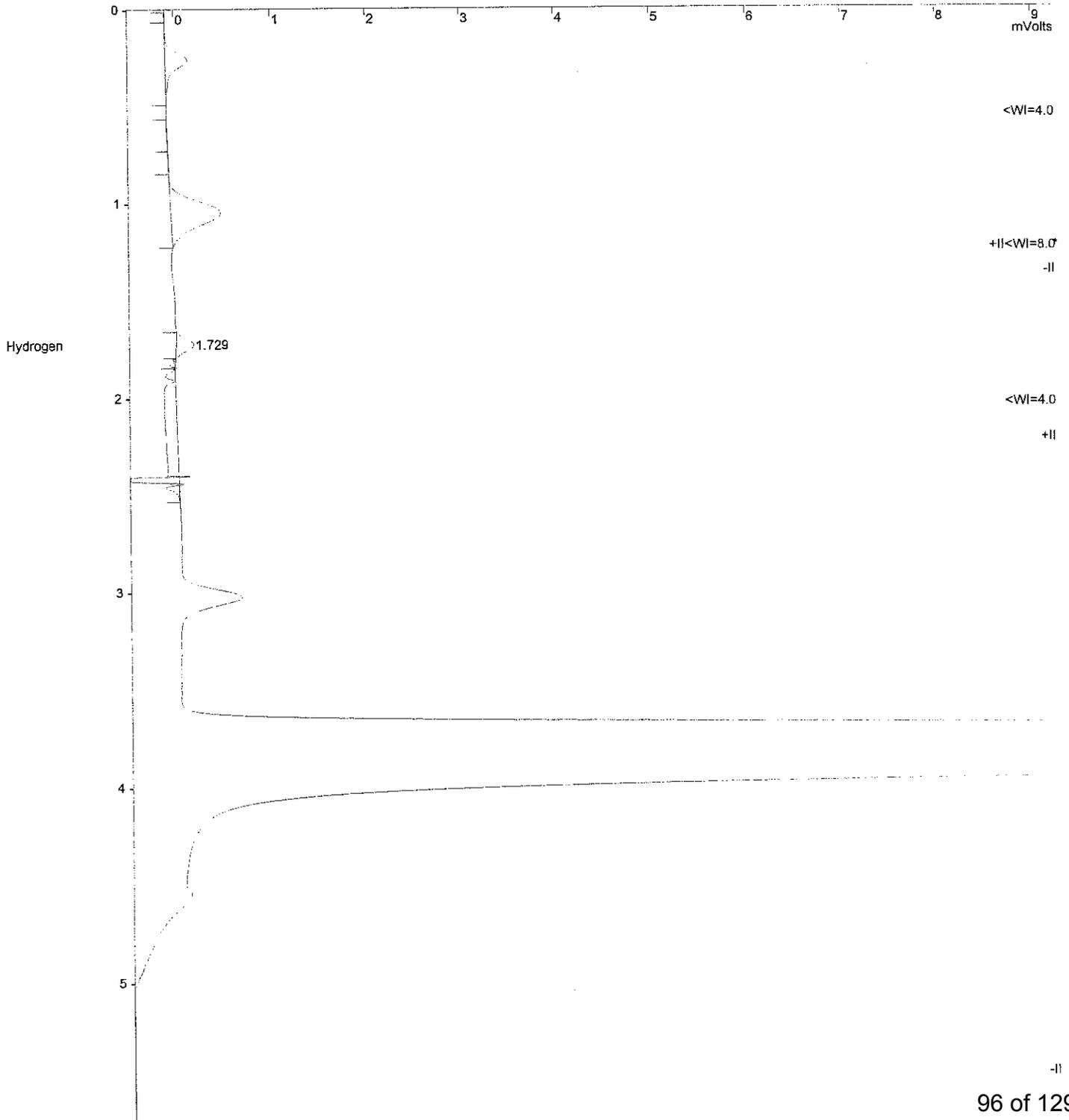
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun010.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 1 % h2

Injection Date: 6/30/2014 10:30 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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



File Name : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun010.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 1 % h2

Injection Date: 6/30/2014 10:30 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD Run Time : 5.795 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

Table with 8 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.729, 0.018, 763, BV, 4.7, U. Totals: 0.018, 763.

Status Codes:
1 - User-defined peak endpoint(s)

Total Unidentified Counts : 5954 counts

Detected Peaks: 9 Rejected Peaks: 6 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -95 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 5 microVolts

Manual Injection

Revision Log:

6/30/2014 10:36 AM: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen130428.mth'
Stream: 1, Advance Time: 10:21:46 AM 6/30/2014 10:39 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:42 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:57 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:57 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:57 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:57 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:03 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:14 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'

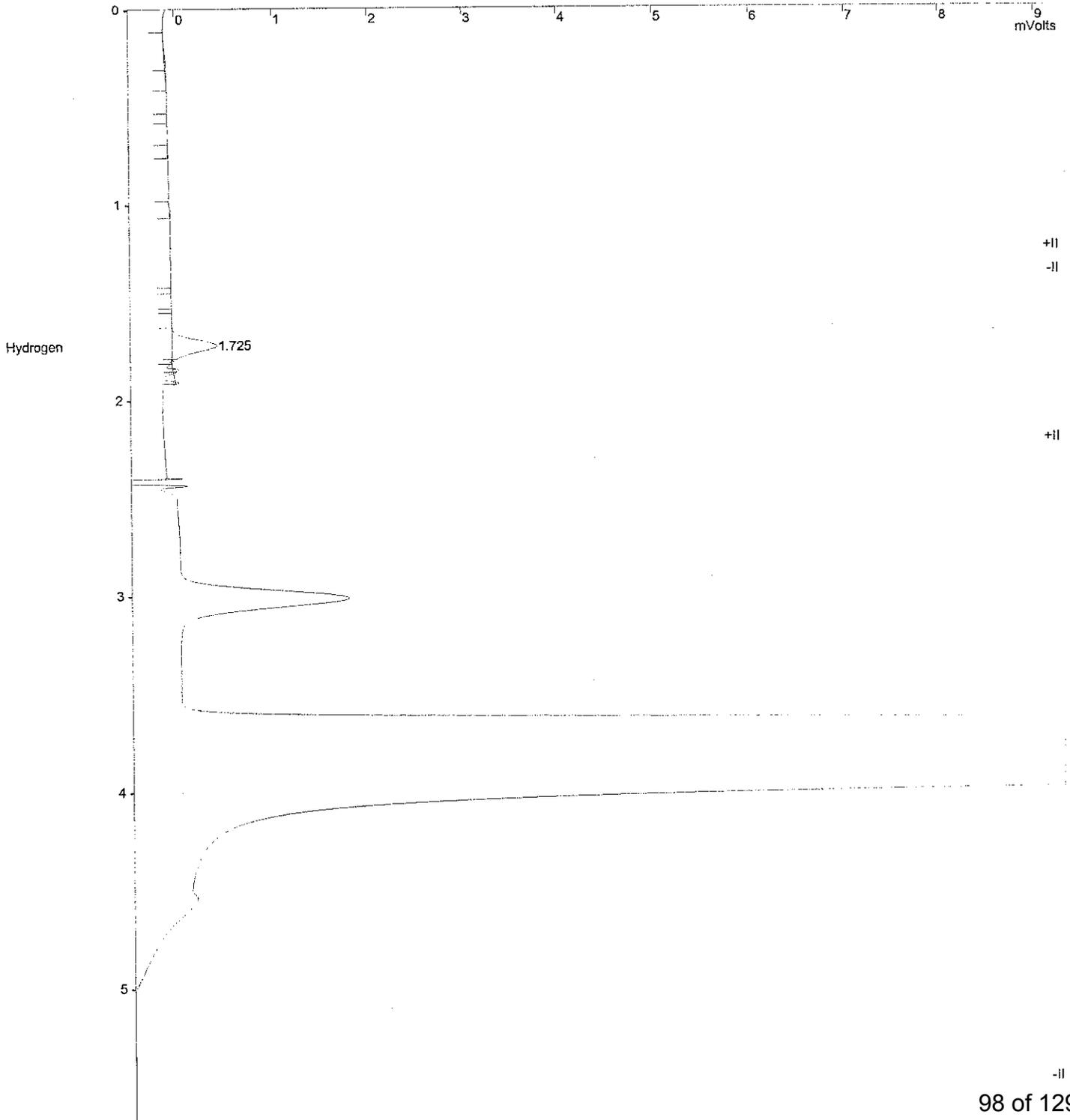
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun009.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 2.5 % h2

Injection Date: 6/30/2014 10:22 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2014\jun\30jun009.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 2.5 % h2

Injection Date: 6/30/2014 10:22 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD Run Time : 5.795 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

Table with 7 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Width Sep. 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.725, -0.003, 2014, BV, 4.2, U. Totals: -0.003, 2014.

Status Codes:
U - User-defined peak endpoint(s)

Total Unidentified Counts : 62 counts
Detected Peaks: 12 Rejected Peaks: 10 Identified Peaks: 1
Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0
Baseline Offset: -82 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 4 microVolts

Manual injection

Revision Log:

6/30/2014 10:28 AM: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen130428.mth'
Stream: 1, Advance Time: 10:13:16 AM 6/30/2014 10:39 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:41 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:41 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:41 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:41 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:42 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:58 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:58 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:58 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:03 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'

6/30/2014 13:23

'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:14 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'

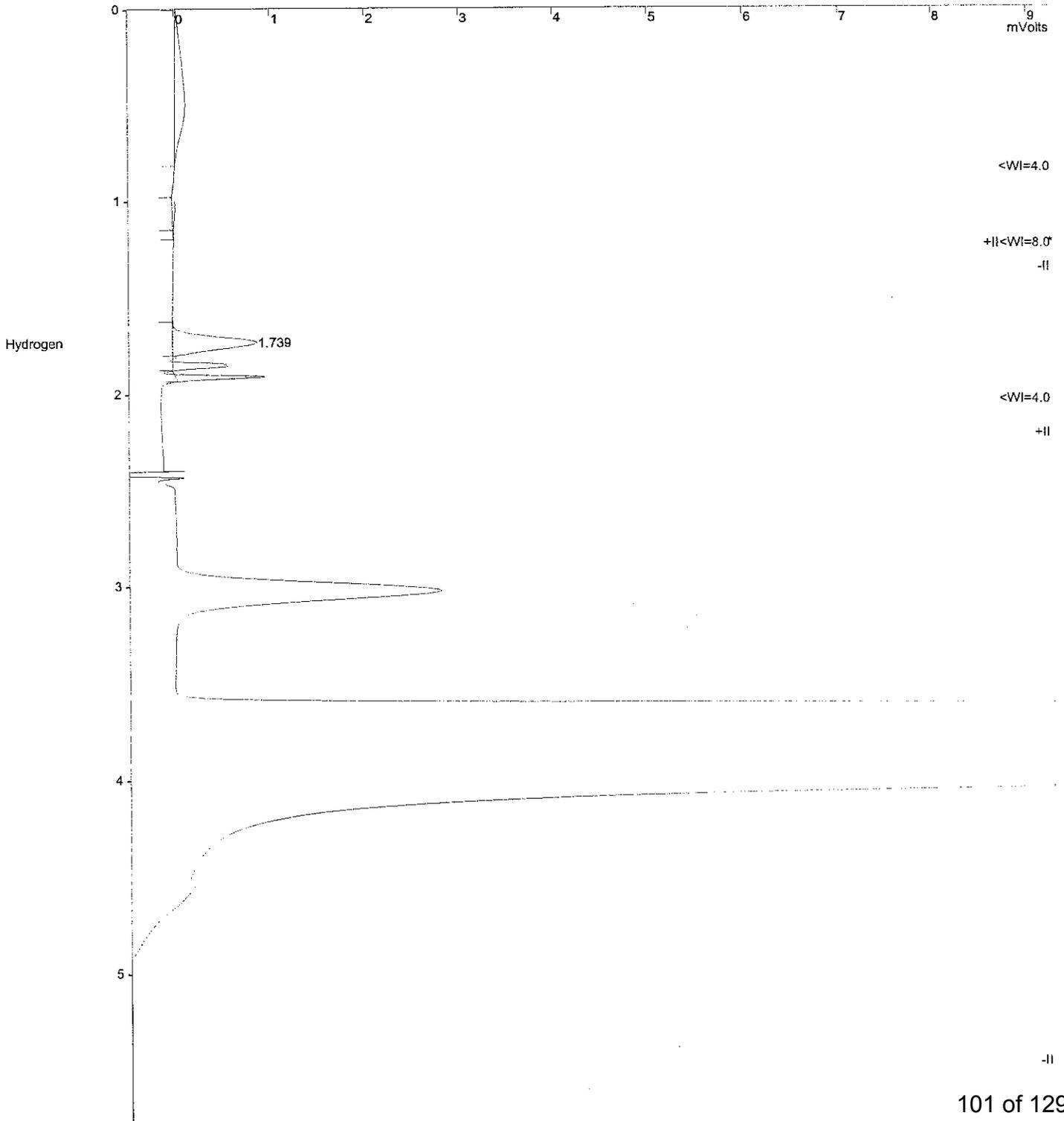
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun008.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 5 % h2

Injection Date: 6/30/2014 10:13 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2014\jun\30jun008.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 5 % h2

Injection Date: 6/30/2014 10:13 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD Run Time : 5.795 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

Table with 8 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.739, 0.015, 3834, BV, 4.2, U. Totals: 0.015, 3834.

Status Codes:

U - User-defined peak endpoint(s)

Total Unidentified Counts : 5232 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 17 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

Revision Log:

6/30/2014 10:19 AM: Calculated results from channel Front using method:
6/30/2014 10:21 AM: Calculated results from channel Front using method:
6/30/2014 10:39 AM: Calculated results from channel Front using method:
6/30/2014 10:40 AM: Calculated results from channel Front using method:
6/30/2014 10:59 AM: Calculated results from channel Front using method:
6/30/2014 11:03 AM: Calculated results from channel Front using method:
6/30/2014 11:14 AM: Calculated results from channel Front using method:

108 of 129

4. Continuing Calibration

- a. CCAL Summary**
- b. Chromatograms/Results**

Continuing Calibration Criteria:

Verification Report

Title : RSK-175 FID
 Run File : c:\temp gc\gc8a\2015\apr\28apr014.run
 Method File : c:\temp gc\gc8a\methods\rsk175fgl50428.mth
 Sample ID : RSK 0.5% CCV

Injection Date: 4/28/2015 13:20 Calculation Date: 4/28/2015 13:33

Operator : AS Detector Type: 3800 (10 Volts)
 Workstation: Bus Address : 44
 Instrument : GC8A Sample Rate : 10.00 Hz
 Channel : Middle = FID 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	5040.030	0.8	2.516	0.003	13348862	
2	Ethane	5000.000	5033.612	0.7	2.824	0.004	13688027	
3	Acetylene	5000.000	5008.515	0.2	3.518	0.005	14345338	
4	Methane	5000.000	5002.250	0.0	6.803	0.004	6797687	
Totals:			20084.407			0.016	48179914	

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -6 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
 Noise (monitored before this run): 12 microVolts

Manual injection

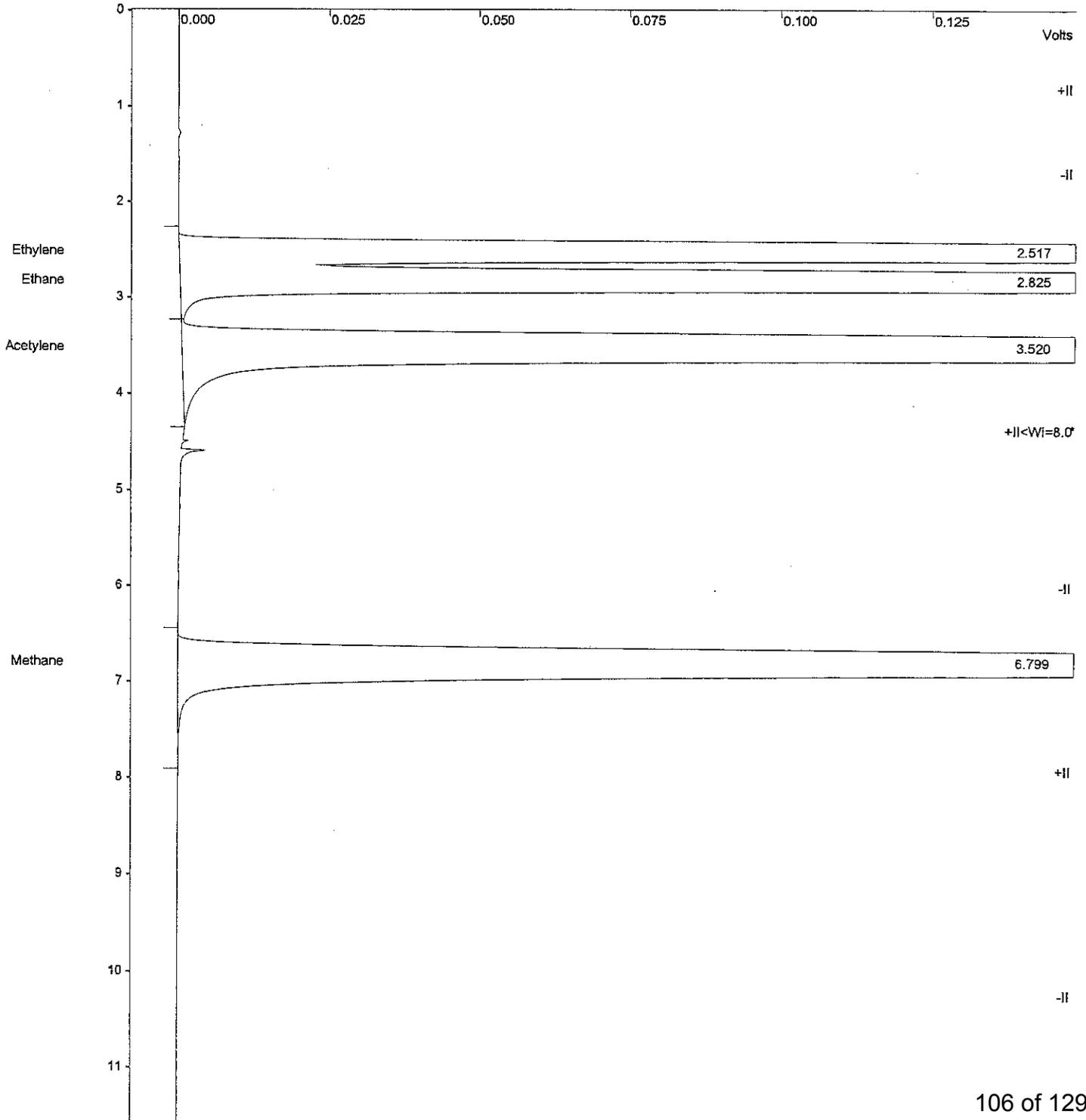
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK 0.5% CCV

Injection Date: 4/29/2015 11:06 Calculation Date: 4/29/2015 11:18

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl50428.mth
Sample ID : RSK 0.5% CCV

Injection Date: 4/29/2015 11:06 Calculation Date: 4/29/2015 11:18

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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%

Table with 8 columns: Peak No., Peak Name, Expected Result (ppmv), Calculated Result (ppmv), Dev. %, Ret. Time (min), Time Offset (min), Area (counts), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 13 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 10 microVolts

Manual injection

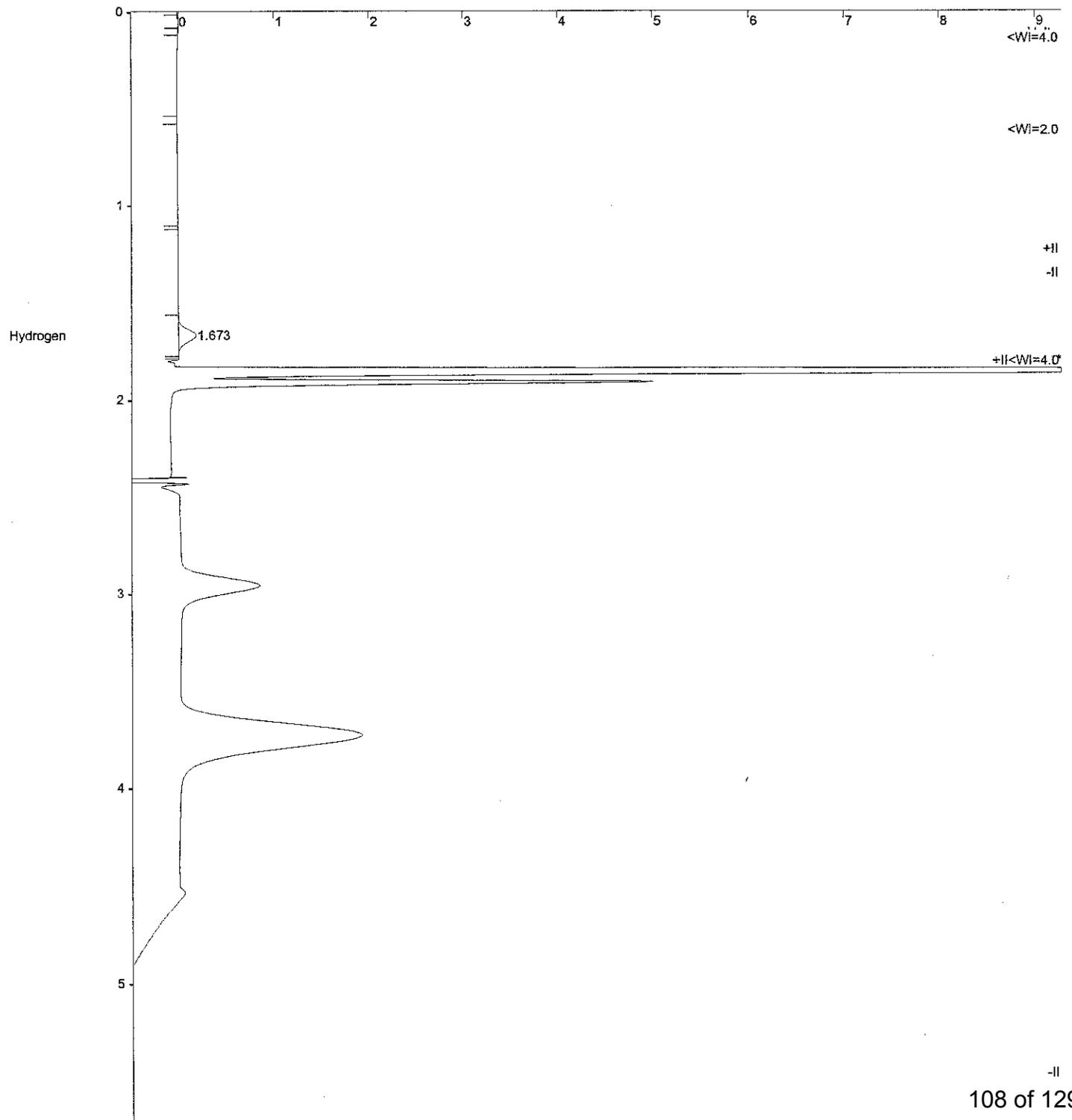
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
Sample ID : 1% H2 RSK CCV

Injection Date: 4/30/2015 08:24 Calculation Date: 4/30/2015 08:31

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

File Name : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
Sample ID : 1% H2 RSK CCV

Injection Date: 4/30/2015 08:24 Calculation Date: 4/30/2015 08:31

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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%

Table with 8 columns: Peak No., Peak Name, Expected Result (ppmv), Calculated Result (ppmv), Dev. %, Ret. Time (min), Time Offset (min), Area (counts), Status Codes. Row 1: 1 Hydrogen, 10000.000, 10628.011, 6.3, 1.673, -0.012, 823. Totals: 10628.011, -0.012, 823.

Total Unidentified Counts : 0 counts

Detected Peaks: 6 Rejected Peaks: 5 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 11 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 2 microVolts

Manual injection

Revision Log:

4/30/2015 08:30: Calculated results from channel Front using method:

'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'

Stream: 1, Advance Time: 16:30:01 4/30/2015 08:31: Calculated results from channel Front using method:

'c:\temp gc\gc8a\methods\rskhydrogen140630.mth'

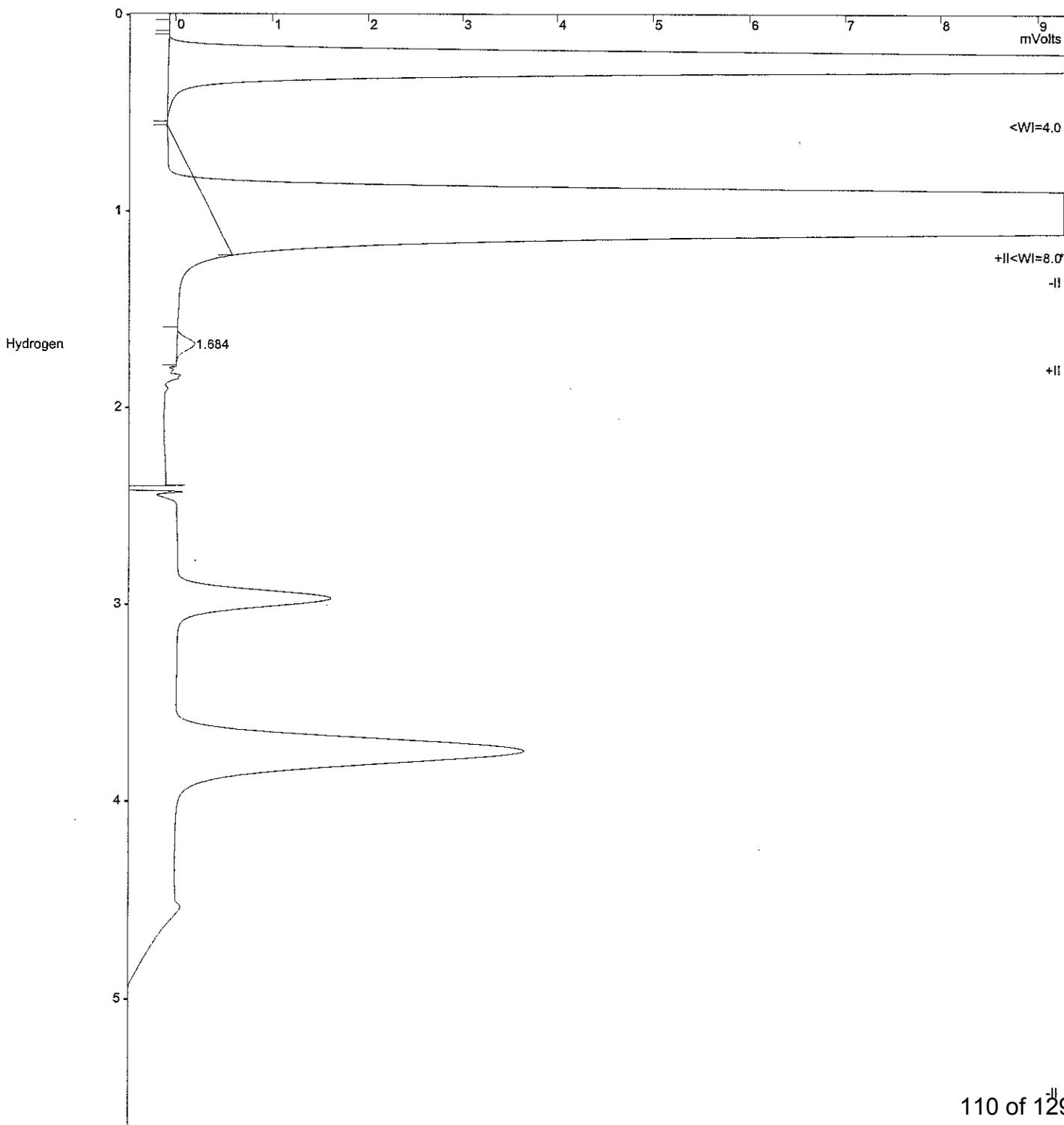
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr030.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : 1% H2 RSK CCV

Injection Date: 4/30/2015 12:34 Calculation Date: 4/30/2015 12:39

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr030.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : 1% H2 RSK CCV

Injection Date: 4/30/2015 12:34 Calculation Date: 4/30/2015 12:39

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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%

Table with 8 columns: Peak No., Peak Name, Expected Result (ppmv), Calculated Result (ppmv), Dev. %, Ret. Time (min), Time Offset (min), Area (counts), Status Codes. Row 1: 1 Hydrogen, 10000.000, 10080.690, 0.8, 1.684, 0.000, 780. Totals: 10080.690, 0.000, 780.

Total Unidentified Counts : 533679 counts

Detected Peaks: 5 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -60 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 6 microVolts

Manual injection

Revision Log:

4/30/2015 12:39: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 12:33:29

5. Method Blank

a. Chromatograms/ Results

Method Blank Criteria:

All compounds < Reporting Limit

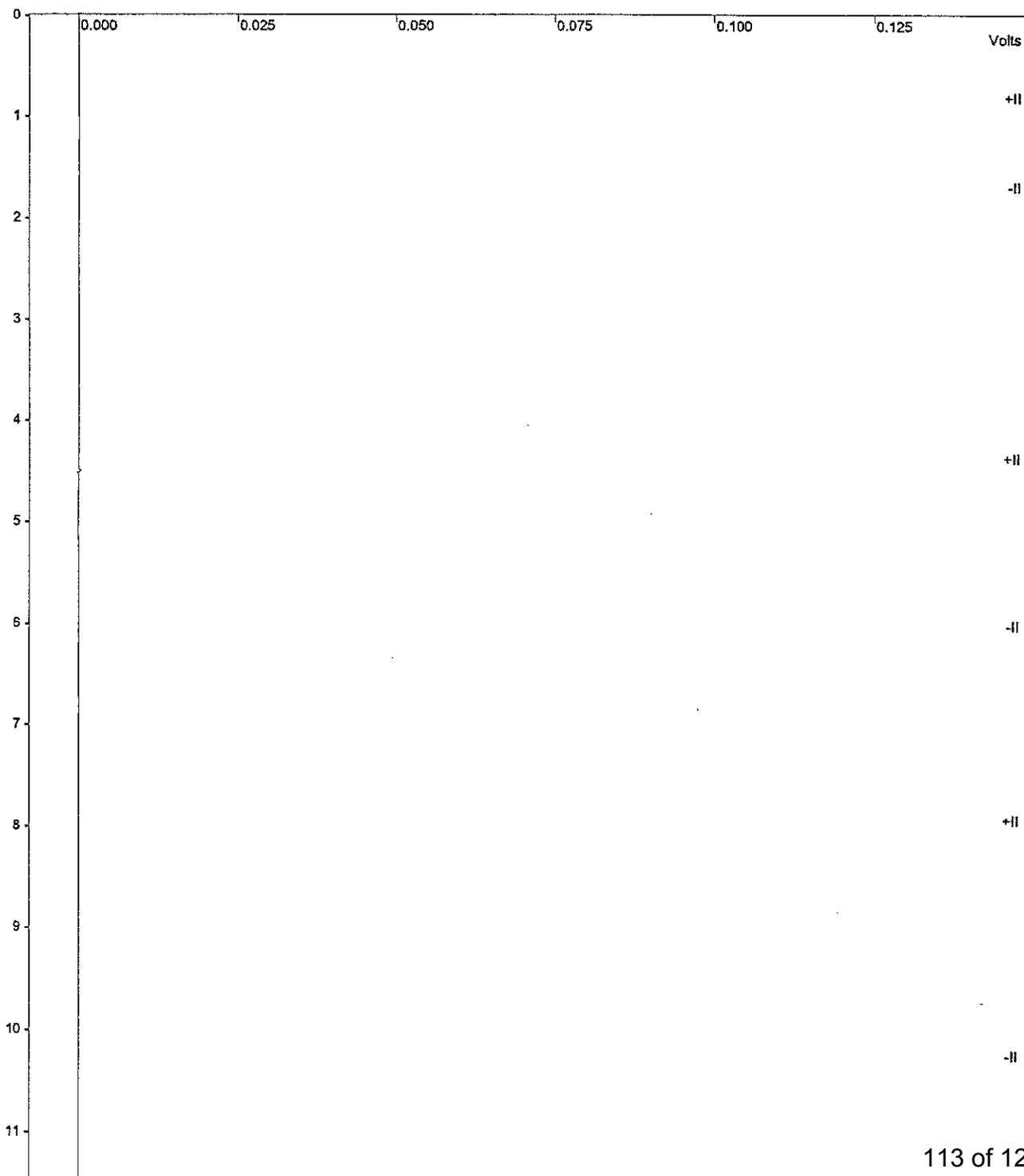
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr019.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : He Blank

Injection Date: 4/28/2015 14:32 Calculation Date: 4/28/2015 14:44

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr019.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : He Blank

Injection Date: 4/28/2015 14:32 Calculation Date: 4/28/2015 14:44

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 9 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and a Totals row.

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 0 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -5 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

Data Handling: No peaks

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr020.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : Method Blank

Injection Date: 4/28/2015 14:47 Calculation Date: 4/28/2015 14:59

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: -12 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 15 microVolts

Manual injection

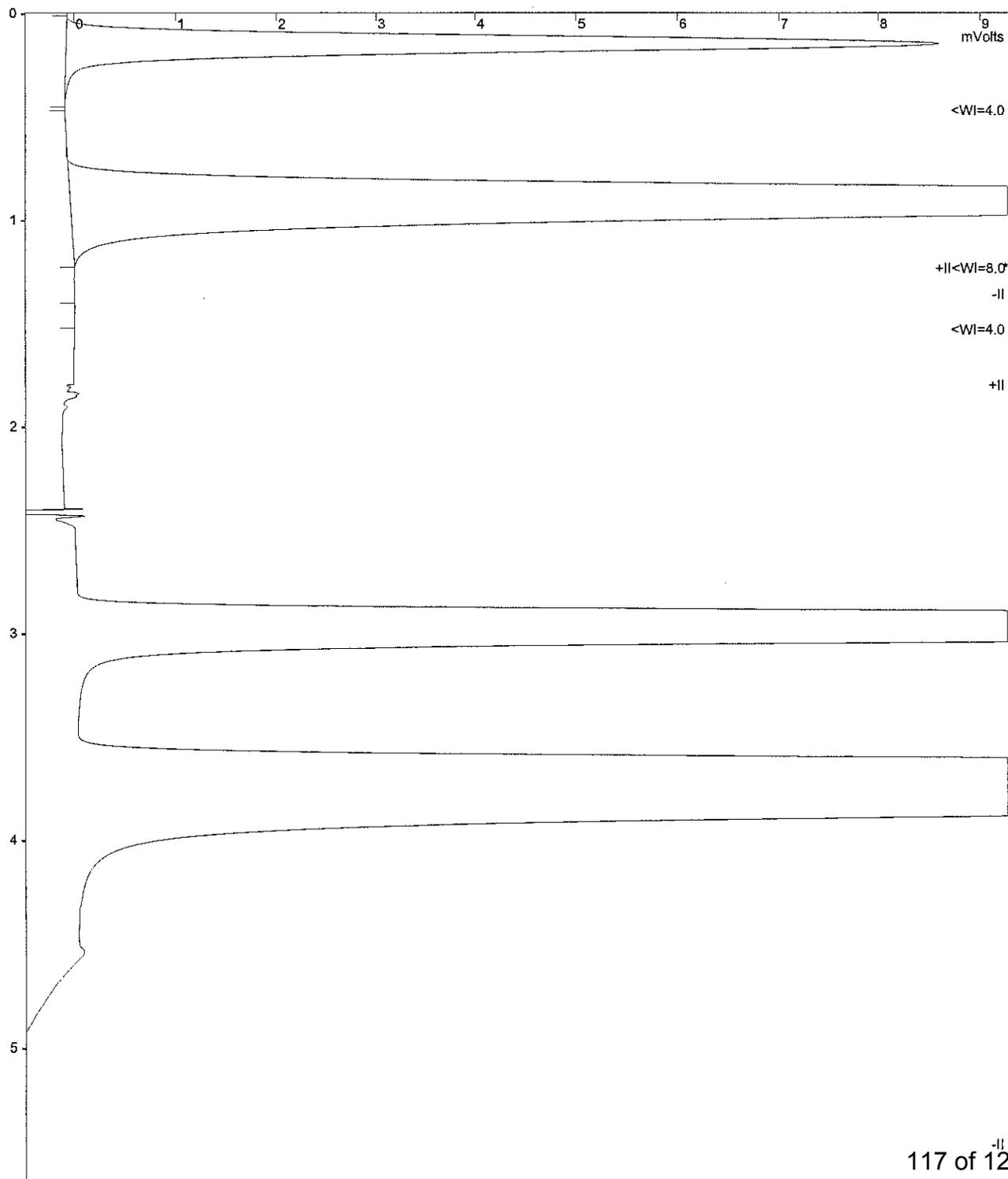
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr003.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : Method Blank

Injection Date: 4/30/2015 08:56 Calculation Date: 4/30/2015 09:02

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr003.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : Method Blank

Injection Date: 4/30/2015 08:56 Calculation Date: 4/30/2015 09:02

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 218652 counts

Detected Peaks: 3 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -66 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 27 microVolts

Manual injection

Revision Log:

4/30/2015 09:02: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 08:54:08

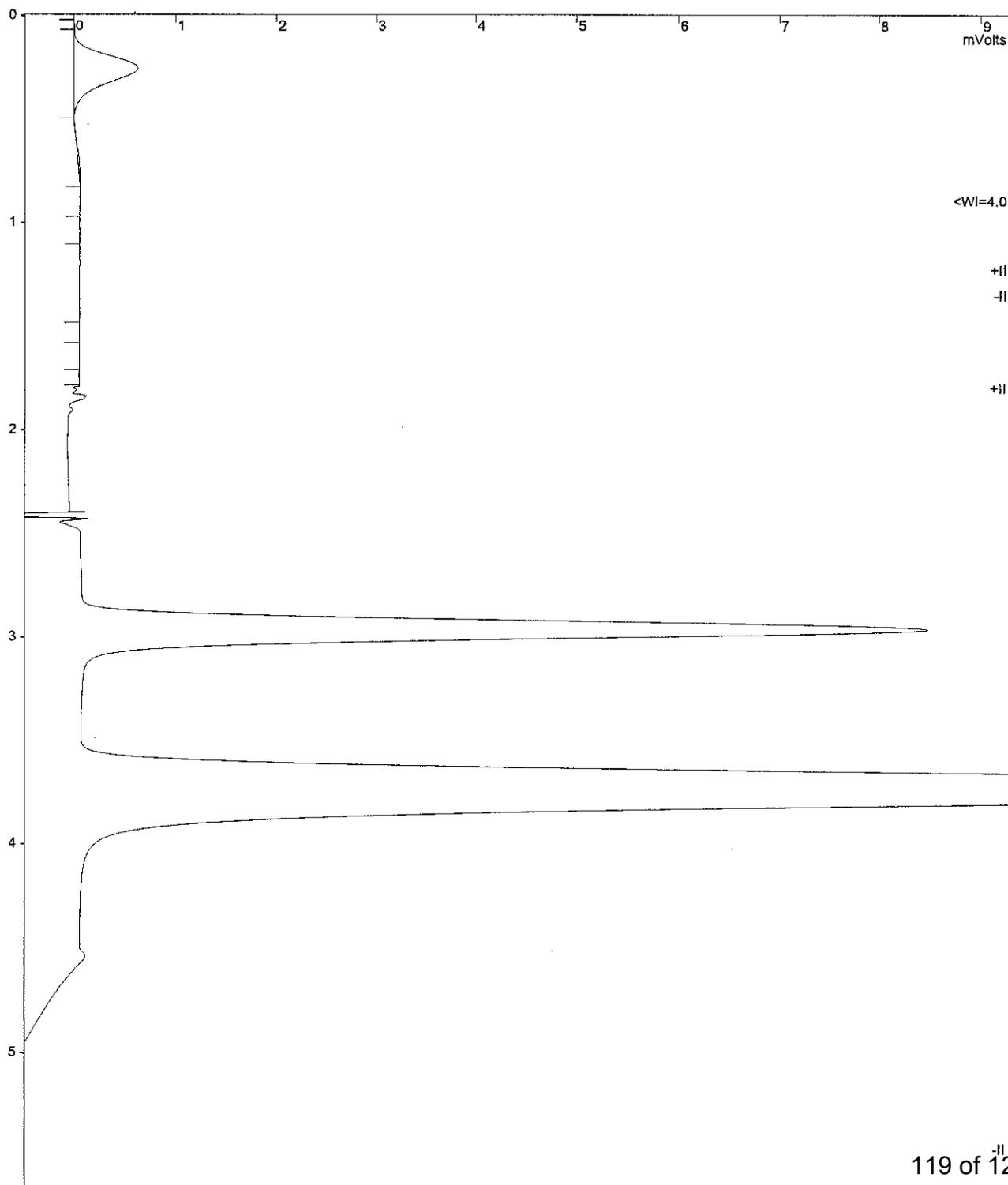
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr004.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : He Blank

Injection Date: 4/30/2015 09:04 Calculation Date: 4/30/2015 09:10

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr004.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : He Blank

Injection Date: 4/30/2015 09:04 Calculation Date: 4/30/2015 09:10

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. 1/2 Code (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 5900 counts

Detected Peaks: 6 Rejected Peaks: 3 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): 29 microVolts

Manual injection

Revision Log:

4/30/2015 09:10: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 09:01:53

6. LCS/LCSD

a. Chromatograms/Results

Criteria as listed on report

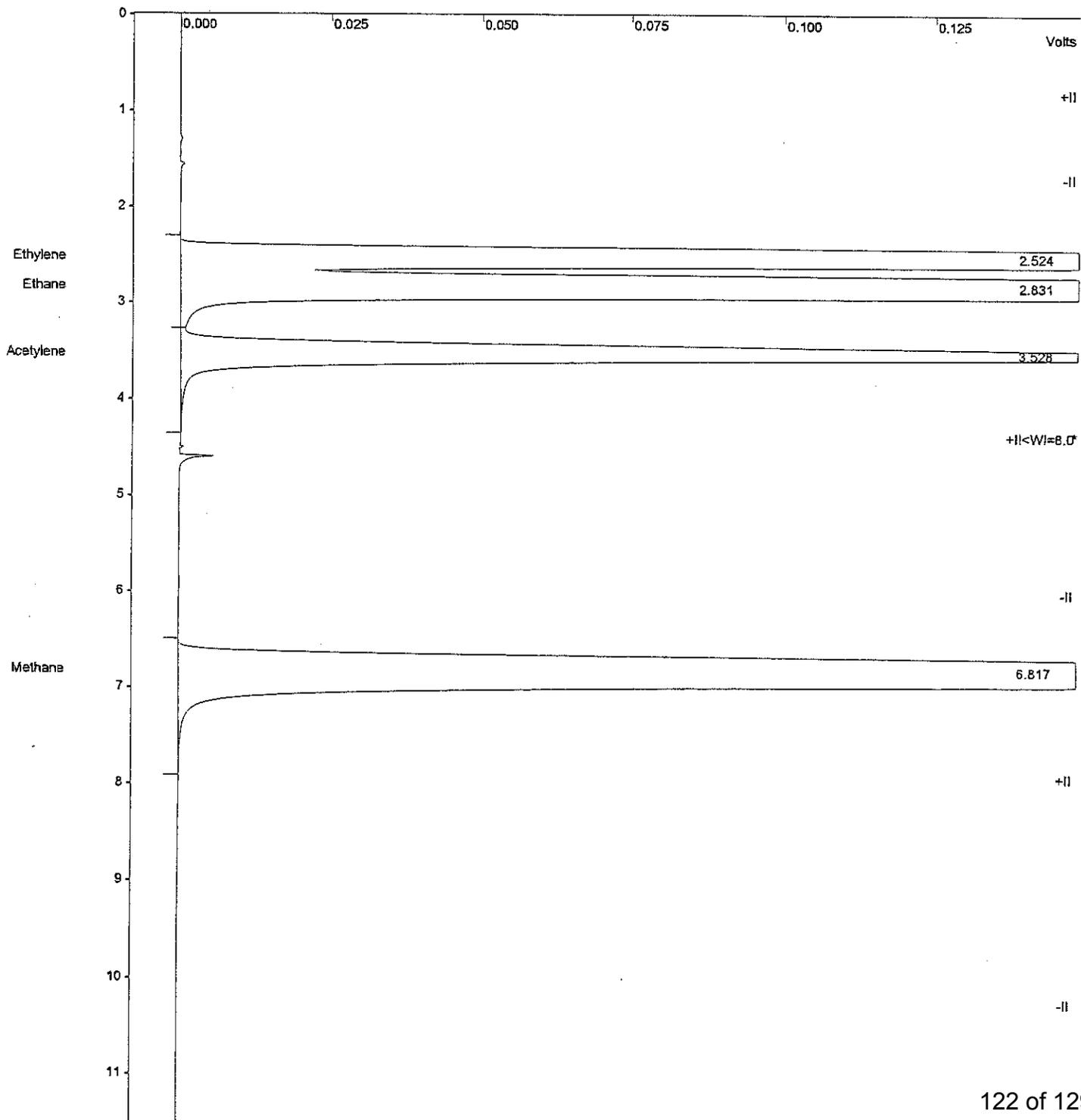
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr015.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK LCS

Injection Date: 4/28/2015 13:34 Calculation Date: 4/28/2015 13:46

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr015.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl50428.mth
Sample ID : RSK LCS

Injection Date: 4/28/2015 13:34 Calculation Date: 4/28/2015 13:46

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 7 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -25 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

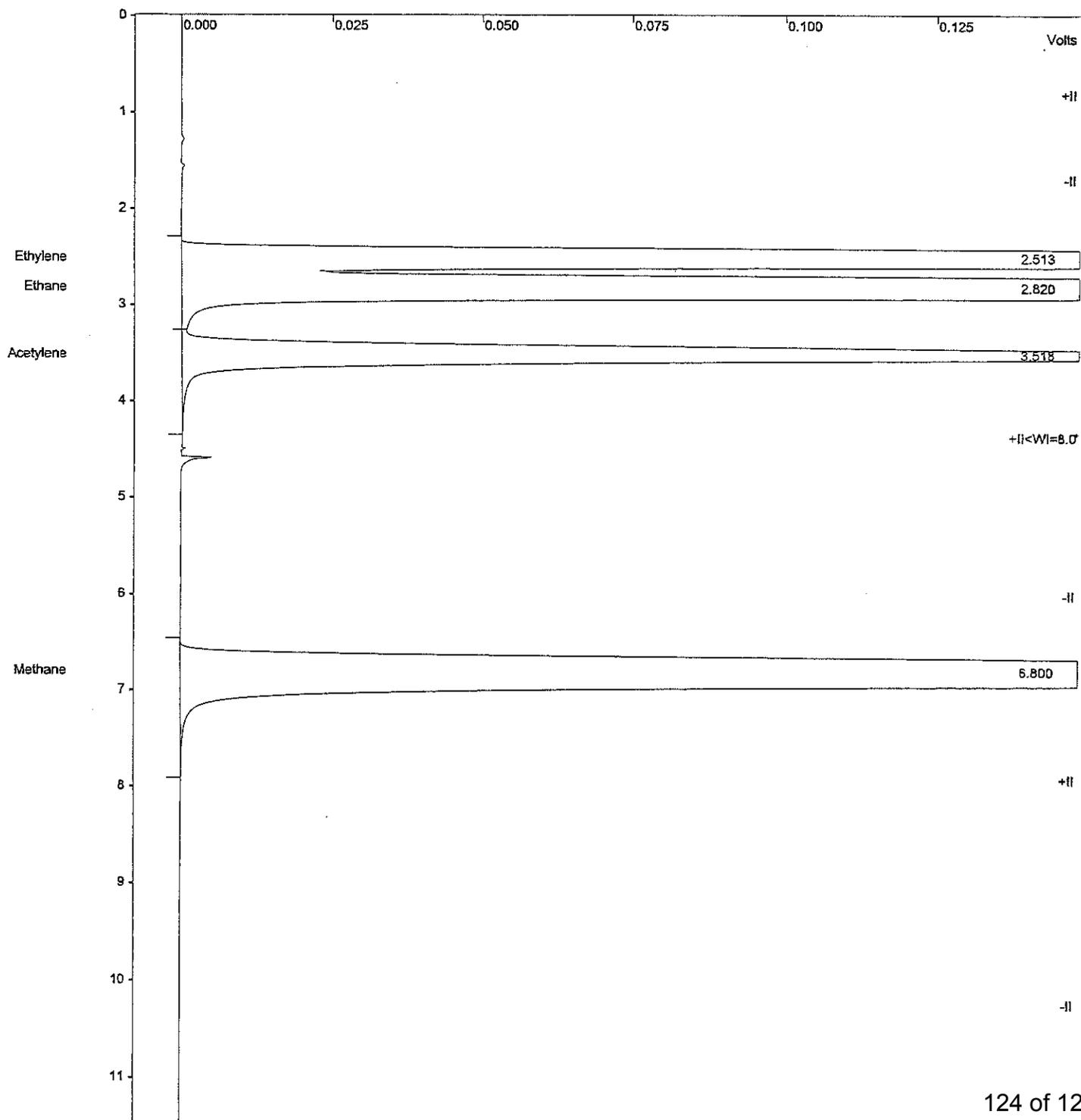
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr016.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK LCSD

Injection Date: 4/28/2015 13:50 Calculation Date: 4/28/2015 14:02

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr016.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK LCSD

Injection Date: 4/28/2015 13:50 Calculation Date: 4/28/2015 14:02

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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

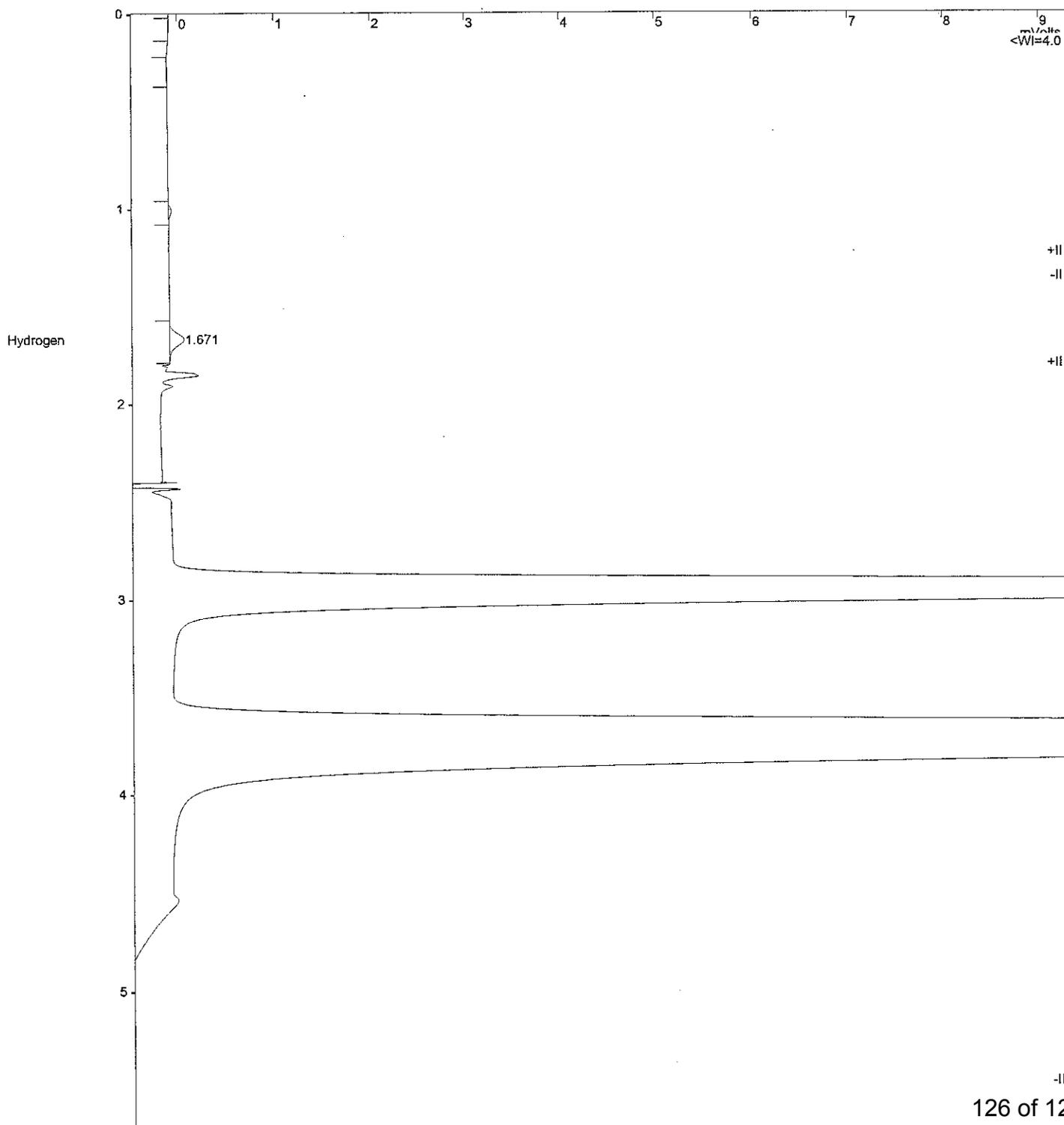
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr001.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
Sample ID : H2 RSK LCS

Injection Date: 4/30/2015 08:40 Calculation Date: 4/30/2015 08:47

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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



File Name : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr001.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
Sample ID : H2 RSK LCS

Injection Date: 4/30/2015 08:40 Calculation Date: 4/30/2015 08:47

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 9 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 8510.739, 1.671, -0.013, 659, BB, 4.2. Totals: 8510.739, -0.013, 659.

Total Unidentified Counts : 96 counts

Detected Peaks: 4 Rejected Peaks: 2 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -86 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 3 microVolts

Manual injection

Revision Log:

4/30/2015 08:46: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 08:36:42 4/30/2015 08:47: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen140630.mth'

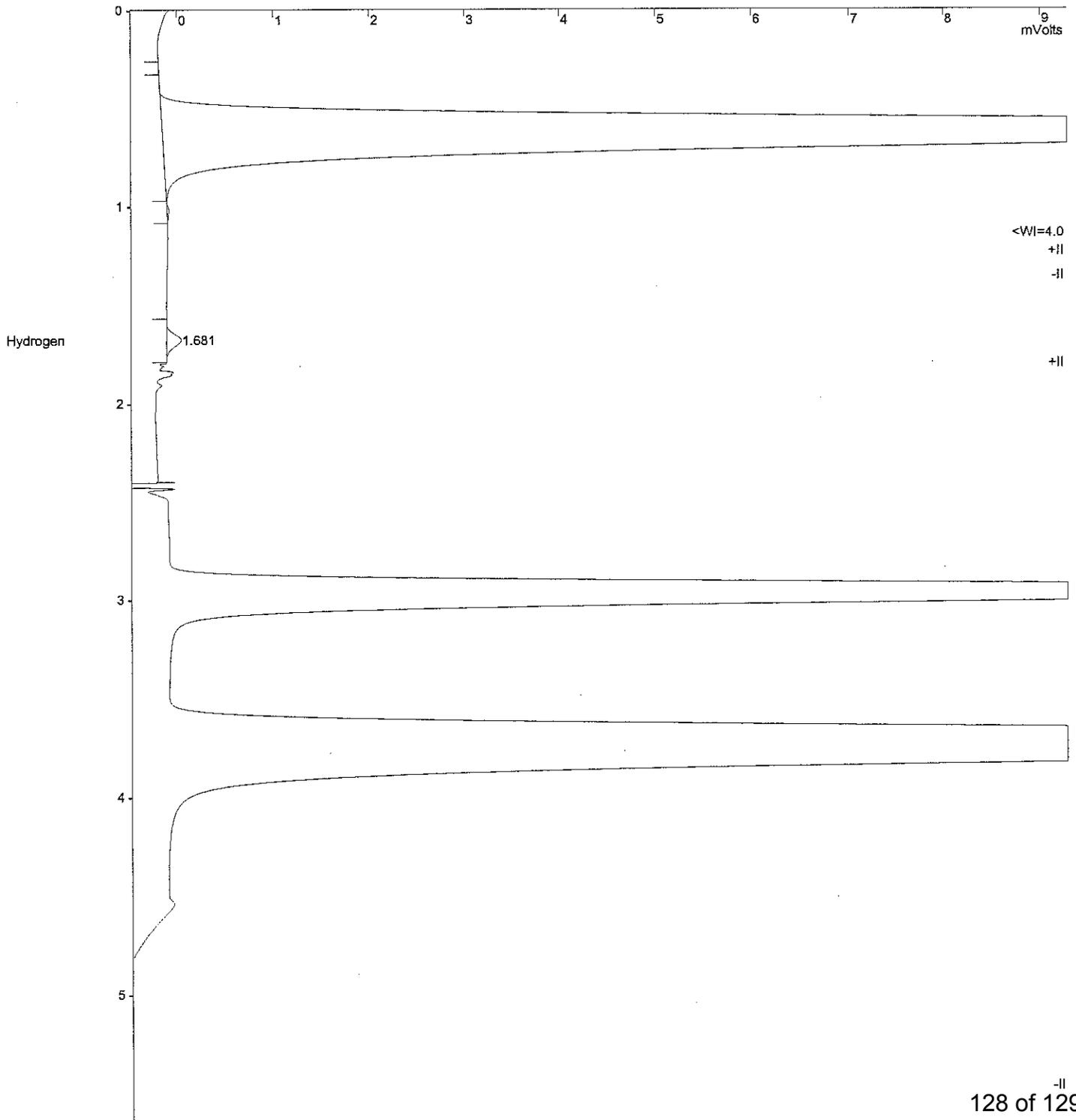
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr002.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : H2 RSK LCSD

Injection Date: 4/30/2015 08:48 Calculation Date: 4/30/2015 08:54

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr002.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : H2 RSK LCSD

Injection Date: 4/30/2015 08:48 Calculation Date: 4/30/2015 08:54

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 8912.107, 1.681, -0.003, 690, BB, 4.2. Totals: 8912.107, -0.003, 690.

Total Unidentified Counts : 157709 counts

Detected Peaks: 4 Rejected Peaks: 1 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): 18 microVolts

Manual injection

Revision Log:

4/30/2015 08:54: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 08:46:10

TABLE OF CONTENTS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
SDG: 15D157

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1008
GC/MS-VOA	METHOD 5030B/8260B	2000 – 2159
	METHOD 5030B/8260B SIM	2160 – 2270
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 8151A	5000 – 5098
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 300.0	8000 – 8087
	METHOD 415.1	8088 – 8139
	METHOD SM3500	8140 – 8147
	METHOD SM4500S2D	8148 – 8155
OTHERS	METHANE AND DISSOLVED HYDROGEN	

** - Not Requested



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

Date: 05-19-2015
EMAX Batch No.: 15D157

Mitra Fiuzat

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

Subject: Laboratory Report
Project: B & B Groundwater Sampling

Enclosed is the Laboratory report for samples received on 04/23/15.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
04-22-15-PWB-16	D157-01	04/22/15	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
04-22-15-PWB-14	D157-02	04/22/15	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
04-22-15-TB-9	D157-03	04/22/15	WATER	VOLATILE ORGANICS BY GC/MS
04-22-15-AMW-4R	D157-04	04/22/15	WATER	ANIONS BY IC CHLORINATED HERBICIDES

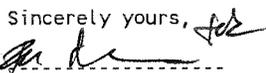
Sample ID	Control #	Col Date	Matrix	Analysis
				TOTAL ORGANIC CARBON VOC SIM VOLATILE ORGANICS BY GC/MS FERROUS IRON TOTAL SULFIDE BY STD METHOD METHANE AND DISSOLVED HYDROGEN
04-22-15-PWB-12	D157-05	04/22/15	WATER	ANIONS BY IC CHLORINATED HERBICIDES TOTAL ORGANIC CARBON VOC SIM VOLATILE ORGANICS BY GC/MS FERROUS IRON TOTAL SULFIDE BY STD METHOD METHANE AND DISSOLVED HYDROGEN
04-22-15-TB-10	D157-06	04/22/15	WATER	VOLATILE ORGANICS BY GC/MS
04-22-15-PWB-7A	D157-07	04/22/15	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
04-22-15-PWB-15	D157-08	04/22/15	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
04-22-15-WB2-2	D157-09	04/22/15	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
04-22-15-TB-11	D157-10	04/22/15	WATER	VOLATILE ORGANICS BY GC/MS
04-22-15-PWB-4	D157-11	04/22/15	WATER	ANIONS BY IC

Sample ID	Control #	Col Date	Matrix	Analysis
04-22-15-FDUP-4	D157-12	04/22/15	WATER	CHLORINATED HERBICIDES TOTAL ORGANIC CARBON VOC SIM VOLATILE ORGANICS BY GC/MS FERROUS IRON TOTAL SULFIDE BY STD METHOD METHANE AND DISSOLVED HYDROGEN ANIONS BY IC
04-22-15-WB2-1	D157-13	04/22/15	WATER	CHLORINATED HERBICIDES TOTAL ORGANIC CARBON VOC SIM VOLATILE ORGANICS BY GC/MS FERROUS IRON TOTAL SULFIDE BY STD METHOD METHANE AND DISSOLVED HYDROGEN ANIONS BY IC
04-22-15-PWB-9	D157-14	04/22/15	WATER	CHLORINATED HERBICIDES TOTAL ORGANIC CARBON VOC SIM VOLATILE ORGANICS BY GC/MS FERROUS IRON TOTAL SULFIDE BY STD METHOD METHANE AND DISSOLVED HYDROGEN ANIONS BY IC
04-22-15-TB-12	D157-15	04/22/15	WATER	VOLATILE ORGANICS BY GC/MS
04-22-15-WB2-4	D157-16	04/22/15	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
04-22-15-PWB-10	D157-17	04/22/15	WATER	ANIONS BY IC METHANE AND DISSOLVED HYDROGEN

Sample ID	Control #	Col Date	Matrix	Analysis
				CHLORINATED HERBICIDES TOTAL ORGANIC CARBON VOC SIM VOLATILE ORGANICS BY GC/MS FERROUS IRON TOTAL SULFIDE BY STD METHOD METHANE AND DISSOLVED HYDROGEN
04-22-15-TB-13	D157-18	04/22/15	WATER	VOLATILE ORGANICS BY GC/MS
04-22-15-PWB-5	D157-19	04/22/15	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
04-22-15-TB-14	D157-20	04/22/15	WATER	VOLATILE ORGANICS BY GC/MS
04-22-15-PWB-10MS	D157-17M	04/22/15	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
04-22-15-PWB-10MSD	D157-17S	04/22/15	WATER	ANIONS BY IC CHLORINATED HERBICIDES TOTAL ORGANIC CARBON VOC SIM VOLATILE ORGANICS BY GC/MS METHANE AND DISSOLVED HYDROGEN
04-22-15-PWB-10DUP	D157-17D	04/22/15	WATER	FERROUS IRON TOTAL SULFIDE BY STD METHOD

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



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

PO NUMBER: Eco 13-601

EMAX CONTROL NO. * 15DIS7

SAMPLE STORAGE: Coolers

PROJECT CODE: Eco 13-601

CLIENT: Eco Associates, Inc.
 PROJECT: Spring 2015 B&B Ground Water Sampling
 COORDINATOR: Carlos Hernandez
 TEL: 714-289-0995 FAX: che@emalabs.com EMAIL: che@emalabs.com
 SEND REPORT TO: Carlos Hernandez
 COMPANY: Eco Associates, Inc.
 ADDRESS: 1835 W. Katella Ave. Suite 340
Orange CA 92867
 EMAX PM

MATRIX CODE	PRESERVATIVE CODE	ANALYSIS REQUIRED							
DW=Drinking Water	IC = Ice	8260 B	8260 SIM	8151A-P: no Seb	300-N: Nitrate, Nitrite & Sulfates	SM4500 S20 Sulfides	SM 3500 Ferrous Iron	TOC - 415.1	RSK175 Methan 4 H2
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=H2SO4								
0=									

TAT

Rush ___ hrs.

Rush ___ days

7 days

14 days

21 days

30 days

___ days

Standard

LAB	SAMPLE ID	CLIENT	SAMPLING			CONTAINER			MATRIX CODE	QC	PRESERVATIVE CODE								COMMENTS	
			LOCATION	DATE	TIME	NO.	SIZE	TYPE												
1	04-22-15-PWB-16		B-Zone	4/22/15	0800	14	Var.	Var.	GW			✓	✓	✓	✓	✓	✓	✓	✓	
2	04-22-15-PWB-14		"	"	0842	14	Var.	Var.	GW			✓	✓	✓	✓	✓	✓	✓	✓	
3	04-22-15-TB-9		-	4/22/15	0830	3	40ml	VDA	W			✓								
4	04-22-15-AMW-4R		B-Zone	4/22/15	0945	14	Var.	Var.	GW			✓	✓	✓	✓	✓	✓	✓	✓	
5	04-22-15-PWB-12		"	4/22/15	1045	14	Var.	Var.	GW			✓	✓	✓	✓	✓	✓	✓	✓	
6	04-22-15-TB-10		-	4/22/15	0900	3	40ml	VDA	W			✓								
7	04-22-15-PWB-7A		B-Zone	4/22/15	1015	14	Var.	Var.	GW			✓	✓	✓	✓	✓	✓	✓	✓	
8	04-22-15-PWB-15		"	4/22/15	1125	14	Var.	Var.	GW			✓	✓	✓	✓	✓	✓	✓	✓	
9	04-22-15-WB2-2		"	4/22/15	1040	14	Var.	Var.	GW			✓	✓	✓	✓	✓	✓	✓	✓	
10	04-22-15-TB-11		-	4/22/15	0930	3	40ml	VDA	W			✓								

Instructions: Please note that nitrate has only 48 hours holding time. Method 300 is for Nitrate-N Nitrate-N & Sulfates.

Cooler #	Temp. (C)	Sample #s
1	5.7°C	
2	3.1°C	
3	2.0°C	
4	2.0°C	
5	4.2°C	
6	3.1°C	

SAMPLER			COURIER/AIRBILL		
RELINQUISHED BY	Date	Time	RECEIVED BY	Date	Time
<u>C. Hernandez</u>	<u>4/22/15</u>	<u>1000</u>	<u>KASRA</u>	<u>4/22/15</u>	<u>1243</u>
<u>Karl M.</u>	<u>4/23/15</u>	<u>1243</u>	<u>SKR</u>	<u>4/23/15</u>	<u>1243</u>

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.

1001

CHAIN OF CUSTODY



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

PO NUMBER: **Eco 13-601**

EMAX CONTROL NO. * **15D157**

SAMPLE STORAGE: **Coolers**

PROJECT CODE: **Eco 13-601**

CLIENT: **Eco & Associates, Inc.**
 PROJECT: **Spring 2015 B & B Groundwater Sampling**
 COORDINATOR: **Carlos Hernandez**
 TEL: **714-289-0995** FAX: **714-289-0995** EMAIL: **chernandez@ecoinc.info**
 SEND REPORT TO: **Carlos Hernandez**
 COMPANY: **Eco & Associates, Inc.**
 ADDRESS: **1835 W Katella Ave, Suite 340**
Orange, CA 92867

MATRIX CODE	PRESERVATIVE CODE	ANALYSIS REQUIRED							TAT	
DW=Drinking Water	IC=Ice ✓	8260B	8260 SIM	8151A Dnozeb	300-Nitrate, Nitrite & Sulfates	SM4500 S2D Sulfides	SM3500 Ferrous Iron	TOC - A15.1	RSK 175 Methan H2	<input type="checkbox"/> Rush ___ hrs.
GW=Ground Water ✓	HC=HCl									<input type="checkbox"/> Rush ___ days
WW=Waste Water	HN=HNO3									<input type="checkbox"/> 7 days
SD=Solid Waste SL=Sludge	SH=NaOH									<input type="checkbox"/> 14 days
SS=Soil/ Sediment	ST=Na2S2O3									<input type="checkbox"/> 21 days
WP=Wipes PP=Pure Products	ZA=Zinc Acetate									<input type="checkbox"/> 30 days
AR=Air	HS=H2SO4	<input type="checkbox"/> ___ days								
O=									<input checked="" type="checkbox"/> Standard	

LAB	SAMPLE ID	CLIENT	SAMPLING			CONTAINER			MATRIX CODE	QC	PRESERVATIVE CODE							COMMENTS	
			LOCATION	DATE	TIME	NO.	SIZE	TYPE											
*1	04-22-15-PWB-4		B-Zone	4/22/15	1150	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	
*12	04-22-15-FDUP-4		"	"	1205	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	
*13	04-22-15-WB2-1		"	"	1255	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	
*14	04-22-15-PWB-9		"	"	1305	13	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	
*15	04-22-15-TB-12		-	4/23/15	1000	3	40mL	VOA	W		✓								
*16	04-22-15-WB2-4		B-Zone	4/22/15	1227	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	
*17	04-22-15-PWB-10		"	"	1335	42	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	MS/MSD
*18	04-22-15-TB-13		-	"	1030	3	40mL	VOA	W		✓								
*19	04-22-15-PWB-5		B-Zone	"	1445	14	Var.	Var.	GW		✓	✓	✓	✓	✓	✓	✓	✓	
*20	04-22-15-TB-14		-	"	1100	3	40mL	VOA	W		✓								

Instructions: Please Note that nitrate has only 48 hours holding time. Method 300 is for Nitrate-N, Nitrite & Sulfates.

Cooler #	Temp. (°C)	Sample #s

SAMPLER				COURIER/AIRBILL			
RELINQUISHED BY		Date	Time	RECEIVED BY			
C. Hernandez		4/23/15	1000	KASRA - KASRA			
K. M.		4/23/15	1243	SMA - fema			

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.

1005

SAMPLE RECEIPT FORM 1

Reference Number: SM02.7.3

Type of Delivery	Airbill / Tracking Number	ECN <u>15D157</u>
<input type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input checked="" type="checkbox"/> Other <u>Direct Delivery</u>		Recipient <u>Shen Feng</u>
<input type="checkbox"/> EMAX Courier <input type="checkbox"/> Client Delivery		Date <u>04-23-15</u> Time <u>1043</u>

COC INSPECTION

Client Name Client PM/FC Sampler Name Sampling Date/Time Sample ID Matrix
 Address Tel # / Fax # Courier Signature Analysis Required Preservative (if any) TAT
 Safety Issues (if any) High concentrations expected From Superfund Site Rad screening required
 Note: Changes to the COC are not initialed/dated

PACKAGING INSPECTION

Container Cooler Box Other
 Condition Custody Seal Intact Damaged
 Packaging Bubble Pack Styrofoam Popcorn Sufficient (see) plastic bag
 Temperatures
 (Cool, ≤6 °C but not frozen)
 Cooler 1 3.7 °C Cooler 2 3.1 °C Cooler 3 2.1 °C Cooler 4 2.0 °C Cooler 5 4.2 °C
 Cooler 6 3.1 °C Cooler 7 _____ °C Cooler 8 _____ °C Cooler 9 _____ °C Cooler 10 _____ °C
 Thermometer: A - S/N _____ B - S/N 140252070 C - S/N 140252067 D - S/N _____
 Comments: Temperature is out of range. PM was informed IMMEDIATELY.
 Note: _____

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
<u>6</u>	<u>2, 13</u>	<u>D3</u>	<u>per label: 04-15-PWB-16</u>	<u>R1</u>
<u>8</u>		<u>D5</u>	<u>rec'd 1-40ml vial w/ HCL broken</u>	<u>R8</u>
<u>9</u>	<u>84</u>	<u>D3</u>	<u>per label: 04-15-PWB-15</u>	<u>R1</u>
<u>17</u>	<u>209</u>	<u>D3</u>	<u>per label: 04-15-PWB-10</u>	<u>↓</u>
<u>18</u>	<u>222, 223</u>	<u>D10</u>		<u>R8</u>
<u>15, 7-9, 11-14, 16-17</u>		<u>D8</u>	<u>Did not rec'd containers for</u>	<u>R8, R1, R9</u>
<u>19</u>		<u>D9</u>	<u>ferrous Iron - rec'd 2 containers</u>	<u>↓</u>
<u>↓</u>			<u>↓ for NO₂/NO₃ (per sample)</u>	<u>↓</u>
<u>1</u>	<u>3</u>	<u>D7</u>	<u>per label: 8</u>	<u>R1</u>
<u>4/23/15</u> <u>AB</u>				

pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time. 4/24/15

NOTES/OBSERVATIONS:

LEGEND:

<p>Code Description- Sample Management</p> <p><u>D1</u> Analysis is not indicated in _____</p> <p><u>D2</u> Analysis mismatch COC vs label</p> <p><u>D3</u> Sample ID mismatch COC vs label</p> <p><u>D4</u> Sample ID is not indicated in _____</p> <p><u>D5</u> Container -[improper] [leaking] [broken]</p> <p><u>D6</u> Date/Time is not indicated in _____</p> <p><u>D7</u> Date/Time mismatch COC vs label</p> <p><u>D8</u> Sample listed in COC is not received</p> <p><u>D9</u> Sample received is not listed in COC</p> <p><u>D10</u> No initial/date on corrections in COC/label</p> <p><u>D11</u> Container count mismatch COC vs received</p> <p><u>D12</u> Container size mismatch COC vs received</p>	<p>Code Description-Sample Management</p> <p><u>D13</u> Out of Holding Time</p> <p><u>D14</u> Bubble is >6mm</p> <p><u>D15</u> No trip blank in cooler</p> <p><u>D16</u> Preservation not indicated in _____</p> <p><u>D17</u> Preservation mismatch COC vs label</p> <p><u>D18</u> Insufficient chemical preservative</p> <p><u>D19</u> Insufficient Sample</p> <p><u>D20</u> No filtration info for dissolved analysis</p> <p><u>D21</u> No sample for moisture determination</p> <p><u>D22</u> _____</p> <p><u>D23</u> _____</p> <p><u>D24</u> _____</p>	<p><input type="checkbox"/> Continue to next page.</p> <p>Code Description-Sample Management</p> <p><u>R1</u> Proceed as indicated in <input checked="" type="checkbox"/> COC <input type="checkbox"/> Label</p> <p><u>R2</u> Refer to attached instruction</p> <p><u>R3</u> Cancel the analysis</p> <p><u>R4</u> Use vial with smallest bubble first</p> <p><u>R5</u> Log-in with latest sampling date and time+1 min</p> <p><u>R6</u> Adjust pH as necessary</p> <p><u>R7</u> Filter and preserved as necessary</p> <p><u>R8</u> <u>Informed client</u></p> <p><u>R9</u> <u>Analyze for ferrous Iron</u></p> <p><u>R10</u> _____</p> <p><u>R11</u> _____</p> <p><u>R12</u> _____</p>
--	---	---

REVIEWS:

Sample Labeling AB SRF Abi PM AB
 Date 4/23/15 Date 4/24/15 Date 4/24/15
FM 4/23/15

Richard Beauvil

From: Mitra Fiuzat [mfiuzat@ecoinc.info]
Sent: Monday, April 27, 2015 1:17 PM
To: Richard Beauvil
Cc: 'Carlos Hernandez'; Orabbani@ecoinc.info
Subject: RE: 15D156, 15D157 SAMPLE RECEIPT FORMS FOR YOUR REVIEW

Hi Richard,

Would you please designate sample ID No. 04-22-PWB-12 for the Level IV for the SDG#15D157. For the SDG# 15D156 the Sample ID No. 04-23-15-PWB-8 is designated for the Level IV.

Thanks,
Mitra Fiuzat
Eco & Associates, Inc.
1855 W. Katella Ave., Suite 340
Orange, CA 92867
Tel: (714) 289-0995
Fax: (714) 289-0965

From: Richard Beauvil [mailto:RBeauvil@emaxlabs.com]
Sent: Friday, April 24, 2015 6:47 PM
To: 'Mitra Fiuzat'
Cc: 'Carlos Hernandez'; 'Quin Kinnebrew'; 'Orabbani@ecoinc.info'
Subject: 15D156, 15D157 SAMPLE RECEIPT FORMS FOR YOUR REVIEW

Hi Mitra,

Please find attached the logins for your review.

Richard M. Beauvil
Project Manager/Safety Officer
1835 W. 205th Street
Torrance, CA 90501
Tel: 310-618-8889 X118
rbeauvil@emaxlabs.com

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than LOQ/RL but greater than LOD/MDL/DL.
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 or estimated value.
*	*	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
MDL	Method Detection Limit
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
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.

B & B GROUNDWATER SAMPLING

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

SDG#: 15D157

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D157

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

A total of twenty (20) water samples were received on 04/23/15 to be analyzed for Volatile Organics by GC/MS in accordance with Method 5030B/8260B and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration

Instrument tune check was performed prior to calibration. Result was within acceptance criteria. 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. For this SDG, the following were noted: Trichlorofluoromethane was detected bias high(%D=27.2) in CCV(data file ID RDW345). However, note that Trichlorofluoromethane was not detected in any of the field samples. Target analytes in CCV(Datafile ID:REC048) were within calibration acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, two (2) method blanks were analyzed. Methylene Chloride(0.59J < LOQ) was detected at trace level in VO06D16B. VO67E03B - result was compliant to project requirement. Refer to sample result summary forms for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, two (2) sets of LCS/LCD were analyzed. VO06D16L/VO06D16C - all analytes were within LCS QC limits. VO67E03L/VO67E03C - all analytes were within LCS QC limits. Refer to LCS summary forms for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed and the following was noted: D157-17M/D157-17S - Percent recovery for Methylene Chloride(2X) was not within MS QC limits. The enclosed value(#X) is the ratio of parent sample result and spike amount. Presence of matrix interference was suspected. The rest of the analytes were in control. Refer to Matrix QC summary form for details.

Surrogate

Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met with the exception of those that were discussed within the associated QC parameter.

Samples were analyzed in two different systems (T-006 & T-067) to avoid method holding time issues of analysis, since system T-006 where most of samples were initially analyzed with MS/MSD was malfunction.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING

SDG NO. : 150157
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	VO06D16B	1	NA	04/27/1516:29	04/27/1516:29	RDW348	RCW007	VO06D16	Method Blank
LCS1W	VO06D16L	1	NA	04/27/1515:28	04/27/1515:28	RDW346	RCW007	VO06D16	Lab Control Sample (LCS)
LCD1W	VO06D16C	1	NA	04/27/1515:59	04/27/1515:59	RDW347	RCW007	VO06D16	LCS Duplicate
04-22-15-PWB-10	D157-17	1	NA	04/27/1517:02	04/27/1517:02	RDW349	RCW007	VO06D16	Field Sample
04-22-15-PWB-10MS	D157-17M	1	NA	04/27/1517:34	04/27/1517:34	RDW350	RCW007	VO06D16	Matrix Spike Sample (MS)
04-22-15-PWB-10MSD	D157-17S	1	NA	04/27/1518:05	04/27/1518:05	RDW351	RCW007	VO06D16	MS Duplicate (MSD)
04-22-15-PWB-16	D157-01	1	NA	04/27/1518:38	04/27/1518:38	RDW352	RCW007	VO06D16	Field Sample
04-22-15-PWB-14	D157-02	1	NA	04/27/1519:09	04/27/1519:09	RDW353	RCW007	VO06D16	Field Sample
04-22-15-TB-9	D157-03	1	NA	04/27/1519:41	04/27/1519:41	RDW354	RCW007	VO06D16	Field Sample
04-22-15-AMW-4R	D157-04	1	NA	04/27/1520:12	04/27/1520:12	RDW355	RCW007	VO06D16	Field Sample
04-22-15-TB-10	D157-06	1	NA	04/27/1520:44	04/27/1520:44	RDW356	RCW007	VO06D16	Field Sample
04-22-15-PWB-15	D157-08	1	NA	04/27/1521:16	04/27/1521:16	RDW357	RCW007	VO06D16	Field Sample
04-22-15-WB2-2	D157-09	1	NA	04/27/1521:49	04/27/1521:49	RDW358	RCW007	VO06D16	Field Sample
04-22-15-TB-11	D157-10	1	NA	04/27/1522:20	04/27/1522:20	RDW359	RCW007	VO06D16	Field Sample
04-22-15-PWB-9	D157-14	1	NA	04/27/1522:54	04/27/1522:54	RDW360	RCW007	VO06D16	Field Sample
04-22-15-PWB-12	D157-05	1	NA	04/27/1523:25	04/27/1523:25	RDW361	RCW007	VO06D16	Field Sample
04-22-15-PWB-7A	D157-07	1	NA	04/27/1523:57	04/27/1523:57	RDW362	RCW007	VO06D16	Field Sample
04-22-15-PWB-4	D157-11	1	NA	04/28/1500:28	04/28/1500:28	RDW363	RCW007	VO06D16	Field Sample
04-22-15-FDUP-4	D157-12	1	NA	04/28/1501:01	04/28/1501:01	RDW364	RCW007	VO06D16	Field Sample
04-22-15-WB2-1	D157-13	1	NA	04/28/1501:32	04/28/1501:32	RDW365	RCW007	VO06D16	Field Sample
MBLK2W!	VO67E03B	1	NA	05/04/1515:33	05/04/1515:33	REC052	RLC381	VO67E03	Method Blank
LCS2W!	VO67E03L	1	NA	05/04/1513:42	05/04/1513:42	REC049	RLC381	VO67E03	Lab Control Sample (LCS)
LCD2W!	VO67E03C	1	NA	05/04/1514:21	05/04/1514:21	REC050	RLC381	VO67E03	LCS Duplicate
04-22-15-TB-12!	D157-15	1	NA	05/04/1516:45	05/04/1516:45	REC054	RLC381	VO67E03	Field Sample
04-22-15-TB-13!	D157-18	1	NA	05/04/1517:22	05/04/1517:22	REC055	RLC381	VO67E03	Field Sample
04-22-15-TB-14!	D157-20	1	NA	05/04/1518:01	05/04/1518:01	REC056	RLC381	VO67E03	Field Sample
04-22-15-WB2-4!	D157-16	1	NA	05/04/1518:34	05/04/1518:34	REC057	RLC381	VO67E03	Field Sample
04-22-15-PWB-5!	D157-19	1	NA	05/04/1519:10	05/04/1519:10	REC058	RLC381	VO67E03	Field Sample
04-22-15-WB2-1DL!	D157-13I	25	NA	05/04/1519:43	05/04/1519:43	REC059	RLC381	VO67E03	Diluted Sample

! Instrument ID : T-067
FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

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

```

=====
Client   : ECO & ASSOCIATES, INC.      Date Collected: 04/22/15
Project  : B & B GROUNDWATER SAMPLING  Date Received: 04/23/15
Batch No.: 15D157                     Date Extracted: 04/27/15 18:38
Sample ID: 04-22-15-PWB-16            Date Analyzed: 04/27/15 18:38
Lab Samp ID: D157-01                  Dilution Factor: 1
Lab File ID: RDW352                   Matrix: WATER
Ext Btch ID: V006016                  % Moisture: NA
Calib. Ref.: RCW007                   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	3.5	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	9.1	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	1.0	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	1.0	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	1.0	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	1.2	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	1.0	4.0
METHYLENE CHLORIDE	6.5	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	9.77	10.00	97.7	70-120
4-BROMOFLUOROBENZENE	8.62	10.00	86.2	75-120
TOLUENE-D8	9.54	10.00	95.4	85-120
DIBROMOFLUOROMETHANE	10.5	10.00	105	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.      Date Collected: 04/22/15
Project  : B & B GROUNDWATER SAMPLING  Date Received: 04/23/15
Batch No.: 15D157                     Date Extracted: 04/27/15 19:09
Sample ID: 04-22-15-PWB-14            Date Analyzed: 04/27/15 19:09
Lab Samp ID: D157-02                  Dilution Factor: 1
Lab File ID: RDW353                   Matrix: WATER
Ext Btch ID: V006D16                  % Moisture: NA
Calib. Ref.: RCW007                   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	2.5	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	14	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	1.0	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	13	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	30	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	9.94	10.00	99.4	70-120
4-BROMOFLUOROBENZENE	8.86	10.00	88.6	75-120
TOLUENE-D8	9.21	10.00	92.1	85-120
DIBROMOFLUOROMETHANE	10.6	10.00	106	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.
Project  : B & B GROUNDWATER SAMPLING
Batch No.: 15D157
Sample ID: 04-22-15-TB-9
Lab Samp ID: D157-03
Lab File ID: RDW354
Ext Btch ID: V006D16
Calib. Ref.: RCW007

Date Collected: 04/22/15
Date Received: 04/23/15
Date Extracted: 04/27/15 19:41
Date Analyzed: 04/27/15 19:41
Dilution Factor: 1
Matrix : WATER
% Moisture : NA
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	1.0	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	1.0	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	1.0	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	1.0	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	10.1	10.00	101	70-120
4-BROMOFLUOROBENZENE	8.70	10.00	87.0	75-120
TOLUENE-D8	9.51	10.00	95.1	85-120
DIBROMOFLUOROMETHANE	10.5	10.00	105	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.
Project  : B & B GROUNDWATER SAMPLING
Batch No. : 15D157
Sample ID: 04-22-15-AMW-4R
Lab Samp ID: D157-04
Lab File ID: RDW355
Ext Btch ID: V006D16
Calib. Ref.: RCW007

Date Collected: 04/22/15
Date Received: 04/23/15
Date Extracted: 04/27/15 20:12
Date Analyzed: 04/27/15 20:12
Dilution Factor: 1
Matrix : WATER
% Moisture : NA
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	0.37J	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	1.0	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	1.0	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	1.0	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	1.0	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	9.98	10.00	99.8	70-120
4-BROMOFLUOROBENZENE	9.00	10.00	90.0	75-120
TOLUENE-D8	9.30	10.00	93.0	85-120
DIBROMOFLUOROMETHANE	10.5	10.00	105	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.      Date Collected: 04/22/15
Project  : B & B GROUNDWATER SAMPLING  Date Received: 04/23/15
Batch No.: 15D157                     Date Extracted: 04/27/15 23:25
Sample ID: 04-22-15-PWB-12            Date Analyzed: 04/27/15 23:25
Lab Samp ID: D157-05                  Dilution Factor: 1
Lab File ID: RDW361                   Matrix: WATER
Ext Btch ID: V006D16                  % Moisture: NA
Calib. Ref.: RCW007                   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	17	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	3.3	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	4.4	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	0.46J	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	0.50
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	10	4.0
METHYLENE CHLORIDE	5.2	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	0.20
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	10.6	10.00	106	70-120
4-BROMOFLUOROBENZENE	9.00	10.00	90.0	75-120
TOLUENE-DB	9.38	10.00	93.8	85-120
DIBROMOFLUOROMETHANE	10.9	10.00	109	85-115

Data File : D:\HPCHEM\1\DATA\15D27\RDW361.D
 Acq On : 27 Apr 2015 11:25 pm
 Sample : 15D157-05 25mL
 Misc : DF=1.0
 MS Integration Params: RTE.P
 Quant Time: Apr 30 18:04 2015

Vial: 18
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.90	114	1010451	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	13.80	117	906747	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.11	152	374246	10.00	ug/l	0.00

System Monitoring Compounds

34) Dibromofluoromethane	7.40	111	328386	10.93	ug/l	0.00
Spiked Amount	10.000			Recovery	=	109.30%
41) 1,2-Dichloroethane-d4	8.23	65	238166	10.63	ug/l	0.00
Spiked Amount	10.000			Recovery	=	106.30%
54) Toluene-d8	11.35	98	1058887	9.38	ug/l	-0.02
Spiked Amount	10.000			Recovery	=	93.80%
76) 4-Bromofluorobenzene	15.78	95	367507	9.00	ug/l	0.00
Spiked Amount	10.000			Recovery	=	90.00%

Target Compounds

						Qvalue
17) Methylene chloride	4.60	49	194170	5.23	ug/l	80
30) Chloroform	7.03	83	25560	0.46	ug/l	93
46) 1,2-Dichloropropane	9.70	63	137914	4.39	ug/l	96
77) 1,2,3-Trichloropropane	15.90	110	98427	17.01	ug/l	100
92) 1,2-Dibromo-3-chloropropan	19.06	157	12214	3.28	ug/l	96

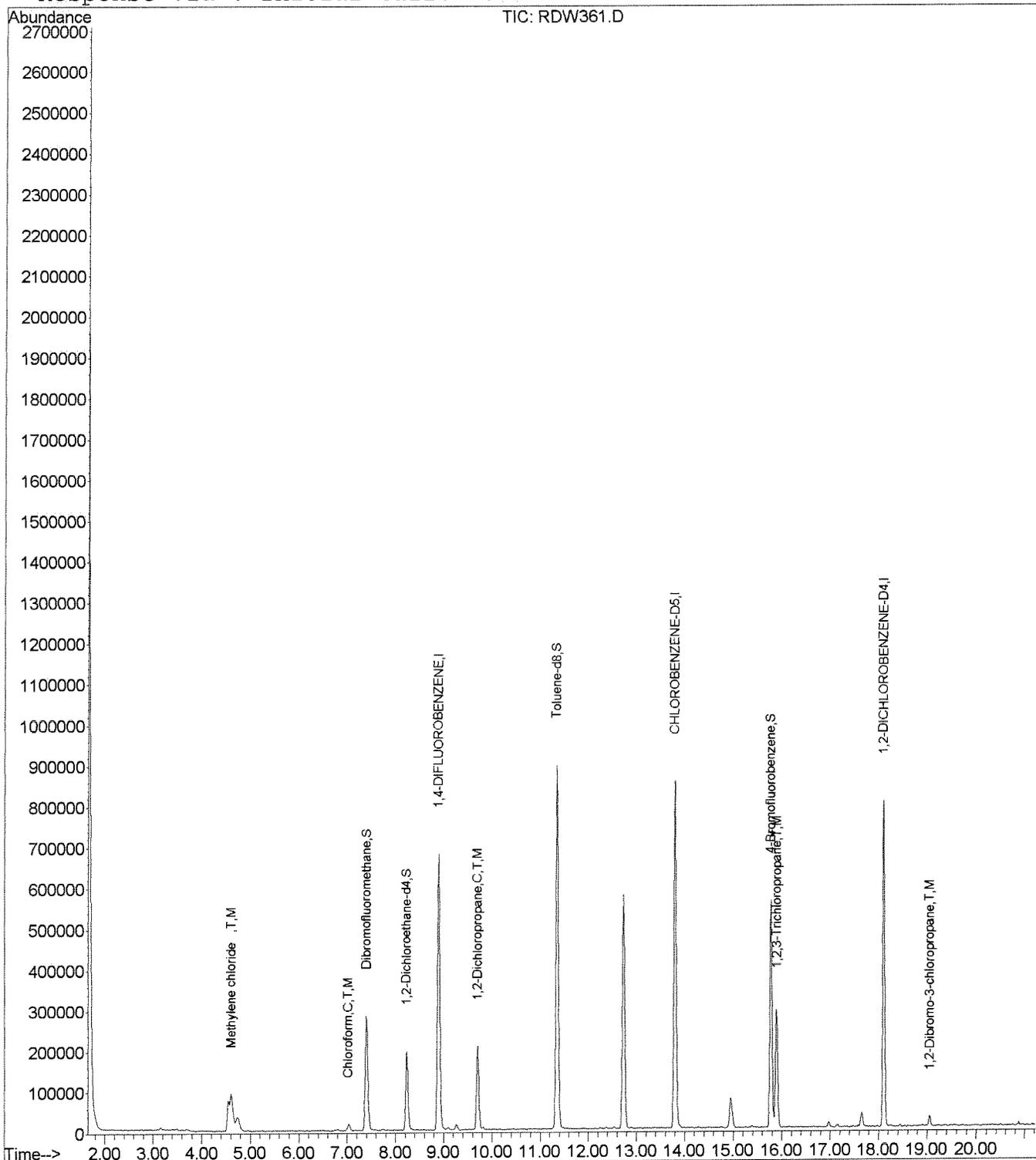
Quantitation Report

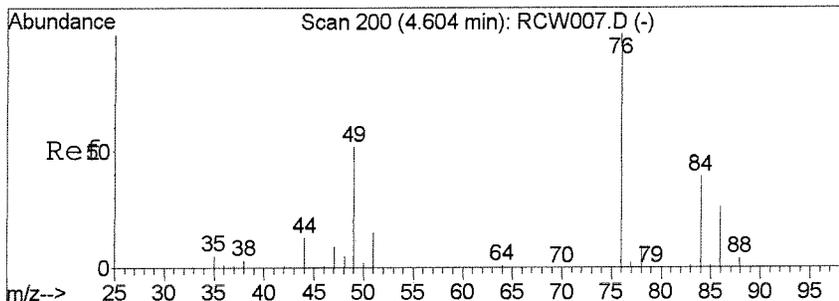
Data File : D:\HPCHEM\1\DATA\15D27\RDW361.D
Acq On : 27 Apr 2015 11:25 pm
Sample : 15D157-05 25mL
Misc : DF=1.0
MS Integration Params: RTE.P
Quant Time: Apr 30 18:04 2015

Vial: 18
Operator: WLau
Inst : T006
Multiplr: 1.00

Quant Results File: VO06C03.RE

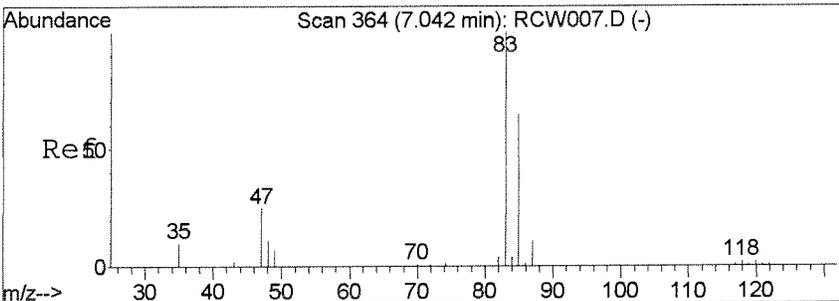
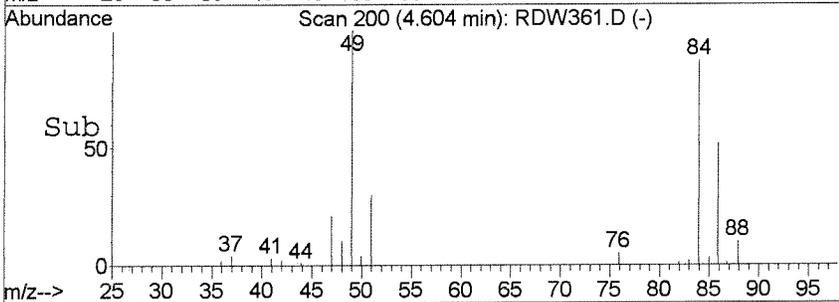
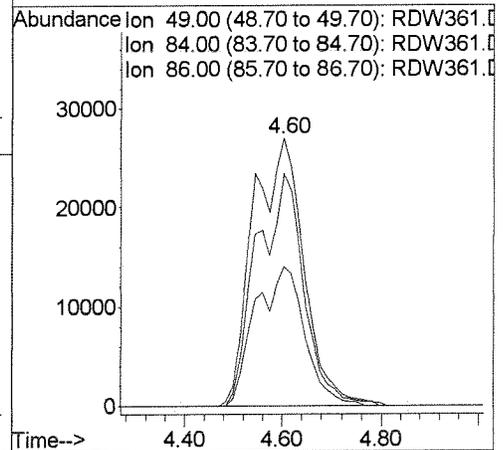
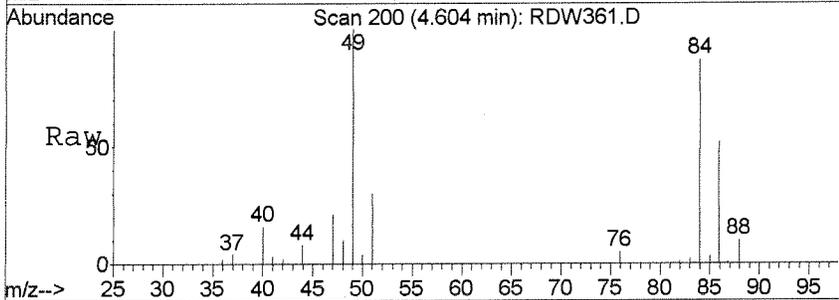
Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration





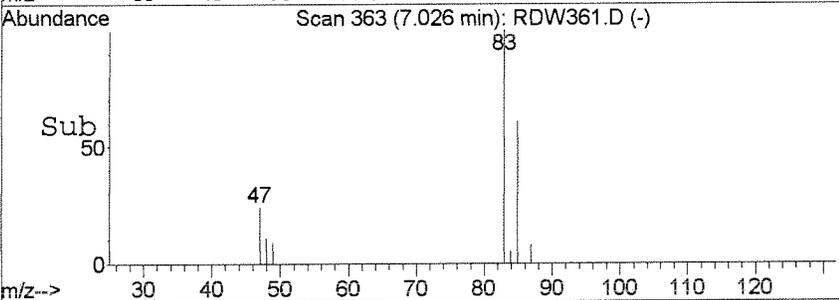
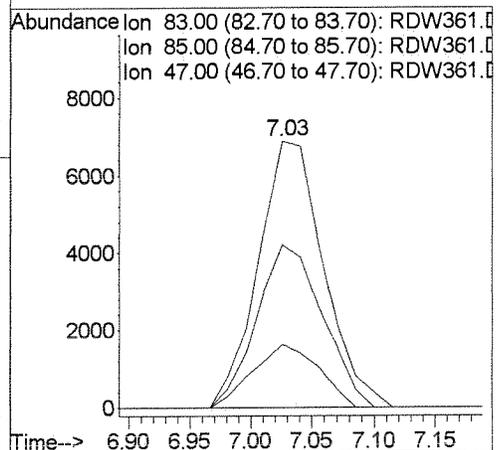
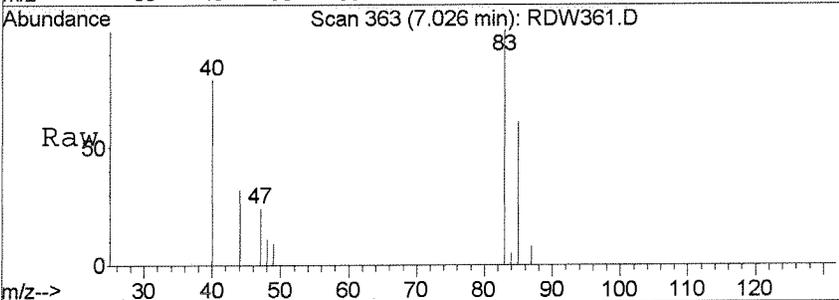
#17
 Methylene chloride
 Concen: 5.23 ug/l
 RT: 4.60 min Scan# 200
 Delta R.T. -0.00 min
 Lab File: RDW361.D
 Acq: 27 Apr 2015 11:25 pm

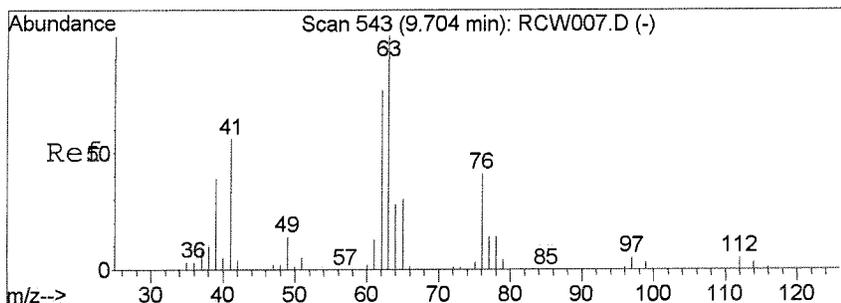
Tgt Ion	Resp	Lower	Upper
49	194170		
84	80.3	44.6	104.6
86	19.9	17.9	77.9



#30
 Chloroform
 Concen: 0.46 ug/l
 RT: 7.03 min Scan# 363
 Delta R.T. -0.02 min
 Lab File: RDW361.D
 Acq: 27 Apr 2015 11:25 pm

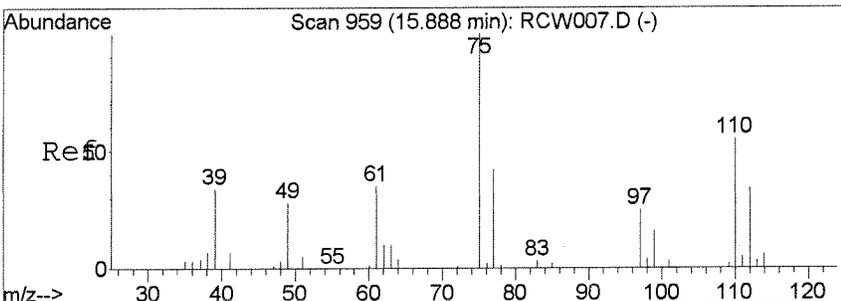
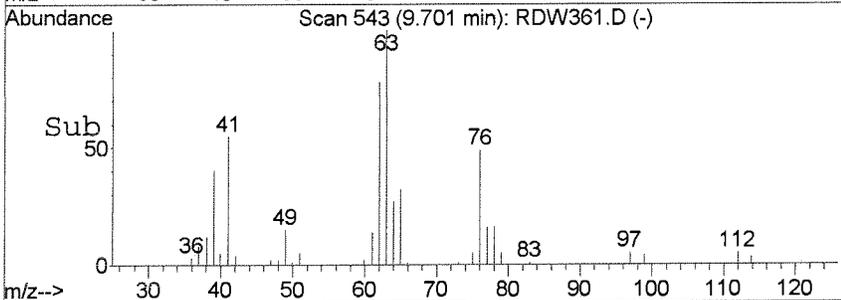
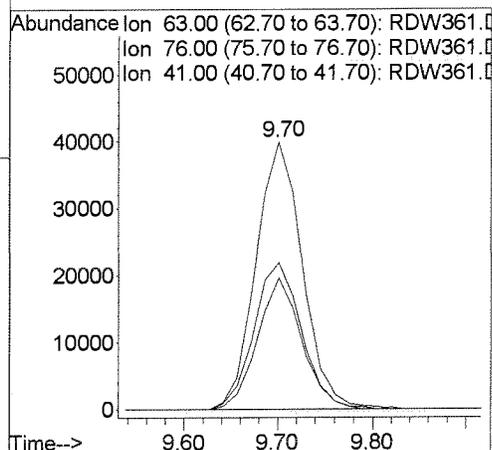
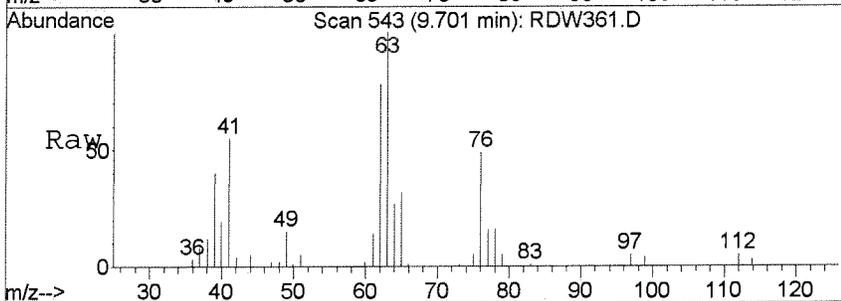
Tgt Ion	Resp	Lower	Upper
83	25560		
85	61.5	37.6	97.6
47	24.0	0.0	56.2





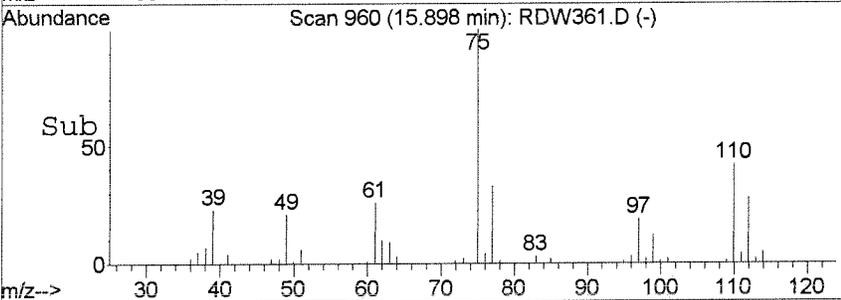
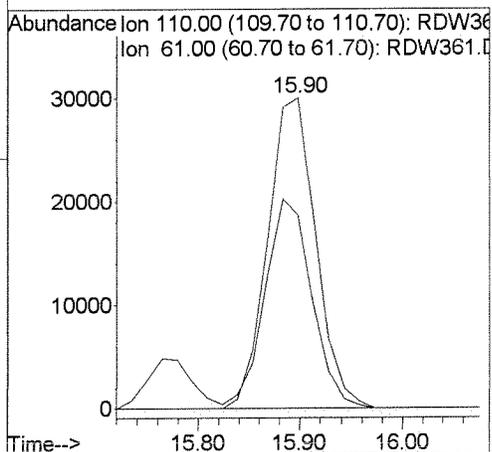
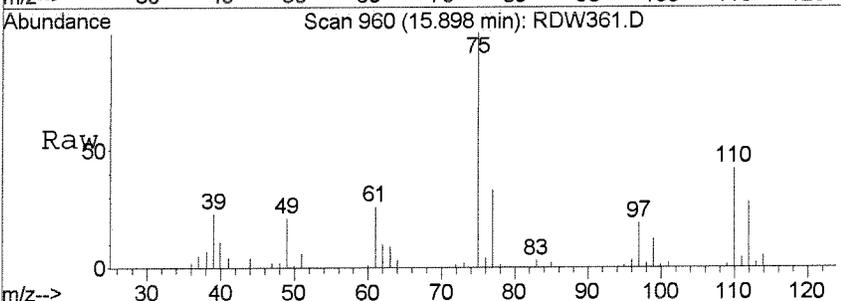
#46
 1,2-Dichloropropane
 Concen: 4.39 ug/l
 RT: 9.70 min Scan# 543
 Delta R.T. -0.00 min
 Lab File: RDW361.D
 Acq: 27 Apr 2015 11:25 pm

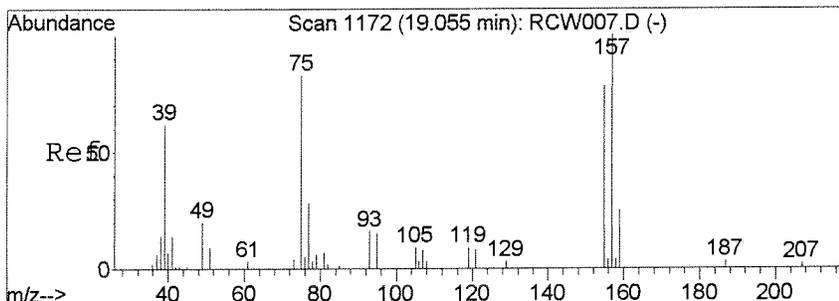
Tgt Ion	Resp	Lower	Upper
63	137914		
76	46.8	12.1	72.1
41	56.2	25.4	85.4



#77
 1,2,3-Trichloropropane
 Concen: 17.01 ug/l
 RT: 15.90 min Scan# 960
 Delta R.T. 0.01 min
 Lab File: RDW361.D
 Acq: 27 Apr 2015 11:25 pm

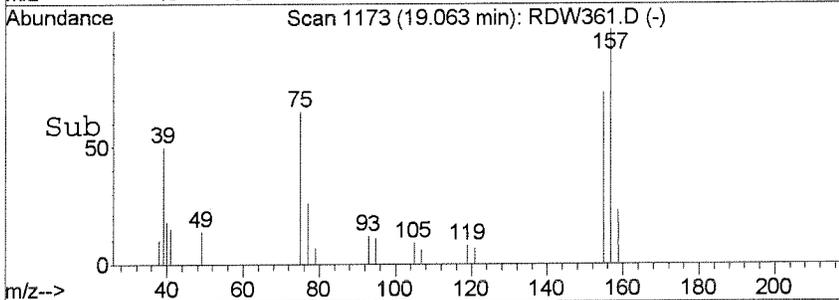
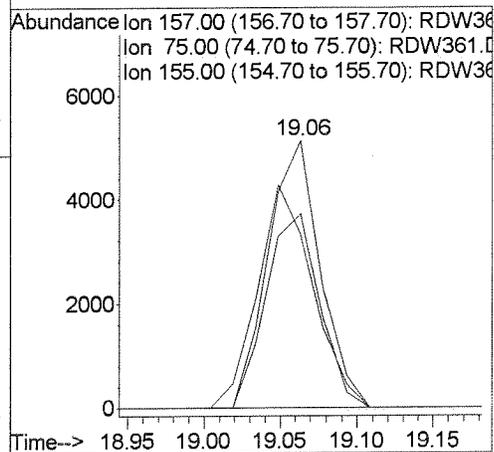
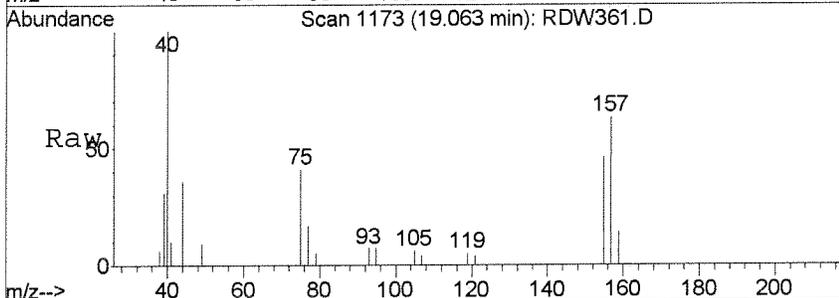
Tgt Ion	Resp	Lower	Upper
110	98427		
110	100		
61	65.9	36.1	96.1





#92
 1,2-Dibromo-3-chloropropane
 Concen: 3.28 ug/l
 RT: 19.06 min Scan# 1173
 Delta R.T. 0.01 min
 Lab File: RDW361.D
 Acq: 27 Apr 2015 11:25 pm

Tgt Ion	Resp	Lower	Upper
157	12214		
75	88.4	53.3	113.3
155	74.9	46.5	106.5



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

```

=====
Client   : ECO & ASSOCIATES, INC.
Project  : B & B GROUNDWATER SAMPLING
Batch No.: 15D157
Sample ID: 04-22-15-TB-10
Lab Samp ID: D157-06
Lab File ID: RDW356
Ext Btch ID: V006D16
Calib. Ref.: RCW007
Date Collected: 04/22/15
Date Received: 04/23/15
Date Extracted: 04/27/15 20:44
Date Analyzed: 04/27/15 20:44
Dilution Factor: 1
Matrix : WATER
% Moisture : NA
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	10.6	10.00	106	70-120
4-BROMOFLUOROBENZENE	8.99	10.00	89.9	75-120
TOLUENE-D8	9.55	10.00	95.5	85-120
DIBROMOFLUOROMETHANE	10.9	10.00	109	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.      Date Collected: 04/22/15
Project  : B & B GROUNDWATER SAMPLING  Date Received: 04/23/15
Batch No.: 15D157                     Date Extracted: 04/27/15 23:57
Sample ID: 04-22-15-PWB-7A           Date Analyzed: 04/27/15 23:57
Lab Samp ID: D157-07                 Dilution Factor: 1
Lab File ID: RDW362                  Matrix: WATER
Ext Btch ID: V006D16                 % Moisture: NA
Calib. Ref.: RCW007                  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	44	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	0.89 J	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	13	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	1.0	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	1.0	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	1.0	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	0.81 J	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	1.0	4.0
METHYLENE CHLORIDE	1.1	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	9.99	10.00	99.9	70-120
4-BROMOFLUOROBENZENE	9.15	10.00	91.5	75-120
TOLUENE-D8	9.33	10.00	93.3	85-120
DIBROMOFLUOROMETHANE	10.3	10.00	103	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.
Project  : B & B GROUNDWATER SAMPLING
Batch No. : 15D157
Sample ID: 04-22-15-PWB-15
Lab Samp ID: D157-08
Lab File ID: RDW357
Ext Btch ID: V006D16
Calib. Ref.: RCW007
Date Collected: 04/22/15
Date Received: 04/23/15
Date Extracted: 04/27/15 21:16
Date Analyzed: 04/27/15 21:16
Dilution Factor: 1
Matrix : WATER
% Moisture : NA
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	1.3	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	6.7	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	1.0	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	1.0	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	1.0	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	0.50
CHLOROFORM	8.2	1.0	0.20
CHLOROMETHANE	ND	1.0	0.50
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	1.0	4.0
METHYLENE CHLORIDE	2.8	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
TRICHLOROFUOROMETHANE	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	10.2	10.00	102	70-120
4-BROMOFLUOROBENZENE	8.52	10.00	85.2	75-120
TOLUENE-D8	9.17	10.00	91.7	85-120
DIBROMOFLUOROMETHANE	10.8	10.00	108	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.
Project  : B & B GROUNDWATER SAMPLING
Batch No.: 15D157
Sample ID: 04-22-15-WB2-2
Lab Samp ID: D157-09
Lab File ID: RDW358
Ext Btch ID: V006D16
Calib. Ref.: RCW007

Date Collected: 04/22/15
Date Received: 04/23/15
Date Extracted: 04/27/15 21:49
Date Analyzed: 04/27/15 21:49
Dilution Factor: 1
Matrix : WATER
% Moisture : NA
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	0.72J	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	1.0	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	1.0	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	1.0	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	0.50
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	1.0	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
TRICHLOROFUOROMETHANE	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	10.7	10.00	107	70-120
4-BROMOFLUOROBENZENE	8.83	10.00	88.3	75-120
TOLUENE-D8	9.39	10.00	93.9	85-120
DIBROMOFLUOROMETHANE	10.6	10.00	106	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.
Project  : B & B GROUNDWATER SAMPLING
Batch No.: 15D157
Sample ID: 04-22-15-TB-11
Lab Samp ID: D157-10
Lab File ID: RDW359
Ext Btch ID: V006D16
Calib. Ref.: RCW007

Date Collected: 04/22/15
Date Received: 04/23/15
Date Extracted: 04/27/15 22:20
Date Analyzed: 04/27/15 22:20
Dilution Factor: 1
Matrix : WATER
% Moisture : NA
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	1.0	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	0.20
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	10.3	10.00	103	70-120
4-BROMOFLUOROBENZENE	8.63	10.00	86.3	75-120
TOLUENE-D8	9.28	10.00	92.8	85-120
DIBROMOFLUOROMETHANE	10.8	10.00	108	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.
Project  : B & B GROUNDWATER SAMPLING
Batch No.: 15D157
Sample ID: 04-22-15-PWB-4
Lab Samp ID: D157-11
Lab File ID: RDW363
Ext Btch ID: V006D16
Calib. Ref.: RCW007

Date Collected: 04/22/15
Date Received: 04/23/15
Date Extracted: 04/28/15 00:28
Date Analyzed: 04/28/15 00:28
Dilution Factor: 1
Matrix: WATER
% Moisture: NA
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	46	1.0	0.50
1,2,4-TRICHLOROBENZENE	ND	1.0	0.30
1,3,4-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	14	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	7.3	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	1.7	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	0.50
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	10.7	10.00	107	70-120
4-BROMOFLUOROBENZENE	9.06	10.00	90.6	75-120
TOLUENE-DB	9.61	10.00	96.1	85-120
DIBROMOFLUOROMETHANE	10.7	10.00	107	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.      Date Collected: 04/22/15
Project  : B & B GROUNDWATER SAMPLING  Date Received: 04/23/15
Batch No.: 15D157                     Date Extracted: 04/28/15 01:01
Sample ID: 04-22-15-FDUP-4            Date Analyzed: 04/28/15 01:01
Lab Samp ID: D157-12                  Dilution Factor: 1
Lab File ID: RDW364                   Matrix: WATER
Ext Btch ID: V006D16                  % Moisture: NA
Calib. Ref.: RCW007                   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	48	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	14	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	1.0	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	1.0	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	1.0	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	7.5	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	1.0	4.0
METHYLENE CHLORIDE	1.8	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	0.20
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	10.7	10.00	107	70-120
4-BROMOFLUOROBENZENE	9.03	10.00	90.3	75-120
TOLUENE-D8	9.10	10.00	91.0	85-120
DIBROMOFLUOROMETHANE	10.8	10.00	108	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.      Date Collected: 04/22/15
Project  : B & B GROUNDWATER SAMPLING Date Received: 04/23/15
Batch No.: 15D157                     Date Extracted: 04/28/15 01:32 # 05/04/15 19:43
Sample ID: 04-22-15-WB2-1             Date Analyzed: 04/28/15 01:32 # 05/04/15 19:43
Lab Samp ID: D157-13 #D157-13I        Dilution Factor: 1 # 25
Lab File ID: RDW365 #REC059           Matrix : WATER
Ext Btch ID: V006D16 #V067E03        % Moisture : NA
Calib. Ref.: RCW007 #RLC381          Instrument ID : 06 # 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	0.27J	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	92	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	0.93J	1.0	0.20
# 1,2-DICHLOROPROPANE	950	25	5.0
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	1.0	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	1.0	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	1.0	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	17	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	1.0	4.0
METHYLENE CHLORIDE	0.56J	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	0.26J	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	10.7	10.00	107	70-120
4-BROMOFLUOROBENZENE	9.43	10.00	94.3	75-120
TOLUENE-D8	9.46	10.00	94.6	85-120
DIBROMOFLUOROMETHANE	10.5	10.00	105	85-115

# 1,2-DICHLOROETHANE-D4	254	250.0	102	70-120
# 4-BROMOFLUOROBENZENE	228	250.0	91.3	75-120
# TOLUENE-D8	246	250.0	98.5	85-120
# DIBROMOFLUOROMETHANE	283	250.0	113	85-115

Members of the Associated File

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

```

=====
Client   : ECO & ASSOCIATES, INC.
Project  : B & B GROUNDWATER SAMPLING
Batch No.: 15D157
Sample ID: 04-22-15-WB2-1
Lab Samp ID: D157-13
Lab File ID: RDW365
Ext Btch ID: V006D16
Calib. Ref.: RCW007

Date Collected: 04/22/15
Date Received: 04/23/15
Date Extracted: 04/28/15 01:32
Date Analyzed: 04/28/15 01:32
Dilution Factor: 1
Matrix: WATER
% Moisture: NA
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	0.27J	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	92	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	0.93J	1.0	0.20
1,2-DICHLOROPROPANE	480E	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	1.0	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	1.0	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	1.0	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	17	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	0.50
ISOPROPYL BENZENE	ND	1.0	0.20
M,P-XYLENES	ND	1.0	0.40
MIBK	ND	1.0	4.0
METHYLENE CHLORIDE	0.56J	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	0.26J	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	0.50
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	10.7	10.00	107	70-120
4-BROMOFLUOROBENZENE	9.43	10.00	94.3	75-120
TOLUENE-D8	9.46	10.00	94.6	85-120
DIBROMOFLUOROMETHANE	10.5	10.00	105	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.      Date Collected: 04/22/15
Project  : B & B GROUNDWATER SAMPLING  Date Received: 04/23/15
Batch No.: 15D157                      Date Extracted: 05/04/15 19:43
Sample ID: 04-22-15-WB2-1DL           Date Analyzed: 05/04/15 19:43
Lab Samp ID: D157-131                 Dilution Factor: 25
Lab File ID: REC059                   Matrix: WATER
Ext Btch ID: V067E03                  % Moisture: NA
Calib. Ref.: RLC381                   Instrument ID: 67
=====

```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	25	5.0
1,1,1-TRICHLOROETHANE	ND	25	5.0
1,1,2,2-TETRACHLOROETHANE	ND	25	5.0
1,1,2-TRICHLOROETHANE	ND	25	5.0
1,1-DICHLOROETHANE	ND	25	5.0
1,1-DICHLOROETHENE	ND	25	5.0
1,1-DICHLOROPROPENE	ND	25	5.0
1,2,3-TRICHLOROBENZENE	ND	25	7.5
1,2,3-TRICHLOROPROPANE	110	25	12
1,2,4-TRICHLOROBENZENE	ND	25	7.5
1,3,4-TRIMETHYLBENZENE	ND	25	5.0
1,2-DIBROMO-3-CHLOROPROPANE	ND	25	12
1,2-DIBROMOETHANE	ND	25	5.0
1,2-DICHLOROBENZENE	ND	25	5.0
1,2-DICHLOROETHANE	ND	25	5.0
1,2-DICHLOROPROPANE	950	25	5.0
1,3,5-TRIMETHYLBENZENE	ND	25	5.0
1,3-DICHLOROBENZENE	ND	25	5.0
1,3-DICHLOROPROPANE	ND	12	5.0
1,4-DICHLOROBENZENE	ND	25	5.0
2,2-DICHLOROPROPANE	ND	25	5.0
2-BUTANONE	ND	250	100
2-CHLOROTOLUENE	ND	25	5.0
2-HEXANONE	ND	250	100
4-CHLOROTOLUENE	ND	25	5.0
ACETONE	ND	250	120
BENZENE	ND	25	5.0
BROMOBENZENE	ND	25	5.0
BROMOCHLOROMETHANE	ND	25	5.0
BROMODICHLOROMETHANE	ND	25	5.0
BROMOFORM	ND	25	7.5
BROMOMETHANE	ND	25	5.0
CARBON DISULFIDE	ND	25	5.0
CARBON TETRACHLORIDE	ND	25	5.0
CHLOROBENZENE	ND	25	5.0
CHLOROETHANE	ND	25	7.5
CHLOROFORM	17J	25	5.0
CHLOROMETHANE	ND	25	7.5
CIS-1,2-DICHLOROETHENE	ND	25	5.0
CIS-1,3-DICHLOROPROPENE	ND	25	5.0
DIBROMOCHLOROMETHANE	ND	25	5.0
DIBROMOMETHANE	ND	25	5.0
DICHLORODIFLUOROMETHANE	ND	25	7.5
ETHYLBENZENE	ND	25	5.0
HEXACHLOROBUTADIENE	ND	25	7.5
ISOPROPYL BENZENE	ND	25	5.0
M,P-XYLENES	ND	25	100
MIBK	ND	250	100
METHYLENE CHLORIDE	ND	25	12
MTBE	ND	25	5.0
NAPHTHALENE	ND	25	12
N-BUTYLBENZENE	ND	25	5.0
N-PROPYLBENZENE	ND	25	5.0
O-XYLENE	ND	25	5.0
P-ISOPROPYLTOLUENE	ND	25	5.0
SEC-BUTYLBENZENE	ND	25	5.0
STYRENE	ND	25	5.0
TERT-BUTYLBENZENE	ND	25	5.0
TETRACHLOROETHENE	ND	25	5.0
TOLUENE	ND	25	5.0
TRANS-1,2-DICHLOROETHENE	ND	25	5.0
TRANS-1,3-DICHLOROPROPENE	ND	25	5.0
TRICHLOROETHENE	ND	25	5.0
TRICHLOROFLUOROMETHANE	ND	25	7.5
VINYL CHLORIDE	ND	25	5.0
FREON113	ND	25	7.5
VINYL ACETATE	ND	50	12

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	254	250.0	102	70-120
4-BROMOFLUOROBENZENE	228	250.0	91.3	75-120
TOLUENE-D8	246	250.0	98.5	85-120
DIBROMOFLUOROMETHANE	283	250.0	113	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.
Project  : B & B GROUNDWATER SAMPLING
Batch No. : 15D157
Sample ID: 04-22-15-PWB-9
Lab Samp ID: D157-14
Lab File ID: RDW360
Ext Btch ID: V006D16
Calib. Ref.: RCW007

Date Collected: 04/22/15
Date Received: 04/23/15
Date Extracted: 04/27/15 22:54
Date Analyzed: 04/27/15 22:54
Dilution Factor: 1
Matrix: WATER
% Moisture: NA
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	2.7	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	1.3	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	1.0	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	1.0	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	5.9 J	1.0	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	1.0	4.0
METHYLENE CHLORIDE	8.7	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	0.50
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	10.2	10.00	102	70-120
4-BROMOFLUOROBENZENE	8.88	10.00	88.8	75-120
TOLUENE-D8	9.43	10.00	94.3	85-120
DIBROMOFLUOROMETHANE	10.7	10.00	107	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.
Project  : B & B GROUNDWATER SAMPLING
Batch No. : 15D157
Sample ID: 04-22-15-TB-12
Lab Samp ID: D157-15
Lab File ID: REC054
Ext Btch ID: VO67E03
Calib. Ref.: RLC381

Date Collected: 04/22/15
Date Received: 04/23/15
Date Extracted: 05/04/15 16:45
Date Analyzed: 05/04/15 16:45
Dilution Factor: 1
Matrix : WATER
% Moisture : NA
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	0.50
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.17	10.00	91.7	70-120
4-BROMOFLUOROBENZENE	9.14	10.00	91.4	75-120
TOLUENE-D8	9.80	10.00	98.0	85-120
DIBROMOFLUOROMETHANE	10.6	10.00	106	85-115

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

```

=====
Client      : ECO & ASSOCIATES, INC.      Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING  Date Received: 04/23/15
Batch No.  : 15D157                      Date Extracted: 05/04/15 18:34
Sample ID  : 04-22-15-WB2-4              Date Analyzed: 05/04/15 18:34
Lab Samp ID: D157-16                     Dilution Factor: 1
Lab File ID: REC057                      Matrix : WATER
Ext Btch ID: V067E03                    % Moisture : NA
Calib. Ref.: RLC381                     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
1,5-DIBROMO-3-CHLOROPROPANE	ND	1.0	0.50
1,5-DIBROMOETHANE	ND	1.0	0.20
1,5-DICHLOROBENZENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	1.5	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	0.45J	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	16	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	0.50
VINYL ACETATE	ND	2.0	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	9.52	10.00	95.2	70-120
4-BROMOFLUOROBENZENE	9.02	10.00	90.2	75-120
TOLUENE-D8	9.81	10.00	98.1	85-120
DIBROMOFLUOROMETHANE	11.0	10.00	110	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.      Date Collected: 04/22/15
Project  : B & B GROUNDWATER SAMPLING  Date Received: 04/23/15
Batch No.: 15D157                     Date Extracted: 04/27/15 17:02
Sample ID: 04-22-15-PWB-10           Date Analyzed: 04/27/15 17:02
Lab Samp ID: D157-17                 Dilution Factor: 1
Lab File ID: RDW349                  Matrix: WATER
Ext Btch ID: V006D16                 % Moisture: NA
Calib. Ref.: RCW007                  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	0.40J	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	1.0	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	1.0	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	1.0	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	0.42J	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	1.0	4.0
METHYLENE CHLORIDE	16	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	9.44	10.00	94.4	70-120
4-BROMOFLUOROBENZENE	8.86	10.00	88.6	75-120
TOLUENE-D8	9.54	10.00	95.4	85-120
DIBROMOFLUOROMETHANE	10.4	10.00	104	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.      Date Collected: 04/22/15
Project  : B & B GROUNDWATER SAMPLING  Date Received: 04/23/15
Batch No.: 15D157                     Date Extracted: 05/04/15 17:22
Sample ID: 04-22-15-TB-13             Date Analyzed: 05/04/15 17:22
Lab Samp ID: D157-18                  Dilution Factor: 1
Lab File ID: REC055                   Matrix: WATER
Ext Btch ID: V067E03                 % Moisture: NA
Calib. Ref.: RLC381                  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	9.20	10.00	92.0	70-120
4-BROMOFLUOROBENZENE	9.13	10.00	91.3	75-120
TOLUENE-D8	9.72	10.00	97.2	85-120
DIBROMOFLUOROMETHANE	10.7	10.00	107	85-115

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

```

=====
Client      : ECO & ASSOCIATES, INC.      Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING  Date Received: 04/23/15
Batch No.   : 15D157                      Date Extracted: 05/04/15 19:10
Sample ID   : 04-22-15-PWB-5             Date Analyzed: 05/04/15 19:10
Lab Samp ID : D157-19                    Dilution Factor: 1
Lab File ID : REC058                     Matrix          : WATER
Ext Btch ID : VO67E03                   % Moisture     : NA
Calib. Ref. : RLC381                    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	16	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	1.9	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	0.70J	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	0.60J	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	9.61	10.00	96.1	70-120
4-BROMOFLUOROBENZENE	9.01	10.00	90.1	75-120
TOLUENE-D8	9.79	10.00	97.9	85-120
DIBROMOFLUOROMETHANE	10.9	10.00	109	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.      Date Collected: 04/22/15
Project  : B & B GROUNDWATER SAMPLING  Date Received:   04/23/15
Batch No.: 15D157                     Date Extracted:  05/04/15 18:01
Sample ID: 04-22-15-TB-14             Date Analyzed:   05/04/15 18:01
Lab Samp ID: D157-20                  Dilution Factor: 1
Lab File ID: REC056                   Matrix           : WATER
Ext Btch ID: VO67E03                 % Moisture      : NA
Calib. Ref.: RLC381                   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	1.0	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	1.0	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	1.0	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	1.0	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	9.38	10.00	93.8	70-120
4-BROMOFLUOROBENZENE	9.16	10.00	91.6	75-120
TOLUENE-D8	9.77	10.00	97.7	85-120
DIBROMOFLUOROMETHANE	10.8	10.00	108	85-115

QC SUMMARIES

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

```

=====
Client   : ECO & ASSOCIATES, INC.           Date Collected: NA
Project  : B & B GROUNDWATER SAMPLING       Date Received: 04/27/15
Batch No.: 15D157                          Date Extracted: 04/27/15 16:29
Sample ID: MBLK1W                           Date Analyzed: 04/27/15 16:29
Lab Samp ID: V006D16B                       Dilution Factor: 1
Lab File ID: RDW348                         Matrix: WATER
Ext Btch ID: V006D16                       % Moisture: NA
Calib. Ref.: RCW007                        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	1.0	4.0
2-CHLOROTOLUENE	ND	1.0	0.20
2-HEXANONE	ND	1.0	4.0
4-CHLOROTOLUENE	ND	1.0	0.20
ACETONE	ND	1.0	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	1.0	4.0
METHYLENE CHLORIDE	0.59J	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	9.19	10.00	91.9	70-120
4-BROMOFLUOROBENZENE	8.79	10.00	87.9	75-120
TOLUENE-D8	9.29	10.00	92.9	85-120
DIBROMOFLUOROMETHANE	10.2	10.00	102	85-115

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D157
METHOD: METHOD 5030B/8260B

MATRIX: WATER
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: V006D16B V006D16C
LAB FILE ID: RDW348 RDW346 RDW347
DATE EXTRACTED: 04/27/15 16:29 04/27/15 15:28 04/27/15 15:59
DATE ANALYZED: 04/27/15 16:29 04/27/15 15:28 04/27/15 15:59
PREP. BATCH: V006D16 V006D16
CALIB. REF: RCW007 RCW007

% MOISTURE: NA

DATE COLLECTED: NA
DATE RECEIVED: 04/27/15

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	11.0	110	10.0	10.7	107	4	80-130	30
1,1,1-Trichloroethane	ND	10.0	11.7	117	10.0	11.3	113	4	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	9.44	94	10.0	9.20	92	3	65-130	30
1,1,2-Trichloroethane	ND	10.0	10.6	106	10.0	10.3	103	3	75-125	30
1,1-Dichloroethane	ND	10.0	10.0	100	10.0	9.95	99	1	70-135	30
1,1-Dichloroethane	ND	10.0	9.46	95	10.0	8.97	90	5	70-130	30
1,1-Dichloropropene	ND	10.0	10.0	100	10.0	10.3	103	2	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	9.14	91	10.0	8.87	89	4	75-140	30
1,2,3-Trichloropropane	ND	10.0	10.5	105	10.0	9.74	97	7	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	9.57	96	10.0	9.20	92	4	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	9.68	97	10.0	9.66	97	7	70-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	9.47	95	10.0	8.87	89	7	50-130	30
1,2-Dibromoethane	ND	10.0	11.3	113	10.0	10.7	107	6	80-120	30
1,2-Dichlorobenzene	ND	10.0	10.0	100	10.0	9.95	99	1	70-120	30
1,2-Dichloroethane	ND	10.0	11.1	111	10.0	10.7	107	4	70-130	30
1,2-Dichloropropane	ND	10.0	10.6	106	10.0	10.2	102	3	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	9.71	97	10.0	9.57	96	3	75-130	30
1,3-Dichlorobenzene	ND	10.0	10.2	102	10.0	10.0	100	2	75-125	30
1,3-Dichloropropane	ND	10.0	10.8	108	10.0	10.6	106	2	75-125	30
1,4-Dichlorobenzene	ND	10.0	10.3	103	10.0	10.1	101	2	75-125	30
2,2-Dichloropropane	ND	10.0	10.8	108	10.0	10.7	107	1	70-135	30
2-Butanone	ND	50.0	48.3	97	50.0	46.1	92	1	30-150	30
2-Chlorotoluene	ND	10.0	9.47	95	10.0	9.68	97	9	75-125	30
2-Hexanone	ND	50.0	51.8	104	50.0	47.3	95	9	55-130	30
4-Chlorotoluene	ND	10.0	10.1	101	10.0	9.57	96	5	75-130	30
Acetone	ND	50.0	56.0	112	50.0	52.3	105	7	40-140	30
Benzene	ND	10.0	10.2	102	10.0	10.0	100	2	80-120	30
Bromobenzene	ND	10.0	9.88	99	10.0	9.84	98	2	75-125	30
Bromochloromethane	ND	10.0	9.55	95	10.0	9.47	95	1	65-130	30
Bromodichloromethane	ND	10.0	11.2	112	10.0	10.9	109	3	75-120	30
Bromoform	ND	10.0	10.5	105	10.0	10.1	101	4	70-130	30
Bromomethane	ND	10.0	10.9	109	10.0	10.3	103	3	30-145	30
Carbon Disulfide	ND	10.0	10.5	105	10.0	9.89	99	6	60-160	30
Carbon Tetrachloride	ND	10.0	11.3	113	10.0	11.3	113	1	65-140	30
Chlorobenzene	ND	10.0	11.0	110	10.0	10.6	106	3	80-120	30
Chloroethane	ND	10.0	9.73	97	10.0	8.95	90	8	60-135	30
Chloroform	ND	10.0	10.8	108	10.0	10.5	105	3	65-135	30
Chloromethane	ND	10.0	8.79	88	10.0	8.27	83	6	40-125	30
cis-1,2-Dichloroethene	ND	10.0	10.4	104	10.0	10.2	102	6	70-125	30
cis-1,3-Dichloropropene	ND	10.0	10.9	109	10.0	10.5	105	4	70-130	30
Dibromochloromethane	ND	10.0	11.6	116	10.0	11.0	110	4	60-135	30
Dibromomethane	ND	10.0	11.6	116	10.0	11.4	114	9	75-125	30
Dichlorodifluoromethane	ND	10.0	10.9	109	10.0	9.96	100	9	30-155	30
Ethylbenzene	ND	10.0	10.6	106	10.0	10.4	104	2	75-125	30
Hexachlorobutadiene	ND	10.0	8.15	81	10.0	8.21	82	1	50-140	30
Isopropyl Benzene	ND	10.0	10.8	108	10.0	10.5	105	3	75-125	30
m,p-Xylenes	ND	20.0	21.0	105	20.0	20.8	104	1	75-130	30
MIBK	ND	50.0	50.6	101	50.0	48.6	97	4	60-135	30
Methylene Chloride	0.587J	10.0	9.63	96	10.0	9.54	95	1	55-140	30
MTBE	ND	10.0	11.3	113	10.0	10.8	108	5	65-125	30
Naphthalene	ND	10.0	8.97	90	10.0	8.82	88	2	55-140	30
n-Butylbenzene	ND	10.0	9.88	99	10.0	9.85	98	0	70-135	30
n-Propylbenzene	ND	10.0	9.98	100	10.0	9.95	100	0	70-130	30
o-Xylene	ND	10.0	11.0	110	10.0	10.7	107	0	80-120	30
p-Isopropyltoluene	ND	10.0	9.64	96	10.0	9.43	94	3	75-130	30
Sec-Butylbenzene	ND	10.0	9.64	96	10.0	9.68	97	0	70-125	30
Styrene	ND	10.0	11.1	111	10.0	10.9	109	2	65-135	30
Tert-Butylbenzene	ND	10.0	9.77	98	10.0	9.56	96	2	70-130	30
Tetrachloroethane	ND	10.0	10.5	105	10.0	10.2	102	3	45-150	30
Toluene	ND	10.0	10.3	103	10.0	10.2	102	2	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	9.37	94	10.0	9.21	92	2	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	10.7	107	10.0	10.3	103	2	55-140	30
Trichloroethene	ND	10.0	10.7	107	10.0	10.5	105	2	70-125	30
Trichlorofluoromethane	ND	10.0	12.4	124	10.0	11.1	111	1	60-145	30
Vinyl Chloride	ND	10.0	9.16	92	10.0	8.68	87	5	50-145	30
Freon113	ND	10.0	11.4	114	10.0	10.8	108	5	65-135	30
Vinyl Acetate	ND	10.0	9.48	95	10.0	8.88	89	7	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	9.78	98	10.0	9.44	94	70-120
4-Bromofluorobenzene	10.0	9.08	91	10.0	9.01	90	75-120
Toluene-d8	10.0	9.11	91	10.0	9.32	93	85-120
Dibromofluoromethane	10.0	10.4	104	10.0	10.5	105	85-115

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

```

=====
Client   : ECO & ASSOCIATES, INC.
Project  : B & B GROUNDWATER SAMPLING
Batch No. : 15D157
Sample ID: MBLK2W
Lab Samp ID: VO67E03B
Lab File ID: REC052
Ext Btch ID: VO67E03
Calib. Ref.: RLC381

Date Collected: NA
Date Received: 05/04/15
Date Extracted: 05/04/15 15:33
Date Analyzed: 05/04/15 15:33
Dilution Factor: 1
Matrix : WATER
% Moisture : NA
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	0.50
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	0.50
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	0.50
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	9.42	10.00	94.2	75-120
TOLUENE-D8	10.0	10.00	100	85-120
DIBROMOFLUOROMETHANE	10.8	10.00	108	85-115

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D157
METHOD: METHOD 5030B/8260B

MATRIX: WATER
DILUTION FACTOR: 1 1 % MOISTURE: NA
SAMPLE ID: MBLK2W
LAB SAMP ID: VO67E03B VO67E03L VO67E03C
LAB FILE ID: REC052 REC049 REC050
DATE EXTRACTED: 05/04/15 15:33 05/04/15 13:42 05/04/15 14:21 DATE COLLECTED: NA
DATE ANALYZED: 05/04/15 15:33 05/04/15 13:42 05/04/15 14:21 DATE RECEIVED: 05/04/15
PREP. BATCH: VO67E03 VO67E03 VO67E03
CALIB. REF: RLC381 RLC381 RLC381

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	11.1	111	10.0	11.0	110	1	80-130	30
1,1,1-Trichloroethane	ND	10.0	9.44	94	10.0	9.44	94	1	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	9.74	97	10.0	9.43	94	3	65-130	30
1,1,2-Trichloroethane	ND	10.0	10.7	107	10.0	10.6	106	1	75-125	30
1,1-Dichloroethane	ND	10.0	9.32	93	10.0	9.36	94	2	70-135	30
1,1-Dichloroethene	ND	10.0	8.76	88	10.0	8.58	86	2	70-130	30
1,1-Dichloropropene	ND	10.0	10.2	102	10.0	10.2	102	1	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	10.9	109	10.0	11.0	110	1	55-140	30
1,2,3-Trichloropropane	ND	10.0	10.3	103	10.0	10.1	101	2	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	10.9	109	10.0	11.1	111	1	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	9.89	99	10.0	9.77	98	2	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	11.7	117	10.0	11.5	115	1	50-130	30
1,2-Dibromoethane	ND	10.0	10.8	108	10.0	10.7	107	1	80-120	30
1,2-Dichlorobenzene	ND	10.0	11.4	114	10.0	11.3	113	1	70-120	30
1,2-Dichloroethane	ND	10.0	9.46	95	10.0	9.35	93	1	70-130	30
1,2-Dichloropropane	ND	10.0	9.61	96	10.0	9.57	96	1	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	9.80	98	10.0	9.72	97	1	75-130	30
1,3-Dichlorobenzene	ND	10.0	11.4	114	10.0	11.2	112	2	75-125	30
1,3-Dichloropropane	ND	10.0	9.74	97	10.0	9.66	97	1	75-125	30
1,4-Dichlorobenzene	ND	10.0	11.1	111	10.0	11.0	110	2	75-125	30
2,2-Dichloropropane	ND	10.0	8.94	89	10.0	9.06	91	1	70-135	30
2-Butanone	ND	50.0	42.7	85	50.0	42.9	86	1	30-150	30
2-Chlorotoluene	ND	10.0	9.86	99	10.0	9.43	94	4	75-125	30
2-Hexanone	ND	50.0	40.7	81	50.0	40.8	82	4	55-130	30
4-Chlorotoluene	ND	10.0	9.18	92	10.0	9.34	93	1	75-130	30
Acetone	ND	50.0	48.1	96	50.0	50.5	101	5	40-140	30
Benzene	ND	10.0	10.0	100	10.0	9.91	99	1	80-120	30
Bromobenzene	ND	10.0	11.4	114	10.0	11.1	111	1	75-125	30
Bromochloromethane	ND	10.0	9.06	91	10.0	8.91	89	3	65-130	30
Bromodichloromethane	ND	10.0	10.5	105	10.0	10.5	105	3	75-120	30
Bromoform	ND	10.0	10.8	108	10.0	10.5	105	3	70-130	30
Bromomethane	ND	10.0	8.22	82	10.0	8.31	83	1	30-145	30
Carbon Disulfide	ND	10.0	7.03	70	10.0	6.99	70	1	35-160	30
Carbon Tetrachloride	ND	10.0	10.0	100	10.0	9.88	99	1	65-140	30
Chlorobenzene	ND	10.0	11.1	111	10.0	11.1	111	1	80-120	30
Chloroethane	ND	10.0	8.25	82	10.0	8.19	82	1	60-135	30
Chloroform	ND	10.0	9.98	100	10.0	10.0	100	1	65-135	30
Chloromethane	ND	10.0	8.51	85	10.0	8.36	84	2	40-125	30
cis-1,2-Dichloroethene	ND	10.0	10.2	102	10.0	10.1	101	1	70-130	30
cis-1,3-Dichloropropene	ND	10.0	9.81	98	10.0	9.84	98	0	70-130	30
Dibromochloromethane	ND	10.0	11.5	115	10.0	11.2	112	2	60-135	30
Dibromomethane	ND	10.0	10.4	104	10.0	10.6	106	1	75-125	30
Dichlorodifluoromethane	ND	10.0	9.19	92	10.0	9.18	92	0	30-155	30
Ethylbenzene	ND	10.0	9.74	97	10.0	9.72	97	0	75-125	30
Hexachlorobutadiene	ND	10.0	10.6	106	10.0	10.9	109	3	50-140	30
Isopropyl Benzene	ND	10.0	11.0	110	10.0	10.9	109	1	75-125	30
m,p-Xylenes	ND	20.0	19.7	98	20.0	19.4	97	1	75-130	30
MIBK	ND	50.0	39.9	80	50.0	40.2	80	1	60-135	30
Methylene Chloride	ND	10.0	8.44	84	10.0	8.40	84	1	55-140	30
MTBE	ND	10.0	8.86	89	10.0	8.84	88	1	65-125	30
Naphthalene	ND	10.0	10.4	104	10.0	10.5	105	1	55-140	30
n-Butylbenzene	ND	10.0	9.34	93	10.0	9.46	95	1	70-135	30
n-Propylbenzene	ND	10.0	9.72	97	10.0	9.53	95	2	70-130	30
o-Xylene	ND	10.0	10.2	102	10.0	10.2	102	0	80-120	30
p-Isopropyltoluene	ND	10.0	10.3	103	10.0	10.4	104	0	75-130	30
Sec-Butylbenzene	ND	10.0	10.3	103	10.0	10.1	101	0	70-125	30
Styrene	ND	10.0	11.0	110	10.0	11.0	110	0	65-135	30
Tert-Butylbenzene	ND	10.0	11.2	112	10.0	11.0	110	0	70-130	30
Tetrachloroethene	ND	10.0	11.5	115	10.0	11.2	112	0	45-150	30
Toluene	ND	10.0	9.95	99	10.0	9.81	98	1	75-120	30
Trans-1,2-Dichloroethene	ND	10.0	8.63	86	10.0	8.60	86	3	60-140	30
Trans-1,3-Dichloropropene	ND	10.0	9.31	93	10.0	9.07	91	3	55-140	30
Trichloroethene	ND	10.0	10.8	108	10.0	10.8	108	2	70-125	30
Trichlorofluoromethane	ND	10.0	10.0	100	10.0	9.85	98	0	60-145	30
Vinyl Chloride	ND	10.0	8.50	85	10.0	8.38	84	1	50-145	30
Freon113	ND	10.0	10.3	103	10.0	10.2	102	1	65-135	30
Vinyl Acetate	ND	10.0	7.71	77	10.0	7.69	77	0	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	9.10	91	10.0	9.21	92	70-120
4-Bromofluorobenzene	10.0	9.26	93	10.0	9.05	90	75-120
Toluene-d8	10.0	10.1	101	10.0	10.0	100	85-120
Dibromofluoromethane	10.0	10.8	108	10.0	10.9	109	85-115

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D157
METHOD: METHOD 5030B/8260B

MATRIX: WATER
DILUTION FACTOR: 1 1 % MOISTURE: NA
SAMPLE ID: 04-22-15-PWB-10
LAB SAMP ID: D157-17 D157-17M D157-17S
LAB FILE ID: RDW349 RDW350 RDW351
DATE EXTRACTED: 04/27/15 17:02 04/27/15 17:34 04/27/15 18:05
DATE ANALYZED: 04/27/15 17:02 04/27/15 17:34 04/27/15 18:05
PREP. BATCH: V006D16 V006D16 V006D16
CALIB. REF: RCW007 RCW007 RCW007

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 (%)
1,1,2-Tetrachloroethane	ND	10.0	10.4	104	10.0	9.90	99	5	80-130	30
1,1,1-Trichloroethane	ND	10.0	10.6	106	10.0	10.3	103	3	65-130	30
1,1,2,2-Tetrachloroethane	ND	10.0	8.88	89	10.0	8.84	88	0	65-130	30
1,1,2-Trichloroethane	ND	10.0	10.1	101	10.0	10.3	103	0	75-125	30
1,1-Dichloroethane	ND	10.0	9.55	96	10.0	9.35	94	2	70-135	30
1,1-Dichloroethane	ND	10.0	8.73	87	10.0	8.87	89	2	70-130	30
1,1-Dichloropropene	ND	10.0	9.52	95	10.0	9.46	95	1	75-130	30
1,2,3-Trichlorobenzene	ND	10.0	8.50	85	10.0	8.28	83	2	55-140	30
1,2,3-Trichloropropane	ND	10.0	10.0	100	10.0	9.82	98	2	75-125	30
1,2,4-Trichlorobenzene	ND	10.0	8.85	88	10.0	8.40	84	5	65-135	30
1,2,4-Trimethylbenzene	ND	10.0	9.00	90	10.0	8.54	85	5	75-130	30
1,2-Dibromo-3-chloropropane	ND	10.0	8.86	89	10.0	8.53	85	5	50-130	30
1,2-Dibromoethane	ND	10.0	10.6	106	10.0	10.3	103	3	80-120	30
1,2-Dichlorobenzene	ND	10.0	9.56	96	10.0	8.81	88	3	70-120	30
1,2-Dichloroethane	ND	10.0	10.4	104	10.0	10.6	106	3	70-130	30
1,2-Dichloropropane	0.401J	10.0	10.0	96	10.0	10.2	98	2	75-125	30
1,3,5-Trimethylbenzene	ND	10.0	9.13	91	10.0	8.75	87	5	75-130	30
1,3-Dichlorobenzene	ND	10.0	9.67	97	10.0	9.11	91	1	75-125	30
1,3-Dichloropropane	ND	10.0	10.4	104	10.0	10.3	103	3	75-125	30
1,4-Dichlorobenzene	ND	10.0	9.77	98	10.0	9.23	92	5	75-125	30
2,2-Dichloropropane	ND	10.0	10.1	101	10.0	9.89	99	2	70-135	30
2-Butanone	ND	50.0	43.8	88	50.0	45.2	90	3	30-150	30
2-Chlorotoluene	ND	10.0	9.04	90	10.0	8.42	84	7	75-125	30
2-Hexanone	ND	50.0	47.2	94	50.0	48.8	98	3	55-130	30
4-Chlorotoluene	ND	10.0	9.64	96	10.0	9.19	92	5	75-130	30
Acetone	ND	50.0	47.8	96	50.0	52.3	105	9	40-140	30
Benzene	ND	10.0	9.61	96	10.0	9.57	96	4	80-120	30
Bromobenzene	ND	10.0	9.34	93	10.0	8.94	89	1	65-130	30
Bromochloromethane	ND	10.0	9.22	92	10.0	9.35	93	1	65-130	30
Bromodichloromethane	ND	10.0	10.6	106	10.0	10.3	103	2	75-120	30
Bromoform	ND	10.0	9.75	98	10.0	9.64	96	1	70-130	30
Bromomethane	ND	10.0	9.28	93	10.0	9.71	97	1	30-145	30
Carbon Disulfide	ND	10.0	10.4	104	10.0	10.8	108	5	35-160	30
Carbon Tetrachloride	0.425J	10.0	10.9	105	10.0	10.7	103	2	65-140	30
Chlorobenzene	ND	10.0	10.5	105	10.0	9.60	96	9	80-120	30
Chloroethane	ND	10.0	8.84	88	10.0	8.77	88	1	60-135	30
Chloroethane	ND	10.0	10.3	103	10.0	10.4	104	1	65-135	30
Chloroform	ND	10.0	7.59	76	10.0	7.93	79	4	40-135	30
Chloromethane	ND	10.0	9.91	99	10.0	10.1	101	1	70-125	30
cis-1,2-Dichloroethane	ND	10.0	10.1	101	10.0	10.3	103	2	70-130	30
cis-1,3-Dichloropropene	ND	10.0	10.9	109	10.0	10.6	106	2	60-135	30
Dibromochloromethane	ND	10.0	11.0	110	10.0	11.3	113	2	75-125	30
Dibromomethane	ND	10.0	9.50	95	10.0	9.58	96	2	60-135	30
Dichlorodifluoromethane	ND	10.0	9.85	98	10.0	9.33	93	5	75-125	30
Ethylbenzene	ND	10.0	8.04	80	10.0	7.64	76	5	50-140	30
Hexachlorobutadiene	ND	10.0	10.4	104	10.0	9.72	97	7	75-125	30
Isopropyl Benzene	ND	20.0	20.2	101	20.0	19.0	95	6	75-130	30
m,p-Xylenes	ND	50.0	47.7	95	50.0	48.5	97	2	60-135	30
MIBK	ND	10.0	17.8	14*	10.0	24.3	79	3	35-140	30
Methylene Chloride	16.4	10.0	10.4	104	10.0	10.6	106	1	65-125	30
MTBE	ND	10.0	8.42	84	10.0	8.19	82	3	55-140	30
Naphthalene	ND	10.0	9.33	93	10.0	8.99	90	4	70-135	30
n-Butylbenzene	ND	10.0	9.48	95	10.0	8.76	88	8	70-130	30
n-Propylbenzene	ND	10.0	10.5	105	10.0	9.76	98	7	80-120	30
o-Xylene	ND	10.0	9.17	92	10.0	8.57	86	7	75-130	30
p-Isopropyltoluene	ND	10.0	9.03	90	10.0	8.53	85	6	70-125	30
Sec-Butylbenzene	ND	10.0	10.4	104	10.0	9.33	93	1	65-135	30
Styrene	ND	10.0	9.25	92	10.0	8.72	87	6	70-130	30
Tert-Butylbenzene	ND	10.0	10.0	100	10.0	9.36	94	2	45-150	30
Tetrachloroethene	ND	10.0	9.55	95	10.0	9.36	94	2	75-120	30
Toluene	ND	10.0	8.78	88	10.0	9.02	90	3	60-140	30
Trans-1,2-Dichloroethane	ND	10.0	9.94	99	10.0	9.97	100	0	55-140	30
Trans-1,3-Dichloropropene	ND	10.0	10.0	100	10.0	9.87	99	1	70-125	30
Trichloroethene	ND	10.0	11.1	111	10.0	10.9	109	2	60-145	30
Trichlorofluoromethane	ND	10.0	8.11	81	10.0	8.36	84	3	50-145	30
Vinyl Chloride	ND	10.0	10.2	102	10.0	9.81	98	4	65-135	30
Freon113	ND	10.0	8.55	86	10.0	8.10	81	5	65-135	30
Vinyl Acetate	ND	10.0								

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	10.0	100	10.0	9.75	97	70-120
4-Bromofluorobenzene	10.0	8.99	90	10.0	8.99	90	75-120
Toluene-d8	10.0	9.20	92	10.0	9.18	92	85-120
Dibromofluoromethane	10.0	10.2	102	10.0	10.3	103	85-115

QC DATA

Data File : D:\HPCHEM\1\DATA\15D27\RDW348.D
 Acq On : 27 Apr 2015 4:29 pm
 Sample : VO06D16B 25mL
 Misc : BLANK
 MS Integration Params: RTE.P
 Quant Time: Apr 28 17:45 2015

Vial: 5
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.89	114	1102447	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	13.81	117	979846	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.10	152	384789	10.00	ug/l	-0.01
System Monitoring Compounds						
34) Dibromofluoromethane	7.40	111	333625	10.17	ug/l	0.00
Spiked Amount	10.000		Recovery	=	101.70%	
41) 1,2-Dichloroethane-d4	8.24	65	224744	9.19	ug/l	0.00
Spiked Amount	10.000		Recovery	=	91.90%	
54) Toluene-d8	11.36	98	1133643	9.29	ug/l	-0.01
Spiked Amount	10.000		Recovery	=	92.90%	
76) 4-Bromofluorobenzene	15.77	95	369061	8.79	ug/l	-0.01
Spiked Amount	10.000		Recovery	=	87.90%	
Target Compounds						
17) Methylene chloride	4.61	49	23775	0.59	ug/l	Qvalue # 78

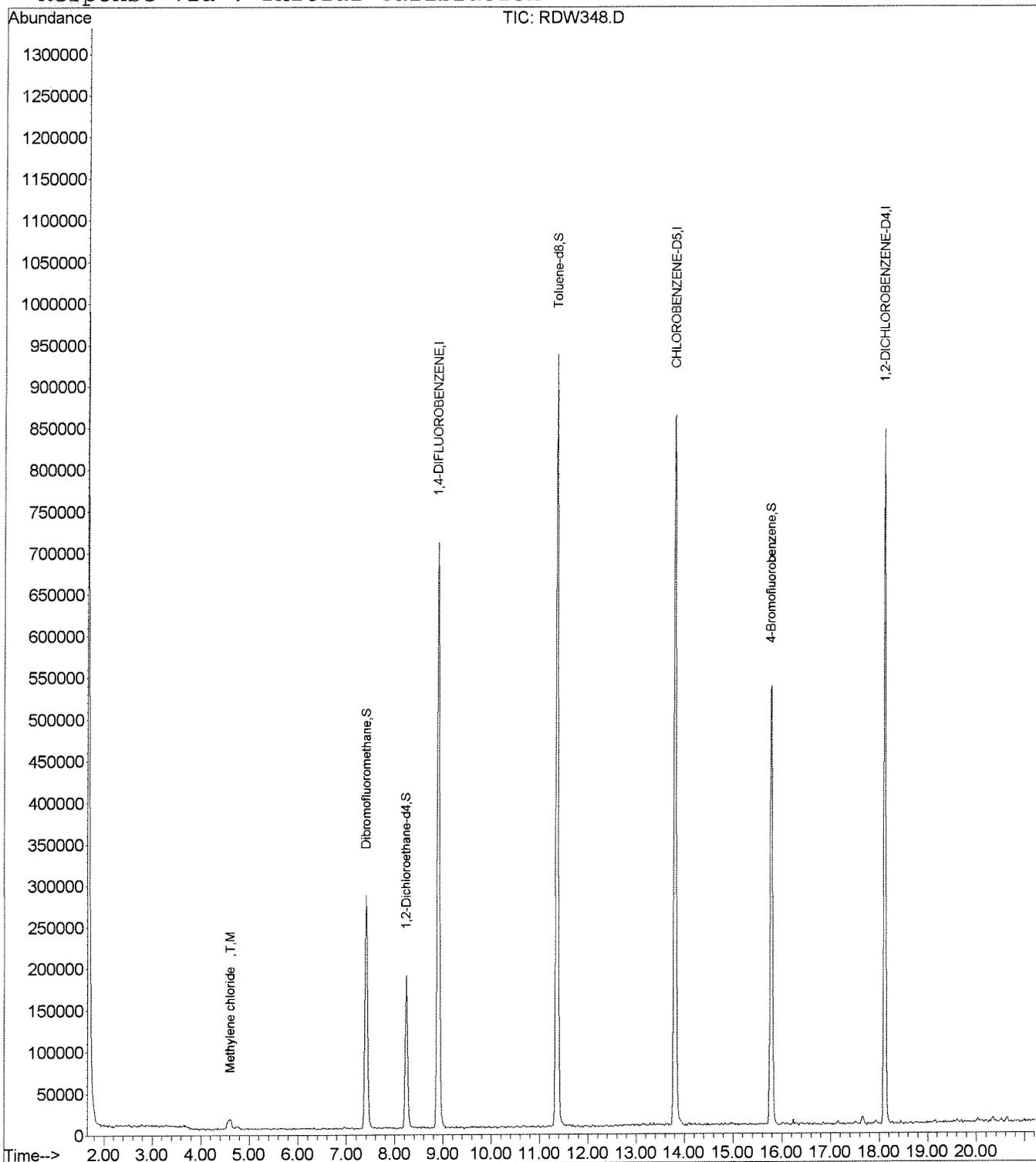
Quantitation Report

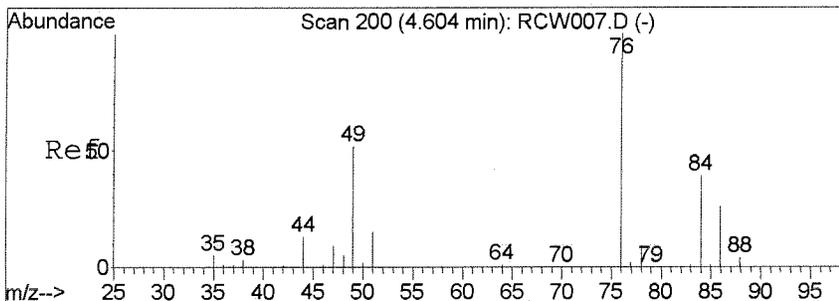
Data File : D:\HPCHEM\1\DATA\15D27\RDW348.D
Acq On : 27 Apr 2015 4:29 pm
Sample : VO06D16B 25mL
Misc : BLANK
MS Integration Params: RTE.P
Quant Time: Apr 28 17:45 2015

Vial: 5
Operator: WLau
Inst : T006
Multiplr: 1.00

Quant Results File: VO06C03.RE

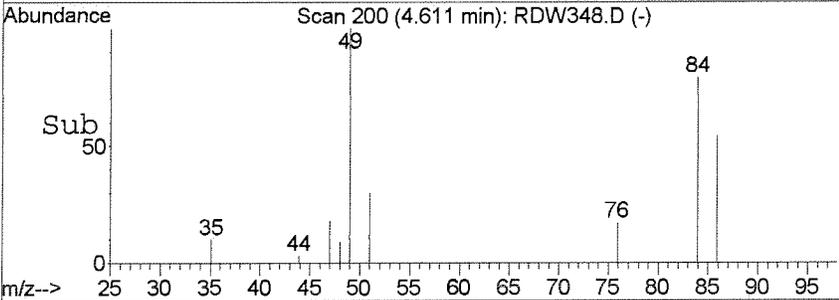
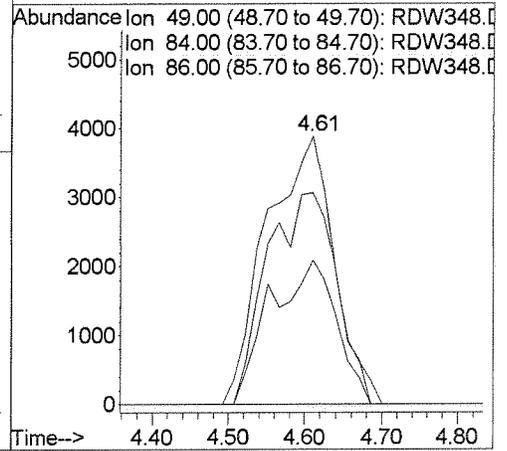
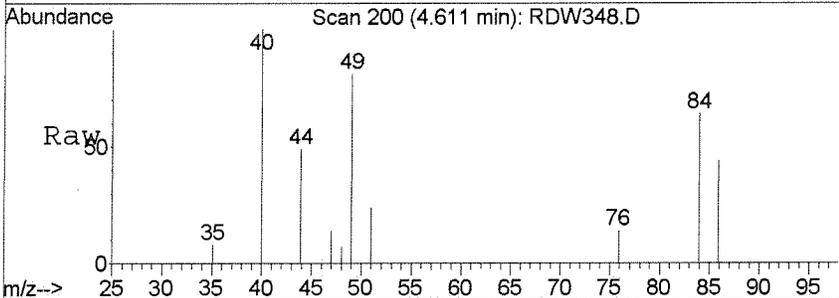
Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration





#17
 Methylene chloride
 Concen: 0.59 ug/l
 RT: 4.61 min Scan# 200
 Delta R.T. 0.01 min
 Lab File: RDW348.D
 Acq: 27 Apr 2015 4:29 pm

Tgt Ion	Resp	Lower	Upper
49	23775		
84	81.1	44.6	104.6
86	17.3	17.9	77.9#



Data File : D:\HPCHEM\1\DATA\15D27\RDW346.D
 Acq On : 27 Apr 2015 3:28 pm
 Sample : VO06D16L
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Apr 28 17:46 2015

Vial: 3
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.90	114	1024742	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	13.80	117	955864	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.11	152	402543	10.00	ug/l	0.00

System Monitoring Compounds

34) Dibromofluoromethane	7.40	111	317835	10.43	ug/l	0.00
Spiked Amount	10.000		Recovery	=	104.30%	
41) 1,2-Dichloroethane-d4	8.23	65	222160	9.78	ug/l	0.00
Spiked Amount	10.000		Recovery	=	97.80%	
54) Toluene-d8	11.35	98	1083801	9.11	ug/l	0.02
Spiked Amount	10.000		Recovery	=	91.10%	
76) 4-Bromofluorobenzene	15.78	95	398890	9.08	ug/l	0.00
Spiked Amount	10.000		Recovery	=	90.80%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.81	85	368668	10.92	ug/l	99
3) Chloromethane	2.06	50	289753	8.79	ug/l	98
4) Vinyl chloride	2.20	62	252241	9.16	ug/l	100
5) Bromomethane	2.69	94	232142	10.88	ug/l	98
6) Chloroethane	2.79	64	169604	9.73	ug/l	96
7) Dichlorofluoromethane	2.82	67	551034	10.63	ug/l	99
8) Trichlorofluoromethane	3.09	101	433337	12.36	ug/l	100
9) Acrolein	3.59	56	49707	39.16	ug/l	93
10) 1,1,2-Trichloro-1,2,2-trif	3.65	151	200492	11.36	ug/l	97
11) Acetone	3.68	43	142403	56.03	ug/l	93
12) 1,1-Dichloroethene	3.88	61	481792	9.46	ug/l	99
13) tert-Butyl alcohol	3.98	59	61515	58.53	ug/l	86
16) Iodomethane	4.32	142	529799	10.22	ug/l	96
17) Methylene chloride	4.60	49	362423	9.63	ug/l	91
18) Carbon disulfide	4.57	76	1149845	10.53	ug/l	99
19) Acrylonitrile	4.75	53	192141	47.71	ug/l	97
20) tert-Butyl methyl ether (M	4.80	73	533640	11.35	ug/l	97
21) trans-1,2-Dichloroethene	5.01	61	458048	9.37	ug/l	96
22) Isopropyl ether (DIPE)	5.56	45	977503	9.32	ug/l	93
23) Vinyl acetate	5.75	43	350485	9.48	ug/l	99
24) 1,1-Dichloroethane	5.72	63	586952	10.01	ug/l	100
26) tert-Butyl ethyl ether (ET	6.27	59	797834	10.26	ug/l	95
27) 2-Butanone	6.48	43	288651	48.34	ug/l	96
28) 2,2-Dichloropropane	6.68	77	327795	10.81	ug/l	99
29) cis-1,2-Dichloroethene	6.77	96	366919	10.35	ug/l	95
30) Chloroform	7.04	83	603935	10.75	ug/l	98
32) Bromochloromethane	7.31	49	226567	9.55	ug/l	86

(#) = qualifier out of range (m) = manual integration
 RDW346.D VO06C03.M Tue Apr 28 17:46:31 2015

Data File : D:\HPCHEM\1\DATA\15D27\RDW346.D
 Acq On : 27 Apr 2015 3:28 pm
 Sample : VO06D16L
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Apr 28 17:46 2015

Vial: 3
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
33) Tetrahydrofuran	7.37	42	33643	9.72	ug/l	97
35) 1,1,1-Trichloroethane	7.70	97	533767	11.68	ug/l	97
38) 1,1-Dichloropropene	7.96	110	179478	10.04	ug/l	100
39) Carbon tetrachloride	8.11	119	480247	11.35	ug/l	99
40) tert-Amyl methyl ether (TA	8.19	87	150527	11.22	ug/l	# 91
42) 1,2-Dichloroethane	8.39	62	303159	11.12	ug/l	99
43) Benzene	8.39	78	1217594	10.24	ug/l	98
44) Trichloroethene	9.42	130	404613	10.66	ug/l	98
46) 1,2-Dichloropropane	9.70	63	336208	10.56	ug/l	96
47) 1,4-Dioxane	10.13	88	25055	214.30	ug/l	84
48) Bromodichloromethane	10.09	83	452878	11.19	ug/l	99
49) Dibromomethane	10.16	93	155458	11.56	ug/l	99
51) 4-Methyl-2-pentanone	10.65	43	789565	50.61	ug/l	94
52) cis-1,3-Dichloropropene	10.98	75	524628	10.92	ug/l	96
55) Toluene	11.48	91	1467889	10.29	ug/l	99
56) Ethyl methacrylate	11.80	69	259494	10.61	ug/l	94
57) trans-1,3-Dichloropropene	11.80	75	397165	10.74	ug/l	93
58) 1,1,2-Trichloroethane	12.05	97	205908	10.62	ug/l	98
59) 2-Hexanone	12.08	43	553638	51.79	ug/l	98
60) 1,3-Dichloropropane	12.45	76	381089	10.83	ug/l	100
61) Tetrachloroethene	12.54	164	345801	10.48	ug/l	99
62) Dibromochloromethane	12.87	129	300008	11.56	ug/l	99
64) 1,2-Dibromoethane	13.19	107	217177	11.32	ug/l	98
65) 1-Chlorohexane	13.46	91	690883	10.62	ug/l	97
66) Chlorobenzene	13.86	112	970642	10.99	ug/l	99
67) 1,1,1,2-Tetrachloroethane	13.94	131	336071	11.05	ug/l	99
68) Ethylbenzene	13.95	91	1759974	10.59	ug/l	99
69) m-Xylene & p-Xylene	14.07	91	2518666	20.95	ug/l	98
70) o-Xylene	14.78	91	1346179	11.02	ug/l	98
71) Styrene	14.84	104	1027323	11.11	ug/l	98
72) Isopropylbenzene	15.38	105	1694795	10.78	ug/l	99
74) Bromoform	15.39	173	166014	10.49	ug/l	99
75) 1,1,2,2-Tetrachloroethane	15.66	83	243804	9.44	ug/l	99
77) 1,2,3-Trichloropropane	15.90	110	65134	10.47	ug/l	99
78) trans-1,4-Dichloro-2-buten	16.00	53	61942	9.05	ug/l	95
79) n-Propylbenzene	16.02	91	2179008	9.98	ug/l	99
80) Bromobenzene	16.09	156	373532	9.88	ug/l	99
81) 1,3,5-Trimethylbenzene	16.28	105	1335973	9.71	ug/l	100
82) 2-Chlorotoluene	16.31	91	1250624	9.47	ug/l	99
83) 4-Chlorotoluene	16.39	91	1112819	10.06	ug/l	99
84) tert-Butylbenzene	16.86	134	325282	9.77	ug/l	99

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

Data File : D:\HPCHEM\1\DATA\15D27\RDW346.D
Acq On : 27 Apr 2015 3:28 pm
Sample : VO06D16L
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Apr 28 17:46 2015

Vial: 3
Operator: WLau
Inst : T006
Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration
DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
85) 1,2,4-Trimethylbenzene	16.92	105	1306812	9.68	ug/l	99
86) sec-Butylbenzene	17.19	105	1872580	9.64	ug/l	100
87) p-Isopropyltoluene	17.38	119	1521367	9.64	ug/l	99
88) 1,3-Dichlorobenzene	17.52	146	735302	10.24	ug/l	99
89) 1,4-Dichlorobenzene	17.67	146	724815	10.32	ug/l	100
90) n-Butylbenzene	17.93	91	1494466	9.88	ug/l	99
91) 1,2-Dichlorobenzene	18.14	146	601465	10.02	ug/l	99
92) 1,2-Dibromo-3-chloropropan	19.06	157	37935	9.47	ug/l	94
93) 1,2,4-Trichlorobenzene	20.03	180	416952	9.57	ug/l	100
94) Hexachlorobutadiene	20.18	225	252481	8.15	ug/l	99
95) Naphthalene	20.34	128	536295	8.97	ug/l	100
96) 1,2,3-Trichlorobenzene	20.62	180	306866	9.14	ug/l	99

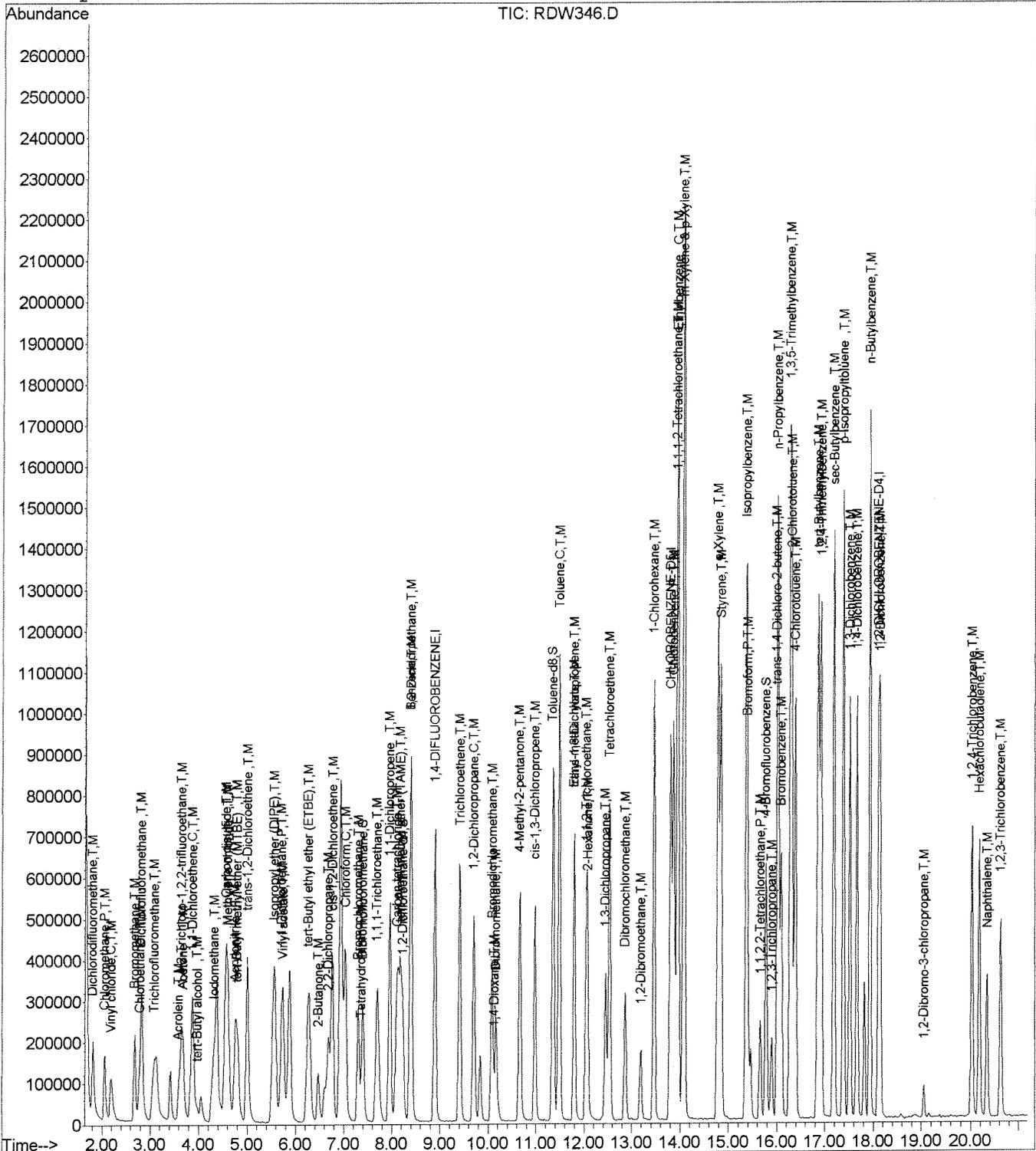
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D27\RDW346.D
Acq On : 27 Apr 2015 3:28 pm
Sample : VO06D16L
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Apr 28 17:46 2015

Vial: 3
Operator: WLaU
Inst : T006
Multiplr: 1.00

Quant Results File: VO06C03.RE

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\15D27\RDW347.D
 Acq On : 27 Apr 2015 3:59 pm
 Sample : VO06D16C
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Apr 28 17:46 2015

Vial: 4
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.91	114	1048537	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	13.81	117	986021	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.10	152	408161	10.00	ug/l	-0.01

System Monitoring Compounds

34) Dibromofluoromethane	7.40	111	328175	10.52	ug/l	0.00
Spiked Amount	10.000		Recovery	=	105.20%	
41) 1,2-Dichloroethane-d4	8.24	65	219429	9.44	ug/l	0.00
Spiked Amount	10.000		Recovery	=	94.40%	
54) Toluene-d8	11.36	98	1143736	9.32	ug/l	-0.01
Spiked Amount	10.000		Recovery	=	93.20%	
76) 4-Bromofluorobenzene	15.79	95	401618	9.01	ug/l	0.00
Spiked Amount	10.000		Recovery	=	90.10%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.82	85	344264	9.96	ug/l	99
3) Chloromethane	2.05	50	279172	8.27	ug/l	99
4) Vinyl chloride	2.20	62	244722	8.68	ug/l	100
5) Bromomethane	2.69	94	224825	10.30	ug/l	99
6) Chloroethane	2.78	64	159765	8.95	ug/l	96
7) Dichlorofluoromethane	2.83	67	546259	10.29	ug/l	100
8) Trichlorofluoromethane	3.09	101	399502	11.13	ug/l	100
9) Acrolein	3.60	56	46647	35.92	ug/l	93
10) 1,1,2-Trichloro-1,2,2-trif	3.66	151	195062	10.80	ug/l	100
11) Acetone	3.69	43	136033	52.31	ug/l	96
12) 1,1-Dichloroethene	3.88	61	467529	8.97	ug/l	98
13) tert-Butyl alcohol	3.99	59	55921	52.00	ug/l	92
16) Iodomethane	4.33	142	528713	9.96	ug/l	96
17) Methylene chloride	4.60	49	367253	9.54	ug/l	91
18) Carbon disulfide	4.58	76	1105411	9.89	ug/l	99
19) Acrylonitrile	4.76	53	189669	46.02	ug/l	98
20) tert-Butyl methyl ether (M	4.80	73	517508	10.76	ug/l	96
21) trans-1,2-Dichloroethene	5.01	61	460488	9.21	ug/l	94
22) Isopropyl ether (DIPE)	5.56	45	1008308	9.40	ug/l	92
23) Vinyl acetate	5.75	43	335684	8.88	ug/l	98
24) 1,1-Dichloroethane	5.73	63	596598	9.95	ug/l	100
26) tert-Butyl ethyl ether (ET	6.27	59	802375	10.09	ug/l	95
27) 2-Butanone	6.48	43	281826	46.12	ug/l	96
28) 2,2-Dichloropropane	6.69	77	331693	10.69	ug/l	98
29) cis-1,2-Dichloroethene	6.77	96	371598	10.25	ug/l	96
30) Chloroform	7.03	83	601893	10.47	ug/l	98
32) Bromochloromethane	7.30	49	229818	9.47	ug/l	88

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

Data File : D:\HPCHEM\1\DATA\15D27\RDW347.D
 Acq On : 27 Apr 2015 3:59 pm
 Sample : VO06D16C
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Apr 28 17:46 2015

Vial: 4
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
33) Tetrahydrofuran	7.37	42	32712	9.21	ug/l	97
35) 1,1,1-Trichloroethane	7.70	97	526937	11.27	ug/l	98
38) 1,1-Dichloropropene	7.97	110	187901	10.28	ug/l	100
39) Carbon tetrachloride	8.12	119	488477	11.28	ug/l	99
40) tert-Amyl methyl ether (TA	8.18	87	140848	10.26	ug/l	97
42) 1,2-Dichloroethane	8.39	62	298329	10.70	ug/l	99
43) Benzene	8.40	78	1219521	10.02	ug/l	98
44) Trichloroethene	9.41	130	406195	10.46	ug/l	98
46) 1,2-Dichloropropane	9.71	63	333266	10.23	ug/l	96
47) 1,4-Dioxane	10.14	88	25072	209.58	ug/l	82
48) Bromodichloromethane	10.08	83	451066	10.89	ug/l	99
49) Dibromomethane	10.17	93	157153	11.42	ug/l	98
51) 4-Methyl-2-pentanone	10.66	43	776461	48.64	ug/l	94
52) cis-1,3-Dichloropropene	10.99	75	515163	10.48	ug/l	96
55) Toluene	11.49	91	1496816	10.18	ug/l	98
56) Ethyl methacrylate	11.80	69	257616	10.21	ug/l	93
57) trans-1,3-Dichloropropene	11.80	75	392866	10.30	ug/l	93
58) 1,1,2-Trichloroethane	12.04	97	205829	10.29	ug/l	99
59) 2-Hexanone	12.07	43	521739	47.31	ug/l	97
60) 1,3-Dichloropropane	12.46	76	384936	10.60	ug/l	99
61) Tetrachloroethene	12.53	164	346097	10.17	ug/l	99
62) Dibromochloromethane	12.86	129	293544	10.96	ug/l	99
64) 1,2-Dibromoethane	13.19	107	211132	10.67	ug/l	99
65) 1-Chlorohexane	13.47	91	676216	10.08	ug/l	96
66) Chlorobenzene	13.87	112	970299	10.65	ug/l	98
67) 1,1,1,2-Tetrachloroethane	13.94	131	334375	10.66	ug/l	99
68) Ethylbenzene	13.96	91	1778892	10.37	ug/l	98
69) m-Xylene & p-Xylene	14.08	91	2581945	20.82	ug/l	98
70) o-Xylene	14.79	91	1345994	10.68	ug/l	98
71) Styrene	14.85	104	1039679	10.90	ug/l	98
72) Isopropylbenzene	15.37	105	1700106	10.48	ug/l	99
74) Bromoform	15.40	173	162489	10.13	ug/l	100
75) 1,1,2,2-Tetrachloroethane	15.65	83	240956	9.20	ug/l	99
77) 1,2,3-Trichloropropane	15.89	110	61444	9.74	ug/l	99
78) trans-1,4-Dichloro-2-buten	16.01	53	60802	8.76	ug/l	97
79) n-Propylbenzene	16.02	91	2202497	9.95	ug/l	99
80) Bromobenzene	16.10	156	377393	9.84	ug/l	98
81) 1,3,5-Trimethylbenzene	16.28	105	1334598	9.57	ug/l	99
82) 2-Chlorotoluene	16.31	91	1295562	9.68	ug/l	100
83) 4-Chlorotoluene	16.38	91	1073780	9.57	ug/l	100
84) tert-Butylbenzene	16.86	134	322861	9.56	ug/l	98

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

Data File : D:\HPCHEM\1\DATA\15D27\RDW347.D
 Acq On : 27 Apr 2015 3:59 pm
 Sample : VO06D16C
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Apr 28 17:46 2015

Vial: 4
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
85) 1,2,4-Trimethylbenzene	16.92	105	1322506	9.66	ug/l	99
86) sec-Butylbenzene	17.18	105	1905884	9.68	ug/l	99
87) p-Isopropyltoluene	17.39	119	1509282	9.43	ug/l	99
88) 1,3-Dichlorobenzene	17.52	146	729072	10.02	ug/l	99
89) 1,4-Dichlorobenzene	17.66	146	720503	10.12	ug/l	99
90) n-Butylbenzene	17.93	91	1511322	9.85	ug/l	99
91) 1,2-Dichlorobenzene	18.15	146	605525	9.95	ug/l	99
92) 1,2-Dibromo-3-chloropropan	19.06	157	36003	8.87	ug/l	95
93) 1,2,4-Trichlorobenzene	20.02	180	406591	9.20	ug/l	100
94) Hexachlorobutadiene	20.18	225	258126	8.21	ug/l	99
95) Naphthalene	20.33	128	534398	8.82	ug/l	100
96) 1,2,3-Trichlorobenzene	20.63	180	302056	8.87	ug/l	100

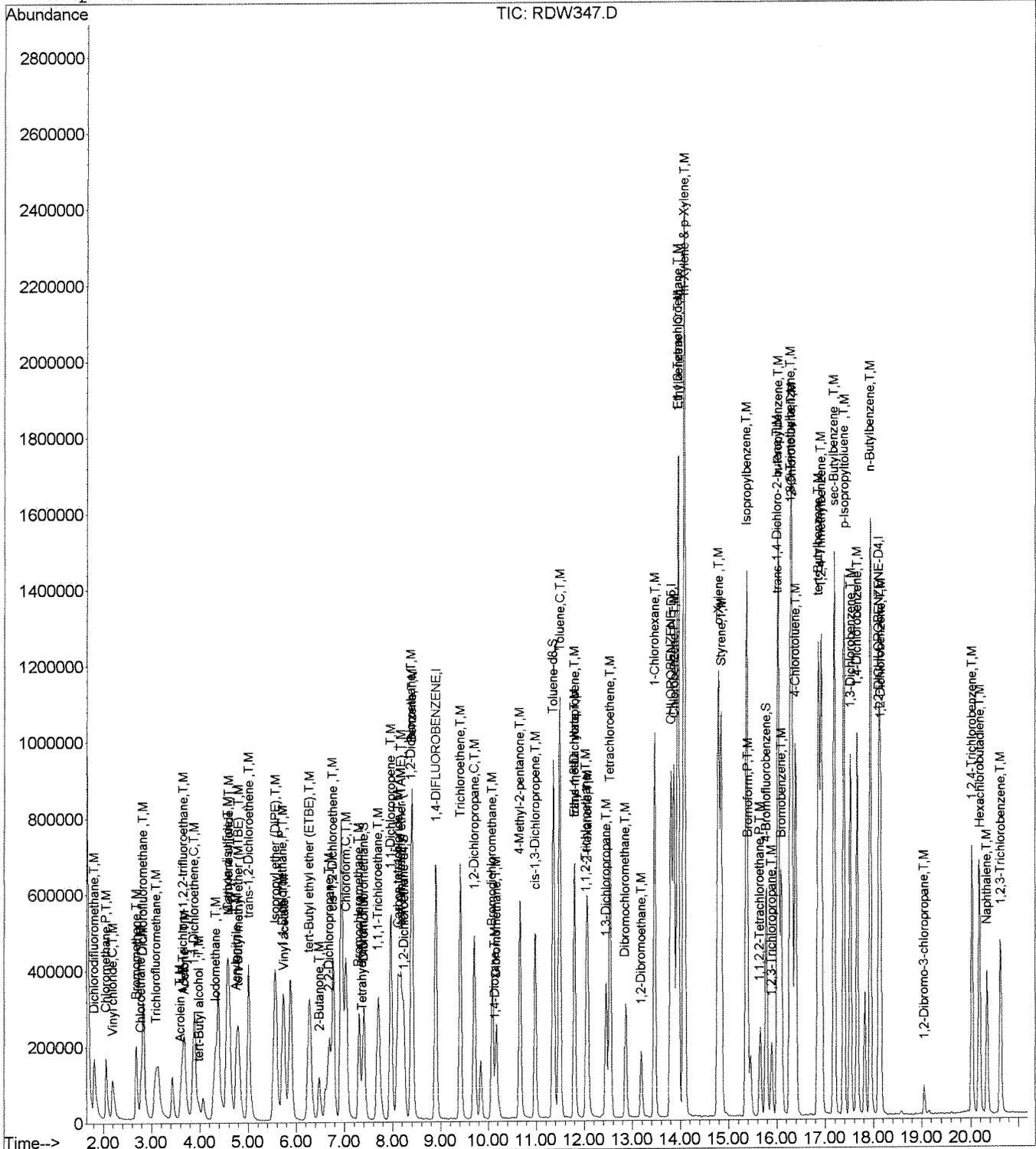
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D27\RDW347.D
Acq On : 27 Apr 2015 3:59 pm
Sample : VO06D16C
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Apr 28 17:46 2015

Vial: 4
Operator: WLaU
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06C03.RE

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\15D27\RDW349.D
 Acq On : 27 Apr 2015 5:02 pm
 Sample : 15D157-17 25mL
 Misc : DF=1.0

Vial: 6
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

MS Integration Params: RTE.P
 Quant Time: Apr 29 12:36 2015

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)

Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.90	114	1014894	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	13.81	117	933275	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.12	152	375660	10.00	ug/l	0.00

System Monitoring Compounds

34) Dibromofluoromethane	7.40	111	314113	10.41	ug/l	0.00
Spiked Amount	10.000					
			Recovery	=	104.10%	
41) 1,2-Dichloroethane-d4	8.24	65	212506	9.44	ug/l	0.00
Spiked Amount	10.000					
			Recovery	=	94.40%	
54) Toluene-d8	11.36	98	1107673	9.54	ug/l	-0.01
Spiked Amount	10.000					
			Recovery	=	95.40%	
76) 4-Bromofluorobenzene	15.79	95	363435	8.86	ug/l	0.00
Spiked Amount	10.000					
			Recovery	=	88.60%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
17) Methylene chloride	4.61	49	610974	16.39	ug/l	# 66
39) Carbon tetrachloride	8.12	119	17812	0.42	ug/l	96
46) 1,2-Dichloropropane	9.71	63	12638	0.40	ug/l	93
77) 1,2,3-Trichloropropane	15.90	110	2552	0.44	ug/l	95

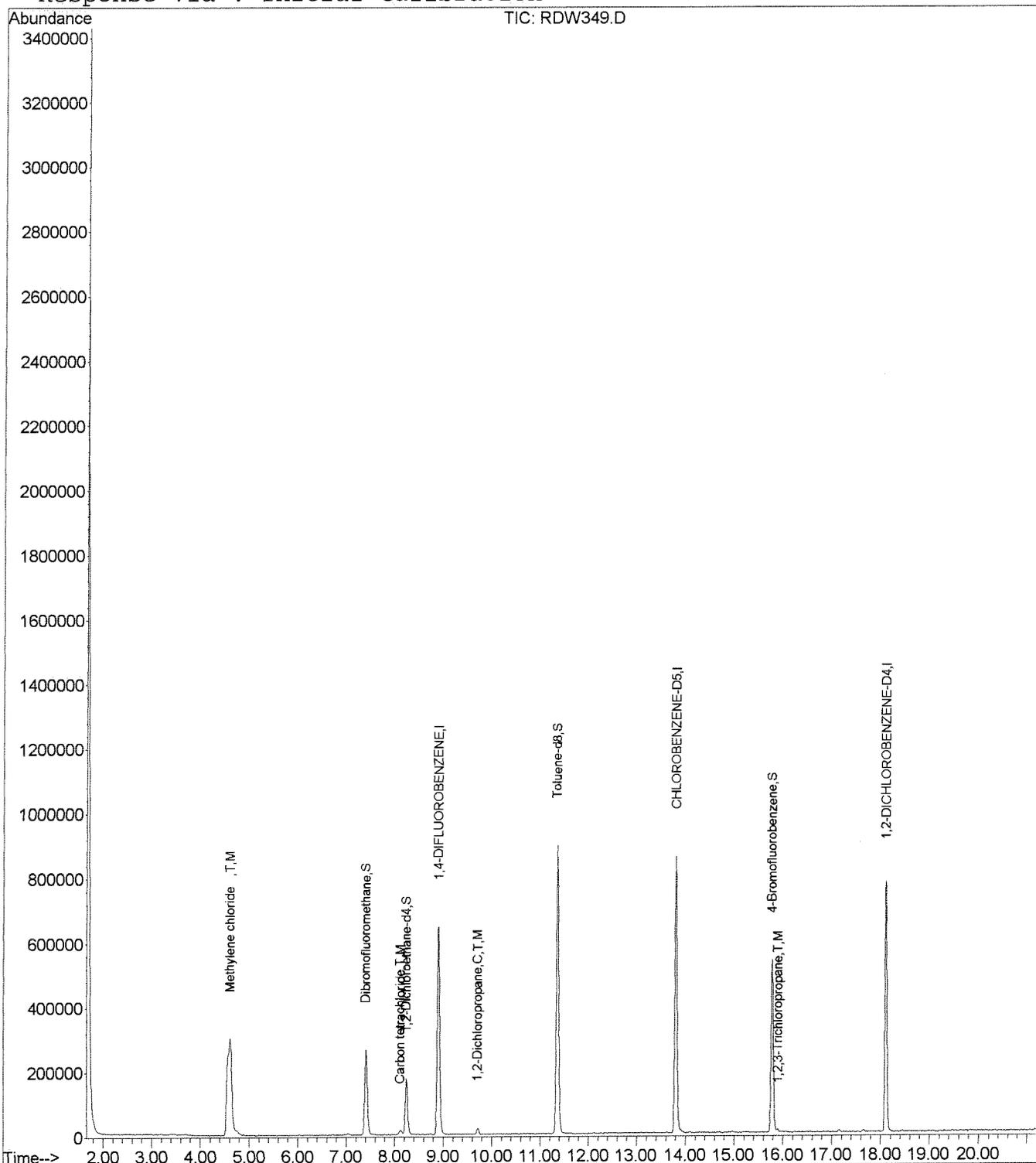
Quantitation Report

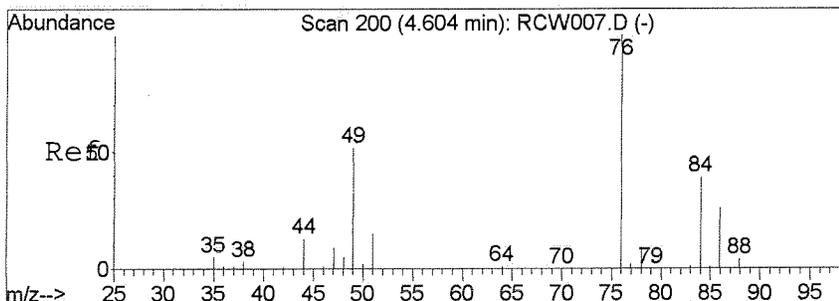
Data File : D:\HPCHEM\1\DATA\15D27\RDW349.D
Acq On : 27 Apr 2015 5:02 pm
Sample : 15D157-17 25mL
Misc : DF=1.0
MS Integration Params: RTE.P
Quant Time: Apr 29 12:36 2015

Vial: 6
Operator: WLau
Inst : T006
Multiplr: 1.00

Quant Results File: V006C03.RE

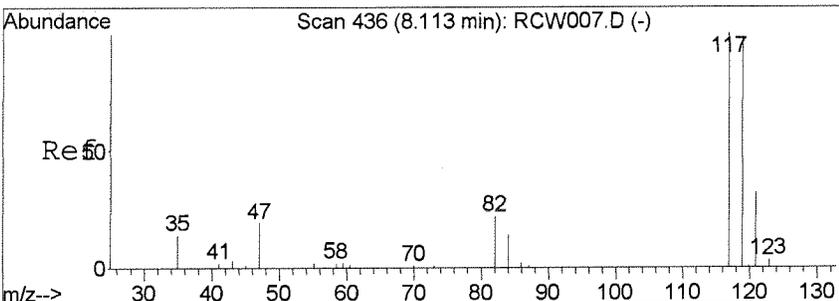
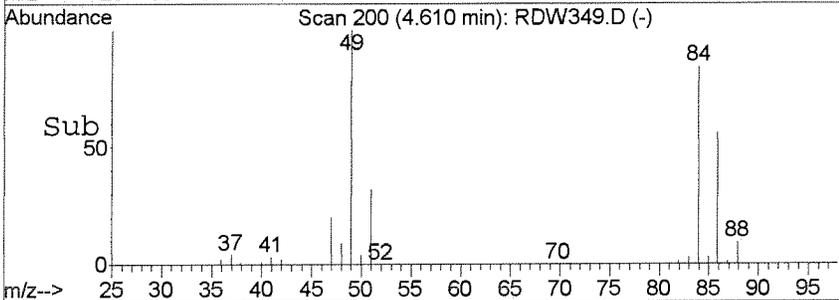
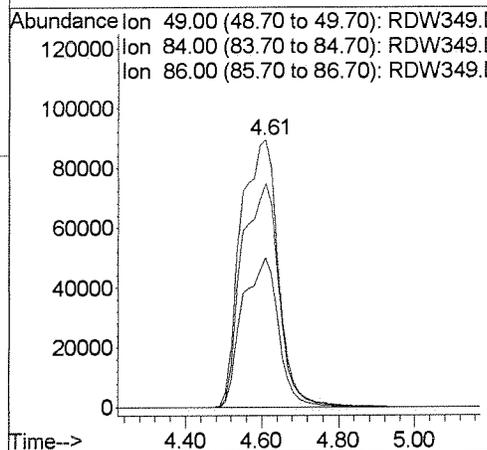
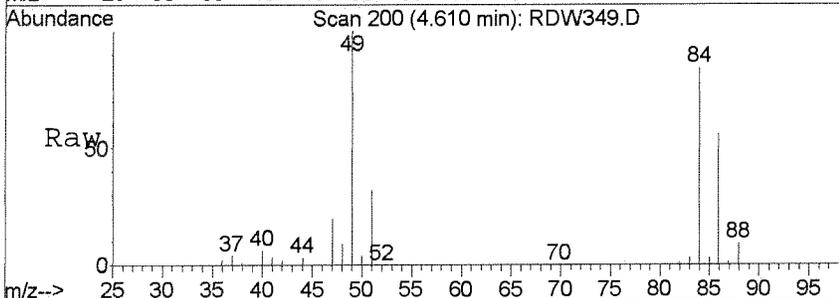
Method : D:\HPCHEM\1\METHODS\V006C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration





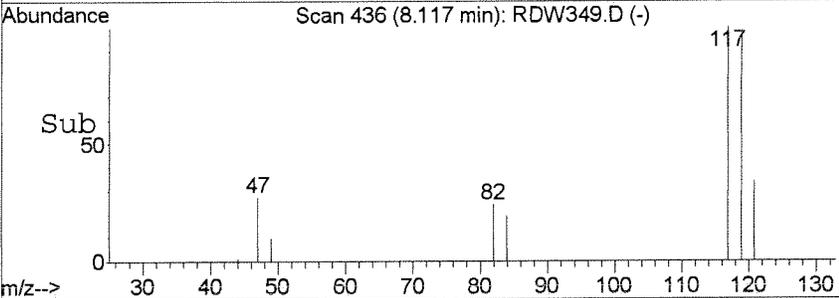
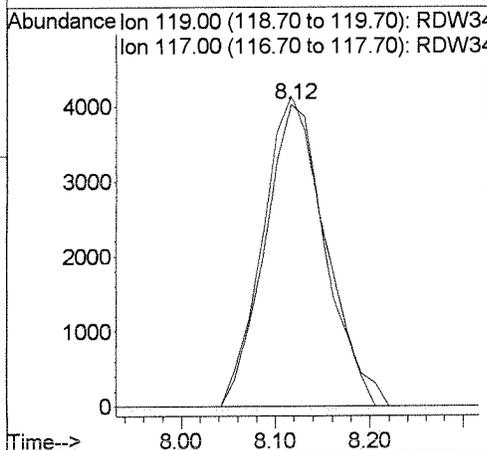
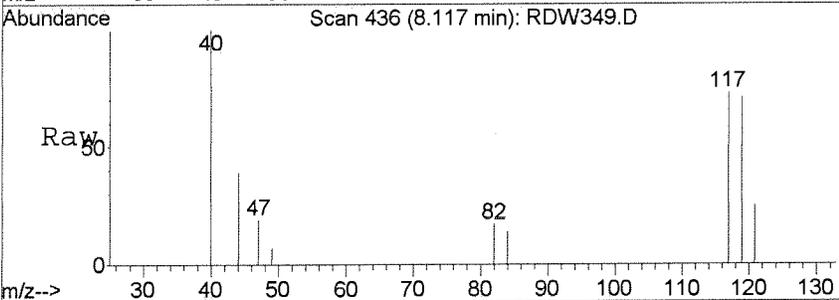
#17
 Methylene chloride
 Concen: 16.39 ug/l
 RT: 4.61 min Scan# 200
 Delta R.T. 0.01 min
 Lab File: RDW349.D
 Acq: 27 Apr 2015 5:02 pm

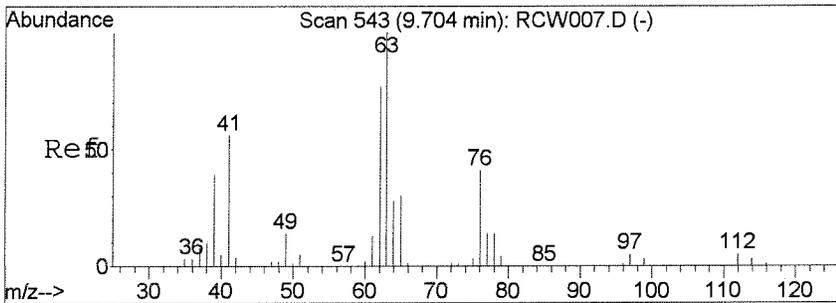
Tgt Ion	Resp	Lower	Upper
49	610974		
84	82.6	44.6	104.6
86	0.0	17.9	77.9#



#39
 Carbon tetrachloride
 Concen: 0.42 ug/l
 RT: 8.12 min Scan# 436
 Delta R.T. 0.00 min
 Lab File: RDW349.D
 Acq: 27 Apr 2015 5:02 pm

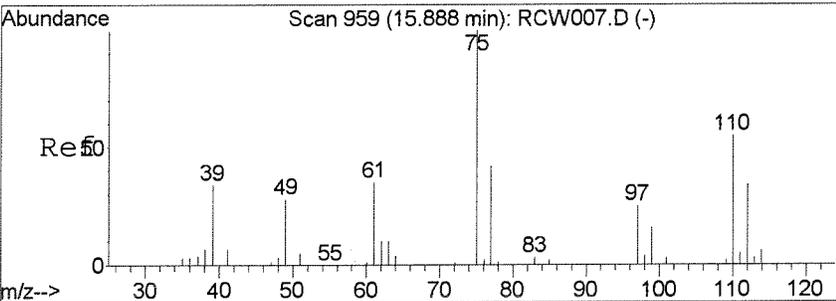
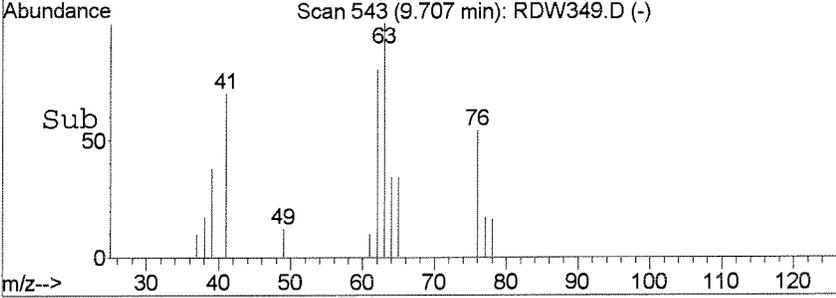
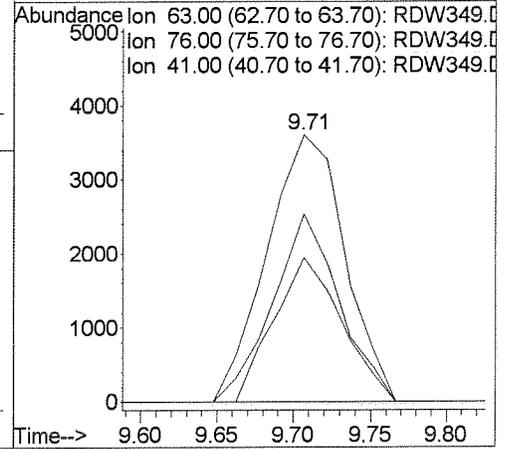
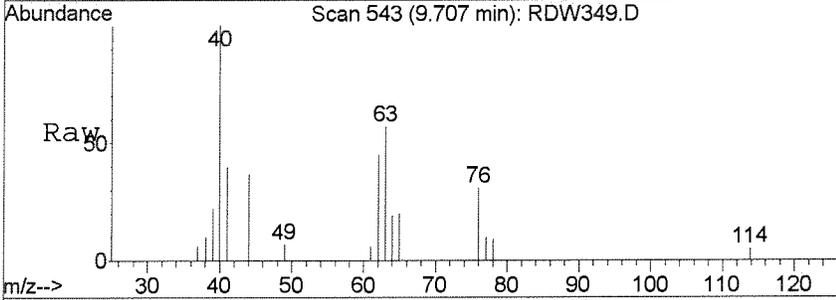
Tgt Ion	Resp	Lower	Upper
119	17812		
117	107.6	73.2	133.2





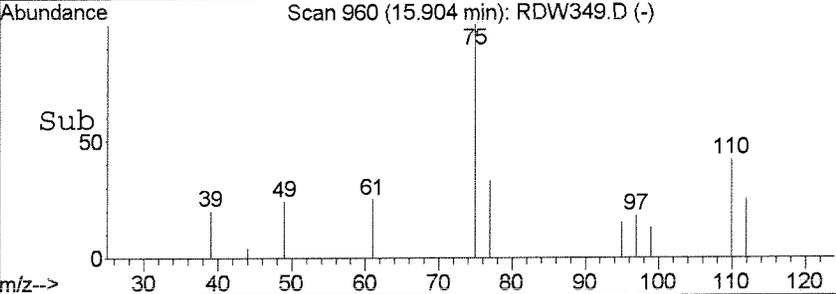
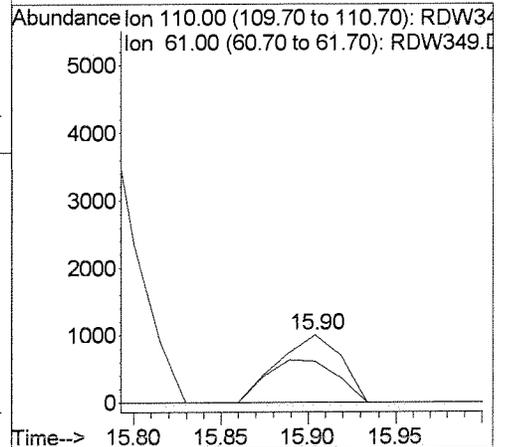
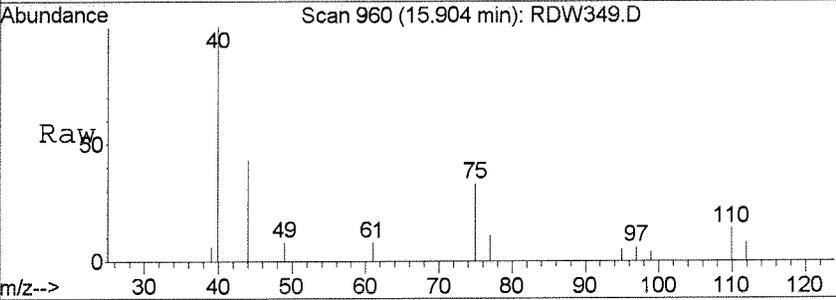
#46
 1,2-Dichloropropane
 Concen: 0.40 ug/l
 RT: 9.71 min Scan# 543
 Delta R.T. 0.00 min
 Lab File: RDW349.D
 Acq: 27 Apr 2015 5:02 pm

Tgt Ion	Resp	Lower	Upper
63	12638		
76	47.2	12.1	72.1
41	60.4	25.4	85.4



#77
 1,2,3-Trichloropropane
 Concen: 0.44 ug/l
 RT: 15.90 min Scan# 960
 Delta R.T. 0.02 min
 Lab File: RDW349.D
 Acq: 27 Apr 2015 5:02 pm

Tgt Ion	Resp	Lower	Upper
110	2552		
61	69.9	36.1	96.1



Data File : D:\HPCHEM\1\DATA\15D27\RDW350.D
 Acq On : 27 Apr 2015 5:34 pm
 Sample : 15D157-17M 25mL
 Misc : DF=1.0

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

MS Integration Params: RTE.P
 Quant Time: Apr 30 17:33 2015

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.90	114	1053614	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	13.80	117	965521	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.11	152	416805	10.00	ug/l	0.00

System Monitoring Compounds

34) Dibromofluoromethane	7.40	111	318539	10.17	ug/l	0.00
Spiked Amount	10.000		Recovery	=	101.70%	
41) 1,2-Dichloroethane-d4	8.25	65	234462	10.04	ug/l	0.01
Spiked Amount	10.000		Recovery	=	100.40%	
54) Toluene-d8	11.37	98	1105577	9.20	ug/l	0.00
Spiked Amount	10.000		Recovery	=	92.00%	
76) 4-Bromofluorobenzene	15.78	95	408841	8.99	ug/l	0.00
Spiked Amount	10.000		Recovery	=	89.90%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.81	85	329795	9.50	ug/l	100
3) Chloromethane	2.06	50	257241	7.59	ug/l	98
4) Vinyl chloride	2.20	62	229736	8.11	ug/l	99
5) Bromomethane	2.69	94	203433	9.28	ug/l	98
6) Chloroethane	2.81	64	158521	8.84	ug/l	97
7) Dichlorofluoromethane	2.84	67	517511	9.71	ug/l	99
8) Trichlorofluoromethane	3.09	101	400977	11.12	ug/l	99
9) Acrolein	3.61	56	46150	35.37	ug/l	96
10) 1,1,2-Trichloro-1,2,2-trif	3.67	151	186045	10.25	ug/l	100
11) Acetone	3.68	43	124779	47.75	ug/l	94
12) 1,1-Dichloroethene	3.89	61	457367	8.73	ug/l	99
13) tert-Butyl alcohol	3.98	59	56658	52.43	ug/l	86
16) Iodomethane	4.34	142	495371	9.29	ug/l	96
17) Methylene chloride	4.60	49	690076	17.83	ug/l	78
18) Carbon disulfide	4.57	76	1167843	10.40	ug/l	100
19) Acrylonitrile	4.75	53	190711	46.05	ug/l	98
20) tert-Butyl methyl ether (M	4.80	73	504182	10.43	ug/l	96
21) trans-1,2-Dichloroethene	5.01	61	441206	8.78	ug/l	96
22) Isopropyl ether (DIPE)	5.57	45	982196	9.11	ug/l	94
23) Vinyl acetate	5.76	43	325068	8.55	ug/l	97
24) 1,1-Dichloroethane	5.73	63	575750	9.55	ug/l	100
26) tert-Butyl ethyl ether (ET	6.27	59	779709	9.76	ug/l	95
27) 2-Butanone	6.48	43	269038	43.82	ug/l	96
28) 2,2-Dichloropropane	6.69	77	313812	10.06	ug/l	98
29) cis-1,2-Dichloroethene	6.77	96	361065	9.91	ug/l	95
30) Chloroform	7.04	83	595355	10.31	ug/l	98
32) Bromochloromethane	7.31	49	224901	9.22	ug/l	90

(#) = qualifier out of range (m) = manual integration
 RDW350.D VO06C03.M Thu Apr 30 17:33:39 2015

Data File : D:\HPCHEM\1\DATA\15D27\RDW350.D
 Acq On : 27 Apr 2015 5:34 pm
 Sample : 15D157-17M 25mL
 Misc : DF=1.0

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

MS Integration Params: RTE.P

Quant Time: Apr 30 17:33 2015

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)

Title : METHOD 8260

Last Update : Thu Mar 05 10:12:48 2015

Response via : Initial Calibration

DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
33) Tetrahydrofuran	7.37	42	29989	8.34	ug/l	98
35) 1,1,1-Trichloroethane	7.70	97	500160	10.65	ug/l	98
38) 1,1-Dichloropropene	7.96	110	174914	9.52	ug/l	99
39) Carbon tetrachloride	8.11	119	476001	10.94	ug/l	100
40) tert-Amyl methyl ether (TA	8.19	87	140317	10.18	ug/l	96
42) 1,2-Dichloroethane	8.39	62	291578	10.41	ug/l	100
43) Benzene	8.41	78	1174679	9.61	ug/l	99
44) Trichloroethene	9.42	130	391041	10.02	ug/l	98
46) 1,2-Dichloropropane	9.70	63	327457	10.01	ug/l	97
47) 1,4-Dioxane	10.13	88	24314	202.26	ug/l	85
48) Bromodichloromethane	10.09	83	438947	10.55	ug/l	99
49) Dibromomethane	10.16	93	152717	11.05	ug/l	98
51) 4-Methyl-2-pentanone	10.65	43	765365	47.72	ug/l	94
52) cis-1,3-Dichloropropene	10.98	75	501373	10.15	ug/l	97
55) Toluene	11.49	91	1375078	9.55	ug/l	99
56) Ethyl methacrylate	11.80	69	241178	9.76	ug/l	95
57) trans-1,3-Dichloropropene	11.80	75	371329	9.94	ug/l	94
58) 1,1,2-Trichloroethane	12.05	97	197717	10.10	ug/l	100
59) 2-Hexanone	12.06	43	509422	47.18	ug/l	97
60) 1,3-Dichloropropane	12.45	76	370135	10.41	ug/l	99
61) Tetrachloroethene	12.54	164	334610	10.04	ug/l	98
62) Dibromochloromethane	12.87	129	285029	10.87	ug/l	98
64) 1,2-Dibromoethane	13.19	107	206281	10.64	ug/l	98
65) 1-Chlorohexane	13.46	91	644284	9.80	ug/l	98
66) Chlorobenzene	13.86	112	939451	10.53	ug/l	99
67) 1,1,1,2-Tetrachloroethane	13.94	131	319875	10.41	ug/l	99
68) Ethylbenzene	13.95	91	1653491	9.85	ug/l	99
69) m-Xylene & p-Xylene	14.09	91	2451756	20.19	ug/l	98
70) o-Xylene	14.78	91	1299114	10.53	ug/l	98
71) Styrene	14.84	104	971285	10.40	ug/l	99
72) Isopropylbenzene	15.36	105	1653441	10.41	ug/l	99
74) Bromoform	15.39	173	159735	9.75	ug/l	99
75) 1,1,2,2-Tetrachloroethane	15.66	83	237503	8.88	ug/l	100
77) 1,2,3-Trichloropropane	15.90	110	64486	10.01	ug/l	97
78) trans-1,4-Dichloro-2-buten	16.00	53	61051	8.62	ug/l	95
79) n-Propylbenzene	16.02	91	2141903	9.48	ug/l	99
80) Bromobenzene	16.09	156	365578	9.34	ug/l	99
81) 1,3,5-Trimethylbenzene	16.29	105	1300383	9.13	ug/l	99
82) 2-Chlorotoluene	16.32	91	1235609	9.04	ug/l	99
83) 4-Chlorotoluene	16.39	91	1104046	9.64	ug/l	99
84) tert-Butylbenzene	16.86	134	318900	9.25	ug/l	98

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

RDW350.D VO06C03.M Thu Apr 30 17:33:40 2015

Page 2

2054

Data File : D:\HPCHEM\1\DATA\15D27\RDW350.D
Acq On : 27 Apr 2015 5:34 pm
Sample : 15D157-17M 25mL
Misc : DF=1.0

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

MS Integration Params: RTE.P

Quant Time: Apr 30 17:33 2015

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)

Title : METHOD 8260

Last Update : Thu Mar 05 10:12:48 2015

Response via : Initial Calibration

DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
85) 1,2,4-Trimethylbenzene	16.92	105	1259257	9.00	ug/l	98
86) sec-Butylbenzene	17.19	105	1814637	9.03	ug/l	100
87) p-Isopropyltoluene	17.39	119	1497341	9.17	ug/l	100
88) 1,3-Dichlorobenzene	17.52	146	718624	9.67	ug/l	99
89) 1,4-Dichlorobenzene	17.67	146	709999	9.77	ug/l	100
90) n-Butylbenzene	17.93	91	1461653	9.33	ug/l	99
91) 1,2-Dichlorobenzene	18.14	146	594250	9.56	ug/l	99
92) 1,2-Dibromo-3-chloropropan	19.06	157	36728	8.86	ug/l	94
93) 1,2,4-Trichlorobenzene	20.03	180	399221	8.85	ug/l	99
94) Hexachlorobutadiene	20.18	225	257883	8.04	ug/l	100
95) Naphthalene	20.34	128	521209	8.42	ug/l	100
96) 1,2,3-Trichlorobenzene	20.62	180	295381	8.50	ug/l	99

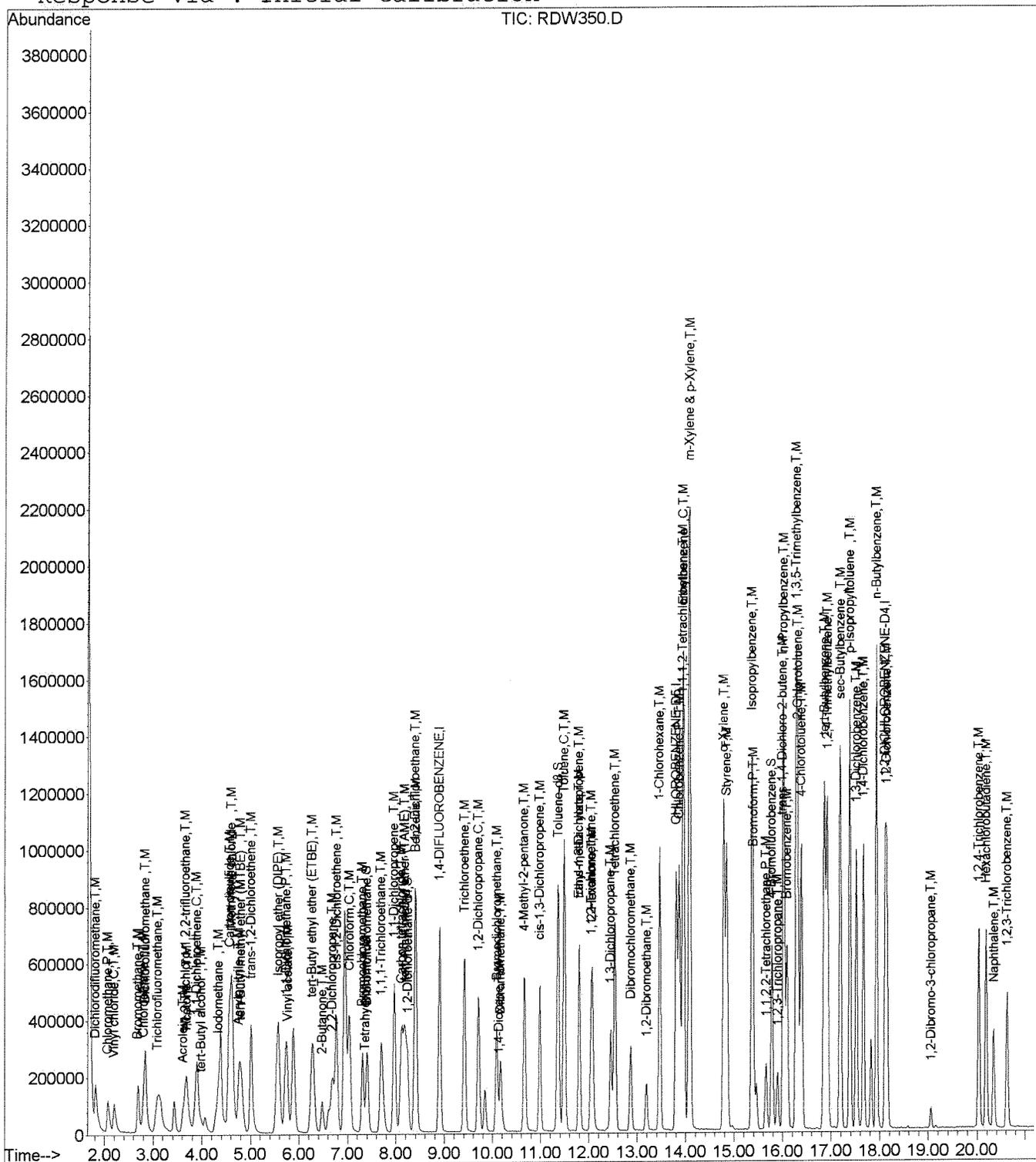
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D27\RDW350.D
Acq On : 27 Apr 2015 5:34 pm
Sample : 15D157-17M 25mL
Misc : DF=1.0
MS Integration Params: RTE.P
Quant Time: Apr 30 17:33 2015

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

Quant Results File: V006C03.RE

Method : D:\HPCHEM\1\METHODS\V006C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\15D27\RDW351.D
 Acq On : 27 Apr 2015 6:05 pm
 Sample : 15D157-17S 25mL
 Misc : DF=1.0

Vial: 8
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

MS Integration Params: RTE.P

Quant Time: Apr 30 17:34 2015

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)

Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.90	114	1055071	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	13.80	117	981277	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.11	152	420210	10.00	ug/l	0.00

System Monitoring Compounds

34) Dibromofluoromethane	7.40	111	323428	10.31	ug/l	0.00
Spiked Amount	10.000		Recovery	=	103.10%	
41) 1,2-Dichloroethane-d4	8.23	65	228106	9.75	ug/l	0.00
Spiked Amount	10.000		Recovery	=	97.50%	
54) Toluene-d8	11.35	98	1121706	9.18	ug/l	0.02
Spiked Amount	10.000		Recovery	=	91.80%	
76) 4-Bromofluorobenzene	15.78	95	412497	8.99	ug/l	0.00
Spiked Amount	10.000		Recovery	=	89.90%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.81	85	333250	9.58	ug/l	99
3) Chloromethane	2.06	50	269323	7.93	ug/l	99
4) Vinyl chloride	2.20	62	237039	8.36	ug/l	100
5) Bromomethane	2.70	94	213213	9.71	ug/l	98
6) Chloroethane	2.81	64	157537	8.77	ug/l	97
7) Dichlorofluoromethane	2.84	67	534151	10.00	ug/l	99
8) Trichlorofluoromethane	3.09	101	392454	10.87	ug/l	100
9) Acrolein	3.61	56	45994	35.20	ug/l	97
10) 1,1,2-Trichloro-1,2,2-trif	3.68	151	178284	9.81	ug/l	99
11) Acetone	3.70	43	136937	52.33	ug/l	92
12) 1,1-Dichloroethene	3.89	61	464997	8.87	ug/l	98
13) tert-Butyl alcohol	3.98	59	58822	54.36	ug/l	88
16) Iodomethane	4.34	142	502591	9.41	ug/l	96
17) Methylene chloride	4.62	49	942171	24.31	ug/l	77
18) Carbon disulfide	4.57	76	1210038	10.76	ug/l	99
19) Acrylonitrile	4.75	53	192736	46.48	ug/l	99
20) tert-Butyl methyl ether (M	4.80	73	511060	10.56	ug/l	96
21) trans-1,2-Dichloroethene	5.01	61	453976	9.02	ug/l	96
22) Isopropyl ether (DIPE)	5.57	45	984691	9.12	ug/l	93
23) Vinyl acetate	5.76	43	308214	8.10	ug/l	98
24) 1,1-Dichloroethane	5.72	63	564523	9.35	ug/l	99
26) tert-Butyl ethyl ether (ET	6.27	59	787271	9.84	ug/l	95
27) 2-Butanone	6.48	43	278028	45.22	ug/l	95
28) 2,2-Dichloropropane	6.69	77	308988	9.89	ug/l	99
29) cis-1,2-Dichloroethene	6.77	96	368249	10.09	ug/l	95
30) Chloroform	7.04	83	600145	10.38	ug/l	98
32) Bromochloromethane	7.31	49	228374	9.35	ug/l	89

(#) = qualifier out of range (m) = manual integration
 RDW351.D VO06C03.M Thu Apr 30 17:34:05 2015

Data File : D:\HPCHEM\1\DATA\15D27\RDW351.D
 Acq On : 27 Apr 2015 6:05 pm
 Sample : 15D157-17S 25mL
 Misc : DF=1.0

Vial: 8
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

MS Integration Params: RTE.P

Quant Time: Apr 30 17:34 2015

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)

Title : METHOD 8260

Last Update : Thu Mar 05 10:12:48 2015

Response via : Initial Calibration

DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
33) Tetrahydrofuran	7.37	42	32791	9.17	ug/l	98
35) 1,1,1-Trichloroethane	7.71	97	486537	10.34	ug/l	97
38) 1,1-Dichloropropene	7.96	110	173960	9.46	ug/l	99
39) Carbon tetrachloride	8.11	119	467996	10.74	ug/l	100
40) tert-Amyl methyl ether (TA)	8.19	87	142801	10.34	ug/l	96
42) 1,2-Dichloroethane	8.39	62	298794	10.65	ug/l	99
43) Benzene	8.41	78	1172210	9.57	ug/l	99
44) Trichloroethene	9.42	130	385897	9.87	ug/l	98
46) 1,2-Dichloropropane	9.70	63	334547	10.21	ug/l	97
47) 1,4-Dioxane	10.13	88	25645	213.04	ug/l	82
48) Bromodichloromethane	10.09	83	430639	10.34	ug/l	100
49) Dibromomethane	10.16	93	156109	11.28	ug/l	97
51) 4-Methyl-2-pentanone	10.67	43	779487	48.53	ug/l	94
52) cis-1,3-Dichloropropene	10.98	75	508069	10.27	ug/l	96
55) Toluene	11.49	91	1369693	9.36	ug/l	98
56) Ethyl methacrylate	11.80	69	246108	9.80	ug/l	94
57) trans-1,3-Dichloropropene	11.80	75	378601	9.97	ug/l	93
58) 1,1,2-Trichloroethane	12.05	97	204162	10.26	ug/l	99
59) 2-Hexanone	12.06	43	535138	48.76	ug/l	97
60) 1,3-Dichloropropane	12.45	76	373183	10.33	ug/l	99
61) Tetrachloroethene	12.54	164	317043	9.36	ug/l	99
62) Dibromochloromethane	12.87	129	282925	10.62	ug/l	98
64) 1,2-Dibromoethane	13.19	107	203737	10.34	ug/l	98
65) 1-Chlorohexane	13.46	91	601850	9.01	ug/l	97
66) Chlorobenzene	13.86	112	869975	9.59	ug/l	99
67) 1,1,1,2-Tetrachloroethane	13.94	131	309100	9.90	ug/l	100
68) Ethylbenzene	13.95	91	1592365	9.33	ug/l	98
69) m-Xylene & p-Xylene	14.09	91	2350265	19.04	ug/l	98
70) o-Xylene	14.78	91	1224907	9.76	ug/l	98
71) Styrene	14.84	104	884194	9.32	ug/l	98
72) Isopropylbenzene	15.36	105	1568893	9.72	ug/l	100
74) Bromoform	15.39	173	159179	9.64	ug/l	99
75) 1,1,2,2-Tetrachloroethane	15.66	83	238433	8.84	ug/l	100
77) 1,2,3-Trichloropropane	15.90	110	63802	9.82	ug/l	96
78) trans-1,4-Dichloro-2-buten	16.00	53	59847	8.38	ug/l	96
79) n-Propylbenzene	16.02	91	1994941	8.76	ug/l	99
80) Bromobenzene	16.09	156	352795	8.94	ug/l	99
81) 1,3,5-Trimethylbenzene	16.29	105	1252584	8.72	ug/l	98
82) 2-Chlorotoluene	16.32	91	1160382	8.42	ug/l	99
83) 4-Chlorotoluene	16.39	91	1061201	9.19	ug/l	99
84) tert-Butylbenzene	16.86	134	302968	8.72	ug/l	99

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

RDW351.D VO06C03.M Thu Apr 30 17:34:06 2015

Page 2

2058

Data File : D:\HPCHEM\1\DATA\15D27\RDW351.D
 Acq On : 27 Apr 2015 6:05 pm
 Sample : 15D157-17S 25mL
 Misc : DF=1.0

Vial: 8
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

MS Integration Params: RTE.P
 Quant Time: Apr 30 17:34 2015

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
85) 1,2,4-Trimethylbenzene	16.92	105	1204258	8.54	ug/l	89
86) sec-Butylbenzene	17.19	105	1729353	8.53	ug/l	99
87) p-Isopropyltoluene	17.39	119	1410681	8.57	ug/l	100
88) 1,3-Dichlorobenzene	17.52	146	682668	9.11	ug/l	99
89) 1,4-Dichlorobenzene	17.67	146	676193	9.23	ug/l	99
90) n-Butylbenzene	17.93	91	1420213	8.99	ug/l	99
91) 1,2-Dichlorobenzene	18.14	146	552033	8.81	ug/l	99
92) 1,2-Dibromo-3-chloropropan	19.06	157	35648	8.53	ug/l	96
93) 1,2,4-Trichlorobenzene	20.03	180	382183	8.40	ug/l	100
94) Hexachlorobutadiene	20.18	225	247123	7.64	ug/l	99
95) Naphthalene	20.34	128	510953	8.19	ug/l	100
96) 1,2,3-Trichlorobenzene	20.62	180	290267	8.28	ug/l	98

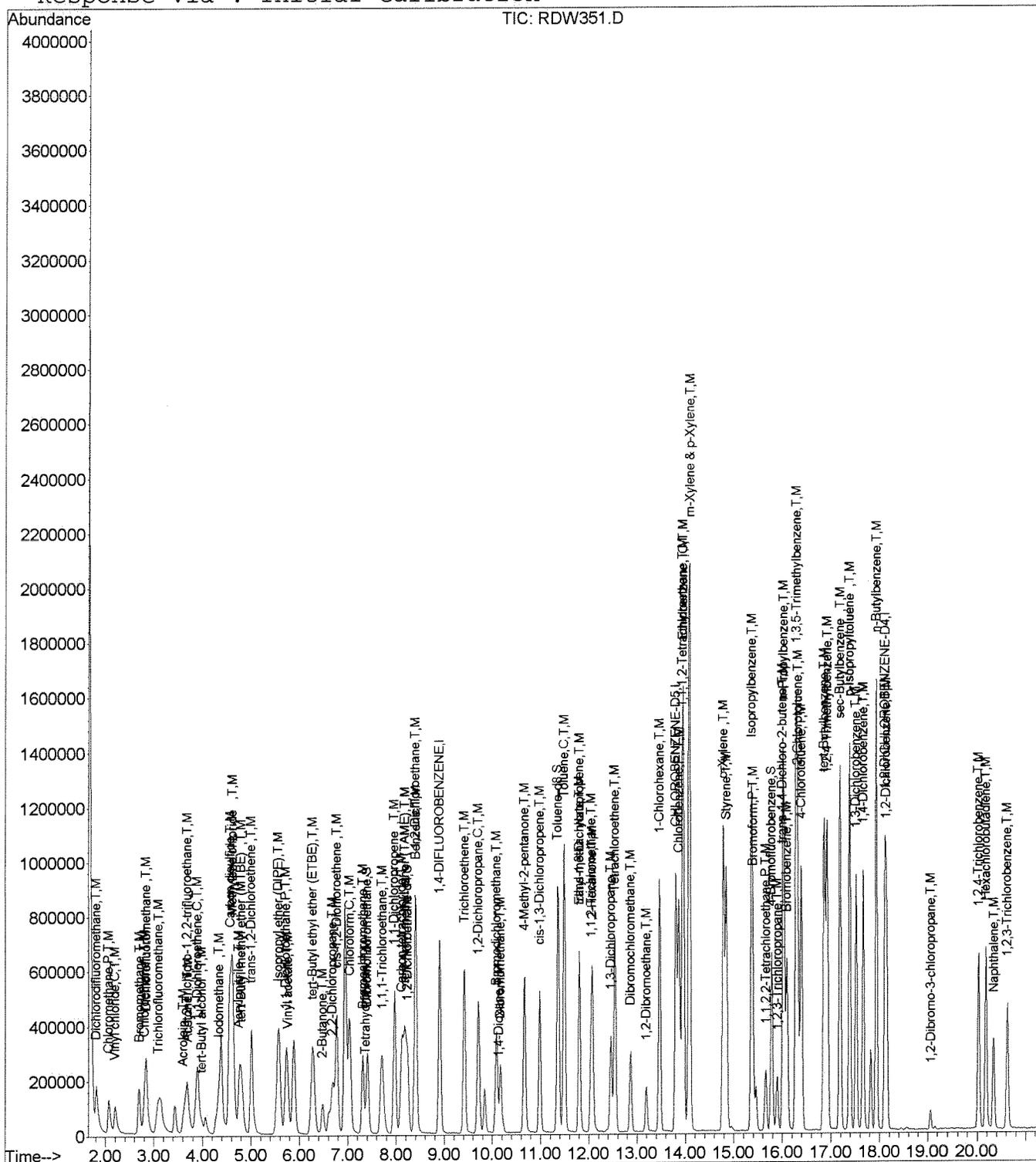
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D27\RDW351.D
Acq On : 27 Apr 2015 6:05 pm
Sample : 15D157-17S 25mL
Misc : DF=1.0
MS Integration Params: RTE.P
Quant Time: Apr 30 17:34 2015

Vial: 8
Operator: WLaU
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06C03.RE

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration



INITIAL CALIBRATION(S)

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :T006
 Beginning DateTime :03/03/15 10:20
 Spike Units :PPB
 IC File :RCW007

Column Spec :RTX502.2 ID :0.25MM
 Ending DateTime :03/03/15 15:16
 HPChem Method :V006C03

M	IDX	Parameters	10:20 RCW002	10:55 RCW003	11:29 RCW004	12:05 RCW005	12:40 RCW006	13:12 RCW007	13:44 RCW008	14:15 RCW009	14:46 RCW010	15:16 RCW011	Av_RRF	%_RSD	Av_Rt_M
1		1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	1	0	8.8965
2		Dichlorodifluoromethane	0.386	0.360	0.350	0.321	0.316	0.316	0.318	0.319	0.302	0.308	0.330	8.12	1.8151
3		Chloromethane	0.351	0.351	0.338	0.316	0.327	0.332	0.315	0.317	0.288	0.283	0.322	7.23	2.0501
4		Vinyl chloride	0.273	0.289	0.301	0.280	0.283	0.282	0.258	0.245	0.208	-----	0.269	10.45	2.1842
5		Bromomethane	0.208	0.219	0.223	0.211	0.208	0.212	0.214	0.210	0.191	0.186	0.208	5.43	2.6834
6		Chloroethane	0.181	0.170	0.182	0.176	0.171	0.180	0.175	0.170	0.155	0.143	0.170	7.25	2.7875
7		Dichlorofluoromethane	0.590	0.513	0.546	0.506	0.518	0.517	0.513	0.511	0.437	0.409	0.506	10.01	2.8231
8		Trichlorofluoromethane	0.317	0.360	0.358	0.345	0.343	0.355	0.354	0.345	0.325	0.321	0.342	4.64	3.0863
9		Acrolein	-----	-----	-----	0.013	0.014	0.012	0.013	0.012	0.011	0.011	0.012	8.00	3.6032
10		1,1,2-Trichloro-1,2,2-trifluoroethane	0.146	0.165	0.171	0.176	0.175	0.182	0.189	0.184	0.165	0.169	0.172	7.10	3.6542
11		Acetone	-----	-----	-----	0.030	0.027	0.025	0.023	0.023	0.022	0.022	0.025	12.54	3.6860
12		1,1-Dichloroethene	0.487	0.484	0.498	0.499	0.511	0.517	0.528	0.515	0.461	0.469	0.497	4.35	3.8743
13		tert-Butyl alcohol	-----	-----	0.011	0.011	0.012	0.011	0.010	0.010	0.009	0.009	0.010	9.36	3.9780
14		Acetonitrile	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	0.00	0.0000
15		Methyl acetate	-----	-----	0.126	0.107	0.104	0.098	0.089	0.087	0.085	-----	0.099	14.54	4.3388
16		Iodomethane	0.491	0.482	0.516	0.504	0.538	0.526	0.531	0.524	0.475	0.474	0.506	4.80	4.3203
17		Methylene chloride	0.422	0.385	0.395	0.372	0.383	0.374	0.360	0.354	0.321	0.308	0.367	9.20	4.5983
18		Carbon disulfide	1.147	1.084	1.114	1.123	1.086	1.076	1.075	1.054	0.972	0.926	1.066	6.36	4.5701
19		Acrylonitrile	0.036	0.040	0.041	0.041	0.042	0.041	0.039	0.039	0.038	0.036	0.039	5.64	4.7544
20		tert-Butyl methyl ether (MTBE)	0.468	0.454	0.475	0.468	0.487	0.485	0.456	0.467	0.414	0.414	0.459	5.63	4.7990
21		trans-1,2-Dichloroethene	0.482	0.453	0.473	0.481	0.511	0.509	0.490	0.489	0.448	0.432	0.477	5.40	5.0042
22		Isopropyl ether (DIPE)	1.020	1.032	1.008	1.019	1.089	1.091	1.068	1.041	0.952	0.913	1.023	5.52	5.5602
23		Vinyl acetate	-----	0.338	0.344	0.354	0.404	0.377	0.359	0.373	0.353	0.343	0.361	5.86	5.7623
24		1,1-Dichloroethane	0.567	0.581	0.567	0.576	0.613	0.592	0.584	0.582	0.534	0.523	0.572	4.64	5.7193
25		2-Butanol	-----	-----	0.011	0.009	0.010	0.009	0.009	0.009	0.010	0.010	0.010	5.62	6.1375
26		tert-Butyl ethyl ether (ETBE)	0.771	0.724	0.763	0.776	0.829	0.800	0.775	0.755	0.701	0.691	0.759	5.67	6.2753
27		2-Butanone	0.066	0.070	0.061	0.055	0.061	0.056	0.052	0.054	0.054	0.053	0.058	10.59	6.4761
28		2,2-Dichloropropane	-----	0.336	0.313	0.297	0.296	0.290	0.272	0.269	-----	-----	0.296	7.80	6.6858
29		cis-1,2-Dichloroethene	0.367	0.339	0.348	0.355	0.358	0.358	0.355	0.346	0.323	0.310	0.346	5.10	6.7704
30		Chloroform	0.607	0.577	0.569	0.551	0.570	0.562	0.543	0.542	0.487	0.473	0.548	7.42	7.0351
31		tert-Amyl alcohol	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	0.00	0.0000
32		Bromochloromethane	0.237	0.220	0.225	0.224	0.245	0.247	0.240	0.244	0.222	0.212	0.232	5.32	7.3042
33		Tetrahydrofuran	-----	-----	0.042	0.055	0.037	0.032	0.032	0.032	-----	-----	0.038	23.00	7.3721
34		Dibromofluoromethane	-----	-----	0.321	0.301	0.319	0.308	0.297	0.291	0.279	0.265	0.297	6.49	7.4012
35		1,1,1-Trichloroethane	0.473	0.482	0.472	0.462	0.445	0.458	0.451	0.442	0.395	0.380	0.446	7.50	7.6996
36		Cyclohexane	0.794	0.733	0.687	0.682	0.628	0.626	0.602	0.577	0.548	-----	0.653	12.01	7.7082
37		2,2,4-Trimethylpentane	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	0.00	0.0000
38		1,1-Dichloropropene	0.185	0.172	0.167	0.176	0.178	0.176	0.181	0.180	0.169	0.160	0.174	4.32	7.9628
39		Carbon tetrachloride	0.427	0.392	0.412	0.419	0.419	0.428	0.425	0.430	0.391	0.387	0.413	4.04	8.1130
40		tert-Amyl methyl ether (TAME)	0.150	0.134	0.136	0.132	0.141	0.135	0.125	0.132	0.115	0.110	0.131	8.97	8.1858
41		1,2-Dichloroethane-d4	-----	-----	0.247	0.218	0.236	0.226	0.212	0.210	0.203	-----	0.222	6.98	8.2340
42		1,2-Dichloroethane	0.258	0.255	0.271	0.264	0.296	0.278	0.274	0.276	0.247	0.240	0.266	6.19	8.3910
43		Benzene	1.211	1.200	1.213	1.205	1.228	1.180	1.194	1.178	1.024	0.974	1.161	7.52	8.4014
44		Trichloroethene	0.361	0.368	0.357	0.366	0.376	0.383	0.393	0.399	0.361	0.341	0.370	4.75	9.4124
45		Methylcyclohexane	0.728	0.745	0.692	0.674	0.669	0.663	0.628	0.614	0.593	0.544	0.655	9.38	9.4971
46		1,2-Dichloropropane	0.311	0.305	0.309	0.316	0.325	0.324	0.323	0.324	0.294	0.274	0.311	5.28	9.7067
47		1,4-Dioxane	-----	-----	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	7.48	10.1368
48		Bromodichloromethane	0.423	0.400	0.401	0.394	0.412	0.404	0.395	0.403	0.363	0.353	0.395	5.35	10.0814
49		Dibromomethane	0.128	0.123	0.130	0.130	0.141	0.138	0.133	0.136	0.126	0.126	0.131	4.38	10.1646
50		2-Chloroethyl vinyl ether	-----	0.059	0.064	0.064	0.073	0.070	0.070	0.072	0.070	0.069	0.068	6.79	10.6190
51		4-Methyl-2-pentanone	0.137	0.158	0.157	0.161	0.173	0.157	0.148	0.149	0.146	0.136	0.152	7.34	10.6582
52		cis-1,3-Dichloropropene	0.487	0.459	0.439	0.461	0.502	0.501	0.484	0.490	0.443	0.423	0.469	5.91	10.9824
53		CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	1	0	13.8071
54		Toluene-d8	1.621	1.087	1.340	1.245	1.306	1.267	1.222	1.155	1.155	1.049	1.245	12.98	11.3615
55		Toluene	1.644	1.607	1.537	1.535	1.573	1.536	1.471	1.426	1.345	1.246	1.492	8.22	11.4893
56		Ethyl methacrylate	0.247	0.246	0.270	0.254	0.296	0.260	0.254	0.259	0.242	0.231	0.256	6.97	11.8030
57		trans-1,3-Dichloropropene	0.405	0.368	0.378	0.392	0.413	0.395	0.396	0.393	0.372	0.359	0.387	4.47	11.8001
58		1,1,2-Trichloroethane	0.227	0.209	0.206	0.201	0.215	0.205	0.197	0.197	0.189	0.182	0.203	6.37	12.0409

See
 3/6/15

2069

5	59	2-Hexanone	0.124	0.127	0.113	0.114	0.119	0.110	0.105	0.105	0.105	0.096	0.112	8.48	12.0721	
	60	1,3-Dichloropropane	0.358	0.378	0.353	0.365	0.381	0.382	0.379	0.381	0.361	0.343	0.368	3.79	12.4557	
	61	Tetrachloroethene	0.345	0.335	0.352	0.354	0.354	0.347	0.354	0.351	0.338	0.321	0.345	3.15	12.5390	
	62	Dibromochloromethane	0.259	0.254	0.263	0.269	0.292	0.285	0.276	0.282	0.273	0.264	0.272	4.48	12.8661	
	63	2-Ethyl-1-butanol	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	0.00	0.0000	
	64	1,2-Dibromoethane	0.186	0.186	0.191	0.194	0.217	0.209	0.206	0.214	0.204	0.200	0.201	5.54	13.1887	
	65	1-Chlorohexane	0.735	0.703	0.664	0.699	0.692	0.683	0.698	0.684	0.654	0.594	0.681	5.55	13.4682	
	66	Chlorobenzene	0.966	0.955	0.917	0.920	0.960	0.953	0.948	0.932	0.868	0.821	0.924	5.03	13.8696	
	67	1,1,1,2-Tetrachloroethane	0.318	0.330	0.327	0.333	0.332	0.326	0.320	0.317	0.299	0.281	0.318	5.19	13.9439	
	68	Ethylbenzene	1.862	1.847	1.751	1.775	1.764	1.755	1.704	1.656	1.537	-----	1.739	5.68	13.9558	
	2	69	m-Xylene & p-Xylene	1.389	1.352	1.317	1.284	1.263	1.254	1.229	1.171	1.060	-----	1.258	7.85	14.0797
		70	o-Xylene	1.391	1.320	1.312	1.303	1.304	1.300	1.288	1.280	1.207	1.079	1.278	6.49	14.7839
		71	Styrene	1.047	0.991	0.975	0.983	1.004	0.993	0.971	0.967	0.918	0.822	0.967	6.23	14.8478
		72	Isopropylbenzene	1.768	1.752	1.676	1.703	1.705	1.668	1.688	1.647	1.500	1.342	1.645	7.85	15.3712
		73	1,2-DICHLOROENZENE-D4	1	1	1	1	1	1	1	1	1	1	0	18.1127	
		74	Bromoform	0.349	0.394	0.385	0.391	0.418	0.409	0.398	0.407	0.396	0.384	0.393	4.78	15.3950
		75	1,1,2,2-Tetrachloroethane	0.801	0.730	0.652	0.610	0.615	0.620	0.596	0.619	0.591	0.579	0.642	10.98	15.6551
		76	4-Bromofluorobenzene	-----	1.089	1.217	1.072	1.166	1.098	1.102	1.059	1.049	0.971	1.092	6.40	15.7796
		77	1,2,3-Trichloropropane	0.159	0.136	0.153	0.151	0.162	0.164	0.158	0.156	0.154	0.152	0.155	5.13	15.8960
		78	trans-1,4-Dichloro-2-butene	0.214	0.172	0.163	0.165	0.168	0.166	0.166	0.170	0.162	0.153	0.170	9.63	16.0105
		79	n-Propylbenzene	5.959	5.640	5.416	5.540	5.406	5.487	5.629	5.491	5.088	4.565	5.422	6.87	16.0253
		80	Bromobenzene	0.965	0.953	0.899	0.936	0.947	0.961	0.946	0.967	0.928	0.891	0.939	2.81	16.0923
		81	1,3,5-Trimethylbenzene	3.918	3.554	3.475	3.439	3.479	3.446	3.534	3.390	3.101	2.843	3.418	8.29	16.2826
		82	2-Chlorotoluene	3.897	3.531	3.190	3.485	3.480	3.220	3.240	3.117	2.862	2.780	3.280	10.11	16.3108
		83	4-Chlorotoluene	3.162	2.798	2.956	2.549	2.604	2.809	2.835	2.796	2.638	2.335	2.748	8.35	16.3881
		84	tert-Butylbenzene	0.843	0.816	0.817	0.841	0.833	0.873	0.840	0.846	0.805	0.759	0.827	3.70	16.8639
		85	1,2,4-Trimethylbenzene	3.843	3.521	3.376	3.448	3.411	3.388	3.307	3.369	3.074	2.817	3.355	8.01	16.9219
		86	sec-Butylbenzene	5.415	5.114	4.856	4.919	4.830	4.923	4.975	4.782	4.430	3.995	4.824	7.94	17.1880
		87	p-Isopropyltoluene	4.177	3.966	3.980	3.958	3.936	4.046	4.051	4.024	3.717	3.338	3.919	6.00	17.3857
		88	1,3-Dichlorobenzene	1.961	1.766	1.735	1.764	1.794	1.824	1.831	1.839	1.685	1.634	1.783	5.07	17.5195
		89	1,4-Dichlorobenzene	1.872	1.761	1.703	1.774	1.774	1.765	1.758	1.789	1.661	1.582	1.744	4.52	17.6667
		90	n-Butylbenzene	4.207	3.988	3.694	3.797	3.821	3.811	3.867	3.763	3.487	3.158	3.759	7.48	17.9343
		91	1,2-Dichlorobenzene	1.611	1.434	1.475	1.467	1.535	1.532	1.522	1.536	1.420	1.382	1.491	4.58	18.1454
		92	1,2-Dibromo-3-chloropropane	-----	0.088	0.096	0.094	0.102	0.101	0.098	0.104	0.107	0.106	0.099	6.33	19.0587
		93	1,2,4-Trichlorobenzene	1.078	1.000	0.984	1.009	1.080	1.113	1.133	1.198	1.129	1.103	1.083	6.25	20.0291
		94	Hexachlorobutadiene	0.782	0.730	0.726	0.765	0.758	0.785	0.800	0.818	0.777	0.758	0.770	3.74	20.1808
		95	Naphthalene	1.492	1.405	1.422	1.447	1.548	1.530	1.476	1.544	1.528	1.457	1.485	3.49	20.3369
		96	1,2,3-Trichlorobenzene	0.846	0.788	0.785	0.790	0.859	0.868	0.841	0.891	0.846	0.827	0.834	4.35	20.6238

Spike Amount = Nominal Amount * M

Ave_%RSD : 6.9

Max_%RSD : 23

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15

Resp_Ratio = x0 + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
33	Tetrahydrofuran	0.00219	0.03151	0.9953

5
3/6/15

Compound List Report TO06

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 Total Cpnds : 96

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-DIFLUOROBENZENE	114	8.90	1.000	A	1	A	B
2	T	Dichlorodifluoromethane	85	1.82	0.205	A	1	A	B
3	T	Chloromethane	50	2.05	0.230	A	1	A	B
4	T	Vinyl chloride	62	2.18	0.245	A	1	A	B
5	T	Bromomethane	94	2.69	0.302	A	1	A	B
6	T	Chloroethane	64	2.79	0.313	A	2	A	B
7	T	Dichlorofluoromethane	67	2.83	0.318	A	1	A	B
8	T	Trichlorofluoromethane	101	3.09	0.347	A	1	A	B
9	T	Acrolein	56	3.59	0.404	A	1	A	B
10	T	1,1,2-Trichloro-1,2,2-trifluor	151	3.67	0.412	A	1	A	B
11	T	Acetone	43	3.68	0.414	A	2	A	B
12	T	1,1-Dichloroethene	61	3.88	0.435	A	2	A	B
13	T	tert-Butyl alcohol	59	3.98	0.447	A	1	A	B
14	T	Acetonitrile	41	0.00	0.000	A	2	A	B
15	T	Methyl acetate	43	4.34	0.487	A	1	A	B
16	T	Iodomethane	142	4.32	0.486	A	1	A	B
17	T	Methylene chloride	49	4.60	0.517	A	2	A	B
18	T	Carbon disulfide	76	4.57	0.514	A	1	A	B
19	T	Acrylonitrile	53	4.75	0.534	A	2	A	B
20	T	tert-Butyl methyl ether (MTBE)	73	4.81	0.541	A	1	A	B
21	T	trans-1,2-Dichloroethene	61	5.01	0.562	A	2	A	B
22	T	Isopropyl ether (DIPE)	45	5.56	0.624	A	1	A	B
23	T	Vinyl acetate	43	5.76	0.648	A	1	A	B
24	T	1,1-Dichloroethane	63	5.72	0.643	A	2	A	B
25	T	2-Butanol	45	6.13	0.689	A	1	A	B
26	T	tert-Butyl ethyl ether (ETBE)	59	6.27	0.704	A	1	A	B
27	T	2-Butanone	43	6.48	0.728	A	1	A	B
28	T	2,2-Dichloropropane	77	6.68	0.751	A	2	A	B
29	T	cis-1,2-Dichloroethene	96	6.77	0.761	A	2	A	B
30	T	Chloroform	83	7.04	0.791	A	2	A	B
31	T	tert-Amyl alcohol	59	0.00	0.000	A	2	A	B
32	T	Bromochloromethane	49	7.31	0.821	A	2	A	B
33	T	Tetrahydrofuran	42	7.37	0.828	L	2	A	B
34	S	Dibromofluoromethane	111	7.40	0.831	A	2	A	B
35	T	1,1,1-Trichloroethane	97	7.71	0.866	A	2	A	B
36	T	Cyclohexane	56	7.71	0.866	A	2	A	B
37	T	2,2,4-Trimethylpentane	57	0.00	0.000	A	3	A	B
38	T	1,1-Dichloropropene	110	7.96	0.895	A	1	A	B
39	T	Carbon tetrachloride	119	8.11	0.911	A	1	A	B
40	T	tert-Amyl methyl ether (TAME)	87	8.19	0.920	A	2	A	B
41	S	1,2-Dichloroethane-d4	65	8.23	0.925	A	1	A	B
42	T	1,2-Dichloroethane	62	8.40	0.943	A	1	A	B
43	T	Benzene	78	8.41	0.945	A	2	A	B
44	T	Trichloroethene	130	9.41	1.057	A	3	A	B
45	T	Methylcyclohexane	83	9.50	1.067	A	2	A	B
46	T	1,2-Dichloropropane	63	9.70	1.090	A	2	A	B
47	T	1,4-Dioxane	88	10.13	1.139	A	1	A	B
48	T	Bromodichloromethane	83	10.08	1.132	A	1	A	B
49	T	Dibromomethane	93	10.16	1.142	A	2	A	B
50	T	2-Chloroethyl vinyl ether	63	10.61	1.192	A	2	A	B
51	T	4-Methyl-2-pentanone	43	10.65	1.197	A	3	A	B
52	T	cis-1,3-Dichloropropene	75	10.98	1.234	A	3	A	B

53	I	CHLORO BENZENE-D5	117	13.81	1.000	A	2	A	B
54	S	Toluene-d8	98	11.37	0.823	A	1	A	B
55	T	Toluene	91	11.49	0.832	A	1	A	B
56	T	Ethyl methacrylate	69	11.80	0.855	A	2	A	B
57	T	trans-1,3-Dichloropropene	75	11.80	0.855	A	2	A	B
58	T	1,1,2-Trichloroethane	97	12.04	0.872	A	3	A	B
59	T	2-Hexanone	43	12.07	0.874	A	2	A	B
60	T	1,3-Dichloropropane	76	12.45	0.902	A	1	A	B
61	T	Tetrachloroethene	164	12.54	0.908	A	3	A	B
62	T	Dibromochloromethane	129	12.87	0.932	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	13.18	0.955	A	1	A	B
65	T	1-Chlorohexane	91	13.46	0.975	A	3	A	B
66	T	Chlorobenzene	112	13.87	1.004	A	3	A	B
67	T	1,1,1,2-Tetrachloroethane	131	13.94	1.010	A	3	A	B
68	T	Ethylbenzene	91	13.96	1.011	A	1	A	B
69	T	m-Xylene & p-Xylene	91	14.07	1.019	A	1	A	B
70	T	o-Xylene	91	14.79	1.071	A	1	A	B
71	T	Styrene	104	14.85	1.075	A	2	A	B
72	T	Isopropylbenzene	105	15.37	1.113	A	3	A	B
73	I	1,2-DICHLORO BENZENE-D4	152	18.12	1.000	A	1	A	B
74	T	Bromoform	173	15.40	0.850	A	2	A	B
75	T	1,1,2,2-Tetrachloroethane	83	15.65	0.864	A	1	A	B
76	S	4-Bromofluorobenzene	95	15.78	0.871	A	2	A	B
77	T	1,2,3-Trichloropropane	110	15.89	0.877	A	1	A	B
78	T	trans-1,4-Dichloro-2-butene	53	16.01	0.883	A	1	A	B
79	T	n-Propylbenzene	91	16.02	0.884	A	2	A	B
80	T	Bromobenzene	156	16.10	0.888	A	2	A	B
81	T	1,3,5-Trimethylbenzene	105	16.27	0.898	A	2	A	B
82	T	2-Chlorotoluene	91	16.30	0.900	A	1	A	B
83	T	4-Chlorotoluene	91	16.39	0.905	A	1	A	B
84	T	tert-Butylbenzene	134	16.87	0.931	A	2	A	B
85	T	1,2,4-Trimethylbenzene	105	16.91	0.934	A	1	A	B
86	T	sec-Butylbenzene	105	17.18	0.948	A	1	A	B
87	T	p-Isopropyltoluene	119	17.39	0.960	A	2	A	B
88	T	1,3-Dichlorobenzene	146	17.52	0.967	A	2	A	B
89	T	1,4-Dichlorobenzene	146	17.67	0.975	A	2	A	B
90	T	n-Butylbenzene	91	17.94	0.990	A	2	A	B
91	T	1,2-Dichlorobenzene	146	18.15	1.002	A	2	A	B
92	T	1,2-Dibromo-3-chloropropane	157	19.06	1.052	A	2	A	B
93	T	1,2,4-Trichlorobenzene	180	20.04	1.106	A	2	A	B
94	T	Hexachlorobutadiene	225	20.18	1.114	A	2	A	B
95	T	Naphthalene	128	20.33	1.122	A	1	A	B
96	T	1,2,3-Trichlorobenzene	180	20.63	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

VO06C03.M

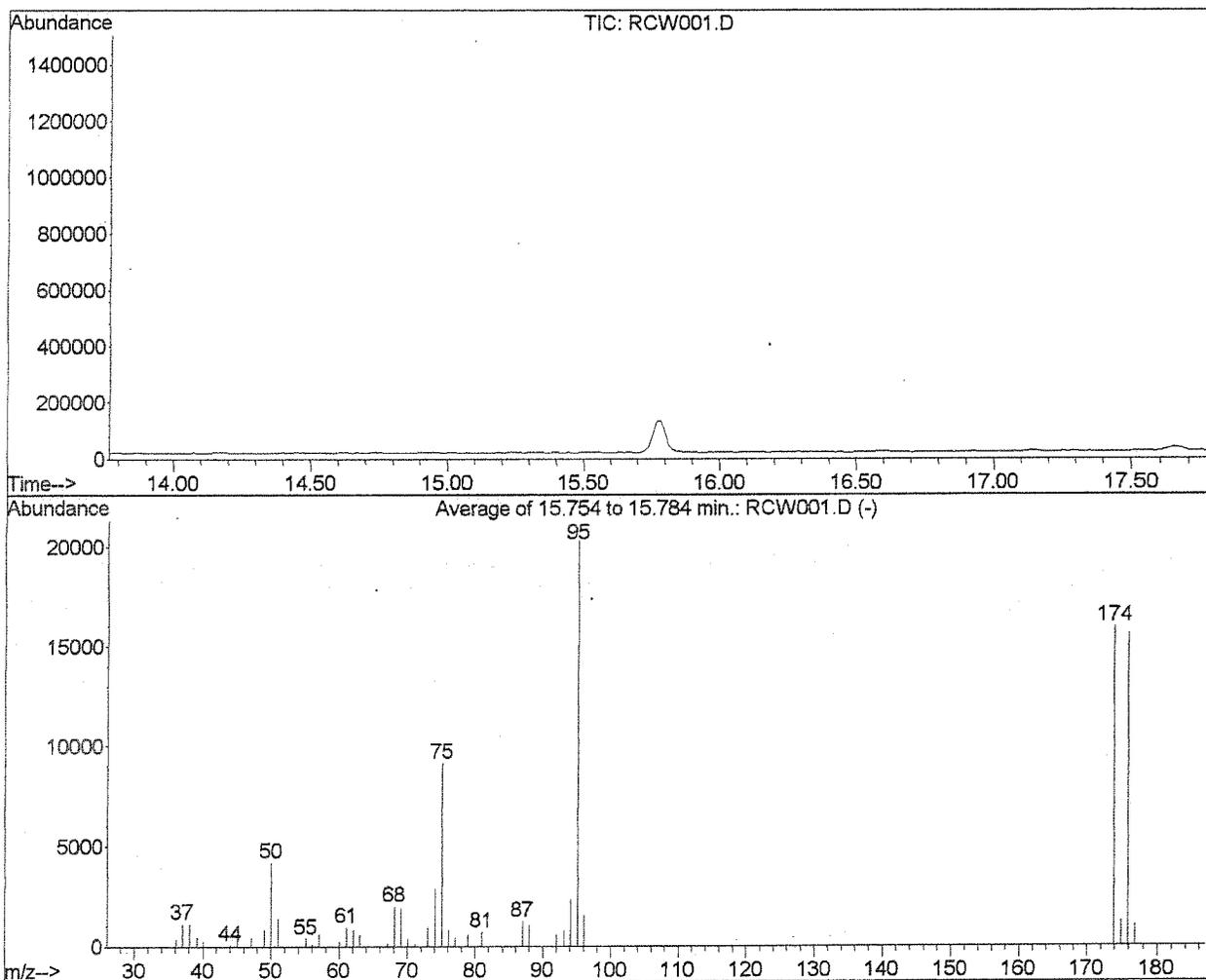
Thu Mar 05 16:22:03 2015

SW
3/6/15

BFB

Data File : D:\HPCHEM\1\DATA\15C03\RCW001.D
Acq On : 3 Mar 2015 9:43 am
Sample : BFB06C01
Misc :
MS Integration Params: RTE.P
Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260

Vial: 1
Operator: WLau
Inst : T006
Multiplr: 1.00



AutoFind: Scans 950, 951, 952; Background Corrected with Scan 946

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.6	4195	PASS
75	95	30	60	44.9	9132	PASS
95	95	100	100	100.0	20329	PASS
96	95	5	9	7.5	1518	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	78.5	15963	PASS
175	174	5	9	7.7	1231	PASS
176	174	95	101	97.7	15594	PASS
177	176	5	9	6.8	1064	PASS

SW
3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW002.D
 Acq On : 3 Mar 2015 10:20 am
 Sample : VO06C031
 Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 16:07 2015

Vial: 2
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.89	114	995395	10.00	ug/l	-0.02
53) CHLOROBENZENE-D5	13.81	117	881108	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.10	152	325119	10.00	ug/l	-0.02

System Monitoring Compounds

34) Dibromofluoromethane	7.40	111	9639	0.33	ug/l	0.00
Spiked Amount	10.000		Recovery	=	3.30%	
41) 1,2-Dichloroethane-d4	8.23	65	7088	0.32	ug/l	0.00
Spiked Amount	10.000		Recovery	=	3.20%	
54) Toluene-d8	11.35	98	42850	0.39	ug/l	-0.02
Spiked Amount	10.000		Recovery	=	3.90%	
76) 4-Bromofluorobenzene	15.78	95	17505	0.49	ug/l	0.00
Spiked Amount	10.000		Recovery	=	4.90%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.81	85	11514	0.35	ug/l	87
3) Chloromethane	2.05	50	10485	0.33	ug/l	94
4) Vinyl chloride	2.18	62	8151	0.30	ug/l	86
5) Bromomethane	2.67	94	6199	0.30	ug/l	97
6) Chloroethane	2.77	64	5394	0.32	ug/l	81
7) Dichlorofluoromethane	2.82	67	17620	0.35	ug/l	93
8) Trichlorofluoromethane	3.09	101	9461	0.28	ug/l	95
10) 1,1,2-Trichloro-1,2,2-trif	3.65	151	4357	0.25	ug/l	95
11) Acetone	3.68	43	9517	3.86	ug/l	# 64
12) 1,1-Dichloroethene	3.86	61	14547	0.29	ug/l	98
16) Iodomethane	4.32	142	14667	0.29	ug/l	97
17) Methylene chloride	4.59	49	12595	0.34	ug/l	82
18) Carbon disulfide	4.56	76	34250	0.32	ug/l	91
19) Acrylonitrile	4.75	53	5390	1.38	ug/l	93
20) tert-Butyl methyl ether (M	4.80	73	13986	0.31	ug/l	91
21) trans-1,2-Dichloroethene	4.99	61	14402	0.30	ug/l	98
22) Isopropyl ether (DIPE)	5.55	45	30454	0.30	ug/l	95
24) 1,1-Dichloroethane	5.72	63	16936	0.30	ug/l	93
26) tert-Butyl ethyl ether (ET	6.27	59	23019	0.30	ug/l	100
27) 2-Butanone	6.48	43	9866	1.70	ug/l	80
28) 2,2-Dichloropropane	6.67	77	10704	0.36	ug/l	92
29) cis-1,2-Dichloroethene	6.76	96	10955	0.32	ug/l	88
30) Chloroform	7.03	83	18125	0.33	ug/l	93
32) Bromochloromethane	7.29	49	7080	0.31	ug/l	95
35) 1,1,1-Trichloroethane	7.68	97	14132	0.32	ug/l	94
36) Cyclohexane	7.70	56	23725	0.37	ug/l	94
38) 1,1-Dichloropropene	7.95	110	5526	0.32	ug/l	87

(#) = qualifier out of range (m) = manual integration
 RCW002.D VO06C03.M Thu Mar 05 16:08:12 2015

Data File : D:\HPCHEM\1\DATA\15C03\RCW002.D
 Acq On : 3 Mar 2015 10:20 am
 Sample : VO06C031
 Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 16:07 2015

Vial: 2
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Carbon tetrachloride	8.11	119	12749	0.31	ug/l	95
40) tert-Amyl methyl ether (TA	8.17	87	4471	0.34	ug/l	96
42) 1,2-Dichloroethane	8.38	62	7717	0.29	ug/l	95
43) Benzene	8.39	78	36170	0.31	ug/l	95
44) Trichloroethene	9.41	130	10776	0.29	ug/l	89
45) Methylcyclohexane	9.49	83	21741	0.33	ug/l	96
46) 1,2-Dichloropropane	9.70	63	9301	0.30	ug/l #	75
48) Bromodichloromethane	10.07	83	12621	0.32	ug/l	90
49) Dibromomethane	10.16	93	3834	0.29	ug/l	90
51) 4-Methyl-2-pentanone	10.65	43	20497	1.35	ug/l	83
52) cis-1,3-Dichloropropene	10.98	75	14552	0.31	ug/l #	72
55) Toluene	11.49	91	43445	0.33	ug/l	99
56) Ethyl methacrylate	11.80	69	6521	0.29	ug/l #	81
57) trans-1,3-Dichloropropene	11.80	75	10695	0.31	ug/l	78
58) 1,1,2-Trichloroethane	12.04	97	6007	0.34	ug/l #	68
59) 2-Hexanone	12.08	43	16333	1.66	ug/l	94
60) 1,3-Dichloropropane	12.45	76	9471	0.29	ug/l	92
61) Tetrachloroethene	12.54	164	9123	0.30	ug/l	98
62) Dibromochloromethane	12.87	129	6846	0.29	ug/l	92
64) 1,2-Dibromoethane	13.18	107	4909	0.28	ug/l	93
65) 1-Chlorohexane	13.46	91	19438	0.32	ug/l	96
66) Chlorobenzene	13.87	112	25529	0.31	ug/l #	84
67) 1,1,1,2-Tetrachloroethane	13.94	131	8393	0.30	ug/l #	70
68) Ethylbenzene	13.96	91	49208	0.32	ug/l	97
69) m-Xylene & p-Xylene	14.07	91	73421	0.66	ug/l	99
70) o-Xylene	14.77	91	36766	0.33	ug/l	98
71) Styrene	14.85	104	27680	0.32	ug/l	94
72) Isopropylbenzene	15.37	105	46726	0.32	ug/l	98
74) Bromoform	15.40	173	3405	0.27	ug/l	89
75) 1,1,2,2-Tetrachloroethane	15.65	83	7816	0.37	ug/l	70
77) 1,2,3-Trichloropropane	15.89	110	1552	0.31	ug/l	89
78) trans-1,4-Dichloro-2-buten	16.01	53	2090	0.38	ug/l #	33
79) n-Propylbenzene	16.02	91	58119	0.33	ug/l	98
80) Bromobenzene	16.08	156	9417	0.31	ug/l	97
81) 1,3,5-Trimethylbenzene	16.27	105	38217	0.34	ug/l	98
82) 2-Chlorotoluene	16.30	91	38013	0.36	ug/l	99
83) 4-Chlorotoluene	16.38	91	30840	0.35	ug/l	96
84) tert-Butylbenzene	16.85	134	8222	0.31	ug/l #	87
85) 1,2,4-Trimethylbenzene	16.91	105	37482	0.34	ug/l	97
86) sec-Butylbenzene	17.18	105	52811	0.34	ug/l	100
87) p-Isopropyltoluene	17.39	119	40737	0.32	ug/l	98

(#) = qualifier out of range (m) = manual integration
 RCW002.D VO06C03.M Thu Mar 05 16:08:12 2015

su
 3/6/15 Page 2

Data File : D:\HPCHEM\1\DATA\15C03\RCW002.D
 Acq On : 3 Mar 2015 10:20 am
 Sample : VO06C031
 Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 16:07 2015

Vial: 2
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
88) 1,3-Dichlorobenzene	17.52	146	19124	0.33	ug/l	96
89) 1,4-Dichlorobenzene	17.66	146	18261	0.32	ug/l	97
90) n-Butylbenzene	17.92	91	41035	0.34	ug/l	99
91) 1,2-Dichlorobenzene	18.15	146	15716	0.32	ug/l #	76
93) 1,2,4-Trichlorobenzene	20.02	180	10518	0.30	ug/l	98
94) Hexachlorobutadiene	20.18	225	7624	0.30	ug/l	98
95) Naphthalene	20.33	128	14549	0.30	ug/l	96
96) 1,2,3-Trichlorobenzene	20.62	180	8251	0.30	ug/l	99

SW
3/6/15

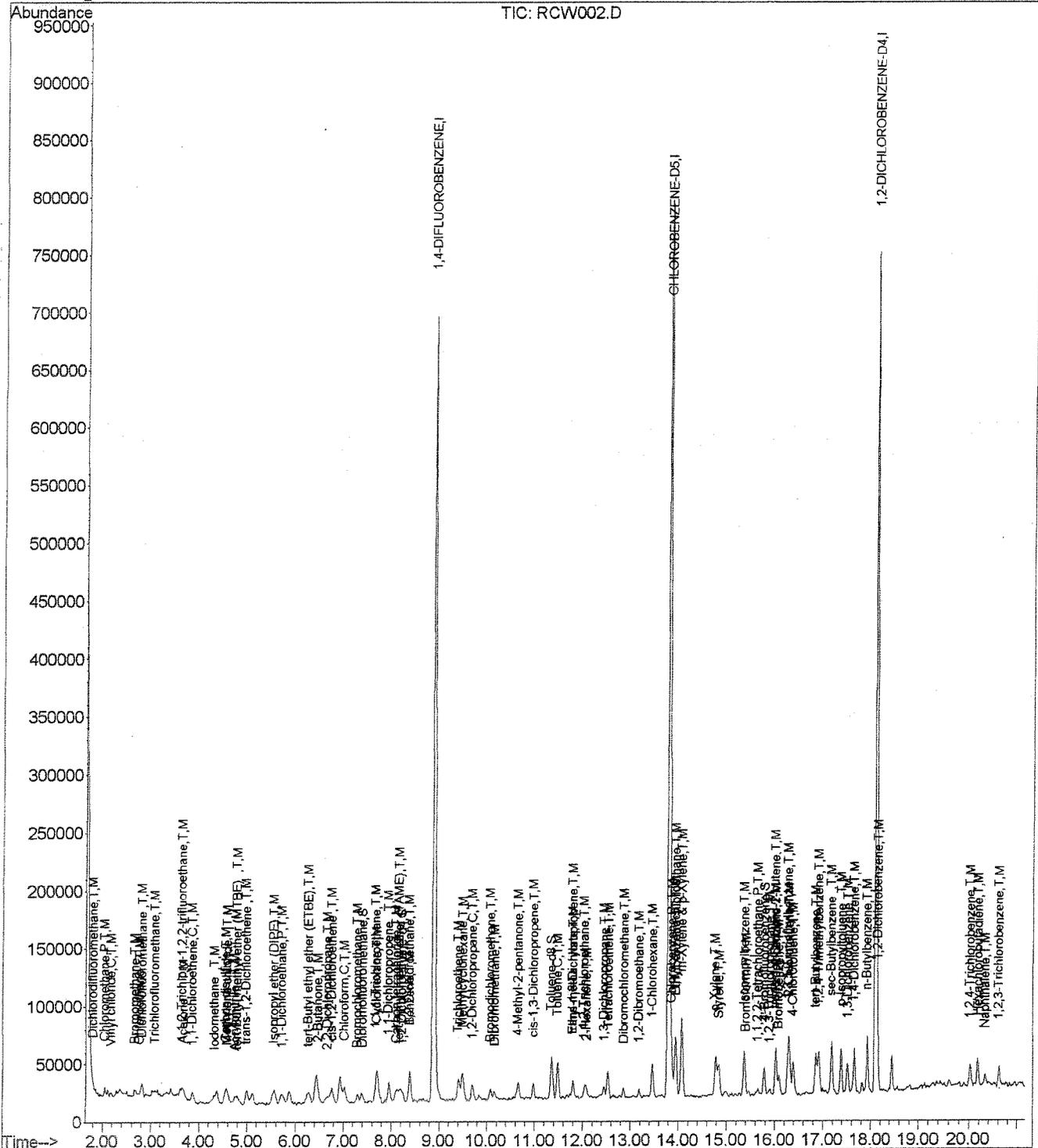
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15C03\RCW002.D
Acq On : 3 Mar 2015 10:20 am
Sample : VO06C031
Misc : 0.3ppb 8260/1.5ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Mar 5 16:07 2015

Vial: 2
Operator: WLau
Inst : T006
Multiplr: 1.00

Quant Results File: VO06C03.RE

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration



See 3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW003.D
 Acq On : 3 Mar 2015 10:55 am
 Sample : VO06C032
 Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA
 MS Integration Params: RTE.P

Vial: 3
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Time: Mar 5 16:08 2015

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)

Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-DIFLUOROBENZENE	8.90	114	1016709	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	13.81	117	883447	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.10	152	340705	10.00	ug/l	-0.01

System Monitoring Compounds

34) Dibromofluoromethane	7.40	111	12631	0.42	ug/l	0.00
Spiked Amount	10.000		Recovery	=	4.20%	
41) 1,2-Dichloroethane-d4	8.23	65	9027	0.40	ug/l	0.00
Spiked Amount	10.000		Recovery	=	4.00%	
54) Toluene-d8	11.35	98	47999	0.44	ug/l	-0.01
Spiked Amount	10.000		Recovery	=	4.40%	
76) 4-Bromofluorobenzene	15.77	95	18549	0.50	ug/l	-0.01
Spiked Amount	10.000		Recovery	=	5.00%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.81	85	18322	0.55	ug/l	97
3) Chloromethane	2.05	50	17830	0.55	ug/l	97
4) Vinyl chloride	2.18	62	14683	0.54	ug/l	93
5) Bromomethane	2.69	94	11150	0.53	ug/l	99
6) Chloroethane	2.79	64	8623	0.50	ug/l	88
7) Dichlorofluoromethane	2.82	67	26088	0.51	ug/l	98
8) Trichlorofluoromethane	3.09	101	18289	0.53	ug/l	93
9) Acrolein	3.59	56	5955	4.73	ug/l #	57
10) 1,1,2-Trichloro-1,2,2-trif	3.67	151	8404	0.48	ug/l	96
11) Acetone	3.68	43	12197	4.84	ug/l	67
12) 1,1-Dichloroethene	3.88	61	24628	0.49	ug/l	97
15) Methyl acetate	4.34	43	8654	0.86	ug/l #	57
16) Iodomethane	4.32	142	24491	0.48	ug/l	100
17) Methylene chloride	4.59	49	19581	0.52	ug/l	95
18) Carbon disulfide	4.56	76	55128	0.51	ug/l	98
19) Acrylonitrile	4.75	53	10261	2.57	ug/l	93
20) tert-Butyl methyl ether (M	4.80	73	23089	0.49	ug/l	73
21) trans-1,2-Dichloroethene	5.01	61	23018	0.47	ug/l	92
22) Isopropyl ether (DIPE)	5.57	45	52467	0.50	ug/l	99
23) Vinyl acetate	5.78	43	17177	0.47	ug/l	91
24) 1,1-Dichloroethane	5.72	63	29539	0.51	ug/l	99
26) tert-Butyl ethyl ether (ET	6.29	59	36803	0.48	ug/l	100
27) 2-Butanone	6.48	43	17873	3.02	ug/l	89
28) 2,2-Dichloropropane	6.69	77	17070	0.57	ug/l	96
29) cis-1,2-Dichloroethene	6.76	96	17246	0.49	ug/l	94
30) Chloroform	7.03	83	29352	0.53	ug/l	95
32) Bromochloromethane	7.31	49	11191	0.48	ug/l	96

(#) = qualifier out of range (m) = manual integration
 RCW003.D VO06C03.M Thu Mar 05 16:09:51 2015

3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW003.D
 Acq On : 3 Mar 2015 10:55 am
 Sample : VO06C032
 Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 16:08 2015

Vial: 3
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
33) Tetrahydrofuran	7.39	42	2589	0.11	ug/l #	1
35) 1,1,1-Trichloroethane	7.70	97	24516	0.54	ug/l	94
36) Cyclohexane	7.71	56	37256	0.56	ug/l	96
38) 1,1-Dichloropropene	7.97	110	8760	0.49	ug/l	91
39) Carbon tetrachloride	8.11	119	19933	0.47	ug/l	98
40) tert-Amyl methyl ether (TA	8.17	87	6790	0.51	ug/l	99
42) 1,2-Dichloroethane	8.40	62	12982	0.48	ug/l	97
43) Benzene	8.40	78	60986	0.52	ug/l	95
44) Trichloroethene	9.41	130	18683	0.50	ug/l	96
45) Methylcyclohexane	9.50	83	37885	0.57	ug/l	94
46) 1,2-Dichloropropane	9.70	63	15528	0.49	ug/l	97
48) Bromodichloromethane	10.08	83	20323	0.51	ug/l	89
49) Dibromomethane	10.17	93	6260	0.47	ug/l	93
50) 2-Chloroethyl vinyl ether	10.63	63	2996	0.43	ug/l #	78
51) 4-Methyl-2-pentanone	10.66	43	40233	2.60	ug/l	93
52) cis-1,3-Dichloropropene	10.98	75	23358	0.49	ug/l	93
55) Toluene	11.49	91	70969	0.54	ug/l	99
56) Ethyl methacrylate	11.80	69	10850	0.48	ug/l	97
57) trans-1,3-Dichloropropene	11.80	75	16258	0.48	ug/l	93
58) 1,1,2-Trichloroethane	12.04	97	9220	0.51	ug/l	84
59) 2-Hexanone	12.07	43	28004	2.83	ug/l	98
60) 1,3-Dichloropropane	12.45	76	16704	0.51	ug/l	98
61) Tetrachloroethene	12.53	164	14781	0.48	ug/l	94
62) Dibromochloromethane	12.86	129	11214	0.47	ug/l	95
64) 1,2-Dibromoethane	13.18	107	8223	0.46	ug/l	98
65) 1-Chlorohexane	13.47	91	31063	0.52	ug/l	97
66) Chlorobenzene	13.87	112	42192	0.52	ug/l	84
67) 1,1,1,2-Tetrachloroethane	13.94	131	14595	0.52	ug/l #	68
68) Ethylbenzene	13.96	91	81585	0.53	ug/l	98
69) m-Xylene & p-Xylene	14.08	91	119433	1.07	ug/l	98
70) o-Xylene	14.79	91	58299	0.52	ug/l	99
71) Styrene	14.85	104	43784	0.51	ug/l	95
72) Isopropylbenzene	15.37	105	77399	0.53	ug/l	100
74) Bromoform	15.40	173	6719	0.50	ug/l	89
75) 1,1,2,2-Tetrachloroethane	15.65	83	12440	0.57	ug/l	83
77) 1,2,3-Trichloropropane	15.89	110	2309	0.44	ug/l	89
78) trans-1,4-Dichloro-2-buten	16.01	53	2922	0.50	ug/l #	33
79) n-Propylbenzene	16.02	91	96076	0.52	ug/l	100
80) Bromobenzene	16.08	156	16228	0.51	ug/l #	75
81) 1,3,5-Trimethylbenzene	16.28	105	60548	0.52	ug/l	99
82) 2-Chlorotoluene	16.31	91	60151	0.54	ug/l	99

(#) = qualifier out of range (m) = manual integration
 RCW003.D VO06C03.M Thu Mar 05 16:09:52 2015

50
3/6/15

Page 2

Data File : D:\HPCHEM\1\DATA\15C03\RCW003.D
 Acq On : 3 Mar 2015 10:55 am
 Sample : VO06C032
 Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 16:08 2015

Vial: 3
 Operator: WLaU
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
83) 4-Chlorotoluene	16.38	91	47670	0.51	ug/l	100
84) tert-Butylbenzene	16.86	134	13898	0.49	ug/l	92
85) 1,2,4-Trimethylbenzene	16.92	105	59983	0.52	ug/l	97
86) sec-Butylbenzene	17.18	105	87116	0.53	ug/l	100
87) p-Isopropyltoluene	17.38	119	67567	0.51	ug/l	98
88) 1,3-Dichlorobenzene	17.51	146	30086	0.50	ug/l	98
89) 1,4-Dichlorobenzene	17.66	146	29992	0.50	ug/l	97
90) n-Butylbenzene	17.93	91	67933	0.53	ug/l	98
91) 1,2-Dichlorobenzene	18.15	146	24432	0.48	ug/l	82
92) 1,2-Dibromo-3-chloropropan	19.06	157	1491	0.44	ug/l #	48
93) 1,2,4-Trichlorobenzene	20.02	180	17043	0.46	ug/l	98
94) Hexachlorobutadiene	20.17	225	12437	0.47	ug/l	97
95) Naphthalene	20.33	128	23927	0.47	ug/l	98
96) 1,2,3-Trichlorobenzene	20.62	180	13429	0.47	ug/l	96

Su 3/6/15

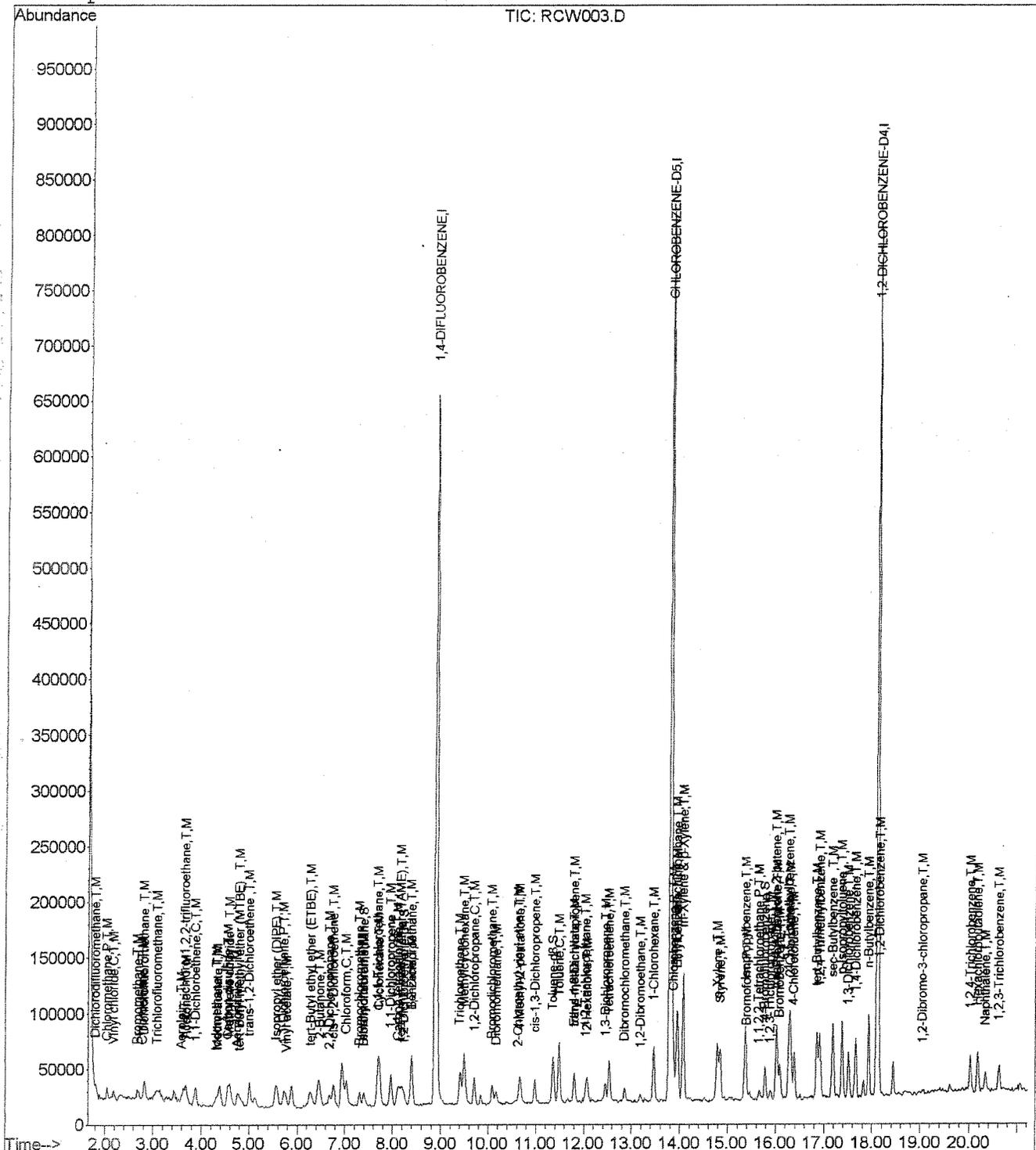
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15C03\RCW003.D
Acq On : 3 Mar 2015 10:55 am
Sample : VO06C032
Misc : 0.5ppb 8260/2.5ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Mar 5 16:08 2015

Vial: 3
Operator: WLau
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06C03.RE

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration



54
3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW004.D
 Acq On : 3 Mar 2015 11:29 am
 Sample : VO06C033
 Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:19 2015

Vial: 4
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.89	114	969220	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	13.80	117	858698	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.11	152	330517	10.00	ug/l	0.00

System Monitoring Compounds

34) Dibromofluoromethane	7.40	111	31088	1.08	ug/l	0.00
Spiked Amount	10.000		Recovery	=	10.80%	
41) 1,2-Dichloroethane-d4	8.24	65	23912	1.11	ug/l	0.00
Spiked Amount	10.000		Recovery	=	11.10%	
54) Toluene-d8	11.36	98	115053	1.08	ug/l	0.00
Spiked Amount	10.000		Recovery	=	10.80%	
76) 4-Bromofluorobenzene	15.77	95	40213	1.11	ug/l	0.00
Spiked Amount	10.000		Recovery	=	11.10%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.81	85	33953	1.06	ug/l	92
3) Chloromethane	2.05	50	32785	1.05	ug/l	98
4) Vinyl chloride	2.17	62	29174	1.12	ug/l	99
5) Bromomethane	2.68	94	21596	1.07	ug/l	100
6) Chloroethane	2.78	64	17601	1.07	ug/l	93
7) Dichlorofluoromethane	2.83	67	52905	1.08	ug/l	92
8) Trichlorofluoromethane	3.08	101	34653	1.04	ug/l	97
9) Acrolein	3.61	56	8407	7.00	ug/l	74
10) 1,1,2-Trichloro-1,2,2-trif	3.64	151	16564	0.99	ug/l	98
11) Acetone	3.69	43	20610	8.57	ug/l	97
12) 1,1-Dichloroethene	3.88	61	48314	1.00	ug/l	100
13) tert-Butyl alcohol	3.97	59	5395	5.43	ug/l #	1
15) Methyl acetate	4.34	43	12208	1.27	ug/l	88
16) Iodomethane	4.31	142	50017	1.02	ug/l	98
17) Methylene chloride	4.59	49	38302	1.08	ug/l	96
18) Carbon disulfide	4.56	76	107999	1.05	ug/l	98
19) Acrylonitrile	4.76	53	19689	5.17	ug/l	99
20) tert-Butyl methyl ether (M	4.80	73	46047	1.04	ug/l	100
21) trans-1,2-Dichloroethene	5.01	61	45869	0.99	ug/l	98
22) Isopropyl ether (DIPE)	5.56	45	97712	0.99	ug/l	98
23) Vinyl acetate	5.75	43	33350	0.95	ug/l	99
24) 1,1-Dichloroethane	5.72	63	54975	0.99	ug/l	98
25) 2-Butanol	6.14	45	5097	5.52	ug/l #	1
26) tert-Butyl ethyl ether (ET	6.27	59	73998	1.01	ug/l	99
27) 2-Butanone	6.48	43	29647	5.25	ug/l	96
28) 2,2-Dichloropropane	6.69	77	30313	1.06	ug/l	97
29) cis-1,2-Dichloroethene	6.78	96	33704	1.01	ug/l	97

(#) = qualifier out of range (m) = manual integration
 RCW004.D VO06C03.M Thu Mar 05 16:10:51 2015

sw 3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW004.D
 Acq On : 3 Mar 2015 11:29 am
 Sample : VO06C033
 Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:19 2015

Vial: 4
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Chloroform	7.03	83	55186	1.04	ug/l	99
32) Bromochloromethane	7.30	49	21810	0.97	ug/l	96
33) Tetrahydrofuran	7.39	42	4067	0.64	ug/l	87
35) 1,1,1-Trichloroethane	7.70	97	45712	1.06	ug/l	96
36) Cyclohexane	7.70	56	66562	1.05	ug/l	96
38) 1,1-Dichloropropene	7.97	110	16195	0.96	ug/l	100
39) Carbon tetrachloride	8.10	119	39899	1.00	ug/l	98
40) tert-Amyl methyl ether (TA	8.19	87	13213	1.04	ug/l	97
42) 1,2-Dichloroethane	8.39	62	26306	1.02	ug/l	98
43) Benzene	8.40	78	117577	1.05	ug/l	99
44) Trichloroethene	9.41	130	34634	0.96	ug/l	98
45) Methylcyclohexane	9.50	83	67022	1.06	ug/l	97
46) 1,2-Dichloropropane	9.71	63	29983	1.00	ug/l	97
47) 1,4-Dioxane	10.14	88	1893	17.12	ug/l #	60
48) Bromodichloromethane	10.08	83	38904	1.02	ug/l	100
49) Dibromomethane	10.17	93	12595	0.99	ug/l	94
50) 2-Chloroethyl vinyl ether	10.62	63	6236	0.95	ug/l	88
51) 4-Methyl-2-pentanone	10.66	43	76007	5.15	ug/l	97
52) cis-1,3-Dichloropropene	10.99	75	42551	0.94	ug/l	99
55) Toluene	11.49	91	131972	1.03	ug/l	98
56) Ethyl methacrylate	11.81	69	23205	1.06	ug/l	98
57) trans-1,3-Dichloropropene	11.81	75	32431	0.98	ug/l	96
58) 1,1,2-Trichloroethane	12.04	97	17727	1.02	ug/l	87
59) 2-Hexanone	12.07	43	48616	5.06	ug/l	95
60) 1,3-Dichloropropane	12.46	76	30352	0.96	ug/l	96
61) Tetrachloroethene	12.53	164	30200	1.02	ug/l	98
62) Dibromochloromethane	12.86	129	22576	0.97	ug/l	96
64) 1,2-Dibromoethane	13.19	107	16425	0.95	ug/l	96
65) 1-Chlorohexane	13.47	91	57056	0.98	ug/l	99
66) Chlorobenzene	13.87	112	78770	0.99	ug/l	91
67) 1,1,1,2-Tetrachloroethane	13.95	131	28100	1.03	ug/l	90
68) Ethylbenzene	13.96	91	150347	1.01	ug/l	100
69) m-Xylene & p-Xylene	14.08	91	226192	2.09	ug/l	98
70) o-Xylene	14.78	91	112633	1.03	ug/l	99
71) Styrene	14.84	104	83718	1.01	ug/l	98
72) Isopropylbenzene	15.37	105	143947	1.02	ug/l	99
74) Bromoform	15.39	173	12720	0.98	ug/l	99
75) 1,1,2,2-Tetrachloroethane	15.66	83	21558	1.02	ug/l	82
77) 1,2,3-Trichloropropane	15.89	110	5069	0.99	ug/l	98
78) trans-1,4-Dichloro-2-buten	16.01	53	5379	0.96	ug/l	89
79) n-Propylbenzene	16.03	91	178992	1.00	ug/l	99

(#) = qualifier out of range (m) = manual integration
 RCW004.D VO06C03.M Thu Mar 05 16:10:52 2015

SA
3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW004.D
 Acq On : 3 Mar 2015 11:29 am
 Sample : VO06C033
 Misc : 1.0ppb 8260/5.0ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:19 2015

Vial: 4
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80) Bromobenzene	16.09	156	29728	0.96	ug/l	92
81) 1,3,5-Trimethylbenzene	16.28	105	114863	1.02	ug/l	99
82) 2-Chlorotoluene	16.31	91	105422	0.97	ug/l	94
83) 4-Chlorotoluene	16.38	91	97688	1.08	ug/l	93
84) tert-Butylbenzene	16.86	134	27014	0.99	ug/l	95
85) 1,2,4-Trimethylbenzene	16.92	105	111592	1.01	ug/l	98
86) sec-Butylbenzene	17.19	105	160499	1.01	ug/l	99
87) p-Isopropyltoluene	17.38	119	131548	1.02	ug/l	98
88) 1,3-Dichlorobenzene	17.51	146	57357	0.97	ug/l	100
89) 1,4-Dichlorobenzene	17.66	146	56291	0.98	ug/l	98
90) n-Butylbenzene	17.93	91	122077	0.98	ug/l	99
91) 1,2-Dichlorobenzene	18.14	146	48742	0.99	ug/l	91
92) 1,2-Dibromo-3-chloropropan	19.06	157	3189	0.97	ug/l #	76
93) 1,2,4-Trichlorobenzene	20.03	180	32512	0.91	ug/l	98
94) Hexachlorobutadiene	20.18	225	23996	0.94	ug/l	99
95) Naphthalene	20.34	128	46986	0.96	ug/l	100
96) 1,2,3-Trichlorobenzene	20.62	180	25946	0.94	ug/l	99

Su 3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW005.D
 Acq On : 3 Mar 2015 12:05 pm
 Sample : VO06C034
 Misc : 2.0ppb 8260/10ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

Vial: 5
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.89	114	993278	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	13.80	117	890608	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.11	152	339786	10.00	ug/l	0.00

System Monitoring Compounds

34) Dibromofluoromethane	7.39	111	59729	2.02	ug/l	0.00
Spiked Amount	10.000		Recovery	=	20.20%	
41) 1,2-Dichloroethane-d4	8.24	65	43392	1.97	ug/l	0.00
Spiked Amount	10.000		Recovery	=	19.70%	
54) Toluene-d8	11.36	98	221850	2.00	ug/l	0.00
Spiked Amount	10.000		Recovery	=	20.00%	
76) 4-Bromofluorobenzene	15.77	95	72853	1.96	ug/l	0.00
Spiked Amount	10.000		Recovery	=	19.60%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.81	85	63753	1.95	ug/l	97
3) Chloromethane	2.05	50	62715	1.96	ug/l	98
4) Vinyl chloride	2.17	62	55577	2.08	ug/l	97
5) Bromomethane	2.68	94	41869	2.02	ug/l	97
6) Chloroethane	2.78	64	35040	2.07	ug/l	97
7) Dichlorofluoromethane	2.83	67	100503	2.00	ug/l	99
8) Trichlorofluoromethane	3.08	101	68519	2.02	ug/l	99
9) Acrolein	3.60	56	13266	10.78	ug/l	89
10) 1,1,2-Trichloro-1,2,2-trif	3.64	151	34928	2.04	ug/l	99
11) Acetone	3.69	43	30188	12.25	ug/l	89
12) 1,1-Dichloroethene	3.87	61	99039	2.01	ug/l	99
13) tert-Butyl alcohol	3.98	59	10479	10.29	ug/l	# 73
15) Methyl acetate	4.34	43	21255	2.15	ug/l	91
16) Iodomethane	4.31	142	100076	1.99	ug/l	99
17) Methylene chloride	4.59	49	73835	2.02	ug/l	97
18) Carbon disulfide	4.56	76	223019	2.11	ug/l	99
19) Acrylonitrile	4.76	53	40302	10.32	ug/l	97
20) tert-Butyl methyl ether (M	4.79	73	92897	2.04	ug/l	97
21) trans-1,2-Dichloroethene	5.00	61	95594	2.02	ug/l	99
22) Isopropyl ether (DIPE)	5.56	45	202352	1.99	ug/l	97
23) Vinyl acetate	5.75	43	70327	1.96	ug/l	96
24) 1,1-Dichloroethane	5.71	63	114511	2.02	ug/l	99
25) 2-Butanol	6.14	45	8983	9.50	ug/l	# 62
26) tert-Butyl ethyl ether (ET	6.27	59	154237	2.05	ug/l	99
27) 2-Butanone	6.47	43	54335	9.39	ug/l	98
28) 2,2-Dichloropropane	6.68	77	58921	2.00	ug/l	99
29) cis-1,2-Dichloroethene	6.77	96	70507	2.05	ug/l	91

(#) = qualifier out of range (m) = manual integration
 RCW005.D VO06C03.M Thu Mar 05 16:11:37 2015

SW
 3/6/15 Page 1

Data File : D:\HPCHEM\1\DATA\15C03\RCW005.D
 Acq On : 3 Mar 2015 12:05 pm
 Sample : VO06C034
 Misc : 2.0ppb 8260/10ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

Vial: 5
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Chloroform	7.03	83	109452	2.01	ug/l	98
32) Bromochloromethane	7.30	49	44457	1.93	ug/l	97
33) Tetrahydrofuran	7.36	42	10848	2.77	ug/l	70
35) 1,1,1-Trichloroethane	7.70	97	91756	2.07	ug/l	99
36) Cyclohexane	7.70	56	135453	2.09	ug/l	97
38) 1,1-Dichloropropene	7.95	110	35032	2.02	ug/l	99
39) Carbon tetrachloride	8.10	119	83162	2.03	ug/l	99
40) tert-Amyl methyl ether (TA	8.18	87	26186	2.01	ug/l	97
42) 1,2-Dichloroethane	8.39	62	52442	1.99	ug/l	98
43) Benzene	8.40	78	239336	2.08	ug/l	98
44) Trichloroethene	9.41	130	72698	1.98	ug/l	98
45) Methylcyclohexane	9.49	83	133933	2.06	ug/l	99
46) 1,2-Dichloropropane	9.71	63	62786	2.04	ug/l	99
47) 1,4-Dioxane	10.14	88	4547	40.12	ug/l	96
48) Bromodichloromethane	10.08	83	78175	1.99	ug/l	100
49) Dibromomethane	10.15	93	25922	1.99	ug/l	97
50) 2-Chloroethyl vinyl ether	10.62	63	12684	1.88	ug/l	99
51) 4-Methyl-2-pentanone	10.66	43	159609	10.56	ug/l	98
52) cis-1,3-Dichloropropene	10.97	75	91516	1.96	ug/l	99
55) Toluene	11.48	91	273389	2.06	ug/l	100
56) Ethyl methacrylate	11.81	69	45237	1.99	ug/l	99
57) trans-1,3-Dichloropropene	11.79	75	69801	2.03	ug/l	96
58) 1,1,2-Trichloroethane	12.04	97	35863	1.99	ug/l	93
59) 2-Hexanone	12.07	43	101265	10.17	ug/l	97
60) 1,3-Dichloropropane	12.44	76	65044	1.98	ug/l	99
61) Tetrachloroethene	12.53	164	63075	2.05	ug/l	98
62) Dibromochloromethane	12.86	129	47839	1.98	ug/l	99
64) 1,2-Dibromoethane	13.19	107	34624	1.94	ug/l	98
65) 1-Chlorohexane	13.47	91	124504	2.05	ug/l	99
66) Chlorobenzene	13.87	112	163825	1.99	ug/l	96
67) 1,1,1,2-Tetrachloroethane	13.95	131	59260	2.09	ug/l	98
68) Ethylbenzene	13.95	91	316205	2.04	ug/l	99
69) m-Xylene & p-Xylene	14.08	91	457490	4.08	ug/l	99
70) o-Xylene	14.78	91	232085	2.04	ug/l	99
71) Styrene	14.84	104	175170	2.03	ug/l	99
72) Isopropylbenzene	15.37	105	303290	2.07	ug/l	99
74) Bromoform	15.39	173	26563	1.99	ug/l	98
75) 1,1,2,2-Tetrachloroethane	15.66	83	41466	1.90	ug/l	94
77) 1,2,3-Trichloropropane	15.89	110	10290	1.96	ug/l	100
78) trans-1,4-Dichloro-2-buten	16.01	53	11235	1.95	ug/l	94
79) n-Propylbenzene	16.03	91	376459	2.04	ug/l	99

(#) = qualifier out of range (m) = manual integration
 RCW005.D VO06C03.M Thu Mar 05 16:11:38 2015

30
3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW005.D
 Acq On : 3 Mar 2015 12:05 pm
 Sample : VO06C034
 Misc : 2.0ppb 8260/10ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

Vial: 5
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80) Bromobenzene	16.09	156	63597	1.99	ug/l	97
81) 1,3,5-Trimethylbenzene	16.28	105	233733	2.01	ug/l	99
82) 2-Chlorotoluene	16.31	91	236820	2.12	ug/l	99
83) 4-Chlorotoluene	16.38	91	173201	1.85	ug/l	98
84) tert-Butylbenzene	16.86	134	57158	2.03	ug/l	95
85) 1,2,4-Trimethylbenzene	16.92	105	234327	2.06	ug/l	98
86) sec-Butylbenzene	17.19	105	334273	2.04	ug/l	99
87) p-Isopropyltoluene	17.38	119	268951	2.02	ug/l	99
88) 1,3-Dichlorobenzene	17.51	146	119890	1.98	ug/l	99
89) 1,4-Dichlorobenzene	17.66	146	120572	2.03	ug/l	98
90) n-Butylbenzene	17.93	91	258040	2.02	ug/l	100
91) 1,2-Dichlorobenzene	18.14	146	99664	1.97	ug/l	97
92) 1,2-Dibromo-3-chloropropan	19.06	157	6356	1.88	ug/l	94
93) 1,2,4-Trichlorobenzene	20.03	180	68587	1.86	ug/l	99
94) Hexachlorobutadiene	20.18	225	51979	1.99	ug/l	99
95) Naphthalene	20.34	128	98366	1.95	ug/l	99
96) 1,2,3-Trichlorobenzene	20.62	180	53692	1.89	ug/l	98

su 3/6/15

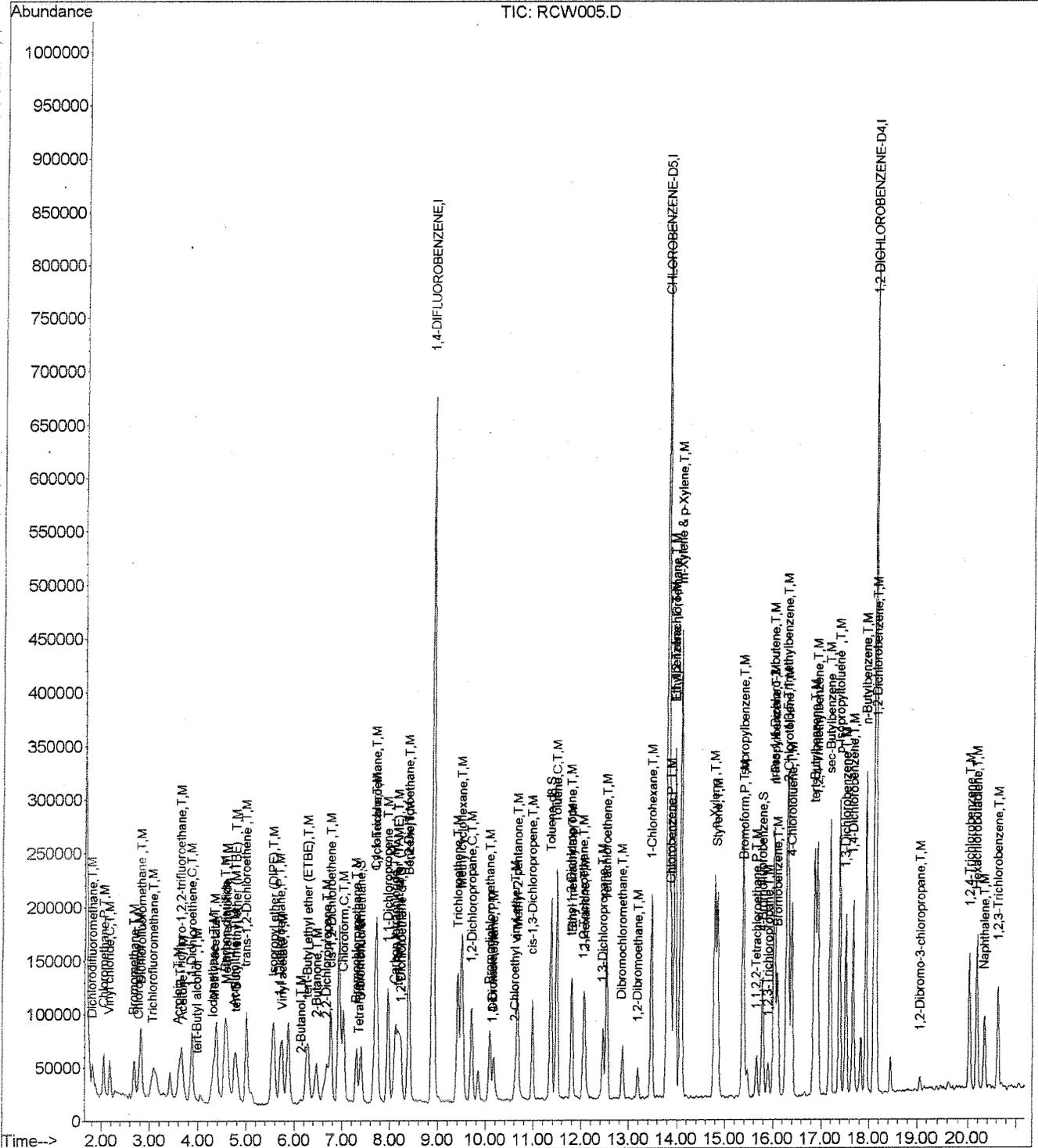
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15C03\RCW005.D
Acq On : 3 Mar 2015 12:05 pm
Sample : VO06C034
Misc : 2.0ppb 8260/10ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Mar 5 10:20 2015

Vial: 5
Operator: WLau
Inst : T006
Multiplr: 1.00

Quant Results File: VO06C03.RE

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration



54
3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW006.D
 Acq On : 3 Mar 2015 12:40 pm
 Sample : VO06C035
 Misc : 5.0ppb 8260/25ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

Vial: 6
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.89	114	975854	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	13.81	117	877146	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.11	152	339135	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.40	111	155726	5.37	ug/l	0.00
Spiked Amount	10.000		Recovery	=	53.70%	
41) 1,2-Dichloroethane-d4	8.24	65	115230	5.33	ug/l	0.00
Spiked Amount	10.000		Recovery	=	53.30%	
54) Toluene-d8	11.36	98	572922	5.25	ug/l	0.00
Spiked Amount	10.000		Recovery	=	52.50%	
76) 4-Bromofluorobenzene	15.78	95	197750	5.34	ug/l	0.00
Spiked Amount	10.000		Recovery	=	53.40%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.81	85	154183	4.79	ug/l	99
3) Chloromethane	2.05	50	159757	5.09	ug/l	100
4) Vinyl chloride	2.19	62	138255	5.27	ug/l	99
5) Bromomethane	2.69	94	101652	5.00	ug/l	100
6) Chloroethane	2.80	64	83246	5.01	ug/l	97
7) Dichlorofluoromethane	2.83	67	252750	5.12	ug/l	100
8) Trichlorofluoromethane	3.09	101	167313	5.01	ug/l	99
9) Acrolein	3.60	56	33799	27.96	ug/l	94
10) 1,1,2-Trichloro-1,2,2-trif	3.66	151	85581	5.09	ug/l	99
11) Acetone	3.69	43	66978	27.67	ug/l	99
12) 1,1-Dichloroethene	3.88	61	249377	5.14	ug/l	100
13) tert-Butyl alcohol	3.97	59	28786	28.76	ug/l	90
15) Methyl acetate	4.34	43	50944	5.25	ug/l	100
16) Iodomethane	4.33	142	262623	5.32	ug/l	99
17) Methylene chloride	4.59	49	186676	5.21	ug/l	100
18) Carbon disulfide	4.58	76	529803	5.09	ug/l	100
19) Acrylonitrile	4.76	53	103597	27.01	ug/l	97
20) tert-Butyl methyl ether (M	4.80	73	237548	5.31	ug/l	98
21) trans-1,2-Dichloroethene	5.01	61	249217	5.35	ug/l	99
22) Isopropyl ether (DIPE)	5.56	45	531181	5.32	ug/l	99
23) Vinyl acetate	5.77	43	197326	5.61	ug/l	98
24) 1,1-Dichloroethane	5.72	63	299263	5.36	ug/l	100
25) 2-Butanol	6.14	45	23703	25.50	ug/l	94
26) tert-Butyl ethyl ether (ET	6.29	59	404633	5.47	ug/l	100
27) 2-Butanone	6.48	43	149410	26.27	ug/l	97
28) 2,2-Dichloropropane	6.69	77	144185	4.99	ug/l	99
29) cis-1,2-Dichloroethene	6.78	96	174719	5.18	ug/l	98

(#) = qualifier out of range (m) = manual integration
 RCW006.D VO06C03.M Thu Mar 05 16:13:51 2015

su 3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW006.D
 Acq On : 3 Mar 2015 12:40 pm
 Sample : VO06C035
 Misc : 5.0ppb 8260/25ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

Vial: 6
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Chloroform	7.03	83	277941	5.20	ug/l	99
32) Bromochloromethane	7.30	49	119510	5.29	ug/l	98
33) Tetrahydrofuran	7.37	42	18033	5.17	ug/l	91
35) 1,1,1-Trichloroethane	7.70	97	217028	4.99	ug/l	99
36) Cyclohexane	7.72	56	306509	4.81	ug/l	99
38) 1,1-Dichloropropene	7.97	110	86799	5.10	ug/l	100
39) Carbon tetrachloride	8.12	119	204322	5.07	ug/l	99
40) tert-Amyl methyl ether (TA	8.19	87	68749	5.38	ug/l	97
42) 1,2-Dichloroethane	8.39	62	144329	5.56	ug/l	98
43) Benzene	8.40	78	599250	5.29	ug/l	100
44) Trichloroethene	9.41	130	183686	5.08	ug/l	98
45) Methylcyclohexane	9.50	83	326596	5.11	ug/l	100
46) 1,2-Dichloropropane	9.71	63	158718	5.24	ug/l	99
47) 1,4-Dioxane	10.14	88	12392	111.30	ug/l	97
48) Bromodichloromethane	10.08	83	201063	5.22	ug/l	99
49) Dibromomethane	10.17	93	68624	5.36	ug/l	98
50) 2-Chloroethyl vinyl ether	10.62	63	35752	5.39	ug/l	99
51) 4-Methyl-2-pentanone	10.66	43	421910	28.40	ug/l	100
52) cis-1,3-Dichloropropene	10.99	75	244836	5.35	ug/l	100
55) Toluene	11.49	91	689805	5.27	ug/l	99
56) Ethyl methacrylate	11.81	69	129737	5.78	ug/l	96
57) trans-1,3-Dichloropropene	11.81	75	181217	5.34	ug/l	99
58) 1,1,2-Trichloroethane	12.04	97	94166	5.29	ug/l	97
59) 2-Hexanone	12.07	43	261524	26.66	ug/l	99
60) 1,3-Dichloropropane	12.46	76	167039	5.17	ug/l	98
61) Tetrachloroethene	12.53	164	155267	5.13	ug/l	99
62) Dibromochloromethane	12.86	129	128148	5.38	ug/l	99
64) 1,2-Dibromoethane	13.19	107	95205	5.41	ug/l	99
65) 1-Chlorohexane	13.47	91	303636	5.09	ug/l	100
66) Chlorobenzene	13.87	112	421152	5.20	ug/l	98
67) 1,1,1,2-Tetrachloroethane	13.95	131	145491	5.21	ug/l	99
68) Ethylbenzene	13.96	91	773593	5.07	ug/l	99
69) m-Xylene & p-Xylene	14.08	91	1107910	10.04	ug/l	99
70) o-Xylene	14.78	91	572029	5.10	ug/l	99
71) Styrene	14.85	104	440252	5.19	ug/l	100
72) Isopropylbenzene	15.37	105	747865	5.18	ug/l	100
74) Bromoform	15.39	173	70810	5.31	ug/l	100
75) 1,1,2,2-Tetrachloroethane	15.66	83	104333	4.80	ug/l	100
77) 1,2,3-Trichloropropane	15.89	110	27430	5.23	ug/l	96
78) trans-1,4-Dichloro-2-buten	16.01	53	28540	4.95	ug/l	99
79) n-Propylbenzene	16.03	91	916637	4.99	ug/l	99

(#) = qualifier out of range (m) = manual integration
 RCW006.D VO06C03.M Thu Mar 05 16:13:52 2015

Sum
3/6/15 Page 2

Data File : D:\HPCHEM\1\DATA\15C03\RCW006.D
 Acq On : 3 Mar 2015 12:40 pm
 Sample : VO06C035
 Misc : 5.0ppb 8260/25ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

Vial: 6
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80) Bromobenzene	16.09	156	160614	5.04	ug/l	99
81) 1,3,5-Trimethylbenzene	16.28	105	589864	5.09	ug/l	99
82) 2-Chlorotoluene	16.31	91	590026	5.30	ug/l	99
83) 4-Chlorotoluene	16.38	91	441555	4.74	ug/l	100
84) tert-Butylbenzene	16.86	134	141333	5.04	ug/l	98
85) 1,2,4-Trimethylbenzene	16.92	105	578362	5.08	ug/l	99
86) sec-Butylbenzene	17.19	105	819044	5.01	ug/l	100
87) p-Isopropyltoluene	17.38	119	667358	5.02	ug/l	99
88) 1,3-Dichlorobenzene	17.51	146	304197	5.03	ug/l	99
89) 1,4-Dichlorobenzene	17.66	146	300882	5.09	ug/l	100
90) n-Butylbenzene	17.93	91	647951	5.08	ug/l	100
91) 1,2-Dichlorobenzene	18.14	146	260265	5.15	ug/l	98
92) 1,2-Dibromo-3-chloropropan	19.06	157	17276	5.12	ug/l	97
93) 1,2,4-Trichlorobenzene	20.03	180	183102	4.99	ug/l	99
94) Hexachlorobutadiene	20.18	225	128528	4.92	ug/l	99
95) Naphthalene	20.34	128	262438	5.21	ug/l	100
96) 1,2,3-Trichlorobenzene	20.62	180	145643	5.15	ug/l	99

Su 3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW007.D
 Acq On : 3 Mar 2015 1:12 pm
 Sample : VO06C036
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

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

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-DIFLUOROBENZENE	8.90	114	956391	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	13.81	117	867958	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.12	152	331159	10.00	ug/l	0.00

System Monitoring Compounds

34) Dibromofluoromethane	7.40	111	294255	10.34	ug/l	0.00
Spiked Amount	10.000		Recovery	=	103.40%	
41) 1,2-Dichloroethane-d4	8.23	65	215986	10.18	ug/l	0.00
Spiked Amount	10.000		Recovery	=	101.80%	
54) Toluene-d8	11.37	98	1099806	10.18	ug/l	0.00
Spiked Amount	10.000		Recovery	=	101.80%	
76) 4-Bromofluorobenzene	15.78	95	363728	10.06	ug/l	0.00
Spiked Amount	10.000		Recovery	=	100.60%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.82	85	302310	9.59	ug/l	100
3) Chloromethane	2.05	50	317605	10.32	ug/l	100
4) Vinyl chloride	2.18	62	269667	10.49	ug/l	100
5) Bromomethane	2.69	94	202764	10.18	ug/l	100
6) Chloroethane	2.79	64	172226	10.58	ug/l	100
7) Dichlorofluoromethane	2.83	67	494617	10.22	ug/l	100
8) Trichlorofluoromethane	3.09	101	339886	10.38	ug/l	100
9) Acrolein	3.59	56	58952	49.77	ug/l	100
10) 1,1,2-Trichloro-1,2,2-trif	3.67	151	174458	10.59	ug/l	100
11) Acetone	3.68	43	120152	50.66	ug/l	100
12) 1,1-Dichloroethene	3.88	61	494677	10.41	ug/l	100
13) tert-Butyl alcohol	3.98	59	50683	51.67	ug/l	100
15) Methyl acetate	4.34	43	93364	9.81	ug/l	100
16) Iodomethane	4.32	142	502809	10.39	ug/l	100
17) Methylene chloride	4.60	49	358004	10.19	ug/l	100
18) Carbon disulfide	4.57	76	1029350	10.10	ug/l	100
19) Acrylonitrile	4.75	53	196908	52.39	ug/l	100
20) tert-Butyl methyl ether (M	4.81	73	463593	10.56	ug/l	100
21) trans-1,2-Dichloroethene	5.01	61	486880	10.67	ug/l	100
22) Isopropyl ether (DIPE)	5.56	45	1043118	10.66	ug/l	100
23) Vinyl acetate	5.76	43	360856	10.46	ug/l	100
24) 1,1-Dichloroethane	5.72	63	565813	10.34	ug/l	100
25) 2-Butanol	6.14	45	44262	48.60	ug/l	100
26) tert-Butyl ethyl ether (ET	6.27	59	764709	10.54	ug/l	100
27) 2-Butanone	6.48	43	268655	48.20	ug/l	100
28) 2,2-Dichloropropane	6.69	77	277496	9.80	ug/l	100
29) cis-1,2-Dichloroethene	6.77	96	342379	10.35	ug/l	100

(#) = qualifier out of range (m) = manual integration
 RCW007.D VO06C03.M Thu Mar 05 16:14:55 2015

sw
3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW007.D
 Acq On : 3 Mar 2015 1:12 pm
 Sample : VO06C036
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

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

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Chloroform	7.04	83	537280	10.25	ug/l	100
32) Bromochloromethane	7.31	49	236510	10.68	ug/l	100
33) Tetrahydrofuran	7.37	42	30919	9.56	ug/l	100
35) 1,1,1-Trichloroethane	7.71	97	437648	10.26	ug/l	100
36) Cyclohexane	7.71	56	599114	9.59	ug/l	100
38) 1,1-Dichloropropene	7.96	110	168029	10.08	ug/l	100
39) Carbon tetrachloride	8.11	119	409510	10.37	ug/l	100
40) tert-Amyl methyl ether (TA	8.19	87	129284	10.33	ug/l	100
42) 1,2-Dichloroethane	8.40	62	266021	10.46	ug/l	100
43) Benzene	8.41	78	1128322	10.17	ug/l	100
44) Trichloroethene	9.41	130	366026	10.33	ug/l	100
45) Methylcyclohexane	9.50	83	634049	10.12	ug/l	100
46) 1,2-Dichloropropane	9.70	63	310146	10.44	ug/l	100
47) 1,4-Dioxane	10.13	88	22094	202.48	ug/l	100
48) Bromodichloromethane	10.08	83	386672	10.24	ug/l	100
49) Dibromomethane	10.16	93	132339	10.55	ug/l	100
50) 2-Chloroethyl vinyl ether	10.61	63	66515	10.24	ug/l	100
51) 4-Methyl-2-pentanone	10.66	43	750264	51.53	ug/l	100
52) cis-1,3-Dichloropropene	10.98	75	478689	10.67	ug/l	100
55) Toluene	11.49	91	1333418	10.30	ug/l	100
56) Ethyl methacrylate	11.80	69	226047	10.18	ug/l	100
57) trans-1,3-Dichloropropene	11.80	75	343006	10.21	ug/l	100
58) 1,1,2-Trichloroethane	12.04	97	177937	10.11	ug/l	100
59) 2-Hexanone	12.07	43	477706	49.21	ug/l	100
60) 1,3-Dichloropropane	12.45	76	331535	10.37	ug/l	100
61) Tetrachloroethene	12.54	164	300930	10.05	ug/l	100
62) Dibromochloromethane	12.87	129	247127	10.48	ug/l	100
64) 1,2-Dibromoethane	13.18	107	181685	10.43	ug/l	100
65) 1-Chlorohexane	13.46	91	592397	10.03	ug/l	100
66) Chlorobenzene	13.87	112	827532	10.32	ug/l	100
67) 1,1,1,2-Tetrachloroethane	13.94	131	282610	10.23	ug/l	100
68) Ethylbenzene	13.96	91	1523457	10.09	ug/l	100
69) m-Xylene & p-Xylene	14.07	91	2176623	19.94	ug/l	100
70) o-Xylene	14.79	91	1127947	10.17	ug/l	100
71) Styrene	14.85	104	861508	10.26	ug/l	100
72) Isopropylbenzene	15.37	105	1447424	10.14	ug/l	100
74) Bromoform	15.40	173	135331	10.40	ug/l	100
75) 1,1,2,2-Tetrachloroethane	15.65	83	205458	9.67	ug/l	100
77) 1,2,3-Trichloropropane	15.89	110	54391	10.62	ug/l	100
78) trans-1,4-Dichloro-2-buten	16.01	53	55114	9.79	ug/l	100
79) n-Propylbenzene	16.02	91	1816926	10.12	ug/l	100

(#) = qualifier out of range (m) = manual integration
 RCW007.D VO06C03.M Thu Mar 05 16:14:56 2015

SW
 3/6/15 Page 2

Data File : D:\HPCHEM\1\DATA\15C03\RCW007.D
 Acq On : 3 Mar 2015 1:12 pm
 Sample : VO06C036
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

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

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80) Bromobenzene	16.10	156	318168	10.23	ug/l	100
81) 1,3,5-Trimethylbenzene	16.27	105	1141217	10.08	ug/l	100
82) 2-Chlorotoluene	16.30	91	1066199	9.82	ug/l	100
83) 4-Chlorotoluene	16.39	91	930129	10.22	ug/l	100
84) tert-Butylbenzene	16.87	134	288971	10.55	ug/l	100
85) 1,2,4-Trimethylbenzene	16.91	105	1121896	10.10	ug/l	100
86) sec-Butylbenzene	17.18	105	1630223	10.21	ug/l	100
87) p-Isopropyltoluene	17.39	119	1339931	10.32	ug/l	100
88) 1,3-Dichlorobenzene	17.52	146	604173	10.23	ug/l	100
89) 1,4-Dichlorobenzene	17.67	146	584532	10.12	ug/l	100
90) n-Butylbenzene	17.94	91	1262040	10.14	ug/l	100
91) 1,2-Dichlorobenzene	18.15	146	507350	10.27	ug/l	100
92) 1,2-Dibromo-3-chloropropan	19.06	157	33362	10.13	ug/l	100
93) 1,2,4-Trichlorobenzene	20.04	180	368451	10.28	ug/l	100
94) Hexachlorobutadiene	20.18	225	259870	10.19	ug/l	100
95) Naphthalene	20.33	128	506542	10.30	ug/l	100
96) 1,2,3-Trichlorobenzene	20.63	180	287372	10.40	ug/l	100

Su 3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW008.D
 Acq On : 3 Mar 2015 1:44 pm
 Sample : VO06C037
 Misc : 20ppb 8260/100ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

Vial: 8
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-DIFLUOROBENZENE	8.90	114	973131	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	13.81	117	877640	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.12	152	328045	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.40	111	577890	19.97	ug/l	0.00
Spiked Amount	10.000		Recovery	=	199.70%	
41) 1,2-Dichloroethane-d4	8.23	65	412812	19.13	ug/l	0.00
Spiked Amount	10.000		Recovery	=	191.30%	
54) Toluene-d8	11.35	98	2145227	19.64	ug/l	-0.02
Spiked Amount	10.000		Recovery	=	196.40%	
76) 4-Bromofluorobenzene	15.78	95	723006	20.19	ug/l	0.00
Spiked Amount	10.000		Recovery	=	201.90%	
Target Compounds						
2) Dichlorodifluoromethane	1.82	85	619882	19.33	ug/l	100
3) Chloromethane	2.05	50	612725	19.57	ug/l	99
4) Vinyl chloride	2.20	62	501776	19.19	ug/l	100
5) Bromomethane	2.69	94	415805	20.53	ug/l	100
6) Chloroethane	2.79	64	339791	20.52	ug/l	99
7) Dichlorofluoromethane	2.82	67	998374	20.27	ug/l	100
8) Trichlorofluoromethane	3.09	101	689063	20.69	ug/l	100
9) Acrolein	3.61	56	121904	101.14	ug/l	98
10) 1,1,2-Trichloro-1,2,2-trif	3.65	151	367348	21.91	ug/l	100
11) Acetone	3.68	43	226383	93.80	ug/l	94
12) 1,1-Dichloroethene	3.88	61	1027681	21.25	ug/l	99
13) tert-Butyl alcohol	3.98	59	96908	97.09	ug/l	97
15) Methyl acetate	4.34	43	173576	17.93	ug/l	96
16) Iodomethane	4.32	142	1033018	20.98	ug/l	100
17) Methylene chloride	4.60	49	700079	19.59	ug/l	99
18) Carbon disulfide	4.57	76	2091731	20.17	ug/l	99
19) Acrylonitrile	4.75	53	383309	100.22	ug/l	98
20) tert-Butyl methyl ether (M	4.80	73	887809	19.88	ug/l	99
21) trans-1,2-Dichloroethene	5.01	61	954524	20.57	ug/l	99
22) Isopropyl ether (DIPE)	5.56	45	2079454	20.88	ug/l	99
23) Vinyl acetate	5.75	43	698876	19.91	ug/l	99
24) 1,1-Dichloroethane	5.72	63	1136008	20.41	ug/l	100
25) 2-Butanol	6.14	45	85343	92.09	ug/l	99
26) tert-Butyl ethyl ether (ET	6.27	59	1508510	20.44	ug/l	100
27) 2-Butanone	6.46	43	506742	89.36	ug/l	100
28) 2,2-Dichloropropane	6.69	77	529726	18.39	ug/l	99
29) cis-1,2-Dichloroethene	6.76	96	691103	20.54	ug/l	99

(#) = qualifier out of range (m) = manual integration
 RCW008.D VO06C03.M Thu Mar 05 16:15:27 2015

3/6/15 Page 1

Data File : D:\HPCHEM\1\DATA\15C03\RCW008.D
 Acq On : 3 Mar 2015 1:44 pm
 Sample : VO06C037
 Misc : 20ppb 8260/100ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

Vial: 8
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Chloroform	7.03	83	1055888	19.80	ug/l	99
32) Bromochloromethane	7.29	49	466221	20.69	ug/l	99
33) Tetrahydrofuran	7.37	42	62321	19.63	ug/l	96
35) 1,1,1-Trichloroethane	7.70	97	877551	20.22	ug/l	100
36) Cyclohexane	7.71	56	1170771	18.43	ug/l	99
38) 1,1-Dichloropropene	7.96	110	351389	20.71	ug/l	99
39) Carbon tetrachloride	8.11	119	827749	20.59	ug/l	100
40) tert-Amyl methyl ether (TA	8.19	87	242710	19.06	ug/l	98
42) 1,2-Dichloroethane	8.39	62	533290	20.61	ug/l	100
43) Benzene	8.39	78	2322980	20.57	ug/l	100
44) Trichloroethene	9.41	130	764424	21.20	ug/l	97
45) Methylcyclohexane	9.50	83	1222617	19.18	ug/l	100
46) 1,2-Dichloropropane	9.70	63	628569	20.79	ug/l	99
47) 1,4-Dioxane	10.13	88	43444	391.29	ug/l	96
48) Bromodichloromethane	10.07	83	769486	20.02	ug/l	100
49) Dibromomethane	10.16	93	259014	20.29	ug/l	99
50) 2-Chloroethyl vinyl ether	10.61	63	135995	20.57	ug/l	99
51) 4-Methyl-2-pentanone	10.65	43	1440114	97.21	ug/l	100
52) cis-1,3-Dichloropropene	10.98	75	941794	20.64	ug/l	99
55) Toluene	11.49	91	2581617	19.72	ug/l	100
56) Ethyl methacrylate	11.80	69	446334	19.88	ug/l	100
57) trans-1,3-Dichloropropene	11.80	75	695065	20.47	ug/l	98
58) 1,1,2-Trichloroethane	12.04	97	345648	19.42	ug/l	98
59) 2-Hexanone	12.07	43	924794	94.22	ug/l	100
60) 1,3-Dichloropropane	12.45	76	665004	20.58	ug/l	100
61) Tetrachloroethene	12.54	164	621834	20.53	ug/l	100
62) Dibromochloromethane	12.87	129	483633	20.29	ug/l	98
64) 1,2-Dibromoethane	13.18	107	360737	20.47	ug/l	100
65) 1-Chlorohexane	13.46	91	1224601	20.50	ug/l	100
66) Chlorobenzene	13.87	112	1664285	20.52	ug/l	99
67) 1,1,1,2-Tetrachloroethane	13.94	131	561830	20.12	ug/l	99
68) Ethylbenzene	13.96	91	2991666	19.60	ug/l	100
69) m-Xylene & p-Xylene	14.07	91	4315638	39.10	ug/l	100
70) o-Xylene	14.79	91	2260278	20.15	ug/l	100
71) Styrene	14.85	104	1705220	20.09	ug/l	99
72) Isopropylbenzene	15.37	105	2963587	20.53	ug/l	99
74) Bromoform	15.40	173	260992	20.24	ug/l	100
75) 1,1,2,2-Tetrachloroethane	15.65	83	391090	18.58	ug/l	100
77) 1,2,3-Trichloropropane	15.90	110	103893	20.49	ug/l	100
78) trans-1,4-Dichloro-2-buten	16.01	53	108752	19.50	ug/l	98
79) n-Propylbenzene	16.02	91	3693274	20.76	ug/l	99

(#) = qualifier out of range (m) = manual integration
 RCW008.D VO06C03.M Thu Mar 05 16:15:27 2015

5/3/15 Page 2

Data File : D:\HPCHEM\1\DATA\15C03\RCW008.D
 Acq On : 3 Mar 2015 1:44 pm
 Sample : VO06C037
 Misc : 20ppb 8260/100ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

Vial: 8
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80) Bromobenzene	16.10	156	620504	20.14	ug/l	98
81) 1,3,5-Trimethylbenzene	16.29	105	2318377	20.68	ug/l	99
82) 2-Chlorotoluene	16.30	91	2125524	19.75	ug/l	99
83) 4-Chlorotoluene	16.39	91	1859981	20.63	ug/l	100
84) tert-Butylbenzene	16.87	134	551274	20.31	ug/l	98
85) 1,2,4-Trimethylbenzene	16.93	105	2169938	19.71	ug/l	90
86) sec-Butylbenzene	17.18	105	3263785	20.63	ug/l	99
87) p-Isopropyltoluene	17.39	119	2657826	20.67	ug/l	99
88) 1,3-Dichlorobenzene	17.52	146	1201338	20.53	ug/l	100
89) 1,4-Dichlorobenzene	17.67	146	1153163	20.16	ug/l	100
90) n-Butylbenzene	17.94	91	2537073	20.57	ug/l	99
91) 1,2-Dichlorobenzene	18.15	146	998856	20.42	ug/l	99
92) 1,2-Dibromo-3-chloropropan	19.05	157	64324	19.71	ug/l	99
93) 1,2,4-Trichlorobenzene	20.02	180	743498	20.93	ug/l	99
94) Hexachlorobutadiene	20.18	225	524592	20.77	ug/l	100
95) Naphthalene	20.33	128	968107	19.88	ug/l	99
96) 1,2,3-Trichlorobenzene	20.62	180	551735	20.16	ug/l	99

su
3/6/15

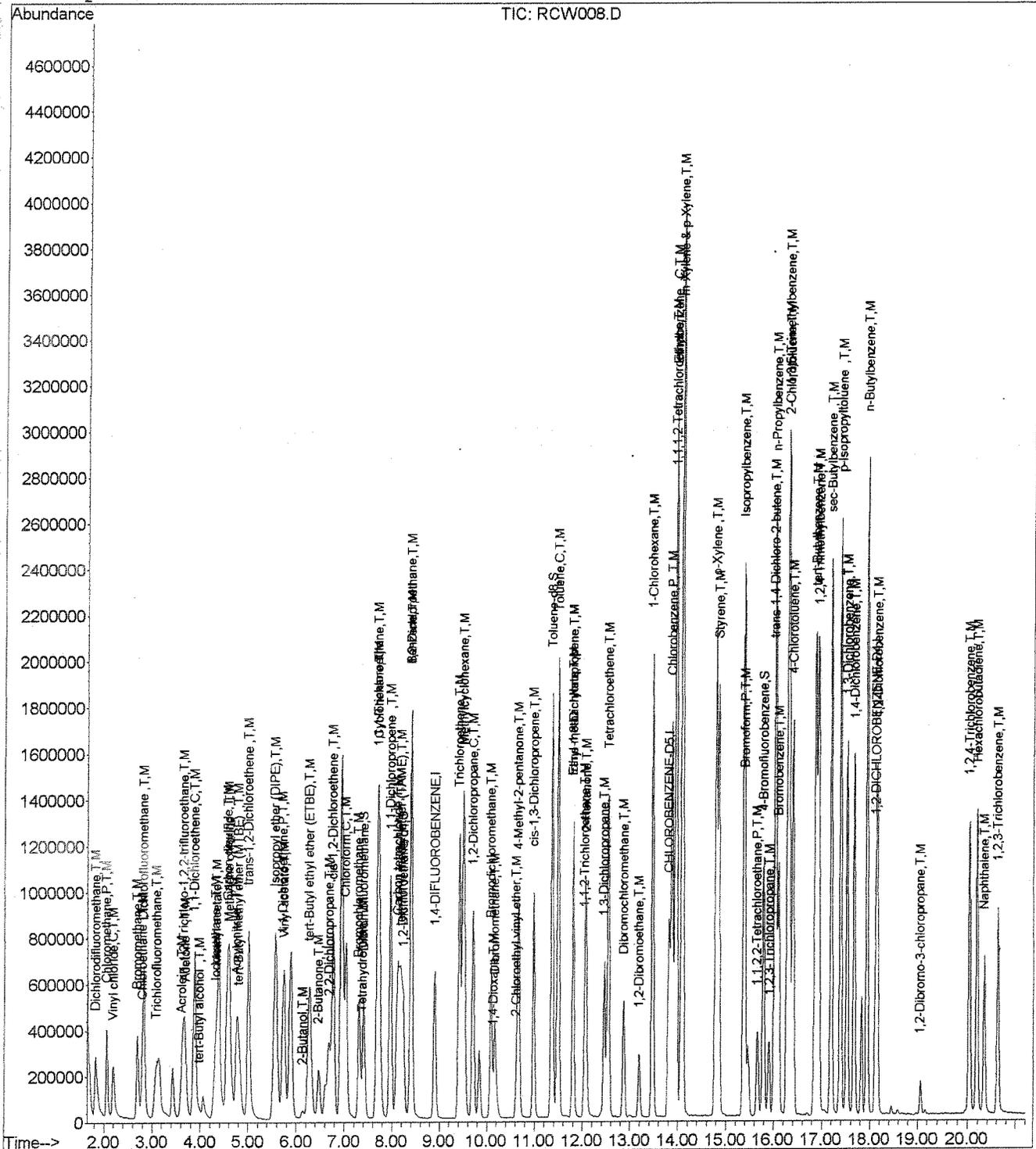
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15C03\RCW008.D
Acq On : 3 Mar 2015 1:44 pm
Sample : VO06C037
Misc : 20ppb 8260/100ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Mar 5 10:20 2015

Vial: 8
Operator: WLau
Inst : T006
Multiplr: 1.00

Quant Results File: VO06C03.RE

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration



54
3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW009.D
 Acq On : 3 Mar 2015 2:15 pm
 Sample : VO06C038
 Misc : 30ppb 8260/150ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

Vial: 9
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-DIFLUOROBENZENE	8.90	114	952705	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	13.81	117	864600	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.12	152	316985	10.00	ug/l	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	7.40	111	831602	29.35	ug/l	0.00
Spiked Amount	10.000		Recovery	=	293.50%	
41) 1,2-Dichloroethane-d4	8.23	65	599709	28.39	ug/l	0.00
Spiked Amount	10.000		Recovery	=	283.90%	
54) Toluene-d8	11.37	98	2995248	27.83	ug/l	0.00
Spiked Amount	10.000		Recovery	=	278.30%	
76) 4-Bromofluorobenzene	15.78	95	1007299	29.11	ug/l	0.00
Spiked Amount	10.000		Recovery	=	291.10%	
Target Compounds						
2) Dichlorodifluoromethane	1.81	85	911074	29.01	ug/l	100
3) Chloromethane	2.05	50	904978	29.52	ug/l	99
4) Vinyl chloride	2.20	62	699144	27.31	ug/l	100
5) Bromomethane	2.69	94	598833	30.19	ug/l	100
6) Chloroethane	2.79	64	486906	30.03	ug/l	98
7) Dichlorofluoromethane	2.82	67	1460639	30.29	ug/l	99
8) Trichlorofluoromethane	3.09	101	986259	30.25	ug/l	100
9) Acrolein	3.61	56	174235	147.66	ug/l	99
10) 1,1,2-Trichloro-1,2,2-trif	3.65	151	526774	32.09	ug/l	100
11) Acetone	3.70	43	331052	140.11	ug/l	95
12) 1,1-Dichloroethene	3.88	61	1471638	31.08	ug/l	100
13) tert-Butyl alcohol	3.98	59	141525	144.83	ug/l	91
15) Methyl acetate	4.34	43	249789	26.36	ug/l	96
16) Iodomethane	4.32	142	1498926	31.09	ug/l	100
17) Methylene chloride	4.60	49	1010821	28.89	ug/l	99
18) Carbon disulfide	4.57	76	3012427	29.67	ug/l	99
19) Acrylonitrile	4.75	53	550635	147.06	ug/l	100
20) tert-Butyl methyl ether (M)	4.80	73	1335202	30.55	ug/l	99
21) trans-1,2-Dichloroethene	5.01	61	1397192	30.75	ug/l	99
22) Isopropyl ether (DIPE)	5.56	45	2976717	30.53	ug/l	99
23) Vinyl acetate	5.76	43	1067221	31.06	ug/l	99
24) 1,1-Dichloroethane	5.72	63	1663774	30.53	ug/l	99
25) 2-Butanol	6.14	45	135553	149.40	ug/l	89
26) tert-Butyl ethyl ether (ET)	6.27	59	2158678	29.87	ug/l	100
27) 2-Butanone	6.48	43	766947	138.14	ug/l	100
28) 2,2-Dichloropropane	6.69	77	768762	27.26	ug/l	100
29) cis-1,2-Dichloroethene	6.78	96	988502	30.00	ug/l	100

(#) = qualifier out of range (m) = manual integration
 RCW009.D VO06C03.M Thu Mar 05 16:15:55 2015

SW
 3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW009.D
 Acq On : 3 Mar 2015 2:15 pm
 Sample : VO06C038
 Misc : 30ppb 8260/150ppb KET-AA-TBA
 MS Integration Params: RTE.P

Vial: 9
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Time: Mar 5 10:20 2015

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)

Title : METHOD 8260

Last Update : Thu Mar 05 10:12:48 2015

Response via : Initial Calibration

DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Chloroform	7.04	83	1548827	29.66	ug/l	99
32) Bromochloromethane	7.31	49	696042	31.55	ug/l	97
33) Tetrahydrofuran	7.37	42	92840	30.23	ug/l	96
35) 1,1,1-Trichloroethane	7.70	97	1262160	29.71	ug/l	100
36) Cyclohexane	7.71	56	1647966	26.49	ug/l	99
38) 1,1-Dichloropropene	7.96	110	515444	31.03	ug/l	100
39) Carbon tetrachloride	8.11	119	1229297	31.24	ug/l	99
40) tert-Amyl methyl ether (TA	8.19	87	375897	30.15	ug/l	97
42) 1,2-Dichloroethane	8.40	62	787698	31.09	ug/l	100
43) Benzene	8.41	78	3366013	30.44	ug/l	100
44) Trichloroethene	9.42	130	1141548	32.34	ug/l	97
45) Methylcyclohexane	9.50	83	1755646	28.13	ug/l	100
46) 1,2-Dichloropropane	9.70	63	924899	31.25	ug/l	99
47) 1,4-Dioxane	10.14	88	69604	640.35	ug/l	93
48) Bromodichloromethane	10.09	83	1152148	30.62	ug/l	99
49) Dibromomethane	10.16	93	388681	31.10	ug/l	99
50) 2-Chloroethyl vinyl ether	10.63	63	206449	31.90	ug/l	100
51) 4-Methyl-2-pentanone	10.66	43	2132538	147.04	ug/l	99
52) cis-1,3-Dichloropropene	10.98	75	1400379	31.35	ug/l	99
55) Toluene	11.49	91	3698317	28.67	ug/l	99
56) Ethyl methacrylate	11.80	69	671314	30.35	ug/l	100
57) trans-1,3-Dichloropropene	11.80	75	1018923	30.45	ug/l	99
58) 1,1,2-Trichloroethane	12.04	97	511807	29.19	ug/l	98
59) 2-Hexanone	12.07	43	1361530	140.81	ug/l	100
60) 1,3-Dichloropropane	12.45	76	988594	31.06	ug/l	99
61) Tetrachloroethene	12.54	164	911682	30.55	ug/l	99
62) Dibromochloromethane	12.87	129	731344	31.15	ug/l	99
64) 1,2-Dibromoethane	13.20	107	554671	31.96	ug/l	99
65) 1-Chlorohexane	13.47	91	1773905	30.14	ug/l	99
66) Chlorobenzene	13.87	112	2417141	30.26	ug/l	99
67) 1,1,1,2-Tetrachloroethane	13.94	131	822981	29.91	ug/l	99
68) Ethylbenzene	13.96	91	4296078	28.57	ug/l	99
69) m-Xylene & p-Xylene	14.09	91	6072770	55.85	ug/l	99
70) o-Xylene	14.79	91	3319291	30.03	ug/l	100
71) Styrene	14.85	104	2507535	29.99	ug/l	99
72) Isopropylbenzene	15.37	105	4272523	30.04	ug/l	99
74) Bromoform	15.40	173	387413	31.10	ug/l	99
75) 1,1,2,2-Tetrachloroethane	15.65	83	589031	28.97	ug/l	99
77) 1,2,3-Trichloropropane	15.90	110	148713	30.35	ug/l	98
78) trans-1,4-Dichloro-2-buten	16.01	53	162038	30.07	ug/l	99
79) n-Propylbenzene	16.02	91	5221325	30.38	ug/l	99

(#) = qualifier out of range (m) = manual integration
 RCW009.D VO06C03.M Thu Mar 05 16:15:56 2015

Sa 3/6/15 Page 2

Data File : D:\HPCHEM\1\DATA\15C03\RCW009.D
 Acq On : 3 Mar 2015 2:15 pm
 Sample : VO06C038
 Misc : 30ppb 8260/150ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

Vial: 9
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80) Bromobenzene	16.10	156	919755	30.89	ug/l	99
81) 1,3,5-Trimethylbenzene	16.29	105	3223490	29.75	ug/l	99
82) 2-Chlorotoluene	16.32	91	2964488	28.51	ug/l	99
83) 4-Chlorotoluene	16.39	91	2658877	30.52	ug/l	99
84) tert-Butylbenzene	16.87	134	804130	30.66	ug/l	100
85) 1,2,4-Trimethylbenzene	16.93	105	3203307	30.12	ug/l	99
86) sec-Butylbenzene	17.20	105	4547131	29.74	ug/l	99
87) p-Isopropyltoluene	17.39	119	3826292	30.80	ug/l	99
88) 1,3-Dichlorobenzene	17.52	146	1749225	30.94	ug/l	99
89) 1,4-Dichlorobenzene	17.67	146	1701555	30.78	ug/l	100
90) n-Butylbenzene	17.94	91	3578452	30.03	ug/l	98
91) 1,2-Dichlorobenzene	18.15	146	1460872	30.90	ug/l	99
92) 1,2-Dibromo-3-chloropropan	19.06	157	99025	31.41	ug/l	98
93) 1,2,4-Trichlorobenzene	20.04	180	1139016	33.19	ug/l	99
94) Hexachlorobutadiene	20.19	225	778065	31.88	ug/l	99
95) Naphthalene	20.33	128	1468648	31.21	ug/l	99
96) 1,2,3-Trichlorobenzene	20.63	180	847732	32.06	ug/l	100

54
3/6/15

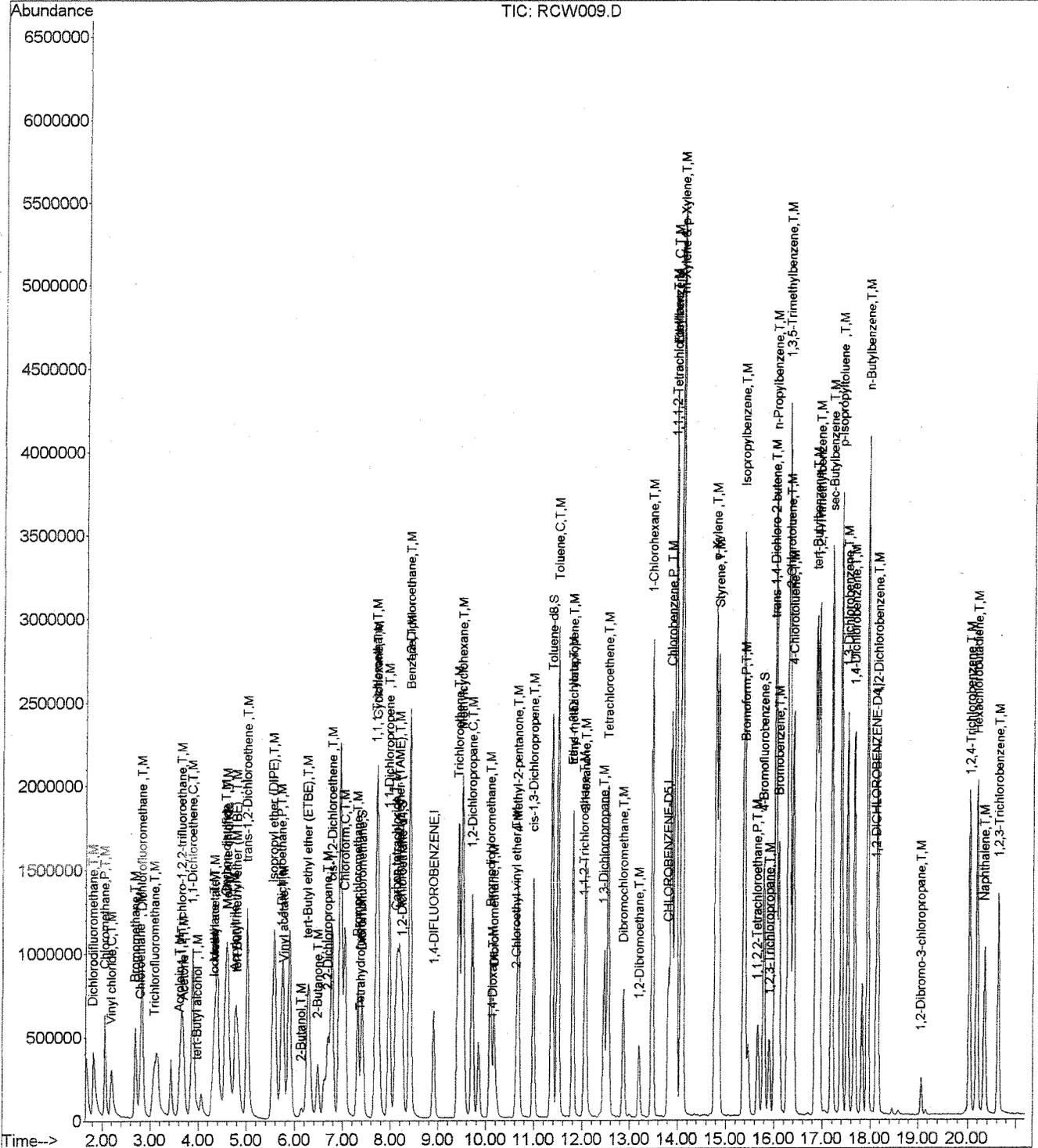
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15C03\RCW009.D
Acq On : 3 Mar 2015 2:15 pm
Sample : VO06C038
Misc : 30ppb 8260/150ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Mar 5 10:20 2015

Vial: 9
Operator: WLau
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06C03.RE

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration



SW
3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW010.D
 Acq On : 3 Mar 2015 2:46 pm
 Sample : VO06C039
 Misc : 50ppb 8260/250ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

Vial: 10
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.90	114	986238	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	13.81	117	850362	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.12	152	308097	10.00	ug/l	0.00

System Monitoring Compounds

34) Dibromofluoromethane	7.40	111	1374338	46.85	ug/l	0.00
Spiked Amount	10.000		Recovery	=	468.50%	
41) 1,2-Dichloroethane-d4	8.23	65	1001867	45.81	ug/l	0.00
Spiked Amount	10.000		Recovery	=	458.10%	
54) Toluene-d8	11.37	98	4911370	46.40	ug/l	0.00
Spiked Amount	10.000		Recovery	=	464.00%	
76) 4-Bromofluorobenzene	15.78	95	1615989	48.05	ug/l	0.00
Spiked Amount	10.000		Recovery	=	480.50%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.82	85	1487169	45.75	ug/l	100
3) Chloromethane	2.05	50	1420361	44.76	ug/l	100
4) Vinyl chloride	2.20	62	1027727	38.78	ug/l	100
5) Bromomethane	2.69	94	943091	45.94	ug/l	100
6) Chloroethane	2.79	64	765015	45.58	ug/l	98
7) Dichlorofluoromethane	2.82	67	2155927	43.20	ug/l	100
8) Trichlorofluoromethane	3.09	101	1600334	47.42	ug/l	99
9) Acrolein	3.61	56	278917	228.34	ug/l	98
10) 1,1,2-Trichloro-1,2,2-trif	3.65	151	815850	48.02	ug/l	100
11) Acetone	3.68	43	548535	224.26	ug/l	94
12) 1,1-Dichloroethene	3.88	61	2274917	46.41	ug/l	100
13) tert-Butyl alcohol	3.98	59	222932	220.38	ug/l	90
15) Methyl acetate	4.34	43	417836	42.59	ug/l	96
16) Iodomethane	4.32	142	2341571	46.92	ug/l	100
17) Methylene chloride	4.60	49	1583003	43.70	ug/l	99
18) Carbon disulfide	4.57	76	4794582	45.61	ug/l	99
19) Acrylonitrile	4.75	53	943133	243.32	ug/l	99
20) tert-Butyl methyl ether (M	4.80	73	2043545	45.16	ug/l	99
21) trans-1,2-Dichloroethene	5.01	61	2210072	46.99	ug/l	99
22) Isopropyl ether (DIPE)	5.56	45	4695112	46.52	ug/l	99
23) Vinyl acetate	5.76	43	1742615	48.99	ug/l	100
24) 1,1-Dichloroethane	5.72	63	2633847	46.69	ug/l	99
25) 2-Butanol	6.14	45	235367	250.59	ug/l	90
26) tert-Butyl ethyl ether (ET	6.27	59	3455216	46.19	ug/l	100
27) 2-Butanone	6.48	43	1329115	231.26	ug/l	99
28) 2,2-Dichloropropane	6.69	77	1117514	38.28	ug/l	99
29) cis-1,2-Dichloroethene	6.77	96	1590575	46.64	ug/l	98

(#) = qualifier out of range (m) = manual integration
 RCW010.D VO06C03.M Thu Mar 05 16:16:58 2015

SW
 3/6/15 Page 1

Data File : D:\HPCHEM\1\DATA\15C03\RCW010.D
 Acq On : 3 Mar 2015 2:46 pm
 Sample : VO06C039
 Misc : 50ppb 8260/250ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

Vial: 10
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Chloroform	7.04	83	2403219	44.46	ug/l	99
32) Bromochloromethane	7.31	49	1095595	47.97	ug/l	97
33) Tetrahydrofuran	7.37	42	138200	43.78	ug/l	98
35) 1,1,1-Trichloroethane	7.70	97	1948601	44.31	ug/l	100
36) Cyclohexane	7.71	56	2701617	41.95	ug/l	99
38) 1,1-Dichloropropene	7.96	110	831319	48.34	ug/l	99
39) Carbon tetrachloride	8.11	119	1930187	47.38	ug/l	100
40) tert-Amyl methyl ether (TA	8.19	87	568257	44.03	ug/l	96
42) 1,2-Dichloroethane	8.40	62	1216143	46.37	ug/l	100
43) Benzene	8.40	78	5047617	44.10	ug/l	100
44) Trichloroethene	9.42	130	1779464	48.70	ug/l	98
45) Methylcyclohexane	9.50	83	2923013	45.24	ug/l	100
46) 1,2-Dichloropropane	9.70	63	1449262	47.31	ug/l	99
47) 1,4-Dioxane	10.13	88	110647	983.33	ug/l	92
48) Bromodichloromethane	10.09	83	1792268	46.02	ug/l	99
49) Dibromomethane	10.16	93	621816	48.06	ug/l	99
50) 2-Chloroethyl vinyl ether	10.63	63	346305	51.70	ug/l	98
51) 4-Methyl-2-pentanone	10.66	43	3596273	239.53	ug/l	100
52) cis-1,3-Dichloropropene	10.98	75	2185998	47.27	ug/l	99
55) Toluene	11.49	91	5720191	45.09	ug/l	99
56) Ethyl methacrylate	11.80	69	1026937	47.21	ug/l	100
57) trans-1,3-Dichloropropene	11.80	75	1579918	48.01	ug/l	100
58) 1,1,2-Trichloroethane	12.04	97	803312	46.58	ug/l	99
59) 2-Hexanone	12.07	43	2242211	235.78	ug/l	100
60) 1,3-Dichloropropane	12.45	76	1535712	49.05	ug/l	99
61) Tetrachloroethene	12.54	164	1439001	49.03	ug/l	99
62) Dibromochloromethane	12.87	129	1159618	50.22	ug/l	98
64) 1,2-Dibromoethane	13.20	107	866872	50.78	ug/l	100
65) 1-Chlorohexane	13.47	91	2781762	48.06	ug/l	99
66) Chlorobenzene	13.87	112	3688576	46.94	ug/l	99
67) 1,1,1,2-Tetrachloroethane	13.94	131	1272137	47.01	ug/l	99
68) Ethylbenzene	13.96	91	6534072	44.18	ug/l	98
69) m-Xylene & p-Xylene	14.09	91	9010491	84.26	ug/l	98
70) o-Xylene	14.79	91	5133581	47.23	ug/l	99
71) Styrene	14.85	104	3905060	47.48	ug/l	99
72) Isopropylbenzene	15.37	105	6376866	45.59	ug/l	98
74) Bromoform	15.40	173	609515	50.34	ug/l	99
75) 1,1,2,2-Tetrachloroethane	15.67	83	910786	46.08	ug/l	99
77) 1,2,3-Trichloropropane	15.90	110	237642	49.89	ug/l	99
78) trans-1,4-Dichloro-2-buten	16.01	53	249170	47.57	ug/l	99
79) n-Propylbenzene	16.02	91	7838487	46.92	ug/l	98

(#) = qualifier out of range (m) = manual integration
 RCW010.D VO06C03.M Thu Mar 05 16:16:59 2015

50
 3/6/15 Page 2

Data File : D:\HPCHEM\1\DATA\15C03\RCW010.D
 Acq On : 3 Mar 2015 2:46 pm
 Sample : VO06C039
 Misc : 50ppb 8260/250ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:20 2015

Vial: 10
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80) Bromobenzene	16.10	156	1429130	49.38	ug/l	99
81) 1,3,5-Trimethylbenzene	16.29	105	4776907	45.36	ug/l	99
82) 2-Chlorotoluene	16.32	91	4409269	43.63	ug/l	98
83) 4-Chlorotoluene	16.39	91	4063327	47.99	ug/l	99
84) tert-Butylbenzene	16.87	134	1239489	48.63	ug/l	97
85) 1,2,4-Trimethylbenzene	16.93	105	4734750	45.80	ug/l	99
86) sec-Butylbenzene	17.20	105	6824010	45.92	ug/l	98
87) p-Isopropyltoluene	17.39	119	5726656	47.43	ug/l	99
88) 1,3-Dichlorobenzene	17.52	146	2595698	47.24	ug/l	99
89) 1,4-Dichlorobenzene	17.67	146	2558583	47.62	ug/l	99
90) n-Butylbenzene	17.94	91	5371662	46.38	ug/l	97
91) 1,2-Dichlorobenzene	18.15	146	2187884	47.61	ug/l	99
92) 1,2-Dibromo-3-chloropropan	19.06	157	165340	53.95	ug/l	98
93) 1,2,4-Trichlorobenzene	20.04	180	1738749	52.13	ug/l	99
94) Hexachlorobutadiene	20.19	225	1197564	50.49	ug/l	98
95) Naphthalene	20.33	128	2353571	51.45	ug/l	99
96) 1,2,3-Trichlorobenzene	20.63	180	1303201	50.71	ug/l	99

Sw 3/6/15

(#) = qualifier out of range (m) = manual integration
 RCW010.D VO06C03.M Thu Mar 05 16:16:59 2015

Data File : D:\HPCHEM\1\DATA\15C03\RCW011.D
 Acq On : 3 Mar 2015 3:16 pm
 Sample : VO06C0310
 Misc : 100ppb 8260/500ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:21 2015

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

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.90	114	963389	10.00	ug/l	0.00
53) CHLOROBENZENE-D5	13.82	117	833649	10.00	ug/l	0.02
73) 1,2-DICHLOROBENZENE-D4	18.12	152	297189	10.00	ug/l	0.00

System Monitoring Compounds

34) Dibromofluoromethane	7.41	111	2548251	88.94	ug/l	0.02
Spiked Amount	10.000		Recovery	=	889.40%	
41) 1,2-Dichloroethane-d4	8.25	65	1830381	85.68	ug/l	0.02
Spiked Amount	10.000		Recovery	=	856.80%	
54) Toluene-d8	11.37	98	8743398	84.26	ug/l	0.00
Spiked Amount	10.000		Recovery	=	842.60%	
76) 4-Bromofluorobenzene	15.78	95	2886960	89.00	ug/l	0.00
Spiked Amount	10.000		Recovery	=	890.00%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.81	85	2965797	93.40	ug/l	100
3) Chloromethane	2.06	50	2725754	87.93	ug/l	99
4) Vinyl chloride	2.20	62	1675433	64.71	ug/l	100
5) Bromomethane	2.69	94	1796206	89.56	ug/l	99
6) Chloroethane	2.79	64	1375913	83.92	ug/l	97
7) Dichlorofluoromethane	2.82	67	3943768	80.89	ug/l	98
8) Trichlorofluoromethane	3.09	101	3094956	93.87	ug/l	100
9) Acrolein	3.61	56	536038	449.25	ug/l	99
10) 1,1,2-Trichloro-1,2,2-trif	3.65	151	1623575	97.82	ug/l	100
11) Acetone	3.68	43	1057684	442.68	ug/l	93
12) 1,1-Dichloroethene	3.88	61	4516673	94.33	ug/l	100
13) tert-Butyl alcohol	3.98	59	436912	442.16	ug/l	88
15) Methyl acetate	4.34	43	795434	83.01	ug/l	95
16) Iodomethane	4.32	142	4565076	93.64	ug/l	99
17) Methylene chloride	4.60	49	2966263	83.83	ug/l	98
18) Carbon disulfide	4.57	76	8925419	86.93	ug/l	99
19) Acrylonitrile	4.75	53	1711904	452.12	ug/l	99
20) tert-Butyl methyl ether (M	4.80	73	3985183	90.16	ug/l	100
21) trans-1,2-Dichloroethene	5.01	61	4164149	90.63	ug/l	99
22) Isopropyl ether (DIPE)	5.57	45	8798552	89.25	ug/l	98
23) Vinyl acetate	5.76	43	3300966	95.00	ug/l	100
24) 1,1-Dichloroethane	5.72	63	5036948	91.41	ug/l	100
25) 2-Butanol	6.14	45	474664	517.35	ug/l	95
26) tert-Butyl ethyl ether (ET	6.28	59	6653790	91.05	ug/l	99
27) 2-Butanone	6.48	43	2572318	458.19	ug/l	99
28) 2,2-Dichloropropane	6.69	77	1978352	69.38	ug/l	99
29) cis-1,2-Dichloroethene	6.77	96	2984056	89.57	ug/l	97

(#) = qualifier out of range (m) = manual integration
 RCW011.D VO06C03.M Thu Mar 05 16:17:34 2015

SW
 3/6/15 Page 1

Data File : D:\HPCHEM\1\DATA\15C03\RCW011.D
 Acq On : 3 Mar 2015 3:16 pm
 Sample : VO06C0310
 Misc : 100ppb 8260/500ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Mar 5 10:21 2015

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

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Chloroform	7.04	83	4553734	86.25	ug/l	98
32) Bromochloromethane	7.31	49	2043257	91.59	ug/l	97
33) Tetrahydrofuran	7.37	42	273848	89.52	ug/l	99
35) 1,1,1-Trichloroethane	7.71	97	3662407	85.25	ug/l	99
36) Cyclohexane	7.73	56	4843570	77.00	ug/l	97
38) 1,1-Dichloropropene	7.96	110	1538858	91.61	ug/l	99
39) Carbon tetrachloride	8.13	119	3729843	93.74	ug/l	100
40) tert-Amyl methyl ether (TA	8.20	87	1057669	83.89	ug/l	95
42) 1,2-Dichloroethane	8.40	62	2313548	90.30	ug/l	100
43) Benzene	8.41	78	9387741	83.96	ug/l	99
44) Trichloroethene	9.42	130	3283059	91.99	ug/l	97
45) Methylcyclohexane	9.51	83	5243965	83.09	ug/l	99
46) 1,2-Dichloropropane	9.72	63	2637576	88.14	ug/l	99
47) 1,4-Dioxane	10.13	88	216918	1973.50	ug/l	92
48) Bromodichloromethane	10.09	83	3403226	89.46	ug/l	100
49) Dibromomethane	10.16	93	1212520	95.93	ug/l	98
50) 2-Chloroethyl vinyl ether	10.63	63	665084	101.64	ug/l	98
51) 4-Methyl-2-pentanone	10.67	43	6567559	447.80	ug/l	100
52) cis-1,3-Dichloropropene	10.98	75	4074375	90.20	ug/l	98
55) Toluene	11.50	91	10384245	83.50	ug/l	97
56) Ethyl methacrylate	11.81	69	1924439	90.24	ug/l	99
57) trans-1,3-Dichloropropene	11.80	75	2990116	92.69	ug/l	100
58) 1,1,2-Trichloroethane	12.05	97	1513820	89.53	ug/l	99
59) 2-Hexanone	12.08	43	3995390	428.56	ug/l	99
60) 1,3-Dichloropropane	12.47	76	2856694	93.07	ug/l	99
61) Tetrachloroethene	12.54	164	2676013	93.00	ug/l	98
62) Dibromochloromethane	12.87	129	2201478	97.25	ug/l	98
64) 1,2-Dibromoethane	13.20	107	1670397	99.81	ug/l	99
65) 1-Chlorohexane	13.48	91	4948030	87.21	ug/l	98
66) Chlorobenzene	13.88	112	6841490	88.82	ug/l	99
67) 1,1,1,2-Tetrachloroethane	13.96	131	2339678	88.19	ug/l	98
68) Ethylbenzene	13.97	91	11324499	78.11	ug/l	96
69) m-Xylene & p-Xylene	14.09	91	15402030	146.91	ug/l	96
70) o-Xylene	14.79	91	8997494	84.43	ug/l	98
71) Styrene	14.86	104	6855346	85.02	ug/l	98
72) Isopropylbenzene	15.38	105	11183587	81.56	ug/l	97
74) Bromoform	15.40	173	1140590	97.65	ug/l	99
75) 1,1,2,2-Tetrachloroethane	15.67	83	1719763	90.20	ug/l	100
77) 1,2,3-Trichloropropane	15.90	110	450323	98.01	ug/l	100
78) trans-1,4-Dichloro-2-buten	16.02	53	456009	90.26	ug/l	96
79) n-Propylbenzene	16.04	91	13565642	84.19	ug/l	96

(#) = qualifier out of range (m) = manual integration
 RCW011.D VO06C03.M Thu Mar 05 16:17:35 2015

SW
 3/6/15

Data File : D:\HPCHEM\1\DATA\15C03\RCW011.D
 Acq On : 3 Mar 2015 3:16 pm
 Sample : VO06C0310
 Misc : 100ppb 8260/500ppb KET-AA-TBA

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

MS Integration Params: RTE.P

Quant Time: Mar 5 10:21 2015

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)

Title : METHOD 8260

Last Update : Thu Mar 05 10:12:48 2015

Response via : Initial Calibration

DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80) Bromobenzene	16.11	156	2648465	94.87	ug/l	97
81) 1,3,5-Trimethylbenzene	16.29	105	8449615	83.18	ug/l	97
82) 2-Chlorotoluene	16.32	91	8262058	84.75	ug/l	97
83) 4-Chlorotoluene	16.39	91	6939112	84.97	ug/l	97
84) tert-Butylbenzene	16.87	134	2255921	91.76	ug/l	95
85) 1,2,4-Trimethylbenzene	16.93	105	8371184	83.95	ug/l	97
86) sec-Butylbenzene	17.20	105	11871246	82.81	ug/l	96
87) p-Isopropyltoluene	17.39	119	9920143	85.17	ug/l	97
88) 1,3-Dichlorobenzene	17.52	146	4856189	91.62	ug/l	98
89) 1,4-Dichlorobenzene	17.67	146	4702601	90.73	ug/l	98
90) n-Butylbenzene	17.94	91	9386169	84.01	ug/l	96
91) 1,2-Dichlorobenzene	18.15	146	4107305	92.66	ug/l	98
92) 1,2-Dibromo-3-chloropropan	19.07	157	313725	106.13	ug/l	98
93) 1,2,4-Trichlorobenzene	20.04	180	3277288	101.86	ug/l	99
94) Hexachlorobutadiene	20.19	225	2253346	98.49	ug/l	99
95) Naphthalene	20.35	128	4328635	98.10	ug/l	98
96) 1,2,3-Trichlorobenzene	20.63	180	2457527	99.14	ug/l	100

su 3/6/15

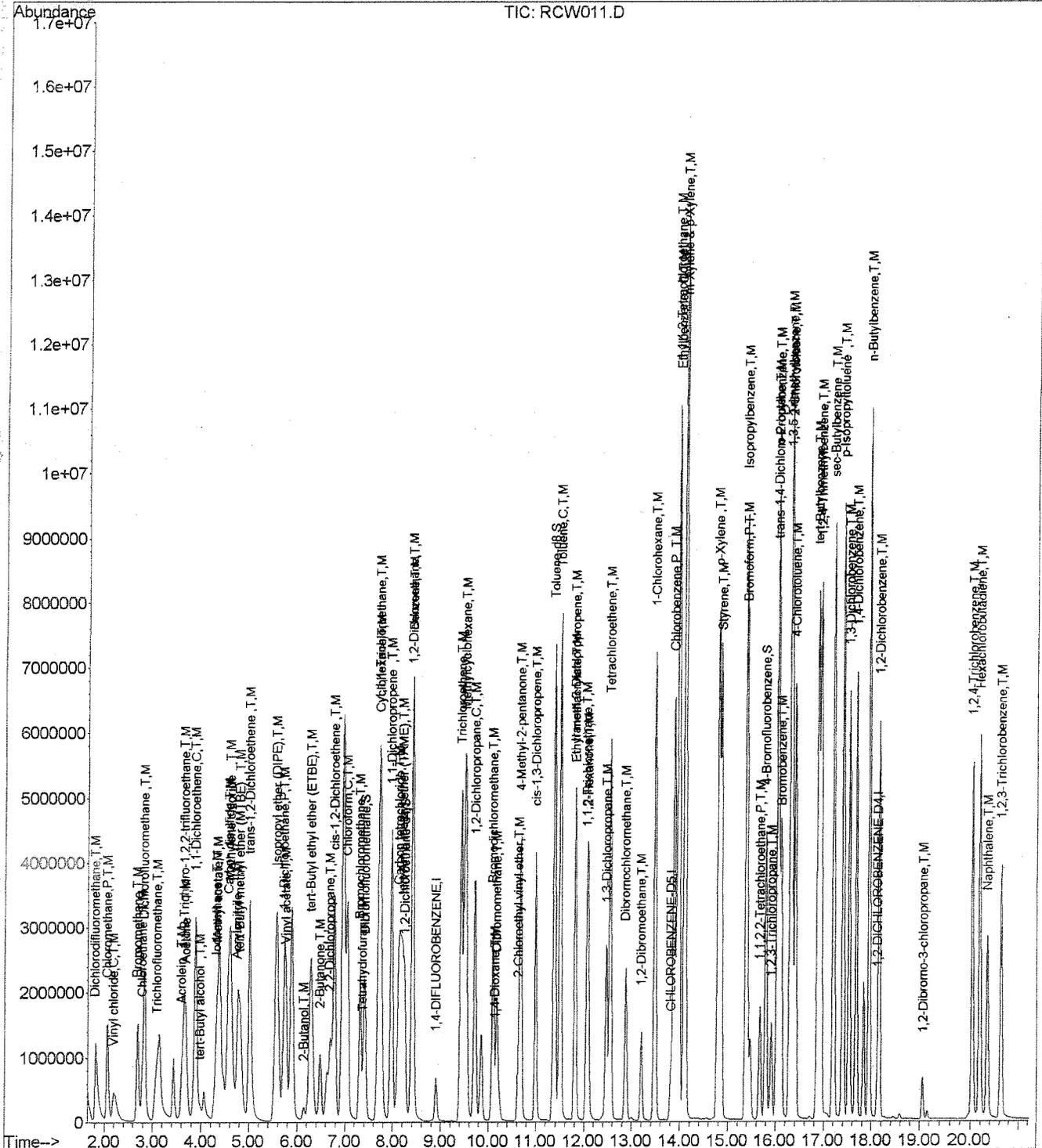
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15C03\RCW011.D
Acq On : 3 Mar 2015 3:16 pm
Sample : VO06C0310
Misc : 100ppb 8260/500ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Mar 5 10:21 2015

Vial: 11
Operator: WLaU
Inst : T006
Multiplr: 1.00

Quant Results File: VO06C03.RE

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration



Sw
3/6/15

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :T067
 Beginning Date/Time :12/18/14 20:33
 Spike Units :PPB
 IC File :RLC381

Column Spec :RTX502.2 ID :0.25MM
 Ending Date/Time :12/19/14 03:13
 HPChem Method :V067L18

M	IDX	Parameters	02:39 RLC389	03:13 RLC390	20:33 RLC378	21:07 RLC379	21:37 RLC380	22:11 RLC381	22:44 RLC382	23:19 RLC383	23:52 RLC384	00:26 RLC385	Av_RRF	%_RSD	Av_Rt_M
1		1,4-DIFLUOROENZENE	1	1	1	1	1	1	1	1	1	1	1	0	8.0389
2		Dichlorodifluoromethane	0.274	0.249	0.356	0.380	0.378	0.362	0.361	0.364	0.309	0.340	0.337	13.31	1.9628
3		Dichlorotetrafluoroethane	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	0.00	0.0000
4		Chloromethane	-----	0.357	0.505	0.533	0.528	0.521	0.528	0.536	0.452	0.521	0.498	11.81	2.1395
5		Vinyl chloride	-----	0.361	0.541	0.566	0.578	0.576	0.593	0.603	0.519	0.559	0.544	13.43	2.2756
6		Bromomethane	0.223	0.231	0.332	0.370	0.370	0.373	0.384	0.398	0.344	-----	0.336	19.31	2.7690
7		Chloroethane	0.308	0.259	0.356	0.374	0.363	0.351	0.350	0.358	0.309	0.362	0.339	10.52	2.8638
8		Dichlorofluoromethane	0.604	0.651	0.683	0.643	0.710	0.687	0.730	0.733	0.687	0.744	0.687	6.49	2.8980
9		Trichlorofluoromethane	-----	0.313	0.459	0.496	0.513	0.495	0.514	0.520	0.446	0.501	0.473	13.72	3.1597
10		sec-Propyl alcohol	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	0.00	0.0000
5	11	Acrolein	-----	0.014	0.015	0.014	0.013	0.013	0.014	0.014	-----	-----	0.014	4.63	3.6228
12		1,1,2-Trichloro-1,2,2-trifluoroethane	0.282	0.259	0.268	0.256	0.278	0.263	0.276	0.280	0.257	0.274	0.269	3.67	3.6687
5	13	Acetone	-----	-----	0.031	0.026	0.024	0.022	0.023	0.023	0.021	0.022	0.024	13.42	3.6925
14		1,1-Dichloroethene	0.496	0.502	0.534	0.510	0.549	0.519	0.544	0.537	0.498	0.530	0.522	3.74	3.8542
5	15	tert-Butyl alcohol	-----	-----	0.007	0.007	0.008	0.008	0.008	0.009	0.008	0.009	0.008	7.93	3.9537
16		Methyl acetate	-----	-----	0.111	0.094	0.076	0.076	0.074	0.080	0.075	0.079	0.083	15.31	4.2550
17		Iodomethane	0.467	0.509	0.528	0.513	0.554	0.538	0.565	0.569	0.534	0.585	0.536	6.48	4.2312
10	18	Acetonitrile	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	0.00	0.0000
19		Methylene chloride	0.414	0.350	0.316	0.314	0.320	0.311	0.325	0.322	0.301	0.318	0.329	9.85	4.4445
20		Carbon disulfide	-----	1.062	1.299	1.488	1.480	1.390	1.425	1.468	1.508	1.499	1.402	10.25	4.4675
5	21	Acrylonitrile	0.036	0.036	0.031	0.032	0.035	0.034	0.037	0.037	0.035	0.037	0.035	5.91	4.6067
22		tert-Butyl methyl ether (MTBE)	0.379	0.420	0.361	0.373	0.406	0.407	0.431	0.425	0.406	0.429	0.404	6.11	4.6432
23		trans-1,2-Dichloroethene	0.438	0.447	0.446	0.432	0.473	0.446	0.466	0.466	0.433	0.459	0.451	3.22	4.8244
24		Isopropyl ether (DIPE)	0.892	0.909	0.853	0.832	0.888	0.893	0.940	0.939	0.888	0.940	0.898	4.05	5.2321
25		1,1-Dichloroethane	0.504	0.560	0.564	0.542	0.577	0.554	0.584	0.582	0.549	0.584	0.560	4.45	5.3826
26		Vinyl acetate	0.199	0.234	0.255	0.298	0.290	0.302	0.306	0.312	0.277	0.317	0.279	13.77	5.3826
5	27	2-Butanol	-----	-----	0.007	0.006	0.006	0.006	0.006	0.007	0.006	0.007	0.007	6.35	5.6851
28		tert-Butyl ethyl ether (ETBE)	0.598	0.639	0.588	0.609	0.657	0.656	0.694	0.693	0.662	0.704	0.650	6.36	5.7859
5	29	2-Butanone	-----	0.048	0.036	0.036	0.038	0.038	0.042	0.041	0.039	0.041	0.040	9.24	5.9530
30		2,2-Dichloropropane	0.298	0.298	0.364	0.345	0.353	0.338	0.338	0.328	0.292	0.283	0.324	8.85	6.1511
31		cis-1,2-Dichloroethene	0.314	0.331	0.314	0.312	0.336	0.332	0.348	0.348	0.331	0.365	0.333	5.15	6.2125
32		Chloroform	0.465	0.482	0.477	0.468	0.508	0.488	0.512	0.516	0.480	0.523	0.492	4.26	6.4317
33		Bromochloromethane	0.151	0.179	0.160	0.160	0.179	0.177	0.180	0.180	0.170	0.181	0.172	6.34	6.6625
5	34	tert-Amyl alcohol	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	0.00	0.0000
35		Dibromofluoromethane	0.209	0.209	0.254	0.275	0.264	0.302	0.301	0.300	0.299	0.332	0.275	14.92	6.7385
36		Tetrahydrofuran	-----	-----	0.022	0.022	0.022	0.023	0.022	0.021	0.020	0.021	0.021	4.19	6.7097
37		1,1,1-Trichloroethane	0.379	0.418	0.444	0.427	0.459	0.440	0.458	0.457	0.426	0.447	0.435	5.62	7.0001
38		Cyclohexane	-----	-----	0.698	0.726	0.747	0.646	0.683	0.727	0.682	0.744	0.707	5.02	7.0166
39		2,2,4-Trimethylpentane	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	0.00	0.0000
40		1,1-Dichloropropene	0.167	0.163	0.168	0.153	0.175	0.168	0.174	0.178	0.167	0.183	0.170	4.92	7.2251
41		Carbon tetrachloride	0.362	0.380	0.399	0.377	0.413	0.396	0.412	0.415	0.385	0.407	0.395	4.53	7.3683
42		tert-Amyl methyl ether (TAME)	0.092	0.108	0.095	0.098	0.106	0.110	0.116	0.115	0.110	0.118	0.107	8.35	7.3960
43		1,2-Dichloroethane-d4	0.138	0.132	0.149	0.160	0.151	0.174	0.171	0.168	0.167	0.178	0.159	9.82	7.4588
44		1,2-Dichloroethane	0.176	0.186	0.173	0.179	0.189	0.191	0.200	0.196	0.185	0.194	0.187	4.67	7.5991
45		Benzene	1.122	1.178	1.168	1.122	1.195	1.170	1.223	1.239	1.181	1.306	1.190	4.61	7.6167
46		Trichloroethene	-----	0.458	0.420	0.364	0.357	0.342	0.357	0.358	0.340	0.377	0.375	10.45	8.5473
47		Methylcyclohexane	-----	-----	0.680	0.724	0.772	0.666	0.711	0.763	0.711	0.794	0.727	6.20	8.6348
48		1,2-Dichloropropane	0.258	0.261	0.246	0.244	0.265	0.258	0.271	0.270	0.257	0.277	0.261	4.08	8.8177
49		Bromodichloromethane	0.289	0.294	0.283	0.279	0.306	0.305	0.318	0.317	0.304	0.323	0.302	4.99	9.1903
20	50	1,4-Dioxane	-----	-----	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	13.06	9.2247
51		Dibromomethane	0.090	0.101	0.097	0.098	0.106	0.107	0.113	0.113	0.108	0.115	0.105	7.78	9.2765
52		2-Chloroethyl vinyl ether	-----	-----	0.048	0.051	0.059	0.063	0.068	-----	-----	-----	0.057	14.24	9.6857
5	53	4-Methyl-2-pentanone	0.105	0.101	0.089	0.089	0.095	0.097	0.103	0.103	0.099	0.104	0.098	6.18	9.7324
54		cis-1,3-Dichloropropene	0.343	0.361	0.346	0.345	0.376	0.375	0.397	0.391	0.375	0.403	0.371	5.97	10.0685
55		CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	1	0	13.1222
56		Toluene-d8	1.351	1.154	1.414	1.458	1.380	1.547	1.536	1.569	1.577	1.791	1.478	11.50	10.4761
57		Toluene	1.653	1.789	1.760	1.626	1.744	1.669	1.712	1.775	1.680	1.829	1.724	3.83	10.6076
58		Ethyl methacrylate	0.199	0.198	0.183	0.190	0.209	0.213	0.225	0.228	0.217	0.237	0.210	8.33	10.9028

Sci
12/24/14

2109

59	trans-1,3-Dichloropropene	0.344	0.343	0.324	0.325	0.355	0.354	0.366	0.370	0.349	0.380	0.351	5.18	10.9159
60	1,1,2-Trichloroethane	0.164	0.165	0.162	0.154	0.171	0.169	0.177	0.180	0.171	0.189	0.170	5.72	11.1833
5 61	2-Hexanone	0.098	0.089	0.079	0.075	0.080	0.079	0.084	0.085	0.081	0.084	0.083	7.80	11.2008
62	1,3-Dichloropropene	0.326	0.335	0.312	0.304	0.330	0.328	0.337	0.346	0.323	0.349	0.329	4.21	11.6187
63	Tetrachloroethene	0.387	0.361	0.375	0.349	0.377	0.359	0.370	0.383	0.357	0.392	0.371	3.87	11.7225
64	Dibromochloromethane	0.225	0.229	0.224	0.216	0.235	0.238	0.250	0.252	0.238	0.258	0.237	5.72	12.0848
65	1,2-Dibromoethane	0.165	0.168	0.154	0.151	0.166	0.164	0.172	0.174	0.165	0.177	0.166	4.99	12.4355
66	1-Chlorohexane	0.886	0.827	0.871	0.806	0.887	0.841	0.875	0.909	0.845	0.925	0.867	4.29	12.7394
67	Chlorobenzene	1.003	0.940	0.930	0.879	0.962	0.934	0.973	1.006	0.942	1.060	0.963	5.23	13.1953
68	1,1,1,2-Tetrachloroethane	0.291	0.312	0.303	0.289	0.317	0.313	0.331	0.338	0.326	0.369	0.319	7.44	13.2757
69	Ethylbenzene	1.944	1.922	1.947	1.842	1.995	1.928	2.026	2.080	1.975	2.081	1.974	3.76	13.2917
2 70	m-Xylene & p-Xylene	1.468	1.398	1.393	1.311	1.434	1.369	1.436	1.487	1.414	-----	1.412	3.74	13.4290
71	o-Xylene	1.321	1.301	1.309	1.244	1.348	1.289	1.343	1.386	1.294	1.404	1.324	3.59	14.2356
72	Styrene	0.967	0.998	0.947	0.921	1.001	0.992	1.044	1.065	1.011	1.124	1.007	5.87	14.3087
73	Isopropylbenzene	1.803	1.766	1.836	1.702	1.881	1.807	1.874	1.932	1.797	1.935	1.833	4.02	14.9194
74	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	1	0	18.3531
75	Bromoform	0.333	0.330	0.329	0.320	0.352	0.349	0.373	0.389	0.375	0.443	0.359	10.37	14.9341
76	1,1,2,2-Tetrachloroethane	0.495	0.543	0.493	0.487	0.522	0.524	0.544	0.558	0.531	0.581	0.528	5.75	15.2555
77	4-Bromofluorobenzene	1.485	1.111	1.189	1.218	1.101	1.235	1.220	1.241	1.239	1.425	1.246	9.77	15.3928
78	1,2,3-Trichloropropane	0.096	0.143	0.121	0.135	0.141	0.136	0.143	0.146	0.140	0.151	0.135	11.66	15.5346
79	trans-1,4-Dichloro-2-butene	-----	0.134	0.129	0.131	0.141	0.139	0.147	0.150	0.140	0.147	0.140	5.37	15.6761
80	n-Propylbenzene	7.246	6.793	7.268	6.582	7.201	6.743	7.061	7.342	6.939	7.061	7.024	3.61	15.6836
81	Bromobenzene	1.051	0.992	0.952	0.918	0.990	0.948	0.991	1.030	0.969	1.104	0.994	5.51	15.7552
82	1,3,5-Trimethylbenzene	4.249	4.080	4.317	3.985	4.382	4.116	4.288	4.559	4.209	4.838	4.302	5.78	15.9963
83	2-Chlorotoluene	4.288	3.840	3.958	3.894	3.938	3.711	3.831	4.041	3.972	4.431	3.991	5.45	16.0153
84	4-Chlorotoluene	3.679	3.525	3.473	3.043	3.402	3.221	3.393	3.515	3.065	3.559	3.388	6.28	16.1132
85	tert-Butylbenzene	0.998	0.953	1.042	0.934	1.064	0.977	1.033	1.085	1.009	1.153	1.025	6.40	16.6830
86	1,2,4-Trimethylbenzene	4.129	3.887	4.067	3.793	4.132	3.872	4.075	4.216	3.886	4.387	4.044	4.56	16.7561
87	sec-Butylbenzene	6.403	5.898	6.462	5.857	6.373	5.973	6.238	6.531	5.994	6.449	6.218	4.19	17.0965
88	p-Isopropyltoluene	5.152	4.706	5.112	4.661	5.205	4.862	5.076	5.274	4.824	5.320	5.019	4.73	17.3741
89	1,3-Dichlorobenzene	2.333	2.046	1.934	1.830	1.977	1.902	1.978	2.066	1.907	2.123	2.010	7.12	17.5392
90	1,4-Dichlorobenzene	2.294	1.999	1.845	1.743	1.918	1.803	1.894	1.946	1.811	2.013	1.927	8.07	17.7540
91	n-Butylbenzene	5.104	4.525	4.930	4.480	4.924	4.632	4.795	4.999	4.507	4.877	4.777	4.72	18.1354
92	1,2-Dichlorobenzene	1.709	1.612	1.462	1.416	1.530	1.478	1.529	1.567	1.462	1.612	1.538	5.79	18.3969
93	1,2-Dibromo-3-chloropropane	-----	0.066	0.053	0.066	0.070	0.071	0.076	0.076	0.072	0.077	0.069	10.82	19.5367
94	1,2,4-Trichlorobenzene	1.239	1.000	0.829	0.812	0.904	0.907	0.947	0.963	0.878	0.968	0.945	12.69	20.6325
95	Hexachlorobutadiene	0.975	0.854	0.866	0.787	0.868	0.815	0.825	0.851	0.754	0.813	0.841	7.07	20.8078
96	Naphthalene	-----	1.235	0.861	0.909	1.029	1.046	1.125	1.134	1.057	1.146	1.060	11.13	20.9540
97	1,2,3-Trichlorobenzene	0.874	0.745	0.553	0.565	0.641	0.646	0.678	0.677	0.625	0.679	0.668	13.72	21.2754

Spike Amount = Nominal Amount * M
Ave_%RSD : 7.4 Max_%RSD : 19.3

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = x0 + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
6	Bromomethane	-0.00429	0.37065	0.9978
16	Methyl acetate	0.00256	0.07707	0.9993

S₉
12/24/14

SECOND SOURCE VERIFICATION

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T006
 IC_Beginning DateTime :03/03/15 10:20
 Spike Amount :10 PPB
 CC/CV File :RCW025
 IC File :RCW007

Column Spec :RTX502.2 ID :0.25MM
 IC_Ending DateTime :03/03/15 15:16
 HPChem Method :V006C03
 Date_Time :03/04/15 15:40

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	984695	1	1	8.876	8.896	0				
2	Dichlorodifluoromethane	9.410	-5.9	305414	0.310	0.330	1.814	1.815	8.12				
3	Chloromethane	10.224	2.2	323935	0.329	0.322	2.052	2.050	7.23				
4	Vinyl chloride	10.143	1.4	268427	0.273	0.269	2.186	2.184	10.45				
5	Bromomethane	10.297	3.0	211076	0.214	0.208	2.677	2.683	5.43				
6	Chloroethane	10.095	0.9	169168	0.172	0.170	2.781	2.787	7.25				
7	Dichlorofluoromethane	9.736	-2.6	485148	0.493	0.506	2.825	2.823	10.01				
8	Trichlorofluoromethane	10.216	2.2	344271	0.350	0.342	3.078	3.086	4.64				
9	Acrolein	53.043	6.1	64691	0.013	0.012	3.599	3.603	8.00				
10	1,1,2-Trichloro-1,2,2-trifluoroethane	9.276	-7.2	157365	0.160	0.172	3.643	3.654	7.10				
11	Acetone	49.356	-1.3	120534	0.024	0.025	3.673	3.686	12.54				
12	1,1-Dichloroethene	9.974	-0.3	488106	0.496	0.497	3.866	3.874	4.35				
13	tert-Butyl alcohol	51.326	2.7	51838	0.011	0.010	3.970	3.978	9.36				
14	Acetonitrile												
15	Methyl acetate	9.667	-3.3	94687	0.096	0.099	4.327	4.339	14.54				
16	Iodomethane	10.079	0.8	502255	0.510	0.506	4.312	4.320	4.80				
17	Methylene chloride	10.162	1.6	367542	0.373	0.367	4.595	4.598	9.20				
18	Carbon disulfide	9.769	-2.3	1025291	1.041	1.066	4.565	4.570	6.36				
19	Acrylonitrile	51.852	3.7	200671	0.041	0.039	4.743	4.754	5.64				
20	tert-Butyl methyl ether (MTBE)	10.103	1.0	456474	0.464	0.459	4.788	4.799	5.63				
21	trans-1,2-Dichloroethene	9.974	-0.3	468406	0.476	0.477	4.996	5.004	5.40				
22	Isopropyl ether (DIPE)	10.335	3.3	1041424	1.058	1.023	5.546	5.560	5.52				
23	Vinyl acetate	10.590	5.9	376120	0.382	0.361	5.739	5.762	5.86				
24	1,1-Dichloroethane	9.894	-1.1	557215	0.566	0.572	5.710	5.719	4.64				
25	2-Butanol	49.354	-1.3	46283	0.009	0.010	6.126	6.137	5.62				
26	tert-Butyl ethyl ether (ETBE)	10.267	2.7	766886	0.779	0.759	6.260	6.275	5.67				
27	2-Butanone	47.365	-5.3	271792	0.055	0.058	6.468	6.476	10.59				
28	2,2-Dichloropropane	9.824	-1.8	286341	0.291	0.296	6.676	6.686	7.80				
29	cis-1,2-Dichloroethene	10.126	1.3	344807	0.350	0.346	6.750	6.770	5.10				
30	Chloroform	9.574	-4.3	516698	0.525	0.548	7.018	7.035	7.42				
31	tert-Amyl alcohol												
32	Bromochloromethane	9.941	-0.6	226669	0.230	0.232	7.286	7.304	5.32				
33	Tetrahydrofuran	10.981	9.8	36230	0.037	0.038	7.360	7.372	23.00	0.0022	0.0315		0.9953
34	Dibromofluoromethane	10.324	3.2	302350	0.307	0.297	7.390	7.401	6.49				
35	1,1,1-Trichloroethane	9.450	-5.5	414929	0.421	0.446	7.687	7.700	7.50				
36	Cyclohexane	9.327	-6.7	599713	0.609	0.653	7.702	7.708	12.01				
37	2,2,4-Trimethylpentane												
38	1,1-Dichloropropene	9.328	-6.7	160160	0.163	0.174	7.955	7.963	4.32				
39	Carbon tetrachloride	9.234	-7.7	375540	0.381	0.413	8.103	8.113	4.04				
40	tert-Amyl methyl ether (TAME)	9.793	-2.1	126201	0.128	0.131	8.178	8.186	8.97				
41	1,2-Dichloroethane-d4	10.223	2.2	223217	0.227	0.222	8.222	8.234	6.98				
42	1,2-Dichloroethane	10.026	0.3	262557	0.267	0.266	8.371	8.391	6.19				
43	Benzene	9.902	-1.0	1131686	1.149	1.161	8.386	8.401	7.52				
44	Trichloroethene	9.597	-4.0	350087	0.356	0.370	9.397	9.412	4.75				
45	Methylcyclohexane	9.524	-4.8	614374	0.624	0.655	9.471	9.497	9.38				
46	1,2-Dichloropropane	10.020	0.2	306473	0.311	0.311	9.694	9.707	5.28				
47	1,4-Dioxane	201.475	0.7	22635	0.001	0.001	10.110	10.137	7.48				
48	Bromodichloromethane	9.732	-2.7	378435	0.384	0.395	10.066	10.081	5.35				
49	Dibromomethane	10.173	1.7	131428	0.133	0.131	10.155	10.165	4.38				
50	2-Chloroethyl vinyl ether	9.030	-9.7	60396	0.061	0.068	10.601	10.619	6.79				
51	4-Methyl-2-pentanone	52.266	4.5	783492	0.159	0.152	10.646	10.658	7.34				
52	cis-1,3-Dichloropropene	10.189	1.9	470454	0.478	0.469	10.958	10.982	5.91				
53	CHLOROBENZENE-D5	10.000	0	914653	1	1	13.783	13.807	0				
54	Toluene-d8	10.154	1.5	1156015	1.264	1.245	11.344	11.361	12.98				
55	Toluene	8.979	-10.2	1225161	1.339	1.492	11.463	11.489	8.22				
56	Ethyl methacrylate	9.761	-2.4	228401	0.250	0.256	11.790	11.803	6.97				
57	trans-1,3-Dichloropropene	9.613	-3.9	340248	0.372	0.387	11.776	11.800	4.47				
58	1,1,2-Trichloroethane	9.130	-8.7	169377	0.185	0.203	12.028	12.041	6.37				
59	2-Hexanone	48.978	-2.0	500988	0.110	0.112	12.058	12.072	8.48				
60	1,3-Dichloropropane	9.572	-4.3	322333	0.352	0.368	12.445	12.456	3.79				
61	Tetrachloroethene	8.780	-12.2	277187	0.303	0.345	12.519	12.539	3.15				
62	Dibromochloromethane	9.457	-5.4	234902	0.257	0.272	12.846	12.866	4.48				
63	2-Ethyl-1-butanol												
64	1,2-Dibromoethane	9.546	-4.5	175291	0.192	0.201	13.173	13.189	5.54				
65	1-Chlorohexane	8.832	-11.7	549814	0.601	0.681	13.456	13.468	5.55				
66	Chlorobenzene	9.230	-7.7	780047	0.853	0.924	13.857	13.870	5.03				
67	1,1,1,2-Tetrachloroethane	9.136	-8.6	265924	0.291	0.318	13.931	13.944	5.19				
68	Ethylbenzene	8.913	-10.9	1417734	1.550	1.739	13.946	13.956	5.68				
69	m-Xylene & p-Xylene	17.331	-13.3	1993591	1.090	1.258	14.065	14.080	7.85				
70	o-Xylene	9.058	-9.4	1059136	1.158	1.278	14.764	14.784	6.49				
71	Styrene	9.284	-7.2	821320	0.898	0.967	14.838	14.848	6.23				
72	Isopropylbenzene	8.926	-10.7	1342892	1.468	1.645	15.359	15.371	7.85				
73	1,2-DICHLOROBENZENE-D4	10.000	0	345620	1	1	18.094	18.113	0				
74	Bromoform	9.425	-5.7	128028	0.370	0.393	15.373	15.395	4.78				
75	1,1,2,2-Tetrachloroethane	8.877	-11.2	196830	0.569	0.642	15.641	15.655	10.98				
76	4-Bromofluorobenzene	10.175	1.8	383859	1.111	1.092	15.760	15.780	6.40				
77	1,2,3-Trichloropropane	8.946	-10.5	47799	0.138	0.155	15.879	15.896	5.13				
78	trans-1,4-Dichloro-2-butene	9.252	-7.5	54360	0.157	0.170	15.998	16.010	9.63				
79	n-Propylbenzene	8.924	-10.8	1672227	4.838	5.422	16.013	16.025	6.87				

SA
3/6/15

80	Bromobenzene	8.986	-10.1	291738	0.844	0.939	16.072	16.092	2.81				
81	1,3,5-Trimethylbenzene	8.849	-11.5	1045370	3.025	3.418	16.265	16.283	8.29				
82	2-Chlorotoluene	9.176	-8.2	1040235	3.010	3.280	16.295	16.311	10.11				
83	4-Chlorotoluene	8.228	-17.7	781446	2.261	2.748	16.370	16.388	8.35				
84	tert-Butylbenzene	8.929	-10.7	255312	0.739	0.827	16.845	16.864	3.70				
85	1,2,4-Trimethylbenzene	9.008	-9.9	1044662	3.023	3.355	16.905	16.922	8.01				
86	sec-Butylbenzene	8.888	-11.1	1481699	4.287	4.824	17.172	17.188	7.94				
87	p-Isopropyltoluene	9.051	-9.5	1226054	3.547	3.919	17.366	17.386	6.00				
88	1,3-Dichlorobenzene	8.990	-10.1	554151	1.603	1.783	17.500	17.520	5.07				
89	1,4-Dichlorobenzene	9.136	-8.6	550686	1.593	1.744	17.648	17.667	4.52				
90	n-Butylbenzene	9.289	-7.1	1206856	3.492	3.759	17.916	17.934	7.48				
91	1,2-Dichlorobenzene	8.915	-10.9	459524	1.330	1.491	18.139	18.145	4.58				
92	1,2-Dibromo-3-chloropropane	9.098	-9.0	31278	0.090	0.099	19.046	19.059	6.33				
93	1,2,4-Trichlorobenzene	8.774	-12.3	328303	0.950	1.083	20.012	20.029	6.25				
94	Hexachlorobutadiene	8.779	-12.2	233584	0.676	0.770	20.161	20.181	3.74				
95	Naphthalene	8.528	-14.7	437580	1.266	1.485	20.324	20.337	3.49				
96	1,2,3-Trichlorobenzene	8.742	-12.6	252032	0.729	0.834	20.607	20.624	4.35				

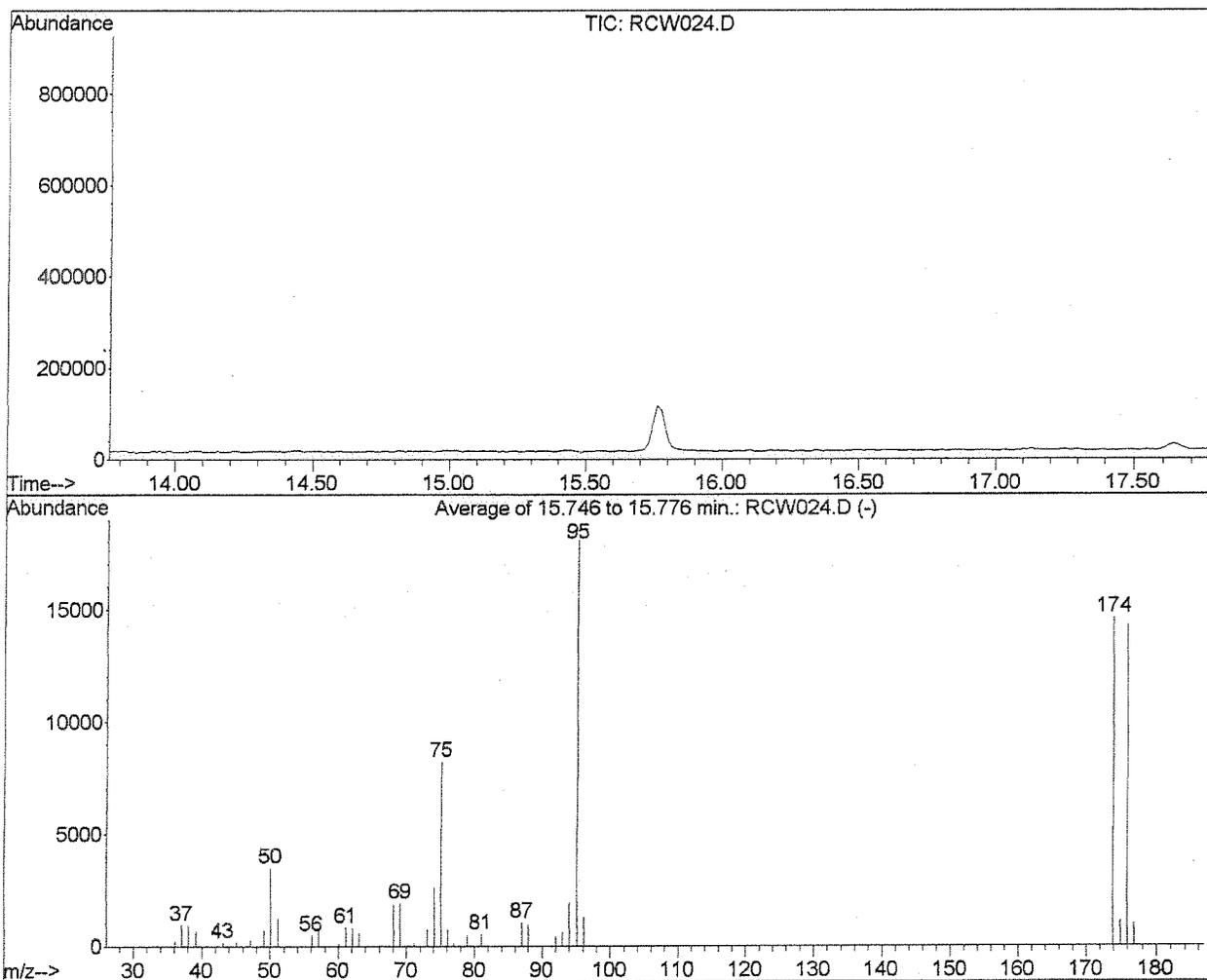
Spike Amount = Nominal Amount * M

su
3/6/15

BFB

Data File : D:\HPCHEM\1\DATA\15C04\RCW024.D
Acq On : 4 Mar 2015 3:07 pm
Sample : BFB06C03
Misc : T/CHK
MS Integration Params: RTE.P
Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260

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



AutoFind: Scans 949, 950, 951; Background Corrected with Scan 945

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.3	3490	PASS
75	95	30	60	45.4	8214	PASS
95	95	100	100	100.0	18109	PASS
96	95	5	9	6.9	1255	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	80.6	14591	PASS
175	174	5	9	7.4	1084	PASS
176	174	95	101	97.6	14234	PASS
177	176	5	9	6.8	963	PASS

SW
3/6/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15C04\RCW025.D
 Acq On : 4 Mar 2015 3:40 pm
 Sample : IVO06C0301
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P

Vial: 2
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 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	103	-0.02
2 T,M Dichlorodifluoromethane	10.000	9.410	5.9	101	0.00
3 P,T,M Chloromethane	10.000	10.224	-2.2	102	0.00
4 C,T,M Vinyl chloride	10.000	10.143	-1.4	100	0.00
5 T,M Bromomethane	10.000	10.297	-3.0	104	0.00
6 T,M Chloroethane	10.000	10.095	-1.0	98	0.00
7 T,M Dichlorofluoromethane	10.000	9.735	2.7	98	0.00
8 T,M Trichlorofluoromethane	10.000	10.216	-2.2	101	0.00
9 T,M Acrolein	50.000	53.044	-6.1	110	0.00
10 T,M 1,1,2-Trichloro-1,2,2-trifl	10.000	9.276	7.2	90	-0.02
11 T,M Acetone	50.000	49.356	1.3	100	0.00
12 C,T,M 1,1-Dichloroethene	10.000	9.974	0.3	99	0.00
13 T,M tert-Butyl alcohol	50.000	51.326	-2.7	102	0.00
14 T,M Acetonitrile	-1.000	0.000	0.0	0	0.00
15 T,M Methyl acetate	10.000	9.667	3.3	101	0.00
16 T,M Iodomethane	10.000	10.079	-0.8	100	0.00
17 T,M Methylene chloride	10.000	10.162	-1.6	103	0.00
18 T,M Carbon disulfide	10.000	9.770	2.3	100	0.00
19 T,M Acrylonitrile	50.000	51.852	-3.7	102	0.00
20 T,M tert-Butyl methyl ether (MT	10.000	10.103	-1.0	98	-0.02
21 T,M trans-1,2-Dichloroethene	10.000	9.974	0.3	96	0.00
22 T,M Isopropyl ether (DIPE)	10.000	10.335	-3.4	100	0.00
23 T,M Vinyl acetate	10.000	10.590	-5.9	104	-0.02
24 P,T,M 1,1-Dichloroethane	10.000	9.894	1.1	98	0.00
25 T,M 2-Butanol	50.000	49.354	1.3	105	0.00
26 T,M tert-Butyl ethyl ether (ETB	10.000	10.267	-2.7	100	0.00
27 T,M 2-Butanone	50.000	47.365	5.3	101	0.00
28 T,M 2,2-Dichloropropane	10.000	9.824	1.8	103	0.00
29 T,M cis-1,2-Dichloroethene	10.000	10.126	-1.3	101	-0.02
30 C,T,M Chloroform	10.000	9.574	4.3	96	-0.02
31 T,M tert-Amyl alcohol	-1.000	0.000	0.0	0	0.00
32 T,M Bromochloromethane	10.000	9.941	0.6	96	-0.02
33 T,M Tetrahydrofuran	10.000	10.981	-9.8	117	0.00
34 S Dibromofluoromethane	10.000	10.324	-3.2	103	0.00
35 T,M 1,1,1-Trichloroethane	10.000	9.450	5.5	95	-0.02
36 T,M Cyclohexane	10.000	9.327	6.7	100	0.00
37 T,M 2,2,4-Trimethylpentane	-1.000	0.000	0.0	0	0.00
38 T,M 1,1-Dichloropropene	10.000	9.328	6.7	95	0.00
39 T,M Carbon tetrachloride	10.000	9.234	7.7	92	0.00
40 T,M tert-Amyl methyl ether (TAM	10.000	9.793	2.1	98	0.00
41 S 1,2-Dichloroethane-d4	10.000	10.223	-2.2	103	0.00

2 (#) = Out of Range

2 RCW025.D VO06C03.M

Thu Mar 05 16:21:08 2015

Sw
3/6/15

Page 1

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15C04\RCW025.D
 Acq On : 4 Mar 2015 3:40 pm
 Sample : IVO06C0301
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P

Vial: 2
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)
42 T,M 1,2-Dichloroethane	10.000	10.026	-0.3	99	-0.02
43 T,M Benzene	10.000	9.902	1.0	100	-0.02
44 T,M Trichloroethene	10.000	9.597	4.0	96	0.00
45 T,M Methylcyclohexane	10.000	9.524	4.8	97	-0.02
46 C,T,M 1,2-Dichloropropane	10.000	10.020	-0.2	99	0.00
47 T,M 1,4-Dioxane	200.000	201.475	-0.7	102	-0.02
48 T,M Bromodichloromethane	10.000	9.732	2.7	98	0.00
49 T,M Dibromomethane	10.000	10.173	-1.7	99	0.00
50 T,M 2-Chloroethyl vinyl ether	10.000	9.030	9.7	91	0.00
51 T,M 4-Methyl-2-pentanone	50.000	52.266	-4.5	104	0.00
52 T,M cis-1,3-Dichloropropene	10.000	10.189	-1.9	98	-0.02
53 I CHLOROBENZENE-D5	10.000	10.000	0.0	105	-0.02
54 S Toluene-d8	10.000	10.154	-1.5	105	-0.02
55 C,T,M Toluene	10.000	8.979	10.2	92	-0.02
56 T,M Ethyl methacrylate	10.000	9.761	2.4	101	0.00
57 T,M trans-1,3-Dichloropropene	10.000	9.613	3.9	99	-0.02
58 T,M 1,1,2-Trichloroethane	10.000	9.130	8.7	95	0.00
59 T,M 2-Hexanone	50.000	48.978	2.0	105	0.00
60 T,M 1,3-Dichloropropane	10.000	9.572	4.3	97	0.00
61 T,M Tetrachloroethene	10.000	8.780	12.2	92	-0.02
62 T,M Dibromochloromethane	10.000	9.457	5.4	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	9.546	4.5	96	0.00
65 T,M 1-Chlorohexane	10.000	8.832	11.7	93	0.00
66 P, T,M Chlorobenzene	10.000	9.230	7.7	94	0.00
67 T,M 1,1,1,2-Tetrachloroethane	10.000	9.136	8.6	94	0.00
68 C,T,M Ethylbenzene	10.000	8.913	10.9	93	0.00
69 T,M m-Xylene & p-Xylene	20.000	17.331	13.3	92	0.00
70 T,M o-Xylene	10.000	9.058	9.4	94	-0.02
71 T,M Styrene	10.000	9.284	7.2	95	0.00
72 T,M Isopropylbenzene	10.000	8.926	10.7	93	0.00
73 I 1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	104	-0.02
74 P,T,M Bromoform	10.000	9.425	5.7	95	-0.02
75 P,T,M 1,1,2,2-Tetrachloroethane	10.000	8.877	11.2	96	0.00
76 S 4-Bromofluorobenzene	10.000	10.175	-1.8	106	-0.02
77 T,M 1,2,3-Trichloropropane	10.000	8.946	10.5	88	0.00
78 T,M trans-1,4-Dichloro-2-butene	10.000	9.252	7.5	99	0.00
79 T,M n-Propylbenzene	10.000	8.924	10.8	92	0.00
80 T,M Bromobenzene	10.000	8.986	10.1	92	-0.02

(#) = Out of Range
 RCW025.D VO06C03.M

Thu Mar 05 16:21:09 2015

SW
 3/6/15

Page 2

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15C04\RCW025.D Vial: 2
 Acq On : 4 Mar 2015 3:40 pm Operator: WLau
 Sample : IVO06C0301 Inst : TO06
 Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
 MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev (min)
81	T,M 1,3,5-Trimethylbenzene	10.000	8.849	11.5	92	0.00
82	T,M 2-Chlorotoluene	10.000	9.176	8.2	98	0.00
83	T,M 4-Chlorotoluene	10.000	8.228	17.7	84	-0.02
84	T,M tert-Butylbenzene	10.000	8.929	10.7	88	-0.02
85	T,M 1,2,4-Trimethylbenzene	10.000	9.008	9.9	93	0.00
86	T,M sec-Butylbenzene	10.000	8.888	11.1	91	0.00
87	T,M p-Isopropyltoluene	10.000	9.051	9.5	92	-0.02
88	T,M 1,3-Dichlorobenzene	10.000	8.990	10.1	92	-0.02
89	T,M 1,4-Dichlorobenzene	10.000	9.136	8.6	94	-0.02
90	T,M n-Butylbenzene	10.000	9.289	7.1	96	-0.02
91	T,M 1,2-Dichlorobenzene	10.000	8.914	10.9	91	0.00
92	T,M 1,2-Dibromo-3-chloropropane	10.000	9.098	9.0	94	0.00
93	T,M 1,2,4-Trichlorobenzene	10.000	8.774	12.3	89	-0.02
94	T,M Hexachlorobutadiene	10.000	8.779	12.2	90	-0.02
95	T,M Naphthalene	10.000	8.528	14.7	86	0.00
96	T,M 1,2,3-Trichlorobenzene	10.000	8.742	12.6	88	-0.02

Su 3/6/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15C04\RCW025.D
 Acq On : 4 Mar 2015 3:40 pm
 Sample : IVO06C0301
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P

Vial: 2
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 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	103	-0.02
2	T,M Dichlorodifluoromethane	0.330	0.310	6.1	101	0.00
3	P,T,M Chloromethane	0.322	0.329	-2.2	102	0.00
4	C,T,M Vinyl chloride	0.269	0.273	-1.5	100	0.00
5	T,M Bromomethane	0.208	0.214	-2.9	104	0.00
6	T,M Chloroethane	0.170	0.172	-1.2	98	0.00
7	T,M Dichlorofluoromethane	0.506	0.493	2.6	98	0.00
8	T,M Trichlorofluoromethane	0.342	0.350	-2.3	101	0.00
9	T,M Acrolein	0.012	0.013	-8.3	110	0.00
10	T,M 1,1,2-Trichloro-1,2,2-trifl	0.172	0.160	7.0	90	-0.02
11	T,M Acetone	0.025	0.024	4.0	100	0.00
12	C,T,M 1,1-Dichloroethene	0.497	0.496	0.2	99	0.00
13	T,M tert-Butyl alcohol	0.010	0.011	-10.0	102	0.00
14	T,M Acetonitrile	0.000	0.000	0.0	0#	0.00
15	T,M Methyl acetate	0.099	0.096	3.0	101	0.00
16	T,M Iodomethane	0.506	0.510	-0.8	100	0.00
17	T,M Methylene chloride	0.367	0.373	-1.6	103	0.00
18	T,M Carbon disulfide	1.066	1.041	2.3	100	0.00
19	T,M Acrylonitrile	0.039	0.041	-5.1	102	0.00
20	T,M tert-Butyl methyl ether (MT)	0.459	0.464	-1.1	98	-0.02
21	T,M trans-1,2-Dichloroethene	0.477	0.476	0.2	96	0.00
22	T,M Isopropyl ether (DIPE)	1.023	1.058	-3.4	100	0.00
23	T,M Vinyl acetate	0.361	0.382	-5.8	104	-0.02
24	P,T,M 1,1-Dichloroethane	0.572	0.566	1.0	98	0.00
25	T,M 2-Butanol	0.010	0.009	10.0	105	0.00
26	T,M tert-Butyl ethyl ether (ETB)	0.759	0.779	-2.6	100	0.00
27	T,M 2-Butanone	0.058	0.055	5.2	101	0.00
28	T,M 2,2-Dichloropropane	0.296	0.291	1.7	103	0.00
29	T,M cis-1,2-Dichloroethene	0.346	0.350	-1.2	101	-0.02
30	C,T,M Chloroform	0.548	0.525	4.2	96	-0.02
31	T,M tert-Amyl alcohol	0.000	0.000	0.0	0#	0.00
32	T,M Bromochloromethane	0.232	0.230	0.9	96	-0.02
33	T,M Tetrahydrofuran	0.038	0.037	2.6	117	0.00
34	S Dibromofluoromethane	0.297	0.307	-3.4	103	0.00
35	T,M 1,1,1-Trichloroethane	0.446	0.421	5.6	95	-0.02
36	T,M Cyclohexane	0.653	0.609	6.7	100	0.00
37	T,M 2,2,4-Trimethylpentane	0.000	0.000	0.0	0#	0.00
38	T,M 1,1-Dichloropropene	0.174	0.163	6.3	95	0.00
39	T,M Carbon tetrachloride	0.413	0.381	7.7	92	0.00
40	T,M tert-Amyl methyl ether (TAM)	0.131	0.128	2.3	98	0.00
41	S 1,2-Dichloroethane-d4	0.222	0.227	-2.3	103	0.00

2 (#) = Out of Range
 2 RCW025.D VO06C03.M

Thu Mar 05 16:21:13 2015

SW
 3/6/15

Page 1

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15C04\RCW025.D
 Acq On : 4 Mar 2015 3:40 pm
 Sample : IVO06C0301
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P

Vial: 2
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42 T,M 1,2-Dichloroethane	0.266	0.267	-0.4	99	-0.02
43 T,M Benzene	1.161	1.149	1.0	100	-0.02
44 T,M Trichloroethene	0.370	0.356	3.8	96	0.00
45 T,M Methylcyclohexane	0.655	0.624	4.7	97	-0.02
46 C,T,M 1,2-Dichloropropane	0.311	0.311	0.0	99	0.00
47 T,M 1,4-Dioxane	0.001	0.001	0.0	102	-0.02
48 T,M Bromodichloromethane	0.395	0.384	2.8	98	0.00
49 T,M Dibromomethane	0.131	0.133	-1.5	99	0.00
50 T,M 2-Chloroethyl vinyl ether	0.068	0.061	10.3	91	0.00
51 T,M 4-Methyl-2-pentanone	0.152	0.159	-4.6	104	0.00
52 T,M cis-1,3-Dichloropropene	0.469	0.478	-1.9	98	-0.02
53 I CHLOROBENZENE-D5	1.000	1.000	0.0	105	-0.02
54 S Toluene-d8	1.245	1.264	-1.5	105	-0.02
55 C,T,M Toluene	1.492	1.339	10.3	92	-0.02
56 T,M Ethyl methacrylate	0.256	0.250	2.3	101	0.00
57 T,M trans-1,3-Dichloropropene	0.387	0.372	3.9	99	-0.02
58 T,M 1,1,2-Trichloroethane	0.203	0.185	8.9	95	0.00
59 T,M 2-Hexanone	0.112	0.110	1.8	105	0.00
60 T,M 1,3-Dichloropropane	0.368	0.352	4.3	97	0.00
61 T,M Tetrachloroethene	0.345	0.303	12.2	92	-0.02
62 T,M Dibromochloromethane	0.272	0.257	5.5	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	0.201	0.192	4.5	96	0.00
65 T,M 1-Chlorohexane	0.681	0.601	11.7	93	0.00
66 P, T,M Chlorobenzene	0.924	0.853	7.7	94	0.00
67 T,M 1,1,1,2-Tetrachloroethane	0.318	0.291	8.5	94	0.00
68 C,T,M Ethylbenzene	1.739	1.550	10.9	93	0.00
69 T,M m-Xylene & p-Xylene	1.258	1.090	13.4	92	0.00
70 T,M o-Xylene	1.278	1.158	9.4	94	-0.02
71 T,M Styrene	0.967	0.898	7.1	95	0.00
72 T,M Isopropylbenzene	1.645	1.468	10.8	93	0.00
73 I 1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	104	-0.02
74 P,T,M Bromoform	0.393	0.370	5.9	95	-0.02
75 P,T,M 1,1,2,2-Tetrachloroethane	0.642	0.569	11.4	96	0.00
76 S 4-Bromofluorobenzene	1.092	1.111	-1.7	106	-0.02
77 T,M 1,2,3-Trichloropropane	0.155	0.138	11.0	88	0.00
78 T,M trans-1,4-Dichloro-2-butene	0.170	0.157	7.6	99	0.00
79 T,M n-Propylbenzene	5.422	4.838	10.8	92	0.00
80 T,M Bromobenzene	0.939	0.844	10.1	92	-0.02

(#) = Out of Range
 RCW025.D VO06C03.M

Thu Mar 05 16:21:15 2015

See
3/6/15

Page 2

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15C04\RCW025.D Vial: 2
 Acq On : 4 Mar 2015 3:40 pm Operator: WLau
 Sample : IVO06C0301 Inst : TO06
 Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
 MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
81 T,M 1,3,5-Trimethylbenzene	3.418	3.025	11.5	92	0.00
82 T,M 2-Chlorotoluene	3.280	3.010	8.2	98	0.00
83 T,M 4-Chlorotoluene	2.748	2.261	17.7	84	-0.02
84 T,M tert-Butylbenzene	0.827	0.739	10.6	88	-0.02
85 T,M 1,2,4-Trimethylbenzene	3.355	3.023	9.9	93	0.00
86 T,M sec-Butylbenzene	4.824	4.287	11.1	91	0.00
87 T,M p-Isopropyltoluene	3.919	3.547	9.5	92	-0.02
88 T,M 1,3-Dichlorobenzene	1.783	1.603	10.1	92	-0.02
89 T,M 1,4-Dichlorobenzene	1.744	1.593	8.7	94	-0.02
90 T,M n-Butylbenzene	3.759	3.492	7.1	96	-0.02
91 T,M 1,2-Dichlorobenzene	1.491	1.330	10.8	91	0.00
92 T,M 1,2-Dibromo-3-chloropropane	0.099	0.090	9.1	94	0.00
93 T,M 1,2,4-Trichlorobenzene	1.083	0.950	12.3	89	-0.02
94 T,M Hexachlorobutadiene	0.770	0.676	12.2	90	-0.02
95 T,M Naphthalene	1.485	1.266	14.7	86	0.00
96 T,M 1,2,3-Trichlorobenzene	0.834	0.729	12.6	88	-0.02

Sw 3/6/15

Data File : D:\HPCHEM\1\DATA\15C04\RCW025.D
 Acq On : 4 Mar 2015 3:40 pm
 Sample : IVO06C0301
 Misc : 10ppb 8260/50ppb KET-AA-TBA

Vial: 2
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

MS Integration Params: RTE.P
 Quant Time: Mar 5 10:21 2015
 Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.88	114	984695	10.00	ug/l	-0.02
53) CHLOROBENZENE-D5	13.78	117	914653	10.00	ug/l	-0.02
73) 1,2-DICHLOROBENZENE-D4	18.09	152	345620	10.00	ug/l	-0.02

System Monitoring Compounds

34) Dibromofluoromethane	7.39	111	302350	10.32	ug/l	0.00
Spiked Amount	10.000		Recovery	=	103.20%	
41) 1,2-Dichloroethane-d4	8.22	65	223217	10.22	ug/l	0.00
Spiked Amount	10.000		Recovery	=	102.20%	
54) Toluene-d8	11.34	98	1156015	10.15	ug/l	-0.02
Spiked Amount	10.000		Recovery	=	101.50%	
76) 4-Bromofluorobenzene	15.76	95	383859	10.18	ug/l	-0.02
Spiked Amount	10.000		Recovery	=	101.80%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.81	85	305414	9.41	ug/l	99
3) Chloromethane	2.05	50	323935	10.22	ug/l	99
4) Vinyl chloride	2.19	62	268427	10.14	ug/l	99
5) Bromomethane	2.68	94	211076	10.30	ug/l	99
6) Chloroethane	2.78	64	169168	10.09	ug/l	99
7) Dichlorofluoromethane	2.83	67	485148	9.74	ug/l	98
8) Trichlorofluoromethane	3.08	101	344271	10.22	ug/l	100
9) Acrolein	3.60	56	64691	53.04	ug/l	99
10) 1,1,2-Trichloro-1,2,2-trif	3.64	151	157365	9.28	ug/l	99
11) Acetone	3.67	43	120534	49.36	ug/l	96
12) 1,1-Dichloroethene	3.87	61	488106	9.97	ug/l	99
13) tert-Butyl alcohol	3.97	59	51838	51.33	ug/l	98
15) Methyl acetate	4.33	43	94687	9.67	ug/l	98
16) Iodomethane	4.31	142	502255	10.08	ug/l	100
17) Methylene chloride	4.59	49	367542	10.16	ug/l	85
18) Carbon disulfide	4.56	76	1025291	9.77	ug/l	100
19) Acrylonitrile	4.74	53	200671	51.85	ug/l	99
20) tert-Butyl methyl ether (M	4.79	73	456474	10.10	ug/l	98
21) trans-1,2-Dichloroethene	5.00	61	468406	9.97	ug/l	99
22) Isopropyl ether (DIPE)	5.55	45	1041424	10.33	ug/l	100
23) Vinyl acetate	5.74	43	376120	10.59	ug/l	99
24) 1,1-Dichloroethane	5.71	63	557215	9.89	ug/l	99
25) 2-Butanol	6.13	45	46283	49.35	ug/l	98
26) tert-Butyl ethyl ether (ET	6.26	59	766886	10.27	ug/l	99
27) 2-Butanone	6.47	43	271792	47.36	ug/l	100
28) 2,2-Dichloropropane	6.68	77	286341	9.82	ug/l	99
29) cis-1,2-Dichloroethene	6.75	96	344807	10.13	ug/l	99

(#) = qualifier out of range (m) = manual integration
 RCW025.D VO06C03.M Thu Mar 05 16:20:22 2015

507
3/6/15

Data File : D:\HPCHEM\1\DATA\15C04\RCW025.D
 Acq On : 4 Mar 2015 3:40 pm
 Sample : IVO06C0301
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P

Vial: 2
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Time: Mar 5 10:21 2015

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)

Title : METHOD 8260

Last Update : Thu Mar 05 10:12:48 2015

Response via : Initial Calibration

DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
30) Chloroform	7.02	83	516698	9.57	ug/l	98
32) Bromochloromethane	7.29	49	226669	9.94	ug/l	100
33) Tetrahydrofuran	7.36	42	36230	10.98	ug/l	89
35) 1,1,1-Trichloroethane	7.69	97	414929	9.45	ug/l	99
36) Cyclohexane	7.70	56	599713	9.33	ug/l	99
38) 1,1-Dichloropropene	7.95	110	160160	9.33	ug/l	100
39) Carbon tetrachloride	8.10	119	375540	9.23	ug/l	100
40) tert-Amyl methyl ether (TA	8.18	87	126201	9.79	ug/l	98
42) 1,2-Dichloroethane	8.37	62	262557	10.03	ug/l	100
43) Benzene	8.39	78	1131686	9.90	ug/l	100
44) Trichloroethene	9.40	130	350087	9.60	ug/l	98
45) Methylcyclohexane	9.47	83	614374	9.52	ug/l	98
46) 1,2-Dichloropropane	9.69	63	306473	10.02	ug/l	98
47) 1,4-Dioxane	10.11	88	22635	201.48	ug/l	93
48) Bromodichloromethane	10.07	83	378435	9.73	ug/l	99
49) Dibromomethane	10.15	93	131428	10.17	ug/l	99
50) 2-Chloroethyl vinyl ether	10.60	63	60396	9.03	ug/l	99
51) 4-Methyl-2-pentanone	10.65	43	783492	52.27	ug/l	99
52) cis-1,3-Dichloropropene	10.96	75	470454	10.19	ug/l	100
55) Toluene	11.46	91	1225161	8.98	ug/l	100
56) Ethyl methacrylate	11.79	69	228401	9.76	ug/l	98
57) trans-1,3-Dichloropropene	11.78	75	340248	9.61	ug/l	99
58) 1,1,2-Trichloroethane	12.03	97	169377	9.13	ug/l	97
59) 2-Hexanone	12.06	43	500988	48.98	ug/l	99
60) 1,3-Dichloropropane	12.44	76	322333	9.57	ug/l	99
61) Tetrachloroethene	12.52	164	277187	8.78	ug/l	99
62) Dibromochloromethane	12.85	129	234902	9.46	ug/l	98
64) 1,2-Dibromoethane	13.17	107	175291	9.55	ug/l	100
65) 1-Chlorohexane	13.46	91	549814	8.83	ug/l	99
66) Chlorobenzene	13.86	112	780047	9.23	ug/l	99
67) 1,1,1,2-Tetrachloroethane	13.93	131	265924	9.14	ug/l	99
68) Ethylbenzene	13.95	91	1417734	8.91	ug/l	100
69) m-Xylene & p-Xylene	14.07	91	1993591	17.33	ug/l	99
70) o-Xylene	14.76	91	1059136	9.06	ug/l	99
71) Styrene	14.84	104	821320	9.28	ug/l	99
72) Isopropylbenzene	15.36	105	1342892	8.93	ug/l	100
74) Bromoform	15.37	173	128028	9.43	ug/l	99
75) 1,1,2,2-Tetrachloroethane	15.64	83	196830	8.88	ug/l	98
77) 1,2,3-Trichloropropane	15.88	110	47799	8.95	ug/l	92
78) trans-1,4-Dichloro-2-buten	16.00	53	54360	9.25	ug/l	97
79) n-Propylbenzene	16.01	91	1672227	8.92	ug/l	100

(#) = qualifier out of range (m) = manual integration
 RCW025.D VO06C03.M Thu Mar 05 16:20:22 2015

Data File : D:\HPCHEM\1\DATA\15C04\RCW025.D

Vial: 2

Acq On : 4 Mar 2015 3:40 pm

Operator: WLau

Sample : IVO06C0301

Inst : TO06

Misc : 10ppb 8260/50ppb KET-AA-TBA

Multiplr: 1.00

MS Integration Params: RTE.P

Quant Time: Mar 5 10:21 2015

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)

Title : METHOD 8260

Last Update : Thu Mar 05 10:12:48 2015

Response via : Initial Calibration

DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80) Bromobenzene	16.07	156	291738	8.99	ug/l	100
81) 1,3,5-Trimethylbenzene	16.27	105	1045370	8.85	ug/l	99
82) 2-Chlorotoluene	16.30	91	1040235	9.18	ug/l	100
83) 4-Chlorotoluene	16.37	91	781446	8.23	ug/l	99
84) tert-Butylbenzene	16.85	134	255312	8.93	ug/l	99
85) 1,2,4-Trimethylbenzene	16.90	105	1044662	9.01	ug/l	100
86) sec-Butylbenzene	17.17	105	1481699	8.89	ug/l	99
87) p-Isopropyltoluene	17.37	119	1226054	9.05	ug/l	99
88) 1,3-Dichlorobenzene	17.50	146	554151	8.99	ug/l	100
89) 1,4-Dichlorobenzene	17.65	146	550686	9.14	ug/l	99
90) n-Butylbenzene	17.92	91	1206856	9.29	ug/l	99
91) 1,2-Dichlorobenzene	18.14	146	459524	8.91	ug/l	99
92) 1,2-Dibromo-3-chloropropan	19.05	157	31278	9.10	ug/l	98
93) 1,2,4-Trichlorobenzene	20.01	180	328303	8.77	ug/l	99
94) Hexachlorobutadiene	20.16	225	233584	8.78	ug/l	99
95) Naphthalene	20.32	128	437580	8.53	ug/l	99
96) 1,2,3-Trichlorobenzene	20.61	180	252032	8.74	ug/l	100

Su 3/6/15

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

RCW025.D VO06C03.M Thu Mar 05 16:20:23 2015

Page 3

2124

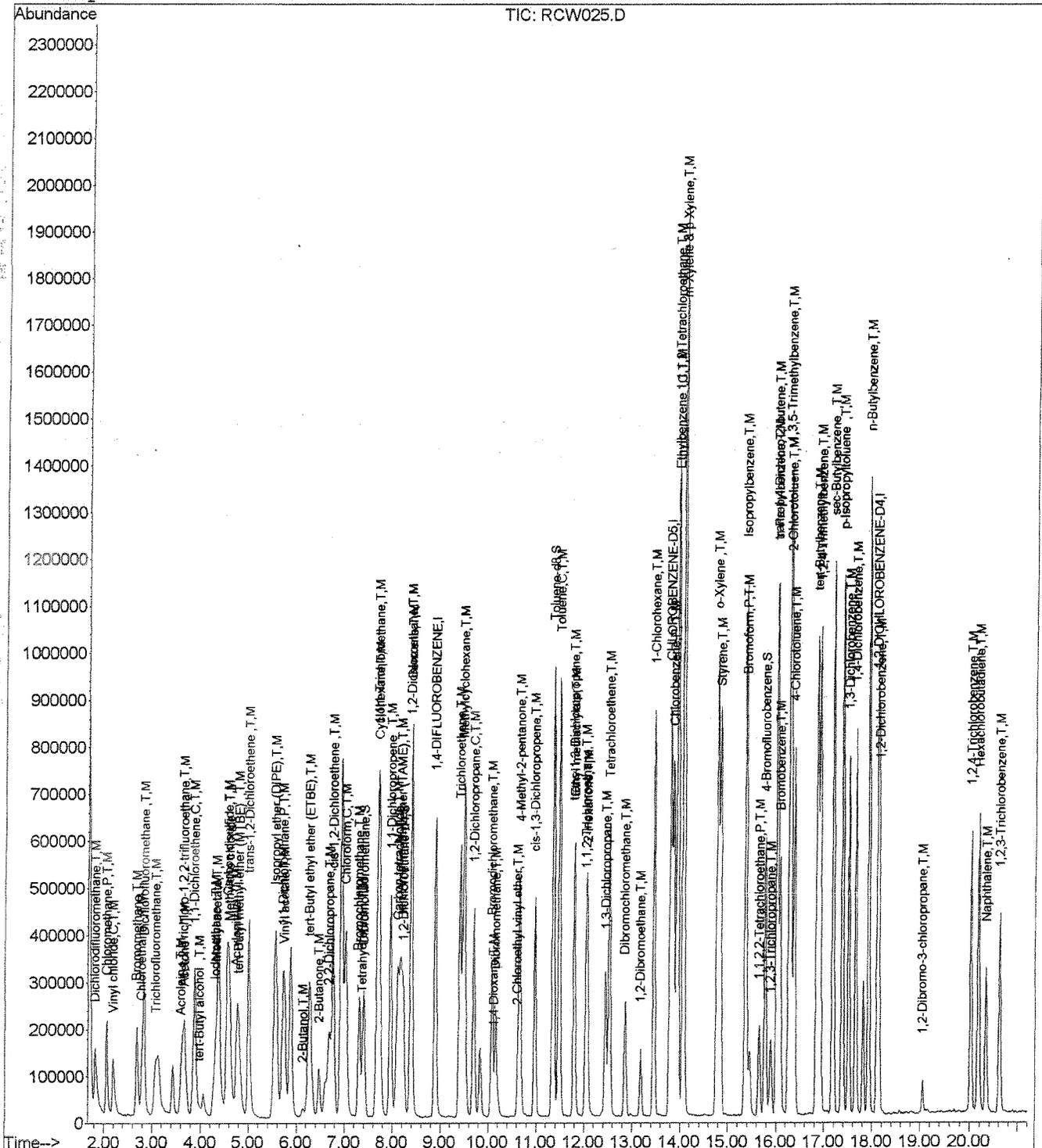
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15C04\RCW025.D
Acq On : 4 Mar 2015 3:40 pm
Sample : IVO06C0301
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Mar 5 10:21 2015

Vial: 2
Operator: WLau
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06C03.RE

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration



SW
3/6/15

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T067
 IC_Beginning DateTime :12/18/14 20:33
 Spike Amount :10 PPB
 GC/CV File :RLC396
 IC File :RLC381

Column Spec :RTX502.2 ID :0.25MM
 IC_Ending DateTime :12/19/14 03:13
 HPChem Method :V067L18
 Date_Time :12/19/14 12:39

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	1498992	1	1	8.036	8.039	0				
2	Dichlorodifluoromethane	8.534	-14.7	431539	0.288	0.337	1.953	1.963	13.31				
3	Dichlorotetrafluoroethane												
4	Chloromethane	9.175	-8.3	684683	0.457	0.498	2.138	2.139	11.81				
5	Vinyl chloride	9.450	-5.5	770676	0.514	0.544	2.280	2.276	13.43				
6	Bromomethane	8.161	-18.4	447018	0.298	0.336	2.764	2.769	19.31	-0.0043	0.3706		0.9978
7	Chloroethane	8.810	-11.9	447751	0.299	0.339	2.864	2.864	10.52				
8	Dichlorofluoromethane	10.510	5.1	1082505	0.722	0.687	2.893	2.898	6.49				
9	Trichlorofluoromethane	9.684	-3.2	686544	0.458	0.473	3.135	3.160	13.72				
10	sec-Propyl alcohol												
5 11	Acrolein	62.003	24.0	128522	0.017	0.014	3.623	3.623	4.63				
12	1,1,2-Trichloro-1,2,2-trifluoroethane	10.458	4.6	422365	0.282	0.269	3.667	3.669	3.67				
5 13	Acetone	49.841	-0.3	178133	0.024	0.024	3.696	3.693	13.42				
14	1,1-Dichloroethene	10.582	5.8	828002	0.552	0.522	3.857	3.854	3.74				
5 15	tert-Butyl alcohol	53.927	7.9	64297	0.009	0.008	3.945	3.954	7.93				
16	Methyl acetate	9.648	-3.5	115292	0.077	0.083	4.252	4.255	15.31	0.0026	0.0771		0.9993
17	Iodomethane	11.853	18.5	952655	0.636	0.536	4.222	4.231	6.48				
10 18	Acetonitrile												
19	Methylene chloride	10.446	4.5	515326	0.344	0.329	4.442	4.444	9.85				
20	Carbon disulfide	10.318	3.2	2168558	1.447	1.402	4.471	4.468	10.25				
5 21	Acrylonitrile	50.653	1.3	266922	0.036	0.035	4.602	4.607	5.91				
22	tert-Butyl methyl ether (MTBE)	10.114	1.1	611970	0.408	0.404	4.646	4.643	6.11				
23	trans-1,2-Dichloroethene	11.055	10.5	746699	0.498	0.451	4.821	4.824	3.22				
24	Isopropyl ether (DIPE)	9.855	-1.4	1325896	0.885	0.898	5.231	5.232	4.05				
25	1,1-Dichloroethane	10.989	9.9	922627	0.615	0.560	5.377	5.383	4.45				
26	Vinyl acetate	8.834	-11.7	369350	0.246	0.279	5.377	5.383	13.77				
5 27	2-Butanol	50.261	0.5	49361	0.007	0.007	5.684	5.685	6.35				
28	tert-Butyl ethyl ether (ETBE)	10.163	1.6	990247	0.661	0.650	5.786	5.786	6.36				
5 29	2-Butanone	51.099	2.2	305916	0.041	0.040	5.947	5.953	9.24				
30	2,2-Dichloropropane	11.531	15.3	559324	0.373	0.324	6.151	6.151	8.85				
31	cis-1,2-Dichloroethene	10.871	8.7	542494	0.362	0.333	6.210	6.213	5.15				
32	Chloroform	10.851	8.5	800150	0.534	0.492	6.429	6.432	4.26				
33	Bromochloromethane	11.167	11.7	287295	0.192	0.172	6.663	6.662	6.34				
5 34	tert-Amyl alcohol												
35	Dibromofluoromethane	10.715	7.2	440926	0.294	0.275	6.736	6.739	14.92				
36	Tetrahydrofuran	11.728	17.3	37607	0.025	0.021	6.706	6.710	4.19				
37	1,1,1-Trichloroethane	10.805	8.1	705243	0.470	0.435	6.999	7.000	5.62				
38	Cyclohexane	9.568	-4.3	1013377	0.676	0.707	7.013	7.017	5.02				
39	2,2,4-Trimethylpentane												
40	1,1-Dichloropropene	10.402	4.0	264445	0.176	0.170	7.218	7.225	4.92				
41	Carbon tetrachloride	10.695	7.0	632501	0.422	0.395	7.364	7.368	4.53				
42	tert-Amyl methyl ether (TAME)	10.269	2.7	164607	0.110	0.107	7.393	7.396	8.35				
43	1,2-Dichloroethane-d4	10.269	2.7	244221	0.163	0.159	7.452	7.459	9.82				
44	1,2-Dichloroethane	11.294	12.9	316497	0.211	0.187	7.598	7.599	4.67				
45	Benzene	11.351	13.5	2025451	1.351	1.190	7.612	7.617	4.61				
46	Trichloroethene	10.256	2.6	576545	0.385	0.375	8.547	8.547	10.45				
47	Methylcyclohexane	9.296	-7.0	1013580	0.676	0.727	8.635	8.635	6.20				
48	1,2-Dichloropropane	10.881	8.8	425246	0.284	0.261	8.810	8.818	4.08				
49	Bromodichloromethane	11.390	13.9	515373	0.344	0.302	9.190	9.190	4.99				
20 50	1,4-Dioxane	223.263	11.6	25411	0.001	0.001	9.219	9.225	13.06				
51	Dibromomethane	11.360	13.6	178418	0.119	0.105	9.278	9.276	7.78				
52	2-Chloroethyl vinyl ether	8.060	-19.4	69449	0.046	0.057	9.687	9.686	14.24				
5 53	4-Methyl-2-pentanone	50.465	0.9	743843	0.099	0.098	9.731	9.732	6.18				
54	cis-1,3-Dichloropropene	11.045	10.4	614642	0.410	0.371	10.067	10.068	5.97				
55	CHLOROENZENE-D5	10.000	0	1107672	1	1	13.121	13.122	0				
56	Toluene-d8	9.827	-1.7	1608447	1.452	1.478	10.476	10.476	11.50				
57	Toluene	10.538	5.4	2012061	1.816	1.724	10.608	10.608	3.83				
58	Ethyl methacrylate	10.689	6.9	248645	0.224	0.210	10.900	10.903	8.33				
59	trans-1,3-Dichloropropene	10.776	7.8	418867	0.378	0.351	10.915	10.916	5.18				
60	1,1,2-Trichloroethane	10.857	8.6	204738	0.185	0.170	11.177	11.183	5.72				
5 61	2-Hexanone	49.230	-1.5	454709	0.082	0.083	11.192	11.201	7.80				
62	1,3-Dichloropropane	10.891	8.9	396927	0.358	0.329	11.616	11.619	4.21				
63	Tetrachloroethene	10.604	6.0	435770	0.393	0.371	11.718	11.722	3.87				
64	Dibromochloromethane	10.990	9.9	287976	0.260	0.237	12.083	12.085	5.72				
65	1,2-Dibromoethane	10.924	9.2	200425	0.181	0.166	12.434	12.436	4.99				
66	1-Chlorohexane	9.172	-8.3	881112	0.795	0.867	12.726	12.739	4.29				
67	Chlorobenzene	10.736	7.4	1145073	1.034	0.963	13.194	13.195	5.23				
68	1,1,1,2-Tetrachloroethane	10.399	4.0	367376	0.332	0.319	13.267	13.276	7.44				
69	Ethylbenzene	10.278	2.8	2247585	2.029	1.974	13.281	13.292	3.76				
2 70	m-Xylene & p-Xylene	21.090	5.5	3298966	1.489	1.412	13.428	13.429	3.74				
71	o-Xylene	10.558	5.6	1548167	1.398	1.324	14.231	14.236	3.59				
72	Styrene	10.889	8.9	1214613	1.097	1.007	14.304	14.309	5.87				
73	Isopropylbenzene	10.782	7.8	2189538	1.977	1.833	14.918	14.919	4.02				
74	1,2-DICHLOROENZENE-D4	10.000	0	377033	1	1	18.352	18.353	0				
75	Bromoform	10.394	3.9	140842	0.374	0.359	14.933	14.934	10.37				
76	1,1,2,2-Tetrachloroethane	10.421	4.2	207366	0.550	0.528	15.254	15.255	5.75				
77	4-Bromofluorobenzene	9.452	-5.5	444211	1.178	1.246	15.385	15.393	9.77				
78	1,2,3-Trichloropropane	10.693	6.9	54506	0.145	0.135	15.532	15.535	11.66				
79	trans-1,4-Dichloro-2-butene	10.722	7.2	56551	0.150	0.140	15.678	15.676	5.37				

SA 12/24/14

80	n-Propylbenzene	10.248	2.5	2713796	7.198	7.024	15.678	15.684	3.61				
81	Bromobenzene	10.238	2.4	383867	1.018	0.994	15.751	15.755	5.51				
82	1,3,5-Trimethylbenzene	10.084	0.8	1635804	4.339	4.302	15.999	15.996	5.78				
83	2-Chlorotoluene	9.917	-0.8	1492025	3.957	3.991	16.014	16.015	5.45				
84	4-Chlorotoluene	10.429	4.3	1331952	3.533	3.388	16.116	16.113	6.28				
85	tert-Butylbenzene	10.129	1.3	391349	1.038	1.025	16.686	16.683	6.40				
86	1,2,4-Trimethylbenzene	10.207	2.1	1556334	4.128	4.044	16.759	16.756	4.56				
87	sec-Butylbenzene	10.033	0.3	2351906	6.238	6.218	17.095	17.097	4.19				
88	p-Isopropyltoluene	10.062	0.6	1904058	5.050	5.019	17.373	17.374	4.73				
89	1,3-Dichlorobenzene	10.374	3.7	785997	2.085	2.010	17.533	17.539	7.12				
90	1,4-Dichlorobenzene	10.283	2.8	746948	1.981	1.927	17.753	17.754	8.07				
91	n-Butylbenzene	10.203	2.0	1837665	4.874	4.777	18.132	18.135	4.72				
92	1,2-Dichlorobenzene	10.609	6.1	615068	1.631	1.538	18.396	18.397	5.79				
93	1,2-Dibromo-3-chloropropane	10.836	8.4	28385	0.075	0.069	19.535	19.537	10.82				
94	1,2,4-Trichlorobenzene	10.468	4.7	372846	0.989	0.945	20.631	20.632	12.69				
95	Hexachlorobutadiene	10.240	2.4	324635	0.861	0.841	20.806	20.808	7.07				
96	Naphthalene	10.631	6.3	424989	1.127	1.060	20.952	20.954	11.13				
97	1,2,3-Trichlorobenzene	10.557	5.6	266070	0.706	0.668	21.274	21.275	13.72				

Spike Amount = Nominal Amount * M

Su
12/24/14

DAILY CALIBRATION(S)

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : EMAX INC.
 Lab Code : EMXT
 Lab File ID : RCW007
 Instrument ID : 06
 GC Column : RTX502.21D:0.25mm (nm)

Project : B & B GROUNDWATER SAMPLING
 SDG No. : 15D157
 Date Analyzed : 03/03/15
 Time Analyzed : 13:12
 Heated Purge : No

	IS1(DBF)		IS2(CBZ)		IS3(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	956391	8.90	867958	13.81	331159	18.12
UPPER LIMIT	1912782	9.40	1735916	14.31	662318	18.62
LOWER LIMIT	478196	8.40	433979	13.31	165580	17.62
SAMPLE ID						
1 VSTD010	998058	8.89	917375	13.81	405150	18.10
2 MBLK1W	1102447	8.89	979846	13.81	384789	18.10
3 LCS1W	1024742	8.90	955864	13.80	402543	18.11
4 LCD1W	1048537	8.91	986021	13.81	408161	18.10
5 04-22-15-PWB-10	1014894	8.90	933275	13.81	375660	18.12
6 04-22-15-PWB-10MS	1053614	8.90	965521	13.80	416805	18.11
7 04-22-15-PWB-10MSD	1055071	8.90	981277	13.80	420210	18.11
8 04-22-15-PWB-16	1031070	8.90	928282	13.80	384450	18.11
9 04-22-15-PWB-14	1044804	8.90	941318	13.81	381377	18.12
10 04-22-15-TB-9	1055526	8.90	923164	13.80	389668	18.11
11 04-22-15-AMW-4R	1048377	8.90	941097	13.80	366675	18.11
12 04-22-15-TB-10	1000864	8.90	911118	13.80	372660	18.11
13 04-22-15-PWB-15	1017997	8.89	934477	13.79	391692	18.10
14 04-22-15-WB2-2	956776	8.90	862657	13.80	354880	18.11
15 04-22-15-TB-11	997771	8.89	896047	13.79	368060	18.10
16 04-22-15-PWB-9	934755	8.90	852634	13.80	338376	18.11
17 04-22-15-PWB-12	1010451	8.90	906747	13.80	374246	18.11
18 04-22-15-PWB-7A	992280	8.90	871784	13.80	343593	18.10
19 04-22-15-PWB-4	973072	8.89	864767	13.79	355209	18.10
20 04-22-15-FDUP-4	970237	8.89	882655	13.79	363515	18.10
21 04-22-15-WB2-1	916548	8.89	840162	13.79	330853	18.10

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 = + 0.5 minutes (30 sec) of internal standard RT
 RT LOWER LIMIT = - 0.5 minutes (30 sec) of internal standard RT

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

Data File : D:\HPCHEM\1\DATA\15D27\RDW344.D

Vial: 1

Acq On : 27 Apr 2015 2:06 pm

Operator: WLau

Sample : BFB06D16

Inst : TO06

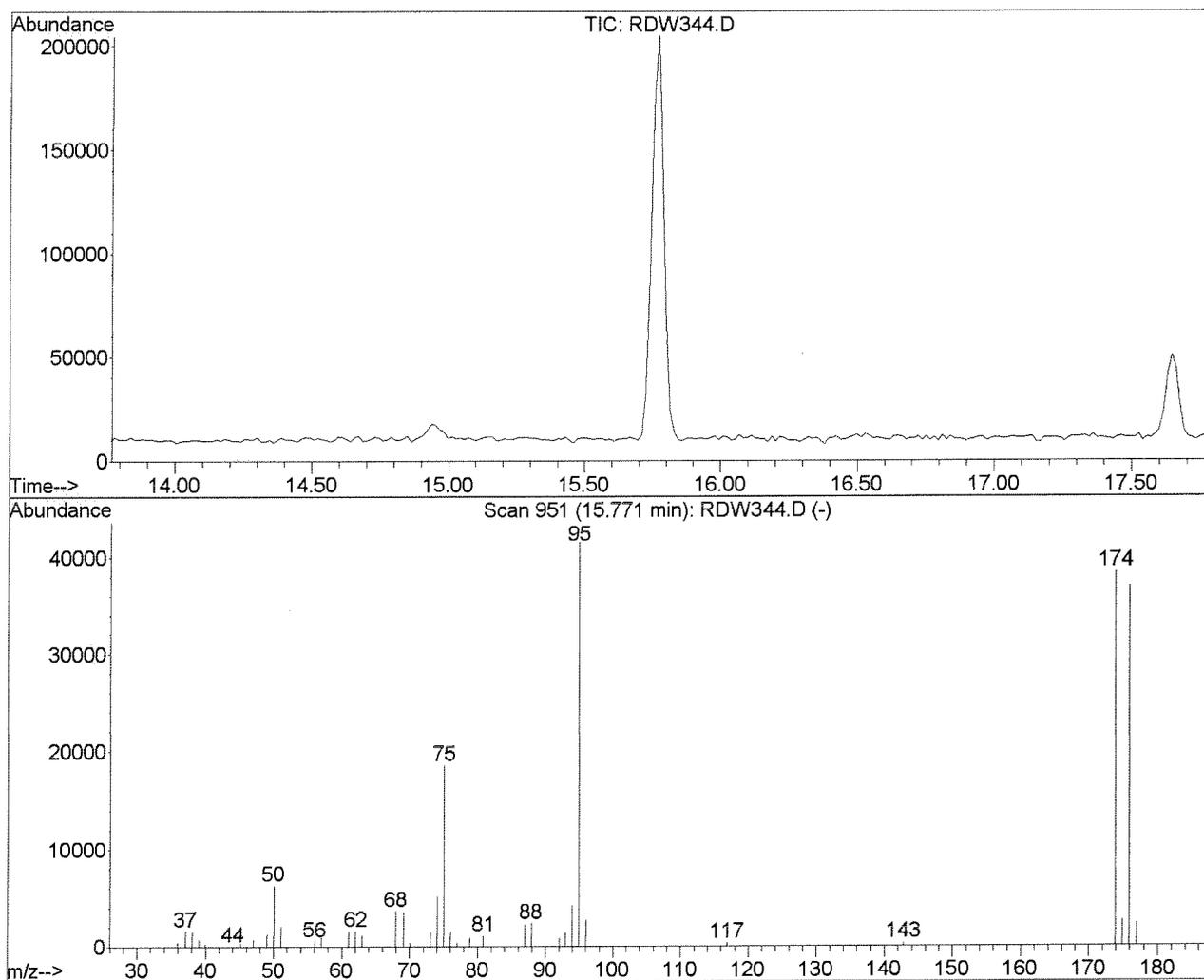
Misc : T/CHK

Multiplr: 1.00

MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)

Title : METHOD 8260



Spectrum Information: Scan 951 - Background scan 945 m 4/28/15

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.0 /	6245	PASS
75	95	30	60	44.6 /	18544	PASS
95	95	100	100	100.0 /	41584	PASS
96	95	5	9	6.5 /	2704	PASS
173	174	0.00	2	0.0 /	0	PASS
174	95	50	100	92.4 /	38440	PASS
175	174	5	9	6.9 /	2650	PASS
176	174	95	101	96.3 /	37016	PASS
177	176	5	9	6.3 /	2340	PASS

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D27\RDW345.D
 Acq On : 27 Apr 2015 2:37 pm
 Sample : CVO06C0335
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P

Vial: 2
 Operator: WLau
 Inst : T006
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 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	104	-0.01
2 T,M Dichlorodifluoromethane	10.000	11.262	-12.6	123	0.00
3 P,T,M Chloromethane	10.000	9.179	8.2	93	0.02
4 C,T,M Vinyl chloride	10.000	9.457	5.4	94	0.02
5 T,M Bromomethane	10.000	10.799	-8.0	111	0.00
6 T,M Chloroethane	10.000	10.137	-1.4	100	0.00
7 T,M Dichlorofluoromethane	10.000	10.603	-6.0	108	0.00
8 T,M Trichlorofluoromethane	10.000	12.722	-27.2#	128	0.00
9 T,M Acrolein	50.000	37.069	25.9#	78	0.00
10 T,M 1,1,2-Trichloro-1,2,2-trifl	10.000	10.833	-8.3	107	0.00
11 T,M Acetone	50.000	57.865	-15.7	119	0.00
12 C,T,M 1,1-Dichloroethene	10.000	9.376	6.2	94	0.02
13 T,M tert-Butyl alcohol	50.000	57.093	-14.2	115	0.00
14 T,M Acetonitrile	-1.000	0.000	0.0	0	0.00
15 T,M Methyl acetate	10.000	0.000	100.0#	0	-4.34#
16 T,M Iodomethane	10.000	10.002	-0.0	100	0.00
17 T,M Methylene chloride	10.000	9.846	1.5	101	0.00
18 T,M Carbon disulfide	10.000	10.586	-5.9	109	0.00
19 T,M Acrylonitrile	50.000	47.574	4.9	95	0.00
20 T,M tert-Butyl methyl ether (MT	10.000	10.761	-7.6	106	0.00
21 T,M trans-1,2-Dichloroethene	10.000	9.357	6.4	91	0.00
22 T,M Isopropyl ether (DIPE)	10.000	9.128	8.7	89	0.00
23 T,M Vinyl acetate	10.000	9.644	3.6	96	0.00
24 P,T,M 1,1-Dichloroethane	10.000	9.957	0.4	100	0.00
25 T,M 2-Butanol	50.000	0.000	100.0#	0	-6.13#
26 T,M tert-Butyl ethyl ether (ETB	10.000	9.981	0.2	99	0.00
27 T,M 2-Butanone	50.000	46.140	7.7	100	0.00
28 T,M 2,2-Dichloropropane	10.000	10.331	-3.3	110	0.00
29 T,M cis-1,2-Dichloroethene	10.000	10.370	-3.7	105	0.00
30 C,T,M Chloroform	10.000	10.788	-7.9	110	-0.01
31 T,M tert-Amyl alcohol	-1.000	0.000	0.0	0	0.00
32 T,M Bromochloromethane	10.000	9.556	4.4	93	-0.01
33 T,M Tetrahydrofuran	10.000	9.029	9.7	99	0.00
34 S Dibromofluoromethane	10.000	10.187	-1.9	103	0.00
35 T,M 1,1,1-Trichloroethane	10.000	11.229	-12.3	114	-0.01
36 T,M Cyclohexane	10.000	0.000	100.0#	0	-7.71#
37 T,M 2,2,4-Trimethylpentane	-1.000	0.000	0.0	0	0.00
38 T,M 1,1-Dichloropropene	10.000	10.020	-0.2	104	0.00
39 T,M Carbon tetrachloride	10.000	11.216	-12.2	113	0.00
40 T,M tert-Amyl methyl ether (TAM	10.000	10.748	-7.5	109	-0.01
41 S 1,2-Dichloroethane-d4	10.000	9.858	1.4	101	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D27\RDW345.D
 Acq On : 27 Apr 2015 2:37 pm
 Sample : CVO06C0335
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P

Vial: 2
 Operator: WLau
 Inst : T006
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
42	T,M 1,2-Dichloroethane	10.000	11.222	-12.2	112	-0.01
43	T,M Benzene	10.000	10.254	-2.5	105	-0.01
44	T,M Trichloroethene	10.000	10.471	-4.7	106	0.00
45	T,M Methylcyclohexane	10.000	0.000	100.0#	0	-9.50#
46	C,T,M 1,2-Dichloropropane	10.000	10.110	-1.1	101	0.00
47	T,M 1,4-Dioxane	200.000	218.932	-9.5	113	0.00
48	T,M Bromodichloromethane	10.000	10.908	-9.1	111	0.00
49	T,M Dibromomethane	10.000	11.354	-13.5	112	0.00
50	T,M 2-Chloroethyl vinyl ether	10.000	0.000	100.0#	0	-10.61#
51	T,M 4-Methyl-2-pentanone	50.000	49.032	1.9	99	0.00
52	T,M cis-1,3-Dichloropropene	10.000	10.958	-9.6	107	0.00
53	I CHLOROBENZENE-D5	10.000	10.000	0.0	106	0.00
54	S Toluene-d8	10.000	9.247	7.5	96	-0.01
55	C,T,M Toluene	10.000	10.268	-2.7	105	0.00
56	T,M Ethyl methacrylate	10.000	10.235	-2.3	106	0.00
57	T,M trans-1,3-Dichloropropene	10.000	10.550	-5.5	109	0.00
58	T,M 1,1,2-Trichloroethane	10.000	10.793	-7.9	113	0.00
59	T,M 2-Hexanone	50.000	51.199	-2.4	110	0.00
60	T,M 1,3-Dichloropropane	10.000	10.823	-8.2	110	0.00
61	T,M Tetrachloroethene	10.000	10.486	-4.9	110	-0.01
62	T,M Dibromochloromethane	10.000	11.494	-14.9	116	-0.01
63	T,M 2-Ethyl-1-butanol	-1.000	0.000	0.0	0	0.00
64	T,M 1,2-Dibromoethane	10.000	11.209	-12.1	114	0.00
65	T,M 1-Chlorohexane	10.000	10.204	-2.0	108	0.00
66	P, T,M Chlorobenzene	10.000	10.757	-7.6	110	0.00
67	T,M 1,1,1,2-Tetrachloroethane	10.000	11.076	-10.8	114	0.00
68	C,T,M Ethylbenzene	10.000	10.668	-6.7	112	0.00
69	T,M m-Xylene & p-Xylene	20.000	21.042	-5.2	112	0.00
70	T,M o-Xylene	10.000	10.910	-9.1	113	0.00
71	T,M Styrene	10.000	11.211	-12.1	115	0.00
72	T,M Isopropylbenzene	10.000	10.781	-7.8	112	0.00
73	I 1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	122	-0.01
74	P,T,M Bromoform	10.000	9.949	0.5	117	-0.01
75	P,T,M 1,1,2,2-Tetrachloroethane	10.000	8.838	11.6	112	0.00
76	S 4-Bromofluorobenzene	10.000	8.962	10.4	109	-0.01
77	T,M 1,2,3-Trichloropropane	10.000	9.709	2.9	112	0.00
78	T,M trans-1,4-Dichloro-2-butene	10.000	8.534	14.7	107	0.00
79	T,M n-Propylbenzene	10.000	9.496	5.0	115	0.00
80	T,M Bromobenzene	10.000	9.497	5.0	114	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D27\RDW345.D
 Acq On : 27 Apr 2015 2:37 pm
 Sample : CVO06C0335
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P

Vial: 2
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T,M 1,3,5-Trimethylbenzene	10.000	9.314	6.9	113	0.00
82	T,M 2-Chlorotoluene	10.000	9.561	4.4	119	0.00
83	T,M 4-Chlorotoluene	10.000	9.373	6.3	112	-0.01
84	T,M tert-Butylbenzene	10.000	9.416	5.8	109	-0.01
85	T,M 1,2,4-Trimethylbenzene	10.000	9.416	5.8	114	0.00
86	T,M sec-Butylbenzene	10.000	9.528	4.7	114	0.00
87	T,M p-Isopropyltoluene	10.000	9.336	6.6	111	0.00
88	T,M 1,3-Dichlorobenzene	10.000	9.760	2.4	117	-0.01
89	T,M 1,4-Dichlorobenzene	10.000	9.813	1.9	119	-0.01
90	T,M n-Butylbenzene	10.000	9.666	3.3	117	-0.01
91	T,M 1,2-Dichlorobenzene	10.000	9.898	1.0	118	0.00
92	T,M 1,2-Dibromo-3-chloropropane	10.000	8.796	12.0	106	0.00
93	T,M 1,2,4-Trichlorobenzene	10.000	8.901	11.0	106	-0.02
94	T,M Hexachlorobutadiene	10.000	8.110	18.9	97	0.00
95	T,M Naphthalene	10.000	8.333	16.7	99	0.00
96	T,M 1,2,3-Trichlorobenzene	10.000	8.795	12.1	103	-0.02

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D27\RDW345.D
 Acq On : 27 Apr 2015 2:37 pm
 Sample : CVO06C0335
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P

Vial: 2
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 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	104	-0.01
2	T,M Dichlorodifluoromethane	0.330	0.371	-12.4	123	0.00
3	P,T,M Chloromethane	0.322	0.295✓	8.4	93	0.02
4	C,T,M Vinyl chloride	0.269	0.254	5.6	94	0.02
5	T,M Bromomethane	0.208	0.225	-8.2	111	0.00
6	T,M Chloroethane	0.170	0.173	-1.8	100	0.00
7	T,M Dichlorofluoromethane	0.506	0.537	-6.1	108	0.00
8	T,M Trichlorofluoromethane	0.342	0.435	-27.2#	128	0.00
9	T,M Acrolein	0.012	0.009	25.0#	78	0.00
10	T,M 1,1,2-Trichloro-1,2,2-trifl	0.172	0.187	-8.7	107	0.00
11	T,M Acetone	0.025	0.029	-16.0	119	0.00
12	C,T,M 1,1-Dichloroethene	0.497	0.466	6.2	94	0.02
13	T,M tert-Butyl alcohol	0.010	0.012	-20.0	115	0.00
14	T,M Acetonitrile	0.000	0.000	0.0	0#	0.00
15	T,M Methyl acetate	0.099	0.000	100.0#	0#	-4.34#
16	T,M Iodomethane	0.506	0.506	0.0	100	0.00
17	T,M Methylene chloride	0.367	0.362	1.4	101	0.00
18	T,M Carbon disulfide	1.066	1.128	-5.8	109	0.00
19	T,M Acrylonitrile	0.039	0.037	5.1	95	0.00
20	T,M tert-Butyl methyl ether (MT	0.459	0.494	-7.6	106	0.00
21	T,M trans-1,2-Dichloroethene	0.477	0.446	6.5	91	0.00
22	T,M Isopropyl ether (DIPE)	1.023	0.934	8.7	89	0.00
23	T,M Vinyl acetate	0.361	0.348	3.6	96	0.00
24	P,T,M 1,1-Dichloroethane	0.572	0.569✓	0.5	100	0.00
25	T,M 2-Butanol	0.010	0.000	100.0#	0#	-6.13#
26	T,M tert-Butyl ethyl ether (ETB	0.759	0.757	0.3	99	0.00
27	T,M 2-Butanone	0.058	0.054	6.9	100	0.00
28	T,M 2,2-Dichloropropane	0.296	0.306	-3.4	110	0.00
29	T,M cis-1,2-Dichloroethene	0.346	0.359	-3.8	105	0.00
30	C,T,M Chloroform	0.548	0.591	-7.8	110	-0.01
31	T,M tert-Amyl alcohol	0.000	0.000	0.0	0#	0.00
32	T,M Bromochloromethane	0.232	0.221	4.7	93	-0.01
33	T,M Tetrahydrofuran	0.038	0.031	18.4	99	0.00
34	S Dibromofluoromethane	0.297	0.303	-2.0	103	0.00
35	T,M 1,1,1-Trichloroethane	0.446	0.501	-12.3	114	-0.01
36	T,M Cyclohexane	0.653	0.000	100.0#	0#	-7.71#
37	T,M 2,2,4-Trimethylpentane	0.000	0.000	0.0	0#	0.00
38	T,M 1,1-Dichloropropene	0.174	0.175	-0.6	104	0.00
39	T,M Carbon tetrachloride	0.413	0.463	-12.1	113	0.00
40	T,M tert-Amyl methyl ether (TAM	0.131	0.141	-7.6	109	-0.01
41	S 1,2-Dichloroethane-d4	0.222	0.219	1.4	101	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D27\RDW345.D
 Acq On : 27 Apr 2015 2:37 pm
 Sample : CVO06C0335
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P

Vial: 2
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42 T,M 1,2-Dichloroethane	0.266	0.298	-12.0	112	-0.01
43 T,M Benzene	1.161	1.190	-2.5	105	-0.01
44 T,M Trichloroethene	0.370	0.388	-4.9	106	0.00
45 T,M Methylcyclohexane	0.655	0.000	100.0#	0#	-9.50#
46 C,T,M 1,2-Dichloropropane	0.311	0.314	-1.0	101	0.00
47 T,M 1,4-Dioxane	0.001	0.001	0.0	113	0.00
48 T,M Bromodichloromethane	0.395	0.431	-9.1	111	0.00
49 T,M Dibromomethane	0.131	0.149	-13.7	112	0.00
50 T,M 2-Chloroethyl vinyl ether	0.068	0.000	100.0#	0#	-10.61#
51 T,M 4-Methyl-2-pentanone	0.152	0.149	2.0	99	0.00
52 T,M cis-1,3-Dichloropropene	0.469	0.514	-9.6	107	0.00
53 I CHLOROENZENE-D5	1.000	1.000	0.0	106	0.00
54 S Toluene-d8	1.245	1.151	7.6	96	-0.01
55 C,T,M Toluene	1.492	1.532	-2.7	105	0.00
56 T,M Ethyl methacrylate	0.256	0.262	-2.3	106	0.00
57 T,M trans-1,3-Dichloropropene	0.387	0.408	-5.4	109	0.00
58 T,M 1,1,2-Trichloroethane	0.203	0.219	-7.9	113	0.00
59 T,M 2-Hexanone	0.112	0.115	-2.7	110	0.00
60 T,M 1,3-Dichloropropane	0.368	0.398	-8.2	110	0.00
61 T,M Tetrachloroethene	0.345	0.362	-4.9	110	-0.01
62 T,M Dibromochloromethane	0.272	0.312	-14.7	116	-0.01
63 T,M 2-Ethyl-1-butanol	0.000	0.000	0.0	0#	0.00
64 T,M 1,2-Dibromoethane	0.201	0.225	-11.9	114	0.00
65 T,M 1-Chlorohexane	0.681	0.695	-2.1	108	0.00
66 P, T,M Chlorobenzene	0.924	0.994 ✓	-7.6	110	0.00
67 T,M 1,1,1,2-Tetrachloroethane	0.318	0.352	-10.7	114	0.00
68 C,T,M Ethylbenzene	1.739	1.855	-6.7	112	0.00
69 T,M m-Xylene & p-Xylene	1.258	1.323	-5.2	112	0.00
70 T,M o-Xylene	1.278	1.395	-9.2	113	0.00
71 T,M Styrene	0.967	1.084	-12.1	115	0.00
72 T,M Isopropylbenzene	1.645	1.773	-7.8	112	0.00
73 I 1,2-DICHLOROENZENE-D4	1.000	1.000	0.0	122	-0.01
74 P,T,M Bromoform	0.393	0.391 ✓	0.5	117	-0.01
75 P,T,M 1,1,2,2-Tetrachloroethane	0.642	0.567 ✓	11.7	112	0.00
76 S 4-Bromofluorobenzene	1.092	0.978	10.4	109	-0.01
77 T,M 1,2,3-Trichloropropane	0.155	0.150	3.2	112	0.00
78 T,M trans-1,4-Dichloro-2-butene	0.170	0.145	14.7	107	0.00
79 T,M n-Propylbenzene	5.422	5.149	5.0	115	0.00
80 T,M Bromobenzene	0.939	0.892	5.0	114	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D27\RDW345.D Vial: 2
 Acq On : 27 Apr 2015 2:37 pm Operator: WLau
 Sample : CVO06C0335 Inst : TO06
 Misc : 10ppb 8260/50ppb KET-AA-TBA Multiplr: 1.00
 MS Integration Params: RTE.P

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T,M 1,3,5-Trimethylbenzene	3.418	3.183	6.9	113	0.00
82	T,M 2-Chlorotoluene	3.280	3.136	4.4	119	0.00
83	T,M 4-Chlorotoluene	2.748	2.576	6.3	112	-0.01
84	T,M tert-Butylbenzene	0.827	0.779	5.8	109	-0.01
85	T,M 1,2,4-Trimethylbenzene	3.355	3.159	5.8	114	0.00
86	T,M sec-Butylbenzene	4.824	4.596	4.7	114	0.00
87	T,M p-Isopropyltoluene	3.919	3.659	6.6	111	0.00
88	T,M 1,3-Dichlorobenzene	1.783	1.741	2.4	117	-0.01
89	T,M 1,4-Dichlorobenzene	1.744	1.711	1.9	119	-0.01
90	T,M n-Butylbenzene	3.759	3.634	3.3	117	-0.01
91	T,M 1,2-Dichlorobenzene	1.491	1.476	1.0	118	0.00
92	T,M 1,2-Dibromo-3-chloropropane	0.099	0.087	12.1	106	0.00
93	T,M 1,2,4-Trichlorobenzene	1.083	0.964	11.0	106	-0.02
94	T,M Hexachlorobutadiene	0.770	0.624	19.0	97	0.00
95	T,M Naphthalene	1.485	1.237	16.7	99	0.00
96	T,M 1,2,3-Trichlorobenzene	0.834	0.734	12.0	103	-0.02

Data File : D:\HPCHEM\1\DATA\15D27\RDW345.D
 Acq On : 27 Apr 2015 2:37 pm
 Sample : CVO06C0335
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Apr 28 17:45 2015

Vial: 2
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	8.89	114	998058	10.00	ug/l	-0.01
53) CHLOROBENZENE-D5	13.81	117	917375	10.00	ug/l	0.00
73) 1,2-DICHLOROBENZENE-D4	18.10	152	405150	10.00	ug/l	-0.01

System Monitoring Compounds

34) Dibromofluoromethane	7.40	111	302386	10.19	ug/l	0.00
Spiked Amount	10.000		Recovery	=	101.90%	
41) 1,2-Dichloroethane-d4	8.24	65	218184	9.86	ug/l	0.00
Spiked Amount	10.000		Recovery	=	98.60%	
54) Toluene-d8	11.36	98	1055886	9.25	ug/l	-0.01
Spiked Amount	10.000		Recovery	=	92.50%	
76) 4-Bromofluorobenzene	15.77	95	396346	8.96	ug/l	-0.01
Spiked Amount	10.000		Recovery	=	89.60%	

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.82	85	370468	11.26	ug/l	99
3) Chloromethane	2.07	50	294797	9.18	ug/l	100
4) Vinyl chloride	2.20	62	253667	9.46	ug/l	99
5) Bromomethane	2.69	94	224361	10.80	ug/l	100
6) Chloroethane	2.80	64	172187	10.14	ug/l	98
7) Dichlorofluoromethane	2.84	67	535563	10.60	ug/l	99
8) Trichlorofluoromethane	3.09	101	434540	12.72	ug/l	100
9) Acrolein	3.60	56	45822	37.07	ug/l	91
10) 1,1,2-Trichloro-1,2,2-trif	3.67	151	186266	10.83	ug/l	99
11) Acetone	3.69	43	143232	57.86	ug/l	92
12) 1,1-Dichloroethene	3.90	61	465082	9.38	ug/l	99
13) tert-Butyl alcohol	3.99	59	58445	57.09	ug/l	84
16) Iodomethane	4.33	142	505166	10.00	ug/l	96
17) Methylene chloride	4.61	49	360952	9.85	ug/l	79
18) Carbon disulfide	4.58	76	1126019	10.59	ug/l	99
19) Acrylonitrile	4.76	53	186615	47.57	ug/l	97
20) tert-Butyl methyl ether (M	4.80	73	492804	10.76	ug/l	97
21) trans-1,2-Dichloroethene	5.01	61	445382	9.36	ug/l	95
22) Isopropyl ether (DIPE)	5.56	45	932287	9.13	ug/l	93
23) Vinyl acetate	5.75	43	347178	9.64	ug/l	99
24) 1,1-Dichloroethane	5.72	63	568380	9.96	ug/l	99
26) tert-Butyl ethyl ether (ET	6.27	59	755589	9.98	ug/l	96
27) 2-Butanone	6.47	43	268356	46.14	ug/l	96
28) 2,2-Dichloropropane	6.69	77	305207	10.33	ug/l	99
29) cis-1,2-Dichloroethene	6.76	96	357899	10.37	ug/l	95
30) Chloroform	7.03	83	590109	10.79	ug/l	98
32) Bromochloromethane	7.30	49	220845	9.56	ug/l	87

(#) = qualifier out of range (m) = manual integration
 RDW345.D VO06C03.M Tue Apr 28 17:45:27 2015

Data File : D:\HPCHEM\1\DATA\15D27\RDW345.D
 Acq On : 27 Apr 2015 2:37 pm
 Sample : CVO06C0335
 Misc : 10ppb 8260/50ppb KET-AA-TBA
 MS Integration Params: RTE.P
 Quant Time: Apr 28 17:45 2015

Vial: 2
 Operator: WLau
 Inst : TO06
 Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
 Title : METHOD 8260
 Last Update : Thu Mar 05 10:12:48 2015
 Response via : Initial Calibration
 DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
33) Tetrahydrofuran	7.37	42	30582	9.03	ug/l	98
35) 1,1,1-Trichloroethane	7.70	97	499765	11.23	ug/l	98
38) 1,1-Dichloropropene	7.97	110	174366	10.02	ug/l	99
39) Carbon tetrachloride	8.12	119	462355	11.22	ug/l	100
40) tert-Amyl methyl ether (TA	8.18	87	140395	10.75	ug/l	# 92
42) 1,2-Dichloroethane	8.38	62	297865	11.22	ug/l	99
43) Benzene	8.40	78	1187729	10.25	ug/l	98
44) Trichloroethene	9.41	130	387163	10.47	ug/l	98
46) 1,2-Dichloropropane	9.71	63	313415	10.11	ug/l	97
47) 1,4-Dioxane	10.14	88	24930	218.93	ug/l	86
48) Bromodichloromethane	10.08	83	429927	10.91	ug/l	100
49) Dibromomethane	10.17	93	148672	11.35	ug/l	99
51) 4-Methyl-2-pentanone	10.66	43	744984	49.03	ug/l	94
52) cis-1,3-Dichloropropene	10.99	75	512816	10.96	ug/l	96
55) Toluene	11.49	91	1405233	10.27	ug/l	98
56) Ethyl methacrylate	11.80	69	240213	10.24	ug/l	93
57) trans-1,3-Dichloropropene	11.80	75	374526	10.55	ug/l	93
58) 1,1,2-Trichloroethane	12.04	97	200828	10.79	ug/l	99
59) 2-Hexanone	12.07	43	525266	51.20	ug/l	97
60) 1,3-Dichloropropane	12.46	76	365540	10.82	ug/l	99
61) Tetrachloroethene	12.53	164	332005	10.49	ug/l	99
62) Dibromochloromethane	12.86	129	286329	11.49	ug/l	99
64) 1,2-Dibromoethane	13.18	107	206430	11.21	ug/l	98
65) 1-Chlorohexane	13.47	91	637128	10.20	ug/l	97
66) Chlorobenzene	13.87	112	911815	10.76	ug/l	99
67) 1,1,1,2-Tetrachloroethane	13.94	131	323373	11.08	ug/l	99
68) Ethylbenzene	13.96	91	1701946	10.67	ug/l	99
69) m-Xylene & p-Xylene	14.08	91	2427598	21.04	ug/l	98
70) o-Xylene	14.79	91	1279374	10.91	ug/l	99
71) Styrene	14.85	104	994740	11.21	ug/l	98
72) Isopropylbenzene	15.37	105	1626881	10.78	ug/l	99
74) Bromoform	15.38	173	158421	9.95	ug/l	99
75) 1,1,2,2-Tetrachloroethane	15.65	83	229699	8.84	ug/l	99
77) 1,2,3-Trichloropropane	15.89	110	60810	9.71	ug/l	99
78) trans-1,4-Dichloro-2-buten	16.01	53	58777	8.53	ug/l	94
79) n-Propylbenzene	16.02	91	2085979	9.50	ug/l	99
80) Bromobenzene	16.10	156	361439	9.50	ug/l	99
81) 1,3,5-Trimethylbenzene	16.28	105	1289717	9.31	ug/l	99
82) 2-Chlorotoluene	16.31	91	1270564	9.56	ug/l	100
83) 4-Chlorotoluene	16.38	91	1043627	9.37	ug/l	100
84) tert-Butylbenzene	16.86	134	315591	9.42	ug/l	100

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

Data File : D:\HPCHEM\1\DATA\15D27\RDW345.D
Acq On : 27 Apr 2015 2:37 pm
Sample : CVO06C0335
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Apr 28 17:45 2015

Vial: 2
Operator: WLau
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06C03.RES

Quant Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration
DataAcq Meth : VO06C03

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
85) 1,2,4-Trimethylbenzene	16.91	105	1279975	9.42	ug/l	99
86) sec-Butylbenzene	17.18	105	1862126	9.53	ug/l	100
87) p-Isopropyltoluene	17.39	119	1482477	9.34	ug/l	100
88) 1,3-Dichlorobenzene	17.51	146	705226	9.76	ug/l	99
89) 1,4-Dichlorobenzene	17.66	146	693352	9.81	ug/l	100
90) n-Butylbenzene	17.93	91	1472227	9.67	ug/l	99
91) 1,2-Dichlorobenzene	18.15	146	598128	9.90	ug/l	99
92) 1,2-Dibromo-3-chloropropan	19.05	157	35449	8.80	ug/l	96
93) 1,2,4-Trichlorobenzene	20.02	180	390423	8.90	ug/l	99
94) Hexachlorobutadiene	20.18	225	252966	8.11	ug/l	99
95) Naphthalene	20.33	128	501238	8.33	ug/l	100
96) 1,2,3-Trichlorobenzene	20.62	180	297235	8.80	ug/l	99

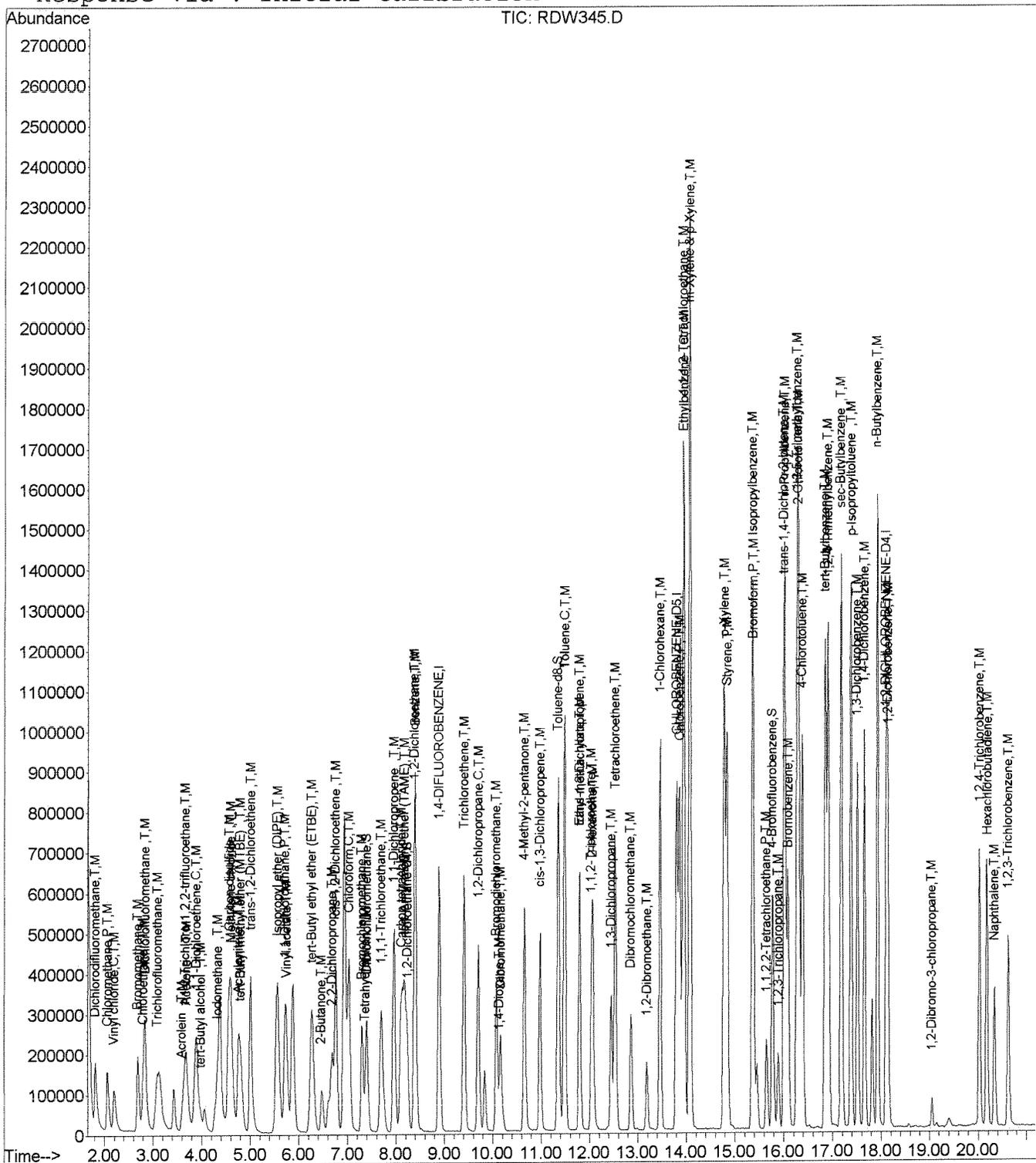
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D27\RDW345.D
Acq On : 27 Apr 2015 2:37 pm
Sample : CVO06C0335
Misc : 10ppb 8260/50ppb KET-AA-TBA
MS Integration Params: RTE.P
Quant Time: Apr 28 17:45 2015

Vial: 2
Operator: WLaU
Inst : TO06
Multiplr: 1.00

Quant Results File: VO06C03.RE

Method : D:\HPCHEM\1\METHODS\VO06C03.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Mar 05 10:12:48 2015
Response via : Initial Calibration



8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : EMAX INC. Project : B & B GROUNDWATER SAMPLING
 Lab Code : EMXT SDG No. : 15D157
 Lab File ID : RLC381 Date Analyzed : 12/18/14
 Instrument ID : 67 Time Analyzed : 22:11
 GC Column : RTX502.21D:0.25mm (mm) Heated Purge : No

		IS1(DFB)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
=====		=====		=====		=====	
12 HOUR STD		1579429	8.05	1147311	13.12	386538	18.35
UPPER LIMIT		3158858	8.55	2294622	13.62	773076	18.85
LOWER LIMIT		789715	7.55	573656	12.62	193269	17.85
=====		=====		=====		=====	
SAMPLE ID							
=====		=====		=====		=====	
1	VSTD010	1549197	8.05	1180962	13.15	409101	18.38
2	MBLK2W	1676218	8.05	1254871	13.15	410648	18.38
3	LCS2W	1572536	8.05	1186242	13.15	409852	18.38
4	LCD2W	1589856	8.07	1225104	13.15	433499	18.38
5	04-22-15-TB-12	1554644	8.07	1178297	13.17	390102	18.38
6	04-22-15-TB-13	1599070	8.08	1206517	13.17	402359	18.38
7	04-22-15-TB-14	1546052	8.08	1179694	13.17	396004	18.40
8	04-22-15-WB2-4	1509069	8.07	1150381	13.17	383656	18.38
9	04-22-15-PWB-5	1513040	8.05	1162722	13.15	394119	18.38
10	04-22-15-WB2-1DL	1350806	8.07	1046730	13.17	362136	18.38

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 = + 0.5 minutes (30 sec) of internal standard RT
 RT LOWER LIMIT = - 0.5 minutes (30 sec) of internal standard RT

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

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E04\REC048.D Vial: 2
 Acq On : 4 May 2015 12:53 pm Operator: SDuong
 Sample : CVO67L1899 Inst : TO67
 Misc : 10ppb8260/50ppbKET-A-AN-TBA Multiplr: 1.00
 MS Integration Params: LSCINT1.P

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Mon Dec 22 18:09:36 2014
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
 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	98	0.00
2	T,M Dichlorodifluoromethane	10.000	10.722	-7.2	98	-0.01
3	T,M Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	0.00
4	P,T,M Chloromethane	10.000	8.780	12.2	82	0.02
5	C,T,M Vinyl chloride	10.000	8.533 ✓	14.7	79	0.02
6	T,M Bromomethane	10.000	9.110	8.9	88	-0.01
7	T,M Chloroethane	10.000	8.236	17.6	78	0.00
8	T,M Dichlorofluoromethane	10.000	8.792	12.1	86	-0.01
9	T,M Trichlorofluoromethane	10.000	8.716	12.8	82	0.00
10	T,M sec-Propyl alcohol	-1.000	0.000	0.0	0	0.00
11	T,M Acrolein	50.000	52.349	-4.7	110	-0.02
12	T,M 1,1,2-Trichloro-1,2,2-trifl	10.000	10.004	-0.0	100	0.00
13	T,M Acetone	50.000	44.327	11.3	93	-0.01
14	C,T,M 1,1-Dichloroethene	10.000	9.002 ✓	10.0	89	0.00
15	T,M tert-Butyl alcohol	50.000	39.080	21.8#	75	-0.01
16	T,M Methyl acetate	10.000	-0.332	103.3#	0	-4.27#
17	T,M Iodomethane	10.000	10.686	-6.9	105	0.00
18	T,M Acetonitrile	-1.000	0.000	0.0	84	-0.02
19	T,M Methylene chloride	10.000	8.493	15.1	88	-0.02
20	T,M Carbon disulfide	10.000	9.650	3.5	96	0.00
21	T,M Acrylonitrile	50.000	44.174	11.7	89	-0.02
22	T,M tert-Butyl methyl ether (MT)	10.000	8.461	15.4	82	-0.02
23	T,M trans-1,2-Dichloroethene	10.000	8.747	12.5	87	-0.02
24	T,M Isopropyl ether (DIPE)	10.000	8.187	18.1	81	0.00
25	P,T,M 1,1-Dichloroethane	10.000	9.238	7.6	92	-0.02
26	T,M Vinyl acetate	10.000	8.131	18.7	74	-0.02
27	T,M 2-Butanol	50.000	0.000	100.0#	0	-5.68#
28	T,M tert-Butyl ethyl ether (ETB)	10.000	8.217	17.8	80	0.00
29	T,M 2-Butanone	50.000	43.454	13.1	89	-0.02
30	T,M 2,2-Dichloropropane	10.000	8.645	13.6	81	0.00
31	T,M cis-1,2-Dichloroethene	10.000	10.192	-1.9	100	-0.02
32	C,T,M Chloroform	10.000	9.753 ✓	2.5	96	-0.02
33	T,M Bromochloromethane	10.000	8.838	11.6	84	0.00
34	T,M tert-Amyl alcohol	-1.000	0.000	0.0	0	0.00
35	S Dibromofluoromethane	10.000	9.815	1.9	88	0.00
36	T,M Tetrahydrofuran	10.000	8.167	18.3	76	0.01
37	T,M 1,1,1-Trichloroethane	10.000	9.284	7.2	90	0.00
38	T,M Cyclohexane	10.000	0.000	100.0#	0	-7.03#
39	T,M 2,2,4-Trimethylpentane	-1.000	0.000	0.0	0	0.00
40	T,M 1,1-Dichloropropene	10.000	10.633	-6.3	105	0.00
41	T,M Carbon tetrachloride	10.000	9.890	1.1	97	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E04\REC048.D
 Acq On : 4 May 2015 12:53 pm
 Sample : CVO67L1899
 Misc : 10ppb8260/50ppbKET-A-AN-TBA
 MS Integration Params: LSCINT1.P

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

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Mon Dec 22 18:09:36 2014
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)
42 T,M tert-Amyl methyl ether (TAM	10.000	9.004	10.0	86	0.00
43 S 1,2-Dichloroethane-d4	10.000	8.204	18.0	73	0.00
44 T,M 1,2-Dichloroethane	10.000	9.137	8.6	88	0.01
45 T,M Benzene	10.000	9.389	6.1	94	0.00
46 T,M Trichloroethene	10.000	10.412	-4.1	112	0.01
47 T,M Methylcyclohexane	10.000	0.000	100.0#	0	-8.64#
48 C,T,M 1,2-Dichloropropane	10.000	9.347 ✓	6.5	92	0.00
49 T,M Bromodichloromethane	10.000	9.872	1.3	96	0.01
50 T,M 1,4-Dioxane	200.000	192.232	3.9	94	0.00
51 T,M Dibromomethane	10.000	10.002	-0.0	96	0.01
52 T,M 2-Chloroethyl vinyl ether	10.000	1.683	83.2#	15	0.01
53 T,M 4-Methyl-2-pentanone	50.000	41.314	17.4	83	0.01
54 T,M cis-1,3-Dichloropropene	10.000	9.662	3.4	94	0.01
55 I CHLOROBENZENE-D5	10.000	10.000	0.0	103	0.03
56 S Toluene-d8	10.000	9.095	9.0	89	0.01
57 C,T,M Toluene	10.000	9.509	4.9	101	0.01
58 T,M Ethyl methacrylate	10.000	8.671 ✓	13.3	88	0.03
59 T,M trans-1,3-Dichloropropene	10.000	9.053	9.5	92	0.03
60 T,M 1,1,2-Trichloroethane	10.000	10.081	-0.8	105	0.03
61 T,M 2-Hexanone	50.000	40.507	19.0	88	0.03
62 T,M 1,3-Dichloropropane	10.000	9.145	8.6	94	0.03
63 T,M Tetrachloroethene	10.000	11.026	-10.3	117	0.03
64 T,M Dibromochloromethane	10.000	10.853	-8.5	111	0.01
65 T,M 1,2-Dibromoethane	10.000	10.104	-1.0	105	0.03
66 T,M 1-Chlorohexane	10.000	8.963	10.4	95	0.01
67 P,M Chlorobenzene	10.000	10.644	-6.4	113	0.03
68 T,M 1,1,1,2-Tetrachloroethane	10.000	10.956	-9.6	115	0.03
69 C,T,M Ethylbenzene	10.000	9.770	2.3	103	0.03
70 T,M m-Xylene & p-Xylene	20.000	19.108 ✓	4.5	101	0.03
71 T,M o-Xylene	10.000	9.937	0.6	105	0.03
72 T,M Styrene	10.000	10.519	-5.2	110	0.03
73 T,M Isopropylbenzene	10.000	10.441	-4.4	109	0.03
74 I 1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	106	0.03
75 P,T,M Bromoform	10.000	10.292	-2.9	112	0.03
76 P,T,M 1,1,2,2-Tetrachloroethane	10.000	9.351	6.5	100	0.03
77 S 4-Bromofluorobenzene	10.000	8.297	17.0	89	0.04
78 T,M 1,2,3-Trichloropropane	10.000	9.921	0.8	104	0.03
79 T,M trans-1,4-Dichloro-2-butene	10.000	7.813	21.9#	83	0.03
80 T,M n-Propylbenzene	10.000	9.522	4.8	105	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E04\REC048.D
 Acq On : 4 May 2015 12:53 pm
 Sample : CVO67L1899
 Misc : 10ppb8260/50ppbKET-A-AN-TBA
 MS Integration Params: LSCINT1.P

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

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Mon Dec 22 18:09:36 2014
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81 T,M Bromobenzene	10.000	10.797	-8.0	120	0.04
82 T,M 1,3,5-Trimethylbenzene	10.000	9.701	3.0	107	0.04
83 T,M 2-Chlorotoluene	10.000	9.493	5.1	108	0.03
84 T,M 4-Chlorotoluene	10.000	8.916	10.8	99	0.04
85 T,M tert-Butylbenzene	10.000	11.008	-10.1	122	0.04
86 T,M 1,2,4-Trimethylbenzene	10.000	9.742	2.6	108	0.04
87 T,M sec-Butylbenzene	10.000	9.968	0.3	110	0.03
88 T,M p-Isopropyltoluene	10.000	10.330	-3.3	113	0.03
89 T,M 1,3-Dichlorobenzene	10.000	10.905	-9.0	122	0.04
90 T,M 1,4-Dichlorobenzene	10.000	10.675	-6.8	121	0.03
91 T,M n-Butylbenzene	10.000	9.339	6.6	102	0.03
92 T,M 1,2-Dichlorobenzene	10.000	10.872	-8.7	120	0.03
93 T,M 1,2-Dibromo-3-chloropropane	10.000	11.300	-13.0	117	0.03
94 T,M 1,2,4-Trichlorobenzene	10.000	10.414	-4.1	115	0.03
95 T,M Hexachlorobutadiene	10.000	10.561	-5.6	115	0.03
96 T,M Naphthalene	10.000	9.369	6.3	101	0.03
97 T,M 1,2,3-Trichlorobenzene	10.000	10.050	-0.5	110	0.03

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E04\REC048.D
 Acq On : 4 May 2015 12:53 pm
 Sample : CVO67L1899
 Misc : 10ppb8260/50ppbKET-A-AN-TBA
 MS Integration Params: LSCINT1.P

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

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Mon Dec 22 18:09:36 2014
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
 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	98	0.00
2	T,M Dichlorodifluoromethane	0.337	0.362	-7.4	98	-0.01
3	T,M Dichlorotetrafluoroethane	0.000	0.000	0.0	0#	0.00
4	P,T,M Chloromethane	0.498	0.437	12.2	82	0.02
5	C,T,M Vinyl chloride	0.544	0.464	14.7	79	0.02
6	T,M Bromomethane	0.336	0.333	0.9	88	-0.01
7	T,M Chloroethane	0.339	0.279	17.7	78	0.00
8	T,M Dichlorofluoromethane	0.687	0.604	12.1	86	-0.01
9	T,M Trichlorofluoromethane	0.473	0.412	12.9	82	0.00
10	T,M sec-Propyl alcohol	0.000	0.000	0.0	0#	0.00
11	T,M Acrolein	0.014	0.014	0.0	110	-0.02
12	T,M 1,1,2-Trichloro-1,2,2-trifl	0.269	0.270	-0.4	100	0.00
13	T,M Acetone	0.024	0.021	12.5	93	-0.01
14	C,T,M 1,1-Dichloroethene	0.522	0.470	10.0	89	0.00
15	T,M tert-Butyl alcohol	0.008	0.006	25.0#	75	-0.01
16	T,M Methyl acetate	0.083	0.000	100.0#	0#	-4.27#
17	T,M Iodomethane	0.536	0.573	-6.9	105	0.00
18	T,M Acetonitrile	0.000	0.000	0.0	84	-0.02
19	T,M Methylene chloride	0.329	0.280	14.9	88	-0.02
20	T,M Carbon disulfide	1.402	1.353	3.5	96	0.00
21	T,M Acrylonitrile	0.035	0.031	11.4	89	-0.02
22	T,M tert-Butyl methyl ether (MT	0.404	0.342	15.3	82	-0.02
23	T,M trans-1,2-Dichloroethene	0.451	0.394	12.6	87	-0.02
24	T,M Isopropyl ether (DIPE)	0.898	0.735	18.2	81	0.00
25	P,T,M 1,1-Dichloroethane	0.560	0.517	7.7	92	-0.02
26	T,M Vinyl acetate	0.279	0.227	18.6	74	-0.02
27	T,M 2-Butanol	0.007	0.000	100.0#	0#	-5.68#
28	T,M tert-Butyl ethyl ether (ETB	0.650	0.534	17.8	80	0.00
29	T,M 2-Butanone	0.040	0.035	12.5	89	-0.02
30	T,M 2,2-Dichloropropane	0.324	0.280	13.6	81	0.00
31	T,M cis-1,2-Dichloroethene	0.333	0.339	-1.8	100	-0.02
32	C,T,M Chloroform	0.492	0.480	2.4	96	-0.02
33	T,M Bromochloromethane	0.172	0.152	11.6	84	0.00
34	T,M tert-Amyl alcohol	0.000	0.000	0.0	0#	0.00
35	S Dibromofluoromethane	0.275	0.269	2.2	88	0.00
36	T,M Tetrahydrofuran	0.021	0.017	19.0	76	0.01
37	T,M 1,1,1-Trichloroethane	0.435	0.404	7.1	90	0.00
38	T,M Cyclohexane	0.707	0.000	100.0#	0#	-7.03#
39	T,M 2,2,4-Trimethylpentane	0.000	0.000	0.0	0#	0.00
40	T,M 1,1-Dichloropropene	0.170	0.180	-5.9	105	0.00
41	T,M Carbon tetrachloride	0.395	0.390	1.3	97	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E04\REC048.D
 Acq On : 4 May 2015 12:53 pm
 Sample : CVO67L1899
 Misc : 10ppb8260/50ppbKET-A-AN-TBA
 MS Integration Params: LSCINT1.P

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

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Mon Dec 22 18:09:36 2014
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42 T,M tert-Amyl methyl ether (TAM	0.107	0.096	10.3	86	0.00
43 S 1,2-Dichloroethane-d4	0.159	0.130	18.2	73	0.00
44 T,M 1,2-Dichloroethane	0.187	0.171	8.6	88	0.01
45 T,M Benzene	1.190	1.118	6.1	94	0.00
46 T,M Trichloroethene	0.375	0.390	-4.0	112	0.01
47 T,M Methylcyclohexane	0.727	0.000	100.0#	0#	-8.64#
48 C,T,M 1,2-Dichloropropane	0.261	0.244	6.5	92	0.00
49 T,M Bromodichloromethane	0.302	0.298	1.3	96	0.01
50 T,M 1,4-Dioxane	0.001	0.001	0.0	94	0.00
51 T,M Dibromomethane	0.105	0.105	0.0	96	0.01
52 T,M 2-Chloroethyl vinyl ether	0.057	0.010	82.5#	15#	0.01
53 T,M 4-Methyl-2-pentanone	0.098	0.081	17.3	83	0.01
54 T,M cis-1,3-Dichloropropene	0.371	0.359	3.2	94	0.01
55 I CHLOROBENZENE-D5	1.000	1.000	0.0	103	0.03
56 S Toluene-d8	1.478	1.344	9.1	89	0.01
57 C,T,M Toluene	1.724	1.639	4.9	101	0.01
58 T,M Ethyl methacrylate	0.210	0.182	13.3	88	0.03
59 T,M trans-1,3-Dichloropropene	0.351	0.318	9.4	92	0.03
60 T,M 1,1,2-Trichloroethane	0.170	0.172	-1.2	105	0.03
61 T,M 2-Hexanone	0.083	0.068	18.1	88	0.03
62 T,M 1,3-Dichloropropane	0.329	0.301	8.5	94	0.03
63 T,M Tetrachloroethene	0.371	0.409	-10.2	117	0.03
64 T,M Dibromochloromethane	0.237	0.257	-8.4	111	0.01
65 T,M 1,2-Dibromoethane	0.166	0.167	-0.6	105	0.03
66 T,M 1-Chlorohexane	0.867	0.777	10.4	95	0.01
67 P,M Chlorobenzene	0.963	1.025	-6.4	113	0.03
68 T,M 1,1,1,2-Tetrachloroethane	0.319	0.349	-9.4	115	0.03
69 C,T,M Ethylbenzene	1.974	1.929	2.3	103	0.03
70 T,M m-Xylene & p-Xylene	1.412	1.349	4.5	101	0.03
71 T,M o-Xylene	1.324	1.315	0.7	105	0.03
72 T,M Styrene	1.007	1.059	-5.2	110	0.03
73 T,M Isopropylbenzene	1.833	1.914	-4.4	109	0.03
74 I 1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	106	0.03
75 P,T,M Bromoform	0.359	0.370	-3.1	112	0.03
76 P,T,M 1,1,2,2-Tetrachloroethane	0.528	0.494	6.4	100	0.03
77 S 4-Bromofluorobenzene	1.246	1.034	17.0	89	0.04
78 T,M 1,2,3-Trichloropropane	0.135	0.134	0.7	104	0.03
79 T,M trans-1,4-Dichloro-2-butene	0.140	0.109	22.1#	83	0.03
80 T,M n-Propylbenzene	7.024	6.688	4.8	105	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15E04\REC048.D
 Acq On : 4 May 2015 12:53 pm
 Sample : CVO67L1899
 Misc : 10ppb8260/50ppbKET-A-AN-TBA
 MS Integration Params: LSCINT1.P

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

Method : D:\HPCHEM\1\METHODS\VO67L18.M (RTE Integrator)
 Title : METHOD 8260B
 Last Update : Mon Dec 22 18:09:36 2014
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.17min
 Max. RRF Dev : 20% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81 T,M Bromobenzene	0.994	1.074	-8.0	120	0.04
82 T,M 1,3,5-Trimethylbenzene	4.302	4.174	3.0	107	0.04
83 T,M 2-Chlorotoluene	3.991	3.788	5.1	108	0.03
84 T,M 4-Chlorotoluene	3.388	3.020	10.9	99	0.04
85 T,M tert-Butylbenzene	1.025	1.128	-10.0	122	0.04
86 T,M 1,2,4-Trimethylbenzene	4.044	3.940	2.6	108	0.04
87 T,M sec-Butylbenzene	6.218	6.198	0.3	110	0.03
88 T,M p-Isopropyltoluene	5.019	5.185	-3.3	113	0.03
89 T,M 1,3-Dichlorobenzene	2.010	2.191	-9.0	122	0.04
90 T,M 1,4-Dichlorobenzene	1.927	2.057	-6.7	121	0.03
91 T,M n-Butylbenzene	4.777	4.461	6.6	102	0.03
92 T,M 1,2-Dichlorobenzene	1.538	1.672	-8.7	120	0.03
93 T,M 1,2-Dibromo-3-chloropropane	0.069	0.079	-14.5	117	0.03
94 T,M 1,2,4-Trichlorobenzene	0.945	0.984	-4.1	115	0.03
95 T,M Hexachlorobutadiene	0.841	0.888	-5.6	115	0.03
96 T,M Naphthalene	1.060	0.993	6.3	101	0.03
97 T,M 1,2,3-Trichlorobenzene	0.668	0.672	-0.6	110	0.03

ANALYTICAL LOG(S)



ANALYSIS LOG FOR VOLATILES

SOP EMAX-8260 Rev.No. 10 EMAX-8260C Rev. No. 0 EMAX-8260SIM Rev.No. 1 EMAX-M8260SIM Rev.No. 0 EMAX-TCP5IM Rev.No. 2 EMAX-624 Rev.No. 4

Start Date: 12-19-14 5-mL Purge 10-mL Purge 25-mL Purge

Book #: A67-056

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix			Notes
					W		S	
					pH <2	Cl ₂ <5ppm		
01	RLC394	BFB67L15-	1ul					check 11:33
02	395	STD TEST	5/5/11/5/6 25ul					3 add'l and needle flushed.
03	396	IVO67L1802	5/5/11/5/6 25ul					
04	397	CVO67L1801	5/5/11/5/6 25ul					
05	398	V067L15L	5/5/11/5/6 25ul					
06	399	↓ C	5/5/11/5/6 25ul					
07	400	miss V067L15B 4/12/14	25ml	1.0				
08	401	V067L15X-	5/5/11/5/6 25ul					
09	402	miss	25ml	1.0				
10	403	V067L15B	↓					MB use 0.7% Release
11	404	14L097-12E	5mls	5K	<2	<5		Too Dilute
12	405	↓ -07E	↓	↓	-	-		↓
13	406	miss	25ml	1.0				
14	407	↓	↓	↓				
15	408	V067L15G-	↓	↓				MB
16	409	14L097-06I	5mls	5K	<2	<5		
17	410	↓ -05I	↓	↓	-	-		
18	411	↓ -10	25mls	1.0	-	-		
19	412	↓ -15	↓	↓	-	-		
20	413	↓ -14	↓	↓	-	-		
21	414	↓ -11	↓	↓	-	-		
22	415	↓ -10	↓	↓	-	-		22:59 out of 12 hrs 23:35 (2 hrs) out
23								
24								
25								
26								
27								
28								
29								
30								AS 12-22-14

BATCH CVO67L1801

2153

Instrument No. 67			
INITIAL CALIBRATION REFERENCE			
DATE	12-18-14		
ICAL ID	V067L18		
STANDARDS			
NAME	ID	Amount (ul)	Conc. (mg/L)
DCC 8260	SU1-23-34-3	5	50/250
DCC K2100	-24-02-2	5	250
DCC Gas	-01-2	1	250
DCC CS ₂	-03-3	1	250
BFB	23-02-3	1	50
IS/SURR.	-40-2	1	250
ICV/LCS 8210	-41-2	5	50/250
ICV/LCS (at 10)	-43-1	5	250
ICV/LCS Gas	-24-01-1	1	250
ICV/LCS CS ₂	-23-00-3	1	250
ICV/LCS 2-Batch	SU1-22-49-1 SU1-22-45-2	5 1.25	50 1K
Data File Folder	14L19		
	LOT #	Syringe Lot #	
pH strip	HC412469	49728304	49728305
Chlorine strip	42423	49728304	49728302
Methanol	-		03
NaHSO ₄	-		49728304
Reagent Water	RW3-14-001		05
Sand	-		06 07
Electronic Data Archival Location		Date	
HPCHEM_VOA/TO67			
Comments:			

Analyzed By: AS
 Date Disposed: 12-22-14
 Disposed By: AS



ANALYSIS LOG FOR VOLATILES

SOP EMAX-8260 Rev.No. 10 EMAX-8260C Rev. No. 0 EMAX-8260SIM Rev.No. 1 EMAX-M8260SIM Rev.No. 0 EMAX-TCPSIM Rev.No. 2 EMAX-624 Rev.No. 4

Start Date: 3/4/15 5-mL Purge 10-mL Purge 25-mL Purge

Book #: A06-057

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix			Notes
					W		S	
					pH <2	Cl ₂ <5ppm		
01	RCW 0-024	BFB06C03	-					3:07pm
02	025	V006C0301	-					
03	026	CV006C0301	-					
04	027	CV006C0401	-					Appix
05	028	V006C03L	-					
06	029	I C	-					
07	030	RINSE						
08	031	V006C03B	- 25mL					
09	032	15C006-02	- 25mL	1.0	✓	✓		
10	033	-03	-		✓	✓		
11	034	-04	-		✓	✓		
12	035	-05	-		✓	✓		
13	036	-07	-		✓	✓		
14	037	-01I	- 0.25mL	100	✓	✓		
15	038	-06I	- I	I	✓	✓		
16	039	-01	- 25mL	1.0	✓	✓		
17	040	-06	- I	I	✓	✓		
18	041	-01J	- 2.5mL	10	✓	✓		
19	042	-06J	- I	I	✓	✓		12:45 am
20	042 → 032	RINSE						
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

BATCH CV006C0301 / CV006C0401 (APP IX)

2155

Instrument No.		06	
INITIAL CALIBRATION REFERENCE			
DATE	3/3/15	3/4/15	
ICAL ID	V006C03	V006C04	(APP IX)
STANDARDS			
NAME	ID	Amount (ul)	Conc. (mg/L)
DCC	SVI-24-23-01	1	50 / 250 / 1000
DCC	-28-03	1	
DCC	-21-01	5	
DCC	-24-01	5	
DCC	SVI-23-38-01	1	
DCC	SVI-24-08-01	5	
BFB	-17-01	1	
IS/SURR.	-26-03	1	
ICV/LCS	-23-02	1	
ICV/LCS	-20-03	1	
ICV/LCS	-20-01	5	
ICV/LCS	-25-02	5	
ICV/LCS	SVI-12-45-02	1.25	
ICV/LCS	SVI-24-07-03	5	
Data File Folder	15C04		
	LOT #	Syringe Lot #	
pH strip	HC413032	M06-P1487-04	
Chlorine strip	4174	I -05	
Methanol		M5V01-01-08-04	
NaHSO ₄			
Reagent Water	RW4-14-001		
Sand			
Electronic Data Archival Location		Date	
HPCHEM_VOA/TO06			
Comments:			

Analyzed By: W
 Date Disposed: 3/5/15 Disposed By: W



ANALYSIS LOG FOR VOLATILES

SOP EMAX-8260 Rev.No. 10 EMAX-8260C Rev. No. 0 EMAX-8260SIM Rev.No. 1 EMAX-M8260SIM Rev.No. 0 EMAX-TCPSIM Rev.No. 2 EMAX-624 Rev.No. 4

Start Date: 4/27/15 5-mL Purge 10-mL Purge 25-mL Purge

Book #: A06-058

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix			Notes
					W		S	
					pH <2	Cl ₂ <5ppm		
01	RDW 344	BFB06016	-					2:06pm
02	345	CV006C0335	-					
03	346	V006016L	-					
04	347	L C	-					
05	348	V006016B	-	25mL				
06	349	H5D157-17	-	25mL	1.0	✓	✓	
07	350	-17M	-			✓	✓	CH2Cl2 recovery low J RPO out
08	351	-17S	-			✓	✓	
09	352	-01	-			✓	✓	
10	353	-02	-			✓	✓	
11	354	-03	-			✓	✓	
12	355	-04	-			✓	✓	
13	356	-06	-			✓	✓	
14	357	-08	-			✓	✓	
15	358	-09	-			✓	✓	
16	359	-10	-			✓	✓	
17	360	-14	-			✓	✓	
18	361	-05	-			✓	✓	
19	362	-07	-			✓	✓	
20	363	-11	-			✓	✓	
21	364	-12	-			✓	✓	
22	365	-13	-			✓	✓	25x 1:32 am
23	366-371	Final	-					
24			-					
25			-					
26			-					
27			-					
28			-					
29			-					
30			-					W 4/28/15

BATCH CV006C0335

2156

Instrument No.		06	
INITIAL CALIBRATION REFERENCE			
DATE	3/3/15		
ICAL ID	V006C03		
STANDARDS			
NAME	ID	Amount (ul)	Conc. (mg/L)
DCC	SV1-24-23-01	1	50/250
DCC	-36-01	1	
DCC	-35-01	5	
DCC	-24-01	5	
BFB	-17-01	0.5	
IS/SURR.	-27-01	1	
ICV/LCS	-23-02	1	
ICV/LCS	-36-02	1	
ICV/LCS	-35-01	5	
ICV/LCS	-25-02	5	
Data File Folder	15D27		
	LOT #	Syringe Lot #	
pH strip	H0413632	M1V01-01-08-01	
Chlorine strip	40719	M00 F2487-04	
Methanol		1	-05
NaHSO ₄			
Reagent Water	RW4-14-001		
Sand			
Electronic Data Archival Location		Date	
HPCHEM_VOA/TO06			

Comments: _____

Analyzed By: W

Date Disposed: 4/28/15

Disposed By: W

Injection Log

Directory: D:\HPCHEM\1\DATA\15D27

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RDW344.D	1.	BFB06D16	T/CHK	27 Apr 2015 1
2	2	RDW345.D	1.	CVO06C0335	10ppb 8260/50ppb KET-AA-TBA	27 Apr 2015 1
3	3	RDW346.D	1.	VO06D16L	10ppb 8260/50ppb KET-AA-TBA	27 Apr 2015 1
4	4	RDW347.D	1.	VO06D16C	10ppb 8260/50ppb KET-AA-TBA	27 Apr 2015 1
5	5	RDW348.D	1.	VO06D16B 25mL	BLANK	27 Apr 2015 1
6	6	RDW349.D	1.	15D157-17 25mL	DF=1.0	27 Apr 2015 1
7	7	RDW350.D	1.	15D157-17M 25mL	DF=1.0	27 Apr 2015 1
8	8	RDW351.D	1.	15D157-17S 25mL	DF=1.0	27 Apr 2015 1
9	9	RDW352.D	1.	15D157-01 25mL	DF=1.0	27 Apr 2015 1
10	10	RDW353.D	1.	15D157-02 25mL	DF=1.0	27 Apr 2015 1
11	11	RDW354.D	1.	15D157-03 25mL	DF=1.0	27 Apr 2015 1
12	12	RDW355.D	1.	15D157-04 25mL	DF=1.0	27 Apr 2015 2
13	13	RDW356.D	1.	15D157-06 25mL	DF=1.0	27 Apr 2015 2
14	14	RDW357.D	1.	15D157-08 25mL	DF=1.0	27 Apr 2015 2
15	15	RDW358.D	1.	15D157-09 25mL	DF=1.0	27 Apr 2015 2
16	16	RDW359.D	1.	15D157-10 25mL	DF=1.0	27 Apr 2015 2
17	17	RDW360.D	1.	15D157-14 25mL	DF=1.0	27 Apr 2015 2
18	18	RDW361.D	1.	15D157-05 25mL	DF=1.0	27 Apr 2015 2
19	19	RDW362.D	1.	15D157-07 25mL	DF=1.0	27 Apr 2015 2
20	20	RDW363.D	1.	15D157-11 25mL	DF=1.0	28 Apr 2015 0
21	21	RDW364.D	1.	15D157-12 25mL	DF=1.0	28 Apr 2015 0
22	22	RDW365.D	1.	15D157-13 25mL	DF=1.0	28 Apr 2015 0
23	23	RDW366.D	1.	RINSE	DF=1.0	28 Apr 2015 0
24	24	RDW367.D	1.	RINSE	DF=1.0	28 Apr 2015 0
25	25	RDW368.D	1.	RINSE	DF=1.0	28 Apr 2015 0
26	26	RDW369.D	1.	RINSE	DF=1.0	28 Apr 2015 0
27	27	RDW370.D	1.	RINSE	DF=1.0	28 Apr 2015 0
28	28	RDW371.D	1.	RINSE	DF=1.0	28 Apr 2015 0

Injection Log

Directory: D:\HPCHEM\1\DATA\15E04

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	REC047.D	1.	BFB67E03	T/CHECK	4 May 2015 12:15
2	2	REC048.D	1.	CVO67L1899	10ppb8260/50ppbKET-A-AN-TBA	4 May 2015 12:53
3	3	REC049.D	1.	VO67E03L	10ppb8260/50ppbKET-A-AN-TBA	4 May 2015 13:42
4	4	REC050.D	1.	VO67E03C	10ppb8260/50ppbKET-A-AN-TBA	4 May 2015 14:21
5	5	REC051.D	1.	RINSE	BLANK	4 May 2015 14:59
6	6	REC052.D	1.	VO67E03B	BLANK	4 May 2015 15:33
7	7	REC053.D	1.	15D202-01	25mL DF=1.0	4 May 2015 16:08
8	8	REC054.D	1.	15D157-15	25mL DF=1.0	4 May 2015 16:45
9	9	REC055.D	1.	15D157-18	25mL DF=1.0	4 May 2015 17:22
10	10	REC056.D	1.	15D157-20	25mL DF=1.0	4 May 2015 18:01
11	11	REC057.D	1.	15D157-16	25mL DF=1.0	4 May 2015 18:34
12	12	REC058.D	1.	15D157-19	25mL DF=1.0	4 May 2015 19:10
13	13	REC059.D	1.	15D157-13I	1.0mL DF=25	4 May 2015 19:43
14	14	REC060.D	1.	15D187-01	25mL DF=1.0	4 May 2015 20:17
15	15	REC061.D	1.	15D187-02	25mL DF=1.0	4 May 2015 20:51
16	16	REC062.D	1.	15D187-03	25mL DF=1.0	4 May 2015 21:29
17	17	REC063.D	1.	15D187-04	25mL DF=1.0	4 May 2015 22:04
18	18	REC064.D	1.	15D187-05	25mL DF=1.0	4 May 2015 22:42
19	19	REC065.D	1.	15E008-01	25mL DF=1.0	4 May 2015 23:16
20	20	REC066.D	1.	15E008-02	25mL DF=1.0	4 May 2015 23:53
21	21	REC067.D	1.	15D202-02	25mL DF=1.0	5 May 2015 00:30
22	22	REC068.D	1.	RINSE	DF=1.0	5 May 2015 01:08
23	23	REC069.D	1.	RINSE	DF=1.0	5 May 2015 01:46
24	24	REC070.D	1.	RINSE	DF=1.0	5 May 2015 02:24

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

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

SDG#: 15D157

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D157

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

A total of fourteen (14) water samples were received on 04/23/15 to be analyzed for Volatile Organics by GC/MS SIM in accordance with Method 5030B/8260B SIM and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Instrument Performance and Calibration

Instrument tune check was performed prior to calibration. Result was within acceptance criteria. 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 prepared and analyzed at the frequency required by the project. For this SDG, two (2) method blanks were analyzed. VO01D24B and VO01D25B were compliant to project requirement. Refer to sample result summary forms for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, two (2) sets of LCS/LCD were analyzed. VO01D24L/VO01D24C - all analytes were within LCS QC limits. VO01D25L/VO01D25C - all analytes were within LCS QC limits. Refer to LCS summary forms for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed. D157-17M/S - all analytes were within MS QC limits. Refer to Matrix QC summary form for details.

Surrogate

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

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS SIM

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING

SDG NO. : 15D157
Instrument ID : T-001

WATER									
Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VO01D24B	1	NA	04/28/1514:24	04/28/1514:24	RDV558	RAV178	VO01D24	Method Blank
LCS1W	VO01D24L	1	NA	04/28/1513:34	04/28/1513:34	RDV556	RAV178	VO01D24	Lab Control Sample (LCS)
LCD1W	VO01D24C	1	NA	04/28/1513:59	04/28/1513:59	RDV557	RAV178	VO01D24	LCS Duplicate
04-22-15-PWB-10MS	D157-17M	1	NA	04/28/1514:49	04/28/1514:49	RDV559	RAV178	VO01D24	Matrix Spike Sample (MS)
04-22-15-PWB-10MSD	D157-17S	1	NA	04/28/1515:13	04/28/1515:13	RDV560	RAV178	VO01D24	MS Duplicate (MSD)
04-22-15-PWB-10	D157-17	1	NA	04/28/1515:38	04/28/1515:38	RDV561	RAV178	VO01D24	Field Sample
04-22-15-PWB-9	D157-14	1	NA	04/28/1516:28	04/28/1516:28	RDV563	RAV178	VO01D24	Field Sample
04-22-15-WB2-4	D157-16	1	NA	04/28/1516:53	04/28/1516:53	RDV564	RAV178	VO01D24	Field Sample
04-22-15-AMW-4R	D157-04	1	NA	04/28/1517:18	04/28/1517:18	RDV565	RAV178	VO01D24	Field Sample
04-22-15-PWB-15	D157-08	1	NA	04/28/1517:42	04/28/1517:42	RDV566	RAV178	VO01D24	Field Sample
04-22-15-PWB-16	D157-01	1	NA	04/28/1518:07	04/28/1518:07	RDV567	RAV178	VO01D24	Field Sample
04-22-15-PWB-14	D157-02	1	NA	04/28/1518:32	04/28/1518:32	RDV568	RAV178	VO01D24	Field Sample
04-22-15-PWB-4	D157-11	1	NA	04/28/1518:57	04/28/1518:57	RDV569	RAV178	VO01D24	Field Sample
04-22-15-FDUP-4	D157-12	1	NA	04/28/1519:22	04/28/1519:22	RDV570	RAV178	VO01D24	Field Sample
04-22-15-WB2-1	D157-13	1	NA	04/28/1519:47	04/28/1519:47	RDV571	RAV178	VO01D24	Field Sample
04-22-15-WB2-2	D157-09	1	NA	04/28/1520:12	04/28/1520:12	RDV572	RAV178	VO01D24	Field Sample
04-22-15-PWB-5	D157-19	1	NA	04/28/1520:36	04/28/1520:36	RDV573	RAV178	VO01D24	Field Sample
04-22-15-PWB-7A	D157-07	1	NA	04/28/1521:01	04/28/1521:01	RDV574	RAV178	VO01D24	Field Sample
04-22-15-PWB-12	D157-05	1	NA	04/28/1521:26	04/28/1521:26	RDV575	RAV178	VO01D24	Field Sample
04-22-15-PWB-12DL	D157-05I	25	NA	04/28/1521:51	04/28/1521:51	RDV576	RAV178	VO01D24	Diluted Sample
04-22-15-PWB-7ADL	D157-07I	100	NA	04/28/1522:17	04/28/1522:17	RDV577	RAV178	VO01D24	Diluted Sample
04-22-15-PWB-16DL	D157-01I	10	NA	04/28/1522:42	04/28/1522:42	RDV578	RAV178	VO01D24	Diluted Sample
04-22-15-PWB-14DL	D157-02I	10	NA	04/28/1523:06	04/28/1523:06	RDV579	RAV178	VO01D24	Diluted Sample
04-22-15-WB2-2DL	D157-09I	10	NA	04/28/1523:31	04/28/1523:31	RDV580	RAV178	VO01D24	Diluted Sample
04-22-15-PWB-4DL	D157-11I	100	NA	04/28/1523:57	04/28/1523:57	RDV581	RAV178	VO01D24	Diluted Sample
MBLK2W	VO01D25B	1	NA	04/29/1511:57	04/29/1511:57	RDV589	RAV178	VO01D25	Method Blank
LCS2W	VO01D25L	1	NA	04/29/1511:07	04/29/1511:07	RDV587	RAV178	VO01D25	Lab Control Sample (LCS)
LCD2W	VO01D25C	1	NA	04/29/1511:32	04/29/1511:32	RDV588	RAV178	VO01D25	LCS Duplicate
04-22-15-FDUP-4DL	D157-12I	100	NA	04/29/1512:32	04/29/1512:32	RDV590	RAV178	VO01D25	Diluted Sample
04-22-15-WB2-1DL	D157-13I	250	NA	04/29/1512:56	04/29/1512:56	RDV591	RAV178	VO01D25	Diluted Sample
04-22-15-PWB-9DL	D157-14I	10	NA	04/29/1513:21	04/29/1513:21	RDV592	RAV178	VO01D25	Diluted Sample
04-22-15-PWB-5DL	D157-19I	25	NA	04/29/1513:46	04/29/1513:46	RDV593	RAV178	VO01D25	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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 18:07 # 04/28/15 22:42
Sample ID   : 04-22-15-PWB-16                Date Analyzed: 04/28/15 18:07 # 04/28/15 22:42
Lab Samp ID: D157-01 #D157-01I              Dilution Factor: 1 # 10
Lab File ID: RDV567 #RDV578                  Matrix          : WATER
Ext Btch ID: V001D24 #V001D24               % Moisture      : NA
Calib. Ref.: RAV178 #RAV178                 Instrument ID   : T-001
=====

```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	3.5	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	0.0974	0.1000	97.4	80-120
# TOLUENE-D8	0.991	1.000	99.1	80-120

Members of the Associated File

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 18:07
Sample ID   : 04-22-15-PWB-16                 Date Analyzed: 04/28/15 18:07
Lab Samp ID : D157-01                         Dilution Factor: 1
Lab File ID : RDV567                          Matrix          : WATER
Ext Btch ID : V001D24                        % Moisture     : NA
Calib. Ref. : RAV178                          Instrument ID   : T-001
=====

```

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	0.0974	0.1000	97.4	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 22:42
Sample ID   : 04-22-15-PWB-16DL              Date Analyzed: 04/28/15 22:42
Lab Samp ID: D157-01I                        Dilution Factor: 10
Lab File ID: RDV578                          Matrix          : WATER
Ext Btch ID: V001D24                         % Moisture      : NA
Calib. Ref.: RAV178                          Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	3.5	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-DB	0.991	1.000	99.1	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 18:32 # 04/28/15 23:06
Sample ID   : 04-22-15-PWB-14                 Date Analyzed: 04/28/15 18:32 # 04/28/15 23:06
Lab Samp ID: D157-02 #D157-02I              Dilution Factor: 1 # 10
Lab File ID: RDV568 #RDV579                  Matrix          : WATER
Ext Btch ID: V001D24 #V001D24               % Moisture      : NA
Calib. Ref.: RAV178 #RAV178                 Instrument ID   : T-001
=====

```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	2.5	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	0.085	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0943	0.1000	94.3	80-120
# TOLUENE-D8	1.02	1.000	102	80-120

Members of the Associated File

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 18:32
Sample ID   : 04-22-15-PWB-14                Date Analyzed: 04/28/15 18:32
Lab Samp ID : D157-02                        Dilution Factor: 1
Lab File ID : RDV568                          Matrix          : WATER
Ext Btch ID : V001D24                        % Moisture     : NA
Calib. Ref. : RAV178                          Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	2.5E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.085	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
-----	-----	-----	-----	-----
TOLUENE-D8	0.0943	0.1000	94.3	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 23:06
Sample ID   : 04-22-15-PWB-14DL              Date Analyzed: 04/28/15 23:06
Lab Samp ID: D157-021                        Dilution Factor: 10
Lab File ID: RDV579                           Matrix          : WATER
Ext Btch ID: V001D24                          % Moisture     : NA
Calib. Ref.: RAV178                           Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	2.5	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	1.02	1.000	102	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 17:18
Sample ID   : 04-22-15-AMW-4R                 Date Analyzed: 04/28/15 17:18
Lab Samp ID : D157-04                         Dilution Factor: 1
Lab File ID : RDV565                          Matrix          : WATER
Ext Btch ID : V001D24                        % Moisture     : NA
Calib. Ref. : RAV178                          Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.23	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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 21:26 # 04/28/15 21:51
Sample ID   : 04-22-15-PWB-12                 Date Analyzed: 04/28/15 21:26 # 04/28/15 21:51
Lab Samp ID: D157-05 #D157-05I               Dilution Factor: 1 # 25
Lab File ID: RDV575 #RDV576                   Matrix          : WATER
Ext Btch ID: VO01D24 #VO01D24                % Moisture      : NA
Calib. Ref.: RAV178 #RAV178                  Instrument ID   : T-001
=====

```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	19	0.12	0.063
# 1,2-DIBROMO-3-CHLOROPROPANE	3.2	1.2	0.50
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0878	0.1000	87.8	80-120
# TOLUENE-D8	2.53	2.500	101	80-120

Members of the Associated File

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 21:26
Sample ID   : 04-22-15-PWB-12                Date Analyzed: 04/28/15 21:26
Lab Samp ID: D157-05                         Dilution Factor: 1
Lab File ID: RDV575                          Matrix          : WATER
Ext Btch ID: V001D24                         % Moisture      : NA
Calib. Ref.: RAV178                          Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	18E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	3.5E	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0878	0.1000	87.8	80-120

Data File : D:\HPCHEM\1\DATA\15D28\RDV575.D
 Acq On : 28 Apr 2015 9:26 pm
 Sample : 15D157-05 25mL
 Misc : DF=1.0
 MS Integration Params: 524C.P
 Quant Time: Apr 29 12:36 2015

Vial: 22
 Operator: WLau
 Inst : TO01
 Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Initial Calibration
 DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	6449	100.00	ng/l	0.01
System Monitoring Compounds						
3) Toluene-d8	7.32	98	51150	87.75	ng/l	0.01
Spiked Amount	100.000		Recovery	=	87.75%	
Target Compounds						
6) 1,2,3-Trichloropropane	11.02	75	1220510	17720.30	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.08	157	42356	3484.28	ng/l	88

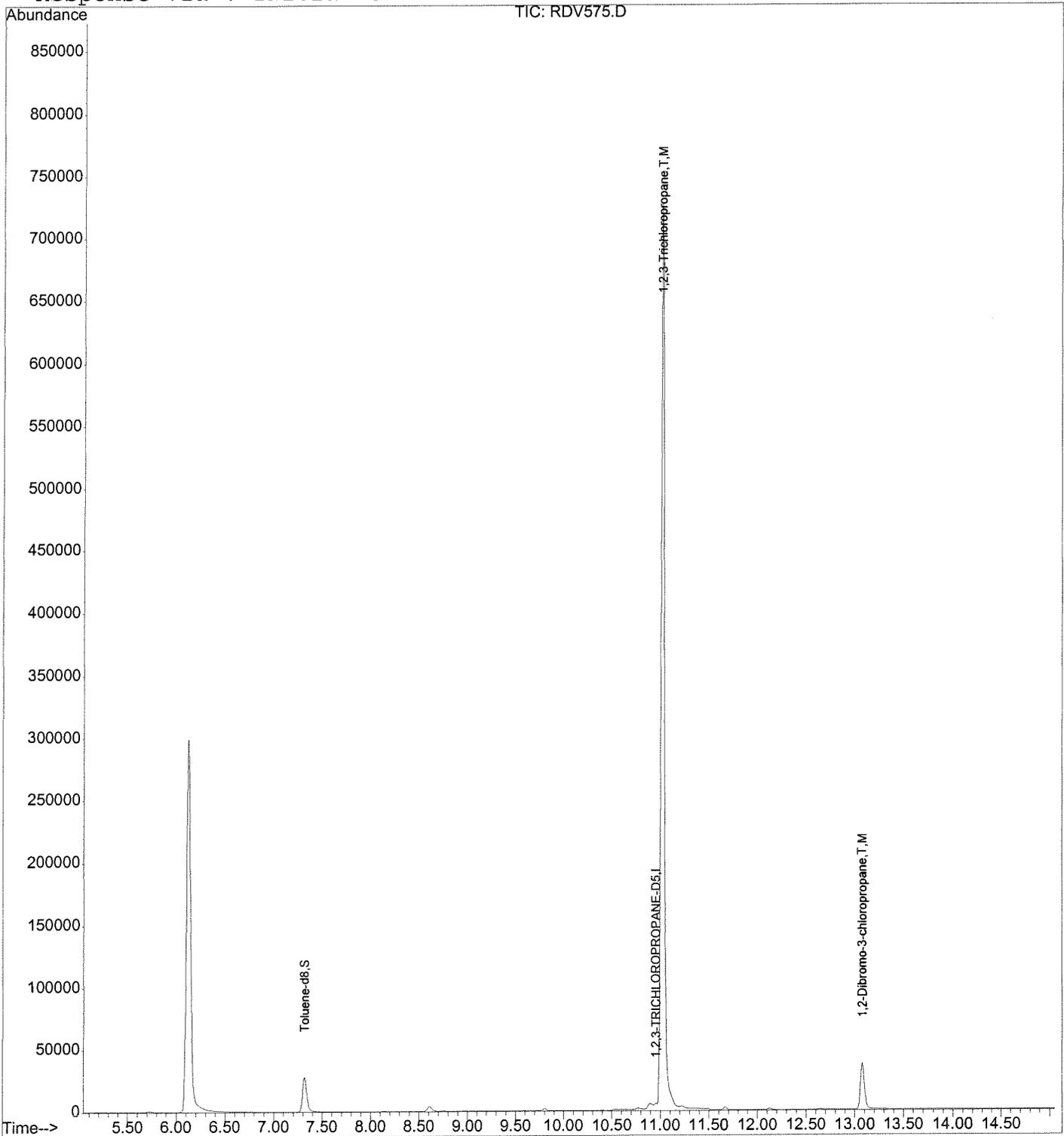
Quantitation Report

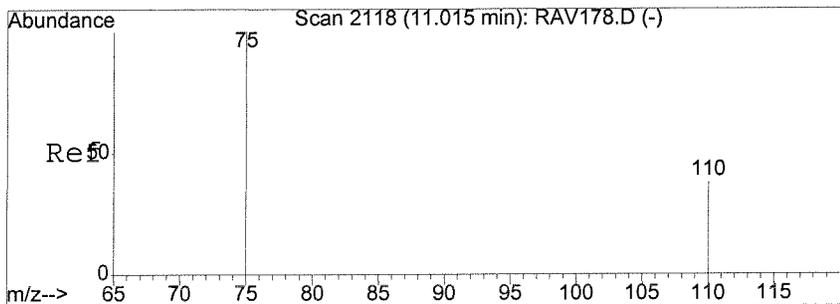
Data File : D:\HPCHEM\1\DATA\15D28\RDV575.D
Acq On : 28 Apr 2015 9:26 pm
Sample : 15D157-05 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 29 12:36 2015

Vial: 22
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

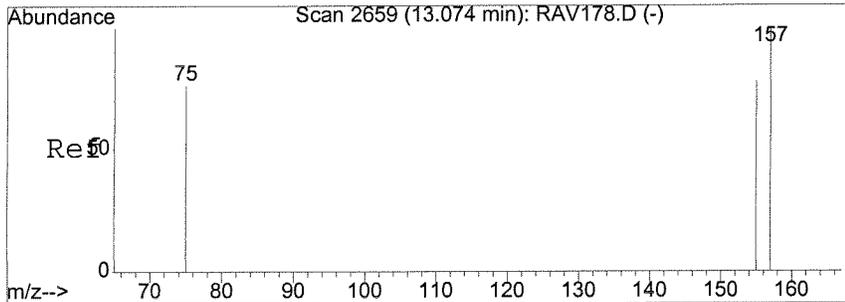
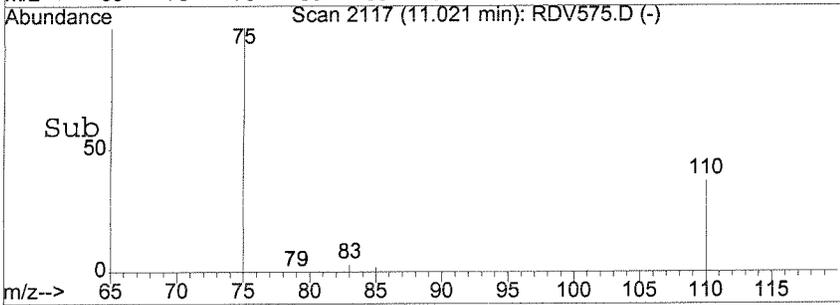
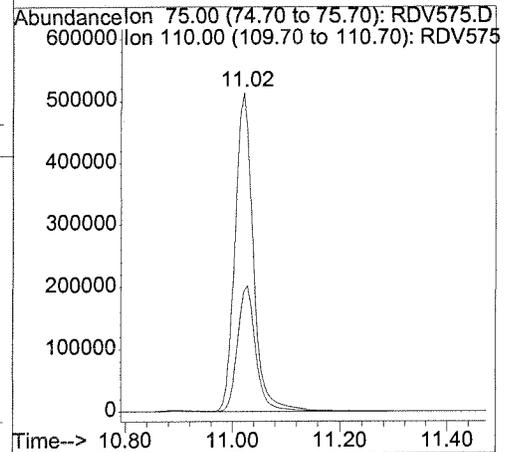
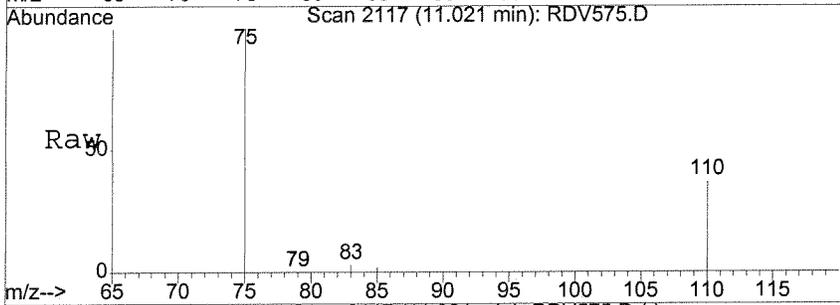
Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration





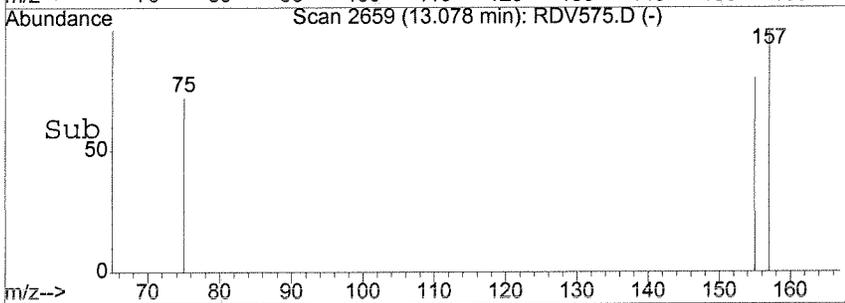
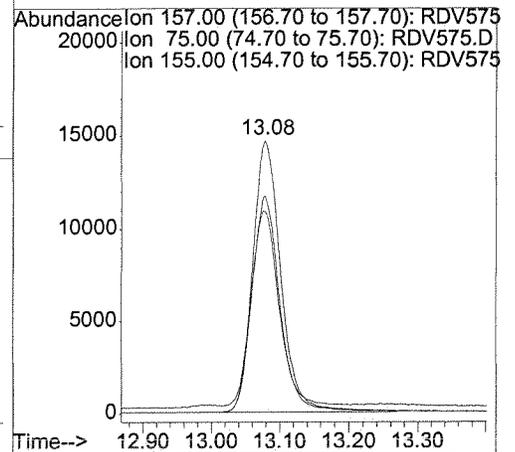
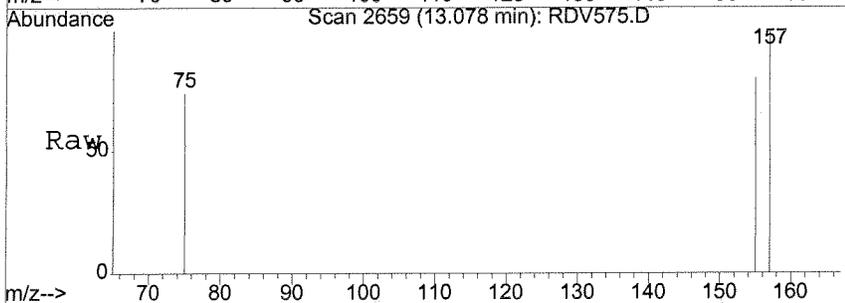
#6
 1,2,3-Trichloropropane
 Concen: 17720.30 ng/l
 RT: 11.02 min Scan# 2117
 Delta R.T. 0.01 min
 Lab File: RDV575.D
 Acq: 28 Apr 2015 9:26 pm

Tgt Ion: 75 Resp: 1220510
 Ion Ratio Lower Upper
 75 100
 110 39.5 11.6 71.6



#7
 1,2-Dibromo-3-chloropropane
 Concen: 3484.28 ng/l
 RT: 13.08 min Scan# 2659
 Delta R.T. 0.00 min
 Lab File: RDV575.D
 Acq: 28 Apr 2015 9:26 pm

Tgt Ion: 157 Resp: 42356
 Ion Ratio Lower Upper
 157 100
 75 71.6 61.8 121.8
 155 78.9 49.6 109.6



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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 21:51
Sample ID   : 04-22-15-PWB-12DL              Date Analyzed: 04/28/15 21:51
Lab Samp ID : D157-051                       Dilution Factor: 25
Lab File ID : RDV576                          Matrix          : WATER
Ext Btch ID : V001D24                        % Moisture     : NA
Calib. Ref. : RAV178                          Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	19	0.12	0.063
1,2-DIBROMO-3-CHLOROPROPANE	3.2	1.2	0.50
1,2-DIBROMOETHANE	ND	1.2	0.50

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-DB	2.53	2.500	101	80-120

Data File : D:\HPCHEM\1\DATA\15D28\RDV576.D
Acq On : 28 Apr 2015 9:51 pm
Sample : 15D157-05I 1.0mL
Misc : DF=25
MS Integration Params: 524C.P
Quant Time: Apr 29 10:14 2015

Vial: 23
Operator: WLau
Inst : T001
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5352	100.00	ng/l	0.01
System Monitoring Compounds						
3) Toluene-d8	7.32	98	48868	101.02	ng/l	0.02
Spiked Amount	100.000		Recovery	=	101.02%	
Target Compounds						
6) 1,2,3-Trichloropropane	11.03	75	43184	755.49	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.09	157	1304	129.26	ng/l	90

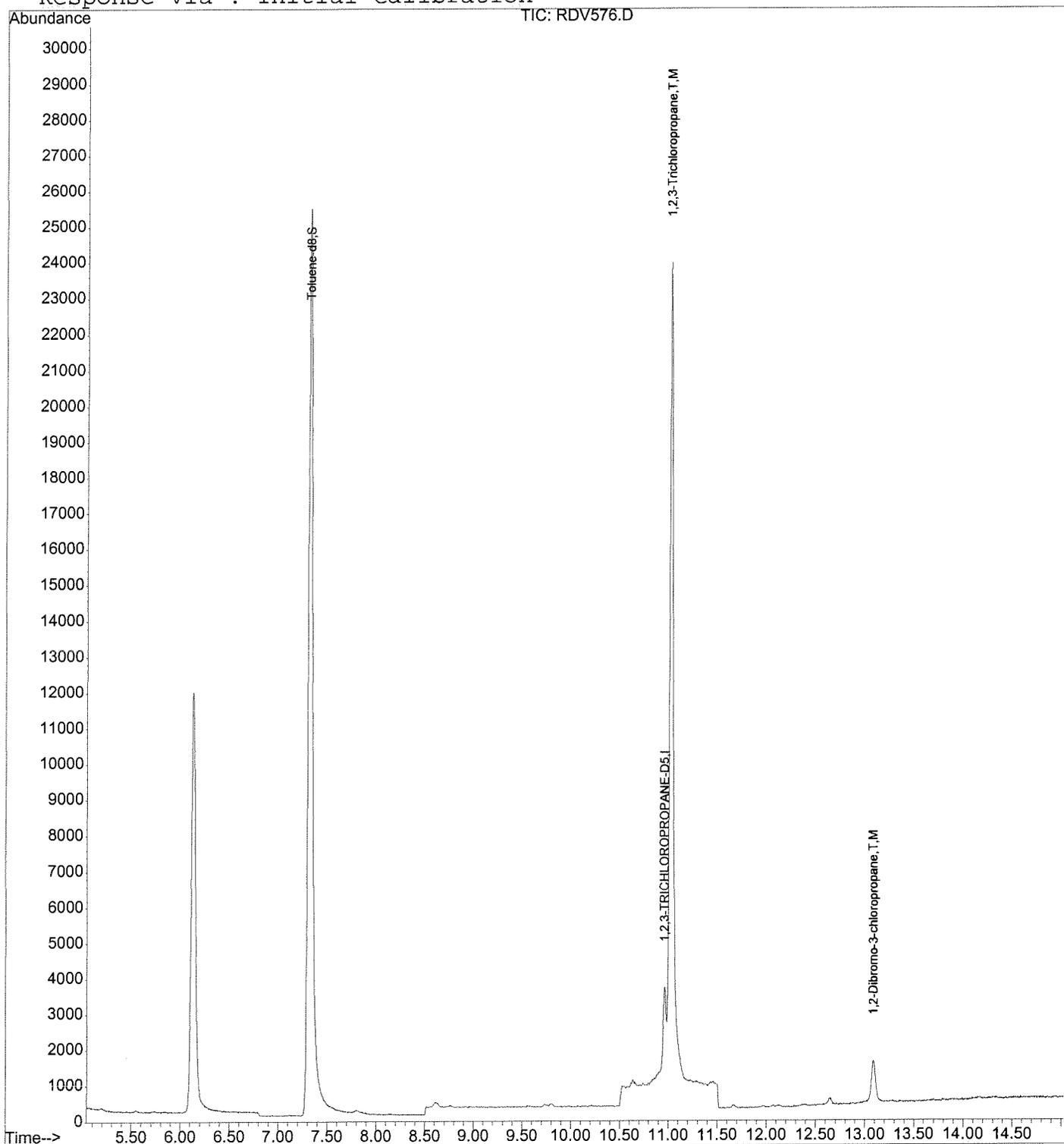
Quantitation Report

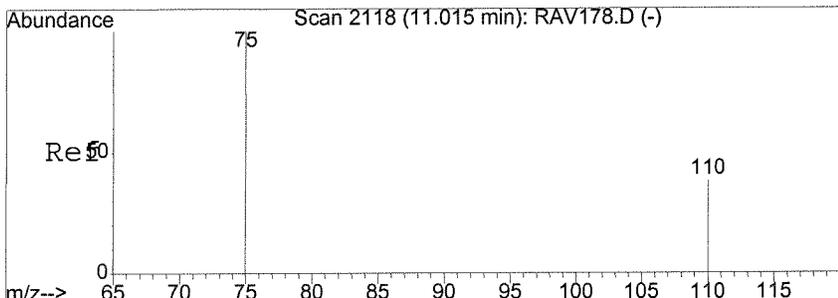
Data File : D:\HPCHEM\1\DATA\15D28\RDV576.D
Acq On : 28 Apr 2015 9:51 pm
Sample : 15D157-05I 1.0mL
Misc : DF=25
MS Integration Params: 524C.P
Quant Time: Apr 29 10:14 2015

Vial: 23
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

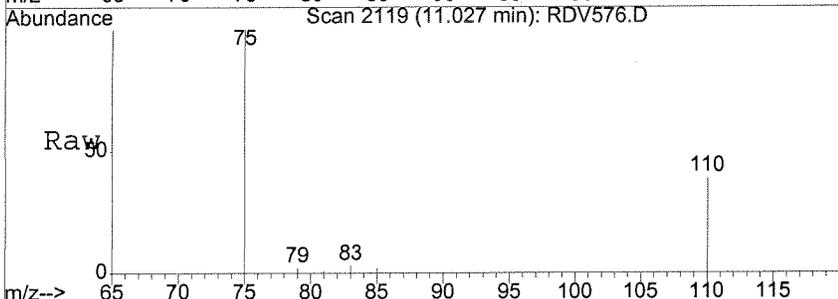
Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



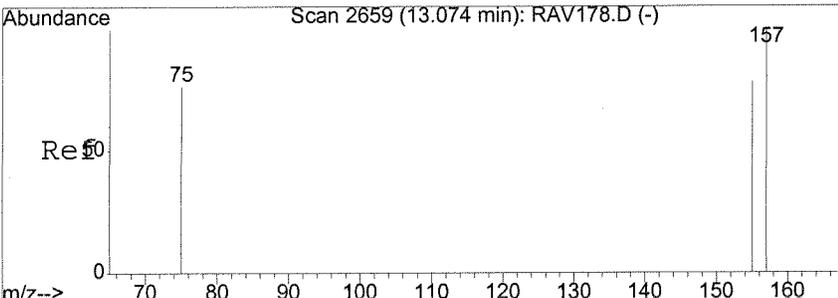
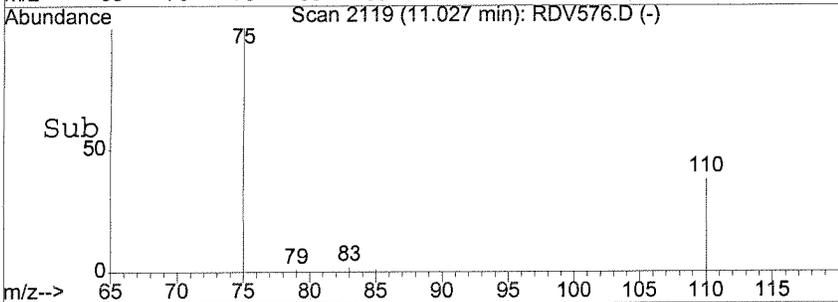
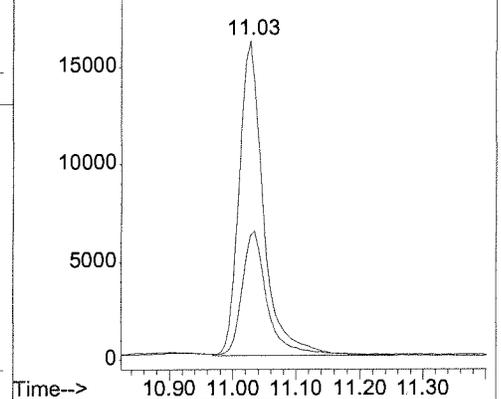


#6
 1,2,3-Trichloropropane
 Concen: 755.49 ng/l
 RT: 11.03 min Scan# 2119
 Delta R.T. 0.01 min
 Lab File: RDV576.D
 Acq: 28 Apr 2015 9:51 pm

Tgt Ion: 75 Resp: 43184
 Ion Ratio Lower Upper
 75 100
 110 39.4 11.6 71.6

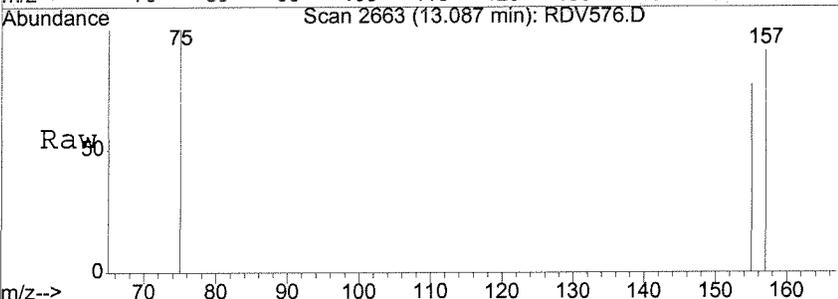


Abundance Ion 75.00 (74.70 to 75.70): RDV576.D
 Ion 110.00 (109.70 to 110.70): RDV576

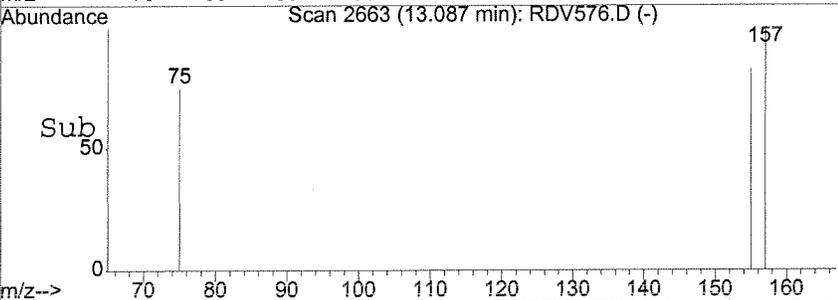
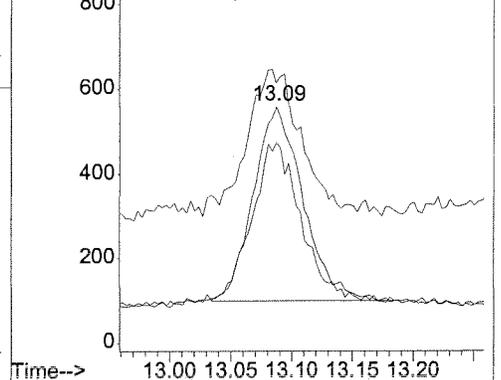


#7
 1,2-Dibromo-3-chloropropane
 Concen: 129.26 ng/l
 RT: 13.09 min Scan# 2663
 Delta R.T. 0.01 min
 Lab File: RDV576.D
 Acq: 28 Apr 2015 9:51 pm

Tgt Ion: 157 Resp: 1304
 Ion Ratio Lower Upper
 157 100
 75 76.0 61.8 121.8
 155 81.0 49.6 109.6



Abundance Ion 157.00 (156.70 to 157.70): RDV576
 Ion 75.00 (74.70 to 75.70): RDV576.D
 Ion 155.00 (154.70 to 155.70): RDV576



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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 21:01 # 04/28/15 22:17
Sample ID   : 04-22-15-PWB-7A                Date Analyzed: 04/28/15 21:01 # 04/28/15 22:17
Lab Samp ID: D157-07 #D157-07I              Dilution Factor: 1 # 100
Lab File ID: RDV574 #RDV577                  Matrix          : WATER
Ext Btch ID: V001D24 #V001D24               % Moisture      : NA
Calib. Ref.: RAV178 #RAV178                 Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	50	0.50	0.25
1,2-DIBROMO-3-CHLOROPROPANE	0.83	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0928	0.1000	92.8	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: 04/22/15
Project      : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.    : 15D157                          Date Extracted: 04/28/15 21:01
Sample ID    : 04-22-15-PWB-7A                Date Analyzed: 04/28/15 21:01
Lab Samp ID  : D157-07                        Dilution Factor: 1
Lab File ID  : RDV574                          Matrix           : WATER
Ext Btch ID  : V001D24                        % Moisture      : NA
Calib. Ref.  : RAV178                          Instrument ID    : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	46E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.83	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-DB	0.0928	0.1000	92.8	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 22:17
Sample ID   : 04-22-15-PWB-7ADL              Date Analyzed: 04/28/15 22:17
Lab Samp ID: D157-071                        Dilution Factor: 100
Lab File ID: RDV577                          Matrix          : WATER
Ext Btch ID: V001D24                         % Moisture     : NA
Calib. Ref.: RAV178                          Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	50	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: 04/22/15
Project      : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.    : 15D157                          Date Extracted: 04/28/15 17:42
Sample ID    : 04-22-15-PWB-15                Date Analyzed: 04/28/15 17:42
Lab Samp ID  : D157-08                        Dilution Factor: 1
Lab File ID  : RDV566                          Matrix           : WATER
Ext Btch ID  : V001D24                        % Moisture       : NA
Calib. Ref.  : RAV178                          Instrument ID    : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	1.4	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.16	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0911	0.1000	91.1	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 20:12 # 04/28/15 23:31
Sample ID   : 04-22-15-WB2-2                 Date Analyzed: 04/28/15 20:12 # 04/28/15 23:31
Lab Samp ID: D157-09 #D157-09I              Dilution Factor: 1 # 10
Lab File ID: RDV572 #RDV580                 Matrix          : WATER
Ext Btch ID: V001D24 #V001D24              % Moisture      : NA
Calib. Ref.: RAV178 #RAV178                 Instrument ID   : T-001
=====

```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	2.3	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	0.067	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0966	0.1000	96.6	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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 20:12
Sample ID   : 04-22-15-WB2-2                 Date Analyzed: 04/28/15 20:12
Lab Samp ID : D157-09                        Dilution Factor: 1
Lab File ID : RDV572                          Matrix          : WATER
Ext Btch ID : V001D24                        % Moisture      : NA
Calib. Ref. : RAV178                          Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	2.4E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.067	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0966	0.1000	96.6	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 23:31
Sample ID   : 04-22-15-WB2-2DL               Date Analyzed: 04/28/15 23:31
Lab Samp ID: D157-09I                        Dilution Factor: 10
Lab File ID: RDV580                          Matrix          : WATER
Ext Btch ID: V001D24                         % Moisture     : NA
Calib. Ref.: RAV178                          Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	2.3	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	1.04	1.000	104	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 18:57 # 04/28/15 23:57
Sample ID   : 04-22-15-PWB-4                  Date Analyzed: 04/28/15 18:57 # 04/28/15 23:57
Lab Samp ID: D157-11 #D157-111              Dilution Factor: 1 # 100
Lab File ID: RDV569 #RDV581                  Matrix          : WATER
Ext Btch ID: V001D24 #V001D24              % Moisture      : NA
Calib. Ref.: RAV178 #RAV178                 Instrument ID    : T-001
=====

```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	48	0.50	0.25
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	0.0973	0.1000	97.3	80-120
# TOLUENE-D8	9.43	10.00	94.3	80-120

Members of the Associated File

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 18:57
Sample ID   : 04-22-15-PWB-4                 Date Analyzed: 04/28/15 18:57
Lab Samp ID : D157-11                        Dilution Factor: 1
Lab File ID : RDV569                          Matrix          : WATER
Ext Btch ID : V001D24                        % Moisture      : NA
Calib. Ref. : RAV178                          Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	51E	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	0.0973	0.1000	97.3	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING       Date Received: 04/23/15
Batch No.   : 15D157                           Date Extracted: 04/28/15 23:57
Sample ID   : 04-22-15-PWB-4DL                 Date Analyzed: 04/28/15 23:57
Lab Samp ID : D157-11I                         Dilution Factor: 100
Lab File ID : RDV581                           Matrix          : WATER
Ext Btch ID : V001D24                         % Moisture     : NA
Calib. Ref. : RAV178                          Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	48	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	9.43	10.00	94.3	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 19:22 # 04/29/15 12:32
Sample ID   : 04-22-15-FDUP-4                Date Analyzed: 04/28/15 19:22 # 04/29/15 12:32
Lab Samp ID: D157-12 #D157-12I              Dilution Factor: 1 # 100
Lab File ID: RDV570 #RDV590                 Matrix          : WATER
Ext Btch ID: V001D24 #V001D25              % Moisture      : NA
Calib. Ref.: RAV178 #RAV178                 Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	44	0.50	0.25
1,2-DIBROMO-3-CHLOROPROPANE	0.31	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-DB	0.0952	0.1000	95.2	80-120
# TOLUENE-DB	10.6	10.00	106	80-120

Members of the Associated File

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING       Date Received: 04/23/15
Batch No.   : 15D157                           Date Extracted: 04/28/15 19:22
Sample ID   : 04-22-15-FDUP-4                 Date Analyzed: 04/28/15 19:22
Lab Samp ID : D157-12                         Dilution Factor: 1
Lab File ID : RDV570                          Matrix          : WATER
Ext Btch ID : V001D24                        % Moisture     : NA
Calib. Ref. : RAV178                         Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	51E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.31	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-DB	0.0952	0.1000	95.2	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/29/15 12:32
Sample ID   : 04-22-15-FDUP-4DL              Date Analyzed: 04/29/15 12:32
Lab Samp ID : D157-12I                       Dilution Factor: 100
Lab File ID : RDV590                          Matrix          : WATER
Ext Btch ID : V001D25                        % Moisture     : NA
Calib. Ref. : RAV178                          Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	44	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	10.6	10.00	106	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 19:47 # 04/29/15 12:56
Sample ID   : 04-22-15-WB2-1                 Date Analyzed: 04/28/15 19:47 # 04/29/15 12:56
Lab Samp ID: D157-13 #D157-13I              Dilution Factor: 1 # 250
Lab File ID: RDV571 #RDV591                 Matrix          : WATER
Ext Btch ID: V001D24 #V001D25              % Moisture      : NA
Calib. Ref.: RAV178 #RAV178                 Instrument ID   : T-001
=====

```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	88	1.2	0.62
1,2-DIBROMO-3-CHLOROPROPANE	0.023J	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	25.0	25.00	100	80-120

Members of the Associated File

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 19:47
Sample ID   : 04-22-15-WB2-1                 Date Analyzed: 04/28/15 19:47
Lab Samp ID : D157-13                        Dilution Factor: 1
Lab File ID : RDV571                          Matrix          : WATER
Ext Btch ID : V001D24                        % Moisture     : NA
Calib. Ref. : RAV178                          Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	95E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.023J	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: 04/22/15
Project      : B & B GROUNDWATER SAMPLING       Date Received: 04/23/15
Batch No.    : 15D157                           Date Extracted: 04/29/15 12:56
Sample ID    : 04-22-15-WB2-1DL                 Date Analyzed: 04/29/15 12:56
Lab Samp ID  : D157-13I                         Dilution Factor: 250
Lab File ID  : RDV591                           Matrix          : WATER
Ext Btch ID  : V001D25                          % Moisture     : NA
Calib. Ref.  : RAV178                          Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	88	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	25.0	25.00	100	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 16:28 # 04/29/15 13:21
Sample ID   : 04-22-15-PWB-9                  Date Analyzed: 04/28/15 16:28 # 04/29/15 13:21
Lab Samp ID: D157-14 #D157-14I              Dilution Factor: 1 # 10
Lab File ID: RDV563 #RDV592                  Matrix          : WATER
Ext Btch ID: V001D24 #V001D25               % Moisture      : NA
Calib. Ref.: RAV178 #RAV178                 Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	2.8	0.050	0.025
1,2-DIBROMO-3-CHLOROPROPANE	0.035J	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0913	0.1000	91.3	80-120
# TOLUENE-D8	0.984	1.000	98.4	80-120

Members of the Associated File

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 16:28
Sample ID   : 04-22-15-PWB-9                 Date Analyzed: 04/28/15 16:28
Lab Samp ID : D157-14                        Dilution Factor: 1
Lab File ID : RDV563                          Matrix          : WATER
Ext Btch ID : V001D24                        % Moisture      : NA
Calib. Ref. : RAV178                          Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	2.8E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.035J	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
----- TOLUENE-D8	0.0913	0.1000	91.3	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/29/15 13:21
Sample ID   : 04-22-15-PWB-9DL               Date Analyzed: 04/29/15 13:21
Lab Samp ID: D157-14I                        Dilution Factor: 10
Lab File ID: RDV592                           Matrix          : WATER
Ext Btch ID: V001D25                          % Moisture     : NA
Calib. Ref.: RAV178                           Instrument ID   : T-001
=====

```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	2.8	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	0.984	1.000	98.4	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 16:53
Sample ID   : 04-22-15-WB2-4                 Date Analyzed: 04/28/15 16:53
Lab Samp ID : D157-16                        Dilution Factor: 1
Lab File ID : RDV564                          Matrix          : WATER
Ext Btch ID : V001D24                        % Moisture     : NA
Calib. Ref. : RAV178                          Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.074	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	0.0994	0.1000	99.4	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 15:38
Sample ID   : 04-22-15-PWB-10                 Date Analyzed: 04/28/15 15:38
Lab Samp ID : D157-17                        Dilution Factor: 1
Lab File ID : RDV561                          Matrix          : WATER
Ext Btch ID : V001D24                        % Moisture     : NA
Calib. Ref. : RAV178                          Instrument ID  : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	0.56	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	0.0961	0.1000	96.1	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 20:36 # 04/29/15 13:46
Sample ID   : 04-22-15-PWB-5                 Date Analyzed: 04/28/15 20:36 # 04/29/15 13:46
Lab Samp ID: D157-19 #D157-19I              Dilution Factor: 1 # 25
Lab File ID: RDV573 #RDV593                  Matrix           : WATER
Ext Btch ID: V001D24 #V001D25               % Moisture       : NA
Calib. Ref.: RAV178 #RAV178                 Instrument ID    : T-001
=====

```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
# 1,2,3-TRICHLOROPROPANE	17	0.12	0.063
1,2-DIBROMO-3-CHLOROPROPANE	0.45	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
TOLUENE-D8	0.0886	0.1000	88.6	80-120
# TOLUENE-D8	2.34	2.500	93.4	80-120

Members of the Associated File

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 20:36
Sample ID   : 04-22-15-PWB-5                 Date Analyzed: 04/28/15 20:36
Lab Samp ID : D157-19                        Dilution Factor: 1
Lab File ID : RDV573                          Matrix          : WATER
Ext Btch ID : V001D24                        % Moisture      : NA
Calib. Ref. : RAV178                          Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	17E	0.0050	0.0025
1,2-DIBROMO-3-CHLOROPROPANE	0.45	0.050	0.020
1,2-DIBROMOETHANE	ND	0.050	0.020

SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
-----	-----	-----	-----	-----
TOLUENE-D8	0.0886	0.1000	88.6	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/29/15 13:46
Sample ID   : 04-22-15-PWB-5DL               Date Analyzed: 04/29/15 13:46
Lab Samp ID : D157-191                       Dilution Factor: 25
Lab File ID : RDV593                          Matrix          : WATER
Ext Btch ID : V001D25                        % Moisture     : NA
Calib. Ref. : RAV178                         Instrument ID   : T-001
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,3-TRICHLOROPROPANE	17	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	2.34	2.500	93.4	80-120

QC SUMMARIES

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: NA
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/28/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 14:24
Sample ID   : MBLK1W                          Date Analyzed: 04/28/15 14:24
Lab Samp ID: V001D24B                        Dilution Factor: 1
Lab File ID: RDV558                          Matrix          : WATER
Ext Btch ID: V001D24                        % Moisture     : NA
Calib. Ref.: RAV178                         Instrument ID  : T-001
=====

```

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	0.0991	0.1000	99.1	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D157
METHOD: METHOD 5030B/8260B SIM

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: V001D24B V001D24L V001D24C
LAB FILE ID: RDV558 RDV556 RDV557
DATE EXTRACTED: 04/28/1514:24 04/28/1513:34 04/28/1513:59 DATE COLLECTED: NA
DATE ANALYZED: 04/28/1514:24 04/28/1513:34 04/28/1513:59 DATE RECEIVED: 04/28/15
PREP. BATCH: V001D24 V001D24 V001D24
CALIB. REF: RAV178 RAV178 RAV178

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	0.104	104	2	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0844	84	0.100	0.0880	88	4	50-130	30
1,2-Dibromoethane	ND	0.100	0.106	106	0.100	0.109	109	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	0.0959	96	0.100	0.0988	99	80-120

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

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: NA
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/29/15
Batch No.   : 15D157                          Date Extracted: 04/29/15 11:57
Sample ID   : MBLK2W                          Date Analyzed: 04/29/15 11:57
Lab Samp ID: V001D25B                        Dilution Factor: 1
Lab File ID: RDV589                          Matrix          : WATER
Ext Btch ID: V001D25                        % Moisture     : NA
Calib. Ref.: RAV178                         Instrument ID  : T-001
=====
  
```

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	0.103	0.1000	103	80-120

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D157
METHOD: METHOD 5030B/8260B SIM

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK2W
LAB SAMP ID: V001D25B V001D25L V001D25C
LAB FILE ID: RDV589 RDV587 RDV588
DATE EXTRACTED: 04/29/1511:57 04/29/1511:07 04/29/1511:32 DATE COLLECTED: NA
DATE ANALYZED: 04/29/1511:57 04/29/1511:07 04/29/1511:32 DATE RECEIVED: 04/29/15
PREP. BATCH: V001D25 V001D25 V001D25
CALIB. REF: RAV178 RAV178 RAV178

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	0.105	105	0.100	0.104	104	1	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.0913	91	0.100	0.0858	86	6	50-130	30
1,2-Dibromoethane	ND	0.100	0.116	116	0.100	0.106	106	9	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	0.0998	100	80-120

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D157
METHOD: METHOD 5030B/8260B SIM

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: 04-22-15-PWB-10
LAB SAMP ID: D157-17 D157-17M D157-17S
LAB FILE ID: RDV561 RDV559 RDV560
DATE EXTRACTED: 04/28/1515:38 04/28/1514:49 04/28/1515:13 DATE COLLECTED: 04/22/15
DATE ANALYZED: 04/28/1515:38 04/28/1514:49 04/28/1515:13 DATE RECEIVED: 04/23/15
PREP. BATCH: V001D24 V001D24 V001D24
CALIB. REF: RAV178 RAV178 RAV178

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	0.563	0.100	0.644	81	0.100	0.679	116	5	75-125	30
1,2-Dibromo-3-chloropropane	ND	0.100	0.106	106	0.100	0.103	103	3	50-130	30
1,2-Dibromoethane	ND	0.100	0.104	104	0.100	0.111	111	7	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	0.0900	90	0.100	0.104	104	80-120

QC DATA

Data File : D:\HPCHEM\1\DATA\15D28\RDV558.D
 Acq On : 28 Apr 2015 2:24 pm
 Sample : VO01D24B 25mL
 Misc : BLANK
 MS Integration Params: 524C.P
 Quant Time: Apr 29 10:55 2015

Vial: 5
 Operator: WLau
 Inst : TO01
 Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Initial Calibration
 DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5388	100.00	ng/l	0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
3) Toluene-d8	7.32	98	48268	99.12	ng/l	0.02
Spiked Amount	100.000		Recovery	=	99.12%	

Target Compounds ✓ Qvalue

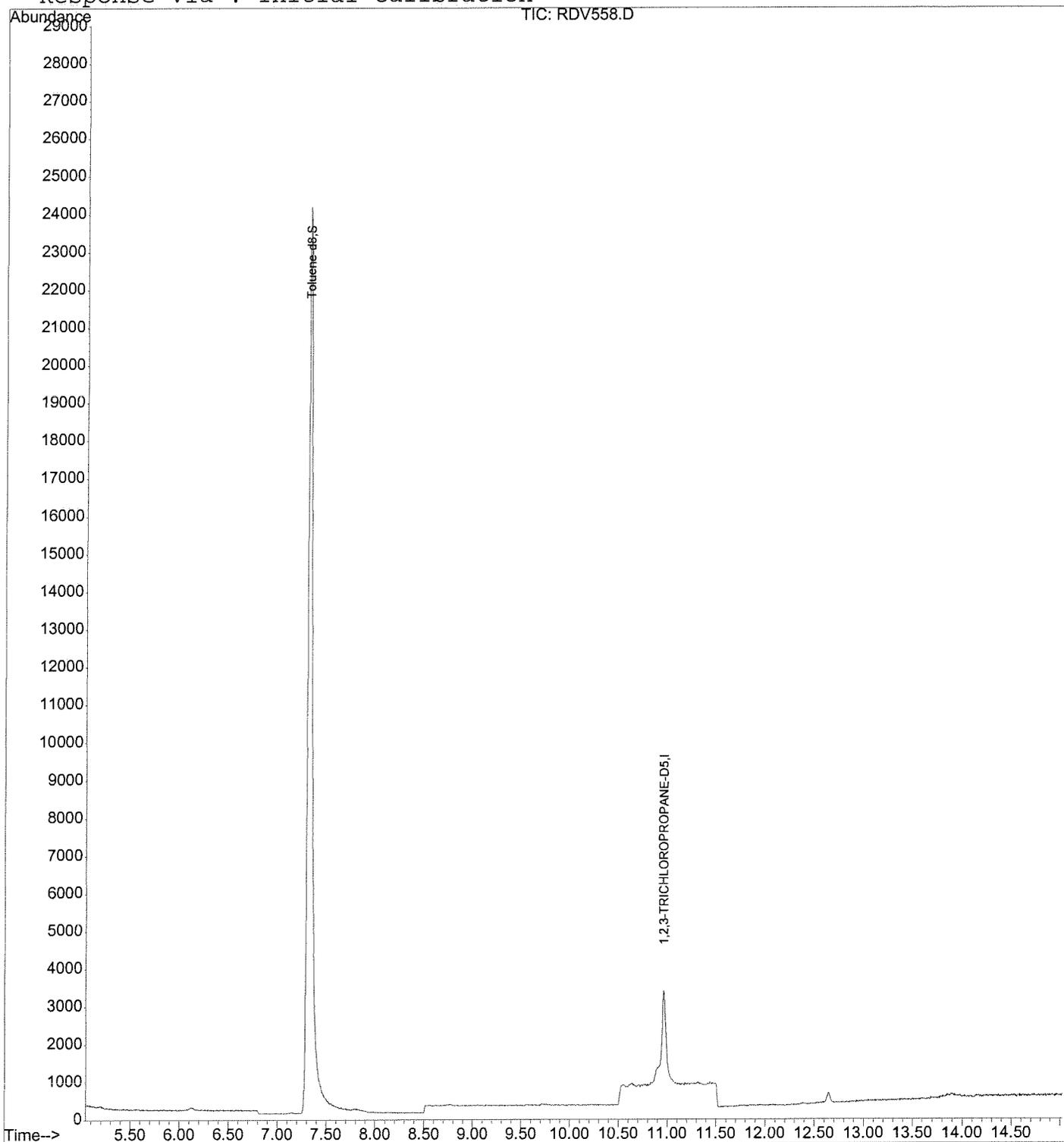
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D28\RDV558.D
Acq On : 28 Apr 2015 2:24 pm
Sample : VO01D24B 25mL
Misc : BLANK
MS Integration Params: 524C.P
Quant Time: Apr 29 10:55 2015

Vial: 5
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\15D28\RDV556.D
 Acq On : 28 Apr 2015 1:34 pm
 Sample : VO01D24L
 Misc : 100ppt
 MS Integration Params: 524C.P
 Quant Time: Apr 28 13:49 2015

Vial: 3
 Operator: WLau
 Inst : TO01
 Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Initial Calibration
 DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5632	100.00	ng/l	0.01
System Monitoring Compounds						
3) Toluene-d8	7.32	98	48832	95.93	ng/l	0.01
Spiked Amount	100.000		Recovery	=	95.93%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.20	62	12755	105.06	ng/l	95
4) 1,2-Dibromoethane	8.75	107	8095	105.61	ng/l	98
5) 1,1,2,2-Tetrachloroethane	10.96	83	9133	104.31	ng/l	96
6) 1,2,3-Trichloropropane	11.03	75	6164	102.48	ng/l	98
7) 1,2-Dibromo-3-chloropropan	13.09	157	896	84.40	ng/l	92

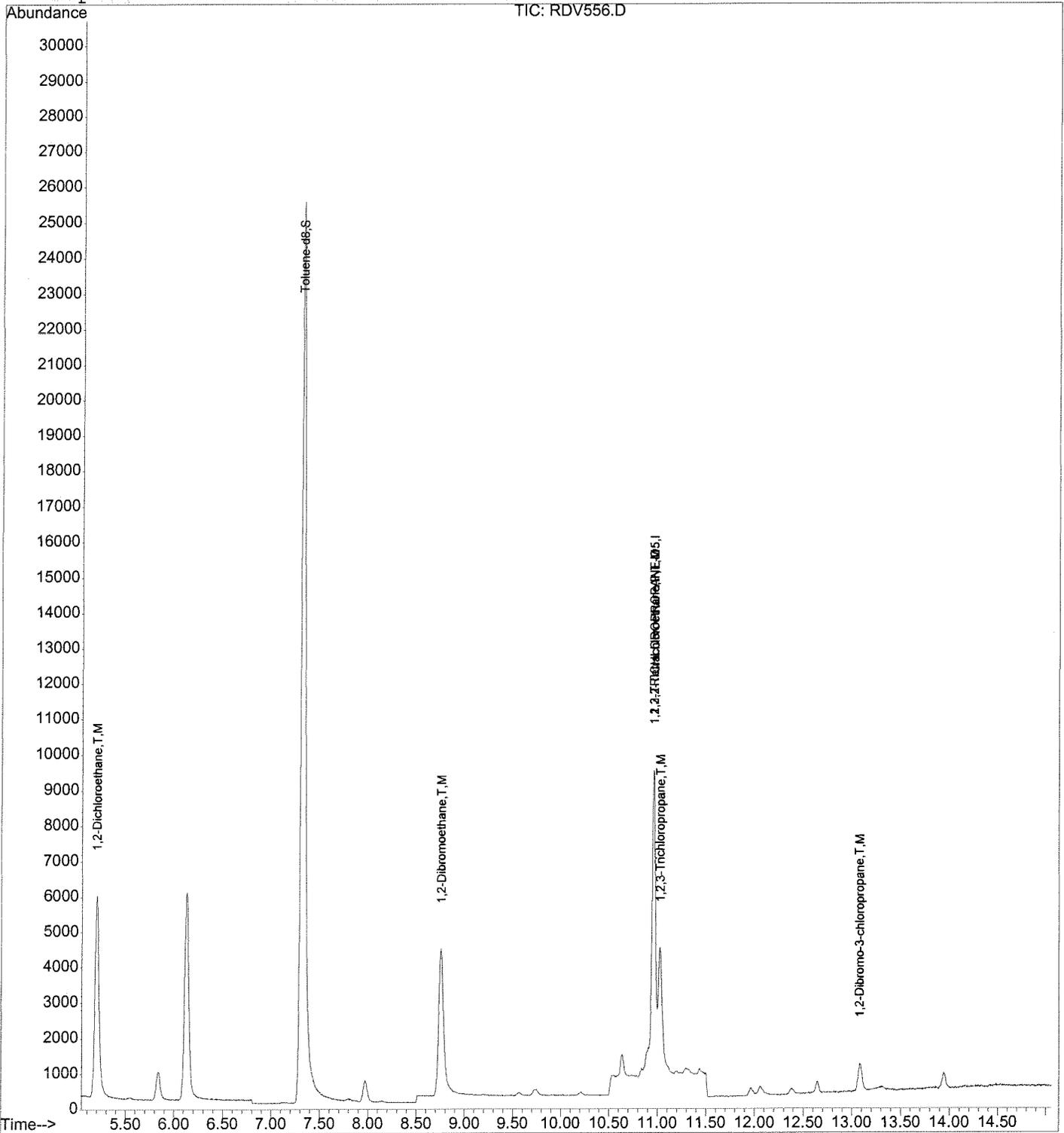
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D28\RDV556.D
Acq On : 28 Apr 2015 1:34 pm
Sample : VO01D24L
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 28 13:49 2015

Vial: 3
Operator: WLau
Inst : T001
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\15D28\RDV557.D
 Acq On : 28 Apr 2015 1:59 pm
 Sample : VO01D24C
 Misc : 100ppt
 MS Integration Params: 524C.P
 Quant Time: Apr 28 14:14 2015

Vial: 4
 Operator: WLau
 Inst : TO01
 Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Initial Calibration
 DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5382	100.00	ng/l	0.01
System Monitoring Compounds						
3) Toluene-d8	7.32	98	48077	98.84	ng/l	0.01
Spiked Amount	100.000		Recovery	=	98.84%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.20	62	12713	109.58	ng/l	98
4) 1,2-Dibromoethane	8.75	107	7972	108.84	ng/l	97
5) 1,1,2,2-Tetrachloroethane	10.96	83	9162	109.50	ng/l	94
6) 1,2,3-Trichloropropane	11.03	75	6002	104.42	ng/l	95
7) 1,2-Dibromo-3-chloropropan	13.09	157	893	88.02	ng/l	91

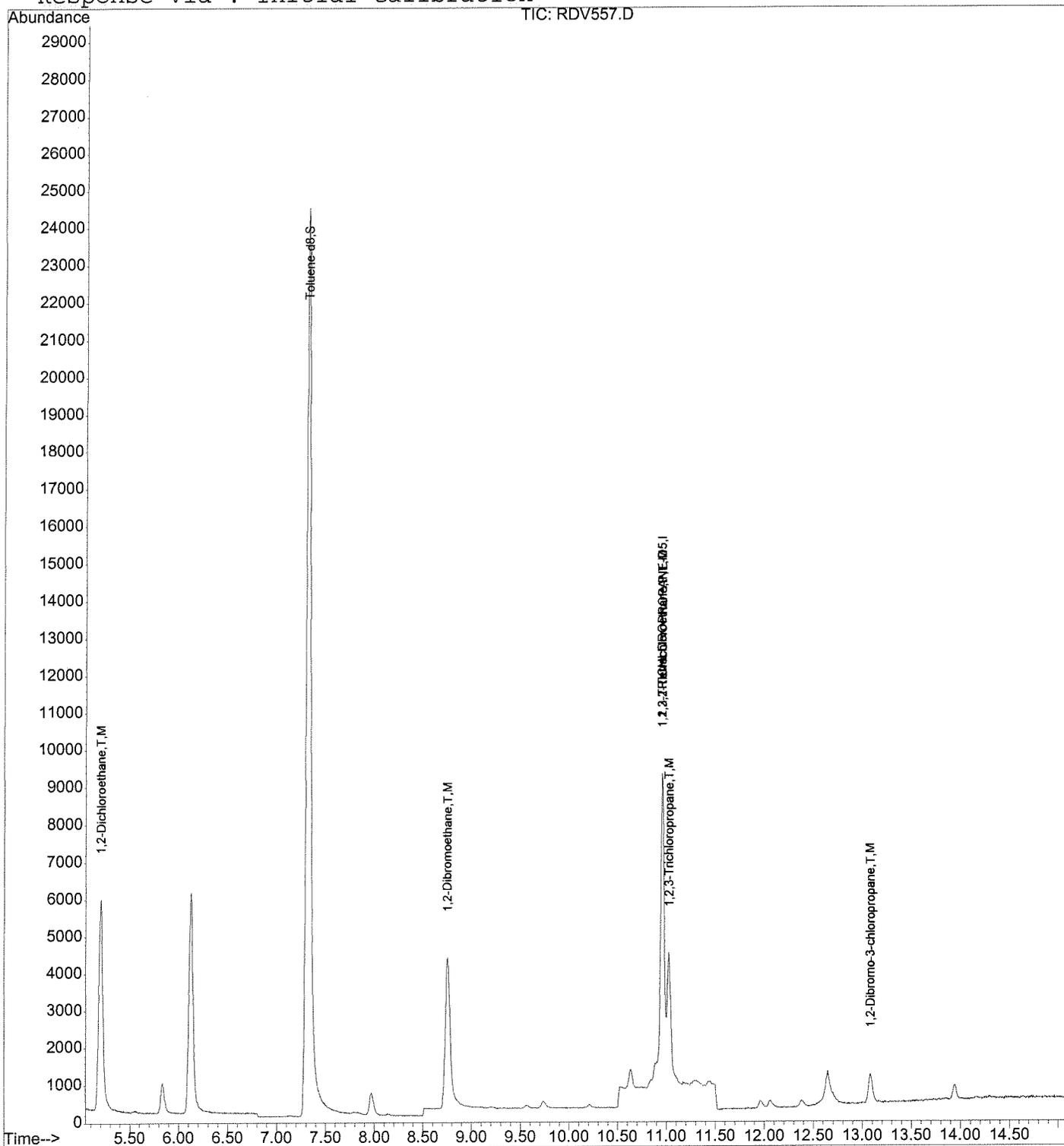
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D28\RDV557.D
Acq On : 28 Apr 2015 1:59 pm
Sample : VO01D24C
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 28 14:14 2015

Vial : 4
Operator : WLau
Inst : TO01
Multiplr : 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\15D28\RDV561.D
 Acq On : 28 Apr 2015 3:38 pm
 Sample : 15D157-17 25mL
 Misc : DF=1.0
 MS Integration Params: 524C.P
 Quant Time: Apr 29 12:20 2015

Vial: 8
 Operator: WLau
 Inst : TO01
 Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Initial Calibration
 DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.97	79	5597	100.00	ng/l	0.02
System Monitoring Compounds						
3) Toluene-d8	7.32	98	48596	96.06	ng/l	0.02
Spiked Amount	100.000		Recovery	=	96.06%	
Target Compounds						
6) 1,2,3-Trichloropropane	11.03	75	33638	562.73	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.09	157	209	19.81	ng/l	80

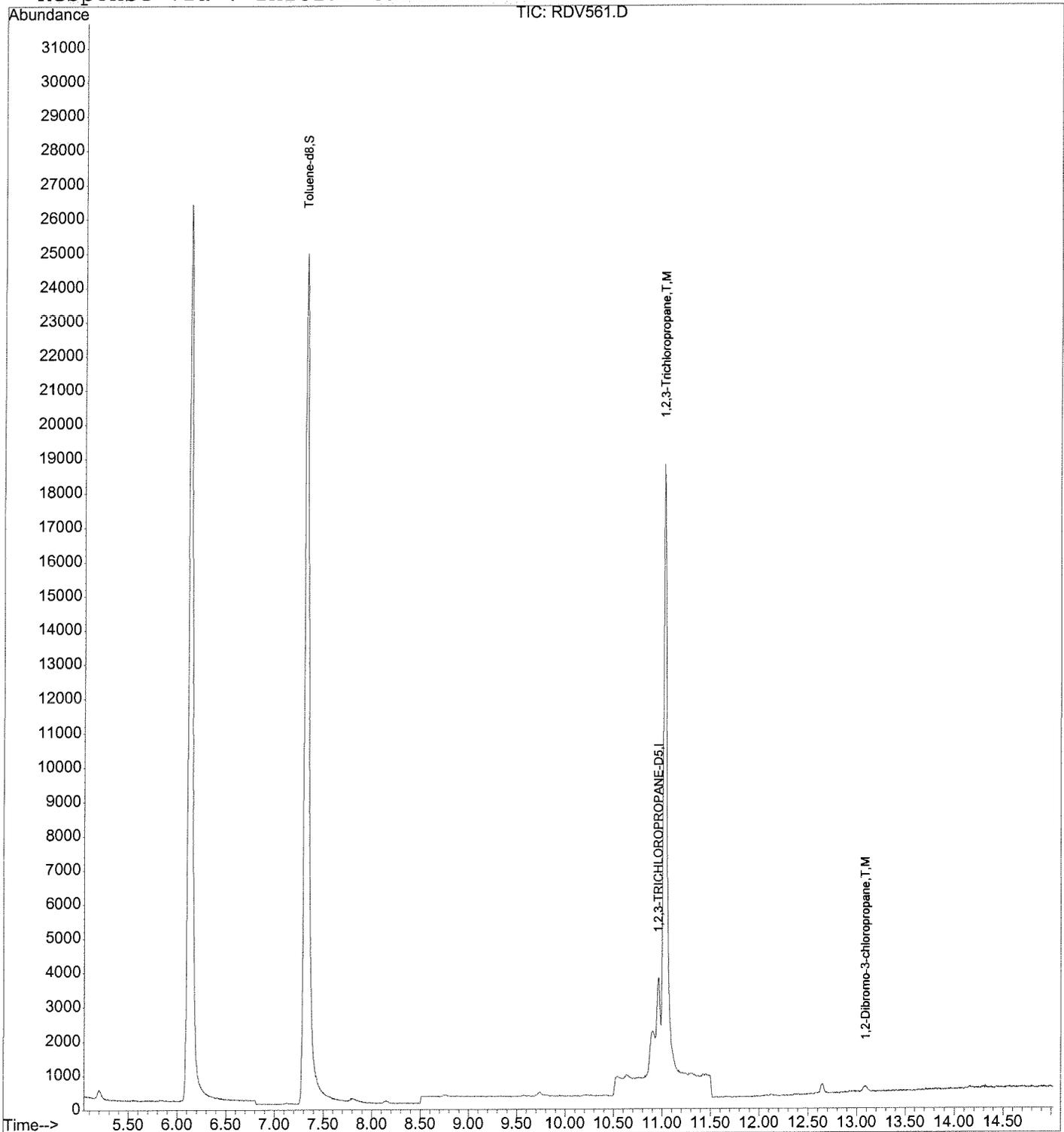
Quantitation Report

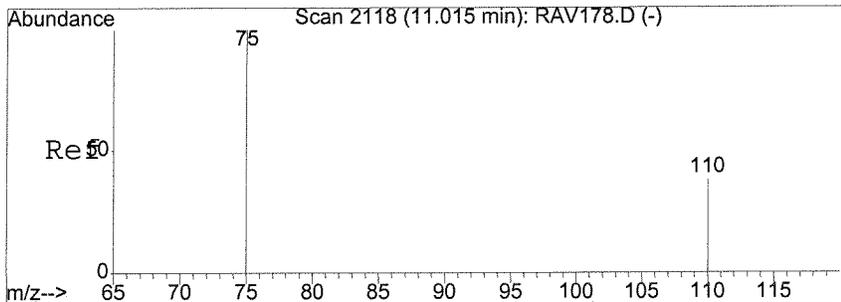
Data File : D:\HPCHEM\1\DATA\15D28\RDV561.D
Acq On : 28 Apr 2015 3:38 pm
Sample : 15D157-17 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 29 12:20 2015

Vial: 8
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

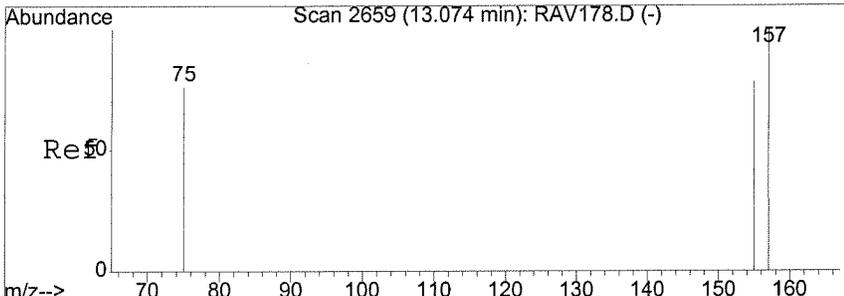
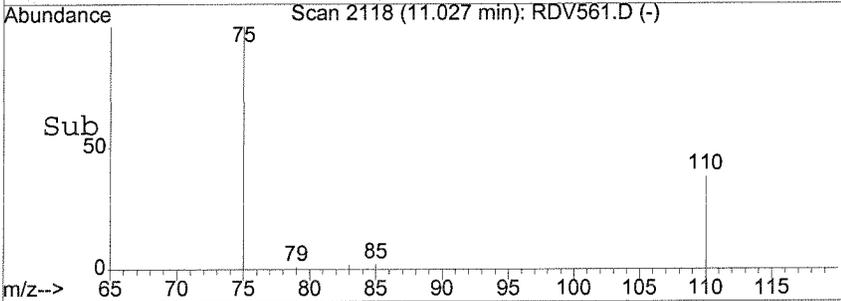
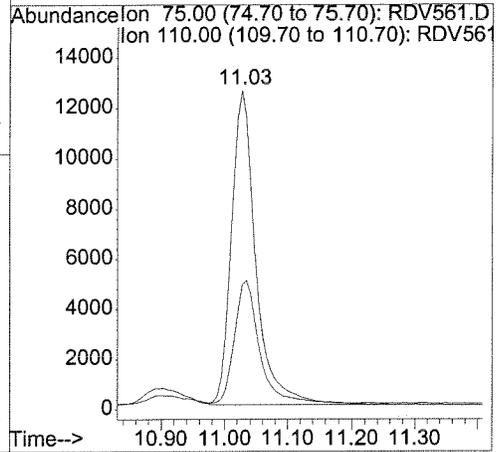
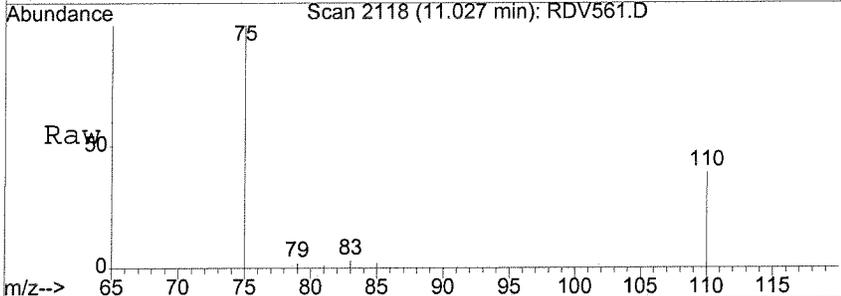
Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration





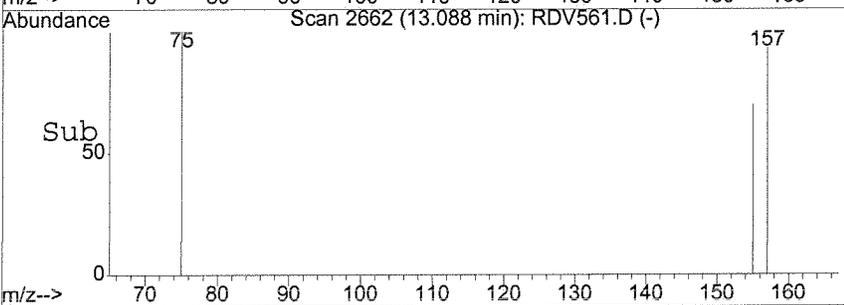
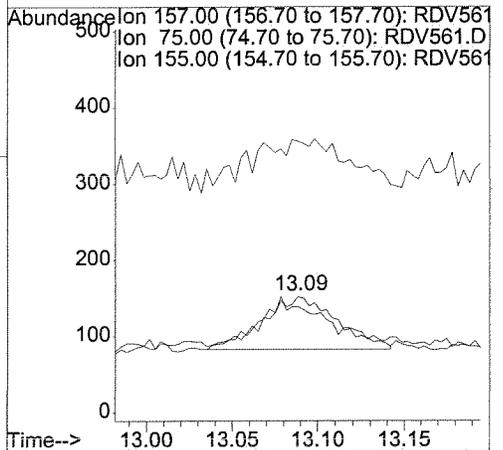
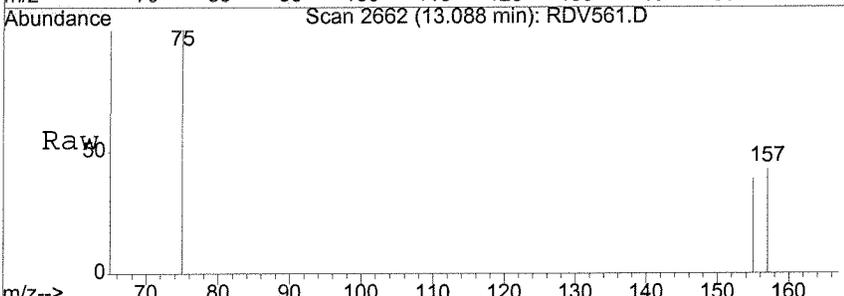
#6
 1,2,3-Trichloropropane
 Concen: 562.73 ng/l
 RT: 11.03 min Scan# 2118
 Delta R.T. 0.01 min
 Lab File: RDV561.D
 Acq: 28 Apr 2015 3:38 pm

Tgt Ion: 75 Resp: 33638
 Ion Ratio Lower Upper
 75 100
 110 39.5 11.6 71.6



#7
 1,2-Dibromo-3-chloropropane
 Concen: 19.81 ng/l
 RT: 13.09 min Scan# 2662
 Delta R.T. 0.01 min
 Lab File: RDV561.D
 Acq: 28 Apr 2015 3:38 pm

Tgt Ion: 157 Resp: 209
 Ion Ratio Lower Upper
 157 100
 75 68.4 61.8 121.8
 155 67.0 49.6 109.6



Data File : D:\HPCHEM\1\DATA\15D28\RDV559.D
 Acq On : 28 Apr 2015 2:49 pm
 Sample : 15D157-17M 25mL
 Misc : DF=1.0
 MS Integration Params: 524C.P
 Quant Time: Apr 29 10:14 2015

Vial: 6
 Operator: WLau
 Inst : TO01
 Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Initial Calibration
 DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	6171	100.00	ng/l	0.01
System Monitoring Compounds						
3) Toluene-d8	7.32	98	50222	90.04	ng/l	0.01
Spiked Amount	100.000		Recovery	=	90.04%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.20	62	14013	105.34	ng/l	98
4) 1,2-Dibromoethane	8.75	107	8715	103.77	ng/l	98
5) 1,1,2,2-Tetrachloroethane	10.96	83	10097	105.25	ng/l	98
6) 1,2,3-Trichloropropane	11.02	75	42452	644.12	ng/l	96
7) 1,2-Dibromo-3-chloropropan	13.09	157	1233	106.00	ng/l	84

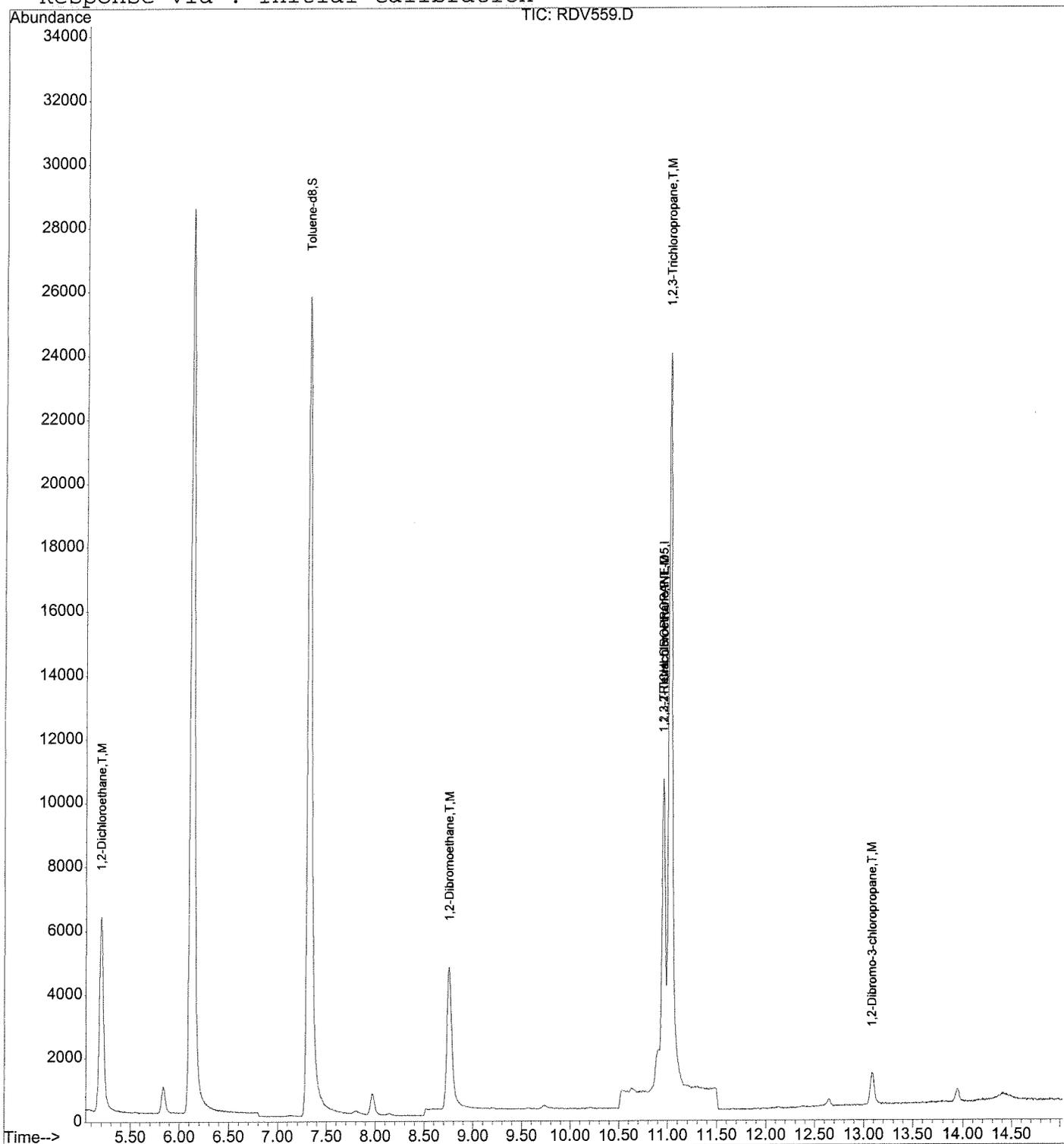
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D28\RDV559.D
Acq On : 28 Apr 2015 2:49 pm
Sample : 15D157-17M 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 29 10:14 2015

Vial: 6
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\15D28\RDV560.D
 Acq On : 28 Apr 2015 3:13 pm
 Sample : 15D157-17S 25mL
 Misc : DF=1.0
 MS Integration Params: 524C.P
 Quant Time: Apr 29 10:14 2015

Vial: 7
 Operator: WLau
 Inst : TO01
 Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Initial Calibration
 DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5181	100.00	ng/l	0.01
System Monitoring Compounds						
3) Toluene-d8	7.32	98	48481	103.53	ng/l	0.02
Spiked Amount	100.000		Recovery	=	103.53%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.20	62	13044	116.80	ng/l	99
4) 1,2-Dibromoethane	8.76	107	7816	110.85	ng/l	97
5) 1,1,2,2-Tetrachloroethane	10.96	83	8617	106.98	ng/l	93
6) 1,2,3-Trichloropropane	11.03	75	37546	678.53	ng/l	96
7) 1,2-Dibromo-3-chloropropan	13.09	157	1005	102.91	ng/l	96

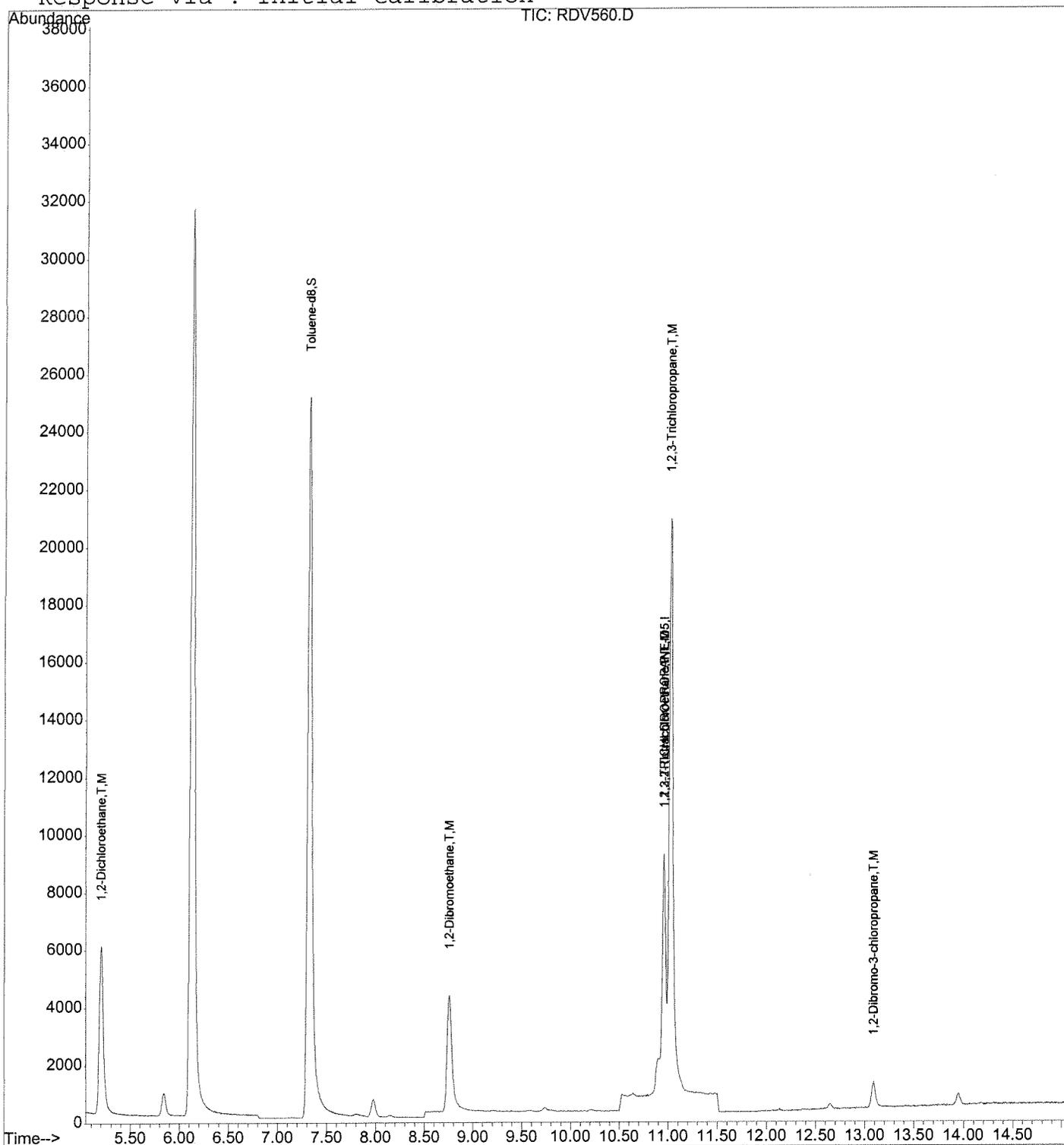
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D28\RDV560.D
Acq On : 28 Apr 2015 3:13 pm
Sample : 15D157-17S 25mL
Misc : DF=1.0
MS Integration Params: 524C.P
Quant Time: Apr 29 10:14 2015

Vial: 7
Operator: WLau
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



INITIAL CALIBRATION(S)

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO01
 Beginning DateTime :01/13/15 10:27
 Spike Units :PPT
 IC File :RAV178

Column Spec :RXI-624SILMS ID :0.25MM
 Ending DateTime :01/13/15 13:39
 HPChem Method :V001A13

M IDX	Parameters	5	10	20	50	100	200	400	1000	2000	Av_RRF	%_RSD	Av_Rt_M
		10:27 RAV174	10:51 RAV175	11:15 RAV176	11:39 RAV177	12:03 RAV178	12:27 RAV179	12:51 RAV180	13:15 RAV181	13:39 RAV182			
1	1,2,3-TRICHLOROPROPANE-D5	1	1	1	1	1	1	1	1	1	1	0	10.9505
2	1,2-Dichloroethane	1.837	2.098	2.023	2.328	2.184	2.528	2.100	2.202	2.100	2.156	8.99	5.1880
3	Toluene-d8	-----	11.392	9.024	9.095	8.109	9.522	7.988	8.730	8.446	9.038	11.97	7.3057
4	1,2-Dibromoethane	1.213	1.332	1.266	1.377	1.349	1.570	1.324	1.425	1.391	1.361	7.45	8.7375
5	1,1,2,2-Tetrachloroethane	1.429	1.390	1.384	1.571	1.543	1.804	1.530	1.680	1.660	1.555	9.16	10.9461
6	1,2,3-Trichloropropane	1.186	1.045	0.954	0.987	1.004	1.204	1.010	1.117	1.105	1.068	8.35	11.0147
7	1,2-Dibromo-3-chloropropane	-----	0.214	0.175	0.174	0.171	0.200	0.172	0.197	0.205	0.188	9.17	13.0710

Ave_%RSD : 9.2

Max_%RSD : 12

54
 1/14/15

Compound List Report TO01

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 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	10.95	1.000	A	1	A	B
2	T 1,2-Dichloroethane	62	5.19	0.474	A	1	A	B
3	S Toluene-d8	98	7.31	0.667	A	1	A	B
4	T 1,2-Dibromoethane	107	8.74	0.798	A	1	A	B
5	T 1,1,2,2-Tetrachloroethane	83	10.94	0.999	A	1	A	B
6	T 1,2,3-Trichloropropane	75	11.02	1.006	A	1	A	B
7	T 1,2-Dibromo-3-chloropropane	157	13.07	1.194	A	2	A	B

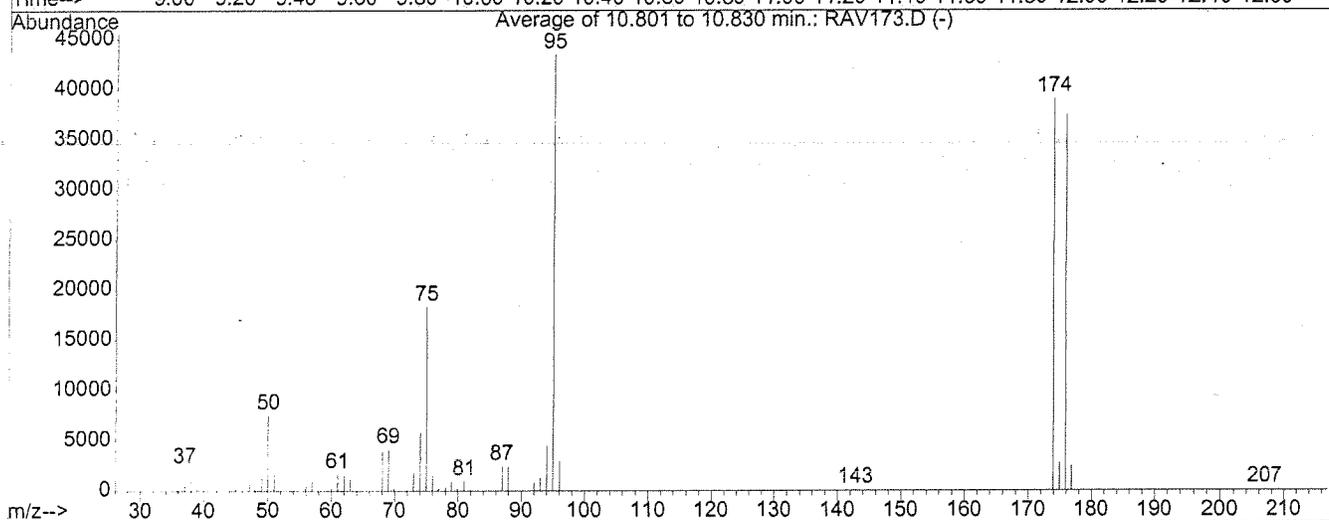
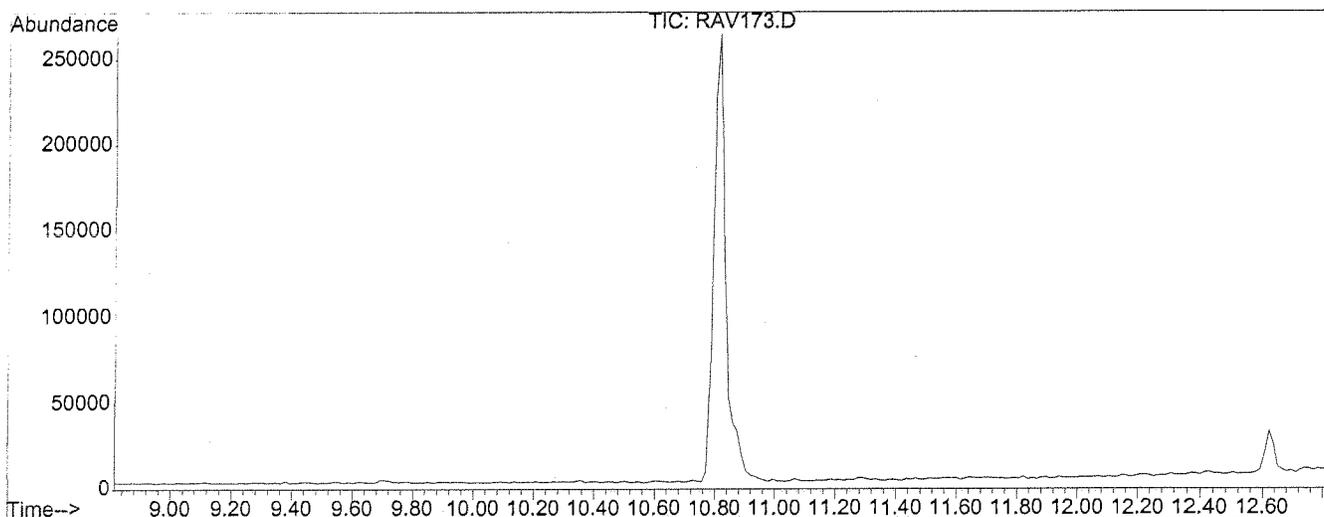
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
 #Qual = number of qualifiers
 A/H = Area or Height
 ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

VO01A13.M Wed Jan 14 15:08:24 2015

su
1/14/15

Data File : D:\HPCHEM\1\DATA\15A13\RAV173.D
 Acq On : 13 Jan 2015 9:57 am
 Sample : BFB01A11
 Misc : T/CHK
 MS Integration Params: 524C.P
 Method : D:\HPCHEM\1\METHODS\VO01A13A.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls

Vial: 1
 Operator: DNguye
 Inst : TO01
 Multiplr: 1.00



AutoFind: Scans 390, 391, 392; Background Corrected with Scan 385

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	7513	PASS
75	95	30	60	42.2	18354	PASS
95	95	100	100	100.0	43472	PASS
96	95	5	9	7.0	3063	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	89.8	39037	PASS
175	174	5	9	7.0	2721	PASS
176	174	95	101	95.8	37411	PASS
177	176	5	9	6.4	2399	PASS

59
1/14/15

Data File : D:\HPCHEM\1\DATA\15A13\RAV174.D
Acq On : 13 Jan 2015 10:27 am
Sample : VO01A131
Misc : 5.0ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 2
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5194	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	2994	6.38	ng/l	0.00
Spiked Amount	100.000		Recovery	=	6.38%	
Target Compounds						
2) 1,2-Dichloroethane	5.19	62	477	4.26	ng/l	# 41
4) 1,2-Dibromoethane	8.74	107	315	4.46	ng/l	98
5) 1,1,2,2-Tetrachloroethane	10.94	83	371	4.59	ng/l	92
6) 1,2,3-Trichloropropane	11.02	75	308	5.55	ng/l	88

SA
1/14/15

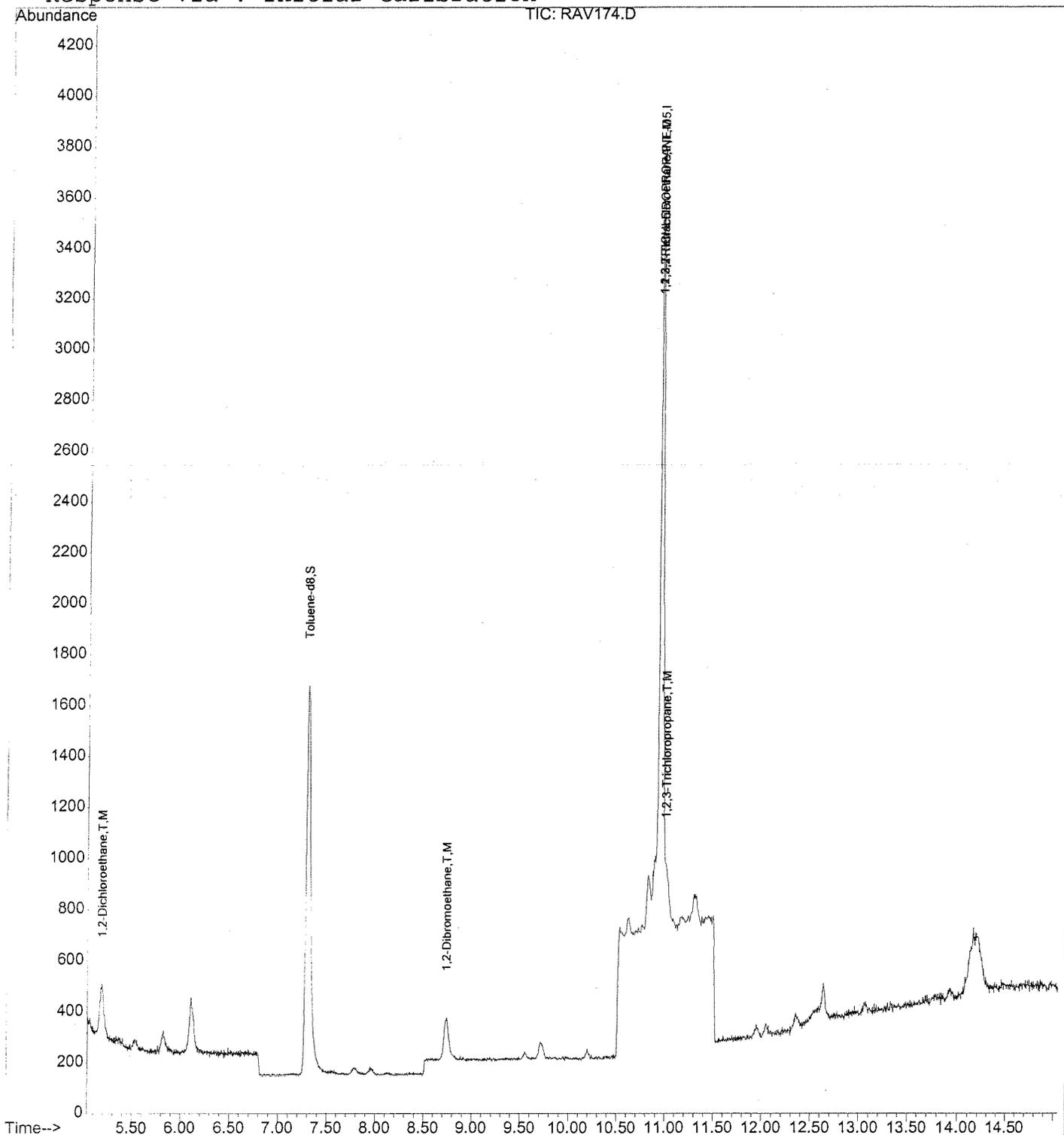
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV174.D
Acq On : 13 Jan 2015 10:27 am
Sample : VO01A131
Misc : 5.0ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 2
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



54
1/14/15

Data File : D:\HPCHEM\1\DATA\15A13\RAV175.D
 Acq On : 13 Jan 2015 10:51 am
 Sample : VO01A132
 Misc : 10ppt
 MS Integration Params: 524C.P
 Quant Time: Jan 14 10:33 2015

Vial: 3
 Operator: DNguye
 Inst : TO01
 Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Initial Calibration
 DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5044	100.00	ng/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
3) Toluene-d8	7.31	98	5746	12.60	ng/l	0.00
Spiked Amount	100.000		Recovery	=	12.60%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,2-Dichloroethane	5.19	62	1058	9.73	ng/l	97
4) 1,2-Dibromoethane	8.73	107	672	9.79	ng/l	92
5) 1,1,2,2-Tetrachloroethane	10.94	83	701	8.94	ng/l	97
6) 1,2,3-Trichloropropane	11.01	75	527	9.78	ng/l	96
7) 1,2-Dibromo-3-chloropropan	13.08	157	108	11.36	ng/l #	44

Sa 1/14/15

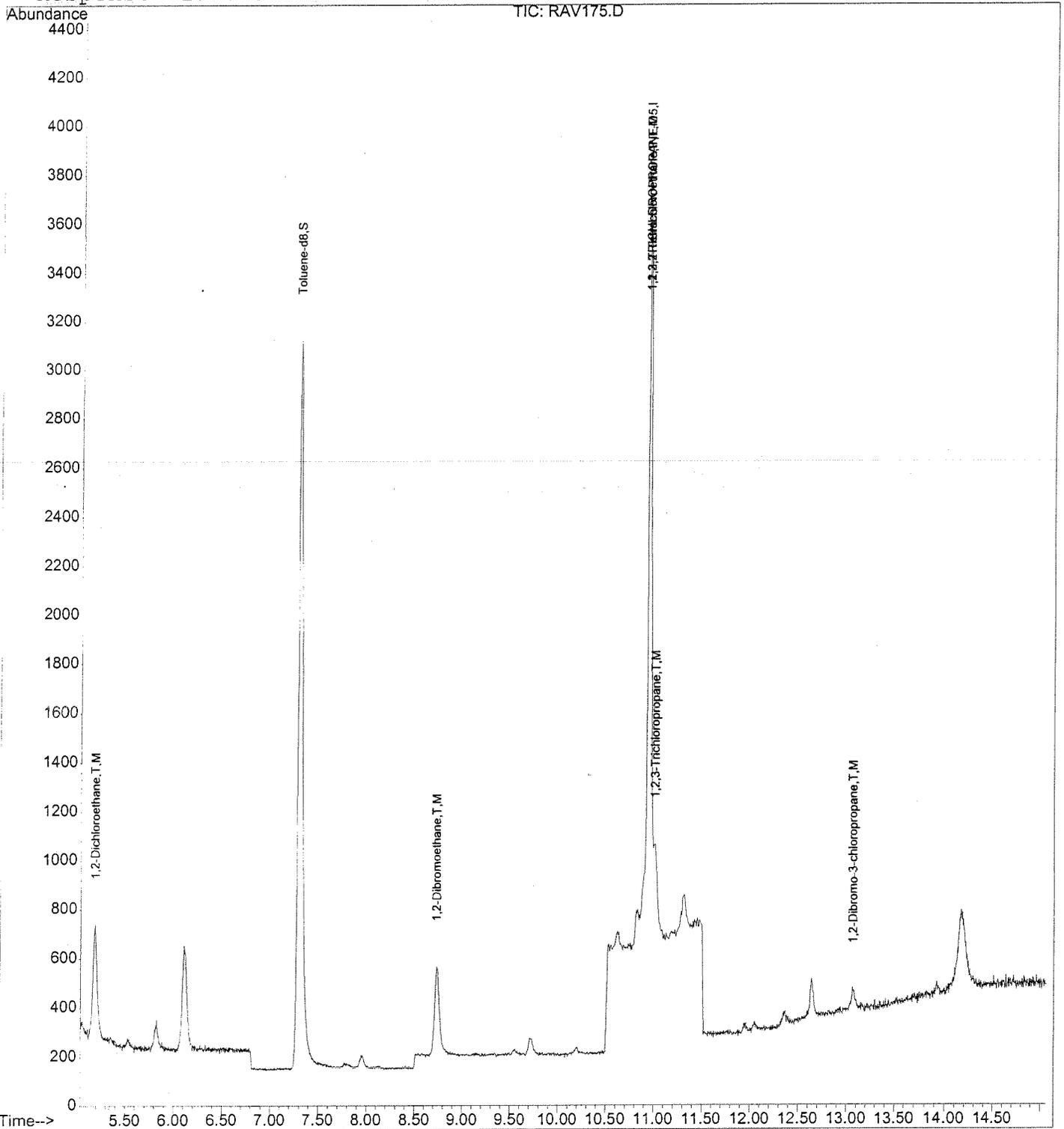
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV175.D
Acq On : 13 Jan 2015 10:51 am
Sample : VO01A132
Misc : 10ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 3
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SN 11/4/15

Data File : D:\HPCHEM\1\DATA\15A13\RAV176.D
 Acq On : 13 Jan 2015 11:15 am
 Sample : VO01A133
 Misc : 20ppt
 MS Integration Params: 524C.P
 Quant Time: Jan 14 10:33 2015

Vial: 4
 Operator: DNguye
 Inst : TO01
 Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Initial Calibration
 DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	4945	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	8925	19.97	ng/l	0.00
Spiked Amount	100.000		Recovery	=	19.97%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.18	62	2001	18.77	ng/l	98
4) 1,2-Dibromoethane	8.73	107	1252	18.60	ng/l	99
5) 1,1,2,2-Tetrachloroethane	10.94	83	1369	17.81	ng/l	99
6) 1,2,3-Trichloropropane	11.01	75	944	17.87	ng/l	96
7) 1,2-Dibromo-3-chloropropan	13.07	157	173	18.56	ng/l #	66

Su
1/14/15

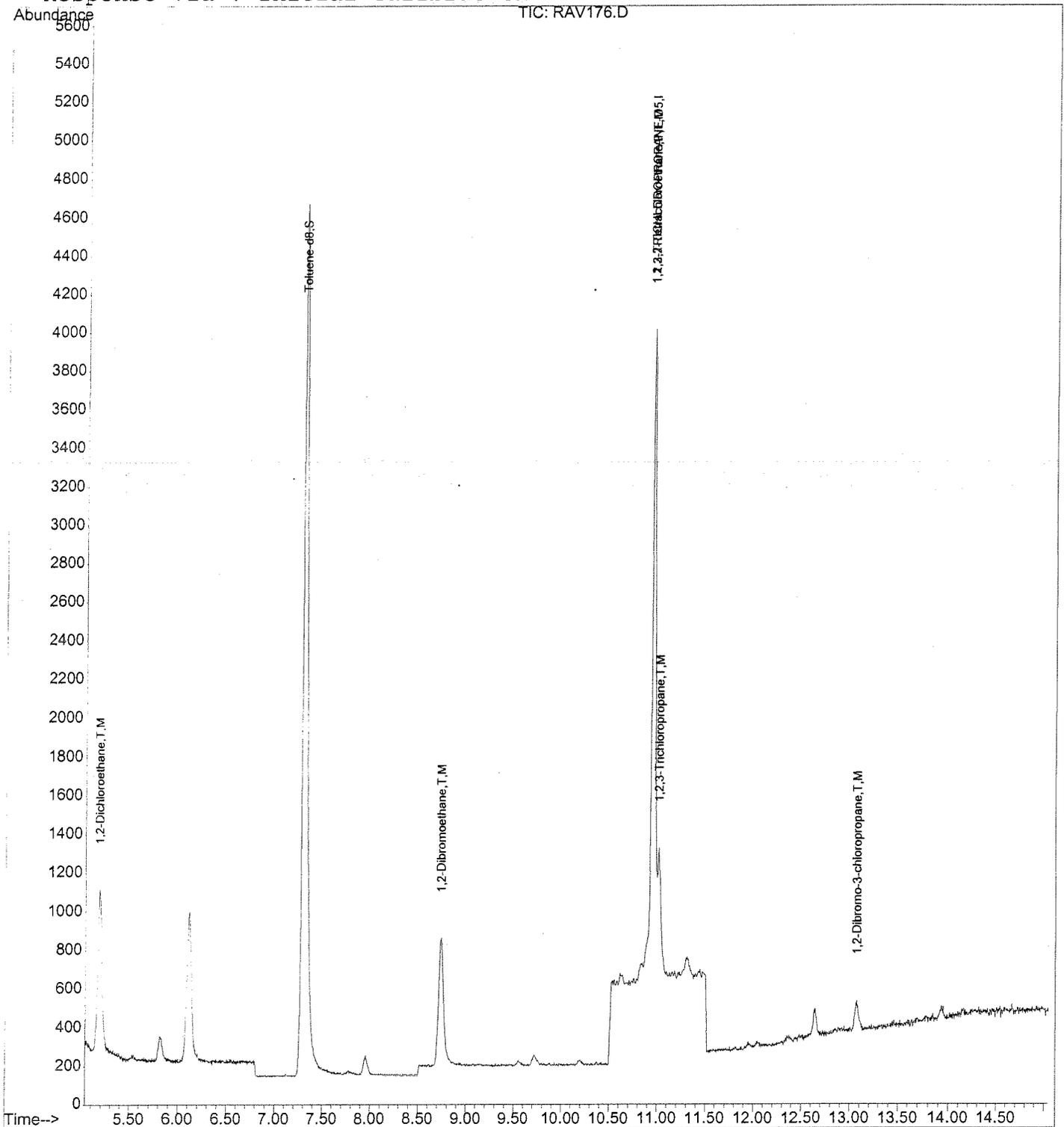
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV176.D
Acq On : 13 Jan 2015 11:15 am
Sample : VO01A133
Misc : 20ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 4
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



52 11/4/15

Data File : D:\HPCHEM\1\DATA\15A13\RAV177.D
 Acq On : 13 Jan 2015 11:39 am
 Sample : VO01A134
 Misc : 50ppt
 MS Integration Params: 524C.P
 Quant Time: Jan 14 10:33 2015

Vial: 5
 Operator: DNguye
 Inst : TO01
 Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Initial Calibration
 DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	4947	100.00	ng/l	0.00

System Monitoring Compounds

3) Toluene-d8	7.31	98	22497	50.32	ng/l	0.00
Spiked Amount	100.000		Recovery	=	50.32%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,2-Dichloroethane	5.19	62	5759	54.01	ng/l	96
4) 1,2-Dibromoethane	8.74	107	3407	50.61	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	3885	50.52	ng/l	96
6) 1,2,3-Trichloropropane	11.01	75	2442	46.22	ng/l	98
7) 1,2-Dibromo-3-chloropropan	13.07	157	431	46.22	ng/l	89

Su
1/14/15

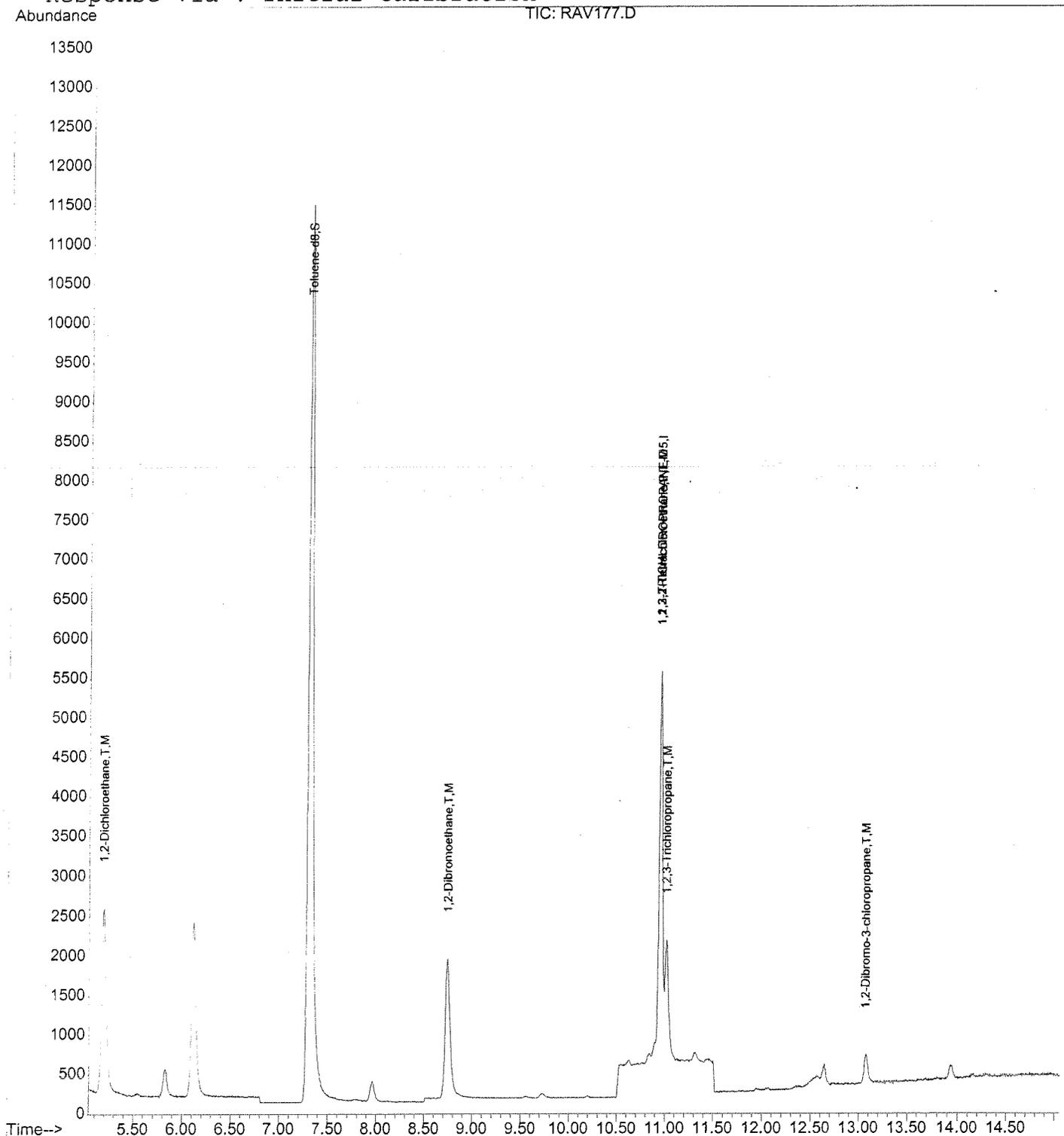
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV177.D
Acq On : 13 Jan 2015 11:39 am
Sample : VO01A134
Misc : 50ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 5
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



San
1/14/15

Data File : D:\HPCHEM\1\DATA\15A13\RAV178.D
Acq On : 13 Jan 2015 12:03 pm
Sample : VO01A135
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 6
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5060	100.00	ng/l	0.00

System Monitoring Compounds

3) Toluene-d8	7.31	98	41033	89.72	ng/l	0.00
Spiked Amount	100.000		Recovery	=	89.72%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,2-Dichloroethane	5.19	62	11051	101.32	ng/l	100
4) 1,2-Dibromoethane	8.74	107	6828	99.15	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.94	83	7809	99.27	ng/l	100
6) 1,2,3-Trichloropropane	11.02	75	5081	94.02	ng/l	100
7) 1,2-Dibromo-3-chloropropan	13.07	157	867	90.90	ng/l	100

SA 1/14/15

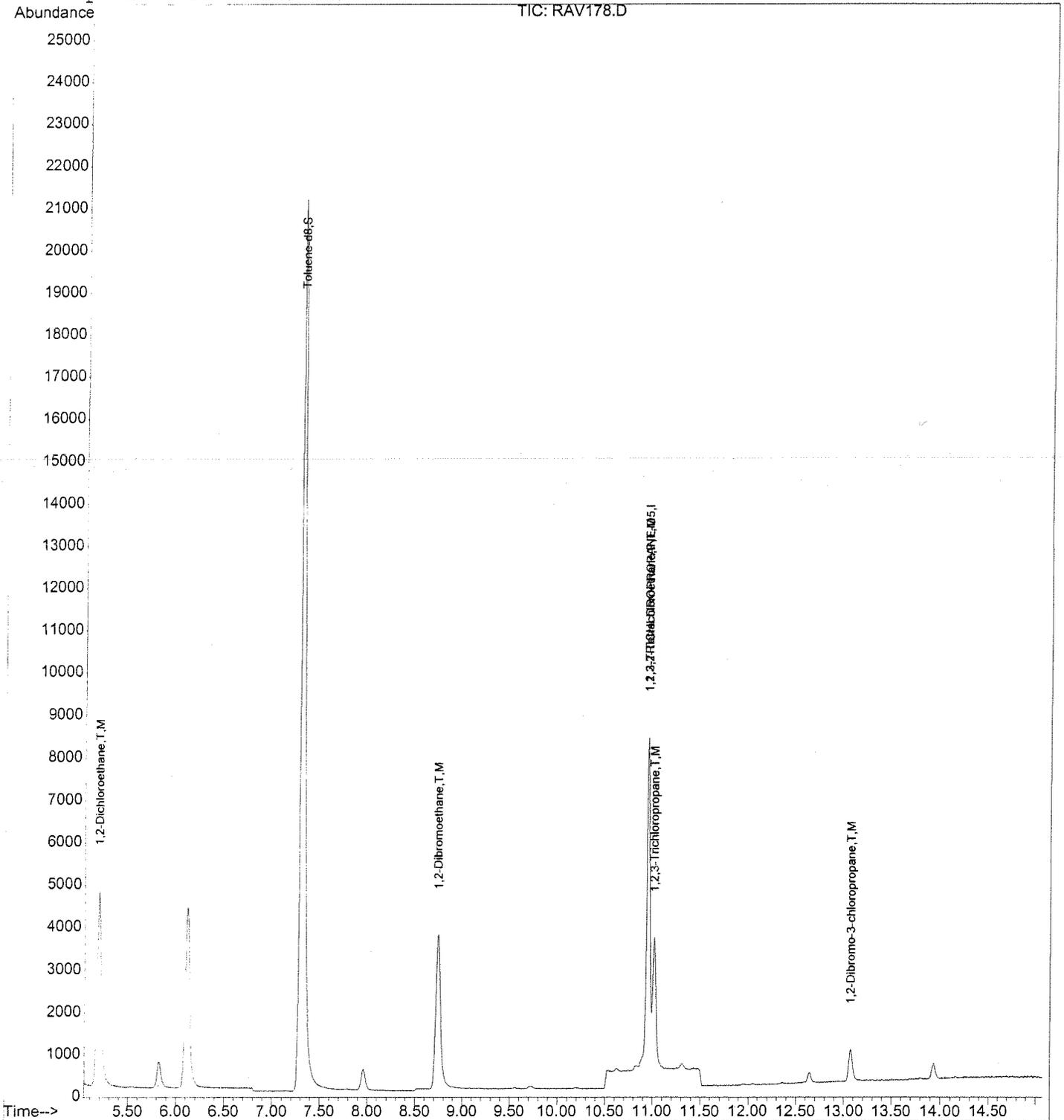
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV178.D
Acq On : 13 Jan 2015 12:03 pm
Sample : VO01A135
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 6
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Su
11/4/15

Data File : D:\HPCHEM\1\DATA\15A13\RAV179.D
Acq On : 13 Jan 2015 12:27 pm
Sample : VO01A136
Misc : 200ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 7
Operator: DNguye
Inst : T001
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	4682	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	89160	210.70	ng/l	0.00
Spiked Amount	100.000		Recovery	=	210.70%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	23674	234.57	ng/l	98
4) 1,2-Dibromoethane	8.74	107	14703	230.75	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	16894	232.10	ng/l	99
6) 1,2,3-Trichloropropane	11.02	75	11277	225.52	ng/l	95
7) 1,2-Dibromo-3-chloropropan	13.07	157	1876	212.57	ng/l	94

54
1/14/15

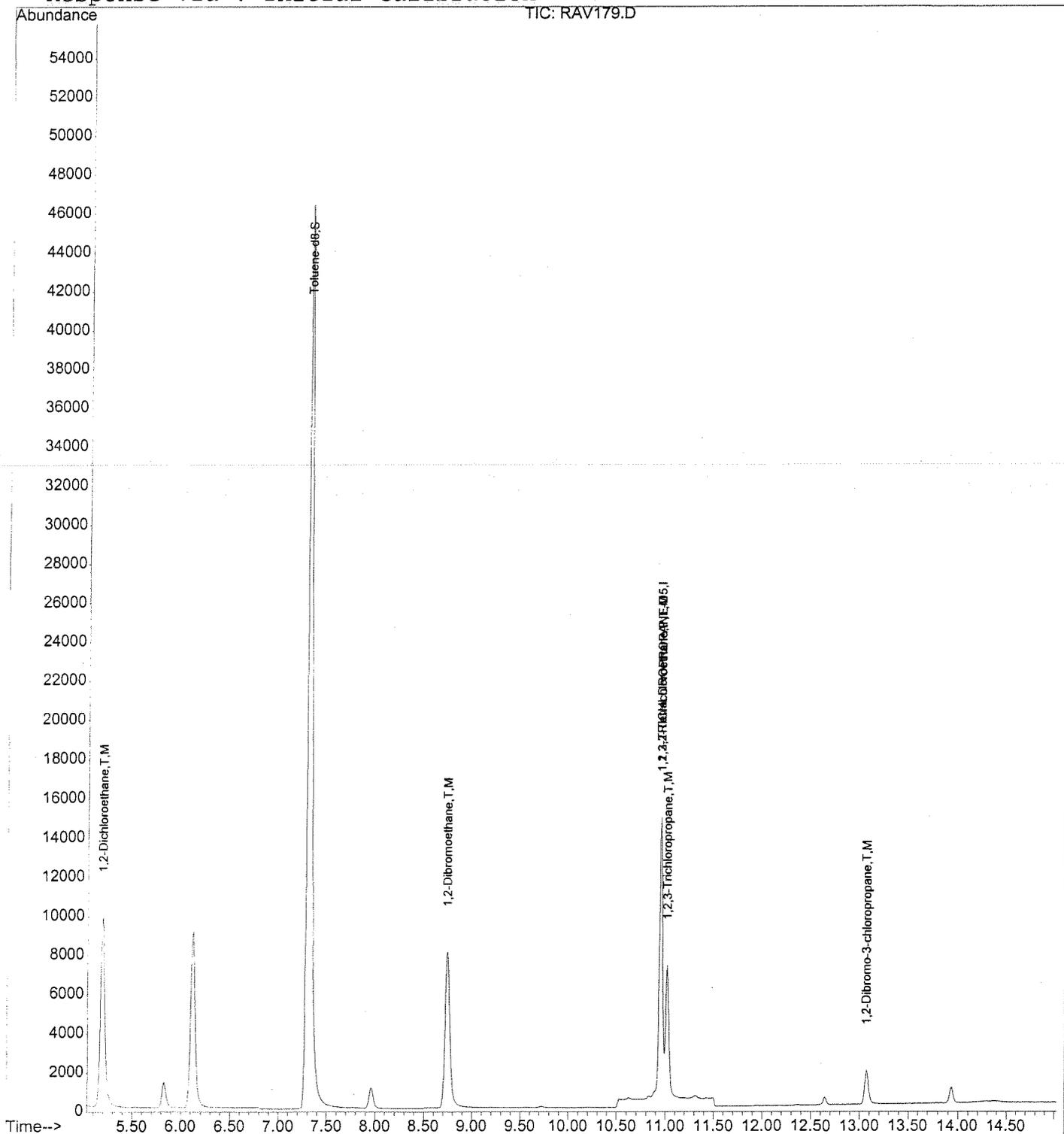
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV179.D
Acq On : 13 Jan 2015 12:27 pm
Sample : VO01A136
Misc : 200ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 7
Operator: DNguye
Inst : T001
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Signature
1/14/15

Data File : D:\HPCHEM\1\DATA\15A13\RAV180.D
Acq On : 13 Jan 2015 12:51 pm
Sample : VO01A137
Misc : 400ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 8
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration
DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5436	100.00	ng/l	0.00

System Monitoring Compounds

3) Toluene-d8	7.30	98	173683	353.51	ng/l	0.00
Spiked Amount	100.000		Recovery	=	353.51%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,2-Dichloroethane	5.19	62	45662	389.68	ng/l	98
4) 1,2-Dibromoethane	8.74	107	28798	389.27	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	33274	393.74	ng/l	100
6) 1,2,3-Trichloropropane	11.01	75	21958	378.21	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	3732	364.21	ng/l	91

SA
1/14/15

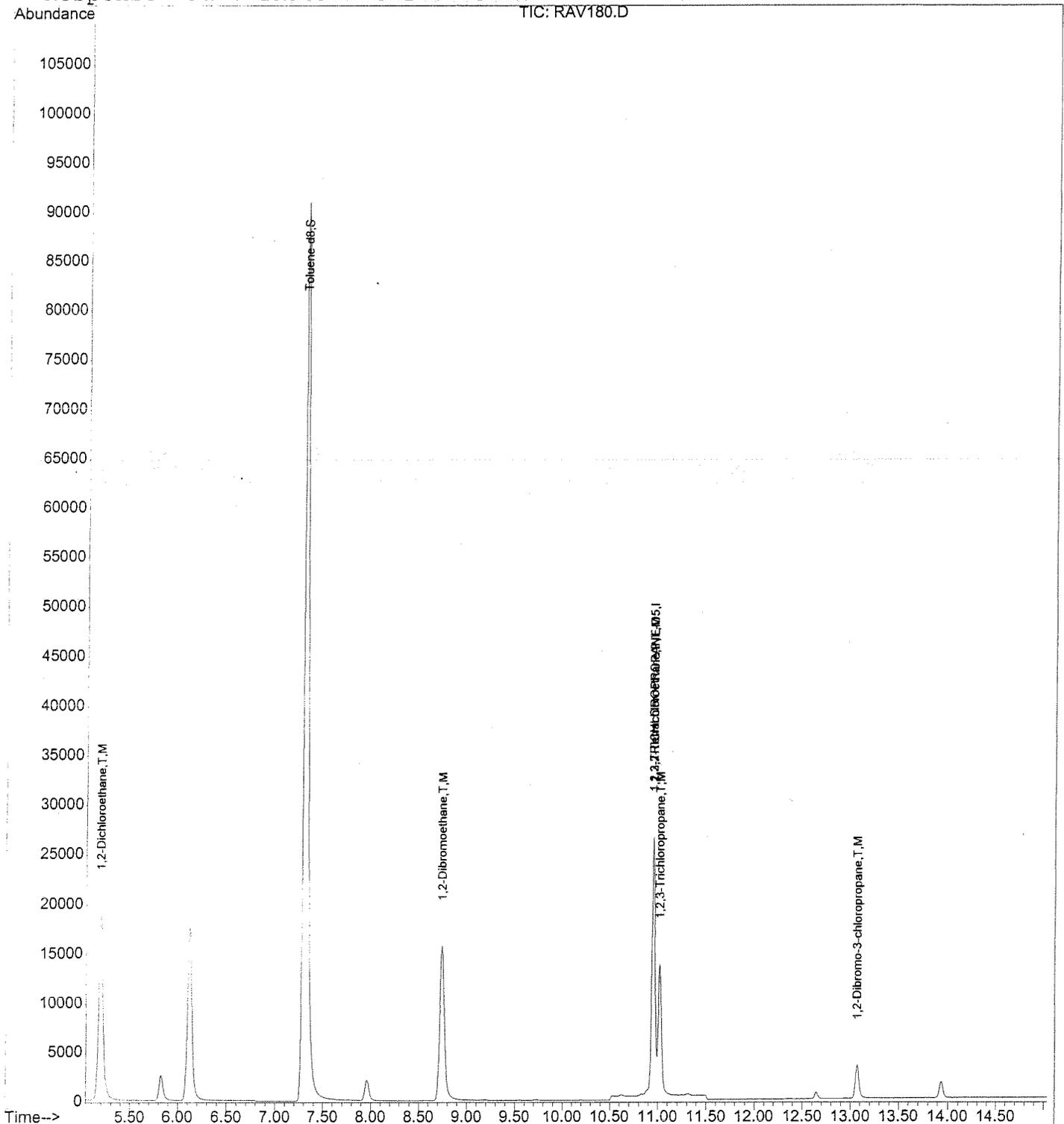
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV180.D
Acq On : 13 Jan 2015 12:51 pm
Sample : VO01A137
Misc : 400ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 8
Operator: DNguye
Inst : T001
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SA
1/14/15

Data File : D:\HPCHEM\1\DATA\15A13\RAV181.D
 Acq On : 13 Jan 2015 1:15 pm
 Sample : VO01A138
 Misc : 1000ppt
 MS Integration Params: 524C.P
 Quant Time: Jan 14 10:33 2015

Vial: 9
 Operator: DNgyue
 Inst : T001
 Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Initial Calibration
 DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5252	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.30	98	458513	965.93	ng/l	0.00
Spiked Amount	100.000		Recovery	=	965.93%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	115670	1021.70	ng/l	99
4) 1,2-Dibromoethane	8.74	107	74830	1046.93	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	88254	1080.91	ng/l	99
6) 1,2,3-Trichloropropane	11.01	75	58654	1045.67	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	10326	1043.03	ng/l	91

Sa 11/4/15

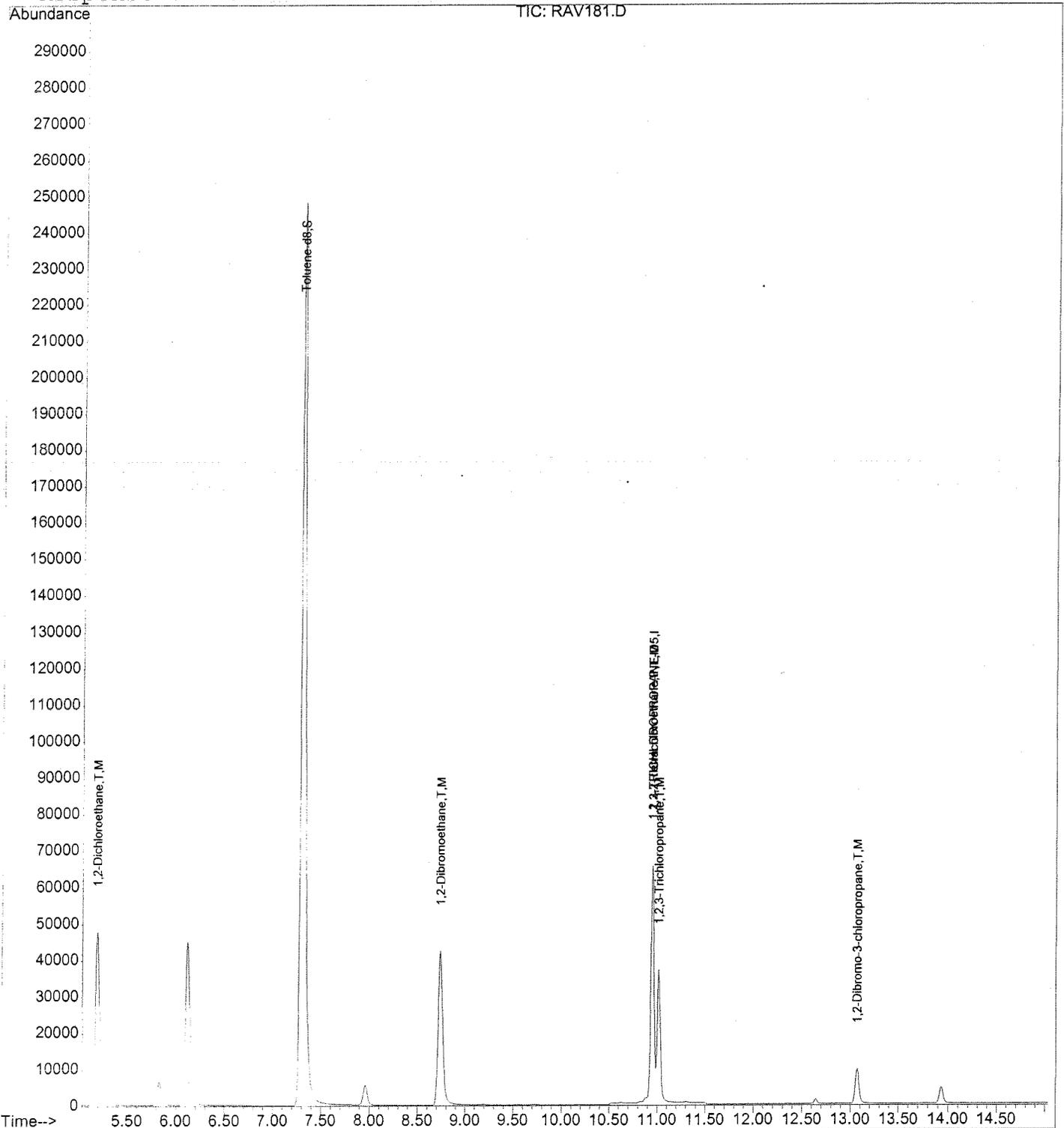
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV181.D
Acq On : 13 Jan 2015 1:15 pm
Sample : VO01A138
Misc : 1000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 9
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SA
11/14/15

Data File : D:\HPCHEM\1\DATA\15A13\RAV182.D
 Acq On : 13 Jan 2015 1:39 pm
 Sample : VO01A139
 Misc : 2000ppt
 MS Integration Params: 524C.P
 Quant Time: Jan 14 10:33 2015

Vial: 10
 Operator: DNguye
 Inst : TO01
 Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Initial Calibration
 DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.95	79	5393	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	910939	1868.86	ng/l	0.00
Spiked Amount	100.000		Recovery	= 1868.86%		
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	226521	1948.53	ng/l	99
4) 1,2-Dibromoethane	8.73	107	150027	2044.12	ng/l	100
5) 1,1,2,2-Tetrachloroethane	10.95	83	179068	2135.83	ng/l	98
6) 1,2,3-Trichloropropane	11.01	75	119133	2068.35	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	22087	2172.69	ng/l	90

Su
11/4/15

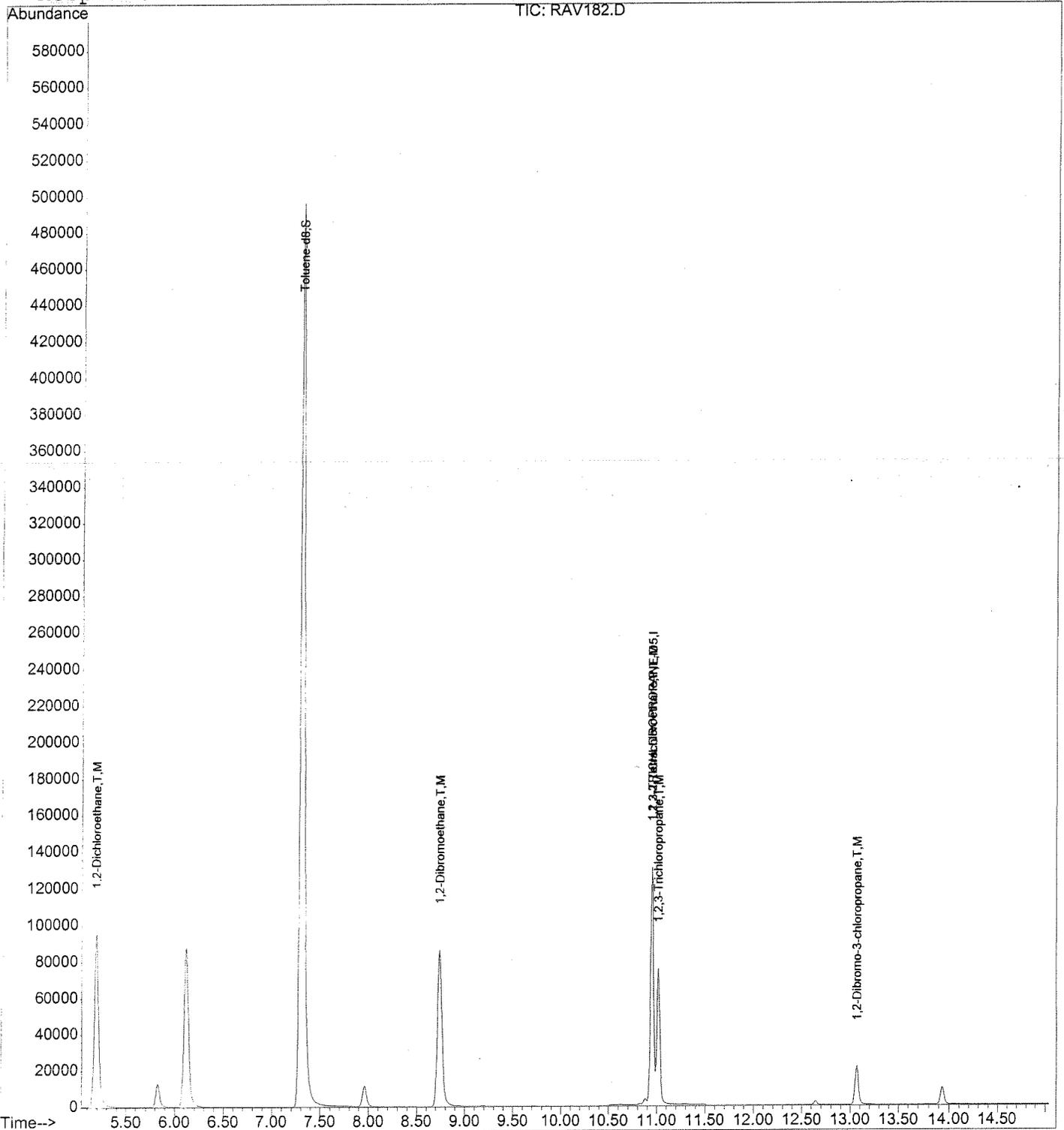
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV182.D
Acq On : 13 Jan 2015 1:39 pm
Sample : VO01A139
Misc : 2000ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 10
Operator: DNguye
Inst : T001
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



Signature
1/14/15

SECOND SOURCE VERIFICATION

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :T001
 IC_Beginning DateTime :01/13/15 10:27
 Spike Amount :100 PPT
 CC/CV File :RAV184
 IC File :RAV178

Column Spec :RXI-624SILMS ID :0.25MM
 IC_Ending DateTime :01/13/15 13:39
 HPChem Method :V001A13
 Date_Time :01/13/15 14:26

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	100.000	0	5387	1	1	10.956	10.950	0				
2	1,2-Dichloroethane	109.281	9.3	12690	2.356	2.156	5.194	5.188	8.99				
3	Toluene-d8	94.453	-5.5	45988	8.537	9.038	7.311	7.306	11.97				
4	1,2-Dibromoethane	108.576	8.6	7960	1.478	1.361	8.743	8.738	7.45				
5	1,1,2,2-Tetrachloroethane	111.897	11.9	9371	1.740	1.555	10.949	10.946	9.16				
6	1,2,3-Trichloropropane	108.840	8.8	6262	1.162	1.068	11.022	11.015	8.35				
7	1,2-Dibromo-3-chloropropane	104.191	4.2	1058	0.196	0.188	13.074	13.071	9.17				

54
 1/14/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
 Acq On : 13 Jan 2015 2:26 pm
 Sample : IVO01A1301
 Misc : 100ppt
 MS Integration Params: 524C.P

Vial: 12
 Operator: DNguye
 Inst : TO01
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I 1,2,3-TRICHLOROPROPANE-D5	100.000	100.000	0.0	106	0.00
2	T,M 1,2-Dichloroethane	100.000	109.281	-9.3	115	0.00
3	S Toluene-d8	100.000	94.453	5.5	112	0.00
4	T,M 1,2-Dibromoethane	100.000	108.576	-8.6	117	0.00
5	P,T,M 1,1,2,2-Tetrachloroethane	100.000	111.897	-11.9	120	0.00
6	T,M 1,2,3-Trichloropropane	100.000	108.840	-8.8	123	0.00
7	T,M 1,2-Dibromo-3-chloropropane	100.000	104.191	-4.2	122	0.00

Gu 1/14/15

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
 Acq On : 13 Jan 2015 2:26 pm
 Sample : IVO01A1301
 Misc : 100ppt
 MS Integration Params: 524C.P

Vial: 12
 Operator: DNguye
 Inst : TO01
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 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	106	0.00
2	T,M 1,2-Dichloroethane	2.156	2.356	-9.3	115	0.00
3	S Toluene-d8	9.038	8.537	5.5	112	0.00
4	T,M 1,2-Dibromoethane	1.361	1.478	-8.6	117	0.00
5	P,T,M 1,1,2,2-Tetrachloroethane	1.555	1.740	-11.9	120	0.00
6	T,M 1,2,3-Trichloropropane	1.068	1.162	-8.8	123	0.00
7	T,M 1,2-Dibromo-3-chloropropane	0.188	0.196	-4.3	122	0.00

3a
 1/14/15

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
 Acq On : 13 Jan 2015 2:26 pm
 Sample : IVO01A1301
 Misc : 100ppt
 MS Integration Params: 524C.P
 Quant Time: Jan 14 10:33 2015

Vial: 12
 Operator: DNguye
 Inst : TO01
 Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Initial Calibration
 DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5387	100.00	ng/l	0.00
System Monitoring Compounds						
3) Toluene-d8	7.31	98	45988	94.45	ng/l	0.00
Spiked Amount	100.000		Recovery	=	94.45%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.19	62	12690	109.28	ng/l	98
4) 1,2-Dibromoethane	8.74	107	7960	108.58	ng/l	98
5) 1,1,2,2-Tetrachloroethane	10.95	83	9371	111.90	ng/l	99
6) 1,2,3-Trichloropropane	11.02	75	6262	108.84	ng/l	97
7) 1,2-Dibromo-3-chloropropan	13.07	157	1058	104.19	ng/l	97

SA 11/14/15

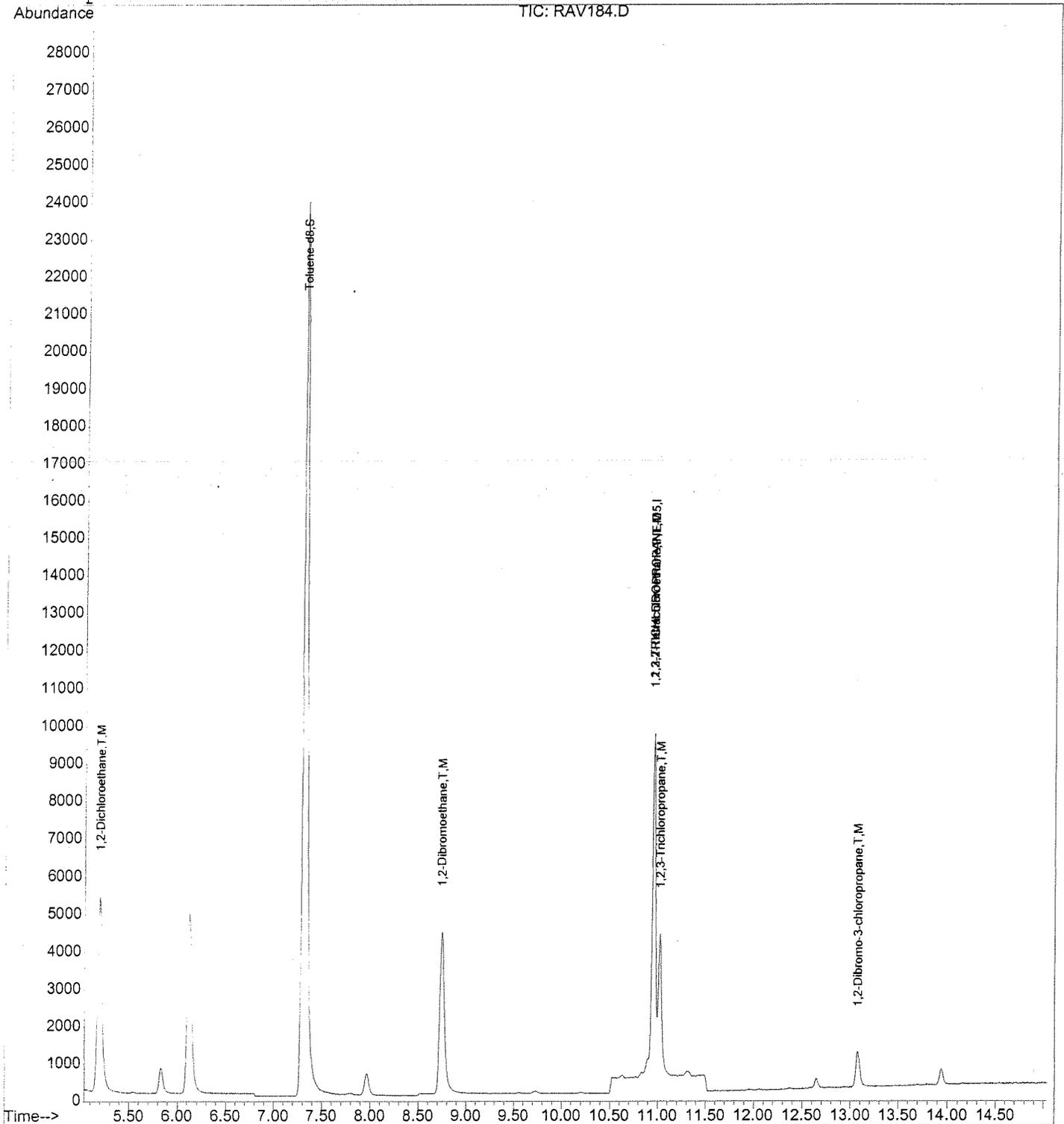
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15A13\RAV184.D
Acq On : 13 Jan 2015 2:26 pm
Sample : IVO01A1301
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Jan 14 10:33 2015

Vial: 12
Operator: DNguye
Inst : TO01
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



SA 1/14/15

DAILY CALIBRATION(S)

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
 Lab Code: EMXT
 Lab File ID: RAV178
 Instrument ID: T001

Project: B & B GROUNDWATER SAMPLING
 SDG No.: 15D157
 Date Analyzed: 01/13/15
 Time Analyzed: 12:03

		IS1(TCP)	
		AREA #	RT #
=====		=====	=====
	12 HOUR STD	5060	10.95
	UPPER LIMIT	10120	11.45
	LOWER LIMIT	2530	10.45
=====		=====	=====
	SAMPLE ID		
=====		=====	=====
1	VSTD100	5693	10.96
2	MBLK1W	5388	10.96
3	LCS1W	5632	10.96
4	LCD1W	5382	10.96
5	04-22-15-PWB-10MS	6171	10.96
6	04-22-15-PWB-10MSD	5181	10.96
7	04-22-15-PWB-10	5597	10.97
8	04-22-15-PWB-9	6071	10.96
9	04-22-15-WB2-4	5405	10.97
10	04-22-15-AMW-4R	5219	10.96
11	04-22-15-PWB-15	6001	10.97
12	04-22-15-PWB-16	5648	10.96
13	04-22-15-PWB-14	6140	10.96
14	04-22-15-PWB-4	6258	10.96
15	04-22-15-FDUP-4	6287	10.96
16	04-22-15-WB2-1	6729	10.96
17	04-22-15-WB2-2	5384	10.96
18	04-22-15-PWB-5	6312	10.96
19	04-22-15-PWB-7A	6238	10.96
20	04-22-15-PWB-12	6449	10.96
21	04-22-15-PWB-12DL	5352	10.96
22	04-22-15-PWB-7ADL	5257	10.96
23	04-22-15-PWB-16DL	5374	10.96
24	04-22-15-PWB-14DL	5192	10.97
25	04-22-15-WB2-2DL	5203	10.97
26	04-22-15-PWB-4DL	5742	10.96

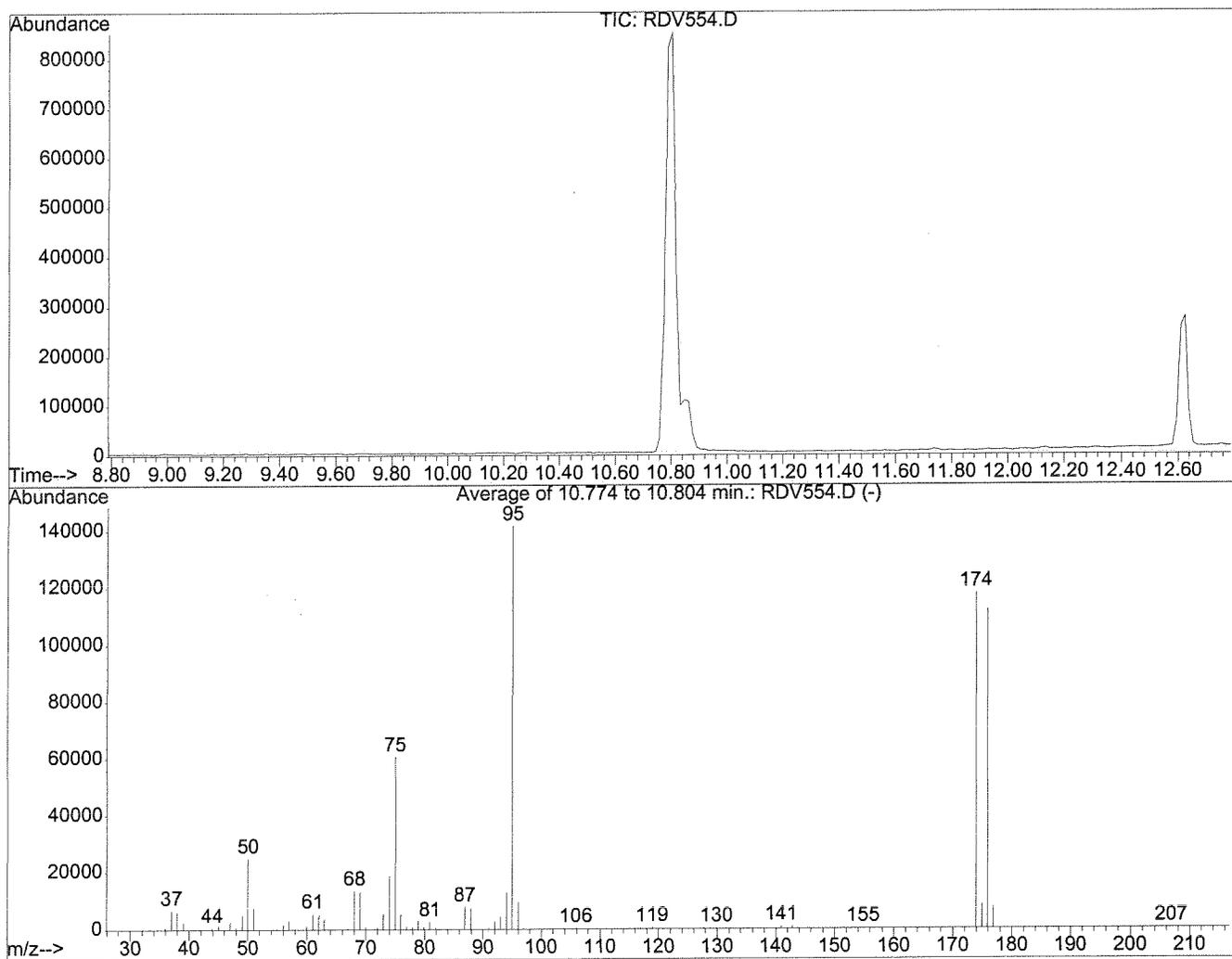
IS1 (TCP) = 1,2,3-Trichloropropane-d5

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.

Data File : D:\HPCHEM\1\DATA\15D28\RDV554.D
 Acq On : 28 Apr 2015 12:15 pm
 Sample : BFB01D24
 Misc : T/CHK
 MS Integration Params: 524C.P
 Method : D:\HPCHEM\1\METHODS\VO01A13A.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mLs

Vial: 1
 Operator: WLau
 Inst : TO01
 Multiplr: 1.00



AutoFind: Scans 388, 389, 390; Background Corrected with Scan 383

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.6 /	24920	PASS
75	95	30	60	42.9 /	60779	PASS
95	95	100	100	100.0 /	141720	PASS
96	95	5	9	6.7 /	9474	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	83.0 /	117693	PASS
175	174	5	9	7.1 /	8345	PASS
176	174	95	101	95.2 /	112051	PASS
177	176	5	9	6.7 /	7529	PASS

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D28\RDV555.D
 Acq On : 28 Apr 2015 1:09 pm
 Sample : CVO01A1311
 Misc : 100ppt
 MS Integration Params: 524C.P

Vial: 2
 Operator: WLau
 Inst : T001
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	1,2,3-TRICHLOROPROPANE-D5	100.000	100.000	0.0	113	0.01
2 T,M	1,2-Dichloroethane	100.000	102.942	-2.9	114	0.00
3 S	Toluene-d8	100.000	98.592	1.4	124	0.00
4 T,M	1,2-Dibromoethane	100.000	103.192	-3.2	117	0.01
5 P,T,M	1,1,2,2-Tetrachloroethane	100.000	102.979	-3.0	117	0.01
6 T,M	1,2,3-Trichloropropane	100.000	102.924	-2.9	123	0.00
7 T,M	1,2-Dibromo-3-chloropropane	100.000	90.483	9.5	112	0.00

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D28\RDV555.D
 Acq On : 28 Apr 2015 1:09 pm
 Sample : CVO01A1311
 Misc : 100ppt
 MS Integration Params: 524C.P

Vial: 2
 Operator: WLau
 Inst : TO01
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 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	113	0.01
2 T,M	1,2-Dichloroethane	2.156	2.219	-2.9	114	0.00
3 S	Toluene-d8	9.038	8.911	1.4	124	0.00
4 T,M	1,2-Dibromoethane	1.361	1.404	-3.2	117	0.01
5 P,T,M	1,1,2,2-Tetrachloroethane	1.555	1.601	-3.0	117	0.01
6 T,M	1,2,3-Trichloropropane	1.068	1.099	-2.9	123	0.00
7 T,M	1,2-Dibromo-3-chloropropane	0.188	0.171	9.0	112	0.00

Data File : D:\HPCHEM\1\DATA\15D28\RDV555.D
 Acq On : 28 Apr 2015 1:09 pm
 Sample : CVO01A1311
 Misc : 100ppt
 MS Integration Params: 524C.P
 Quant Time: Apr 28 13:24 2015

Vial: 2
 Operator: WLau
 Inst : TO01
 Multiplr: 1.00

Quant Results File: VO01A13.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Initial Calibration
 DataAcq Meth : VO01A13

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,2,3-TRICHLOROPROPANE-D5	10.96	79	5693	100.00	ng/l	0.01
System Monitoring Compounds						
3) Toluene-d8	7.31	98	50730	98.59	ng/l	0.00
Spiked Amount	100.000		Recovery	=	98.59%	
Target Compounds						Qvalue
2) 1,2-Dichloroethane	5.20	62	12633	102.94	ng/l	99
4) 1,2-Dibromoethane	8.75	107	7995	103.19	ng/l	97
5) 1,1,2,2-Tetrachloroethane	10.95	83	9114	102.98	ng/l	98
6) 1,2,3-Trichloropropane	11.02	75	6258	102.92	ng/l	91
7) 1,2-Dibromo-3-chloropropan	13.08	157	971	90.48	ng/l	88

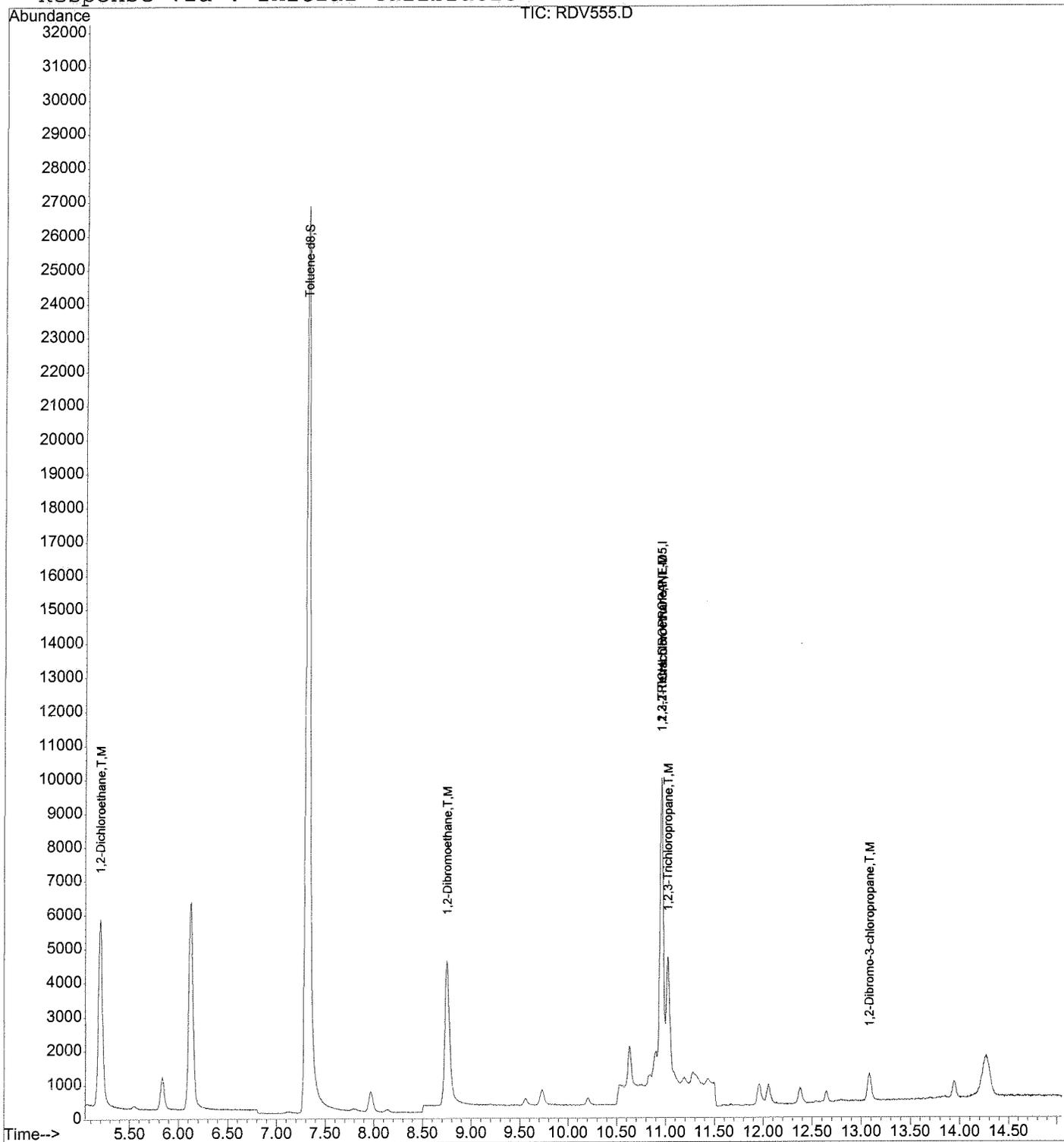
Quantitation Report

Data File : D:\HPCHEM\1\DATA\15D28\RDV555.D
Acq On : 28 Apr 2015 1:09 pm
Sample : CVO01A1311
Misc : 100ppt
MS Integration Params: 524C.P
Quant Time: Apr 28 13:24 2015

Vial: 2
Operator: WLau
Inst : T001
Multiplr: 1.00

Quant Results File: VO01A13.RES

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
Title : METHOD 8260 TCP-SIM 25mls
Last Update : Wed Jan 14 10:07:43 2015
Response via : Initial Calibration



VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
 Lab Code: EMXT
 Lab File ID: RAV178
 Instrument ID: T001

Project: B & B GROUNDWATER SAMPLING
 SDG No.: 15D157
 Date Analyzed: 01/13/15
 Time Analyzed: 12:03

	IS1(TCP) AREA #	RT #
12 HOUR STD	5060	10.95
UPPER LIMIT	10120	11.45
LOWER LIMIT	2530	10.45
SAMPLE ID		
1 VSTD100	4983	10.96
2 MBLK2W	5184	10.97
3 LCS2W	4680	10.96
4 LCD2W	5410	10.97
5 04-22-15-FDUP-4DL	5479	10.96
6 04-22-15-WB2-1DL	6002	10.96
7 04-22-15-PWB-9DL	5204	10.98
8 04-22-15-PWB-5DL	6493	10.96

IS1 (TCP) = 1,2,3-Trichloropropane-d5

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.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D29\RDV586.D
 Acq On : 29 Apr 2015 10:31 am
 Sample : CVO01A1312
 Misc : 100ppt
 MS Integration Params: 524C.P

Vial: 2
 Operator: WLau
 Inst : TO01
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	1,2,3-TRICHLOROPROPANE-D5	100.000	100.000	0.0	98	0.01
2 T,M	1,2-Dichloroethane	100.000	110.172	-10.2	107	0.01
3 S	Toluene-d8	100.000	101.789	-1.8	112	0.02
4 T,M	1,2-Dibromoethane	100.000	107.765	-7.8	107	0.01
5 P,T,M	1,1,2,2-Tetrachloroethane	100.000	104.342	-4.3	104	0.01
6 T,M	1,2,3-Trichloropropane	100.000	103.609	-3.6	109	0.01
7 T,M	1,2-Dibromo-3-chloropropane	100.000	82.509	17.5	89	0.01

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\15D29\RDV586.D
 Acq On : 29 Apr 2015 10:31 am
 Sample : CVO01A1312
 Misc : 100ppt
 MS Integration Params: 524C.P

Vial: 2
 Operator: WLau
 Inst : TO01
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO01A13.M (RTE Integrator)
 Title : METHOD 8260 TCP-SIM 25mls
 Last Update : Wed Jan 14 10:07:43 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.16min
 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	98	0.01
2 T,M	1,2-Dichloroethane	2.156	2.375	-10.2	107	0.01
3 S	Toluene-d8	9.038	9.200	-1.8	112	0.02
4 T,M	1,2-Dibromoethane	1.361	1.467	-7.8	107	0.01
5 P,T,M	1,1,2,2-Tetrachloroethane	1.555	1.622	-4.3	104	0.01
6 T,M	1,2,3-Trichloropropane	1.068	1.107	-3.7	109	0.01
7 T,M	1,2-Dibromo-3-chloropropane	0.188	0.156	17.0	89	0.01

ANALYTICAL LOG(S)



ANALYSIS LOG FOR VOLATILES

SOP EMAX-8260 Rev.No. 10 EMAX-8260C Rev.No. 0 EMAX-8260SIM Rev.No. 1 EMAX-M8260SIM Rev.No. 0 EMAX-TCPSIM Rev.No. 2 EMAX-624 Rev.No. 4

Start Date: 1/13/15 5-mL Purge 10-mL Purge 25-mL Purge

Book #: A01-048

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix			Notes
					W		S	
					pH < 2	Cl ₂ < 50ppm		
01	AAV173	BFB01A11	1-μL	N/A	N/A	N/A	VO01A13A 9:57pm	
02	174	VO01A131	0.05 μL				5 ppt	
03	175	2	0.1				10	
04	176	3	0.2				20	
05	177	4	0.5				50	
06	178	5	1				100	
07	179	6	2				200	
08	180	7	4				400	
09	181	8	10				1000	
10	182	9	20				2000	
11	183	Rinse to w/1/14/15						
12	184	1V001A1301	1				100 ppt 12-2-26pm w/1/14/15	
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

BATCH VO01A135

2255

Instrument No. 01			
INITIAL CALIBRATION REFERENCE			
DATE	1/13/15		
ICAL ID	VO01A13		
STANDARDS			
NAME	ID	Amount (μL)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SVI-24-10-02	*	2.5
BFB	SVI-23-02-02	1	50
IS/SURR.	SVI-24-09-03	1	2.5
ICV/LCS	-10-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	15A13		
	LOT #	Syringe Lot #	
pH strip	-	M06-2487-04	
Chlorine strip	-	1-05	
Methanol		M301-01-08-01	
NaHSO ₄		M04-A3652	
Reagent Water	RW4-14-001	N03-06327	
Sand			
Electronic Data Archival Location		Date	
HPCHEM_VOA/T001			

Comments: * varied amount

Analyzed By: w

Date Disposed: 1/14/15

Disposed By: w



ANALYSIS LOG FOR VOLATILES

SOP EMAX-8260 Rev.No. 10 EMAX-8260C Rev. No. 0 EMAX-8260SIM Rev.No. 1 EMAX-M8260SIM Rev.No. 0 EMAX-TCP5IM Rev.No. 2 EMAX-624 Rev.No. 4

Start Date: 4/28/15 5-mL Purge 10-mL Purge 25-mL Purge

Book #: A01-048

Sample Prep ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix			Notes
					W		S	
					pH < 2	Cl ₂ < 5ppm		
01	RDV 554	BFB 01 D24	-					
02	555	CV001A1311	-					12.5 ppm
03	556	V001 D24 L	-					
04	557	C	-					
05	558	B	2.5mL					
06	559	15D157-17M	2.5mL	1.0	✓	✓		
07	560	-17S	-		✓	✓		
08	561	-17	-		✓	✓		
09	562	15D143-16I	0.25mL	100	✓	✓		
10	563	15D157-14	2.5mL	1.0	✓	✓	10X	
11	564	-16	-		✓	✓		
12	565	-04	-		✓	✓		
13	566	-08	-		✓	✓		
14	567	-01	-		✓	✓		
15	568	-02	-		✓	✓		
16	569	-11	-		✓	✓		
17	570	-12	-		✓	✓		
18	571	-13	-		✓	✓		
19	572	-09	-		✓	✓		
20	573	-19	-		✓	✓		
21	574	-07	-		✓	✓		
22	575	-05	-		✓	✓		
23	576	-05I	1.0mL	25	✓	✓		
24	577	-07I	0.25mL	100	✓	✓		
25	578	-01I	2.5mL	10	✓	✓		
26	579	-02I	-		✓	✓		
27	580	-09I	-		✓	✓		
28	581	-11I	0.25mL	100	✓	✓		11.57 ppm
29	582+584	Rinse	-					
30								

BATCH CV001A1311

2267

Instrument No.		01	
INITIAL CALIBRATION REFERENCE			
DATE	1/13/15		
ICAL ID	V001A13		
STANDARDS			
NAME	ID	Amount (ul)	Conc. (mg/L)
DCC			
DCC			
DCC			
DCC	SV1-24-10-02	1	2.5
BFB	-17-01	1	50
IS/SURR.	-09-03	1	2.5
ICV/LCS	-10-01	1	2.5
ICV/LCS	-10-03	1	2.5
ICV/LCS			
ICV/LCS			
ICV/LCS			
Data File Folder	15028		
	LOT #	Syringe Lot #	
pH strip	H413032	MWA-01-08-01	
Chlorine strip	40719	MWA-01-07-01	
Methanol		MAD-12487-04	
NaHSO ₄		-05	
Reagent Water	RW4-14-001	MWA-01-03-01	
Sand			
Electronic Data Archival Location		Date	
HPCHEM_VOA/TO01			
Comments:			

Analyzed By: W
 Date Disposed: 4/29/15 Disposed By: W

W 4/29/15

Injection Log

Directory: D:\HPCHEM\1\DATA\15D28

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RDV554.D	1.	BFB01D24	T/CHK	28 Apr 2015 12:15
2	2	RDV555.D	1.	CVO01A1311	100ppt	28 Apr 2015 13:09
3	3	RDV556.D	1.	VO01D24L	100ppt	28 Apr 2015 13:34
4	4	RDV557.D	1.	VO01D24C	100ppt	28 Apr 2015 13:59
5	5	RDV558.D	1.	VO01D24B 25mL	BLANK	28 Apr 2015 14:24
6	6	RDV559.D	1.	15D157-17M 25mL	DF=1.0	28 Apr 2015 14:49
7	7	RDV560.D	1.	15D157-17S 25mL	DF=1.0	28 Apr 2015 15:13
8	8	RDV561.D	1.	15D157-17 25mL	DF=1.0	28 Apr 2015 15:38
9	9	RDV562.D	1.	15D143-16I 0.25mL	DF=100	28 Apr 2015 16:03
10	10	RDV563.D	1.	15D157-14 25mL	DF=1.0	28 Apr 2015 16:28
11	11	RDV564.D	1.	15D157-16 25mL	DF=1.0	28 Apr 2015 16:53
12	12	RDV565.D	1.	15D157-04 25mL	DF=1.0	28 Apr 2015 17:18
13	13	RDV566.D	1.	15D157-08 25mL	DF=1.0	28 Apr 2015 17:42
14	14	RDV567.D	1.	15D157-01 25mL	DF=1.0	28 Apr 2015 18:07
15	15	RDV568.D	1.	15D157-02 25mL	DF=1.0	28 Apr 2015 18:32
16	16	RDV569.D	1.	15D157-11 25mL	DF=1.0	28 Apr 2015 18:57
17	17	RDV570.D	1.	15D157-12 25mL	DF=1.0	28 Apr 2015 19:22
18	18	RDV571.D	1.	15D157-13 25mL	DF=1.0	28 Apr 2015 19:47
19	19	RDV572.D	1.	15D157-09 25mL	DF=1.0	28 Apr 2015 20:12
20	20	RDV573.D	1.	15D157-19 25mL	DF=1.0	28 Apr 2015 20:36
21	21	RDV574.D	1.	15D157-07 25mL	DF=1.0	28 Apr 2015 21:01
22	22	RDV575.D	1.	15D157-05 25mL	DF=1.0	28 Apr 2015 21:26
23	23	RDV576.D	1.	15D157-05I 1.0mL	DF=25	28 Apr 2015 21:51
24	24	RDV577.D	1.	15D157-07I 0.25mL	DF=100	28 Apr 2015 22:17
25	25	RDV578.D	1.	15D157-01I 2.5mL	DF=10	28 Apr 2015 22:42
26	26	RDV579.D	1.	15D157-02I 2.5mL	DF=10	28 Apr 2015 23:06
27	27	RDV580.D	1.	15D157-09I 2.5mL	DF=10	28 Apr 2015 23:31
28	28	RDV581.D	1.	15D157-11I 0.25mL	DF=100	28 Apr 2015 23:57
29	29	RDV582.D	1.	RINSE		29 Apr 2015 00:22
30	30	RDV583.D	1.	RINSE		29 Apr 2015 00:47
31	31	RDV584.D	1.	RINSE		29 Apr 2015 01:11

Injection Log

Directory: D:\HPCHEM\1\DATA\15D29

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	RDV585.D	1.	BFB01D25	T/CHK	29 Apr 2015 10:06
2	2	RDV586.D	1.	CVO01A1312	100ppt	29 Apr 2015 10:31
3	3	RDV587.D	1.	VO01D25L	100ppt	29 Apr 2015 11:07
4	4	RDV588.D	1.	VO01D25C	100ppt	29 Apr 2015 11:32
5	5	RDV589.D	1.	VO01D25B 25mL	BLANK	29 Apr 2015 11:57
6	6	RDV590.D	1.	15D157-12I 0.25mL	DF=100	29 Apr 2015 12:32
7	7	RDV591.D	1.	15D157-13I 0.1mL	DF=250	29 Apr 2015 12:56
8	8	RDV592.D	1.	15D157-14I 2.5mL	DF=10	29 Apr 2015 13:21
9	9	RDV593.D	1.	15D157-19I 1.0mL	DF=25	29 Apr 2015 13:46
10	10	RDV594.D	1.	15D156-01 25mL	DF=1.0	29 Apr 2015 14:11
11	11	RDV595.D	1.	15D156-02 25mL	DF=1.0	29 Apr 2015 14:36
12	12	RDV596.D	1.	15D156-03 25mL	DF=1.0	29 Apr 2015 15:01
13	13	RDV597.D	1.	15D156-06 25mL	DF=1.0	29 Apr 2015 15:26
14	14	RDV598.D	1.	15D156-07 25mL	DF=1.0	29 Apr 2015 15:51
15	15	RDV599.D	1.	15D156-10 25mL	DF=1.0	29 Apr 2015 16:16
16	16	RDV600.D	1.	15D156-11 25mL	DF=1.0	29 Apr 2015 16:40
17	17	RDV601.D	1.	15D156-05 25mL	DF=1.0	29 Apr 2015 17:05
18	18	RDV602.D	1.	15D156-08 25mL	DF=1.0	29 Apr 2015 17:30
19	19	RDV603.D	1.	15D156-05I 2.5mL	DF=10	29 Apr 2015 17:55
20	20	RDV604.D	1.	15D156-08I 2.5mL	DF=10	29 Apr 2015 18:20
21	21	RDV605.D	1.	VO01D26L		29 Apr 2015 18:45
22	22	RDV606.D	1.	VO01D26C		29 Apr 2015 19:10

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

METHOD 8151A
HERBICIDES

SDG#: 15D157

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D157

METHOD 8151A HERBICIDES

A total of fourteen (14) water samples were received on 04/23/15 to be analyzed for Herbicides in accordance with Method 8151A and project specific requirements.

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 prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. HED011WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. Dinoseb was within LCS QC limits in HED011WL/HED011WC. Refer to LCS summary form for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed. Dinoseb was within MS QC limits in D157-17M/S. Refer to Matrix QC summary form for details.

Surrogate

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

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
HERBICIDES

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING

SDG NO. : 15D157
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	HED011WB	1	NA	04/28/1518:03	04/28/1510:15	QD28003A	QD28002A	HED011W	Method Blank
LCS1W	HED011WL	1	NA	04/28/1518:37	04/28/1510:15	QD28004A	QD28002A	HED011W	Lab Control Sample (LCS)
LCD1W	HED011WC	1	NA	04/28/1519:12	04/28/1510:15	QD28005A	QD28002A	HED011W	LCS Duplicate
04-22-15-PWB-16	D157-01	1	NA	04/28/1520:56	04/28/1510:15	QD28008A	QD28002A	HED011W	Field Sample
04-22-15-PWB-14	D157-02	1	NA	04/28/1521:30	04/28/1510:15	QD28009A	QD28002A	HED011W	Field Sample
04-22-15-AMW-4R	D157-04	1	NA	04/28/1522:05	04/28/1510:15	QD28010A	QD28002A	HED011W	Field Sample
04-22-15-PWB-12	D157-05I	20	NA	04/29/1512:24	04/28/1510:15	QD28035A	QD28034A	HED011W	Diluted Sample
04-22-15-PWB-7A	D157-07I	10	NA	04/29/1512:52	04/28/1510:15	QD28036A	QD28034A	HED011W	Diluted Sample
04-22-15-PWB-15	D157-08	1	NA	04/29/1501:34	04/28/1510:15	QD28016A	QD28015A	HED011W	Field Sample
04-22-15-WB2-2	D157-09	1	NA	04/29/1502:08	04/28/1510:15	QD28017A	QD28015A	HED011W	Field Sample
04-22-15-PWB-4	D157-11I	10	NA	04/29/1513:20	04/28/1510:15	QD28037A	QD28034A	HED011W	Diluted Sample
04-22-15-FDUP-4	D157-12I	10	NA	04/29/1513:49	04/28/1510:15	QD28038A	QD28034A	HED011W	Diluted Sample
04-22-15-WB2-1	D157-13I	20	NA	04/29/1514:17	04/28/1510:15	QD28039A	QD28034A	HED011W	Diluted Sample
04-22-15-PWB-9	D157-14	1	NA	04/29/1504:27	04/28/1510:15	QD28021A	QD28015A	HED011W	Field Sample
04-22-15-WB2-4	D157-16	1	NA	04/29/1505:02	04/28/1510:15	QD28022A	QD28015A	HED011W	Field Sample
04-22-15-PWB-10	D157-17	1	NA	04/29/1505:36	04/28/1510:15	QD28023A	QD28015A	HED011W	Field Sample
04-22-15-PWB-5	D157-19	1	NA	04/29/1506:11	04/28/1510:15	QD28024A	QD28015A	HED011W	Field Sample
04-22-15-PWB-10MS	D157-17M	1	NA	04/28/1519:46	04/28/1510:15	QD28006A	QD28002A	HED011W	Matrix Spike Sample (MS)
04-22-15-PWB-10MSD	D157-17S	1	NA	04/28/1520:21	04/28/1510:15	QD28007A	QD28002A	HED011W	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 8151A
HERBICIDES

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 10:15
Sample ID: 04-22-15-PWB-16                    Date Analyzed: 04/28/15 20:56
Lab Samp ID: D157-01                          Dilution Factor: 1
Lab File ID: QD28008A                         Matrix          : WATER
Ext Btch ID: HED011W                          % Moisture     : NA
Calib. Ref.: QD28002A                         Instrument ID  : GCT009
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)	
DINOSEB	0.58 (0.60)	0.40	0.20 0.20	
SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	11.84 (11.98)	10.00	118 (120)	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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 10:15
Sample ID: 04-22-15-PWB-14                   Date Analyzed: 04/28/15 21:30
Lab Samp ID: D157-02                         Dilution Factor: 1
Lab File ID: QD28009A                        Matrix          : WATER
Ext Btch ID: HED011W                         % Moisture     : NA
Calib. Ref.: QD28002A                        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	10.51 (11.54)	10.00	105 (115)	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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING     Date Received: 04/23/15
Batch No.   : 15D157                         Date Extracted: 04/28/15 10:15
Sample ID: 04-22-15-AMW-4R                   Date Analyzed: 04/28/15 22:05
Lab Samp ID: D157-04                          Dilution Factor: 1
Lab File ID: QD28010A                         Matrix          : WATER
Ext Btch ID: HED011W                          % Moisture      : NA
Calib. Ref.: QD28002A                         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	(9.983) 9.759	10.00	(99.8) 97.6	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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 10:15
Sample ID: 04-22-15-PWB-12                   Date Analyzed: 04/29/15 12:24
Lab Samp ID: D157-051                        Dilution Factor: 20
Lab File ID: QD28035A                        Matrix          : WATER
Ext Btch ID: HED011W                         % Moisture      : NA
Calib. Ref.: QD28034A                        Instrument ID   : GCT009
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)	
DINOSEB	(21) 21	8.0	4.0 4.0	
SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	14.05 (13.22)	10.00	141* (132)	40-140

Left of | is related to first column; Right of | related to second column
Final result indicated by ()

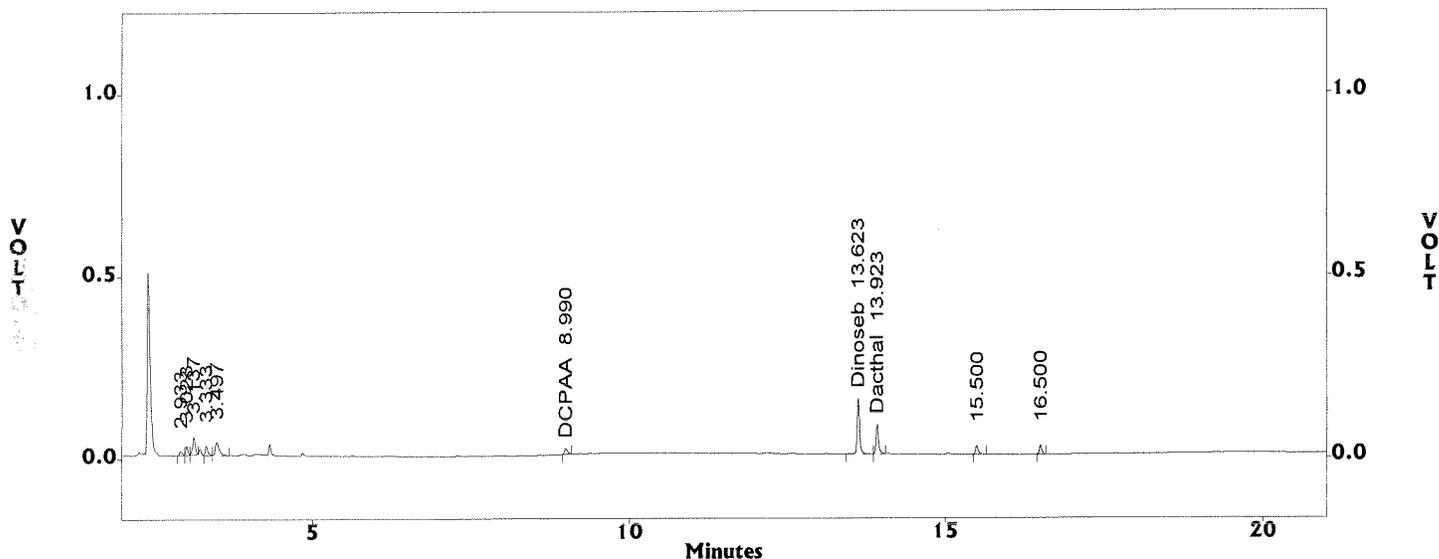
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.035
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : D157-05I DF=20
 Acquired : Apr 29, 2015 12:24:19
 Printed : Apr 29, 2015 12:49:31
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.853	0.0	0.00	0.000	--
3,5 Dichlorobenzo	7.717	0.0	0.00	0.000	--
4-Nitrophenol	8.610	0.0	0.00	0.000	--
DCPAA	8.990	52700.0	750.10	1405.146	vv
Dicamba	9.203	0.0	0.00	0.000	--
MCPP	9.500	0.0	0.00	0.000	--
MCPA	9.707	0.0	0.00	0.000	--
DCP	10.183	0.0	0.00	0.000	--
2,4-D	10.483	0.0	0.00	0.000	--
Pentachlorophenol	10.720	0.0	0.00	0.000	--
Silvex	11.497	0.0	0.00	0.000	--
Chloramben	11.673	0.0	0.00	0.000	--
2,4,5-T	11.830	0.0	0.00	0.000	--
2,4-DB	12.463	0.0	0.00	0.000	--
Bentazon/Picloram	13.460	0.0	0.00	0.000	--
Dinoseb	13.623	422052.0	4088.80	2064.431	✓ BV
Dacthal	13.923	220114.0	6873.97	640.427	VV
Acifluorfen	16.590	0.0	0.00	0.000	--

c:\ezchrom\chrom\qd28\qd28.035 -- Channel A



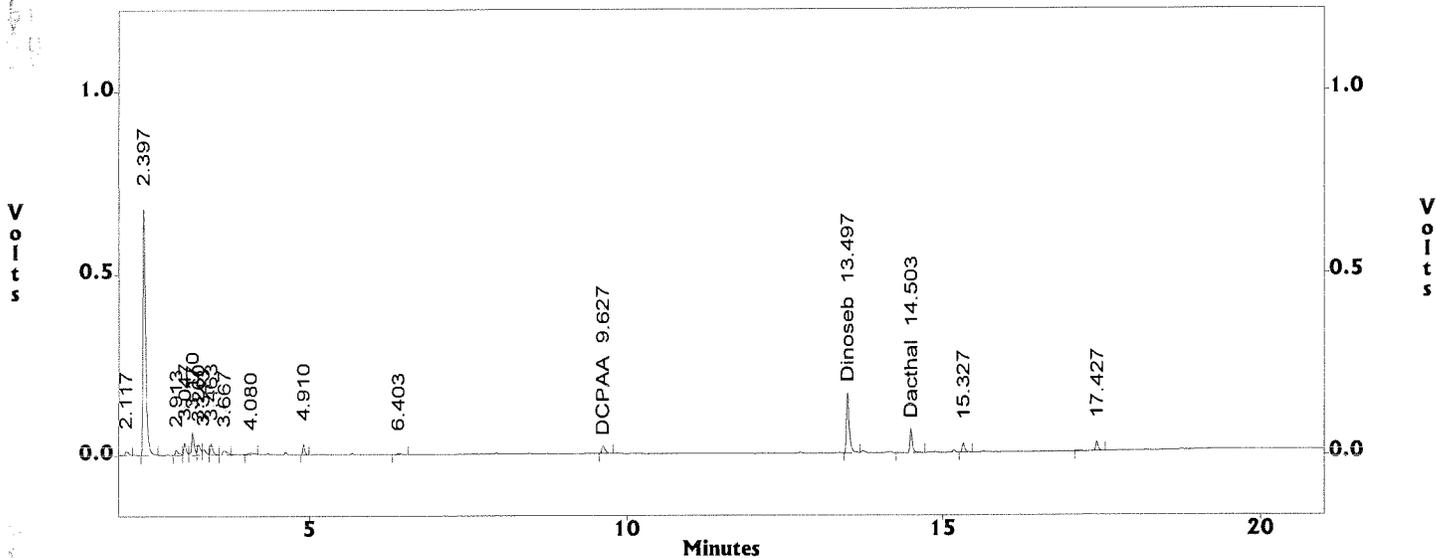
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.035
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : D157-05I DF=20
 Acquired : Apr 29, 2015 12:24:19
 Printed : Apr 29, 2015 12:49:32
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.860	0.0	0.00	0.000	--
3,5 Dichlorobenzoic	8.097	0.0	0.00	0.000	--
4-Nitrophenol	8.923	0.0	0.00	0.000	--
DCPAA	9.627	71499.0	1082.03	1321.576	BV
Dicamba	9.850	0.0	0.00	0.000	--
MCPP	10.027	0.0	0.00	0.000	--
MCPA	10.347	0.0	0.00	0.000	--
DCP	10.773	0.0	0.00	0.000	--
2,4-D	11.173	0.0	0.00	0.000	--
Pentachlorophenol	11.630	0.0	0.00	0.000	--
Silvex	12.137	0.0	0.00	0.000	--
2,4,5-T	12.590	0.0	0.00	0.000	--
Chloramben	12.637	0.0	0.00	0.000	--
2,4-DB	13.170	0.0	0.00	0.000	--
Dinoseb	13.497	523029.0	4871.89	2147.128	VV
Bentazon	14.107	0.0	0.00	0.000	--
Dacthal	14.503	167624.0	6624.78	506.052	VV
Picloram	14.590	0.0	0.00	0.000	--
Acifluorfen	16.790	0.0	0.00	0.000	--

c:\ezchrom\chrom\qd28\qd28.035 -- Channel B



METHOD 8151A
HERBICIDES

```

=====
Client      : ECO & ASSOCIATES, INC.           Date Collected: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 10:15
Sample ID: 04-22-15-PWB-7A                   Date Analyzed: 04/29/15 12:52
Lab Samp ID: D157-071                        Dilution Factor: 10
Lab File ID: QD28036A                        Matrix          : WATER
Ext Btch ID: HED011W                         % Moisture      : NA
Calib. Ref.: QD28034A                        Instrument ID   : GCT009
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)	
DINOSEB	(7.7) 7.7	4.0	2.0 2.0	
SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	14.19 (12.73)	10.00	142* (127)	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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 10:15
Sample ID: 04-22-15-PWB-15                    Date Analyzed: 04/29/15 01:34
Lab Samp ID: D157-08                          Dilution Factor: 1
Lab File ID: QD28016A                         Matrix          : WATER
Ext Btch ID: HED011W                          % Moisture      : NA
Calib. Ref.: QD28015A                         Instrument ID   : GCT009
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)	
DINOSEB	0.35J (0.38J)	0.40	0.20 0.20	
SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(9.657) 9.588	10.00	(96.6) 95.9	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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING     Date Received: 04/23/15
Batch No.   : 15D157                         Date Extracted: 04/28/15 10:15
Sample ID: 04-22-15-WB2-2                   Date Analyzed: 04/29/15 02:08
Lab Samp ID: D157-09                        Dilution Factor: 1
Lab File ID: QD28017A                       Matrix          : WATER
Ext Btch ID: HED011W                       % Moisture     : NA
Calib. Ref.: QD28015A                      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	8.515 (8.532)	10.00	85.2 (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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 10:15
Sample ID: 04-22-15-PWB-4                    Date Analyzed: 04/29/15 13:20
Lab Samp ID: D157-111                        Dilution Factor: 10
Lab File ID: QD28037A                        Matrix          : WATER
Ext Btch ID: HED011W                         % Moisture      : NA
Calib. Ref.: QD28034A                        Instrument ID   : GCT009
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)	
DINOSEB	7.1 (7.5)	4.0	2.0 2.0	
SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	14.43 (14.07)	10.00	144* (131)	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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING     Date Received: 04/23/15
Batch No.   : 15D157                         Date Extracted: 04/28/15 10:15
Sample ID: 04-22-15-FDUP-4                  Date Analyzed: 04/29/15 13:49
Lab Samp ID: D157-121                       Dilution Factor: 10
Lab File ID: QD28038A                       Matrix          : WATER
Ext Btch ID: HED011W                        % Moisture      : NA
Calib. Ref.: QD28034A                       Instrument ID   : GCT009
=====

```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)	
DINOSEB	7.1 (7.3)	4.0	2.0 2.0	
SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	15.13 (13.96)	10.00	151* (140)	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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 10:15
Sample ID   : 04-22-15-WB2-1                 Date Analyzed: 04/29/15 14:17
Lab Samp ID : D157-13I                       Dilution Factor: 20
Lab File ID : QD28039A                       Matrix          : WATER
Ext Btch ID : HED011W                        % Moisture      : NA
Calib. Ref. : QD28034A                       Instrument ID   : GCT009
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)	
DINOSEB	(18) 18	8.0	4.0 4.0	
SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	15.76 (13.86)	10.00	158* (139)	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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 10:15
Sample ID: 04-22-15-PWB-9                    Date Analyzed: 04/29/15 04:27
Lab Samp ID: D157-14                         Dilution Factor: 1
Lab File ID: QD28021A                        Matrix          : WATER
Ext Btch ID: HED011W                         % Moisture     : NA
Calib. Ref.: QD28015A                       Instrument ID  : GCT009
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)	
DINOSEB	1.1 (1.2)	0.40	0.20 0.20	
SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(10.36) 10.25	10.00	(104) 103	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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 10:15
Sample ID: 04-22-15-WB2-4                    Date Analyzed: 04/29/15 05:02
Lab Samp ID: D157-16                         Dilution Factor: 1
Lab File ID: QD28022A                        Matrix          : WATER
Ext Btch ID: HED011W                        % Moisture      : NA
Calib. Ref.: QD28015A                       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	(10.50) 10.14	10.00	(105) 101	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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING      Date Received: 04/23/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 10:15
Sample ID: 04-22-15-PWB-10                   Date Analyzed: 04/29/15 05:36
Lab Samp ID: D157-17                         Dilution Factor: 1
Lab File ID: QD28023A                        Matrix          : WATER
Ext Btch ID: HED011W                         % Moisture     : NA
Calib. Ref.: QD28015A                        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	(9.844) 9.614	10.00	(98.4) 96.1	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: 04/22/15
Project     : B & B GROUNDWATER SAMPLING     Date Received: 04/23/15
Batch No.   : 15D157                         Date Extracted: 04/28/15 10:15
Sample ID: 04-22-15-PWB-5                   Date Analyzed: 04/29/15 06:11
Lab Samp ID: D157-19                        Dilution Factor: 1
Lab File ID: QD28024A                       Matrix          : WATER
Ext Btch ID: HED011W                        % Moisture     : NA
Calib. Ref.: QD28015A                       Instrument ID  : GCT009
=====
  
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)	
DINOSEB	1.8 (1.9)	0.40	0.20 0.20	
SURROGATE PARAMETERS	RESULTS	SPK_AMT	% RECOVERY	QC LIMIT
2,4-DCPAA	(10.20) 9.930	10.00	(102) 99.3	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     : B & B GROUNDWATER SAMPLING      Date Received: 04/28/15
Batch No.   : 15D157                          Date Extracted: 04/28/15 10:15
Sample ID   : MBLK1W                          Date Analyzed: 04/28/15 18:03
Lab Samp ID: HED011WB                        Dilution Factor: 1
Lab File ID: QD28003A                        Matrix          : WATER
Ext Btch ID: HED011W                         % Moisture      : NA
Calib. Ref.: QD28002A                       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	(9.246) 9.170	10.00	(92.5) 91.7	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: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D157
METHOD: METHOD 8151A

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: HED011WB HED011WL HED011WC
LAB FILE ID: QD28003A QD28004A QD28005A
DATE EXTRACTED: 04/28/1510:15 04/28/1510:15 04/28/1510:15 DATE COLLECTED: NA
DATE ANALYZED: 04/28/1518:03 04/28/1518:37 04/28/1519:12 DATE RECEIVED: 04/28/15
PREP. BATCH: HED011W HED011W HED011W
CALIB. REF: QD28002A QD28002A QD28002A

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	(0.675) 0.644	(68) 64	1.00	(0.622) 0.606	(62) 61	(8) 6	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	(10.03) 9.925	(100) 99.3	10.00	8.288 (8.476)	82.9 (84.8)	40-140

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D157
METHOD: METHOD 8151A

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: 04-22-15-PWB-10
LAB SAMP ID: D157-17 D157-17M D157-17S
LAB FILE ID: QD28023A QD28006A QD28007A
DATE EXTRACTED: 04/28/1510:15 04/28/1510:15 04/28/1510:15 DATE COLLECTED: 04/22/15
DATE ANALYZED: 04/29/1505:36 04/28/1519:46 04/28/1520:21 DATE RECEIVED: 04/23/15
PREP. BATCH: HED011W HED011W HED011W
CALIB. REF: QD28015A QD28002A QD28002A

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	(0.758) 0.727	(76) 73	1.00	(0.882) 0.681	(88) 68	(15) 7	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	9.351 (9.637)	93.5 (96.4)	10.00	9.653 (10.07)	96.5 (101)	40-140

QC DATA

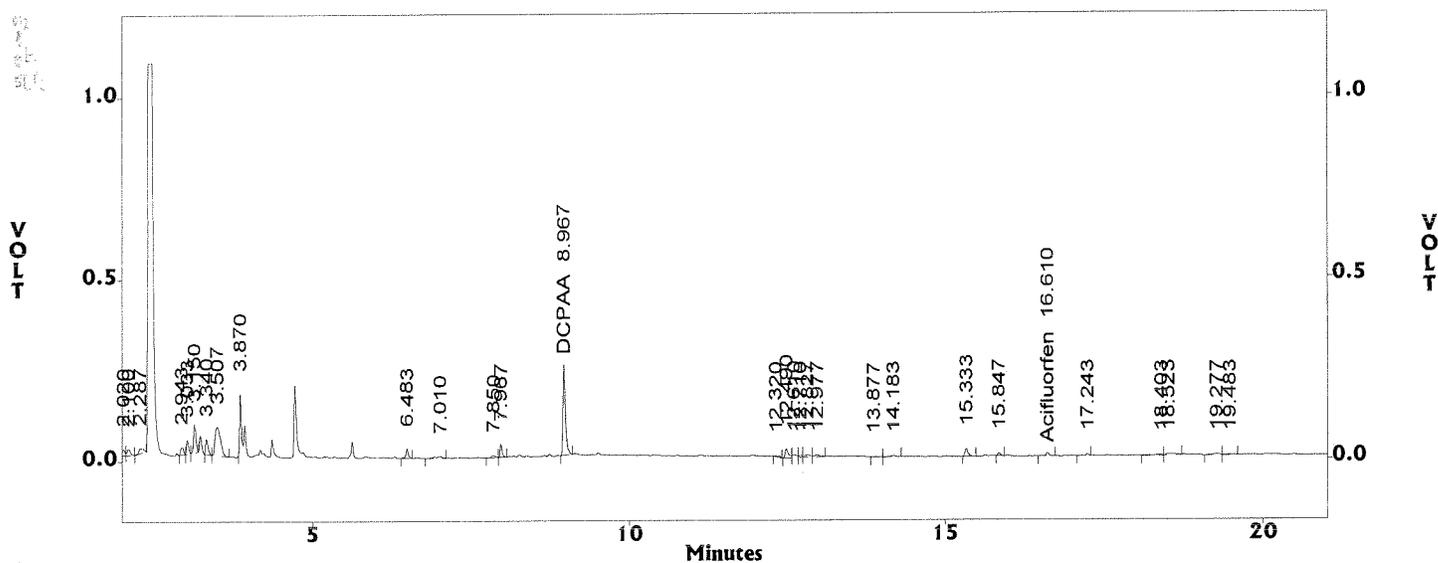
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED011WB
Acquired : Apr 28, 2015 18:03:10
Printed : Apr 29, 2015 16:19:43
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.853	0.0	0.00	0.000	--
3,5 Dichlorobenzo	7.720	0.0	0.00	0.000	--
4-Nitrophenol	8.613	0.0	0.00	0.000	--
DCPAA	8.967	693553.0	750.10	924.614	vv
Dicamba	9.207	0.0	0.00	0.000	--
MCPP	9.503	0.0	0.00	0.000	--
MCPA	9.710	0.0	0.00	0.000	--
DCP	10.187	0.0	0.00	0.000	--
2,4-D	10.483	0.0	0.00	0.000	--
Pentachlorophenol	10.727	0.0	0.00	0.000	--
Silvex	11.500	0.0	0.00	0.000	--
Chloramben	11.673	0.0	0.00	0.000	--
2,4,5-T	11.830	0.0	0.00	0.000	--
2,4-DB	12.460	0.0	0.00	0.000	--
Bentazon/Picloram	13.457	0.0	0.00	0.000	--
Dinoseb	13.627	0.0	0.00	0.000	--
Dacthal	13.923	0.0	0.00	0.000	--
Acifluorfen	16.610	26195.0	4699.56	5.574	vv

c:\ezchrom\chrom\qd28\qd28.003 -- Channel A



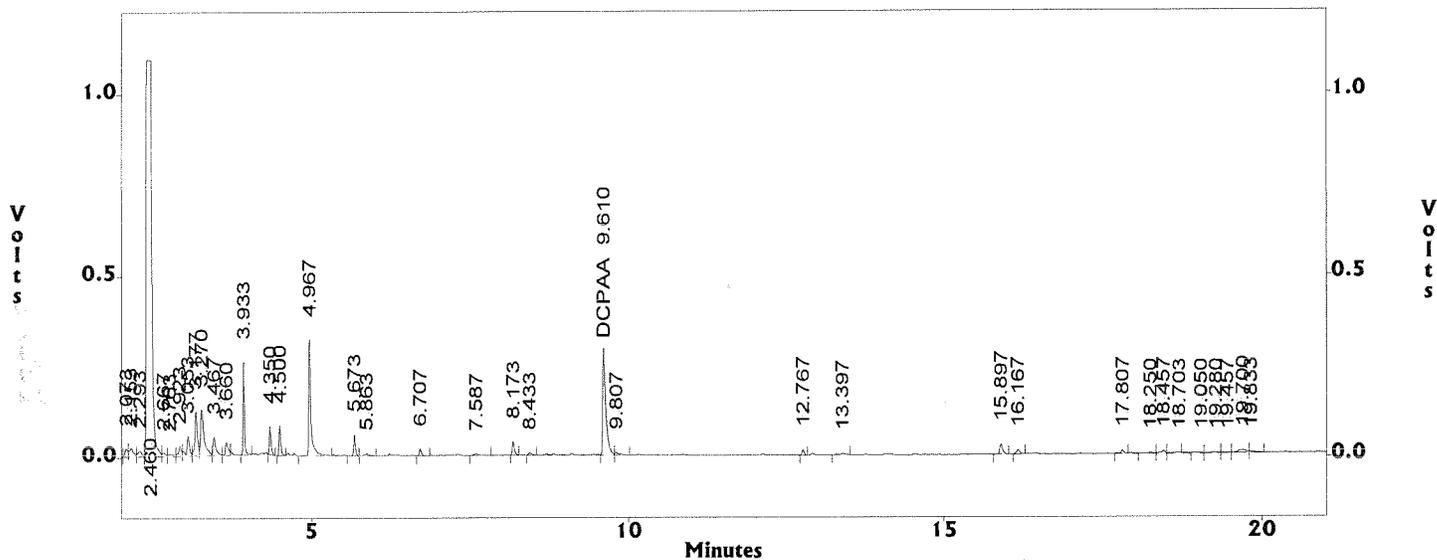
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED011WB
Acquired : Apr 28, 2015 18:03:10
Printed : Apr 29, 2015 16:19:44
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.860	0.0	0.00	0.000	--
3,5 Dichlorobenzoic	8.097	0.0	0.00	0.000	--
4-Nitrophenol	8.927	0.0	0.00	0.000	--
DCPAA	9.610	992267.0	1082.03	917.045	VV
Dicamba	9.853	0.0	0.00	0.000	--
MCPP	10.030	0.0	0.00	0.000	--
MCPA	10.347	0.0	0.00	0.000	--
DCP	10.777	0.0	0.00	0.000	--
2,4-D	11.177	0.0	0.00	0.000	--
Pentachlorophenol	11.633	0.0	0.00	0.000	--
Silvex	12.137	0.0	0.00	0.000	--
2,4,5-T	12.590	0.0	0.00	0.000	--
Chloramben	12.637	0.0	0.00	0.000	--
2,4-DB	13.170	0.0	0.00	0.000	--
Dinoseb	13.497	0.0	0.00	0.000	--
Bentazon	14.103	0.0	0.00	0.000	--
Dacthal	14.503	0.0	0.00	0.000	--
Picloram	14.587	0.0	0.00	0.000	--
Acifluorfen	16.790	0.0	0.00	0.000	--

c:\ezchrom\chrom\qd28\qd28.003 -- Channel B



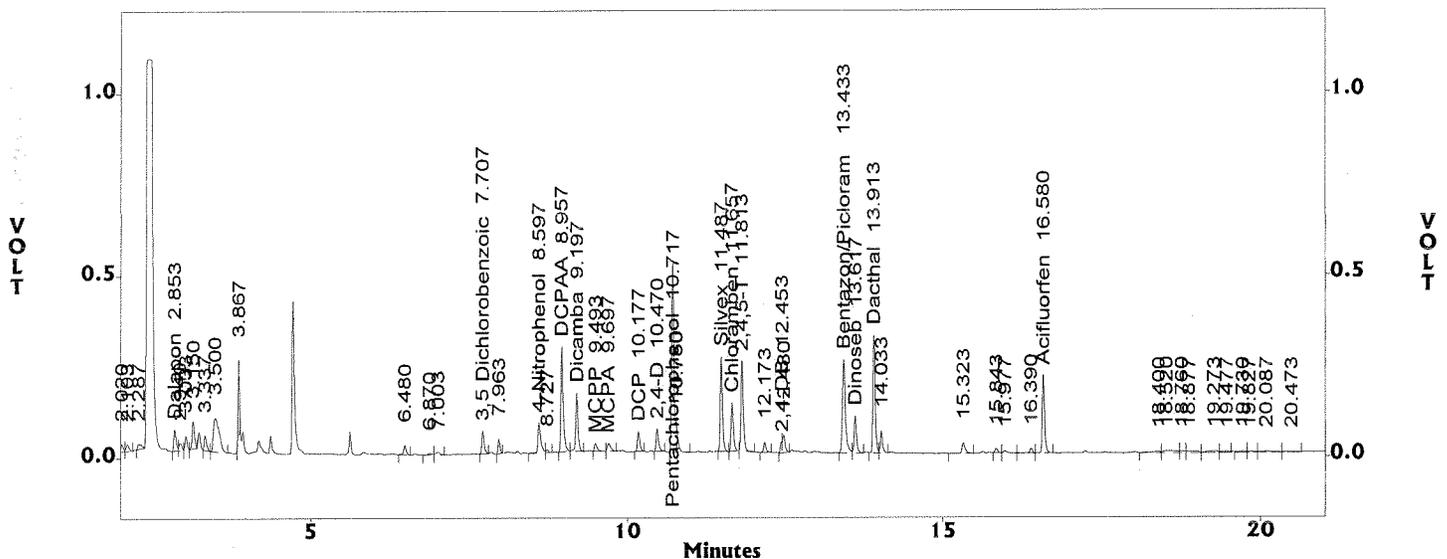
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED011WL
Acquired : Apr 28, 2015 18:37:48
Printed : Apr 29, 2015 17:18:22
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	2.853	151459.0	1656.60	91.428	VV
3,5 Dichlorobenzo	7.707	161189.0	1722.43	93.582	VV
4-Nitrophenol	8.597	268995.0	1289.87	208.544	VV
DCPAA	8.957	752452.0	750.10	1003.135	vv
Dicamba	9.197	404112.0	3238.35	124.790	vv
MCPP	9.493	65816.0	8.42	7819.403	VV
MCPA	9.697	85352.0	15.83	5391.573	VV
DCP	10.177	145601.0	1193.88	121.956	VI
2,4-D	10.470	174561.0	1510.05	115.599	VI
Pentachlorophenol	10.717	1329519.0	12495.55	106.399	BS
Silvex	11.487	636383.0	5002.75	127.207	vv
Chloramben	11.657	346523.0	4132.75	83.848	VV
2,4,5-T	11.813	653689.0	5396.66	121.129	VV
2,4-DB	12.453	54346.0	801.45	67.810	VS
Bentazon/Picloram	13.433	833884.0	3540.81	235.506	VV
Dinoseb	13.617	276163.0	4088.80	67.541	VV
Dacthal	13.913	810622.0	6873.97	117.926	VV
Acifluorfen	16.580	549631.0	4699.56	116.954	vv

c:\ezchrom\chrom\qd28\qd28.004 -- Channel A



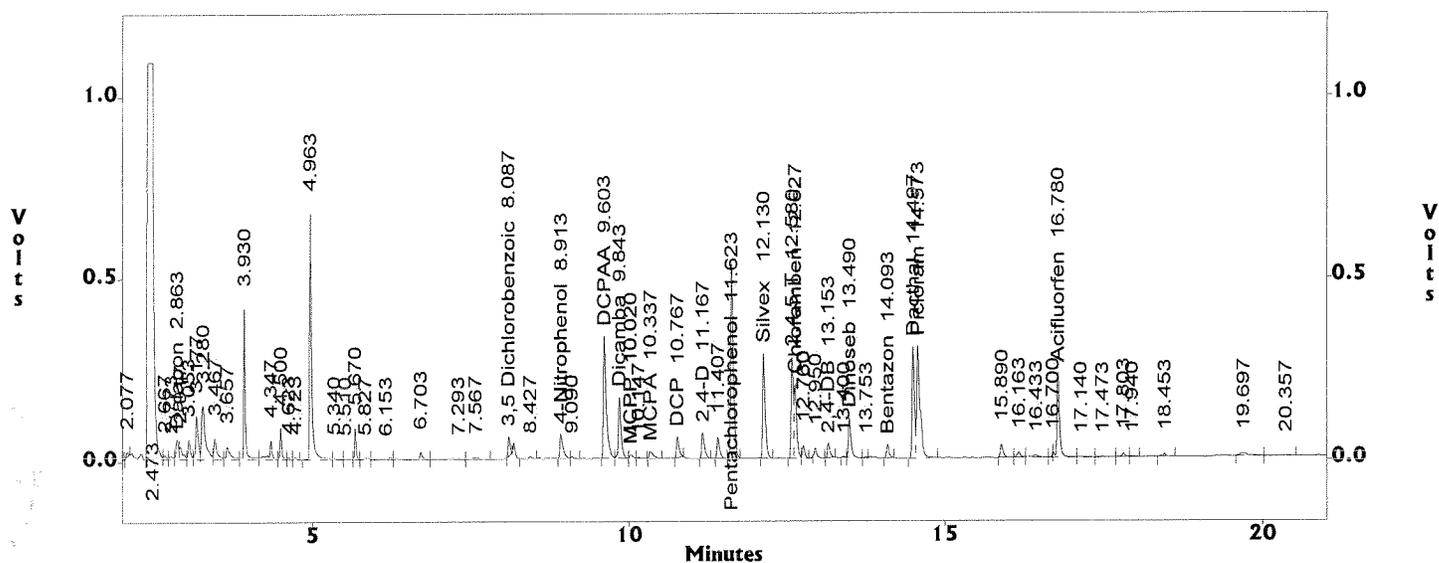
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.004
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED011WL
Acquired : Apr 28, 2015 18:37:48
Printed : Apr 29, 2015 17:18:22
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.863	147646.0	1730.88	85.301	Sx
3,5 Dichlorobenzoic	8.087	124706.0	1937.97	64.349	BS
4-Nitrophenol	8.913	239740.0	1457.43	164.495	SV
DCPAA	9.603	1073926.0	1082.03	992.514	vv
Dicamba	9.843	475372.0	3890.32	122.194	vv
MCPP	10.020	34107.0	8.21	4151.805	vv
MCPA	10.337	92244.0	17.76	5195.251	VV
DCP	10.767	162481.0	1485.51	109.377	SI
2,4-D	11.167	227618.0	1894.33	120.157	BI
Pentachlorophenol	11.623	1617770.0	14739.16	109.760	Vx
Silvex	12.130	808745.0	5953.99	135.832	BI
2,4,5-T	12.580	667810.0	4983.71	133.999	Vx
Chloramben	12.627	579640.0	6012.12	96.412	xV
2,4-DB	13.153	116844.0	1025.98	113.886	VI
Dinoseb	13.490	313953.0	4871.89	64.442	SV
Bentazon	14.093	99566.0	803.13	123.972	VI
Dacthal	14.497	792662.0	6624.78	119.651	BS
Picloram	14.573	1167549.0	8580.05	136.077	SB
Acifluorfen	16.780	687383.0	6000.10	114.562	SV

c:\ezchrom\chrom\qd28\qd28.004 -- Channel B



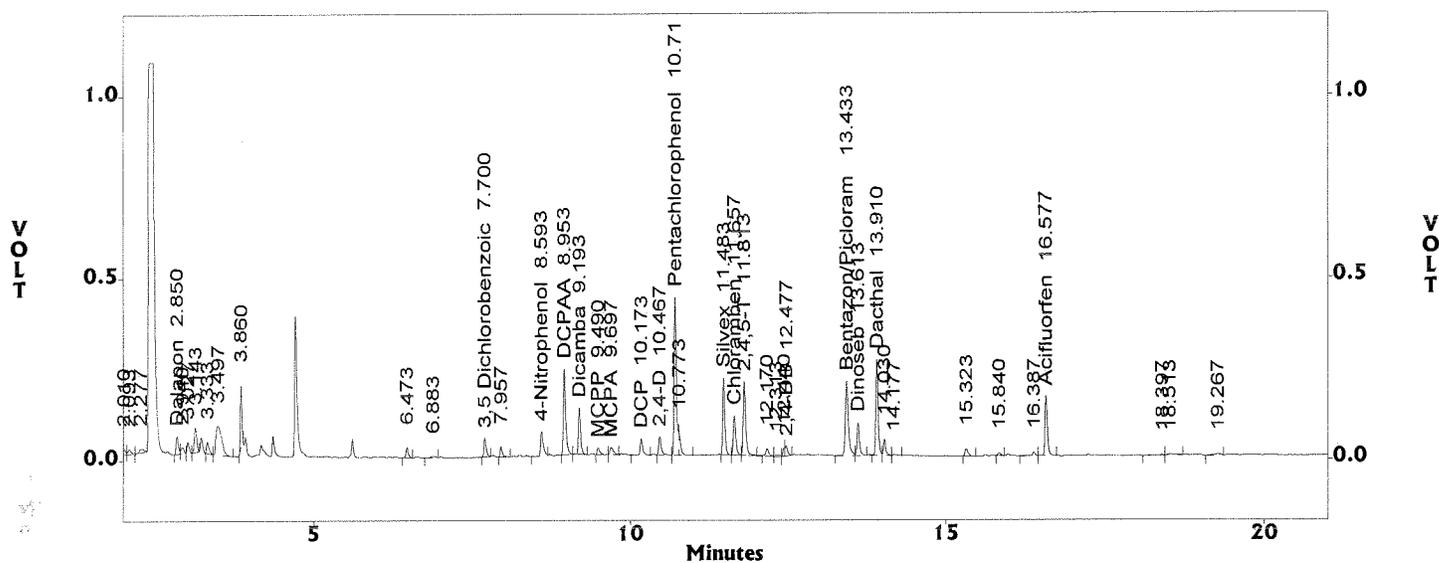
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.005
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HED011WC
Acquired : Apr 28, 2015 19:12:20
Printed : Apr 29, 2015 16:25:39
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.850	132340.0	1656.60	79.887	VV
3,5 Dichlorobenzo	7.700	140306.0	1722.43	81.458	VV
4-Nitrophenol	8.593	217070.0	1289.87	168.288	VV
DCPAA	8.953	621715.0	750.10	828.843	vv
Dicamba	9.193	317132.0	3238.35	97.930	vv
MCPP	9.490	55552.0	8.42	6599.968	VV
MCPA	9.697	75822.0	15.83	4789.576	VV
DCP	10.173	128019.0	1193.88	107.229	VV
2,4-D	10.467	158287.0	1510.05	104.822	VV
Pentachlorophenol	10.713	1116752.0	12495.55	89.372	VS
Silvex	11.483	519865.0	5002.75	103.916	BV
Chloramben	11.657	303486.0	4132.75	73.434	VV
2,4,5-T	11.813	578403.0	5396.66	107.178	VV
2,4-DB	12.477	80149.0	801.45	100.006	xV
Bentazon/Picloram	13.433	686911.0	3540.81	193.998	BV
Dinoseb	13.613	254133.0	4088.80	62.153	VV
Dacthal	13.910	668874.0	6873.97	97.305	VV
Acifluorfen	16.577	429505.0	4699.56	91.393	vv

c:\ezchrom\chrom\qd28\qd28.005 -- Channel A



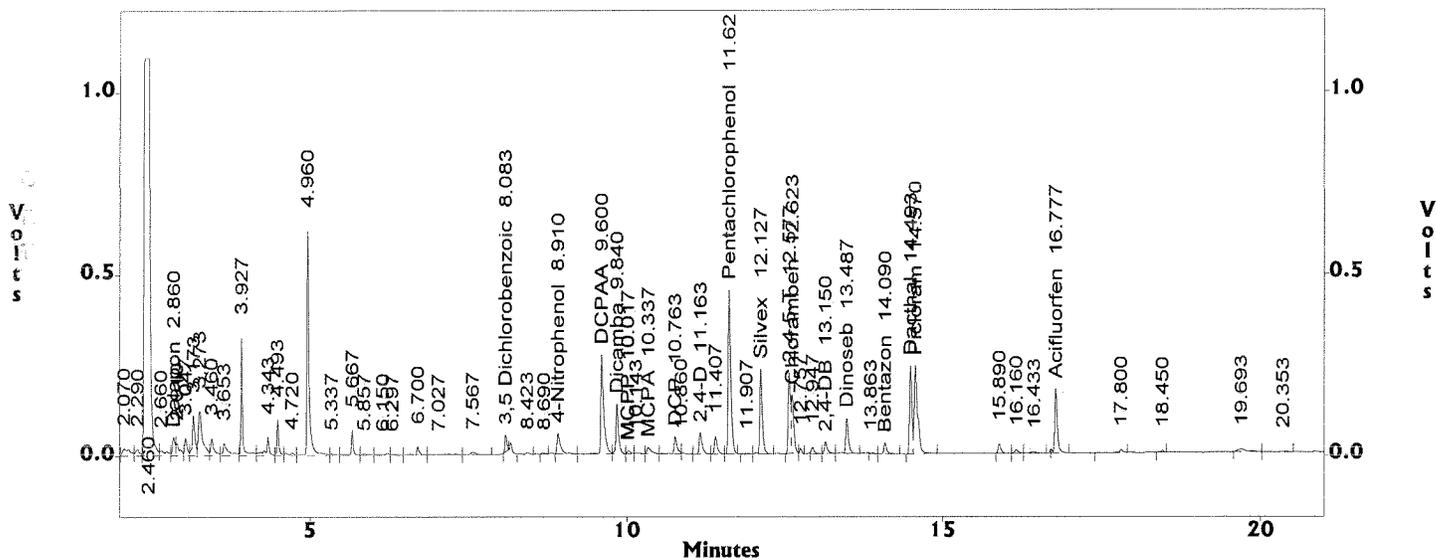
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.005
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : HED011WC
 Acquired : Apr 28, 2015 19:12:20
 Printed : Apr 29, 2015 16:25:39
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	2.860	151815.0	1730.88	87.710	Sx
3,5 Dichlorobenzoic	8.083	108028.0	1937.97	55.743	VS
4-Nitrophenol	8.910	213505.0	1457.43	146.494	Sx
DCPAA	9.600	917134.0	1082.03	847.608	VV
Dicamba	9.840	405491.0	3890.32	104.231	VV
MCPP	10.017	35179.0	8.21	4282.298	VV
MCPA	10.337	88241.0	17.76	4969.799	VV
DCP	10.763	177482.0	1485.51	119.476	Vx
2,4-D	11.163	196333.0	1894.33	103.642	VV
Pentachlorophenol	11.620	1351926.0	14739.16	91.723	Vx
Silvex	12.127	670402.0	5953.99	112.597	VV
2,4,5-T	12.577	559941.0	4983.71	112.354	Vx
Chloramben	12.623	422355.0	6012.12	70.251	xS
2,4-DB	13.150	104270.0	1025.98	101.630	vv
Dinoseb	13.487	295313.0	4871.89	60.616	vv
Bentazon	14.090	90190.0	803.13	112.298	vv
Dacthal	14.493	630580.0	6624.78	95.185	VS
Picloram	14.570	917697.0	8580.05	106.957	SB
Acifluorfen	16.777	503732.0	6000.10	83.954	SB

c:\ezchrom\chrom\qd28\qd28.005 -- Channel B



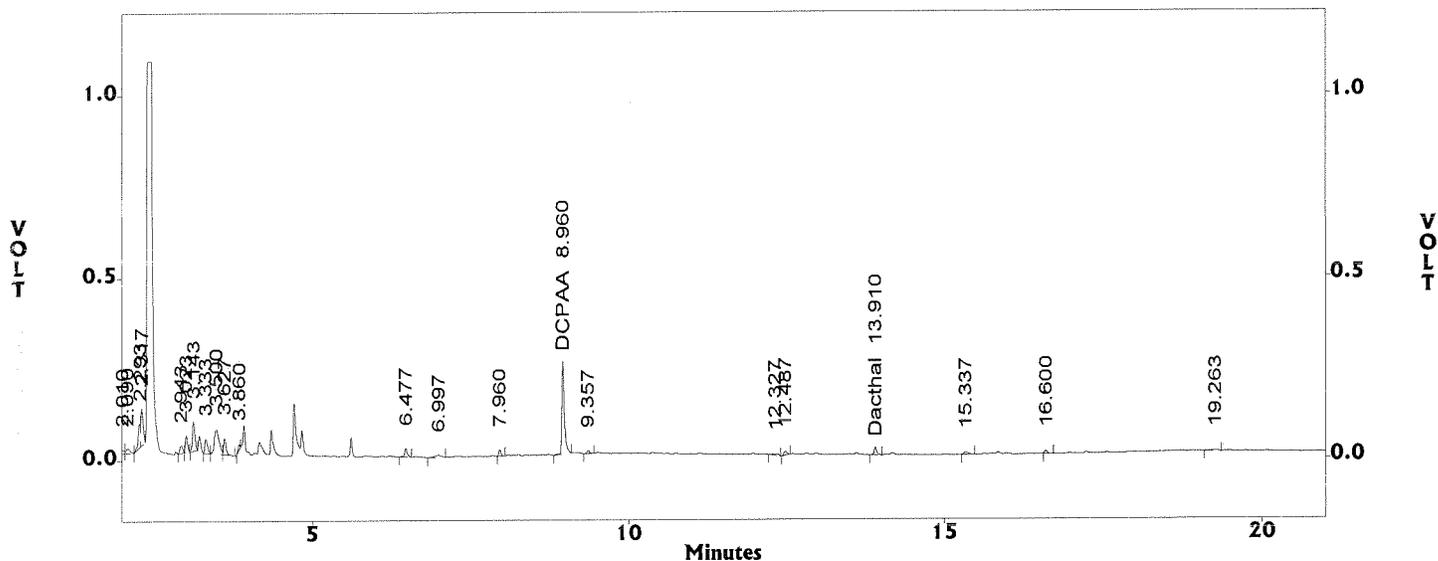
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.023
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : D157-17
 Acquired : Apr 29, 2015 05:36:37
 Printed : Apr 29, 2015 11:35:42
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.840	0.0	0.00	0.000	--
3,5 Dichlorobenzo	7.700	0.0	0.00	0.000	--
4-Nitrophenol	8.593	0.0	0.00	0.000	--
DCPAA	8.960	738406.0	750.10	984.410	vv
Dicamba	9.187	0.0	0.00	0.000	--
MCPP	9.483	0.0	0.00	0.000	--
MCPA	9.690	0.0	0.00	0.000	--
DCP	10.167	0.0	0.00	0.000	--
2,4-D	10.463	0.0	0.00	0.000	--
Pentachlorophenol	10.703	0.0	0.00	0.000	--
Silvex	11.477	0.0	0.00	0.000	--
Chloramben	11.653	0.0	0.00	0.000	--
2,4,5-T	11.810	0.0	0.00	0.000	--
2,4-DB	12.443	0.0	0.00	0.000	--
Bentazon/Picloram	13.440	0.0	0.00	0.000	--
Dinoseb	13.603	0.0	0.00	0.000	--
Dacthal	13.910	66812.0	6873.97	9.720	vv
Acifluorfen	16.573	0.0	0.00	0.000	--

c:\ezchrom\chrom\qd28\qd28.023 -- Channel A



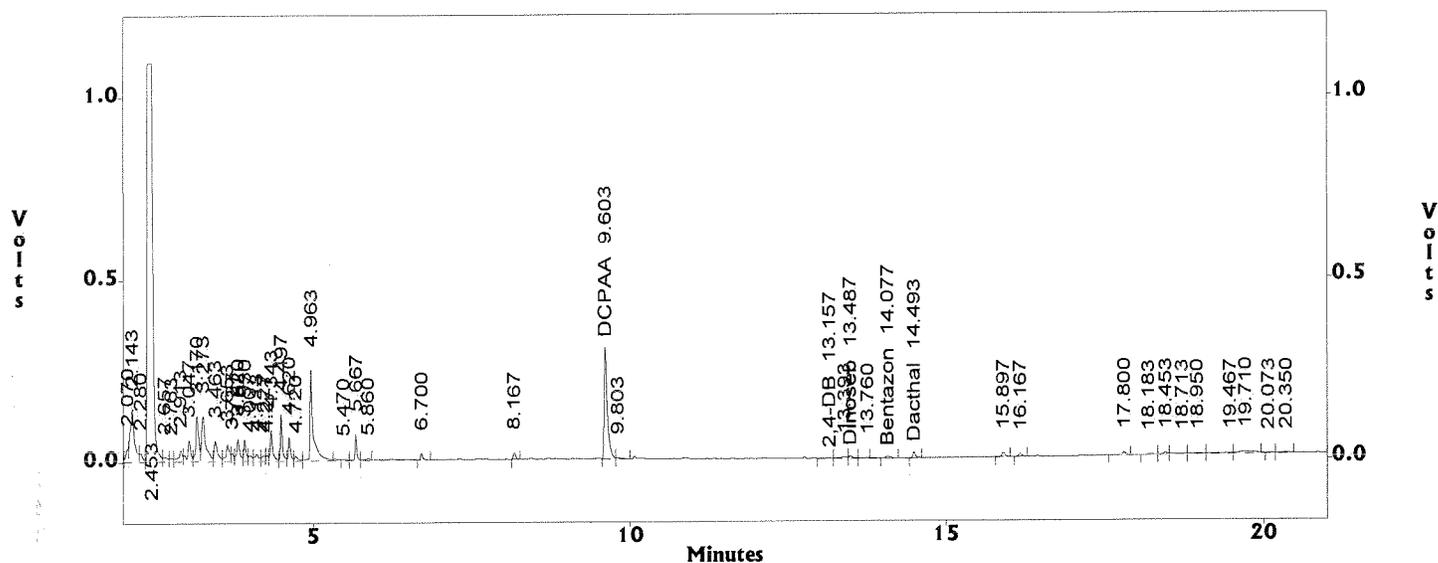
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.023
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D157-17
Acquired : Apr 29, 2015 05:36:37
Printed : Apr 29, 2015 11:35:42
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.857	0.0	0.00	0.000	--
3,5 Dichlorobenzoic	8.080	0.0	0.00	0.000	--
4-Nitrophenol	8.907	0.0	0.00	0.000	--
DCPAA	9.603	1040264.0	1082.03	961.403	VV
Dicamba	9.833	0.0	0.00	0.000	--
MCPP	10.013	0.0	0.00	0.000	--
MCPA	10.330	0.0	0.00	0.000	--
DCP	10.757	0.0	0.00	0.000	--
2,4-D	11.157	0.0	0.00	0.000	--
Pentachlorophenol	11.613	0.0	0.00	0.000	--
Silvex	12.120	0.0	0.00	0.000	--
2,4,5-T	12.570	0.0	0.00	0.000	--
Chloramben	12.620	0.0	0.00	0.000	--
2,4-DB	13.157	24405.0	1025.98	23.787	VV
Dinoseb	13.487	33221.0	4871.89	6.819	VV
Bentazon	14.077	47987.0	803.13	59.750	VV
Dacthal	14.493	50086.0	6624.78	7.560	VV
Picloram	14.570	0.0	0.00	0.000	--
Acifluorfen	16.770	0.0	0.00	0.000	--

c:\ezchrom\chrom\qd28\qd28.023 -- Channel B



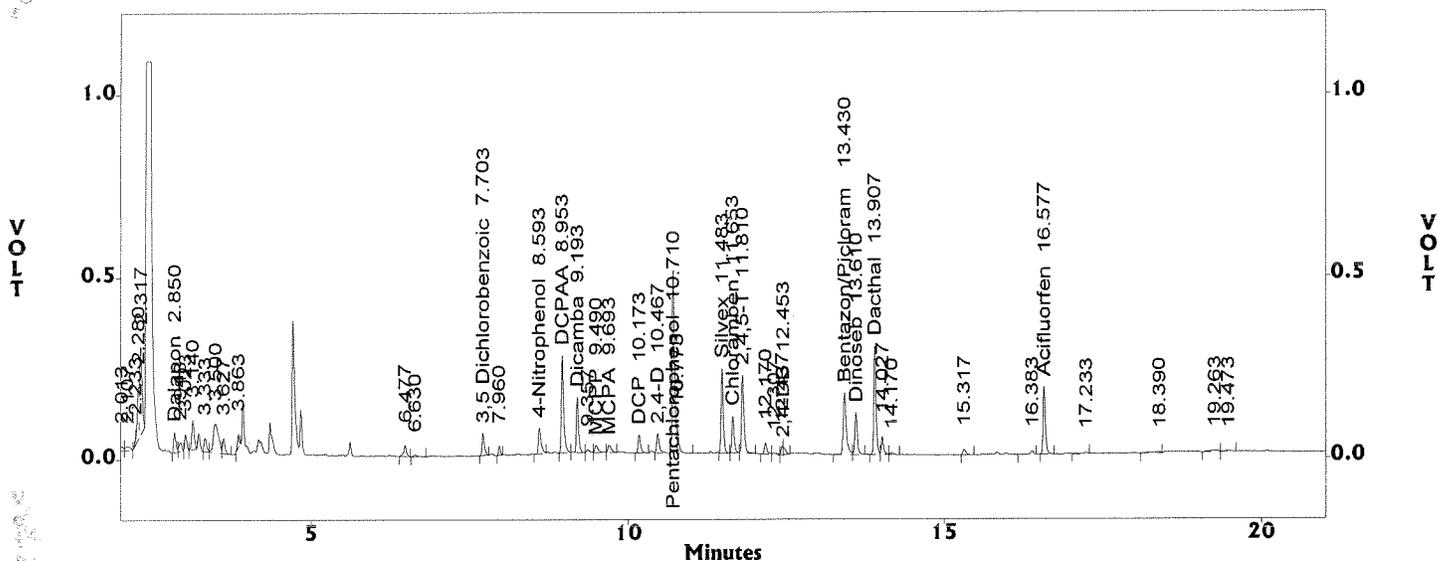
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.006
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : D157-17M
 Acquired : Apr 28, 2015 19:46:52
 Printed : Apr 29, 2015 16:30:40
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	2.850	143877.0	1656.60	86.851	VV
3,5 Dichlorobenzo	7.703	164228.0	1722.43	95.347	VV
4-Nitrophenol	8.593	219073.0	1289.87	169.841	VV
DCPAA	8.953	701388.0	750.10	935.059	vv
Dicamba	9.193	373413.0	3238.35	115.310	vv
MCPP	9.490	64099.0	8.42	7615.412	VV
MCPA	9.693	75273.0	15.83	4754.896	VV
DCP	10.173	136350.0	1193.88	114.207	VV
2,4-D	10.467	164793.0	1510.05	109.131	VV
Pentachlorophenol	10.710	1288967.0	12495.55	103.154	VS
Silvex	11.483	576599.0	5002.75	115.256	SV
Chloramben	11.653	264578.0	4132.75	64.020	VV
2,4,5-T	11.810	565877.0	5396.66	104.857	vv
2,4-DB	12.453	53783.0	801.45	67.108	xV
Bentazon/Picloram	13.430	577472.0	3540.81	163.090	BV
Dinoseb	13.610	309826.0	4088.80	75.774	VV
Dacthal	13.907	748314.0	6873.97	108.862	VV
Acifluorfen	16.577	479079.0	4699.56	101.941	vv

c:\ezchrom\chrom\qd28\qd28.006 -- Channel A



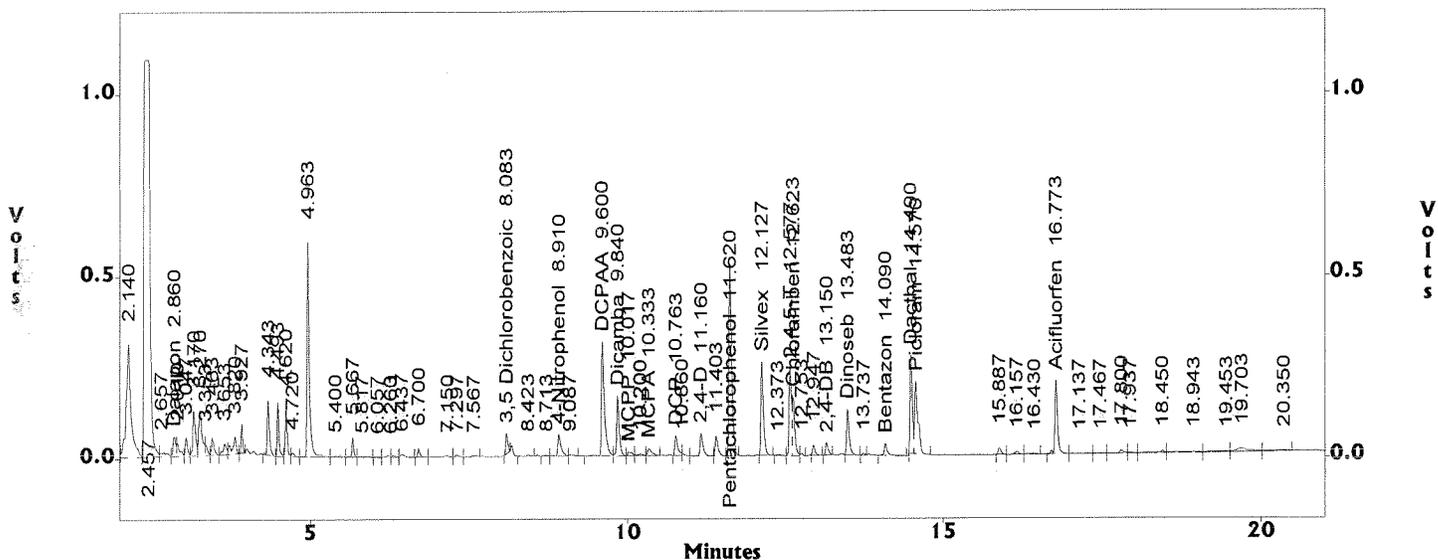
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.006
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D157-17M
Acquired : Apr 28, 2015 19:46:52
Printed : Apr 29, 2015 16:30:40
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.860	158656.0	1730.88	91.662	Sx
3,5 Dichlorobenzoic	8.083	130376.0	1937.97	67.275	VS
4-Nitrophenol	8.910	225050.0	1457.43	154.416	VV
DCPAA	9.600	1042753.0	1082.03	963.704	VV
Dicamba	9.840	470522.0	3890.32	120.947	VV
MCPP	10.017	50355.0	8.21	6129.655	VV
MCPA	10.333	89025.0	17.76	5013.955	VV
DCP	10.763	176226.0	1485.51	118.630	Sx
2,4-D	11.160	205943.0	1894.33	108.715	VV
Pentachlorophenol	11.620	1603167.0	14739.16	108.769	Vx
Silvex	12.127	727382.0	5953.99	122.167	BV
2,4,5-T	12.577	610078.0	4983.71	122.414	Vx
Chloramben	12.623	417644.0	6012.12	69.467	xS
2,4-DB	13.150	96331.0	1025.98	93.892	VI
Dinoseb	13.483	354102.0	4871.89	72.683	vv
Bentazon	14.090	121097.0	803.13	150.781	vv
Dacthal	14.490	697975.0	6624.78	105.358	MM
Picloram	14.570	734157.0	8580.05	85.566	MM
Acifluorfen	16.773	585176.0	6000.10	97.528	BV

c:\ezchrom\chrom\qd28\qd28.006 -- Channel B



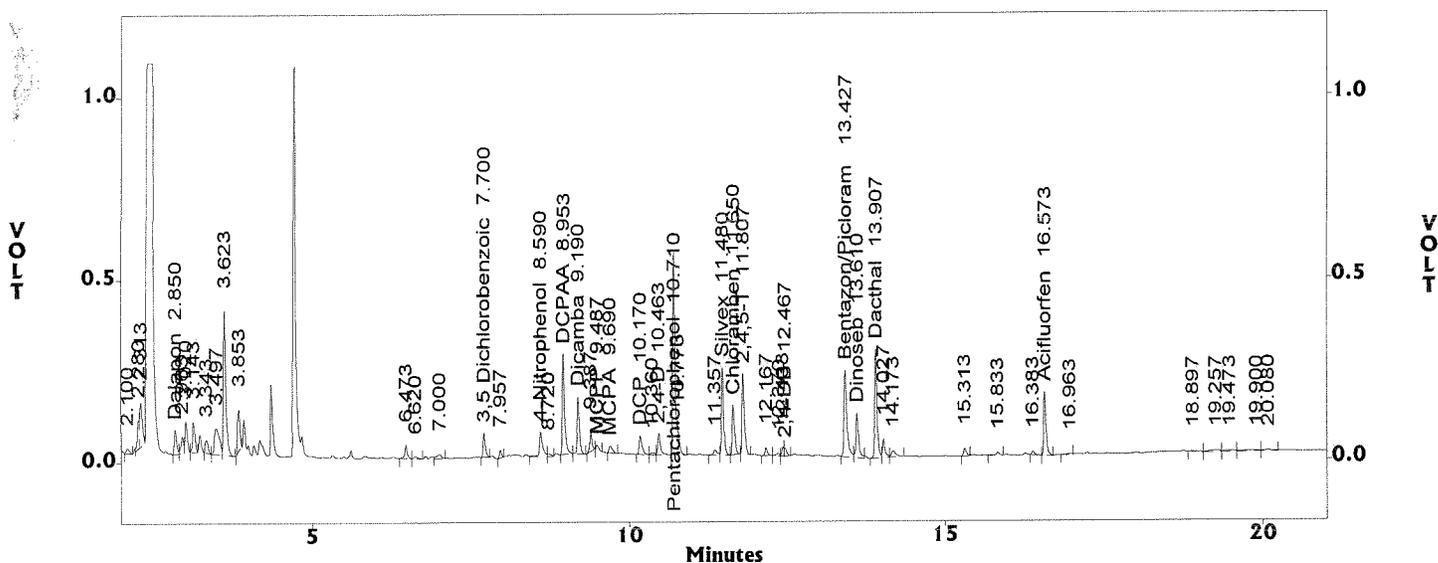
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.007
Method : c:\ezchrom\methods\he09d08.met
Sample ID : D157-17S
Acquired : Apr 28, 2015 20:21:34
Printed : Apr 29, 2015 17:15:31
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.850	174234.0	1656.60	105.176	VV
3,5 Dichlorobenzo	7.700	174294.0	1722.43	101.191	VV
4-Nitrophenol	8.590	236941.0	1289.87	183.693	VV
DCPAA	8.953	724059.0	750.10	965.283	vv
Dicamba	9.190	387092.0	3238.35	119.534	vv
MCPP	9.487	35982.0	8.42	4274.915	VV
MCPA	9.690	69333.0	15.83	4379.674	VV
DCP	10.170	157900.0	1193.88	132.258	VV
2,4-D	10.463	179937.0	1510.05	119.160	VV
Pentachlorophenol	10.710	1428854.0	12495.55	114.349	VS
Silvex	11.480	589937.0	5002.75	117.923	VV
Chloramben	11.650	361479.0	4132.75	87.467	VV
2,4,5-T	11.807	573755.0	5396.66	106.317	vv
2,4-DB	12.467	53550.0	801.45	66.817	xV
Bentazon/Picloram	13.427	781743.0	3540.81	220.781	VV
Dinoseb	13.610	360817.0	4088.80	88.245	VS
Dacthal	13.907	773698.0	6873.97	112.555	VV
Acifluorfen	16.573	460456.0	4699.56	97.979	vv

c:\ezchrom\chrom\qd28\qd28.007 -- Channel A



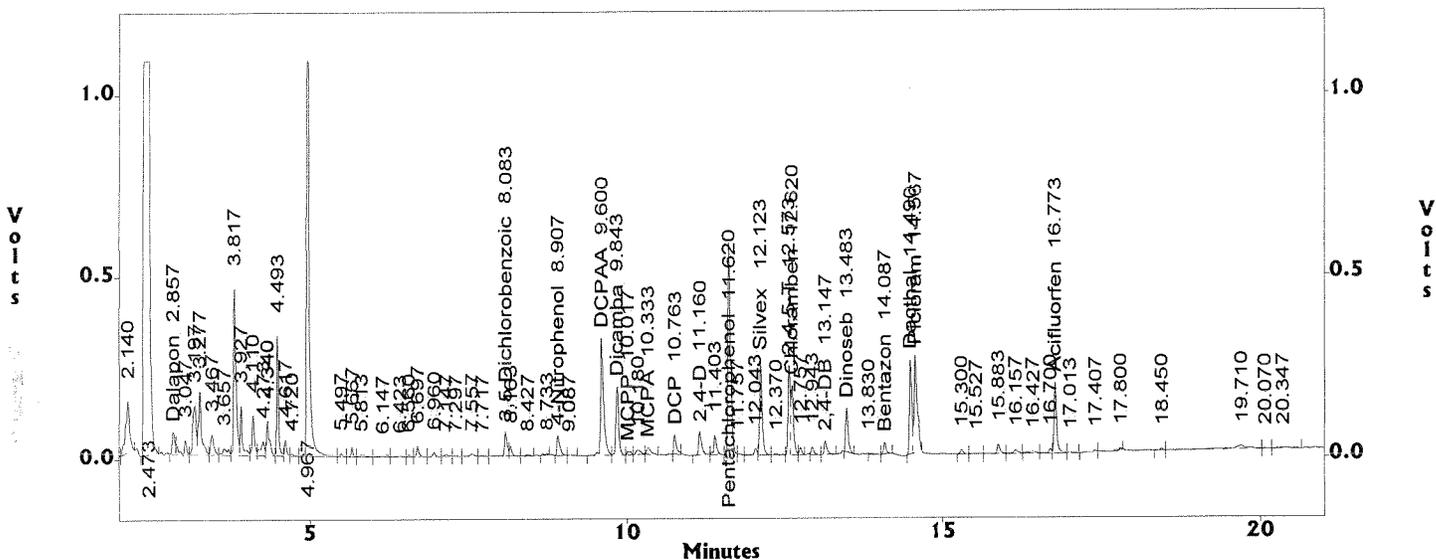
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.007
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : D157-17S
 Acquired : Apr 28, 2015 20:21:34
 Printed : Apr 29, 2015 17:15:31
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.857	168225.0	1730.88	97.190	Sx
3,5 Dichlorobenzoic	8.083	202711.0	1937.97	104.600	VS
4-Nitrophenol	8.907	187982.0	1457.43	128.982	SV
DCPAA	9.600	1089756.0	1082.03	1007.144	BV
Dicamba	9.843	587569.0	3890.32	151.034	VV
MCPP	10.017	43908.0	8.21	5344.869	VV
MCPA	10.333	83161.0	17.76	4683.690	VI
DCP	10.763	164630.0	1485.51	110.824	vx
2,4-D	11.160	208970.0	1894.33	110.313	vv
Pentachlorophenol	11.620	1768686.0	14739.16	119.999	Vx
Silvex	12.123	738279.0	5953.99	123.997	SV
2,4,5-T	12.573	555236.0	4983.71	111.410	Vx
Chloramben	12.620	578031.0	6012.12	96.144	xV
2,4-DB	13.147	118270.0	1025.98	115.276	VV
Dinoseb	13.483	331965.0	4871.89	68.139	vv
Bentazon	14.087	88949.0	803.13	110.753	VI
Dacthal	14.490	671783.0	6624.78	101.405	MM
Picloram	14.567	909701.0	8580.05	106.025	MM
Acifluorfen	16.773	554137.0	6000.10	92.355	SV

c:\ezchrom\chrom\qd28\qd28.007 -- Channel B



INITIAL CALIBRATIONS

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-QA GC09
 GC Column : STX-CLPEST
 Column size ID : 30MX0.32MM 0.32UM
 LFID & Datetime: QD08002A 04/08/15 15:10
 LFID & Datetime: QD08003A 04/08/15 15:39
 LFID & Datetime: QD08004A 04/08/15 16:08
 LFID & Datetime: QD08005A 04/08/15 16:36
 LFID & Datetime: QD08006A 04/08/15 17:05
 LFID & Datetime: QD08007A 04/08/15 17:34
 LFID & Datetime: QD08008A 04/08/15 18:02
 LFID & Datetime: QD08009A 04/08/15 18:31
 CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS					(AREA)/UNIT				MEAN	%RSD
		1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X			
Dalapon	9.10	0	1809	1805	1712	1656	1563	1556	1495	1656.6	7.5	
3,5-Dichlorobenzo	9.31	0	2078	1910	1765	1677	1577	1572	1479	1722.4	12.3	
4-Nitrophenol	9.09	0	1534	1436	1334	1258	1188	1167	1112	1289.9	11.9	
Dicamba	9.40	0	3647	3441	3288	3204	3073	3058	2958	3238.3	7.5	
MCP	469.30	0	0	11	9	8	8	8	7	8.4	16.6	
MCPA	467.30	0	0	21	17	15	14	13	0	15.8	19.9	
Dichloroprop	9.44	0	1405	1283	1226	1177	1114	1098	1053	1193.9	10.2	
2,4-D	9.40	0	1874	1730	1530	1567	1321	1302	1246	1510.1	15.6	
Pentachlorophenol	9.50	13925	13848	13159	12518	12163	11620	11552	11179	12495.6	8.5	
2,4,5-TP(Silvex)	9.50	0	5286	5192	5108	5054	4855	4838	4686	5002.7	4.3	
Chloramben	9.36	0	4116	4122	4174	4244	4105	4138	4030	4132.7	1.6	
2,4,5-T	9.48	0	6036	5721	5485	5420	5147	5071	4896	5396.7	7.3	
2,4-DB	9.47	0	881	822	795	793	761	778	780	801.4	5.0	
Bentazon/Picloram	18.90	3392	3597	3537	3608	3645	3523	3561	3463	3540.8	2.3	
Dinoseb	9.45	0	5054	4461	4163	3937	3747	3695	3564	4088.8	12.8	
Dacthal	9.15	0	7742	7239	7013	6826	6535	6498	6264	6874.0	7.4	
Acifluorfen	9.63	0	5063	4885	4841	4621	4525	4529	4432	4699.6	4.9	
SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD	
2,4-DCPAA	93.58	0	984	847	755	712	668	657	628	750.1	16.8	

M 4/10/15

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-QB GC09
 GC Column : STX-CLPESTII
 Column size ID : 30MX0.32MM 0.25UM
 LFID & Datetime: QD08002B 04/08/15 15:10
 LFID & Datetime: QD08003B 04/08/15 15:39
 LFID & Datetime: QD08004B 04/08/15 16:08
 LFID & Datetime: QD08005B 04/08/15 16:36
 LFID & Datetime: QD08006B 04/08/15 17:05
 LFID & Datetime: QD08007B 04/08/15 17:34
 LFID & Datetime: QD08008B 04/08/15 18:02
 LFID & Datetime: QD08009B 04/08/15 18:31
 CONC UNIT: ppb

COMPOUND	CONC	CALIBRATION FACTORS					(AREA)/UNIT				MEAN	%RSD
	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X			
Dalapon	9.10	0	1753	1769	1717	1706	1630	1723	1817	1730.9	3.4	
3,5-Dichlorobenzo	9.31	0	2181	2065	1959	1911	1840	1834	1776	1938.0	7.4	
4-Nitrophenol	9.09	0	1792	1637	1508	1414	1325	1294	1231	1457.4	13.8	
Dicamba	9.40	0	4050	3934	3873	3897	3810	3866	3803	3890.3	2.2	
MCPP	469.30	0	0	8	8	8	8	8	8	8.2	2.7	
MCPA	467.30	0	0	22	19	18	17	16	15	17.8	13.3	
Dichloroprop	9.44	0	1697	1580	1484	1454	1410	1409	1364	1485.5	7.8	
2,4-D	9.40	0	2126	1995	1919	1879	1799	1799	1743	1894.3	7.0	
Pentachlorophenol	9.50	13837	14569	14883	15072	15167	14776	14949	14660	14739.2	2.8	
2,4,5-TP(Silvex)	9.50	0	5590	5718	5943	6118	6045	6172	6092	5954.0	3.7	
Chloramben	9.36	0	5223	5359	5888	6423	6199	6421	6573	6012.1	9.0	
2,4,5-T	9.48	0	5054	5193	5118	4935	4957	4984	4645	4983.7	3.5	
2,4-DB	9.47	0	1135	1050	1033	1031	981	991	961	1026.0	5.6	
Dinoseb	9.45	0	5336	5095	4957	4817	4655	4681	4562	4871.9	5.7	
Bentazon	9.45	0	800	747	780	824	807	834	829	803.1	3.8	
Dacthal	9.15	0	6383	6458	6737	6779	6657	6724	6635	6624.8	2.3	
Picloram	9.45	0	7449	7767	8358	8929	8929	9333	9295	8580.1	8.7	
Acifluorfen	9.63	0	5984	5948	6055	5972	5946	6064	6031	6000.1	0.8	
SURROGATE	X	1.00X	2.00X	4.00X	7.00X	10.00X	13.00X	16.00X	20.00X	MEAN	%RSD	
2,4-DCPAA	93.58	0	1299	1179	1091	1050	1000	994	960	1082.0	11.1	

Handwritten: 7/4/10/15

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QA GC09
GC Column : STX-CLPEST
Column size ID : 30MX0.32MM 0.32UM
LFID & Datetime: QD08002A 04/08/15 15:10
LFID & Datetime: QD08003A 04/08/15 15:39
LFID & Datetime: QD08004A 04/08/15 16:08
LFID & Datetime: QD08005A 04/08/15 16:36
LFID & Datetime: QD08006A 04/08/15 17:05
LFID & Datetime: QD08007A 04/08/15 17:34
LFID & Datetime: QD08008A 04/08/15 18:02
LFID & Datetime: QD08009A 04/08/15 18:31

COMPOUND	RT OF STANDARDS (MIN)								MEAN RT	RT WINDOW		RTWINDOW WIDTH
	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X		FROM	TO	
Dalapon	2.887	2.883	2.883	2.880	2.877	2.877	2.877	2.877	2.879	2.865	2.893	0.014
3,5-Dichlorobenzo	7.810	7.800	7.793	7.793	7.790	7.790	7.787	7.787	7.791	7.769	7.813	0.022
4-Nitrophenol	8.717	8.703	8.697	8.693	8.690	8.690	8.683	8.683	8.691	8.670	8.712	0.021
Dicamba	0.000	9.297	9.290	9.290	9.287	9.287	9.283	9.283	9.288	9.273	9.303	0.015
MCPP	9.603	9.593	9.587	9.587	9.583	9.583	9.580	9.580	9.583	9.562	9.604	0.021
MCPA	9.810	9.800	9.793	9.793	9.787	9.790	9.783	9.787	9.789	9.767	9.811	0.022
Dichloroprop	10.290	10.283	10.277	10.273	10.270	10.273	10.267	10.270	10.273	10.255	10.291	0.018
2,4-D	10.590	10.583	10.573	10.573	10.567	10.570	10.563	10.563	10.570	10.550	10.590	0.020
Pentachlorophenol	10.833	10.827	10.820	10.820	10.817	10.817	10.813	10.813	10.820	10.802	10.838	0.018
2,4,5-TP(Silvex)	11.607	11.600	11.593	11.593	11.587	11.590	11.583	11.587	11.590	11.574	11.606	0.016
Chloramben	0.000	11.773	11.767	11.763	11.760	11.760	11.753	11.757	11.762	11.746	11.778	0.016
2,4,5-T	11.940	11.933	11.927	11.923	11.917	11.917	11.913	11.917	11.921	11.900	11.942	0.021
2,4-DB	12.570	12.560	12.550	12.550	12.543	12.543	12.540	12.540	12.547	12.525	12.569	0.022
Bentazon/Picloram	13.573	13.563	13.553	13.550	13.543	13.543	13.540	13.543	13.551	13.530	13.572	0.021
Dinoseb	13.747	13.743	13.737	13.737	13.730	13.733	13.727	13.730	13.734	13.716	13.752	0.018
Dacthal	14.047	14.040	14.033	14.033	14.027	14.030	14.023	14.030	14.031	14.010	14.052	0.021
Acifluorfen	16.730	16.723	16.720	16.717	16.713	16.713	16.707	16.710	16.715	16.697	16.733	0.018
SURROGATE	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
2,4-DCPAA	0.000	9.057	9.050	9.050	9.047	9.047	9.043	9.043	9.048	9.032	9.064	0.016

ru 4/10/15

INITIAL CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
Instrument ID : GC-QB GC09
GC Column : STX-CLPESTII
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: QD08002B 04/08/15 15:10
LFID & Datetime: QD08003B 04/08/15 15:39
LFID & Datetime: QD08004B 04/08/15 16:08
LFID & Datetime: QD08005B 04/08/15 16:36
LFID & Datetime: QD08006B 04/08/15 17:05
LFID & Datetime: QD08007B 04/08/15 17:34
LFID & Datetime: QD08008B 04/08/15 18:02
LFID & Datetime: QD08009B 04/08/15 18:31

COMPOUND	RT OF STANDARDS (MIN)								MEAN RT	RT WINDOW		RTWINDOW WIDTH
	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X		FROM	TO	
Dalapon	2.883	2.880	2.877	2.877	2.873	2.873	2.873	2.873	2.875	2.859	2.891	0.016
3,5-Dichlorobenzo	8.143	8.133	8.130	8.127	8.123	8.127	8.123	8.123	8.127	8.111	8.143	0.016
4-Nitrophenol	8.973	8.967	8.960	8.957	8.953	8.953	8.950	8.950	8.956	8.938	8.974	0.018
Dicamba	9.897	9.890	9.887	9.883	9.880	9.883	9.880	9.880	9.883	9.867	9.899	0.016
MCPD	0.000	10.067	10.060	10.060	10.053	10.057	10.053	10.053	10.056	10.040	10.072	0.016
MCPA	0.000	10.387	10.377	10.377	10.370	10.373	10.370	10.370	10.373	10.357	10.389	0.016
Dichloroprop	10.817	10.813	10.807	10.807	10.800	10.803	10.800	10.800	10.804	10.790	10.818	0.014
2,4-D	11.217	11.213	11.207	11.203	11.200	11.200	11.197	11.197	11.202	11.186	11.218	0.016
Pentachlorophenol	11.677	11.673	11.667	11.667	11.663	11.663	11.660	11.663	11.667	11.649	11.685	0.018
2,4,5-TP(Silvex)	12.177	12.173	12.167	12.167	12.163	12.163	12.160	12.163	12.165	12.151	12.179	0.014
Chloramben	12.680	12.673	12.667	12.667	12.660	12.663	12.660	12.663	12.665	12.635	12.695	0.030
2,4,5-T	12.627	12.623	12.617	12.617	12.610	12.613	12.610	12.610	12.614	12.598	12.630	0.016
2,4-DB	13.203	13.197	13.193	13.190	13.183	13.187	13.183	13.183	13.188	13.164	13.212	0.024
Dinoseb	13.537	13.533	13.527	13.527	13.523	13.523	13.520	13.523	13.525	13.507	13.543	0.018
Bentazon	14.140	14.133	14.130	14.130	14.127	14.127	14.123	14.127	14.128	14.112	14.144	0.016
Dacthal	14.540	14.537	14.533	14.530	14.527	14.527	14.523	14.527	14.529	14.513	14.545	0.016
Picloram	14.623	14.617	14.610	14.610	14.603	14.603	14.600	14.603	14.607	14.583	14.631	0.024
Acifluorfen	16.820	16.813	16.810	16.810	16.807	16.803	16.803	16.803	16.807	16.789	16.825	0.018
SURROGATE	1.0X	2.0X	4.0X	7.0X	10.0X	13.0X	16.0X	20.0X	RT	FROM	TO	WIDTH
2,4-DCPAA	9.657	9.650	9.643	9.643	9.640	9.640	9.637	9.637	9.641	9.625	9.657	0.016

M 4/10/15

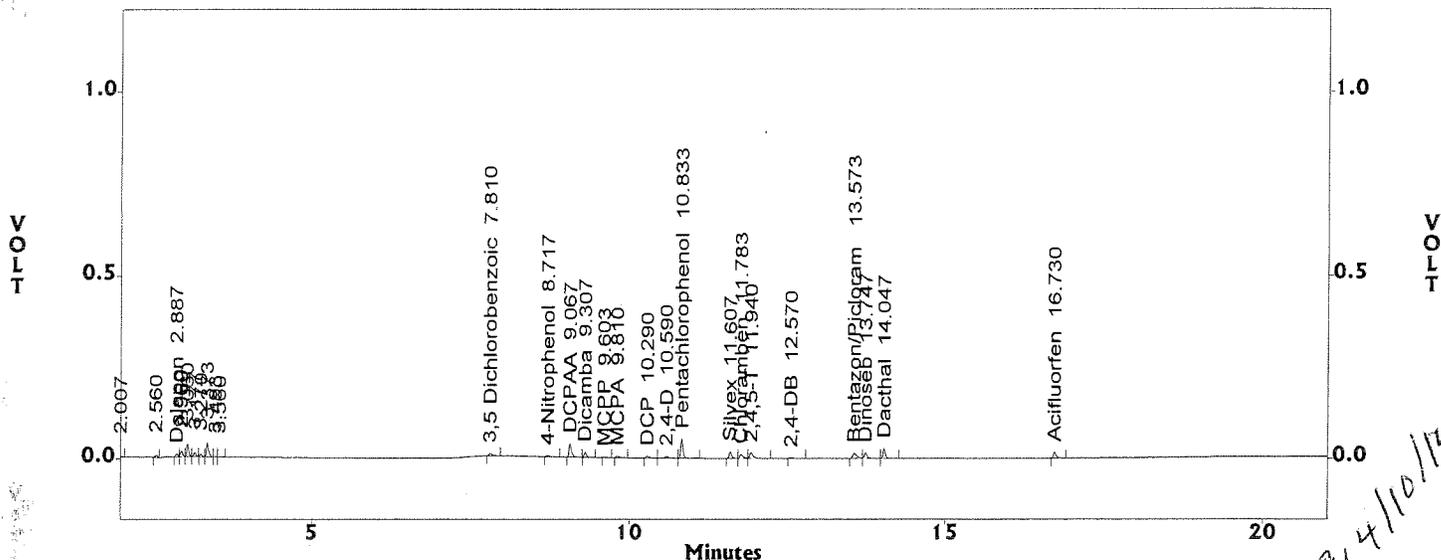
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.002
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : HE09D0801
 Acquired : Apr 08, 2015 15:10:51
 Printed : Apr 09, 2015 09:47:03
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.887	18000.0	1656.60	10.866	xV
3,5 Dichlorobenzo	7.810	20728.0	1722.43	12.034	vv
4-Nitrophenol	8.717	13948.0	1289.87	10.813	BV
DCPAA	9.067	104261.0	750.10	138.996	vv
Dicamba	9.307	35254.0	3238.35	10.886	vv
MCPP	9.603	7291.0	8.42	866.222	BB
MCPA	9.810	17622.0	15.83	1113.159	BV
DCP	10.290	14098.0	1193.88	11.809	BV
2,4-D	10.590	18783.0	1510.05	12.439	VV
Pentachlorophenol	10.833	132233.0	12495.55	10.582	VB
Silvex	11.607	49337.0	5002.75	9.862	BV
Chloramben	11.783	37175.0	4132.75	8.995	VV
2,4,5-T	11.940	57327.0	5396.66	10.623	VB
2,4-DB	12.570	8202.0	801.45	10.234	BB
Bentazon/Picloram	13.573	64110.0	3540.81	18.106	BV
Dinoseb	13.747	48219.0	4088.80	11.793	VV
Dacthal	14.047	71024.0	6873.97	10.332	VB
Acifluorfen	16.730	46390.0	4699.56	9.871	vv

c:\ezchrom\chrom\qd08\qd08.002 -- Channel A



Handwritten note: 4/10/15

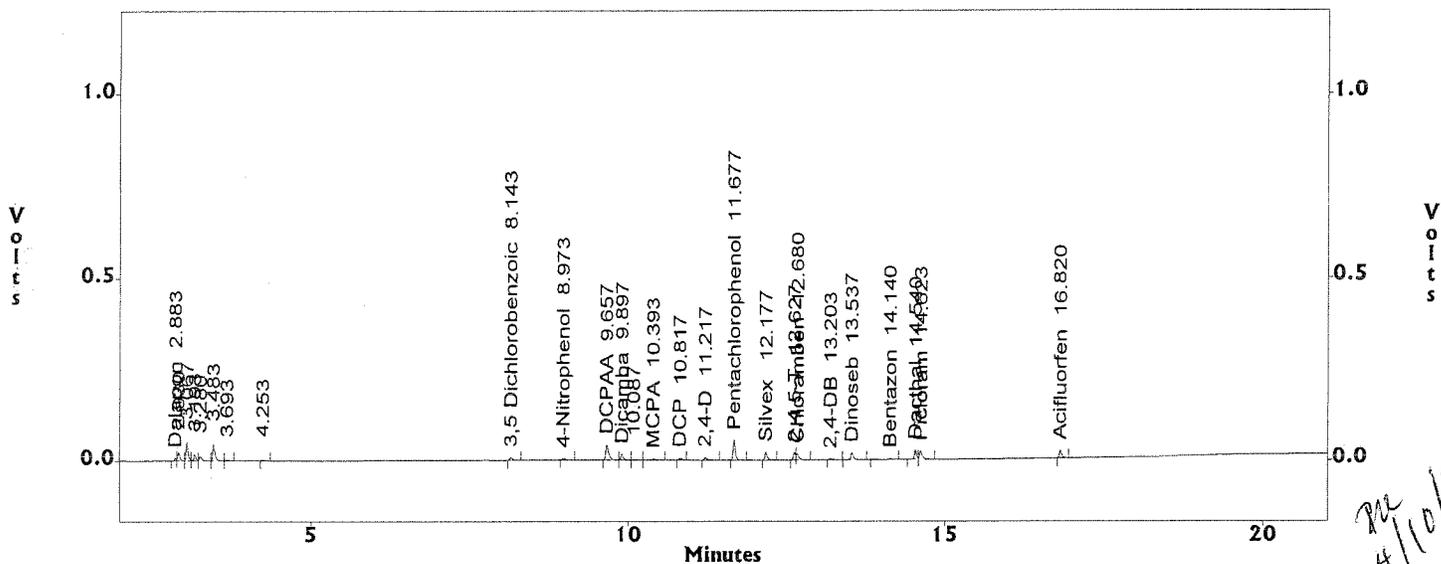
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0801
Acquired : Apr 08, 2015 15:10:51
Printed : Apr 09, 2015 09:47:03
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	15887.0	1730.88	9.179	xS
3,5 Dichlorobenzoic	8.143	21430.0	1937.97	11.058	BV
4-Nitrophenol	8.973	17332.0	1457.43	11.892	BV
DCPAA	9.657	133013.0	1082.03	122.930	BV
Dicamba	9.897	39981.0	3890.32	10.277	VV
MCPP	10.067	0.0	0.00	0.000	--
MCPA	10.393	14654.0	17.76	825.324	VB
DCP	10.817	15209.0	1485.51	10.238	BB
2,4-D	11.217	20704.0	1894.33	10.929	BV
Pentachlorophenol	11.677	131400.0	14739.16	8.915	BB
Silvex	12.177	51685.0	5953.99	8.681	BV
2,4,5-T	12.627	47190.0	4983.71	9.469	VS
Chloramben	12.680	47598.0	6012.12	7.917	Sx
2,4-DB	13.203	10709.0	1025.98	10.438	BV
Dinoseb	13.537	51661.0	4871.89	10.604	VV
Bentazon	14.140	6769.0	803.13	8.428	xV
Dacthal	14.540	58416.0	6624.78	8.818	VV
Picloram	14.623	66443.0	8580.05	7.744	VV
Acifluorfen	16.820	54971.0	6000.10	9.162	BV

c:\ezchrom\chrom\qd08\qd08.002 -- Channel B



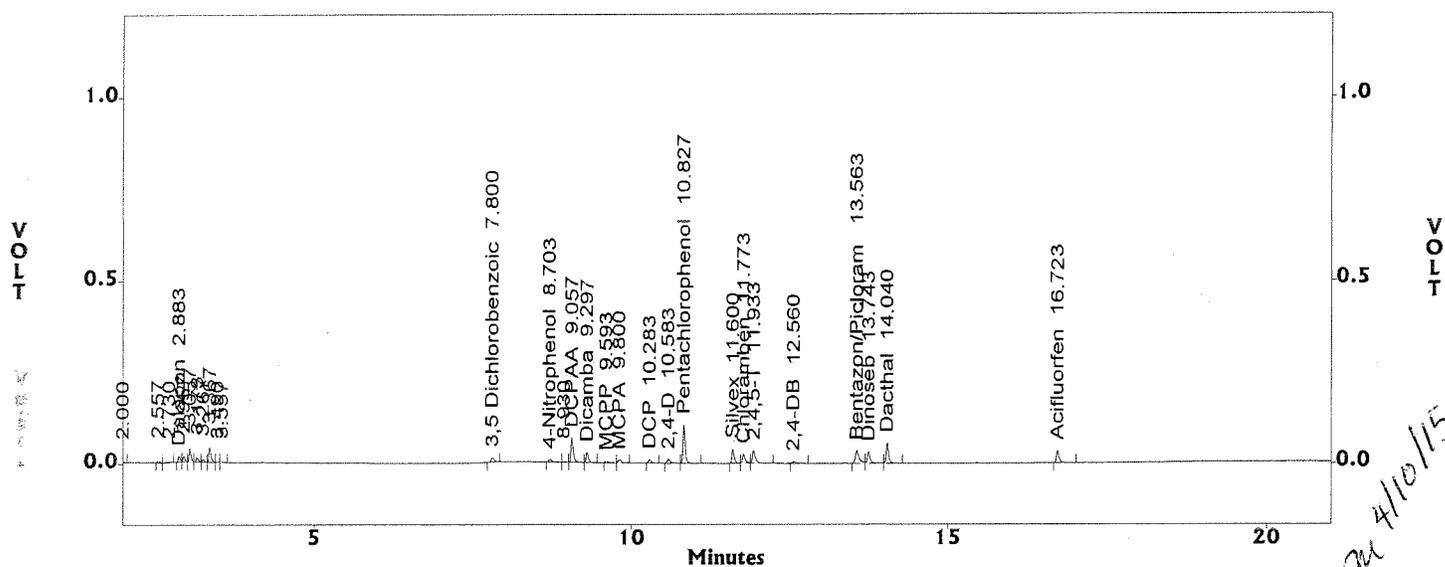
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0802
Acquired : Apr 08, 2015 15:39:35
Printed : Apr 09, 2015 09:47:31
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	32926.0	1656.60	19.876	xV
3,5 Dichlorobenzo	7.800	38702.0	1722.43	22.469	vv
4-Nitrophenol	8.703	27870.0	1289.87	21.607	BV
DCPAA	9.057	184122.0	750.10	245.463	vv
Dicamba	9.297	68576.0	3238.35	21.176	vv
MCPP	9.593	14588.0	8.42	1733.157	BV
MCPA	9.800	29185.0	15.83	1843.578	VV
DCP	10.283	26509.0	1193.88	22.204	BV
2,4-D	10.583	35240.0	1510.05	23.337	VV
Pentachlorophenol	10.827	263001.0	12495.55	21.048	VB
Silvex	11.600	100470.0	5002.75	20.083	BV
Chloramben	11.773	77061.0	4132.75	18.646	VV
2,4,5-T	11.933	114414.0	5396.66	21.201	VB
2,4-DB	12.560	16675.0	801.45	20.806	BB
Bentazon/Picloram	13.563	135936.0	3540.81	38.391	BV
Dinoseb	13.743	95519.0	4088.80	23.361	VV
Dacthal	14.040	141696.0	6873.97	20.613	VV
Acifluorfen	16.723	97486.0	4699.56	20.744	vv

c:\ezchrom\chrom\qd08\qd08.003 -- Channel A



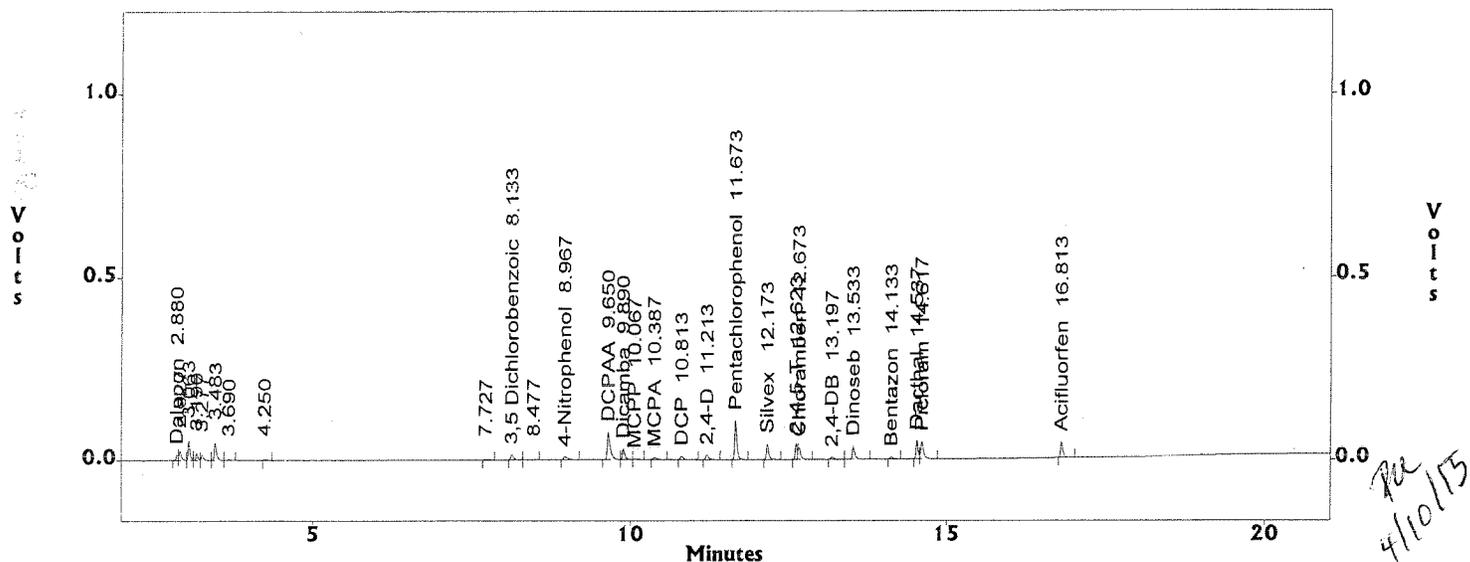
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.003
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : HE09D0802
 Acquired : Apr 08, 2015 15:39:35
 Printed : Apr 09, 2015 09:47:32
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.880	31923.0	1730.88	18.443	xS
3,5 Dichlorobenzoic	8.133	40620.0	1937.97	20.960	BV
4-Nitrophenol	8.967	32561.0	1457.43	22.341	BB
DCPAA	9.650	243181.0	1082.03	224.746	VV
Dicamba	9.890	76149.0	3890.32	19.574	VV
MCPP	10.067	7747.0	8.21	943.033	VV
MCPA	10.387	23831.0	17.76	1342.180	VB
DCP	10.813	32025.0	1485.51	21.558	BB
2,4-D	11.213	39982.0	1894.33	21.106	BV
Pentachlorophenol	11.673	276697.0	14739.16	18.773	BB
Silvex	12.173	106249.0	5953.99	17.845	BB
2,4,5-T	12.623	94613.0	4983.71	18.984	BV
Chloramben	12.673	98990.0	6012.12	16.465	VB
2,4-DB	13.197	21479.0	1025.98	20.935	BV
Dinoseb	13.533	100845.0	4871.89	20.699	Vx
Bentazon	14.133	15125.0	803.13	18.833	BV
Dacthal	14.537	116826.0	6624.78	17.635	VV
Picloram	14.617	140775.0	8580.05	16.407	VB
Acifluorfen	16.813	115218.0	6000.10	19.203	BV

c:\ezchrom\chrom\qd08\qd08.003 -- Channel B



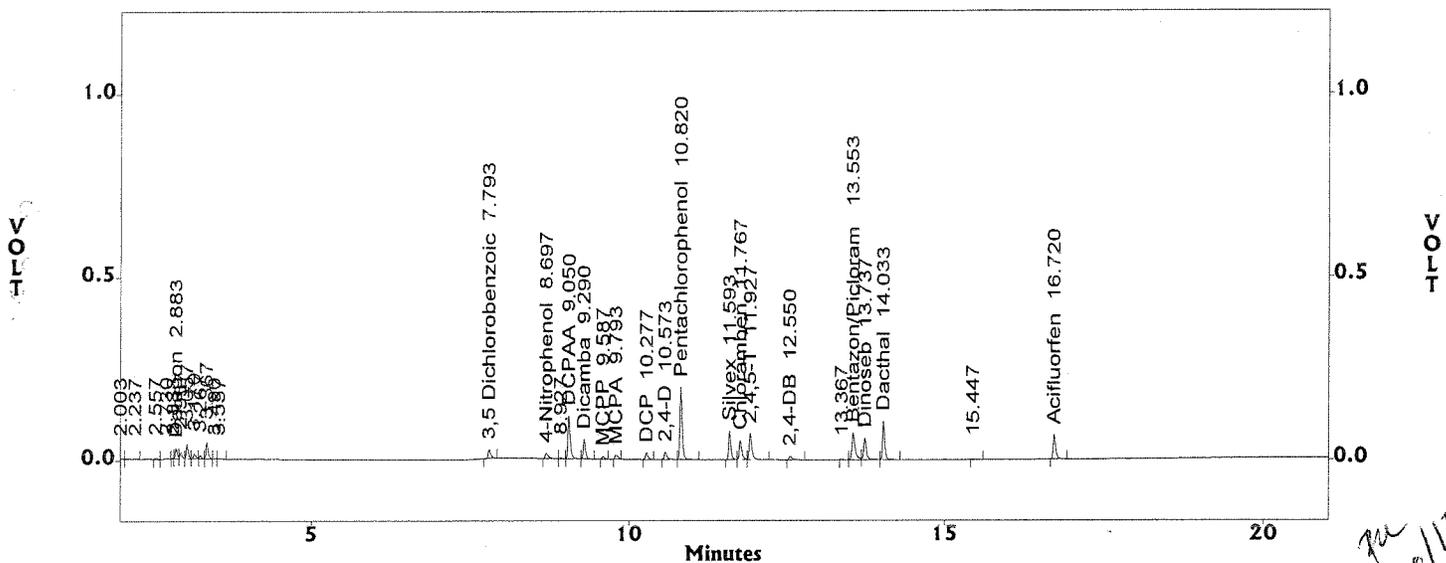
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.004
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : HE09D0803
 Acquired : Apr 08, 2015 16:08:11
 Printed : Apr 09, 2015 09:47:40
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	65736.0	1656.60	39.681	xV
3,5 Dichlorobenzo	7.793	71149.0	1722.43	41.307	vv
4-Nitrophenol	8.697	52186.0	1289.87	40.458	BV
DCPAA	9.050	317147.0	750.10	422.806	vv
Dicamba	9.290	129398.0	3238.35	39.958	vv
MCPP	9.587	20397.0	8.42	2423.307	BI
MCPA	9.793	38401.0	15.83	2425.740	BI
DCP	10.277	48433.0	1193.88	40.568	BI
2,4-D	10.573	65069.0	1510.05	43.091	BV
Pentachlorophenol	10.820	499826.0	12495.55	40.000	VB
Silvex	11.593	197359.0	5002.75	39.450	BV
Chloramben	11.767	154338.0	4132.75	37.345	VV
2,4,5-T	11.927	216887.0	5396.66	40.189	VB
2,4-DB	12.550	31116.0	801.45	38.825	BV
Bentazon/Picloram	13.553	267353.0	3540.81	75.506	VV
Dinoseb	13.737	168625.0	4088.80	41.241	VV
Dacthal	14.033	264994.0	6873.97	38.550	VB
Acifluorfen	16.720	188126.0	4699.56	40.031	vv

c:\ezchrom\chrom\qd08\qd08.004 -- Channel A



RZ
4/10/15

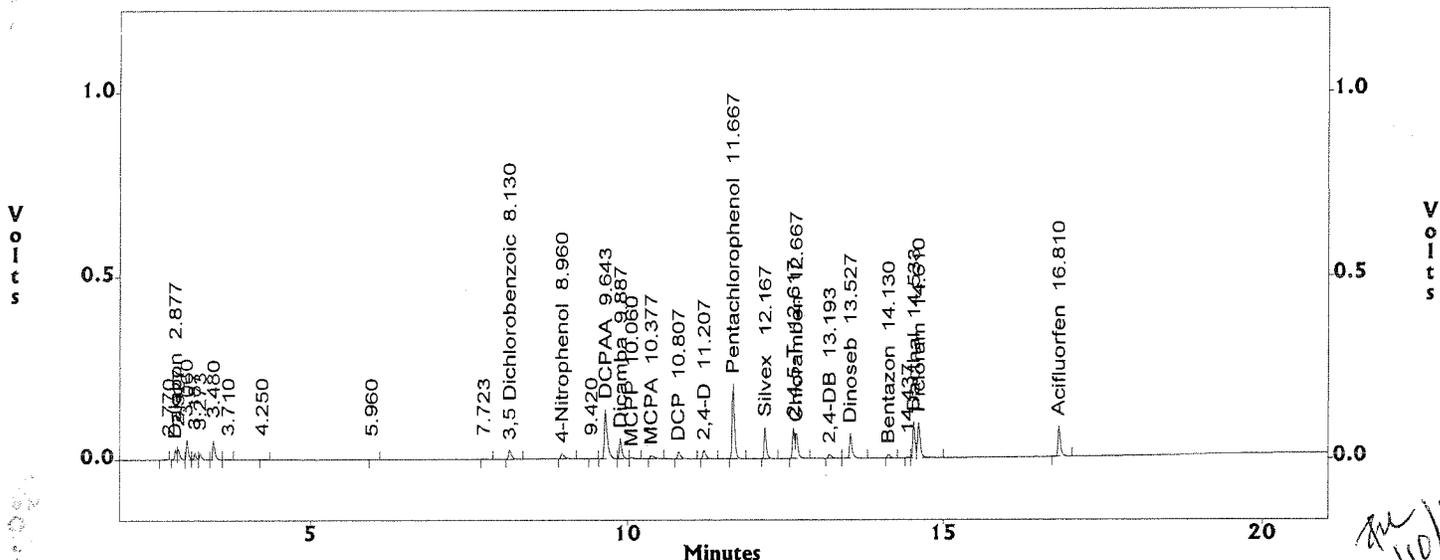
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.004
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : HE09D0803
 Acquired : Apr 08, 2015 16:08:11
 Printed : Apr 09, 2015 09:47:41
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	64416.0	1730.88	37.216	xS
3,5 Dichlorobenzoic	8.130	76951.0	1937.97	39.707	BV
4-Nitrophenol	8.960	59478.0	1457.43	40.810	BB
DCPAA	9.643	441194.0	1082.03	407.748	VV
Dicamba	9.887	147963.0	3890.32	38.034	VV
MCPP	10.060	15953.0	8.21	1941.940	VV
MCPA	10.377	40808.0	17.76	2298.337	VB
DCP	10.807	59641.0	1485.51	40.149	BV
2,4-D	11.207	75010.0	1894.33	39.597	VV
Pentachlorophenol	11.667	565297.0	14739.16	38.353	BB
Silvex	12.167	217350.0	5953.99	36.505	BB
2,4,5-T	12.617	194435.0	4983.71	39.014	BV
Chloramben	12.667	203136.0	6012.12	33.788	Vx
2,4-DB	13.193	39769.0	1025.98	38.762	BV
Dinoseb	13.527	192562.0	4871.89	39.525	Vx
Bentazon	14.130	28250.0	803.13	35.175	BV
Dacthal	14.533	236390.0	6624.78	35.683	VV
Picloram	14.610	293562.0	8580.05	34.214	VV
Acifluorfen	16.810	229055.0	6000.10	38.175	VV

c:\ezchrom\chrom\qd08\qd08.004 -- Channel B



Handwritten: 4/10/15

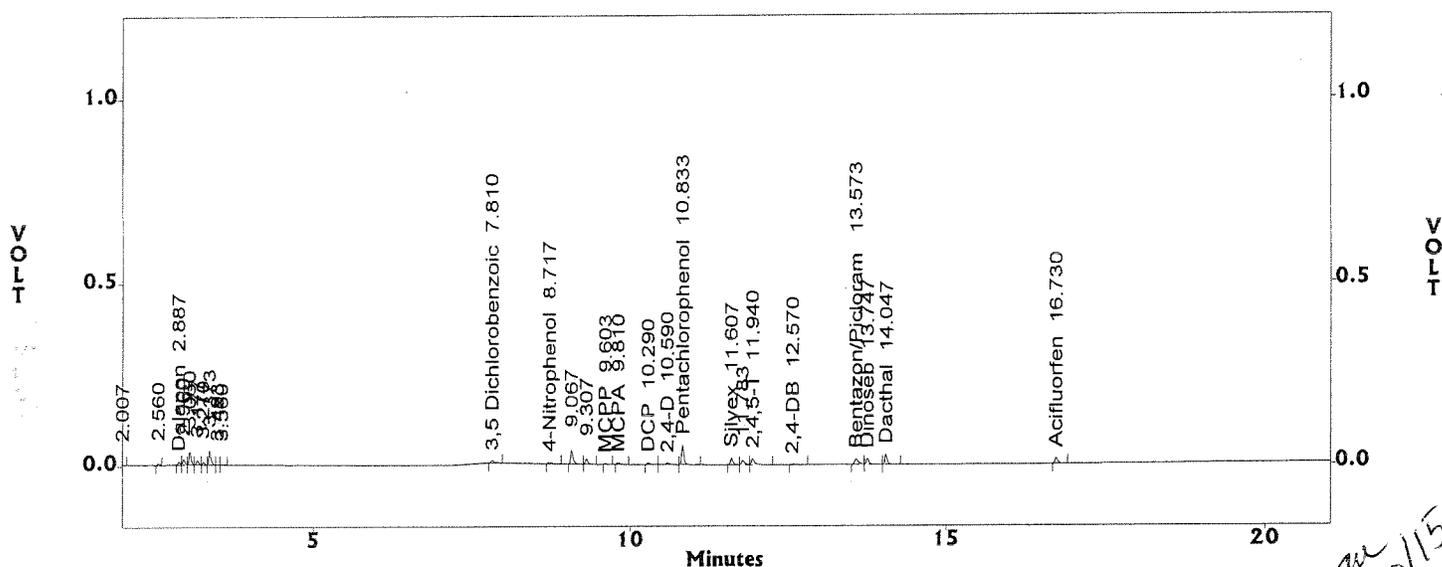
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0801
Acquired : Apr 08, 2015 15:10:51
Printed : Apr 09, 2015 09:48:14
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	2.887	18000.0	1656.60	-1.000	xV
3,5 Dichlorobenzo	7.810	20728.0	1722.43	-1.000	vv
4-Nitrophenol	8.717	13948.0	1289.87	-1.000	BV
DCPAA	9.050	0.0	0.00	0.000	--
Dicamba	9.290	0.0	0.00	0.000	--
MCPP	9.603	7291.0	8.42	-1.000	BB
MCPA	9.810	17622.0	15.83	-1.000	BV
DCP	10.290	14098.0	1193.88	-1.000	BV
2,4-D	10.590	18783.0	1510.05	-1.000	VV
Pentachlorophenol	10.833	132233.0	12495.55	9.496	VB
Silvex	11.607	49337.0	5002.75	-1.000	BV
Chloramben	11.767	0.0	0.00	0.000	--
2,4,5-T	11.940	57327.0	5396.66	-1.000	VB
2,4-DB	12.570	8202.0	801.45	-1.000	BB
Bentazon/Picloram	13.573	64110.0	3540.81	18.898	BV
Dinoseb	13.747	48219.0	4088.80	-1.000	VV
Dacthal	14.047	71024.0	6873.97	-1.000	VB
Acifluorfen	16.730	46390.0	4699.56	-1.000	vv

c:\ezchrom\chrom\qd08\qd08.002 -- Channel A



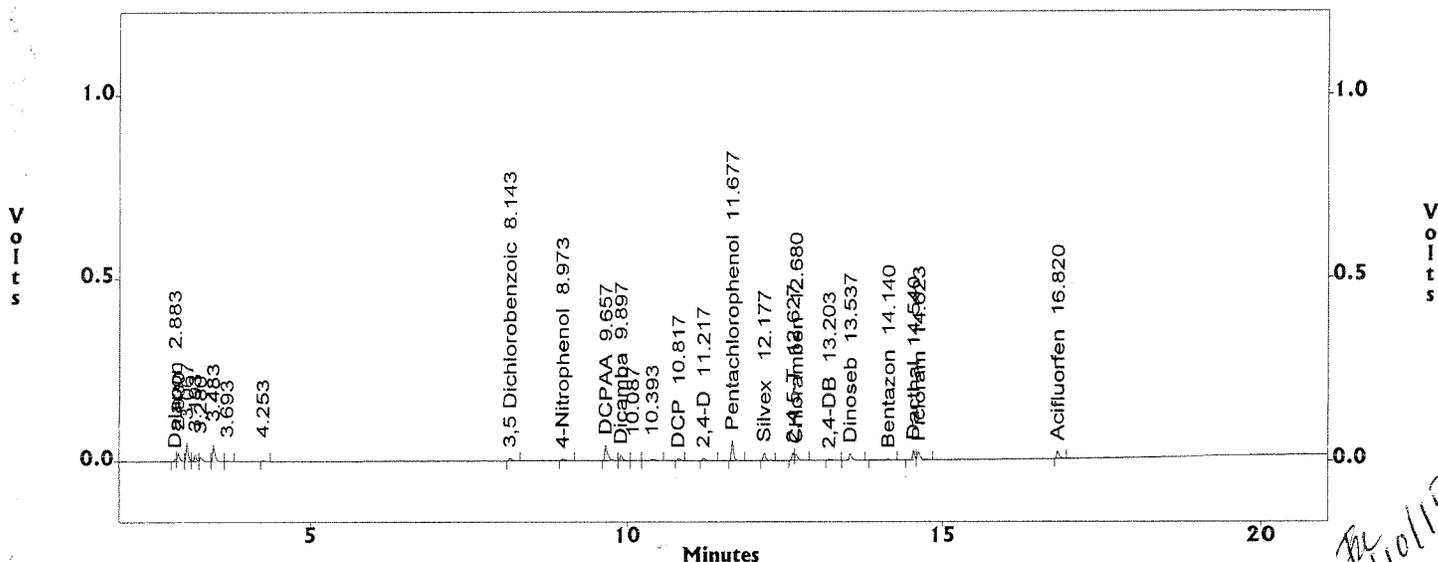
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.002
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : HE09D0801
 Acquired : Apr 08, 2015 15:10:51
 Printed : Apr 09, 2015 09:48:14
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	15887.0	1730.88	-1.000	xS
3,5 Dichlorobenzoic	8.143	21430.0	1937.97	-1.000	BV
4-Nitrophenol	8.973	17332.0	1457.43	-1.000	BV
DCPAA	9.657	133013.0	1082.03	-1.000	BV
Dicamba	9.897	39981.0	3890.32	-1.000	VV
MCPD	10.060	0.0	0.00	0.000	--
MCPA	10.377	0.0	0.00	0.000	--
DCP	10.817	15209.0	1485.51	-1.000	BB
2,4-D	11.217	20704.0	1894.33	-1.000	BV
Pentachlorophenol	11.677	131400.0	14739.16	9.496	BB
Silvex	12.177	51685.0	5953.99	-1.000	BV
2,4,5-T	12.627	47190.0	4983.71	-1.000	VS
Chloramben	12.680	47598.0	6012.12	-1.000	Sx
2,4-DB	13.203	10709.0	1025.98	-1.000	BV
Dinoseb	13.537	51661.0	4871.89	-1.000	VV
Bentazon	14.140	6769.0	803.13	-1.000	xV
Dacthal	14.540	58416.0	6624.78	-1.000	VV
Picloram	14.623	66443.0	8580.05	-1.000	VV
Acifluorfen	16.820	54971.0	6000.10	-1.000	BV

c:\ezchrom\chrom\qd08\qd08.002 -- Channel B



Handwritten: RZ
4/10/15
5049

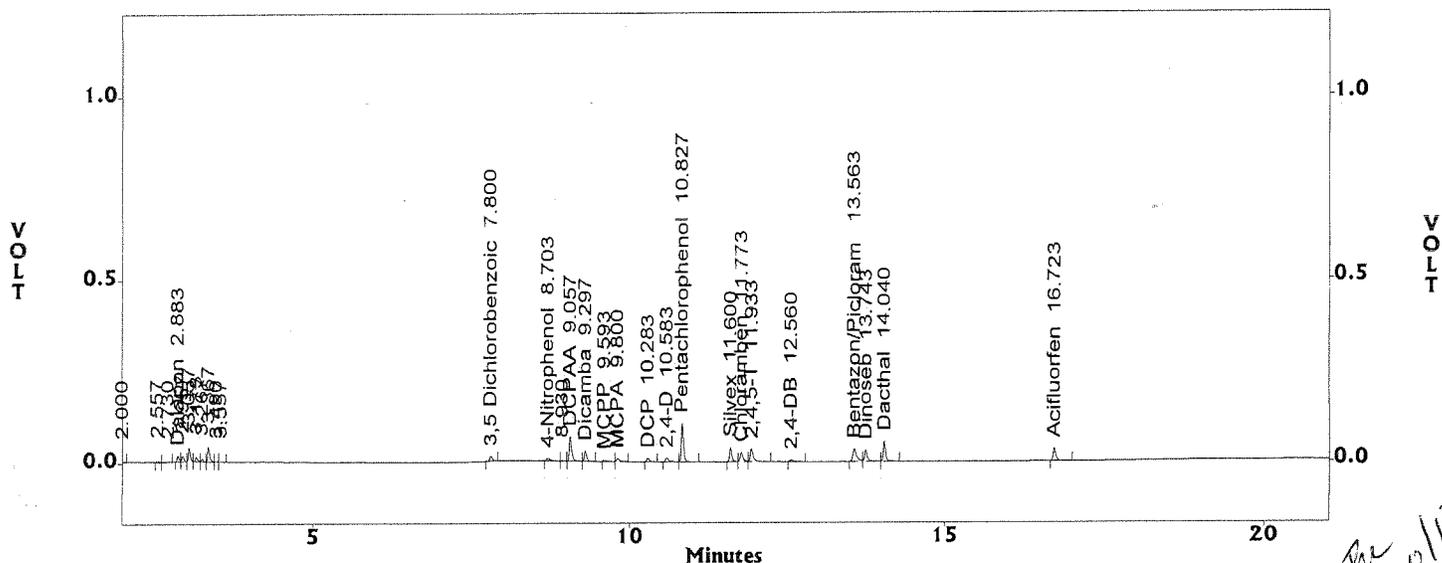
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.003
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : HE09D0802
 Acquired : Apr 08, 2015 15:39:35
 Printed : Apr 09, 2015 09:48:21
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.883	32926.0	1656.60	18.206	xV
3,5 Dichlorobenzo	7.800	38702.0	1722.43	18.628	vv
4-Nitrophenol	8.703	27870.0	1289.87	18.170	BV
DCPAA	9.057	184122.0	750.10	187.160	vv
Dicamba	9.297	68576.0	3238.35	18.804	vv
MCPP	9.593	14588.0	8.42	-1.000	BV
MCPA	9.800	29185.0	15.83	-1.000	VV
DCP	10.283	26509.0	1193.88	18.870	BV
2,4-D	10.583	35240.0	1510.05	18.804	VV
Pentachlorophenol	10.827	263001.0	12495.55	18.992	VB
Silvex	11.600	100470.0	5002.75	19.006	BV
Chloramben	11.773	77061.0	4132.75	18.722	VV
2,4,5-T	11.933	114414.0	5396.66	18.954	VB
2,4-DB	12.560	16675.0	801.45	18.932	BB
Bentazon/Picloram	13.563	135936.0	3540.81	37.796	BV
Dinoseb	13.743	95519.0	4088.80	18.898	VV
Dacthal	14.040	141696.0	6873.97	18.302	VV
Acifluorfen	16.723	97486.0	4699.56	19.254	vv

c:\ezchrom\chrom\qd08\qd08.003 -- Channel A



*File
4/10/15*

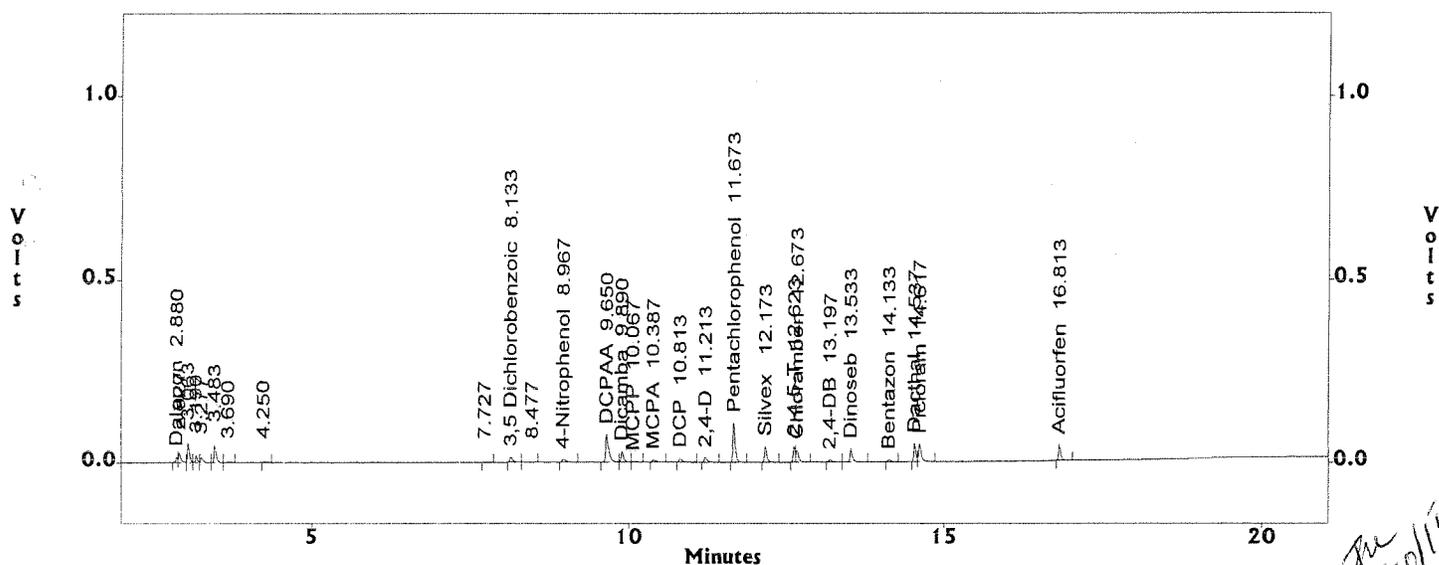
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.003
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0802
Acquired : Apr 08, 2015 15:39:35
Printed : Apr 09, 2015 09:48:21
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.880	31923.0	1730.88	18.206	xS
3,5 Dichlorobenzoic	8.133	40620.0	1937.97	18.628	BV
4-Nitrophenol	8.967	32561.0	1457.43	18.170	BB
DCPAA	9.650	243181.0	1082.03	187.160	VV
Dicamba	9.890	76149.0	3890.32	18.804	VV
MCPP	10.067	7747.0	8.21	-1.000	VV
MCPA	10.387	23831.0	17.76	-1.000	VB
DCP	10.813	32025.0	1485.51	18.870	BB
2,4-D	11.213	39982.0	1894.33	18.804	BV
Pentachlorophenol	11.673	276697.0	14739.16	18.992	BB
Silvex	12.173	106249.0	5953.99	19.006	BB
2,4,5-T	12.623	94613.0	4983.71	18.722	BV
Chloramben	12.673	98990.0	6012.12	18.954	VB
2,4-DB	13.197	21479.0	1025.98	18.932	BV
Dinoseb	13.533	100845.0	4871.89	18.898	Vx
Bentazon	14.133	15125.0	803.13	18.898	BV
Dacthal	14.537	116826.0	6624.78	18.302	VV
Picloram	14.617	140775.0	8580.05	18.898	VB
Acifluorfen	16.813	115218.0	6000.10	19.254	BV

c:\ezchrom\chrom\qd08\qd08.003 -- Channel B



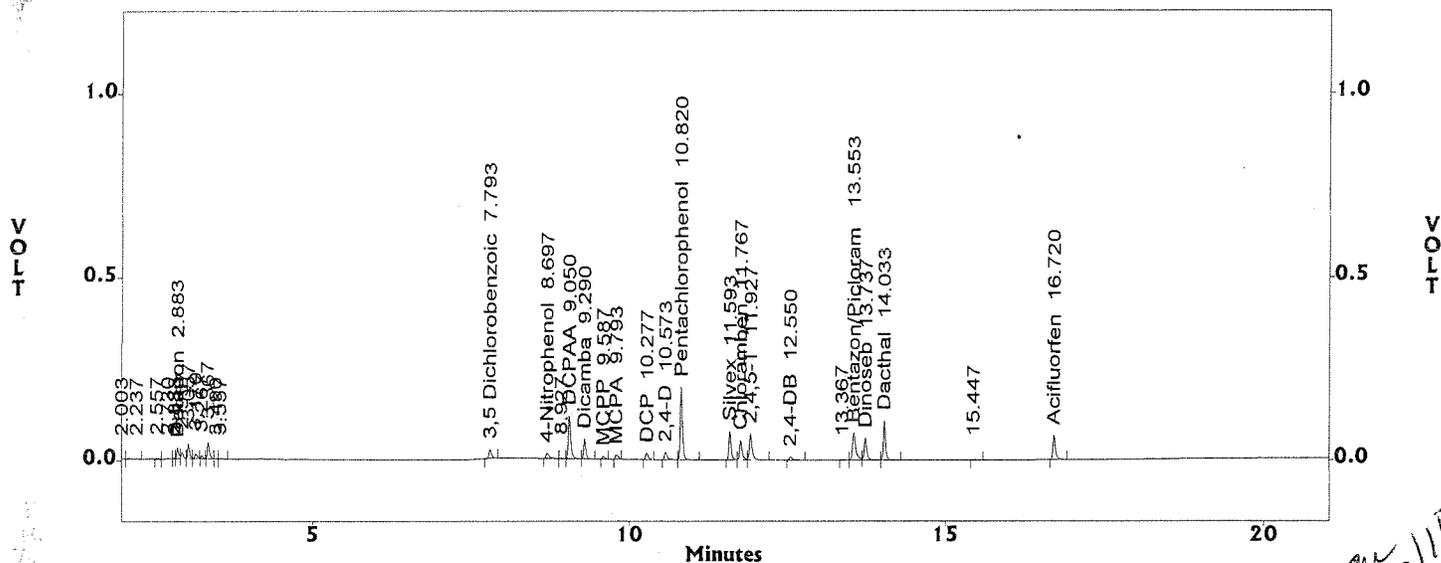
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.004
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : HE09D0803
 Acquired : Apr 08, 2015 16:08:11
 Printed : Apr 09, 2015 09:48:27
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	2.883	65736.0	1656.60	36.412	xV
3,5 Dichlorobenzo	7.793	71149.0	1722.43	37.256	vv
4-Nitrophenol	8.697	52186.0	1289.87	36.340	BV
DCPAA	9.050	317147.0	750.10	374.320	vv
Dicamba	9.290	129398.0	3238.35	37.608	vv
MCPP	9.587	20397.0	8.42	1877.200	BI
MCPA	9.793	38401.0	15.83	1869.200	BI
DCP	10.277	48433.0	1193.88	37.740	BI
2,4-D	10.573	65069.0	1510.05	37.608	BV
Pentachlorophenol	10.820	499826.0	12495.55	37.984	VB
Silvex	11.593	197359.0	5002.75	38.012	BV
Chloramben	11.767	154338.0	4132.75	37.444	VV
2,4,5-T	11.927	216887.0	5396.66	37.908	VB
2,4-DB	12.550	31116.0	801.45	37.864	BV
Bentazon/Picloram	13.553	267353.0	3540.81	75.592	VV
Dinoseb	13.737	168625.0	4088.80	37.796	VV
Dacthal	14.033	264994.0	6873.97	36.604	VB
Acifluorfen	16.720	188126.0	4699.56	38.508	vv

c:\ezchrom\chrom\qd08\qd08.004 -- Channel A



Handwritten: RZ 4/10/15

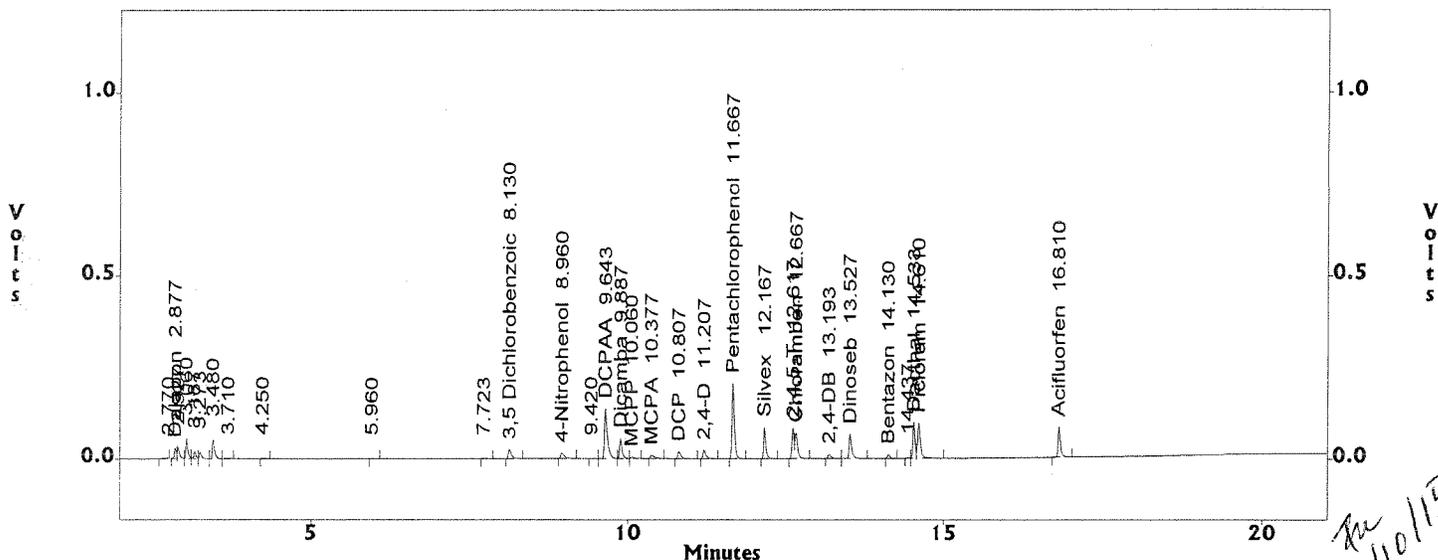
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.004
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : HE09D0803
 Acquired : Apr 08, 2015 16:08:11
 Printed : Apr 09, 2015 09:48:27
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	64416.0	1730.88	36.412	xS
3,5 Dichlorobenzoic	8.130	76951.0	1937.97	37.256	BV
4-Nitrophenol	8.960	59478.0	1457.43	36.340	BB
DCPAA	9.643	441194.0	1082.03	374.320	VV
Dicamba	9.887	147963.0	3890.32	37.608	VV
MCPPP	10.060	15953.0	8.21	1877.200	VV
MCPA	10.377	40808.0	17.76	1869.200	VB
DCP	10.807	59641.0	1485.51	37.740	BV
2,4-D	11.207	75010.0	1894.33	37.608	VV
Pentachlorophenol	11.667	565297.0	14739.16	37.984	BB
Silvex	12.167	217350.0	5953.99	38.012	BB
2,4,5-T	12.617	194435.0	4983.71	37.444	BV
Chloramben	12.667	203136.0	6012.12	37.908	Vx
2,4-DB	13.193	39769.0	1025.98	37.864	BV
Dinoseb	13.527	192562.0	4871.89	37.796	Vx
Bentazon	14.130	28250.0	803.13	37.796	BV
Dacthal	14.533	236390.0	6624.78	36.604	VV
Picloram	14.610	293562.0	8580.05	37.796	VV
Acifluorfen	16.810	229055.0	6000.10	38.508	VV

c:\ezchrom\chrom\qd08\qd08.004 -- Channel B



For 4/10/15

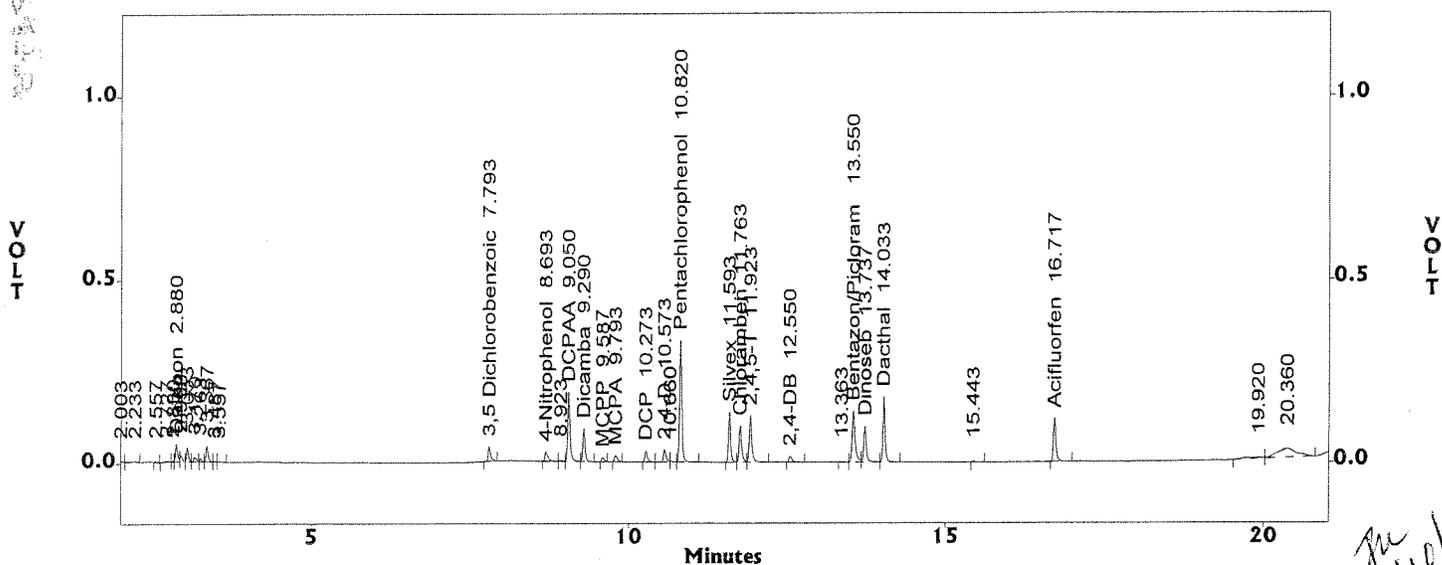
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.005
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : HE09D0804
 Acquired : Apr 08, 2015 16:36:57
 Printed : Apr 09, 2015 09:48:33
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.880	109079.0	1656.60	63.721	xV
3,5 Dichlorobenzo	7.793	115094.0	1722.43	65.198	vv
4-Nitrophenol	8.693	84857.0	1289.87	63.595	BV
DCPAA	9.050	494353.0	750.10	655.060	vv
Dicamba	9.290	216364.0	3238.35	65.814	vv
MCPP	9.587	29818.0	8.42	3285.100	BI
MCPA	9.793	56310.0	15.83	3271.100	BI
DCP	10.273	80985.0	1193.88	66.045	BV
2,4-D	10.573	100684.0	1510.05	65.814	Vx
Pentachlorophenol	10.820	832103.0	12495.55	66.472	VB
Silvex	11.593	339802.0	5002.75	66.521	BV
Chloramben	11.763	273515.0	4132.75	65.527	VV
2,4,5-T	11.923	363884.0	5396.66	66.339	VV
2,4-DB	12.550	52693.0	801.45	66.262	BV
Bentazon/Picloram	13.550	477351.0	3540.81	132.286	VV
Dinoseb	13.737	275342.0	4088.80	66.143	VV
Dacthal	14.033	449214.0	6873.97	64.057	VB
Acifluorfen	16.717	326255.0	4699.56	67.389	vv

c:\ezchrom\chrom\qd08\qd08.005 -- Channel A



Handwritten: The 4/10/15

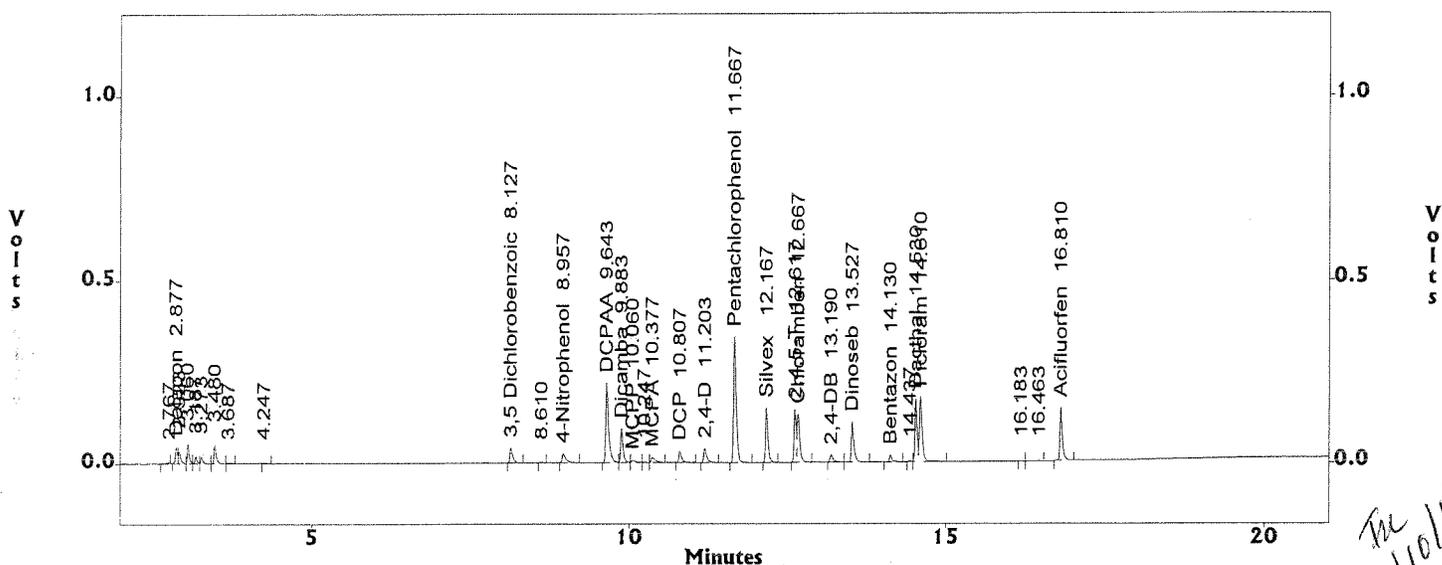
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.005
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0804
Acquired : Apr 08, 2015 16:36:57
Printed : Apr 09, 2015 09:48:33
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	109402.0	1730.88	63.721	xS
3,5 Dichlorobenzoic	8.127	127742.0	1937.97	65.198	BV
4-Nitrophenol	8.957	95925.0	1457.43	63.595	BV
DCPAA	9.643	714961.0	1082.03	655.060	BV
Dicamba	9.883	254892.0	3890.32	65.814	VV
MCPP	10.060	27558.0	8.21	3285.100	VV
MCPA	10.377	61491.0	17.76	3271.100	VB
DCP	10.807	98014.0	1485.51	66.045	BB
2,4-D	11.203	126298.0	1894.33	65.814	BV
Pentachlorophenol	11.667	1001886.0	14739.16	66.472	VB
Silvex	12.167	395357.0	5953.99	66.521	BB
2,4,5-T	12.617	335369.0	4983.71	65.527	BS
Chloramben	12.667	390587.0	6012.12	66.339	Sx
2,4-DB	13.190	68438.0	1025.98	66.262	BV
Dinoseb	13.527	327888.0	4871.89	66.143	Vx
Bentazon	14.130	51611.0	803.13	66.143	BB
Dacthal	14.530	431578.0	6624.78	64.057	VV
Picloram	14.610	552804.0	8580.05	66.143	VV
Acifluorfen	16.810	408059.0	6000.10	67.389	VV

c:\ezchrom\chrom\qd08\qd08.005 -- Channel B



The
4/10/15

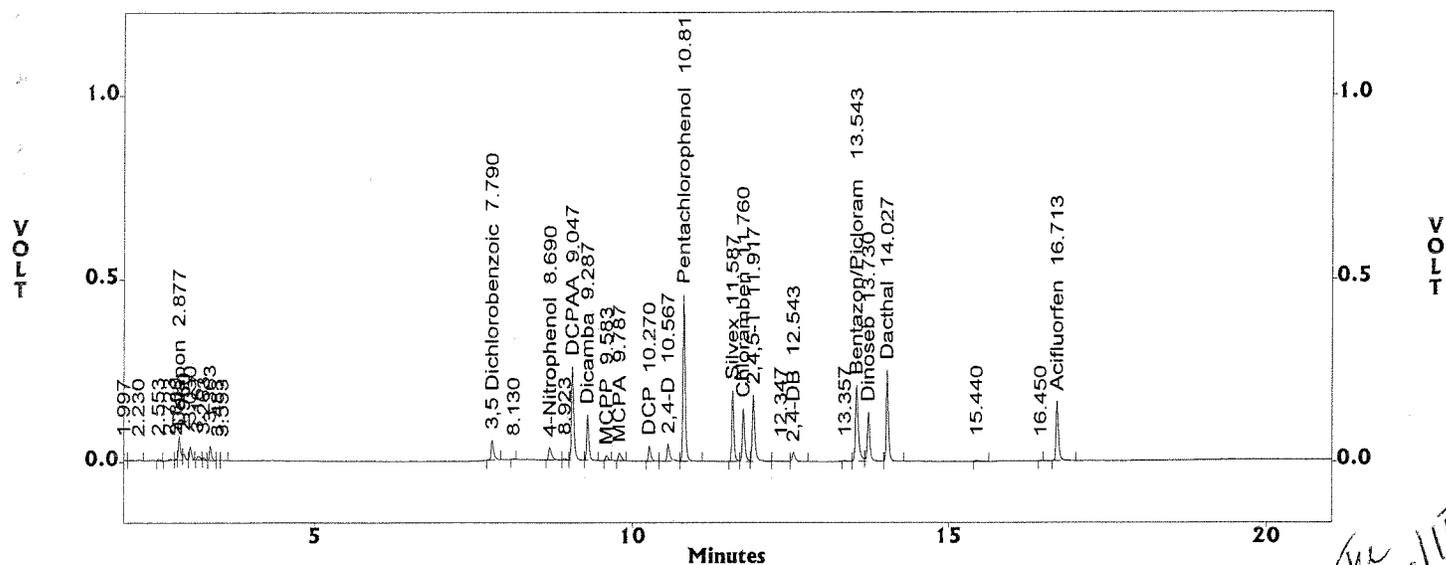
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.006
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0805
Acquired : Apr 08, 2015 17:05:34
Printed : Apr 09, 2015 09:48:40
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	2.877	150769.0	1656.60	91.030	xS
3,5 Dichlorobenzo	7.790	156164.0	1722.43	93.140	vv
4-Nitrophenol	8.690	114268.0	1289.87	90.850	BV
DCPAA	9.047	665980.0	750.10	935.800	vv
Dicamba	9.287	301254.0	3238.35	94.020	vv
MCPP	9.583	38372.0	8.42	4693.000	BI
MCPA	9.787	70480.0	15.83	4673.000	BI
DCP	10.270	111080.0	1193.88	94.350	BV
2,4-D	10.567	147315.0	1510.05	94.020	VV
Pentachlorophenol	10.817	1154990.0	12495.55	94.960	VB
Silvex	11.587	480286.0	5002.75	95.030	BV
Chloramben	11.760	397306.0	4132.75	93.610	VV
2,4,5-T	11.917	513643.0	5396.66	94.770	VV
2,4-DB	12.543	75070.0	801.45	94.660	VV
Bentazon/Picloram	13.543	688754.0	3540.81	188.980	VV
Dinoseb	13.730	372007.0	4088.80	94.490	VV
Dacthal	14.027	624679.0	6873.97	91.510	VB
Acifluorfen	16.713	444901.0	4699.56	96.270	vv

c:\ezchrom\chrom\qd08\qd08.006 -- Channel A



*File
4/10/15*

5056

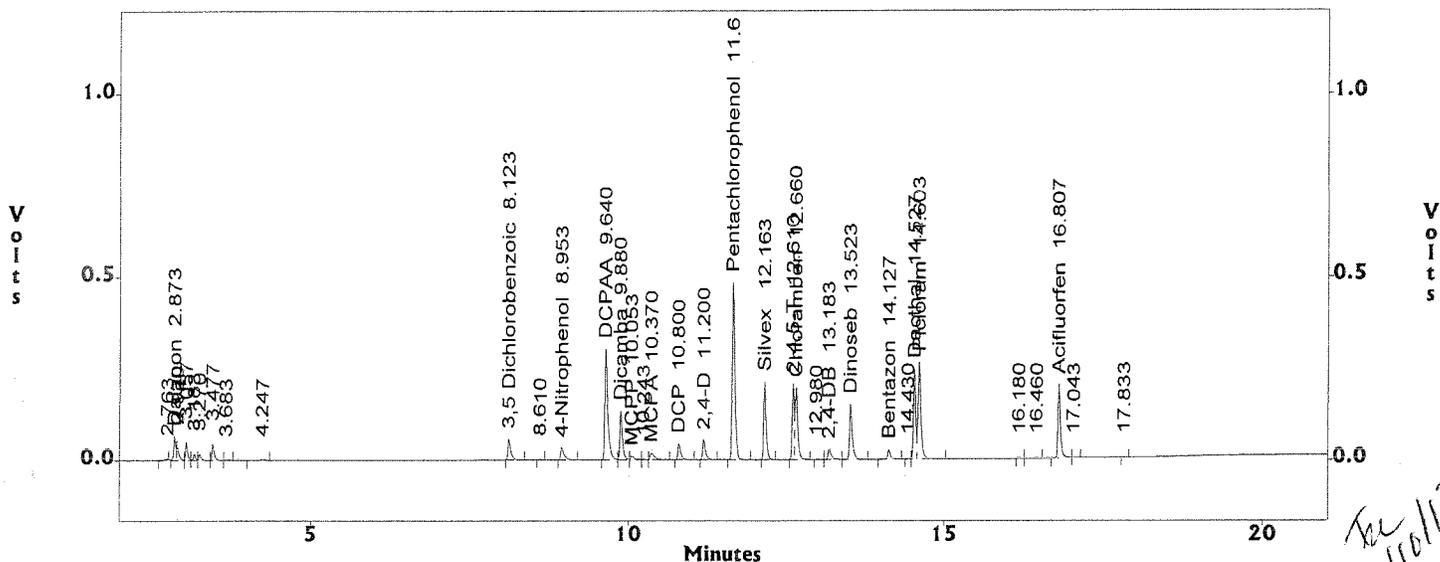
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.006
Method : c:\ezchrom\methods\he09d08.met
Sample ID : HE09D0805
Acquired : Apr 08, 2015 17:05:34
Printed : Apr 09, 2015 09:48:40
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	2.873	155275.0	1730.88	91.030	xS
3,5 Dichlorobenzoic	8.123	177949.0	1937.97	93.140	BB
4-Nitrophenol	8.953	128503.0	1457.43	90.850	BV
DCPAA	9.640	982800.0	1082.03	935.800	BV
Dicamba	9.880	366379.0	3890.32	94.020	VV
MCPP	10.053	38647.0	8.21	4693.000	VV
MCPA	10.370	82280.0	17.76	4673.000	VB
DCP	10.800	137177.0	1485.51	94.350	BB
2,4-D	11.200	176618.0	1894.33	94.020	BV
Pentachlorophenol	11.663	1440250.0	14739.16	94.960	VB
Silvex	12.163	581388.0	5953.99	95.030	BB
2,4,5-T	12.610	462002.0	4983.71	93.610	BS
Chloramben	12.660	608728.0	6012.12	94.770	Sx
2,4-DB	13.183	97565.0	1025.98	94.660	VV
Dinoseb	13.523	455117.0	4871.89	94.490	Vx
Bentazon	14.127	77839.0	803.13	94.490	VB
Dacthal	14.527	620323.0	6624.78	91.510	VV
Picloram	14.603	843681.0	8580.05	94.490	VV
Acifluorfen	16.807	574884.0	6000.10	96.270	VV

c:\ezchrom\chrom\qd08\qd08.006 -- Channel B



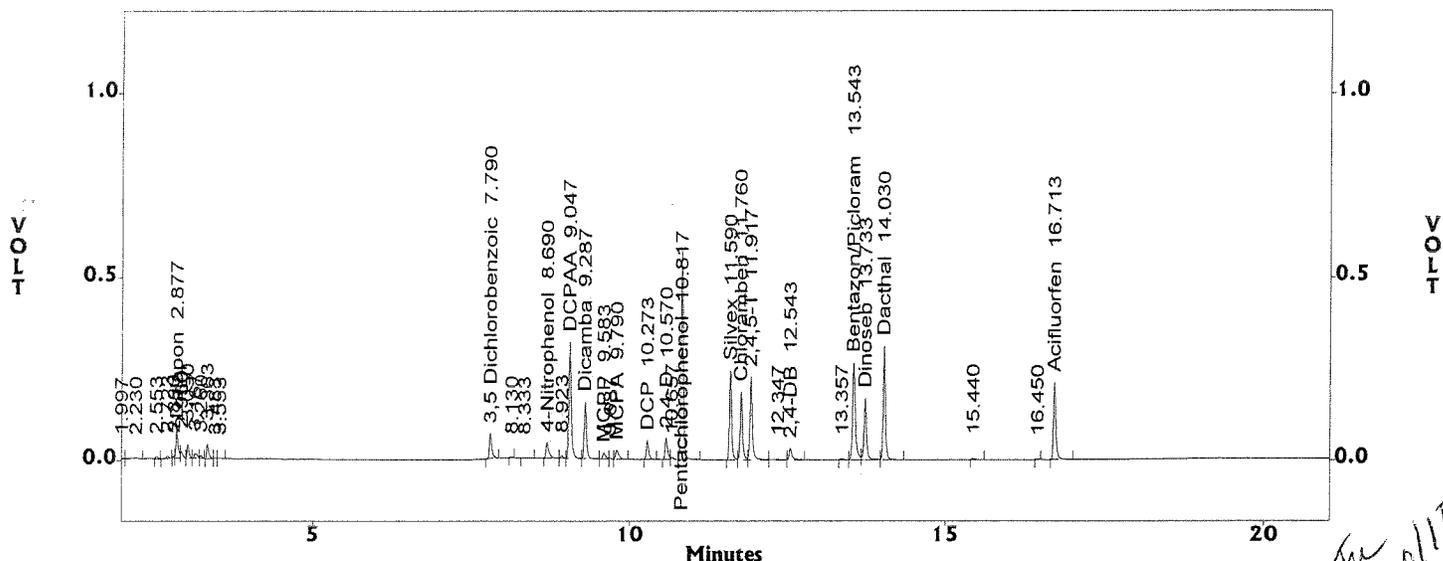
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.007
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : HE09D0806
 Acquired : Apr 08, 2015 17:34:21
 Printed : Apr 09, 2015 09:48:47
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	2.877	184922.0	1656.60	118.339	SS
3,5 Dichlorobenzo	7.790	190910.0	1722.43	121.082	vv
4-Nitrophenol	8.690	140286.0	1289.87	118.105	BV
DCPAA	9.047	813136.0	750.10	1216.540	vv
Dicamba	9.287	375613.0	3238.35	122.226	vv
MCPP	9.583	48414.0	8.42	6100.900	VV
MCPA	9.790	83207.0	15.83	6074.900	VV
DCP	10.273	136641.0	1193.88	122.655	BV
2,4-D	10.570	161457.0	1510.05	122.226	VS
Pentachlorophenol	10.817	1434487.0	12495.55	123.448	VB
Silvex	11.590	599722.0	5002.75	123.539	BV
Chloramben	11.760	499502.0	4132.75	121.693	VV
2,4,5-T	11.917	634158.0	5396.66	123.201	VV
2,4-DB	12.543	93671.0	801.45	123.058	VV
Bentazon/Picloram	13.543	865529.0	3540.81	245.674	VV
Dinoseb	13.733	460225.0	4088.80	122.837	VV
Dacthal	14.030	777428.0	6873.97	118.963	VB
Acifluorfen	16.713	566335.0	4699.56	125.151	vv

c:\ezchrom\chrom\qd08\qd08.007 -- Channel A



File 4/10/15

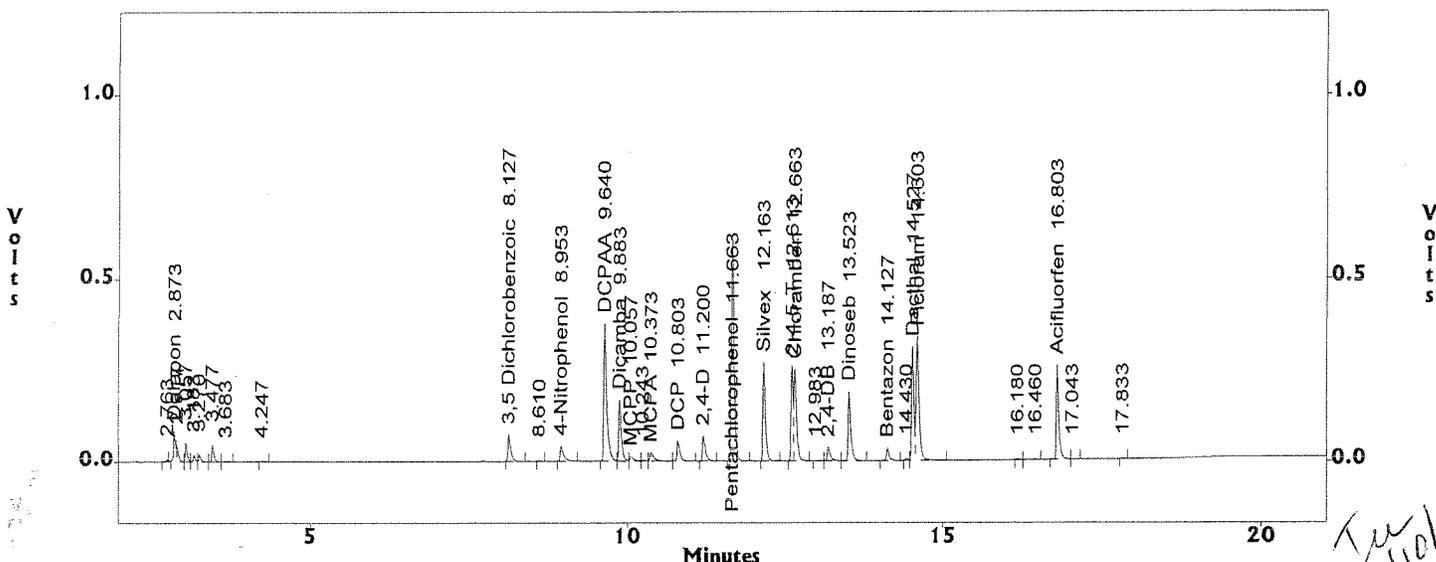
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.007
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : HE09D0806
 Acquired : Apr 08, 2015 17:34:21
 Printed : Apr 09, 2015 09:48:47
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	192924.0	1730.88	118.339	MM
3,5 Dichlorobenzoic	8.127	222768.0	1937.97	121.082	BV
4-Nitrophenol	8.953	156547.0	1457.43	118.105	BV
DCPAA	9.640	1216560.0	1082.03	1216.540	BV
Dicamba	9.883	465644.0	3890.32	122.226	VV
MCPP	10.057	49861.0	8.21	6100.900	VV
MCPA	10.373	103228.0	17.76	6074.900	VV
DCP	10.803	172928.0	1485.51	122.655	VB
2,4-D	11.200	219939.0	1894.33	122.226	BV
Pentachlorophenol	11.663	1824080.0	14739.16	123.448	VB
Silvex	12.163	746772.0	5953.99	123.539	BV
2,4,5-T	12.613	603197.0	4983.71	121.693	VS
Chloramben	12.663	763704.0	6012.12	123.201	Sx
2,4-DB	13.187	120728.0	1025.98	123.058	VV
Dinoseb	13.523	571856.0	4871.89	122.837	Vx
Bentazon	14.127	99125.0	803.13	122.837	BB
Dacthal	14.527	791905.0	6624.78	118.963	VV
Picloram	14.603	1096835.0	8580.05	122.837	VV
Acifluorfen	16.803	744166.0	6000.10	125.151	VV

c:\ezchrom\chrom\qd08\qd08.007 -- Channel B



TW
4/10/15

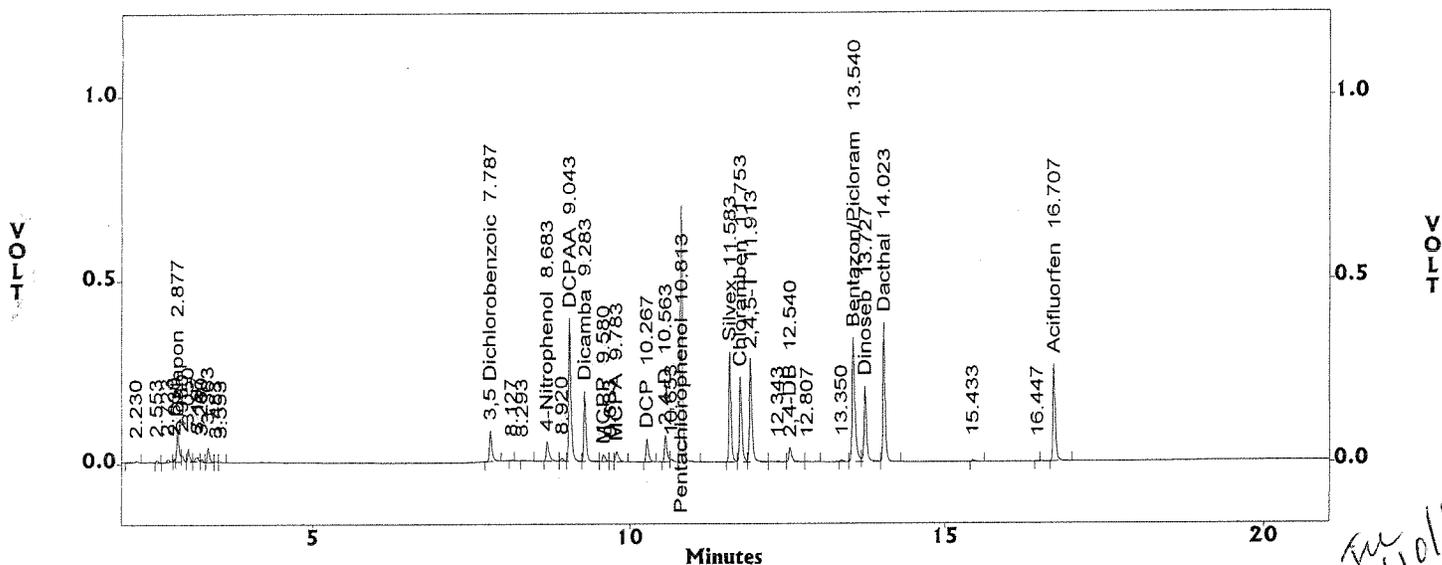
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.008
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : HE09D0807
 Acquired : Apr 08, 2015 18:02:53
 Printed : Apr 09, 2015 09:48:53
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	2.877	226682.0	1656.60	145.648	SS
3,5 Dichlorobenzo	7.787	234280.0	1722.43	149.024	vv
4-Nitrophenol	8.683	169638.0	1289.87	145.360	BV
DCPAA	9.043	983920.0	750.10	1497.280	vv
Dicamba	9.283	460022.0	3238.35	150.432	vv
MCPP	9.580	56636.0	8.42	7508.800	VV
MCPA	9.783	94323.0	15.83	7476.800	VV
DCP	10.267	165810.0	1193.88	150.960	BV
2,4-D	10.563	195903.0	1510.05	150.432	VS
Pentachlorophenol	10.813	1755239.0	12495.55	151.936	VB
Silvex	11.583	735580.0	5002.75	152.048	BV
Chloramben	11.753	619813.0	4132.75	149.776	VV
2,4,5-T	11.913	768898.0	5396.66	151.632	VV
2,4-DB	12.540	117830.0	801.45	151.456	VV
Bentazon/Picloram	13.540	1076789.0	3540.81	302.368	VV
Dinoseb	13.727	558697.0	4088.80	151.184	VV
Dacthal	14.023	951399.0	6873.97	146.416	VB
Acifluorfen	16.707	697596.0	4699.56	154.032	vv

c:\ezchrom\chrom\qd08\qd08.008 -- Channel A



*FW
4/10/15*

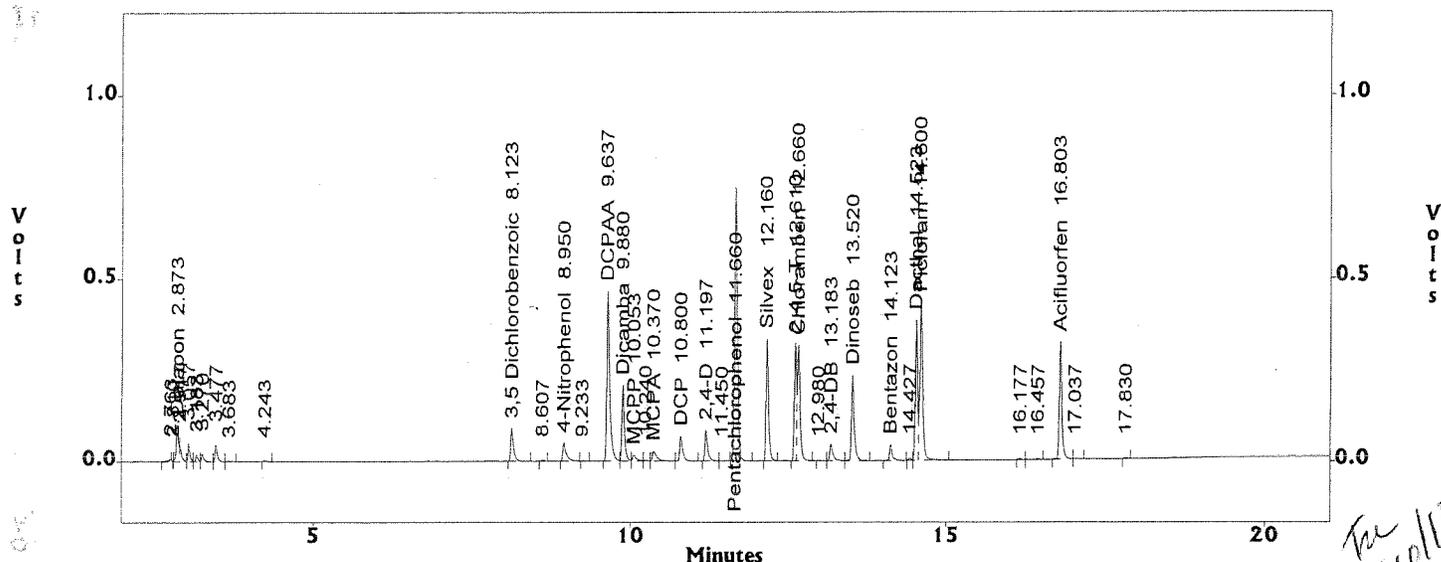
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.008
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : HE09D0807
 Acquired : Apr 08, 2015 18:02:53
 Printed : Apr 09, 2015 09:48:54
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	250996.0	1730.88	145.648	xS
3,5 Dichlorobenzoic	8.123	273300.0	1937.97	149.024	BV
4-Nitrophenol	8.950	188082.0	1457.43	145.360	BV
DCPAA	9.637	1489031.0	1082.03	1497.280	BV
Dicamba	9.880	581571.0	3890.32	150.432	VV
MCPP	10.053	61142.0	8.21	7508.800	VV
MCPA	10.370	121086.0	17.76	7476.800	VV
DCP	10.800	212688.0	1485.51	150.960	VB
2,4-D	11.197	270646.0	1894.33	150.432	BV
Pentachlorophenol	11.660	2271329.0	14739.16	151.936	VB
Silvex	12.160	938413.0	5953.99	152.048	BB
2,4,5-T	12.610	746512.0	4983.71	149.776	BS
Chloramben	12.660	973632.0	6012.12	151.632	Sx
2,4-DB	13.183	150151.0	1025.98	151.456	VV
Dinoseb	13.520	707712.0	4871.89	151.184	Vx
Bentazon	14.123	126048.0	803.13	151.184	BV
Dacthal	14.523	984509.0	6624.78	146.416	VV
Picloram	14.600	1411045.0	8580.05	151.184	VV
Acifluorfen	16.803	934036.0	6000.10	154.032	VV

c:\ezchrom\chrom\qd08\qd08.008 -- Channel B



*See
4/10/15*

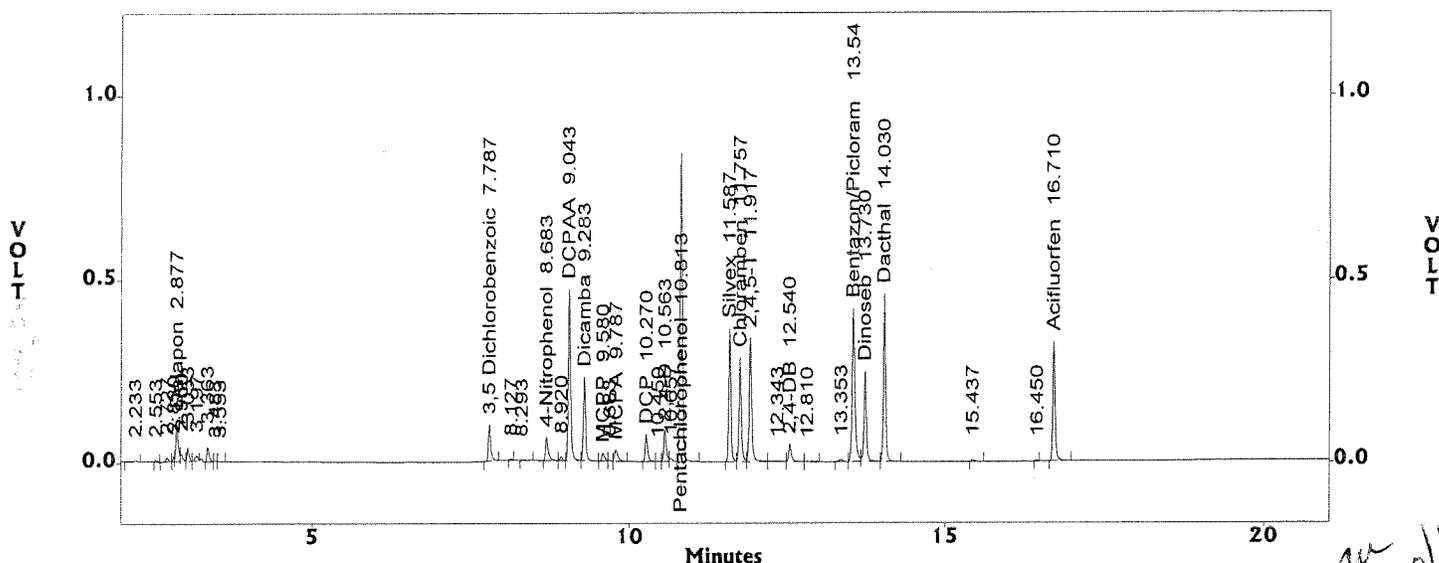
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.009
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : HE09D0808
 Acquired : Apr 08, 2015 18:31:36
 Printed : Apr 09, 2015 09:49:01
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	2.877	272222.0	1656.60	182.060	SS
3,5 Dichlorobenzo	7.787	275487.0	1722.43	186.280	vv
4-Nitrophenol	8.683	202105.0	1289.87	181.700	BV
DCPAA	9.043	1174981.0	750.10	1871.600	vv
Dicamba	9.283	556237.0	3238.35	188.040	vv
MCPP	9.580	64811.0	8.42	9386.000	VV
MCPA	9.787	106124.0	15.83	-1.000	VV
DCP	10.270	198719.0	1193.88	188.700	BV
2,4-D	10.563	234331.0	1510.05	188.040	VS
Pentachlorophenol	10.813	2123075.0	12495.55	189.920	VB
Silvex	11.587	890701.0	5002.75	190.060	BV
Chloramben	11.757	754518.0	4132.75	187.220	VV
2,4,5-T	11.917	927897.0	5396.66	189.540	VV
2,4-DB	12.540	147689.0	801.45	189.320	VV
Bentazon/Picloram	13.543	1309029.0	3540.81	377.960	VV
Dinoseb	13.730	673476.0	4088.80	188.980	VV
Dacthal	14.030	1146474.0	6873.97	183.020	VB
Acifluorfen	16.710	853242.0	4699.56	192.540	vv

c:\ezchrom\chrom\qd08\qd08.009 -- Channel A



For 4/10/15

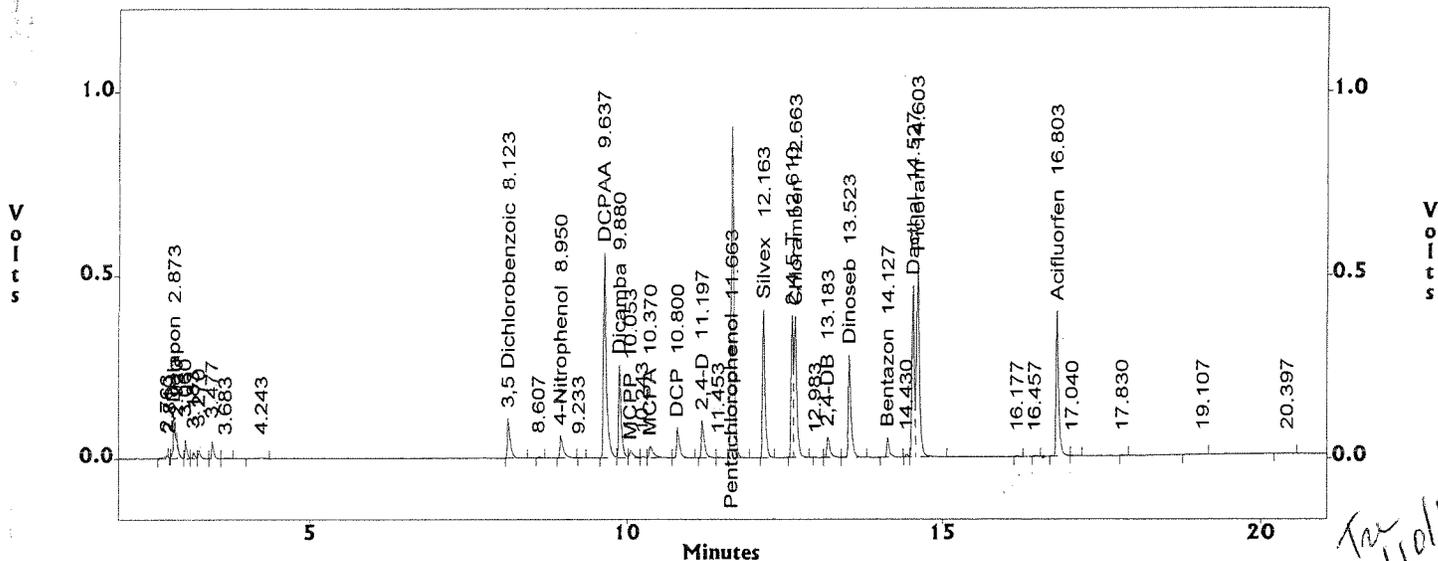
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.009
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : HE09D0808
 Acquired : Apr 08, 2015 18:31:36
 Printed : Apr 09, 2015 09:49:01
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	330884.0	1730.88	182.060	xS
3,5 Dichlorobenzoic	8.123	330857.0	1937.97	186.280	BV
4-Nitrophenol	8.950	223682.0	1457.43	181.700	BV
DCPAA	9.637	1796801.0	1082.03	1871.600	BV
Dicamba	9.880	715082.0	3890.32	188.040	VV
MCPP	10.053	73702.0	8.21	9386.000	VV
MCPA	10.370	141196.0	17.76	9346.000	VV
DCP	10.800	257454.0	1485.51	188.700	VB
2,4-D	11.197	327840.0	1894.33	188.040	BV
Pentachlorophenol	11.663	2784160.0	14739.16	189.920	VB
Silvex	12.163	1157805.0	5953.99	190.060	BB
2,4,5-T	12.610	869713.0	4983.71	187.220	BS
Chloramben	12.663	1245791.0	6012.12	189.540	Sx
2,4-DB	13.183	181938.0	1025.98	189.320	VV
Dinoseb	13.523	862098.0	4871.89	188.980	Vx
Bentazon	14.127	156732.0	803.13	188.980	BV
Dacthal	14.527	1214382.0	6624.78	183.020	VV
Picloram	14.603	1756604.0	8580.05	188.980	VV
Acifluorfen	16.803	1161291.0	6000.10	192.540	VV

c:\ezchrom\chrom\qd08\qd08.009 -- Channel B



Tex
4/10/15

SECOND SOURCE VERIFICATION

SECOND SOURCE VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-QA GC09
 GC Column : STX-CLPEST
 Column size ID : 30MX0.32MM 0.32UM
 Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
 Conc Cont LFID & Datetime: QD08010A 04/08/2015 19:00
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE CONC	AVERAGE CF	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO			AREA	CONC			
Dalapon	2.877	2.863	2.891	91.0	1656.6	155836	94.07	3		20
3,5-Dichlorobenzo	7.787	7.765	7.809	93.1	1722.4	144264	83.76	-10		20
4-Nitrophenol	8.687	8.666	8.708	90.8	1289.9	119778	92.86	2		20
Dicamba	9.283	9.268	9.298	94.0	3238.3	314105	97.00	3		20
Dichloroprop	10.270	10.252	10.288	94.3	1193.9	119536	100.12	6		20
2,4-D	10.567	10.547	10.587	94.0	1510.1	140414	92.99	-1		20
Pentachlorophenol	10.813	10.795	10.831	95.0	12495.6	1173716	93.93	-1		20
2,4,5-TP(Silvex)	11.587	11.571	11.603	95.0	5002.7	494677	98.88	4		20
Chloramben	11.757	11.741	11.773	93.6	4132.7	414904	100.39	7		20
2,4,5-T	11.917	11.896	11.938	94.8	5396.7	544211	100.84	6		20
2,4-DB	12.540	12.518	12.562	94.7	801.400	74774	93.30	-1		20
Bentazon/Picloram	13.543	13.522	13.564	189.0	3540.8	720655	203.53	8		20
Dinoseb	13.730	13.712	13.748	94.5	4088.8	386970	94.64	0		20
Dacthal	14.027	14.006	14.048	91.5	6874.0	650430	94.62	3		20
Acifluorfen	16.710	16.692	16.728	96.3	4699.6	463640	98.66	2		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.043	9.027	9.059	935.8	750.100	686706	915.49	-2		20

True
4/10/15

SECOND SOURCE VERIFICATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-QB GC09
 GC Column : STX-CLPESTII
 Column size ID : 30MX0.32MM 0.25UM
 Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
 Conc Cont LFID & Datetime: QD08010B 04/08/2015 19:00
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE	AVERAGE	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO	CONC	CF	AREA	CONC			
Dalapon	2.873	2.857	2.889	91.0	1730.9	151015	87.25	-4		20
3,5-Dichlorobenzo	8.123	8.107	8.139	93.1	1938.0	170121	87.78	-6		20
4-Nitrophenol	8.950	8.932	8.968	90.8	1457.4	131837	90.46	-0		20
Dicamba	9.877	9.861	9.893	94.0	3890.3	381414	98.04	4		20
Dichloroprop	10.800	10.786	10.814	94.3	1485.5	149707	100.78	7		20
2,4-D	11.197	11.181	11.213	94.0	1894.3	172102	90.85	-3		20
Pentachlorophenol	11.660	11.642	11.678	95.0	14739.2	1473344	99.96	5		20
2,4,5-TP(Silvex)	12.160	12.146	12.174	95.0	5954.0	605701	101.73	7		20
Chloramben	12.660	12.630	12.690	93.6	6012.1	627649	104.40	12		20
2,4,5-T	12.610	12.594	12.626	94.8	4983.7	509009	102.14	8		20
2,4-DB	13.183	13.159	13.207	94.7	1026.0	95673	93.25	-1		20
Dinoseb	13.520	13.502	13.538	94.5	4871.9	471782	96.84	2		20
Bentazon	14.123	14.107	14.139	94.5	803.100	78704	98.00	4		20
Dacthal	14.523	14.507	14.539	91.5	6624.8	642595	97.00	6		20
Picloram	14.600	14.576	14.624	94.5	8580.1	882118	102.81	9		20
Acifluorfen	16.803	16.785	16.821	96.3	6000.1	610451	101.74	6		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.637	9.621	9.653	935.8	1082.0	999048	923.31	-1		20

Tax
4/10/15

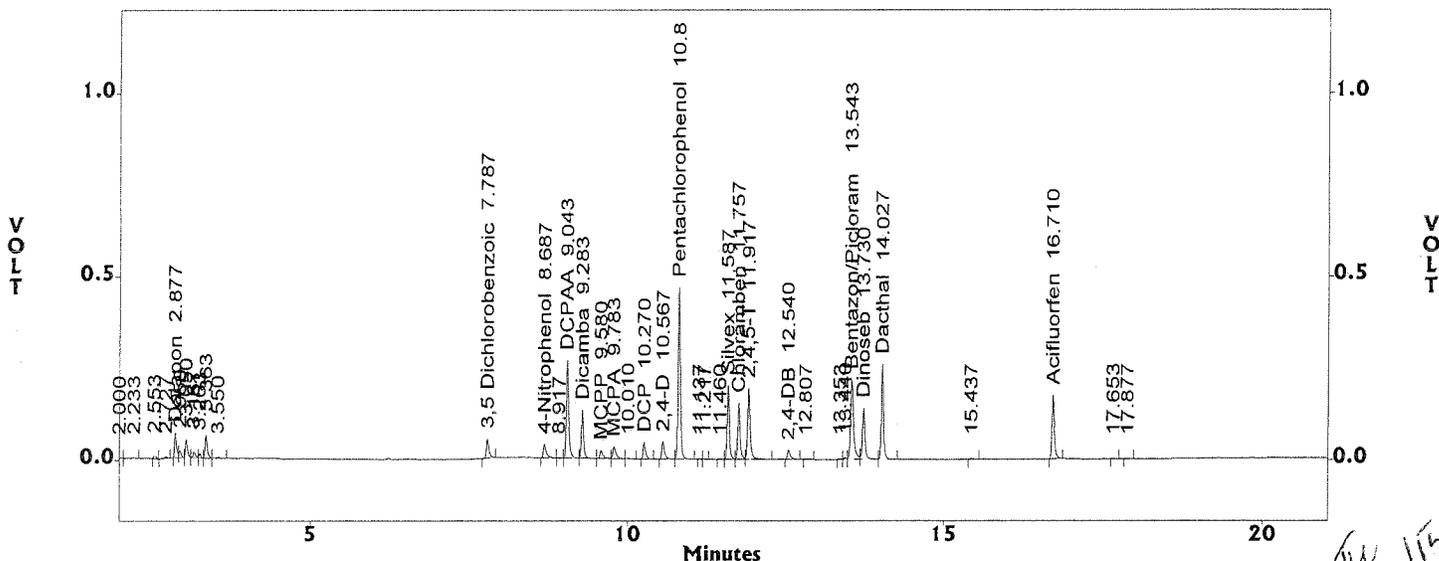
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.010
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : IHE09D08001
 Acquired : Apr 08, 2015 19:00:21
 Printed : Apr 09, 2015 09:49:08
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.877	155836.0	1656.60	94.070	xV
3,5 Dichlorobenzo	7.787	144264.0	1722.43	83.756	vv
4-Nitrophenol	8.687	119778.0	1289.87	92.860	BV
DCPAA	9.043	686706.0	750.10	915.486	vv
Dicamba	9.283	314105.0	3238.35	96.995	vv
MCPP	9.580	69714.0	8.42	8282.514	VV
MCPA	9.783	109447.0	15.83	6913.623	VV
DCP	10.270	119536.0	1193.88	100.124	BV
2,4-D	10.567	140414.0	1510.05	92.986	VV
Pentachlorophenol	10.813	1173716.0	12495.55	93.931	VB
Silvex	11.587	494677.0	5002.75	98.881	VV
Chloramben	11.757	414904.0	4132.75	100.394	VV
2,4,5-T	11.917	544211.0	5396.66	100.842	VB
2,4-DB	12.540	74774.0	801.45	93.299	BB
Bentazon/Picloram	13.543	720655.0	3540.81	203.528	VV
Dinoseb	13.730	386970.0	4088.80	94.642	VV
Dacthal	14.027	650430.0	6873.97	94.622	VB
Acifluorfen	16.710	463640.0	4699.56	98.656	vv

c:\ezchrom\chrom\qd08\qd08.010 -- Channel A



TR
4/10/15

5067

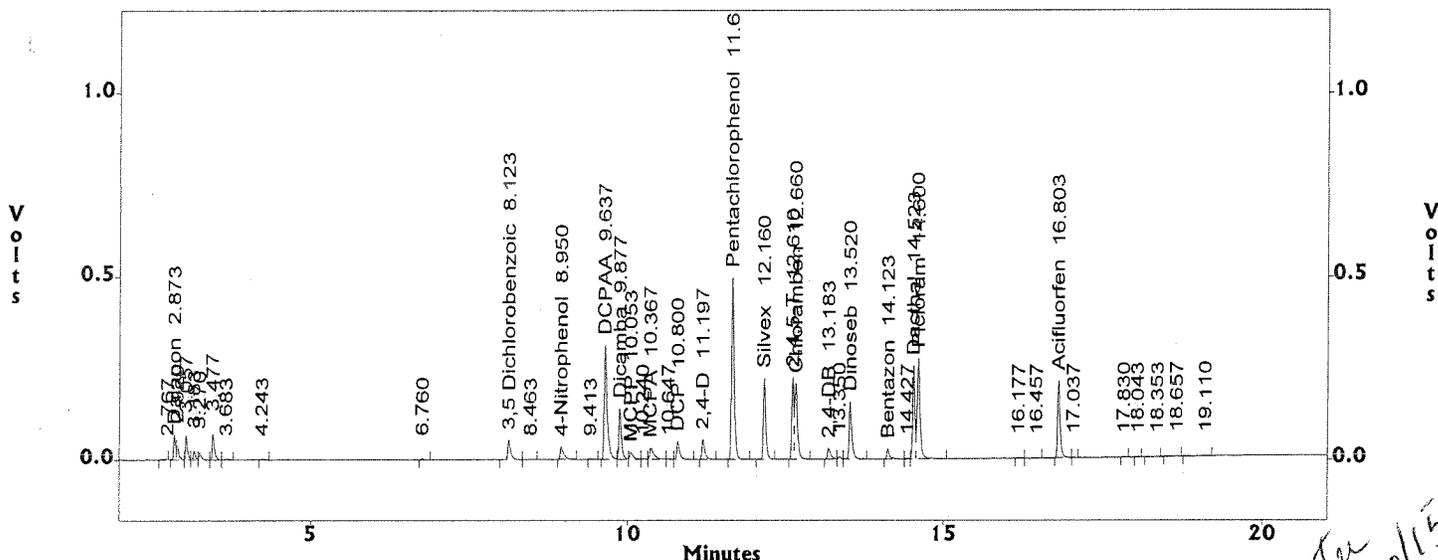
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd08\qd08.010
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : IHE09D08001
 Acquired : Apr 08, 2015 19:00:21
 Printed : Apr 09, 2015 09:49:08
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.873	151015.0	1730.88	87.247	xS
3,5 Dichlorobenzoic	8.123	170121.0	1937.97	87.783	BV
4-Nitrophenol	8.950	131837.0	1457.43	90.459	BB
DCPAA	9.637	999048.0	1082.03	923.312	VV
Dicamba	9.877	381414.0	3890.32	98.042	VV
MCPP	10.053	72184.0	8.21	8786.874	VV
MCPA	10.367	141662.0	17.76	7978.510	VV
DCP	10.800	149707.0	1485.51	100.778	VB
2,4-D	11.197	172102.0	1894.33	90.851	BV
Pentachlorophenol	11.660	1473344.0	14739.16	99.961	BB
Silvex	12.160	605701.0	5953.99	101.730	BV
2,4,5-T	12.610	509009.0	4983.71	102.135	VS
Chloramben	12.660	627649.0	6012.12	104.397	Sx
2,4-DB	13.183	95673.0	1025.98	93.251	BV
Dinoseb	13.520	471782.0	4871.89	96.837	VB
Bentazon	14.123	78704.0	803.13	97.996	BV
Dacthal	14.523	642595.0	6624.78	96.999	VV
Picloram	14.600	882118.0	8580.05	102.810	VB
Acifluorfen	16.803	610451.0	6000.10	101.740	VV

c:\ezchrom\chrom\qd08\qd08.010 -- Channel B



Te
4/10/15
5068

DAILY CALIBRATIONS

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-QA GC09
 GC Column : STX-CLPEST
 Column size ID : 30MX0.32MM 0.32UM
 Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
 Conc Cont LFID & Datetime: QD28002A 04/28/2015 17:34
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE	AVERAGE	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO	CONC	CF	AREA	CONC			
Dinoseb	13.627	13.609	13.645	94.5	4088.8	438238	107.18	13		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.970	8.954	8.986	935.8	750.100	726106	968.01	3		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-QB GC09
 GC Column : STX-CLPESTII
 Column size ID : 30MX0.32MM 0.25UM
 Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
 Conc Cont LFID & Datetime: QD28002B 04/28/2015 17:34
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE	AVERAGE	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO	CONC	CF	AREA	CONC			
Dinoseb	13.497	13.479	13.515	94.5	4871.9	504738	103.60	10		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.613	9.597	9.629	935.8	1082.0	1075801	994.25	6		20

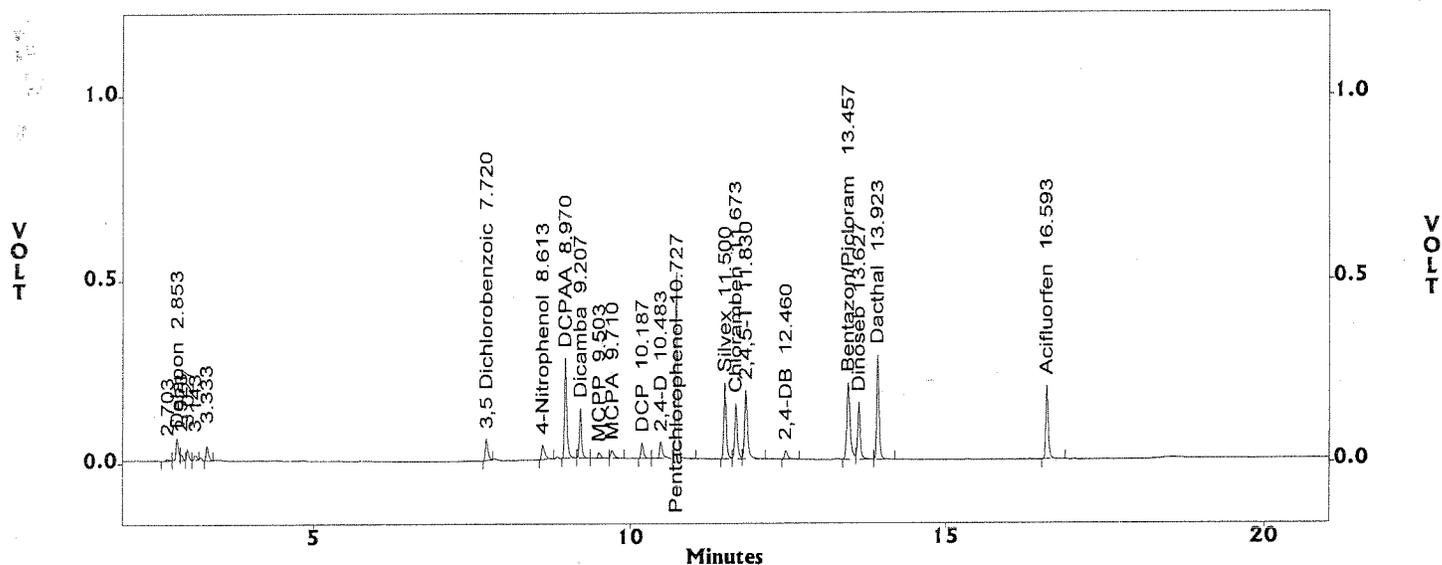
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08019
Acquired : Apr 28, 2015 17:34:52
Printed : Apr 29, 2015 11:15:12
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.853	179450.0	1656.60	108.324	VS
3,5 Dichlorobenzo	7.720	169503.0	1722.43	98.409	vv
4-Nitrophenol	8.613	139916.0	1289.87	108.473	VV
DCPAA	8.970	726106.0	750.10	968.012	vv
Dicamba	9.207	334274.0	3238.35	103.224	vv
MCPP	9.503	48768.0	8.42	5793.981	VV
MCPA	9.710	74594.0	15.83	4712.005	VV
DCP	10.187	117187.0	1193.88	98.156	BV
2,4-D	10.483	158484.0	1510.05	104.953	VV
Pentachlorophenol	10.727	1295293.0	12495.55	103.660	VB
Silvex	11.500	546769.0	5002.75	109.294	BV
Chloramben	11.673	454421.0	4132.75	109.956	VV
2,4,5-T	11.830	583176.0	5396.66	108.062	VB
2,4-DB	12.460	78881.0	801.45	98.423	VV
Bentazon/Picloram	13.457	795460.0	3540.81	224.655	VV
Dinoseb	13.627	438238.0	4088.80	107.180	VV
Dacthal	13.923	742708.0	6873.97	108.046	VB
Acifluorfen	16.593	555470.0	4699.56	118.196	vv

c:\ezchrom\chrom\qd28\qd28.002 -- Channel A



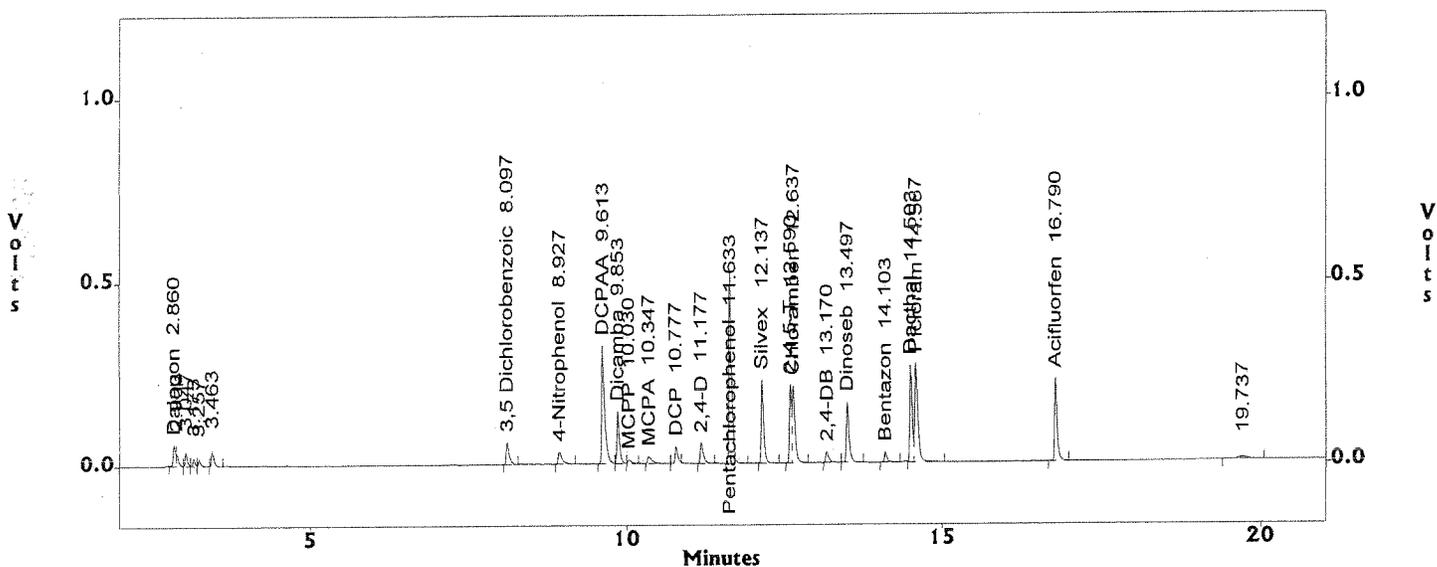
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.002
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08019
Acquired : Apr 28, 2015 17:34:52
Printed : Apr 29, 2015 11:15:13
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.860	161576.0	1730.88	93.349	SS
3,5 Dichlorobenzoic	8.097	193685.0	1937.97	99.942	BV
4-Nitrophenol	8.927	144083.0	1457.43	98.861	BV
DCPAA	9.613	1075801.0	1082.03	994.246	BV
Dicamba	9.853	399484.0	3890.32	102.687	VV
MCPP	10.030	43588.0	8.21	5305.916	VV
MCPA	10.347	91896.0	17.76	5175.651	VV
DCP	10.777	143454.0	1485.51	96.569	Vx
2,4-D	11.177	192343.0	1894.33	101.536	BV
Pentachlorophenol	11.633	1579729.0	14739.16	107.179	VB
Silvex	12.137	642905.0	5953.99	107.979	BB
2,4,5-T	12.590	482188.0	4983.71	96.753	BS
Chloramben	12.637	688923.0	6012.12	114.589	SV
2,4-DB	13.170	104444.0	1025.98	101.800	VV
Dinoseb	13.497	504738.0	4871.89	103.602	VB
Bentazon	14.103	81870.0	803.13	101.939	BV
Dacthal	14.503	701582.0	6624.78	105.903	VV
Picloram	14.587	909246.0	8580.05	105.972	VB
Acifluorfen	16.790	668914.0	6000.10	111.484	VV

c:\ezchrom\chrom\qd28\qd28.002 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-QA GC09
 GC Column : STX-CLPEST
 Column size ID : 30MX0.32MM 0.32UM
 Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
 Conc Cont LFID & Datetime: QD28015A 04/29/2015 00:59
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE	AVERAGE	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO	CONC	CF	AREA	CONC			
Dinoseb	13.603	13.585	13.621	94.5	4088.8	439853	107.57	14		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.950	8.934	8.966	935.8	750.100	743732	991.51	6		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-Q8 GC09
 GC Column : STX-CLPESTII
 Column size ID : 30MX0.32MM 0.25UM
 Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
 Conc Cont LFID & Datetime: QD28015B 04/29/2015 00:59
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE	AVERAGE	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO	CONC	CF	AREA	CONC			
Dinoseb	13.480	13.462	13.498	94.5	4871.9	500383	102.71	9		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.593	9.577	9.609	935.8	1082.0	1109099	1025.02	10		20

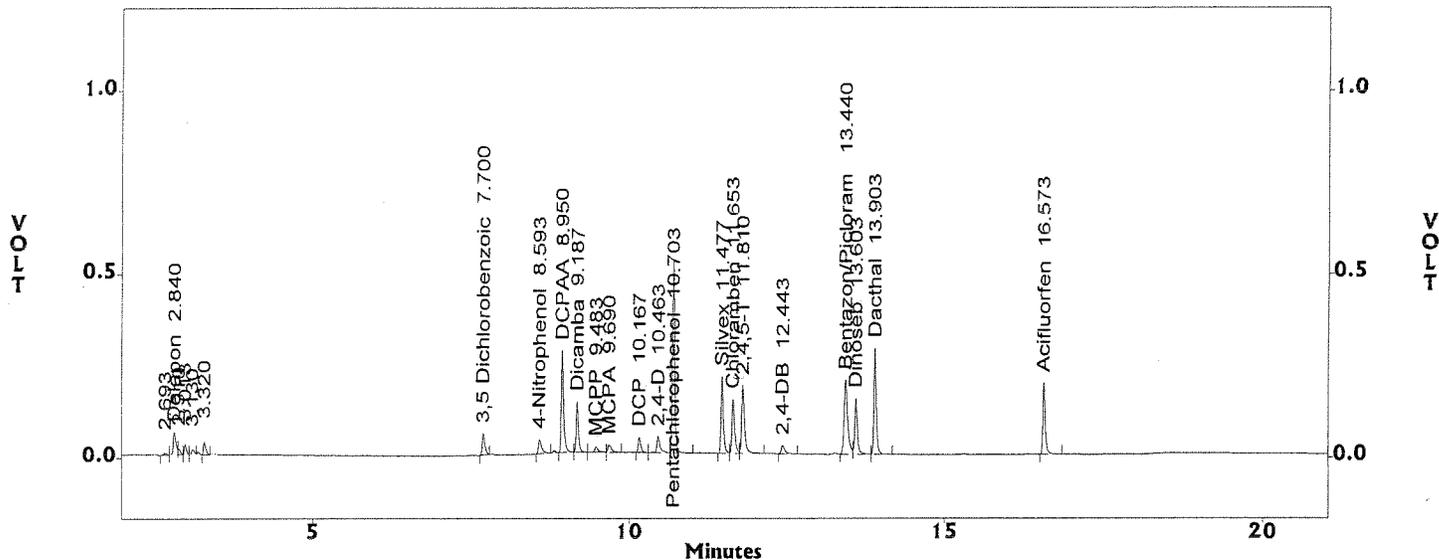
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.015
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : CHE09D08020
 Acquired : Apr 29, 2015 00:59:21
 Printed : Apr 29, 2015 11:29:03
 User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.840	187955.0	1656.60	113.458	VS
3,5 Dichlorobenzo	7.700	173740.0	1722.43	100.869	BV
4-Nitrophenol	8.593	137017.0	1289.87	106.225	BV
DCPAA	8.950	743732.0	750.10	991.510	vv
Dicamba	9.187	340800.0	3238.35	105.239	vv
MCPP	9.483	46780.0	8.42	5557.793	VV
MCPA	9.690	75263.0	15.83	4754.265	VB
DCP	10.167	118218.0	1193.88	99.020	BV
2,4-D	10.463	157470.0	1510.05	104.281	VV
Pentachlorophenol	10.703	1329836.0	12495.55	106.425	VB
Silvex	11.477	559241.0	5002.75	111.787	BV
Chloramben	11.653	463569.0	4132.75	112.170	VV
2,4,5-T	11.810	599584.0	5396.66	111.103	VB
2,4-DB	12.443	78957.0	801.45	98.518	BV
Bentazon/Picloram	13.440	808825.0	3540.81	228.429	VV
Dinoseb	13.603	439853.0	4088.80	107.575	VV
Dacthal	13.903	763479.0	6873.97	111.068	VB
Acifluorfen	16.573	541773.0	4699.56	115.282	vv

c:\ezchrom\chrom\qd28\qd28.015 -- Channel A



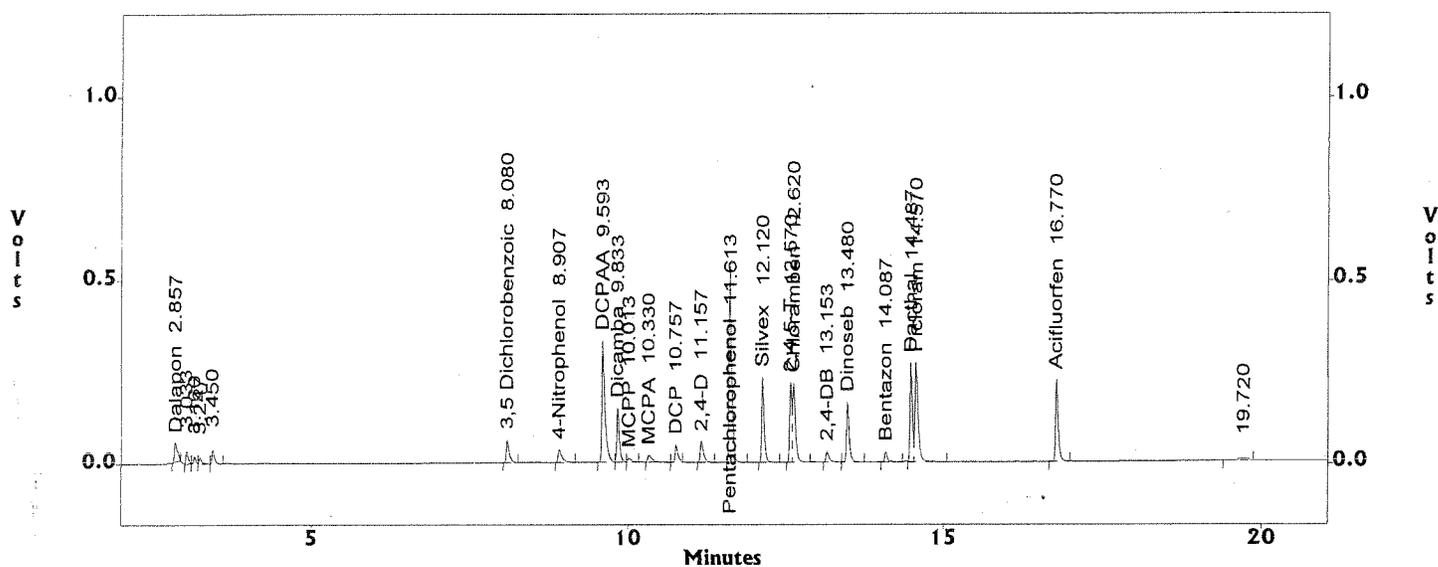
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.015
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08020
Acquired : Apr 29, 2015 00:59:21
Printed : Apr 29, 2015 11:29:03
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	2.857	184686.0	1730.88	106.700	VS
3,5 Dichlorobenzoic	8.080	199589.0	1937.97	102.989	BV
4-Nitrophenol	8.907	142776.0	1457.43	97.964	BV
DCPAA	9.593	1109099.0	1082.03	1025.020	BV
Dicamba	9.833	413734.0	3890.32	106.350	VV
MCPP	10.013	44430.0	8.21	5408.412	VV
MCPA	10.330	94139.0	17.76	5301.979	VV
DCP	10.757	150202.0	1485.51	101.112	Vx
2,4-D	11.157	197358.0	1894.33	104.183	BV
Pentachlorophenol	11.613	1629064.0	14739.16	110.526	VB
Silvex	12.120	661130.0	5953.99	111.040	BB
2,4,5-T	12.570	505811.0	4983.71	101.493	BS
Chloramben	12.620	702328.0	6012.12	116.819	Sx
2,4-DB	13.153	107972.0	1025.98	105.238	VV
Dinoseb	13.480	500383.0	4871.89	102.708	VB
Bentazon	14.087	86144.0	803.13	107.260	BV
Dacthal	14.487	714634.0	6624.78	107.873	SV
Picloram	14.570	941133.0	8580.05	109.688	VB
Acifluorfen	16.770	663325.0	6000.10	110.552	VV

c:\ezchrom\chrom\qd28\qd28.015 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-QA GC09
 GC Column : STX-CLPEST
 Column size ID : 30MX0.32MM 0.32UM
 Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
 Conc Cont LFID & Datetime: QD28027A 04/29/2015 07:54
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE	AVERAGE	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO	CONC	CF	AREA	CONC			
Dinoseb	13.620	13.602	13.638	94.5	4088.8	397962	97.33	3		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.963	8.947	8.979	935.8	750.100	676079	901.32	-4		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-Q8 GC09
 GC Column : STX-CLPEST11
 Column size ID : 30MX0.32MM 0.25UM
 Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
 Conc Cont LFID & Datetime: QD28027B 04/29/2015 07:54
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE	AVERAGE	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO	CONC	CF	AREA	CONC			
Dinoseb	13.493	13.475	13.511	94.5	4871.9	442471	90.82	-4		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.610	9.594	9.626	935.8	1082.0	1000074	924.26	-1		20

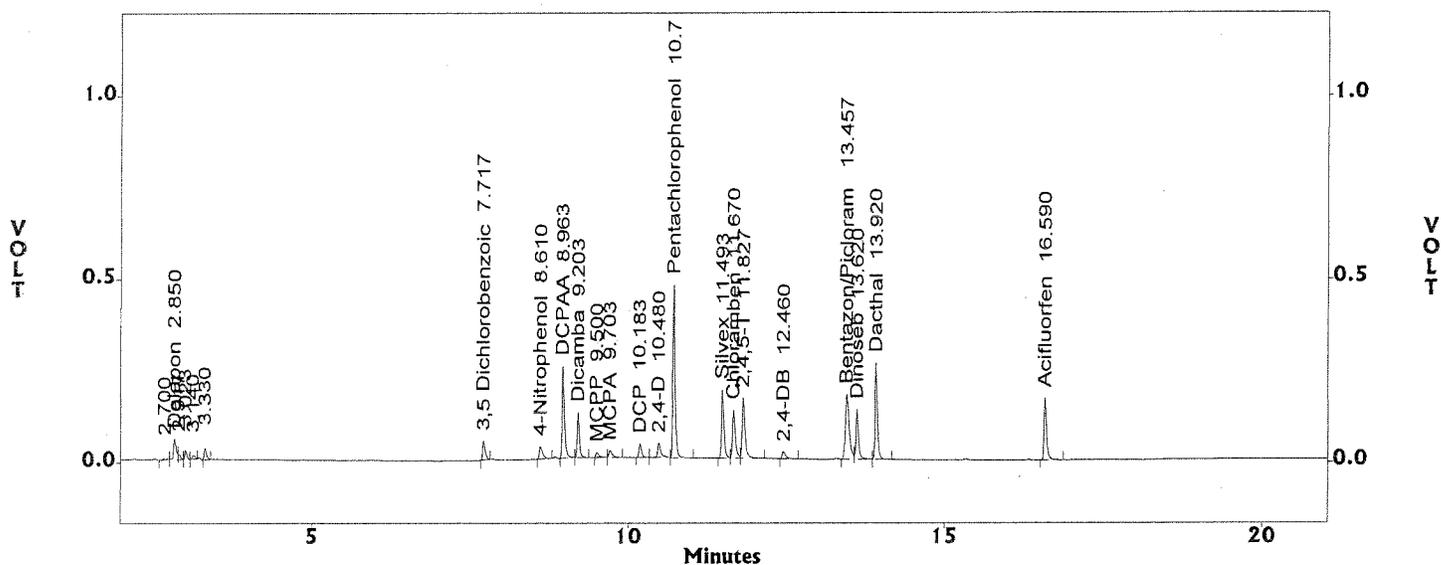
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.027
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08021
Acquired : Apr 29, 2015 07:54:47
Printed : Apr 29, 2015 11:46:18
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.850	178374.0	1656.60	107.675	VS
3,5 Dichlorobenzo	7.717	158831.0	1722.43	92.213	vv
4-Nitrophenol	8.610	123988.0	1289.87	96.124	BV
DCPAA	8.963	676079.0	750.10	901.318	vv
Dicamba	9.203	308808.0	3238.35	95.360	vv
MCPP	9.500	44117.0	8.42	5241.410	VV
MCPA	9.703	69989.0	15.83	4421.113	VV
DCP	10.183	107218.0	1193.88	89.806	BV
2,4-D	10.480	144577.0	1510.05	95.743	VV
Pentachlorophenol	10.720	1201725.0	12495.55	96.172	VB
Silvex	11.493	505649.0	5002.75	101.074	BV
Chloramben	11.670	415111.0	4132.75	100.444	VV
2,4,5-T	11.827	543434.0	5396.66	100.698	VB
2,4-DB	12.460	70753.0	801.45	88.282	BV
Bentazon/Picloram	13.457	724537.0	3540.81	204.624	VV
Dinoseb	13.620	397962.0	4088.80	97.330	VV
Dacthal	13.920	694498.0	6873.97	101.033	VB
Acifluorfen	16.590	471779.0	4699.56	100.388	vv

c:\ezchrom\chrom\qd28\qd28.027 -- Channel A



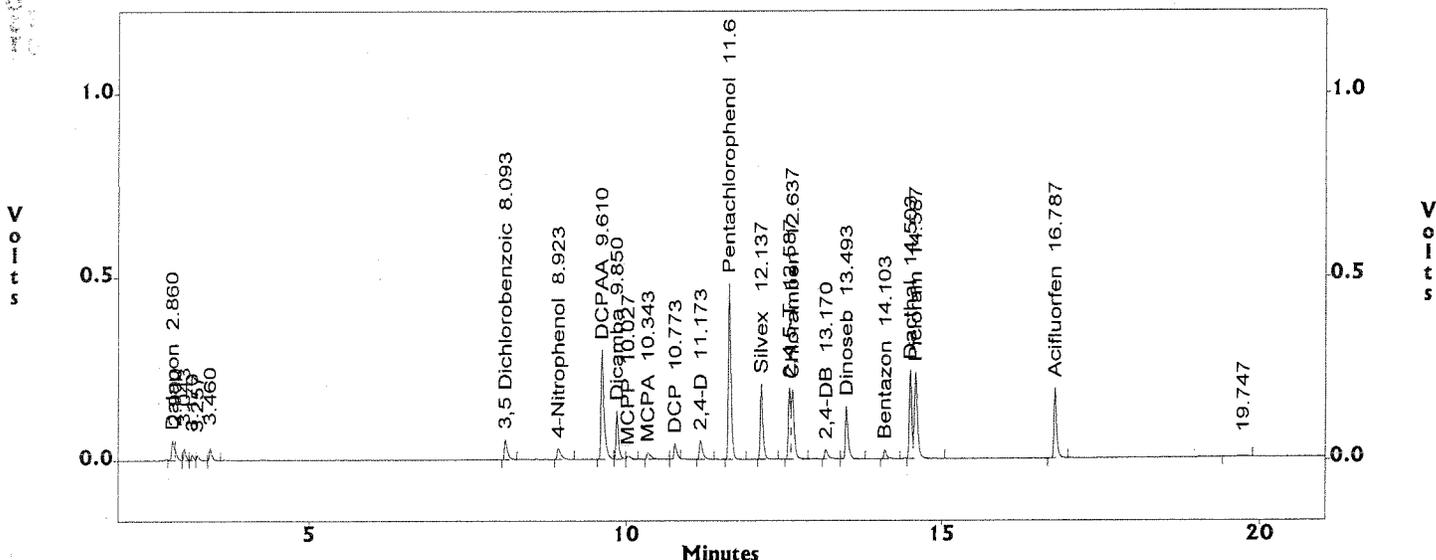
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.027
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : CHE09D08021
 Acquired : Apr 29, 2015 07:54:47
 Printed : Apr 29, 2015 11:46:18
 User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.860	160545.0	1730.88	92.753	SS
3,5 Dichlorobenzoic	8.093	180090.0	1937.97	92.927	BV
4-Nitrophenol	8.923	127943.0	1457.43	87.787	BV
DCPAA	9.610	1000074.0	1082.03	924.260	BV
Dicamba	9.850	368650.0	3890.32	94.761	VV
MCPP	10.027	40956.0	8.21	4985.526	VV
MCPA	10.343	89014.0	17.76	5013.335	VV
DCP	10.773	134323.0	1485.51	90.422	Vx
2,4-D	11.173	177967.0	1894.33	93.947	BV
Pentachlorophenol	11.627	1453753.0	14739.16	98.632	VB
Silvex	12.137	586672.0	5953.99	98.534	BB
2,4,5-T	12.587	454833.0	4983.71	91.264	BS
Chloramben	12.637	617680.0	6012.12	102.739	Sx
2,4-DB	13.170	99618.0	1025.98	97.096	VV
Dinoseb	13.493	442471.0	4871.89	90.821	Vx
Bentazon	14.103	78988.0	803.13	98.350	BB
Dacthal	14.503	638708.0	6624.78	96.412	VV
Picloram	14.587	825281.0	8580.05	96.186	VB
Acifluorfen	16.787	563341.0	6000.10	93.889	VV

c:\ezchrom\chrom\qd28\qd28.027 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-QA GC09
 GC Column : STX-CLPEST
 Column size ID : 30MX0.32MM 0.32UM
 Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
 Conc Cont LFID & Datetime: QD28034A 04/29/2015 11:56
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE	AVERAGE	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO	CONC	CF	AREA	CONC			
Dinoseb	13.623	13.605	13.641	94.5	4088.8	407415	99.64	5		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.967	8.951	8.983	935.8	750.100	685540	913.93	-2		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-QB GC09
 GC Column : STX-CLPESTII
 Column size ID : 30MX0.32MM 0.25UM
 Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
 Conc Cont LFID & Datetime: QD28034B 04/29/2015 11:56
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE	AVERAGE	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO	CONC	CF	AREA	CONC			
Dinoseb	13.497	13.479	13.515	94.5	4871.9	440437	90.40	-4		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.610	9.594	9.626	935.8	1082.0	1018724	941.50	1		20

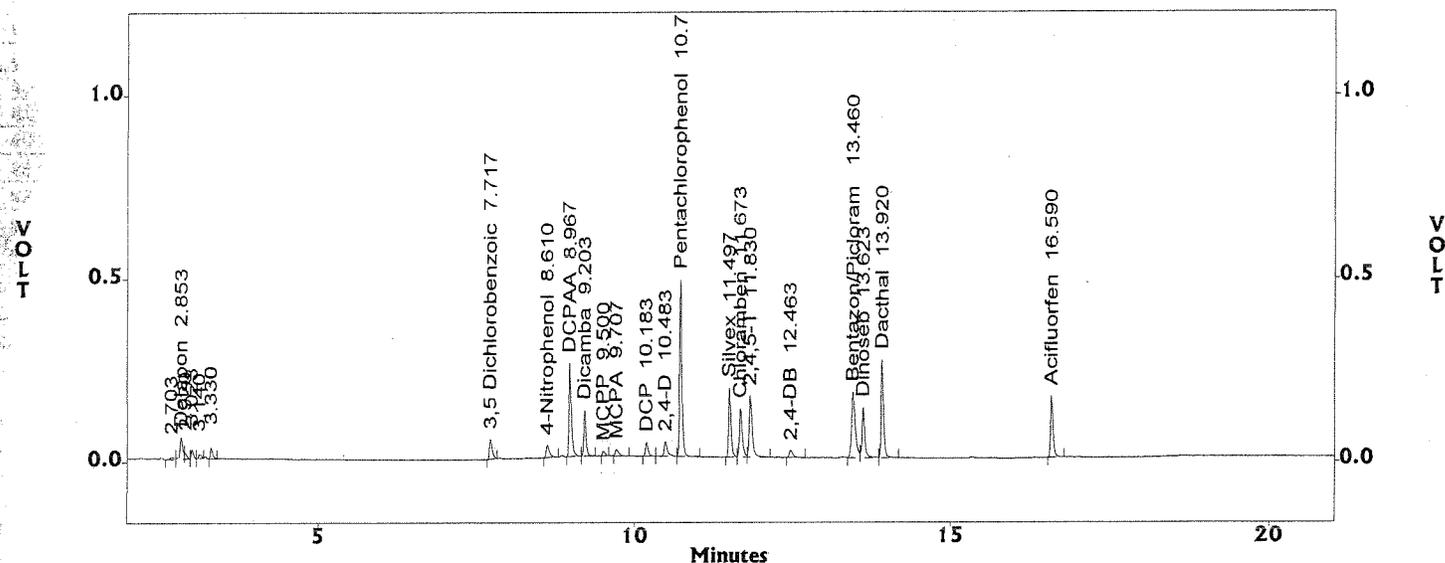
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.034
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08022
Acquired : Apr 29, 2015 11:56:02
Printed : Apr 29, 2015 12:47:47
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.853	180533.0	1656.60	108.978	VS
3,5 Dichlorobenzo	7.717	160020.0	1722.43	92.904	vv
4-Nitrophenol	8.610	122527.0	1289.87	94.991	BV
DCPAA	8.967	685540.0	750.10	913.931	vv
Dicamba	9.203	314122.0	3238.35	97.001	vv
MCPP	9.500	35231.0	8.42	4185.690	VV
MCPA	9.707	68846.0	15.83	4348.911	VB
DCP	10.183	108985.0	1193.88	91.286	BV
2,4-D	10.483	146710.0	1510.05	97.156	VV
Pentachlorophenol	10.720	1232523.0	12495.55	98.637	VB
Silvex	11.497	521928.0	5002.75	104.328	BV
Chloramben	11.673	427114.0	4132.75	103.349	VV
2,4,5-T	11.830	558950.0	5396.66	103.573	VB
2,4-DB	12.463	72616.0	801.45	90.606	BV
Bentazon/Picloram	13.460	741477.0	3540.81	209.409	VV
Dinoseb	13.623	407415.0	4088.80	99.642	VV
Dacthal	13.920	713147.0	6873.97	103.746	VB
Acifluorfen	16.590	467763.0	4699.56	99.533	vv

c:\ezchrom\chrom\qd28\qd28.034 -- Channel A



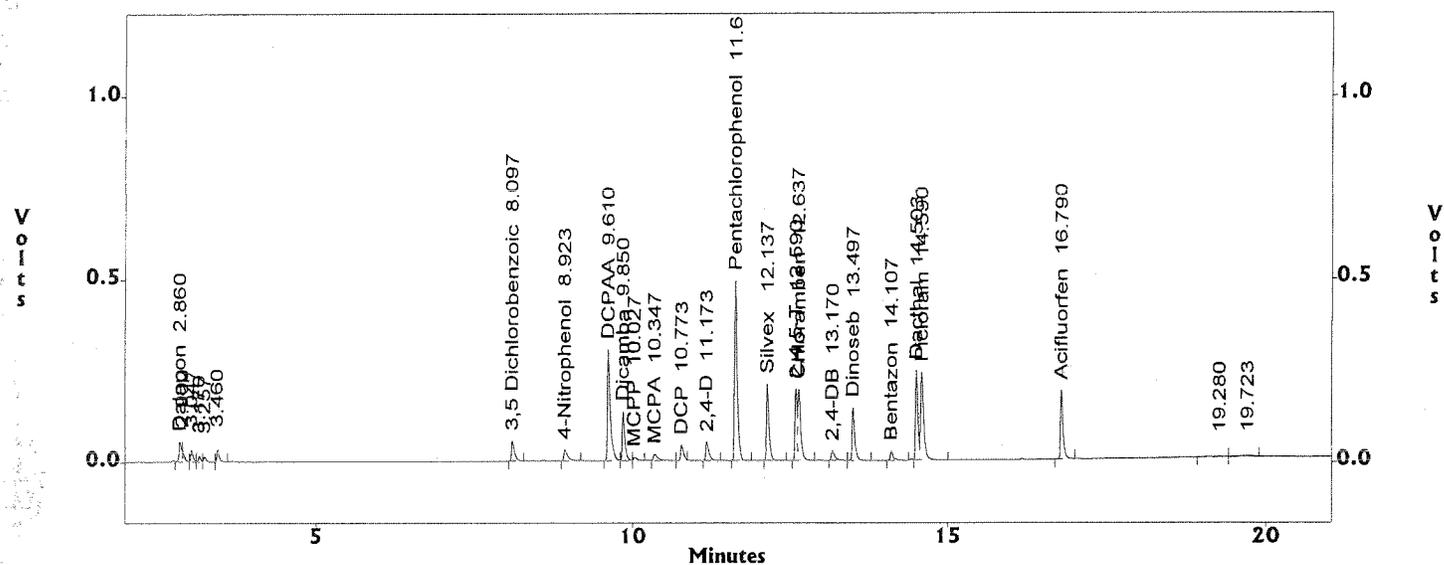
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.034
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08022
Acquired : Apr 29, 2015 11:56:02
Printed : Apr 29, 2015 12:47:47
User : RZhou

Channel B Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	2.860	160840.0	1730.88	92.924	SS
3,5 Dichlorobenzoic	8.097	182468.0	1937.97	94.154	BV
4-Nitrophenol	8.923	126673.0	1457.43	86.915	BV
DCPAA	9.610	1018724.0	1082.03	941.496	BV
Dicamba	9.850	376963.0	3890.32	96.898	VV
MCPP	10.027	39569.0	8.21	4816.688	VV
MCPA	10.347	86692.0	17.76	4882.559	VV
DCP	10.773	135408.0	1485.51	91.153	Vx
2,4-D	11.173	180879.0	1894.33	95.484	BV
Pentachlorophenol	11.630	1488988.0	14739.16	101.023	VB
Silvex	12.137	599413.0	5953.99	100.674	BB
2,4,5-T	12.590	450879.0	4983.71	90.471	BS
Chloramben	12.637	644520.0	6012.12	107.203	Sx
2,4-DB	13.170	98004.0	1025.98	95.523	BV
Dinoseb	13.497	440437.0	4871.89	90.404	VB
Bentazon	14.107	81538.0	803.13	101.525	BV
Dacthal	14.503	653851.0	6624.78	98.698	SV
Picloram	14.590	837115.0	8580.05	97.565	VV
Acifluorfen	16.790	558731.0	6000.10	93.120	VV

c:\ezchrom\chrom\qd28\qd28.034 -- Channel B



CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-QA GC09
 GC Column : STX-CLPEST
 Column size ID : 30MX0.32MM 0.32UM
 Mid Conc Init LFID & Datetime: QD08006A 04/08/2015 17:05
 Conc Cont LFID & Datetime: QD28042A 04/29/2015 15:41
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE	AVERAGE	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO	CONC	CF	AREA	CONC			
Dinoseb	13.630	13.612	13.648	94.5	4088.8	401077	98.09	4		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	8.973	8.957	8.989	935.8	750.100	690862	921.03	-2		20

CONTINUE CALIBRATION
METHOD 8151

Lab Name : EMAX Inc
 Instrument ID : GC-QB GC09
 GC Column : STX-CLPESTII
 Column size ID : 30MX0.32MM 0.25UM
 Mid Conc Init LFID & Datetime: QD08006B 04/08/2015 17:05
 Conc Cont LFID & Datetime: QD28042B 04/29/2015 15:41
 CONC UNIT : ppb

COMPOUND	RT	RT WINDOW		TRUE CONC	AVERAGE CF	RESULT		%D	QL	%D LIMITS
	MINUTES	FROM	TO			AREA	CONC			
Dinoseb	13.500	13.482	13.518	94.5	4871.9	437018	89.70	-5		20
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
2,4-DCPAA	9.617	9.601	9.633	935.8	1082.0	1011724	935.03	-0		20

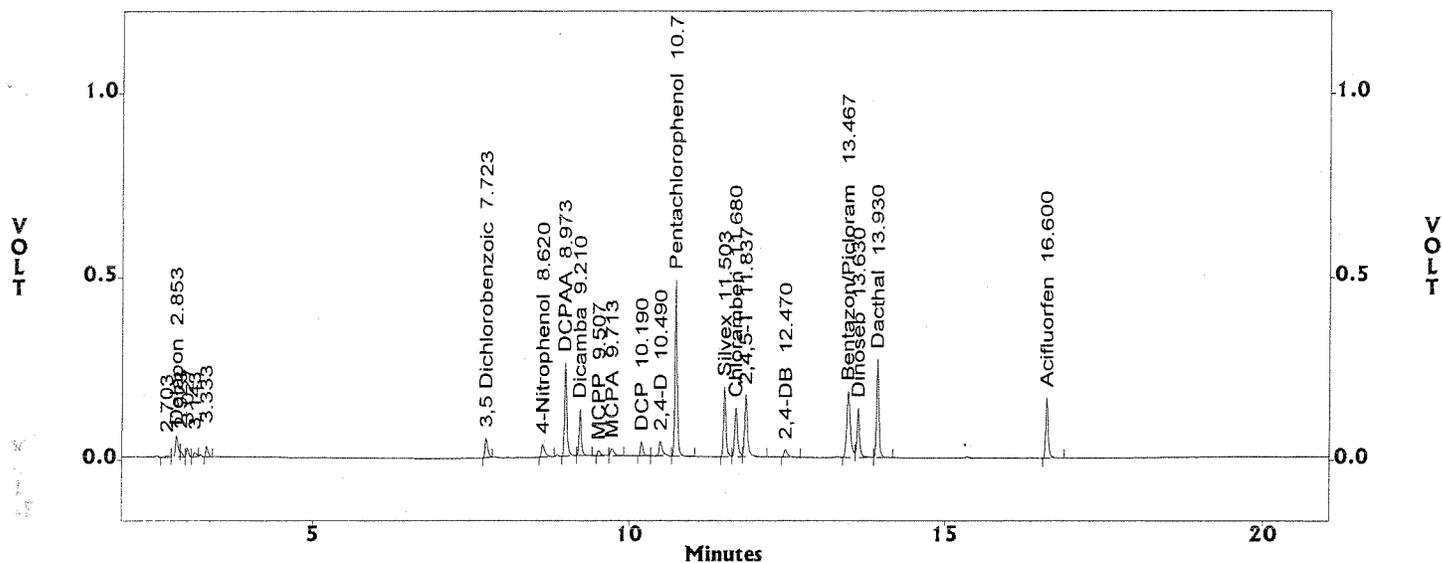
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.042
Method : c:\ezchrom\methods\he09d08.met
Sample ID : CHE09D08023
Acquired : Apr 29, 2015 15:41:53
Printed : Apr 29, 2015 16:05:58
User : RZhou

Channel A Results

Peak Name	RT(min)	Area	Average RF	ESTD Conc(ppb)	ICODE
Dalapon	2.853	180971.0	1656.60	109.243	VS
3,5 Dichlorobenzo	7.723	163215.0	1722.43	94.759	vv
4-Nitrophenol	8.620	126472.0	1289.87	98.050	BV
DCPAA	8.973	690862.0	750.10	921.026	vv
Dicamba	9.210	316911.0	3238.35	97.862	vv
MCPP	9.507	45584.0	8.42	5415.700	BV
MCPA	9.713	72104.0	15.83	4554.715	VV
DCP	10.190	111383.0	1193.88	93.295	BV
2,4-D	10.490	149843.0	1510.05	99.230	VV
Pentachlorophenol	10.727	1233782.0	12495.55	98.738	VB
Silvex	11.503	523303.0	5002.75	104.603	BV
Chloramben	11.680	430054.0	4132.75	104.060	VV
2,4,5-T	11.837	562877.0	5396.66	104.301	VB
2,4-DB	12.470	74751.0	801.45	93.270	BV
Bentazon/Picloram	13.467	745356.0	3540.81	210.504	VV
Dinoseb	13.630	401077.0	4088.80	98.092	VV
Dacthal	13.930	712177.0	6873.97	103.605	VV
Acifluorfen	16.600	463354.0	4699.56	98.595	vv

c:\ezchrom\chrom\qd28\qd28.042 -- Channel A



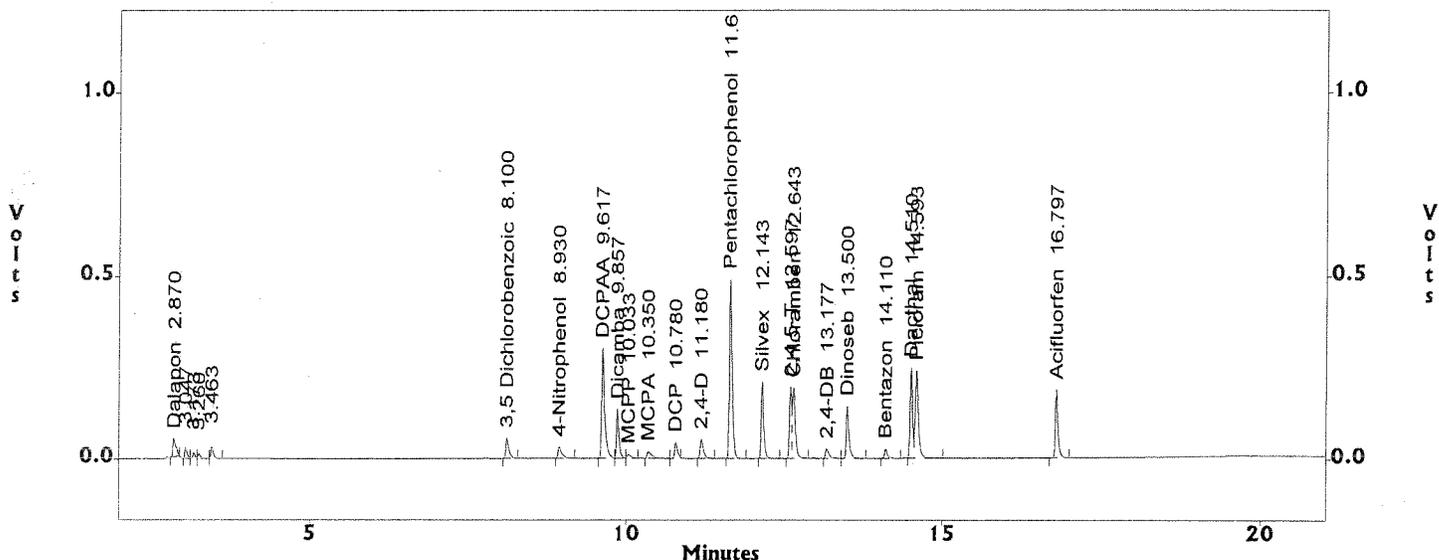
EPA 8151 by GC/ECD
EMAX Analytical Laboratories, Inc.

File : c:\ezchrom\chrom\qd28\qd28.042
 Method : c:\ezchrom\methods\he09d08.met
 Sample ID : CHE09D08023
 Acquired : Apr 29, 2015 15:41:53
 Printed : Apr 29, 2015 16:05:58
 User : RZhou

Channel B Results

Peak Name	RT (min)	Area	Average RF	ESTD Conc (ppb)	ICODE
Dalapon	2.870	173806.0	1730.88	100.415	VS
3,5 Dichlorobenzoic	8.100	183151.0	1937.97	94.507	BV
4-Nitrophenol	8.930	128009.0	1457.43	87.832	BV
DCPAA	9.617	1011724.0	1082.03	935.027	BV
Dicamba	9.857	373612.0	3890.32	96.036	VV
MCPP	10.033	41752.0	8.21	5082.422	VV
MCPA	10.350	90621.0	17.76	5103.843	VV
DCP	10.780	135467.0	1485.51	91.192	Vx
2,4-D	11.180	181154.0	1894.33	95.629	BV
Pentachlorophenol	11.633	1479662.0	14739.16	100.390	VB
Silvex	12.143	597583.0	5953.99	100.367	BB
2,4,5-T	12.597	459416.0	4983.71	92.184	BS
Chloramben	12.643	633426.0	6012.12	105.358	Sx
2,4-DB	13.177	101495.0	1025.98	98.925	VV
Dinoseb	13.500	437018.0	4871.89	89.702	Vx
Bentazon	14.110	83250.0	803.13	103.657	BB
Dacthal	14.510	661502.0	6624.78	99.853	SV
Picloram	14.593	830470.0	8580.05	96.791	VV
Acifluorfen	16.797	549751.0	6000.10	91.624	VV

c:\ezchrom\chrom\qd28\qd28.042 -- Channel B



ANALYTICAL LOGS

Run	Sample ID	Method	Filename	Mult.	Description
1	IB 09D 08 001	he 09d 08 .met	QD 08 .001	1	
2	HE 09D 08 01	he 09d 08 .met	QD 08 .002	1	
3	HE 09D 08 02	he 09d 08 .met	QD 08 .003	1	
4	HE 09D 08 03	he 09d 08 .met	QD 08 .004	1	
5	HE 09D 08 04	he 09d 08 .met	QD 08 .005	1	
6	HE 09D 08 05	he 09d 08 .met	QD 08 .006	1	
7	HE 09D 08 06	he 09d 08 .met	QD 08 .007	1	
8	HE 09D 08 07	he 09d 08 .met	QD 08 .008	1	
9	HE 09D 08 08	he 09d 08 .met	QD 08 .009	1	
10	IHE 09D 08 001	he 09d 08 .met	QD 08 .010	1	
11	IHE 09D 08 002	he 09d 08 .met	QD 08 .011	1	
12	CHE 09D 08 001	he 09d 08 .met	QD 08 .012	1	
13	B	he 09d 08 .met	QD 08 .013	1	

Run	Sample ID	Method	Filename	Unit	Description
1	IB 09D 08 019	he 09d 08 .met	QD28.001	1	
2	CHE 09D 08 019	he 09d 08 .met	QD28.002	1	
3	HED 011WB	he 09d 08 .met	QD28.003	1	
4	HED 011WL	he 09d 08 .met	QD28.004	1	
5	HED 011WC	he 09d 08 .met	QD28.005	1	
6	D157-17M	he 09d 08 .met	QD28.006	1	
7	D157-17S	he 09d 08 .met	QD28.007	1	
8	D157-01	he 09d 08 .met	QD28.008	1	
9	D157-02	he 09d 08 .met	QD28.009	1	
10	D157-04	he 09d 08 .met	QD28.010	1	
11	D157-05	he 09d 08 .met	QD28.011	1	} dil.
12	D157-07	he 09d 08 .met	QD28.012	1	
13	BLANK	he 09d 08 .met	QD28.013	1	
14	IB 09D 08 020	he 09d 08 .met	QD28.014	1	
15	CHE 09D 08 020	he 09d 08 .met	QD28.015	1	
16	D157-08	he 09d 08 .met	QD28.016	1	
17	D157-09	he 09d 08 .met	QD28.017	1	
18	D157-11	he 09d 08 .met	QD28.018	1	} dil.
19	D157-12	he 09d 08 .met	QD28.019	1	
20	D157-13	he 09d 08 .met	QD28.020	1	
21	D157-14	he 09d 08 .met	QD28.021	1	
22	D157-16	he 09d 08 .met	QD28.022	1	
23	D157-17	he 09d 08 .met	QD28.023	1	
24	D157-19	he 09d 08 .met	QD28.024	1	
25	BLANK	he 09d 08 .met	QD28.025	1	
26	IB 09D 08 021	he 09d 08 .met	QD28.026	1	
27	CHE 09D 08 021	he 09d 08 .met	QD28.027	1	
28	D167-02	he 09d 08 .met	QD28.028	1	
29	D167-04	he 09d 08 .met	QD28.029	1	
30	D167-05	he 09d 08 .met	QD28.030	1	
31	D167-06	he 09d 08 .met	QD28.031	1	
32	BLANK	he 09d 08 .met	QD28.032	1	
33	IB 09D 08 022	he 09d 08 .met	QD28.033	1	
34	CHE 09D 08 022	he 09d 08 .met	QD28.034	1	

Run	Sample ID	Method	Filename	Mult.	Description
35	D157-051 DF=20	he09d08.met	QD28.035	20	
36	D157-071 DF=10	he09d08.met	QD28.036	10	
37	D157-111 DF=10	he09d08.met	QD28.037	10	
38	D157-121 DF=10	he09d08.met	QD28.038	10	
39	D157-131 DF=20	he09d08.met	QD28.039	20	
40	BLANK	he09d08.met	QD28.040	1	
41	IB09D08023	he09d08.met	QD28.041	1	
42	CHE09D08023	he09d08.met	QD28.042	1	
43	IB	he09d08.met	QD28.043	1	

EXTRACTION LOGS



EXTRACTION LOG
for
HERBICIDES

SOP	Rev. #
<input checked="" type="checkbox"/> EMAX-8151	4
<input type="checkbox"/> EMAX-	

Note: For samples, relevant QCs/Standards extracted, refer to attached extraction sequence.

Comments:

Lab Sample ID	Sonicator #	Concentrator #
HEDD11-WB	N/A	1
-W2		1
-WC		1
D157-01		1
-02		1
-04		1
-05		2
-07		2
-08		2
-09		2
-11		2
-12		2
-13		3
-14		3
-16		3
-17		3
-17M		3
-17S		3
-19		4
D167-02		4
-04		4
-05		4
-06	↓	4

Book #: EHE-019

Preparation Batch: HEDD11W

Matrix: WATER

Micropipette ID: PE00-04 (1000 µl)

Micropipette ID: PE97C-03 (100 µl)

Standards	ID	Amount Added (ml)
Surrogate	SS4B-03-09-02	1.0 ✓
LCS/MS	SS4A-02-155	0.1 ✓

Reagent	Lot # / ID
CH ₂ Cl ₂	-
Hexane	54297
Ethyl Ether	DMD87
Acified Na ₂ SO ₄	SPIB-08-02-02
H ₂ SO ₄	3113040
Diazo-methane	SPIB-08-10-01
Silica Sand	-
Silicic Acid	SPIA-05-02-06
Reagent Water	SW1A-005-12-02
Residual Chlorine Strip	4406
pH Strip	HC431597

TUNING

Sonicator #	Reading
N/A	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: MM/IR Standard Added By: MM

Witnessed By: IR Checked By: JM

Extract Received By: RZ Extract Location: SEA4 Herb-1

Disposal Date: Disposed By:

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

WET CHEMICAL ANALYSES

SDG#: 15D157

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D157

METHOD 300.0
ANIONS BY IC

A total of fourteen (14) water samples were received on 04/23/15 to be analyzed for Nitrate-N, Nitrite-N and Sulfate in accordance with Method 300.0 and project specific requirements.

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.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, three (3) method blanks were analyzed. ICD017WB, ICD019WB and ICD021WB were compliant to project requirement. Refer to sample result summary forms for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, three (3) sets of LCS/LCD were analyzed. Nitrate-N and Nitrite-N were within LCS QC limits in ICD017WL/ICD017WC. Nitrate-N, Nitrite-N and Sulfate were within LCS QC limits in ICD019WL/ICD019WC. Sulfate was within LCS QC limits in ICD021WL/ICD021WC. Refer to LCS summary forms for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed. Nitrate-N, Nitrite-N and Sulfate were within MS QC limits in D157-17M/S. Refer to Matrix QC summary form for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

SAMPLE RESULTS

METHOD 300.0
NITRATE-N

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D157

Matrix : WATER
Instrument ID : D0

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	ICD017WB	ND	1	NA	0.100	0.0500	04/23/1511:48	NA	AD19-03	AD19-01	ICD017W	NA	NA
LCS1W	ICD017WL	0.999	1	NA	0.100	0.0500	04/23/1514:06	NA	AD19-11	AD19-01	ICD017W	NA	NA
LCD1W	ICD017WC	1.00	1	NA	0.100	0.0500	04/23/1514:23	NA	AD19-12	AD19-01	ICD017W	NA	NA
04-22-15-PWB-16	D157-01	1.24	1	NA	0.100	0.0500	04/23/1516:23	NA	AD19-19	AD19-13	ICD017W	04/22/1508:00	04/23/15
LCS2W	ICD019WL	1.01	1	NA	0.100	0.0500	04/23/1520:06	NA	AD19-32	AD19-25	ICD019W	NA	NA
LCD2W	ICD019WC	1.01	1	NA	0.100	0.0500	04/23/1520:23	NA	AD19-33	AD19-25	ICD019W	NA	NA
MBLK2W	ICD019WB	ND	1	NA	0.100	0.0500	04/23/1520:41	NA	AD19-34	AD19-25	ICD019W	NA	NA
04-22-15-PWB-14	D157-02I	11.4	10	NA	1.00	0.500	04/23/1523:32	NA	AD19-44	AD19-37	ICD019W	04/22/1508:42	04/23/15
04-22-15-AMW-4R	D157-04I	28.6	25	NA	2.50	1.25	04/23/1523:49	NA	AD19-45	AD19-37	ICD019W	04/22/1509:45	04/23/15
04-22-15-PWB-7A	D157-07I	60.9	40	NA	4.00	2.00	04/24/1500:06	NA	AD19-46	AD19-37	ICD019W	04/22/1510:15	04/23/15
04-22-15-WB2-2	D157-09I	34.4	40	NA	4.00	2.00	04/24/1500:24	NA	AD19-47	AD19-37	ICD019W	04/22/1510:40	04/23/15
04-22-15-PWB-12	D157-05I	56.2	40	NA	4.00	2.00	04/24/1500:41	NA	AD19-48	AD19-37	ICD019W	04/22/1510:45	04/23/15
04-22-15-PWB-15	D157-08I	24.9	25	NA	2.50	1.25	04/24/1501:32	NA	AD19-51	AD19-49	ICD019W	04/22/1511:25	04/23/15
04-22-15-PWB-4	D157-11I	54.1	50	NA	5.00	2.50	04/24/1501:49	NA	AD19-52	AD19-49	ICD019W	04/22/1511:50	04/23/15
04-22-15-PWB-10	D157-17I	29.1	40	NA	4.00	2.00	04/24/1502:07	NA	AD19-53	AD19-49	ICD019W	04/22/1513:35	04/23/15
04-22-15-PWB-10MS	D157-17IM	72.9	40	NA	4.00	2.00	04/24/1502:24	NA	AD19-54	AD19-49	ICD019W	04/22/1513:35	04/23/15
04-22-15-PWB-10MSD	D157-17IS	72.4	40	NA	4.00	2.00	04/24/1502:41	NA	AD19-55	AD19-49	ICD019W	04/22/1513:35	04/23/15
04-22-15-FDUP-4	D157-12I	53.7	50	NA	5.00	2.50	04/24/1502:58	NA	AD19-56	AD19-49	ICD019W	04/22/1512:05	04/23/15
04-22-15-WB2-4	D157-16I	9.07	8	NA	0.800	0.400	04/24/1503:15	NA	AD19-57	AD19-49	ICD019W	04/22/1512:27	04/23/15
04-22-15-WB2-1	D157-13I	63.7	50	NA	5.00	2.50	04/24/1503:32	NA	AD19-58	AD19-49	ICD019W	04/22/1512:55	04/23/15
04-22-15-PWB-9	D157-14I	30.2	20	NA	2.00	1.00	04/24/1503:49	NA	AD19-59	AD19-49	ICD019W	04/22/1513:05	04/23/15
04-22-15-PWB-5	D157-19I	41.6	50	NA	5.00	2.50	04/24/1504:07	NA	AD19-60	AD19-49	ICD019W	04/22/1514:45	04/23/15

METHOD 300.0
NITRITE-N

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 150157

Matrix : WATER
Instrument ID : D0

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	ICD017WB	ND	1	NA	0.100	0.0500	04/23/1511:48	NA	AD19-03	AD19-01	ICD017W	NA	NA
LCS1W	ICD017WL	1.96	1	NA	0.100	0.0500	04/23/1514:06	NA	AD19-11	AD19-01	ICD017W	NA	NA
LCD1W	ICD017WC	1.96	1	NA	0.100	0.0500	04/23/1514:23	NA	AD19-12	AD19-01	ICD017W	NA	NA
04-22-15-PWB-16	D157-01	ND	1	NA	0.100	0.0500	04/23/1516:23	NA	AD19-19	AD19-13	ICD017W	04/22/1508:00	04/23/15
04-22-15-PWB-14	D157-02	ND	1	NA	0.100	0.0500	04/23/1516:40	NA	AD19-20	AD19-13	ICD017W	04/22/1508:42	04/23/15
04-22-15-AMW-4R	D157-04	ND	1	NA	0.100	0.0500	04/23/1516:58	NA	AD19-21	AD19-13	ICD017W	04/22/1509:45	04/23/15
04-22-15-PWB-7A	D157-07	ND	1	NA	0.100	0.0500	04/23/1517:15	NA	AD19-22	AD19-13	ICD017W	04/22/1510:15	04/23/15
04-22-15-WB2-2	D157-09	ND	1	NA	0.100	0.0500	04/23/1517:32	NA	AD19-23	AD19-13	ICD017W	04/22/1510:40	04/23/15
04-22-15-PWB-12	D157-05	ND	1	NA	0.100	0.0500	04/23/1517:49	NA	AD19-24	AD19-13	ICD017W	04/22/1510:45	04/23/15
04-22-15-PWB-15	D157-08	ND	1	NA	0.100	0.0500	04/23/1518:41	NA	AD19-27	AD19-25	ICD017W	04/22/1511:25	04/23/15
04-22-15-PWB-4	D157-11	ND	1	NA	0.100	0.0500	04/23/1518:58	NA	AD19-28	AD19-25	ICD017W	04/22/1511:50	04/23/15
04-22-15-PWB-10	D157-17	ND	1	NA	0.100	0.0500	04/23/1519:15	NA	AD19-29	AD19-25	ICD017W	04/22/1513:35	04/23/15
04-22-15-PWB-10MS	D157-17M	2.03	1	NA	0.100	0.0500	04/23/1519:32	NA	AD19-30	AD19-25	ICD017W	04/22/1513:35	04/23/15
04-22-15-PWB-10MSD	D157-17S	2.03	1	NA	0.100	0.0500	04/23/1519:49	NA	AD19-31	AD19-25	ICD017W	04/22/1513:35	04/23/15
LCS2W	ICD019WL	1.98	1	NA	0.100	0.0500	04/23/1520:06	NA	AD19-32	AD19-25	ICD019W	NA	NA
LCD2W	ICD019WC	1.98	1	NA	0.100	0.0500	04/23/1520:23	NA	AD19-33	AD19-25	ICD019W	NA	NA
MBLK2W	ICD019WB	ND	1	NA	0.100	0.0500	04/23/1520:41	NA	AD19-34	AD19-25	ICD019W	NA	NA
04-22-15-FDUP-4	D157-12	ND	1	NA	0.100	0.0500	04/23/1520:58	NA	AD19-35	AD19-25	ICD019W	04/22/1512:05	04/23/15
04-22-15-WB2-4	D157-16	ND	1	NA	0.100	0.0500	04/23/1521:15	NA	AD19-36	AD19-25	ICD019W	04/22/1512:27	04/23/15
04-22-15-WB2-1	D157-13	ND	1	NA	0.100	0.0500	04/23/1522:06	NA	AD19-39	AD19-37	ICD019W	04/22/1512:55	04/23/15
04-22-15-PWB-9	D157-14	ND	1	NA	0.100	0.0500	04/23/1522:23	NA	AD19-40	AD19-37	ICD019W	04/22/1513:05	04/23/15
04-22-15-PWB-5	D157-19	ND	1	NA	0.100	0.0500	04/23/1522:41	NA	AD19-41	AD19-37	ICD019W	04/22/1514:45	04/23/15

METHOD 300.0
SULFATE

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D157

Matrix : WATER
Instrument ID : D0

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
LCS1W	ICD019WL	5.11	1	NA	0.500	0.250	04/23/1520:06	NA	AD19-32	AD19-25	ICD019W	NA	NA
LCD1W	ICD019WC	4.91	1	NA	0.500	0.250	04/23/1520:23	NA	AD19-33	AD19-25	ICD019W	NA	NA
MBLK1W	ICD019WB	ND	1	NA	0.500	0.250	04/23/1520:41	NA	AD19-34	AD19-25	ICD019W	NA	NA
04-22-15-PWB-14	D157-02I	73.7	10	NA	5.00	2.50	04/23/1523:32	NA	AD19-44	AD19-37	ICD019W	04/22/1508:42	04/23/15
04-22-15-AMW-4R	D157-04I	112	25	NA	12.5	6.25	04/23/1523:49	NA	AD19-45	AD19-37	ICD019W	04/22/1509:45	04/23/15
04-22-15-PWB-7A	D157-07I	79.1	40	NA	20.0	10.0	04/24/1500:06	NA	AD19-46	AD19-37	ICD019W	04/22/1510:15	04/23/15
04-22-15-WB2-2	D157-09I	119	40	NA	20.0	10.0	04/24/1500:24	NA	AD19-47	AD19-37	ICD019W	04/22/1510:40	04/23/15
04-22-15-PWB-15	D157-08I	101	25	NA	12.5	6.25	04/24/1501:32	NA	AD19-51	AD19-49	ICD019W	04/22/1511:25	04/23/15
04-22-15-PWB-10	D157-17I	144	40	NA	20.0	10.0	04/24/1502:07	NA	AD19-53	AD19-49	ICD019W	04/22/1513:35	04/23/15
04-22-15-PWB-10MS	D157-17IM	349	40	NA	20.0	10.0	04/24/1502:24	NA	AD19-54	AD19-49	ICD019W	04/22/1513:35	04/23/15
04-22-15-PWB-10MSD	D157-17IS	366	40	NA	20.0	10.0	04/24/1502:41	NA	AD19-55	AD19-49	ICD019W	04/22/1513:35	04/23/15
04-22-15-WB2-4	D157-16I	42.6	8	NA	4.00	2.00	04/24/1503:15	NA	AD19-57	AD19-49	ICD019W	04/22/1512:27	04/23/15
04-22-15-WB2-1	D157-13I	97.1	50	NA	25.0	12.5	04/24/1503:32	NA	AD19-58	AD19-49	ICD019W	04/22/1512:55	04/23/15
04-22-15-PWB-9	D157-14I	52.0	20	NA	10.0	5.00	04/24/1503:49	NA	AD19-59	AD19-49	ICD019W	04/22/1513:05	04/23/15
MBLK2W	ICD021WB	ND	1	NA	0.500	0.250	04/27/1510:58	NA	AD21-03	AD21-01	ICD021W	NA	NA
LCS2W	ICD021WL	4.68	1	NA	0.500	0.250	04/27/1511:15	NA	AD21-04	AD21-01	ICD021W	NA	NA
LCD2W	ICD021WC	4.80	1	NA	0.500	0.250	04/27/1511:32	NA	AD21-05	AD21-01	ICD021W	NA	NA
04-22-15-PWB-16	D157-01I	85.3	10	NA	5.00	2.50	04/27/1512:58	NA	AD21-10	AD21-08	ICD021W	04/22/1508:00	04/23/15
04-22-15-PWB-12	D157-05I	68.3	10	NA	5.00	2.50	04/27/1513:15	NA	AD21-11	AD21-08	ICD021W	04/22/1510:45	04/23/15
04-22-15-PWB-4	D157-11I	85.1	10	NA	5.00	2.50	04/27/1513:32	NA	AD21-12	AD21-08	ICD021W	04/22/1511:50	04/23/15
04-22-15-FDUP-4	D157-12I	78.8	10	NA	5.00	2.50	04/27/1513:49	NA	AD21-13	AD21-08	ICD021W	04/22/1512:05	04/23/15
04-22-15-PWB-5	D157-19I	92.9	10	NA	5.00	2.50	04/27/1514:06	NA	AD21-14	AD21-08	ICD021W	04/22/1514:45	04/23/15

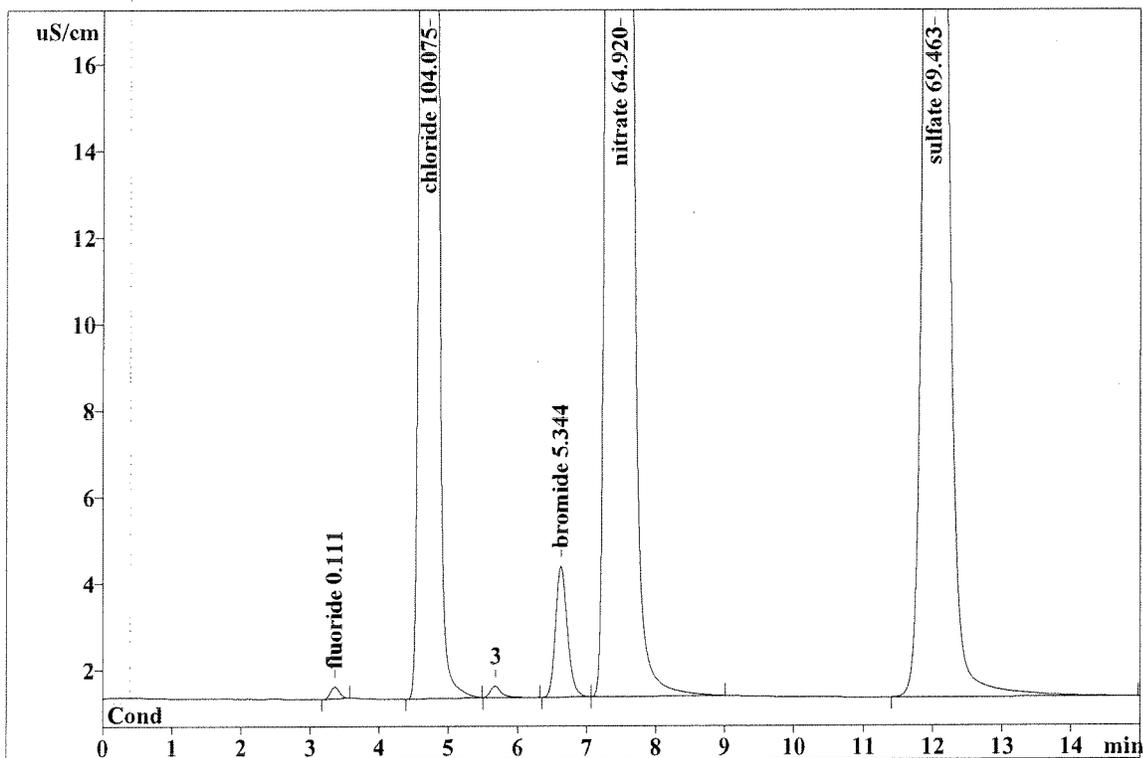
Report date: 4/24/2015 10:53:44 AM
Printed by: JChun

Ident: AD19-24 D157-05
Analysis from: 4/23/2015 5:49:31 PM
File: z4231749.chw
Modified!
Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111936

Last save: 4/23/2015 6:04:28 PM
Last save: 4/23/2015 11:26:23 AM

SAMPLE:

Vial number: 24
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	3.36	0.28	2.521	0.111	fluoride
2	4.71	180.32	1799.761	104.075	chloride
3	5.67	0.27	2.988	0.000	
4	6.63	3.04	36.214	5.344	bromide
5	7.48	180.42	2700.047	64.920	nitrate
6	12.02	46.49	876.845	69.463	sulfate
6	15.00	410.82	5418.376	243.913	

NO₂N ✓

This report has been created by IC Net
METROHM LTD

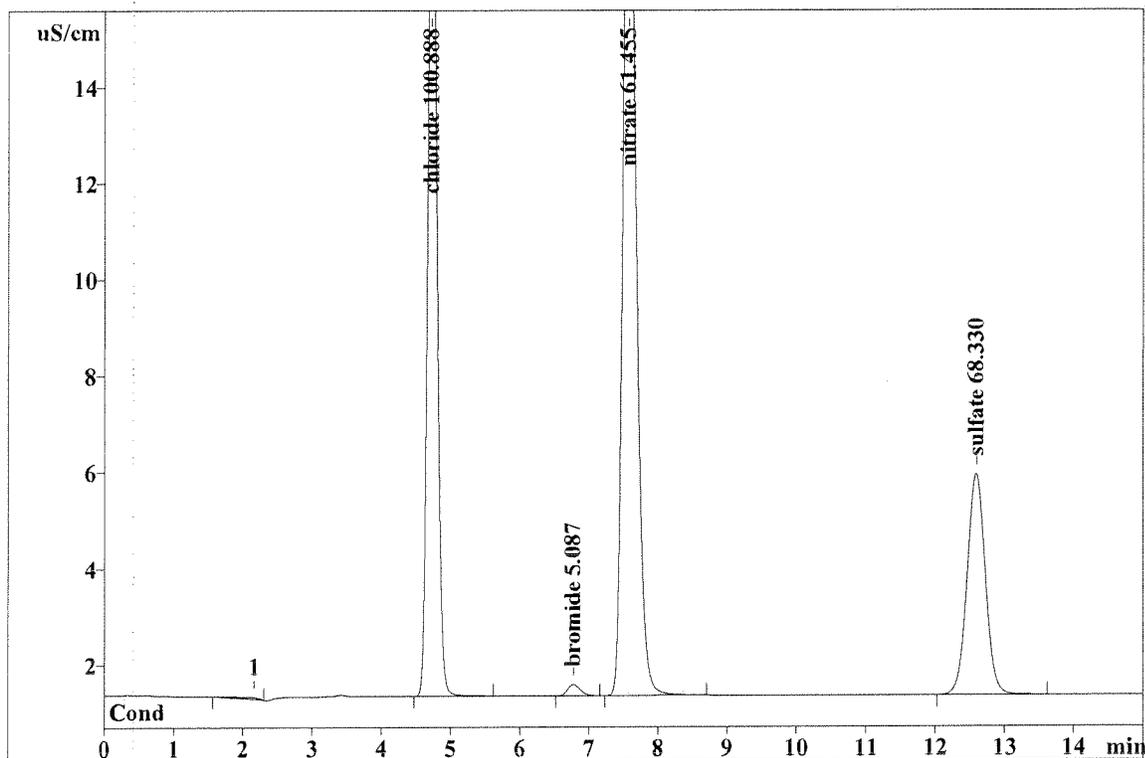
Report date: 4/27/2015 5:26:38 PM
Printed by: JChun

Ident: AD21-11 D157-05I DF=10
Analysis from: 4/27/2015 1:15:20 PM
File: z4271315.chw
Modified:
Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 112002

Last save: 4/27/2015 1:30:17 PM
Last save: 4/27/2015 10:33:49 AM

SAMPLE:

Vial number: 11
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	2.18	0.04	1.005	0.000	
2	4.73	19.57	173.295	100.888	chloride
3	6.78	0.24	2.984	5.087	bromide
4	7.57	20.20	254.011	61.455	nitrate
5	12.59	4.59	84.032	68.330	sulfate ✓
5	15.00	44.64	515.327	235.761	

This report has been created by IC Net
METROHM LTD

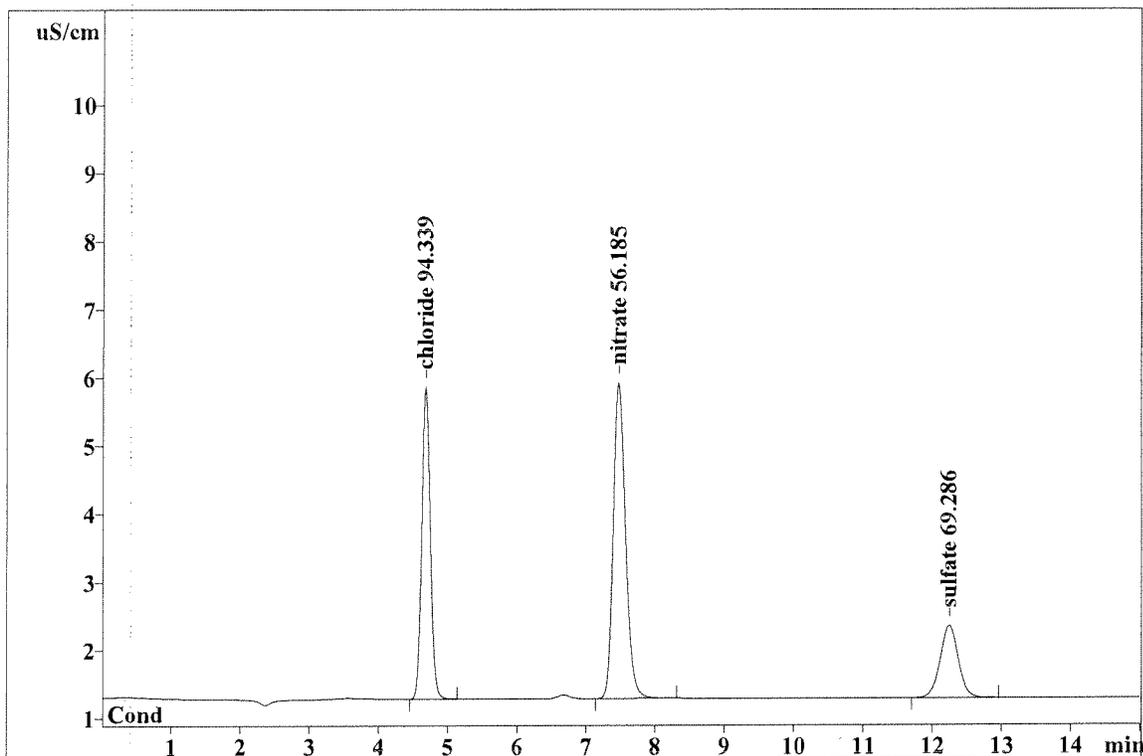
Report date: 4/24/2015 10:54:03 AM
Printed by: JChun

Ident: AD19-48 D157-05I DF=40
Analysis from: 4/24/2015 12:41:12 AM
File: z4240041.chw
Modified!
Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111960

Last save: 4/24/2015 12:56:10 AM
Last save: 4/23/2015 11:26:23 AM

SAMPLE:

Vial number: 48
Volume: 1.0 µL
Dilution: 40.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	4.68	4.59	39.518	94.339	chloride
2	7.48	4.65	56.707	56.185	nitrate
3	12.25	1.07	19.462	69.286	sulfate
3	15.00	10.31	115.687	219.809	

This report has been created by IC Net
METROHM LTD

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 150157
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: ICD017WB ICD017WL ICD017WC
LAB FILE ID: AD19-03 AD19-11 AD19-12
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 04/23/1511:48 04/23/1514:06 04/23/1514:23 DATE RECEIVED: NA
PREP. BATCH: ICD017W ICD017W ICD017W
CALIB. REF: AD19-01 AD19-01 AD19-01

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	.999	100	1	1	100	0	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 150157
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK2W
LAB SAMP ID: ICD019WB ICD019WL ICD019WC
LAB FILE ID: AD19-34 AD19-32 AD19-33
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 04/23/1520:41 04/23/1520:06 04/23/1520:23 DATE RECEIVED: NA
PREP. BATCH: ICD019W ICD019W ICD019W
CALIB. REF: AD19-25 AD19-25 AD19-25

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: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D157
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 40 40 40
SAMPLE ID: 04-22-15-PWB-10
LAB SAMP ID: D157-17I D157-17IM D157-17IS
LAB FILE ID: AD19-53 AD19-54 AD19-55
DATE EXTRACTED: NA NA NA DATE COLLECTED: 04/22/15 13:35
DATE ANALYZED: 04/24/1502:07 04/24/1502:24 04/24/1502:41 DATE RECEIVED: 04/23/15
PREP. BATCH: ICD019W ICD019W ICD019W
CALIB. REF: AD19-49 AD19-49 AD19-49

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	29.1	40	72.9	109	40	72.4	108	1	80-120	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 150157
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: ICD017WB ICD017WL ICD017WC
LAB FILE ID: AD19-03 AD19-11 AD19-12
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 04/23/1511:48 04/23/1514:06 04/23/1514:23 DATE RECEIVED: NA
PREP. BATCH: ICD017W ICD017W ICD017W
CALIB. REF: AD19-01 AD19-01 AD19-01

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	1.96	98	2	1.96	98	0	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D157
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK2W
LAB SAMP ID: ICD019WB ICD019WL ICD019WC
LAB FILE ID: AD19-34 AD19-32 AD19-33
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 04/23/1520:41 04/23/1520:06 04/23/1520:23 DATE RECEIVED: NA
PREP. BATCH: ICD019W ICD019W ICD019W
CALIB. REF: AD19-25 AD19-25 AD19-25

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	1.98	99	2	1.98	99	0	90-110	20

3014

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D157
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: 04-22-15-PWB-10
LAB SAMP ID: D157-17 D157-17M D157-17S
LAB FILE ID: AD19-29 AD19-30 AD19-31
DATE EXTRACTED: NA NA NA DATE COLLECTED: 04/22/15 13:35
DATE ANALYZED: 04/23/15 19:15 04/23/15 19:32 04/23/15 19:49 DATE RECEIVED: 04/23/15
PREP. BATCH: ICD017W ICD017W ICD017W
CALIB. REF: AD19-25 AD19-25 AD19-25

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	2.03	102	2	2.03	102	0	80-120	20

5015

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D157
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: ICD019WB ICD019WL ICD019WC
LAB FILE ID: AD19-34 AD19-32 AD19-33
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 04/23/1520:41 04/23/1520:06 04/23/1520:23 DATE RECEIVED: NA
PREP. BATCH: ICD019W ICD019W ICD019W
CALIB. REF: AD19-25 AD19-25 AD19-25

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	5.11	102	5	4.91	98	4	90-110	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D157
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK2W
LAB SAMP ID: ICD021WB ICD021WL ICD021WC
LAB FILE ID: AD21-03 AD21-04 AD21-05
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 04/27/1510:58 04/27/1511:15 04/27/1511:32 DATE RECEIVED: NA
PREP. BATCH: ICD021W ICD021W ICD021W
CALIB. REF: AD21-01 AD21-01 AD21-01

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	4.68	94	5	4.8	96	2	90-110	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D157
METHOD: METHOD 300.0

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 40 40 40
SAMPLE ID: 04-22-15-PWB-10
LAB SAMP ID: D157-17I D157-17IM D157-17IS
LAB FILE ID: AD19-53 AD19-54 AD19-55
DATE EXTRACTED: NA NA NA DATE COLLECTED: 04/22/15 13:35
DATE ANALYZED: 04/24/1502:07 04/24/1502:24 04/24/1502:41 DATE RECEIVED: 04/23/15
PREP. BATCH: ICD019W ICD019W ICD019W
CALIB. REF: AD19-49 AD19-49 AD19-49

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	144	200	349	102	200	366	111	5	80-120	20

QC DATA

Report date: 4/24/2015 10:04:08 AM
Printed by: JChun

Ident: AD19-03 ICD017WB
Analysis from: 4/23/2015 11:48:06 AM
File: z4231148.chw

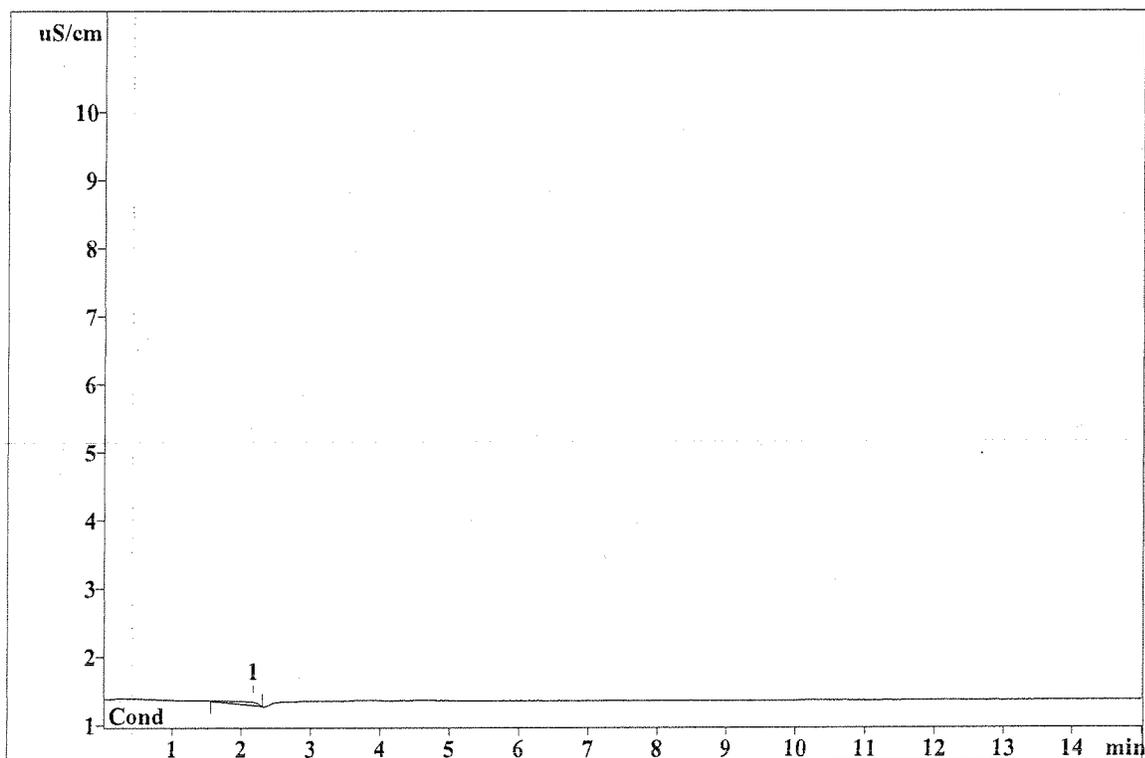
Last save: 4/23/2015 12:03:03 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111915

Last save: 4/23/2015 11:26:23 AM

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	2.16	0.04	1.264	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 2:21:27 PM
Printed by: JChun

Ident: AD19-11 ICD017WL
Analysis from: 4/23/2015 2:06:30 PM
File: Z4231406.CHW

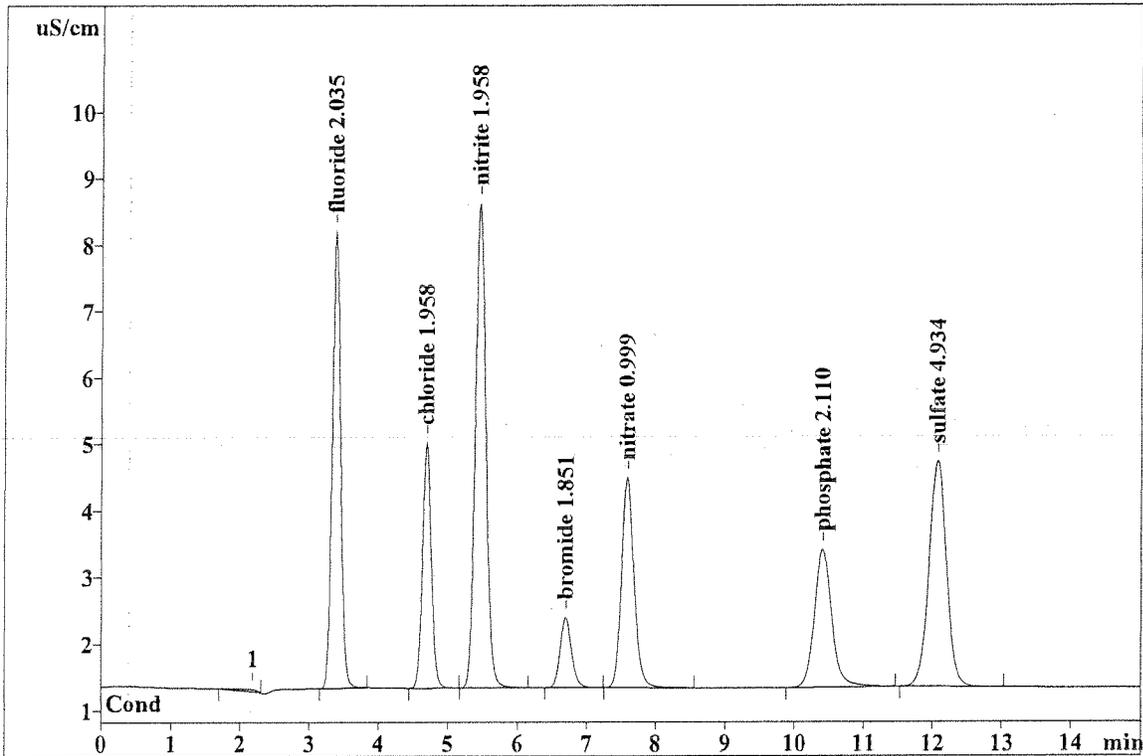
Last save: 4/23/2015 2:21:27 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111923

Last save: 4/23/2015 11:26:23 AM

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	2.18	0.03	0.790	0.000	
2	3.39	6.88	58.480	2.035	fluoride
3	4.69	3.69	32.593	1.958	chloride
4	5.45	7.29	78.490	1.958	nitrite ✓
5	6.70	1.06	12.210	1.851	bromide
6	7.58	3.15	39.808	0.999	nitrate ✓
7	10.41	2.07	36.468	2.110	phosphate
8	12.08	3.39	59.993	4.934	sulfate
8	15.00	27.56	318.831	15.845	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 2:38:37 PM
Printed by: JChun

Ident: AD19-12 ICD017WC
Analysis from: 4/23/2015 2:23:40 PM
File: Z4231423.CHW

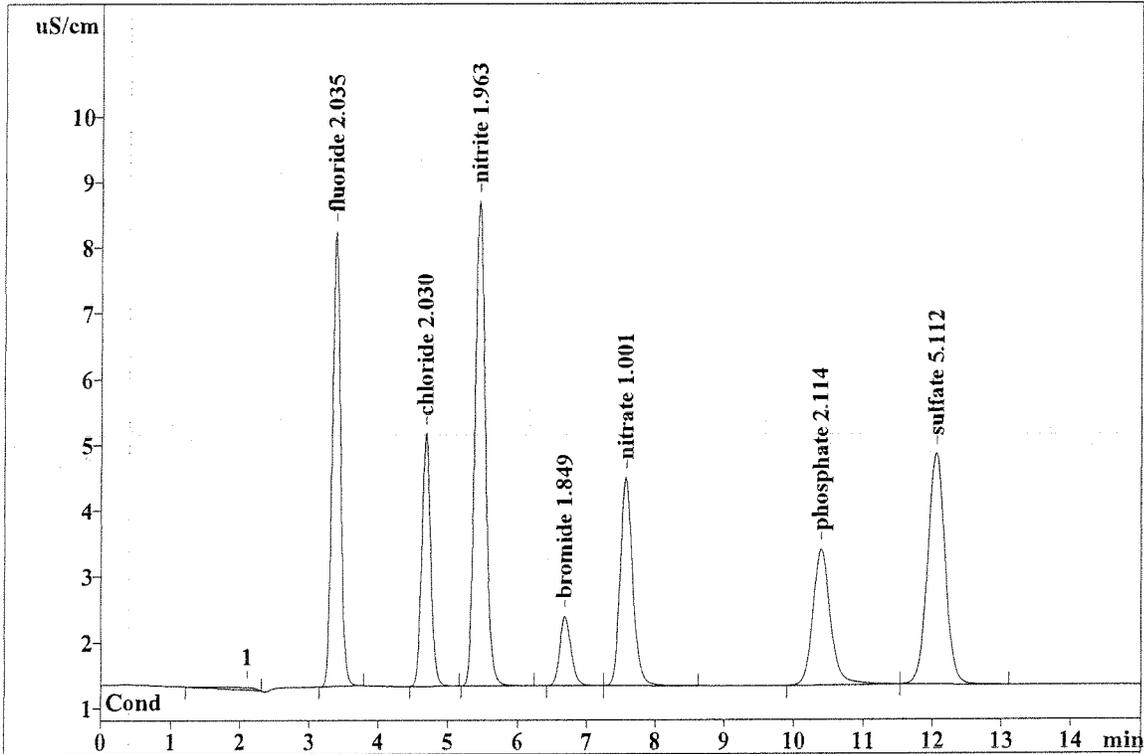
Last save: 4/23/2015 2:38:37 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111924

Last save: 4/23/2015 11:26:23 AM

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	2.10	0.04	1.578	0.000	
2	3.38	6.95	58.483	2.035	fluoride
3	4.68	3.85	33.835	2.030	chloride
4	5.44	7.39	78.706	1.963	nitrite ✓
5	6.68	1.06	12.195	1.849	bromide
6	7.57	3.17	39.925	1.001	nitrate ✓
7	10.39	2.08	36.549	2.114	phosphate
8	12.06	3.52	62.241	5.112	sulfate
8	15.00	28.05	323.512	16.105	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 10:04:19 AM
Printed by: JChun

Ident: AD19-34 ICD019WB
Analysis from: 4/23/2015 8:41:04 PM
File: z4232041.chw

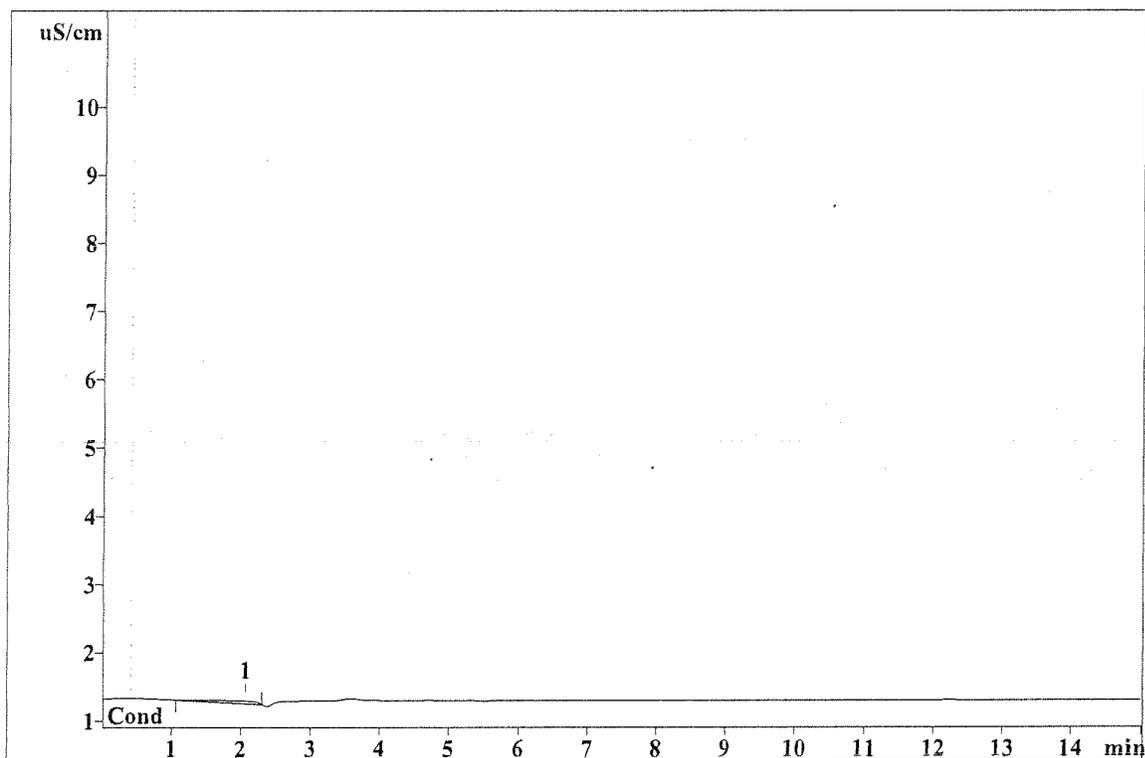
Last save: 4/23/2015 8:56:01 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111946

Last save: 4/23/2015 11:26:23 AM

SAMPLE:

Vial number: 34
Volume: 1.0 μ L
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	0.04	1.604	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 8:21:42 PM
Printed by: JChun

Ident: AD19-32 ICD019WL
Analysis from: 4/23/2015 8:06:45 PM
File: Z4232006.CHW

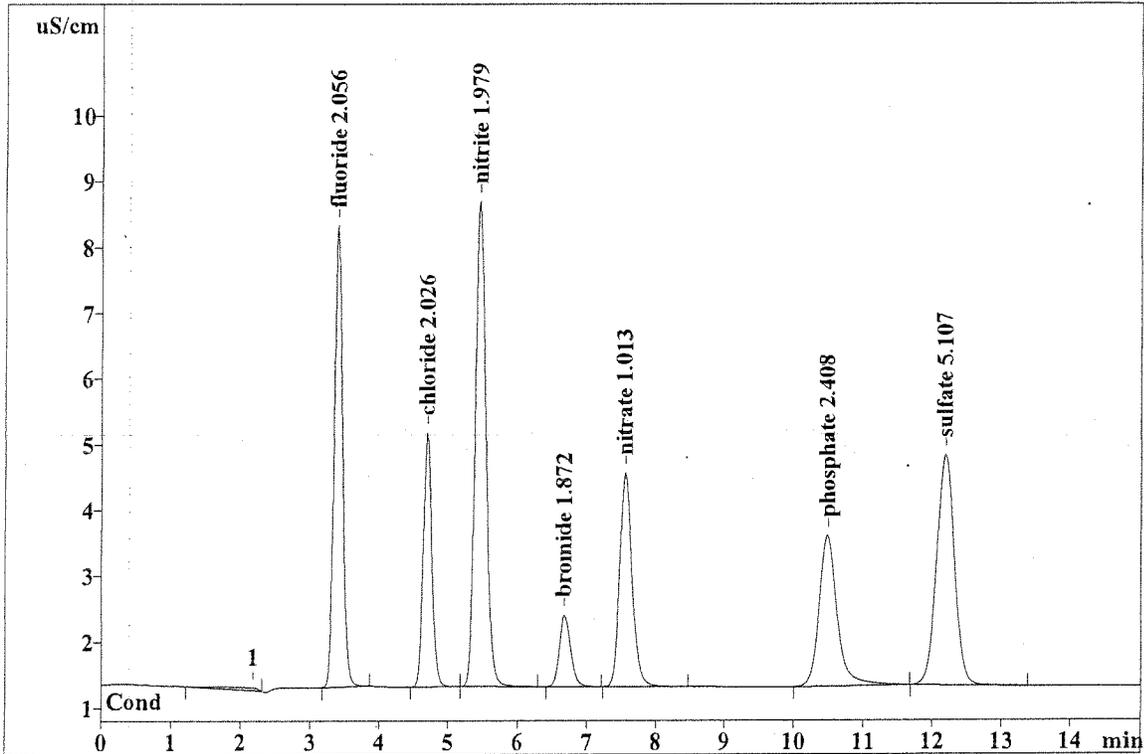
Last save: 4/23/2015 8:21:42 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111944

Last save: 4/23/2015 11:26:23 AM

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	2.16	0.04	1.600	0.000	
2	3.40	7.01	59.077	2.056	fluoride
3	4.69	3.86	33.767	2.026	chloride
4	5.45	7.38	79.332	1.979	nitrite ✓
5	6.68	1.08	12.353	1.872	bromide
6	7.55	3.24	40.391	1.013	nitrate ✓
7	10.48	2.28	41.816	2.408	phosphate
8	12.19	3.49	62.185	5.107	sulfate
8	15.00	28.38	330.521	16.460	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 8:38:52 PM
Printed by: JChun

Ident: AD19-33 ICD019WC
Analysis from: 4/23/2015 8:23:55 PM
File: Z4232023.CHW

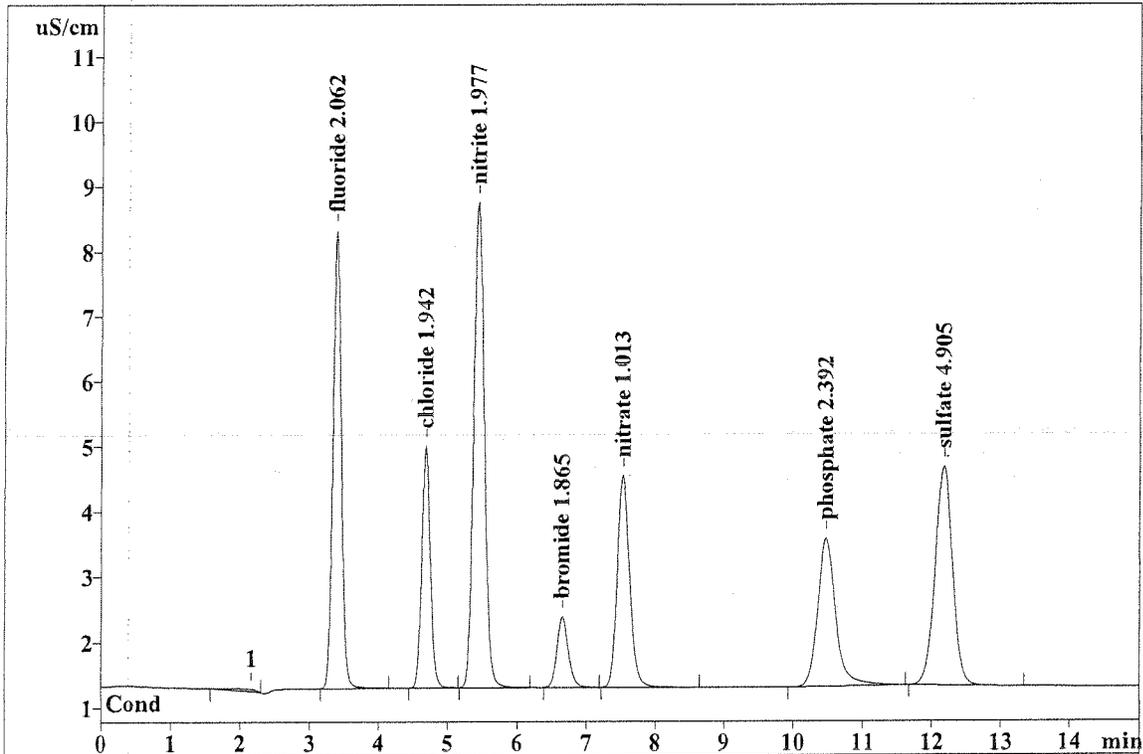
Last save: 4/23/2015 8:38:52 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111945

Last save: 4/23/2015 11:26:23 AM

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	2.16	0.03	0.922	0.000	
2	3.39	7.04	59.247	2.062	fluoride
3	4.68	3.71	32.317	1.942	chloride
4	5.44	7.46	79.271	1.977	nitrite ✓
5	6.66	1.08	12.307	1.865	bromide
6	7.53	3.25	40.403	1.013	nitrate ✓
7	10.47	2.27	41.544	2.392	phosphate
8	12.18	3.35	59.630	4.905	sulfate
8	15.00	28.21	325.640	16.157	

This report has been created by IC Net
METROHM LTD

Report date: 4/27/2015 5:23:43 PM
Printed by: JChun

Ident: AD21-03 ICD021WB
Analysis from: 4/27/2015 10:58:05 AM
File: z4271058.chw

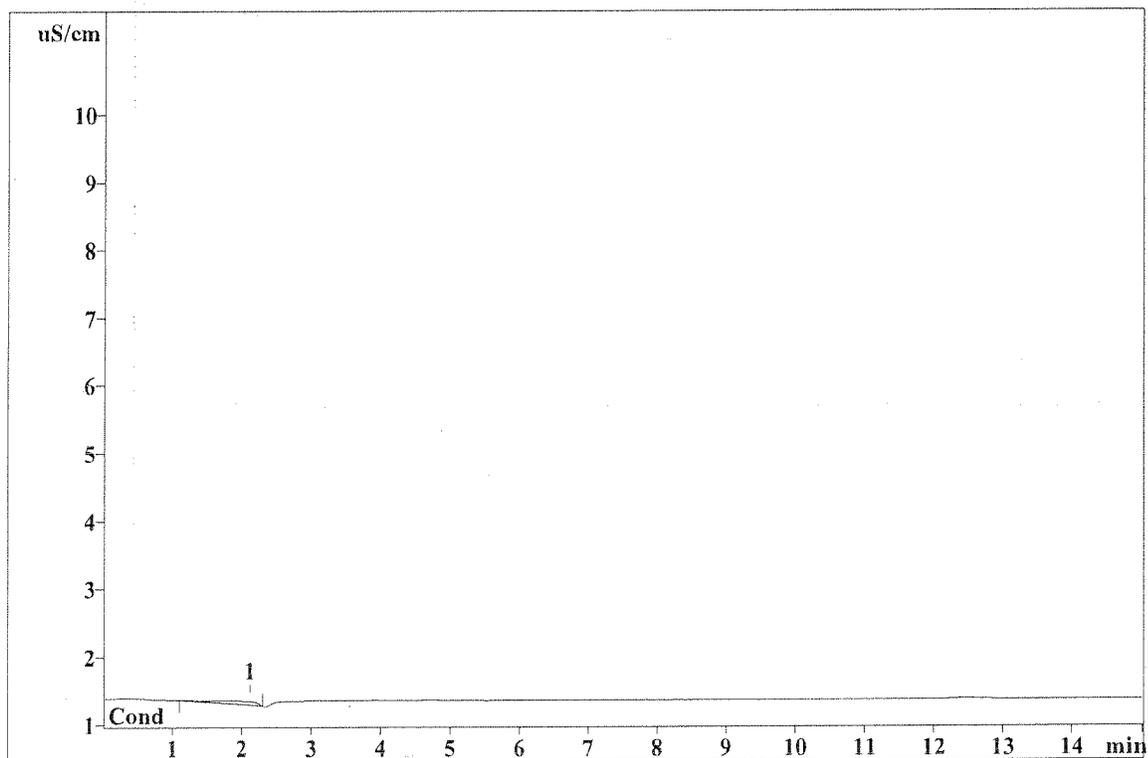
Last save: 4/27/2015 11:13:02 AM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111994

Last save: 4/27/2015 10:33:49 AM

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	2.13	0.05	2.287	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/27/2015 11:30:12 AM
Printed by: JChun

Ident: AD21-04 ICD021WL
Analysis from: 4/27/2015 11:15:15 AM
File: Z4271115.CHW

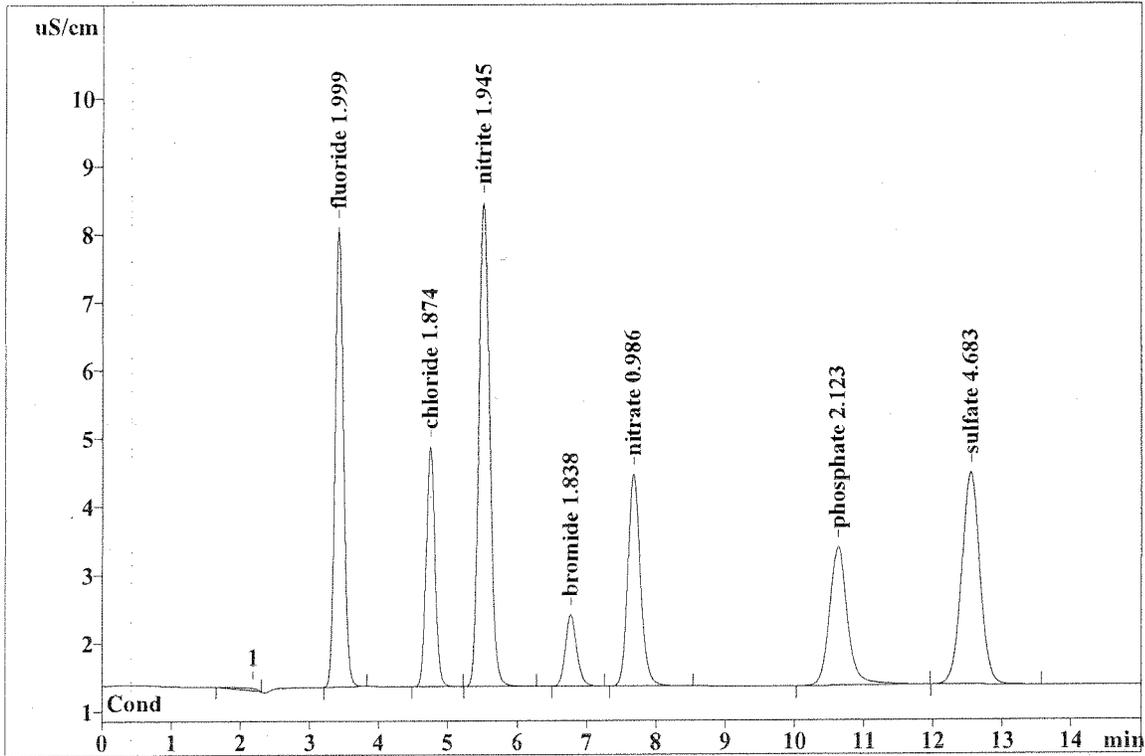
Last save: 4/27/2015 11:30:12 AM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111995

Last save: 4/27/2015 10:33:49 AM

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	2.18	0.04	0.896	0.000	
2	3.42	6.75	57.417	1.999	fluoride
3	4.74	3.52	31.140	1.874	chloride
4	5.51	7.11	77.960	1.945	nitrite
5	6.77	1.05	12.122	1.838	bromide
6	7.67	3.11	39.304	0.986	nitrate
7	10.63	2.03	36.715	2.123	phosphate
8	12.55	3.11	56.812	4.683	sulfate
8	15.00	26.72	312.365	15.449	

This report has been created by IC Net
METROHM LTD

Report date: 4/27/2015 11:47:21 AM
Printed by: JChun

Ident: AD21-05 ICD021WC
Analysis from: 4/27/2015 11:32:24 AM
File: Z4271132.CHW

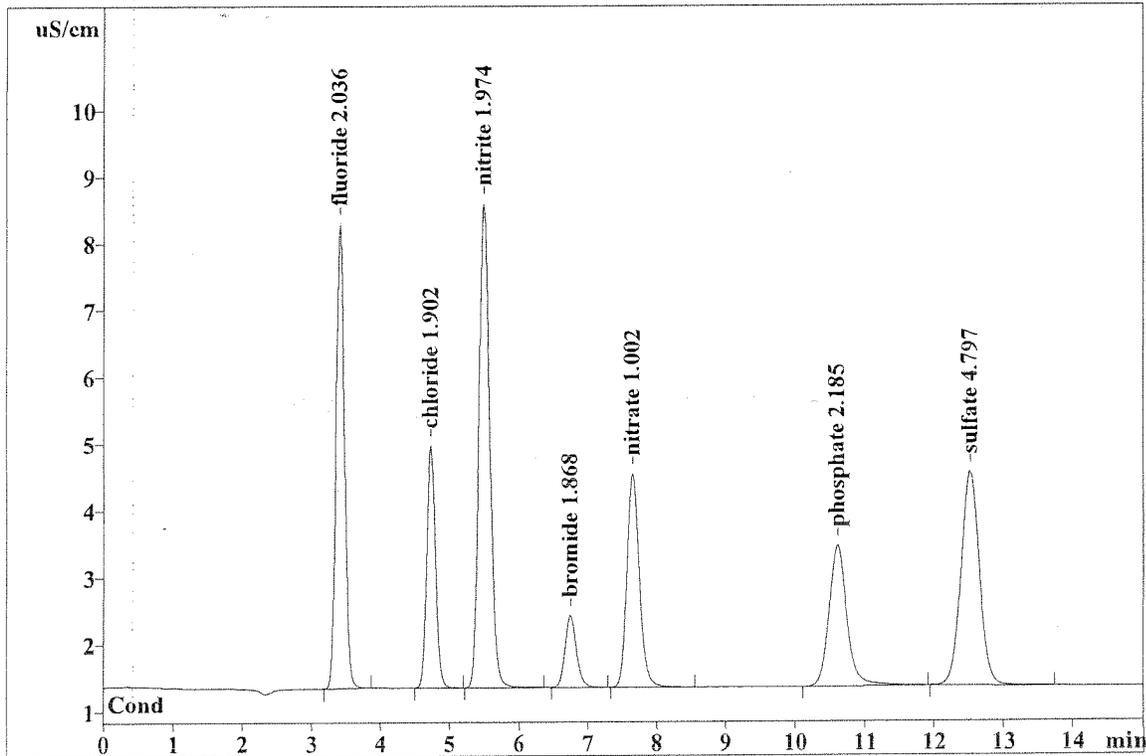
Last save: 4/27/2015 11:47:21 AM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111996

Last save: 4/27/2015 10:33:49 AM

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	3.41	6.95	58.501	2.036	fluoride
2	4.73	3.61	31.617	1.902	chloride
3	5.49	7.25	79.154	1.974	nitrite
4	6.75	1.07	12.329	1.868	bromide
5	7.64	3.18	39.931	1.002	nitrate
6	10.61	2.10	37.823	2.185	phosphate
7	12.52	3.19	58.260	4.797	sulfate
7	15.00	27.36	317.615	15.764	

This report has been created by IC Net
METROHM LTD

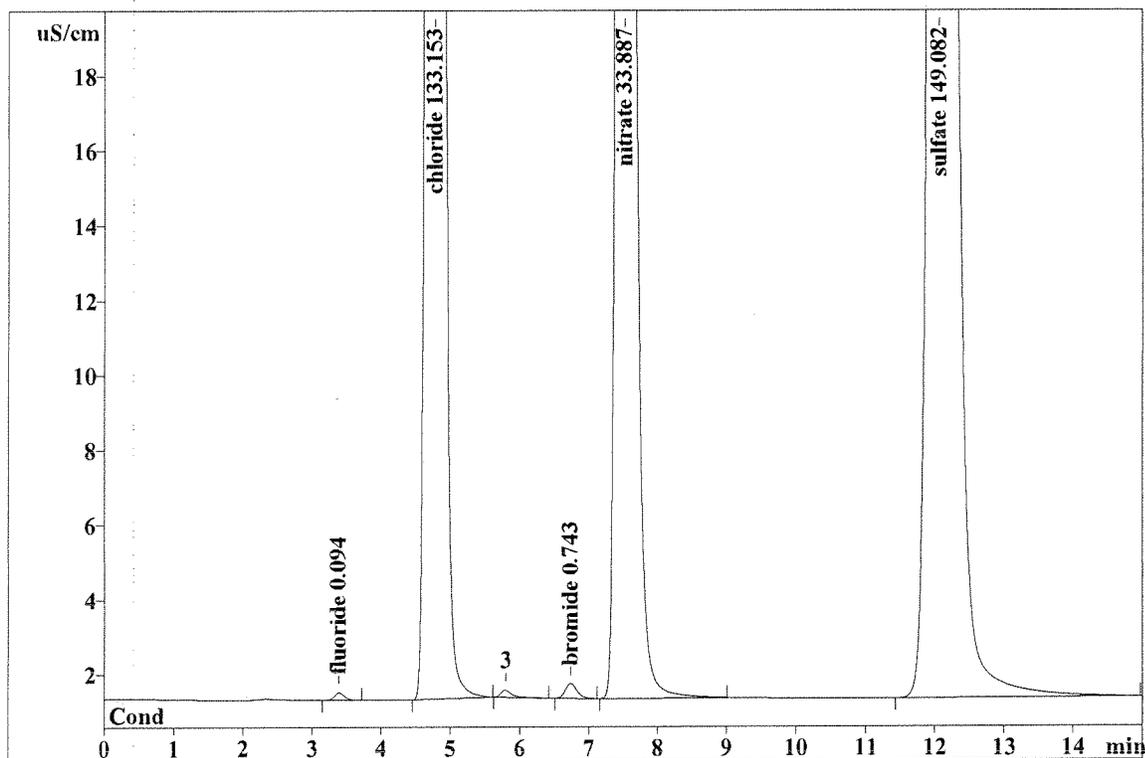
Report date: 4/24/2015 12:38:02 PM
Printed by: JChun

Ident: AD19-29 D157-17
Analysis from: 4/23/2015 7:15:18 PM
File: z4231915.chw
Modified!
Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111941

Last save: 4/23/2015 7:30:15 PM
Last save: 4/23/2015 11:26:23 AM

SAMPLE:

Vial number: 29
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	3.39	0.20	2.020	0.094	fluoride
2	4.78	208.72	2302.977	133.153	chloride
3	5.79	0.20	2.282	0.000	
4	6.74	0.40	4.593	0.743	bromide
5	7.52	110.09	1408.553	33.887	nitrate
6	12.07	95.28	1884.708	149.082	sulfate
6	15.00	414.89	5605.134	316.959	

NO2N ✓

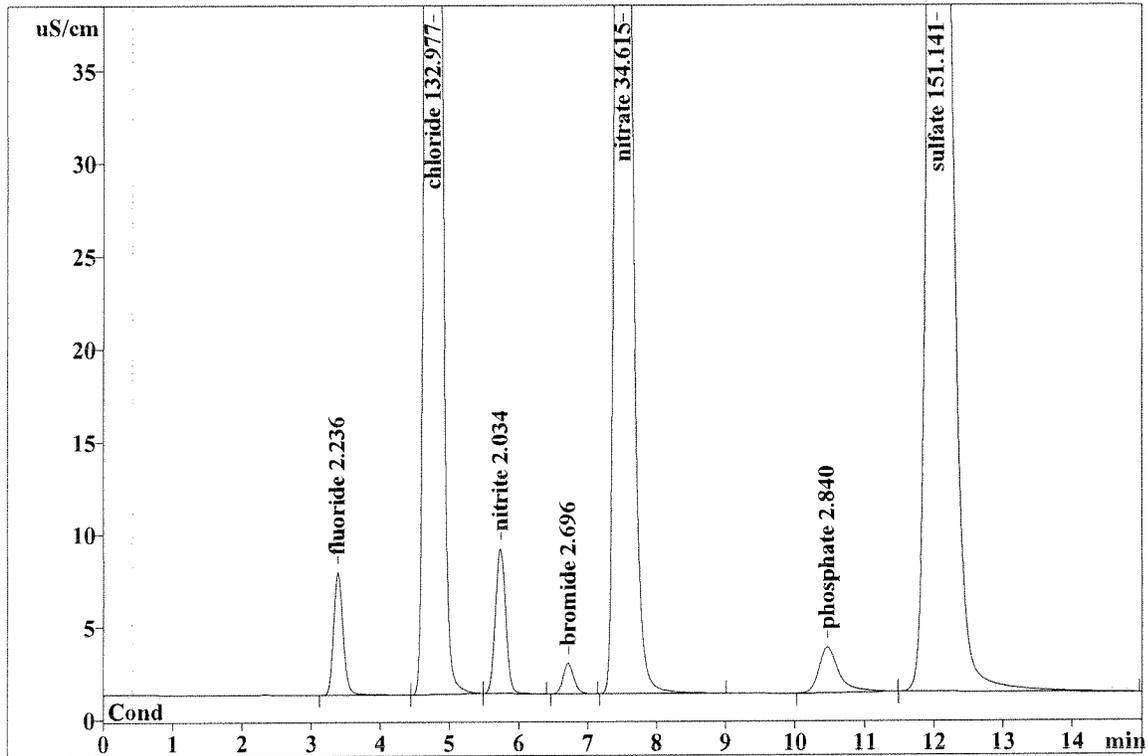
This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 12:38:32 PM
Printed by: JChun

Ident: AD19-30 D157-17M
Analysis from: 4/23/2015 7:32:27 PM
File: z4231932.chw
Modified!
Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111942

Last save: 4/23/2015 7:47:24 PM
Last save: 4/23/2015 11:26:23 AM

SAMPLE:
:
Vial number: 30
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	3.39	6.63	64.319	2.236	fluoride
2	4.77	210.40	2299.931	132.977	chloride
3	5.73	7.84	81.597	2.034	nitrite ✓
4	6.71	1.66	18.018	2.696	bromide
5	7.51	112.49	1438.851	34.615	nitrate
6	10.47	2.47	49.568	2.840	phosphate
7	12.06	96.77	1910.777	151.141	sulfate
7	15.00	438.25	5863.061	328.540	

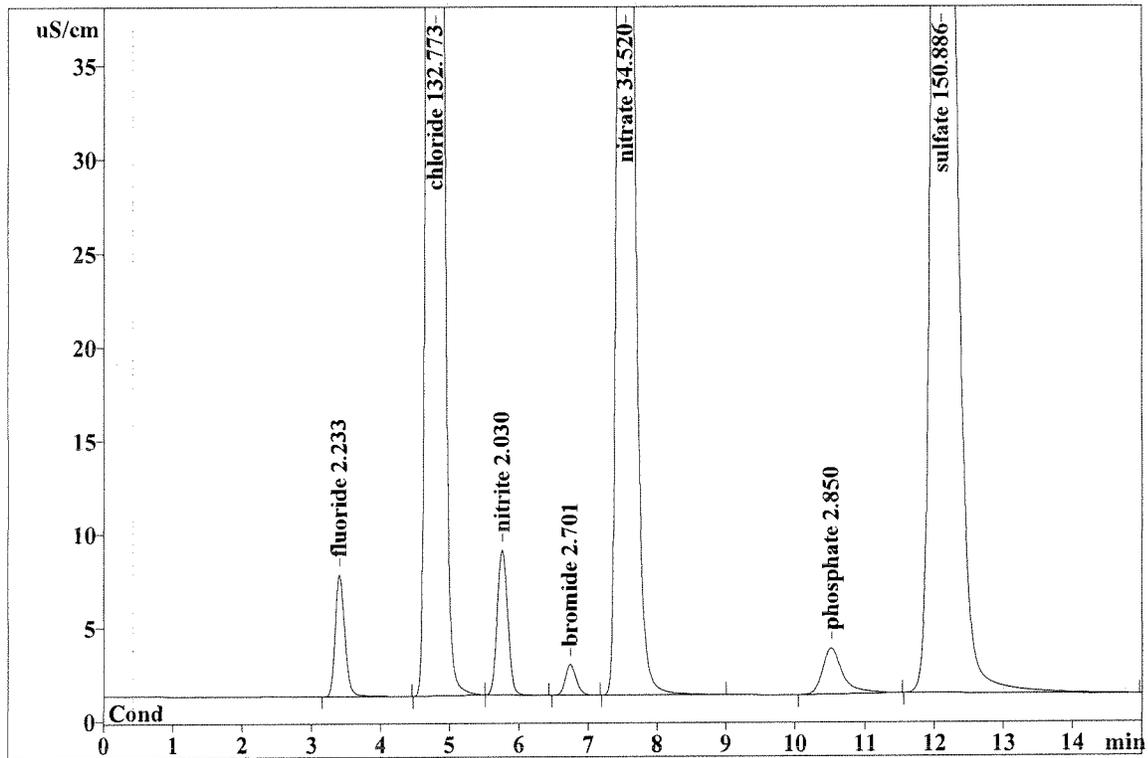
This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 12:38:56 PM
Printed by: JChun

Ident: AD19-31 D157-17S
Analysis from: 4/23/2015 7:49:36 PM
File: z4231949.chw
Modified!
Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111943

Last save: 4/23/2015 8:04:33 PM
Last save: 4/23/2015 11:26:23 AM

SAMPLE:
:
Vial number: 31
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	3.40	6.52	64.221	2.233	fluoride
2	4.79	208.40	2296.389	132.773	chloride
3	5.76	7.72	81.433	2.030	nitrite ✓
4	6.74	1.65	18.054	2.701	bromide
5	7.54	111.57	1434.891	34.520	nitrate
6	10.51	2.46	49.749	2.850	phosphate
7	12.11	96.04	1907.544	150.886	sulfate
7	15.00	434.35	5852.281	327.993	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 2:21:59 AM
Printed by: JChun

Ident: AD19-53 D157-17I DF=40
Analysis from: 4/24/2015 2:07:02 AM
File: Z4240207.CHW

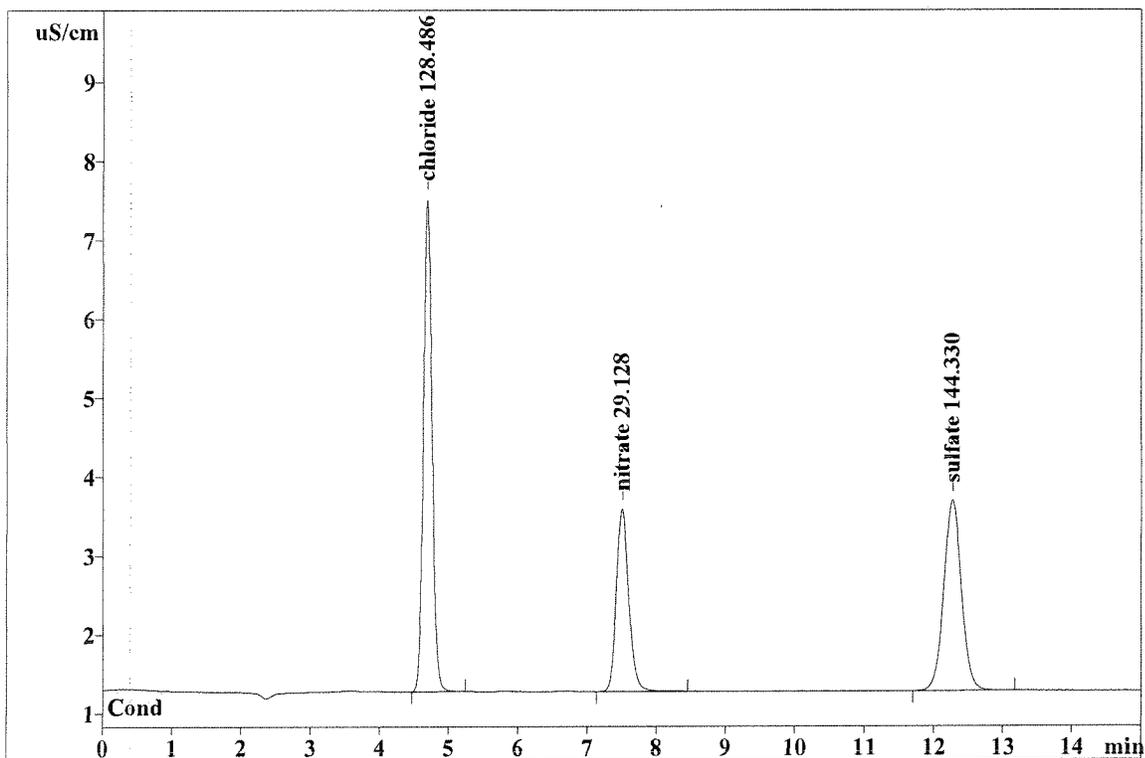
Last save: 4/24/2015 2:21:58 AM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111965

Last save: 4/23/2015 11:26:23 AM

SAMPLE:

Vial number: 53
Volume: 1.0 µL
Dilution: 40.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	4.69	6.25	54.291	128.486	chloride
2	7.50	2.31	28.556	29.128	nitrate ✓
3	12.27	2.41	43.211	144.330	sulfate ✓
3	15.00	10.97	126.058	301.943	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 2:39:08 AM
Printed by: JChun

Ident: AD19-54 D157-17IM DF=40
Analysis from: 4/24/2015 2:24:11 AM
File: Z4240224.CHW

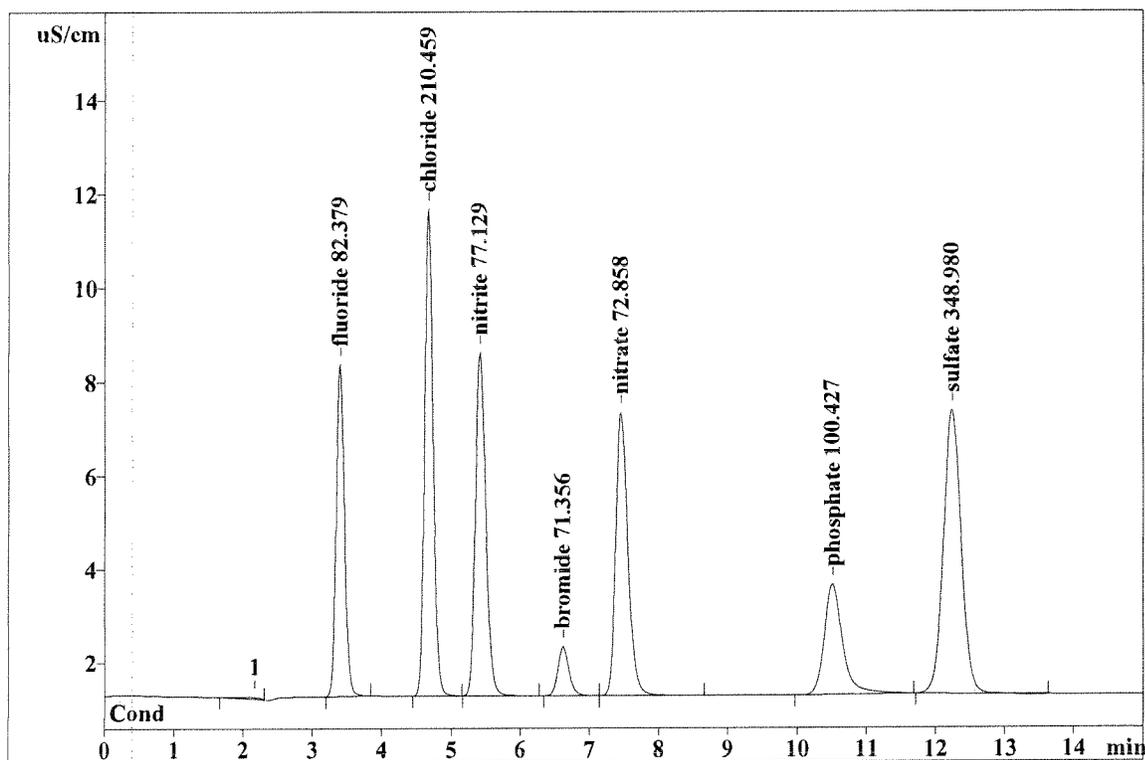
Last save: 4/24/2015 2:39:08 AM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111966

Last save: 4/23/2015 11:26:23 AM

SAMPLE:

Vial number: 54
Volume: 1.0 µL
Dilution: 40.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.17	0.03	0.750	0.000	
2	3.40	7.10	59.181	82.379	fluoride
3	4.67	10.40	89.756	210.459	chloride
4	5.42	7.34	77.282	77.129	nitrite
5	6.62	1.05	11.747	71.356	bromide
6	7.46	6.06	74.054	72.858	nitrate
7	10.51	2.36	43.665	100.427	phosphate
8	12.24	6.07	107.976	348.980	sulfate
8	15.00	40.41	464.411	963.588	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 2:56:17 AM
Printed by: JChun

Ident: AD19-55 D157-17IS DF=40
Analysis from: 4/24/2015 2:41:20 AM
File: Z4240241.CHW

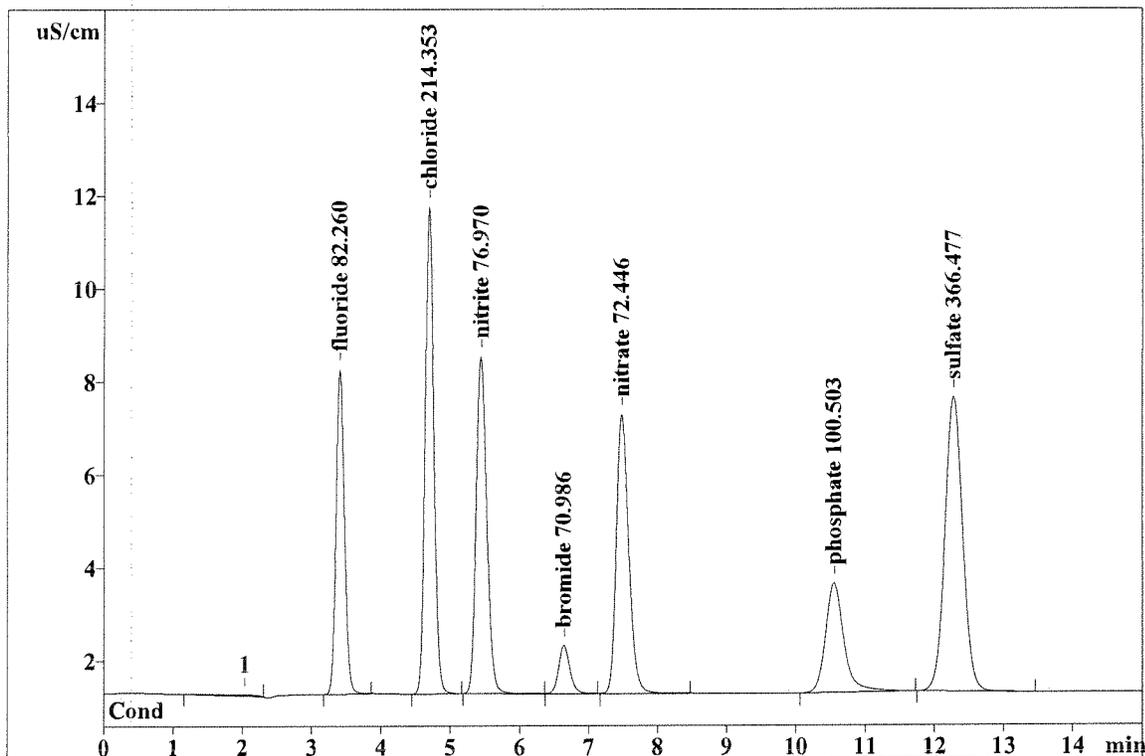
Last save: 4/24/2015 2:56:17 AM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111967

Last save: 4/23/2015 11:26:23 AM

SAMPLE:

Vial number: 55
Volume: 1.0 µL
Dilution: 40.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.03	0.03	1.276	0.000	
2	3.41	6.99	59.095	82.260	fluoride
3	4.69	10.48	91.440	214.353	chloride
4	5.44	7.25	77.121	76.970	nitrite
5	6.64	1.04	11.684	70.986	bromide
6	7.49	6.01	73.625	72.446	nitrate
7	10.55	2.35	43.699	100.503	phosphate
8	12.28	6.34	113.513	366.477	sulfate
8	15.00	40.50	471.453	983.995	

This report has been created by IC Net
METROHM LTD

INITIAL CALIBRATION(S)

IC Result Check FormVersion : D20/AD17(2015)

LFID	LSID	Selection	nitrate	chloride	iodide	fluoride	nitrite	bromide	phosphate	sulfate	RawNetID	DF
AD17-01	IB	NCOFIBPS	0	0	0	0	0	0	0	0	z4212014	1
AD17-02	S0	NCOFIBPS	0	0	0	0	0	0	0	0	z4212031	1
AD17-03	S1	NCOFIBPS	0	0.118505	0	0.0621098	0.0661879	0.117552	0.112132	0.247447	z4212048	1
AD17-04	S2	NCOFIBPS	0.118812	0.154755	0	0.102191	0.106292	0.157608	0.14985	0.28168	z4212105	1
AD17-05	S3	NCOFIBPS	0.19777	0.230912	0	0.183613	0.189259	0.234586	0.221643	0.357029	z4212122	1
AD17-06	S4	NCOFIBPS	0.470728	0.479411	0	0.462634	0.468984	0.491498	0.481806	0.576708	z4212140	1
AD17-07	S5	NCOFIBPS	0.960096	0.918714	0	0.959718	0.959094	0.920117	0.919903	0.976034	z4212157	1
AD17-08	S6	NCOFIBPS	2.02373	1.89696	0	1.99879	1.99685	1.87029	1.92262	1.82268	z4212214	1
AD17-09	S7	NCOFIBPS	5.36606	5.05074	0	5.15578	5.11798	5.05835	5.04204	4.67905	z4212231	1
AD17-10	S8	NCOFIBPS	10.9001	10.3408	0	9.92516	9.94535	10.6621	10.2551	9.67051	z4212248	1
AD17-11	S9	NCOFIBPS	22.3041	21.1848	0	18.7245	18.9691	22.5101	20.9794	20.2389	z4212305	1
AD17-12	ICV	NCOFIBPS	100.3%	94.5%	0%*	102.4%	98.8%	92.6%	93.6%	94.5%	z4212322	1
AD17-13	ICV1	NCOFIBPS	97.5%	91.8%	0%*	97.5%	93.6%	91.6%	93%	99.3%	z4212340	1
AD17-14	ICB	NCOFIBPS	0	0	0	0	0	0	0	0	z4212357	1

At
04/23/15

Report date: 4/22/2015 12:41:37 PM
Printed by: JChun

Ident: AD17-02 S0
Analysis from: 4/21/2015 8:31:29 PM
File: z4212031.chw

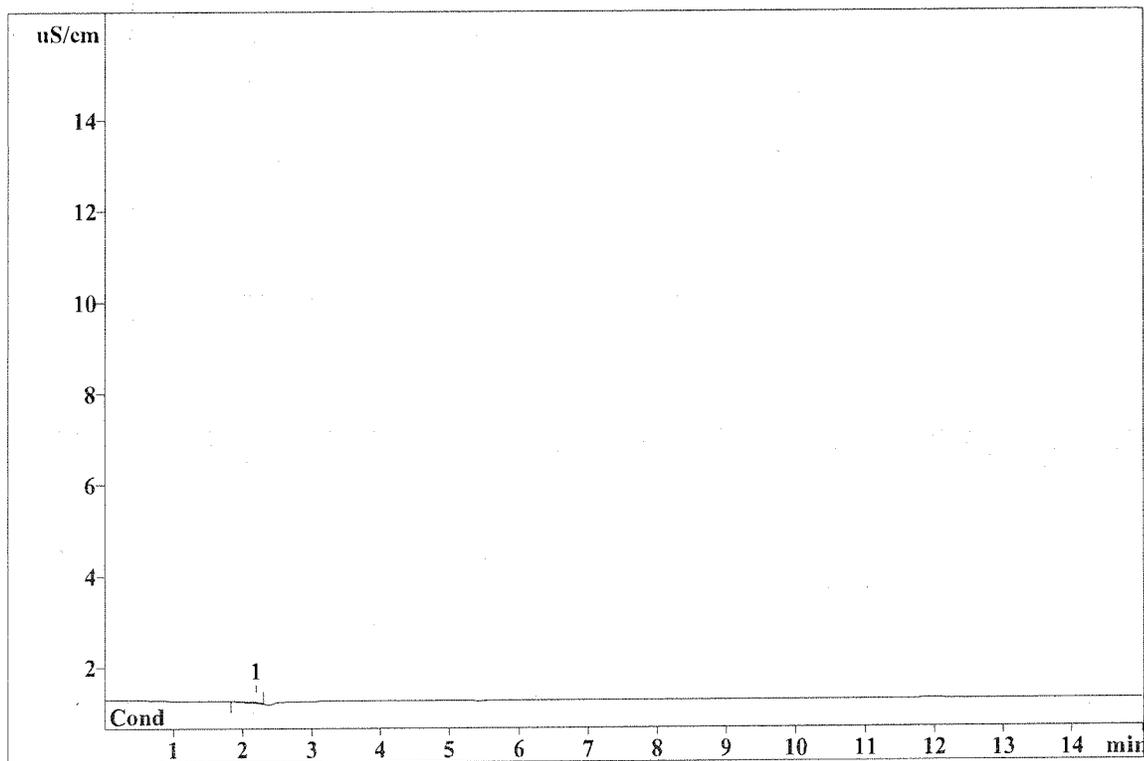
Last save: 4/22/2015 12:38:42 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111896

Last save: 4/21/2015 9:37:53 PM

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	2.19	0.02	0.438	0.000	

This report has been created by IC Net
METROHM LTD

DS
04/23/15

Report date: 4/22/2015 12:50:20 PM
Printed by: JChun

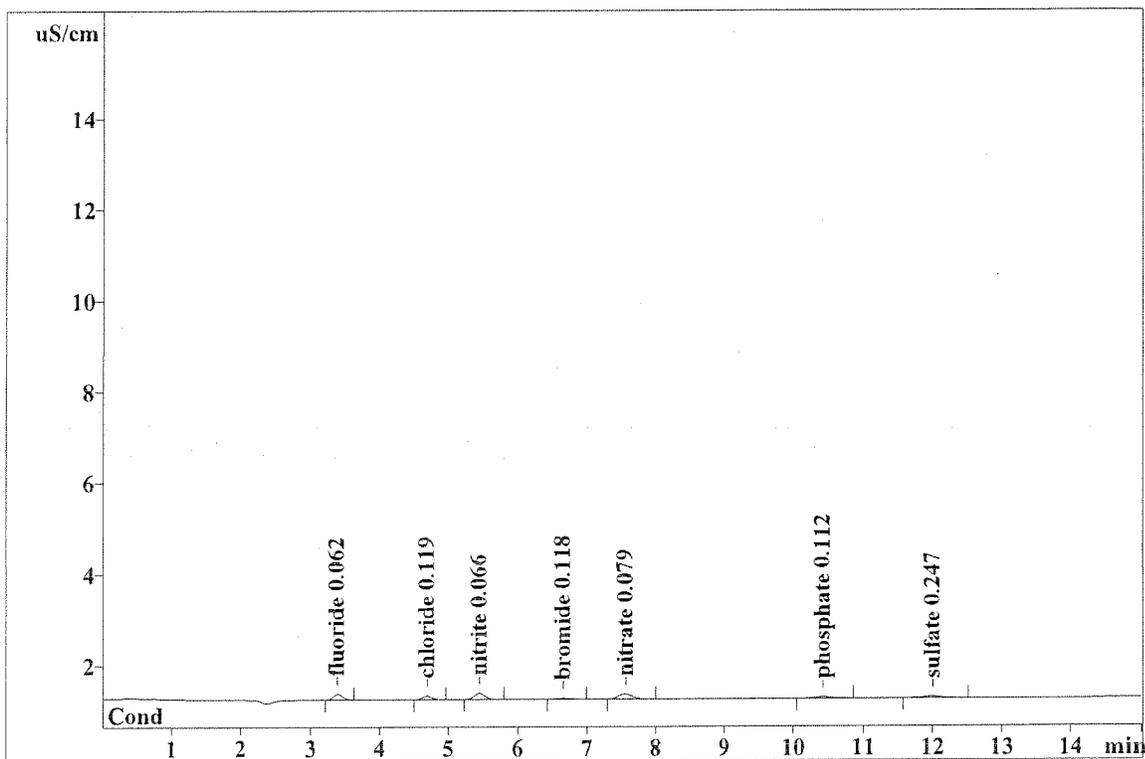
Ident: AD17-03 S1
Analysis from: 4/21/2015 8:48:38 PM
File: z4212048.chw

Last save: 4/22/2015 12:43:50 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111897

Last save: 4/21/2015 9:37:53 PM

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	3.39	0.12	1.097 ✓	0.062	fluoride
2	4.68	0.08	0.754 ✓	0.119	chloride
3	5.45	0.13	1.452 ✓	0.066	nitrite
4	6.66	0.02	0.295 ✓	0.118	bromide
5	7.55	0.11	1.533 ✓	0.079	nitrate
6	10.43	0.03	0.634 ✓	0.112	phosphate
7	12.00	0.03	0.668 ✓	0.247	sulfate
7	15.00	0.54	6.433	0.803	

AS
04/23/15

This report has been created by IC Net
METROHM LTD

Report date: 4/22/2015 12:50:23 PM
 Printed by: JChun

Ident: AD17-04 S2
 Analysis from: 4/21/2015 9:05:47 PM
 File: z4212105.chw

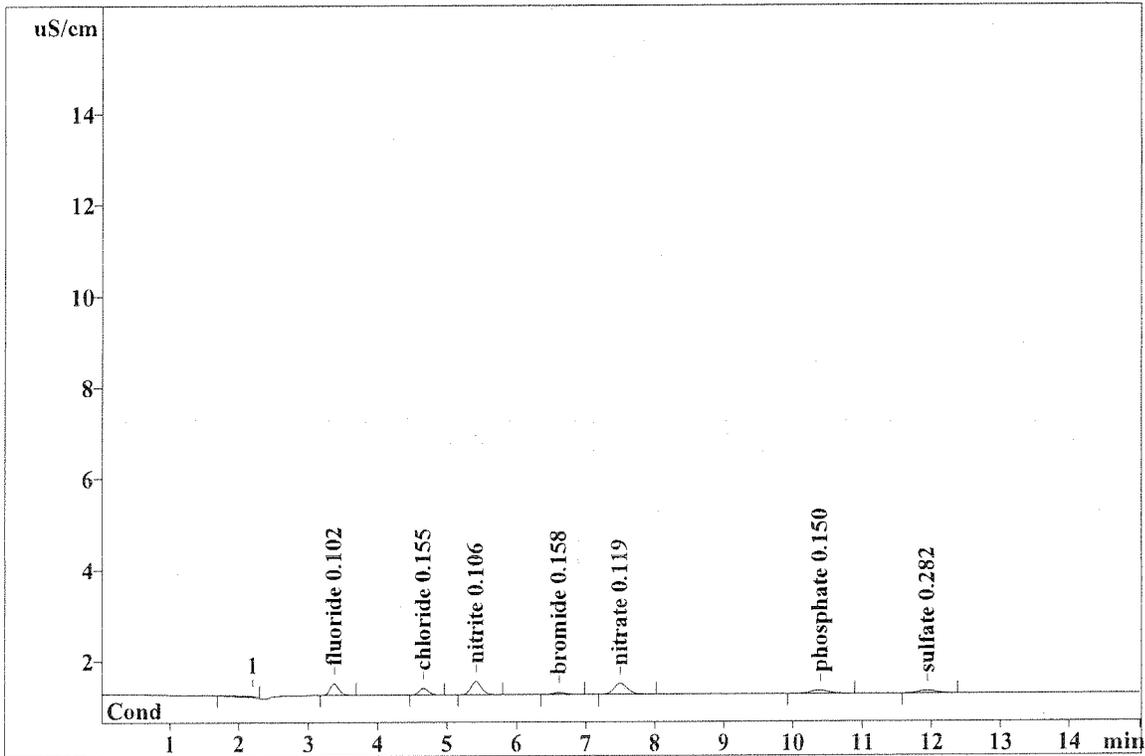
Last save: 4/22/2015 12:43:50 PM

Method: ICD0-D20.mtw
 Run operator: JChun
 Analysis number: 111898

Last save: 4/21/2015 9:37:53 PM

SAMPLE: 0.10PPM

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	2.19	0.03	0.635	0.000	
2	3.37	0.25	2.262	0.102	fluoride ✓
3	4.66	0.15	1.382	0.155	chloride
4	5.41	0.29	3.085	0.106	nitrite ✓
5	6.62	0.05	0.571	0.158	bromide
6	7.50	0.24	3.195	0.119	nitrate ✓
7	10.39	0.07	1.311	0.150	phosphate ✓
8	11.94	0.06	1.102	0.282	sulfate
8	15.00	1.13	13.542	1.071	

AA
 04/23/15

This report has been created by IC Net
 METROHM LTD

Report date: 4/22/2015 12:50:27 PM
Printed by: JChun

Ident: AD17-05 S3
Analysis from: 4/21/2015 9:22:56 PM
File: z4212122.chw

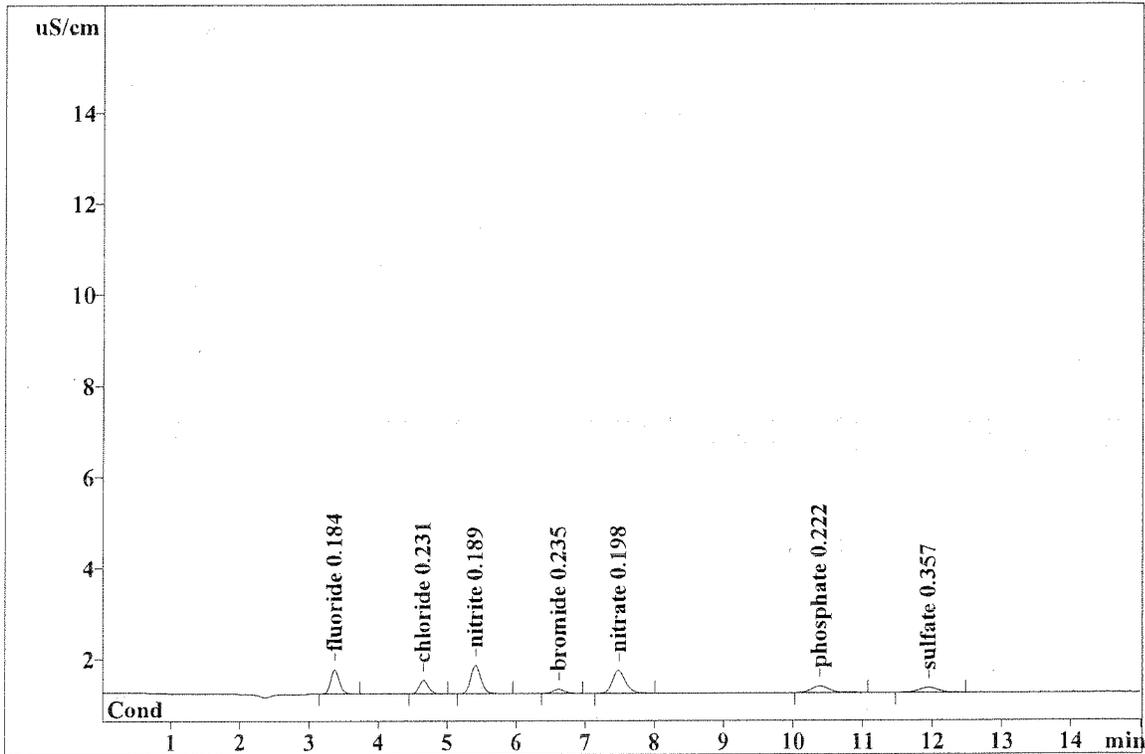
Last save: 4/22/2015 12:43:51 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111899

Last save: 4/21/2015 9:37:53 PM

SAMPLE: 0.20PPM

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	3.37	0.53	4.630	0.184	fluoride
2	4.65	0.29	2.700	0.231	chloride ✓
3	5.41	0.62	6.464	0.189	nitrite
4	6.62	0.09	1.100	0.235	bromide
5	7.48	0.50	6.481	0.198	nitrate
6	10.38	0.14	2.599	0.222	phosphate
7	11.95	0.11	2.055	0.357	sulfate
7	15.00	2.28	26.028	1.615	

This report has been created by IC Net
METROHM LTD

As
04/23/15

Report date: 4/22/2015 12:50:30 PM
Printed by: JChun

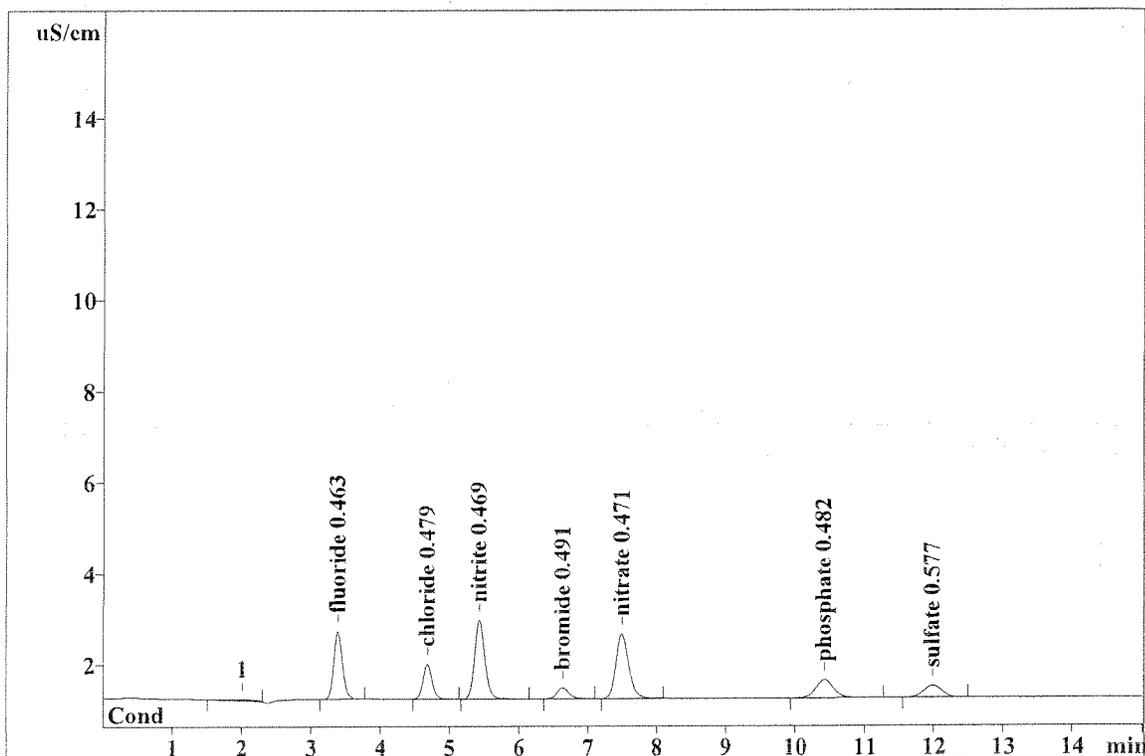
Ident: AD17-06 S4
Analysis from: 4/21/2015 9:40:05 PM
File: z4212140.chw

Last save: 4/22/2015 12:43:51 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111900

Last save: 4/21/2015 9:37:53 PM

SAMPLE: 0.50PPM
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	2.02	0.02	0.786	0.000	
2	3.39	1.49	12.744	0.463	fluoride
3	4.67	0.76	7.000	0.479	chloride
4	5.43	1.73	17.855	0.469	nitrite
5	6.63	0.24	2.865	0.491	bromide ✓
6	7.49	1.42	17.841	0.471	nitrate
7	10.42	0.41	7.267	0.482	phosphate ✓
8	11.99	0.26	4.836	0.577	sulfate ✓
8	15.00	6.34	71.195	3.432	

As
04/23/15

This report has been created by IC Net
METROHM LTD

Report date: 4/22/2015 12:50:33 PM
Printed by: JChun

Ident: AD17-07 S5
Analysis from: 4/21/2015 9:57:14 PM
File: z4212157.chw

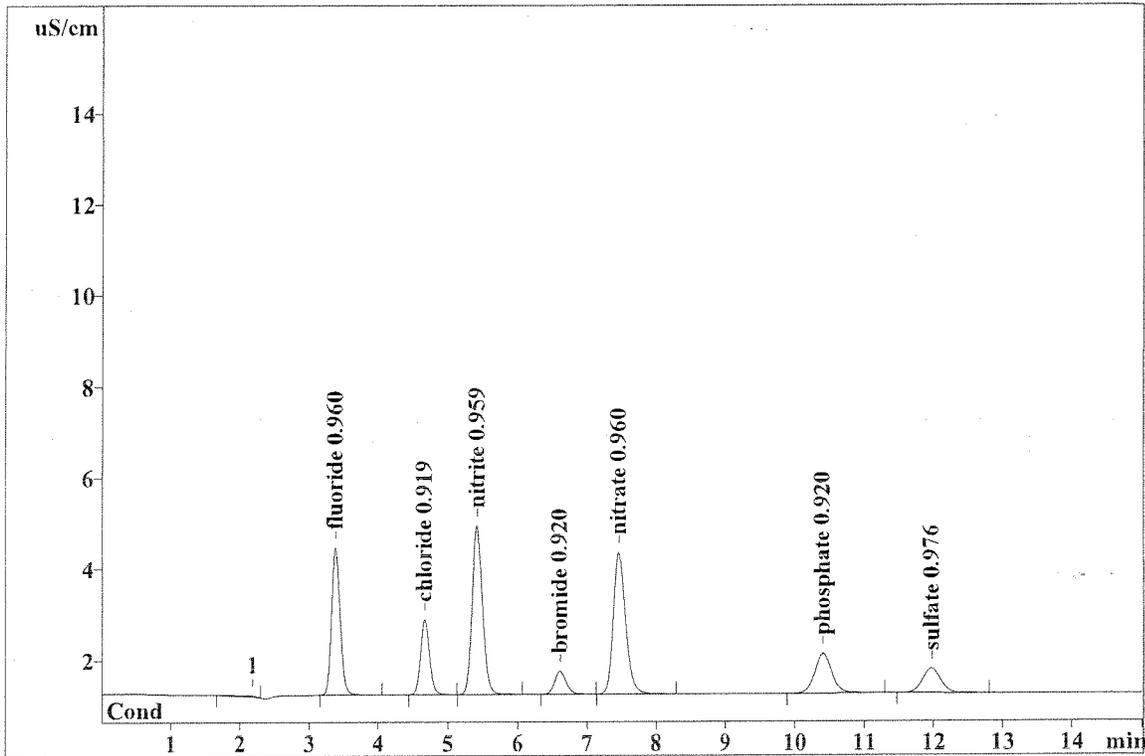
Last save: 4/22/2015 12:43:51 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111901

Last save: 4/21/2015 9:37:53 PM

SAMPLE: 1.00PPM

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	2.19	0.02	0.619	0.000	
2	3.38	3.23	27.200	0.960	fluoride
3	4.66	1.64	14.602	0.919	chloride
4	5.41	3.70	37.815	0.959	nitrite
5	6.61	0.50	5.811	0.920	bromide
6	7.46	3.09	38.207	0.960	nitrate
7	10.40	0.87	15.126	0.920	phosphate
8	11.98	0.54	9.891	0.976	sulfate
8	15.00	13.59	149.271	6.614	

DA
04/23/15

This report has been created by IC Net
METROHM LTD

Report date: 4/22/2015 12:50:37 PM
Printed by: JChun

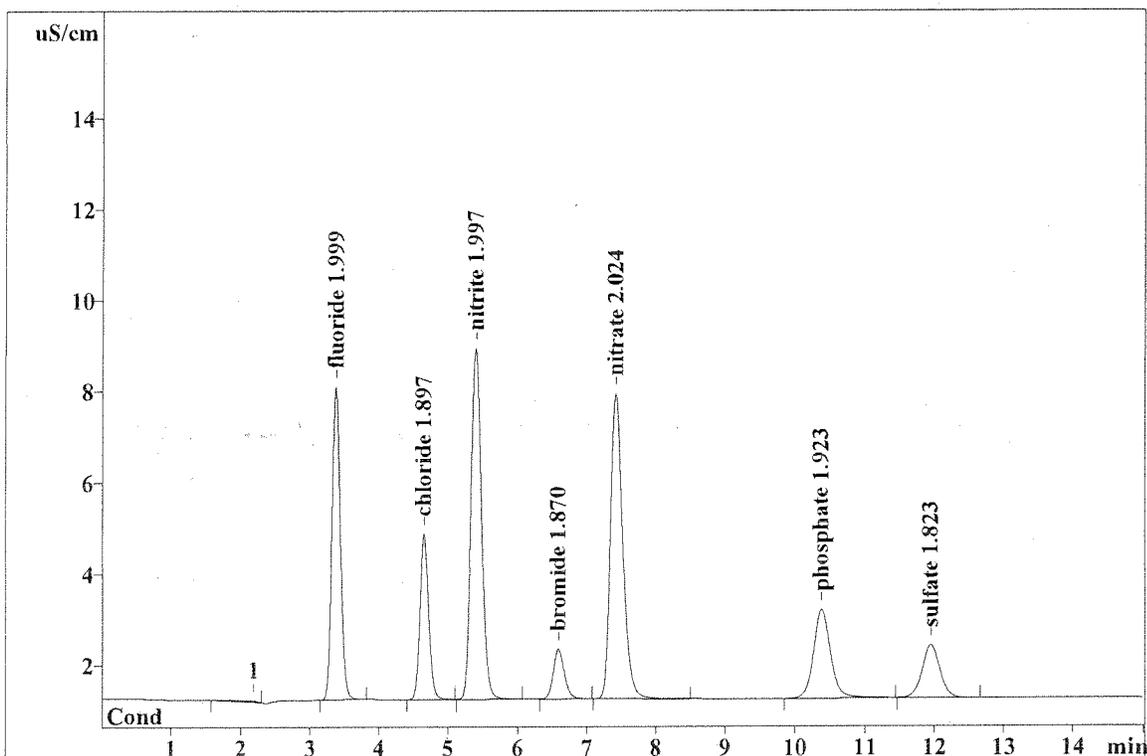
Ident: AD17-08 S6
Analysis from: 4/21/2015 10:14:23 PM
File: z4212214.chw

Last save: 4/22/2015 12:43:51 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111902

Last save: 4/21/2015 9:37:53 PM

SAMPLE: 2.00PPM
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	2.18	0.03	0.777	0.000	
2	3.38	6.87	57.417	1.999	fluoride
3	4.65	3.63	31.531	1.897	chloride
4	5.40	7.70	80.077	1.997	nitrite
5	6.59	1.10	12.341	1.870	bromide
6	7.42	6.70	82.473	2.024	nitrate
7	10.38	1.94	33.115	1.923	phosphate
8	11.96	1.16	20.608	1.823	sulfate
8	15.00	29.11	318.339	13.532	

AS
04/23/15

This report has been created by IC Net
METROHM LTD

Report date: 4/22/2015 12:50:41 PM
Printed by: JChun

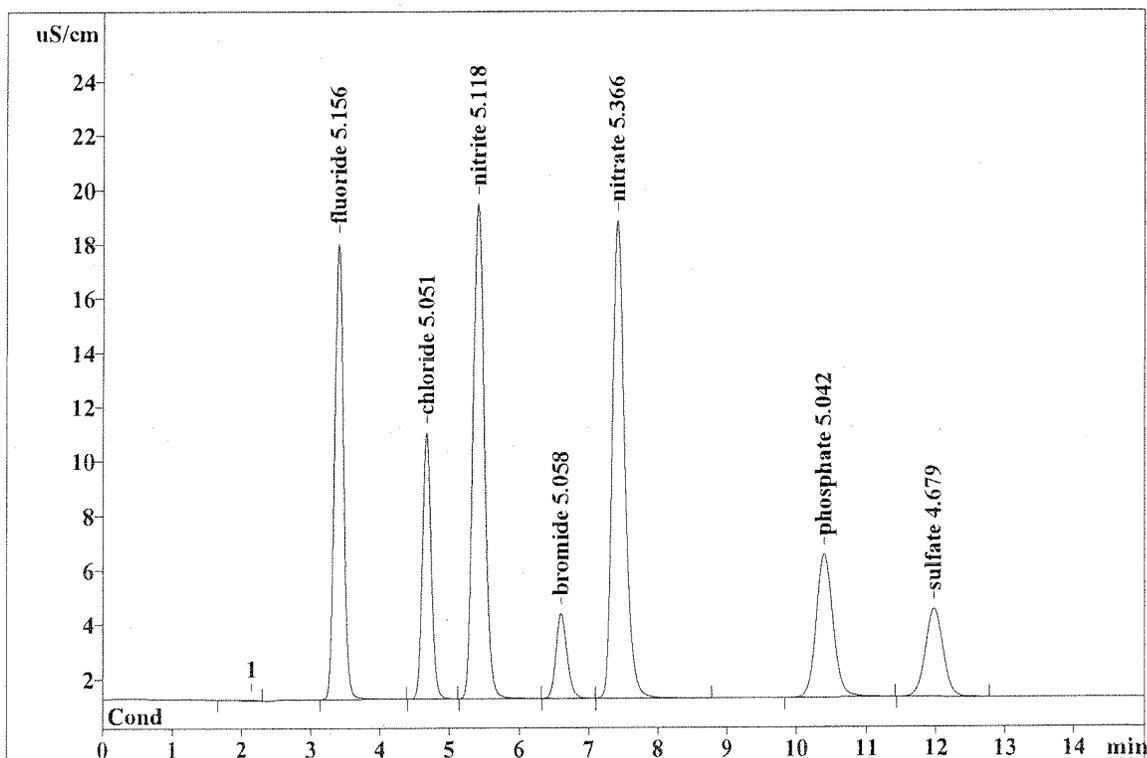
Ident: AD17-09 S7
Analysis from: 4/21/2015 10:31:32 PM
File: z4212231.chw

Last save: 4/22/2015 12:43:51 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111903

Last save: 4/21/2015 9:37:53 PM

SAMPLE: 5.00PPM
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	2.12	0.02	0.521	0.000	
2	3.40	16.83	149.224	5.156	fluoride
3	4.67	9.80	86.109	5.051	chloride
4	5.40	18.23	207.184	5.118	nitrite
5	6.60	3.12	34.251	5.058	bromide
6	7.41	17.61	221.571	5.366	nitrate
7	10.40	5.26	89.078	5.042	phosphate
8	11.98	3.24	56.766	4.679	sulfate
8	15.00	74.10	844.705	35.470	

Rs
04/23/15

This report has been created by IC Net
METROHM LTD

Report date: 4/22/2015 12:50:45 PM
Printed by: JChun

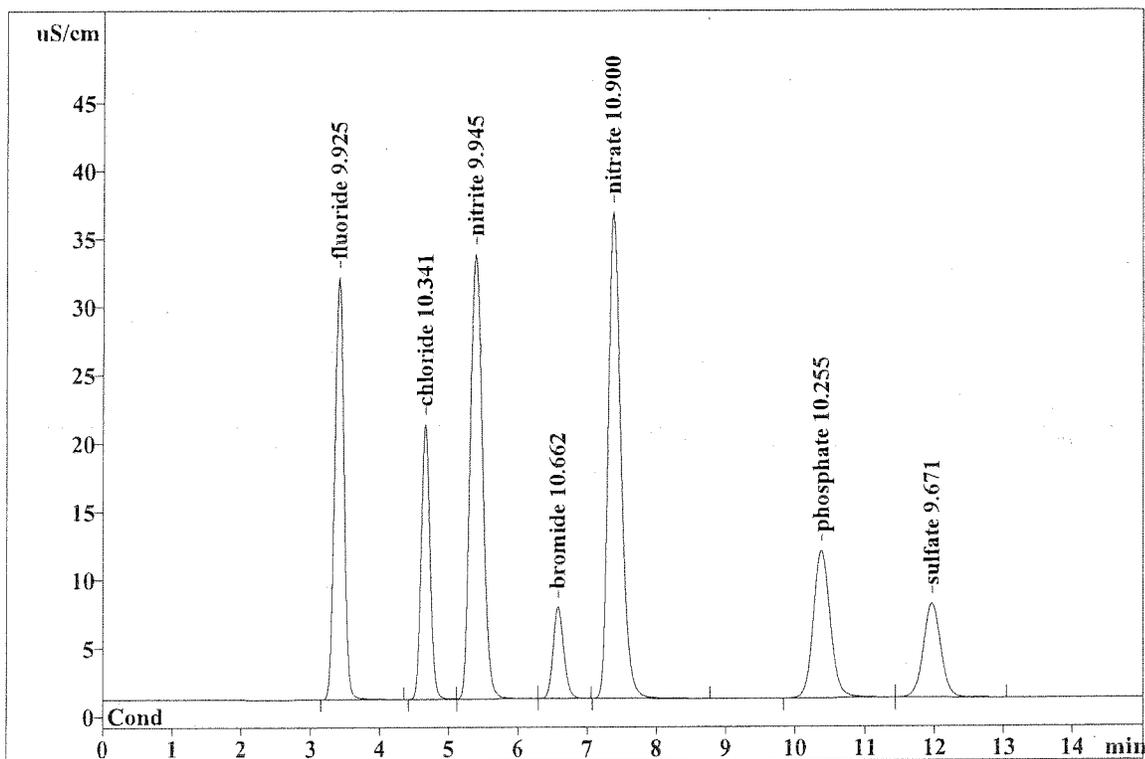
Ident: AD17-10 S8
Analysis from: 4/21/2015 10:48:41 PM
File: z4212248.chw

Last save: 4/22/2015 12:43:52 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111904

Last save: 4/21/2015 9:37:53 PM

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	3.41	30.95	287.920	9.925	fluoride
2	4.66	20.14	177.655	10.341	chloride
3	5.39	32.63	403.778	9.945	nitrite
4	6.58	6.69	72.763	10.662	bromide
5	7.38	35.69	451.882	10.900	nitrate
6	10.38	10.75	182.600	10.255	phosphate
7	11.97	6.85	119.951	9.671	sulfate
7	15.00	143.69	1696.549	71.699	

As
04/23/15

This report has been created by IC Net
METROHM LTD

Report date: 4/22/2015 12:50:49 PM
Printed by: JChun

Ident: AD17-11 S9
Analysis from: 4/21/2015 11:05:50 PM
File: z4212305.chw

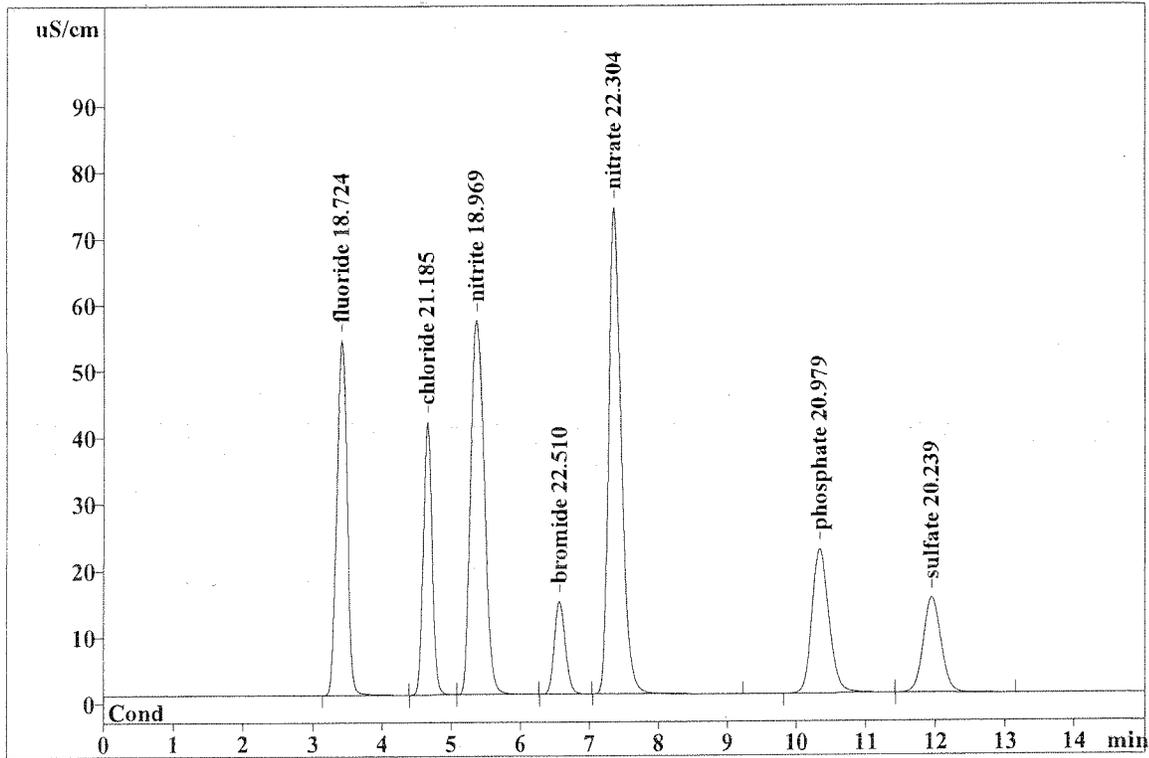
Last save: 4/22/2015 12:43:52 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111905

Last save: 4/21/2015 9:37:53 PM

SAMPLE: 20.0PPM

Vial number: 11
Volume: 1.0 µL
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

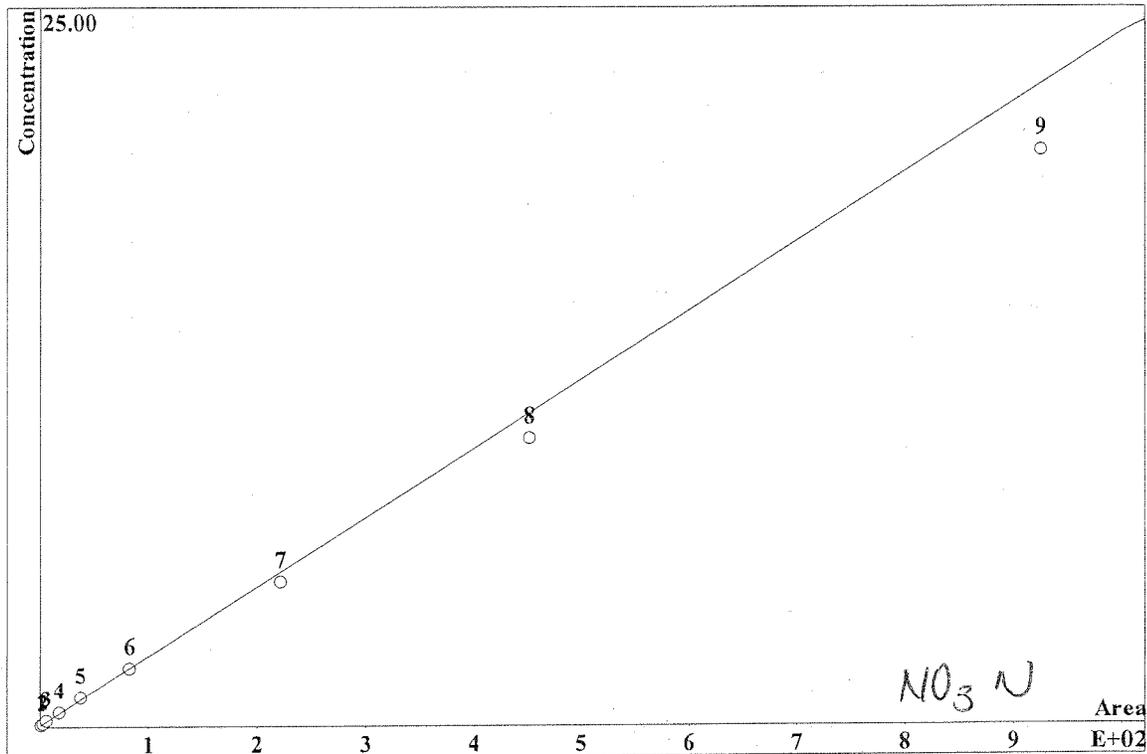
No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	3.42	53.41	543.810	18.724	fluoride
2	4.65	40.92	365.315	21.185	chloride
3	5.37	56.32	771.268	18.969	nitrite
4	6.57	13.97	154.189	22.510	bromide
5	7.36	73.35	926.485	22.304	nitrate
6	10.34	21.65	374.997	20.979	phosphate
7	11.95	14.30	253.732	20.239	sulfate
7	15.00	273.92	3389.795	144.911	

Handwritten signature
04/23/15

This report has been created by IC Net
METROHM LTD

CALIBRATION OF COMPONENT nitrate

Method: ICD0-D20.mtw
 Equation: $Q = 0.0240284 \cdot A + 0.042041$
 RSD: 5.053 %
 Correlation coefficient: 0.999257



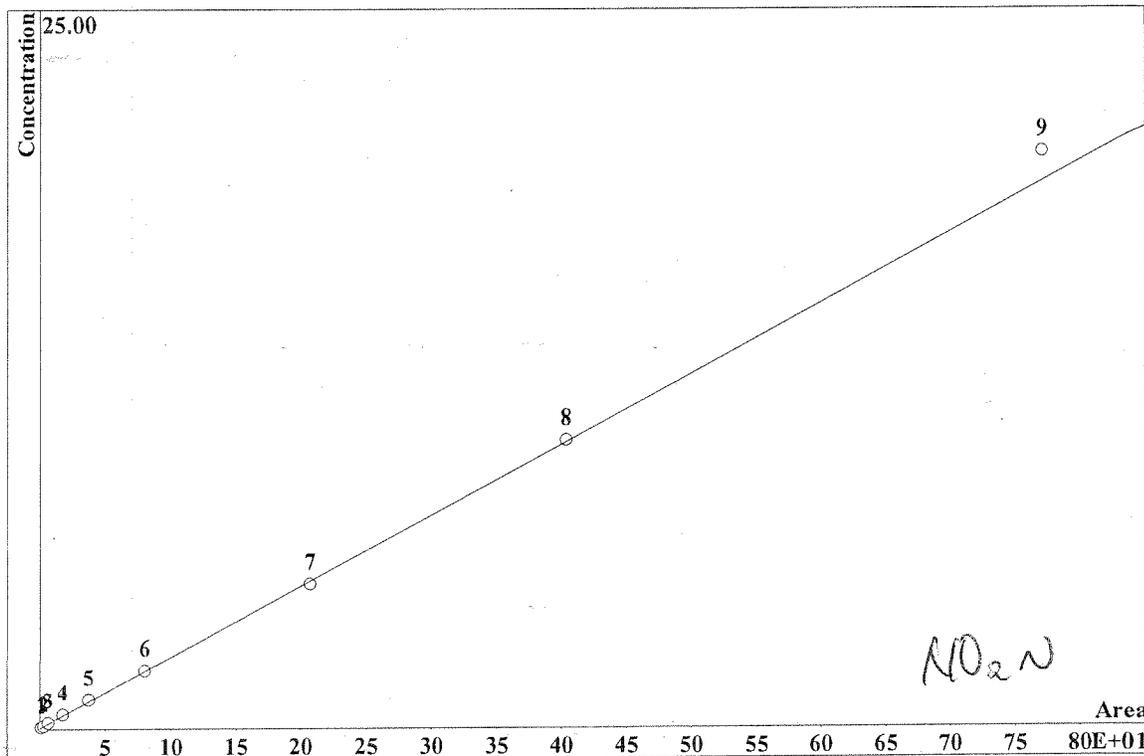
K3 = 0 K2 = 0 K1 = 0.0240284 K0 = 0.042041
 Base: Area
 Ref.channel: Cond
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.1146	1.533 ✓	0.05	1	7.15	Yes	z4212048.chw
2	0.2407	3.195 ✓	0.1	1	7.15	Yes	z4212105.chw
3	0.5018	6.481 ✓	0.2	1	7.15	Yes	z4212122.chw
4	1.421	17.84 ✓	0.5	1	7.15	Yes	z4212140.chw
5	3.094	38.21 ✓	1	1	7.15	Yes	z4212157.chw
6	6.696	82.47 ✓	2	1	7.15	Yes	z4212214.chw
7	17.61	221.6 ✓	5	1	7.15	No	z4212231.chw
8	35.69	451.9 ✓	10	1	7.15	No	z4212248.chw
9	73.35	926.5 ✓	20	1	7.15	No	z4212305.chw

As
 04/23/15

CALIBRATION OF COMPONENT nitrite

Method: ICD0-D20.mtw ✓
 Equation: $Q = 0.0245551 \cdot A + 0.0305447$
 RSD: 2.448 %
 Correlation coefficient: 0.999884



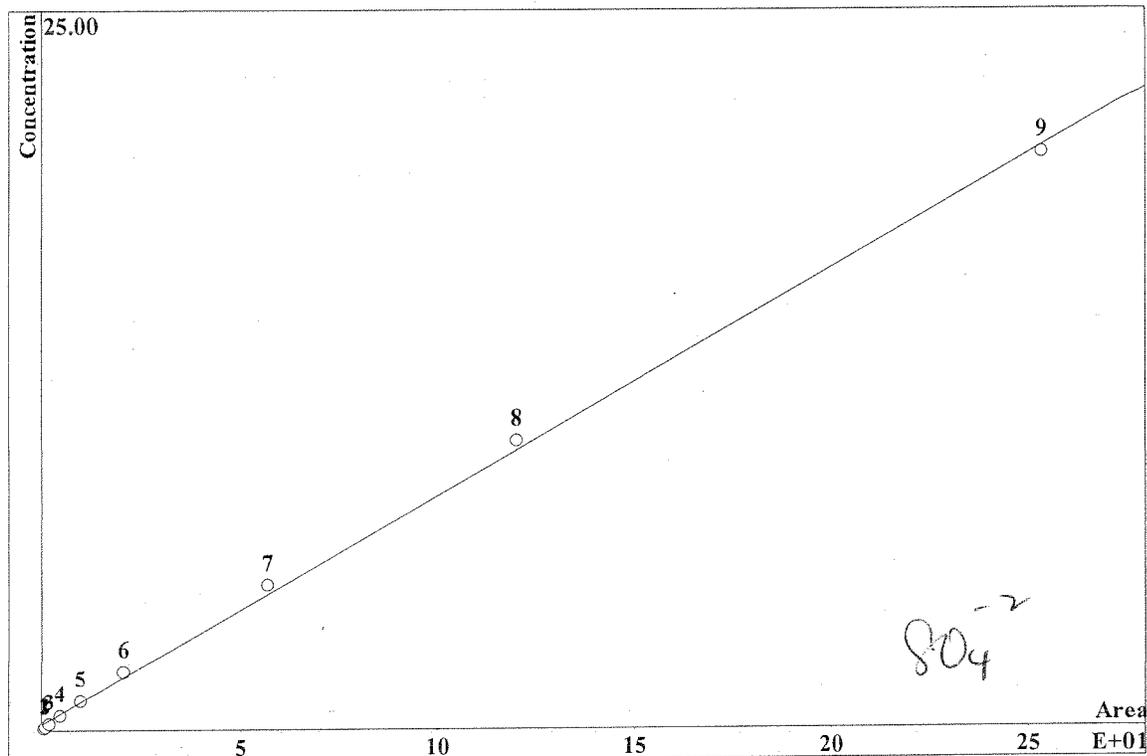
K3 = 0 K2 = 0 K1 = 0.0245551 K0 = 0.0305447
 Base: Area
 Ref.channel: Cond
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.1354	1.452 ✓	0.05	1	5.31	Yes	z4212048.chw
2	0.2907	3.085 ✓	0.1	1	5.31	Yes	z4212105.chw
3	0.6184	6.464 ✓	0.2	1	5.31	Yes	z4212122.chw
4	1.733	17.86 ✓	0.5	1	5.31	Yes	z4212140.chw
5	3.696	37.81 ✓	1	1	5.31	Yes	z4212157.chw
6	7.696	80.08 ✓	2	1	5.31	Yes	z4212214.chw
7	18.23	207.2 ✓	5	1	5.31	Yes	z4212231.chw
8	32.63	403.8 ✓	10	1	5.31	Yes	z4212248.chw
9	56.32	771.3 ✓	20	1	5.31	No	z4212305.chw

DA
04/23/15

CALIBRATION OF COMPONENT sulfate

Method: ICD0-D20.mtw ✓
 Equation: $Q = 0.0789975 \cdot A + 0.194663$
 RSD: 5.560 %
 Correlation coefficient: 0.999444



K3 = 0 K2 = 0 K1 = 0.0789975 K0 = 0.194663
 Base: Area
 Ref.channel: Cond
 ISTD:
 Formula: Linear
 Weight: 1

Level	Height	Area	Conc.	Vol/Dil	Retention	Used	File
1	0.03388	0.6682 ✓	0.05	1	11.99	Yes	z4212048.chw
2	0.05878	1.102 ✓	0.1	1	11.99	Yes	z4212105.chw
3	0.1092	2.055 ✓	0.2	1	11.99	Yes	z4212122.chw
4	0.2647	4.836 ✓	0.5	1	11.99	Yes	z4212140.chw
5	0.5406	9.891 ✓	1	1	11.99	Yes	z4212157.chw
6	1.159	20.61 ✓	2	1	11.99	Yes	z4212214.chw
7	3.235	56.77 ✓	5	1	11.99	Yes	z4212231.chw
8	6.847	120 ✓	10	1	11.99	Yes	z4212248.chw
9	14.3	253.7 ✓	20	1	11.99	Yes	z4212305.chw

AS
04/23/15

SECOND SOURCE VERIFICATION

IC Result Check FormVersion : D20/AD17(2015)

LFID	LSID	Selection	phosphate	nitrite	nitrate	iodide	fluoride	chloride	bromide	sulfate	RawNetID	DF
AD17-01	IB	PINOFCBS	0	0	0	0	0	0	0	0	z4212014	1
AD17-12	ICV	PINOFCBS	93.6%	98.8%	100.3%	0%*	102.4%	94.5%	92.6%	94.5%	z4212322	1
AD17-13	ICV1	PINOFCBS	93%	93.6%	97.5%	0%*	97.5%	91.8%	91.6%	99.3%	z4212340	1
AD17-14	ICB	PINOFCBS	0	0	0	0	0	0	0	0	z4212357	1

AA
04/23/15

Report date: 4/22/2015 12:50:53 PM
Printed by: JChun

Ident: AD17-12 ICV
Analysis from: 4/21/2015 11:22:59 PM
File: z4212322.chw

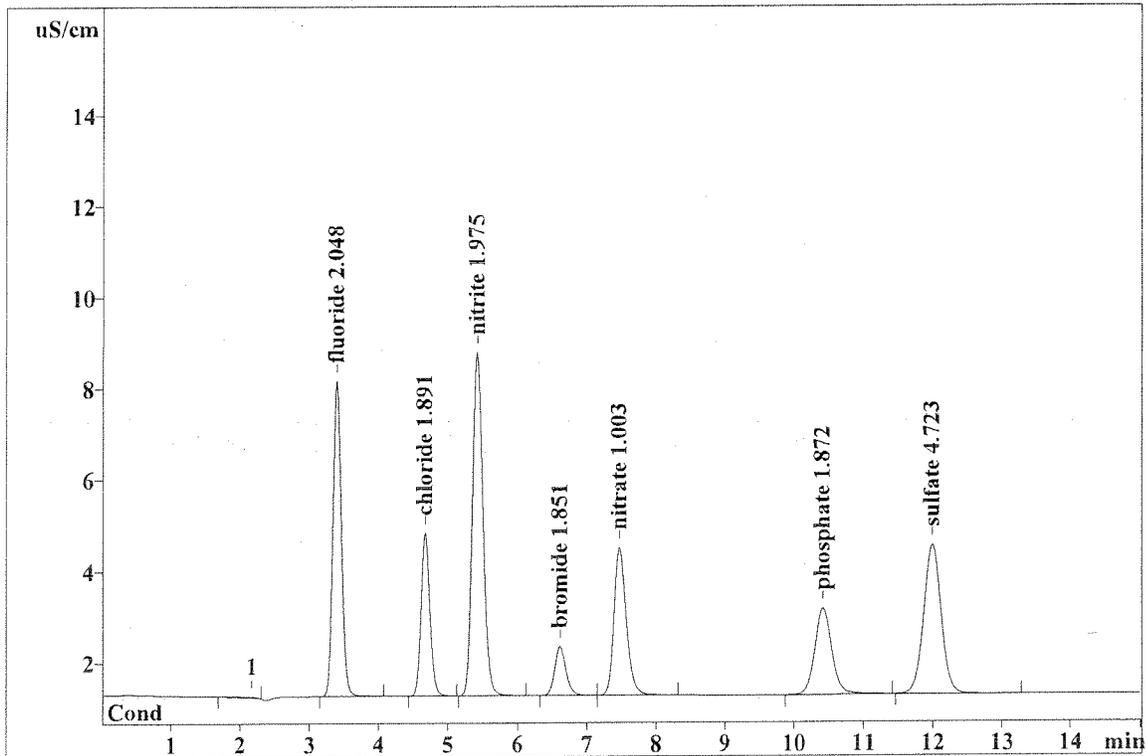
Last save: 4/22/2015 12:43:52 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111906

Last save: 4/21/2015 9:37:53 PM

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	2.20	0.02	0.552	0.000	
2	3.39	6.90	58.846 ✓	2.048 ✓	fluoride
3	4.67	3.57	31.424 ✓	1.891 ✓	chloride
4	5.42	7.51	79.191 ✓	1.975 ✓	nitrite
5	6.62	1.07	12.210 ✓	1.851 ✓	bromide
6	7.47	3.23	39.980 ✓	1.003 ✓	nitrate
7	10.42	1.89	32.204 ✓	1.872 ✓	phosphate
8	12.00	3.26	57.325 ✓	4.723 ✓	sulfate
8	15.00	27.44	311.732	15.363	

As
24/23/15

This report has been created by IC Net
METROHM LTD

Report date: 4/22/2015 12:50:56 PM
Printed by: JChun

Ident: AD17-13 ICV1
Analysis from: 4/21/2015 11:40:09 PM
File: z4212340.chw

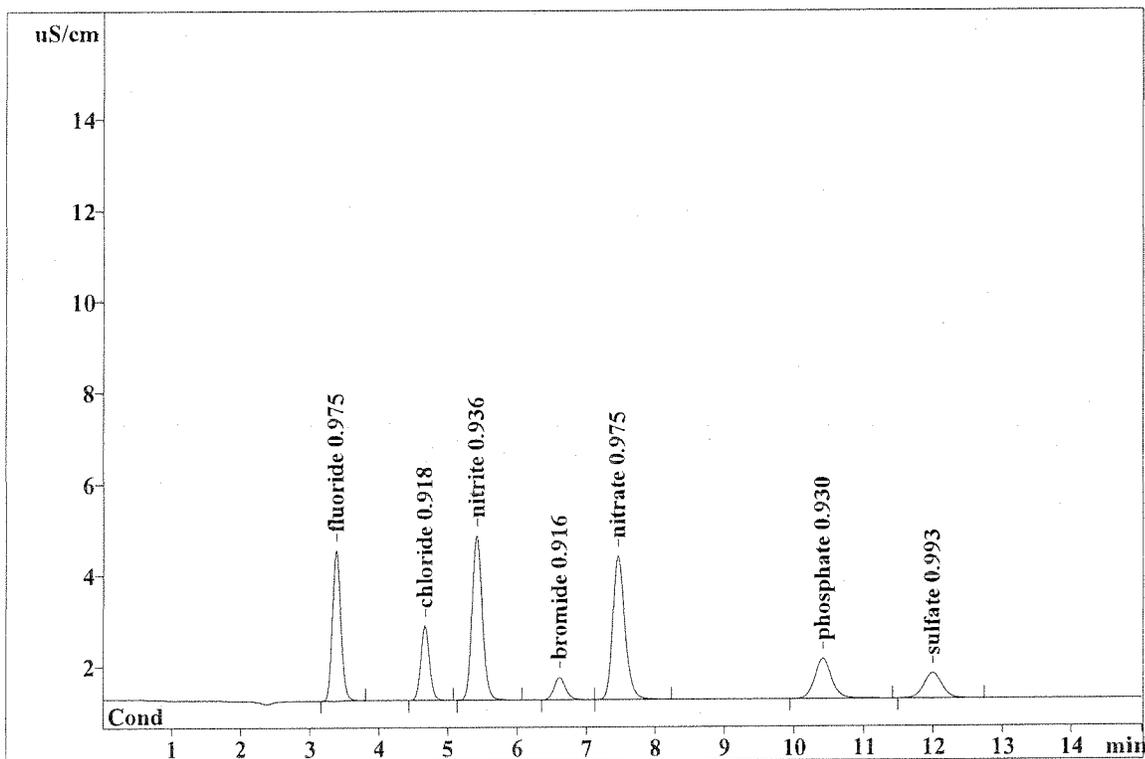
Last save: 4/22/2015 12:43:52 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111907

Last save: 4/21/2015 9:37:53 PM

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	3.38	3.30	27.640 ✓	0.975 ✓	fluoride
2	4.66	1.64	14.585 ✓	0.918 ✓	chloride
3	5.41	3.61	36.890 ✓	0.936 ✓	nitrite
4	6.61	0.49	5.786 ✓	0.916 ✓	bromide
5	7.46	3.14	38.823 ✓	0.975 ✓	nitrate
6	10.42	0.88	15.308 ✓	0.930 ✓	phosphate
7	12.00	0.55	10.107 ✓	0.993 ✓	sulfate
7	15.00	13.61	149.138	6.643	

As
04/23/15

This report has been created by IC Net
METROHM LTD

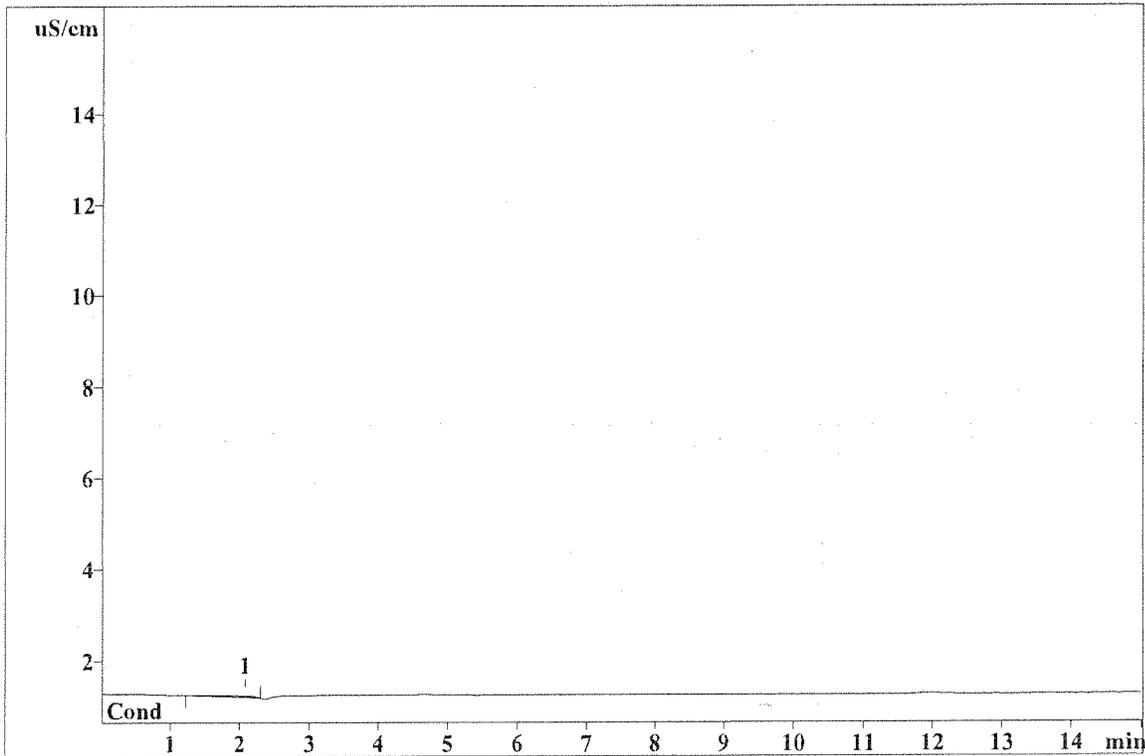
Report date: 4/22/2015 12:51:08 PM
Printed by: JChun

Ident: AD17-14 ICB
Analysis from: 4/21/2015 11:57:18 PM
File: z4212357.chw
Modified!
Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111908

Last save: 4/22/2015 12:43:52 PM
Last save: 4/21/2015 9:37:53 PM

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	2.08	0.03	1.349	0.000	

This report has been created by IC Net
METROHM LTD

AA
04/23/15

DAILY CALIBRATION(S)

IC Result Check FormVersion : D20/AD17(2015)

LFID	LSID	Selection	bromide	nitrite	phosphate	iodide	fluoride	chloride	nitrate	sulfate	RawNetID	DF
AD19-01	CCV1	BIPOFCNS	91.5%	97.1%	95.5%	0%*	101.5%	97%	98.5%	97.9%	z4231113	1
AD19-02	CCB1	BIPOFCNS	0	0	0	0	0	0	0	0	z4231130	1
AD19-03	ICD017WB	BIPOFCNS	0	0	0	0	0	0	0	0	z4231148	1
AD19-04	D149-05	BIPOF*N*	1.14228	0	0	0	0	724.858E	0	2070.49E	z4231206	1
AD19-05	D149-05I	BIPOF*N*	1.16556	0	0	0	0	737.563E	0	2165.92E	z4231223	2
AD19-06	D149-08	BIPOF*N*	0.505329	0	0	0	0.792397	116.9E	0	228.299E	z4231240	1
AD19-07	D149-09	BIPOF*N*	0.519524	0	0	0	0.719377	135.172E	0	342.075E	z4231257	1
AD19-08	D149-11	BIPOFCNS	0	0	0	0	0	0.179773	0	0.499733	z4231315	1
AD19-09	D149-13	BIPOF*N*	0.458418	0	0	0	1.17108	155.484E	0	779.72E	z4231332	1
AD19-10	D149-15	BIPOFCNS	0	0	0	0	0	0.332246	0.0546484	0.642163	z4231349	1
AD19-11	ICD017WL	BIPOFCNS	1.85127	1.95787	2.10952	0	2.03536	1.9583	0.998554	4.934	z4231406	1
AD19-12	ICD017WC	BIPOFCNS	1.84904	1.96317	2.11402	0	2.03545	2.03011	1.00139	5.11151	z4231423	1
AD19-13	CCV3	BIPOFCNS	92.5%	97.9%	104.7%	0%*	102.4%	98.1%	100%	98.8%	z4231440	1
AD19-14	CCB3	BIPOFCNS	0	0	0	0	0	0	0	0	z4231457	1
AD19-15	D149-17	BIPOFCNS	0	0	0	0	0	0.138889	0	0.43025	z4231515	1
AD19-16	D149-19	BIPOF*N*	2.77745	0	0	0	0.675899	891.122E	0	1343.88E	z4231532	1
AD19-17	D150-02	BIPOF*N*	0.300747	0	0	0	0	2797.61E	0.0736002	74.9064E	z4231549	1
AD19-18	D149-19I	BIPOF*N*	2.66911	0	0	0	0.659531	890.206E	0	1412.54E	z4231606	3
AD19-19	D157-01	BIPOF*N*	0.591455	0	0	0	0.181268	180.315E	1.23676	87.8963E	z4231623	1
AD19-20	D157-02	BIPOF***	1.11531	0	0	0	0.158009	204.873E	12.7718E	71.7734E	z4231640	1
AD19-21	D157-04	BIPOF***	0.76822	0	0	0	0.0991449	163.128E	32.8304E	115.347E	z4231658	1
AD19-22	D157-07	*IPOF***	9.45141E	0	0	0	0.120639	111.981E	69.2333E	87.4982E	z4231715	1
AD19-23	D157-09	BIPOF***	1.80449	0	0	0	0.0810433	156.899E	40.0434E	116.937E	z4231732	1
AD19-24	D157-05	*IPOF***	5.34399E	0	0	0	0.111069	104.075E	64.92E	69.4632E	z4231749	1
AD19-25	CCV5	BIPOFCNS	93.4%	98.7%	118.6%*	0%*	102.9%	97.4%	101.1%	98.6%	z4231806	1
AD19-26	CCB5	BIPOFCNS	0	0	0	0	0	0	0	0	z4231823	1
AD19-27	D157-08	BIPOF***	1.57625	0	0	0	0.1332	211.688E	28.9252E	102.886E	z4231841	1
AD19-28	D157-11	*IPOF***	10.6365E	0	0	0	0.106296	182.757E	62.9166E	81.8766E	z4231858	1
AD19-29	D157-17	BIPOF***	0.742903	0	0	0	0.0938721	133.153E	33.8874E	149.082E	z4231915	1
AD19-30	D157-17M	BIPOF***	2.69637	2.03418	2.83971	0	2.23615	132.977E	34.6154E	151.141E	z4231932	1
AD19-31	D157-17S	BIPOF***	2.70149	2.03015	2.84982	0	2.23276	132.773E	34.5202E	150.886E	z4231949	1
AD19-32	ICD019WL	BIPOFCNS	1.87208	1.97854	2.4076	0	2.05589	2.02618	1.01257	5.10712	z4232006	1
AD19-33	ICD019WC	BIPOFCNS	1.86532	1.97705	2.39245	0	2.06174	1.94236	1.01286	4.90529	z4232023	1
AD19-34	ICD019WB	BIPOFCNS	0	0	0	0	0	0	0	0	z4232041	1
AD19-35	D157-12	*IPOF***	10.3132E	0	0	0	0.11246	182.356E	62.2154E	83.4074E	z4232058	1
AD19-36	D157-16	BIPOF***	0.740433	0	0	0	0.319394	171.95E	10.3429E	46.0911E	z4232115	1
AD19-37	CCV7	BIPOFCNS	93.5%	98.7%	120.1%*	0%*	102.9%	99.3%	101.1%	99.5%	z4232132	1
AD19-38	CCB7	BIPOFCNS	0	0	0	0	0	0	0	0	z4232149	1
AD19-39	D157-13	*IPOF***	12.1572E	0	0	0	0.0928715	196.68E	74.0959E	96.2682E	z4232206	1
AD19-40	D157-14	BIPOF***	3.24477	0	0.189984	0	0.16351	230.201E	34.2445E	53.3054E	z4232223	1
AD19-41	D157-19	*IPOF***	6.82605E	0	0	0	0.138389	195.905E	48.8937E	92.958E	z4232241	1
AD19-42	D150-02I	BIPOF*NS	0	0	0	0	0	2845.79E	0	70.5438	z4232258	8
AD19-43	D150-02J	BIPOFCNS	0	0	0	0	0	2677.47	0	0	z4232315	800
AD19-44	D157-02I	BIPOF*NS	0	0	0	0	0	207.196E	11.4398	73.7401	z4232332	10
AD19-45	D157-04I	BIPOF*NS	0	0	0	0	0	158.436E	28.6472	112.157	z4232349	25
AD19-46	D157-07I	BIPOFCNS	0	0	0	0	0	100.515	60.9371	79.1164	z4240006	40
AD19-47	D157-09I	BIPOFCNS	0	0	0	0	0	151.047	34.3665	119.456	z4240024	40
AD19-48	D157-05I	BIPOFCNS	0	0	0	0	0	94.3387	56.1848	69.2856	z4240041	40
AD19-49	CCV9	BIPOFCNS	93.2%	98.9%	116.5%*	0%*	103.3%	95.3%	100.9%	96.4%	z4240058	1
AD19-50	CCB9	BIPOFCNS	0	0	0	0	0	0	0	0	z4240115	1
AD19-51	D157-08I	BIPOF*NS	0	0	0	0	0	204.512E	24.8504	100.541	z4240132	25
AD19-52	D157-11I	BIPOFCNS	0	0	0	0	0	193.389	54.148	129.862	z4240149	50
AD19-53	D157-17I	BIPOFCNS	0	0	0	0	0	128.486	29.1276	144.33	z4240207	40
AD19-54	D157-17IM	BIPOF*NS	71.356	77.1286	100.427	0	82.3789	210.459E	72.8581	348.98	z4240224	40
AD19-55	D157-17IS	BIPOF*NS	70.9858	76.9699	100.503	0	82.2605	214.353E	72.4457	366.478	z4240241	40
AD19-56	D157-12I	BIPOFCNS	0	0	0	0	0	167.408	53.6589	80.3361	z4240258	50
AD19-57	D157-16I	BIPOF*NS	0	0	0	0	0	168.092E	9.0727	42.6469	z4240315	8
AD19-58	D157-13I	BIPOFCNS	0	0	0	0	0	182.16	63.6961	97.0975	z4240332	50
AD19-59	D157-14I	BIPOF*NS	0	0	0	0	0	226.278E	30.2403	52.0174	z4240349	20
AD19-60	D157-19I	BIPOFCNS	0	0	0	0	0	195.473	41.5617	137.48	z4240407	50
AD19-61	CCV11	BIPOFCNS	93.5%	99.1%	113.7%*	0%*	103%	96.7%	101.5%	97.7%	z4240424	1
AD19-62	CCB11	BIPOFCNS	0	0	0	0	0	0	0	0	z4240441	1

IC Result Check FormVersion : D20/AD17(2015)

LFID	LSID	Selection	nitrate	chloride	fluoride	iodide	nitrite	bromide	phosphate	sulfate	RawNetID	DF
AD19-01	CCV1	NCFOIBPS	98.5%	97%	101.5%	0%*	97.1%	91.5%	95.5%	97.9%	z4231113	1
AD19-02	CCB1	NCFOIBPS	0	0	0	0	0	0	0	0	z4231130	1
AD19-13	CCV3	NCFOIBPS	100%	98.1%	102.4%	0%*	97.9%	92.5%	104.7%	98.8%	z4231440	1
AD19-14	CCB3	NCFOIBPS	0	0	0	0	0	0	0	0	z4231457	1
AD19-25	CCV5	NCFOIBPS	101.1%	97.4%	102.9%	0%*	98.7%	93.4%	118.6%*	98.6%	z4231806	1
AD19-26	CCB5	NCFOIBPS	0	0	0	0	0	0	0	0	z4231823	1
AD19-37	CCV7	NCFOIBPS	101.1%	99.3%	102.9%	0%*	98.7%	93.5%	120.1%*	99.5%	z4232132	1
AD19-38	CCB7	NCFOIBPS	0	0	0	0	0	0	0	0	z4232149	1
AD19-49	CCV9	NCFOIBPS	100.9%	95.3%	103.3%	0%*	98.9%	93.2%	116.5%*	96.4%	z4240058	1
AD19-50	CCB9	NCFOIBPS	0	0	0	0	0	0	0	0	z4240115	1
AD19-61	CCV11	NCFOIBPS	101.5%	96.7%	103%	0%*	99.1%	93.5%	113.7%*	97.7%	z4240424	1
AD19-62	CCB11	NCFOIBPS	0	0	0	0	0	0	0	0	z4240441	1

Report date: 4/23/2015 11:28:43 AM
Printed by: JChun

Ident: AD19-01 CCV1
Analysis from: 4/23/2015 11:13:46 AM
File: Z4231113.CHW

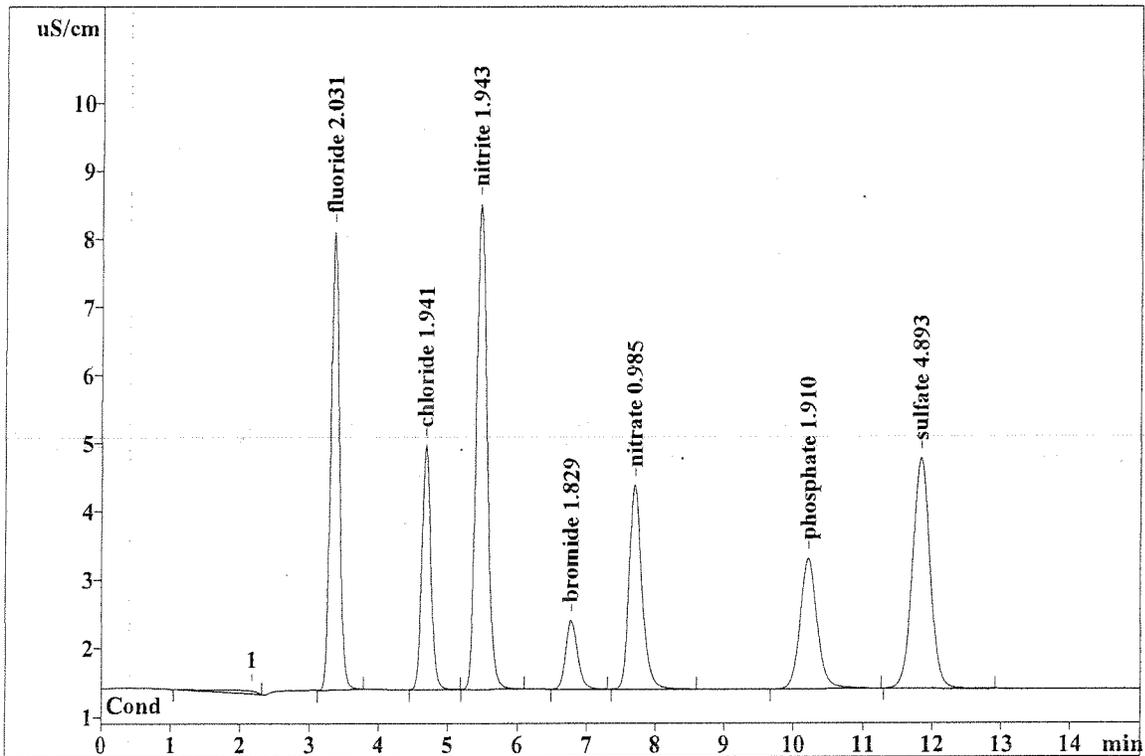
Last save: 4/23/2015 11:28:43 AM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111913

Last save: 4/23/2015 11:26:23 AM

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	2.15	0.05	2.064	0.000	
2	3.35	6.72	58.349	2.031	fluoride
3	4.68	3.58	32.286	1.941	chloride
4	5.47	7.12	77.876	1.943	nitrite ✓
5	6.77	1.00	12.060	1.829	bromide
6	7.70	2.98	39.256	0.985	nitrate ✓
7	10.21	1.91	32.882	1.910	phosphate
8	11.84	3.37	59.476	4.893	sulfate
8	15.00	26.74	314.249	15.532	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 10:04:04 AM
Printed by: JChun

Ident: AD19-02 CCB1
Analysis from: 4/23/2015 11:30:56 AM
File: z4231130.chw

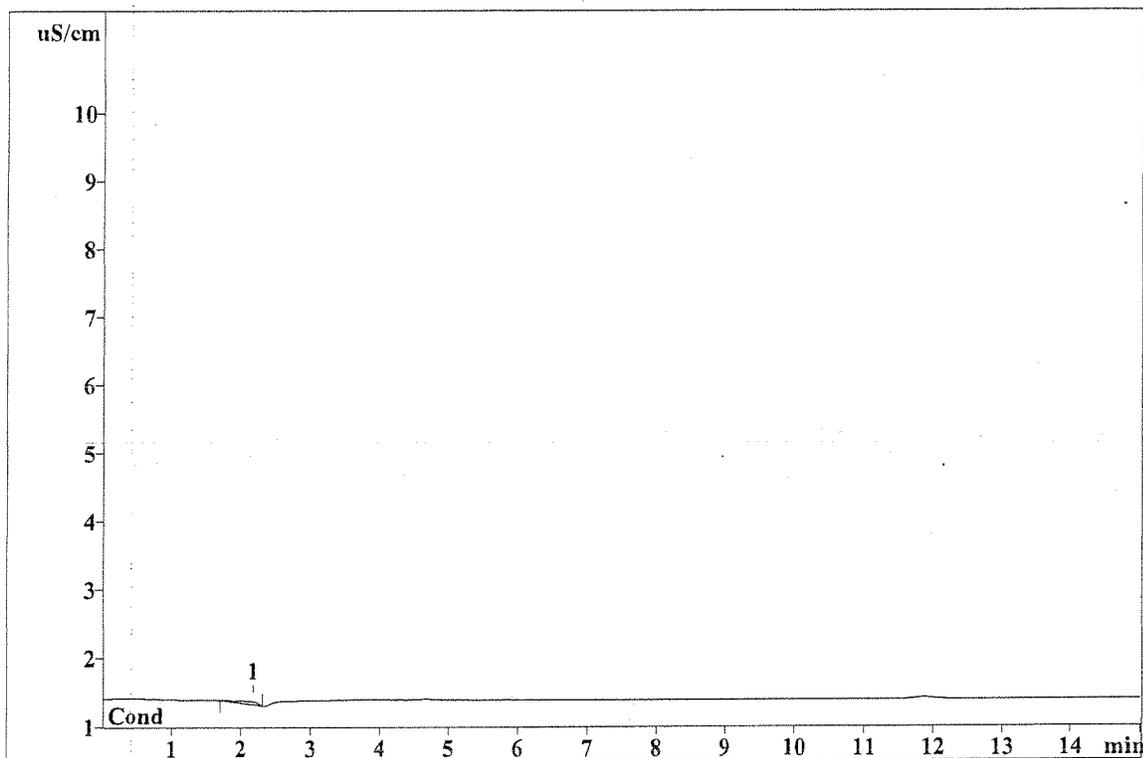
Last save: 4/23/2015 11:45:53 AM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111914

Last save: 4/23/2015 11:26:23 AM

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	2.17	0.04	0.938	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 2:55:46 PM
Printed by: JChun

Ident: AD19-13 CCV3
Analysis from: 4/23/2015 2:40:49 PM
File: Z4231440.CHW

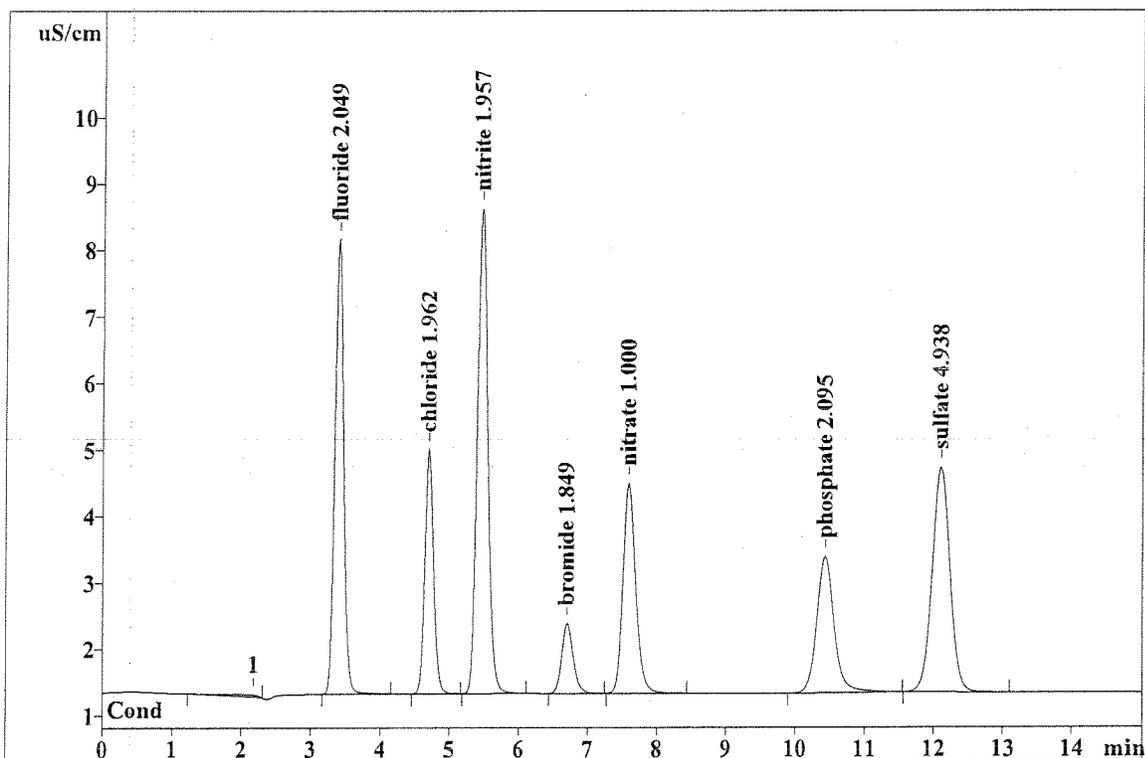
Last save: 4/23/2015 2:55:46 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111925

Last save: 4/23/2015 11:26:23 AM

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	2.18	0.03	1.335	0.000	
2	3.40	6.85	58.873	2.049	fluoride
3	4.70	3.68	32.665	1.962	chloride
4	5.46	7.30	78.475	1.957	nitrite ✓
5	6.71	1.05	12.198	1.849	bromide
6	7.59	3.15	39.858	1.000	nitrate ✓
7	10.44	2.05	36.199	2.095	phosphate
8	12.11	3.38	60.040	4.938	sulfate
8	15.00	27.50	319.644	15.850	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 10:04:12 AM
Printed by: JChun

Ident: AD19-14 CCB3
Analysis from: 4/23/2015 2:57:59 PM
File: z4231457.chw

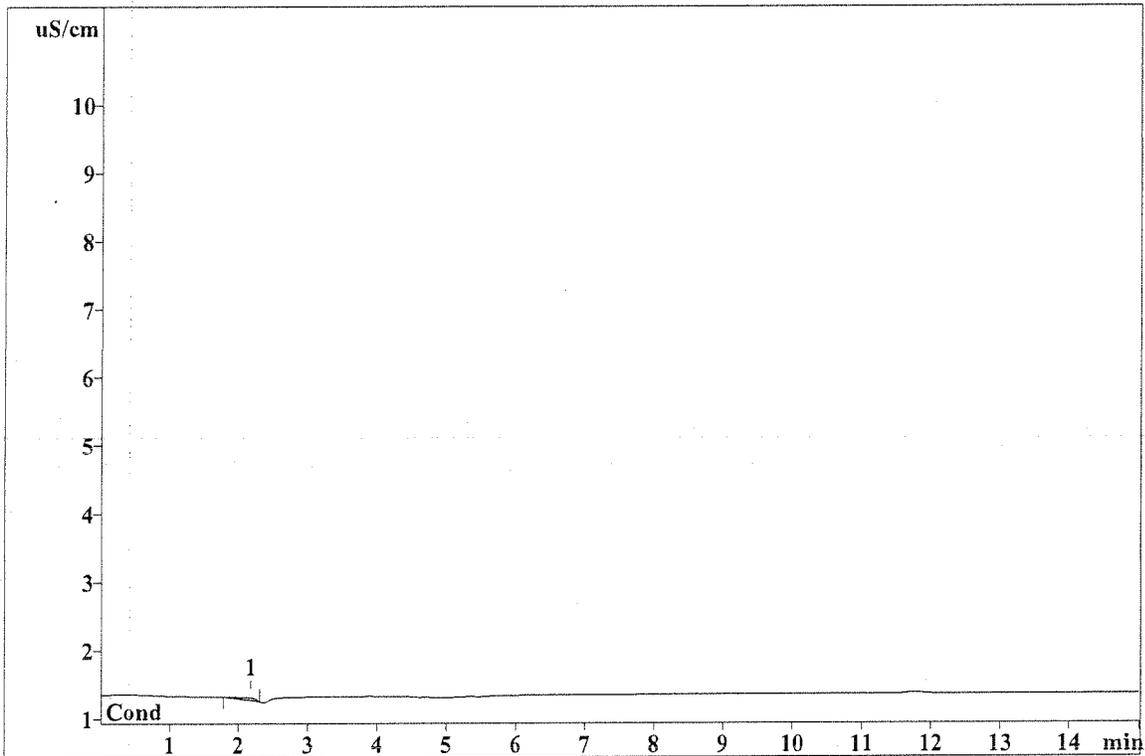
Last save: 4/23/2015 3:12:56 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111926

Last save: 4/23/2015 11:26:23 AM

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	2.19	0.03	0.647	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 6:21:38 PM
Printed by: JChun

Ident: AD19-25 CCV5
Analysis from: 4/23/2015 6:06:41 PM
File: Z4231806.CHW

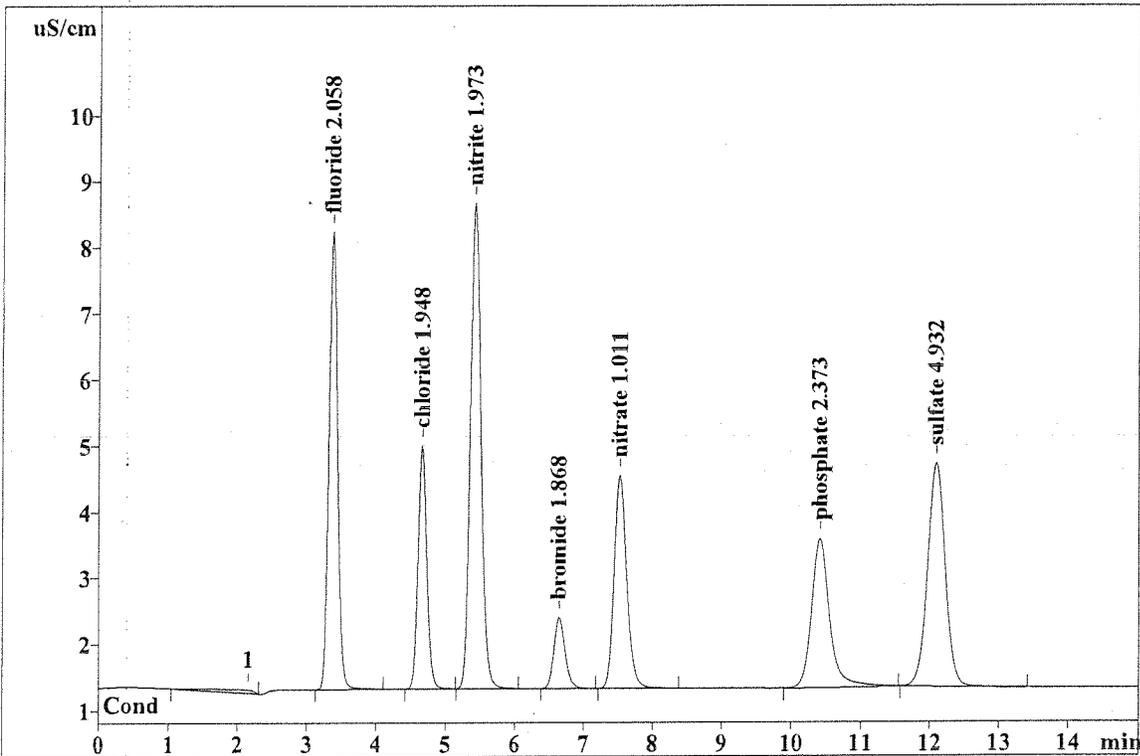
Last save: 4/23/2015 6:21:38 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111937

Last save: 4/23/2015 11:26:23 AM

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	2.15	0.05	2.090	0.000	
2	3.38	6.93	59.129	2.058	fluoride
3	4.67	3.68	32.419	1.948	chloride
4	5.42	7.35	79.121	1.973	nitrite ✓
5	6.65	1.08	12.327	1.868	bromide
6	7.52	3.22	40.323	1.011	nitrate ✓
7	10.41	2.25	41.193	2.373	phosphate
8	12.10	3.37	59.968	4.932	sulfate
8	15.00	27.91	326.570	16.163	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 10:04:15 AM
Printed by: JChun

Ident: AD19-26 CCB5
Analysis from: 4/23/2015 6:23:50 PM
File: z4231823.chw

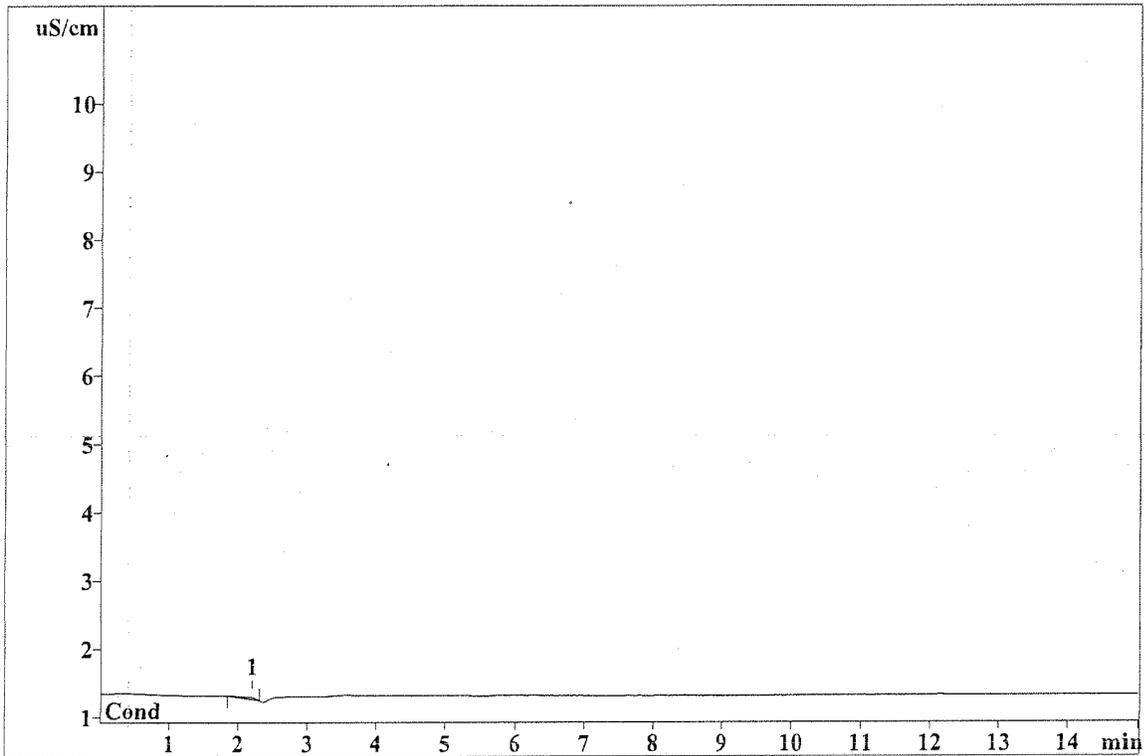
Last save: 4/23/2015 6:38:47 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111938

Last save: 4/23/2015 11:26:23 AM

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	2.20	0.03	0.544	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/23/2015 9:47:29 PM
Printed by: JChun

Ident: AD19-37 CCV7
Analysis from: 4/23/2015 9:32:32 PM
File: Z4232132.CHW

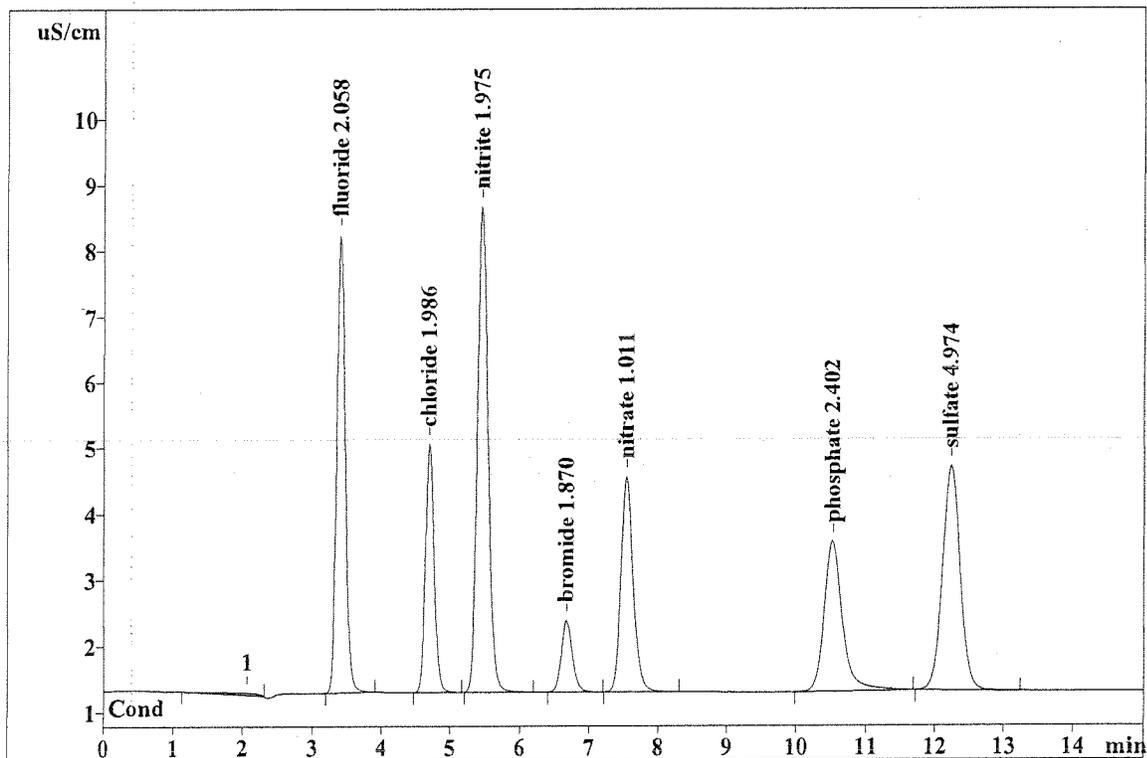
Last save: 4/23/2015 9:47:28 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111949

Last save: 4/23/2015 11:26:23 AM

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	2.07	0.03	1.460	0.000	
2	3.41	6.95	59.149	2.058	fluoride
3	4.70	3.76	33.072	1.986	chloride
4	5.45	7.37	79.178	1.975	nitrite ✓
5	6.67	1.08	12.337	1.870	bromide
6	7.54	3.26	40.339	1.011	nitrate ✓
7	10.52	2.27	41.714	2.402	phosphate
8	12.24	3.39	60.496	4.974	sulfate
8	15.00	28.12	327.745	16.276	

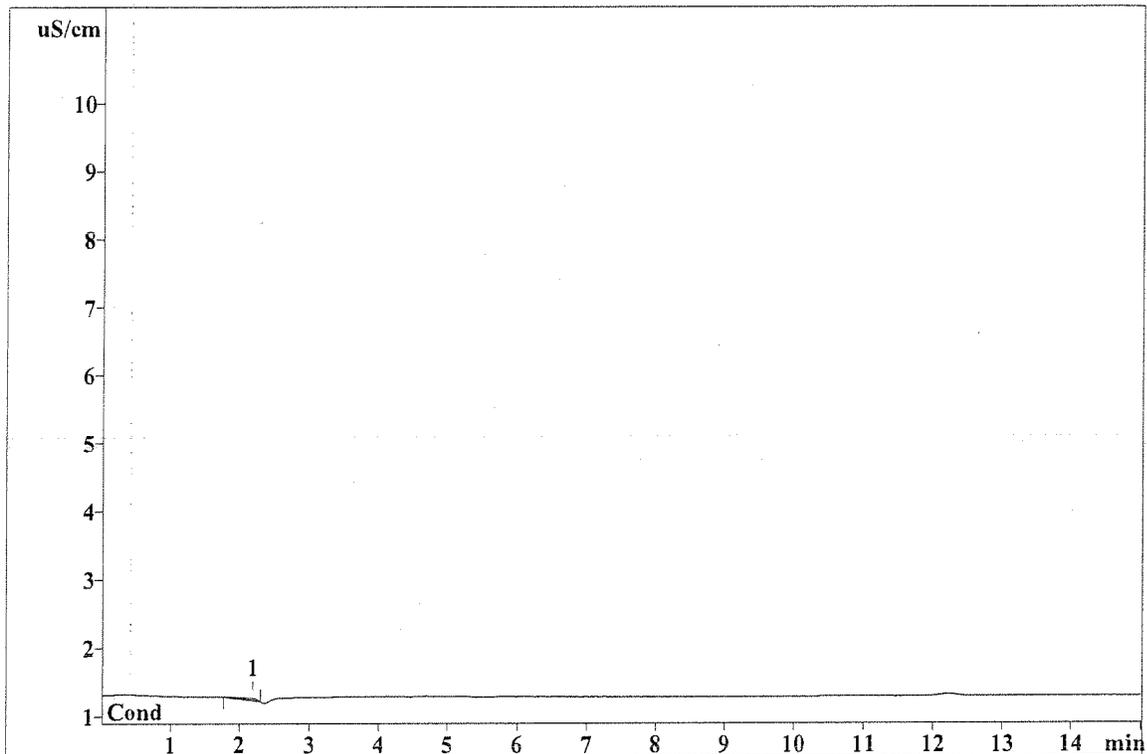
This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 10:04:55 AM
Printed by: JChun

Ident: AD19-38 CCB7
Analysis from: 4/23/2015 9:49:41 PM
File: z4232149.chw Last save: 4/23/2015 10:04:37 PM
Modified!
Method: ICD0-D20.mtw Last save: 4/23/2015 11:26:23 AM
Run operator: JChun
Analysis number: 111950

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	2.19	0.03	0.629	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 1:13:22 AM
Printed by: JChun

Ident: AD19-49 CCV9
Analysis from: 4/24/2015 12:58:25 AM
File: Z4240058.CHW

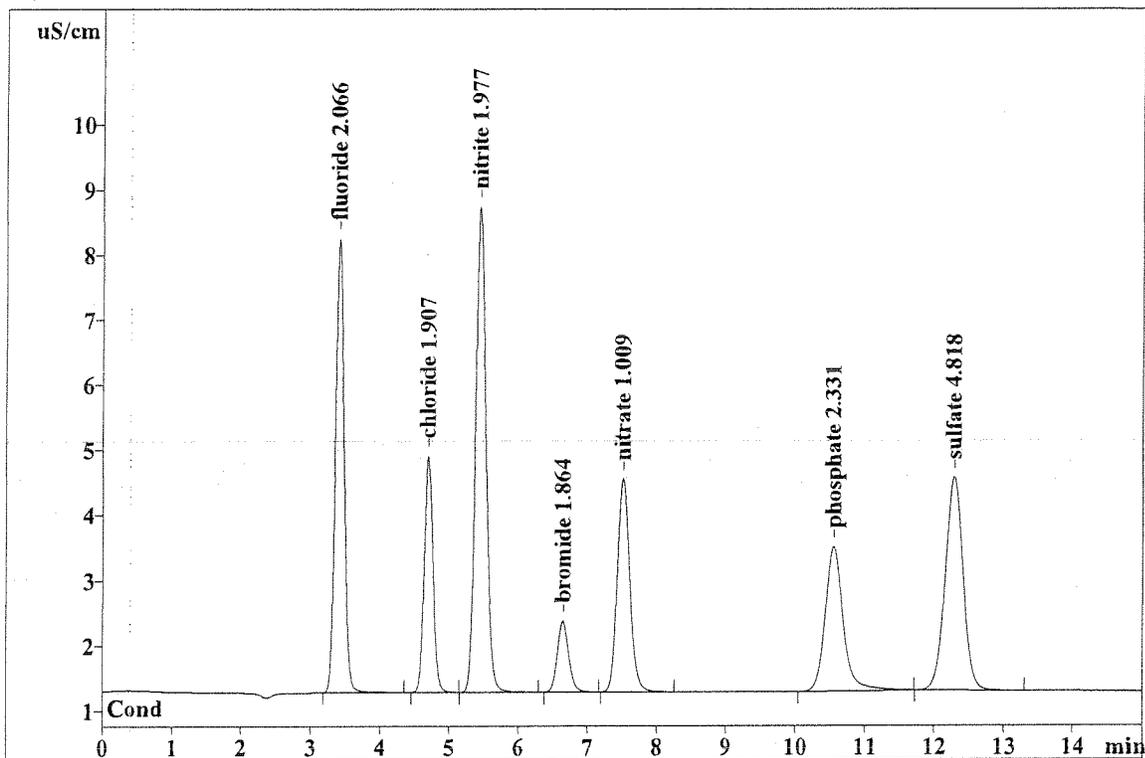
Last save: 4/24/2015 1:13:22 AM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111961

Last save: 4/23/2015 11:26:23 AM

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	3.41	6.98	59.372	2.066	fluoride
2	4.70	3.63	31.697	1.907	chloride
3	5.44	7.47	79.284	1.977	nitrite ✓
4	6.65	1.09	12.301	1.864	bromide
5	7.51	3.28	40.261	1.009	nitrate ✓
6	10.55	2.22	40.436	2.331	phosphate
7	12.29	3.27	58.522	4.818	sulfate
7	15.00	27.94	321.873	15.972	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 10:05:02 AM
Printed by: JChun

Ident: AD19-50 CCB9
Analysis from: 4/24/2015 1:15:34 AM
File: z4240115.chw

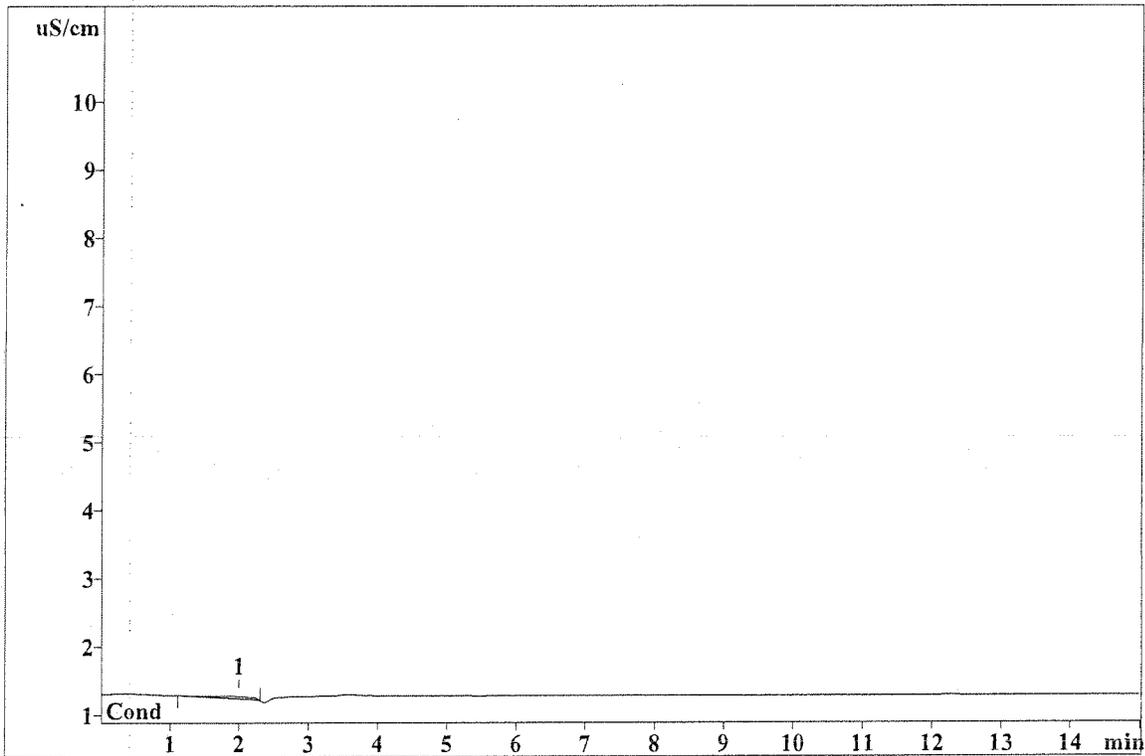
Last save: 4/24/2015 1:30:31 AM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111962

Last save: 4/23/2015 11:26:23 AM

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	1.99	0.04	1.589	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 4:39:12 AM
Printed by: JChun

Ident: AD19-61 CCV11
Analysis from: 4/24/2015 4:24:15 AM
File: Z4240424.CHW

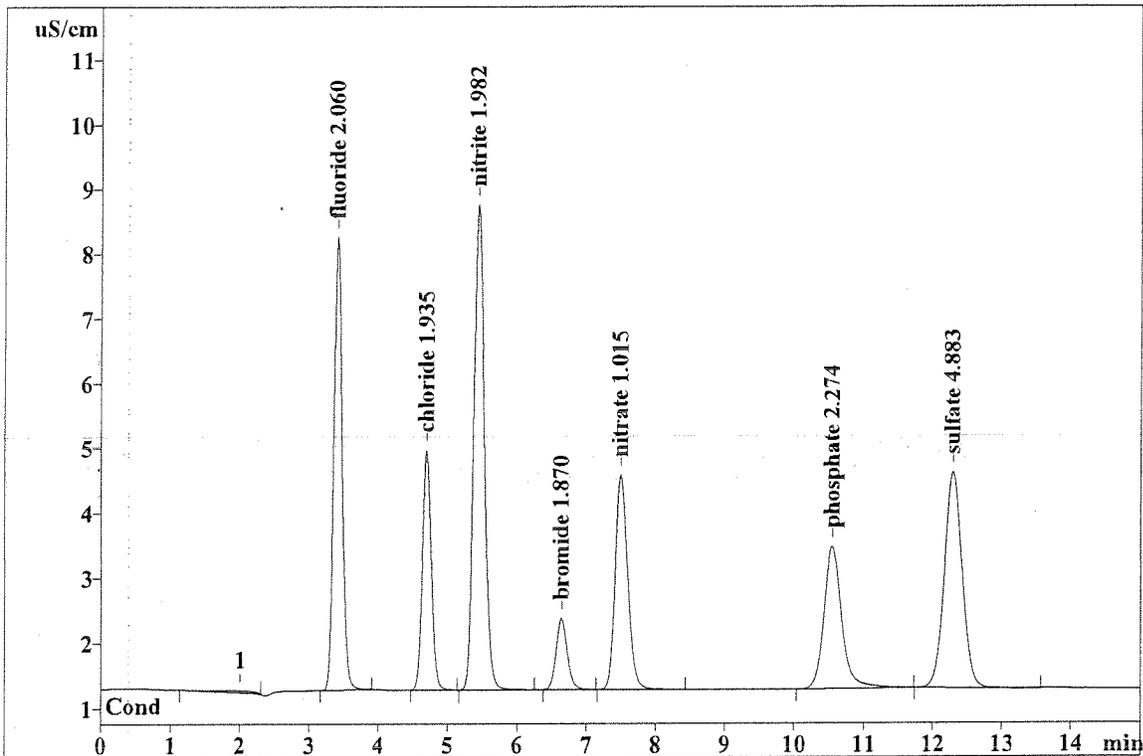
Last save: 4/24/2015 4:39:12 AM

Method: ICDO-D20.mtw
Run operator: JChun
Analysis number: 111973

Last save: 4/23/2015 11:26:23 AM

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	1.98	0.03	1.344	0.000	
2	3.41	7.00	59.186	2.060	fluoride
3	4.69	3.69	32.185	1.935	chloride
4	5.44	7.49	79.455	1.982	nitrite ✓
5	6.64	1.10	12.342	1.870	bromide
6	7.50	3.30	40.487	1.015	nitrate ✓
7	10.55	2.18	39.424	2.274	phosphate
8	12.30	3.32	59.351	4.883	sulfate
8	15.00	28.11	323.775	16.019	

This report has been created by IC Net
METROHM LTD

Report date: 4/24/2015 10:05:05 AM
Printed by: JChun

Ident: AD19-62 CCB11
Analysis from: 4/24/2015 4:41:25 AM
File: z4240441.chw

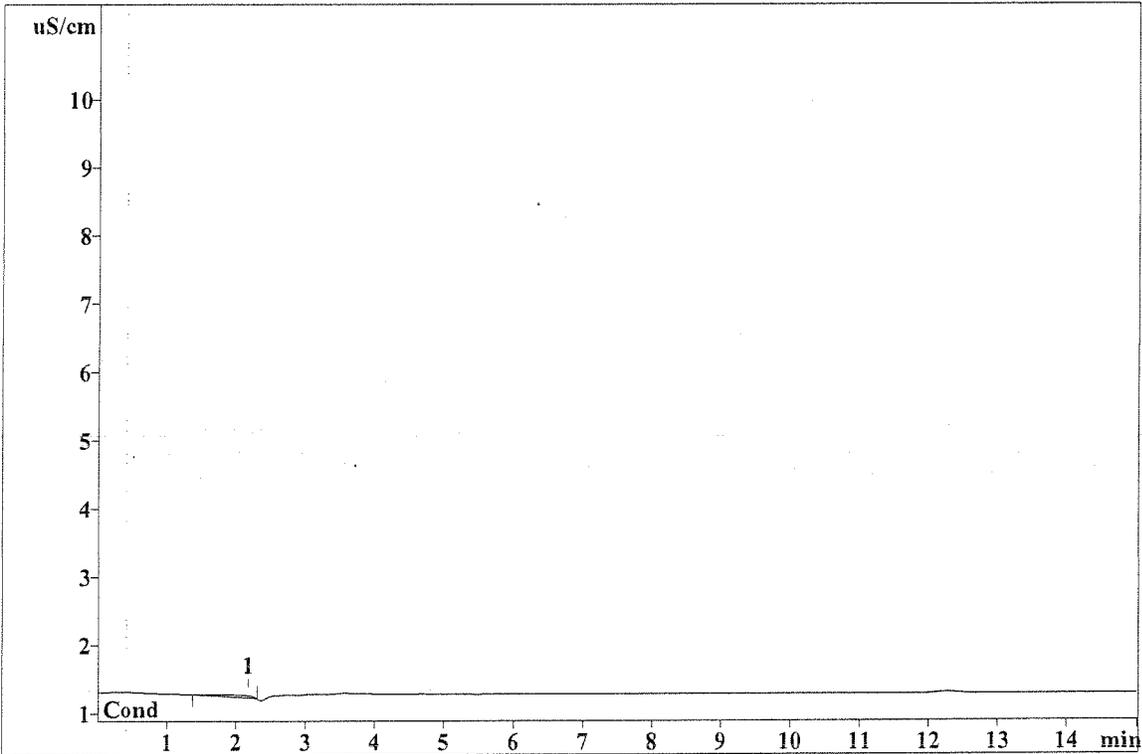
Last save: 4/24/2015 4:56:22 AM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111974

Last save: 4/23/2015 11:26:23 AM

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	2.17	0.04	1.291	0.000	

This report has been created by IC Net
METROHM LTD

IC Result Check FormVersion : D20/AD17(2015)

LFID	LSID	Selection	nitrite	phosphate	fluoride	iodide	chloride	bromide	nitrate	sulfate	RawNetID	DF
AD21-01	CCV13	IPFOCBNS	99%	107.3%	99%	0%*	95.6%	94.1%	95.8%	94.2%	z4271023	1
AD21-02	CCB13	IPFOCBNS	0	0	0	0	0	0	0	0	z4271040	1
AD21-08	CCV15	IPFOCBNS	98%	106.8%	97.8%	0%*	94.7%	93.1%	95.3%	93.4%	z4271223	1
AD21-09	CCB15	IPFOCBNS	0	0	0	0	0	0	0	0	z4271241	1
AD21-15	CCV17	IPFOCBNS	98.2%	106.6%	98.2%	0%*	95.6%	93.5%	95.7%	95.1%	z4271423	1
AD21-16	CCB17	IPFOCBNS	0	0	0	0	0	0	0	0	z4271441	1

IC Result Check FormVersion : D20/AD17(2015)

LFID	LSID	Selection	bromide	chloride	phosphate	iodide	nitrate	nitrite	fluoride	sulfate	RawNetID	DF
AD21-01	CCV13	BCPONIFS	94.1%	95.6%	107.3%	0%*	95.8%	99%	99%	94.2%	z4271023	1
AD21-02	CCB13	BCPONIFS	0	0	0	0	0	0	0	0	z4271040	1
AD21-03	ICD021WB	BCPONIFS	0	0	0	0	0	0	0	0	z4271058	1
AD21-04	ICD021WL	BCPONIFS	1.83843	1.87435	2.12327	0	0.986449	1.94485	1.99879	4.68265	z4271115	1
AD21-05	ICD021WC	BCPONIFS	1.86849	1.90194	2.18503	0	1.00153	1.97418	2.0361	4.79702	z4271132	1
AD21-06	D171-01	BCPONIFS	0	0	0	0	0	0	0	0	z4271149	1
AD21-07	D159-01	BCPONIFS	0	0.135268	0	0	0	0	0	0.406159	z4271206	1
AD21-08	CCV15	BCPONIFS	93.1%	94.7%	106.8%	0%*	95.3%	98%	97.8%	93.4%	z4271223	1
AD21-09	CCB15	BCPONIFS	0	0	0	0	0	0	0	0	z4271241	1
AD21-10	D157-01I	B*PONIFS	0	176.111E	0	0	1.38031	0	0	85.2992	z4271258	10
AD21-11	D157-05I	B*PO*IFS	5.08704	100.888E	0	0	61.4553E	0	0	68.3301	z4271315	10
AD21-12	D157-11I	B*PO*IFS	9.19167	182.989E	0	0	59.9974E	0	0	85.1114	z4271332	10
AD21-13	D157-12I	B*PO*IFS	8.92914	180.362E	0	0	59.1864E	0	0	78.8257	z4271349	10
AD21-14	D157-19I	B*PO*IFS	6.39777	198.056E	0	0	47.0605E	0	0	92.8751	z4271406	10
AD21-15	CCV17	BCPONIFS	93.5%	95.6%	106.6%	0%*	95.7%	98.2%	98.2%	95.1%	z4271423	1
AD21-16	CCB17	BCPONIFS	0	0	0	0	0	0	0	0	z4271441	1

Report date: 4/27/2015 10:38:43 AM
Printed by: JChun

Ident: AD21-01 CCV13
Analysis from: 4/27/2015 10:23:46 AM
File: Z4271023.CHW

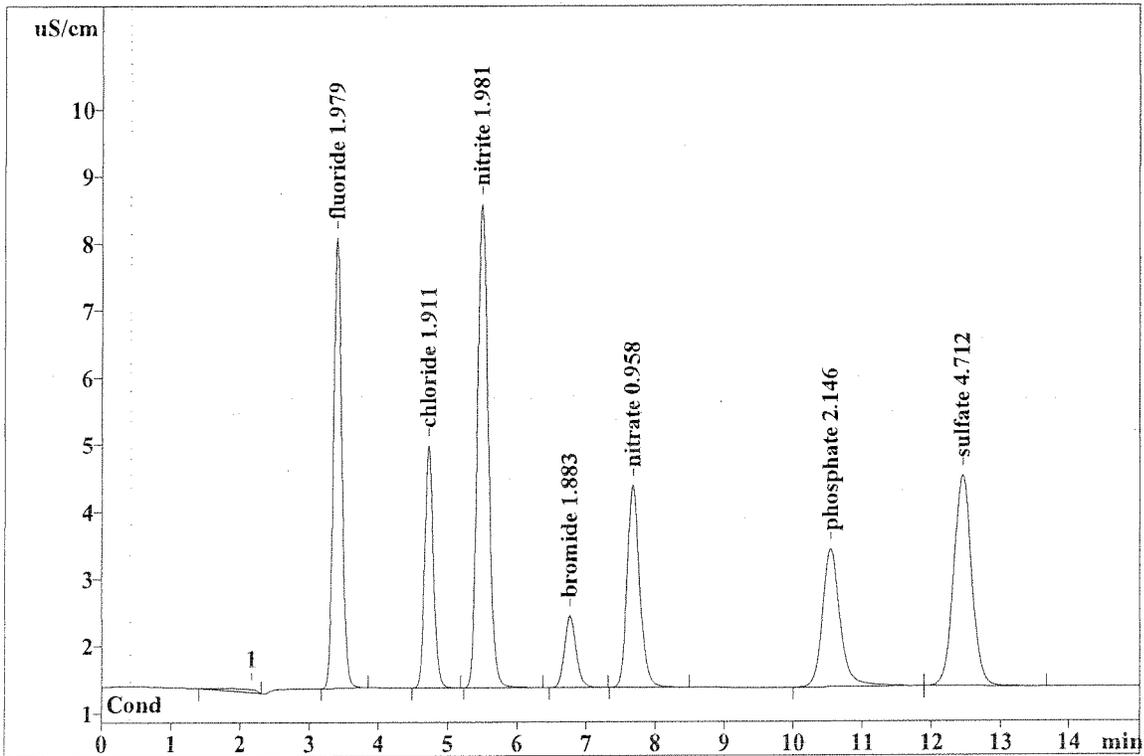
Last save: 4/27/2015 10:38:43 AM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111992

Last save: 4/27/2015 10:33:49 AM

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	2.16	0.05	1.547	0.000	
2	3.40	6.72	56.854	1.979	fluoride
3	4.72	3.61	31.774	1.911	chloride
4	5.49	7.23	79.412	1.981	nitrite
5	6.76	1.07	12.427	1.883	bromide
6	7.67	3.01	38.138	0.958	nitrate
7	10.55	2.06	37.120	2.146	phosphate
8	12.45	3.13	57.182	4.712	sulfate
8	15.00	26.87	314.454	15.570	

This report has been created by IC Net
METROHM LTD

Report date: 4/27/2015 5:23:41 PM
Printed by: JChun

Ident: AD21-02 CCB13
Analysis from: 4/27/2015 10:40:56 AM
File: z4271040.chw

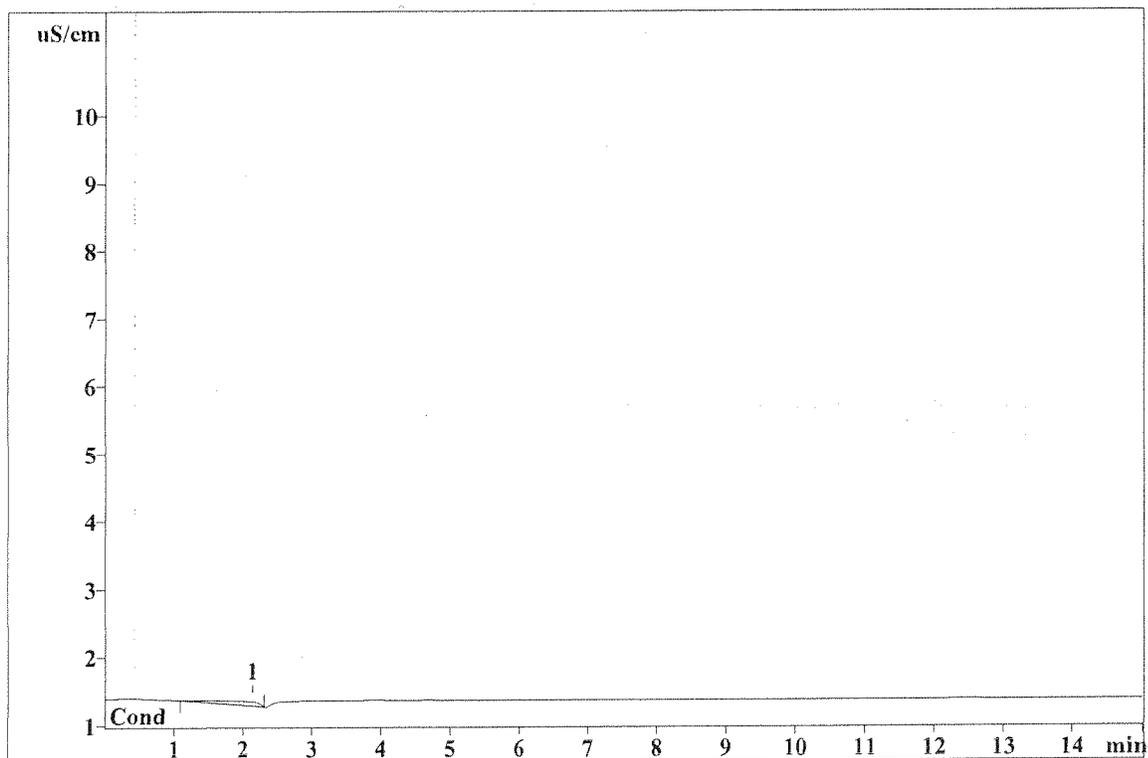
Last save: 4/27/2015 10:55:53 AM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111993

Last save: 4/27/2015 10:33:49 AM

SAMPLE:

Vial number: 2
Volume: 1.0 μ L
Dilution: 1.00
Amount: 1.0000



Quantitation method: Custom

No	Retention min	Height uS/cm	Area uS/cm*sec	Conc. mg/L	Name
1	2.13	0.06	2.405	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/27/2015 12:38:48 PM
Printed by: JChun

Ident: AD21-08 CCV15
Analysis from: 4/27/2015 12:23:51 PM
File: Z4271223.CHW

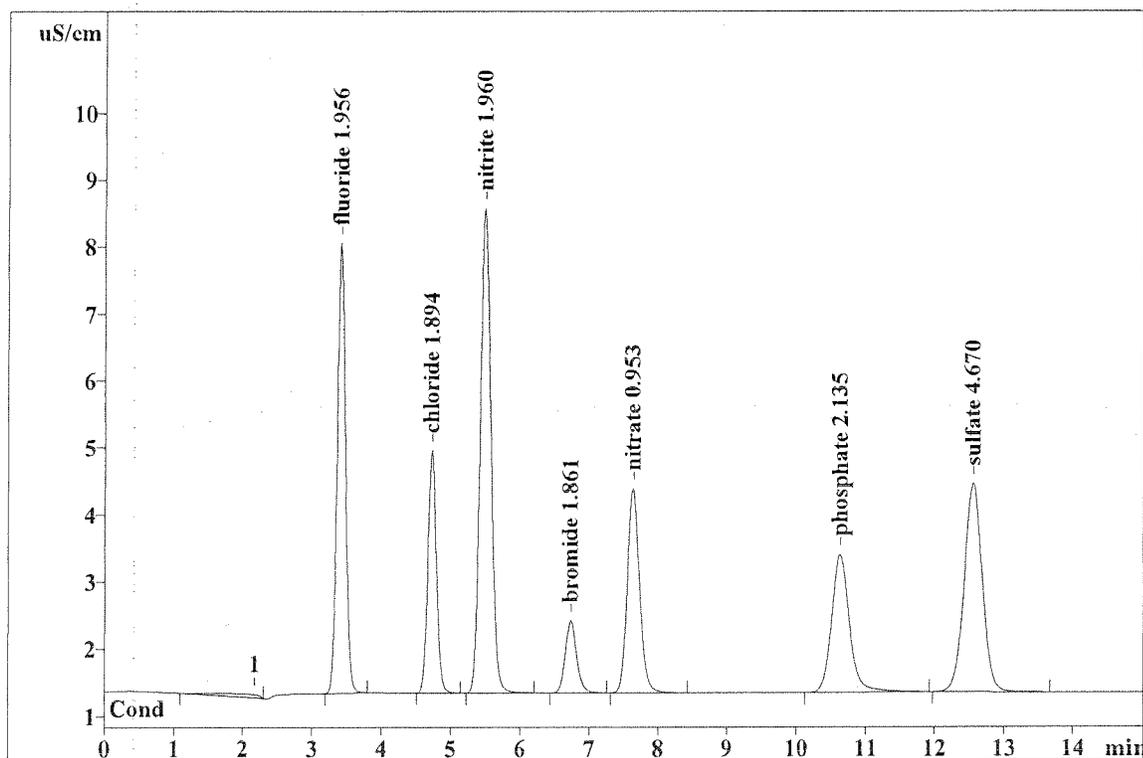
Last save: 4/27/2015 12:38:48 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 111999

Last save: 4/27/2015 10:33:49 AM

SAMPLE:

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	2.16	0.04	1.909	0.000	
2	3.42	6.71	56.183	1.956	fluoride
3	4.73	3.61	31.488	1.894	chloride
4	5.49	7.23	78.578	1.960	nitrite
5	6.74	1.07	12.280	1.861	bromide
6	7.63	3.04	37.913	0.953	nitrate
7	10.64	2.05	36.933	2.135	phosphate
8	12.56	3.10	56.648	4.670	sulfate
8	15.00	26.84	311.931	15.430	

This report has been created by IC Net
METROHM LTD

Report date: 4/27/2015 5:24:21 PM
Printed by: JChun

Ident: AD21-09 CCB15
Analysis from: 4/27/2015 12:41:01 PM
File: z4271241.chw

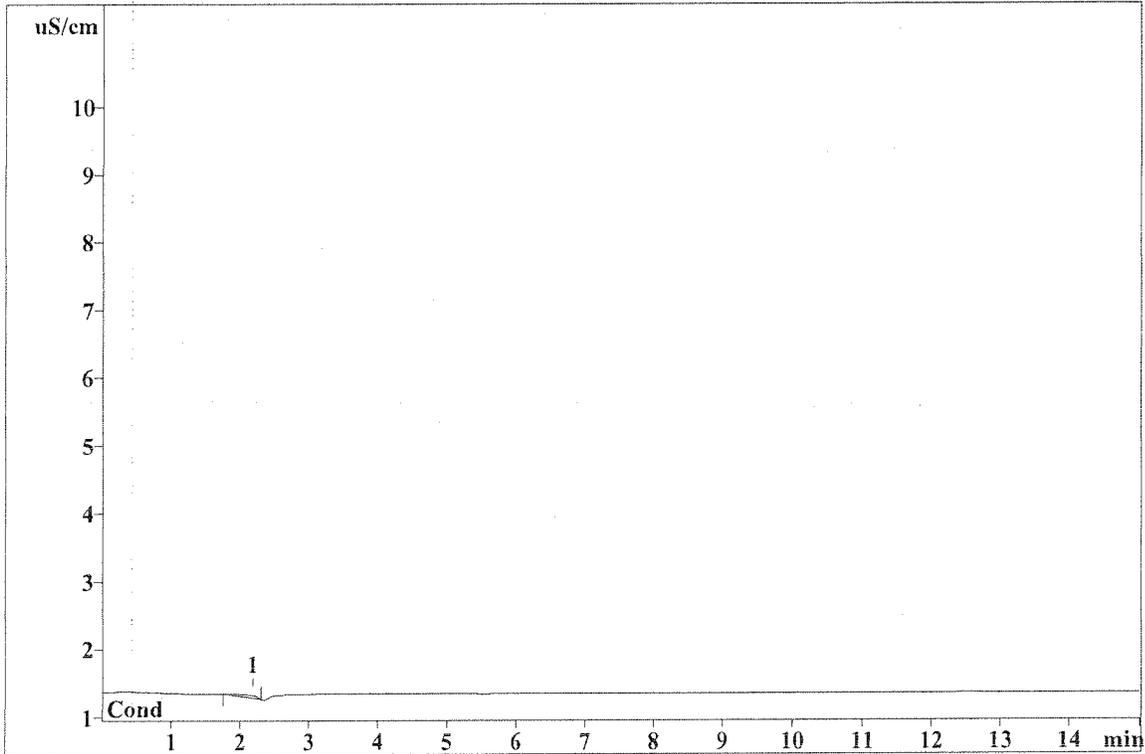
Last save: 4/27/2015 12:55:58 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 112000

Last save: 4/27/2015 10:33:49 AM

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	2.19	0.04	0.817	0.000	

This report has been created by IC Net
METROHM LTD

Report date: 4/27/2015 2:38:54 PM
Printed by: JChun

Ident: AD21-15 CCV17
Analysis from: 4/27/2015 2:23:57 PM
File: Z4271423.CHW

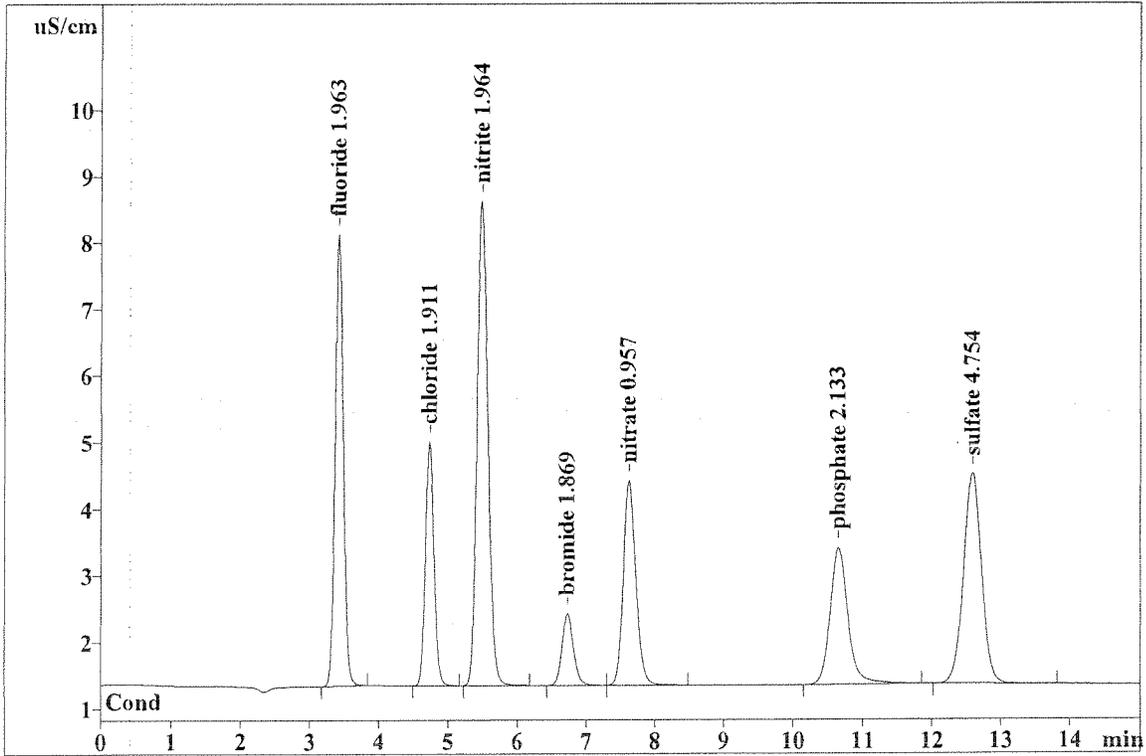
Last save: 4/27/2015 2:38:54 PM

Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 112006

Last save: 4/27/2015 10:33:49 AM

SAMPLE:

Vial number: 15
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	3.42	6.78	56.383	1.963	fluoride
2	4.73	3.66	31.781	1.911	chloride
3	5.49	7.28	78.726	1.964	nitrite
4	6.73	1.08	12.333	1.869	bromide
5	7.62	3.07	38.066	0.957	nitrate
6	10.66	2.05	36.885	2.133	phosphate
7	12.60	3.16	57.714	4.754	sulfate
7	15.00	27.08	311.888	15.551	

This report has been created by IC Net
METROHM LTD

Report date: 4/27/2015 5:24:59 PM
Printed by: JChun

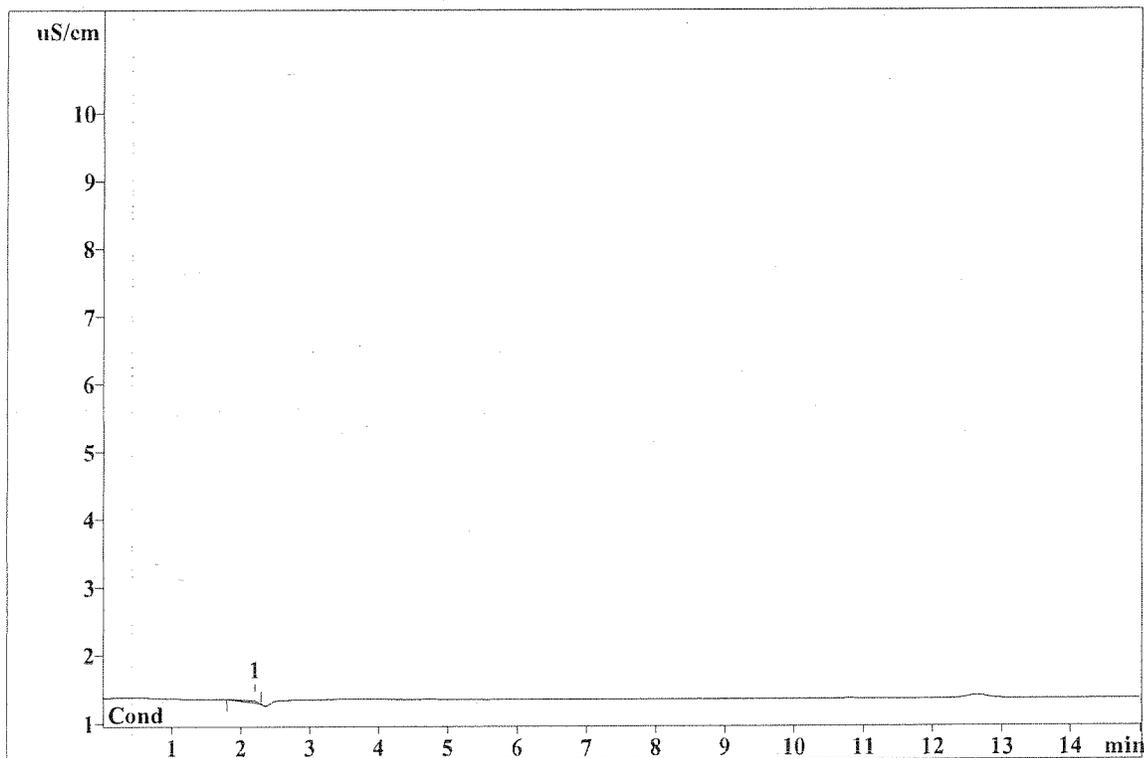
Ident: AD21-16 CCB17
Analysis from: 4/27/2015 2:41:06 PM
File: z4271441.chw
Modified!
Method: ICD0-D20.mtw
Run operator: JChun
Analysis number: 112007

Last save: 4/27/2015 2:56:03 PM

Last save: 4/27/2015 10:33:49 AM

SAMPLE:

Vial number: 16
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	2.20	0.04	0.662	0.000	

This report has been created by IC Net
METROHM LTD

ANALYTICAL LOG(S)



ANALYSIS RUN LOG

for
ION CHROMATOGRAPHY

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Concentrations of (ppm):

S1	-	0.05
S2	-	0.1
S3	-	0.2
S4	-	0.5
S5	-	1.0
S6	-	2.0
S7	-	5.0
S8	-	10.0
S9	-	20.0

Linearity (ppm):

F ⁻	-	10
Cl ⁻	-	5
NO ₂ N	-	10
Br ⁻	-	5
NO ₃ N	-	2
PO ₄ P	-	5
SO ₄ ²⁻	-	20

Column: Metrosep A Supp 5-100 #7405304

Flow Rate: 0.70 ml/min Metrosep RP2 Guard # 0086.0443

IC Eluent:
SW4-02-46-03
(320 mM Na₂CO₃ / 100 mM NaHCO₃) 20 ml → 2 L reagent water

IC Regenerant:
SW4-02-50-04 (1000 mM H₂SO₄) 100 ml → 1 L reagent water

Reagent Water: RW1-135-001

Book #:	AD0-047
Instrument No.:	D0
Pipette ID's:	039380124
	SW3-02-02-02
	SW8A-02-13
Analytical Sequence:	AD17
Method File:	ICD0-D20.mtw
Analytical Batch:	Na

SOP #	Rev. #
<input checked="" type="checkbox"/> EMAX-300.0	10
<input checked="" type="checkbox"/> EMAX-4110B	4
<input checked="" type="checkbox"/> EMAX-9056	7
<input type="checkbox"/> EMAX-	

STANDARDS ID	
ICAL	S11B-30-24-03
ICV1	↓ -25-01
CCV	Na -23-02 ^{ca 04/21/15}
^{ca 04/21/15} LCS ^{ca 04/21/15} ICVX	S11B-30-23-03
MS	Na

ELECTRONIC DATA ARCHIVAL	
Location	Date
<input type="checkbox"/> IC-METROHM	
<input type="checkbox"/> External Hard Drive	

Filters: Snap Seal Container:

0.45 µm:	4 oz: 19414 007
0.2 µm:	1.5 oz: 20814 007

Analyzed By: je / el
Date: 04/20/15

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2
z4212014.chw	ICD0-D20.mtw	AD17-01 IB	1	1.0	1.0	1.0	100.0	0		
z4212031.chw	ICD0-D20.mtw	AD17-02 S0	2	1.0	1.0	1.0	100.0	0		
z4212048.chw	ICD0-D20.mtw	AD17-03 S1	3	1.0	1.0	1.0	100.0	1	0.05PPM	
z4212105.chw	ICD0-D20.mtw	AD17-04 S2	4	1.0	1.0	1.0	100.0	2	0.10PPM	
z4212122.chw	ICD0-D20.mtw	AD17-05 S3	5	1.0	1.0	1.0	100.0	3	0.20PPM	
z4212140.chw	ICD0-D20.mtw	AD17-06 S4	6	1.0	1.0	1.0	100.0	4	0.50PPM	
z4212157.chw	ICD0-D20.mtw	AD17-07 S5	7	1.0	1.0	1.0	100.0	5	1.00PPM	
z4212214.chw	ICD0-D20.mtw	AD17-08 S6	8	1.0	1.0	1.0	100.0	6	2.00PPM	
z4212231.chw	ICD0-D20.mtw	AD17-09 S7	9	1.0	1.0	1.0	100.0	7	5.00PPM	
z4212248.chw	ICD0-D20.mtw	AD17-10 S8	10	1.0	1.0	1.0	100.0	8	10.0PPM	
z4212305.chw	ICD0-D20.mtw	AD17-11 S9	11	1.0	1.0	1.0	100.0	9	20.0PPM	
z4212322.chw	ICD0-D20.mtw	AD17-12 ICV	12	1.0	1.0	1.0	100.0	0		
z4212340.chw	ICD0-D20.mtw	AD17-13 ICVI	13	1.0	1.0	1.0	100.0	0		
z4212357.chw	ICD0-D20.mtw	AD17-14 ICB	14	1.0	1.0	1.0	100.0	0		

3- 4/22/15

FINAL

AS
04/23/15

8080

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2
z4240349.chw	ICD0-D20.mtw	AD19-59 D157-14I DF=20	59	1.0	20.0	1.0	100.0	0		
z4240407.chw	ICD0-D20.mtw	AD19-60 D157-19I DF=50	60	1.0	50.0	1.0	100.0	0		
z4240424.chw	ICD0-D20.mtw	AD19-61 CCV11	61	1.0	1.0	1.0	100.0	0		
z4240441.chw	ICD0-D20.mtw	AD19-62 CCB11	62	1.0	1.0	1.0	100.0	0	FINAL	

Je 4/24/19

8091



ANALYSIS RUN LOG

for
ION CHROMATOGRAPHY

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: ADO-047

Instrument No.: D0

Pipette ID's: 039380124

SW3-02-02-02

SW8A-02-13

Analytical Sequence: AD19

Method File: ICDO-D20.mtw

Analytical Batch: ICDO17W ; ICDO19W

SOP #	Rev. #
<input checked="" type="checkbox"/> EMAX-300.0	10
<input type="checkbox"/> EMAX-4110B	4
<input checked="" type="checkbox"/> EMAX-9056	7
<input type="checkbox"/> EMAX-	

STANDARDS ID	
ICAL	—
ICV	—
CCV	SI18-30-26-03
LCS	SI18-30-27-01
MS	^{SOP} Refer to LCS Parent ID

ELECTRONIC DATA ARCHIVAL	
Location	Date
<input type="checkbox"/> IC-METROHM	
<input type="checkbox"/> External Hard Drive	

Filters: Snap Seal Container:

0.45 µm: 21861623 4 oz: 19414007

0.2 µm: 21864679 1.5 oz: 20814007

Analyzed By: JC

Date: 4/23/15

Column: Metrosep A Supp 5-100

Flow Rate: 0.70 ml/min

IC Eluent:

SW4-02-46-03
(320 mM Na₂CO₃ / 100 mM NaHCO₃) 20 ml → 2 L reagent water

IC Regenerant:

SW4-02-00-04 (1000 mM H₂SO₄) 100 ml → 1 L reagent water

Reagent Water:

RW1-15-00

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2
4231113.chw	ICD0-D20.mtw	AD19-01 CCV1	1	1.0	1.0	1.0	100.0	0		
4231130.chw	ICD0-D20.mtw	AD19-02 CCB1	2	1.0	1.0	1.0	100.0	0		
4231148.chw	ICD0-D20.mtw	AD19-03 ICD017WB	3	1.0	1.0	1.0	100.0	0		
4231206.chw	ICD0-D20.mtw	AD19-04 D149-05	4	1.0	1.0	1.0	100.0	0		
4231223.chw	ICD0-D20.mtw	AD19-05 D149-05I DF=2	5	1.0	2.0	1.0	100.0	0		
4231240.chw	ICD0-D20.mtw	AD19-06 D149-08	6	1.0	1.0	1.0	100.0	0		
4231257.chw	ICD0-D20.mtw	AD19-07 D149-09	7	1.0	1.0	1.0	100.0	0		
4231315.chw	ICD0-D20.mtw	AD19-08 D149-11	8	1.0	1.0	1.0	100.0	0		
4231332.chw	ICD0-D20.mtw	AD19-09 D149-13	9	1.0	1.0	1.0	100.0	0		
4231349.chw	ICD0-D20.mtw	AD19-10 D149-15	10	1.0	1.0	1.0	100.0	0		
4231406.chw	ICD0-D20.mtw	AD19-11 ICD017WL	11	1.0	1.0	1.0	100.0	0		
4231423.chw	ICD0-D20.mtw	AD19-12 ICD017WC	12	1.0	1.0	1.0	100.0	0		
4231440.chw	ICD0-D20.mtw	AD19-13 CCV3	13	1.0	1.0	1.0	100.0	0		
4231457.chw	ICD0-D20.mtw	AD19-14 CCB3	14	1.0	1.0	1.0	100.0	0		
4231515.chw	ICD0-D20.mtw	AD19-15 D149-17	15	1.0	1.0	1.0	100.0	0		
4231532.chw	ICD0-D20.mtw	AD19-16 D149-19	16	1.0	1.0	1.0	100.0	0		
4231549.chw	ICD0-D20.mtw	AD19-17 D150-02	17	1.0	1.0	1.0	100.0	0		
4231606.chw	ICD0-D20.mtw	AD19-18 D149-19I DF=3	18	1.0	3.0	1.0	100.0	0		
4231623.chw	ICD0-D20.mtw	AD19-19 D157-01	19	1.0	1.0	1.0	100.0	0		
4231640.chw	ICD0-D20.mtw	AD19-20 D157-02	20	1.0	1.0	1.0	100.0	0		
4231658.chw	ICD0-D20.mtw	AD19-21 D157-04	21	1.0	1.0	1.0	100.0	0		
4231715.chw	ICD0-D20.mtw	AD19-22 D157-07	22	1.0	1.0	1.0	100.0	0		
4231732.chw	ICD0-D20.mtw	AD19-23 D157-09	23	1.0	1.0	1.0	100.0	0		
4231749.chw	ICD0-D20.mtw	AD19-24 D157-05	24	1.0	1.0	1.0	100.0	0		
4231806.chw	ICD0-D20.mtw	AD19-25 CCV5	25	1.0	1.0	1.0	100.0	0		
4231823.chw	ICD0-D20.mtw	AD19-26 CCB5	26	1.0	1.0	1.0	100.0	0		
4231841.chw	ICD0-D20.mtw	AD19-27 D157-08	27	1.0	1.0	1.0	100.0	0		
4231858.chw	ICD0-D20.mtw	AD19-28 D157-11	28	1.0	1.0	1.0	100.0	0		
4231915.chw	ICD0-D20.mtw	AD19-29 D157-17	29	1.0	1.0	1.0	100.0	0		
4231932.chw	ICD0-D20.mtw	AD19-30 D157-17M	30	1.0	1.0	1.0	100.0	0		
4231949.chw	ICD0-D20.mtw	AD19-31 D157-17S	31	1.0	1.0	1.0	100.0	0		
4232006.chw	ICD0-D20.mtw	AD19-32 ICD019WL	32	1.0	1.0	1.0	100.0	0		
4232023.chw	ICD0-D20.mtw	AD19-33 ICD019WB	33	1.0	1.0	1.0	100.0	0		
4232041.chw	ICD0-D20.mtw	AD19-34 ICD019WB	34	1.0	1.0	1.0	100.0	0		
4232058.chw	ICD0-D20.mtw	AD19-35 D157-12	35	1.0	1.0	1.0	100.0	0		
4232113.chw	ICD0-D20.mtw	AD19-36 D157-16	36	1.0	1.0	1.0	100.0	0		
4232132.chw	ICD0-D20.mtw	AD19-37 CCV7	37	1.0	1.0	1.0	100.0	0		
4232149.chw	ICD0-D20.mtw	AD19-38 CCB7	38	1.0	1.0	1.0	100.0	0		
4232206.chw	ICD0-D20.mtw	AD19-39 D157-13	39	1.0	1.0	1.0	100.0	0		
4232223.chw	ICD0-D20.mtw	AD19-40 D157-14	40	1.0	1.0	1.0	100.0	0		
4232241.chw	ICD0-D20.mtw	AD19-41 D157-19	41	1.0	1.0	1.0	100.0	0		
4232258.chw	ICD0-D20.mtw	AD19-42 D150-02I DF=8	42	1.0	8.0	1.0	100.0	0		
4232315.chw	ICD0-D20.mtw	AD19-43 D150-02J DF=800	43	1.0	800.0	1.0	100.0	0		
4232332.chw	ICD0-D20.mtw	AD19-44 D157-02I DF=10	44	1.0	10.0	1.0	100.0	0		
4232349.chw	ICD0-D20.mtw	AD19-45 D157-04I DF=25	45	1.0	25.0	1.0	100.0	0		
4240006.chw	ICD0-D20.mtw	AD19-46 D157-07I DF=40	46	1.0	40.0	1.0	100.0	0		
4240024.chw	ICD0-D20.mtw	AD19-47 D157-09I DF=40	47	1.0	40.0	1.0	100.0	0		
4240041.chw	ICD0-D20.mtw	AD19-48 D157-05I DF=40	48	1.0	40.0	1.0	100.0	0		
4240058.chw	ICD0-D20.mtw	AD19-49 CCV9	49	1.0	1.0	1.0	100.0	0		
4240113.chw	ICD0-D20.mtw	AD19-50 CCB9	50	1.0	1.0	1.0	100.0	0		
4240132.chw	ICD0-D20.mtw	AD19-51 D157-08I DF=25	51	1.0	25.0	1.0	100.0	0		
4240149.chw	ICD0-D20.mtw	AD19-52 D157-11I DF=50	52	1.0	50.0	1.0	100.0	0		
4240224.chw	ICD0-D20.mtw	AD19-53 D157-17I DF=40	53	1.0	40.0	1.0	100.0	0		
4240241.chw	ICD0-D20.mtw	AD19-54 D157-17M DF=40	54	1.0	40.0	1.0	100.0	0		
4240258.chw	ICD0-D20.mtw	AD19-55 D157-17S DF=40	55	1.0	40.0	1.0	100.0	0		
4240313.chw	ICD0-D20.mtw	AD19-56 D157-12I DF=50	56	1.0	50.0	1.0	100.0	0		
4240332.chw	ICD0-D20.mtw	AD19-57 D157-16I DF=8	57	1.0	8.0	1.0	100.0	0		
4240351.chw	ICD0-D20.mtw	AD19-58 D157-13I DF=50	58	1.0	50.0	1.0	100.0	0		

FINAL

Σ 4124115



ANALYSIS RUN LOG

for
ION CHROMATOGRAPHY

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: AD0-047

Instrument No.: D0

Pipette ID's: 039380124

SW3-02-02-02

SW8A-02-13

Analytical Sequence: A121

Method File: ICDO-D10.mtw

Analytical Batch: ICDO21W

SOP #	Rev. #
<input checked="" type="checkbox"/> EMAX-300.0	10
<input type="checkbox"/> EMAX-4110B	4
<input checked="" type="checkbox"/> EMAX-9056	7
<input type="checkbox"/> EMAX-	

STANDARDS ID	
ICAL	—
ICV	—
CCV	STIB-30-28-03
LCS	STIB-30-29-03
MS	NA

ELECTRONIC DATA ARCHIVAL	
Location	Date
<input type="checkbox"/> IC-METROHM	
<input type="checkbox"/> External Hard Drive	

Column: Metrosep A Supp 5-100

Flow Rate: 0.70 ml/min

IC Eluent:

SW4-02-46-03
(320 mM Na₂CO₃ / 100 mM NaHCO₃) 20 ml → 2 L reagent water

IC Regenerant:

SW4-02-50-04 (1000 mM H₂SO₄) 100 ml → 1 L reagent water

Reagent Water:

RW1-15-001

Filters:

0.45 µm: 2186623

0.2 µm: 21864678

Snap Seal Container:

4 oz: 19414007

1.5 oz: 20814007

Analyzed By: Jc

Date: 4/27/15

File Name	Method	Ident	Vial	Volume	Dilution	Amount	Internal Standard Amount	Calibration Level	Sample Info 1	Sample Info 2
z4271023.chw	ICD0-D20.mtw	AD21-01 CCV13	1	1.0	1.0	1.0	100.0	0		
z4271040.chw	ICD0-D20.mtw	AD21-02 CCB13	2	1.0	1.0	1.0	100.0	0		
z4271058.chw	ICD0-D20.mtw	AD21-03 ICD021WB	3	1.0	1.0	1.0	100.0	0		
z4271115.chw	ICD0-D20.mtw	AD21-04 ICD021WL	4	1.0	1.0	1.0	100.0	0		
z4271132.chw	ICD0-D20.mtw	AD21-05 ICD021WC	5	1.0	1.0	1.0	100.0	0		
z4271149.chw	ICD0-D20.mtw	AD21-06 D171-01	6	1.0	1.0	1.0	100.0	0	SW1A-005-12-16	
z4271206.chw	ICD0-D20.mtw	AD21-07 D159-01	7	1.0	1.0	1.0	100.0	0	SW1A-005-12-15	
z4271223.chw	ICD0-D20.mtw	AD21-08 CCV15	8	1.0	1.0	1.0	100.0	0		
z4271241.chw	ICD0-D20.mtw	AD21-09 CCB15	9	1.0	1.0	1.0	100.0	0		
z4271258.chw	ICD0-D20.mtw	AD21-10 D157-01 DF=10	10	1.0	10.0	1.0	100.0	0		
z4271315.chw	ICD0-D20.mtw	AD21-11 D157-05 DF=10	11	1.0	10.0	1.0	100.0	0		
z4271332.chw	ICD0-D20.mtw	AD21-12 D157-11 DF=10	12	1.0	10.0	1.0	100.0	0		
z4271349.chw	ICD0-D20.mtw	AD21-13 D157-12 DF=10	13	1.0	10.0	1.0	100.0	0		
z4271406.chw	ICD0-D20.mtw	AD21-14 D157-19 DF=10	14	1.0	10.0	1.0	100.0	0		
z4271423.chw	ICD0-D20.mtw	AD21-15 CCV17	15	1.0	1.0	1.0	100.0	0		
z4271441.chw	ICD0-D20.mtw	AD21-16 CCB17	16	1.0	1.0	1.0	100.0	0		

SC 4/28/15

8085

RETENTION TIME WINDOW

**RETENTION TIME WINDOW
METHOD 300.0**

Lab name: EMAX Method: EMAX-300.0
Instrument ID: D0 (761 IC) IC column: METROSEP A SUPP 5
Column size: 100X4.0mm

Compound	Retention time Window	
FLUORIDE	(+/-)	0.090
CHLORIDE	(+/-)	0.104
NITRITE	(+/-)	0.159
BROMIDE	(+/-)	0.329
NITRATE	(+/-)	0.420
PHOSPHATE	(+/-)	0.528
SULFATE	(+/-)	0.797
IODIDE	(+/-)	0.652

NA
06/03/14

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D157

METHOD 415.1
TOC

A total of fourteen (14) water samples were received on 04/23/15 to be analyzed for TOC in accordance with Method 415.1 and project specific requirements.

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.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. TOC was not detected in TCD007WB. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. TOC was within LCS QC limits in TCD007WL/TCD007WC. Refer to LCS summary form for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed. TOC was within MS QC limits in D157-17M/S. Sample duplicate was analyzed and RPD was within expected value. Refer to Matrix QC summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

METHOD 415.1
TOC

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D157

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	TCD007WB	ND	1	NA	1.00	0.500	04/24/1521:19	NA	TCD007-05	TCD007-02	TCD007W	NA	NA
LCS1W	TCD007WL	24.9	1	NA	1.00	0.500	04/24/1521:32	NA	TCD007-06	TCD007-02	TCD007W	NA	NA
LCD1W	TCD007WC	24.8	1	NA	1.00	0.500	04/24/1521:45	NA	TCD007-07	TCD007-02	TCD007W	NA	NA
04-22-15-PWB-16	D157-01	0.959J	1	NA	1.00	0.500	04/24/1523:56	NA	TCD007-18	TCD007-14	TCD007W	04/22/1508:00	04/23/15
04-22-15-PWB-14	D157-02	0.781J	1	NA	1.00	0.500	04/25/1500:07	NA	TCD007-19	TCD007-14	TCD007W	04/22/1508:42	04/23/15
04-22-15-AMW-4R	D157-04	0.804J	1	NA	1.00	0.500	04/25/1500:17	NA	TCD007-20	TCD007-14	TCD007W	04/22/1509:45	04/23/15
04-22-15-PWB-12	D157-05	0.958J	1	NA	1.00	0.500	04/25/1500:28	NA	TCD007-21	TCD007-14	TCD007W	04/22/1510:45	04/23/15
04-22-15-PWB-7A	D157-07	1.08	1	NA	1.00	0.500	04/25/1500:39	NA	TCD007-22	TCD007-14	TCD007W	04/22/1510:15	04/23/15
04-22-15-PWB-15	D157-08	0.844J	1	NA	1.00	0.500	04/25/1500:49	NA	TCD007-23	TCD007-14	TCD007W	04/22/1511:25	04/23/15
04-22-15-WB2-2	D157-09	0.943J	1	NA	1.00	0.500	04/25/1501:00	NA	TCD007-24	TCD007-14	TCD007W	04/22/1510:40	04/23/15
04-22-15-PWB-4	D157-11	0.848J	1	NA	1.00	0.500	04/25/1501:10	NA	TCD007-25	TCD007-14	TCD007W	04/22/1511:50	04/23/15
04-22-15-FDUP-4	D157-12	0.844J	1	NA	1.00	0.500	04/25/1501:50	NA	TCD007-28	TCD007-14	TCD007W	04/22/1512:05	04/23/15
04-22-15-WB2-1	D157-13	1.04	1	NA	1.00	0.500	04/25/1502:01	NA	TCD007-29	TCD007-14	TCD007W	04/22/1512:55	04/23/15
04-22-15-PWB-9	D157-14	1.12	1	NA	1.00	0.500	04/25/1502:11	NA	TCD007-30	TCD007-14	TCD007W	04/22/1513:05	04/23/15
04-22-15-WB2-4	D157-16	0.716J	1	NA	1.00	0.500	04/25/1502:22	NA	TCD007-31	TCD007-14	TCD007W	04/22/1512:27	04/23/15
04-22-15-PWB-10	D157-17	0.875J	1	NA	1.00	0.500	04/25/1502:32	NA	TCD007-32	TCD007-14	TCD007W	04/22/1513:35	04/23/15
04-22-15-PWB-10DUP	D157-17D	1.03	1	NA	1.00	0.500	04/25/1502:43	NA	TCD007-33	TCD007-14	TCD007W	04/22/1513:35	04/23/15
04-22-15-PWB-10MS	D157-17M	25.6	1	NA	1.00	0.500	04/25/1502:56	NA	TCD007-34	TCD007-14	TCD007W	04/22/1513:35	04/23/15
04-22-15-PWB-10MSD	D157-17S	26.6	1	NA	1.00	0.500	04/25/1503:08	NA	TCD007-35	TCD007-14	TCD007W	04/22/1513:35	04/23/15
04-22-15-PWB-5	D157-19	0.913J	1	NA	1.00	0.500	04/25/1503:19	NA	TCD007-36	TCD007-14	TCD007W	04/22/1514:45	04/23/15

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D157
METHOD: METHOD 415.1

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: TCD007WB TCD007WL TCD007WC
LAB FILE ID: TCD007-05 TCD007-06 TCD007-07
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 04/24/1521:19 04/24/1521:32 04/24/1521:45 DATE RECEIVED: NA
PREP. BATCH: TCD007W TCD007W TCD007W
CALIB. REF: TCD007-02 TCD007-02 TCD007-02

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	24.9	100	25	24.8	99	0	80-120	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
PROJECT: B & B GROUNDWATER SAMPLING
BATCH NO.: 15D157
METHOD: METHOD 415.1

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: 04-22-15-PWB-10
LAB SAMP ID: D157-17 D157-17M D157-17S
LAB FILE ID: TCD007-32 TCD007-34 TCD007-35
DATE EXTRACTED: NA NA NA DATE COLLECTED: 04/22/15 13:35
DATE ANALYZED: 04/25/1502:32 04/25/1502:56 04/25/1503:08 DATE RECEIVED: 04/23/15
PREP. BATCH: TCD007W TCD007W TCD007W
CALIB. REF: TCD007-14 TCD007-14 TCD007-14

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	.875J	25	25.6	99	25	26.6	103	4	75-125	20

EMAX QUALITY CONTROL DATA
 DUPLICATE SAMPLE ANALYSIS

CLIENT: ECO & ASSOCIATES, INC.
 PROJECT: B & B GROUNDWATER SAMPLING
 BATCH NO.: 15D157
 METHOD: METHOD 415.1

=====

MATRIX: WATER % MOISTURE: NA
 DILUTION FACTOR: 1 1
 SAMPLE ID: 04-22-15-PWB-10
 EMAX SAMP ID: D157-17 D157-17D
 LAB FILE ID: TCD007-32 TCD007-33
 DATE EXTRACTED: NA NA DATE COLLECTED: 04/22/15 13:35
 DATE ANALYZED: 04/25/1502:32 04/25/1502:43 DATE RECEIVED: 04/23/15
 PREP. BATCH: TCD007W TCD007W
 CALIB. REF: TCD007-14 TCD007-14

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	DUPL RSLT (mg/L)	RPD RSLT %	QC LIMIT (%)
TOC	0.875J	1.03	NA	20



ANALYSIS RUN LOG

for
TOC

	Date	Time
Start	4/24/15	19:35
End	4/25/15	13:17

Note: For samples and relevant QCs/Standards analyzed, refer to attached analytical sequence.

Sample was filtered. Filter ID: _____

Comments:

TC0007W L D571
D133
D157
TC0008W D142
D156
D144
D583
TC0009W D160
D169
D584

D583-01 ⇒ Turbid, strong color ⇒ 20x
D584-01 ⇒ Turbid ⇒ 5x

Reagent Water ID #: RW1-15-001
pH Strips Lot #: HCL270245
2 M HCl SW4-02-49-01

Book #: A62-029
Instrument No.: 62
Pipette ID: 39380025
SW3-01-33
S11A-01-4

Analytical Sequence: TC0007
Method File: TC0007
Analytical Batch: TC0007W, TC0008W, TC0009W

SOP #	Rev. #
<input checked="" type="checkbox"/> EMAX-415.1	4
<input checked="" type="checkbox"/> EMAX-5310B	3
<input checked="" type="checkbox"/> EMAX-9060	3
<input type="checkbox"/> EMAX-	

STANDARDS ID	CONC. (mg/L)
S0 RW1-15-001	0
S1 SW10B-06-64-05	1
S2	5
S3	10
S4	40
S5	80
S6	-
ICV/LCS SW10B-06-64-06	25
CCV SW10B-06-64-07	25

ELECTRONIC DATA ARCHIVAL	
Location	Date
<input type="checkbox"/> TOC	
<input type="checkbox"/>	

Analyzed By: KWL
Date: 4/2

	Type	Analysis	Sample Na	Sample ID	ObjectID	Origin	Diluti	Result	Comment
1	Standard	NPOC	ICAL	TCD007-01	0A-123456	C:\Program	1.00		
2	Control	NPOC	ICV	TCD007-02	0A-123456	C:\Program	1.00	NPOC:24.61 mg/L	
3	Unknown	NPOC	ICB	TCD007-03	0A-123456	C:\Program	1.00	NPOC:0.3522 mg/L	
4	Unknown	NPOC	HCO3/CO3	TCD007-04	0A-123456	C:\Program	1.00	NPOC:0.1948 mg/L	
5	Unknown	NPOC	TCD007WB	TCD007-05	0A-123456	C:\Program	1.00	NPOC:0.3386 mg/L	
6	Unknown	NPOC	TCD007WL	TCD007-06	0A-123456	C:\Program	1.00	NPOC:24.94 mg/L	
7	Unknown	NPOC	TCD007WC	TCD007-07	0A-123456	C:\Program	1.00	NPOC:24.84 mg/L	
8	Unknown	NPOC	D571-01	TCD007-08	0A-123456	C:\Program	1.00	NPOC:1.513 mg/L	PH<2
9	Unknown	NPOC	D571-02	TCD007-09	0A-123456	C:\Program	1.00	NPOC:1.314 mg/L	PH<2
10	Unknown	NPOC	D571-03	TCD007-10	0A-123456	C:\Program	1.00	NPOC:2.560 mg/L	PH<2
11	Unknown	NPOC	D571-03D	TCD007-11	0A-123456	C:\Program	1.00	NPOC:2.625 mg/L	PH<2
12	Unknown	NPOC	D571-03M	TCD007-12	0A-123456	C:\Program	1.00	NPOC:26.63 mg/L	PH<2
13	Unknown	NPOC	D133-01	TCD007-13	0A-123456	C:\Program	1.00	NPOC:4.851 mg/L	PH<2
14	Control	NPOC	CCV1	TCD007-14	0A-123456	C:\Program	1.00	NPOC:24.92 mg/L	
15	Unknown	NPOC	CCB1	TCD007-15	0A-123456	C:\Program	1.00	NPOC:0.2970 mg/L	
16	Unknown	NPOC	D133-03	TCD007-16	0A-123456	C:\Program	1.00	NPOC:4.959 mg/L	PH<2
17	Unknown	NPOC	D133-04	TCD007-17	0A-123456	C:\Program	1.00	NPOC:4.102 mg/L	PH<2
18	Unknown	NPOC	D157-01	TCD007-18	0A-123456	C:\Program	1.00	NPOC:0.9586 mg/L	PH<2
19	Unknown	NPOC	D157-02	TCD007-19	0A-123456	C:\Program	1.00	NPOC:0.7809 mg/L	PH<2
20	Unknown	NPOC	D157-04	TCD007-20	0A-123456	C:\Program	1.00	NPOC:0.8044 mg/L	PH<2
21	Unknown	NPOC	D157-05	TCD007-21	0A-123456	C:\Program	1.00	NPOC:0.9579 mg/L	PH<2
22	Unknown	NPOC	D157-07	TCD007-22	0A-123456	C:\Program	1.00	NPOC:1.076 mg/L	PH<2
23	Unknown	NPOC	D157-08	TCD007-23	0A-123456	C:\Program	1.00	NPOC:0.8437 mg/L	PH<2
24	Unknown	NPOC	D157-09	TCD007-24	0A-123456	C:\Program	1.00	NPOC:0.9429 mg/L	PH<2
25	Unknown	NPOC	D157-11	TCD007-25	0A-123456	C:\Program	1.00	NPOC:0.8477 mg/L	PH<2
26	Control	NPOC	CCV2	TCD007-26	0A-123456	C:\Program	1.00	NPOC:25.02 mg/L	
27	Unknown	NPOC	CCB2	TCD007-26	0A-123456	C:\Program	1.00	NPOC:0.2279 mg/L	
28	Unknown	NPOC	D157-12	TCD007-28	0A-123456	C:\Program	1.00	NPOC:0.8436 mg/L	PH<2
29	Unknown	NPOC	D157-13	TCD007-29	0A-123456	C:\Program	1.00	NPOC:1.045 mg/L	PH<2
30	Unknown	NPOC	D157-14	TCD007-30	0A-123456	C:\Program	1.00	NPOC:1.124 mg/L	PH<2
31	Unknown	NPOC	D157-16	TCD007-31	0A-123456	C:\Program	1.00	NPOC:0.7158 mg/L	PH<2
32	Unknown	NPOC	D157-17	TCD007-32	0A-123456	C:\Program	1.00	NPOC:0.8751 mg/L	PH<2
33	Unknown	NPOC	D157-17D	TCD007-33	0A-123456	C:\Program	1.00	NPOC:1.031 mg/L	PH<2
34	Unknown	NPOC	D157-17M	TCD007-34	0A-123456	C:\Program	1.00	NPOC:25.57 mg/L	PH<2
35	Unknown	NPOC	D157-17S	TCD007-35	0A-123456	C:\Program	1.00	NPOC:26.60 mg/L	PH<2
36	Unknown	NPOC	D157-19	TCD007-36	0A-123456	C:\Program	1.00	NPOC:0.9125 mg/L	PH<2
37	Control	NPOC	CCV3	TCD007-37	0A-123456	C:\Program	1.00	NPOC:25.05 mg/L	
38	Unknown	NPOC	CCB3	TCD007-38	0A-123456	C:\Program	1.00	NPOC:0.2647 mg/L	
39	Unknown	NPOC	TCD008WB	TCD007-39	0A-123456	C:\Program	1.00	NPOC:0.3514 mg/L	
40	Unknown	NPOC	TCD008WL	TCD007-40	0A-123456	C:\Program	1.00	NPOC:25.21 mg/L	
41	Unknown	NPOC	TCD008WC	TCD007-41	0A-123456	C:\Program	1.00	NPOC:25.11 mg/L	
42	Unknown	NPOC	D142-01	TCD007-42	0A-123456	C:\Program	1.00	NPOC:0.7958 mg/L	PH<2
43	Unknown	NPOC	D142-02	TCD007-43	0A-123456	C:\Program	1.00	NPOC:0.8596 mg/L	PH<2
44	Unknown	NPOC	D142-03	TCD007-44	0A-123456	C:\Program	1.00	NPOC:1.119 mg/L	PH<2
45	Unknown	NPOC	D142-03M	TCD007-45	0A-123456	C:\Program	1.00	NPOC:26.46 mg/L	PH<2
46	Unknown	NPOC	D142-03S	TCD007-46	0A-123456	C:\Program	1.00	NPOC:25.99 mg/L	PH<2
47	Unknown	NPOC	D142-05	TCD007-47	0A-123456	C:\Program	1.00	NPOC:0.8278 mg/L	PH<2
48	Unknown	NPOC	D142-07	TCD007-48	0A-123456	C:\Program	1.00	NPOC:0.9788 mg/L	PH<2
49	Control	NPOC	CCV4	TCD007-49	0A-123456	C:\Program	1.00	NPOC:25.01 mg/L	
50	Unknown	NPOC	CCB4	TCD007-50	0A-123456	C:\Program	1.00	NPOC:0.3597 mg/L	
51	Unknown	NPOC	D142-09	TCD007-51	0A-123456	C:\Program	1.00	NPOC:0.9359 mg/L	PH<2
52	Unknown	NPOC	D156-01	TCD007-52	0A-123456	C:\Program	1.00	NPOC:1.064 mg/L	PH<2
53	Unknown	NPOC	D156-02	TCD007-53	0A-123456	C:\Program	1.00	NPOC:0.7813 mg/L	PH<2
54	Unknown	NPOC	D156-03	TCD007-54	0A-123456	C:\Program	1.00	NPOC:2.280 mg/L	PH<2
55	Unknown	NPOC	D156-05	TCD007-55	0A-123456	C:\Program	1.00	NPOC:0.8798 mg/L	PH<2
56	Unknown	NPOC	D156-06	TCD007-56	0A-123456	C:\Program	1.00	NPOC:0.4998 mg/L	PH<2
57	Unknown	NPOC	D156-07	TCD007-57	0A-123456	C:\Program	1.00	NPOC:0.8455 mg/L	PH<2
58	Unknown	NPOC	D156-08	TCD007-58	0A-123456	C:\Program	1.00	NPOC:0.7843 mg/L	PH<2
59	Unknown	NPOC	D156-10	TCD007-59	0A-123456	C:\Program	1.00	NPOC:0.9678 mg/L	PH<2
60	Unknown	NPOC	D156-11	TCD007-60	0A-123456	C:\Program	1.00	NPOC:1.129 mg/L	PH<2
61	Control	NPOC	CCV5	TCD007-61	0A-123456	C:\Program	1.00	NPOC:25.13 mg/L	FINAL
62	Unknown	NPOC	CCB5	TCD007-62	0A-123456	C:\Program	1.00	NPOC:0.2819 mg/L	
63	Unknown	NPOC	D144-01	TCD007-63	0A-123456	C:\Program	1.00	NPOC:3.471 mg/L	PH<2
64	Unknown	NPOC	D144-03	TCD007-64	0A-123456	C:\Program	1.00	NPOC:3.960 mg/L	PH<2
65	Unknown	NPOC	D144-04	TCD007-65	0A-123456	C:\Program	1.00	NPOC:3.541 mg/L	PH<2
66	Unknown	NPOC	D144-04D	TCD007-66	0A-123456	C:\Program	1.00	NPOC:3.515 mg/L	PH<2
67	Unknown	NPOC	D144-04M	TCD007-67	0A-123456	C:\Program	1.00	NPOC:28.67 mg/L	PH<2

	Type	Analysis	Sample Na	Sample ID	ObjectID	Origin	Diluti	Result	Comment
68	Unknown	NPOC	D583-01	TCD007-68	0A-123456	C:\Program	20.0	NPOC:360.3 mg/L	PH<2; DF=20
69	Unknown	NPOC	TCD009WL	TCD007-69	0A-123456	C:\Program	1.00	NPOC:25.43 mg/L	
70	Unknown	NPOC	TCD009WC	TCD007-70	0A-123456	C:\Program	1.00	NPOC:25.30 mg/L	
71	Unknown	NPOC	TCD009WB	TCD007-71	0A-123456	C:\Program	1.00	NPOC:0.04007 mg/L	
72	Control	NPOC	CCV6	TCD007-72	0A-123456	C:\Program	1.00	NPOC:25.22 mg/L	
73	Unknown	NPOC	CCB6	TCD007-73	0A-123456	C:\Program	1.00	NPOC:0.3420 mg/L	
74	Unknown	NPOC	D160-01	TCD007-74	0A-123456	C:\Program	1.00	NPOC:3.695 mg/L	PH<2
75	Unknown	NPOC	D160-03	TCD007-75	0A-123456	C:\Program	1.00	NPOC:2.970 mg/L	PH<2
76	Unknown	NPOC	D160-04	TCD007-76	0A-123456	C:\Program	1.00	NPOC:4.159 mg/L	PH<2
77	Unknown	NPOC	D160-04D	TCD007-77	0A-123456	C:\Program	1.00	NPOC:4.048 mg/L	PH<2
78	Unknown	NPOC	D160-04M	TCD007-78	0A-123456	C:\Program	1.00	NPOC:29.06 mg/L	PH<2
79	Unknown	NPOC	D169-01	TCD007-79	0A-123456	C:\Program	1.00	NPOC:13.57 mg/L	PH<2
80	Unknown	NPOC	D169-02	TCD007-80	0A-123456	C:\Program	1.00	NPOC:13.68 mg/L	PH<2
81	Unknown	NPOC	D169-04	TCD007-81	0A-123456	C:\Program	1.00	NPOC:9.378 mg/L	PH<2
82	Unknown	NPOC	D169-05	TCD007-82	0A-123456	C:\Program	1.00	NPOC:3.819 mg/L	PH<2
83	Unknown	NPOC	D584-011	TCD007-83	0A-123456	C:\Program	5.00	NPOC:37.02 mg/L	PH<2; DF=5
84	Control	NPOC	CCV7	TCD007-84	0A-123456	C:\Program	1.00	NPOC:25.26 mg/L	
85	Unknown	NPOC	CCB7	TCD007-85	0A-123456	C:\Program	1.00	NPOC:0.2665 mg/L	FINAL

km 414715

Instr. Information

System toc
 Detector Combustion
 Catalyst Regular Sensitivity
 Cell Length long

Cal. Curve

Sample Name: ICAL
 Sample ID: TCD007-01
 Cal. Curve: TCD007.2015_04_24_19_28_16.cal

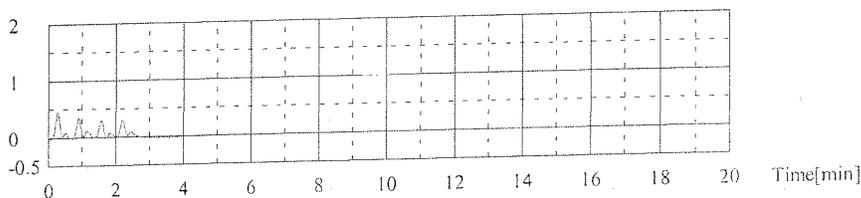
Type	Anai.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.4775	50uL	1	*****		04/24/15 07:35:31 PM
2	0.3938	50uL	1	*****		04/24/15 07:36:23 PM
3	0.2484	50uL	1	*****		04/24/15 07:37:13 PM
4	0.000	50uL	1	*****		04/24/15 07:39:19 PM

Acid Add. 2.500%
 Sp. Time 90.00sec
 Mean Area 0.2799

Signal[mV] 2

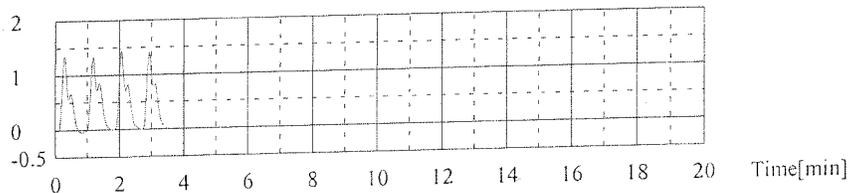


Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	2.201	50uL	1	*****		04/24/15 07:46:42 PM
2	2.424	50uL	1	*****		04/24/15 07:47:47 PM
3	2.393	50uL	1	*****		04/24/15 07:48:51 PM
4	2.336	50uL	1	*****		04/24/15 07:49:55 PM

Acid Add. 2.500%
 Sp. Time 90.00sec
 Mean Area 2.339

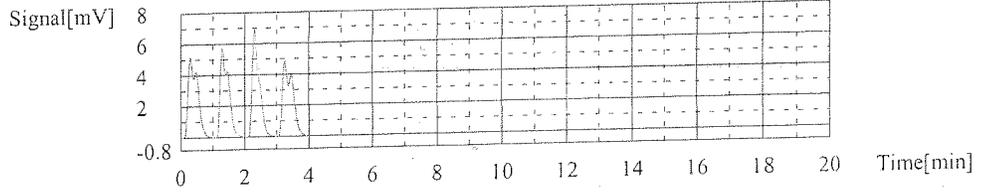
Signal[mV] 2



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	10.64	50uL	1	*****		04/24/15 07:57:25 PM
2	10.63	50uL	1	*****		04/24/15 07:58:37 PM
3	10.81	50uL	1	*****		04/24/15 07:59:46 PM
4	10.68	50uL	1	*****		04/24/15 08:01:01 PM

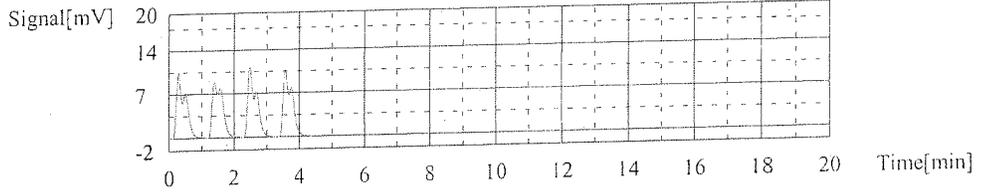
Acid Add. 2.500%
 Sp. Time 90.00sec
 Mean Area 10.69



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	20.25	50uL	1	*****		04/24/15 08:08:38 PM
2	20.26	50uL	1	*****		04/24/15 08:09:56 PM
3	20.78	50uL	1	*****		04/24/15 08:11:13 PM
4	20.41	50uL	1	*****		04/24/15 08:12:30 PM

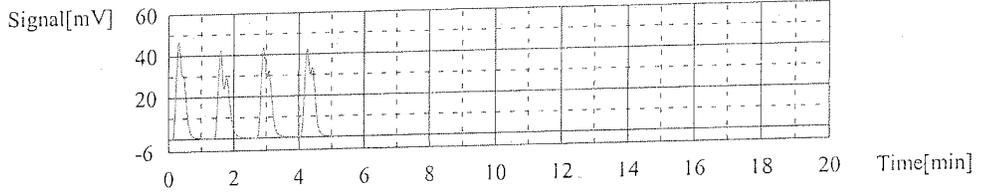
Acid Add. 2.500%
 Sp. Time 90.00sec
 Mean Area 20.43



Conc: 40.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	80.23	50uL	1	*****		04/24/15 08:20:21 PM
2	81.60	50uL	1	*****		04/24/15 08:21:52 PM
3	82.18	50uL	1	*****		04/24/15 08:23:24 PM
4	80.45	50uL	1	*****		04/24/15 08:24:49 PM

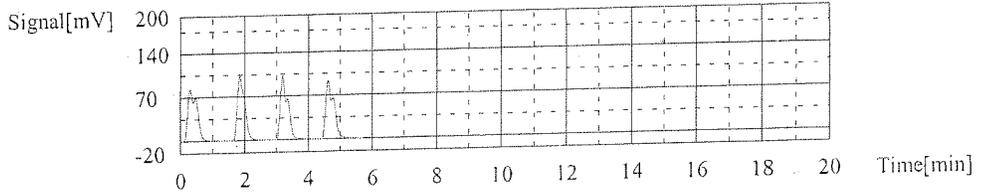
Acid Add. 2.500%
 Sp. Time 90.00sec
 Mean Area 81.12



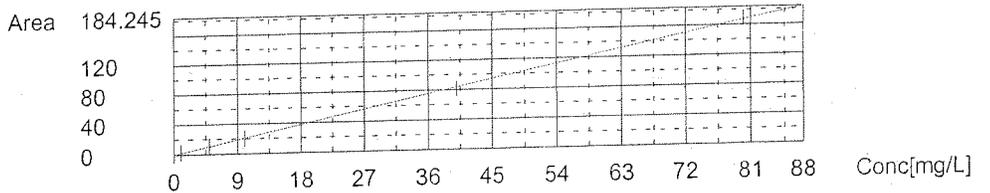
Conc: 80.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	166.2	50uL	1	*****		04/24/15 08:32:55 PM
2	169.3	50uL	1	*****		04/24/15 08:34:28 PM
3	170.7	50uL	1	*****		04/24/15 08:36:05 PM
4	167.6	50uL	1	*****		04/24/15 08:37:43 PM

Acid Add. 2.500%
 Sp. Time 90.00sec
 Mean Area 168.5



Slope: 2.094
 Intercept 0.000
 r^2 0.999641



Control Sample

Sample Name: ICB
 Sample ID: TCD007-02
 Method: Tcd007.tpl
 Chk. Result: Control value: 24.61 / Control exceeds range!

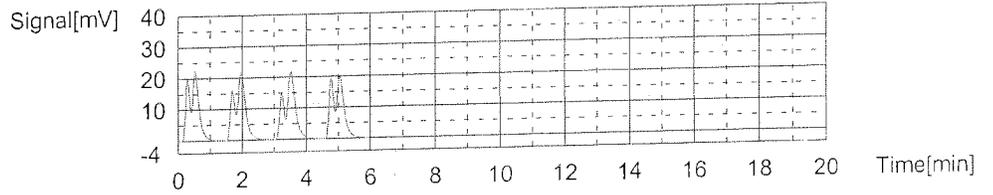
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:24.61 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.13	24.42mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:45:48 PM
2	51.64	24.66mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:47:31 PM
3	51.74	24.71mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:49:15 PM
4	51.57	24.63mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:50:58 PM

Mean Area 51.52
 Mean Conc. 24.61mg/L



Sample

Sample Name: ICB
 Sample ID: TCD007-03
 Origin: TCD007.cal
 Chk. Result:

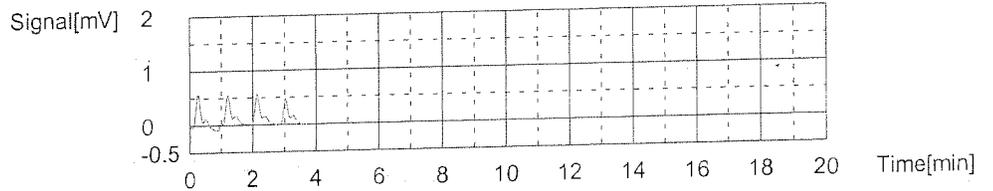
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3522 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7984	0.3813mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:56:19 PM
2	0.7375	0.3522mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:57:27 PM
3	0.7759	0.3706mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:58:33 PM
4	0.6374	0.3044mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 08:59:40 PM

Mean Area 0.7373
 Mean Conc. 0.3522mg/L



Sample

Sample Name: HC03/CO3
 Sample ID: TCD007-04
 Origin: TCD007.cal
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1948 mg/L

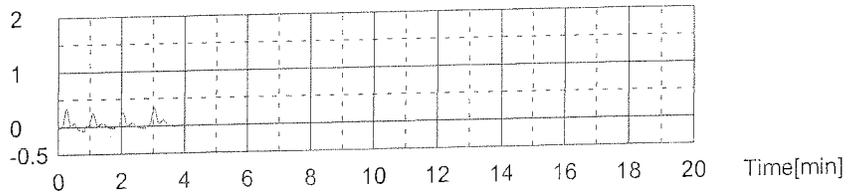
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4390	0.2097mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:07:02 PM
2	0.3306	0.1579mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:08:11 PM
3	0.3917	0.1871mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:09:22 PM
4	0.4703	0.2246mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:10:32 PM

Mean Area 0.4079
 Mean Conc. 0.1948mg/L

Signal[mV] 2



Sample

Sample Name: TCD007WB
 Sample ID: TCD007-05
 Origin: TCD007.cal
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3386 mg/L

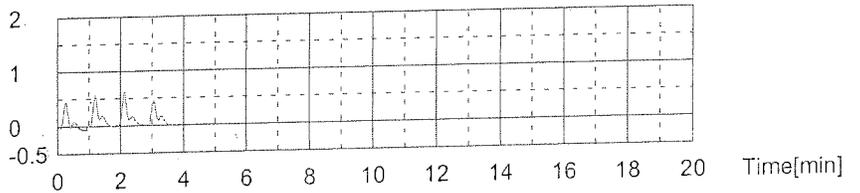
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6043	0.2886mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:15:53 PM
2	0.7823	0.3736mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:17:00 PM
3	0.8211	0.3922mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:18:08 PM
4	0.6284	0.3001mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:19:15 PM

Mean Area 0.7090
 Mean Conc. 0.3386mg/L

Signal[mV] 2



Sample

Sample Name: TCD007WL
 Sample ID: TCD007-06
 Origin: TCD007.cal
 Chk. Result

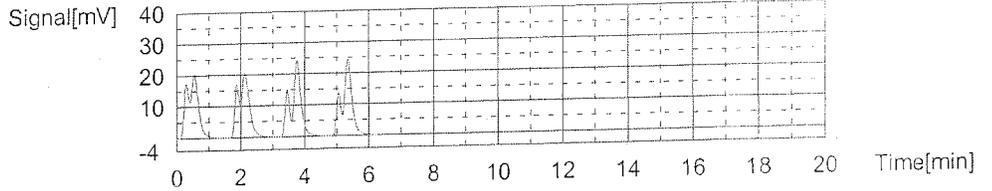
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:24.94 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.95	24.81mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:27:19 PM
2	52.32	24.99mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:29:05 PM
3	52.58	25.11mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:30:54 PM
4	52.05	24.86mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:32:36 PM

Mean Area 52.23
 Mean Conc. 24.94mg/L



Sample

Sample Name: TCD007WC
 Sample ID: TCD007-07
 Origin: TCD007.cal
 Chk. Result

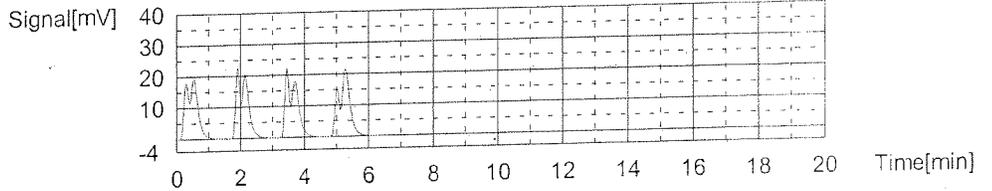
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:24.84 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	50.78	24.25mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:40:42 PM
2	52.46	25.06mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:42:26 PM
3	52.74	25.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:44:12 PM
4	52.09	24.88mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 09:45:59 PM

Mean Area 52.02
 Mean Conc. 24.84mg/L



Sample

Sample Name: D571-01
 Sample ID: TCD007-08
 Origin: TCD007.cal
 Chk. Result

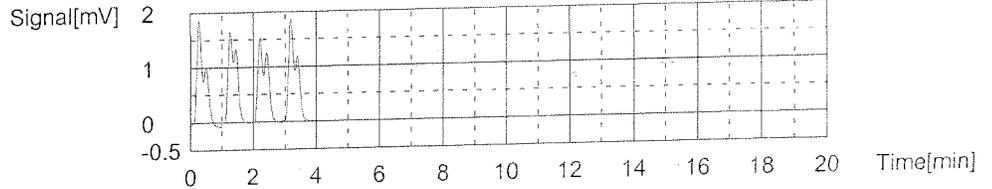
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.513 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.143	1.501mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/24/15 09:53:27 PM
2	3.153	1.506mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/24/15 09:54:36 PM
3	3.097	1.479mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/24/15 09:55:46 PM
4	3.282	1.568mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/24/15 09:56:56 PM

Mean Area 3.169
 Mean Conc. 1.513mg/L



Sample

Sample Name: D571-02
 Sample ID: TC0007-09
 Origin: TC0007.cal
 Chk. Result

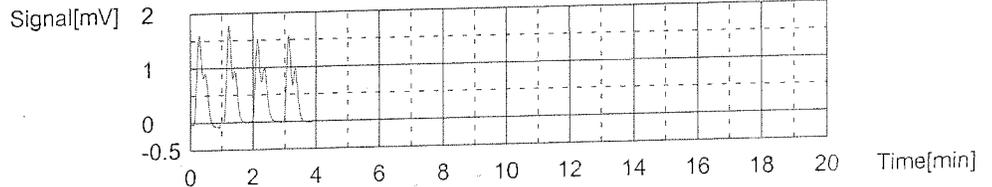
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.314 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.769	1.323mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/24/15 10:04:22 PM
2	2.768	1.322mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/24/15 10:05:29 PM
3	2.781	1.328mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/24/15 10:06:40 PM
4	2.687	1.283mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/24/15 10:07:51 PM

Mean Area 2.751
 Mean Conc. 1.314mg/L



Sample

Sample Name: D571-03
 Sample ID: TC0007-10
 Origin: TC0007.cal
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.560 mg/L

KLinn

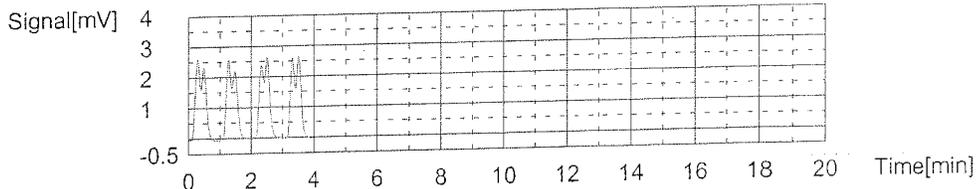
04/27/15 11:29:35 AM

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.367	2.563mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:15:19 PM
2	5.386	2.572mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:16:34 PM
3	5.329	2.545mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:17:46 PM
4	5.356	2.558mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:18:57 PM

Mean Area 5.360
Mean Conc. 2.560mg/L



Sample

Sample Name: D571-03D
Sample ID: TCD007-11
Origin: TCD007.cal
Chk. Result

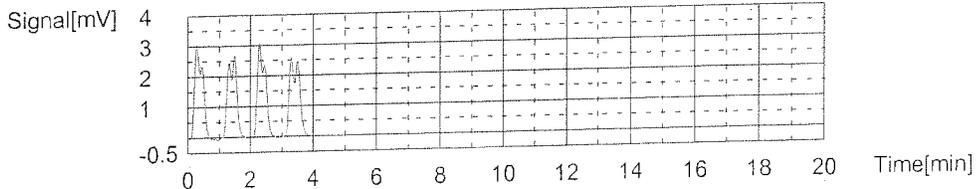
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.625 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.539	2.646mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:26:27 PM
2	5.409	2.583mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:27:38 PM
3	5.534	2.643mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:28:51 PM
4	5.499	2.626mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:30:02 PM

Mean Area 5.495
Mean Conc. 2.625mg/L



Sample

Sample Name: D571-03M
Sample ID: TCD007-12
Origin: TCD007.cal
Chk. Result

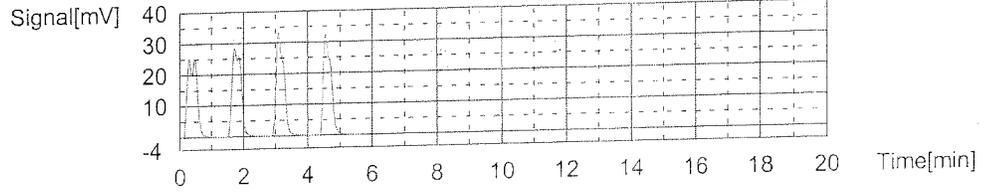
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:26.63 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	55.10	26.32mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:37:55 PM
2	55.57	26.54mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:39:30 PM
3	56.13	26.81mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:41:10 PM
4	56.23	26.86mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:42:45 PM

Mean Area 55.76
 Mean Conc. 26.63mg/L



Sample

Sample Name: D133-01
 Sample ID: TCD007-13
 Origin: TCD007.cal
 Chk. Result

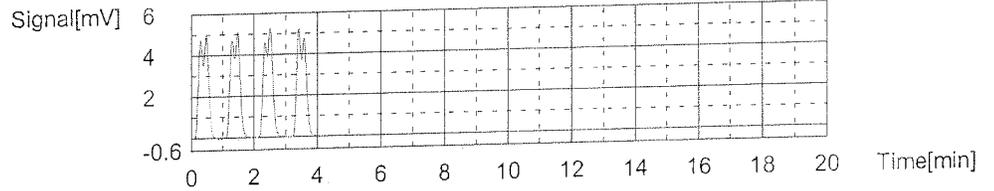
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.851 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.19	4.867mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:50:14 PM
2	10.09	4.819mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:51:29 PM
3	10.12	4.834mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:52:45 PM
4	10.23	4.886mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 10:54:01 PM

Mean Area 10.16
 Mean Conc. 4.851mg/L



Control Sample

Sample Name: CCV1
 Sample ID: TCD007-14
 Method: Tcd007.tpl
 Chk. Result: Control value: 24.92 / Control exceeds range!

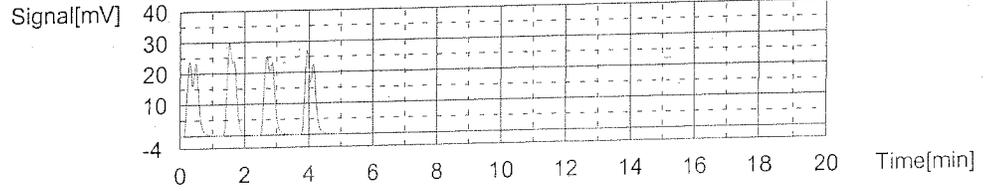
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:24.92 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.42	24.56mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:01:44 PM
2	52.38	25.02mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:03:05 PM
3	52.91	25.27mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:04:33 PM
4	51.98	24.83mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:06:02 PM

Mean Area 52.17
 Mean Conc. 24.92mg/L



Sample

Sample Name: CCB1
 Sample ID: TCD007-15
 Origin: TCD007.cal
 Chk. Result

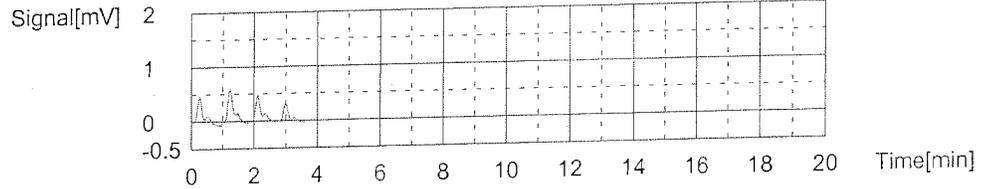
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2970 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6377	0.3046mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:20:05 PM
2	0.7823	0.3736mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:21:10 PM
3	0.6482	0.3096mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:22:15 PM
4	0.4194	0.2003mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:23:18 PM

Mean Area 0.6219
 Mean Conc. 0.2970mg/L



Sample

Sample Name: D133-03
 Sample ID: TCD007-16
 Origin: TCD007.cal
 Chk. Result

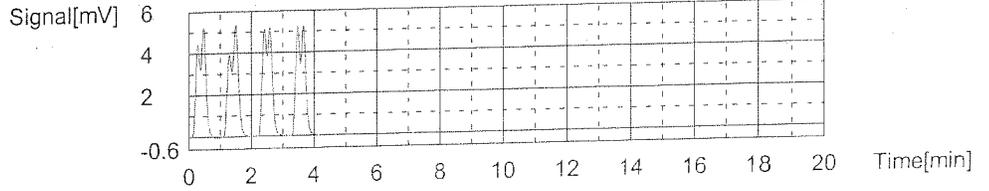
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.959 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.850	4.705mg/L	50uL			TCD007.2015_04_24_19_28_16.cal	04/24/15 11:30:48 PM
2	10.45	4.991mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:32:07 PM
3	10.63	5.077mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:33:23 PM
4	10.60	5.063mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:34:35 PM

Mean Area 10.38
 Mean Conc. 4.959mg/L



Sample

Sample Name: D133-04
 Sample ID: TCD007-17
 Origin: TCD007.cal
 Chk. Result

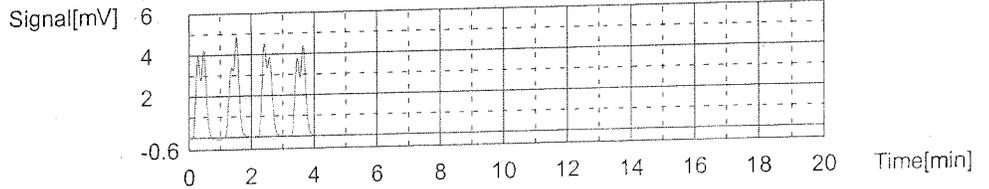
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.102 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.674	4.143mg/L	50uL			TCD007.2015_04_24_19_28_16.cal	04/24/15 11:42:07 PM
2	8.573	4.095mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:43:23 PM
3	8.508	4.064mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:44:38 PM
4	8.597	4.106mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:45:51 PM

Mean Area 8.588
 Mean Conc. 4.102mg/L



Sample

Sample Name: D157-01
 Sample ID: TCD007-18
 Origin: TCD007.cal
 Chk. Result

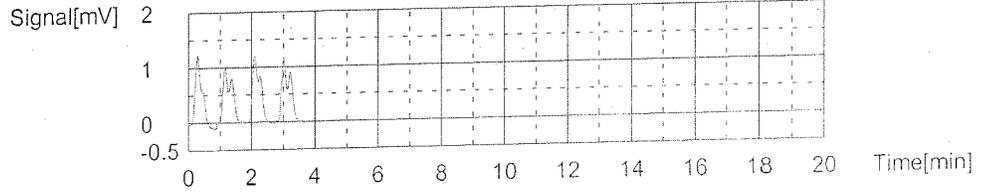
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9586 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.866	0.8912mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:53:13 PM
2	1.917	0.9156mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:54:21 PM
3	2.120	1.013mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:55:28 PM
4	2.125	1.015mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/24/15 11:56:35 PM

Mean Area 2.007
 Mean Conc. 0.9586mg/L



Sample

Sample Name: D157-02
 Sample ID: TCD007-19
 Origin: TCD007.cal
 Chk. Result

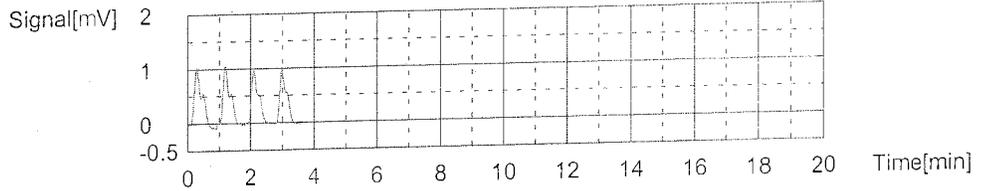
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7809 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.813	0.8659mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:04:00 AM
2	1.660	0.7929mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:05:06 AM
3	1.498	0.7155mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:06:11 AM
4	1.569	0.7494mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:07:15 AM

Mean Area 1.635
 Mean Conc. 0.7809mg/L



Sample

Sample Name: D157-04
 Sample ID: TCD007-20
 Origin: TCD007.cal
 Chk. Result

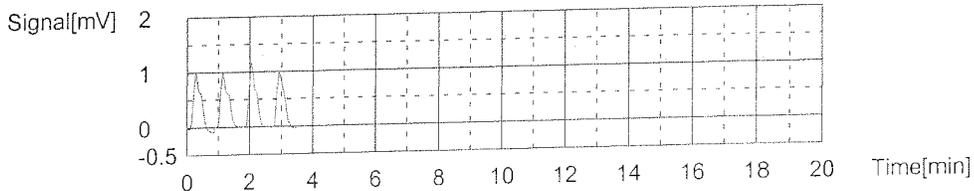
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8044 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.658	0.7919mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:14:36 AM
2	1.709	0.8163mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:15:42 AM
3	1.788	0.8540mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:16:47 AM
4	1.582	0.7556mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:17:49 AM

Mean Area 1.684
 Mean Conc. 0.8044mg/L



Sample

Sample Name: D157-05
 Sample ID: TCD007-21
 Origin: TCD007.cal
 Chk. Result

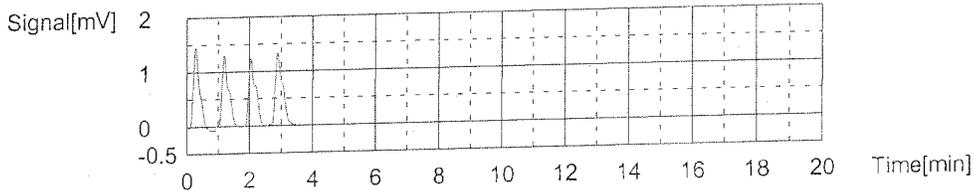
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9579 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.077	0.9920mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:25:14 AM
2	1.937	0.9252mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:26:17 AM
3	1.958	0.9352mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:27:20 AM
4	2.050	0.9791mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:28:24 AM

Mean Area 2.006
 Mean Conc. 0.9579mg/L



Sample

Sample Name: D157-07
 Sample ID: TCD007-22
 Origin: TCD007.cal
 Chk. Result

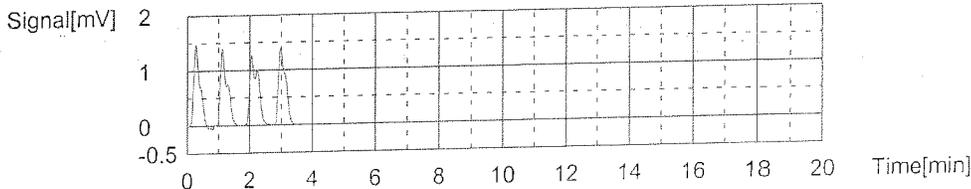
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.076 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.109	1.007mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:35:45 AM
2	2.189	1.046mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:36:53 AM
3	2.418	1.155mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:38:00 AM
4	2.294	1.096mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:39:03 AM

Mean Area 2.252
 Mean Conc. 1.076mg/L



Sample

Sample Name: D157-08
 Sample ID: TCD007-23
 Origin: TCD007.cal
 Chk. Result

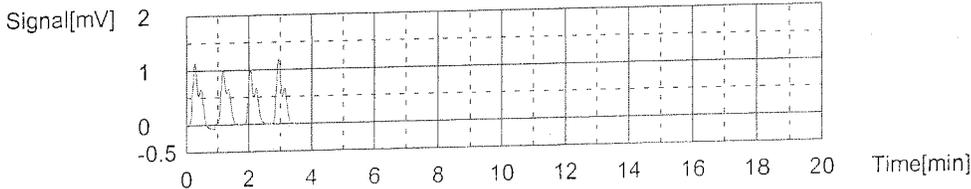
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8437 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.892	0.9037mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:46:27 AM
2	1.639	0.7828mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:47:31 AM
3	1.690	0.8072mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:48:37 AM
4	1.845	0.8812mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:49:44 AM

Mean Area 1.767
 Mean Conc. 0.8437mg/L



Sample

Sample Name: D157-09
 Sample ID: TCD007-24
 Origin: TCD007.cal
 Chk. Result

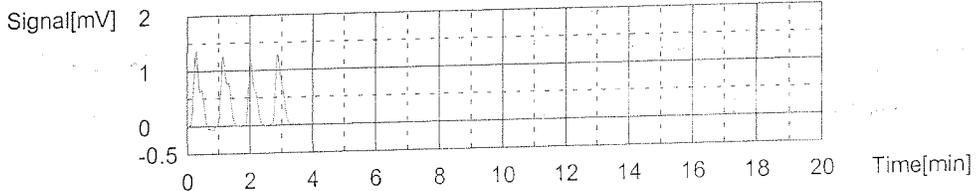
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9429 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.071	0.9892mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:57:06 AM
2	2.087	0.9968mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:58:10 AM
3	1.832	0.8750mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:59:14 AM
4	1.907	0.9108mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:00:15 AM

Mean Area 1.974
 Mean Conc. 0.9429mg/L



Sample

Sample Name: D157-11
 Sample ID: TCD007-25
 Origin: TCD007.cal
 Chk. Result

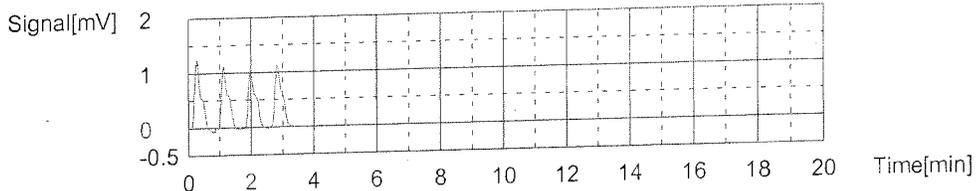
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8477 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.769	0.8449mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:07:36 AM
2	1.753	0.8373mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:08:39 AM
3	1.806	0.8626mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:09:42 AM
4	1.771	0.8459mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:10:45 AM

Mean Area 1.775
 Mean Conc. 0.8477mg/L



Control Sample

Sample Name: CCV2
 Sample ID: TCD007-26
 Method: Tcd007.tpl
 Chk. Result: Control value: 25.02 / Control exceeds range!

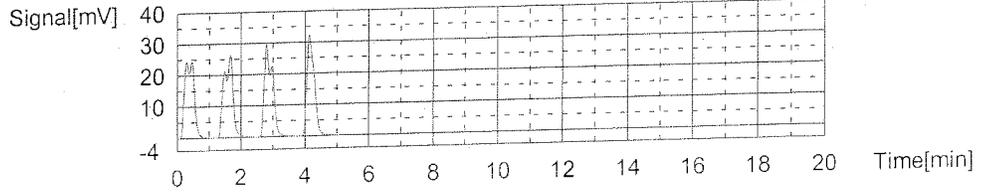
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.02 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.56	24.63mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:18:26 AM
2	51.91	24.79mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:19:57 AM
3	53.32	25.47mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:21:28 AM
4	52.74	25.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:22:52 AM

Mean Area 52.38
 Mean Conc. 25.02mg/L



Sample

Sample Name: CCB2
 Sample ID: TCD007:26
 Origin: TCD007.cal
 Chk. Result

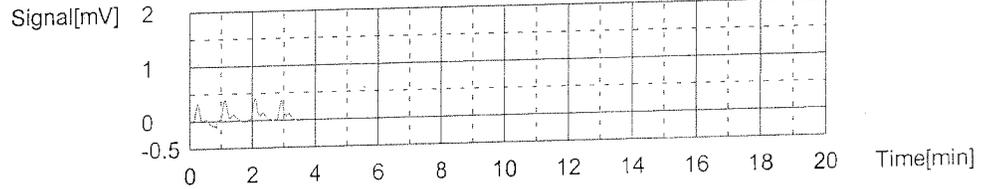
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2279 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4848	0.2316mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:28:10 AM
2	0.4695	0.2242mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:29:20 AM
3	0.5136	0.2453mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:30:22 AM
4	0.4410	0.2106mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:31:23 AM

Mean Area 0.4772
 Mean Conc. 0.2279mg/L



Sample

Sample Name: D157-12
 Sample ID: TCD007:28
 Origin: TCD007.cal
 Chk. Result

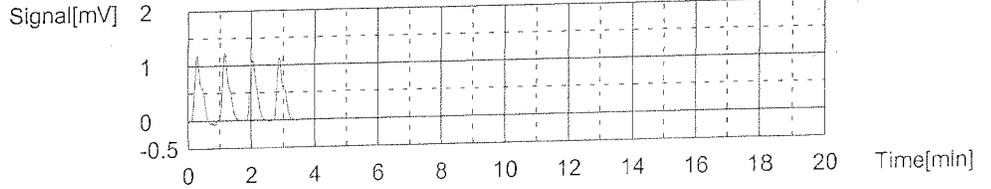
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8436 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.866	0.8912mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:47:23 AM
2	1.787	0.8535mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:48:27 AM
3	1.692	0.8081mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:49:29 AM
4	1.720	0.8215mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:50:33 AM

Mean Area 1.766
 Mean Conc. 0.8436mg/L



Sample

Sample Name: D157-13
 Sample ID: TCD007-29
 Origin: TCD007.cal
 Chk. Result

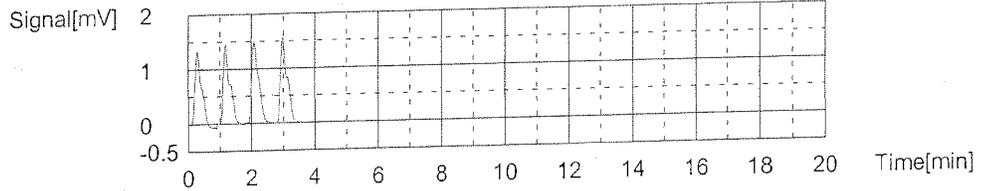
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.045 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.012	0.9610mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:57:57 AM
2	2.127	1.016mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:59:03 AM
3	2.260	1.079mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:00:08 AM
4	2.350	1.122mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:01:12 AM

Mean Area 2.187
 Mean Conc. 1.045mg/L



Sample

Sample Name: D157-14
 Sample ID: TCD007-30
 Origin: TCD007.cal
 Chk. Result

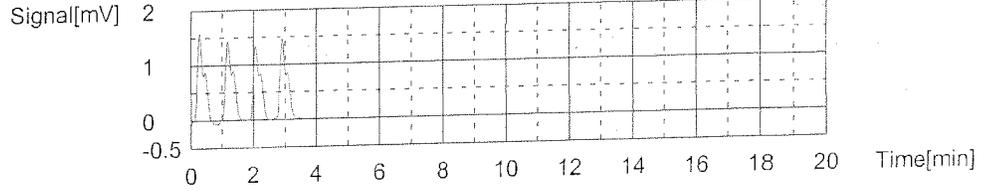
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.124 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.573	1.229mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:08:36 AM
2	2.362	1.128mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:09:41 AM
3	2.167	1.035mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:10:43 AM
4	2.311	1.104mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:11:51 AM

Mean Area 2.353
 Mean Conc. 1.124mg/L



Sample

Sample Name: D157-16
 Sample ID: TCD007-31
 Origin: TCD007.cal
 Chk. Result

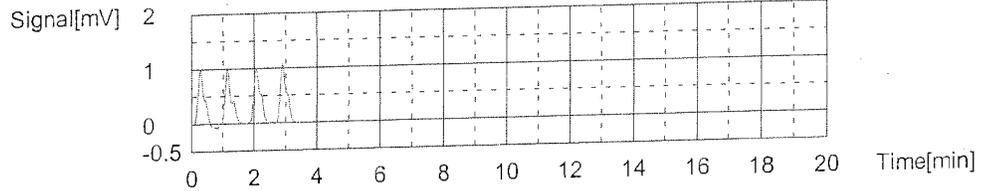
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7158 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.473	0.7035mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:19:14 AM
2	1.423	0.6797mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:20:20 AM
3	1.531	0.7312mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:21:22 AM
4	1.568	0.7489mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:22:24 AM

Mean Area 1.499
 Mean Conc. 0.7158mg/L



Sample

Sample Name: D157-17
 Sample ID: TCD007-32
 Origin: TCD007.cal
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8751 mg/L

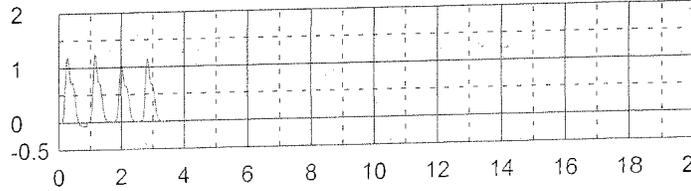
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.026	0.9677mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:29:48 AM
2	1.877	0.8965mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:30:50 AM
3	1.669	0.7972mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:31:52 AM
4	1.757	0.8392mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:32:54 AM

Mean Area 1.832
 Mean Conc. 0.8751mg/L

Signal[mV] 2



Sample

Sample Name: D157-17D
 Sample ID: TCD007-33
 Origin: TCD007.cal
 Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.031 mg/L

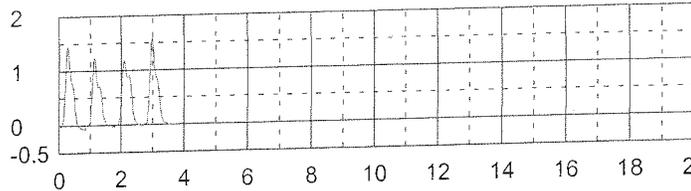
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.108	1.007mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:40:16 AM
2	1.981	0.9462mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:41:25 AM
3	2.168	1.035mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:42:30 AM
4	2.377	1.135mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:43:36 AM

Mean Area 2.159
 Mean Conc. 1.031mg/L

Signal[mV] 2



Sample

Sample Name: D157-17M
 Sample ID: TCD007-34
 Origin: TCD007.cal
 Chk. Result

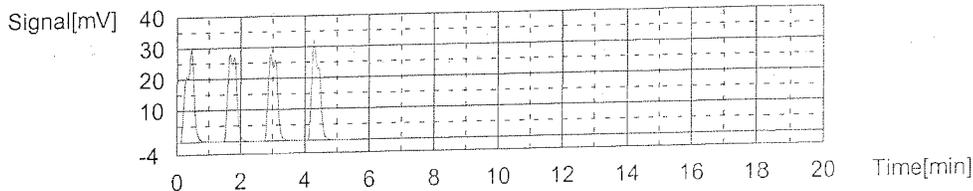
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.57 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.64	25.14mg/L	50uL			TCD007.2015_04_24_19_28_16.cal	04/25/15 02:51:29 AM
2	53.77	25.68mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:52:57 AM
3	54.41	25.99mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:54:29 AM
4	53.32	25.47mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 02:56:05 AM

Mean Area 53.53
 Mean Conc. 25.57mg/L



Sample

Sample Name: D157-17S
 Sample ID: TCD007-35
 Origin: TCD007.cal
 Chk. Result

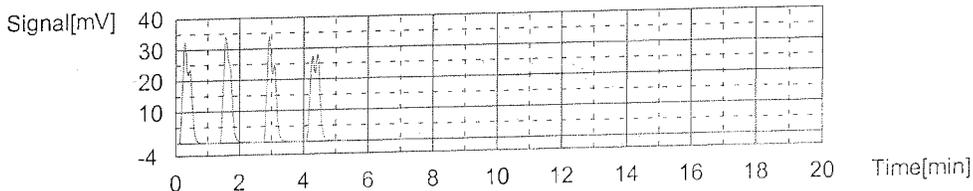
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:26.60 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.84	26.19mg/L	50uL			TCD007.2015_04_24_19_28_16.cal	04/25/15 03:03:53 AM
2	55.85	26.68mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:05:27 AM
3	56.70	27.08mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:06:58 AM
4	55.42	26.47mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:08:32 AM

Mean Area 55.70
 Mean Conc. 26.60mg/L



Sample

Sample Name: D157-19
 Sample ID: TCD007-36
 Origin: TCD007.cal
 Chk. Result

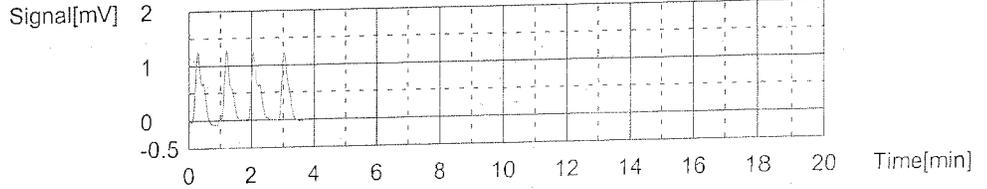
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9125 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.020	0.9648mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:15:58 AM
2	1.860	0.8884mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:17:02 AM
3	1.954	0.9333mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:18:11 AM
4	1.808	0.8635mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:19:16 AM

Mean Area 1.910
 Mean Conc. 0.9125mg/L



Control Sample

Sample Name: CCV3
 Sample ID: TCD007-37
 Method: Tcd007.tpl
 Chk. Result: Control value: 25.05 / Control exceeds range!

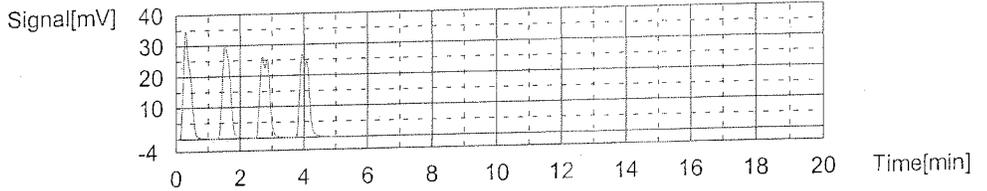
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.05 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.25	24.96mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:26:59 AM
2	52.16	24.91mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:28:21 AM
3	53.03	25.33mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:29:48 AM
4	52.39	25.02mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:31:15 AM

Mean Area 52.46
 Mean Conc. 25.05mg/L



Sample

Sample Name: CCB3
 Sample ID: TCD007-38
 Origin: TCD007.cal
 Chk. Result:

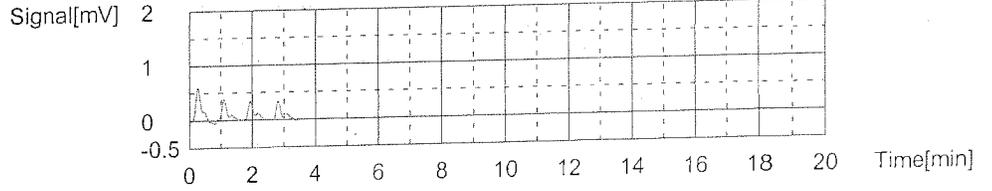
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2647 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8264	0.3947mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:44:59 AM
2	0.4105	0.1961mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:46:00 AM
3	0.4904	0.2342mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:47:05 AM
4	0.4896	0.2338mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:48:12 AM

Mean Area 0.5542
 Mean Conc. 0.2647mg/L



Sample

Sample Name: TCD008WB
 Sample ID: TCD007-39
 Origin: TCD007.cal
 Chk. Result

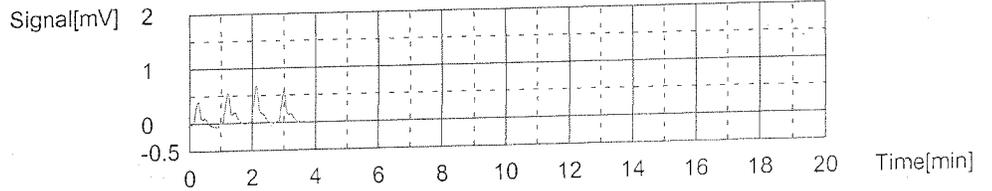
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3514 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5475	0.2615mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:53:35 AM
2	0.8049	0.3844mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:54:40 AM
3	0.8885	0.4244mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:55:45 AM
4	0.7017	0.3351mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 03:56:49 AM

Mean Area 0.7356
 Mean Conc. 0.3514mg/L



Sample

Sample Name: TCD008WL
 Sample ID: TCD007-40
 Origin: TCD007.cal
 Chk. Result

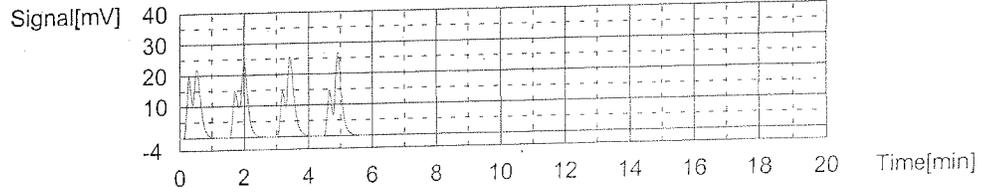
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.21 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.44	25.05mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:04:47 AM
2	52.85	25.24mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:06:26 AM
3	53.26	25.44mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:08:06 AM
4	52.54	25.09mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:09:46 AM

Mean Area 52.77
 Mean Conc. 25.21mg/L



Sample

Sample Name: TCD008WC
 Sample ID: TCD007.41
 Origin: TCD007.cal
 Chk. Result

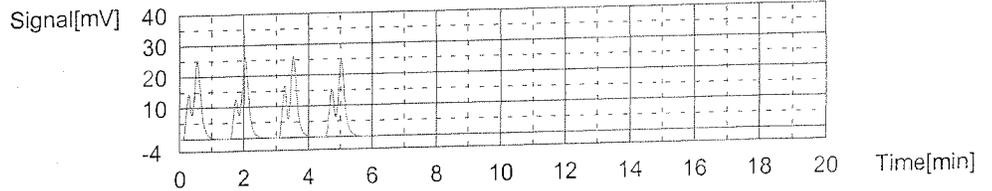
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.11 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.69	24.69mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:17:44 AM
2	52.57	25.11mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:19:26 AM
3	53.30	25.46mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:21:06 AM
4	52.75	25.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:22:50 AM

Mean Area 52.58
 Mean Conc. 25.11mg/L



Sample

Sample Name: D142-01
 Sample ID: TCD007.42
 Origin: TCD007.cal
 Chk. Result

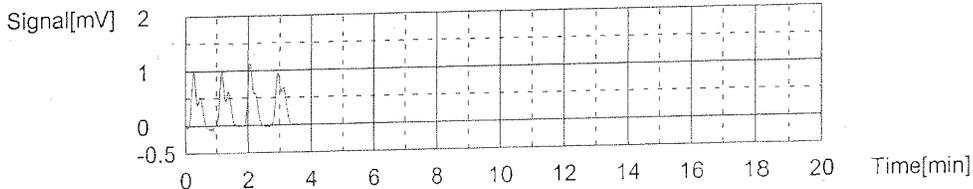
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7958 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.634	0.7804mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:30:16 AM
2	1.583	0.7561mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:31:20 AM
3	1.767	0.8440mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:32:25 AM
4	1.681	0.8029mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:33:30 AM

Mean Area 1.666
 Mean Conc. 0.7958mg/L



Sample

Sample Name: D142-02
 Sample ID: TCD007.43
 Origin: TCD007.cal
 Chk. Result

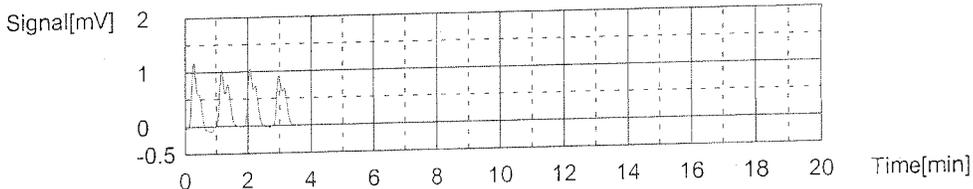
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8596 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.843	0.8803mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:40:54 AM
2	1.848	0.8826mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:41:59 AM
3	1.869	0.8927mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:43:06 AM
4	1.639	0.7828mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:44:10 AM

Mean Area 1.800
 Mean Conc. 0.8596mg/L



Sample

Sample Name: D142-03
 Sample ID: TCD007.44
 Origin: TCD007.cal
 Chk. Result

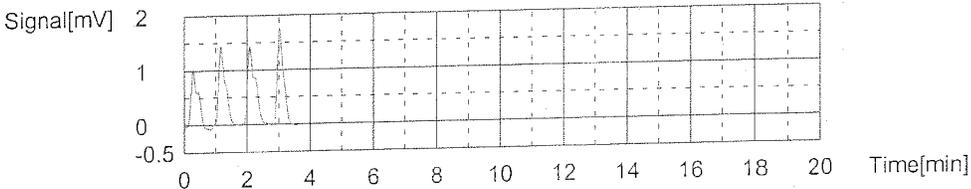
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.119 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.717	0.8201mg/L	50uL	1	E	TCD007.2015_04_24_19_28_16.cal	04/25/15 04:51:34 AM
2	2.184	1.043mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:52:41 AM
3	2.405	1.149mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:53:49 AM
4	2.439	1.165mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 04:54:52 AM

Mean Area 2.343
 Mean Conc. 1.119mg/L



Sample

Sample Name: D142-03M
 Sample ID: TCD007-45
 Origin: TCD007.cal
 Chk. Result

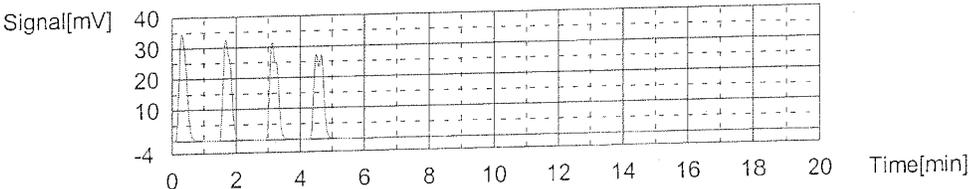
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:26.46 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.63	26.09mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:02:45 AM
2	55.58	26.55mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:04:23 AM
3	55.88	26.69mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:05:58 AM
4	55.50	26.51mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:07:33 AM

Mean Area 55.40
 Mean Conc. 26.46mg/L



Sample

Sample Name: D142-03S
 Sample ID: TCD007-46
 Origin: TCD007.cal
 Chk. Result

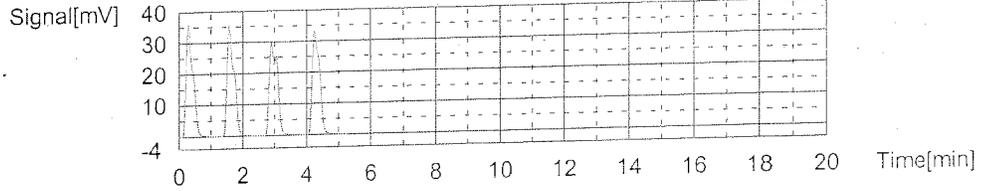
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.99 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.88	25.73mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:15:21 AM
2	54.61	26.08mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:16:52 AM
3	54.71	26.13mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:18:25 AM
4	54.42	25.99mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:19:56 AM

Mean Area 54.41
 Mean Conc. 25.99mg/L



Sample

Sample Name: D142-05
 Sample ID: TCD007.47
 Origin: TCD007.cal
 Chk. Result

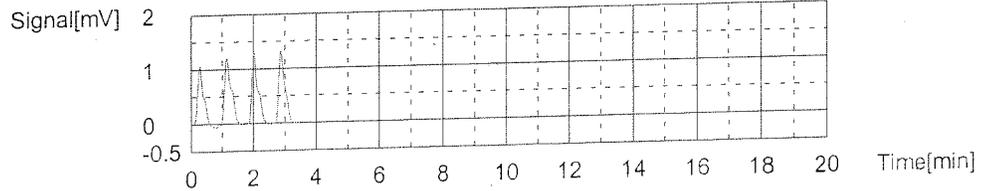
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8278 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.503	0.7179mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:27:19 AM
2	1.773	0.8468mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:28:23 AM
3	1.877	0.8965mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:29:27 AM
4	1.780	0.8502mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:30:31 AM

Mean Area 1.733
 Mean Conc. 0.8278mg/L



Sample

Sample Name: D142-07
 Sample ID: TCD007.48
 Origin: TCD007.cal
 Chk. Result

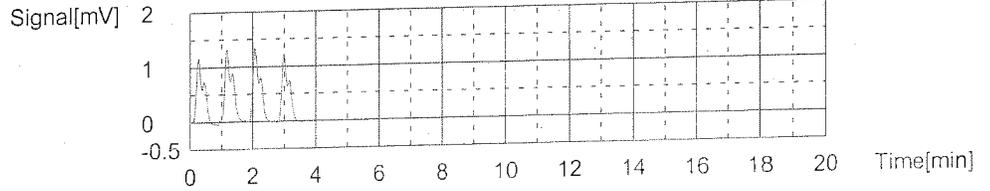
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9788 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.934	0.9237mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:37:56 AM
2	2.131	1.018mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:39:01 AM
3	2.182	1.042mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:40:09 AM
4	1.950	0.9314mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:41:12 AM

Mean Area 2.049
 Mean Conc. 0.9788mg/L



Control Sample

Sample Name: CCV4
 Sample ID: TCD007.49
 Method: Tcd007.tpl
 Chk. Result: Control value: 25.01 / Control exceeds range!

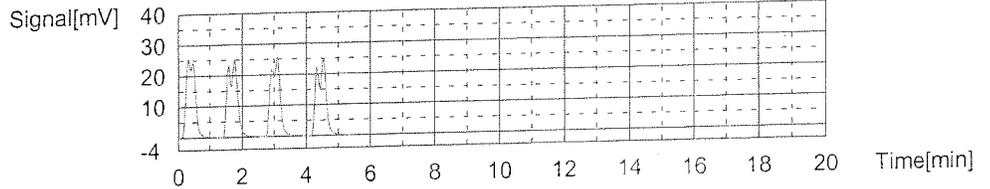
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.01 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.64	24.66mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:49:00 AM
2	52.50	25.08mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:50:33 AM
3	52.79	25.21mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:52:10 AM
4	52.56	25.10mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:53:40 AM

Mean Area 52.37
 Mean Conc. 25.01mg/L



Sample

Sample Name: CCB4
 Sample ID: TCD007.50
 Origin: TCD007.cal
 Chk. Result:

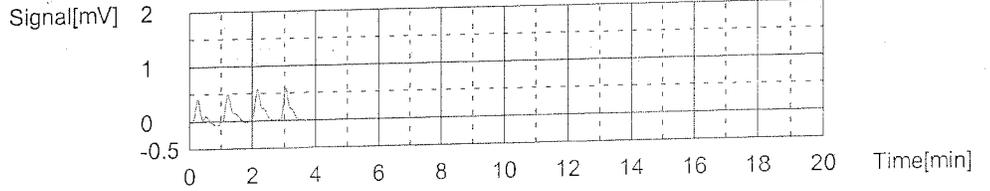
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3597 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5809	0.2775mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 05:59:03 AM
2	0.7566	0.3614mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:00:11 AM
3	0.8274	0.3952mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:01:16 AM
4	0.8476	0.4048mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:02:24 AM

Mean Area 0.7531
 Mean Conc. 0.3597mg/L



Sample

Sample Name: D142-09
 Sample ID: TCD007-51
 Origin: TCD007.cal
 Chk. Result

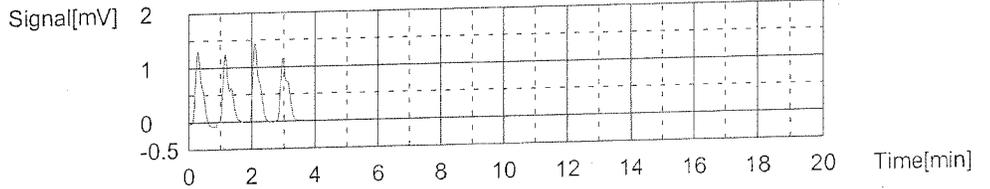
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9359 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.945	0.9290mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:18:27 AM
2	1.910	0.9123mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:19:35 AM
3	2.062	0.9849mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:20:39 AM
4	1.921	0.9175mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:21:43 AM

Mean Area 1.960
 Mean Conc. 0.9359mg/L



Sample

Sample Name: D156-01
 Sample ID: TCD007-52
 Origin: TCD007.cal
 Chk. Result

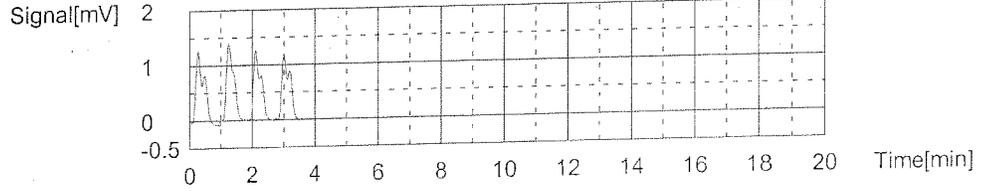
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.064 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.339	1.117mg/L	50uL			TCD007.2015_04_24_19_28_16.cal	04/25/15 06:29:12 AM
2	2.304	1.100mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:30:16 AM
3	2.144	1.024mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:31:22 AM
4	2.123	1.014mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:32:28 AM

Mean Area 2.228
 Mean Conc. 1.064mg/L



Sample

Sample Name: D156-02
 Sample ID: TCD007-53
 Origin: TCD007.cal
 Chk. Result

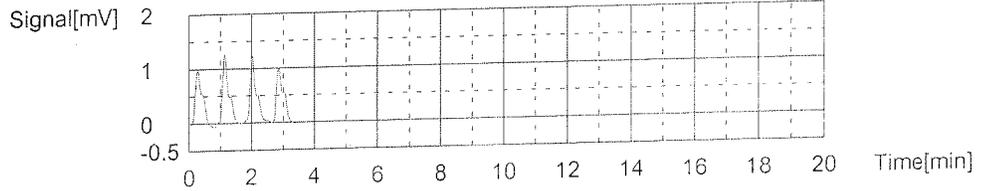
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7813 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.603	0.7656mg/L	50uL			TCD007.2015_04_24_19_28_16.cal	04/25/15 06:39:51 AM
2	1.709	0.8163mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:40:56 AM
3	1.620	0.7738mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:41:58 AM
4	1.611	0.7695mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:43:02 AM

Mean Area 1.636
 Mean Conc. 0.7813mg/L



Sample

Sample Name: D156-03
 Sample ID: TCD007-54
 Origin: TCD007.cal
 Chk. Result

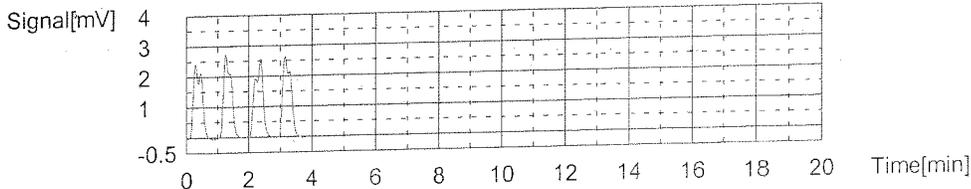
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.280 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.717	2.253mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:50:31 AM
2	4.781	2.284mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:51:40 AM
3	4.695	2.242mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:52:48 AM
4	4.898	2.339mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 06:53:57 AM

Mean Area 4.773
 Mean Conc. 2.280mg/L



Sample

Sample Name: D156-05
 Sample ID: TCD007-55
 Origin: TCD007.cal
 Chk. Result

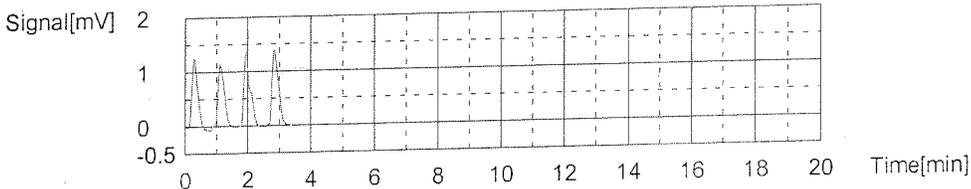
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8798 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.709	0.8163mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:01:18 AM
2	1.688	0.8062mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:02:20 AM
3	1.943	0.9280mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:03:25 AM
4	2.028	0.9686mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:04:26 AM

Mean Area 1.842
 Mean Conc. 0.8798mg/L



Sample

Sample Name: D156-06
 Sample ID: TCD007-56
 Origin: TCD007.cal
 Chk. Result

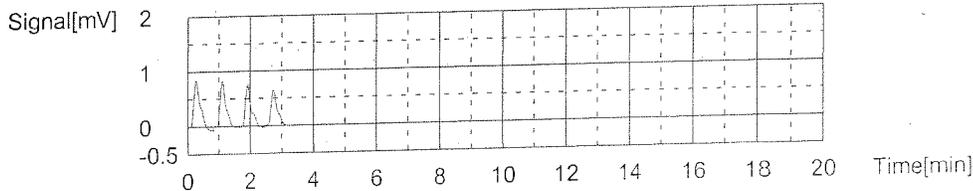
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4998 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.216	0.5808mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:11:47 AM
2	1.067	0.5096mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:12:48 AM
3	1.021	0.4877mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:13:49 AM
4	0.8820	0.4213mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:14:52 AM

Mean Area 1.047
 Mean Conc. 0.4998mg/L



Sample

Sample Name: D156-07
 Sample ID: TCD007-57
 Origin: TCD007.cal
 Chk. Result

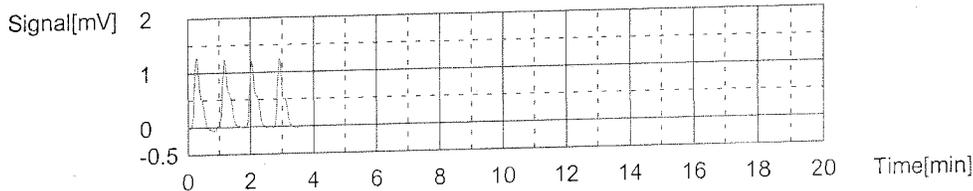
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8455 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.825	0.8717mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:22:18 AM
2	1.801	0.8602mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:23:22 AM
3	1.716	0.8196mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:24:27 AM
4	1.739	0.8306mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:25:31 AM

Mean Area 1.770
 Mean Conc. 0.8455mg/L



Sample

Sample Name: D156-08
 Sample ID: TCD007-58
 Origin: TCD007.cal
 Chk. Result

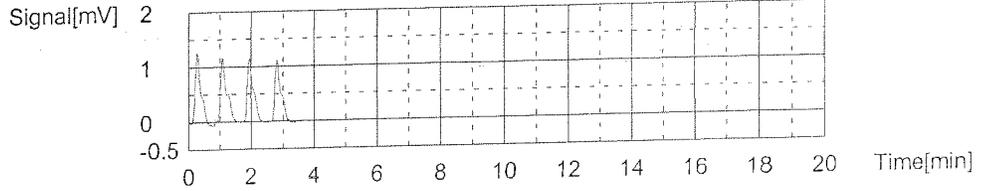
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7843 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.669	0.7972mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:32:52 AM
2	1.649	0.7876mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:33:55 AM
3	1.652	0.7890mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:34:59 AM
4	1.598	0.7632mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:36:04 AM

Mean Area 1.642
 Mean Conc. 0.7843mg/L



Sample

Sample Name: D156-10
 Sample ID: TCD007-59
 Origin: TCD007.cal
 Chk. Result

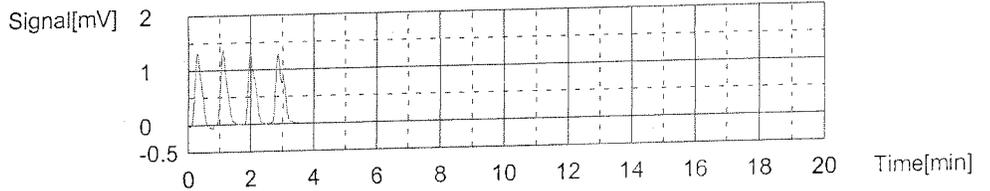
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9678 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.954	0.9333mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:43:25 AM
2	1.978	0.9447mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:44:30 AM
3	2.056	0.9820mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:45:34 AM
4	2.117	1.011mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:46:43 AM

Mean Area 2.026
 Mean Conc. 0.9678mg/L



Sample

Sample Name: D156-11
 Sample ID: TCD007-60
 Origin: TCD007.cal
 Chk. Result

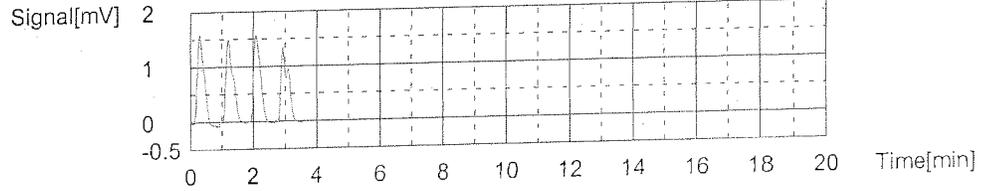
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.129 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.407	1.150mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:54:09 AM
2	2.352	1.123mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:55:14 AM
3	2.422	1.157mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:56:17 AM
4	2.272	1.085mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 07:57:22 AM

Mean Area 2.363
 Mean Conc. 1.129mg/L



Control Sample

Sample Name: CCV5
 Sample ID: TCD007-61
 Method: Tcd007.tpl
 Chk. Result: Control value: 25.13 / Control exceeds range!

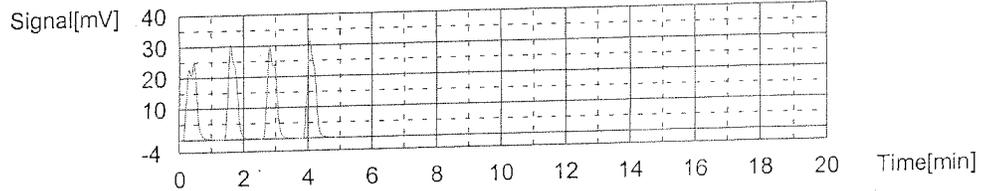
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.13 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.40	24.55mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:05:12 AM
2	52.73	25.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:06:37 AM
3	53.49	25.55mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:08:03 AM
4	52.87	25.25mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:09:25 AM

Mean Area 52.62
 Mean Conc. 25.13mg/L



Sample

Sample Name: CCB5
 Sample ID: TCD007-62
 Origin: TCD007.cal
 Chk. Result:

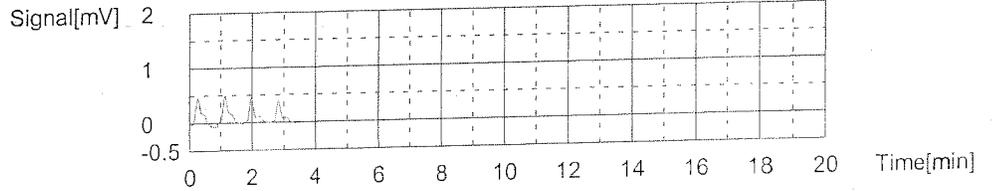
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2819 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6758	0.3228mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:14:44 AM
2	0.6666	0.3184mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:15:46 AM
3	0.5491	0.2623mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:16:49 AM
4	0.4696	0.2243mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:17:53 AM

Mean Area 0.5903
 Mean Conc. 0.2819mg/L



Sample

Sample Name: D144-01
 Sample ID: TCD007-63
 Origin: TCD007.cal
 Chk. Result

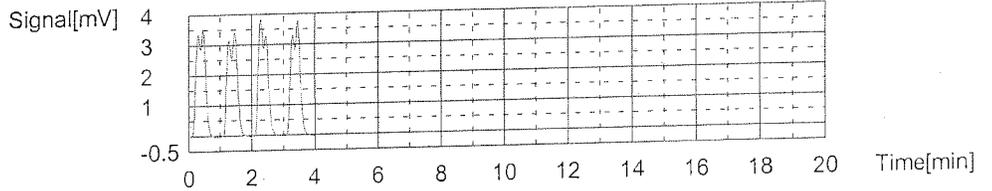
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.471 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.202	3.440mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:34:05 AM
2	7.252	3.464mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:35:17 AM
3	7.260	3.468mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:36:29 AM
4	7.359	3.515mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:37:41 AM

Mean Area 7.268
 Mean Conc. 3.471mg/L



Sample

Sample Name: D144-03
 Sample ID: TCD007-64
 Origin: TCD007.cal
 Chk. Result

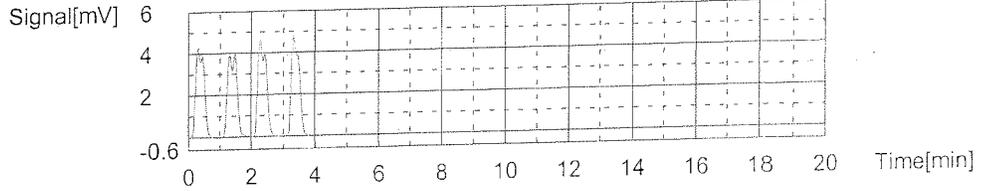
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.960 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.179	3.906mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:45:14 AM
2	8.156	3.896mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:46:24 AM
3	8.438	4.030mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:47:39 AM
4	8.387	4.006mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:48:50 AM

Mean Area 8.290
 Mean Conc. 3.960mg/L



Sample

Sample Name: D144-04
 Sample ID: TCD007-65
 Origin: TCD007.cal
 Chk. Result

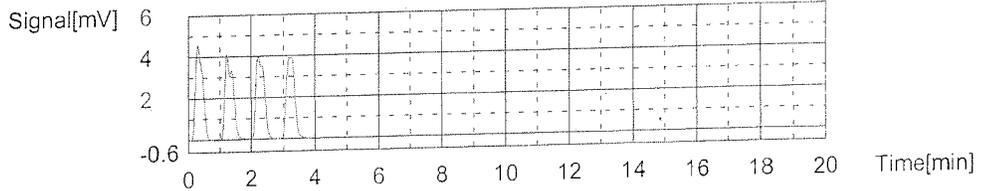
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.541 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.444	3.555mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:56:18 AM
2	7.366	3.518mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:57:29 AM
3	7.407	3.538mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:58:37 AM
4	7.437	3.552mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 08:59:50 AM

Mean Area 7.414
 Mean Conc. 3.541mg/L



Sample

Sample Name: D144-04D
 Sample ID: TCD007-66
 Origin: TCD007.cal
 Chk. Result

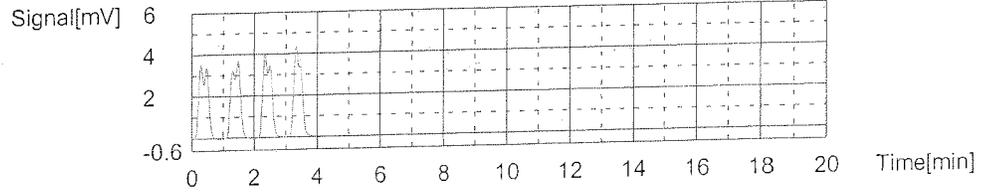
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.515 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.187	3.433mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:07:22 AM
2	7.330	3.501mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:08:36 AM
3	7.442	3.554mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:09:46 AM
4	7.482	3.574mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:10:58 AM

Mean Area 7.360
 Mean Conc. 3.515mg/L



Sample

Sample Name: D144-04M
 Sample ID: TCD007-67
 Origin: TCD007.cal
 Chk. Result

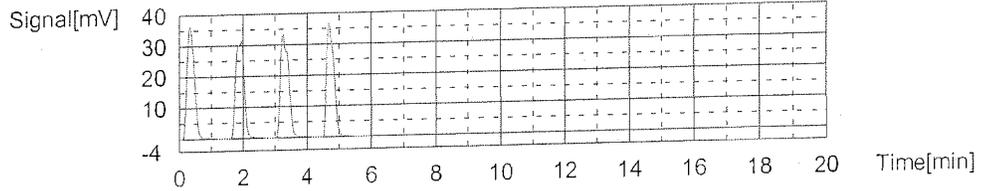
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:28.67 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	59.39	28.37mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:19:01 AM
2	59.98	28.65mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:20:38 AM
3	60.27	28.79mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:22:17 AM
4	60.45	28.87mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:24:01 AM

Mean Area 60.02
 Mean Conc. 28.67mg/L



Sample

Sample Name: D583-01
 Sample ID: TCD007-68
 Origin: TCD007.cal
 Chk. Result

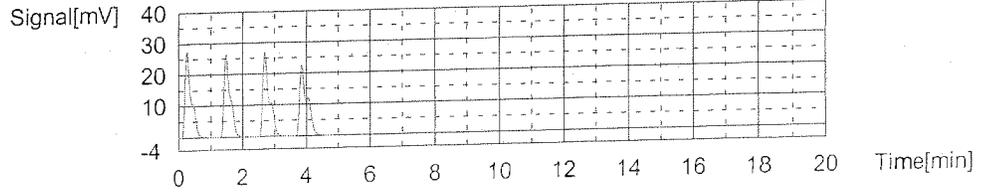
Type	Anal.	Dil.	Result
Unknown	NPOC	20.00	NPOC:360.3 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.83	361.4mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:42:47 AM
2	37.54	358.6mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:44:13 AM
3	38.07	363.7mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:45:34 AM
4	37.42	357.5mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:47:00 AM

Mean Area 37.72
 Mean Conc. 360.3mg/L



Sample

Sample Name: TCD009WL
 Sample ID: TCD007-69
 Origin: TCD007.cal
 Chk. Result

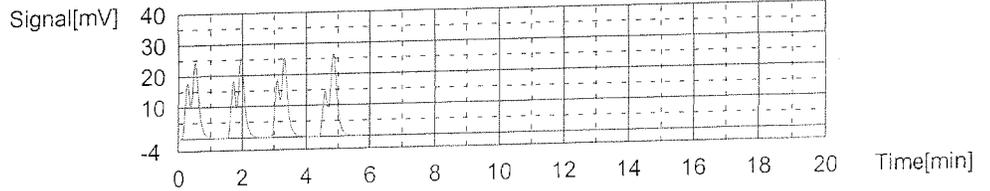
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.43 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.15	24.91mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:54:58 AM
2	53.40	25.51mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:56:32 AM
3	53.75	25.67mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:58:14 AM
4	53.68	25.64mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 09:59:53 AM

Mean Area 53.25
 Mean Conc. 25.43mg/L



Sample

Sample Name: TCD009WC
 Sample ID: TCD007-70
 Origin: TCD007.cal
 Chk. Result

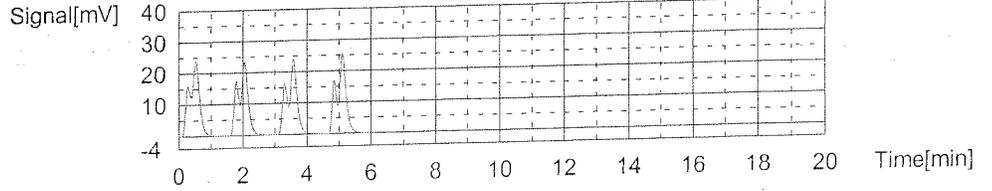
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:25.30 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.37	25.01mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:07:55 AM
2	52.83	25.23mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:09:37 AM
3	53.62	25.61mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:11:24 AM
4	53.10	25.36mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:13:06 AM

Mean Area 52.98
 Mean Conc. 25.30mg/L



Sample

Sample Name: TCD009WB
 Sample ID: TCD007-71
 Origin: TCD007.cal
 Chk. Result

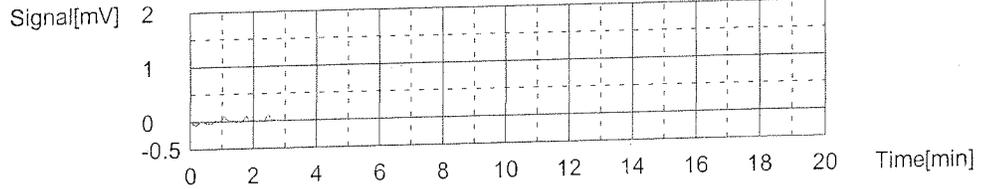
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.04007 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.06860	0.03277mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:20:21 AM
2	0.08470	0.04045mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:21:15 AM
3	0.09510	0.04542mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:22:10 AM
4	0.08720	0.04165mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:23:04 AM

Mean Area 0.08390
 Mean Conc. 0.04007mg/L



Control Sample

Sample Name: CCV6
 Sample ID: TCD007-72
 Method: Tcd007.tpl
 Chk. Result: Control value: 25.22 / Control exceeds range!

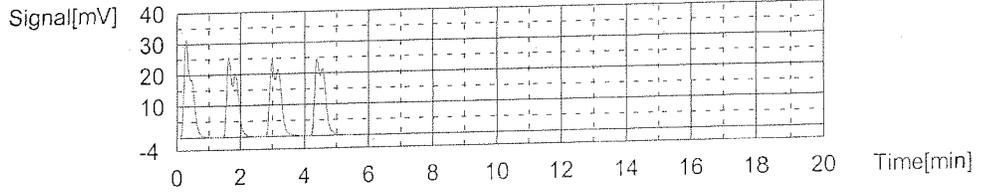
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.22 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.58	25.11mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:30:58 AM
2	52.49	25.07mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:32:30 AM
3	53.51	25.56mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:34:07 AM
4	52.63	25.14mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:35:43 AM

Mean Area 52.80
 Mean Conc. 25.22mg/L



Sample

Sample Name: CCB6
 Sample ID: TCD007-73
 Origin: TCD007.cal
 Chk. Result

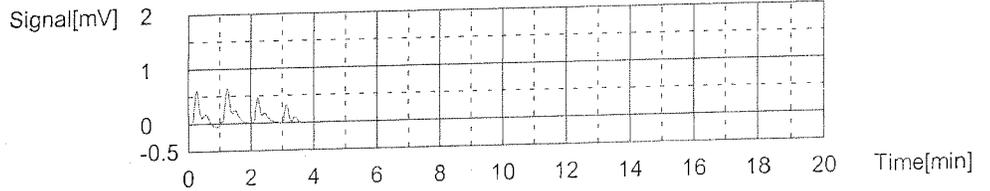
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3420 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8967	0.4283mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:41:09 AM
2	0.9133	0.4362mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:42:20 AM
3	0.6351	0.3033mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:43:28 AM
4	0.4188	0.2000mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 10:44:31 AM

Mean Area 0.7160
 Mean Conc. 0.3420mg/L



Sample

Sample Name: D160-01
 Sample ID: TCD007-74
 Origin: TCD007.cal
 Chk. Result

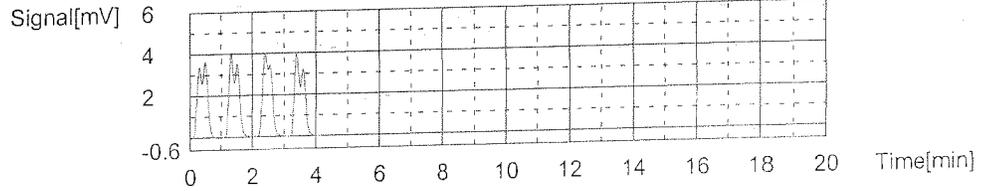
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.695 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.739	3.696mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 11:00:52 AM
2	7.955	3.800mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 11:02:07 AM
3	7.703	3.679mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 11:03:20 AM
4	7.549	3.606mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 11:04:35 AM

Mean Area 7.737
 Mean Conc. 3.695mg/L



Sample

Sample Name: D160-03
 Sample ID: TC0007-75
 Origin: TC0007.cal
 Chk. Result

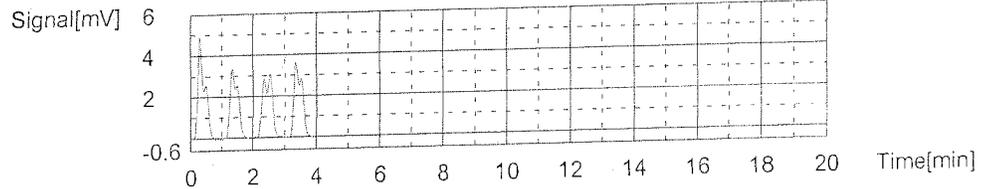
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.970 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.487	3.576mg/L	50uL	1	E	TC0007.2015_04_24_19_28_16.cal	04/25/15 11:12:10 AM
2	6.018	2.874mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 11:13:23 AM
3	6.206	2.964mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 11:14:36 AM
4	6.433	3.073mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 11:15:45 AM

Mean Area 6.219
 Mean Conc. 2.970mg/L



Sample

Sample Name: D160-04
 Sample ID: TC0007-76
 Origin: TC0007.cal
 Chk. Result

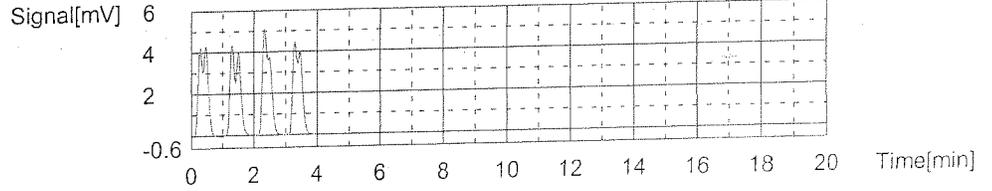
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.159 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.837	4.221mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:23:19 AM
2	8.706	4.158mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:24:33 AM
3	8.632	4.123mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:25:42 AM
4	8.654	4.133mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:26:54 AM

Mean Area 8.707
 Mean Conc. 4.159mg/L



Sample

Sample Name: D160-04D
 Sample ID: TCD007-77
 Origin: TCD007.cal
 Chk. Result

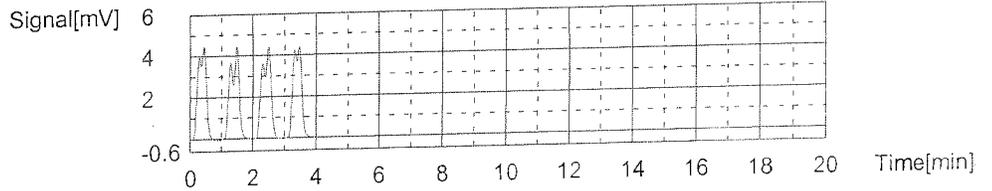
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.048 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.451	4.036mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:34:27 AM
2	8.346	3.986mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:35:40 AM
3	8.534	4.076mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:36:53 AM
4	8.573	4.095mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 11:38:05 AM

Mean Area 8.476
 Mean Conc. 4.048mg/L



Sample

Sample Name: D160-04M
 Sample ID: TCD007-78
 Origin: TCD007.cal
 Chk. Result

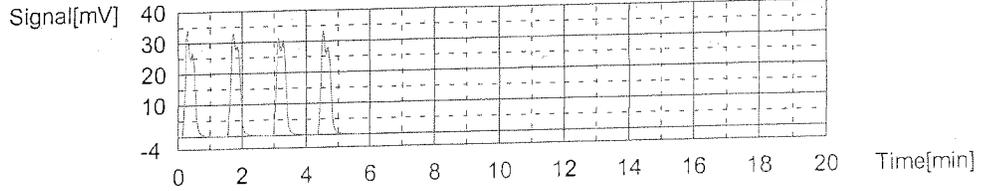
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:29.06 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	59.96	28.64mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 11:46:04 AM
2	60.56	28.92mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 11:47:41 AM
3	61.61	29.43mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 11:49:17 AM
4	61.20	29.23mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 11:50:57 AM

Mean Area 60.83
 Mean Conc. 29.06mg/L



Sample

Sample Name: D169-01
 Sample ID: TC0007-79
 Origin: TC0007.cal
 Chk. Result

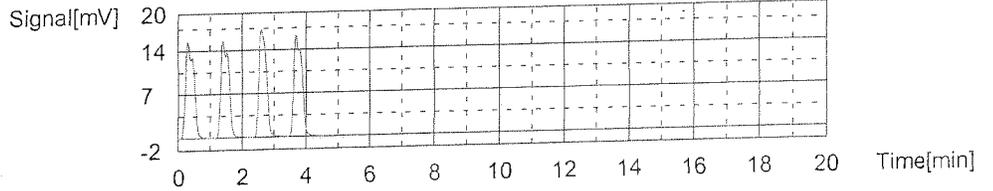
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:13.57 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.69	13.23mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 11:58:36 AM
2	28.17	13.45mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 12:00:00 PM
3	28.85	13.78mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 12:01:17 PM
4	28.91	13.81mg/L	50uL	1		TC0007.2015_04_24_19_28_16.cal	04/25/15 12:02:39 PM

Mean Area 28.41
 Mean Conc. 13.57mg/L



Sample

Sample Name: D169-02
 Sample ID: TC0007-80
 Origin: TC0007.cal
 Chk. Result

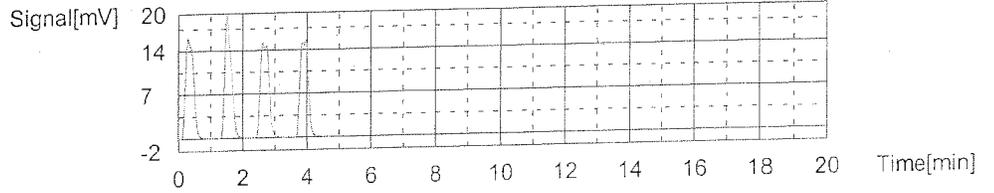
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:13.68 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.07	13.41mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:10:25 PM
2	28.77	13.74mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:11:42 PM
3	28.81	13.76mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:13:08 PM
4	28.93	13.82mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:14:30 PM

Mean Area 28.65
 Mean Conc. 13.68mg/L



Sample

Sample Name: D169-04
 Sample ID: TCD007-81
 Origin: TCD007.cal
 Chk. Result

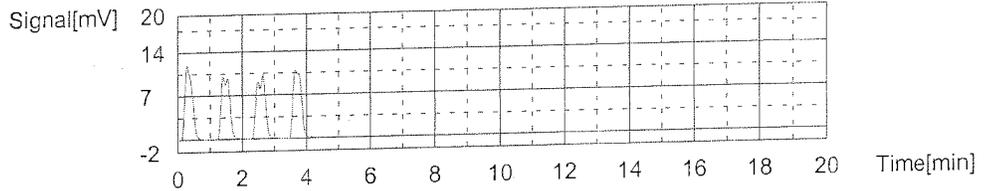
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:9.378 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.33	9.232mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:22:09 PM
2	19.33	9.232mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:23:25 PM
3	19.84	9.476mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:24:46 PM
4	20.04	9.572mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:26:03 PM

Mean Area 19.64
 Mean Conc. 9.378mg/L



Sample

Sample Name: D169-05
 Sample ID: TCD007-82
 Origin: TCD007.cal
 Chk. Result

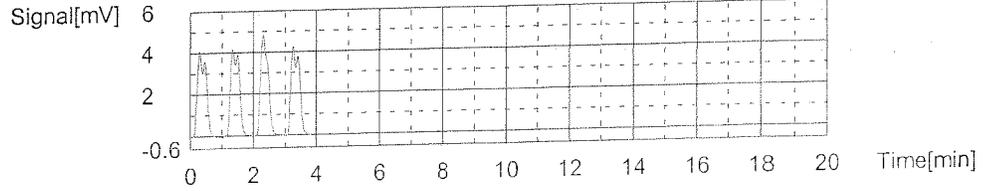
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.819 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.976	3.810mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:33:39 PM
2	8.013	3.827mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:34:47 PM
3	7.980	3.811mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:35:57 PM
4	8.017	3.829mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:37:07 PM

Mean Area 7.997
 Mean Conc. 3.819mg/L



Sample

Sample Name: D584-01I
 Sample ID: TCD007-83
 Origin: TCD007.cal
 Chk. Result

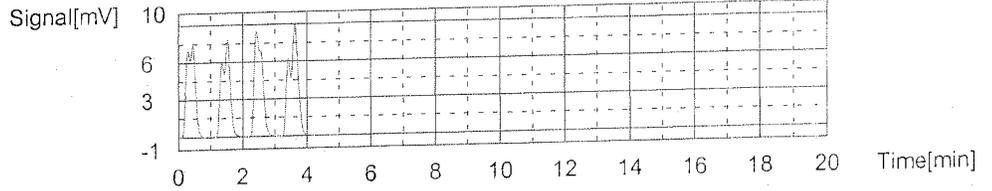
Type	Anal.	Dil.	Result
Unknown	NPOC	5.000	NPOC:37.02 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.71	35.13mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:44:43 PM
2	14.44	34.48mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:45:59 PM
3	14.99	35.80mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:47:11 PM
4	17.87	42.68mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:48:31 PM

Mean Area 15.50
 Mean Conc. 37.02mg/L



Control Sample

Sample Name: CCV7
 Sample ID: TCD007-84
 Method: Tcd007.tpl
 Chk. Result: Control value: 25.26 / Control exceeds range!

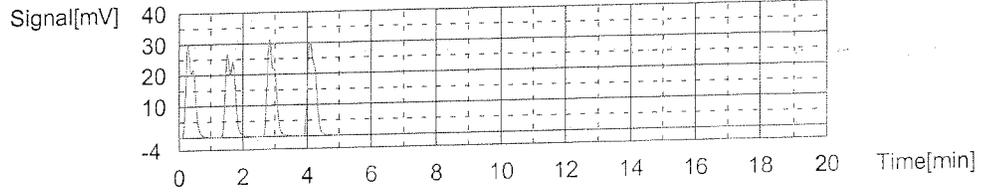
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:25.26 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.16	24.91mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:56:17 PM
2	52.74	25.19mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:57:47 PM
3	53.49	25.55mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 12:59:14 PM
4	53.18	25.40mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:00:39 PM

Mean Area 52.89
 Mean Conc. 25.26mg/L



Sample

Sample Name: CCB7
 Sample ID: TCD007-85
 Origin: TCD007.cal
 Chk. Result

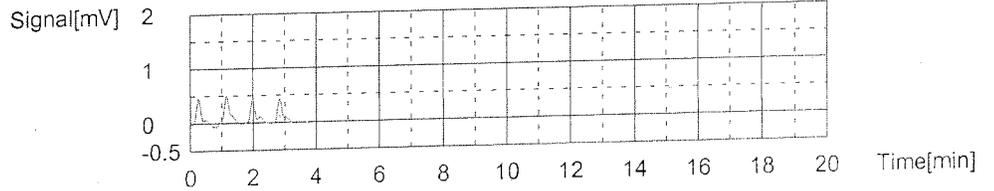
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2665 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5357	0.2559mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:14:24 PM
2	0.6261	0.2990mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:15:26 PM
3	0.5041	0.2408mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:16:29 PM
4	0.5662	0.2704mg/L	50uL	1		TCD007.2015_04_24_19_28_16.cal	04/25/15 01:17:30 PM

Mean Area 0.5580
 Mean Conc. 0.2665mg/L



CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D157

METHOD SM3500
FERROUS IRON

A total of fourteen (14) water samples were received on 04/23/15 to be analyzed for Ferrous Iron in accordance with Method SM3500 and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

Calibration was performed as prescribed by the method and was verified using a secondary source (ICV). All calibration requirements were within acceptance criteria.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. Ferrous Iron was not detected in FED003WB. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. Ferrous Iron was within LCS QC limits in FED003WL/FED003WC. Refer to LCS summary form for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of MS/MSD was analyzed. Ferrous Iron was within MS QC limits in D157-17M/S. Sample duplicate was analyzed and RPD was within expected value. Refer to Matrix QC summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

SM3500
FERROUS IRON

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D157

Matrix : WATER
InstrumentID : 70

CLIENT SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DFxPREP FACTOR (%)	MOIST RL (mg/L)	MDL (mg/L)	ANALYSIS DATETIME	PREPARATION DATETIME	DATA FILE ID	CAL REF	PREP BATCH	COLLECTION DATETIME	RECEIVED DATETIME	
MBLK1W	FED003WB	ND	1	NA	2	0.5	04/24/1511:57	NA	15FED00309	15FED003	FED003W	NA	NA
LCS1W	FED003WL	14.9	1	NA	2	0.5	04/24/1511:57	NA	15FED00310	15FED003	FED003W	NA	NA
LCD1W	FED003WC	14.8	1	NA	2	0.5	04/24/1511:57	NA	15FED00311	15FED003	FED003W	NA	NA
04-22-15-PWB-16	D157-01	ND	1	NA	2	0.5	04/24/1511:58	NA	15FED00312	15FED003	FED003W	04/22/1508:00	04/23/15
04-22-15-PWB-14	D157-02	ND	1	NA	2	0.5	04/24/1511:58	NA	15FED00313	15FED003	FED003W	04/22/1508:42	04/23/15
04-22-15-AMW-4R	D157-04	ND	1	NA	2	0.5	04/24/1511:58	NA	15FED00314	15FED003	FED003W	04/22/1509:45	04/23/15
04-22-15-PWB-12	D157-05	ND	1	NA	2	0.5	04/24/1511:58	NA	15FED00315	15FED003	FED003W	04/22/1510:45	04/23/15
04-22-15-PWB-7A	D157-07	ND	1	NA	2	0.5	04/24/1511:58	NA	15FED00316	15FED003	FED003W	04/22/1510:15	04/23/15
04-22-15-PWB-15	D157-08	ND	1	NA	2	0.5	04/24/1511:59	NA	15FED00317	15FED003	FED003W	04/22/1511:25	04/23/15
04-22-15-WB2-2	D157-09	ND	1	NA	2	0.5	04/24/1511:59	NA	15FED00318	15FED003	FED003W	04/22/1510:40	04/23/15
04-22-15-PWB-4	D157-11	ND	1	NA	2	0.5	04/24/1512:11	NA	15FED00321	15FED003	FED003W	04/22/1511:50	04/23/15
04-22-15-FDUP-4	D157-12	ND	1	NA	2	0.5	04/24/1512:11	NA	15FED00322	15FED003	FED003W	04/22/1512:05	04/23/15
04-22-15-WB2-1	D157-13	ND	1	NA	2	0.5	04/24/1512:11	NA	15FED00323	15FED003	FED003W	04/22/1512:55	04/23/15
04-22-15-PWB-9	D157-14	ND	1	NA	2	0.5	04/24/1512:11	NA	15FED00324	15FED003	FED003W	04/22/1513:05	04/23/15
04-22-15-WB2-4	D157-16	ND	1	NA	2	0.5	04/24/1512:12	NA	15FED00325	15FED003	FED003W	04/22/1512:27	04/23/15
04-22-15-PWB-10	D157-17	ND	1	NA	2	0.5	04/24/1512:12	NA	15FED00326	15FED003	FED003W	04/22/1513:35	04/23/15
04-22-15-PWB-10DUP	D157-17D	ND	1	NA	2	0.5	04/24/1512:12	NA	15FED00327	15FED003	FED003W	04/22/1513:35	04/23/15
04-22-15-PWB-10MS	D157-17M	14.8	1	NA	2	0.5	04/24/1512:12	NA	15FED00328	15FED003	FED003W	04/22/1513:35	04/23/15
04-22-15-PWB-10MSD	D157-17S	14.9	1	NA	2	0.5	04/24/1512:12	NA	15FED00329	15FED003	FED003W	04/22/1513:35	04/23/15
04-22-15-PWB-5	D157-19	ND	1	NA	2	0.5	04/24/1512:12	NA	15FED00330	15FED003	FED003W	04/22/1514:45	04/23/15

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : B & B GROUNDWATER SAMPLING
BATCH NO. : 15D157
METHOD : SM3500

MATRIX : WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID : MBLK1W LCS1W LCD1W
LAB SAMPLE ID : FED003WB FED003WL FED003WC
LAB FILE ID : 15FED00309 15FED00310 15FED00311
DATE PREPARED : NA NA NA
DATE ANALYZED : 04/24/1511:57 04/24/1511:57 04/24/1511:57
PREP BATCH : FED003W FED003W FED003W
CALIBRATION REF: 15FED003 15FED003 15FED003

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	14.8	99	1	80-120	20

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : B & B GROUNDWATER SAMPLING
BATCH NO. : 15D157
METHOD : SM3500

MATRIX	: WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	1		1
SAMPLE ID	: 04-22-15-PWB-10	04-22-15-PWB-10MS		04-22-15-PWB-10MSD
LAB SAMPLE ID	: D157-17	D157-17M		D157-17S
LAB FILE ID	: 15FED00326	15FED00328		15FED00329
DATE PREPARED	: NA	NA		NA
DATE ANALYZED	: 04/24/1512:12	04/24/1512:12		04/24/1512:12
PREP BATCH	: FED003W	FED003W		FED003W
CALIBRATION REF:	15FED003	15FED003		15FED003

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.B	99	15	14.9	99	0.7	75-125	20

EMAX QUALITY CONTROL DATA
SAMPLE DUPLICATE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : B & B GROUNDWATER SAMPLING
BATCH NO. : 15D157
METHOD : SM3500

MATRIX : WATER
DILUTION FACTOR: 1 1
SAMPLE ID : 04-22-15-PWB-10 04-22-15-PWB-10DUP
LAB SAMPLE ID : D157-17 D157-17D
LAB FILE ID : 15FED00326 15FED00327
DATE PREPARED : NA NA
DATE ANALYZED : 04/24/1512:12 04/24/1512:12
PREP BATCH : FED003W FED003W
CALIBRATION REF: 15FED003 15FED003

ACCESSION:

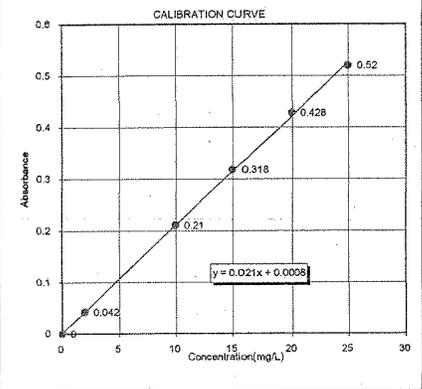
PARAMETER	PARENT RESULT (mg/L)	DUP RESULT (mg/L)	RPD (%)	MAX RPD (%)
----- Ferrous Iron	ND	ND	0	20



FERROUS IRON ANALYSIS

Date/ID	LabSampleID	Result	Flag	RUnit	SampleAmt	SUnit	PDate/Time	FinalVol (ml)	WL	Abs	ADate/Time	Sample Bknd	DF	%M	Conc.	DFxPrep Factor	Notes	Analyst	Sample pH	Coloring Time
15FED00309	FED003WB	ND		mg/L	10	mL	NA	10	510nm	0	4/24/15 11:57	0	1		-0.03826	1		TKosak		4/24/15 11:51
15FED00310	FED003WL	14.9		mg/L	10	mL	NA	10	510nm	0.314	4/24/15 11:57	0	1		14.90251	1		TKosak		4/24/15 11:51
15FED00311	FED003WC	14.81		mg/L	10	mL	NA	10	510nm	0.312	4/24/15 11:57	0	1		14.80734	1		TKosak		4/24/15 11:51
15FED00312	D157-01	ND		mg/L	10	mL	NA	10	510nm	0	4/24/15 11:58	0	1		-0.03826	1		TKosak	7	4/24/15 11:51
15FED00313	D157-02	ND		mg/L	10	mL	NA	10	510nm	0.001	4/24/15 11:58	0	1		0.009322	1		TKosak	7	4/24/15 11:51
15FED00314	D157-04	ND		mg/L	10	mL	NA	10	510nm	0	4/24/15 11:58	0	1		-0.03826	1		TKosak	7	4/24/15 11:51
15FED00315	D157-05	ND		mg/L	10	mL	NA	10	510nm	0.002	4/24/15 11:58	0	1		0.056904	1		TKosak	7	4/24/15 11:51
15FED00316	D157-07	ND		mg/L	10	mL	NA	10	510nm	0	4/24/15 11:58	0	1		-0.03826	1		TKosak	7	4/24/15 11:51
15FED00317	D157-08	ND		mg/L	10	mL	NA	10	510nm	0.005	4/24/15 11:59	0	1		0.19965	1		TKosak	7	4/24/15 11:51
15FED00318	D157-09	ND		mg/L	10	mL	NA	10	510nm	0	4/24/15 11:59	0	1		-0.03826	1		TKosak	7	4/24/15 11:51
15FED00319	CCV1	14.82		mg/L	10	mL	NA	10	510nm	0.308	4/24/15 11:59	0	1		14.61701	1		TKosak		4/24/15 11:51
15FED00320	CCB1	ND		mg/L	10	mL	NA	10	510nm	0	4/24/15 11:59	0	1		-0.03826	1		TKosak		4/24/15 11:51
15FED00321	D157-11	ND		mg/L	10	mL	NA	10	510nm	0	4/24/15 12:11	0	1		-0.03826	1		TKosak	7	4/24/15 12:05
15FED00322	D157-12	ND		mg/L	10	mL	NA	10	510nm	0	4/24/15 12:11	0	1		-0.03826	1		TKosak	7	4/24/15 12:05
15FED00323	D157-13	ND		mg/L	10	mL	NA	10	510nm	0	4/24/15 12:11	0	1		-0.03826	1		TKosak	7	4/24/15 12:05
15FED00324	D157-14	ND		mg/L	10	mL	NA	10	510nm	0.001	4/24/15 12:11	0	1		0.009322	1		TKosak	7	4/24/15 12:05
15FED00325	D157-16	ND		mg/L	10	mL	NA	10	510nm	0	4/24/15 12:12	0	1		-0.03826	1		TKosak	7	4/24/15 12:05
15FED00326	D157-17	ND		mg/L	10	mL	NA	10	510nm	0	4/24/15 12:12	0	1		-0.03826	1		TKosak	7	4/24/15 12:05
15FED00327	D157-17D	ND		mg/L	10	mL	NA	10	510nm	0	4/24/15 12:12	0	1		-0.03826	1		TKosak	7	4/24/15 12:05
15FED00328	D157-17M	14.76		mg/L	10	mL	NA	10	510nm	0.311	4/24/15 12:12	0	1		14.75976	1		TKosak	7	4/24/15 12:05
15FED00329	D157-17S	14.9		mg/L	10	mL	NA	10	510nm	0.314	4/24/15 12:12	0	1		14.90251	1		TKosak	7	4/24/15 12:05
15FED00330	D157-19	ND		mg/L	10	mL	NA	10	510nm	0.004	4/24/15 12:12	0	1		0.152068	1		TKosak	7	4/24/15 12:05
15FED00331	CCV2	14.62		mg/L	10	mL	NA	10	510nm	0.308	4/24/15 12:13	0	1		14.61701	1		TKosak		4/24/15 12:05
15FED00332	CCB2	ND		mg/L	10	mL	NA	10	510nm	0	4/24/15 12:13	0	1		-0.03826	1		TKosak		4/24/15 12:05

Data File Name	Calibration ID	Conc. mg/L	WL	Abs	CalDate	FC	%Rec	Coloring Time	FC = $[(A * CF) - Y] * DF$	InstrumentID: 70
15FED00301	S0	0	510nm	0	4/24/15 11:42	-0.038258856	ND	4/24/15 11:36		
15FED00302	S1	2	510nm	0.042	4/24/15 11:43	1.960186444	98	4/24/15 11:36		
15FED00303	S2	10	510nm	0.21	4/24/15 11:43	9.953971645	100	4/24/15 11:36		
15FED00304	S3	15	510nm	0.318	4/24/15 11:43	15.09283356	101	4/24/15 11:36		
15FED00305	S4	20	510nm	0.428	4/24/15 11:43	20.32685958	102	4/24/15 11:36		
15FED00306	S5	25	510nm	0.52	4/24/15 11:43	24.70440862	99	4/24/15 11:36		
15FED00307	ICV	15	510nm	0.308	4/24/15 11:44	14.66459507	98 ✓	4/24/15 11:36		
15FED00308	ICB	0	510nm	0	4/24/15 11:44	-0.038258856	ND ✓	4/24/15 11:36		
15FED00319	CCV1	15	510nm	0.308	4/24/15 11:50	14.61701301	97 ✓	4/24/15 11:36	CF= 47.58205477	
15FED00320	CCB1	0	510nm	0	4/24/15 11:59	-0.038258856	ND ✓	4/24/15 11:36	Y= 0.03826 ✓	r= 0.99788 ✓
15FED00331	CCV2	15	510nm	0.308	4/24/15 12:13	14.61701301	97 ✓	4/24/15 11:36	DL Water(mg/L) 0.25	DL Sol(mg/Kg) 2.5
15FED00332	CCB2	0	510nm	0	4/24/15 12:13	-0.038258856	ND ✓	4/24/15 11:36	LOD Water(mg/L) 0.5	LOD Sol(mg/Kg) 5
									LOQ Water(mg/L) 2	LOQ Sol(mg/Kg) 20



SOP

EMAX-3500 Fe B Rev. 4

Comment:

**Concentrations can be found in Reagent Log SWP1-14.

TK 05/05/15

Standard / Reagent ID	Description	Conc.	Exp. Date	Standard Prep	Intermediate Std Aliquot (ml)	Final Vol (ml)	Date/Time
SW2-04-89-09	Intermediate ICAL CCV Std (mg/L)	200	05/12/15	S0	0	10	4/24/15 11:20
SW2-08-16-07	Intermediate ICV LCS Std (mg/L)	500	04/24/15	S1	0.1	10	4/24/15 11:20
SW2-08-16-07	MS Std (mg/L)	500	04/24/15	S2	0.5	10	4/24/15 11:20
RW1-15-001	Reagent Water	NA	NA	S3	0.75	10	4/24/15 11:20
NA	Reagent Water	NA	NA	S4	1	10	4/24/15 11:21
SW1A-005-08-04	HCl	Conc.	10/02/15	S5	1.25	10	4/24/15 11:21
SWP1-14-88-02	NH ₄ C ₂ H ₃ O ₂ Buffer	**	09/12/15				
SWP1-18-20-02	Phenanthroline Solution	0.1%	09/17/15	ICV	0.3	10	4/24/15 11:21
SWP1-18-03-01	Hydroxylamine-HCl Solution	10%	12/11/15	CCV	0.75	10	4/24/15 11:21
HC413032	pH Strip	0-14	04/21/25	LCS EV (mg/L)	0.3	10	4/24/15 11:21
NA	Sand	NA	NA	MS EV (mg/L)	0.3	10	4/24/15 11:21
				A EV			

Expected Sample Amount: 10

Snapsel Lot [1.5oz | 4oz | 10oz]: 19414007

Balance ID: NA

Micropipette ID: PE97C-02 541480054 442781398

Leaching Date/Time Start:

End:

Analyzed by: TKosak

Reviewed by: *TK*

Date: *05/05/15*

LAB QC CHECK

DateFileID	LabSampleID	Result	Expected Value	QC Result
15FED00309	FED003WB	ND	ND	MB Passed ✓
15FED00310	FED003WL	14.9	15	%R=99 ✓
15FED00311	FED003WC	14.81	15	%R=99 ✓

MS CHECK

DateFileID	LabSampleID	Result	Expected Value	QC Result
15FED00326	D157-17	ND		RPD=1
15FED00328	D157-17M	14.76	15.00	%R=98 ✓
15FED00329	D157-17S	14.9	15.00	%R=99 ✓

DUP CHECK

DateFileID	LabSampleID	Result	Expected Value	RPD
15FED00326	D157-17	ND		0 ✓
15FED00327	D157-17D	ND	ND	

CASE NARRATIVE

Client : ECO & ASSOCIATES, INC.

Project: B & B GROUNDWATER SAMPLING

SDG : 15D157

METHOD SM4500S2D
SULFIDE

A total of fourteen (14) water samples were received on 04/23/15 to be analyzed for Sulfide in accordance with Method SM4500S2D and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

Calibration was performed as prescribed by the method and was verified using a secondary source (ICV). All calibration requirements were within acceptance criteria.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one (1) method blank was analyzed. Sulfide was not detected in SFD006WB. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) set of LCS/LCD was analyzed. Sulfide was within LCS QC limits in SFD006WL/SFD006WC. Refer to LCS summary form for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one (1) MS was analyzed. Matrix spike recovery for Sulfide was within MS QC limits in D157-17M. Sample duplicate was analyzed and RPD was within expected value. Refer to Matrix QC summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

METHOD SM4500S2D
SULFIDE

Client : ECO & ASSOCIATES, INC.
Project : B & B GROUNDWATER SAMPLING
Batch No. : 15D157

Matrix : WATER
InstrumentID : 70

CLIENT SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DFxPREP FACTOR	MOIST RL (%)	RL (mg/L)	MDL (mg/L)	ANALYSIS DATETIME	PREPARATION DATETIME	DATA FILE ID	CAL REF	PREP BATCH	COLLECTION DATETIME	RECEIVED DATETIME
MBLK1W	SFD006WB	ND	1	NA	0.1	0.02	04/28/1517:14	NA	15SFD00610	15SFD006	SFD006W	NA	NA
LCS1W	SFD006WL	0.417	1	NA	0.1	0.02	04/28/1517:14	NA	15SFD00611	15SFD006	SFD006W	NA	NA
LCD1W	SFD006WC	0.411	1	NA	0.1	0.02	04/28/1517:14	NA	15SFD00612	15SFD006	SFD006W	NA	NA
04-22-15-PWB-16	D157-01	ND	1	NA	0.1	0.02	04/28/1517:14	NA	15SFD00613	15SFD006	SFD006W	04/22/1508:00	04/23/15
04-22-15-PWB-14	D157-02	ND	1	NA	0.1	0.02	04/28/1517:14	NA	15SFD00614	15SFD006	SFD006W	04/22/1508:42	04/23/15
04-22-15-AMW-4R	D157-04	ND	1	NA	0.1	0.02	04/28/1517:14	NA	15SFD00615	15SFD006	SFD006W	04/22/1509:45	04/23/15
04-22-15-PWB-12	D157-05	0.0242J	1	NA	0.1	0.02	04/28/1517:15	NA	15SFD00616	15SFD006	SFD006W	04/22/1510:45	04/23/15
04-22-15-PWB-7A	D157-07	0.0315J	1	NA	0.1	0.02	04/28/1517:15	NA	15SFD00617	15SFD006	SFD006W	04/22/1510:15	04/23/15
04-22-15-PWB-15	D157-08	ND	1	NA	0.1	0.02	04/28/1517:15	NA	15SFD00618	15SFD006	SFD006W	04/22/1511:25	04/23/15
04-22-15-WB2-2	D157-09	ND	1	NA	0.1	0.02	04/28/1517:16	NA	15SFD00619	15SFD006	SFD006W	04/22/1510:40	04/23/15
04-22-15-PWB-4	D157-11	ND	1	NA	0.1	0.02	04/28/1517:16	NA	15SFD00622	15SFD006	SFD006W	04/22/1511:50	04/23/15
04-22-15-FDUP-4	D157-12	ND	1	NA	0.1	0.02	04/28/1517:16	NA	15SFD00623	15SFD006	SFD006W	04/22/1512:05	04/23/15
04-22-15-WB2-1	D157-13	ND	1	NA	0.1	0.02	04/28/1517:17	NA	15SFD00624	15SFD006	SFD006W	04/22/1512:55	04/23/15
04-22-15-PWB-9	D157-14	ND	1	NA	0.1	0.02	04/28/1517:17	NA	15SFD00625	15SFD006	SFD006W	04/22/1513:05	04/23/15
04-22-15-WB2-4	D157-16	ND	1	NA	0.1	0.02	04/28/1517:17	NA	15SFD00626	15SFD006	SFD006W	04/22/1512:27	04/23/15
04-22-15-PWB-10	D157-17	ND	1	NA	0.1	0.02	04/28/1517:17	NA	15SFD00627	15SFD006	SFD006W	04/22/1513:35	04/23/15
04-22-15-PWB-10DUP	D157-17D	ND	1	NA	0.1	0.02	04/28/1517:17	NA	15SFD00628	15SFD006	SFD006W	04/22/1513:35	04/23/15
04-22-15-PWB-10MS	D157-17M	0.422	1	NA	0.1	0.02	04/28/1517:17	NA	15SFD00629	15SFD006	SFD006W	04/22/1513:35	04/23/15
04-22-15-PWB-5	D157-19	ND	1	NA	0.1	0.02	04/28/1517:18	NA	15SFD00630	15SFD006	SFD006W	04/22/1514:45	04/23/15

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
PROJECT : B & B GROUNDWATER SAMPLING
BATCH NO. : 15D157
METHOD : SM4500S2D

MATRIX : WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID : MBLK1W LCS1W LCD1W
LAB SAMPLE ID : SFD006WB SFD006WL SFD006WC
LAB FILE ID : 15SFD00610 15SFD00611 15SFD00612
DATE PREPARED : NA NA NA
DATE ANALYZED : 04/28/1517:14 04/28/1517:14 04/28/1517:14
PREP BATCH : SFD006W SFD006W SFD006W
CALIBRATION REF: 15SFD006 15SFD006 15SFD006

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	0.4	0.417	104	0.4	0.411	103	1	80-120	20

EMAX QUALITY CONTROL DATA
 MATRIX SPIKE ANALYSIS

CLIENT : ECO & ASSOCIATES, INC.
 PROJECT : B & B GROUNDWATER SAMPLING
 BATCH NO. : 15D157
 METHOD : SM4500S2D

MATRIX : WATER % MOISTURE: NA
 DILUTION FACTOR: 1 1
 SAMPLE ID : 04-22-15-PWB-10 04-22-15-PWB-10MS
 LAB SAMPLE ID : D157-17 D157-17M
 LAB FILE ID : 15SFD00627 15SFD00629
 DATE PREPARED : NA NA
 DATE ANALYZED : 04/28/1517:17 04/28/1517:17
 PREP BATCH : SFD006W SFD006W
 CALIBRATION REF: 15SFD006 15SFD006

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	SPIKE AMT (mg/L)	MS RESULT (mg/L)	MS REC (%)	QC LIMIT (%)
SULFIDE	ND	0.4	0.422	105	75-125

EMAX QUALITY CONTROL DATA
SAMPLE DUPLICATE ANALYSIS

CLIENT : ECO & ASSOCIATES. INC.
PROJECT : B & B GROUNDWATER SAMPLING
BATCH NO. : 15D157
METHOD : SM4500S2D

MATRIX : WATER
DILUTION FACTOR: 1 1
SAMPLE ID : 04-22-15-PWB-10 04-22-15-PWB-10DUP
LAB SAMPLE ID : D157-17 D157-17D
LAB FILE ID : 15SFD00627 15SFD00628
DATE PREPARED : NA NA
DATE ANALYZED : 04/28/1517:17 04/28/1517:17
PREP BATCH : SFD006W SFD006W
CALIBRATION REF: 15SFD006 15SFD006

ACCESSION:

PARAMETER	PARENT RESULT (mg/L)	DUP RESULT (mg/L)	RPD (%)	MAX RPD (%)
SULFIDE	ND	ND	0	20



SULFIDE ANALYSIS
(COLORIMETRY)

DataFileID	LabSampleID	Result	Flag	RUnit	SampleAmt	SUnit	PDateTime	FinalVol (ml)	WL	Abs	ADateTime	Sample Bkgnd	DF	%M	FC	DfxPrep Factor	Notes	Analyst	ph check	Coloring Time
15SFD00610	SFD006WB	ND		mg/L	7.5	ml	NA	7.5	664nm	0	4/28/15 17:14	0	1		0	1		MMendo		4/28/15 16:45
15SFD00611	SFD006WL	0.417		mg/L	7.5	ml	NA	7.5	664nm	0.344	4/28/15 17:14	0	1		0.4168551	1		MMendo		4/28/15 16:45
15SFD00612	SFD006WC	0.411		mg/L	7.5	ml	NA	7.5	664nm	0.339	4/28/15 17:14	0	1		0.4107962	1		MMendo		4/28/15 16:45
15SFD00613	D157-01	ND		mg/L	7.5	ml	NA	7.5	664nm	0.002	4/28/15 17:14	0	1		0.0024236	1		MMendo	>9	4/28/15 16:45
15SFD00614	D157-02	ND		mg/L	7.5	ml	NA	7.5	664nm	0.001	4/28/15 17:14	0	1		0.0012118	1		MMendo	>9	4/28/15 16:45
15SFD00615	D157-04	ND		mg/L	7.5	ml	NA	7.5	664nm	0	4/28/15 17:14	0	1		0	1		MMendo	>9	4/28/15 16:45
15SFD00616	D157-05	0.0242	J	mg/L	7.5	ml	NA	7.5	664nm	0.033	4/28/15 17:15	0.013	1		0.0242358	1		MMendo	>9	4/28/15 16:45
15SFD00617	D157-07	0.0315	J	mg/L	7.5	ml	NA	7.5	664nm	0.026	4/28/15 17:15	0	1		0.0315065	1		MMendo	>9	4/28/15 16:45
15SFD00618	D157-08	0.0121	J	mg/L	7.5	ml	NA	7.5	664nm	0.013	4/28/15 17:15	0.003	1		0.0121179	1		MMendo	>9	4/28/15 16:45
15SFD00619	D157-09	ND		mg/L	7.5	ml	NA	7.5	664nm	0.003	4/28/15 17:16	0	1		0.0036354	1		MMendo	>9	4/28/15 16:45
15SFD00620	CCV1	0.416		mg/L	7.5	ml	NA	7.5	664nm	0.343	4/28/15 17:16	0	1		0.4156433	1		MMendo		4/28/15 16:45
15SFD00621	CCB1	ND		mg/L	7.5	ml	NA	7.5	664nm	0	4/28/15 17:16	0	1		0	1		MMendo		4/28/15 16:45
15SFD00622	D157-11	ND		mg/L	7.5	ml	NA	7.5	664nm	0.008	4/28/15 17:16	0	1		0.0096943	1		MMendo	>9	4/28/15 16:45
15SFD00623	D157-12	ND		mg/L	7.5	ml	NA	7.5	664nm	0.007	4/28/15 17:16	0	1		0.0084825	1		MMendo	>9	4/28/15 16:45
15SFD00624	D157-13	ND		mg/L	7.5	ml	NA	7.5	664nm	0.008	4/28/15 17:17	0	1		0.0096943	1		MMendo	>9	4/28/15 16:45
15SFD00625	D157-14	0.017	J	mg/L	7.5	ml	NA	7.5	664nm	0.219	4/28/15 17:17	0.205	1		0.016965	1		MMendo	>9	4/28/15 16:45
15SFD00626	D157-16	ND		mg/L	7.5	ml	NA	7.5	664nm	0.002	4/28/15 17:17	0	1		0.0024236	1		MMendo	>9	4/28/15 16:45
15SFD00627	D157-17	ND		mg/L	7.5	ml	NA	7.5	664nm	0.003	4/28/15 17:17	0	1		0.0036354	1		MMendo	>9	4/28/15 16:45
15SFD00628	D157-17D	ND		mg/L	7.5	ml	NA	7.5	664nm	0	4/28/15 17:17	0	1		0	1		MMendo	>9	4/28/15 16:45
15SFD00629	D157-17M	0.422		mg/L	7.5	ml	NA	7.5	664nm	0.348	4/28/15 17:17	0	1		0.4217023	1		MMendo	>9	4/28/15 16:45
15SFD00630	D157-19	ND		mg/L	7.5	ml	NA	7.5	664nm	0.008	4/28/15 17:18	0	1		0.0096943	1		MMendo	>9	4/28/15 16:45
15SFD00631	CCV2	0.413		mg/L	7.5	ml	NA	7.5	664nm	0.341	4/28/15 17:18	0	1		0.4132197	1		MMendo		4/28/15 16:45
15SFD00632	CCB2	ND		mg/L	7.5	ml	NA	7.5	664nm	0.001	4/28/15 17:18	0	1		0.0012118	1		MMendo		4/28/15 16:45

MMV
4/28/15

LAB QC CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
15SFD00610	SFD006WB	ND	ND	MB Passed
15SFD00611	SFD006WL	0.417	0.4	%R=104
15SFD00612	SFD006WC	0.411	0.4	%R=103

MS CHECK

DataFileID	LabSampleID	Result	Expected Value	QC Result
15SFD00627	D157-17	ND	0	
15SFD00629	D157-17M	0.422	0.4	%R=106

DUP CHECK

DataFileID	LabSampleID	Result	Expected Value	RPD
15SFD00627	D157-17	ND	0	0
15SFD00628	D157-17D	ND		

LABORATORY REPORT FOR

ECO & ASSOCIATES, INC.

B & B GROUNDWATER SAMPLING

METHANE AND DISSOLVED HYDROGEN

SDG#: 15D157

May 15, 2015

EMAX Laboratories, Inc.
ATTN: Richard Beauvil
1835 205th St.
Torrance, CA 90501



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

UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 15D157; Eco & Associates, Inc.
Lab Number: G042705-01/14

Enclosed are results for sample(s) received 4/27/15 by Air Technology Laboratories. Samples were received intact and properly chilled. 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).

Preliminary results were e-mailed to Richard Beauvil on 5/14/15.

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,

A handwritten signature in blue ink that appears to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

CHAIN OF CUSTODY

G042705-01/14



Tel#: 310-618-8889 FAX#: 310-618-0818
email: info@emaxlabs.com

EMAX CONTROL NO	15D157
PROJECT CODE	ECO1302
TURN-AROUND-TIME	STANDARD

SEND REPORT TO:
EMAX LABORATORIES, INC.
1835 W. 205TH ST. CA 90501

CLIENT: Eco & Associates, Inc.
PROJECT: B & B Groundwater Sampli

SEND SAMPLES TO:

AIR TECHNOLOGY LAB
1850 E. Gale Ave, Suite 130
City of Industry, CA 91748

ATTN: Richard Beauvil

01
02
03
04
05
06
07
08
09
10
11
12
13A
13B
13C

EMAX Sample ID	Client Sample ID	Collection Date	CollectionTime	Matrix	Method	COMMENTS
D157-01	04-22-15-PWB-16	4/22/2015	8:00:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN
D157-02	04-22-15-PWB-14	4/22/2015	8:42:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN
D157-04	04-22-15-AMW-4R	4/22/2015	9:45:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN
D157-05	04-22-15-PWB-12	4/22/2015	10:45:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN
D157-07	04-22-15-PWB-7A	4/22/2015	10:15:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN
D157-08	04-22-15-PWB-15	4/22/2015	11:25:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN
D157-09	04-22-15-WB2-2	4/22/2015	10:40:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN
D157-11	04-22-15-PWB-4	4/22/2015	11:50:00 AM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN
D157-12	04-22-15-FDUP-4	4/22/2015	12:05:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN
D157-13	04-22-15-WB2-1	4/22/2015	12:55:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN
D157-14	04-22-15-PWB-9	4/22/2015	1:05:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN
D157-16	04-22-15-WB2-4	4/22/2015	12:27:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN
D157-17	04-22-15-PWB-10	4/22/2015	1:35:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN
D157-17M	04-22-15-PWB-10MS	4/22/2015	1:35:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN
D157-17S	04-22-15-PWB-10MSD	4/22/2015	1:35:00 PM	WATER	RSK175	METHANE AND DISSOLVED HYDROGEN

CHAIN OF CUSTODY

G042705-01/14



Tel#: 310-618-8889 FAX#: 310-618-0818
email: info@emaxlabs.com

EMAX CONTROL NO	15D157
PROJECT CODE	ECO1302
TURN-AROUND-TIME	STANDARD

SEND REPORT TO:
EMAX LABORATORIES, INC.
1835 W. 205TH ST. CA 90501

CLIENT: Eco & Associates, Inc.
PROJECT: B & B Groundwater Sampli

SEND SAMPLES TO:

ATTN: Richard Beauvil

EMAX Sample ID	Client Sample ID	Collection Date	CollectionTime	Matrix	Method	COMMENTS
14 D157-19	04-22-15-PWB-5	4/22/2015	2:45:00 PM	WATER	RSK175 METHANE AND DISSOLVED HYDROGEN	

INSTRUCTION:

DATA PACKAGES: 2 HARDCOPIES AND 1 CD IN .PDF. **EDDs:** ADR & EXCEL

COOLER TEMPERATURE

4°C

RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME
<i>Richard Beauvil</i>	4/22/15	12:00	<i>[Signature]</i>	04/27/15	12:11
<i>[Signature]</i>	4/27/15	1305	<i>[Signature]</i>	4/27/15	1305

GC Raw Data Index

General Information

Method: RSK 175

Lab Project No.: G042705

<u>Section</u>	<u>Page #</u>
1. Supporting Documents	<u>17</u>
2. Sample Raw Data	<u>25</u>
3. Initial Calibration	<u>121</u>
4. Continuing Calibration	<u>150</u>
5. Method Blank	<u>159</u>
6. LCS/LCSD	<u>168</u>

Conventions and Conversions

1 ppbv = 0.001 ppmv = 0.0000001% v/v
1% v/v = 10,000 ppmv = 10,000,000 ppbv

1 ug/m³ = 1 ng/L = ppbv x MW/24.45
1 ug/L = 1 mg/m³ = 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

Analytical Method: nmoc-hex-150105_rsk175fg150428 (cal)

Chemist: AS

Datafile Directory: GC8A\2015\1Apr

Blank Lot #: 3005F54628A

Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
4/28/15	0843	27apr04	PG LVAH ₂ NeO ₂	AW120883	STP 100µl	-	-	1.0	2	ok	NR	150427GC8A2
	0828	↓ OMS	↓	↓	↓	↓	↓	↓	↓	↓		↓
	0843	↓ O4b	↓	↓	↓	↓	↓	↓	↓	No	Air out	↓
4/28/15	0913	28apr	3ppmv 1cal	AW120884	250µl	-	-	1.0	-	ok	RSK 1cal	150428GC8A1
	0927	28apr001	10ppmv 1cal	AW120889	↓	↓	↓	↓	↓	↓		↓
	0941	002	100ppmv 1cal	AW120890	↓	↓	↓	↓	↓	↓		↓
	0956	003	1000ppmv 1cal	AW120892	↓	↓	↓	↓	↓	↓		↓
	1011	004	5000ppmv 1cal	AS014319	125µl	↓	↓	↓	↓	↓		↓
	1026	005	1% 1cal	AS014319	250µl	↓	↓	↓	↓	↓	10000ppmv	↓
	1039	006	10% CH ₄ CO ₂ 1cal	AW120895	↓	↓	↓	↓	↓	↓	100000	↓
	1057	007	50% CH ₄ CO ₂ 1cal	AW120896	↓	↓	↓	↓	↓	↓	500000	↓
	1117	008	0.5% RSK 1CV	AS014573	125µl	↓	↓	↓	↓	↓		↓

18 of 176

Air Technology Laboratories, Inc.

Approved by/Date: _____

GC8A Logbook #34

Instrument ID:

GC 8A

GC Injection Logbook

Chemist: AS

Analytical Method:

nmoc fixed-140102, rskhydrogen

Blank Lot #:

1205F5462A

Datafile Directory:

GC8A\2014\Jun

Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
6/27/14	1646	27Jun020	300ppmnmoc	AS274369	STD 200p	-	-	1.0	4	ok		1406276GC8A1
6/30/14	0828	30Jun	0.1% H ₂	AW120234	250p	-	-	1.0	-	No		140630GC8A1
	0839	30Jun001	0.1% H ₂	AW120234								
	0851	002	0.5% H ₂	AW120235								
	0900	003	0.1% H ₂	AW120234								
	0908	004	100% H ₂	CC45F54163						No	too high	
	0925	005	0.1% 1-12	AW120234								
	0937	006	100% H ₂	CC45F54164						No	too high	
	0950	007	5% H ₂	AW120236						ok	NR	
	1013	008	5% H ₂	AW120236						ok	rskhydrogen/40630 load	
	1022	009	2.5% H ₂	AW120237								
	1030	010	1% H ₂	AW120238								
	1043	011	0.5% H ₂	AW120239								
	1056	012	0.1% H ₂	AW120230								
	1104	013	0.1% H ₂	AW120232						No	NR	
	1119	014	1% H ₂ CV	AW1202401						OK		

19 of 176

GC Injection Logbook

Instrument ID: GC 8A
 Analytical Method: RSK175Fg/150428
 Datafile Directory: GC8A120151Apr

Chemist: AS
 Blank Lot #: 3005F54628A

Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
11/29/15	0936	28Apr034	G042704-06	Emax	250µL	-	-	1.0	-	No	baseline	150428GC8A1
	0950	035	-06							OK		
	1024	036	-07									
	1037	037	-08									
	1050	038	-09									
	1106	29Apr	RSK 0.5% CCV	RS01509	125µL					OK		150429GC8A1
	1119	29Apr001	RSK LCS	AW1208819	250µL							
	1132	002	RSK LCSD	AW1208820								
	1145	003	Method Blank	-								
	1159	004	He blank	-								
	1213	005	He blank	-							NR	
	1227	006	G042704-01	Emax						OK	comb. NR	
	1300	007	G042705-01	Emax						OK		
	1313	008	-02									
	1327	009	-03									
	1340	010	-04									
	1353	011	-05									
	1406	012	-06									
	1419	013	-07									
	1432	014	-08									

Instrument ID:

GC 8A

GC Injection Logbook

Chemist: AS

Analytical Method:

RSK hydrogen 140v30Blank Lot #: 300SF5462RA

Datafile Directory:

GC8A\2015\Apr

Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
4/30/15	1012	30Apr011	G042702-03MSD	Emax	25µl	-	-	1.0	-	ok		150430GC8A1
	1019	012	-04							↓		
	1026	013	-05							No	% comb. ← late inject	
	1034	014	-05							No	baseline drop	
	1042	015	-05				40/1	40.0		ok	Not needed	
	1049	016	-05				-	1.0		ok	Reported	
	1056	017	-06							ok		
	1103	018	G042702-01	Emax						No	shift	
	1111	019	-01							ok		
	1118	020	-02									
	1126	021	-03									
	1132	022	-04									
	1142	023	-05									
	1149	024	-06							No	baseline	
	1159	025	-06							ok		
	1206	026	-07									
	1212	027	-08									
	1219	028	-09									
	1226	029	1% H ₂ RSK CCU	AW128905						No	shift	150430GC8A2
	1234	030								ok		

Instrument ID: GC 8A
 Analytical Method: rskhydrogen 140620
 Datafile Directory: GC8A\2015\1 Apr

GC Injection Logbook

Chemist: AS
 Blank Lot #: 3005FSY6A8A

Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
4/30/15	1240	30Apr031	H2 RSK LCS	AWR208904	25µL	-	-	1.0	-	No	low, bad inject	1504306C8A2
	1318	032	H2 RSK LCS	AWR208904						ok		
	1326	033	H2 RSK LCSD	AWR208907						↓		
	1335	034	H2 RSK LCSD	AWR208907						ok	not needed	
	1343	035	H2 RSK LCSD	AWR208907						↓	↓	
	1349	036	Method Blank	-						ok		
	1356	037	He blank	-						↓		
	1403	038	G042705-01	Emark						No	shift	
	1411	039	-01							↓	baseline	
	1419	040	-01							ok		
	1426	041	-02									
	1433	042	-03									
	1440	043	-04									
	1446	044	-05									
	1453	045	-06									
	1500	046	-07									
	1508	047	-08							No	baseline	
	1516	048	-08							ok		
	1523	049	-09									
	1530	050	-10									

Instrument ID: GC 8A
 Analytical Method: rsk hydrogen 14/10/30
 Datafile Directory: GC8A\2015\Apr

GC Injection Logbook

Chemist: AS
 Blank Lot #: 300SESC1628X

Date	Time	Data File	Lab Number/ Standard Type	Client/ Std Code	Sample Volume	Press. Dilution	Sample dilution	DF	Line #	Status	Comments	QC Batch
4/30/15	1536	30Apr051	GC042705-11	Smax	250 μ l	-	-	1.0	-	ok		1504300008A2
	1543	052	-12							↓		
	1550	053	-13							↓		
	1557	054	-14							No shift		
	1604	055	-14							ok		
	1611	056	-13MS							No shift		
	1619	057	-13MS							ok		
	1626	058	-13MSD							No shift		
	1633	059	-13MSD							ok		
	1640	060	1/4 Hz RSK CCV	Am1208905						No shift		
	1648	061								ok		

2. Sample Raw Data

- a. Calculations (if applicable)
- b. Chromatograms/Results

		G042705-01 29apr007									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units		
ppmv in headspace	NA	NA	NA	2.711	NA	NA	NA	NA	ppmv		
p _g	#VALUE!	#VALUE!	#VALUE!	2.711E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none		
m											
b											
x _g	#VALUE!	#VALUE!	#VALUE!	6.564E-11	#VALUE!	#VALUE!	#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!	5.829E-05	#VALUE!	#VALUE!	#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!	1.084E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml		
A ₁	#VALUE!	#VALUE!	#VALUE!	0.000197	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L		
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	0.0002553	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L		
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	0.26	#VALUE!	#VALUE!	#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!	0.26	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L		
LCS/D calculation											
		spike amt.									
	ug	%	mL	MW		mg/L	%R				
	26.175869	1	4	16	Methane	0.6543967	0.0390129				
	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						

G042705-02 29apr008									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	0.724	NA	NA	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	7.24E-07	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x _g	#VALUE!	#VALUE!	#VALUE!	1.753E-11	#VALUE!	#VALUE!	#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!	1.557E-05	#VALUE!	#VALUE!	#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!	2.896E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A _i	#VALUE!	#VALUE!	#VALUE!	5.261E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	6.818E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	0.07	#VALUE!	#VALUE!	#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!	0.07	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16 Methane	0.6543967	0.0104188			
	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					

G042705-03 29apr009									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	0.482	NA	NA	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	4.82E-07	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m_b									
X_g	#VALUE!	#VALUE!	#VALUE!	1.167E-11	#VALUE!	#VALUE!	#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!	1.036E-05	#VALUE!	#VALUE!	#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!	1.928E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A_l	#VALUE!	#VALUE!	#VALUE!	3.503E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	4.539E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.05	#VALUE!	#VALUE!	#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!	0.05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	0.0069363		
	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				

G042705-04 29apr010									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	1.374	NA	NA	NA	NA	ppmv
P_g	#VALUE!	#VALUE!	#VALUE!	1.374E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	3.327E-11	#VALUE!	#VALUE!	#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!	2.954E-05	#VALUE!	#VALUE!	#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!	5.496E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	9.985E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.0001294	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.13	#VALUE!	#VALUE!	#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!	0.13	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16 Methane	0.6543967	0.0197727			
	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					

G042705-05 29apr011									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	4.253	NA	NA	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	4.253E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x _g	#VALUE!	#VALUE!	#VALUE!	1.03E-10	#VALUE!	#VALUE!	#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!	9.144E-05	#VALUE!	#VALUE!	#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!	1.701E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A _i	#VALUE!	#VALUE!	#VALUE!	0.0003091	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	0.0004005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	0.40	#VALUE!	#VALUE!	#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!	0.40	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
spike amt.									
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16 Methane		0.6543967	0.0612032		
	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					

G042705-06		29apr012							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	1.101	NA	NA	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	1.101E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x _g	#VALUE!	#VALUE!	#VALUE!	2.666E-11	#VALUE!	#VALUE!	#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!	2.367E-05	#VALUE!	#VALUE!	#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 _n	#VALUE!	#VALUE!	#VALUE!	4.404E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A _r	#VALUE!	#VALUE!	#VALUE!	8.001E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	0.0001037	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	0.10	#VALUE!	#VALUE!	#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!	0.10	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	0.015844		
	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				

G042705-07		29apr013							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	6.006	NA	NA	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	6.006E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	1.454E-10	#VALUE!	#VALUE!	#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!	0.0001291	#VALUE!	#VALUE!	#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!	2.402E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A_r	#VALUE!	#VALUE!	#VALUE!	0.0004365	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	0.0005656	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	0.57	#VALUE!	#VALUE!	#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!	0.57	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
	ug	spike amt. %	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	0.0864299		
	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				

		G042705-08		29apr014							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units		
ppmv in headspace	NA	NA	NA	0.798	NA	NA	NA	NA	ppmv		
p _g	#VALUE!	#VALUE!	#VALUE!	7.98E-07	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none		
m											
b											
x _g	#VALUE!	#VALUE!	#VALUE!	1.932E-11	#VALUE!	#VALUE!	#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!	1.716E-05	#VALUE!	#VALUE!	#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!	3.192E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml		
A _i	#VALUE!	#VALUE!	#VALUE!	5.799E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L		
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	7.515E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L		
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	0.08	#VALUE!	#VALUE!	#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!	0.08	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L		
LCS/D calculation											
		spike amt.									
	ug	%	mL	MW		mg/L	%R				
	26.175869	1	4	16 Methane	0.6543967	0.0114837					
	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							

		G042705-09		29apr015							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units		
ppmv in headspace	NA	NA	NA	0.947	NA	NA	NA	NA	ppmv		
p _g	#VALUE!	#VALUE!	#VALUE!	9.47E-07	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none		
m											
b											
x _g	#VALUE!	#VALUE!	#VALUE!	2.293E-11	#VALUE!	#VALUE!	#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!	2.036E-05	#VALUE!	#VALUE!	#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!	3.788E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L		
A _l	#VALUE!	#VALUE!	#VALUE!	6.882E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L		
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	8.918E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L		
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	0.09	#VALUE!	#VALUE!	#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!	0.09	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L		
LCS/D calculation											
		spike amt.									
	ug	%	mL	MW		mg/L	%R				
	26.175869	1	4	16	Methane	0.6543967	0.0136279				
	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						

	G042705-10	29apr016							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	3.817	NA	NA	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	3.817E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	9.242E-11	#VALUE!	#VALUE!	#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!	8.207E-05	#VALUE!	#VALUE!	#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!	1.527E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A_l	#VALUE!	#VALUE!	#VALUE!	0.0002774	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.0003595	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.36	#VALUE!	#VALUE!	#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!	0.36	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16 Methane	0.6543967	0.0549289			
	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					

	G042705-11	29apr017							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	57.997	NA	NA	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	5.8E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	1.404E-09	#VALUE!	#VALUE!	#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!	0.001247	#VALUE!	#VALUE!	#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
h_v	4	4	4	4	4	4	4	4	ml
A_n	#VALUE!	#VALUE!	#VALUE!	0.000232	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A_t	#VALUE!	#VALUE!	#VALUE!	0.0042147	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.0054617	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	5.46	#VALUE!	#VALUE!	#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!	5.46	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	0.8346112		
	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				

G042705-12		29apr018									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units		
ppmv in headspace	NA	NA	NA	5.092	NA	NA	NA	NA	ppmv		
p_g	#VALUE!	#VALUE!	#VALUE!	5.092E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none		
m											
b											
x_g	#VALUE!	#VALUE!	#VALUE!	1.233E-10	#VALUE!	#VALUE!	#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!	0.0001095	#VALUE!	#VALUE!	#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		
bv	4	4	4	4	4	4	4	4	ml		
A_h	#VALUE!	#VALUE!	#VALUE!	2.037E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml		
A_t	#VALUE!	#VALUE!	#VALUE!	0.00037	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L		
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.0004795	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L		
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.48	#VALUE!	#VALUE!	#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!	0.48	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L		
LCS/D calculation											
		spike amt.									
	ug	%	mL	MW		mg/L	%R				
	26.175869	1	4	16 Methane		0.6543967	0.0732769				
	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							

	G042705-13	29apr019							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	2.531	NA	NA	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	2.531E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	6.128E-11	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
η_g									
η_w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V									
C	#VALUE!	#VALUE!	#VALUE!	5.442E-05	#VALUE!	#VALUE!	#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!	1.012E-05	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.0001839	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.0002383	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.24	#VALUE!	#VALUE!	#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!	0.24	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	0.0364226		
	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				

	G042705-14	29apr020							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	1.559	NA	NA	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	1.559E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m									
b									
x_g	#VALUE!	#VALUE!	#VALUE!	3.775E-11	#VALUE!	#VALUE!	#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!	3.352E-05	#VALUE!	#VALUE!	#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
bv	4	4	4	4	4	4	4	4	ml
A_h	#VALUE!	#VALUE!	#VALUE!	6.236E-06	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	0.0001133	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(mg/L)}$	#VALUE!	#VALUE!	#VALUE!	0.0001468	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
$TC_{(ug/L)}$	#VALUE!	#VALUE!	#VALUE!	0.15	#VALUE!	#VALUE!	#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!	0.15	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	0.0224349		
	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				

G042702-13 MS		29apr021	4/29/2015	16:05				
Parameter	methane	ethane	ethene	O2	CO2	CO	acetylene	Units
ppmv in headspace	6863.946	NA	NA	NA	NA	NA	NA	ppmv
P _g	0.0068639	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m								
b								
X _g	1.662E-07	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
H	41300	30200	11400	43800	1640	57800	1330	none
n _g								
n _w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V								
C	0.1475831	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
MW	16	30	28	32	44	2	44	g/mole
ST	25	25	25	25	25	25	25	°C
p	0.6540332	1.2263123	1.1445581	1.3080664	1.7985913	0.0817542	1.7985913	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	ml
A _h	0.0274558	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A _r	0.4988054	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	0.6463885	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	646.39	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
Reporting limit	1.0	2.0	3.0	1000.00	20	10.00	20.00	ug/L
Final Result	650	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation								
		spike amt.						
	ug	%	mL	MW		mg/L	%R	
	26.175869	1	4	16 Methane		0.6543967	98.77625	
	49.079755	1	4	30 Ethane		1.2269939	#VALUE!	
	45.807771	1	4	28 Ethene		1.1451943	#VALUE!	
	#VALUE!	NA	4	26 Acetylene		#VALUE!	#VALUE!	
	#VALUE!	NA	4	44 Propane		#VALUE!		
	#VALUE!	NA	4	32 Oxygen		#VALUE!	#VALUE!	
	71.98364	1	4	44 CO2		1.799591	#VALUE!	
	3.2719836	1	4	2 Hydrogen		0.0817996	#VALUE!	

G042702-13 MSD		29apr022	4/29/2015	16:18				
Parameter	methane	ethane	ethene	O2	CO2	CO	acetylene	Units
ppmv in headspace	6853.365	NA	NA	NA	NA	NA	NA	ppmv
P _g	0.0068534	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
m								
b								
x _g	1.659E-07	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	none
H	41300	30200	11400	43800	1640	57800	1330	none
n _g								
n _w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V								
C	0.1473556	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
MW	16	30	28	32	44	2	44	g/mole
ST	25	25	25	25	25	25	25	°C
p	0.6540332	1.2263123	1.1445581	1.3080664	1.7985913	0.0817542	1.7985913	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	ml
A _n	0.0274135	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ml
A _r	0.4980365	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	0.6453921	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	645.39	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
Reporting limit	1.0	2.0	3.0	1000.00	20	10.00	20.00	ug/L
Final Result	650	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	ug/L
LCS/D calculation								
		spike amt.						
	ug	%	mL	MW		mg/L	%R	
	26.175869	1	4	16	Methane	0.6543967	98.623983	
	49.079755	1	4	30	Ethane	1.2269939	#VALUE!	
	45.807771	1	4	28	Ethene	1.1451943	#VALUE!	
	#VALUE!	NA	4	26	Acetylene	#VALUE!	#VALUE!	
	#VALUE!	NA	4	44	Propane	#VALUE!		
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!	
	71.98364	1	4	44	CO2	1.799591	#VALUE!	
	3.2719836	1	4	2	Hydrogen	0.0817996	#VALUE!	

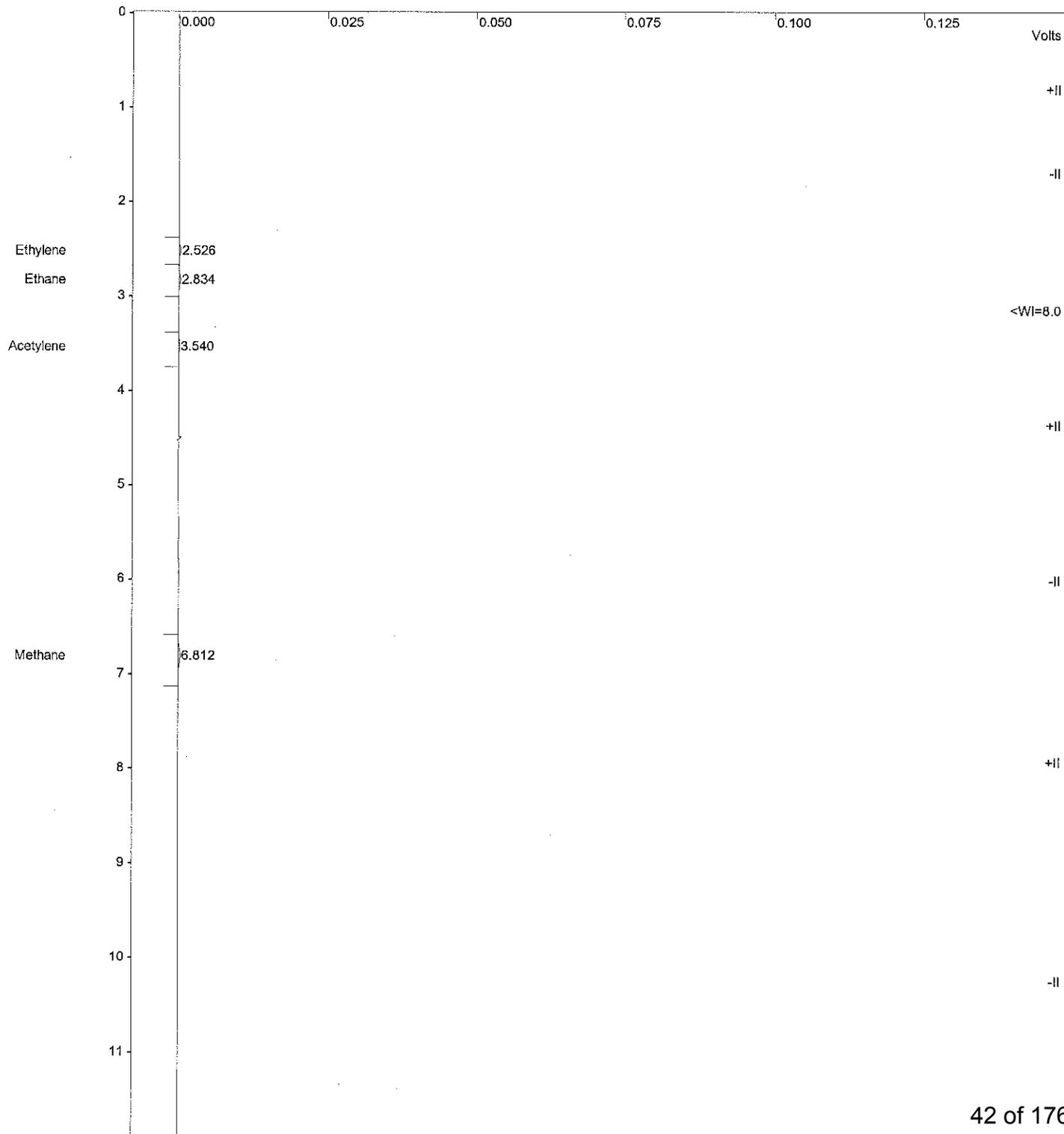
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr007.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-01 Emax

Injection Date: 4/29/2015 13:00 Calculation Date: 4/29/2015 13:12

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr007.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl50428.mth
Sample ID : G042705-01 Emax

Injection Date: 4/29/2015 13:00 Calculation Date: 4/29/2015 13:12

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 9 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 2 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\2015\apr\29apr008.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-02 Emax

Injection Date: 4/29/2015 13:13 Calculation Date: 4/29/2015 13:25

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 9 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: -29 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

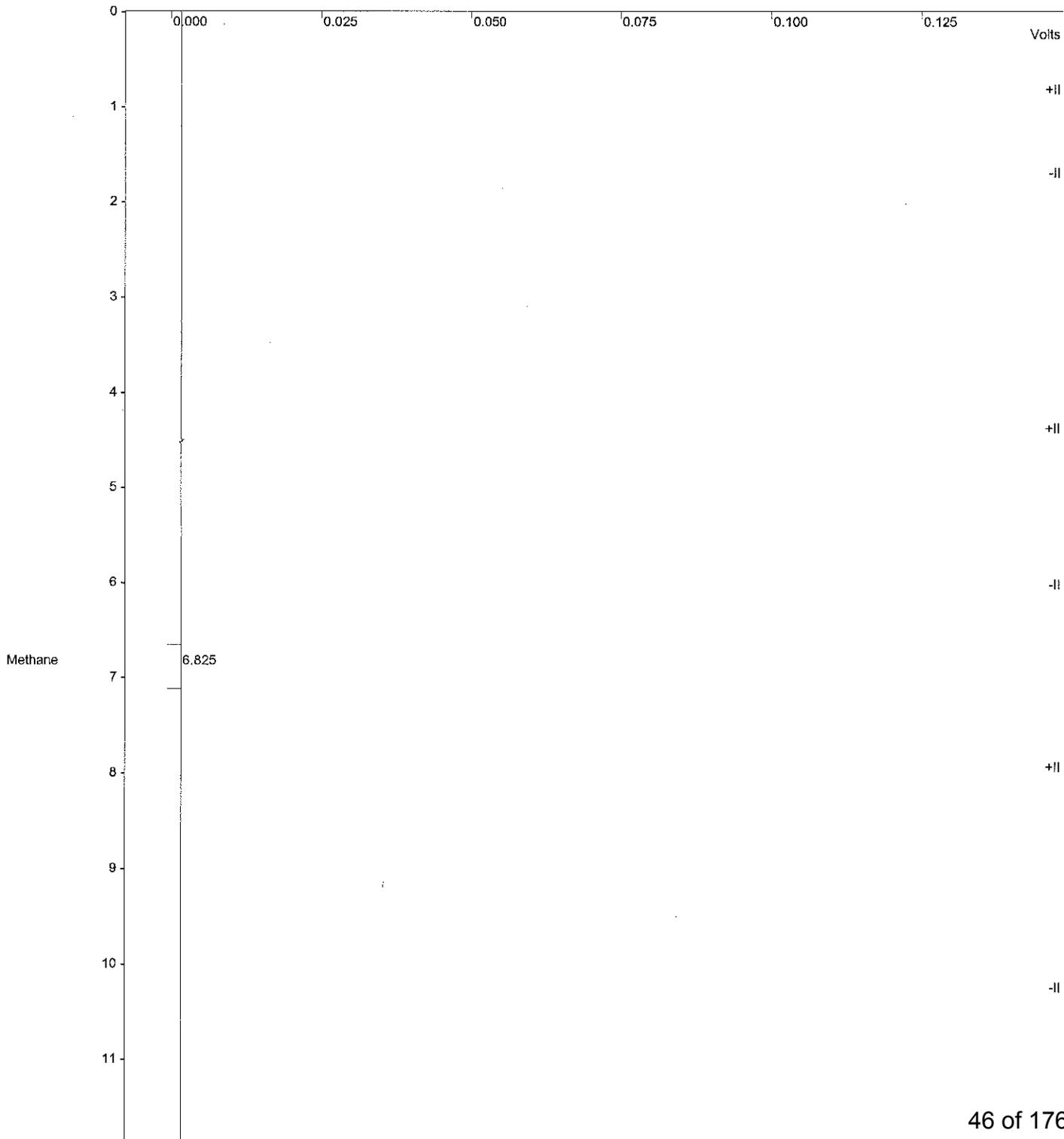
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr009.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-03 Emax

Injection Date: 4/29/2015 13:27 Calculation Date: 4/29/2015 13:39

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr009.run
 Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
 Sample ID : G042705-03 Emax

Injection Date: 4/29/2015 13:27 Calculation Date: 4/29/2015 13:39

Operator : AS Detector Type: 3800 (10 Volts)
 Workstation: Bus Address : 44
 Instrument : GC8A Sample Rate : 10.00 Hz
 Channel : Middle = FID 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		2.513					M
2	Ethane		2.820					M
3	Acetylene		3.513					M
4	Methane	0.482	6.825	0.026	654	BB	11.2	
Totals:		0.482		0.026	654			

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: 1516 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
 Noise (monitored before this run): 10 microVolts

Manual injection

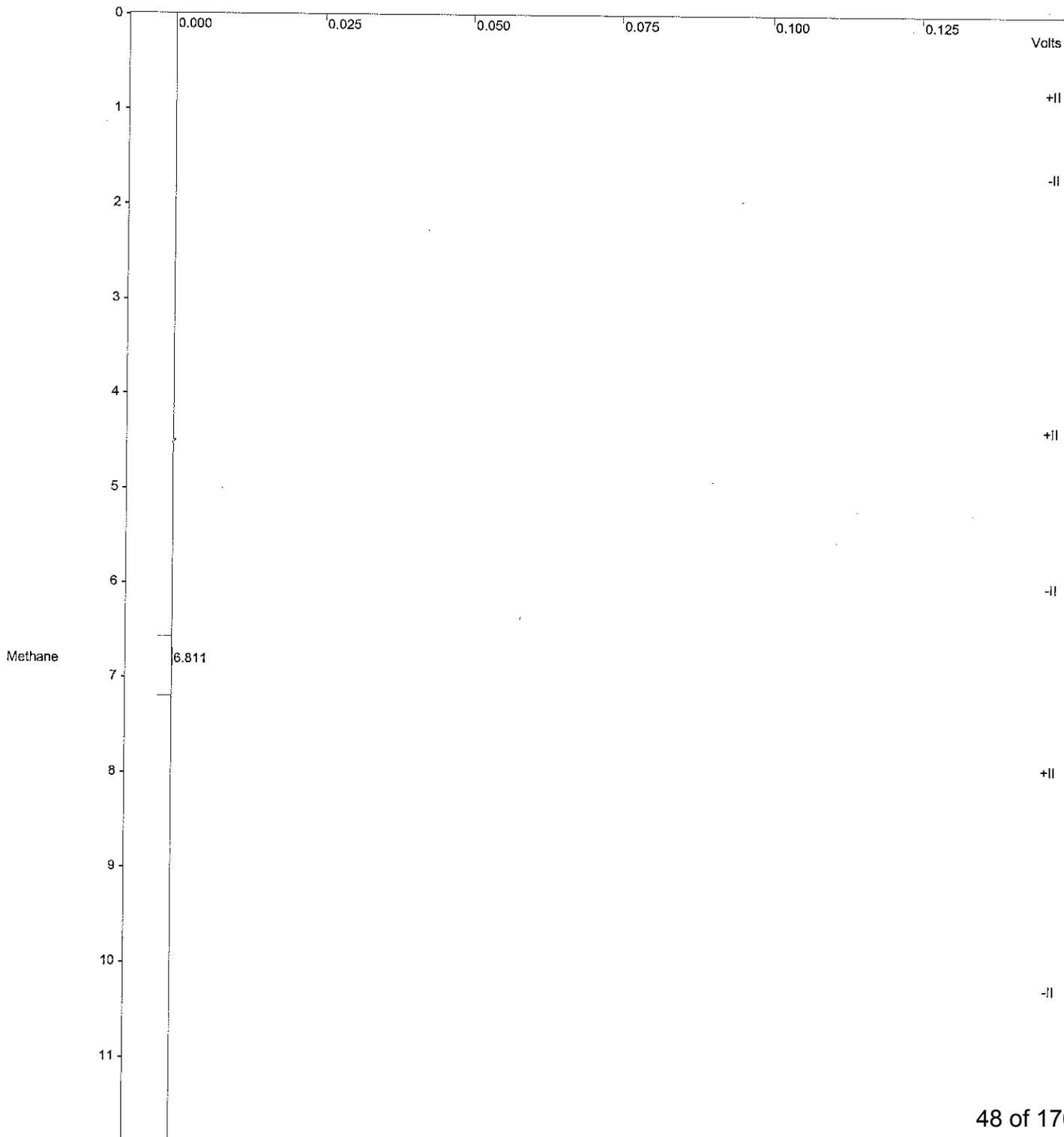
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr010.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-04 Emax

Injection Date: 4/29/2015 13:40 Calculation Date: 4/29/2015 13:52

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr010.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-04 Max

Injection Date: 4/29/2015 13:40 Calculation Date: 4/29/2015 13:52

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 9 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 9 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

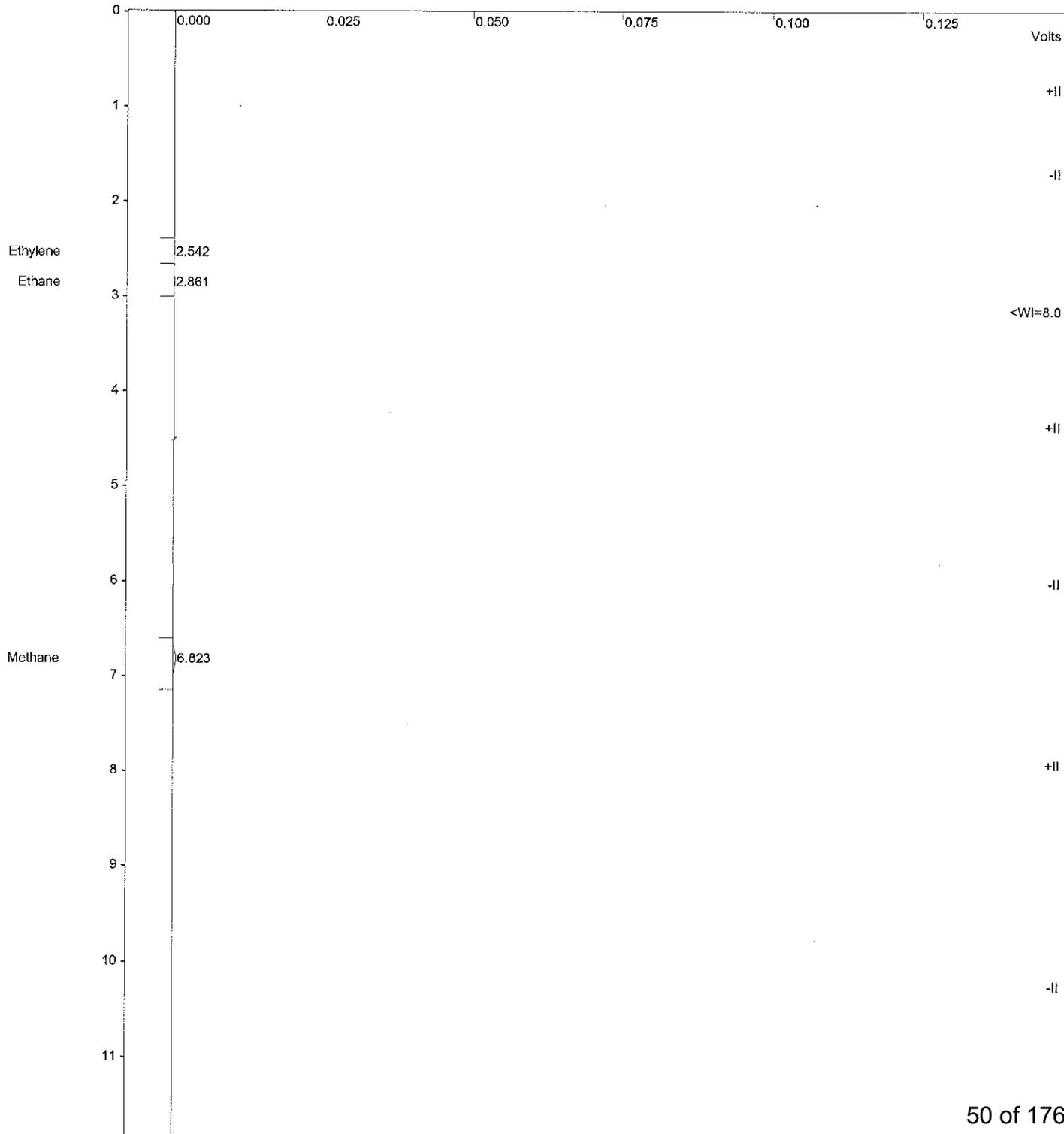
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr011.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-05 Emax

Injection Date: 4/29/2015 13:53 Calculation Date: 4/29/2015 14:05

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr011.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-05 Emax

Injection Date: 4/29/2015 13:53 Calculation Date: 4/29/2015 14:05

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 13 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 10 microVolts

Manual injection

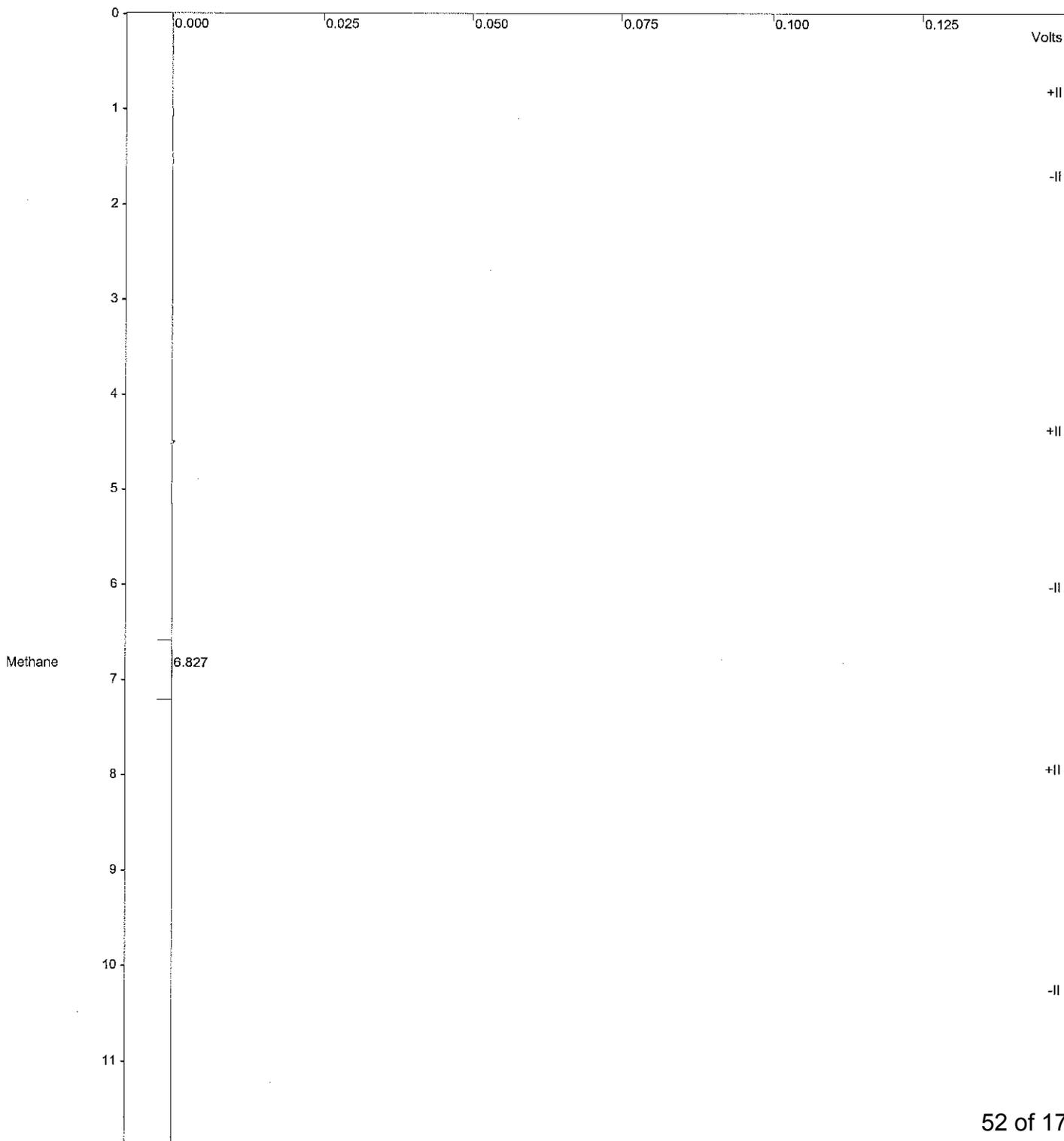
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr012.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-06 Emax

Injection Date: 4/29/2015 14:06 Calculation Date: 4/29/2015 14:18

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr012.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-06 Emax

Injection Date: 4/29/2015 14:06 Calculation Date: 4/29/2015 14:18

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 9 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 18 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

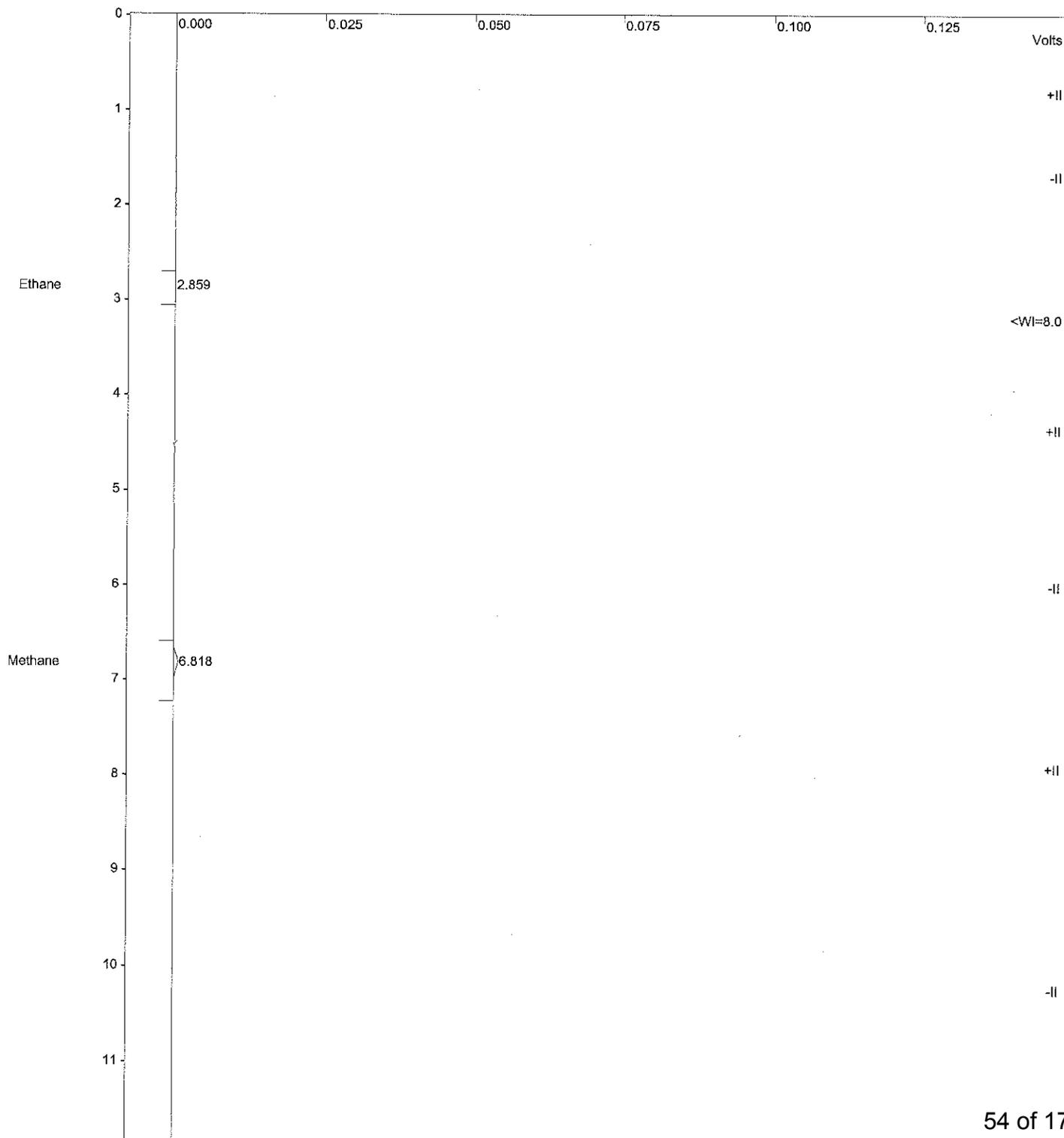
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr013.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-07 Emax

Injection Date: 4/29/2015 14:19 Calculation Date: 4/29/2015 14:31

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr013.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-07 Emax

Injection Date: 4/29/2015 14:19 Calculation Date: 4/29/2015 14:31

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 2 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 15 microVolts

Manual injection

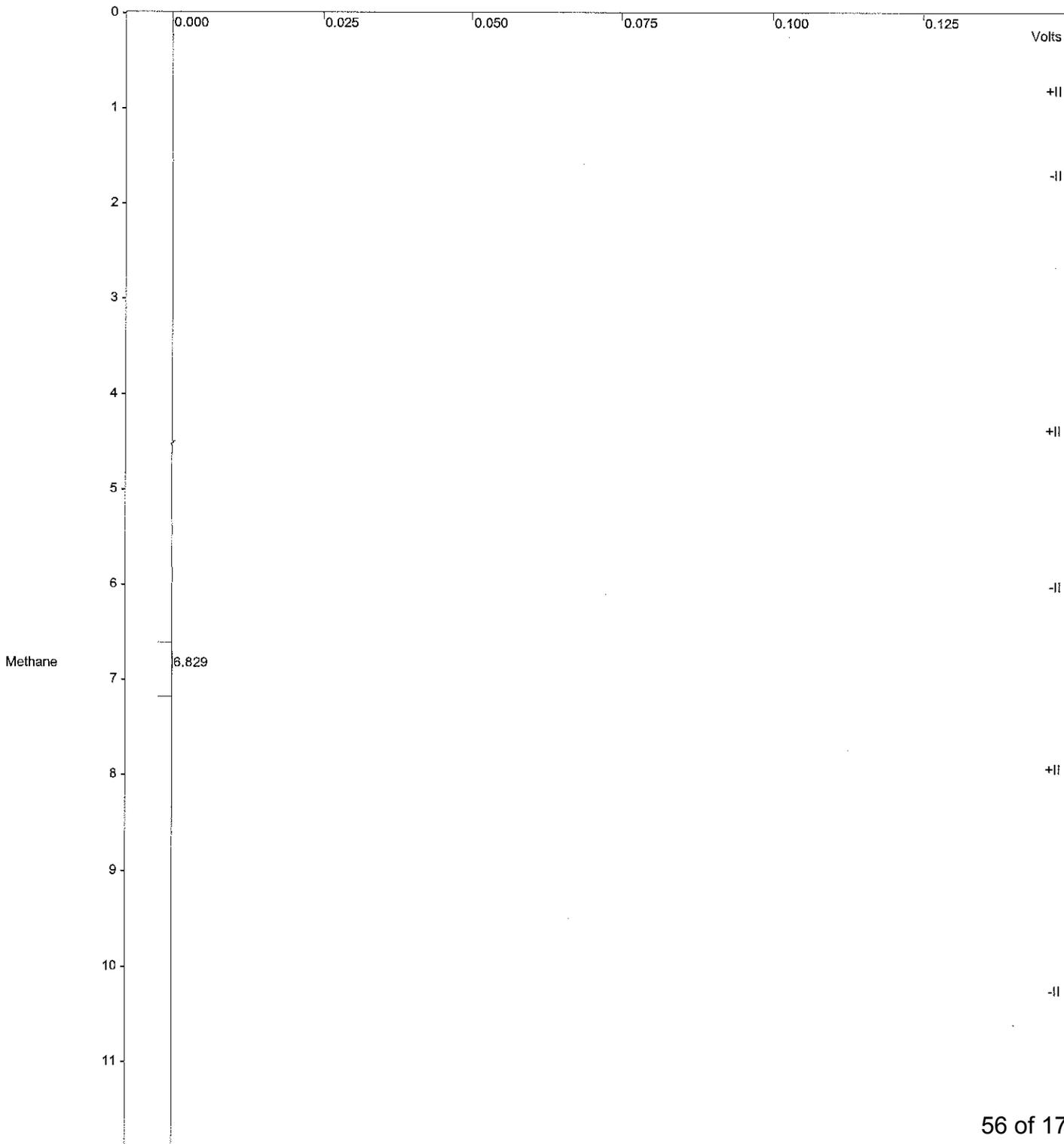
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr014.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-08 Emax

Injection Date: 4/29/2015 14:32 Calculation Date: 4/29/2015 14:44

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr014.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-08 Emax

Injection Date: 4/29/2015 14:32 Calculation Date: 4/29/2015 14:44

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 44 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

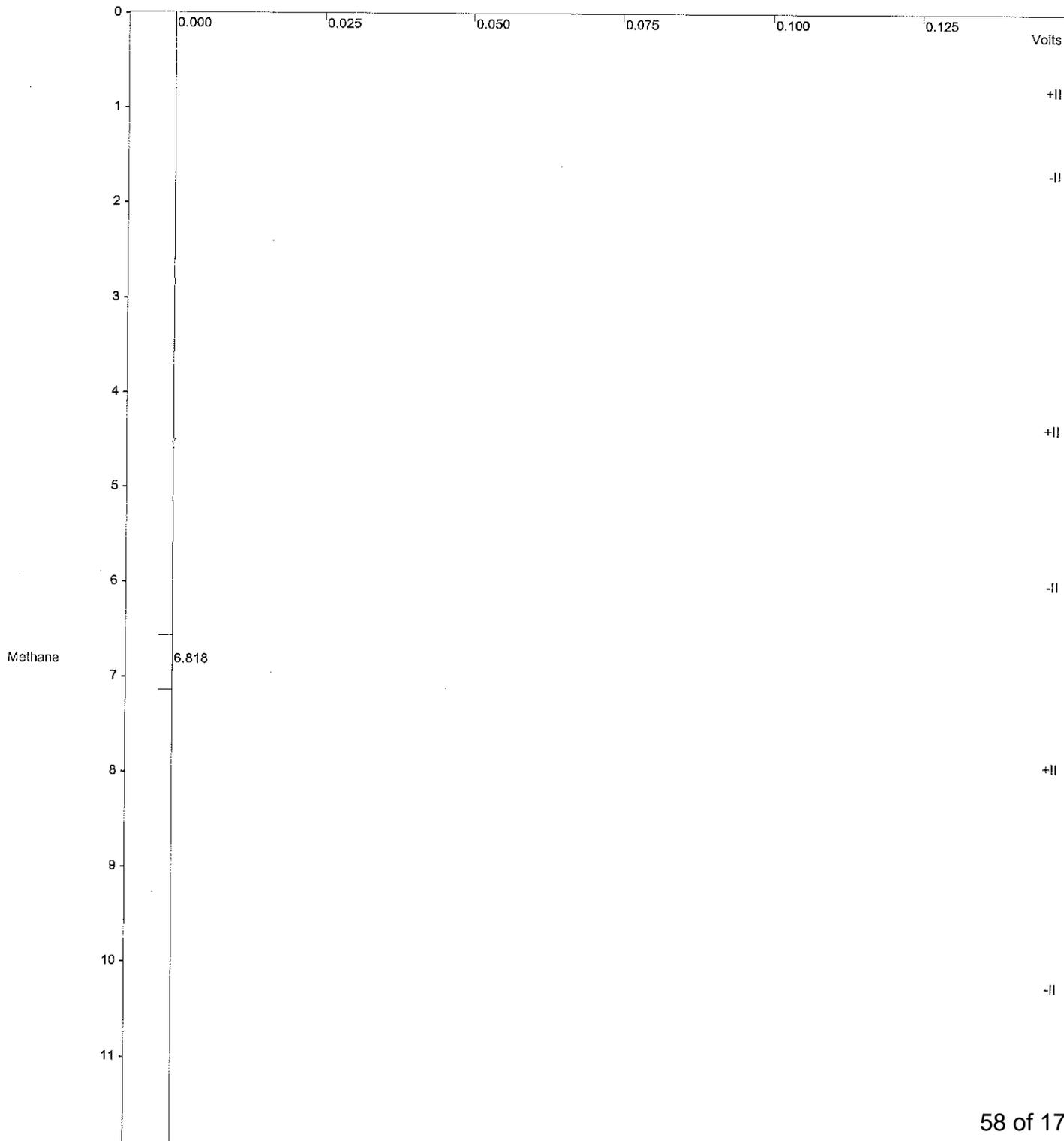
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr015.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-09 Emax

Injection Date: 4/29/2015 14:45 Calculation Date: 4/29/2015 14:57

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr015.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-09 Emax

Injection Date: 4/29/2015 14:45 Calculation Date: 4/29/2015 14:57

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 75 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

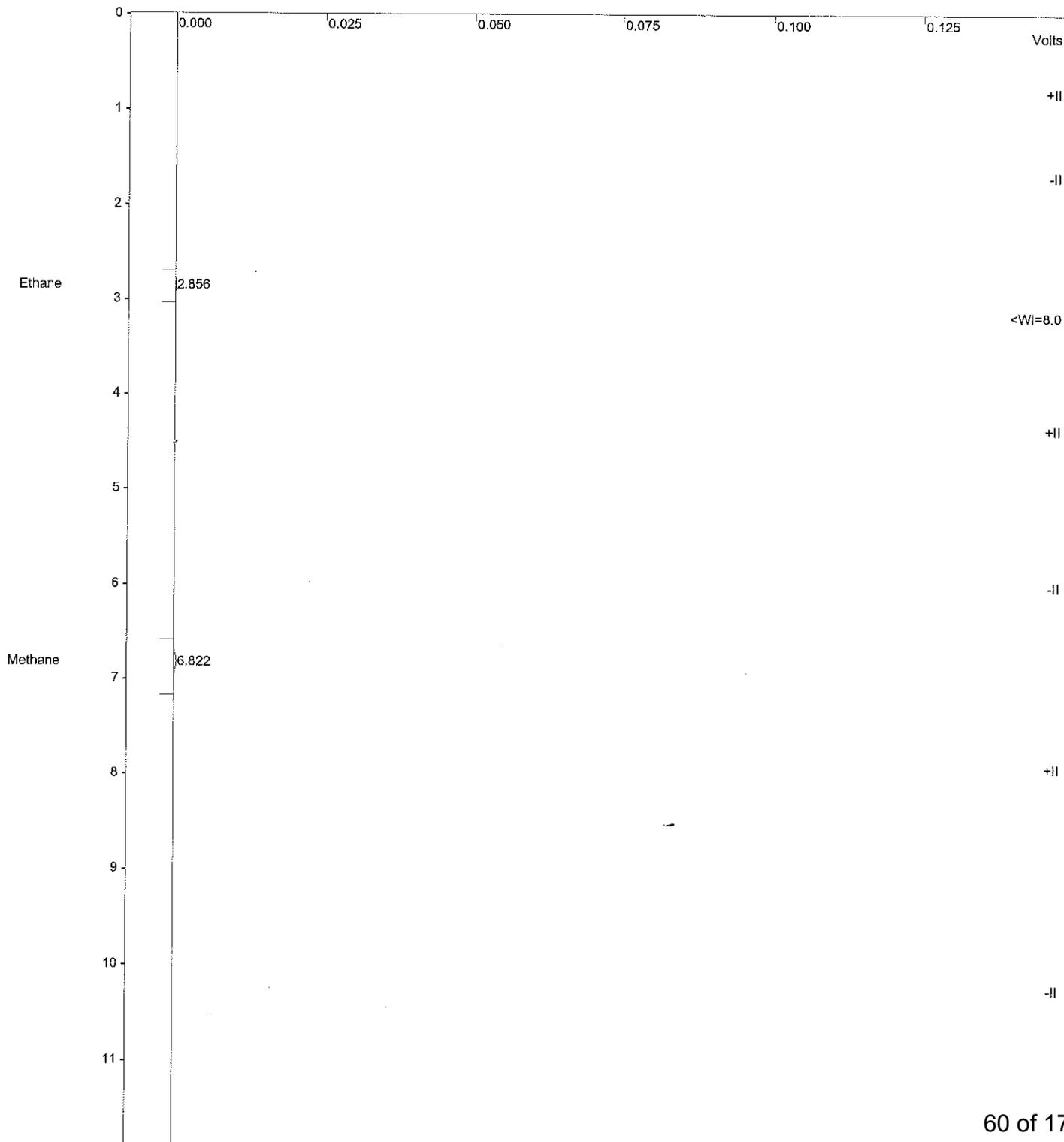
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr016.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-10 Emax

Injection Date: 4/29/2015 14:58 Calculation Date: 4/29/2015 15:10

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr016.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-10 Emax

Injection Date: 4/29/2015 14:58 Calculation Date: 4/29/2015 15:10

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 76 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 14 microVolts

Manual injection

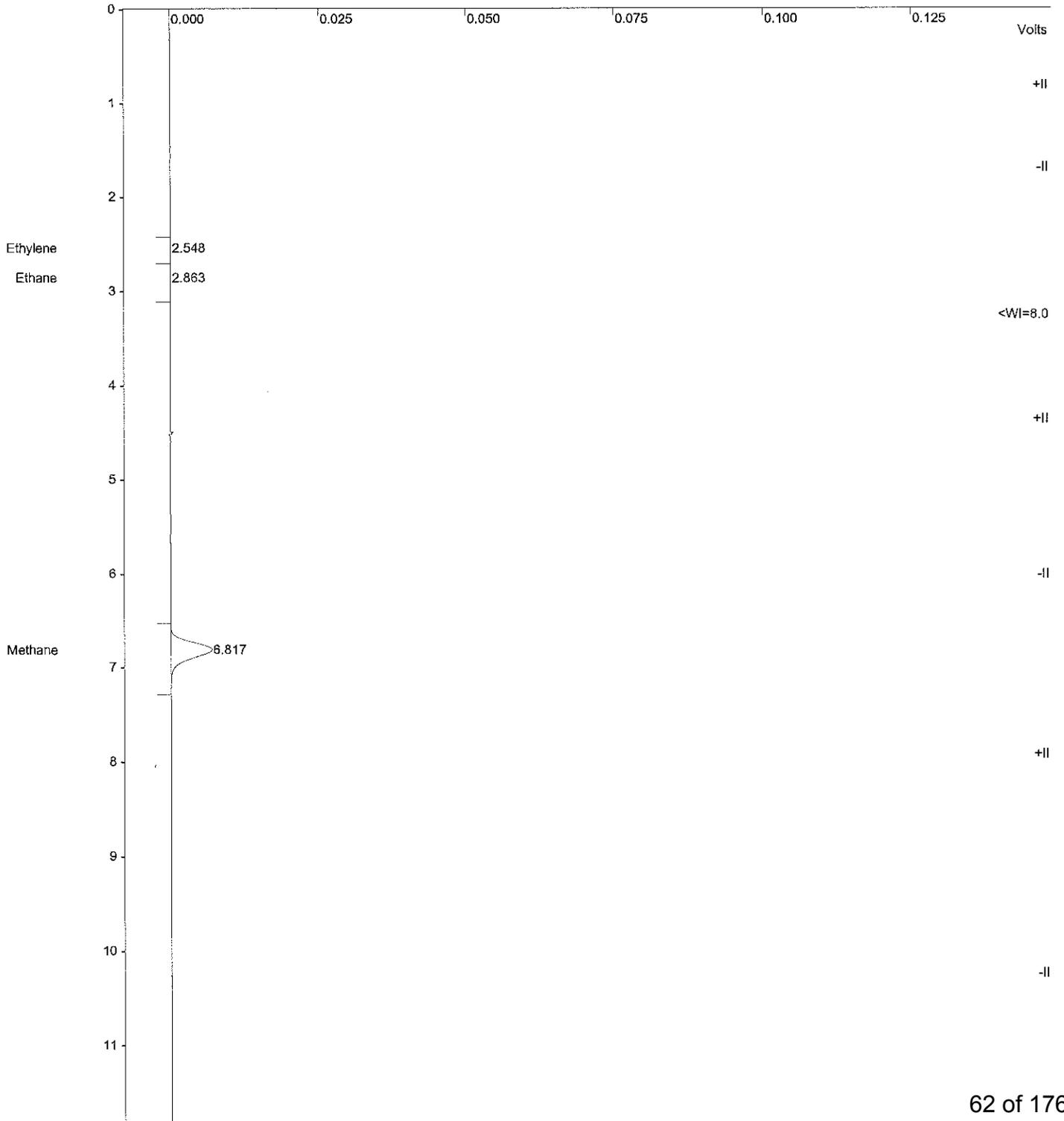
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr017.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-11 Emax

Injection Date: 4/29/2015 15:12 Calculation Date: 4/29/2015 15:23

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr017.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-11 Enax

Injection Date: 4/29/2015 15:12 Calculation Date: 4/29/2015 15:23

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 9 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 75 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\2015\apr\29apr018.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-12 Emáx

Injection Date: 4/29/2015 15:25 / Calculation Date: 4/29/2015 15:37

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 9 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 72 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 9 microVolts

Manual injection

Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr019.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-13 Emax

Injection Date: 4/29/2015 15:39 Calculation Date: 4/29/2015 15:51

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 9 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 86 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

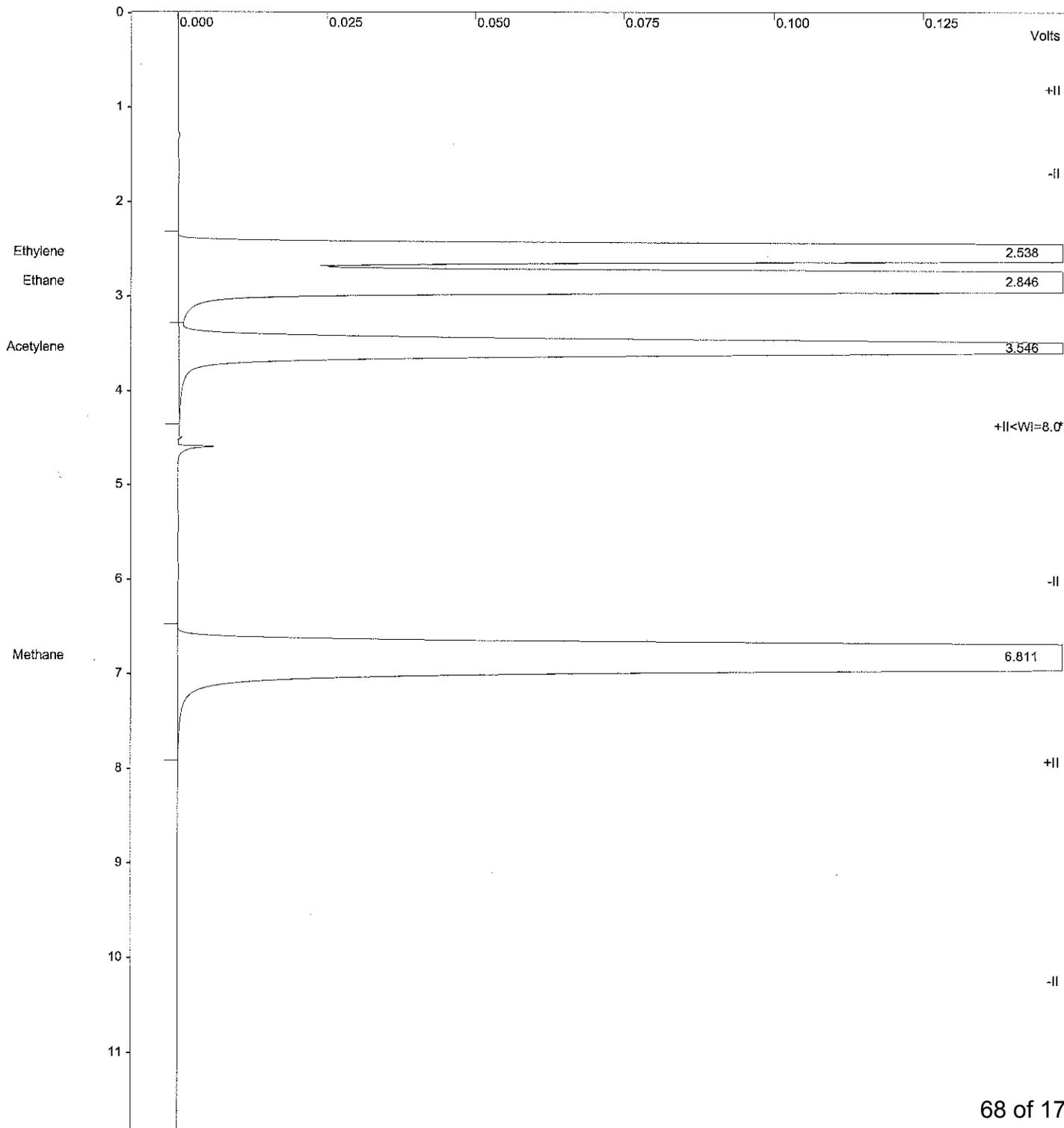
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr021.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-13 MS Emax

Injection Date: 4/29/2015 16:05 Calculation Date: 4/29/2015 16:17

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr021.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-13 MS Emax

Injection Date: 4/29/2015 16:05 Calculation Date: 4/29/2015 16:17

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 74 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

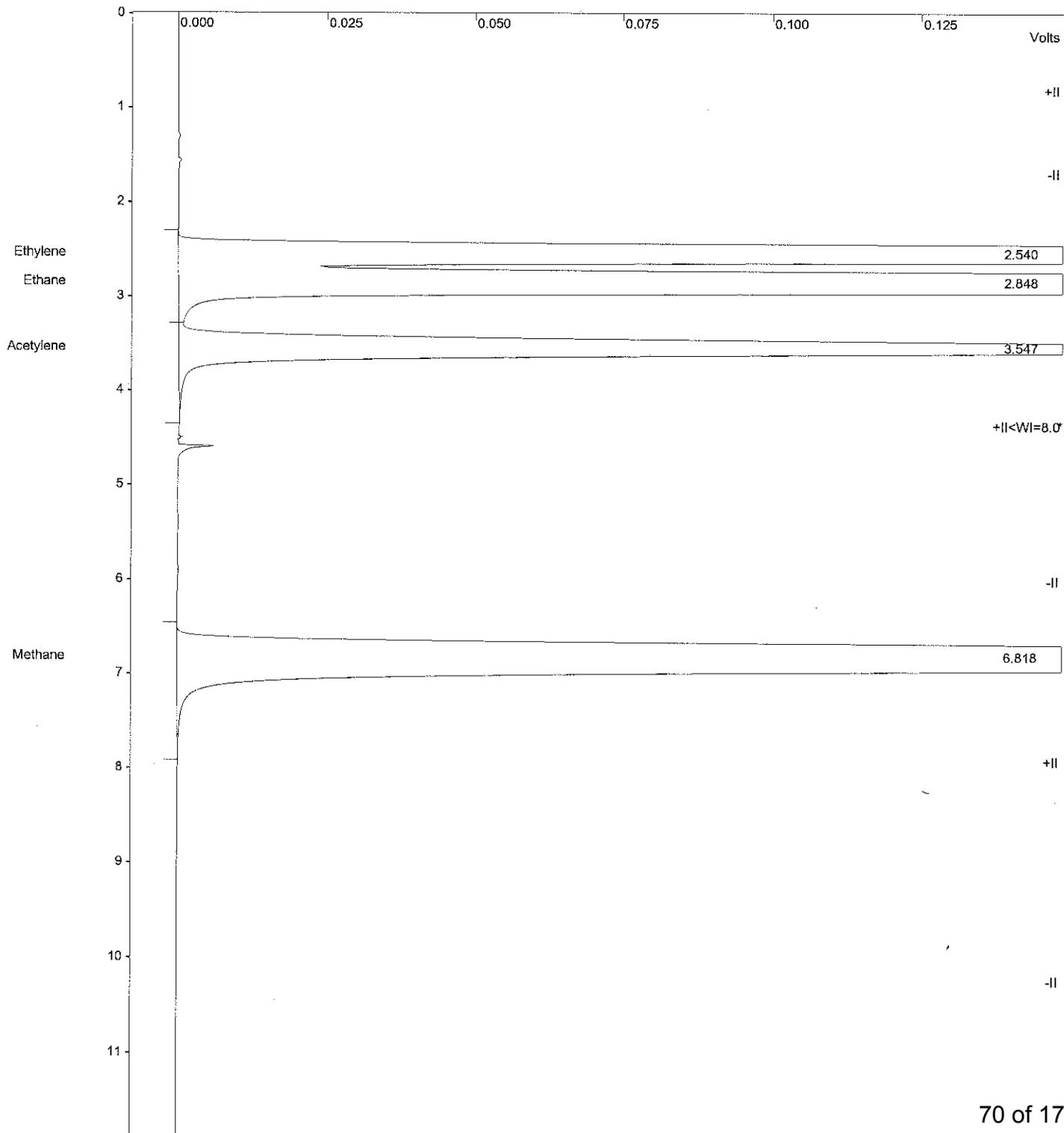
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr022.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-13 MSD Emax

Injection Date: 4/29/2015 16:18 Calculation Date: 4/29/2015 16:30

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr022.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-13 MSD Emax

Injection Date: 4/29/2015 16:18 Calculation Date: 4/29/2015 16:30

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 74 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

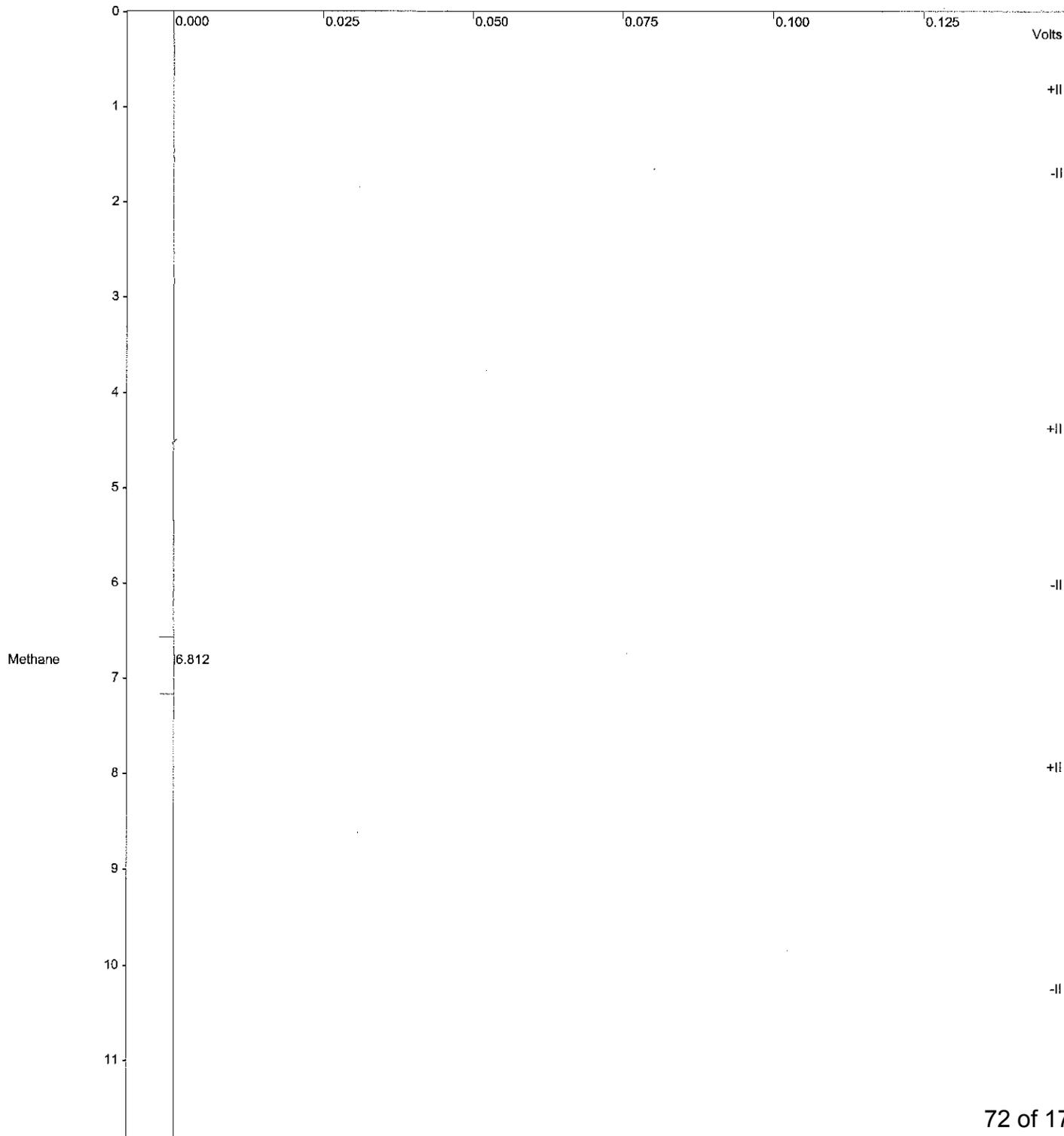
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr020.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-14 Emax

Injection Date: 4/29/2015 15:52 Calculation Date: 4/29/2015 16:04

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr020.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : G042705-14 Emax

Injection Date: 4/29/2015 15:52 Calculation Date: 4/29/2015 16:04

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 74 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

		G042705-01	30apr040							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units	
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv	
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none	
m										
b										
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml	
A _i	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L	
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L	
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L	
LCS/D calculation										
		spike amt.								
	ug	%	mL	MW		mg/L	%R			
	26.175869	1	4	16 Methane		0.6543967	#VALUE!			
	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!			
	#VALUE!	NA	4	32 Oxygen		#VALUE!	#VALUE!			
	71.98364	1	4	44 CO2		1.799591	#VALUE!			
			4	28 Nitrogen						

G042705-02 30apr041									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A _l	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
spike amt.									
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	#VALUE!		
	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!		
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.98364	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

G042705-03 30apr042									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A _t	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16	Methane	0.6543967	#VALUE!		
	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!		
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!		
	71.98364	1	4	44	CO2	1.799591	#VALUE!		
			4	28	Nitrogen				

G042705-04 30apr043									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m_b									
x_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A_l	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16 Methane	0.6543967	#VALUE!			
	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					

G042705-05/30apr044									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m_b									
x_g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A_1	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16 Methane	0.6543967	#VALUE!			
	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					

		G042705-06		30apr045							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units		
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv		
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none		
m											
b											
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml		
A ₁	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L		
LCS/D calculation											
		spike amt.									
	ug	%	mL	MW		mg/L	%R				
	26.175869	1	4	16	Methane	0.6543967	#VALUE!				
	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						

		G042705-07		30apr046							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units		
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv		
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none		
m											
b											
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml		
A _i	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L		
LCS/D calculation											
		spike amt.									
	ug	%	mL	MW		mg/L	%R				
	26.175869	1	4	16 Methane		0.6543967	#VALUE!				
	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							

G042705-08 30apr048									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A _l	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16 Methane		0.6543967	#VALUE!		
	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					

G042705-09 30apr049									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
P _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m									
b									
X _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
η _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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A ₁	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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	#VALUE!			
	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					

G042705-10 30apr050									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m									
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A _i	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16 Methane	0.6543967	#VALUE!			
	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					

		G042705-11		30apr051							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units		
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv		
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none		
m											
b											
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml		
A ₁	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L		
LCS/D calculation											
		spike amt.									
	ug	%	mL	MW		mg/L	%R				
	26.175869	1	4	16	Methane	0.6543967	#VALUE!				
	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						

		G042705-12		30apr052							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units		
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv		
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none		
m											
b											
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml		
A ₁	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L		
LCS/D calculation											
		spike amt.									
	ug	%	mL	MW		mg/L	%R				
	26.175869	1	4	16 Methane		0.6543967	#VALUE!				
	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!				
	#VALUE!	NA	4	32 Oxygen		#VALUE!	#VALUE!				
	71.98364	1	4	44 CO2		1.799591	#VALUE!				
			4	28 Nitrogen							

G042705-13 30apr053									
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
m									
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none
H	11400	30200	1330	41300	43800	70700	1640	86500	none
n _g									none
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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml
A _i	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L
LCS/D calculation									
		spike amt.							
	ug	%	mL	MW		mg/L	%R		
	26.175869	1	4	16 Methane	0.6543967	#VALUE!			
	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!			
	#VALUE!	NA	4	32 Oxygen	#VALUE!	#VALUE!			
	71.98364	1	4	44 CO2	1.799591	#VALUE!			
			4	28 Nitrogen					

		G042705-14		30apr055							
Parameter	ethene	ethane	acetylene	methane	O2	H2	CO2	N2	Units		
ppmv in headspace	NA	NA	NA	NA	NA	0	NA	NA	ppmv		
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	none		
m											
b											
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#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!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	ml		
A _l	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0	#VALUE!	#VALUE!	mg/L		
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#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!	#VALUE!	#VALUE!	0.00	#VALUE!	#VALUE!	ug/L		
LCS/D calculation:											
spike amt.											
	ug	%	mL	MW		mg/L	%R				
	26.175869	1	4	16	Methane	0.6543967	#VALUE!				
	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!				
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!				
	71.98364	1	4	44	CO2	1.799591	#VALUE!				
			4	28	Nitrogen						

G042705-13 MS		30apr057	4/30/2015					
Parameter	methane	ethane	ethene	O2	CO2	H2	acetylene	Units
ppmv in headspace	NA	NA	NA	NA	NA	7647.621	NA	ppmv
P _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0076476	#VALUE!	none
m								
b								
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	1.082E-07	#VALUE!	none
H	41300	30200	11400	43800	1640	70700	1330	none
n _g								
n _w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V								
C	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0120069	#VALUE!	mg/L
MW	16	30	28	32	44	2	44	g/mole
ST	25	25	25	25	25	25	25	°C
p	0.6540332	1.2263123	1.1445581	1.3080664	1.7985913	0.0817542	1.7985913	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	ml
A _h	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0305905	#VALUE!	ml
A ₁	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0694694	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0814763	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	81.48	#VALUE!	ug/L
Reporting limit	1.0	2.0	3.0	1000.00	20	10.00	20.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	81	#VALUE!	ug/L
LCS/D calculation								
		spike amt.						
	ug	%	mL	MW		mg/L	%R	
	26.175869	1	4	16	Methane	0.6543967	#VALUE!	
	49.079755	1	4	30	Ethane	1.2269939	#VALUE!	
	45.807771	1	4	28	Ethene	1.1451943	#VALUE!	
	#VALUE!	NA	4	26	Acetylene	#VALUE!	#VALUE!	
	#VALUE!	NA	4	44	Propane	#VALUE!		
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!	
	71.98364	1	4	44	CO2	1.799591	#VALUE!	
	3.2719836	1	4	2	Hydrogen	0.0817996	99.604766	

G042705-13 MSD		30apr059	4/30/2015					
Parameter	methane	ethane	ethene	O2	CO2	H2	acetylene	Units
ppmv in headspace	NA	NA	NA	NA	NA	7929.192	NA	ppmv
p _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0079292	#VALUE!	none
m								
b								
x _g	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	1.122E-07	#VALUE!	none
H	41300	30200	11400	43800	1640	70700	1330	none
n _g								
n _w	55.5	55.5	55.5	55.5	55.5	55.5	55.5	moles/L
V								
C	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0124489	#VALUE!	mg/L
MW	16	30	28	32	44	2	44	g/mole
ST	25	25	25	25	25	25	25	°C
p	0.6540332	1.2263123	1.1445581	1.3080664	1.7985913	0.0817542	1.7985913	g/L
v	0.036	0.036	0.036	0.036	0.036	0.036	0.036	L
bv	40	40	40	40	40	40	40	ml
hv	4	4	4	4	4	4	4	ml
A _n	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0317168	#VALUE!	ml
A ₁	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0720272	#VALUE!	mg/L
TC _(mg/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0844761	#VALUE!	mg/L
TC _(ug/L)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	84.48	#VALUE!	ug/L
Reporting limit	1.0	2.0	3.0	1000.00	20	10.00	20.00	ug/L
Final Result	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	84	#VALUE!	ug/L
LCS/D calculation								
		spike amt.						
	ug	%	mL	MW		mg/L	%R	
	26.175869	1	4	16	Methane	0.6543967	#VALUE!	
	49.079755	1	4	30	Ethane	1.2269939	#VALUE!	
	45.807771	1	4	28	Ethene	1.1451943	#VALUE!	
	#VALUE!	NA	4	26	Acetylene	#VALUE!	#VALUE!	
	#VALUE!	NA	4	44	Propane	#VALUE!		
	#VALUE!	NA	4	32	Oxygen	#VALUE!	#VALUE!	
	71.98364	1	4	44	CO2	1.799591	#VALUE!	
	3.2719836	1	4	2	Hydrogen	0.0817996	103.27203	✓

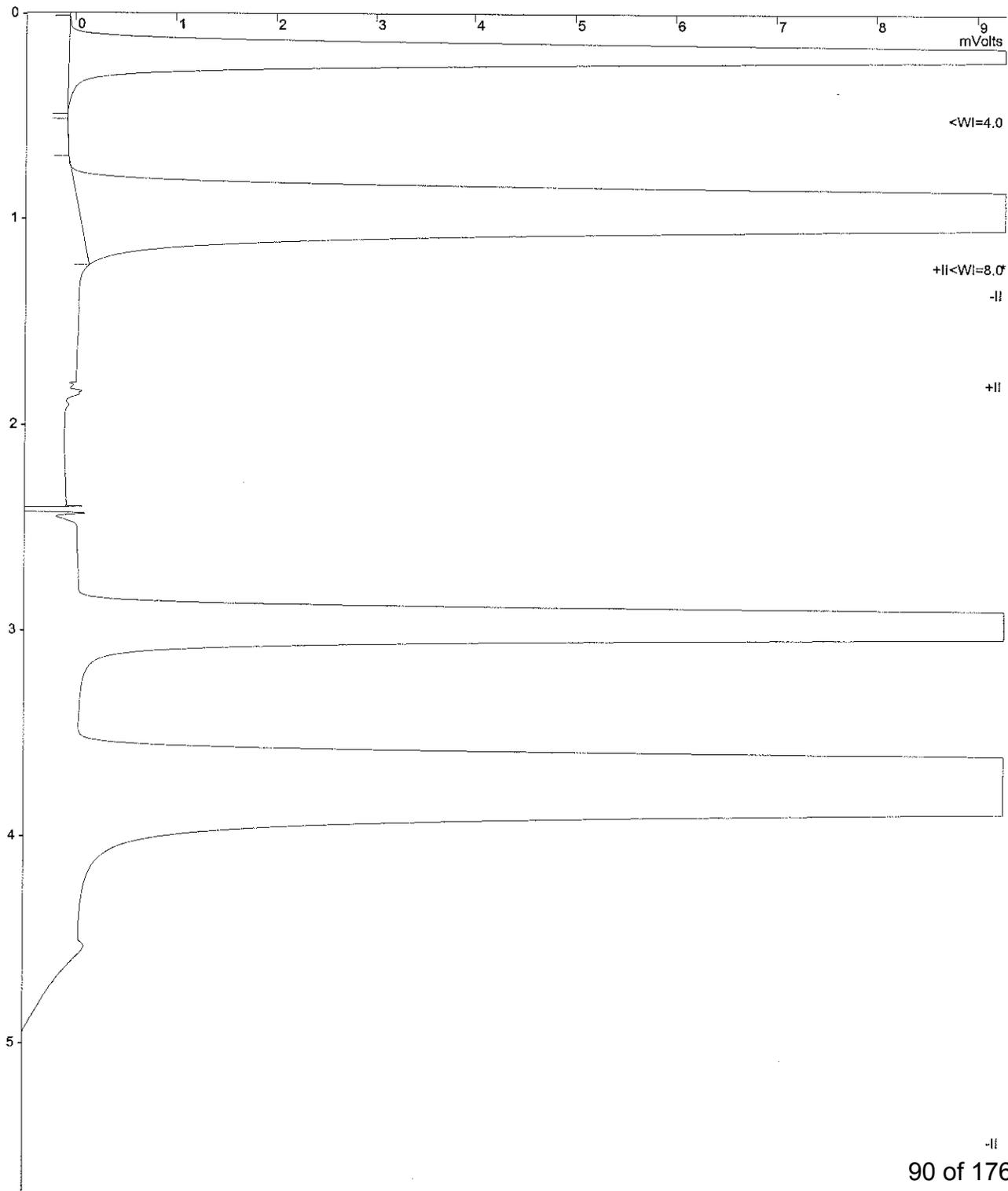
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr040.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-01 Emax

Injection Date: 4/30/2015 14:19 Calculation Date: 4/30/2015 14:24

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr040.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-01 Emax

Injection Date: 4/30/2015 14:19 Calculation Date: 4/30/2015 14:24

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 372759 counts

Detected Peaks: 3 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -55 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 6 microVolts

Manual injection

Revision Log:

4/30/2015 14:24: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 14:18:30

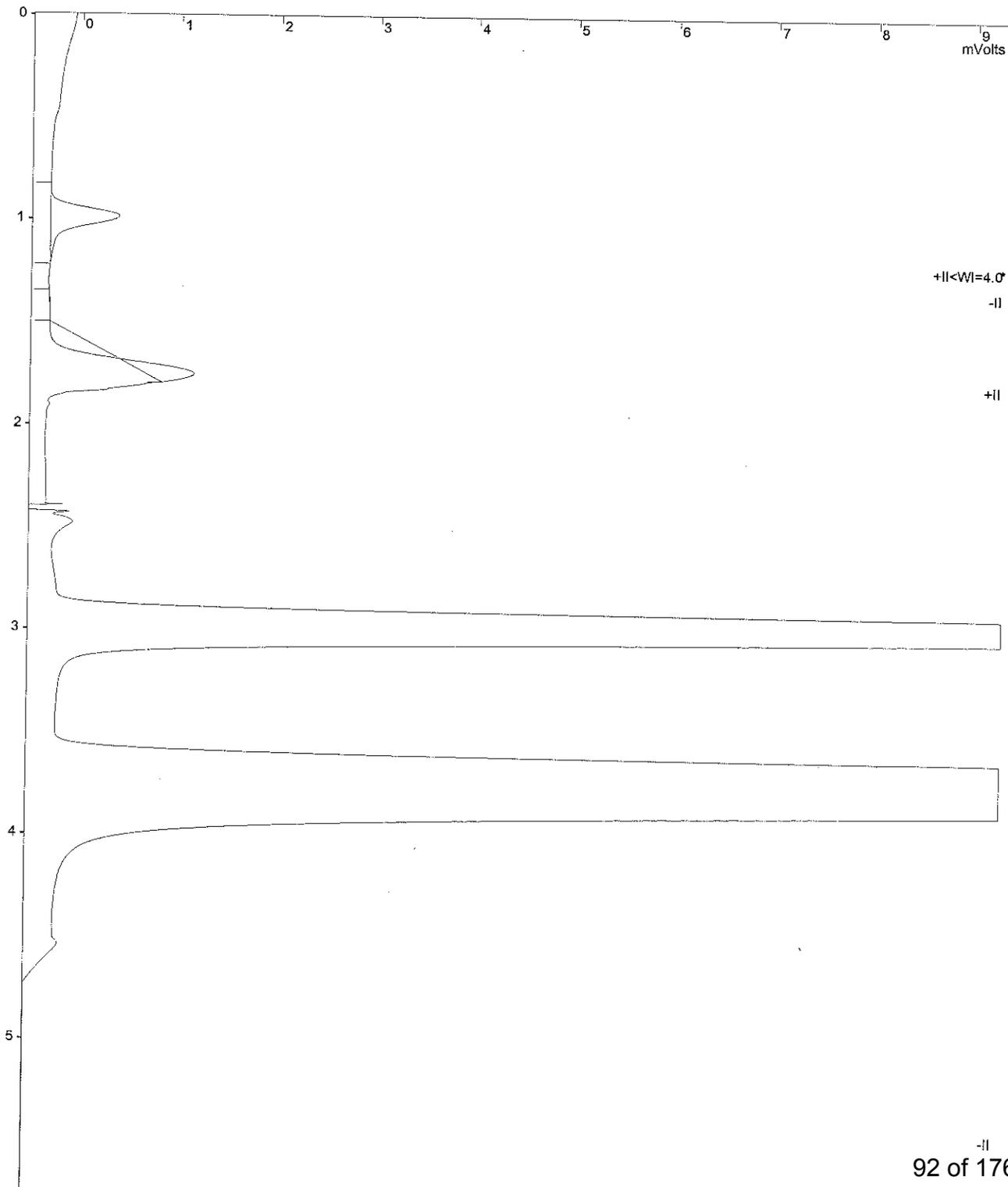
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr041.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-02 Emax

Injection Date: 4/30/2015 14:26 Calculation Date: 4/30/2015 14:31

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr041.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-02 Emax

Injection Date: 4/30/2015 14:26 Calculation Date: 4/30/2015 14:31

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 4210 counts

Detected Peaks: 3 Rejected Peaks: 2 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -59 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 19 microVolts

Manual injection

Revision Log:

4/30/2015 14:31: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 14:24:39

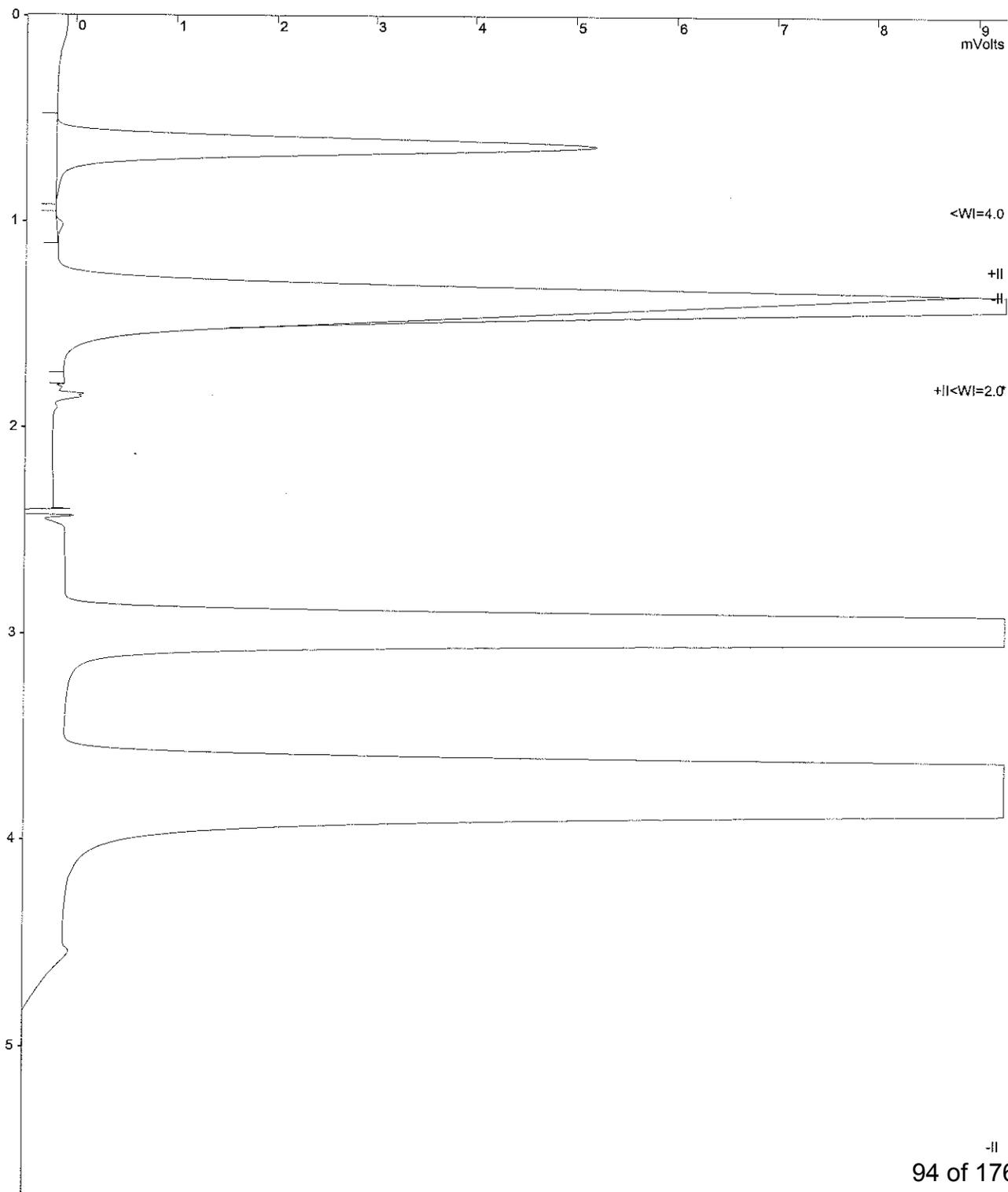
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr042.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-03 Emax

Injection Date: 4/30/2015 14:33 Calculation Date: 4/30/2015 14:38

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr042.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-03 Emax

Injection Date: 4/30/2015 14:33 Calculation Date: 4/30/2015 14:38

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 52874 counts

Detected Peaks: 4 Rejected Peaks: 1 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): 16 microVolts

Manual injection

Revision Log:

4/30/2015 14:38: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 14:31:34

Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr043.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-04 Emax

Injection Date: 4/30/2015 14:40 Calculation Date: 4/30/2015 14:45

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, 0.000, 0.000, 0, M.

Status Codes:
M - Missing peak

Total Unidentified Counts : 59954 counts

Detected Peaks: 2 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -89 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 27 microVolts

Manual injection

Revision Log:

4/30/2015 14:45: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 14:38:48

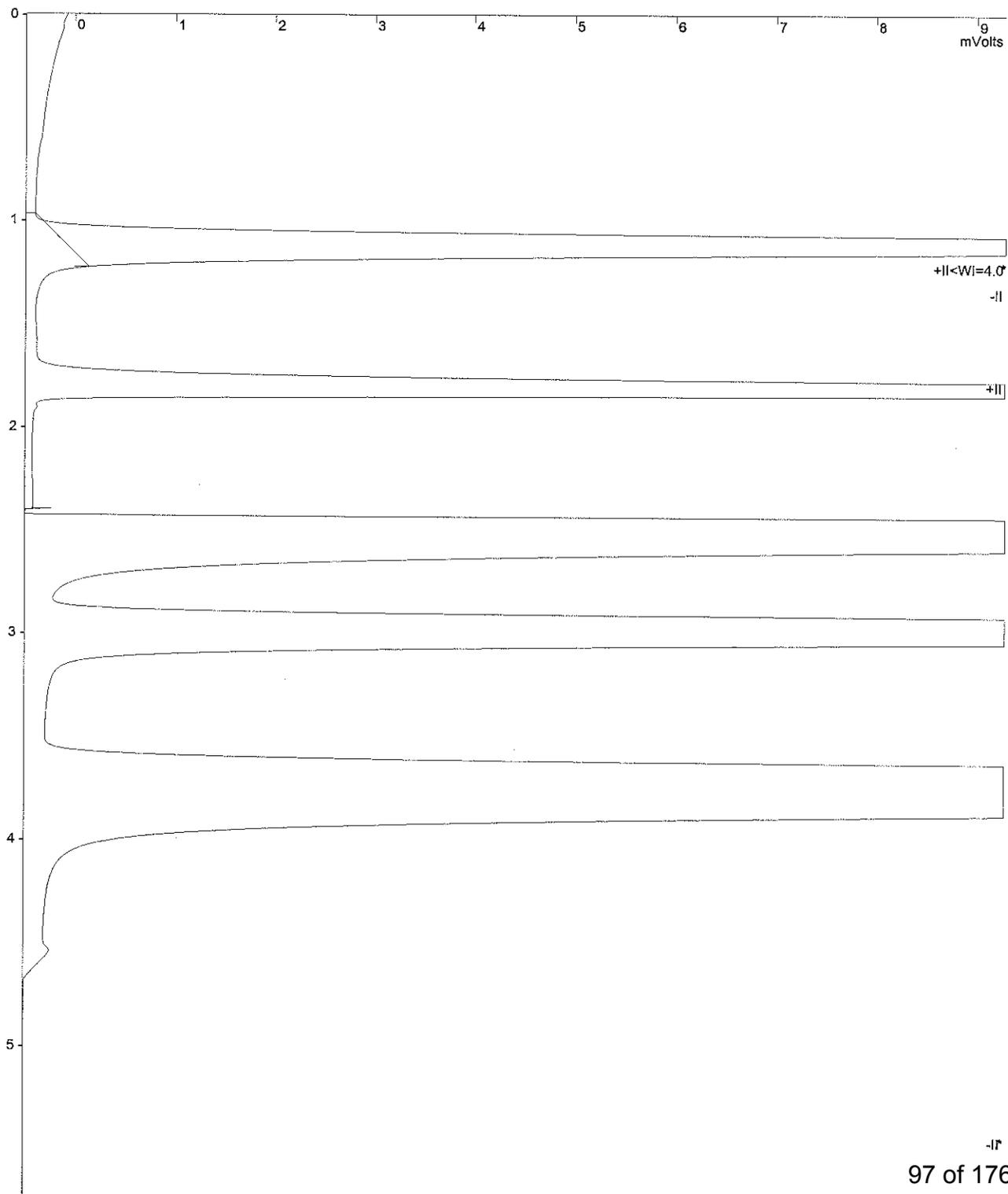
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr044.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-05 Emax

Injection Date: 4/30/2015 14:46 Calculation Date: 4/30/2015 14:52

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr044.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-05 Emax

Injection Date: 4/30/2015 14:46 Calculation Date: 4/30/2015 14:52

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 95139 counts

Detected Peaks: 2 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -76 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 28 microVolts

Manual injection

Revision Log:

4/30/2015 14:52: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 14:45:35

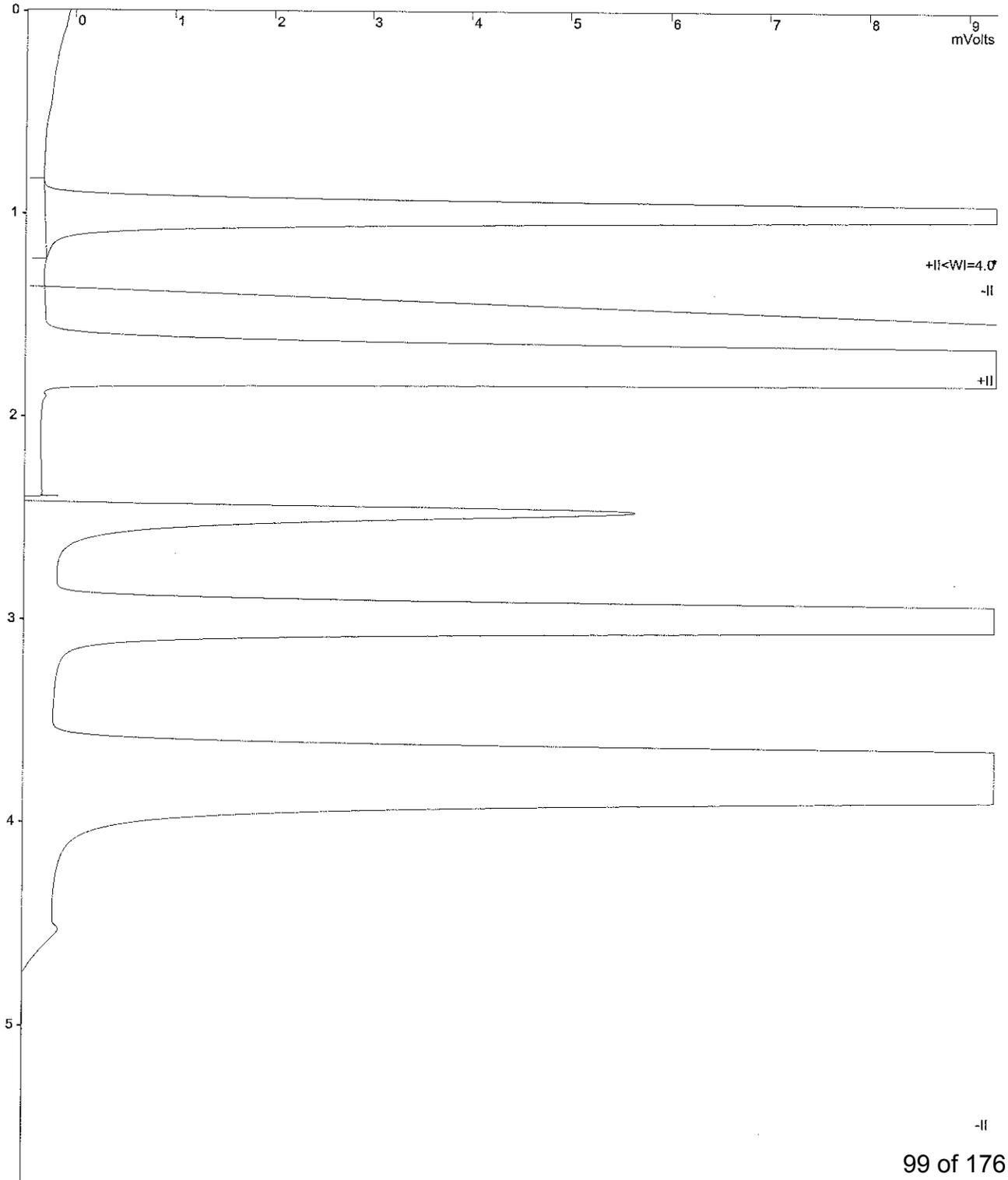
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr045.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-06 Emax

Injection Date: 4/30/2015 14:53 Calculation Date: 4/30/2015 14:59

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr045.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-06 Emax

Injection Date: 4/30/2015 14:53 Calculation Date: 4/30/2015 14:59

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 93843 counts

Detected Peaks: 3 Rejected Peaks: 2 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -56 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 31 microVolts

Manual injection

Revision Log:

4/30/2015 14:59: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 14:52:21

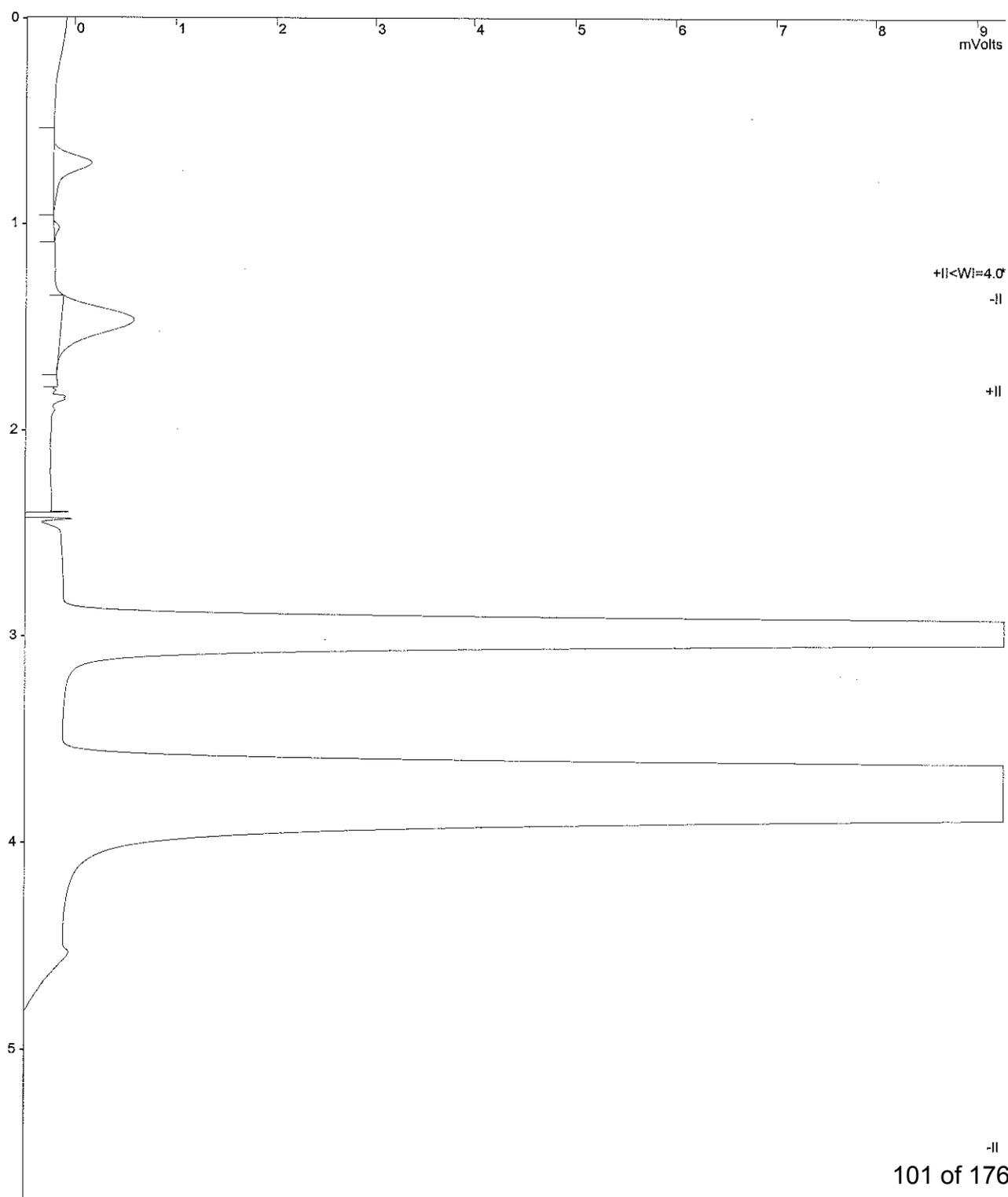
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr046.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-07 Emax

Injection Date: 4/30/2015 15:00 Calculation Date: 4/30/2015 15:06

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr046.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-07 Enmax

Injection Date: 4/30/2015 15:00 Calculation Date: 4/30/2015 15:06

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, 0.000, 0.000, 0, M.

Status Codes:
M - Missing peak

Total Unidentified Counts : 8663 counts

Detected Peaks: 5 Rejected Peaks: 2 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): 25 microVolts

Manual injection

Revision Log:

4/30/2015 15:06: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 14:59:13

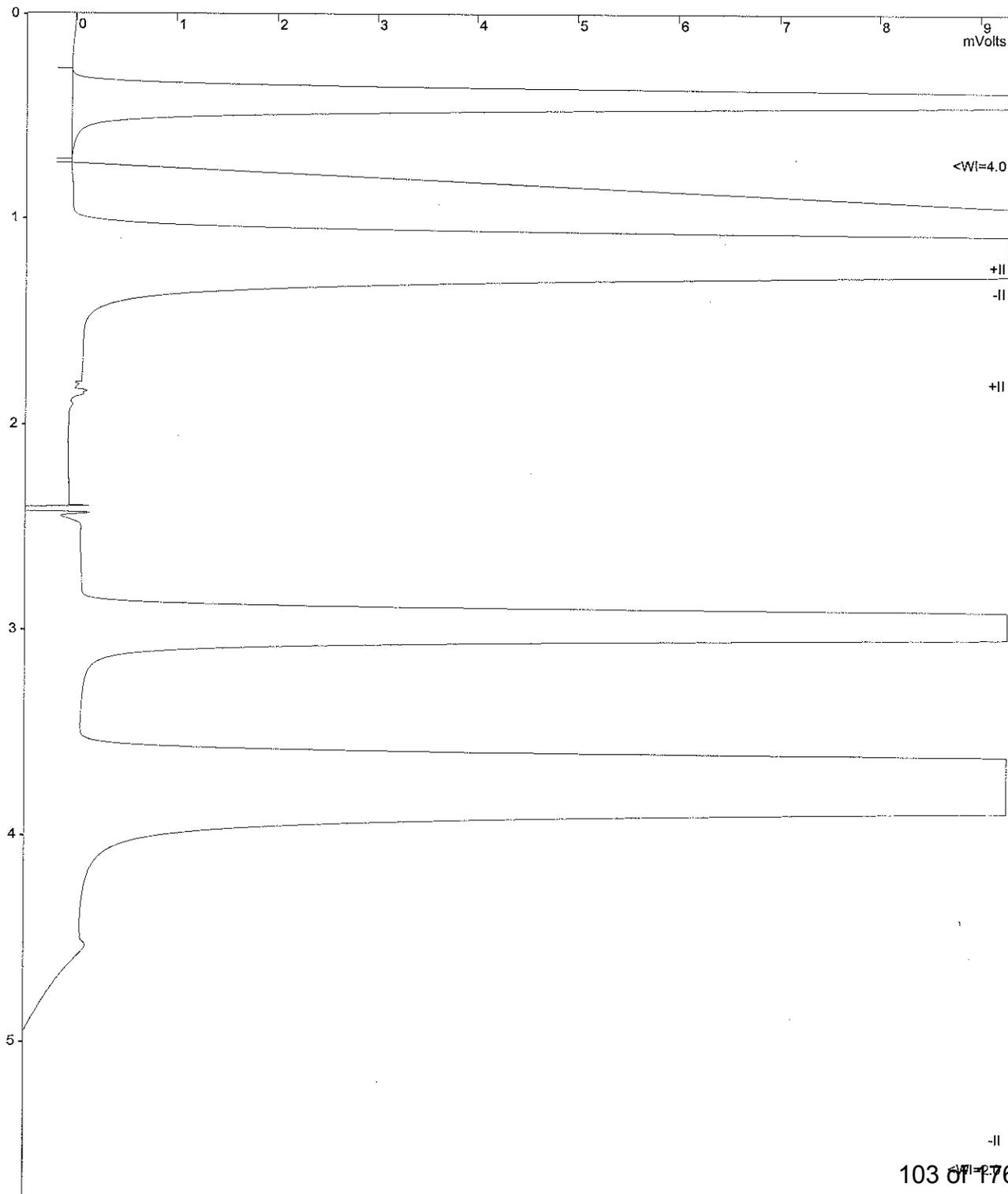
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr048.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-08 Emax

Injection Date: 4/30/2015 15:16 Calculation Date: 4/30/2015 15:22

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr048.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-08 Emax

Injection Date: 4/30/2015 15:16 Calculation Date: 4/30/2015 15:22

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 84398 counts

Detected Peaks: 3 Rejected Peaks: 2 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -3 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

Revision Log:

4/30/2015 15:22: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 15:15:43

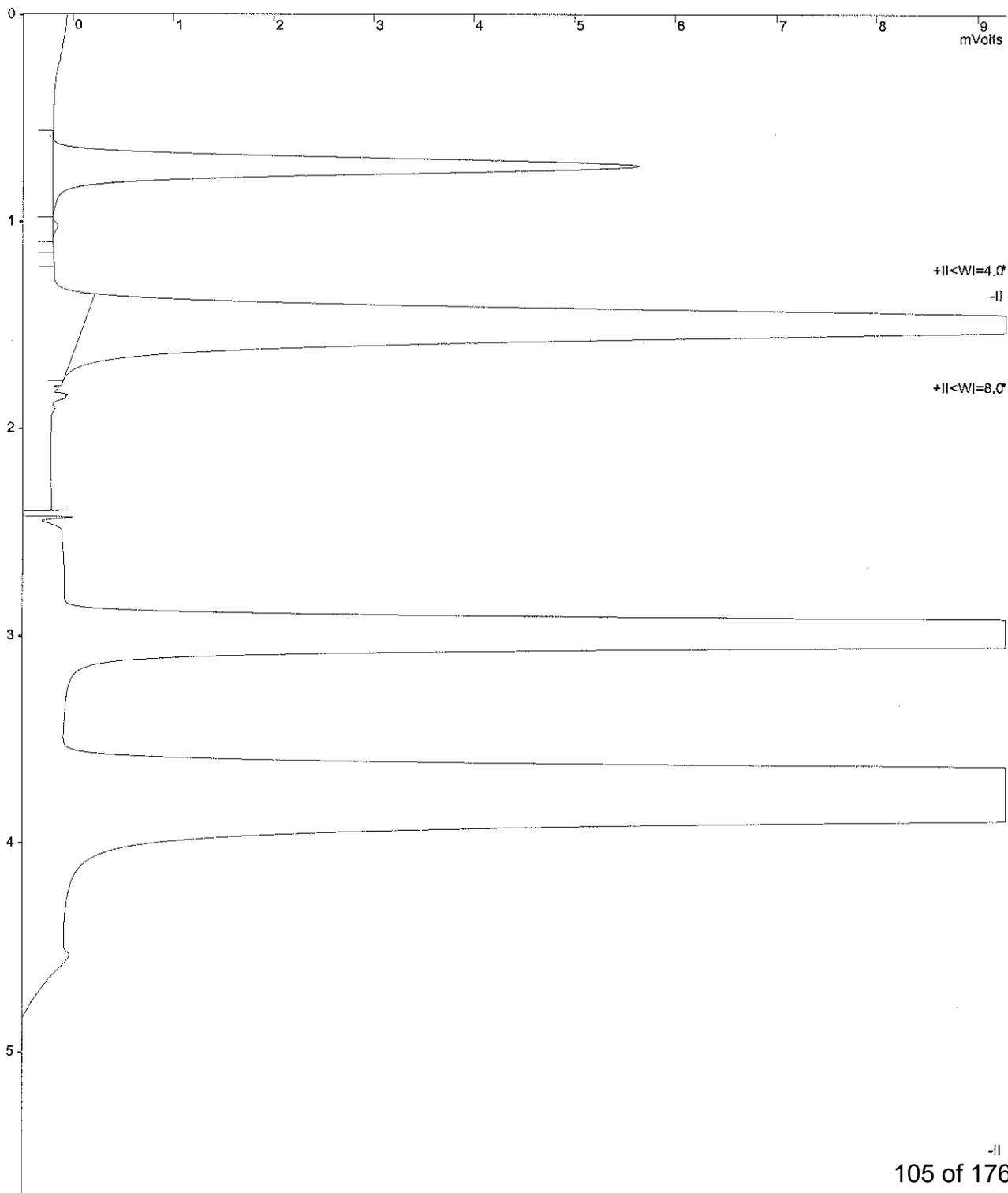
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr049.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-09 Emax

Injection Date: 4/30/2015 15:23 Calculation Date: 4/30/2015 15:29

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr049.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-09 Emax

Injection Date: 4/30/2015 15:23 Calculation Date: 4/30/2015 15:29

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 139599 counts

Detected Peaks: 5 Rejected Peaks: 2 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): 294 microVolts

Manual injection

Revision Log:

4/30/2015 15:29: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 15:21:51

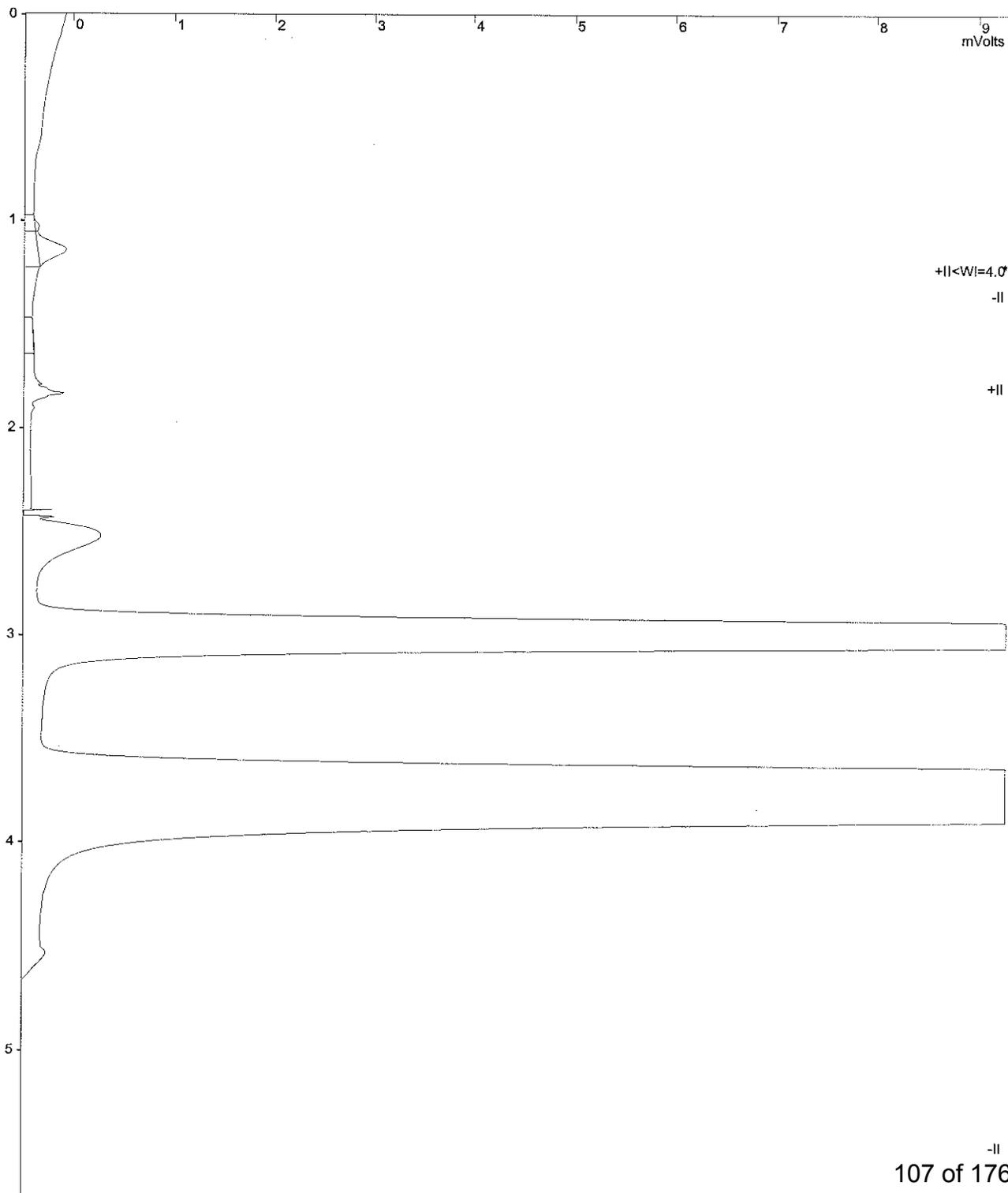
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr050.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-10 Emax

Injection Date: 4/30/2015 15:30 Calculation Date: 4/30/2015 15:35

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr050.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-10 Emax

Injection Date: 4/30/2015 15:30 Calculation Date: 4/30/2015 15:35

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 1539 counts

Detected Peaks: 3 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -76 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 27 microVolts

Manual injection

Revision Log:

4/30/2015 15:35: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 15:28:58

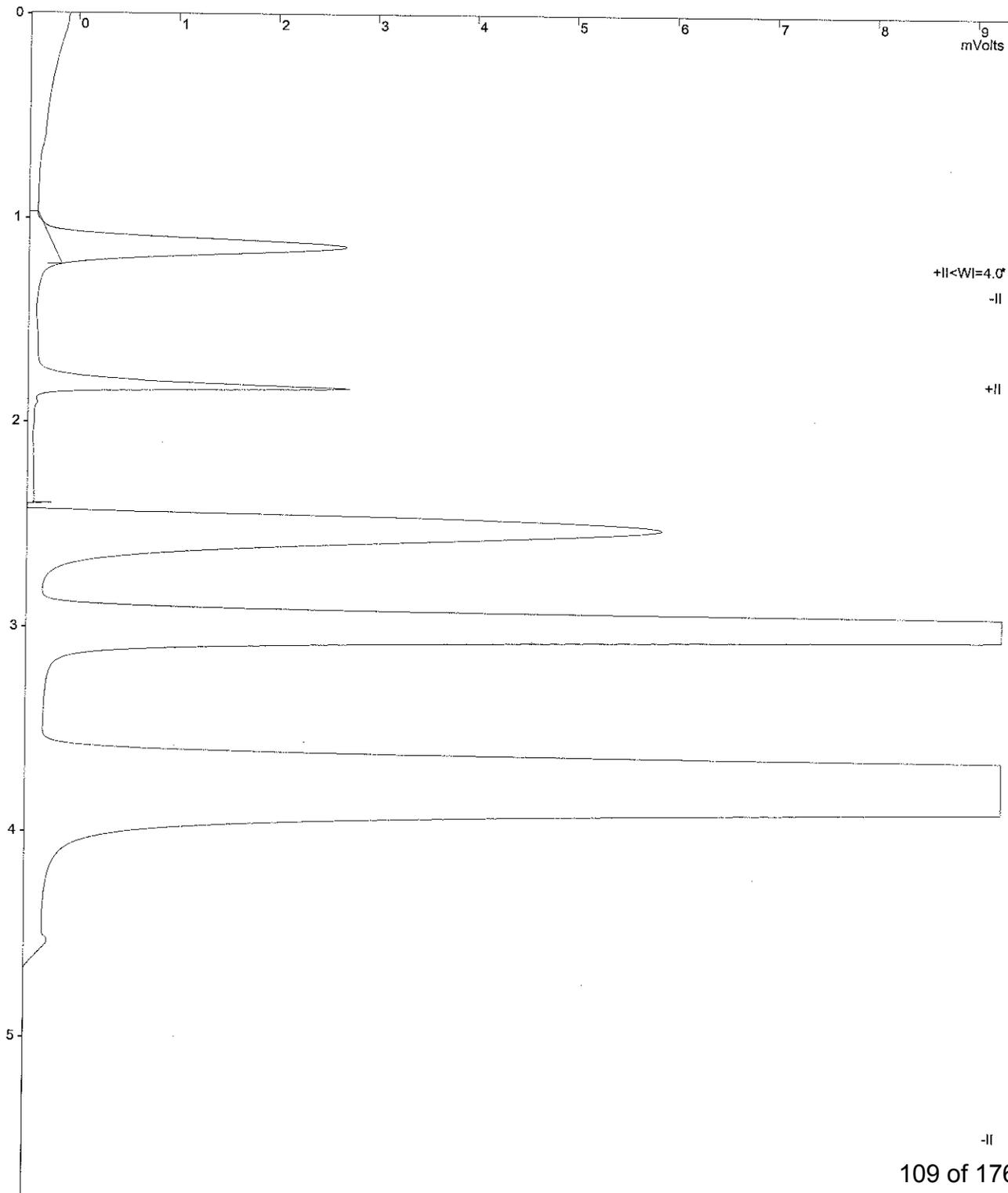
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr051.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-11 Emax

Injection Date: 4/30/2015 15:36 Calculation Date: 4/30/2015 15:42

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr051.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-11 Zmax

Injection Date: 4/30/2015 15:36 Calculation Date: 4/30/2015 15:42

Operator : AS Detector Type: 3800 (10 volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 15008 counts

Detected Peaks: 1 Rejected Peaks: 0 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -86 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

Revision Log:

4/30/2015 15:42: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 15:35:46

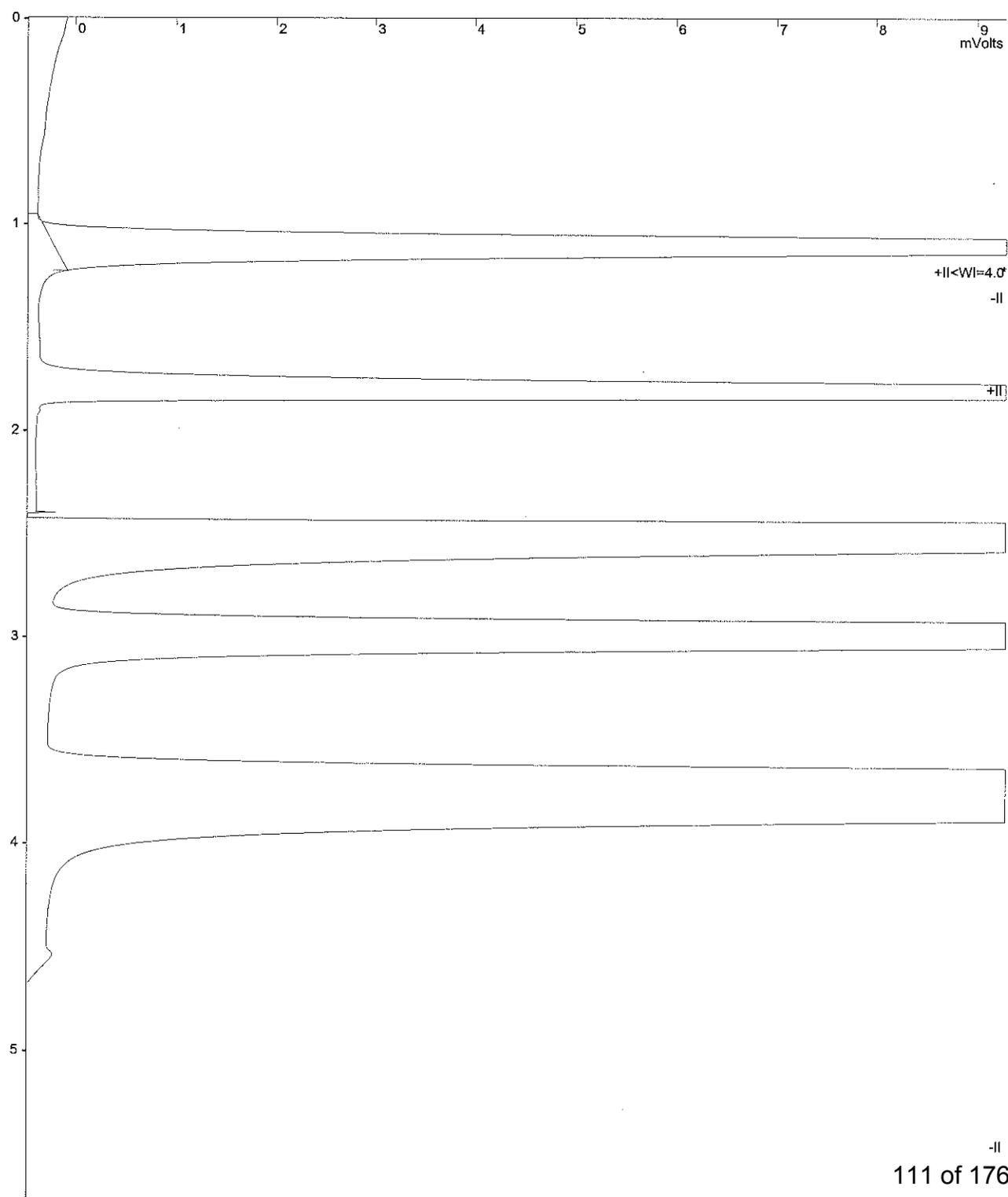
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr052.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-12 Emax

Injection Date: 4/30/2015 15:43 Calculation Date: 4/30/2015 15:49

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr052.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-12 Emax

Injection Date: 4/30/2015 15:43 Calculation Date: 4/30/2015 15:49

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 89643 counts

Detected Peaks: 1 Rejected Peaks: 0 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -83 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 36 microVolts

Manual injection

Revision Log:

4/30/2015 15:49: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 15:42:30

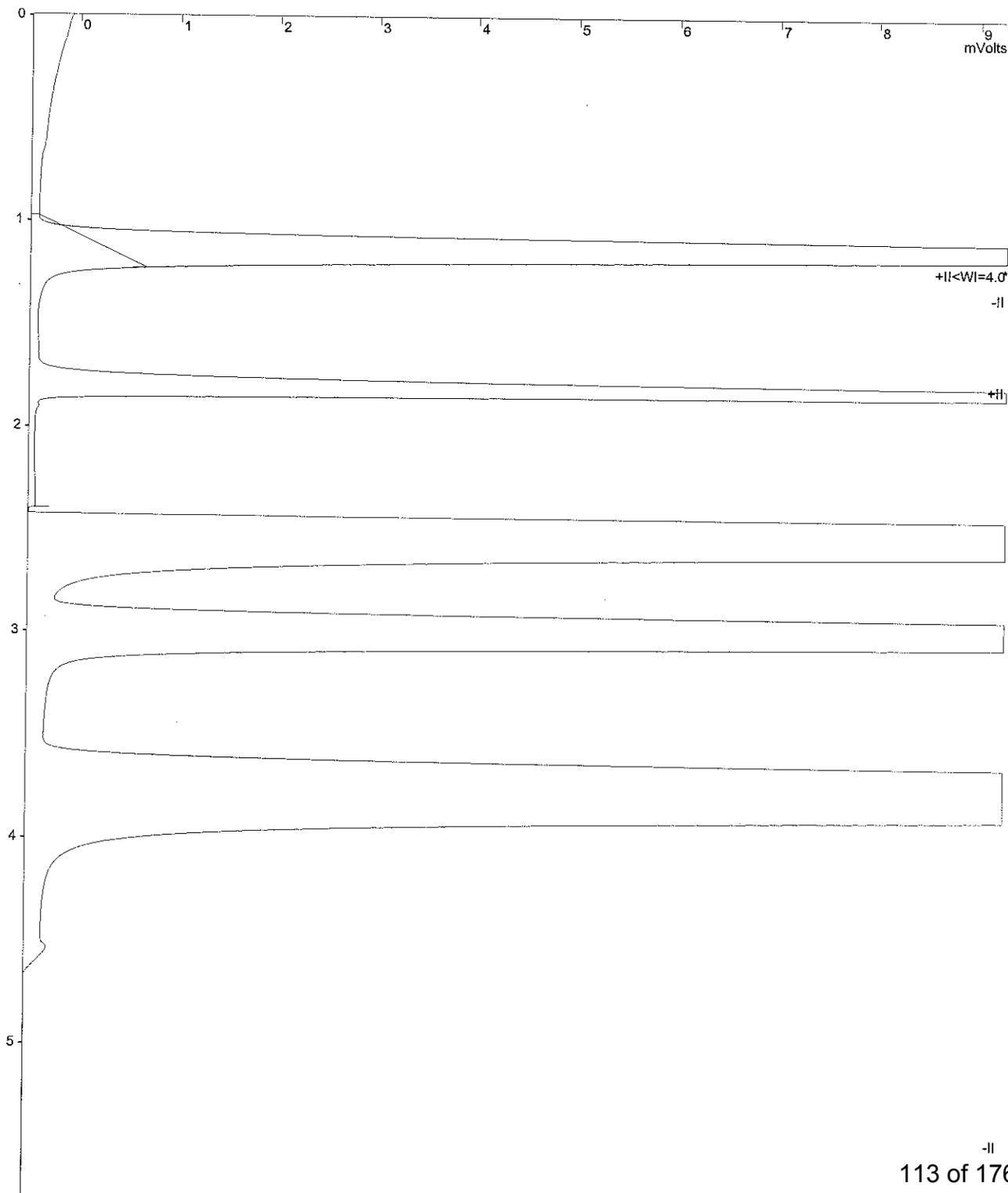
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr053.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-13 Emax

Injection Date: 4/30/2015 15:50 Calculation Date: 4/30/2015 15:56

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr053.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-13 Emax

Injection Date: 4/30/2015 15:50 Calculation Date: 4/30/2015 15:56

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. 1/2 Code (sec), Width, Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 94187 counts

Detected Peaks: 1 Rejected Peaks: 0 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -78 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 35 microVolts

Manual injection

Revision Log:

4/30/2015 15:56: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 15:49:15

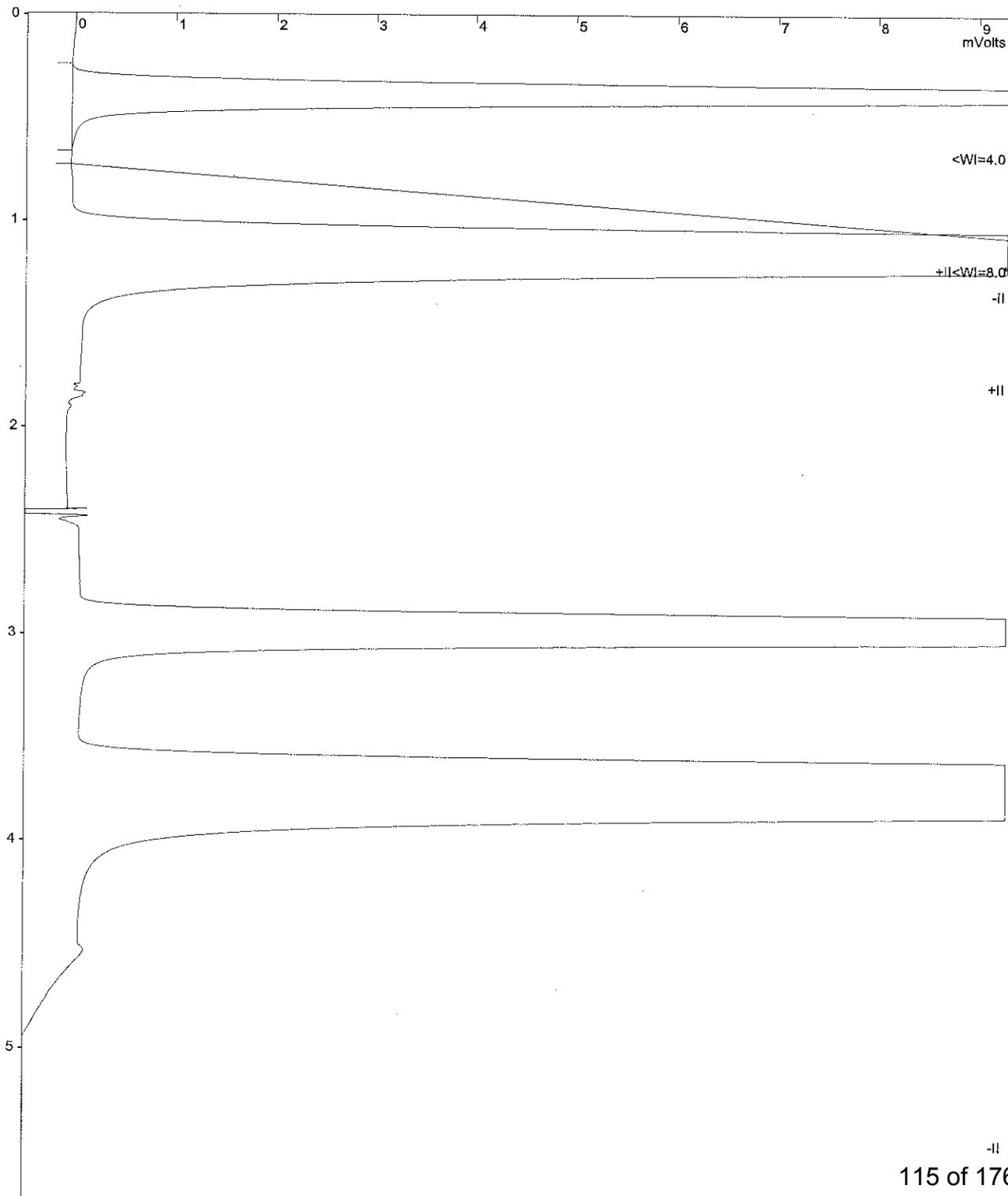
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr055.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-14 Emax

Injection Date: 4/30/2015 16:04 Calculation Date: 4/30/2015 16:10

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr055.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-14 Emax

Injection Date: 4/30/2015 16:04 Calculation Date: 4/30/2015 16:10

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 162461 counts

Detected Peaks: 2 Rejected Peaks: 0 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): 11 microVolts

Manual injection

Revision Log:

4/30/2015 16:10: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 16:04:22

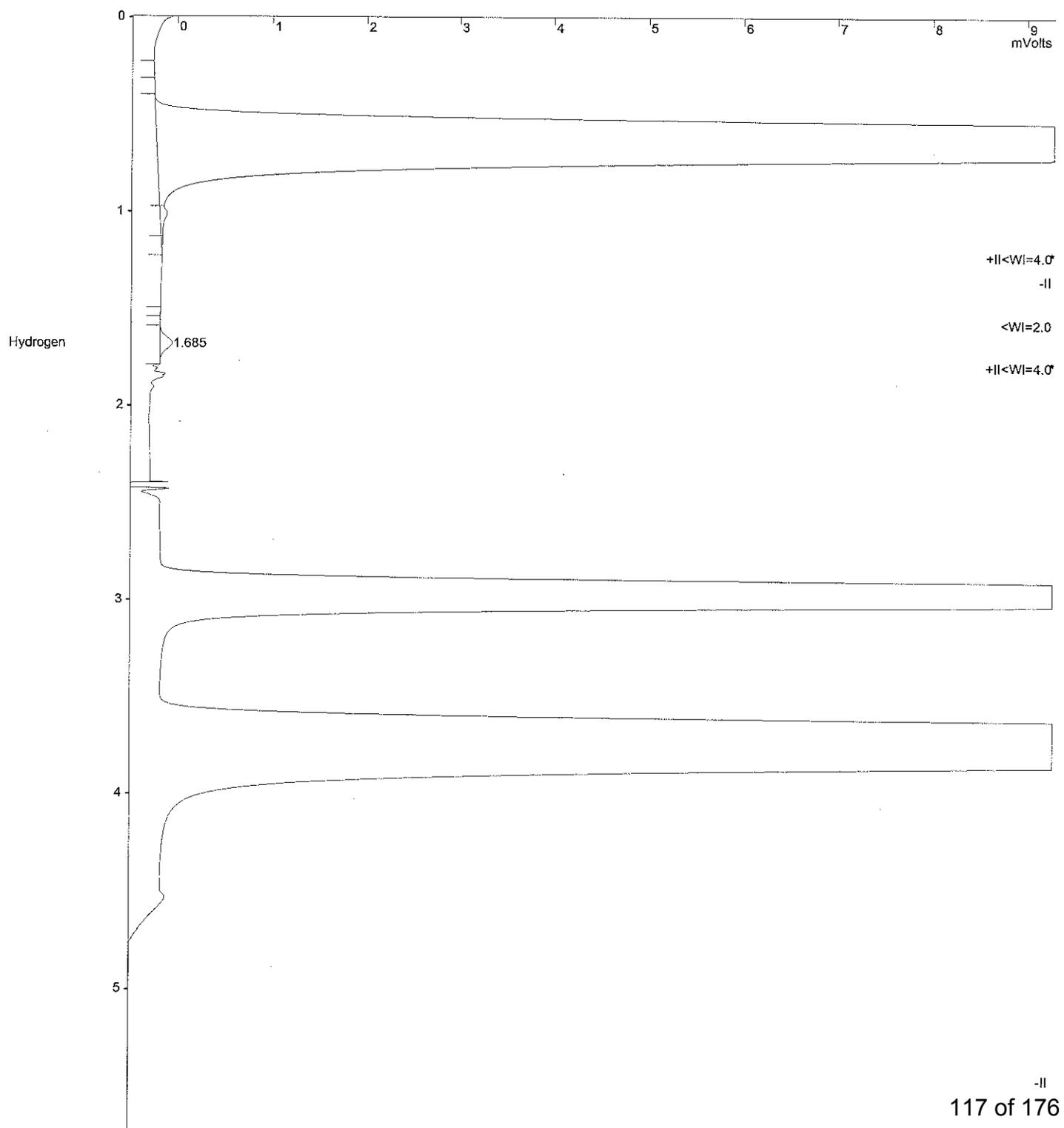
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr057.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-13 MS Emax

Injection Date: 4/30/2015 16:19 Calculation Date: 4/30/2015 16:25

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr057.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-13 MS Emax

Injection Date: 4/30/2015 16:19 Calculation Date: 4/30/2015 16:25

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 7647.621, 1.685, 0.001, 592, BB, 4.1. Totals: 7647.621, 0.001, 592.

Total Unidentified Counts : 286182 counts

Detected Peaks: 6 Rejected Peaks: 2 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

Revision Log:

4/30/2015 16:25: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 16:19:06

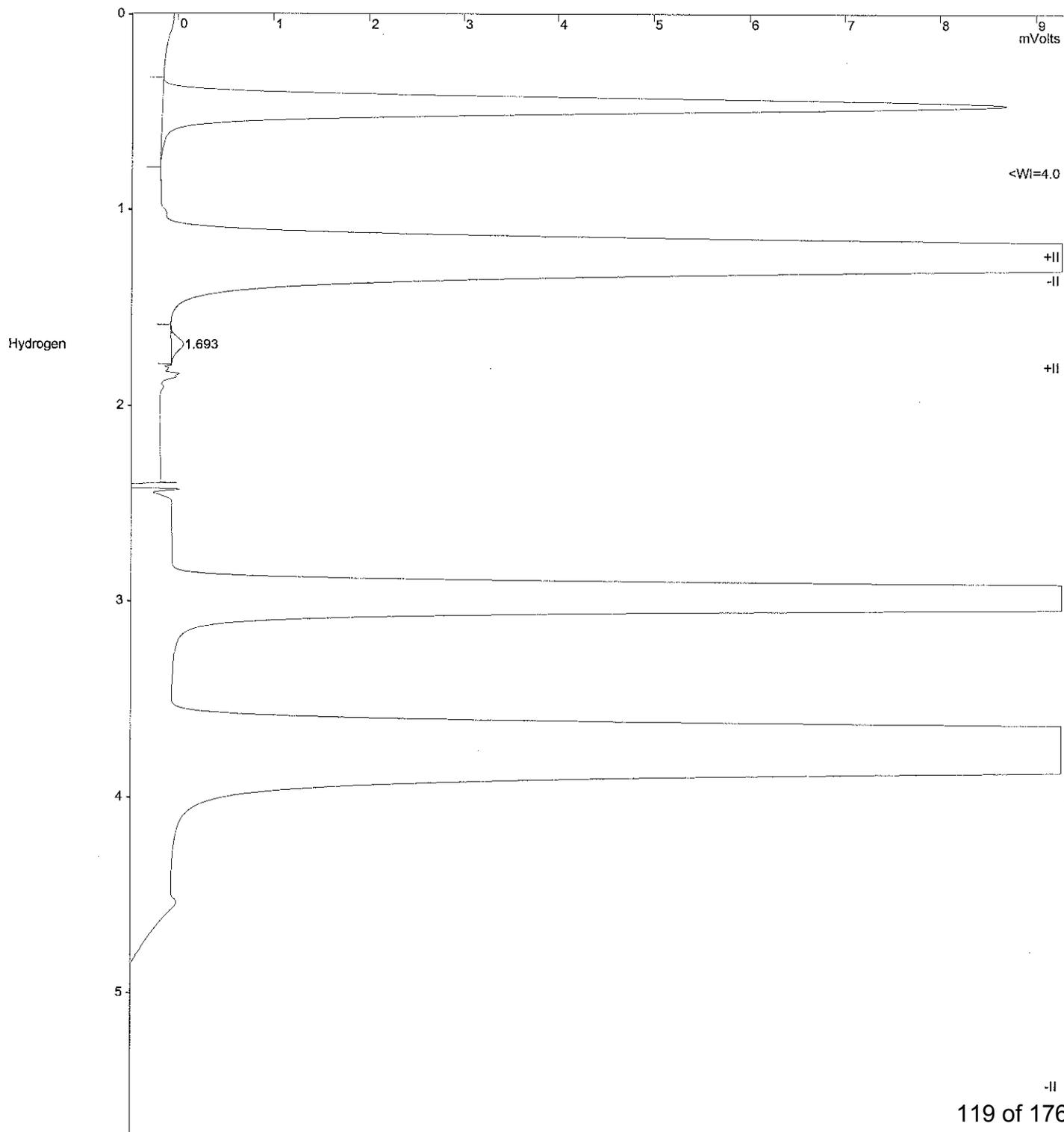
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr059.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-13 MSD Emax

Injection Date: 4/30/2015 16:33 Calculation Date: 4/30/2015 16:39

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr059.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : G042705-13 MSD Emax

Injection Date: 4/30/2015 16:33 Calculation Date: 4/30/2015 16:39

Operator : AS
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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 7929.192, 1.693, 0.009, 614, BB, 4.6. Totals: 7929.192, 0.009, 614.

Total Unidentified Counts : 48487 counts

Detected Peaks: 2 Rejected Peaks: 0 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): 12 microVolts

Manual injection

Revision Log:

4/30/2015 16:39: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 16:33:10

3. Initial Calibration

- a. ICAL Summary**
- b. Chromatograms/Results**

File : Calibration Block Report
 Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
 Data Method Time : 4/28/2015 10:58

Requested Curve Type : linear Method Detector Type : 3800 GC
 Requested Origin : force Method Bus Address : 44
 Calibration Type : External Standard Analysis Method Channel : Middle

Calibration Dates :
 Last Injection Date : 4/28/2015 10:26 Last Recalculation Date : 4/28/2015 10:58

*****GC Workstation Multi Instrument*****Version 6.30*****

Retention Time (min)	Peak Name	Curve\Origin	X ²	X	C	r ²	Cal. Range	No. of Points	Edit Codes
2.513	Ethylene	1 F		+2.6486e+003	+0.0000e+000	+9.9994e-001	1-6	6	
2.820	Ethane	1 F		+2.7193e+003	+0.0000e+000	+9.9991e-001	1-6	6	
3.513	Acetylene	1 F		+2.8642e+003	+0.0000e+000	+9.9945e-001	1-6	6	
6.799	Methane	1 F		+1.3589e+003	+0.0000e+000	+9.9985e-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: 2.513 min.
 Peak Name: Ethylene
 Peak Measurement: Area
 Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	7166	7166.3	#
2	10.000000	1	27376	27376.0	#
3	100.000000	1	270463	270463.2	#
4	1000.000000	1	2618394	2618394.3	#
5	5000.000000	1	13061288	13061288.0	#
6	10000.000000	1	26579418	26579418.0	#

Ret. Time: 2.820 min.
 Peak Name: Ethane
 Peak Measurement: Area
 Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	7755	7755.3	#
2	10.000000	1	28699	28698.8	#
3	100.000000	1	278523	278523.3	#
4	1000.000000	1	2689042	2689041.8	#
5	5000.000000	1	13380106	13380106.0	#
6	10000.000000	1	27304472	27304472.0	#

Ret. Time: 3.513 min.
 Peak Name: Acetylene
 Peak Measurement: Area
 Curve\Origin: 1 F

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	6309	6309.0	#
2	10.000000	1	23753	23752.9	#
3	100.000000	1	245499	245498.7	#
4	1000.000000	1	2557204	2557203.5	#
5	5000.000000	1	13780426	13780426.0	#
6	10000.000000	1	28943272	28943272.0	#

Ret. Time: 6.799 min.

Peak Name: Methane

Peak Measurement: Area

Curve\Origin: 1 F

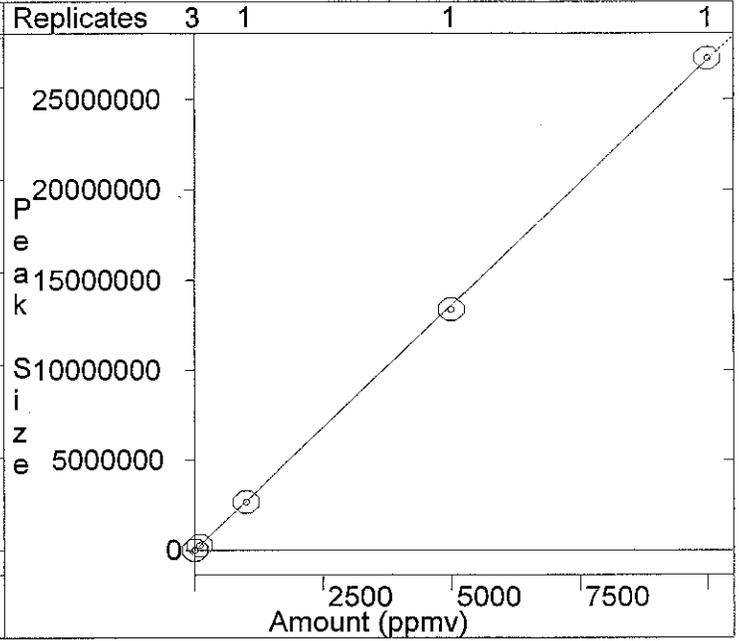
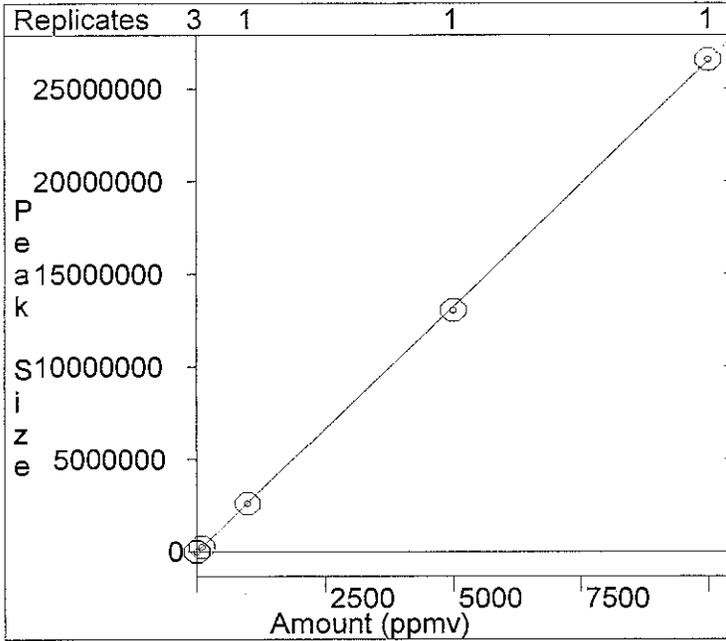
Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	3.000000	1	3842	3841.7	#
2	10.000000	1	18252	18251.6	#
3	100.000000	1	137914	137913.6	#
4	1000.000000	1	1313784	1313783.8	#
5	5000.000000	1	6653391	6653391.0	#
6	10000.000000	1	13664368	13664368.0	#

= Too few points to calculate.

Peak Name	Level	Rep.	Injection Date Time	Run Files
Ethylene	1	1	4/28/2015 09:13	c:\temp\gc\gc8a\2015\apr\28apr.run
	2	1	4/28/2015 09:27	c:\temp\gc\gc8a\2015\apr\28apr001.run
	3	1	4/28/2015 09:41	c:\temp\gc\gc8a\2015\apr\28apr002.run
	4	1	4/28/2015 09:56	c:\temp\gc\gc8a\2015\apr\28apr003.run
	5	1	4/28/2015 10:11	c:\temp\gc\gc8a\2015\apr\28apr004.run
	6	1	4/28/2015 10:26	c:\temp\gc\gc8a\2015\apr\28apr005.run
Ethane	1	1	4/28/2015 09:13	c:\temp\gc\gc8a\2015\apr\28apr.run
	2	1	4/28/2015 09:27	c:\temp\gc\gc8a\2015\apr\28apr001.run
	3	1	4/28/2015 09:41	c:\temp\gc\gc8a\2015\apr\28apr002.run
	4	1	4/28/2015 09:56	c:\temp\gc\gc8a\2015\apr\28apr003.run
	5	1	4/28/2015 10:11	c:\temp\gc\gc8a\2015\apr\28apr004.run
	6	1	4/28/2015 10:26	c:\temp\gc\gc8a\2015\apr\28apr005.run
Hexadecylene	1	1	4/28/2015 09:13	c:\temp\gc\gc8a\2015\apr\28apr.run
	2	1	4/28/2015 09:27	c:\temp\gc\gc8a\2015\apr\28apr001.run
	3	1	4/28/2015 09:41	c:\temp\gc\gc8a\2015\apr\28apr002.run
	4	1	4/28/2015 09:56	c:\temp\gc\gc8a\2015\apr\28apr003.run
	5	1	4/28/2015 10:11	c:\temp\gc\gc8a\2015\apr\28apr004.run
	6	1	4/28/2015 10:26	c:\temp\gc\gc8a\2015\apr\28apr005.run
Methane	1	1	4/28/2015 09:13	c:\temp\gc\gc8a\2015\apr\28apr.run
	2	1	4/28/2015 09:27	c:\temp\gc\gc8a\2015\apr\28apr001.run
	3	1	4/28/2015 09:41	c:\temp\gc\gc8a\2015\apr\28apr002.run
	4	1	4/28/2015 09:56	c:\temp\gc\gc8a\2015\apr\28apr003.run
	5	1	4/28/2015 10:11	c:\temp\gc\gc8a\2015\apr\28apr004.run
	6	1	4/28/2015 10:26	c:\temp\gc\gc8a\2015\apr\28apr005.run

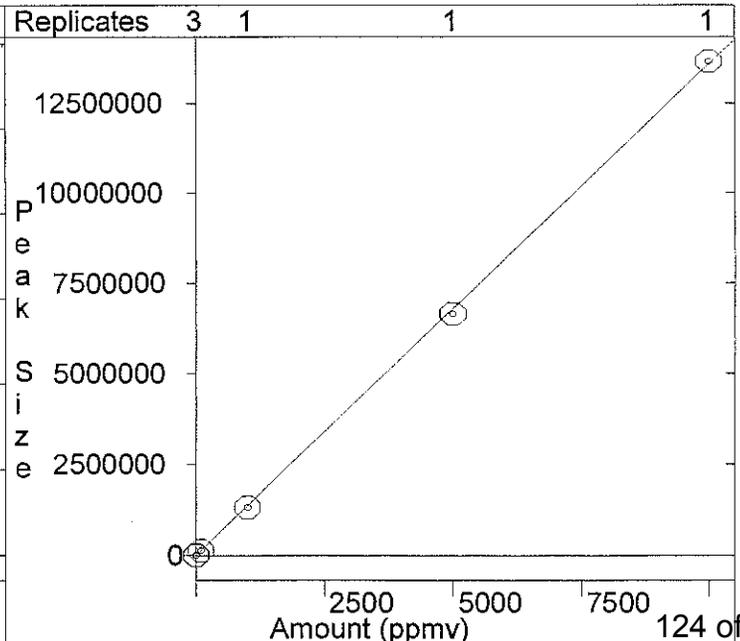
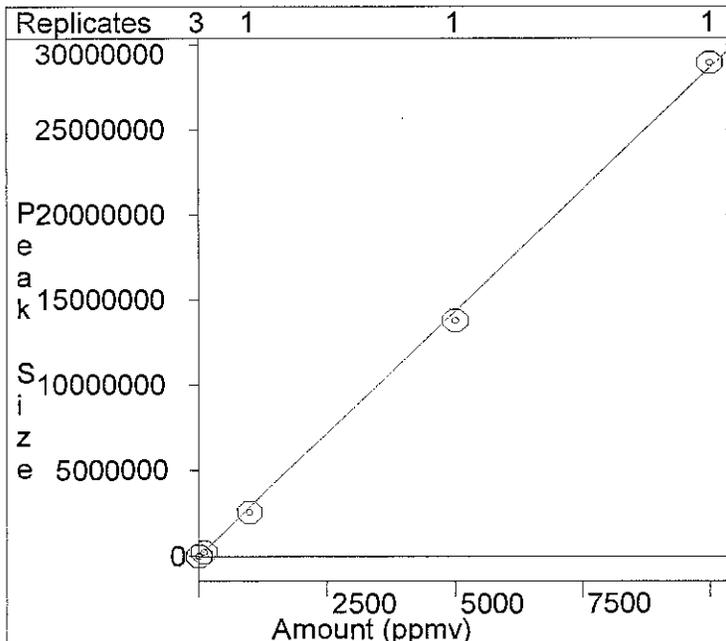
Ethylene
External Standard Analysis
Resp. Fact. RSD: 4.704%
Curve Type: Linear
Origin: Force
Coeff. Det.(r²): 0.999936
y = +2.6486e+003x

Ethane
External Standard Analysis
Resp. Fact. RSD: 3.594%
Curve Type: Linear
Origin: Force
Coeff. Det.(r²): 0.999914
y = +2.7193e+003x



Acetylene
External Standard Analysis
Resp. Fact. RSD: 11.16%
Curve Type: Linear
Origin: Force
Coeff. Det.(r²): 0.999448
y = +2.8642e+003x

Methane
External Standard Analysis
Resp. Fact. RSD: 14.38%
Curve Type: Linear
Origin: Force
Coeff. Det.(r²): 0.999846
y = +1.3589e+003x



Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl40429.mth
Sample ID : 3 ppmv ICAL

Injection Date: 4/28/2015 09:13 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: -15 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\2015\apr\28apr001.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl40429.mth
Sample ID : 10 ppmv ICAL

Injection Date: 4/28/2015 09:27 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: -36 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\2015\apr\28apr002.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 100 ppmv ICAL

Injection Date: 4/28/2015 09:41 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 1083 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

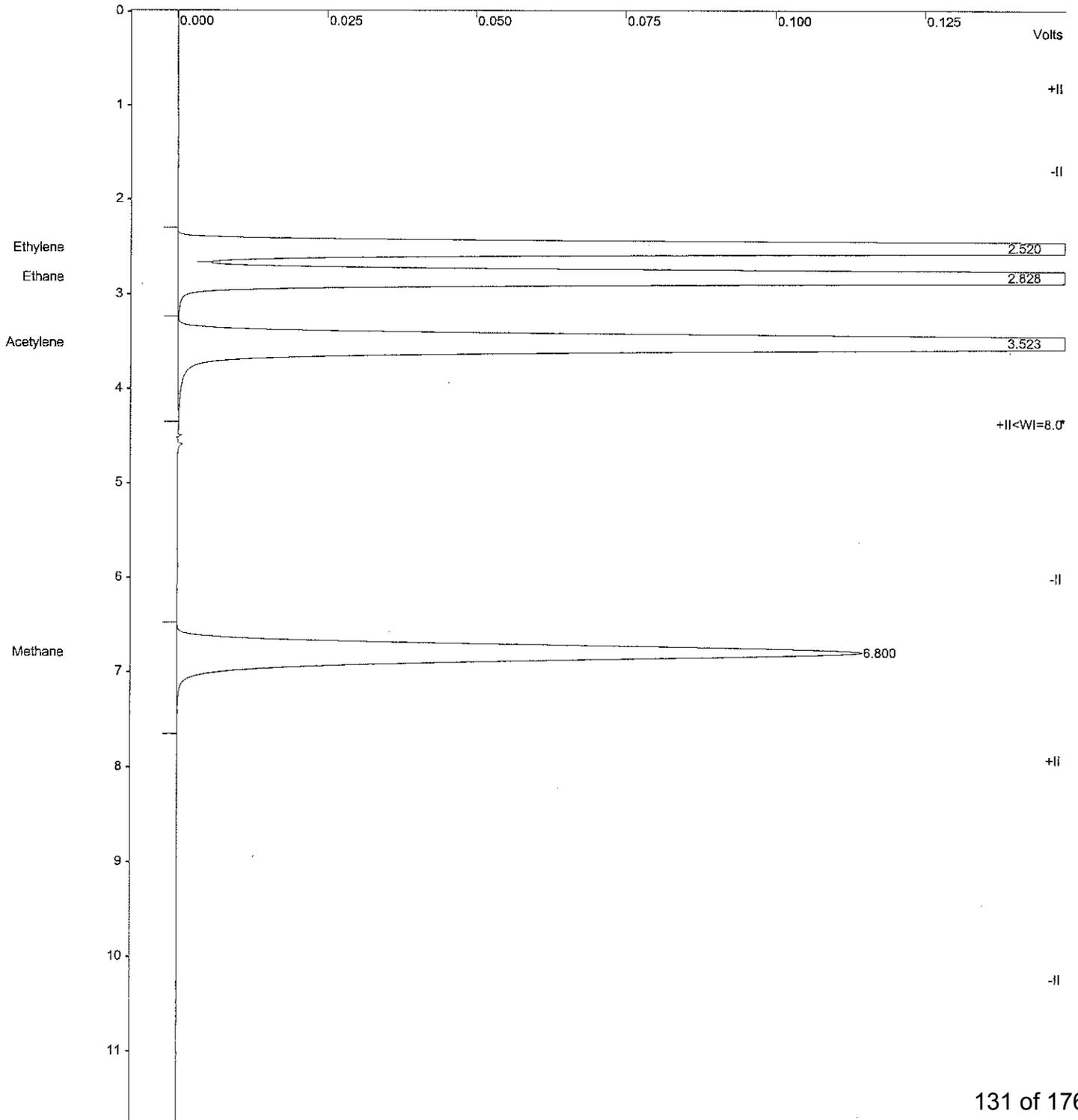
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr003.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl40429.mth
Sample ID : 1000 ppmv ICAL

Injection Date: 4/28/2015 09:56 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr003.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl40429.mth
Sample ID : 1000 ppmv ICAL

Injection Date: 4/28/2015 09:56 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 7 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 14 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

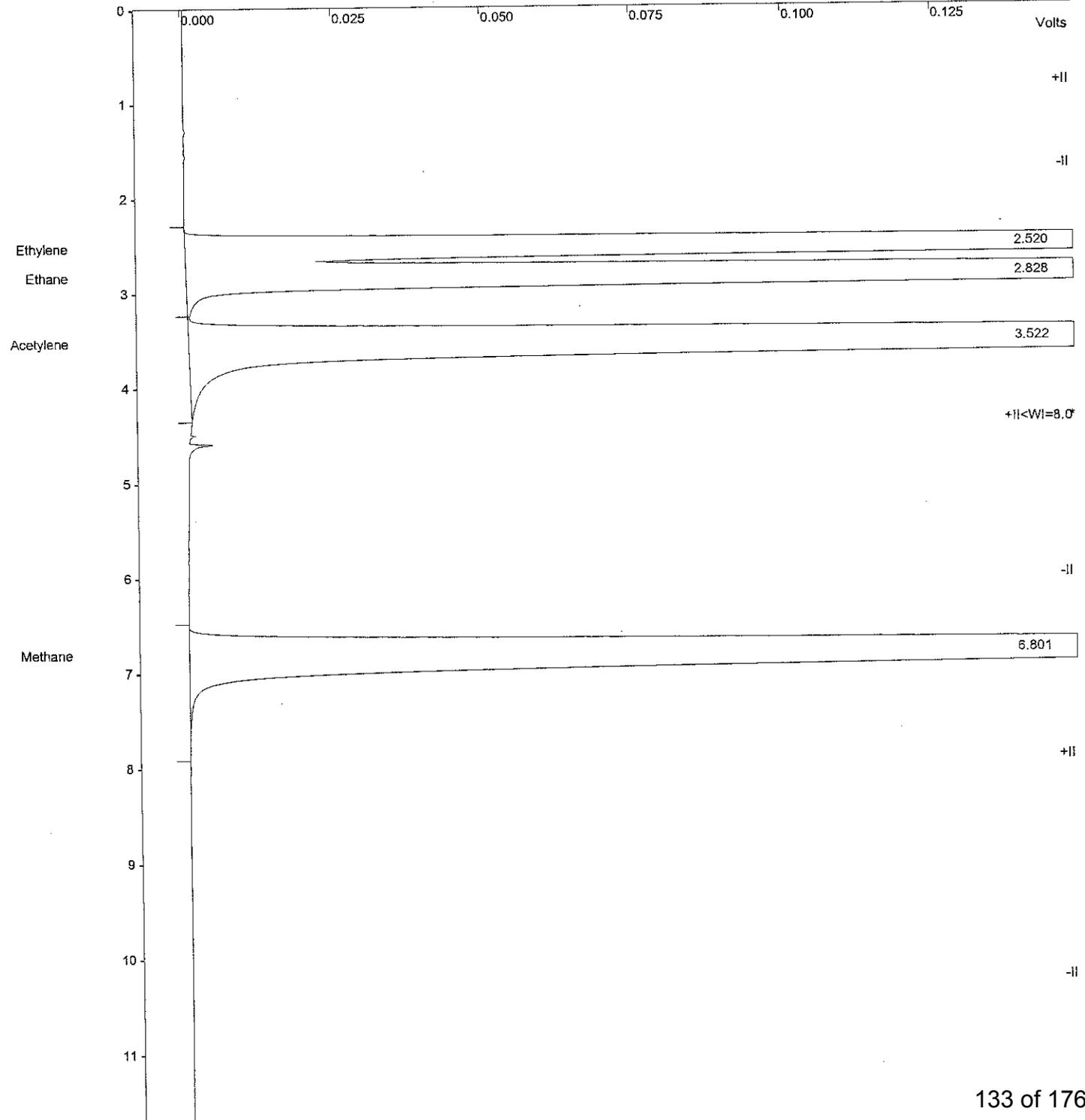
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr004.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 5000 ppmv ICAL

Injection Date: 4/28/2015 10:11 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr004.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl40429.mth
Sample ID : 5000 ppmv ICAL

Injection Date: 4/28/2015 10:11 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 7 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 413 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

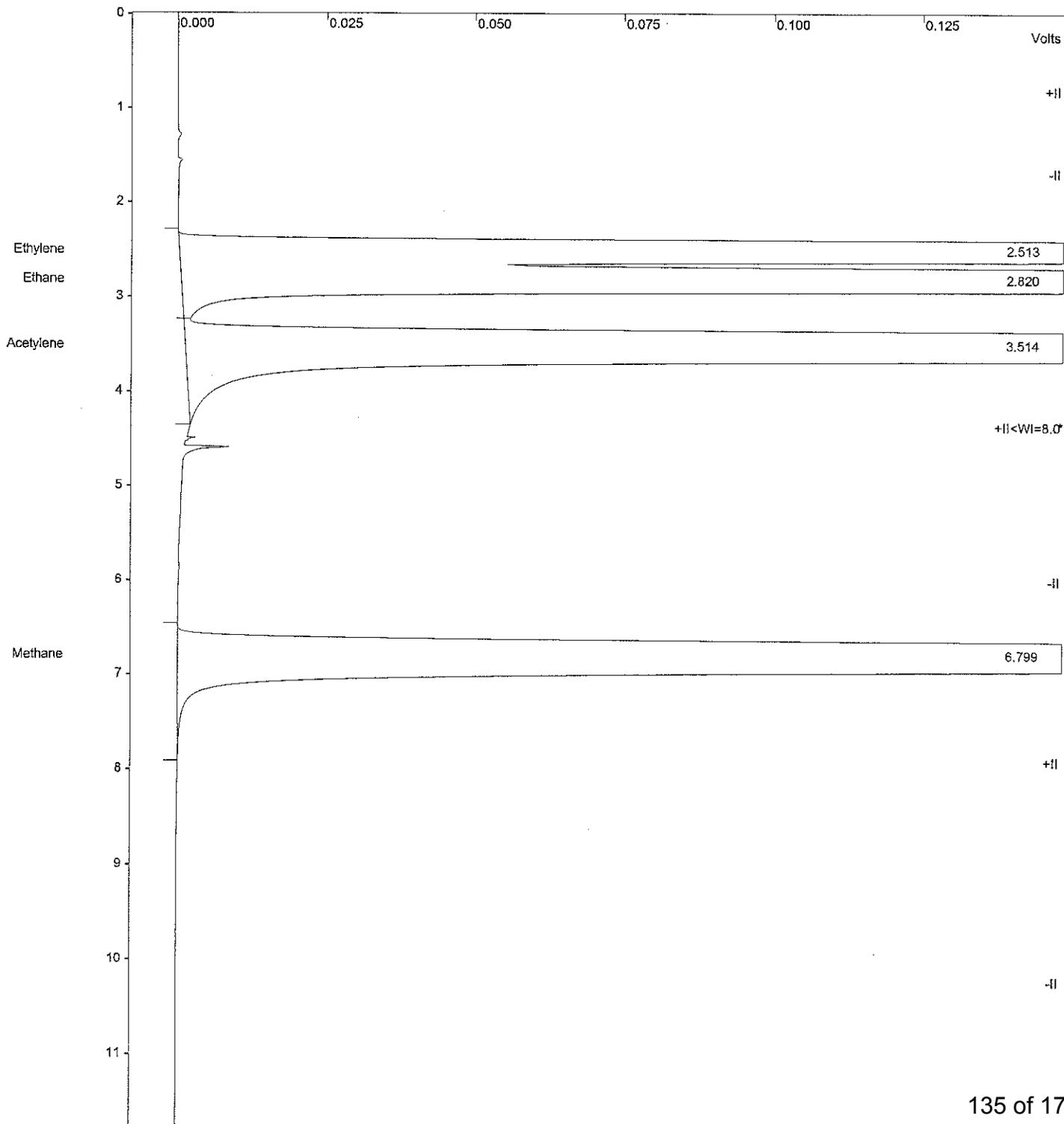
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\28apr005.run
Method File : c:\temp gc\gc8a\methods\rsk175fg140429.mth
Sample ID : 1% (10000ppmv) ICAL

Injection Date: 4/28/2015 10:26 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\28apr005.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl40429.mth
Sample ID : 1% (10000ppmv) ICAL

Injection Date: 4/28/2015 10:26 Calculation Date: 4/28/2015 10:58

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 7 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 24 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

Title : Calibration Block Report
 Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
 Data Method Time : 6/30/2014 3:29 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 : 6/30/2014 10:56 AM
 Last Recalculation Date : 6/30/2014 11:14 AM

*****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
1.739	Hydrogen	1 F			+7.7423e-002	+0.0000e+000	+9.9929e-001	1-5	5	

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: 1.739 min.
 Peak Name: Hydrogen

Level	Amount	Replicate No.	Response	Avg. Response	Std. Dev.
1	1000.000000	1	116	115.7	#
2	5000.000000	1	388	387.5	#
3	10000.000000	1	763	762.5	#
4	25000.000000	1	2014	2013.9	#
5	50000.000000	1	3834	3833.5	#

Peak Measurement: Area
 Curve\Origin: 1 F

= Too few points to calculate.

Peak Name	Level	Rep.	Injection Date Time	Run Files
Hydrogen	1	1	6/30/2014 10:56 AM	c:\temp gc\gc8a\2014\jun\30jun012.run
	2	1	6/30/2014 10:43 AM	c:\temp gc\gc8a\2014\jun\30jun011.run
	3	1	6/30/2014 10:30 AM	c:\temp gc\gc8a\2014\jun\30jun010.run
	4	1	6/30/2014 10:22 AM	c:\temp gc\gc8a\2014\jun\30jun009.run
	5	1	6/30/2014 10:13 AM	c:\temp gc\gc8a\2014\jun\30jun008.run

Print Date: 01 Jul 2014 09:51:13

Calibration Curves Report

File: c:\temp gc\gc8a\methods\rskhydrogen140630.mth

Detector: 3800 GC, Address: 44, Channel ID: Front

Hydrogen

External Standard Analysis

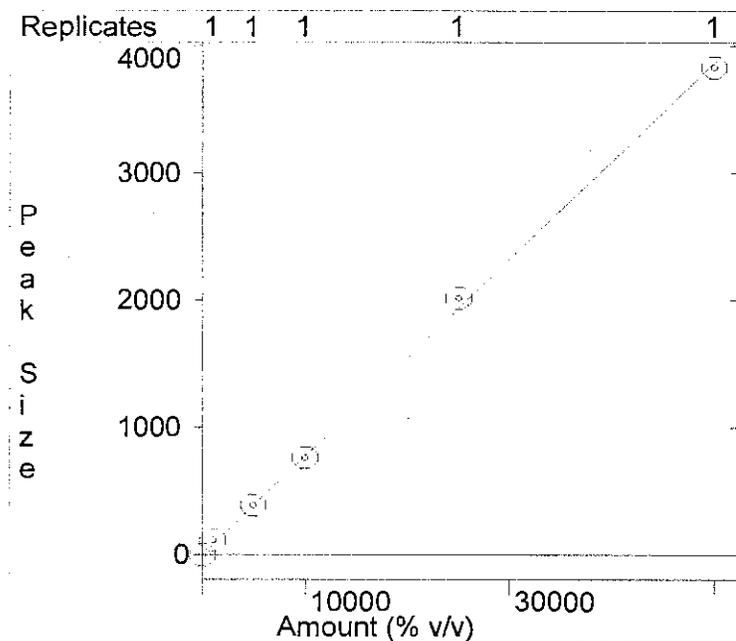
Resp. Fact. RSD: 19.97%

Curve Type: Linear

Origin: Force

Coeff. Det.(r²): 0.999293

y = +7.7423e-002x



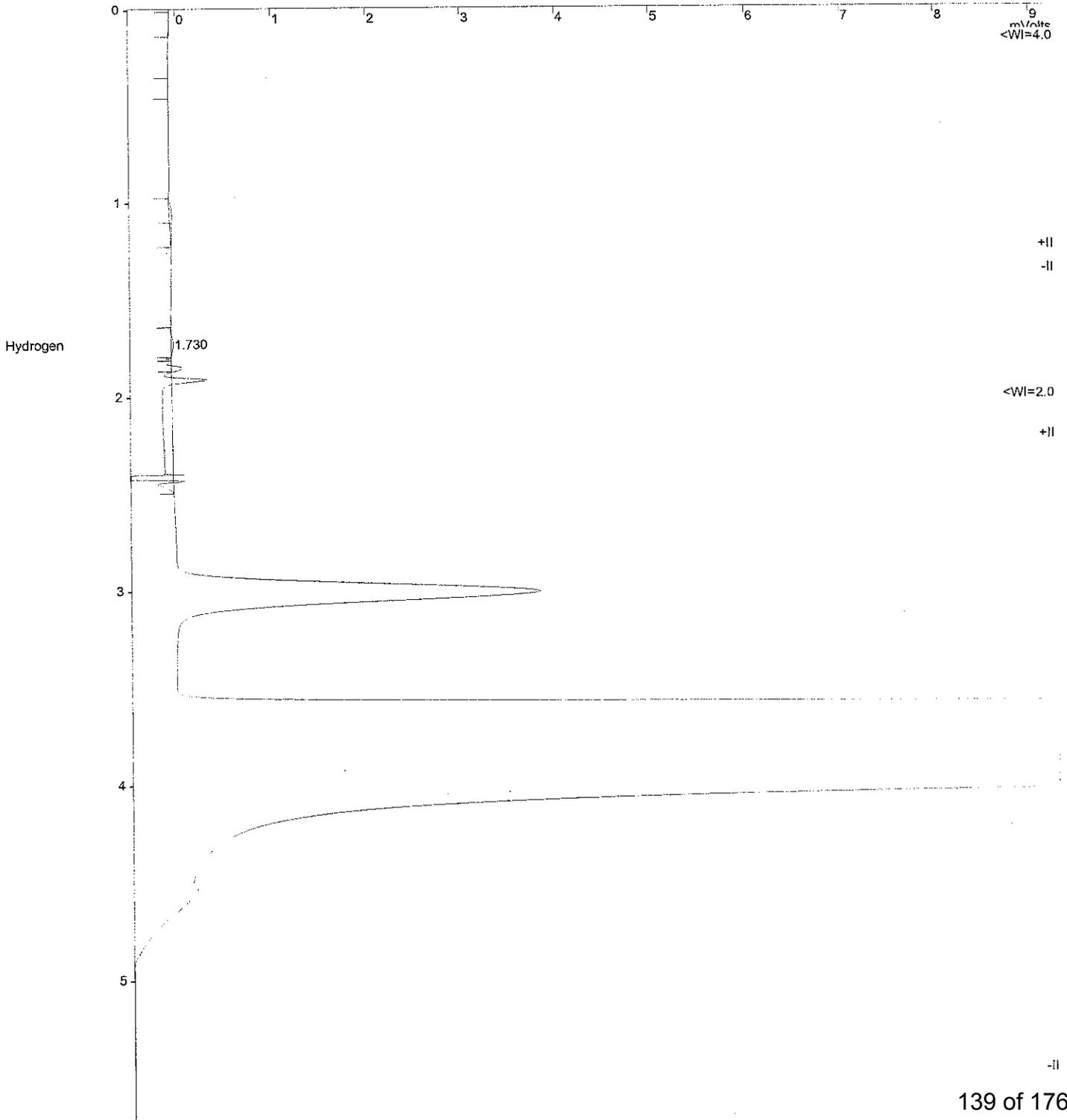
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun012.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 0.1 % h2

Injection Date: 6/30/2014 10:56 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2014\jun\30jun012.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 0.1 % h2

Injection Date: 6/30/2014 10:56 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD Run Time : 5.795 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

Table with 7 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.730, 0.019, 116, BV, 4.5, U. Totals: 0.019, 116.

Status Codes:
J - User-defined peak endpoint(s)

Total Unidentified Counts : 345 counts

Detected Peaks: 8 Rejected Peaks: 4 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -57 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 3 microVolts

Manual injection

Revision Log:

6/30/2014 11:01 AM: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen130428.mth'
Stream: 1, Advance Time: 10:43:15 AM 6/30/2014 11:02 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:02 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:02 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:02 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:03 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:14 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'

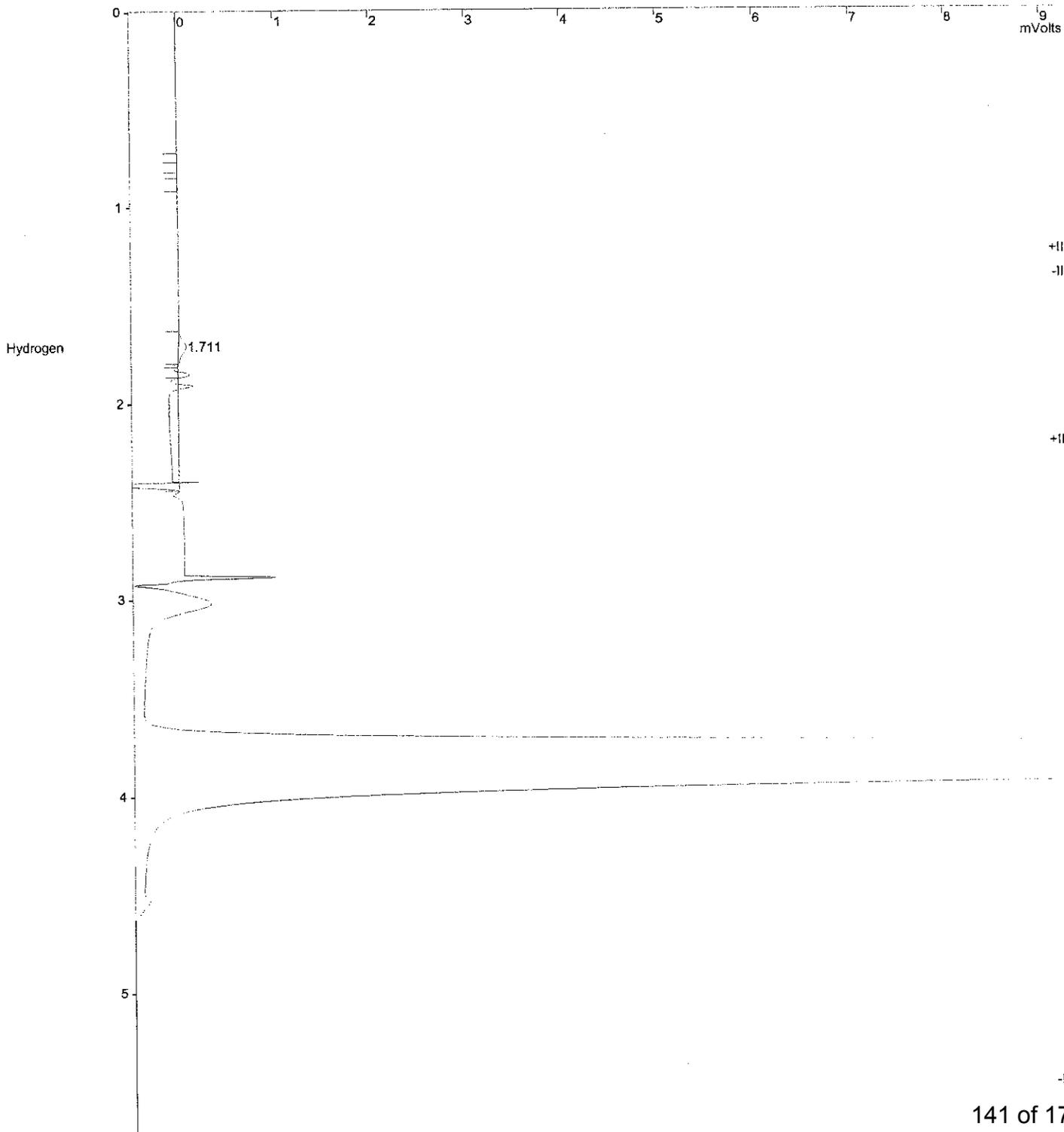
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun011.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 0.5 % h2

Injection Date: 6/30/2014 10:43 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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



File Name : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun011.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 0.5 % h2

Injection Date: 6/30/2014 10:43 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD Run Time : 5.795 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

Table with 8 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.711, -0.019, 388, BV, 4.1, U. Totals: -0.019, 388.

Status Codes:
1 - User-defined peak endpoint(s)

Total Unidentified Counts : 132 counts

Detected Peaks: 7 Rejected Peaks: 5 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 3 microVolts

Manual injection

Revision Log:

5/30/2014 10:49 AM: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen130428.mth'
Stream: 1, Advance Time: 10:29:51 AM 6/30/2014 10:50 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
5/30/2014 10:50 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
5/30/2014 10:51 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
5/30/2014 10:51 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
5/30/2014 11:03 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
5/30/2014 11:14 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'

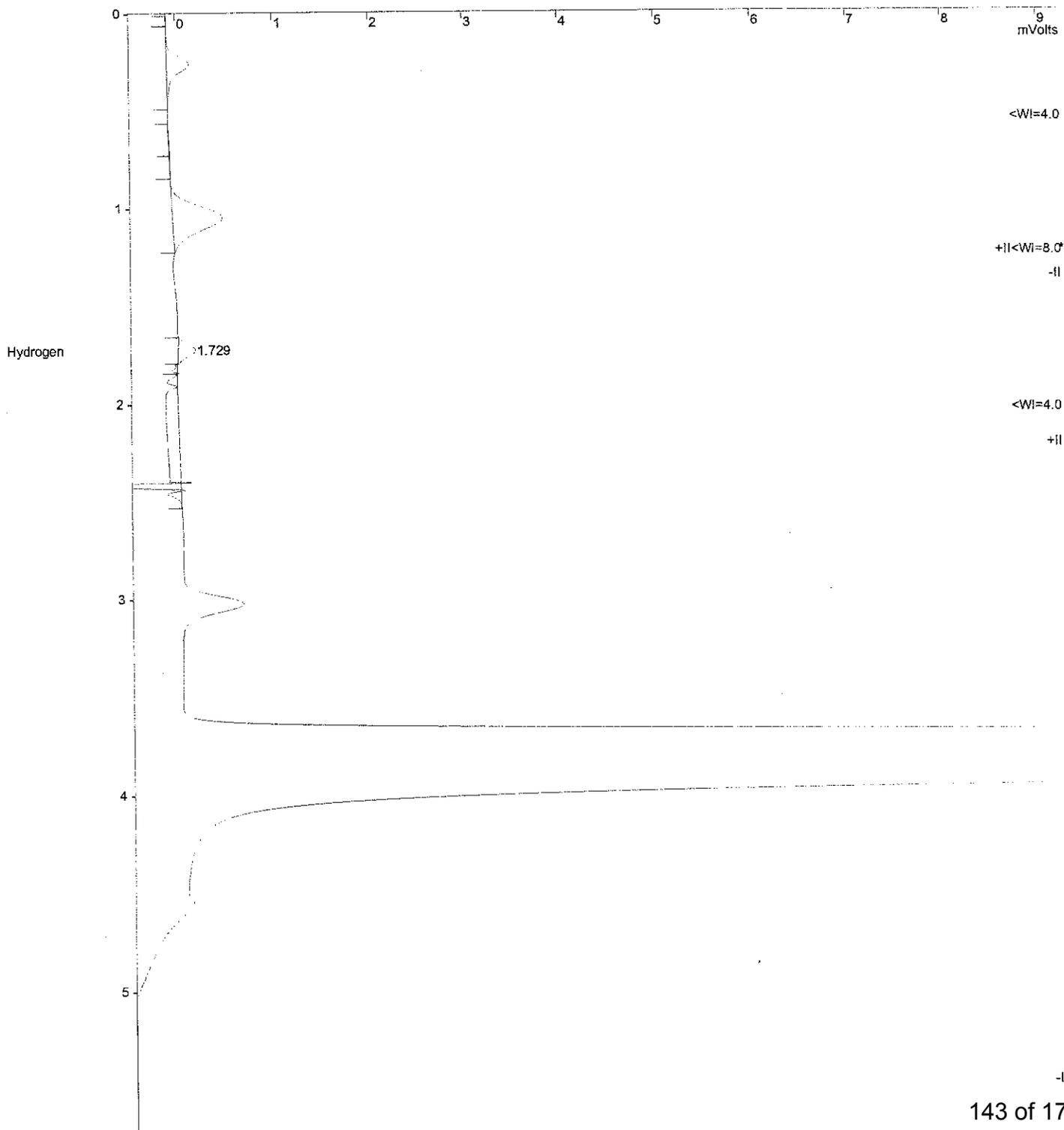
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun010.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 1 % h2

Injection Date: 6/30/2014 10:30 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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



File Name : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun010.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 1 % h2

Injection Date: 6/30/2014 10:30 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD Run Time : 5.795 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

Table with 8 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.729, 0.018, 763, BV, 4.7, U. Totals: 0.018, 763.

Status Codes:
- User-defined peak endpoint(s)

Total Unidentified Counts : 5954 counts

Detected Peaks: 9 Rejected Peaks: 6 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -95 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 5 microVolts

Manual Injection

Revision Log:

6/30/2014 10:36 AM: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen130428.mth'
Stream: 1, Advance Time: 10:21:46 AM 6/30/2014 10:39 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:42 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:57 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:57 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:57 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:57 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:03 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:14 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'

144 of 176

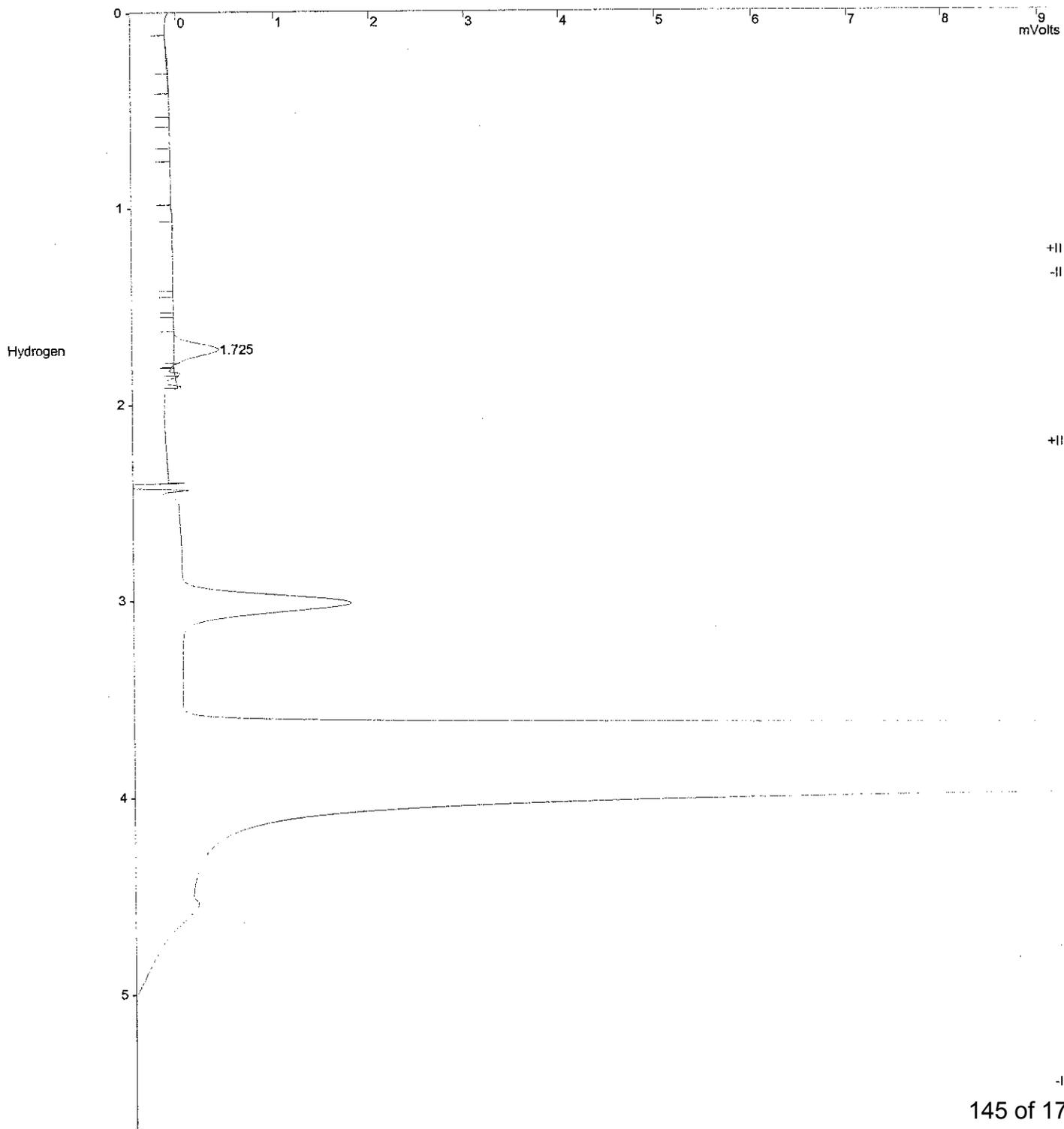
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun009.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 2.5 % h2

Injection Date: 6/30/2014 10:22 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2014\jun\30jun009.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 2.5 % h2

Injection Date: 6/30/2014 10:22 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD Run Time : 5.795 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

Table with 7 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.725, -0.003, 2014, BV, 4.2, U. Totals: -0.003, 2014.

Status Codes:
U - User-defined peak endpoint(s)

Total Unidentified Counts : 62 counts

Detected Peaks: 12 Rejected Peaks: 10 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: -82 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 4 microVolts

Manual injection

Revision Log:

6/30/2014 10:28 AM: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen130428.mth'
Stream: 1, Advance Time: 10:13:16 AM 6/30/2014 10:39 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:41 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:41 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:41 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:41 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:41 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:42 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:58 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:58 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:58 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:03 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'

146 of 176

'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:14 AM: Calculated results from channel Front using method:
'c:\temp gc\gc8a\methods\rskhydrogen130428.mth'

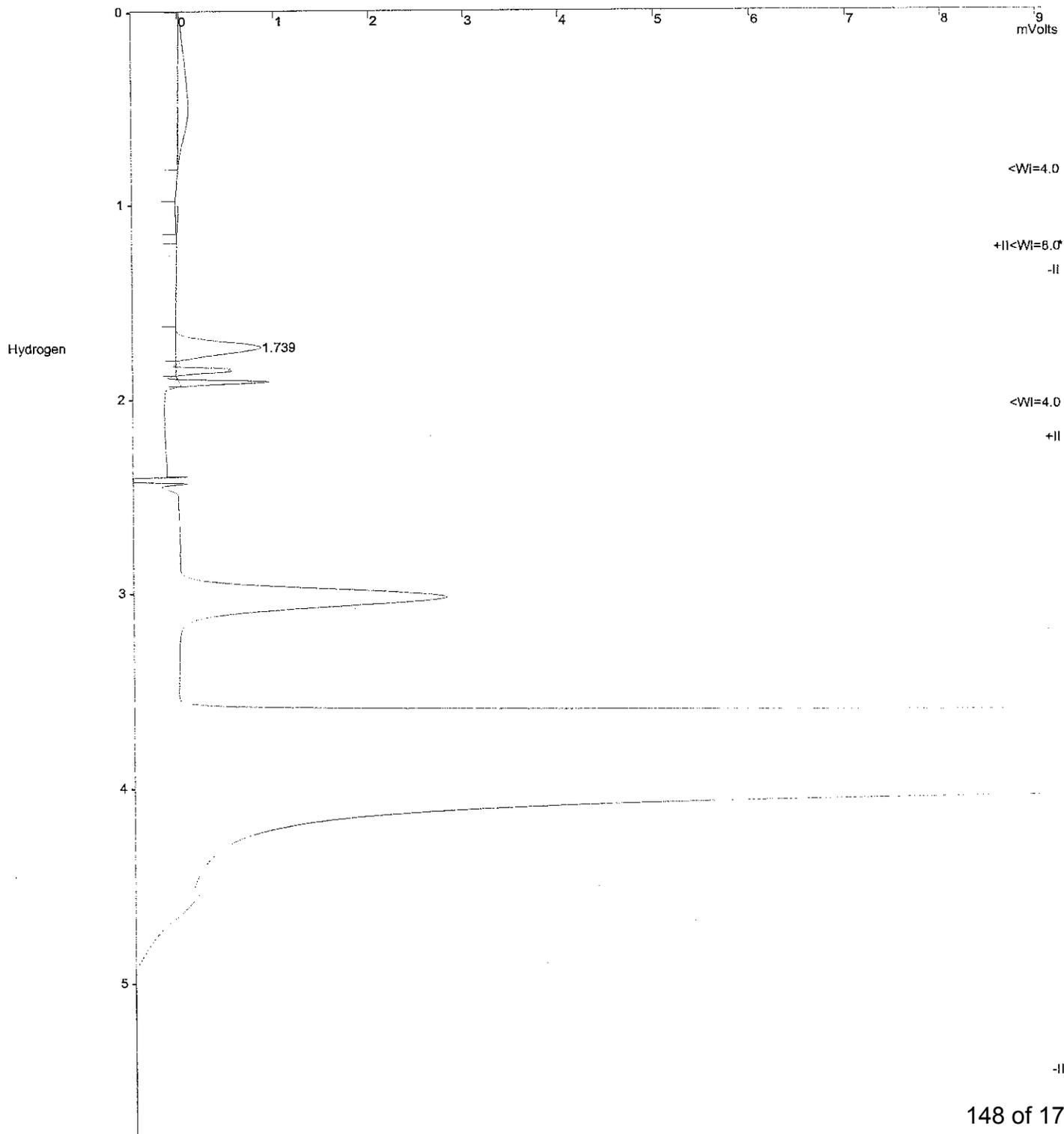
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2014\jun\30jun008.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 5 % h2

Injection Date: 6/30/2014 10:13 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2014\jun\30jun008.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen130428.mth
Sample ID : 5 % h2

Injection Date: 6/30/2014 10:13 AM Calculation Date: 6/30/2014 11:14 AM

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD Run Time : 5.795 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

Table with 8 columns: Peak No., Peak Name, Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.739, 0.015, 3834, BV, 4.2, U. Totals: 0.015, 3834.

Status Codes:
U - User-defined peak endpoint(s)

Total Unidentified Counts : 5232 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 17 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

Revision Log:

6/30/2014 10:19 AM: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen130428.mth'
Stream: 1, Advance Time: 9:48:22 AM 6/30/2014 10:21 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:39 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:39 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:40 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:59 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 10:59 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:03 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'
6/30/2014 11:14 AM: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen130428.mth'

149 of 176

4. Continuing Calibration

- a. CCAL Summary
- b. Chromatograms/Results

Continuing Calibration Criteria:

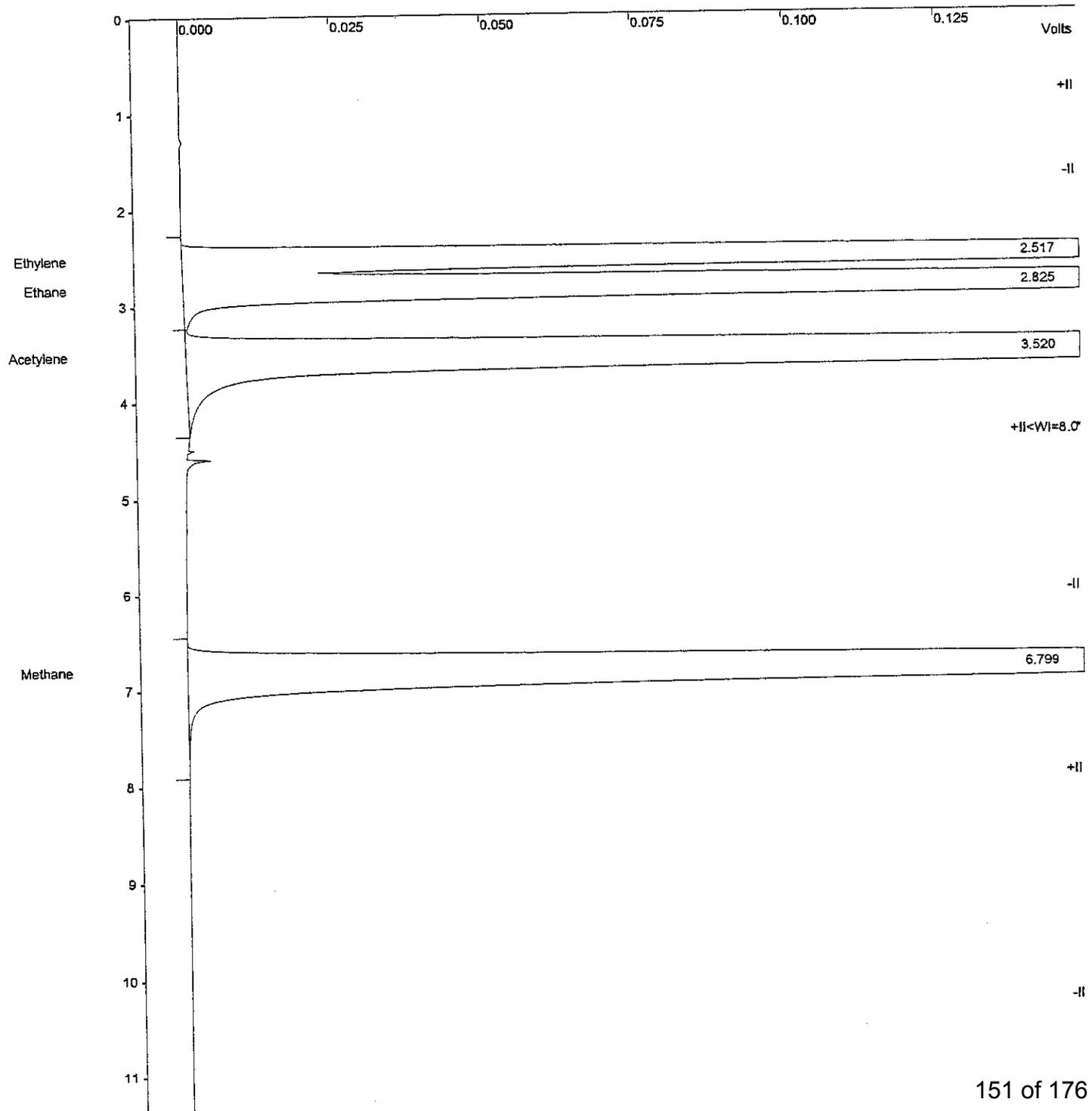
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK 0.5% CCV

Injection Date: 4/29/2015 11:06 Calculation Date: 4/29/2015 11:18

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl50428.mth
Sample ID : RSK 0.5% CCV

Injection Date: 4/29/2015 11:06 Calculation Date: 4/29/2015 11:18

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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%

Table with 8 columns: Peak No., Peak Name, Expected Result (ppmv), Calculated Result (ppmv), Dev. %, Ret. Time (min), Time Offset (min), Area (counts), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 13 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 10 microVolts

Manual injection

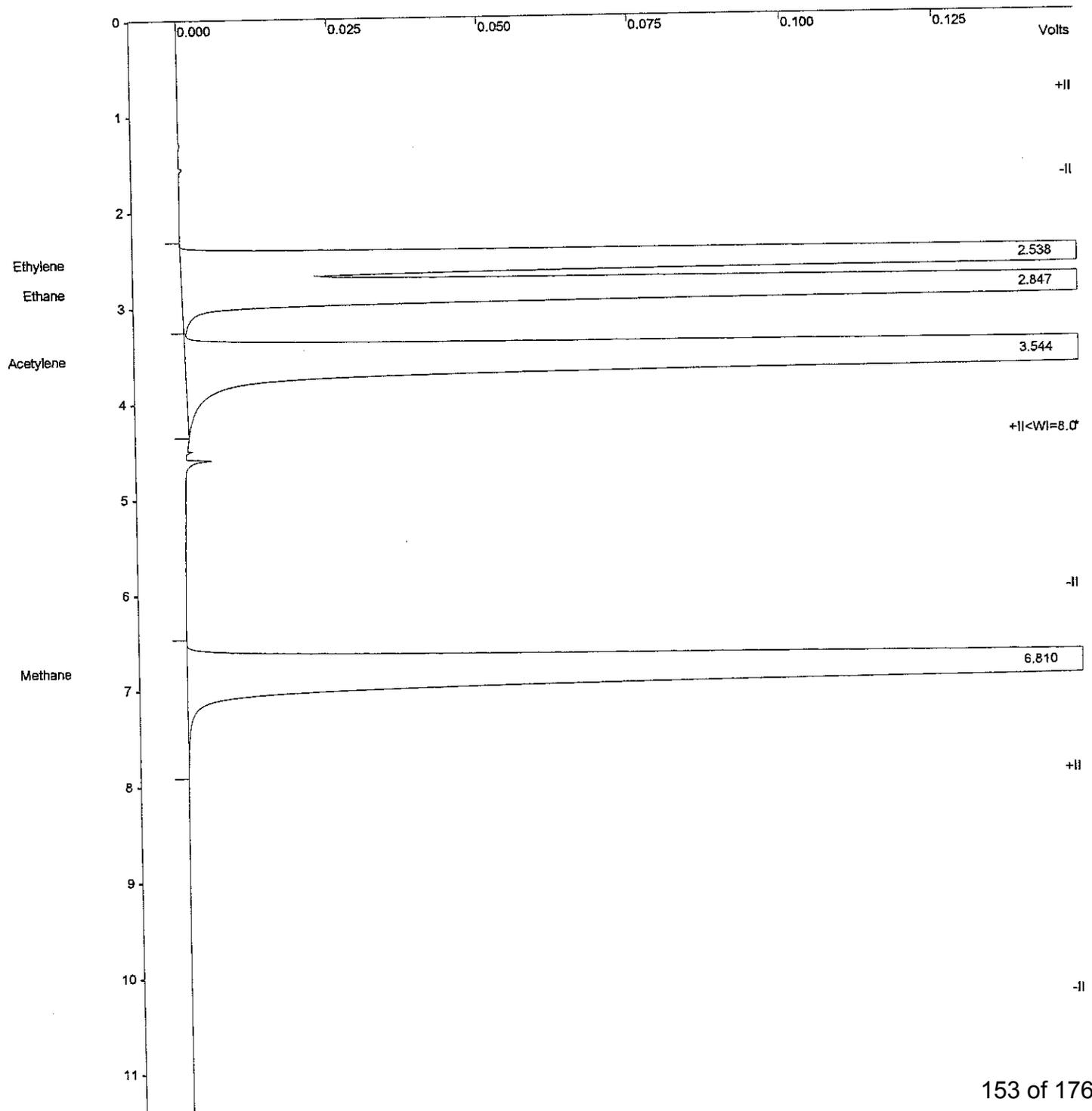
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr023.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK 0.5% CCV

Injection Date: 4/29/2015 16:31 Calculation Date: 4/30/2015 08:10

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr023.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK 0.5% CCV

Injection Date: 4/29/2015 16:31 Calculation Date: 4/30/2015 08:10

Operator : AS
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%

Table with 9 columns: Peak No., Peak Name, Expected Result (ppmv), Calculated Result (ppmv), Dev. %, Ret. Time (min), Time Offset (min), Area (counts), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

Total Unidentified Counts : 0 counts

Detected Peaks: 4 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): 12 microVolts

Manual injection

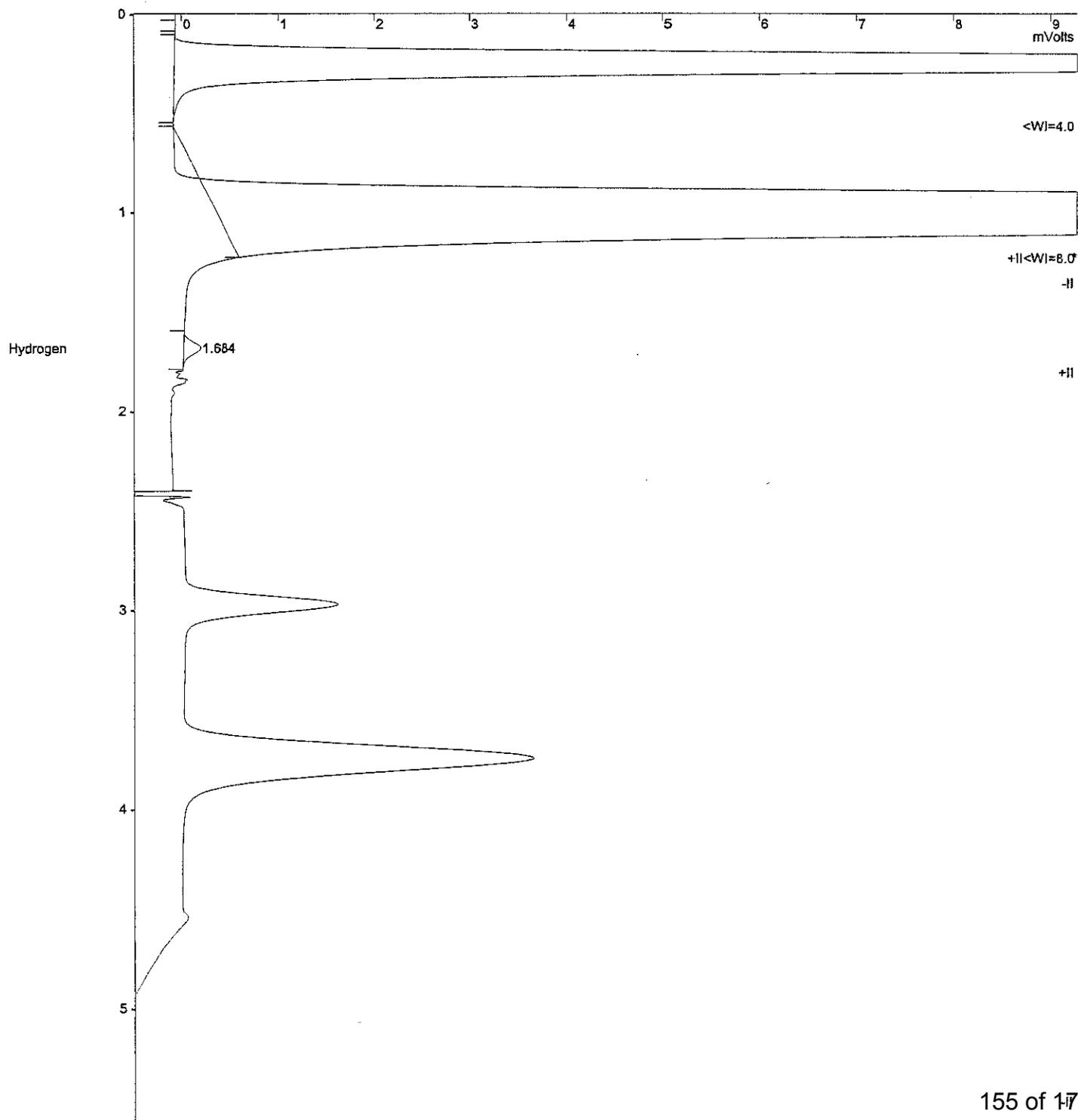
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr030.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : 1% H2 RSK CCV

Injection Date: 4/30/2015 12:34 Calculation Date: 4/30/2015 12:39

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr030.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : 1% H2 RSK CCV

Injection Date: 4/30/2015 12:34 Calculation Date: 4/30/2015 12:39

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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%

Table with 8 columns: Peak No., Peak Name, Expected Result (ppmv), Calculated Result (ppmv), Dev. %, Ret. Time (min), Time Offset (min), Area (counts), Status Codes. Row 1: 1 Hydrogen, 10000.000, 10080.690, 0.8, 1.684, 0.000, 780. Totals: 10080.690, 0.000, 780.

Total Unidentified Counts : 533679 counts

Detected Peaks: 5 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -60 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 6 microVolts

Manual injection

Revision Log:

4/30/2015 12:39: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 12:33:29

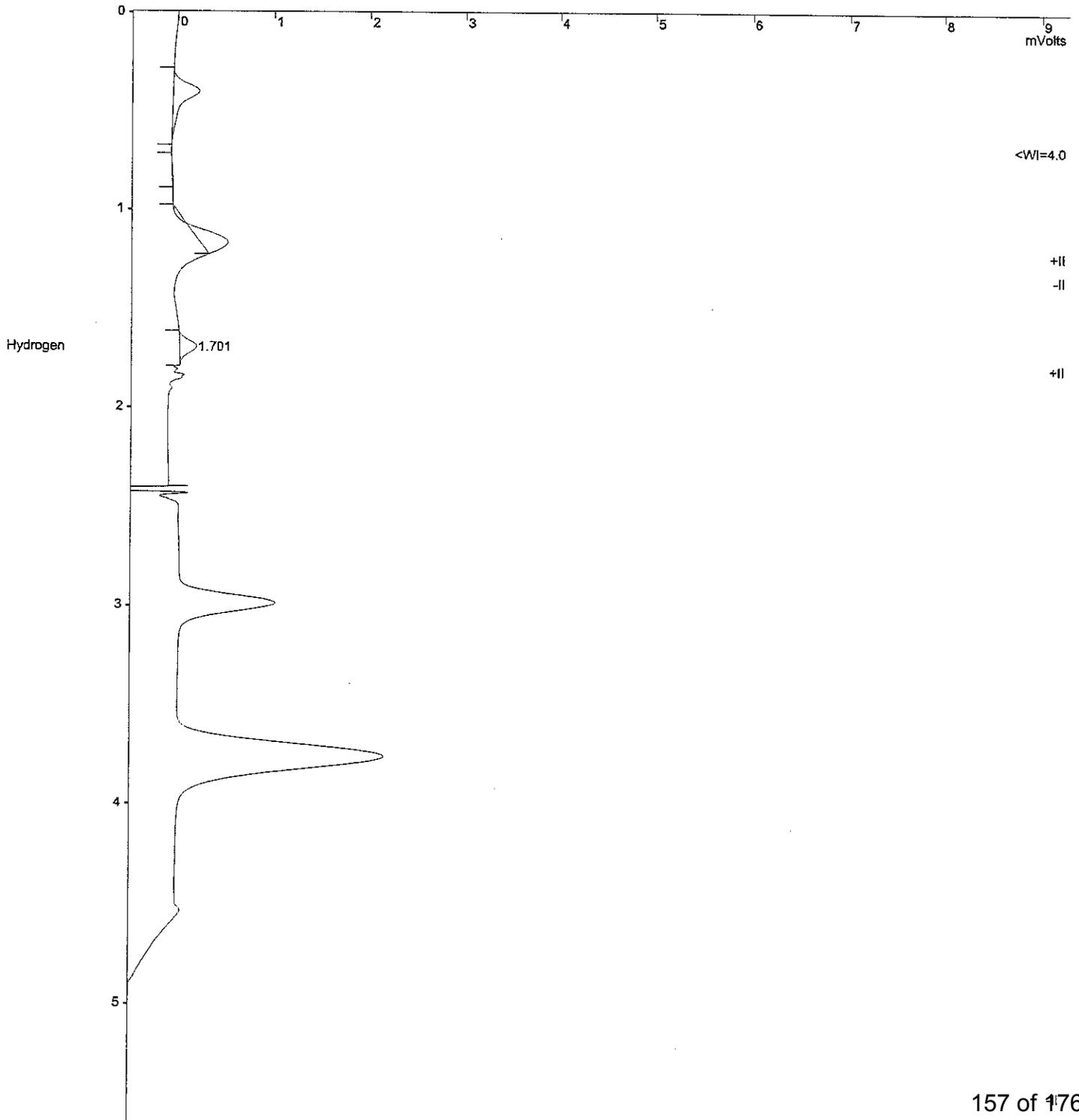
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr061.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
Sample ID : 1% H2 RSK CCV

Injection Date: 4/30/2015 16:48 Calculation Date: 4/30/2015 16:54

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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
In File : c:\temp gc\gc8a\2015\apr\30apr061.run
Method File : c:\temp gc\gc8a\methods\rskhydrogen140630.mth
Sample ID : 1% H2 RSK CCV

Injection Date: 4/30/2015 16:48 Calculation Date: 4/30/2015 16:54

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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%

Table with 8 columns: Peak No., Peak Name, Expected Result (ppmv), Calculated Result (ppmv), Dev. %, Ret. Time (min), Time Offset (min), Area (counts), Status Codes. Row 1: 1 Hydrogen, 10000.000, 10148.824, 1.5, 1.701, 0.017, 786. Totals: 10148.824, 0.017, 786.

Total Unidentified Counts : 3347 counts

Detected Peaks: 5 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -6 microVolts LSB: 1 microVolts

Gain (used): 5 microVolts - fixed value
Gain (monitored before this run): 11 microVolts

Manual injection

Revision Log:

4/30/2015 16:53: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 16:39:14 4/30/2015 16:54: Calculated results from channel Front using method:
'C:\temp gc\gc8a\methods\rskhydrogen140630.mth'

5. Method Blank

a. Chromatograms/ Results

Method Blank Criteria:

All compounds < Reporting Limit

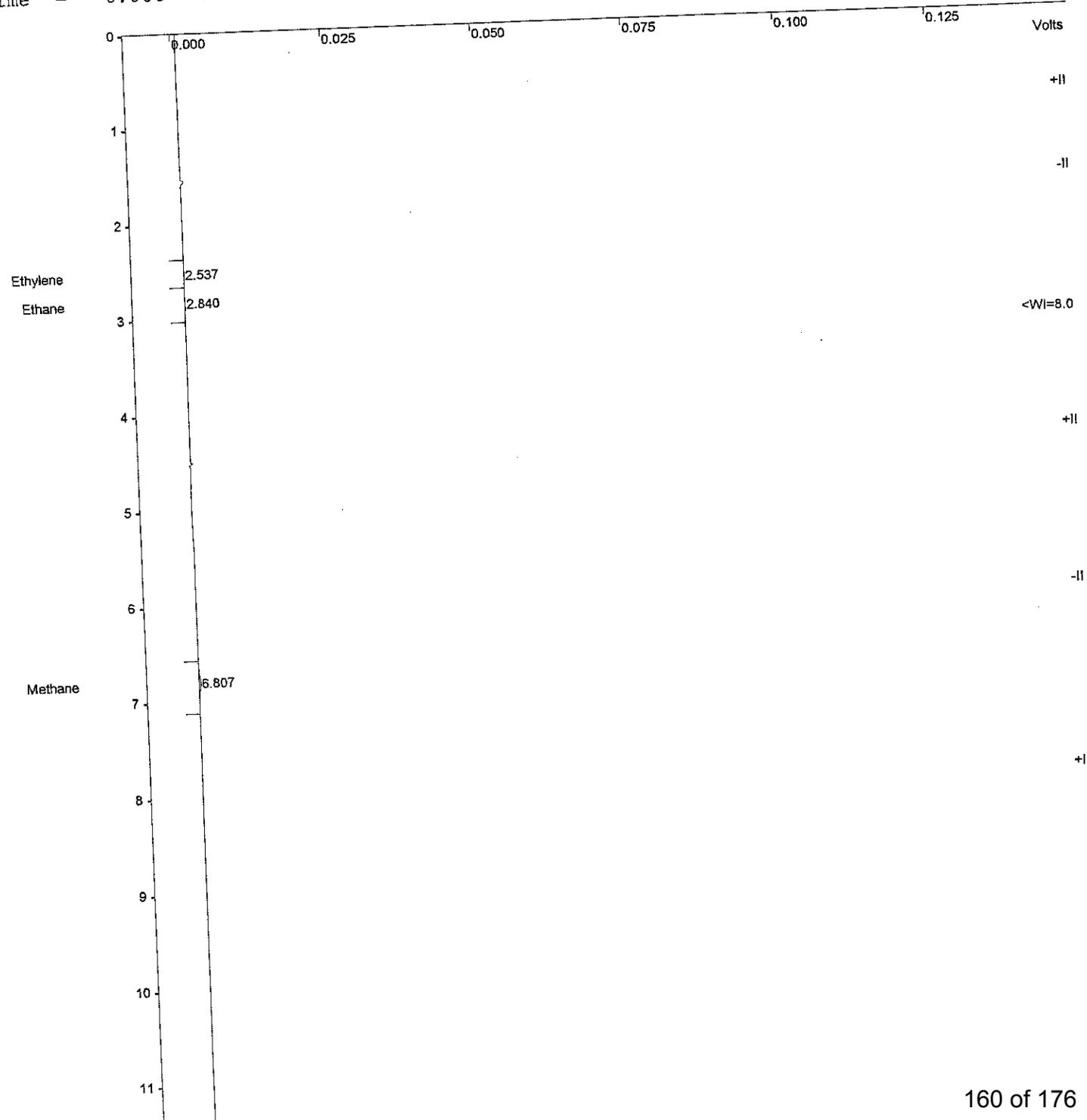
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr003.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : Method Blank

Injection Date: 4/29/2015 11:45 Calculation Date: 4/29/2015 11:57

Operator : AS
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\2015\apr\29apr003.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : Method Blank

Injection Date: 4/29/2015 11:45 Calculation Date: 4/29/2015 11:57

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 7 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 806 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 6 microVolts

Manual injection

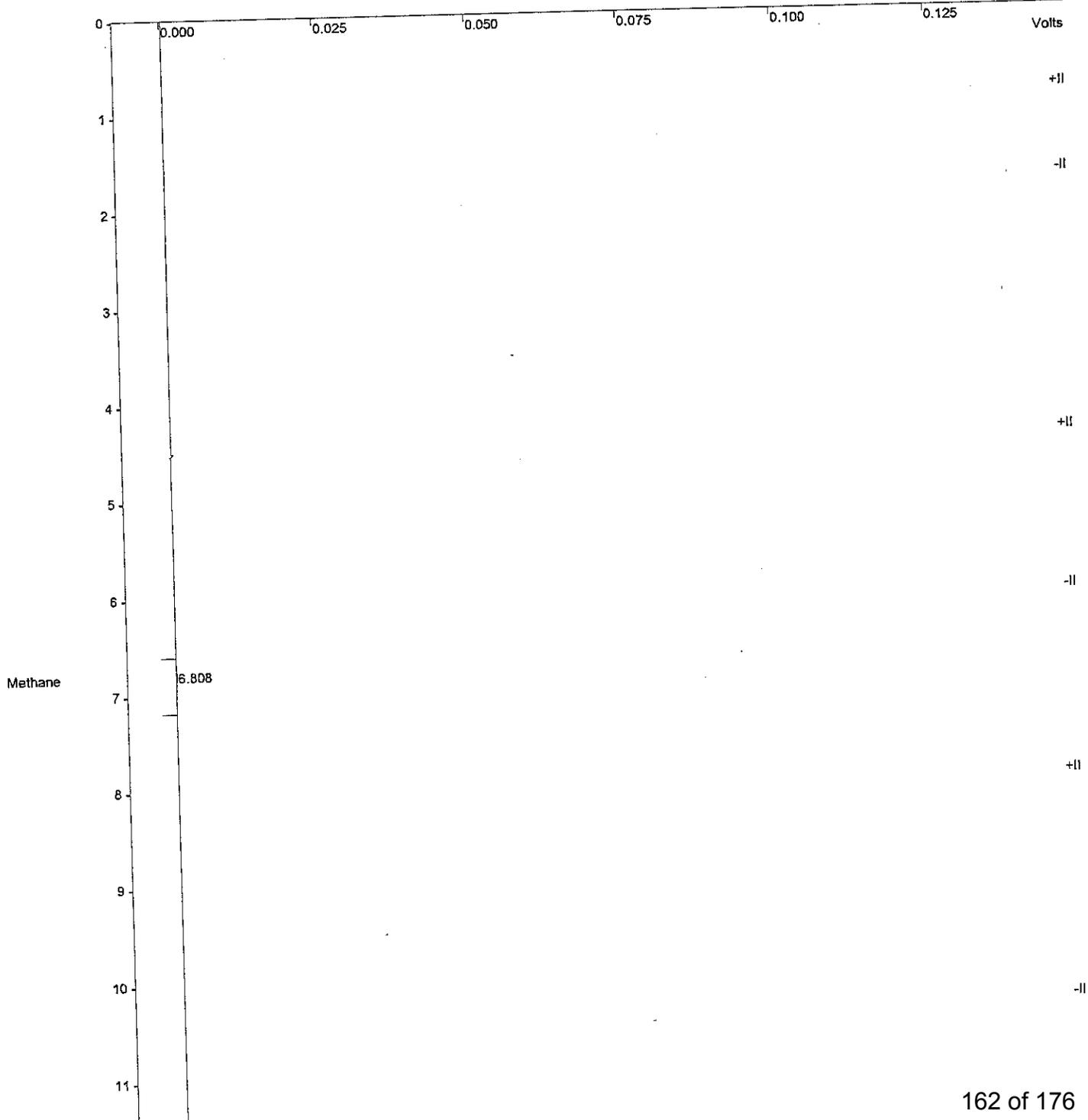
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr004.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : He Blank

Injection Date: 4/29/2015 11:59 Calculation Date: 4/29/2015 12:11

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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\2015\apr\29apr004.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl50428.mth
Sample ID : He Blank

Injection Date: 4/29/2015 11:59 Calculation Date: 4/29/2015 12:11

Operator : AS
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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

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: 224 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

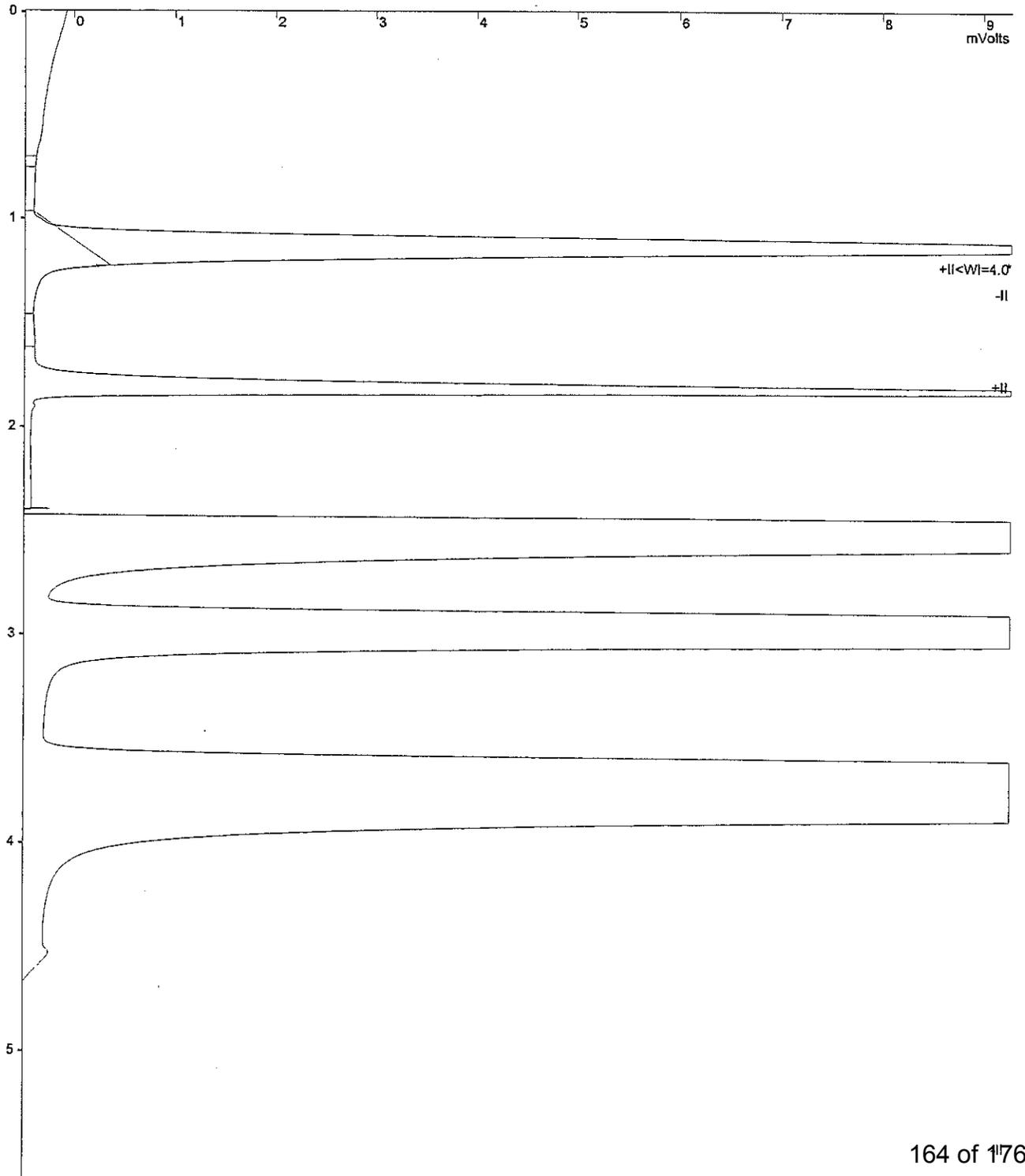
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr036.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : Method blank

Injection Date: 4/30/2015 13:49 Calculation Date: 4/30/2015 13:55

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr036.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : Method blank

Injection Date: 4/30/2015 13:49 Calculation Date: 4/30/2015 13:55

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, 0.000, 0.000, 0, M.

Status Codes:
M - Missing peak

Total Unidentified Counts : 57383 counts

Detected Peaks: 3 Rejected Peaks: 2 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): 28 microVolts

Manual injection

Revision Log:

4/30/2015 13:55: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 13:48:37

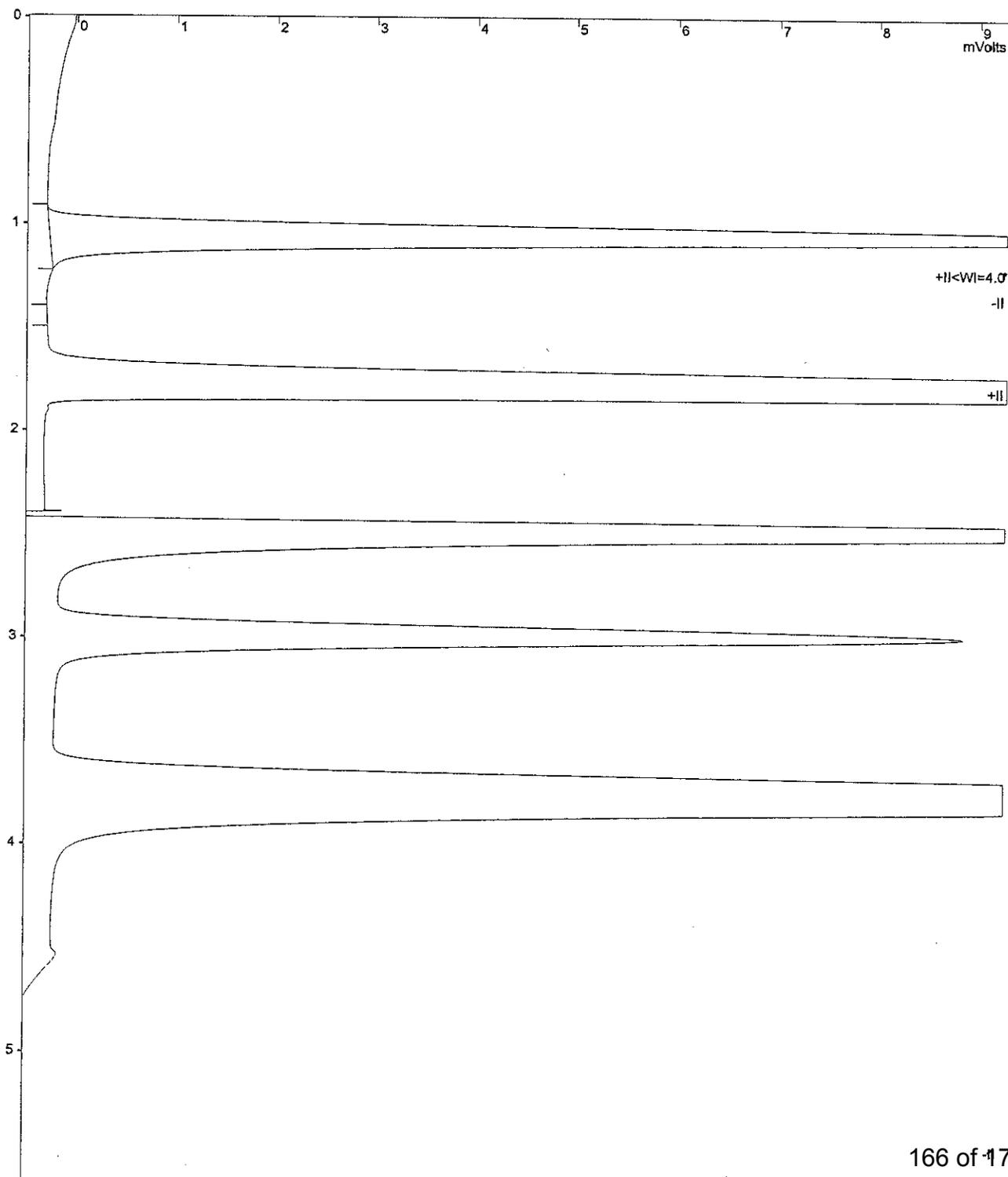
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr037.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : He Blank

Injection Date: 4/30/2015 13:56 Calculation Date: 4/30/2015 14:02

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr037.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : He Blank

Injection Date: 4/30/2015 13:56 Calculation Date: 4/30/2015 14:02

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 1.684, M. Totals: 0.000, 0.000, 0.

Status Codes:
M - Missing peak

Total Unidentified Counts : 68904 counts

Detected Peaks: 2 Rejected Peaks: 1 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): 31 microVolts

Manual injection

Revision Log:

4/30/2015 14:02: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 13:55:22

6. LCS/LCSD

a. Chromatograms/Results

Criteria as listed on report

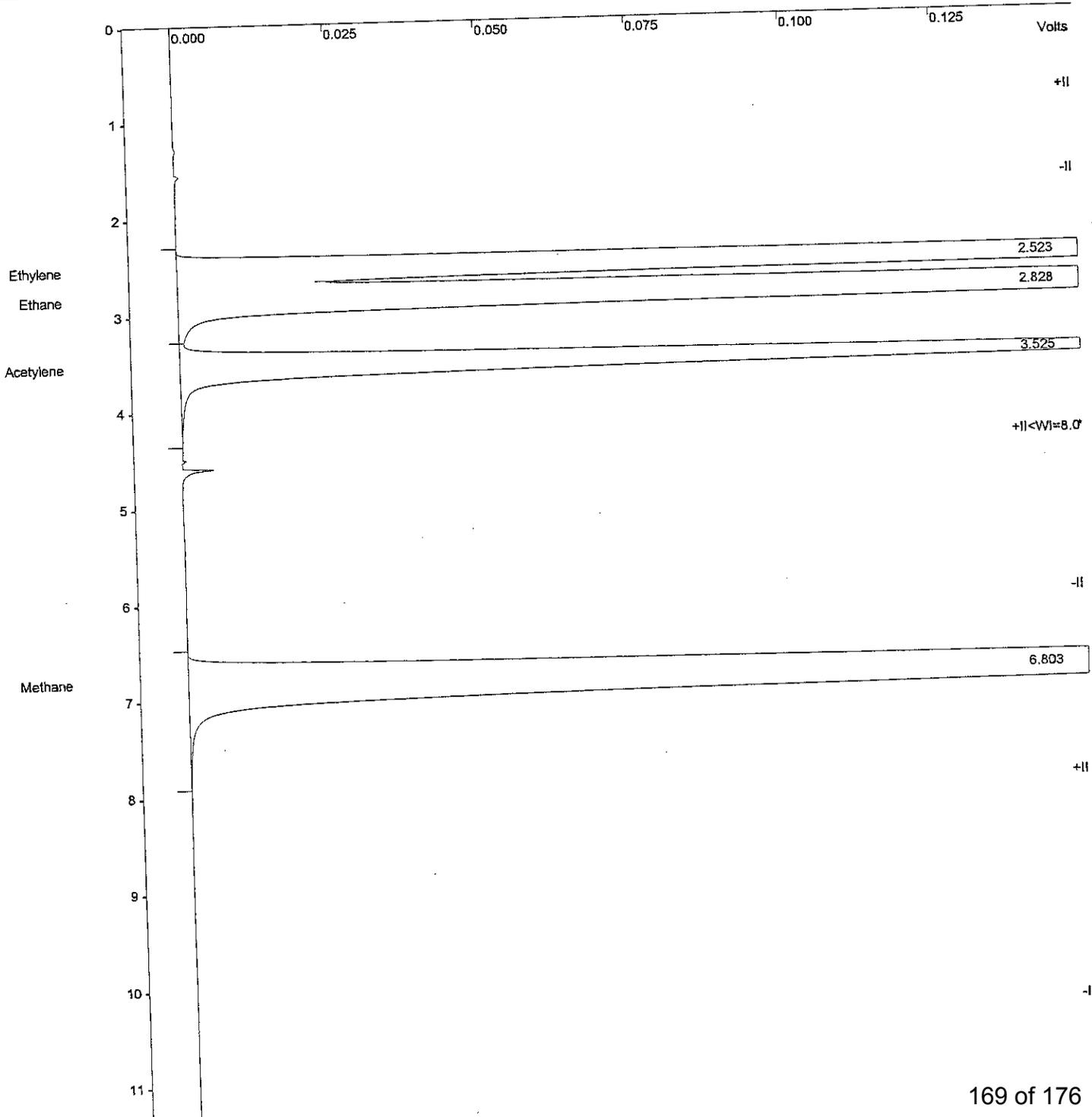
Title : RSK-175 FID
 Run File : c:\temp gc\gc8a\2015\apr\29apr001.run
 Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
 Sample ID : RSK LCS

Injection Date: 4/29/2015 11:19 Calculation Date: 4/29/2015 11:31

Operator : AS
 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\2015\apr\29apr001.run
Method File : c:\temp gc\gc8a\methods\rsk175fgl50428.mth
Sample ID : RSK LCS

Injection Date: 4/29/2015 11:19 Calculation Date: 4/29/2015 11:31

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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	4121.145	2.523	0.010	10915133	BV	6.0	
2	Ethane	6171.963	2.828	0.008	16783574	VV	6.8	
3	Acetylene	739.496	3.525	0.012	2118058	VB	8.6	
4	Methane	6760.518	6.803	0.004	9187043	BB	10.6	
Totals:		17793.122		0.034	39003808			

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -20 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 8 microVolts

Manual injection

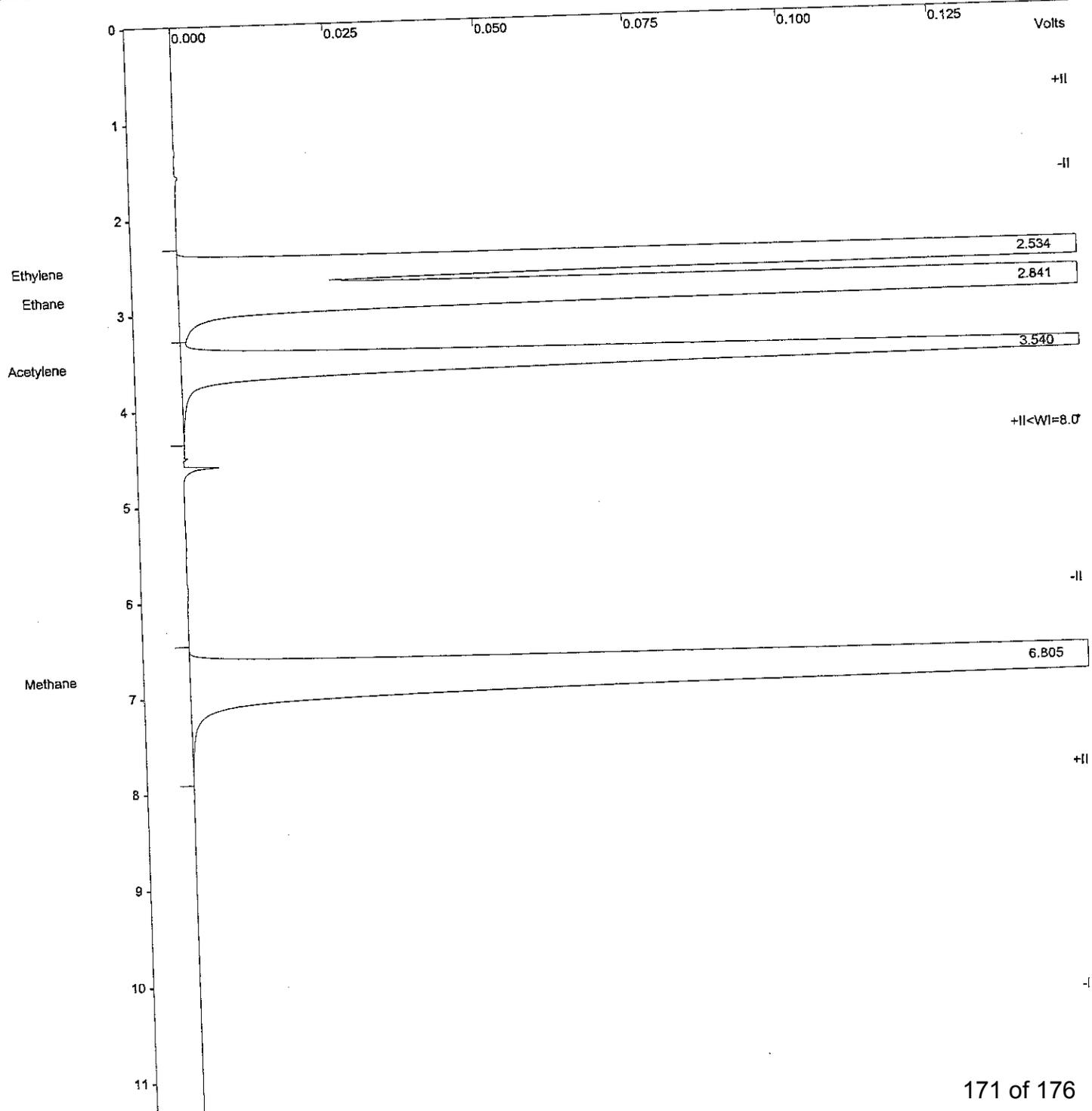
Title : RSK-175 FID
Run File : c:\temp gc\gc8a\2015\apr\29apr002.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK LCSD

Injection Date: 4/29/2015 11:32 Calculation Date: 4/29/2015 11:44

Operator : AS
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\2015\apr\29apr002.run
Method File : c:\temp gc\gc8a\methods\rsk175fg150428.mth
Sample ID : RSK LCSD

Injection Date: 4/29/2015 11:32 Calculation Date: 4/29/2015 11:44

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Middle = FID 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Rows include Ethylene, Ethane, Acetylene, Methane, and Totals.

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 4

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -21 microVolts LSB: 1 microVolts

Noise (used): 50 microVolts - fixed value
Noise (monitored before this run): 8 microVolts

Manual injection

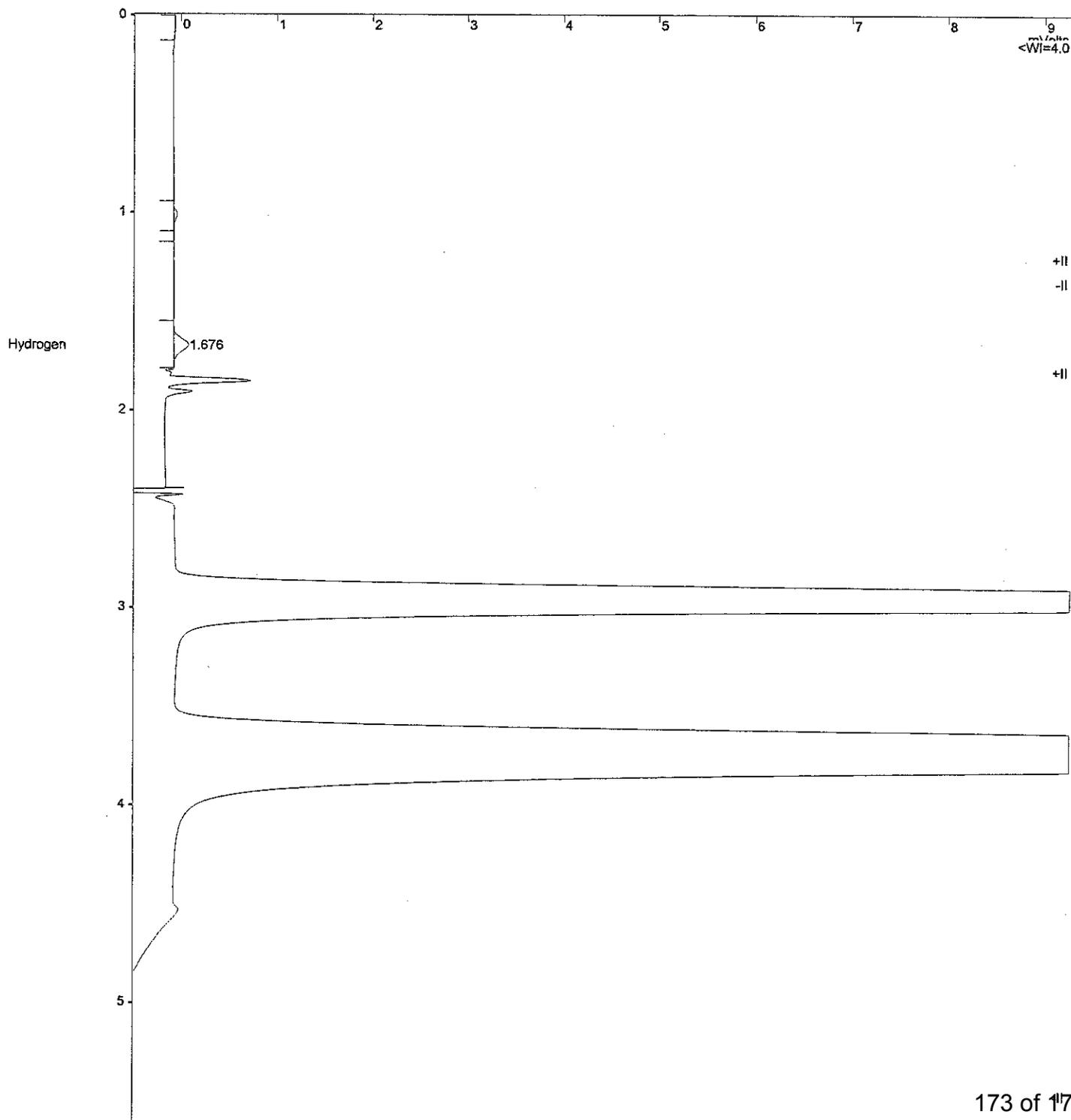
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr032.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : H2 RSK LCS

Injection Date: 4/30/2015 13:18 Calculation Date: 4/30/2015 13:24

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr032.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : H2 RSK LCS

Injection Date: 4/30/2015 13:18 Calculation Date: 4/30/2015 13:24

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 8 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 8523.333, 1.676, -0.008, 660, BB, 4.1. Totals: 8523.333, -0.008, 660.

Total Unidentified Counts : 127 counts

Detected Peaks: 4 Rejected Peaks: 2 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -60 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 3 microVolts

Manual injection

Revision Log:

4/30/2015 13:24: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 13:17:47

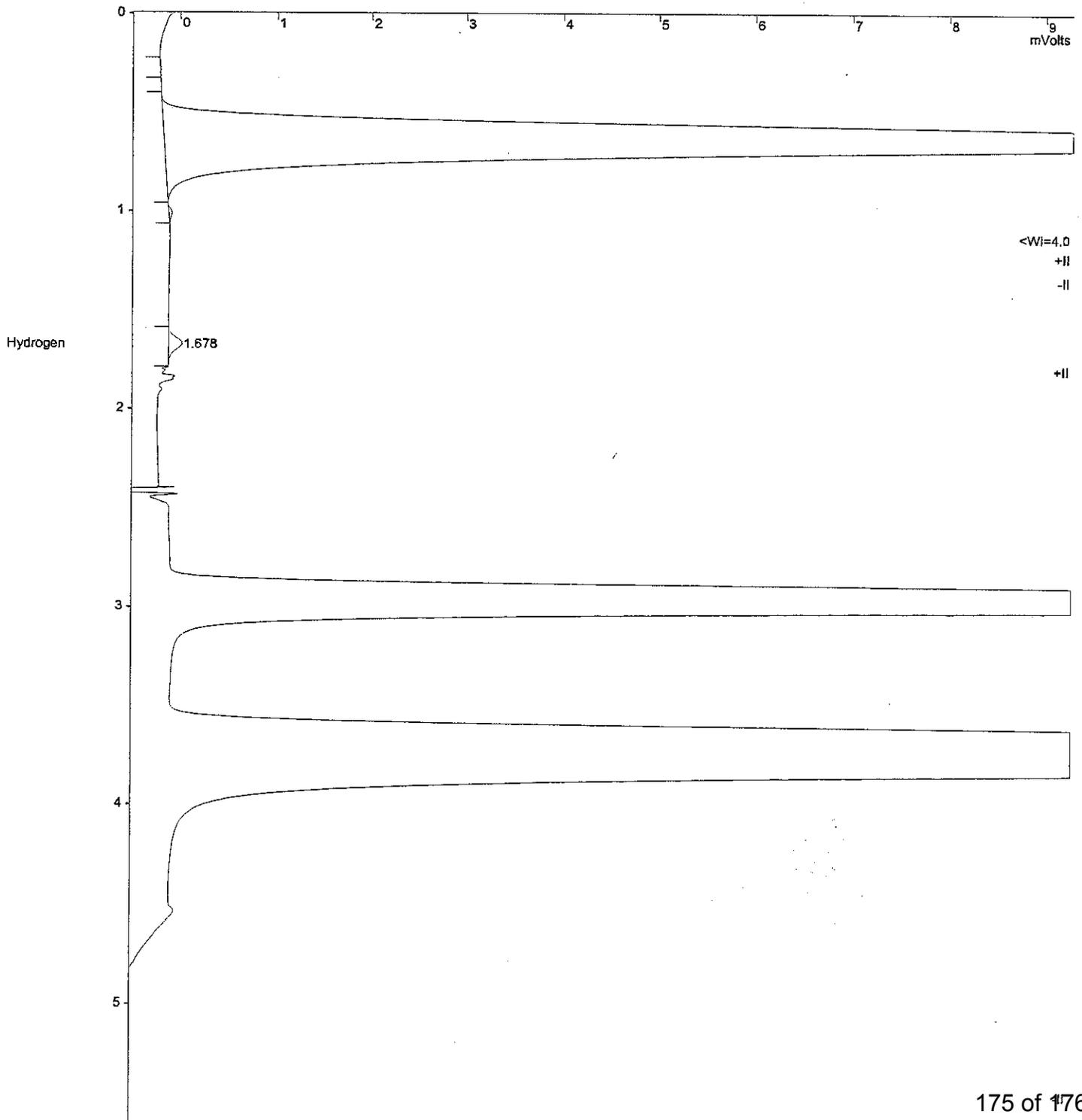
Title : RSK-175 TCD
Run File : c:\temp gc\gc8a\2015\apr\30apr033.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : H2 RSK LCSD

Injection Date: 4/30/2015 13:26 Calculation Date: 4/30/2015 13:32

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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\2015\apr\30apr033.run
Method File : C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth
Sample ID : H2 RSK LCSD

Injection Date: 4/30/2015 13:26 Calculation Date: 4/30/2015 13:32

Operator : AS Detector Type: 3800 (10 Volts)
Workstation: Bus Address : 44
Instrument : GC8A Sample Rate : 10.00 Hz
Channel : Front = TCD 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

Table with 9 columns: Peak No., Peak Name, Result (ppmv), Ret. Time (min), Time Offset (min), Area (counts), Sep. Code, Width 1/2 (sec), Status Codes. Row 1: 1 Hydrogen, 7950.181, 1.678, -0.006, 616, BB, 4.1. Totals: 7950.181, -0.006, 616.

Total Unidentified Counts : 126055 counts

Detected Peaks: 4 Rejected Peaks: 1 Identified Peaks: 1

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: -55 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - fixed value
Noise (monitored before this run): 20 microVolts

Manual injection

Revision Log:

4/30/2015 13:32: Calculated results from channel Front using method:
'C:\Temp GC\GC8A\Methods\rskhydrogen140630.mth'
Stream: 1, Advance Time: 13:24:26
