LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 19

2023

Bate Stamp Numbers
01168146 – 01170146

Prepared for

Department of the Army
Longhorn Army Ammunition Plant

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LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS
ADMINISTRATIVE RECORD – CHRONOLOGICAL INDEX

VOLUME 19

2023

A. Title: (Cont'd) Report—**cont'd** Appendix D, **File 2**—Level IV DoD, Draft Final Second Annual Remedial Action Operation Report, LHAAP-16 Landfill, Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas, March 2023
Author(s): Department of the Army
Recipient: Environmental Protection Agency and Texas Commission on Environmental Quality
Date: March 17, 2023
Bate Stamp: 01168146 – 01168652

The above Level IV DoD labs were omitted in the previous Admin Record, so that is why they are out of date sequence and added to this April thru June 2023 Admin Record.

B. Title: (Cont'd) Report—Appendix D, **File 3**—Level IV DoD, Draft Final Second Annual Remedial Action Operation Report, LHAAP-16 Landfill, Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas, March 2023
Author(s): Department of the Army
Recipient: Environmental Protection Agency and Texas Commission on Environmental Quality
Date: March 17, 2023
Bate Stamp: 01168653 – 01170146

The above Level IV DoD labs were omitted in the previous Admin Record, so that is why they are out of date sequence and added to this April thru June 2023 Admin Record.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071465

Service Request: E2100891
Date Analyzed: 8/18/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210818\20210818_051

Calibration Date: 8/4/21
Calibration ID: EC2100057
Analysis Lot: 735470
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	8.52	0.1426	0.1215	-14.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100891
Project:	HS21071465	**Date Analyzed:**	8/18/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	8/4/21
File ID:	I:\LCMS01\DATA\20210818\20210818_053	**Calibration ID:**	EC2100057
		Analysis Lot:	735470
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	8.52	0.1426	0.1215	-14.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100891
Project:	HS21071465	**Date Analyzed:**	8/3/21 10:20

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210803\20210803_008	**Lab Code:**	EQ2100485-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733599
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	100,675	2.79
	Upper Limit ==>	151,013	4.79
	Lower Limit ==>	50,338	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100485-01	58,248	2.78
Method Blank	EQ2100475-01	58,740	2.82
Lab Control Sample	EQ2100475-02	62,497	2.79
Duplicate Lab Control Sample	EQ2100475-03	60,901	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100891
Project:	HS21071465	**Date Analyzed:**	8/3/21 11:54

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210803\20210803_019	**Lab Code:**	EQ2100485-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733599
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	100,675	2.79
	Upper Limit ==>	151,013	4.79
	Lower Limit ==>	50,338	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100485-02	52,044	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100891
Project:	HS21071465	**Date Analyzed:**	8/3/21 21:42

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210803\20210803_072	**Lab Code:**	EQ2100651-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733599
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	100,675	2.79
	Upper Limit ==>	151,013	4.79
	Lower Limit ==>	50,338	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100651-03	73,828	2.78
Method Blank	EQ2100477-01	59,411	2.78
Duplicate Lab Control Sample	EQ2100477-03	50,444	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100891
Project:	HS21071465	**Date Analyzed:**	8/3/21 23:17

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210803\20210803_083	**Lab Code:**	EQ2100651-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733599
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	100,675	2.79
	Upper Limit ==>	151,013	4.79
	Lower Limit ==>	50,338	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100651-04	76,995	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100891
Project:	HS21071465	**Date Analyzed:**	8/4/21 00:42

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210803\20210803_093	**Lab Code:**	EQ2100651-05
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733599
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	100,675	2.79
	Upper Limit ==>	151,013	4.79
	Lower Limit ==>	50,338	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100651-05	96,087	2.77
16EW07-210727	E2100891-007	82,697	2.77
16EW06-210727	E2100891-008	150,354	2.77

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100891
Project:	HS21071465	**Date Analyzed:**	8/4/21 01:34

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210803\20210803_099	**Lab Code:**	EQ2100651-06
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733599
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	100,675	2.79
	Upper Limit ==>	151,013	4.79
	Lower Limit ==>	50,338	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100651-06	94,885	2.77

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100891
Project:	HS21071465	**Date Analyzed:**	8/5/21 13:38

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210805\20210805_025	**Lab Code:**	EQ2100492-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733725
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100492-03	53,228	2.66
Lab Control Sample	EQ2100477-02	57,239	2.77

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100891
Project:	HS21071465	**Date Analyzed:**	8/5/21 15:58

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210805\20210805_036	**Lab Code:**	EQ2100492-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733725
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100492-04	95,586	2.76

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100891
Project:	HS21071465	**Date Analyzed:**	8/18/21 10:26

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210818\20210818_008	**Lab Code:**	EQ2100524-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	735470
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100524-01	62,544	2.74

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100891
Project:	HS21071465	**Date Analyzed:**	8/18/21 12:04

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210818\20210818_019	**Lab Code:**	EQ2100524-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	735470
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100524-02	65,562	2.76
16WW40-210727	E2100891-006	35,008	2.75
16RW09-210727	E2100891-002	46,471	2.66

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100891
Project:	HS21071465	**Date Analyzed:**	8/18/21 13:38

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210818\20210818_030	**Lab Code:**	EQ2100524-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	735470
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100524-03	65,415	2.76
16RW07-210727	E2100891-003	35,293	2.73

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100891
Project:	HS21071465	**Date Analyzed:**	8/18/21 15:26

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210818\20210818_041	**Lab Code:**	EQ2100524-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	735470
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100524-04	44,446	2.66
16RW06-210727	E2100891-004	36,914	2.65
16RW10-210727	E2100891-001	39,545	2.66
16WW46-210727	E2100891-005	35,073	2.65

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100891
Project:	HS21071465	**Date Analyzed:**	8/18/21 17:08

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210818\20210818_046	**Lab Code:**	EQ2100524-06
Instrument ID:	E-LCMS-01	**Analysis Lot:**	735470
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100524-06	58,887	2.76

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100891
Project:	HS21071465	**Date Analyzed:**	8/18/21 17:51

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210818\20210818_051	**Lab Code:**	EQ2100524-07
Instrument ID:	E-LCMS-01	**Analysis Lot:**	735470
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100524-07	52,473	2.76

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100891
Project:	HS21071465	**Date Analyzed:**	8/18/21 18:20

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210818\20210818_053	**Lab Code:**	EQ2100524-08
Instrument ID:	E-LCMS-01	**Analysis Lot:**	735470
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100524-08	56,245	2.76

Results flagged with an asterisk (*) indicate values outside control criteria.

Insight Report

Printed at 8/18/2021 10:48:40 AM

Method File: I:\LCMS01\DATA\20210803\20210802.lcm
Project File: I:\LCMS01\DATA\20210803\20210803.damlp

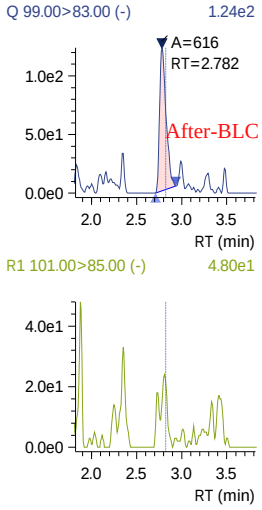
20210803_007

Sample ID: LODV
Date Acquired: 8/3/2021 10:11:40 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\20210803_007.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.782	616	70530	1	0.0592	ng/mL	----	4.24
Sodium Perchlorate-18O4 _IS	Auto	2.775	70530	70530	1	1.0000	ng/mL	----	----

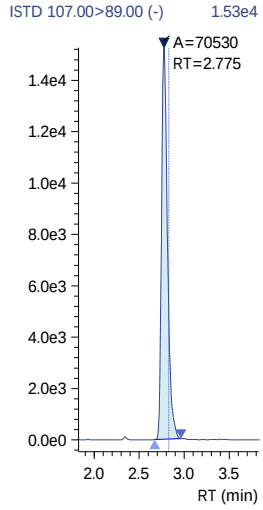
Perchlorate

Conc 0.0592
R#1 4.24 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:53:14 AM

Method File: I:\LCMS01\DATA\20210803\20210802.lcm

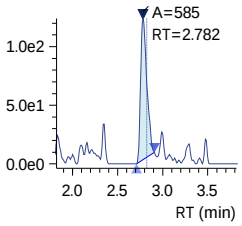
20210803_007

Sample ID: LODV
Date Acquired: 8/3/2021 10:11:40 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\Before\20210803_007.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

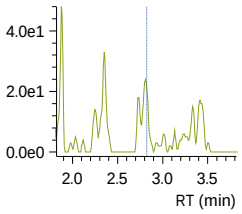
Perchlorate

Conc 0.0567
R#1 5.17 (0.00)

Q 99.00>83.00 (-) 1.24e2



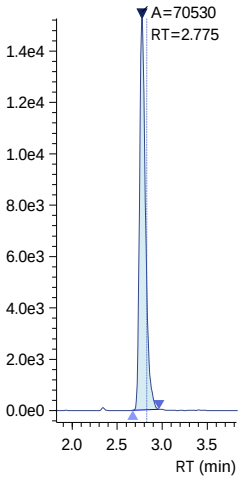
R1 101.00>85.00 (-) 4.80e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.53e4



Insight Report

Printed at 8/18/2021 10:48:40 AM

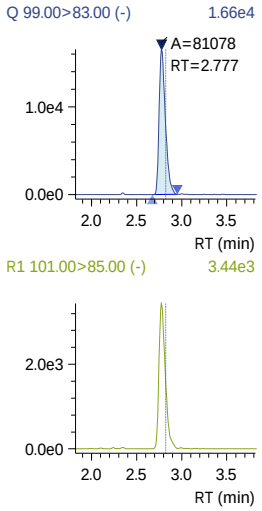
20210803_008

Sample ID: PERCHLORATE7
Date Acquired: 8/3/2021 10:20:13 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\20210803_008.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.777	81078	58248	1	9.4484	ng/mL	10.0000	20.79
Sodium Perchlorate-18O4 _IS	Auto	2.776	58248	58248	1	1.0000	ng/mL	1.0000	----

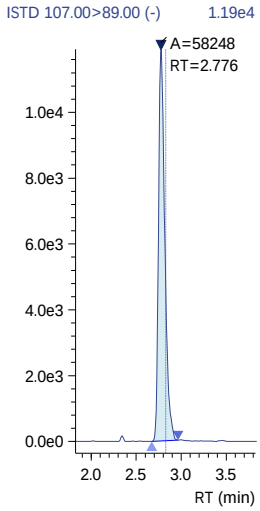
Perchlorate

Conc 9.4484
R#1 20.79 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:53:14 AM

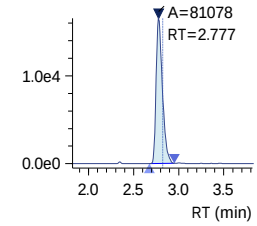
20210803_008

Sample ID: PERCHLORATE7
Date Acquired: 8/3/2021 10:20:13 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\Before\20210803_008.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

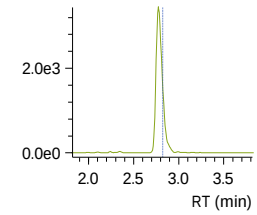
Perchlorate

Conc 9.5221
R#1 20.79 (0.00)

Q 99.00>83.00 (-) 1.66e4



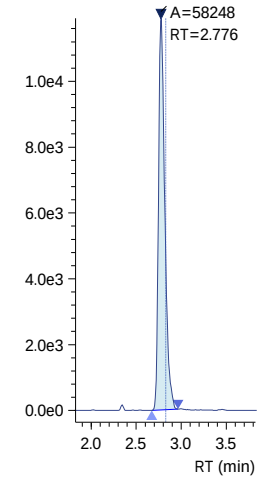
R1 101.00>85.00 (-) 3.44e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.19e4



Insight Report

Printed at 8/18/2021 10:48:40 AM

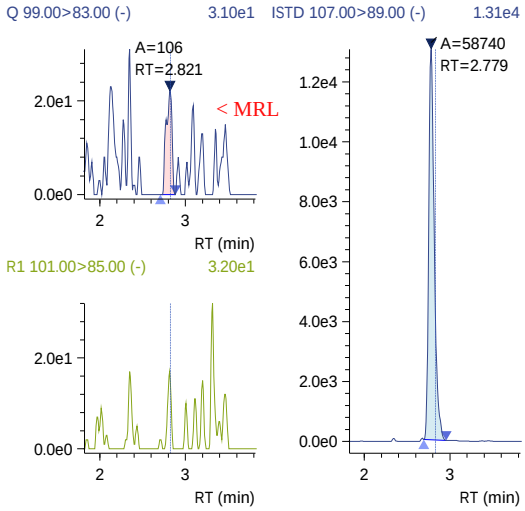
20210803_009

Sample ID: EQ2100475-01
Date Acquired: 8/3/2021 10:28:44 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\20210803_009.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.821	106	58740	1	0.0122	ng/mL	----	68.18
Sodium Perchlorate-18O4 _IS	Auto	2.779	58740	58740	1	1.0000	ng/mL	----	----

Perchlorate

Conc 0.0122
R#1 68.18 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000

Insight Report

Printed at 8/18/2021 10:53:14 AM

20210803_009

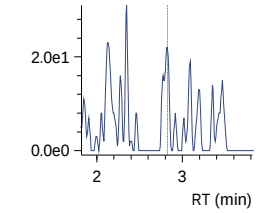
Sample ID: EQ2100475-01
Date Acquired: 8/3/2021 10:28:44 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\Before\20210803_009.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 3

Perchlorate

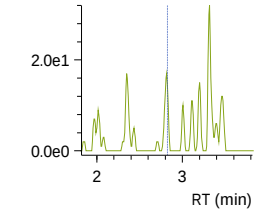
Conc ----

R#1 ---- (0.00)

Q 99.00>83.00 (-) 3.10e1



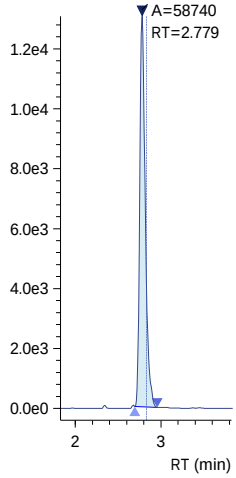
R1 101.00>85.00 (-) 3.20e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.31e4



Insight Report

Printed at 8/18/2021 10:48:40 AM

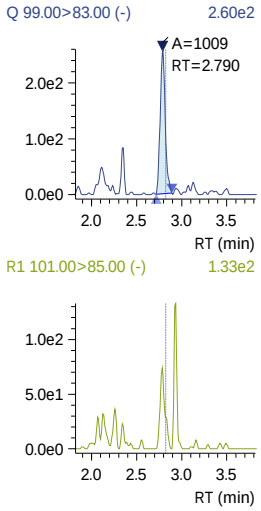
20210803_010

Sample ID: EQ2100475-02
Date Acquired: 8/3/2021 10:37:18 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\20210803_010.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.790	1009	62497	1	0.1096	ng/mL	----	29.84
Sodium Perchlorate-18O4 _IS	Auto	2.778	62497	62497	1	1.0000	ng/mL	----	----

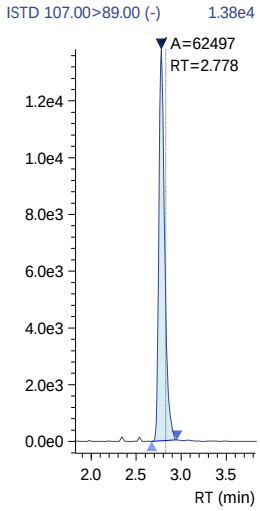
Perchlorate

Conc 0.1096
R#1 29.84 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:53:14 AM

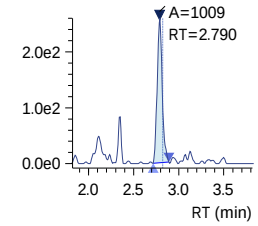
20210803_010

Sample ID: EQ2100475-02
Date Acquired: 8/3/2021 10:37:18 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\Before\20210803_010.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 3

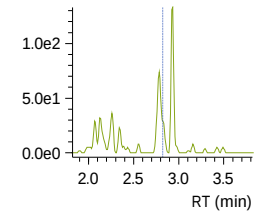
Perchlorate

Conc 0.1104
R#1 29.84 (0.00)

Q 99.00>83.00 (-) 2.60e2



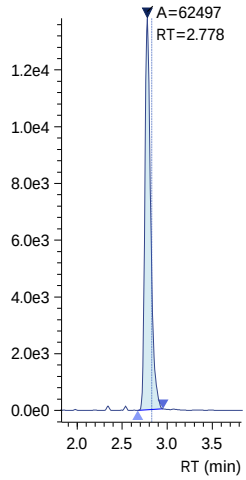
R1 101.00>85.00 (-) 1.33e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.38e4



Insight Report

Printed at 8/18/2021 10:48:40 AM

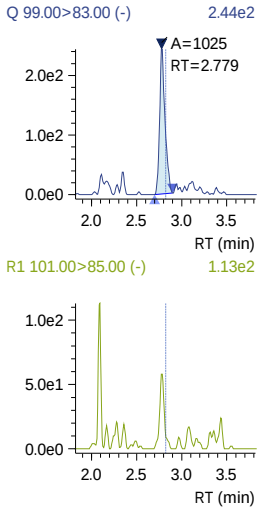
20210803_011

Sample ID: EQ2100475-03
Date Acquired: 8/3/2021 10:45:53 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\20210803_011.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.779	1025	60901	1	0.1142	ng/mL	----	23.63
Sodium Perchlorate-18O4 _IS	Auto	2.777	60901	60901	1	1.0000	ng/mL	----	----

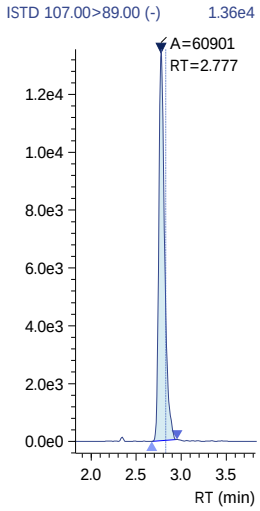
Perchlorate

Conc 0.1142
R#1 23.63 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:53:14 AM

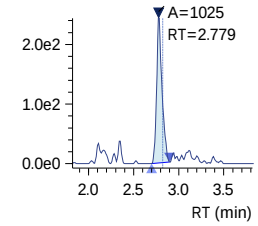
20210803_011

Sample ID: EQ2100475-03
Date Acquired: 8/3/2021 10:45:53 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\Before\20210803_011.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 3

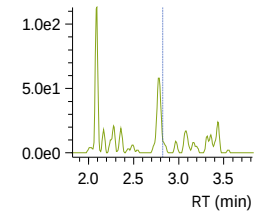
Perchlorate

Conc 0.1151
R#1 23.63 (0.00)

Q 99.00>83.00 (-) 2.44e2



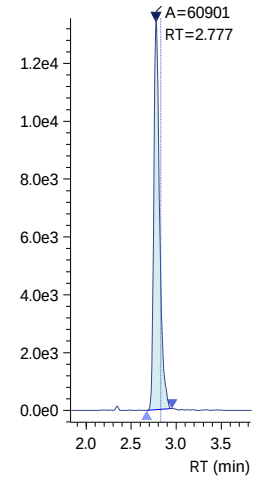
R1 101.00>85.00 (-) 1.13e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.36e4



Insight Report

Printed at 8/18/2021 10:48:40 AM

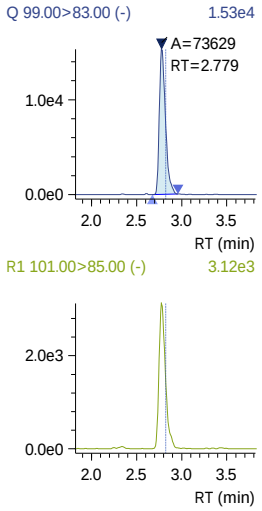
20210803_019

Sample ID: PERCHLORATE7
Date Acquired: 8/3/2021 11:54:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\20210803_019.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.779	73629	52044	1	9.6032	ng/mL	10.0000	20.38
Sodium Perchlorate-18O4 _IS	Auto	2.777	52044	52044	1	1.0000	ng/mL	1.0000	----

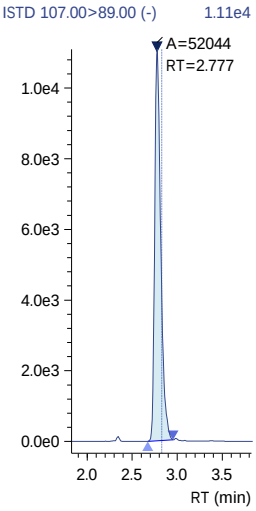
Perchlorate

Conc 9.6032
R#1 20.38 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:53:14 AM

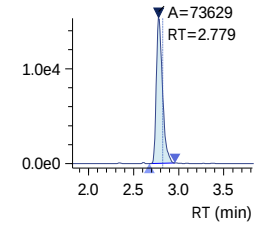
20210803_019

Sample ID: PERCHLORATE7
Date Acquired: 8/3/2021 11:54:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\Before\20210803_019.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

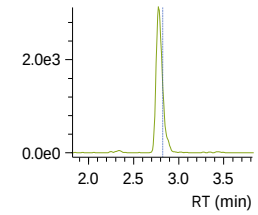
Perchlorate

Conc 9.6780
R#1 20.38 (0.00)

Q 99.00>83.00 (-) 1.53e4



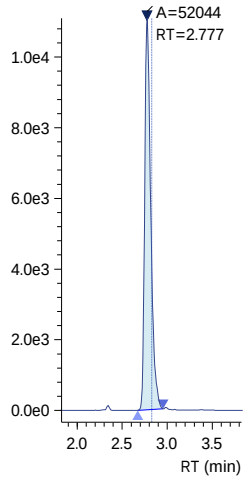
R1 101.00>85.00 (-) 3.12e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.11e4



Insight Report

Printed at 8/18/2021 10:48:40 AM

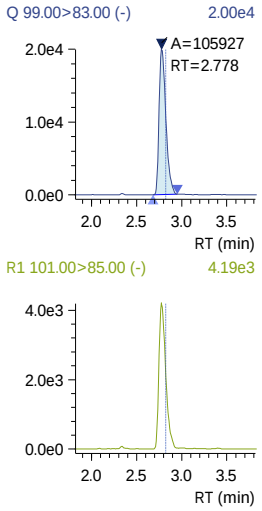
20210803_072

Sample ID: PERCHLORATE7
Date Acquired: 8/3/2021 9:42:59 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\20210803_072.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.778	105927	73828	1	9.7391	ng/mL	10.0000	20.96
Sodium Perchlorate-18O4_IS	Auto	2.779	73828	73828	1	1.0000	ng/mL	1.0000	----

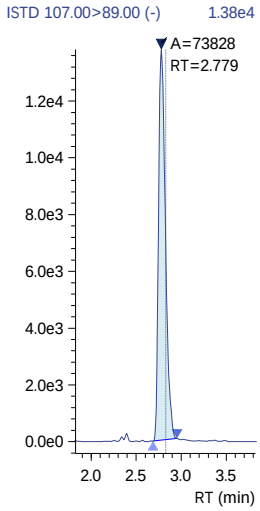
Perchlorate

Conc 9.7391
R#1 20.96 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:53:14 AM

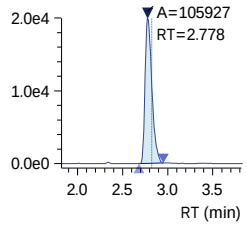
20210803_072

Sample ID: PERCHLORATE7
Date Acquired: 8/3/2021 9:42:59 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\Before\20210803_072.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

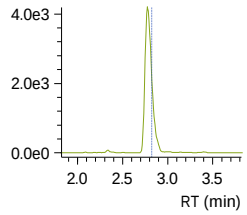
Perchlorate

Conc 9.8150
R#1 20.96 (0.00)

Q 99.00>83.00 (-) 2.00e4



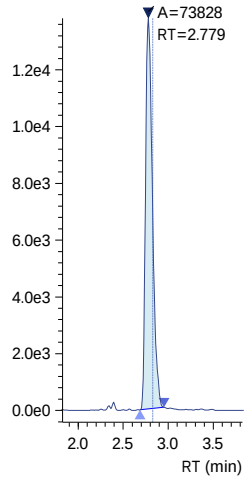
R1 101.00>85.00 (-) 4.19e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.38e4



Insight Report

Printed at 8/18/2021 10:48:40 AM

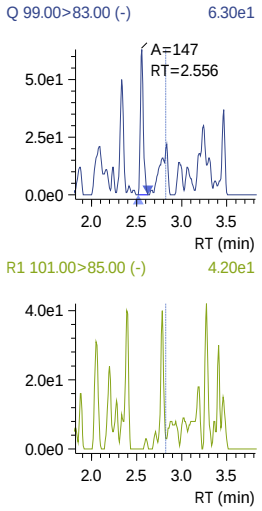
20210803_073

Sample ID: EQ2100477-01
Date Acquired: 8/3/2021 9:51:32 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\20210803_073.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	ND(W/B)	----	----	59411	1	----	ng/mL	----	----
Sodium Perchlorate-18O4_IS	Auto	2.778	59411	59411	1	1.0000	ng/mL	----	----

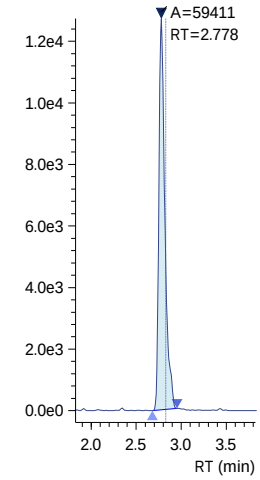
Perchlorate

Conc ----
R#1 ---- (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:53:14 AM

20210803_073

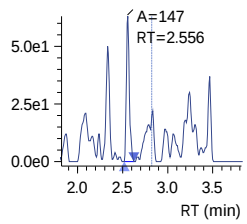
Sample ID: EQ2100477-01
Date Acquired: 8/3/2021 9:51:32 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\Before\20210803_073.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 2

Perchlorate

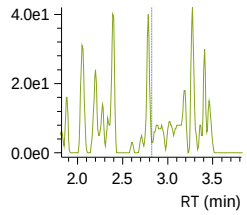
Conc ----

R#1 ---- (0.00)

Q 99.00>83.00 (-) 6.30e1



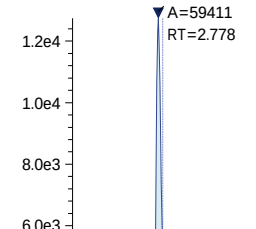
R1 101.00>85.00 (-) 4.20e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.27e4



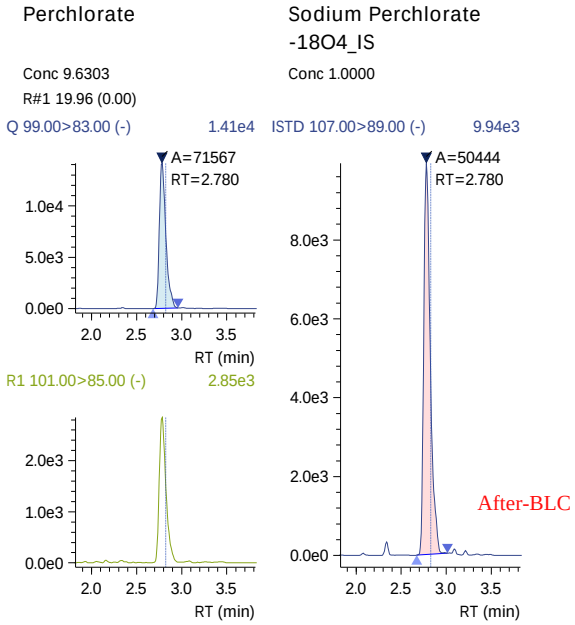
Insight Report

Printed at 8/18/2021 10:48:40 AM

20210803_075

Sample ID: EQ2100477-03
Date Acquired: 8/3/2021 10:08:40 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\20210803_075.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.780	71567	50444	1	9.6303	ng/mL	----	19.96
Sodium Perchlorate-18O4 _IS	M	2.780	50444	50444	1	1.0000	ng/mL	----	----



Insight Report

Printed at 8/18/2021 10:53:14 AM

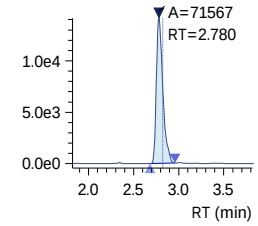
20210803_075

Sample ID: EQ2100477-03
Date Acquired: 8/3/2021 10:08:40 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\Before\20210803_075.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 2

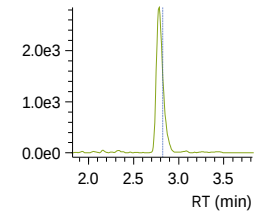
Perchlorate

Conc 9.7461
R#1 19.96 (0.00)

Q 99.00>83.00 (-) 1.41e4



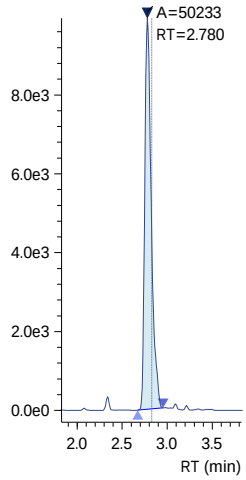
R1 101.00>85.00 (-) 2.85e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 9.94e3



Insight Report

Printed at 8/18/2021 10:48:40 AM

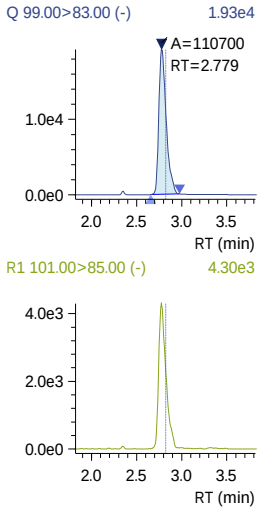
20210803_083

Sample ID: PERCHLORATE7
Date Acquired: 8/3/2021 11:17:14 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\20210803_083.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.779	110700	76995	1	9.7593	ng/mL	10.0000	22.26
Sodium Perchlorate-18O4_IS	Auto	2.777	76995	76995	1	1.0000	ng/mL	1.0000	----

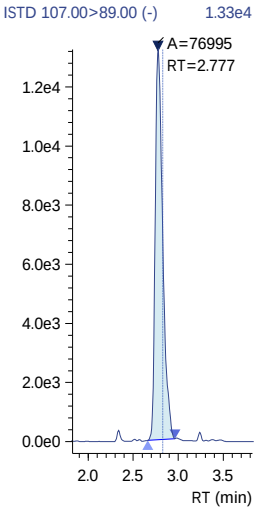
Perchlorate

Conc 9.7593
R#1 22.26 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:53:14 AM

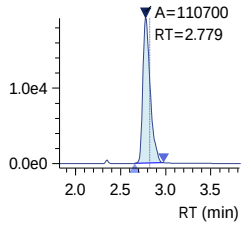
20210803_083

Sample ID: PERCHLORATE7
Date Acquired: 8/3/2021 11:17:14 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\Before\20210803_083.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

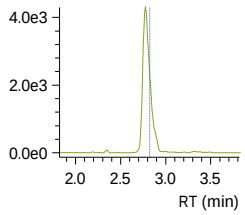
Perchlorate

Conc 9.8354
R#1 22.26 (0.00)

Q 99.00>83.00 (-) 1.93e4



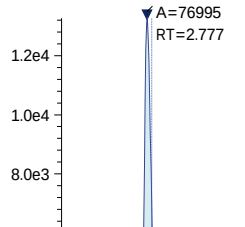
R1 101.00>85.00 (-) 4.30e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.33e4



Insight Report

Printed at 8/18/2021 10:48:40 AM

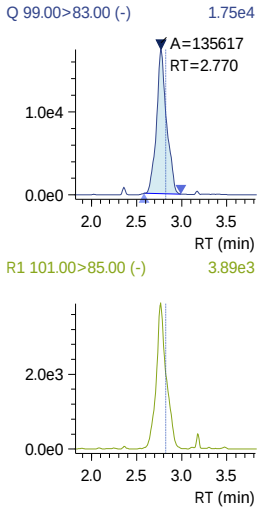
20210803_093

Sample ID: PERCHLORATE7
Date Acquired: 8/4/2021 12:42:44 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\20210803_093.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.770	135617	96087	1	9.5804	ng/mL	10.0000	22.22
Sodium Perchlorate-18O4_IS	Auto	2.769	96087	96087	1	1.0000	ng/mL	1.0000	----

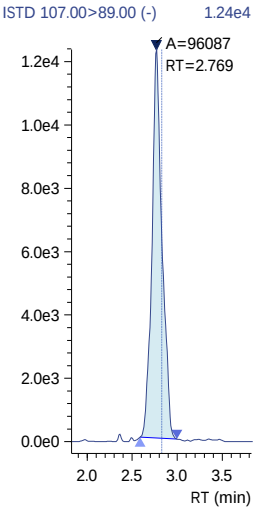
Perchlorate

Conc 9.5804
R#1 22.22 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:53:14 AM

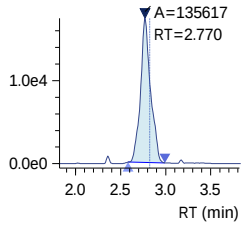
20210803_093

Sample ID: PERCHLORATE7
Date Acquired: 8/4/2021 12:42:44 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\Before\20210803_093.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

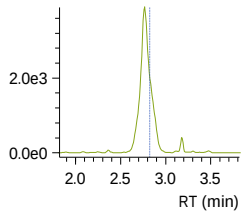
Perchlorate

Conc 9.6550
R#1 22.22 (0.00)

Q 99.00>83.00 (-) 1.75e4



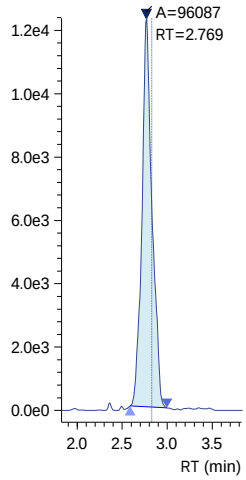
R1 101.00>85.00 (-) 3.89e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.24e4



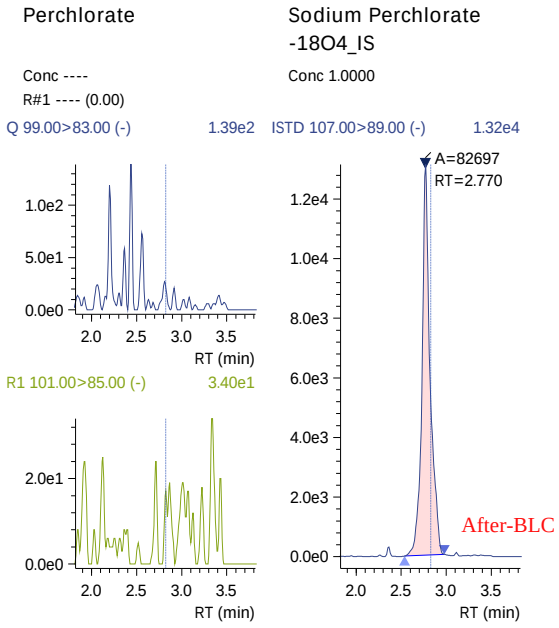
Insight Report

Printed at 8/18/2021 10:48:40 AM

20210803_097

Sample ID: E2100891-007
Date Acquired: 8/4/2021 1:16:57 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\20210803_097.lcd
Vial: 48 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	ND(W/B)	----	----	82697	1	----	ng/mL	----	----
Sodium Perchlorate-18O4_IS	M	2.770	82697	82697	1	1.0000	ng/mL	----	----



Insight Report

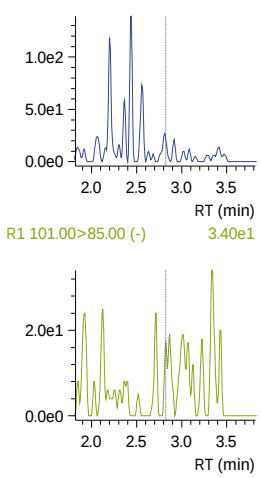
Printed at 8/18/2021 10:53:14 AM

20210803_097

Sample ID: E2100891-007
Date Acquired: 8/4/2021 1:16:57 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\Before\20210803_097.lcd
Vial: 48 | Inj. Volume: 25.0000uL | Tray: 2

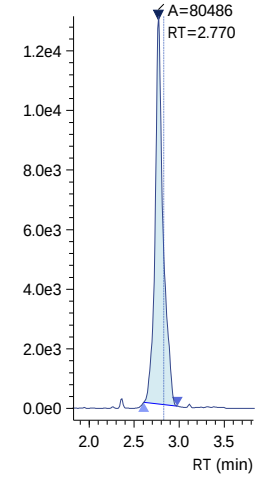
Perchlorate

Conc ----
R#1 ---- (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:48:40 AM

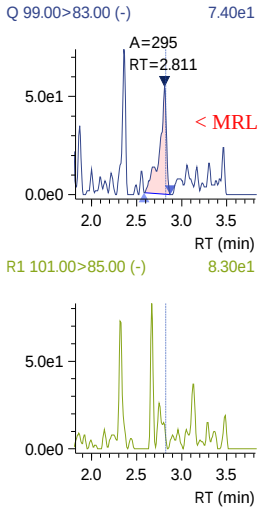
20210803_098

Sample ID: E2100891-008
Date Acquired: 8/4/2021 1:25:32 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\20210803_098.lcd
Vial: 49 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.811	295	150354	1	0.0133	ng/mL	----	18.52
Sodium Perchlorate-18O4 _IS	Auto	2.771	1503 54	150354	1	1.0000	ng/mL	----	----

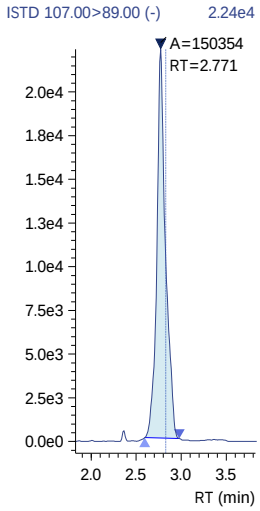
Perchlorate

Conc 0.0133
R#1 18.52 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:53:14 AM

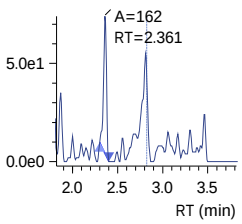
20210803_098

Sample ID: E2100891-008
Date Acquired: 8/4/2021 1:25:32 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\Before\20210803_098.lcd
Vial: 49 | Inj. Volume: 25.0000uL | Tray: 2

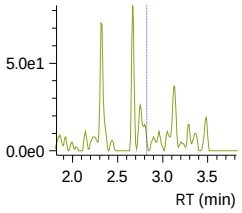
Perchlorate

Conc ----
R#1 ---- (0.00)

Q 99.00>83.00 (-) 7.40e1



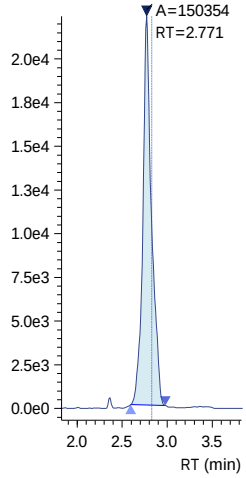
R1 101.00>85.00 (-) 8.30e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.24e4



Insight Report

Printed at 8/18/2021 10:48:40 AM

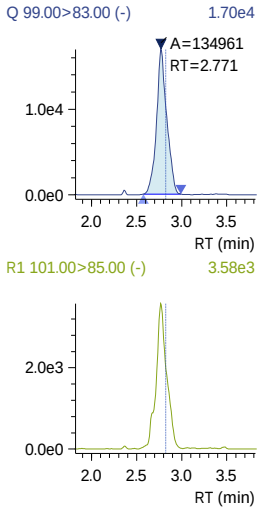
20210803_099

Sample ID: PERCHLORATE7
Date Acquired: 8/4/2021 1:34:07 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\20210803_099.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.771	134961	94885	1	9.6548	ng/mL	10.0000	20.98
Sodium Perchlorate-18O4_IS	Auto	2.771	94885	94885	1	1.0000	ng/mL	1.0000	----

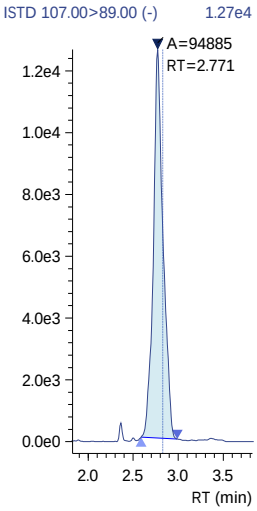
Perchlorate

Conc 9.6548
R#1 20.98 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:53:14 AM

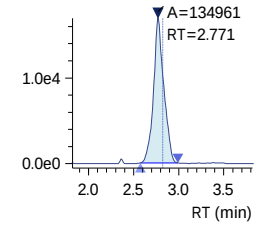
20210803_099

Sample ID: PERCHLORATE7
Date Acquired: 8/4/2021 1:34:07 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210803\Before\20210803_099.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

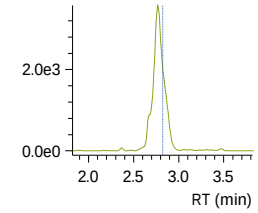
Perchlorate

Conc 9.7300
R#1 20.98 (0.00)

Q 99.00>83.00 (-) 1.70e4



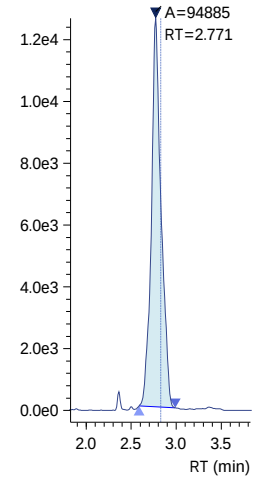
R1 101.00>85.00 (-) 3.58e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.27e4



Insight Report

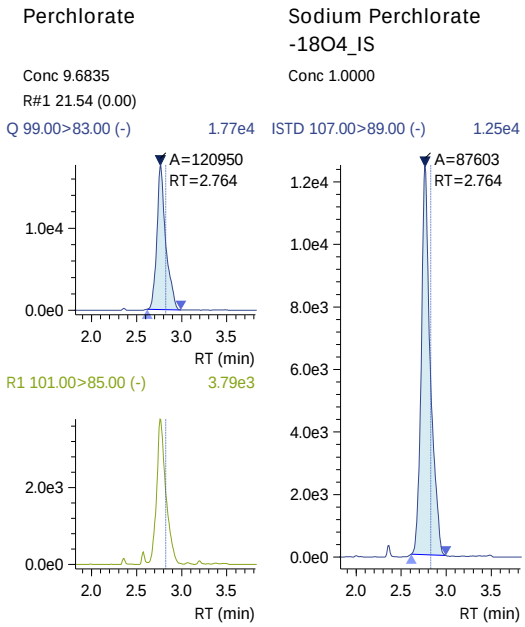
Printed at 8/19/2021 12:01:45 PM

Method File: I:\LCMS01\DATA\20210805\20210804.lcm
Project File: I:\LCMS01\DATA\20210805\20210805.damlp

20210805_006

Sample ID: PERCHLORATE7
Date Acquired: 8/5/2021 10:19:20 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\20210805_006.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.764	120950	87603	1	9.6835	ng/mL	10.0000	21.54
Sodium Perchlorate-18O4_IS	Auto	2.764	87603	87603	1	1.0000	ng/mL	1.0000	----



Insight Report

Printed at 8/19/2021 12:04:03 PM

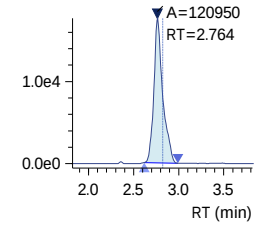
20210805_006

Sample ID: PERCHLORATE7
Date Acquired: 8/5/2021 10:19:20 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\Before\20210805_006.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

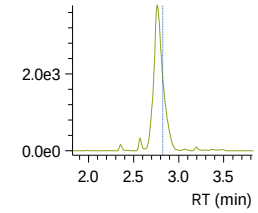
Perchlorate

Conc 10.0117
R#1 21.54 (0.00)

Q 99.00>83.00 (-) 1.77e4



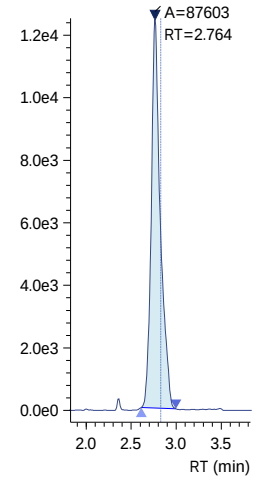
R1 101.00>85.00 (-) 3.79e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.25e4



Insight Report

Printed at 8/19/2021 12:01:45 PM

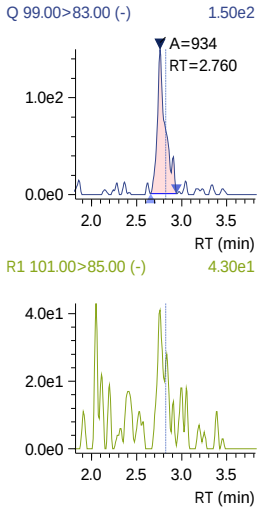
20210805_007

Sample ID: LODV
Date Acquired: 8/5/2021 10:27:55 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\20210805_007.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.760	934	104122	1	0.0629	ng/mL	----	27.70
Sodium Perchlorate-18O4 _IS	M	2.764	1041 22	104122	1	1.0000	ng/mL	----	----

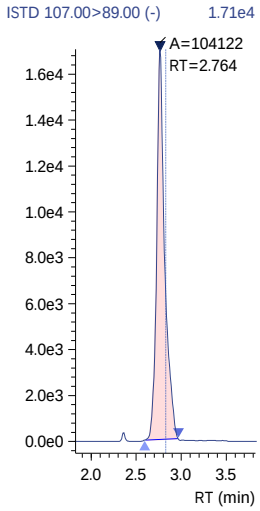
Perchlorate

Conc 0.0629
R#1 27.70 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 12:04:03 PM

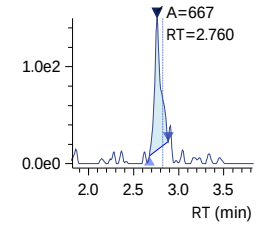
20210805_007

Sample ID: LODV
Date Acquired: 8/5/2021 10:27:55 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\Before\20210805_007.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

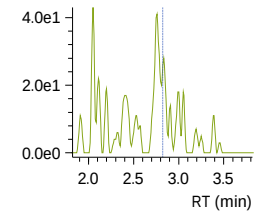
Perchlorate

Conc 0.0455
R#1 27.94 (0.00)

Q 99.00>83.00 (-) 1.50e2



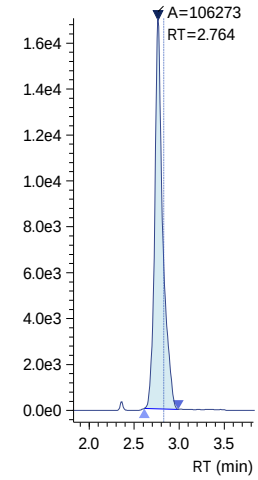
R1 101.00>85.00 (-) 4.30e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.71e4



Insight Report

Printed at 8/19/2021 12:01:45 PM

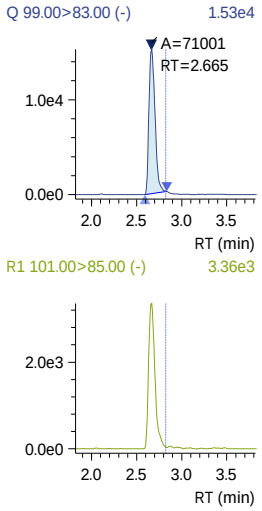
20210805_025

Sample ID: PERCHLORATE7
Date Acquired: 8/5/2021 1:38:01 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\20210805_025.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.665	71001	53228	1	9.3556	ng/mL	10.0000	22.37
Sodium Perchlorate-18O4 _IS	M	2.664	53228	53228	1	1.0000	ng/mL	1.0000	----

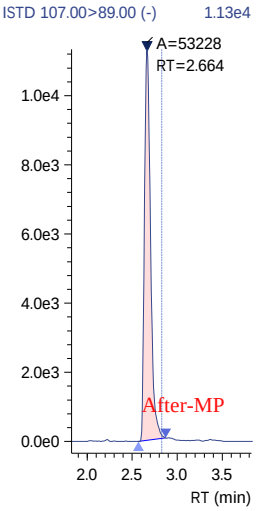
Perchlorate

Conc 9.3556
R#1 22.37 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 12:04:03 PM

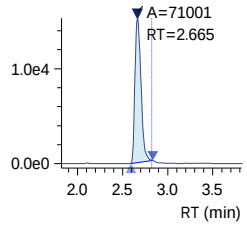
20210805_025

Sample ID: PERCHLORATE7
Date Acquired: 8/5/2021 1:38:01 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\Before\20210805_025.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

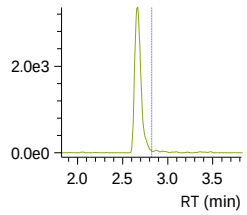
Perchlorate

Conc 0.0000
R#1 22.37 (0.00)

Q 99.00>83.00 (-) 1.53e4



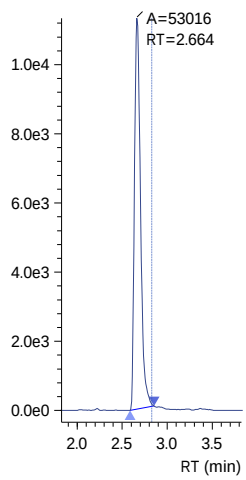
R1 101.00>85.00 (-) 3.36e3



Sodium Perchlorate -18O4_IS

Conc ----

ISTD 107.00>89.00 (-) 1.13e4



Insight Report

Printed at 8/19/2021 12:01:45 PM

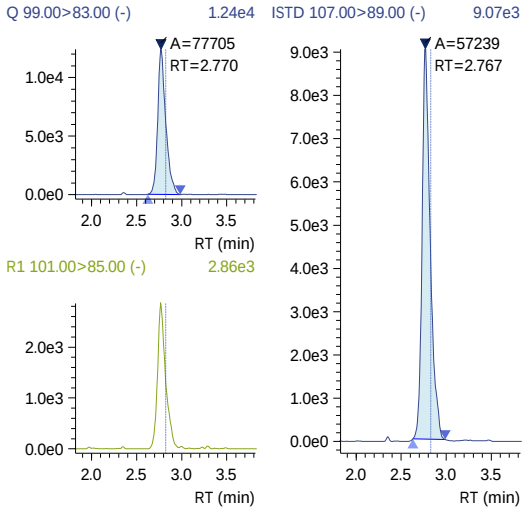
20210805_029

Sample ID: EQ2100477-02
Date Acquired: 8/5/2021 2:17:25 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\20210805_029.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.770	77705	57239	1	9.5215	ng/mL	----	22.91
Sodium Perchlorate-18O4 _IS	Auto	2.767	57239	57239	1	1.0000	ng/mL	----	----

Perchlorate

Conc 9.5215
R#1 22.91 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000

Insight Report

Printed at 8/19/2021 12:04:03 PM

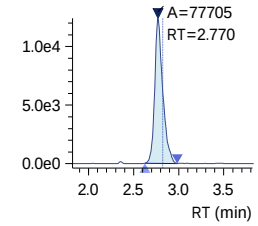
20210805_029

Sample ID: EQ2100477-02
Date Acquired: 8/5/2021 2:17:25 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\Before\20210805_029.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 2

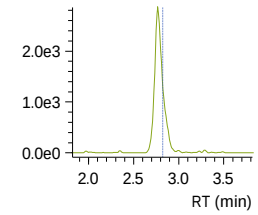
Perchlorate

Conc 9.8442
R#1 22.91 (0.00)

Q 99.00>83.00 (-) 1.24e4



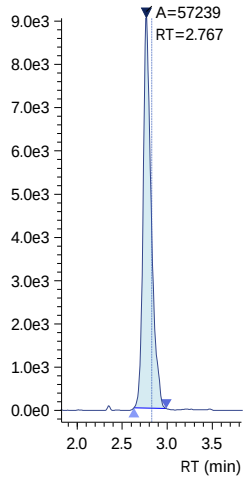
R1 101.00>85.00 (-) 2.86e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 9.07e3



Insight Report

Printed at 8/19/2021 12:01:45 PM

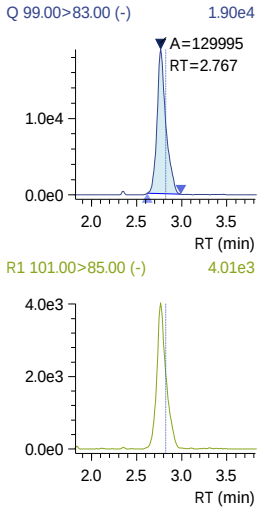
20210805_036

Sample ID: PERCHLORATE7
Date Acquired: 8/5/2021 3:58:39 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\20210805_036.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.767	129995	95586	1	9.5385	ng/mL	10.0000	21.20
Sodium Perchlorate-18O4_IS	Auto	2.764	95586	95586	1	1.0000	ng/mL	1.0000	----

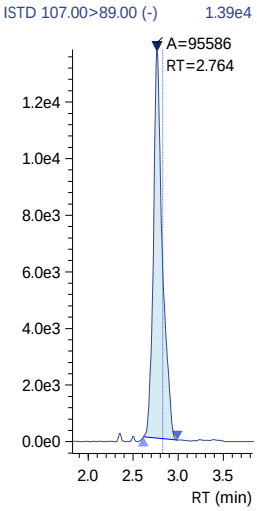
Perchlorate

Conc 9.5385
R#1 21.20 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 12:04:03 PM

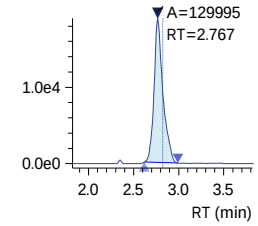
20210805_036

Sample ID: PERCHLORATE7
Date Acquired: 8/5/2021 3:58:39 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\Before\20210805_036.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

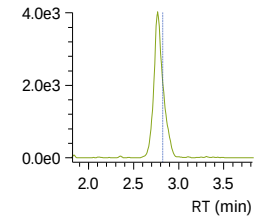
Perchlorate

Conc 9.8618
R#1 21.20 (0.00)

Q 99.00>83.00 (-) 1.90e4



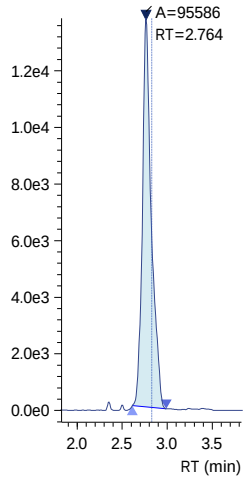
R1 101.00>85.00 (-) 4.01e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.39e4



Insight Report

Printed at 8/19/2021 10:08:37 AM

Method File: I:\LCMS01\DATA\20210818\20210804.lcm
Project File: I:\LCMS01\DATA\20210818\20210818-1.damlp

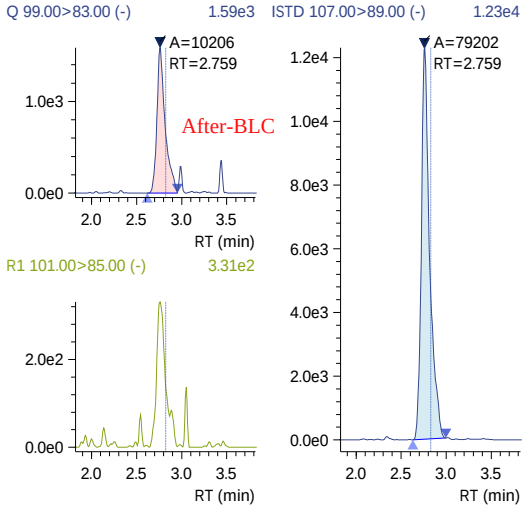
20210818_006

Sample ID: ICS
Date Acquired: 8/18/2021 9:51:50 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\20210818_006.lcd
Vial: 32 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.759	10206	79202	1	0.9038	ng/mL	----	20.80
Sodium Perchlorate-18O4 _IS	Auto	2.759	79202	79202	1	1.0000	ng/mL	----	----

Perchlorate

Conc 0.9038
R#1 20.80 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000

Insight Report

Printed at 8/19/2021 10:20:17 AM

Method File: I:\LCMS01\DATA\20210818\20210804.lcm

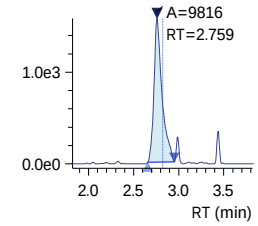
20210818_006

Sample ID: ICS
Date Acquired: 8/18/2021 9:51:50 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\Before\20210818_006.lcd
Vial: 32 | Inj. Volume: 25.0000uL | Tray: 1

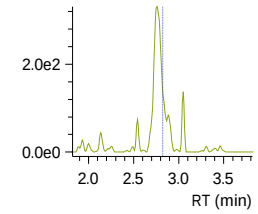
Perchlorate

Conc 0.8987
R#1 20.87 (0.00)

Q 99.00>83.00 (-) 1.59e3



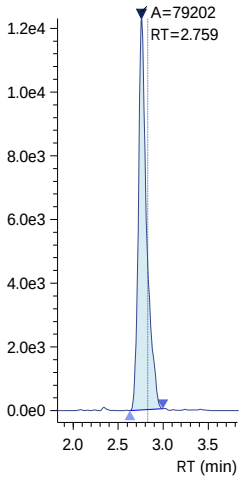
R1 101.00>85.00 (-) 3.31e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.23e4



Insight Report

Printed at 8/19/2021 10:08:37 AM

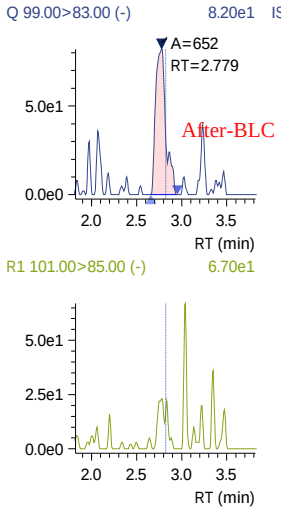
20210818_007

Sample ID: LODV
Date Acquired: 8/18/2021 10:00:22 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\20210818_007.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.779	652	83461	1	0.0548	ng/mL	----	24.39
Sodium Perchlorate-18O4 _IS	Auto	2.759	83461	83461	1	1.0000	ng/mL	----	----

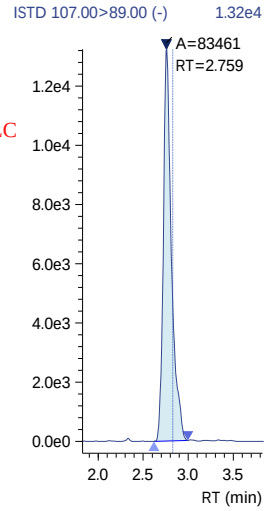
Perchlorate

Conc 0.0548
R#1 24.39 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 10:20:17 AM

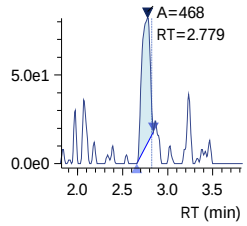
20210818_007

Sample ID: LODV
Date Acquired: 8/18/2021 10:00:22 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\Before\20210818_007.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

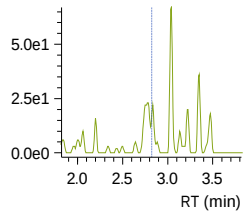
Perchlorate

Conc 0.0406
R#1 12.68 (0.00)

Q 99.00>83.00 (-) 8.20e1



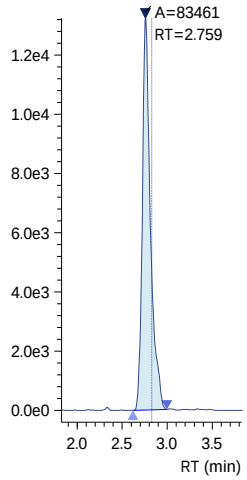
R1 101.00>85.00 (-) 6.70e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.32e4



Insight Report

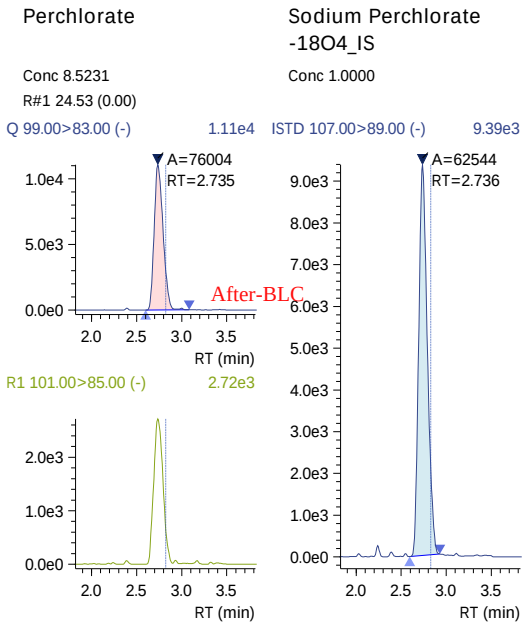
Printed at 8/24/2021 2:15:50 PM

Method File: I:\LCMS01\DATA\20210818\20210804.lcm
Project File: I:\LCMS01\DATA\20210818\20210818-1.damlp

20210818_008

Sample ID: PERCHLORATE7
Date Acquired: 8/18/2021 10:26:04 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\20210818_008.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.735	76004	62544	1	8.5231	ng/mL	10.0000	24.53
Sodium Perchlorate-18O4 _IS	Auto	2.736	62544	62544	1	1.0000	ng/mL	1.0000	----



Insight Report

Printed at 8/19/2021 10:20:17 AM

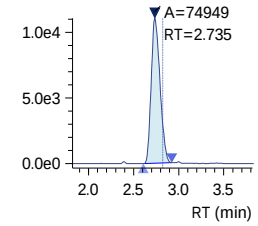
20210818_008

Sample ID: PERCHLORATE7
Date Acquired: 8/18/2021 10:26:04 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\Before\20210818_008.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

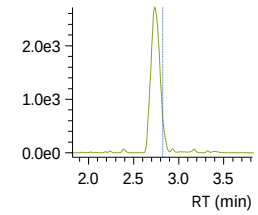
Perchlorate

Conc 8.6897
R#1 24.35 (0.00)

Q 99.00>83.00 (-) 1.11e4



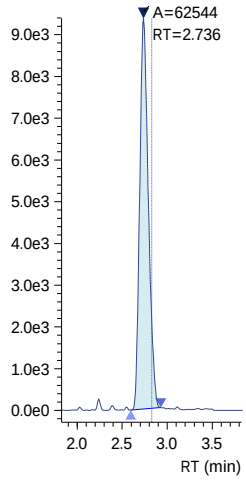
R1 101.00>85.00 (-) 2.72e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 9.39e3



Insight Report

Printed at 8/24/2021 2:15:50 PM

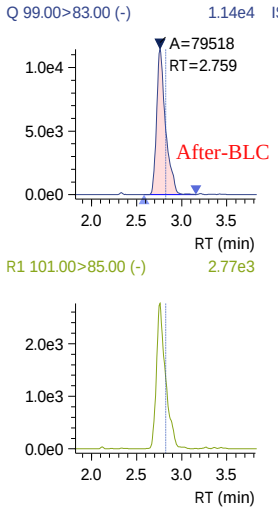
20210818_019

Sample ID: PERCHLORATE7
Date Acquired: 8/18/2021 12:04:06 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\20210818_019.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.759	79518	65562	1	8.5067	ng/mL	10.0000	24.12
Sodium Perchlorate-18O4 _IS	Auto	2.757	65562	65562	1	1.0000	ng/mL	1.0000	----

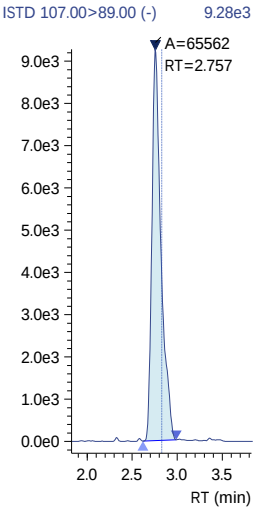
Perchlorate

Conc 8.5067
R#1 24.12 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 10:20:17 AM

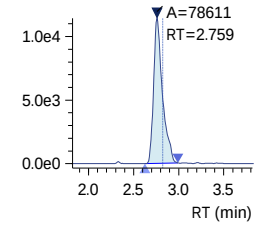
20210818_019

Sample ID: PERCHLORATE7
Date Acquired: 8/18/2021 12:04:06 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\Before\20210818_019.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

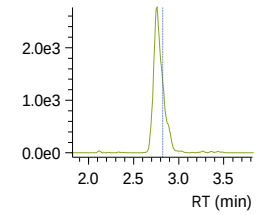
Perchlorate

Conc 8.6947
R#1 24.04 (0.00)

Q 99.00>83.00 (-) 1.14e4



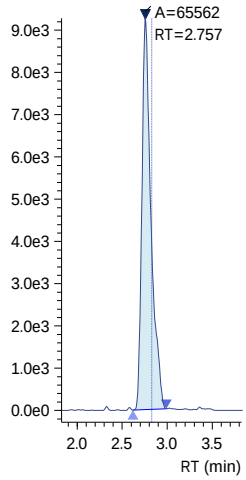
R1 101.00>85.00 (-) 2.77e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 9.28e3



Insight Report

Printed at 8/19/2021 10:08:37 AM

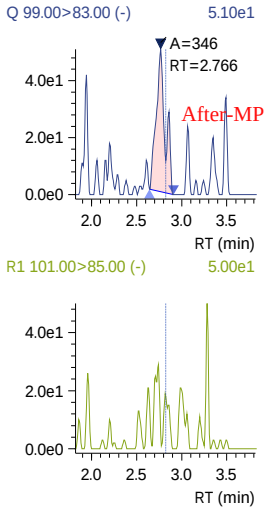
20210818_025

Sample ID: E2100891-006X10-CARBON
Date Acquired: 8/18/2021 12:55:17 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\20210818_025.lcd
Vial: 11 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.766	346	35008	1	0.0693	ng/mL	----	4.26
Sodium Perchlorate-18O4 _IS	M	2.748	35008	35008	1	1.0000	ng/mL	----	----

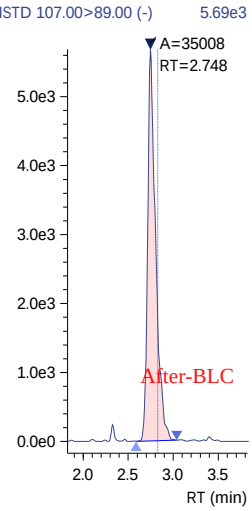
Perchlorate

Conc 0.0693
R#1 4.26 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 10:20:17 AM

20210818_025

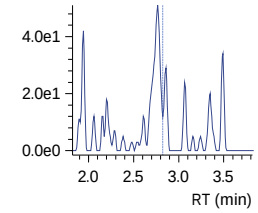
Sample ID: E2100891-006X10-CARBON
Date Acquired: 8/18/2021 12:55:17 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\Before\20210818_025.lcd
Vial: 11 | Inj. Volume: 25.0000uL | Tray: 3

Perchlorate

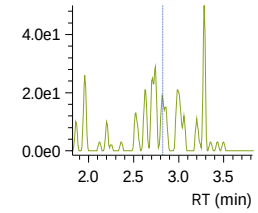
Conc ----

R#1 ---- (0.00)

Q 99.00>83.00 (-) 5.10e1



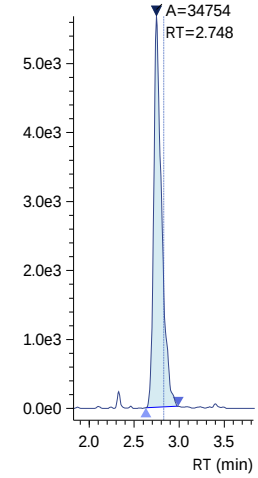
R1 101.00>85.00 (-) 5.00e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.69e3



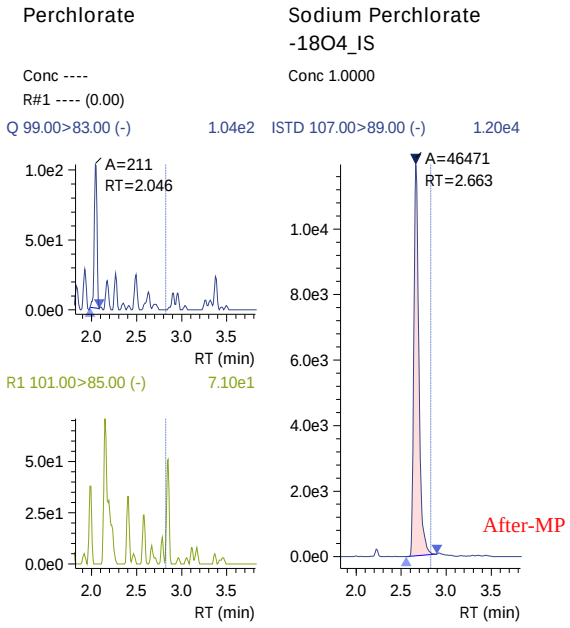
Insight Report

Printed at 8/19/2021 10:08:37 AM

20210818_028

Sample ID: E2100891-002X20-CARBON
Date Acquired: 8/18/2021 1:21:38 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\20210818_028.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	ND(W/B)	----	----	46471	1	----	ng/mL	----	----
Sodium Perchlorate-18O4_IS	M	2.663	46471	46471	1	1.0000	ng/mL	----	----



Insight Report

Printed at 8/19/2021 10:20:17 AM

20210818_028

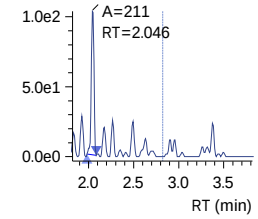
Sample ID: E2100891-002X20-CARBON
Date Acquired: 8/18/2021 1:21:38 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\Before\20210818_028.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 4

Perchlorate

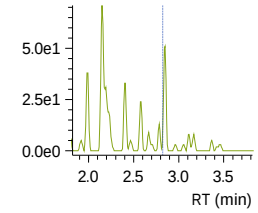
Conc ----

R#1 ---- (0.00)

Q 99.00>83.00 (-) 1.04e2



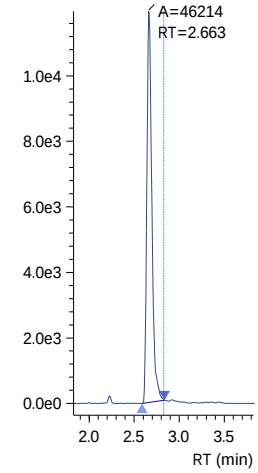
R1 101.00>85.00 (-) 7.10e1



Sodium Perchlorate -18O4_IS

Conc ----

ISTD 107.00>89.00 (-) 1.20e4



Insight Report

Printed at 8/19/2021 10:08:37 AM

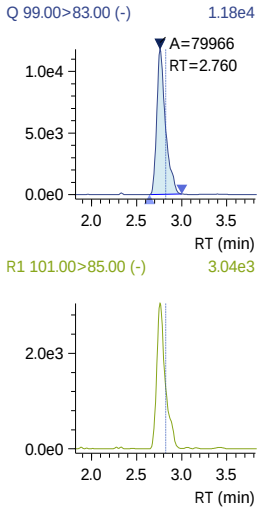
20210818_030

Sample ID: PERCHLORATE7
Date Acquired: 8/18/2021 1:38:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\20210818_030.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.760	79966	65415	1	8.5738	ng/mL	10.0000	25.85
Sodium Perchlorate-18O4 _IS	Auto	2.758	65415	65415	1	1.0000	ng/mL	1.0000	----

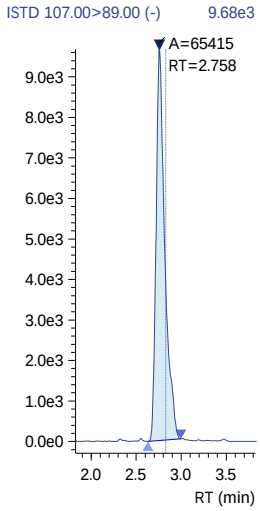
Perchlorate

Conc 8.5738
R#1 25.85 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 10:20:17 AM

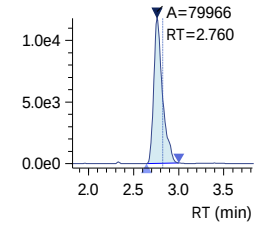
20210818_030

Sample ID: PERCHLORATE7
Date Acquired: 8/18/2021 1:38:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\Before\20210818_030.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

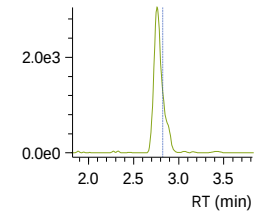
Perchlorate

Conc 8.8644
R#1 25.85 (0.00)

Q 99.00>83.00 (-) 1.18e4



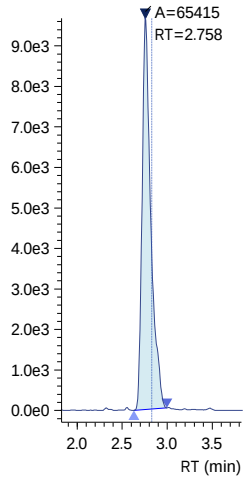
R1 101.00>85.00 (-) 3.04e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 9.68e3



Insight Report

Printed at 8/19/2021 10:08:37 AM

20210818_035

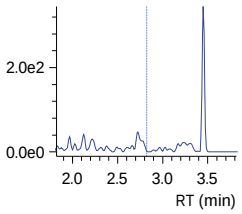
Sample ID: E2100891-003X10-CARBON
Date Acquired: 8/18/2021 2:23:16 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\20210818_035.lcd
Vial: 8 | Inj. Volume: 20.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	ND(W/B)	----	----	35293	1	----	ng/mL	----	----
Sodium Perchlorate-18O4_IS	Auto	2.725	35293	35293	1	1.0000	ng/mL	----	----

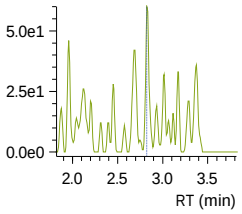
Perchlorate

Conc ----
R#1 ---- (0.00)

Q 99.00>83.00 (-) 3.45e2



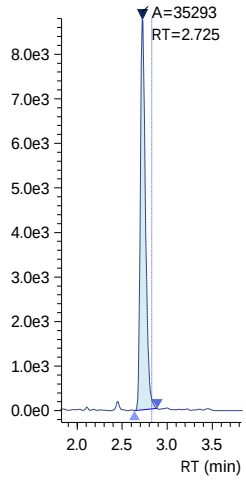
R1 101.00>85.00 (-) 6.00e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.80e3



Insight Report

Printed at 8/19/2021 10:20:17 AM

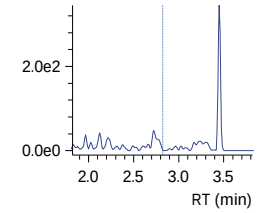
20210818_035

Sample ID: E2100891-003X10-CARBON
Date Acquired: 8/18/2021 2:23:16 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\Before\20210818_035.lcd
Vial: 8 | Inj. Volume: 20.0000uL | Tray: 3

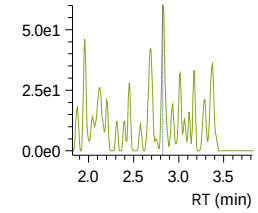
Perchlorate

Conc ----
R#1 ---- (0.00)

Q 99.00>83.00 (-) 3.45e2



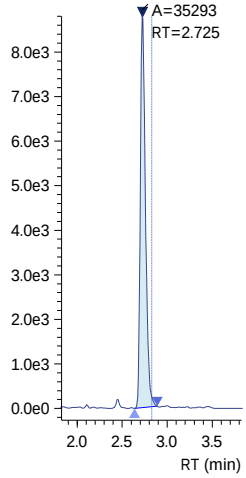
R1 101.00>85.00 (-) 6.00e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.80e3



Insight Report

Printed at 8/19/2021 10:08:37 AM

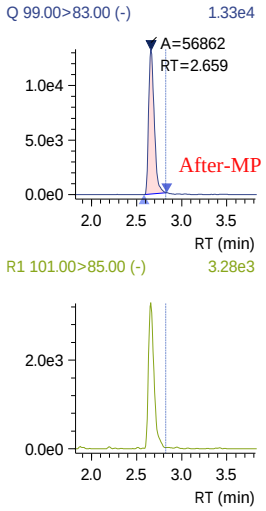
20210818_041

Sample ID: PERCHLORATE7
Date Acquired: 8/18/2021 3:26:12 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\20210818_041.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.659	56862	44446	1	8.9730	ng/mL	10.0000	24.56
Sodium Perchlorate-18O4 _IS	M	2.657	44446	44446	1	1.0000	ng/mL	1.0000	----

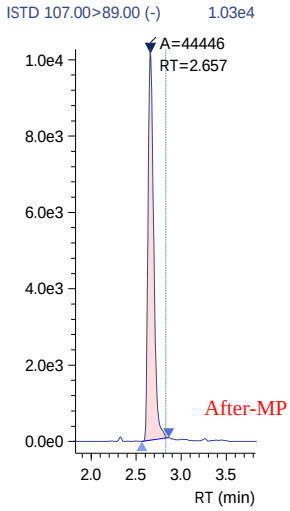
Perchlorate

Conc 8.9730
R#1 24.56 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 10:20:17 AM

20210818_041

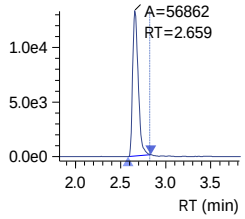
Sample ID: PERCHLORATE7
Date Acquired: 8/18/2021 3:26:12 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\Before\20210818_041.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Perchlorate

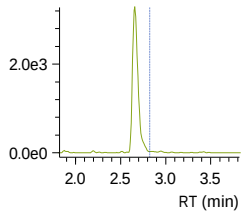
Conc ----

R#1 ---- (0.00)

Q 99.00>83.00 (-) 1.33e4



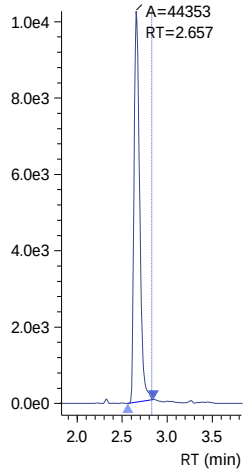
R1 101.00>85.00 (-) 3.28e3



Sodium Perchlorate -18O4_IS

Conc ----

ISTD 107.00>89.00 (-) 1.03e4



Insight Report

Printed at 8/19/2021 10:08:37 AM

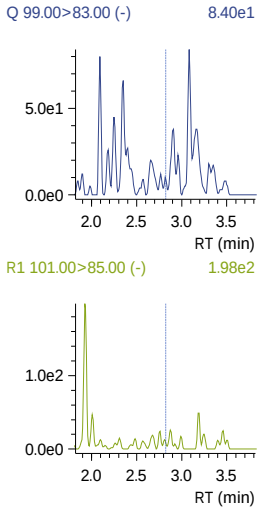
20210818_042

Sample ID: E2100891-004x20-CARBON
Date Acquired: 8/18/2021 3:43:39 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\20210818_042.lcd
Vial: 30 | Inj. Volume: 20.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	ND(W/B)	----	----	36914	1	----	ng/mL	----	----
Sodium Perchlorate-18O4_IS	M	2.650	36914	36914	1	1.0000	ng/mL	----	----

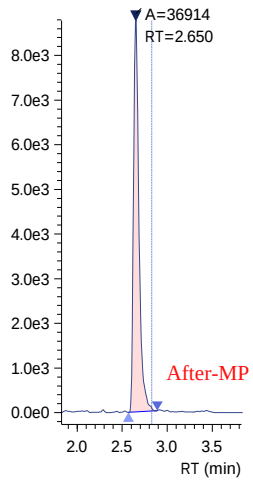
Perchlorate

Conc ----
R#1 ---- (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 10:20:17 AM

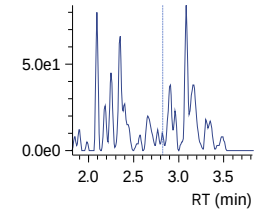
20210818_042

Sample ID: E2100891-004x20-CARBON
Date Acquired: 8/18/2021 3:43:39 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\Before\20210818_042.lcd
Vial: 30 | Inj. Volume: 20.0000uL | Tray: 4

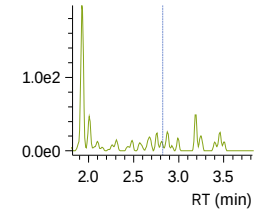
Perchlorate

Conc ----
R#1 ---- (0.00)

Q 99.00>83.00 (-) 8.40e1



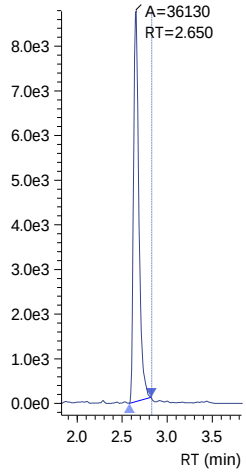
R1 101.00>85.00 (-) 1.98e2



Sodium Perchlorate -18O4_IS

Conc ----

ISTD 107.00>89.00 (-) 8.78e3



Insight Report

Printed at 8/19/2021 10:08:37 AM

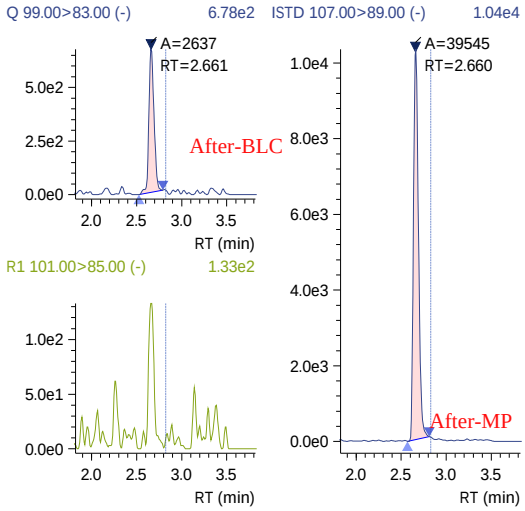
20210818_043

Sample ID: E2100891-001X40
Date Acquired: 8/18/2021 4:02:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\20210818_043.lcd
Vial: 6 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.661	2637	39545	1	0.4676	ng/mL	----	19.97
Sodium Perchlorate-18O4 _IS	M	2.660	39545	39545	1	1.0000	ng/mL	----	----

Perchlorate

Conc 0.4676
R#1 19.97 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000

Insight Report

Printed at 8/19/2021 10:20:17 AM

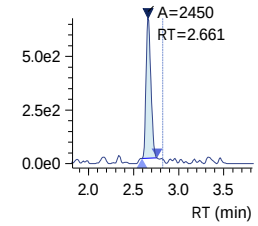
20210818_043

Sample ID: E2100891-001X40
Date Acquired: 8/18/2021 4:02:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\Before\20210818_043.lcd
Vial: 6 | Inj. Volume: 25.0000uL | Tray: 3

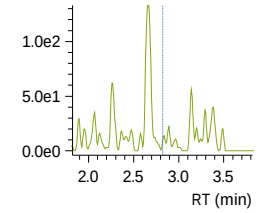
Perchlorate

Conc 0.0000
R#1 19.20 (0.00)

Q 99.00>83.00 (-) 6.78e2



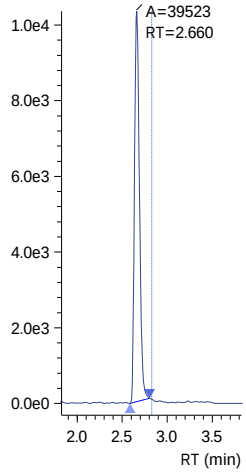
R1 101.00>85.00 (-) 1.33e2



Sodium Perchlorate -18O4_IS

Conc ----

ISTD 107.00>89.00 (-) 1.04e4



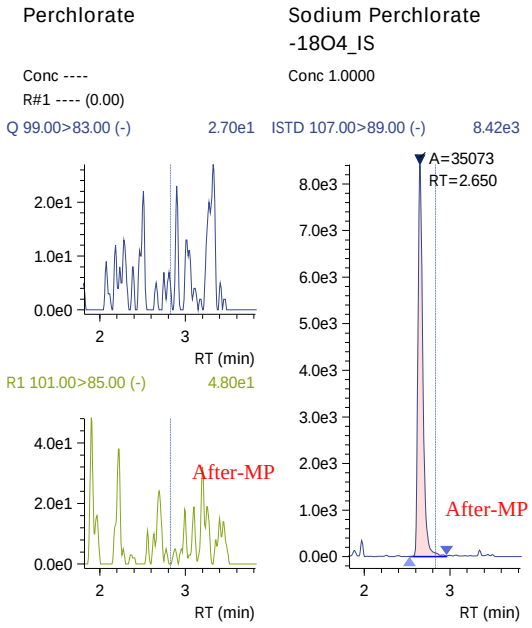
Insight Report

Printed at 8/19/2021 10:08:37 AM

20210818_044

Sample ID: E2100891-005x20-CARBON
Date Acquired: 8/18/2021 4:18:47 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\20210818_044.lcd
Vial: 31 | Inj. Volume: 15.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	ND(W/B)	----	----	35073	1	----	ng/mL	----	----
Sodium Perchlorate-18O4_IS	M	2.650	35073	35073	1	1.0000	ng/mL	----	----



Insight Report

Printed at 8/19/2021 10:20:17 AM

20210818_044

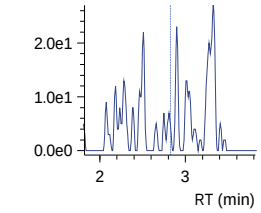
Sample ID: E2100891-005x20-CARBON
Date Acquired: 8/18/2021 4:18:47 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\Before\20210818_044.lcd
Vial: 31 | Inj. Volume: 15.0000uL | Tray: 4

Perchlorate

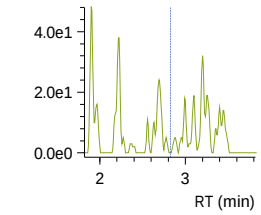
Conc ----

R#1 ---- (0.00)

Q 99.00>83.00 (-) 2.70e1



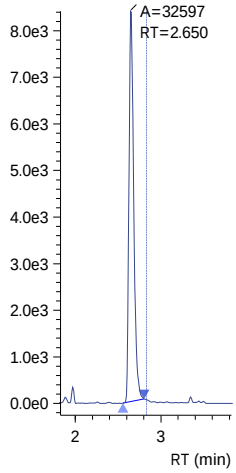
R1 101.00>85.00 (-) 4.80e1



Sodium Perchlorate -18O4_IS

Conc ----

ISTD 107.00>89.00 (-) 8.42e3



Insight Report

Printed at 8/19/2021 10:08:37 AM

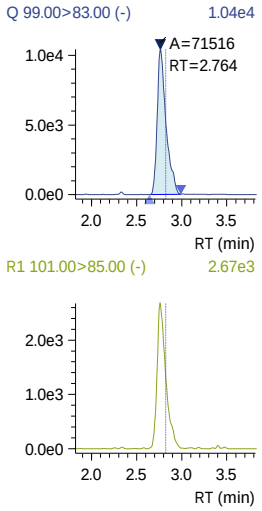
20210818_046

Sample ID: PERCHLORATE7
Date Acquired: 8/18/2021 5:08:54 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\20210818_046.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.764	71516	58887	1	8.5179	ng/mL	10.0000	25.71
Sodium Perchlorate-18O4 _IS	Auto	2.763	58887	58887	1	1.0000	ng/mL	1.0000	----

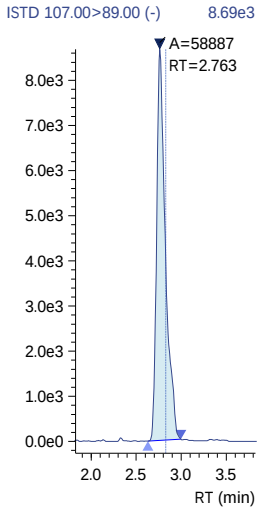
Perchlorate

Conc 8.5179
R#1 25.71 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 10:20:17 AM

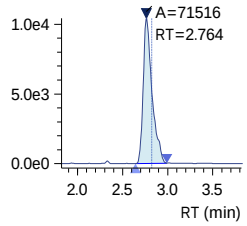
20210818_046

Sample ID: PERCHLORATE7
Date Acquired: 8/18/2021 5:08:54 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210818\Before\20210818_046.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

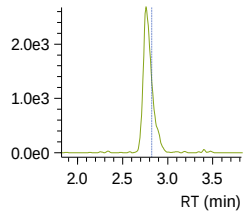
Perchlorate

Conc 8.8066
R#1 25.71 (0.00)

Q 99.00>83.00 (-) 1.04e4



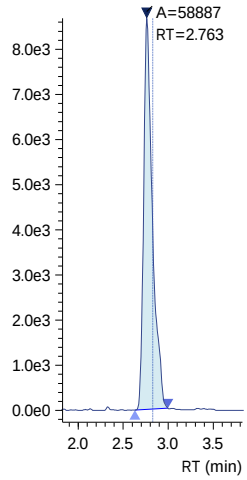
R1 101.00>85.00 (-) 2.67e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

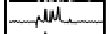
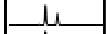
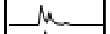
ISTD 107.00>89.00 (-) 8.69e3



HS21071465 Raw Data Wetchem 9056_S IC

ALS WO# HS21071465

Sequence: 072821
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method	Processing Method
	STD1		Calibration	RE1	1.00	1	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD2		Calibration	RE2	1.00	2	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD3		Calibration	RE3	1.00	3	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD4		Calibration	RE4	1.00	4	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD5		Calibration	RE5	1.00	5	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD6		Calibration	RE6	1.00	6	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	ICV		Unknown	RE7	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	ICB		Unknown	RE8	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R4	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	MBLK-168561		Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	LCS-168561		Unknown	R2	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21071416-20		Unknown	BA3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21071416-20MS		Unknown	BA4	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21071416-20MSD		Unknown	BA5	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21071465-08		Unknown	BA7	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R7	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO

Sequence: 072821
Last Update Operator: alshs.nouser

CD	Name	Volume	Status	Inject Time
	STD1	5.0	Finished	6/26/2021 7:08:27 AM -05:00
	STD2	5.0	Finished	6/26/2021 7:15:51 AM -05:00
	STD3	5.0	Finished	6/26/2021 7:23:13 AM -05:00
	STD4	5.0	Finished	6/26/2021 7:30:36 AM -05:00
	STD5	5.0	Finished	6/26/2021 7:38:00 AM -05:00
	STD6	5.0	Finished	6/26/2021 7:45:22 AM -05:00
	ICV	5.0	Finished	6/26/2021 7:52:45 AM -05:00
	ICB	5.0	Finished	6/26/2021 8:07:30 AM -05:00
	CCV	5.0	Finished	7/29/2021 5:41:16 AM -05:00
	CCB	5.0	Finished	7/29/2021 5:48:40 AM -05:00
	MBLK-168561	5.0	Finished	7/29/2021 6:10:54 AM -05:00
	LCS-168561	5.0	Finished	7/29/2021 6:18:19 AM -05:00
	HS21071416-20	5.0	Finished	7/29/2021 6:25:44 AM -05:00
	HS21071416-20MS	5.0	Finished	7/29/2021 6:33:08 AM -05:00
	HS21071416-20MSD	5.0	Finished	7/29/2021 6:40:33 AM -05:00
	HS21071465-08	5.0	Finished	7/29/2021 6:55:22 AM -05:00
	CCV1	5.0	Finished	7/29/2021 7:10:11 AM -05:00
	CCB	5.0	Finished	7/29/2021 7:25:00 AM -05:00

Sequence: 072821
Injection #6: STD6

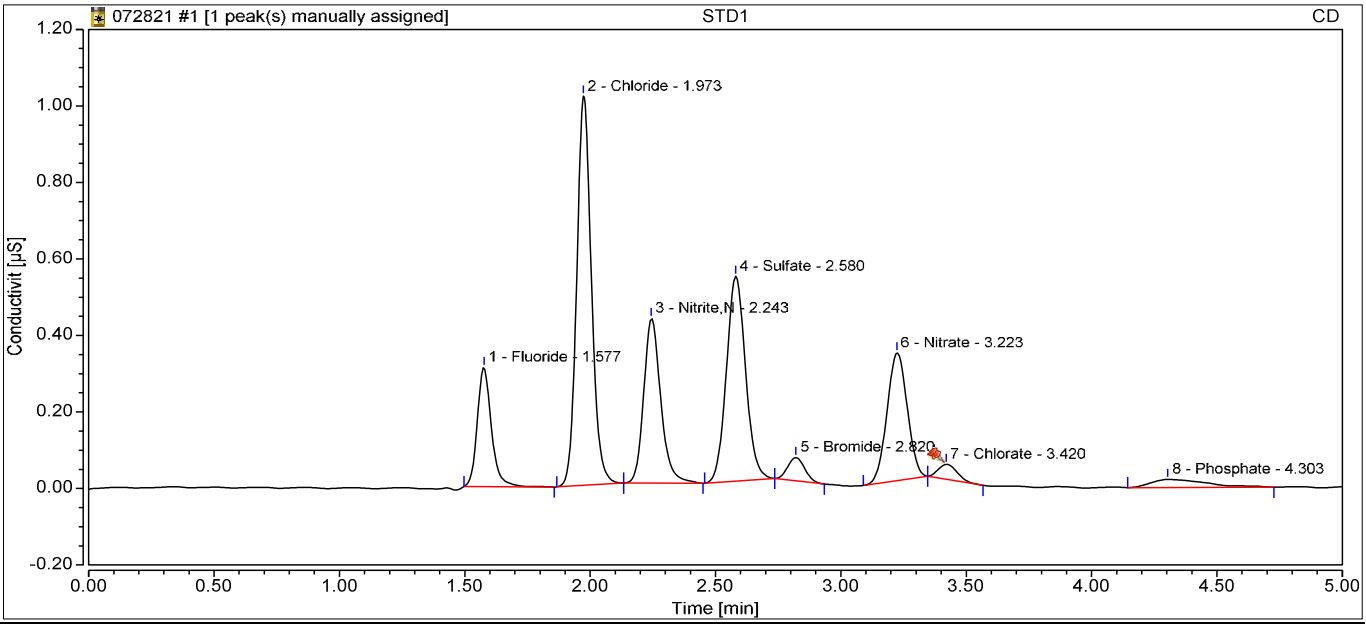
Calibration

Peak No.	Peak Name	Cal.Type	Eval.Type	Number of Points	Rel.Std.Dev. %	Coeff.of Determination	C0 (Offset)	C1 (Slope)	C2 (Curve)
1	*Fluoride*	*Lin, WithOffset, 1/*	*Area*	*6*	*20.2589*	*0.99769*	*0.0030*	*0.2038*	*0.0000*
2	Chloride	Lin, WithOffset, 1/	Area	6	3.8673	0.99992	0.0009	0.1330	0.0000
3	Nitrite,N	Quad, WithOffset,	Area	6	5.7709	0.99983	0.0054	0.2948	-0.0029
4	Sulfate	Lin, WithOffset, 1/	Area	6	4.1076	0.99991	-0.0020	0.0963	0.0000
5	Bromide	Lin, WithOffset, 1/	Area	6	10.7478	0.99944	-0.0010	0.0519	0.0000
6	Nitrate	Lin, WithOffset, 1/	Area	6	4.3880	0.99990	0.0007	0.3035	0.0000
7	Chlorate	Quad, WithOffset,	Area	6	4.0947	0.99992	-0.0001	0.0348	-0.0004
8	Phosphate	Lin, WithOffset, 1/	Area	6	27.9718	0.99729	-0.0098	0.1152	0.0000
Maximum					**27.9718**	0.99992			
Minimum					3.8673	**0.99729**			

1 STD1

Sample Name:	**STD1**	*Injection Volume:*	**5.00**
Vial Number:	**RE1**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/26/2021 07:08**	*Sample Weight:*	**1.0000**

Run Time:



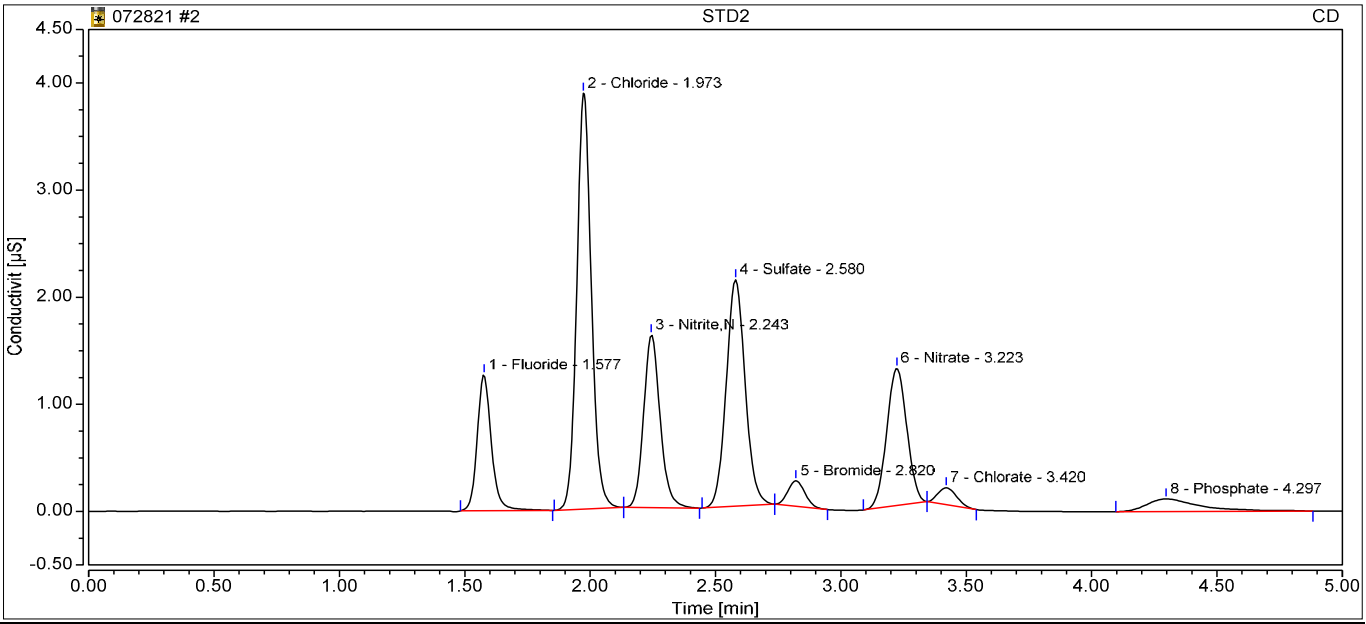
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.020	0.0853	0.0853	1.0000
2	1.97	Chloride	BMB	0.069	0.5112	0.5112	1.0000
3	2.24	Nitrite,N	BMB	0.034	0.0972	0.0972	1.0000
4	2.58	Sulfate	BMB	0.047	0.5123	0.5123	1.0000
5	2.82	Bromide	BMB	0.005	0.1111	0.1111	1.0000
6	3.22	Nitrate	BMB	0.031	0.1006	0.1006	1.0000
7	3.42	Chlorate	BMB^	0.003	0.1002	0.1002	1.0000
8	4.30	Phosphate	BMB	0.005	0.1325	0.1325	1.0000
Total:			**0.000**	**0.216**		**1.65**	

2 STD2

Sample Name:	**STD2**	*Injection Volume:*	**5.00**
Vial Number:	**RE2**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/26/2021 07:15**	*Sample Weight:*	**1.0000**

Run Time:



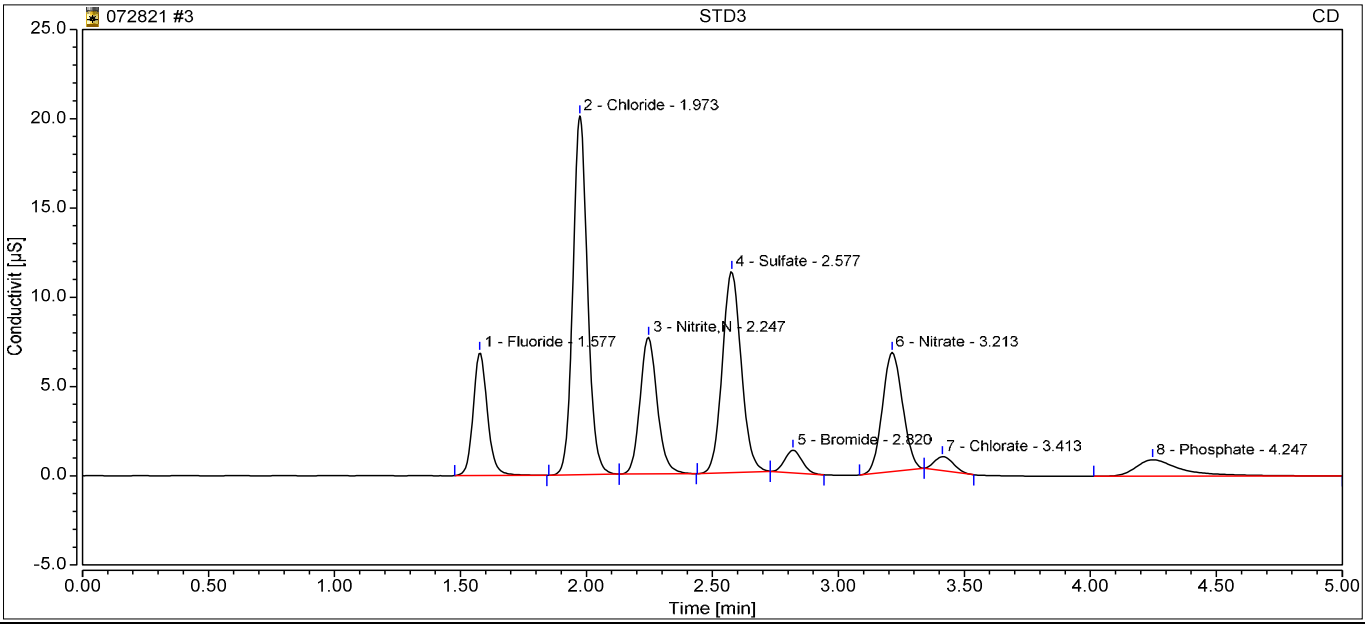
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.083	0.3949	0.3949	1.0000
2	1.97	Chloride	BMB	0.262	1.9605	1.9605	1.0000
3	2.24	Nitrite,N	BMB	0.123	0.4013	0.4013	1.0000
4	2.58	Sulfate	BMB	0.185	1.9450	1.9450	1.0000
5	2.82	Bromide	BMB	0.019	0.3820	0.3820	1.0000
6	3.22	Nitrate	BMB	0.119	0.3898	0.3898	1.0000
7	3.42	Chlorate	BMB	0.014	0.3985	0.3985	1.0000
8	4.30	Phosphate	BMB	0.029	0.3369	0.3369	1.0000
Total:			**0.000**	**0.834**		**6.21**	

3 STD3

Sample Name:	**STD3**	*Injection Volume:*	**5.00**
Vial Number:	**RE3**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/26/2021 07:23**	*Sample Weight:*	**1.0000**

Run Time:



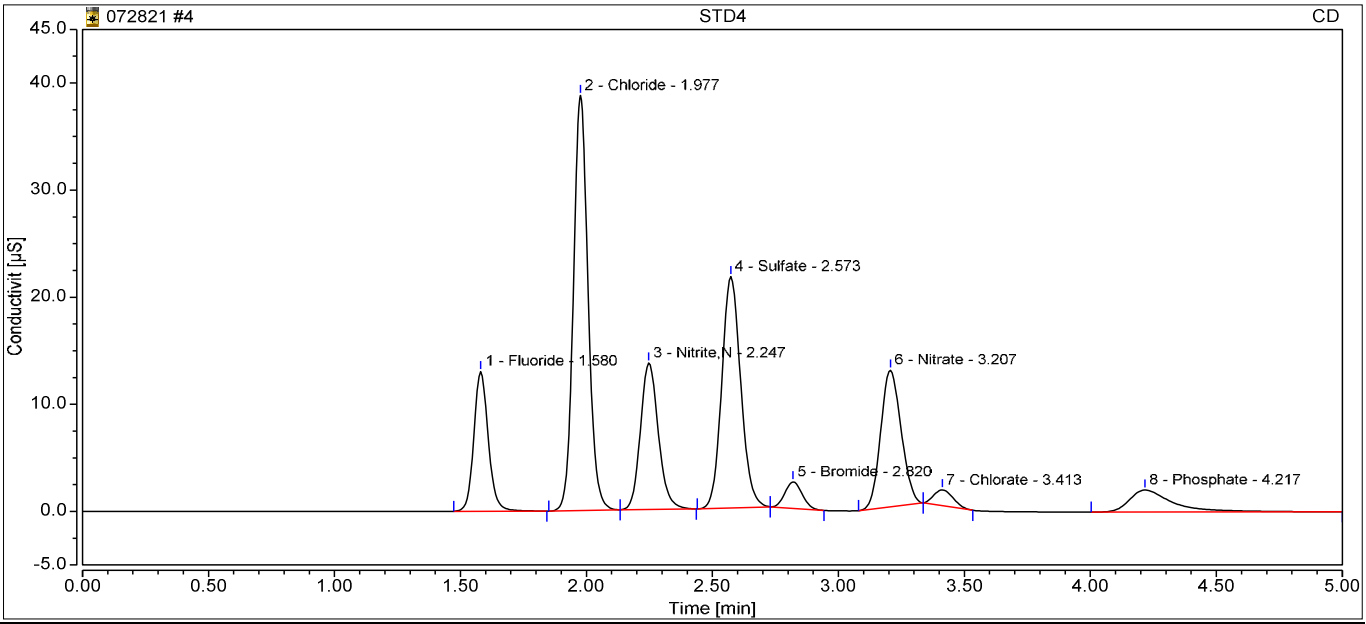
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.452	2.2036	2.2036	1.0000
2	1.97	Chloride	BMB	1.352	10.1565	10.1565	1.0000
3	2.25	Nitrite,N	BMB	0.607	2.0827	2.0827	1.0000
4	2.58	Sulfate	BMB	0.981	10.1974	10.1974	1.0000
5	2.82	Bromide	BMB	0.100	1.9471	1.9471	1.0000
6	3.21	Nitrate	BMB	0.622	2.0467	2.0467	1.0000
7	3.41	Chlorate	BMB	0.069	2.0284	2.0284	1.0000
8	4.25	Phosphate	BMB	0.195	1.7750	1.7750	1.0000
Total:			**0.000**	**4.377**		**32.44**	

4 STD4

Sample Name:	**STD4**	*Injection Volume:*	**5.00**
Vial Number:	**RE4**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/26/2021 07:30**	*Sample Weight:*	**1.0000**

Run Time:



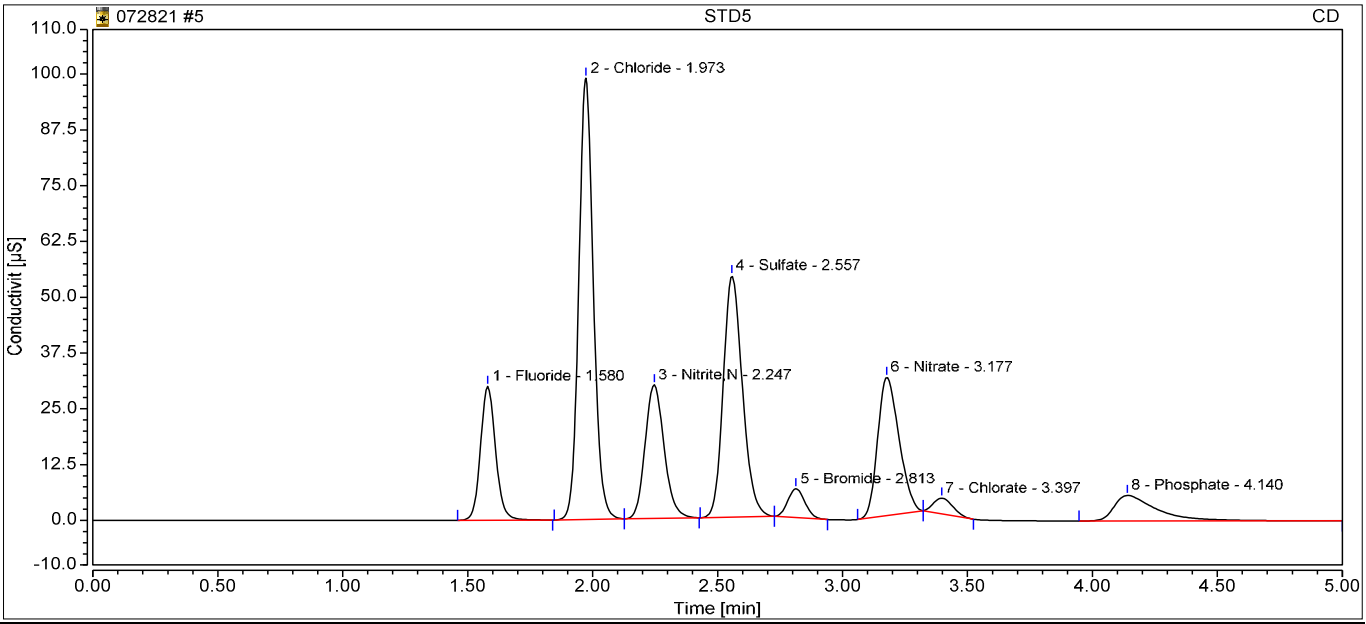
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.870	4.2518	4.2518	1.0000
2	1.98	Chloride	BMB	2.605	19.5725	19.5725	1.0000
3	2.25	Nitrite,N	BMB	1.127	3.9598	3.9598	1.0000
4	2.57	Sulfate	BMB	1.885	19.5851	19.5851	1.0000
5	2.82	Bromide	BMB	0.196	3.8021	3.8021	1.0000
6	3.21	Nitrate	BMB	1.203	3.9629	3.9629	1.0000
7	3.41	Chlorate	BMB	0.131	3.9255	3.9255	1.0000
8	4.22	Phosphate	BMB	0.412	3.6656	3.6656	1.0000
Total:			**0.000**	**8.430**		**62.73**	

5 STD5

Sample Name:	**STD5**	*Injection Volume:*	**5.00**
Vial Number:	**RE5**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/26/2021 07:38**	*Sample Weight:*	**1.0000**

Run Time:



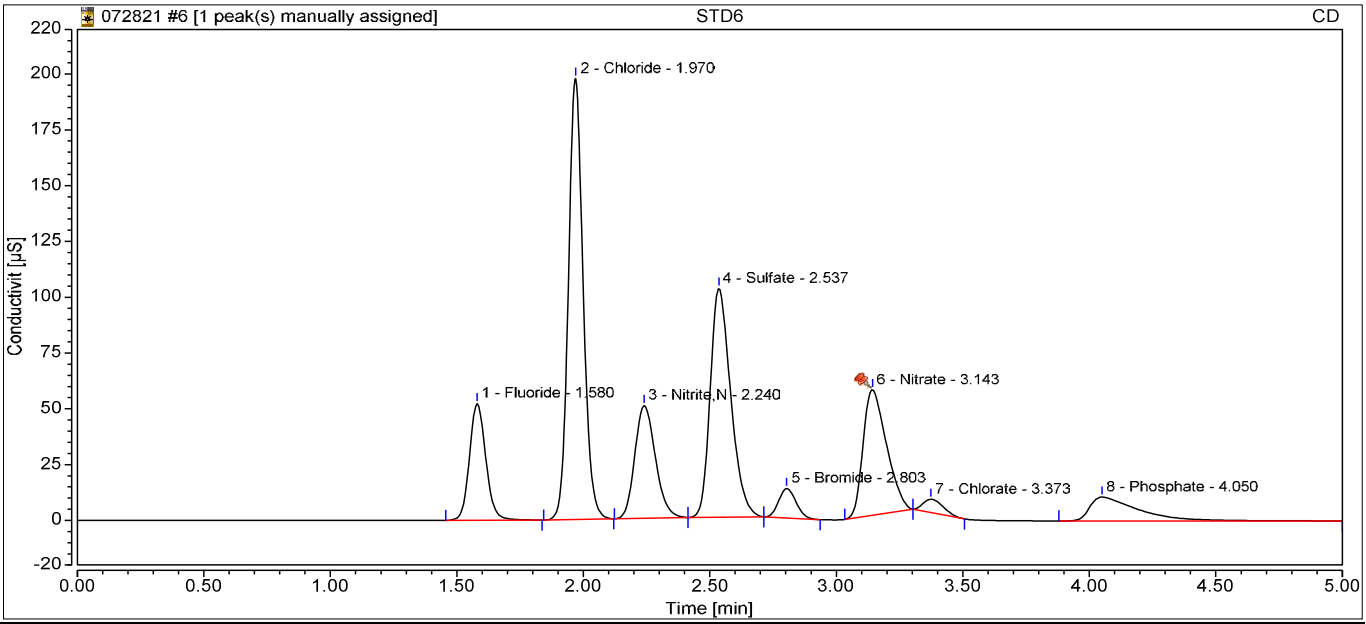
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	2.108	10.3258	10.3258	1.0000
2	1.97	Chloride	BMB	6.654	50.0065	50.0065	1.0000
3	2.25	Nitrite,N	BMB	2.641	9.8998	9.8998	1.0000
4	2.56	Sulfate	BMB	4.828	50.1320	50.1320	1.0000
5	2.81	Bromide	BMB	0.514	9.9325	9.9325	1.0000
6	3.18	Nitrate	BMB	3.068	10.1091	10.1091	1.0000
7	3.40	Chlorate	BMB	0.315	10.0792	10.0792	1.0000
8	4.14	Phosphate	BMB	1.140	9.9878	9.9878	1.0000
Total:			**0.000**	**21.269**		**160.47**	

6 STD6

Sample Name:	**STD6**	*Injection Volume:*	**5.00**
Vial Number:	**RE6**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/26/2021 07:45**	*Sample Weight:*	**1.0000**

Run Time:



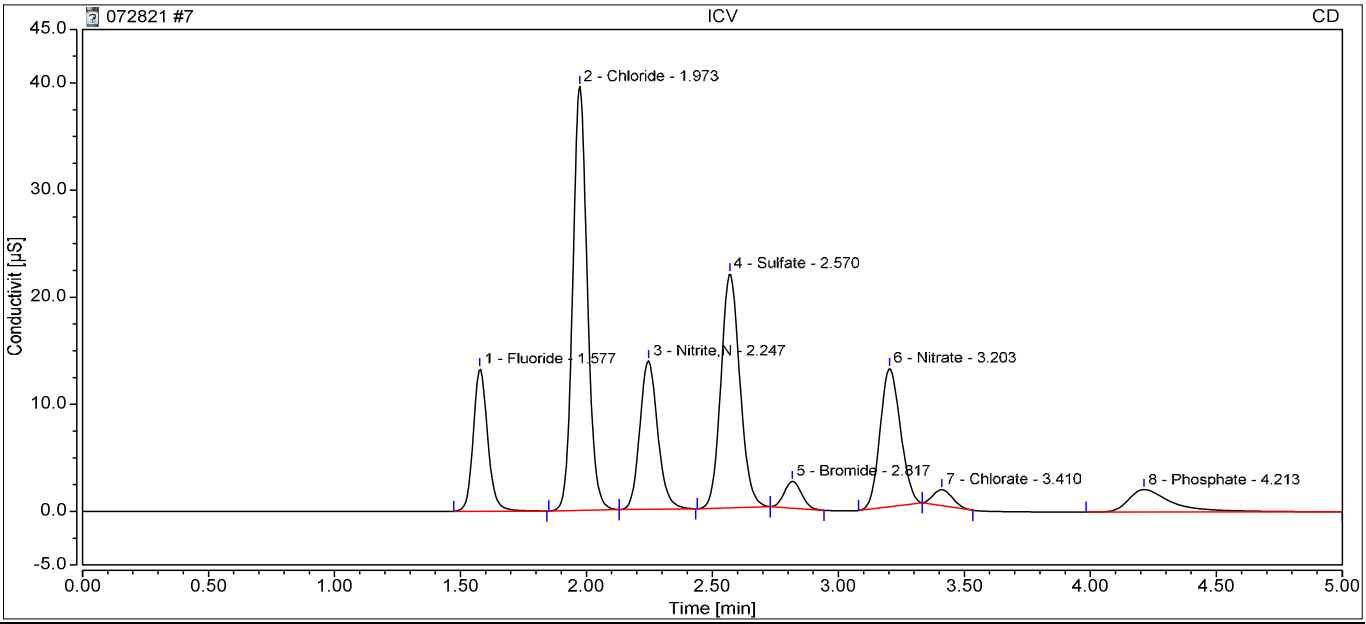
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	3.925	19.2385	19.2385	1.0000
2	1.97	Chloride	BMB	13.344	100.2928	100.2928	1.0000
3	2.24	Nitrite,N	BMB	4.761	20.0654	20.0654	1.0000
4	2.54	Sulfate	BMB	9.645	100.1282	100.1282	1.0000
5	2.80	Bromide	BMB	1.053	20.3252	20.3252	1.0000
6	3.14	Nitrate	BMB^	6.037	19.8909	19.8909	1.0000
7	3.37	Chlorate	BMB	0.554	19.9655	19.9655	1.0000
8	4.05	Phosphate	BMB	2.363	20.6022	20.6022	1.0000
Total:			**0.000**	**41.682**		**320.51**	

7 ICV

Sample Name:	**ICV**	*Injection Volume:*	**5.00**
Vial Number:	**RE7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/26/2021 07:52**	*Sample Weight:*	**1.0000**

Run Time:



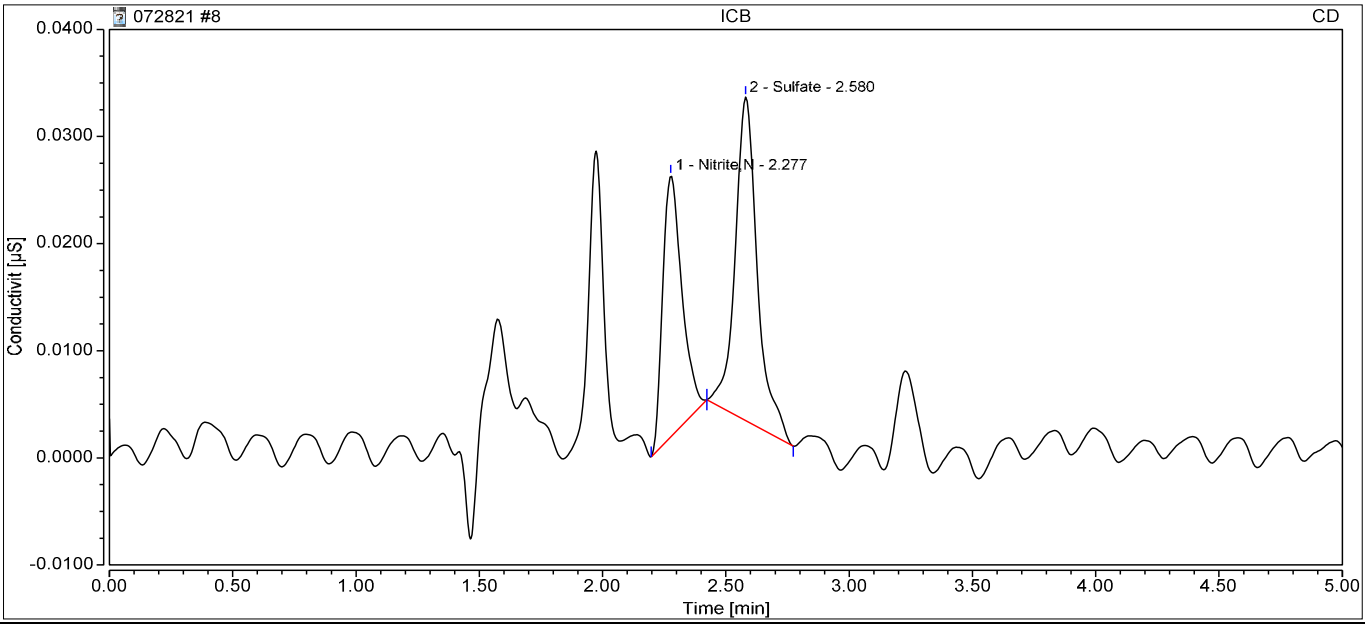
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.888	4.3392	4.3392	1.0000
2	1.97	Chloride	BMB	2.655	19.9475	19.9475	1.0000
3	2.25	Nitrite,N	BMB	1.144	4.0217	4.0217	1.0000
4	2.57	Sulfate	BMB	1.911	19.8594	19.8594	1.0000
5	2.82	Bromide	BMB	0.200	3.8693	3.8693	1.0000
6	3.20	Nitrate	BMB	1.214	3.9993	3.9993	1.0000
7	3.41	Chlorate	BMB	0.131	3.9285	3.9285	1.0000
8	4.21	Phosphate	BMB	0.422	3.7479	3.7479	1.0000
Total:			**0.000**	**8.565**		**63.71**	

8 ICB

Sample Name:	**ICB**	*Injection Volume:*	**5.00**
Vial Number:	**RE8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/26/2021 08:07**	*Sample Weight:*	**1.0000**

Run Time:



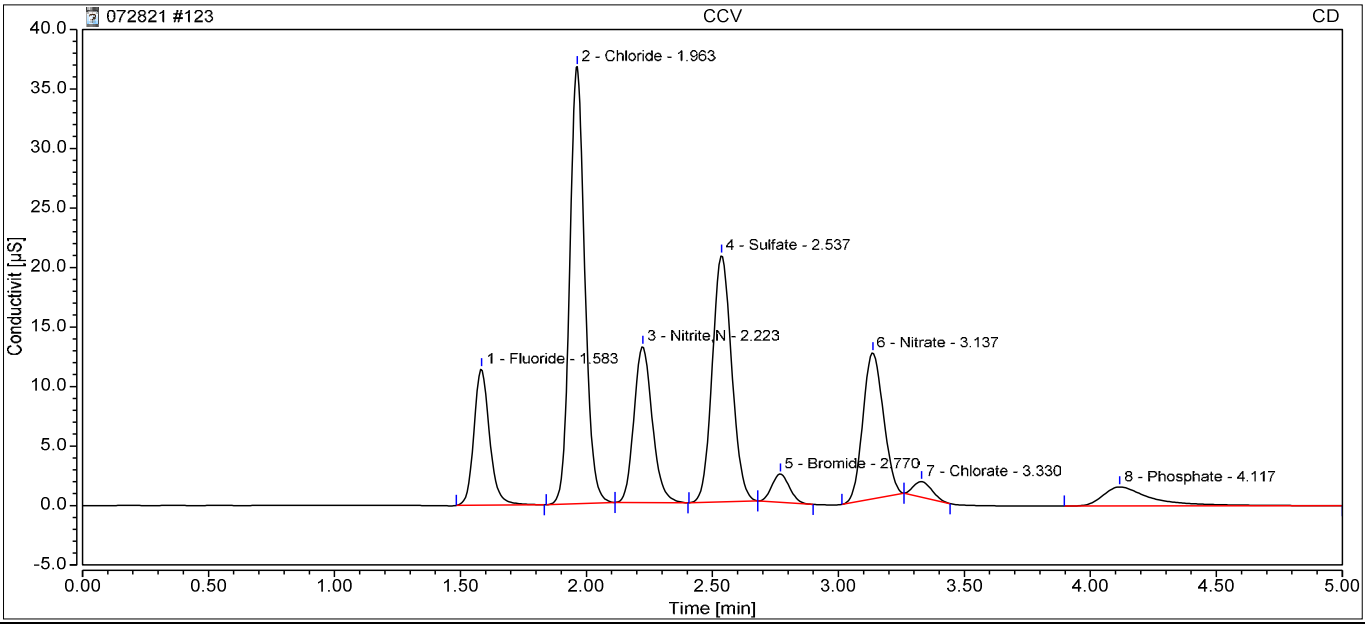
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.28	Nitrite,N	BMB	0.002	n.a.	n.a.	1.0000
2	2.58	Sulfate	BMB	0.003	0.0531	0.0531	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.005**		**0.05**	

123 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**07/29/2021 05:41**	*Sample Weight:*	**1.0000**

Run Time:



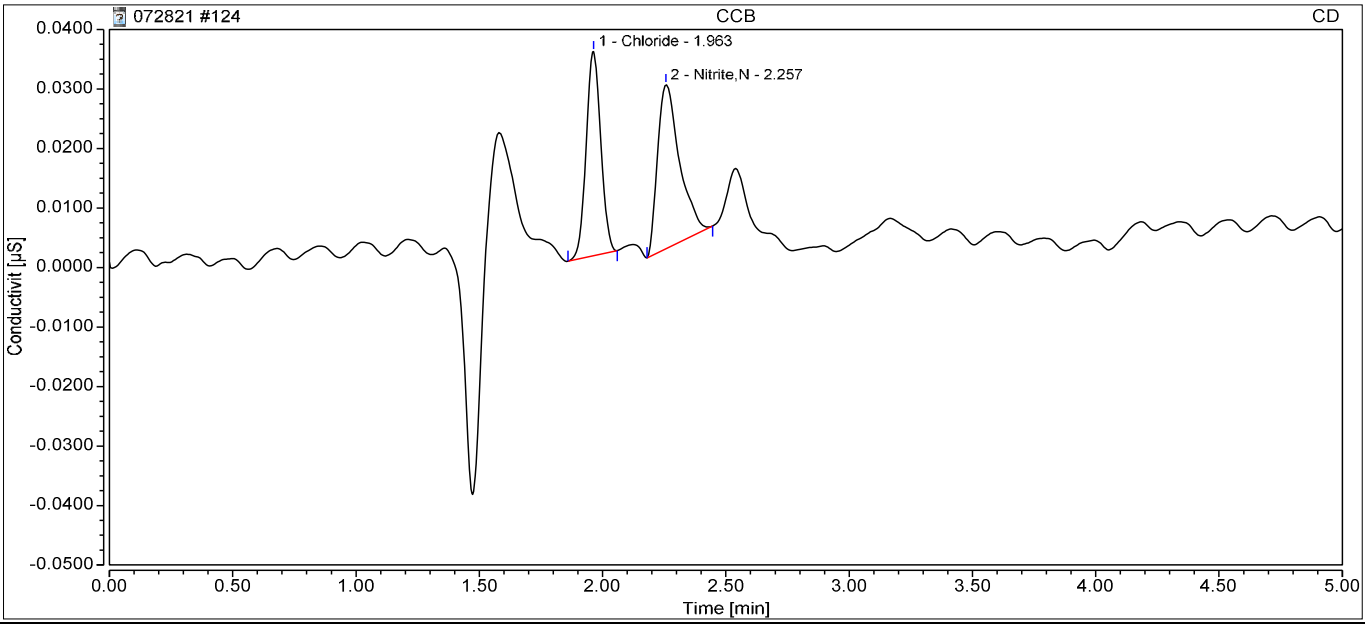
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.826	4.0390	4.0390	1.0000
2	1.96	Chloride	BMB	2.545	19.1243	19.1243	1.0000
3	2.22	Nitrite,N	BMB	1.109	3.8910	3.8910	1.0000
4	2.54	Sulfate	BMB	1.854	19.2660	19.2660	1.0000
5	2.77	Bromide	BMB	0.193	3.7332	3.7332	1.0000
6	3.14	Nitrate	BMB	1.162	3.8267	3.8267	1.0000
7	3.33	Chlorate	BMB	0.112	3.3179	3.3179	1.0000
8	4.12	Phosphate	BMB	0.359	3.1994	3.1994	1.0000
Total:			**0.000**	**8.159**		**60.40**	

124 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**07/29/2021 05:48**	*Sample Weight:*	**1.0000**

Run Time:



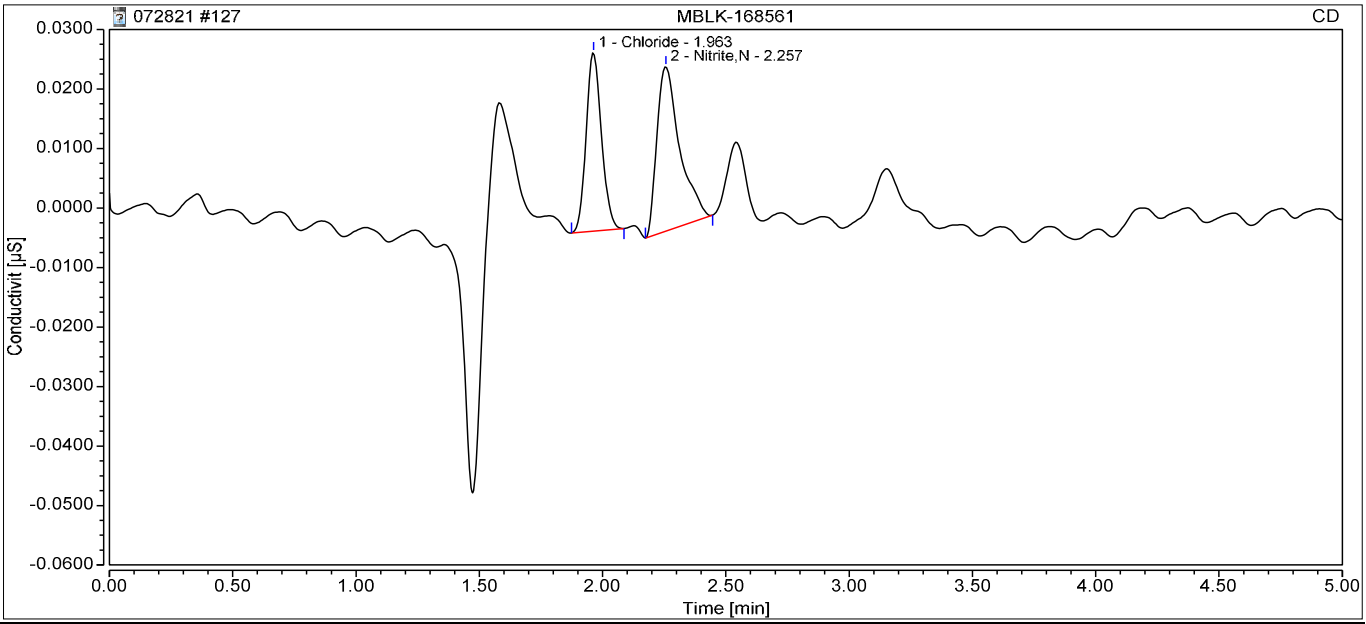
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.96	Chloride	BMB	0.002	0.0107	0.0107	1.0000
2	2.26	Nitrite,N	BMB	0.003	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.005**		**0.01**	

127 MBLK-168561

Sample Name:	**MBLK-168561**	*Injection Volume:*	**5.00**
Vial Number:	**R5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**07/29/2021 06:10**	*Sample Weight:*	**1.0000**

Run Time:



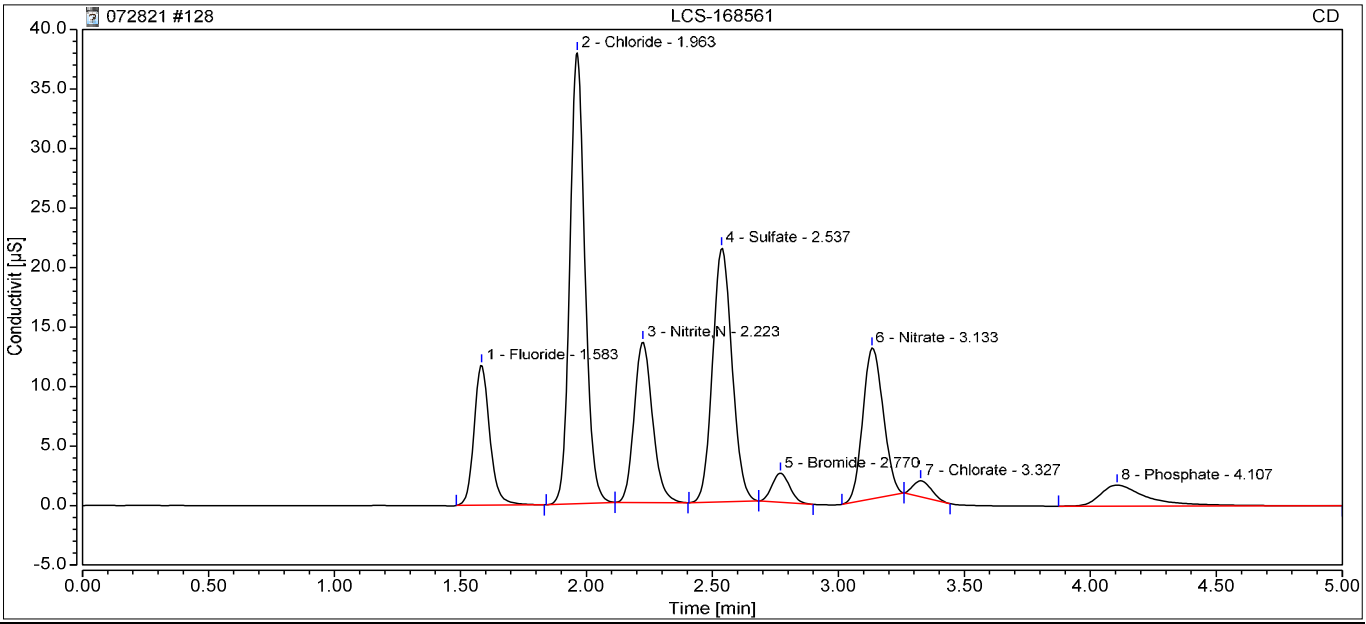
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.96	Chloride	BMB	0.002	0.0092	0.0092	1.0000
2	2.26	Nitrite,N	BMB	0.003	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.005**		**0.01**	

128 LCS-168561

Sample Name:	**LCS-168561**	*Injection Volume:*	**5.00**
Vial Number:	**R2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**07/29/2021 06:18**	*Sample Weight:*	**1.0000**

Run Time:



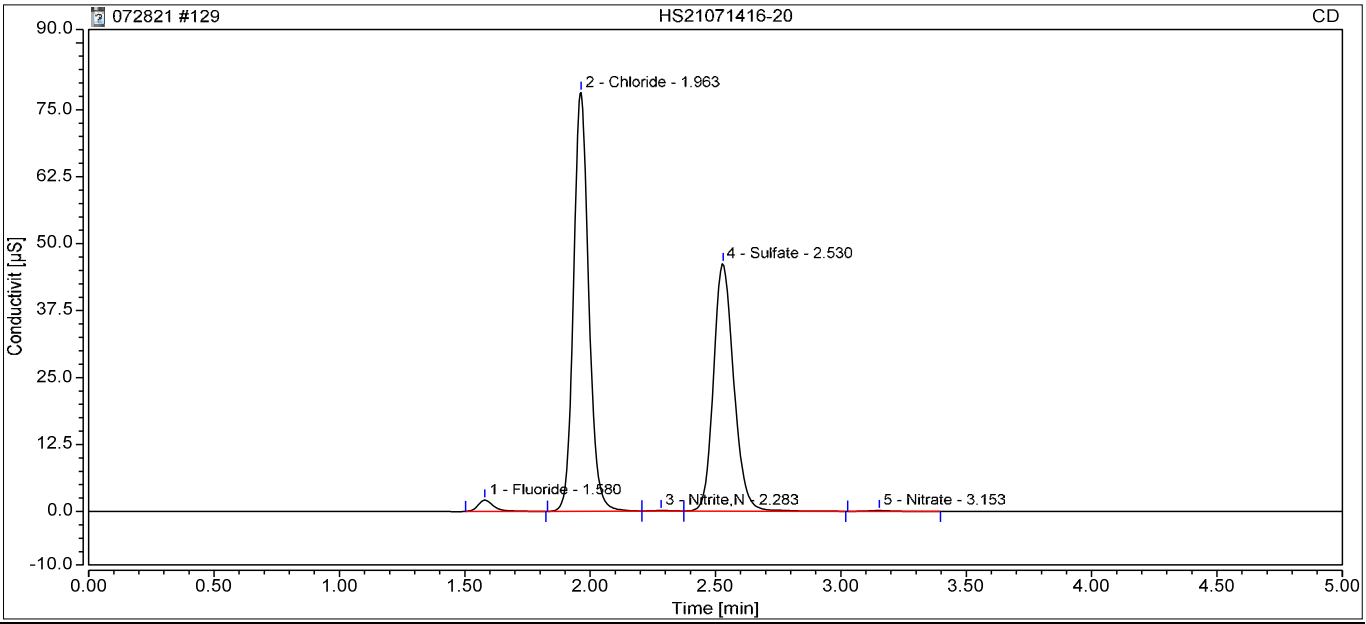
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.854	4.1729	4.1729	1.0000
2	1.96	Chloride	BMB	2.632	19.7775	19.7775	1.0000
3	2.22	Nitrite,N	BMB	1.141	4.0103	4.0103	1.0000
4	2.54	Sulfate	BMB	1.912	19.8637	19.8637	1.0000
5	2.77	Bromide	BMB	0.198	3.8360	3.8360	1.0000
6	3.13	Nitrate	BMB	1.192	3.9272	3.9272	1.0000
7	3.33	Chlorate	BMB	0.113	3.3752	3.3752	1.0000
8	4.11	Phosphate	BMB	0.383	3.4112	3.4112	1.0000
Total:			**0.000**	**8.426**		**62.37**	

129 HS21071416-20

Sample Name:	**HS21071416-20**	*Injection Volume:*	**5.00**
Vial Number:	**BA3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**07/29/2021 06:25**	*Sample Weight:*	**1.0000**

Run Time:



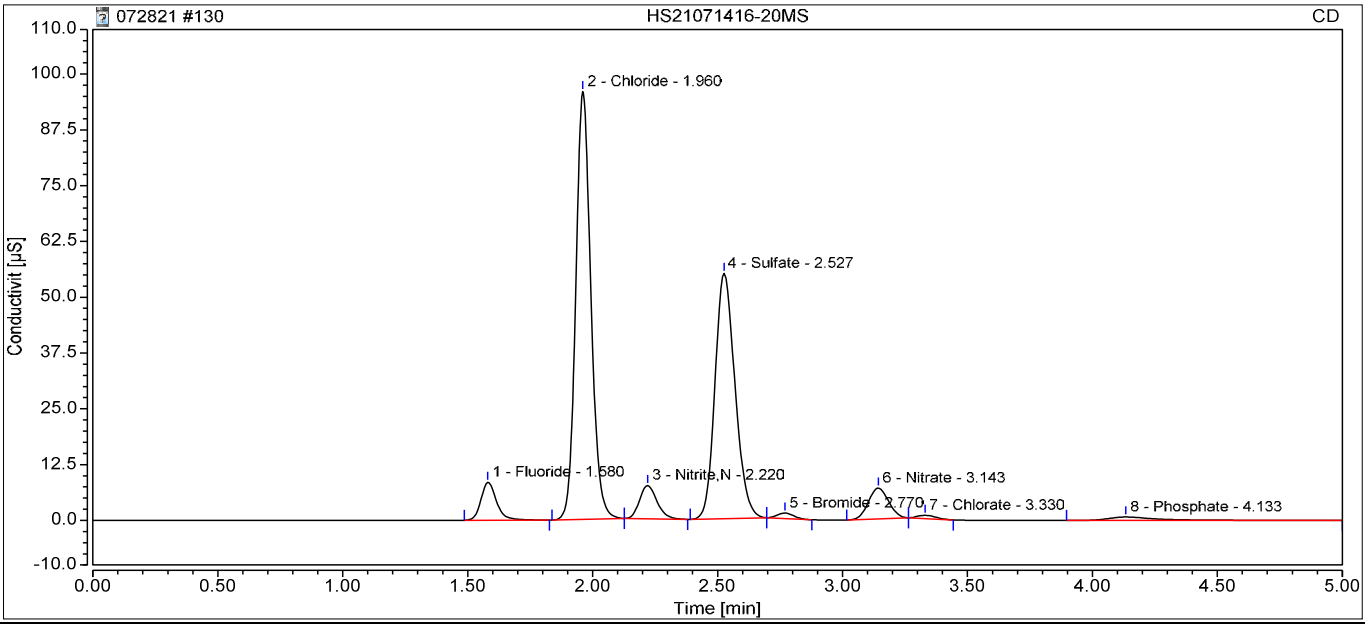
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.153	0.7336	0.7336	1.0000
2	1.96	Chloride	BMB	5.485	41.2218	41.2218	1.0000
3	2.28	Nitrite,N	BMB	0.007	0.0057	0.0057	1.0000
4	2.53	Sulfate	BMB	4.327	44.9266	44.9266	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
5	3.15	Nitrate	BMB	0.014	0.0427	0.0427	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**9.985**		**86.93**	

130 HS21071416-20MS

Sample Name:	**HS21071416-20MS**	*Injection Volume:*	**5.00**
Vial Number:	**BA4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**07/29/2021 06:33**	*Sample Weight:*	**1.0000**

Run Time:



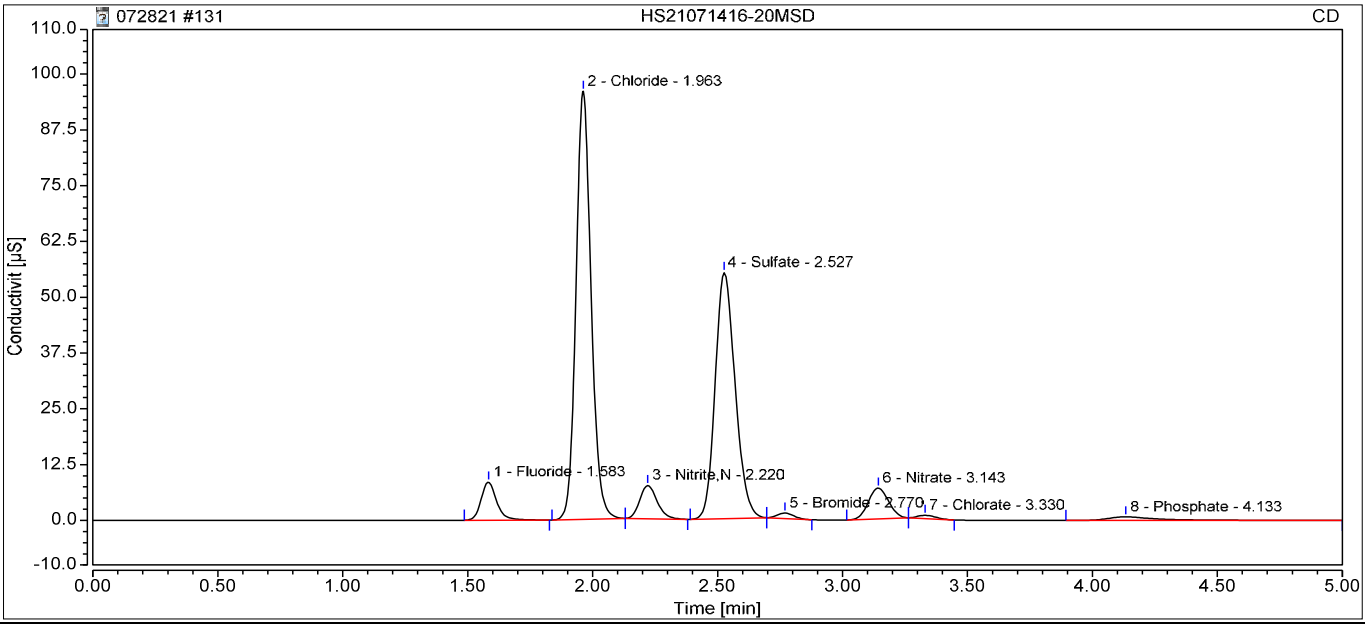
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.617	3.0107	3.0107	1.0000
2	1.96	Chloride	BMB	6.687	50.2533	50.2533	1.0000
3	2.22	Nitrite,N	BMB	0.600	2.0581	2.0581	1.0000
4	2.53	Sulfate	BMB	5.105	53.0047	53.0047	1.0000
5	2.77	Bromide	BMB	0.093	1.8041	1.8041	1.0000
6	3.14	Nitrate	BMB	0.644	2.1188	2.1188	1.0000
7	3.33	Chlorate	BMB	0.060	1.7687	1.7687	1.0000
8	4.13	Phosphate	BMB	0.180	1.6506	1.6506	1.0000
Total:			**0.000**	**13.985**		**115.67**	

131 HS21071416-20MSD

Sample Name:	**HS21071416-20MSD**	*Injection Volume:*	**5.00**
Vial Number:	**BA5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**07/29/2021 06:40**	*Sample Weight:*	**1.0000**

Run Time:



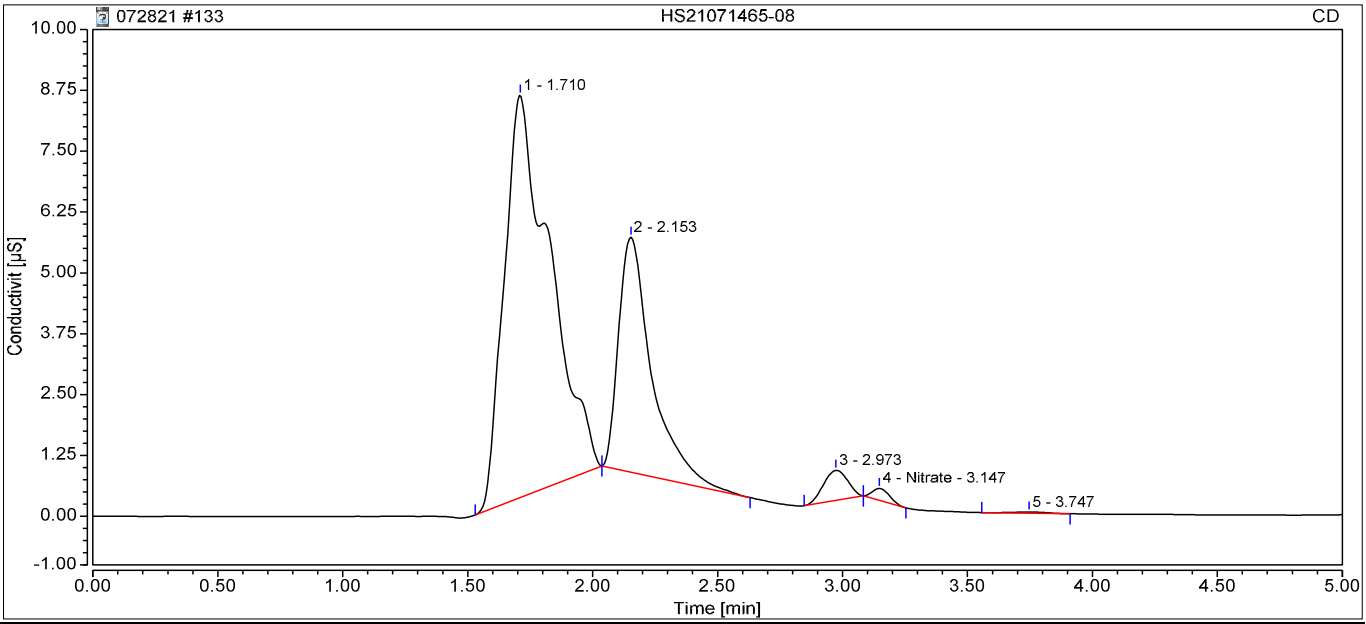
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.619	3.0240	3.0240	1.0000
2	1.96	Chloride	BMB	6.693	50.3013	50.3013	1.0000
3	2.22	Nitrite,N	BMB	0.600	2.0574	2.0574	1.0000
4	2.53	Sulfate	BMB	5.105	52.9997	52.9997	1.0000
5	2.77	Bromide	BMB	0.093	1.8117	1.8117	1.0000
6	3.14	Nitrate	BMB	0.645	2.1224	2.1224	1.0000
7	3.33	Chlorate	BMB	0.061	1.7816	1.7816	1.0000
8	4.13	Phosphate	BMB	0.186	1.7032	1.7032	1.0000
Total:			**0.000**	**14.002**		**115.80**	

133 HS21071465-08

Sample Name:	**HS21071465-08**	*Injection Volume:*	**5.00**
Vial Number:	**BA7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**07/29/2021 06:55**	*Sample Weight:*	**1.0000**

Run Time:



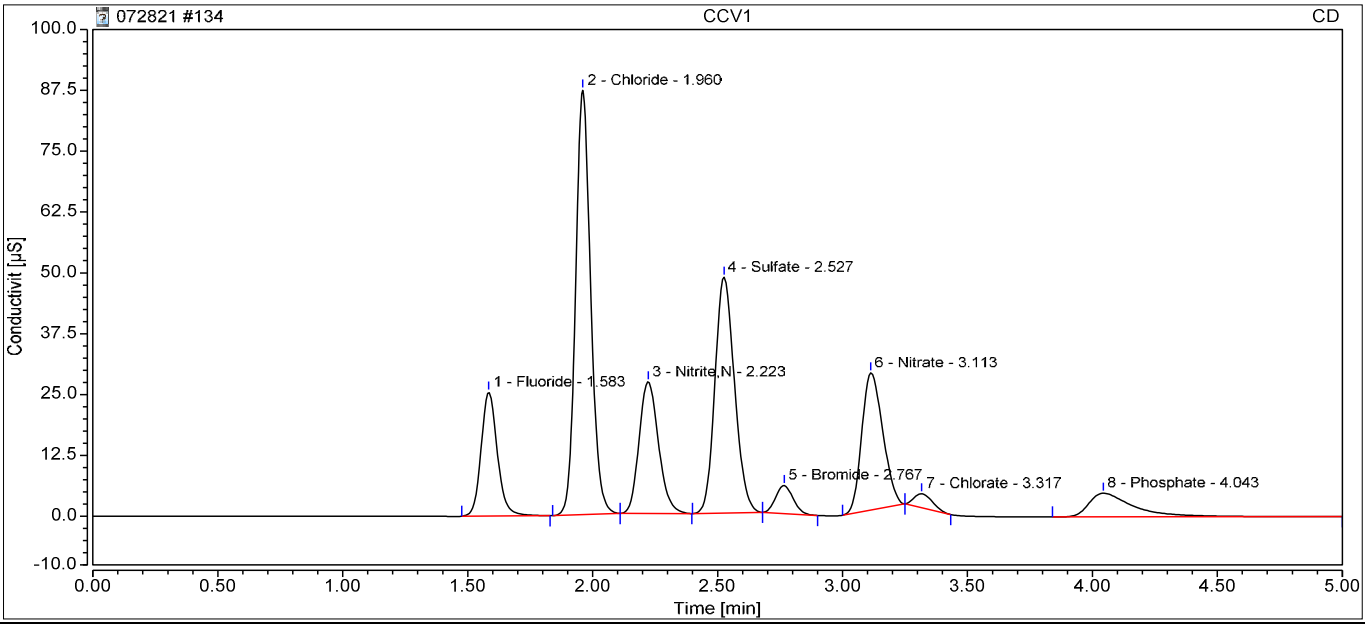
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
4	3.15	Nitrate	BMB	0.020	0.0625	0.0625	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.020**		**0.06**	

134 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**07/29/2021 07:10**	*Sample Weight:*	**1.0000**

Run Time:



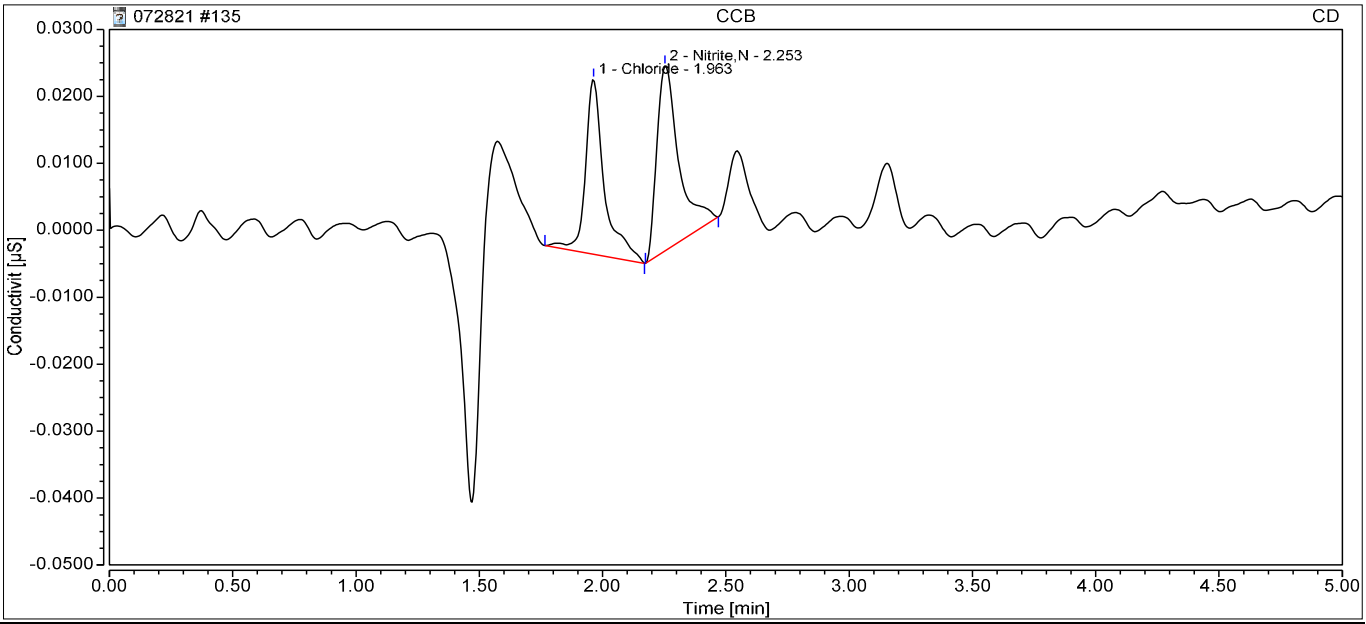
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	1.920	9.4035	9.4035	1.0000
2	1.96	Chloride	BMB	6.069	45.6065	45.6065	1.0000
3	2.22	Nitrite,N	BMB	2.436	9.0443	9.0443	1.0000
4	2.53	Sulfate	BMB	4.407	45.7586	45.7586	1.0000
5	2.77	Bromide	BMB	0.467	9.0152	9.0152	1.0000
6	3.11	Nitrate	BMB	2.748	9.0522	9.0522	1.0000
7	3.32	Chlorate	BMB	0.247	7.7100	7.7100	1.0000
8	4.04	Phosphate	BMB	1.021	8.9515	8.9515	1.0000
Total:			**0.000**	**19.314**		**144.54**	

135 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**07/29/2021 07:25**	*Sample Weight:*	**1.0000**

Run Time:



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.96	Chloride	BMB	0.002	0.0105	0.0105	1.0000
2	2.25	Nitrite,N	BMB	0.003	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.005**		**0.01**	

HS21071465 TOC Raw Data

ALS WO# HS21071465

TOC-Control L Report

2021_05_10_002.tlx

Instr.Information

Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Cal. Curve

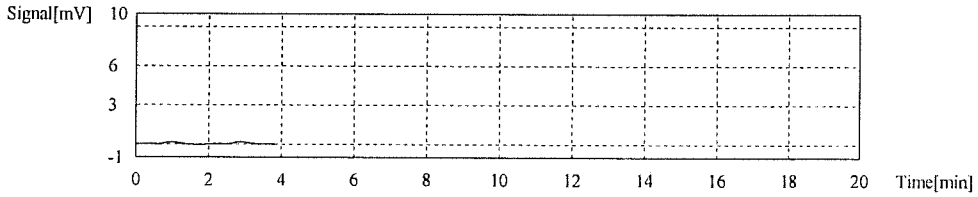
Sample Name:	CAL
Sample ID:	Untitled
Cal. Curve:	05_10_2021A_CAL.2021_05_10_17_37_49.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.4989	50uL	1.000	*******		5/10/2021 5:45:57 PM
2	0.3616	50uL	1.000	*******		5/10/2021 5:48:41 PM

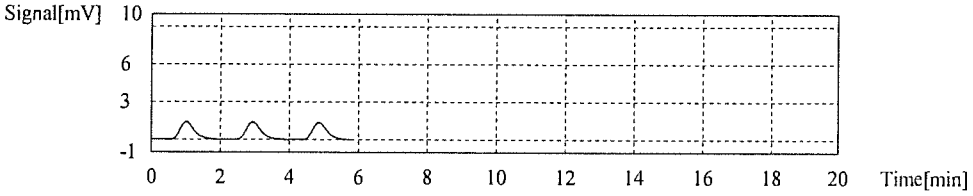
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	0.4303



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.881	50uL	1.000	*******		5/10/2021 5:56:40 PM
2	4.044	50uL	1.000	*******	E	5/10/2021 5:59:24 PM
3	3.915	50uL	1.000	*******		5/10/2021 6:02:09 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	3.898



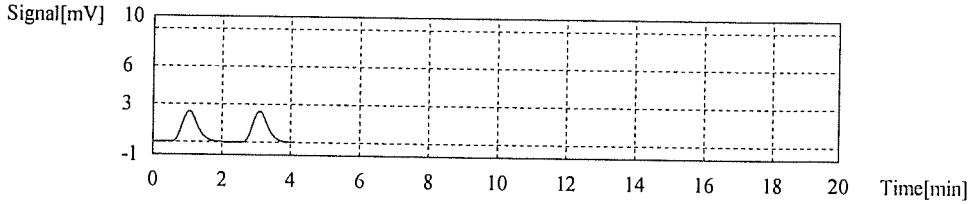
Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.481	50uL	1.000	*******		5/10/2021 6:10:31 PM
2	7.343	50uL	1.000	*******		5/10/2021 6:13:15 PM

TOC-Control L Report

2021_05_10_002.tlx

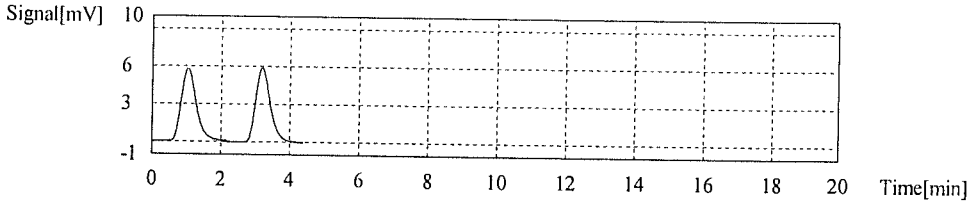
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	7.412



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	17.39	50uL	1.000	*******		5/10/2021 6:21:29 PM
2	17.58	50uL	1.000	*******		5/10/2021 6:24:16 PM

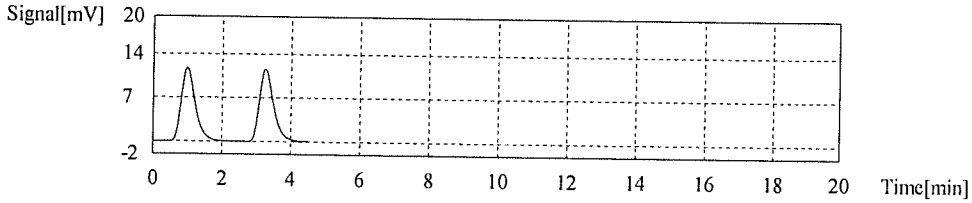
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	17.48



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	33.69	50uL	1.000	*******		5/10/2021 6:32:55 PM
2	33.47	50uL	1.000	*******		5/10/2021 6:35:37 PM

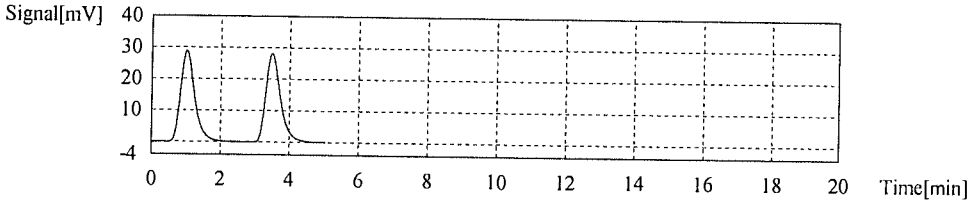
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	33.58



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	83.30	50uL	1.000	*******		5/10/2021 6:44:29 PM
2	83.46	50uL	1.000	*******		5/10/2021 6:47:16 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	83.38



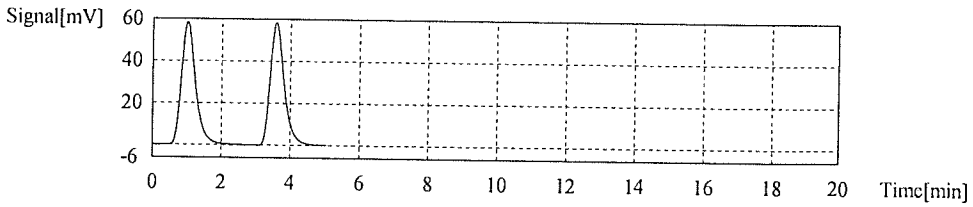
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	167.7	50uL	1.000	*******		5/10/2021 6:56:07 PM
2	166.5	50uL	1.000	*******		5/10/2021 6:58:48 PM

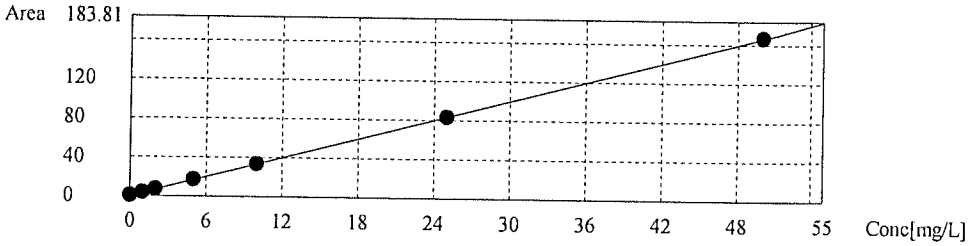
TOC-Control L Report

2021_05_10_002.tlx

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	167.1



Slope:	3.327
Intercept	0.000
r^2	1.0000
r	1.0000
RSE(%)	N/A
Zero Shift	Yes



C:\TOC-L\Data\2021_08_11_001.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Result	Notes	Status
1	Unknown	NPOC	CCV	317191009	05_10_2021	NPOC:25.51mg/L		Completed
2	Unknown	NPOC	CCB		05_10_2021	NPOC:0.1200mg/		Completed
3	Unknown	NPOC	MBLK-081121		05_10_2021	NPOC:0.08776m		Completed
4	Unknown	NPOC	LCS-08112021	3100603915	05_10_2021	NPOC:10.27mg/L		Completed
5	Unknown	NPOC	LCSD-08011021	3100603915	05_10_2021	NPOC:10.49mg/L		Completed
6	Unknown	NPOC	HS21071394-02DF5		05_10_2021	NPOC:25.06mg/L		Completed
7	Unknown	NPOC	HS21071394-03DF5		05_10_2021	NPOC:17.34mg/L		Completed
8	Unknown	NPOC	HS21071465-01		05_10_2021	NPOC:5.150mg/L		Completed
9	Unknown	NPOC	HS21071465-01MS		05_10_2021	NPOC:16.35mg/L		Completed
10	Unknown	NPOC	HS21071465-02		05_10_2021	NPOC:2.519mg/L		Completed
11	Unknown	NPOC	HS21071465-06		05_10_2021	NPOC:10.10mg/L		Completed
12	Unknown	NPOC	HS21071511-01		05_10_2021	NPOC:0.4988mg/		Completed
13	Unknown	NPOC	CCV	317191009	05_10_2021	NPOC:26.22mg/L		Completed
14	Unknown	NPOC	CCB		05_10_2021	NPOC:0.09353m		Completed
15	Unknown	NPOC	HS21080140-01		05_10_2021	NPOC:10.62mg/L		Completed
16	Unknown	NPOC	HS21080143-01		05_10_2021	NPOC:17.00mg/L		Completed
17	Unknown	NPOC	HS21080157-01		05_10_2021	NPOC:3.706mg/L		Completed
18	Unknown	NPOC	HS21080208-01		05_10_2021	NPOC:3.635mg/L		Completed
19	Unknown	NPOC	CCV	317191009	05_10_2021	NPOC:25.74mg/L		Completed
20	Unknown	NPOC	CCB		05_10_2021	NPOC:0.1575mg/		Completed

C:\TOC-L\Data\2021_08_11_001.tlx

	Date / Time	Vial
1	8/11/2021 1	1
2	8/11/2021 1	2
3	8/11/2021 1	3
4	8/11/2021 1	4
5	8/11/2021 1	5
6	8/11/2021 1	6
7	8/11/2021 1	7
8	8/11/2021 1	8
9	8/11/2021 1:	9
10	8/11/2021 1:	10
11	8/11/2021 1:	11
12	8/11/2021 1:	12
13	8/11/2021 2:	1
14	8/11/2021 2:	2
15	8/11/2021 2:	13
16	8/11/2021 3:	14
17	8/11/2021 3:	15
18	8/11/2021 3:	16
19	8/11/2021 3:	1
20	8/11/2021 3:	2

HS21071465

Report Date: 08/10/2021 : 5:52

PC-TitratION PLUS
Calibration Report

Calibration Record # 2389

Calibration Settings

Calibration ID	PH CAL 4-7-10	Date	08/10/2021
Channel	1	Time	5:52 PM
Probe Type	pH	Temperature	297.32 K 24.17 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-58.327	CorrCoeff	0.9999
Intercept	0.653	Equation: Y = (-58.327) X + (0.653)	

Calibration Validity True

Operator

	Result	Minimum	Maximum
Slope	-58.327	-65.00	-53.00
Intercept	0.653	-100.00	100.00
Correlation Coefficient	0.9999	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	4.00	177.36
	7.00	-2.80
	10.00	-172.60

#389209 (A)

#389210 (SOIL)

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Report Date: 8/10/2021 : 10:49 PM

PC-TitratION PLUS
Water Analysis Report

Run Number 4152 **Order Number** 20210810-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
ICV-PH	8/10/2021	6:14 PM	24.00	-1.00	6.08	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
TAP WATER	8/10/2021	6:20 PM	23.91	-1.00	7.79	.00	236.58	236.58	.00	.00	.00	2.25	2.25
WBLKW1-210810	8/10/2021	6:25 PM	24.19	-1.00	5.76	.00	.71	.71	.00	.00	.00	.02	.02
LCS1-2100810	8/10/2021	6:33 PM	24.12	-1.00	10.73	500.00	1,023.55	23.56	999.99	.00	4.76	9.75	9.75
LCSD1-2100810	8/10/2021	6:42 PM	24.02	-1.00	10.73	498.07	1,019.25	23.12	996.13	.00	4.74	9.71	9.71
HS21080296-02	8/10/2021	6:50 PM	23.94	-1.00	7.34	.00	616.13	616.13	.00	.00	.00	5.87	5.87
HS21080296-02DUP	8/10/2021	6:57 PM	24.00	-1.00	7.33	.00	598.38	598.38	.00	.00	.00	5.70	5.70
HS21080296-03	8/10/2021	7:03 PM	24.02	-1.00	6.57	.00	493.91	493.91	.00	.00	.00	4.70	4.70
HS21080296-04	8/10/2021	7:11 PM	24.05	-1.00	7.13	.00	839.08	839.08	.00	.00	.00	7.99	7.99
HS21080296-05	8/10/2021	7:18 PM	23.91	-1.00	7.00	.00	572.62	572.62	.00	.00	.00	5.45	5.45
HS21080296-06	8/10/2021	7:25 PM	23.91	-1.00	7.02	.00	552.56	552.56	.00	.00	.00	5.26	5.26
CCV-PH	8/10/2021	7:28 PM	24.14	-1.00	7.08	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	8/10/2021	7:36 PM	24.10	-1.00	10.69	494.66	1,020.47	31.16	989.31	.00	4.71	9.72	9.72
DI RINSE	8/10/2021	7:41 PM	24.10	-1.00	5.92	.00	.55	.55	.00	.00	.00	.02	.02
HS21080433-01	8/10/2021	7:46 PM	24.04	-1.00	5.52	.00	.38	.38	.00	.00	.00	.02	.02
HS21080319-01	8/10/2021	7:53 PM	23.91	-1.00	7.96	.00	69.86	69.86	.00	.00	.00	.67	.67
HS21080319-02DF2	8/10/2021	8:01 PM	23.88	-1.00	9.97	128.02	418.28	162.24	256.05	.00	1.22	3.98	3.98
HS21080319-03DF5	8/10/2021	8:09 PM	23.88	-1.00	10.43	244.23	600.13	111.67	488.47	.00	2.33	5.72	5.72
HS21080319-04	8/10/2021	8:18 PM	23.88	-1.00	8.49	20.85	990.40	948.70	41.70	.00	.20	9.43	9.43
HS21080319-05	8/10/2021	8:25 PM	23.52	-1.00	8.41	3.74	197.57	190.09	7.49	.00	.04	1.88	1.88
HS21080319-06DF2	8/10/2021	8:32 PM	23.81	-1.00	9.75	71.45	286.07	143.17	142.90	.00	.68	2.72	2.72
HS21080319-07DF20	8/10/2021	8:42 PM	23.92	-1.00	10.96	476.68	961.26	7.89	953.36	.00	4.54	9.15	9.15
CCV-PH	8/10/2021	8:45 PM	24.42	-1.00	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	8/10/2021	8:53 PM	24.42	-1.00	10.65	493.34	1,023.23	36.54	986.69	.00	4.70	9.75	9.75
DI RINSE	8/10/2021	8:58 PM	24.24	-1.00	6.02	.00	.86	.86	.00	.00	.00	.02	.02
HS21080319-08DF20	8/10/2021	9:10 PM	24.20	-1.00	11.60	948.07	1,324.32	.00	752.51	571.81	9.03	12.61	12.61
HS21080319-09DF20	8/10/2021	9:21 PM	24.07	-1.00	11.56	866.52	1,261.46	.00	789.89	471.57	8.25	12.01	12.01

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Run Number 4152 **Order Number** 20210810-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
CCV-PH	8/10/2021	9:24 PM	24.02	-1.00	7.08	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	8/10/2021	9:32 PM	24.04	-1.00	10.65	494.22	1,025.30	36.85	988.45	.00	4.71	9.76	9.76
DI RINSE	8/10/2021	9:37 PM	24.09	-1.00	6.02	.00	.69	.69	.00	.00	.00	.02	.02
MBLK-168934	8/10/2021	9:42 PM	24.00	-1.00	5.61	.00	.66	.66	.00	.00	.00	.02	.02
LCS-168934	8/10/2021	9:51 PM	24.00	-1.00	10.68	512.86	1,041.46	15.73	1,025.73	.00	4.88	9.92	9.92
LCSD-168934	8/10/2021	9:59 PM	24.00	-1.00	10.67	492.96	1,024.77	38.84	985.93	.00	4.69	9.76	9.76
HS21080162-01	8/10/2021	10:08 PM	24.00	-1.00	9.70	9.30	26.59	7.99	18.59	.00	.09	.25	.25
HS21080162-01DUP	8/10/2021	10:17 PM	23.91	-1.00	9.79	8.90	25.51	7.71	17.80	.00	.08	.24	.24
HS21071465-08	8/10/2021	10:20 PM	23.86	-1.00	3.81	.00	.00	.00	.00	.00	.00	.00	.00
HS21081111-01	8/10/2021	10:25 PM	23.89	-1.00	5.47	.00	.42	.42	.00	.00	.00	.02	.02 NR TH 8-11
HS21081111-02	8/10/2021	10:30 PM	23.94	-1.00	5.51	.00	.18	.18	.00	.00	.00	.02	.02 NR
CCV-PH	8/10/2021	10:33 PM	23.96	-1.00	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	8/10/2021	10:42 PM	23.86	-1.00	10.64	488.26	1,057.89	81.36	976.52	.00	4.65	10.08	10.08
DI RINSE	8/10/2021	10:47 PM	23.84	-1.00	6.01	.00	.88	.88	.00	.00	.00	.02	.02

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C:\TOC-L\Data\2021_05_10_002.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
1	Standard	NPOC	CAL	Untitled	05_10_2021A_CAL.20	1.000	
2	Unknown	NPOC	ICV		05_10_2021A_CAL.ca	1.000	NPOC:9.685mg/
3	Unknown	NPOC	ICB		05_10_2021A_CAL.ca	1.000	NPOC:0.03898
4	Unknown	NPOC	CCV		02_25_2021_CAL.cal	1.000	NPOC:10.64mg/
5	Unknown	NPOC	CCB		02_25_2021_CAL.cal	1.000	NPOC:-0.1171m
6	Unknown	NPOC	MBLK-05102021	TOC_W 531	02_25_2021_CAL.cal	1.000	NPOC:-0.1201m
7	Unknown	NPOC	LCS-05102021		02_25_2021_CAL.cal	1.000	NPOC:11.49mg/
8	Unknown	NPOC	LCSD-05102021		02_25_2021_CAL.cal	1.000	NPOC:11.01mg/
9	Unknown	NPOC	HS21050104-01		02_25_2021_CAL.cal	1.000	NPOC:10.34mg/
10	Unknown	NPOC	HS21050104-01MS		02_25_2021_CAL.cal	1.000	NPOC:21.01mg/
11	Unknown	NPOC	HS21050104-02		02_25_2021_CAL.cal	1.000	NPOC:8.229mg/
12	Unknown	NPOC	HS21050104-03		02_25_2021_CAL.cal	1.000	NPOC:3.514mg/
13	Unknown	NPOC	HS21050104-04		02_25_2021_CAL.cal	1.000	NPOC:1.251mg/
14	Unknown	NPOC	HS21050123-01		02_25_2021_CAL.cal	1.000	NPOC:23.28mg/
15	Unknown	NPOC	HS21050155-01		02_25_2021_CAL.cal	1.000	NPOC:4.646mg/
16	Unknown	NPOC	CCV		02_25_2021_CAL.cal	1.000	NPOC:10.57mg/
17	Unknown	NPOC	CCB		02_25_2021_CAL.cal	1.000	NPOC:-0.04320
18	Unknown	NPOC	HS21050155-02		02_25_2021_CAL.cal	1.000	NPOC:17.96mg/
19	Unknown	NPOC	HS21050155-03DF10		02_25_2021_CAL.cal	1.000	NPOC:9.410mg/
20	Unknown	NPOC	HS21050155-04DF10		02_25_2021_CAL.cal	1.000	NPOC:3.459mg/
21	Unknown	NPOC	HS21050155-05DF50		02_25_2021_CAL.cal	1.000	NPOC:1.676mg/
22	Unknown	NPOC	CCV		02_25_2021_CAL.cal	1.000	NPOC:10.43mg/
23	Unknown	NPOC	CCB		02_25_2021_CAL.cal	1.000	NPOC:-0.1208m
24	Unknown	NPOC	MBLK2-05102021	TOC_W 531	02_25_2021_CAL.cal	1.000	NPOC:-0.04462
25	Unknown	NPOC	LCS2-05102021		02_25_2021_CAL.cal	1.000	NPOC:11.52mg/
26	Unknown	NPOC	LCSD2-05102021		02_25_2021_CAL.cal	1.000	NPOC:11.01mg/
27	Unknown	NPOC	HS21050155-06DF10		02_25_2021_CAL.cal	1.000	NPOC:0.9479m
28	Unknown	NPOC	HS21050155-07DF10		02_25_2021_CAL.cal	1.000	NPOC:293.0mg/
29	Unknown	NPOC	HS21041464-01		02_25_2021_CAL.cal	1.000	NPOC:10.74mg/
30	Unknown	NPOC	HS21041464-01MS		02_25_2021_CAL.cal	1.000	NPOC:22.09mg/
31	Unknown	NPOC	HS21041464-02.		02_25_2021_CAL.cal	1.000	NPOC:467.8mg/
32	Unknown	NPOC	HS21041464-03		02_25_2021_CAL.cal	1.000	NPOC:527.3mg/
33	Unknown	NPOC	HS21050168-01		02_25_2021_CAL.cal	1.000	NPOC:10.05mg/
34	Unknown	NPOC	CCV		02_25_2021_CAL.cal	1.000	NPOC:26.35mg/
35	Unknown	NPOC	CCB		02_25_2021_CAL.cal	1.000	NPOC:0.2054m
36	Unknown	NPOC	HS21050174-01		02_25_2021_CAL.cal	1.000	NPOC:15.67mg/
37	Unknown	NPOC	HS21050186-01		02_25_2021_CAL.cal	1.000	NPOC:10.17mg/
38	Unknown	NPOC	HS21050252-04		02_25_2021_CAL.cal	1.000	NPOC:3.521mg/
39	Unknown	NPOC	HS21050252-06		02_25_2021_CAL.cal	1.000	NPOC:11.77mg/
40	Unknown	NPOC	CCV		02_25_2021_CAL.cal	1.000	NPOC:25.77mg/
41	Unknown	NPOC	CCB		02_25_2021_CAL.cal	1.000	NPOC:0.00982

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	Notes	Status	Date / Time	Vial
1		Completed	5/10/2021 6:58:48 P	1, 2, 3, 4, 5,
2		Completed	5/10/2021 7:10:12 P	8
3		Completed	5/10/2021 7:24:10 P	9
4		Completed	5/10/2021 7:39:01 P	10
5		Completed	5/10/2021 7:54:13 P	11
6		Completed	5/10/2021 8:07:13 P	12
7		Completed	5/10/2021 8:21:22 P	13
8		Completed	5/10/2021 8:35:33 P	14
9		Completed	5/10/2021 8:49:54 P	15
10		Completed	5/10/2021 9:04:32 P	16
11		Completed	5/10/2021 9:18:50 P	17
12		Completed	5/10/2021 9:34:39 P	18
13		Completed	5/10/2021 9:49:51 P	19
14		Completed	5/10/2021 10:04:29	20
15		Completed	5/10/2021 10:21:10	21
16		Completed	5/10/2021 10:35:35	10
17		Completed	5/10/2021 10:51:04	11
18		Completed	5/10/2021 11:05:57	22
19		Completed	5/10/2021 11:22:43	23
20		Completed	5/10/2021 11:38:51	24
21		Completed	5/10/2021 11:54:17	25
22		Completed	5/11/2021 12:08:35	10
23		Completed	5/11/2021 12:21:37	11
24		Completed	5/11/2021 12:36:46	12
25		Completed	5/11/2021 12:51:01	13
26		Completed	5/11/2021 1:05:25 A	14
27		Completed	5/11/2021 1:20:49 A	26
28		Completed	5/11/2021 1:37:21 A	27
29		Completed	5/11/2021 1:52:06 A	28
30		Completed	5/11/2021 2:07:07 A	29
31		Completed	5/11/2021 2:23:17 A	30
32		Completed	5/11/2021 2:39:50 A	31
33		Completed	5/11/2021 2:54:11 A	32
34		Completed	5/11/2021 3:11:24 A	33
35		Completed	5/11/2021 3:26:29 A	34
36		Completed	5/11/2021 3:41:17 A	35
37		Completed	5/11/2021 3:55:38 A	36
38		Completed	5/11/2021 4:11:57 A	37
39		Completed	5/11/2021 4:26:31 A	38
40		Completed	5/11/2021 4:41:33 A	33
41		Completed	5/11/2021 4:54:36 A	34

TOC-Control L Report

2021_05_10_002.tlx

Instr.Information

Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Cal. Curve

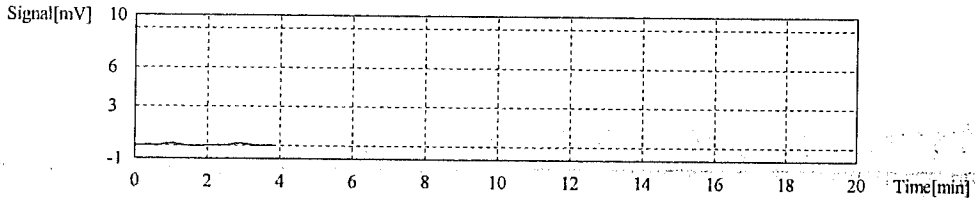
Sample Name:	CAL
Sample ID:	Untitled
Cal. Curve:	05_10_2021A_CAL.2021_05_10_17_37_49.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.4989	50uL	1.000	*******		5/10/2021 5:45:57 PM
2	0.3616	50uL	1.000	*******		5/10/2021 5:48:41 PM

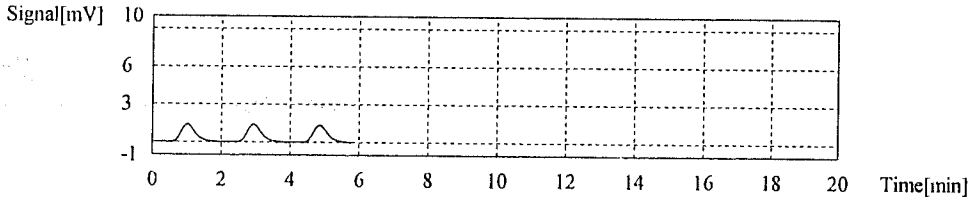
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	0.4303



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.881	50uL	1.000	*******		5/10/2021 5:56:40 PM
2	4.044	50uL	1.000	*******	E	5/10/2021 5:59:24 PM
3	3.915	50uL	1.000	*******		5/10/2021 6:02:09 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	3.898



Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.481	50uL	1.000	*******		5/10/2021 6:10:31 PM
2	7.343	50uL	1.000	*******		5/10/2021 6:13:15 PM

TOC-Control L Report

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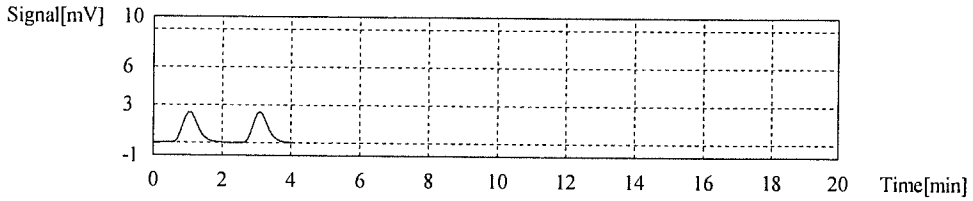
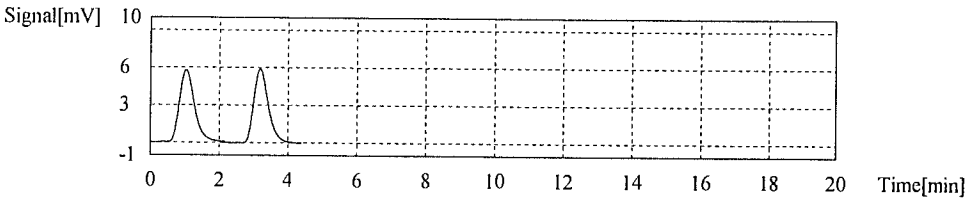
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	7.412



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	17.39	50uL	1.000	*******		5/10/2021 6:21:29 PM
2	17.58	50uL	1.000	*******		5/10/2021 6:24:16 PM

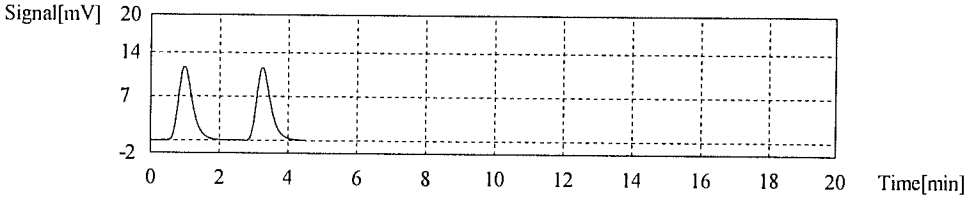
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	17.48



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	33.69	50uL	1.000	*******		5/10/2021 6:32:55 PM
2	33.47	50uL	1.000	*******		5/10/2021 6:35:37 PM

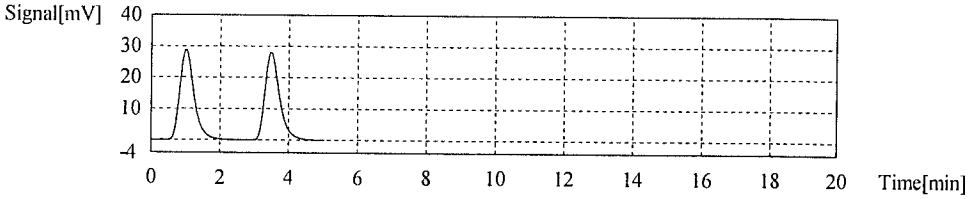
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	33.58



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	83.30	50uL	1.000	*******		5/10/2021 6:44:29 PM
2	83.46	50uL	1.000	*******		5/10/2021 6:47:16 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	83.38



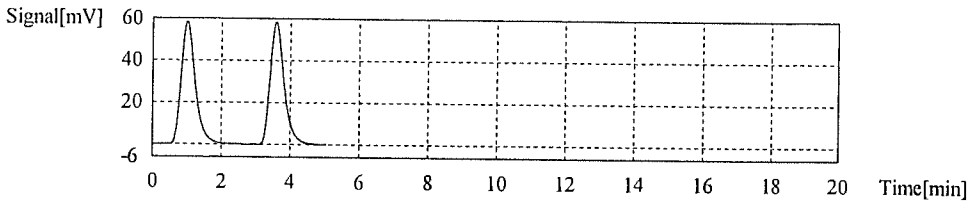
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	167.7	50uL	1.000	*******		5/10/2021 6:56:07 PM
2	166.5	50uL	1.000	*******		5/10/2021 6:58:48 PM

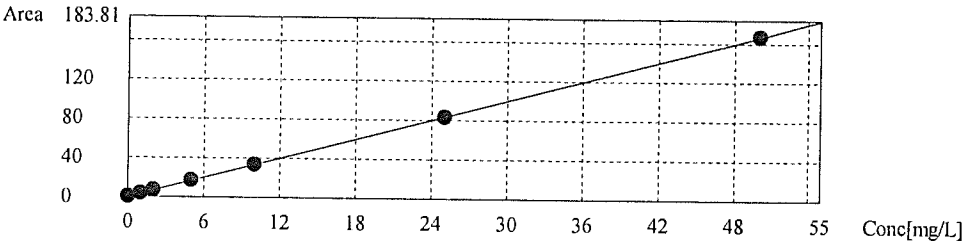
TOC-Control L Report

2021_05_10_002.tlx

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	167.1



Slope:	3.327
Intercept	0.000
r^2	1.0000
r	1.0000
RSE(%)	N/A
Zero Shift	Yes



Sample

Sample Name:	ICV
Sample ID:	
Origin:	05_10_2021A_CAL.cal
Status	Completed
Chk. Result	

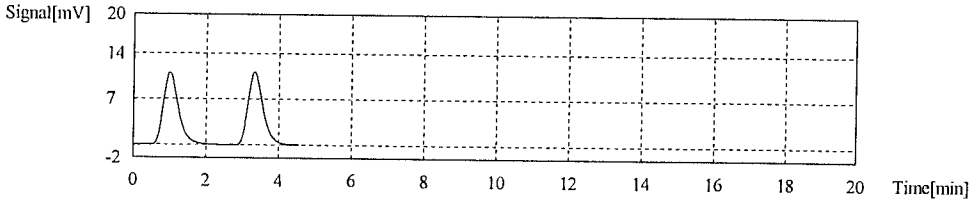
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.685mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.23	9.687mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/10/2021 7:07:17 PM
2	32.22	9.684mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/10/2021 7:10:12 PM

Mean Area	32.23
Mean Conc.	9.685mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	05_10_2021A_CAL.cal
Status	Completed
Chk. Result	

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03898mg/L

TOC-Control L Report

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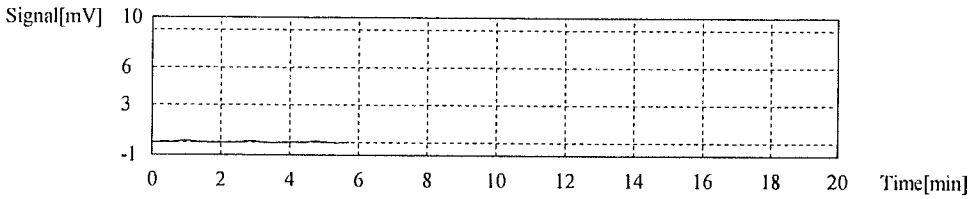
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4794	0.1441mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/10/2021 7:18:10 PM
2	0.08420	0.02531mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/10/2021 7:21:10 PM
3	0.1752	0.05266mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	5/10/2021 7:24:10 PM

Mean Area 0.1297
Mean Conc. 0.03898mg/L



C:\TOC-L\Data\2021_08_11_001.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
1	Unknown	NPOC	CCV	317191009	05_10_2021A_CAL.ca	1.000	NPOC:25.51mg/
2	Unknown	NPOC	CCB		05_10_2021A_CAL.ca	1.000	NPOC:0.1200m
3	Unknown	NPOC	MBLK-081121		05_10_2021A_CAL.ca	1.000	NPOC:0.08776
4	Unknown	NPOC	LCS-08112021	3100603915	05_10_2021A_CAL.ca	1.000	NPOC:10.27mg/
5	Unknown	NPOC	LCSD-08011021	3100603915	05_10_2021A_CAL.ca	1.000	NPOC:10.49mg/
6	Unknown	NPOC	HS21071394-02DF5		05_10_2021A_CAL.ca	1.000	NPOC:25.06mg/
7	Unknown	NPOC	HS21071394-03DF5		05_10_2021A_CAL.ca	1.000	NPOC:17.34mg/
8	Unknown	NPOC	HS21071465-01		05_10_2021A_CAL.ca	1.000	NPOC:5.150mg/
9	Unknown	NPOC	HS21071465-01MS		05_10_2021A_CAL.ca	1.000	NPOC:16.35mg/
10	Unknown	NPOC	HS21071465-02		05_10_2021A_CAL.ca	1.000	NPOC:2.519mg/
11	Unknown	NPOC	HS21071465-06		05_10_2021A_CAL.ca	1.000	NPOC:10.10mg/
12	Unknown	NPOC	HS21071511-01		05_10_2021A_CAL.ca	1.000	NPOC:0.4988m
13	Unknown	NPOC	CCV	317191009	05_10_2021A_CAL.ca	1.000	NPOC:26.22mg/
14	Unknown	NPOC	CCB		05_10_2021A_CAL.ca	1.000	NPOC:0.09353
15	Unknown	NPOC	HS21080140-01		05_10_2021A_CAL.ca	1.000	NPOC:10.62mg/
16	Unknown	NPOC	HS21080143-01		05_10_2021A_CAL.ca	1.000	NPOC:17.00mg/
17	Unknown	NPOC	HS21080157-01		05_10_2021A_CAL.ca	1.000	NPOC:3.706mg/
18	Unknown	NPOC	HS21080208-01		05_10_2021A_CAL.ca	1.000	NPOC:3.635mg/
19	Unknown	NPOC	CCV	317191009	05_10_2021A_CAL.ca	1.000	NPOC:25.74mg/
20	Unknown	NPOC	CCB		05_10_2021A_CAL.ca	1.000	NPOC:0.1575m

C:\TOC-L\Data\2021_08_11_001.tlx

	Notes	Status	Date / Time	Vial
1		Completed	8/11/2021 11:27:50	1
2		Completed	8/11/2021 11:42:35	2
3		Completed	8/11/2021 11:56:47	3
4		Completed	8/11/2021 12:08:40	4
5		Completed	8/11/2021 12:20:54	5
6		Completed	8/11/2021 12:35:53	6
7		Completed	8/11/2021 12:47:58	7
8		Completed	8/11/2021 12:59:41	8
9		Completed	8/11/2021 1:14:54 P	9
10		Completed	8/11/2021 1:29:39 P	10
11		Completed	8/11/2021 1:44:40 P	11
12		Completed	8/11/2021 1:59:16 P	12
13		Completed	8/11/2021 2:15:50 P	1
14		Completed	8/11/2021 2:30:30 P	2
15		Completed	8/11/2021 2:45:39 P	13
16		Completed	8/11/2021 3:00:53 P	14
17		Completed	8/11/2021 3:15:36 P	15
18		Completed	8/11/2021 3:30:39 P	16
19		Completed	8/11/2021 3:42:48 P	1
20		Completed	8/11/2021 3:53:50 P	2

TOC-Control L Report

2021_08_11_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: CCV
Sample ID: 317191009
Origin: 05_10_2021A_CAL.cal
Status: Completed
Chk. Result:

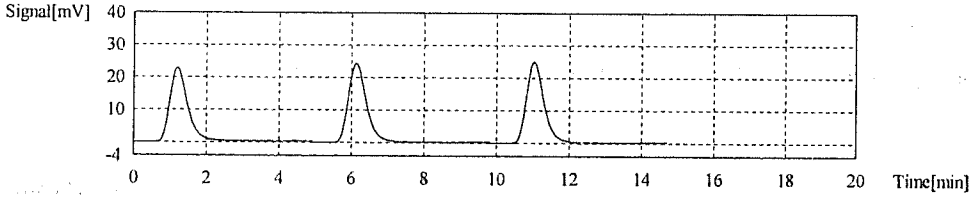
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.51mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.07	23.76mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 11:17:32 AM
2	84.06	25.26mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 11:22:41 AM
3	85.68	25.75mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 11:27:50 AM

Mean Area: 84.87
Mean Conc.: 25.51mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status: Completed
Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1200mg/L

1. Det

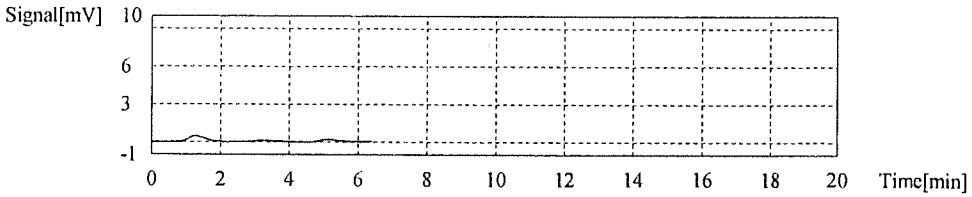
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.370	0.4117mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 11:36:10 AM
2	0.1360	0.04087mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 11:39:02 AM
3	0.6623	0.1991mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 11:42:35 AM

TOC-Control L Report

2021_08_11_001.tlx

Mean Area 0.3992
Mean Conc. 0.1200mg/L



Sample

Sample Name: MBLK-081121
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

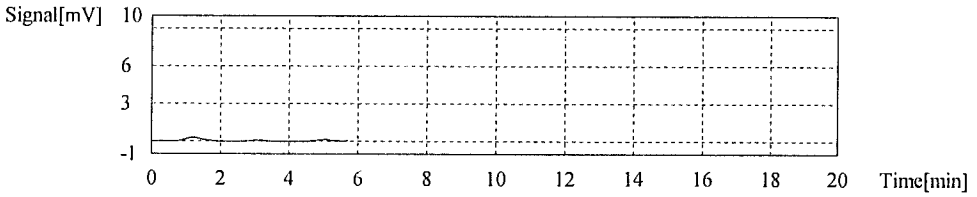
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.08776mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8048	0.2419mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 11:50:47 AM
2	0.2788	0.08379mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 11:53:47 AM
3	0.3052	0.09173mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 11:56:47 AM

Mean Area 0.2920
Mean Conc. 0.08776mg/L



Sample

Sample Name: LCS-08112021
Sample ID: 3100603915
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.27mg/L

1. Det

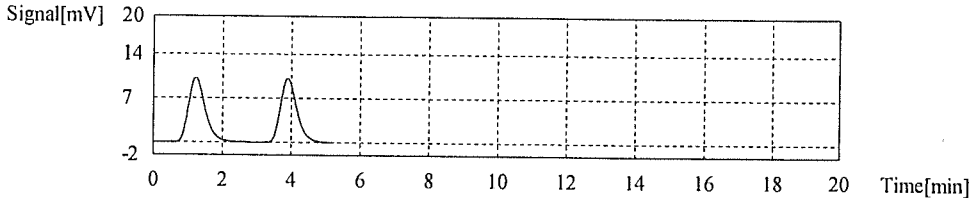
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.30	10.31mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 12:05:46 PM
2	34.06	10.24mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 12:08:40 PM

TOC-Control L Report

2021_08_11_001.tlx

Mean Area 34.18
Mean Conc. 10.27mg/L



Sample

Sample Name: LCSD-08011021
Sample ID: 3100603915
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

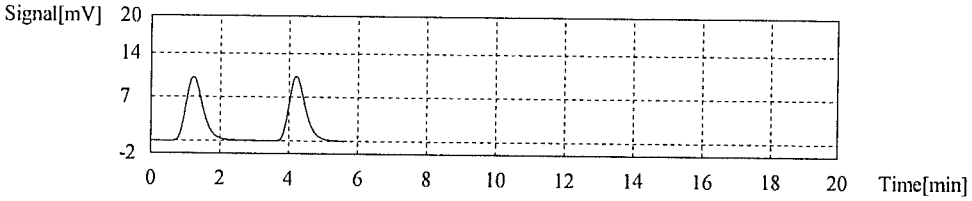
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.49mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.95	10.50mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 12:17:58 PM
2	34.85	10.47mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 12:20:54 PM

Mean Area 34.90
Mean Conc. 10.49mg/L



Sample

Sample Name: HS21071465-01
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.150mg/L

1. Det

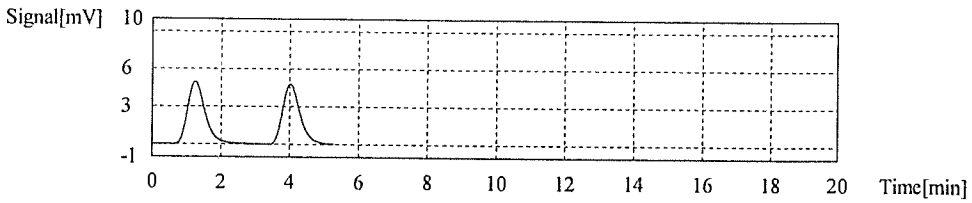
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.37	5.220mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 12:56:56 PM
2	16.90	5.079mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 12:59:41 PM

TOC-Control L Report

2021_08_11_001.tlx

Mean Area 17.14
Mean Conc. 5.150mg/L



Sample

Sample Name: HS21071465-01MS
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

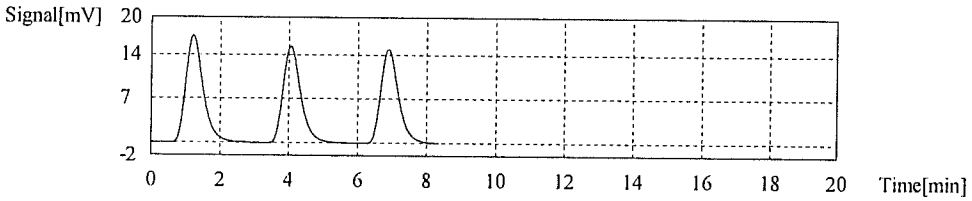
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.35mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	59.96	18.02mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 1:08:52 PM
2	55.28	16.61mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 1:11:58 PM
3	53.51	16.08mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 1:14:54 PM

Mean Area 54.40
Mean Conc. 16.35mg/L



Sample

Sample Name: HS21071465-02
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.519mg/L

1. Det

Anal.: NPOC

TOC-Control L Report

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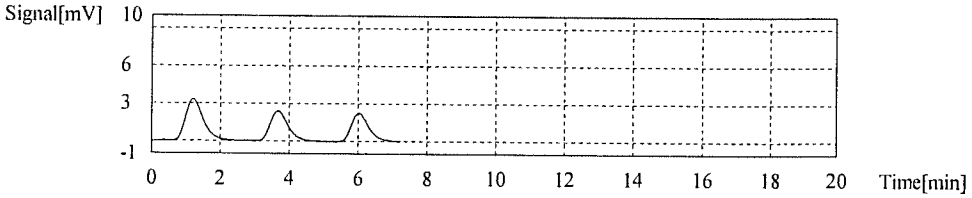
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.75	3.531mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 1:23:38 PM
2	8.564	2.574mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 1:26:33 PM
3	8.199	2.464mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 1:29:39 PM

Mean Area 8.381
Mean Conc. 2.519mg/L



Sample

Sample Name: HS21071465-06
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

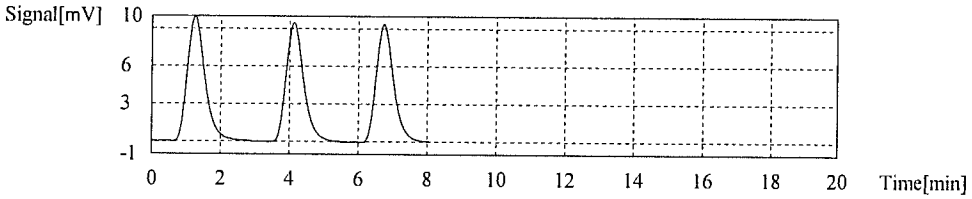
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.10mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.64	10.71mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 1:38:50 PM
2	33.86	10.18mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 1:41:41 PM
3	33.37	10.03mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 1:44:40 PM

Mean Area 33.62
Mean Conc. 10.10mg/L



Sample

Sample Name: CCV
Sample ID: 317191009
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.22mg/L

1. Det

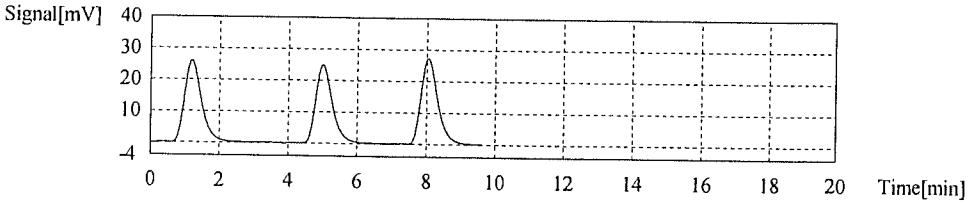
TOC-Control L Report

2021_08_11_001.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	89.53	26.91mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 2:09:33 PM
2	84.95	25.53mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 2:12:49 PM
3	94.16	28.30mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 2:15:50 PM

Mean Area 87.24
Mean Conc. 26.22mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

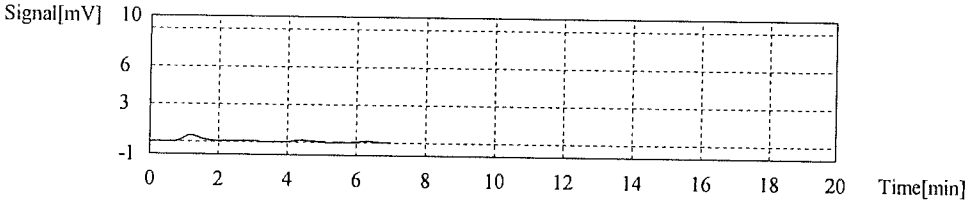
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09353mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.851	0.5563mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 2:25:20 PM
2	0.3684	0.1107mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 2:27:29 PM
3	0.2540	0.07634mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	8/11/2021 2:30:30 PM

Mean Area 0.3112
Mean Conc. 0.09353mg/L



HS21071592 LHAAP 16 July 2021 Cover Page

ALS WO# HS21071592

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WorkOrder: HS21071592

LHAAP 16 July 2021

Aptim Environmental & Infrastucture, Inc.

Vicki Graves
10333 Richmond Ave Ste 1030
Houston TX 77042

20-Oct-2021

HS21071592 LHAAP 16 July 2021 Final

ALS WO# HS21071592

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November 23, 2021

Vicki Graves
Aptim Environmental & Infrastucture, Inc.
10333 Richmond Ave
Ste 1030
Houston, TX 77042

Work Order: **HS21071592**

Laboratory Results for: **LHAAP 16 July 2021**

Dear Vicki Graves ,

ALS Environmental received 6 sample(s) on Jul 29, 2021 for the analysis presented in the following report.

This is a REVISED REPORT. Please see the Case Narrative for discussion concerning this revision.

Regards,

Generated By: JUMOKE.LAWAL
Ragen Giga
Project Manager

ALS Houston, US Date: 06-Aug-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 July 2021
Work Order: HS21071592

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21071592-01	16WW12-210728	GW		28-Jul-2021 07:10	29-Jul-2021 09:10	☐
HS21071592-02	16WW39-210728	GW		28-Jul-2021 08:00	29-Jul-2021 09:10	☐
HS21071592-03	16WW49-210728	GW		28-Jul-2021 08:45	29-Jul-2021 09:10	☐
HS21071592-04	16WW27-210728	GW		28-Jul-2021 09:30	29-Jul-2021 09:10	☐
HS21071592-05	16WW43-210728	GW		28-Jul-2021 10:15	29-Jul-2021 09:10	☐
HS21071592-06	Trip Blank-210728	Water		28-Jul-2021 00:00	29-Jul-2021 09:10	☐

ALS Houston, US Date: 23-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **CASE NARRATIVE**
Project: LHAAP 16 July 2021
Work Order: HS21071592

Work Order Comments

• The analysis for Perchlorate was subcontracted to ALS Houston Specialty Lab. Final report attached.

Work Order Comments

• Report Revised to update the Sub Perchlorate Data Package

The analysis for Perchlorate was subcontracted to ALS Houston Specialty Lab. Final report attached.

GCMS Volatiles by Method SW8260

Batch ID: R388888,R388996

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 06-Aug-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 July 2021
Sample ID: 16WW12-210728
Collection Date: 28-Jul-2021 07:10

ANALYTICAL REPORT
WorkOrder:HS21071592
Lab ID:HS21071592-01
Matrix:GW

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	5.0	U	1.5	5.0	5.0	ug/L	5	04-Aug-2021 20:55
1,1-Dichloroethene	**4.0**	J	**1.0**	**2.5**	**5.0**	**ug/L**	5	04-Aug-2021 20:55
1,2-Dichloroethane	**5.8**		**1.0**	**2.5**	**5.0**	**ug/L**	5	04-Aug-2021 20:55
cis-1,2-Dichloroethene	**64**		**1.0**	**2.5**	**5.0**	**ug/L**	5	04-Aug-2021 20:55
Methylene chloride	5.0	U	2.0	5.0	10	ug/L	5	04-Aug-2021 20:55
Trichloroethene	**1,700**		**5.0**	**12**	**25**	**ug/L**	25	04-Aug-2021 21:16
Vinyl chloride	**5.5**		**1.0**	**2.5**	**5.0**	**ug/L**	5	04-Aug-2021 20:55
Surr: 1,2-Dichloroethane-d4	*95.1*			**0**	*81-118*	*%REC*	*5*	*04-Aug-2021 20:55*
Surr: 1,2-Dichloroethane-d4	*94.5*			**0**	*81-118*	*%REC*	*25*	*04-Aug-2021 21:16*
Surr: 4-Bromofluorobenzene	*97.7*			**0**	*85-114*	*%REC*	*5*	*04-Aug-2021 20:55*
Surr: 4-Bromofluorobenzene	*98.7*			**0**	*85-114*	*%REC*	*25*	*04-Aug-2021 21:16*
Surr: Dibromofluoromethane	*95.0*			**0**	*80-119*	*%REC*	*5*	*04-Aug-2021 20:55*
Surr: Dibromofluoromethane	*95.1*			**0**	*80-119*	*%REC*	*25*	*04-Aug-2021 21:16*
Surr: Toluene-d8	*103*			**0**	*89-112*	*%REC*	*5*	*04-Aug-2021 20:55*
Surr: Toluene-d8	*105*			**0**	*89-112*	*%REC*	*25*	*04-Aug-2021 21:16*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: GR
Subcontract Analysis	See Attached		0	0		NA	1	05-Aug-2021 17:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 06-Aug-21

Client: Aptim Environmental & Infrastructure, Inc.
Project: LHAAP 16 July 2021
Sample ID: 16WW39-210728
Collection Date: 28-Jul-2021 08:00

ANALYTICAL REPORT
WorkOrder:HS21071592
Lab ID:HS21071592-02
Matrix:GW

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	04-Aug-2021 18:27
1,1-Dichloroethene	**0.58**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	04-Aug-2021 18:27
1,2-Dichloroethane	**0.58**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	04-Aug-2021 18:27
cis-1,2-Dichloroethene	**29**		**0.20**	**0.50**	**1.0**	**ug/L**	1	04-Aug-2021 18:27
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	04-Aug-2021 18:27
Trichloroethene	**230**		**1.0**	**2.5**	**5.0**	**ug/L**	5	05-Aug-2021 17:53
Vinyl chloride	**0.97**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	04-Aug-2021 18:27
Surr: 1,2-Dichloroethane-d4	*97.1*			**0**	*81-118*	*%REC*	*1*	*04-Aug-2021 18:27*
Surr: 1,2-Dichloroethane-d4	*89.6*			**0**	*81-118*	*%REC*	*5*	*05-Aug-2021 17:53*
Surr: 4-Bromofluorobenzene	*99.5*			**0**	*85-114*	*%REC*	*1*	*04-Aug-2021 18:27*
Surr: 4-Bromofluorobenzene	*98.2*			**0**	*85-114*	*%REC*	*5*	*05-Aug-2021 17:53*
Surr: Dibromofluoromethane	*96.6*			**0**	*80-119*	*%REC*	*1*	*04-Aug-2021 18:27*
Surr: Dibromofluoromethane	*91.3*			**0**	*80-119*	*%REC*	*5*	*05-Aug-2021 17:53*
Surr: Toluene-d8	*103*			**0**	*89-112*	*%REC*	*1*	*04-Aug-2021 18:27*
Surr: Toluene-d8	*103*			**0**	*89-112*	*%REC*	*5*	*05-Aug-2021 17:53*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: GR
Subcontract Analysis	See Attached		0	0		NA	1	05-Aug-2021 17:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 06-Aug-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 July 2021
Sample ID: 16WW49-210728
Collection Date: 28-Jul-2021 08:45

ANALYTICAL REPORT
WorkOrder:HS21071592
Lab ID:HS21071592-03
Matrix:GW

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	04-Aug-2021 17:03
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 17:03
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 17:03
cis-1,2-Dichloroethene	**77**		**0.20**	**0.50**	**1.0**	**ug/L**	1	04-Aug-2021 17:03
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	04-Aug-2021 17:03
Trichloroethene	**19**		**0.20**	**0.50**	**1.0**	**ug/L**	1	04-Aug-2021 17:03
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 17:03
Surr: 1,2-Dichloroethane-d4	*98.6*			**0**	*81-118*	*%REC*	*1*	*04-Aug-2021 17:03*
Surr: 4-Bromofluorobenzene	*97.2*			**0**	*85-114*	*%REC*	*1*	*04-Aug-2021 17:03*
Surr: Dibromofluoromethane	*95.6*			**0**	*80-119*	*%REC*	*1*	*04-Aug-2021 17:03*
Surr: Toluene-d8	*106*			**0**	*89-112*	*%REC*	*1*	*04-Aug-2021 17:03*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: GR
Subcontract Analysis	See Attached		0	0		NA	1	05-Aug-2021 17:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 06-Aug-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 July 2021
Sample ID: 16WW27-210728
Collection Date: 28-Jul-2021 09:30

ANALYTICAL REPORT
WorkOrder:HS21071592
Lab ID:HS21071592-04
Matrix:GW

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	04-Aug-2021 17:24
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 17:24
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 17:24
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 17:24
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	04-Aug-2021 17:24
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 17:24
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 17:24
Surr: 1,2-Dichloroethane-d4	*97.6*			**0**	*81-118*	*%REC*	*1*	*04-Aug-2021 17:24*
Surr: 4-Bromofluorobenzene	*100*			**0**	*85-114*	*%REC*	*1*	*04-Aug-2021 17:24*
Surr: Dibromofluoromethane	*96.1*			**0**	*80-119*	*%REC*	*1*	*04-Aug-2021 17:24*
Surr: Toluene-d8	*107*			**0**	*89-112*	*%REC*	*1*	*04-Aug-2021 17:24*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: GR
Subcontract Analysis	See Attached		0	0		NA	1	05-Aug-2021 17:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 06-Aug-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 July 2021
Sample ID: 16WW43-210728
Collection Date: 28-Jul-2021 10:15

ANALYTICAL REPORT
WorkOrder:HS21071592
Lab ID:HS21071592-05
Matrix:GW

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	04-Aug-2021 17:45
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 17:45
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 17:45
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 17:45
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	04-Aug-2021 17:45
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 17:45
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 17:45
Surr: 1,2-Dichloroethane-d4	*96.8*			**0**	*81-118*	*%REC*	*1*	*04-Aug-2021 17:45*
Surr: 4-Bromofluorobenzene	*98.3*			**0**	*85-114*	*%REC*	*1*	*04-Aug-2021 17:45*
Surr: Dibromofluoromethane	*94.5*			**0**	*80-119*	*%REC*	*1*	*04-Aug-2021 17:45*
Surr: Toluene-d8	*102*			**0**	*89-112*	*%REC*	*1*	*04-Aug-2021 17:45*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: GR
Subcontract Analysis	See Attached		0	0		NA	1	05-Aug-2021 17:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 06-Aug-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 July 2021
Sample ID: Trip Blank-210728
Collection Date: 28-Jul-2021 00:00

ANALYTICAL REPORT
WorkOrder:HS21071592
Lab ID:HS21071592-06
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	04-Aug-2021 16:42
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 16:42
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 16:42
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 16:42
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	04-Aug-2021 16:42
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 16:42
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	04-Aug-2021 16:42
Surr: 1,2-Dichloroethane-d4	*95.5*			**0**	*81-118*	*%REC*	*1*	*04-Aug-2021 16:42*
Surr: 4-Bromofluorobenzene	*99.1*			**0**	*85-114*	*%REC*	*1*	*04-Aug-2021 16:42*
Surr: Dibromofluoromethane	*96.7*			**0**	*80-119*	*%REC*	*1*	*04-Aug-2021 16:42*
Surr: Toluene-d8	*107*			**0**	*89-112*	*%REC*	*1*	*04-Aug-2021 16:42*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 06-Aug-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 July 2021
WorkOrder: HS21071592

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R388888 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS21071592-06	Trip Blank-210728	28 Jul 2021 00:00			04 Aug 2021 16:42	1
Batch ID: R388888 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** GW	
HS21071592-01	16WW12-210728	28 Jul 2021 07:10			04 Aug 2021 21:16	25
HS21071592-01	16WW12-210728	28 Jul 2021 07:10			04 Aug 2021 20:55	5
HS21071592-02	16WW39-210728	28 Jul 2021 08:00			04 Aug 2021 18:27	1
HS21071592-03	16WW49-210728	28 Jul 2021 08:45			04 Aug 2021 17:03	1
HS21071592-04	16WW27-210728	28 Jul 2021 09:30			04 Aug 2021 17:24	1
HS21071592-05	16WW43-210728	28 Jul 2021 10:15			04 Aug 2021 17:45	1
Batch ID: R388959 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** GW	
HS21071592-01	16WW12-210728	28 Jul 2021 07:10			05 Aug 2021 17:18	1
HS21071592-02	16WW39-210728	28 Jul 2021 08:00			05 Aug 2021 17:18	1
HS21071592-03	16WW49-210728	28 Jul 2021 08:45			05 Aug 2021 17:18	1
HS21071592-04	16WW27-210728	28 Jul 2021 09:30			05 Aug 2021 17:18	1
HS21071592-05	16WW43-210728	28 Jul 2021 10:15			05 Aug 2021 17:18	1
Batch ID: R388996 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** GW	
HS21071592-02	16WW39-210728	28 Jul 2021 08:00			05 Aug 2021 17:53	5

ALS Houston, US Date: 06-Aug-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 July 2021
WorkOrder: HS21071592

QC BATCH REPORT

Batch ID: R388888 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-210804** Units: **ug/L** Analysis Date: **04-Aug-2021 13:11**
Client ID: Run ID: **VOA6_388888** SeqNo: **6215041** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	1.0	1.0								U
1,1-Dichloroethene	0.50	1.0								U
1,2-Dichloroethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
Methylene chloride	1.0	2.0								U
Trichloroethene	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*43.87*	*1.0*	*50*	*0*	*87.7*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.49*	*1.0*	*50*	*0*	*97.0*	*85 - 114*				
Surr: Dibromofluoromethane	*45.13*	*1.0*	*50*	*0*	*90.3*	*80 - 119*				
Surr: Toluene-d8	*51.3*	*1.0*	*50*	*0*	*103*	*89 - 112*				

LCS Sample ID: **VLCSW-210804** Units: **ug/L** Analysis Date: **04-Aug-2021 12:08**
Client ID: Run ID: **VOA6_388888** SeqNo: **6215040** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	19.02	1.0	20	0	95.1	80 - 119				
1,1-Dichloroethene	15.94	1.0	20	0	79.7	71 - 131				
1,2-Dichloroethane	18.08	1.0	20	0	90.4	73 - 128				
cis-1,2-Dichloroethene	17.85	1.0	20	0	89.3	78 - 123				
Methylene chloride	18.55	2.0	20	0	92.8	74 - 124				
Trichloroethene	18.57	1.0	20	0	92.8	79 - 123				
Vinyl chloride	16.17	1.0	20	0	80.9	58 - 137				
Surr: 1,2-Dichloroethane-d4	*48.01*	*1.0*	*50*	*0*	*96.0*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*49.81*	*1.0*	*50*	*0*	*99.6*	*85 - 114*				
Surr: Dibromofluoromethane	*47.26*	*1.0*	*50*	*0*	*94.5*	*80 - 119*				
Surr: Toluene-d8	*47.6*	*1.0*	*50*	*0*	*95.2*	*89 - 112*				

ALS Houston, US Date: 06-Aug-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 July 2021
WorkOrder: HS21071592

QC BATCH REPORT

Batch ID: R388888 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21071405-11MS** Units: **ug/L** Analysis Date: **04-Aug-2021 14:36**
Client ID: Run ID: **VOA6_388888** SeqNo: **6215044** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	19.33	1.0	20	0	96.6	80 - 119				
1,1-Dichloroethene	19	1.0	20	0	95.0	71 - 131				
1,2-Dichloroethane	18.42	1.0	20	0	92.1	73 - 128				
cis-1,2-Dichloroethene	18.58	1.0	20	0	92.9	78 - 123				
Methylene chloride	18.84	2.0	20	0	94.2	74 - 124				
Trichloroethene	23.69	1.0	20	0	118	79 - 123				
Vinyl chloride	19.84	1.0	20	0	99.2	58 - 137				
Surr: 1,2-Dichloroethane-d4	*48.94*	*1.0*	*50*	*0*	*97.9*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*50.14*	*1.0*	*50*	*0*	*100*	*85 - 114*				
Surr: Dibromofluoromethane	*47*	*1.0*	*50*	*0*	*94.0*	*80 - 119*				
Surr: Toluene-d8	*51.3*	*1.0*	*50*	*0*	*103*	*89 - 112*				

MSD Sample ID: **HS21071405-11MSD** Units: **ug/L** Analysis Date: **04-Aug-2021 14:57**
Client ID: Run ID: **VOA6_388888** SeqNo: **6215045** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	19.67	1.0	20	0	98.3	80 - 119	19.33	1.73	20	
1,1-Dichloroethene	18.52	1.0	20	0	92.6	71 - 131	19	2.53	20	
1,2-Dichloroethane	18.53	1.0	20	0	92.7	73 - 128	18.42	0.613	20	
cis-1,2-Dichloroethene	17.68	1.0	20	0	88.4	78 - 123	18.58	4.97	20	
Methylene chloride	18.4	2.0	20	0	92.0	74 - 124	18.84	2.4	20	
Trichloroethene	20.38	1.0	20	0	102	79 - 123	23.69	15	20	
Vinyl chloride	17.86	1.0	20	0	89.3	58 - 137	19.84	10.5	20	
Surr: 1,2-Dichloroethane-d4	*47.82*	*1.0*	*50*	*0*	*95.6*	*81 - 118*	*48.94*	*2.33*	*20*	
Surr: 4-Bromofluorobenzene	*48.89*	*1.0*	*50*	*0*	*97.8*	*85 - 114*	*50.14*	*2.52*	*20*	
Surr: Dibromofluoromethane	*46.96*	*1.0*	*50*	*0*	*93.9*	*80 - 119*	*47*	*0.099*	*20*	
Surr: Toluene-d8	*51.28*	*1.0*	*50*	*0*	*103*	*89 - 112*	*51.3*	*0.0581*	*20*	

The following samples were analyzed in this batch: HS21071592-01 HS21071592-02 HS21071592-03 HS21071592-04 HS21071592-05 HS21071592-06

ALS Houston, US Date: 06-Aug-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 July 2021
WorkOrder: HS21071592

QC BATCH REPORT

Batch ID: R388996 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-210805** Units: **ug/L** Analysis Date: **05-Aug-2021 13:19**
Client ID: Run ID: **VOA6_388996** SeqNo: **6217526** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Trichloroethene	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*45.25*	*1.0*	*50*	*0*	*90.5*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*49.65*	*1.0*	*50*	*0*	*99.3*	*85 - 114*				
Surr: Dibromofluoromethane	*46.64*	*1.0*	*50*	*0*	*93.3*	*80 - 119*				
Surr: Toluene-d8	*52.98*	*1.0*	*50*	*0*	*106*	*89 - 112*				

LCS Sample ID: **VLCSW-210805** Units: **ug/L** Analysis Date: **05-Aug-2021 12:16**
Client ID: Run ID: **VOA6_388996** SeqNo: **6217525** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Trichloroethene	19.16	1.0	20	0	95.8	79 - 123				
Surr: 1,2-Dichloroethane-d4	*44.28*	*1.0*	*50*	*0*	*88.6*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.93*	*1.0*	*50*	*0*	*97.9*	*85 - 114*				
Surr: Dibromofluoromethane	*45.44*	*1.0*	*50*	*0*	*90.9*	*80 - 119*				
Surr: Toluene-d8	*45.82*	*1.0*	*50*	*0*	*91.6*	*89 - 112*				

MS Sample ID: **HS21080176-03MS** Units: **ug/L** Analysis Date: **05-Aug-2021 17:11**
Client ID: Run ID: **VOA6_388996** SeqNo: **6217536** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Trichloroethene	25.44	1.0	20	6.425	95.1	79 - 123				
Surr: 1,2-Dichloroethane-d4	*45.44*	*1.0*	*50*	*0*	*90.9*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*49.47*	*1.0*	*50*	*0*	*98.9*	*85 - 114*				
Surr: Dibromofluoromethane	*45.67*	*1.0*	*50*	*0*	*91.3*	*80 - 119*				
Surr: Toluene-d8	*50.35*	*1.0*	*50*	*0*	*101*	*89 - 112*				

ALS Houston, US Date: 06-Aug-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 July 2021
WorkOrder: HS21071592

QC BATCH REPORT

Batch ID: R388996 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS21080176-03MSD** Units: **ug/L** Analysis Date: **05-Aug-2021 17:32**
Client ID: Run ID: **VOA6_388996** SeqNo: **6217537** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Trichloroethene	23.55	1.0	20	6.425	85.6	79 - 123	25.44	7.72	20	
Surr: 1,2-Dichloroethane-d4	*43.82*	*1.0*	*50*	*0*	*87.6*	*81 - 118*	*45.44*	*3.63*	*20*	
Surr: 4-Bromofluorobenzene	*49.35*	*1.0*	*50*	*0*	*98.7*	*85 - 114*	*49.47*	*0.239*	*20*	
Surr: Dibromofluoromethane	*45.8*	*1.0*	*50*	*0*	*91.6*	*80 - 119*	*45.67*	*0.269*	*20*	
Surr: Toluene-d8	*50.52*	*1.0*	*50*	*0*	*101*	*89 - 112*	*50.35*	*0.341*	*20*	

The following samples were analyzed in this batch: HS21071592-02

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 July 2021
WorkOrder: **HS21071592**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-33	30-Jun-2022
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2021-2022	31-Jul-2022
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2021-2022	30-Jun-2022
North Carolina	624-2021	31-Dec-2021
Oklahoma	2020-165	31-Aug-2021
Texas	T104704231-21-27	30-Apr-2022

ALS Houston, US Date: 06-Aug-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP 16 July 2021
Work Order: HS21071592

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS21071592-01	16WW12-210728	Login	7/29/2021 4:30:14 PM	NDR	Sub
HS21071592-01	16WW12-210728	Login	7/29/2021 4:30:14 PM	NDR	VOA004
HS21071592-01	16WW12-210728	Login	7/29/2021 4:30:14 PM	NDR	RSK028
HS21071592-01	16WW12-210728	Login	7/29/2021 4:30:14 PM	NDR	WET400

ALS Houston, US Date: 06-Aug-21

Sample Receipt Checklist

Work Order ID: HS21071592 **Date/Time Received:** 29-Jul-2021 09:10

Client Name: CBI-Houston **Received by:** Paresh M. Giga

Completed By:	/S/ Nilesh D. Ranchod	29-Jul-2021 16:38	**Reviewed by:**	/S/ Corey Grandits	30-Jul-2021 12:18
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **WATER** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:CLIENT
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	2.1°C UC/C	IR 31
Cooler(s)/Kit(s):	45289	
Date/Time sample(s) sent to storage:	7/29/21 17:00	

Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd, Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: R.I Modeshia

Page 1 of 1

Project: APTIM LONGHORN ARMY AMMN. PLANT (LHAAP) GROUNDWATER TREATMENT PLANT (GWTP) KARNACK, TEXAS	Project No. 501032
Job: **LHAAP 16 July 2021**	
Prepared By: Scott Beesinger	P.O. Number

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	VOC by SW 8260B	TOC by SM5310C	MEE by RSK 175	Anions (bromide, sulfate, nitrate) by SW9056 and Alkalinity by SM2320	Bromide by SW9056	Perchlorate by SW6850	Metals (arsenic, chromium, manganese, nickel, thallium) by SW6020				Remarks (Preservatives, etc.)
				Analyses											
16WW12-210728	WG	7/28/21 / 0710		4	X					X					
16WW39-210728	WG	7/28/21 / 0800		4	X					X					
16WW49-210728	WG	7/28/21 / 0845		4	X					X					
16WW27-210728	WG	7/28/21 / 0930		4	X					X					
16WW43-210728	WG	7/28/21 / 1015		4	X					X					
TRIP BLANK-210728	WG	7/28/21		2	X					X					

Additional Remarks: Standard TAT on all parameters. Please email results to Vicki.Graves@aptim.com and invoices to fedinvoices@aptim.com

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	7/28/21	1430	Pall M	7/29/21	9:10						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:

45269 2.1C

IR31 CFO

(Word) S:\1-ces\Forms\Chain of Custody - BiWeekly

Aptim Environmental & Infrastructure, Inc.
Longhorn Army Ammunition Plant LHAAP 16 July 20

HS21071592

ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

45289

CUSTODY SEAL

Date: 7/28/21 Time: 1430
Name: Scott Seis
Company: B

Seal Broken By:
Date: 07/29/21

45289 JUL 2 9 2021

45289

ALS

FROM: IGIN ID:5GHA (903) 930-6193
OTT BEESINGER
TIM ENVIROMENTAL & INFASTRUCTURE
03-B EAST GRAND AVE
IB 202
ARSHALL, TX 75670
ITED STATES US

SHIP DATE: 28JUN21
ACTWGT: 1.00 LB MAN
CAD: 0221247/CAFE3504
DIMS: 26x14x14 IN

SHIPPING DEPT
ALS LABORATORY GROUP
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099
(281) 530-5656
REF: LHAAP - 16 - BQ 79249 - RG
RMA:

FedEx Express

FedEx
TRK# 9221 9473 0845 1313

THU - 29 JUL AA
PRIORITY OVERNIGHT

AB SGRA

77099
TX-US
IAH

0040757 28JUN2021 GGGA 56DC2/0765/1823

August 05, 2021 Service Request No:E2100856

Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099

Laboratory Results for: HS21071592

Dear Ragen,

Enclosed are the results of the sample(s) submitted to our laboratory July 29, 2021
For your reference, these analyses have been assigned our service request number **E2100856.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Corey Grandits
Project Manager

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Houston	**Service Request No.:**	E2100856
Project:	HS21071592	**Date Received:**	07/29/21
Sample Matrix:	W		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Five samples were received for analysis at ALS Environmental in Houston on 07/29/21.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2100470: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in addition to a MS/MSD for this extraction batch. The LCS & DLCS recoveries are within QC limits. The MS and MSD was performed on an unrelated sample.

DoD certification is held for the method/matrix/analytes provided in this report.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2100856
Project: HS21071592

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100856-001	16WW12-210728	7/28/2021	0710
E2100856-002	16WW39-210728	7/28/2021	0800
E2100856-003	16WW49-210728	7/28/2021	0845
E2100856-004	16WW27-210728	7/28/2021	0930
E2100856-005	16WW43-210728	7/28/2021	1015

Service Request Summary

Folder #: **E2100856**
Client Name: ALS Environmental - US
Project Name: HS21071592
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 07/29/21
Internal Due Date: 8/12/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21071592
EDD: No EDD Specified

5 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100856-001	16WW12-210728	Ground Water	07/28/21 0710	**IV**
E2100856-002	16WW39-210728	Ground Water	07/28/21 0800	**IV**
E2100856-003	16WW49-210728	Ground Water	07/28/21 0845	**IV**
E2100856-004	16WW27-210728	Ground Water	07/28/21 0930	**IV**
E2100856-005	16WW43-210728	Ground Water	07/28/21 1015	**IV**

Service Request Summary

Folder #: **E2100856**
Client Name: ALS Environmental - US
Project Name: HS21071592
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 07/29/21
Internal Due Date: 8/12/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21071592
EDD: No EDD Specified

5 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	5	IV due 8/19

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	Internal standard not within the specified limits. See case narrative.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.
M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.

Data Qualifiers

Lab Standard

O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

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ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Arkansas Department of Environmental Quality	19-028-0	6/30/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-33	6/30/2022
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352 2022	7/31/2022
Louisiana Department of Environmental Quality	03087-2021	6/30/2022
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Minnesota Department of Health	2021671	12/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	68-03441-015	6/30/2022
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
Texas Commision on Environmental Quality	T104704231-21-27	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022

Chain of Custody

ALS Environmental - Houston HRMS
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F: +1 281 530 5887
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Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **16597**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Ragen Giga
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RagenP.Giga@ALSGlobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS21071592
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21071592-01**	**16WW12-210728**	**GW**	**28 Jul 2021 07:10**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			12 Aug 2021
2.	**HS21071592-02**	**16WW39-210728**	**GW**	**28 Jul 2021 08:00**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			12 Aug 2021
3.	**HS21071592-03**	**16WW49-210728**	**GW**	**28 Jul 2021 08:45**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			12 Aug 2021
4.	**HS21071592-04**	**16WW27-210728**	**GW**	**28 Jul 2021 09:30**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			12 Aug 2021
5.	**HS21071592-05**	**16WW43-210728**	**GW**	**28 Jul 2021 10:15**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			12 Aug 2021

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **16597**

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: 7/29/21 1742

Cooler ID(s): _____ Temperature(s): _____

ALS Environmental

Cooler Receipt Form

Project Chemist CG

Client/Project ALS-H

Thermometer ID IR31

Date/Time Received: 7/29/21 Initials: CG Date/Time Logged in: 7/29/21 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ✓ ALS Courier ○ Client

2. Samples received in: ✓ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ✓ No If yes, how many and where?
Were they intact? ○ Yes ○ No ✓ N/A
Were they signed and dated? ○ Yes ○ No ✓ N/A

4. Packing Material: ○ Inserts ✓ Baggies ○ Bubble Wrap ○ Gel Packs ✓ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		7/29/21	1742	CG	1.1	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ✓ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ✓ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ✓ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ✓ Yes ○ No
10. Did sample labels and tags agree with custody documents? ✓ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

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SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
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Preparation Information Benchsheet

Prep Run#: 384286 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** **Prep Date/Time:** 7/30/21 10:05

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100831-001	OBFOD-2R	.01	6850/ClO4 DOD			Water	10mL	
2	E2100831-002	OBFOD-3	.01	6850/ClO4 DOD			Water	10mL	
3	E2100836-001	LH18/24-SP650_072721_BIX	.01	6850/ClO4 DOD			Water	10mL	
4	E2100837-001	16EW02-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
5	E2100837-002	16EW04-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2100837-003	16EW08-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2100837-004	16RW04-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2100837-005	16RW01-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2100837-006	16RW02-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2100837-007	16WW13-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2100837-008	16WW42-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
12	E2100837-009	16SW01-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
13	E2100837-010	16SW01-210726-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
14	E2100837-011	16SW02-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
15	E2100837-012	16SW03-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
16	E2100856-001	16WW12-210728	.01	6850/ClO4 DOD			Ground Water	10mL	
17	E2100856-002	16WW39-210728	.01	6850/ClO4 DOD			Ground Water	10mL	
18	E2100856-003	16WW49-210728	.01	6850/ClO4 DOD			Ground Water	10mL	
19	E2100856-004	16WW27-210728	.01	6850/ClO4 DOD			Ground Water	10mL	
20	E2100856-005	16WW43-210728	.01	6850/ClO4 DOD			Ground Water	10mL	
21	EQ2100470-01	MB		6850/ClO4 DOD			Liquid	10mL	
22	EQ2100470-02	LCS		6850/ClO4 DOD			Liquid	10mL	
23	EQ2100470-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
24	EQ2100470-04	16SW02-210726 MS	.01	6850/ClO4 DOD			Liquid	10mL	
25	EQ2100470-05	16SW02-210726 DMS	.01	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Sodium Perchlorate 1 ug/mL (IS) (18-O) as CLO4 Inventory ID 214765 Logbook Ref: Sodium Perchlorate Expires On: 12/11/2022

E2100831-001	100.00µL	E2100831-002	100.00µL	E2100836-001	100.00µL	E2100837-001	100.00µL	E2100837-002	100.00µL	E2100837-003	100.00µL
E2100837-004	100.00µL	E2100837-005	100.00µL	E2100837-006	100.00µL	E2100837-007	100.00µL	E2100837-008	100.00µL	E2100837-009	100.00µL
E2100837-010	100.00µL	E2100837-011	100.00µL	E2100837-012	100.00µL	E2100856-001	100.00µL	E2100856-002	100.00µL	E2100856-003	100.00µL
E2100856-004	100.00µL	E2100856-005	100.00µL	EQ2100470-01	100.00µL	EQ2100470-02	100.00µL	EQ2100470-03	100.00µL	EQ2100470-04	100.00µL
EQ2100470-05	100.00µL										

Preparation Information Benchsheet

Prep Run#: 384286 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** **Prep Date/Time:** 7/30/21 10:05

Name:	Perchlorate Intermediate Stock1	Inventory ID	217422	Logbook Ref:	Perchlorate	Expires On:	11/26/2021

EQ2100470-02 1.00µL EQ2100470-03 1.00µL EQ2100470-04 1.00µL EQ2100470-05 1.00µL

Preparation Materials

Water HPLC Grade 07/01/2021 Water (217918) 537M Glass Culture Tubes 537M Glass Tubes (218064)

Preparation Steps

Step: Preparation
Started: 7/30/21 10:05
Finished: 7/30/21 11:00
By: GRIVERA
Comments

Comments: _____

Reviewed By: GR Date: 7/30/21

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Collected:**	7/28/21 0710
Sample Matrix:	Ground Water	**Date Received:**	7/29/21
Sample Name:	16WW12-210728	**Units:**	µg/L
Lab Code:	E2100856-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**16.0**		1.00	0.500	0.250	10	7/30/21	8/4/21 18:18	384286	733747	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Collected:**	7/28/21 0800
Sample Matrix:	Ground Water	**Date Received:**	7/29/21
Sample Name:	16WW39-210728	**Units:**	µg/L
Lab Code:	E2100856-002	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**6.76**		0.500	0.250	0.125	5	7/30/21	8/5/21 14:43	384286	733725	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Collected:**	7/28/21 0845
Sample Matrix:	Ground Water	**Date Received:**	7/29/21
Sample Name:	16WW49-210728	**Units:**	µg/L
Lab Code:	E2100856-003	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0291**	J	0.100	0.0500	0.0250	1	7/30/21	8/2/21 23:41	384286	733464	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Collected:**	7/28/21 0930
Sample Matrix:	Ground Water	**Date Received:**	7/29/21
Sample Name:	16WW27-210728	**Units:**	µg/L
Lab Code:	E2100856-004	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.500	0.250	0.125	5	7/30/21	8/5/21 14:56	384286	733725	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Collected:**	7/28/21 1015
Sample Matrix:	Ground Water	**Date Received:**	7/29/21
Sample Name:	16WW43-210728	**Units:**	µg/L
Lab Code:	E2100856-005	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	7/30/21	8/2/21 23:58	384286	733464	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100470-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	7/30/21	7/30/21 11:24	384286	733225	

Accuracy & Precision

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592
Sample Matrix: Ground Water

Service Request: E2100856
Date Analyzed: 7/30/21

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: NA

Extraction Lot: 384286

	Lab Control Sample EQ2100470-02			Duplicate Lab Control Sample EQ2100470-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.0870	0.100	87	0.0884	0.100	88	84 - 119	2	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100470-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0870**	J	0.100	0.0500	0.0250	1	7/30/21	7/30/21 11:32	384286	733225	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100470-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0884**	J	0.100	0.0500	0.0250	1	7/30/21	7/30/21 12:00	384286	733225	

HS21071592 8260 Raw Data

ALS WO# HS21071592

MSVOA06 -Logbook

Batch: 45933
Date: 07-30-2021
Method: 8260_W
Comments:

Analyst: Presenta Cabascango
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
1	BFB	TUNE	07-30-2021 11:08 am	1.00	50 mL	50 mL	X073001.D	Liquid	Y	N
2	VSTD000.25	ICAL1	07-30-2021 11:29 am	1.00	50 mL	50 mL	X073002.D	Liquid	Y	N
3	VSTD000.5	ICAL2	07-30-2021 11:50 am	1.00	50 mL	50 mL	X073003.D	Liquid	Y	N
4	VSTD001	ICAL3	07-30-2021 12:32 pm	1.00	50 mL	50 mL	X073004.D	Liquid	Y	N
5	VSTD002	ICAL4	07-30-2021 12:53 pm	1.00	50 mL	50 mL	X073005.D	Liquid	Y	N
6	VSTD005	ICAL5	07-30-2021 01:14 pm	1.00	50 mL	50 mL	X073006.D	Liquid	Y	N
7	VSTD020	ICAL6	07-30-2021 01:35 pm	1.00	50 mL	50 mL	X073007.D	Liquid	Y	N
8	VSTD050	ICAL7	07-30-2021 01:56 pm	1.00	50 mL	50 mL	X073008.D	Liquid	Y	N
9	VSTD100	ICAL8	07-30-2021 02:17 pm	1.00	50 mL	50 mL	X073009.D	Liquid	Y	N
10	VSTD150	ICAL9	07-30-2021 02:38 pm	1.00	50 mL	50 mL	X073010.D	Liquid	Y	N
11	VSTD200	ICAL	07-30-2021 02:59 pm	1.00	50 mL	50 mL	X073011.D	Liquid	Y	N
12	BLANK	SAMP	07-30-2021 03:20 pm	1.00	50 mL	50 mL	X073012.D	Liquid	Y	N
13	BLANK	CCV	07-30-2021 03:41 pm	1.00	50 mL	50 mL	X073013.D	Liquid	Y	N
14	CCV	CCV	07-30-2021 04:02 pm	1.00	50 mL	50 mL	X073014.D	Liquid	Y	N
15	CCB	SAMP	07-30-2021 04:23 pm	1.00	50 mL	50 mL	X073015.D	Liquid	Y	N
16	VLCSW-210730	LCS	07-30-2021 04:43 pm	1.00	50 mL	50 mL	X073016.D	Liquid	Y	N
17	BLANK	SAMP	07-30-2021 05:39 pm	1.00	50 mL	50 mL	X073017.D	Liquid	Y	N
18	VBLKW-210730	MBLK	07-30-2021 06:00 pm	1.00	50 mL	50 mL	X073018.D	Liquid	Y	N
19	HS21071537-05	SAMP	07-30-2021 06:21 pm	1.00	50 mL	50 mL	X073019.D	Liquid	Y	N
20	HS21071537-01	SAMP	07-30-2021 06:42 pm	1.00	50 mL	50 mL	X073020.D	Liquid	Y	N
21	HS21071537-02	SAMP	07-30-2021 07:03 pm	1.00	50 mL	50 mL	X073021.D	Liquid	Y	N
22	HS21071537-03	SAMP	07-30-2021 07:24 pm	1.00	50 mL	50 mL	X073022.D	Liquid	Y	N
23	HS21071537-04	SAMP	07-30-2021 07:45 pm	1.00	50 mL	50 mL	X073023.D	Liquid	Y	N
24	HS21071537-06	SAMP	07-30-2021 08:06 pm	1.00	50 mL	50 mL	X073024.D	Liquid	Y	N
25	HS21071537-07	SAMP	07-30-2021 08:27 pm	1.00	50 mL	50 mL	X073025.D	Liquid	Y	N
26	HS21071438-01	SAMP	07-30-2021 08:48 pm	1.00	50 mL	50 mL	X073026.D	Liquid	Y	N
27	HS21071536-01	SAMP	07-30-2021 09:09 pm	1.00	50 mL	50 mL	X073027.D	Liquid	Y	N
28	HS21071537-01MS	MS	07-30-2021 09:30 pm	1.00	50 mL	50 mL	X073028.D	Liquid	Y	N
29	HS21071537-01MSD	MSD	07-30-2021 09:51 pm	1.00	50 mL	50 mL	X073029.D	Liquid	Y	N
30	CCV-END	CCV	07-30-2021 10:12 pm	1.00	50 mL	50 mL	X073030.D	Liquid	Y	N
31	BFB	TUNE	07-30-2021 10:33 pm	1.00	50 mL	50 mL	Y073001.D	Liquid	Y	N
32	CCV	CCV	07-30-2021 10:54 pm	1.00	50 mL	50 mL	Y073002a.D	Liquid	Y	N
33	CCV	CCV	07-30-2021 11:15 pm	1.00	50 mL	50 mL	Y073003.D	Liquid	Y	N
34	CCB	SAMP	07-30-2021 11:36 pm	1.00	50 mL	50 mL	Y073004.D	Liquid	Y	N
35	VLCSW-210730	LCS	07-30-2021 11:57 pm	1.00	50 mL	50 mL	Y073005.D	Liquid	Y	N
36	BLANK	SAMP	07-31-2021 12:18 am	1.00	50 mL	50 mL	Y073006.D	Liquid	Y	N
37	BLANK	SAMP	07-31-2021 12:39 am	1.00	50 mL	50 mL	Y073007.D	Liquid	Y	N
38	VBLKW-210730	MBLK	07-31-2021 01:00 am	1.00	50 mL	50 mL	Y073008.D	Liquid	Y	N
39	HS21071586-05	SAMP	07-31-2021 01:21 am	1.00	50 mL	50 mL	Y073009.D	Liquid	Y	N
40	HS21071609-04	SAMP	07-31-2021 01:42 am	1.00	50 mL	50 mL	Y073010.D	Liquid	Y	N
41	HS21071610-04	SAMP	07-31-2021 02:03 am	1.00	50 mL	50 mL	Y073011.D	Liquid	Y	N

MSVOA06 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
42	HS21071610-02	SAMP	07-31-2021 02:24 am	1.00	50 mL	50 mL	Y073012.D	Liquid	Y	N
43	HS21071609-05	SAMP	07-31-2021 02:45 am	1.00	50 mL	50 mL	Y073013.D	Liquid	Y	N
44	HS21071586-03	SAMP	07-31-2021 03:06 am	1.00	50 mL	50 mL	Y073014.D	Liquid	Y	N
45	HS21071586-01	SAMP	07-31-2021 03:28 am	1.00	50 mL	50 mL	Y073015.D	Liquid	Y	N
46	HS21071586-02	SAMP	07-31-2021 03:49 am	1.00	50 mL	50 mL	Y073016.D	Liquid	Y	N
47	HS21071586-04	SAMP	07-31-2021 04:10 am	1.00	50 mL	50 mL	Y073017.D	Liquid	Y	N
48	HS21071609-02	SAMP	07-31-2021 04:31 am	1.00	50 mL	50 mL	Y073018.D	Liquid	Y	N
49	HS21071609-03	SAMP	07-31-2021 04:52 am	1.00	50 mL	50 mL	Y073019.D	Liquid	Y	N
50	HS21071611-01n/r	SAMP	07-31-2021 05:13 am	1.00	50 mL	50 mL	Y073020.D	Liquid	Y	N
51	HS21071611-02c/o	SAMP	07-31-2021 05:34 am	1.00	50 mL	50 mL	Y073021.D	Liquid	Y	N
52	HS21071611-03c/o	SAMP	07-31-2021 05:55 am	1.00	50 mL	50 mL	Y073022.D	Liquid	Y	N
53	HS21071611-04c/o	SAMP	07-31-2021 06:16 am	1.00	50 mL	50 mL	Y073023.D	Liquid	Y	N
54	HS21071611-05c/o	SAMP	07-31-2021 06:37 am	1.00	50 mL	50 mL	Y073024.D	Liquid	Y	N
55	HS21071611-06	SAMP	07-31-2021 06:58 am	1.00	50 mL	50 mL	Y073025.D	Liquid	Y	N
56	HS21071611-07	SAMP	07-31-2021 07:19 am	1.00	50 mL	50 mL	Y073026.D	Liquid	Y	N
57	HS21071610-01c/o	SAMP	07-31-2021 07:40 am	1.00	50 mL	50 mL	Y073027.D	Liquid	Y	N
58	HS21071609-01c/o	SAMP	07-31-2021 08:01 am	1.00	50 mL	50 mL	Y073028.D	Liquid	Y	N
59	HS21071586-03MS	MS	07-31-2021 08:23 am	1.00	50 mL	50 mL	Y073029.D	Liquid	Y	N
60	HS21071586-03MSD	MSD	07-31-2021 08:44 am	1.00	50 mL	50 mL	Y073030.D	Liquid	Y	N
61	CCV-END	CCV	07-31-2021 09:05 am	1.00	50 mL	50 mL	Y073031.D	Liquid	Y	N
62	BLANK	SAMP	07-31-2021 09:26 am	1.00	50 mL	50 mL	Y073032.D	Liquid	Y	N

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
cis-1,2-Dichloroethene	50.00	47.66	95	80-120
Vinyl Chloride	50.00	46.99	94	80-120
Methylene Chloride	50.00	48.45	97	80-120
1,1-Dichloroethene	50.00	46.20	92	80-120
1,2-Dichloroethane	50.00	46.66	93	80-120
Trichloroethene	50.00	48.42	97	80-120
1,1,2-Trichloroethane	50.00	48.48	97	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM III VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

Lab File ID: X073001 BFB Injection Date: 07/30/21

Instrument ID: VOA6 BFB Injection Time: 1108

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.9
75	30.0 - 60.0% of mass 95	48.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.8 (1.1)1
174	Greater than 50.0% of mass 95	73.7
175	5.0 - 9.0% of mass 174	5.5 (7.5)1
176	95.0 - 101.0% of mass 174	73.6 (99.8)1
177	5.0 - 9.0% of mass 176	5.6 (7.7)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD000.25	VSTD000.25	X073002	07/30/21	1129
02	VSTD000.5	VSTD000.5	X073003	07/30/21	1150
03	VSTD001	VSTD001	X073004	07/30/21	1232
04	VSTD002	VSTD002	X073005	07/30/21	1253
05	VSTD005	VSTD005	X073006	07/30/21	1314
06	VSTD020	VSTD020	X073007	07/30/21	1335
07	VSTD050	VSTD050	X073008	07/30/21	1356
08	VSTD100	VSTD100	X073009	07/30/21	1417
09	VSTD150	VSTD150	X073010	07/30/21	1438
10	VSTD200	VSTD200	X073011	07/30/21	1459
11	ICV	ICV	X073014	07/30/21	1602
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

Instrument ID: VOA6 Calibration Date(s): 07/30/21 07/30/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1129 1459

LAB FILE ID: RF0.25: X073002 RF0.5: X073003 RF1: X073004
RF2: X073005 RF5: X073006 RF20: X073007

COMPOUND	RF0.25	RF0.5	RF1	RF2	RF5	RF20
Vinyl Chloride		0.568	0.528	0.439	0.452	0.460
Methylene Chloride		5291	6903	11889	29963	118046
1,1-Dichloroethene		0.492	0.438	0.426	0.396	0.400
1,2-Dichloroethane		0.469	0.435	0.388	0.402	0.399
Trichloroethene		0.443	0.403	0.317	0.358	0.354
1,1,2-Trichloroethane		0.282	0.267	0.243	0.291	0.252
Dibromofluoromethane		4390	7282	12374	35273	130299
1,2-Dichloroethane-d4		4928	6013	12843	33565	126393
Toluene-d8		1.432	1.243	1.277	1.162	1.112
4-Bromofluorobenzene		6602	8523	15228	41359	158248

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS2107159

Instrument ID: VOA6 Calibration Date(s): 07/30/21 07/30/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1129 1459

LAB FILE ID: RF50: X073008 RF100: X073009 RF150: X073010
RF200: X073011

COMPOUND	RF50	RF100	RF150	RF200
Vinyl Chloride	0.410	0.486	0.458	0.481
Methylene Chloride	288156	621769	906937	1282431
1,1-Dichloroethene	0.371	0.432	0.407	0.425
1,2-Dichloroethane	0.366	0.377	0.389	0.385
Trichloroethene	0.334	0.362	0.357	0.361
1,1,2-Trichloroethane	0.252	0.256	0.256	0.256
Dibromofluoromethane	340316	710330	1015199	1392587
1,2-Dichloroethane-d4	321239	661249	974560	1331240
Toluene-d8	1.106	1.125	1.078	1.079
4-Bromofluorobenzene	403767	846415	1227770	1706894

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS2107159

Instrument ID: VOA6 Calibration Date(s): 07/30/21 07/30/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1129 1459

COMPOUND	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2
Vinyl Chloride	AVRG		0.47594663	9.999	15.000
Methylene Chloride	LINR	-4.5e-003	2.39571341	0.9997444	0.9900000
1,1-Dichloroethene	AVRG		0.42072319	8.104	15.000
1,2-Dichloroethane	AVRG		0.40111335	7.960	15.000
Trichloroethene	AVRG		0.36538023	10.181	15.000
1,1,2-Trichloroethane	AVRG		0.26158012	5.941	15.000
Dibromofluoromethane	LINR	-2.05e-002	2.17633740	0.9991891	0.9900000
1,2-Dichloroethane-d4	LINR	-1.76e-002	2.28124803	0.9996604	0.9900000
Toluene-d8	AVRG		1.17277965	9.647	15.000
4-Bromofluorobenzene	LINR	-1.44e-002	2.41836939	0.9997995	0.9900000

FORM VI VOA

Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073001.D

Date : 30-JUL-2021 11:08

Client ID: BFB

Instrument: voa6.i

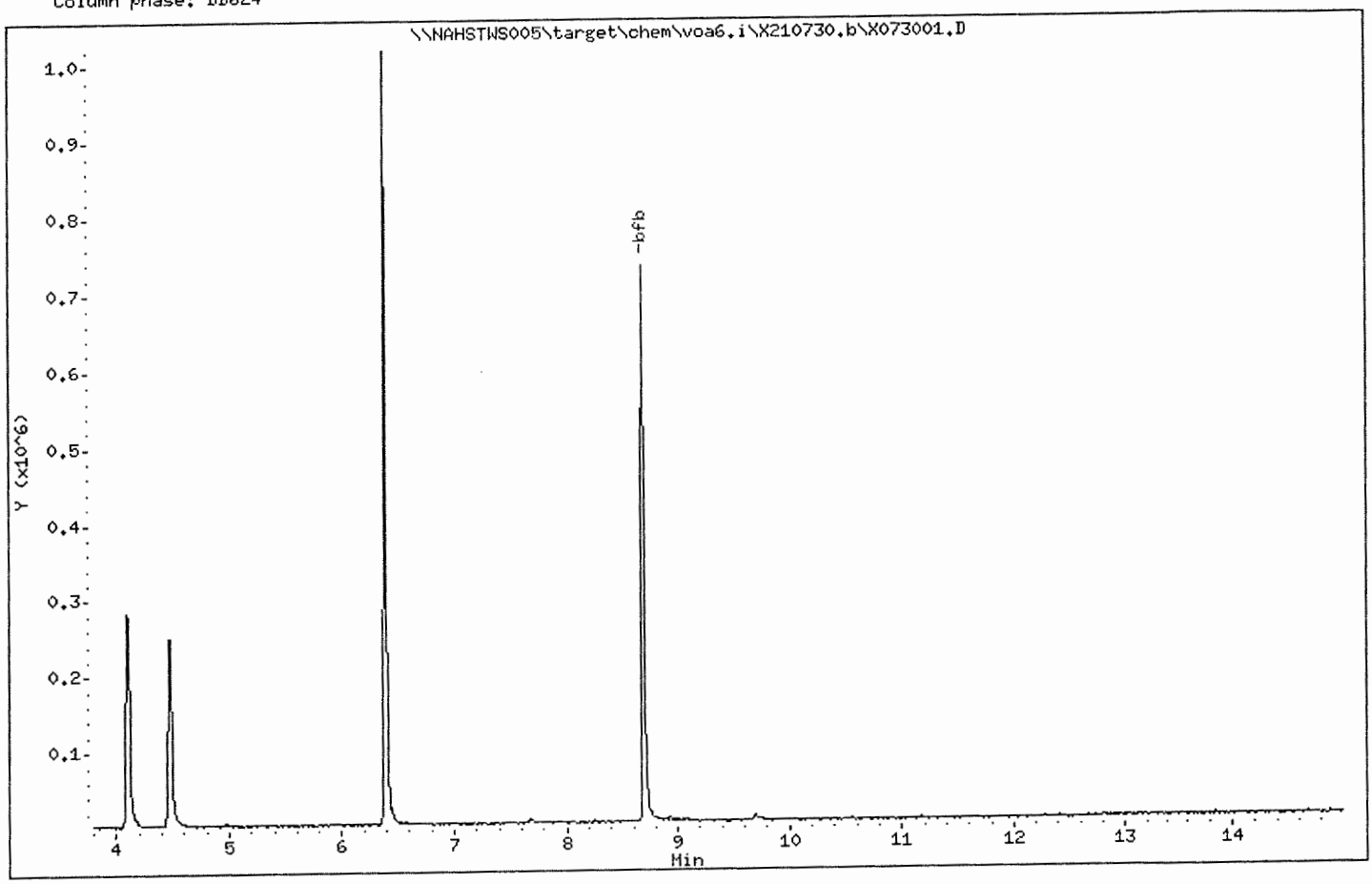
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073001.D

Date : 30-JUL-2021 11:08

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

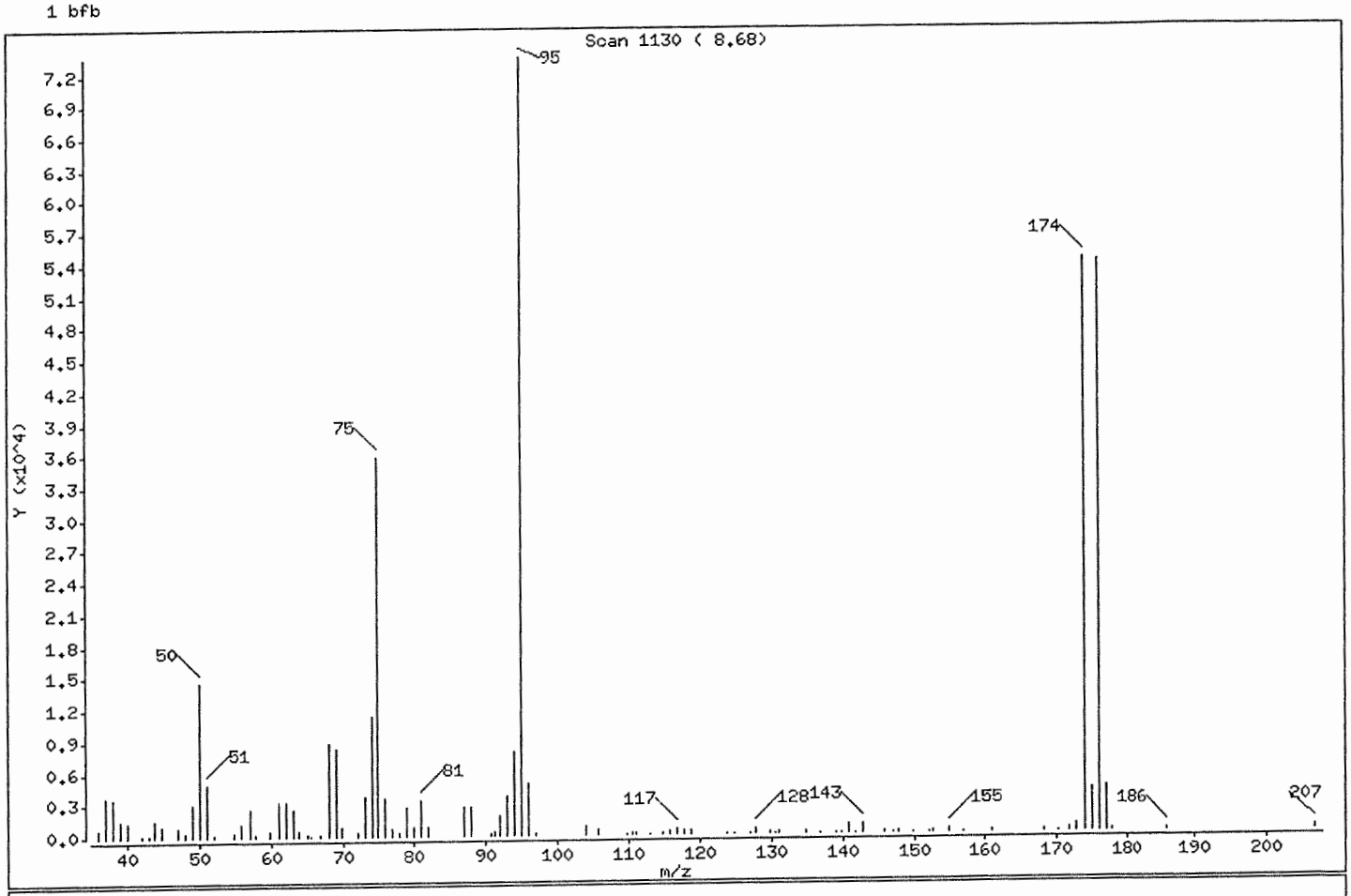
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.86
75	30.00 - 60.00% of mass 95	48.66
96	5.00 - 9.00% of mass 95	6.61
173	Less than 2.00% of mass 174	0.83 (1.12)
174	Greater than 50.00% of mass 95	73.73
175	5.00 - 9.00% of mass 174	5.53 (7.50)
176	95.00 - 101.00% of mass 174	73.57 (99.78)
177	5.00 - 9.00% of mass 176	5.64 (7.66)

Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073001.D

Date : 30-JUL-2021 11:08

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: X073001.D
Spectrum: Scan 1130 (8.68)
Location of Maximum: 95.00
Number of points: 96

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	656	65.70	78	97.00	176	142.80	903
37.00	3776	66.80	116	103.90	785	145.80	163
38.00	3488	68.00	8875	105.70	540	147.00	71
38.90	1543	69.00	8333	109.70	51	147.90	137
40.00	1298	69.90	855	110.50	170	149.90	78
41.90	90	72.00	412	110.90	131	152.00	69
43.00	106	73.00	3776	113.00	67	152.60	90
43.90	1582	74.00	11403	114.80	98	154.80	312
44.90	1059	75.00	35824	115.80	337	156.90	66
47.00	894	75.90	3616	116.80	507	161.00	201
48.10	334	77.00	677	117.80	326	168.20	209
49.00	3051	77.90	348	118.80	401	170.10	68
50.00	14621	78.90	2739	123.80	58	171.70	281
51.00	4991	80.00	777	124.80	70	172.70	608
52.00	99	80.90	3361	127.00	58	173.90	54280
54.90	333	81.80	793	127.80	431	174.90	4072
55.90	1185	87.00	2667	129.70	217	175.90	54160
57.00	2555	88.00	2726	130.50	50	176.90	4149
57.90	118	90.60	205	131.10	144	177.80	170
59.80	467	91.10	368	134.90	105	185.90	124
61.00	3224	91.90	1787	136.80	70	206.80	333
62.00	3226	92.90	3678	139.10	65		
63.00	2593	93.90	7906	139.80	70		
63.90	424	95.00	73616	140.80	849		
65.00	109	96.00	4863	141.80	76		

Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073002.D Page 1
Report Date: 10-Sep-2021 14:09

ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073002.D
Lab Smp Id: VSTD000.25 Client Smp ID: VSTD000.25
Inj Date : 30-JUL-2021 11:29
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.25;VSTD000.25;1;1;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210730.b\8260W.m
Meth Date : 10-Sep-2021 14:09 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 14:59 Cal File: X073011.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

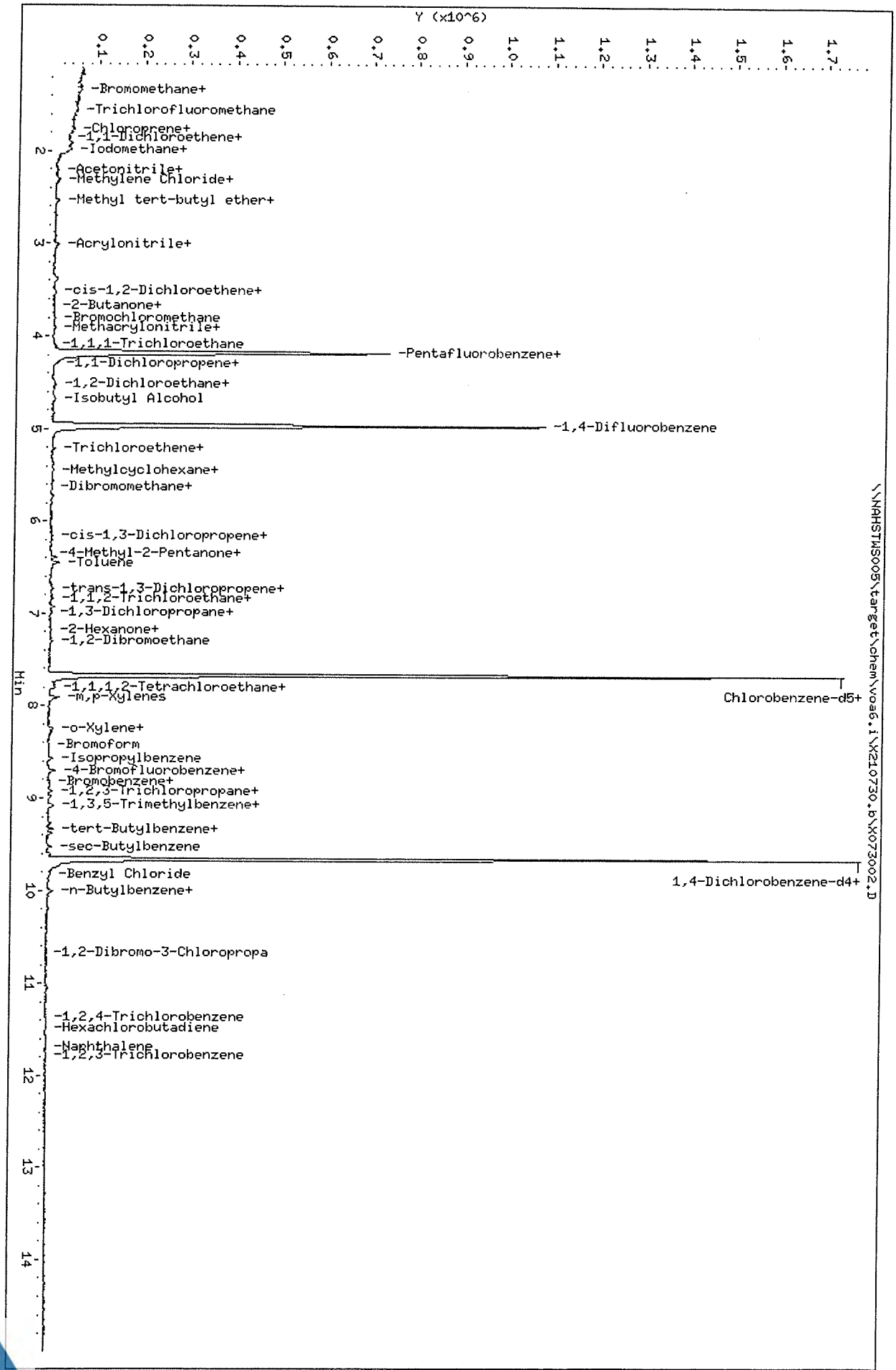
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	666587	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	2125	0.25000	(a)
$ 35 1,2-Dichloroethane-d4	65	4.490	4.490	(1.074)	2961	0.25000	(Ta)
* 36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	968612	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	883114	50.0000	
$ 48 Toluene-d8	98	6.395	6.395	(0.834)	8108	0.25000	0.39 (a)
$ 69 4-Bromofluorobenzene	95	8.702	8.702	(1.134)	6221	0.25000	0.13 (a)
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	450871	50.0000	

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073002.D
Date : 30-JUL-2021 11:29
Client ID: VSTD000.25
Sample Info: VSTD000.25;VSTD000.25;1;1;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073003.D Page 1
Report Date: 10-Sep-2021 14:09

ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073003.D
Lab Smp Id: VSTD000.5 Client Smp ID: VSTD000.5
Inj Date : 30-JUL-2021 11:50
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.5;VSTD000.5;1;2;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210730.b\8260W.m
Meth Date : 10-Sep-2021 14:09 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 11:29 Cal File: X073002.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

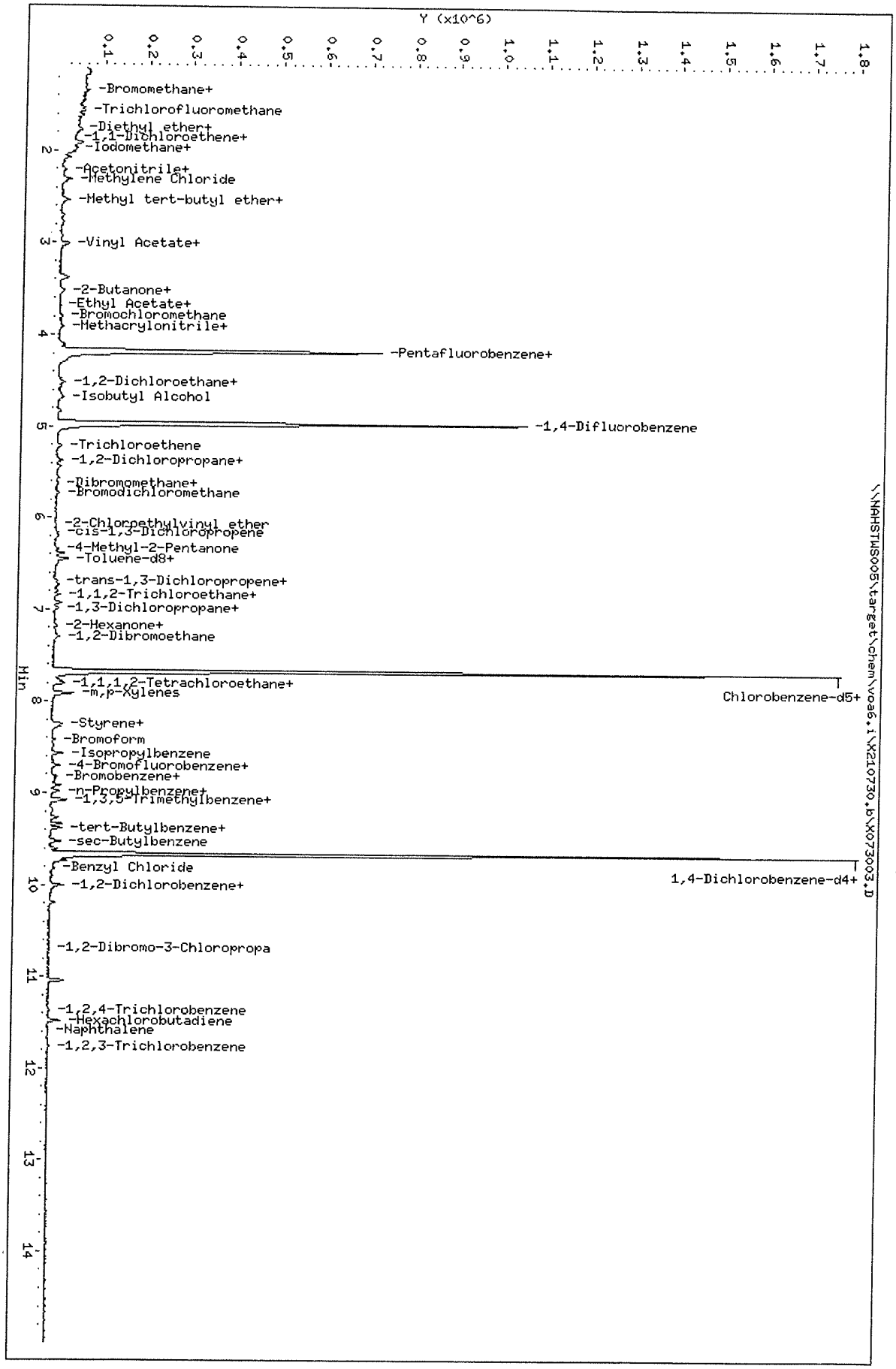
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	655666	50.0000	
$ 30 Dibromofluoromethane	113	4.110	4.110	(0.983)	4390	0.50000	(a)
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	4928	0.50000	(aM)
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	942256	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	881159	50.0000	
$ 48 Toluene-d8	98	6.395	6.395	(0.834)	12620	0.50000	0.61(a)
$ 69 4-Bromofluorobenzene	95	8.702	8.702	(1.134)	6602	0.50000	0.18(a)
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	446795	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	3726	0.50000	0.59(aM)
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	3229	0.50000	0.58(a)
17 Methylene Chloride	84	2.305	2.305	(0.551)	5291	0.50000	0.74(a)
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	3929	0.50000	0.59(a)
33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	4422	0.50000	0.58(a)
38 Trichloroethene	130	5.206	5.206	(1.049)	4176	0.50000	0.60(a)
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	2481	0.50000	0.53(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073003.D
Date : 30-JUL-2021 11:50
Client ID: VSTD000.5
Sample Info: VSTD000.5;VSTD000.5;1;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073004.D Page 1
Report Date: 10-Sep-2021 14:09

ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073004.D
Lab Smp Id: VSTD001 Client Smp ID: VSTD001
Inj Date : 30-JUL-2021 12:32
Operator : PC Inst ID: voa6.i
Smp Info : VSTD001;VSTD001;1;3;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210730.b\8260W.m
Meth Date : 10-Sep-2021 14:09 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 11:50 Cal File: X073003.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

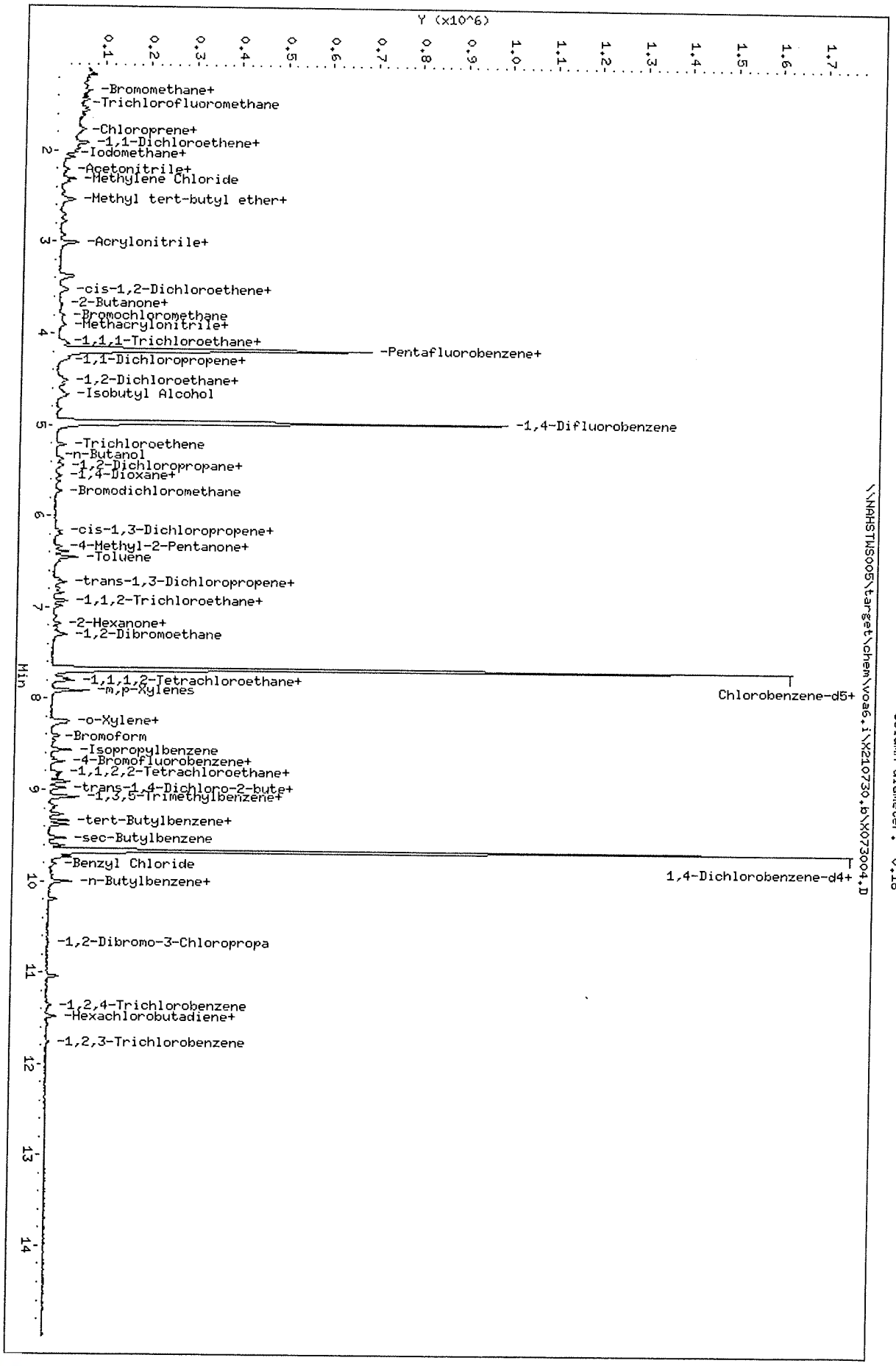
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	623945	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	7282	1.00000	0.24(a)
$ 35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	6013	1.00000	0.21(a)
* 36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	895498	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	839999	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	20880	1.00000	1.05(a)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	8523	1.00000	0.50(a)
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	438693	50.0000	
5 Vinyl Chloride	62	1.138	1.138	(0.272)	6585	1.00000	1.10(a)
11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	5463	1.00000	1.04(a)
17 Methylene Chloride	84	2.305	2.305	(0.551)	6903	1.00000	1.10(a)
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	6640	1.00000	1.06(a)
33 1,2-Dichloroethane	62	4.562	4.562	(0.918)	7784	1.00000	1.08(a)
38 Trichloroethene	130	5.206	5.206	(1.048)	7211	1.00000	1.10(a)
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	4492	1.00000	1.02(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073004.D
Date : 30-JUL-2021 12:32
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073005.D Page 1
Report Date: 10-Sep-2021 14:09

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Data file : \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073005.D
Lab Smp Id: VSTD002 Client Smp ID: VSTD002
Inj Date : 30-JUL-2021 12:53
Operator : PC Inst ID: voa6.i
Smp Info : VSTD002;VSTD002;1;4;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210730.b\8260W.m
Meth Date : 10-Sep-2021 14:09 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 12:32 Cal File: X073004.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

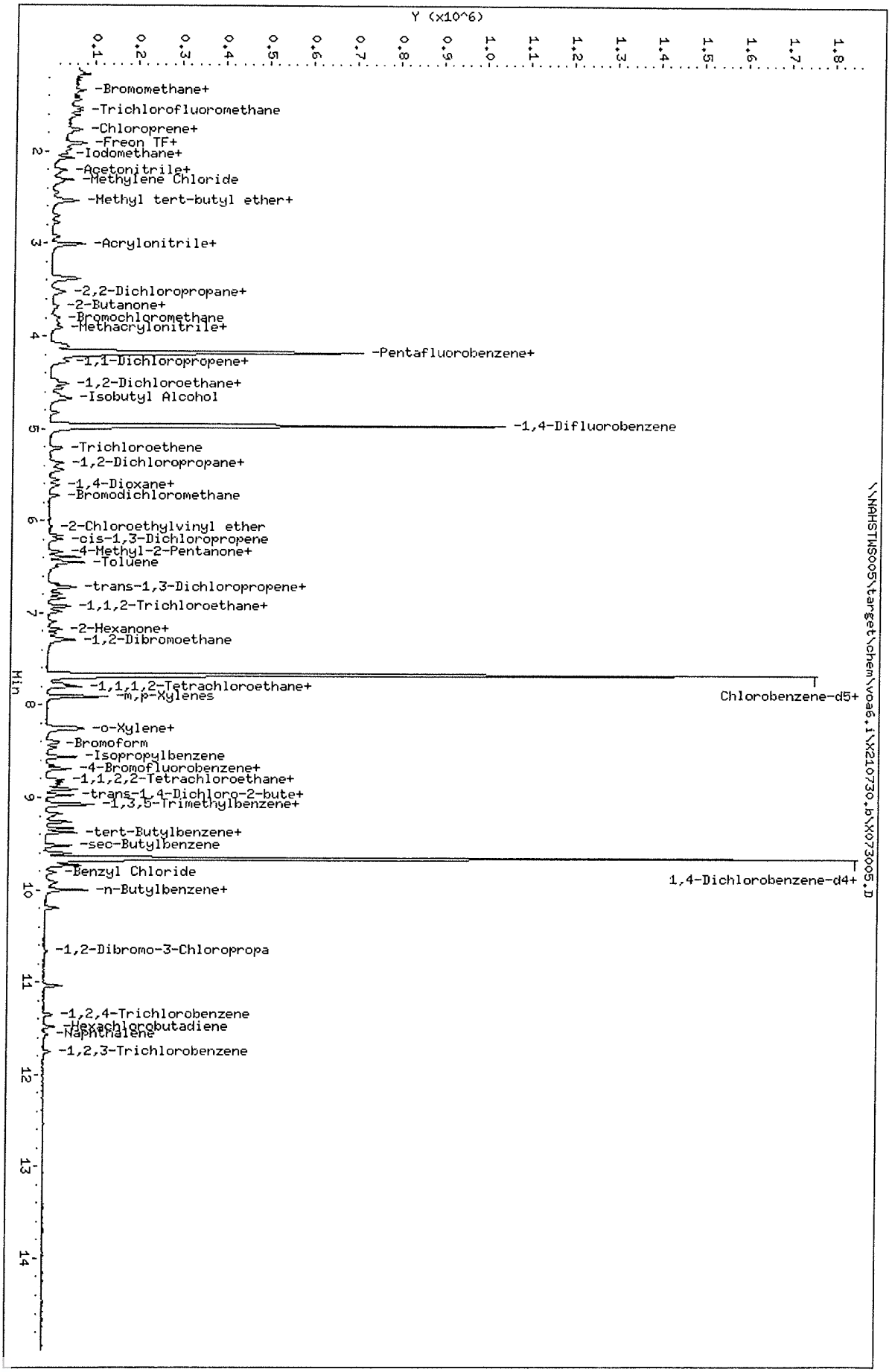
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	644211	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	12374	2.00000	1.06(a)
$ 35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	12843	2.00000	1.39(a)
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	928585	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	870262	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	42373	2.00000	2.07(a)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	15228	2.00000	1.39(a)
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	450600	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	11319	2.00000	1.84(a)
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	10979	2.00000	2.02(aM)
17 Methylene Chloride	84	2.306	2.306	(0.551)	11889	2.00000	1.98(a)
27 cis-1,2-Dichloroethene	96	3.538	3.538	(0.846)	11661	2.00000	1.80(a)
33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	14406	2.00000	1.93(a)
38 Trichloroethene	130	5.214	5.214	(1.051)	11781	2.00000	1.73(a)
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	8460	2.00000	1.85(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073005.D
Date : 30-JUL-2021 12:53
Client ID: VSTD002
Sample Info: VSTD002;VSTD002;1;4;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073006.D Page 1
Report Date: 10-Sep-2021 14:09

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Data file : \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073006.D
Lab Smp Id: VSTD005 Client Smp ID: VSTD005
Inj Date : 30-JUL-2021 13:14
Operator : PC Inst ID: voa6.i
Smp Info : VSTD005;VSTD005;1;5;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210730.b\8260W.m
Meth Date : 10-Sep-2021 14:09 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 12:53 Cal File: X073005.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

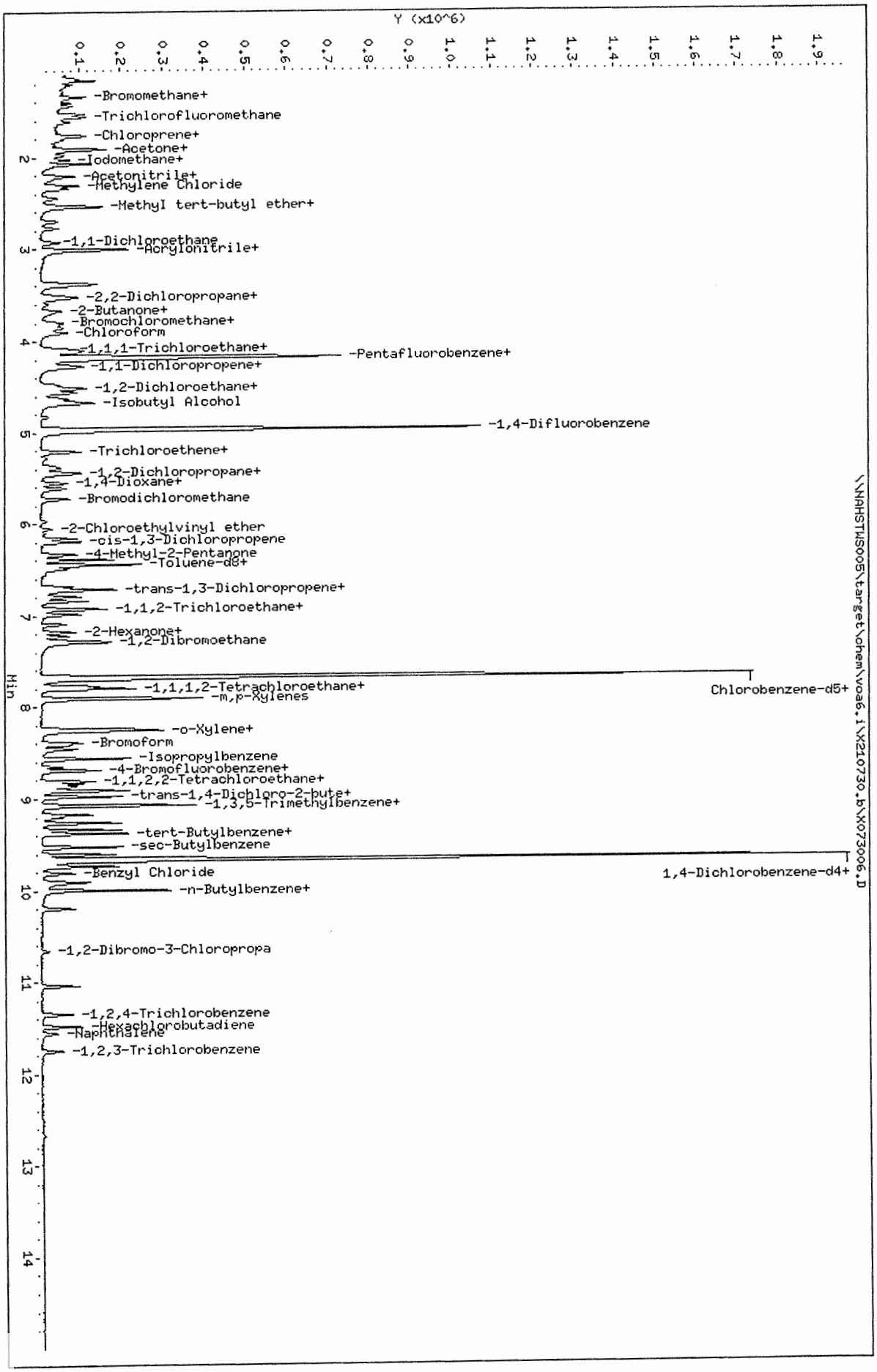
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	655633	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	35273	5.00000	4.83(a)
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	33565	5.00000	4.95(a)
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	942260	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	874110	50.0000	
$ 48 Toluene-d8	98	6.389	6.389	(0.833)	101562	5.00000	4.95(a)
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	41359	5.00000	5.00
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	453975	50.0000	
5 Vinyl Chloride	62	1.138	1.138	(0.272)	29673	5.00000	4.75(a)
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	25956	5.00000	4.70(a)
17 Methylene Chloride	84	2.306	2.306	(0.551)	29963	5.00000	5.24
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	32078	5.00000	4.87(a)
33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	37869	5.00000	5.00
38 Trichloroethene	130	5.207	5.207	(1.049)	33714	5.00000	4.89(a)
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	25438	5.00000	5.56

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073006.D
Date : 30-JUL-2021 13:14
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073007.D Page 1
Report Date: 10-Sep-2021 14:09

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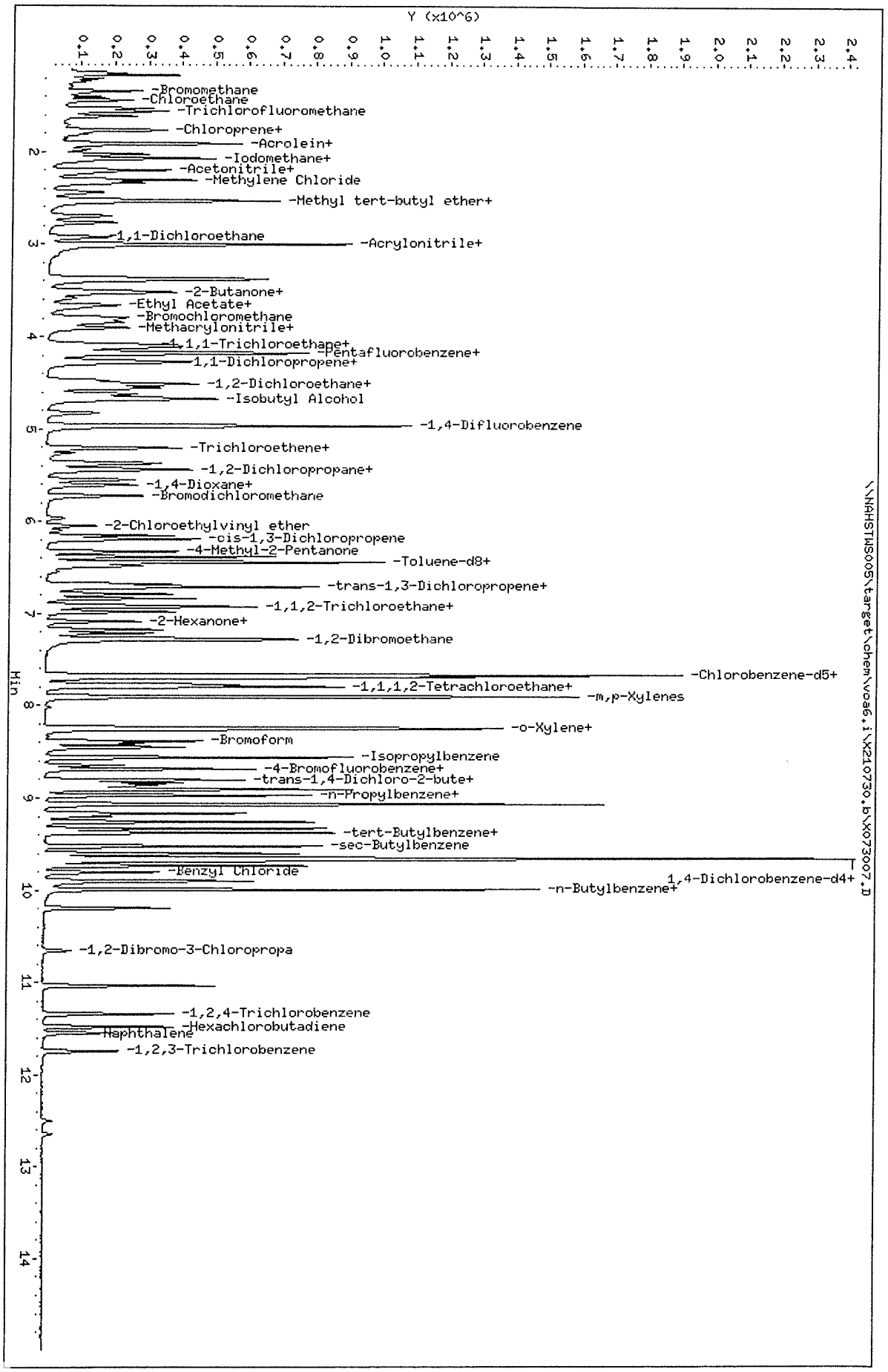
Data file : \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073007.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 30-JUL-2021 13:35
Operator : PC Inst ID: voa6.i
Smp Info : VSTD020;VSTD020;1;6;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210730.b\8260W.m
Meth Date : 10-Sep-2021 14:09 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 13:14 Cal File: X073006.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	681402	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	130299	20.0000	19.78
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	126393	20.0000	20.27
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	970724	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	922153	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	410374	20.0000	18.97
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	158248	20.0000	20.03
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	500272	50.0000	
	5 Vinyl Chloride	62	1.138	1.138	(0.272)	125365	20.0000	19.32
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	108984	20.0000	19.00
	17 Methylene Chloride	84	2.305	2.305	(0.551)	118046	20.0000	20.52
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	134779	20.0000	19.71
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	154902	20.0000	19.89
	38 Trichloroethene	130	5.206	5.206	(1.049)	137306	20.0000	19.35
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	92956	20.0000	19.26



Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073007.D
Date : 30-JUL-2021 13:35
Client ID: VSTD020
Sample Info: VSTD020;VSTD020;1;6;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073008.D Page 1
Report Date: 10-Sep-2021 14:09

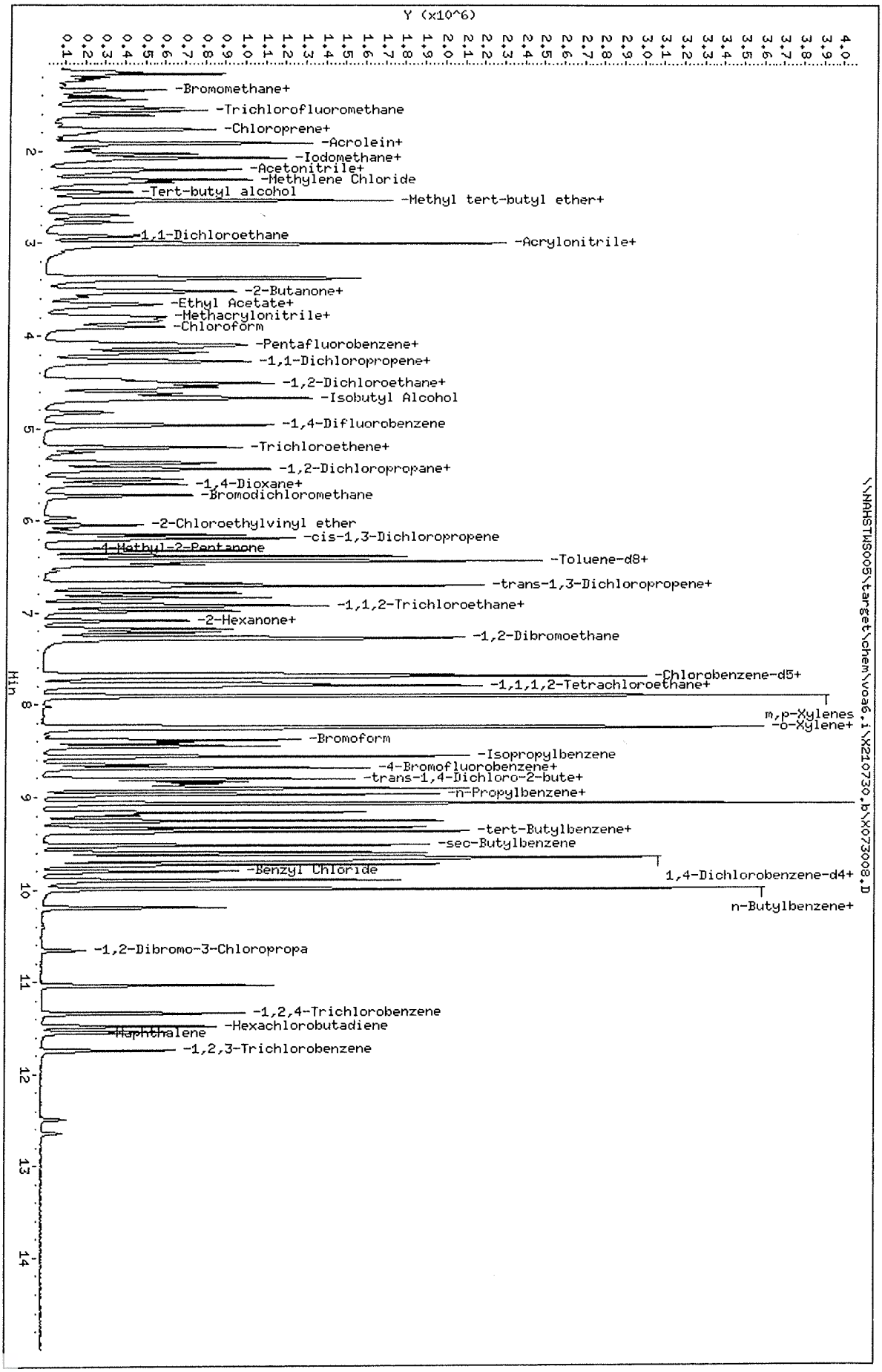
ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073008.D
Lab Smp Id: VSTD050 Client Smp ID: VSTD050
Inj Date : 30-JUL-2021 13:56
Operator : PC Inst ID: voa6.i
Smp Info : VSTD050;VSTD050;1;7;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210730.b\8260W.m
Meth Date : 10-Sep-2021 14:09 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 13:35 Cal File: X073007.D
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	716996	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	340316	50.0000	50.62
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	321239	50.0000	50.22
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1014752	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	957935	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1059416	50.0000	47.15
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	403767	50.0000	50.24
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	509010	50.0000	
5 Vinyl Chloride	62	1.138	1.138	(0.272)	294222	50.0000	43.10
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	266229	50.0000	44.12
17 Methylene Chloride	84	2.306	2.306	(0.551)	288156	50.0000	47.91
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	336904	50.0000	46.84
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	371417	50.0000	45.62
38 Trichloroethene	130	5.207	5.207	(1.049)	338544	50.0000	45.65
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	241070	50.0000	48.10



Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073008.D
Date : 30-JUL-2021 13:56
Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073009.D Page 1
Report Date: 10-Sep-2021 14:09

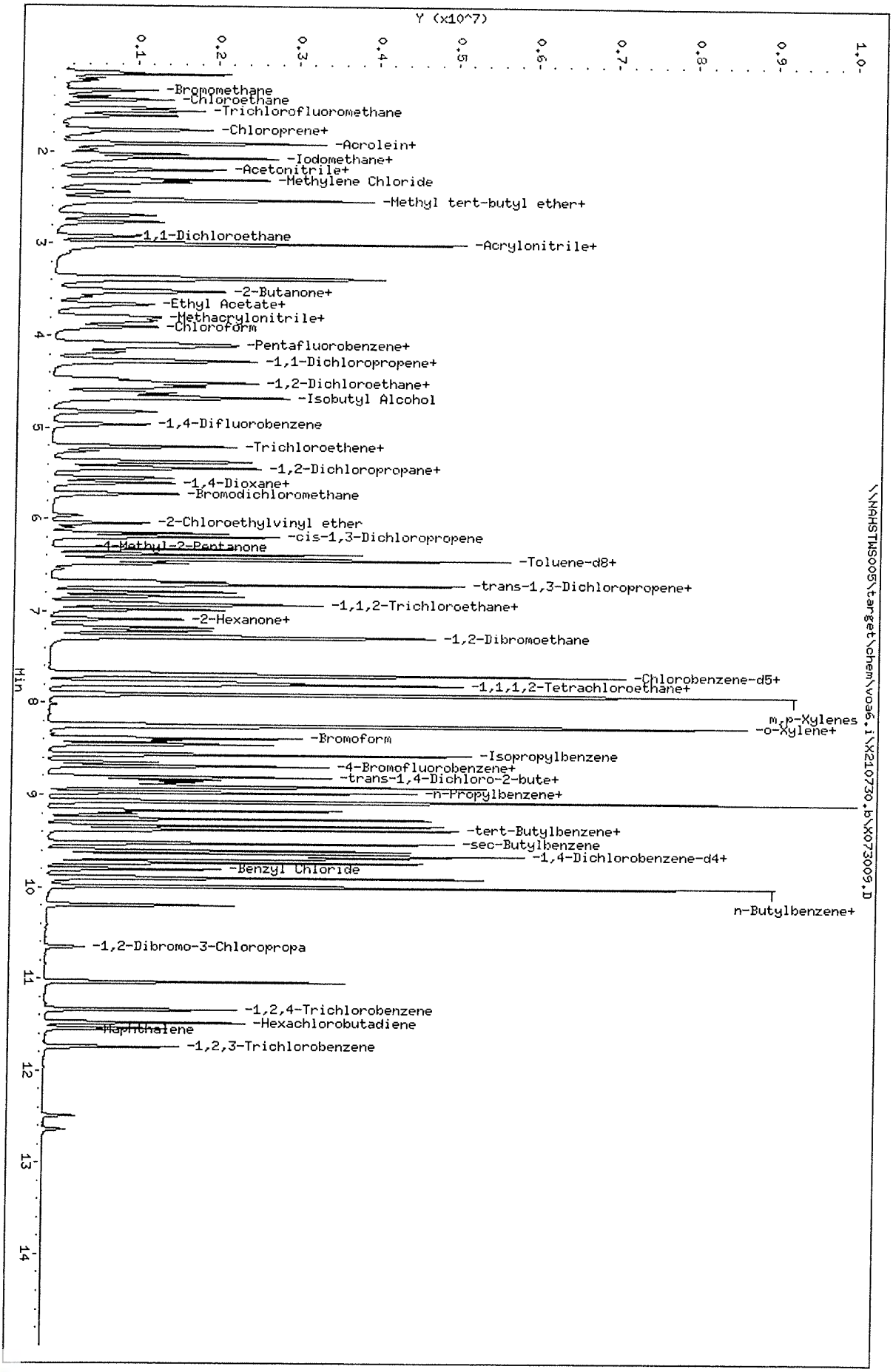
ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073009.D
Lab Smp Id: VSTD100 Client Smp ID: VSTD100
Inj Date : 30-JUL-2021 14:17
Operator : PC Inst ID: voa6.i
Smp Info : VSTD100;VSTD100;1;8;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210730.b\8260W.m
Meth Date : 10-Sep-2021 14:09 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	729025	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	710330	100.000	105.00
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	661249	100.000	102.57
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1058066	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	990972	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	2229574	100.000	95.92
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	846415	100.000	102.55
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	547156	50.0000	
5 Vinyl Chloride	62	1.138	1.138	(0.272)	708979	100.000	102.16
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	629594	100.000	102.63
17 Methylene Chloride	84	2.305	2.305	(0.551)	621769	100.000	101.93
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	728210	100.000	99.58
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	798237	100.000	94.04
38 Trichloroethene	130	5.206	5.206	(1.049)	767161	100.000	99.21
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	506503	100.000	97.69



Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073009.D
Date : 30-JUL-2021 14:17
Client ID: VSTD100
Sample Info: VSTD100;VSTD100;1;8;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073010.D Page 1
Report Date: 10-Sep-2021 14:09

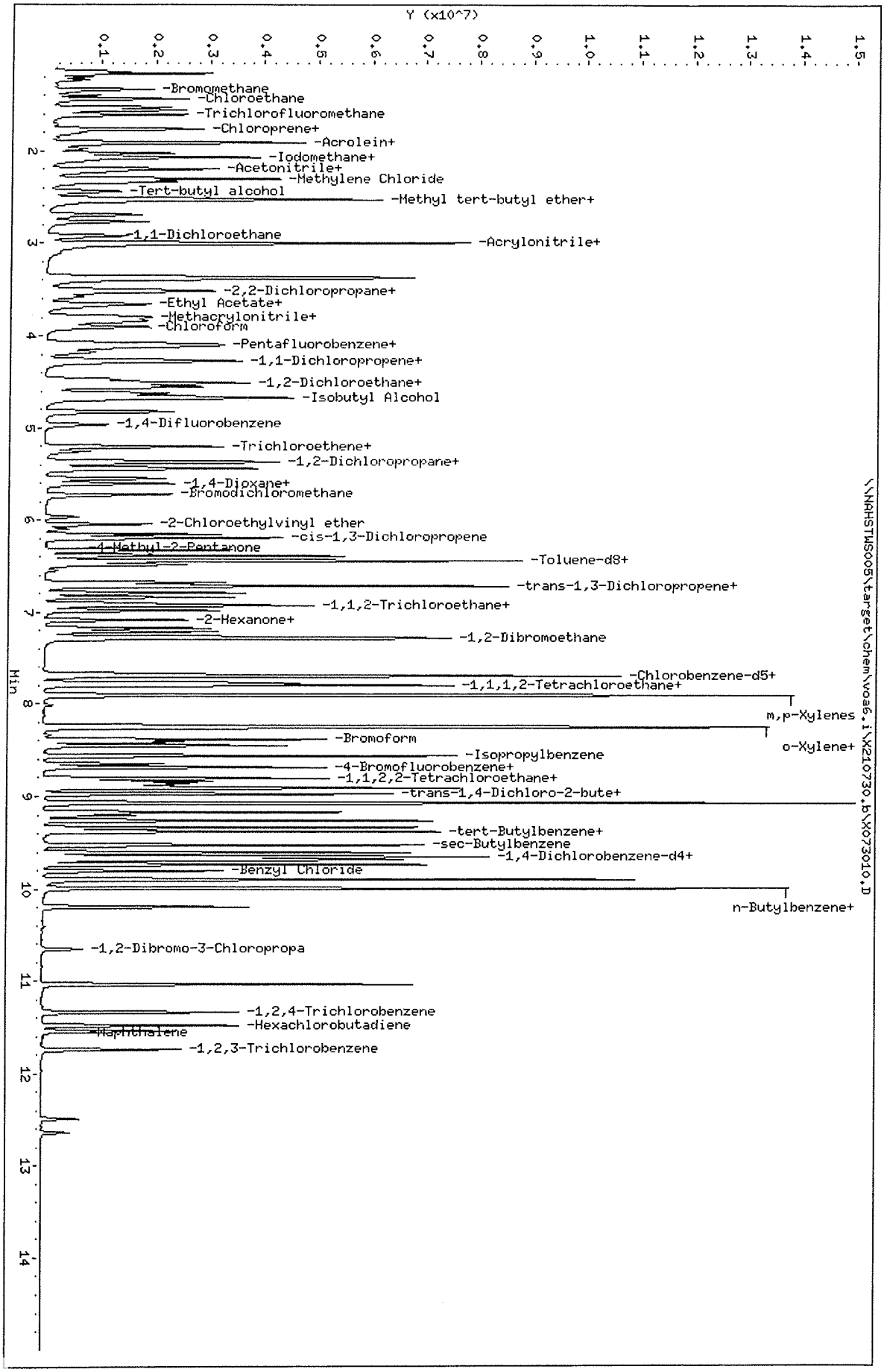
ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073010.D
Lab Smp Id: VSTD150 Client Smp ID: VSTD150
Inj Date : 30-JUL-2021 14:38
Operator : PC Inst ID: voa6.i
Smp Info : VSTD150;VSTD150;1;9;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210730.b\8260W.m
Meth Date : 10-Sep-2021 14:09 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 14:17 Cal File: X073009.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	730810	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	1015199	150.000	150.13
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	974560	150.000	151.22
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1028375	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	986169	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	3189794	150.000	137.90
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	1227770	150.000	149.82
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	541701	50.0000	
5 Vinyl Chloride	62	1.138	1.138	(0.272)	1003557	150.000	144.26
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	891494	150.000	144.97
17 Methylene Chloride	84	2.298	2.298	(0.550)	906937	150.000	148.42
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	1068998	150.000	145.82
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	1199380	150.000	145.38
38 Trichloroethene	130	5.207	5.207	(1.049)	1100990	150.000	146.50
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	758675	150.000	147.05



Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073010.D
Date : 30-JUL-2021 14:38
Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;9;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073011.D Page 1
Report Date: 10-Sep-2021 14:09

ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073011.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 30-JUL-2021 14:59
Operator : PC Inst ID: voa6.i
Smp Info : VSTD200;VSTD200;1;10;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210730.b\8260W.m
Meth Date : 10-Sep-2021 14:09 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 14:38 Cal File: X073010.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

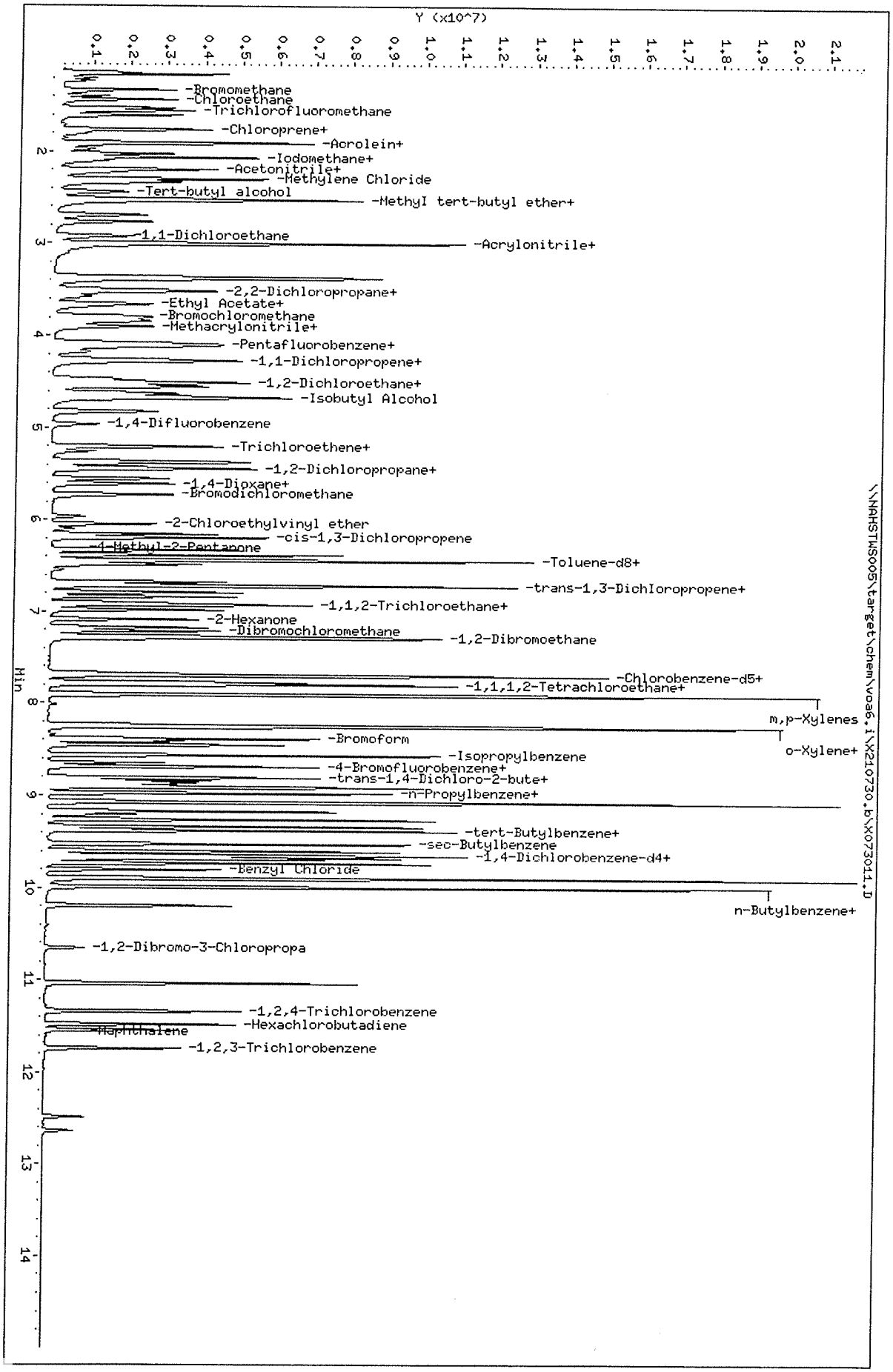
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	764865	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	1392587	200.000	197.09
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	1331240	200.000	197.64
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1080527	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	1034693	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	4466623	200.000	184.04
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	1706894	200.000	198.75
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	573296	50.0000	
5 Vinyl Chloride	62	1.138	1.138	(0.272)	1472864	200.000	202.29(A)
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	1299366	200.000	201.89(A)
17 Methylene Chloride	84	2.298	2.298	(0.550)	1282411	200.000	200.61(A)
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	1497246	200.000	195.14
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	1665869	200.000	192.17
38 Trichloroethene	130	5.206	5.206	(1.049)	1560236	200.000	197.59
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	1057752	200.000	195.40

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073011.D
Date : 30-JUL-2021 14:59
Client ID: VSTD200
Sample Info: VSTD200;VSTD200;1;10;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073014.D Page 1
Report Date: 10-Sep-2021 14:09

ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073014.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 30-JUL-2021 16:02
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;ICV
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210730.b\8260W.m
Meth Date : 10-Sep-2021 14:09 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 14:59 Cal File: X073011.D
Als bottle: 15 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	757820	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	359808	50.6421	50.64
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	345746	51.1596	51.15
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1064705	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	1011291	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1121931	47.2981	47.29
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	428936	50.5668	50.56
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	558538	50.0000	
5 Vinyl Chloride	62	1.138	1.138	(0.272)	339009	46.9956	46.99
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	294640	46.2061	46.20
17 Methylene Chloride	84	2.305	2.298	(0.551)	307952	48.4518	48.45
27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	362320	47.6634	47.66
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	398621	46.6696	46.66
38 Trichloroethene	130	5.206	5.206	(1.049)	376752	48.4229	48.42
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	256542	48.4895	48.48

Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073014.D Page 1
Report Date: 10-Sep-2021 14:09

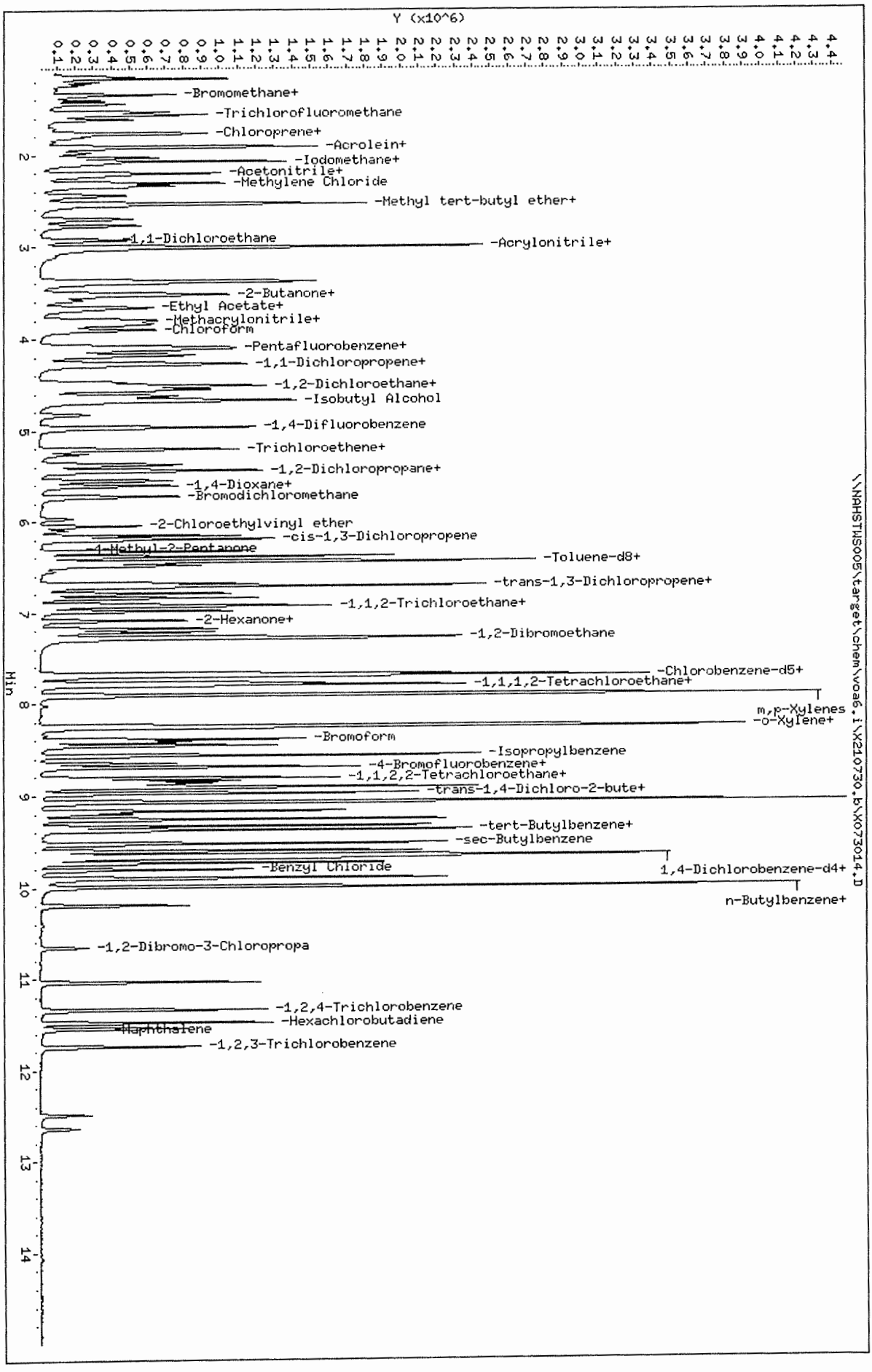
ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073014.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 30-JUL-2021 16:02
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;ICV
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210730.b\8260W.m
Meth Date : 10-Sep-2021 14:09 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 14:59 Cal File: X073011.D
Als bottle: 15 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	757820	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	359808	50.6421	50.64
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	345746	51.1596	51.15
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1064705	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	1011291	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	1121931	47.2981	47.29
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	428936	50.5668	50.56
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	558538	50.0000	
	5 Vinyl Chloride	62	1.138	1.138	(0.272)	339009	46.9956	46.99
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	294640	46.2061	46.20
	17 Methylene Chloride	84	2.305	2.298	(0.551)	307952	48.4518	48.45
	27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	362320	47.6634	47.66
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	398621	46.6696	46.66
	38 Trichloroethene	130	5.206	5.206	(1.049)	376752	48.4229	48.42
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	256542	48.4895	48.48



Data File: \\NAHSTWS005\target\chem\voa6.i\X210730.b\X073014.D
Date : 30-JUL-2021 16:02
Client ID: ICV
Sample Info: CCV;CCV;2;;;ICV
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

MSVOA06 -Logbook

Batch: 46071
Date: 08-04-2021
Method: 8260
Comments:

Analyst: Presenta Cabascango
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
1	BFB	TUNE	08-04-2021 10:44 am	1.00	50 mL	50 mL	X080401.D	Liquid	Y	N
2	CCV	CCV	08-04-2021 11:05 am	1.00	50 mL	50 mL	X080402a.D	Liquid	Y	N
3	CCV	CCV	08-04-2021 11:26 am	1.00	50 mL	50 mL	X080403.D	Liquid	Y	N
4	CCB	SAMP	08-04-2021 11:47 am	1.00	50 mL	50 mL	X080404.D	Liquid	Y	N
5	VLCSW-210804	LCS	08-04-2021 12:08 pm	1.00	50 mL	50 mL	X080405.D	Liquid	Y	N
6	BLANK	SAMP	08-04-2021 12:29 pm	1.00	50 mL	50 mL	X080406.D	Liquid	Y	N
7	BLANK	SAMP	08-04-2021 12:50 pm	1.00	50 mL	50 mL	X080407.D	Liquid	Y	N
8	VBLKW-210804	MBLK	08-04-2021 01:11 pm	1.00	50 mL	50 mL	X080408.D	Liquid	Y	N
9	HS21071405-11	SAMP	08-04-2021 01:33 pm	1.00	50 mL	50 mL	X080409.D	Liquid	Y	N
10	HS21071440-01n/r	SAMP	08-04-2021 01:54 pm	1000.0	50 µL	50 mL	X080410.D	Liquid	Y	N
11	HS21071405-04	SAMP	08-04-2021 02:15 pm	1.00	50 mL	50 mL	X080411.D	Liquid	Y	N
12	HS21071405-11MS	MS	08-04-2021 02:36 pm	1.00	50 mL	50 mL	X080412.D	Liquid	Y	N
13	HS21071405-11MSD	MSD	08-04-2021 02:57 pm	1.00	50 mL	50 mL	X080413.D	Liquid	Y	N
14	HS21071405-04	SAMP	08-04-2021 03:18 pm	25.00	2 mL	50 mL	X080414.D	Liquid	Y	N
15	HS21071440-01	SAMP	08-04-2021 03:39 pm	10000.(	5 µL	50 mL	X080415.D	Liquid	Y	N
16	BLANK	SAMP	08-04-2021 04:00 pm	1.00	50 mL	50 mL	X080416.D	Liquid	Y	N
17	HS21071465-09	SAMP	08-04-2021 04:21 pm	1.00	50 mL	50 mL	X080417.D	Liquid	Y	N
18	HS21071592-06	SAMP	08-04-2021 04:42 pm	1.00	50 mL	50 mL	X080418.D	Liquid	Y	N
19	HS21071592-03	SAMP	08-04-2021 05:03 pm	1.00	50 mL	50 mL	X080419.D	Liquid	Y	N
20	HS21071592-04	SAMP	08-04-2021 05:24 pm	1.00	50 mL	50 mL	X080420.D	Liquid	Y	N
21	HS21071592-05	SAMP	08-04-2021 05:45 pm	1.00	50 mL	50 mL	X080421.D	Liquid	Y	N
22	HS21071465-06	SAMP	08-04-2021 06:06 pm	1.00	50 mL	50 mL	X080422.D	Liquid	Y	N
23	HS21071592-02	SAMP	08-04-2021 06:27 pm	1.00	50 mL	50 mL	X080423.D	Liquid	Y	N
24	HS21071405-02	SAMP	08-04-2021 06:48 pm	5.00	10 mL	50 mL	X080424.D	Liquid	Y	N
25	HS21071405-02	SAMP	08-04-2021 07:09 pm	25.00	2 mL	50 mL	X080425.D	Liquid	Y	N
26	HS21071405-07	SAMP	08-04-2021 07:30 pm	5.00	10 mL	50 mL	X080426.D	Liquid	Y	N
27	HS21071405-07	SAMP	08-04-2021 07:51 pm	25.00	2 mL	50 mL	X080427.D	Liquid	Y	N
28	HS21071405-05	SAMP	08-04-2021 08:12 pm	5.00	10 mL	50 mL	X080428.D	Liquid	Y	N
29	HS21071405-05	SAMP	08-04-2021 08:34 pm	50.00	1 mL	50 mL	X080429.D	Liquid	Y	N
30	HS21071592-01	SAMP	08-04-2021 08:55 pm	5.00	10 mL	50 mL	X080430.D	Liquid	Y	N
31	HS21071592-01	SAMP	08-04-2021 09:16 pm	25.00	2 mL	50 mL	X080431.D	Liquid	Y	N
32	HS21071465-01	SAMP	08-04-2021 09:37 pm	5.00	10 mL	50 mL	X080432.D	Liquid	Y	N
33	CCV-END	CCV	08-04-2021 09:58 pm	1.00	50 mL	50 mL	X080433.D	Liquid	Y	N
34	BFB	TUNE	08-04-2021 10:19 pm	1.00	50 mL	50 mL	Y080401.D	Liquid	Y	N
35	CCV	CCV	08-04-2021 10:40 pm	1.00	50 mL	50 mL	Y080402a.D	Liquid	Y	N
36	CCV	CCV	08-04-2021 11:00 pm	1.00	50 mL	50 mL	Y080403.D	Liquid	Y	N
37	CCB	SAMP	08-04-2021 11:21 pm	1.00	50 mL	50 mL	Y080404.D	Liquid	Y	N
38	VLCSW-210804	LCS	08-04-2021 11:42 pm	1.00	50 mL	50 mL	Y080405.D	Liquid	Y	N
39	BLANK	SAMP	08-05-2021 12:03 am	1.00	50 mL	50 mL	Y080406.D	Liquid	Y	N
40	VBLKW-210804	MBLK	08-05-2021 12:25 am	1.00	50 mL	50 mL	Y080407.D	Liquid	Y	N
41	HS21071531-24	SAMP	08-05-2021 12:46 am	1.00	50 mL	50 mL	Y080408.D	Liquid	Y	N

MSVOA06 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
42	HS21071531-22	SAMP	08-05-2021 01:07 am	1.00	50 mL	50 mL	Y080409.D	Liquid	Y	N
43	HS21071531-23	SAMP	08-05-2021 01:28 am	1.00	50 mL	50 mL	Y080410.D	Liquid	Y	N
44	HS21071531-05	SAMP	08-05-2021 01:49 am	1.00	50 mL	50 mL	Y080411.D	Liquid	Y	N
45	HS21071531-01	SAMP	08-05-2021 02:10 am	1.00	50 mL	50 mL	Y080412.D	Liquid	Y	N
46	HS21071524-16	SAMP	08-05-2021 02:31 am	10.00	5 mL	50 mL	Y080413.D	Liquid	Y	N
47	HS21071531-05MS	MS	08-05-2021 02:52 am	1.00	50 mL	50 mL	Y080414.D	Liquid	Y	N
48	HS21071531-05MSD	MSD	08-05-2021 03:13 am	1.00	50 mL	50 mL	Y080415.D	Liquid	Y	N
49	HS21071524-16	SAMP	08-05-2021 03:34 am	100.0(	500 µL	50 mL	Y080416.D	Liquid	Y	N
50	HS21071531-06	SAMP	08-05-2021 03:55 am	1.00	50 mL	50 mL	Y080417.D	Liquid	Y	N
51	HS21071531-08	SAMP	08-05-2021 04:16 am	1.00	50 mL	50 mL	Y080418.D	Liquid	Y	N
52	HS21071531-09	SAMP	08-05-2021 04:37 am	1.00	50 mL	50 mL	Y080419.D	Liquid	Y	N
53	HS21071531-07	SAMP	08-05-2021 04:58 am	10.00	5 mL	50 mL	Y080420.D	Liquid	Y	N
54	HS21071531-07n/r	SAMP	08-05-2021 05:19 am	50.00	1 mL	50 mL	Y080421.D	Liquid	Y	N
55	HS21071531-02	SAMP	08-05-2021 05:40 am	10.00	5 mL	50 mL	Y080422.D	Liquid	Y	N
56	HS21071531-02	SAMP	08-05-2021 06:02 am	100.0(	500 µL	50 mL	Y080423.D	Liquid	Y	N
57	HS21071531-03	SAMP	08-05-2021 06:23 am	10.00	5 mL	50 mL	Y080424.D	Liquid	Y	N
58	HS21071531-03n/r	SAMP	08-05-2021 06:44 am	100.0(	500 µL	50 mL	Y080425.D	Liquid	Y	N
59	HS21071531-12	SAMP	08-05-2021 07:05 am	10.00	5 mL	50 mL	Y080426.D	Liquid	Y	N
60	HS21071531-12	SAMP	08-05-2021 07:26 am	100.0(	500 µL	50 mL	Y080427.D	Liquid	Y	N
61	HS21071531-14	SAMP	08-05-2021 07:47 am	10.00	5 mL	50 mL	Y080428.D	Liquid	Y	N
62	HS21071531-14	SAMP	08-05-2021 08:08 am	100.0(	500 µL	50 mL	Y080429.D	Liquid	Y	N
63	BLANK	SAMP	08-05-2021 08:29 am	1.00	50 mL	50 mL	Y080430.D	Liquid	Y	N

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER #	TOT OUT
01	VLCSW-210804	94	96	95	100	0
02	VBLKW-210804	90	88	102	97	0
03	HS21071592-06	97	96	107	99	0
04	HS21071592-03	96	98	106	97	0
05	HS21071592-04	96	98	106	100	0
06	HS21071592-05	94	97	102	98	0
07	HS21071592-02	96	97	103	100	0
08	HS21071592-01	95	95	103	98	0
09	HS21071592-01	95	94	104	99	0
10						
11						
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26						
27						
28						

		QC LIMITS
SMC1	= Dibromofluoromethane	(70-130)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(70-130)
SMC3 (TOL)	= Toluene-d8	(70-130)
OTHER	= 4-Bromofluorobenzene	(70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.
VBLKW-210804

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

Lab File ID: X080408 Lab Sample ID: VBLKW-210804

Date Analyzed: 08/04/21 Time Analyzed: 1311

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSW-210804	VLCSW-210804	X080405	1208
02	HS21071405-11MS	HS21071405-11MS	X080412	1436
03	HS21071405-11MSD	HS21071405-11MSD	X080413	1457
04	HS21071592-06	HS21071592-06	X080418	1642
05	HS21071592-03	HS21071592-03	X080419	1703
06	HS21071592-04	HS21071592-04	X080420	1724
07	HS21071592-05	HS21071592-05	X080421	1745
08	HS21071592-02	HS21071592-02	X080423	1827
09	HS21071592-01	HS21071592-01	X080430	2055
10	HS21071592-01	HS21071592-01	X080431	2116
11				
12				
13				
14				
15				
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COMMENTS:

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

Lab File ID: X080401 BFB Injection Date: 08/04/21

Instrument ID: VOA6 BFB Injection Time: 1044

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.1
75	30.0 - 60.0% of mass 95	45.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	1.2 (1.1)1
174	Greater than 50.0% of mass 95	108.6
175	5.0 - 9.0% of mass 174	8.5 (7.8)1
176	95.0 - 101.0% of mass 174	106.4 (98.0)1
177	5.0 - 9.0% of mass 176	6.4 (6.0)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	X080403	08/04/21	1126
02	VLCSW-210804	VLCSW-210804	X080405	08/04/21	1208
03	VBLKW-210804	VBLKW-210804	X080408	08/04/21	1311
04	HS21071405-11MS	HS21071405-11MS	X080412	08/04/21	1436
05	HS21071405-11MSD	HS21071405-11MSD	X080413	08/04/21	1457
06	HS21071592-06	HS21071592-06	X080418	08/04/21	1642
07	HS21071592-03	HS21071592-03	X080419	08/04/21	1703
08	HS21071592-04	HS21071592-04	X080420	08/04/21	1724
09	HS21071592-05	HS21071592-05	X080421	08/04/21	1745
10	HS21071592-02	HS21071592-02	X080423	08/04/21	1827
11	HS21071592-01	HS21071592-01	X080430	08/04/21	2055
12	HS21071592-01	HS21071592-01	X080431	08/04/21	2116
13	CCV-END	CCV-END	X080433	08/04/21	2158
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

Instrument ID: VOA6 Calibration Date: 08/04/21 Time: 1126

Lab File ID: X080403 Init. Calib. Date(s): 07/30/21 07/30/21

Init. Calib. Times: 1129 1459

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Vinyl Chloride	0.4760000	0.4099709	0.4099709	0.1	13.87	20.00	AVRG
Methylene Chloride	46.714969	50.000000	0.3918664	0.1	6.57	20.00	LINR
1,1-Dichloroethene	0.4210000	0.3609110	0.3609110	0.1	14.27	20.00	AVRG
1,2-Dichloroethane	0.4010000	0.3654430	0.3654430	0.1	8.87	20.00	AVRG
Trichloroethene	0.3650000	0.3575997	0.3575997	0.2	2.03	20.00	AVRG
1,1,2-Trichloroethane	0.2620000	0.2532334	0.2532334	0.1	3.35	20.00	AVRG
Dibromofluoromethane	47.583104	50.000000	0.4466823	0.1	4.83	20.00	LINR
1,2-Dichloroethane-d4	45.165652	50.000000	0.4036882	0.1	9.67	20.00	LINR
Toluene-d8	1.1730000	1.1139234	1.1139234	0.1	5.04	20.00	AVRG
4-Bromofluorobenzene	49.243220	50.000000	0.4132011	0.1	1.51	20.00	LINR

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

Instrument ID: VOA6 Calibration Date: 08/04/21 Time: 2158

Lab File ID: X080433 Init. Calib. Date(s): 07/30/21 07/30/21

Init. Calib. Times: 1129 1459

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Vinyl Chloride	0.4760000	0.4271941	0.4271941	0.1	10.25	50.00	AVRG
Methylene Chloride	50.404171	50.000000	0.4226647	0.1	-0.81	50.00	LINR
1,1-Dichloroethene	0.4210000	0.3763405	0.3763405	0.1	10.61	50.00	AVRG
1,2-Dichloroethane	0.4010000	0.3716500	0.3716500	0.1	7.32	50.00	AVRG
Trichloroethene	0.3650000	0.3601680	0.3601680	0.2	1.32	50.00	AVRG
1,1,2-Trichloroethane	0.2620000	0.2539182	0.2539182	0.1	3.08	50.00	AVRG
Dibromofluoromethane	50.474215	50.000000	0.4732509	0.1	-0.95	50.00	LINR
1,2-Dichloroethane-d4	49.041075	50.000000	0.4376646	0.1	1.92	50.00	LINR
Toluene-d8	1.1730000	1.0932366	1.0932366	0.1	6.80	50.00	AVRG
4-Bromofluorobenzene	50.153249	50.000000	0.4207270	0.1	-0.31	50.00	LINR

FORM VII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

Lab File ID (Standard): X080403 Date Analyzed: 08/04/21

Instrument ID: VOA6 Time Analyzed: 1126

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	742521	4.18	986192	4.96	930213	7.67
	UPPER LIMIT	1485042	4.68	1972384	5.46	1860426	8.17
	LOWER LIMIT	371261	3.68	493096	4.46	465107	7.17
	CLIENT SAMPLE NO.						
01	VLCSW-210804	738547	4.18	994476	4.96	931780	7.67
02	VBLKW-210804	869848	4.18	1135421	4.96	1008982	7.67
03	HS21071405-11MS	829615	4.18	1124747	4.96	1024586	7.67
04	HS21071405-11MSD	821880	4.18	1098703	4.96	1008306	7.67
05	HS21071592-06	763238	4.18	1027511	4.96	900632	7.67
06	HS21071592-03	761355	4.18	1028607	4.96	914271	7.67
07	HS21071592-04	757133	4.18	1026458	4.97	896357	7.67
08	HS21071592-05	783776	4.18	1050707	4.96	952082	7.67
09	HS21071592-02	772286	4.18	1041475	4.96	948240	7.67
10	HS21071592-01	767668	4.18	1043595	4.96	946677	7.67
11	HS21071592-01	756948	4.18	1034377	4.96	904797	7.67
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

Lab File ID (Standard): X080403 Date Analyzed: 08/04/21

Instrument ID: VOA6 Time Analyzed: 1126

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS4 (DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	514369	9.66				
	UPPER LIMIT	1028738	10.16				
	LOWER LIMIT	257185	9.16				
	CLIENT SAMPLE NO.						
01	VLCSW-210804	511935	9.66				
02	VBLKW-210804	504446	9.66				
03	HS21071405-11MS	537455	9.66				
04	HS21071405-11MSD	496946	9.66				
05	HS21071592-06	438984	9.66				
06	HS21071592-03	453806	9.66				
07	HS21071592-04	449845	9.66				
08	HS21071592-05	495038	9.66				
09	HS21071592-02	480729	9.66				
10	HS21071592-01	451605	9.66				
11	HS21071592-01	435760	9.66				
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

FORM VIII VOA

Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080401.D

Date : 04-AUG-2021 10:44

Client ID: BFB

Instrument: voa6.i

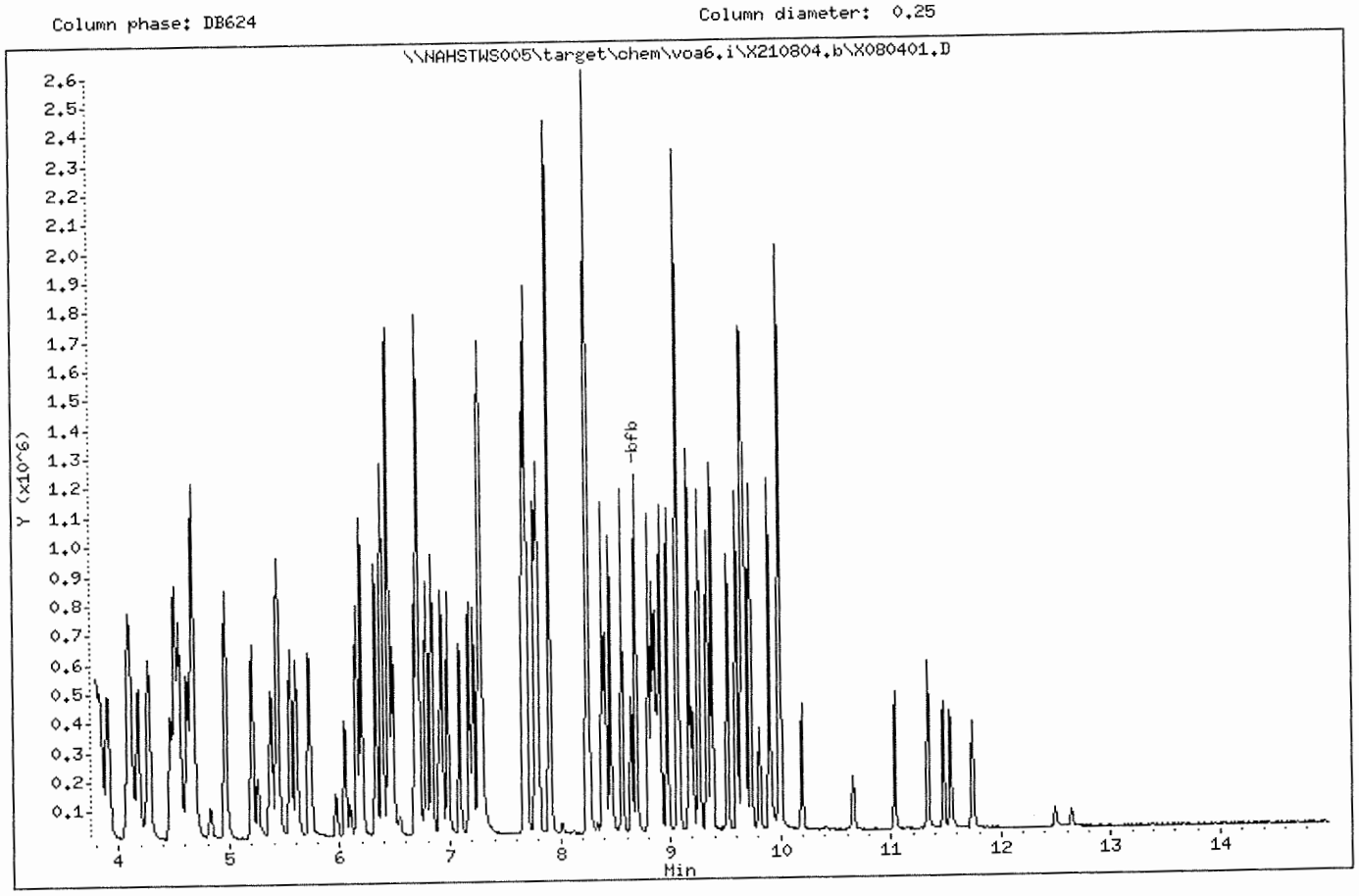
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080401.D

Date : 04-AUG-2021 10:44

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

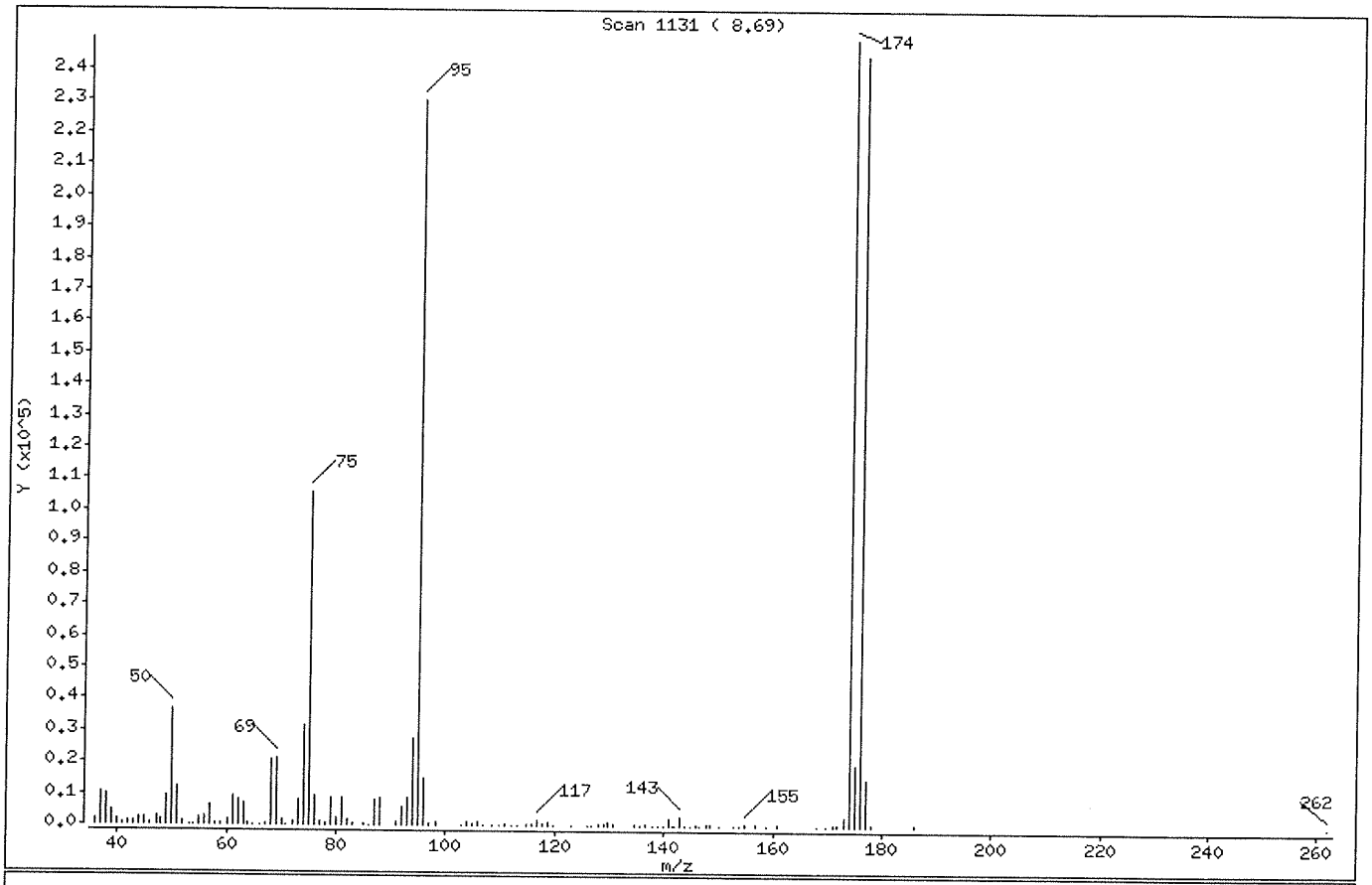
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.07
75	30.00 - 60.00% of mass 95	45.86
96	5.00 - 9.00% of mass 95	6.44
173	Less than 2.00% of mass 174	1.19 (1.09)
174	Greater than 50.00% of mass 95	108.57
175	5.00 - 9.00% of mass 174	8.50 (7.83)
176	95.00 - 101.00% of mass 174	106.37 (97.98)
177	5.00 - 9.00% of mass 176	6.39 (6.01)

Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080401.D

Date : 04-AUG-2021 10:44

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: X080401.D
Spectrum: Scan 1131 (8.69)
Location of Maximum: 173.90
Number of points: 118

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1492	66.00	201	102.80	143	141.60	270
37.00	10159	67.00	708	103.80	999	141.90	260
38.00	9602	68.00	20784	104.70	526	142.90	2630
39.00	4420	69.00	21008	105.90	1211	143.90	159
39.90	1460	70.00	1496	106.80	204	144.90	159
40.90	672	70.90	277	108.60	111	145.80	457
42.00	1219	72.00	1397	109.80	187	146.70	112
43.00	902	73.00	8244	110.80	289	148.00	418
43.90	2534	74.00	31848	112.20	148	148.70	327
45.00	2234	75.00	105504	113.00	206	150.10	255
45.90	416	76.00	9219	114.80	514	152.80	89
47.10	2955	77.00	1118	115.70	807	153.70	184
48.00	1461	78.10	738	116.90	1742	154.80	802
49.00	9022	78.90	8646	117.80	831	156.90	570
50.00	36976	79.90	2310	118.90	1156	158.90	209
51.00	12180	80.90	8584	119.60	154	160.80	335
52.00	889	81.90	1915	122.90	194	168.20	160
53.20	61	82.90	385	126.00	142	169.80	115
53.90	55	84.90	346	126.80	149	170.90	344
55.00	2087	85.90	278	127.90	715	171.60	460
56.00	2631	86.90	8256	128.90	479	172.90	2730
57.00	6297	87.90	8666	129.80	1050	173.90	249792
58.00	339	91.00	988	130.80	486	174.90	19568
59.00	768	92.00	5977	134.80	427	175.90	244736
60.00	1713	93.00	8512	135.80	114	176.90	14704
61.00	9008	94.00	27720	136.80	425	177.90	507
62.00	8303	95.00	230080	137.90	71	185.90	289
63.00	7169	96.00	14822	138.80	176	262.10	70
63.90	717	96.90	678	140.00	241		
64.90	246	98.10	1120	140.80	2371		

Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080403.D Page 1
Report Date: 10-Sep-2021 14:36

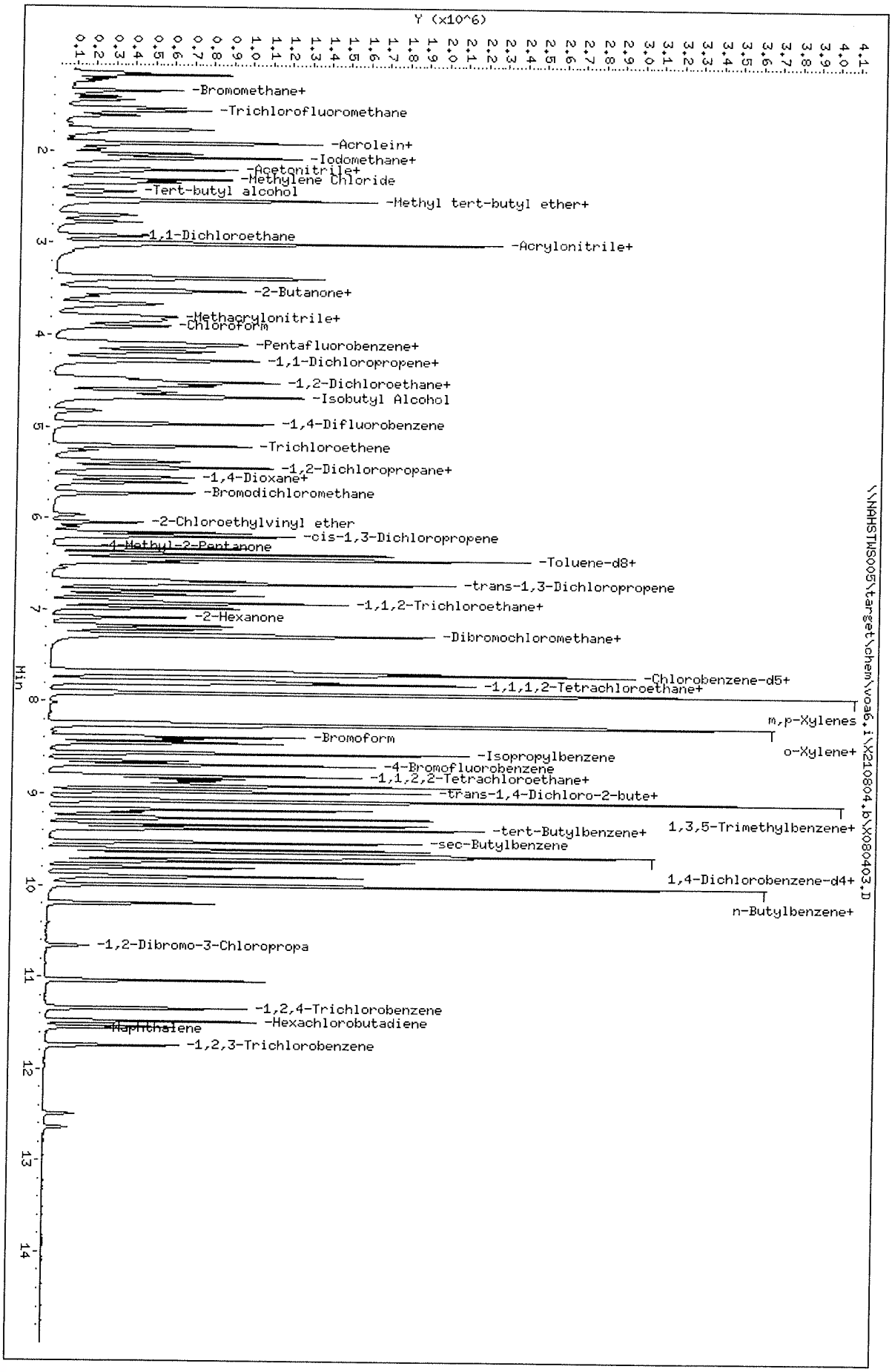
ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080403.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 04-AUG-2021 11:26
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210804.b\8260W.m
Meth Date : 10-Sep-2021 14:36 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	742521	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	331671	50.0000	47.58
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	299747	50.0000	45.16
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	986192	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	930213	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1036186	50.0000	47.49
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	384365	50.0000	49.24
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	514369	50.0000	
5 Vinyl Chloride	62	1.138	1.138	(0.272)	304412	50.0000	43.06
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	267984	50.0000	42.89
17 Methylene Chloride	84	2.298	2.298	(0.550)	290969	50.0000	46.71
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	333983	50.0000	44.84
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	360397	50.0000	45.55
38 Trichloroethene	130	5.207	5.207	(1.049)	352662	50.0000	48.93
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	235561	50.0000	48.40



Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080403.D
Date : 04-AUG-2021 11:26
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080405.D Page 1
Report Date: 10-Sep-2021 14:36

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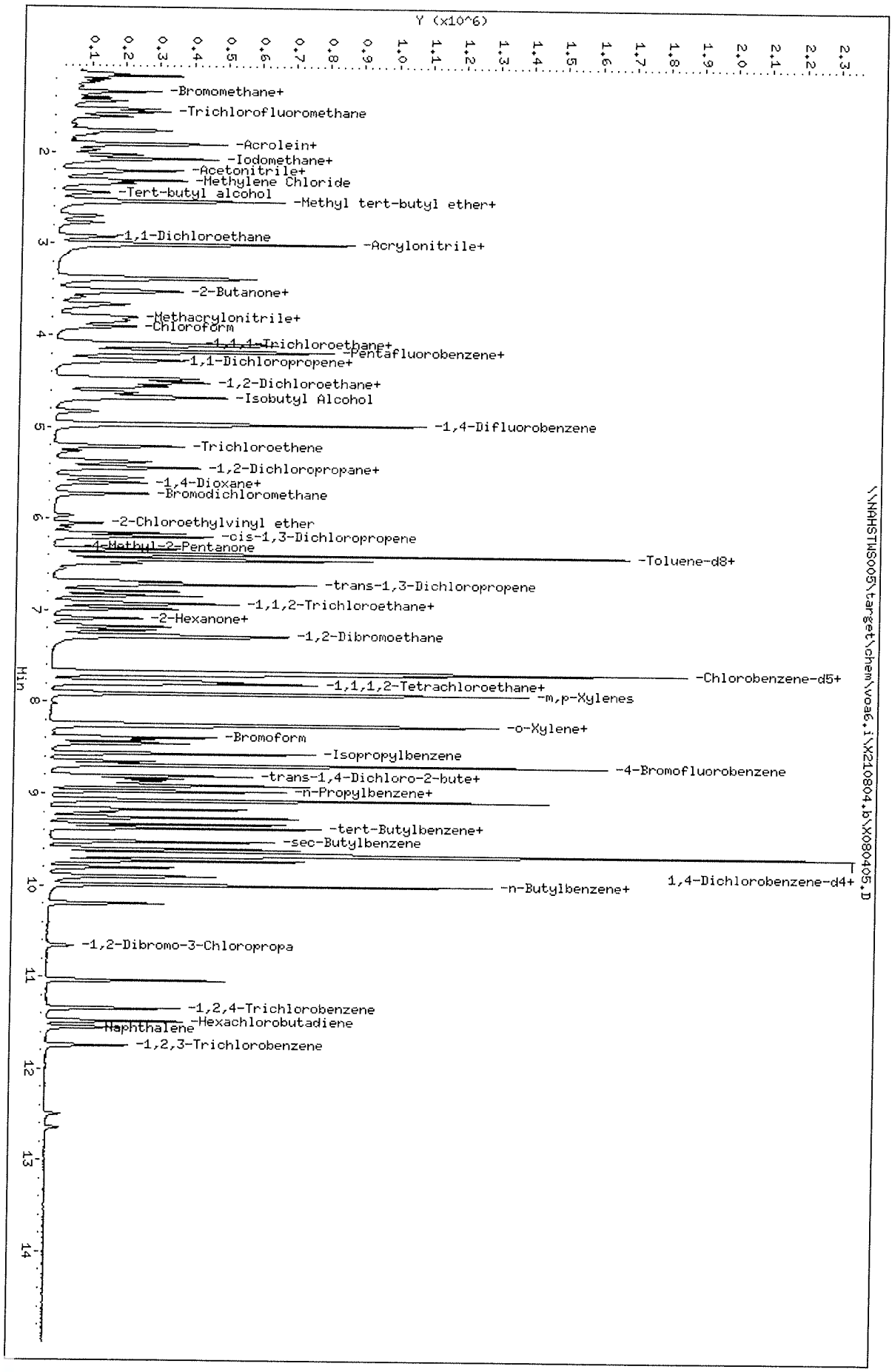
Data file : \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080405.D
Lab Smp Id: VLCSW-210804 Client Smp ID: VLCSW-210804
Inj Date : 04-AUG-2021 12:08
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-210804;VLCSW-210804;3;;LCS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210804.b\8260W.m
Meth Date : 10-Sep-2021 14:36 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	738547	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.096	(0.981)	327671	47.2553	47.25
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	316541	48.0071	48.00
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	994476	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	931780	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	1040289	47.5986	47.59
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	389362	49.8077	49.80
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	511935	50.0000	
	5 Vinyl Chloride	62	1.145	1.138	(0.274)	113703	16.1736	16.17
	11 1,1-Dichloroethene	96	1.919	1.912	(0.459)	99040	15.9370	15.93
	17 Methylene Chloride	84	2.306	2.298	(0.551)	115773	18.5523	18.55
	27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	132274	17.8548	17.85
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	144257	18.0820	18.08
	38 Trichloroethene	130	5.207	5.207	(1.049)	134935	18.5676	18.56
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	92700	19.0165	19.01



Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080405.D
Date : 04-AUG-2021 12:08
Client ID: VLCSW-210804
Sample Info: VLCSW-210804;VLCSW-210804;3;;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080408.D Page 1
Report Date: 10-Sep-2021 14:36

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Data file : \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080408.D
Lab Smp Id: VBLKW-210804 Client Smp ID: VBLKW-210804
Inj Date : 04-AUG-2021 13:11
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-210804;VBLKW-210804;3;;BLANK
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210804.b\8260W.m
Meth Date : 10-Sep-2021 14:36 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

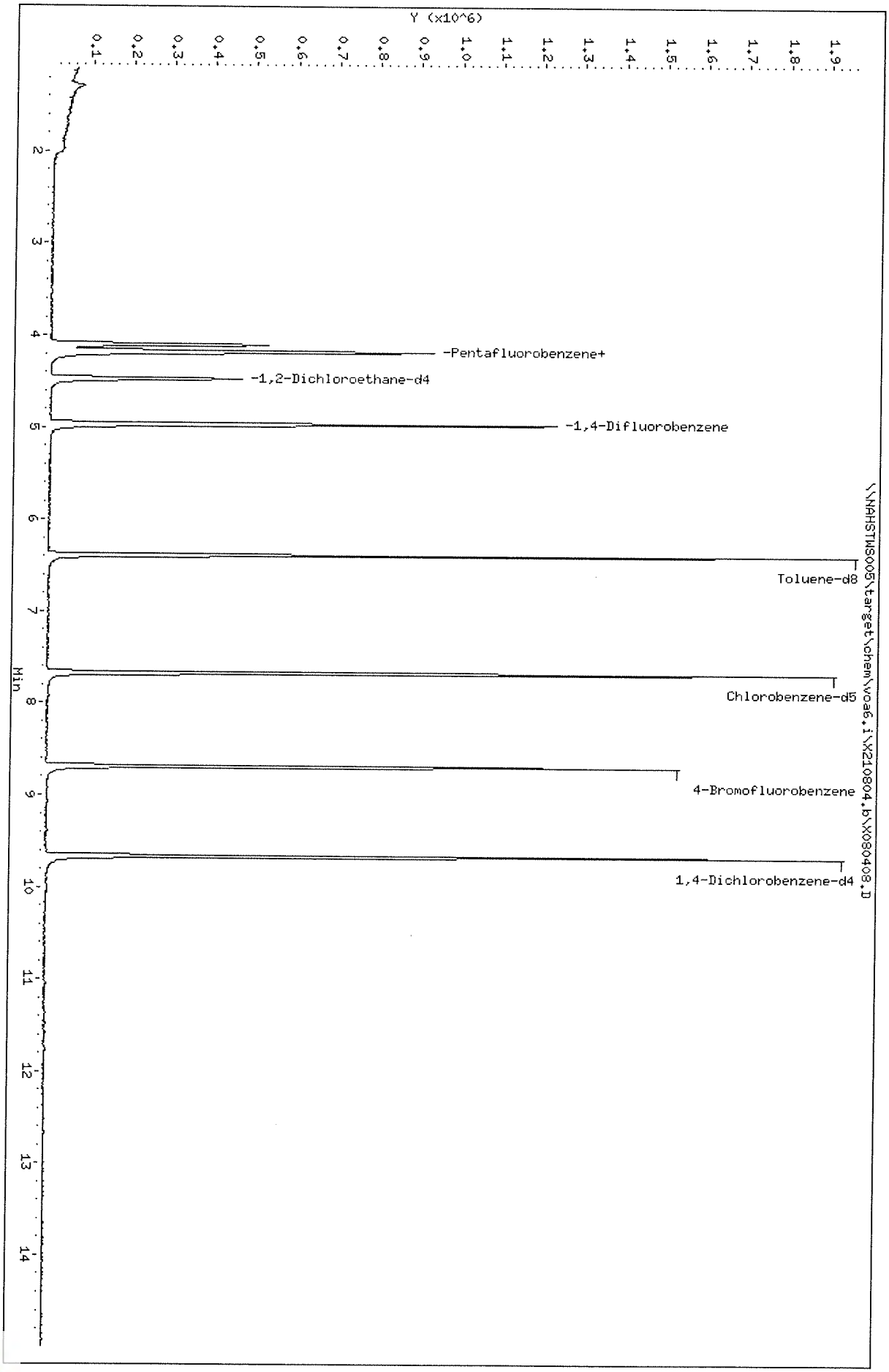
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	869848	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	368975	45.1348	45.13
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	341259	43.8690	43.86
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1135421	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	1008982	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1213978	51.2957	51.29
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	410620	48.4891	48.48
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	504446	50.0000	

Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080408.D
Date : 04-AUG-2021 13:11
Client ID: VBLKW-210804
Sample Info: VBLKW-210804;VBLKW-210804;3;;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080412.D Page 1
Report Date: 10-Sep-2021 14:36

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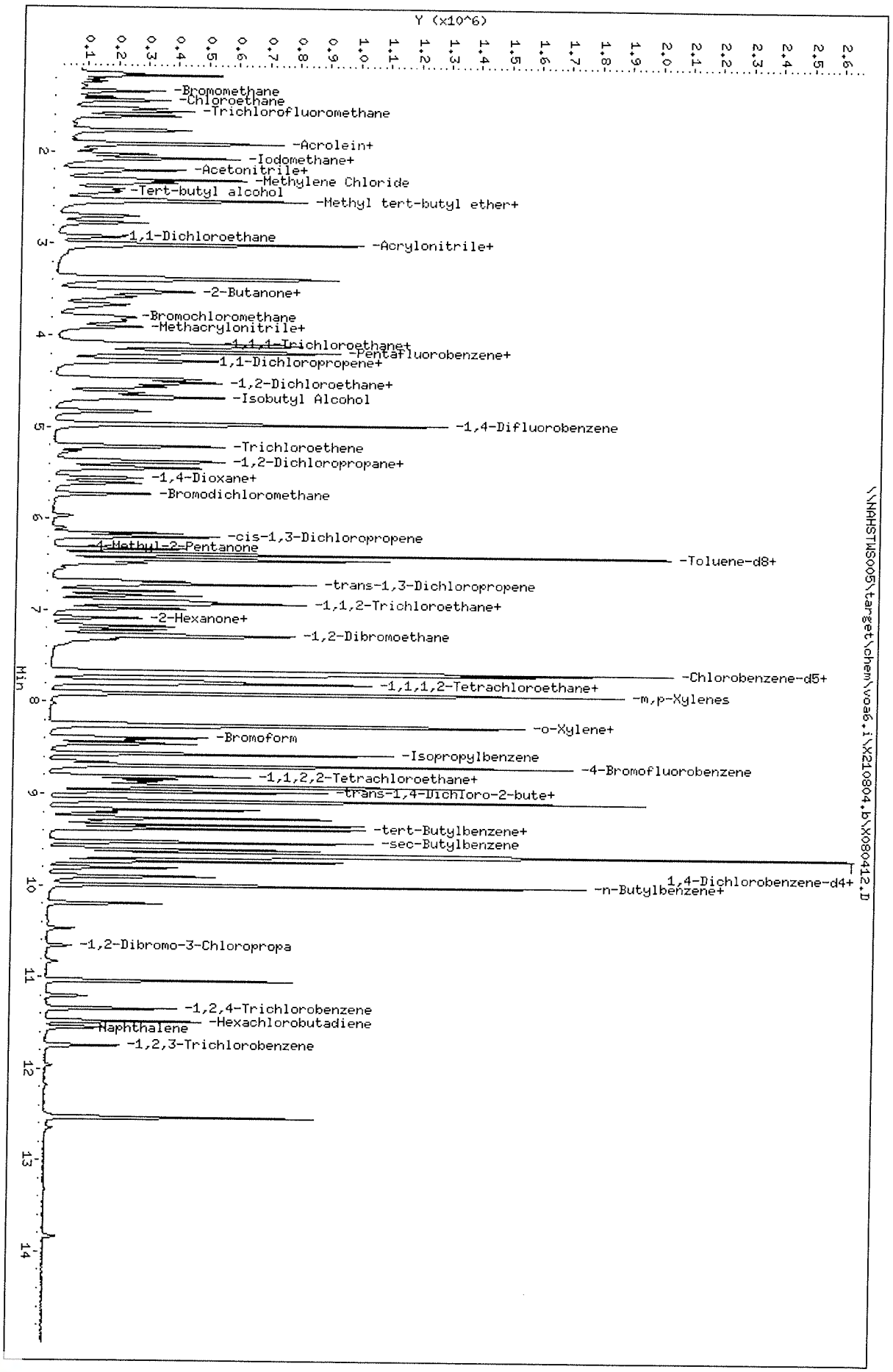
Data file : \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080412.D
Lab Smp Id: HS21071405-11MS Client Smp ID: HS21071405-11MS
Inj Date : 04-AUG-2021 14:36
Operator : PC Inst ID: voa6.i
Smp Info : HS21071405-11MS;HS21071405-11MS;3;;MS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210804.b\8260W.m
Meth Date : 10-Sep-2021 14:36 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 12 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	829615	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.096	(0.981)	366152	47.0030	47.00
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	362366	48.9411	48.94
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1124747	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	1024586	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	1232973	51.3049	51.30
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	430936	50.1373	50.13
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	537455	50.0000	
	5 Vinyl Chloride	62	1.138	1.138	(0.272)	156702	19.8431	19.84
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	132608	18.9962	18.99
	17 Methylene Chloride	84	2.306	2.298	(0.551)	132063	18.8432	18.84
	27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	154606	18.5784	18.57
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	166189	18.4183	18.41
	38 Trichloroethene	130	5.207	5.207	(1.049)	194687	23.6868	23.68
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	103612	19.3298	19.32



Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080412.D
Date : 04-AUG-2021 14:36
Client ID: HS21071405-11MS
Sample Info: HS21071405-11MS;HS21071405-11MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080413.D Page 1
Report Date: 10-Sep-2021 14:36

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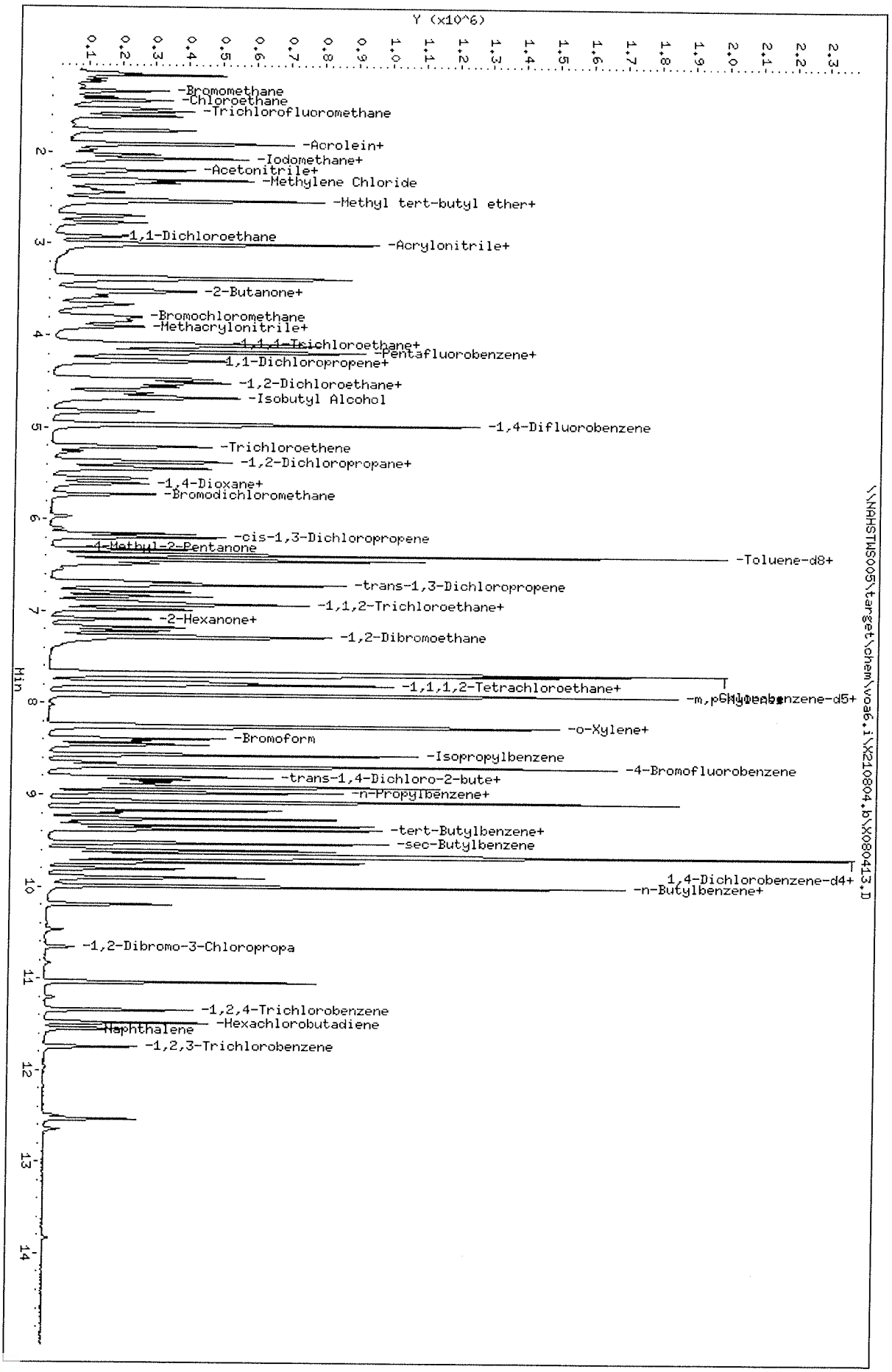
Data file : \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080413.D
Lab Smp Id: HS21071405-11MSD Client Smp ID: HS21071405-11MSD
Inj Date : 04-AUG-2021 14:57
Operator : PC Inst ID: voa6.i
Smp Info : HS21071405-11MSD;HS21071405-11MSD;3;;MSD
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210804.b\8260W.m
Meth Date : 10-Sep-2021 14:36 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 12 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	821880	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	362387	46.9566	46.95
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	350874	47.8151	47.81
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1098703	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	1008306	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1212677	51.2751	51.27
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	413687	48.8899	48.88
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	496946	50.0000	
5 Vinyl Chloride	62	1.138	1.138	(0.272)	139754	17.8635	17.86
11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	128089	18.5215	18.52
17 Methylene Chloride	84	2.305	2.298	(0.551)	127761	18.3956	18.39
27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	145733	17.6770	17.67
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	163339	18.5316	18.53
38 Trichloroethene	130	5.206	5.207	(1.049)	163591	20.3753	20.37
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	103750	19.6680	19.66



Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080413.D
Date : 04-AUG-2021 14:57
Client ID: HS21071405-11MSD
Sample Info: HS21071405-11MSD;HS21071405-11MSD;3;;MSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080418.D Page 1
Report Date: 10-Sep-2021 14:34

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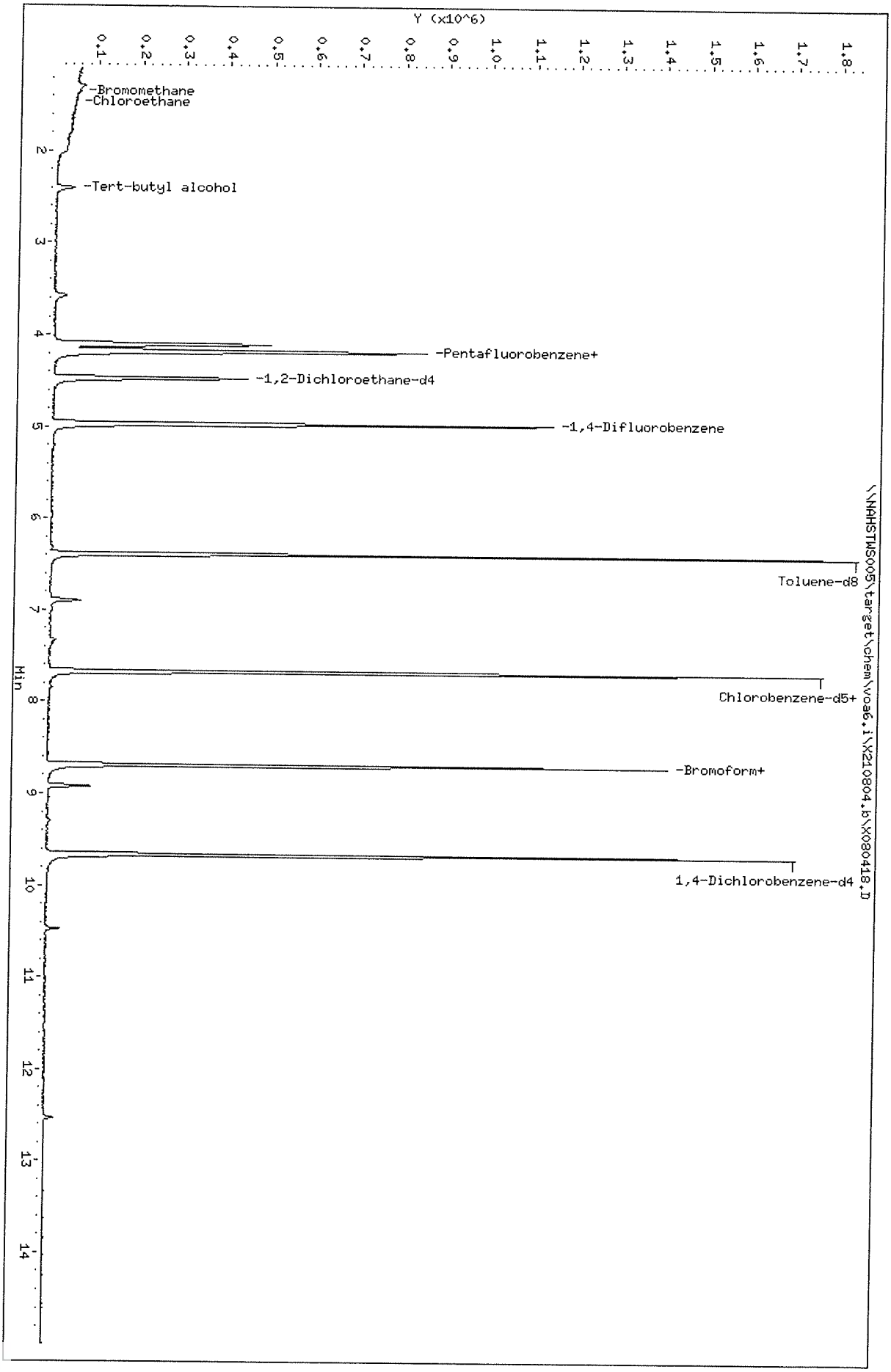
Data file : \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080418.D
Lab Smp Id: HS21071592-06 Client Smp ID: HS21071592-06
Inj Date : 04-AUG-2021 16:42
Operator : PC Inst ID: voa6.i
Smp Info : HS21071592-06;HS21071592-06;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210804.b\8260W.m
Meth Date : 10-Sep-2021 14:30 Genoveva.R Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	763238	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	346476	48.3745	48.37
$ 35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.068)	325497	47.7640	47.76
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1027511	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	900632	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1126466	53.3242	53.32
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	374608	49.5743	49.57
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	438984	50.0000	



Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080418.D
Date : 04-AUG-2021 16:42
Client ID: HS21071592-06
Sample Info: HS21071592-06;HS21071592-06;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

\\NAHSTWS005\target\chem\voa6.i\X210804.b\X080418.D

Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080419.D Page 1
Report Date: 10-Sep-2021 14:34

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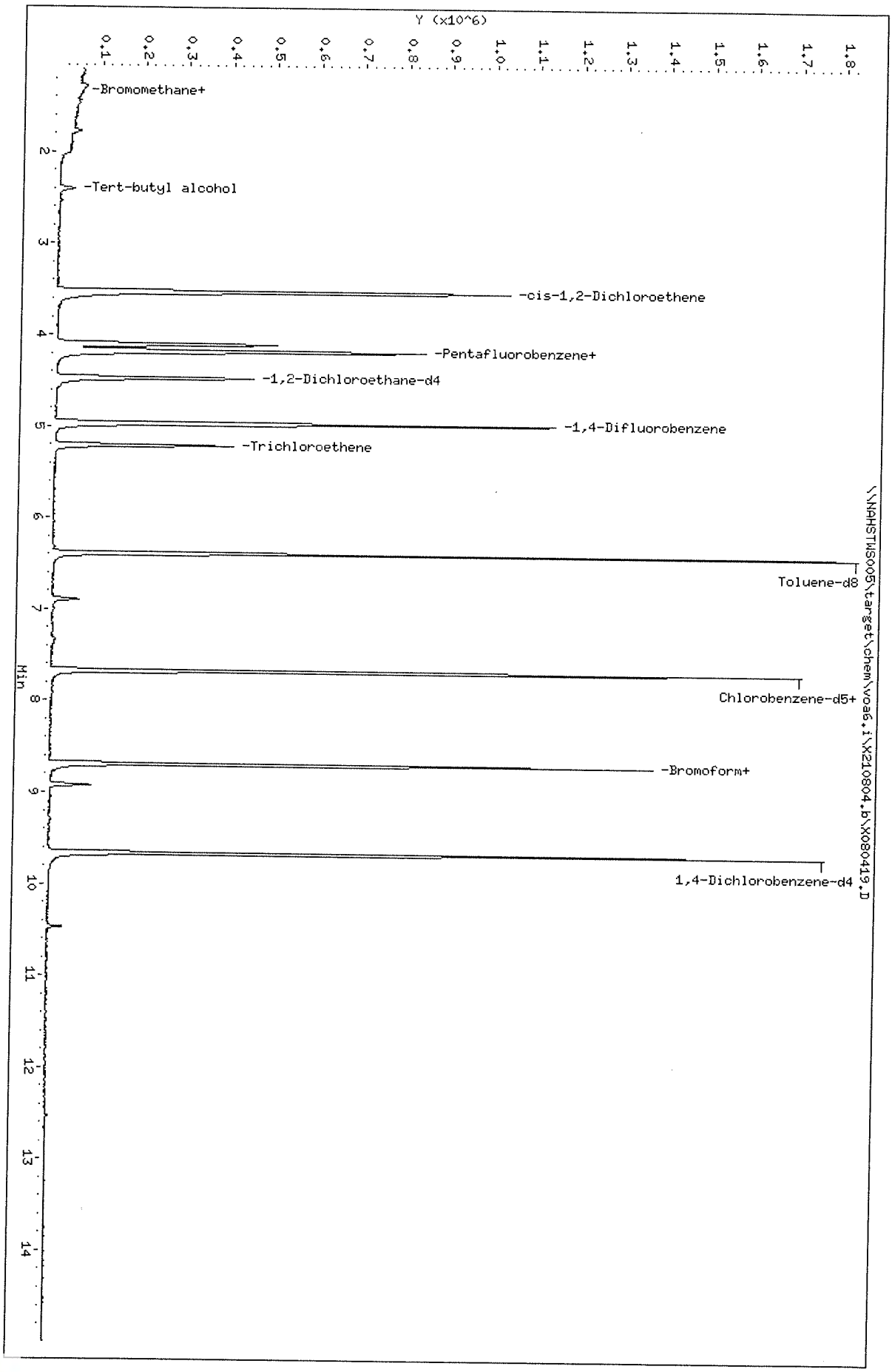
Data file : \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080419.D
Lab Smp Id: HS21071592-03 Client Smp ID: HS21071592-03
Inj Date : 04-AUG-2021 17:03
Operator : PC Inst ID: voa6.i
Smp Info : HS21071592-03;HS21071592-03;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210804.b\8260W.m
Meth Date : 10-Sep-2021 14:30 Genoveva.R Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	761355	50.0000	
$	30 Dibromofluoromethane	113	4.104	4.103	(0.981)	341456	47.7792	47.77
$	35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.069)	334917	49.2956	49.29
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1028607	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	914271	50.0000	
$	48 Toluene-d8	98	6.389	6.388	(0.833)	1137760	53.0554	53.05
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	372756	48.5791	48.57
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	453806	50.0000	
	27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	585714	76.6933	76.69
	38 Trichloroethene	130	5.207	5.207	(1.049)	141710	18.8528	18.85



Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080419.D
Date : 04-AUG-2021 17:03
Client ID: HS21071592-03
Sample Info: HS21071592-03;HS21071592-03;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080419.D

Date : 04-AUG-2021 17:03

Client ID: HS21071592-03

Instrument: voa6.i

Sample Info: HS21071592-03;HS21071592-03;;;

Purge Volume: 5.0

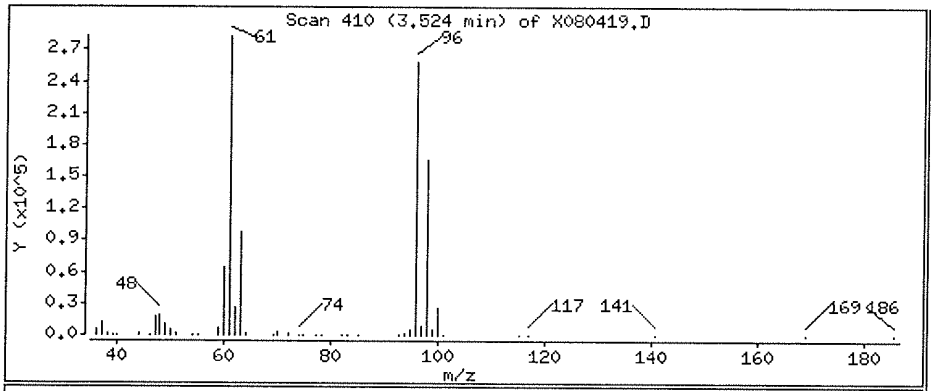
Operator: PC

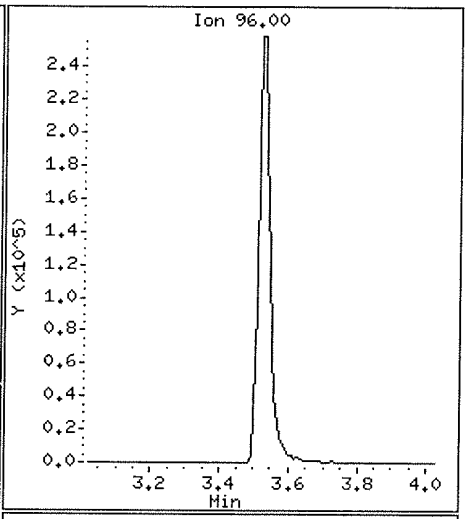
Column phase: DB624

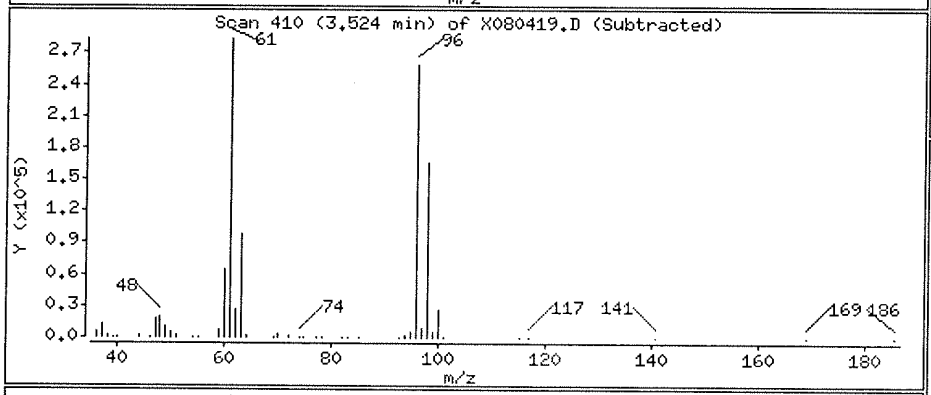
Column diameter: 0.18

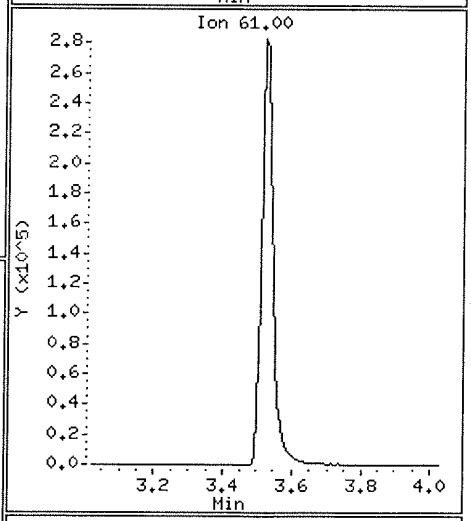
27 cis-1,2-Dichloroethene

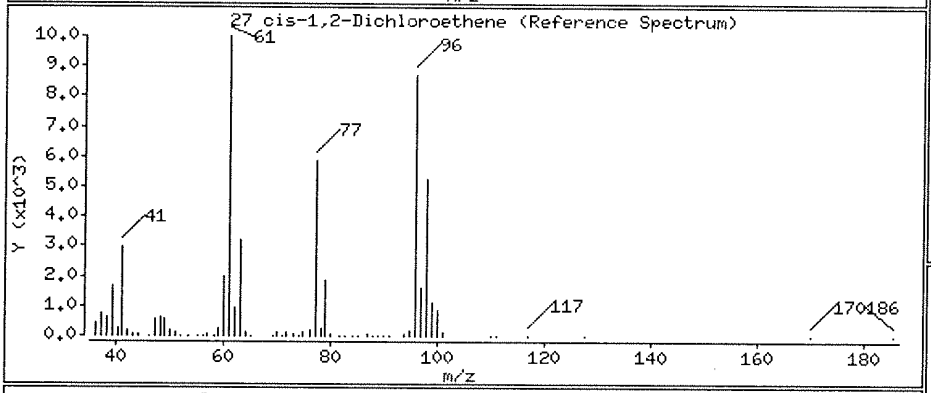
Concentration: 76.69 ug/l

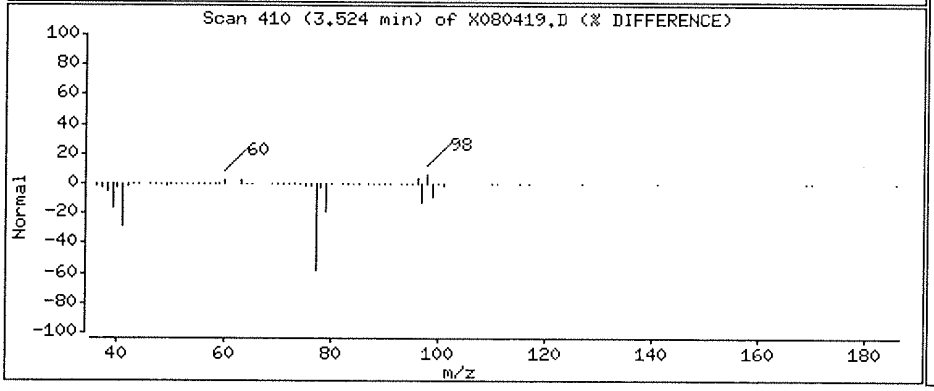


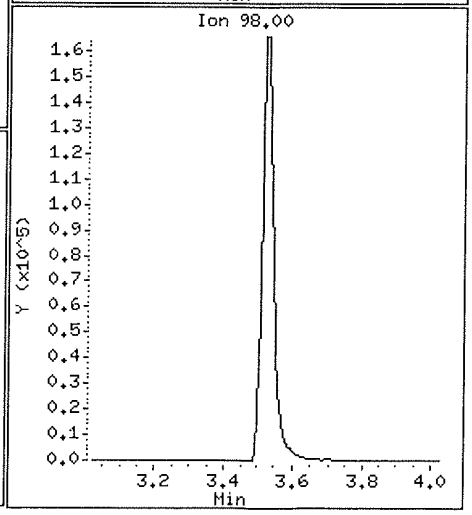












Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080419.D

Date : 04-AUG-2021 17:03

Client ID: HS21071592-03

Instrument: voa6.i

Sample Info: HS21071592-03;HS21071592-03;;;

Purge Volume: 5.0

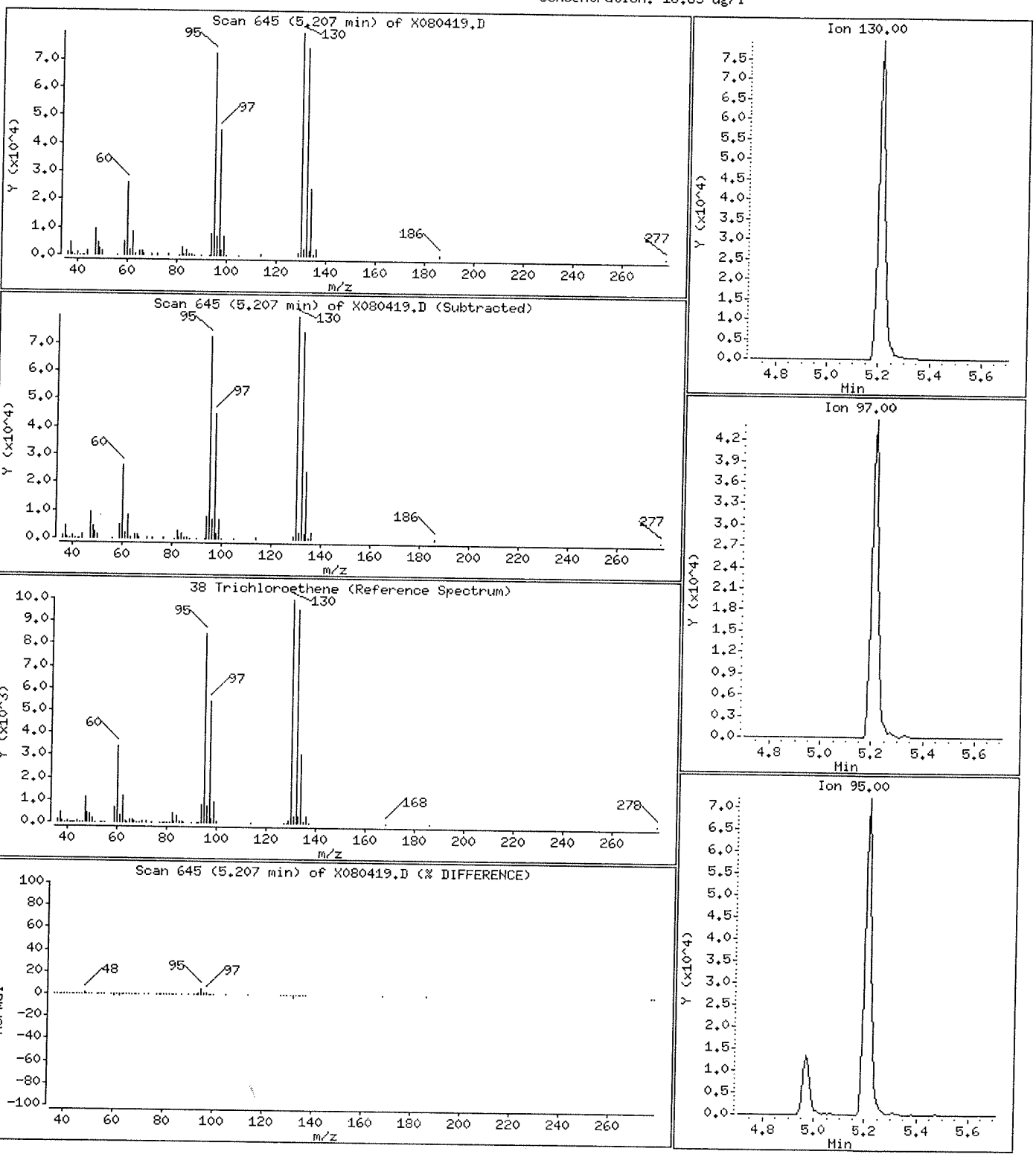
Operator: PC

Column phase: DB624

Column diameter: 0.18

38 Trichloroethene

Concentration: 18.85 ug/l



Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080420.D Page 1
Report Date: 10-Sep-2021 14:34

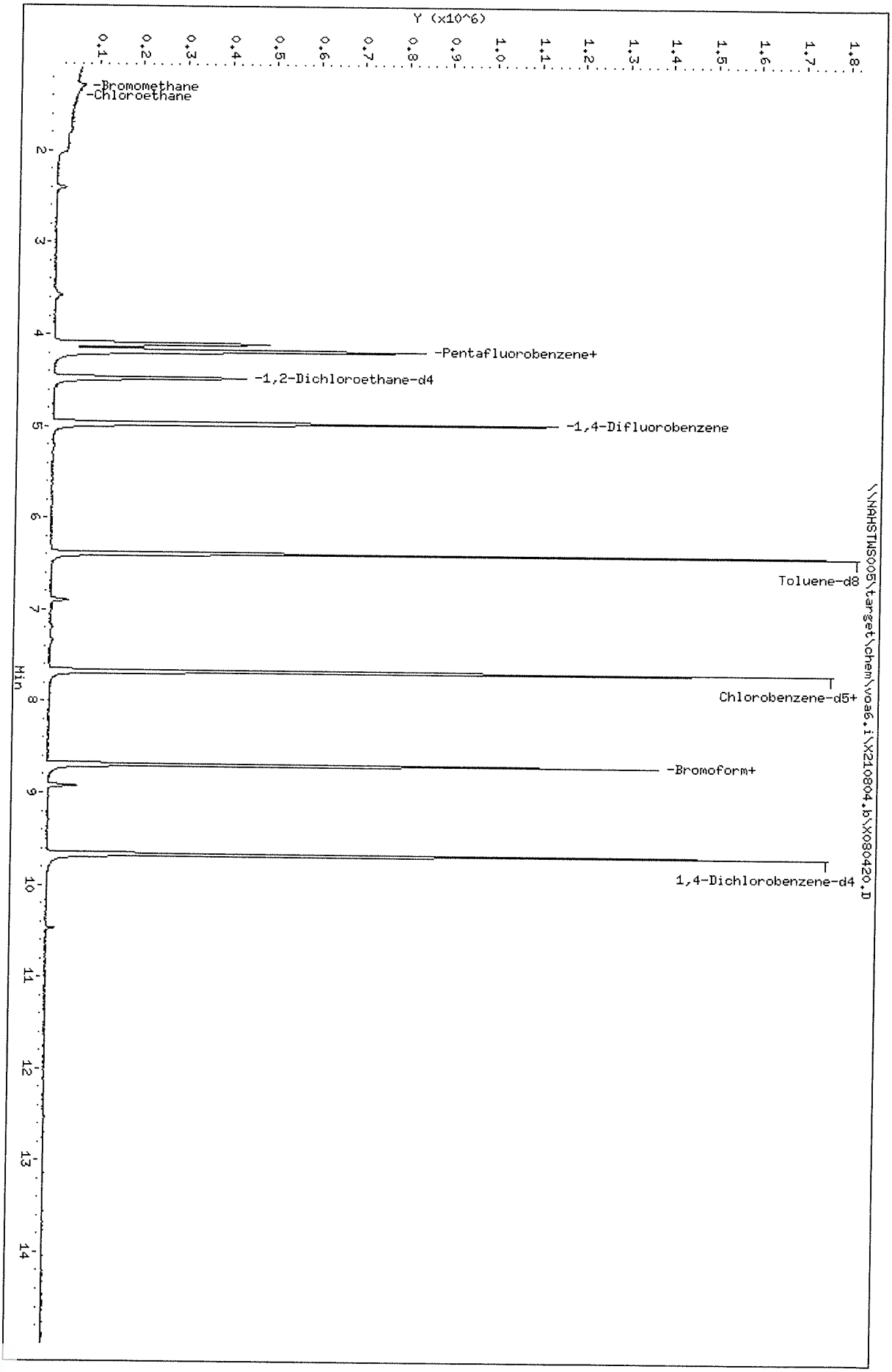
ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080420.D
Lab Smp Id: HS21071592-04 Client Smp ID: HS21071592-04
Inj Date : 04-AUG-2021 17:24
Operator : PC Inst ID: voa6.i
Smp Info : HS21071592-04;HS21071592-04;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210804.b\8260W.m
Meth Date : 10-Sep-2021 14:30 Genoveva.R Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	757133	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	341415	48.0455	48.04
$ 35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.068)	329654	48.7825	48.78
* 36 1,4-Difluorobenzene	114	4.970	4.963	(1.000)	1026458	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	896357	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1119919	53.2671	53.26
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	376725	50.0997	50.09
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	449845	50.0000	



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Date : 04-AUG-2021 17:24
Client ID: HS21071592-04
Sample Info: HS21071592-04;HS21071592-04;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080421.D Page 1
Report Date: 10-Sep-2021 14:34

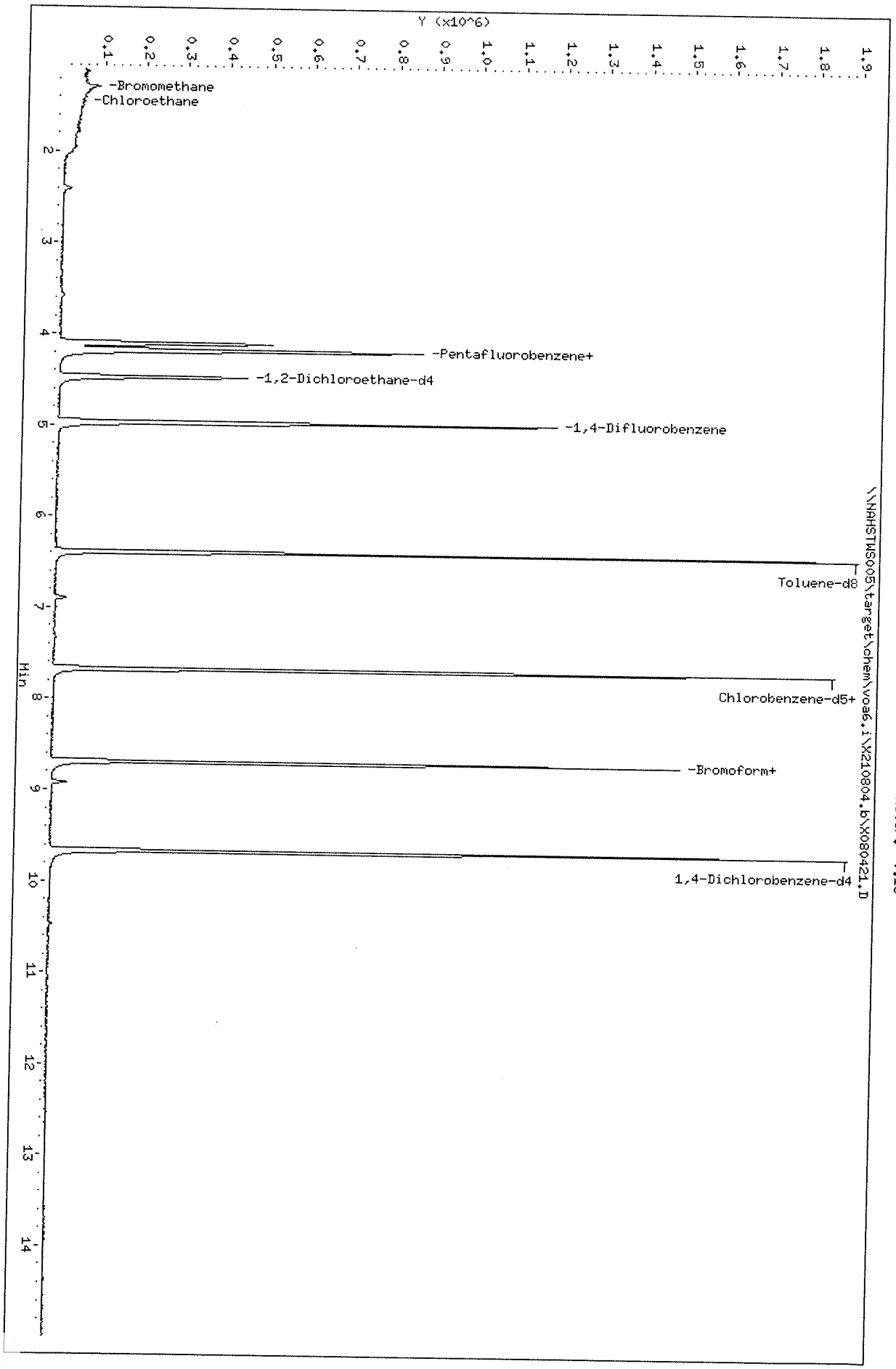
ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080421.D
Lab Smp Id: HS21071592-05 Client Smp ID: HS21071592-05
Inj Date : 04-AUG-2021 17:45
Operator : PC Inst ID: voa6.i
Smp Info : HS21071592-05;HS21071592-05;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210804.b\8260W.m
Meth Date : 10-Sep-2021 14:30 Genoveva.R Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	783776	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.103	(0.979)	347690	47.2487	47.24
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	338578	48.3930	48.39
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1050707	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	952082	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	1142212	51.1477	51.14
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	392577	49.1385	49.13
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	495038	50.0000	



Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080421.D
Date : 04-AUG-2021 17:45
Client ID: HS21071592-05
Sample Info: HS21071592-05;HS21071592-05;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080423.D Page 1
Report Date: 10-Sep-2021 14:34

ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080423.D
Lab Smp Id: HS21071592-02 Client Smp ID: HS21071592-02
Inj Date : 04-AUG-2021 18:27
Operator : PC Inst ID: voa6.i
Smp Info : HS21071592-02;HS21071592-02;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210804.b\8260W.m
Meth Date : 10-Sep-2021 14:30 Genoveva.R Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

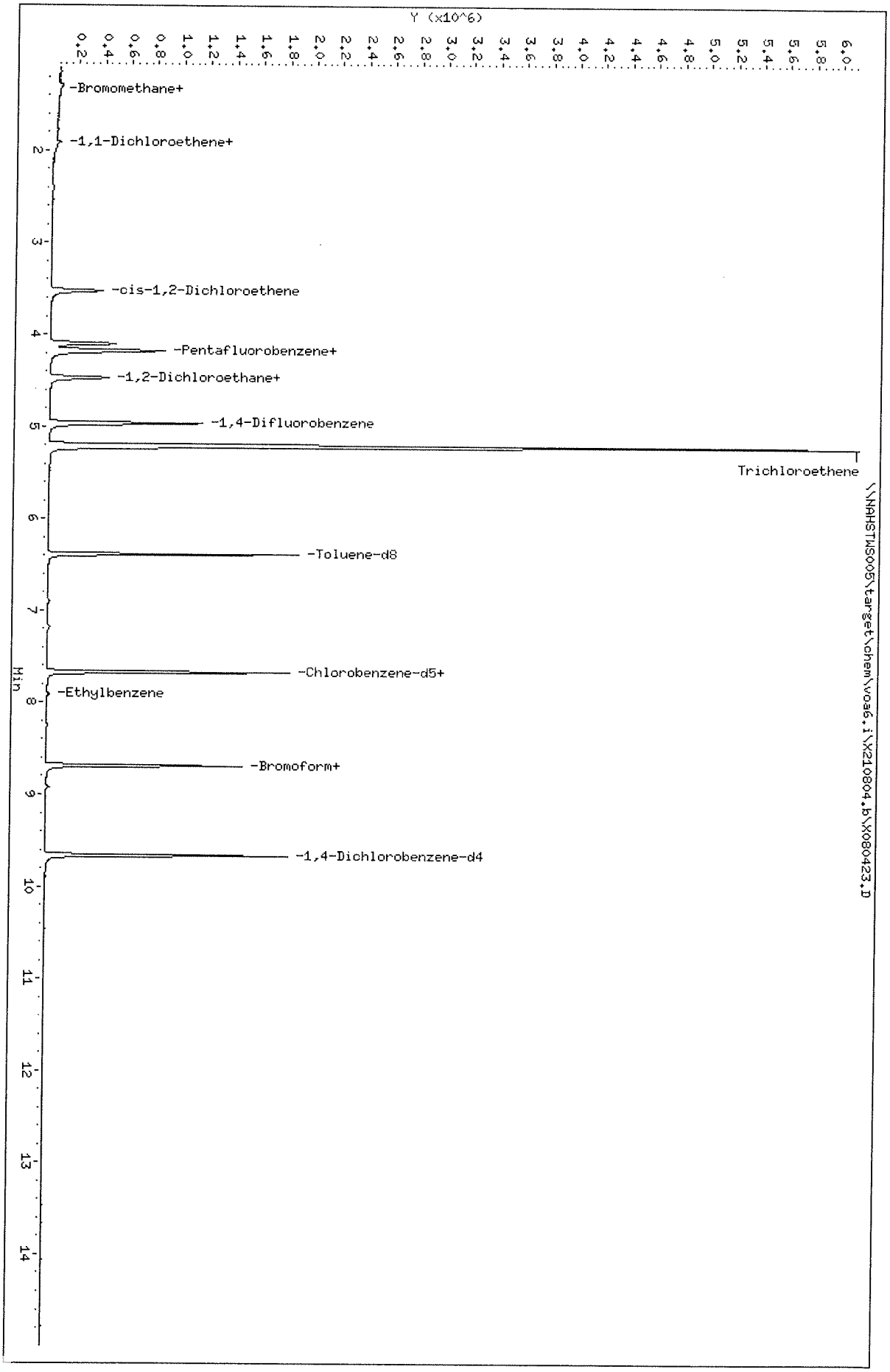
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	772286	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	349906	48.2791	48.27
$ 35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.069)	334569	48.5340	48.53
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1041475	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	948240	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1141721	51.3328	51.33
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	395844	49.7571	49.75
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	480729	50.0000	
5 Vinyl Chloride	62	1.138	1.138	(0.272)	7108	0.96690	0.96(a)
11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	3786	0.58261	0.58(a)
27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	224359	28.9617	28.96
33 1,2-Dichloroethane	62	4.562	4.555	(0.919)	4821	0.57702	0.57(a)
38 Trichloroethene	130	5.206	5.207	(1.049)	2101852	276.171	276.17(A)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080423.D
Date : 04-AUG-2021 18:27
Client ID: HS21071592-02
Sample Info: HS21071592-02;HS21071592-02;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080423.D

Date : 04-AUG-2021 18:27

Client ID: HS21071592-02

Instrument: voa6.i

Sample Info: HS21071592-02;HS21071592-02;;;

Purge Volume: 5.0

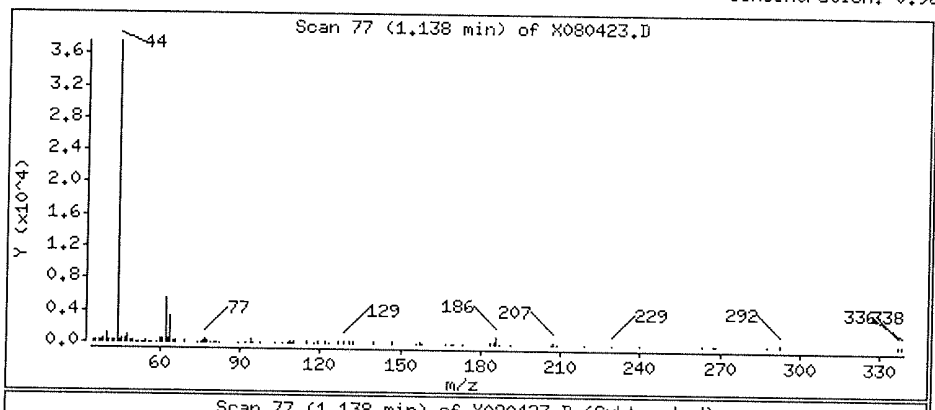
Operator: PC

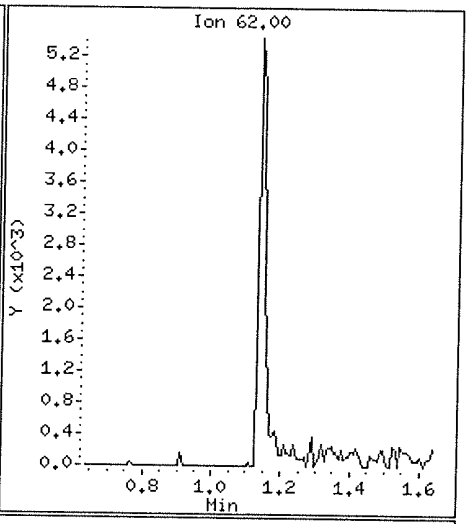
Column phase: DB624

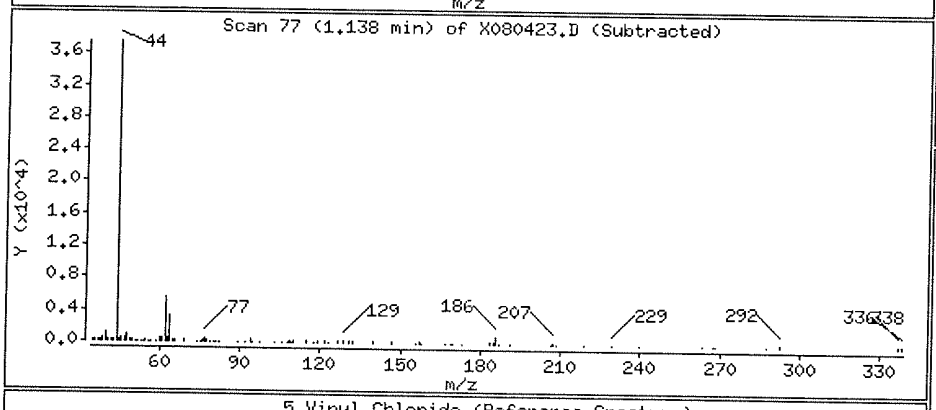
Column diameter: 0.18

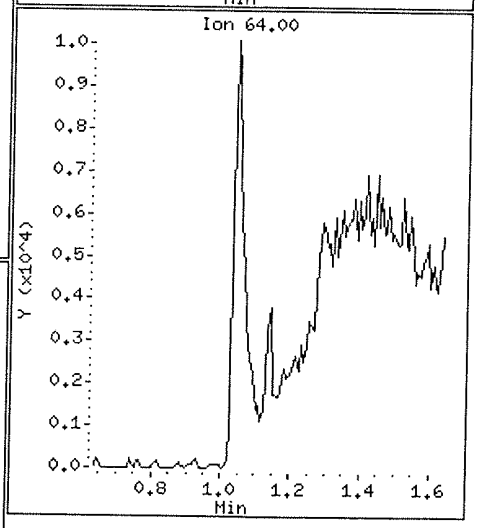
5 Vinyl Chloride

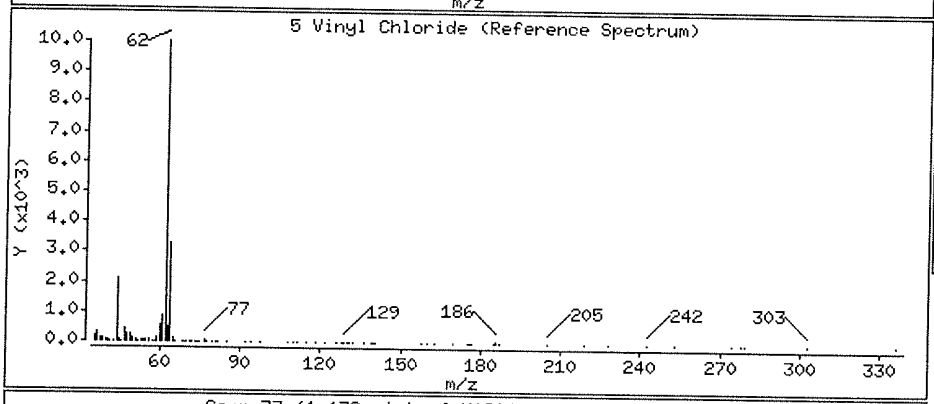
Concentration: 0.96 ug/l

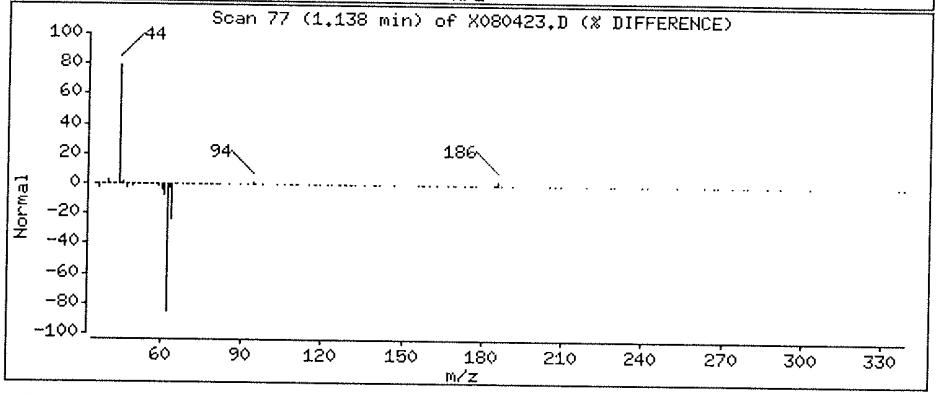












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Date : 04-AUG-2021 18:27

Client ID: HS21071592-02

Instrument: voa6.i

Sample Info: HS21071592-02;HS21071592-02;;;

Purge Volume: 5.0

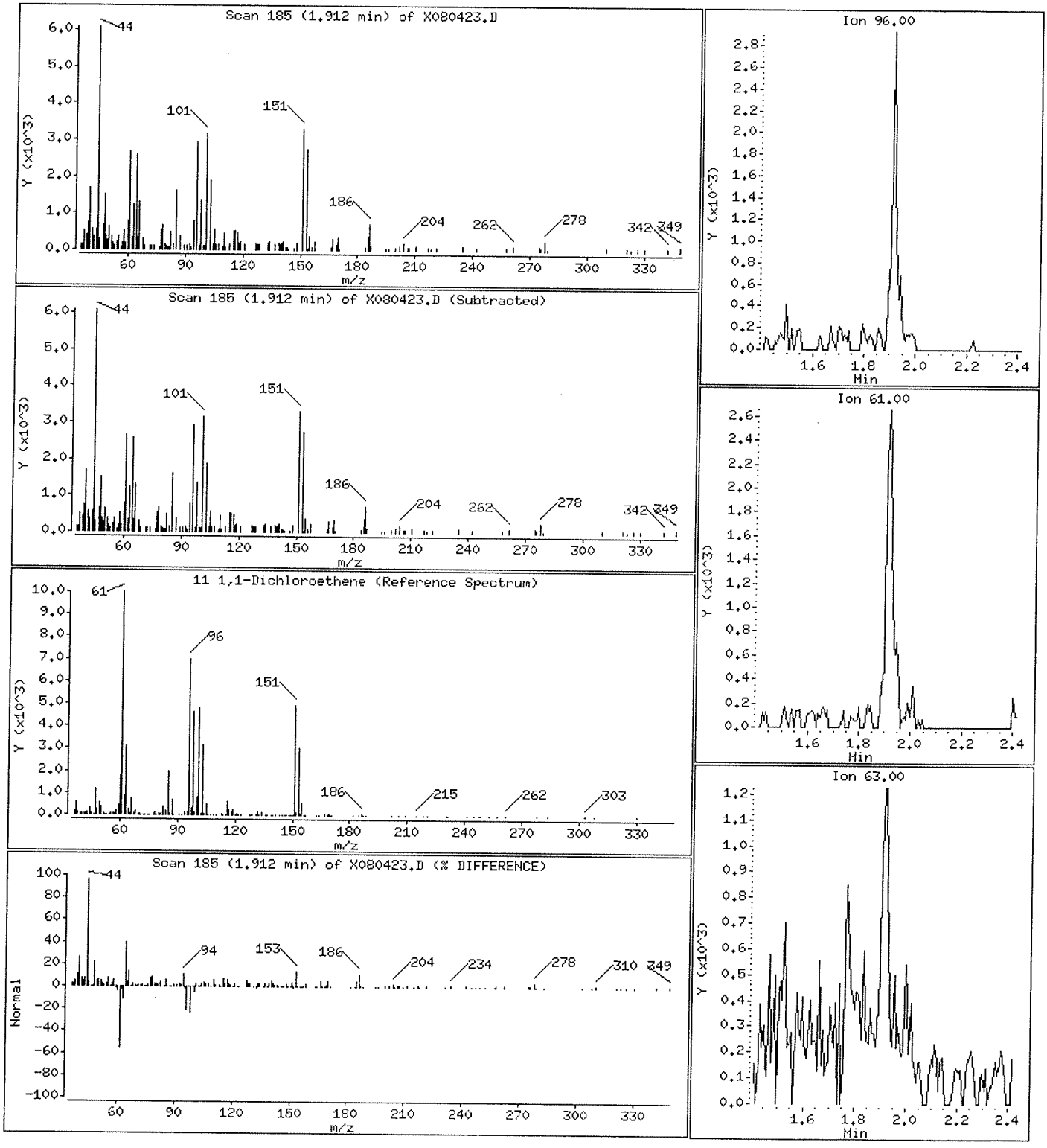
Operator: PC

Column phase: DB624

Column diameter: 0.18

11 1,1-Dichloroethene

Concentration: 0.58 ug/l



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Date : 04-AUG-2021 18:27

Client ID: HS21071592-02

Instrument: voa6.i

Sample Info: HS21071592-02;HS21071592-02;;;

Purge Volume: 5.0

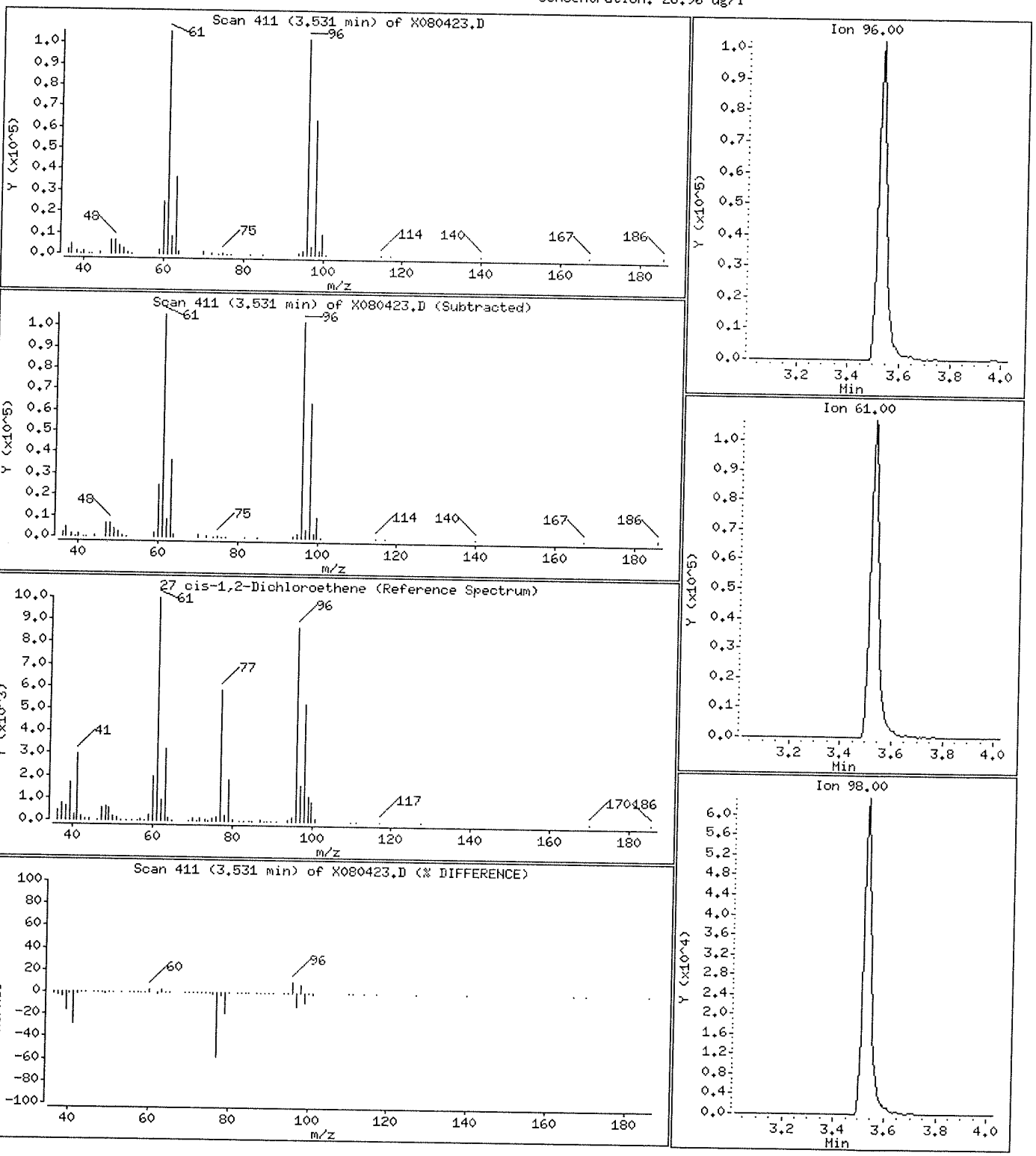
Operator: PC

Column phase: DB624

Column diameter: 0.18

27 cis-1,2-Dichloroethene

Concentration: 28.96 ug/l



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Date : 04-AUG-2021 18:27

Client ID: HS21071592-02

Instrument: voa6.i

Sample Info: HS21071592-02;HS21071592-02;;;

Purge Volume: 5.0

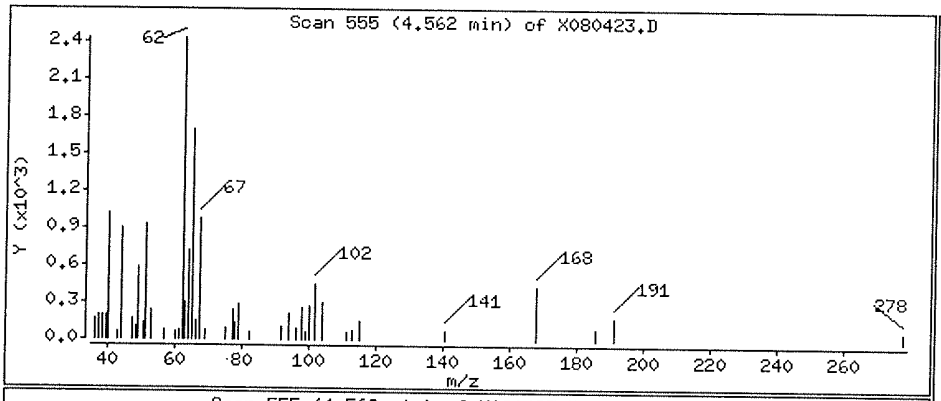
Operator: PC

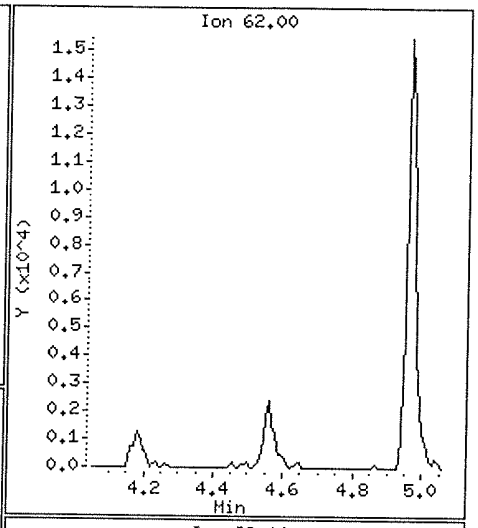
Column phase: DB624

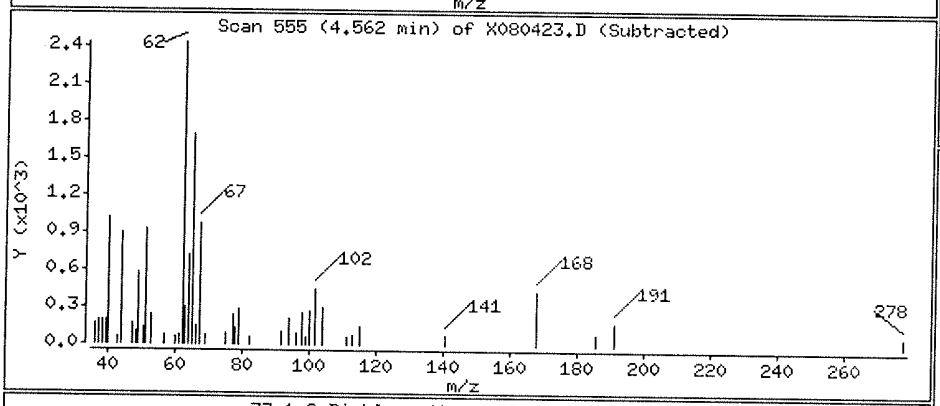
Column diameter: 0.18

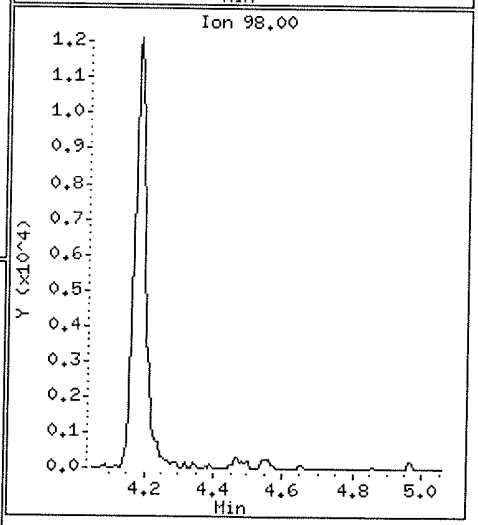
33 1,2-Dichloroethane

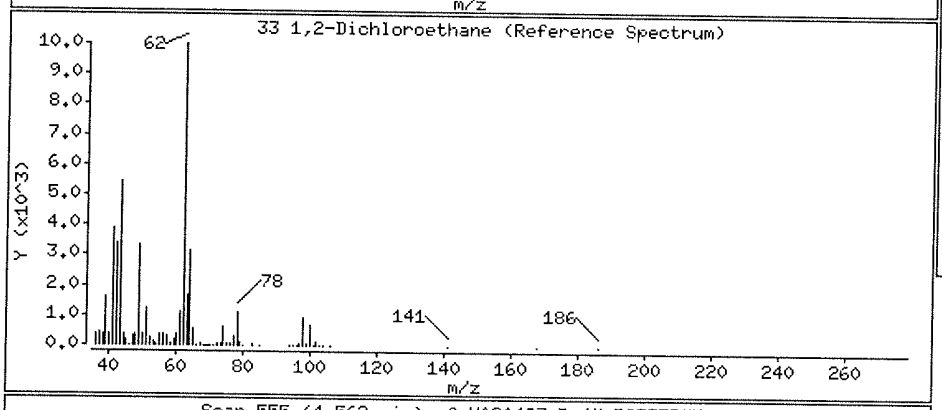
Concentration: 0.57 ug/l

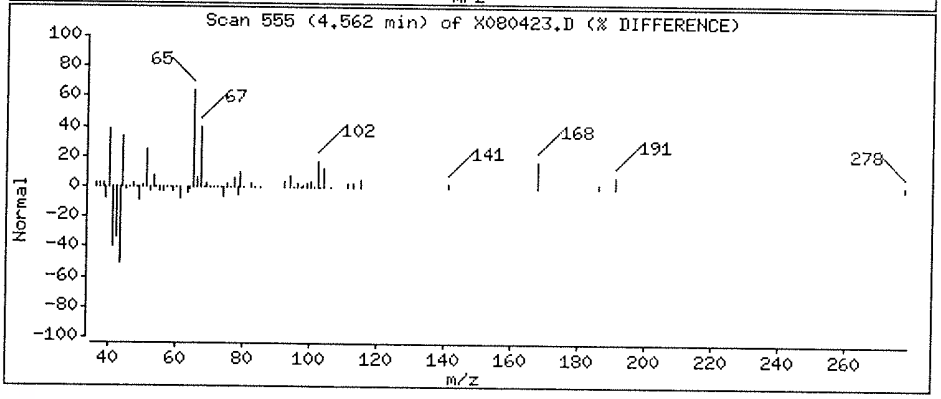












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Date : 04-AUG-2021 18:27

Client ID: HS21071592-02

Instrument: voa6.i

Sample Info: HS21071592-02;HS21071592-02;;;

Purge Volume: 5.0

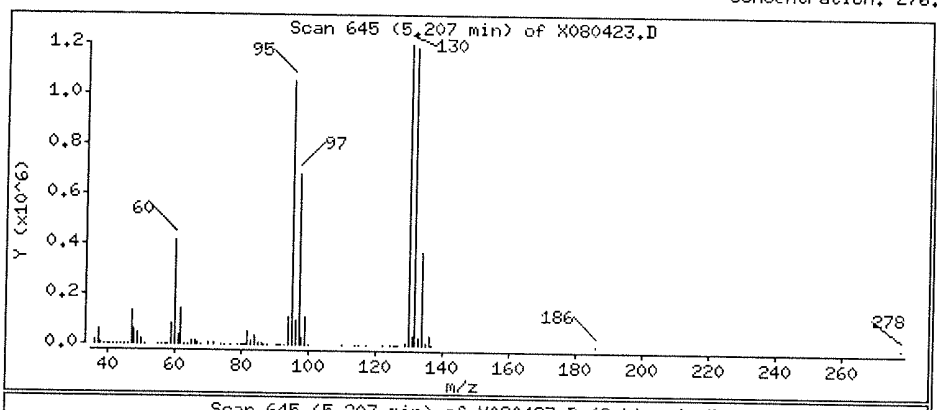
Operator: PC

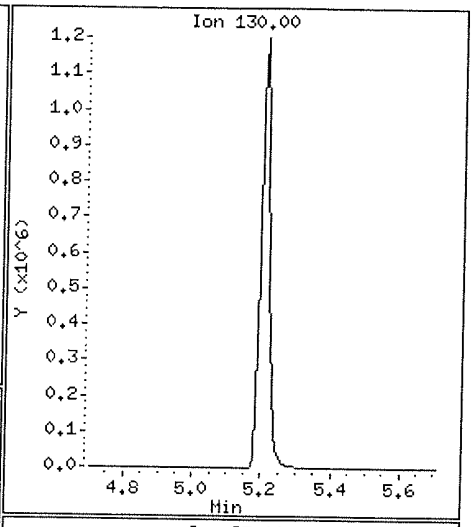
Column phase: DB624

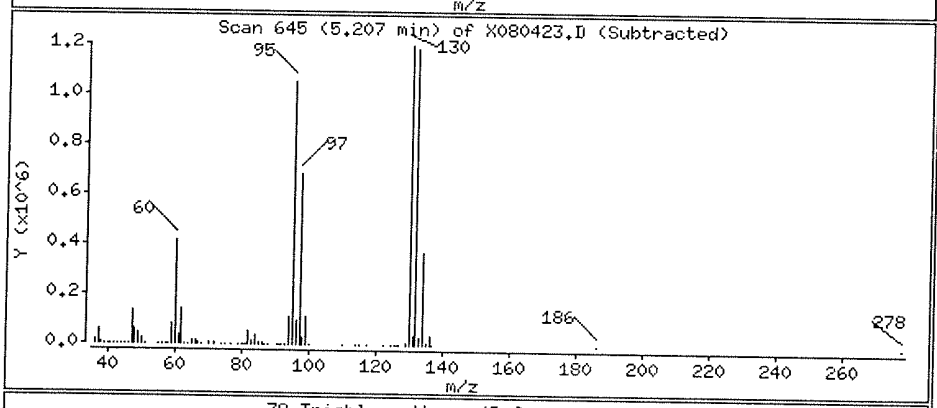
Column diameter: 0.18

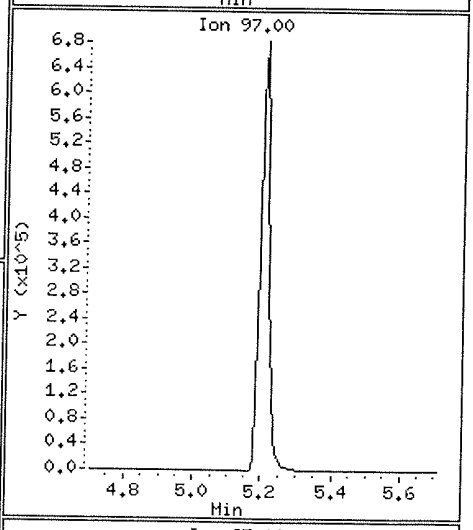
38 Trichloroethene

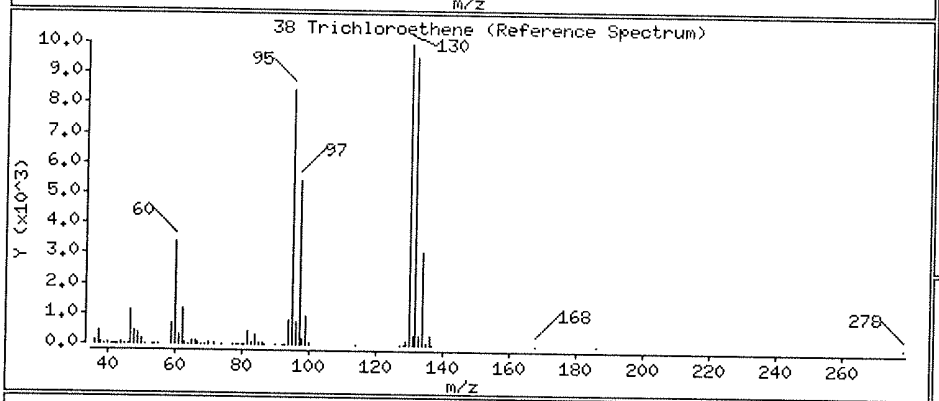
Concentration: 276.17 ug/l

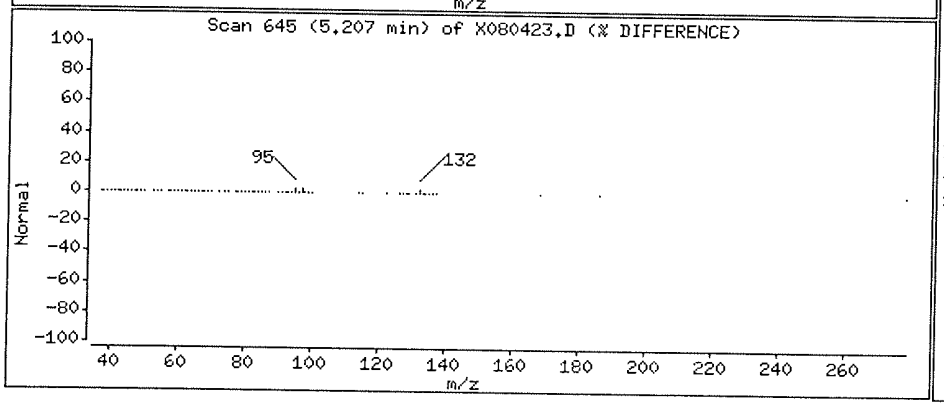


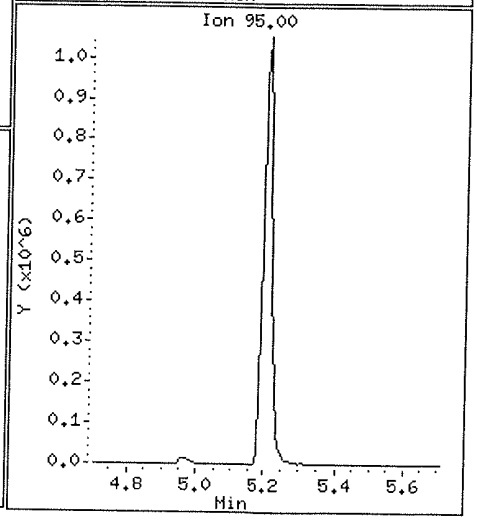












Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080430.D Page 1
Report Date: 10-Sep-2021 14:34

ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080430.D
Lab Smp Id: HS21071592-01 Client Smp ID: HS21071592-01
Inj Date : 04-AUG-2021 20:55
Operator : PC Inst ID: voa6.i
Smp Info : HS21071592-01;HS21071592-01;;;
Misc Info : HS18090001;WATER;0;5;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210804.b\8260W.m
Meth Date : 10-Sep-2021 14:30 Genoveva.R Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 29
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	5.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

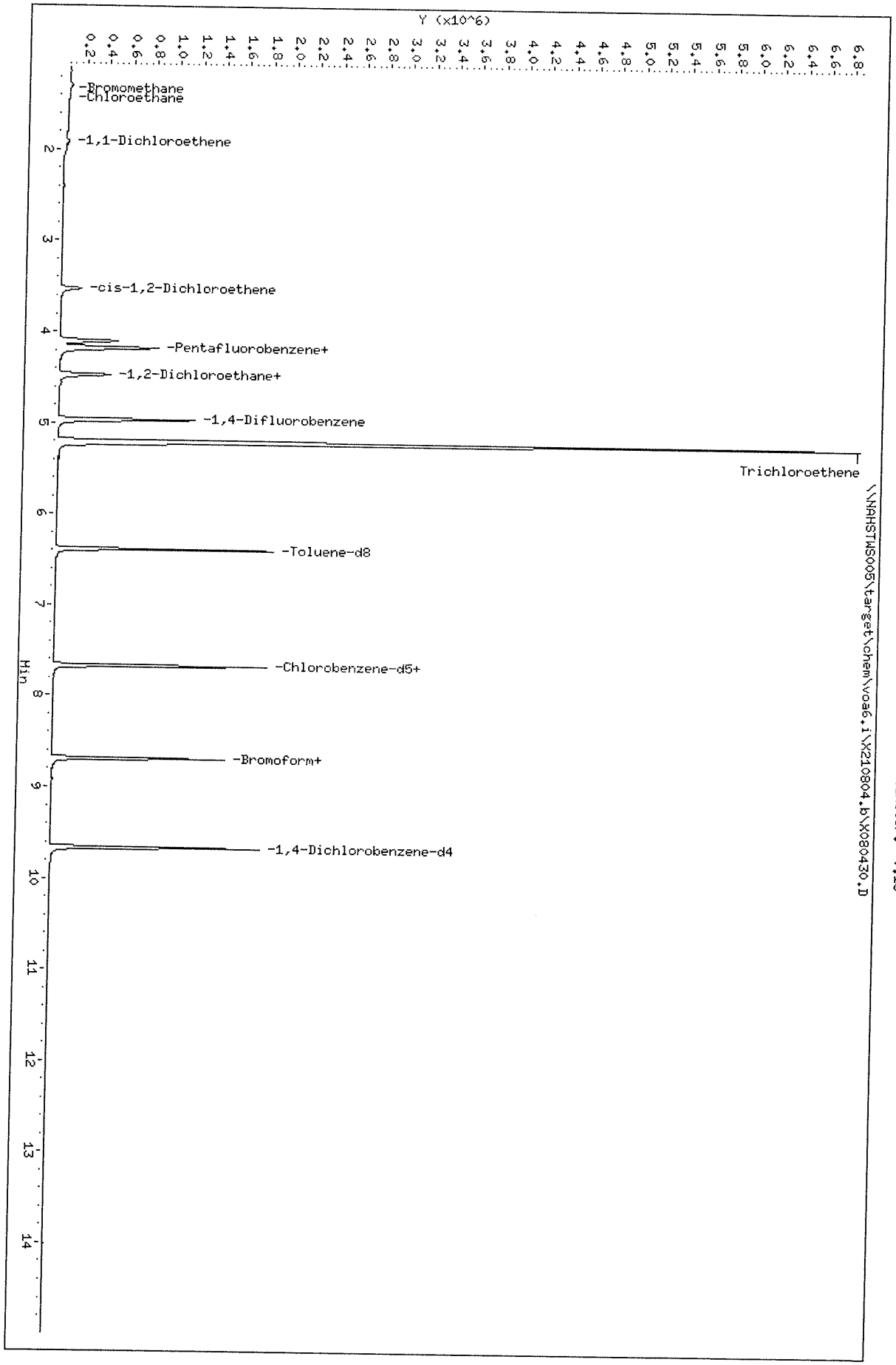
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	767668	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.103	(0.979)	342491	47.5246	47.52
$	35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.068)	325810	47.5298	47.52
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1043595	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	946677	50.0000	
$	48 Toluene-d8	98	6.389	6.388	(0.833)	1141569	51.4107	51.41
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	388008	48.8396	48.83
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	451605	50.0000	
	5 Vinyl Chloride	62	1.145	1.138	(0.274)	8053	1.10204	5.51(a)
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	5123	0.79309	3.96(a)
	27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	98512	12.7931	63.96
	33 1,2-Dichloroethane	62	4.562	4.555	(0.919)	9774	1.16746	5.83(a)
	38 Trichloroethene	130	5.207	5.207	(1.049)	2393716	313.881	1569.40(A)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080430.D
Date : 04-AUG-2021 20:55
Client ID: HS210715Q2-01
Sample Info: HS210715Q2-01;HS210715Q2-01;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080430.D

Date : 04-AUG-2021 20:55

Client ID: HS21071592-01

Instrument: voa6.i

Sample Info: HS21071592-01;HS21071592-01;;;

Purge Volume: 5.0

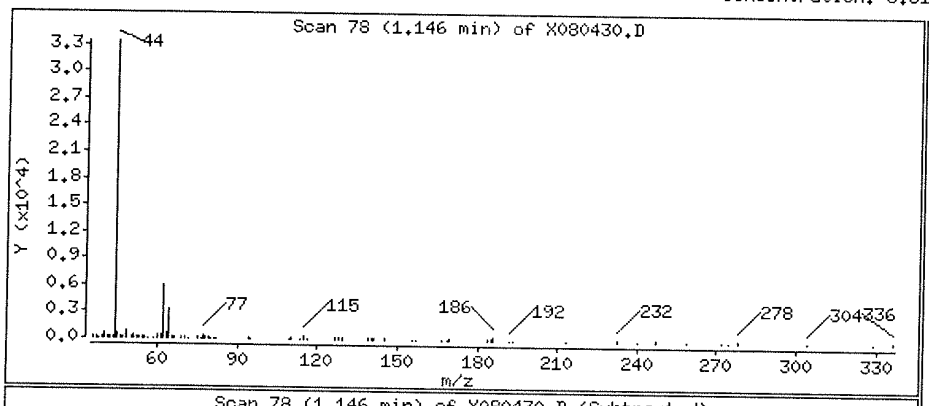
Operator: PC

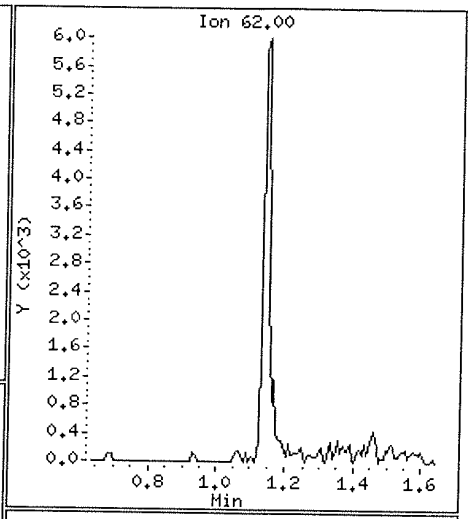
Column phase: DB624

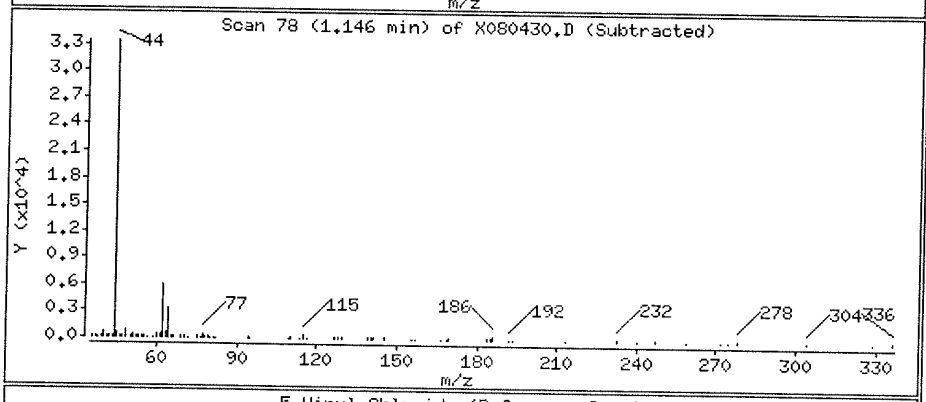
Column diameter: 0.18

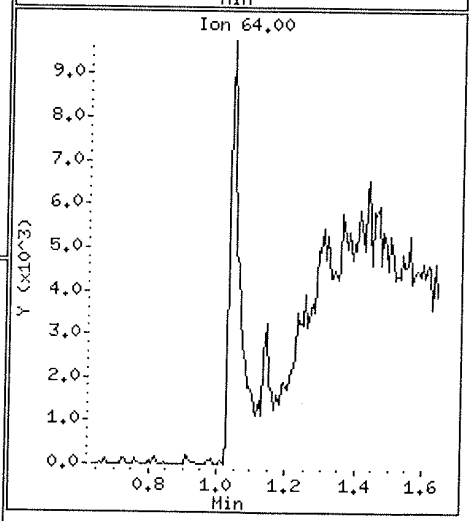
5 Vinyl Chloride

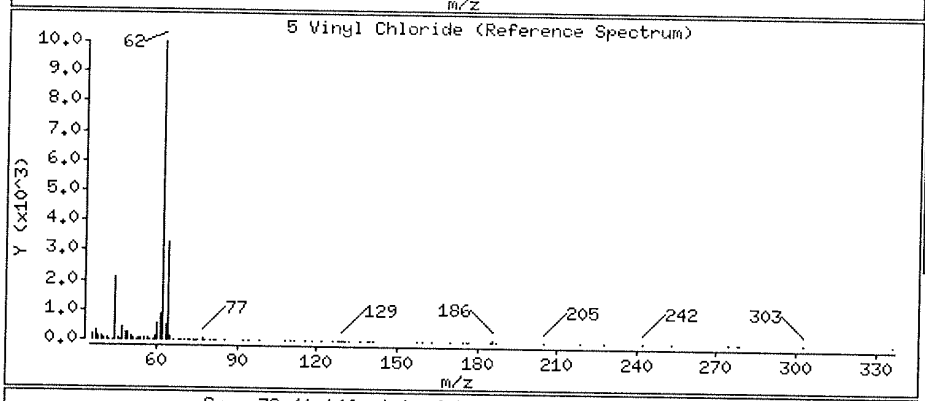
Concentration: 5.51 ug/l

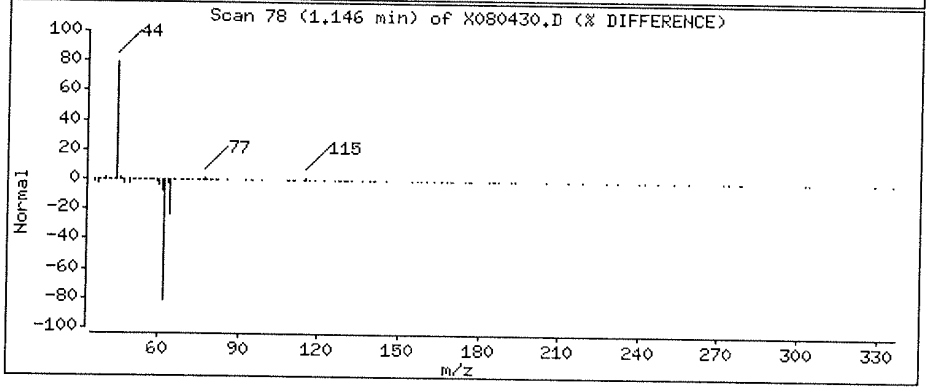












Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080430.D

Date : 04-AUG-2021 20:55

Client ID: HS21071592-01

Instrument: voa6.i

Sample Info: HS21071592-01;HS21071592-01;;;

Purge Volume: 5.0

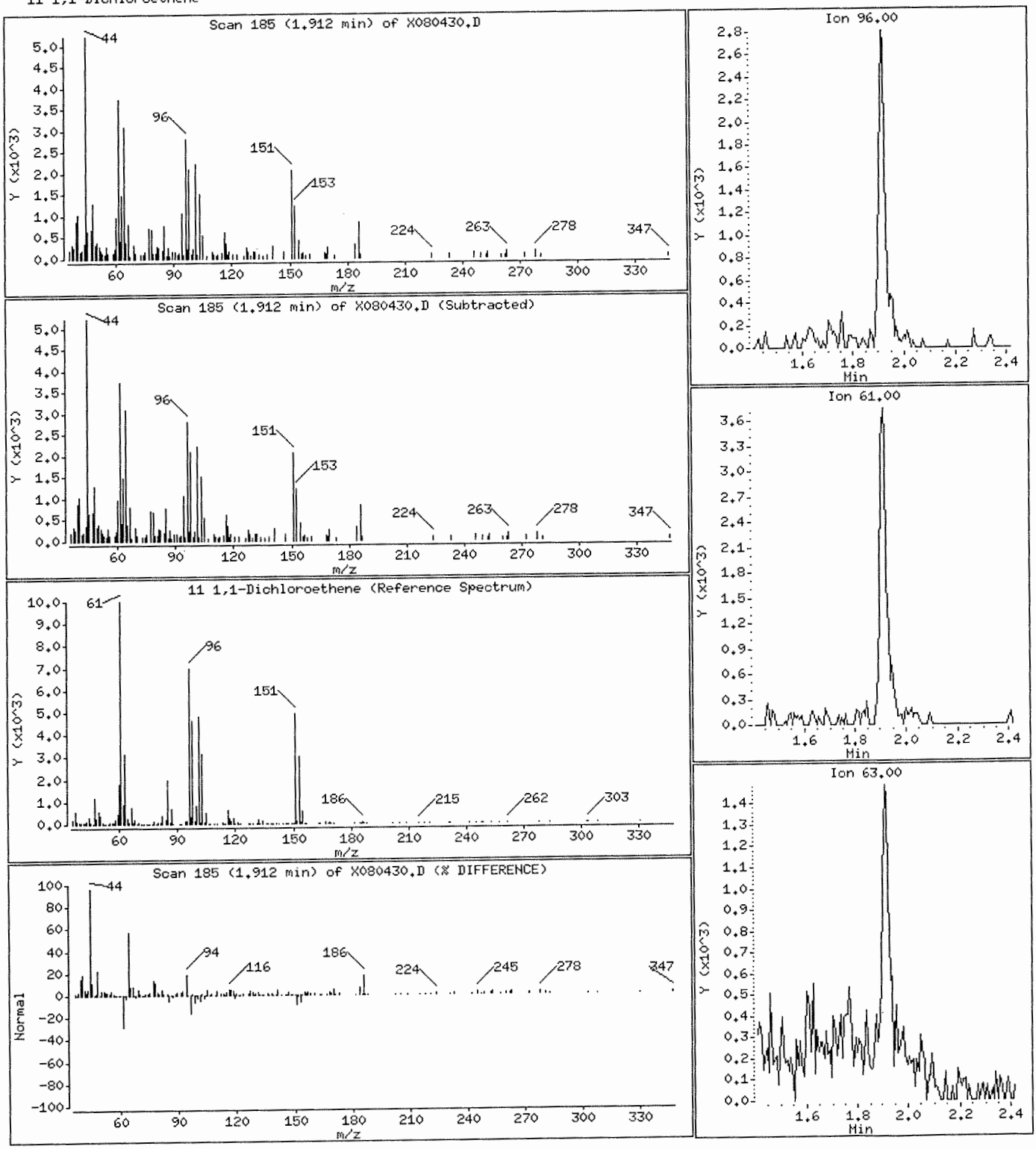
Operator: PC

Column phase: DB624

Column diameter: 0.18

11 1,1-Dichloroethene

Concentration: 3.96 ug/l



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Date : 04-AUG-2021 20:55

Client ID: HS21071592-01

Instrument: voa6.i

Sample Info: HS21071592-01;HS21071592-01;;;

Purge Volume: 5.0

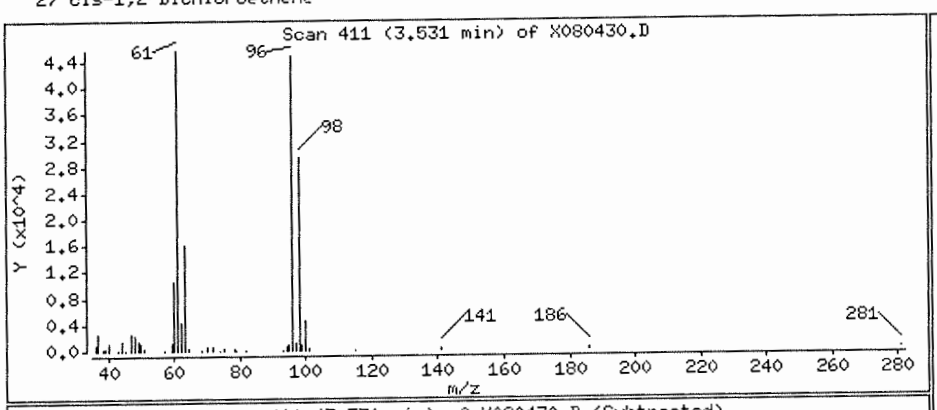
Operator: PC

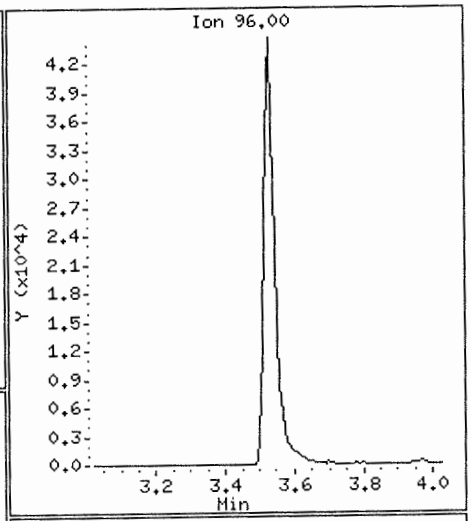
Column phase: DB624

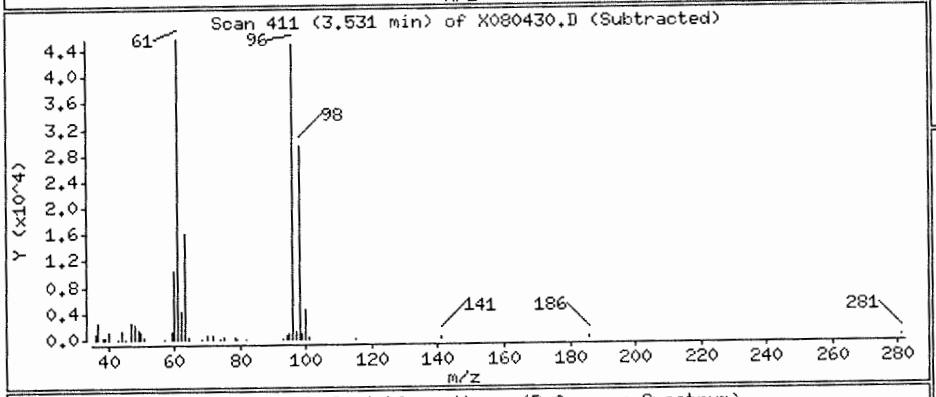
Column diameter: 0.18

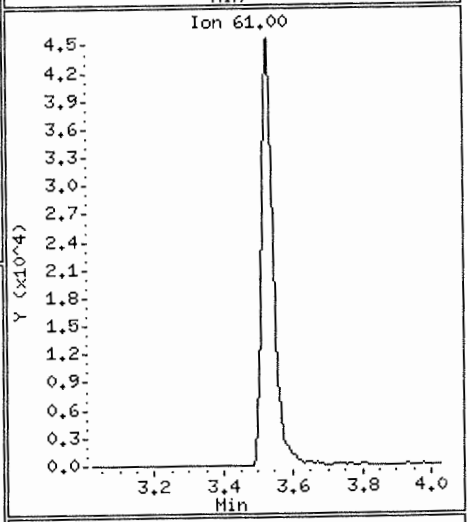
27 cis-1,2-Dichloroethene

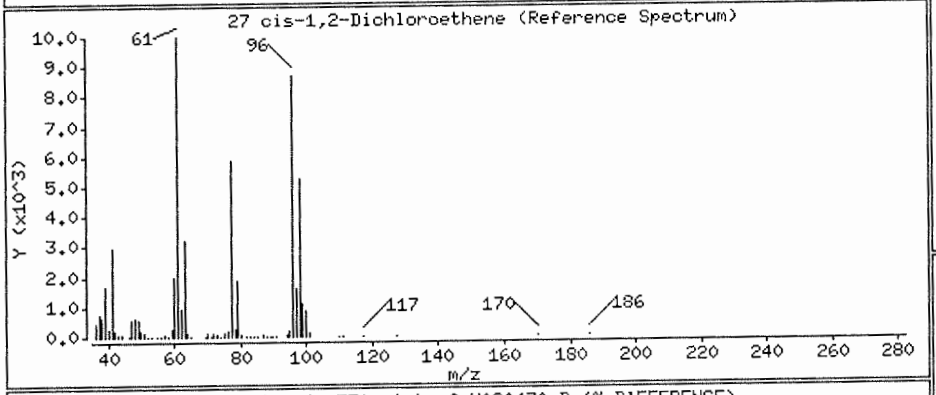
Concentration: 63.96 ug/l

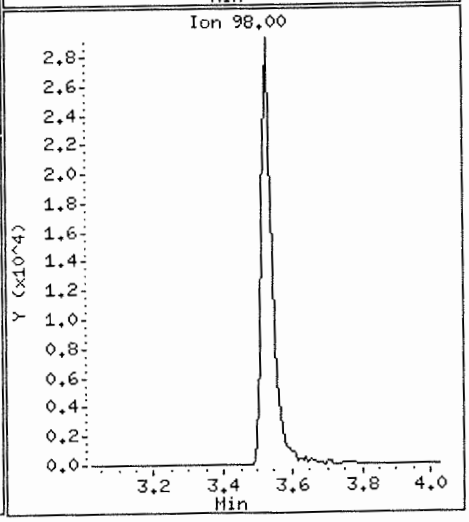


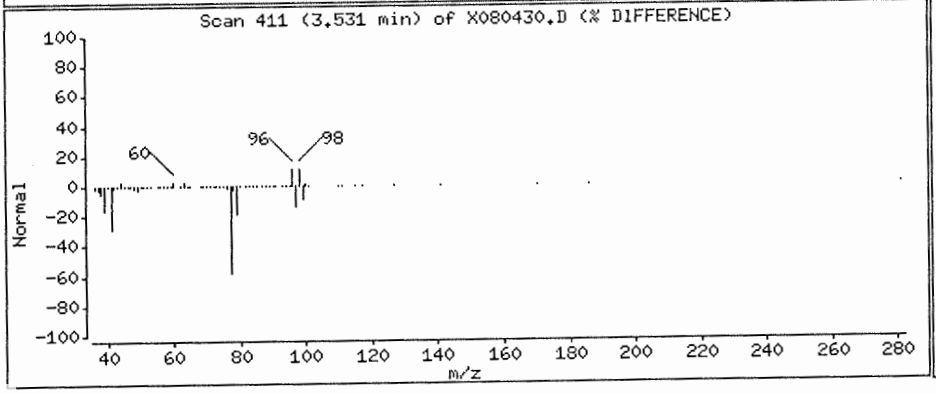












Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080430.D

Date : 04-AUG-2021 20:55

Client ID: HS21071592-01

Instrument: voa6.i

Sample Info: HS21071592-01;HS21071592-01;;;

Purge Volume: 5.0

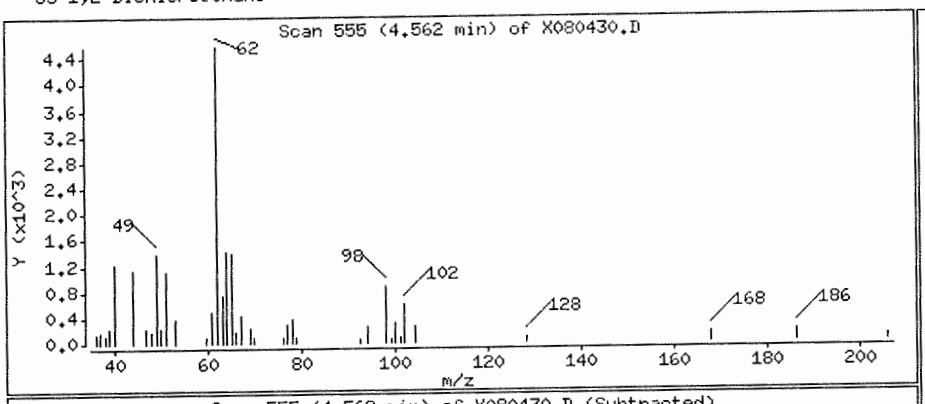
Operator: PC

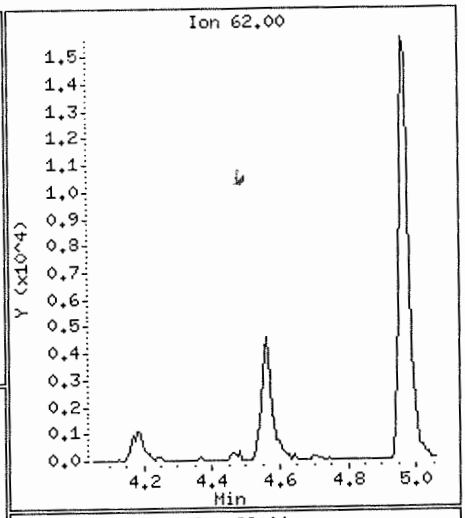
Column phase: DB624

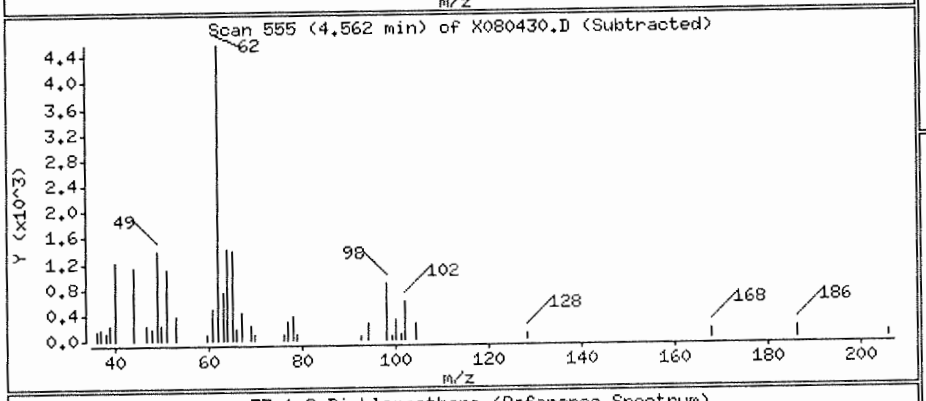
Column diameter: 0.18

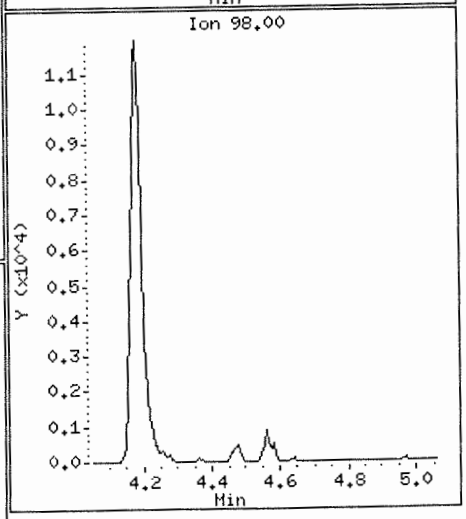
33 1,2-Dichloroethane

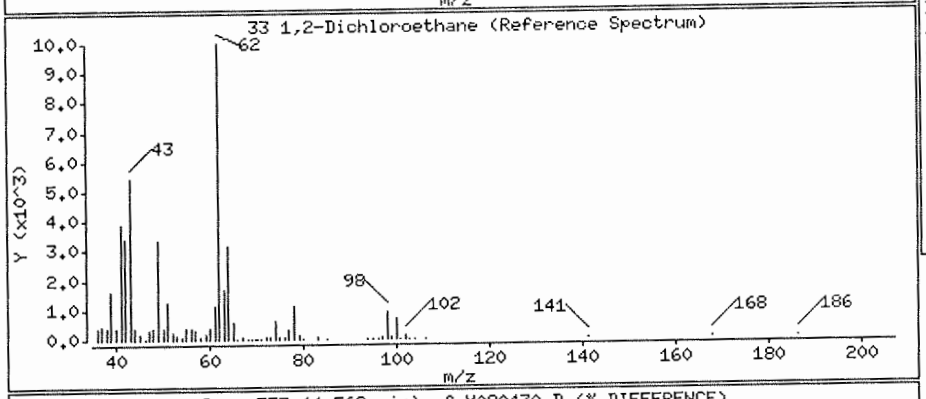
Concentration: 5.83 ug/l

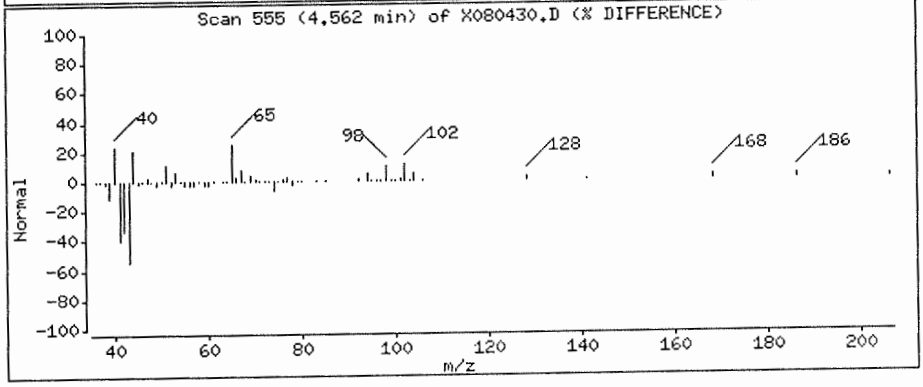












Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080430.D

Date : 04-AUG-2021 20:55

Client ID: HS21071592-01

Instrument: voa6.i

Sample Info: HS21071592-01;HS21071592-01;;;

Purge Volume: 5.0

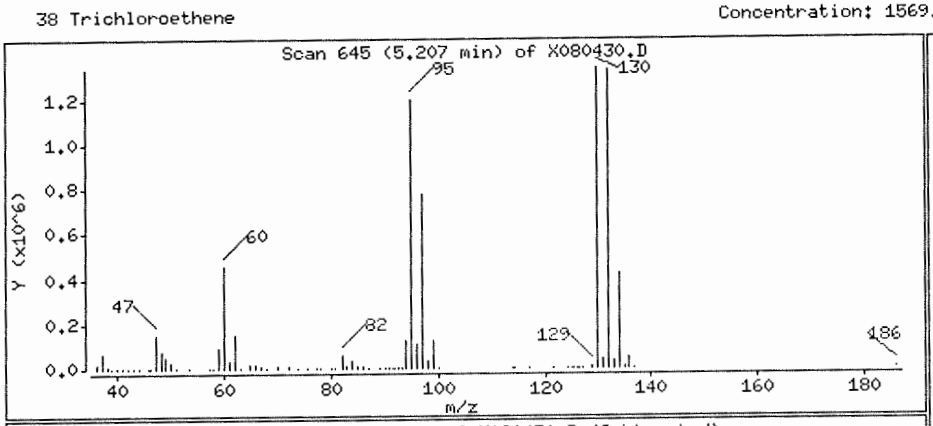
Operator: PC

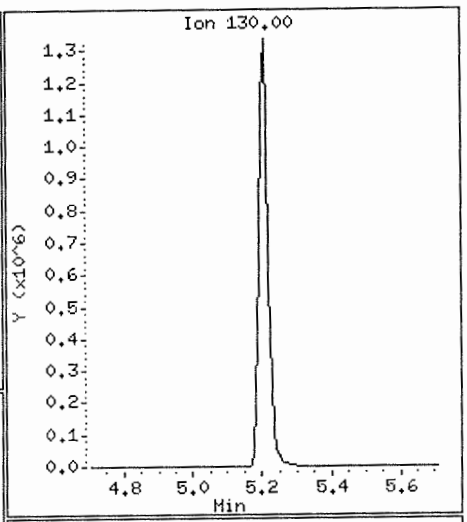
Column phase: DB624

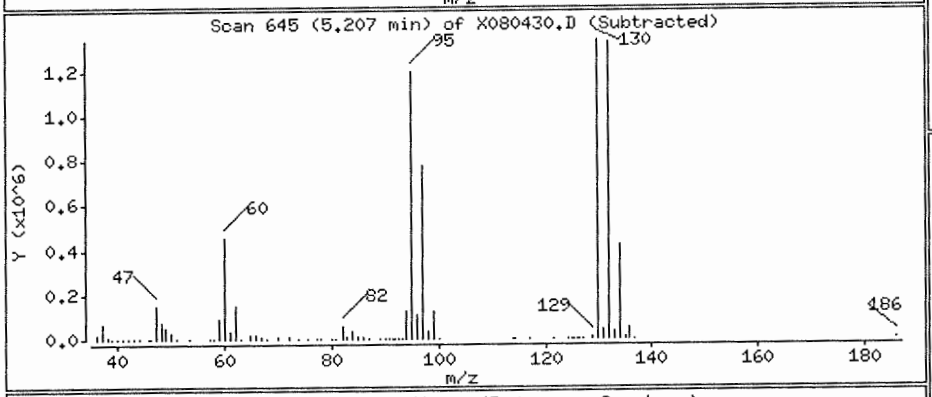
Column diameter: 0.18

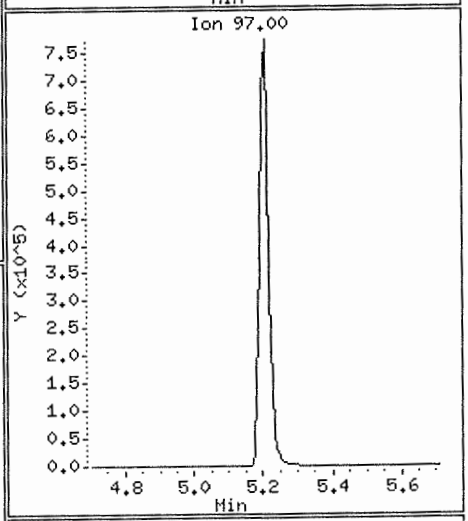
38 Trichloroethene

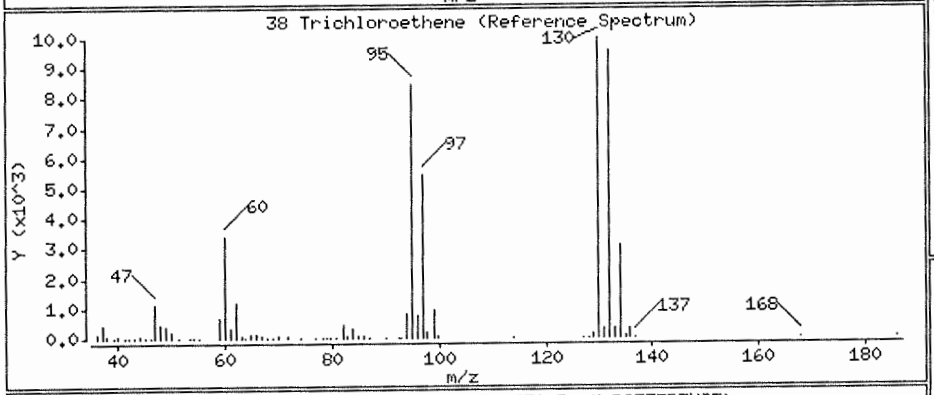
Concentration: 1569.40 ug/l

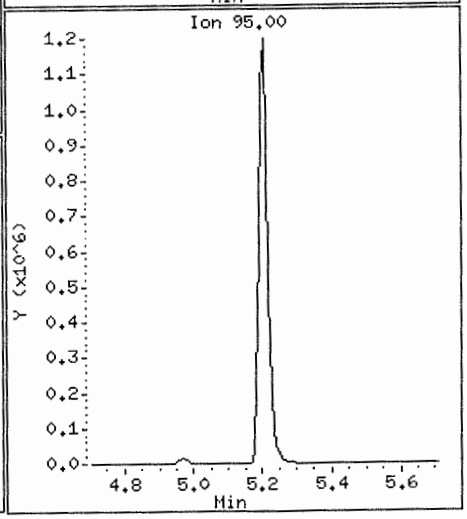


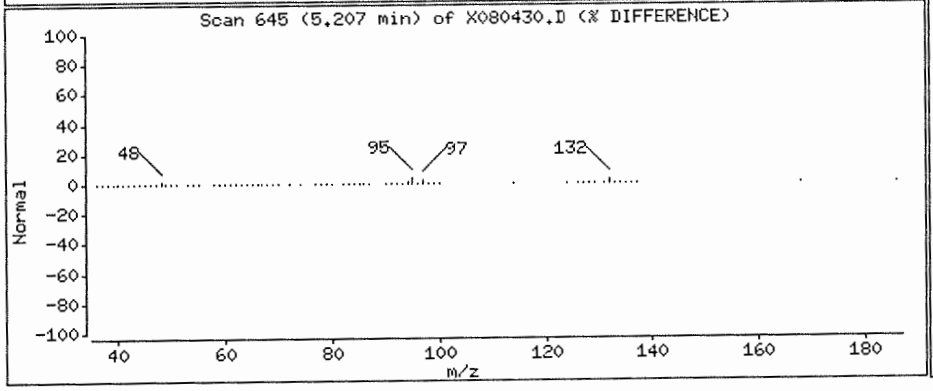












Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080431.D Page 1
Report Date: 10-Sep-2021 14:34

ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080431.D
Lab Smp Id: HS21071592-01 Client Smp ID: HS21071592-01
Inj Date : 04-AUG-2021 21:16
Operator : PC Inst ID: voa6.i
Smp Info : HS21071592-01;HS21071592-01;;;
Misc Info : HS18090001;WATER;0;25;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210804.b\8260W.m
Meth Date : 10-Sep-2021 14:30 Genoveva.R Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 30
Dil Factor: 25.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	25.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

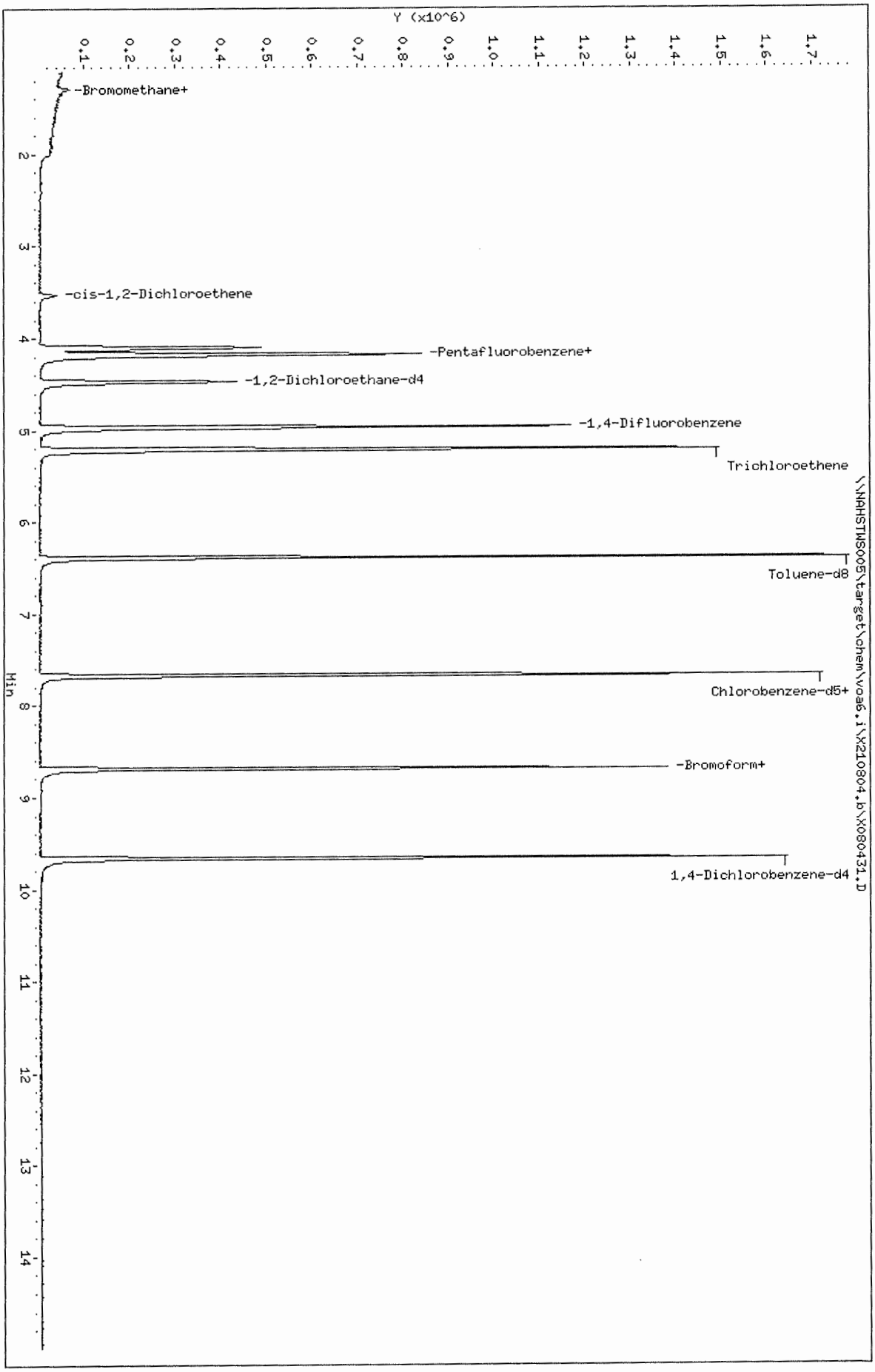
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	756948	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	337973	47.5626	47.56
$ 35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.069)	319302	47.2347	47.23
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1034377	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	904797	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1109439	52.2764	52.27
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	374743	49.3608	49.36
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	435760	50.0000	
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	20814	2.74125	68.53(a)
38 Trichloroethene	130	5.207	5.207	(1.049)	523062	69.1989	1729.97

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080431.D
Date : 04-AUG-2021 21:16
Client ID: HS21071592-01
Sample Info: HS21071592-01;HS21071592-01;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



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Date : 04-AUG-2021 21:16

Client ID: HS21071592-01

Instrument: voa6.i

Sample Info: HS21071592-01;HS21071592-01;;;

Purge Volume: 5.0

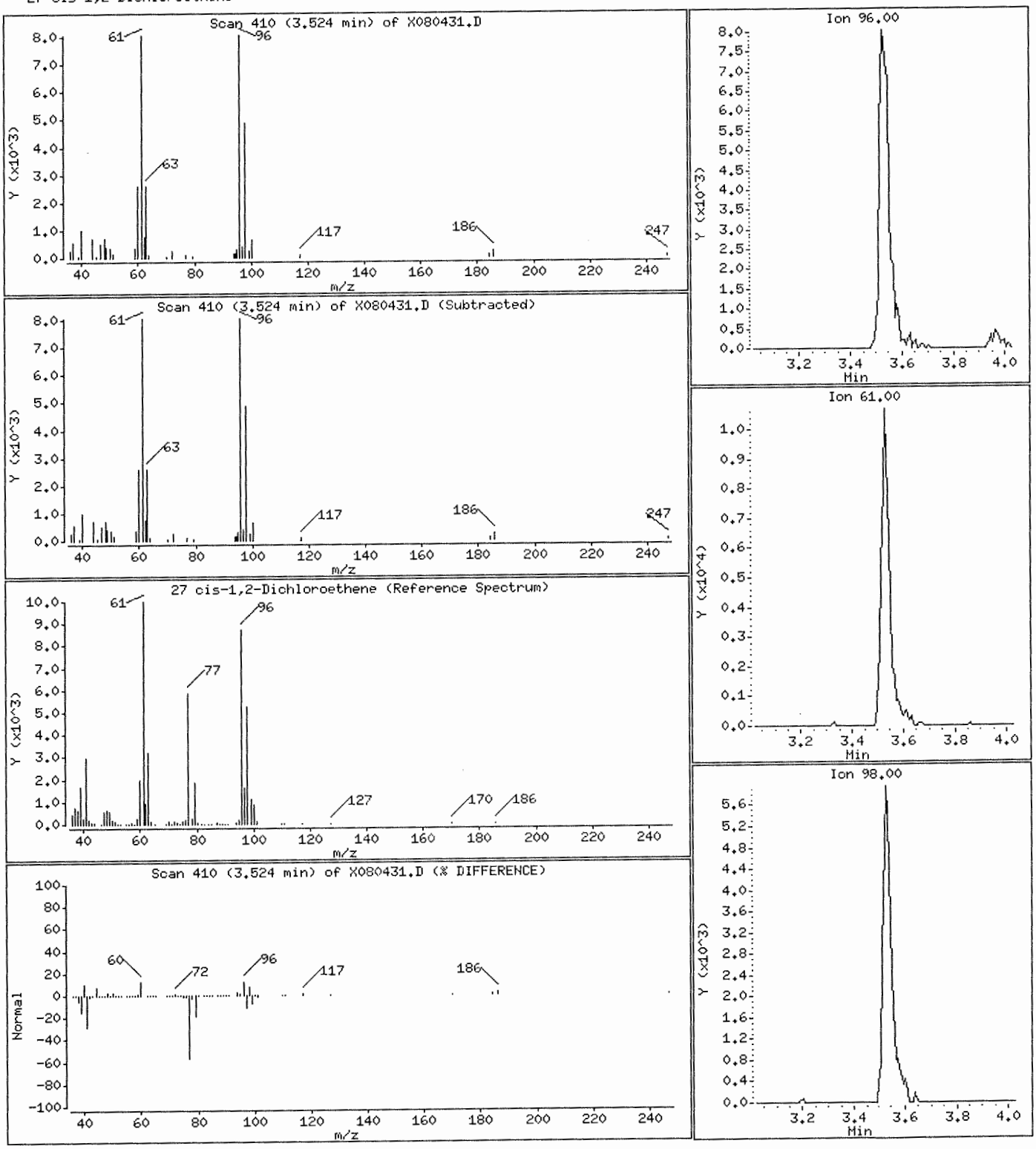
Operator: PC

Column phase: DB624

Column diameter: 0.18

27 cis-1,2-Dichloroethene

Concentration: 68.53 ug/l



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Date : 04-AUG-2021 21:16

Client ID: HS21071592-01

Instrument: voa6.i

Sample Info: HS21071592-01;HS21071592-01;;;

Purge Volume: 5.0

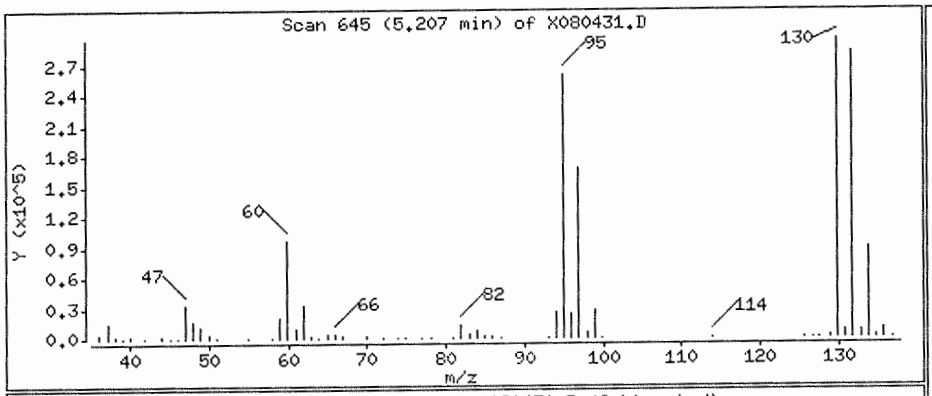
Operator: PC

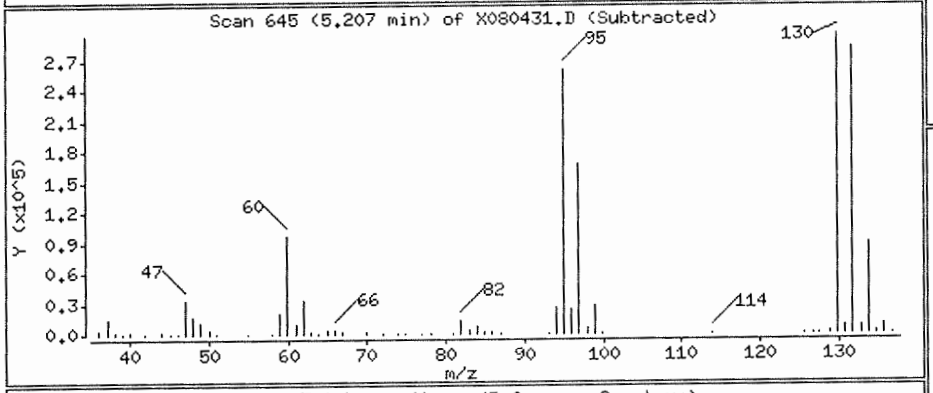
Column phase: DB624

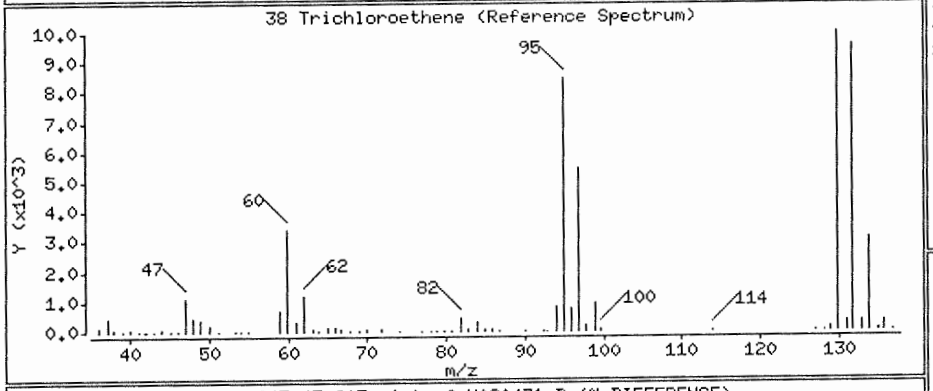
Column diameter: 0.18

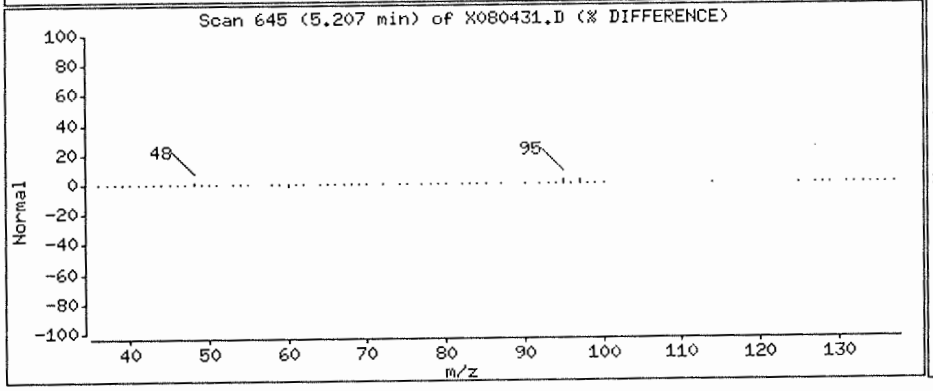
38 Trichloroethene

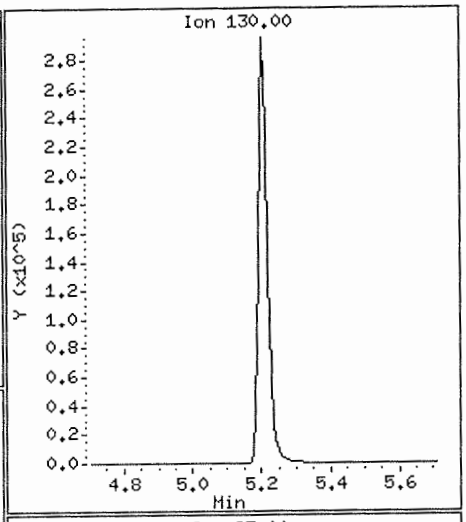
Concentration: 1729.97 ug/l

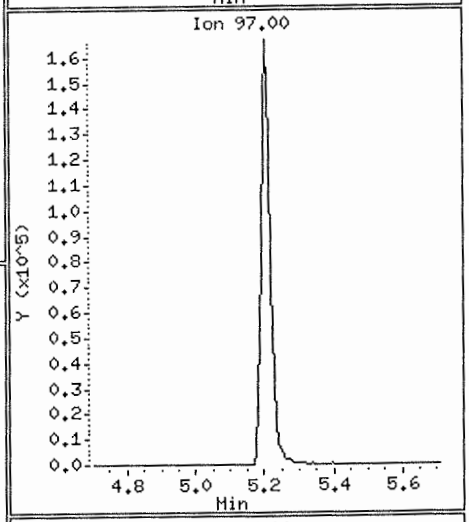


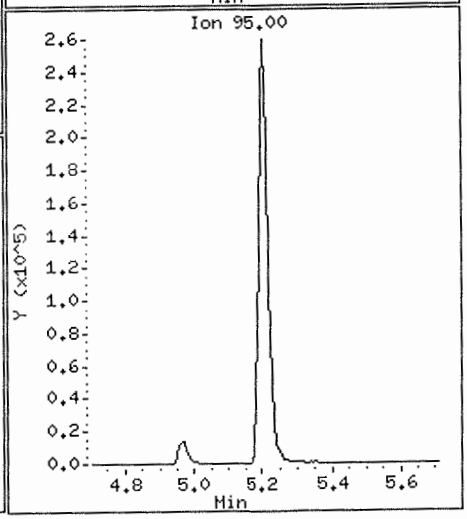












Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080433.D Page 1
Report Date: 10-Sep-2021 14:34

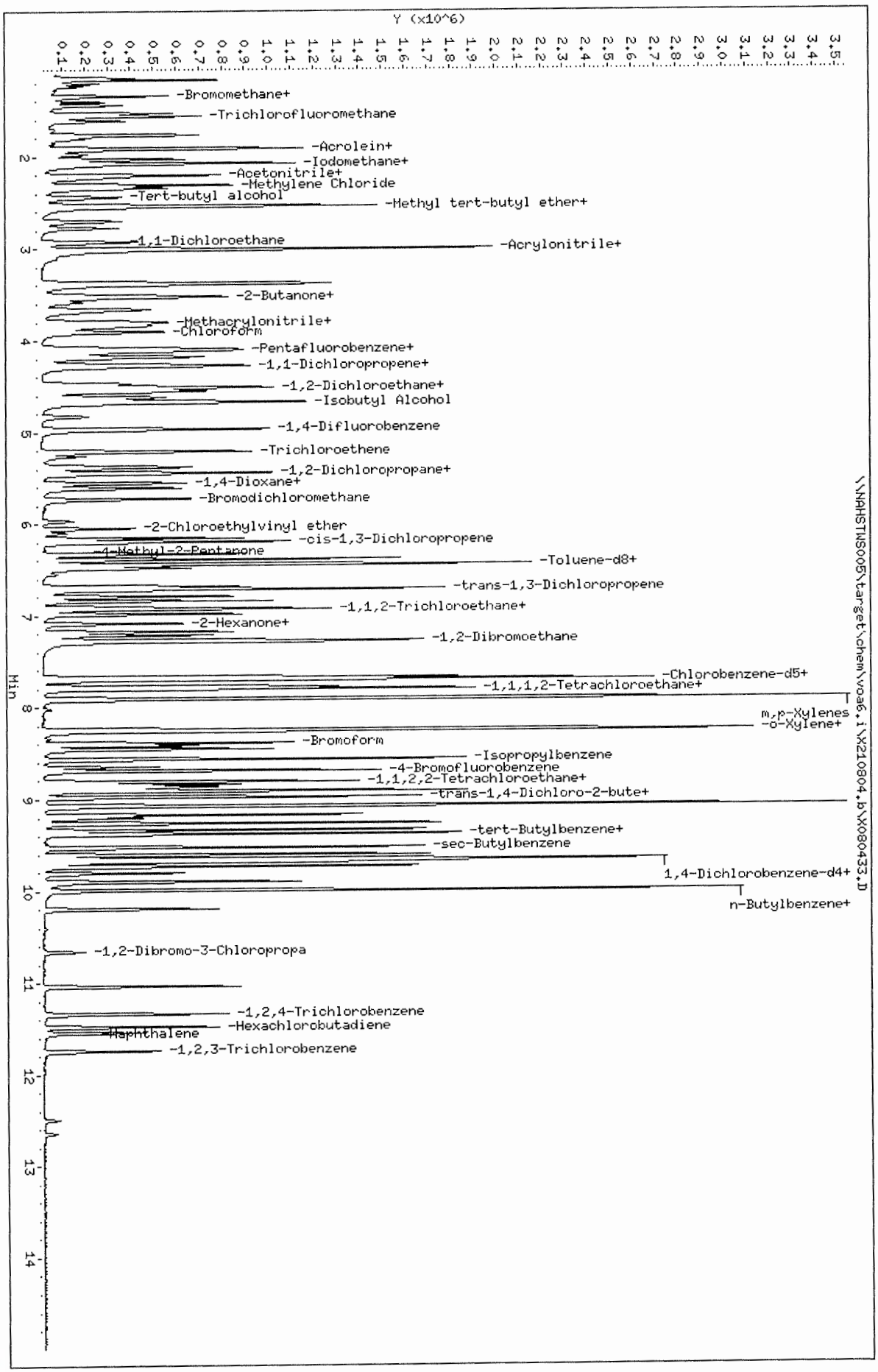
ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080433.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 04-AUG-2021 21:58
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210804.b\8260W.m
Meth Date : 10-Sep-2021 14:34 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 32 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	631872	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	299034	50.0000	50.47
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	276548	50.0000	49.04
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	897398	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	846556	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	925486	50.0000	46.60
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	356169	50.0000	50.15
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	452914	50.0000	
5 Vinyl Chloride	62	1.138	1.138	(0.272)	269932	50.0000	44.87
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	237799	50.0000	44.72
17 Methylene Chloride	84	2.305	2.305	(0.551)	267070	50.0000	50.40
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	307753	50.0000	48.55
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	333518	50.0000	46.32
38 Trichloroethene	130	5.207	5.207	(1.049)	323214	50.0000	49.28
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	214956	50.0000	48.53



Data File: \\NAHSTWS005\target\chem\voa6.i\X210804.b\X080433.D
Date : 04-AUG-2021 21:58
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

MSVOA06 -Logbook

Batch: 46072
Date: 08-05-2021
Method: 8260
Comments:

Analyst: Presenta Cabascango
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
1	BFB	TUNE	08-05-2021 10:52 am	1.00	50 mL	50 mL	X080501.D	Liquid	Y	N
2	CCV	CCV	08-05-2021 11:13 am	1.00	50 mL	50 mL	X080502a.D	Liquid	Y	N
3	CCV	CCV	08-05-2021 11:34 am	1.00	50 mL	50 mL	X080503.D	Liquid	Y	N
4	CCB	SAMP	08-05-2021 11:55 am	1.00	50 mL	50 mL	X080504.D	Liquid	Y	N
5	VLCSW-210805	LCS	08-05-2021 12:16 pm	1.00	50 mL	50 mL	X080505.D	Liquid	Y	N
6	BLANK	SAMP	08-05-2021 12:37 pm	1.00	50 mL	50 mL	X080506.D	Liquid	Y	N
7	VBLKM-210805	MBLK	08-05-2021 12:58 pm	50.00	1 mL	50 mL	X080507.D	Liquid	Y	N
8	VBLKW-210805	MBLK	08-05-2021 01:19 pm	1.00	50 mL	50 mL	X080508.D	Liquid	Y	N
9	HS21080176-01	SAMP	08-05-2021 01:40 pm	1.00	50 mL	50 mL	X080509.D	Liquid	Y	N
10	HS21080176-02	SAMP	08-05-2021 02:01 pm	1.00	50 mL	50 mL	X080510.D	Liquid	Y	N
11	HS21080176-03	SAMP	08-05-2021 02:22 pm	1.00	50 mL	50 mL	X080511.D	Liquid	Y	N
12	HS21080176-04	SAMP	08-05-2021 02:43 pm	1.00	50 mL	50 mL	X080512.D	Liquid	Y	N
13	HS21080176-05	SAMP	08-05-2021 03:04 pm	1.00	50 mL	50 mL	X080513.D	Liquid	Y	N
14	HS21080176-06	SAMP	08-05-2021 03:25 pm	1.00	50 mL	50 mL	X080514.D	Liquid	Y	N
15	HS21080185-03	SAMP	08-05-2021 03:46 pm	1.00	50 mL	50 mL	X080515.D	Liquid	Y	N
16	HS21080185-01	SAMP	08-05-2021 04:08 pm	1.00	50 mL	50 mL	X080516.D	Liquid	Y	N
17	HS21071465-07	SAMP	08-05-2021 04:29 pm	1000.0	50 µL	50 mL	X080517.D	Liquid	Y	N
18	HS21071465-08	SAMP	08-05-2021 04:50 pm	2500.0	20 µL	50 mL	X080518.D	Liquid	Y	N
19	HS21080176-03MS	MS	08-05-2021 05:11 pm	1.00	50 mL	50 mL	X080519.D	Liquid	Y	N
20	HS21080176-03MSD	MSD	08-05-2021 05:32 pm	1.00	50 mL	50 mL	X080520.D	Liquid	Y	N
21	HS21071592-02	SAMP	08-05-2021 05:53 pm	5.00	10 mL	50 mL	X080521.D	Liquid	Y	N
22	HS21071465-01	SAMP	08-05-2021 06:14 pm	25.00	2 mL	50 mL	X080522.D	Liquid	Y	N
23	HS21071465-06	SAMP	08-05-2021 06:35 pm	25.00	2 mL	50 mL	X080523.D	Liquid	Y	N
24	HS21071465-02	SAMP	08-05-2021 06:56 pm	5.00	10 mL	50 mL	X080524.D	Liquid	Y	N
25	HS21071465-02	SAMP	08-05-2021 07:17 pm	25.00	2 mL	50 mL	X080525.D	Liquid	Y	N
26	CCV-END	CCV	08-05-2021 07:38 pm	1.00	50 mL	50 mL	X080526.D	Liquid	Y	N
27	HS21080102-02	SAMP	08-05-2021 07:59 pm	1.00	50 mL	50 mL	X080527.D	Liquid	Y	N
28	HS21080102-03	SAMP	08-05-2021 08:20 pm	1.00	50 mL	50 mL	X080528.D	Liquid	Y	N
29	HS21080093-01	SAMP	08-05-2021 08:41 pm	1.00	50 mL	50 mL	X080529.D	Liquid	Y	N
30	HS21080029-10	SAMP	08-05-2021 09:02 pm	1.00	50 mL	50 mL	X080530.D	Liquid	Y	N
31	HS21071613-10	SAMP	08-05-2021 09:23 pm	1.00	50 mL	50 mL	X080531.D	Liquid	Y	N
32	BLASNK	SAMP	08-05-2021 09:44 pm	1.00	50 mL	50 mL	X080532.D	Liquid	Y	N

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE)#	SMC3 (TOL)#	OTHER #	TOT OUT
01	VLCSW-210805	91	88	92	98	0
02	VBLKW-210805	93	90	106	99	0
03	HS21071592-02	91	90	103	98	0
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		QC LIMITS
SMC1	= Dibromofluoromethane	(70-130)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(70-130)
SMC3 (TOL)	= Toluene-d8	(70-130)
OTHER	= 4-Bromofluorobenzene	(70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.
VBLKW-210805

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

Lab File ID: X080508 Lab Sample ID: VBLKW-210805

Date Analyzed: 08/05/21 Time Analyzed: 1319

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSW-210805	VLCSW-210805	X080505	1216
02	HS21080176-03MS	HS21080176-03MS	X080519	1711
03	HS21080176-03MSD	HS21080176-03MSD	X080520	1732
04	HS21071592-02	HS21071592-02	X080521	1753
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COMMENTS:

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

Lab File ID: X080501 BFB Injection Date: 08/05/21

Instrument ID: VOA6 BFB Injection Time: 1052

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.6
75	30.0 - 60.0% of mass 95	44.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	1.2 (1.1)1
174	Greater than 50.0% of mass 95	108.5
175	5.0 - 9.0% of mass 174	8.2 (7.6)1
176	95.0 - 101.0% of mass 174	104.9 (96.7)1
177	5.0 - 9.0% of mass 176	6.5 (6.2)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	X080503	08/05/21	1134
02	VLCSW-210805	VLCSW-210805	X080505	08/05/21	1216
03	VBLKW-210805	VBLKW-210805	X080508	08/05/21	1319
04	HS21080176-03MS	HS21080176-03MS	X080519	08/05/21	1711
05	HS21080176-03MSD	HS21080176-03MSD	X080520	08/05/21	1732
06	HS21071592-02	HS21071592-02	X080521	08/05/21	1753
07	CCV-END	CCV-END	X080526	08/05/21	1938
08					
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22					

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

Instrument ID: VOA6 Calibration Date: 08/05/21 Time: 1134

Lab File ID: X080503 Init. Calib. Date(s): 07/30/21 07/30/21

Init. Calib. Times: 1129 1459

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Vinyl Chloride	0.4760000	0.4330899	0.4330899	0.1	9.01	20.00	AVRG
Methylene Chloride	47.052753	50.000000	0.3946863	0.1	5.89	20.00	LINR
1,1-Dichloroethene	0.4210000	0.3827622	0.3827622	0.1	9.08	20.00	AVRG
1,2-Dichloroethane	0.4010000	0.3825683	0.3825683	0.1	4.60	20.00	AVRG
Trichloroethene	0.3650000	0.3788078	0.3788078	0.2	-3.78	20.00	AVRG
1,1,2-Trichloroethane	0.2620000	0.2494302	0.2494302	0.1	4.80	20.00	AVRG
Dibromofluoromethane	47.877352	50.000000	0.4493864	0.1	4.24	20.00	LINR
1,2-Dichloroethane-d4	46.020286	50.000000	0.4111809	0.1	7.96	20.00	LINR
Toluene-d8	1.1730000	1.1042961	1.1042961	0.1	5.86	20.00	AVRG
4-Bromofluorobenzene	49.040626	50.000000	0.4115256	0.1	1.92	20.00	LINR

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

Instrument ID: VOA6 Calibration Date: 08/05/21 Time: 1938

Lab File ID: X080526 Init. Calib. Date(s): 07/30/21 07/30/21

Init. Calib. Times: 1129 1459

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Vinyl Chloride	0.4760000	0.4104056	0.4104056	0.1	13.78	50.00	AVRG
Methylene Chloride	48.580885	50.000000	0.4074435	0.1	2.84	50.00	LINR
1,1-Dichloroethene	0.4210000	0.3745860	0.3745860	0.1	11.02	50.00	AVRG
1,2-Dichloroethane	0.4010000	0.3679710	0.3679710	0.1	8.24	50.00	AVRG
Trichloroethene	0.3650000	0.3661654	0.3661654	0.2	-0.32	50.00	AVRG
1,1,2-Trichloroethane	0.2620000	0.2512709	0.2512709	0.1	4.10	50.00	AVRG
Dibromofluoromethane	47.419773	50.000000	0.4451814	0.1	5.16	50.00	LINR
1,2-Dichloroethane-d4	46.898656	50.000000	0.4188817	0.1	6.20	50.00	LINR
Toluene-d8	1.1730000	1.1058212	1.1058212	0.1	5.73	50.00	AVRG
4-Bromofluorobenzene	49.493658	50.000000	0.4152722	0.1	1.01	50.00	LINR

FORM VII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

Lab File ID (Standard): X080503 Date Analyzed: 08/05/21

Instrument ID: VOA6 Time Analyzed: 1134

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	706470	4.18	935229	4.96	892795	7.67
	UPPER LIMIT	1412940	4.68	1870458	5.46	1785590	8.17
	LOWER LIMIT	353235	3.68	467615	4.46	446398	7.17
	CLIENT SAMPLE NO.						
01	VLCSW-210805	688241	4.18	917740	4.96	863741	7.67
02	VBLKW-210805	797810	4.18	1045304	4.96	911281	7.67
03	HS21080176-03MS	816507	4.18	1055848	4.96	969069	7.67
04	HS21080176-03MSD	860879	4.18	1111798	4.96	1012865	7.67
05	HS21071592-02	804838	4.18	1062154	4.96	939882	7.67
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IS1 = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21071592

Lab File ID (Standard): X080503 Date Analyzed: 08/05/21

Instrument ID: VOA6 Time Analyzed: 1134

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	496341	9.66				
	UPPER LIMIT	992682	10.16				
	LOWER LIMIT	248171	9.16				
	CLIENT SAMPLE NO.						
01	VLCSW-210805	472971	9.66				
02	VBLKW-210805	450863	9.66				
03	HS21080176-03MS	514635	9.66				
04	HS21080176-03MSD	525915	9.66				
05	HS21071592-02	477526	9.66				
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IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

FORM VIII VOA

Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080501.D

Date : 05-AUG-2021 10:52

Client ID: BFB

Instrument: voa6.i

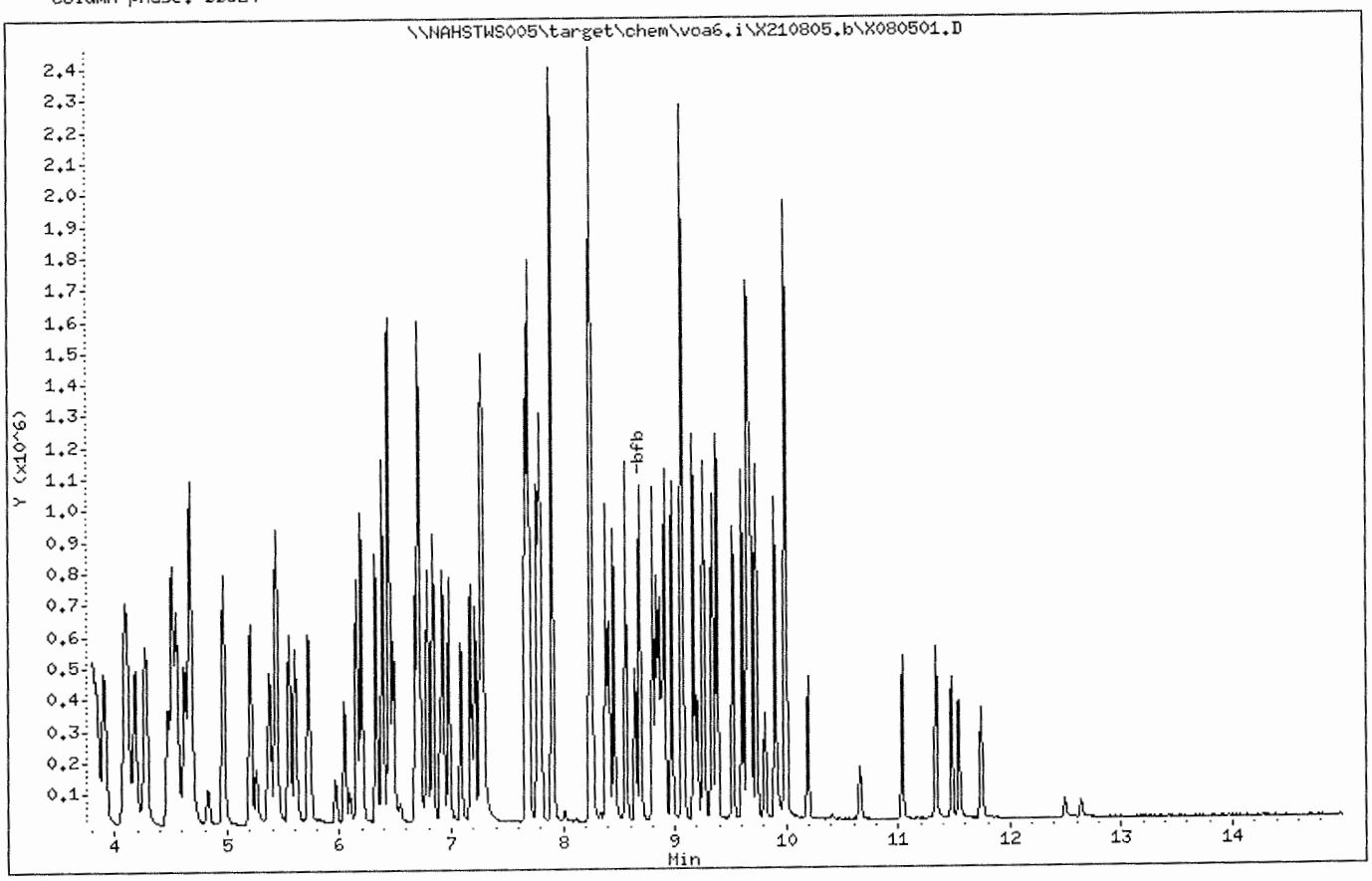
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080501.D

Date : 05-AUG-2021 10:52

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

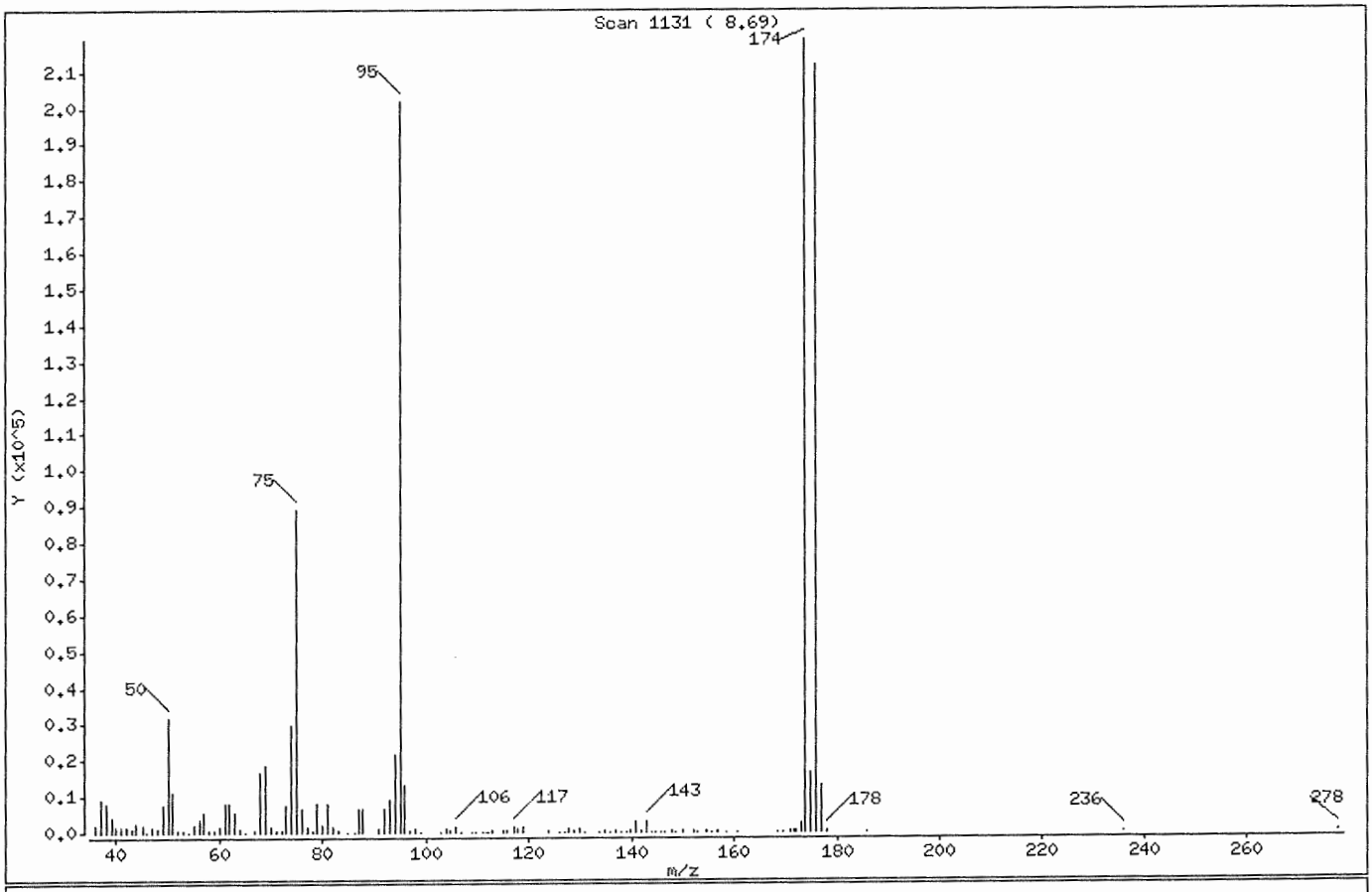
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.61
75	30.00 - 60.00% of mass 95	44.21
96	5.00 - 9.00% of mass 95	6.44
173	Less than 2.00% of mass 174	1.16 (1.07)
174	Greater than 50.00% of mass 95	108.50
175	5.00 - 9.00% of mass 174	8.21 (7.57)
176	95.00 - 101.00% of mass 174	104.92 (96.70)
177	5.00 - 9.00% of mass 176	6.46 (6.16)

Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080501.D

Date : 05-AUG-2021 10:52

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: X080501.D
Spectrum: Scan 1131 (8.69)
Location of Maximum: 173.90
Number of points: 121

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.90	1856	68.00	16464	104.80	401	144.00	126
37.00	8872	69.00	18472	105.90	1404	144.90	245
38.10	8080	70.10	1716	106.80	211	145.90	122
39.00	3829	71.10	293	108.80	106	146.60	83
40.00	1368	72.00	705	109.70	229	147.80	290
41.00	1334	72.90	7726	111.00	199	148.70	232
42.10	1334	74.00	29760	111.70	209	149.90	323
42.90	1118	75.00	89184	112.10	73	152.00	315
43.90	2463	76.00	6419	113.00	290	152.70	222
45.00	1942	77.00	1319	114.90	420	154.80	620
46.00	160	78.10	496	115.80	687	155.70	142
47.00	1525	78.90	8028	117.00	1642	156.80	334
47.90	808	79.90	1935	117.80	821	158.70	202
49.00	7597	80.90	7897	118.80	1339	160.80	192
50.00	31496	81.90	1571	123.80	254	168.40	170
51.00	11195	83.00	578	125.90	67	169.50	57
51.90	388	85.00	85	126.90	89	171.00	262
52.90	416	86.10	163	127.80	954	171.60	429
53.90	228	86.90	6386	128.80	673	172.00	598
55.00	2217	87.80	6399	129.70	948	173.00	2332
56.00	3432	90.80	1193	130.90	185	173.90	218880
57.00	5520	92.00	6389	133.90	92	174.90	16560
57.80	443	92.90	8890	134.80	316	175.90	211648
59.00	738	94.00	21640	135.90	72	176.90	13028
59.90	1567	95.00	201728	136.80	577	178.00	590
61.00	8253	96.00	12995	137.90	88	186.00	201
62.00	8235	97.00	558	138.90	100	235.70	81
62.90	5487	98.10	846	139.80	297	278.00	61
63.90	819	99.00	82	140.90	2849		
64.90	70	102.80	169	141.90	534		
66.90	434	103.90	1256	142.80	2928		

Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080503.D Page 1
Report Date: 10-Sep-2021 16:23

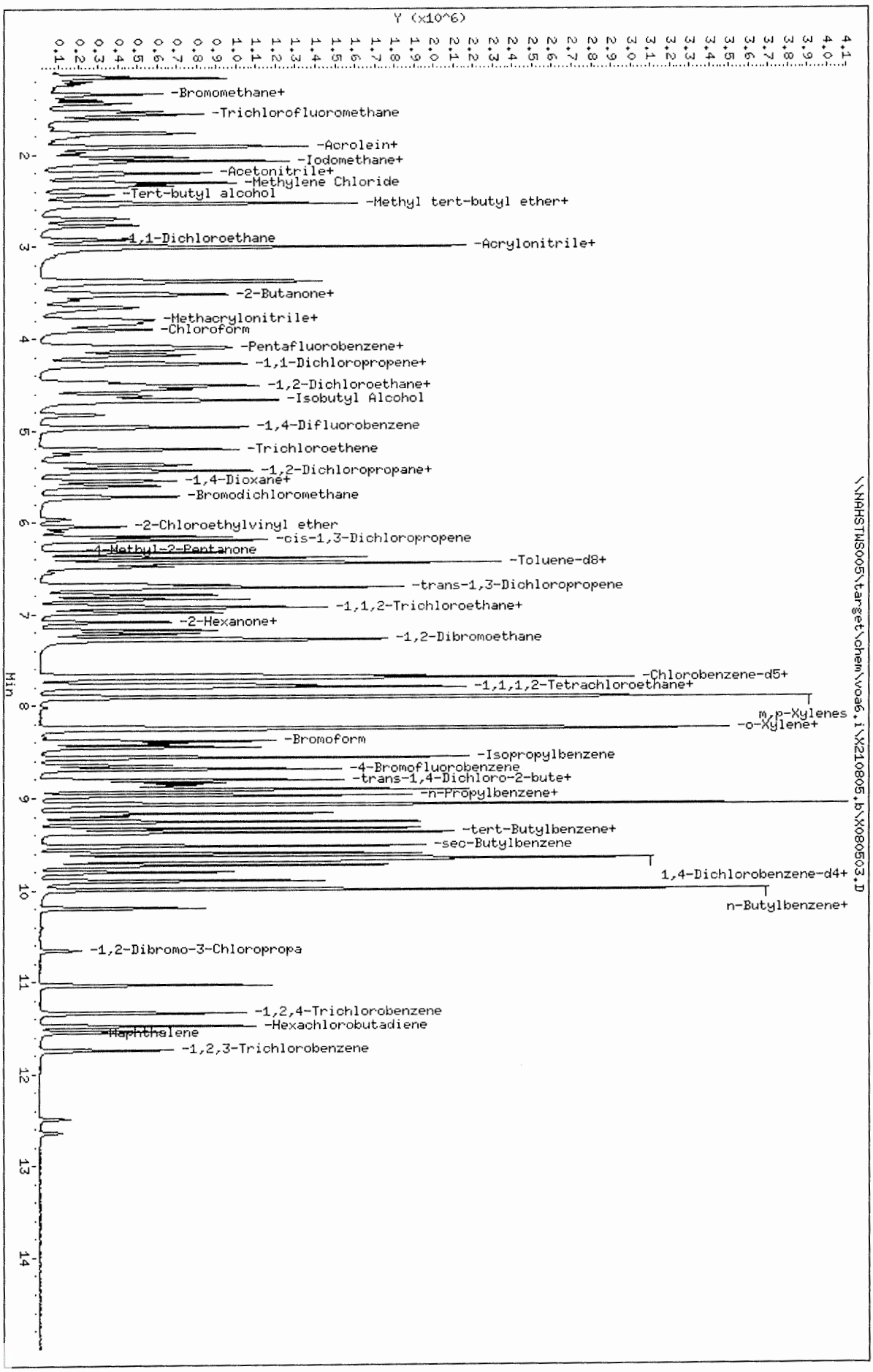
ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080503.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 05-AUG-2021 11:34
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210805.b\8260W.m
Meth Date : 10-Sep-2021 16:23 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	706470	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	317478	50.0000	47.87
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	290487	50.0000	46.02
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	935229	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	892795	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	985910	50.0000	47.08
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	367408	50.0000	49.04
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	496341	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	305965	50.0000	45.49
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	270410	50.0000	45.48
17 Methylene Chloride	84	2.305	2.305	(0.551)	278834	50.0000	47.05
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	328375	50.0000	46.33
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	357789	50.0000	47.68
38 Trichloroethene	130	5.206	5.206	(1.049)	354272	50.0000	51.83
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	222690	50.0000	47.67



Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080503.D
Date : 05-AUG-2021 11:34
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080505.D Page 1
Report Date: 10-Sep-2021 16:23

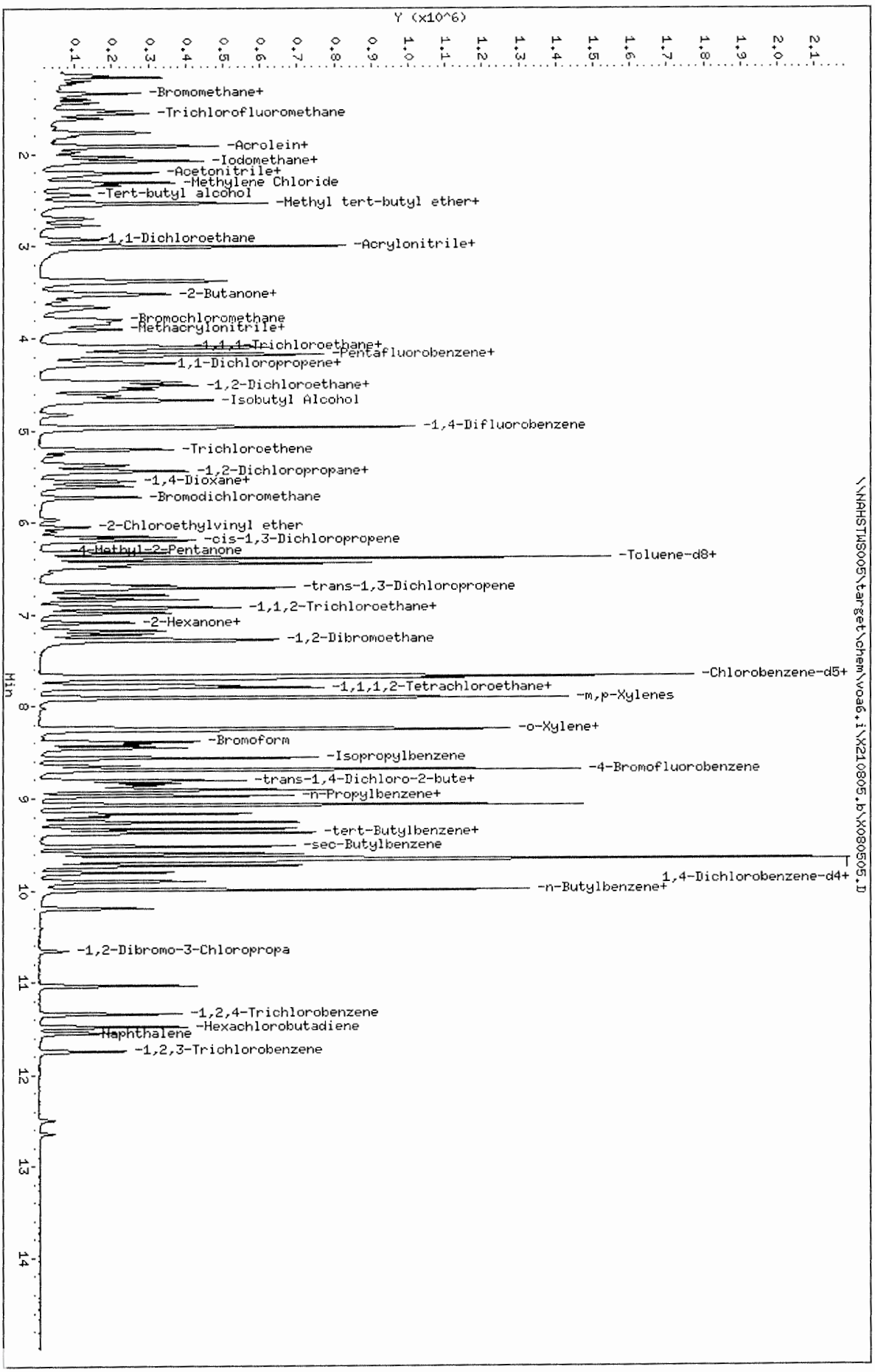
ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080505.D
Lab Smp Id: VLCSW-210805 Client Smp ID: VLCSW-210805
Inj Date : 05-AUG-2021 12:16
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-210805;VLCSW-210805;3;;LCS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210805.b\8260W.m
Meth Date : 10-Sep-2021 16:23 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	688241	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	293857	45.4379	45.43
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	272499	44.2813	44.28
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	917740	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	863741	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	928299	45.8203	45.82
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	354638	48.9267	48.92
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	472971	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	106686	16.2847	16.28
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	95486	16.4882	16.48
17 Methylene Chloride	84	2.305	2.305	(0.551)	116838	20.1102	20.11
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	128894	18.6703	18.67
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	139657	18.9691	18.96
38 Trichloroethene	130	5.206	5.206	(1.049)	128522	19.1639	19.16
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	90666	20.0644	20.06



Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080505.D
Date : 05-AUG-2021 12:16
Client ID: VLCSW-210805
Sample Info: VLCSW-210805;VLCSW-210805;3;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080508.D Page 1
Report Date: 10-Sep-2021 16:23

ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080508.D
Lab Smp Id: VBLKW-210805 Client Smp ID: VBLKW-210805
Inj Date : 05-AUG-2021 13:19
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-210805;VBLKW-210805;3;;BLANK
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210805.b\8260W.m
Meth Date : 10-Sep-2021 16:23 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

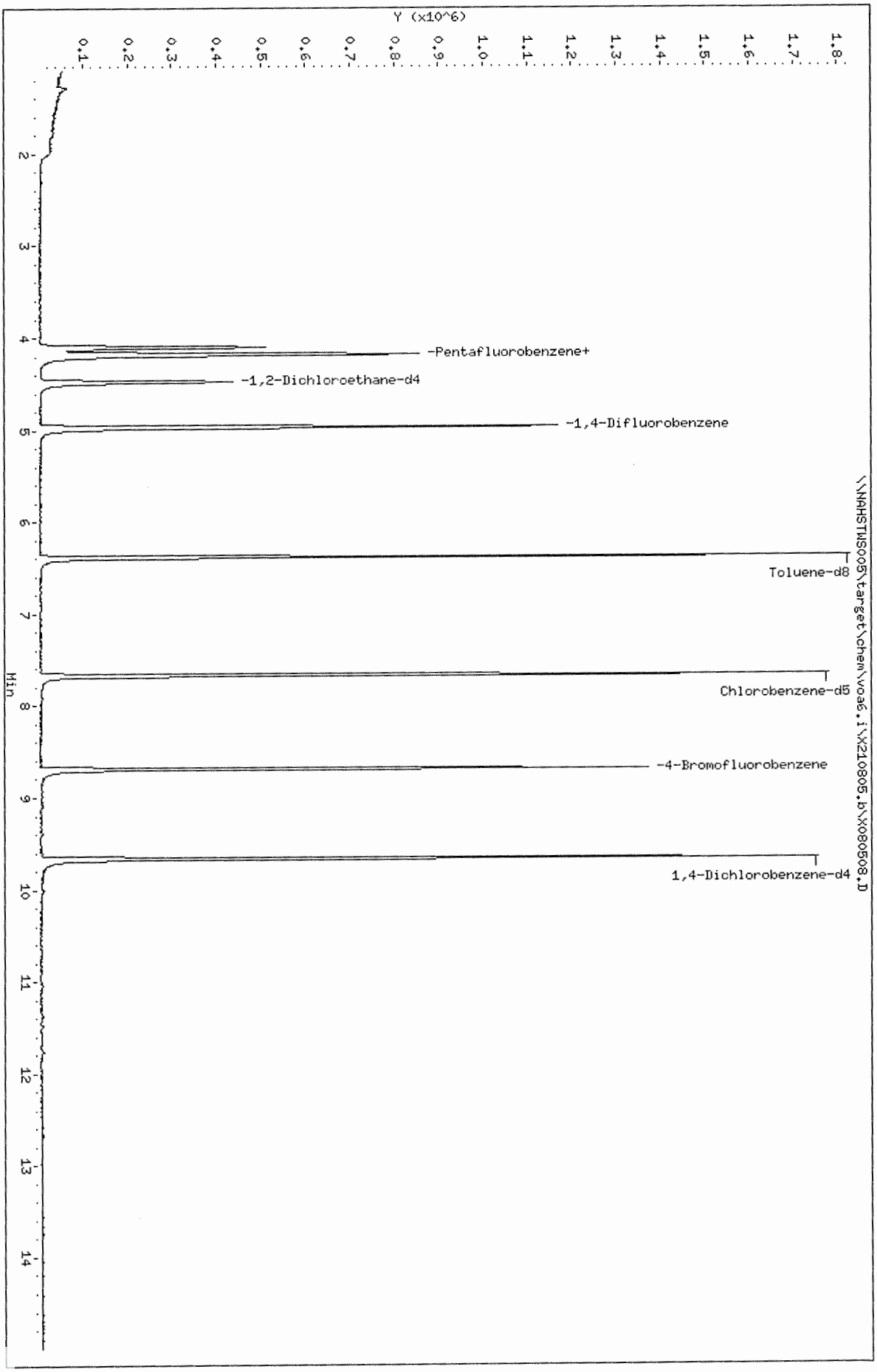
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	797810	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	349489	46.6449	46.64
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	322665	45.2512	45.25
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1045304	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	911281	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1132330	52.9754	52.97
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	379591	49.6478	49.64
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	450863	50.0000	

Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080508.D
Date : 05-AUG-2021 13:19
Client ID: VBLKW-210805
Sample Info: VBLKW-210805;VBLKW-210805;3;;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080519.D Page 1
Report Date: 10-Sep-2021 16:23

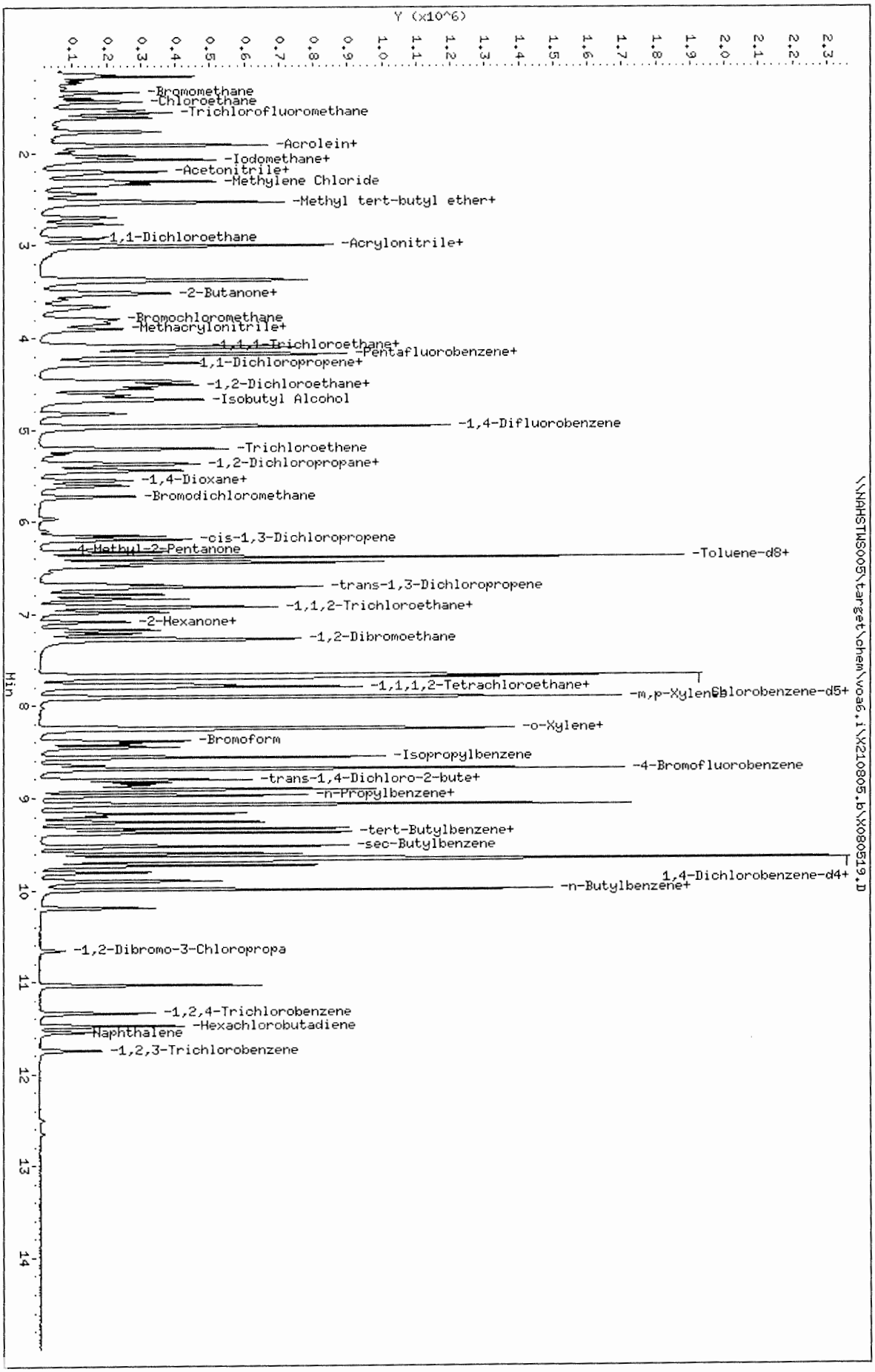
ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080519.D
Lab Smp Id: HS21080176-03MS Client Smp ID: HS21080176-03MS
Inj Date : 05-AUG-2021 17:11
Operator : PC Inst ID: voa6.i
Smp Info : HS21080176-03MS;HS21080176-03MS;3;;MS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210805.b\8260W.m
Meth Date : 10-Sep-2021 16:23 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	816507	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	350400	45.6748	45.67
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	331612	45.4447	45.44
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1055848	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	969069	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1144504	50.3519	50.35
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	402198	49.4650	49.46
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	514635	50.0000	
5 Vinyl Chloride	62	1.138	1.145	(0.272)	132765	17.0819	17.08
11 1,1-Dichloroethene	96	1.912	1.911	(0.457)	119052	17.3281	17.32
17 Methylene Chloride	84	2.305	2.305	(0.551)	117103	16.9546	16.95
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	139189	16.9943	16.99
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	144220	17.0266	17.02
38 Trichloroethene	130	5.207	5.206	(1.049)	196283	25.4394	25.43
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	91172	17.9834	17.98



Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080519.D
Date : 05-AUG-2021 17:11
Client ID: HS2108017G-03MS
Sample Info: HS2108017G-03MS;HS2108017G-03MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080520.D Page 1
Report Date: 10-Sep-2021 16:23

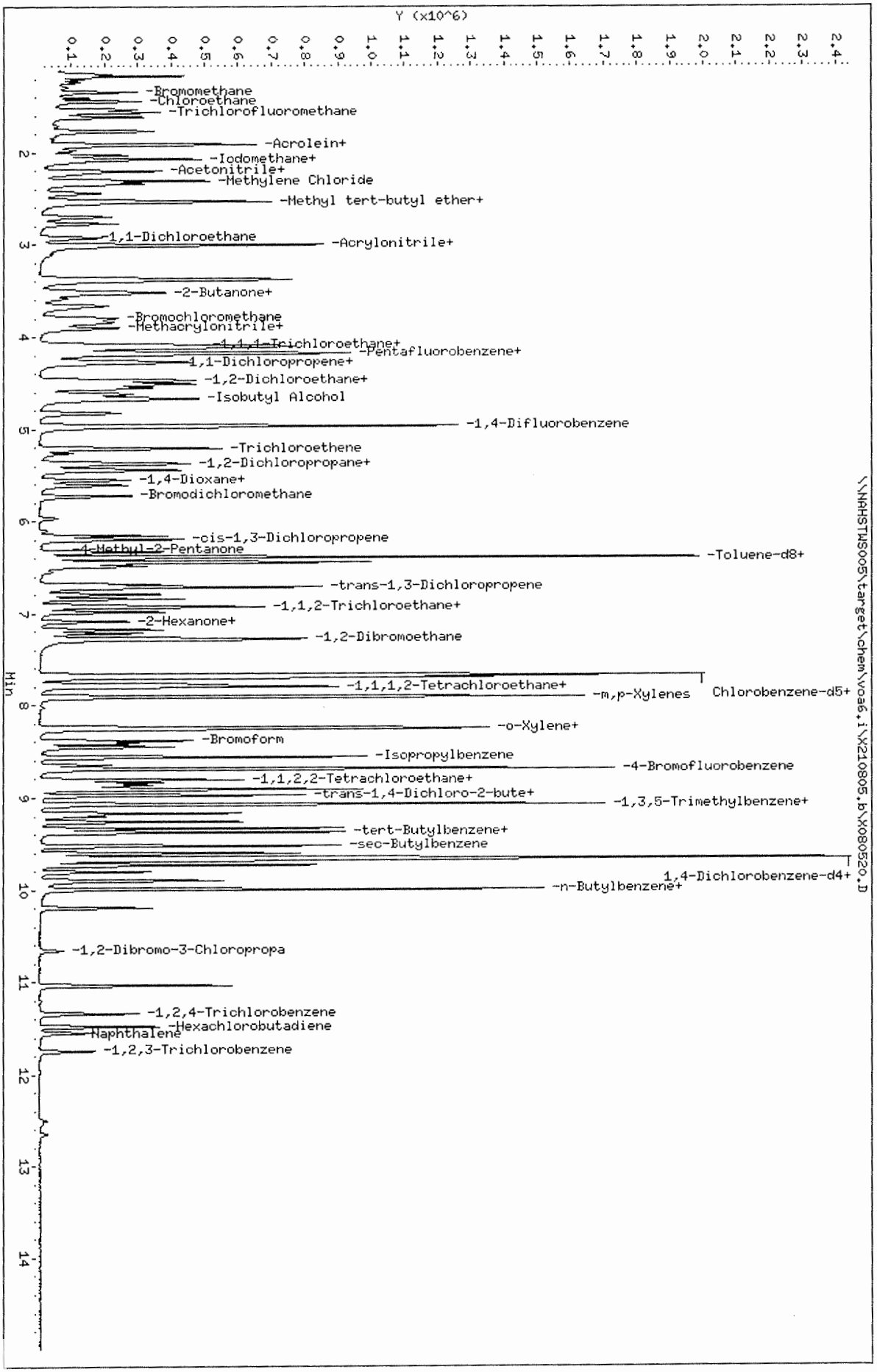
ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080520.D
Lab Smp Id: HS21080176-03MSD Client Smp ID: HS21080176-03MSD
Inj Date : 05-AUG-2021 17:32
Operator : PC Inst ID: voa6.i
Smp Info : HS21080176-03MSD;HS21080176-03MSD;3;;MSD
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210805.b\8260W.m
Meth Date : 10-Sep-2021 16:23 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 19 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	860879	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	370417	45.7980	45.79
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	337388	43.8223	43.82
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1111798	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	1012865	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1200317	50.5240	50.52
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	419385	49.3469	49.34
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	525915	50.0000	
5 Vinyl Chloride	62	1.138	1.145	(0.272)	123947	15.1254	15.12
11 1,1-Dichloroethene	96	1.912	1.911	(0.457)	116609	16.0977	16.09
17 Methylene Chloride	84	2.306	2.305	(0.551)	113397	15.5534	15.55
27 cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	136295	15.7833	15.78
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	150376	16.8599	16.85
38 Trichloroethene	130	5.207	5.206	(1.049)	191312	23.5473	23.54
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	89861	16.9584	16.95



Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080520.D
Date : 05-AUG-2021 17:32
Client ID: HS21080176-03MSD
Sample Info: HS21080176-03MSD;HS21080176-03MSD;3;;MSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080521.D Page 1
Report Date: 10-Sep-2021 16:19

ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080521.D
Lab Smp Id: HS21071592-02 Client Smp ID: HS21071592-02
Inj Date : 05-AUG-2021 17:53
Operator : PC Inst ID: voa6.i
Smp Info : HS21071592-02;HS21071592-02;;;
Misc Info : HS18090001;WATER;0;5;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210805.b\8260W.m
Meth Date : 10-Sep-2021 16:17 Genoveva.R Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 20
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

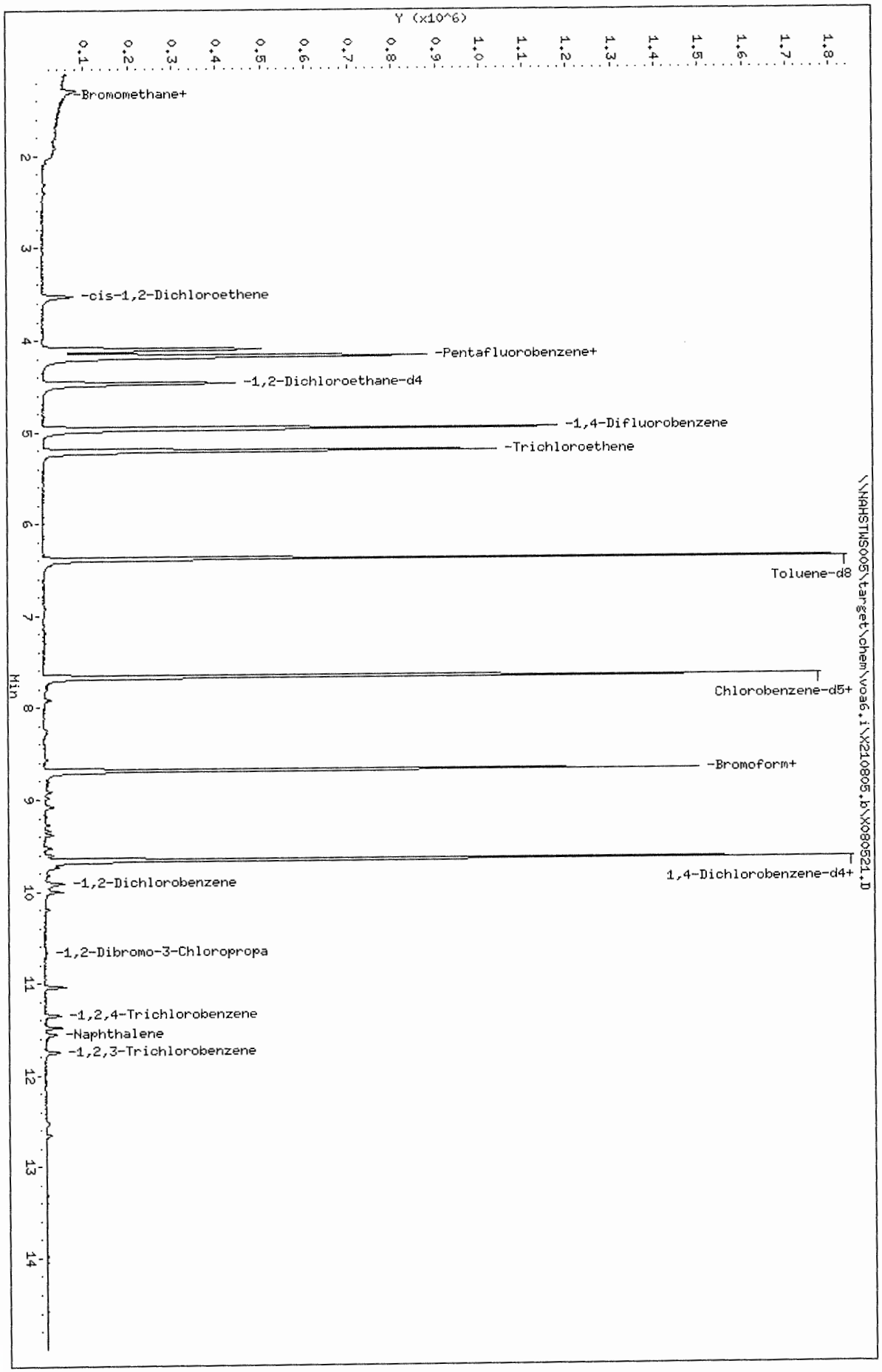
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	5.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	804838	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.103	(0.979)	345092	45.6342	45.63
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	322232	44.7870	44.78
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	1062154	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	939882	50.0000	
$	48 Toluene-d8	98	6.389	6.388	(0.833)	1135813	51.5213	51.52
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	387306	49.1076	49.10
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	477526	50.0000	
	27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	38938	4.82308	24.11(a)
	38 Trichloroethene	130	5.207	5.207	(1.049)	360024	46.3841	231.92

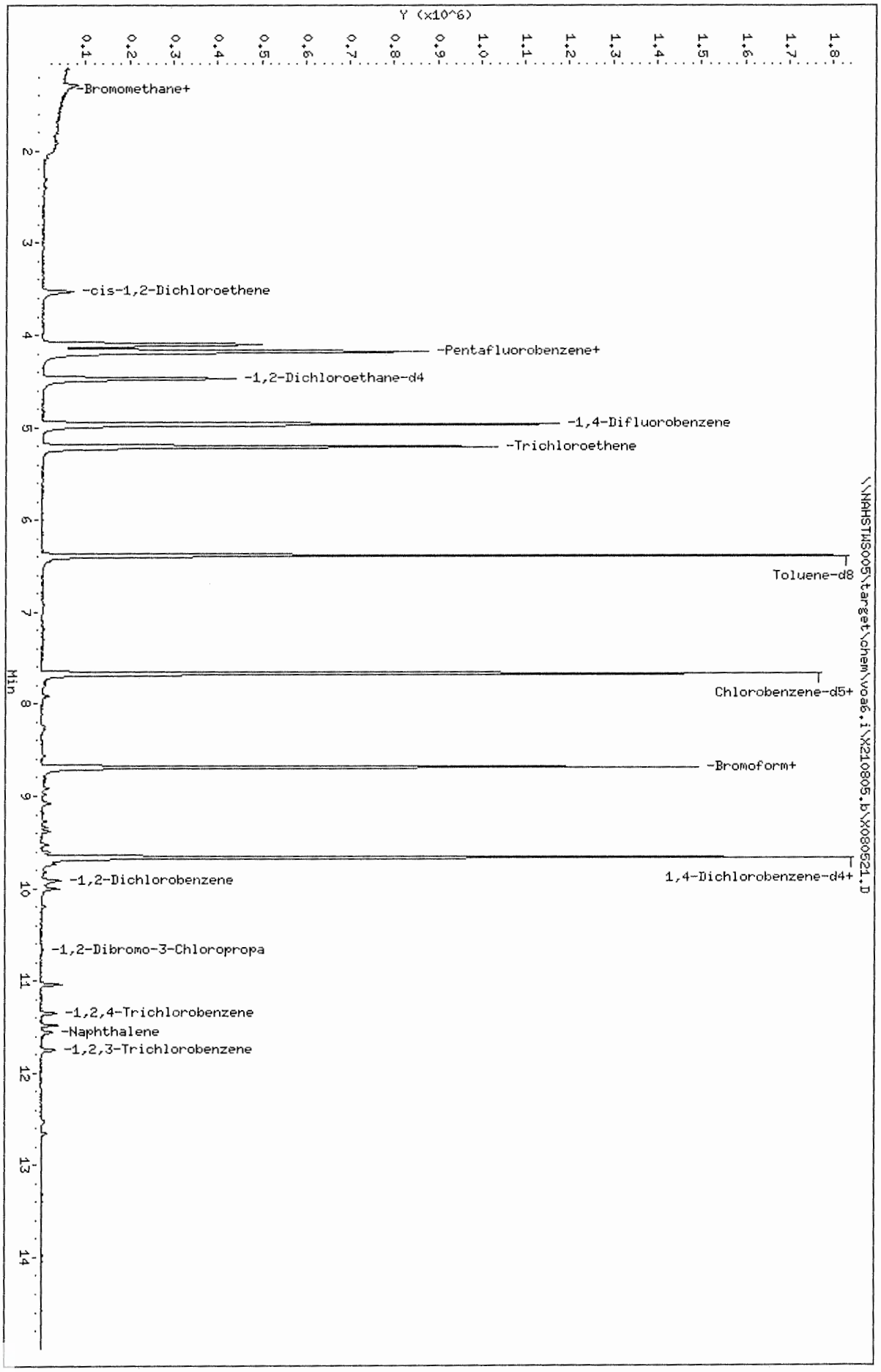
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080521.D
Date : 05-AUG-2021 17:53
Client ID: HS21071592-02
Sample Info: HS21071592-02;HS21071592-02;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080521.D
Date : 05-AUG-2021 17:53
Client ID: HS21071592-02
Sample Info: HS21071592-02;HS21071592-02;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080521.D

Date : 05-AUG-2021 17:53

Client ID: HS21071592-02

Instrument: voa6.i

Sample Info: HS21071592-02;HS21071592-02;;;

Purge Volume: 5.0

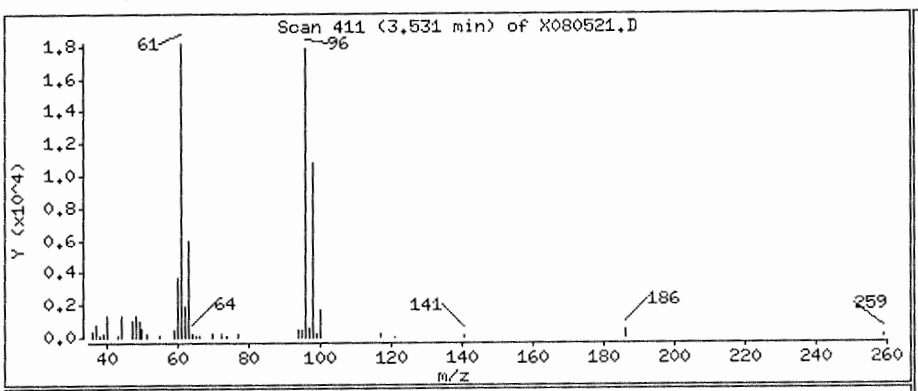
Operator: PC

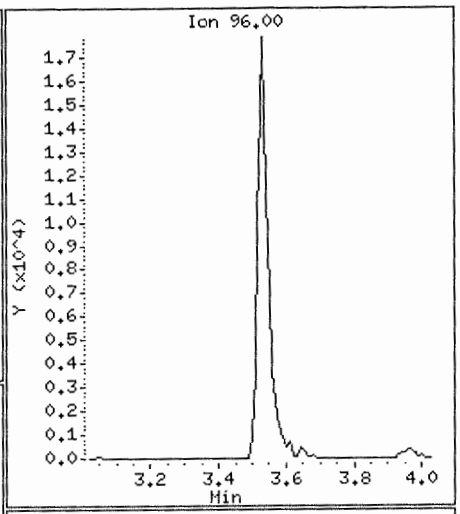
Column phase: DB624

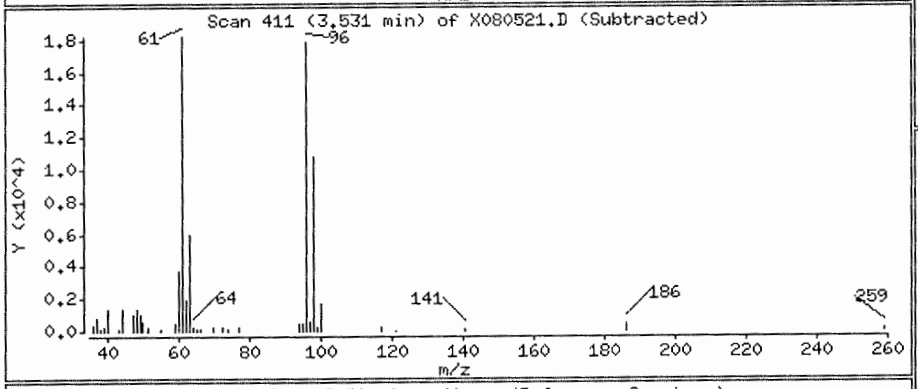
Column diameter: 0.18

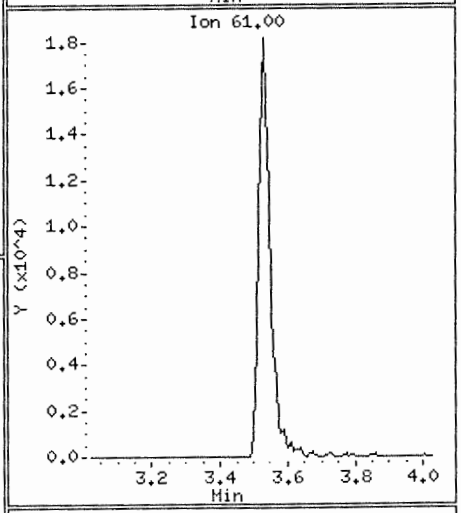
27 cis-1,2-Dichloroethene

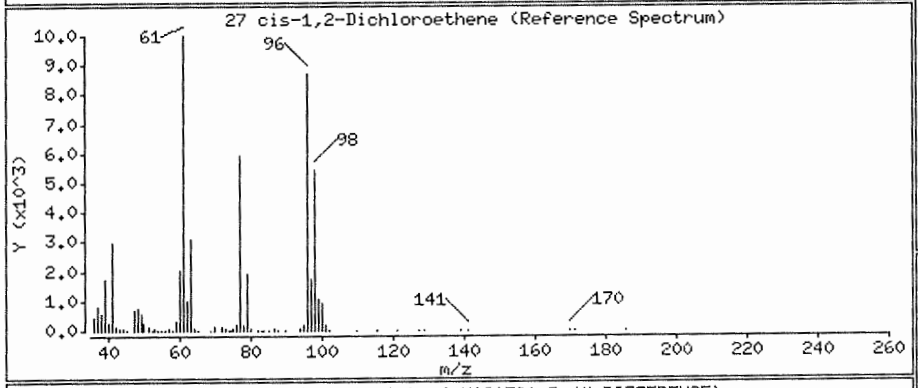
Concentration: 24.11 ug/l

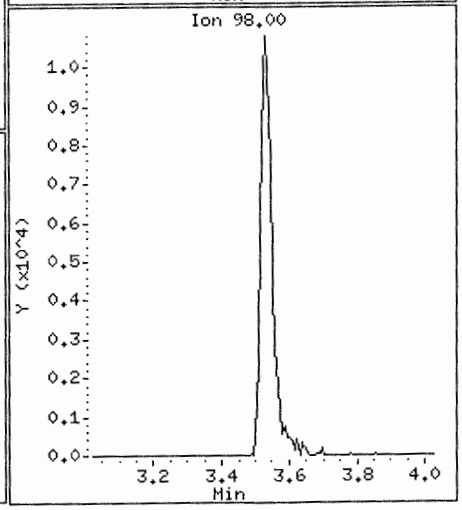


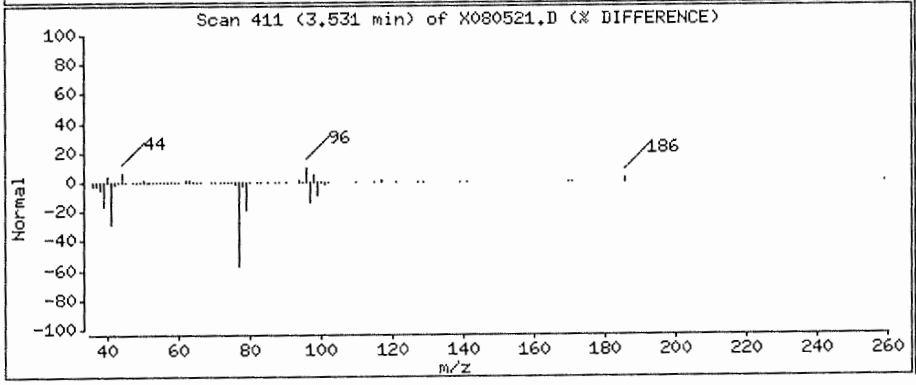












Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080521.D

Date : 05-AUG-2021 17:53

Client ID: HS21071592-02

Instrument: voa6.i

Sample Info: HS21071592-02;HS21071592-02;;;

Purge Volume: 5.0

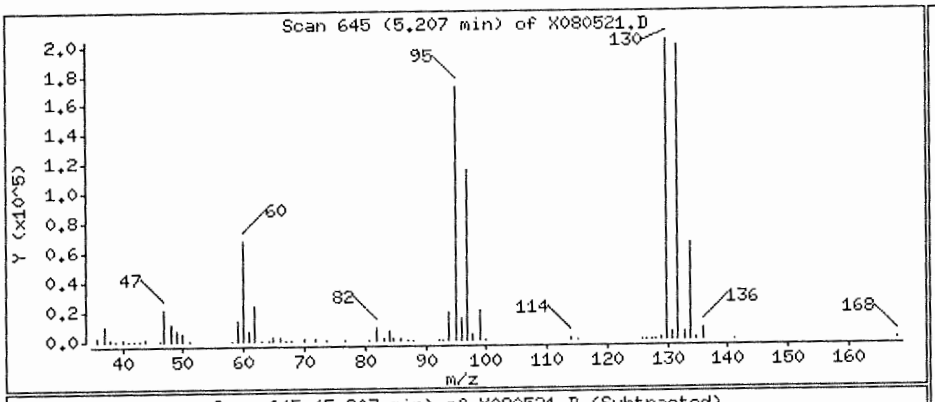
Operator: PC

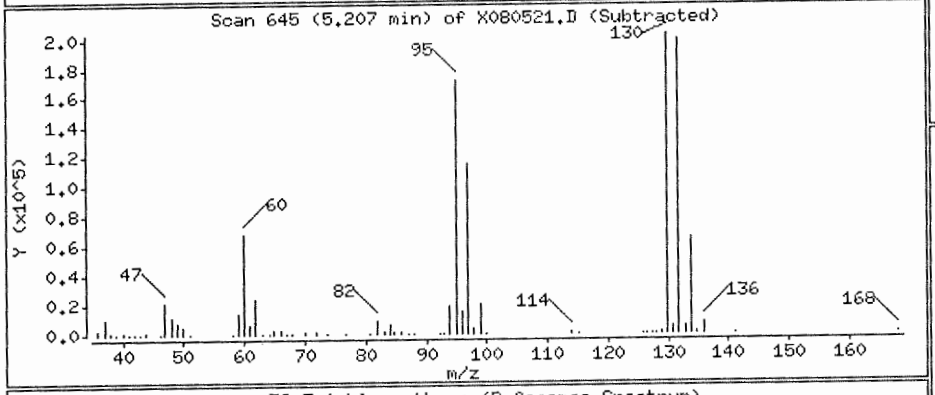
Column phase: DB624

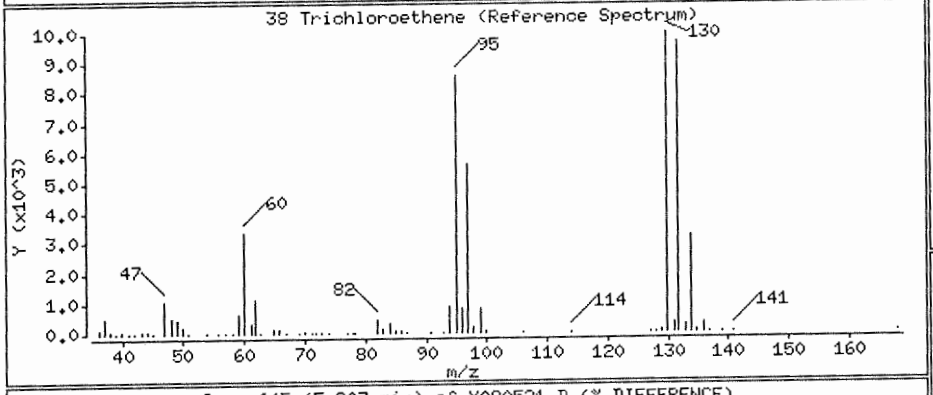
Column diameter: 0.18

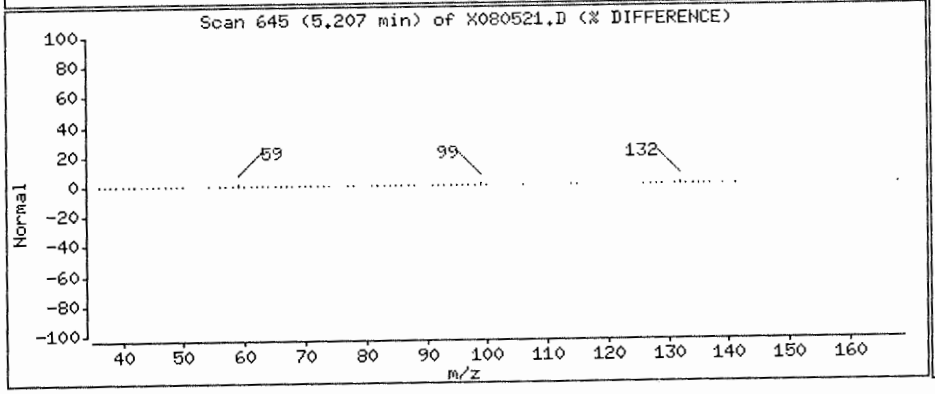
38 Trichloroethene

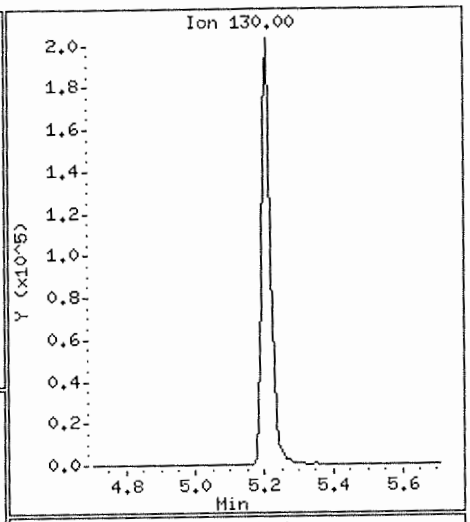
Concentration: 231.92 ug/l

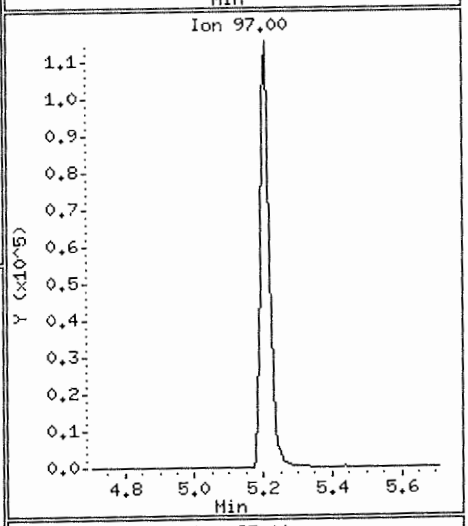


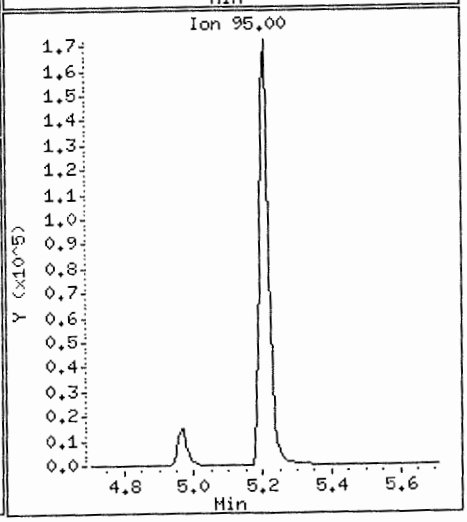












Data File: \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080526.D Page 1
Report Date: 10-Sep-2021 16:23

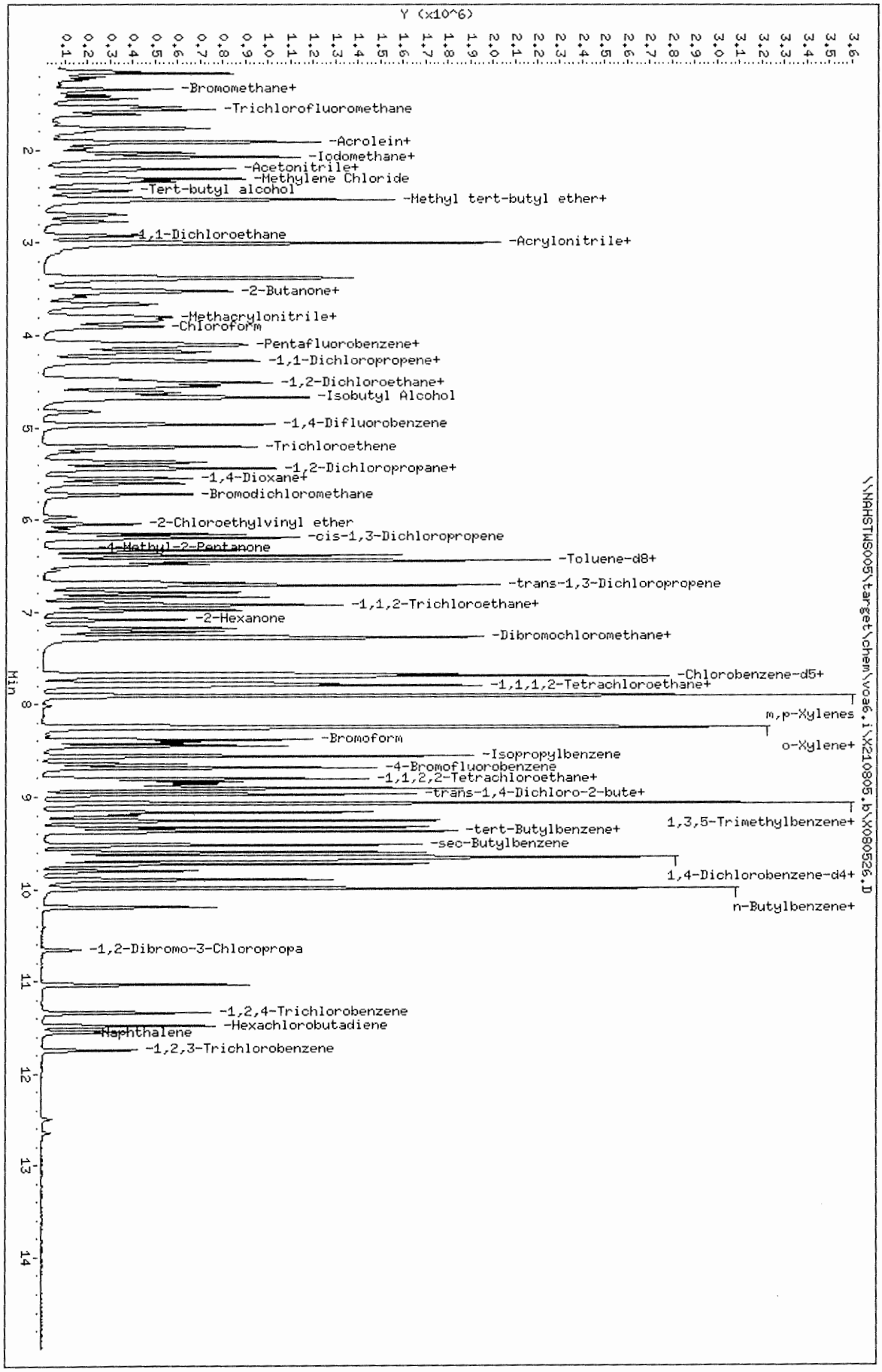
ALS Laboratory Group

Data file : \\NAHSTWS005\target\chem\voa6.i\X210805.b\X080526.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 05-AUG-2021 19:38
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\target\chem\voa6.i\X210805.b\8260W.m
Meth Date : 10-Sep-2021 16:23 voa6.i Quant Type: ISTD
Cal Date : 30-JUL-2021 13:56 Cal File: X073008.D
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	672481	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	299376	50.0000	47.41
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	281690	50.0000	46.89
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	912716	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	865743	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	957357	50.0000	47.14
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	359519	50.0000	49.49
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	465321	50.0000	
5 Vinyl Chloride	62	1.138	1.138	(0.272)	275990	50.0000	43.11
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	251902	50.0000	44.51
17 Methylene Chloride	84	2.305	2.305	(0.551)	273998	50.0000	48.58
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	312274	50.0000	46.29
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	335853	50.0000	45.86
38 Trichloroethene	130	5.207	5.207	(1.049)	334205	50.0000	50.10
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	217536	50.0000	48.02



Data File: \\NAHSTWS005\target\chem\voa6,i\X210805,b\X080526,D
Date : 05-AUG-2021 19:38
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6,i
Operator: PC
Column diameter: 0.18

HS21071592 - Sub Perch IV (E2100856)

ALS WO# HS21071592

November 23, 2021 Service Request No:E2100856

Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099

Laboratory Results for: HS21071592

Dear Ragen,

Enclosed are the results of the sample(s) submitted to our laboratory July 29, 2021
For your reference, these analyses have been assigned our service request number **E2100856.**

Revision I - This report was revised on 11/23/21 to include the missing ICAL from 7/26/21; ICAL included in this data package.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Corey Grandits
Project Manager

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Houston	**Service Request No.:**	E2100856
Project:	HS21071592	**Date Received:**	07/29/21
Sample Matrix:	W		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Five samples were received for analysis at ALS Environmental in Houston on 07/29/21.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2100470: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in addition to a MS/MSD for this extraction batch. The LCS & DLCS recoveries are within QC limits. The MS and MSD was performed on an unrelated sample.

DoD certification is held for the method/matrix/analytes provided in this report.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2100856
Project: HS21071592

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100856-001	16WW12-210728	7/28/2021	0710
E2100856-002	16WW39-210728	7/28/2021	0800
E2100856-003	16WW49-210728	7/28/2021	0845
E2100856-004	16WW27-210728	7/28/2021	0930
E2100856-005	16WW43-210728	7/28/2021	1015

Service Request Summary

Folder #: **E2100856**
Client Name: ALS Environmental - US
Project Name: HS21071592
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 07/29/21
Internal Due Date: 8/12/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21071592
EDD: No EDD Specified

5 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100856-001	16WW12-210728	Ground Water	07/28/21 0710	**IV**
E2100856-002	16WW39-210728	Ground Water	07/28/21 0800	**IV**
E2100856-003	16WW49-210728	Ground Water	07/28/21 0845	**IV**
E2100856-004	16WW27-210728	Ground Water	07/28/21 0930	**IV**
E2100856-005	16WW43-210728	Ground Water	07/28/21 1015	**IV**

Service Request Summary

Folder #: **E2100856**
Client Name: ALS Environmental - US
Project Name: HS21071592
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 07/29/21
Internal Due Date: 8/12/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21071592
EDD: No EDD Specified

5 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	5	IV due 8/19

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	Internal standard not within the specified limits. See case narrative.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.
M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.

Data Qualifiers

Lab Standard

O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Arkansas Department of Environmental Quality	19-028-0	6/30/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-33	6/30/2022
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352 2022	7/31/2022
Louisiana Department of Environmental Quality	03087-2021	6/30/2022
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Minnesota Department of Health	2021671	12/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	68-03441-015	6/30/2022
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
Texas Commision on Environmental Quality	T104704231-21-27	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **16597**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Ragen Giga
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RagenP.Giga@ALSGlobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS21071592
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21071592-01**	**16WW12-210728**	**GW**	**28 Jul 2021 07:10**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			12 Aug 2021
2.	**HS21071592-02**	**16WW39-210728**	**GW**	**28 Jul 2021 08:00**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			12 Aug 2021
3.	**HS21071592-03**	**16WW49-210728**	**GW**	**28 Jul 2021 08:45**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			12 Aug 2021
4.	**HS21071592-04**	**16WW27-210728**	**GW**	**28 Jul 2021 09:30**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			12 Aug 2021
5.	**HS21071592-05**	**16WW43-210728**	**GW**	**28 Jul 2021 10:15**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			12 Aug 2021

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **16597**

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: 7/29/21 1742

Cooler ID(s): _____ Temperature(s): _____

ALS Environmental

Cooler Receipt Form

Project Chemist CG

Client/Project ALS-H

Thermometer ID 1R21

Date/Time Received: 7/29/21 Initials: CG Date/Time Logged in: 7/29/21 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ✓ ALS Courier ○ Client

2. Samples received in: ✓ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ✓ No If yes, how many and where?

Were they intact? ○ Yes ○ No ✓ N/A

Were they signed and dated? ○ Yes ○ No ✓ N/A

4. Packing Material: ○ Inserts ✓ Baggies ○ Bubble Wrap ○ Gel Packs ✓ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		7/29/21	1742	CG	1.1	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ✓ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ✓ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ✓ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ✓ Yes ○ No

10. Did sample labels and tags agree with custody documents? ✓ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

HS-HRMSCoolerReceipt R1.0

ALS Environmental - Houston HRMS

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SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 384286 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** **Prep Date/Time:** 7/30/21 10:05

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100831-001	OBFOD-2R	.01	6850/ClO4 DOD			Water	10mL	
2	E2100831-002	OBFOD-3	.01	6850/ClO4 DOD			Water	10mL	
3	E2100836-001	LH18/24-SP650_072721_BIX	.01	6850/ClO4 DOD			Water	10mL	
4	E2100837-001	16EW02-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
5	E2100837-002	16EW04-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2100837-003	16EW08-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2100837-004	16RW04-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2100837-005	16RW01-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2100837-006	16RW02-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2100837-007	16WW13-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2100837-008	16WW42-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
12	E2100837-009	16SW01-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
13	E2100837-010	16SW01-210726-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
14	E2100837-011	16SW02-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
15	E2100837-012	16SW03-210726	.01	6850/ClO4 DOD			Ground Water	10mL	
16	E2100856-001	16WW12-210728	.01	6850/ClO4 DOD			Ground Water	10mL	
17	E2100856-002	16WW39-210728	.01	6850/ClO4 DOD			Ground Water	10mL	
18	E2100856-003	16WW49-210728	.01	6850/ClO4 DOD			Ground Water	10mL	
19	E2100856-004	16WW27-210728	.01	6850/ClO4 DOD			Ground Water	10mL	
20	E2100856-005	16WW43-210728	.01	6850/ClO4 DOD			Ground Water	10mL	
21	EQ2100470-01	MB		6850/ClO4 DOD			Liquid	10mL	
22	EQ2100470-02	LCS		6850/ClO4 DOD			Liquid	10mL	
23	EQ2100470-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
24	EQ2100470-04	16SW02-210726 MS	.01	6850/ClO4 DOD			Liquid	10mL	
25	EQ2100470-05	16SW02-210726 DMS	.01	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Sodium Perchlorate 1 ug/mL (IS) (18-O) as CLO4 Inventory ID 214765 Logbook Ref: Sodium Perchlorate Expires On: 12/11/2022

E2100831-001	100.00µL	E2100831-002	100.00µL	E2100836-001	100.00µL	E2100837-001	100.00µL	E2100837-002	100.00µL	E2100837-003	100.00µL
E2100837-004	100.00µL	E2100837-005	100.00µL	E2100837-006	100.00µL	E2100837-007	100.00µL	E2100837-008	100.00µL	E2100837-009	100.00µL
E2100837-010	100.00µL	E2100837-011	100.00µL	E2100837-012	100.00µL	E2100856-001	100.00µL	E2100856-002	100.00µL	E2100856-003	100.00µL
E2100856-004	100.00µL	E2100856-005	100.00µL	EQ2100470-01	100.00µL	EQ2100470-02	100.00µL	EQ2100470-03	100.00µL	EQ2100470-04	100.00µL
EQ2100470-05	100.00µL										

Preparation Information Benchsheet

Prep Run#: 384286 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** **Prep Date/Time:** 7/30/21 10:05

Name:	Perchlorate Intermediate Stock1	Inventory ID	217422	Logbook Ref:	Perchlorate	Expires On:	11/26/2021

EQ2100470-02 1.00µL EQ2100470-03 1.00µL EQ2100470-04 1.00µL EQ2100470-05 1.00µL

Preparation Materials

Water HPLC Grade 07/01/2021 Water (217918) 537M Glass Culture Tubes 537M Glass Tubes (218064)

Preparation Steps

Step: Preparation
Started: 7/30/21 10:05
Finished: 7/30/21 11:00
By: GRIVERA
Comments

Comments: _____

Reviewed By: GR Date: 7/30/21

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Collected:**	7/28/21 0710
Sample Matrix:	Ground Water	**Date Received:**	7/29/21
Sample Name:	16WW12-210728	**Units:**	µg/L
Lab Code:	E2100856-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**16.0**		1.00	0.500	0.250	10	7/30/21	8/4/21 18:18	384286	733747	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Collected:**	7/28/21 0800
Sample Matrix:	Ground Water	**Date Received:**	7/29/21
Sample Name:	16WW39-210728	**Units:**	µg/L
Lab Code:	E2100856-002	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**6.76**		0.500	0.250	0.125	5	7/30/21	8/5/21 14:43	384286	733725	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Collected:**	7/28/21 0845
Sample Matrix:	Ground Water	**Date Received:**	7/29/21
Sample Name:	16WW49-210728	**Units:**	µg/L
Lab Code:	E2100856-003	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0291**	J	0.100	0.0500	0.0250	1	7/30/21	8/2/21 23:41	384286	733464	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Collected:**	7/28/21 0930
Sample Matrix:	Ground Water	**Date Received:**	7/29/21
Sample Name:	16WW27-210728	**Units:**	µg/L
Lab Code:	E2100856-004	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.500	0.250	0.125	5	7/30/21	8/5/21 14:56	384286	733725	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Collected:**	7/28/21 1015
Sample Matrix:	Ground Water	**Date Received:**	7/29/21
Sample Name:	16WW43-210728	**Units:**	µg/L
Lab Code:	E2100856-005	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	7/30/21	8/2/21 23:58	384286	733464	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100470-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	7/30/21	7/30/21 11:24	384286	733225	

Accuracy & Precision

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592
Sample Matrix: Ground Water

Service Request: E2100856
Date Analyzed: 7/30/21

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: NA

Extraction Lot: 384286

	Lab Control Sample EQ2100470-02			Duplicate Lab Control Sample EQ2100470-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.0870	0.100	87	0.0884	0.100	88	84 - 119	2	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100470-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0870**	J	0.100	0.0500	0.0250	1	7/30/21	7/30/21 11:32	384286	733225	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100470-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0884**	J	0.100	0.0500	0.0250	1	7/30/21	7/30/21 12:00	384286	733225	

Initial Calibration

ALS Environmental - Houston HRMS
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20210726

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 7/26/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100054**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100813-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210726_019	Perchlorate6850c.lcm	1x	☒	3100812-01	7/26/2021 14:43
2	PERCHLORATE2		20210726_020	Perchlorate6850c.lcm	1x	☒	3100812-02	7/26/2021 14:51
3	PERCHLORATE3		20210726_021	Perchlorate6850c.lcm	1x	☒	3100812-03	7/26/2021 15:00
4	PERCHLORATE4		20210726_022	Perchlorate6850c.lcm	1x	☒	3100812-04	7/26/2021 15:08
5	PERCHLORATE5		20210726_023	Perchlorate6850c.lcm	1x	☒	3100812-05	7/26/2021 15:17
6	PERCHLORATE6		20210726_024	Perchlorate6850c.lcm	1x	☒	3100812-06	7/26/2021 15:25
7	PERCHLORATE7		20210726_025	Perchlorate6850c.lcm	1x	☒	3100812-07	7/26/2021 15:34
8	PERCHLORATE8		20210726_026	Perchlorate6850c.lcm	1x	☒	3100812-08	7/26/2021 15:43
9	PERCHLORATE9		20210726_027	Perchlorate6850c.lcm	1x	☒	3100812-09	7/26/2021 15:51
10	PERCHLORATE10		20210726_028	Perchlorate6850c.lcm	1x	☒	3100813-01	7/26/2021 16:00
11	PERCHLORATEICV		20210726_029	Perchlorate6850c.lcm	1x	☒	3100811-06	7/26/2021 16:08
12								
13								
14								
15								
16								

Initial Calibration - Detailed Report

Calibration ID: EC2100054 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2100054-01	PERCHLORATE1	20210726_019	07/26/2021 14:43
02	EC2100054-02	PERCHLORATE2	20210726_020	07/26/2021 14:51
03	EC2100054-03	PERCHLORATE3	20210726_021	07/26/2021 15:00
04	EC2100054-04	PERCHLORATE4	20210726_022	07/26/2021 15:08
05	EC2100054-05	PERCHLORATE5	20210726_023	07/26/2021 15:17
06	EC2100054-06	PERCHLORATE6	20210726_024	07/26/2021 15:25
07	EC2100054-07	PERCHLORATE7	20210726_025	07/26/2021 15:34
08	EC2100054-08	PERCHLORATE8	20210726_026	07/26/2021 15:43
09	EC2100054-09	PERCHLORATE9	20210726_027	07/26/2021 15:51
10	EC2100054-10	PERCHLORATE10	20210726_028	07/26/2021 16:00

Analyte	Curve Fit	Weighting		
Perchlorate	**Linear**	**1/X2**	**R2 = 0.9988734513909290**	**Y=0.1587 X+0.004555**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.2022	02	0.5000	0.1717	03	0.7000	0.1736	04	1.0000	0.1613
05	2.0000	0.1682	06	5.0000	0.1611	07	10.0000	0.1545	08	20.0000	0.1559
09	30.0000	0.1559	10	50.0000	0.1529						

Analyte

Perchlorate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.0987	-1.3	02	0.5000	0.512	2.4	03	0.7000	0.737	5.2
04	1.0000	0.987	-1.3	05	2.0000	2.09	4.5	06	5.0000	5.05	0.9
07	10.0000	9.70	-3.0	08	20.0000	19.6	-1.9	09	30.0000	29.4	-1.9
10	50.0000	48.1	-3.8								

Initial Calibration Verification Summary Report

Calibration ID:	EC2100054	**Instrument ID:**	E-LCMS-01
Datafile ID:	20210726_029	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2100054-11	T	Linear	10	9.772	ng/mL	-2.3	<= 15

Insight Report

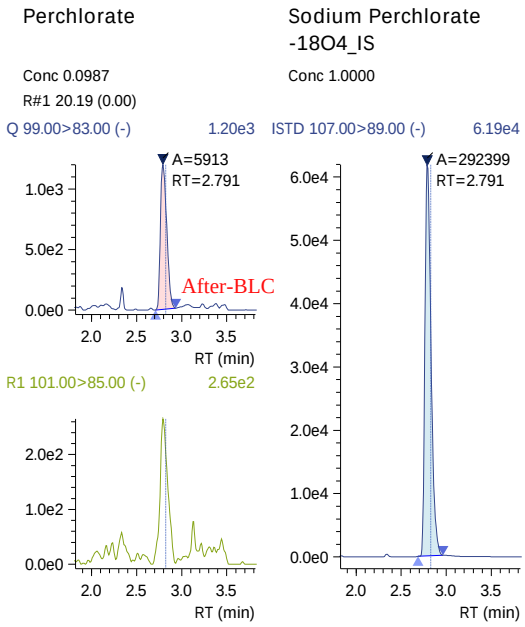
Printed at 8/17/2021 4:47:51 PM

Method File: I:\LCMS01\DATA\20210726\20210726.lcm
Project File: I:\LCMS01\DATA\20210726\20210726.damlp

20210726_019

Sample ID: PERCHLORATE1
Date Acquired: 7/26/2021 2:43:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\20210726_019.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.791	5913	292399	1	0.0987	ng/mL	0.1000	20.19
Sodium Perchlorate-18O4 _IS	Auto	2.791	2923 99	292399	1	1.0000	ng/mL	1.0000	----



Insight Report

Printed at 8/17/2021 4:57:15 PM

Method File: I:\LCMS01\DATA\20210726\20210721.lcm

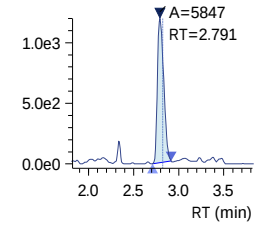
20210726_019

Sample ID: PERCHLORATE1
Date Acquired: 7/26/2021 2:43:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\Before\20210726_019.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

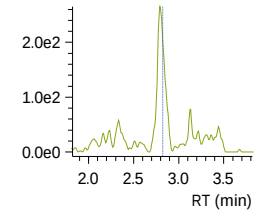
Perchlorate

Conc 0.1245
R#1 20.16 (0.00)

Q 99.00>83.00 (-) 1.20e3



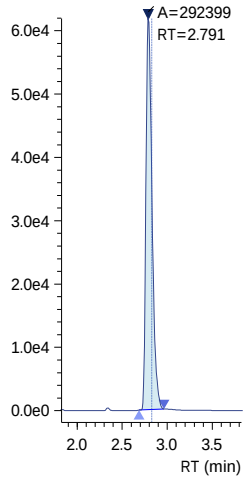
R1 101.00>85.00 (-) 2.65e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.19e4



Insight Report

Printed at 8/17/2021 4:47:51 PM

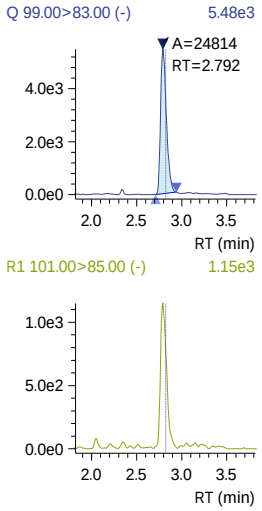
20210726_020

Sample ID: PERCHLORATE2
Date Acquired: 7/26/2021 2:51:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\20210726_020.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.792	24814	289068	1	0.5121	ng/mL	0.5000	20.83
Sodium Perchlorate-18O4 _IS	Auto	2.789	2890 68	289068	1	1.0000	ng/mL	1.0000	----

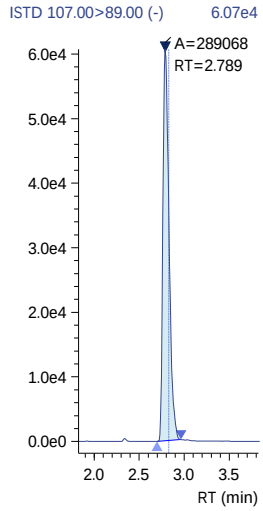
Perchlorate

Conc 0.5121
R#1 20.83 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/17/2021 4:57:15 PM

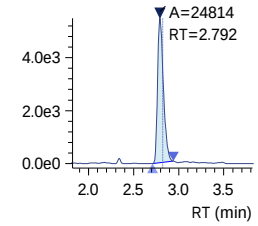
20210726_020

Sample ID: PERCHLORATE2
Date Acquired: 7/26/2021 2:51:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\Before\20210726_020.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

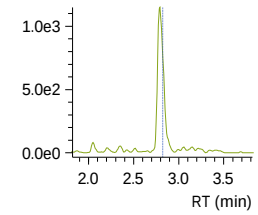
Perchlorate

Conc 0.6171
R#1 20.83 (0.00)

Q 99.00>83.00 (-) 5.48e3



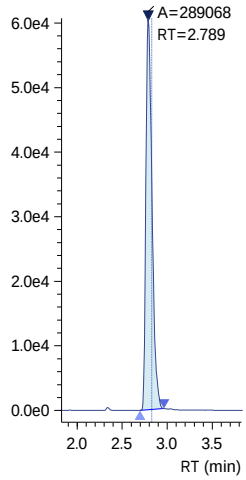
R1 101.00>85.00 (-) 1.15e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.07e4



Insight Report

Printed at 8/17/2021 4:47:51 PM

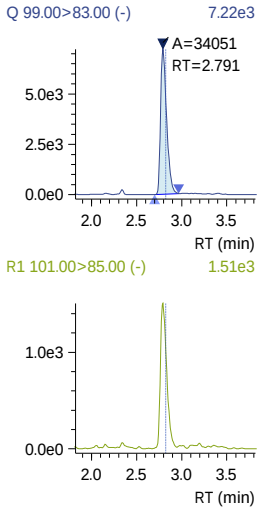
20210726_021

Sample ID: PERCHLORATE3
Date Acquired: 7/26/2021 3:00:18 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\20210726_021.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.791	34051	280281	1	0.7367	ng/mL	0.7000	21.25
Sodium Perchlorate-18O4 _IS	Auto	2.791	2802 81	280281	1	1.0000	ng/mL	1.0000	----

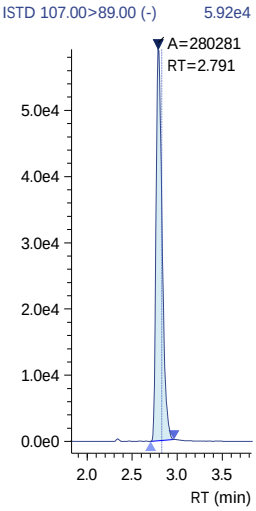
Perchlorate

Conc 0.7367
R#1 21.25 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/17/2021 4:57:15 PM

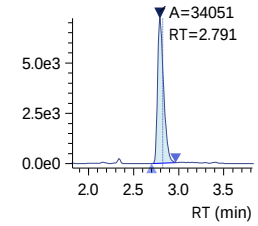
20210726_021

Sample ID: PERCHLORATE3
Date Acquired: 7/26/2021 3:00:18 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\Before\20210726_021.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

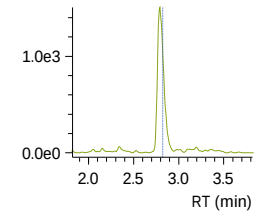
Perchlorate

Conc 0.8837
R#1 21.25 (0.00)

Q 99.00>83.00 (-) 7.22e3



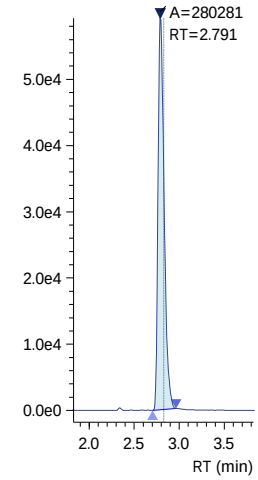
R1 101.00>85.00 (-) 1.51e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.92e4



Insight Report

Printed at 8/17/2021 4:47:51 PM

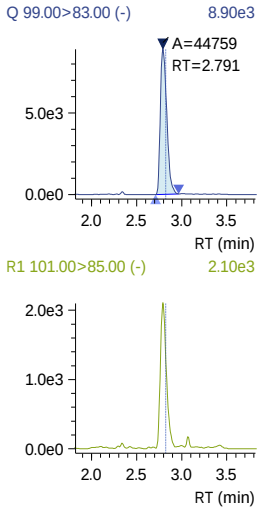
20210726_022

Sample ID: PERCHLORATE4
Date Acquired: 7/26/2021 3:08:50 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\20210726_022.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.791	44759	277534	1	0.9873	ng/mL	1.0000	23.06
Sodium Perchlorate-18O4 _IS	Auto	2.789	2775 34	277534	1	1.0000	ng/mL	1.0000	----

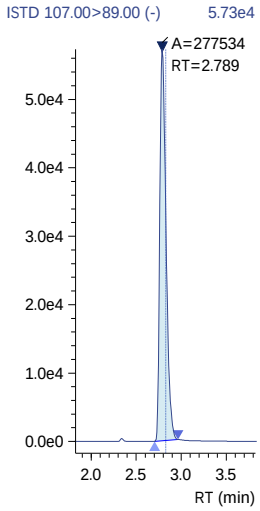
Perchlorate

Conc 0.9873
R#1 23.06 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/17/2021 4:57:15 PM

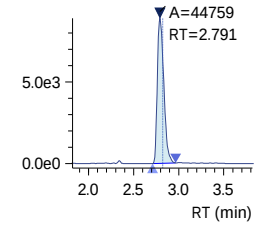
20210726_022

Sample ID: PERCHLORATE4
Date Acquired: 7/26/2021 3:08:50 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\Before\20210726_022.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

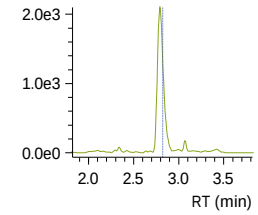
Perchlorate

Conc 1.1814
R#1 23.06 (0.00)

Q 99.00>83.00 (-) 8.90e3



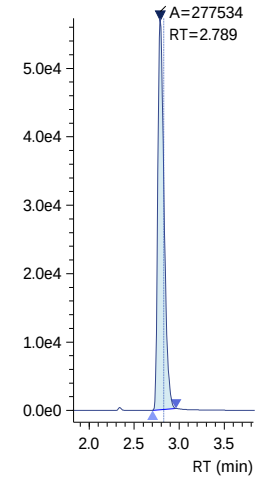
R1 101.00>85.00 (-) 2.10e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.73e4



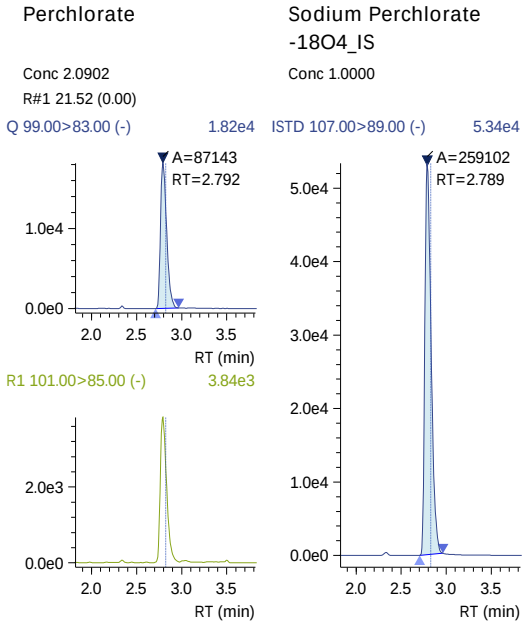
Insight Report

Printed at 8/17/2021 4:47:51 PM

20210726_023

Sample ID: PERCHLORATE5
Date Acquired: 7/26/2021 3:17:24 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\20210726_023.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.792	87143	259102	1	2.0902	ng/mL	2.0000	21.52
Sodium Perchlorate-18O4 _IS	Auto	2.789	259102	259102	1	1.0000	ng/mL	1.0000	----



Insight Report

Printed at 8/17/2021 4:57:15 PM

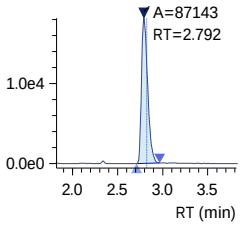
20210726_023

Sample ID: PERCHLORATE5
Date Acquired: 7/26/2021 3:17:24 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\Before\20210726_023.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

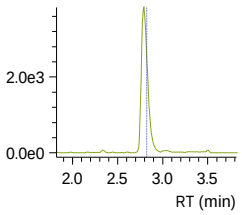
Perchlorate

Conc 2.4909
R#1 21.52 (0.00)

Q 99.00>83.00 (-) 1.82e4



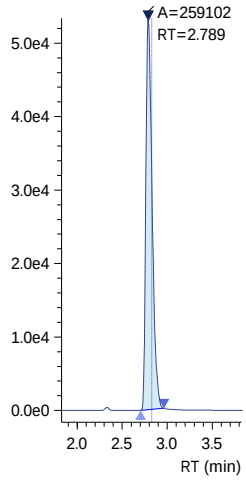
R1 101.00>85.00 (-) 3.84e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.34e4



Insight Report

Printed at 8/17/2021 4:47:51 PM

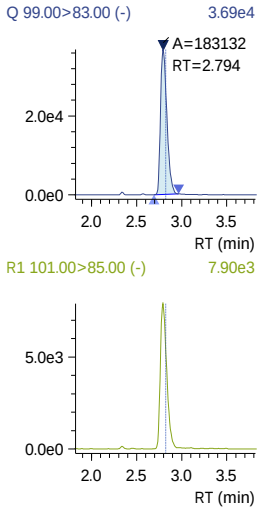
20210726_024

Sample ID: PERCHLORATE6
Date Acquired: 7/26/2021 3:25:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\20210726_024.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.794	183132	227294	1	5.0473	ng/mL	5.0000	21.41
Sodium Perchlorate-18O4_IS	Auto	2.791	227294	227294	1	1.0000	ng/mL	1.0000	----

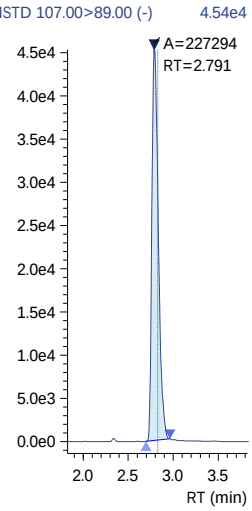
Perchlorate

Conc 5.0473
R#1 21.41 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/17/2021 4:57:15 PM

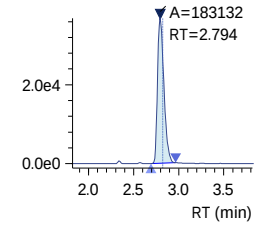
20210726_024

Sample ID: PERCHLORATE6
Date Acquired: 7/26/2021 3:25:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\Before\20210726_024.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

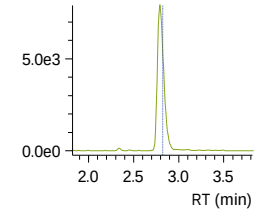
Perchlorate

Conc 6.0023
R#1 21.41 (0.00)

Q 99.00>83.00 (-) 3.69e4



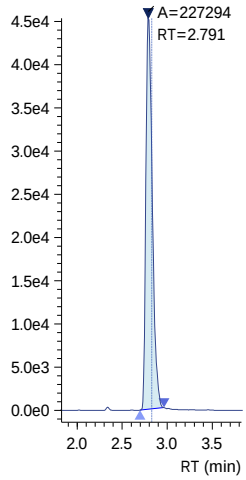
R1 101.00>85.00 (-) 7.90e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.54e4



Insight Report

Printed at 8/17/2021 4:47:51 PM

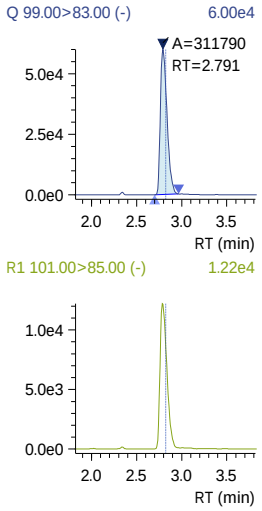
20210726_025

Sample ID: PERCHLORATE7
Date Acquired: 7/26/2021 3:34:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\20210726_025.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.791	311790	201854	1	9.7025	ng/mL	10.0000	20.90
Sodium Perchlorate-18O4_IS	Auto	2.790	201854	201854	1	1.0000	ng/mL	1.0000	----

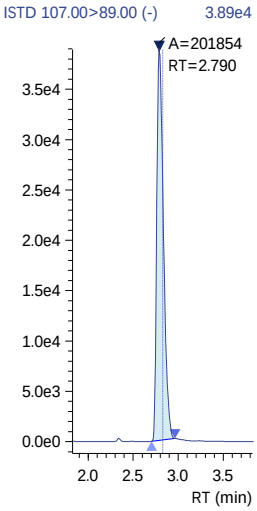
Perchlorate

Conc 9.7025
R#1 20.90 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/17/2021 4:57:15 PM

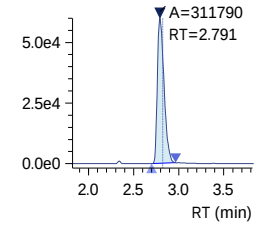
20210726_025

Sample ID: PERCHLORATE7
Date Acquired: 7/26/2021 3:34:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\Before\20210726_025.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

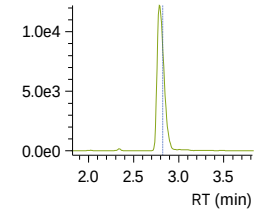
Perchlorate

Conc 11.5301
R#1 20.90 (0.00)

Q 99.00>83.00 (-) 6.00e4



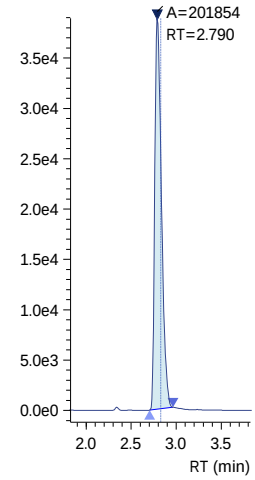
R1 101.00>85.00 (-) 1.22e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.89e4



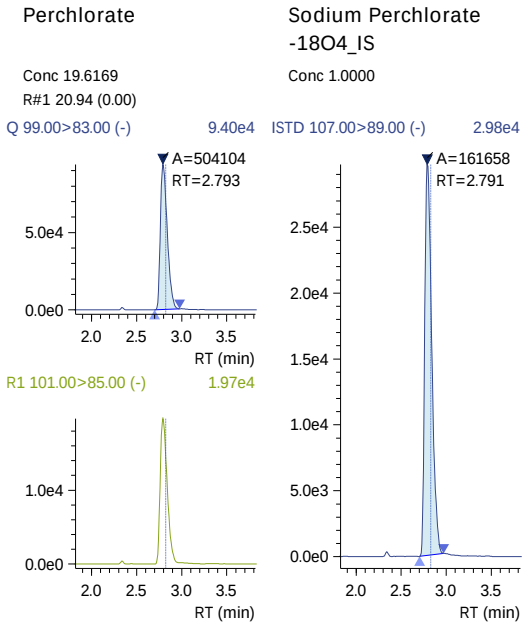
Insight Report

Printed at 8/17/2021 4:47:51 PM

20210726_026

Sample ID: PERCHLORATE8
Date Acquired: 7/26/2021 3:43:01 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\20210726_026.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.793	504104	161658	1	19.6169	ng/mL	20.0000	20.94
Sodium Perchlorate-18O4_IS	Auto	2.791	161658	161658	1	1.0000	ng/mL	1.0000	----



Insight Report

Printed at 8/17/2021 4:57:15 PM

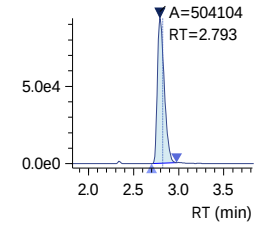
20210726_026

Sample ID: PERCHLORATE8
Date Acquired: 7/26/2021 3:43:01 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\Before\20210726_026.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

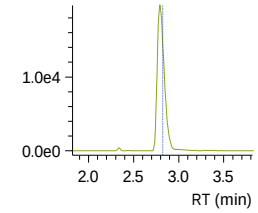
Perchlorate

Conc 23.3027
R#1 20.94 (0.00)

Q 99.00>83.00 (-) 9.40e4



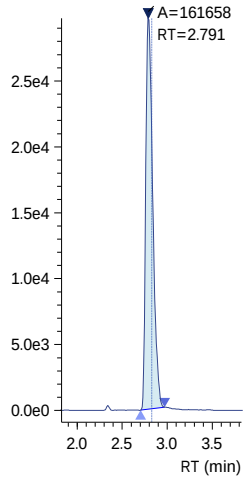
R1 101.00>85.00 (-) 1.97e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.98e4



Insight Report

Printed at 8/17/2021 4:47:51 PM

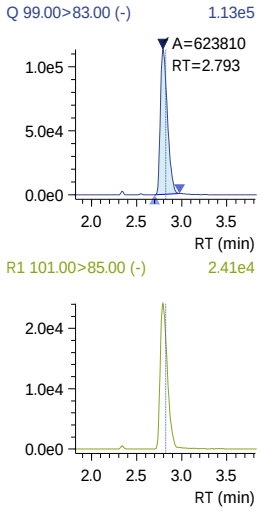
20210726_027

Sample ID: PERCHLORATE9
Date Acquired: 7/26/2021 3:51:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\20210726_027.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.793	623810	133405	1	29.4306	ng/mL	30.0000	21.23
Sodium Perchlorate-18O4_IS	Auto	2.792	133405	133405	1	1.0000	ng/mL	1.0000	----

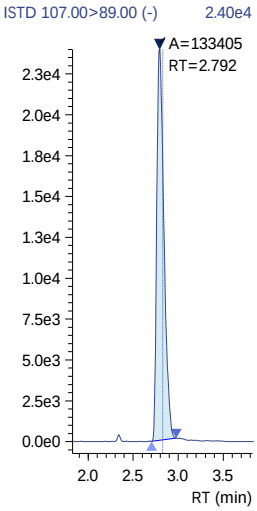
Perchlorate

Conc 29.4306
R#1 21.23 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/17/2021 4:57:15 PM

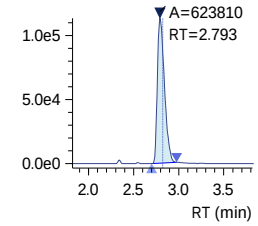
20210726_027

Sample ID: PERCHLORATE9
Date Acquired: 7/26/2021 3:51:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\Before\20210726_027.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

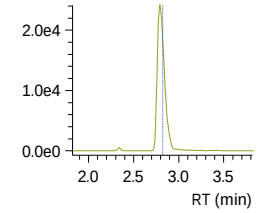
Perchlorate

Conc 34.9559
R#1 21.23 (0.00)

Q 99.00>83.00 (-) 1.13e5



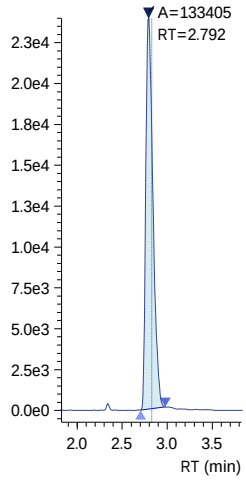
R1 101.00>85.00 (-) 2.41e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.40e4



Insight Report

Printed at 8/17/2021 4:47:51 PM

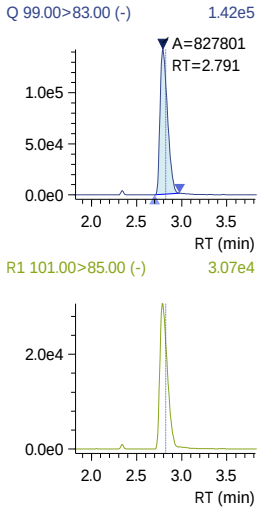
20210726_028

Sample ID: PERCHLORATE10
Date Acquired: 7/26/2021 4:00:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\20210726_028.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.791	827801	108313	1	48.1204	ng/mL	50.0000	21.92
Sodium Perchlorate-18O4_IS	Auto	2.789	108313	108313	1	1.0000	ng/mL	1.0000	----

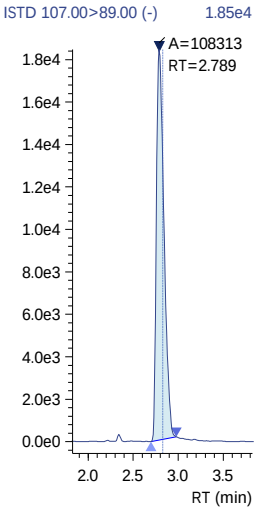
Perchlorate

Conc 48.1204
R#1 21.92 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/17/2021 4:57:15 PM

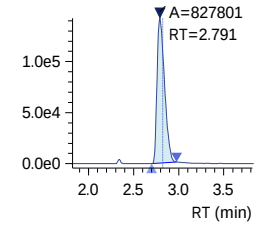
20210726_028

Sample ID: PERCHLORATE10
Date Acquired: 7/26/2021 4:00:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\Before\20210726_028.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

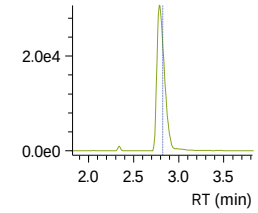
Perchlorate

Conc 57.1487
R#1 21.92 (0.00)

Q 99.00>83.00 (-) 1.42e5



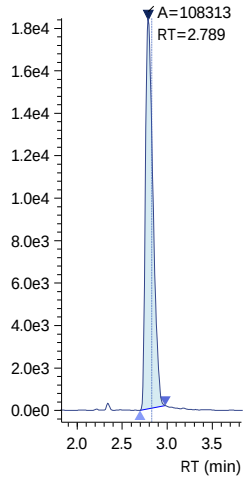
R1 101.00>85.00 (-) 3.07e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.85e4



Insight Report

Printed at 8/17/2021 4:47:51 PM

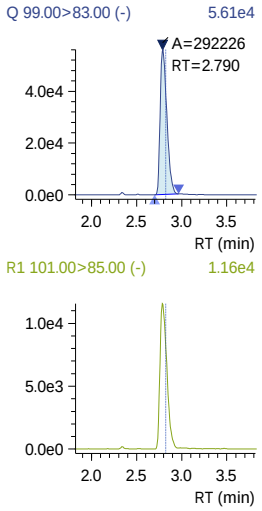
20210726_029

Sample ID: PERCHLORATEICV
Date Acquired: 7/26/2021 4:08:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\20210726_029.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.790	292226	187855	1	9.7716	ng/mL	10.0000	20.92
Sodium Perchlorate-18O4_IS	Auto	2.789	187855	187855	1	1.0000	ng/mL	1.0000	----

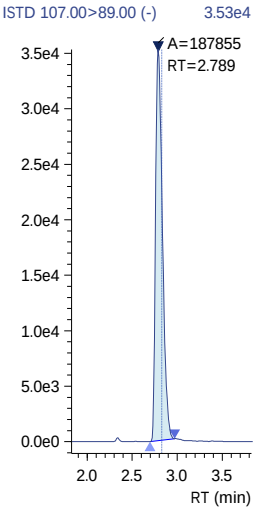
Perchlorate

Conc 9.7716
R#1 20.92 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/17/2021 4:57:15 PM

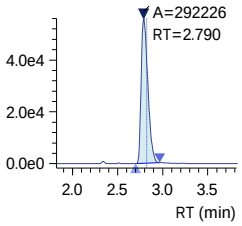
20210726_029

Sample ID: PERCHLORATEICV
Date Acquired: 7/26/2021 4:08:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210726\Before\20210726_029.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

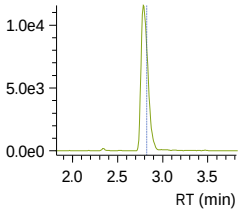
Perchlorate

Conc 11.6121
R#1 20.92 (0.00)

Q 99.00>83.00 (-) 5.61e4



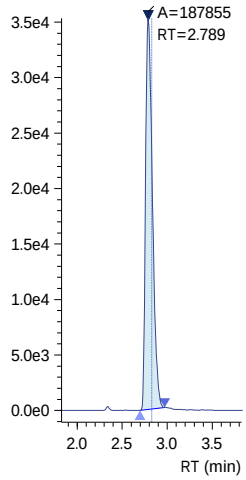
R1 101.00>85.00 (-) 1.16e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.53e4



20210802

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 8/2/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100056**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100813-08 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210802_017	Perchlorate6850c.lcm	1x	☒	3100812-01	8/2/2021 16:41
2	PERCHLORATE2		20210802_007	Perchlorate6850c.lcm	1x	☒	3100812-02	8/2/2021 15:13
3	PERCHLORATE3		20210802_008	Perchlorate6850c.lcm	1x	☒	3100812-03	8/2/2021 15:24
4	PERCHLORATE4		20210802_009	Perchlorate6850c.lcm	1x	☒	3100812-04	8/2/2021 15:33
5	PERCHLORATE5		20210802_010	Perchlorate6850c.lcm	1x	☒	3100812-05	8/2/2021 15:41
6	PERCHLORATE6		20210802_011	Perchlorate6850c.lcm	1x	☒	3100812-06	8/2/2021 15:50
7	PERCHLORATE7		20210802_012	Perchlorate6850c.lcm	1x	☒	3100812-07	8/2/2021 15:58
8	PERCHLORATE8		20210802_013	Perchlorate6850c.lcm	1x	☒	3100812-08	8/2/2021 16:07
9	PERCHLORATE9		20210802_014	Perchlorate6850c.lcm	1x	☒	3100812-09	8/2/2021 16:15
10	PERCHLORATE10		20210802_015	Perchlorate6850c.lcm	1x	☒	3100813-01	8/2/2021 16:24
11	PERCHLORATEICV		20210802_018	Perchlorate6850c.lcm	1x	☒	3100811-06	8/2/2021 16:50
12	IB		20210802_019	Perchlorate6850c.lcm	1x	☒		8/2/2021 17:25
13	LODV		20210802_020	Perchlorate6850c.lcm	1x	☒		8/2/2021 17:33
14	PERCHLORATE7		20210802_021	Perchlorate6850c.lcm	1x	☒	3100812-07	8/2/2021 17:42
15	E2100813-001X20		20210802_022	Perchlorate6850c.lcm	20x	☒		8/2/2021 17:51
16	E2100813-004X20		20210802_023	Perchlorate6850c.lcm	20x	☒		8/2/2021 18:00
17	E2100814-001		20210802_024	Perchlorate6850c.lcm	1x	☒		8/2/2021 18:08
18	E2100814-002		20210802_025	Perchlorate6850c.lcm	1x	☒		8/2/2021 18:17
19	E2100814-003		20210802_026	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 18:25
20	E2100814-004		20210802_027	Perchlorate6850c.lcm	1x	☒		8/2/2021 18:34
21	E2100814-005		20210802_028	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 18:42
22	PERCHLORATE7		20210802_029	Perchlorate6850c.lcm	1x	☒	3100812-07	8/2/2021 18:51
23	EQ2100452-04		20210802_030	Perchlorate6850c.lcm	1x	☒		8/2/2021 19:00
24	EQ2100452-05		20210802_031	Perchlorate6850c.lcm	1x	☒		8/2/2021 19:08
25	E2100813-002		20210802_032	Perchlorate6850c.lcm	1x	☒		8/2/2021 19:17
26	E2100813-003		20210802_033	Perchlorate6850c.lcm	1x	☒		8/2/2021 19:25
27	E2100813-005		20210802_034	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 19:34
28	E2100813-006		20210802_035	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 19:42
29	E2100813-007		20210802_036	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 19:51
30	E2100813-008		20210802_037	Perchlorate6850c.lcm	1x	☒		8/2/2021 19:59
31	PERCHLORATE7		20210802_038	Perchlorate6850c.lcm	1x	☒	3100812-07	8/2/2021 20:08
32	E2100813-009		20210802_039	Perchlorate6850c.lcm	1x	☒		8/2/2021 20:16
33	EQ2100458-01		20210802_040	Perchlorate6850c.lcm	1x	☒		8/2/2021 20:25
34	EQ2100458-02		20210802_041	Perchlorate6850c.lcm	1x	☒		8/2/2021 20:34
35	EQ2100458-03		20210802_042	Perchlorate6850c.lcm	1x	☒		8/2/2021 20:42
36	EQ2100458-04		20210802_043	Perchlorate6850c.lcm	1x	☒		8/2/2021 20:51
37	EQ2100458-05		20210802_044	Perchlorate6850c.lcm	1x	☒		8/2/2021 20:59
38	PERCHLORATE7		20210802_045	Perchlorate6850c.lcm	1x	☒	3100812-07	8/2/2021 21:08
39	E2100824-001		20210802_046	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 21:16
40	E2100824-002		20210802_047	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 21:25
41	E2100824-003		20210802_048	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 21:33
42	E2100825-001		20210802_049	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 21:42
43	E2100825-002		20210802_050	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 21:50
44	E2100825-003		20210802_051	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 21:59
45	E2100825-004		20210802_052	Perchlorate6850c.lcm	1x	☒		8/2/2021 22:07
46	E2100825-005		20210802_053	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 22:16
47	E2100825-006		20210802_054	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 22:24
48	E2100825-007		20210802_055	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 22:33
49	PERCHLORATE7		20210802_056	Perchlorate6850c.lcm	1x	☒	3100812-07	8/2/2021 22:41
50	E2100825-008		20210802_057	Perchlorate6850c.lcm	1x	☒		8/2/2021 22:50
51	IB		20210802_058	Perchlorate6850c.lcm	1x	☒		8/2/2021 22:58
52	E2100831-001		20210802_059	Perchlorate6850c.lcm	1x	☒		8/2/2021 23:07
53	E2100831-002X2		20210802_060	Perchlorate6850c.lcm	2x	☒	INST out of range	8/2/2021 23:15
54	E2100856-001		20210802_061	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 23:24
55	E2100856-002		20210802_062	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 23:32
56	E2100856-003		20210802_063	Perchlorate6850c.lcm	1x	☒		8/2/2021 23:41
57	E2100856-004		20210802_064	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 23:50
58	E2100856-005		20210802_065	Perchlorate6850c.lcm	1x	☒		8/2/2021 23:58
59	E2100837-001		20210802_066	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 0:07
60	PERCHLORATE7		20210802_067	Perchlorate6850c.lcm	1x	☒	3100812-07	8/3/2021 0:15
61	E2100837-002		20210802_068	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 0:24
62	E2100837-003		20210802_069	Perchlorate6850c.lcm	1x	☒		8/3/2021 0:32
63	E2100837-004		20210802_070	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 0:41
64	E2100837-005		20210802_071	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 0:49
65	E2100837-006		20210802_072	Perchlorate6850c.lcm	1x	☒		8/3/2021 0:58
66	E2100837-007		20210802_073	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 1:06
67	E2100837-008		20210802_074	Perchlorate6850c.lcm	1x	☒		8/3/2021 1:15
68	E2100837-009		20210802_075	Perchlorate6850c.lcm	1x	☒		8/3/2021 1:23
69	E2100837-010		20210802_076	Perchlorate6850c.lcm	1x	☒		8/3/2021 1:32
70	E2100837-011		20210802_077	Perchlorate6850c.lcm	1x	☒		8/3/2021 1:40
71	E2100837-012		20210802_078	Perchlorate6850c.lcm	1x	☒		8/3/2021 1:49
72	PERCHLORATE7		20210802_079	Perchlorate6850c.lcm	1x	☒	3100812-07	8/3/2021 1:57
73	EQ2100476-01		20210802_080	Perchlorate6850c.lcm	1x	☒		8/3/2021 2:06

20210802

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 8/2/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100056**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100813-08 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
74	EQ2100476-02		20210802_081	Perchlorate6850c.lcm	1x	☒		8/3/2021 2:15
75	EQ2100476-03		20210802_082	Perchlorate6850c.lcm	1x	☒		8/3/2021 2:23
76	EQ2100476-04		20210802_083	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 2:32
77	EQ2100476-05		20210802_084	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 2:40
78	EQ2100476-06		20210802_085	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 2:49
79	EQ2100476-07		20210802_086	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 2:57
80	E2100843-001		20210802_087	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 3:06
81	E2100843-002		20210802_088	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 3:14
82	E2100843-003		20210802_089	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 3:23
83	PERCHLORATE7		20210802_090	Perchlorate6850c.lcm	1x	☒	3100812-07	8/3/2021 3:32
84	E2100843-004		20210802_091	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 3:40
85	E2100843-005		20210802_092	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 3:49
86	E2100843-006		20210802_093	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 3:57
87	E2100843-007		20210802_094	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 4:06
88	E2100843-008		20210802_095	Perchlorate6850c.lcm	1x	☒		8/3/2021 4:14
89	E2100843-009		20210802_096	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 4:23
90	E2100844-001		20210802_097	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 4:31
91	E2100844-002		20210802_098	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 4:40
92	E2100844-003		20210802_099	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 4:48
93	E2100844-004		20210802_100	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 4:57
94	PERCHLORATE7		20210802_101	Perchlorate6850c.lcm	1x	☒	3100812-07	8/3/2021 5:06
95	E2100844-005		20210802_102	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 5:14
96	E2100844-006		20210802_103	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 5:23
97	E2100844-007		20210802_104	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 5:31
98	E2100844-008		20210802_105	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 5:40
99	E2100844-009		20210802_106	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 5:48
100	PERCHLORATE7		20210802_107	Perchlorate6850c.lcm	1x	☒	3100812-07	8/3/2021 5:57

Initial Calibration - Detailed Report

Calibration ID: EC2100056 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
02	EC2100056-02	PERCHLORATE2	20210802_007	08/02/2021 15:13
03	EC2100056-03	PERCHLORATE3	20210802_008	08/02/2021 15:24
04	EC2100056-04	PERCHLORATE4	20210802_009	08/02/2021 15:33
05	EC2100056-05	PERCHLORATE5	20210802_010	08/02/2021 15:41
06	EC2100056-06	PERCHLORATE6	20210802_011	08/02/2021 15:50
07	EC2100056-07	PERCHLORATE7	20210802_012	08/02/2021 15:58
08	EC2100056-08	PERCHLORATE8	20210802_013	08/02/2021 16:07
09	EC2100056-09	PERCHLORATE9	20210802_014	08/02/2021 16:15
10	EC2100056-10	PERCHLORATE10	20210802_015	08/02/2021 16:24
01	EC2100056-01	PERCHLORATE1	20210802_017	08/02/2021 16:41

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 4.317** **Average RF = 0.1473**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.152	02	0.5000	0.1568	03	0.7000	0.1508	04	1.0000	0.1523
05	2.0000	0.1523	06	5.0000	0.1468	07	10.0000	0.1389	08	20.0000	0.1411
09	30.0000	0.1397	10	50.0000	0.1426						

Analyte

Perchlorate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.103	3.2	02	0.5000	0.532	6.4	03	0.7000	0.716	2.3
04	1.0000	1.03	3.4	05	2.0000	2.07	3.4	06	5.0000	4.98	-0.3
07	10.0000	9.43	-5.7	08	20.0000	19.2	-4.2	09	30.0000	28.4	-5.2
10	50.0000	48.4	-3.2								

Initial Calibration Verification Summary Report

Calibration ID:	EC2100056	**Instrument ID:**	E-LCMS-01
Datafile ID:	20210802_018	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2100056-11	T	Average RF	10	9.871	ng/mL	-1.3	<= 15

Insight Report

Printed at 8/18/2021 10:37:32 AM

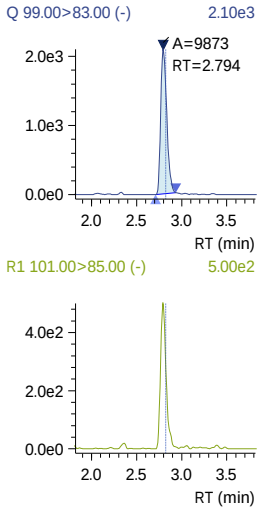
20210802_007

Sample ID: PERCHLORATE2
Date Acquired: 8/2/2021 3:13:26 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_007.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.794	9873	125942	1	0.5321	ng/mL	0.5000	23.77
Sodium Perchlorate-18O4 _IS	Auto	2.793	1259 42	125942	1	1.0000	ng/mL	1.0000	----

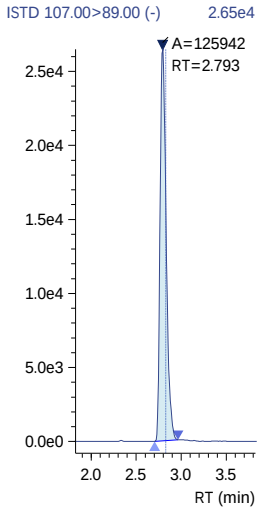
Perchlorate

Conc 0.5321
R#1 23.77 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:42:57 AM

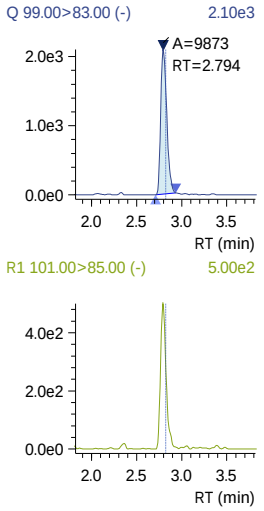
Method File: I:\LCMS01\DATA\20210802\20210726.lcm

20210802_007

Sample ID: PERCHLORATE2
Date Acquired: 8/2/2021 3:13:26 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_007.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

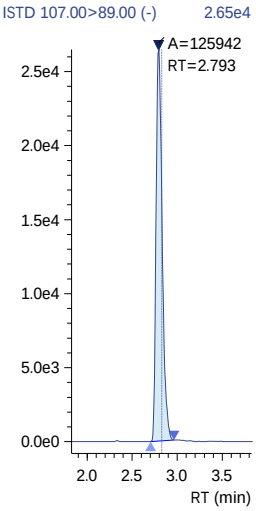
Perchlorate

Conc 0.4663
R#1 23.77 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:37:32 AM

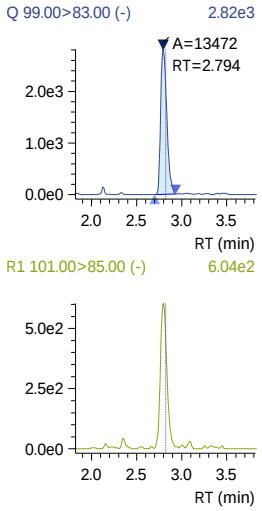
20210802_008

Sample ID: PERCHLORATE3
Date Acquired: 8/2/2021 3:24:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_008.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.794	13472	127657	1	0.7164	ng/mL	0.7000	21.28
Sodium Perchlorate-18O4 _IS	Auto	2.793	1276 57	127657	1	1.0000	ng/mL	1.0000	----

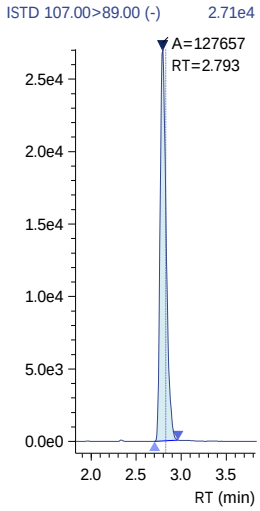
Perchlorate

Conc 0.7164
R#1 21.28 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:42:57 AM

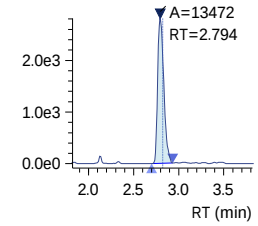
20210802_008

Sample ID: PERCHLORATE3
Date Acquired: 8/2/2021 3:24:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_008.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

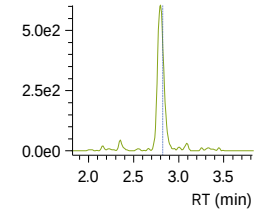
Perchlorate

Conc 0.6371
R#1 21.28 (0.00)

Q 99.00>83.00 (-) 2.82e3



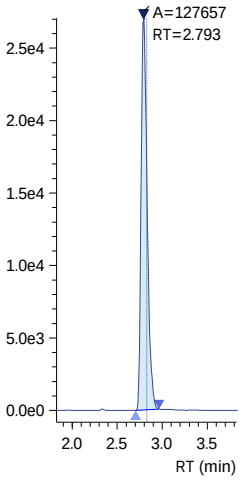
R1 101.00>85.00 (-) 6.04e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.71e4



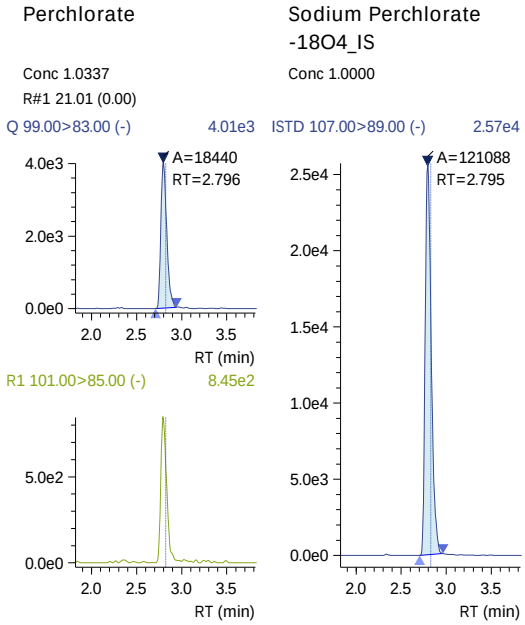
Insight Report

Printed at 8/18/2021 10:37:32 AM

20210802_009

Sample ID: PERCHLORATE4
Date Acquired: 8/2/2021 3:33:05 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_009.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.796	18440	121088	1	1.0337	ng/mL	1.0000	21.01
Sodium Perchlorate-18O4 _IS	Auto	2.795	1210 88	121088	1	1.0000	ng/mL	1.0000	----



Insight Report

Printed at 8/18/2021 10:42:57 AM

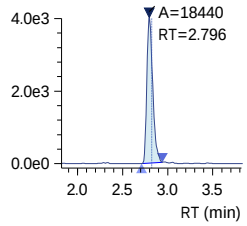
20210802_009

Sample ID: PERCHLORATE4
Date Acquired: 8/2/2021 3:33:05 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_009.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

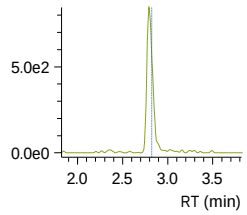
Perchlorate

Conc 0.9314
R#1 21.01 (0.00)

Q 99.00>83.00 (-) 4.01e3



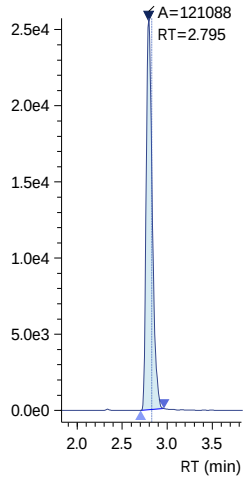
R1 101.00>85.00 (-) 8.45e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.57e4



Insight Report

Printed at 8/18/2021 10:37:32 AM

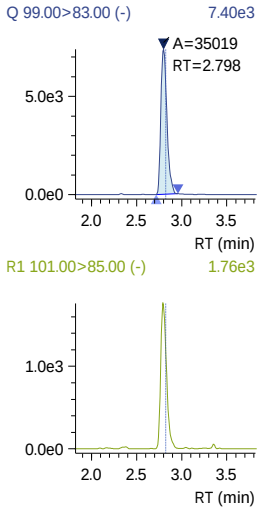
20210802_010

Sample ID: PERCHLORATE5
Date Acquired: 8/2/2021 3:41:38 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_010.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.798	35019	114970	1	2.0675	ng/mL	2.0000	24.14
Sodium Perchlorate-18O4 _IS	Auto	2.794	1149 70	114970	1	1.0000	ng/mL	1.0000	----

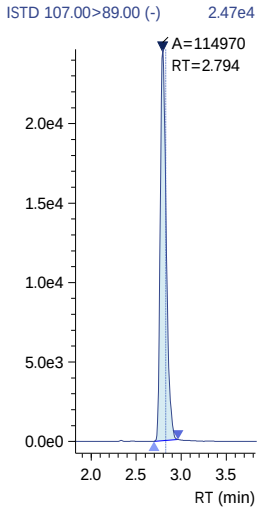
Perchlorate

Conc 2.0675
R#1 24.14 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:42:57 AM

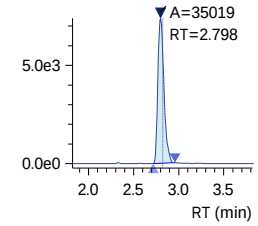
20210802_010

Sample ID: PERCHLORATE5
Date Acquired: 8/2/2021 3:41:38 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_010.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

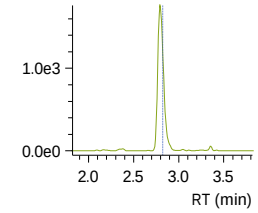
Perchlorate

Conc 1.8902
R#1 24.14 (0.00)

Q 99.00>83.00 (-) 7.40e3



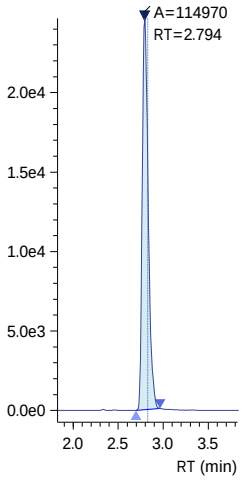
R1 101.00>85.00 (-) 1.76e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.47e4



Insight Report

Printed at 8/18/2021 10:37:32 AM

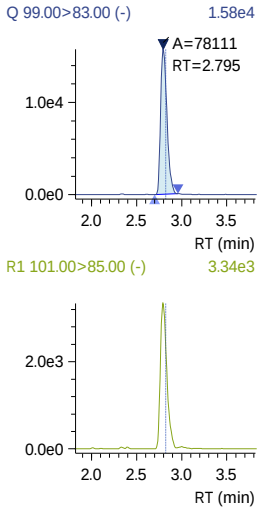
20210802_011

Sample ID: PERCHLORATE6
Date Acquired: 8/2/2021 3:50:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_011.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.795	78111	106399	1	4.9832	ng/mL	5.0000	21.19
Sodium Perchlorate-18O4 _IS	Auto	2.794	1063 99	106399	1	1.0000	ng/mL	1.0000	----

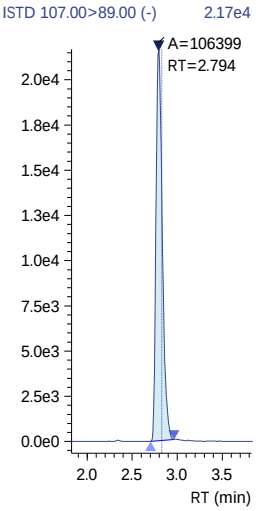
Perchlorate

Conc 4.9832
R#1 21.19 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:42:57 AM

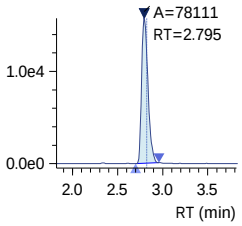
20210802_011

Sample ID: PERCHLORATE6
Date Acquired: 8/2/2021 3:50:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_011.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

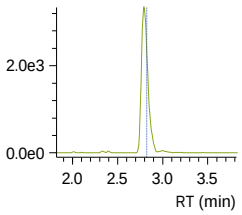
Perchlorate

Conc 4.5942
R#1 21.19 (0.00)

Q 99.00>83.00 (-) 1.58e4



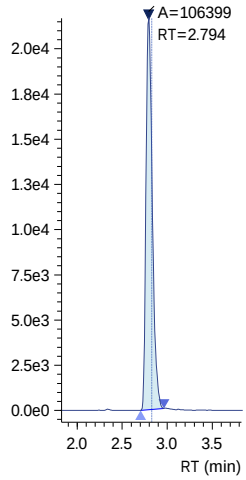
R1 101.00>85.00 (-) 3.34e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.17e4



Insight Report

Printed at 8/18/2021 10:37:32 AM

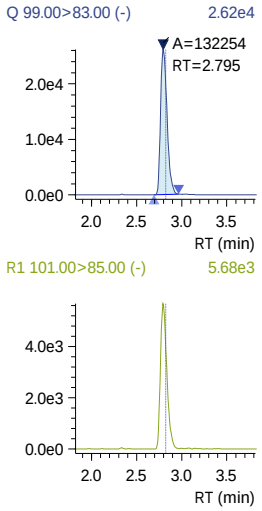
20210802_012

Sample ID: PERCHLORATE7
Date Acquired: 8/2/2021 3:58:47 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_012.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.795	132254	95247	1	9.4253	ng/mL	10.0000	21.67
Sodium Perchlorate-18O4_IS	Auto	2.793	95247	95247	1	1.0000	ng/mL	1.0000	----

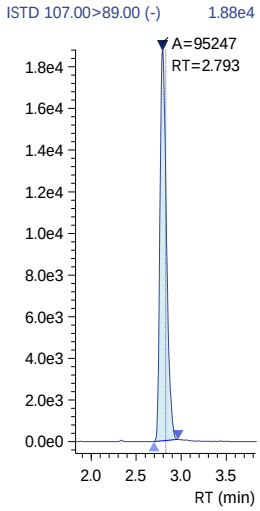
Perchlorate

Conc 9.4253
R#1 21.67 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:42:57 AM

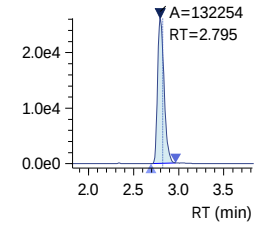
20210802_012

Sample ID: PERCHLORATE7
Date Acquired: 8/2/2021 3:58:47 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_012.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

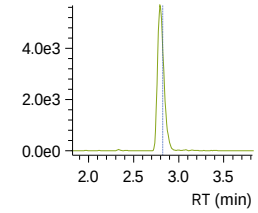
Perchlorate

Conc 8.7138
R#1 21.67 (0.00)

Q 99.00>83.00 (-) 2.62e4



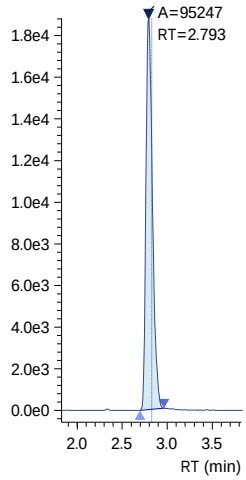
R1 101.00>85.00 (-) 5.68e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.88e4



Insight Report

Printed at 8/18/2021 10:37:32 AM

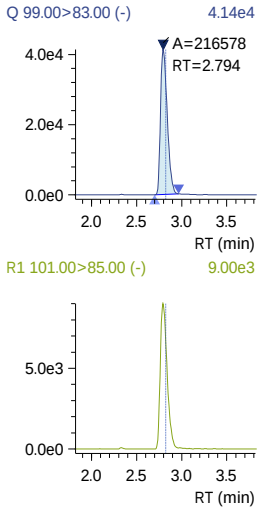
20210802_013

Sample ID: PERCHLORATE8
Date Acquired: 8/2/2021 4:07:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_013.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.794	216578	76725	1	19.1606	ng/mL	20.0000	21.75
Sodium Perchlorate-18O4_IS	Auto	2.793	76725	76725	1	1.0000	ng/mL	1.0000	----

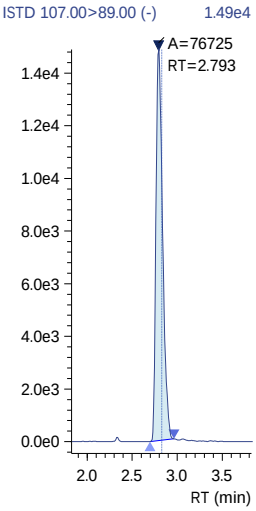
Perchlorate

Conc 19.1606
R#1 21.75 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:42:57 AM

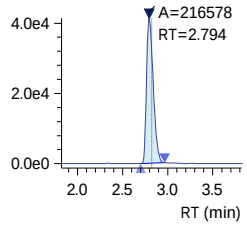
20210802_013

Sample ID: PERCHLORATE8
Date Acquired: 8/2/2021 4:07:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_013.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

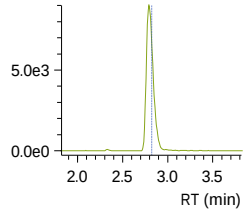
Perchlorate

Conc 17.7423
R#1 21.75 (0.00)

Q 99.00>83.00 (-) 4.14e4



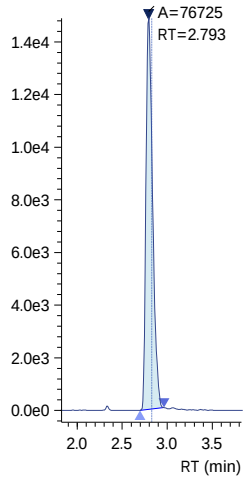
R1 101.00>85.00 (-) 9.00e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.49e4



Insight Report

Printed at 8/18/2021 10:37:32 AM

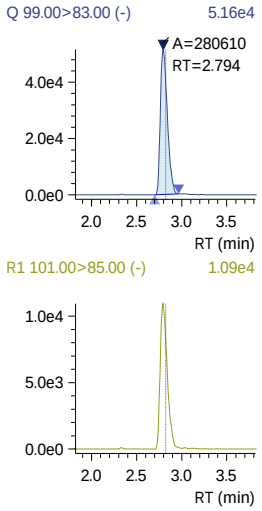
20210802_014

Sample ID: PERCHLORATE9
Date Acquired: 8/2/2021 4:15:50 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_014.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.794	280610	66968	1	28.4426	ng/mL	30.0000	21.15
Sodium Perchlorate-18O4_IS	Auto	2.795	66968	66968	1	1.0000	ng/mL	1.0000	----

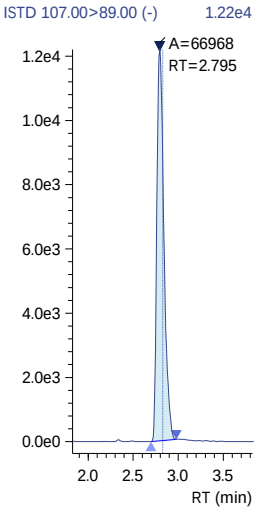
Perchlorate

Conc 28.4426
R#1 21.15 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:42:57 AM

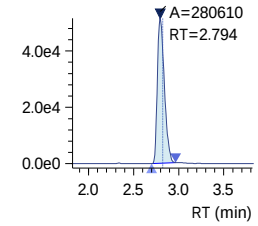
20210802_014

Sample ID: PERCHLORATE9
Date Acquired: 8/2/2021 4:15:50 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_014.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

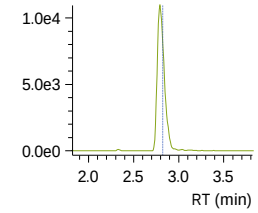
Perchlorate

Conc 26.3504
R#1 21.15 (0.00)

Q 99.00>83.00 (-) 5.16e4



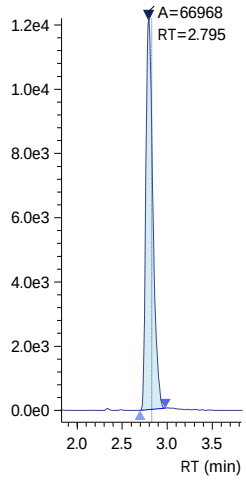
R1 101.00>85.00 (-) 1.09e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.22e4



Insight Report

Printed at 8/18/2021 10:37:32 AM

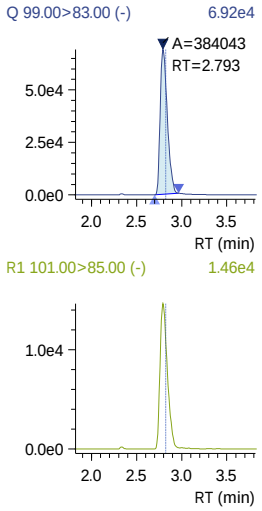
20210802_015

Sample ID: PERCHLORATE10
Date Acquired: 8/2/2021 4:24:21 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_015.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.793	384043	53873	1	48.3887	ng/mL	50.0000	21.16
Sodium Perchlorate-18O4_IS	Auto	2.792	53873	53873	1	1.0000	ng/mL	1.0000	----

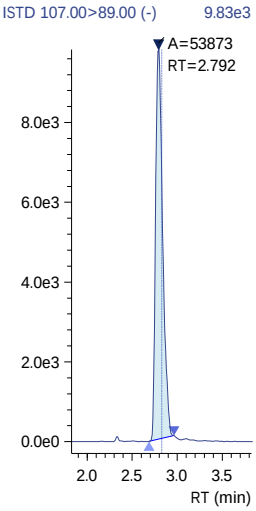
Perchlorate

Conc 48.3887
R#1 21.16 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:42:57 AM

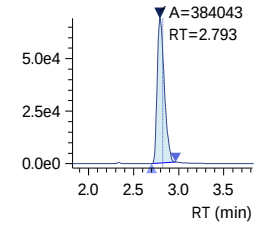
20210802_015

Sample ID: PERCHLORATE10
Date Acquired: 8/2/2021 4:24:21 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_015.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

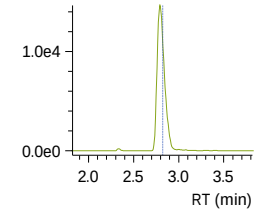
Perchlorate

Conc 44.8484
R#1 21.16 (0.00)

Q 99.00>83.00 (-) 6.92e4



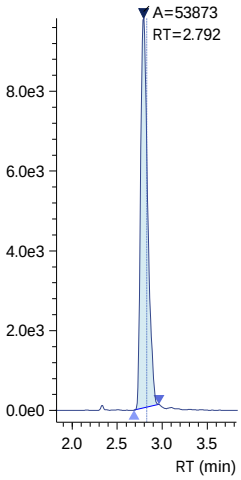
R1 101.00>85.00 (-) 1.46e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 9.83e3



Insight Report

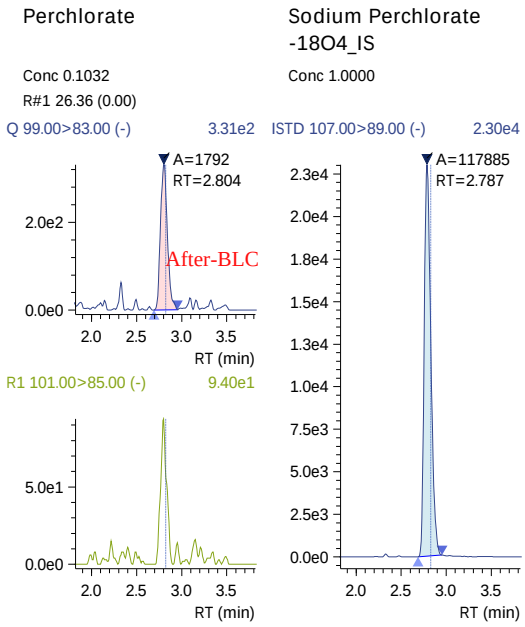
Printed at 8/18/2021 10:37:32 AM

Method File: I:\LCMS01\DATA\20210802\20210802.lcm
Project File: I:\LCMS01\DATA\20210802\20210802.damlp

20210802_017

Sample ID: PERCHLORATE1
Date Acquired: 8/2/2021 4:41:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_017.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.804	1792	117885	1	0.1032	ng/mL	0.1000	26.36
Sodium Perchlorate-18O4 _IS	Auto	2.787	117885	117885	1	1.0000	ng/mL	1.0000	----



Insight Report

Printed at 8/18/2021 10:42:57 AM

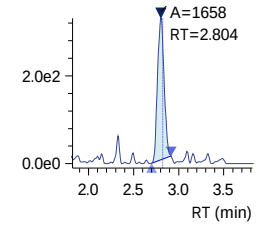
20210802_017

Sample ID: PERCHLORATE1
Date Acquired: 8/2/2021 4:41:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_017.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

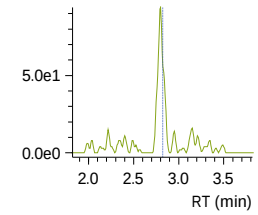
Perchlorate

Conc 0.0613
R#1 29.06 (0.00)

Q 99.00>83.00 (-) 3.31e2



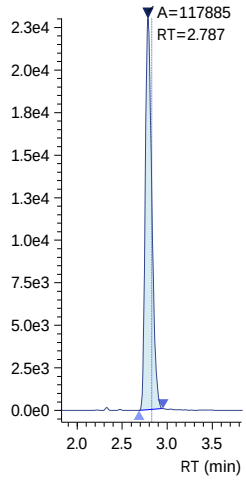
R1 101.00>85.00 (-) 9.40e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.30e4



Insight Report

Printed at 8/18/2021 10:37:32 AM

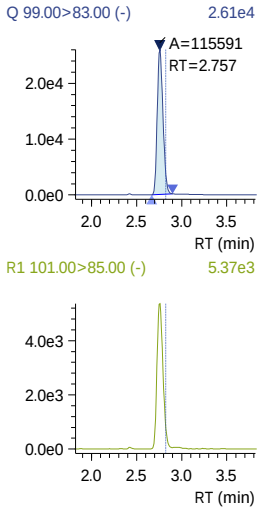
20210802_018

Sample ID: PERCHLORATEICV
Date Acquired: 8/2/2021 4:50:04 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_018.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.757	115591	79484	1	9.8714	ng/mL	10.0000	20.98
Sodium Perchlorate-18O4_IS	Auto	2.754	79484	79484	1	1.0000	ng/mL	1.0000	----

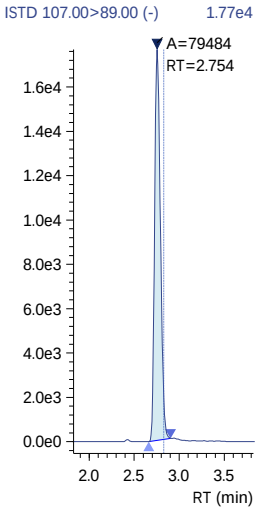
Perchlorate

Conc 9.8714
R#1 20.98 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:42:57 AM

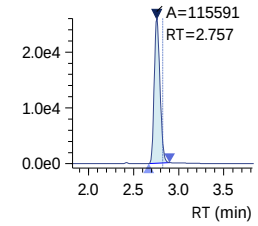
20210802_018

Sample ID: PERCHLORATEICV
Date Acquired: 8/2/2021 4:50:04 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_018.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

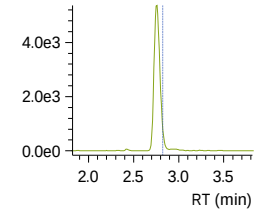
Perchlorate

Conc 9.1275
R#1 20.98 (0.00)

Q 99.00>83.00 (-) 2.61e4



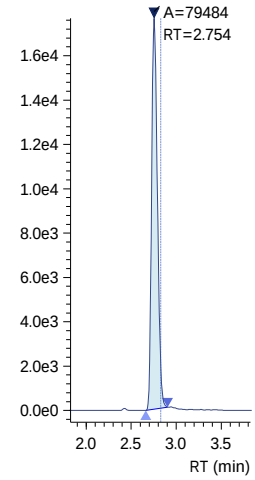
R1 101.00>85.00 (-) 5.37e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.77e4



20210804

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 8/4/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100057**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100813-08 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210804_014	Perchlorate6850c.lcm	1x	☒	3100812-01	8/4/2021 13:15
2	PERCHLORATE2		20210804_015	Perchlorate6850c.lcm	1x	☒	3100812-02	8/4/2021 13:24
3	PERCHLORATE3		20210804_016	Perchlorate6850c.lcm	1x	☒	3100812-03	8/4/2021 13:32
4	PERCHLORATE4		20210804_017	Perchlorate6850c.lcm	1x	☒	3100812-04	8/4/2021 13:41
5	PERCHLORATE5		20210804_018	Perchlorate6850c.lcm	1x	☒	3100812-05	8/4/2021 13:50
6	PERCHLORATE6		20210804_019	Perchlorate6850c.lcm	1x	☒	3100812-06	8/4/2021 13:58
7	PERCHLORATE7		20210804_020	Perchlorate6850c.lcm	1x	☒	3100812-07	8/4/2021 14:07
8	PERCHLORATE8		20210804_021	Perchlorate6850c.lcm	1x	☒	3100812-08	8/4/2021 14:15
9	PERCHLORATE9		20210804_022	Perchlorate6850c.lcm	1x	☒	3100812-09	8/4/2021 14:24
10	PERCHLORATE10		20210804_023	Perchlorate6850c.lcm	1x	☒	3100813-01	8/4/2021 14:32
11	PERCHLORATEICV		20210804_024	Perchlorate6850c.lcm	1x	☒	3100811-06	8/4/2021 14:41
12	LODV		20210804_025	Perchlorate6850c.lcm	1x	☒		8/4/2021 15:06
13	PERCHLORATE7		20210804_026	Perchlorate6850c.lcm	1x	☒	3100812-07	8/4/2021 15:15
14	E2100824-001X5		20210804_028	Perchlorate6850c.lcm	5x	☒		8/4/2021 15:33
15	E2100825-001X10		20210804_029	Perchlorate6850c.lcm	10x	☒	INST out of range	8/4/2021 15:42
16	E2100825-002X10		20210804_030	Perchlorate6850c.lcm	10x	☒	INST out of range	8/4/2021 15:51
17	E2100825-003X10		20210804_031	Perchlorate6850c.lcm	10x	☒	INST out of range	8/4/2021 15:59
18	E2100825-005X10		20210804_032	Perchlorate6850c.lcm	10x	☒	INST out of range	8/4/2021 16:08
19	E2100825-006X10		20210804_033	Perchlorate6850c.lcm	10x	☒	INST out of range	8/4/2021 16:16
20	E2100825-007X10		20210804_034	Perchlorate6850c.lcm	10x	☒	INST out of range	8/4/2021 16:25
21	E2100825-008X10		20210804_035	Perchlorate6850c.lcm	10x	☒	INST out of range	8/4/2021 16:33
22	E2100831-002X5		20210804_036	Perchlorate6850c.lcm	5x	☒		8/4/2021 16:42
23	PERCHLORATE7		20210804_037	Perchlorate6850c.lcm	1x	☒	3100812-07	8/4/2021 16:50
24	E2100856-001X10		20210804_039	Perchlorate6850c.lcm	10x	☒		8/4/2021 18:18
25	E2100856-002X5		20210804_040	Perchlorate6850c.lcm	5x	☒	INST out of range	8/4/2021 18:27
26	E2100856-004X5		20210804_041	Perchlorate6850c.lcm	5x	☒	INST out of range	8/4/2021 18:35
27	E2100825-001X20		20210804_042	Perchlorate6850c.lcm	20x	☒	INST out of range	8/4/2021 18:44
28	E2100825-002X20		20210804_043	Perchlorate6850c.lcm	20x	☒	INST out of range	8/4/2021 18:52
29	E2100825-003X20		20210804_044	Perchlorate6850c.lcm	20x	☒	INST out of range	8/4/2021 19:01
30	E2100825-006X20		20210804_045	Perchlorate6850c.lcm	20x	☒	No injection	8/4/2021 18:05
31	E2100825-005X20		20210804_045~1	Perchlorate6850c.lcm	20x	☒		8/4/2021 19:09
32	E2100825-006X20		20210804_046	Perchlorate6850c.lcm	20x	☒	INST out of range	8/4/2021 19:18
33	E2100825-007X20		20210804_047	Perchlorate6850c.lcm	20x	☒	INST out of range	8/4/2021 19:26
34	PERCHLORATE7		20210804_048	Perchlorate6850c.lcm	1x	☒	3100812-07	8/4/2021 19:35
35	E2100825-008X20		20210804_049	Perchlorate6850c.lcm	20x	☒	INST out of range	8/4/2021 19:43
37	E2100856-002X20		20210804_051	Perchlorate6850c.lcm	20x	☒	INST out of range	8/4/2021 20:00
38	E2100856-004X20		20210804_052	Perchlorate6850c.lcm	20x	☒	INST out of range	8/4/2021 20:09
39	E2100837-001X10		20210804_053	Perchlorate6850c.lcm	10x	☒		8/4/2021 20:18
40	E2100837-002X10		20210804_054	Perchlorate6850c.lcm	10x	☒		8/4/2021 20:26
41	E2100837-004X10		20210804_055	Perchlorate6850c.lcm	10x	☒		8/4/2021 20:35
42	E2100837-005X10		20210804_056	Perchlorate6850c.lcm	10x	☒		8/4/2021 20:43
43	E2100837-007X10		20210804_057	Perchlorate6850c.lcm	10x	☒		8/4/2021 20:52
44	PERCHLORATE7		20210804_058	Perchlorate6850c.lcm	1x	☒	3100812-07	8/4/2021 21:00
45	E2100841-008		20210804_059	Perchlorate6850c.lcm	1x	☒		8/4/2021 21:09
46	E2100841-009		20210804_060	Perchlorate6850c.lcm	1x	☒		8/4/2021 21:17
47	E2100842-001x2		20210804_061	Perchlorate6850c.lcm	2x	☒	3100812-07	8/4/2021 21:26
48	E2100842-002X10		20210804_062	Perchlorate6850c.lcm	10x	☒		8/4/2021 21:34
49	E2100842-003X10		20210804_063	Perchlorate6850c.lcm	10x	☒		8/4/2021 21:43
50	E2100842-004X10		20210804_064	Perchlorate6850c.lcm	10x	☒		8/4/2021 21:52
51	E2100842-005		20210804_065	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 22:00
52	E2100842-006X10		20210804_066	Perchlorate6850c.lcm	10x	☒		8/4/2021 22:09
53	PERCHLORATE7		20210804_067	Perchlorate6850c.lcm	1x	☒	3100812-07	8/4/2021 22:17
54	E2100843-001		20210804_068	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 22:26
55	E2100843-002		20210804_069	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 22:34
56	E2100843-003		20210804_070	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 22:43
57	PERCHLORATE7		20210804_071	Perchlorate6850c.lcm	1x	☒	3100812-07	8/4/2021 22:51
58	E2100843-004		20210804_072	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 23:00
59	E2100843-005		20210804_073	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 23:08
60	E2100843-006		20210804_074	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 23:17
61	E2100843-007		20210804_075	Perchlorate6850c.lcm	1x	☒		8/4/2021 23:26
62	E2100843-008		20210804_076	Perchlorate6850c.lcm	1x	☒		8/4/2021 23:34
63	E2100843-009		20210804_077	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 23:43
64	E2100844-001		20210804_078	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 23:51
65	E2100844-002		20210804_079	Perchlorate6850c.lcm	1x	☒	INST out of range	8/5/2021 0:00
66	E2100844-003		20210804_080	Perchlorate6850c.lcm	1x	☒	INST out of range	8/5/2021 0:08
67	E2100844-004		20210804_081	Perchlorate6850c.lcm	1x	☒		8/5/2021 0:17

20210804

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 8/4/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100057**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100813-08 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
68	PERCHLORATE7		20210804_082	Perchlorate6850c.lcm	1x	☒	3100812-07	8/5/2021 0:25
69	E2100844-005		20210804_083	Perchlorate6850c.lcm	1x	☒	INST out of range	8/5/2021 0:34
70	E2100844-006		20210804_084	Perchlorate6850c.lcm	1x	☒	INST out of range	8/5/2021 0:42
71	E2100844-007		20210804_085	Perchlorate6850c.lcm	1x	☒	INST out of range	8/5/2021 0:51
72	E2100844-008		20210804_086	Perchlorate6850c.lcm	1x	☒	INST out of range	8/5/2021 1:00
73	E2100844-009		20210804_087	Perchlorate6850c.lcm	1x	☒	INST out of range	8/5/2021 1:08
74	PERCHLORATE7		20210804_088	Perchlorate6850c.lcm	1x	☒	3100812-07	8/5/2021 1:17

Initial Calibration - Detailed Report

Calibration ID: EC2100057 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2100057-01	PERCHLORATE1	20210804_014	08/04/2021 13:15
02	EC2100057-02	PERCHLORATE2	20210804_015	08/04/2021 13:24
03	EC2100057-03	PERCHLORATE3	20210804_016	08/04/2021 13:32
04	EC2100057-04	PERCHLORATE4	20210804_017	08/04/2021 13:41
05	EC2100057-05	PERCHLORATE5	20210804_018	08/04/2021 13:50
06	EC2100057-06	PERCHLORATE6	20210804_019	08/04/2021 13:58
07	EC2100057-07	PERCHLORATE7	20210804_020	08/04/2021 14:07
08	EC2100057-08	PERCHLORATE8	20210804_021	08/04/2021 14:15
09	EC2100057-09	PERCHLORATE9	20210804_022	08/04/2021 14:24
10	EC2100057-10	PERCHLORATE10	20210804_023	08/04/2021 14:32

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 6.011** **Average RF = 0.1426**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1626	02	0.5000	0.1438	03	0.7000	0.1497	04	1.0000	0.1384
05	2.0000	0.1454	06	5.0000	0.1412	07	10.0000	0.1378	08	20.0000	0.138
09	30.0000	0.1329	10	50.0000	0.136						

Analyte

Perchlorate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.114	14.0	02	0.5000	0.504	0.9	03	0.7000	0.735	5.0
04	1.0000	0.971	-2.9	05	2.0000	2.04	2.0	06	5.0000	4.95	-1.0
07	10.0000	9.66	-3.4	08	20.0000	19.4	-3.2	09	30.0000	28.0	-6.8
10	50.0000	47.7	-4.6								

Initial Calibration Verification Summary Report

Calibration ID:	EC2100057	**Instrument ID:**	E-LCMS-01
Datafile ID:	20210804_024	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2100057-11	T	Average RF	10	9.593	ng/mL	-4.1	<= 15

Insight Report

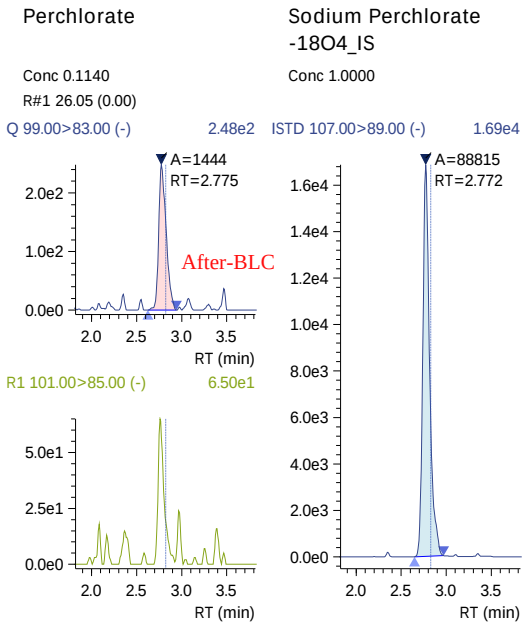
Printed at 8/19/2021 11:52:26 AM

Method File: I:\LCMS01\DATA\20210804\20210804.lcm
Project File: I:\LCMS01\DATA\20210804\20210804.damlp

20210804_014

Sample ID: PERCHLORATE1
Date Acquired: 8/4/2021 1:15:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\20210804_014.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.775	1444	88815	1	0.1140	ng/mL	0.1000	26.05
Sodium Perchlorate-18O4 _IS	Auto	2.772	88815	88815	1	1.0000	ng/mL	1.0000	----



Insight Report

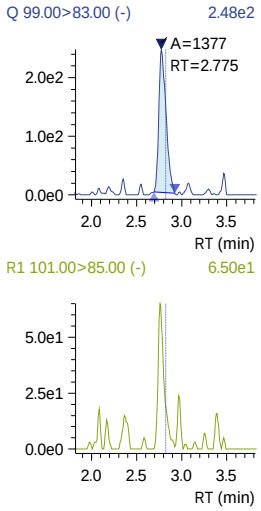
Method File: I:\LCMS01\DATA\20210804\20210802.lcm

20210804_014

Sample ID: PERCHLORATE1
Date Acquired: 8/4/2021 1:15:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\Before\20210804_014.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

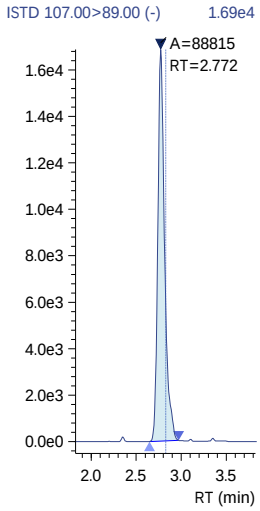
Perchlorate

Conc 0.1060
R#1 27.47 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



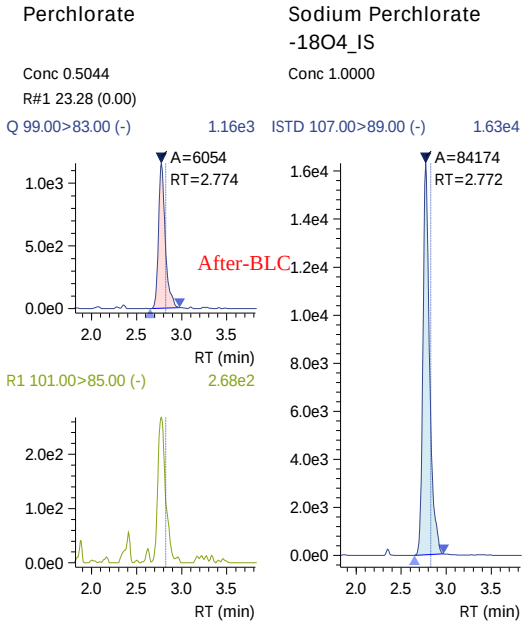
Insight Report

Printed at 8/19/2021 11:52:26 AM

20210804_015

Sample ID: PERCHLORATE2
Date Acquired: 8/4/2021 1:24:24 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\20210804_015.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.774	6054	84174	1	0.5044	ng/mL	0.5000	23.28
Sodium Perchlorate-18O4 _IS	Auto	2.772	84174	84174	1	1.0000	ng/mL	1.0000	----



Insight Report

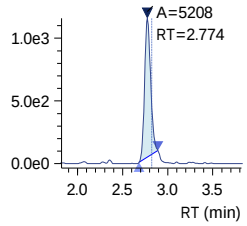
20210804_015

Sample ID: PERCHLORATE2
Date Acquired: 8/4/2021 1:24:24 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\Before\20210804_015.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

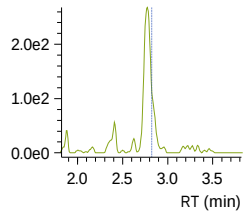
Perchlorate

Conc 0.4232
R#1 23.81 (0.00)

Q 99.00>83.00 (-) 1.16e3



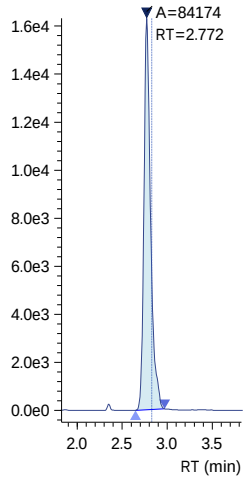
R1 101.00>85.00 (-) 2.68e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.63e4



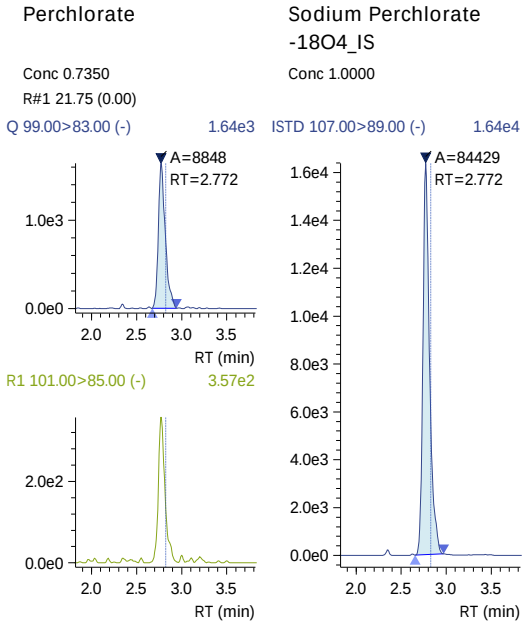
Insight Report

Printed at 8/19/2021 11:52:26 AM

20210804_016

Sample ID: PERCHLORATE3
Date Acquired: 8/4/2021 1:32:57 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\20210804_016.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.772	8848	84429	1	0.7350	ng/mL	0.7000	21.75
Sodium Perchlorate-18O4 _IS	Auto	2.772	84429	84429	1	1.0000	ng/mL	1.0000	----



Insight Report

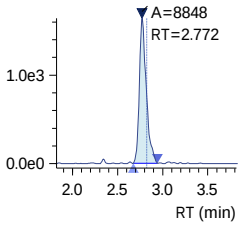
20210804_016

Sample ID: PERCHLORATE3
Date Acquired: 8/4/2021 1:32:57 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\Before\20210804_016.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

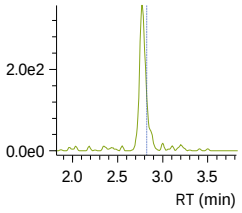
Perchlorate

Conc 0.7169
R#1 21.75 (0.00)

Q 99.00>83.00 (-) 1.64e3



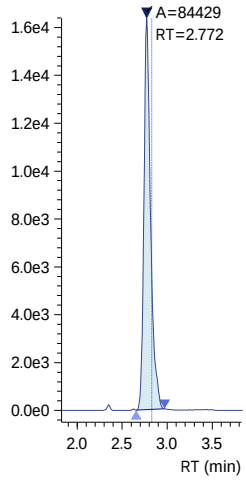
R1 101.00>85.00 (-) 3.57e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.64e4



Insight Report

Printed at 8/19/2021 11:52:26 AM

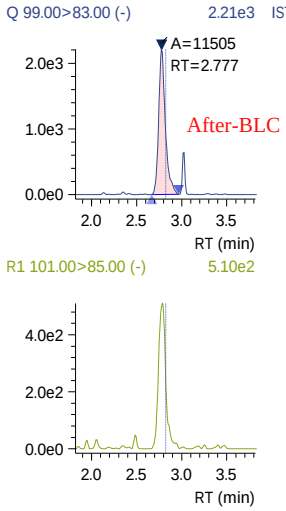
20210804_017

Sample ID: PERCHLORATE4
Date Acquired: 8/4/2021 1:41:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\20210804_017.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.777	11505	83135	1	0.9706	ng/mL	1.0000	22.57
Sodium Perchlorate-18O4 _IS	Auto	2.772	83135	83135	1	1.0000	ng/mL	1.0000	----

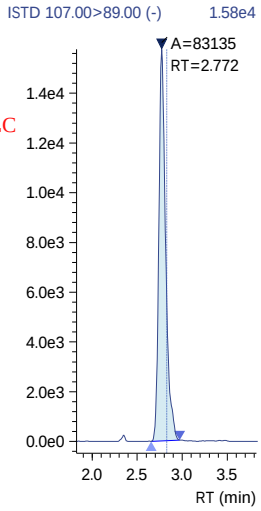
Perchlorate

Conc 0.9706
R#1 22.57 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

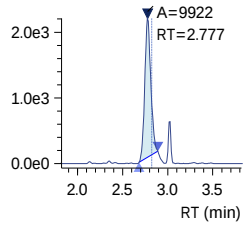
20210804_017

Sample ID: PERCHLORATE4
Date Acquired: 8/4/2021 1:41:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\Before\20210804_017.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

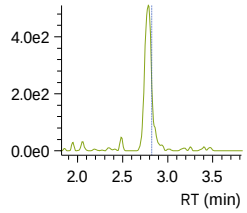
Perchlorate

Conc 0.8164
R#1 22.85 (0.00)

Q 99.00>83.00 (-) 2.21e3



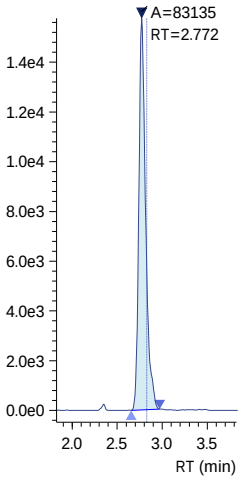
R1 101.00>85.00 (-) 5.10e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.58e4



Insight Report

Printed at 8/19/2021 11:52:26 AM

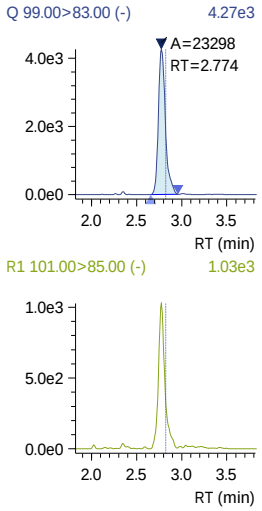
20210804_018

Sample ID: PERCHLORATE5
Date Acquired: 8/4/2021 1:50:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\20210804_018.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.774	23298	80133	1	2.0391	ng/mL	2.0000	23.83
Sodium Perchlorate-18O4 _IS	Auto	2.773	80133	80133	1	1.0000	ng/mL	1.0000	----

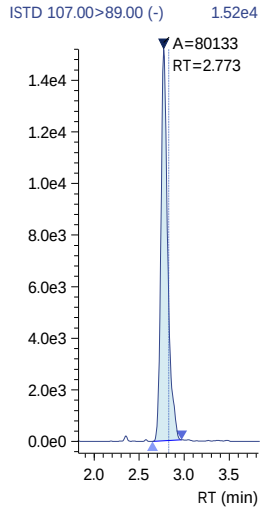
Perchlorate

Conc 2.0391
R#1 23.83 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

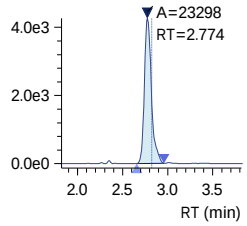
20210804_018

Sample ID: PERCHLORATE5
Date Acquired: 8/4/2021 1:50:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\Before\20210804_018.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

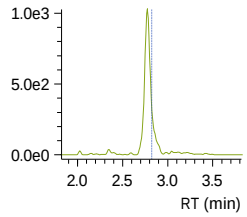
Perchlorate

Conc 1.9889
R#1 23.83 (0.00)

Q 99.00>83.00 (-) 4.27e3



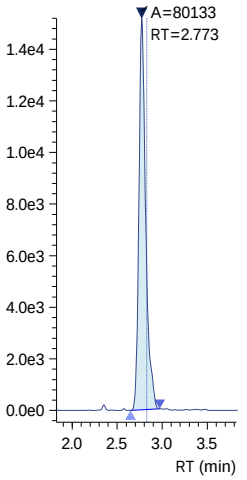
R1 101.00>85.00 (-) 1.03e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.52e4



Insight Report

Printed at 8/19/2021 11:52:26 AM

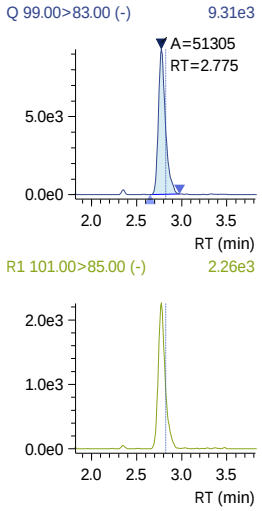
20210804_019

Sample ID: PERCHLORATE6
Date Acquired: 8/4/2021 1:58:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\20210804_019.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.775	51305	72676	1	4.9512	ng/mL	5.0000	24.60
Sodium Perchlorate-18O4 _IS	Auto	2.773	72676	72676	1	1.0000	ng/mL	1.0000	----

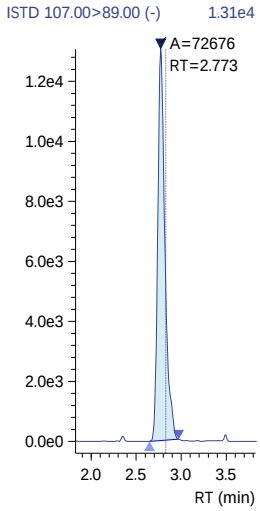
Perchlorate

Conc 4.9512
R#1 24.60 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

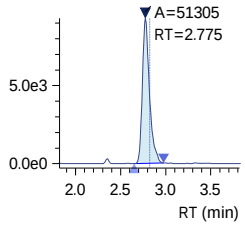
20210804_019

Sample ID: PERCHLORATE6
Date Acquired: 8/4/2021 1:58:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\Before\20210804_019.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

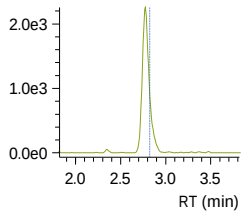
Perchlorate

Conc 4.8291
R#1 24.60 (0.00)

Q 99.00>83.00 (-) 9.31e3



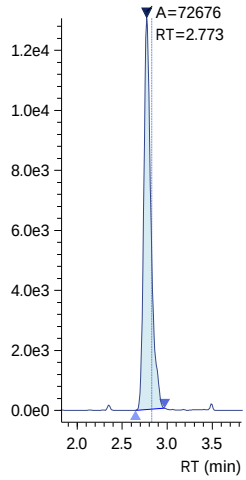
R1 101.00>85.00 (-) 2.26e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.31e4



Insight Report

Printed at 8/19/2021 11:52:26 AM

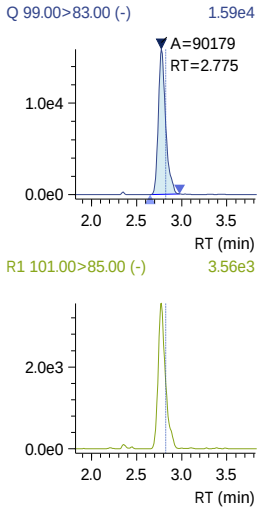
20210804_020

Sample ID: PERCHLORATE7
Date Acquired: 8/4/2021 2:07:05 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\20210804_020.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.775	90179	65443	1	9.6646	ng/mL	10.0000	22.44
Sodium Perchlorate-18O4 _IS	Auto	2.772	65443	65443	1	1.0000	ng/mL	1.0000	----

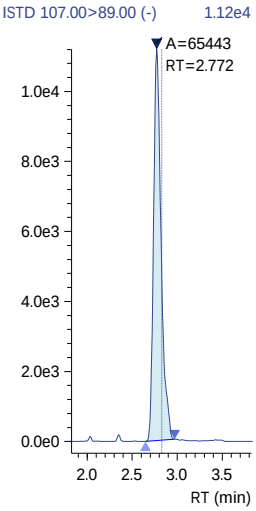
Perchlorate

Conc 9.6646
R#1 22.44 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

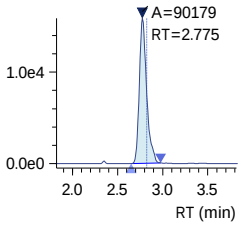
20210804_020

Sample ID: PERCHLORATE7
Date Acquired: 8/4/2021 2:07:05 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\Before\20210804_020.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

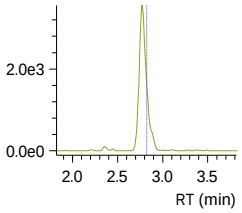
Perchlorate

Conc 9.4264
R#1 22.44 (0.00)

Q 99.00>83.00 (-) 1.59e4



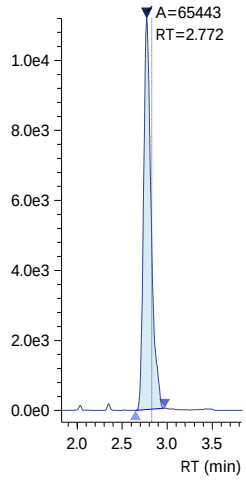
R1 101.00>85.00 (-) 3.56e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.12e4



Insight Report

Printed at 8/19/2021 11:52:26 AM

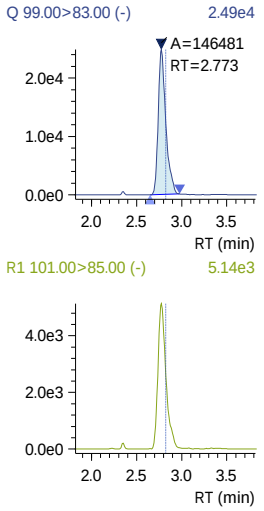
20210804_021

Sample ID: PERCHLORATE8
Date Acquired: 8/4/2021 2:15:40 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\20210804_021.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.773	146481	53059	1	19.3627	ng/mL	20.0000	20.71
Sodium Perchlorate-18O4_IS	Auto	2.770	53059	53059	1	1.0000	ng/mL	1.0000	----

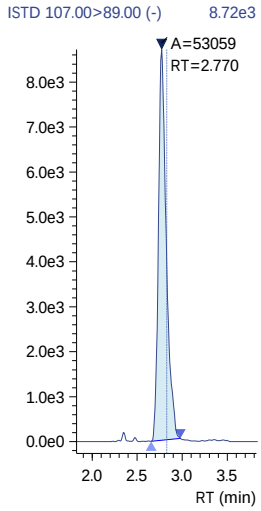
Perchlorate

Conc 19.3627
R#1 20.71 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 11:57:47 AM

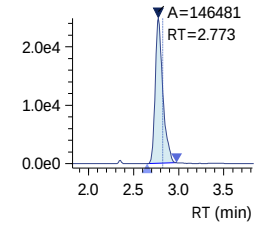
20210804_021

Sample ID: PERCHLORATE8
Date Acquired: 8/4/2021 2:15:40 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\Before\20210804_021.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

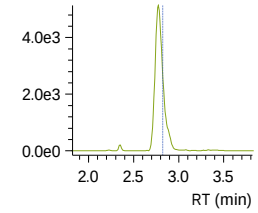
Perchlorate

Conc 18.8854
R#1 20.71 (0.00)

Q 99.00>83.00 (-) 2.49e4



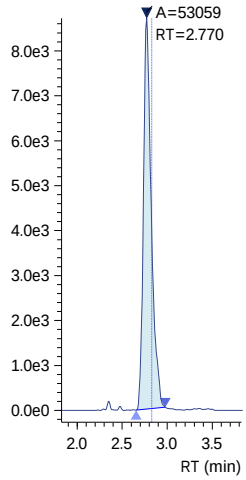
R1 101.00>85.00 (-) 5.14e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.72e3



Insight Report

Printed at 8/19/2021 11:52:26 AM

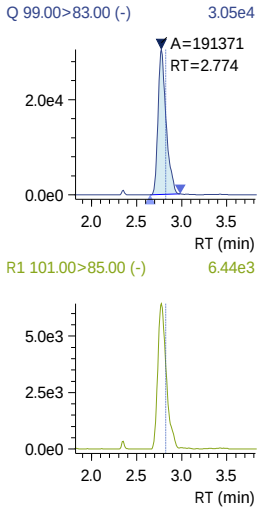
20210804_022

Sample ID: PERCHLORATE9
Date Acquired: 8/4/2021 2:24:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\20210804_022.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.774	191371	48015	1	27.9541	ng/mL	30.0000	21.22
Sodium Perchlorate-18O4_IS	Auto	2.774	48015	48015	1	1.0000	ng/mL	1.0000	----

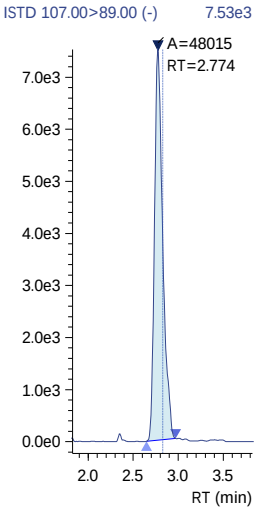
Perchlorate

Conc 27.9541
R#1 21.22 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

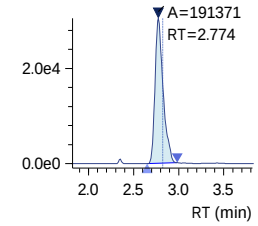
20210804_022

Sample ID: PERCHLORATE9
Date Acquired: 8/4/2021 2:24:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\Before\20210804_022.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

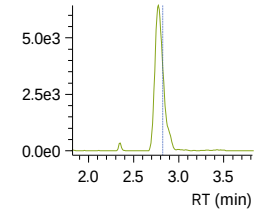
Perchlorate

Conc 27.2649
R#1 21.22 (0.00)

Q 99.00>83.00 (-) 3.05e4



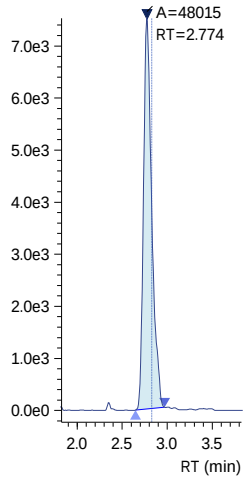
R1 101.00>85.00 (-) 6.44e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.53e3



Insight Report

Printed at 8/19/2021 11:52:26 AM

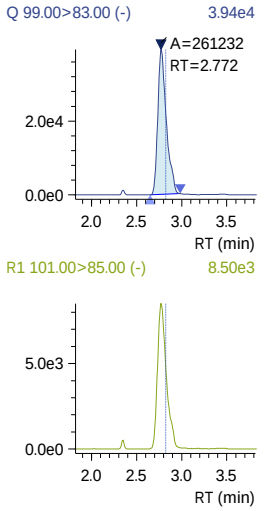
20210804_023

Sample ID: PERCHLORATE10
Date Acquired: 8/4/2021 2:32:42 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\20210804_023.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.772	261232	38409	1	47.7026	ng/mL	50.0000	21.73
Sodium Perchlorate-18O4_IS	Auto	2.768	38409	38409	1	1.0000	ng/mL	1.0000	----

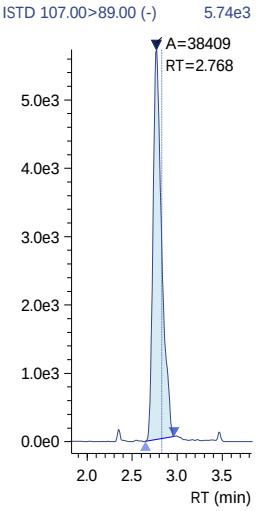
Perchlorate

Conc 47.7026
R#1 21.73 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 11:57:47 AM

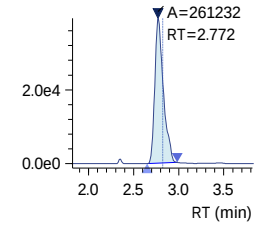
20210804_023

Sample ID: PERCHLORATE10
Date Acquired: 8/4/2021 2:32:42 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\Before\20210804_023.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

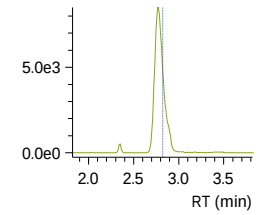
Perchlorate

Conc 46.5266
R#1 21.73 (0.00)

Q 99.00>83.00 (-) 3.94e4



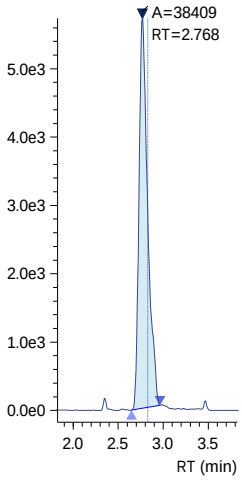
R1 101.00>85.00 (-) 8.50e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.74e3



Insight Report

Printed at 8/19/2021 11:52:26 AM

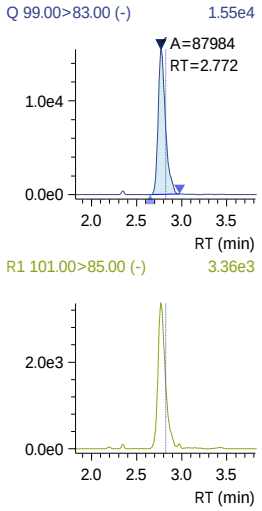
20210804_024

Sample ID: PERCHLORATEICV
Date Acquired: 8/4/2021 2:41:14 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\20210804_024.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.772	87984	64329	1	9.5927	ng/mL	10.0000	21.51
Sodium Perchlorate-18O4 _IS	Auto	2.771	64329	64329	1	1.0000	ng/mL	1.0000	----

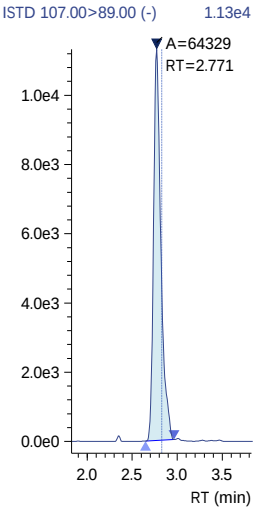
Perchlorate

Conc 9.5927
R#1 21.51 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

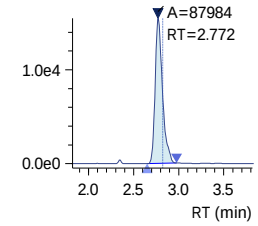
20210804_024

Sample ID: PERCHLORATEICV
Date Acquired: 8/4/2021 2:41:14 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\Before\20210804_024.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

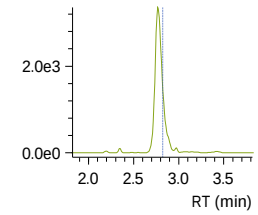
Perchlorate

Conc 9.3562
R#1 21.51 (0.00)

Q 99.00>83.00 (-) 1.55e4



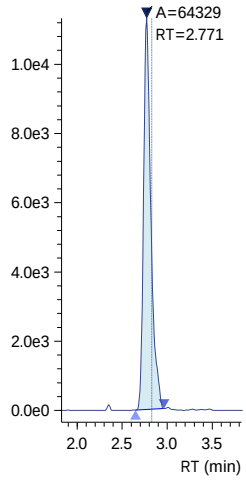
R1 101.00>85.00 (-) 3.36e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.13e4



Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20210730

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 7/26/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100054**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100813-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	null		20210730_001	Perchlorate6850c.lcm	1x	☒		7/30/2021 9:30
2	null		20210730_002	Perchlorate6850c.lcm	1x	☒		7/30/2021 9:35
3	IB		20210730_003	Perchlorate6850c.lcm	1x	☒		7/30/2021 9:41
4	IB		20210730_004	Perchlorate6850c.lcm	1x	☒		7/30/2021 9:50
5	LODV		20210730_005	Perchlorate6850c.lcm	1x	☒		7/30/2021 9:58
6	PERCHLORATE7		20210730_006	Perchlorate6850c.lcm	1x	☒	3100812-07	7/30/2021 10:07
9	E2100794-004X20		20210730_007	Perchlorate6850c.lcm	20x	☒	INST out of range	7/30/2021 10:15
10	E2100794-007X20		20210730_008	Perchlorate6850c.lcm	20x	☒	INST out of range	7/30/2021 10:24
11	EQ2100470-01		20210730_009	Perchlorate6850c.lcm	1x	☒		7/30/2021 11:24
12	EQ2100470-02		20210730_010	Perchlorate6850c.lcm	1x	☒		7/30/2021 11:32
13	EQ2100470-03		20210730_011	Perchlorate6850c.lcm	1x	☒		7/30/2021 12:00
14	EQ2100470-04		20210730_012	Perchlorate6850c.lcm	1x	☒		7/30/2021 12:09
15	EQ2100470-05		20210730_013	Perchlorate6850c.lcm	1x	☒		7/30/2021 12:17
16	PERCHLORATE7		20210730_015	Perchlorate6850c.lcm	1x	☒	3100812-07	7/30/2021 12:34
17	E2100836-001		20210730_016	Perchlorate6850c.lcm	1x	☒		7/30/2021 12:43
21	PERCHLORATE7		20210730_017	Perchlorate6850c.lcm	1x	☒	3100812-07	7/30/2021 12:56
23	E2100831-001		20210730_018	Perchlorate6850c.lcm	1x	☒		7/30/2021 13:05
24	E2100831-002		20210730_019	Perchlorate6850c.lcm	1x	☒	INST out of range	7/30/2021 13:13
25	E2100856-001		20210730_020	Perchlorate6850c.lcm	1x	☒	INST out of range	7/30/2021 13:22
26	E2100856-002		20210730_021	Perchlorate6850c.lcm	1x	☒	INST out of range	7/30/2021 13:30
27	E2100856-003		20210730_022	Perchlorate6850c.lcm	1x	☒		7/30/2021 13:39
28	E2100856-004		20210730_023	Perchlorate6850c.lcm	1x	☒	INST out of range	7/30/2021 13:47
29	E2100856-005		20210730_024	Perchlorate6850c.lcm	1x	☒		7/30/2021 13:56
30	PERCHLORATE7		20210730_025	Perchlorate6850c.lcm	1x	☒	3100812-07	7/30/2021 14:04
31	E2100831-002		20210730_026	Perchlorate6850c.lcm	1x	☒		7/30/2021 14:13
32	EQ2100458-01		20210730_027	Perchlorate6850c.lcm	1x	☒		7/30/2021 14:21
33	EQ2100458-02		20210730_028	Perchlorate6850c.lcm	1x	☒		7/30/2021 14:30
34	EQ2100458-03		20210730_029	Perchlorate6850c.lcm	1x	☒		7/30/2021 14:38
35	E2100831-002X2		20210730_030	Perchlorate6850c.lcm	2x	☒		7/30/2021 14:47
36	E2100798-006X40		20210730_031	Perchlorate6850c.lcm	40x	☒		7/30/2021 15:21
37	E2100798-007X40		20210730_032	Perchlorate6850c.lcm	40x	☒		7/30/2021 16:06
38	PERCHLORATE7		20210730_033	Perchlorate6850c.lcm	1x	☒	3100812-07	7/30/2021 16:17
39								
40								

20210802

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 8/2/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100056**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100813-08 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210802_017	Perchlorate6850c.lcm	1x	☒	3100812-01	8/2/2021 16:41
2	PERCHLORATE2		20210802_007	Perchlorate6850c.lcm	1x	☒	3100812-02	8/2/2021 15:13
3	PERCHLORATE3		20210802_008	Perchlorate6850c.lcm	1x	☒	3100812-03	8/2/2021 15:24
4	PERCHLORATE4		20210802_009	Perchlorate6850c.lcm	1x	☒	3100812-04	8/2/2021 15:33
5	PERCHLORATE5		20210802_010	Perchlorate6850c.lcm	1x	☒	3100812-05	8/2/2021 15:41
6	PERCHLORATE6		20210802_011	Perchlorate6850c.lcm	1x	☒	3100812-06	8/2/2021 15:50
7	PERCHLORATE7		20210802_012	Perchlorate6850c.lcm	1x	☒	3100812-07	8/2/2021 15:58
8	PERCHLORATE8		20210802_013	Perchlorate6850c.lcm	1x	☒	3100812-08	8/2/2021 16:07
9	PERCHLORATE9		20210802_014	Perchlorate6850c.lcm	1x	☒	3100812-09	8/2/2021 16:15
10	PERCHLORATE10		20210802_015	Perchlorate6850c.lcm	1x	☒	3100813-01	8/2/2021 16:24
11	PERCHLORATEICV		20210802_018	Perchlorate6850c.lcm	1x	☒	3100811-06	8/2/2021 16:50
12	IB		20210802_019	Perchlorate6850c.lcm	1x	☒		8/2/2021 17:25
13	LODV		20210802_020	Perchlorate6850c.lcm	1x	☒		8/2/2021 17:33
14	PERCHLORATE7		20210802_021	Perchlorate6850c.lcm	1x	☒	3100812-07	8/2/2021 17:42
15	E2100813-001X20		20210802_022	Perchlorate6850c.lcm	20x	☒		8/2/2021 17:51
16	E2100813-004X20		20210802_023	Perchlorate6850c.lcm	20x	☒		8/2/2021 18:00
17	E2100814-001		20210802_024	Perchlorate6850c.lcm	1x	☒		8/2/2021 18:08
18	E2100814-002		20210802_025	Perchlorate6850c.lcm	1x	☒		8/2/2021 18:17
19	E2100814-003		20210802_026	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 18:25
20	E2100814-004		20210802_027	Perchlorate6850c.lcm	1x	☒		8/2/2021 18:34
21	E2100814-005		20210802_028	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 18:42
22	PERCHLORATE7		20210802_029	Perchlorate6850c.lcm	1x	☒	3100812-07	8/2/2021 18:51
23	EQ2100452-04		20210802_030	Perchlorate6850c.lcm	1x	☒		8/2/2021 19:00
24	EQ2100452-05		20210802_031	Perchlorate6850c.lcm	1x	☒		8/2/2021 19:08
25	E2100813-002		20210802_032	Perchlorate6850c.lcm	1x	☒		8/2/2021 19:17
26	E2100813-003		20210802_033	Perchlorate6850c.lcm	1x	☒		8/2/2021 19:25
27	E2100813-005		20210802_034	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 19:34
28	E2100813-006		20210802_035	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 19:42
29	E2100813-007		20210802_036	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 19:51
30	E2100813-008		20210802_037	Perchlorate6850c.lcm	1x	☒		8/2/2021 19:59
31	PERCHLORATE7		20210802_038	Perchlorate6850c.lcm	1x	☒	3100812-07	8/2/2021 20:08
32	E2100813-009		20210802_039	Perchlorate6850c.lcm	1x	☒		8/2/2021 20:16
33	EQ2100458-01		20210802_040	Perchlorate6850c.lcm	1x	☒		8/2/2021 20:25
34	EQ2100458-02		20210802_041	Perchlorate6850c.lcm	1x	☒		8/2/2021 20:34
35	EQ2100458-03		20210802_042	Perchlorate6850c.lcm	1x	☒		8/2/2021 20:42
36	EQ2100458-04		20210802_043	Perchlorate6850c.lcm	1x	☒		8/2/2021 20:51
37	EQ2100458-05		20210802_044	Perchlorate6850c.lcm	1x	☒		8/2/2021 20:59
38	PERCHLORATE7		20210802_045	Perchlorate6850c.lcm	1x	☒	3100812-07	8/2/2021 21:08
39	E2100824-001		20210802_046	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 21:16
40	E2100824-002		20210802_047	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 21:25
41	E2100824-003		20210802_048	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 21:33
42	E2100825-001		20210802_049	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 21:42
43	E2100825-002		20210802_050	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 21:50
44	E2100825-003		20210802_051	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 21:59
45	E2100825-004		20210802_052	Perchlorate6850c.lcm	1x	☒		8/2/2021 22:07
46	E2100825-005		20210802_053	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 22:16
47	E2100825-006		20210802_054	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 22:24
48	E2100825-007		20210802_055	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 22:33
49	PERCHLORATE7		20210802_056	Perchlorate6850c.lcm	1x	☒	3100812-07	8/2/2021 22:41
50	E2100825-008		20210802_057	Perchlorate6850c.lcm	1x	☒		8/2/2021 22:50
51	IB		20210802_058	Perchlorate6850c.lcm	1x	☒		8/2/2021 22:58
52	E2100831-001		20210802_059	Perchlorate6850c.lcm	1x	☒		8/2/2021 23:07
53	E2100831-002X2		20210802_060	Perchlorate6850c.lcm	2x	☒	INST out of range	8/2/2021 23:15
54	E2100856-001		20210802_061	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 23:24
55	E2100856-002		20210802_062	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 23:32
56	E2100856-003		20210802_063	Perchlorate6850c.lcm	1x	☒		8/2/2021 23:41
57	E2100856-004		20210802_064	Perchlorate6850c.lcm	1x	☒	INST out of range	8/2/2021 23:50
58	E2100856-005		20210802_065	Perchlorate6850c.lcm	1x	☒		8/2/2021 23:58
59	E2100837-001		20210802_066	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 0:07
60	PERCHLORATE7		20210802_067	Perchlorate6850c.lcm	1x	☒	3100812-07	8/3/2021 0:15
61	E2100837-002		20210802_068	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 0:24
62	E2100837-003		20210802_069	Perchlorate6850c.lcm	1x	☒		8/3/2021 0:32
63	E2100837-004		20210802_070	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 0:41
64	E2100837-005		20210802_071	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 0:49
65	E2100837-006		20210802_072	Perchlorate6850c.lcm	1x	☒		8/3/2021 0:58
66	E2100837-007		20210802_073	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 1:06
67	E2100837-008		20210802_074	Perchlorate6850c.lcm	1x	☒		8/3/2021 1:15
68	E2100837-009		20210802_075	Perchlorate6850c.lcm	1x	☒		8/3/2021 1:23
69	E2100837-010		20210802_076	Perchlorate6850c.lcm	1x	☒		8/3/2021 1:32
70	E2100837-011		20210802_077	Perchlorate6850c.lcm	1x	☒		8/3/2021 1:40
71	E2100837-012		20210802_078	Perchlorate6850c.lcm	1x	☒		8/3/2021 1:49
72	PERCHLORATE7		20210802_079	Perchlorate6850c.lcm	1x	☒	3100812-07	8/3/2021 1:57
73	EQ2100476-01		20210802_080	Perchlorate6850c.lcm	1x	☒		8/3/2021 2:06

20210802

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 8/2/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100056**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100813-08 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
74	EQ2100476-02		20210802_081	Perchlorate6850c.lcm	1x	☒		8/3/2021 2:15
75	EQ2100476-03		20210802_082	Perchlorate6850c.lcm	1x	☒		8/3/2021 2:23
76	EQ2100476-04		20210802_083	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 2:32
77	EQ2100476-05		20210802_084	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 2:40
78	EQ2100476-06		20210802_085	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 2:49
79	EQ2100476-07		20210802_086	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 2:57
80	E2100843-001		20210802_087	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 3:06
81	E2100843-002		20210802_088	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 3:14
82	E2100843-003		20210802_089	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 3:23
83	PERCHLORATE7		20210802_090	Perchlorate6850c.lcm	1x	☒	3100812-07	8/3/2021 3:32
84	E2100843-004		20210802_091	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 3:40
85	E2100843-005		20210802_092	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 3:49
86	E2100843-006		20210802_093	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 3:57
87	E2100843-007		20210802_094	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 4:06
88	E2100843-008		20210802_095	Perchlorate6850c.lcm	1x	☒		8/3/2021 4:14
89	E2100843-009		20210802_096	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 4:23
90	E2100844-001		20210802_097	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 4:31
91	E2100844-002		20210802_098	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 4:40
92	E2100844-003		20210802_099	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 4:48
93	E2100844-004		20210802_100	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 4:57
94	PERCHLORATE7		20210802_101	Perchlorate6850c.lcm	1x	☒	3100812-07	8/3/2021 5:06
95	E2100844-005		20210802_102	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 5:14
96	E2100844-006		20210802_103	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 5:23
97	E2100844-007		20210802_104	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 5:31
98	E2100844-008		20210802_105	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 5:40
99	E2100844-009		20210802_106	Perchlorate6850c.lcm	1x	☒	INST out of range	8/3/2021 5:48
100	PERCHLORATE7		20210802_107	Perchlorate6850c.lcm	1x	☒	3100812-07	8/3/2021 5:57

20210804

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 8/4/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100057**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100813-08 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210804_014	Perchlorate6850c.lcm	1x	☒	3100812-01	8/4/2021 13:15
2	PERCHLORATE2		20210804_015	Perchlorate6850c.lcm	1x	☒	3100812-02	8/4/2021 13:24
3	PERCHLORATE3		20210804_016	Perchlorate6850c.lcm	1x	☒	3100812-03	8/4/2021 13:32
4	PERCHLORATE4		20210804_017	Perchlorate6850c.lcm	1x	☒	3100812-04	8/4/2021 13:41
5	PERCHLORATE5		20210804_018	Perchlorate6850c.lcm	1x	☒	3100812-05	8/4/2021 13:50
6	PERCHLORATE6		20210804_019	Perchlorate6850c.lcm	1x	☒	3100812-06	8/4/2021 13:58
7	PERCHLORATE7		20210804_020	Perchlorate6850c.lcm	1x	☒	3100812-07	8/4/2021 14:07
8	PERCHLORATE8		20210804_021	Perchlorate6850c.lcm	1x	☒	3100812-08	8/4/2021 14:15
9	PERCHLORATE9		20210804_022	Perchlorate6850c.lcm	1x	☒	3100812-09	8/4/2021 14:24
10	PERCHLORATE10		20210804_023	Perchlorate6850c.lcm	1x	☒	3100813-01	8/4/2021 14:32
11	PERCHLORATEICV		20210804_024	Perchlorate6850c.lcm	1x	☒	3100811-06	8/4/2021 14:41
12	LODV		20210804_025	Perchlorate6850c.lcm	1x	☒		8/4/2021 15:06
13	PERCHLORATE7		20210804_026	Perchlorate6850c.lcm	1x	☒	3100812-07	8/4/2021 15:15
14	E2100824-001X5		20210804_028	Perchlorate6850c.lcm	5x	☒		8/4/2021 15:33
15	E2100825-001X10		20210804_029	Perchlorate6850c.lcm	10x	☒	INST out of range	8/4/2021 15:42
16	E2100825-002X10		20210804_030	Perchlorate6850c.lcm	10x	☒	INST out of range	8/4/2021 15:51
17	E2100825-003X10		20210804_031	Perchlorate6850c.lcm	10x	☒	INST out of range	8/4/2021 15:59
18	E2100825-005X10		20210804_032	Perchlorate6850c.lcm	10x	☒	INST out of range	8/4/2021 16:08
19	E2100825-006X10		20210804_033	Perchlorate6850c.lcm	10x	☒	INST out of range	8/4/2021 16:16
20	E2100825-007X10		20210804_034	Perchlorate6850c.lcm	10x	☒	INST out of range	8/4/2021 16:25
21	E2100825-008X10		20210804_035	Perchlorate6850c.lcm	10x	☒	INST out of range	8/4/2021 16:33
22	E2100831-002X5		20210804_036	Perchlorate6850c.lcm	5x	☒		8/4/2021 16:42
23	PERCHLORATE7		20210804_037	Perchlorate6850c.lcm	1x	☒	3100812-07	8/4/2021 16:50
24	E2100856-001X10		20210804_039	Perchlorate6850c.lcm	10x	☒		8/4/2021 18:18
25	E2100856-002X5		20210804_040	Perchlorate6850c.lcm	5x	☒	INST out of range	8/4/2021 18:27
26	E2100856-004X5		20210804_041	Perchlorate6850c.lcm	5x	☒	INST out of range	8/4/2021 18:35
27	E2100825-001X20		20210804_042	Perchlorate6850c.lcm	20x	☒	INST out of range	8/4/2021 18:44
28	E2100825-002X20		20210804_043	Perchlorate6850c.lcm	20x	☒	INST out of range	8/4/2021 18:52
29	E2100825-003X20		20210804_044	Perchlorate6850c.lcm	20x	☒	INST out of range	8/4/2021 19:01
30	E2100825-006X20		20210804_045	Perchlorate6850c.lcm	20x	☒	No injection	8/4/2021 18:05
31	E2100825-005X20		20210804_045~1	Perchlorate6850c.lcm	20x	☒		8/4/2021 19:09
32	E2100825-006X20		20210804_046	Perchlorate6850c.lcm	20x	☒	INST out of range	8/4/2021 19:18
33	E2100825-007X20		20210804_047	Perchlorate6850c.lcm	20x	☒	INST out of range	8/4/2021 19:26
34	PERCHLORATE7		20210804_048	Perchlorate6850c.lcm	1x	☒	3100812-07	8/4/2021 19:35
35	E2100825-008X20		20210804_049	Perchlorate6850c.lcm	20x	☒	INST out of range	8/4/2021 19:43
37	E2100856-002X20		20210804_051	Perchlorate6850c.lcm	20x	☒	INST out of range	8/4/2021 20:00
38	E2100856-004X20		20210804_052	Perchlorate6850c.lcm	20x	☒	INST out of range	8/4/2021 20:09
39	E2100837-001X10		20210804_053	Perchlorate6850c.lcm	10x	☒		8/4/2021 20:18
40	E2100837-002X10		20210804_054	Perchlorate6850c.lcm	10x	☒		8/4/2021 20:26
41	E2100837-004X10		20210804_055	Perchlorate6850c.lcm	10x	☒		8/4/2021 20:35
42	E2100837-005X10		20210804_056	Perchlorate6850c.lcm	10x	☒		8/4/2021 20:43
43	E2100837-007X10		20210804_057	Perchlorate6850c.lcm	10x	☒		8/4/2021 20:52
44	PERCHLORATE7		20210804_058	Perchlorate6850c.lcm	1x	☒	3100812-07	8/4/2021 21:00
45	E2100841-008		20210804_059	Perchlorate6850c.lcm	1x	☒		8/4/2021 21:09
46	E2100841-009		20210804_060	Perchlorate6850c.lcm	1x	☒		8/4/2021 21:17
47	E2100842-001x2		20210804_061	Perchlorate6850c.lcm	2x	☒	3100812-07	8/4/2021 21:26
48	E2100842-002X10		20210804_062	Perchlorate6850c.lcm	10x	☒		8/4/2021 21:34
49	E2100842-003X10		20210804_063	Perchlorate6850c.lcm	10x	☒		8/4/2021 21:43
50	E2100842-004X10		20210804_064	Perchlorate6850c.lcm	10x	☒		8/4/2021 21:52
51	E2100842-005		20210804_065	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 22:00
52	E2100842-006X10		20210804_066	Perchlorate6850c.lcm	10x	☒		8/4/2021 22:09
53	PERCHLORATE7		20210804_067	Perchlorate6850c.lcm	1x	☒	3100812-07	8/4/2021 22:17
54	E2100843-001		20210804_068	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 22:26
55	E2100843-002		20210804_069	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 22:34
56	E2100843-003		20210804_070	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 22:43
57	PERCHLORATE7		20210804_071	Perchlorate6850c.lcm	1x	☒	3100812-07	8/4/2021 22:51
58	E2100843-004		20210804_072	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 23:00
59	E2100843-005		20210804_073	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 23:08
60	E2100843-006		20210804_074	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 23:17
61	E2100843-007		20210804_075	Perchlorate6850c.lcm	1x	☒		8/4/2021 23:26
62	E2100843-008		20210804_076	Perchlorate6850c.lcm	1x	☒		8/4/2021 23:34
63	E2100843-009		20210804_077	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 23:43
64	E2100844-001		20210804_078	Perchlorate6850c.lcm	1x	☒	INST out of range	8/4/2021 23:51
65	E2100844-002		20210804_079	Perchlorate6850c.lcm	1x	☒	INST out of range	8/5/2021 0:00
66	E2100844-003		20210804_080	Perchlorate6850c.lcm	1x	☒	INST out of range	8/5/2021 0:08
67	E2100844-004		20210804_081	Perchlorate6850c.lcm	1x	☒		8/5/2021 0:17

20210804

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 8/4/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100057**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100813-08 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
68	PERCHLORATE7		20210804_082	Perchlorate6850c.lcm	1x	☒	3100812-07	8/5/2021 0:25
69	E2100844-005		20210804_083	Perchlorate6850c.lcm	1x	☒	INST out of range	8/5/2021 0:34
70	E2100844-006		20210804_084	Perchlorate6850c.lcm	1x	☒	INST out of range	8/5/2021 0:42
71	E2100844-007		20210804_085	Perchlorate6850c.lcm	1x	☒	INST out of range	8/5/2021 0:51
72	E2100844-008		20210804_086	Perchlorate6850c.lcm	1x	☒	INST out of range	8/5/2021 1:00
73	E2100844-009		20210804_087	Perchlorate6850c.lcm	1x	☒	INST out of range	8/5/2021 1:08
74	PERCHLORATE7		20210804_088	Perchlorate6850c.lcm	1x	☒	3100812-07	8/5/2021 1:17

20210805

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 8/4/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100057**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100813-08 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	null		20210805_001	Perchlorate6850c.lcm	1x	☒		8/5/2021 9:42
2	null		20210805_002	Perchlorate6850c.lcm	1x	☒		8/5/2021 9:47
3	IB		20210805_003	Perchlorate6850c.lcm	1x	☒		8/5/2021 9:53
4	IB		20210805_004	Perchlorate6850c.lcm	1x	☒		8/5/2021 10:02
5	PERCHLORATE7		20210805_006	Perchlorate6850c.lcm	1x	☒	3100812-07	8/5/2021 10:19
6	LODV		20210805_007	Perchlorate6850c.lcm	1x	☒		8/5/2021 10:27
7	E2100825-002X2		20210805_015	Perchlorate6850c.lcm	2x	☒	Used carbon cleanup	8/5/2021 12:12
8	PERCHLORATE7		20210805_017	Perchlorate6850c.lcm	1x	☒	3100812-07	8/5/2021 12:29
9	E2100825-006X10		20210805_022	Perchlorate6850c.lcm	10x	☒	Used carbon cleanup	8/5/2021 13:11
10	E2100825-007X10		20210805_023	Perchlorate6850c.lcm	10x	☒	Used carbon cleanup	8/5/2021 13:20
11	E2100825-008X10		20210805_024	Perchlorate6850c.lcm	10x	☒	Used carbon cleanup	8/5/2021 13:28
12	PERCHLORATE7		20210805_025	Perchlorate6850c.lcm	1x	☒	3100812-07	8/5/2021 13:38
13	E2100825-001X10		20210805_026	Perchlorate6850c.lcm	10x	☒	Used carbon cleanup	8/5/2021 13:51
14	E2100825-005X10		20210805_027	Perchlorate6850c.lcm	10x	☒	Used carbon cleanup	8/5/2021 14:00
15	EQ2100477-02		20210805_029	Perchlorate6850c.lcm	1x	☒		8/5/2021 14:17
16	E2100842-005X2		20210805_030	Perchlorate6850c.lcm	2x	☒		8/5/2021 14:26
17	E2100825-003X10		20210805_031	Perchlorate6850c.lcm	10x	☒	Used carbon cleanup	8/5/2021 14:35
18	E2100856-002X5		20210805_032	Perchlorate6850c.lcm	5x	☒	Noticed settled sediment -reanalyzed sample	8/5/2021 14:43
19	E2100856-004X5		20210805_033	Perchlorate6850c.lcm	5x	☒	Noticed settled sediment -reanalyzed sample	8/5/2021 14:52
20	EQ2100458-04X2		20210805_034	Perchlorate6850c.lcm	2x	☒	Used carbon cleanup	8/5/2021 15:32
21	EQ2100458-05X2		20210805_035	Perchlorate6850c.lcm	2x	☒	Used carbon cleanup	8/5/2021 15:50
22	PERCHLORATE7		20210805_036	Perchlorate6850c.lcm	1x	☒	3100812-07	8/5/2021 15:58
23								

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 7/30/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210730\20210730_006

Calibration Date: 7/26/21
Calibration ID: EC2100054
Analysis Lot: 733225
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	8.91	NA	NA	NA	-10.9	± 15 %	Linear

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 7/30/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210730\20210730_015

Calibration Date: 7/26/21
Calibration ID: EC2100054
Analysis Lot: 733225
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	8.81	NA	NA	NA	-11.9	± 15 %	Linear

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 7/30/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210730\20210730_017

Calibration Date: 7/26/21
Calibration ID: EC2100054
Analysis Lot: 733225
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.01	NA	NA	NA	-9.9	± 15 %	Linear

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 7/30/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210730\20210730_025

Calibration Date: 7/26/21
Calibration ID: EC2100054
Analysis Lot: 733225
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	8.88	NA	NA	NA	-11.2	± 15 %	Linear

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 2/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210802\20210802_021

Calibration Date: 8/2/21
Calibration ID: EC2100056
Analysis Lot: 733464
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.1	0.1473	0.1492	1.2	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 2/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210802\20210802_029

Calibration Date: 8/2/21
Calibration ID: EC2100056
Analysis Lot: 733464
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.2	0.1473	0.1504	2.1	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 2/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210802\20210802_038

Calibration Date: 8/2/21
Calibration ID: EC2100056
Analysis Lot: 733464
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.1	0.1473	0.1487	1.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 2/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210802\20210802_045

Calibration Date: 8/2/21
Calibration ID: EC2100056
Analysis Lot: 733464
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.90	0.1473	0.1459	-1.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 2/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210802\20210802_056

Calibration Date: 8/2/21
Calibration ID: EC2100056
Analysis Lot: 733464
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.80	0.1473	0.1444	-2.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 3/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210802\20210802_067

Calibration Date: 8/2/21
Calibration ID: EC2100056
Analysis Lot: 733464
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.84	0.1473	0.1449	-1.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 3/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210802\20210802_079

Calibration Date: 8/2/21
Calibration ID: EC2100056
Analysis Lot: 733464
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.89	0.1473	0.1456	-1.1	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 3/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210802\20210802_090

Calibration Date: 8/2/21
Calibration ID: EC2100056
Analysis Lot: 733464
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.96	0.1473	0.1468	-0.4	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 3/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210802\20210802_101

Calibration Date: 8/2/21
Calibration ID: EC2100056
Analysis Lot: 733464
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.67	0.1473	0.1425	-3.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 3/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210802\20210802_107

Calibration Date: 8/2/21
Calibration ID: EC2100056
Analysis Lot: 733464
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.79	0.1473	0.1442	-2.1	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 4/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210804\20210804_026

Calibration Date: 8/4/21
Calibration ID: EC2100057
Analysis Lot: 733747
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.0	0.1426	0.1425	0.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 4/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210804\20210804_037

Calibration Date: 8/4/21
Calibration ID: EC2100057
Analysis Lot: 733747
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.79	0.1426	0.1395	-2.1	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 4/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210804\20210804_048

Calibration Date: 8/4/21
Calibration ID: EC2100057
Analysis Lot: 733747
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.74	0.1426	0.1388	-2.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 4/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210804\20210804_058

Calibration Date: 8/4/21
Calibration ID: EC2100057
Analysis Lot: 733747
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.70	0.1426	0.1384	-3.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 4/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210804\20210804_067

Calibration Date: 8/4/21
Calibration ID: EC2100057
Analysis Lot: 733747
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.51	0.1426	0.1356	-4.9	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 4/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210804\20210804_071

Calibration Date: 8/4/21
Calibration ID: EC2100057
Analysis Lot: 733747
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.67	0.1426	0.1378	-3.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 5/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210804\20210804_082

Calibration Date: 8/4/21
Calibration ID: EC2100057
Analysis Lot: 733747
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.56	0.1426	0.1364	-4.4	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 5/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210804\20210804_088

Calibration Date: 8/4/21
Calibration ID: EC2100057
Analysis Lot: 733747
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.48	0.1426	0.1352	-5.2	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 5/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210805\20210805_006

Calibration Date: 8/4/21
Calibration ID: EC2100057
Analysis Lot: 733725
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.68	0.1426	0.1381	-3.2	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 5/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210805\20210805_017

Calibration Date: 8/4/21
Calibration ID: EC2100057
Analysis Lot: 733725
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.69	0.1426	0.1381	-3.1	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 5/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210805\20210805_025

Calibration Date: 8/4/21
Calibration ID: EC2100057
Analysis Lot: 733725
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.36	0.1426	0.1334	-6.4	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/ 5/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210805\20210805_036

Calibration Date: 8/4/21
Calibration ID: EC2100057
Analysis Lot: 733725
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.54	0.1426	0.1360	-4.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 7/30/21 10:07

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210730\20210730_006
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100474-01
Analysis Lot: 733225
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	223,091	2.79
	Upper Limit ==>	334,637	4.79
	Lower Limit ==>	111,546	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100474-01	134,823	2.79
Method Blank	EQ2100470-01	166,366	2.67
Lab Control Sample	EQ2100470-02	180,211	2.79
Duplicate Lab Control Sample	EQ2100470-03	140,968	2.67

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 7/30/21 12:34

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210730\20210730_015
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100474-02
Analysis Lot: 733225
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	223,091	2.79
	Upper Limit ==>	334,637	4.79
	Lower Limit ==>	111,546	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100474-02	138,213	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 7/30/21 12:56

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210730\20210730_017
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100474-03
Analysis Lot: 733225
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	223,091	2.79
	Upper Limit ==>	334,637	4.79
	Lower Limit ==>	111,546	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100474-03	117,326	2.67

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 7/30/21 14:04

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210730\20210730_025
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100474-04
Analysis Lot: 733225
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	223,091	2.79
	Upper Limit ==>	334,637	4.79
	Lower Limit ==>	111,546	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100474-04	134,292	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/2/21 17:42

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210802\20210802_021
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100479-01
Analysis Lot: 733464
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	100,675	2.79
	Upper Limit ==>	151,013	4.79
	Lower Limit ==>	50,338	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100479-01	84,210	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/2/21 18:51

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210802\20210802_029
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100479-02
Analysis Lot: 733464
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	100,675	2.79
	Upper Limit ==>	151,013	4.79
	Lower Limit ==>	50,338	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100479-02	84,148	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Analyzed:**	8/2/21 20:08

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210802\20210802_038	**Lab Code:**	EQ2100479-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733464
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	100,675	2.79
	Upper Limit ==>	151,013	4.79
	Lower Limit ==>	50,338	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100479-03	91,252	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Analyzed:**	8/2/21 21:08

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210802\20210802_045	**Lab Code:**	EQ2100479-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733464
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	100,675	2.79
	Upper Limit ==>	151,013	4.79
	Lower Limit ==>	50,338	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100479-04	99,812	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/2/21 22:41

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210802\20210802_056
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100479-05
Analysis Lot: 733464
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	100,675	2.79
	Upper Limit ==>	151,013	4.79
	Lower Limit ==>	50,338	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100479-05	106,145	2.79
16WW49-210728	E2100856-003	64,086	2.78
16WW43-210728	E2100856-005	147,736	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/3/21 00:15

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210802\20210802_067
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100479-06
Analysis Lot: 733464
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	100,675	2.79
	Upper Limit ==>	151,013	4.79
	Lower Limit ==>	50,338	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100479-06	97,407	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Analyzed:**	8/3/21 01:57

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210802\20210802_079	**Lab Code:**	EQ2100479-07
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733464
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	100,675	2.79
	Upper Limit ==>	151,013	4.79
	Lower Limit ==>	50,338	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100479-07	99,099	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/3/21 03:32

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210802\20210802_090
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100479-08
Analysis Lot: 733464
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	100,675	2.79
	Upper Limit ==>	151,013	4.79
	Lower Limit ==>	50,338	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100479-08	91,777	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Analyzed:**	8/3/21 05:06

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210802\20210802_101	**Lab Code:**	EQ2100479-09
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733464
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	100,675	2.79
	Upper Limit ==>	151,013	4.79
	Lower Limit ==>	50,338	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100479-09	96,244	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/3/21 05:57

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210802\20210802_107
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100479-10
Analysis Lot: 733464
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	100,675	2.79
	Upper Limit ==>	151,013	4.79
	Lower Limit ==>	50,338	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100479-10	96,420	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Analyzed:**	8/5/21 10:19

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210805\20210805_006	**Lab Code:**	EQ2100492-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733725
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100492-01	87,603	2.76

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Analyzed:**	8/5/21 12:29

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210805\20210805_017	**Lab Code:**	EQ2100492-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733725
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100492-02	92,748	2.76

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/5/21 13:38

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210805\20210805_025
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100492-03
Analysis Lot: 733725
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100492-03	53,228	2.66
16WW39-210728	E2100856-002	79,612	2.76
16WW27-210728	E2100856-004	43,729	2.76

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/5/21 15:58

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210805\20210805_036
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100492-04
Analysis Lot: 733725
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100492-04	95,586	2.76

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Analyzed:**	8/4/21 15:15

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210804\20210804_026	**Lab Code:**	EQ2100490-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733747
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100490-01	64,019	2.77

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/4/21 16:50

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210804\20210804_037
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100490-02
Analysis Lot: 733747
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100490-02	67,641	2.77
16WW12-210728	E2100856-001	37,442	2.77

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/4/21 19:35

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210804\20210804_048
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100490-03
Analysis Lot: 733747
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100490-03	76,630	2.77

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/4/21 21:00

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210804\20210804_058
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100490-04
Analysis Lot: 733747
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100490-04	73,307	2.77

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Analyzed:**	8/4/21 22:17

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210804\20210804_067	**Lab Code:**	EQ2100490-05
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733747
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100490-05	79,149	2.77

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/4/21 22:51

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210804\20210804_071
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100490-06
Analysis Lot: 733747
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100490-06	81,996	2.76

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21071592

Service Request: E2100856
Date Analyzed: 8/5/21 00:25

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210804\20210804_082
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100490-07
Analysis Lot: 733747
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100490-07	88,370	2.76

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100856
Project:	HS21071592	**Date Analyzed:**	8/5/21 01:17

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210804\20210804_088	**Lab Code:**	EQ2100490-08
Instrument ID:	E-LCMS-01	**Analysis Lot:**	733747
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	69,829	2.77
	Upper Limit ==>	104,744	4.77
	Lower Limit ==>	34,915	0.77
Associated Analyses			
Continuing Calibration Verification	EQ2100490-08	90,603	2.76

Results flagged with an asterisk (*) indicate values outside control criteria.

Insight Report

Printed at 8/17/2021 5:09:59 PM

Method File: I:\LCMS01\DATA\20210730\20210726.lcm
Project File: I:\LCMS01\DATA\20210730\20210730.damlp

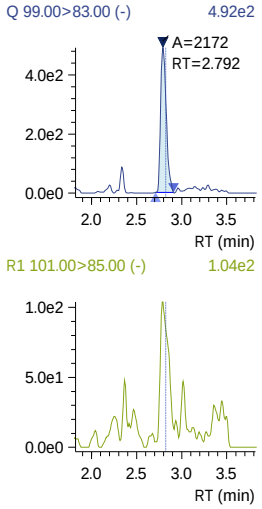
20210730_005

Sample ID: LODV
Date Acquired: 7/30/2021 9:58:31 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210730\20210730_005.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.792	2172	171244	1	0.0512	ng/mL	----	19.75
Sodium Perchlorate-18O4 _IS	Auto	2.791	1712 44	171244	1	1.0000	ng/mL	----	----

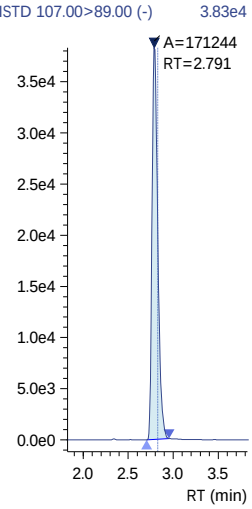
Perchlorate

Conc 0.0512
R#1 19.75 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Method File: I:\LCMS01\DATA\20210730\20210726.lcm

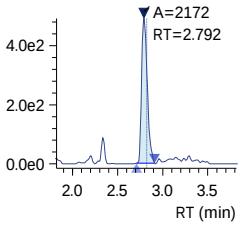
20210730_005

Sample ID: LODV
Date Acquired: 7/30/2021 9:58:31 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210730\Before\20210730_005.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

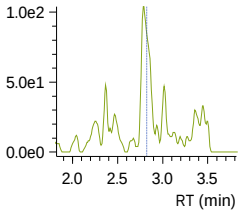
Perchlorate

Conc 0.0526
R#1 19.75 (0.00)

Q 99.00>83.00 (-) 4.92e2



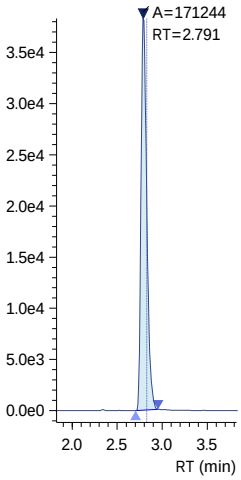
R1 101.00>85.00 (-) 1.04e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.83e4



Insight Report

Printed at 8/17/2021 5:09:59 PM

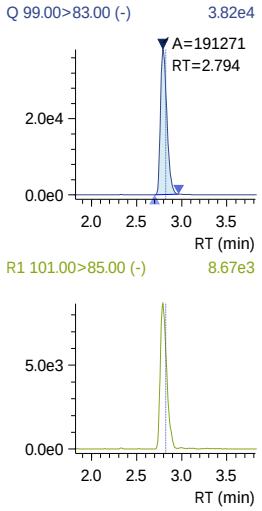
20210730_006

Sample ID: PERCHLORATE7
Date Acquired: 7/30/2021 10:07:05 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210730\20210730_006.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.794	191271	134823	1	8.9091	ng/mL	10.0000	22.70
Sodium Perchlorate-18O4_IS	Auto	2.792	134823	134823	1	1.0000	ng/mL	1.0000	----

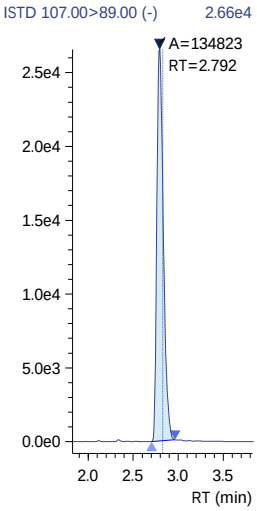
Perchlorate

Conc 8.9091
R#1 22.70 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/17/2021 5:16:39 PM

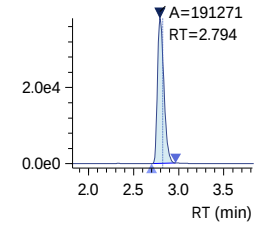
20210730_006

Sample ID: PERCHLORATE7
Date Acquired: 7/30/2021 10:07:05 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210730\Before\20210730_006.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

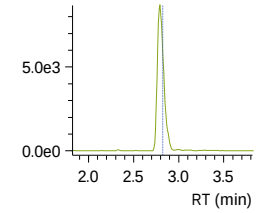
Perchlorate

Conc 8.9035
R#1 22.70 (0.00)

Q 99.00>83.00 (-) 3.82e4



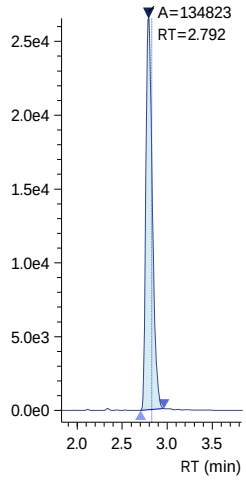
R1 101.00>85.00 (-) 8.67e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.66e4



Insight Report

Printed at 8/17/2021 5:09:59 PM

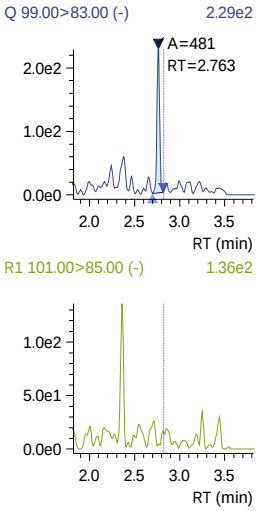
20210730_009

Sample ID: EQ2100470-01
Date Acquired: 7/30/2021 11:24:21 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210730\20210730_009.lcd
Vial: 6 | Inj. Volume: 25.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.763	481	166366	1	-0.0105	ng/mL	----	0.00
Sodium Perchlorate-18O4_IS	Auto	2.673	166366	166366	1	1.0000	ng/mL	----	----

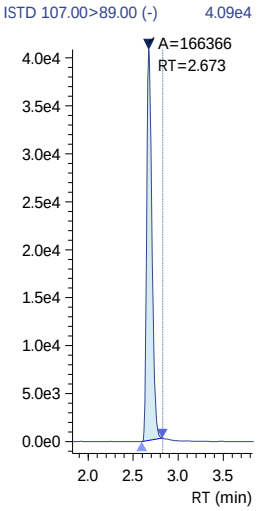
Perchlorate

Conc -0.0105
R#1 0.00 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/17/2021 5:16:39 PM

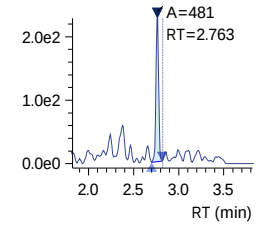
20210730_009

Sample ID: EQ2100470-01
Date Acquired: 7/30/2021 11:24:21 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210730\Before\20210730_009.lcd
Vial: 6 | Inj. Volume: 25.0000uL | Tray: 5

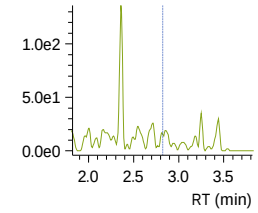
Perchlorate

Conc -0.0090
R#1 0.00 (0.00)

Q 99.00>83.00 (-) 2.29e2



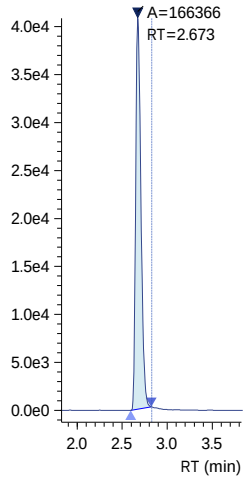
R1 101.00>85.00 (-) 1.36e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.09e4



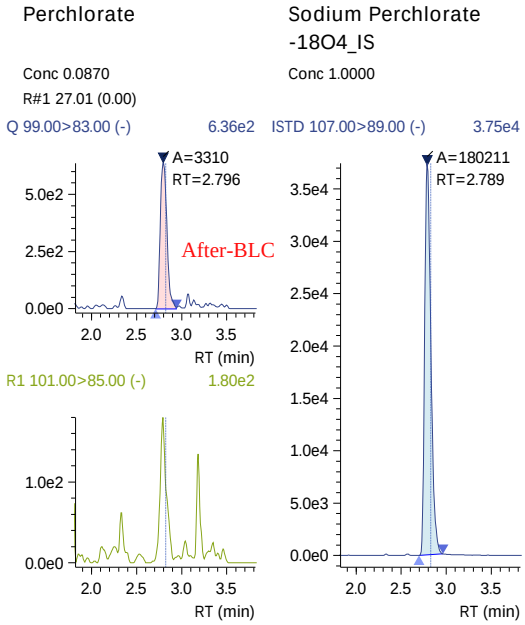
Insight Report

Printed at 8/17/2021 5:09:59 PM

20210730_010

Sample ID: EQ2100470-02
Date Acquired: 7/30/2021 11:32:52 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210730\20210730_010.lcd
Vial: 7 | Inj. Volume: 25.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.796	3310	180211	1	0.0870	ng/mL	----	27.01
Sodium Perchlorate-18O4 _IS	Auto	2.789	1802 11	180211	1	1.0000	ng/mL	----	----



Insight Report

Printed at 8/17/2021 5:16:39 PM

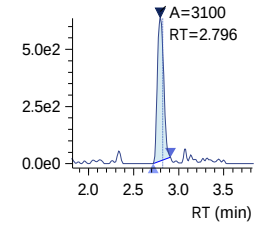
20210730_010

Sample ID: EQ2100470-02
Date Acquired: 7/30/2021 11:32:52 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210730\Before\20210730_010.lcd
Vial: 7 | Inj. Volume: 25.0000uL | Tray: 5

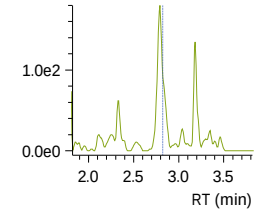
Perchlorate

Conc 0.0811
R#1 27.13 (0.00)

Q 99.00>83.00 (-) 6.36e2



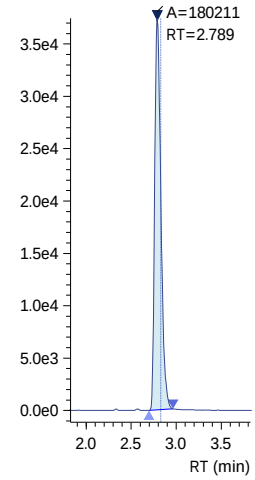
R1 101.00>85.00 (-) 1.80e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.75e4



Insight Report

Printed at 8/17/2021 5:09:59 PM

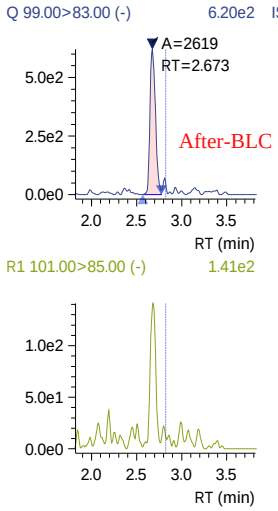
20210730_011

Sample ID: EQ2100470-03
Date Acquired: 7/30/2021 12:00:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210730\20210730_011.lcd
Vial: 8 | Inj. Volume: 25.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.673	2619	140968	1	0.0884	ng/mL	----	20.44
Sodium Perchlorate-18O4 _IS	Auto	2.673	1409 68	140968	1	1.0000	ng/mL	----	----

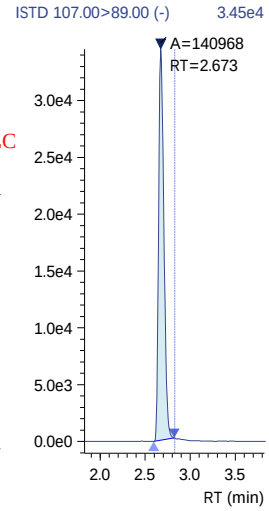
Perchlorate

Conc 0.0884
R#1 20.44 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/17/2021 5:16:39 PM

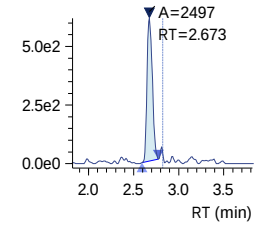
20210730_011

Sample ID: EQ2100470-03
Date Acquired: 7/30/2021 12:00:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210730\Before\20210730_011.lcd
Vial: 8 | Inj. Volume: 25.0000uL | Tray: 5

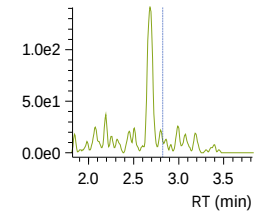
Perchlorate

Conc 0.0843
R#1 20.00 (0.00)

Q 99.00>83.00 (-) 6.20e2



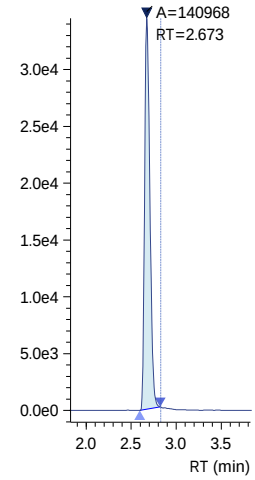
R1 101.00>85.00 (-) 1.41e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.45e4



Insight Report

Printed at 8/17/2021 5:09:59 PM

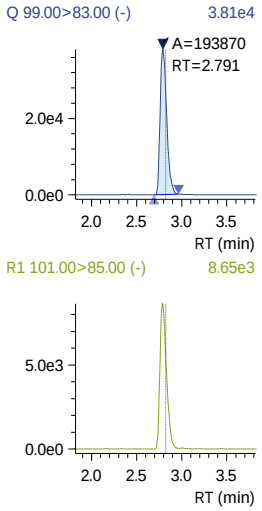
20210730_015

Sample ID: PERCHLORATE7
Date Acquired: 7/30/2021 12:34:53 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210730\20210730_015.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.791	193870	138213	1	8.8083	ng/mL	10.0000	23.17
Sodium Perchlorate-18O4_IS	Auto	2.790	138213	138213	1	1.0000	ng/mL	1.0000	----

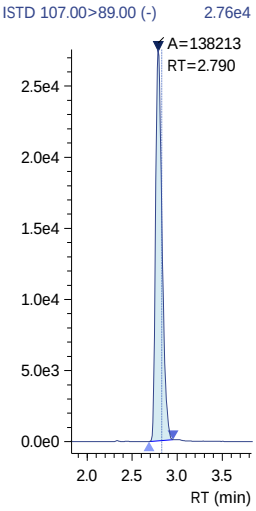
Perchlorate

Conc 8.8083
R#1 23.17 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/17/2021 5:16:39 PM

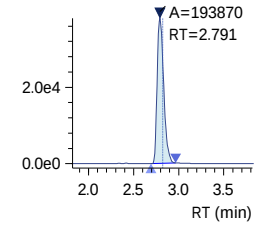
20210730_015

Sample ID: PERCHLORATE7
Date Acquired: 7/30/2021 12:34:53 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210730\Before\20210730_015.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

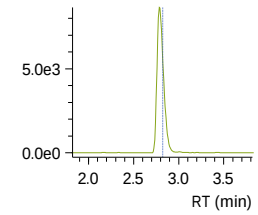
Perchlorate

Conc 8.8028
R#1 23.17 (0.00)

Q 99.00>83.00 (-) 3.81e4



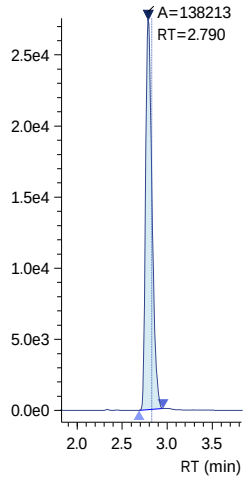
R1 101.00>85.00 (-) 8.65e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.76e4



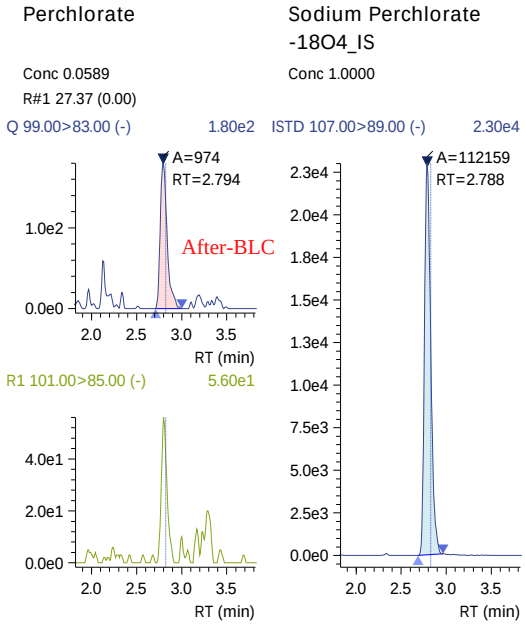
Insight Report

Printed at 8/18/2021 10:37:32 AM

20210802_020

Sample ID: LODV
Date Acquired: 8/2/2021 5:33:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_020.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.794	974	112159	1	0.0589	ng/mL	----	27.37
Sodium Perchlorate-18O4 _IS	Auto	2.788	1121 59	112159	1	1.0000	ng/mL	----	----



Insight Report

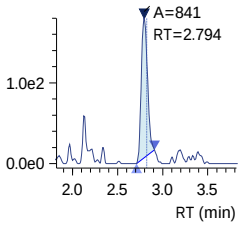
20210802_020

Sample ID: LODV
Date Acquired: 8/2/2021 5:33:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_020.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

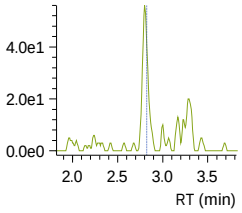
Perchlorate

Conc 0.0200
R#1 30.23 (0.00)

Q 99.00>83.00 (-) 1.80e2



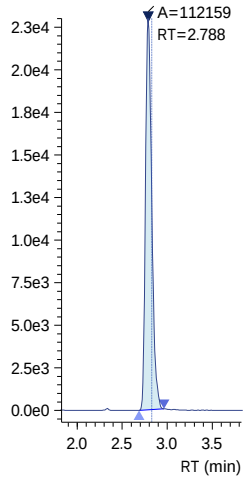
R1 101.00>85.00 (-) 5.60e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.30e4



Insight Report

Printed at 8/18/2021 10:37:32 AM

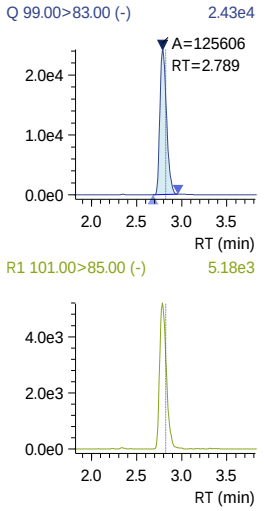
20210802_021

Sample ID: PERCHLORATE7
Date Acquired: 8/2/2021 5:42:08 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_021.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.789	125606	84210	1	10.1247	ng/mL	10.0000	21.60
Sodium Perchlorate-18O4_IS	Auto	2.789	84210	84210	1	1.0000	ng/mL	1.0000	----

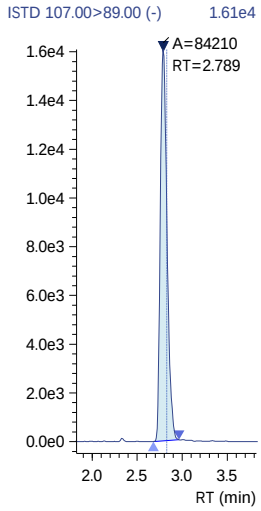
Perchlorate

Conc 10.1247
R#1 21.60 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:42:57 AM

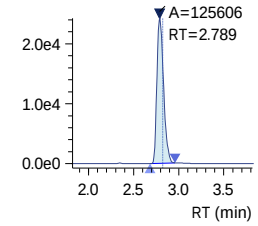
20210802_021

Sample ID: PERCHLORATE7
Date Acquired: 8/2/2021 5:42:08 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_021.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

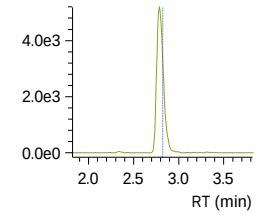
Perchlorate

Conc 9.3624
R#1 21.60 (0.00)

Q 99.00>83.00 (-) 2.43e4



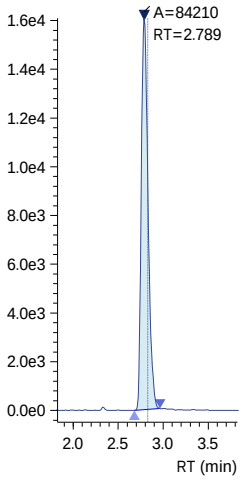
R1 101.00>85.00 (-) 5.18e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.61e4



Insight Report

Printed at 8/18/2021 10:37:32 AM

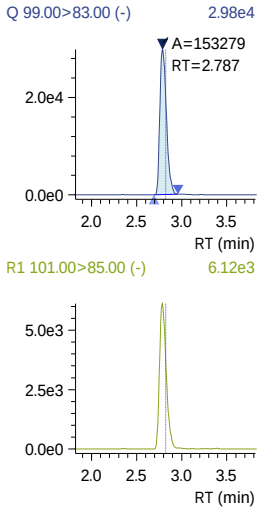
20210802_056

Sample ID: PERCHLORATE7
Date Acquired: 8/2/2021 10:41:51 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_056.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.787	153279	106145	1	9.8021	ng/mL	10.0000	20.50
Sodium Perchlorate-18O4_IS	Auto	2.785	106145	106145	1	1.0000	ng/mL	1.0000	----

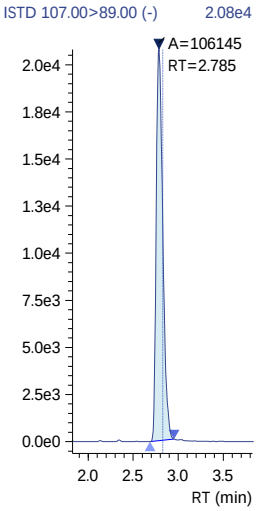
Perchlorate

Conc 9.8021
R#1 20.50 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:42:57 AM

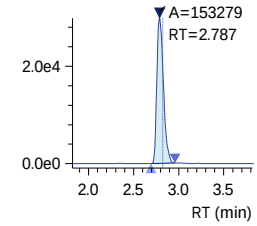
20210802_056

Sample ID: PERCHLORATE7
Date Acquired: 8/2/2021 10:41:51 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_056.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

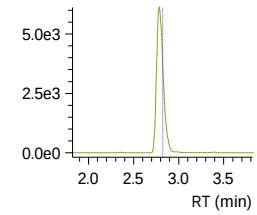
Perchlorate

Conc 9.0632
R#1 20.50 (0.00)

Q 99.00>83.00 (-) 2.98e4



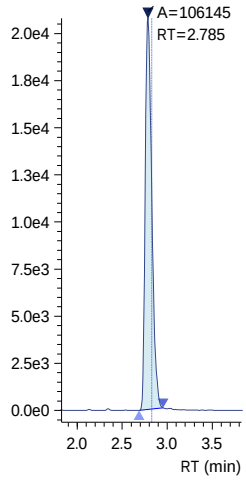
R1 101.00>85.00 (-) 6.12e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.08e4



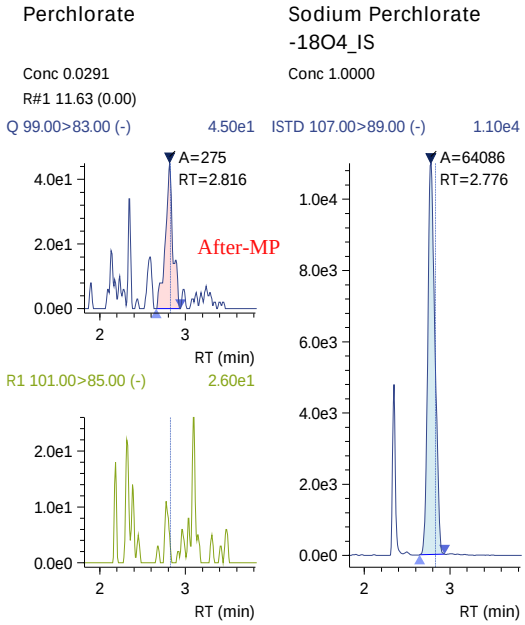
Insight Report

Printed at 8/18/2021 10:37:32 AM

20210802_063

Sample ID: E2100856-003
Date Acquired: 8/2/2021 11:41:29 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_063.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.816	275	64086	1	0.0291	ng/mL	----	11.63
Sodium Perchlorate-18O4 _IS	Auto	2.776	64086	64086	1	1.0000	ng/mL	----	----



Insight Report

Printed at 8/18/2021 10:42:57 AM

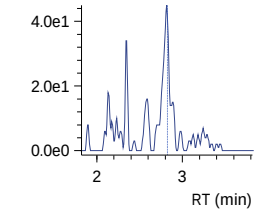
20210802_063

Sample ID: E2100856-003
Date Acquired: 8/2/2021 11:41:29 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_063.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 5

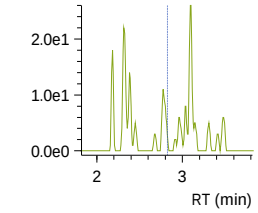
Perchlorate

Conc ----
R#1 ---- (0.00)

Q 99.00>83.00 (-) 4.50e1



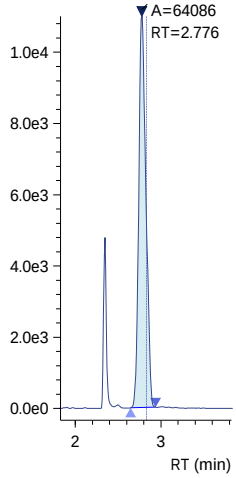
R1 101.00>85.00 (-) 2.60e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.10e4



Insight Report

Printed at 8/18/2021 10:37:32 AM

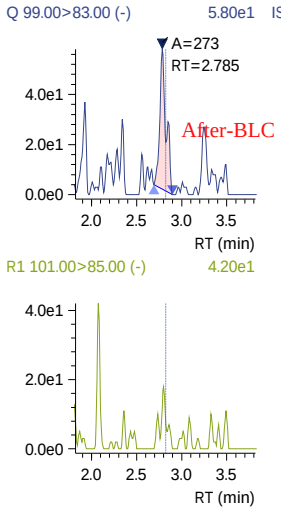
20210802_065

Sample ID: E2100856-005
Date Acquired: 8/2/2021 11:58:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_065.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.785	273	147736	1	0.0125	ng/mL	----	23.64
Sodium Perchlorate-18O4 _IS	Auto	2.784	1477 36	147736	1	1.0000	ng/mL	----	----

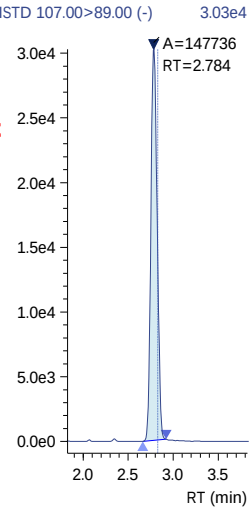
Perchlorate

Conc 0.0125
R#1 23.64 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:42:57 AM

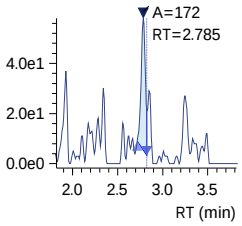
20210802_065

Sample ID: E2100856-005
Date Acquired: 8/2/2021 11:58:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_065.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 5

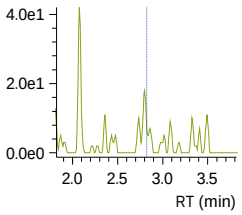
Perchlorate

Conc -0.0199
R#1 14.29 (0.00)

Q 99.00>83.00 (-) 5.80e1



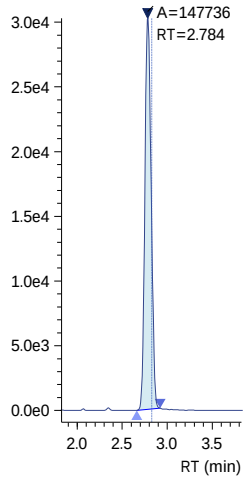
R1 101.00>85.00 (-) 4.20e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.03e4



Insight Report

Printed at 8/18/2021 10:37:32 AM

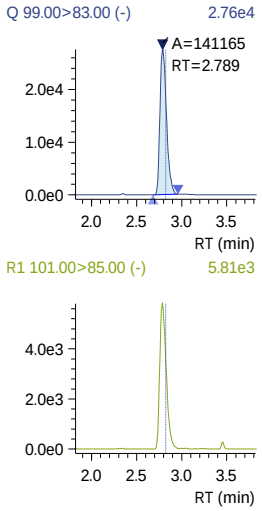
20210802_067

Sample ID: PERCHLORATE7
Date Acquired: 8/3/2021 12:15:36 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\20210802_067.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.789	141165	97407	1	9.8372	ng/mL	10.0000	21.20
Sodium Perchlorate-18O4_IS	Auto	2.788	97407	97407	1	1.0000	ng/mL	1.0000	----

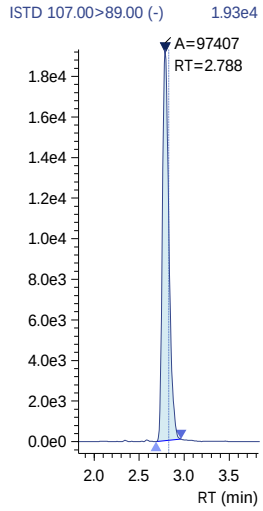
Perchlorate

Conc 9.8372
R#1 21.20 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/18/2021 10:42:57 AM

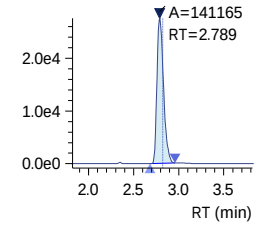
20210802_067

Sample ID: PERCHLORATE7
Date Acquired: 8/3/2021 12:15:36 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210802\Before\20210802_067.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

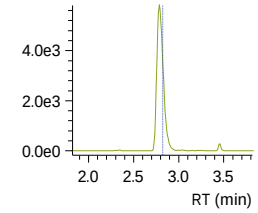
Perchlorate

Conc 9.0958
R#1 21.20 (0.00)

Q 99.00>83.00 (-) 2.76e4



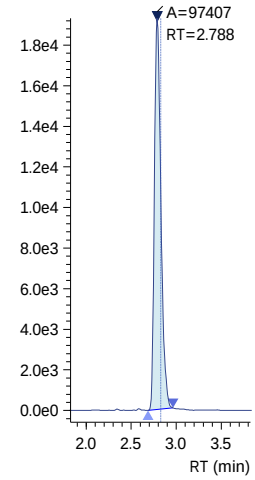
R1 101.00>85.00 (-) 5.81e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.93e4



Insight Report

Printed at 8/19/2021 11:52:26 AM

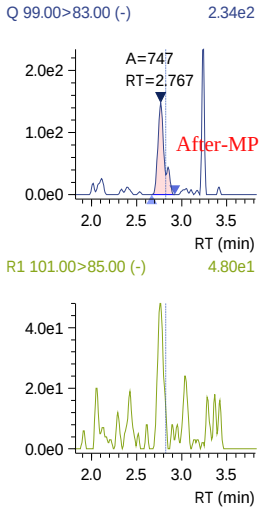
20210804_025

Sample ID: LODV
Date Acquired: 8/4/2021 3:06:55 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\20210804_025.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.767	747	85934	1	0.0609	ng/mL	----	31.97
Sodium Perchlorate-18O4 _IS	Auto	2.770	85934	85934	1	1.0000	ng/mL	----	----

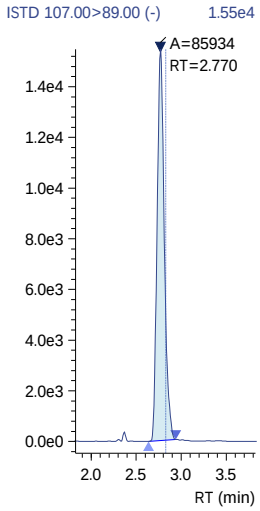
Perchlorate

Conc 0.0609
R#1 31.97 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

20210804_025

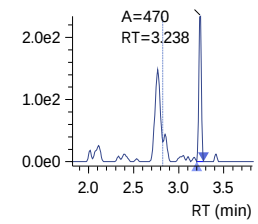
Sample ID: LODV
Date Acquired: 8/4/2021 3:06:55 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\Before\20210804_025.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

Perchlorate

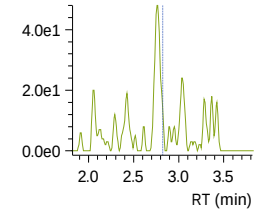
Conc ----

R#1 ---- (0.00)

Q 99.00>83.00 (-) 2.34e2



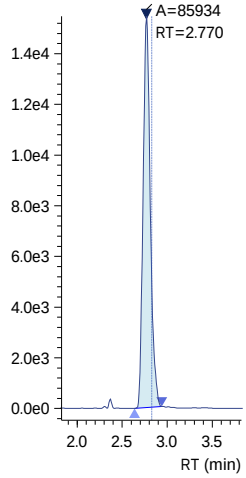
R1 101.00>85.00 (-) 4.80e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.55e4



Insight Report

Printed at 8/19/2021 11:52:26 AM

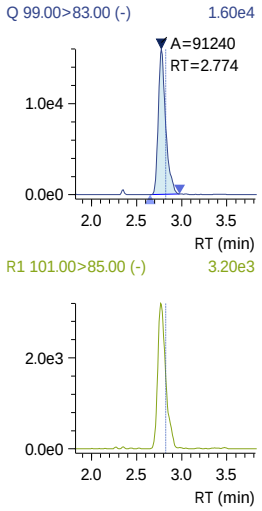
20210804_026

Sample ID: PERCHLORATE7
Date Acquired: 8/4/2021 3:15:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\20210804_026.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.774	91240	64019	1	9.9959	ng/mL	10.0000	20.57
Sodium Perchlorate-18O4 _IS	Auto	2.772	64019	64019	1	1.0000	ng/mL	1.0000	----

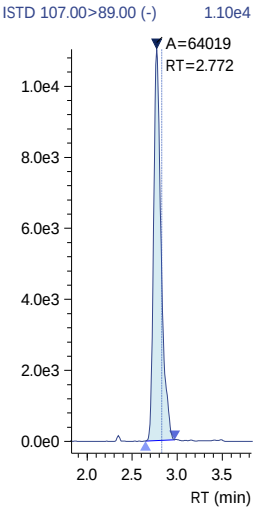
Perchlorate

Conc 9.9959
R#1 20.57 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

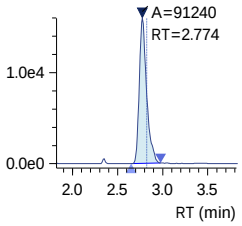
20210804_026

Sample ID: PERCHLORATE7
Date Acquired: 8/4/2021 3:15:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\Before\20210804_026.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

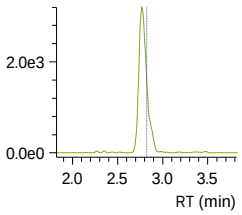
Perchlorate

Conc 9.7494
R#1 20.57 (0.00)

Q 99.00>83.00 (-) 1.60e4



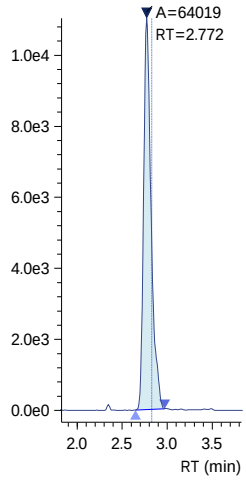
R1 101.00>85.00 (-) 3.20e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.10e4



Insight Report

Printed at 8/19/2021 11:52:26 AM

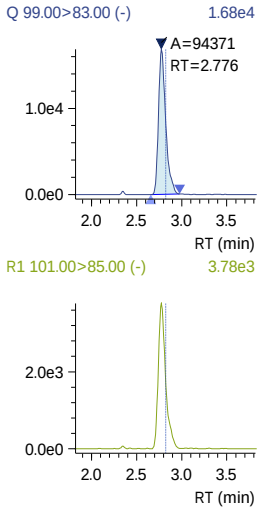
20210804_037

Sample ID: PERCHLORATE7
Date Acquired: 8/4/2021 4:50:46 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\20210804_037.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.776	94371	67641	1	9.7854	ng/mL	10.0000	22.44
Sodium Perchlorate-18O4 _IS	Auto	2.773	67641	67641	1	1.0000	ng/mL	1.0000	----

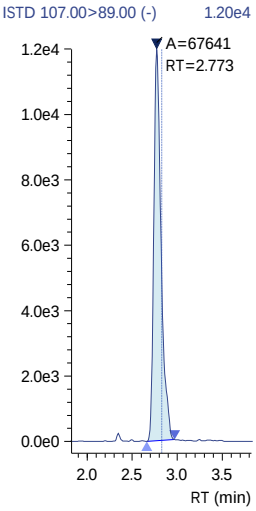
Perchlorate

Conc 9.7854
R#1 22.44 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 11:57:47 AM

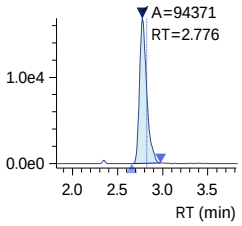
20210804_037

Sample ID: PERCHLORATE7
Date Acquired: 8/4/2021 4:50:46 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\Before\20210804_037.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

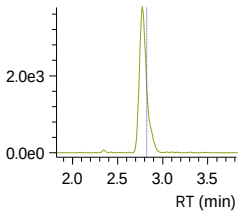
Perchlorate

Conc 9.5441
R#1 22.44 (0.00)

Q 99.00>83.00 (-) 1.68e4



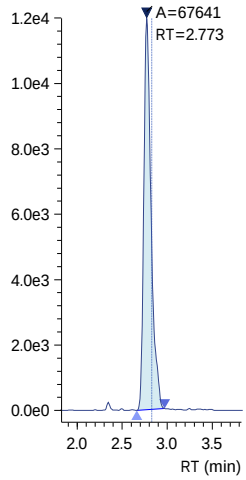
R1 101.00>85.00 (-) 3.78e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.20e4



Insight Report

Printed at 8/19/2021 11:52:26 AM

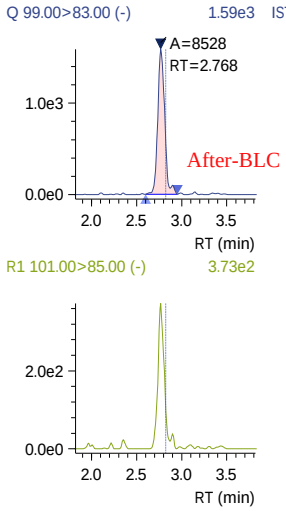
20210804_039

Sample ID: E2100856-001X10
Date Acquired: 8/4/2021 6:18:37 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\20210804_039.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.768	8528	37442	1	1.5975	ng/mL	----	23.47
Sodium Perchlorate-18O4 _IS	M	2.768	37442	37442	1	1.0000	ng/mL	----	----

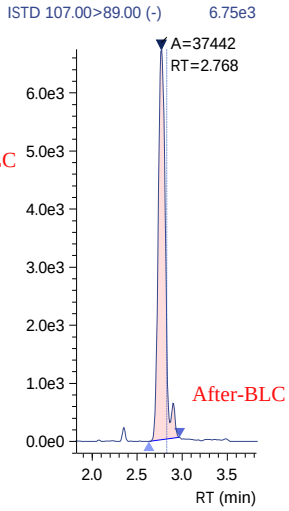
Perchlorate

Conc 1.5975
R#1 23.47 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 11:57:47 AM

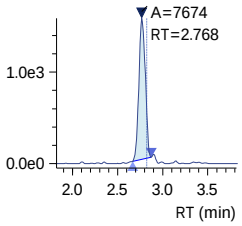
20210804_039

Sample ID: E2100856-001X10
Date Acquired: 8/4/2021 6:18:37 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\Before\20210804_039.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 5

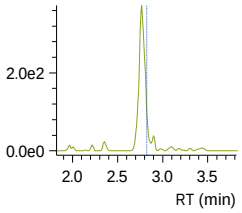
Perchlorate

Conc 1.5513
R#1 23.38 (0.00)

Q 99.00>83.00 (-) 1.59e3



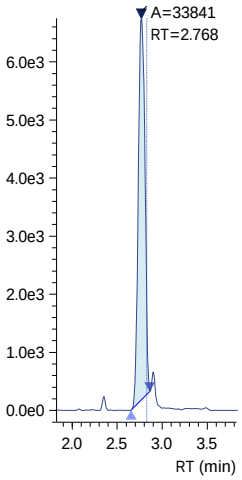
R1 101.00>85.00 (-) 3.73e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.75e3



Insight Report

Printed at 8/19/2021 11:52:26 AM

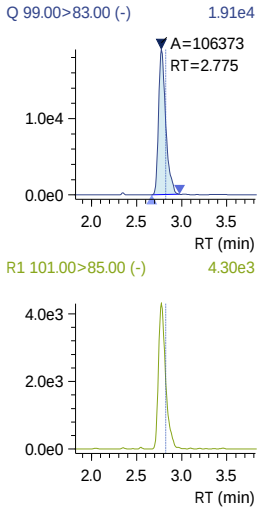
20210804_048

Sample ID: PERCHLORATE7
Date Acquired: 8/4/2021 7:35:26 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\20210804_048.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.775	106373	76630	1	9.7360	ng/mL	10.0000	22.53
Sodium Perchlorate-18O4_IS	Auto	2.772	76630	76630	1	1.0000	ng/mL	1.0000	----

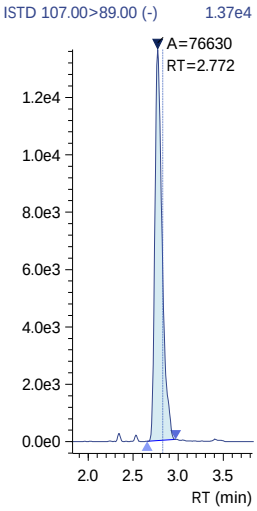
Perchlorate

Conc 9.7360
R#1 22.53 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 11:57:47 AM

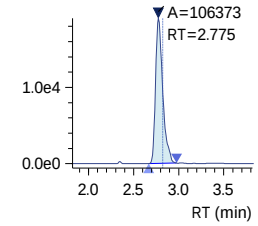
20210804_048

Sample ID: PERCHLORATE7
Date Acquired: 8/4/2021 7:35:26 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210804\Before\20210804_048.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

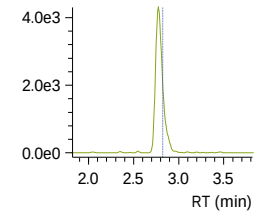
Perchlorate

Conc 9.4959
R#1 22.53 (0.00)

Q 99.00>83.00 (-) 1.91e4



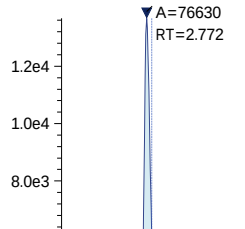
R1 101.00>85.00 (-) 4.30e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.37e4



Insight Report

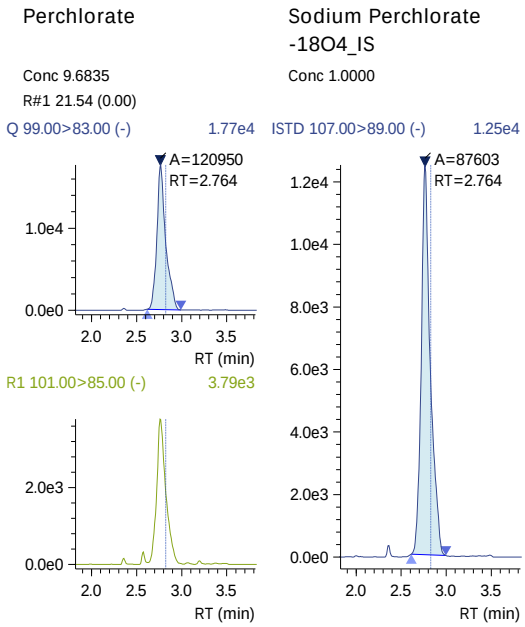
Printed at 8/19/2021 12:01:45 PM

Method File: I:\LCMS01\DATA\20210805\20210804.lcm
Project File: I:\LCMS01\DATA\20210805\20210805.damlp

20210805_006

Sample ID: PERCHLORATE7
Date Acquired: 8/5/2021 10:19:20 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\20210805_006.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.764	120950	87603	1	9.6835	ng/mL	10.0000	21.54
Sodium Perchlorate-18O4_IS	Auto	2.764	87603	87603	1	1.0000	ng/mL	1.0000	----



Insight Report

Printed at 8/19/2021 12:04:03 PM

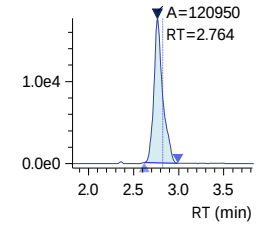
20210805_006

Sample ID: PERCHLORATE7
Date Acquired: 8/5/2021 10:19:20 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\Before\20210805_006.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

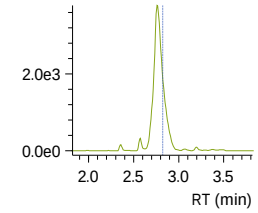
Perchlorate

Conc 10.0117
R#1 21.54 (0.00)

Q 99.00>83.00 (-) 1.77e4



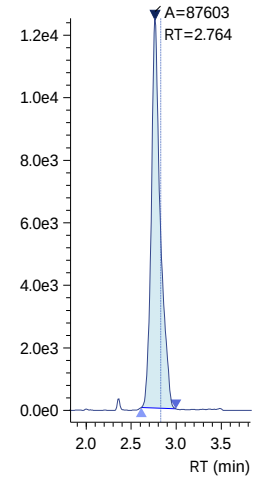
R1 101.00>85.00 (-) 3.79e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.25e4



Insight Report

Printed at 8/19/2021 12:01:45 PM

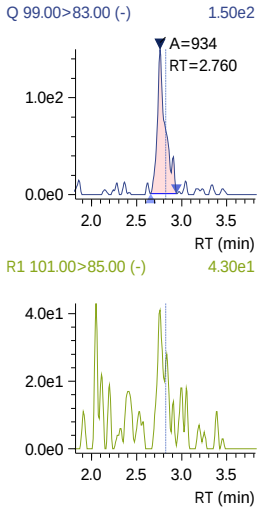
20210805_007

Sample ID: LODV
Date Acquired: 8/5/2021 10:27:55 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\20210805_007.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.760	934	104122	1	0.0629	ng/mL	----	27.70
Sodium Perchlorate-18O4 _IS	M	2.764	1041 22	104122	1	1.0000	ng/mL	----	----

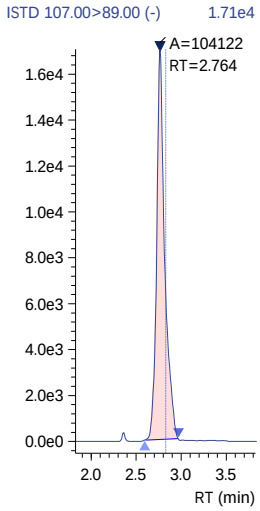
Perchlorate

Conc 0.0629
R#1 27.70 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 12:04:03 PM

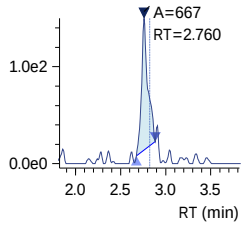
20210805_007

Sample ID: LODV
Date Acquired: 8/5/2021 10:27:55 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\Before\20210805_007.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

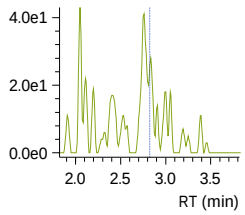
Perchlorate

Conc 0.0455
R#1 27.94 (0.00)

Q 99.00>83.00 (-) 1.50e2



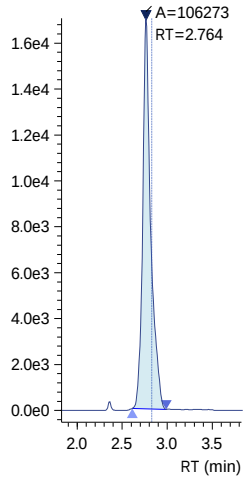
R1 101.00>85.00 (-) 4.30e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.71e4



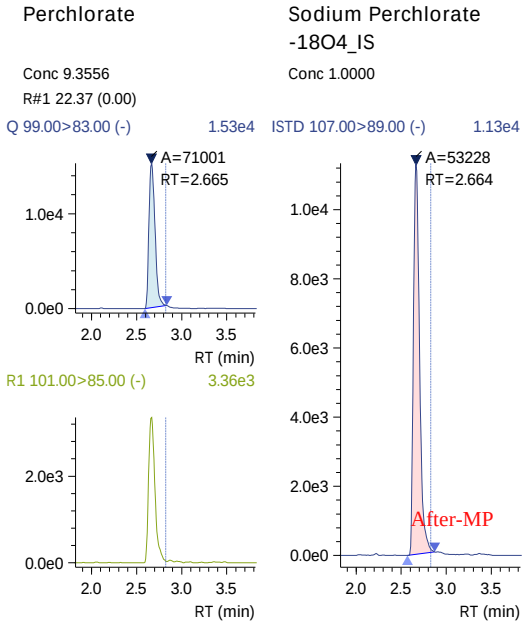
Insight Report

Printed at 8/19/2021 12:01:45 PM

20210805_025

Sample ID: PERCHLORATE7
Date Acquired: 8/5/2021 1:38:01 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\20210805_025.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.665	71001	53228	1	9.3556	ng/mL	10.0000	22.37
Sodium Perchlorate-18O4 _IS	M	2.664	53228	53228	1	1.0000	ng/mL	1.0000	----



Insight Report

Printed at 8/19/2021 12:04:03 PM

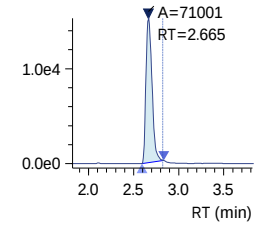
20210805_025

Sample ID: PERCHLORATE7
Date Acquired: 8/5/2021 1:38:01 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\Before\20210805_025.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

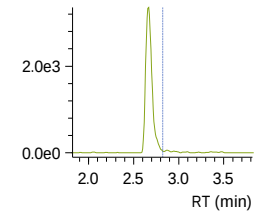
Perchlorate

Conc 0.0000
R#1 22.37 (0.00)

Q 99.00>83.00 (-) 1.53e4



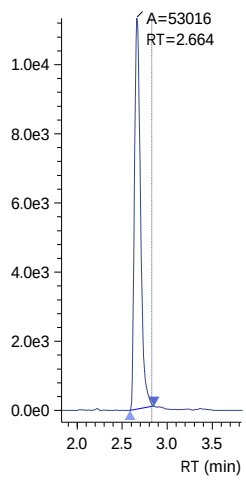
R1 101.00>85.00 (-) 3.36e3



Sodium Perchlorate -18O4_IS

Conc ----

ISTD 107.00>89.00 (-) 1.13e4



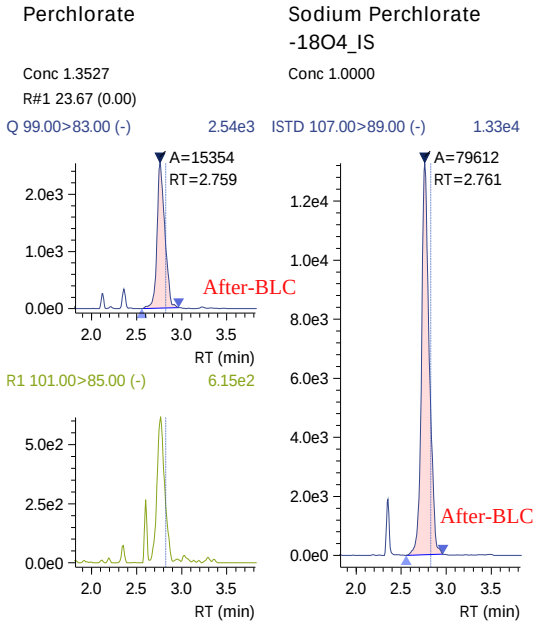
Insight Report

Printed at 8/19/2021 12:01:45 PM

20210805_032

Sample ID: E2100856-002X5
Date Acquired: 8/5/2021 2:43:42 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\20210805_032.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.759	15354	79612	1	1.3527	ng/mL	----	23.67
Sodium Perchlorate-18O4 _IS	M	2.761	79612	79612	1	1.0000	ng/mL	----	----



Insight Report

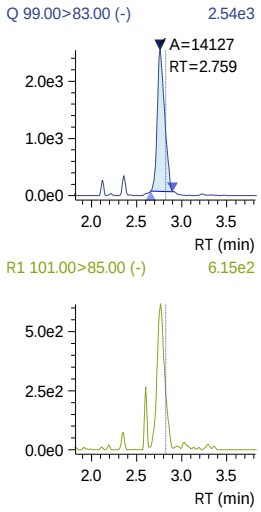
Printed at 8/19/2021 12:04:03 PM

20210805_032

Sample ID: E2100856-002X5
Date Acquired: 8/5/2021 2:43:42 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\Before\20210805_032.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 5

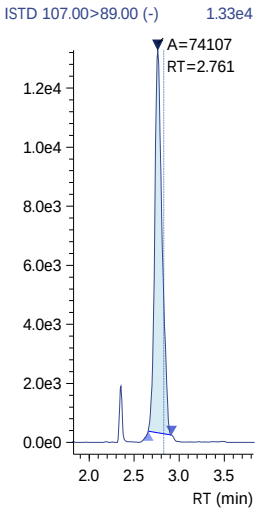
Perchlorate

Conc 1.3823
R#1 24.12 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 12:01:45 PM

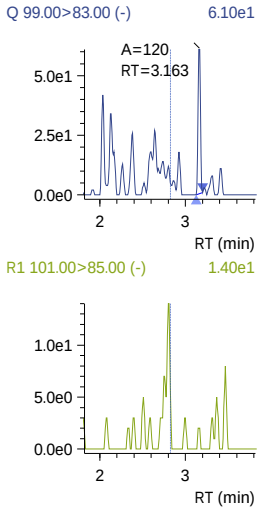
20210805_033

Sample ID: E2100856-004X5
Date Acquired: 8/5/2021 2:52:15 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\20210805_033.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	ND(W/B)	----	----	43729	1	----	ng/mL	----	----
Sodium Perchlorate-18O4_IS	Auto	2.763	43729	43729	1	1.0000	ng/mL	----	----

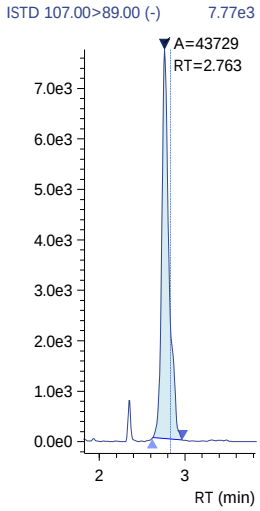
Perchlorate

Conc ----
R#1 ---- (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 12:04:03 PM

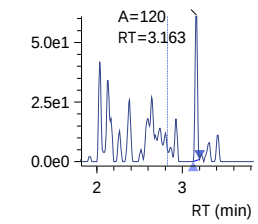
20210805_033

Sample ID: E2100856-004X5
Date Acquired: 8/5/2021 2:52:15 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\Before\20210805_033.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 5

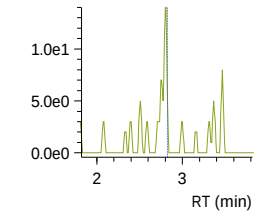
Perchlorate

Conc ----
R#1 ---- (0.00)

Q 99.00>83.00 (-) 6.10e1



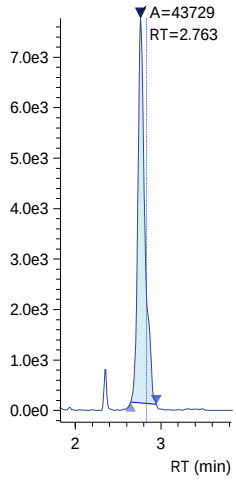
R1 101.00>85.00 (-) 1.40e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.77e3



Insight Report

Printed at 8/19/2021 12:01:45 PM

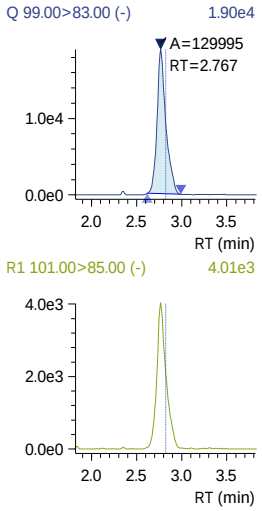
20210805_036

Sample ID: PERCHLORATE7
Date Acquired: 8/5/2021 3:58:39 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\20210805_036.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.767	129995	95586	1	9.5385	ng/mL	10.0000	21.20
Sodium Perchlorate-18O4_IS	Auto	2.764	95586	95586	1	1.0000	ng/mL	1.0000	----

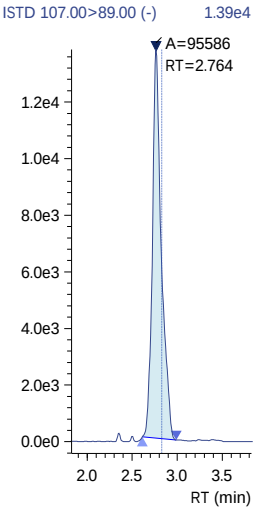
Perchlorate

Conc 9.5385
R#1 21.20 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 8/19/2021 12:04:03 PM

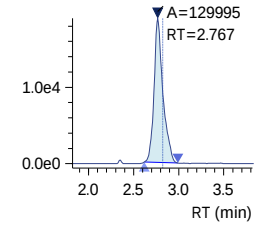
20210805_036

Sample ID: PERCHLORATE7
Date Acquired: 8/5/2021 3:58:39 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210805\Before\20210805_036.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

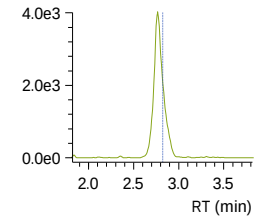
Perchlorate

Conc 9.8618
R#1 21.20 (0.00)

Q 99.00>83.00 (-) 1.90e4



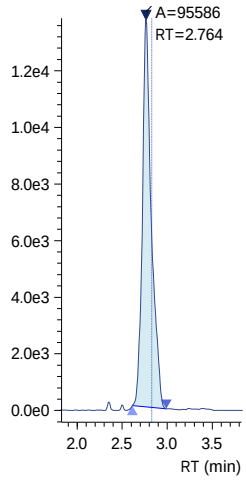
R1 101.00>85.00 (-) 4.01e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.39e4



10515 Research Drive
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Fax: (865) 573-8133

Client: Vicki Graves
APTIM
2410 Cherahala Blvd
Knoxville, TN 37932
US

Phone: 865-560-7818

Fax:

Identifier: 042SJ **Date Rec:** 10/14/2021 **Report Date:** 10/29/2021

Client Project #: 501032 **Client Project Name:** LHAAP 16 October 2021

Purchase Order #: 204818 CO-04

Test results provided for: CENSUS

Reviewed By:

Charles Slater

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Results relate only to the items tested and the sample(s) as received by the laboratory.

MICROBIAL INSIGHTS, INC.

10515 Research Dr., Knoxville, TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **APTIM**
Project: LHAAP 16 October 2021

MI Project Number: **042SJ**
Date Received: 10/14/2021

Sample Information

Client Sample ID:		**16WW58-211013**	**16WW57-211013**	**16WW16-211013**	**16WW35-211013**	**16WW36-211013**
Sample Date:		10/13/2021	10/13/2021	10/13/2021	10/13/2021	10/13/2021
Units:		cells/mL	cells/mL	cells/mL	cells/mL	cells/mL
Analyst/Reviewer:		CP/CS	CP/CS	CP/CS	CP/CS	CP/CS
Dechlorinating Bacteria						
Dehalococcoides	*DHC*	**8.05E+00**	**6.70E+00**	**1.00E-01 (J)**	**5.22E+01**	**1.02E+03**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

MICROBIAL INSIGHTS, INC.

10515 Research Dr., Knoxville, TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **APTIM**
Project: LHAAP 16 October 2021

MI Project Number: **042SJ**
Date Received: 10/14/2021

Sample Information

Client Sample ID:		**16WW25-211014**	**16WW26-211014**	**16WW29-211014**	**16WW55-211014**	**16WW56-211019**
Sample Date:		10/14/2021	10/14/2021	10/14/2021	10/14/2021	10/19/2021
Units:		cells/mL	cells/mL	cells/mL	cells/mL	cells/mL
Analyst/Reviewer:		CP/CS	CP/CS	CP/CS	CP/CS	CP/CS
Dechlorinating Bacteria						
Dehalococcoides	*DHC*	**3.70E+00**	**2.64E+01**	**3.24E+01**	<5.00E-01	**5.85E+00**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

MICROBIAL INSIGHTS, INC.

10515 Research Dr., Knoxville, TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **APTIM**
Project: LHAAP 16 October 2021

MI Project Number: **042SJ**
Date Received: 10/14/2021

Sample Information

Client Sample ID:		**16WW22-211019**	**16WW41-211019**	**16WW48-211019**
Sample Date:		10/19/2021	10/19/2021	10/19/2021
Units:		cells/mL	cells/mL	cells/mL
Analyst/Reviewer:		CP/CS	CP/CS	CP/CS
Dechlorinating Bacteria				
Dehalococcoides	*DHC*	**5.11E+01**	<5.00E-01	**9.23E+02**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received **10/14/2021**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	10/14/2021	10/27/2021	0 °C	109%	non-detect	non-detect

Samples Received **10/15/2021**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	10/20/2021	10/27/2021	0 °C	107%	non-detect	non-detect

Samples Received **10/20/2021**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	10/20/2021	10/27/2021	0 °C	98%	non-detect	non-detect

HS21100785 Longhorn Army Ammunition Plant
16 October 2021 Cover Page

ALS WO# HS21100785

ALS Environmental
ALS Group USA, Corp
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WorkOrder: HS21100785

Longhorn Army Ammunition Plant 16 October 2021

Aptim Environmental & Infrastucture, Inc.

Vicki Graves
10333 Richmond Ave Ste 1030
Houston TX 77042

22-Nov-2021

HS21100785 Longhorn Army Ammunition Plant
16 October 2021 Final

ALS WO# HS21100785

10450 Stancliff Rd. Suite 210
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October 31, 2021

Vicki Graves
Aptim Environmental & Infrastucture, Inc.
10333 Richmond Ave
Ste 1030
Houston, TX 77042

Work Order: **HS21100785**

Laboratory Results for: **Longhorn Army Ammunition Plant 16 October 2021**

Dear Vicki Graves ,

ALS Environmental received 9 sample(s) on Oct 14, 2021 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
Ragen Giga
Project Manager

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
Work Order: HS21100785

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21100785-01	16WW58-211013	Groundwater		13-Oct-2021 07:45	14-Oct-2021 10:00	☐
HS21100785-02	16WW57-211013	Groundwater		13-Oct-2021 08:35	14-Oct-2021 10:00	☐
HS21100785-03	16WW16-211013	Groundwater		13-Oct-2021 09:35	14-Oct-2021 10:00	☐
HS21100785-04	16WW35-211013	Groundwater		13-Oct-2021 10:25	14-Oct-2021 10:00	☐
HS21100785-05	16WW36-211013	Groundwater		13-Oct-2021 11:10	14-Oct-2021 10:00	☐
HS21100785-06	16WW23-211013	Groundwater		13-Oct-2021 12:05	14-Oct-2021 10:00	☐
HS21100785-07	16WW24-211013	Groundwater		13-Oct-2021 12:45	14-Oct-2021 10:00	☐
HS21100785-08	16RW02-211013	Groundwater		13-Oct-2021 13:25	14-Oct-2021 10:00	☐
HS21100785-09	Trip Blank-211013	Water	CG-082521-469	13-Oct-2021 00:00	14-Oct-2021 10:00	☐

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc. **CASE NARRATIVE**
Project: Longhorn Army Ammunition Plant 16 October 2021
Work Order: HS21100785

GC Semivolatiles by Method RSK-175

Batch ID: R394121

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Volatiles by Method SW8260

Batch ID: R393990

Sample ID: HS21101100-03MS

- MS and MSD are for an unrelated sample

Sample ID: HS21101118-03MS

- MS and MSD are for an unrelated sample

Batch ID: R393998,R393999

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SM5310B

Batch ID: R394147,R394342,R394413

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SM2320B

Batch ID: R393972

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW9056

Batch ID: R393482

Sample ID: 16WW35-211013 (HS21100785-04)

- Sample ran at 5X due to high concentration of Sulfate

Sample ID: 16WW36-211013 (HS21100785-05)

- Sample ran at 5X due to high concentration of Sulfate

Sample ID: 16WW57-211013 (HS21100785-02)

- Sample ran at 5X due to high concentration of Sulfate

Batch ID: R394571

Sample ID: HS21101035-01MS

- MS and MSD are for an unrelated sample (Sulfate)

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
Sample ID: 16WW58-211013
Collection Date: 13-Oct-2021 07:45

ANALYTICAL REPORT
WorkOrder:HS21100785
Lab ID:HS21100785-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	5.0	U	1.5	5.0	5.0	ug/L	5	22-Oct-2021 05:43
1,1-Dichloroethene	2.5	U	1.0	2.5	5.0	ug/L	5	22-Oct-2021 05:43
1,2-Dichloroethane	2.5	U	1.0	2.5	5.0	ug/L	5	22-Oct-2021 05:43
cis-1,2-Dichloroethene	**120**		**1.0**	**2.5**	**5.0**	**ug/L**	5	22-Oct-2021 05:43
Methylene chloride	5.0	U	2.0	5.0	10	ug/L	5	22-Oct-2021 05:43
Trichloroethene	**3,300**		**5.0**	**12**	**25**	**ug/L**	25	22-Oct-2021 06:04
Vinyl chloride	2.5	U	1.0	2.5	5.0	ug/L	5	22-Oct-2021 05:43
Surr: 1,2-Dichloroethane-d4	*103*			**0**	*81-118*	*%REC*	*5*	*22-Oct-2021 05:43*
Surr: 1,2-Dichloroethane-d4	*101*			**0**	*81-118*	*%REC*	*25*	*22-Oct-2021 06:04*
Surr: 4-Bromofluorobenzene	*98.0*			**0**	*85-114*	*%REC*	*5*	*22-Oct-2021 05:43*
Surr: 4-Bromofluorobenzene	*99.9*			**0**	*85-114*	*%REC*	*25*	*22-Oct-2021 06:04*
Surr: Dibromofluoromethane	*99.7*			**0**	*80-119*	*%REC*	*5*	*22-Oct-2021 05:43*
Surr: Dibromofluoromethane	*97.7*			**0**	*80-119*	*%REC*	*25*	*22-Oct-2021 06:04*
Surr: Toluene-d8	*98.3*			**0**	*89-112*	*%REC*	*5*	*22-Oct-2021 05:43*
Surr: Toluene-d8	*98.9*			**0**	*89-112*	*%REC*	*25*	*22-Oct-2021 06:04*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	22-Oct-2021 10:41
Ethene	**0.00314**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	22-Oct-2021 10:41
Methane	**0.00167**		**0.000107**	**0.000250**	**0.000500**	**mg/L**	1	22-Oct-2021 10:41
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**162**		**5.00**	**5.00**	**5.00**	**mg/L**	1	22-Oct-2021 01:10
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**5.50**		**0.500**	**1.00**	**1.00**	**mg/L**	1	25-Oct-2021 14:17
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Bromide	0.100	U	0.0300	0.100	0.100	mg/L	1	15-Oct-2021 01:47
Nitrogen, Nitrate (As N)	0.100	U	0.0300	0.100	0.100	mg/L	1	15-Oct-2021 01:47
Sulfate	**194**		**1.00**	**2.50**	**2.50**	**mg/L**	5	29-Oct-2021 20:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21100785
Sample ID: 16WW57-211013 Lab ID:HS21100785-02
Collection Date: 13-Oct-2021 08:35 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	22-Oct-2021 05:22
1,1-Dichloroethene	**1.2**		**0.20**	**0.50**	**1.0**	**ug/L**	1	22-Oct-2021 05:22
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 05:22
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 05:22
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	22-Oct-2021 05:22
Trichloroethene	**75**		**0.20**	**0.50**	**1.0**	**ug/L**	1	22-Oct-2021 05:22
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 05:22
Surr: 1,2-Dichloroethane-d4	*101*			**0**	*81-118*	*%REC*	*1*	*22-Oct-2021 05:22*
Surr: 4-Bromofluorobenzene	*99.0*			**0**	*85-114*	*%REC*	*1*	*22-Oct-2021 05:22*
Surr: Dibromofluoromethane	*100*			**0**	*80-119*	*%REC*	*1*	*22-Oct-2021 05:22*
Surr: Toluene-d8	*99.4*			**0**	*89-112*	*%REC*	*1*	*22-Oct-2021 05:22*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	22-Oct-2021 10:51
Ethene	**0.00195**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	22-Oct-2021 10:51
Methane	**0.00143**		**0.000107**	**0.000250**	**0.000500**	**mg/L**	1	22-Oct-2021 10:51
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**164**		**5.00**	**5.00**	**5.00**	**mg/L**	1	22-Oct-2021 01:15
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**19.0**		**0.500**	**1.00**	**1.00**	**mg/L**	1	27-Oct-2021 09:12
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Bromide	0.500	U	0.150	0.500	0.500	mg/L	5	15-Oct-2021 01:55
Nitrogen, Nitrate (As N)	0.500	U	0.150	0.500	0.500	mg/L	5	15-Oct-2021 01:55
Sulfate	**2,250**		**10.0**	**25.0**	**25.0**	**mg/L**	50	29-Oct-2021 20:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21100785
Sample ID: 16WW16-211013 Lab ID:HS21100785-03
Collection Date: 13-Oct-2021 09:35 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	25	U	7.5	25	25	ug/L	25	22-Oct-2021 06:25
1,1-Dichloroethene	**33**		**5.0**	**12**	**25**	**ug/L**	25	22-Oct-2021 06:25
1,2-Dichloroethane	**41**		**5.0**	**12**	**25**	**ug/L**	25	22-Oct-2021 06:25
cis-1,2-Dichloroethene	**18,000**		**50**	**120**	**250**	**ug/L**	250	22-Oct-2021 06:46
Methylene chloride	25	U	10	25	50	ug/L	25	22-Oct-2021 06:25
Trichloroethene	**34,000**		**50**	**120**	**250**	**ug/L**	250	22-Oct-2021 06:46
Vinyl chloride	**200**		**5.0**	**12**	**25**	**ug/L**	25	22-Oct-2021 06:25
Surr: 1,2-Dichloroethane-d4	*97.6*			**0**	*81-118*	*%REC*	*25*	*22-Oct-2021 06:25*
Surr: 1,2-Dichloroethane-d4	*98.4*			**0**	*81-118*	*%REC*	*250*	*22-Oct-2021 06:46*
Surr: 4-Bromofluorobenzene	*98.7*			**0**	*85-114*	*%REC*	*25*	*22-Oct-2021 06:25*
Surr: 4-Bromofluorobenzene	*97.5*			**0**	*85-114*	*%REC*	*250*	*22-Oct-2021 06:46*
Surr: Dibromofluoromethane	*95.4*			**0**	*80-119*	*%REC*	*25*	*22-Oct-2021 06:25*
Surr: Dibromofluoromethane	*98.0*			**0**	*80-119*	*%REC*	*250*	*22-Oct-2021 06:46*
Surr: Toluene-d8	*98.0*			**0**	*89-112*	*%REC*	*25*	*22-Oct-2021 06:25*
Surr: Toluene-d8	*99.2*			**0**	*89-112*	*%REC*	*250*	*22-Oct-2021 06:46*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	**0.00229**		**0.000144**	**0.000500**	**0.00100**	**mg/L**	1	22-Oct-2021 10:58
Ethene	**0.00329**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	22-Oct-2021 10:58
Methane	**0.406**		**0.00268**	**0.00625**	**0.0125**	**mg/L**	25	22-Oct-2021 14:04
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**365**		**5.00**	**5.00**	**5.00**	**mg/L**	1	22-Oct-2021 01:39
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**6.66**		**0.500**	**1.00**	**1.00**	**mg/L**	1	27-Oct-2021 09:28
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Bromide	0.100	U	0.0300	0.100	0.100	mg/L	1	15-Oct-2021 02:02
Nitrogen, Nitrate (As N)	0.100	U	0.0300	0.100	0.100	mg/L	1	15-Oct-2021 02:02
Sulfate	**192**		**1.00**	**2.50**	**2.50**	**mg/L**	5	29-Oct-2021 20:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21100785
Sample ID: 16WW35-211013 Lab ID:HS21100785-04
Collection Date: 13-Oct-2021 10:25 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	10	U	3.0	10	10	ug/L	10	22-Oct-2021 07:07
1,1-Dichloroethene	**72**		**2.0**	**5.0**	**10**	**ug/L**	10	22-Oct-2021 07:07
1,2-Dichloroethane	5.0	U	2.0	5.0	10	ug/L	10	22-Oct-2021 07:07
cis-1,2-Dichloroethene	**5,100**		**20**	**50**	**100**	**ug/L**	100	22-Oct-2021 16:41
Methylene chloride	10	U	4.0	10	20	ug/L	10	22-Oct-2021 07:07
Trichloroethene	**9,700**		**20**	**50**	**100**	**ug/L**	100	22-Oct-2021 16:41
Vinyl chloride	**39**		**2.0**	**5.0**	**10**	**ug/L**	10	22-Oct-2021 07:07
Surr: 1,2-Dichloroethane-d4	*97.2*			**0**	*81-118*	*%REC*	*100*	*22-Oct-2021 16:41*
Surr: 1,2-Dichloroethane-d4	*99.3*			**0**	*81-118*	*%REC*	*10*	*22-Oct-2021 07:07*
Surr: 4-Bromofluorobenzene	*98.6*			**0**	*85-114*	*%REC*	*100*	*22-Oct-2021 16:41*
Surr: 4-Bromofluorobenzene	*99.1*			**0**	*85-114*	*%REC*	*10*	*22-Oct-2021 07:07*
Surr: Dibromofluoromethane	*96.8*			**0**	*80-119*	*%REC*	*100*	*22-Oct-2021 16:41*
Surr: Dibromofluoromethane	*98.8*			**0**	*80-119*	*%REC*	*10*	*22-Oct-2021 07:07*
Surr: Toluene-d8	*101*			**0**	*89-112*	*%REC*	*100*	*22-Oct-2021 16:41*
Surr: Toluene-d8	*97.5*			**0**	*89-112*	*%REC*	*10*	*22-Oct-2021 07:07*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	22-Oct-2021 11:09
Ethene	**0.00530**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	22-Oct-2021 11:09
Methane	**0.0498**		**0.000535**	**0.00125**	**0.00250**	**mg/L**	5	22-Oct-2021 14:13
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**1,020**		**5.00**	**5.00**	**5.00**	**mg/L**	1	22-Oct-2021 01:47
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: MZD
Organic Carbon, Total	**52.2**		**1.00**	**2.00**	**2.00**	**mg/L**	2	28-Oct-2021 11:14
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Bromide	0.500	U	0.150	0.500	0.500	mg/L	5	15-Oct-2021 02:10
Nitrogen, Nitrate (As N)	0.500	U	0.150	0.500	0.500	mg/L	5	15-Oct-2021 02:10
Sulfate	**8,550**		**100**	**250**	**250**	**mg/L**	500	29-Oct-2021 20:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21100785
Sample ID: 16WW36-211013 Lab ID:HS21100785-05
Collection Date: 13-Oct-2021 11:10 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	10	U	3.0	10	10	ug/L	10	23-Oct-2021 01:06
1,1-Dichloroethene	**39**		**2.0**	**5.0**	**10**	**ug/L**	10	23-Oct-2021 01:06
1,2-Dichloroethane	**10**		**2.0**	**5.0**	**10**	**ug/L**	10	23-Oct-2021 01:06
cis-1,2-Dichloroethene	**8,700**		**20**	**50**	**100**	**ug/L**	100	23-Oct-2021 02:09
Methylene chloride	10	U	4.0	10	20	ug/L	10	23-Oct-2021 01:06
Trichloroethene	**8,100**		**20**	**50**	**100**	**ug/L**	100	23-Oct-2021 02:09
Vinyl chloride	**43**		**2.0**	**5.0**	**10**	**ug/L**	10	23-Oct-2021 01:06
Surr: 1,2-Dichloroethane-d4	*94.9*			**0**	*81-118*	*%REC*	*10*	*23-Oct-2021 01:06*
Surr: 1,2-Dichloroethane-d4	*97.4*			**0**	*81-118*	*%REC*	*100*	*23-Oct-2021 02:09*
Surr: 4-Bromofluorobenzene	*98.0*			**0**	*85-114*	*%REC*	*10*	*23-Oct-2021 01:06*
Surr: 4-Bromofluorobenzene	*96.5*			**0**	*85-114*	*%REC*	*100*	*23-Oct-2021 02:09*
Surr: Dibromofluoromethane	*95.2*			**0**	*80-119*	*%REC*	*10*	*23-Oct-2021 01:06*
Surr: Dibromofluoromethane	*96.6*			**0**	*80-119*	*%REC*	*100*	*23-Oct-2021 02:09*
Surr: Toluene-d8	*98.1*			**0**	*89-112*	*%REC*	*10*	*23-Oct-2021 01:06*
Surr: Toluene-d8	*101*			**0**	*89-112*	*%REC*	*100*	*23-Oct-2021 02:09*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	22-Oct-2021 11:18
Ethene	**0.00254**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	22-Oct-2021 11:18
Methane	**0.0657**		**0.000535**	**0.00125**	**0.00250**	**mg/L**	5	22-Oct-2021 14:26
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**482**		**5.00**	**5.00**	**5.00**	**mg/L**	1	22-Oct-2021 01:53
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**21.6**		**0.500**	**1.00**	**1.00**	**mg/L**	1	27-Oct-2021 10:00
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Bromide	0.500	U	0.150	0.500	0.500	mg/L	5	15-Oct-2021 02:17
Nitrogen, Nitrate (As N)	0.500	U	0.150	0.500	0.500	mg/L	5	15-Oct-2021 02:17
Sulfate	**2,910**		**10.0**	**25.0**	**25.0**	**mg/L**	50	29-Oct-2021 20:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
Sample ID: 16WW23-211013
Collection Date: 13-Oct-2021 12:05

ANALYTICAL REPORT
WorkOrder:HS21100785
Lab ID:HS21100785-06
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	22-Oct-2021 04:19
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 04:19
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 04:19
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 04:19
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	22-Oct-2021 04:19
Trichloroethene	**1.8**		**0.20**	**0.50**	**1.0**	**ug/L**	1	22-Oct-2021 04:19
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 04:19
Surr: 1,2-Dichloroethane-d4	*99.5*			**0**	*81-118*	*%REC*	*1*	*22-Oct-2021 04:19*
Surr: 4-Bromofluorobenzene	*97.8*			**0**	*85-114*	*%REC*	*1*	*22-Oct-2021 04:19*
Surr: Dibromofluoromethane	*98.8*			**0**	*80-119*	*%REC*	*1*	*22-Oct-2021 04:19*
Surr: Toluene-d8	*98.5*			**0**	*89-112*	*%REC*	*1*	*22-Oct-2021 04:19*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21100785
Sample ID: 16WW24-211013 Lab ID:HS21100785-07
Collection Date: 13-Oct-2021 12:45 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	22-Oct-2021 04:40
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 04:40
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 04:40
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 04:40
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	22-Oct-2021 04:40
Trichloroethene	**1.2**		**0.20**	**0.50**	**1.0**	**ug/L**	1	22-Oct-2021 04:40
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 04:40
Surr: 1,2-Dichloroethane-d4	*97.1*			**0**	*81-118*	*%REC*	*1*	*22-Oct-2021 04:40*
Surr: 4-Bromofluorobenzene	*104*			**0**	*85-114*	*%REC*	*1*	*22-Oct-2021 04:40*
Surr: Dibromofluoromethane	*95.6*			**0**	*80-119*	*%REC*	*1*	*22-Oct-2021 04:40*
Surr: Toluene-d8	*100*			**0**	*89-112*	*%REC*	*1*	*22-Oct-2021 04:40*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21100785
Sample ID: 16RW02-211013 Lab ID:HS21100785-08
Collection Date: 13-Oct-2021 13:25 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	22-Oct-2021 05:01
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 05:01
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 05:01
cis-1,2-Dichloroethene	**0.80**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	22-Oct-2021 05:01
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	22-Oct-2021 05:01
Trichloroethene	**2.7**		**0.20**	**0.50**	**1.0**	**ug/L**	1	22-Oct-2021 05:01
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 05:01
Surr: 1,2-Dichloroethane-d4	*98.0*			**0**	*81-118*	*%REC*	*1*	*22-Oct-2021 05:01*
Surr: 4-Bromofluorobenzene	*100*			**0**	*85-114*	*%REC*	*1*	*22-Oct-2021 05:01*
Surr: Dibromofluoromethane	*97.7*			**0**	*80-119*	*%REC*	*1*	*22-Oct-2021 05:01*
Surr: Toluene-d8	*99.6*			**0**	*89-112*	*%REC*	*1*	*22-Oct-2021 05:01*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21100785
Sample ID: Trip Blank-211013 Lab ID:HS21100785-09
Collection Date: 13-Oct-2021 00:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	22-Oct-2021 00:06
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 00:06
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 00:06
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 00:06
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	22-Oct-2021 00:06
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 00:06
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	22-Oct-2021 00:06
Surr: 1,2-Dichloroethane-d4	*97.0*			**0**	*81-118*	*%REC*	*1*	*22-Oct-2021 00:06*
Surr: 4-Bromofluorobenzene	*99.3*			**0**	*85-114*	*%REC*	*1*	*22-Oct-2021 00:06*
Surr: Dibromofluoromethane	*97.1*			**0**	*80-119*	*%REC*	*1*	*22-Oct-2021 00:06*
Surr: Toluene-d8	*99.6*			**0**	*89-112*	*%REC*	*1*	*22-Oct-2021 00:06*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100785

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R393482 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Groundwater	
HS21100785-01	16WW58-211013	13 Oct 2021 07:45			15 Oct 2021 01:47	1
HS21100785-02	16WW57-211013	13 Oct 2021 08:35			15 Oct 2021 01:55	5
HS21100785-03	16WW16-211013	13 Oct 2021 09:35			15 Oct 2021 02:02	1
HS21100785-04	16WW35-211013	13 Oct 2021 10:25			15 Oct 2021 02:10	5
HS21100785-05	16WW36-211013	13 Oct 2021 11:10			15 Oct 2021 02:17	5
Batch ID: R393972 (0)	**Test Name :** ALKALINITY BY SM 2320B-2011				**Matrix:** Groundwater	
HS21100785-01	16WW58-211013	13 Oct 2021 07:45			22 Oct 2021 01:10	1
HS21100785-02	16WW57-211013	13 Oct 2021 08:35			22 Oct 2021 01:15	1
HS21100785-03	16WW16-211013	13 Oct 2021 09:35			22 Oct 2021 01:39	1
HS21100785-04	16WW35-211013	13 Oct 2021 10:25			22 Oct 2021 01:47	1
HS21100785-05	16WW36-211013	13 Oct 2021 11:10			22 Oct 2021 01:53	1
Batch ID: R393990 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS21100785-04	16WW35-211013	13 Oct 2021 10:25			22 Oct 2021 16:41	100
Batch ID: R393998 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS21100785-09	Trip Blank-211013	13 Oct 2021 00:00			22 Oct 2021 00:06	1
Batch ID: R393998 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS21100785-01	16WW58-211013	13 Oct 2021 07:45			22 Oct 2021 06:04	25
HS21100785-01	16WW58-211013	13 Oct 2021 07:45			22 Oct 2021 05:43	5
HS21100785-02	16WW57-211013	13 Oct 2021 08:35			22 Oct 2021 05:22	1
HS21100785-03	16WW16-211013	13 Oct 2021 09:35			22 Oct 2021 06:46	250
HS21100785-03	16WW16-211013	13 Oct 2021 09:35			22 Oct 2021 06:25	25
HS21100785-04	16WW35-211013	13 Oct 2021 10:25			22 Oct 2021 07:07	10
HS21100785-06	16WW23-211013	13 Oct 2021 12:05			22 Oct 2021 04:19	1
HS21100785-07	16WW24-211013	13 Oct 2021 12:45			22 Oct 2021 04:40	1
HS21100785-08	16RW02-211013	13 Oct 2021 13:25			22 Oct 2021 05:01	1
Batch ID: R393999 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS21100785-05	16WW36-211013	13 Oct 2021 11:10			23 Oct 2021 02:09	100
HS21100785-05	16WW36-211013	13 Oct 2021 11:10			23 Oct 2021 01:06	10
Batch ID: R394121 (0)	**Test Name :** DISSOLVED GASES BY RSK-175				**Matrix:** Groundwater	
HS21100785-01	16WW58-211013	13 Oct 2021 07:45			22 Oct 2021 10:41	1
HS21100785-02	16WW57-211013	13 Oct 2021 08:35			22 Oct 2021 10:51	1
HS21100785-03	16WW16-211013	13 Oct 2021 09:35			22 Oct 2021 14:04	25
HS21100785-03	16WW16-211013	13 Oct 2021 09:35			22 Oct 2021 10:58	1
HS21100785-04	16WW35-211013	13 Oct 2021 10:25			22 Oct 2021 14:13	5
HS21100785-04	16WW35-211013	13 Oct 2021 10:25			22 Oct 2021 11:09	1
HS21100785-05	16WW36-211013	13 Oct 2021 11:10			22 Oct 2021 14:26	5
HS21100785-05	16WW36-211013	13 Oct 2021 11:10			22 Oct 2021 11:18	1

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100785

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R394147 (0)	**Test Name :** TOTAL ORGANIC CARBON - SM5310B-2011				**Matrix:** Groundwater	
HS21100785-01	16WW58-211013	13 Oct 2021 07:45			25 Oct 2021 14:17	1
Batch ID: R394342 (0)	**Test Name :** TOTAL ORGANIC CARBON - SM5310B-2011				**Matrix:** Groundwater	
HS21100785-02	16WW57-211013	13 Oct 2021 08:35			27 Oct 2021 09:12	1
HS21100785-03	16WW16-211013	13 Oct 2021 09:35			27 Oct 2021 09:28	1
HS21100785-05	16WW36-211013	13 Oct 2021 11:10			27 Oct 2021 10:00	1
Batch ID: R394413 (0)	**Test Name :** TOTAL ORGANIC CARBON - SM5310B-2011				**Matrix:** Groundwater	
HS21100785-04	16WW35-211013	13 Oct 2021 10:25			28 Oct 2021 11:14	2
Batch ID: R394571 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Groundwater	
HS21100785-01	16WW58-211013	13 Oct 2021 07:45			29 Oct 2021 20:25	5
HS21100785-02	16WW57-211013	13 Oct 2021 08:35			29 Oct 2021 20:32	50
HS21100785-03	16WW16-211013	13 Oct 2021 09:35			29 Oct 2021 20:40	5
HS21100785-04	16WW35-211013	13 Oct 2021 10:25			29 Oct 2021 20:47	500
HS21100785-05	16WW36-211013	13 Oct 2021 11:10			29 Oct 2021 20:55	50

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100785

QC BATCH REPORT

Batch ID: R394121 (0) **Instrument:** FID-4 **Method:** DISSOLVED GASES BY RSK-175

MBLK Sample ID: **MBLK-211022** Units: **mg/L** Analysis Date: **22-Oct-2021 08:29**
Client ID: Run ID: **FID-4_394121** SeqNo: **6336306** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.000500	0.00100								U
Ethene	0.000500	0.00100								U
Methane	0.000250	0.000500								U

LCS Sample ID: **LCS-211022** Units: **mg/L** Analysis Date: **22-Oct-2021 08:48**
Client ID: Run ID: **FID-4_394121** SeqNo: **6336307** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.0181	0.00100	0.01804	0	100	75 - 125				
Ethene	0.0166	0.00100	0.0168	0	99.0	75 - 125				
Methane	0.00899	0.000500	0.009647	0	93.2	75 - 125				

LCSD Sample ID: **LCSD-211022** Units: **mg/L** Analysis Date: **22-Oct-2021 09:01**
Client ID: Run ID: **FID-4_394121** SeqNo: **6336308** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.0192	0.00100	0.01804	0	106	75 - 125	0.01812	5.76	30	
Ethene	0.0191	0.00100	0.0168	0	113	75 - 125	0.01662	13.7	30	
Methane	0.00880	0.000500	0.009647	0	91.2	75 - 125	0.008992	2.18	30	

DUP Sample ID: **HS21101100-05DUP** Units: **mg/L** Analysis Date: **22-Oct-2021 10:32**
Client ID: Run ID: **FID-4_394121** SeqNo: **6336311** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.000500	0.00100					0	0	30	U
Ethene	0.00158	0.00100					0.001921	19.3	30	
Methane	0.0202	0.000500					0.01918	4.96	30	

The following samples were analyzed in this batch: HS21100785-01 HS21100785-02 HS21100785-03 HS21100785-04 HS21100785-05

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100785

QC BATCH REPORT

Batch ID: R393990 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-211022** Units: **ug/L** Analysis Date: **22-Oct-2021 12:49**
Client ID: Run ID: **VOA6_393990** SeqNo: **6334848** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	0.50	1.0								U
Trichloroethene	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*48.1*	*1.0*	*50*	*0*	*96.2*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*49.56*	*1.0*	*50*	*0*	*99.1*	*85 - 114*				
Surr: Dibromofluoromethane	*48.31*	*1.0*	*50*	*0*	*96.6*	*80 - 119*				
Surr: Toluene-d8	*49.07*	*1.0*	*50*	*0*	*98.1*	*89 - 112*				

LCS Sample ID: **VLCSW-211022** Units: **ug/L** Analysis Date: **22-Oct-2021 12:07**
Client ID: Run ID: **VOA6_393990** SeqNo: **6334847** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	21.18	1.0	20	0	106	78 - 123				
Trichloroethene	19.53	1.0	20	0	97.7	79 - 123				
Surr: 1,2-Dichloroethane-d4	*53.47*	*1.0*	*50*	*0*	*107*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*51.99*	*1.0*	*50*	*0*	*104*	*85 - 114*				
Surr: Dibromofluoromethane	*52.48*	*1.0*	*50*	*0*	*105*	*80 - 119*				
Surr: Toluene-d8	*46.12*	*1.0*	*50*	*0*	*92.2*	*89 - 112*				

MS Sample ID: **HS21101118-03MS** Units: **ug/L** Analysis Date: **22-Oct-2021 15:59**
Client ID: Run ID: **VOA6_393990** SeqNo: **6334857** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	21.03	1.0	20	4.354	83.4	78 - 123				
Trichloroethene	52.38	1.0	20	35.85	82.7	79 - 123				
Surr: 1,2-Dichloroethane-d4	*45.66*	*1.0*	*50*	*0*	*91.3*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*51.39*	*1.0*	*50*	*0*	*103*	*85 - 114*				
Surr: Dibromofluoromethane	*47.77*	*1.0*	*50*	*0*	*95.5*	*80 - 119*				
Surr: Toluene-d8	*48.02*	*1.0*	*50*	*0*	*96.0*	*89 - 112*				

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100785

QC BATCH REPORT

Batch ID: R393990 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21101100-03MS** Units: **ug/L** Analysis Date: **22-Oct-2021 15:17**
Client ID: Run ID: **VOA6_393990** SeqNo: **6334855** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	15.11	1.0	20	0	75.6	78 - 123				S
Trichloroethene	16.21	1.0	20	0.9663	76.2	79 - 123				S
Surr: 1,2-Dichloroethane-d4	*47.96*	*1.0*	*50*	*0*	*95.9*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*50.62*	*1.0*	*50*	*0*	*101*	*85 - 114*				
Surr: Dibromofluoromethane	*46.57*	*1.0*	*50*	*0*	*93.1*	*80 - 119*				
Surr: Toluene-d8	*49.47*	*1.0*	*50*	*0*	*98.9*	*89 - 112*				

MSD Sample ID: **HS21101118-03MSD** Units: **ug/L** Analysis Date: **22-Oct-2021 16:20**
Client ID: Run ID: **VOA6_393990** SeqNo: **6334858** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	19.76	1.0	20	4.354	77.0	78 - 123	21.03	6.22	20	S
Trichloroethene	49.8	1.0	20	35.85	69.8	79 - 123	52.38	5.04	20	S
Surr: 1,2-Dichloroethane-d4	*47.94*	*1.0*	*50*	*0*	*95.9*	*81 - 118*	*45.66*	*4.87*	*20*	
Surr: 4-Bromofluorobenzene	*51.33*	*1.0*	*50*	*0*	*103*	*85 - 114*	*51.39*	*0.125*	*20*	
Surr: Dibromofluoromethane	*47.61*	*1.0*	*50*	*0*	*95.2*	*80 - 119*	*47.77*	*0.338*	*20*	
Surr: Toluene-d8	*47.56*	*1.0*	*50*	*0*	*95.1*	*89 - 112*	*48.02*	*0.962*	*20*	

MSD Sample ID: **HS21101100-03MSD** Units: **ug/L** Analysis Date: **22-Oct-2021 15:38**
Client ID: Run ID: **VOA6_393990** SeqNo: **6334856** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	16.91	1.0	20	0	84.6	78 - 123	15.11	11.2	20	
Trichloroethene	16.72	1.0	20	0.9663	78.8	79 - 123	16.21	3.11	20	S
Surr: 1,2-Dichloroethane-d4	*48.23*	*1.0*	*50*	*0*	*96.5*	*81 - 118*	*47.96*	*0.566*	*20*	
Surr: 4-Bromofluorobenzene	*50.81*	*1.0*	*50*	*0*	*102*	*85 - 114*	*50.62*	*0.362*	*20*	
Surr: Dibromofluoromethane	*48.56*	*1.0*	*50*	*0*	*97.1*	*80 - 119*	*46.57*	*4.19*	*20*	
Surr: Toluene-d8	*48.09*	*1.0*	*50*	*0*	*96.2*	*89 - 112*	*49.47*	*2.82*	*20*	

The following samples were analyzed in this batch: HS21100785-04

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100785

QC BATCH REPORT

Batch ID: R393998 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-211021** Units: **ug/L** Analysis Date: **21-Oct-2021 23:24**
Client ID: Run ID: **VOA6_393998** SeqNo: **6333288** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	1.0	1.0								U
1,1-Dichloroethene	0.50	1.0								U
1,2-Dichloroethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
Methylene chloride	1.0	2.0								U
Trichloroethene	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*48.39*	*1.0*	*50*	*0*	*96.8*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.69*	*1.0*	*50*	*0*	*97.4*	*85 - 114*				
Surr: Dibromofluoromethane	*48.53*	*1.0*	*50*	*0*	*97.1*	*80 - 119*				
Surr: Toluene-d8	*49.27*	*1.0*	*50*	*0*	*98.5*	*89 - 112*				

LCS Sample ID: **VLCSW-211021** Units: **ug/L** Analysis Date: **21-Oct-2021 22:42**
Client ID: Run ID: **VOA6_393998** SeqNo: **6333287** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	21.46	1.0	20	0	107	80 - 119				
1,1-Dichloroethene	19.26	1.0	20	0	96.3	71 - 131				
1,2-Dichloroethane	21.32	1.0	20	0	107	73 - 128				
cis-1,2-Dichloroethene	21.29	1.0	20	0	106	78 - 123				
Methylene chloride	22.17	2.0	20	0	111	74 - 124				
Trichloroethene	20.32	1.0	20	0	102	79 - 123				
Vinyl chloride	18.94	1.0	20	0	94.7	58 - 137				
Surr: 1,2-Dichloroethane-d4	*56.62*	*1.0*	*50*	*0*	*113*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*51.82*	*1.0*	*50*	*0*	*104*	*85 - 114*				
Surr: Dibromofluoromethane	*54.5*	*1.0*	*50*	*0*	*109*	*80 - 119*				
Surr: Toluene-d8	*47.14*	*1.0*	*50*	*0*	*94.3*	*89 - 112*				

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100785

QC BATCH REPORT

Batch ID: R393998 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21100668-01MS** Units: **ug/L** Analysis Date: **22-Oct-2021 01:09**
Client ID: Run ID: **VOA6_393998** SeqNo: **6333293** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	17.89	1.0	20	0	89.4	80 - 119				
1,1-Dichloroethene	15.81	1.0	20	0	79.0	71 - 131				
1,2-Dichloroethane	17.83	1.0	20	0	89.1	73 - 128				
cis-1,2-Dichloroethene	18.52	1.0	20	0.9323	87.9	78 - 123				
Methylene chloride	17.46	2.0	20	0	87.3	74 - 124				
Trichloroethene	23.54	1.0	20	5.654	89.4	79 - 123				
Vinyl chloride	13.95	1.0	20	0	69.7	58 - 137				
Surr: 1,2-Dichloroethane-d4	*49.54*	*1.0*	*50*	*0*	*99.1*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*51.45*	*1.0*	*50*	*0*	*103*	*85 - 114*				
Surr: Dibromofluoromethane	*48.86*	*1.0*	*50*	*0*	*97.7*	*80 - 119*				
Surr: Toluene-d8	*48.25*	*1.0*	*50*	*0*	*96.5*	*89 - 112*				

MSD Sample ID: **HS21100668-01MSD** Units: **ug/L** Analysis Date: **22-Oct-2021 01:30**
Client ID: Run ID: **VOA6_393998** SeqNo: **6333294** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	17.33	1.0	20	0	86.7	80 - 119	17.89	3.17	20	
1,1-Dichloroethene	15.19	1.0	20	0	75.9	71 - 131	15.81	4	20	
1,2-Dichloroethane	17.93	1.0	20	0	89.6	73 - 128	17.83	0.561	20	
cis-1,2-Dichloroethene	18.05	1.0	20	0.9323	85.6	78 - 123	18.52	2.59	20	
Methylene chloride	17.03	2.0	20	0	85.2	74 - 124	17.46	2.47	20	
Trichloroethene	22.37	1.0	20	5.654	83.6	79 - 123	23.54	5.09	20	
Vinyl chloride	14.3	1.0	20	0	71.5	58 - 137	13.95	2.51	20	
Surr: 1,2-Dichloroethane-d4	*47.83*	*1.0*	*50*	*0*	*95.7*	*81 - 118*	*49.54*	*3.51*	*20*	
Surr: 4-Bromofluorobenzene	*50.84*	*1.0*	*50*	*0*	*102*	*85 - 114*	*51.45*	*1.2*	*20*	
Surr: Dibromofluoromethane	*49.02*	*1.0*	*50*	*0*	*98.0*	*80 - 119*	*48.86*	*0.313*	*20*	
Surr: Toluene-d8	*48.61*	*1.0*	*50*	*0*	*97.2*	*89 - 112*	*48.25*	*0.75*	*20*	

The following samples were analyzed in this batch:

HS21100785-01	HS21100785-02	HS21100785-03	HS21100785-04
HS21100785-06	HS21100785-07	HS21100785-08	HS21100785-09

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100785

QC BATCH REPORT

Batch ID: R393999 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-211022** Units: **ug/L** Analysis Date: **23-Oct-2021 00:03**
Client ID: Run ID: **VOA6_393999** SeqNo: **6334909** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	1.0	1.0								U
1,1-Dichloroethene	0.50	1.0								U
1,2-Dichloroethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
Methylene chloride	1.0	2.0								U
Trichloroethene	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*49.79*	*1.0*	*50*	*0*	*99.6*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*50.03*	*1.0*	*50*	*0*	*100*	*85 - 114*				
Surr: Dibromofluoromethane	*48.91*	*1.0*	*50*	*0*	*97.8*	*80 - 119*				
Surr: Toluene-d8	*49.86*	*1.0*	*50*	*0*	*99.7*	*89 - 112*				

LCS Sample ID: **VLCSW-211022** Units: **ug/L** Analysis Date: **22-Oct-2021 23:21**
Client ID: Run ID: **VOA6_393999** SeqNo: **6334908** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	20.77	1.0	20	0	104	80 - 119				
1,1-Dichloroethene	21.24	1.0	20	0	106	71 - 131				
1,2-Dichloroethane	21.72	1.0	20	0	109	73 - 128				
cis-1,2-Dichloroethene	22.57	1.0	20	0	113	78 - 123				
Methylene chloride	23.84	2.0	20	0	119	74 - 124				
Trichloroethene	21.39	1.0	20	0	107	79 - 123				
Vinyl chloride	21.12	1.0	20	0	106	58 - 137				
Surr: 1,2-Dichloroethane-d4	*54.54*	*1.0*	*50*	*0*	*109*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*52.2*	*1.0*	*50*	*0*	*104*	*85 - 114*				
Surr: Dibromofluoromethane	*55.55*	*1.0*	*50*	*0*	*111*	*80 - 119*				
Surr: Toluene-d8	*47.38*	*1.0*	*50*	*0*	*94.8*	*89 - 112*				

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100785

QC BATCH REPORT

Batch ID: R393999 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21101144-10MS** Units: **ug/L** Analysis Date: **23-Oct-2021 01:27**
Client ID: Run ID: **VOA6_393999** SeqNo: **6334913** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	17.86	1.0	20	0	89.3	80 - 119				
1,1-Dichloroethene	15.88	1.0	20	0	79.4	71 - 131				
1,2-Dichloroethane	17.65	1.0	20	0	88.3	73 - 128				
cis-1,2-Dichloroethene	22.29	1.0	20	0.7577	108	78 - 123				
Methylene chloride	16.99	2.0	20	0	84.9	74 - 124				
Trichloroethene	25.53	1.0	20	6.202	96.6	79 - 123				
Vinyl chloride	14.18	1.0	20	0	70.9	58 - 137				
Surr: 1,2-Dichloroethane-d4	*47.1*	*1.0*	*50*	*0*	*94.2*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*51.19*	*1.0*	*50*	*0*	*102*	*85 - 114*				
Surr: Dibromofluoromethane	*46.65*	*1.0*	*50*	*0*	*93.3*	*80 - 119*				
Surr: Toluene-d8	*48.27*	*1.0*	*50*	*0*	*96.5*	*89 - 112*				

MSD Sample ID: **HS21101144-10MSD** Units: **ug/L** Analysis Date: **23-Oct-2021 01:48**
Client ID: Run ID: **VOA6_393999** SeqNo: **6334914** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	18.69	1.0	20	0	93.5	80 - 119	17.86	4.59	20	
1,1-Dichloroethene	15.89	1.0	20	0	79.4	71 - 131	15.88	0.0568	20	
1,2-Dichloroethane	18	1.0	20	0	90.0	73 - 128	17.65	1.93	20	
cis-1,2-Dichloroethene	18.32	1.0	20	0.7577	87.8	78 - 123	22.29	19.6	20	
Methylene chloride	17.27	2.0	20	0	86.4	74 - 124	16.99	1.65	20	
Trichloroethene	24.06	1.0	20	6.202	89.3	79 - 123	25.53	5.92	20	
Vinyl chloride	14.28	1.0	20	0	71.4	58 - 137	14.18	0.725	20	
Surr: 1,2-Dichloroethane-d4	*47.55*	*1.0*	*50*	*0*	*95.1*	*81 - 118*	*47.1*	*0.958*	*20*	
Surr: 4-Bromofluorobenzene	*50.63*	*1.0*	*50*	*0*	*101*	*85 - 114*	*51.19*	*1.09*	*20*	
Surr: Dibromofluoromethane	*46.25*	*1.0*	*50*	*0*	*92.5*	*80 - 119*	*46.65*	*0.864*	*20*	
Surr: Toluene-d8	*48.72*	*1.0*	*50*	*0*	*97.4*	*89 - 112*	*48.27*	*0.912*	*20*	

The following samples were analyzed in this batch: HS21100785-05

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100785

QC BATCH REPORT

Batch ID: R393482 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **15-Oct-2021 04:30**
Client ID: Run ID: **ICS-Integrion_393482** SeqNo: **6320519** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	0.100	0.100								U
Nitrogen, Nitrate (As N)	0.100	0.100								U

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **15-Oct-2021 04:38**
Client ID: Run ID: **ICS-Integrion_393482** SeqNo: **6320520** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	3.943	0.100	4	0	98.6	80 - 120				
Nitrogen, Nitrate (As N)	3.858	0.100	4	0	96.4	80 - 120				

MS Sample ID: **HS21100793-01MS** Units: **mg/L** Analysis Date: **15-Oct-2021 01:25**
Client ID: Run ID: **ICS-Integrion_393482** SeqNo: **6320507** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	1.924	0.100	2	0	96.2	80 - 120				
Nitrogen, Nitrate (As N)	1.914	0.100	2	0	95.7	80 - 120				

MSD Sample ID: **HS21100793-01MSD** Units: **mg/L** Analysis Date: **15-Oct-2021 01:33**
Client ID: Run ID: **ICS-Integrion_393482** SeqNo: **6320508** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	1.914	0.100	2	0	95.7	80 - 120	1.924	0.526	20	
Nitrogen, Nitrate (As N)	1.878	0.100	2	0	93.9	80 - 120	1.914	1.86	20	

The following samples were analyzed in this batch: HS21100785-01 HS21100785-02 HS21100785-03 HS21100785-04 HS21100785-05

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100785

QC BATCH REPORT

Batch ID: R393972 (0) **Instrument: ManTech01** **Method: ALKALINITY BY SM 2320B-2011**

MBLK Sample ID: **WBLKW2-211021** Units: **mg/L** Analysis Date: **21-Oct-2021 23:05**
Client ID: Run ID: **ManTech01_393972** SeqNo: **6332728** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	5.00	5.00								U

LCS Sample ID: **WLCS2-211021** Units: **mg/L** Analysis Date: **21-Oct-2021 22:32**
Client ID: Run ID: **ManTech01_393972** SeqNo: **6332724** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1014	5.00	1000	0	101	85 - 115				

LCSD Sample ID: **WLCSD2-211021** Units: **mg/L** Analysis Date: **21-Oct-2021 22:41**
Client ID: Run ID: **ManTech01_393972** SeqNo: **6332725** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1013	5.00	1000	0	101	85 - 115	1014	0.0878	20	

DUP Sample ID: **HS21100884-02DUP** Units: **mg/L** Analysis Date: **21-Oct-2021 23:18**
Client ID: Run ID: **ManTech01_393972** SeqNo: **6332730** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	350.4	5.00					347.6	0.785	20	

The following samples were analyzed in this batch: HS21100785-01 HS21100785-02 HS21100785-03 HS21100785-04 HS21100785-05

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100785

QC BATCH REPORT

Batch ID: R394147 (0) **Instrument:** TOC_04 **Method:** TOTAL ORGANIC CARBON - SM5310B-2011

MBLK Sample ID: **MBLK- 10252021** Units: **mg/L** Analysis Date: **25-Oct-2021 12:55**
Client ID: Run ID: **TOC_04_394147** SeqNo: **6336831** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	1.00	1.00								U

LCS Sample ID: **LCS- 10252021** Units: **mg/L** Analysis Date: **25-Oct-2021 13:07**
Client ID: Run ID: **TOC_04_394147** SeqNo: **6336832** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	9.275	1.00	10	0	92.8	85 - 115				

LCSD Sample ID: **LCSD- 10252021** Units: **mg/L** Analysis Date: **25-Oct-2021 13:18**
Client ID: Run ID: **TOC_04_394147** SeqNo: **6336833** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	9.169	1.00	10	0	91.7	85 - 115	9.275	1.15	20	

MS Sample ID: **HS21100785-01MS** Units: **mg/L** Analysis Date: **25-Oct-2021 14:32**
Client ID: **16WW58-211013** Run ID: **TOC_04_394147** SeqNo: **6336839** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	16.28	1.00	10	5.499	108	80 - 120				

The following samples were analyzed in this batch: HS21100785-01

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100785

QC BATCH REPORT

Batch ID: R394342 (0) **Instrument:** TOC_04 **Method:** TOTAL ORGANIC CARBON - SM5310B-2011

MBLK Sample ID: **MBLK-10262021** Units: **mg/L** Analysis Date: **27-Oct-2021 07:52**
Client ID: Run ID: **TOC_04_394342** SeqNo: **6341581** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	1.00	1.00								U

LCS Sample ID: **LCS-10262021** Units: **mg/L** Analysis Date: **27-Oct-2021 08:08**
Client ID: Run ID: **TOC_04_394342** SeqNo: **6341582** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.61	1.00	10	0	106	85 - 115				

LCSD Sample ID: **LCSD-10262021** Units: **mg/L** Analysis Date: **27-Oct-2021 08:24**
Client ID: Run ID: **TOC_04_394342** SeqNo: **6341583** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.6	1.00	10	0	106	85 - 115	10.61	0.0943	20	

MS Sample ID: **HS21101194-01MS** Units: **mg/L** Analysis Date: **27-Oct-2021 11:52**
Client ID: Run ID: **TOC_04_394342** SeqNo: **6341595** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	16.66	1.00	10	6.06	106	80 - 120				

The following samples were analyzed in this batch: HS21100785-02 HS21100785-03 HS21100785-05

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100785

QC BATCH REPORT

Batch ID: R394413 (0) **Instrument:** TOC_04 **Method:** TOTAL ORGANIC CARBON - SM5310B-2011

MBLK Sample ID: **MBLK-10272021** Units: **mg/L** Analysis Date: **28-Oct-2021 07:16**
Client ID: Run ID: **TOC_04_394413** SeqNo: **6343325** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	1.00	1.00								U

LCS Sample ID: **LCS-10272021** Units: **mg/L** Analysis Date: **28-Oct-2021 07:32**
Client ID: Run ID: **TOC_04_394413** SeqNo: **6343326** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.14	1.00	10	0	101	85 - 115				

LCSD Sample ID: **LCSD-10272021** Units: **mg/L** Analysis Date: **28-Oct-2021 07:48**
Client ID: Run ID: **TOC_04_394413** SeqNo: **6343327** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.16	1.00	10	0	102	85 - 115	10.14	0.197	20	

MS Sample ID: **HS21101427-19MS** Units: **mg/L** Analysis Date: **28-Oct-2021 08:20**
Client ID: Run ID: **TOC_04_394413** SeqNo: **6343329** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	106.7	10.0	100	2.513	104	80 - 120				

The following samples were analyzed in this batch: HS21100785-04

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100785

QC BATCH REPORT

Batch ID: R394571 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **29-Oct-2021 21:17**
Client ID: Run ID: **ICS-Integrion_394571** SeqNo: **6347006** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	0.500	0.500								U

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **29-Oct-2021 21:24**
Client ID: Run ID: **ICS-Integrion_394571** SeqNo: **6347007** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	20.09	0.500	20	0	100	80 - 120				

MS Sample ID: **HS21101035-01MS** Units: **mg/L** Analysis Date: **29-Oct-2021 21:39**
Client ID: Run ID: **ICS-Integrion_394571** SeqNo: **6347009** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	4018	25.0	500	3376	128	80 - 120				SO

MS Sample ID: **HS21100881-03MS** Units: **mg/L** Analysis Date: **29-Oct-2021 22:53**
Client ID: Run ID: **ICS-Integrion_394571** SeqNo: **6347019** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	457.5	5.00	100	342.5	115	80 - 120				

MSD Sample ID: **HS21101035-01MSD** Units: **mg/L** Analysis Date: **29-Oct-2021 21:47**
Client ID: Run ID: **ICS-Integrion_394571** SeqNo: **6347010** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	3971	25.0	500	3376	119	80 - 120	4018	1.17	20	O

MSD Sample ID: **HS21100881-03MSD** Units: **mg/L** Analysis Date: **29-Oct-2021 23:01**
Client ID: Run ID: **ICS-Integrion_394571** SeqNo: **6347020** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	444	5.00	100	342.5	102	80 - 120	457.5	2.99	20	

The following samples were analyzed in this batch: HS21100785-01 HS21100785-02 HS21100785-03 HS21100785-04 HS21100785-05

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: **HS21100785**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-33	30-Jun-2022
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2021-2022	31-Jul-2022
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2021-2022	30-Jun-2022
North Carolina	624-2021	31-Dec-2021
Texas	T104704231-21-28	30-Apr-2022

ALS Houston, US Date: 31-Oct-21

Sample Receipt Checklist

Work Order ID: HS21100785 **Date/Time Received:** **14-Oct-2021 10:00**

Client Name: CBI-Houston **Received by:** **Paresh M. Giga**

Completed By:	/S/ Paresh M. Giga	14-Oct-2021 14:20	**Reviewed by:**	/S/ Ragen Giga	15-Oct-2021 19:47
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **GW/Water** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	2 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:none
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	1.4C U/c	IR31
Cooler(s)/Kit(s):	47152	
Date/Time sample(s) sent to storage:	10/14/2021 14:35	

Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Ragen Giga

Page 1 of 1

Project: APTIM LONGHORN ARMY AMMN. PLANT (LHAAP) GROUNDWATER TREATMENT PLANT (GWTP) KARNACK, TEXAS	Project No. 501032
Job: **LHAAP 16 October 2021**	
Prepared By: Scott Beesinger	P.O. Number

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	VOC by SW 8260B	TOC by SM5310C	MEE by RSK 175	Anions (bromide, sulfate, nitrate) by SW9056 and Alkalinity by SM2320	Bromide by SW9056	Perchlorate by SW6850	Metals (arsenic, chromium, manganese, nickel, thallium) by SW6020				Remarks (Preservatives, etc.)	Lab I.D.#
16WW58-211013	WG	10/13/21/0745		9	X	X	X	X	X							
16WW57-211013	WG	10/13/21/0835		9	X	X	X	X	X							
16WW16-211013	WG	10/13/21/0935		9	X	X	X	X	X							
16WW35-211013	WG	10/13/21/1025		9	X	X	X	X	X							
16WW36-211013	WG	10/13/21/1110		9	X	X	X	X	X							
16WW23-211013	WG	10/13/21/1205		3	X											
16WW24-211013	WG	10/13/21/1245		3	X											
16RW02-211013	WG	10/13/21/1325		3	X											

HS21100785

Aptim Environmental & Infrastucture, Inc.

Longhorn Army Ammunition Plant 16 October 2021

Additional Remarks: Standard TAT on all parameters. Please email results to Vicki.Graves@aptim.com and invoices to fedinvoices@aptim.com

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
	10/13/21	1430		10/14/2021	10:50						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:

47152 1.40

+31

(Word) S:\I-ces\Forms\Chain of Custody - BiWeekly

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Ragen Giga

Page 1 of 1

Project: APTIM LONGHORN ARMY AMMN. PLANT (LHAAP) GROUNDWATER TREATMENT PLANT (GWTP) KARNACK, TEXAS	Project No. 501032
Job: **LHAAP 16 October 2021**	
Prepared By: Scott Beesinger	P.O. Number

Field Sample I.D. / Time	Sample Matrix	Date /	MS / MSD	No. OF CONTAINERS	VOC by SW 8260B	TOC by SM5310C	MEE by RSK 175	Anions (bromide, sulfate, nitrate) by SW9056 and Alkalinity by SM2320	Bromide by SW9056	Perchlorate by SW6850	Metals (arsenic, chromium, manganese, nickel, thallium) by SW6020				Remarks (Preservatives, etc.)	Lab I.D.#
			Analyses													
TRIP BLANK-211013	W	10/13/21		2	X											

HS21100785

Aptim Environmental & Infrastucture, Inc.
Longhorn Army Ammunition Plant 16 October 2021

Additional Remarks: Standard TAT on all parameters. Please email results to Vicki.Graves@aptim.com and invoices to fedinvoices@aptim.com

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	10/13/21	1430		10/14/2021	10:00						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:

(Word) S:\I-ces\Forms\Chain of Custody - BiWeekly

ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5856
Fax. +1 281 530 5887

47152

CUSTODY SEAL

Date: 10/13/21 Time: 1430
Name: Scott Beesinger
Company: B Hatt

Seal Broken By: SBH
Date: 10/14/21

47152

ORIGIN ID:SGRA (903) 930-6193
SCOTT BEESINGER
APEIM ENVIROMENTAL & INFASTRUCTURE
1203-B EAST GRAND AVE
PMB 202
MARSHALL, TX 75670
UNITED STATES US

SHIP DATE: 27SEP21
ACTWGT: 1.00 LB MAN
CAD: 0221247/CAFE3504
DIMS: 26x14x14 IN

TO SHIPPING DEPT
ALS LABORATORY GROUP
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099
(281) 530-5656

47152

REF: LHAAP 04 - RG

RMA:

FedEx Express

FedEx
TRK# 0221 5300 5222 6000

THU - 14 OCT AA
PRIORITY OVERNIGHT

AB SGRA

77099
TX-US
IAH

HS21100785 8260 Raw Data

ALS WO# HS21100785

MSVOA06 -Logbook

Batch: 46738
Date: 10-08-2021
Method: 8260
Comments:

Analyst: Presenta Cabascango
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status
1	BFB	TUNE	10-08-2021 12:47 pm	1.00	50 mL	50 mL	X100801.D	Liquid	Y
2	VSTD000.25	ICAL1	10-08-2021 01:08 pm	1.00	50 mL	50 mL	X100802.D	Liquid	Y
3	VSTD000.5	ICAL2	10-08-2021 01:50 pm	1.00	50 mL	50 mL	X100803.D	Liquid	Y
4	VSTD001	ICAL3	10-08-2021 02:11 pm	1.00	50 mL	50 mL	X100804.D	Liquid	Y
5	VSTD002	ICAL4	10-08-2021 02:32 pm	1.00	50 mL	50 mL	X100805.D	Liquid	Y
6	VSTD005	ICAL5	10-08-2021 02:53 pm	1.00	50 mL	50 mL	X100806.D	Liquid	Y
7	VSTD020	ICAL6	10-08-2021 03:14 pm	1.00	50 mL	50 mL	X100807.D	Liquid	Y
8	VSTD050	ICAL7	10-08-2021 03:34 pm	1.00	50 mL	50 mL	X100808.D	Liquid	Y
9	VSTD100	ICAL8	10-08-2021 03:55 pm	1.00	50 mL	50 mL	X100809.D	Liquid	Y
10	VSTD150	ICAL9	10-08-2021 04:16 pm	1.00	50 mL	50 mL	X100810.D	Liquid	Y
11	VSTD200	ICAL	10-08-2021 04:37 pm	1.00	50 mL	50 mL	X100811.D	Liquid	Y
12	BLANK	SAMP	10-08-2021 04:58 pm	1.00	50 mL	50 mL	X100812.D	Liquid	Y
13	BLANK	SAMP	10-08-2021 05:19 pm	1.00	50 mL	50 mL	X100813.D	Liquid	Y
14	CCV	CCV	10-08-2021 05:40 pm	1.00	50 mL	50 mL	X100814.D	Liquid	Y
15	BFB	TUNE	10-08-2021 06:01 pm	1.00	50 mL	50 mL	Y100801.D	Liquid	Y
16	CCV	CCV	10-08-2021 06:22 pm	1.00	50 mL	50 mL	Y100802a.D	Liquid	Y
17	CCV	CCV	10-08-2021 06:43 pm	1.00	50 mL	50 mL	Y100803.D	Liquid	Y
18	CCB	SAMP	10-08-2021 07:04 pm	1.00	50 mL	50 mL	Y100804.D	Liquid	Y
19	VLCSW-211008	LCS	10-08-2021 07:25 pm	1.00	50 mL	50 mL	Y100805.D	Liquid	Y
20	BLANK	SAMP	10-08-2021 07:46 pm	1.00	50 mL	50 mL	Y100806.D	Liquid	Y
21	BLANK	SAMP	10-08-2021 08:07 pm	1.00	50 mL	50 mL	Y100807.D	Liquid	Y
22	VBLKW-211008	MBLK	10-08-2021 08:28 pm	1.00	50 mL	50 mL	Y100808.D	Liquid	Y
23	HS21100202-01	SAMP	10-08-2021 08:49 pm	1.00	50 mL	50 mL	Y100809.D	Liquid	Y
24	HS21100202-03	SAMP	10-08-2021 09:10 pm	1.00	50 mL	50 mL	Y100810.D	Liquid	Y
25	HS21100202-04	SAMP	10-08-2021 09:31 pm	1.00	50 mL	50 mL	Y100811.D	Liquid	Y
26	HS21100461-01	SAMP	10-08-2021 09:52 pm	1.00	50 mL	50 mL	Y100812.D	Liquid	Y
27	HS21100461-02	SAMP	10-08-2021 10:14 pm	1.00	50 mL	50 mL	Y100813.D	Liquid	Y
28	HS21100461-03	SAMP	10-08-2021 10:35 pm	1.00	50 mL	50 mL	Y100814.D	Liquid	Y
29	HS21100300-01	SAMP	10-08-2021 10:56 pm	1.00	50 mL	50 mL	Y100815.D	Liquid	Y
30	HS21100300-03	SAMP	10-08-2021 11:17 pm	1.00	50 mL	50 mL	Y100816.D	Liquid	Y
31	HS21100300-04	SAMP	10-08-2021 11:38 pm	1.00	50 mL	50 mL	Y100817.D	Liquid	Y
32	HS21100300-05	SAMP	10-08-2021 11:59 pm	1.00	50 mL	50 mL	Y100818.D	Liquid	Y
33	HS21100300-06	SAMP	10-09-2021 12:20 am	1.00	50 mL	50 mL	Y100819.D	Liquid	Y
34	HS21100300-07	SAMP	10-09-2021 12:41 am	1.00	50 mL	50 mL	Y100820.D	Liquid	Y
35	HS21100308-01	SAMP	10-09-2021 01:02 am	1.00	50 mL	50 mL	Y100821.D	Liquid	Y
36	HS21100246-05	SAMP	10-09-2021 01:23 am	1.00	50 mL	50 mL	Y100822.D	Liquid	Y
37	HS21100300-06MS	MS	10-09-2021 01:44 am	1.00	50 mL	50 mL	Y100823.D	Liquid	Y
38	HS21100300-06MSD	MSD	10-09-2021 02:05 am	1.00	50 mL	50 mL	Y100824.D	Liquid	Y
39	CCV-END	CCV	10-09-2021 02:26 am	1.00	50 mL	50 mL	Y100825.D	Liquid	Y
40	HS21100312-08	SAMP	10-09-2021 02:47 am	1.00	50 mL	50 mL	Y100826.D	Liquid	Y
41	HS21100316-11	SAMP	10-09-2021 03:08 am	1.00	50 mL	50 mL	Y100827.D	Liquid	Y

MSVOA06 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	I
42	HS21100320-11	SAMP	10-09-2021 03:29 am	1.00	50 mL	50 mL	Y100828.D	Liquid	Y	N
43	HS21100323-19	SAMP	10-09-2021 03:50 am	1.00	50 mL	50 mL	Y100829.D	Liquid	Y	N
44	HS21100399-11	SAMP	10-09-2021 04:11 am	1.00	50 mL	50 mL	Y100830.D	Liquid	Y	N
45	HS21100457-07	SAMP	10-09-2021 04:32 am	1.00	50 mL	50 mL	Y100831.D	Liquid	Y	N
46	BLANK	SAMP	10-09-2021 04:53 am	1.00	50 mL	50 mL	Y100832.D	Liquid	Y	N

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
cis-1,2-Dichloroethene	50.00	50.82	102	80-120
Vinyl Chloride	50.00	47.21	94	80-120
Methylene Chloride	50.00	52.41	105	80-120
1,1-Dichloroethene	50.00	48.47	97	80-120
1,2-Dichloroethane	50.00	47.98	96	80-120
Trichloroethene	50.00	46.25	92	80-120
1,1,2-Trichloroethane	50.00	47.89	96	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM III VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Lab File ID: X100801 BFB Injection Date: 10/08/21

Instrument ID: VOA6 BFB Injection Time: 1247

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.7
75	30.0 - 60.0% of mass 95	47.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	1.2 (1.2)1
174	Greater than 50.0% of mass 95	97.4
175	5.0 - 9.0% of mass 174	7.0 (7.2)1
176	95.0 - 101.0% of mass 174	92.6 (95.0)1
177	5.0 - 9.0% of mass 176	5.8 (6.3)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD000.25	VSTD000.25	X100802	10/08/21	1308
02	VSTD000.5	VSTD000.5	X100803	10/08/21	1350
03	VSTD001	VSTD001	X100804	10/08/21	1411
04	VSTD002	VSTD002	X100805	10/08/21	1432
05	VSTD005	VSTD005	X100806	10/08/21	1453
06	VSTD020	VSTD020	X100807	10/08/21	1514
07	VSTD050	VSTD050	X100808	10/08/21	1534
08	VSTD100	VSTD100	X100809	10/08/21	1555
09	VSTD150	VSTD150	X100810	10/08/21	1616
10	VSTD200	VSTD200	X100811	10/08/21	1637
11	ICV	ICV	X100814	10/08/21	1740
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Instrument ID: VOA6 Calibration Date(s): 10/08/21 10/08/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1308 1637

LAB FILE ID: RF0.25: X100802 RF0.5: X100803 RF1: X100804
RF2: X100805 RF5: X100806 RF20: X100807

COMPOUND	RF0.25	RF0.5	RF1	RF2	RF5	RF20
Methylene Chloride		2444	4333	7762	19276	70665
1,1,2-Trichloroethane		0.263	0.266	0.315	0.301	0.258
Trichloroethene		0.432	0.477	0.393	0.391	0.354
Vinyl Chloride		0.582	0.594	0.586	0.600	0.514
1,1-Dichloroethene		0.463	0.490	0.473	0.500	0.440
1,2-Dichloroethane		0.420	0.472	0.432	0.456	0.429
cis-1,2-Dichloroethene		0.474	0.544	0.558	0.584	0.540
1,2-Dichloroethane-d4		3361	5961	9717	22194	84053
Dibromofluoromethane		2999	4837	8290	20676	78657
4-Bromofluorobenzene		4606	8328	13893	24945	96265
Toluene-d8		1.599	1.426	1.352	1.356	1.189

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS2110078

Instrument ID: VOA6 Calibration Date(s): 10/08/21 10/08/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1308 1637

LAB FILE ID: RF50: X100808 RF100: X100809 RF150: X100810
RF200: X100811

COMPOUND	RF50	RF100	RF150	RF200
Methylene Chloride	173952	361756	542343	743741
1,1,2-Trichloroethane	0.248	0.252	0.247	0.251
Trichloroethene	0.334	0.343	0.335	0.344
Vinyl Chloride	0.466	0.457	0.449	0.471
1,1-Dichloroethene	0.407	0.411	0.402	0.428
1,2-Dichloroethane	0.402	0.391	0.386	0.386
cis-1,2-Dichloroethene	0.501	0.494	0.479	0.503
1,2-Dichloroethane-d4	202478	416593	610768	835313
Dibromofluoromethane	192579	417318	604609	839119
4-Bromofluorobenzene	246655	511094	745510	1012260
Toluene-d8	1.125	1.164	1.092	1.116

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS2110078

Instrument ID: VOA6 Calibration Date(s): 10/08/21 10/08/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1308 1637

COMPOUND	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2
Methylene Chloride	LINR	-2.53e-002	2.35098937	0.9995671	0.9900000
1,1,2-Trichloroethane	AVRG		0.26680323	9.145	15.000
Trichloroethene	AVRG		0.37820923	13.102	15.000
Vinyl Chloride	AVRG		0.52422244	12.478	15.000
1,1-Dichloroethene	AVRG		0.44601099	8.294	15.000
1,2-Dichloroethane	AVRG		0.41941937	7.419	15.000
cis-1,2-Dichloroethene	AVRG		0.51982554	7.323	15.000
1,2-Dichloroethane-d4	LINR	-4.07e-002	2.09187623	0.9992556	0.9900000
Dibromofluoromethane	LINR	-2.28e-002	2.08394752	0.9991289	0.9900000
4-Bromofluorobenzene	LINR	-2.74e-002	2.35257164	0.9998215	0.9900000
Toluene-d8	AVRG		1.26890009	13.667	15.000

FORM VI VOA

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100801.D Page 1

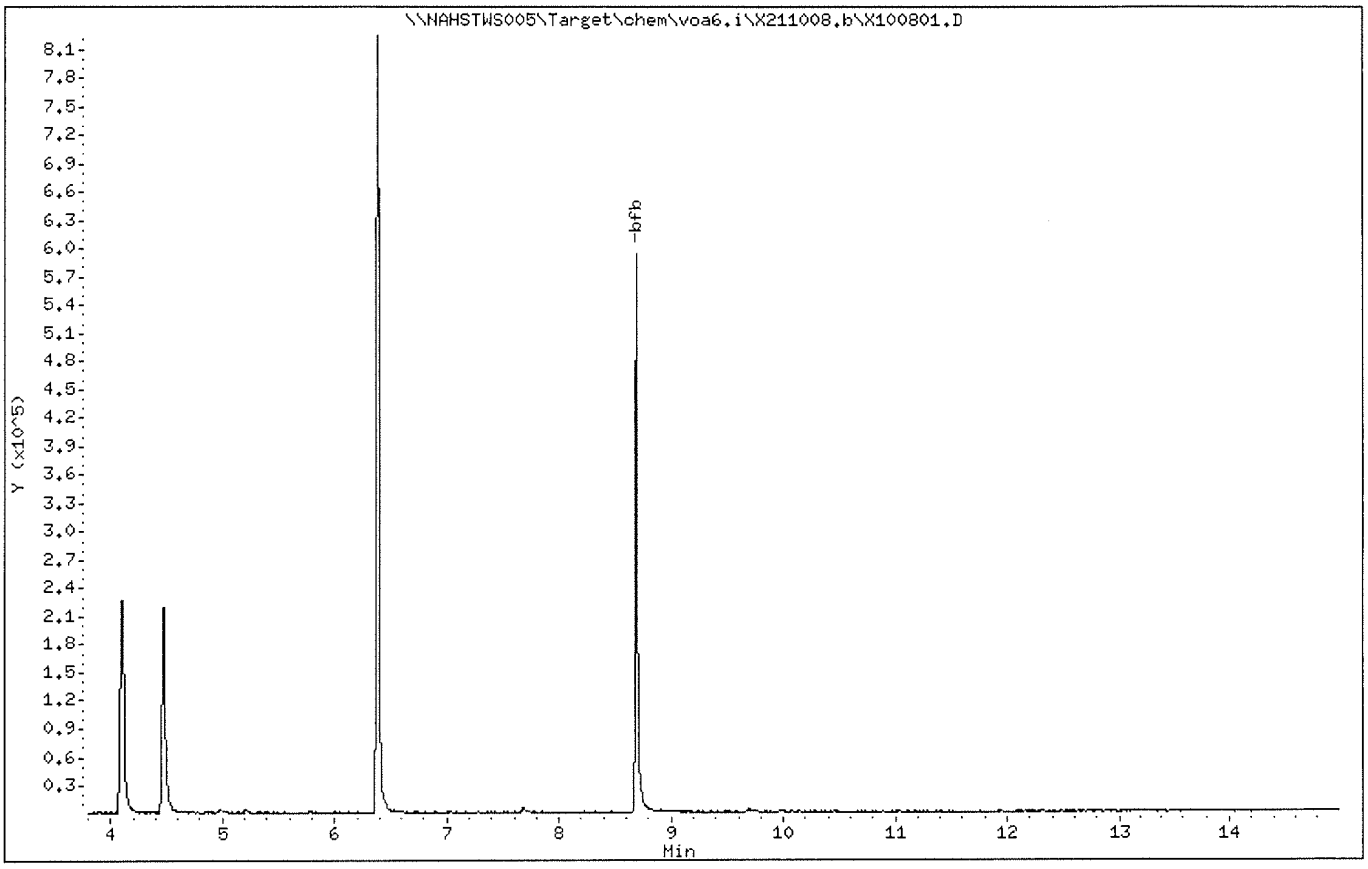
Date : 08-OCT-2021 12:47

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100801.D

Date : 08-OCT-2021 12:47

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

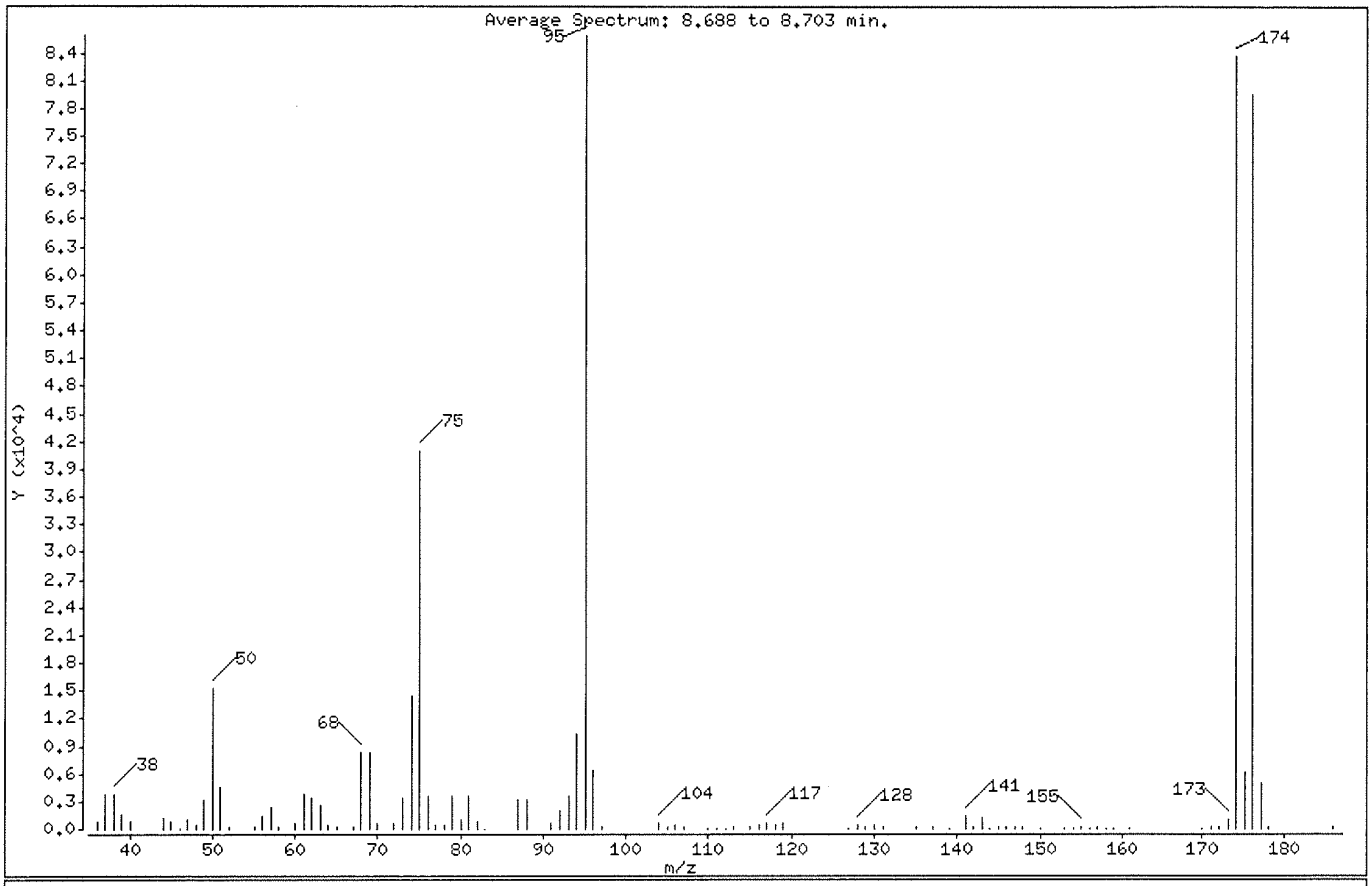
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.71
75	30.00 - 60.00% of mass 95	47.69
96	5.00 - 9.00% of mass 95	7.32
173	Less than 2.00% of mass 174	1.20 (1.23)
174	Greater than 50.00% of mass 95	97.43
175	5.00 - 9.00% of mass 174	7.05 (7.23)
176	95.00 - 101.00% of mass 174	92.59 (95.04)
177	5.00 - 9.00% of mass 176	5.83 (6.29)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100801.D

Date : 08-OCT-2021 12:47

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: X100801.D
Spectrum: Average Spectrum: 8.688 to 8.703 min.
Location of Maximum: 95.00
Number of points: 97

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	721	68.00	8366	105.00	192	146.00	142
37.00	3717	69.00	8247	106.00	438	147.00	134
38.00	3771	70.00	615	107.00	141	148.00	289
39.00	1498	72.00	610	110.00	76	150.00	47
40.00	771	73.00	3268	111.00	49	153.00	46
44.00	1225	74.00	14376	112.00	54	154.00	53
45.00	737	75.00	40960	113.00	150	155.00	276
46.00	93	76.00	3492	115.00	122	156.00	53
47.00	941	77.00	424	116.00	377	157.00	170
48.00	494	78.00	347	117.00	538	158.00	19
49.00	3152	79.00	3638	118.00	436	159.00	95
50.00	15214	80.00	1045	119.00	531	161.00	42
51.00	4568	81.00	3579	127.00	20	170.00	84
52.00	226	82.00	724	128.00	342	171.00	114
55.00	222	83.00	48	129.00	164	172.00	273
56.00	1360	87.00	3265	130.00	318	173.00	1029
57.00	2449	88.00	3096	131.00	136	174.00	83672
58.00	103	91.00	525	135.00	216	175.00	6051
60.00	630	92.00	2021	137.00	140	176.00	79520
61.00	3789	93.00	3470	139.00	44	177.00	5006
62.00	3324	94.00	10275	141.00	1339	178.00	134
63.00	2658	95.00	85880	142.00	123	186.00	131
64.00	410	96.00	6283	143.00	1219		
65.00	116	97.00	107	144.00	57		
67.00	212	104.00	516	145.00	106		

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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Lab Smp Id: VSTD000.25 Client Smp ID: VSTD000.25
Inj Date : 08-OCT-2021 13:08
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.25;VSTD000.25;1;1;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 12:46 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 13:08 Cal File: X100802.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

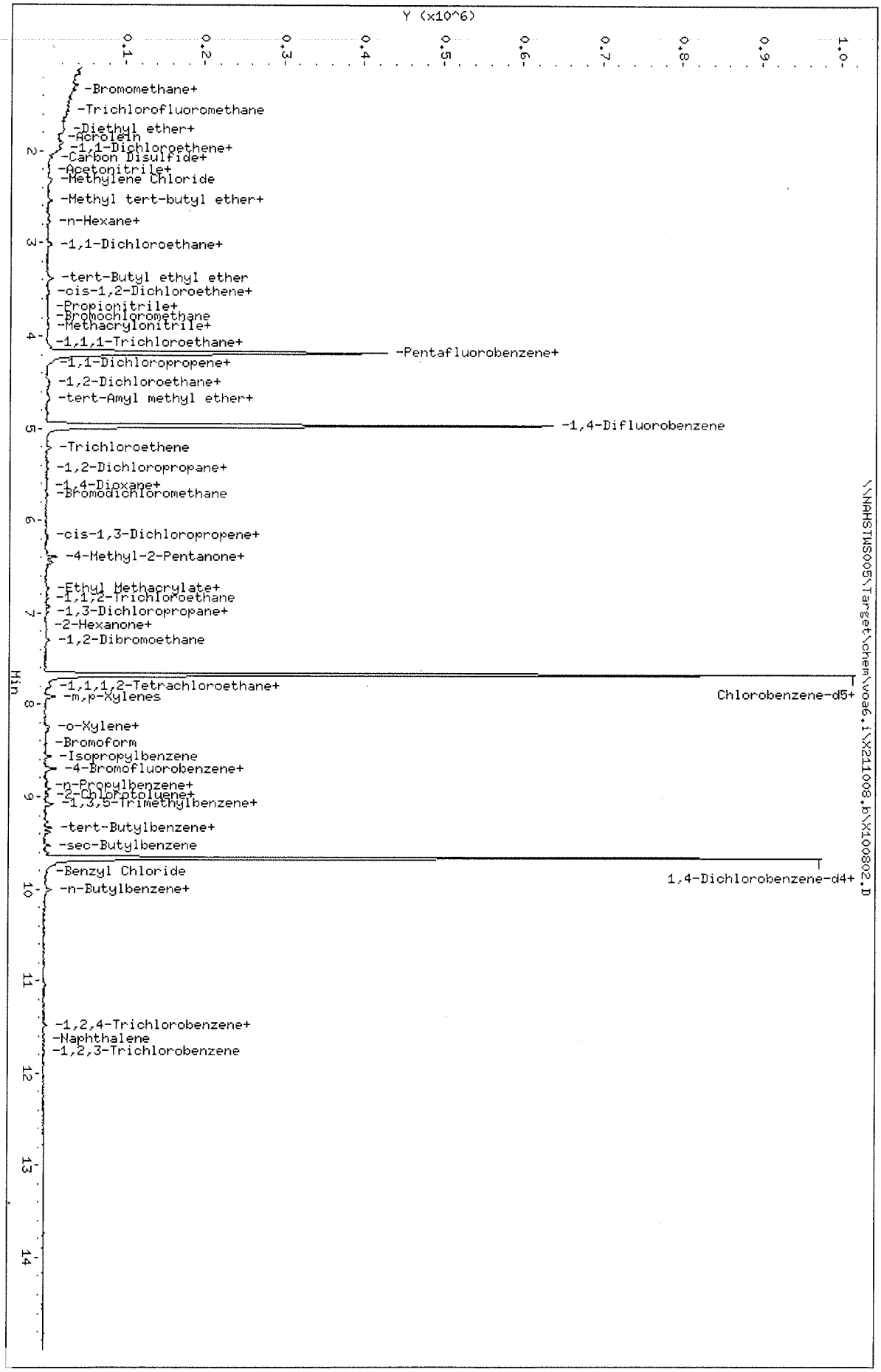
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	361573	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	549183	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	504808	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	236339	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	2269	0.25000	(a)
$ 35 1,2-Dichloroethane-d4	65	4.490	4.490	(1.074)	3143	0.25000	(Ta)
$ 48 Toluene-d8	98	6.395	6.395	(0.834)	8062	0.25000	0.62(aM)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	6096	0.25000	0.05(a)
11 1,1-Dichloroethene	96	1.918	1.918	(0.459)	1039	0.25000	0.32(a)
33 1,2-Dichloroethane	62	4.569	4.569	(0.921)	1501	0.25000	0.32(a)
27 cis-1,2-Dichloroethene	96	3.544	3.544	(0.848)	1215	0.25000	0.32(a)
17 Methylene Chloride	84	2.312	2.312	(0.553)	2242	0.25000	(a)
53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	1010	0.25000	0.37(a)
38 Trichloroethene	130	5.213	5.213	(1.051)	1791	0.25000	0.43(aM)
5 Vinyl Chloride	62	1.145	1.145	(0.274)	1292	0.25000	0.34(aM)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

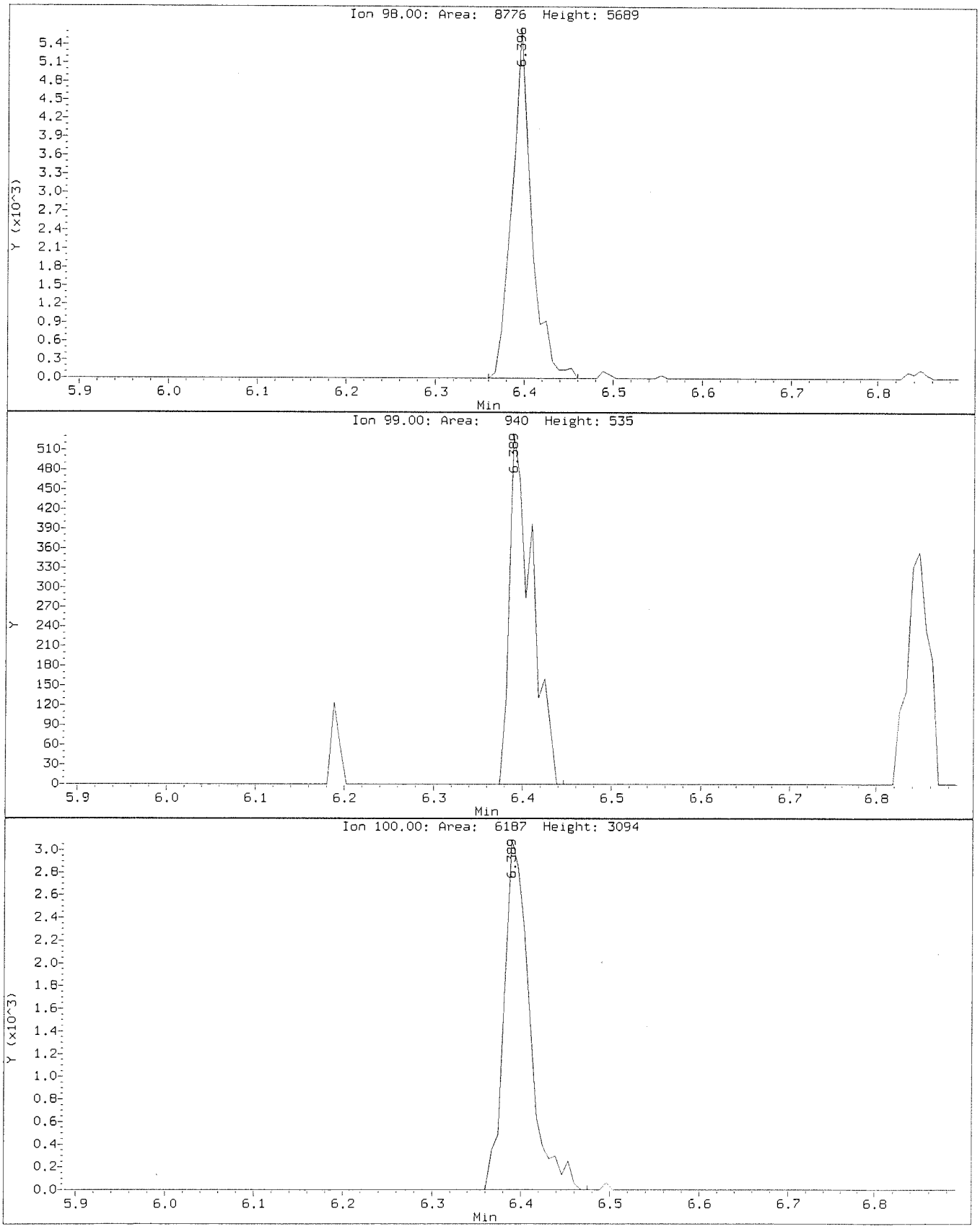


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Date : 08-OCT-2021 13:08
Client ID: VSTD000.25
Sample Info: VSTD000.25;VSTD000.25;1;1;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

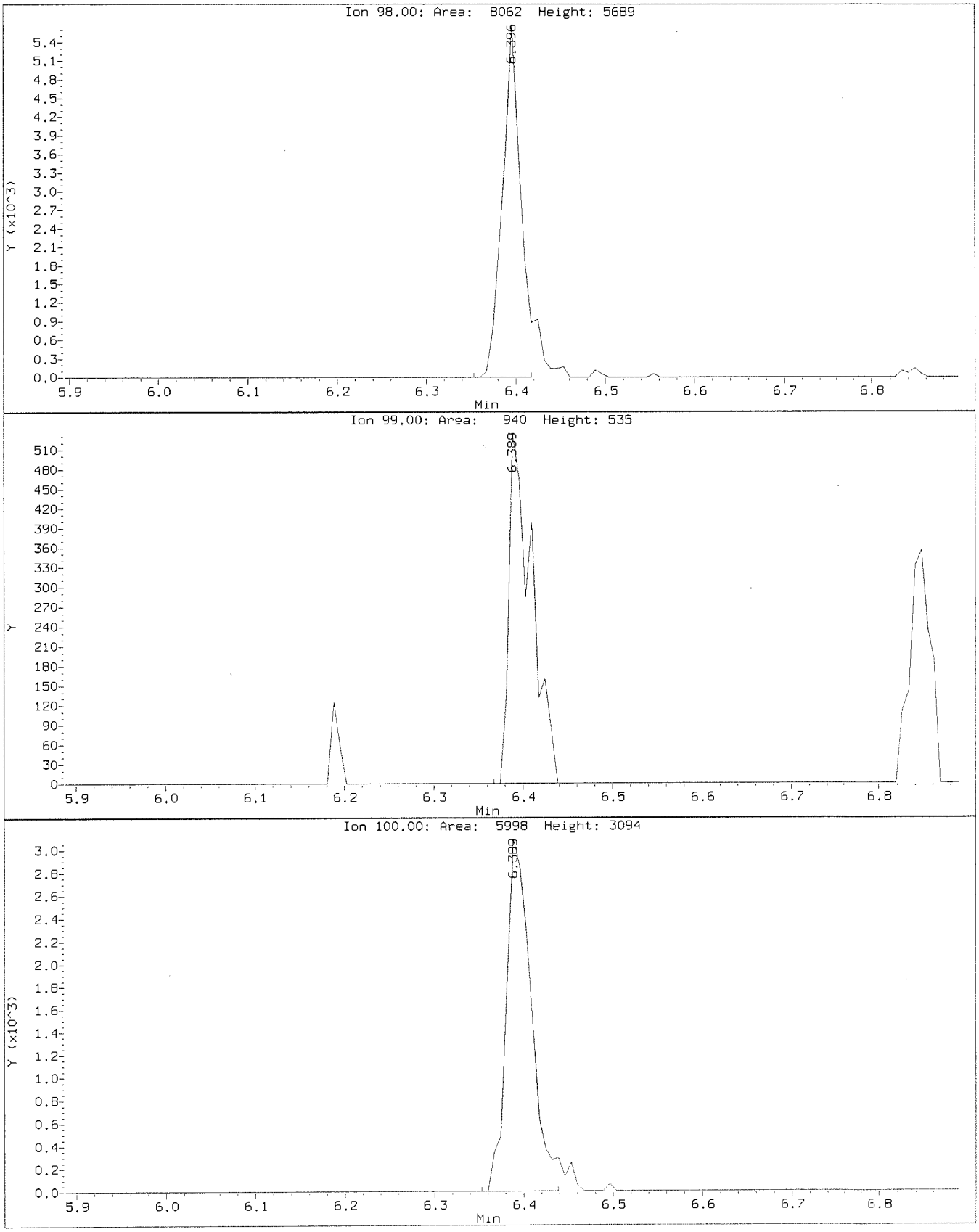
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Toluene-d8
CAS Number: 2037-26-5



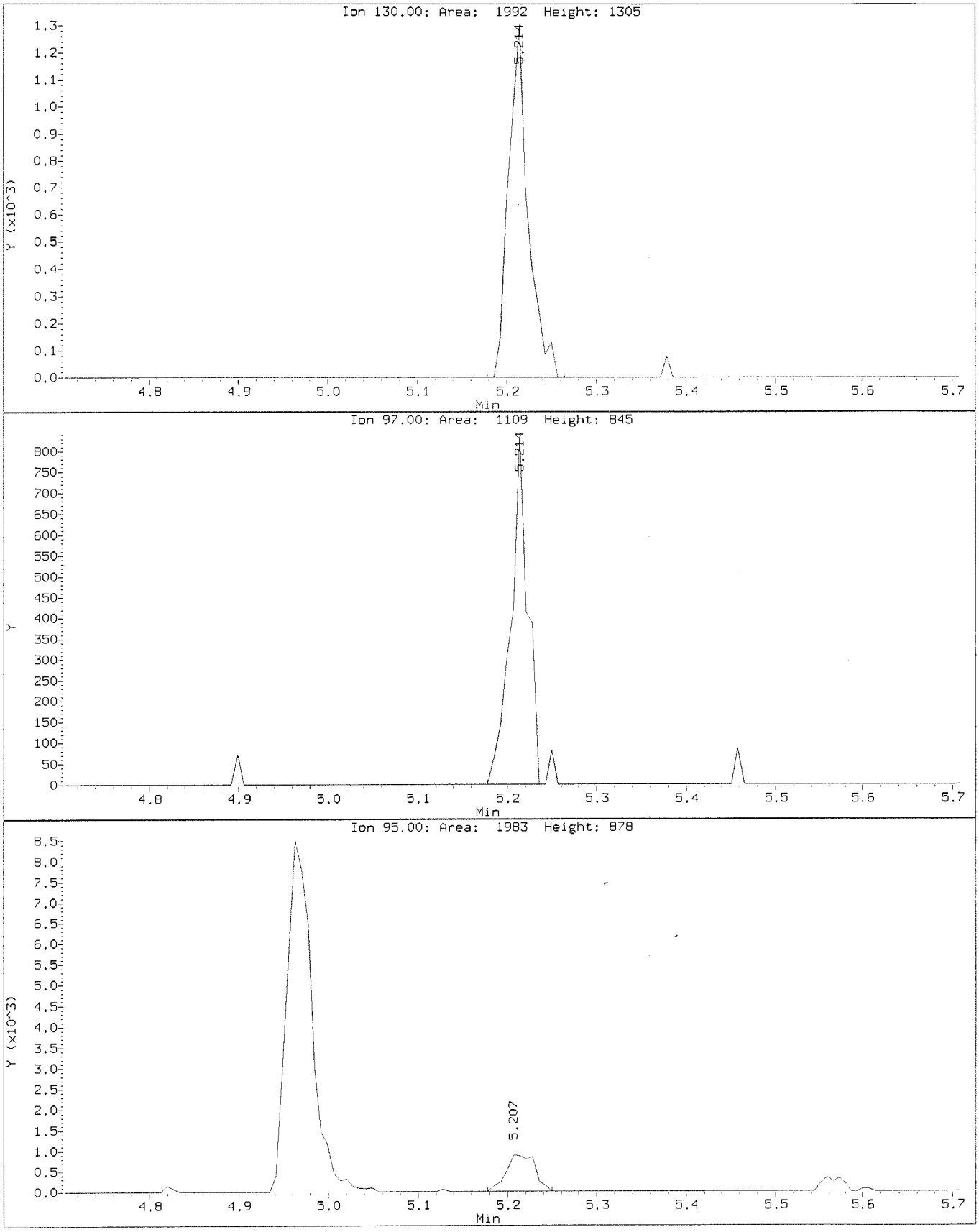
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Toluene-d8
CAS Number: 2037-26-5



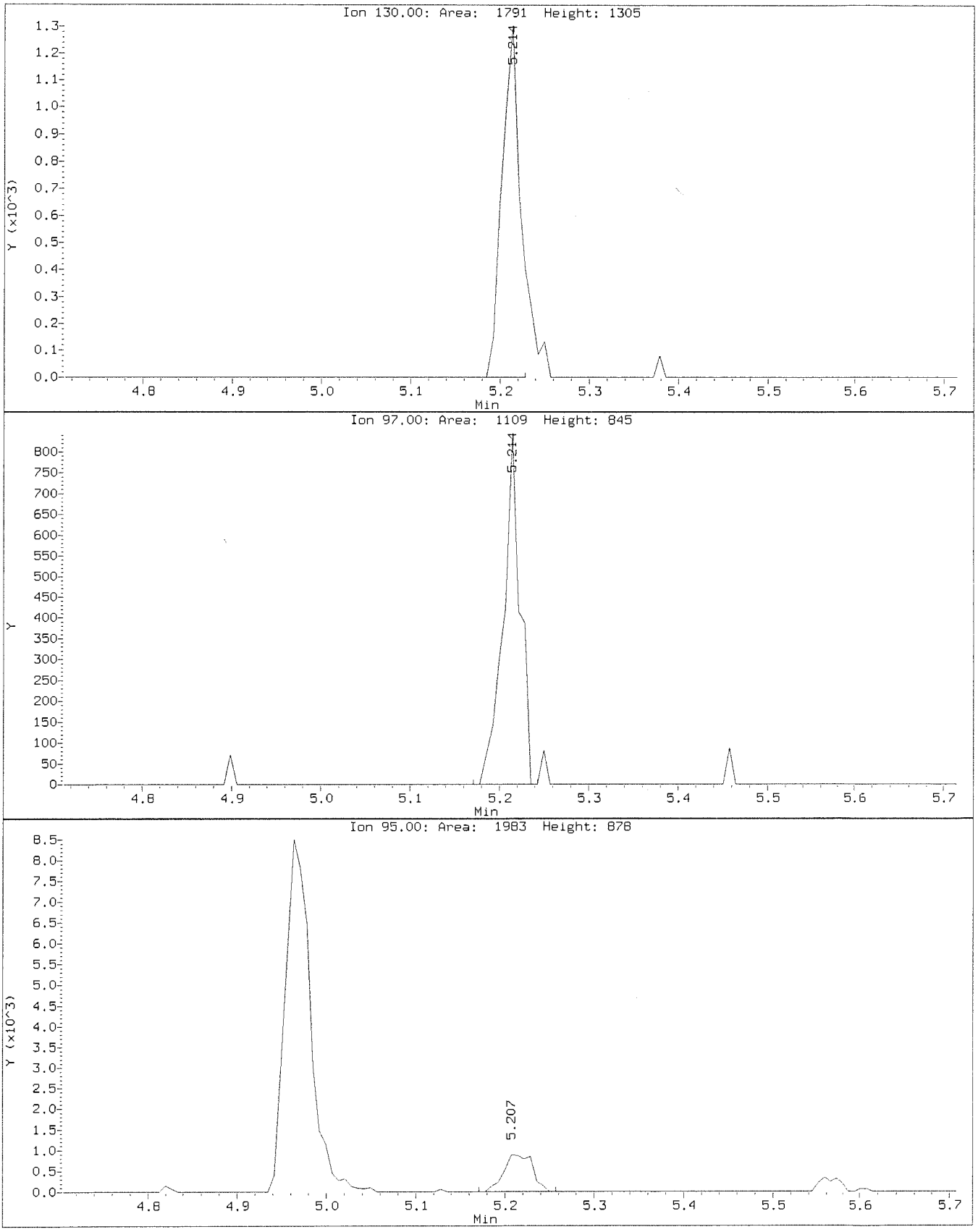
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Trichloroethene
CAS Number: 79-01-6



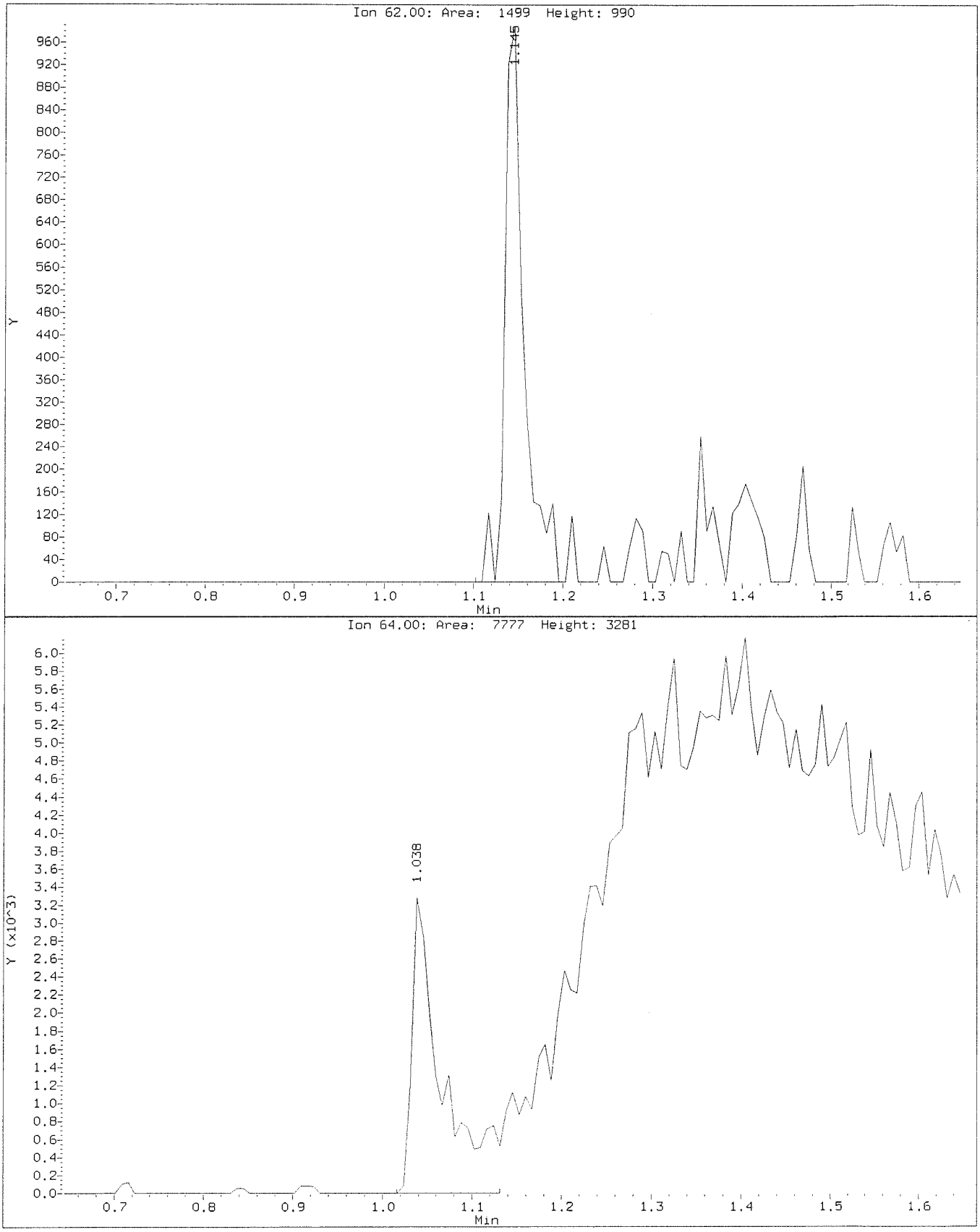
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Trichloroethene
CAS Number: 79-01-6



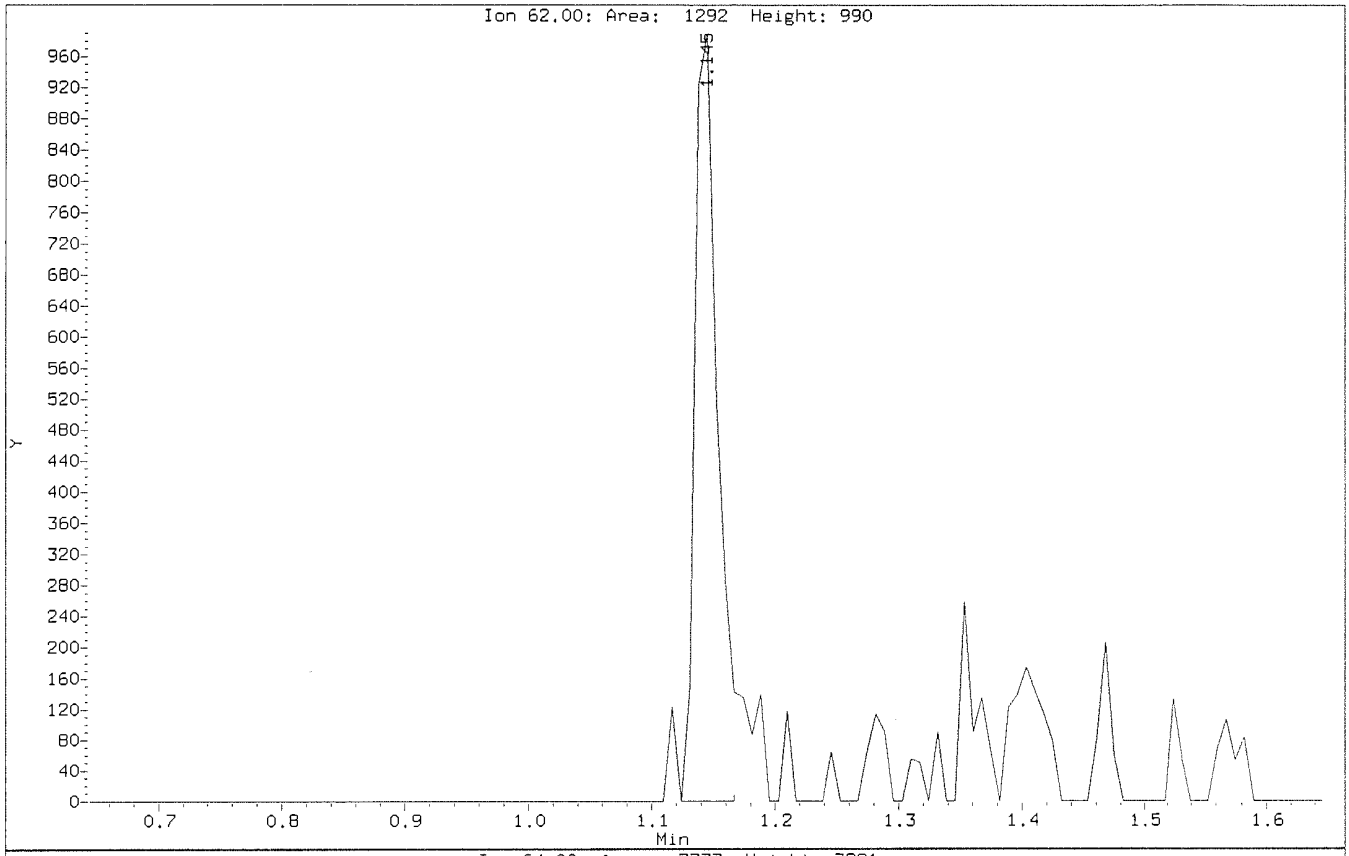
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

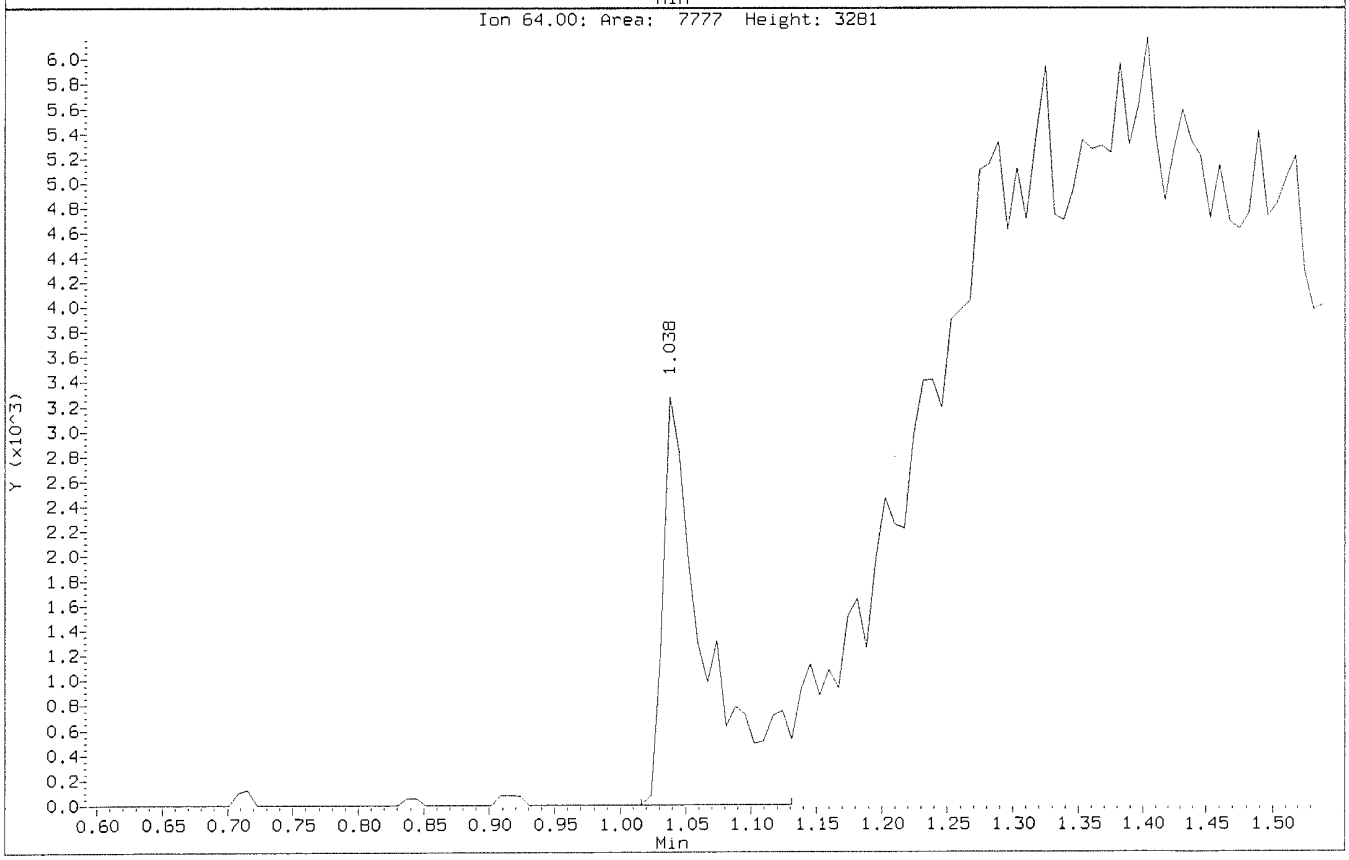
Compound: Vinyl Chloride
CAS Number: 75-01-4



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Vinyl Chloride
CAS Number: 75-01-4





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Lab Smp Id: VSTD000.5 Client Smp ID: VSTD000.5
Inj Date : 08-OCT-2021 13:50
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.5;VSTD000.5;1;2;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 12:42 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 13:08 Cal File: X100802.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

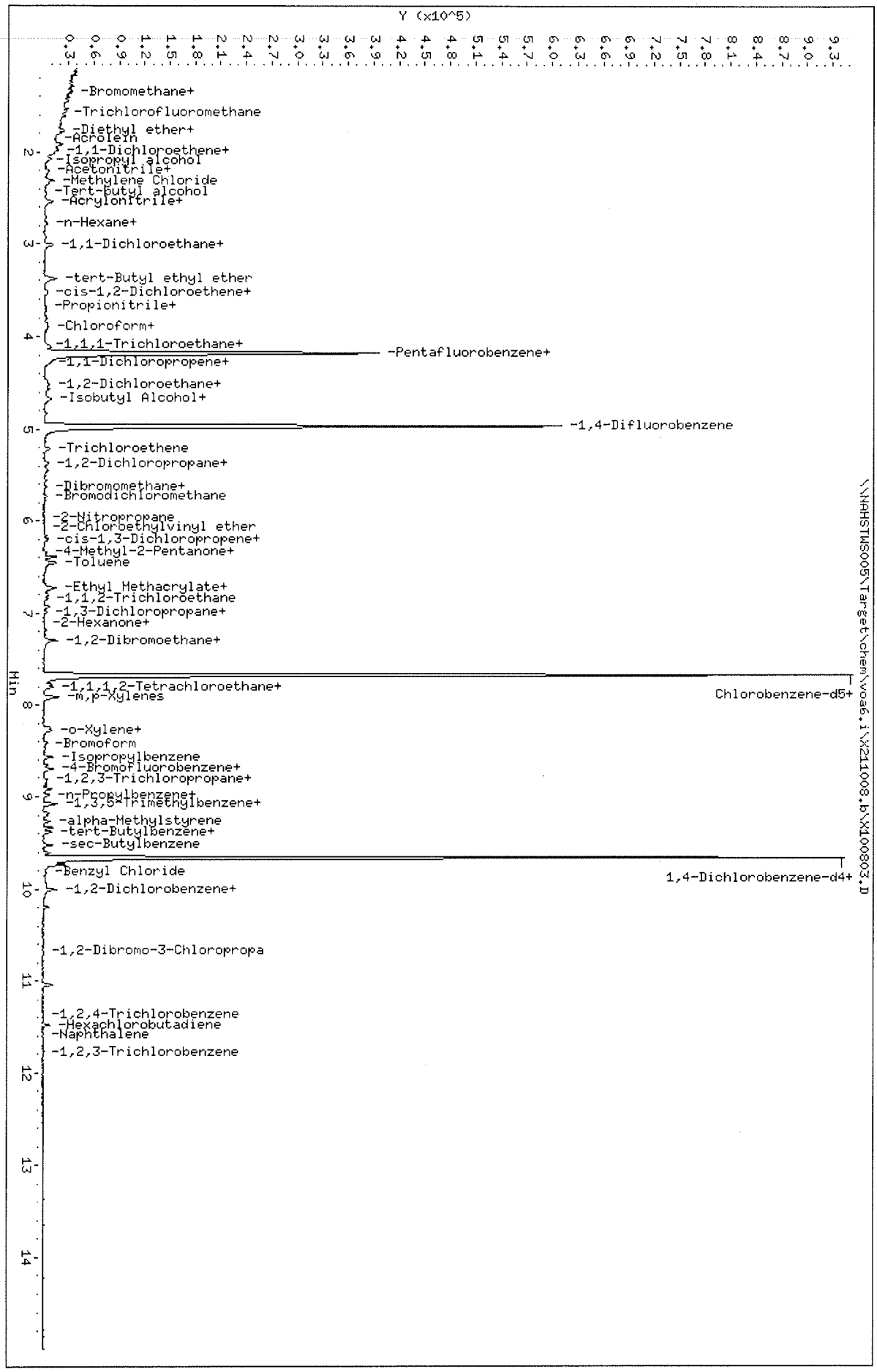
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	331902	50.0000		
$	30 Dibromofluoromethane	113	4.111	4.111	(0.983)	2999	0.50000		(a)
$	35 1,2-Dichloroethane-d4	65	4.490	4.490	(1.074)	3361	0.50000		(Ta)
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	519409	50.0000		
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	485516	50.0000		
$	48 Toluene-d8	98	6.388	6.388	(0.833)	7763	0.50000	0.63	(aM)
$	69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	4606	0.50000		(a)
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	222200	50.0000		
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	1932	0.50000	0.55	(aM)
	11 1,1-Dichloroethene	96	1.926	1.926	(0.461)	1538	0.50000	0.51	(a)
	53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	1277	0.50000	0.49	(a)
	17 Methylene Chloride	84	2.305	2.305	(0.551)	2444	0.50000		(aM)
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	1575	0.50000	0.45	(a)
	33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	2184	0.50000	0.50	(a)
	38 Trichloroethene	130	5.214	5.214	(1.051)	2243	0.50000	0.57	(aM)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

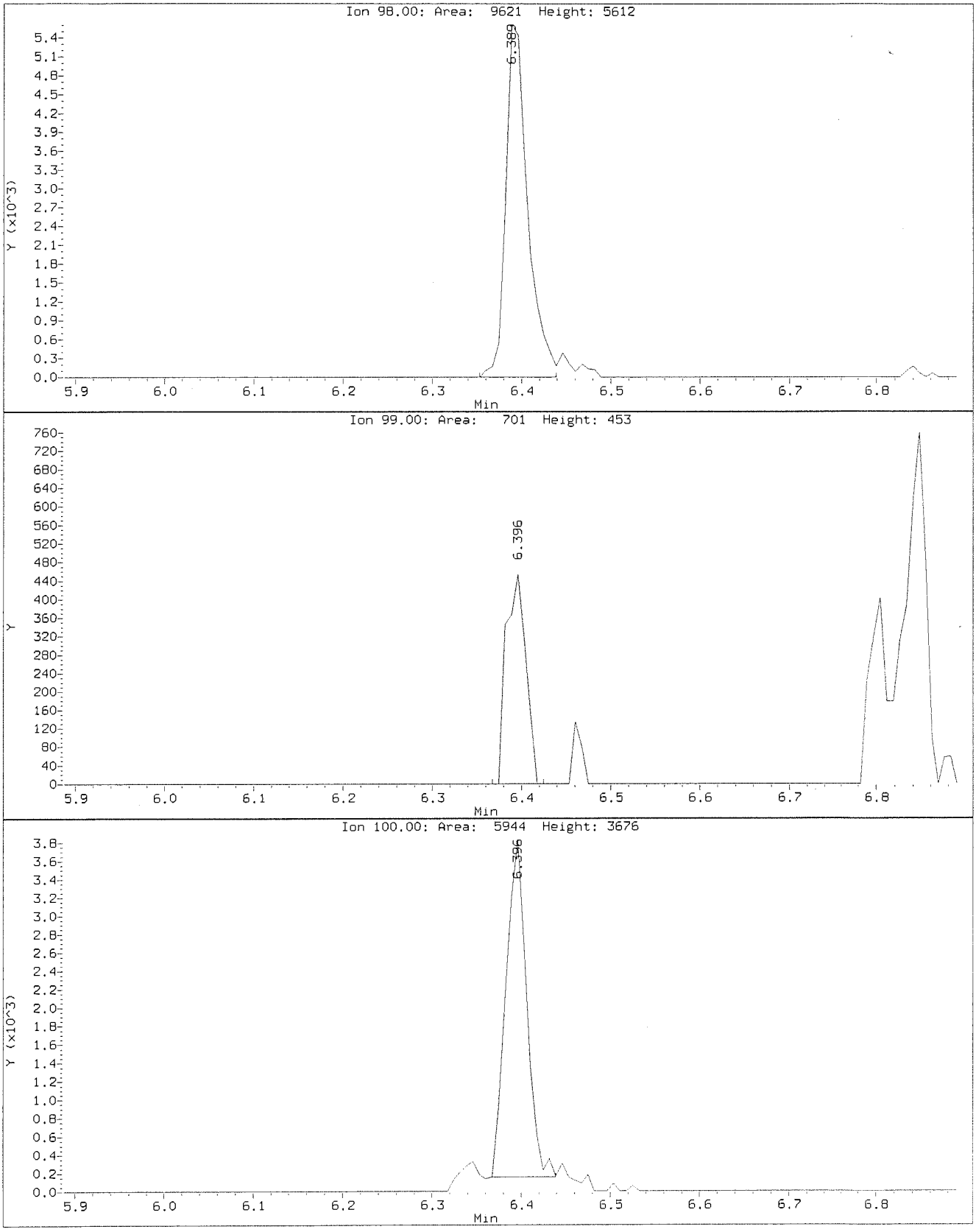


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Date : 08-OCT-2021 13:50
Client ID: VSTD000.5
Sample Info: VSTD000.5;VSTD000.5;1;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

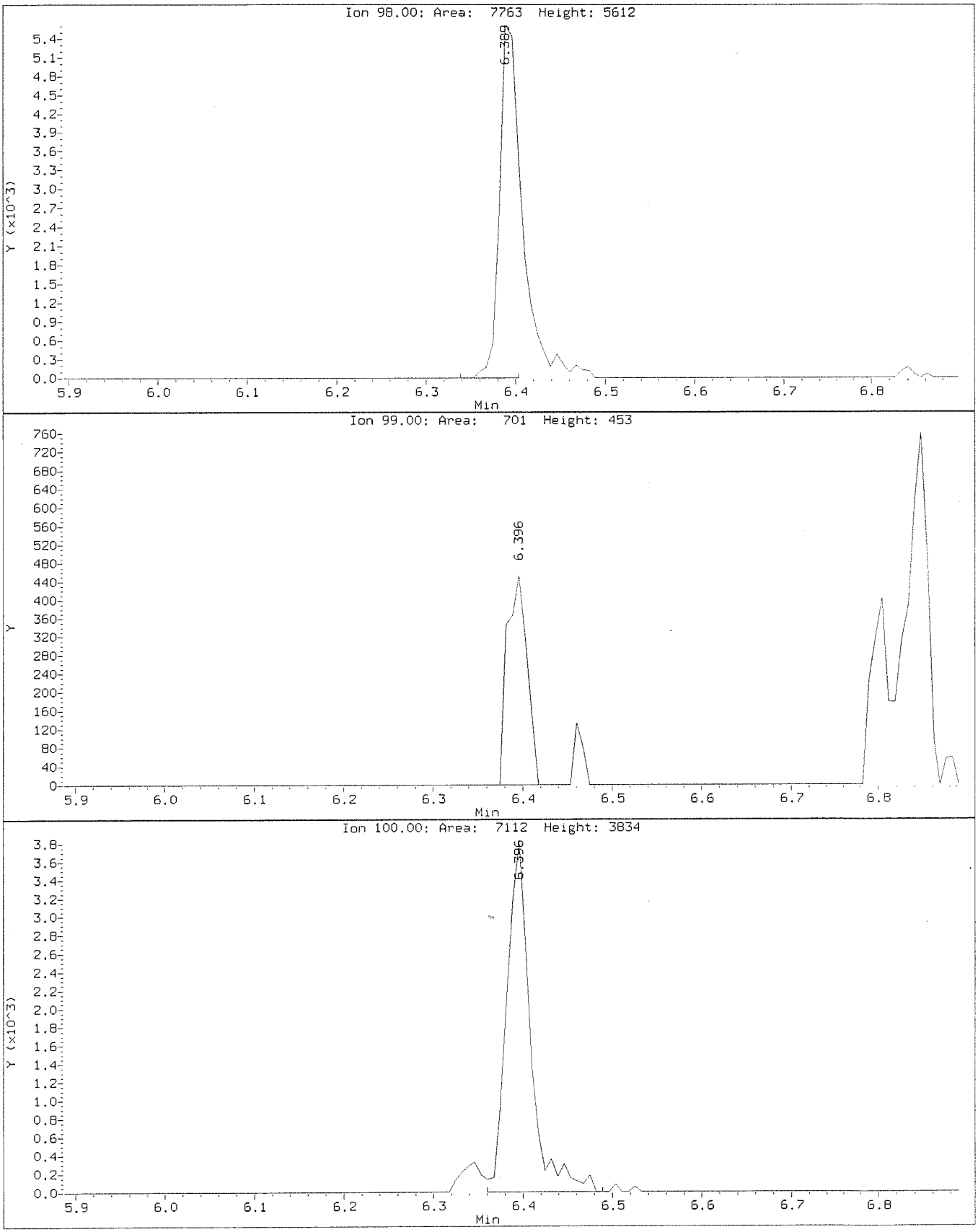
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Toluene-d8
CAS Number: 2037-26-5



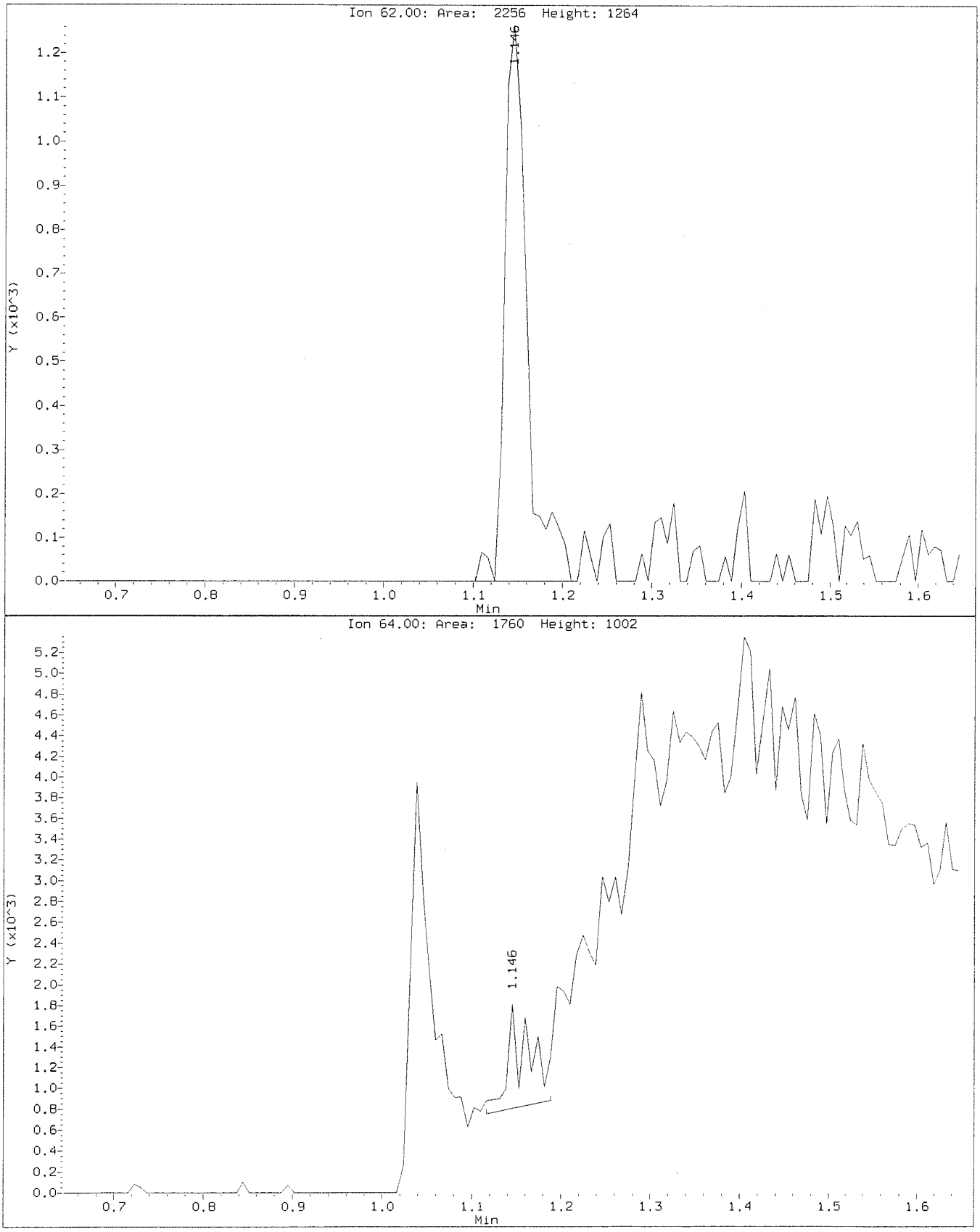
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Toluene-d8
CAS Number: 2037-26-5



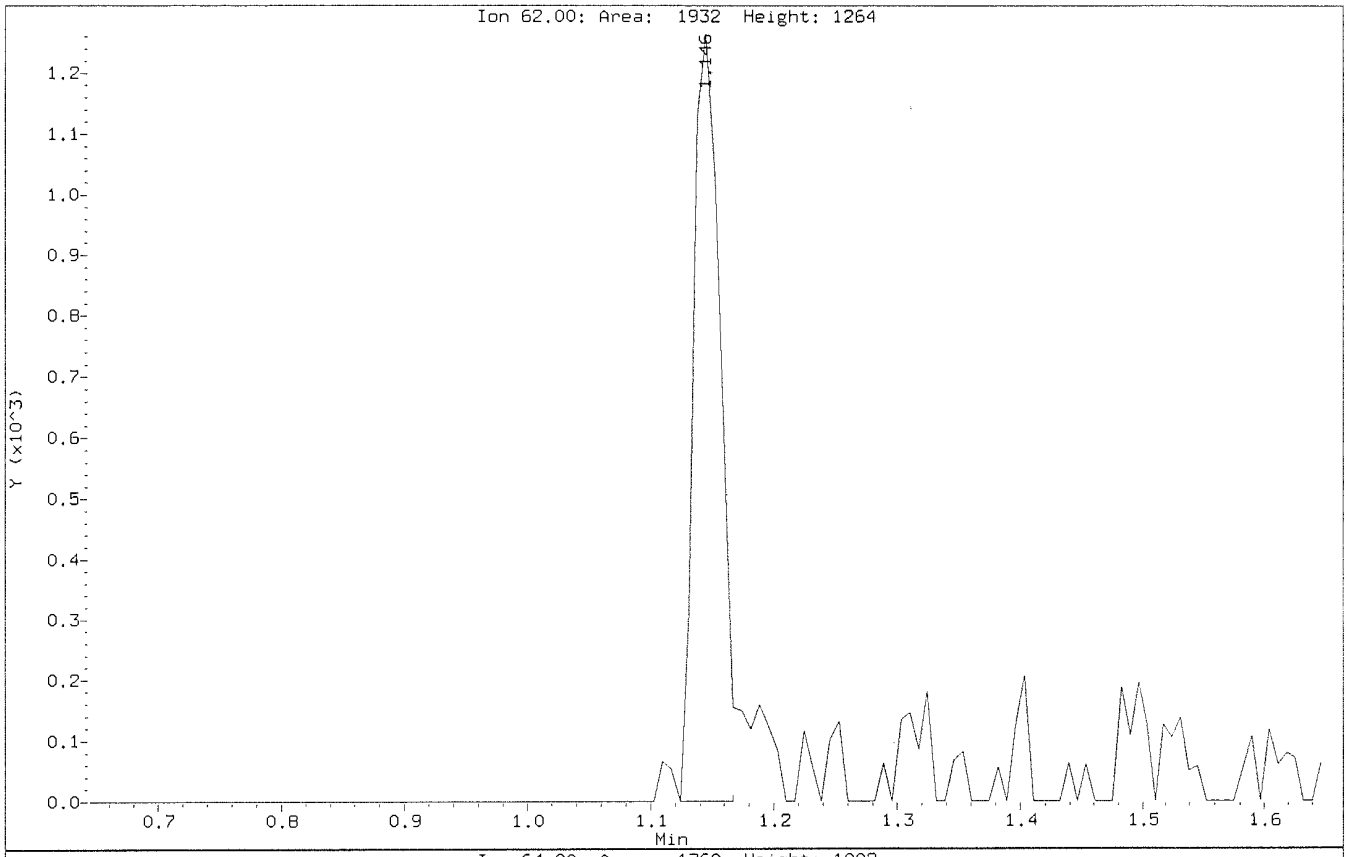
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

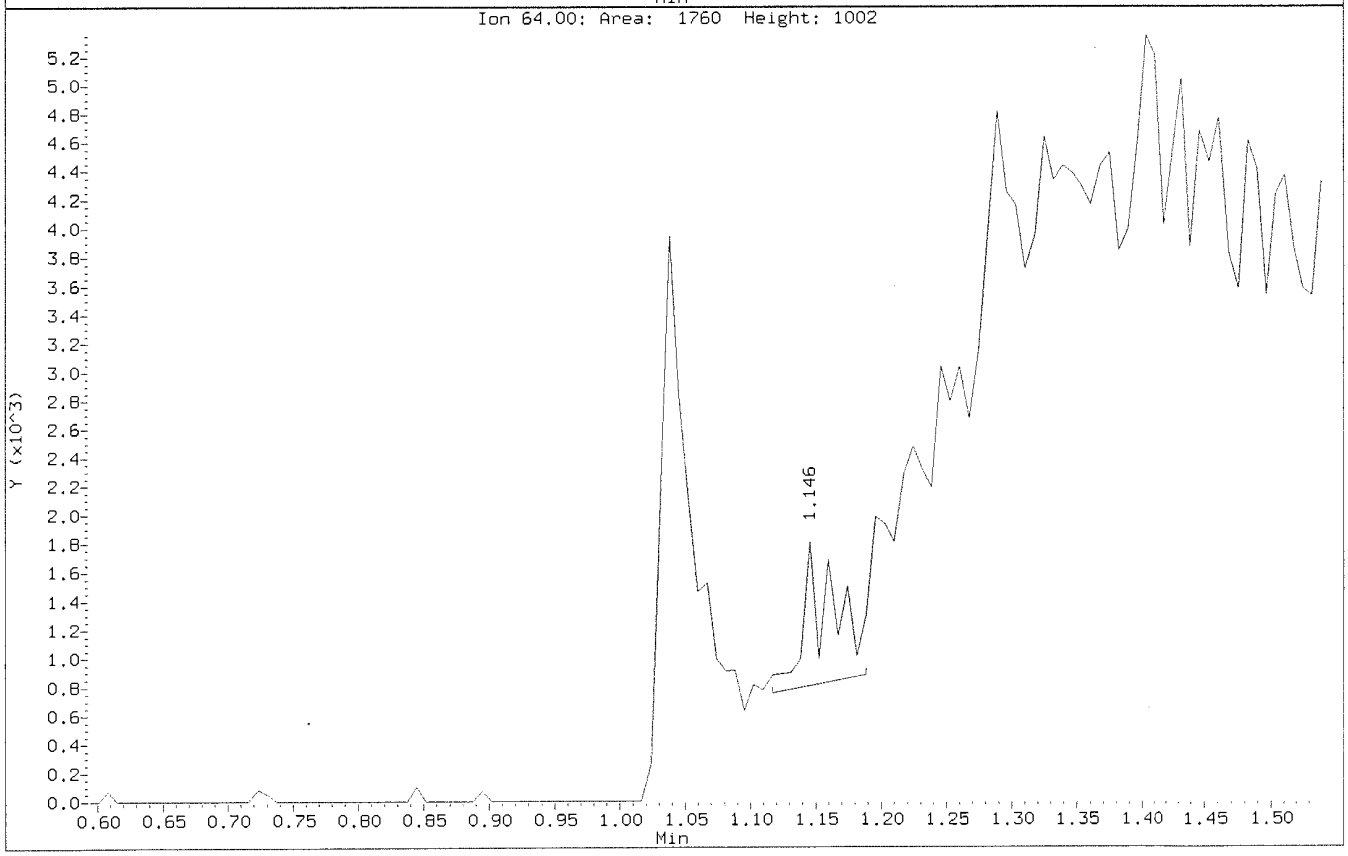
Compound: Vinyl Chloride
CAS Number: 75-01-4



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

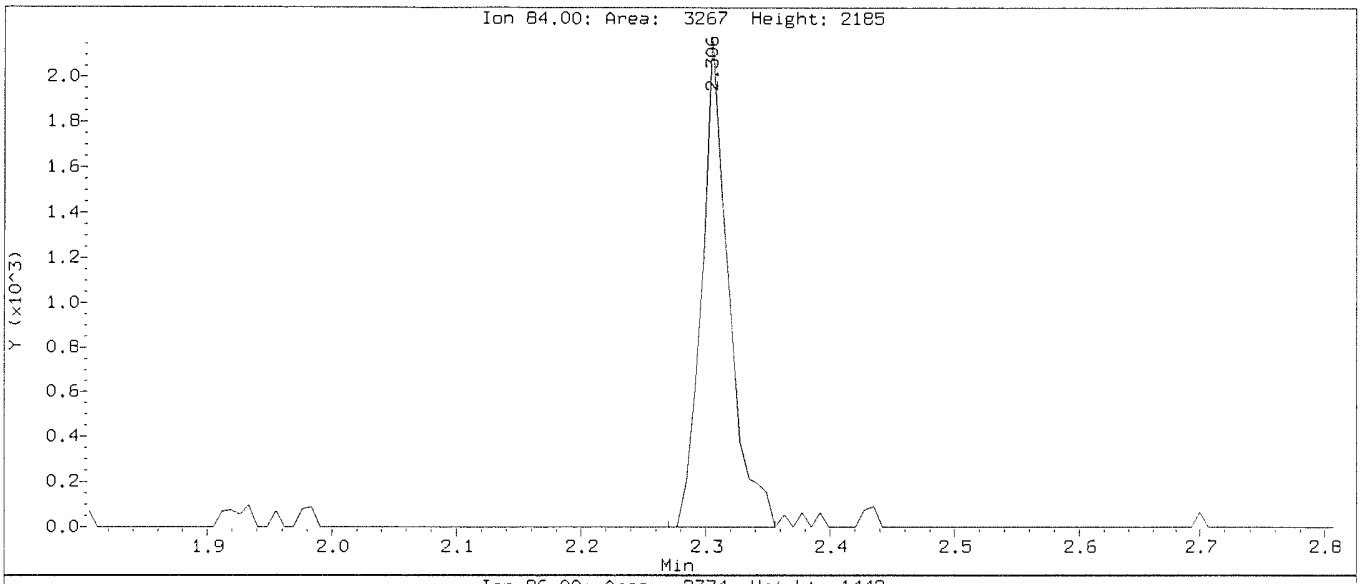
Compound: Vinyl Chloride
CAS Number: 75-01-4

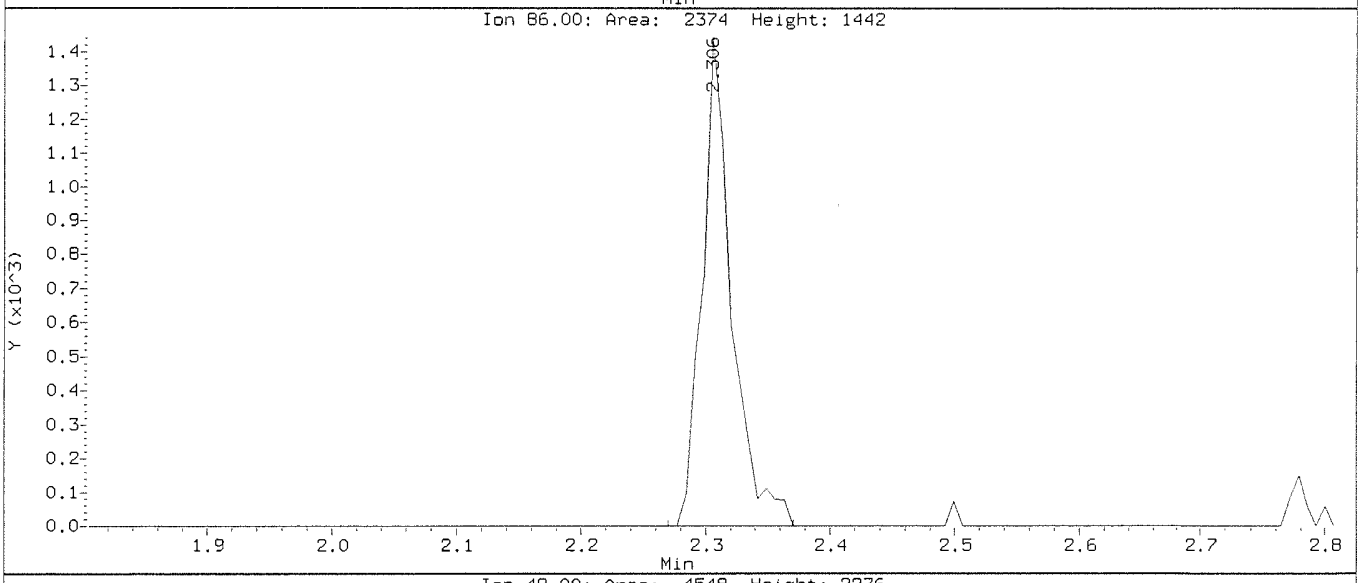


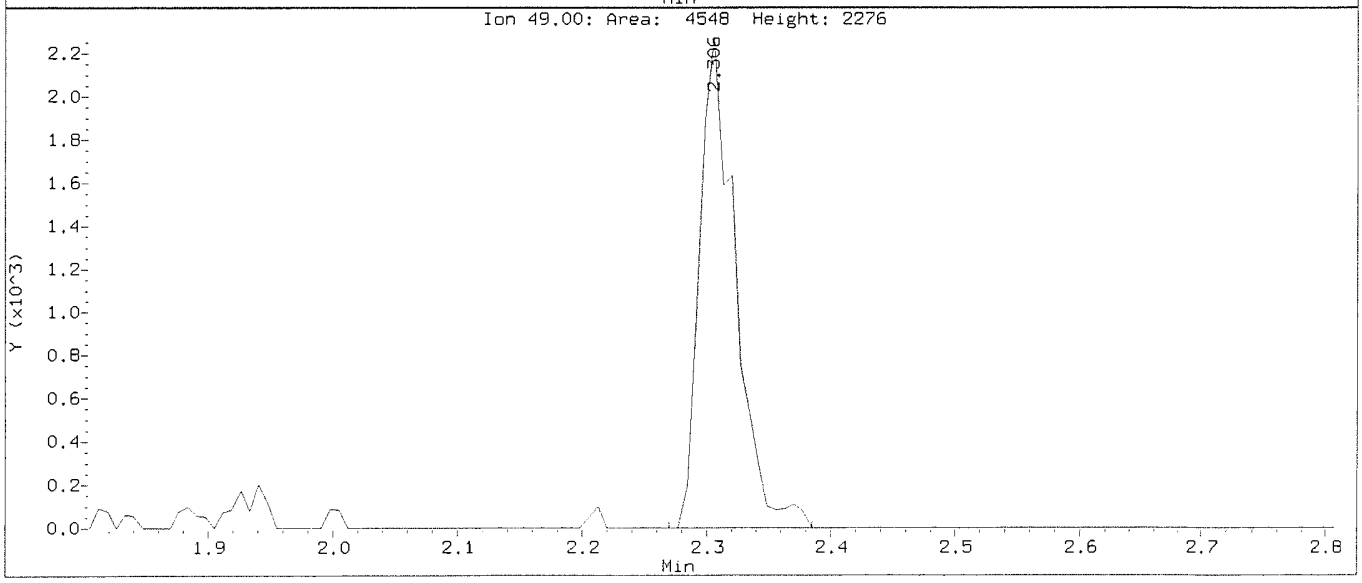


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Methylene Chloride
CAS Number: 75-09-2

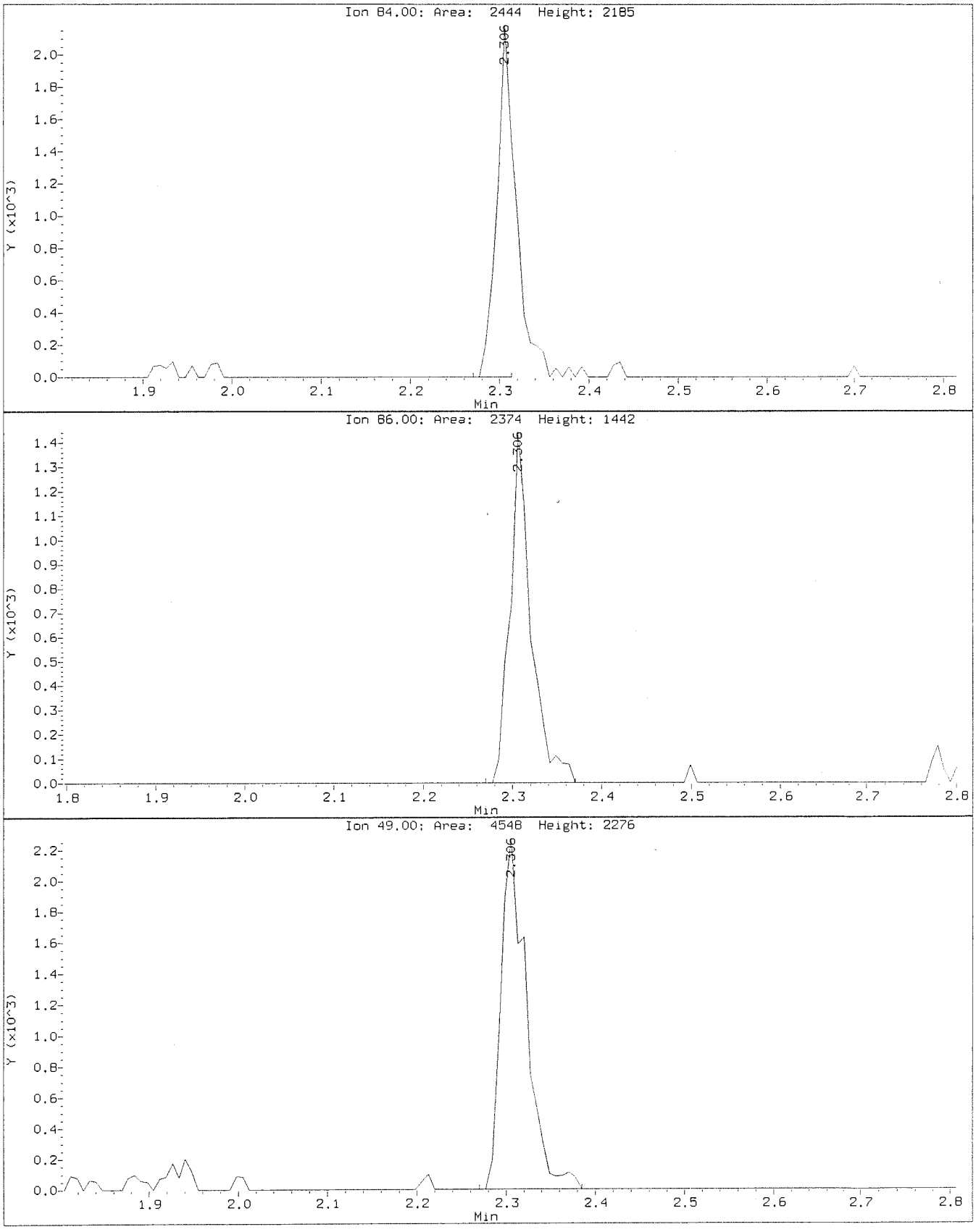






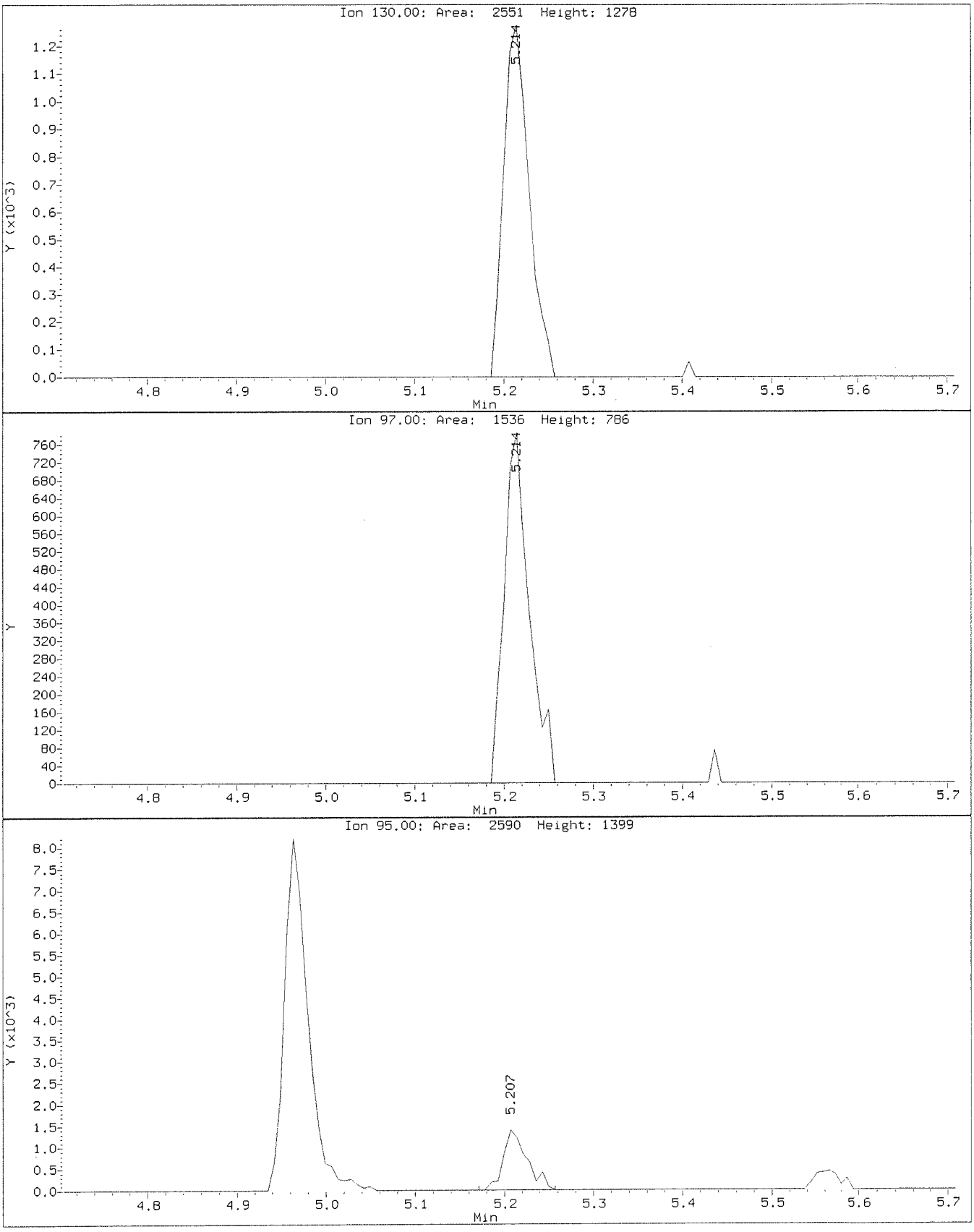
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Methylene Chloride
CAS Number: 75-09-2



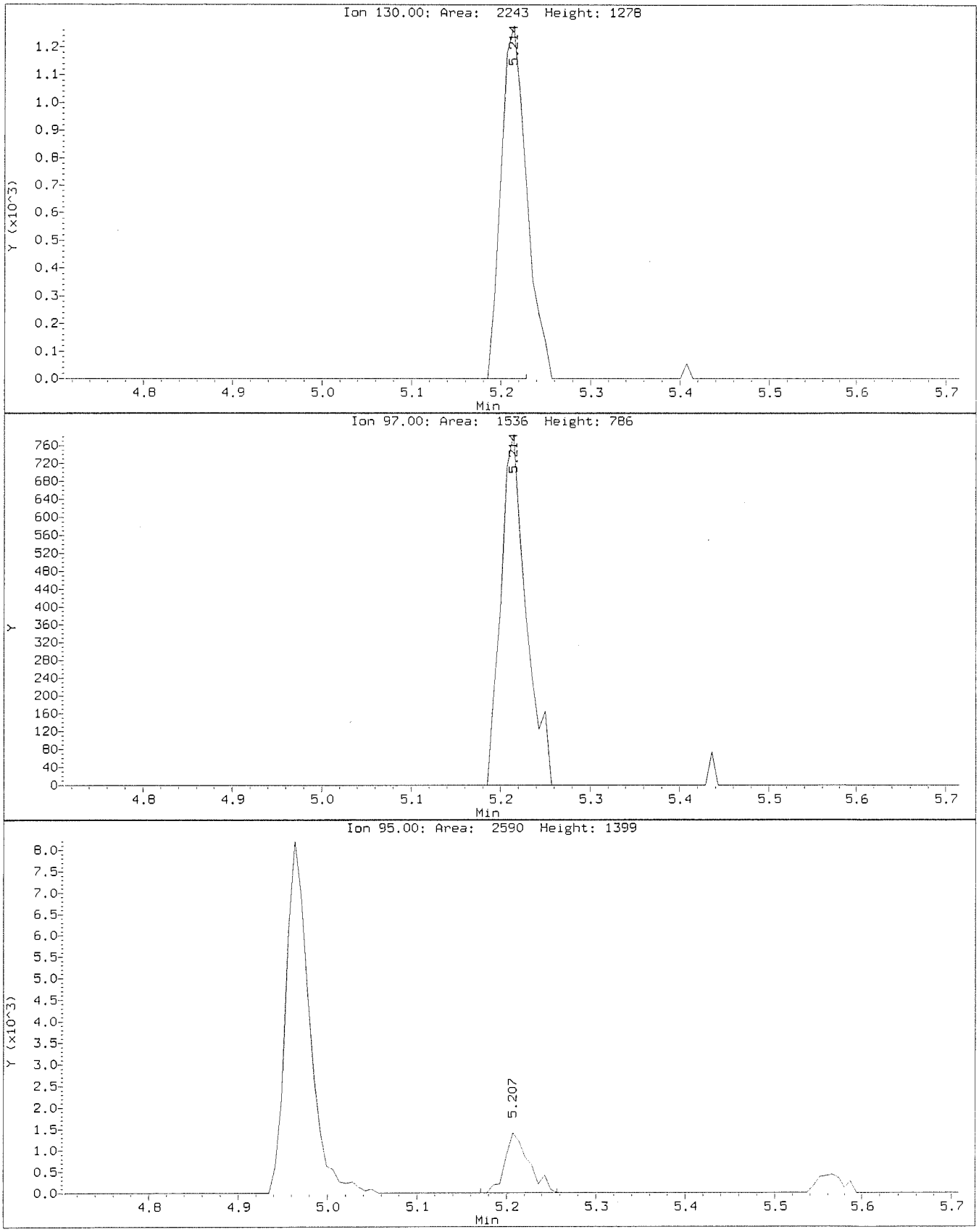
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Trichloroethene
CAS Number: 79-01-6



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Trichloroethene
CAS Number: 79-01-6



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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Lab Smp Id: VSTD001 Client Smp ID: VSTD001
Inj Date : 08-OCT-2021 14:11
Operator : PC Inst ID: voa6.i
Smp Info : VSTD001;VSTD001;1;3;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 12:43 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 13:50 Cal File: X100803.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

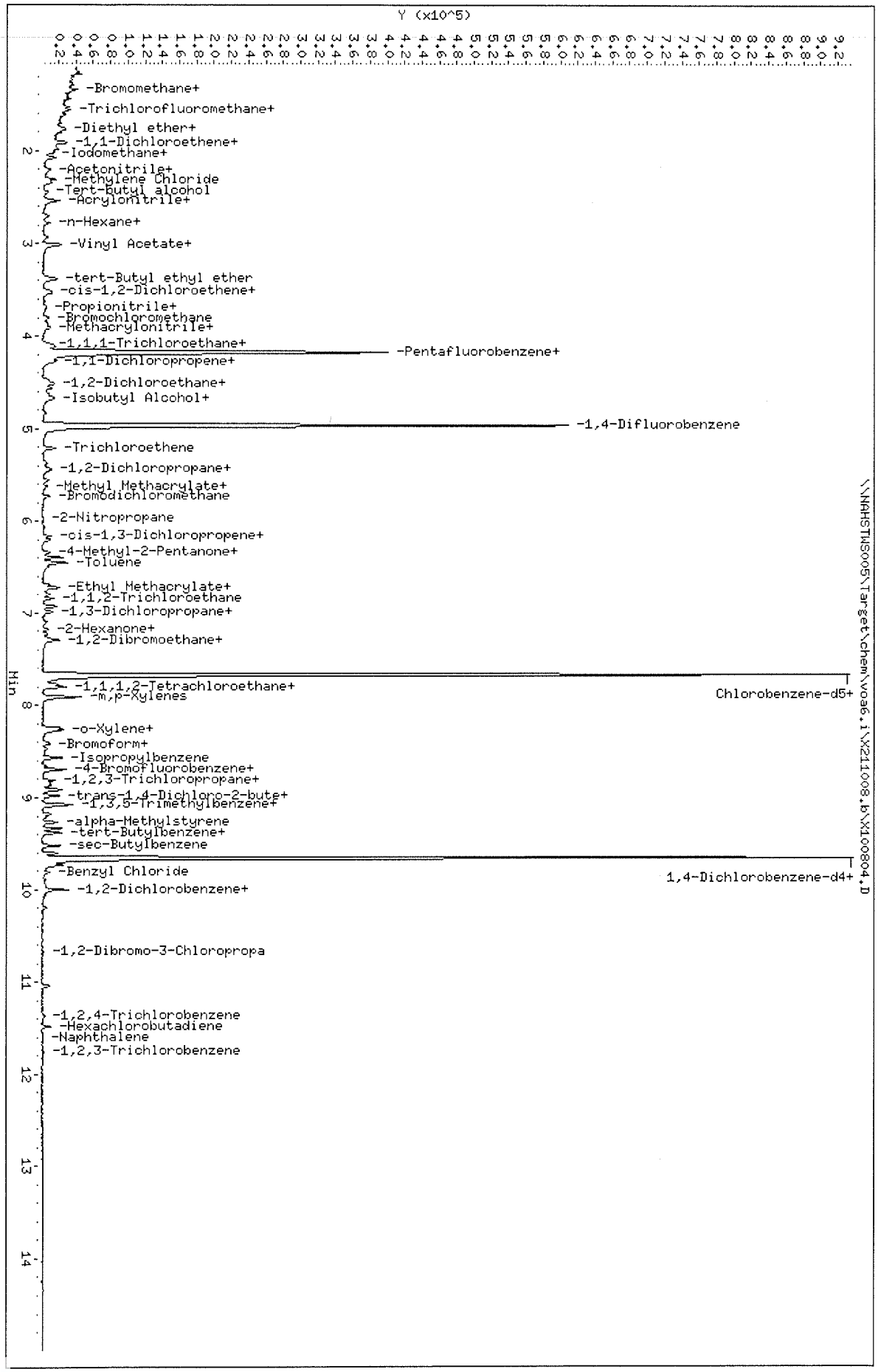
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	330851	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	4837	1.00000	0.38(a)
$ 35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	5961	1.00000	(a)
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	510278	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	471635	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	13455	1.00000	1.12(aM)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	8328	1.00000	0.70(a)
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	225436	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	3928	1.00000	1.13(aM)
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	3245	1.00000	1.09(a)
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	2510	1.00000	0.99(a)
17 Methylene Chloride	84	2.313	2.313	(0.553)	4333	1.00000	0.27(aM)
27 cis-1,2-Dichloroethene	96	3.538	3.538	(0.846)	3601	1.00000	1.04(a)
33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	4814	1.00000	1.12(a)
38 Trichloroethene	130	5.214	5.214	(1.051)	4864	1.00000	1.26(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

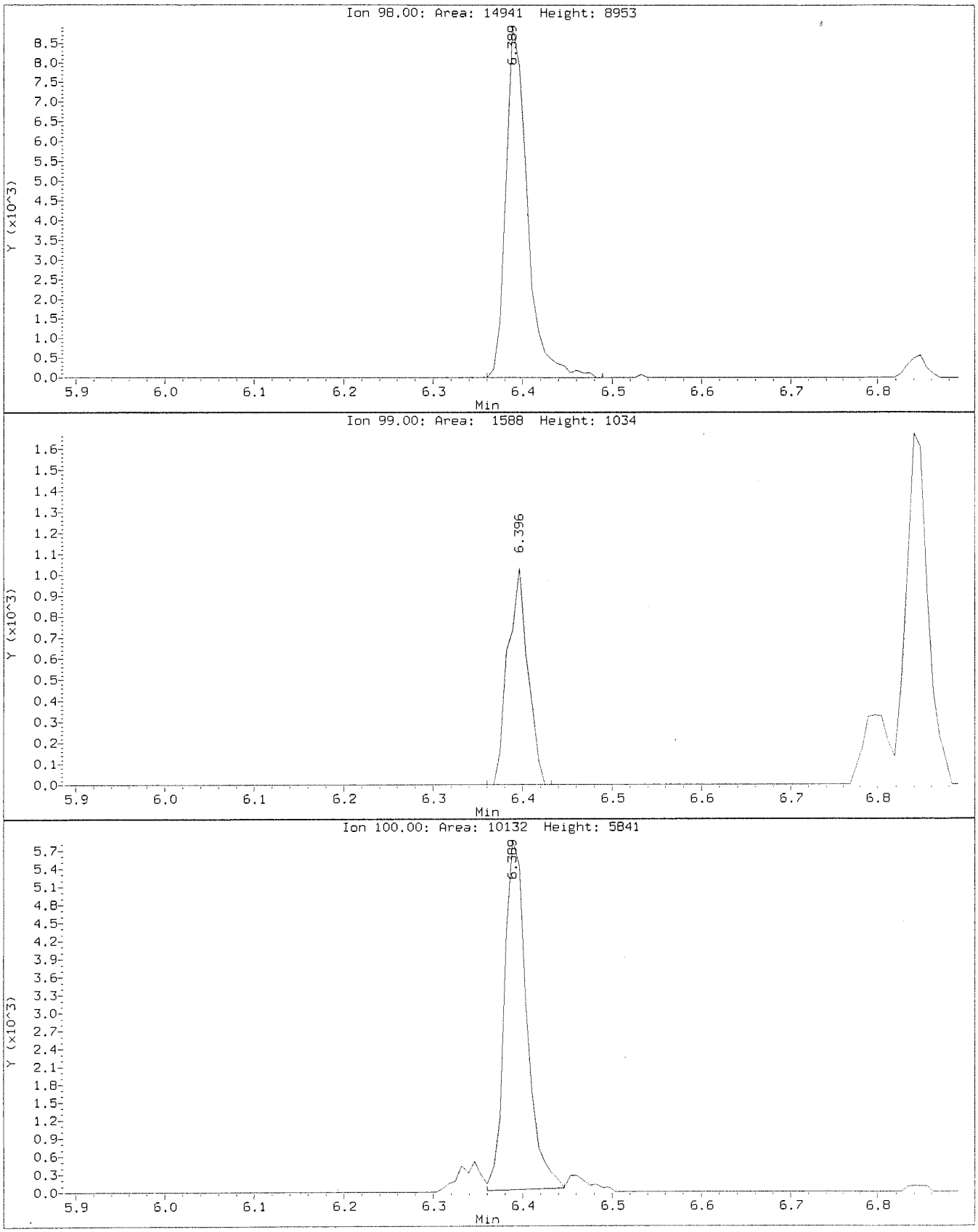


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Date : 08-OCT-2021 14:11
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

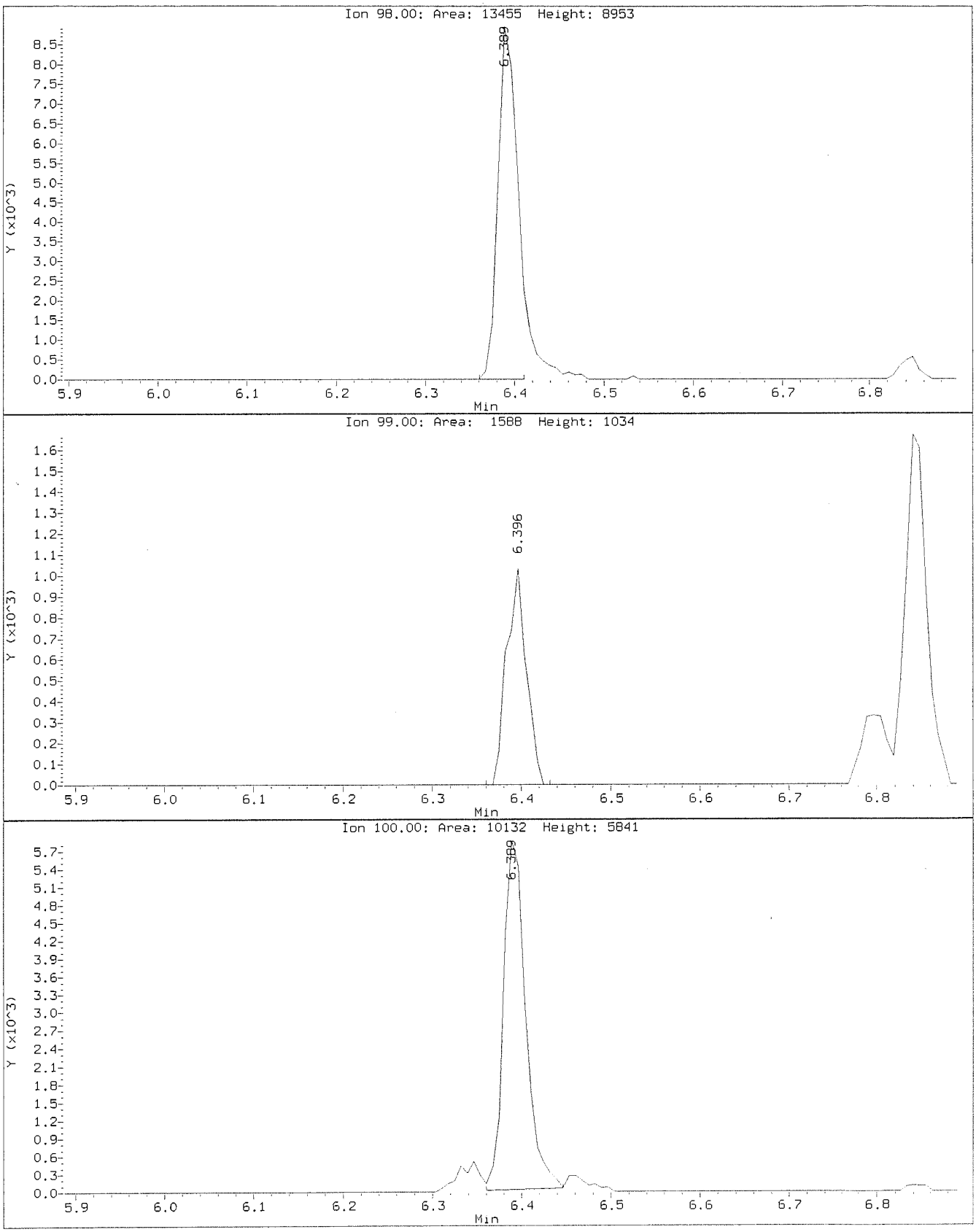
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Toluene-d8
CAS Number: 2037-26-5



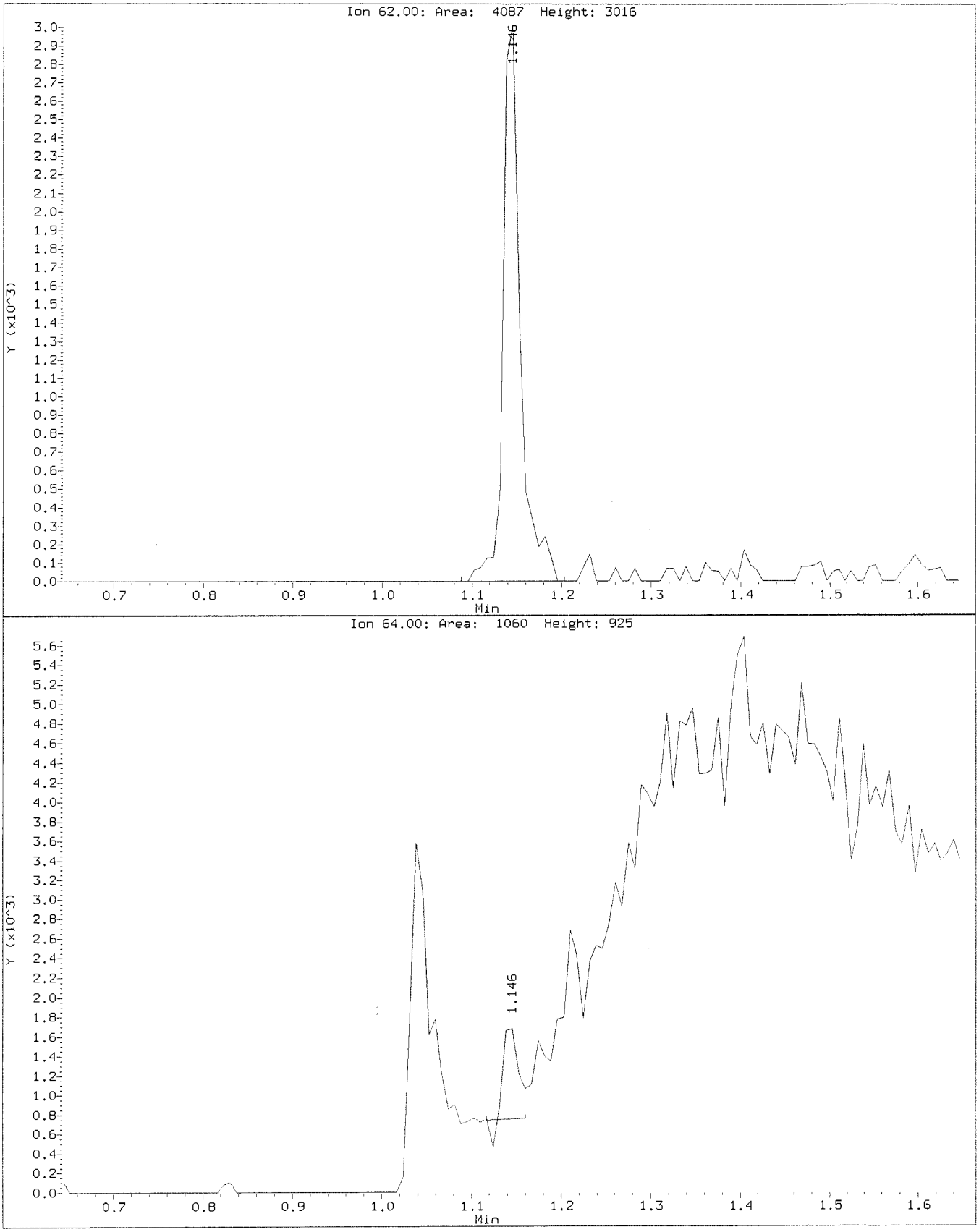
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Toluene-d8
CAS Number: 2037-26-5



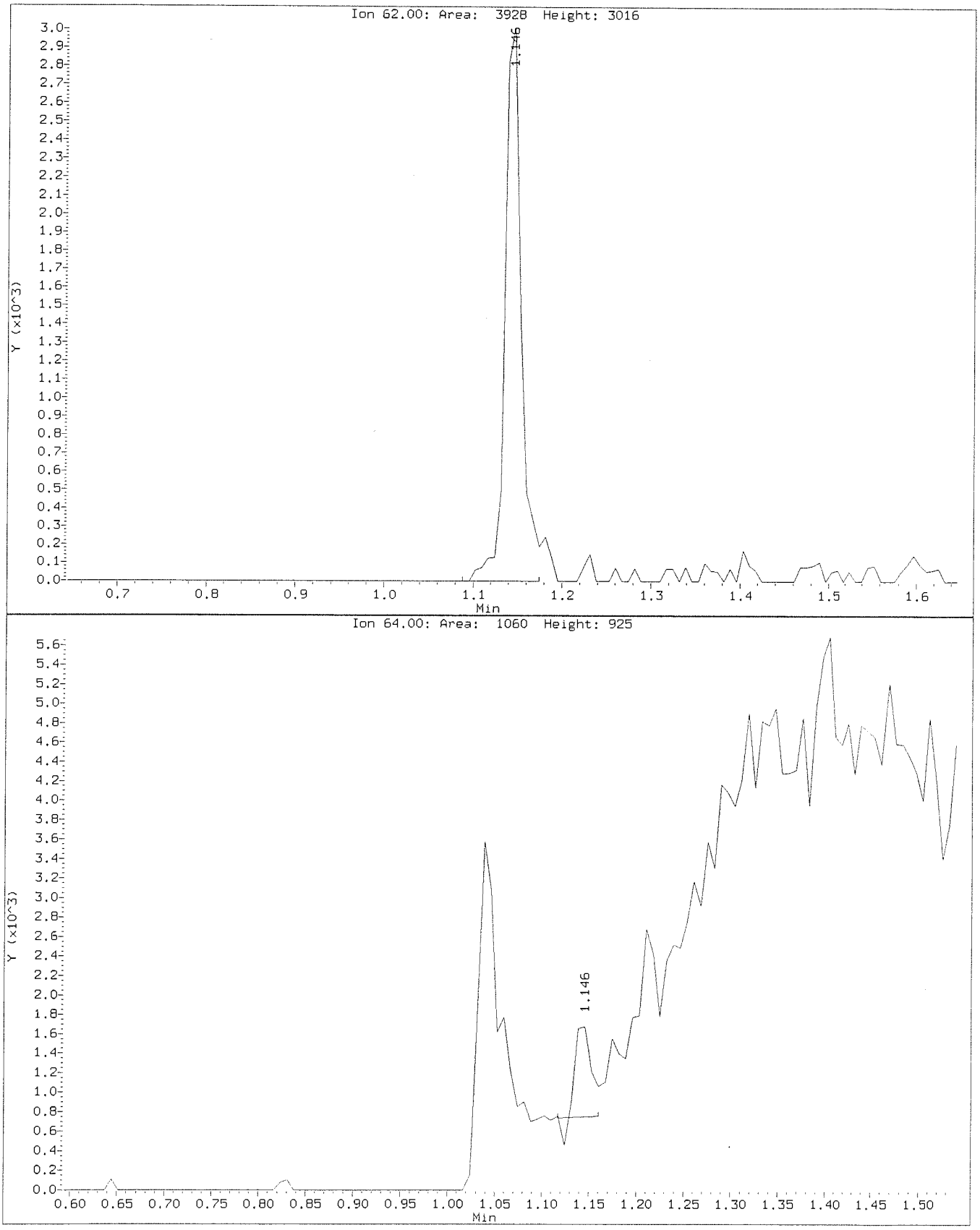
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Vinyl Chloride
CAS Number: 75-01-4



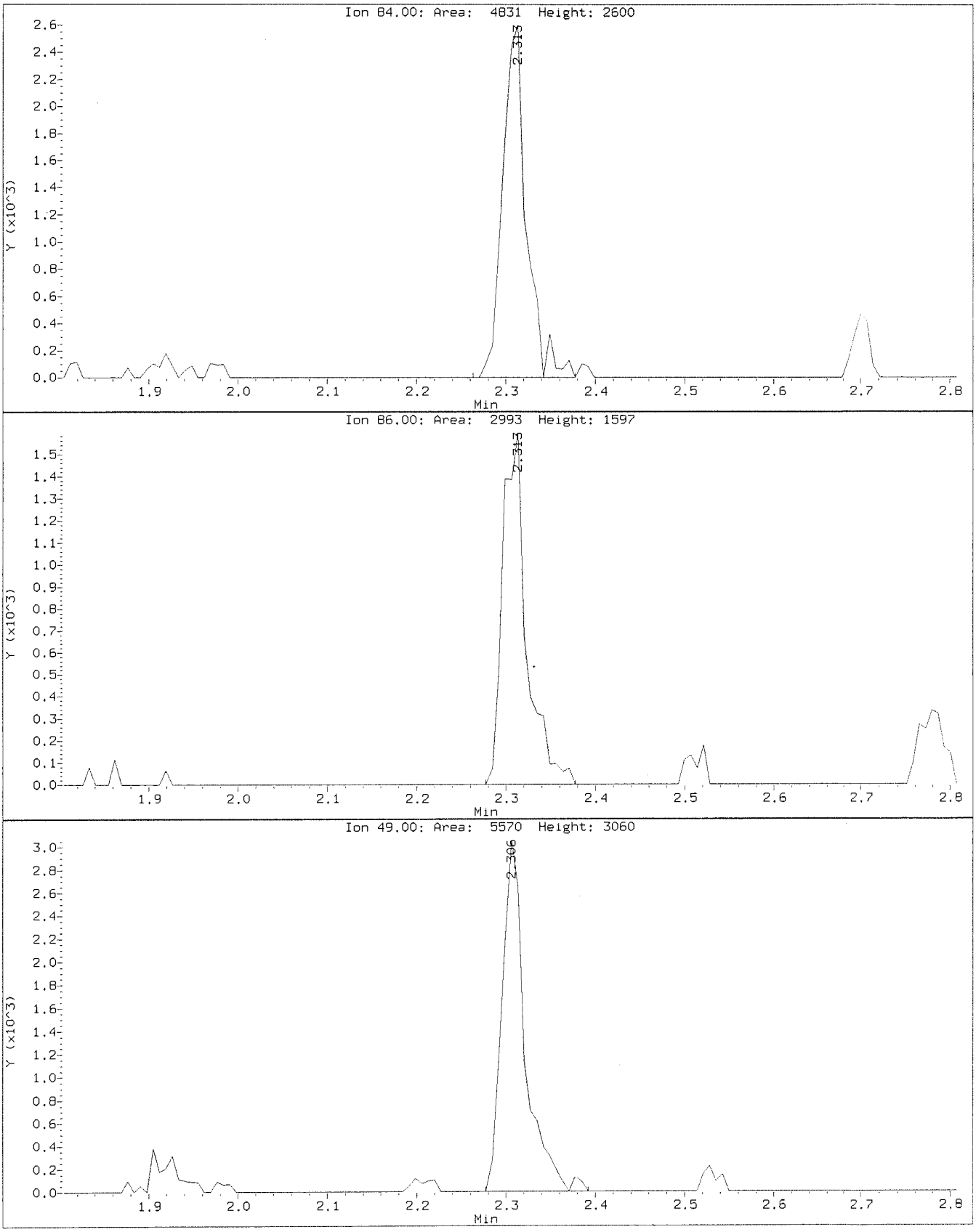
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Vinyl Chloride
CAS Number: 75-01-4



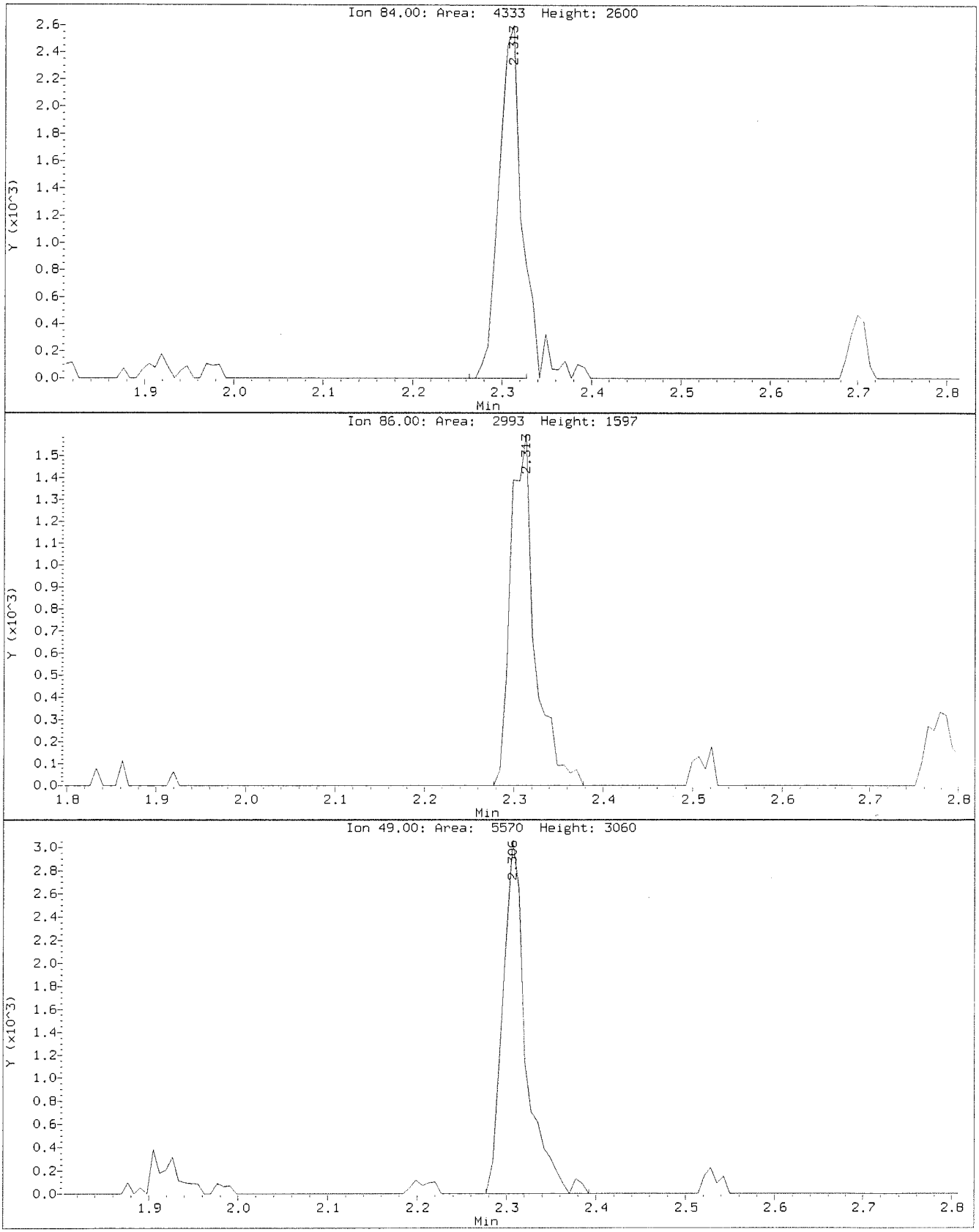
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Methylene Chloride
CAS Number: 75-09-2



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Methylene Chloride
CAS Number: 75-09-2



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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100805.D
Lab Smp Id: VSTD002 Client Smp ID: VSTD002
Inj Date : 08-OCT-2021 14:32
Operator : PC Inst ID: voa6.i
Smp Info : VSTD002;VSTD002;1;4;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 11:18 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 14:11 Cal File: X100804.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

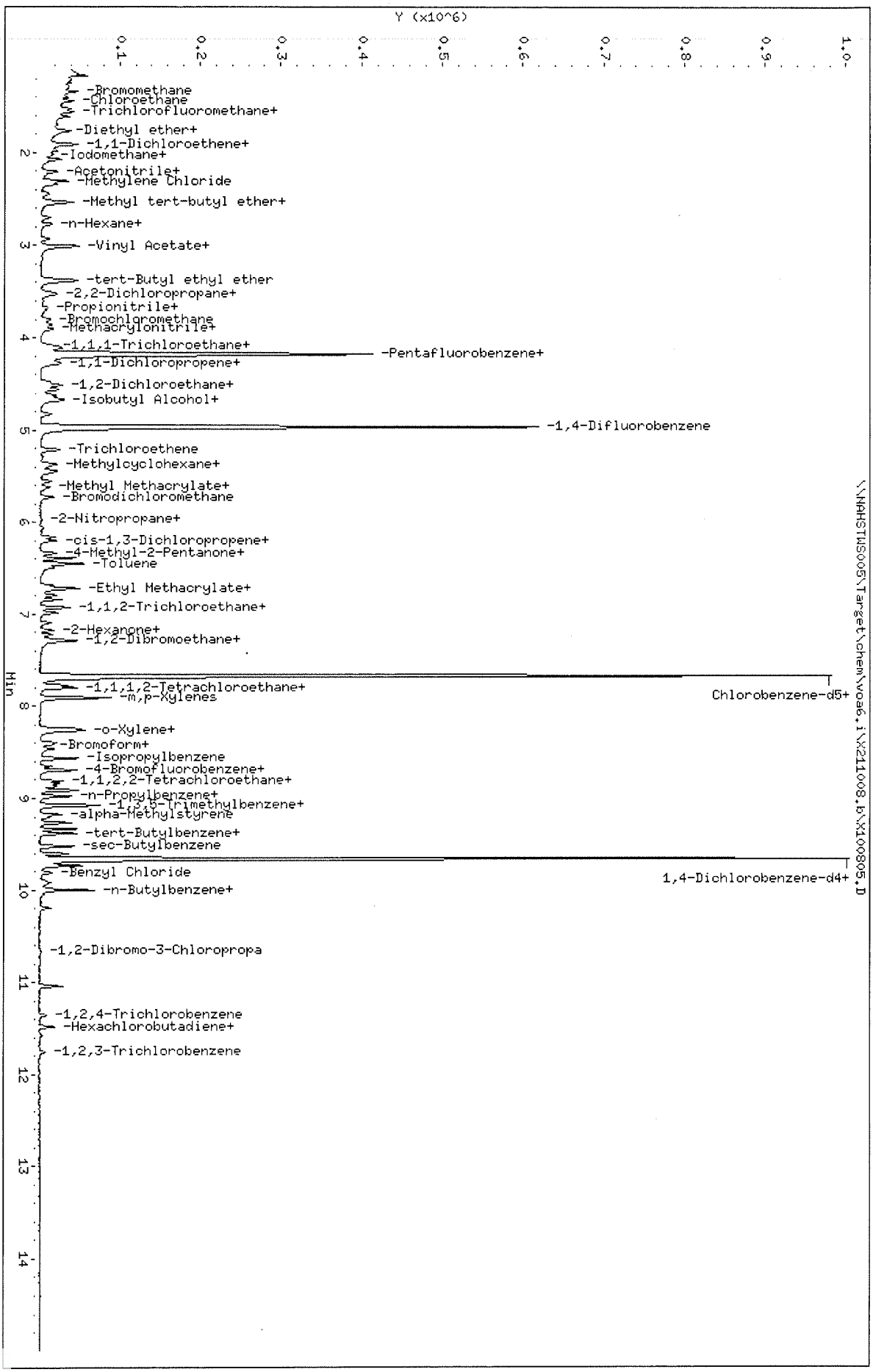
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	337388	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	8290	2.00000	1.41(a)
$ 35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	9717	2.00000	0.97(a)
* 36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	523249	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	483928	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	26169	2.00000	2.13(aM)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	13893	2.00000	2.00(a)
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	230329	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	7904	2.00000	2.23(a)
11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	6379	2.00000	2.11(a)
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	6097	2.00000	2.36(a)
17 Methylene Chloride	84	2.305	2.305	(0.551)	7762	2.00000	1.43(a)
27 cis-1,2-Dichloroethene	96	3.537	3.537	(0.846)	7524	2.00000	2.14(a)
33 1,2-Dichloroethane	62	4.562	4.562	(0.918)	9049	2.00000	2.06(a)
38 Trichloroethene	130	5.214	5.214	(1.049)	8221	2.00000	2.07(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

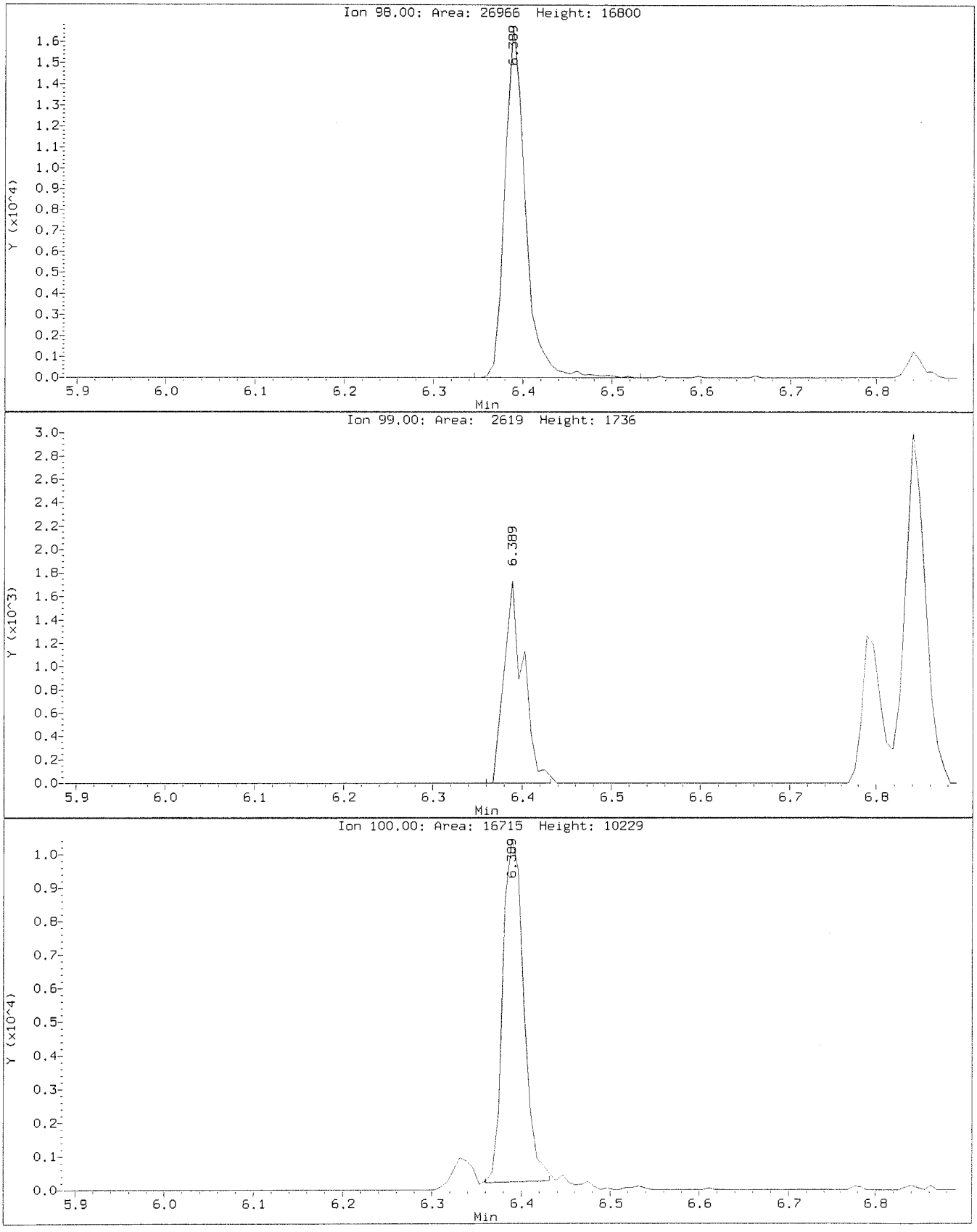


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100805.D
Date : 08-OCT-2021 14:32
Client ID: VSTD002
Sample Info: VSTD002;VSTD002;1;4;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

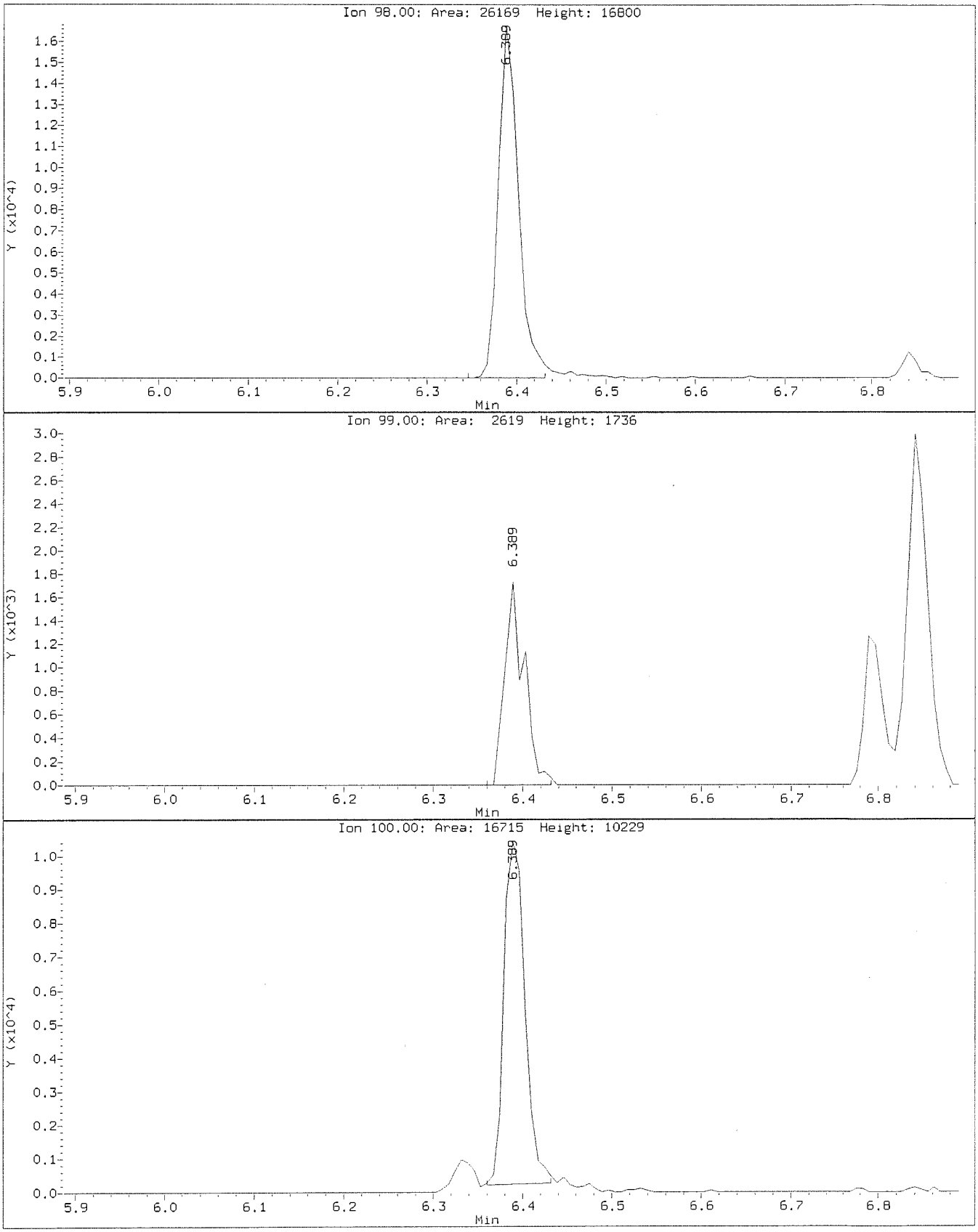
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100805.D
Injection Date: 08-OCT-2021 14:32
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Toluene-d8
CAS Number: 2037-26-5



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100805.D
Injection Date: 08-OCT-2021 14:32
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Toluene-d8
CAS Number: 2037-26-5



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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100806.D
Lab Smp Id: VSTD005 Client Smp ID: VSTD005
Inj Date : 08-OCT-2021 14:53
Operator : PC Inst ID: voa6.i
Smp Info : VSTD005;VSTD005;1;5;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 11:18 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 14:32 Cal File: X100805.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

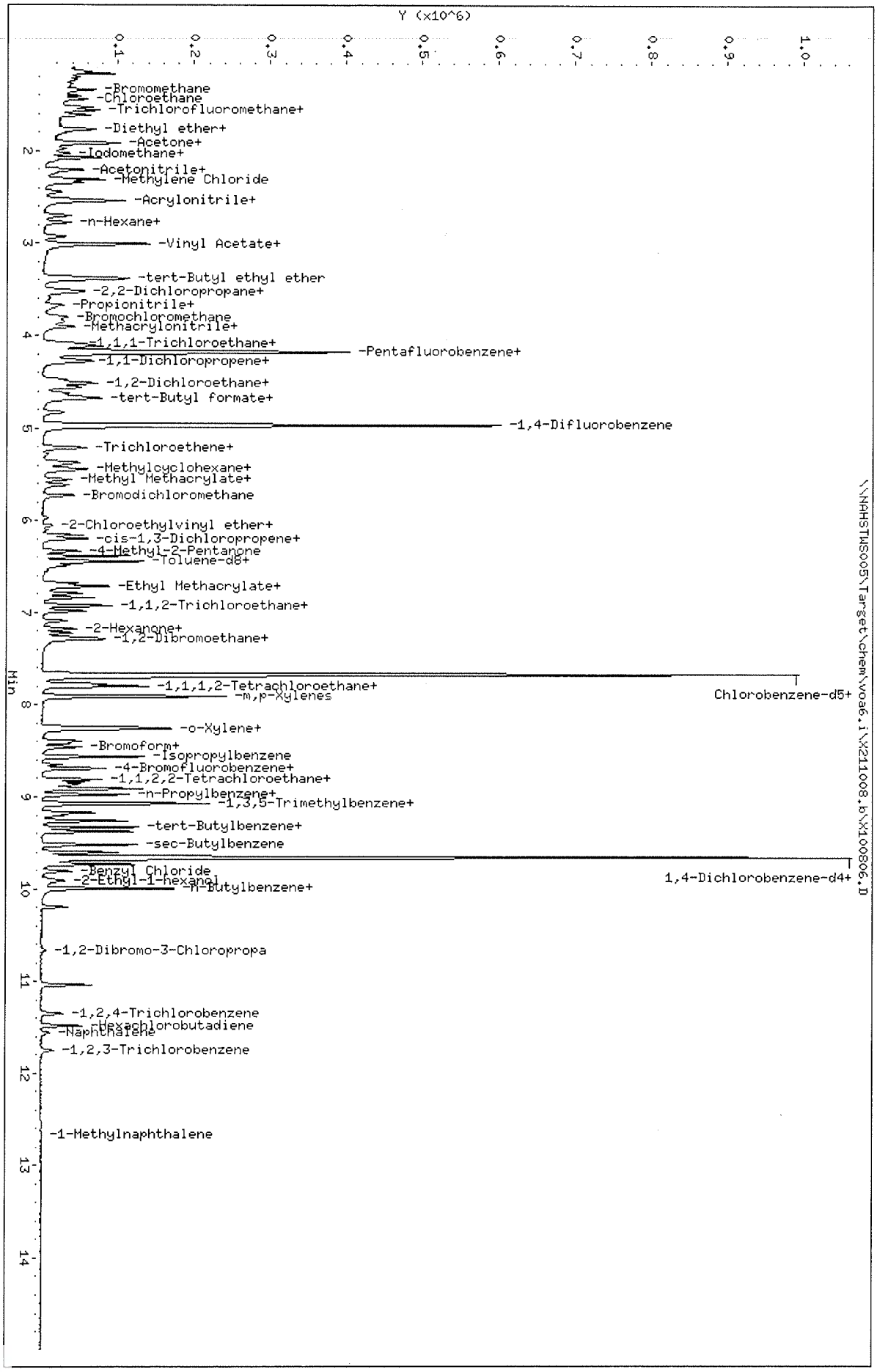
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		QUANT SIG					AMOUNTS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	333400	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	20676	5.00000	5.32
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	22194	5.00000	4.92(a)
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	515627	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	479811	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	65046	5.00000	5.34
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	24945	5.00000	4.74(a)
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	229555	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	20005	5.00000	5.72
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	16670	5.00000	5.60
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	14434	5.00000	5.63
	17 Methylene Chloride	84	2.305	2.305	(0.551)	19276	5.00000	5.52
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	19489	5.00000	5.62
	33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	23534	5.00000	5.44
	38 Trichloroethene	130	5.206	5.206	(1.049)	20177	5.00000	5.17

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100806.D
Date : 08-OCT-2021 14:53
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

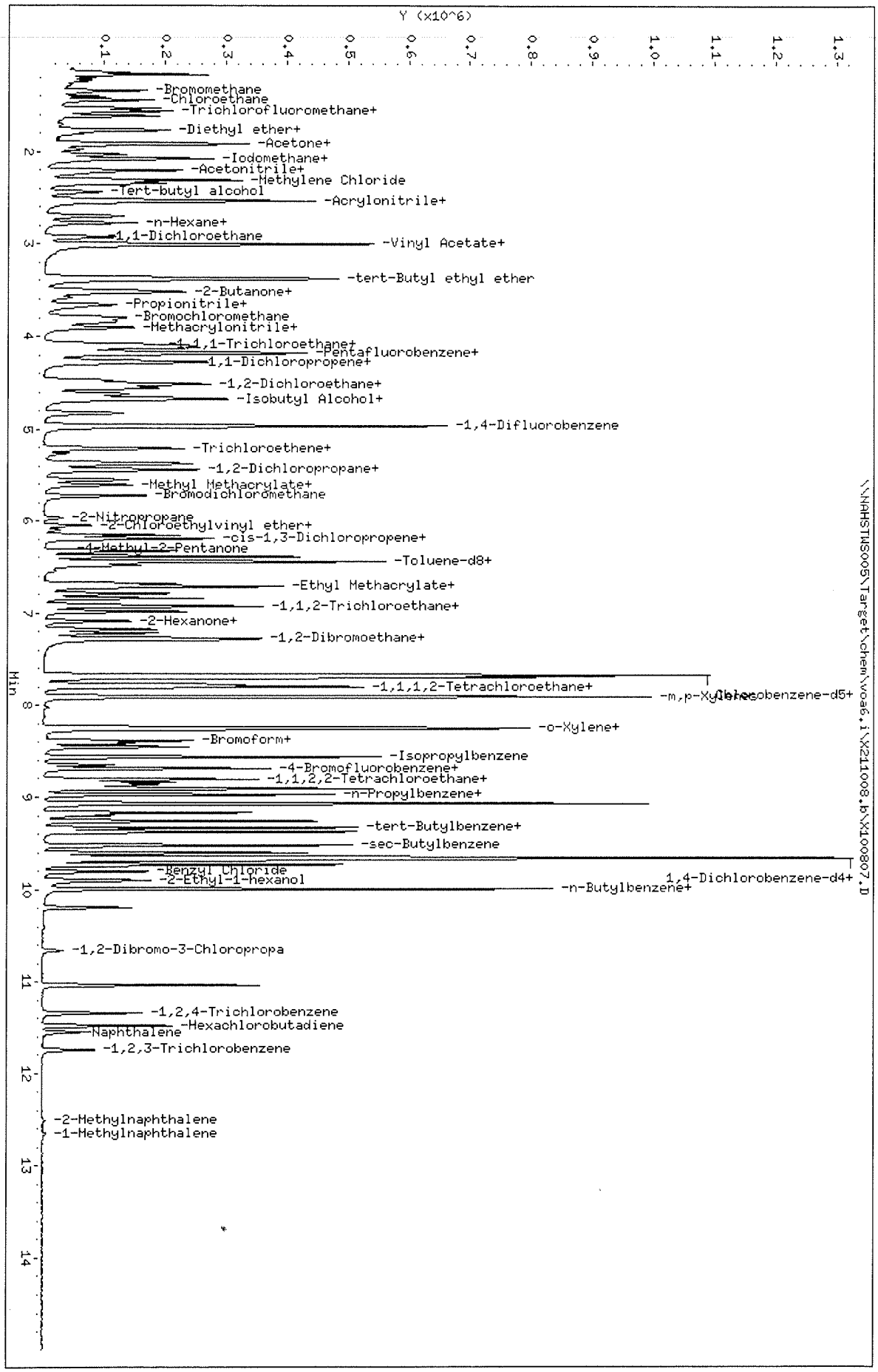
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100807.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 08-OCT-2021 15:14
Operator : PC Inst ID: voa6.i
Smp Info : VSTD020;VSTD020;1;6;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 11:18 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 14:53 Cal File: X100806.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	359250	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	78657	20.0000	21.67
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	84053	20.0000	22.43
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	552025	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	521772	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	248228	20.0000	18.74
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	96265	20.0000	20.33
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	270684	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	73837	20.0000	19.60
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	63174	20.0000	19.71
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	53753	20.0000	19.30
17 Methylene Chloride	84	2.306	2.306	(0.551)	70665	20.0000	21.85
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	77585	20.0000	20.77
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	94822	20.0000	20.47
38 Trichloroethene	130	5.207	5.207	(1.049)	78065	20.0000	18.69



Data File: \\NAHSTNS005\Target\chem\voa6.i\X211008.b\X100807.D
Date : 08-OCT-2021 15:14
Client ID: VSTD020
Sample Info: VSTD020;VSTD020;1;6;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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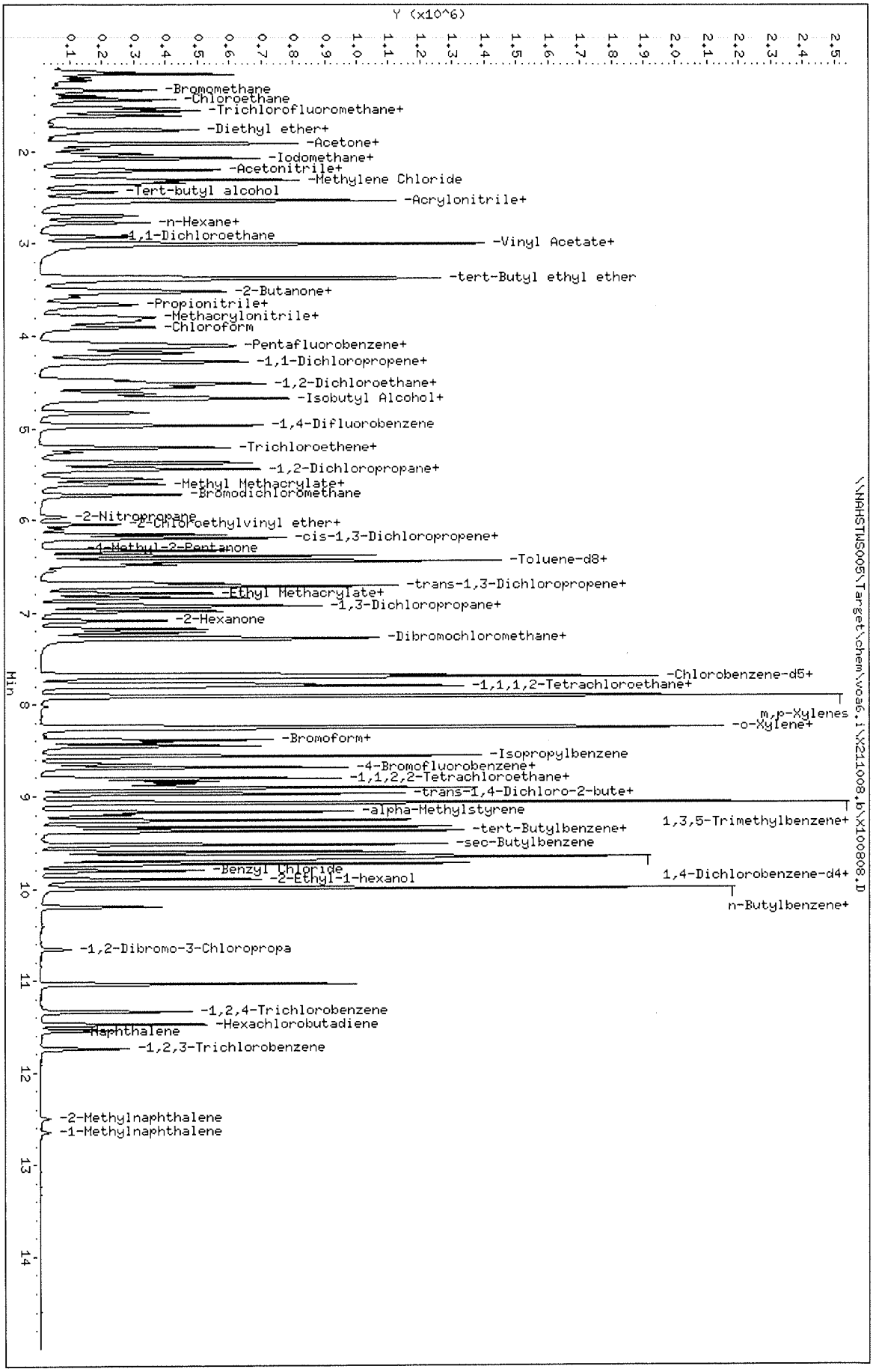
Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100808.D
Lab Smp Id: VSTD050 Client Smp ID: VSTD050
Inj Date : 08-OCT-2021 15:34
Operator : PC Inst ID: voa6.i
Smp Info : VSTD050;VSTD050;1;7;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 11:18 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:14 Cal File: X100807.D
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	392113	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	192579	50.0000	50.03
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	202478	50.0000	51.97
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	589876	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	564124	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	634808	50.0000	44.34
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	246655	50.0000	50.06
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	290705	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	182737	50.0000	44.44
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	159624	50.0000	45.63
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	140168	50.0000	46.56
17 Methylene Chloride	84	2.305	2.305	(0.551)	173952	50.0000	50.88
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	196461	50.0000	48.19
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	236990	50.0000	47.89
38 Trichloroethene	130	5.206	5.206	(1.049)	197218	50.0000	44.20



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100808.D
Date : 08-OCT-2021 15:34
Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

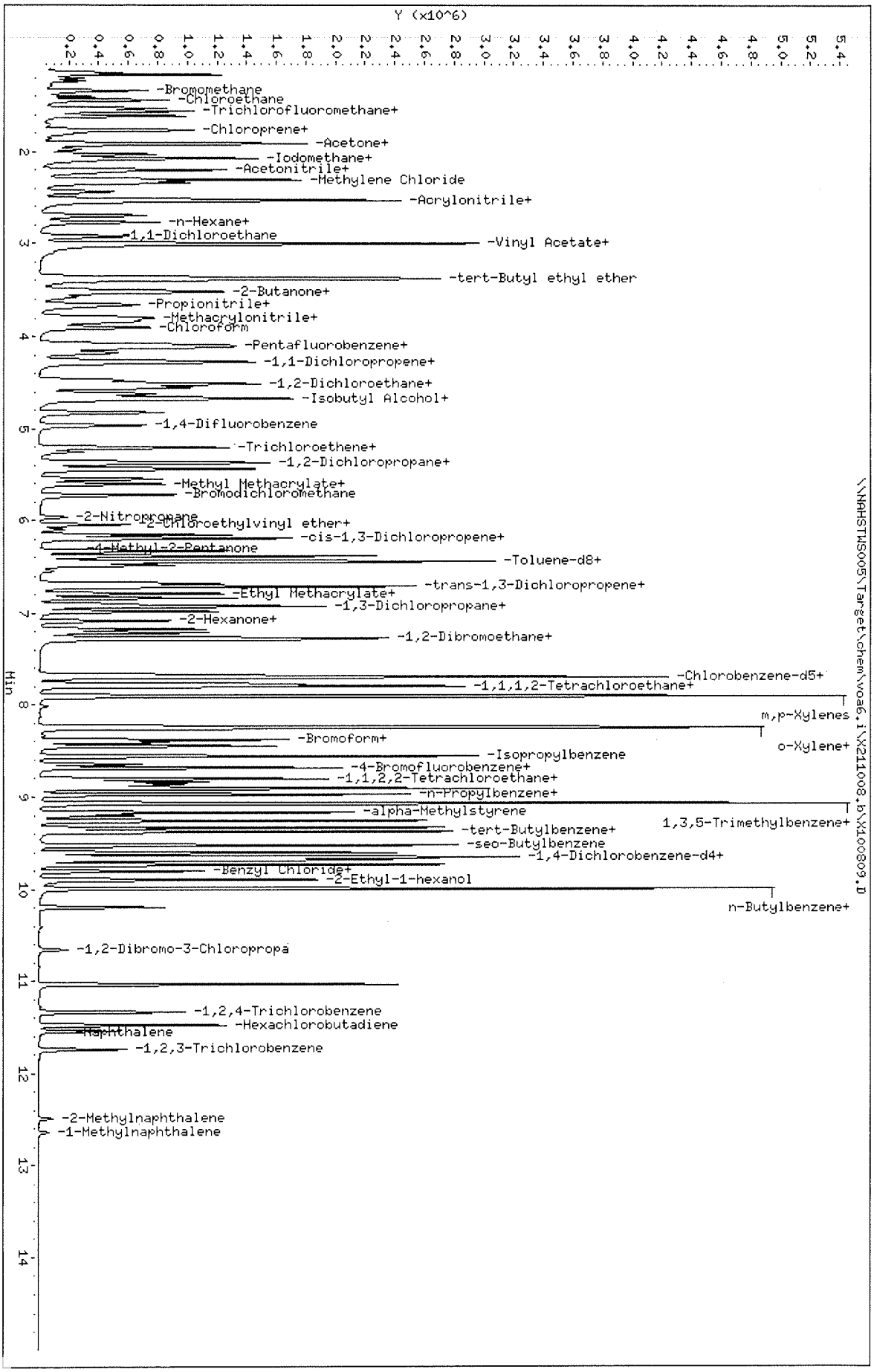
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100809.D
Lab Smp Id: VSTD100 Client Smp ID: VSTD100
Inj Date : 08-OCT-2021 15:55
Operator : PC Inst ID: voa6.i
Smp Info : VSTD100;VSTD100;1;8;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 11:18 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	418066	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	417318	100.000	102.87
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	416593	100.000	102.19
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	613866	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	579251	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1348785	100.000	91.75
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	511094	100.000	102.41
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	297050	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	381795	100.000	87.10
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	343969	100.000	92.23
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	291528	100.000	94.31
17 Methylene Chloride	84	2.305	2.305	(0.551)	361756	100.000	100.44
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	413298	100.000	95.08
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	479766	100.000	93.17
38 Trichloroethene	130	5.206	5.206	(1.049)	421689	100.000	90.81



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100809.D
Date : 08-OCT-2021 15:55
Client ID: WSTD100
Sample Info: WSTD100;WSTD100;1;8;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100810.D Page 1
Report Date: 12-Nov-2021 11:18

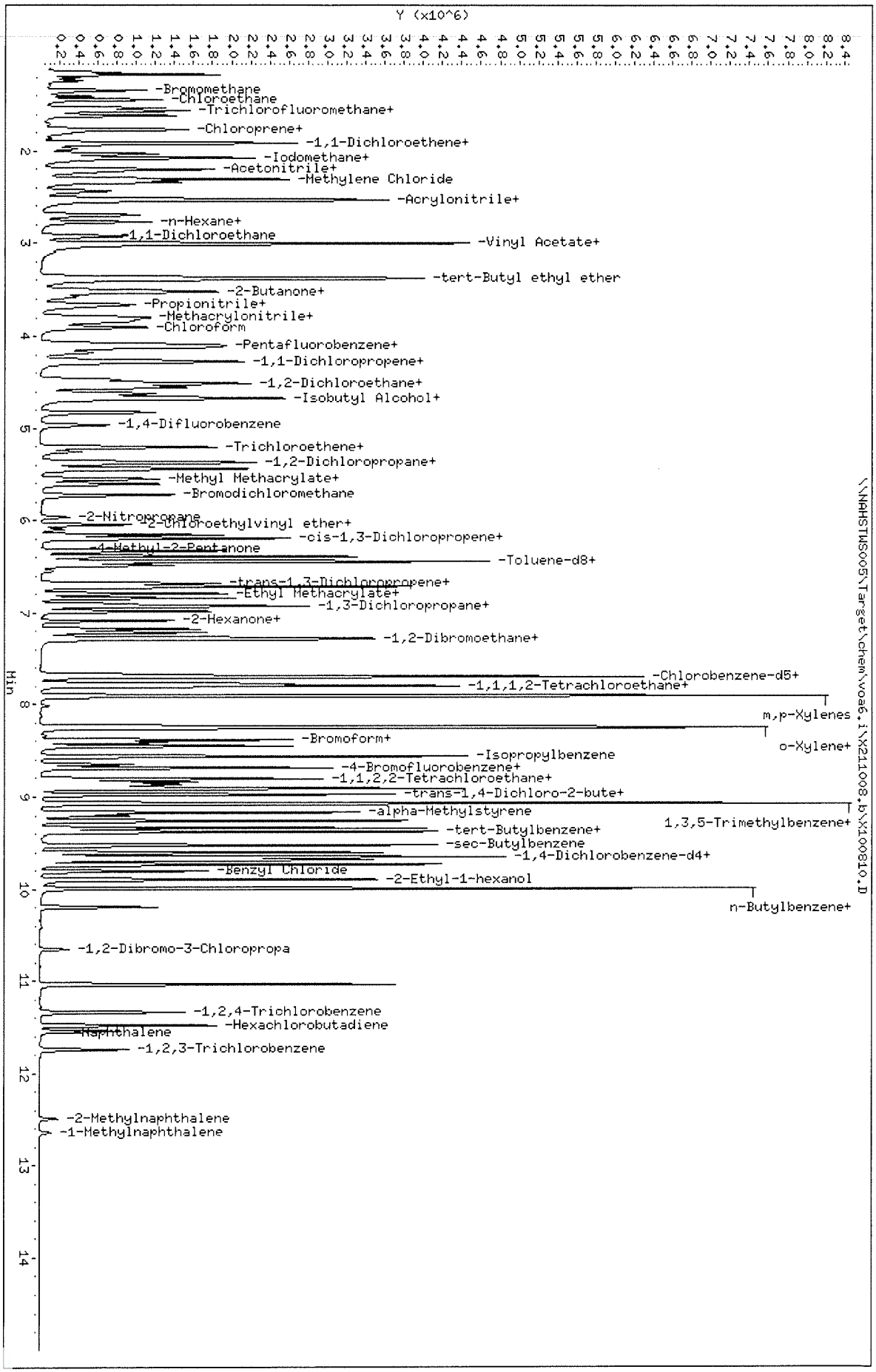
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100810.D
Lab Smp Id: VSTD150 Client Smp ID: VSTD150
Inj Date : 08-OCT-2021 16:16
Operator : PC Inst ID: voa6.i
Smp Info : VSTD150;VSTD150;1;9;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 11:18 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:55 Cal File: X100809.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	430506	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	604609	150.000	145.19
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	610768	150.000	146.35
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	614424	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	583017	50.0000	
$ 48 Toluene-d8	98	6.389	6.389	(0.833)	1910689	150.000	129.13
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	745510	150.000	149.04
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	301016	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	580048	150.000	128.51
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	518774	150.000	135.09
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	432811	150.000	139.12
17 Methylene Chloride	84	2.306	2.306	(0.551)	542343	150.000	146.81
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	618894	150.000	138.27
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	711577	150.000	138.06
38 Trichloroethene	130	5.207	5.207	(1.049)	618285	150.000	133.03



Data File: \\NAHSTMS005\Target\chem\voa6.i\X211008.b\X100810.D
Date : 08-OCT-2021 16:16
Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;9;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100811.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 08-OCT-2021 16:37
Operator : PC Inst ID: voa6.i
Smp Info : VSTD200;VSTD200;1;10;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 11:18 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 16:16 Cal File: X100810.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

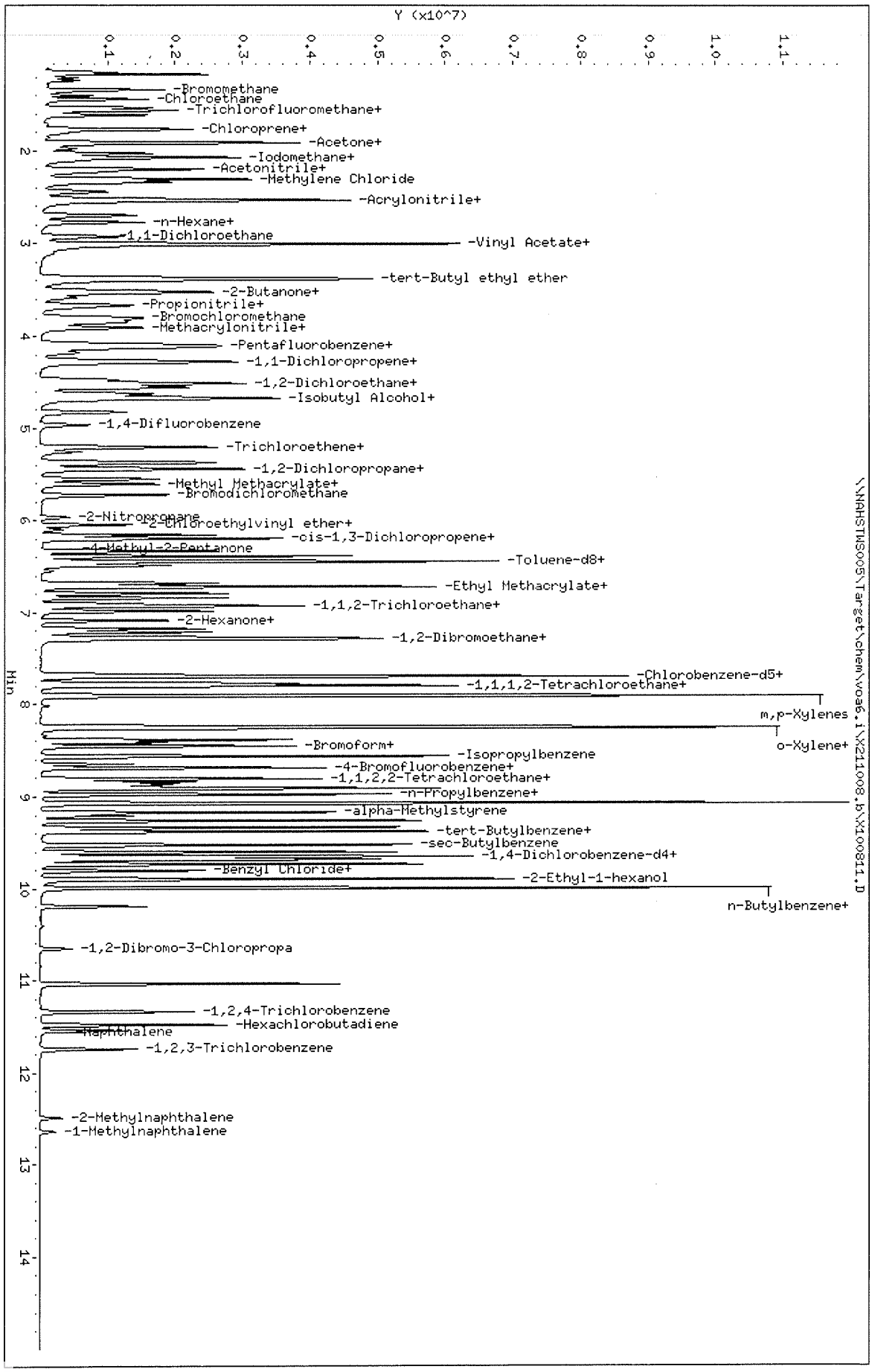
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	430833	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	839119	200.000	201.80(A)
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	835313	200.000	200.75(A)
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	629406	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	592993	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	2646847	200.000	175.88
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	1012260	200.000	199.42
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	308327	50.0000	
	5 Vinyl Chloride	62	1.138	1.138	(0.272)	811647	200.000	179.68
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	737348	200.000	191.86
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	595829	200.000	188.30
	17 Methylene Chloride	84	2.298	2.298	(0.550)	743741	200.000	201.65(A)
	27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	867147	200.000	193.59
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	971365	200.000	183.98
	38 Trichloroethene	130	5.206	5.206	(1.049)	867502	200.000	182.21

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100811.D
Date : 08-OCT-2021 16:37
Client ID: VSTD200
Sample Info: VSTD200;VSTD200;1;10;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

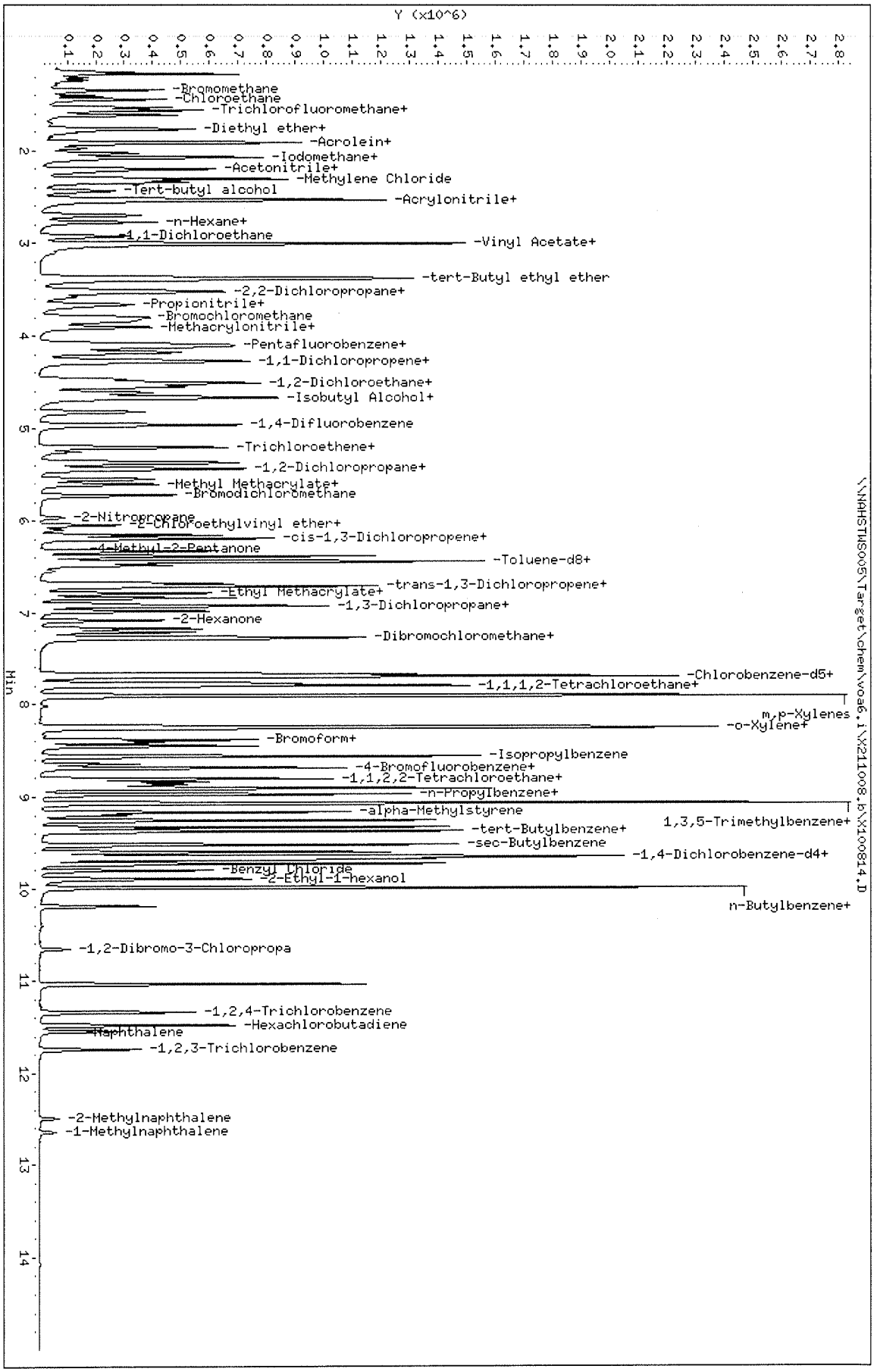
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100814.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 08-OCT-2021 17:40
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;ICV
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 11:18 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 16:37 Cal File: X100811.D
Als bottle: 15 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	411437	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	220373	54.6695	54.66
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	220262	53.9602	53.96
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	626955	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	584793	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	702141	47.3113	47.31
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	271877	53.3185	53.31
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	301385	50.0000	
5 Vinyl Chloride	62	1.145	1.138	(0.274)	203682	47.2176	47.21
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	177902	48.4732	48.47
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	149441	47.8902	47.89
17 Methylene Chloride	84	2.305	2.298	(0.551)	187907	52.4189	52.41
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	217393	50.8223	50.82
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	252375	47.9879	47.98
38 Trichloroethene	130	5.206	5.206	(1.049)	219352	46.2533	46.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100814.D
Date : 08-OCT-2021 17:40
Client ID: ICV
Sample Info: CCV;CCV;2;;;ICV
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

MSVOA06 -Logbook

Batch: 46875
Date: 10-21-2021
Method: 8260
Comments:

Analyst: Presenta Cabascango
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
1	BFB	BFB	10-21-2021 10:47 am	1.00	0.00 mL	0.00 mL	X102101.D	Liquid	Y	N
2	CCV	CCV	10-21-2021 11:08 am	1.00	5.00 mL	0.00 mL	X102102a.D	Liquid	Y	N
3	CCV	CCV	10-21-2021 11:29 am	1.00	5.00 mL	0.00 mL	X102103.D	Liquid	Y	N
4	CCB	SAMP	10-21-2021 11:50 am	1.00	5.00 mL	0.00 mL	X102104.D	Liquid	Y	N
5	VLCSW-211021	LCS	10-21-2021 12:11 pm	1.00	5.00 mL	0.00 mL	X102105.D	Liquid	Y	N
6	BLANK	SAMP	10-21-2021 12:32 pm	1.00	5.00 mL	0.00 mL	X102106.D	Liquid	Y	N
7	VBLKW-211021	MBLK	10-21-2021 12:53 pm	1.00	5.00 mL	0.00 mL	X102107.D	Liquid	Y	N
8	HS21101070-01	SAMP	10-21-2021 01:14 pm	1.00	5.00 mL	0.00 mL	X102108.D	Liquid	Y	N
9	HS21101070-02	SAMP	10-21-2021 01:35 pm	1.00	5.00 mL	0.00 mL	X102109.D	Liquid	Y	N
10	HS21101062-06	SAMP	10-21-2021 01:56 pm	1.00	5.00 mL	0.00 mL	X102110.D	Liquid	Y	N
11	HS21101062-01	SAMP	10-21-2021 02:17 pm	1.00	5.00 mL	0.00 mL	X102111.D	Liquid	Y	N
12	HS21101062-03	SAMP	10-21-2021 02:38 pm	1.00	5.00 mL	0.00 mL	X102112.D	Liquid	Y	N
13	HS21101062-06MS	MS	10-21-2021 02:59 pm	1.00	5.00 mL	0.00 mL	X102113.D	Liquid	Y	N
14	HS21101062-06MSD	MSD	10-21-2021 03:20 pm	1.00	5.00 mL	0.00 mL	X102114.D	Liquid	Y	N
15	HS21101062-03	SAMP	10-21-2021 03:41 pm	5.00	5.00 mL	0.00 mL	X102115.D	Liquid	Y	N
16	HS21101060-01	SAMP	10-21-2021 04:02 pm	1.00	5.00 mL	0.00 mL	X102116.D	Liquid	Y	N
17	HS21101060-02	SAMP	10-21-2021 04:23 pm	1.00	5.00 mL	0.00 mL	X102117.D	Liquid	Y	N
18	HS21101060-04	SAMP	10-21-2021 04:44 pm	1.00	5.00 mL	0.00 mL	X102118.D	Liquid	Y	N
19	HS21101060-06	SAMP	10-21-2021 05:05 pm	1.00	5.00 mL	0.00 mL	X102119.D	Liquid	Y	N
20	HS21101060-03	SAMP	10-21-2021 05:26 pm	5.00	5.00 mL	0.00 mL	X102120.D	Liquid	Y	N
21	HS21101060-05	SAMP	10-21-2021 05:47 pm	5.00	5.00 mL	0.00 mL	X102121.D	Liquid	Y	N
22	HS21101066-01	SAMP	10-21-2021 06:09 pm	1.00	5.00 mL	0.00 mL	X102122.D	Liquid	Y	N
23	HS21101066-02	SAMP	10-21-2021 06:30 pm	1.00	5.00 mL	0.00 mL	X102123.D	Liquid	Y	N
24	HS21101066-03	SAMP	10-21-2021 06:51 pm	1.00	5.00 mL	0.00 mL	X102124.D	Liquid	Y	N
25	HS21101066-04	SAMP	10-21-2021 07:12 pm	1.00	5.00 mL	0.00 mL	X102125.D	Liquid	Y	N
26	HS21101066-05	SAMP	10-21-2021 07:33 pm	1.00	5.00 mL	0.00 mL	X102126.D	Liquid	Y	N
27	HS21101066-07	SAMP	10-21-2021 07:54 pm	1.00	5.00 mL	0.00 mL	X102127.D	Liquid	Y	N
28	HS21101069-03	SAMP	10-21-2021 08:15 pm	1.00	5.00 mL	0.00 mL	X102128.D	Liquid	Y	N
29	HS21101066-06	SAMP	10-21-2021 08:36 pm	25.00	5.00 mL	0.00 mL	X102129.D	Liquid	Y	N
30	CCV-END	CCV	10-21-2021 08:57 pm	1.00	5.00 mL	0.00 mL	X102130.D	Liquid	Y	N
31	BFB	BFB	10-21-2021 09:18 pm	1.00	0.00 mL	0.00 mL	Y102101.D	Liquid	Y	N
32	CCV	CCV	10-21-2021 09:39 pm	1.00	5.00 mL	0.00 mL	Y102102a.D	Liquid	Y	N
33	CCV	CCV	10-21-2021 10:00 pm	1.00	5.00 mL	0.00 mL	Y102103.D	Liquid	Y	N
34	CCB	SAMP	10-21-2021 10:21 pm	1.00	5.00 mL	0.00 mL	Y102104.D	Liquid	Y	N
35	VLCSW-211021	LCS	10-21-2021 10:42 pm	1.00	5.00 mL	0.00 mL	Y102105.D	Liquid	Y	N
36	BLANK	SAMP	10-21-2021 11:03 pm	1.00	5.00 mL	0.00 mL	Y102106.D	Liquid	Y	N
37	VBLKW-211021	MBLK	10-21-2021 11:24 pm	1.00	5.00 mL	0.00 mL	Y102107.D	Liquid	Y	N
38	HS21100668-09	SAMP	10-21-2021 11:45 pm	1.00	5.00 mL	0.00 mL	Y102108.D	Liquid	Y	N
39	HS21100785-09	SAMP	10-22-2021 12:06 am	1.00	5.00 mL	0.00 mL	Y102109.D	Liquid	Y	N
40	HS21100668-01	SAMP	10-22-2021 12:27 am	1.00	5.00 mL	0.00 mL	Y102110.D	Liquid	Y	N
41	HS21100668-02	SAMP	10-22-2021 12:48 am	1.00	5.00 mL	0.00 mL	Y102111.D	Liquid	Y	N

MSVOA06 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	I
42	HS21100668-01MS	MS	10-22-2021 01:09 am	1.00	5.00 mL	0.00 mL	Y102112.D	Liquid	Y	I
43	HS21100668-01MSD	MSD	10-22-2021 01:30 am	1.00	5.00 mL	0.00 mL	Y102113.D	Liquid	Y	I
44	HS21100668-02	SAMP	10-22-2021 01:51 am	10.00	5.00 mL	0.00 mL	Y102114.D	Liquid	Y	I
45	HS21100668-03	SAMP	10-22-2021 02:12 am	1.00	5.00 mL	0.00 mL	Y102115.D	Liquid	Y	I
46	HS21100668-04	SAMP	10-22-2021 02:33 am	1.00	5.00 mL	0.00 mL	Y102116.D	Liquid	Y	I
47	HS21100668-05	SAMP	10-22-2021 02:54 am	1.00	5.00 mL	0.00 mL	Y102117.D	Liquid	Y	I
48	HS21100668-06	SAMP	10-22-2021 03:16 am	1.00	5.00 mL	0.00 mL	Y102118.D	Liquid	Y	I
49	HS21100668-07	SAMP	10-22-2021 03:37 am	1.00	5.00 mL	0.00 mL	Y102119.D	Liquid	Y	I
50	HS21100668-08	SAMP	10-22-2021 03:58 am	1.00	5.00 mL	0.00 mL	Y102120.D	Liquid	Y	I
51	HS21100785-06	SAMP	10-22-2021 04:19 am	1.00	5.00 mL	0.00 mL	Y102121.D	Liquid	Y	I
52	HS21100785-07	SAMP	10-22-2021 04:40 am	1.00	5.00 mL	0.00 mL	Y102122.D	Liquid	Y	I
53	HS21100785-08	SAMP	10-22-2021 05:01 am	1.00	5.00 mL	0.00 mL	Y102123.D	Liquid	Y	I
54	HS21100785-02	SAMP	10-22-2021 05:22 am	1.00	5.00 mL	0.00 mL	Y102124.D	Liquid	Y	I
55	HS21100785-01	SAMP	10-22-2021 05:43 am	5.00	5.00 mL	0.00 mL	Y102125.D	Liquid	Y	I
56	HS21100785-01	SAMP	10-22-2021 06:04 am	25.00	5.00 mL	0.00 mL	Y102126.D	Liquid	Y	I
57	HS21100785-03	SAMP	10-22-2021 06:25 am	25.00	5.00 mL	0.00 mL	Y102127.D	Liquid	Y	I
58	HS21100785-03	SAMP	10-22-2021 06:46 am	250.0(	5.00 mL	0.00 mL	Y102128.D	Liquid	Y	I
59	HS21100785-04	SAMP	10-22-2021 07:07 am	10.00	5.00 mL	0.00 mL	Y102129.D	Liquid	Y	I
60	CCV-END	CCV	10-22-2021 07:28 am	1.00	5.00 mL	0.00 mL	Y102130.D	Liquid	Y	I
61	BLANK	SAMP	10-22-2021 07:49 am	1.00	5.00 mL	0.00 mL	Y102131.D	Liquid	Y	I

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE)#	SMC3 (TOL)#	OTHER #	TOT OUT
01	VLCSW-211021	109	113	94	104	0
02	VBLKW-211021	97	97	98	97	0
03	HS21100785-09	97	97	100	99	0
04	HS21100668-01MS	98	99	96	103	0
05	HS21100668-01MSD	98	96	97	102	0
06	HS21100785-06	99	99	98	98	0
07	HS21100785-07	96	97	100	104	0
08	HS21100785-08	98	98	100	100	0
09	HS21100785-02	100	101	99	99	0
10	HS21100785-01	100	102	98	98	0
11	HS21100785-01	98	101	99	100	0
12	HS21100785-03	95	98	98	99	0
13	HS21100785-03	98	98	99	97	0
14	HS21100785-04	99	99	97	99	0
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						

		QC LIMITS
SMC1	= Dibromofluoromethane	(70-130)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(70-130)
SMC3 (TOL)	= Toluene-d8	(70-130)
OTHER	= 4-Bromofluorobenzene	(70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

VBLKW-211021

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Lab File ID: Y102107 Lab Sample ID: VBLKW-211021

Date Analyzed: 10/21/21 Time Analyzed: 2324

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSW-211021	VLCSW-211021	Y102105	2242
02	HS21100785-09	HS21100785-09	Y102109	0006
03	HS21100668-01MS	HS21100668-01MS	Y102112	0109
04	HS21100668-01MSD	HS21100668-01MSD	Y102113	0130
05	HS21100785-06	HS21100785-06	Y102121	0419
06	HS21100785-07	HS21100785-07	Y102122	0440
07	HS21100785-08	HS21100785-08	Y102123	0501
08	HS21100785-02	HS21100785-02	Y102124	0522
09	HS21100785-01	HS21100785-01	Y102125	0543
10	HS21100785-01	HS21100785-01	Y102126	0604
11	HS21100785-03	HS21100785-03	Y102127	0625
12	HS21100785-03	HS21100785-03	Y102128	0646
13	HS21100785-04	HS21100785-04	Y102129	0707
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Lab File ID: Y102101 BFB Injection Date: 10/21/21

Instrument ID: VOA6 BFB Injection Time: 2118

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.7
75	30.0 - 60.0% of mass 95	43.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	1.1 (1.1)1
174	Greater than 50.0% of mass 95	98.9
175	5.0 - 9.0% of mass 174	7.8 (7.9)1
176	95.0 - 101.0% of mass 174	94.6 (95.7)1
177	5.0 - 9.0% of mass 176	6.0 (6.3)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	Y102103	10/21/21	2200
02	VLCSW-211021	VLCSW-211021	Y102105	10/21/21	2242
03	VBLKW-211021	VBLKW-211021	Y102107	10/21/21	2324
04	HS21100785-09	HS21100785-09	Y102109	10/22/21	0006
05	HS21100668-01MS	HS21100668-01MS	Y102112	10/22/21	0109
06	HS21100668-01MSD	HS21100668-01MSD	Y102113	10/22/21	0130
07	HS21100785-06	HS21100785-06	Y102121	10/22/21	0419
08	HS21100785-07	HS21100785-07	Y102122	10/22/21	0440
09	HS21100785-08	HS21100785-08	Y102123	10/22/21	0501
10	HS21100785-02	HS21100785-02	Y102124	10/22/21	0522
11	HS21100785-01	HS21100785-01	Y102125	10/22/21	0543
12	HS21100785-01	HS21100785-01	Y102126	10/22/21	0604
13	HS21100785-03	HS21100785-03	Y102127	10/22/21	0625
14	HS21100785-03	HS21100785-03	Y102128	10/22/21	0646
15	HS21100785-04	HS21100785-04	Y102129	10/22/21	0707
16	CCV-END	CCV-END	Y102130	10/22/21	0728
17					
18					
19					
20					
21					
22					

FORM V VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Instrument ID: VOA6 Calibration Date: 10/21/21 Time: 2200

Lab File ID: Y102103 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	53.500006	50.000000	0.4659061	0.1	-7.00	20.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2682398	0.2682398	0.1	-0.46	20.00	AVRG
Trichloroethene	0.3780000	0.3654817	0.3654817	0.2	3.31	20.00	AVRG
Vinyl Chloride	0.5240000	0.4546321	0.4546321	0.1	13.24	20.00	AVRG
1,1-Dichloroethene	0.4460000	0.4114634	0.4114634	0.1	7.74	20.00	AVRG
1,2-Dichloroethane	0.4190000	0.4144769	0.4144769	0.1	1.08	20.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.5344146	0.5344146	0.1	-2.77	20.00	AVRG
1,2-Dichloroethane-d4	53.777621	50.000000	0.5336021	0.1	-7.56	20.00	LINR
Dibromofluoromethane	54.164740	50.000000	0.5307737	0.1	-8.33	20.00	LINR
4-Bromofluorobenzene	51.124694	50.000000	0.4462616	0.1	-2.25	20.00	LINR
Toluene-d8	1.2690000	1.1698373	1.1698373	0.1	7.81	20.00	AVRG

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Instrument ID: VOA6 Calibration Date: 10/22/21 Time: 0728

Lab File ID: Y102130 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	53.730557	50.000000	0.4678674	0.1	-7.46	50.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2598567	0.2598567	0.1	2.68	50.00	AVRG
Trichloroethene	0.3780000	0.3757901	0.3757901	0.2	0.58	50.00	AVRG
Vinyl Chloride	0.5240000	0.4445612	0.4445612	0.1	15.16	50.00	AVRG
1,1-Dichloroethene	0.4460000	0.4117102	0.4117102	0.1	7.69	50.00	AVRG
1,2-Dichloroethane	0.4190000	0.4029296	0.4029296	0.1	3.84	50.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.5807347	0.5807347	0.1	-11.68	50.00	AVRG
1,2-Dichloroethane-d4	54.438596	50.000000	0.5399216	0.1	-8.88	50.00	LINR
Dibromofluoromethane	55.518022	50.000000	0.5437614	0.1	-11.04	50.00	LINR
4-Bromofluorobenzene	52.592212	50.000000	0.4587374	0.1	-5.18	50.00	LINR
Toluene-d8	1.2690000	1.2108884	1.2108884	0.1	4.58	50.00	AVRG

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Lab File ID (Standard): Y102103 Date Analyzed: 10/21/21

Instrument ID: VOA6 Time Analyzed: 2200

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	IS1 RT #	IS2(DFB) AREA #	IS2(DFB) RT #	IS3(CBZ) AREA #	IS3(CBZ) RT #
	12 HOUR STD	327390	4.18	485945	4.96	466370	7.67
	UPPER LIMIT	654780	4.68	971890	5.46	932740	8.17
	LOWER LIMIT	163695	3.68	242973	4.46	233185	7.17
	CLIENT SAMPLE NO.						
01	VLCSW-211021	341869	4.18	515351	4.96	489954	7.67
02	VBLKW-211021	421363	4.18	590864	4.96	526368	7.67
03	HS21100785-09	418799	4.18	588892	4.96	526758	7.67
04	HS21100668-01MS	428537	4.18	608059	4.96	551783	7.67
05	HS21100668-01MSD	429287	4.18	610020	4.96	554806	7.67
06	HS21100785-06	407103	4.18	583248	4.96	515353	7.67
07	HS21100785-07	411825	4.18	574085	4.96	514991	7.67
08	HS21100785-08	409300	4.18	577816	4.97	506968	7.67
09	HS21100785-02	398682	4.18	569472	4.96	509661	7.67
10	HS21100785-01	397939	4.18	563567	4.96	507319	7.67
11	HS21100785-01	404826	4.18	580722	4.96	520301	7.67
12	HS21100785-03	419978	4.18	584192	4.96	523419	7.67
13	HS21100785-03	405853	4.18	572086	4.96	513834	7.67
14	HS21100785-04	409455	4.18	580655	4.96	522939	7.67
15							
16							
17							
18							
19							
20							

IS1 = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Lab File ID (Standard): Y102103 Date Analyzed: 10/21/21

Instrument ID: VOA6 Time Analyzed: 2200

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS4 (DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	241132	9.66				
	UPPER LIMIT	482264	10.16				
	LOWER LIMIT	120566	9.16				
	CLIENT SAMPLE NO.						
01	VLCSW-211021	254757	9.66				
02	VBLKW-211021	249192	9.66				
03	HS21100785-09	246312	9.66				
04	HS21100668-01MS	283404	9.66				
05	HS21100668-01MSD	284253	9.66				
06	HS21100785-06	236598	9.66				
07	HS21100785-07	250471	9.66				
08	HS21100785-08	228081	9.66				
09	HS21100785-02	236247	9.66				
10	HS21100785-01	232203	9.66				
11	HS21100785-01	237367	9.66				
12	HS21100785-03	246502	9.66				
13	HS21100785-03	241319	9.66				
14	HS21100785-04	252760	9.66				
15							
16							
17							
18							
19							
20							

IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

FORM VIII VOA

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102101.D

Date : 21-OCT-2021 21:18

Client ID: BFB

Instrument: voa6.i

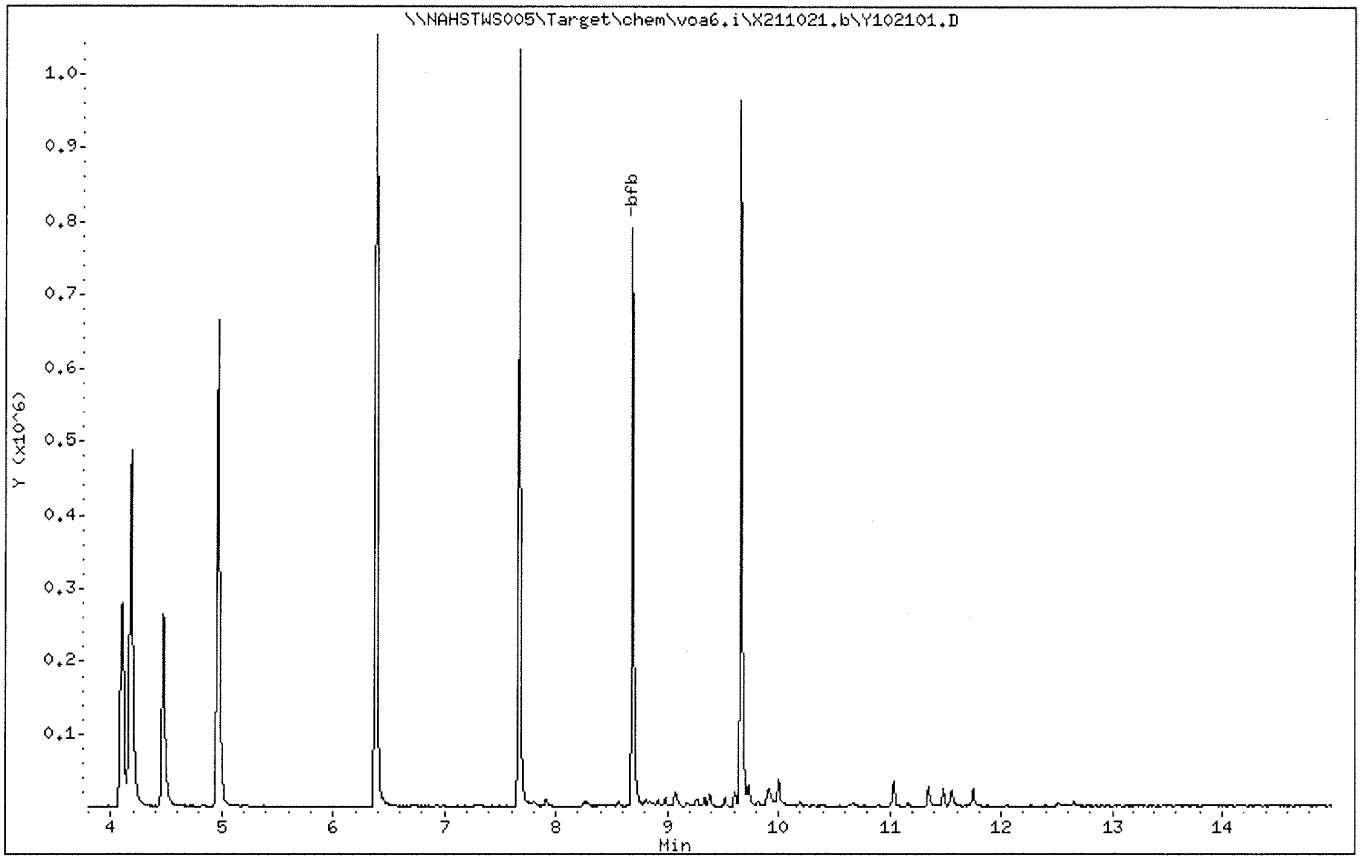
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102101.D

Date : 21-OCT-2021 21:18

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

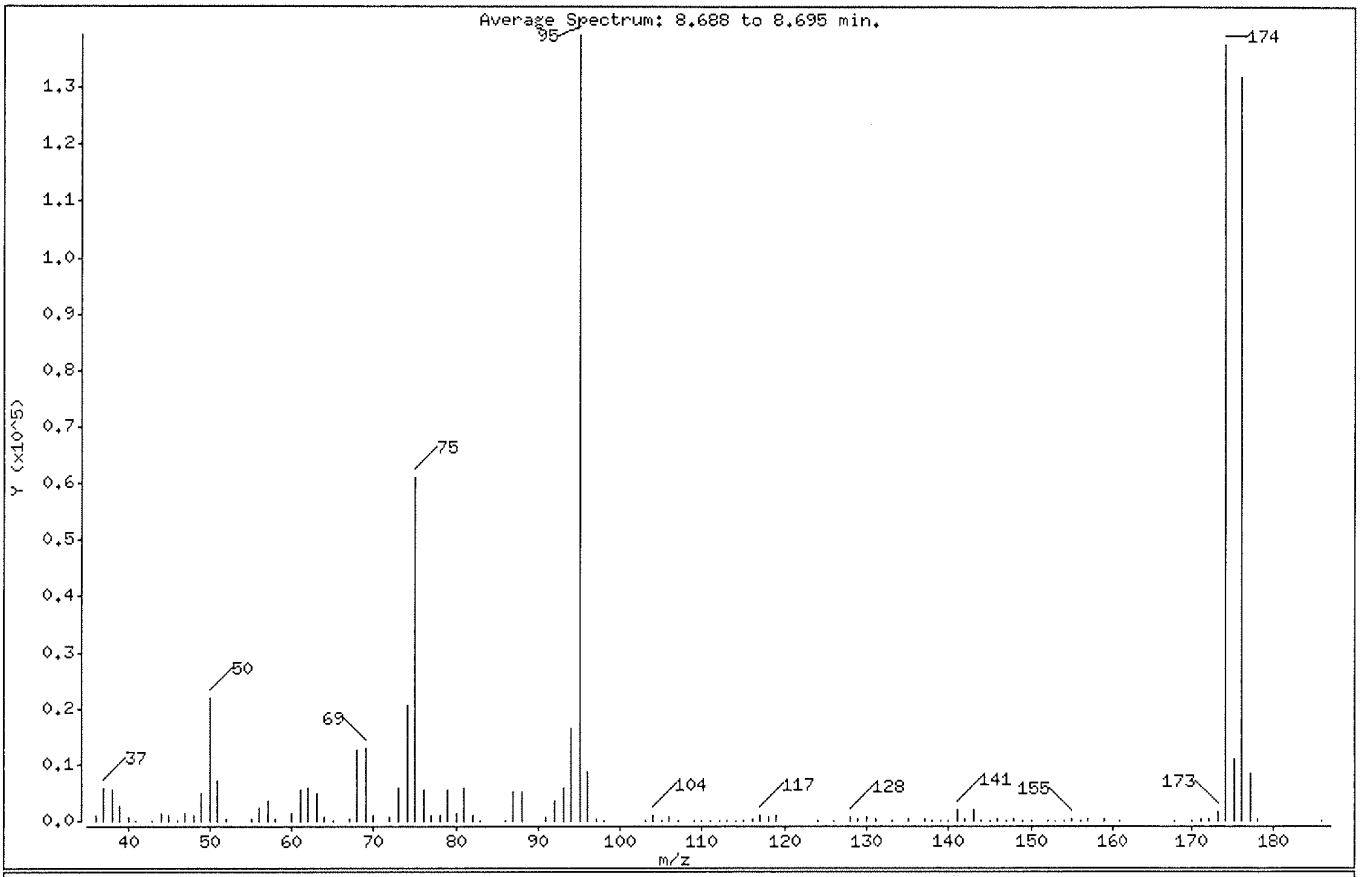
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.72
75	30.00 - 60.00% of mass 95	43.71
96	5.00 - 9.00% of mass 95	6.14
173	Less than 2.00% of mass 174	1.12 (1.13)
174	Greater than 50.00% of mass 95	98.88
175	5.00 - 9.00% of mass 174	7.83 (7.92)
176	95.00 - 101.00% of mass 174	94.62 (95.70)
177	5.00 - 9.00% of mass 176	6.00 (6.34)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102101.D

Date : 21-OCT-2021 21:18

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: Y102101.D
Spectrum: Average Spectrum: 8.688 to 8.695 min.
Location of Maximum: 95.00
Number of points: 110

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1088	69.00	12759	106.00	551	144.00	104
37.00	5849	70.00	974	107.00	97	145.00	131
38.00	5325	72.00	665	109.00	28	146.00	229
39.00	2437	73.00	5905	110.00	142	147.00	89
40.00	489	74.00	20672	111.00	64	148.00	265
41.00	33	75.00	60928	112.00	116	149.00	110
43.00	110	76.00	5591	113.00	131	150.00	112
44.00	1420	77.00	879	114.00	74	152.00	154
45.00	992	78.00	808	115.00	73	153.00	26
46.00	96	79.00	5360	116.00	451	154.00	140
47.00	1225	80.00	1341	117.00	964	155.00	386
48.00	1083	81.00	5665	118.00	562	156.00	31
49.00	4688	82.00	1083	119.00	940	157.00	257
50.00	21904	83.00	158	124.00	118	159.00	167
51.00	6937	86.00	55	126.00	67	161.00	37
52.00	351	87.00	5171	128.00	623	168.00	90
55.00	297	88.00	5151	129.00	247	170.00	126
56.00	2097	91.00	644	130.00	608	171.00	261
57.00	3567	92.00	3600	131.00	299	172.00	326
58.00	179	93.00	5818	133.00	34	173.00	1555
60.00	1220	94.00	16357	135.00	313	174.00	137792
61.00	5378	95.00	139328	137.00	310	175.00	10913
62.00	5742	96.00	8557	138.00	86	176.00	131840
63.00	4664	97.00	299	139.00	116	177.00	8361
64.00	486	98.00	59	140.00	121	178.00	247
65.00	121	103.00	132	141.00	1884	186.00	50
67.00	335	104.00	974	142.00	385		
68.00	12482	105.00	129	143.00	1884		

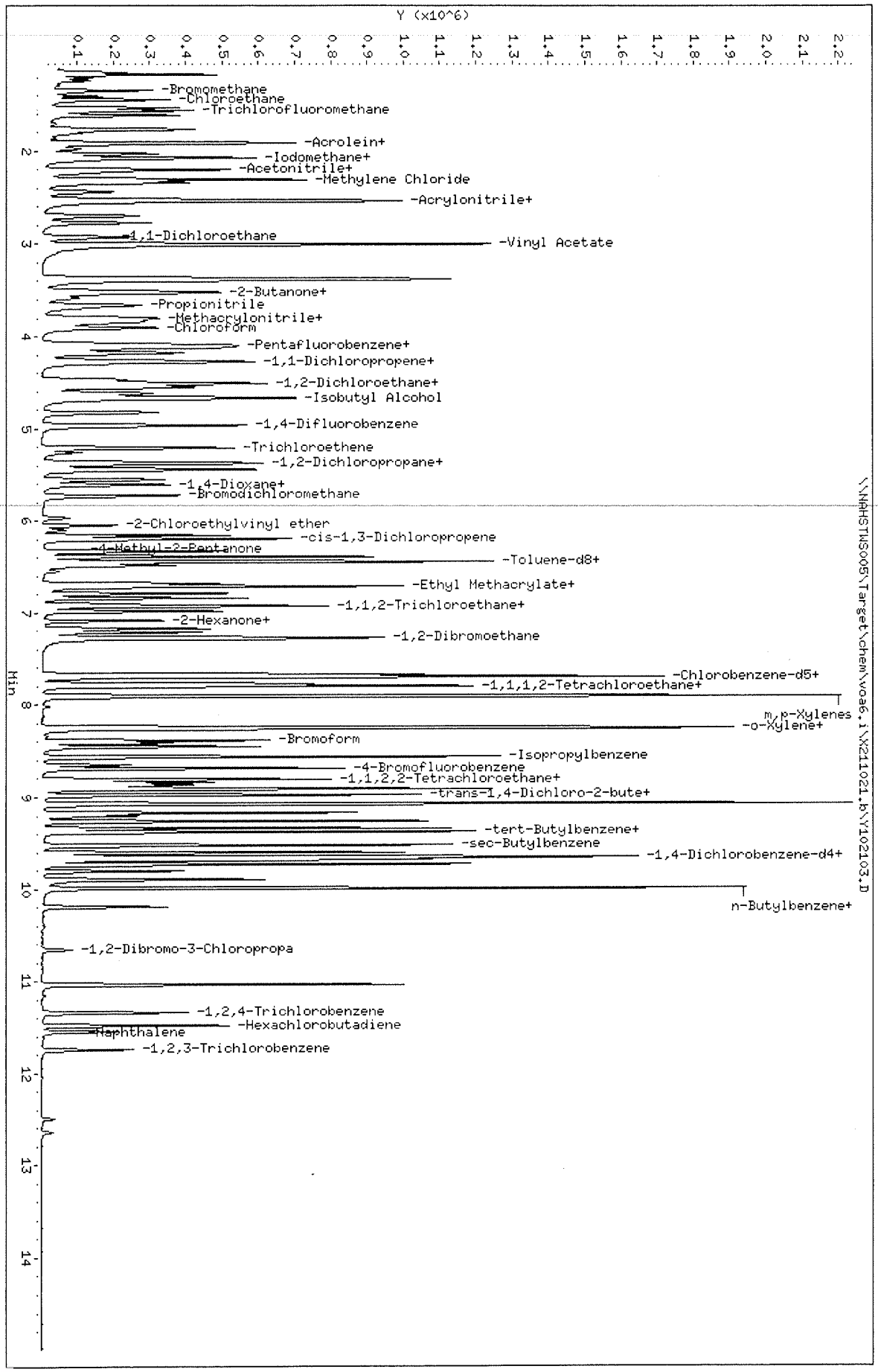
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102103.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 21-OCT-2021 22:00
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211021.b\8260W.m
Meth Date : 12-Nov-2021 11:24 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	327390	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	173770	50.0000	54.16
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	174696	50.0000	53.77
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	485945	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	466370	50.0000	
$ 48 Toluene-d8	98	6.389	6.389	(0.833)	545577	50.0000	46.09
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	208123	50.0000	51.12
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	241132	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	148842	50.0000	43.36
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	134709	50.0000	46.12
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	125099	50.0000	50.26
17 Methylene Chloride	84	2.306	2.306	(0.551)	152533	50.0000	53.50
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	174962	50.0000	51.40
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	201413	50.0000	49.41
38 Trichloroethene	130	5.207	5.207	(1.049)	177604	50.0000	48.31



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102103.D
Date : 21-OCT-2021 22:00
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

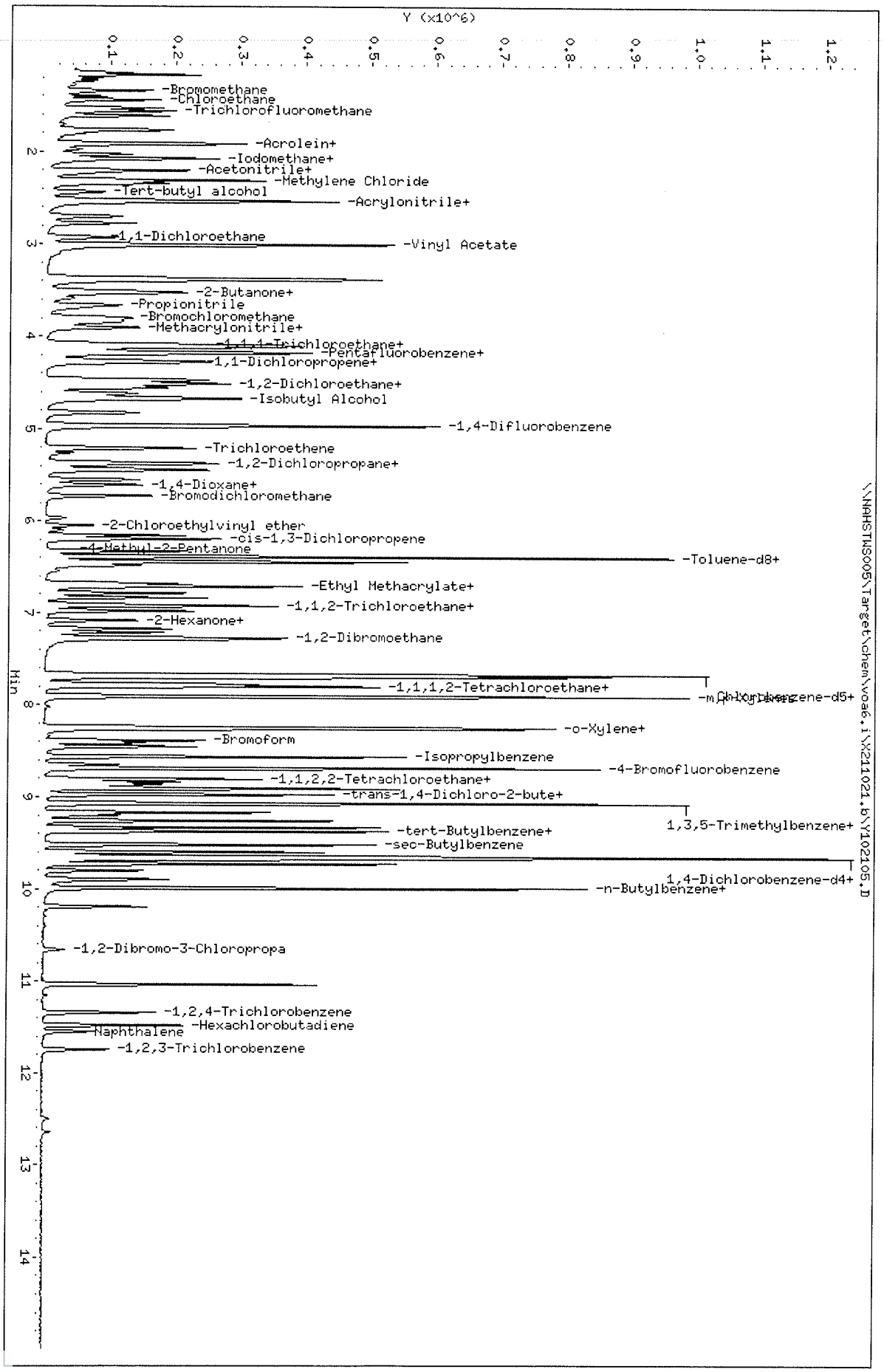
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102105.D
Lab Smp Id: VLCSW-211021 Client Smp ID: VLCSW-211021
Inj Date : 21-OCT-2021 22:42
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-211021;VLCSW-211021;3;;LCS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211021.b\8260W.m
Meth Date : 12-Nov-2021 11:24 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 33 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	341869	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	182551	54.4988	54.49
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	191722	56.6229	56.62
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	515351	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	489954	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	586112	47.1376	47.13
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	221551	51.8217	51.82
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	254757	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	67896	18.9426	18.94
11 1,1-Dichloroethene	96	1.919	1.912	(0.459)	58731	19.2589	19.25
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	56105	21.4598	21.45
17 Methylene Chloride	84	2.306	2.306	(0.551)	68155	22.1677	22.16
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	75666	21.2889	21.28
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	92166	21.3201	21.32
38 Trichloroethene	130	5.207	5.207	(1.049)	79223	20.3229	20.32



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102105.D
Date : 21-OCT-2021 22:42
Client ID: VLCSW-211021
Sample Info: VLCSW-211021;VLCSW-211021;3;;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102107.D Page 1
Report Date: 12-Nov-2021 11:24

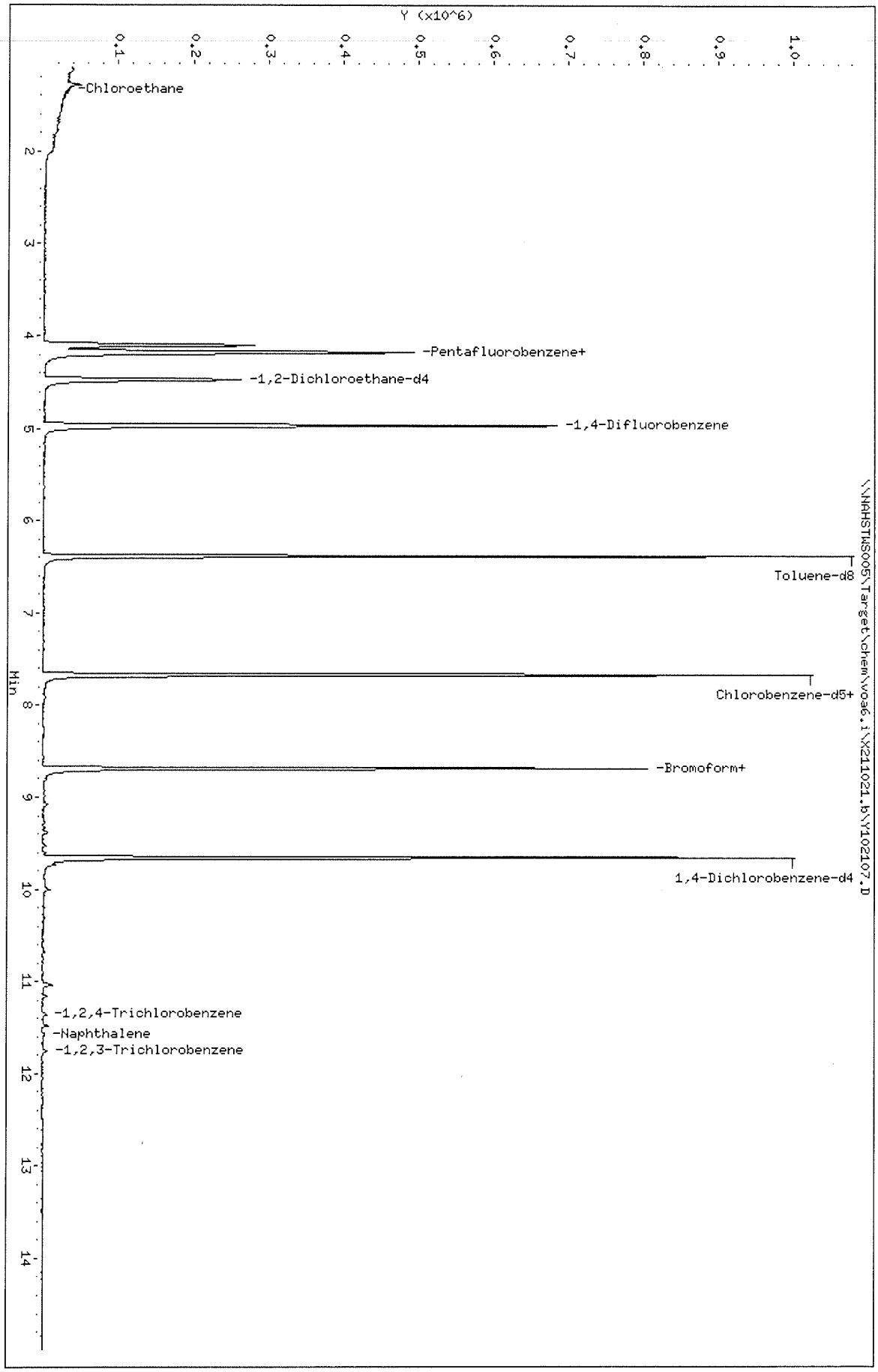
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102107.D
Lab Smp Id: VBLKW-211021 Client Smp ID: VBLKW-211021
Inj Date : 21-OCT-2021 23:24
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-211021;VBLKW-211021;3;;BLANK
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211021.b\8260W.m
Meth Date : 12-Nov-2021 11:24 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 35 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	421363	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	200882	48.5349	48.53
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	203137	48.3903	48.39
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	590864	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	526368	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	658126	49.2677	49.26
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	224000	48.6893	48.68
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	249192	50.0000	



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102107.D
Date : 21-OCT-2021 23:24
Client ID: VBLKW-211021
Sample Info: VBLKW-211021;VBLKW-211021;3;;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102109.D Page 1
Report Date: 12-Nov-2021 11:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102109.D
Lab Smp Id: HS21100785-09 Client Smp ID: HS21100785-09
Inj Date : 22-OCT-2021 00:06
Operator : PC Inst ID: voa6.i
Smp Info : HS21100785-09;HS21100785-09;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211021.b\8260W.m
Meth Date : 11-Nov-2021 15:25 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 37
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

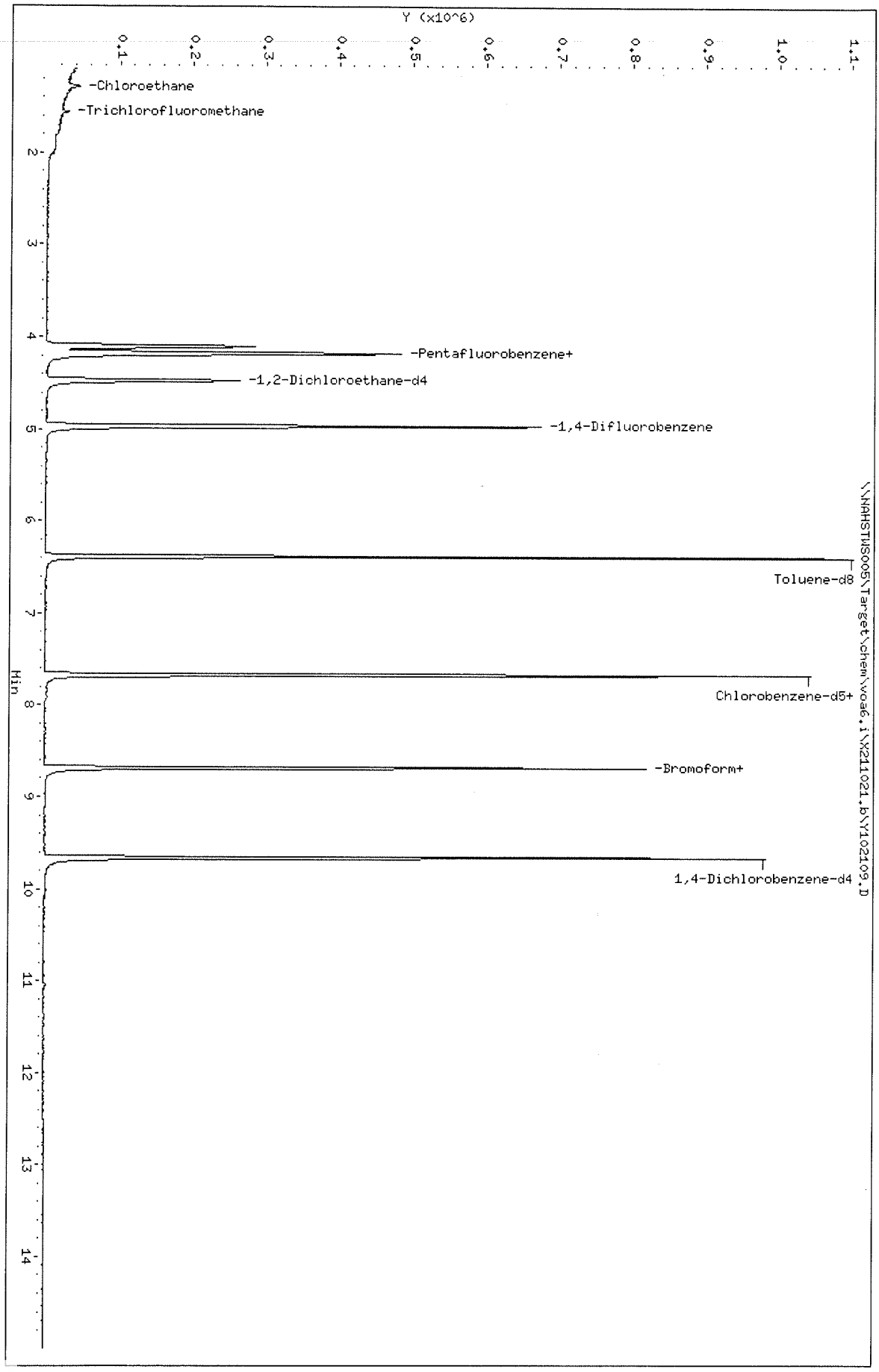
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	418799	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	199622	48.5256	48.52
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	202345	48.5012	48.50
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	588892	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	526758	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	665686	49.7967	49.79
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	228539	49.6659	49.66
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	246312	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102109.D
Date : 22-OCT-2021 00:06
Client ID: HS21100785-09
Sample Info: HS21100785-09;HS21100785-09;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



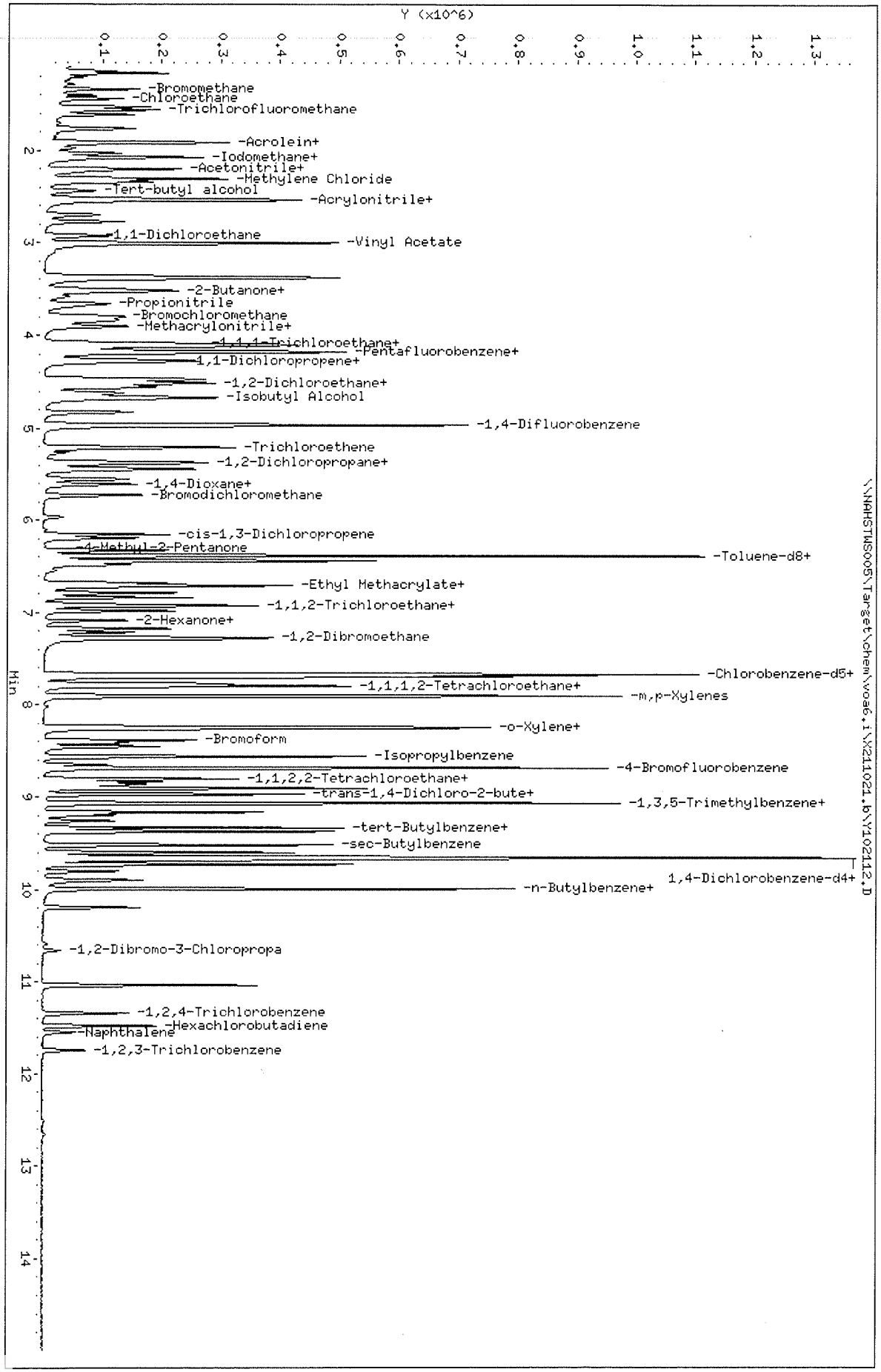
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102112.D
Lab Smp Id: HS21100668-01MS Client Smp ID: HS21100668-01MS
Inj Date : 22-OCT-2021 01:09
Operator : PC Inst ID: voa6.i
Smp Info : HS21100668-01MS;HS21100668-01MS;3;;MS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211021.b\8260W.m
Meth Date : 12-Nov-2021 11:24 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 40 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	428537	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	205650	48.8626	48.86
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	211322	49.5439	49.54
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	608059	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	551783	50.0000	
$ 48 Toluene-d8	98	6.389	6.389	(0.833)	675658	48.2504	48.25
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	247771	51.4512	51.45
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	283404	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	62667	13.9478	13.94
11 1,1-Dichloroethene	96	1.919	1.912	(0.459)	60419	15.8056	15.80
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	52670	17.8885	17.88
17 Methylene Chloride	84	2.306	2.306	(0.551)	68271	17.4600	17.46
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	82516	18.5209	18.52
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	90922	17.8256	17.82
38 Trichloroethene	130	5.207	5.207	(1.049)	108260	23.5375	23.53



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102112.D
Date : 22-OCT-2021 01:09
Client ID: HS21100668-01MS
Sample Info: HS21100668-01MS;HS21100668-01MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

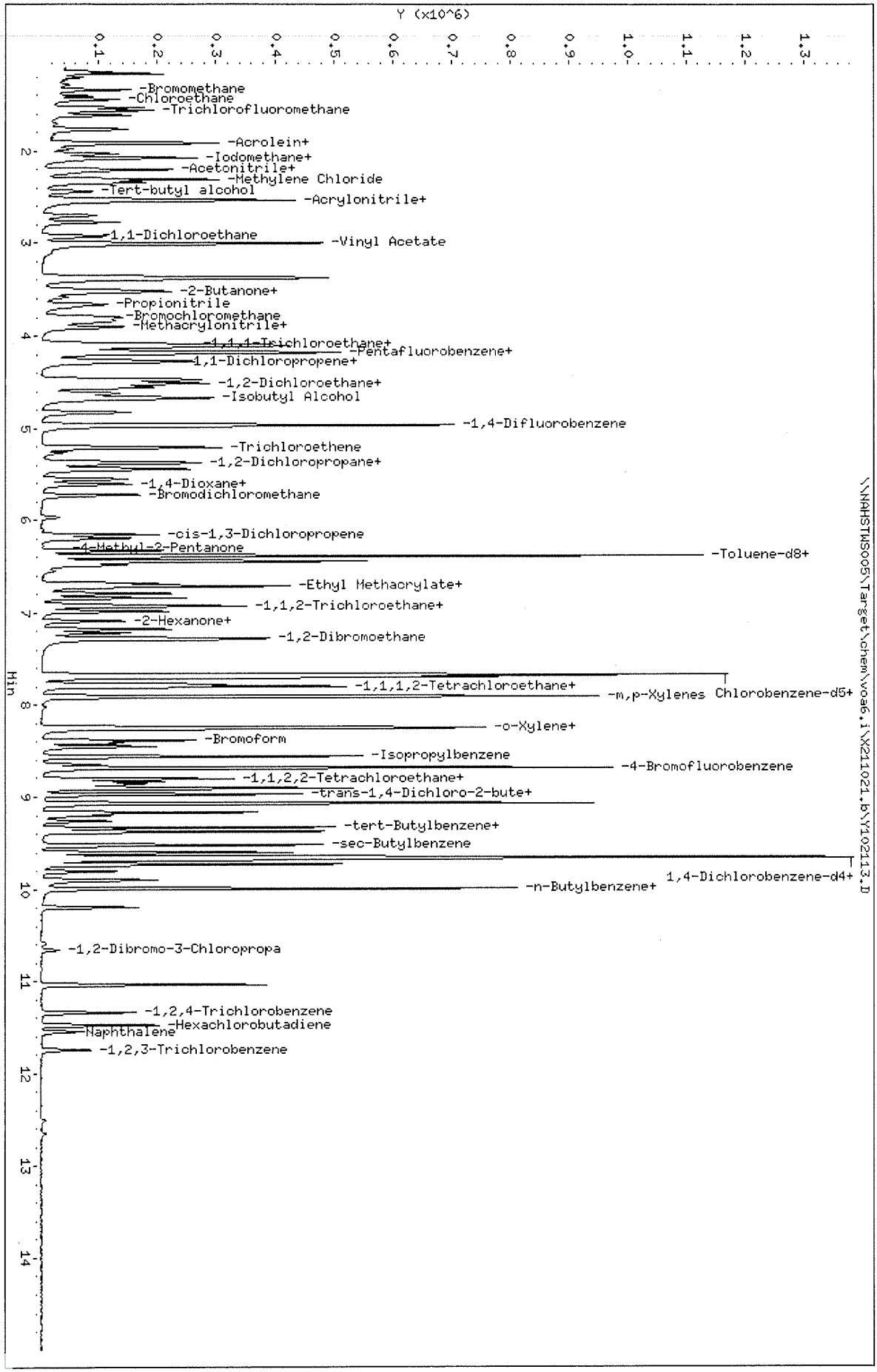
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102113.D
Lab Smp Id: HS21100668-01MSD Client Smp ID: HS21100668-01MSD
Inj Date : 22-OCT-2021 01:30
Operator : PC Inst ID: voa6.i
Smp Info : HS21100668-01MSD;HS21100668-01MSD;3;;MSD
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211021.b\8260W.m
Meth Date : 12-Nov-2021 11:24 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 40 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	429287	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	206642	49.0161	49.01
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	204677	47.8348	47.83
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	610020	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	554806	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	684471	48.6135	48.61
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	246229	50.8364	50.83
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	284253	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	64372	14.3022	14.30
11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	58152	15.1859	15.18
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	51306	17.3303	17.33
17 Methylene Chloride	84	2.305	2.306	(0.551)	66833	17.0335	17.03
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	80547	18.0474	18.04
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	91728	17.9258	17.92
38 Trichloroethene	130	5.206	5.207	(1.049)	103213	22.3681	22.36



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102113.D
Date : 22-OCT-2021 01:30
Client ID: HS2110668-01HSD
Sample Info: HS2110668-01HSD;HS2110668-01HSD;3;;HSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102121.D
Lab Smp Id: HS21100785-06 Client Smp ID: HS21100785-06
Inj Date : 22-OCT-2021 04:19
Operator : PC Inst ID: voa6.i
Smp Info : HS21100785-06;HS21100785-06;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211021.b\8260W.m
Meth Date : 11-Nov-2021 15:25 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 48
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

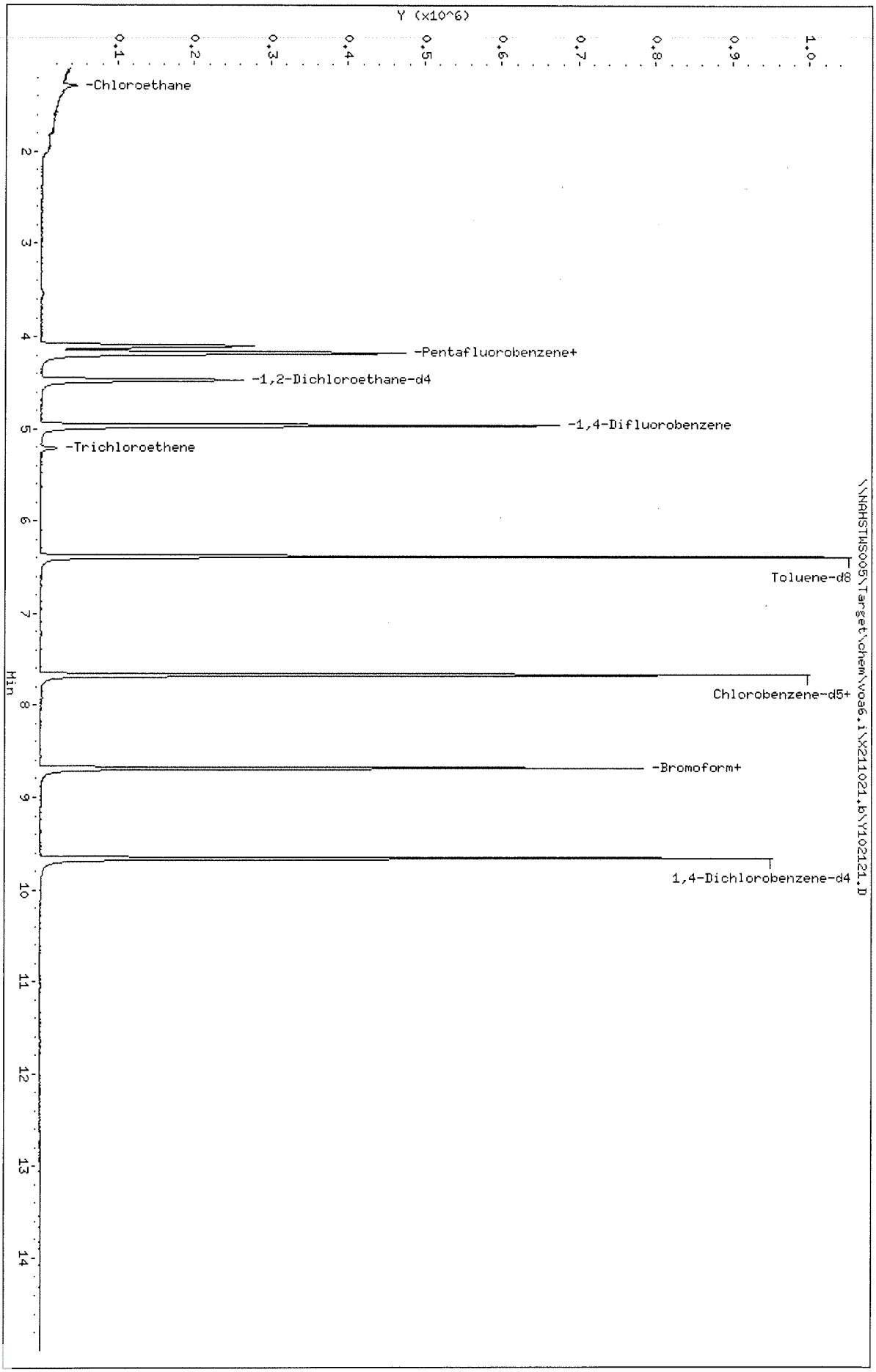
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	407103	50.0000	
$ 30 Dibromofluoromethane	113	4.104	4.103	(0.981)	197489	49.4065	49.40
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	201542	49.7468	49.74
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	583248	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	515353	50.0000	
$ 48 Toluene-d8	98	6.389	6.389	(0.833)	644270	49.2613	49.26
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	220298	48.9143	48.91
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	236598	50.0000	
38 Trichloroethene	130	5.214	5.207	(1.051)	7935	1.79859	1.79(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102121.D
Date : 22-OCT-2021 04:19
Client ID: HS2110078S-06
Sample Info: HS2110078S-06;HS2110078S-06;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102121.D Page 3

Date : 22-OCT-2021 04:19

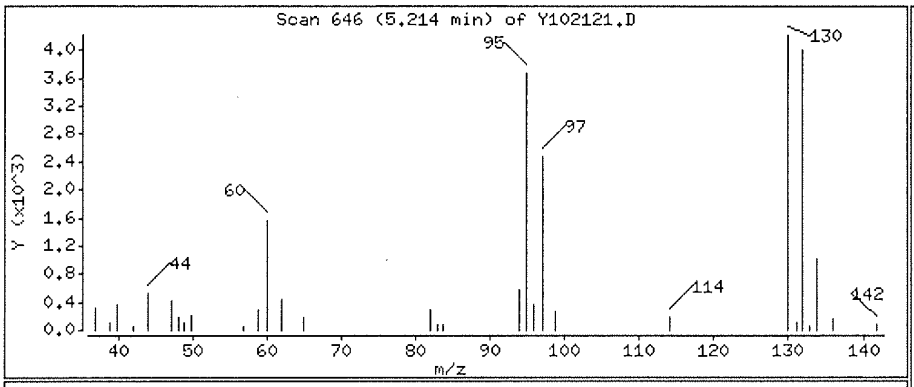
Client ID: HS21100785-06 Instrument: voa6.i

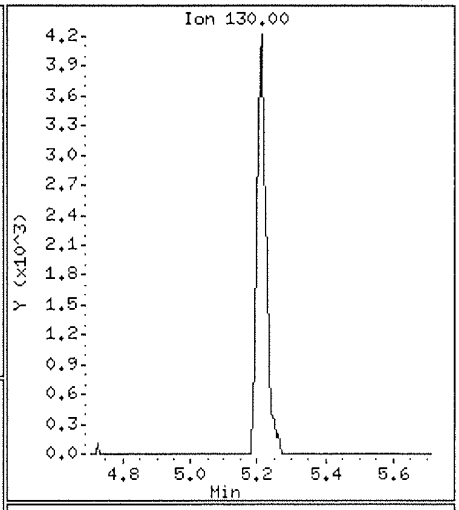
Sample Info: HS21100785-06;HS21100785-06;;;

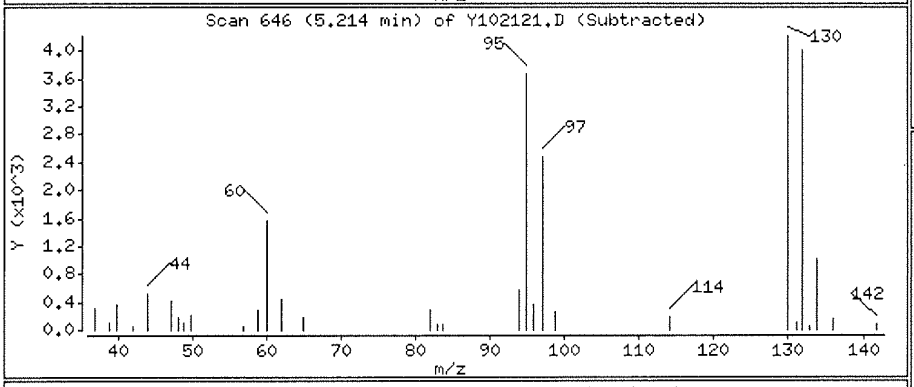
Purge Volume: 5.0 Operator: PC

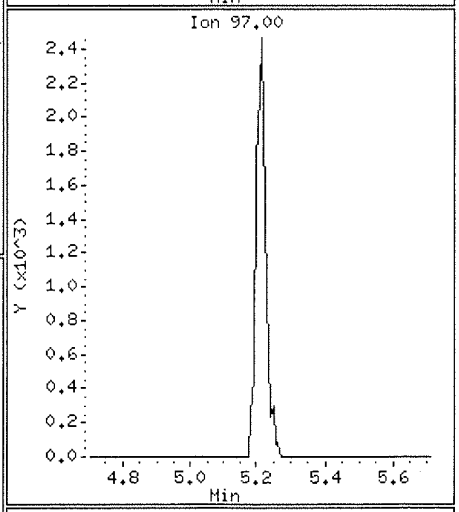
Column phase: DB624 Column diameter: 0.18

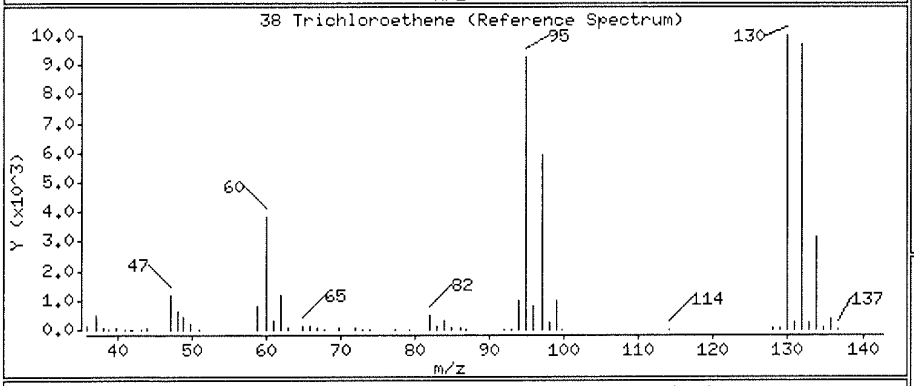
38 Trichloroethene Concentration: 1.79 ug/l

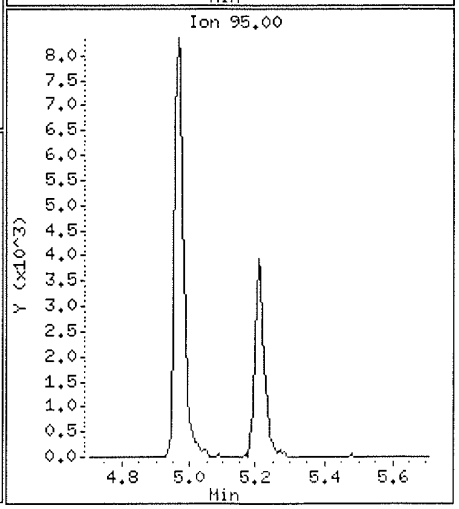


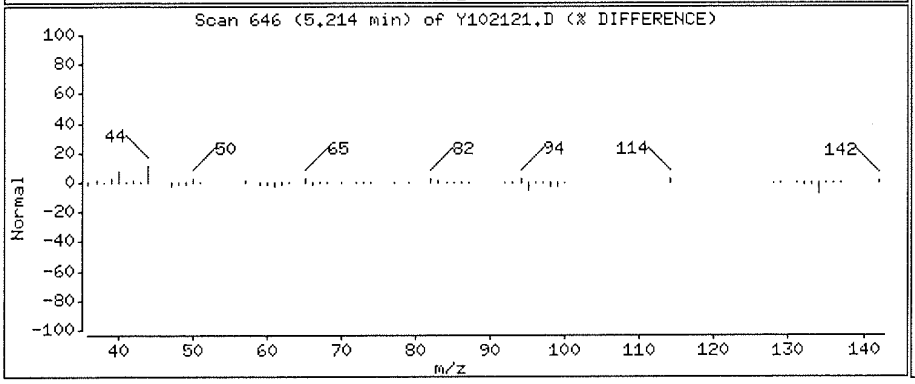












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102122.D Page 1
Report Date: 12-Nov-2021 11:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102122.D
Lab Smp Id: HS21100785-07 Client Smp ID: HS21100785-07
Inj Date : 22-OCT-2021 04:40
Operator : PC Inst ID: voa6.i
Smp Info : HS21100785-07;HS21100785-07;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211021.b\8260W.m
Meth Date : 11-Nov-2021 15:25 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 49
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

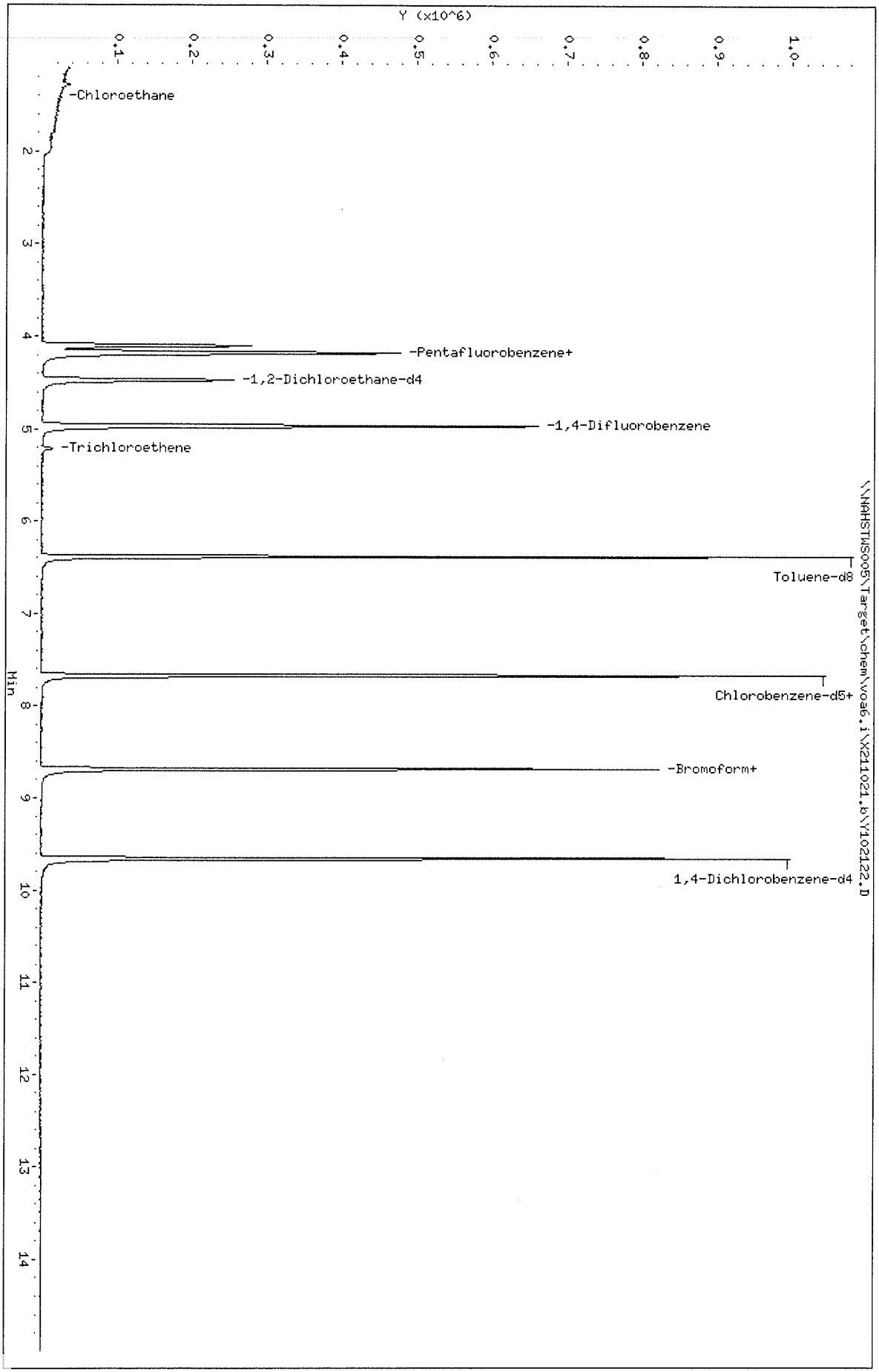
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	411825	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	193354	47.7807	47.78
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	199102	48.5333	48.53
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	574085	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	514991	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	654828	50.1037	50.10
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	233228	51.9030	51.90
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	250471	50.0000	
38 Trichloroethene	130	5.206	5.207	(1.049)	5122	1.17951	1.17(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



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Date : 22-OCT-2021 04:40
Client ID: HS211007785-07
Sample Info: HS211007785-07;HS211007785-07;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102122.D

Date : 22-OCT-2021 04:40

Client ID: HS21100785-07

Instrument: voa6.i

Sample Info: HS21100785-07;HS21100785-07;;;

Purge Volume: 5.0

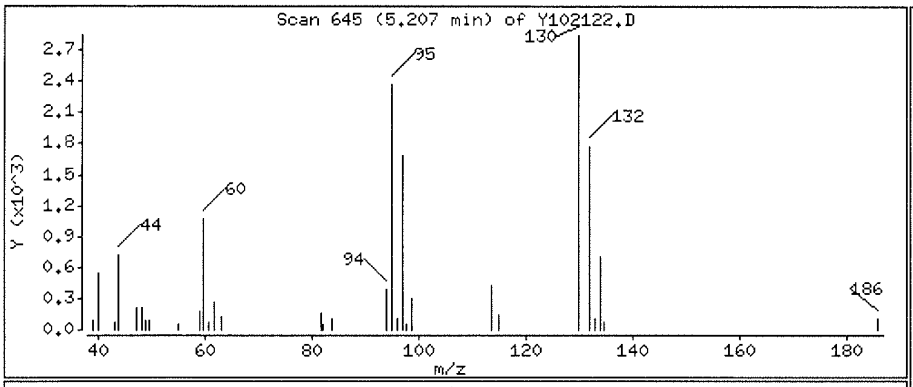
Operator: PC

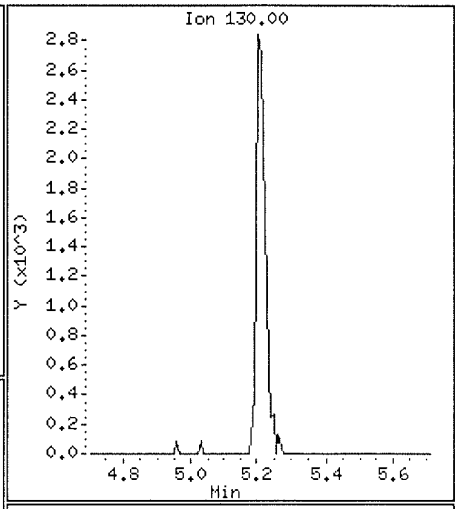
Column phase: DB624

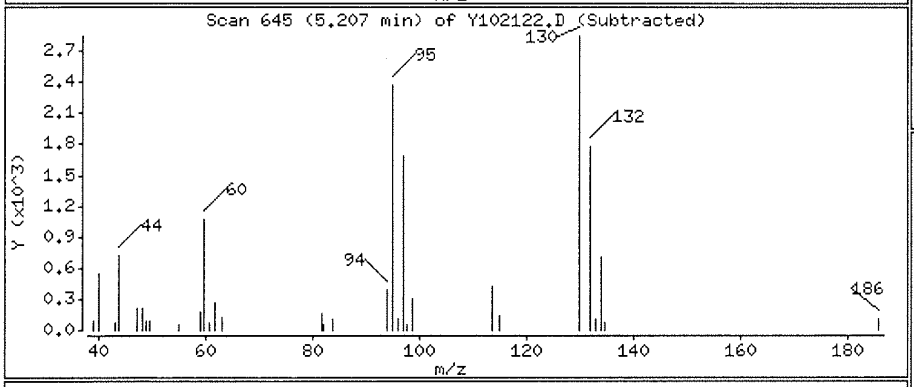
Column diameter: 0.18

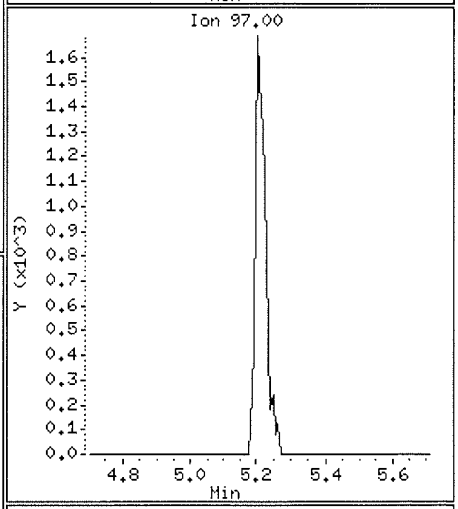
38 Trichloroethene

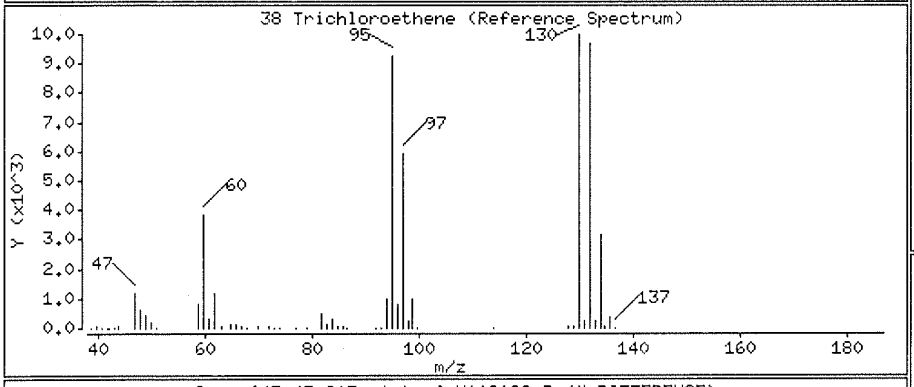
Concentration: 1.17 ug/l

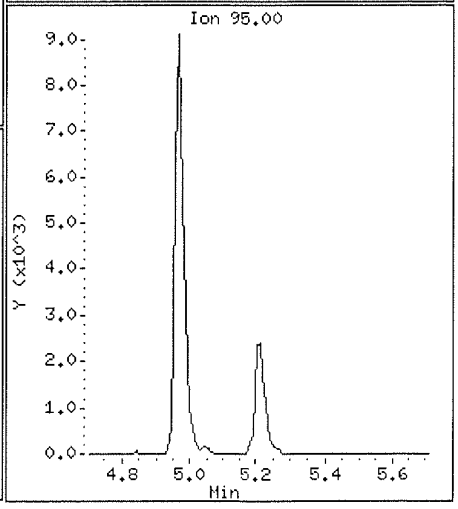


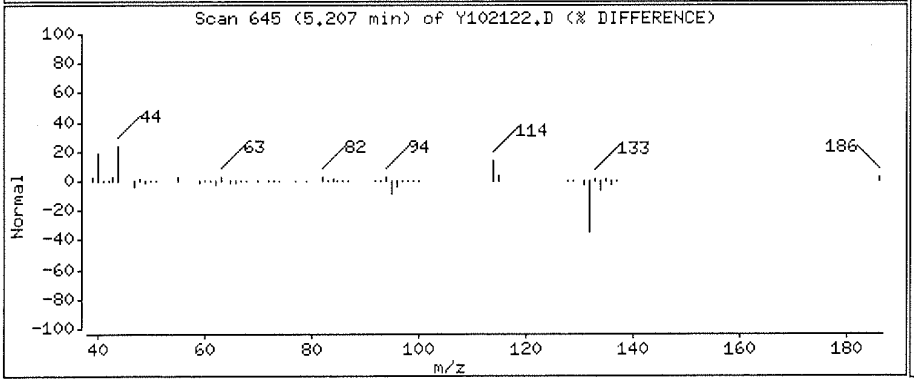












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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102123.D
Lab Smp Id: HS21100785-08 Client Smp ID: HS21100785-08
Inj Date : 22-OCT-2021 05:01
Operator : PC Inst ID: voa6.i
Smp Info : HS21100785-08;HS21100785-08;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211021.b\8260W.m
Meth Date : 11-Nov-2021 15:25 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 50
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

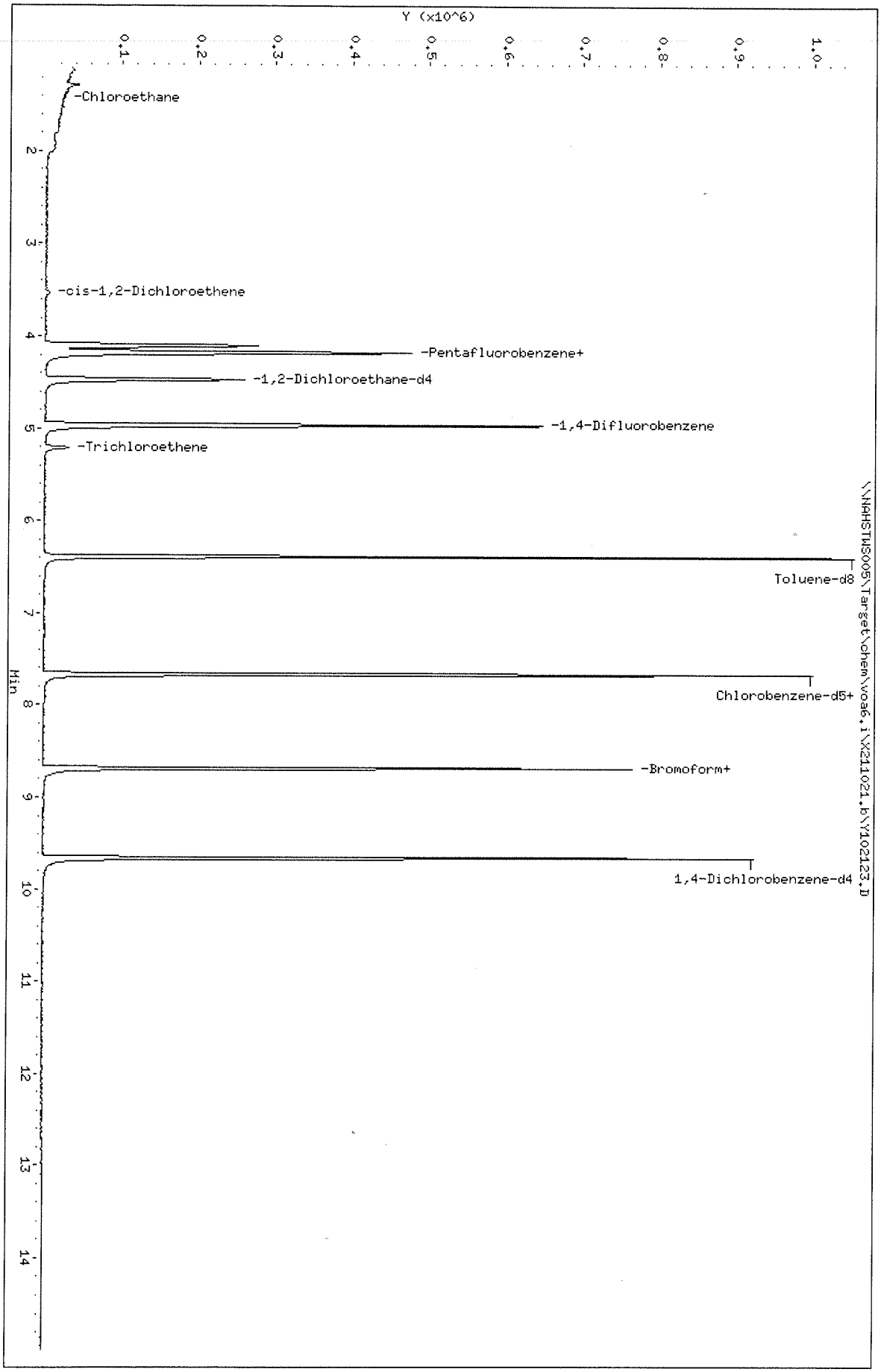
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	409300	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	196352	48.8457	48.84
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	199730	49.0058	49.00
* 36 1,4-Difluorobenzene	114	4.970	4.963	(1.000)	577816	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	506968	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	640586	49.7897	49.78
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	221515	50.0283	50.02
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	228081	50.0000	
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	3397	0.79830	0.79(a)
38 Trichloroethene	130	5.207	5.207	(1.048)	11781	2.69545	2.69(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\NAHSTWS005\Target\chem\voa6,i\X211021,b\Y102123.D
Date : 22-OCT-2021 05:01
Client ID: HS21100785-08
Sample Info: HS21100785-08;HS21100785-08;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6,i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102123.D

Date : 22-OCT-2021 05:01

Client ID: HS21100785-08

Instrument: voa6.i

Sample Info: HS21100785-08;HS21100785-08;;;

Purge Volume: 5.0

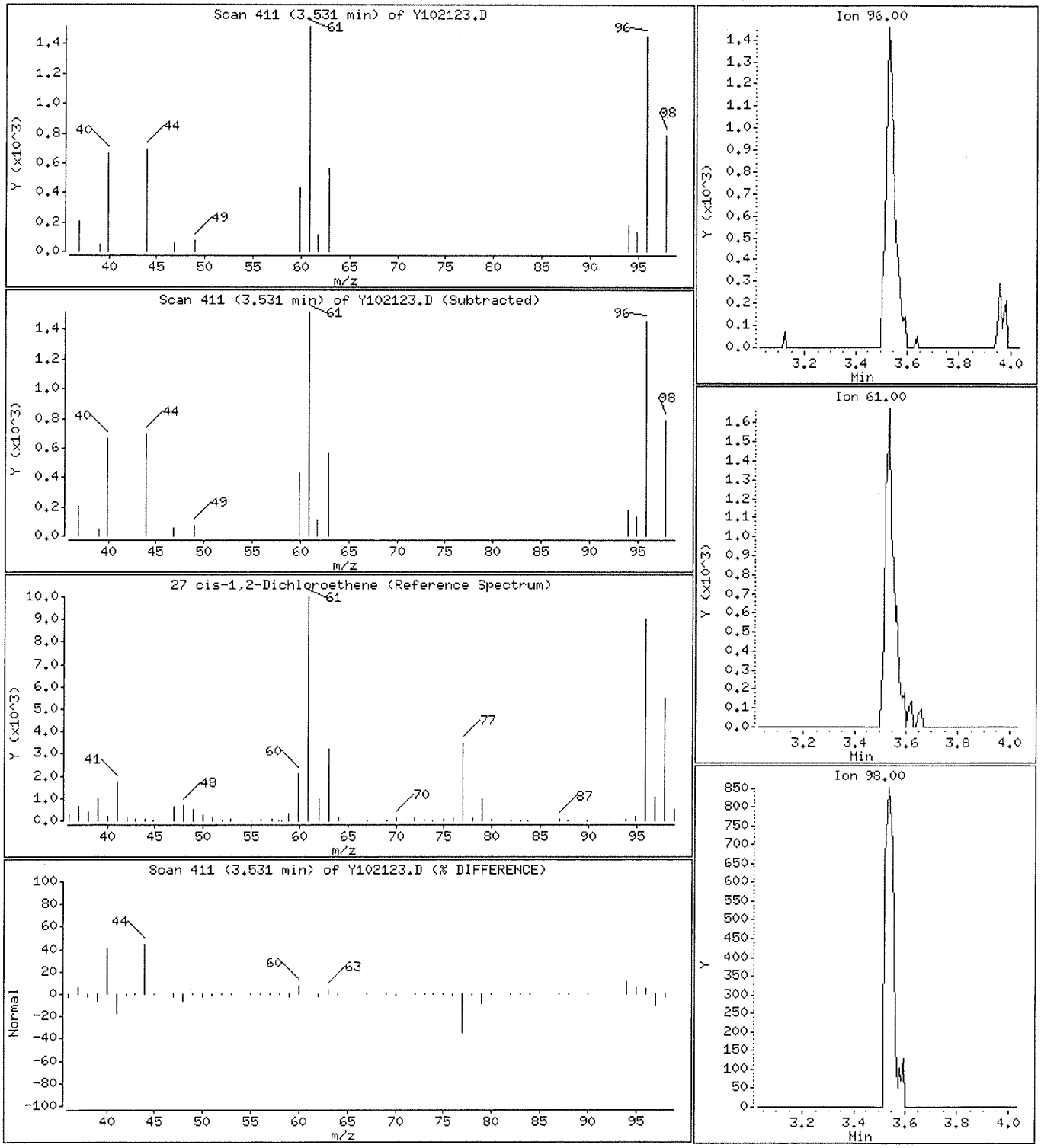
Operator: PC

Column phase: DB624

Column diameter: 0.18

27 cis-1,2-Dichloroethene

Concentration: 0.79 ug/l



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102123.D Page 4

Date : 22-OCT-2021 05:01

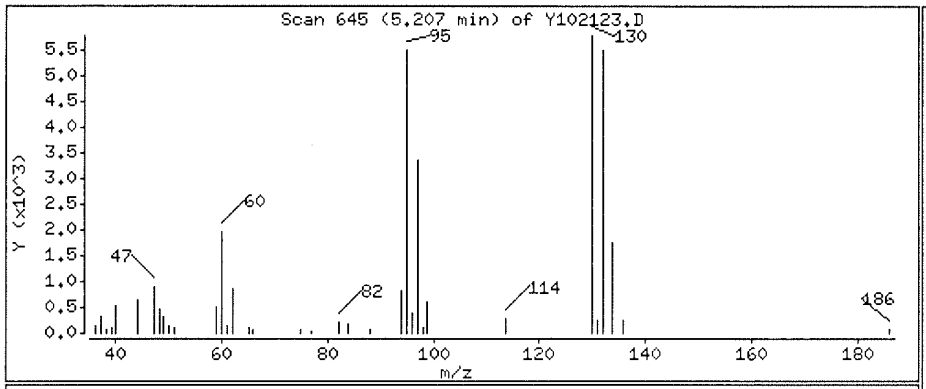
Client ID: HS21100785-08 Instrument: voa6.i

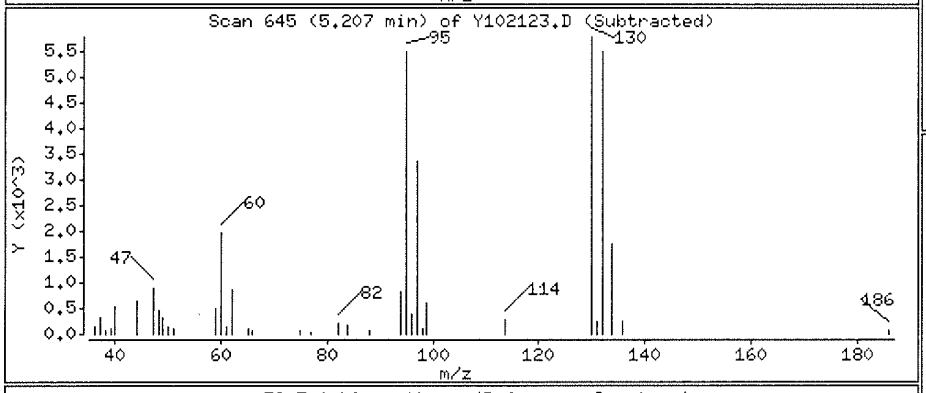
Sample Info: HS21100785-08;HS21100785-08;;;

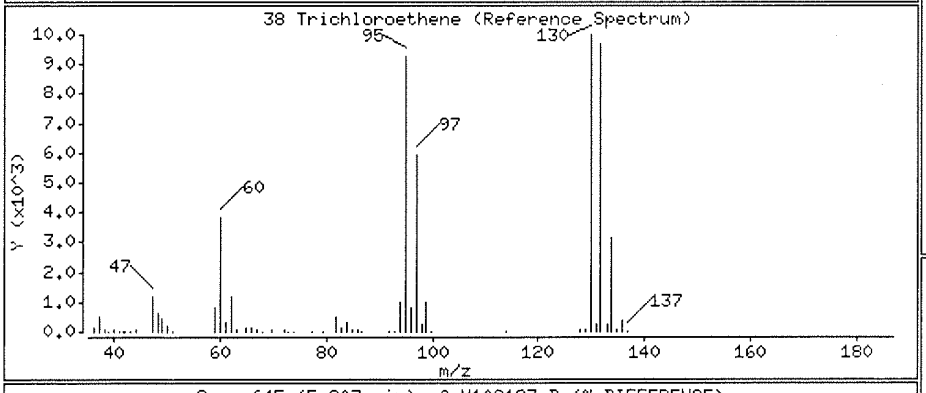
Purge Volume: 5.0 Operator: PC

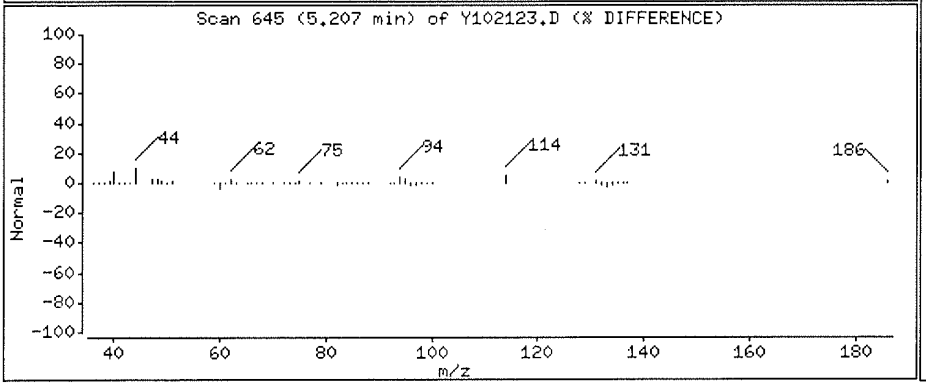
Column phase: DB624 Column diameter: 0.18

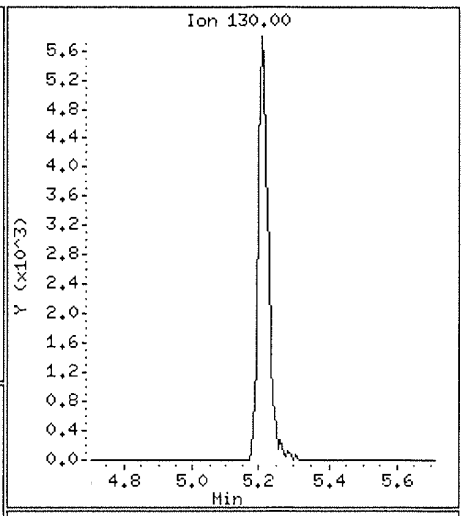
38 Trichloroethene Concentration: 2.69 ug/l

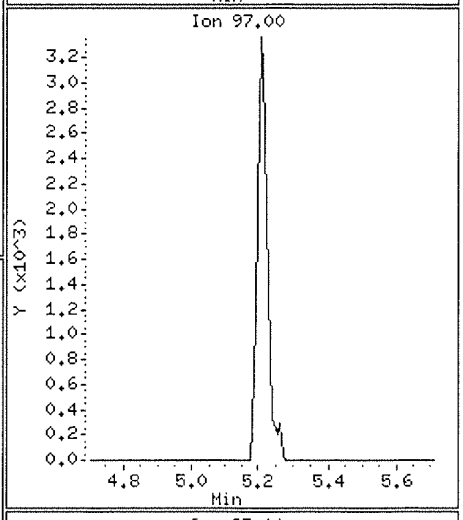


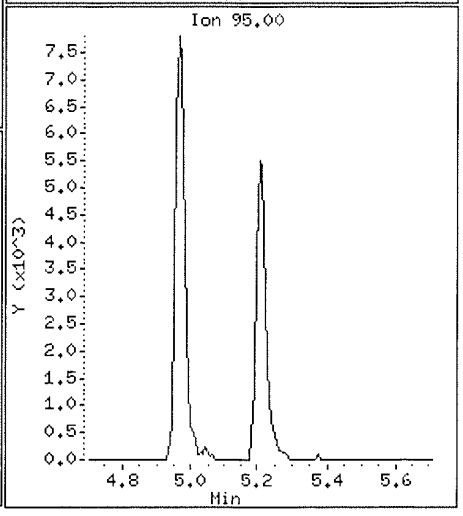












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102124.D Page 1
Report Date: 12-Nov-2021 11:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102124.D
Lab Smp Id: HS21100785-02 Client Smp ID: HS21100785-02
Inj Date : 22-OCT-2021 05:22
Operator : PC Inst ID: voa6.i
Smp Info : HS21100785-02;HS21100785-02;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211021.b\8260W.m
Meth Date : 11-Nov-2021 15:25 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 51
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

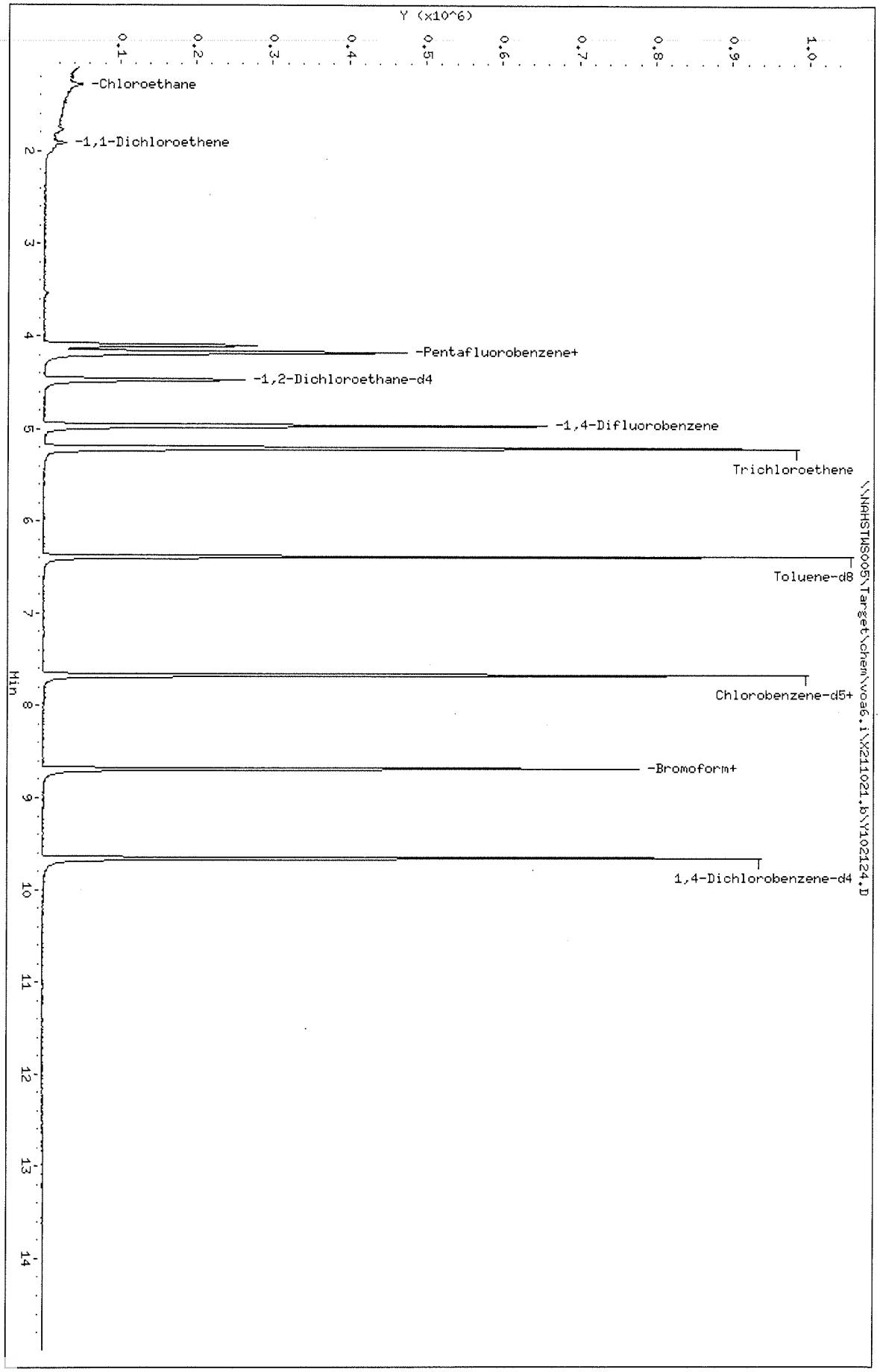
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	398682	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	196478	50.2099	50.20
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	201127	50.7316	50.73
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	569472	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	509661	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	642677	49.6883	49.68
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	220400	49.4994	49.49
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	236247	50.0000	
11 1,1-Dichloroethene	96	1.919	1.912	(0.459)	4122	1.15906	1.15(a)
38 Trichloroethene	130	5.207	5.207	(1.049)	324514	75.3354	75.33

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102124.D
Date : 22-OCT-2021 05:22
Client ID: HS21100785-02
Sample Info: HS21100785-02;HS21100785-02;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102124.D

Date : 22-OCT-2021 05:22

Client ID: HS21100785-02

Instrument: voa6.i

Sample Info: HS21100785-02;HS21100785-02;;;

Purge Volume: 5.0

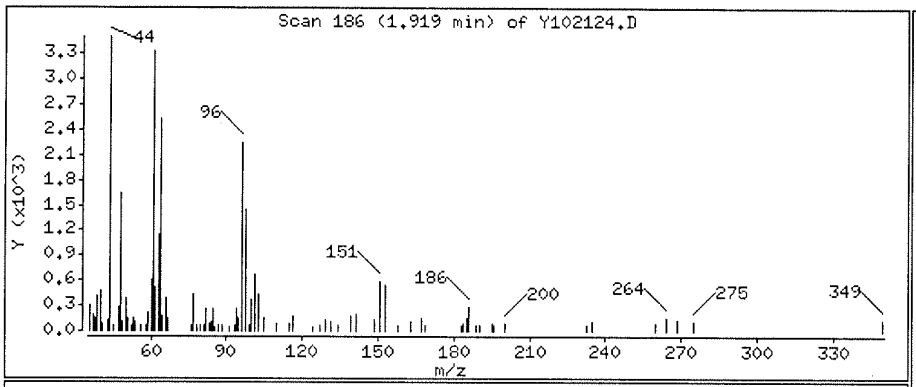
Operator: PC

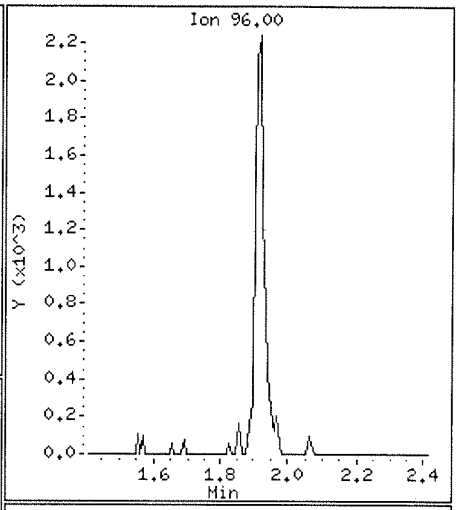
Column phase: DB624

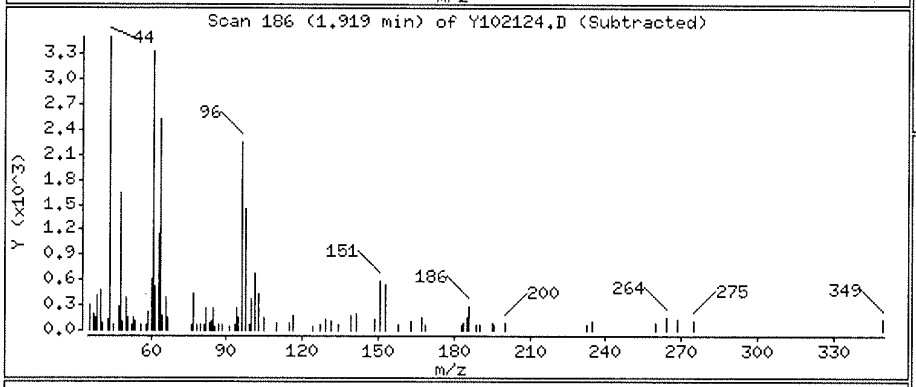
Column diameter: 0.18

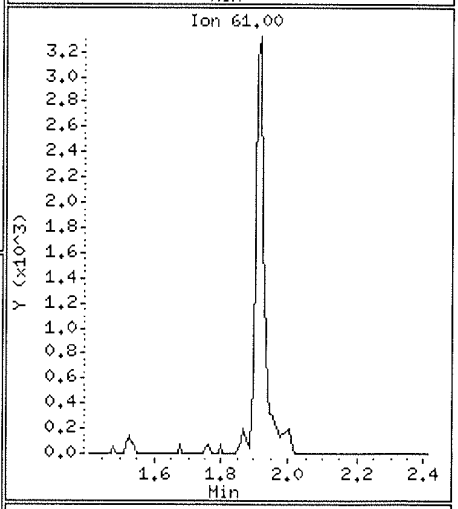
11 1,1-Dichloroethene

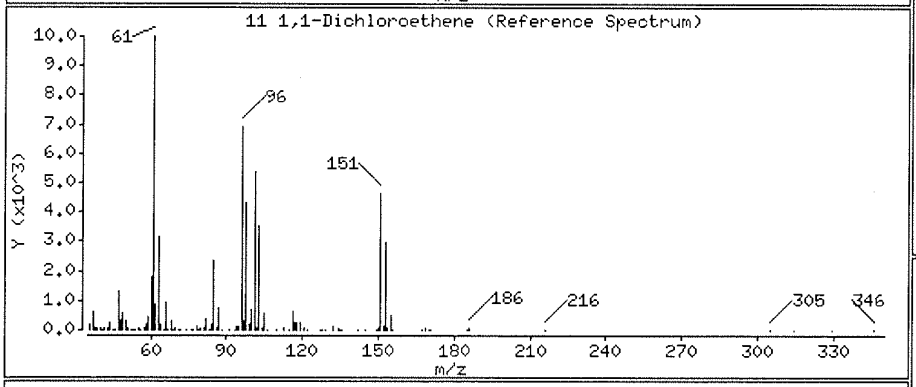
Concentration: 1.15 ug/l

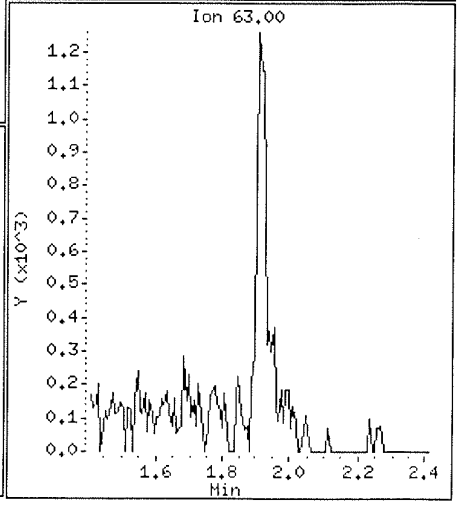


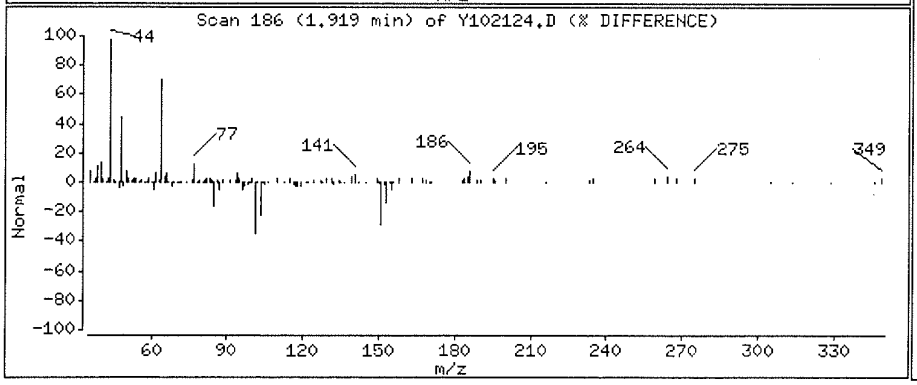












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102124.D

Date : 22-OCT-2021 05:22

Client ID: HS21100785-02

Instrument: voa6.i

Sample Info: HS21100785-02;HS21100785-02;;;

Purge Volume: 5.0

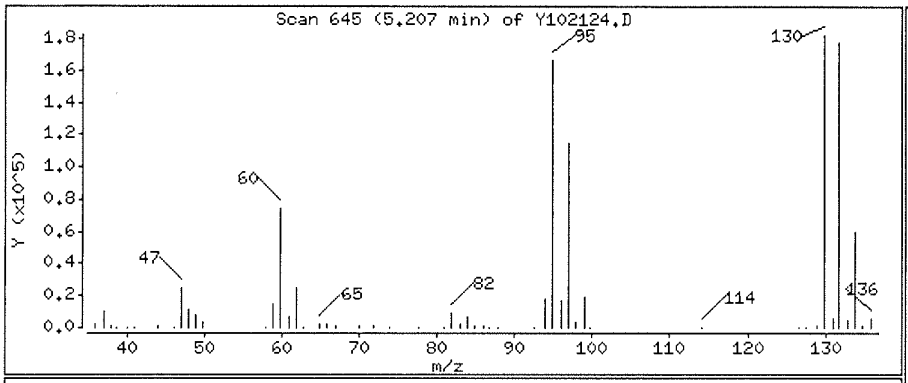
Operator: PC

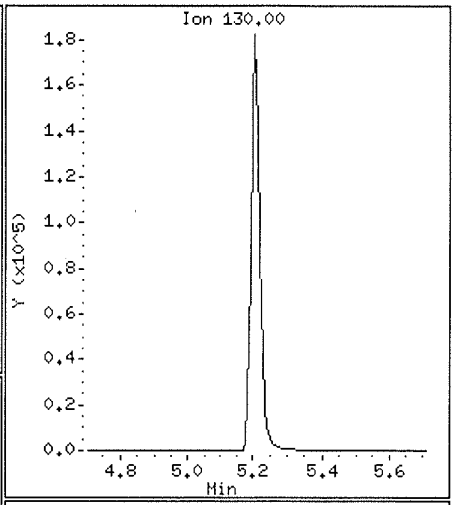
Column phase: DB624

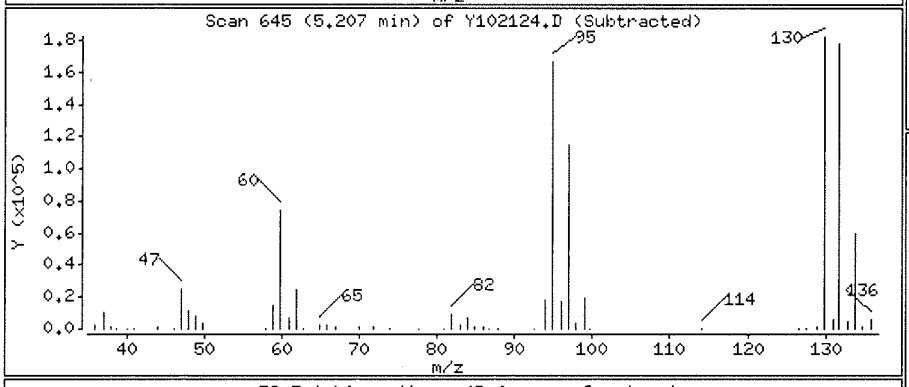
Column diameter: 0.18

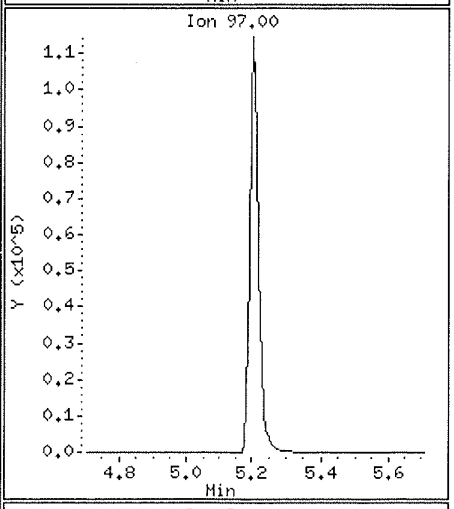
38 Trichloroethene

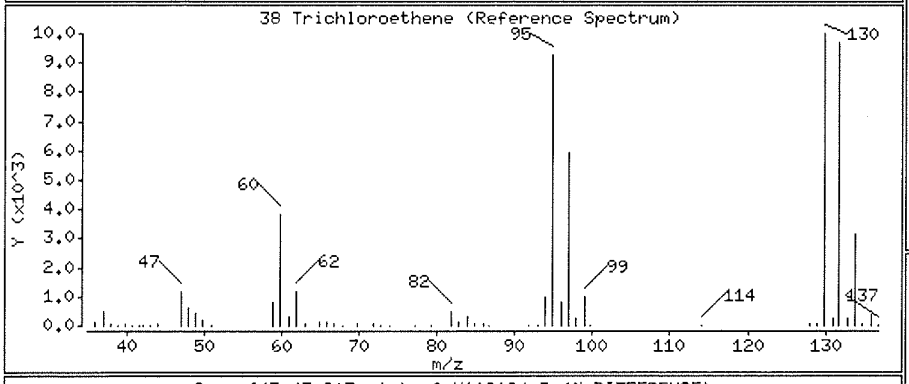
Concentration: 75.33 ug/l

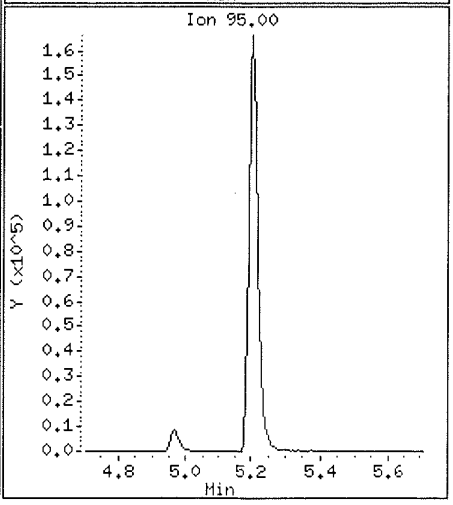


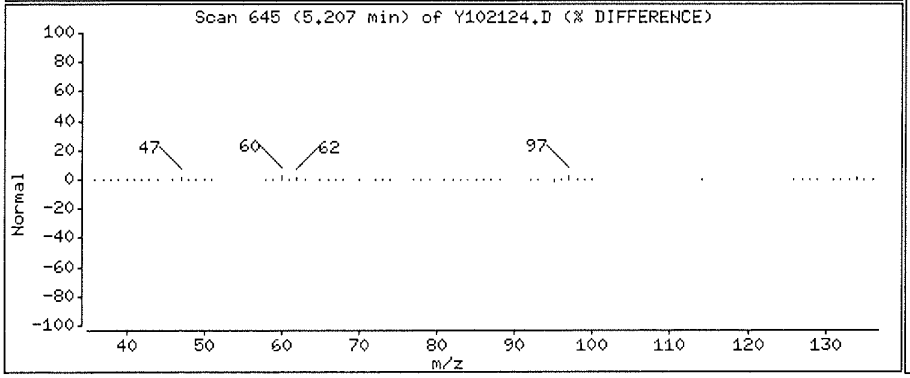












ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102125.D
Lab Smp Id: HS21100785-01 Client Smp ID: HS21100785-01
Inj Date : 22-OCT-2021 05:43
Operator : PC Inst ID: voa6.i
Smp Info : HS21100785-01;HS21100785-01;;;
Misc Info : HS18090001;WATER;0;5;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211021.b\8260W.m
Meth Date : 11-Nov-2021 15:25 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 52
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	5.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

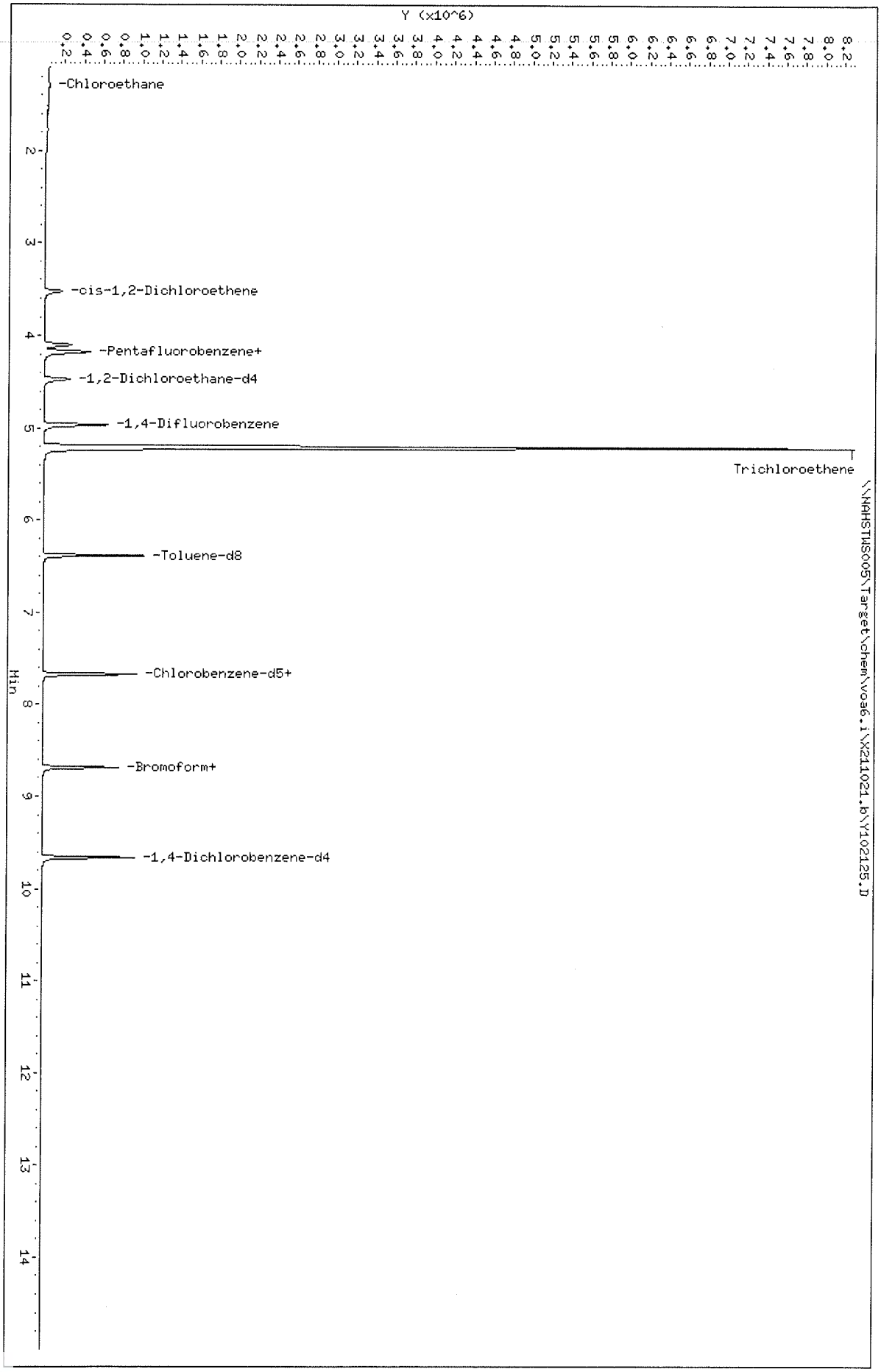
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	397939	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	194649	49.8269	49.82
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	202770	51.2620	51.26
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	563567	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	507319	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	632955	49.1625	49.16
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	217131	48.9763	48.97
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	232203	50.0000	
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	101889	24.6277	123.13
38 Trichloroethene	130	5.207	5.207	(1.049)	2702128	633.867	3169.33(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\NAHSTWS005\Target\chem\voa6.i\YZ11021.b\Y102125.D
Date : 22-OCT-2021 05:43
Client ID: HS2110078S-01
Sample Info: HS2110078S-01;HS2110078S-01;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102125.D

Date : 22-OCT-2021 05:43

Client ID: HS21100785-01

Instrument: voa6.i

Sample Info: HS21100785-01;HS21100785-01;;;

Purge Volume: 5.0

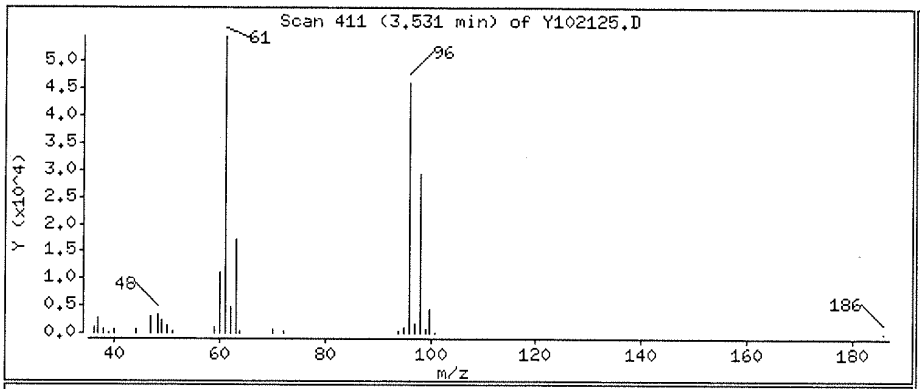
Operator: PC

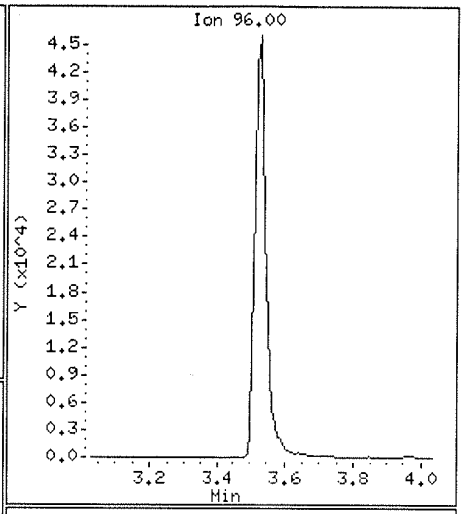
Column phase: DB624

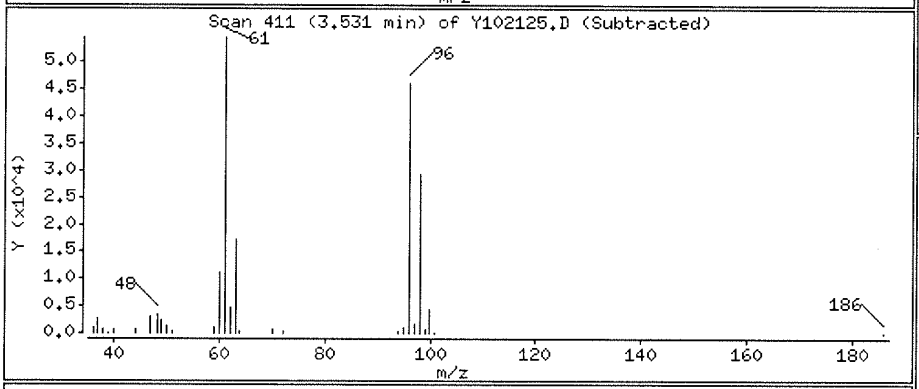
Column diameter: 0.18

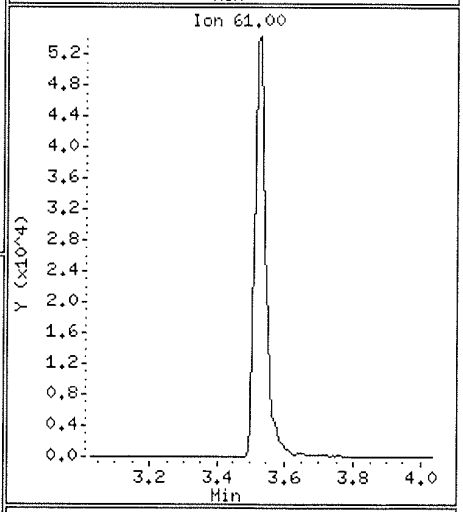
27 cis-1,2-Dichloroethene

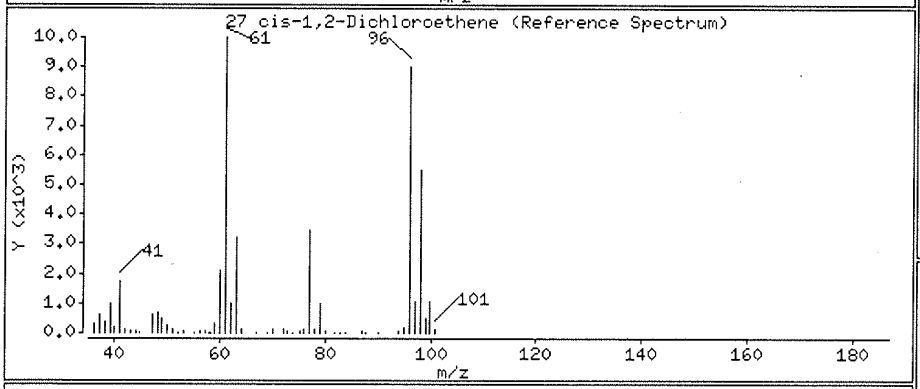
Concentration: 123.13 ug/l

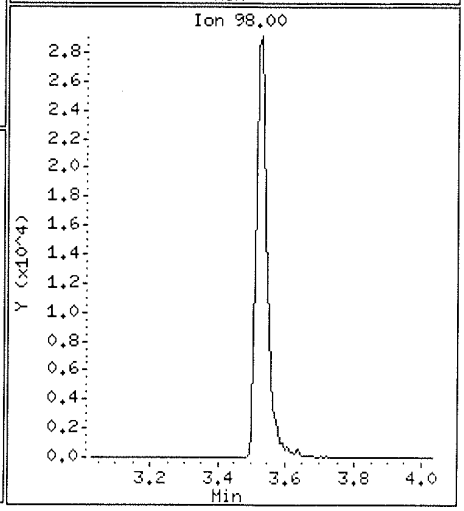


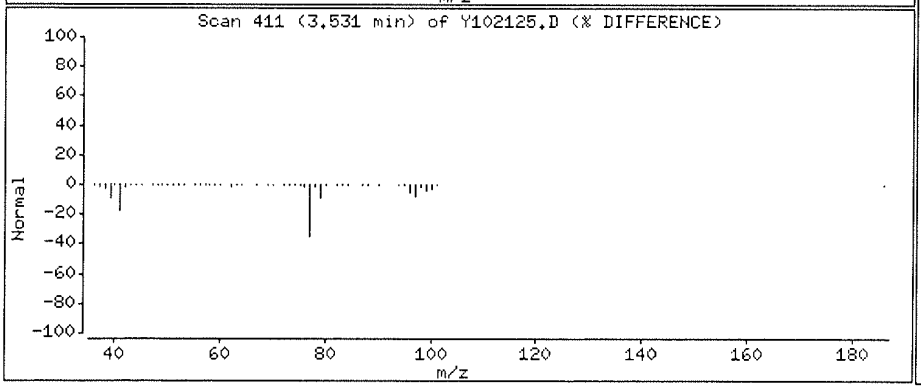












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102125.D

Date : 22-OCT-2021 05:43

Client ID: HS21100785-01

Instrument: voa6.i

Sample Info: HS21100785-01;HS21100785-01;;;

Purge Volume: 5.0

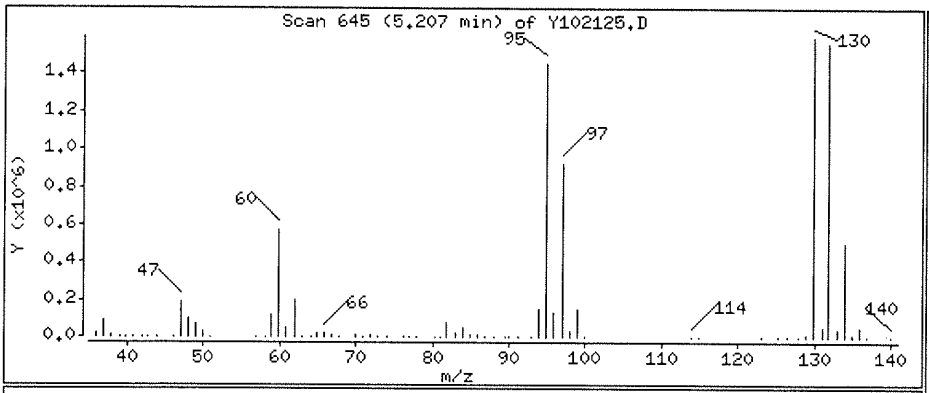
Operator: PC

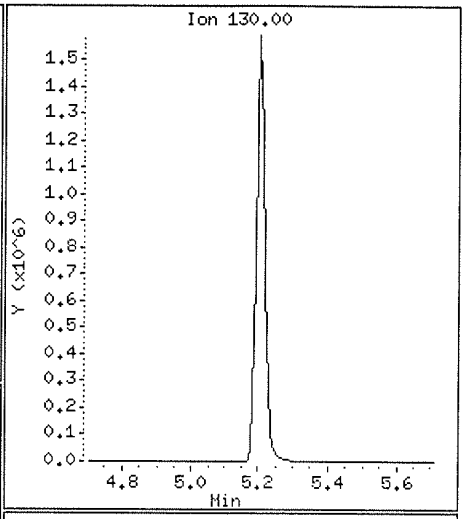
Column phase: DB624

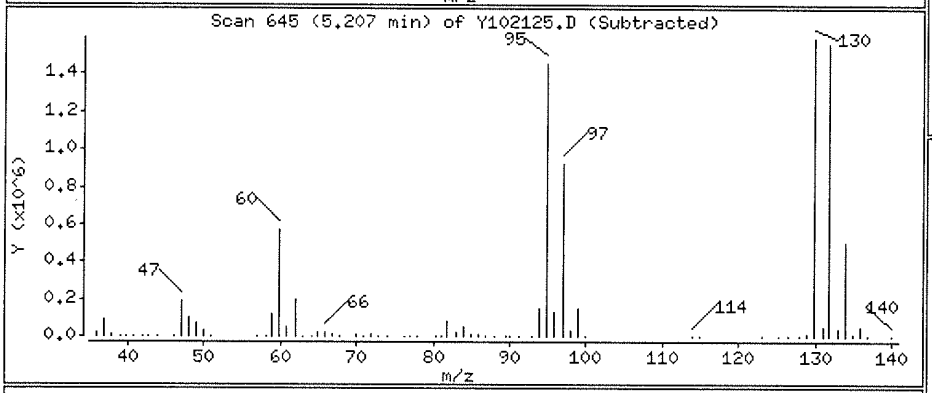
Column diameter: 0.18

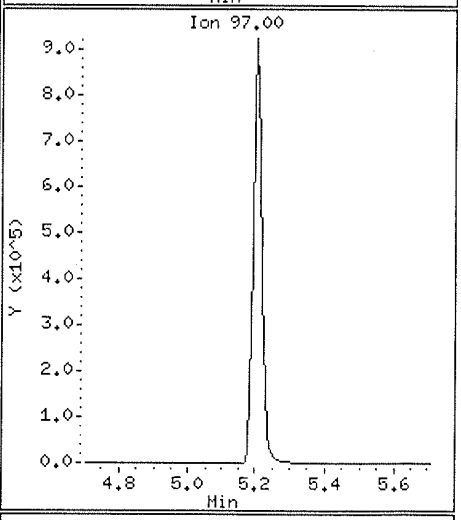
38 Trichloroethene

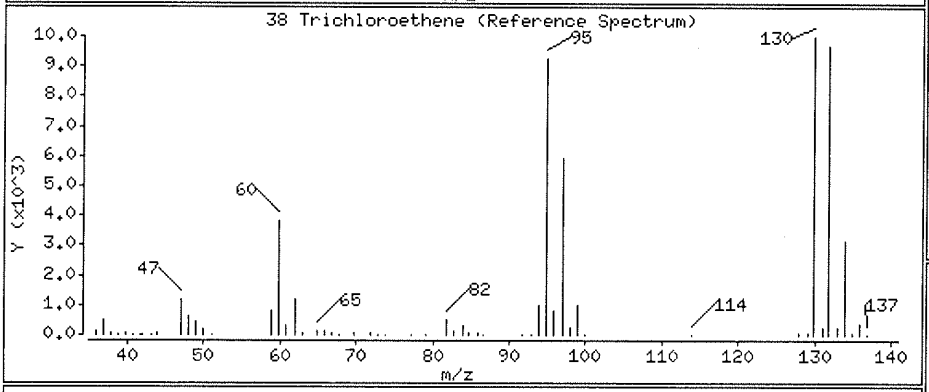
Concentration: 3169.33 ug/l

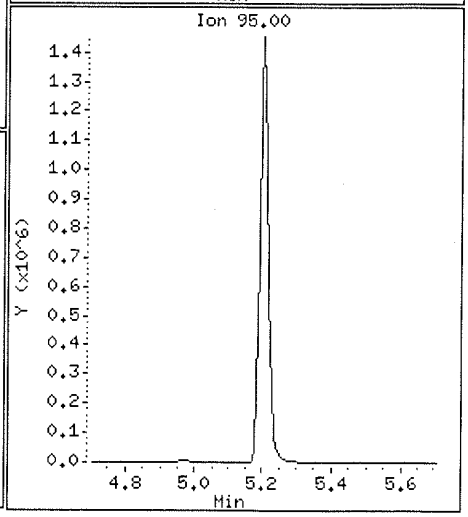


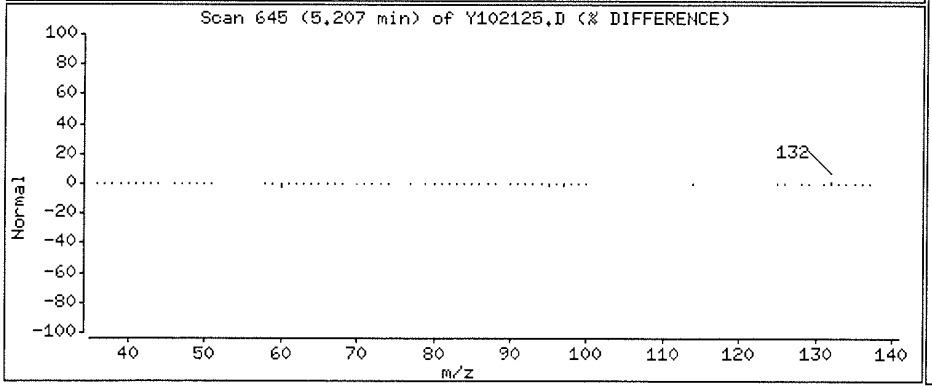












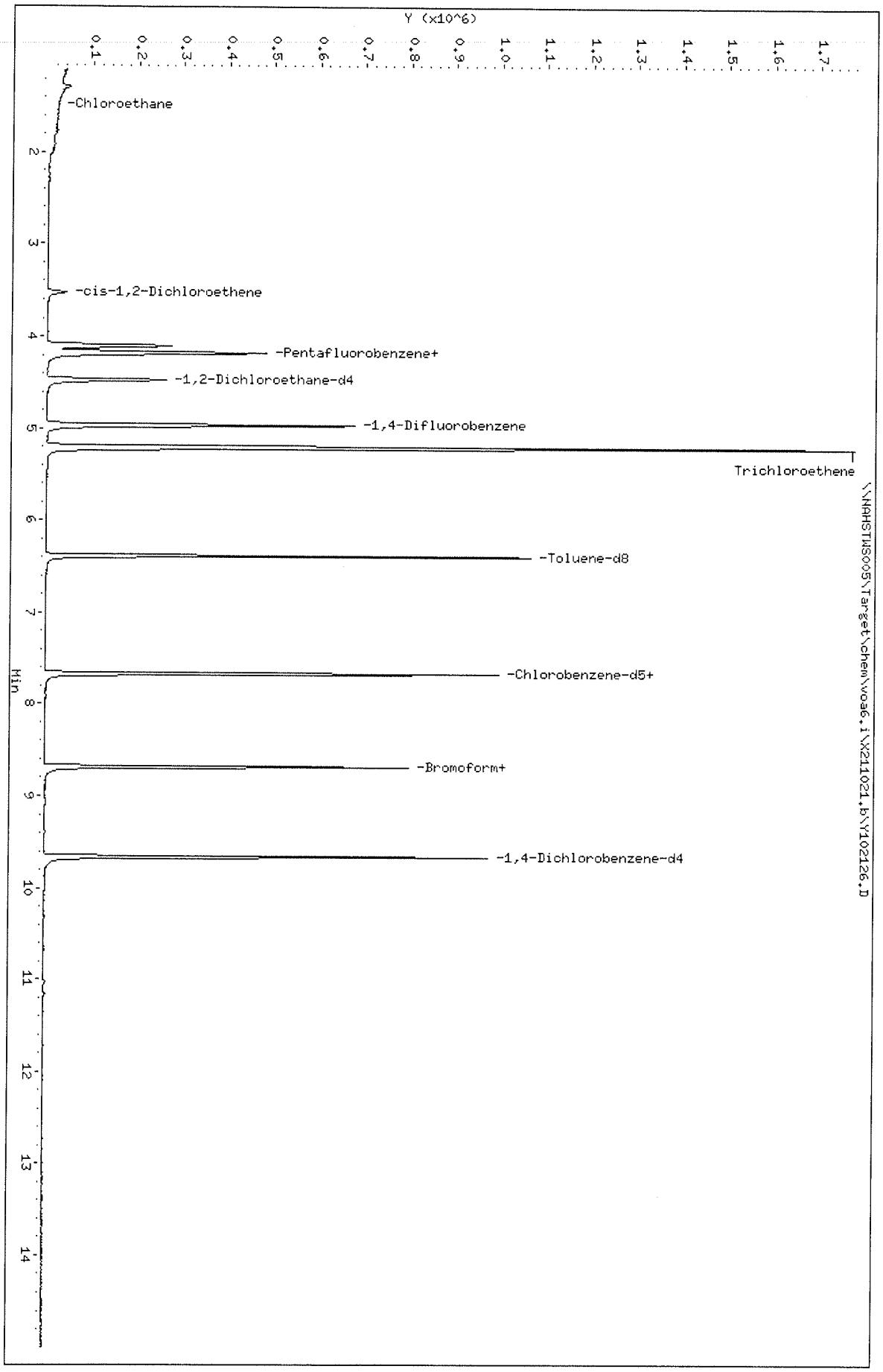
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102126.D
Lab Smp Id: HS21100785-01 Client Smp ID: HS21100785-01
Inj Date : 22-OCT-2021 06:04
Operator : PC Inst ID: voa6.i
Smp Info : HS21100785-01;HS21100785-01;;;
Misc Info : HS18090001;WATER;0;25;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211021.b\8260W.m
Meth Date : 11-Nov-2021 15:25 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 53
Dil Factor: 25.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	25.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	404826	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	194282	48.8654	48.86
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	203390	50.5155	50.51
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	580722	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	520301	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	652729	49.4334	49.43
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	227051	49.9628	49.96
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	237367	50.0000	
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	22710	5.39587	134.89
38 Trichloroethene	130	5.207	5.207	(1.049)	584113	132.974	3324.34



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102126.D
Date : 22-OCT-2021 06:04
Client ID: HS21100785-01
Sample Info: HS21100785-01;HS21100785-01;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102126.D

Date : 22-OCT-2021 06:04

Client ID: HS21100785-01

Instrument: voa6.i

Sample Info: HS21100785-01;HS21100785-01;;;

Purge Volume: 5.0

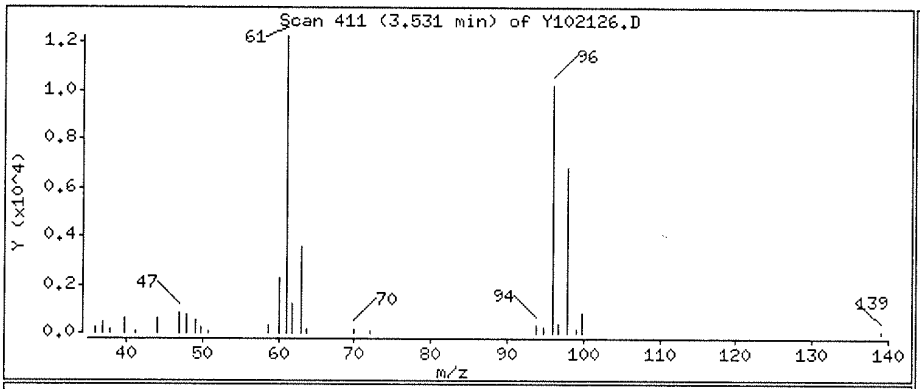
Operator: PC

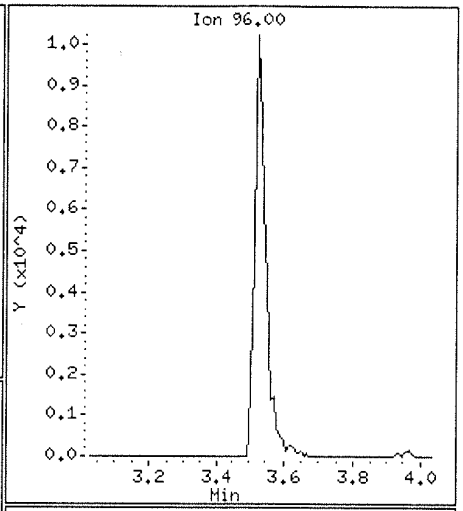
Column phase: DB624

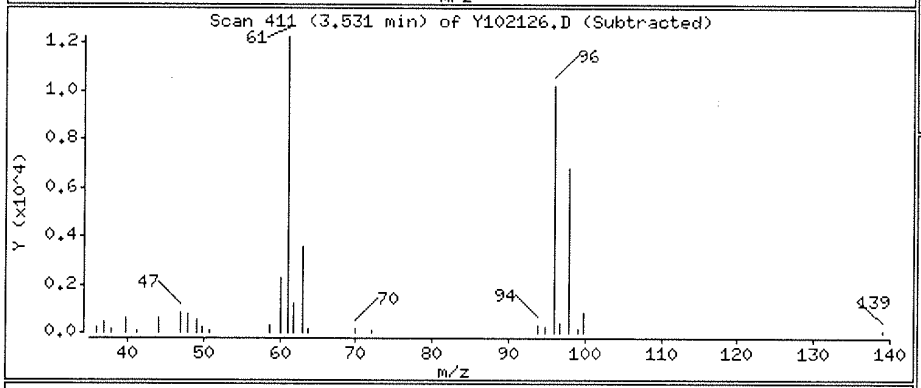
Column diameter: 0.18

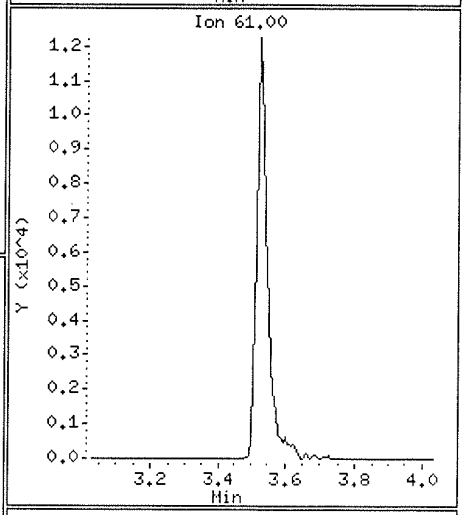
27 cis-1,2-Dichloroethene

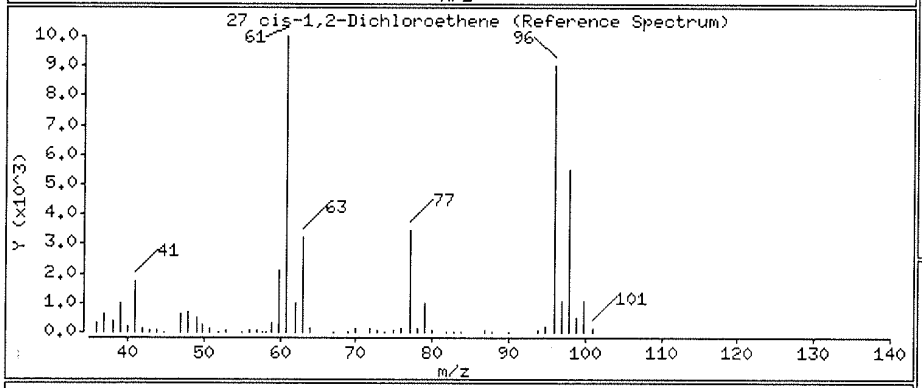
Concentration: 134.89 ug/l

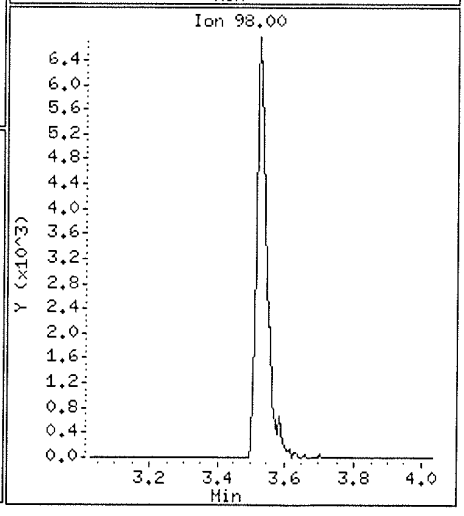


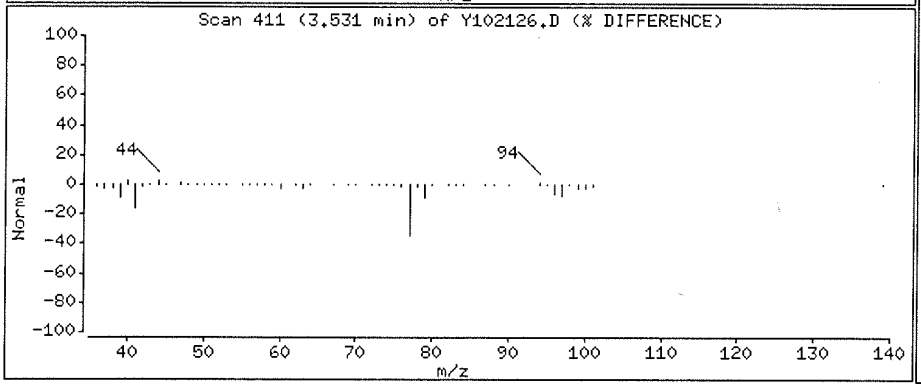












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102126.D

Date : 22-OCT-2021 06:04

Client ID: HS21100785-01

Instrument: voa6.i

Sample Info: HS21100785-01;HS21100785-01;;;

Purge Volume: 5.0

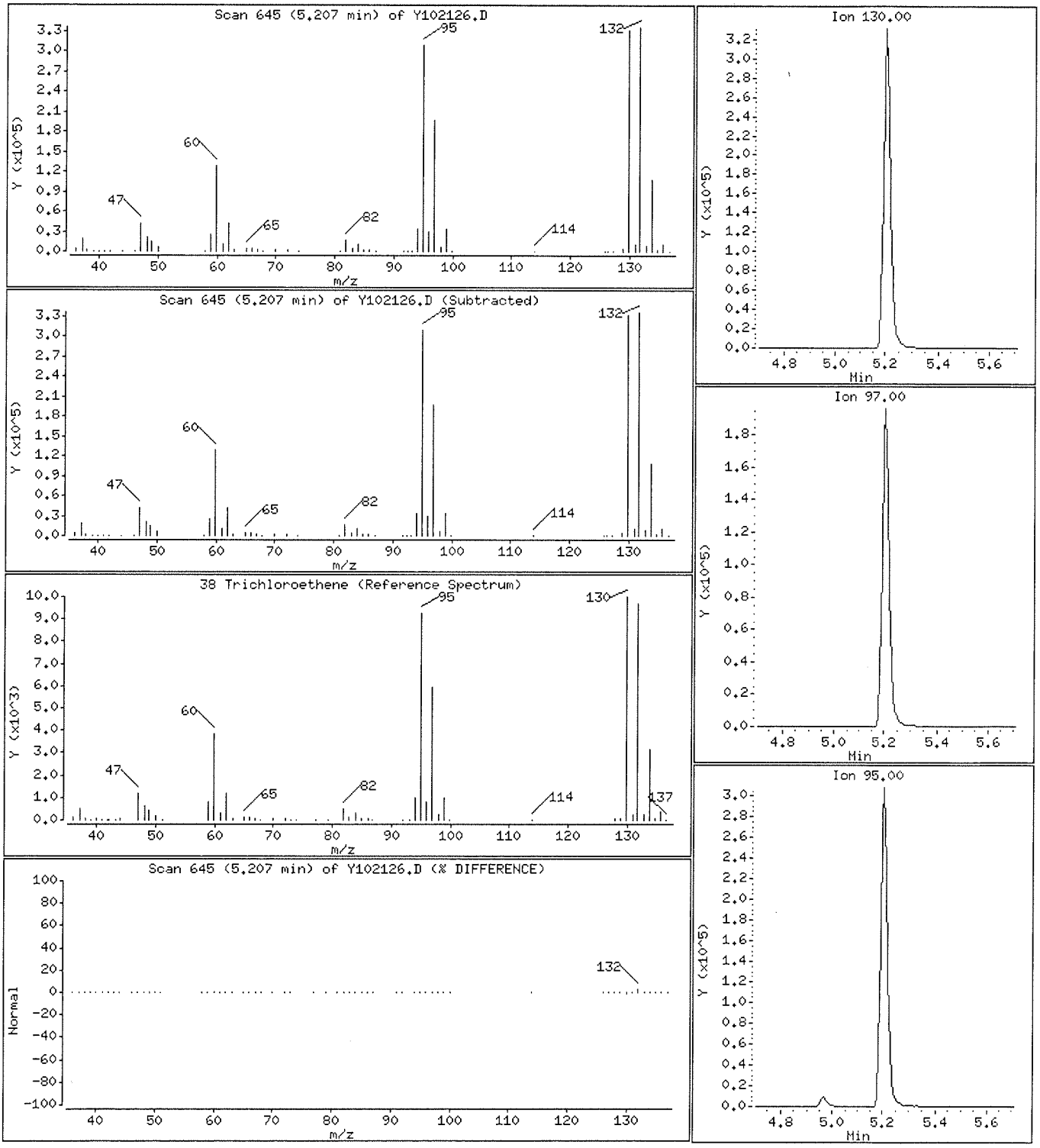
Operator: PC

Column phase: DB624

Column diameter: 0.18

38 Trichloroethene

Concentration: 3324.34 ug/l



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102127.D Page 1
Report Date: 12-Nov-2021 11:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102127.D
Lab Smp Id: HS21100785-03 Client Smp ID: HS21100785-03
Inj Date : 22-OCT-2021 06:25
Operator : PC Inst ID: voa6.i
Smp Info : HS21100785-03;HS21100785-03;;;
Misc Info : HS18090001;WATER;0;25;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211021.b\8260W.m
Meth Date : 11-Nov-2021 15:25 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 54
Dil Factor: 25.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

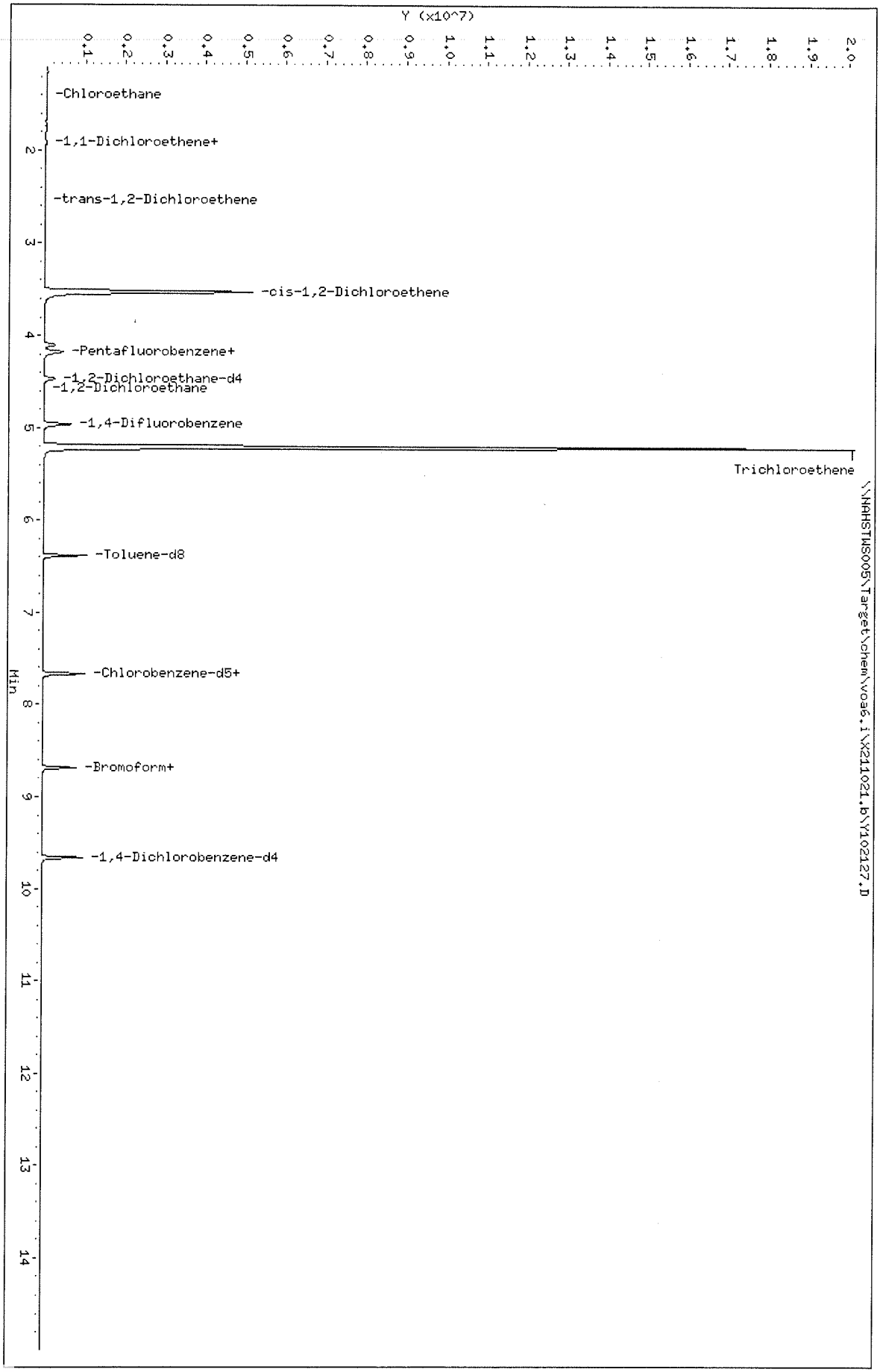
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	25.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	419978	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	196910	47.7133	47.71
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	204181	48.8166	48.81
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	584192	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	523419	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	651013	49.0098	49.00
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	225769	49.3689	49.36
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	246502	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	36062	8.18988	204.74
11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	5011	1.33759	33.43(a)
27 cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	2781478	637.032	15925.80(A)
33 1,2-Dichloroethane	62	4.569	4.555	(0.921)	8115	1.65598	41.39(a)
38 Trichloroethene	130	5.206	5.207	(1.049)	6340434	1434.83	35870.81(A)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102127.D
Date : 22-OCT-2021 06:25
Client ID: HS21100785-03
Sample Info: HS21100785-03;HS21100785-03;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102127.D

Date : 22-OCT-2021 06:25

Client ID: HS21100785-03

Instrument: voa6.i

Sample Info: HS21100785-03;HS21100785-03;;;

Purge Volume: 5.0

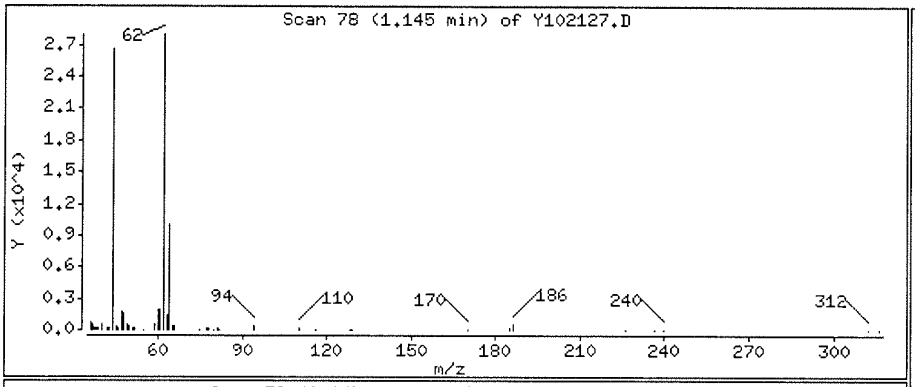
Operator: PC

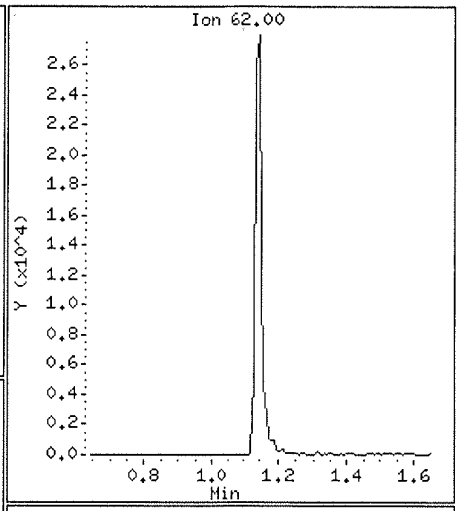
Column phase: DB624

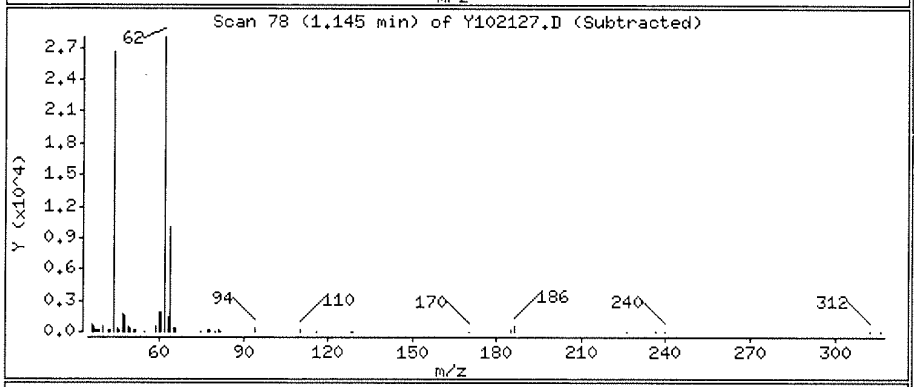
Column diameter: 0.18

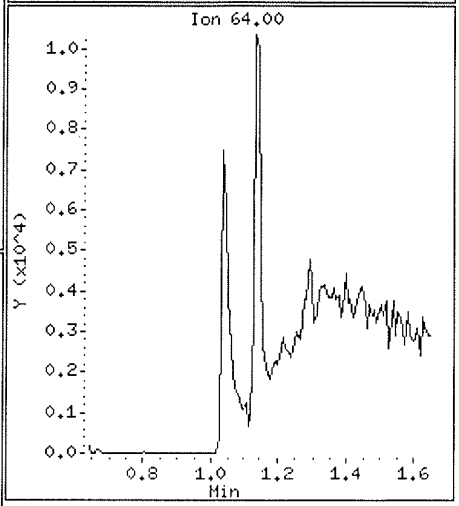
5 Vinyl Chloride

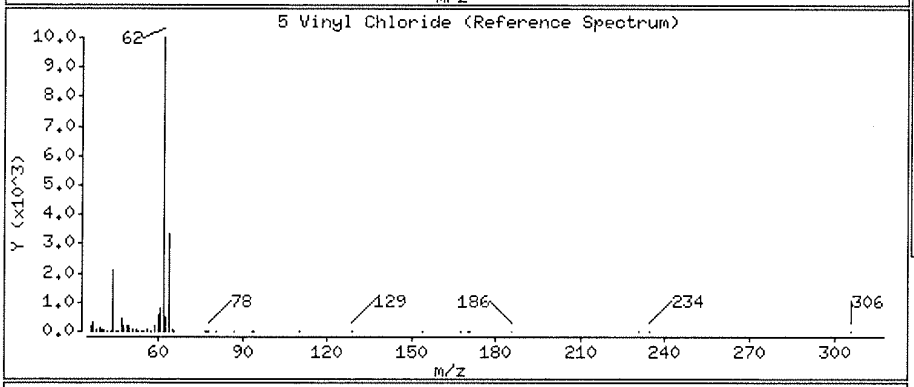
Concentration: 204.74 ug/l

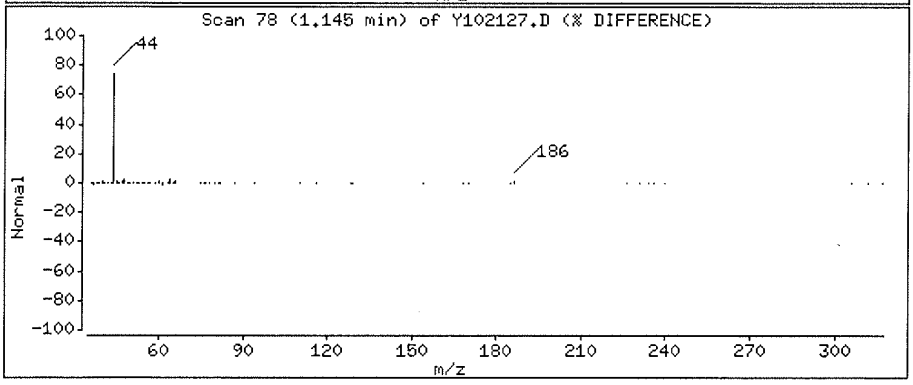












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102127.D

Date : 22-OCT-2021 06:25

Client ID: HS21100785-03

Instrument: voa6.i

Sample Info: HS21100785-03;HS21100785-03;;;

Purge Volume: 5.0

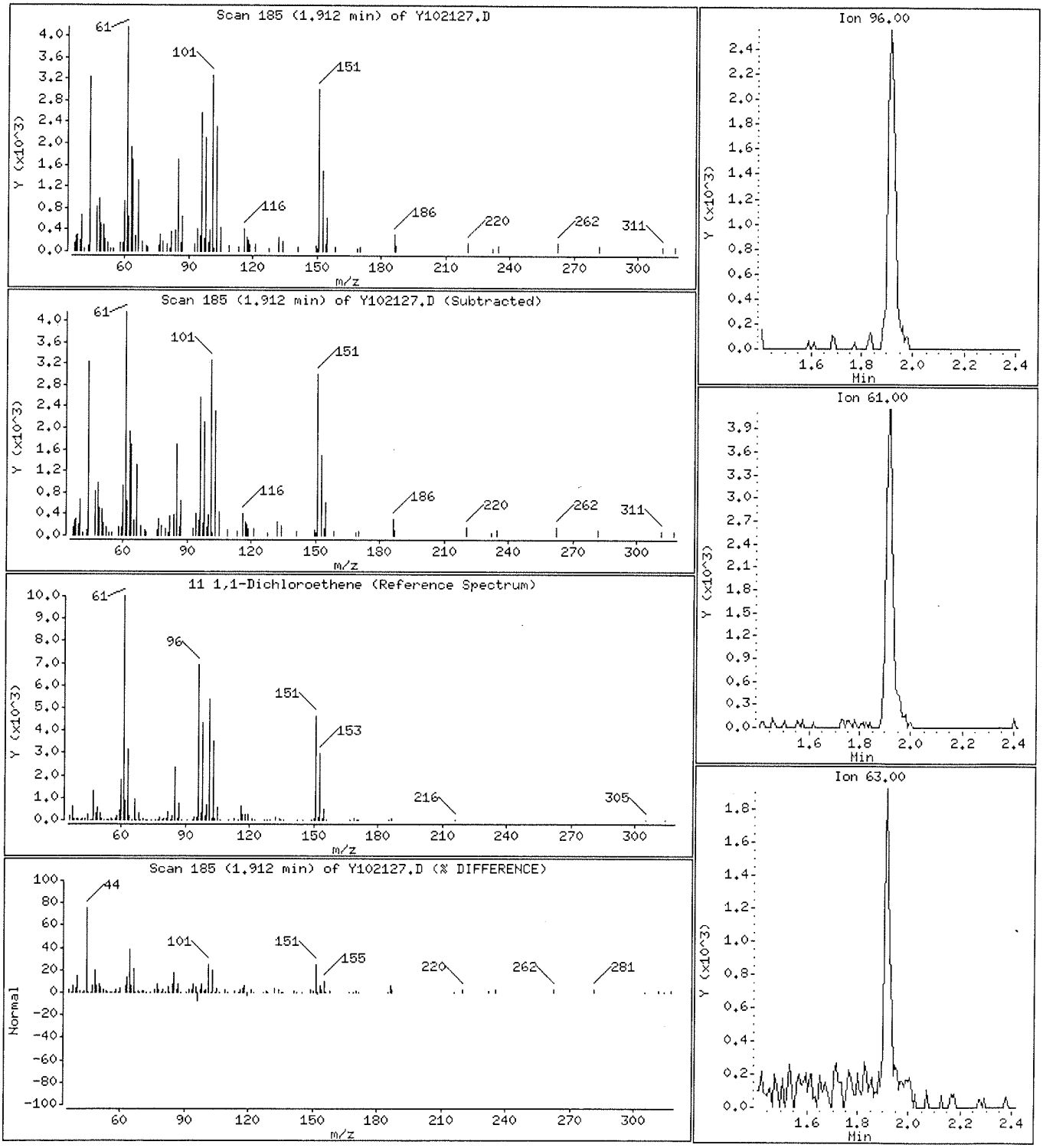
Operator: PC

Column phase: DB624

Column diameter: 0.18

11 1,1-Dichloroethene

Concentration: 33.43 ug/l



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102127.D

Date : 22-OCT-2021 06:25

Client ID: HS21100785-03

Instrument: voa6.i

Sample Info: HS21100785-03;HS21100785-03;;;

Purge Volume: 5.0

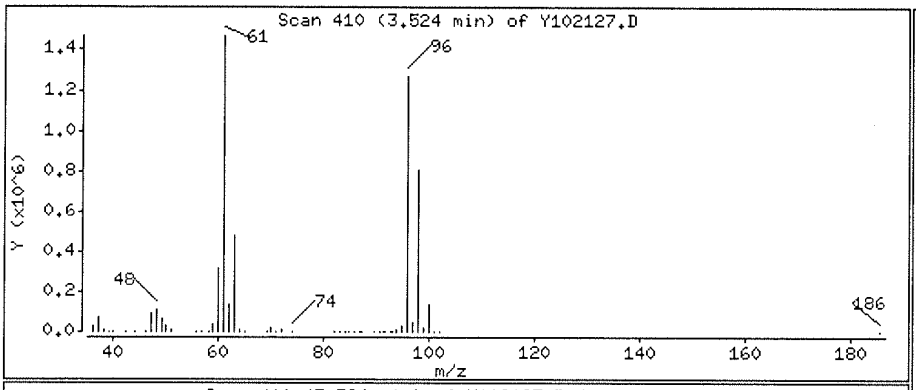
Operator: PC

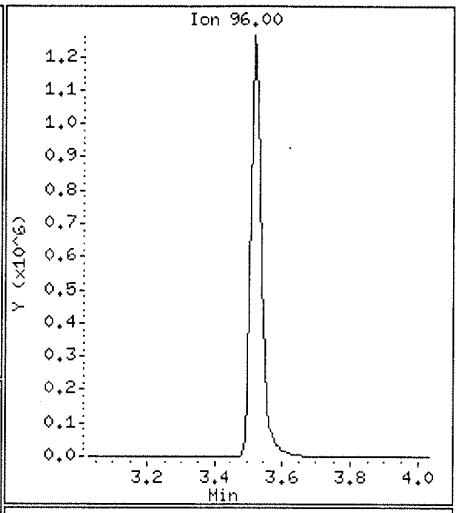
Column phase: DB624

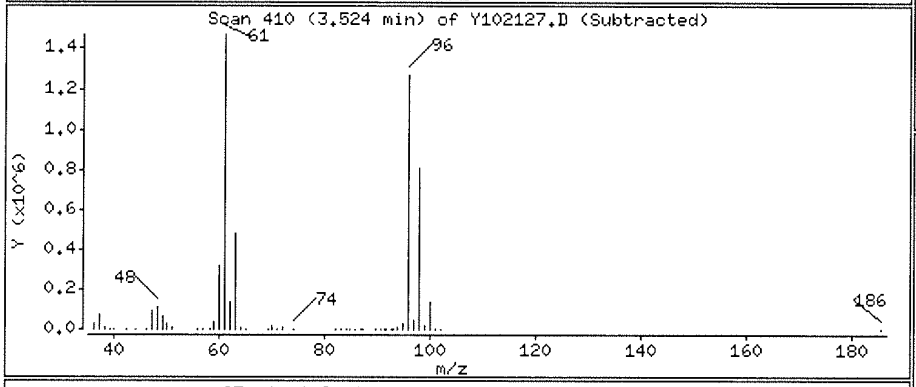
Column diameter: 0.18

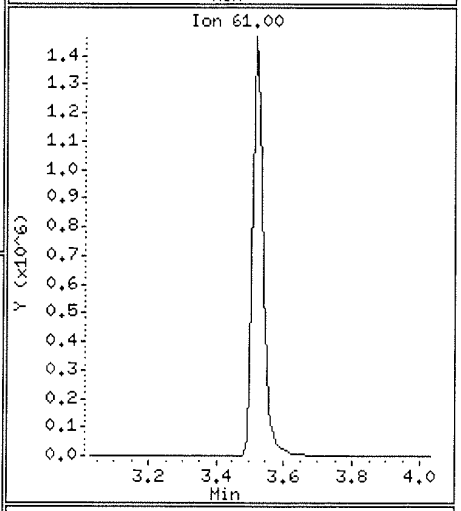
27 cis-1,2-Dichloroethene

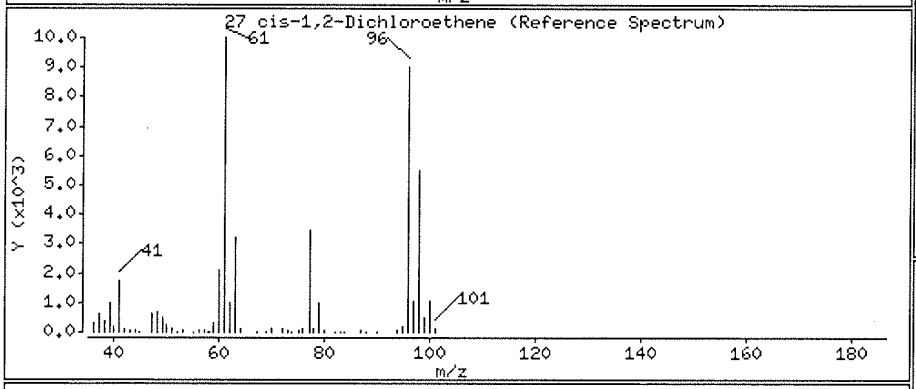
Concentration: 15925.80 ug/l

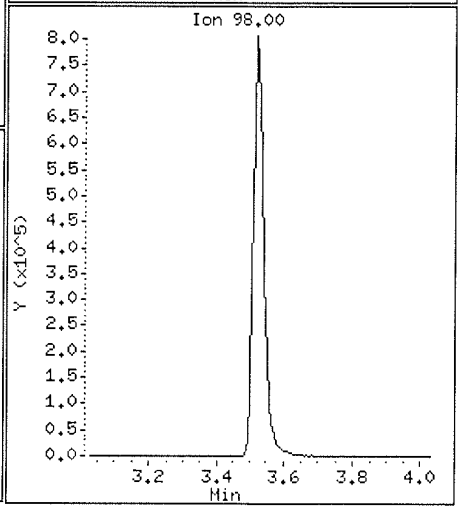


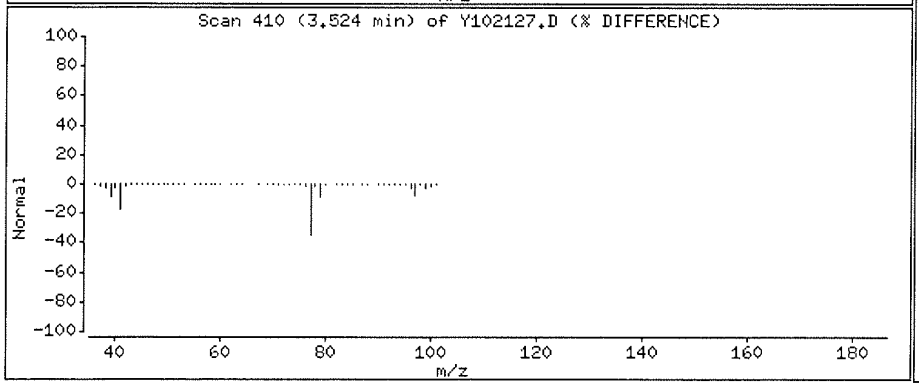












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102127.D

Date : 22-OCT-2021 06:25

Client ID: HS21100785-03

Instrument: voa6.i

Sample Info: HS21100785-03;HS21100785-03;;;

Purge Volume: 5.0

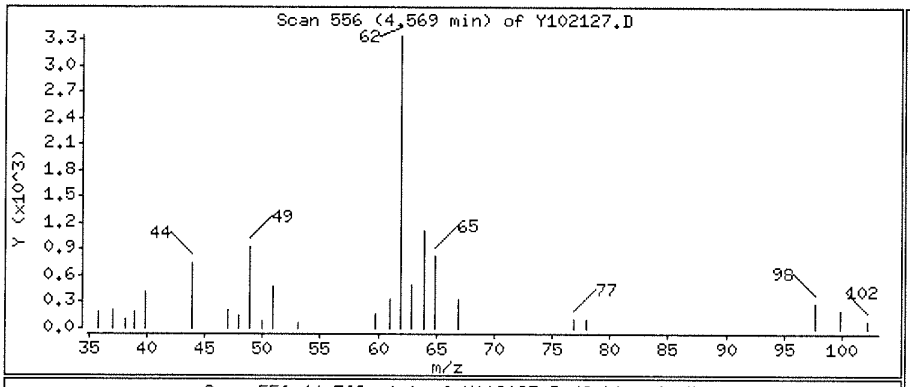
Operator: PC

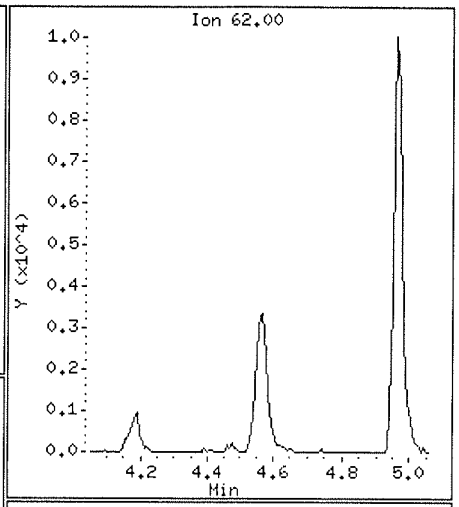
Column phase: DB624

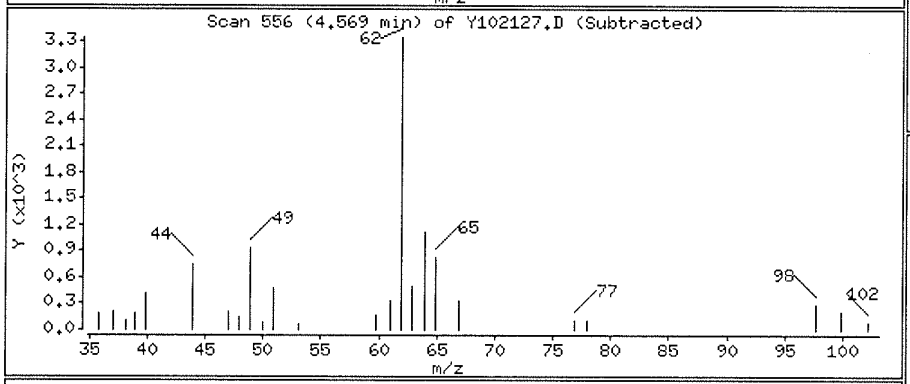
Column diameter: 0.18

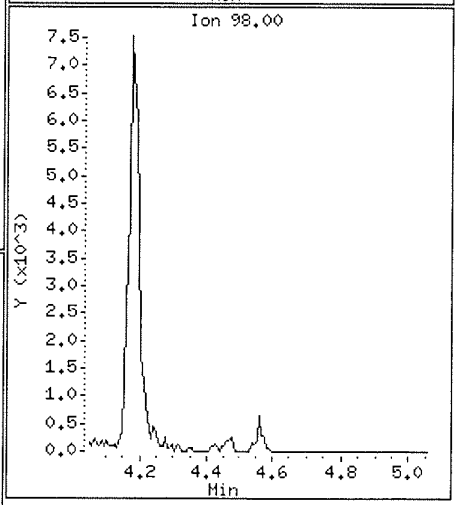
33 1,2-Dichloroethane

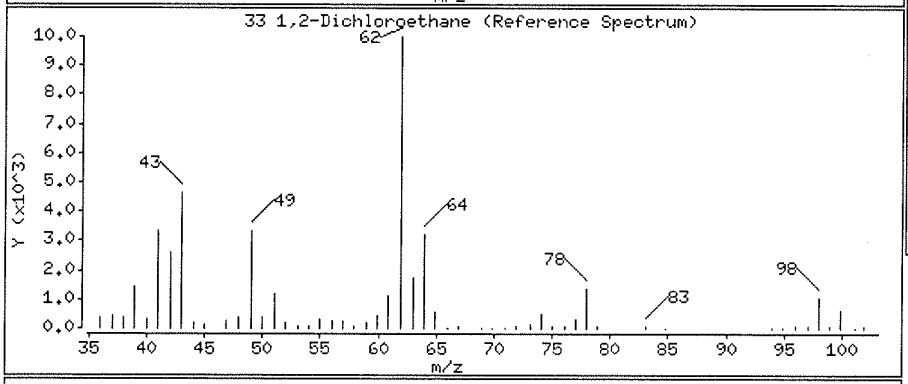
Concentration: 41.39 ug/l

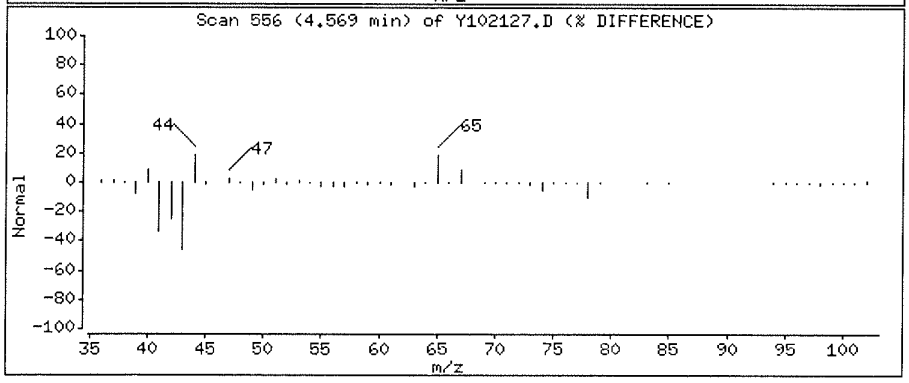












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102127.D

Date : 22-OCT-2021 06:25

Client ID: HS21100785-03

Instrument: voa6.i

Sample Info: HS21100785-03;HS21100785-03;;;

Purge Volume: 5.0

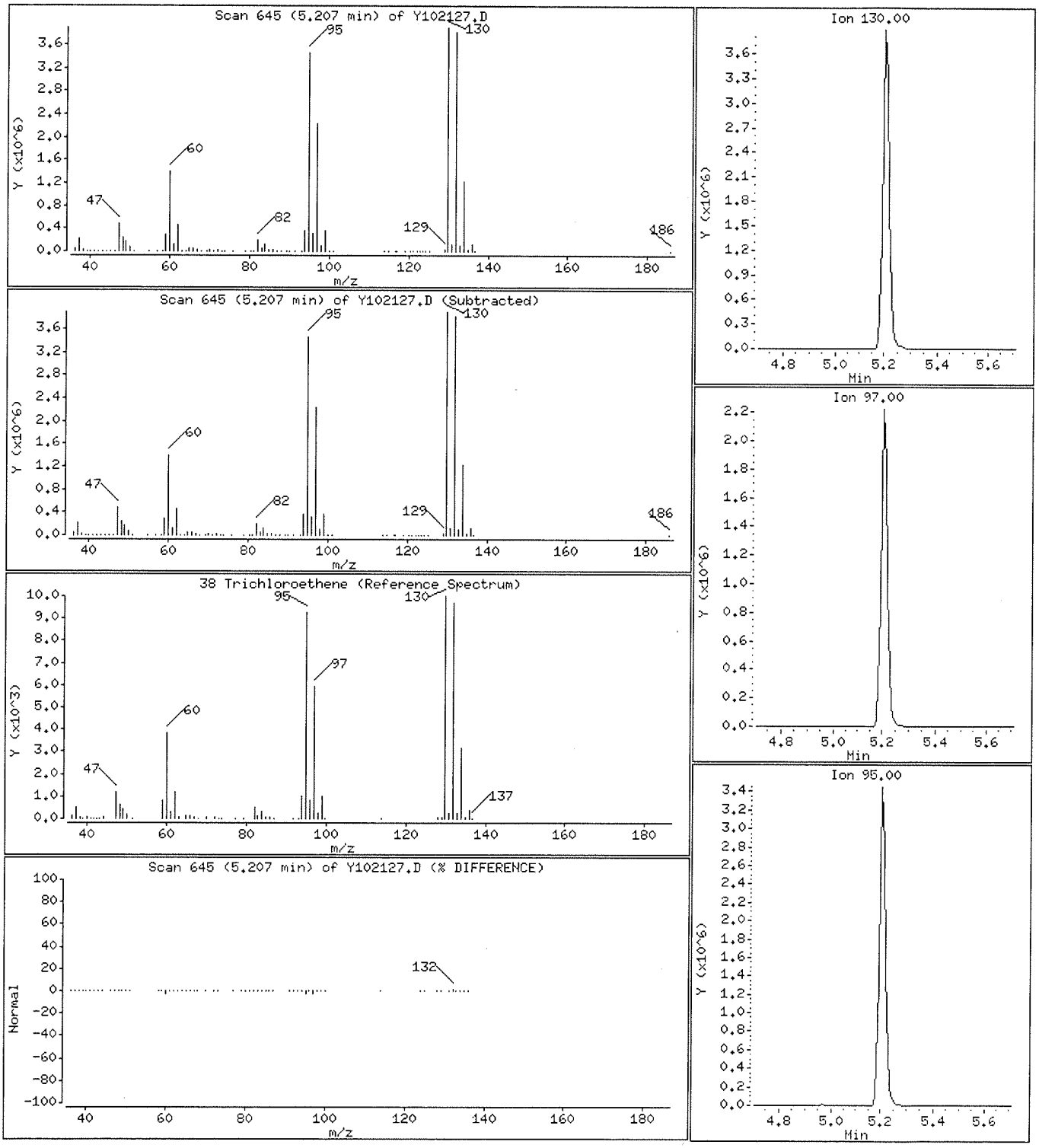
Operator: PC

Column phase: DB624

Column diameter: 0.18

38 Trichloroethene

Concentration: 35870.81 ug/l



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102128.D Page 1
Report Date: 12-Nov-2021 11:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102128.D
Lab Smp Id: HS21100785-03 Client Smp ID: HS21100785-03
Inj Date : 22-OCT-2021 06:46
Operator : PC Inst ID: voa6.i
Smp Info : HS21100785-03;HS21100785-03;;;
Misc Info : HS18090001;WATER;0;250;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211021.b\8260W.m
Meth Date : 11-Nov-2021 15:25 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 55
Dil Factor: 250.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

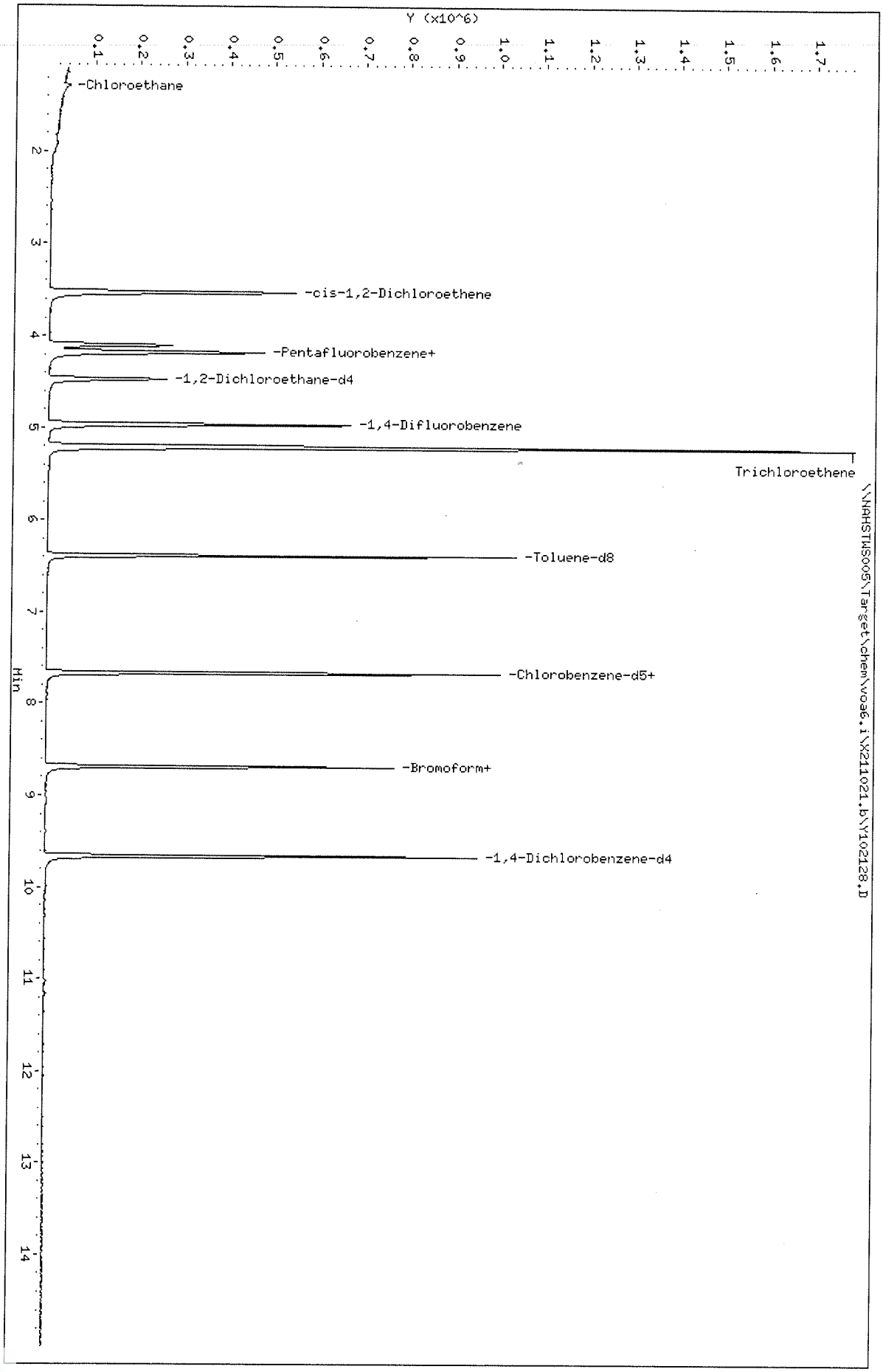
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	250.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	405853	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	195264	48.9910	48.99
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	198831	49.2076	49.20
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	572086	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	513834	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	646527	49.5800	49.57
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	218859	48.7335	48.73
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	241319	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	3961	0.93087	232.71(a)
27 cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	297760	70.5684	17642.08
38 Trichloroethene	130	5.206	5.207	(1.049)	589803	136.296	34074.03

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102128.D
Date : 22-OCT-2021 06:46
Client ID: HS21100785-03
Sample Info: HS21100785-03;HS21100785-03;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102128.D

Date : 22-OCT-2021 06:46

Client ID: HS21100785-03

Instrument: voa6.i

Sample Info: HS21100785-03;HS21100785-03;;;

Purge Volume: 5.0

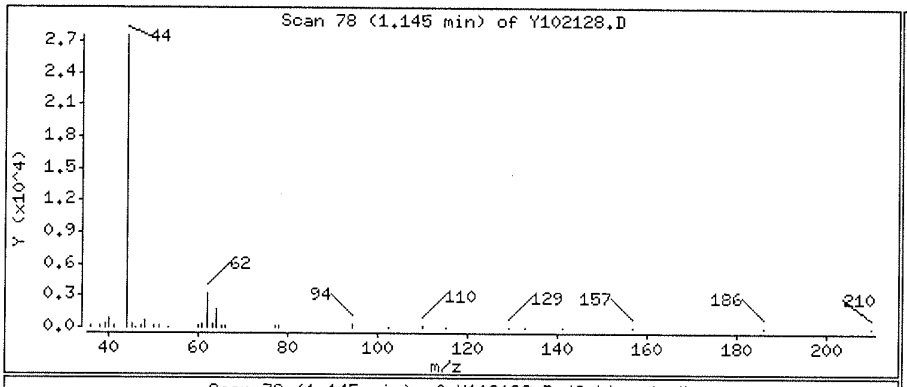
Operator: PC

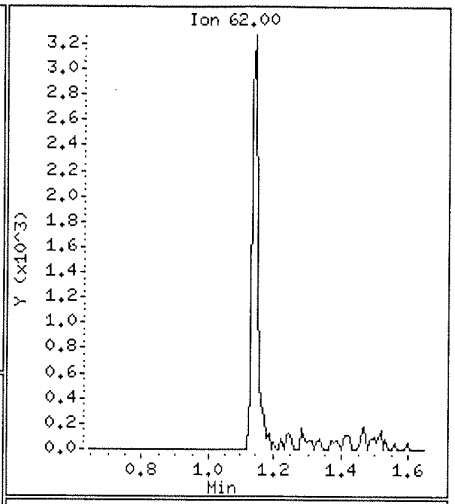
Column phase: DB624

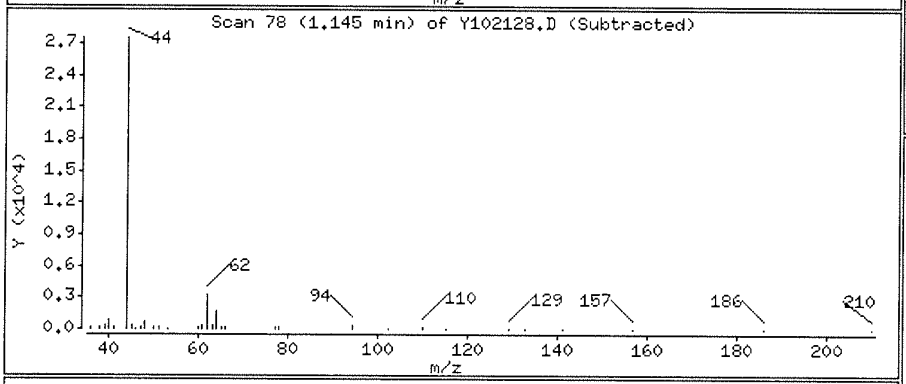
Column diameter: 0.18

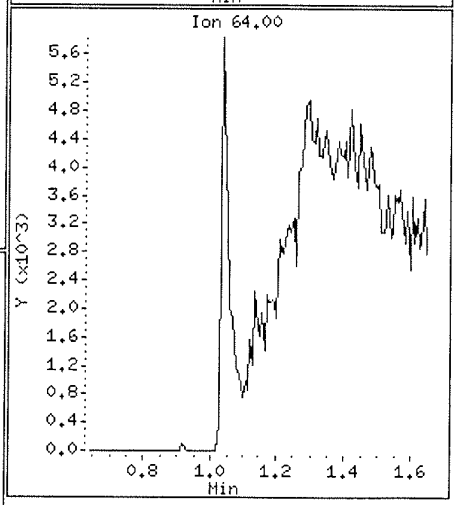
5 Vinyl Chloride

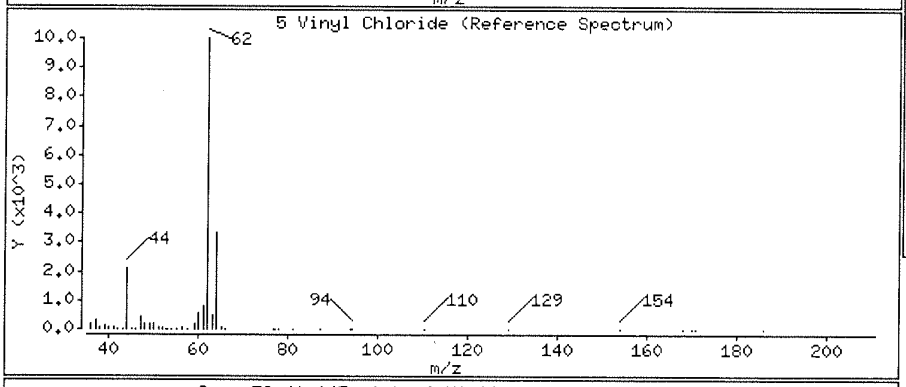
Concentration: 232.71 ug/l

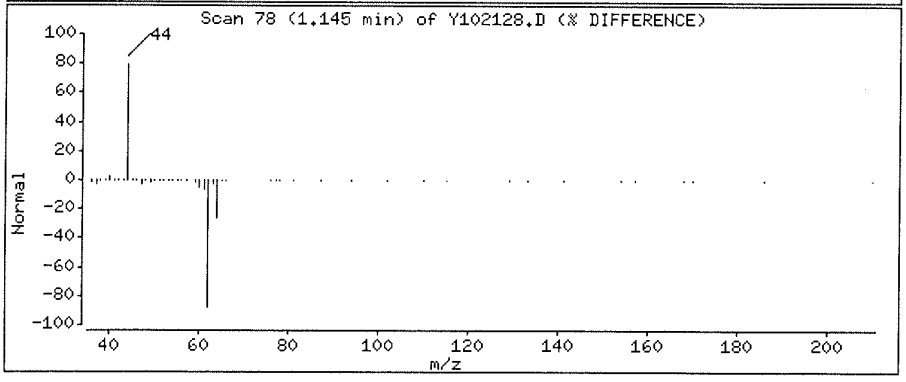












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102128.D

Date : 22-OCT-2021 06:46

Client ID: HS21100785-03

Instrument: voa6.i

Sample Info: HS21100785-03;HS21100785-03;;;

Purge Volume: 5.0

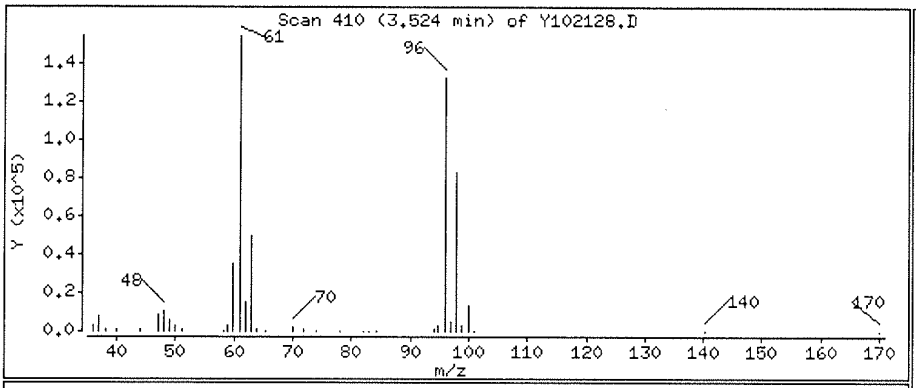
Operator: PC

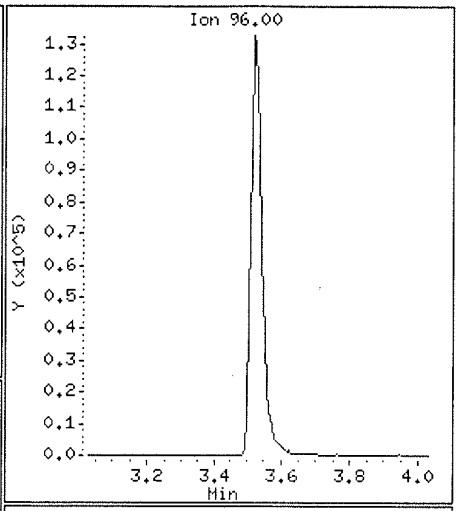
Column phase: DB624

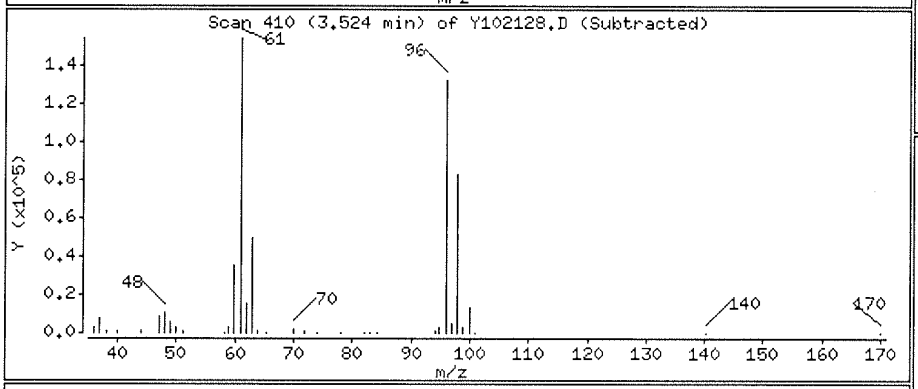
Column diameter: 0.18

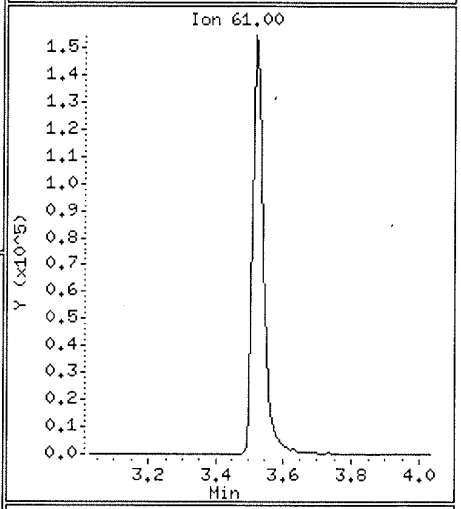
27 cis-1,2-Dichloroethene

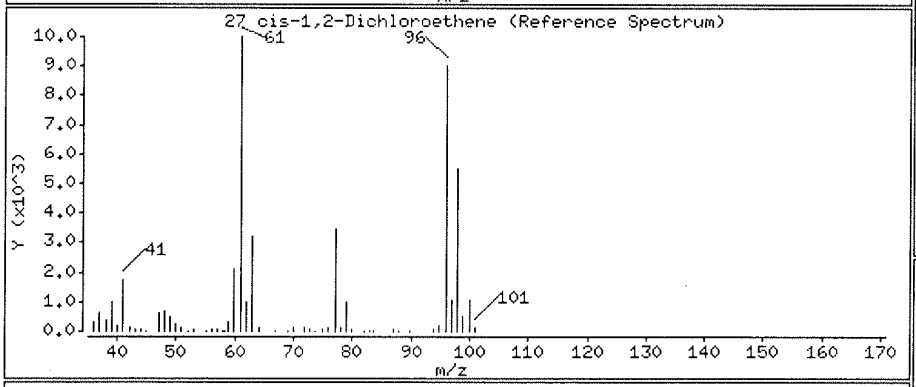
Concentration: 17642.08 ug/l

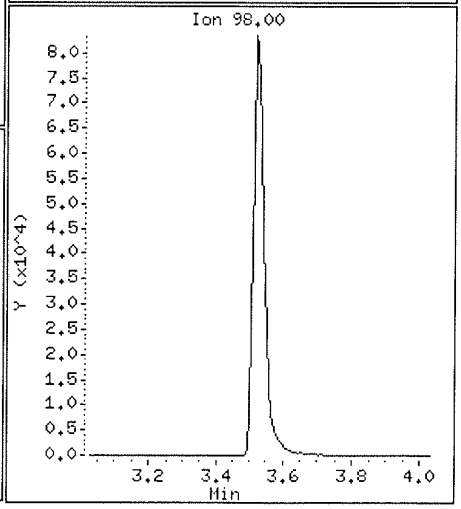


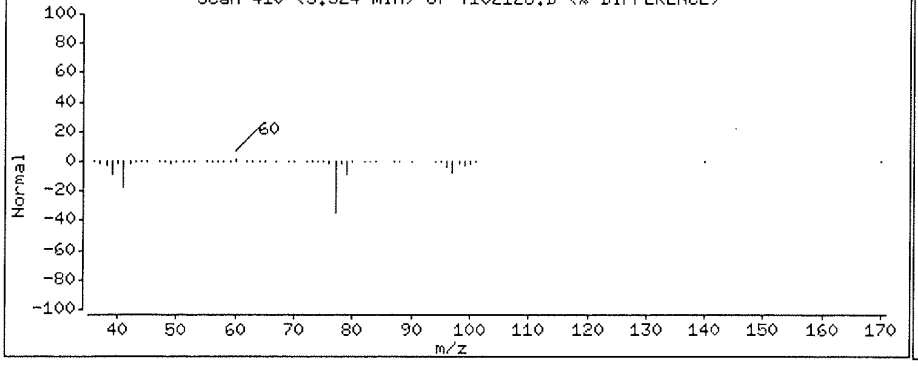












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102128.D

Date : 22-OCT-2021 06:46

Client ID: HS21100785-03

Instrument: voa6.i

Sample Info: HS21100785-03;HS21100785-03;;;

Purge Volume: 5.0

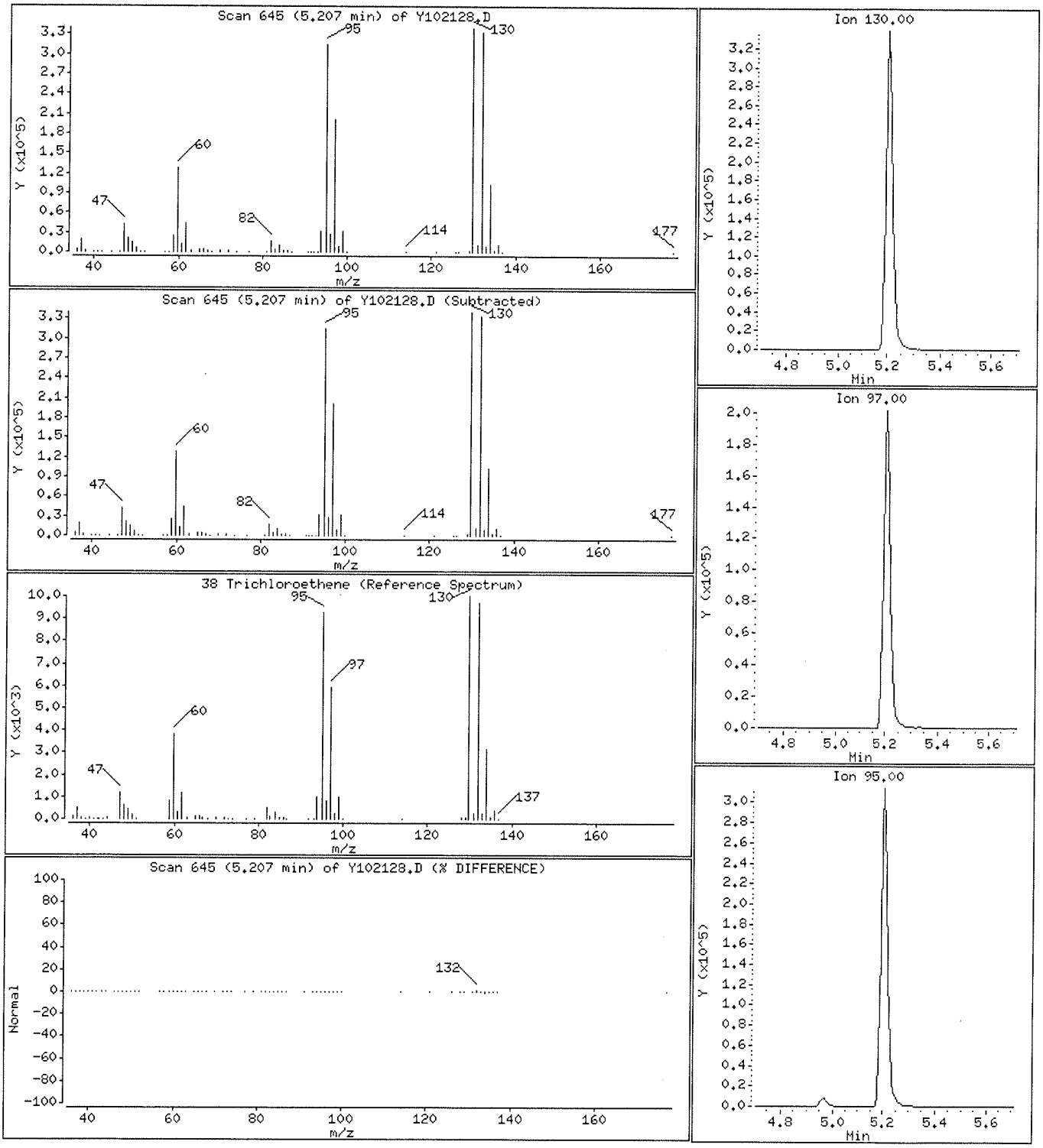
Operator: PC

Column phase: DB624

Column diameter: 0.18

38 Trichloroethene

Concentration: 34074.03 ug/l



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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102129.D
Lab Smp Id: HS21100785-04 Client Smp ID: HS21100785-04
Inj Date : 22-OCT-2021 07:07
Operator : PC Inst ID: voa6.i
Smp Info : HS21100785-04;HS21100785-04;;;
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211021.b\8260W.m
Meth Date : 11-Nov-2021 15:25 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 56
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

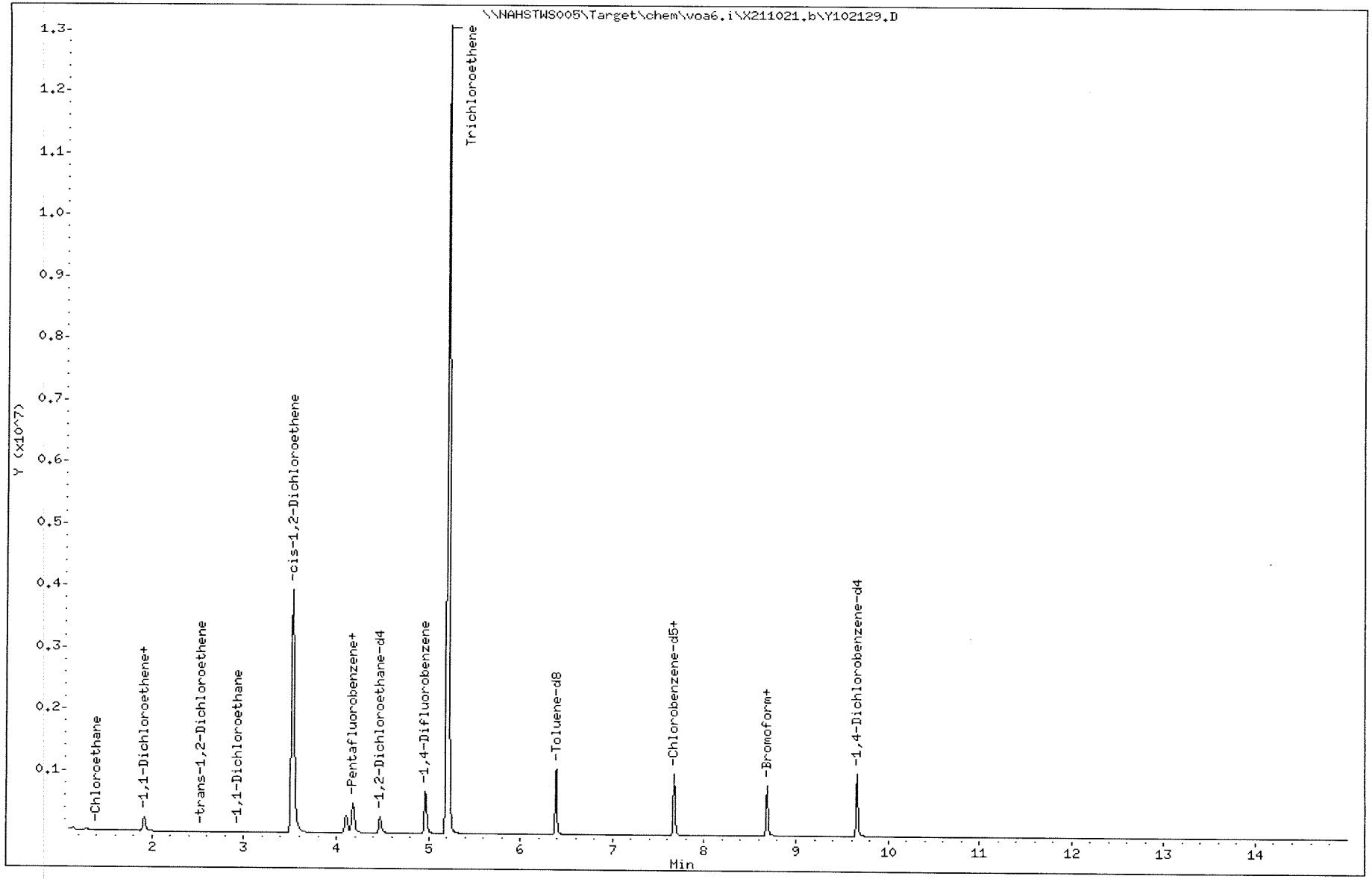
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	409455	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	198542	49.3841	49.38
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	202340	49.6532	49.65
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	580655	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	522939	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	646787	48.7363	48.73
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	226437	49.5657	49.56
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	252760	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	16897	3.93602	39.36(a)
11 1,1-Dichloroethene	96	1.919	1.912	(0.459)	26213	7.17687	71.76
27 cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	2092844	491.635	4916.35(A)
38 Trichloroethene	130	5.207	5.207	(1.049)	4180411	951.785	9517.84(A)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102129.D
Date : 22-OCT-2021 07:07
Client ID: HS21100785-04
Sample Info: HS21100785-04;HS21100785-04;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102129.D

Date : 22-OCT-2021 07:07

Client ID: HS21100785-04

Instrument: voa6.i

Sample Info: HS21100785-04;HS21100785-04;;;

Purge Volume: 5.0

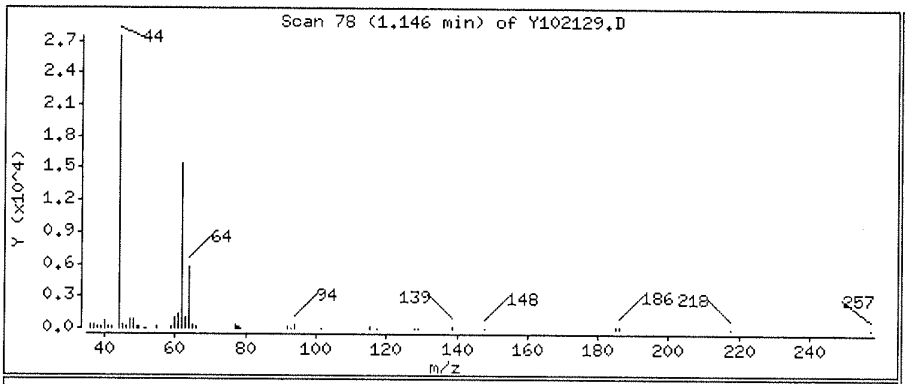
Operator: PC

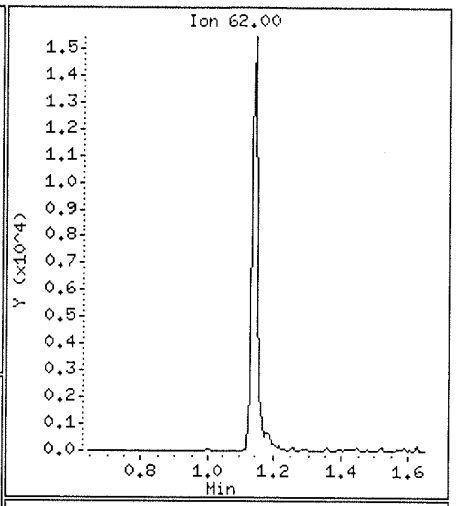
Column phase: DB624

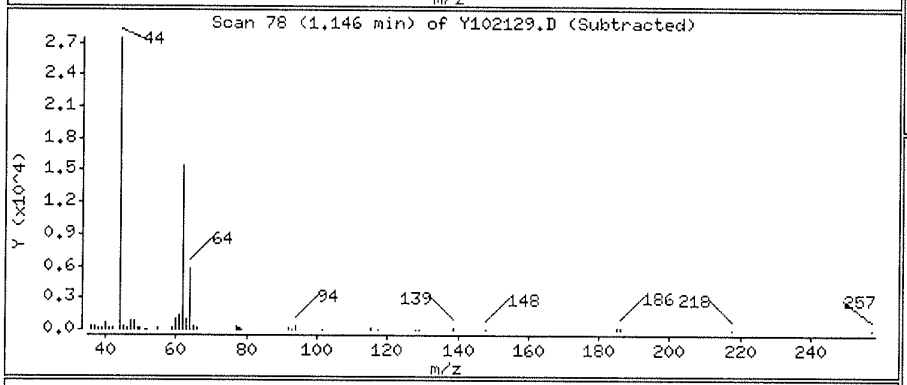
Column diameter: 0.18

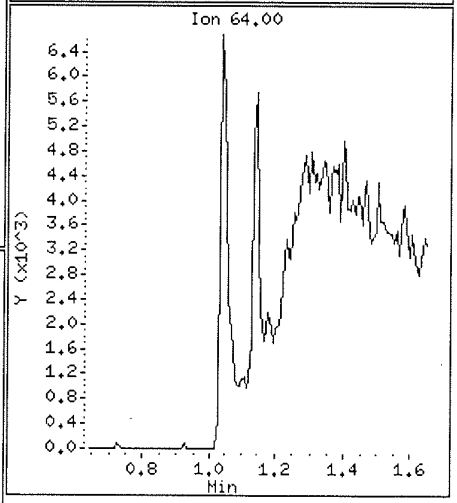
5 Vinyl Chloride

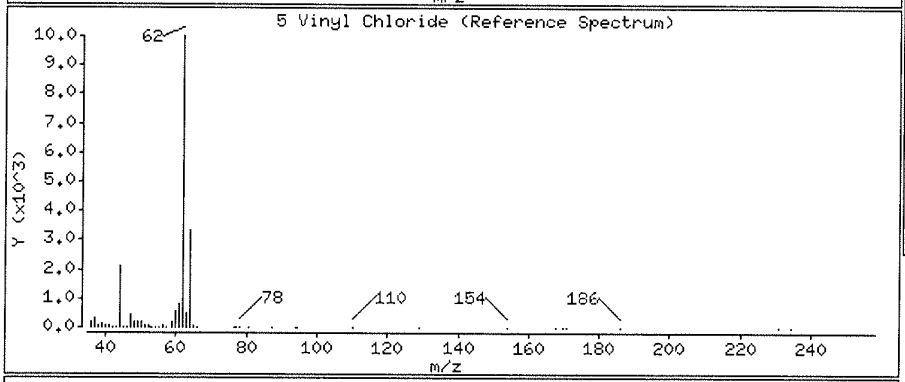
Concentration: 39.36 ug/l

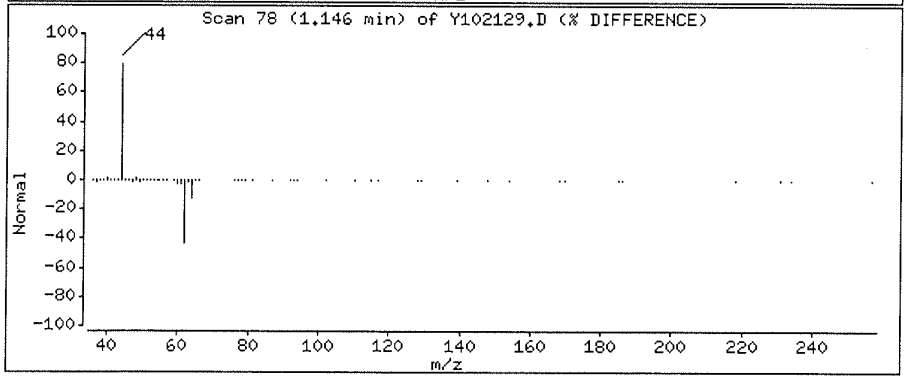












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102129.D

Date : 22-OCT-2021 07:07

Client ID: HS21100785-04

Instrument: voa6.i

Sample Info: HS21100785-04;HS21100785-04;;;

Purge Volume: 5.0

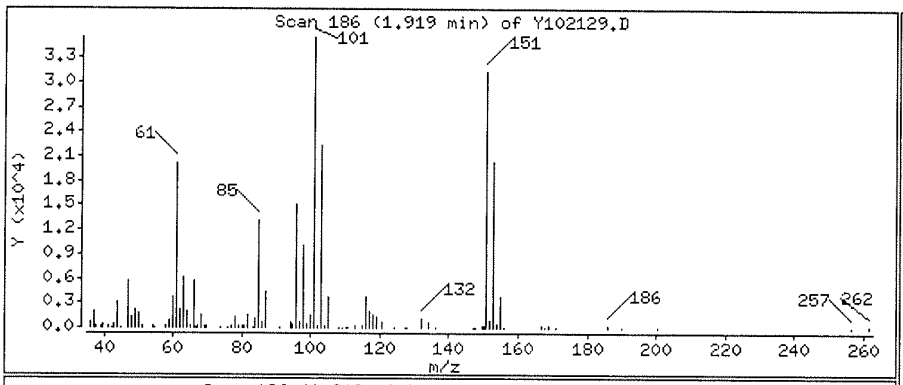
Operator: PC

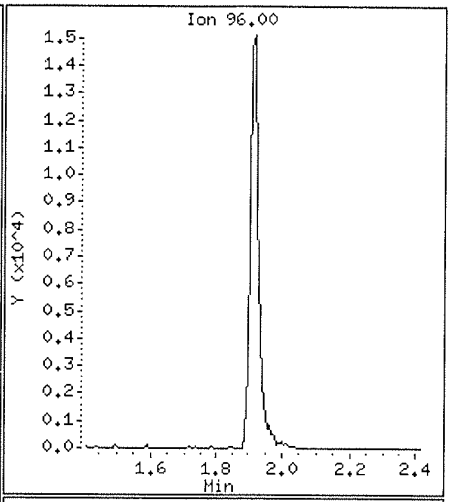
Column phase: DB624

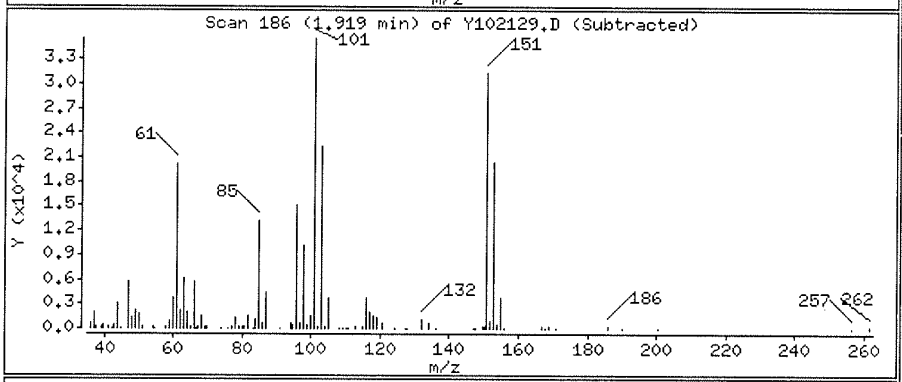
Column diameter: 0.18

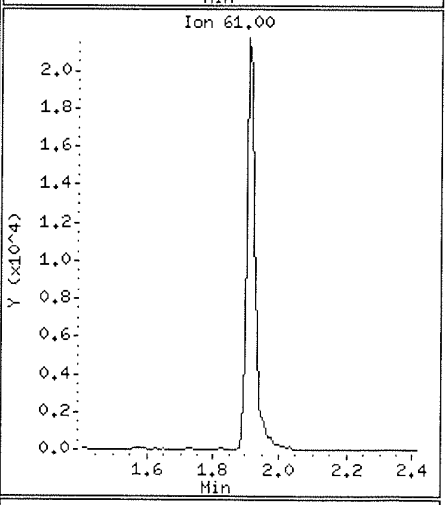
11 1,1-Dichloroethene

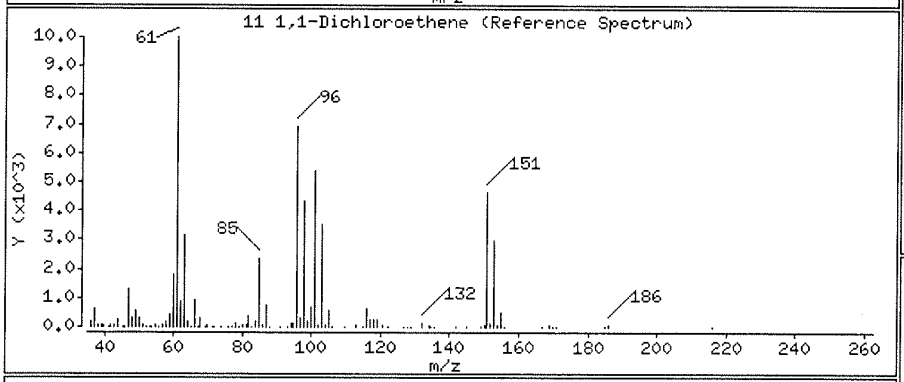
Concentration: 71.76 ug/l

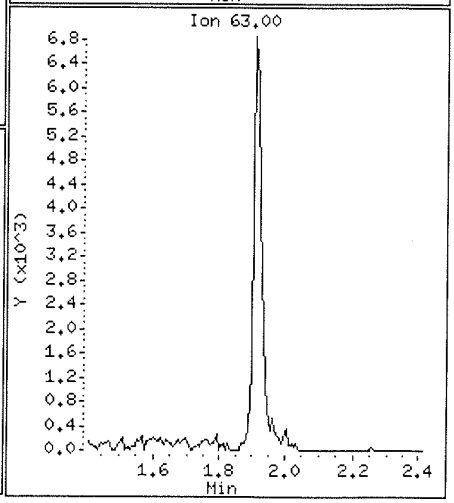


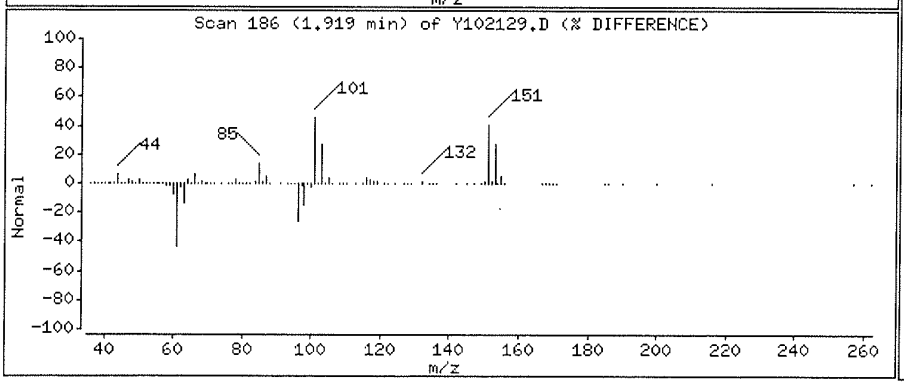












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102129.D

Date : 22-OCT-2021 07:07

Client ID: HS21100785-04

Instrument: voa6.i

Sample Info: HS21100785-04;HS21100785-04;;;

Purge Volume: 5.0

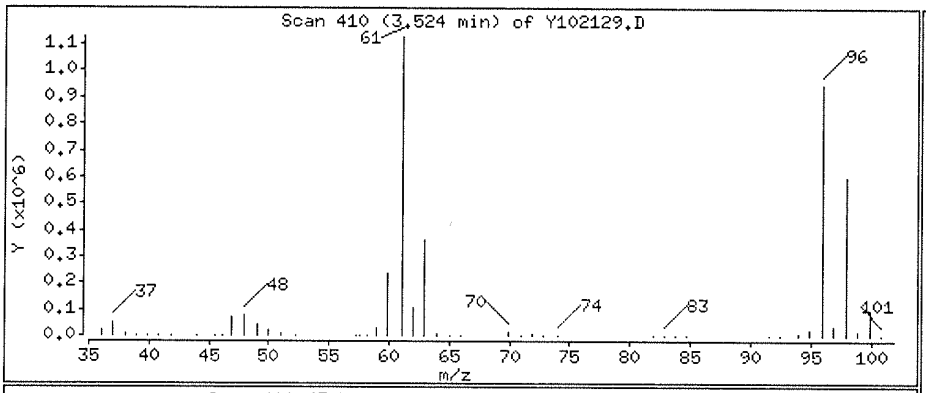
Operator: PC

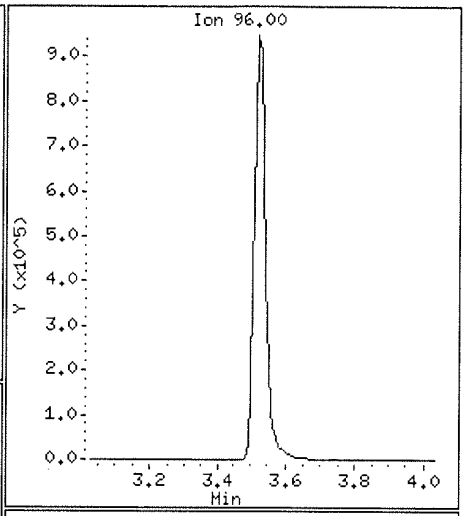
Column phase: DB624

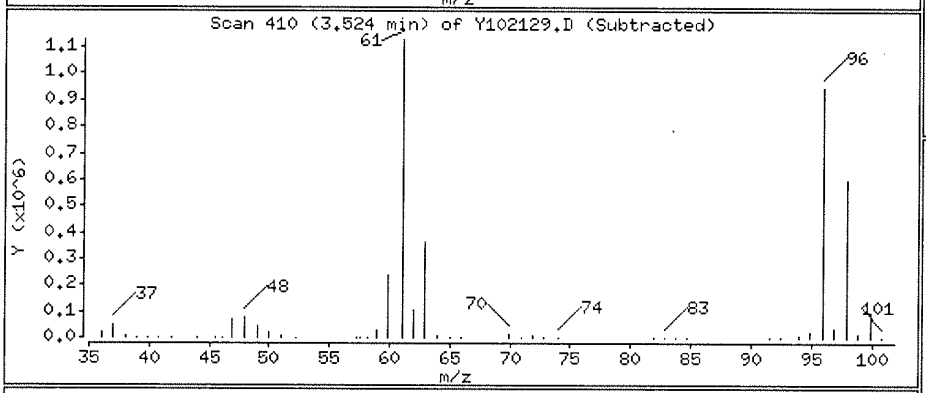
Column diameter: 0.18

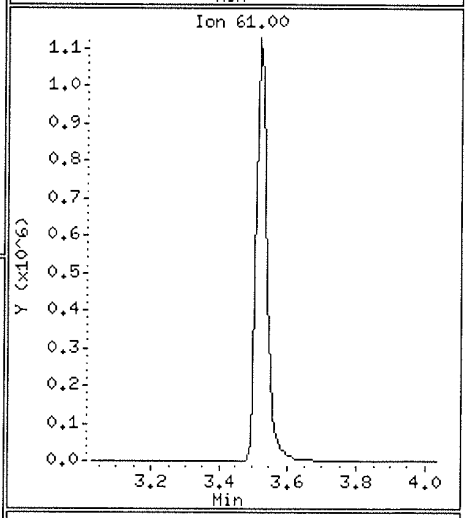
27 cis-1,2-Dichloroethene

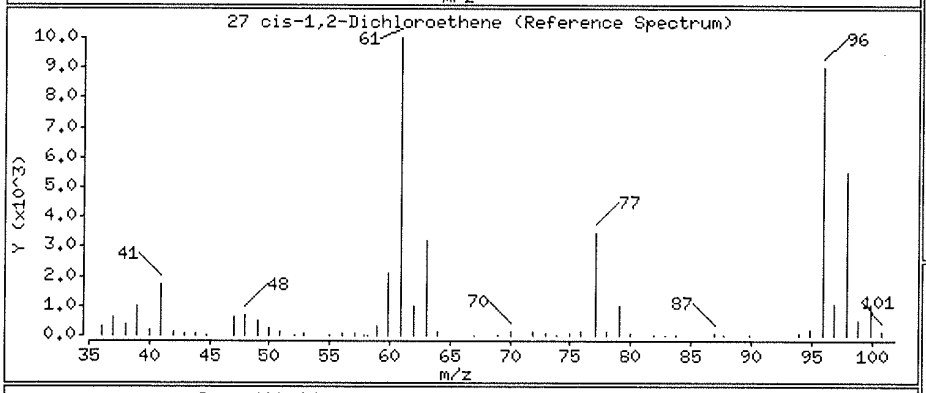
Concentration: 4916.35 ug/l

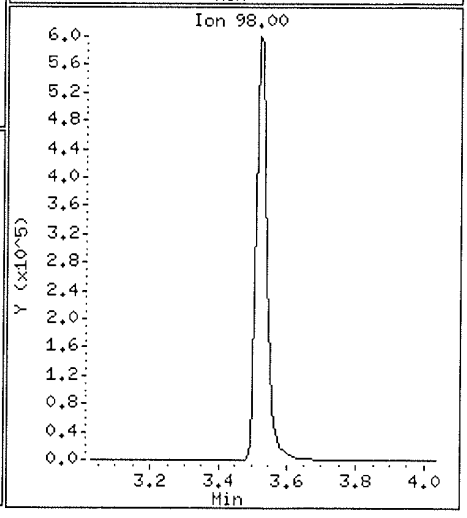


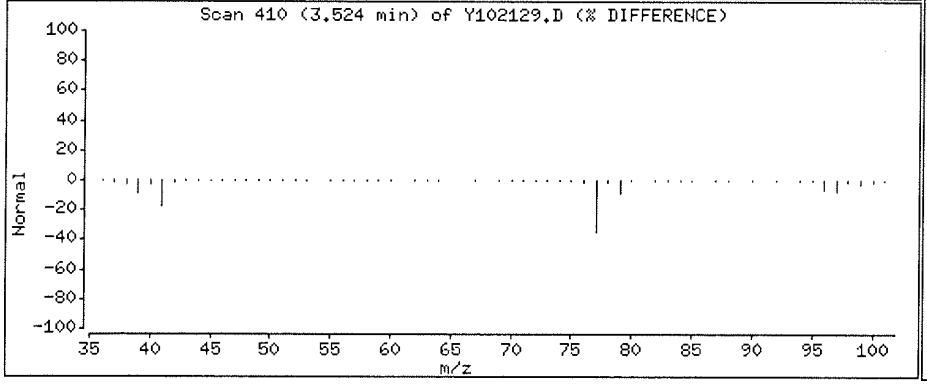












Data File: \\WHSTWS008\Target\chem\voa6.i\VA211021.b\Y102129.D Page 6

Date : 22-OCT-2021 07:07

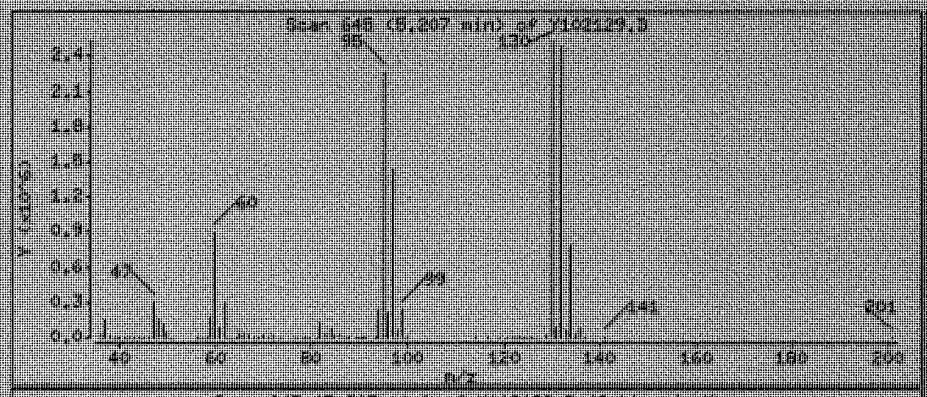
Client ID: HS211007B5-04 Instrument: voa6.i

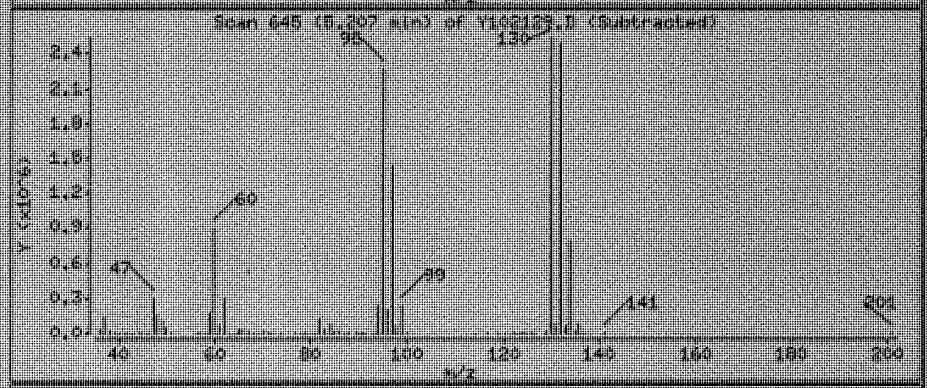
Sample Info: HS211007B5-04;HS211007B5-04;;;

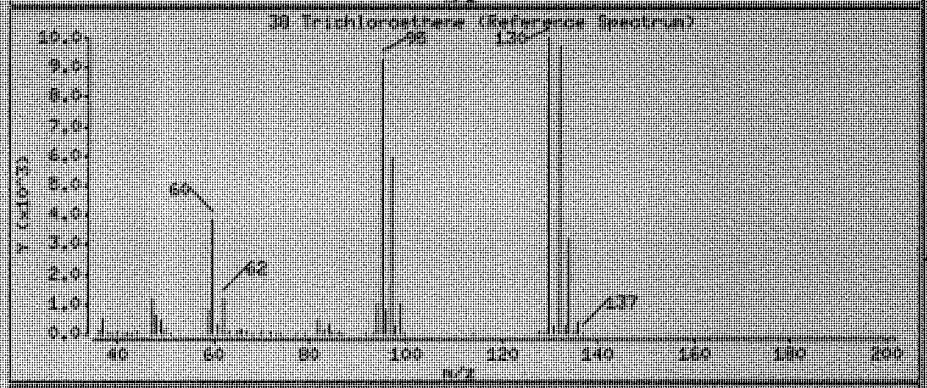
Purge Volume: 5.0 Operator: PC

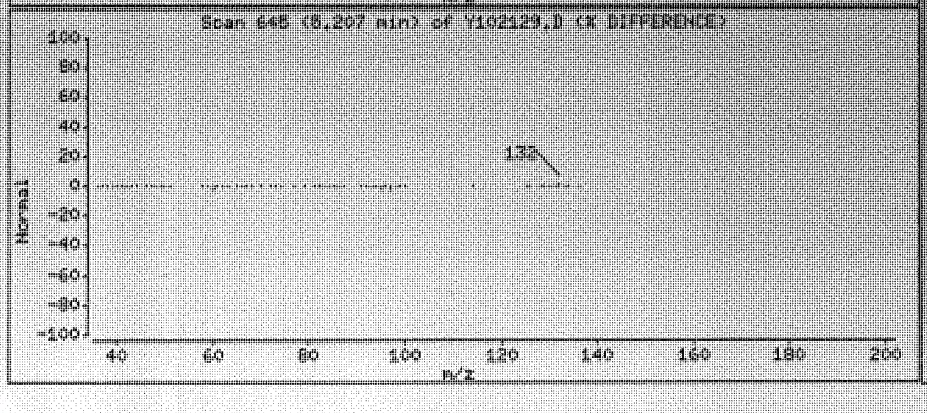
Column phase: DB624 Column diameter: 0.18

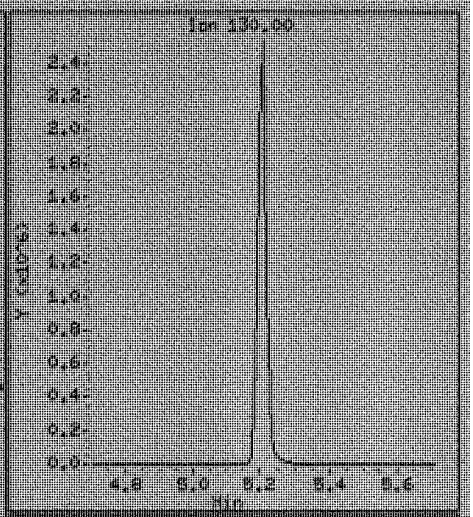
38 Trichloroethene Concentration: 9917.84 ug/l

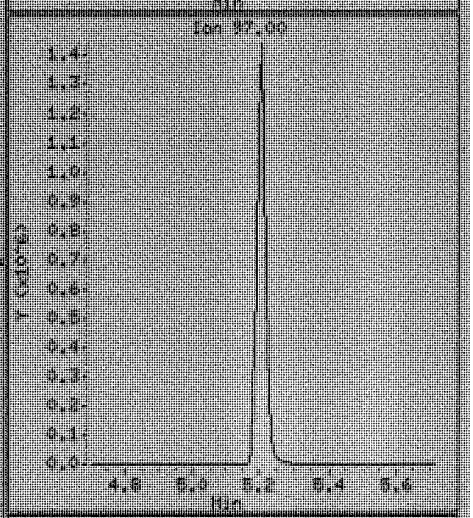


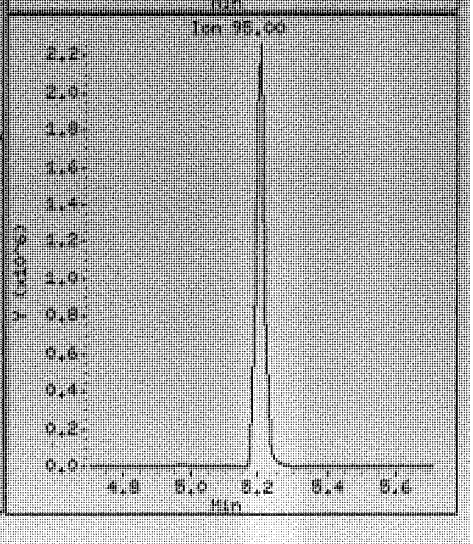












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102130.D Page 1
Report Date: 12-Nov-2021 11:24

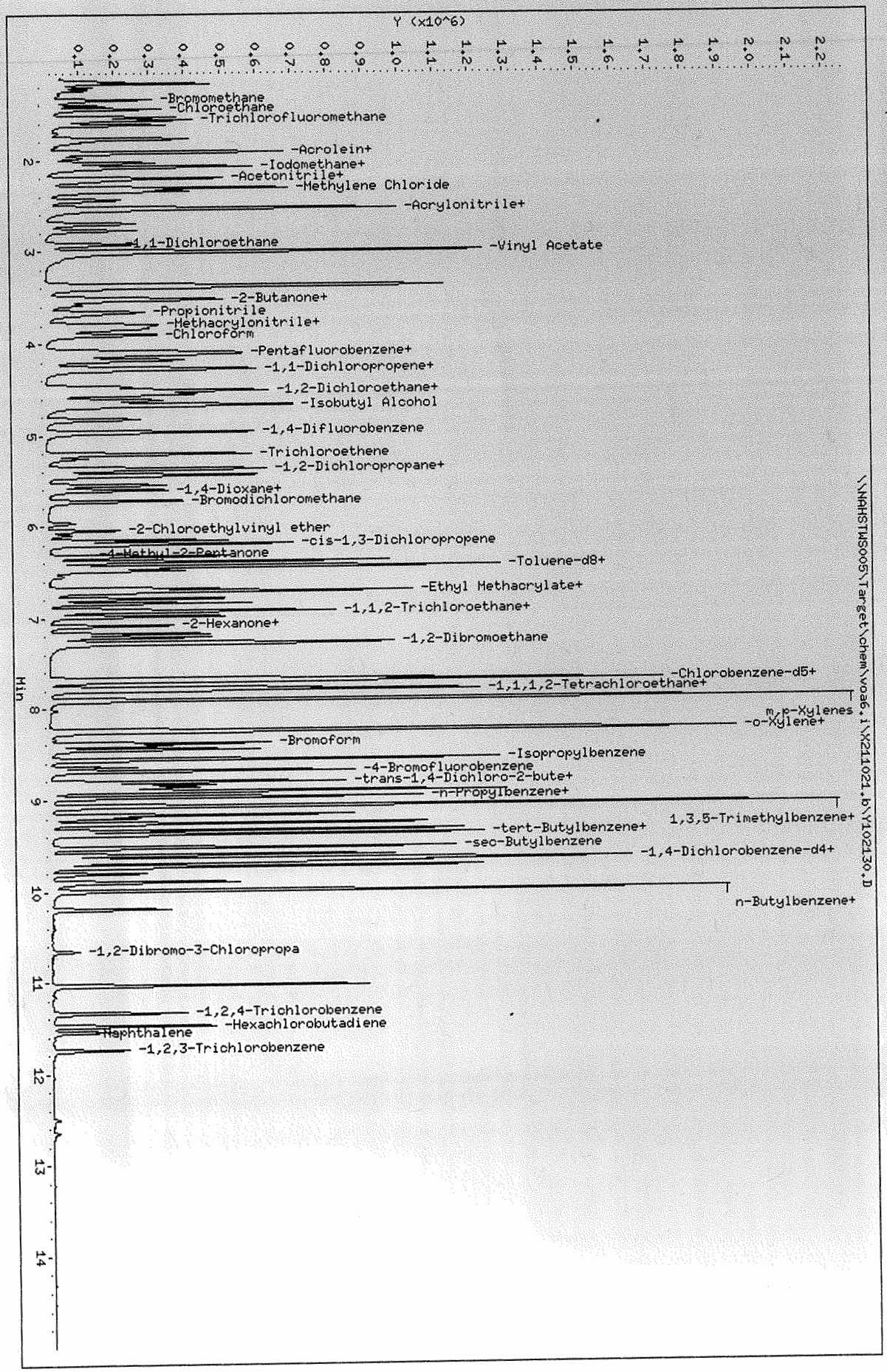
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102130.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 22-OCT-2021 07:28
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211021.b\8260W.m
Meth Date : 12-Nov-2021 11:24 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 57 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	329183	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	178597	50.0000	55.51
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	177719	50.0000	54.43
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	501373	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	470860	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	579844	50.0000	47.71
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	219671	50.0000	52.59
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	244497	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.374)	146342	50.0000	42.40
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	135528	50.0000	46.15
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	124435	50.0000	48.69
	17 Methylene Chloride	84	2.305	2.305	(0.551)	154014	50.0000	53.73
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	191168	50.0000	55.85
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	202018	50.0000	48.03
	38 Trichloroethene	130	5.206	5.206	(1.049)	188411	50.0000	49.68



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211021.b\Y102130.D
Date : 22-OCT-2021 07:28
Client ID: CCV-END
Instrument: voa6.i
Sample Info: CCV-END;CCV-END;2;;;
Operator: PC
Purge Volume: 5.0
Column diameter: 0.18
Column phase: DB624

MSVOA06-Logbook

Batch: 466876
Date: 10-22-2021
Method: 8260
Comments:

Analyst: Presenta Cabascango
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	
1	BFB	BFB	10-22-2021 10:43 am	1.00	0.00 mL	0.00 mL	X102201.D	Liquid	Y	
2	CCV	CCV	10-22-2021 11:04 am	1.00	5.00 mL	0.00 mL	X102202a.D	Liquid	Y	
3	CCV	CCV	10-22-2021 11:25 am	1.00	5.00 mL	0.00 mL	X102203.D	Liquid	Y	
4	CCB	SAMP	10-22-2021 11:46 am	1.00	5.00 mL	0.00 mL	X102204.D	Liquid	Y	
5	VLCSW-211022	LCS	10-22-2021 12:07 pm	1.00	5.00 mL	0.00 mL	X102205.D	Liquid	Y	
6	BLANK	SAMP	10-22-2021 12:28 pm	1.00	5.00 mL	0.00 mL	X102206.D	Liquid	Y	
7	VBLKW-211022	MBLK	10-22-2021 12:49 pm	1.00	5.00 mL	0.00 mL	X102207.D	Liquid	Y	
8	HS21101069-01	SAMP	10-22-2021 01:10 pm	1.00	5.00 mL	0.00 mL	X102208.D	Liquid	Y	
9	HS21101069-02	SAMP	10-22-2021 01:31 pm	1.00	5.00 mL	0.00 mL	X102209.D	Liquid	Y	
10	HS21101118-07	SAMP	10-22-2021 01:52 pm	1.00	5.00 mL	0.00 mL	X102210.D	Liquid	Y	
11	HS21101072-01	SAMP	10-22-2021 02:13 pm	1.00	5.00 mL	0.00 mL	X102211.D	Liquid	Y	
12	HS21101100-03	SAMP	10-22-2021 02:35 pm	1.00	5.00 mL	0.00 mL	X102212.D	Liquid	Y	
13	HS21101118-03	SAMP	10-22-2021 02:56 pm	1.00	5.00 mL	0.00 mL	X102213.D	Liquid	Y	
14	HS21101100-03MS	MS	10-22-2021 03:17 pm	1.00	5.00 mL	0.00 mL	X102214.D	Liquid	Y	
15	HS21101100-03MSD	MSD	10-22-2021 03:38 pm	1.00	5.00 mL	0.00 mL	X102215.D	Liquid	Y	
16	HS21101118-03MS	MS	10-22-2021 03:59 pm	1.00	5.00 mL	0.00 mL	X102216.D	Liquid	Y	
17	HS21101118-03MSD	MSD	10-22-2021 04:20 pm	1.00	5.00 mL	0.00 mL	X102217.D	Liquid	Y	
18	HS21100785-04	SAMP	10-22-2021 04:41 pm	100.0	5.00 mL	0.00 mL	X102218.D	Liquid	Y	
19	HS21101100-01	SAMP	10-22-2021 05:02 pm	1.00	5.00 mL	0.00 mL	X102219.D	Liquid	Y	
20	HS21101100-02	SAMP	10-22-2021 05:23 pm	1.00	5.00 mL	0.00 mL	X102220.D	Liquid	Y	
21	HS21101118-01	SAMP	10-22-2021 05:44 pm	1.00	5.00 mL	0.00 mL	X102221.D	Liquid	Y	
22	HS21101118-02	SAMP	10-22-2021 06:05 pm	1.00	5.00 mL	0.00 mL	X102222.D	Liquid	Y	
23	HS21101118-04	SAMP	10-22-2021 06:26 pm	1.00	5.00 mL	0.00 mL	X102223.D	Liquid	Y	
24	HS21101118-05	SAMP	10-22-2021 06:47 pm	1.00	5.00 mL	0.00 mL	X102224.D	Liquid	Y	
25	HS21101118-06	SAMP	10-22-2021 07:08 pm	1.00	5.00 mL	0.00 mL	X102225.D	Liquid	Y	
26	HS21101118-08	SAMP	10-22-2021 07:29 pm	1.00	5.00 mL	0.00 mL	X102226.D	Liquid	Y	
27	HS21101118-09	SAMP	10-22-2021 07:50 pm	1.00	5.00 mL	0.00 mL	X102227.D	Liquid	Y	
28	HS21101118-10	SAMP	10-22-2021 08:11 pm	1.00	5.00 mL	0.00 mL	X102228.D	Liquid	Y	
29	HS21101118-11	SAMP	10-22-2021 08:33 pm	1.00	5.00 mL	0.00 mL	X102229.D	Liquid	Y	
30	HS21101118-12	SAMP	10-22-2021 08:54 pm	1.00	5.00 mL	0.00 mL	X102230.D	Liquid	Y	
31	HS21101120-02	SAMP	10-22-2021 09:15 pm	1.00	5.00 mL	0.00 mL	X102231.D	Liquid	Y	
32	CCV-END	CCV	10-22-2021 09:36 pm	1.00	5.00 mL	0.00 mL	X102232.D	Liquid	Y	
33	BFB	BFB	10-22-2021 09:57 pm	1.00	0.00 mL	0.00 mL	Y102201.D	Liquid	Y	
34	CCV	CCV	10-22-2021 10:18 pm	1.00	5.00 mL	0.00 mL	Y102202a.D	Liquid	Y	
35	CCV	CCV	10-22-2021 10:38 pm	1.00	5.00 mL	0.00 mL	Y102203.D	Liquid	Y	N
36	CCB	SAMP	10-22-2021 11:00 pm	1.00	5.00 mL	0.00 mL	Y102204.D	Liquid	Y	N
37	VLCSW-211022	LCS	10-22-2021 11:21 pm	1.00	5.00 mL	0.00 mL	Y102205.D	Liquid	Y	N
38	BLANK	SAMP	10-22-2021 11:42 pm	1.00	5.00 mL	0.00 mL	Y102206.D	Liquid	Y	N
39	VBLKW-211022	MBLK	10-23-2021 12:03 am	1.00	5.00 mL	0.00 mL	Y102207.D	Liquid	Y	N
40	HS21100881-08	SAMP	10-23-2021 12:24 am	1.00	5.00 mL	0.00 mL	Y102208.D	Liquid	Y	N
41	HS21101144-10	SAMP	10-23-2021 12:45 am	1.00	5.00 mL	0.00 mL	Y102209.D	Liquid	Y	N

MSVOA06 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status
42	HS21100785-05	SAMP	10-23-2021 01:06 am	10.00	5.00 mL	0.00 mL	Y102210.D	Liquid	Y
43	HS21101144-10MS	MS	10-23-2021 01:27 am	1.00	5.00 mL	0.00 mL	Y102211.D	Liquid	Y
44	HS21101144-10MSD	MSD	10-23-2021 01:48 am	1.00	5.00 mL	0.00 mL	Y102212.D	Liquid	Y
45	HS21100785-05	SAMP	10-23-2021 02:09 am	100.0	5.00 mL	0.00 mL	Y102213.D	Liquid	Y
46	HS21100881-01	SAMP	10-23-2021 02:30 am	1.00	5.00 mL	0.00 mL	Y102214.D	Liquid	Y
47	HS21100881-02	SAMP	10-23-2021 02:51 am	1.00	5.00 mL	0.00 mL	Y102215.D	Liquid	Y
48	HS21100881-03	SAMP	10-23-2021 03:12 am	1.00	5.00 mL	0.00 mL	Y102216.D	Liquid	Y
49	HS21100881-04	SAMP	10-23-2021 03:33 am	1.00	5.00 mL	0.00 mL	Y102217.D	Liquid	Y
50	HS21100881-05	SAMP	10-23-2021 03:54 am	1.00	5.00 mL	0.00 mL	Y102218.D	Liquid	Y
51	HS21100881-06	SAMP	10-23-2021 04:15 am	1.00	5.00 mL	0.00 mL	Y102219.D	Liquid	Y
52	HS21101144-01	SAMP	10-23-2021 04:36 am	1.00	5.00 mL	0.00 mL	Y102220.D	Liquid	Y
53	HS21101144-02	SAMP	10-23-2021 04:57 am	1.00	5.00 mL	0.00 mL	Y102221.D	Liquid	Y
54	HS21101144-03	SAMP	10-23-2021 05:19 am	1.00	5.00 mL	0.00 mL	Y102222.D	Liquid	Y
55	HS21101144-04	SAMP	10-23-2021 05:40 am	1.00	5.00 mL	0.00 mL	Y102223.D	Liquid	Y
56	HS21101144-05	SAMP	10-23-2021 06:01 am	1.00	5.00 mL	0.00 mL	Y102224.D	Liquid	Y
57	HS21101144-06	SAMP	10-23-2021 06:22 am	1.00	5.00 mL	0.00 mL	Y102225.D	Liquid	Y
58	HS21101144-07	SAMP	10-23-2021 06:43 am	1.00	5.00 mL	0.00 mL	Y102226.D	Liquid	Y
59	HS21101144-08	SAMP	10-23-2021 07:04 am	1.00	5.00 mL	0.00 mL	Y102227.D	Liquid	Y
60	HS21101144-09	SAMP	10-23-2021 07:25 am	1.00	5.00 mL	0.00 mL	Y102228.D	Liquid	Y
61	HS21101144-11	SAMP	10-23-2021 07:46 am	1.00	5.00 mL	0.00 mL	Y102229.D	Liquid	Y
62	CCV-END	CCV	10-23-2021 08:07 am	1.00	5.00 mL	0.00 mL	Y102230.D	Liquid	Y
63	BLANK	SAMP	10-23-2021 08:28 am	1.00	5.00 mL	0.00 mL	Y102231.D	Liquid	Y

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE)#	SMC3 (TOL)#	OTHER #	TOT OUT
01	VLCSW-211022	105	107	92	104	0
02	VBLKW-211022	97	96	98	99	0
03	HS21101100-03MS	93	96	99	101	0
04	HS21101100-03MSD	97	96	96	102	0
05	HS21101118-03MS	96	91	96	103	0
06	HS21101118-03MSD	95	96	95	103	0
07	HS21100785-04	97	97	101	98	0
08	VLCSW-211022	111	109	95	104	0
09	VBLKW-211022	98	100	100	100	0
10	HS21100785-05	95	95	98	98	0
11	HS21101144-10MS	93	94	96	102	0
12	HS21101144-10MSD	92	95	97	101	0
13	HS21100785-05	96	97	100	96	0
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						

		QC LIMITS
SMC1	= Dibromofluoromethane	(70-130)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(70-130)
SMC3 (TOL)	= Toluene-d8	(70-130)
OTHER	= 4-Bromofluorobenzene	(70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.
VBLKW-211022

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Lab File ID: X102207 Lab Sample ID: VBLKW-211022

Date Analyzed: 10/22/21 Time Analyzed: 1249

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSW-211022	VLCSW-211022	X102205	1207
02	HS21101100-03MS	HS21101100-03MS	X102214	1517
03	HS21101100-03MSD	HS21101100-03MSD	X102215	1538
04	HS21101118-03MS	HS21101118-03MS	X102216	1559
05	HS21101118-03MSD	HS21101118-03MSD	X102217	1620
06	HS21100785-04	HS21100785-04	X102218	1641
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
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25				
26				
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28				
29				
30				

COMMENTS:

FORM 4

VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

VBLKW-211022

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Lab File ID: Y102207 Lab Sample ID: VBLKW-211022

Date Analyzed: 10/23/21 Time Analyzed: 0003

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSW-211022	VLCSW-211022	Y102205	2321
02	HS21100785-05	HS21100785-05	Y102210	0106
03	HS21101144-10MS	HS21101144-10MS	Y102211	0127
04	HS21101144-10MSD	HS21101144-10MSD	Y102212	0148
05	HS21100785-05	HS21100785-05	Y102213	0209
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
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23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Lab File ID: X102201 BFB Injection Date: 10/22/21

Instrument ID: VOA6 BFB Injection Time: 1043

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.2
75	30.0 - 60.0% of mass 95	47.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1.3 (1.3)1
174	Greater than 50.0% of mass 95	100.9
175	5.0 - 9.0% of mass 174	7.6 (7.5)1
176	95.0 - 101.0% of mass 174	100.1 (99.2)1
177	5.0 - 9.0% of mass 176	6.5 (6.5)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	X102203	10/22/21	1125
02	VLCSW-211022	VLCSW-211022	X102205	10/22/21	1207
03	VBLKW-211022	VBLKW-211022	X102207	10/22/21	1249
04	HS21101100-03MS	HS21101100-03MS	X102214	10/22/21	1517
05	HS21101100-03MSD	HS21101100-03MSD	X102215	10/22/21	1538
06	HS21101118-03MS	HS21101118-03MS	X102216	10/22/21	1559
07	HS21101118-03MSD	HS21101118-03MSD	X102217	10/22/21	1620
08	HS21100785-04	HS21100785-04	X102218	10/22/21	1641
09	CCV-END	CCV-END	X102232	10/22/21	2136
10					
11					
12					
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14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Lab File ID: Y102201 BFB Injection Date: 10/22/21

Instrument ID: VOA6 BFB Injection Time: 2157

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.1
75	30.0 - 60.0% of mass 95	45.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1.3 (1.2)1
174	Greater than 50.0% of mass 95	105.1
175	5.0 - 9.0% of mass 174	8.1 (7.7)1
176	95.0 - 101.0% of mass 174	100.6 (95.7)1
177	5.0 - 9.0% of mass 176	6.6 (6.6)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	Y102203	10/22/21	2238
02	VLCSW-211022	VLCSW-211022	Y102205	10/22/21	2321
03	VBLKW-211022	VBLKW-211022	Y102207	10/23/21	0003
04	HS21100785-05	HS21100785-05	Y102210	10/23/21	0106
05	HS21101144-10MS	HS21101144-10MS	Y102211	10/23/21	0127
06	HS21101144-10MSD	HS21101144-10MSD	Y102212	10/23/21	0148
07	HS21100785-05	HS21100785-05	Y102213	10/23/21	0209
08	CCV-END	CCV-END	Y102230	10/23/21	0807
09					
10					
11					
12					
13					
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15					
16					
17					
18					
19					
20					
21					
22					

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Instrument ID: VOA6 Calibration Date: 10/22/21 Time: 1125

Lab File ID: X102203 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	50.538914	50.000000	0.4407159	0.1	-1.08	20.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2466037	0.2466037	0.1	7.64	20.00	AVRG
Trichloroethene	0.3780000	0.3613780	0.3613780	0.2	4.40	20.00	AVRG
Vinyl Chloride	0.5240000	0.4569198	0.4569198	0.1	12.80	20.00	AVRG
1,1-Dichloroethene	0.4460000	0.4051386	0.4051386	0.1	9.16	20.00	AVRG
1,2-Dichloroethane	0.4190000	0.3935919	0.3935919	0.1	6.06	20.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.4957900	0.4957900	0.1	4.66	20.00	AVRG
1,2-Dichloroethane-d4	49.320568	50.000000	0.4909892	0.1	1.36	20.00	LINR
Dibromofluoromethane	50.480106	50.000000	0.4954116	0.1	-0.96	20.00	LINR
4-Bromofluorobenzene	51.320662	50.000000	0.4479275	0.1	-2.64	20.00	LINR
Toluene-d8	1.2690000	1.1944268	1.1944268	0.1	5.88	20.00	AVRG

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Instrument ID: VOA6 Calibration Date: 10/22/21 Time: 2136

Lab File ID: X102232 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	53.753422	50.000000	0.4680619	0.1	-7.51	50.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2480194	0.2480194	0.1	7.11	50.00	AVRG
Trichloroethene	0.3780000	0.3487334	0.3487334	0.2	7.74	50.00	AVRG
Vinyl Chloride	0.5240000	0.4386084	0.4386084	0.1	16.30	50.00	AVRG
1,1-Dichloroethene	0.4460000	0.4102106	0.4102106	0.1	8.02	50.00	AVRG
1,2-Dichloroethane	0.4190000	0.3897822	0.3897822	0.1	6.97	50.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.5289226	0.5289226	0.1	-1.72	50.00	AVRG
1,2-Dichloroethane-d4	54.290206	50.000000	0.5385028	0.1	-8.58	50.00	LINR
Dibromofluoromethane	55.923759	50.000000	0.5476553	0.1	-11.85	50.00	LINR
4-Bromofluorobenzene	51.296269	50.000000	0.4477202	0.1	-2.59	50.00	LINR
Toluene-d8	1.2690000	1.1938573	1.1938573	0.1	5.92	50.00	AVRG

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Instrument ID: VOA6 Calibration Date: 10/22/21 Time: 2238

Lab File ID: Y102203 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	58.053382	50.000000	0.5046419	0.1	-16.11	20.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2632155	0.2632155	0.1	1.42	20.00	AVRG
Trichloroethene	0.3780000	0.3737733	0.3737733	0.2	1.12	20.00	AVRG
Vinyl Chloride	0.5240000	0.4889596	0.4889596	0.1	6.69	20.00	AVRG
1,1-Dichloroethene	0.4460000	0.4338378	0.4338378	0.1	2.73	20.00	AVRG
1,2-Dichloroethane	0.4190000	0.4244280	0.4244280	0.1	-1.30	20.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.5571767	0.5571767	0.1	-7.15	20.00	AVRG
1,2-Dichloroethane-d4	55.262366	50.000000	0.5477975	0.1	-10.52	20.00	LINR
Dibromofluoromethane	53.886870	50.000000	0.5281069	0.1	-7.77	20.00	LINR
4-Bromofluorobenzene	50.430047	50.000000	0.4403561	0.1	-0.86	20.00	LINR
Toluene-d8	1.2690000	1.1597129	1.1597129	0.1	8.61	20.00	AVRG

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Instrument ID: VOA6 Calibration Date: 10/23/21 Time: 0807

Lab File ID: Y102230 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	56.780632	50.000000	0.4938146	0.1	-13.56	50.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2706202	0.2706202	0.1	-1.36	50.00	AVRG
Trichloroethene	0.3780000	0.3749428	0.3749428	0.2	0.81	50.00	AVRG
Vinyl Chloride	0.5240000	0.5018019	0.5018019	0.1	4.24	50.00	AVRG
1,1-Dichloroethene	0.4460000	0.4468975	0.4468975	0.1	-0.20	50.00	AVRG
1,2-Dichloroethane	0.4190000	0.4200821	0.4200821	0.1	-0.26	50.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.5585789	0.5585789	0.1	-7.42	50.00	AVRG
1,2-Dichloroethane-d4	54.547410	50.000000	0.5409619	0.1	-9.09	50.00	LINR
Dibromofluoromethane	54.646112	50.000000	0.5353935	0.1	-9.29	50.00	LINR
4-Bromofluorobenzene	51.560672	50.000000	0.4499679	0.1	-3.12	50.00	LINR
Toluene-d8	1.2690000	1.1850777	1.1850777	0.1	6.61	50.00	AVRG

FORM VII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Lab File ID (Standard): X102203 Date Analyzed: 10/22/21

Instrument ID: VOA6 Time Analyzed: 1125

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1		IS2(DFB)		IS3(CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	364727	4.18	525768	4.96	493111	7.67
	UPPER LIMIT	729454	4.68	1051536	5.46	986222	8.17
	LOWER LIMIT	182364	3.68	262884	4.46	246556	7.17
	CLIENT SAMPLE NO.						
01	VLCSW-211022	333301	4.18	505172	4.96	478822	7.67
02	VBLKW-211022	415880	4.18	592111	4.96	532302	7.67
03	HS21101100-03MS	433067	4.18	596238	4.96	536146	7.67
04	HS21101100-03MSD	427462	4.18	600770	4.96	557143	7.67
05	HS21101118-03MS	437393	4.18	608341	4.96	558168	7.67
06	HS21101118-03MSD	440397	4.18	614943	4.96	566142	7.67
07	HS21100785-04	415166	4.18	585464	4.96	518286	7.67
08	VLCSW-211022	325777	4.18	502348	4.96	472530	7.67
09	VBLKW-211022	407299	4.18	580225	4.96	514915	7.67
10	HS21100785-05	424415	4.18	595710	4.96	527939	7.67
11	HS21101144-10MS	435726	4.18	599713	4.96	542462	7.67
12	HS21101144-10MSD	437807	4.18	605731	4.96	542436	7.67
13	HS21100785-05	411019	4.18	576781	4.97	510823	7.67
14							
15							
16							
17							
18							
19							
20							

IS1 = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Lab File ID (Standard): X102203 Date Analyzed: 10/22/21

Instrument ID: VOA6 Time Analyzed: 1125

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	259617	9.66				
	UPPER LIMIT	519234	10.16				
	LOWER LIMIT	129809	9.16				
	CLIENT SAMPLE NO.						
01	VLCSW-211022	251939	9.66				
02	VBLKW-211022	255204	9.66				
03	HS21101100-03MS	268634	9.66				
04	HS21101100-03MSD	282453	9.66				
05	HS21101118-03MS	289430	9.66				
06	HS21101118-03MSD	289460	9.66				
07	HS21100785-04	241992	9.66				
08	VLCSW-211022	242376	9.66				
09	VBLKW-211022	243199	9.66				
10	HS21100785-05	246173	9.66				
11	HS21101144-10MS	273265	9.66				
12	HS21101144-10MSD	267399	9.66				
13	HS21100785-05	233122	9.66				
14							
15							
16							
17							
18							
19							
20							

IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102201.D Page 1

Date : 22-OCT-2021 10:43

Client ID: BFB

Instrument: voa6.i

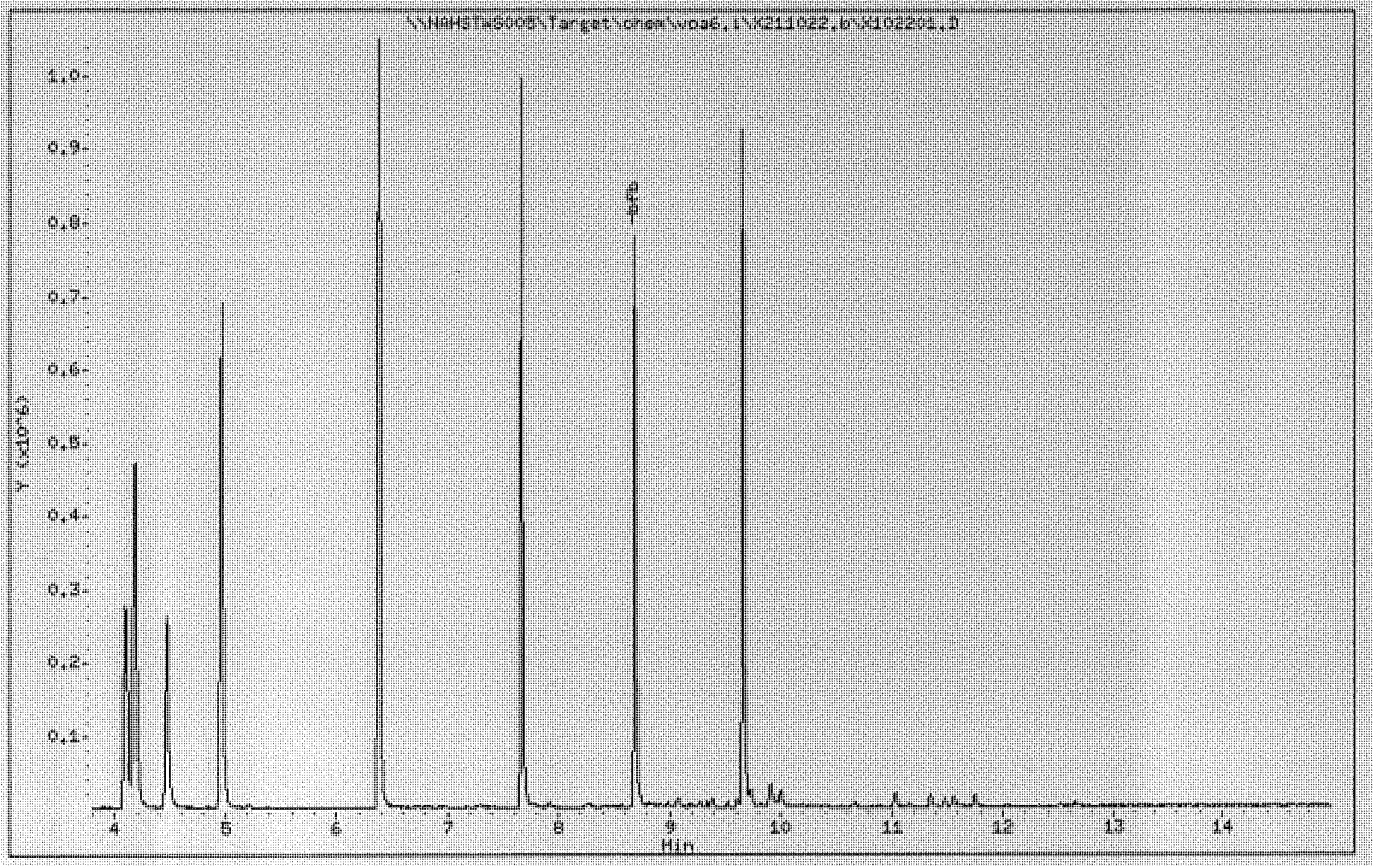
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWE008\Target\chem\voa6.i\H211022.b\b102201.D Page 2

Date : 22-OCT-2021 10:43

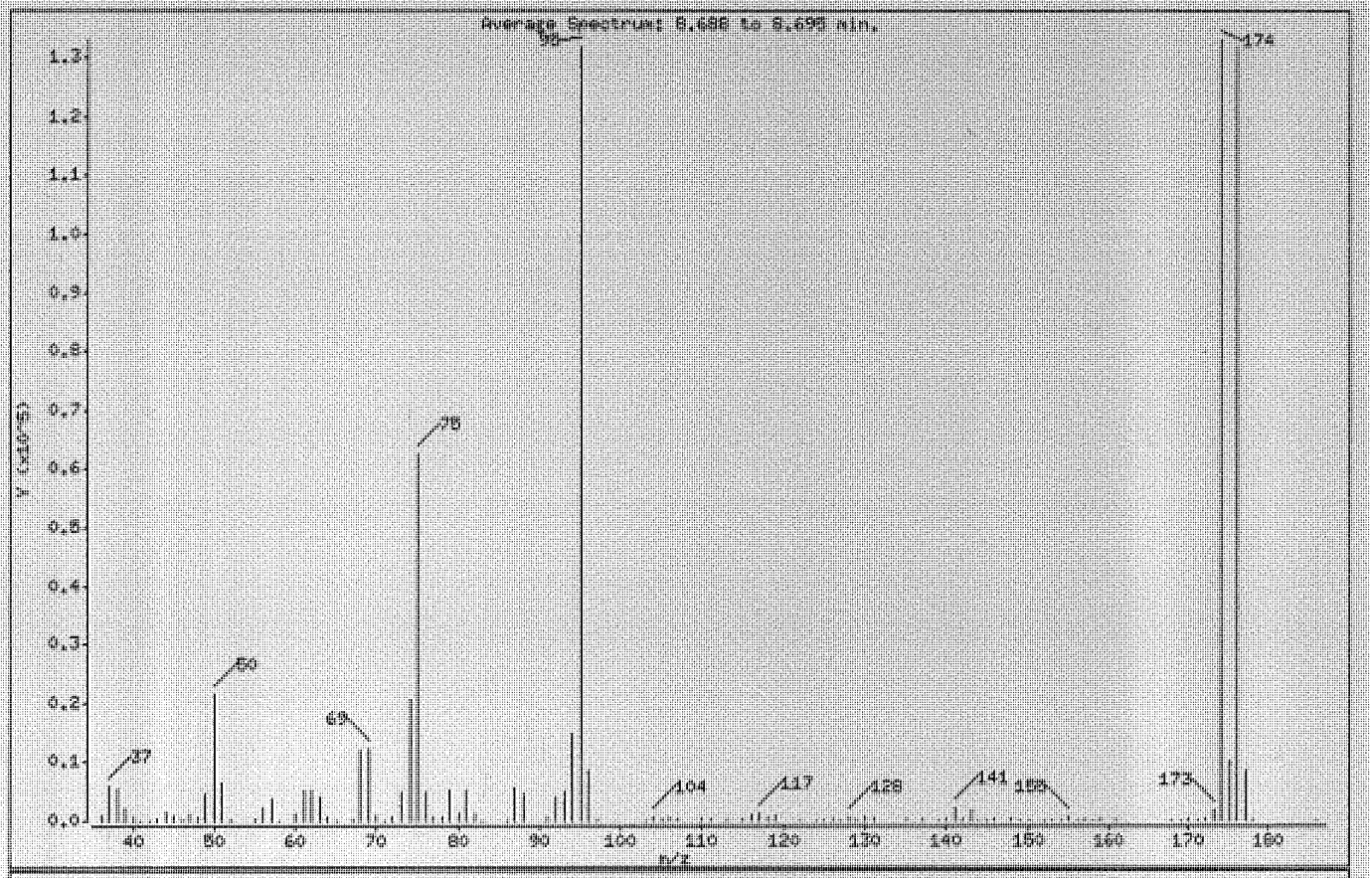
Client ID: BFB Instrument: voa6.i

Sample Info: BFB:BFB:3::BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.17
75	30.00 - 60.00% of mass 95	47.38
96	5.00 - 9.00% of mass 95	6.48
173	Less than 2.00% of mass 174	1.35 (1.34)
174	Greater than 50.00% of mass 95	100.89
175	5.00 - 9.00% of mass 174	7.56 (7.49)
176	95.00 - 101.00% of mass 174	100.05 (99.21)
177	5.00 - 9.00% of mass 176	6.46 (6.45)

Data File: \\NAHSTWS008\Target\chem\voa6.i\V211022.e\V102201.D Page 3

Date : 22-OCT-2021 10:43

Client ID: DFB Instrument: voa6.i

Sample Info: DFB;DFB;3;;DFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: V102201.D

Spectrum: Average Spectrum: 0.680 to 0.695 min.

Location of Maximum: 174.00

Number of points: 110

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	944	68.00	12029	105.00	301	145.00	150
37.00	5860	69.00	12342	106.00	680	146.00	103
38.00	5508	70.00	905	107.00	203	148.00	397
39.00	2202	71.00	146	110.00	157	149.00	42
40.00	655	72.00	580	111.00	103	150.00	78
41.00	31	73.00	4831	113.00	203	152.00	40
42.00	35	74.00	20560	115.00	190	153.00	64
43.00	161	75.00	62528	116.00	660	154.00	122
44.00	1638	76.00	5044	117.00	1115	155.00	471
45.00	983	77.00	899	118.00	549	156.00	77
46.00	237	78.00	848	119.00	959	157.00	403
47.00	1189	79.00	5223	122.00	27	158.00	88
48.00	612	80.00	1224	124.00	100	159.00	206
49.00	4699	81.00	8341	125.00	88	161.00	171
50.00	21336	82.00	1208	126.00	163	168.00	80
51.00	6389	83.00	137	127.00	35	169.00	48
52.00	208	86.00	41	128.00	711	170.00	173
55.00	400	87.00	8876	129.00	219	171.00	73
56.00	2090	88.00	4726	130.00	682	172.00	447
57.00	3746	91.00	646	131.00	303	173.00	1780
58.00	91	92.00	3921	135.00	224	174.00	133120
60.00	1124	93.00	4780	137.00	337	175.00	9974
61.00	8193	94.00	14861	139.00	99	176.00	132032
62.00	8145	95.00	131968	140.00	167	177.00	8822
63.00	3907	96.00	8856	141.00	2096	178.00	308
64.00	611	97.00	251	142.00	208	186.00	68
65.00	88	103.00	44	143.00	1691		
67.00	337	104.00	766	144.00	41		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102203.D Page 1
Report Date: 12-Nov-2021 11:10

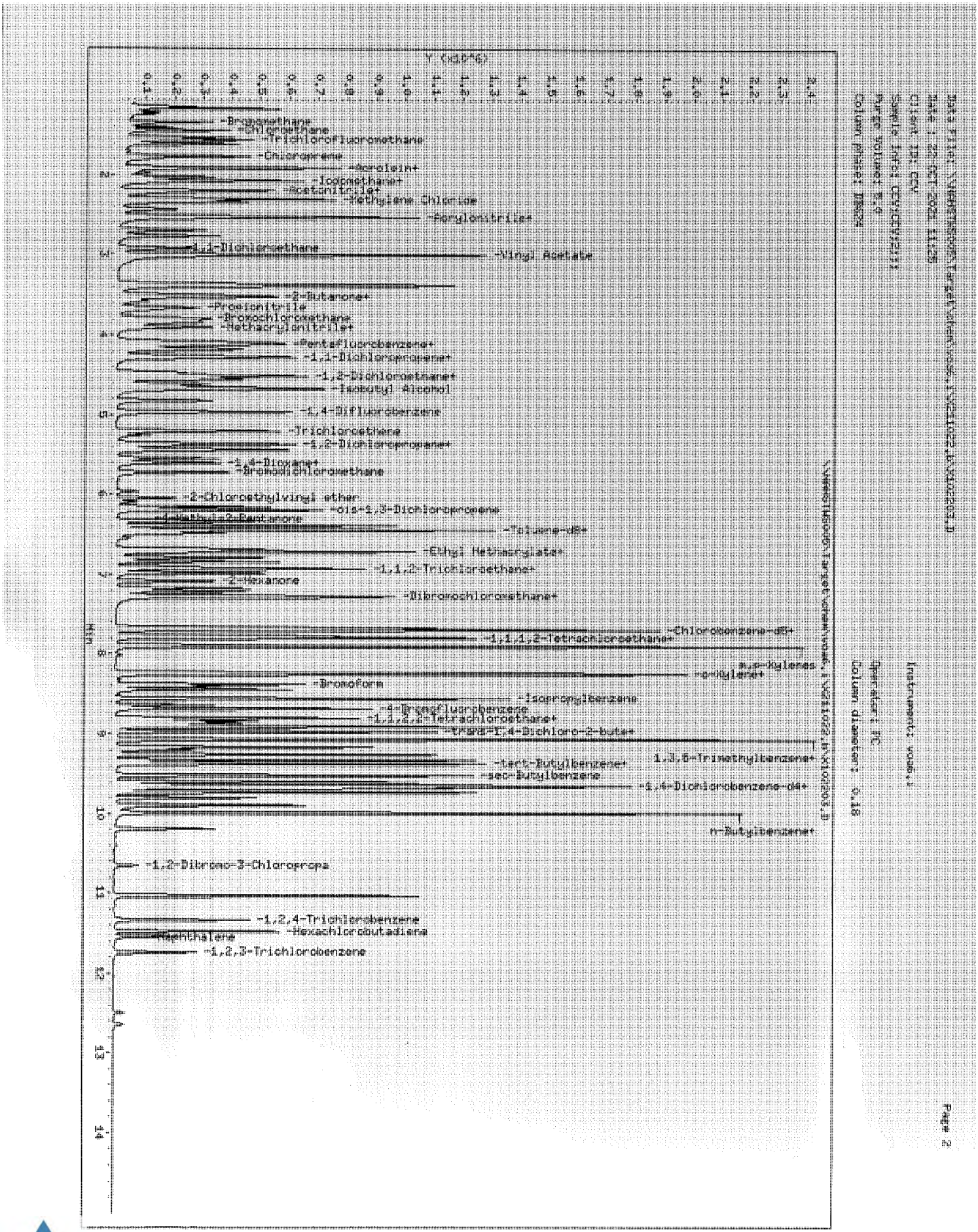
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102203.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 22-OCT-2021 11:25
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:10 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1	Pentafluorobenzene	168	4.102	4.102	(1.000)	164727	50.0000	
$	30	Dibromofluoromethane	113	4.103	4.103	(0.981)	180690	50.0000	50.48
$	35	1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	179077	50.0000	49.32
*	36	1,4-Difluorobenzene	114	4.963	4.963	(1.000)	525768	50.0000	
*	47	Chlorobenzene-d5	117	7.671	7.671	(1.000)	493111	50.0000	
$	48	Toluene-d8	98	6.388	6.388	(0.833)	588985	50.0000	47.06
$	69	4-Bromofluorobenzene	95	8.688	8.688	(1.133)	220878	50.0000	51.12
*	70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	259617	50.0000	
	5	Vinyl Chloride	62	1.145	1.145	(0.274)	166651	50.0000	43.56
	11	1,1-Dichloroethene	96	1.919	1.919	(0.459)	147765	50.0000	45.41
	53	1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	121603	50.0000	46.21
	17	Methylene Chloride	84	2.305	2.305	(0.551)	160741	50.0000	50.53
	27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	190620	50.0000	47.48
	33	1,2-Dichloroethane	62	4.595	4.595	(0.918)	206938	50.0000	46.92
	38	Trichloroethene	130	5.207	5.207	(1.049)	190001	50.0000	47.77


Y (x10^6)
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Chloroprene
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Acrylonitrile+
1,1-Dichloroethane
-Vinyl Acetate
-2-Butanone+
-Propionitrile
-Bromochloromethane
-Methacrylonitrile+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone
-Dibromochloromethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
m,p-Xylenes+
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-1,4-Dichlorobenzene-d4+
n-Butylbenzene+
-1,2-Dibromo-3-Chloroprop
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
Min
Data File: \\HRSTAR05\Target\Chem\ms5.i\220222.b\V0222003.D
Date : 22-OCT-2022 11:38
Client ID:
Sample Info: CCV
Purge Volume: 5.0
Column Phase: RTX624
Instrument: ms5.i
Operator: PC
Column diameter: 0.18
\\HRSTAR05\Target\Chem\ms5.i\220222.b\V0222003.D
Page 2

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102205.D Page 1
Report Date: 12-Nov-2021 11:10

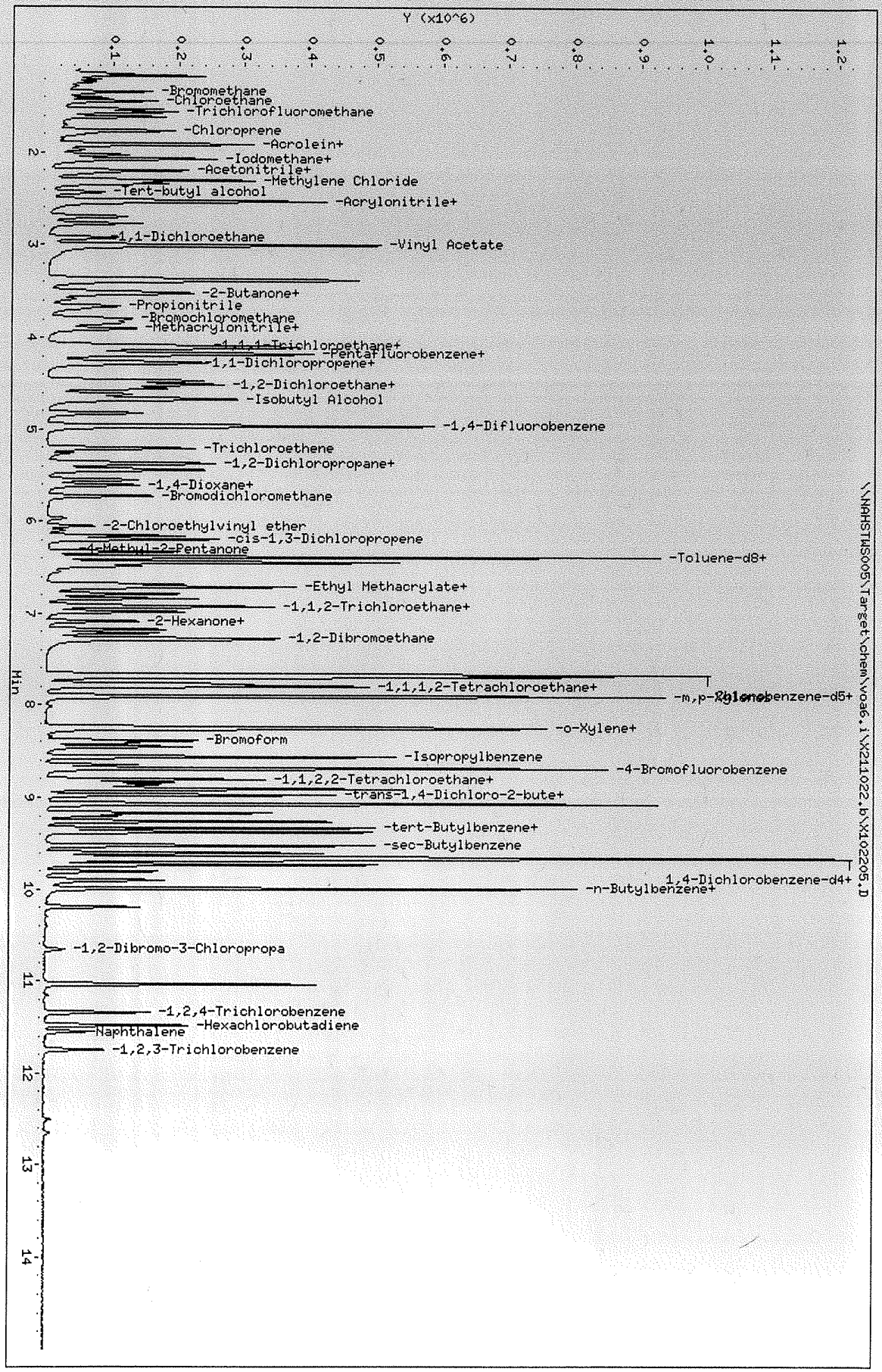
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102205.D
Lab Smp Id: VLCSW-211022 Client Smp ID: VLCSW-211022
Inj Date : 22-OCT-2021 12:07
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-211022;VLCSW-211022;3;;LCS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:10 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	333301	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.103	(0.979)	171534	52.4849	52.48
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	176860	53.4669	53.46
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	508172	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	478822	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	560427	46.1198	46.11
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	217209	51.9917	51.99
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	251939	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	66113	18.9193	18.91
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	58137	19.5509	19.55
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	50452	19.7462	19.74
	17 Methylene Chloride	84	2.305	2.305	(0.551)	65437	21.8115	21.81
	27 cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	73393	21.1002	21.10
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	84796	20.0100	20.01
	38 Trichloroethene	130	5.206	5.207	(1.049)	74638	19.5325	19.53



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102205.D
Date : 22-OCT-2021 12:07
Client ID: VLCSW-211022
Sample Info: VLCSW-211022;VLCSW-211022;3;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102207.D Page 1
Report Date: 12-Nov-2021 11:10

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102207.D
Lab Smp Id: VBLKW-211022 Client Smp ID: VBLKW-211022
Inj Date : 22-OCT-2021 12:49
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-211022;VBLKW-211022;3;;BLANK
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:10 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

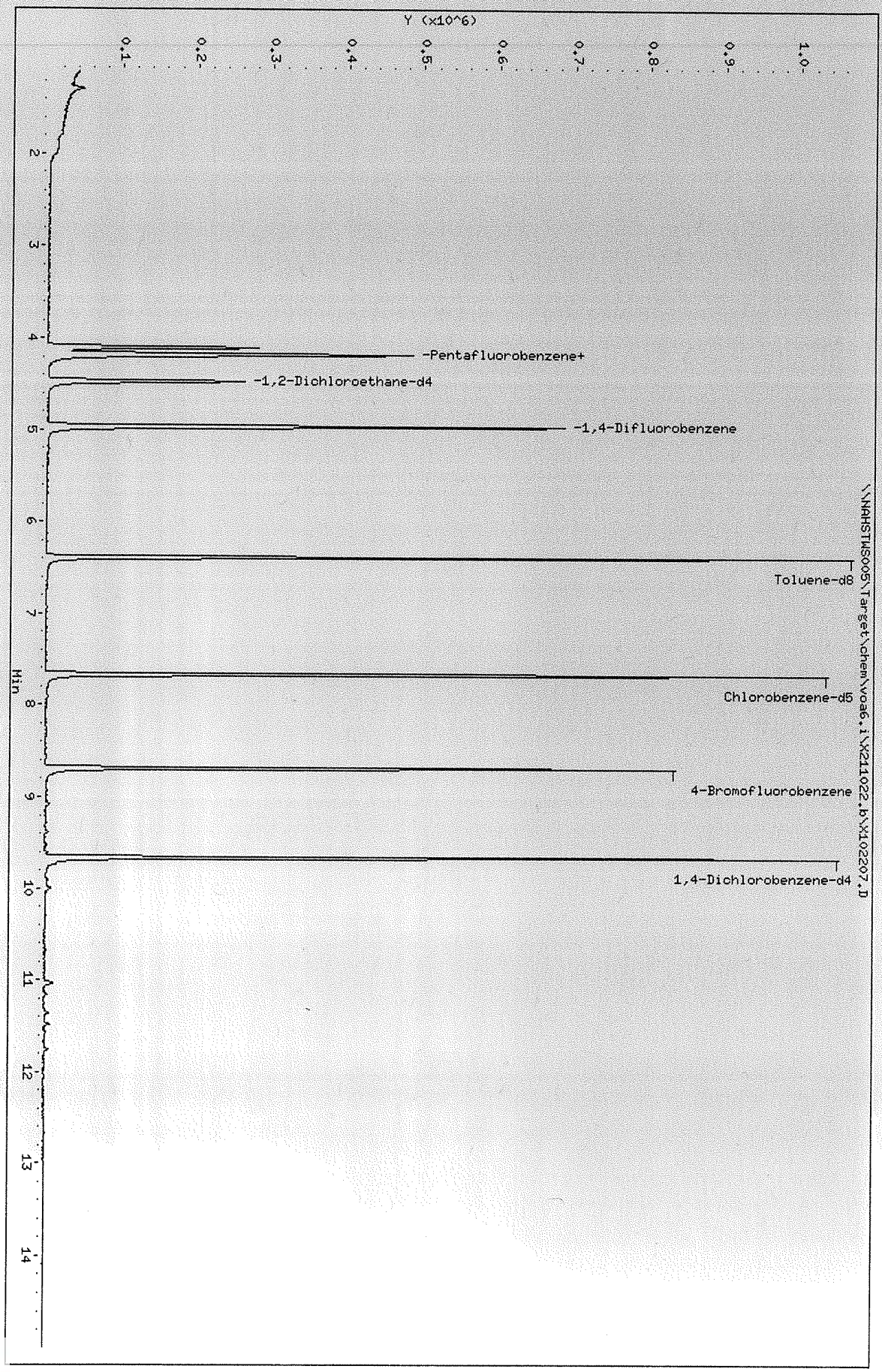
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	415880	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.103	(0.979)	197365	48.3087	48.30
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	199337	48.0994	48.09
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	592111	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	532302	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	662942	49.0750	49.07
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	230453	49.5571	49.55
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	256304	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102207.D
Date : 22-OCT-2021 12:49
Client ID: VBLKW-211022
Sample Info: VBLKW-211022;VBLKW-211022;3;;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102214.D Page 1
Report Date: 12-Nov-2021 11:10

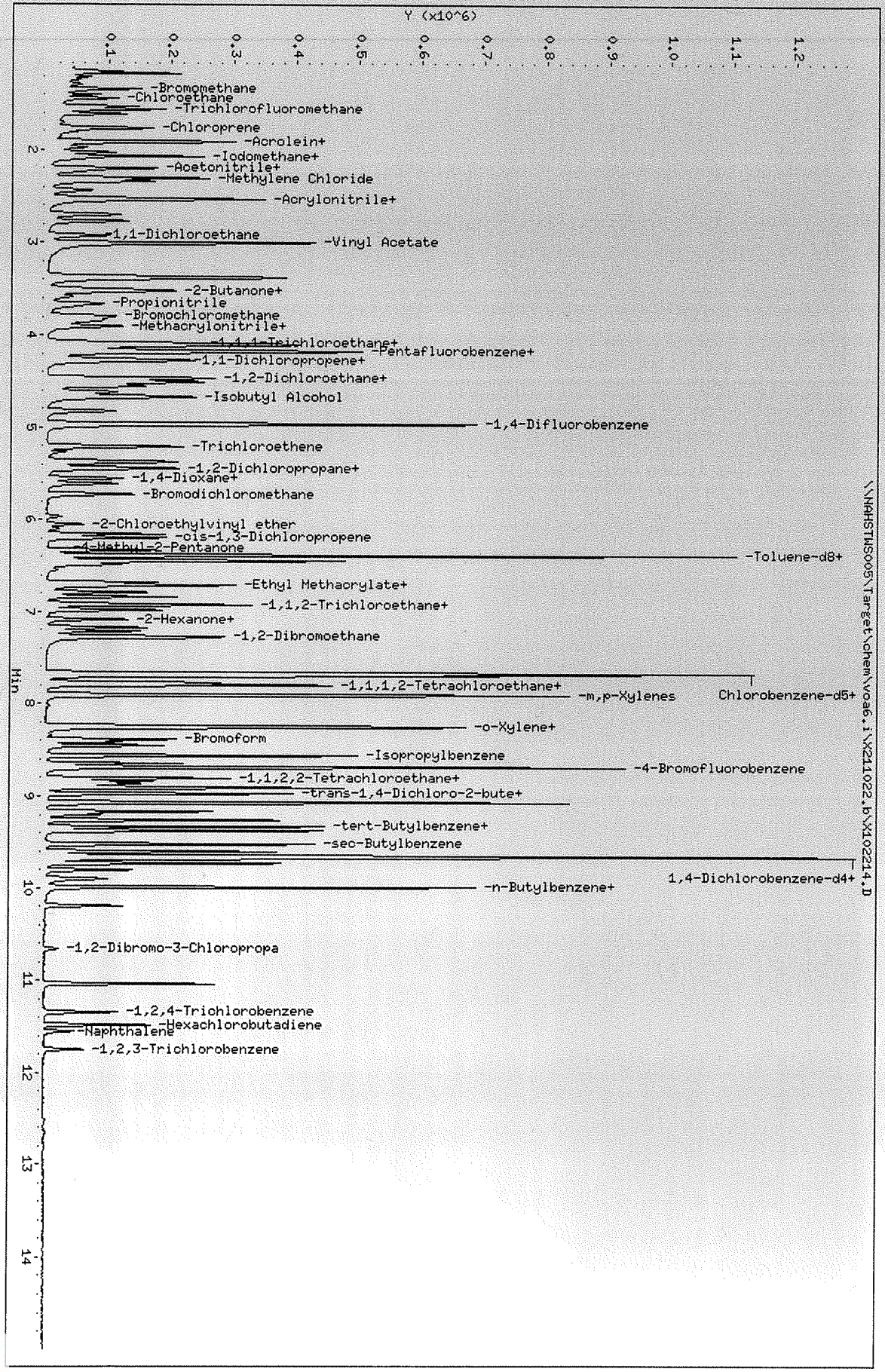
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102214.D
Lab Smp Id: HS21101100-03MS Client Smp ID: HS21101100-03MS
Inj Date : 22-OCT-2021 15:17
Operator : PC Inst ID: voa6.i
Smp Info : HS21101100-03MS;HS21101100-03MS;3;;MS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:10 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 14 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

			QUANT SIO					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
*	1	Pentafluorobenzene	168	4.182	4.182	(1.000)	433067	50.0000	
$	30	Dibromofluoromethane	113	4.103	4.103	(0.981)	198289	46.5685	46.56
$	35	1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	204990	47.9600	47.96
*	36	1,4-Difluorobenzene	114	4.963	4.963	(1.000)	596238	50.0000	
*	47	Chlorobenzene-d5	117	7.670	7.671	(1.000)	536146	50.0000	
$	48	Toluene-d8	98	6.388	6.388	(0.833)	673087	49.4687	49.46
$	69	4-Bromofluorobenzene	95	8.688	8.688	(1.133)	236974	50.6229	50.62
*	70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	268634	50.0000	
	5	Vinyl Chloride	62	1.145	1.145	(0.274)	61705	13.5900	13.59
	11	1,1-Dichloroethene	96	1.911	1.919	(0.457)	57252	14.8204	14.82
	53	1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	45520	15.9110	15.91
	17	Methylene Chloride	84	2.305	2.305	(0.551)	58758	14.6820	14.68
	27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	68052	15.1147	15.11
	33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	77688	15.5330	15.53
	38	Trichloroethene	130	5.206	5.207	(1.049)	73120	16.2127	16.21


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102214.D
Date : 22-OCT-2021 15:17
Client ID: HS211011100-03MS
Instrument: voa6.i
Sample Info: HS211011100-03MS;HS211011100-03MS;3;;MS
Purge Volume: 5.0
Operator: PC
Column phase: DB624
Column diameter: 0.18
Page 2
Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Chloroprene
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Acrylonitrile+
-1,1-Dichloroethane
-Vinyl Acetate
-2-Butanone+
-Propionitrile
-Bromochloromethane
-Methacrylonitrile+
-1,1,1-Trichloroethane+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-4-Methyl-2-Pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone+
-1,2-Dibromoethane
-1,1,1,2-Tetrachloroethane+
-m,p-Xylenes
Chlorobenzene-d5+
\\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102214.D
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
-tert-Butylbenzene+
-sec-Butylbenzene
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene

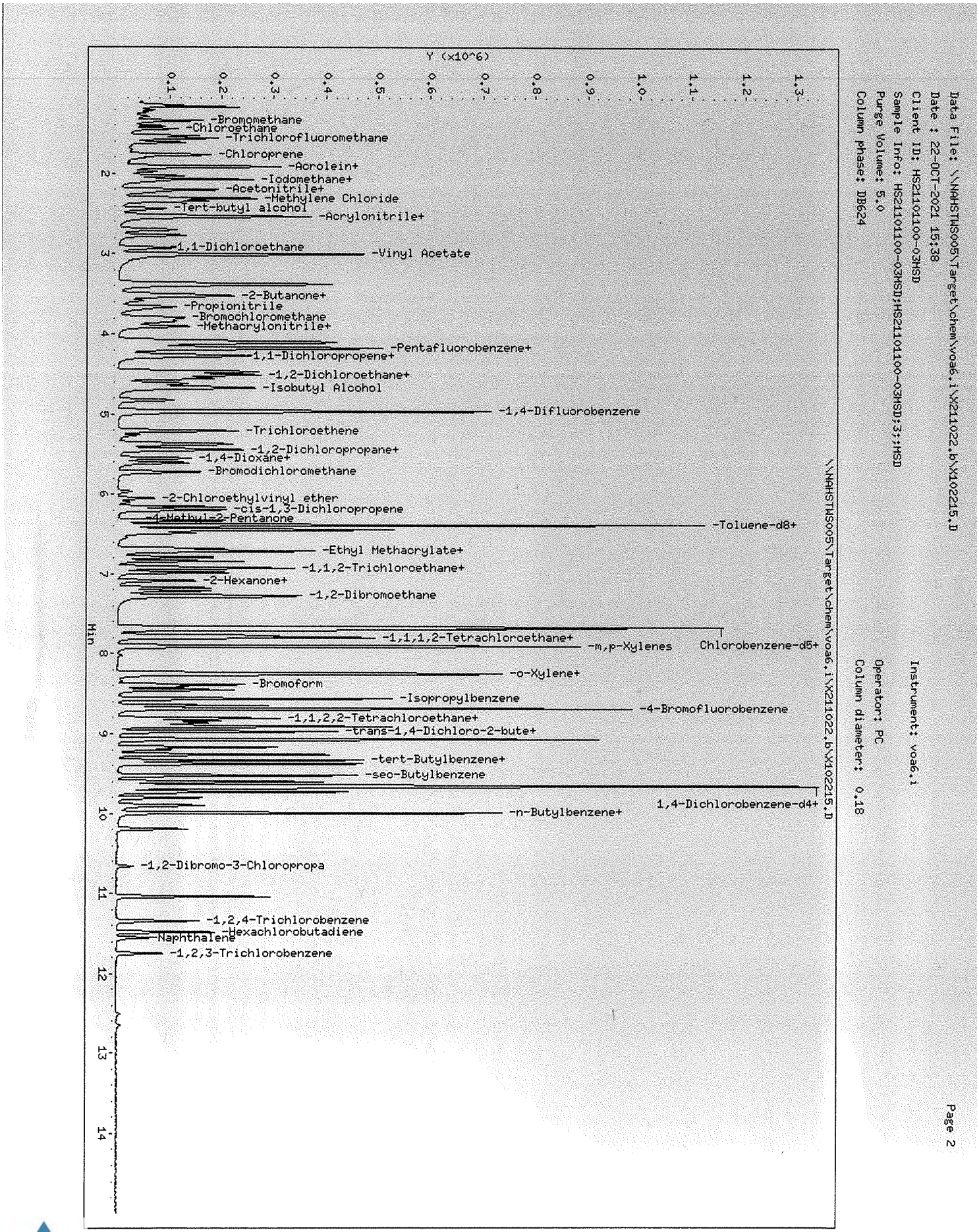
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102215.D
Lab Smp Id: HS21101100-03MSD Client Smp ID: HS21101100-03MSD
Inj Date : 22-OCT-2021 15:38
Operator : PC Inst ID: voa6.i
Smp Info : HS21101100-03MSD;HS21101100-03MSD;3;;MSD
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:10 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 14 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
*	1	Pentafluorobenzene	168	4.182	4.182	(1.000)	427462	50.0000	
$	30	Dibromofluoromethane	113	4.096	4.103	(0.979)	203892	48.5599	48.55
$	35	1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	209431	48.2322	48.23
*	36	1,4-Difluorobenzene	114	4.963	4.963	(1.000)	600770	50.0000	
*	47	Chlorobenzene-d5	117	7.670	7.671	(1.000)	557143	50.0000	
$	48	Toluene-d8	98	6.388	6.388	(0.833)	679982	48.0921	48.09
$	69	4-Bromofluorobenzene	95	8.688	8.688	(1.133)	347121	50.8062	50.80
*	70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	282453	50.0000	
	5	Vinyl Chloride	62	1.145	1.145	(0.274)	62946	14.0451	14.04
	11	1,1-Dichloroethene	96	1.911	1.919	(0.457)	58951	15.4603	15.46
	53	1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	52097	17.5237	17.52
	17	Methylene Chloride	84	2.305	2.305	(0.551)	63832	16.2864	16.28
	27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	75153	16.9107	16.91
	33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	87145	17.2924	17.29
	38	Trichloroethene	130	5.206	5.207	(1.049)	76003	16.7248	16.72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Date : 22-OCT-2021 15:38
Client ID: HS2110100-03HSD
Sample Info: HS2110100-03HSD;HS2110100-03HSD;3;;HSD
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
Page 2
Y (x10^6)
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0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Chloroprene
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
1,1-Dichloroethane
-Vinyl Acetate
-2-Butanone+
-Propionitrile
-Bromochloromethane
-Methacrylonitrile+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
4-Methyl-2-Pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone+
-1,2-Dibromoethane
-1,1,1,2-Tetrachloroethane+
-m,p-Xylenes
Chlorobenzene-d5+
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
-tert-Butylbenzene+
-sec-Butylbenzene
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
Naphthalene
-1,2,3-Trichlorobenzene
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Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102216.D Page 1
Report Date: 12-Nov-2021 11:10

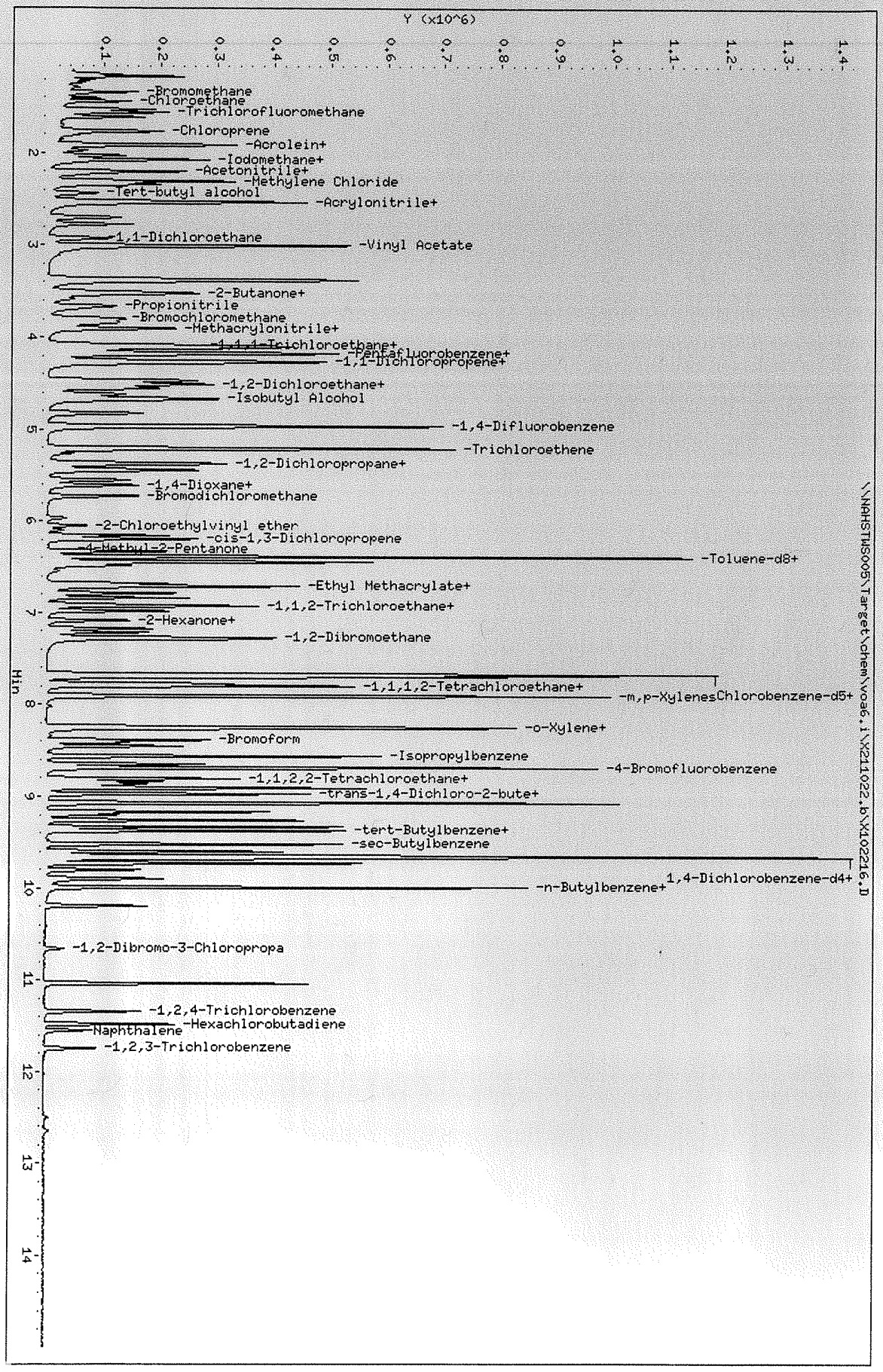
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102216.D
Lab Smp Id: HS21101118-03MS Client Smp ID: HS21101118-03MS
Inj Date : 22-OCT-2021 15:59
Operator : PC Inst ID: voa6.i
Smp Info : HS21101118-03MS;HS21101118-03MS;3;;MS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:10 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 15 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	437193	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	205323	47.7723	47.77
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	199430	45.6558	45.66
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	608341	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	558168	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	680155	48.0160	48.01
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	250349	51.3902	51.39
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	289430	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	66703	14.5455	14.54
	11 1,1-Dichloroethene	96	1.912	1.919	(0.457)	62994	16.1455	16.14
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	54236	18.2097	18.20
	17 Methylene Chloride	84	2.306	2.305	(0.551)	67012	16.7425	16.74
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	95640	21.0320	21.03
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	91664	17.9628	17.96
	38 Trichloroethene	130	5.207	5.207	(1.049)	241016	52.3765	52.37



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102216.D
Date : 22-OCT-2021 15:59
Client ID: HS21101118-03MS
Sample Info: HS21101118-03MS;HS21101118-03MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102217.D Page 1
Report Date: 12-Nov-2021 11:10

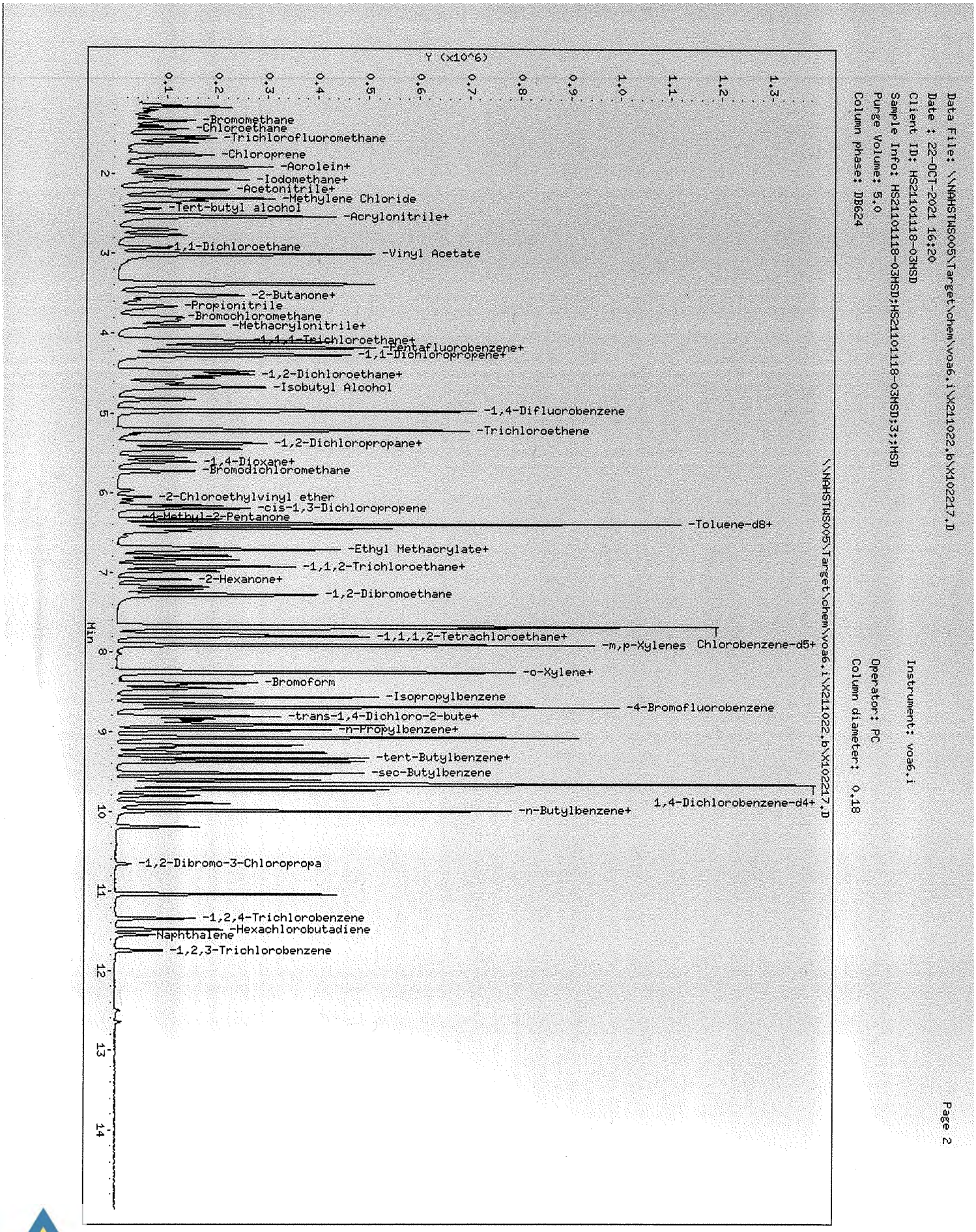
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102217.D
Lab Smp Id: HS21101118-03MSD Client Smp ID: HS21101118-03MSD
Inj Date : 22-OCT-2021 16:20
Operator : PC Inst ID: voa6.i
Smp Info : HS21101118-03MSD;HS21101118-03MSD;3;;MSD
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:10 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 15 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	440197	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	206052	47.6113	47.61
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	210401	47.9362	47.93
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	614943	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	566142	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	663266	47.9563	47.96
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	253617	51.1261	51.13
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	289460	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	60849	13.1784	13.17
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	59652	15.1847	15.18
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	50291	16.6480	16.64
	17 Methylene Chloride	84	2.305	2.305	(0.551)	65185	16.1320	16.13
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	90487	19.7631	19.76
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	85837	16.6403	16.64
	38 Trichloroethene	130	5.206	5.207	(1.049)	231651	49.8009	49.80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Date : 22-OCT-2021 16:20
Client ID: HS2110118-03WSD
Instrument: voa6.i
Sample Info: HS2110118-03WSD;HS2110118-03WSD;3;;WSD
Operator: PC
Purge Volume: 5.0
Column diameter: 0.18
Column phase: DB624
Page 2
Y (x10^6)
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Min
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12
13
14
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Chloroprene
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-1,1-Dichloroethane
-Vinyl Acetate
-2-Butanone+
-Propionitrile
-Bromochloromethane
-Methacrylonitrile+
-1,1,1-Trichloroethane+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-4-Methyl-2-Pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone+
-1,2-Dibromoethane
-1,1,1,2-Tetrachloroethane+
-m,p-Xylenes
Chlorobenzene-d5+
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-trans-1,4-Dichloro-2-bute+
-n-Propylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
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Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102218.D Page 1
Report Date: 12-Nov-2021 11:11

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102218.D
Lab Smp Id: HS21100785-04 Client Smp ID: HS21100785-04
Inj Date : 22-OCT-2021 16:41
Operator : PC Inst ID: voa6.i
Smp Info : HS21100785-04;HS21100785-04;;;
Misc Info : HS18090001;WATER;0;100;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:10 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 16
Dil Factor: 100.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

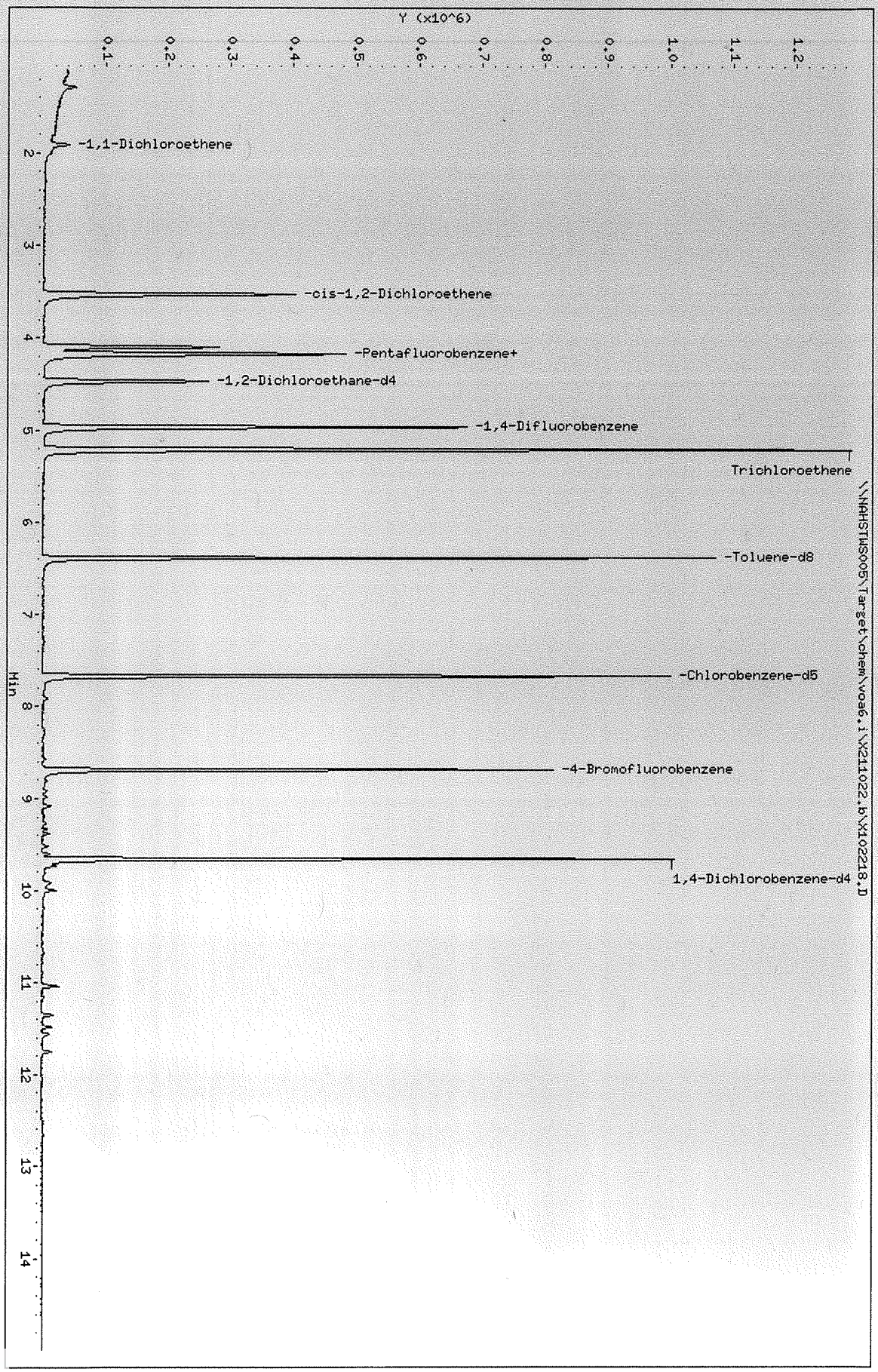
Name	Value	Description
DF	100.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.382	4.382	(1.000)	415166	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	197434	48.4110	48.41
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	201032	48.6126	48.61
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	965464	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	518286	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	663340	50.4324	50.43
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	223182	49.2843	49.28
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	241993	50.0000	
	11 1,1-Dichloroethene	96	1.919	1.911	(0.459)	1342	0.90242	90.24(a)
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	221194	51.2372	5123.72
	38 Trichloroethene	130	6.207	6.206	(1.049)	430964	97.3148	9731.47

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102218.D
Date : 22-OCT-2021 16:41
Client ID: HS2110078S-04
Sample Info: HS2110078S-04;HS2110078S-04;;;
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\VAHSTW8008\Target\chem\voa6.i\V211022.b\V102218.D Page 3

Date : 22-OCT-2021 16:41

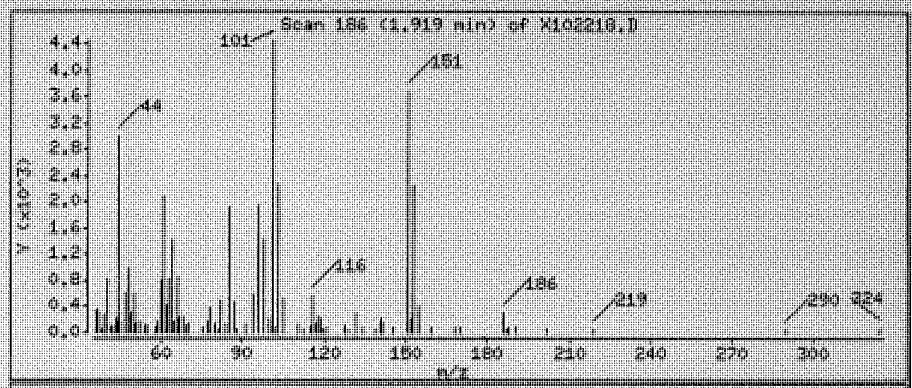
Client ID: HS21100785-04 Instrument: voa6.i

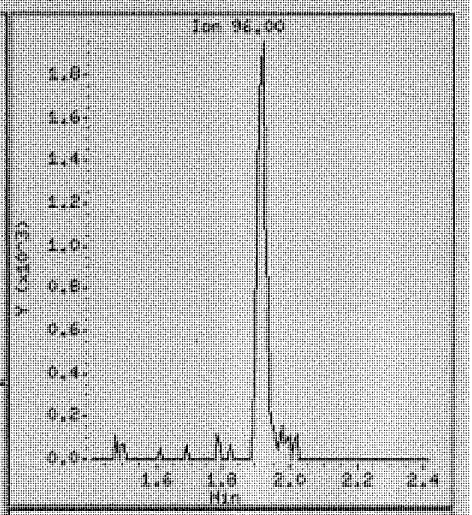
Sample Info: HS21100785-04;HS21100785-04;;;

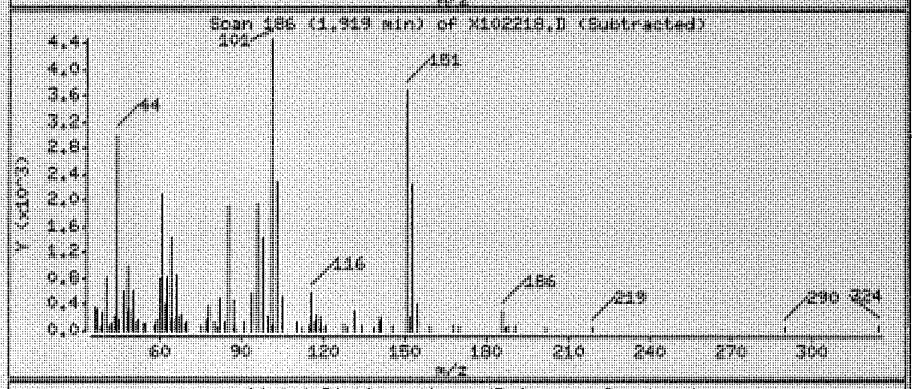
Purge Volume: 5.0 Operator: PC

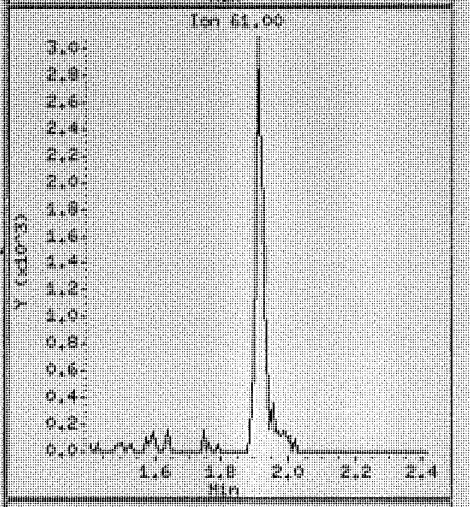
Column phase: DB624 Column diameter: 0.18

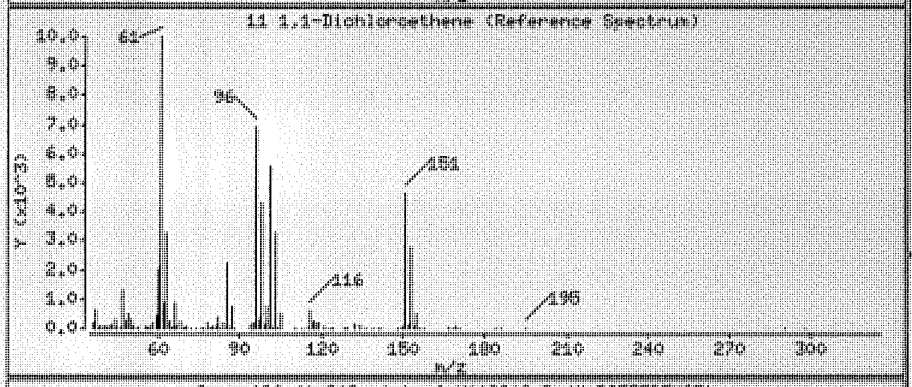
11 1,1-Dichloroethene Concentration: 30.24 ug/l

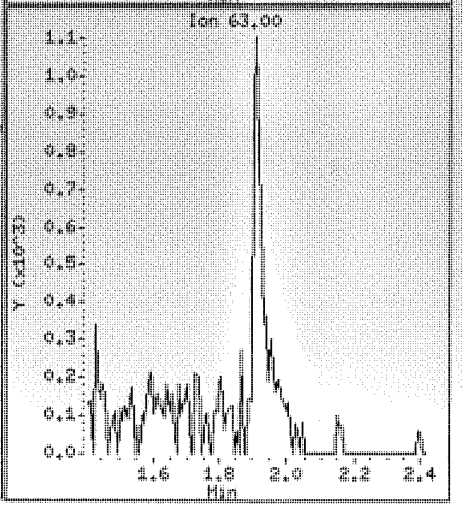


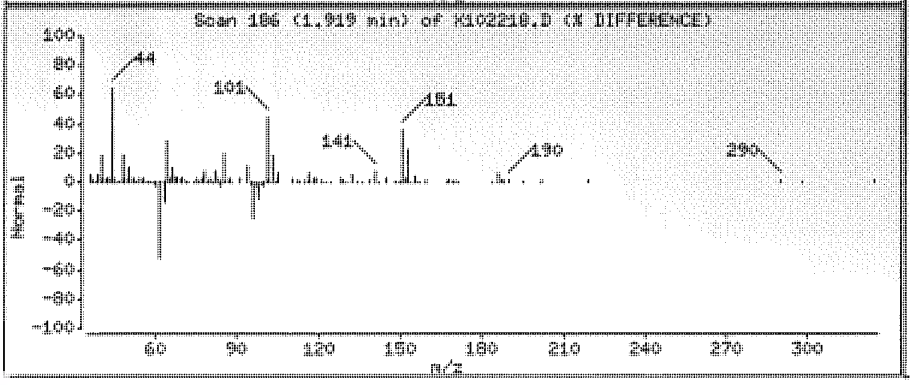












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102218.D Page 4

Date : 22-OCT-2021 16:41

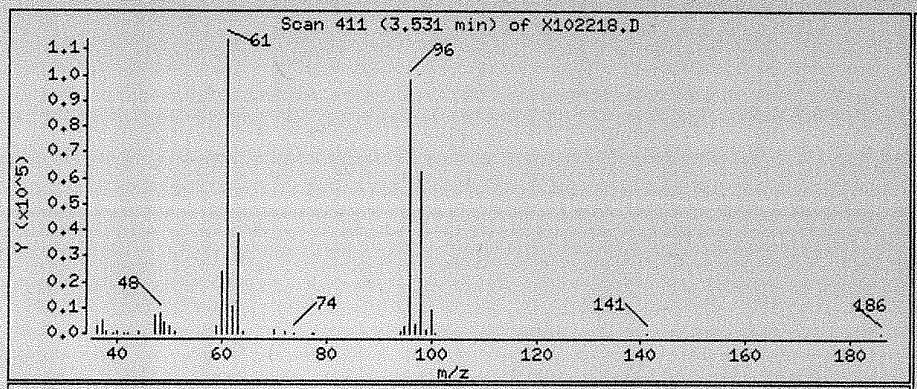
Client ID: HS21100785-04 Instrument: voa6.i

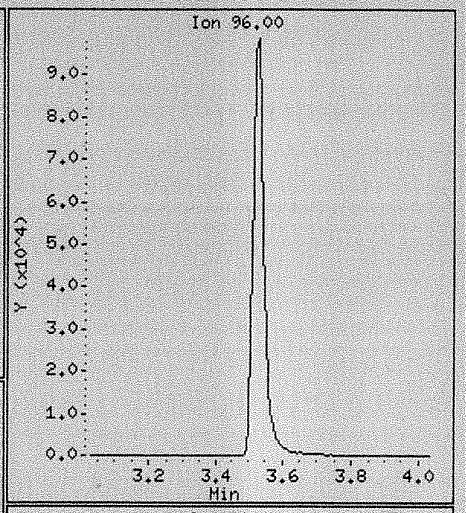
Sample Info: HS21100785-04;HS21100785-04;;;

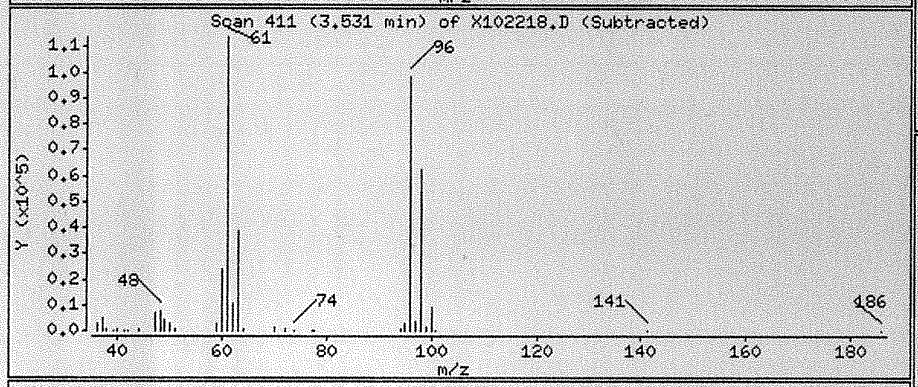
Purge Volume: 5.0 Operator: PC

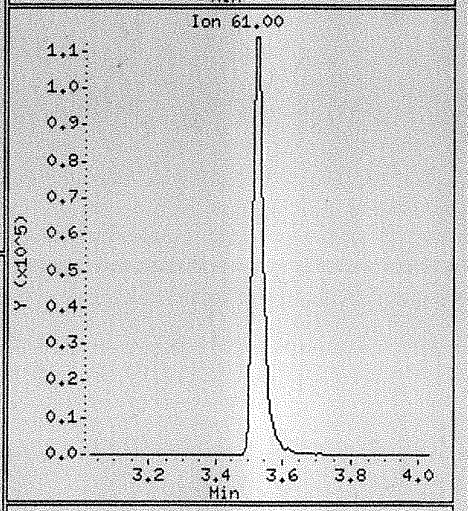
Column phase: DB624 Column diameter: 0.18

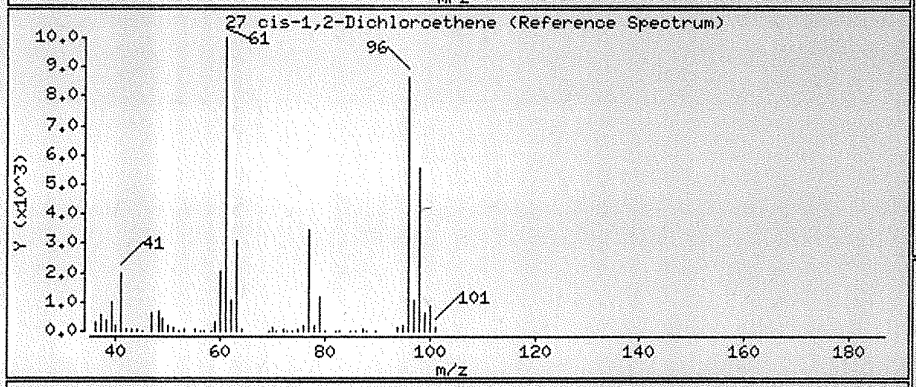
27 cis-1,2-Dichloroethene Concentration: 5123.72 ug/l

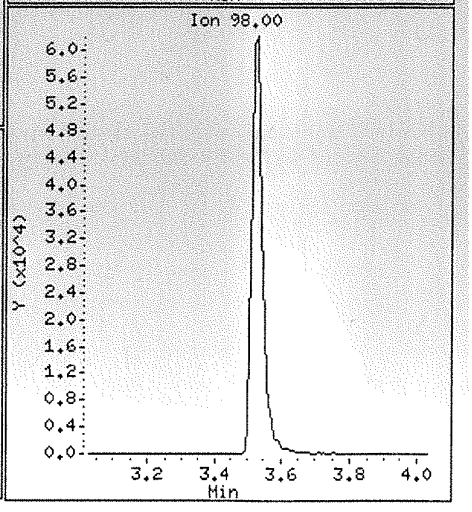


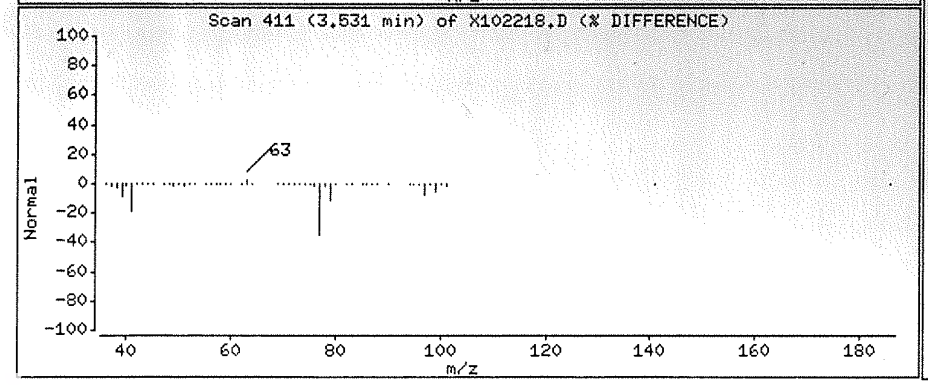












Data File: \\N4HSTW8008\Target\chem\voa6.i\X211022.b\X102218.D Page 5

Date : 22-OCT-2021 16:41

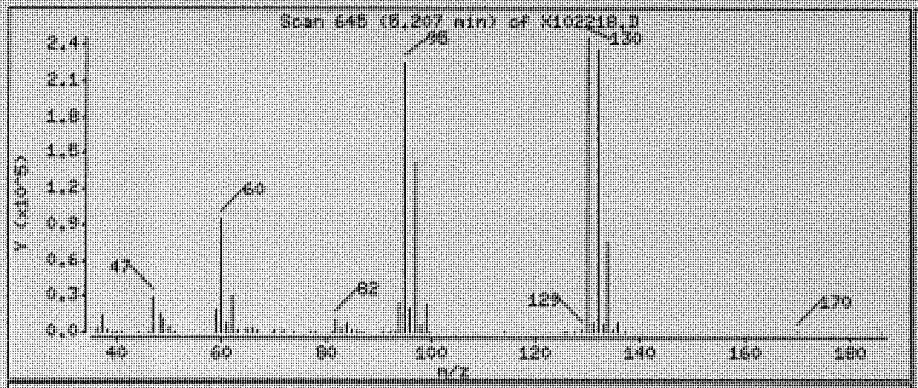
Client ID: HS21100705-04 Instrument: voa6.i

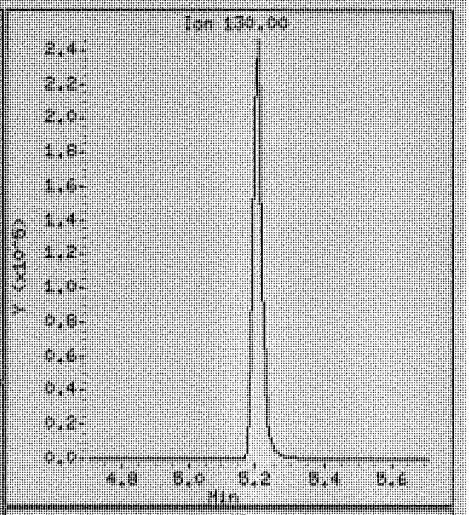
Sample Info: HS21100705-04;HS21100705-04;;;

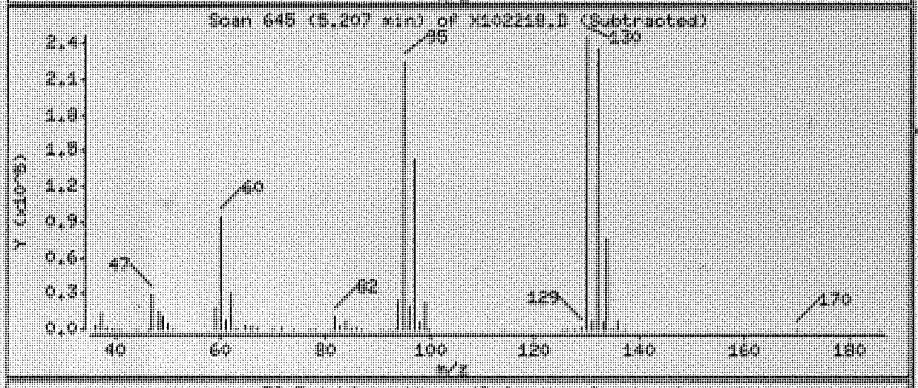
Purge Volume: 5.0 Operator: PC

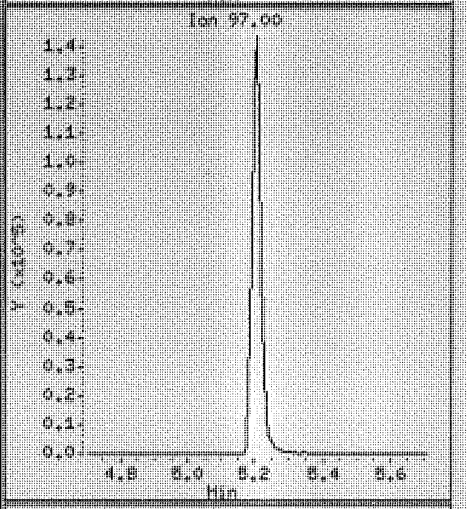
Column phase: DB624 Column diameter: 0.18

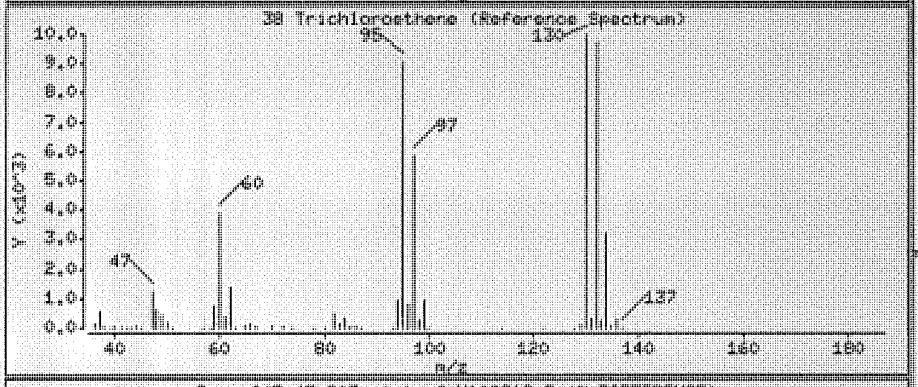
38 Trichloroethene Concentration: 9731.47 ug/l

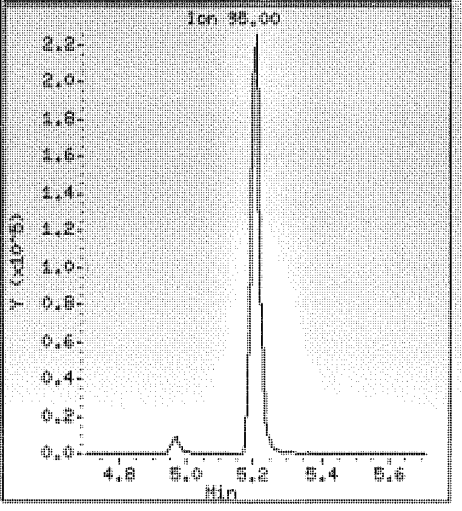


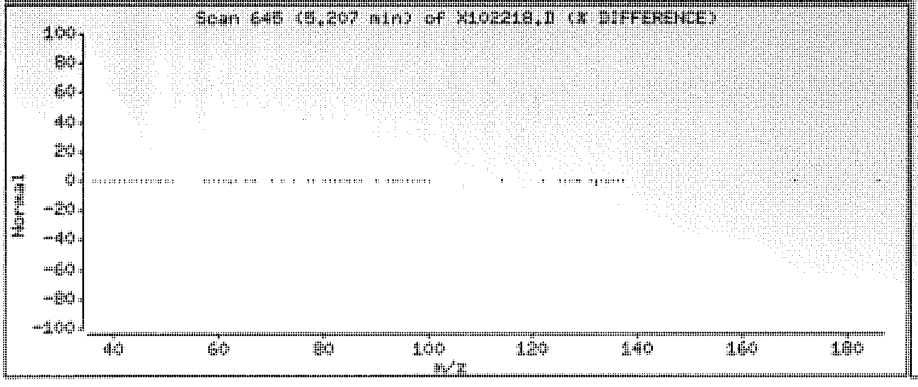












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102232.D Page 1
Report Date: 12-Nov-2021 11:10

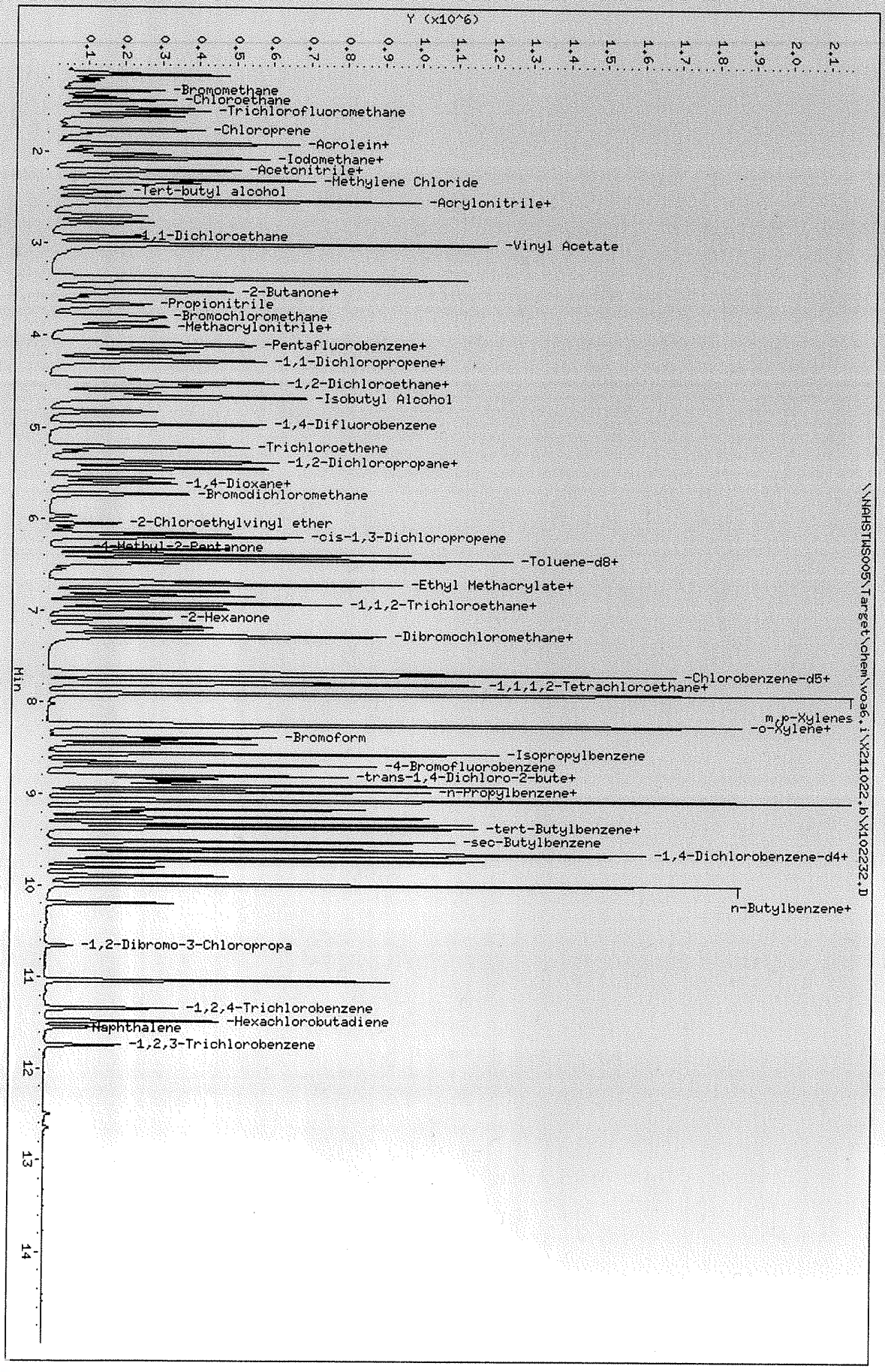
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102232.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 22-OCT-2021 21:36
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:10 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		QUANT SIO					AMOUNTS	
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	329638	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	160528	50.0000	55.92
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	177511	50.0000	54.29
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	510344	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	488321	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	579404	50.0000	47.04
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	217288	50.0000	51.29
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	247936	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	144582	50.0000	41.83
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	135221	50.0000	45.98
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	120369	50.0000	46.47
	17 Methylene Chloride	84	2.309	2.309	(0.551)	154291	50.0000	53.75
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	174353	50.0000	50.87
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	198923	50.0000	44.46
	38 Trichloroethene	130	5.206	5.206	(1.049)	177974	50.0000	46.10


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102232.D
Date : 22-OCT-2021 21:36
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;;
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
Page 2
Y (x10^6)
Min
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Chloroprene
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-1,1-Dichloroethane
-Vinyl Acetate
-2-Butanone+
-Propionitrile
-Bromochloromethane
-Methacrylonitrile+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-4-Methyl-2-Pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone
-Dibromochloromethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
m,p-Xylenes
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-trans-1,4-Dichloro-2-bute+
-n-Propylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-1,4-Dichlorobenzene-d4+
n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
\\NAHSTWS005\Target\chem\voa6.i\X211022.b\X102232.D

Data File: \\WAHSTWS005\Target\chem\voa6.i\V211022.b\V102201.D Page 1

Date : 22-OCT-2021 21:57

Client ID: DFB

Instrument: voa6.i

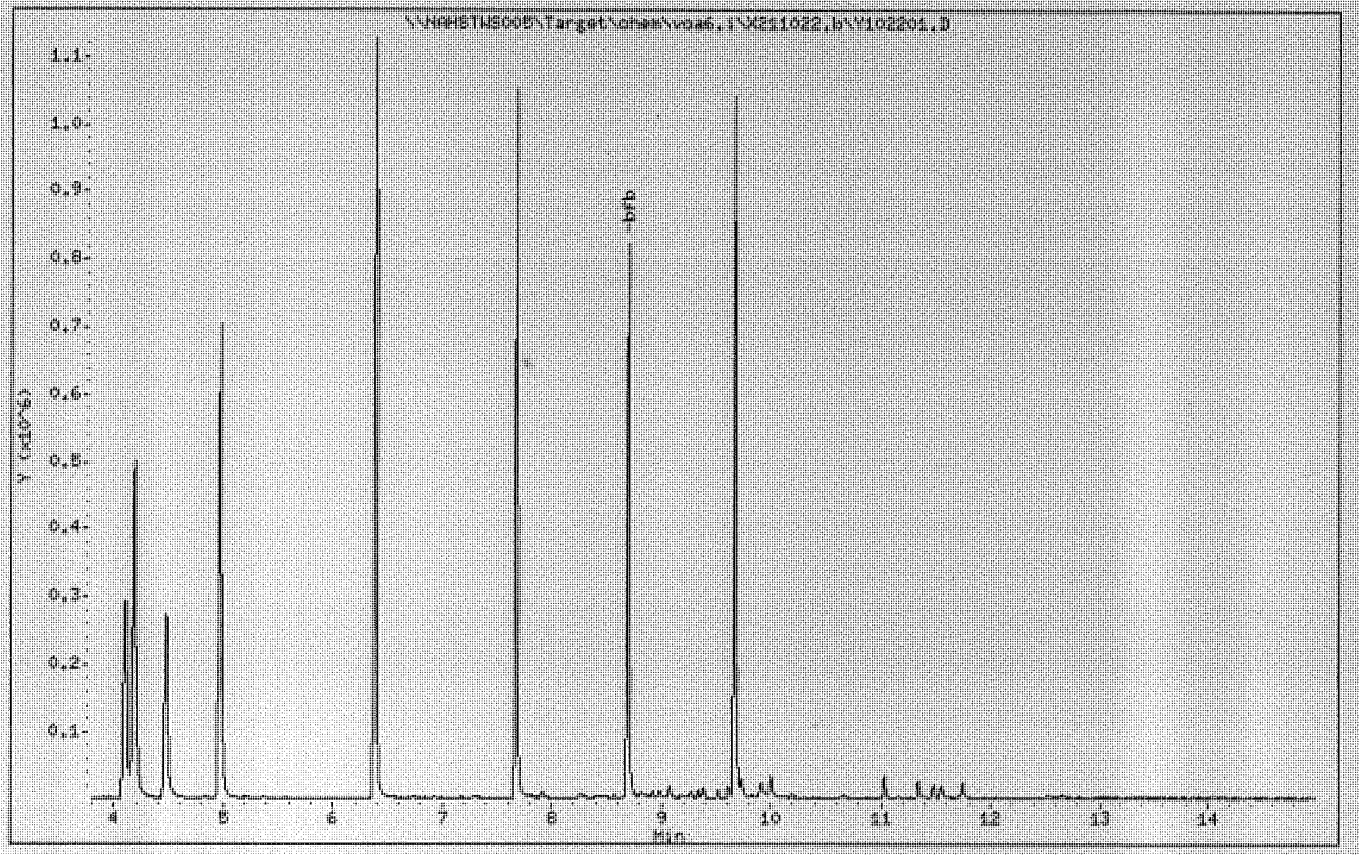
Sample Info: DFB:DFB:3::DFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAMSTWS005\Target\chem\voa6.i\X211022.b\V102201.D Page 2

Date : 22-OCT-2021 21:57

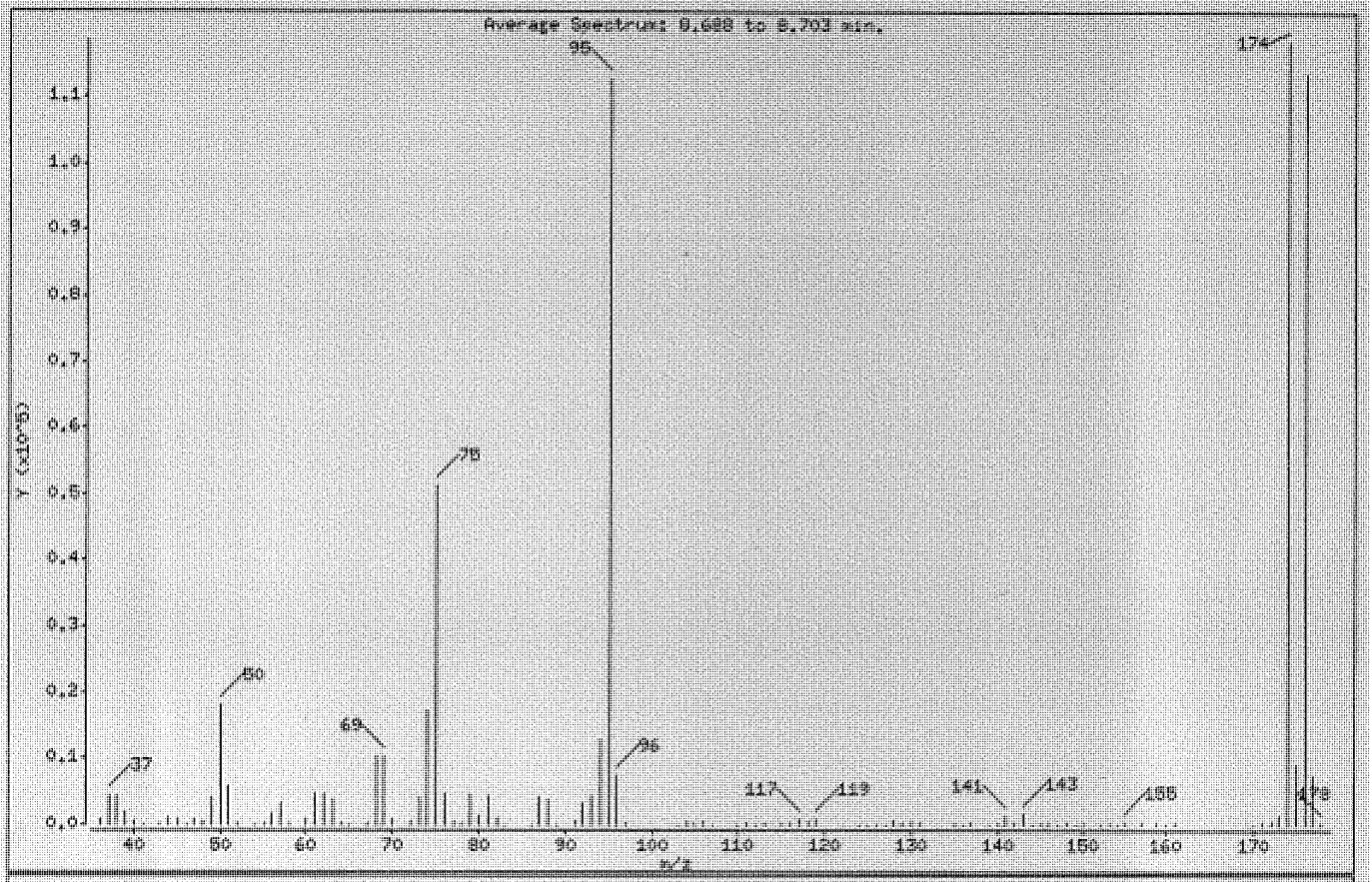
Client ID: BFB Instrument: voa6.i

Sample Info: BFB:BFB:3::BFB

Volume Injected (uL): 2.0 Operator: RC

Column phase: DB624 Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.10
75	30.00 - 60.00% of mass 95	45.43
96	5.00 - 9.00% of mass 95	6.47
173	Less than 2.00% of mass 174	1.26 (1.20)
174	Greater than 50.00% of mass 95	105.11
175	5.00 - 9.00% of mass 174	8.09 (7.70)
176	95.00 - 101.00% of mass 174	100.62 (95.73)
177	5.00 - 9.00% of mass 176	6.61 (6.57)

Data File: \\NAHSTWS005\Target\chem\voa6.i\%211022.b\Y102201.D Page 3

Date : 22-OCT-2021 21:57

Client ID: DFB Instrument: voa6.i

Sample Info: DFB:DFB:3::DFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: Y102201.D
Spectrum: Average Spectrum: 8.688 to 8.703 min.
Location of Maximum: 174.00
Number of points: 108

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	980	68.00	10250	106.00	206	144.00	80
37.00	4421	69.00	10439	106.00	568	145.00	189
38.00	4321	70.00	943	107.00	96	146.00	274
39.00	1813	72.00	477	110.00	79	147.00	82
40.00	535	73.00	4218	111.00	212	148.00	273
41.00	61	74.00	17272	112.00	33	149.00	54
43.00	151	75.00	51200	113.00	158	150.00	139
44.00	1141	76.00	4633	115.00	172	152.00	29
45.00	814	77.00	582	116.00	396	153.00	139
46.00	67	78.00	386	117.00	798	154.00	51
47.00	846	79.00	4643	118.00	422	155.00	283
48.00	876	80.00	1312	119.00	706	157.00	306
49.00	4111	81.00	4278	124.00	111	159.00	164
50.00	18136	82.00	957	125.00	40	160.00	96
51.00	5645	83.00	68	126.00	87	161.00	145
52.00	222	86.00	44	127.00	40	170.00	90
54.00	33	87.00	4098	128.00	521	171.00	214
55.00	405	88.00	3908	129.00	272	172.00	418
56.00	1681	89.00	27	130.00	810	173.00	1424
57.00	3209	91.00	618	131.00	215	174.00	118456
58.00	166	92.00	3259	135.00	238	175.00	9123
60.00	885	93.00	4491	136.00	41	176.00	113400
61.00	4732	94.00	12715	137.00	200	177.00	7452
62.00	4773	95.00	112704	139.00	65	178.00	187
63.00	3896	96.00	7287	140.00	147		
64.00	303	97.00	274	141.00	1396		
65.00	93	103.00	86	142.00	194		
67.00	317	104.00	616	143.00	1526		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102203.D Page 1
Report Date: 12-Nov-2021 11:33

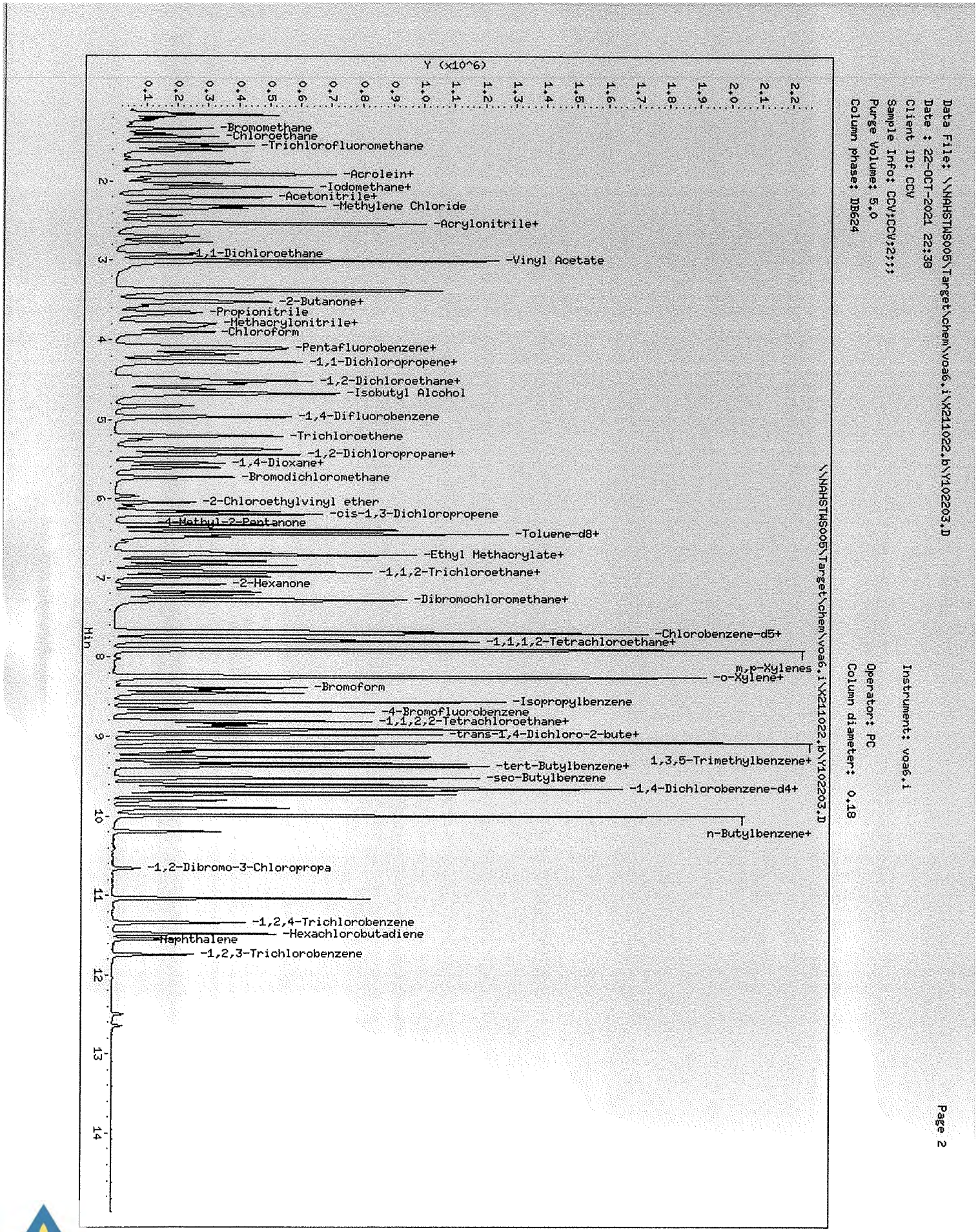
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102203.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 22-OCT-2021 22:38
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:33 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 32 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	325080	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	171677	50.0000	53.88
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	178078	50.0000	55.26
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	496341	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	475447	50.0000	
$	48 Toluene-d8	98	6.389	6.389	(0.833)	551382	50.0000	45.69
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	209366	50.0000	50.43
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	241833	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	158951	50.0000	46.63
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	141032	50.0000	48.63
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	125145	50.0000	49.32
	17 Methylene Chloride	84	2.306	2.306	(0.551)	164049	50.0000	58.05
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	181127	50.0000	53.59
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	210661	50.0000	50.59
	38 Trichloroethene	130	5.207	5.207	(1.049)	185519	50.0000	49.41


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102203.D
Date : 22-OCT-2021 22:38
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
Page 2
Y (x10^6)
Min
\\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102203.D
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Acrylonitrile+
-1,1-Dichloroethane
-Vinyl Acetate
-2-Butanone+
-Propionitrile
-Methacrylonitrile+
-Chloroform
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
4-Methyl-2-Pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone
-Dibromochloromethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
m,p-Xylenes
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-1,4-Dichlorobenzene-d4+
n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102205.D Page 1
Report Date: 12-Nov-2021 11:33

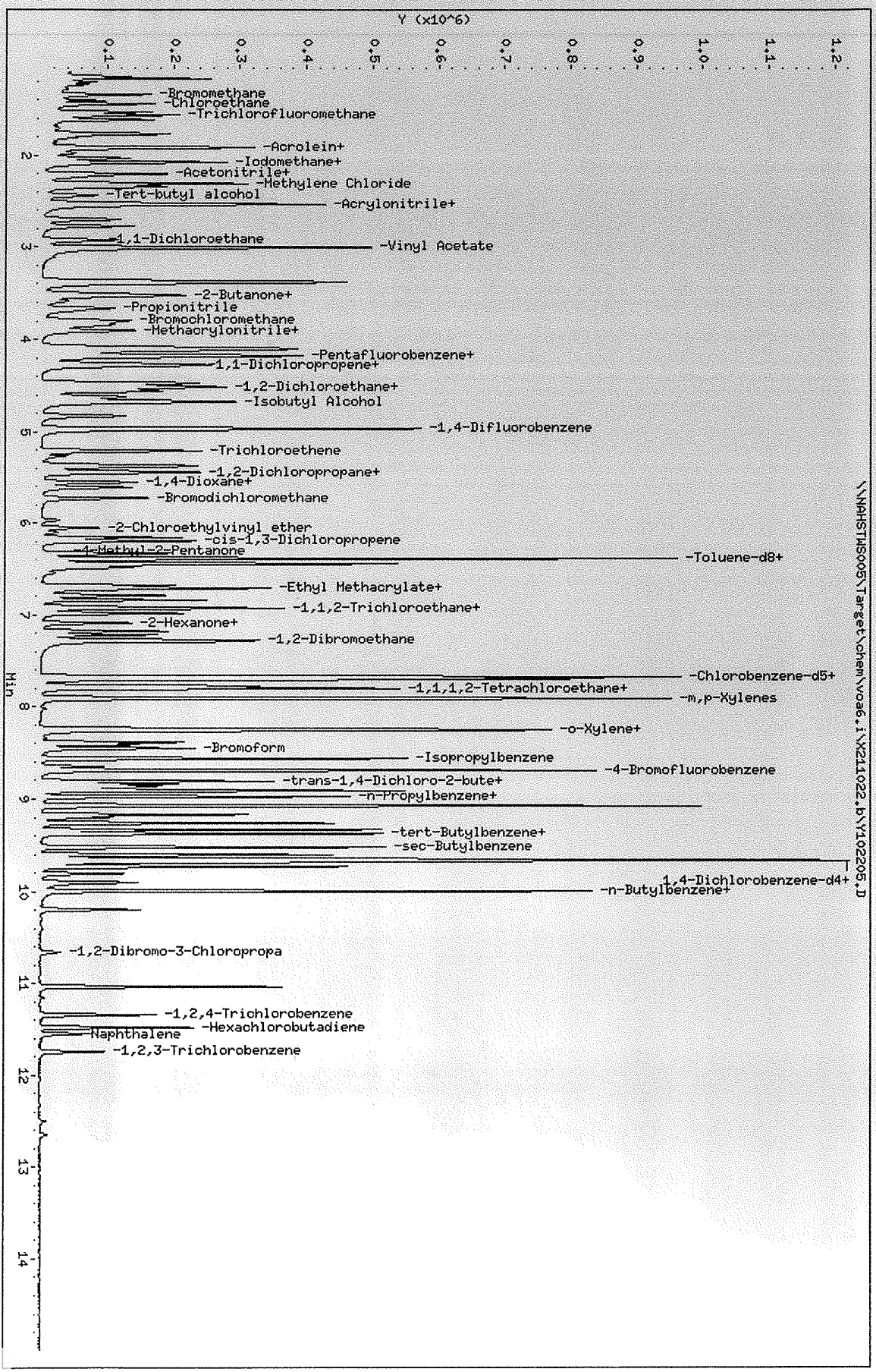
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102205.D
Lab Smp Id: VLCSW-211022 Client Smp ID: VLCSW-211022
Inj Date : 22-OCT-2021 23:21
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-211022;VLCSW-211022;3;;LCS
Misc Info : HS18090001;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:33 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 34 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	325777	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	177232	55.5459	55.54
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	176212	54.5407	54.54
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	502348	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	472530	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	568156	47.3784	47.37
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	215179	52.1969	52.19
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	242376	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	72147	21.1228	21.12
11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	61711	21.2357	21.23
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	52377	20.7726	20.77
17 Methylene Chloride	84	2.305	2.306	(0.551)	69568	23.8351	23.83
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	76454	22.5732	22.57
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	91523	21.7194	21.71
38 Trichloroethene	130	5.206	5.207	(1.049)	81294	21.3940	21.39


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102205.D
Date : 22-OCT-2021 23:21
Client ID: VLCSW-211022
Instrument: voa6.i
Sample Info: VLCSW-211022;VLCSW-211022;3;;LCS
Purge Volume: 5.0
Operator: PC
Column phase: DB624
Column diameter: 0.18
Page 2
Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-1,1-Dichloroethane
-Vinyl Acetate
-2-Butanone+
-Propionitrile
-Bromochloromethane
-Methacrylonitrile+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-4-Methyl-2-Pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone+
-1,2-Dibromoethane
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
-m,p-Xylenes
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-trans-1,4-Dichloro-2-bute+
-n-Propylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
\\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102205.D

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102207.D Page 1
Report Date: 12-Nov-2021 11:33

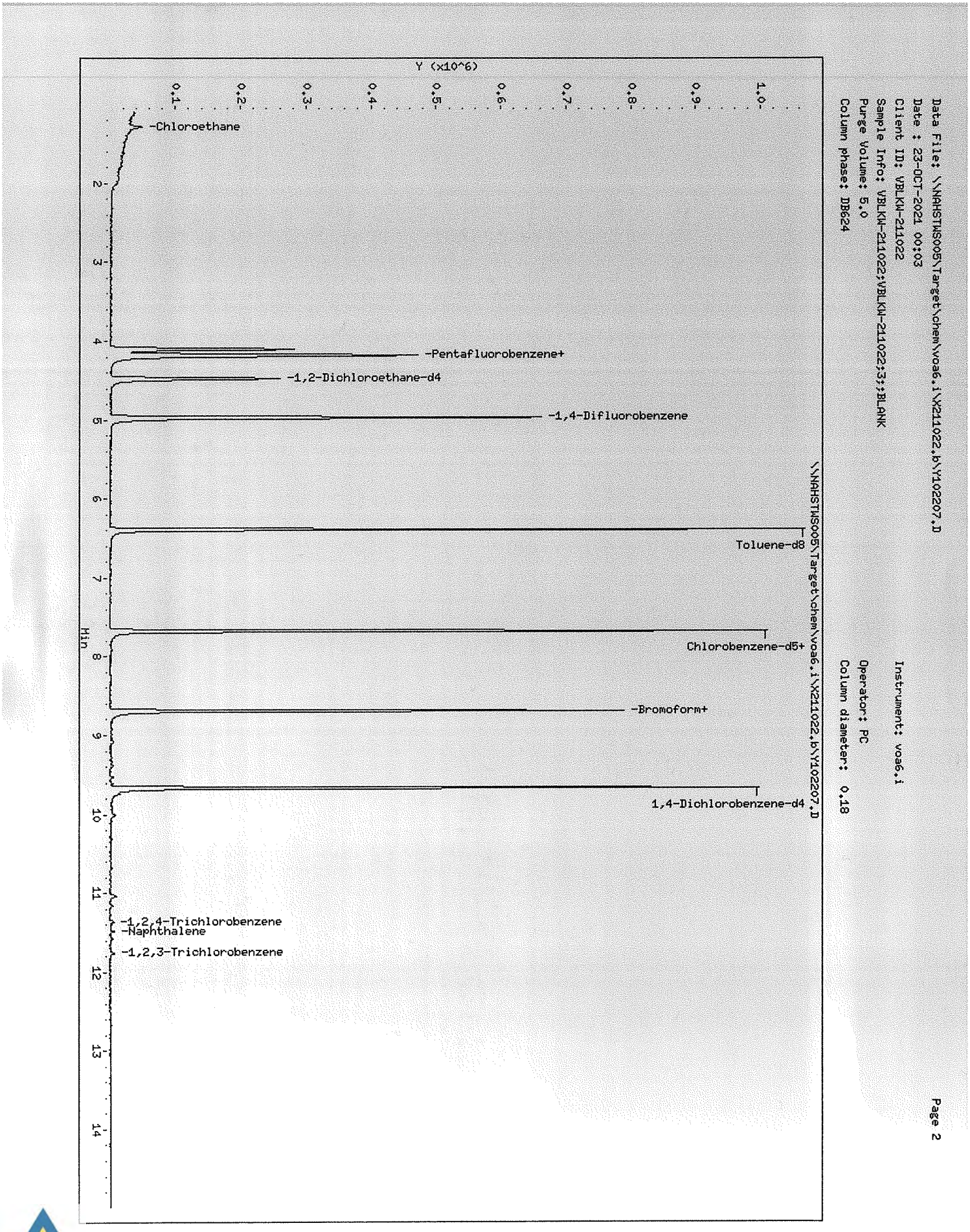
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102207.D
Lab Smp Id: VBLKW-211022 Client Smp ID: VBLKW-211022
Inj Date : 23-OCT-2021 00:03
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-211022;VBLKW-211022;3;;BLANK
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:33 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 36 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	407299	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	195648	48.9112	48.91
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	201812	49.7912	49.79
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	580225	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	514915	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	651498	49.8563	49.85
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	224993	50.0296	50.02
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	243199	50.0000	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Client ID: VBLKW-211022
Sample Info: VBLKW-211022;VBLKW-211022;3;;BLANK
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
Page 2
Y (x10^6)
Hin
\\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102207.D
-Chloroethane
-Pentafluorobenzene+
-1,2-Dichloroethane-d4
-1,4-Difluorobenzene
Toluene-d8
Chlorobenzene-d5+
-Bromoform+
1,4-Dichlorobenzene-d4
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102210.D Page 1
Report Date: 12-Nov-2021 11:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102210.D
Lab Smp Id: HS21100785-05 Client Smp ID: HS21100785-05
Inj Date : 23-OCT-2021 01:06
Operator : PC Inst ID: voa6.i
Smp Info : HS21100785-05;HS21100785-05;;;
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:10 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 39
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

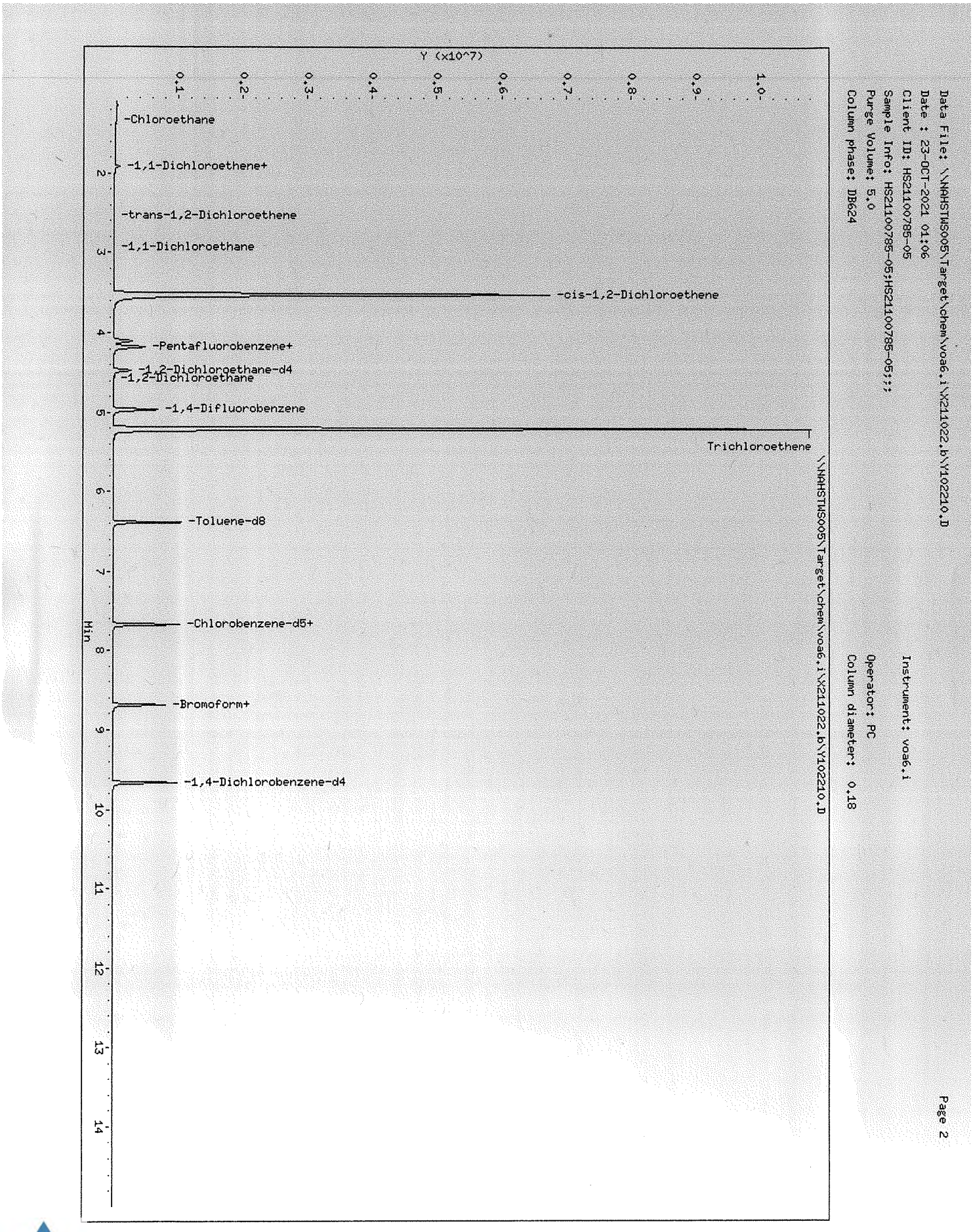
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	424415	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	198544	47.6037	47.60
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	200839	47.4614	47.46
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	595710	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	527939	50.0000	
$ 48 Toluene-d8	98	6.381	6.388	(0.832)	657318	49.0608	49.06
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	226032	48.9931	48.99
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	246173	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	19250	4.32608	43.26(a)
11 1,1-Dichloroethene	96	1.919	1.911	(0.459)	14692	3.88074	38.80(a)
27 cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	3586503	812.817	8128.17(A)
33 1,2-Dichloroethane	62	4.569	4.555	(0.921)	5038	1.00820	10.08(a)
38 Trichloroethene	130	5.207	5.206	(1.049)	3487164	773.883	7738.83(A)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.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Date : 23-OCT-2021 01:06
Client ID: HS21100785-05
Sample Info: HS21100785-05;HS21100785-05;;;
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
Page 2
Y (x10^7)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
-Chloroethane
-1,1-Dichloroethene+
-trans-1,2-Dichloroethene
-1,1-Dichloroethane
-cis-1,2-Dichloroethene
-Pentafluorobenzene+
-1,2-Dichloroethane-d4
-1,2-Dichloroethane
-1,4-Difluorobenzene
Trichloroethene
-Toluene-d8
-Chlorobenzene-d5+
-Bromoform+
-1,4-Dichlorobenzene-d4
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
\\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102210.D

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102210.D Page 3

Date : 23-OCT-2021 01:06

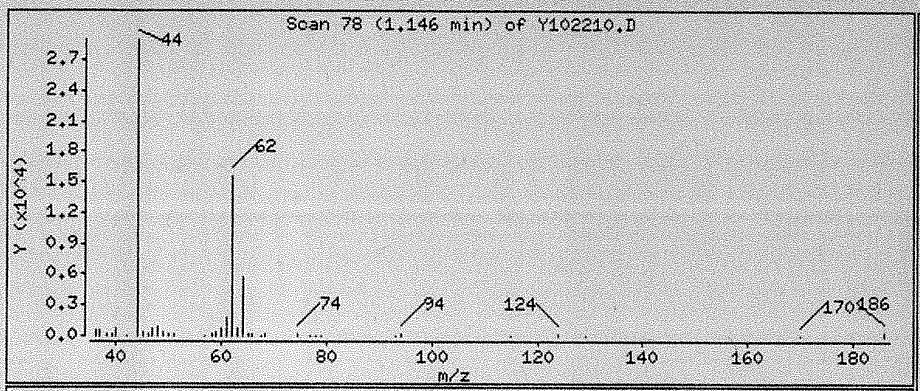
Client ID: HS21100785-05 Instrument: voa6.i

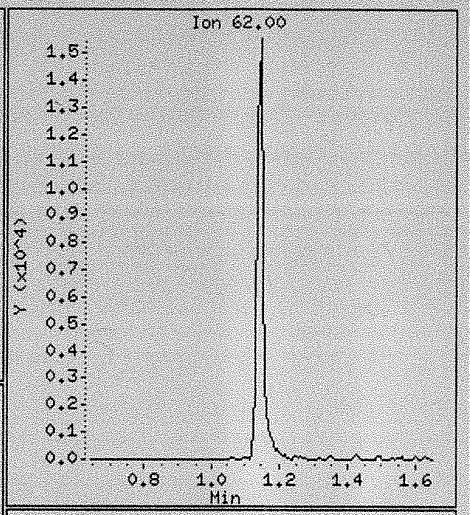
Sample Info: HS21100785-05;HS21100785-05;;;

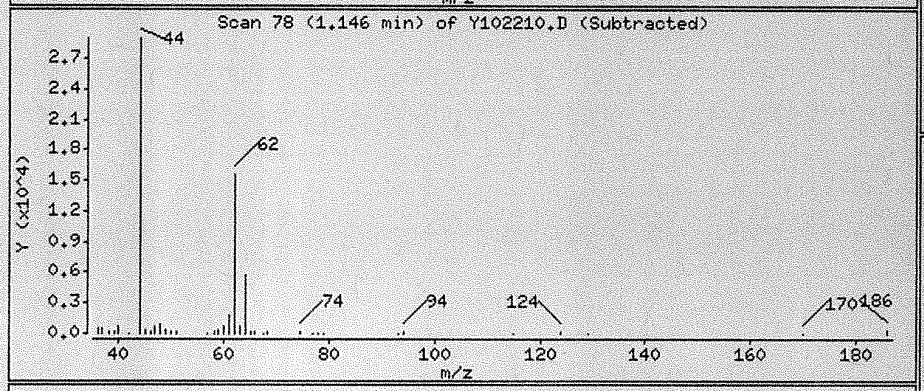
Purge Volume: 5.0 Operator: PC

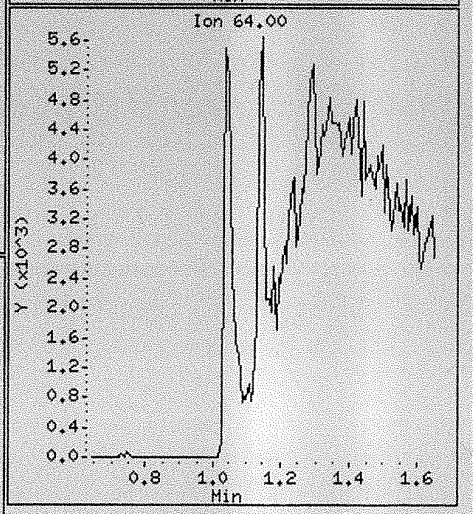
Column phase: DB624 Column diameter: 0.18

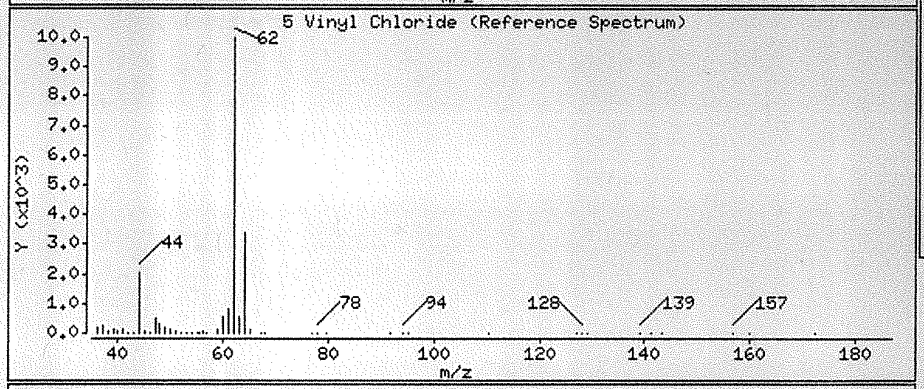
5 Vinyl Chloride Concentration: 43.26 ug/l

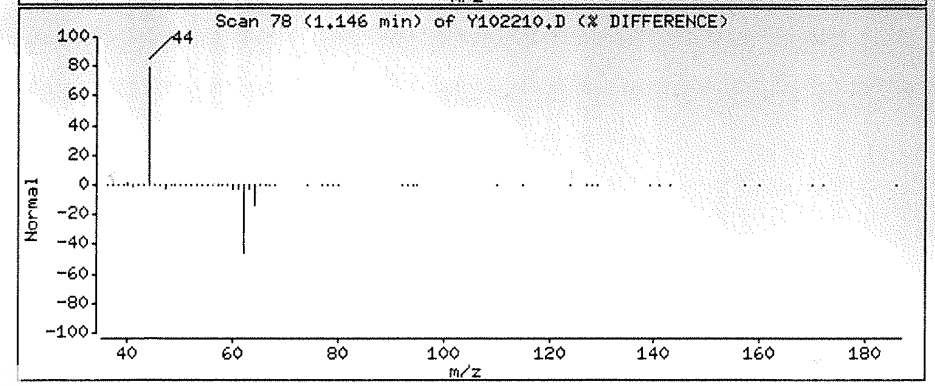












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102210.D Page 4

Date : 23-OCT-2021 01:06

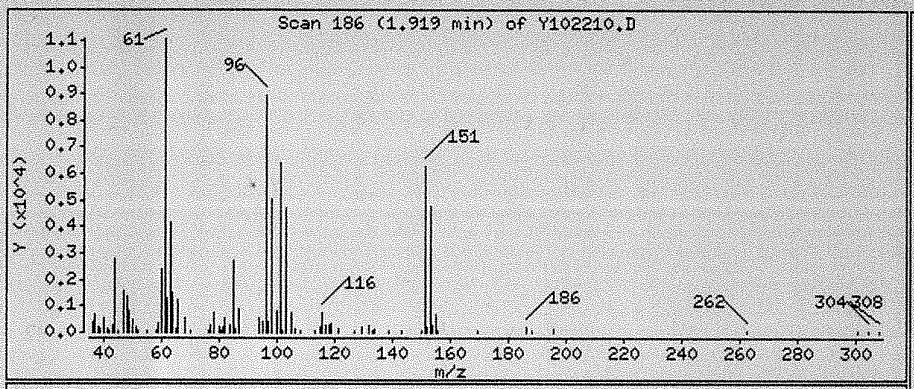
Client ID: HS21100785-05 Instrument: voa6.i

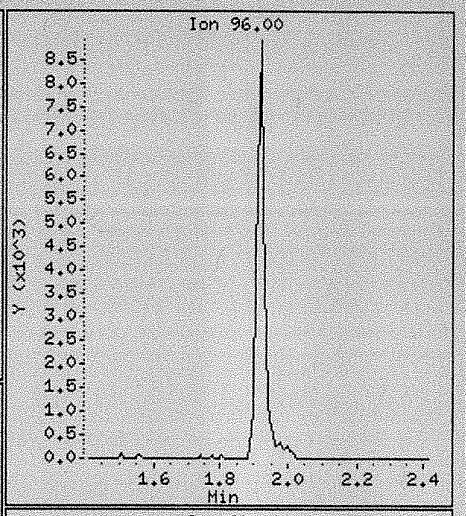
Sample Info: HS21100785-05;HS21100785-05;;;

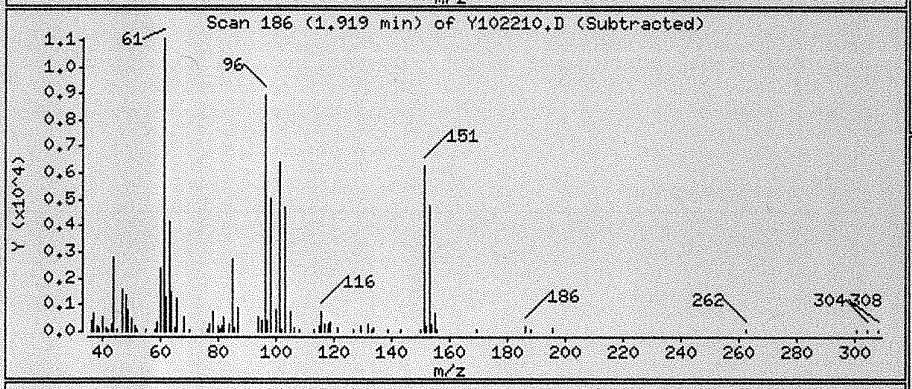
Purge Volume: 5.0 Operator: PC

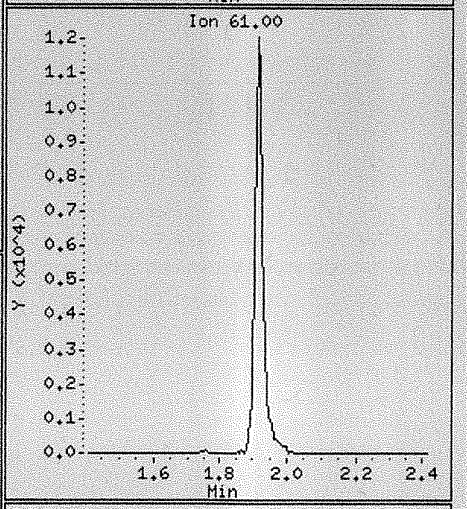
Column phase: DB624 Column diameter: 0.18

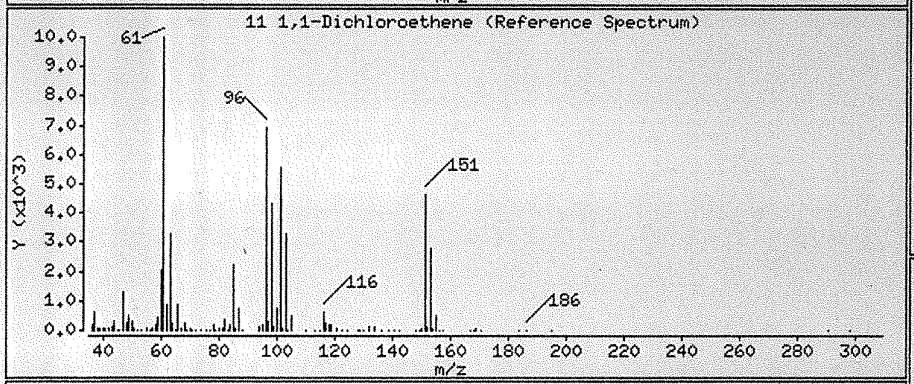
11 1,1-Dichloroethene Concentration: 38.80 ug/l

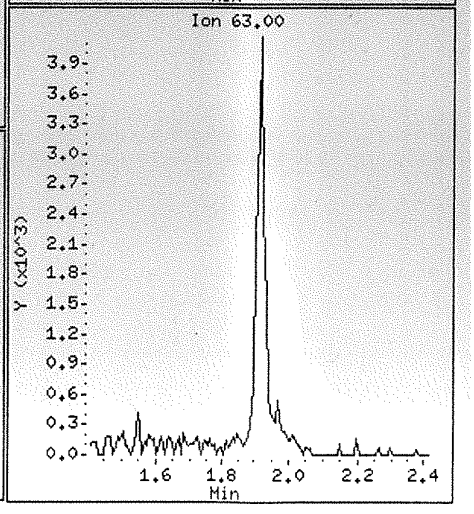


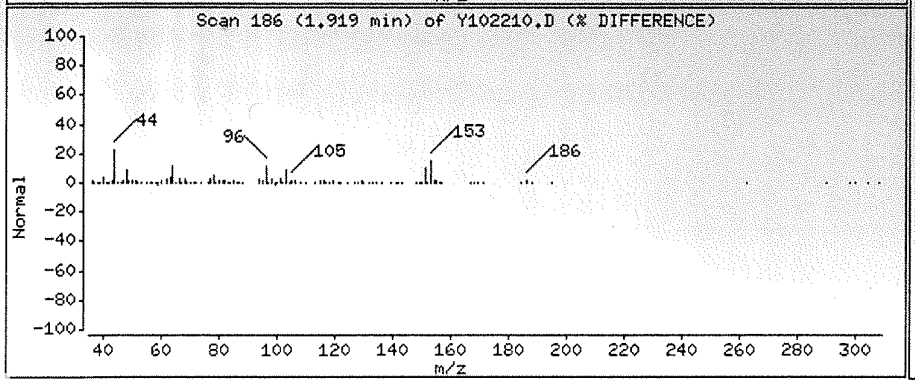












Data File: \\NAHSTW8008\Target\chem\voa6.i\X211022.b\Y102210.D Page 5

Date : 23-OCT-2021 01:06

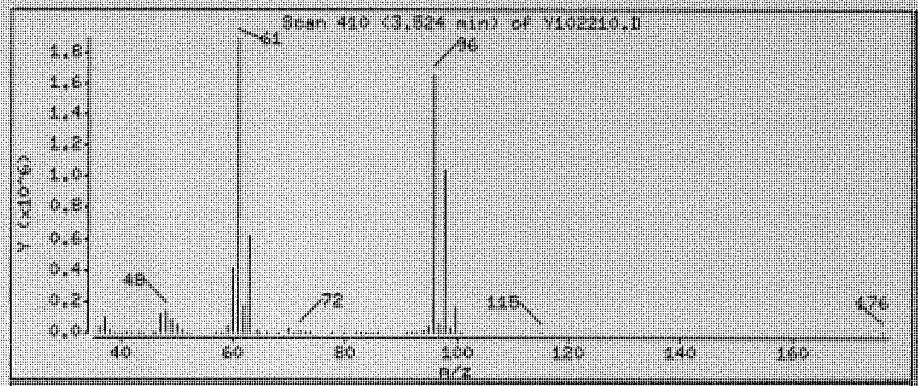
Client ID: HS2110078S-08 Instrument: voa6.i

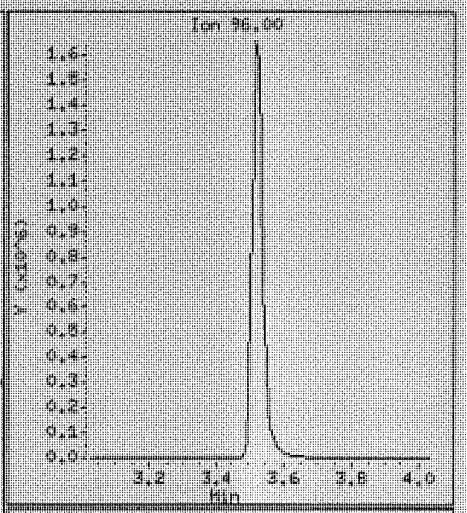
Sample Info: HS2110078S-08;HS2110078S-08;;;

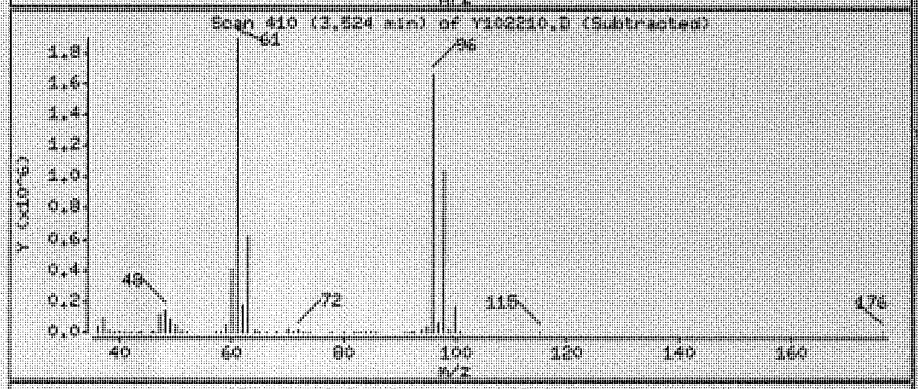
Purge Volume: 5.0 Operator: PC

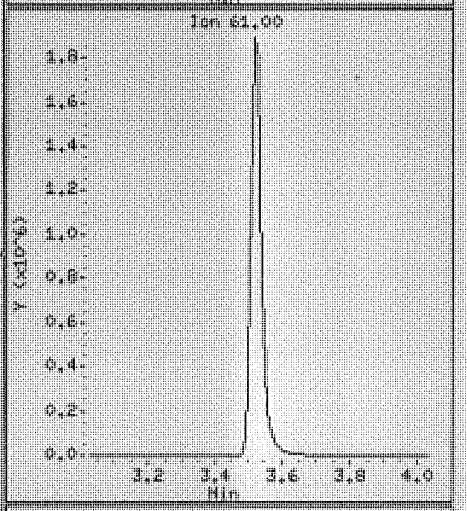
Column phase: DB624 Column diameter: 0.18

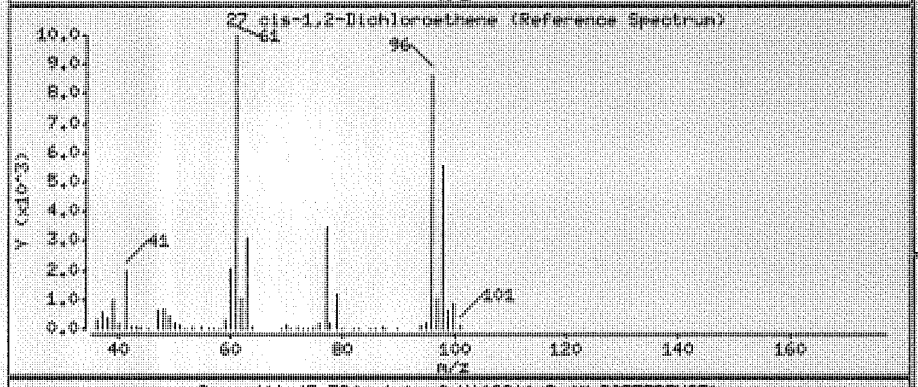
27 cis-1,2-Dichloroethene Concentration: 8128.17 ug/l

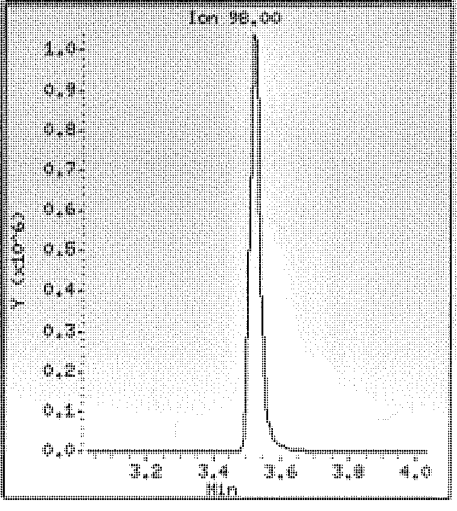


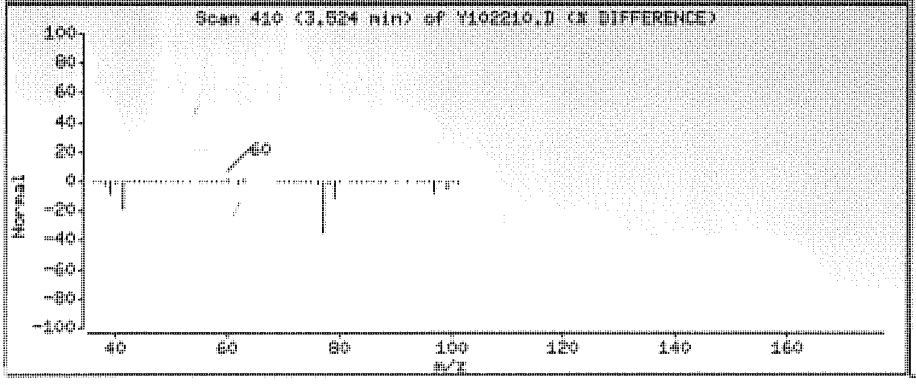












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102210.D Page 6

Date : 23-OCT-2021 01:06

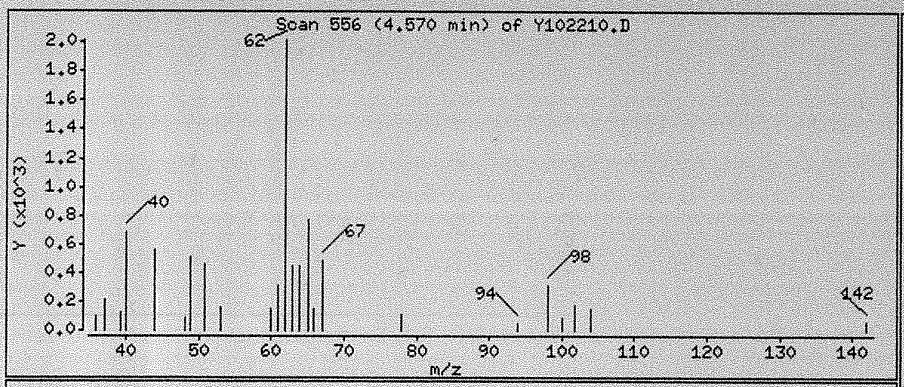
Client ID: HS21100785-05 Instrument: voa6.i

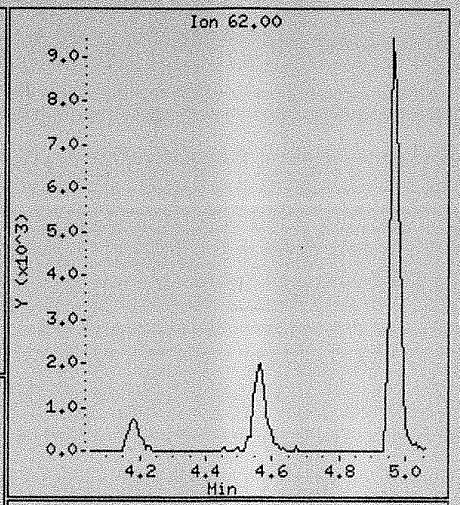
Sample Info: HS21100785-05;HS21100785-05;;;

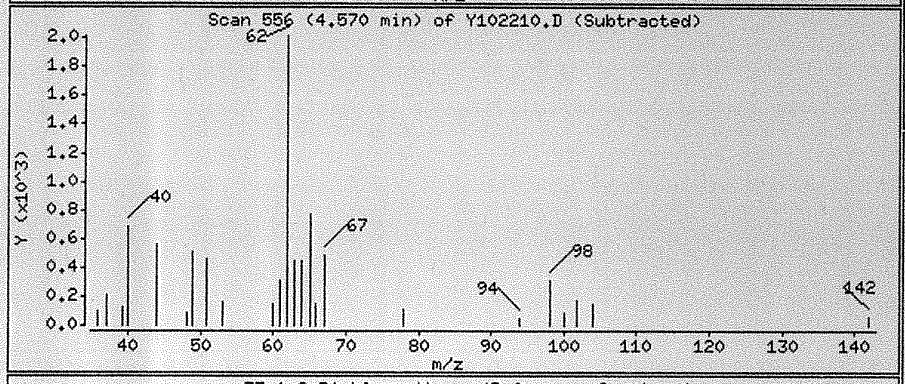
Purge Volume: 5.0 Operator: PC

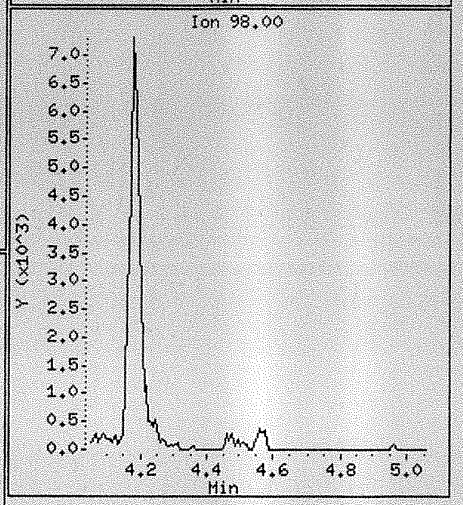
Column phase: DB624 Column diameter: 0.18

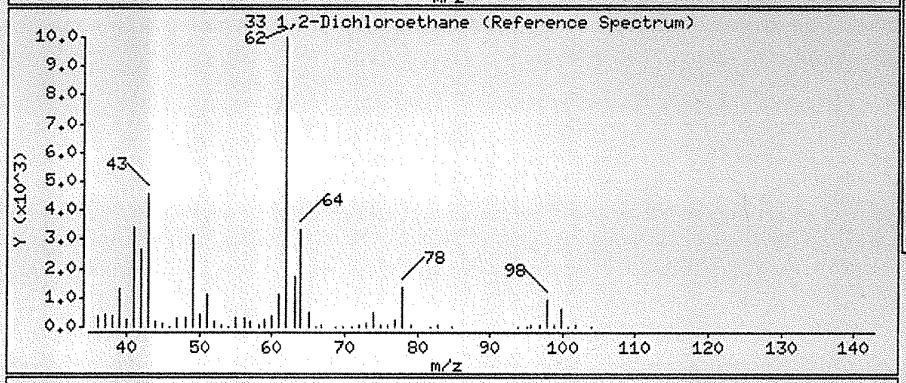
33 1,2-Dichloroethane Concentration: 10.08 ug/l

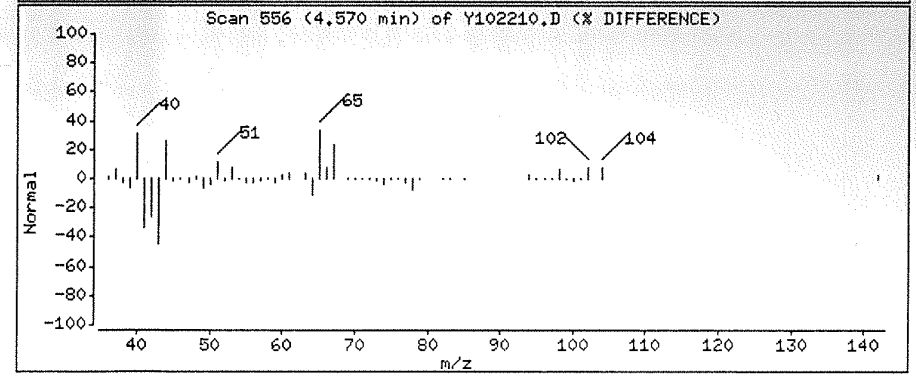












Data File: \\NAHSTWS005\Target\chem\voa6.i\VZ11022.b\Y102210.D Page 7

Date : 23-OCT-2021 01:06

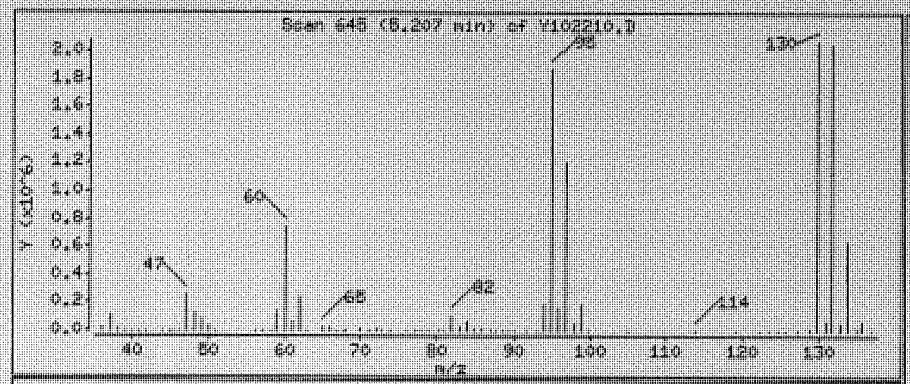
Client ID: HS21100788-08 Instrument: voa6.i

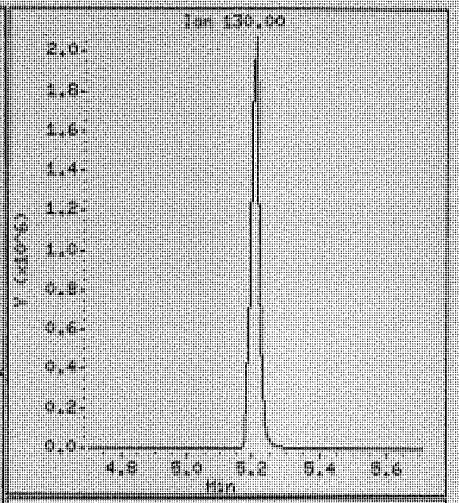
Sample Info: HS21100788-08;HS21100765-06;;;

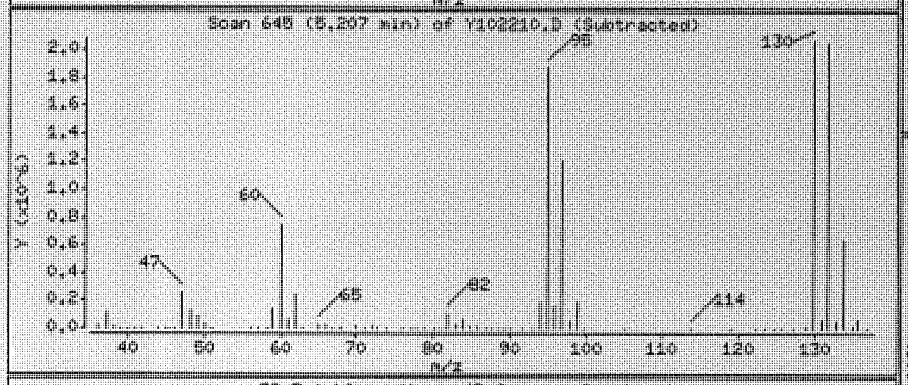
Purge Volume: 5.0 Operator: PC

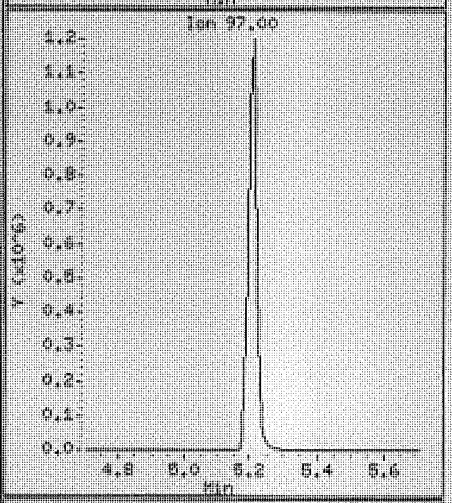
Column phase: DB624 Column diameter: 0.18

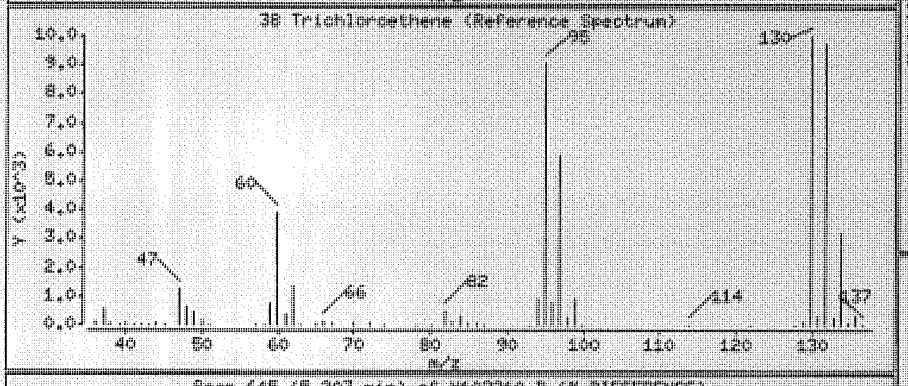
38 Trichloroethene Concentration: 7738.83 ug/l

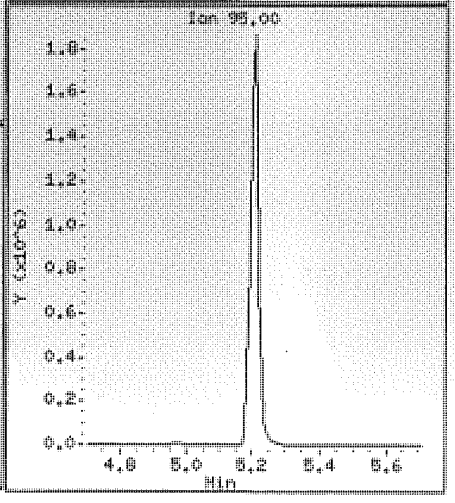


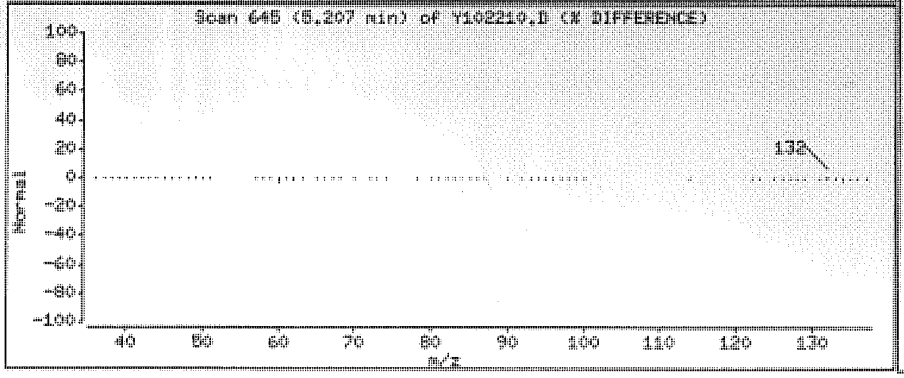












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102211.D Page 1
Report Date: 12-Nov-2021 11:33

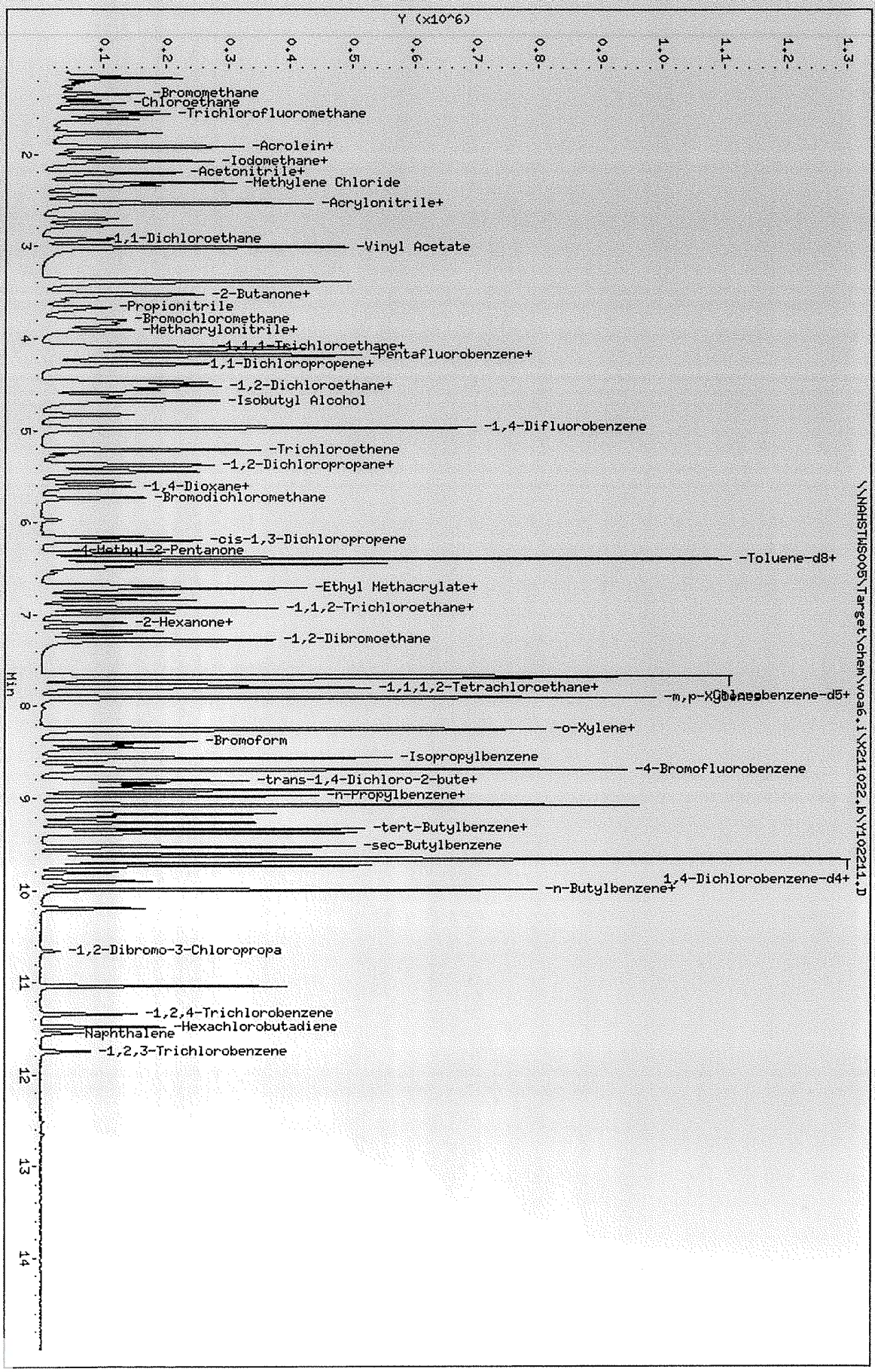
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102211.D
Lab Smp Id: HS21101144-10MS Client Smp ID: HS21101144-10MS
Inj Date : 23-OCT-2021 01:27
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-10MS;HS21101144-10MS;3;;MS
Misc Info : HS18090001;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:33 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 40 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	435726	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	199838	46.6478	46.64
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	204687	47.1002	47.10
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	599713	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	542462	50.0000	
$	48 Toluene-d8	98	6.388	6.389	(0.833)	664581	48.2749	48.27
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	242375	51.1887	51.18
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	273265	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	64759	14.1756	14.17
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	61722	15.8800	15.88
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	51687	17.8563	17.85
	17 Methylene Chloride	84	2.306	2.306	(0.551)	67667	16.9881	16.98
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	100974	22.2899	22.28
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	88811	17.6541	17.65
	38 Trichloroethene	130	5.207	5.207	(1.049)	115804	25.5281	25.52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Date : 23-OCT-2021 01:27
Client ID: HS2110144-10MS
Sample Info: HS2110144-10MS;HS2110144-10MS;3;;MS
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
Page 2
Y (x10^6)
Min
\\NAHSTMS005\Target\chem\voa6.i\X211022.b\Y102211.D
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Acrylonitrile+
-1,1-Dichloroethane
-Vinyl Acetate
-2-Butanone+
-Propionitrile
-Bromochloromethane
-Methacrylonitrile+
-1,1,1-Trichloroethane+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-cis-1,3-Dichloropropene
-4-Methyl-2-Pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone+
-1,2-Dibromoethane
-1,1,1,2-Tetrachloroethane+
-m,p-Xylenes
-Chlorobenzene-d5+
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-trans-1,4-Dichloro-2-bute+
-n-Propylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102212.D Page 1
Report Date: 12-Nov-2021 11:34

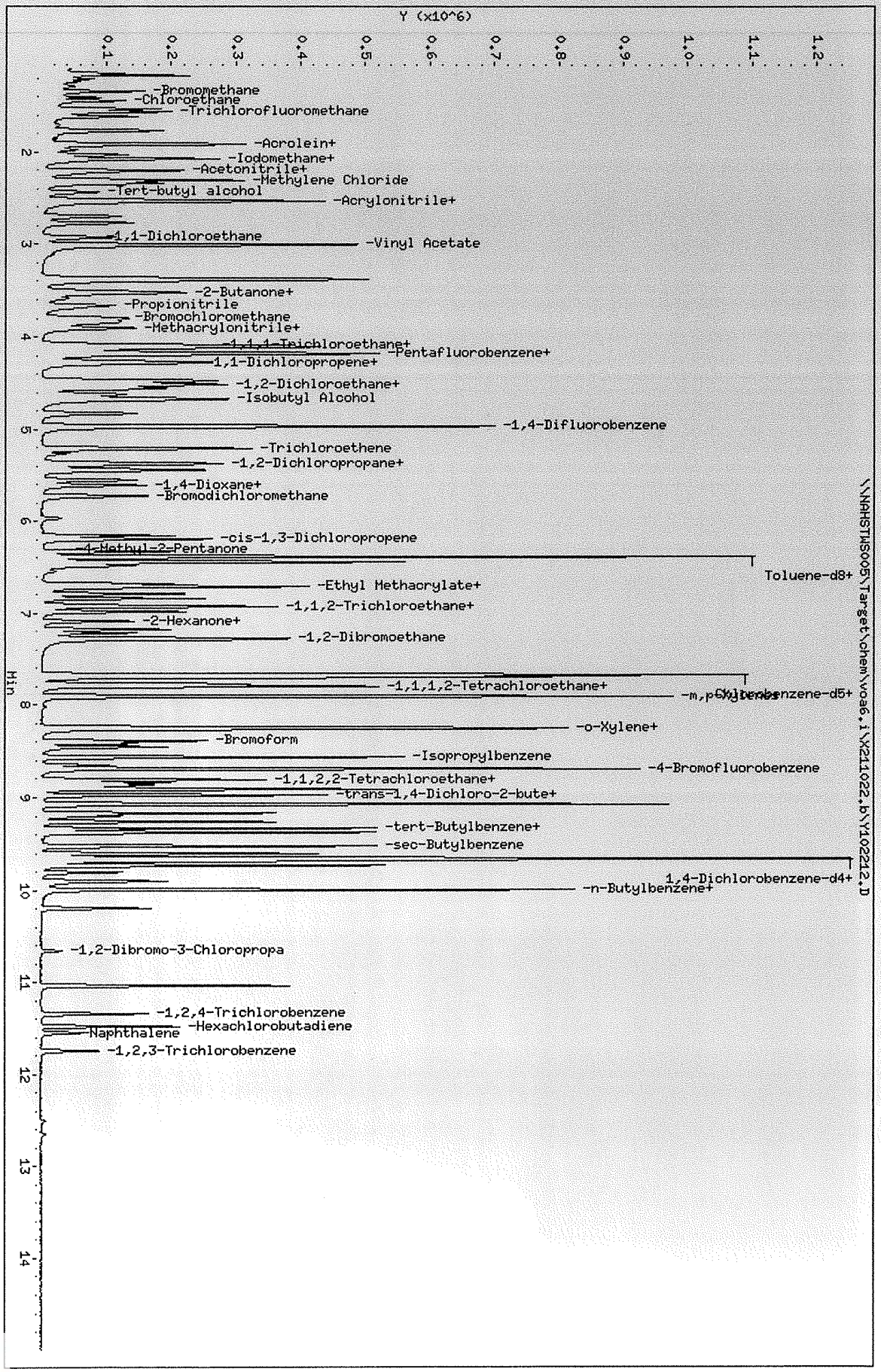
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102212.D
Lab Smp Id: HS21101144-10MSD Client Smp ID: HS21101144-10MSD
Inj Date : 23-OCT-2021 01:48
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-10MSD;HS21101144-10MSD;3;;MSD
Misc Info : HS18090001;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:33 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 40 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	437807	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	199106	46.2464	46.24
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	207562	47.5535	47.55
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	605731	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	542436	50.0000	
$	48 Toluene-d8	98	6.388	6.389	(0.833)	670638	48.7172	48.71
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	239794	50.6315	50.63
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	267399	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	65542	14.2788	14.27
	11 1,1-Dichloroethene	96	1.919	1.912	(0.459)	62052	15.8890	15.88
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	54112	18.6949	18.69
	17 Methylene Chloride	84	2.305	2.306	(0.551)	69041	17.2702	17.27
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	83386	18.3199	18.31
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	91446	17.9973	17.99
	38 Trichloroethene	130	5.206	5.207	(1.049)	110244	24.0610	24.06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Instrument: voa6.i
Sample Info: HS21101144-10HSD;HS21101144-10HSD;3;;HSD
Operator: PC
Purge Volume: 5.0
Column diameter: 0.18
Column phase: DB624
Page 2
\\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102212.D
Y (x10^6)
Min
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-1,1-Dichloroethane
-Vinyl Acetate
-2-Butanone+
-Propionitrile
-Bromochloromethane
-Methacrylonitrile+
-1,1,1-Trichloroethane+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-cis-1,3-Dichloropropene
4-Methyl-2-Pentanone
Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone+
-1,2-Dibromoethane
-1,1,1,2-Tetrachloroethane+
-m,p-Xylene+
Ethylbenzene-d5+
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
-tert-Butylbenzene+
-sec-Butylbenzene
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
Naphthalene
-Hexachlorobutadiene
-1,2,3-Trichlorobenzene

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Report Date: 12-Nov-2021 11:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102213.D
Lab Smp Id: HS21100785-05 Client Smp ID: HS21100785-05
Inj Date : 23-OCT-2021 02:09
Operator : PC Inst ID: voa6.i
Smp Info : HS21100785-05;HS21100785-05;;;
Misc Info : HS18090001;WATER;0;100;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:10 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 41
Dil Factor: 100.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

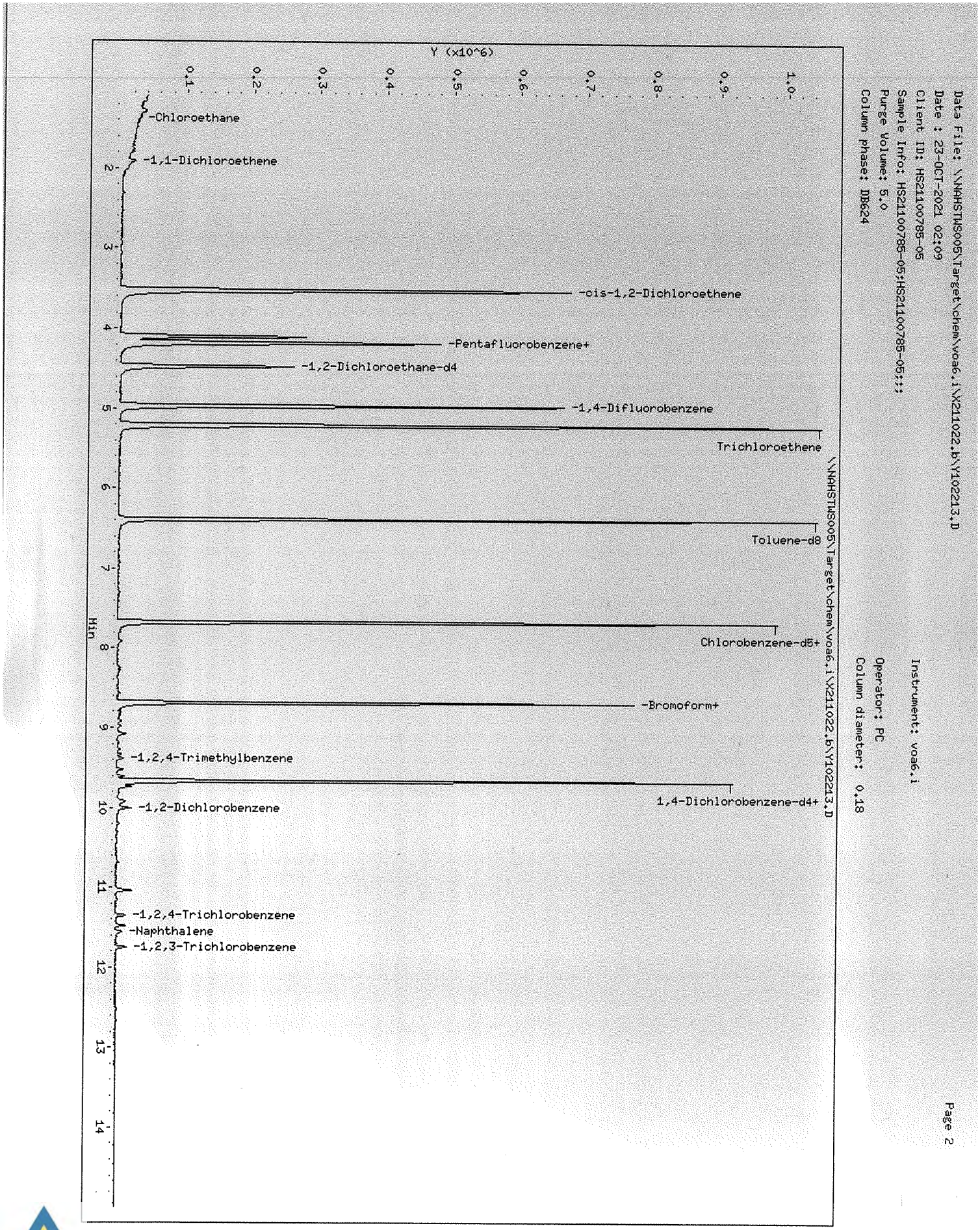
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	100.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1	Pentafluorobenzene	168	4.182	4.182	(1.000)	411019	50.0000	
$	30	Dibromofluoromethane	113	4.096	4.103	(0.979)	194934	48.2772	48.27
$	35	1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	199458	48.7231	48.72
*	36	1,4-Difluorobenzene	114	4.970	4.962	(1.000)	576781	50.0000	
*	47	Chlorobenzene-d5	117	7.670	7.670	(1.000)	510823	50.0000	
$	48	Toluene-d8	98	6.388	6.388	(0.833)	651545	50.2593	50.25
$	69	4-Bromofluorobenzene	95	8.688	8.688	(1.133)	215488	48.2526	48.25
*	70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	233122	50.0000	
	11	1,1-Dichloroethene	96	1.911	1.911	(0.457)	2404	0.65623	65.62(a)
	27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	370308	86.6590	8665.89
	38	Trichloroethene	130	5.206	5.206	(1.048)	352856	80.8769	8087.68

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).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Date : 23-OCT-2021 02:09
Client ID: HS21100785-05
Sample Info: HS21100785-05;HS21100785-05;;;
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
Page 2
Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
-Chloroethane
-1,1-Dichloroethene
-cis-1,2-Dichloroethene
-Pentafluorobenzene+
-1,2-Dichloroethane-d4
-1,4-Difluorobenzene
Trichloroethene
Toluene-d8
Chlorobenzene-d5+
-Bromoform+
-1,2,4-Trimethylbenzene
1,4-Dichlorobenzene-d4+
-1,2-Dichlorobenzene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
\\NAHSTWS005\Target\chem\voa6.i\Y211022.b\Y102213.D

Data File: \\NAHSTMS006\Target\chem\voa6.i\X211022.b\Y102213.D Page 3

Date : 23-OCT-2021 02:09

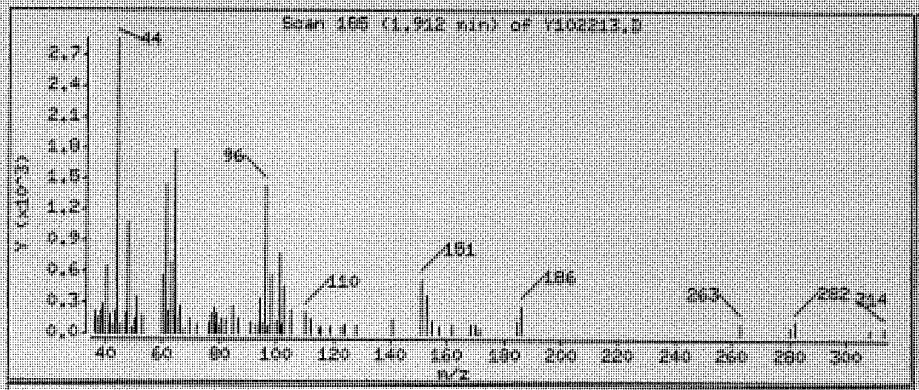
Client ID: HS21100785-05 Instrument: voa6.i

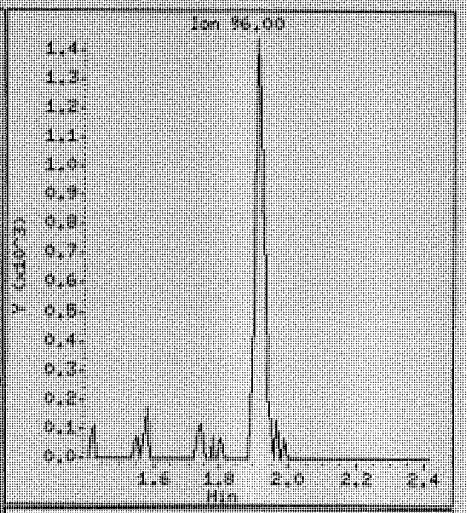
Sample Info: HS21100785-05;HS21100785-05;;;

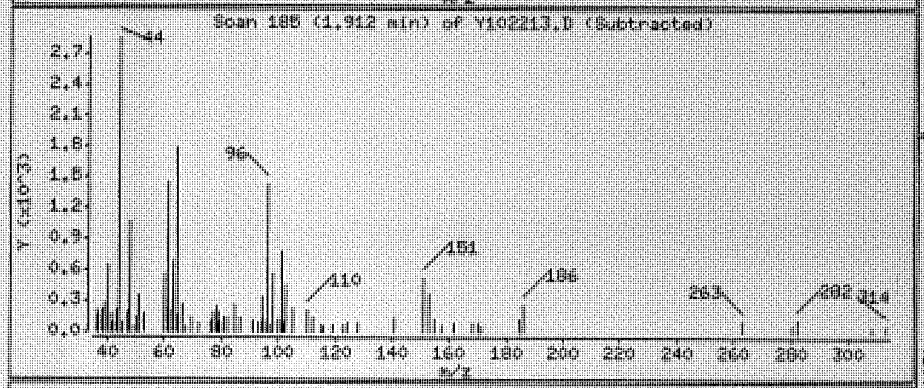
Purge Volume: 5.0 Operator: PC

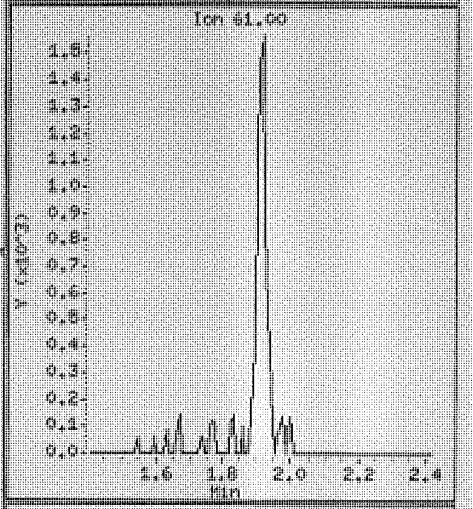
Column phase: DB624 Column diameter: 0.18

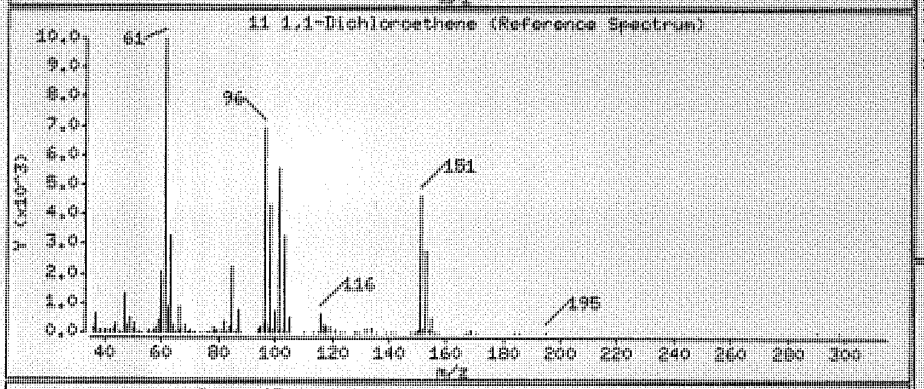
11 1,1-Dichloroethene Concentration: 68.62 ug/l

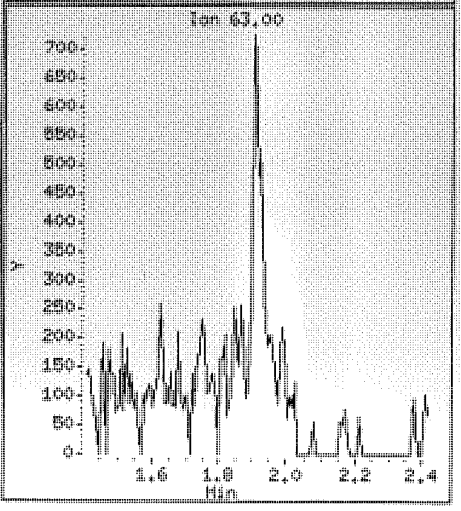


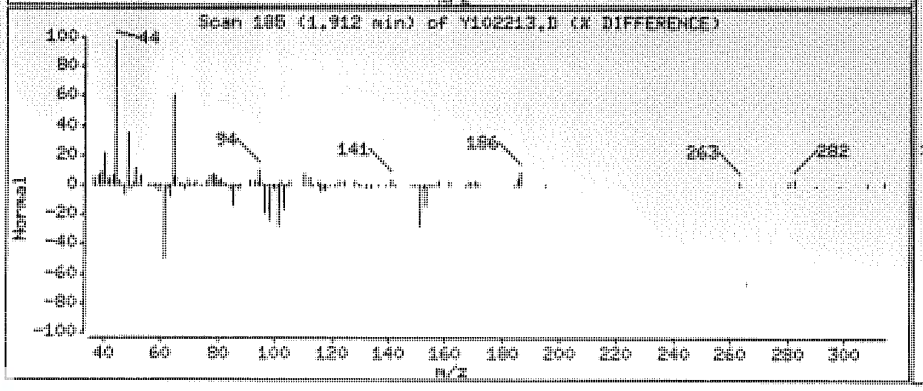












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Page 4

Date : 23-OCT-2021 02:09

Client ID: HS2110078S-05

Instrument: voa6.i

Sample Info: HS2110078S-05;HS2110078S-05;;;

Purge Volume: 5.0

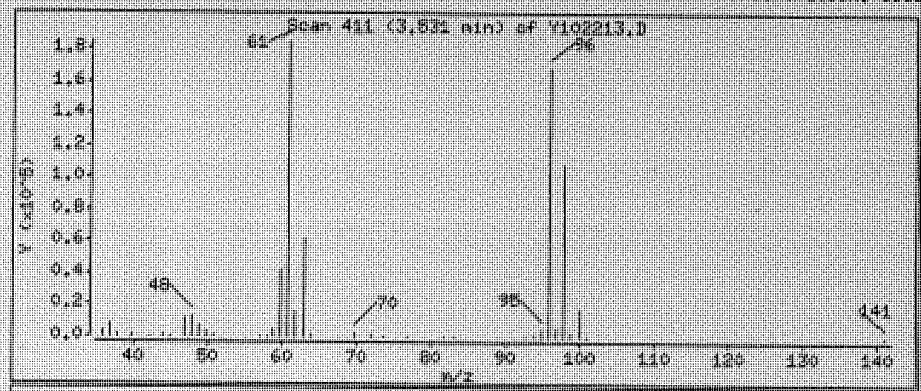
Operator: PC

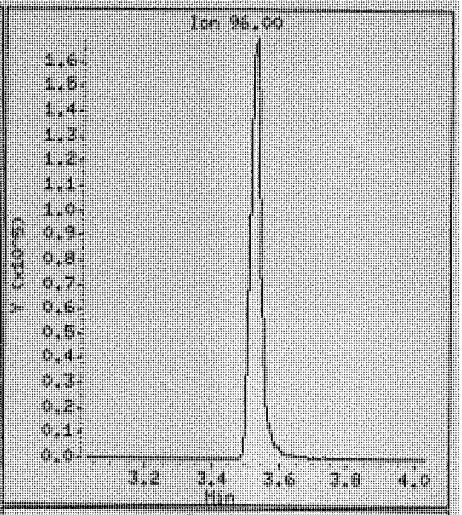
Column phase: DB624

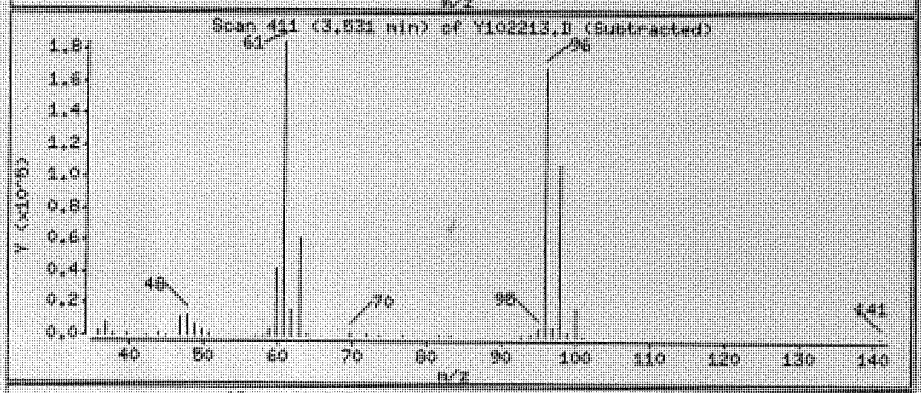
Column diameter: 0.18

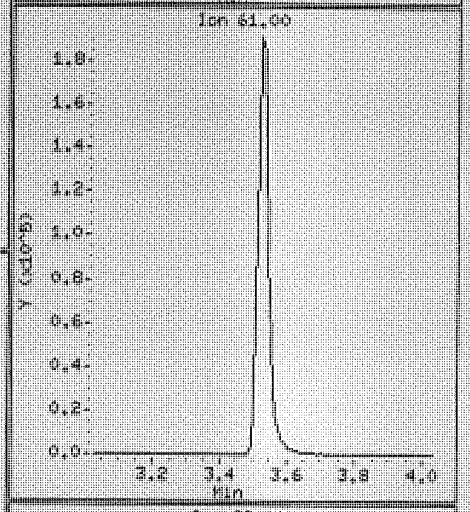
27 cis-1,2-Dichloroethene

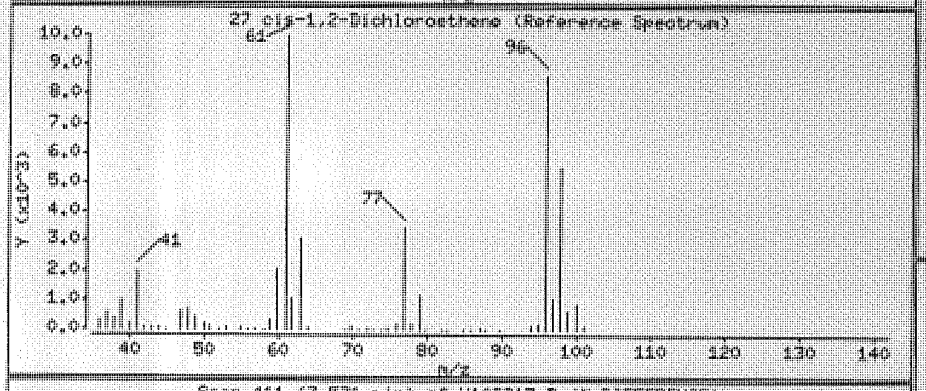
Concentration: 8665.89 ug/l

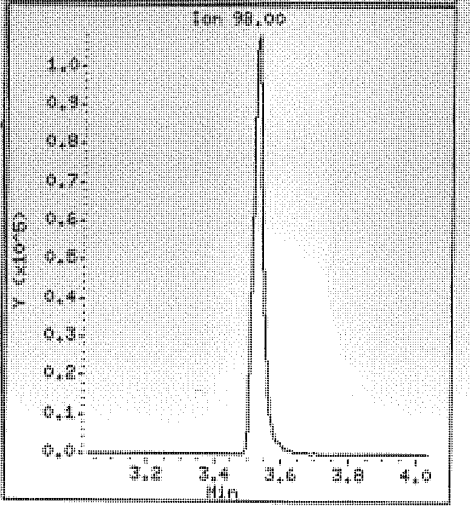


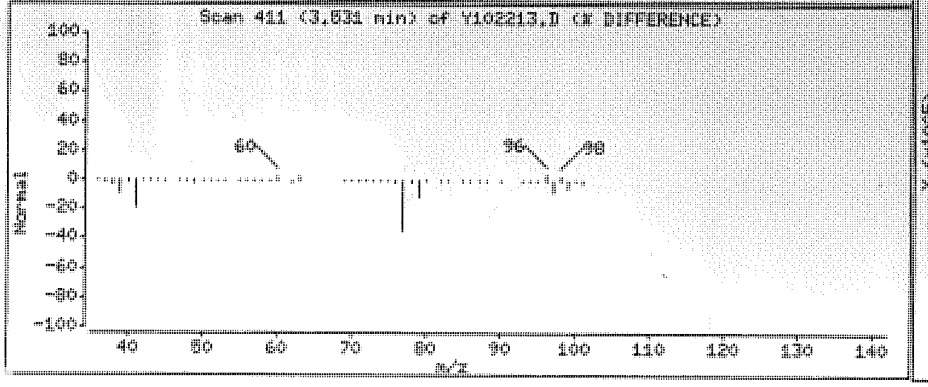












Data File: \\NAHSTWS008\Target\chem\voa6.i\%211022.b\Y102213.D Page 5

Date : 23-OCT-2021 02:09

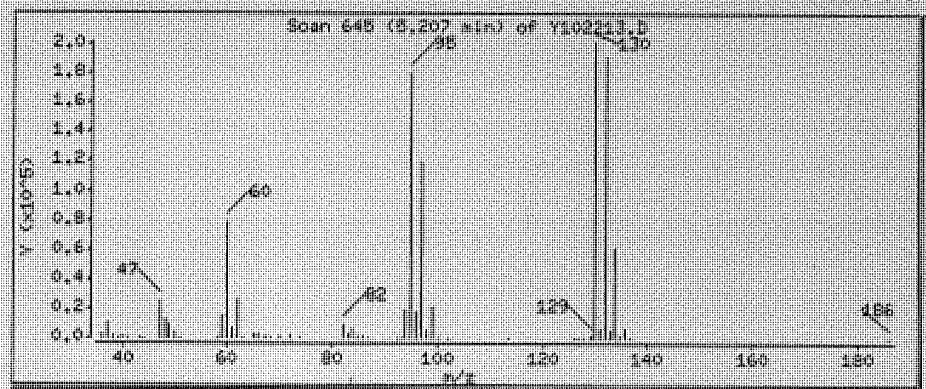
Client ID: HS2110078S-05 Instrument: voa6.i

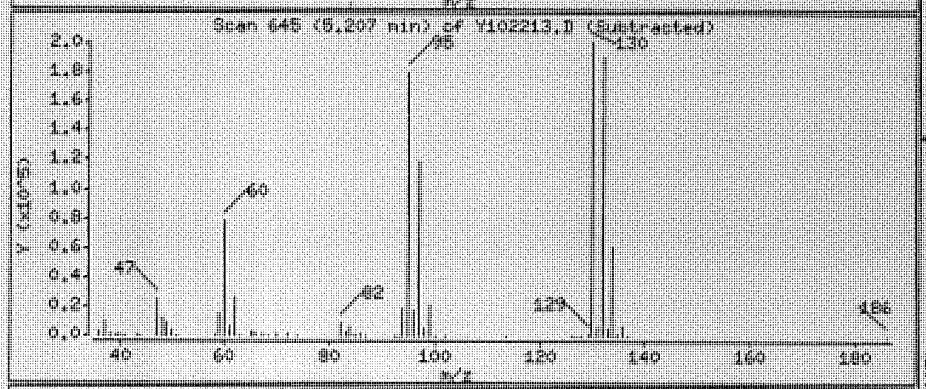
Sample Info: HS2110078S-05;HS2110078S-05;;;

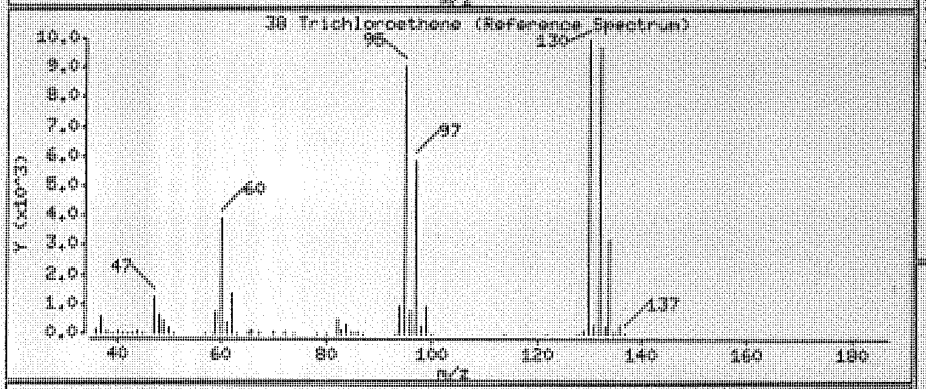
Purge Volume: 0.0 Operator: PC

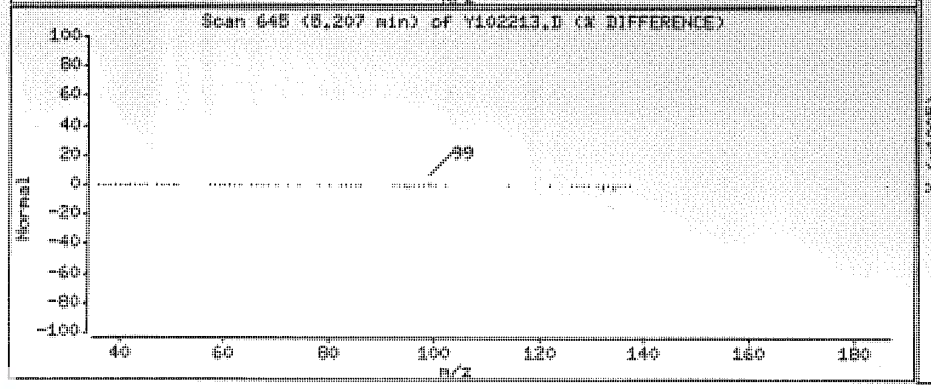
Column phase: DB624 Column diameter: 0.18

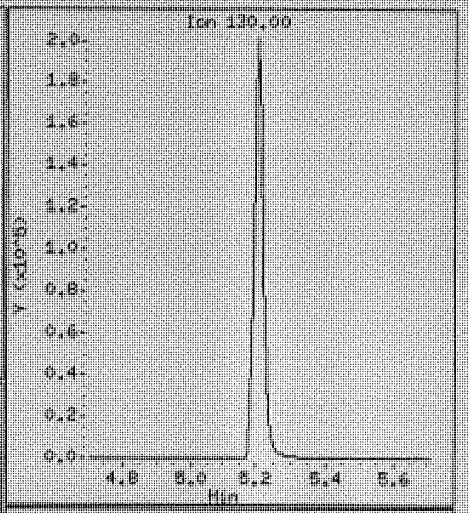
38 Trichloroethene Concentration: 5067.68 ug/l

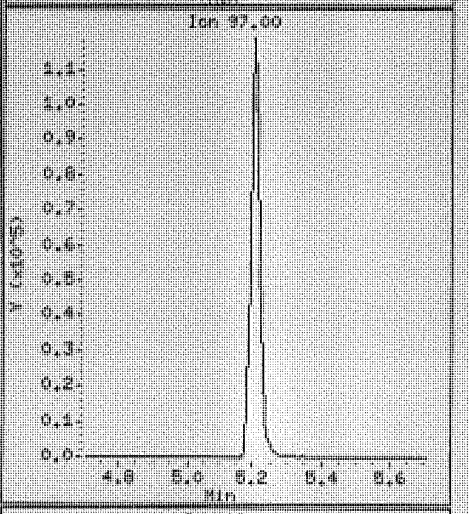


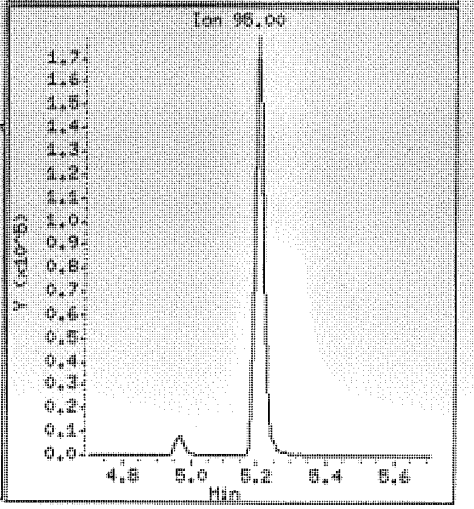












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102230.D Page 1
Report Date: 12-Nov-2021 11:34

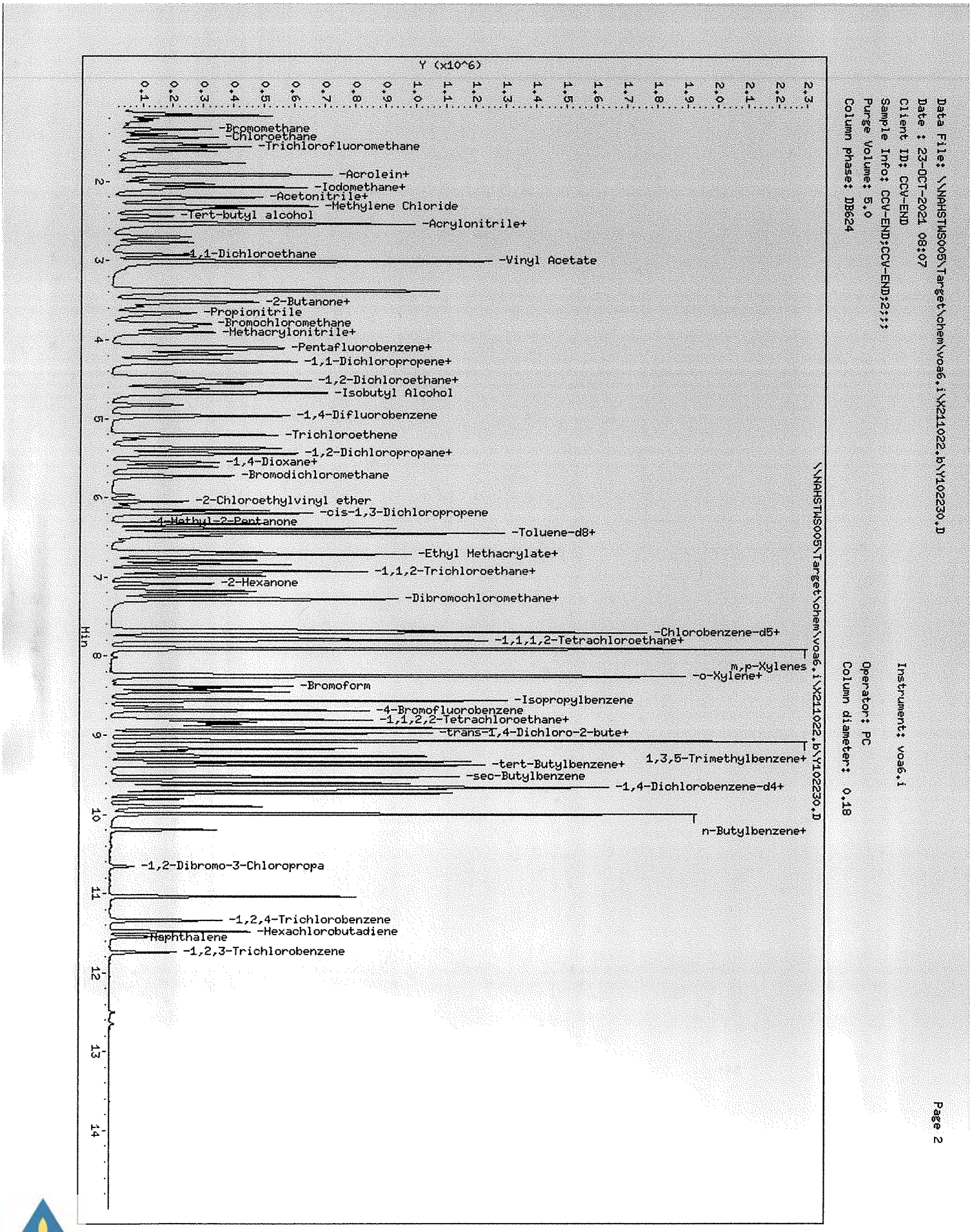
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102230.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 23-OCT-2021 08:07
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 11:34 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 58 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	325766	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	174413	50.0000	54.64
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	176227	50.0000	54.54
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	500007	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	472607	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	560076	50.0000	46.69
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	212658	50.0000	51.56
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	243698	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	163470	50.0000	47.86
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	145584	50.0000	50.09
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	127897	50.0000	50.71
	17 Methylene Chloride	84	2.305	2.305	(0.551)	160868	50.0000	56.78
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	181966	50.0000	53.72
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	210044	50.0000	50.07
	38 Trichloroethene	130	5.206	5.206	(1.049)	187474	50.0000	49.56


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102230.D
Date : 23-OCT-2021 08:07
Client ID: CCV-END
Instrument: voa6.i
Sample Info: CCV-END;CCV-END;2;;;
Operator: PC
Purge Volume: 5.0
Column diameter: 0.18
Column phase: DB624
Page 2
Y (x10^6)
Min
\\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102230.D
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
1,1-Dichloroethane
-Vinyl Acetate
-2-Butanone+
-Propionitrile
-Bromochloromethane
-Methacrylonitrile+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
4-Methyl-2-Pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone
-Dibromochloromethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
m,p-Xylenes
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-1,4-Dichlorobenzene-d4+
n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
Naphthalene
-1,2,3-Trichlorobenzene

HS21100785 RSK 175 Raw Data

ALS WO# HS21100785

FID04 -Logbook

Batch: 26730
Date: 01-24-2017
Method: RSK 175 ICAL
Comments: Target Sequence 170124

Analyst: Nosa Izekor
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
1	ICAL1	CALIB_1	01-24-2017 09:06 am	1.00	0.00 mL	0.00 mL	001.D	Liquid	Y	N
2	ICAL2	CALIB_2	01-24-2017 09:30 am	1.00	0.00 mL	0.00 mL	002.D	Liquid	Y	N
3	ICAL3	CALIB_3	01-24-2017 09:59 am	1.00	0.00 mL	0.00 mL	003.D	Liquid	Y	N
4	ICAL4	CALIB_4	01-24-2017 10:15 am	1.00	0.00 mL	0.00 mL	004.D	Liquid	Y	N
5	ICAL5	CALIB_5	01-24-2017 10:39 am	1.00	0.00 mL	0.00 mL	005.D	Liquid	Y	N
6	ICAL6	CALIB_6	01-24-2017 10:57 am	1.00	0.00 mL	0.00 mL	006.D	Liquid	Y	N
7	ICAL7	CALIB_7	01-24-2017 11:13 am	1.00	0.00 mL	0.00 mL	007.D	Liquid	Y	N
8	ICV	METHSPIKI	01-24-2017 12:05 pm	1.00	0.00 mL	0.00 mL	008.D	Liquid	Y	N
9	LCS-170124	LCS	01-24-2017 12:24 pm	1.00	0.00 mL	0.00 mL	009.D	Liquid	Y	N
10	LCSD-170124	LCSD	01-24-2017 12:40 pm	1.00	0.00 mL	0.00 mL	010.D	Liquid	Y	N
11	MBLK-170124	MBLK	01-24-2017 12:57 pm	1.00	0.00 mL	0.00 mL	011.D	Liquid	Y	N
12	HS17010778-01	SAMP	01-24-2017 01:14 pm	1.00	0.00 mL	0.00 mL	012.D	Liquid	Y	N
13	HS17010779-01	SAMP	01-24-2017 01:31 pm	1.00	0.00 mL	0.00 mL	013.D	Liquid	Y	N
14	HS17010779-01DUP	SAMP	01-24-2017 01:47 pm	1.00	0.00 mL	0.00 mL	014.D	Liquid	Y	N
15	CCV	CCV	01-24-2017 02:01 pm	1.00	0.00 mL	0.00 mL	015.D	Liquid	Y	N

Chemical	Value
ICAL STD ID	30010700217
ICV STD ID	30010700610

FORM 3
WATER GASES METHOD SPIKE RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Matrix Spike - ENG SC Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
Ethene	16.800	19.090	114	75-125
Methane	9.647	9.597	99	75-125
Ethane	18.043	19.657	109	75-125
Propane	26.463	27.238	103	75-125
N-Butane	34.955	36.010	103	75-125

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

_____

FORM III GASES

FORM 6
GASES INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Instrument ID: FID-4 Calibration Date(s): 01/24/17 01/24/17

Column: RTX-PLOT ID: 0.53 (mm) Calibration Time(s): 0906 1113

LAB FILE ID: RF10: 001 RF25: 002 RF50: 003
RF100: 004 RF250: 005 RF500: 006

COMPOUND	RF10	RF25	RF50	RF100	RF250	RF500
Ethene	535.608	567.359	564.985	516.024	665.282	425.678
Methane	968.912	978.238	1019.699	880.798	960.713	930.704
Ethane	602.493	670.177	658.908	597.201	808.513	817.630
Propane	500	1279	2602	4785	18294	38286
N-Butane	438	936	2034	3864	18446	42817

FORM VI GASES

FORM 6
GASES INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS2110078

Instrument ID: FID-4 Calibration Date(s): 01/24/17 01/24/17

Column: RTX-PLOT ID: 0.53 (mm) Calibration Time(s): 0906 1113

RF1000: 007

COMPOUND	RF1000	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MA
Ethene	828.858	AVRG		586.256273		21.932	
Methane	1081.580	AVRG		974.377787		6.550	
Ethane	999.335	AVRG		736.322546		19.885	
Propane	96509	2ORDR	0.97987006	1.529e-003	-4.58e-009	0.9991365	0
N-Butane	114164	2ORDR	2.46870151	1.834e-003	-5.54e-009	0.9980766	0

FORM VI GASES

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\001.D
Lab Smp Id: ICAL1 Client Smp ID: ICAL1
Inj Date : 24-JAN-2017 09:06
Operator : JA Inst ID: FID-4.i
Smp Info : ICAL1;ICAL1;;;
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 09:06 Cal File: 001.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.043	1.030	0.013	374	0.38600	0.383(a)
2 Ethene	1.553	1.556	-0.003	361	0.67400	0.615(a)
3 Ethane	1.716	1.723	-0.007	435	0.72200	0.590(a)
4 Propane	4.073	4.113	-0.040	500	1.05900	1.743
5 N-Butane	7.640	7.690	-0.050	438	1.39800	3.271

QC Flag Legend

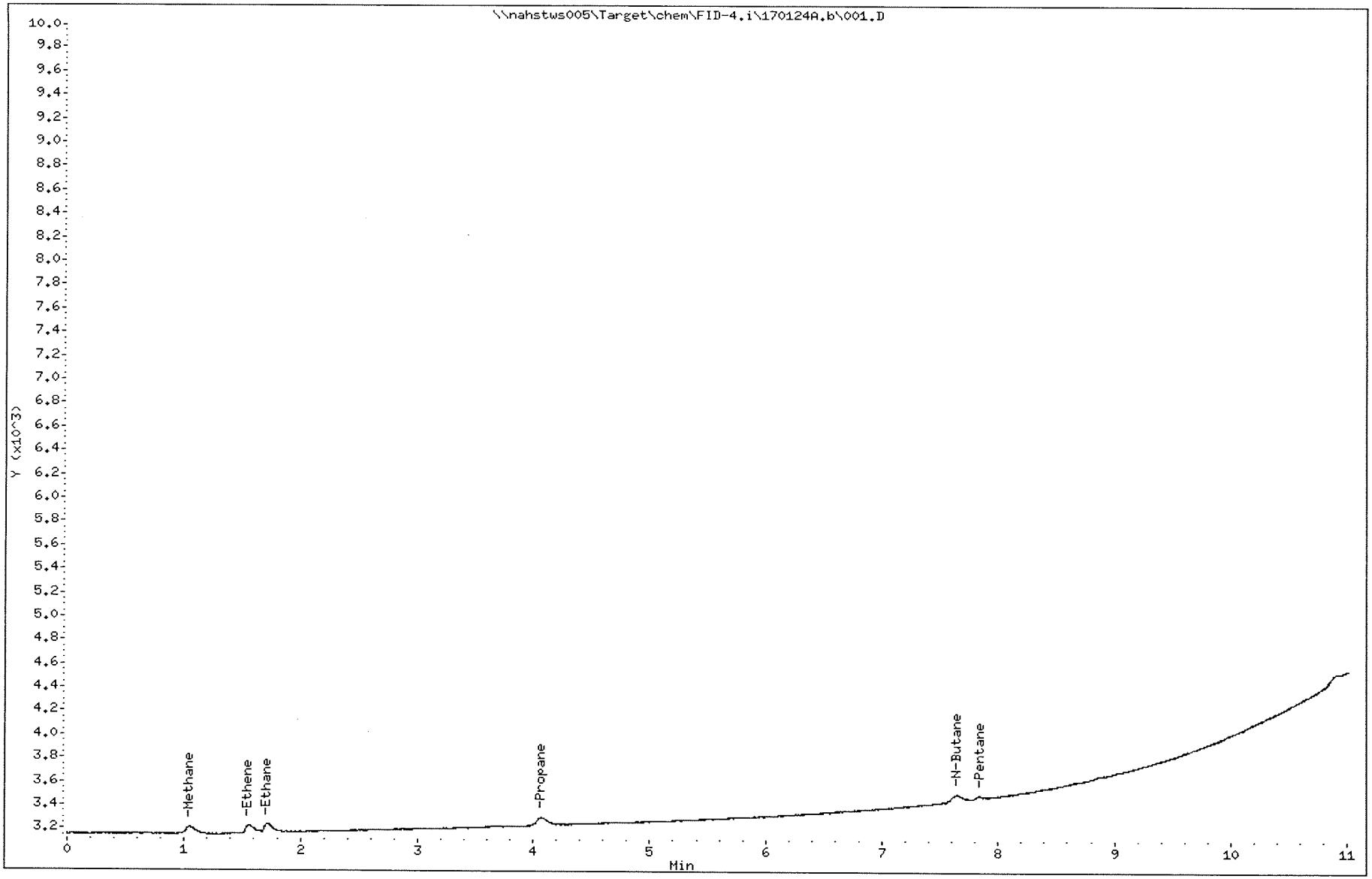
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\001.D
Date : 24-JAN-2017 09:06
Client ID: ICAL1
Sample Info: ICAL1;ICAL1;;;

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: JA
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\002.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\002.D
Lab Smp Id: ICAL2 Client Smp ID: ICAL2
Inj Date : 24-JAN-2017 09:30
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL2;ICAL2;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 09:59 Cal File: 003.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

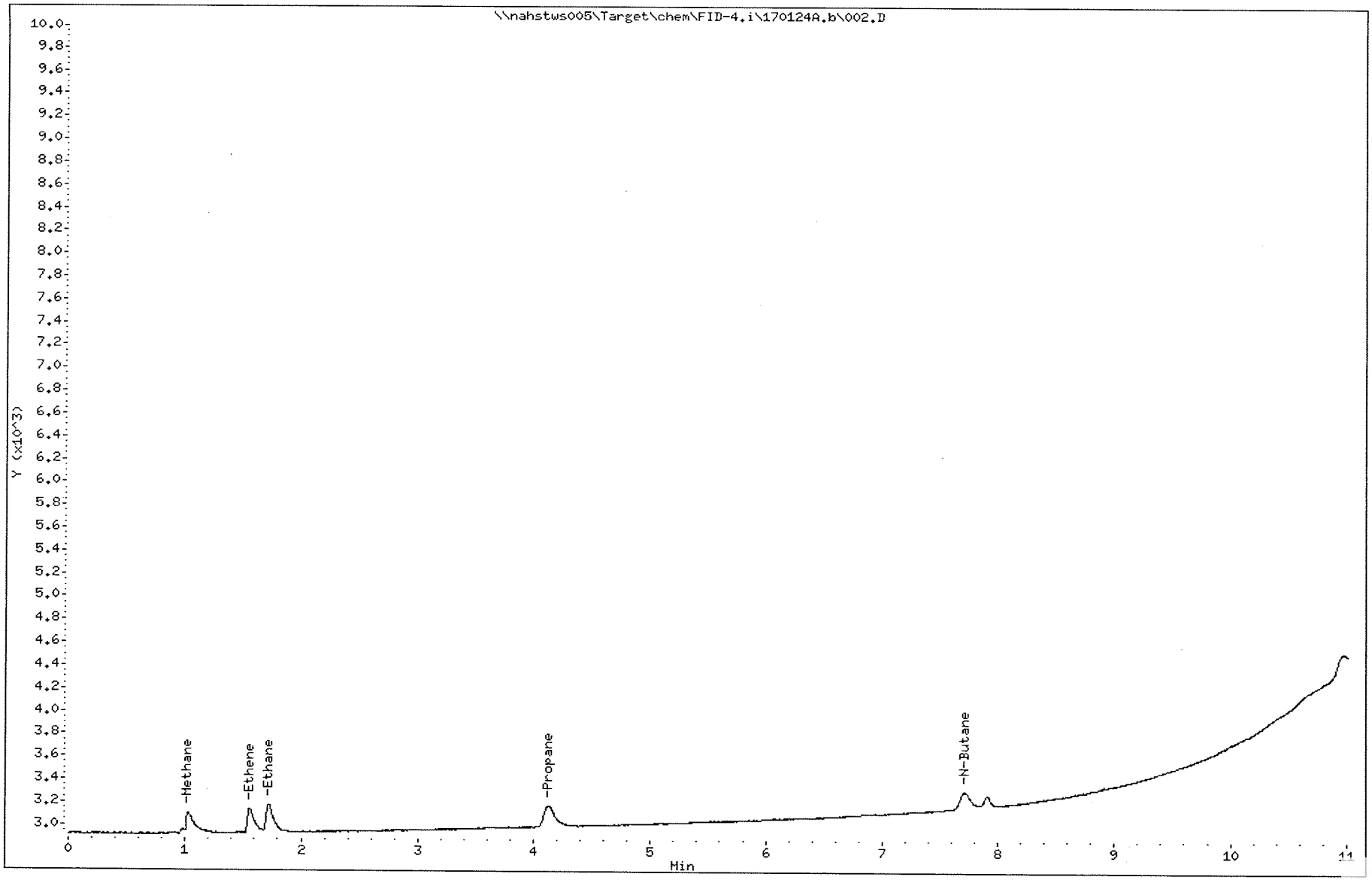
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.023	1.030	-0.007	944	0.96500	0.968
2 Ethene	1.560	1.556	0.004	956	1.68500	1.630
3 Ethane	1.723	1.723	0.000	1209	1.80400	1.641
4 Propane	4.123	4.113	0.010	1279	2.64600	2.927
5 N-Butane	7.716	7.690	0.026	936	3.49600	4.180

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\002.D
Date : 24-JAN-2017 09:30
Client ID: ICAL2
Sample Info: ICAL2;ICAL2;;;

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: MA
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\003.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\003.D
Lab Smp Id: ICAL3 Client Smp ID: ICAL3
Inj Date : 24-JAN-2017 09:59
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL3;ICAL3;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

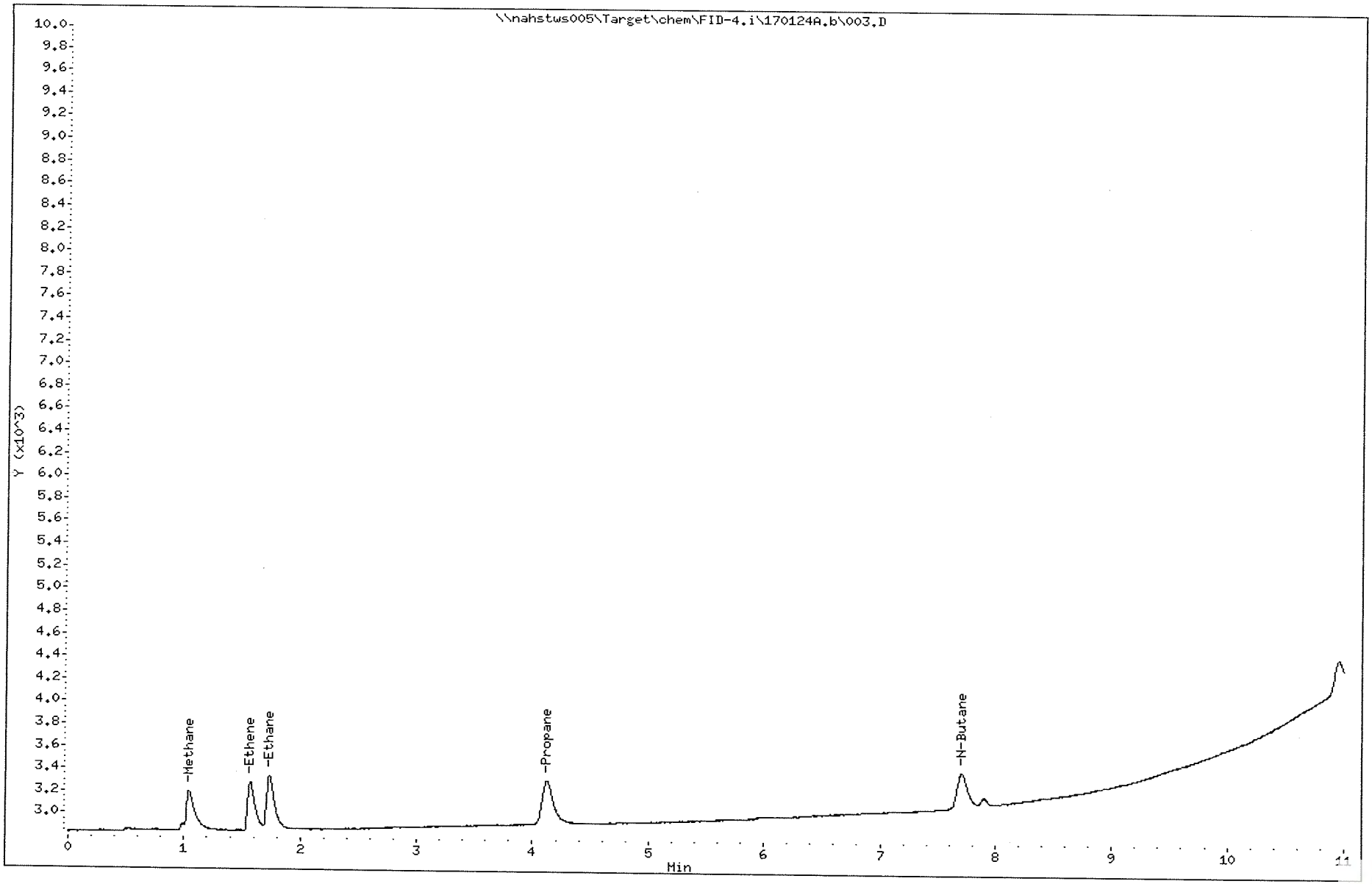
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	1.043	1.030	0.013	1967	1.92900	2.018
2 Ethene	1.570	1.556	0.014	1904	3.37000	3.247
3 Ethane	1.736	1.723	0.013	2378	3.60900	3.229
4 Propane	4.123	4.113	0.010	2602	5.29300	4.926
5 N-Butane	7.703	7.690	0.013	2034	6.99100	6.176

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\003.D
Date : 24-JAN-2017 09:59
Client ID: ICAL3
Sample Info: ICAL3;ICAL3;;;

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: MA
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\004.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\004.D
Lab Smp Id: ICAL4 Client Smp ID: ICAL4
Inj Date : 24-JAN-2017 10:15
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL4;ICAL4;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 09:30 Cal File: 002.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.033	1.030	0.003	3399	3.85900	3.488
2 Ethene	1.563	1.556	0.007	3478	6.74000	5.932
3 Ethane	1.726	1.723	0.003	4310	7.21700	5.853
4 Propane	4.120	4.113	0.007	4785	10.5850	8.190
5 N-Butane	7.703	7.690	0.013	3864	13.9820	9.473(M)

QC Flag Legend

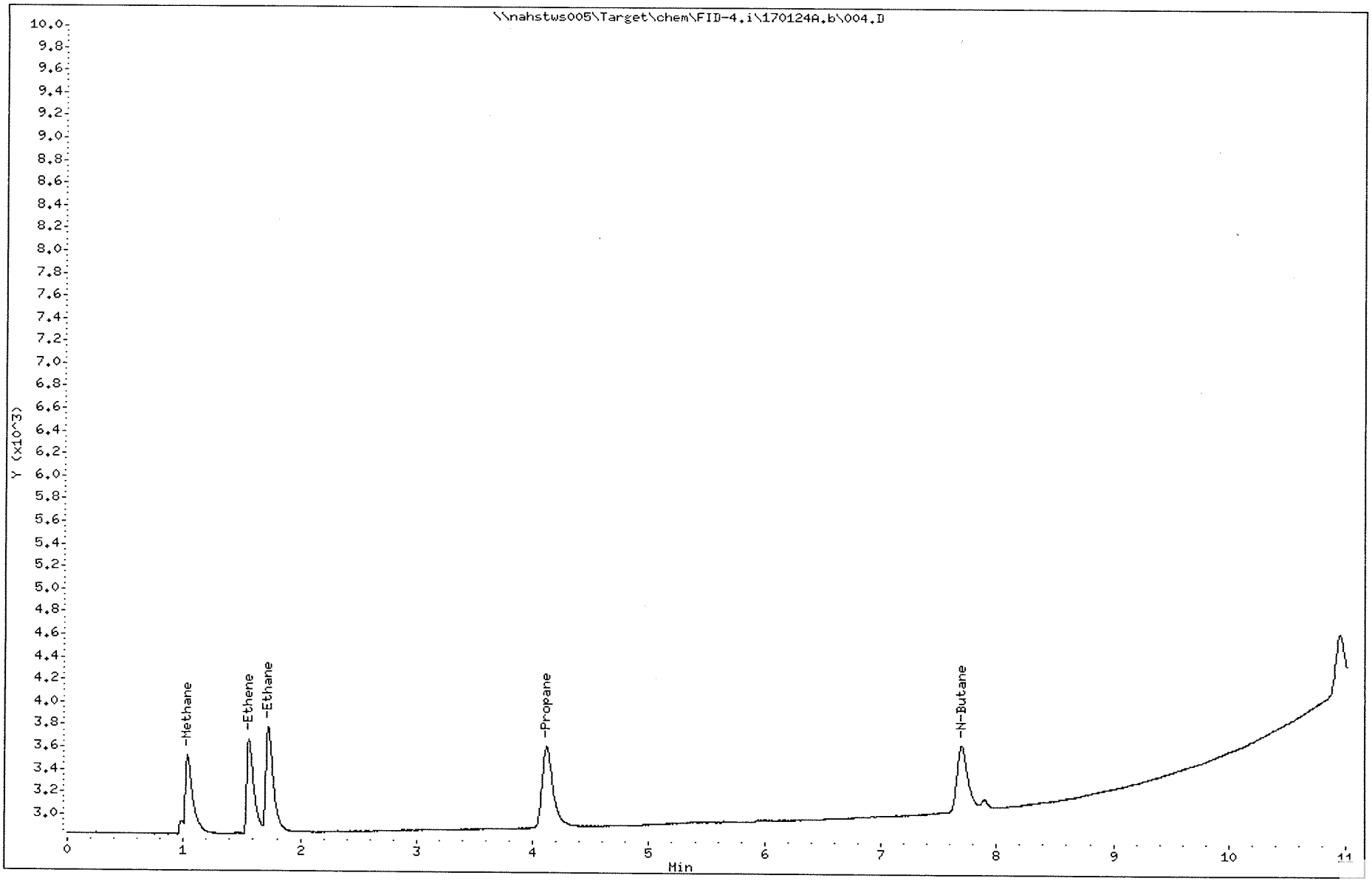
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\004.D
Date : 24-JAN-2017 10:15
Client ID: ICAL4
Sample Info: ICAL4;ICAL4;;;

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: MA
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\005.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\005.D
Lab Smp Id: ICAL5 Client Smp ID: ICAL5
Inj Date : 24-JAN-2017 10:39
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL5;ICAL5;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:39 Cal File: 005.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.043	1.030	0.013	9268	9.64700	9.511
2 Ethene	1.570	1.556	0.014	11210	16.8500	19.121
3 Ethane	1.733	1.723	0.010	14588	18.0430	19.811
4 Propane	4.120	4.113	0.007	18294	26.4630	27.415
5 N-Butane	7.700	7.690	0.010	18446	34.9550	34.419(M)

QC Flag Legend

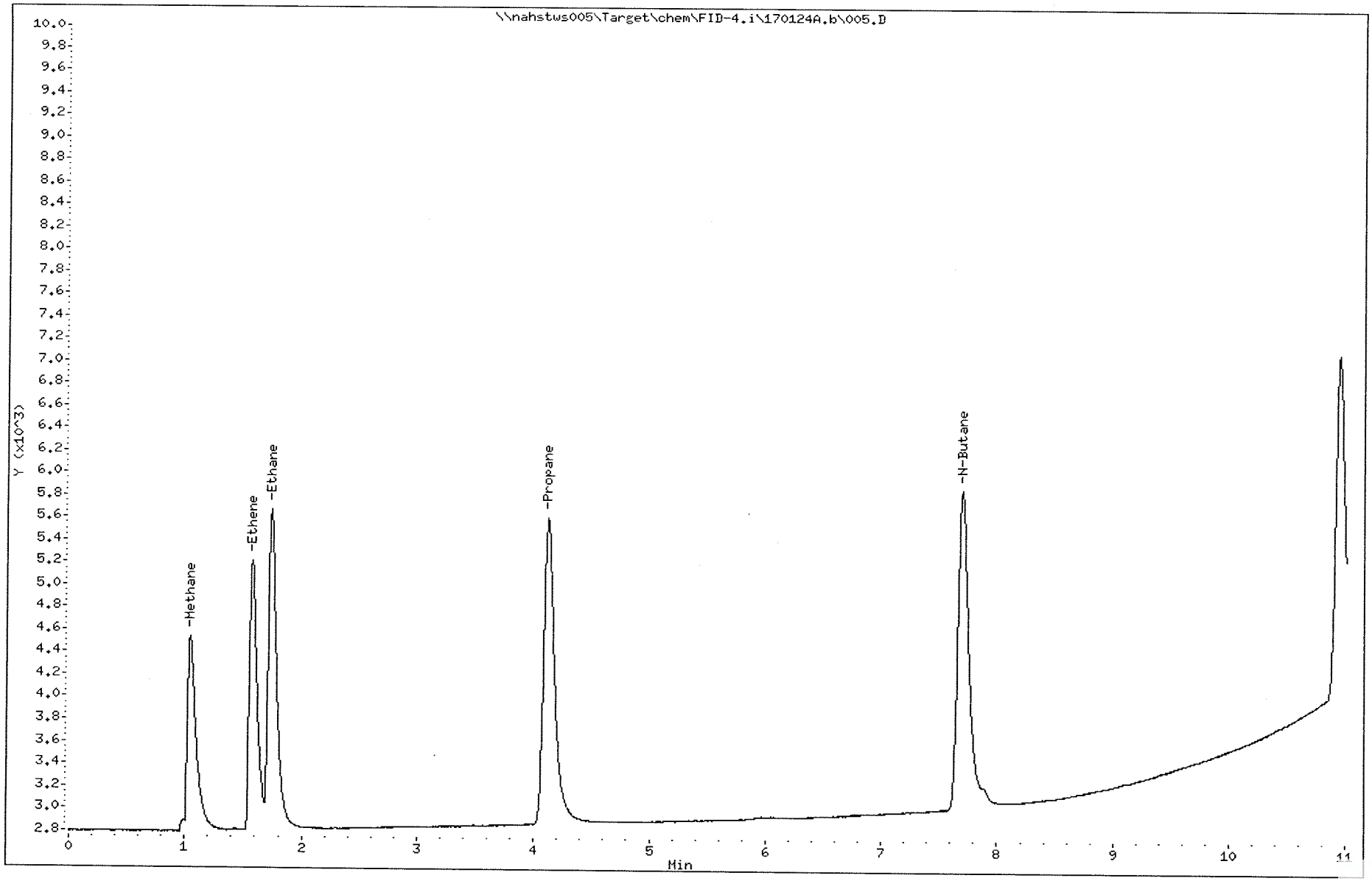
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\005.D
Date : 24-JAN-2017 10:39
Client ID: ICAL5
Sample Info: ICAL5;ICAL5;;;

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: MA
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

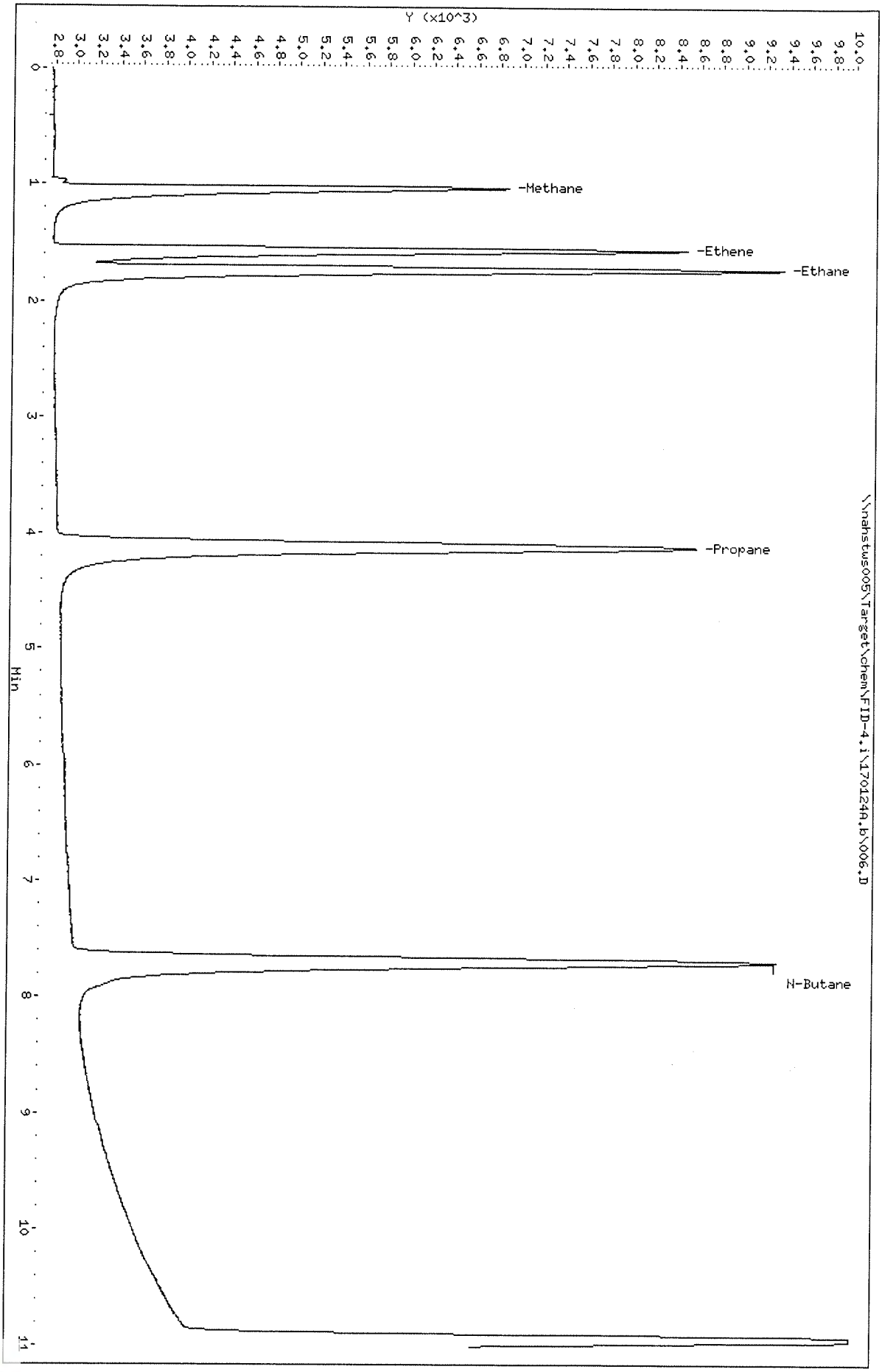
Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\006.D
Lab Smp Id: ICAL6 Client Smp ID: ICAL6
Inj Date : 24-JAN-2017 10:57
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL6;ICAL6;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:39 Cal File: 005.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.023	1.030	-0.007	17957	19.2940	18.429
2 Ethene	1.550	1.556	-0.006	22910	53.8200	39.078
3 Ethane	1.716	1.723	-0.007	29505	36.0860	40.070
4 Propane	4.110	4.113	-0.003	38286	52.9260	52.796
5 N-Butane	7.696	7.690	0.006	42817	69.9110	70.855

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\006.D
Date : 24-JAN-2017 10:57
Client ID: ICAL6
Sample Info: ICAL6;ICAL6;;;
Column phase: Rtx-PLOT

Instrument: FID-4.i
Operator: HA
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\007.D Page 1
Report Date: 16-Nov-2021 16:06

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\007.D
Lab Smp Id: ICAL7 Client Smp ID: ICAL7
Inj Date : 24-JAN-2017 11:13
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL7;ICAL7;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:57 Cal File: 006.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1 Methane	1.030	1.030	0.000	41736	38.5880	42.833(A)
2 Ethene	1.556	1.556	0.000	55865	67.4000	95.291(A)
3 Ethane	1.723	1.723	0.000	72124	72.1720	97.951(A)
4 Propane	4.113	4.113	0.000	96509	105.852	105.844
5 N-Butane	7.690	7.690	0.000	114164	139.821	139.707

QC Flag Legend

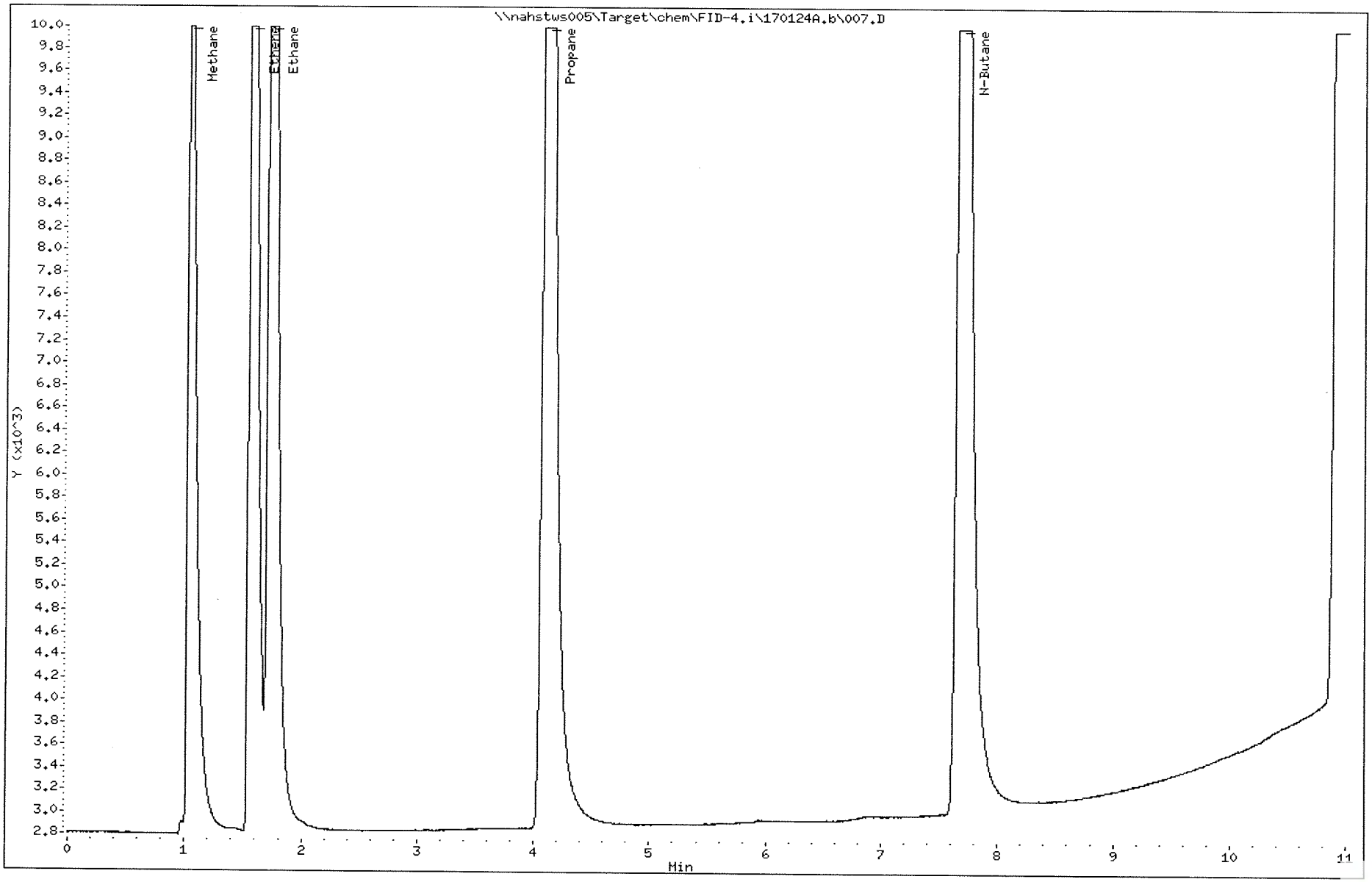
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\007.D
Date : 24-JAN-2017 11:13
Client ID: ICAL7
Sample Info: ICAL7;ICAL7;;;

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: MA
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\008.D Page 1
Report Date: 16-Nov-2021 16:06

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\008.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-JAN-2017 12:05
Operator : MA Inst ID: FID-4.i
Smp Info : ICV;ICV;;;
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
Als bottle: 8 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

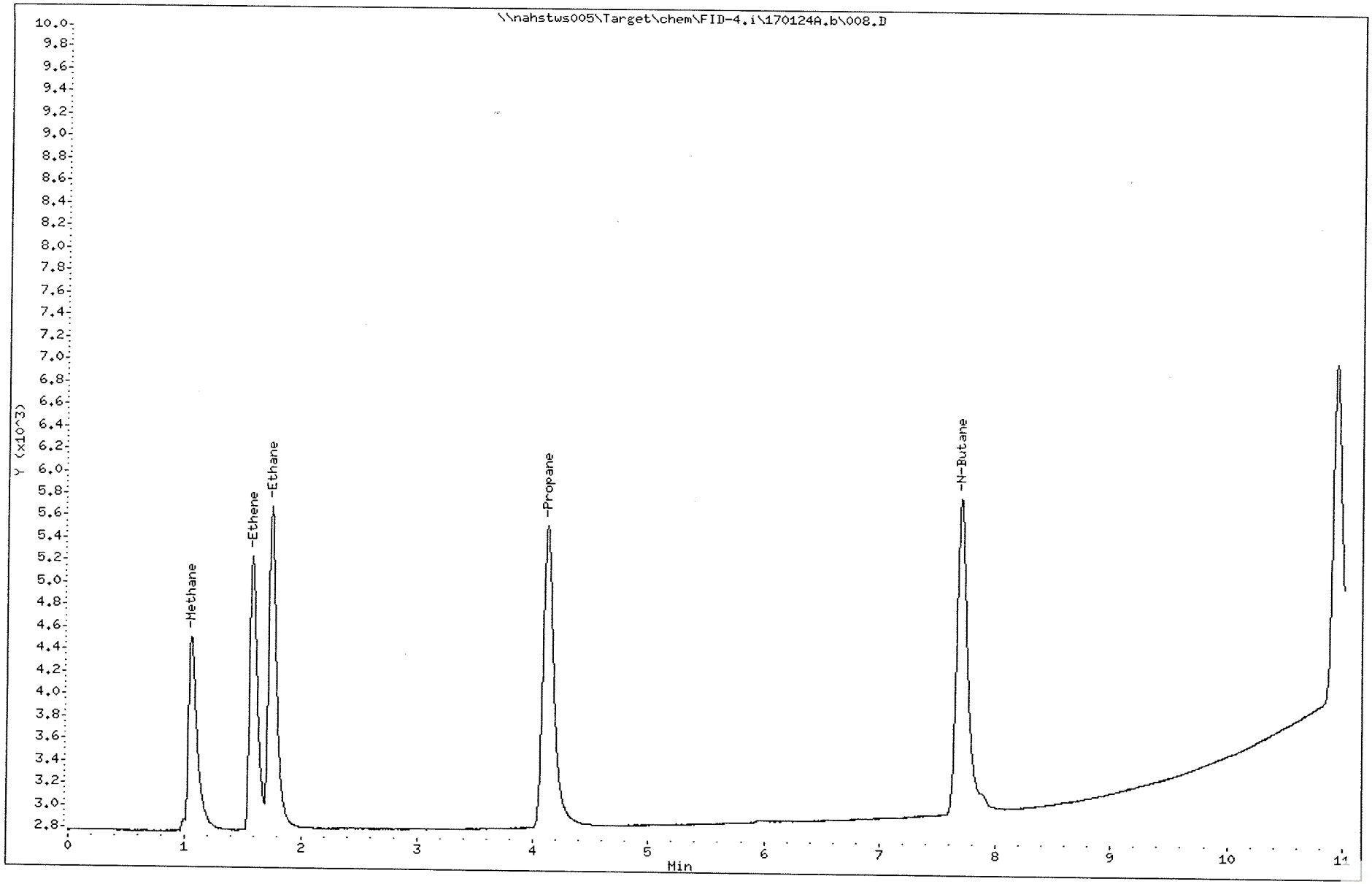
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	1.046	1.030	0.016	9352	9.59792	9.597
2 Ethene	1.573	1.556	0.017	11192	19.0906	19.090
3 Ethane	1.736	1.723	0.013	14474	19.6571	19.657
4 Propane	4.116	4.113	0.003	18164	27.2381	27.238
5 N-Butane	7.696	7.690	0.006	19425	36.0103	36.010

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\008.D
Date : 24-JAN-2017 12:05
Client ID: ICV
Sample Info: ICV;ICV;;;

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: MA
Column diameter: 0.53



FID04 -Logbook

Batch: 46887
Date: 10-22-2021
Method: RSKDOD
Comments:

Analyst: Purvi Lad
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
1	RSK-CCV	CCV	10-22-2021 08:18 am	1.00	0.00 mL	0.00 mL	001.D	Liquid	Y	N
2	MBLK-211022	MBLK	10-22-2021 08:29 am	1.00	0.00 mL	0.00 mL	002.D	Liquid	Y	N
3	LCS-211022	LCS	10-22-2021 08:48 am	1.00	0.00 mL	0.00 mL	003.D	Liquid	Y	N
4	LCSD-211022	LCSD	10-22-2021 09:01 am	1.00	0.00 mL	0.00 mL	004.D	Liquid	Y	N
5	HS21101093-01	SAMP	10-22-2021 09:10 am	1.00	0.00 mL	33.50	005.D	Liquid	Y	>
6	HS21101093-05	SAMP	10-22-2021 09:20 am	1.00	0.00 mL	31.80	006.D	Liquid	Y	>
7	HS21101035-01	SAMP	10-22-2021 09:30 am	1.00	0.00 mL	32.56	007.D	Liquid	Y	>
8	HS21101035-02	SAMP	10-22-2021 09:38 am	1.00	0.00 mL	31.08	008.D	Liquid	Y	>
9	HS21101035-17	SAMP	10-22-2021 09:47 am	1.00	0.00 mL	32.19	009.D	Liquid	Y	>
10	HS21101035-18	SAMP	10-22-2021 09:55 am	1.00	0.00 mL	31.70	010.D	Liquid	Y	>
11	RSK-CCV	CCV	10-22-2021 10:07 am	1.00	0.00 mL	0.00 mL	011.D	Liquid	Y	N
12	HS21101100-04	SAMP	10-22-2021 10:15 am	1.00	0.00 mL	31.53	012.D	Liquid	Y	>
13	HS21101100-05	SAMP	10-22-2021 10:23 am	1.00	0.00 mL	32.63	013.D	Liquid	Y	>
14	HS21101093-05DUP	SAMP	10-22-2021 10:32 am	1.00	0.00 mL	0.00 mL	014.D	Liquid	Y	N
15	HS21100785-01	SAMP	10-22-2021 10:41 am	1.00	0.00 mL	31.34	015.D	Liquid	Y	<
16	HS21100785-02	SAMP	10-22-2021 10:51 am	1.00	0.00 mL	30.79	016.D	Liquid	Y	<
17	HS21100785-03	SAMP	10-22-2021 10:58 am	1.00	0.00 mL	31.78	017.D	Liquid	Y	<
18	HS21100785-04	SAMP	10-22-2021 11:09 am	1.00	0.00 mL	31.80	018.D	Liquid	Y	<
19	HS21100785-05	SAMP	10-22-2021 11:18 am	1.00	0.00 mL	31.11	019.D	Liquid	Y	<
20	HS21101056-02	SAMP	10-22-2021 11:39 am	1.00	0.00 mL	31.96	020.D	Liquid	Y	>
21	HS21101056-03	SAMP	10-22-2021 12:02 pm	1.00	0.00 mL	32.35	021.D	Liquid	Y	>
22	RSK-CCV	CCV	10-22-2021 12:27 pm	1.00	0.00 mL	0.00 mL	022.D	Liquid	Y	N
23	HS21101056-04	SAMP	10-22-2021 12:35 pm	1.00	0.00 mL	32.64	023.D	Liquid	Y	>
24	HS21101093-01	SAMP	10-22-2021 12:48 pm	200.0(	0.00 mL	0.00 mL	024.D	Liquid	Y	N
25	HS21101093-05	SAMP	10-22-2021 12:57 pm	400.0(	0.00 mL	0.00 mL	025.D	Liquid	Y	N
26	HS21101035-01	SAMP	10-22-2021 01:08 pm	10.00	0.00 mL	0.00 mL	026.D	Liquid	Y	N
27	HS21101035-02	SAMP	10-22-2021 01:30 pm	10.00	0.00 mL	0.00 mL	027.D	Liquid	Y	N
28	HS21101035-17	SAMP	10-22-2021 01:39 pm	100.0(	0.00 mL	0.00 mL	028.D	Liquid	Y	N
29	HS21101035-18	SAMP	10-22-2021 01:56 pm	200.0(	0.00 mL	0.00 mL	029.D	Liquid	Y	N
30	HS21100785-03	SAMP	10-22-2021 02:04 pm	25.00	0.00 mL	0.00 mL	030.D	Liquid	Y	N
31	HS21100785-04	SAMP	10-22-2021 02:13 pm	5.00	0.00 mL	0.00 mL	031.D	Liquid	Y	N
32	HS21100785-05	SAMP	10-22-2021 02:26 pm	5.00	0.00 mL	0.00 mL	032.D	Liquid	Y	N
33	RSK-CCV	CCV	10-22-2021 02:34 pm	1.00	0.00 mL	0.00 mL	033.D	Liquid	Y	N
34	HS21101056-04	SAMP	10-22-2021 02:45 pm	10.00	0.00 mL	0.00 mL	034.D	Liquid	Y	N
35	RSK-CCV	CCV	10-22-2021 02:57 pm	1.00	0.00 mL	0.00 mL	035.D	Liquid	Y	N

Chemical	Value
pH Paper	300107065-15
CCV/LC/LSD/MS/MSD	300107063-06

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Instrument ID: FID-4 Calibration Date: 10/22/21 Time: 0818

Lab File ID: 001 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	763.28770	0.01	-6.09	20.00	AVRG
Methane	974.99200	991.29263	0.01	-1.67	20.00	AVRG
Ethene	585.76000	604.39169	0.01	-3.18	20.00	AVRG

FORM VII GASES

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Instrument ID: FID-4 Calibration Date: 10/22/21 Time: 1007

Lab File ID: 011 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	773.43014	0.01	-7.50	20.00	AVRG
Methane	974.99200	935.42034	0.01	4.06	20.00	AVRG
Ethene	585.76000	642.13650	0.01	-9.62	20.00	AVRG

FORM VII GASES

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Instrument ID: FID-4 Calibration Date: 10/22/21 Time: 1227

Lab File ID: 022 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	729.36873	0.01	-1.37	20.00	AVRG
Methane	974.99200	947.23748	0.01	2.85	20.00	AVRG
Ethene	585.76000	578.10089	0.01	1.31	20.00	AVRG

FORM VII GASES

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Instrument ID: FID-4 Calibration Date: 10/22/21 Time: 1434

Lab File ID: 033 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	752.09222	0.01	-4.53	20.00	AVRG
Methane	974.99200	926.09101	0.01	5.02	20.00	AVRG
Ethene	585.76000	656.85460	0.01	-12.14	20.00	AVRG

FORM VII GASES

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100785

Instrument ID: FID-4 Calibration Date: 10/22/21 Time: 1457

Lab File ID: 035 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	742.89198	0.01	-3.25	20.00	AVRG
Methane	974.99200	901.93843	0.01	7.49	20.00	AVRG
Ethene	585.76000	594.24332	0.01	-1.45	20.00	AVRG

FORM VII GASES

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\001.D Page 1
Report Date: 17-Nov-2021 08:42

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\001.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 22-OCT-2021 08:18
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

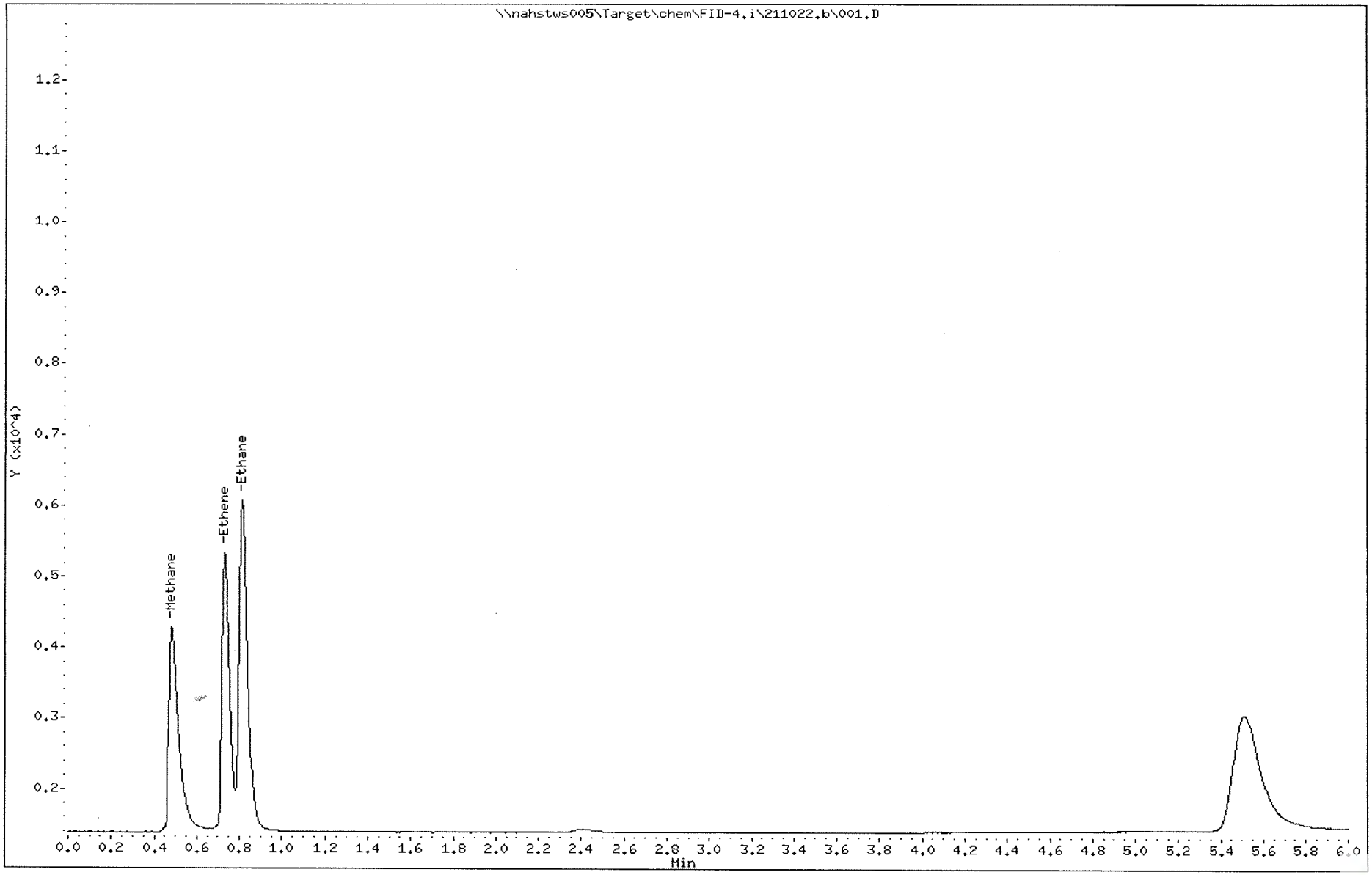
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.480	0.476	0.004	9563	9.64700	9.808
2 Ethene	0.730	0.726	0.004	10184	16.8500	17.385
3 Ethane	0.813	0.810	0.003	13772	18.0430	19.141

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\001.D
Date : 22-OCT-2021 08:18
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\001.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 22-OCT-2021 08:18
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment   :
Method   : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.480	0.476	0.004	9563	9.64700	9.808
2 Ethene	0.730	0.726	0.004	10184	16.8500	17.385
3 Ethane	0.813	0.810	0.003	13772	18.0430	19.141

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\001.D

Date : 22-OCT-2021 08:18

Client ID: RSK-CCV

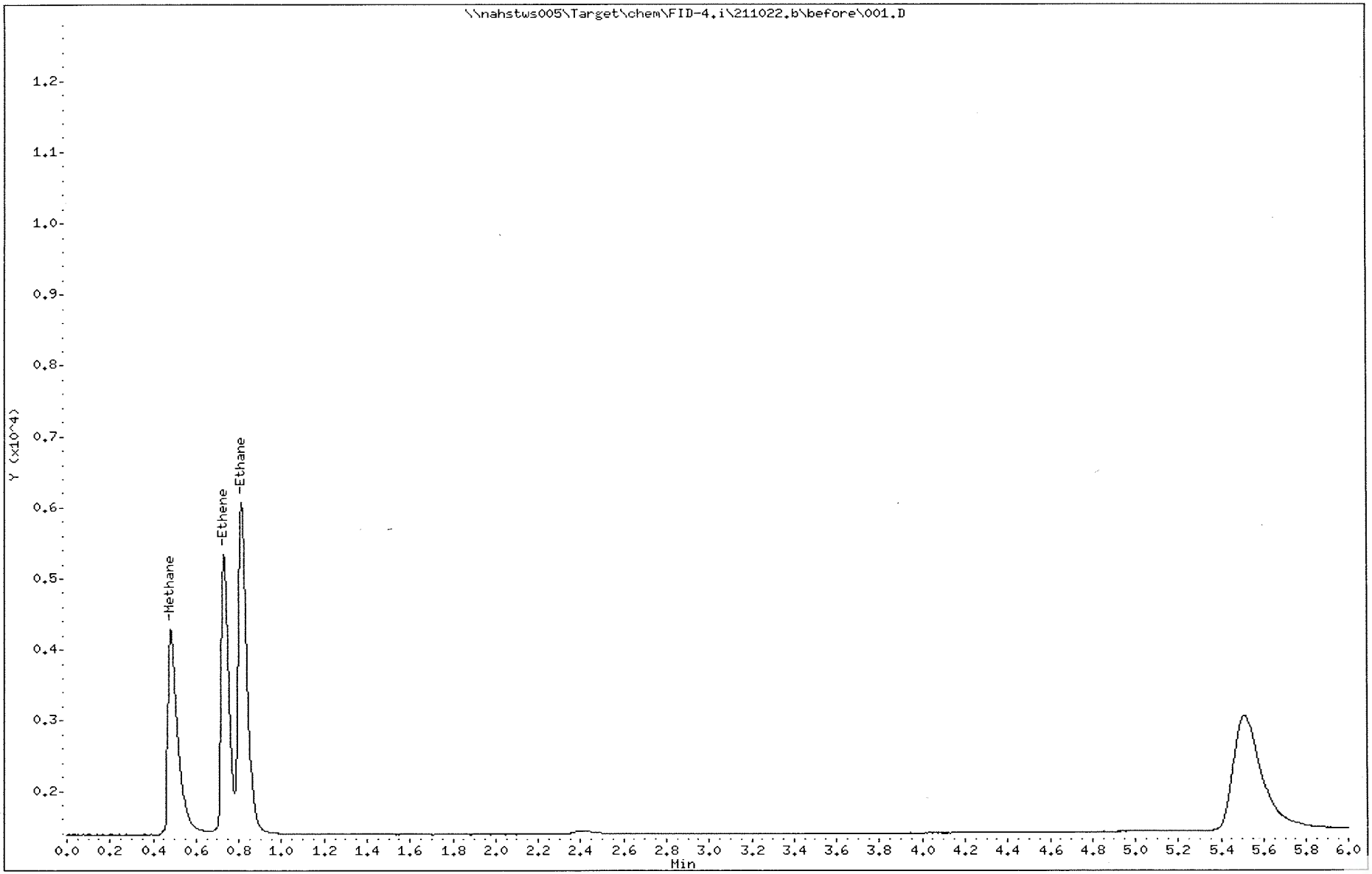
Instrument: FID-4.i

Sample Info: RSK-CCV;RSK-CCV;2;4

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\002.D Page 1
Report Date: 17-Nov-2021 08:42

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\002.D
Lab Smp Id: MBLK-211022 Client Smp ID: MBLK-211022
Inj Date : 22-OCT-2021 08:29
Operator : PL Inst ID: FID-4.i
Smp Info : MBLK-211022;MBLK-211022;3;;BLANK
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\002.D

Date : 22-OCT-2021 08:29

Client ID: MBLK-211022

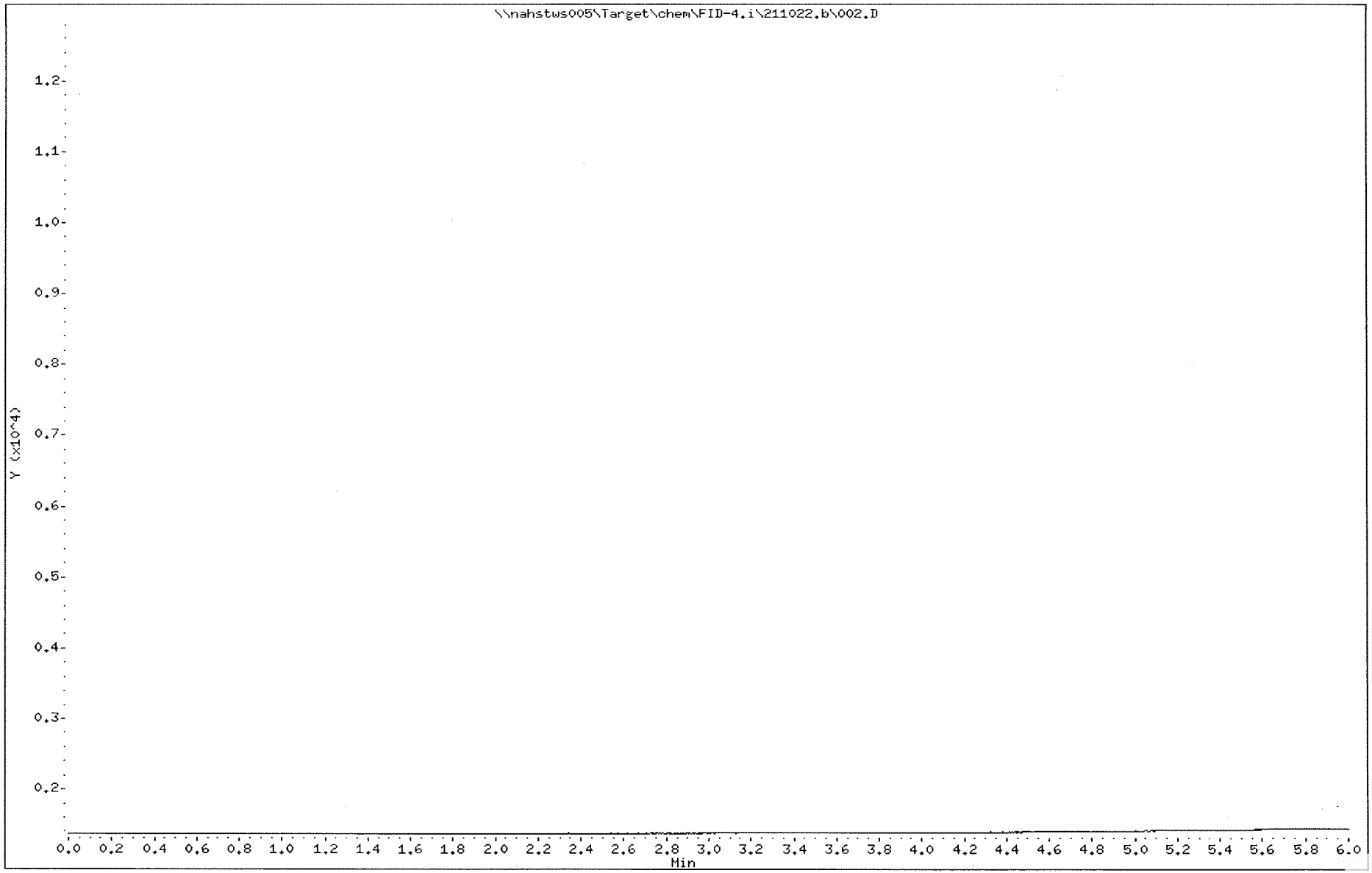
Instrument: FID-4.i

Sample Info: MBLK-211022;MBLK-211022;3;;BLANK

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\002.D
Lab Smp Id: MBLK-211022 Client Smp ID: MBLK-211022
Inj Date : 22-OCT-2021 08:29
Operator : PL Inst ID: FID-4.i
Smp Info : MBLK-211022;MBLK-211022;3;;BLANK
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
==========	====	========	========	========	=======	=======

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\002.D

Date : 22-OCT-2021 08:29

Client ID: MBLK-211022

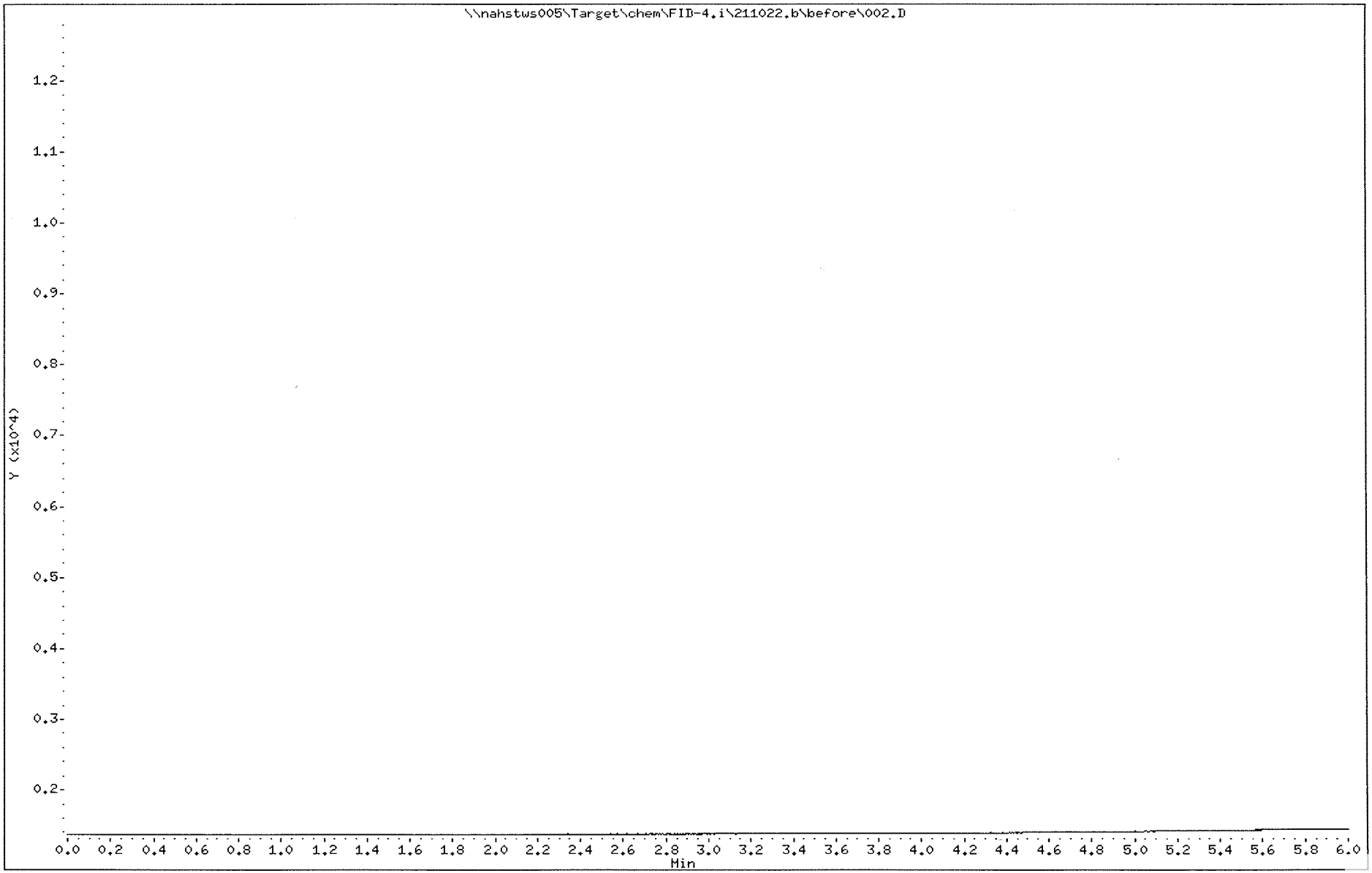
Instrument: FID-4.i

Sample Info: MBLK-211022;MBLK-211022;3;;BLANK

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\003.D Page 1
Report Date: 17-Nov-2021 08:42

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\003.D
Lab Smp Id: LCS-211022 Client Smp ID: LCS-211022
Inj Date : 22-OCT-2021 08:48
Operator : PL Inst ID: FID-4.i
Smp Info : LCS-211022;LCS-211022;3;;LCS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.463	0.476	-0.013	8767	8.99187	8.991
2 Ethene	0.716	0.726	-0.010	9738	16.6245	16.624
3 Ethane	0.800	0.810	-0.010	13040	18.1240	18.123

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\003.D

Date : 22-OCT-2021 08:48

Client ID: LCS-211022

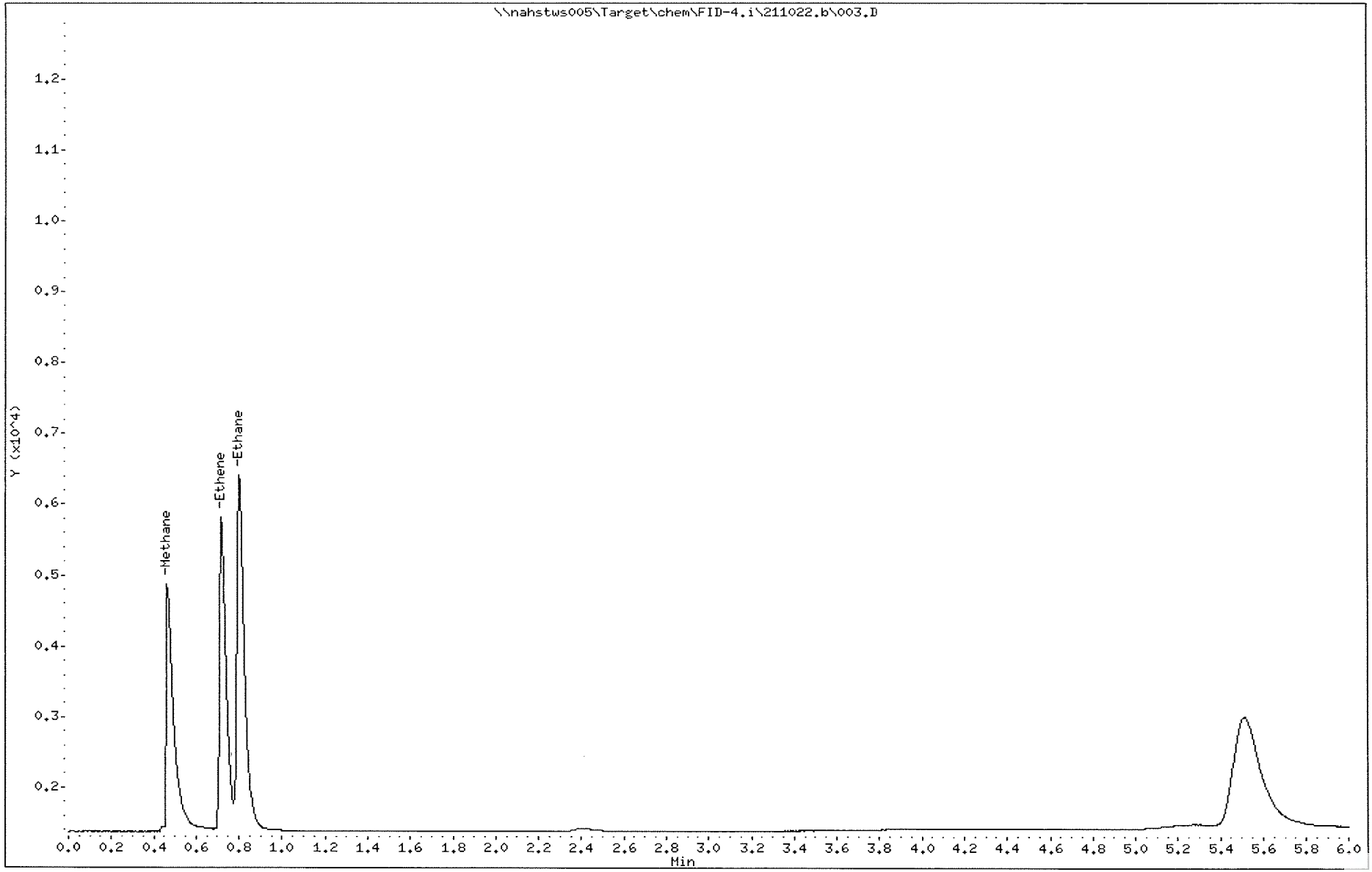
Instrument: FID-4.i

Sample Info: LCS-211022;LCS-211022;3;;LCS

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\003.D
Lab Smp Id: LCS-211022 Client Smp ID: LCS-211022
Inj Date : 22-OCT-2021 08:48
Operator : PL Inst ID: FID-4.i
Smp Info : LCS-211022;LCS-211022;3;;LCS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.463	0.476	-0.013	8753	8.97751	8.977
2 Ethene	0.716	0.726	-0.010	9692	16.5460	16.546
3 Ethane	0.800	0.810	-0.010	13153	18.2810	18.281

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\003.D

Date : 22-OCT-2021 08:48

Client ID: LCS-211022

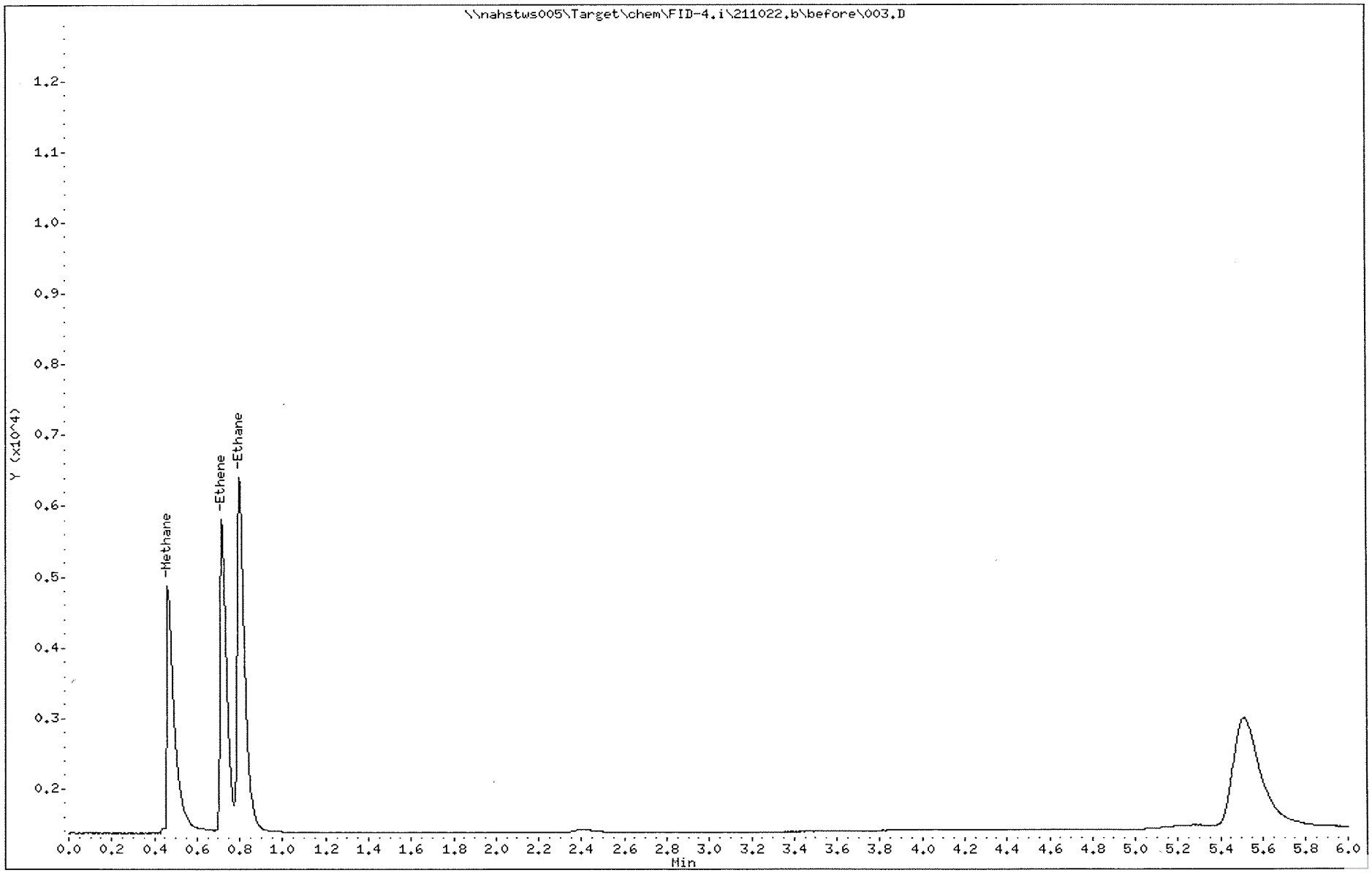
Instrument: FID-4.i

Sample Info: LCS-211022;LCS-211022;3;;LCS

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\004.D Page 1
Report Date: 17-Nov-2021 08:42

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\004.D
Lab Smp Id: LCSD-211022 Client Smp ID: LCSD-211022
Inj Date : 22-OCT-2021 09:01
Operator : PL Inst ID: FID-4.i
Smp Info : LCSD-211022;LCSD-211022;3;;LCSD
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 4 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

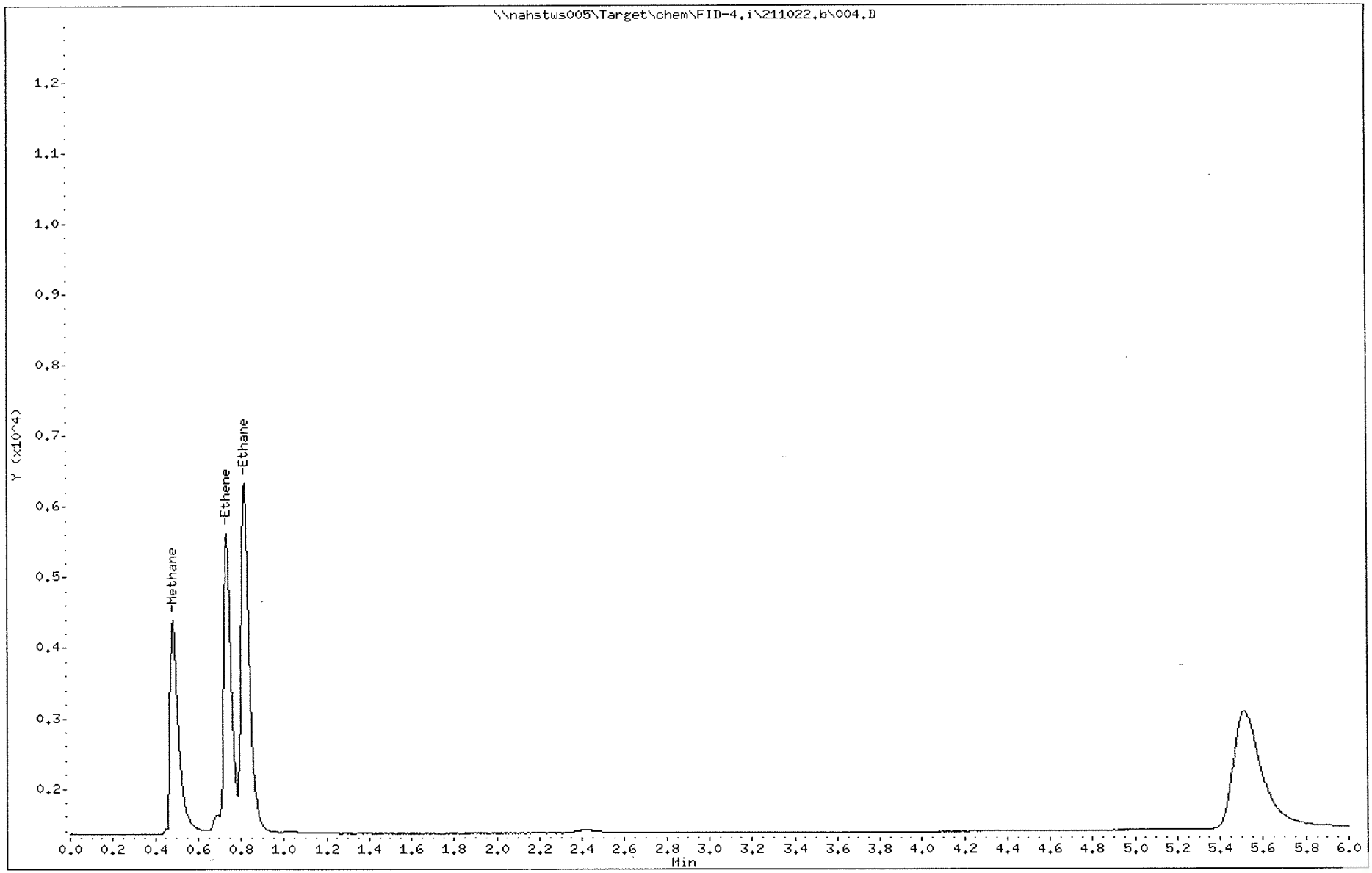
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.483	0.476	0.007	8578	8.79802	8.798
2 Ethene	0.733	0.726	0.007	11166	19.0624	19.062
3 Ethane	0.816	0.810	0.006	13813	19.1983	19.198

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\004.D
Date : 22-OCT-2021 09:01
Client ID: LCSD-211022
Sample Info: LCSD-211022;LCSD-211022;3;;LCSD

Instrument: FID-4.i
Operator: PL
Column diameter: 0.53

Column phase: Rtx-PLOT



Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\004.D Page 1
Report Date: 17-Nov-2021 08:44

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\004.D
Lab Smp Id: LCSD-211022 Client Smp ID: LCSD-211022
Inj Date : 22-OCT-2021 09:01
Operator : PL Inst ID: FID-4.i
Smp Info : LCSD-211022;LCSD-211022;3;;LCSD
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 4 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

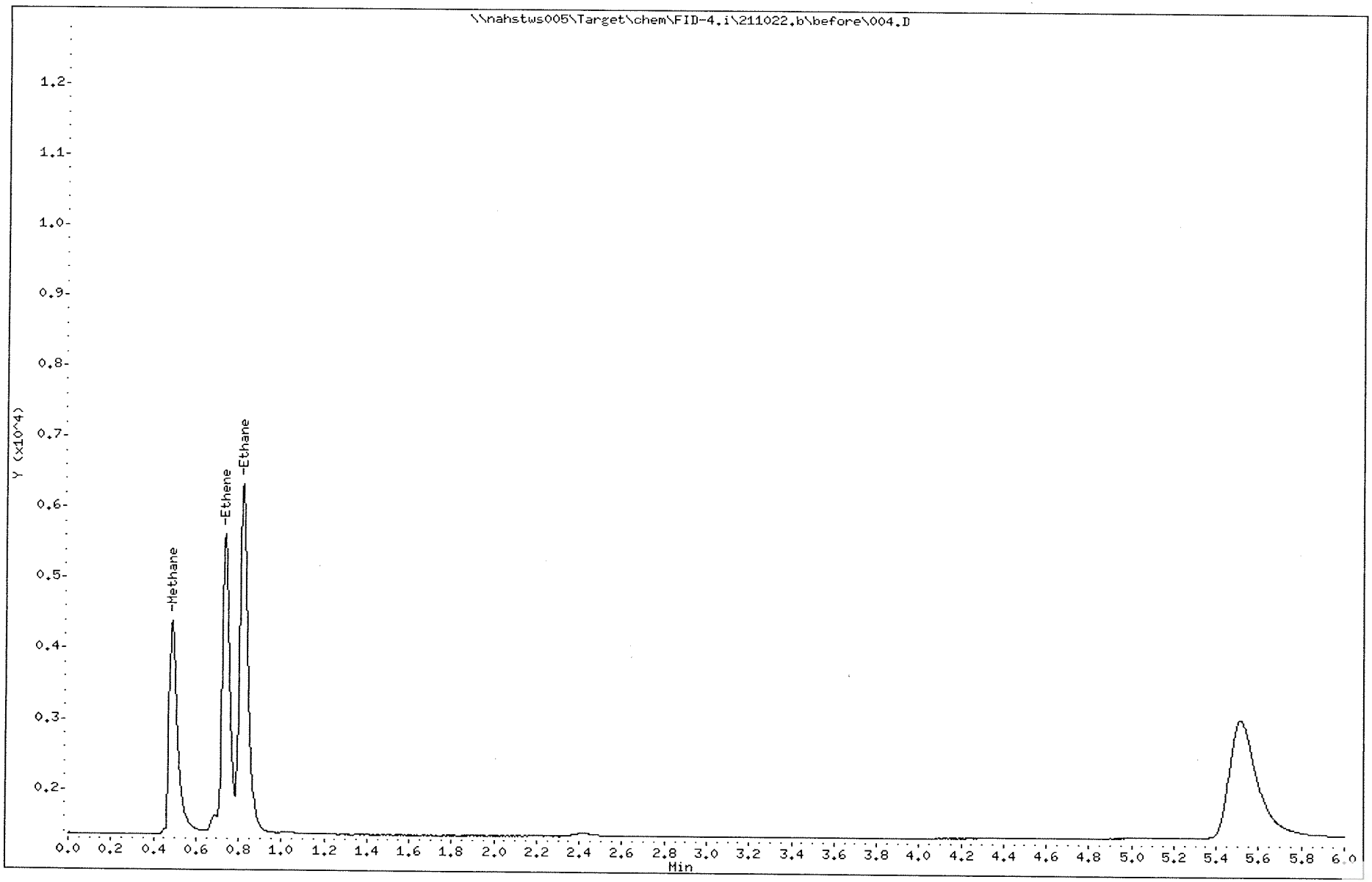
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.483	0.476	0.007	8578	8.79802	8.798
2 Ethene	0.733	0.726	0.007	11166	19.0624	19.062
3 Ethane	0.816	0.810	0.006	13813	19.1983	19.198

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\004.D
Date : 22-OCT-2021 09:01
Client ID: LCSD-211022
Sample Info: LCSD-211022;LCSD-211022;3;;LCSD

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\011.D Page 1
Report Date: 17-Nov-2021 08:42

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\011.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 22-OCT-2021 10:07
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

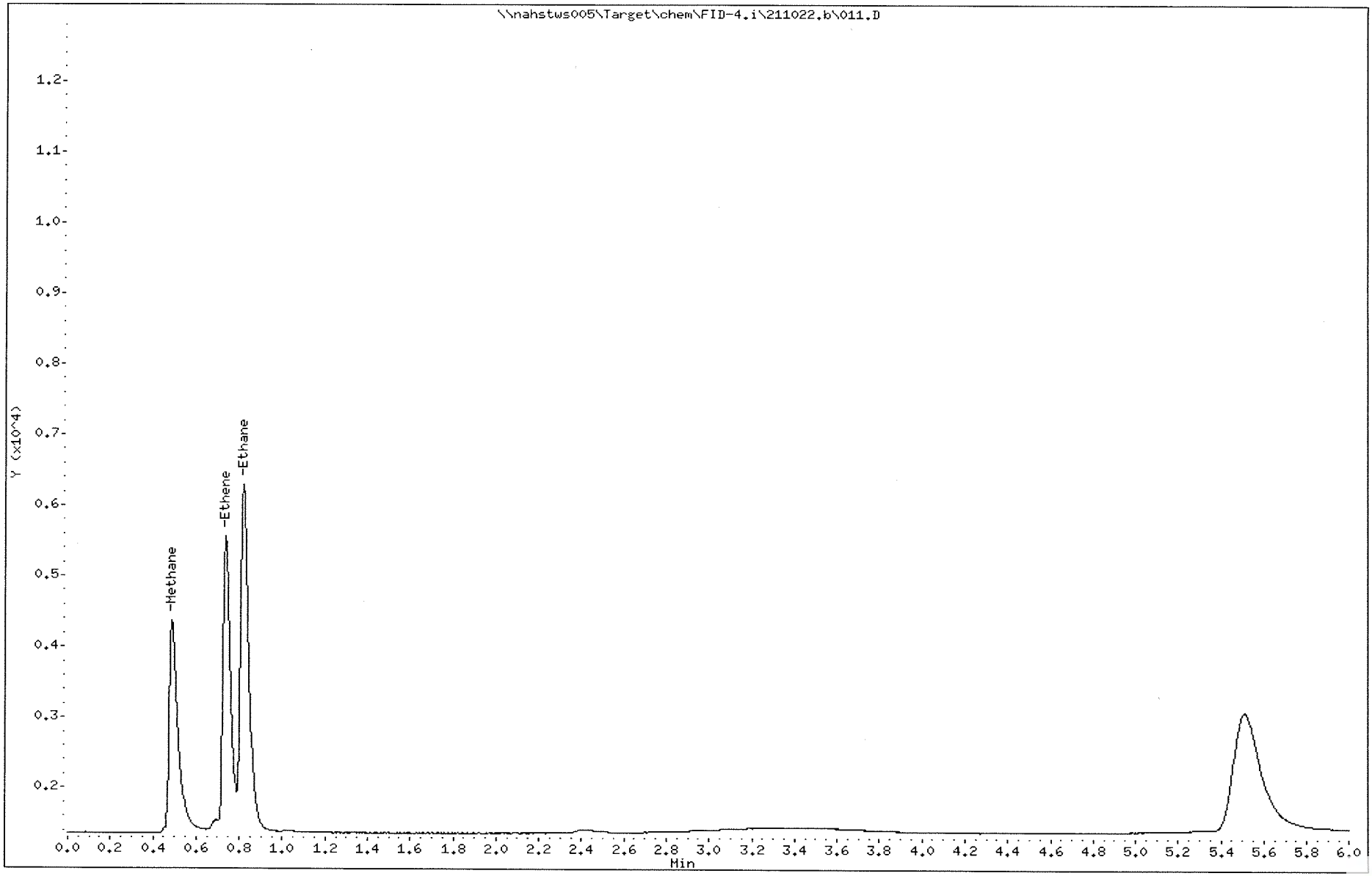
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.486	0.476	0.010	9024	9.64700	9.255
2 Ethene	0.736	0.726	0.010	10820	16.8500	18.471
3 Ethane	0.820	0.810	0.010	13955	18.0430	19.395

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\011.D
Date : 22-OCT-2021 10:07
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\011.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 22-OCT-2021 10:07
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment   :
Method   : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

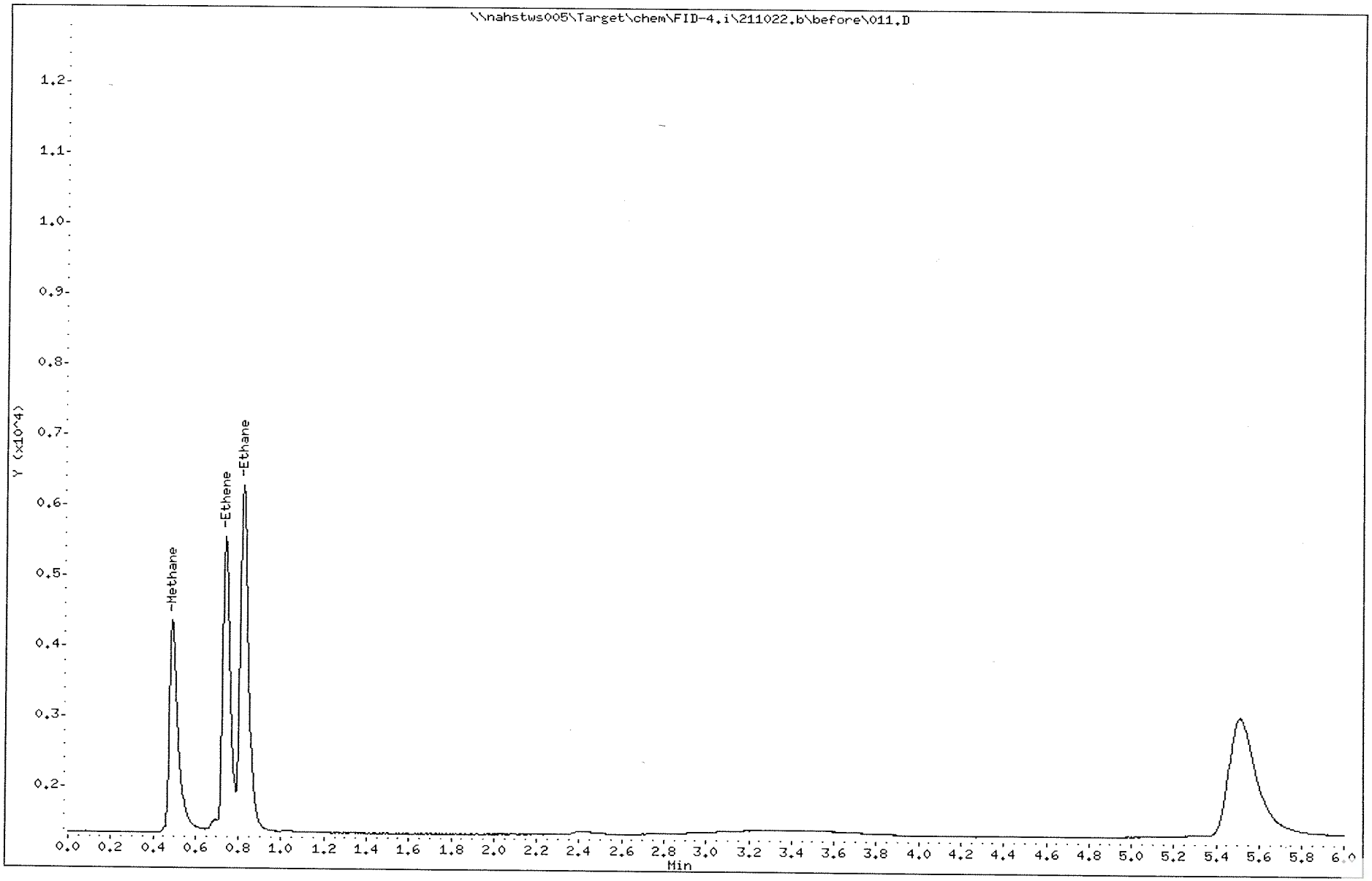
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.486	0.476	0.010	9024	9.64700	9.255
2 Ethene	0.736	0.726	0.010	10820	16.8500	18.471
3 Ethane	0.820	0.810	0.010	13955	18.0430	19.395

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\011.D
Date : 22-OCT-2021 10:07
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\014.D Page 1
Report Date: 17-Nov-2021 08:42

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\014.D
Lab Smp Id: HS21101100-05DUP Client Smp ID: HS21101100-05DUP
Inj Date : 22-OCT-2021 10:32
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101100-05DUP;HS21101100-05DUP
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

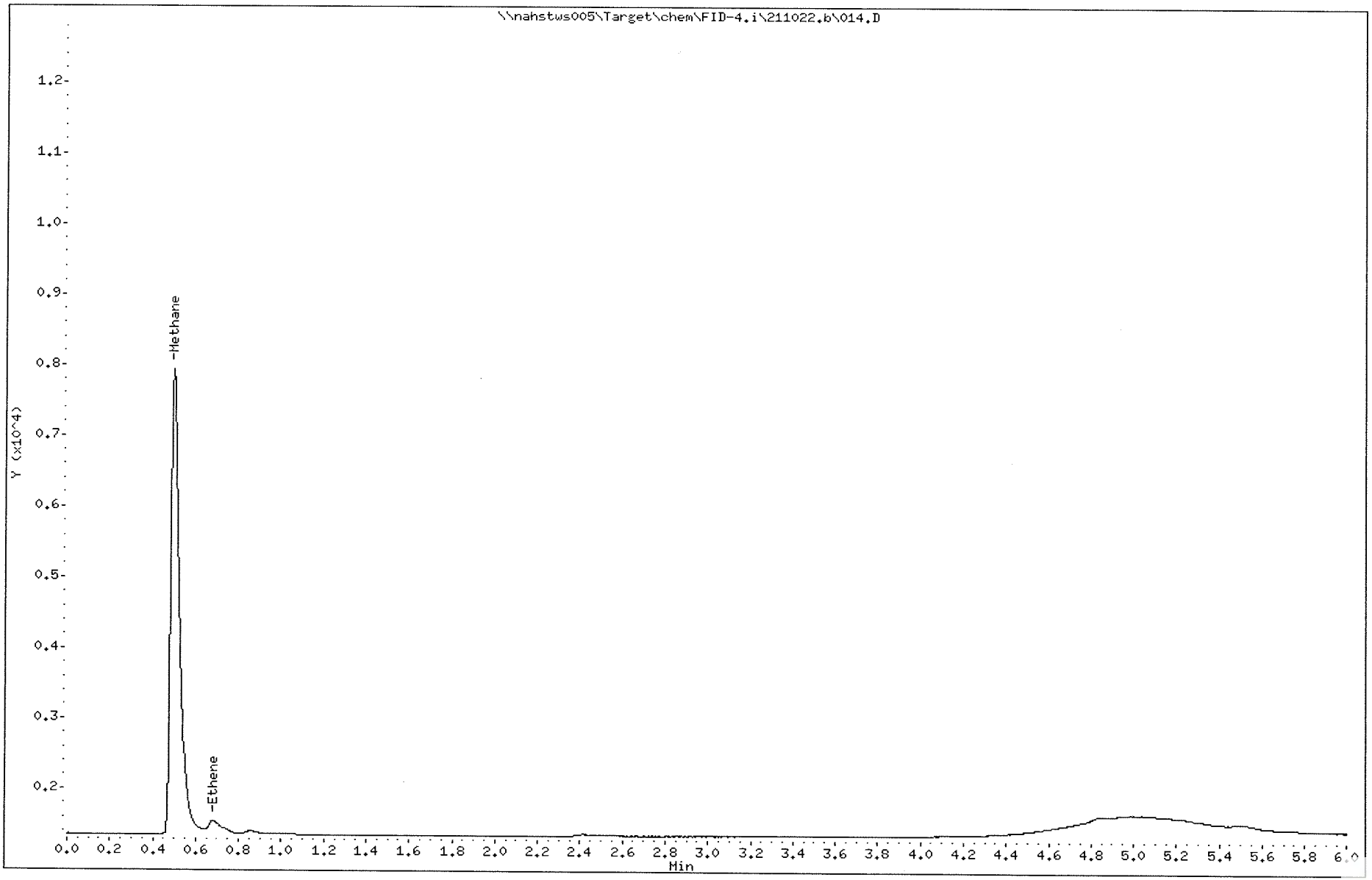
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.493	0.476	0.017	19651	20.1550	20.155
2 Ethene	0.683	0.726	-0.043	927	1.58256	1.582

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\014.D
Date : 22-OCT-2021 10:32
Client ID: HS21101100-05DUP
Sample Info: HS21101100-05DUP;HS21101100-05DUP

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\014.D
Lab Smp Id: HS21101100-05DUP Client Smp ID: HS21101100-05DUP
Inj Date : 22-OCT-2021 10:32
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101100-05DUP;HS21101100-05DUP
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.493	0.476	0.017	19651	20.1550	20.155
2 Ethene	0.683	0.726	-0.043	927	1.58256	1.582
3 Ethane	0.856	0.810	0.046	262	0.36415	0.364(a)

QC Flag Legend

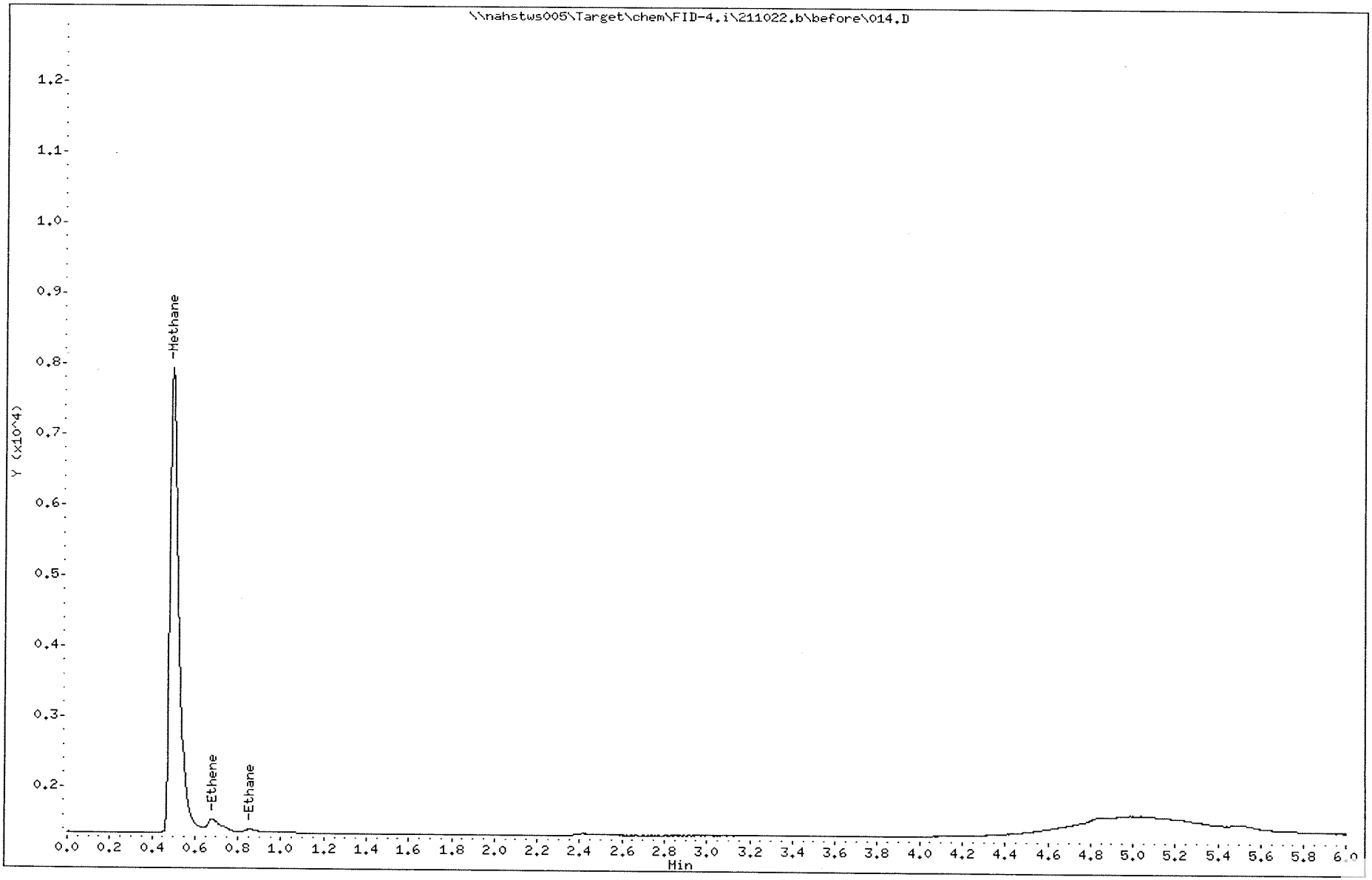
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\014.D
Date : 22-OCT-2021 10:32
Client ID: HS21101100-05DUP
Sample Info: HS21101100-05DUP;HS21101100-05DUP

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\015.D Page 1
Report Date: 17-Nov-2021 08:42

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\015.D
Lab Smp Id: HS21100785-01 Client Smp ID: HS21100785-01
Inj Date : 22-OCT-2021 10:41
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100785-01;HS21100785-01
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.490	0.476	0.014	1626	1.66771	1.667
2 Ethene	0.673	0.726	-0.053	1841	3.14292	3.142(M)

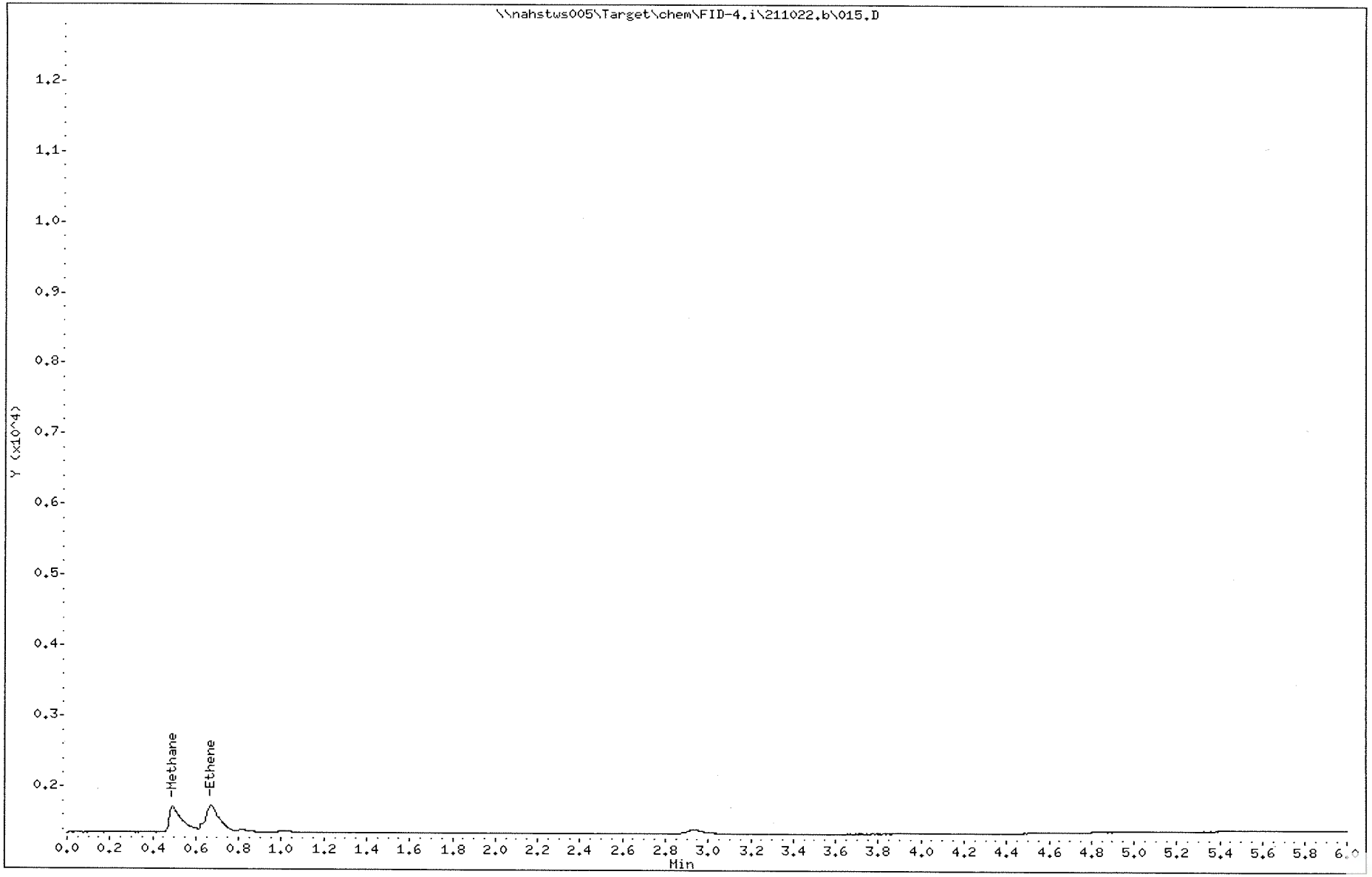
QC Flag Legend

M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\015.D
Date : 22-OCT-2021 10:41
Client ID: HS21100785-01
Sample Info: HS21100785-01;HS21100785-01

Instrument: FID-4.i
Operator: PL
Column diameter: 0.53

Column phase: Rtx-PLOT



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\015.D
Lab Smp Id: HS21100785-01 Client Smp ID: HS21100785-01
Inj Date : 22-OCT-2021 10:41
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100785-01;HS21100785-01
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.490	0.476	0.014	1626	1.66771	1.667
2 Ethene	0.673	0.726	-0.053	2080	3.55094	3.550

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\015.D

Date : 22-OCT-2021 10:41

Client ID: HS21100785-01

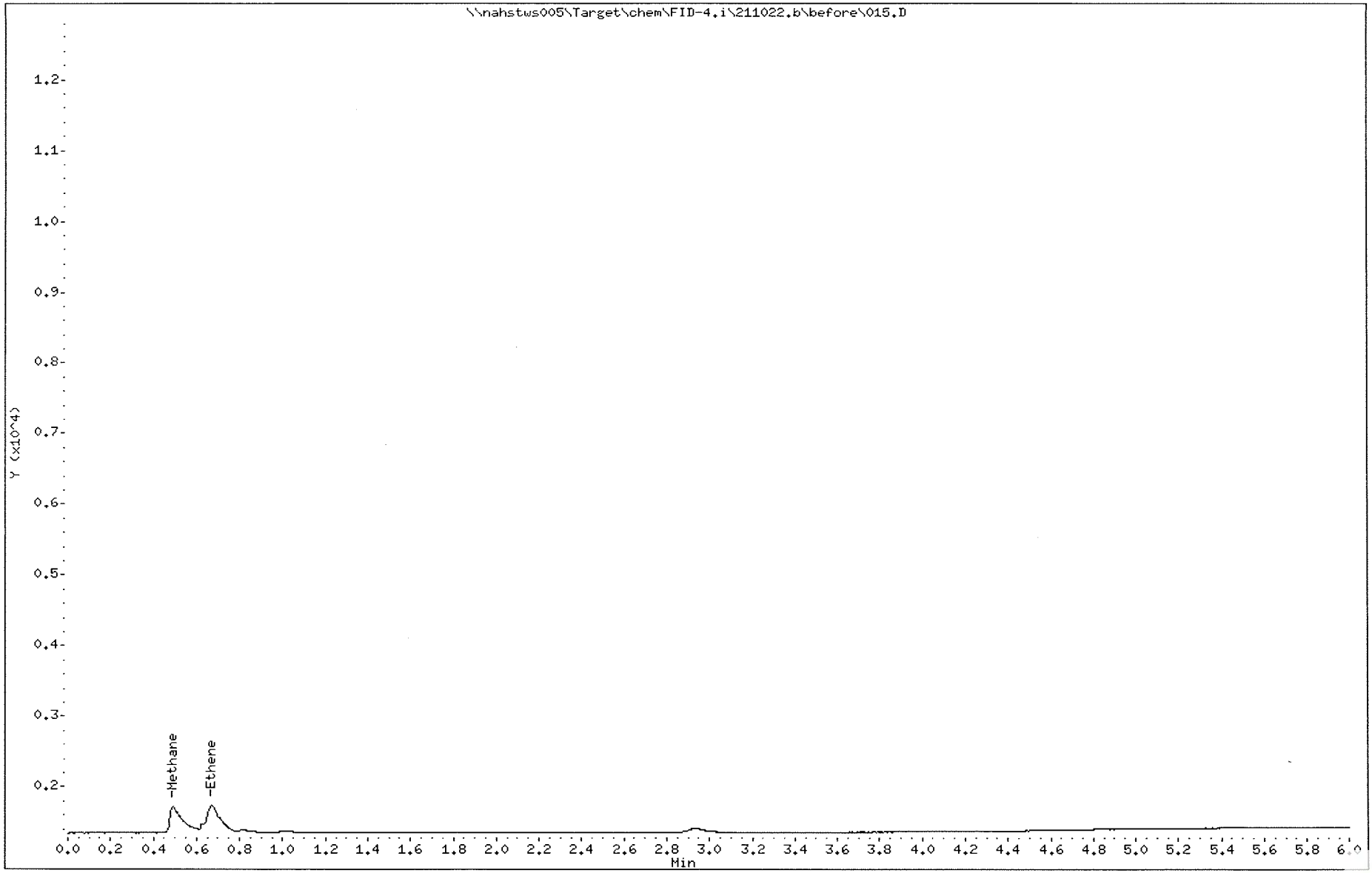
Instrument: FID-4.i

Sample Info: HS21100785-01;HS21100785-01

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\016.D Page 1
Report Date: 17-Nov-2021 08:42

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\016.D
Lab Smp Id: HS21100785-02 Client Smp ID: HS21100785-02
Inj Date : 22-OCT-2021 10:51
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100785-02;HS21100785-02
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.490	0.476	0.014	1395	1.43078	1.430
2 Ethene	0.720	0.726	-0.006	1141	1.94790	1.947(M)

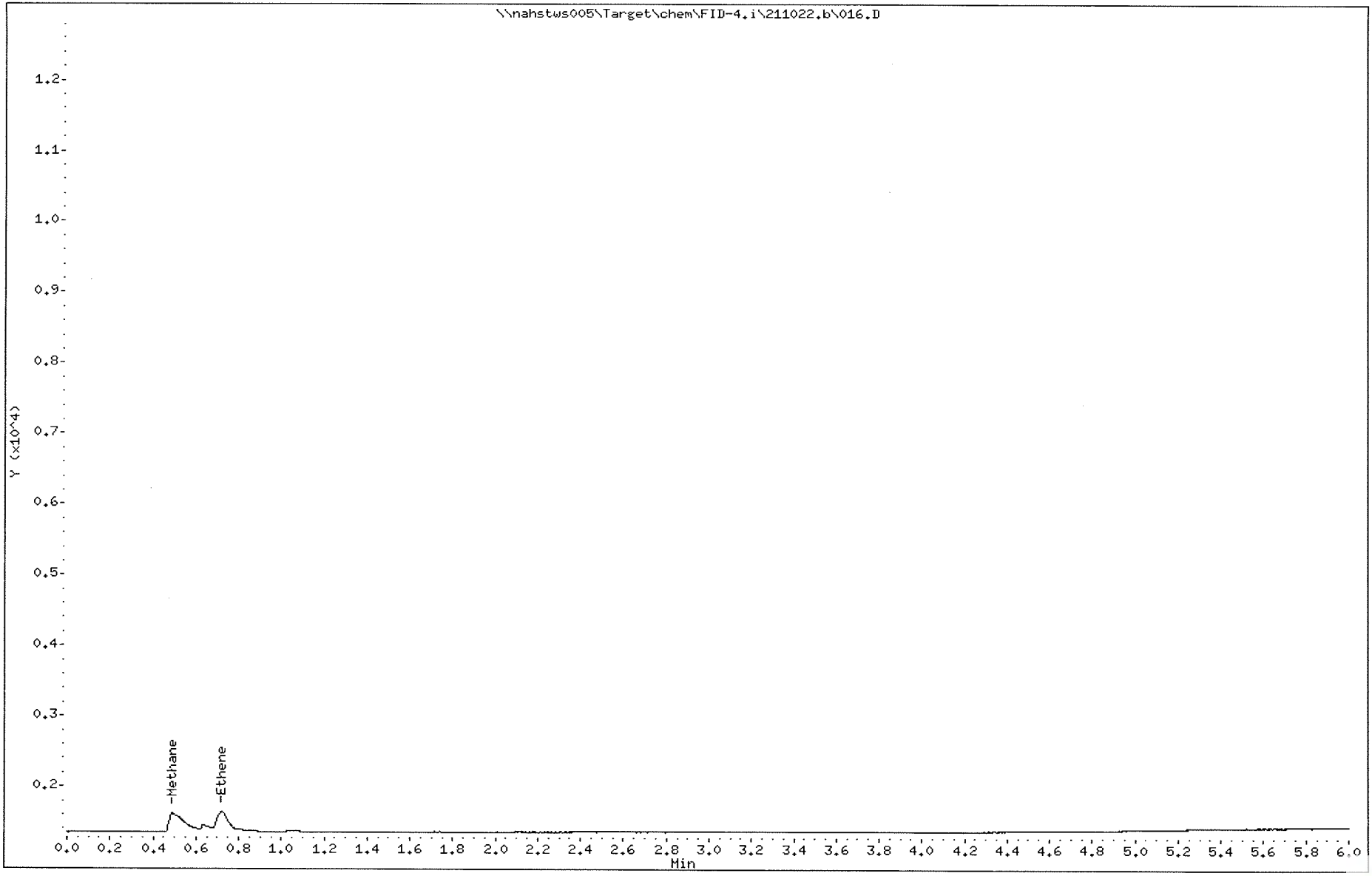
QC Flag Legend

M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\016.D
Date : 22-OCT-2021 10:51
Client ID: HS21100785-02
Sample Info: HS21100785-02;HS21100785-02

Instrument: FID-4.i
Operator: PL
Column diameter: 0.53

Column phase: Rtx-PLOT



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\016.D
Lab Smp Id: HS21100785-02 Client Smp ID: HS21100785-02
Inj Date : 22-OCT-2021 10:51
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100785-02;HS21100785-02
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

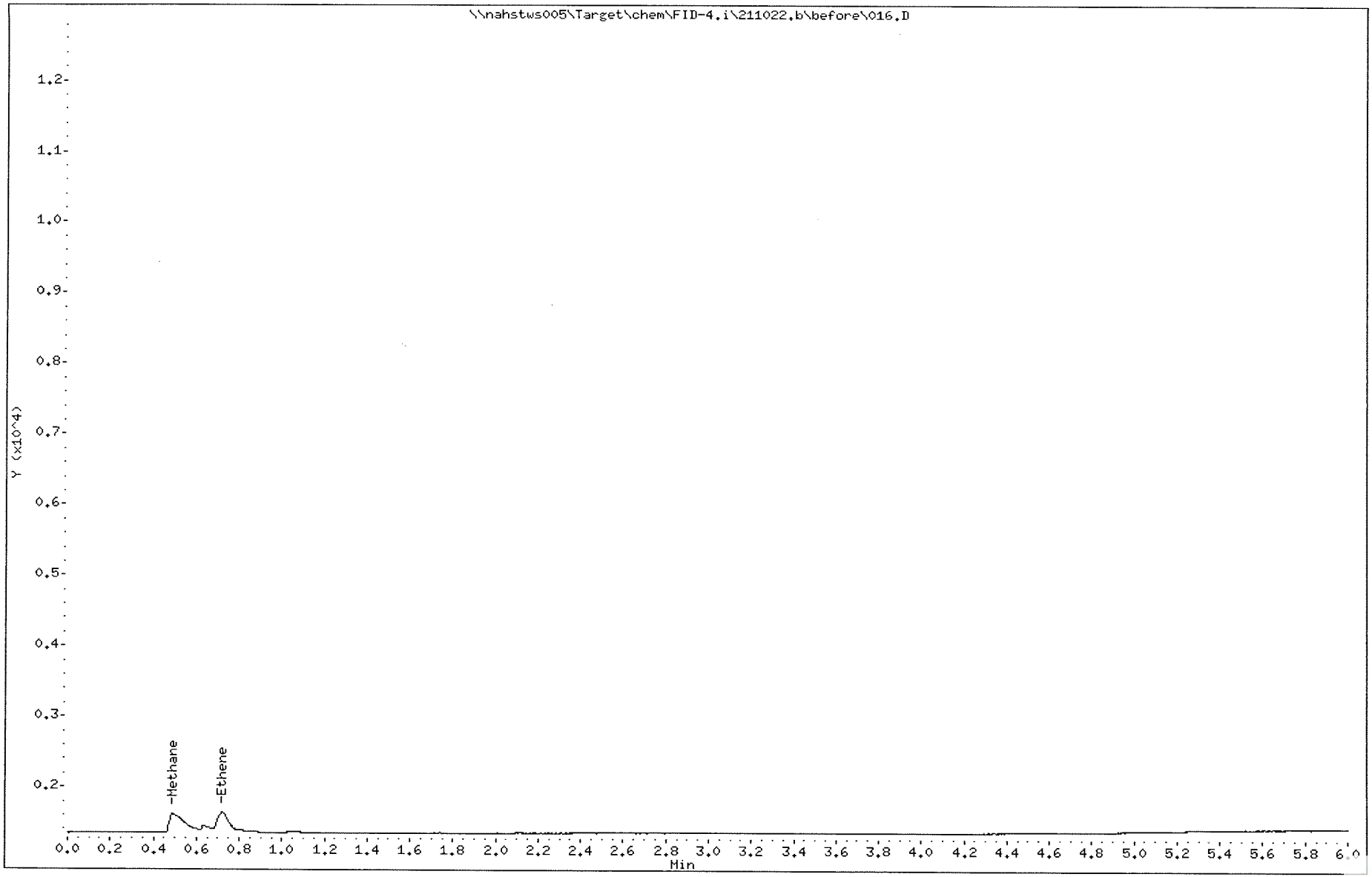
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.490	0.476	0.014	1372	1.40719	1.407
2 Ethene	0.720	0.726	-0.006	1303	2.22446	2.224

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\016.D
Date : 22-OCT-2021 10:51
Client ID: HS21100785-02
Sample Info: HS21100785-02;HS21100785-02

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\017.D Page 1
Report Date: 17-Nov-2021 08:42

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\017.D
Lab Smp Id: HS21100785-03 Client Smp ID: HS21100785-03
Inj Date : 22-OCT-2021 10:58
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100785-03;HS21100785-03
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.490	0.476	0.014	433803	444.930	444.929(AM)
2 Ethene	0.730	0.726	0.004	1929	3.29316	3.293(M)
3 Ethane	0.820	0.810	0.010	1646	2.28773	2.287(M)

QC Flag Legend

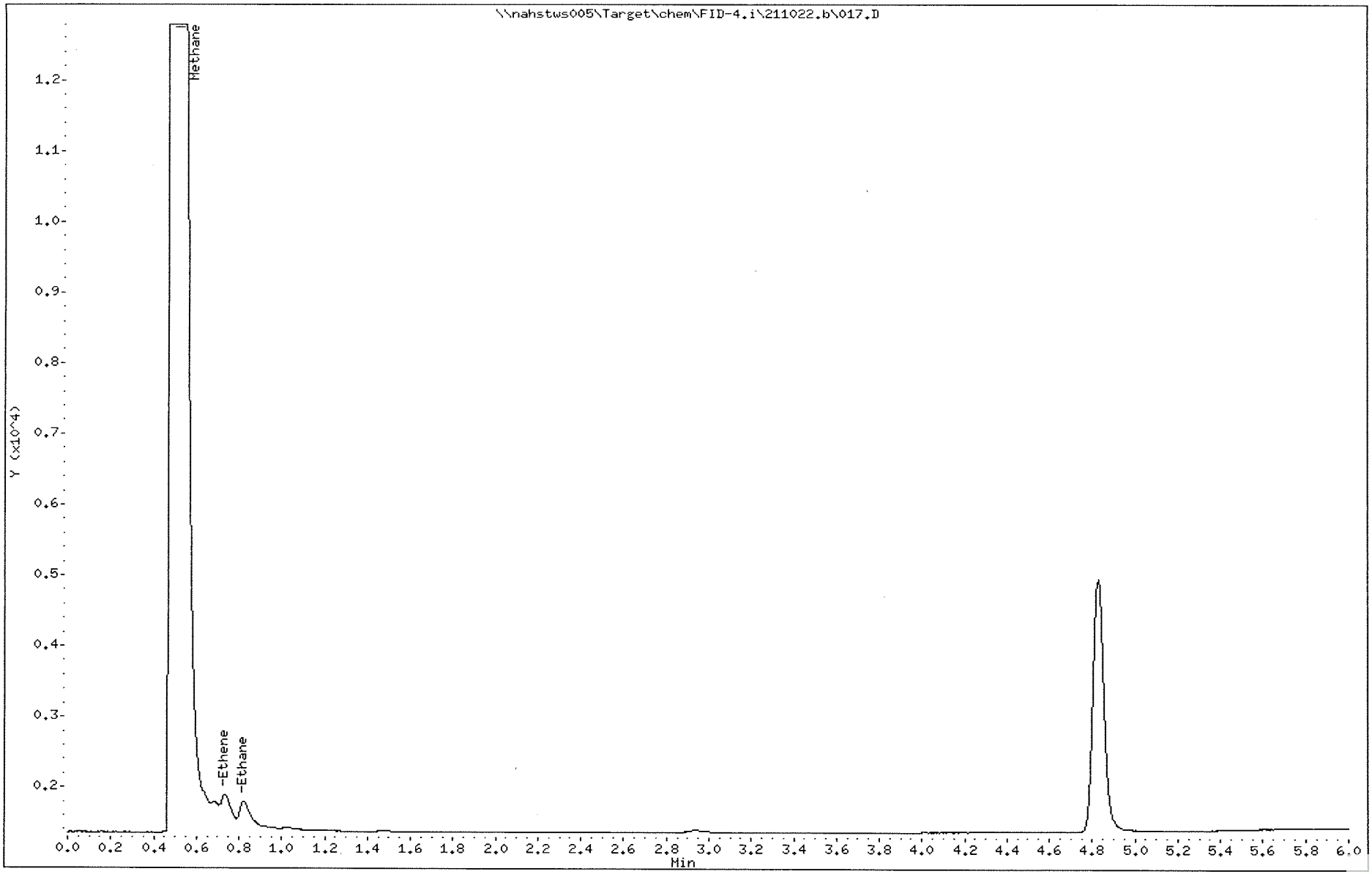
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\017.D
Date : 22-OCT-2021 10:58
Client ID: HS21100785-03
Sample Info: HS21100785-03;HS21100785-03

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\017.D
Lab Smp Id: HS21100785-03 Client Smp ID: HS21100785-03
Inj Date : 22-OCT-2021 10:58
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100785-03;HS21100785-03
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.490	0.476	0.014	437667	448.893	448.892(A)
3 Ethane	0.823	0.810	0.013	2260	3.14112	3.141

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\017.D

Date : 22-OCT-2021 10:58

Client ID: HS21100785-03

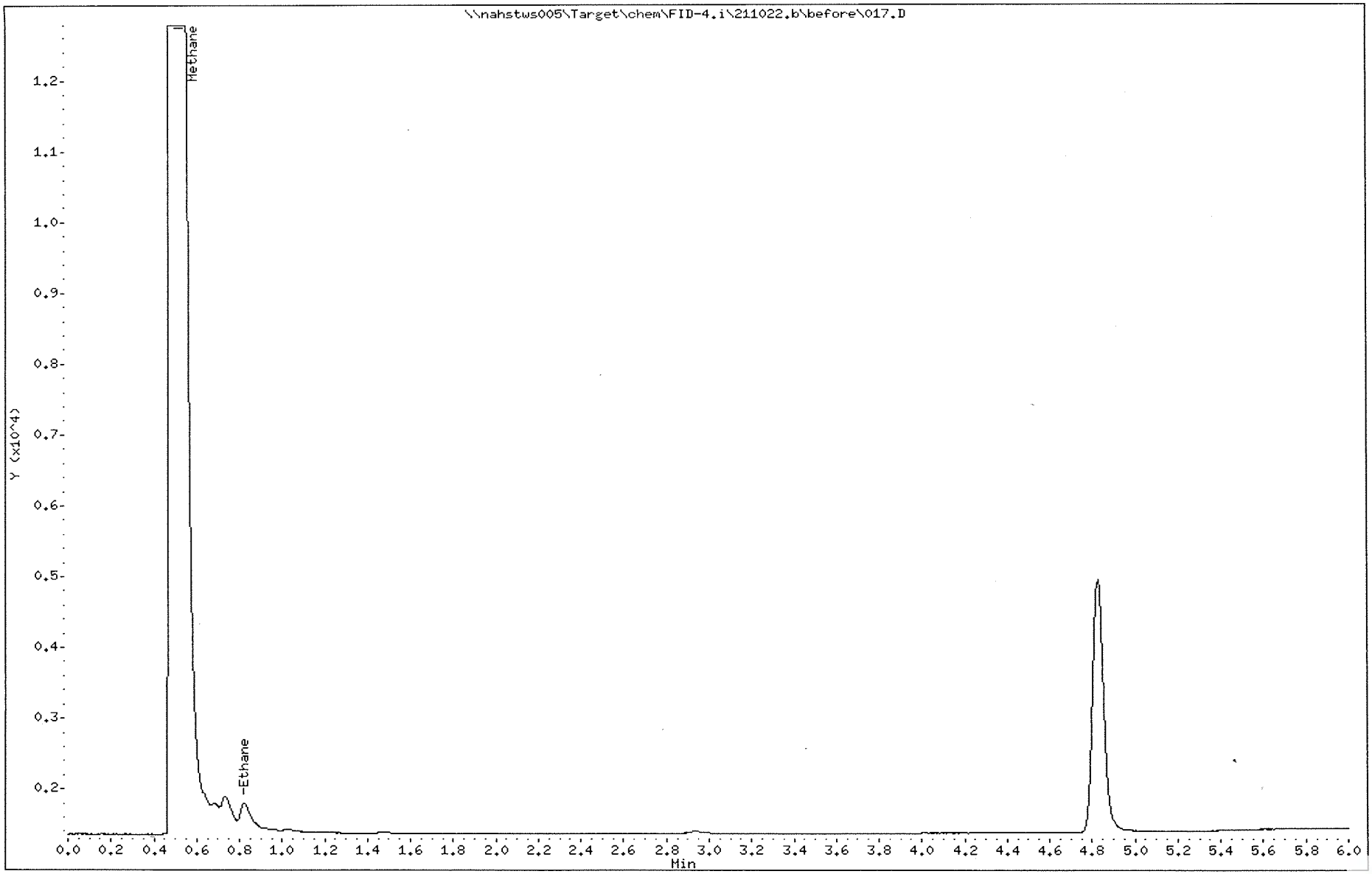
Instrument: FID-4.i

Sample Info: HS21100785-03;HS21100785-03

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\018.D
Lab Smp Id: HS21100785-04 Client Smp ID: HS21100785-04
Inj Date : 22-OCT-2021 11:09
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100785-04;HS21100785-04
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.490	0.476	0.014	47545	48.7645	48.764(A)
2 Ethene	0.733	0.726	0.007	3104	5.29909	5.299(M)

QC Flag Legend

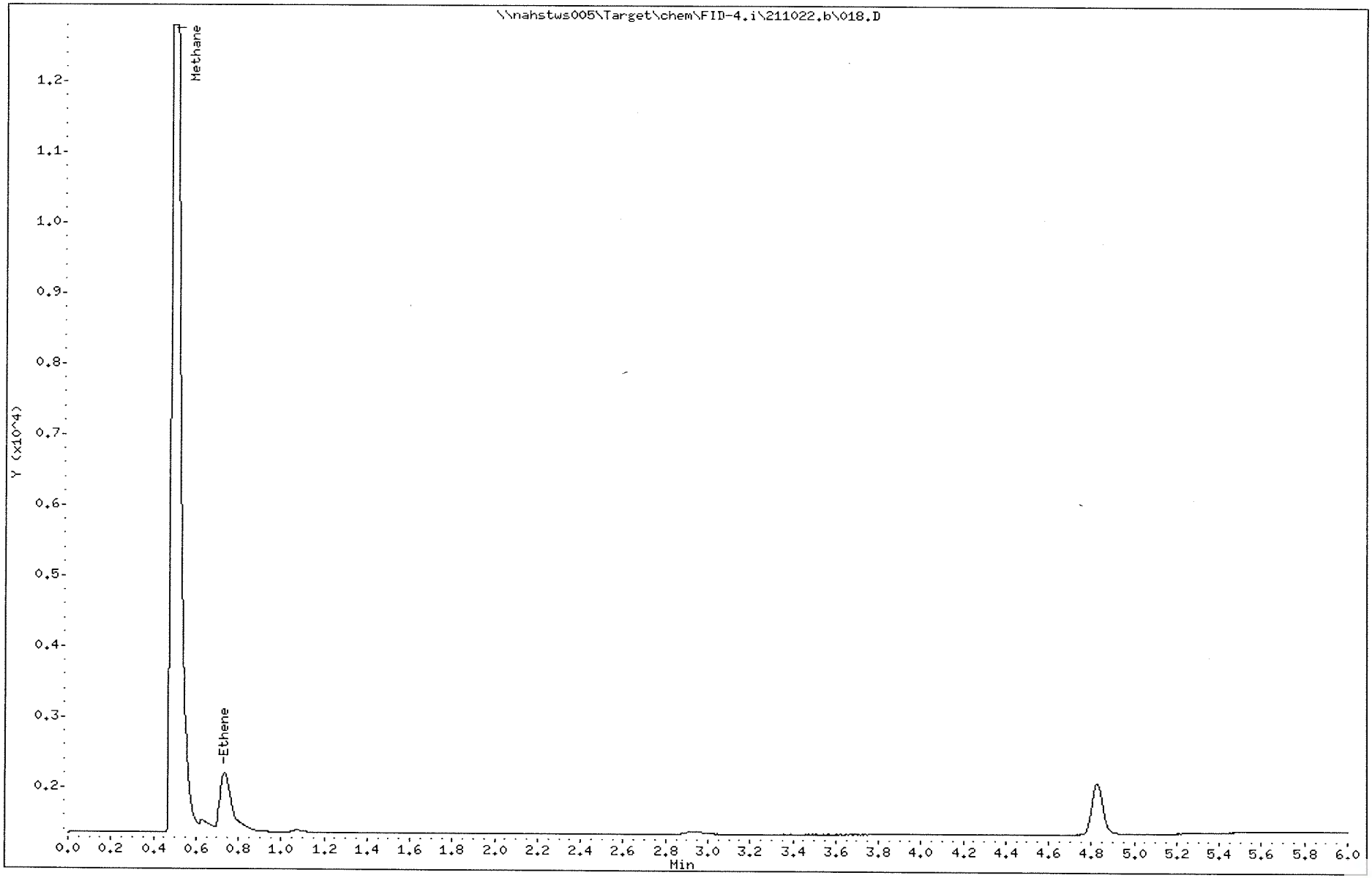
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\018.D
Date : 22-OCT-2021 11:09
Client ID: HS21100785-04
Sample Info: HS21100785-04;HS21100785-04

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\018.D
Lab Smp Id: HS21100785-04 Client Smp ID: HS21100785-04
Inj Date : 22-OCT-2021 11:09
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100785-04;HS21100785-04
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.490	0.476	0.014	47545	48.7645	48.764(A)
2 Ethene	0.733	0.726	0.007	3698	6.31316	6.313

QC Flag Legend

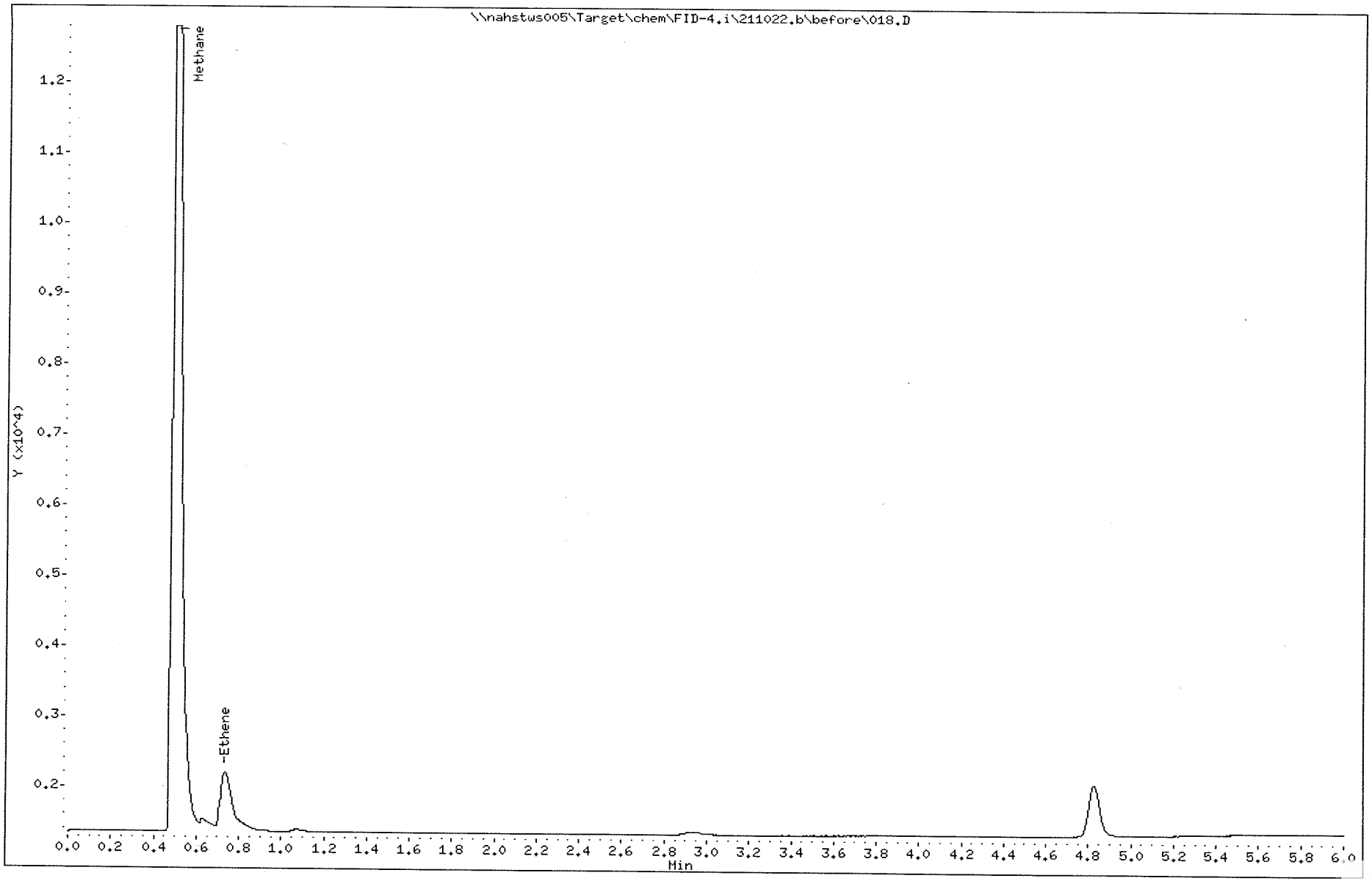
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\018.D
Date : 22-OCT-2021 11:09
Client ID: HS21100785-04
Sample Info: HS21100785-04;HS21100785-04

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\019.D Page 1
Report Date: 17-Nov-2021 08:42

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\019.D
Lab Smp Id: HS21100785-05 Client Smp ID: HS21100785-05
Inj Date : 22-OCT-2021 11:18
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100785-05;HS21100785-05
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.483	0.476	0.007	53815	55.1953	55.195(A)
2 Ethene	0.716	0.726	-0.010	1487	2.53858	2.538(M)

QC Flag Legend

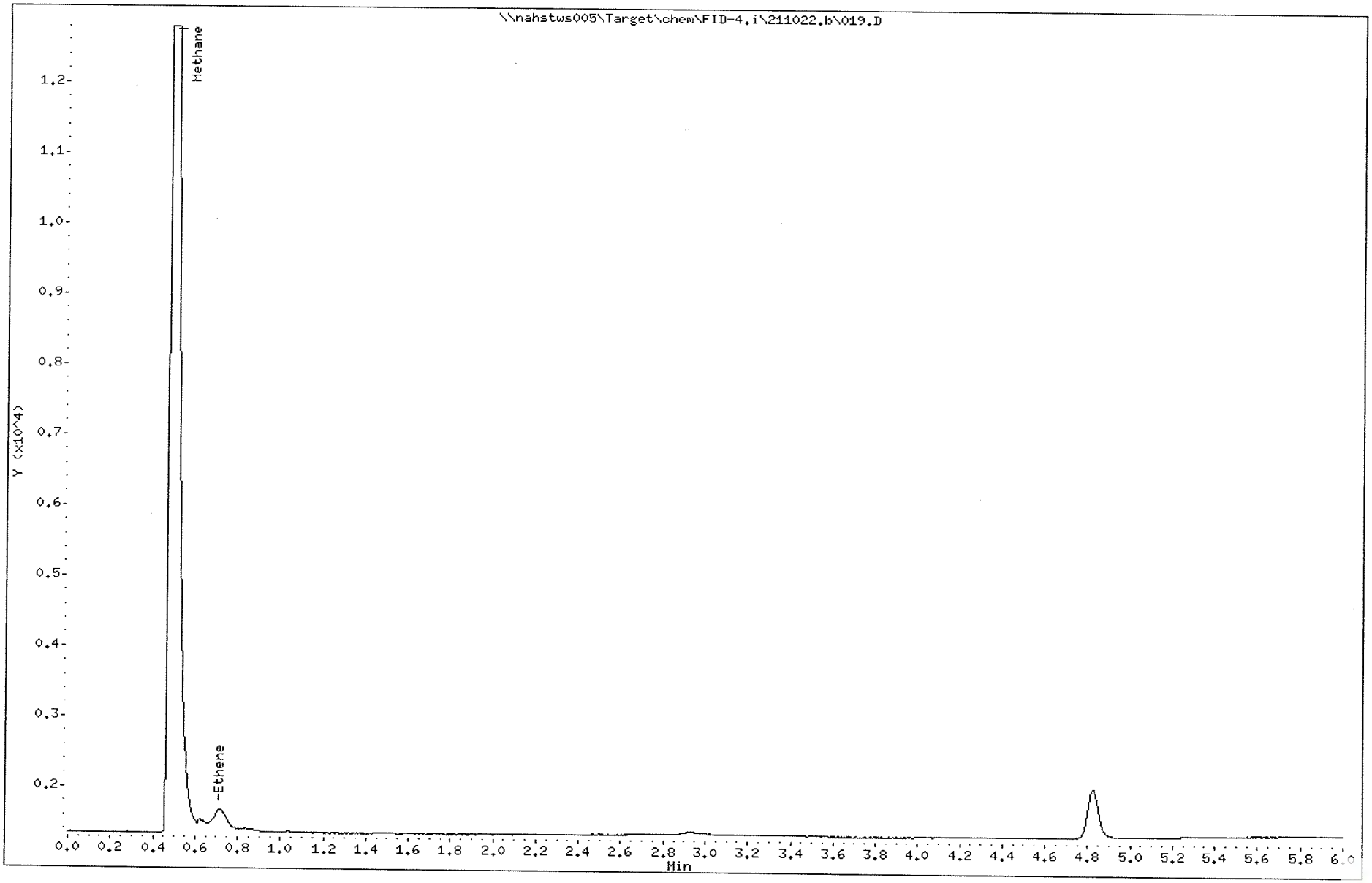
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\019.D
Date : 22-OCT-2021 11:18
Client ID: HS21100785-05
Sample Info: HS21100785-05;HS21100785-05

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\019.D
Lab Smp Id: HS21100785-05 Client Smp ID: HS21100785-05
Inj Date : 22-OCT-2021 11:18
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100785-05;HS21100785-05
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.483	0.476	0.007	53815	55.1953	55.195(A)
2 Ethene	0.716	0.726	-0.010	1956	3.33925	3.339

QC Flag Legend

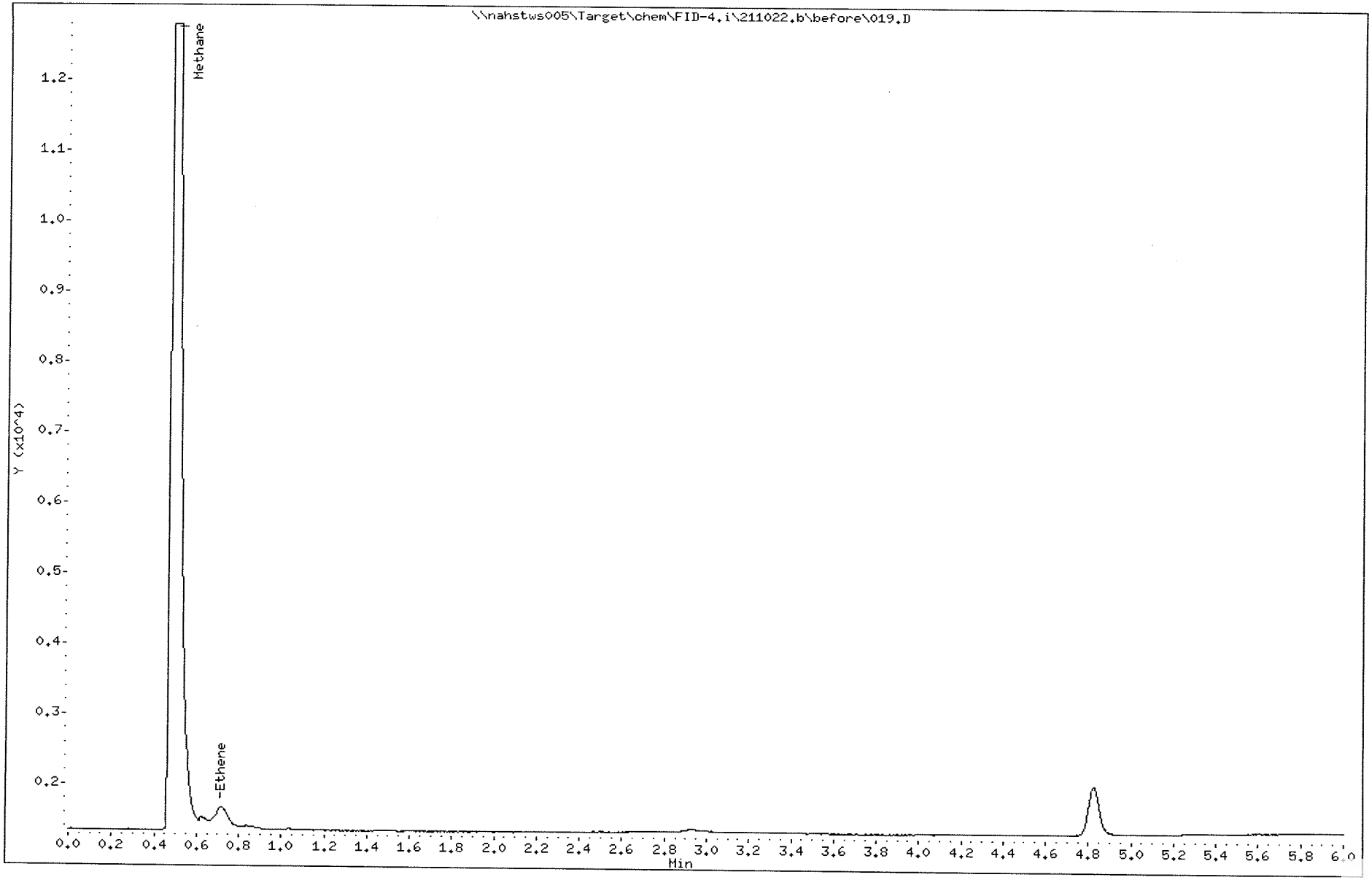
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\019.D
Date : 22-OCT-2021 11:18
Client ID: HS21100785-05
Sample Info: HS21100785-05;HS21100785-05

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\022.D Page 1
Report Date: 17-Nov-2021 08:42

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\022.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 22-OCT-2021 12:27
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

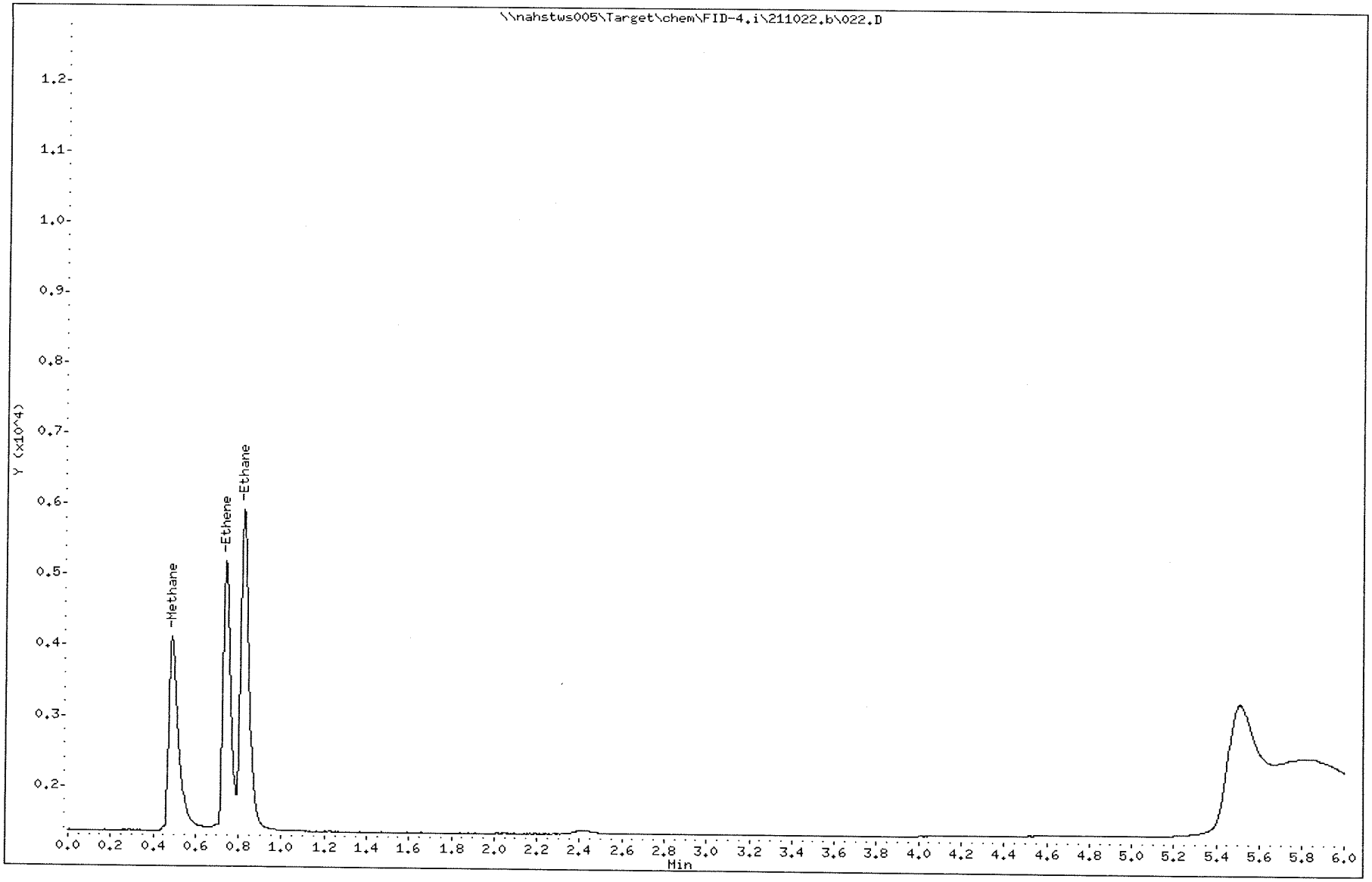
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.486	0.476	0.010	9138	9.64700	9.372
2 Ethene	0.736	0.726	0.010	9741	16.8500	16.629
3 Ethane	0.820	0.810	0.010	13160	18.0430	18.290

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\022.D
Date : 22-OCT-2021 12:27
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\022.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 22-OCT-2021 12:27
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

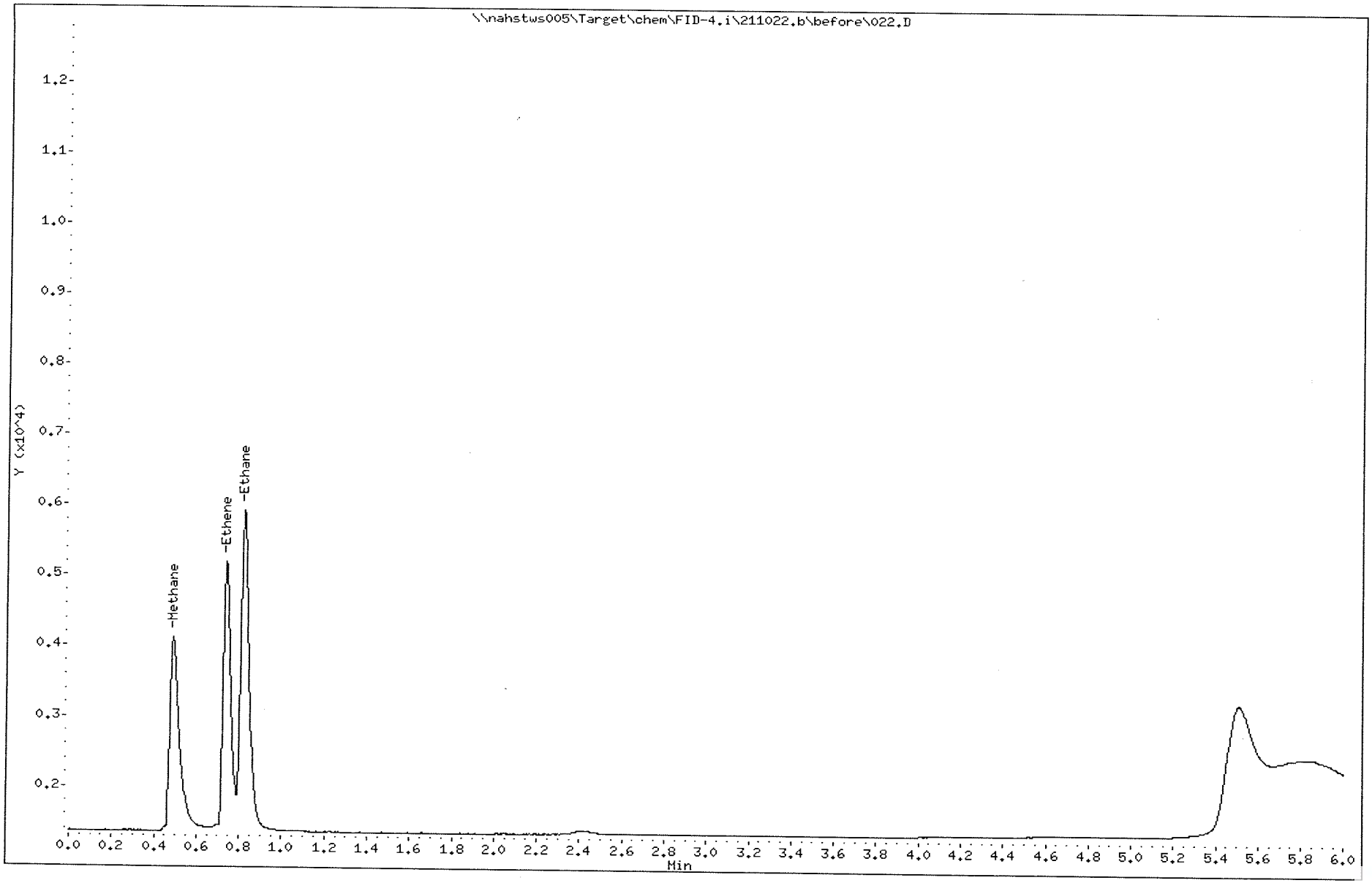
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.486	0.476	0.010	9138	9.64700	9.372
2 Ethene	0.736	0.726	0.010	9741	16.8500	16.629
3 Ethane	0.820	0.810	0.010	13160	18.0430	18.290

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\022.D
Date : 22-OCT-2021 12:27
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\030.D Page 1
Report Date: 17-Nov-2021 08:42

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\030.D
Lab Smp Id: HS21100785-03 Client Smp ID: HS21100785-03
Inj Date : 22-OCT-2021 14:04
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100785-03;HS21100785-03
Misc Info : ;1;0;25
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 30
Dil Factor: 25.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.496	0.476	0.020	15820	16.2258	405.644 (M)

QC Flag Legend

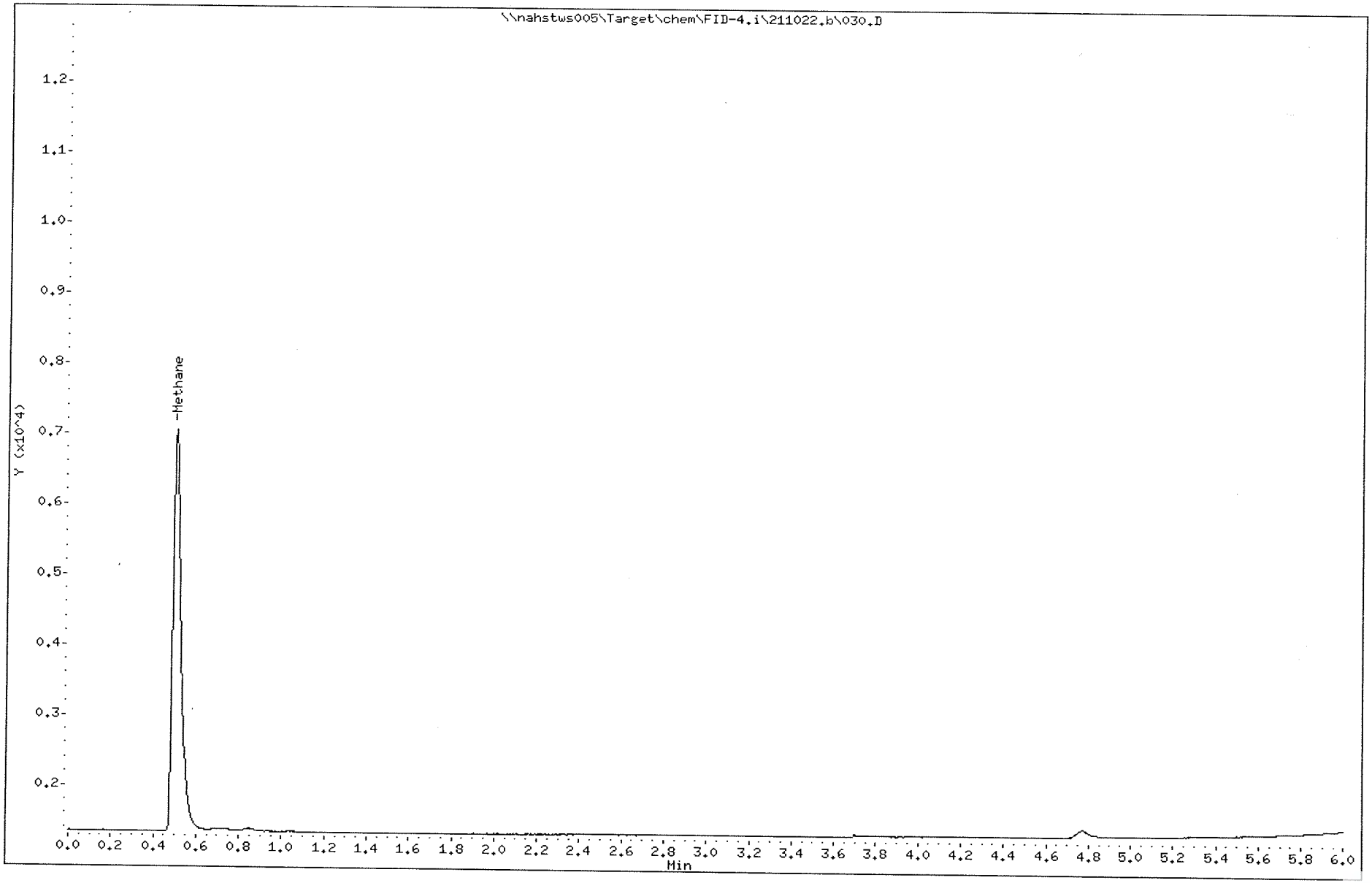
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\030.D
Date : 22-OCT-2021 14:04
Client ID: HS21100785-03
Sample Info: HS21100785-03;HS21100785-03

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\030.D Page 1
Report Date: 17-Nov-2021 08:44

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\030.D
Lab Smp Id: HS21100785-03 Client Smp ID: HS21100785-03
Inj Date : 22-OCT-2021 14:04
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100785-03;HS21100785-03
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 30
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.496	0.476	0.020	16043	16.4545	16.454
3 Ethane	0.843	0.810	0.033	247	0.34330	0.343(a)

QC Flag Legend

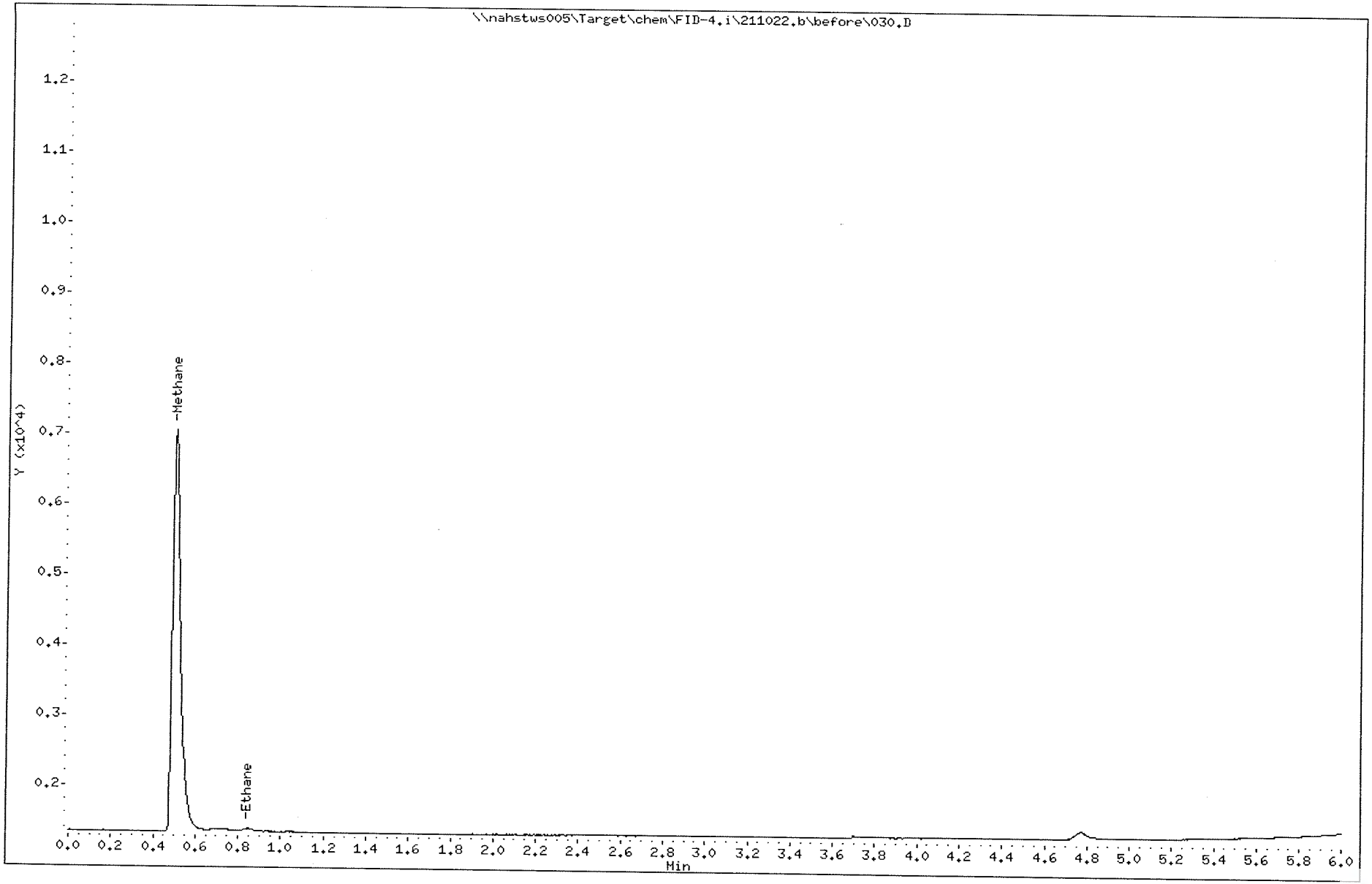
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\030.D
Date : 22-OCT-2021 14:04
Client ID: HS21100785-03
Sample Info: HS21100785-03;HS21100785-03

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\031.D Page 1
Report Date: 17-Nov-2021 08:42

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\031.D
Lab Smp Id: HS21100785-04 Client Smp ID: HS21100785-04
Inj Date : 22-OCT-2021 14:13
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100785-04;HS21100785-04
Misc Info : ;1;0;5
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 31
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.483	0.476	0.007	9711	9.96008	49.800
2 Ethene	0.726	0.726	0.000	1732	2.95684	14.784 (M)

QC Flag Legend

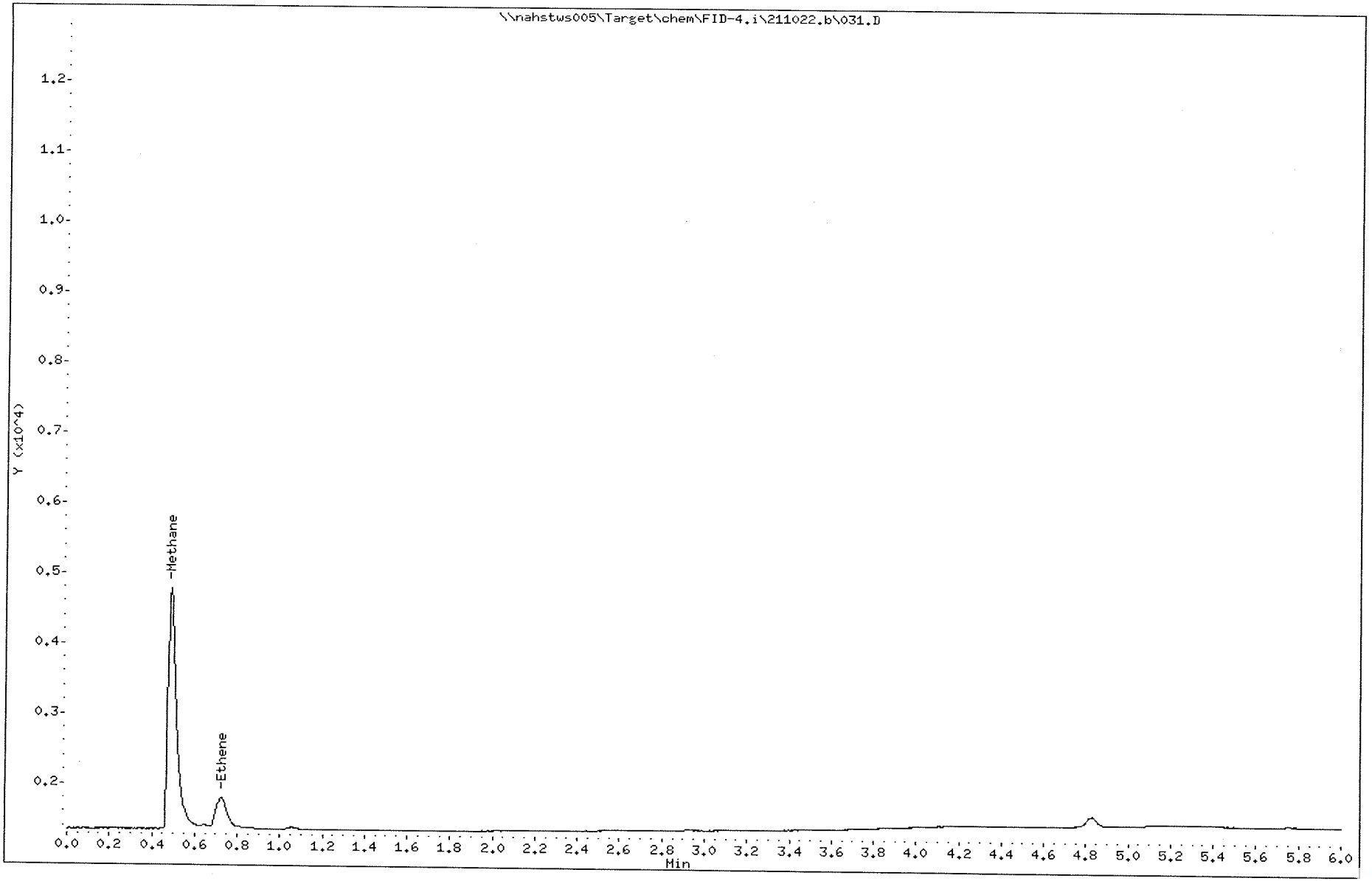
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\031.D
Date : 22-OCT-2021 14:13
Client ID: HS21100785-04
Sample Info: HS21100785-04;HS21100785-04

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\031.D
Lab Smp Id: HS21100785-04 Client Smp ID: HS21100785-04
Inj Date : 22-OCT-2021 14:13
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100785-04;HS21100785-04
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 31
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

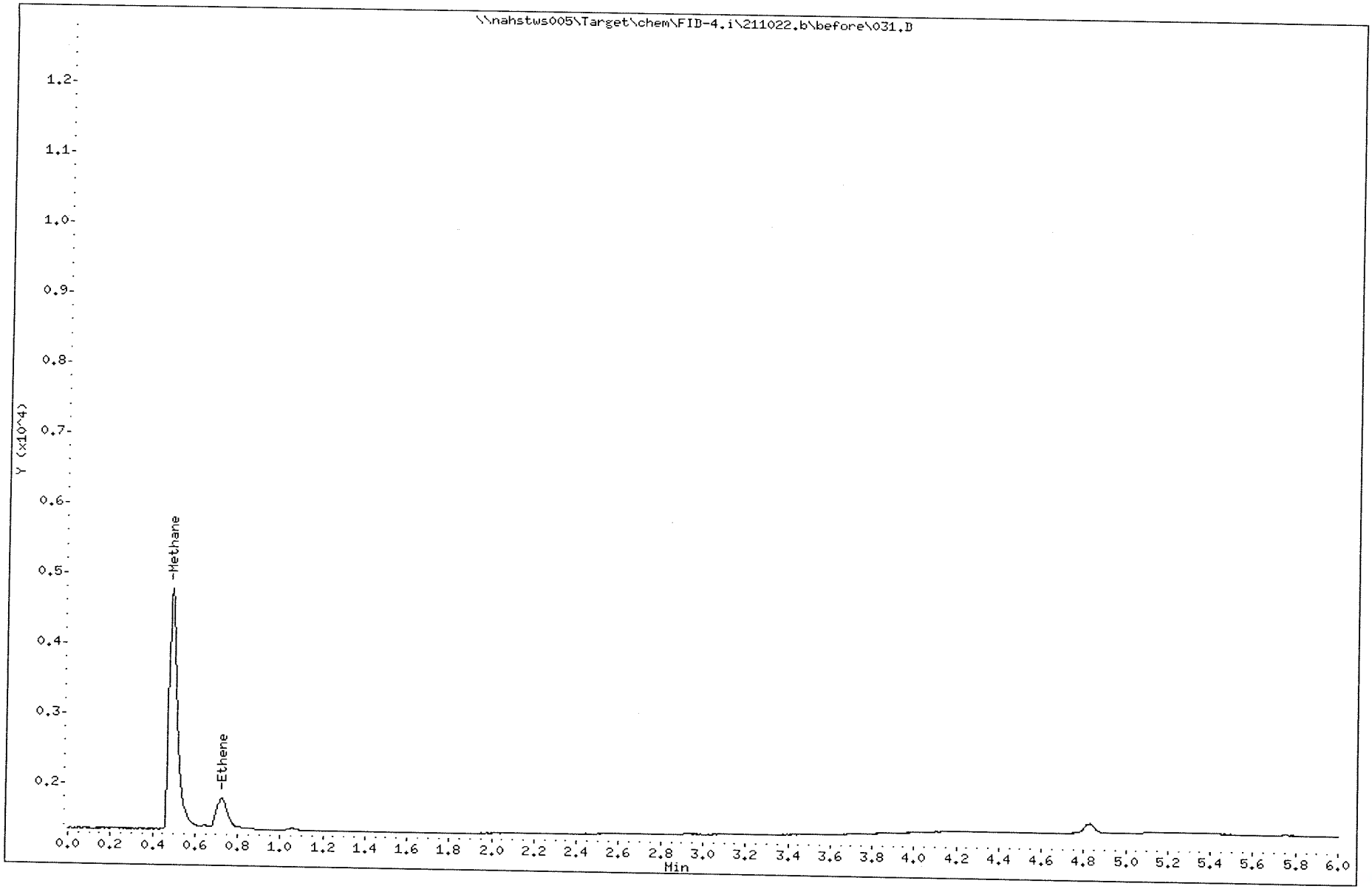
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.483	0.476	0.007	9711	9.96008	9.960
2 Ethene	0.726	0.726	0.000	1969	3.36144	3.361

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\031.D
Date : 22-OCT-2021 14:13
Client ID: HS21100785-04
Sample Info: HS21100785-04;HS21100785-04

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\032.D Page 1
Report Date: 17-Nov-2021 08:42

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\032.D
Lab Smp Id: HS21100785-05 Client Smp ID: HS21100785-05
Inj Date : 22-OCT-2021 14:26
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100785-05;HS21100785-05
Misc Info : ;1;0;5
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 32
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

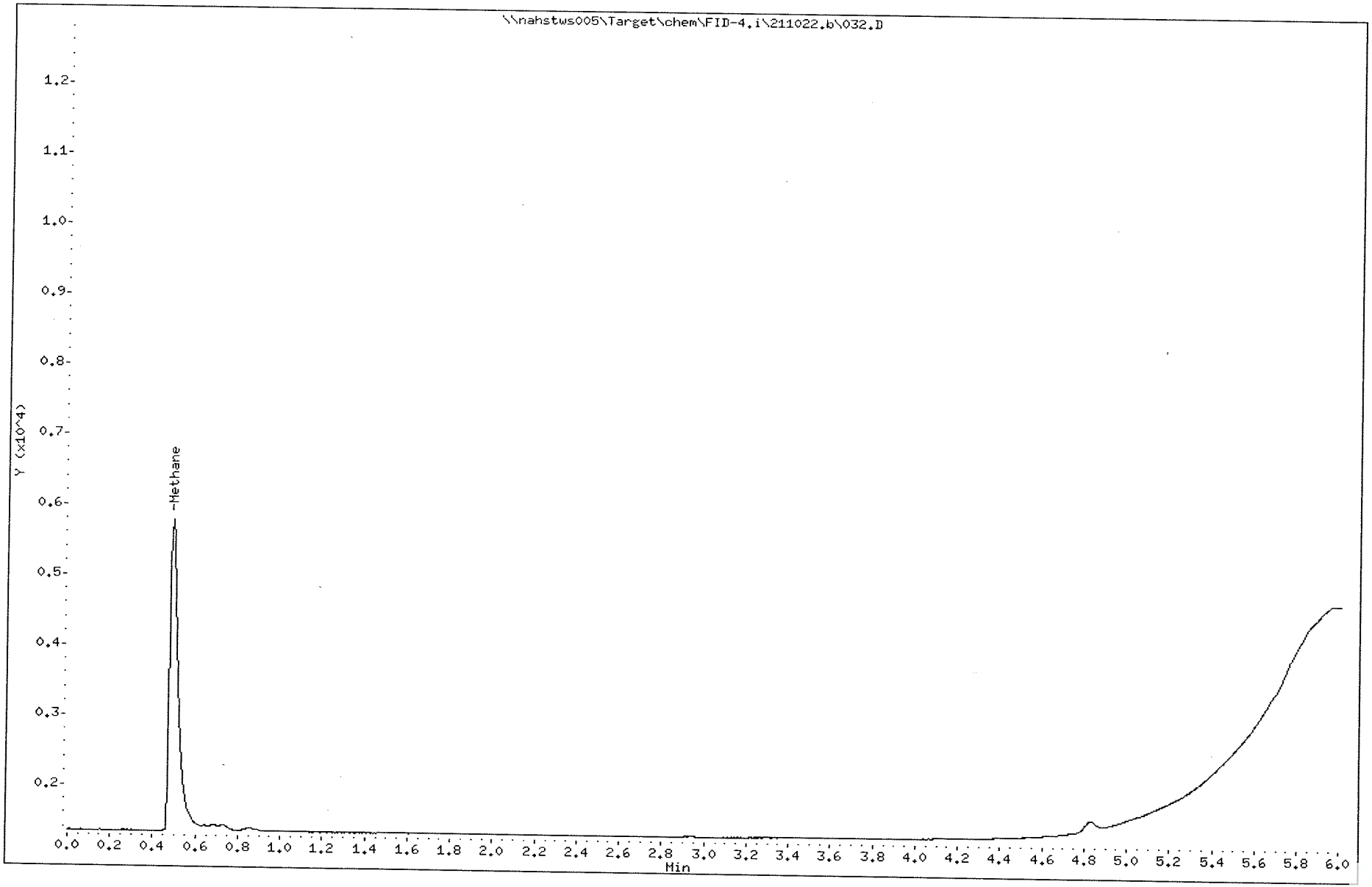
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.483	0.476	0.007	12821	13.1498	65.749

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\032.D
Date : 22-OCT-2021 14:26
Client ID: HS21100785-05
Sample Info: HS21100785-05;HS21100785-05

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\032.D
Lab Smp Id: HS21100785-05 Client Smp ID: HS21100785-05
Inj Date : 22-OCT-2021 14:26
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100785-05;HS21100785-05
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 32
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.483	0.476	0.007	12795	13.1232	13.123
2 Ethene	0.726	0.726	0.000	266	0.45411	0.454
3 Ethane	0.856	0.810	0.046	318	0.44198	0.441(a)

QC Flag Legend

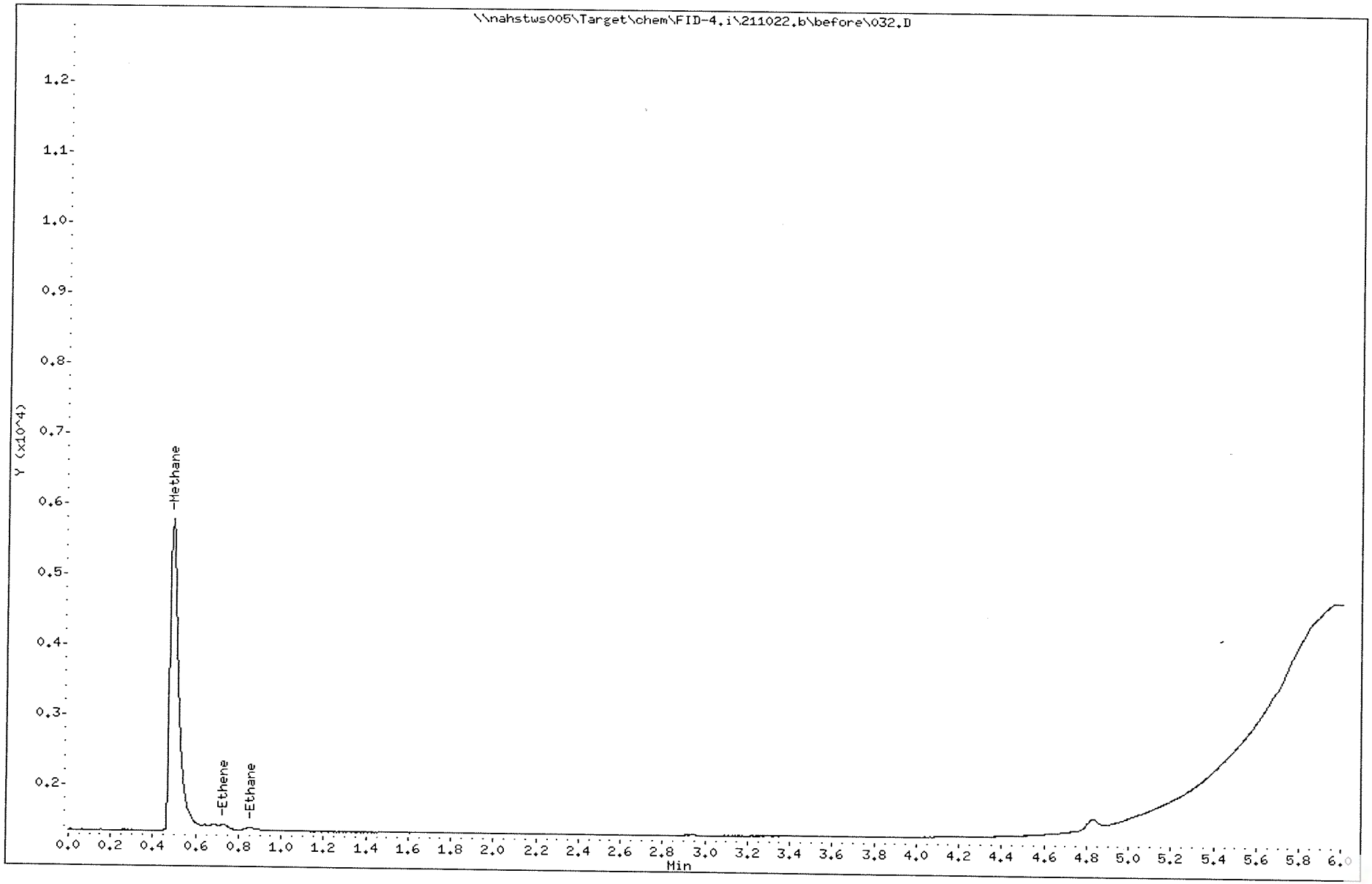
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\032.D
Date : 22-OCT-2021 14:26
Client ID: HS21100785-05
Sample Info: HS21100785-05;HS21100785-05

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\033.D
Report Date: 17-Nov-2021 08:43

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\033.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 22-OCT-2021 14:34
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

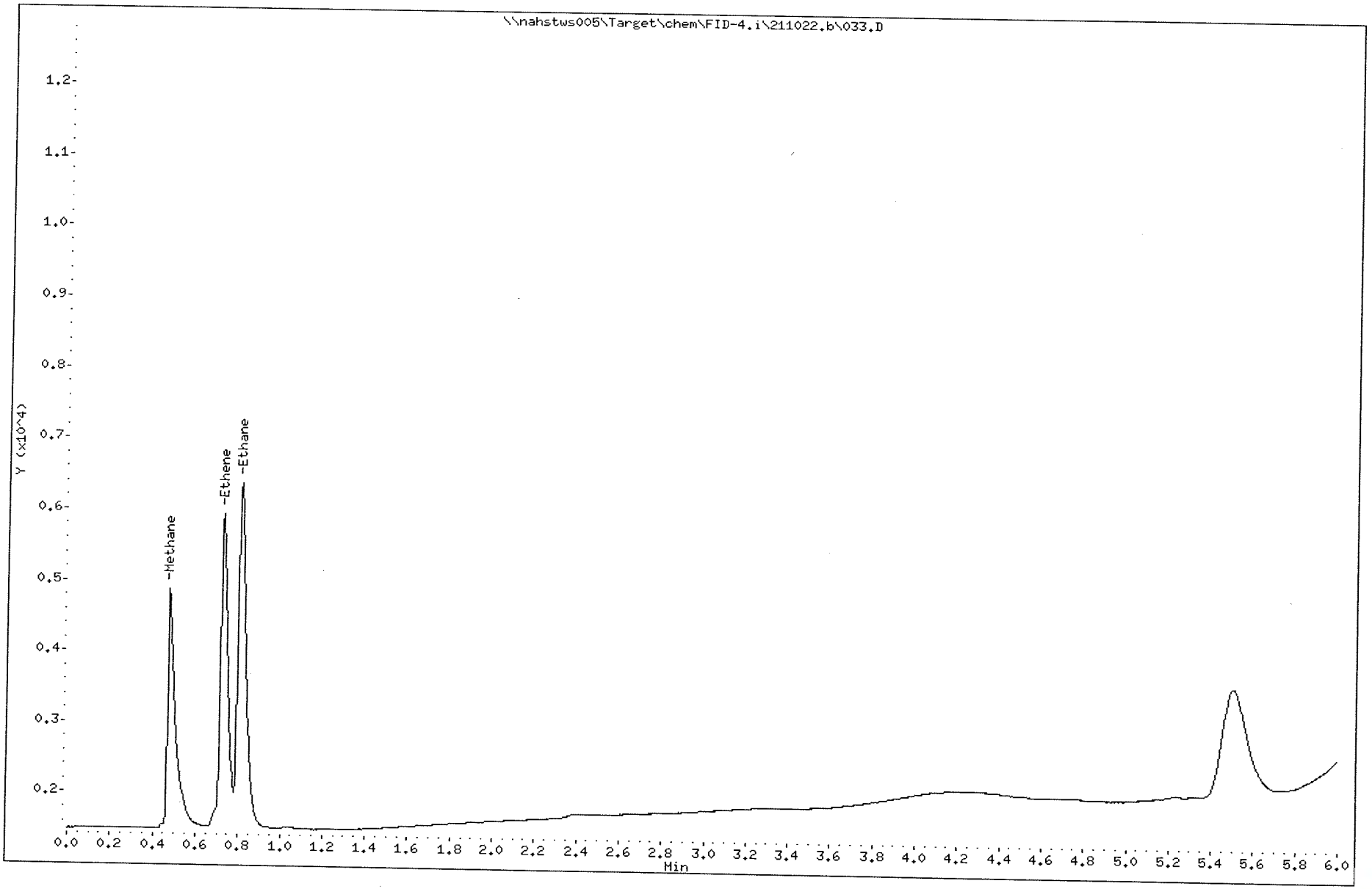
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.466	0.476	-0.010	8934	9.64700	9.163
2 Ethene	0.720	0.726	-0.006	11068	16.8500	18.895
3 Ethane	0.803	0.810	-0.007	13570	18.0430	18.860

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\033.D
Date : 22-OCT-2021 14:34
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\033.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 22-OCT-2021 14:34
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

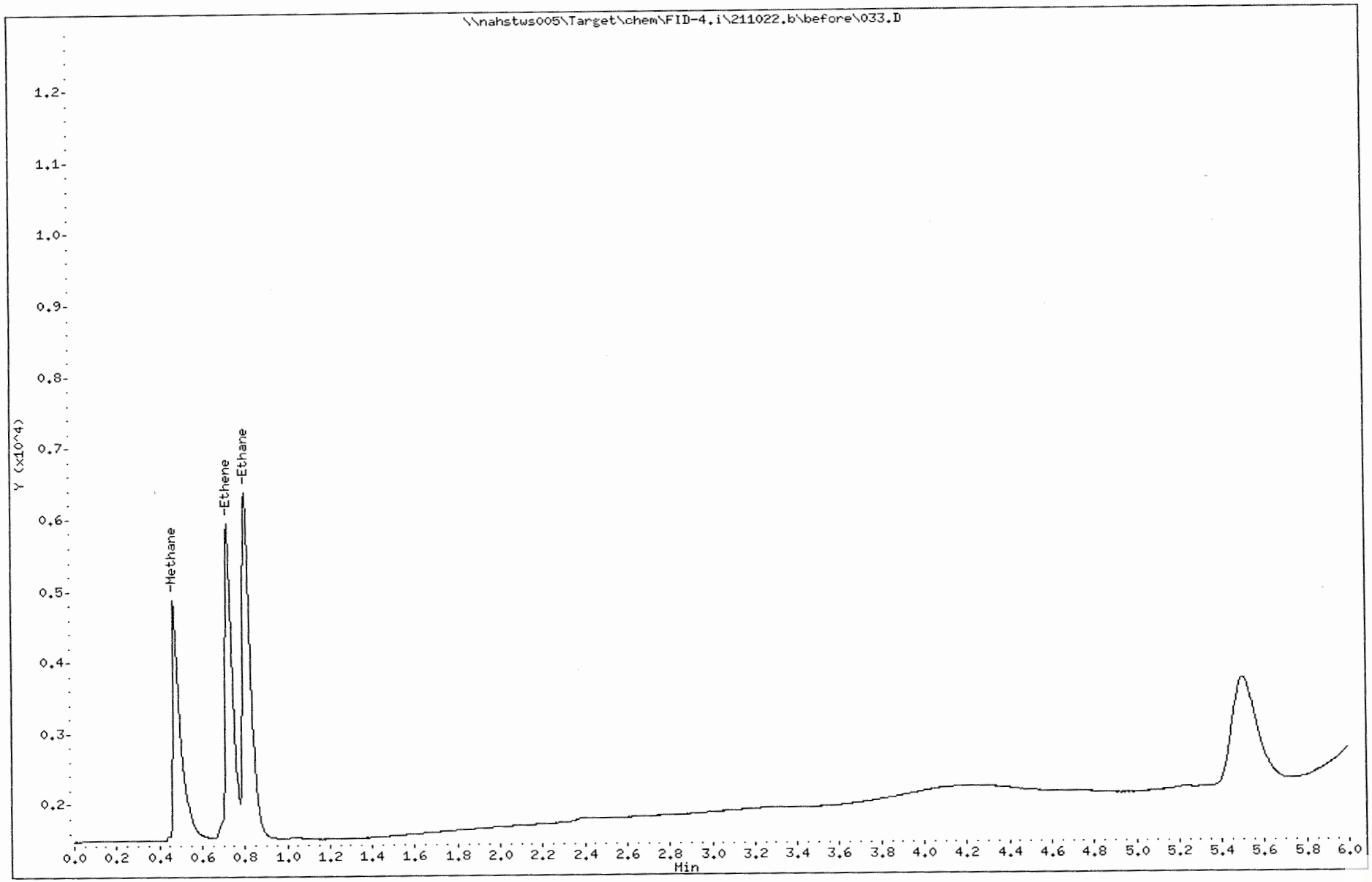
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.466	0.476	-0.010	8738	9.64700	8.962
2 Ethene	0.720	0.726	-0.006	10747	16.8500	18.347
3 Ethane	0.803	0.810	-0.007	13172	18.0430	18.307

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\033.D
Date : 22-OCT-2021 14:34
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53

Column phase: Rtx-PLOT



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\035.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 22-OCT-2021 14:57
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 35 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

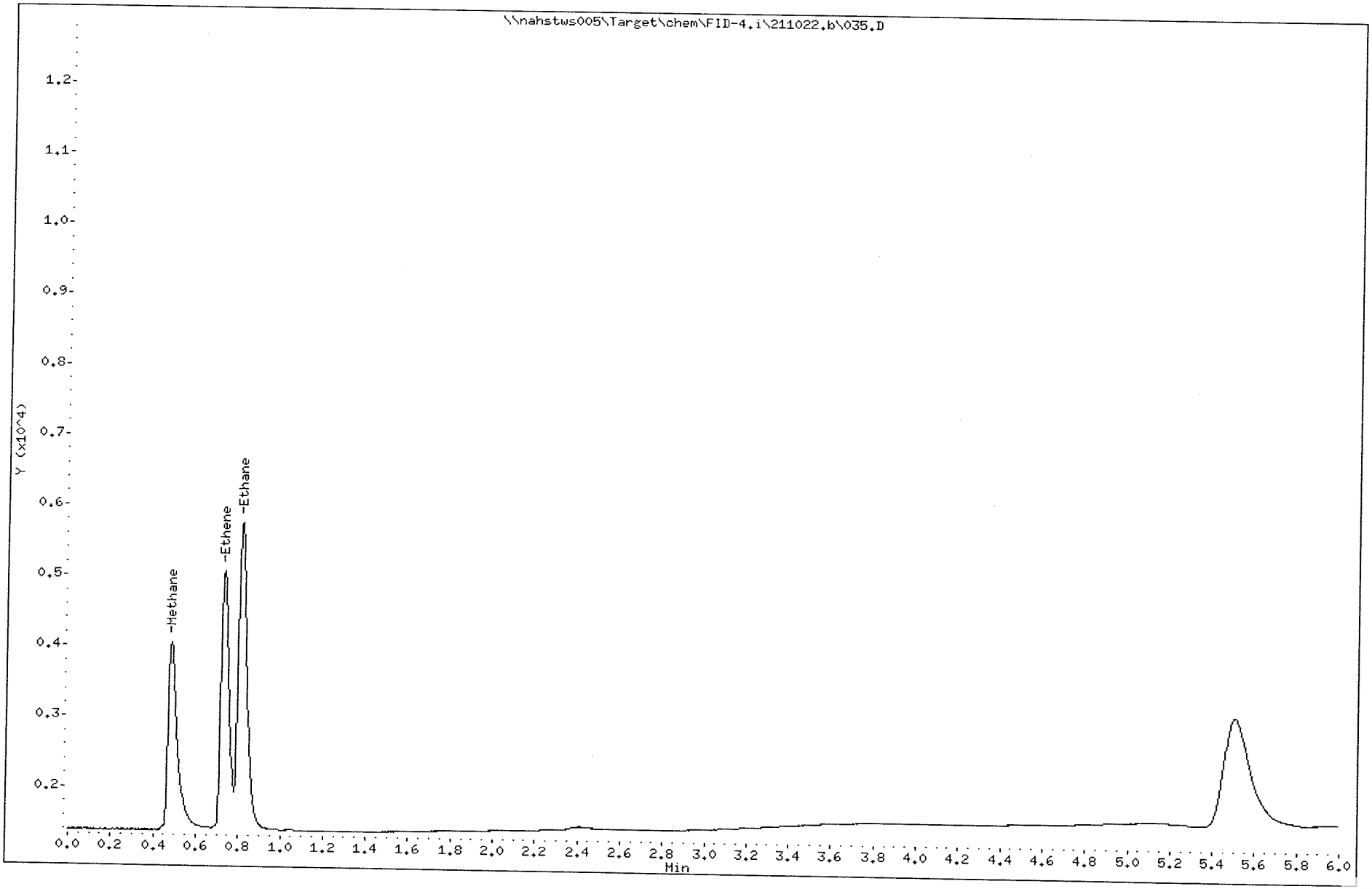
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.476	0.476	0.000	8701	9.64700	8.924
2 Ethene	0.726	0.726	0.000	10013	16.8500	17.094
3 Ethane	0.810	0.810	0.000	13404	18.0430	18.629

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\035.D
Date : 22-OCT-2021 14:57
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211022.b\before\035.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 22-OCT-2021 14:57
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211022.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:37 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 35 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

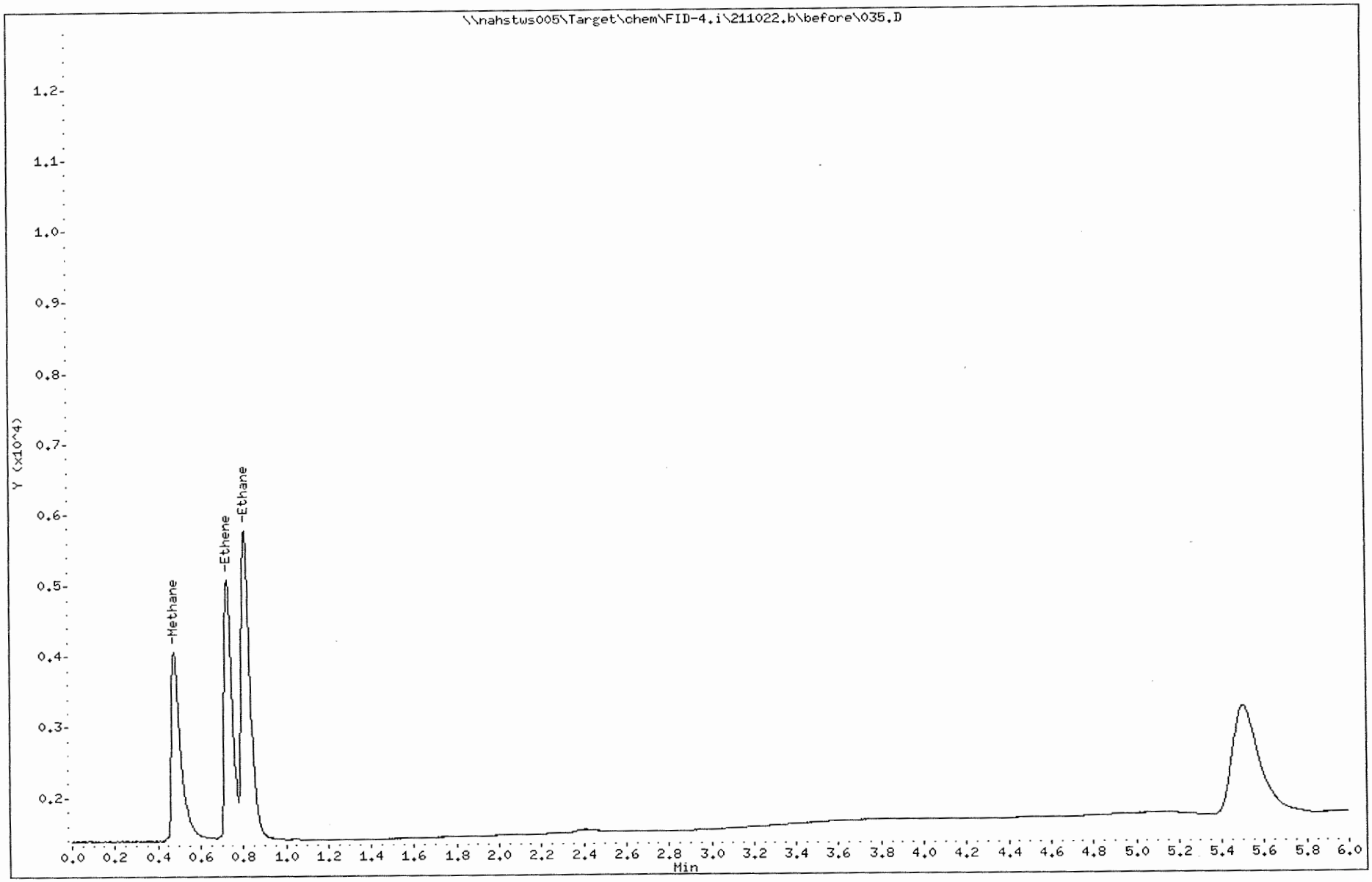
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.476	0.476	0.000	8642	9.64700	8.863
2 Ethene	0.726	0.726	0.000	9926	16.8500	16.945
3 Ethane	0.810	0.810	0.000	13268	18.0430	18.440

Data File: \\nahstws005\Target\chem\FID-4.i\211022.b\before\035.D
Date : 22-OCT-2021 14:57
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53

Column phase: Rtx-PLOT



HS21100785 9056_Wetchem IC

ALS WO# HS21100785

Sequence: 101421
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method	Processing Method	Volume	Status	Inject Time
	STD1		Calibratio	BA1	1.00	1	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 2:57:23 PM -05:00
	STD2		Calibratio	BA2	1.00	2	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:04:47 PM -05:00
	STD3		Calibratio	BA3	1.00	3	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:12:12 PM -05:00
	STD4		Calibratio	BA4	1.00	4	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:19:37 PM -05:00
	STD5		Calibratio	BA5	1.00	5	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:27:03 PM -05:00
	STD6		Calibratio	BA6	1.00	6	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:34:27 PM -05:00
	ICV		Unknown	BA7	1.00		Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:41:50 PM -05:00
	ICB		Unknown	BA8	1.00		Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:56:37 PM -05:00
	CCV		Unknown	R1	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 1:03:27 AM -05:00
	CCB		Unknown	R4	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 1:10:51 AM -05:00
	HS21100793-01		Unknown	BA6	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 1:18:15 AM -05:00
	HS21100793-01MS		Unknown	BA7	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 1:25:38 AM -05:00
	HS21100793-01MSD		Unknown	BA8	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 1:33:01 AM -05:00
	HS21100785-01		Unknown	BB2	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 1:47:49 AM -05:00
	HS21100785-02DF5		Unknown	BB3	5.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 1:55:13 AM -05:00
	HS21100785-03		Unknown	BB4	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 2:02:37 AM -05:00
	HS21100785-04DF5		Unknown	BB5	5.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 2:10:00 AM -05:00
	HS21100785-05DF5		Unknown	BB6	5.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 2:17:23 AM -05:00
	CCV1		Unknown	R3	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 2:32:12 AM -05:00
	CCB		Unknown	R7	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 2:47:00 AM -05:00
	CCV		Unknown	R1	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 4:15:48 AM -05:00
	CCB		Unknown	R4	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 4:23:11 AM -05:00
	MBLK		Unknown	R5	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 4:30:42 AM -05:00
	LCS		Unknown	R2	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 4:38:06 AM -05:00
	CCV1		Unknown	R3	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 5:44:43 AM -05:00
	CCB		Unknown	R7	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 5:59:31 AM -05:00

Sequence: 101521
Injection #6: STD6

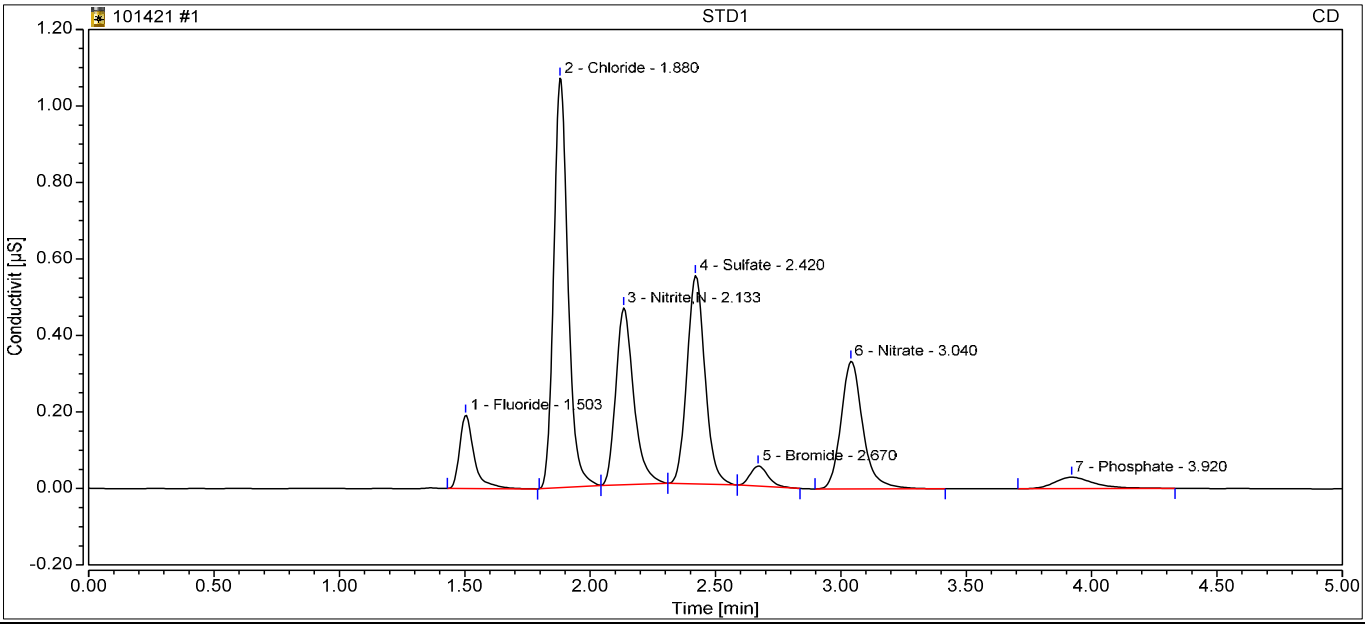
Calibration

Peak No.	Peak Name	Cal.Type	Eval.Type	Number of Points	Rel.Std.Dev. %	Coeff.of Determination	C0 (Offset)	C1 (Slope)	C2 (Curve)
1	*Fluoride*	*Lin, WithOffset, 1/*	*Area*	*6*	*14.8917*	*0.99901*	*-0.0076*	*0.2037*	*0.0000*
2	Chloride	Lin, WithOffset, 1/	Area	6	6.3298	0.99978	0.0062	0.1342	0.0000
3	Nitrite,N	Quad, WithOffset,	Area	6	6.9766	0.99974	0.0102	0.2986	-0.0023
4	Sulfate	Lin, WithOffset, 1/	Area	6	6.6535	0.99977	-0.0001	0.0971	0.0000
5	Bromide	Lin, WithOffset, 1/	Area	6	8.9157	0.99963	-0.0016	0.0548	0.0000
6	Nitrate	Lin, WithOffset, 1/	Area	6	6.7024	0.99976	0.0001	0.3403	0.0000
n.a.	Chlorate	Lin, WithOffset, 1/	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
7	Phosphate	Quad, WithOffset,	Area	6	11.6511	0.99965	-0.0052	0.0981	0.0012
Maximum					**14.8917**	0.99978			
Minimum					6.3298	**0.99901**			

1 STD1

Sample Name:	**STD1**	*Injection Volume:*	**5.00**
Vial Number:	**BA1**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 14:57**	*Sample Weight:*	**1.0000**

Run Time:



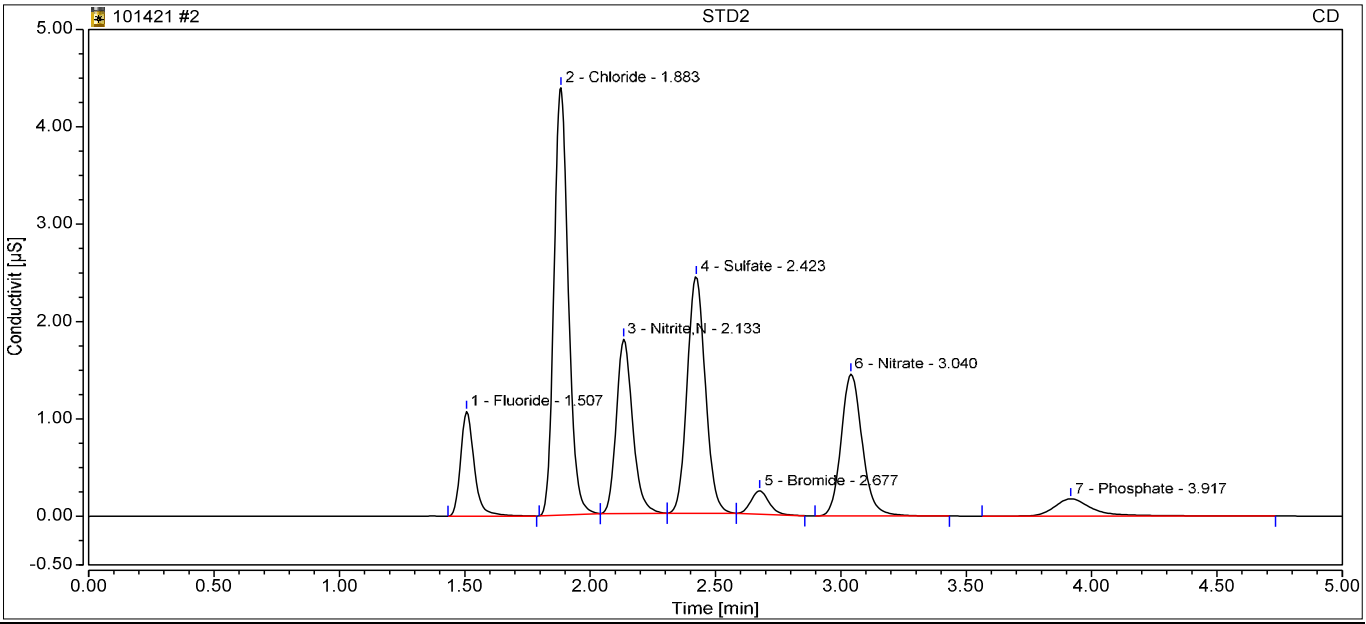
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	0.013	0.1005	0.1005	1.0000
2	1.88	Chloride	BMB	0.070	0.4785	0.4785	1.0000
3	2.13	Nitrite,N	BMB	0.038	0.0937	0.0937	1.0000
4	2.42	Sulfate	BMB	0.045	0.4684	0.4684	1.0000
5	2.67	Bromide	BMB	0.004	0.1078	0.1078	1.0000
6	3.04	Nitrate	BMB	0.034	0.0982	0.0982	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.92	Phosphate	BMB	0.005	0.1085	0.1085	1.0000
Total:			**0.000**	**0.210**		**1.46**	

2 STD2

Sample Name:	**STD2**	*Injection Volume:*	**5.00**
Vial Number:	**BA2**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:04**	*Sample Weight:*	**1.0000**

Run Time:



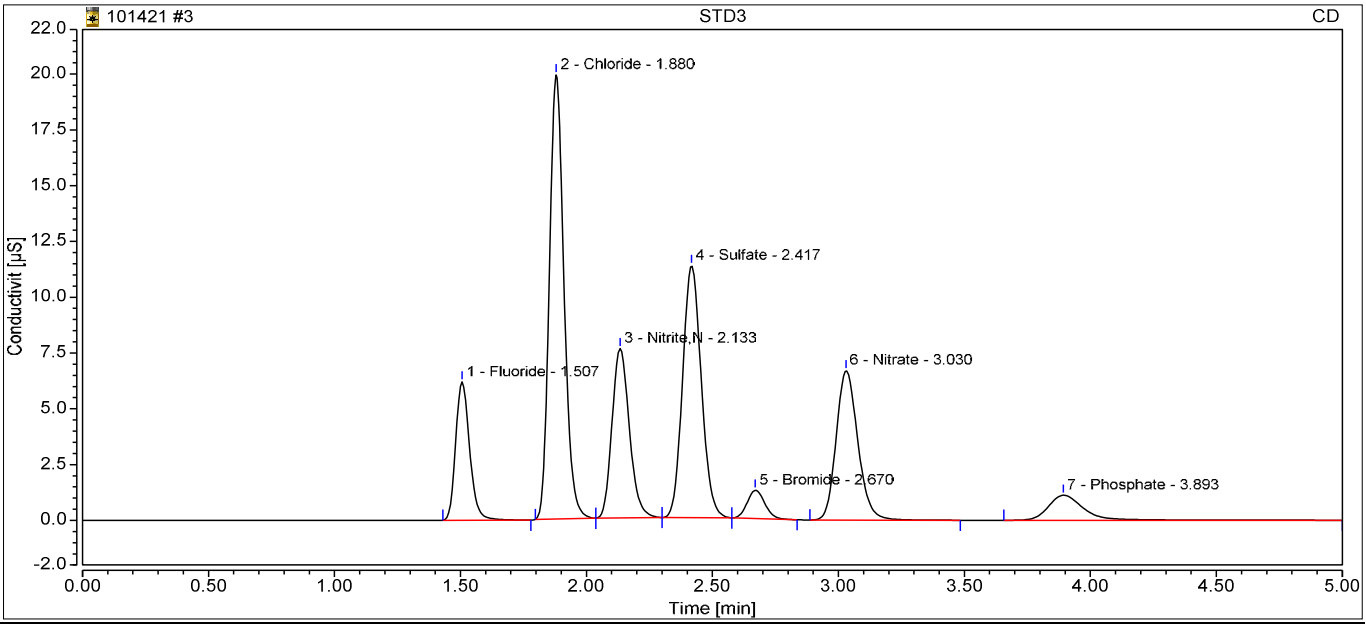
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.068	0.3708	0.3708	1.0000
2	1.88	Chloride	BMB	0.290	2.1158	2.1158	1.0000
3	2.13	Nitrite,N	BMB	0.135	0.4190	0.4190	1.0000
4	2.42	Sulfate	BMB	0.204	2.1052	2.1052	1.0000
5	2.68	Bromide	BMB	0.020	0.3906	0.3906	1.0000
6	3.04	Nitrate	BMB	0.142	0.4172	0.4172	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.92	Phosphate	BMB	0.032	0.3731	0.3731	1.0000
Total:			**0.000**	**0.891**		**6.19**	

3 STD3

Sample Name:	**STD3**	*Injection Volume:*	**5.00**
Vial Number:	**BA3**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:12**	*Sample Weight:*	**1.0000**

Run Time:



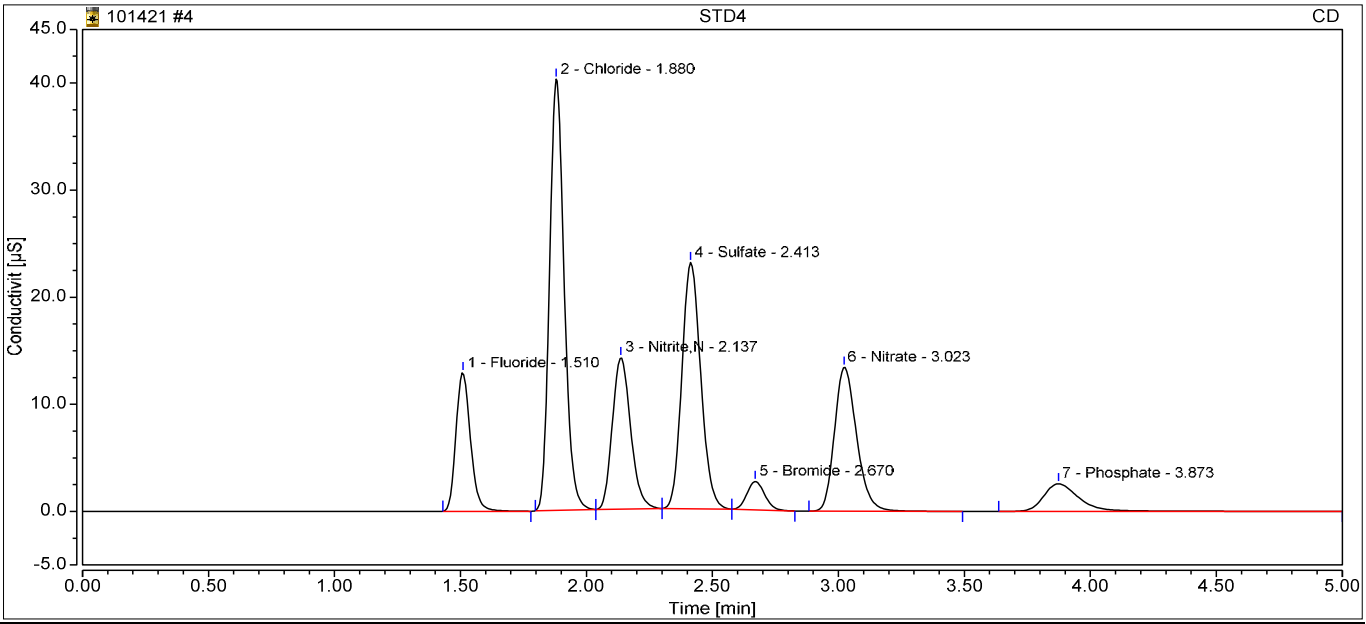
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.401	2.0041	2.0041	1.0000
2	1.88	Chloride	BMB	1.334	9.8953	9.8953	1.0000
3	2.13	Nitrite,N	BMB	0.605	2.0242	2.0242	1.0000
4	2.42	Sulfate	BMB	0.971	10.0035	10.0035	1.0000
5	2.67	Bromide	BMB	0.103	1.9116	1.9116	1.0000
6	3.03	Nitrate	BMB	0.668	1.9622	1.9622	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.89	Phosphate	BMB	0.185	1.8909	1.8909	1.0000
Total:			**0.000**	**4.266**		**29.69**	

4 STD4

Sample Name:	**STD4**	*Injection Volume:*	**5.00**
Vial Number:	**BA4**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:19**	*Sample Weight:*	**1.0000**

Run Time:



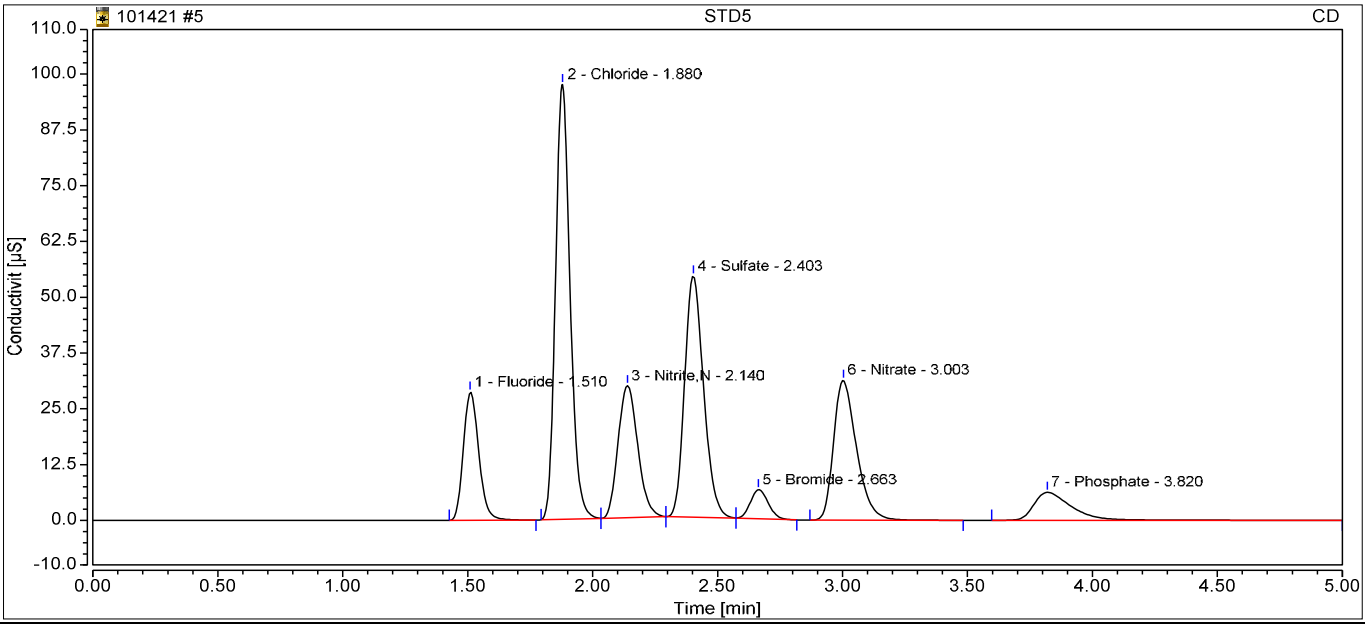
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.866	4.2910	4.2910	1.0000
2	1.88	Chloride	BMB	2.709	20.1365	20.1365	1.0000
3	2.14	Nitrite,N	BMB	1.191	4.0819	4.0819	1.0000
4	2.41	Sulfate	BMB	1.991	20.5124	20.5124	1.0000
5	2.67	Bromide	BMB	0.216	3.9679	3.9679	1.0000
6	3.02	Nitrate	BMB	1.366	4.0146	4.0146	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.87	Phosphate	BMB	0.424	4.1568	4.1568	1.0000
Total:			**0.000**	**8.762**		**61.16**	

5 STD5

Sample Name:	**STD5**	*Injection Volume:*	**5.00**
Vial Number:	**BA5**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:27**	*Sample Weight:*	**1.0000**

Run Time:



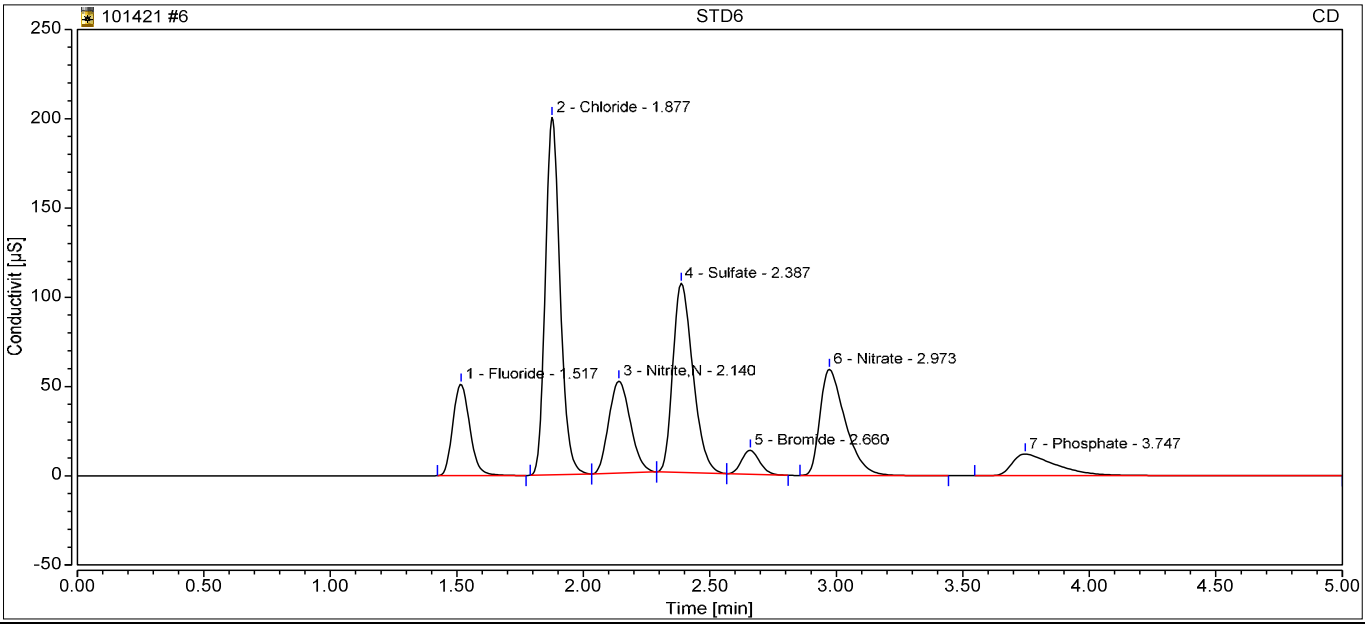
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	2.057	10.1376	10.1376	1.0000
2	1.88	Chloride	BMB	6.582	48.9987	48.9987	1.0000
3	2.14	Nitrite,N	BMB	2.709	9.7764	9.7764	1.0000
4	2.40	Sulfate	BMB	4.762	49.0593	49.0593	1.0000
5	2.66	Bromide	BMB	0.537	9.8247	9.8247	1.0000
6	3.00	Nitrate	BMB	3.333	9.7942	9.7942	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.82	Phosphate	BMB	1.095	9.9725	9.9725	1.0000
Total:			**0.000**	**21.075**		**147.56**	

6 STD6

Sample Name:	**STD6**	*Injection Volume:*	**5.00**
Vial Number:	**BA6**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:34**	*Sample Weight:*	**1.0000**

Run Time:



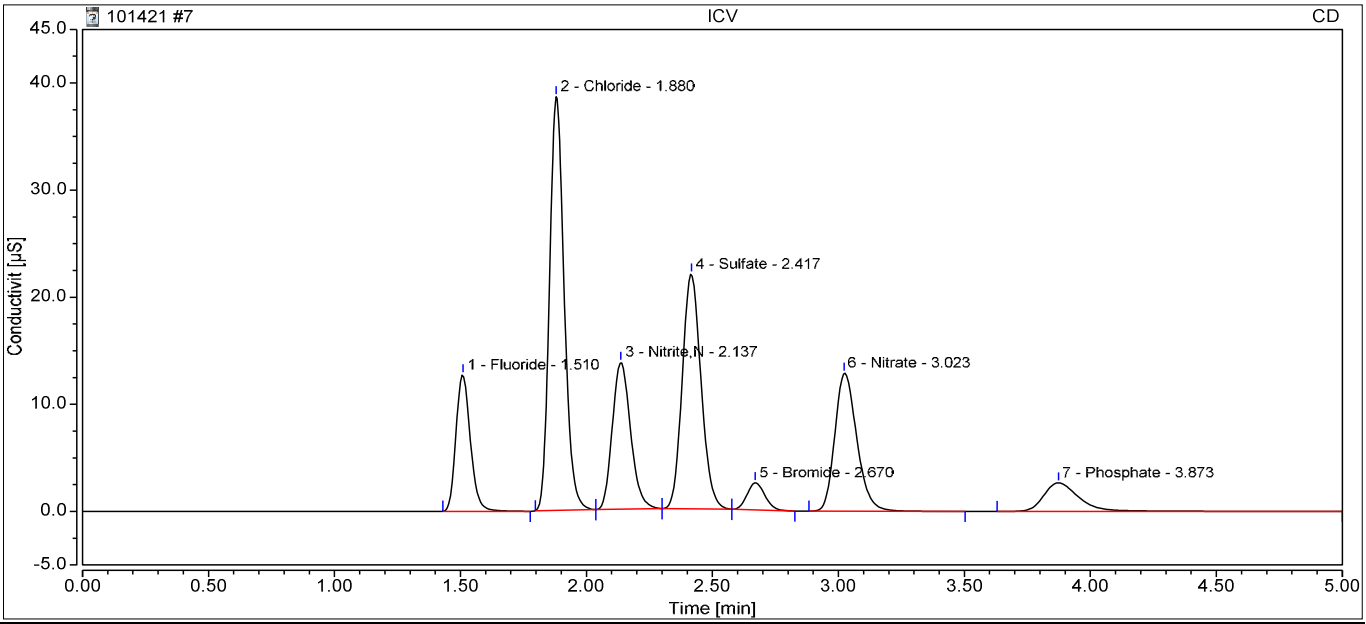
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	3.983	19.5961	19.5961	1.0000
2	1.88	Chloride	BMB	13.545	100.8752	100.8752	1.0000
3	2.14	Nitrite,N	BMB	5.085	20.1110	20.1110	1.0000
4	2.39	Sulfate	BMB	9.740	100.3513	100.3513	1.0000
5	2.66	Bromide	BMB	1.110	20.2973	20.2973	1.0000
6	2.97	Nitrate	BMB	6.879	20.2136	20.2136	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.75	Phosphate	BMB	2.448	19.9964	19.9964	1.0000
Total:			**0.000**	**42.790**		**301.44**	

7 ICV

Sample Name:	**ICV**	*Injection Volume:*	**5.00**
Vial Number:	**BA7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:41**	*Sample Weight:*	**1.0000**

Run Time:



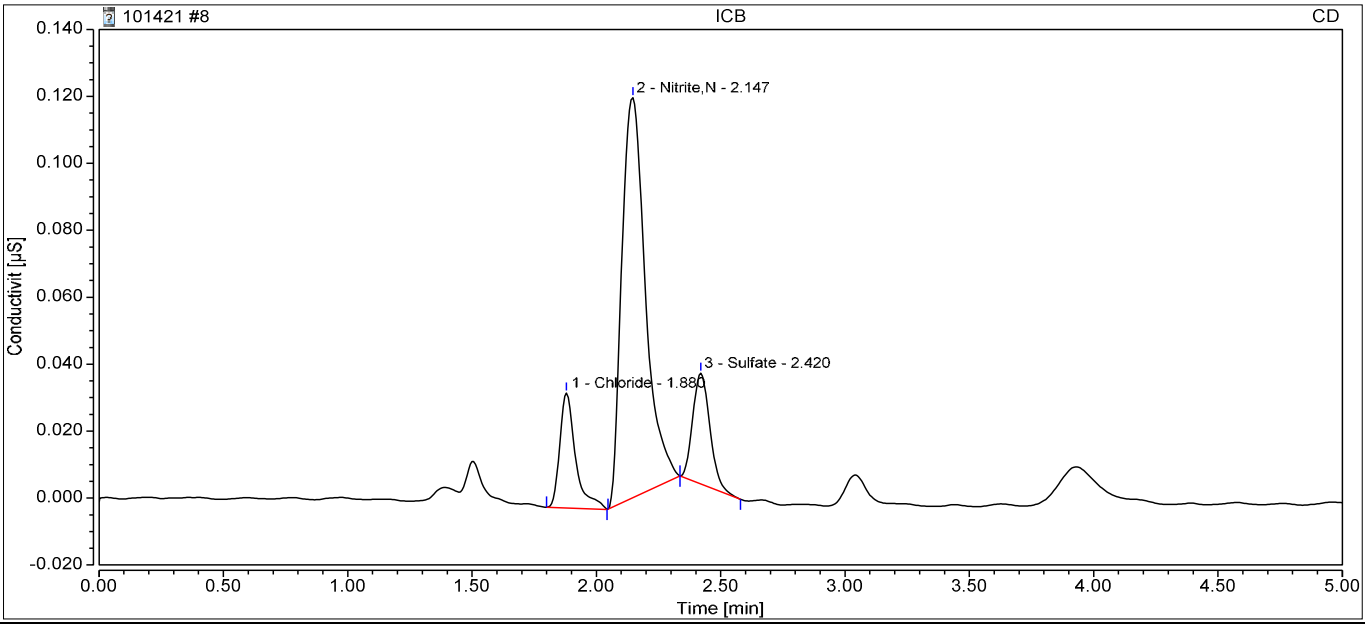
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.849	4.2062	4.2062	1.0000
2	1.88	Chloride	BMB	2.597	19.3008	19.3008	1.0000
3	2.14	Nitrite,N	BMB	1.152	3.9447	3.9447	1.0000
4	2.42	Sulfate	BMB	1.895	19.5248	19.5248	1.0000
5	2.67	Bromide	BMB	0.207	3.7999	3.7999	1.0000
6	3.02	Nitrate	BMB	1.307	3.8406	3.8406	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.87	Phosphate	BMB	0.438	4.2917	4.2917	1.0000
Total:			**0.000**	**8.445**		**58.91**	

8 ICB

Sample Name:	**ICB**	*Injection Volume:*	**5.00**
Vial Number:	**BA8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:56**	*Sample Weight:*	**1.0000**

Run Time:



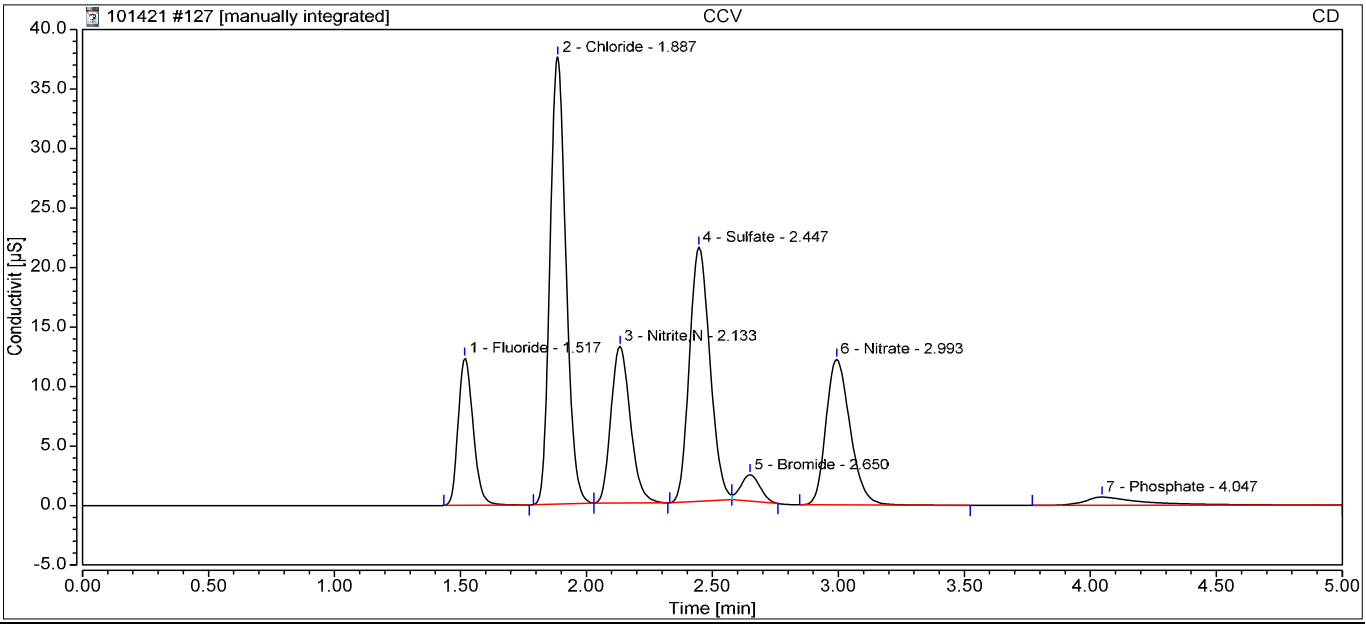
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.003	n.a.	n.a.	1.0000
2	2.15	Nitrite,N	BMB	0.013	0.0102	0.0102	1.0000
3	2.42	Sulfate	BMB	0.003	0.0287	0.0287	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.018**		**0.04**	

127 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 01:03**	*Sample Weight:*	**1.0000**

Run Time:



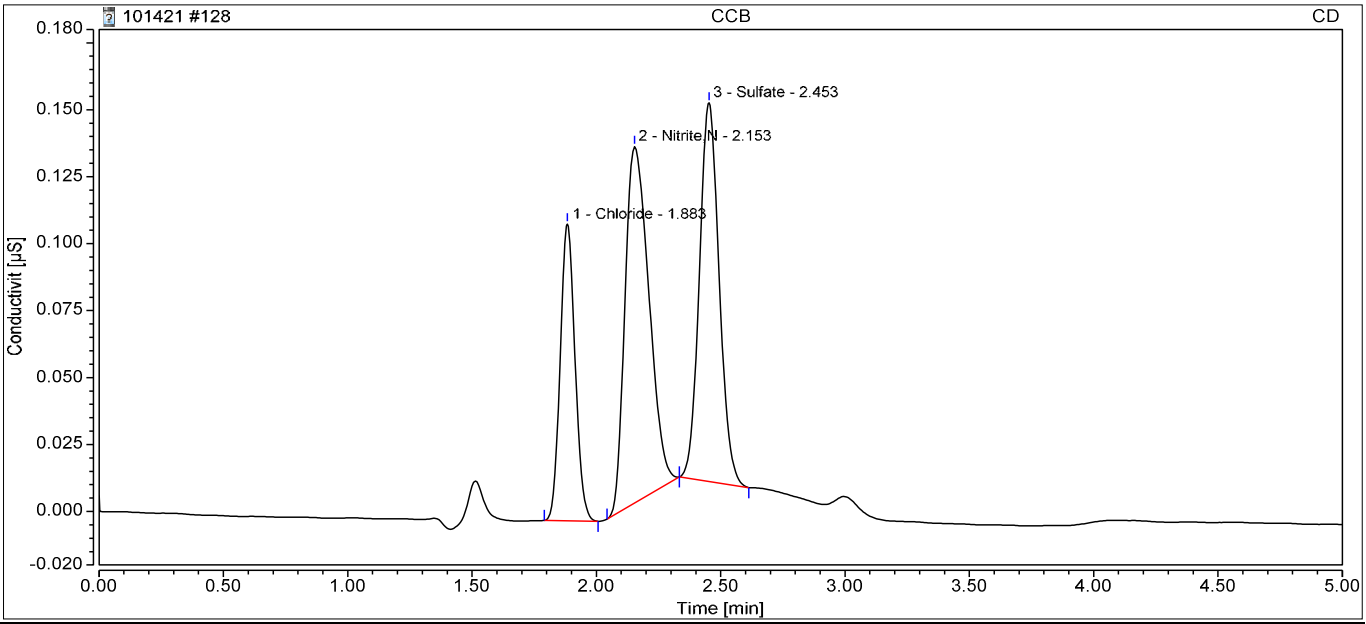
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.854	4.2287	4.2287	1.0000
2	1.89	Chloride	BMB	2.759	20.5098	20.5098	1.0000
3	2.13	Nitrite,N	BMB	1.174	4.0212	4.0212	1.0000
4	2.45	Sulfate	BM *	2.017	20.7809	20.7809	1.0000
5	2.65	Bromide	MB*	0.197	3.6197	3.6197	1.0000
6	2.99	Nitrate	BMB	1.361	3.9995	3.9995	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.05	Phosphate	BMB	0.196	2.0045	2.0045	1.0000
Total:			**0.000**	**8.557**		**59.16**	

128 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 01:10**	*Sample Weight:*	**1.0000**

Run Time:



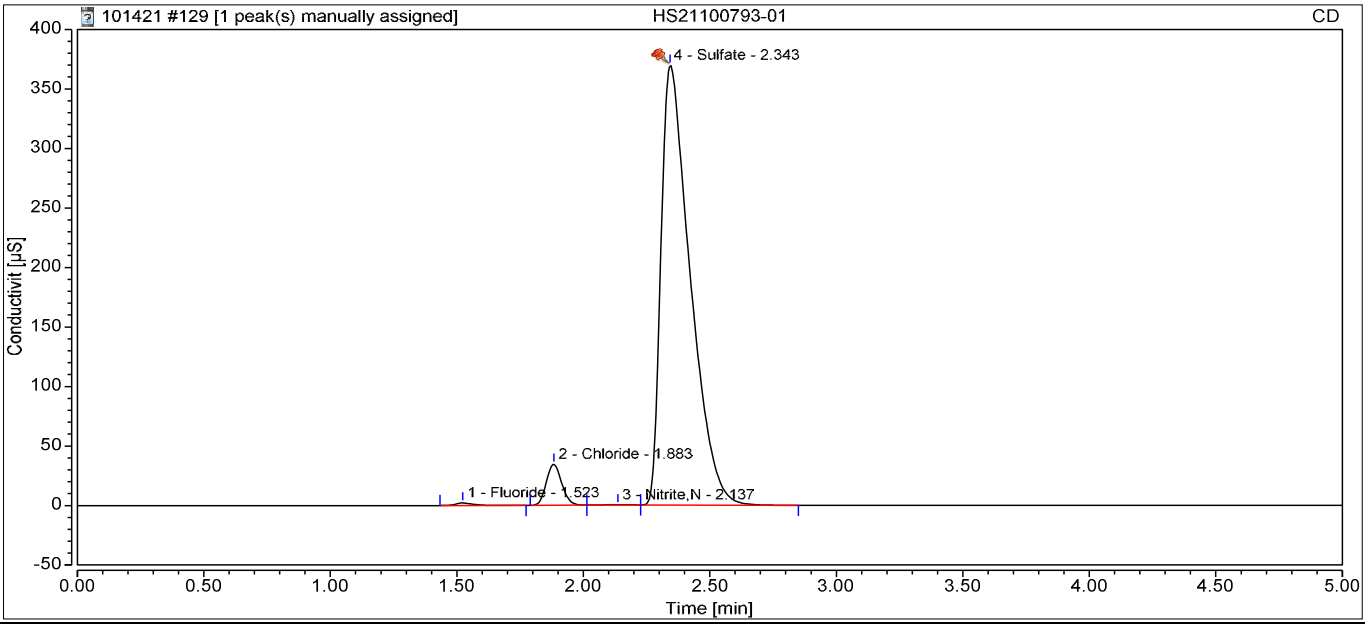
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.008	0.0110	0.0110	1.0000
2	2.15	Nitrite,N	BMB	0.015	0.0156	0.0156	1.0000
3	2.45	Sulfate	BMB	0.013	0.1355	0.1355	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.036**		**0.16**	

129 HS21100793-01

Sample Name:	**HS21100793-01**	*Injection Volume:*	**5.00**
Vial Number:	**BA6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 01:18**	*Sample Weight:*	**1.0000**

Run Time:



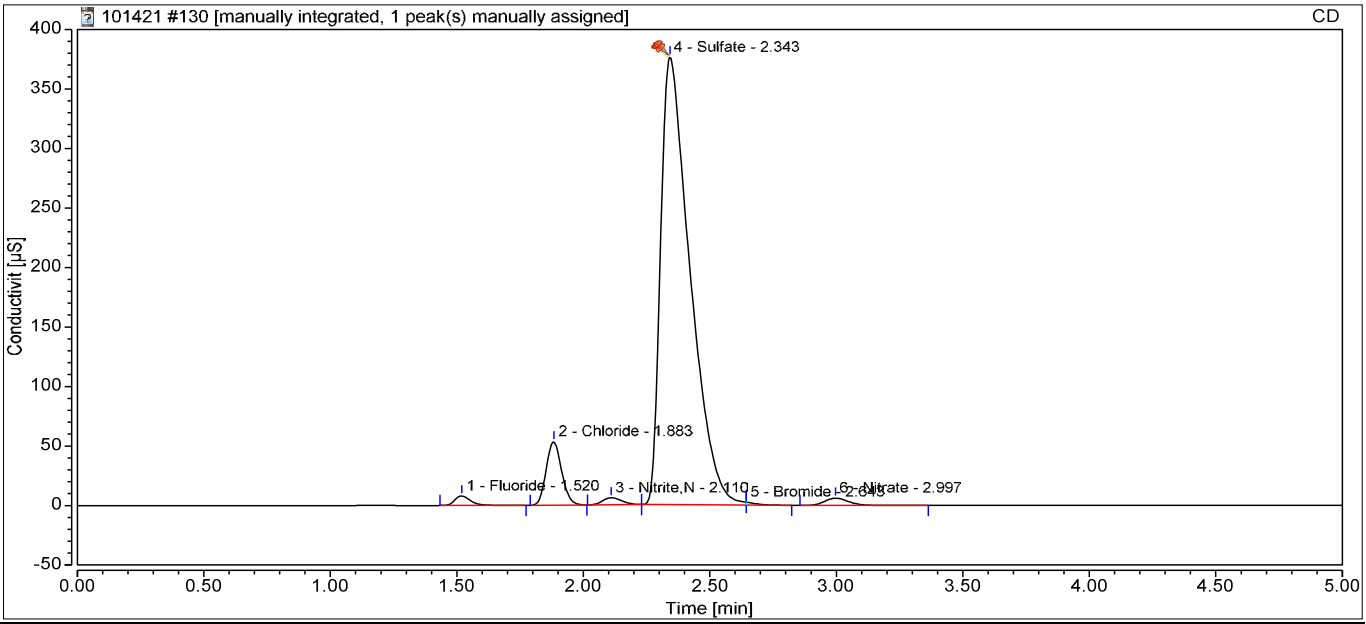
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.172	0.8807	0.8807	1.0000
2	1.88	Chloride	BMB	2.441	18.1377	18.1377	1.0000
3	2.14	Nitrite,N	BMB	0.030	0.0672	0.0672	1.0000
4	2.34	Sulfate	BMB^	49.350	508.4430	508.4430	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**51.993**		**527.53**	

130 HS21100793-01MS

Sample Name:	**HS21100793-01MS**	*Injection Volume:*	**5.00**
Vial Number:	**BA7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 01:25**	*Sample Weight:*	**1.0000**

Run Time:



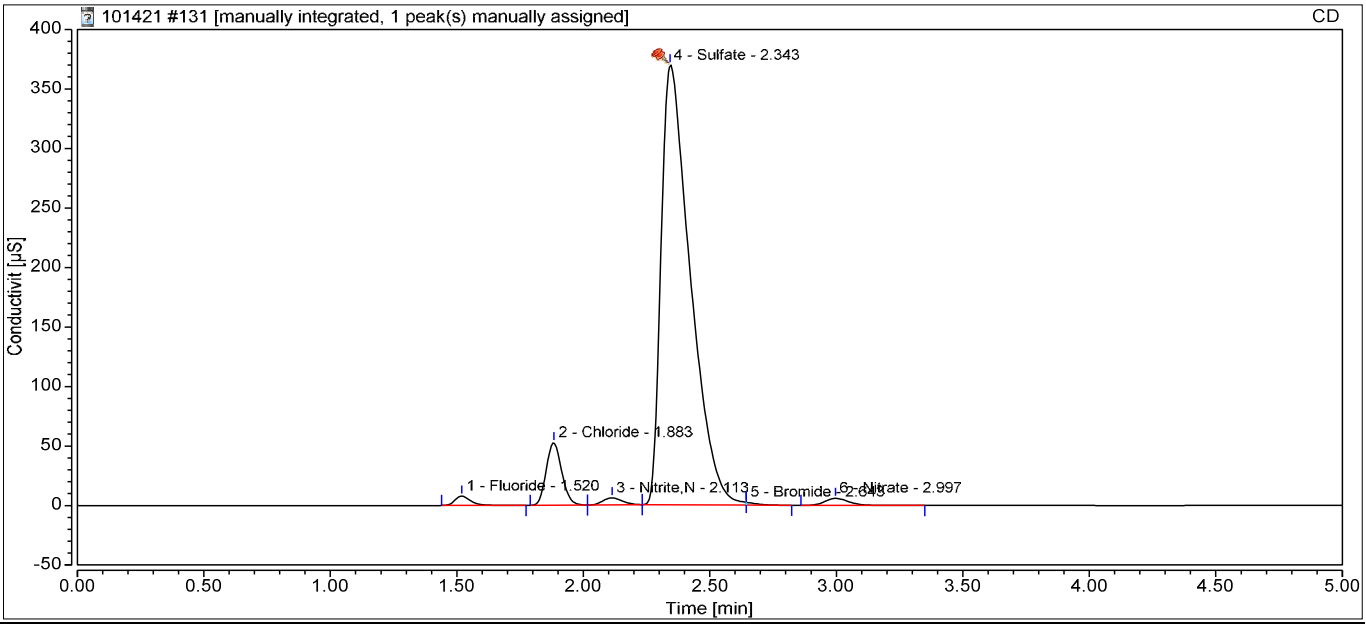
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.589	2.9313	2.9313	1.0000
2	1.88	Chloride	BMB	3.790	28.1932	28.1932	1.0000
3	2.11	Nitrite,N	BMB	0.522	1.7359	1.7359	1.0000
4	2.34	Sulfate	BM *^	50.566	520.9655	520.9655	1.0000
5	2.64	Bromide	MB*	0.104	1.9244	1.9244	1.0000
6	3.00	Nitrate	BMB	0.651	1.9135	1.9135	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**56.222**		**557.66**	

131 HS21100793-01MSD

Sample Name:	**HS21100793-01MSD**	*Injection Volume:*	**5.00**
Vial Number:	**BA8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 01:33**	*Sample Weight:*	**1.0000**

Run Time:



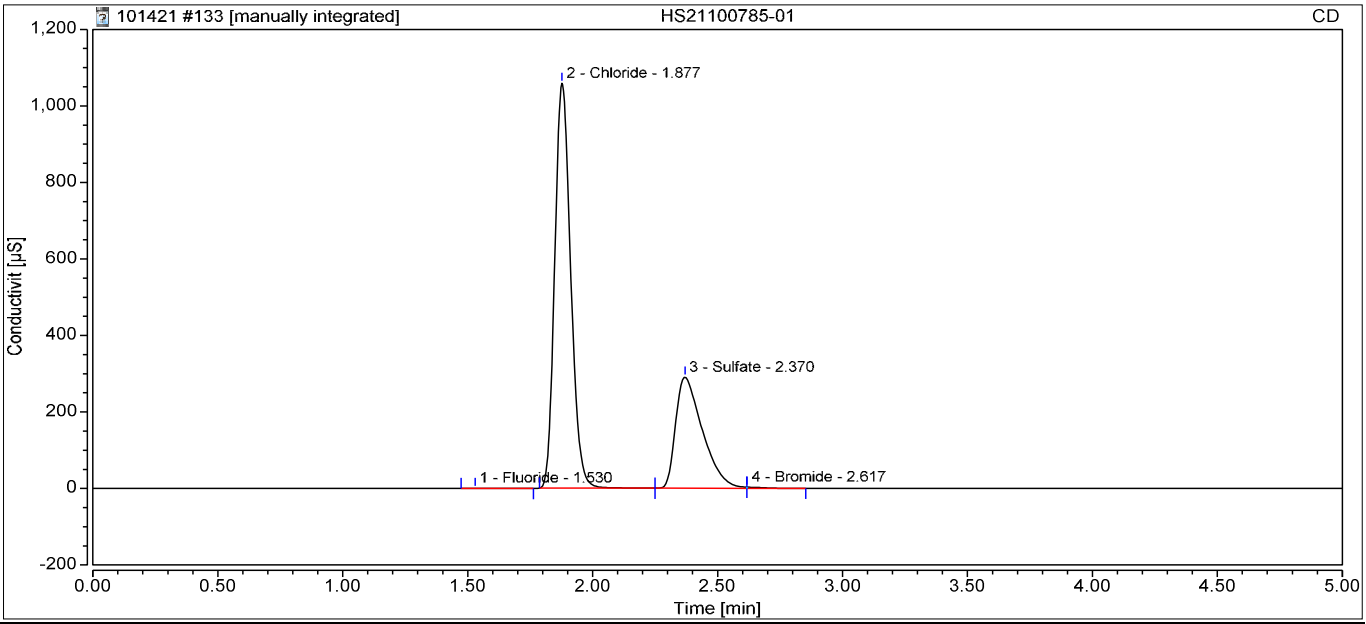
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.577	2.8725	2.8725	1.0000
2	1.88	Chloride	BMB	3.735	27.7855	27.7855	1.0000
3	2.11	Nitrite,N	BMB	0.516	1.7163	1.7163	1.0000
4	2.34	Sulfate	BM *^	49.390	508.8528	508.8528	1.0000
5	2.64	Bromide	MB*	0.103	1.9143	1.9143	1.0000
6	3.00	Nitrate	BMB	0.639	1.8782	1.8782	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**54.961**		**545.02**	

133 HS21100785-01

Sample Name:	**HS21100785-01**	*Injection Volume:*	**5.00**
Vial Number:	**BB2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 01:47**	*Sample Weight:*	**1.0000**

Run Time:



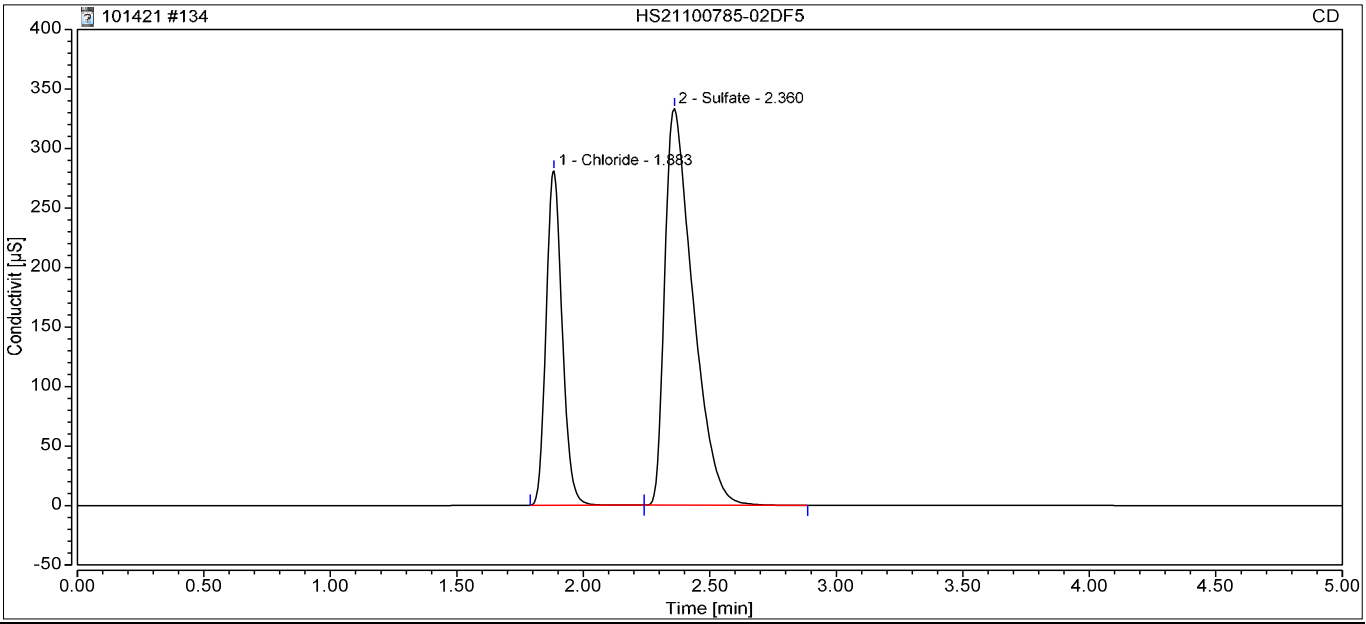
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.53	Fluoride	BMB	0.017	0.1226	0.1226	1.0000
2	1.88	Chloride	BMB	78.377	583.9270	583.9270	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
3	2.37	Sulfate	BM *	35.979	370.6833	370.6833	1.0000
4	2.62	Bromide	MB*	0.200	3.6721	3.6721	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**114.573**		**958.41**	

134 HS21100785-02DF5

Sample Name:	**HS21100785-02DF5**	*Injection Volume:*	**5.00**
Vial Number:	**BB3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Recording Time:	**10/15/2021 01:55**	*Sample Weight:*	**1.0000**

Run Time:



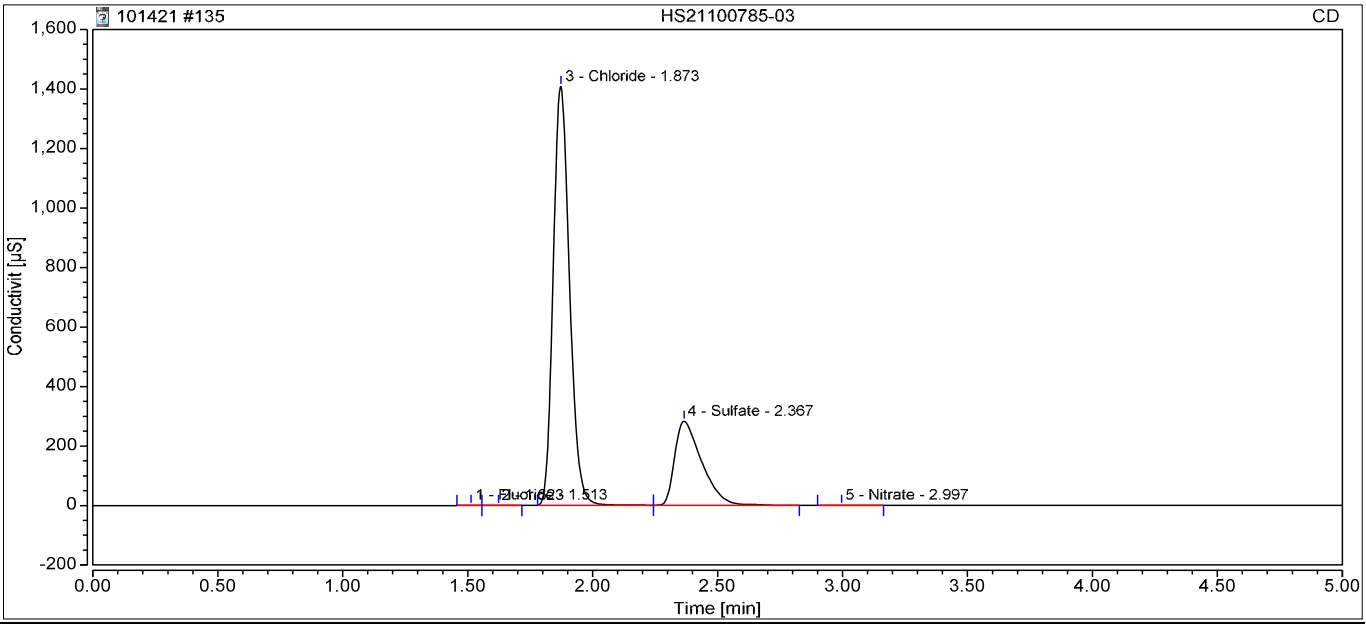
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	5.0000
1	1.88	Chloride	BMB	20.640	153.7409	768.7044	5.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	5.0000
2	2.36	Sulfate	BMB	42.933	442.3319	2211.6594	5.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	5.0000
Total:			**0.000**	**63.574**		**2980.36**	

135 HS21100785-03

Sample Name:	**HS21100785-03**	*Injection Volume:*	**5.00**
Vial Number:	**BB4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 02:02**	*Sample Weight:*	**1.0000**

Run Time:



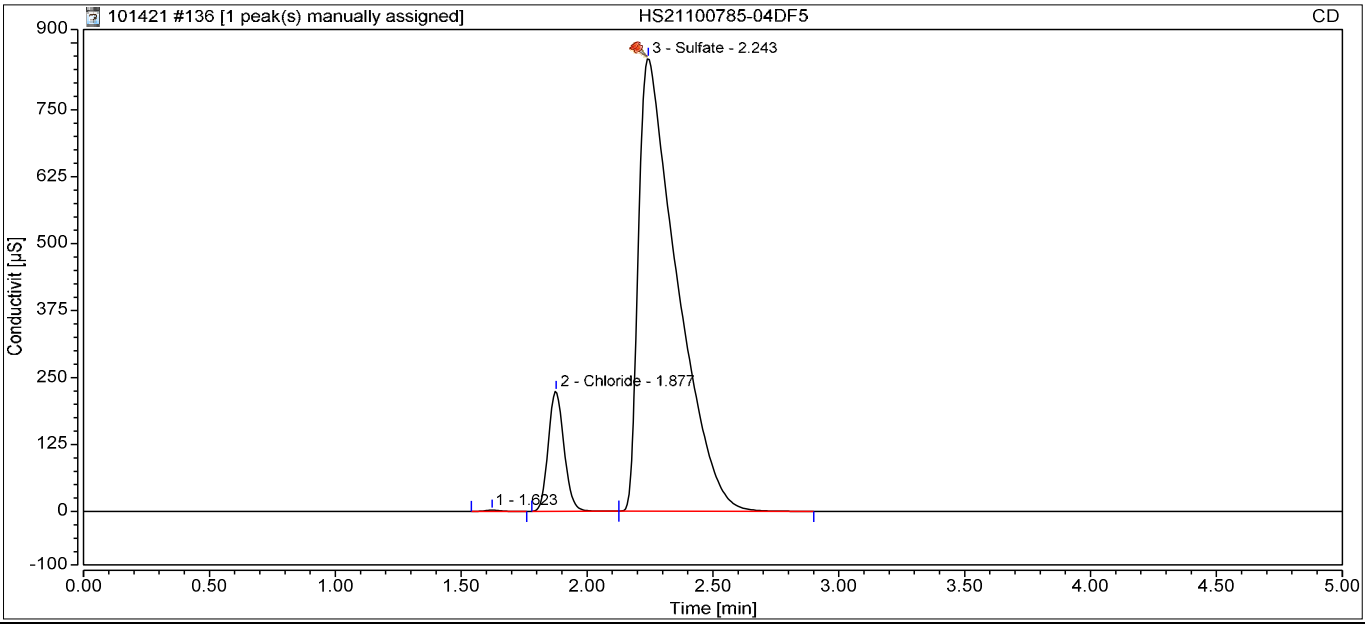
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.005	0.0620	0.0620	1.0000
3	1.87	Chloride	BMB	106.253	791.6239	791.6239	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
4	2.37	Sulfate	BMB	35.390	364.6195	364.6195	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
5	3.00	Nitrate	BMB	0.005	0.0143	0.0143	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**141.653**		**1156.32**	

136 HS21100785-04DF5

Sample Name:	**HS21100785-04DF5**	*Injection Volume:*	**5.00**
Vial Number:	**BB5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Recording Time:	**10/15/2021 02:10**	*Sample Weight:*	**1.0000**

Run Time:



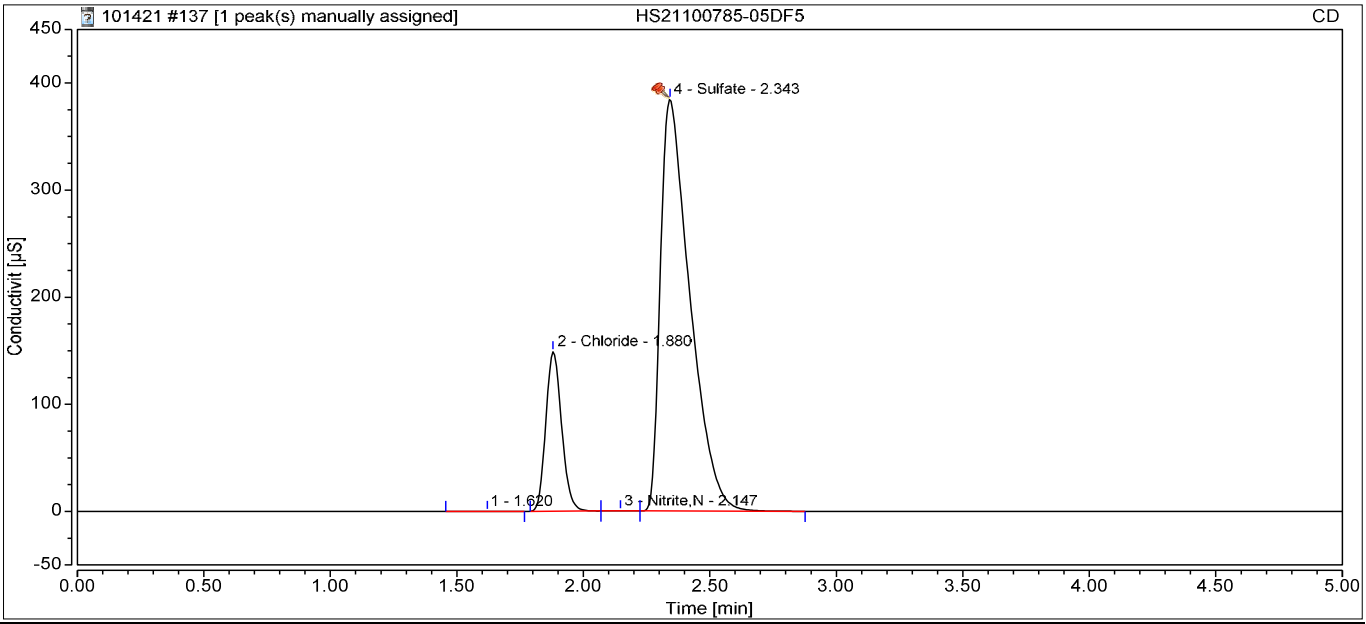
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	5.0000
2	1.88	Chloride	BMB	16.267	121.1525	605.7623	5.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	5.0000
3	2.24	Sulfate	BMB^	149.063	1535.7616	7678.8078	5.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	5.0000
Total:			**0.000**	**165.330**		**8284.57**	

137 HS21100785-05DF5

Sample Name:	**HS21100785-05DF5**	*Injection Volume:*	**5.00**
Vial Number:	**BB6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Recording Time:	**10/15/2021 02:17**	*Sample Weight:*	**1.0000**

Run Time:



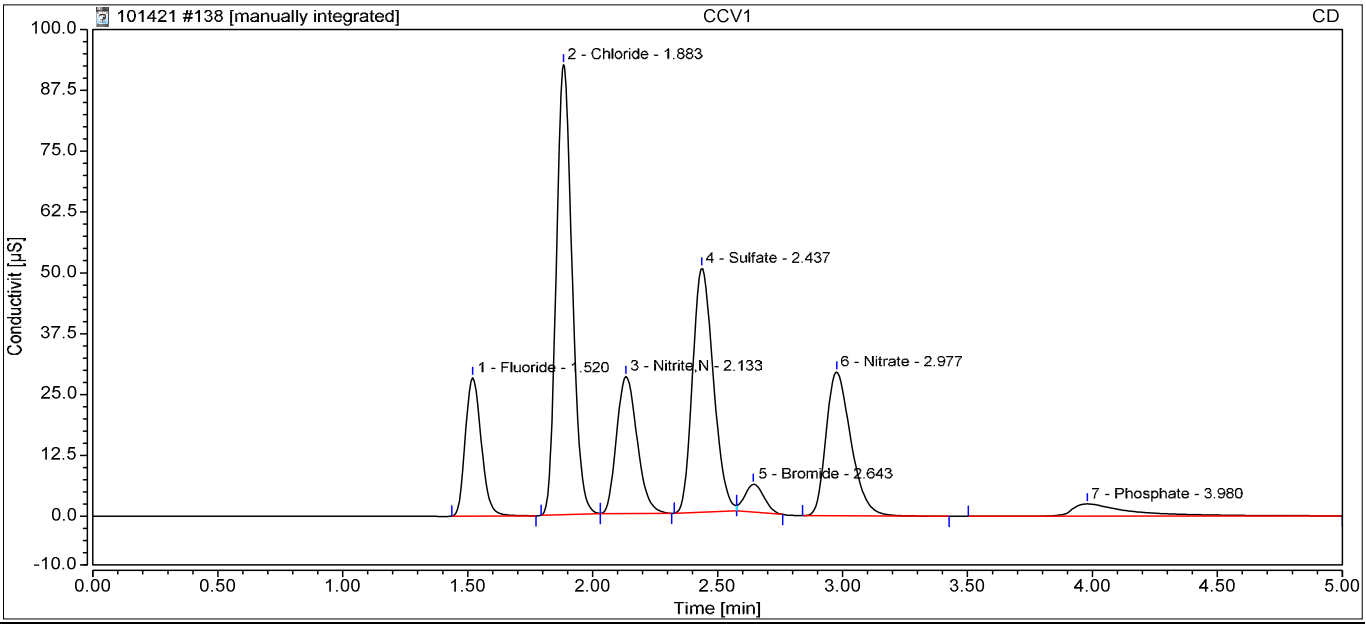
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	5.0000
2	1.88	Chloride	BMB	10.795	80.3849	401.9243	5.0000
3	2.15	Nitrite,N	BMB	0.008	n.a.	n.a.	5.0000
4	2.34	Sulfate	BMB^	51.963	535.3651	2676.8256	5.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	5.0000
Total:			**0.000**	**62.766**		**3078.75**	

138 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 02:32**	*Sample Weight:*	**1.0000**

Run Time:



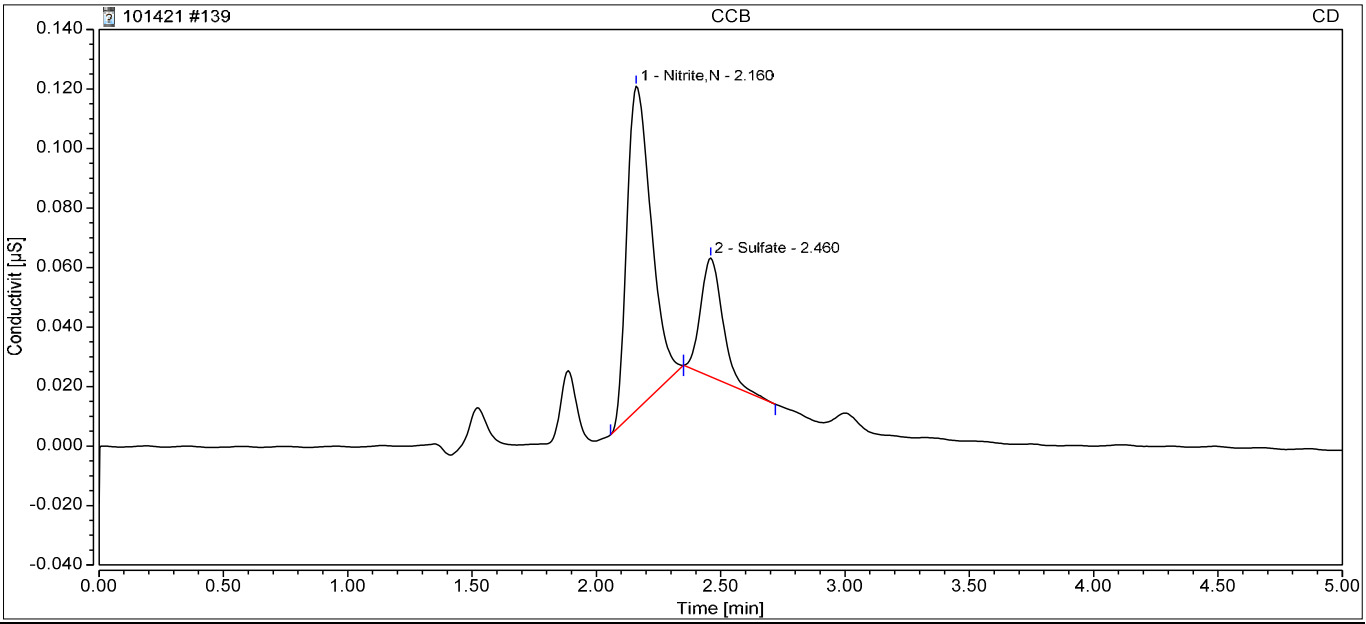
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	2.102	10.3570	10.3570	1.0000
2	1.88	Chloride	BMB	6.798	50.6048	50.6048	1.0000
3	2.13	Nitrite,N	BMB	2.682	9.6702	9.6702	1.0000
4	2.44	Sulfate	BM *	4.832	49.7833	49.7833	1.0000
5	2.64	Bromide	MB*	0.509	9.3144	9.3144	1.0000
6	2.98	Nitrate	BMB	3.412	10.0247	10.0247	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.98	Phosphate	BMB	0.692	6.5699	6.5699	1.0000
Total:			**0.000**	**21.026**		**146.32**	

139 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 02:47**	*Sample Weight:*	**1.0000**

Run Time:



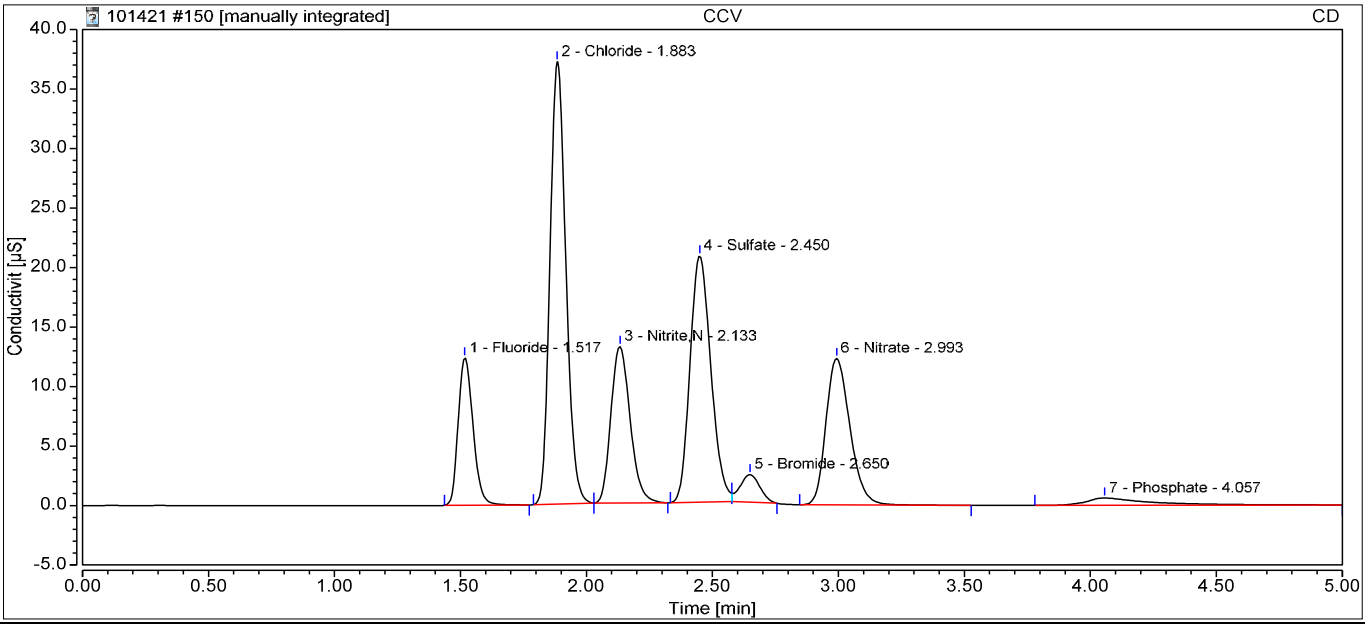
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.16	Nitrite,N	BMB	0.012	0.0072	0.0072	1.0000
2	2.46	Sulfate	BMB	0.004	0.0440	0.0440	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.016**		**0.05**	

150 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 04:15**	*Sample Weight:*	**1.0000**

Run Time:



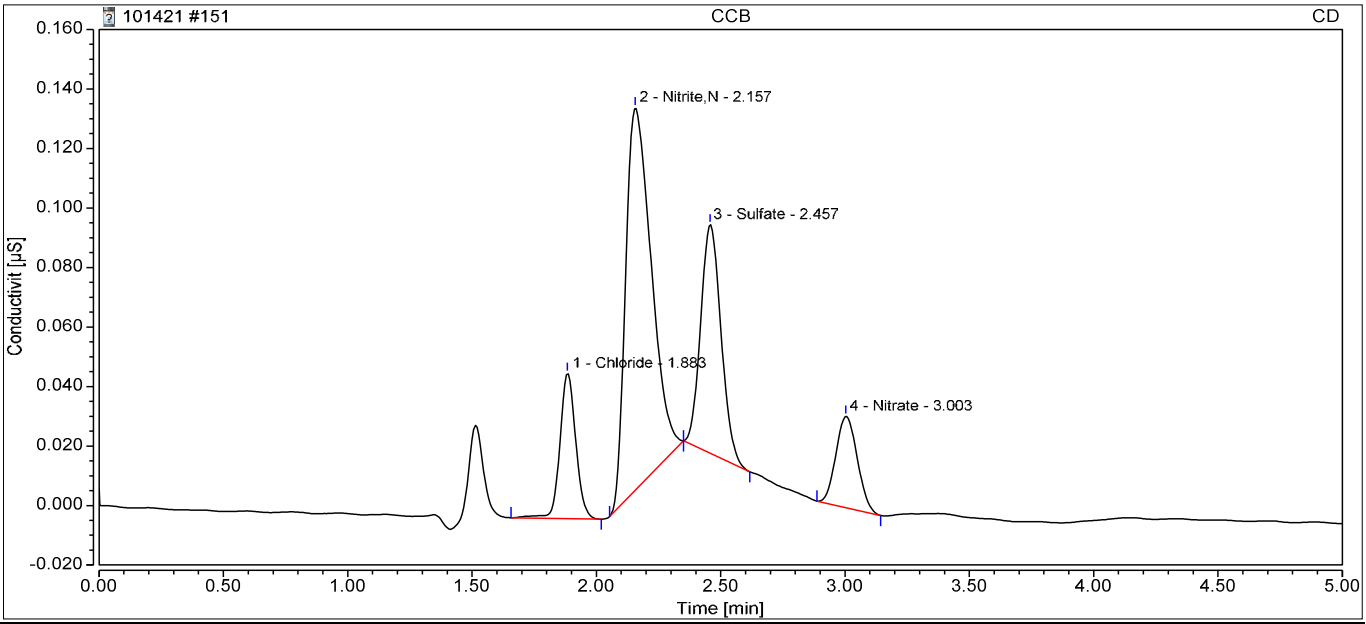
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.846	4.1933	4.1933	1.0000
2	1.88	Chloride	BMB	2.709	20.1396	20.1396	1.0000
3	2.13	Nitrite,N	BMB	1.165	3.9887	3.9887	1.0000
4	2.45	Sulfate	BM *	1.985	20.4490	20.4490	1.0000
5	2.65	Bromide	MB*	0.213	3.9138	3.9138	1.0000
6	2.99	Nitrate	BMB	1.358	3.9895	3.9895	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.06	Phosphate	BMB	0.188	1.9241	1.9241	1.0000
Total:			**0.000**	**8.463**		**58.60**	

151 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 04:23**	*Sample Weight:*	**1.0000**

Run Time:



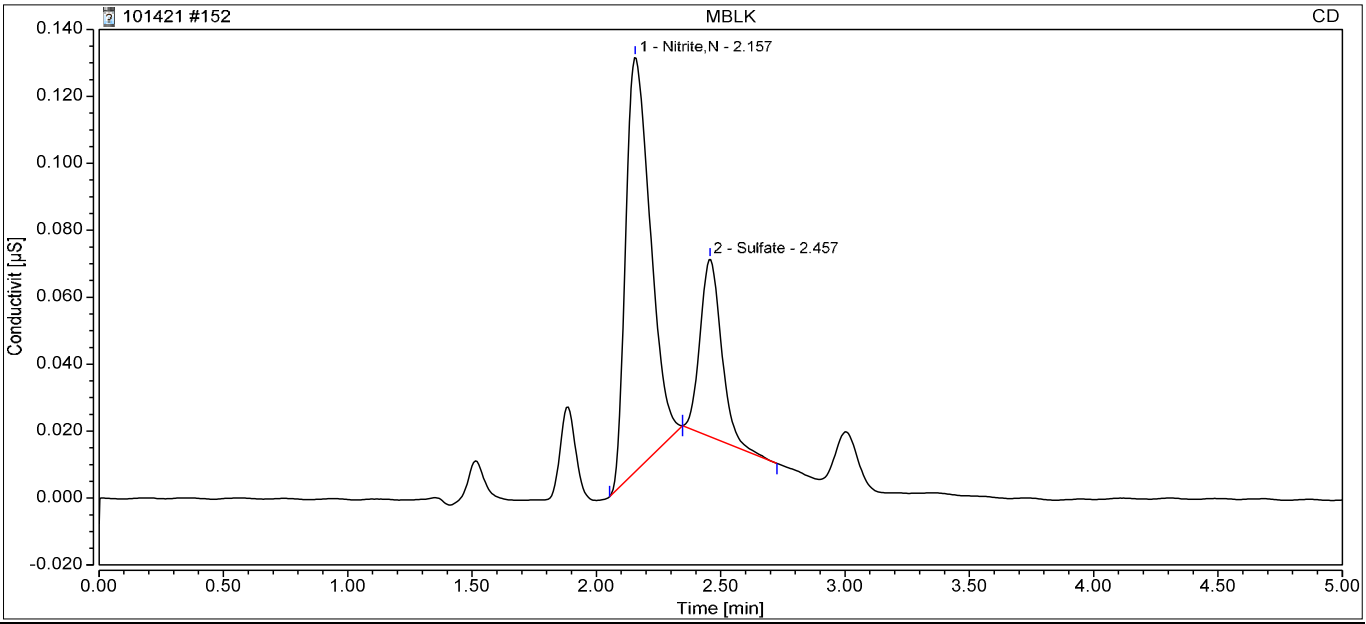
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.004	n.a.	n.a.	1.0000
2	2.16	Nitrite,N	BMB	0.015	0.0171	0.0171	1.0000
3	2.46	Sulfate	BMB	0.007	0.0767	0.0767	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
4	3.00	Nitrate	BMB	0.003	0.0086	0.0086	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.029**		**0.10**	

152 MBLK

Sample Name:	**MBLK**	*Injection Volume:*	**5.00**
Vial Number:	**R5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 04:30**	*Sample Weight:*	**1.0000**

Run Time:



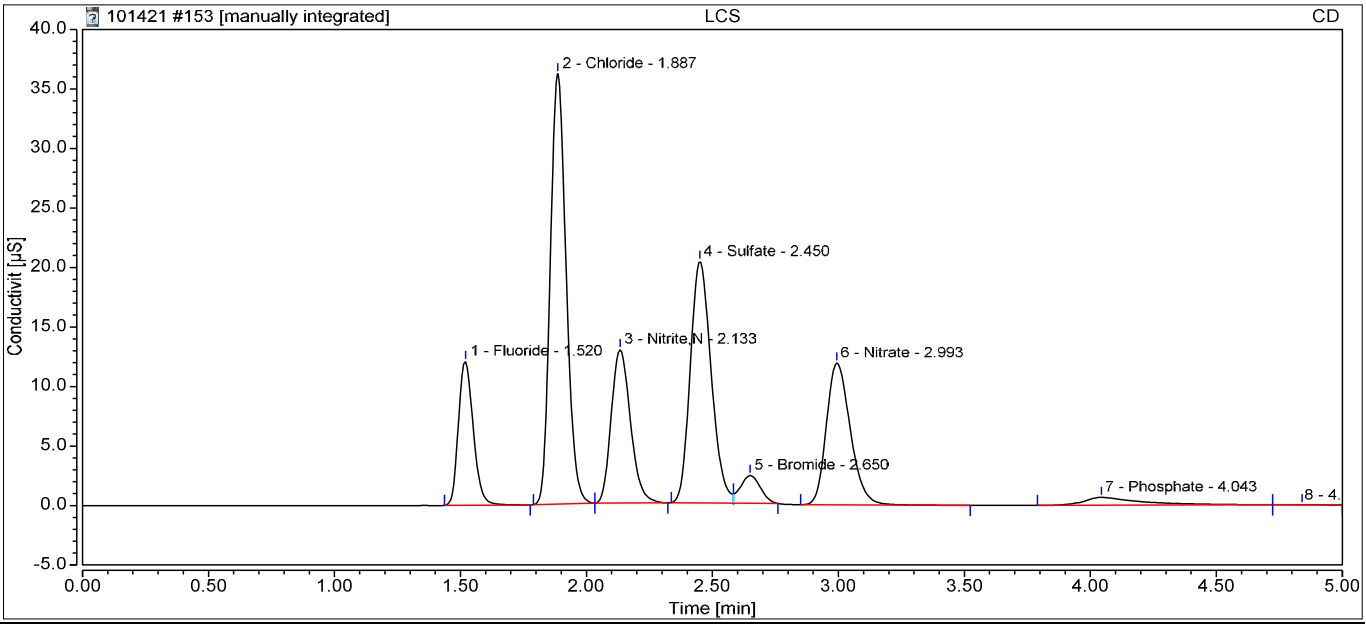
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.16	Nitrite,N	BMB	0.014	0.0136	0.0136	1.0000
2	2.46	Sulfate	BMB	0.005	0.0563	0.0563	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.020**		**0.07**	

153 LCS

Sample Name:	**LCS**	*Injection Volume:*	**5.00**
Vial Number:	**R2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 04:38**	*Sample Weight:*	**1.0000**

Run Time:



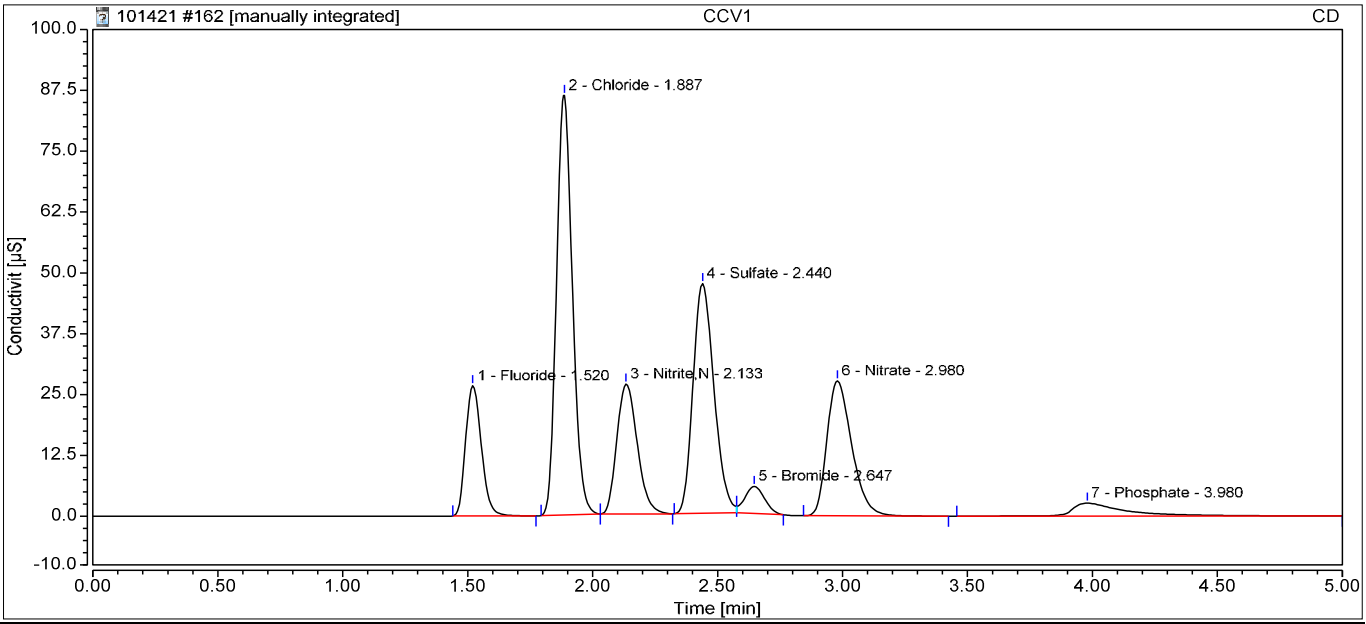
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.826	4.0950	4.0950	1.0000
2	1.89	Chloride	BMB	2.634	19.5811	19.5811	1.0000
3	2.13	Nitrite,N	BMB	1.140	3.9018	3.9018	1.0000
4	2.45	Sulfate	BM *	1.952	20.1172	20.1172	1.0000
5	2.65	Bromide	MB*	0.214	3.9434	3.9434	1.0000
6	2.99	Nitrate	BMB	1.313	3.8578	3.8578	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.04	Phosphate	BMB	0.176	1.8031	1.8031	1.0000
Total:			**0.000**	**8.256**		**57.30**	

162 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 05:44**	*Sample Weight:*	**1.0000**

Run Time:



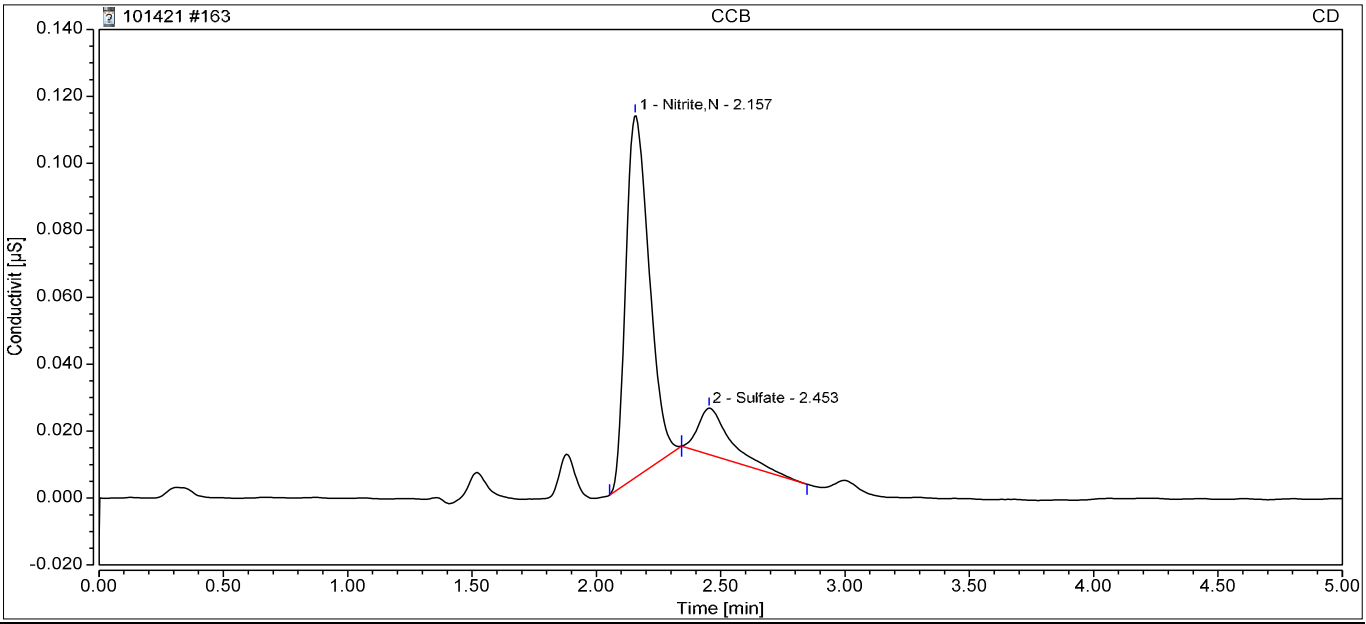
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	1.958	9.6522	9.6522	1.0000
2	1.89	Chloride	BMB	6.359	47.3306	47.3306	1.0000
3	2.13	Nitrite,N	BMB	2.530	9.0755	9.0755	1.0000
4	2.44	Sulfate	BM *	4.574	47.1242	47.1242	1.0000
5	2.65	Bromide	MB*	0.506	9.2664	9.2664	1.0000
6	2.98	Nitrate	BMB	3.193	9.3839	9.3839	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.98	Phosphate	BMB	0.674	6.4135	6.4135	1.0000
Total:			**0.000**	**19.795**		**138.25**	

163 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 05:59**	*Sample Weight:*	**1.0000**

Run Time:



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.16	Nitrite,N	BMB	0.012	0.0054	0.0054	1.0000
2	2.45	Sulfate	BMB	0.002	0.0235	0.0235	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.014**		**0.03**	

Sequence: 102921
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method	Processing Method	Volume	Status	Inject Time
	STD1		Calibratio	BA1	1.00	1	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 2:57:23 PM -05:00
	STD2		Calibratio	BA2	1.00	2	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:04:47 PM -05:00
	STD3		Calibratio	BA3	1.00	3	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:12:12 PM -05:00
	STD4		Calibratio	BA4	1.00	4	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:19:37 PM -05:00
	STD5		Calibratio	BA5	1.00	5	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:27:03 PM -05:00
	STD6		Calibratio	BA6	1.00	6	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:34:27 PM -05:00
	ICV		Unknown	BA7	1.00		Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:41:50 PM -05:00
	ICB		Unknown	BA8	1.00		Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:56:37 PM -05:00
	CCV		Unknown	R1	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 7:33:45 PM -05:00
	CCB		Unknown	R4	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 7:41:10 PM -05:00
	HS21100785-01	9056 W	Unknown	RE6	5.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 8:25:32 PM -05:00
	HS21100785-02		Unknown	RE7	50.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 8:32:55 PM -05:00
	HS21100785-03		Unknown	RE8	5.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 8:40:19 PM -05:00
	HS21100785-04		Unknown	GA1	500.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 8:47:48 PM -05:00
	HS21100785-05		Unknown	GA2	50.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 8:55:11 PM -05:00
	CCV1		Unknown	R3	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 9:02:44 PM -05:00
	CCB		Unknown	R7	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 9:10:09 PM -05:00
	MBLK		Unknown	R5	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 9:17:34 PM -05:00
	LCS		Unknown	R2	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 9:24:59 PM -05:00
	HS21101035-01		Unknown	GA3	50.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 9:32:24 PM -05:00
	HS21101035-01MS		Unknown	GA4	50.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 9:39:48 PM -05:00
	HS21101035-01MSD		Unknown	GA5	50.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 9:47:11 PM -05:00
	CCV		Unknown	R1	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 10:31:36 PM -05:00
	CCB		Unknown	R4	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 10:39:00 PM -05:00
	HS21100881-03		Unknown	GB3	10.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 10:46:26 PM -05:00
	HS21100881-03MS		Unknown	GB4	10.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 10:53:50 PM -05:00
	HS21100881-03MSD		Unknown	GB5	10.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 11:01:14 PM -05:00
	CCV1		Unknown	R3	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/30/2021 12:00:30 AM -05:00
	CCB		Unknown	R7	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/30/2021 12:07:56 AM -05:00

Sequence: 101521
Injection #6: STD6

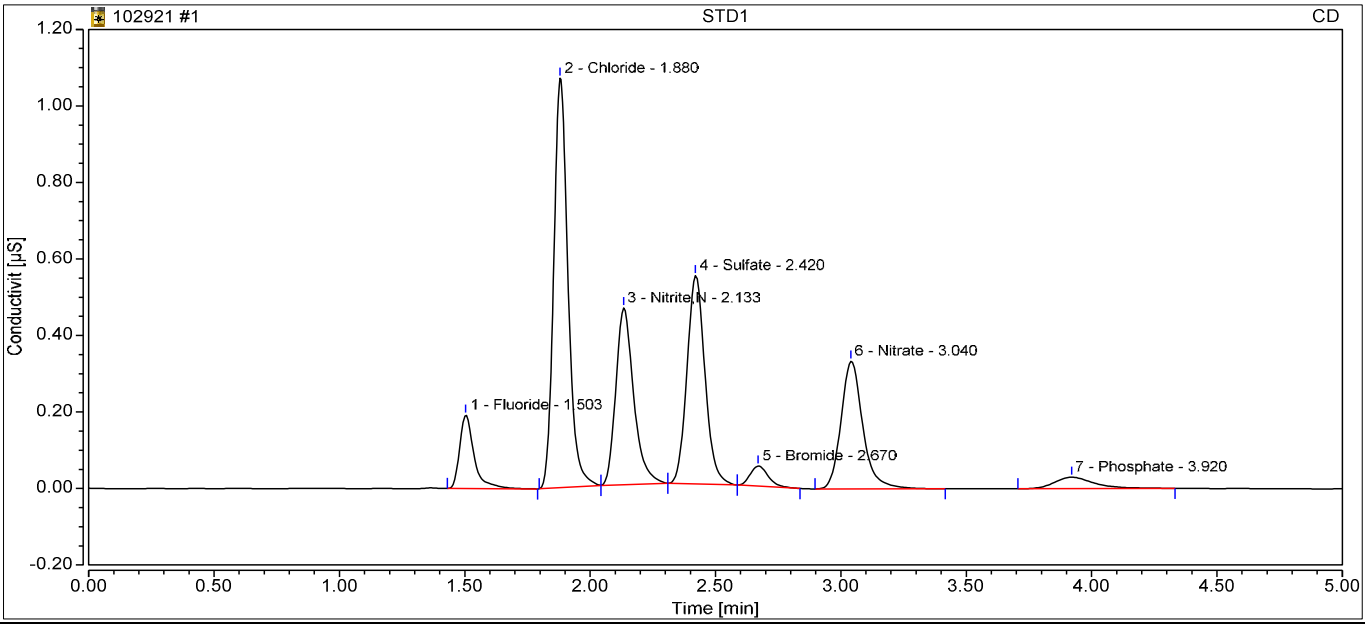
Calibration

Peak No.	Peak Name	Cal.Type	Eval.Type	Number of Points	Rel.Std.Dev. %	Coeff.of Determination	C0 (Offset)	C1 (Slope)	C2 (Curve)
1	*Fluoride*	*Lin, WithOffset, 1/*	*Area*	*6*	*14.8917*	*0.99901*	*-0.0076*	*0.2037*	*0.0000*
2	Chloride	Lin, WithOffset, 1/	Area	6	6.3298	0.99978	0.0062	0.1342	0.0000
3	Nitrite,N	Quad, WithOffset,	Area	6	6.9766	0.99974	0.0102	0.2986	-0.0023
4	Sulfate	Lin, WithOffset, 1/	Area	6	6.6535	0.99977	-0.0001	0.0971	0.0000
5	Bromide	Lin, WithOffset, 1/	Area	6	8.9157	0.99963	-0.0016	0.0548	0.0000
6	Nitrate	Lin, WithOffset, 1/	Area	6	6.7024	0.99976	0.0001	0.3403	0.0000
n.a.	Chlorate	Lin, WithOffset, 1/	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
7	Phosphate	Quad, WithOffset,	Area	6	11.6511	0.99965	-0.0052	0.0981	0.0012
Maximum					**14.8917**	0.99978			
Minimum					6.3298	**0.99901**			

1 STD1

Sample Name:	**STD1**	*Injection Volume:*	**5.00**
Vial Number:	**BA1**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 14:57**	*Sample Weight:*	**1.0000**

Run Time:



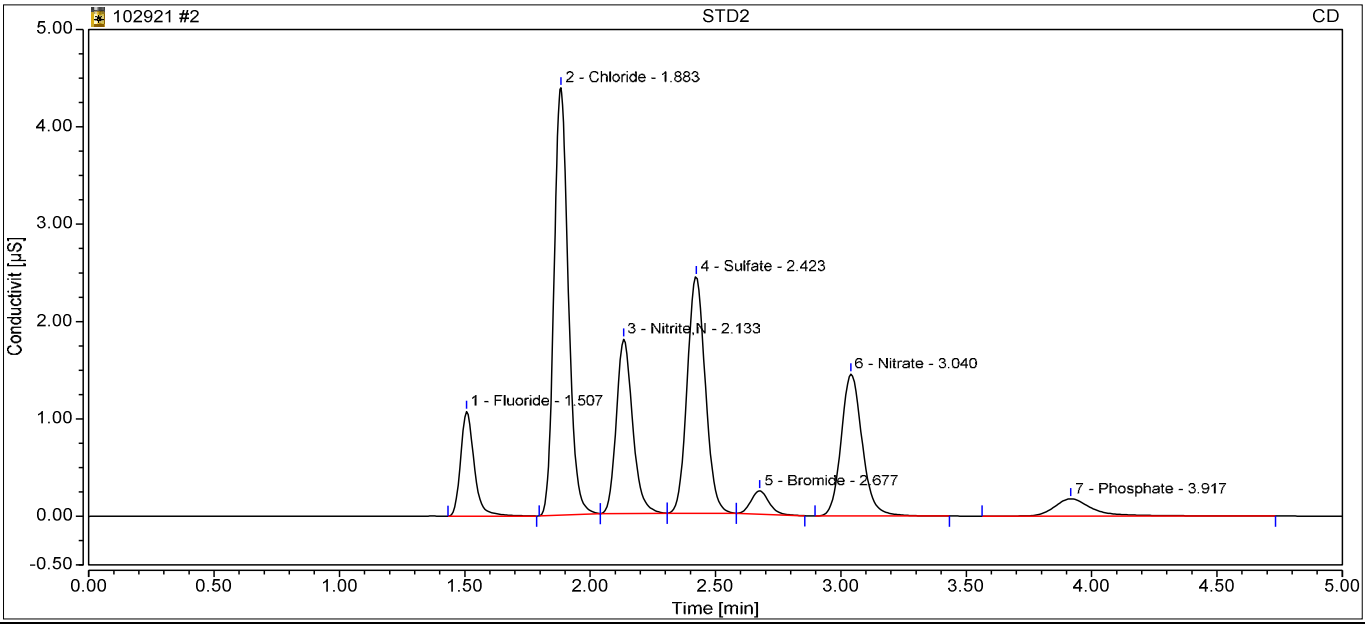
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	0.013	0.1005	0.1005	1.0000
2	1.88	Chloride	BMB	0.070	0.4785	0.4785	1.0000
3	2.13	Nitrite,N	BMB	0.038	0.0937	0.0937	1.0000
4	2.42	Sulfate	BMB	0.045	0.4684	0.4684	1.0000
5	2.67	Bromide	BMB	0.004	0.1078	0.1078	1.0000
6	3.04	Nitrate	BMB	0.034	0.0982	0.0982	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.92	Phosphate	BMB	0.005	0.1085	0.1085	1.0000
Total:			**0.000**	**0.210**		**1.46**	

2 STD2

Sample Name:	**STD2**	*Injection Volume:*	**5.00**
Vial Number:	**BA2**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:04**	*Sample Weight:*	**1.0000**

Run Time:

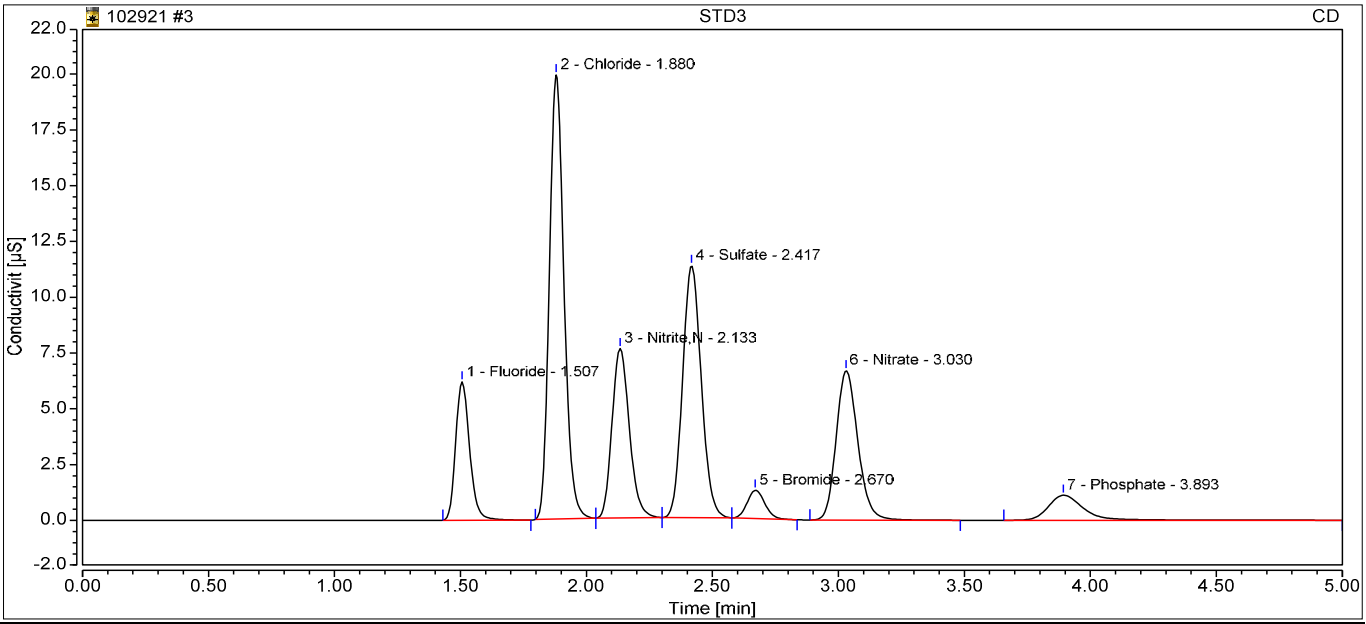


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.068	0.3708	0.3708	1.0000
2	1.88	Chloride	BMB	0.290	2.1158	2.1158	1.0000
3	2.13	Nitrite,N	BMB	0.135	0.4190	0.4190	1.0000
4	2.42	Sulfate	BMB	0.204	2.1052	2.1052	1.0000
5	2.68	Bromide	BMB	0.020	0.3906	0.3906	1.0000
6	3.04	Nitrate	BMB	0.142	0.4172	0.4172	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.92	Phosphate	BMB	0.032	0.3731	0.3731	1.0000
Total:			**0.000**	**0.891**		**6.19**	

3 STD3			
Sample Name:	**STD3**	*Injection Volume:*	**5.00**
Vial Number:	**BA3**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:12**	*Sample Weight:*	**1.0000**

Run Time:



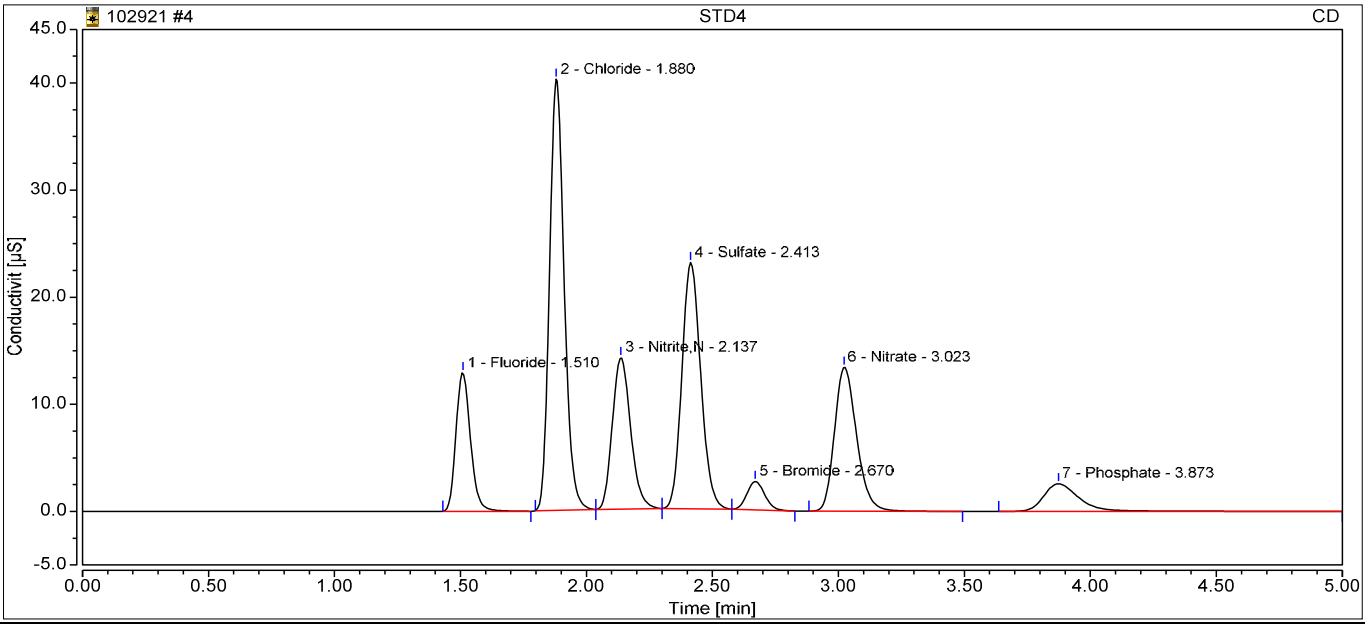
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.401	2.0041	2.0041	1.0000
2	1.88	Chloride	BMB	1.334	9.8953	9.8953	1.0000
3	2.13	Nitrite,N	BMB	0.605	2.0242	2.0242	1.0000
4	2.42	Sulfate	BMB	0.971	10.0035	10.0035	1.0000
5	2.67	Bromide	BMB	0.103	1.9116	1.9116	1.0000
6	3.03	Nitrate	BMB	0.668	1.9622	1.9622	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.89	Phosphate	BMB	0.185	1.8909	1.8909	1.0000
Total:			**0.000**	**4.266**		**29.69**	

4 STD4

Sample Name:	**STD4**	*Injection Volume:*	**5.00**
Vial Number:	**BA4**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:19**	*Sample Weight:*	**1.0000**

Run Time:



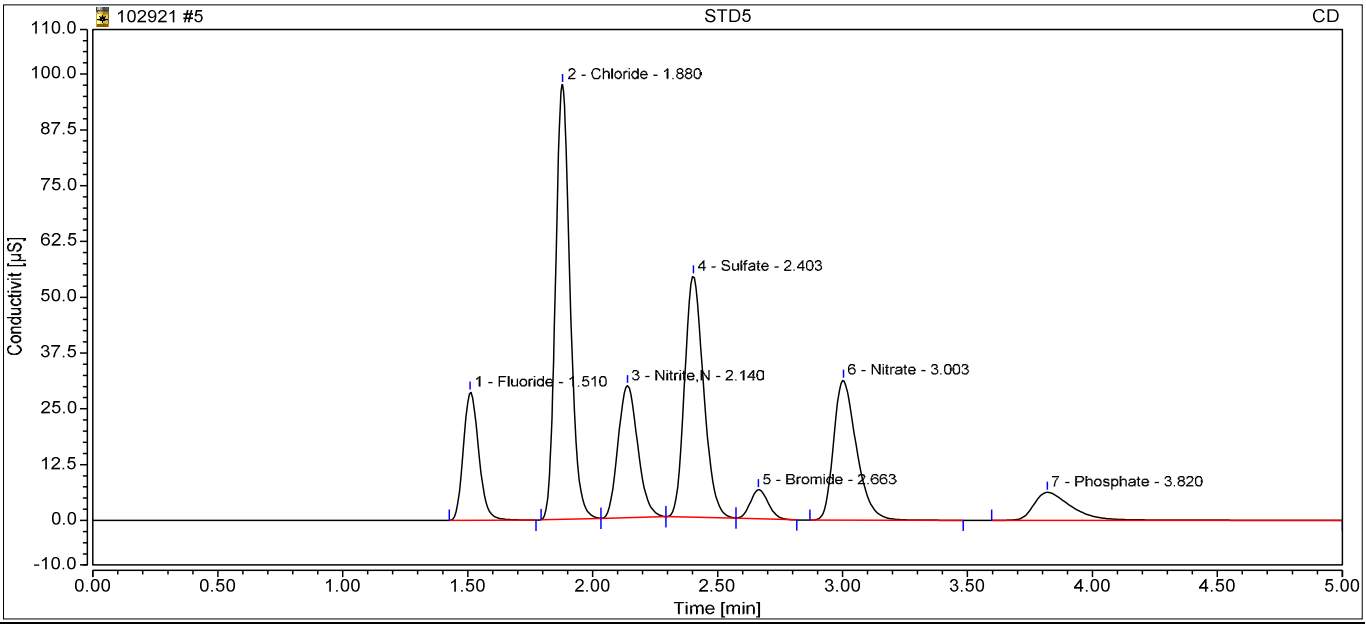
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.866	4.2910	4.2910	1.0000
2	1.88	Chloride	BMB	2.709	20.1365	20.1365	1.0000
3	2.14	Nitrite,N	BMB	1.191	4.0819	4.0819	1.0000
4	2.41	Sulfate	BMB	1.991	20.5124	20.5124	1.0000
5	2.67	Bromide	BMB	0.216	3.9679	3.9679	1.0000
6	3.02	Nitrate	BMB	1.366	4.0146	4.0146	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.87	Phosphate	BMB	0.424	4.1568	4.1568	1.0000
Total:			**0.000**	**8.762**		**61.16**	

5 STD5

Sample Name:	**STD5**	*Injection Volume:*	**5.00**
Vial Number:	**BA5**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:27**	*Sample Weight:*	**1.0000**

Run Time:



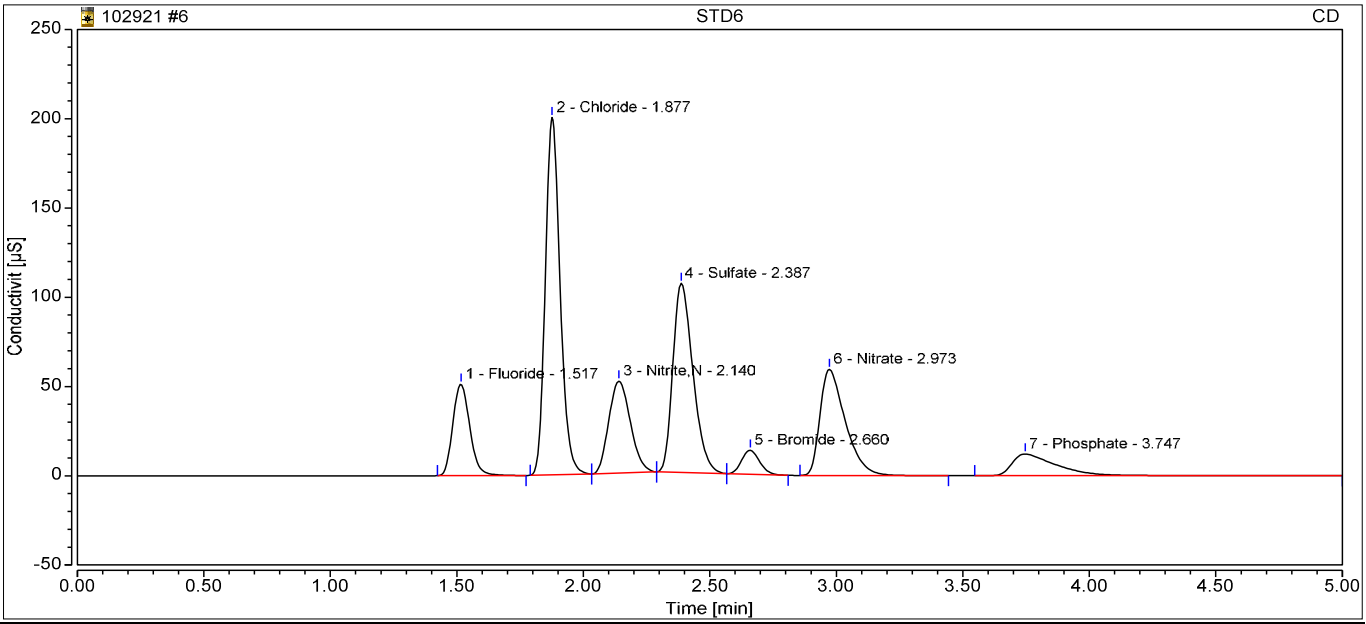
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	2.057	10.1376	10.1376	1.0000
2	1.88	Chloride	BMB	6.582	48.9987	48.9987	1.0000
3	2.14	Nitrite,N	BMB	2.709	9.7764	9.7764	1.0000
4	2.40	Sulfate	BMB	4.762	49.0593	49.0593	1.0000
5	2.66	Bromide	BMB	0.537	9.8247	9.8247	1.0000
6	3.00	Nitrate	BMB	3.333	9.7942	9.7942	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.82	Phosphate	BMB	1.095	9.9725	9.9725	1.0000
Total:			**0.000**	**21.075**		**147.56**	

6 STD6

Sample Name:	**STD6**	*Injection Volume:*	**5.00**
Vial Number:	**BA6**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:34**	*Sample Weight:*	**1.0000**

Run Time:

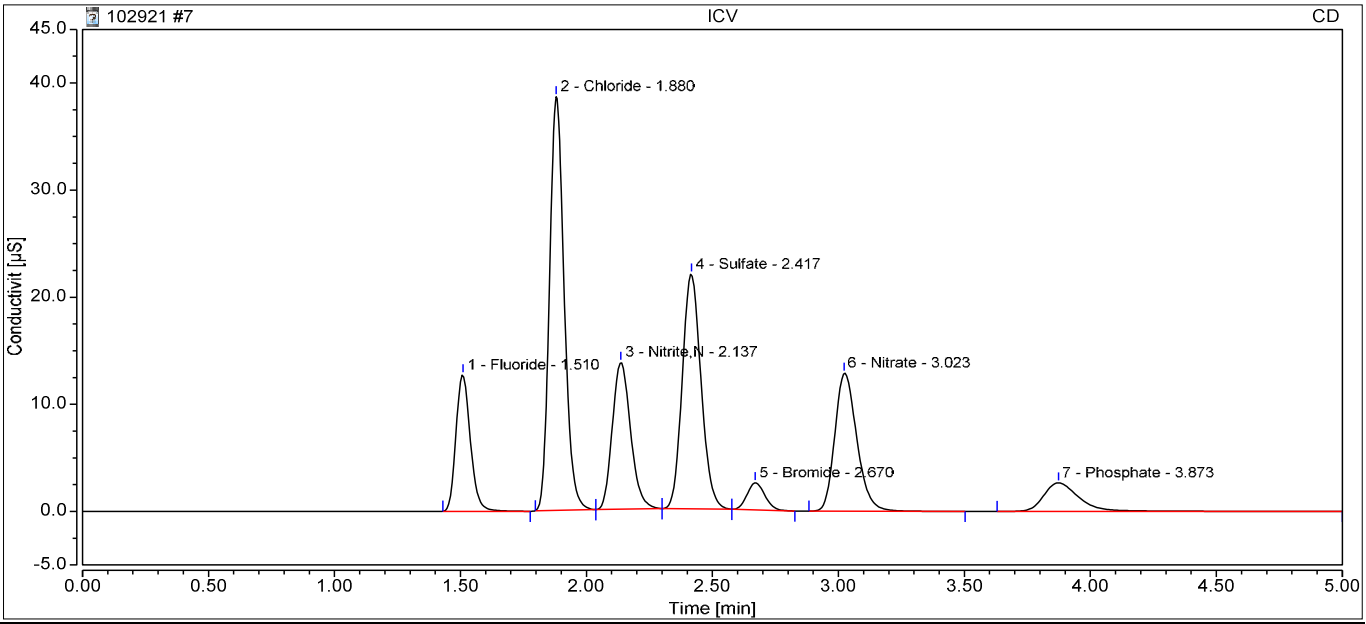


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	3.983	19.5961	19.5961	1.0000
2	1.88	Chloride	BMB	13.545	100.8752	100.8752	1.0000
3	2.14	Nitrite,N	BMB	5.085	20.1110	20.1110	1.0000
4	2.39	Sulfate	BMB	9.740	100.3513	100.3513	1.0000
5	2.66	Bromide	BMB	1.110	20.2973	20.2973	1.0000
6	2.97	Nitrate	BMB	6.879	20.2136	20.2136	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.75	Phosphate	BMB	2.448	19.9964	19.9964	1.0000
Total:			**0.000**	**42.790**		**301.44**	

7 ICV			
Sample Name:	**ICV**	*Injection Volume:*	**5.00**
Vial Number:	**BA7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:41**	*Sample Weight:*	**1.0000**

Run Time:



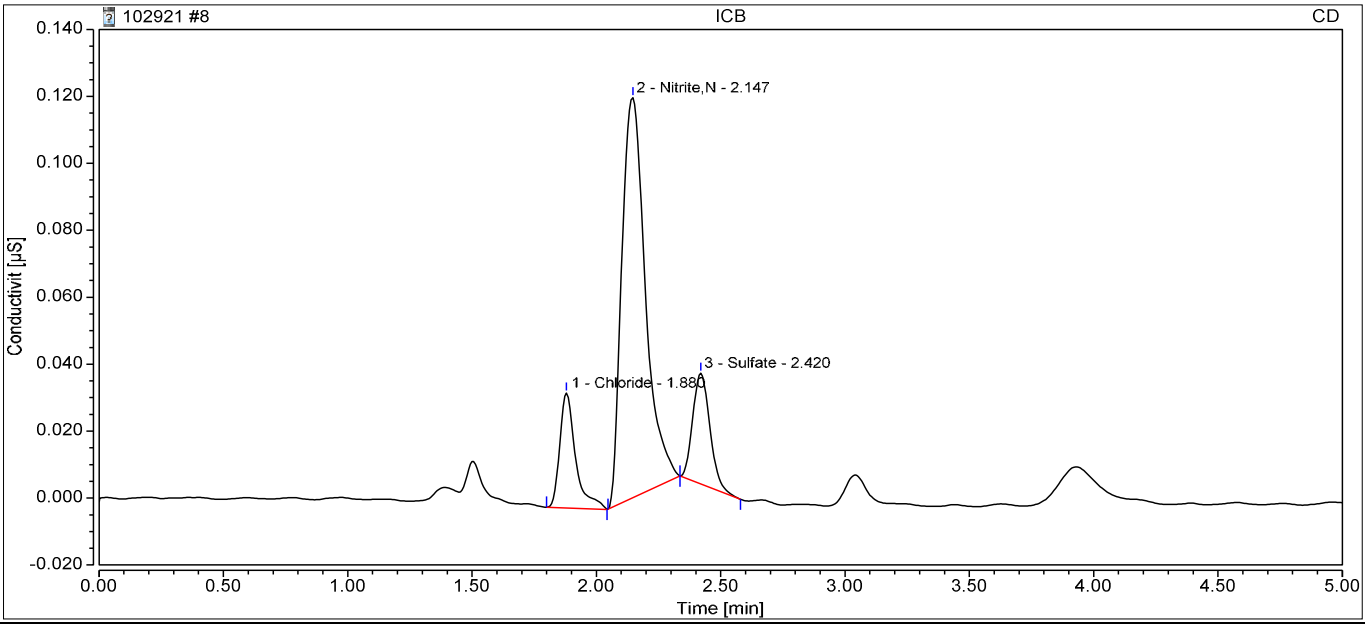
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.849	4.2062	4.2062	1.0000
2	1.88	Chloride	BMB	2.597	19.3008	19.3008	1.0000
3	2.14	Nitrite,N	BMB	1.152	3.9447	3.9447	1.0000
4	2.42	Sulfate	BMB	1.895	19.5248	19.5248	1.0000
5	2.67	Bromide	BMB	0.207	3.7999	3.7999	1.0000
6	3.02	Nitrate	BMB	1.307	3.8406	3.8406	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.87	Phosphate	BMB	0.438	4.2917	4.2917	1.0000
Total:			**0.000**	**8.445**		**58.91**	

8 ICB

Sample Name:	**ICB**	*Injection Volume:*	**5.00**
Vial Number:	**BA8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:56**	*Sample Weight:*	**1.0000**

Run Time:



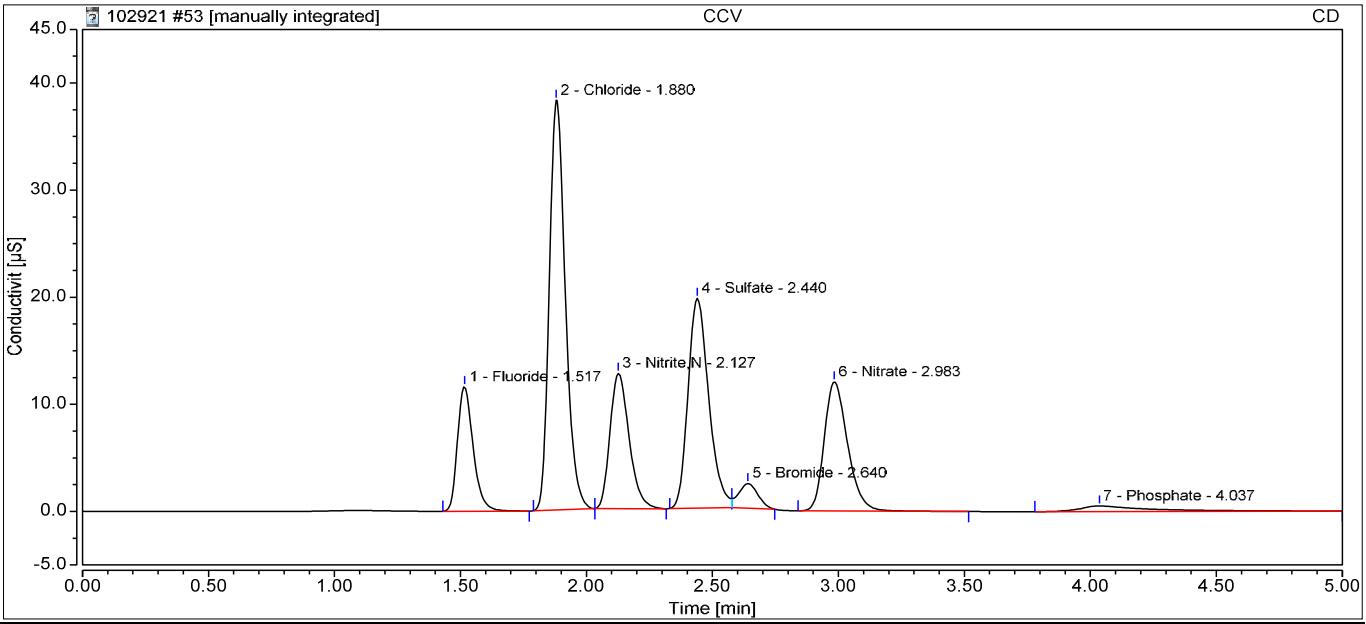
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.003	n.a.	n.a.	1.0000
2	2.15	Nitrite,N	BMB	0.013	0.0102	0.0102	1.0000
3	2.42	Sulfate	BMB	0.003	0.0287	0.0287	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.018**		**0.04**	

53 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/29/2021 19:33**	*Sample Weight:*	**1.0000**

Run Time:



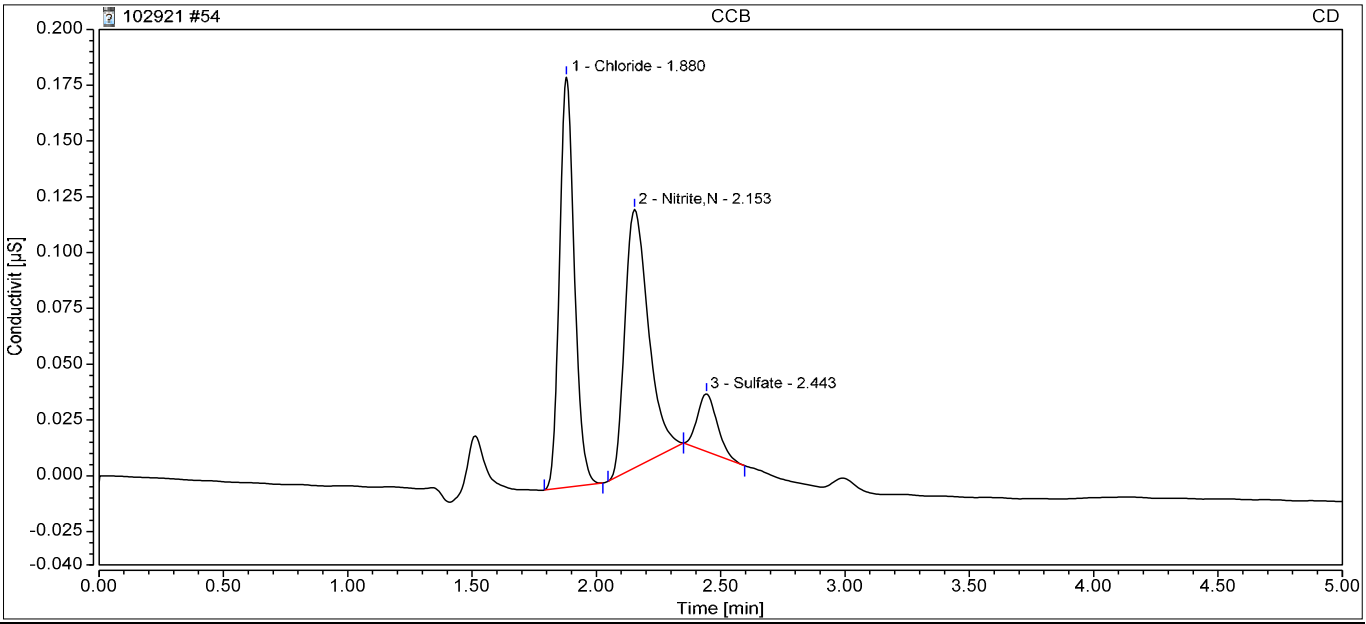
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.841	4.1676	4.1676	1.0000
2	1.88	Chloride	BMB	2.814	20.9205	20.9205	1.0000
3	2.13	Nitrite,N	BMB	1.113	3.8046	3.8046	1.0000
4	2.44	Sulfate	BM *	1.864	19.2103	19.2103	1.0000
5	2.64	Bromide	MB*	0.206	3.7892	3.7892	1.0000
6	2.98	Nitrate	BMB	1.293	3.7995	3.7995	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.04	Phosphate	BMB	0.172	1.7662	1.7662	1.0000
Total:			**0.000**	**8.303**		**57.46**	

54 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/29/2021 19:41**	*Sample Weight:*	**1.0000**

Run Time:



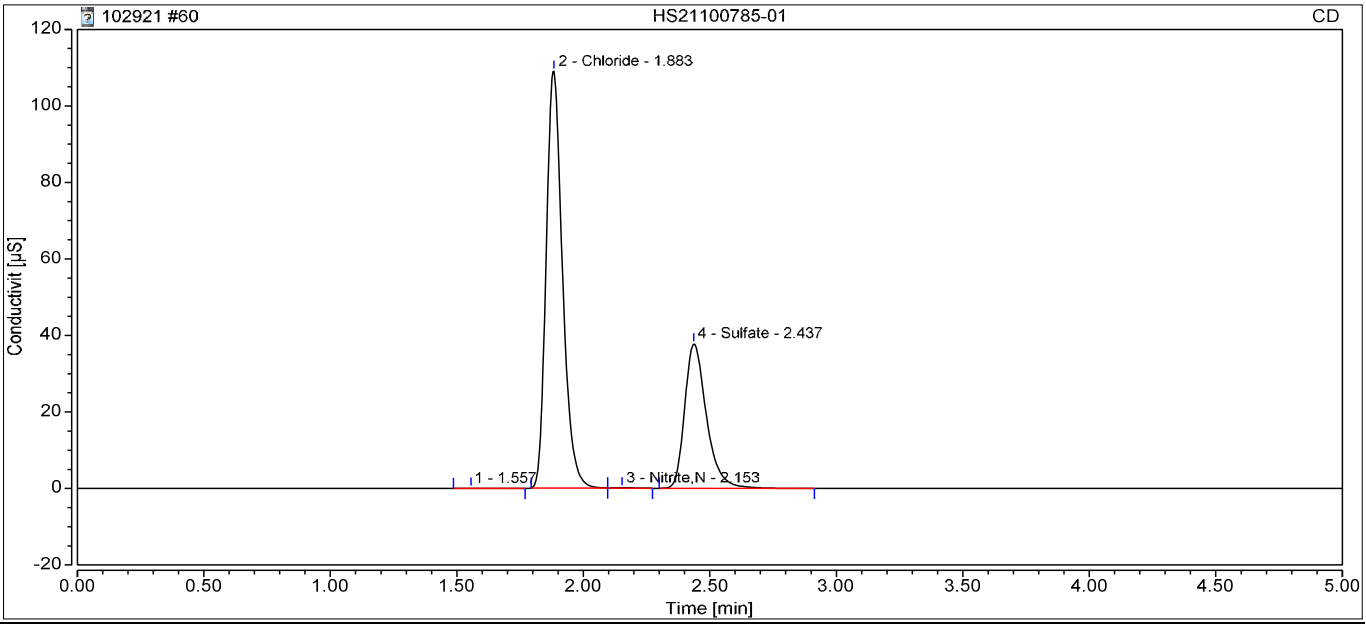
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.013	0.0494	0.0494	1.0000
2	2.15	Nitrite,N	BMB	0.013	0.0085	0.0085	1.0000
3	2.44	Sulfate	BMB	0.002	0.0261	0.0261	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.028**		**0.08**	

60 HS21100785-01

Sample Name:	**HS21100785-01**	*Injection Volume:*	**5.00**
Vial Number:	**RE6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Recording Time:	**10/29/2021 20:25**	*Sample Weight:*	**1.0000**

Run Time:

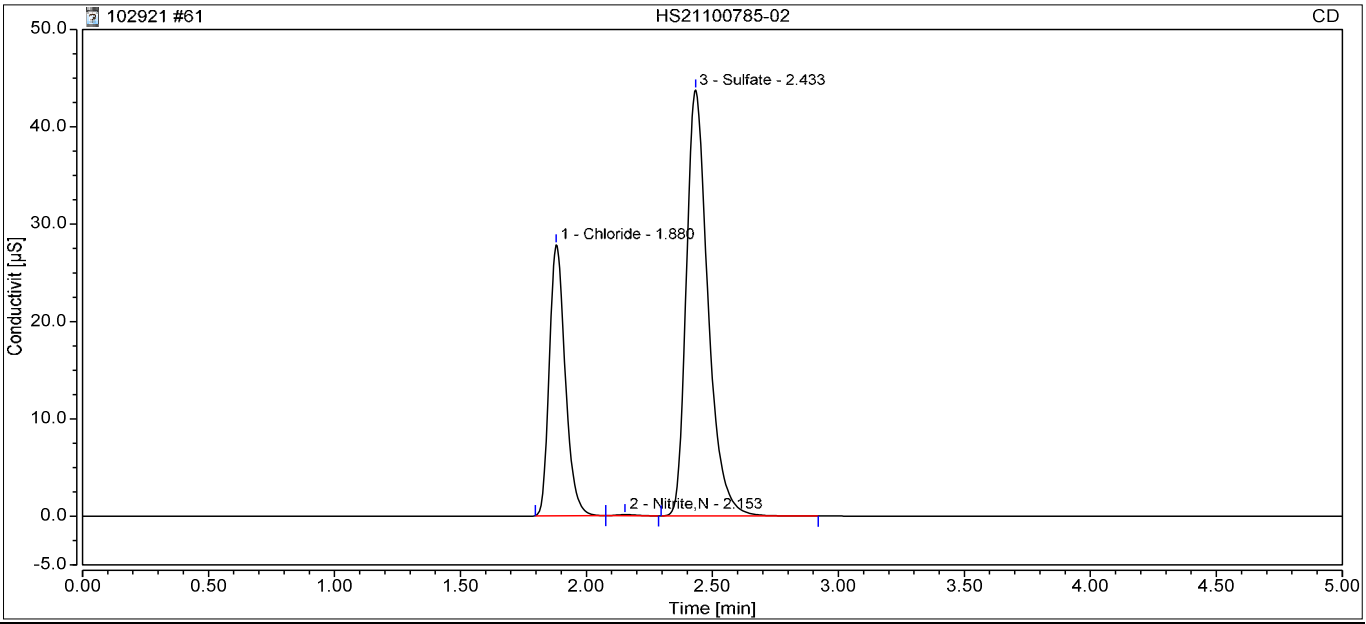


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	5.0000
2	1.88	Chloride	BMB	8.128	60.5141	302.5706	5.0000
3	2.15	Nitrite,N	BMB	0.006	n.a.	n.a.	5.0000
4	2.44	Sulfate	BMB	3.763	38.7693	193.8464	5.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	5.0000
Total:			**0.000**	**11.897**		**496.42**	

61	*HS21100785-02*		
Sample Name:	**HS21100785-02**	*Injection Volume:*	**5.00**
Vial Number:	**RE7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**50.0000**
Recording Time:	**10/29/2021 20:32**	*Sample Weight:*	**1.0000**

Run Time:



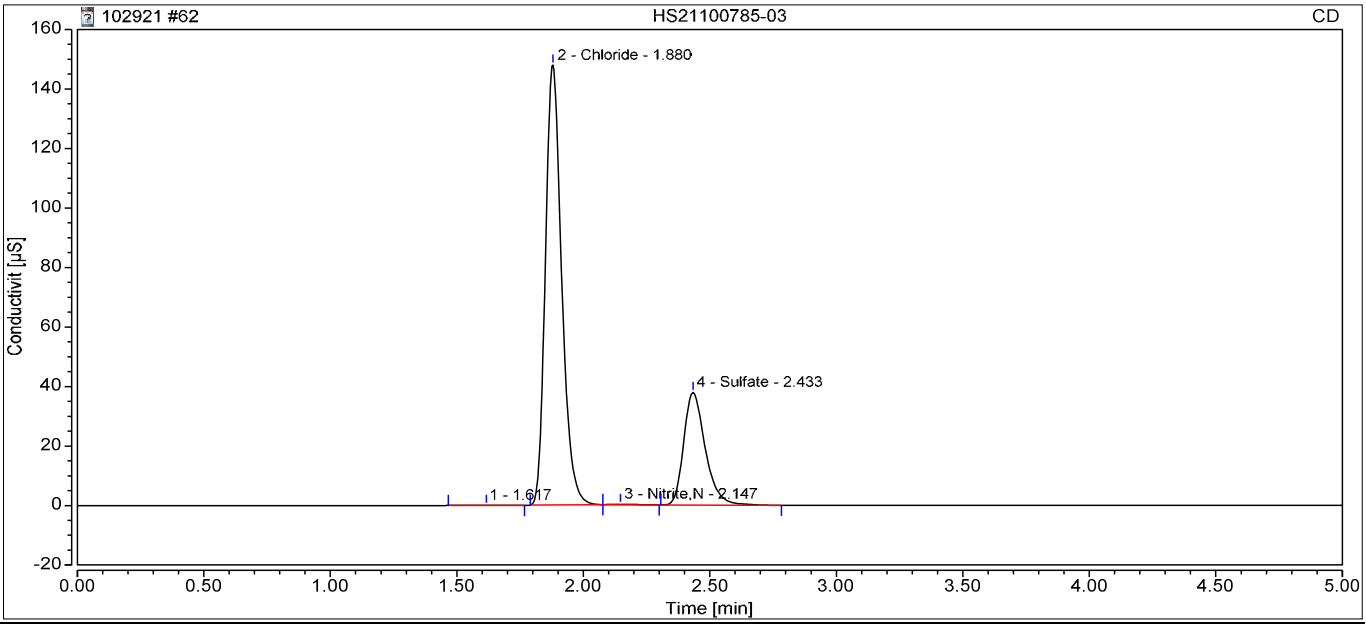
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	50.0000
1	1.88	Chloride	BMB	2.037	15.1292	756.4624	50.0000
2	2.15	Nitrite,N	BMB	0.010	0.0010	0.0479	50.0000
3	2.43	Sulfate	BMB	4.369	45.0172	2250.8576	50.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	50.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	50.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	50.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	50.0000
Total:			**0.000**	**6.417**		**3007.37**	

62 HS21100785-03

Sample Name:	**HS21100785-03**	*Injection Volume:*	**5.00**
Vial Number:	**RE8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Recording Time:	**10/29/2021 20:40**	*Sample Weight:*	**1.0000**

Run Time:



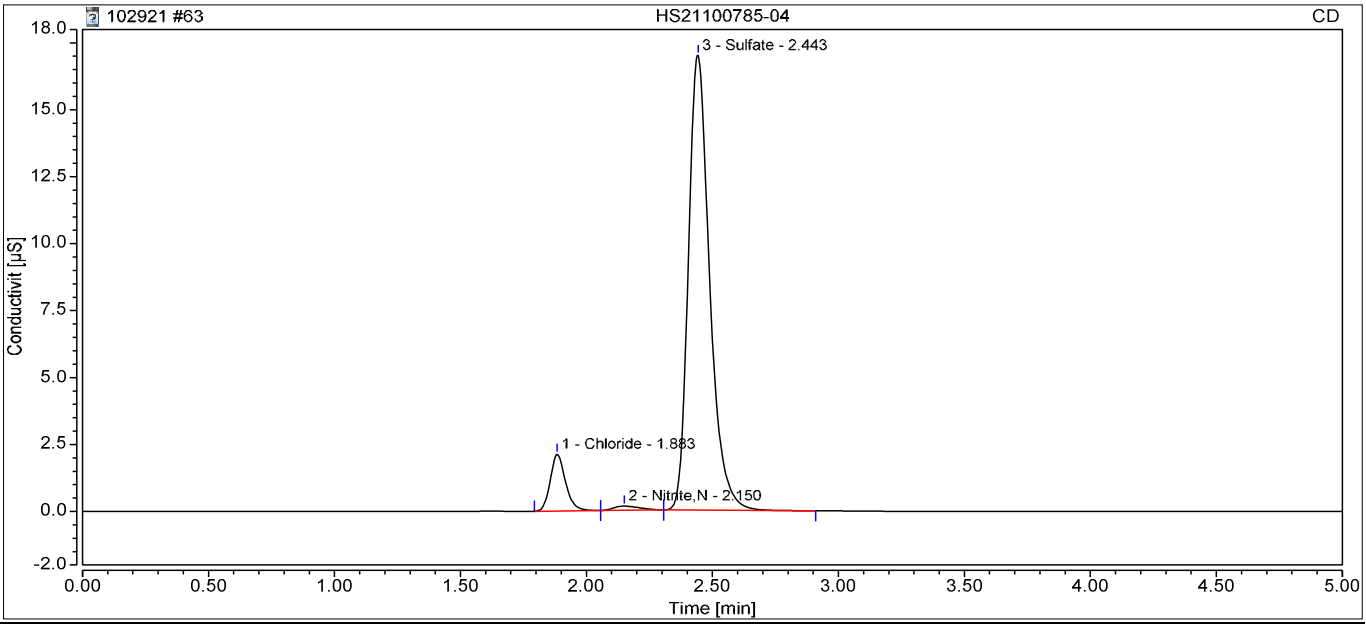
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	5.0000
2	1.88	Chloride	BMB	10.980	81.7641	408.8205	5.0000
3	2.15	Nitrite,N	BMB	0.013	0.0106	0.0532	5.0000
4	2.43	Sulfate	BMB	3.733	38.4654	192.3272	5.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	5.0000
Total:			**0.000**	**14.727**		**601.20**	

63 HS21100785-04

Sample Name:	**HS21100785-04**	*Injection Volume:*	**5.00**
Vial Number:	**GA1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**500.0000**
Recording Time:	**10/29/2021 20:47**	*Sample Weight:*	**1.0000**

Run Time:



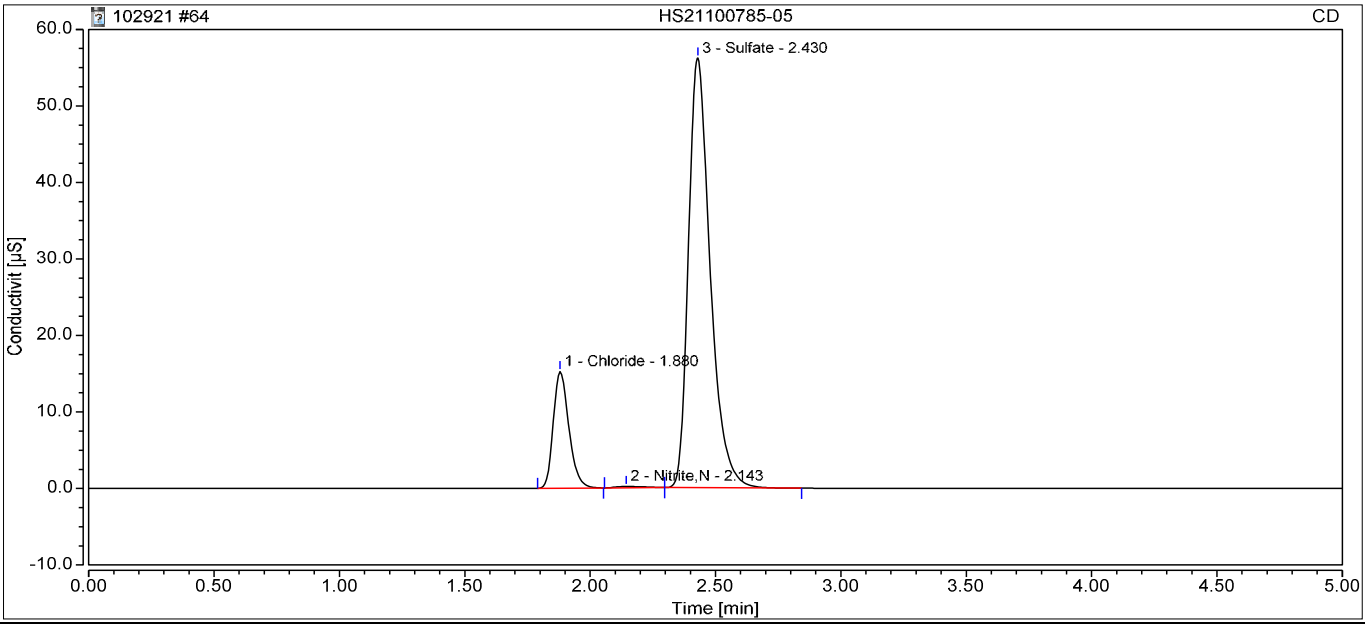
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	500.0000
1	1.88	Chloride	BMB	0.149	1.0609	530.4633	500.0000
2	2.15	Nitrite,N	BMB	0.018	0.0275	13.7328	500.0000
3	2.44	Sulfate	BMB	1.660	17.1074	8553.6801	500.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	500.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	500.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	500.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	500.0000
Total:			**0.000**	**1.827**		**9097.88**	

64 HS21100785-05

Sample Name:	**HS21100785-05**	*Injection Volume:*	**5.00**
Vial Number:	**GA2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**50.0000**
Recording Time:	**10/29/2021 20:55**	*Sample Weight:*	**1.0000**

Run Time:

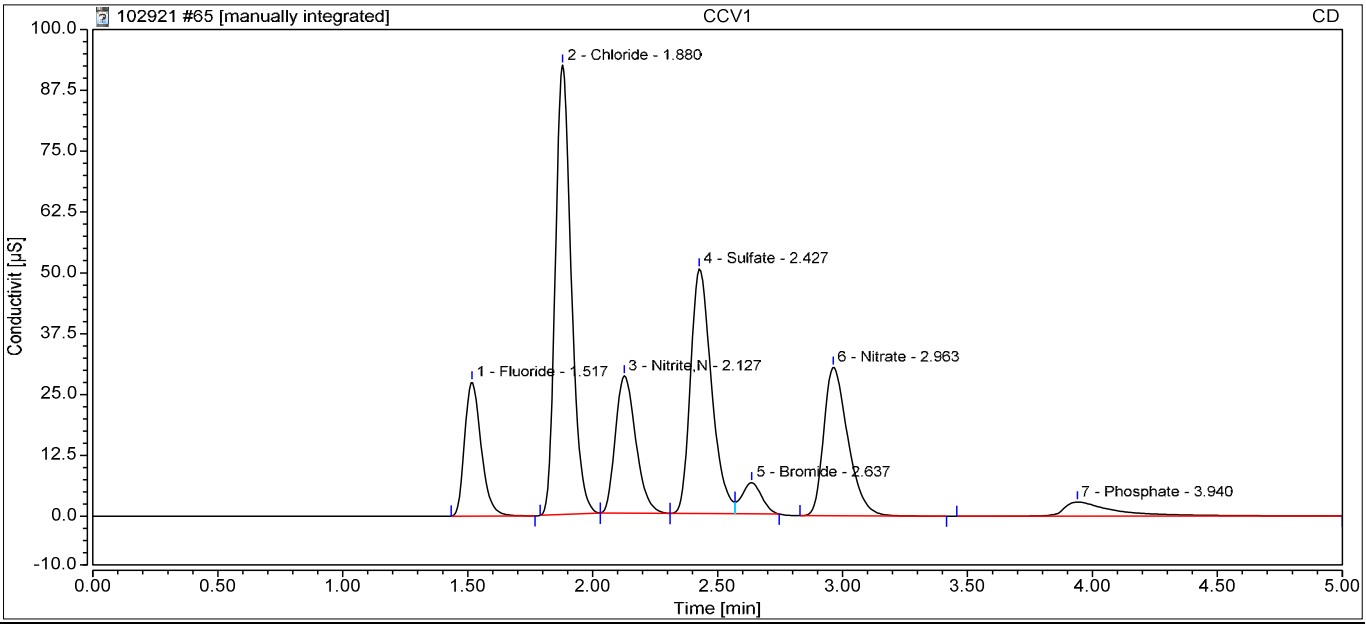


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	50.0000
1	1.88	Chloride	BMB	1.101	8.1536	407.6793	50.0000
2	2.14	Nitrite,N	BMB	0.023	0.0423	2.1127	50.0000
3	2.43	Sulfate	BMB	5.654	58.2527	2912.6354	50.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	50.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	50.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	50.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	50.0000
Total:			**0.000**	**6.777**		**3322.43**	

65 CCV1			
Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/29/2021 21:02**	*Sample Weight:*	**1.0000**

Run Time:



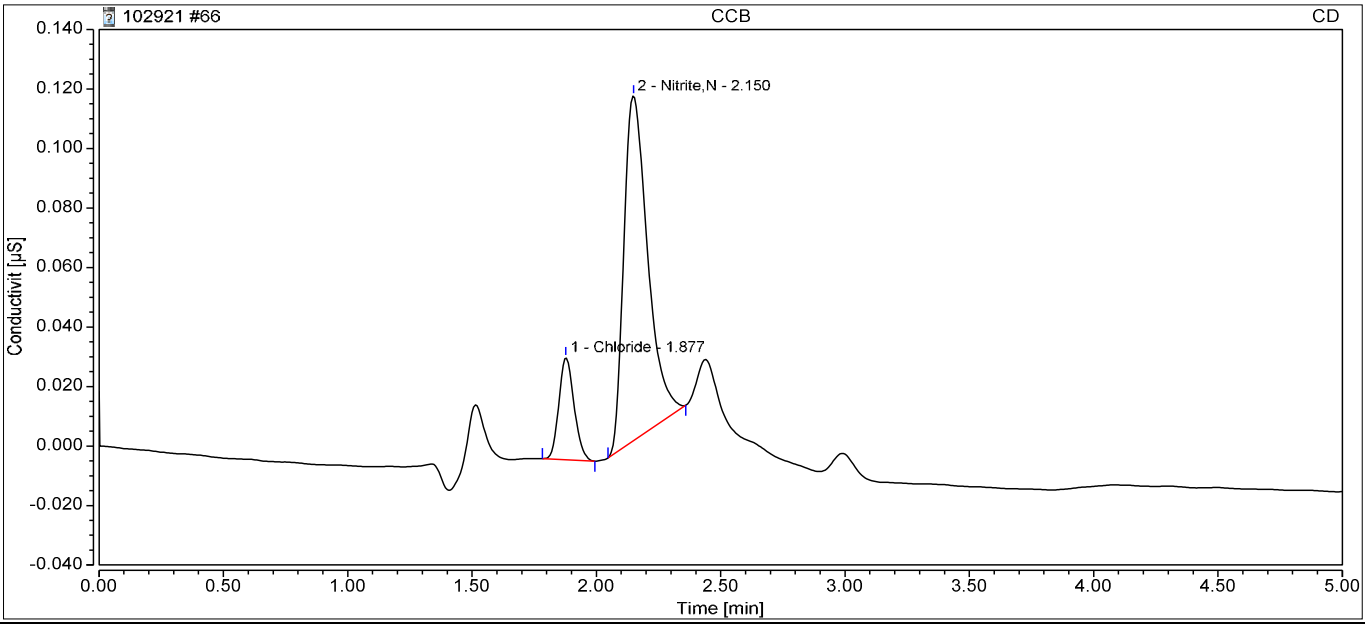
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	2.118	10.4374	10.4374	1.0000
2	1.88	Chloride	BMB	6.821	50.7794	50.7794	1.0000
3	2.13	Nitrite,N	BMb*	2.677	9.6504	9.6504	1.0000
4	2.43	Sulfate	bM *	4.901	50.4993	50.4993	1.0000
5	2.64	Bromide	MB*	0.592	10.8423	10.8423	1.0000
6	2.96	Nitrate	BMB	3.435	10.0943	10.0943	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.94	Phosphate	BMB	0.701	6.6481	6.6481	1.0000
Total:			**0.000**	**21.247**		**148.95**	

66 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/29/2021 21:10**	*Sample Weight:*	**1.0000**

Run Time:



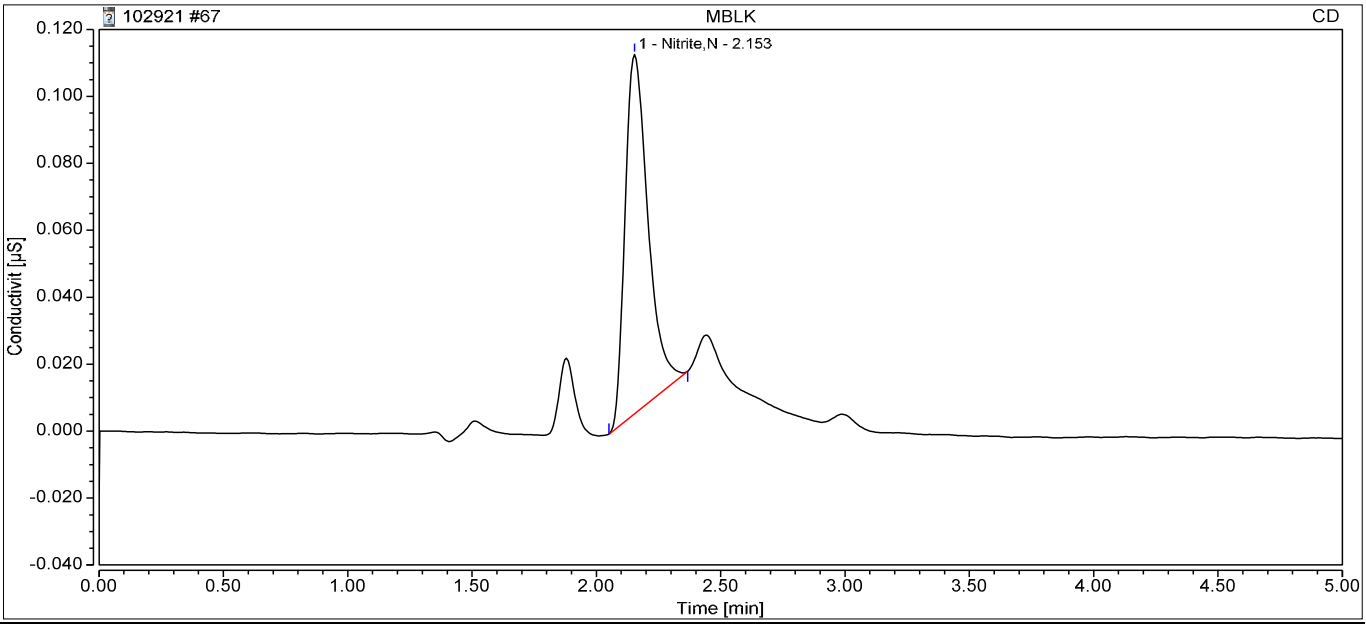
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.002	n.a.	n.a.	1.0000
2	2.15	Nitrite,N	BMB	0.013	0.0091	0.0091	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.015**		**0.01**	

67 *MBLK*

Sample Name:	**MBLK**	*Injection Volume:*	**5.00**
Vial Number:	**R5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/29/2021 21:17**	*Sample Weight:*	**1.0000**

Run Time:



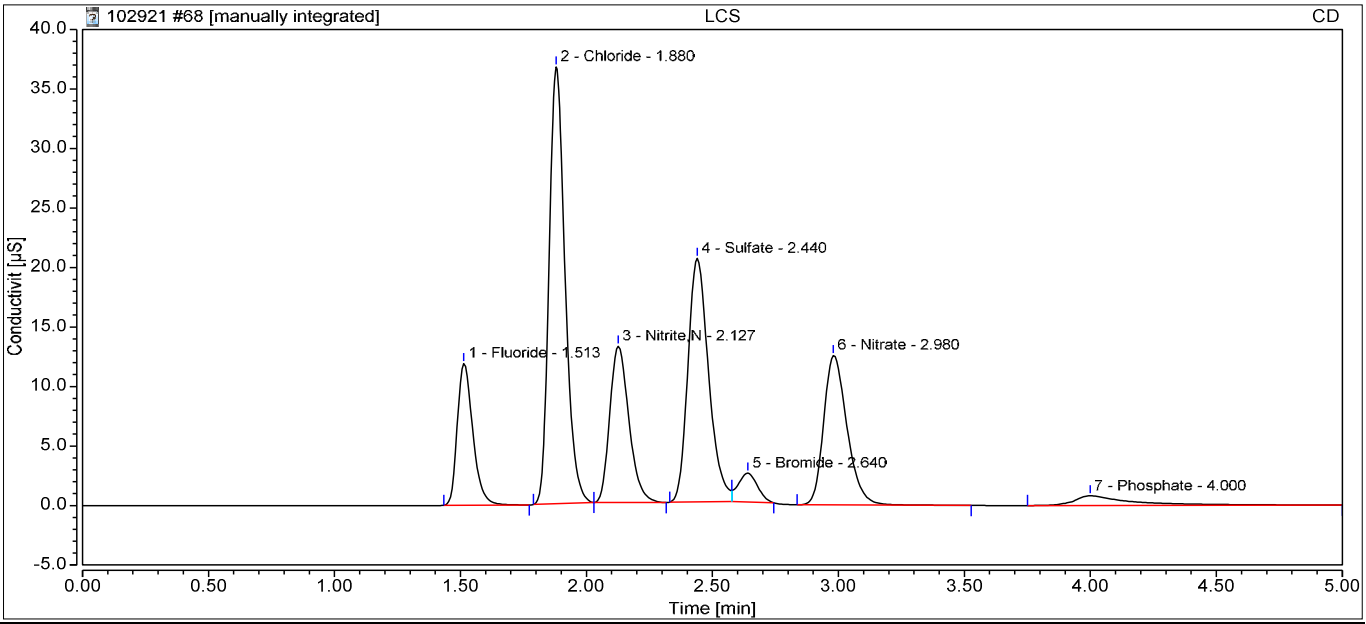
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.15	Nitrite,N	BMB	0.011	0.0044	0.0044	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.011**		**0.00**	

68 LCS

Sample Name:	**LCS**	*Injection Volume:*	**5.00**
Vial Number:	**R2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/29/2021 21:24**	*Sample Weight:*	**1.0000**

Run Time:



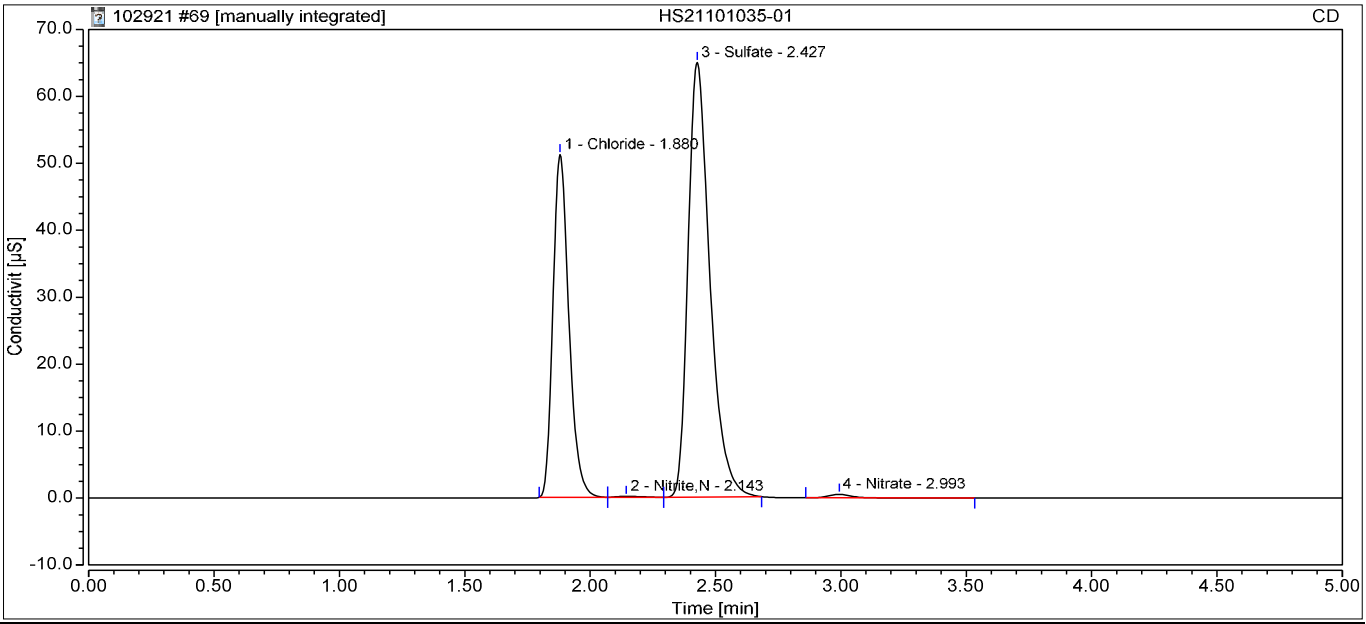
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.854	4.2292	4.2292	1.0000
2	1.88	Chloride	BMB	2.692	20.0130	20.0130	1.0000
3	2.13	Nitrite,N	BMB	1.160	3.9722	3.9722	1.0000
4	2.44	Sulfate	BM *	1.950	20.0927	20.0927	1.0000
5	2.64	Bromide	MB*	0.217	3.9815	3.9815	1.0000
6	2.98	Nitrate	BMB	1.347	3.9579	3.9579	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.00	Phosphate	BMB	0.217	2.2085	2.2085	1.0000
Total:			**0.000**	**8.437**		**58.45**	

69 HS21101035-01

Sample Name:	**HS21101035-01**	*Injection Volume:*	**5.00**
Vial Number:	**GA3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**50.0000**
Recording Time:	**10/29/2021 21:32**	*Sample Weight:*	**1.0000**

Run Time:

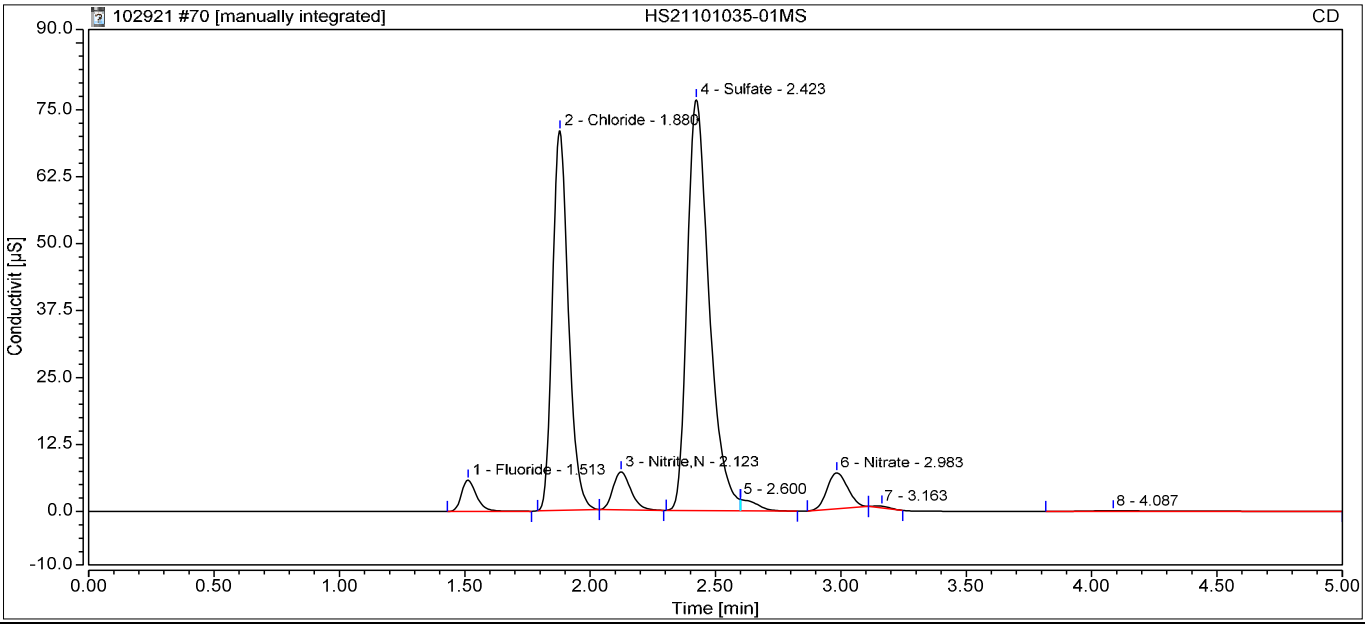


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	50.0000
1	1.88	Chloride	BMB	3.771	28.0508	1402.5377	50.0000
2	2.14	Nitrite,N	BMb*	0.017	0.0227	1.1368	50.0000
3	2.43	Sulfate	bMB*	6.554	67.5229	3376.1438	50.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	50.0000
4	2.99	Nitrate	BMB	0.055	0.1598	7.9911	50.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	50.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	50.0000
Total:			**0.000**	**10.396**		**4787.81**	

70	*HS21101035-01MS*		
Sample Name:	**HS21101035-01MS**	*Injection Volume:*	**5.00**
Vial Number:	**GA4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**50.0000**
Recording Time:	**10/29/2021 21:39**	*Sample Weight:*	**1.0000**

Run Time:



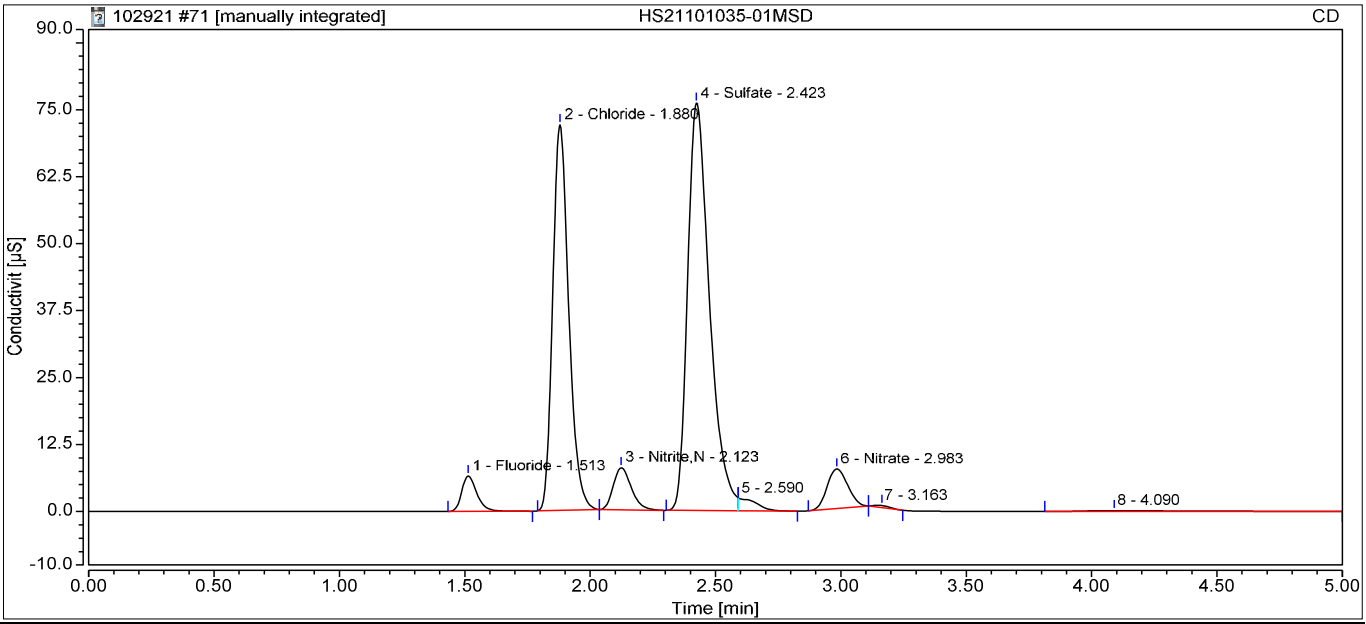
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.407	2.0336	101.6798	50.0000
2	1.88	Chloride	BMB	5.238	38.9791	1948.9543	50.0000
3	2.12	Nitrite,N	BMB	0.586	1.9597	97.9836	50.0000
4	2.42	Sulfate	BM *	7.799	80.3517	4017.5830	50.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	50.0000
6	2.98	Nitrate	BMB	0.641	1.8828	94.1411	50.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	50.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	50.0000
Total:			**0.000**	**14.670**		**6260.34**	

71 HS21101035-01MSD

Sample Name:	**HS21101035-01MSD**	*Injection Volume:*	**5.00**
Vial Number:	**GA5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**50.0000**
Recording Time:	**10/29/2021 21:47**	*Sample Weight:*	**1.0000**

Run Time:



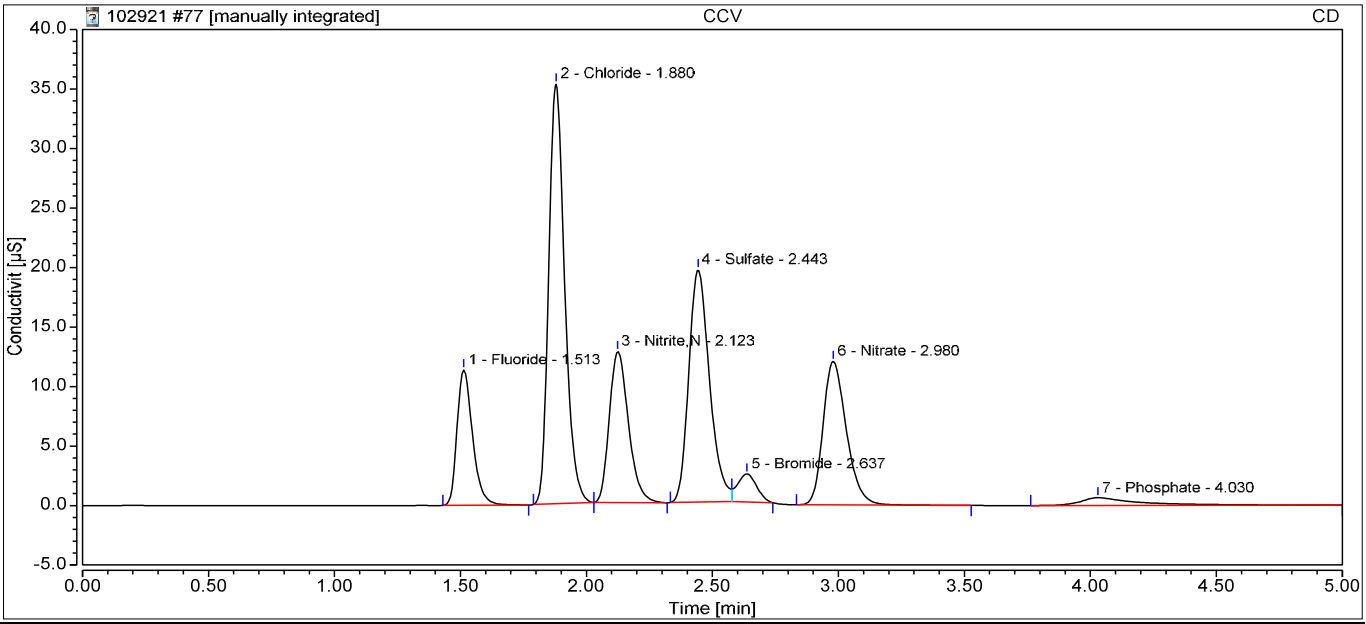
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.465	2.3213	116.0641	50.0000
2	1.88	Chloride	BMB	5.318	39.5773	1978.8653	50.0000
3	2.12	Nitrite,N	BMB	0.654	2.1931	109.6539	50.0000
4	2.42	Sulfate	BM *	7.708	79.4195	3970.9759	50.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	50.0000
6	2.98	Nitrate	BMB	0.707	2.0767	103.8333	50.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	50.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	50.0000
Total:			**0.000**	**14.852**		**6279.39**	

77 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/29/2021 22:31**	*Sample Weight:*	**1.0000**

Run Time:



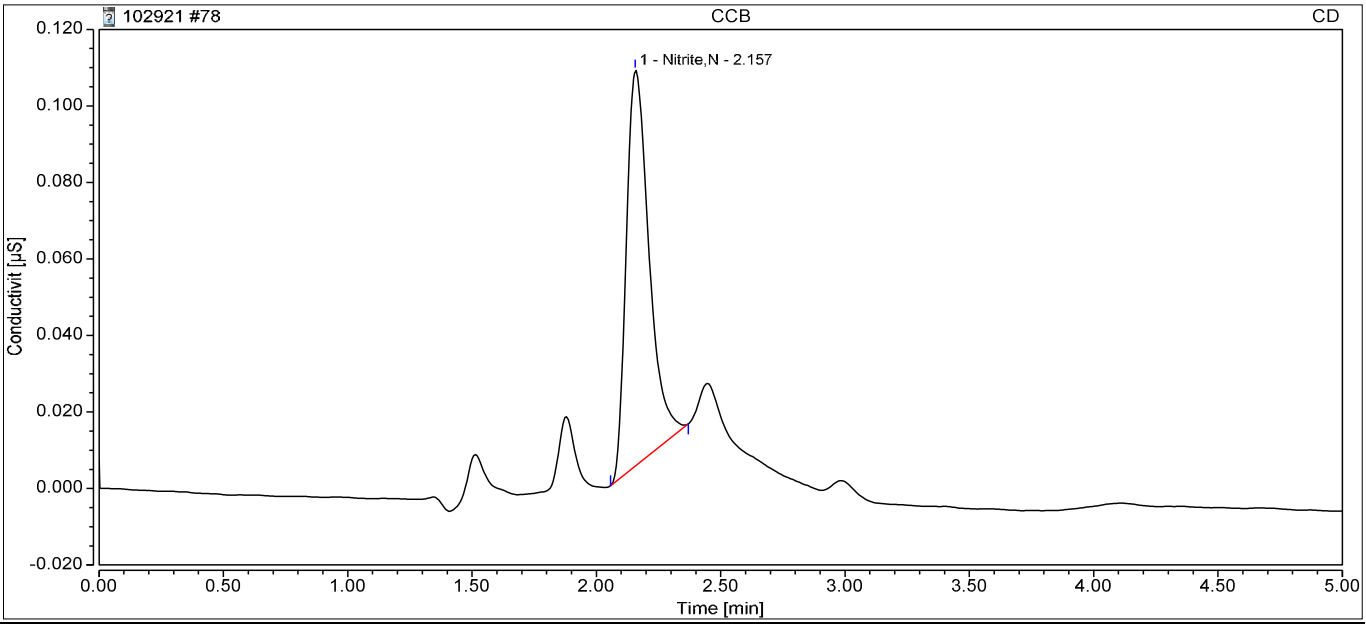
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.815	4.0376	4.0376	1.0000
2	1.88	Chloride	BMB	2.586	19.2192	19.2192	1.0000
3	2.12	Nitrite,N	BMB	1.118	3.8247	3.8247	1.0000
4	2.44	Sulfate	BM *	1.862	19.1827	19.1827	1.0000
5	2.64	Bromide	MB*	0.209	3.8455	3.8455	1.0000
6	2.98	Nitrate	BMB	1.294	3.8014	3.8014	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.03	Phosphate	BMB	0.180	1.8417	1.8417	1.0000
Total:			**0.000**	**8.063**		**55.75**	

78 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/29/2021 22:39**	*Sample Weight:*	**1.0000**

Run Time:



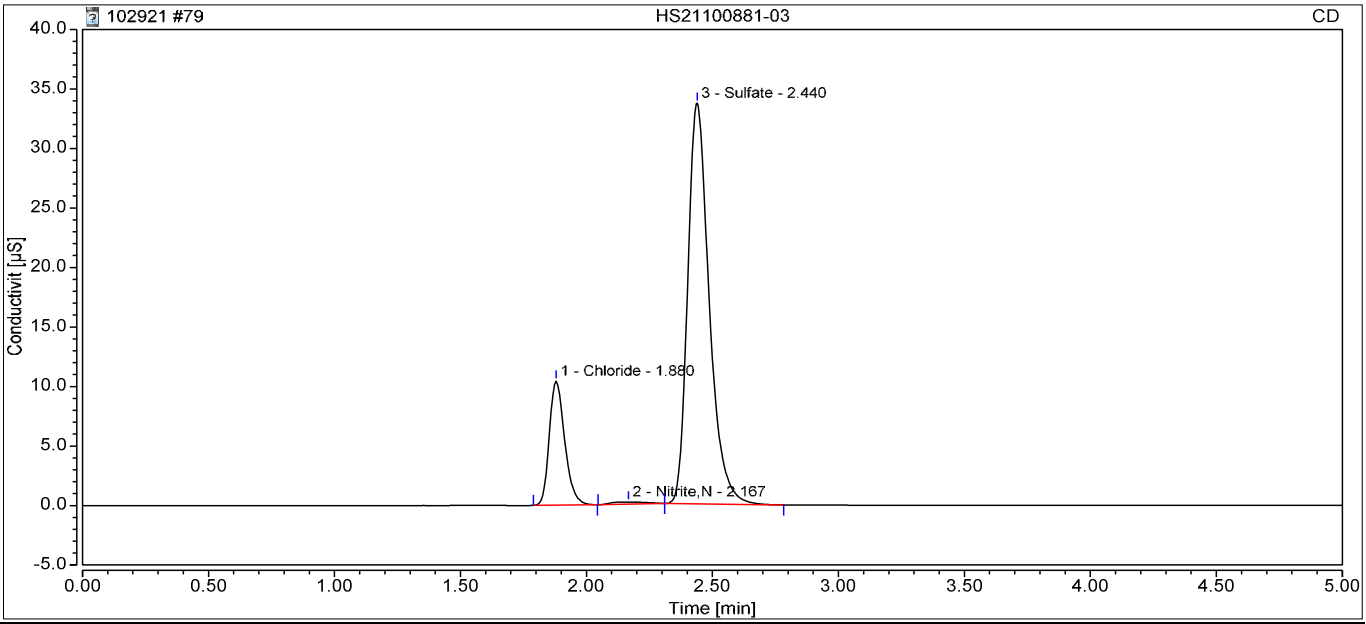
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.16	Nitrite,N	BMB	0.011	0.0027	0.0027	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.011**		**0.00**	

79 HS21100881-03

Sample Name:	**HS21100881-03**	*Injection Volume:*	**5.00**
Vial Number:	**GB3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**10/29/2021 22:46**	*Sample Weight:*	**1.0000**

Run Time:



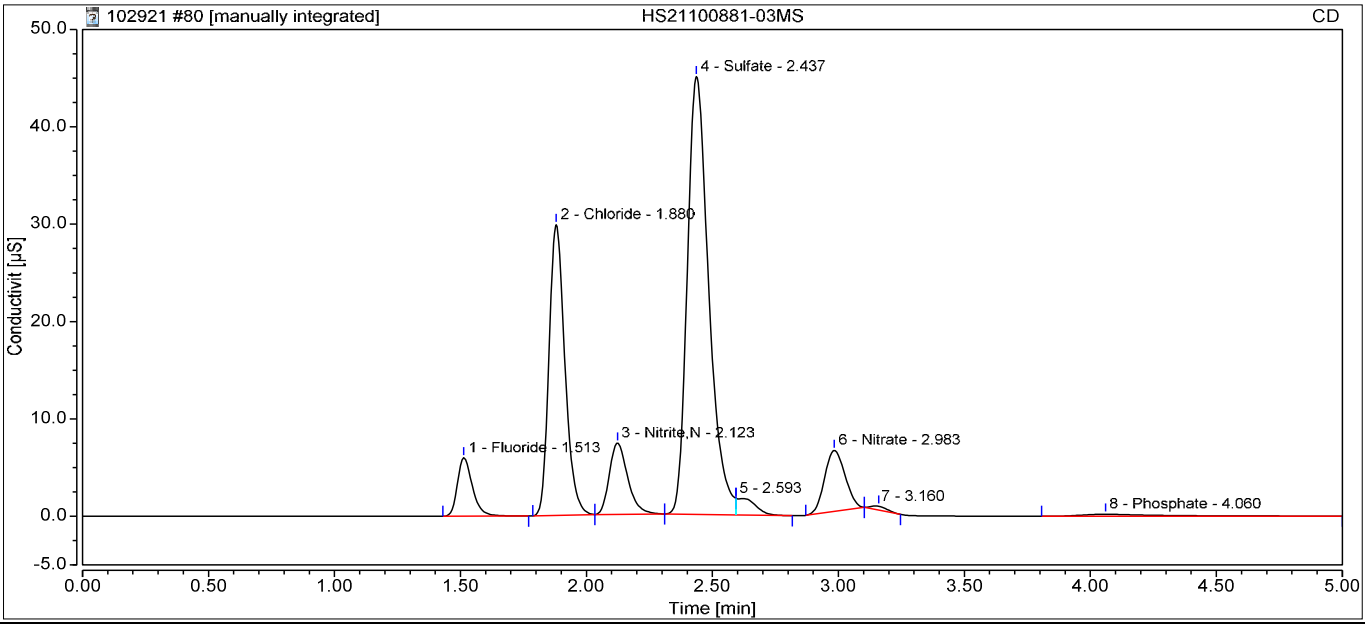
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	10.0000
1	1.88	Chloride	BMB	0.742	5.4816	54.8156	10.0000
2	2.17	Nitrite,N	BMB	0.029	0.0633	0.6331	10.0000
3	2.44	Sulfate	BMB	3.324	34.2499	342.4990	10.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	10.0000
Total:			**0.000**	**4.095**		**397.95**	

80 HS21100881-03MS

Sample Name:	**HS21100881-03MS**	*Injection Volume:*	**5.00**
Vial Number:	**GB4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**10/29/2021 22:53**	*Sample Weight:*	**1.0000**

Run Time:



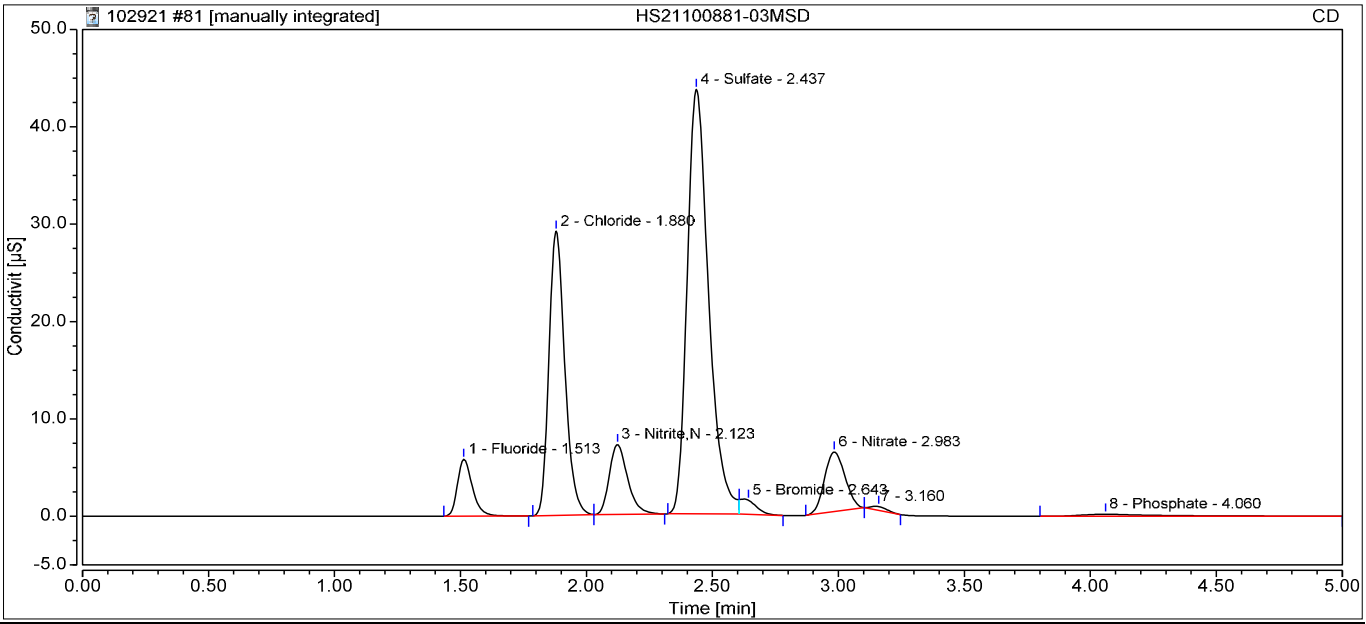
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.415	2.0772	20.7720	10.0000
2	1.88	Chloride	BMB	2.180	16.1975	161.9751	10.0000
3	2.12	Nitrite,N	BMB	0.619	2.0711	20.7111	10.0000
4	2.44	Sulfate	BM *	4.441	45.7522	457.5219	10.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	10.0000
6	2.98	Nitrate	BMB	0.591	1.7353	17.3532	10.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	10.0000
8	4.06	Phosphate	BMB	0.075	0.8139	8.1386	10.0000
Total:			**0.000**	**8.321**		**686.47**	

81 HS21100881-03MSD

Sample Name:	**HS21100881-03MSD**	*Injection Volume:*	**5.00**
Vial Number:	**GB5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**10/29/2021 23:01**	*Sample Weight:*	**1.0000**

Run Time:

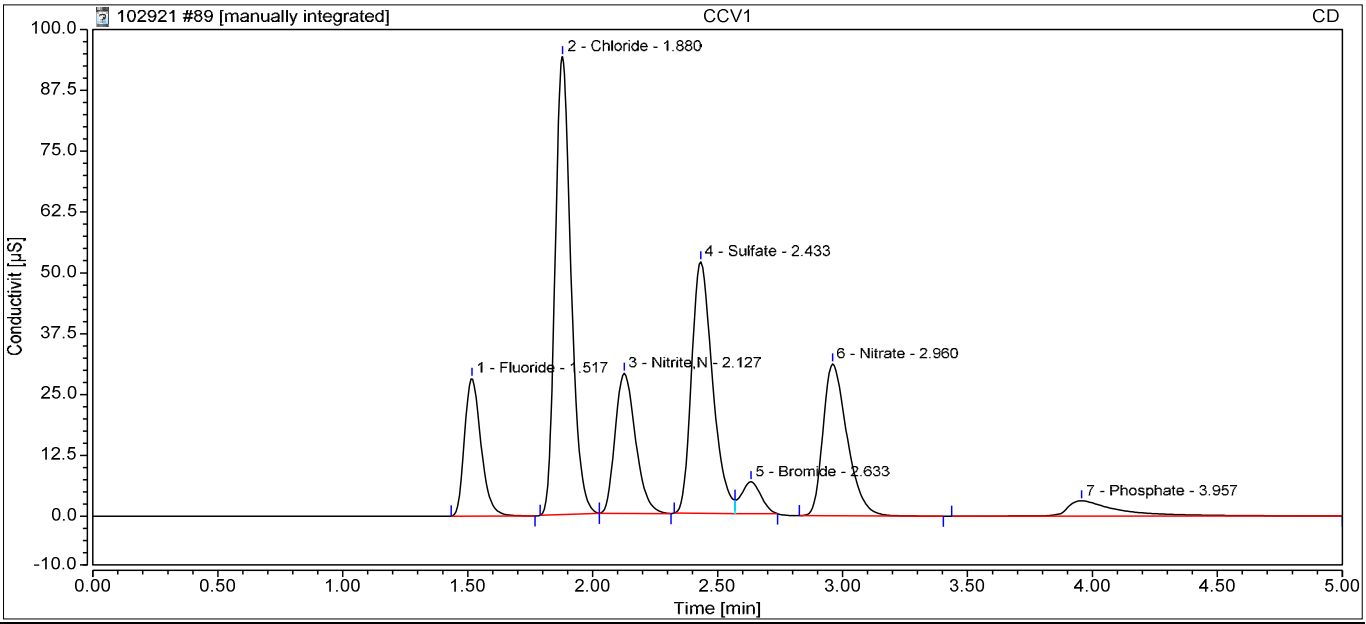


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.405	2.0256	20.2563	10.0000
2	1.88	Chloride	BMB	2.133	15.8479	158.4786	10.0000
3	2.12	Nitrite,N	BMB	0.605	2.0239	20.2394	10.0000
4	2.44	Sulfate	BM *	4.310	44.4030	444.0300	10.0000
5	2.64	Bromide	MB*	0.113	2.0943	20.9433	10.0000
6	2.98	Nitrate	BMB	0.577	1.6958	16.9579	10.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	10.0000
8	4.06	Phosphate	BMB	0.077	0.8300	8.2996	10.0000
Total:			**0.000**	**8.220**		**689.21**	

89 CCV1			
Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/30/2021 00:00**	*Sample Weight:*	**1.0000**

Run Time:



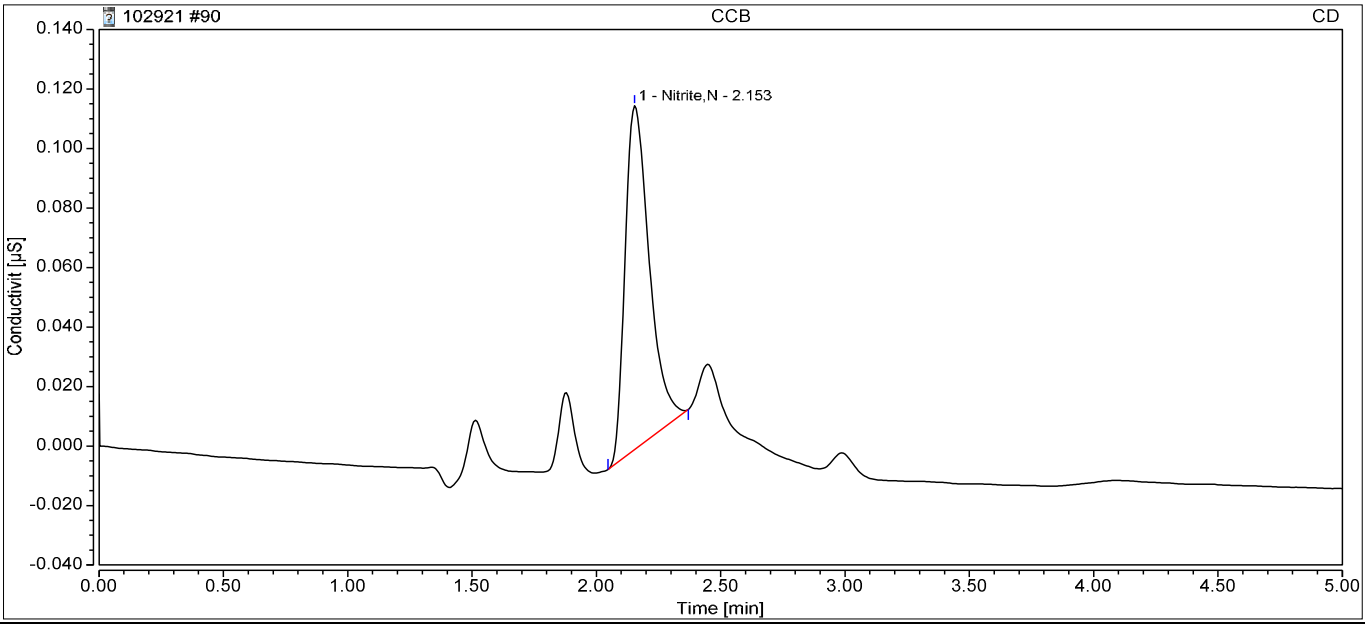
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	2.169	10.6871	10.6871	1.0000
2	1.88	Chloride	BMB	6.932	51.6017	51.6017	1.0000
3	2.13	Nitrite,N	BMB	2.730	9.8577	9.8577	1.0000
4	2.43	Sulfate	BM *	5.037	51.8981	51.8981	1.0000
5	2.63	Bromide	MB*	0.599	10.9600	10.9600	1.0000
6	2.96	Nitrate	BMB	3.497	10.2758	10.2758	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.96	Phosphate	BMB	0.759	7.1514	7.1514	1.0000
Total:			**0.000**	**21.723**		**152.43**	

90 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/30/2021 00:07**	*Sample Weight:*	**1.0000**

Run Time:



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.15	Nitrite,N	BMB	0.013	0.0096	0.0096	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.013**		**0.01**	

HS21100785 Wet Chemistry Raw Data

ALS WO# HS21100785

Report Date: 10/21/2021 : 6:07

PC-TitratION PLUS
Calibration Report

Calibration Record # 2418

Calibration Settings

Calibration ID	PH CAL 4-7-10	Date	10/21/2021
Channel	1	Time	6:07 PM
Probe Type	pH	Temperature	295.72 K 22.57 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-58.613	CorrCoeff	0.9999
Intercept	-1.953	Equation:	Y = (-58.613) X + (-1.953)

Calibration Validity True Operator

	Result	Minimum	Maximum
Slope	-58.613	-65.00	-53.00
Intercept	-1.953	-100.00	100.00
Correlation Coefficient	0.9999	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	4.00	175.29
	7.00	-4.76
	10.00	-176.39

#393968 (A)

#393972 (B)

MDA

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Report Date: 10/22/2021 : 2:13 AM

PC-TitratION PLUS
Water Analysis Report

Run Number 4207 **Order Number** 20211021-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
ICV-PH	10/21/2021	7:03 PM	22.84	-1.00	6.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
TAP WATER	10/21/2021	7:09 PM	22.78	-1.00	6.95	.00	296.98	296.98	.00	.00	.00	2.83	2.83
WBLKW1-211021	10/21/2021	7:15 PM	22.74	-1.00	5.93	.00	1.67	1.67	.00	.00	.00	.05	.05
LCS1-211021	10/21/2021	7:23 PM	22.72	-1.00	10.72	517.07	1,023.24	.00	1,012.34	10.90	4.92	9.75	9.75
LCSD1-211021	10/21/2021	7:32 PM	22.58	-1.00	10.73	516.18	1,019.01	.00	1,005.66	13.35	4.92	9.70	9.70
HS21101156-04	10/21/2021	7:39 PM	23.31	-1.00	8.06	.00	146.70	146.70	.00	.00	.00	1.40	1.40
HS21101156-04DUP	10/21/2021	7:46 PM	23.73	-1.00	8.08	.00	163.45	163.45	.00	.00	.00	1.56	1.56
HS21101156-05	10/21/2021	7:52 PM	23.89	-1.00	7.97	.00	144.74	144.74	.00	.00	.00	1.38	1.38
HS21100865-01DF20	10/21/2021	8:03 PM	23.47	-1.00	11.52	966.05	1,342.09	.00	752.07	590.02	9.20	12.78	12.78
HS21100865-02DF20	10/21/2021	8:14 PM	22.90	-1.00	11.47	896.56	1,295.90	.00	798.68	497.22	8.54	12.34	12.34
HS21101019-01	10/21/2021	8:20 PM	22.57	-1.00	7.59	.00	203.68	203.68	.00	.00	.00	1.94	1.94
CCV-PH	10/21/2021	8:23 PM	22.45	-1.00	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	10/21/2021	8:32 PM	22.39	-1.00	10.58	474.19	1,080.04	131.66	948.38	.00	4.52	10.29	10.29
DI RINSE	10/21/2021	8:38 PM	22.31	-1.00	6.53	.00	1.89	1.89	.00	.00	.00	.05	.05
HS21101053-01	10/21/2021	8:44 PM	22.77	-1.00	5.77	.00	1.14	1.14	.00	.00	.00	.04	.04
HS21101152-01	10/21/2021	8:50 PM	23.19	-1.00	7.20	.00	261.17	261.17	.00	.00	.00	2.49	2.49
HS21101152-02	10/21/2021	8:56 PM	23.51	-1.00	7.23	.00	282.48	282.48	.00	.00	.00	2.69	2.69
HS21101152-03	10/21/2021	9:02 PM	23.54	-1.00	6.79	.00	341.77	341.77	.00	.00	.00	3.25	3.25
HS21101152-04	10/21/2021	9:09 PM	23.22	-1.00	6.90	.00	369.81	369.81	.00	.00	.00	3.52	3.52
HS21101152-05	10/21/2021	9:16 PM	22.95	-1.00	7.61	.00	212.46	212.46	.00	.00	.00	2.02	2.02
HS21101152-06	10/21/2021	9:22 PM	22.78	-1.00	6.96	.00	304.96	304.96	.00	.00	.00	2.90	2.90
HS21100769-09	10/21/2021	9:28 PM	22.58	-1.00	7.22	.00	315.12	315.12	.00	.00	.00	3.00	3.00
HS21101112-01	10/21/2021	9:35 PM	22.45	-1.00	7.38	.00	171.43	171.43	.00	.00	.00	1.63	1.63
CCV-PH	10/21/2021	9:38 PM	22.31	-1.00	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	10/21/2021	9:46 PM	22.17	-1.00	10.57	470.29	1,074.72	134.14	940.58	.00	4.48	10.24	10.24
DI RINSE	10/21/2021	9:52 PM	22.14	-1.00	6.40	.00	1.78	1.78	.00	.00	.00	.05	.05
HS21100881-01	10/21/2021	9:57 PM	22.49	-1.00	5.34	.00	76.67	76.67	.00	.00	.00	.73	.73

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Run Number 4207 **Order Number** 20211021-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
HS21100881-02	10/21/2021	10:03 PM	22.93	-1.00	5.28	.00	110.40	110.40	.00	.00	.00	1.05	1.05
HS21100881-03	10/21/2021	10:08 PM	23.39	-1.00	4.86	.00	24.26	24.26	.00	.00	.00	.23	.23
HS21100881-05	10/21/2021	10:13 PM	23.51	-1.00	5.20	.00	24.03	24.03	.00	.00	.00	.23	.23
HS21100881-06	10/21/2021	10:18 PM	23.44	-1.00	5.24	.00	26.49	26.49	.00	.00	.00	.25	.25
HS21100881-07	10/21/2021	10:24 PM	23.07	-1.00	5.93	.00	302.75	302.75	.00	.00	.00	2.88	2.88
WLCS-211021	10/21/2021	10:32 PM	22.78	-1.00	10.68	497.14	1,013.97	19.68	994.29	.00	4.73	9.66	9.66
WLCSD2-211021	10/21/2021	10:41 PM	22.51	-1.00	10.70	503.36	1,013.08	6.36	1,006.72	.00	4.79	9.65	9.65
CCV-PH	10/21/2021	10:44 PM	22.26	-1.00	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCVALK	10/21/2021	10:54 PM	22.16	-1.00	10.55	481.61	1,092.03	128.81	963.22	.00	4.59	10.40	10.40
DI RINSE	10/21/2021	11:00 PM	22.31	-1.00	6.29	.00	1.99	1.99	.00	.00	.00	.05	.05
WBLKW2-211021	10/21/2021	11:05 PM	22.75	-1.00	5.64	.00	1.16	1.16	.00	.00	.00	.04	.04
HS21100884-02	10/21/2021	11:12 PM	23.11	-1.00	7.34	.00	347.62	347.62	.00	.00	.00	3.31	3.31
HS21100884-02DUP	10/21/2021	11:18 PM	23.41	-1.00	7.37	.00	350.36	350.36	.00	.00	.00	3.34	3.34
HS21100884-03	10/21/2021	11:24 PM	23.64	-1.00	7.88	.00	225.65	225.65	.00	.00	.00	2.15	2.15
HS21100884-06	10/21/2021	11:31 PM	23.17	-1.00	8.34	4.76	469.53	460.02	9.52	.00	.05	4.47	4.47
HS21100884-07	10/21/2021	11:38 PM	22.77	-1.00	8.02	.00	342.85	342.85	.00	.00	.00	3.27	3.27
HS21100884-09	10/21/2021	11:44 PM	22.42	-1.00	7.87	.00	264.26	264.26	.00	.00	.00	2.52	2.52
HS21100884-10	10/21/2021	11:50 PM	22.28	-1.00	7.49	.00	287.61	287.61	.00	.00	.00	2.74	2.74
HS21100884-11	10/21/2021	11:57 PM	22.19	-1.00	9.81	45.83	73.76	.00	55.84	17.91	.44	.70	.70
HS21100884-12	10/22/2021	12:05 AM	22.35	-1.00	10.36	111.64	150.31	.00	77.32	72.98	1.06	1.43	1.43
CCV-PH	10/22/2021	12:08 AM	22.84	-1.00	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	10/22/2021	12:16 AM	22.92	-1.00	10.53	465.88	1,076.50	144.75	931.75	.00	4.44	10.25	10.25
DI RINSE	10/22/2021	12:23 AM	23.36	-1.00	6.33	.00	2.10	2.10	.00	.00	.00	.05	.05
HS21100807-05	10/22/2021	12:31 AM	23.57	-1.00	7.72	.00	630.06	630.06	.00	.00	.00	6.00	6.00
HS21100807-06	10/22/2021	12:39 AM	23.15	-1.00	7.70	.00	802.28	802.28	.00	.00	.00	7.64	7.64
HS21100807-07	10/22/2021	12:45 AM	22.60	-1.00	7.76	.00	435.44	435.44	.00	.00	.00	4.15	4.15
HS21100807-08	10/22/2021	12:51 AM	22.35	-1.00	7.65	.00	355.86	355.86	.00	.00	.00	3.39	3.39
HS21100807-09	10/22/2021	12:57 AM	22.19	-1.00	8.07	.00	424.06	424.06	.00	.00	.00	4.04	4.04
HS21100807-10	10/22/2021	1:04 AM	22.25	-1.00	7.38	.00	353.42	353.42	.00	.00	.00	3.37	3.37
HS21100785-01	10/22/2021	1:10 AM	22.72	-1.00	5.33	.00	161.67	161.67	.00	.00	.00	1.54	1.54

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Run Number 4207 **Order Number** 20211021-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
HS21100785-02	10/22/2021	1:15 AM	23.06	-1.00	5.57	.00	164.31	164.31	.00	.00	.00	1.56	1.56
CCV-PH	10/22/2021	1:18 AM	23.27	-1.00	7.08	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	10/22/2021	1:27 AM	23.30	-1.00	10.51	454.00	1,079.35	171.36	907.99	.00	4.32	10.28	10.28
DI RINSE	10/22/2021	1:33 AM	23.68	-1.00	6.03	.00	2.11	2.11	.00	.00	.00	.05	.05
HS21100785-03	10/22/2021	1:39 AM	23.20	-1.00	6.02	.00	365.44	365.44	.00	.00	.00	3.48	3.48
HS21100785-04	10/22/2021	1:47 AM	22.75	-1.00	6.23	.00	1,022.54	1,022.54	.00	.00	.00	9.74	9.74
HS21100785-05	10/22/2021	1:53 AM	22.31	-1.00	5.91	.00	482.14	482.14	.00	.00	.00	4.59	4.59
CCV-PH	10/22/2021	1:56 AM	22.02	-1.00	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	10/22/2021	2:05 AM	22.00	-1.00	10.51	456.46	1,072.73	159.80	912.92	.00	4.35	10.22	10.22
DI-RINSE	10/22/2021	2:11 AM	22.67	-1.00	6.01	.00	2.15	2.15	.00	.00	.00	.05	.05

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C:\TOC-L\Data\2021_10_18_002_CAL.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
1	Standard	NPOC	CAL	3100604915	10_18_2021_CAL.202	1.000	
2	Unknown	NPOC	ICV		10_18_2021_CAL.cal	1.000	NPOC:10.45mg/
3	Unknown	NPOC	ICB		10_18_2021_CAL.cal	1.000	NPOC:0.06854
4	Unknown	NPOC	CCV	317195204	10_18_2021_CAL.cal	1.000	NPOC:25.32mg/
5	Unknown	NPOC	CCB		10_18_2021_CAL.cal	1.000	NPOC:0.1081m
6	Unknown	NPOC	MBLK- 10182021		10_18_2021_CAL.cal	1.000	NPOC:0.07394
7	Unknown	NPOC	LCS- 10182021	3100604423	10_18_2021_CAL.cal	1.000	NPOC:10.41mg/
8	Unknown	NPOC	LCSD- 10182021	3100604423	10_18_2021_CAL.cal	1.000	NPOC:10.57mg/
9	Unknown	NPOC	HS21100576-11DF10		10_18_2021_CAL.cal	1.000	NPOC:0.1762m
10	Unknown	NPOC	HS21100576-11MSDF1		10_18_2021_CAL.cal	1.000	NPOC:10.97mg/
11	Unknown	NPOC	HS21100576-12DF10		10_18_2021_CAL.cal	1.000	NPOC:0.1763m
12	Unknown	NPOC	HS21100576-13DF10		10_18_2021_CAL.cal	1.000	NPOC:0.1405m
13	Unknown	NPOC	HS21100576-14DF10		10_18_2021_CAL.cal	1.000	NPOC:0.1411m
14	Unknown	NPOC	HS21100576-15DF10		10_18_2021_CAL.cal	1.000	NPOC:0.1156m
15	Unknown	NPOC	HS21100576-16DF10		10_18_2021_CAL.cal	1.000	NPOC:0.1202m
16	Unknown	NPOC	CCV	317195204	10_18_2021_CAL.cal	1.000	NPOC:25.07mg/
17	Unknown	NPOC	CCB		10_18_2021_CAL.cal	1.000	NPOC:0.09147
18	Unknown	NPOC	HS21100576-17DF10		10_18_2021_CAL.cal	1.000	NPOC:0.1513m
19	Unknown	NPOC	HS21100580-01DF10		10_18_2021_CAL.cal	1.000	NPOC:0.1456m
20	Unknown	NPOC	HS21100580-02DF10		10_18_2021_CAL.cal	1.000	NPOC:0.1201m
21	Unknown	NPOC	HS21100580-03DF10		10_18_2021_CAL.cal	1.000	NPOC:0.1089m
22	Unknown	NPOC	CCV	317195204	10_18_2021_CAL.cal	1.000	NPOC:25.04mg/
23	Unknown	NPOC	CCB		10_18_2021_CAL.cal	1.000	NPOC:0.08021
24	Unknown	NPOC	MBLK- 10182021		10_18_2021_CAL.cal	1.000	NPOC:0.05109
25	Unknown	NPOC	LCS- 10182021	3100604423	10_18_2021_CAL.cal	1.000	NPOC:10.54mg/
26	Unknown	NPOC	LCSD- 10182021	3100604423	10_18_2021_CAL.cal	1.000	NPOC:10.50mg/
27	Unknown	NPOC	HS21100580-04DF10		10_18_2021_CAL.cal	1.000	NPOC:0.2529m
28	Unknown	NPOC	HS21100580-04MSDF1		10_18_2021_CAL.cal	1.000	NPOC:10.97mg/
29	Unknown	NPOC	HS21100580-05DF10		10_18_2021_CAL.cal	1.000	NPOC:0.2547m
30	Unknown	NPOC	HS21100580-06DF10		10_18_2021_CAL.cal	1.000	NPOC:0.1724m
31	Unknown	NPOC	HS21100580-07DF10		10_18_2021_CAL.cal	1.000	NPOC:0.1965m
32	Unknown	NPOC	HS21100580-08DF10		10_18_2021_CAL.cal	1.000	NPOC:0.2443m
33	Unknown	NPOC	HS21100580-09DF10		10_18_2021_CAL.cal	1.000	NPOC:0.2240m
34	Unknown	NPOC	CCV	317195204	10_18_2021_CAL.cal	1.000	NPOC:25.11mg/
35	Unknown	NPOC	CCB		10_18_2021_CAL.cal	1.000	NPOC:0.05380
36	Unknown	NPOC	HS21100580-10DF10		10_18_2021_CAL.cal	1.000	NPOC:0.2123m
37	Unknown	NPOC	HS21100580-11DF10		10_18_2021_CAL.cal	1.000	NPOC:0.2039m
38	Unknown	NPOC	HS21100580-12DF10		10_18_2021_CAL.cal	1.000	NPOC:0.2445m
39	Unknown	NPOC	HS21100580-13DF10		10_18_2021_CAL.cal	1.000	NPOC:0.1963m
40	Unknown	NPOC	CCV	317195204	10_18_2021_CAL.cal	1.000	NPOC:25.09mg/
41	Unknown	NPOC	CCB		10_18_2021_CAL.cal	1.000	NPOC:0.07662
42	Unknown	NPOC	MBLK- 10182021		10_18_2021_CAL.cal	1.000	NPOC:0.06846
43	Unknown	NPOC	LCS- 10182021	3100604423	10_18_2021_CAL.cal	1.000	NPOC:10.39mg/
44	Unknown	NPOC	LCSD- 10182021	3100604423	10_18_2021_CAL.cal	1.000	NPOC:10.51mg/
45	Unknown	NPOC	HS21100487-01		10_18_2021_CAL.cal	1.000	NPOC:0.09045
46	Unknown	NPOC	HS21100427-03DF10		10_18_2021_CAL.cal	1.000	NPOC:4.826mg/
47	Unknown	NPOC	HS21100427-04DF10		10_18_2021_CAL.cal	1.000	NPOC:4.336mg/
48	Unknown	NPOC	HS21100427-05DF10		10_18_2021_CAL.cal	1.000	NPOC:5.173mg/
49	Unknown	NPOC	HS21100427-06DF10		10_18_2021_CAL.cal	1.000	NPOC:1.772mg/
50	Unknown	NPOC	HS21100427-07DF10		10_18_2021_CAL.cal	1.000	NPOC:32.39mg/
51	Unknown	NPOC	CCV	317195204	10_18_2021_CAL.cal	1.000	NPOC:24.79mg/

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	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
52	Unknown	NPOC	CCB		10_18_2021_CAL.cal	1.000	NPOC:0.1341m
53	Unknown	NPOC	HS21100475-01		10_18_2021_CAL.cal	1.000	NPOC:8.960mg/
54	Unknown	NPOC	HS21100475-01MS		10_18_2021_CAL.cal	1.000	NPOC:19.83mg/
55	Unknown	NPOC	HS21100640-01		10_18_2021_CAL.cal	1.000	NPOC:0.1557m
56	Unknown	NPOC	HS21100648-01		10_18_2021_CAL.cal	1.000	NPOC:0.1059m
57	Unknown	NPOC	CCV	317195204	10_18_2021_CAL.cal	1.000	NPOC:24.24mg/
58	Unknown	NPOC	CCB		10_18_2021_CAL.cal	1.000	NPOC:0.09560

	Notes	Status	Date / Time	Vial
1		Completed	10/18/2021 6:16:39	1, 2, 3, 4, 5,
2		Completed	10/18/2021 6:43:39	8
3		Completed	10/18/2021 6:54:37	9
4		Completed	10/18/2021 7:06:09	10
5		Completed	10/18/2021 7:17:35	11
6		Completed	10/18/2021 7:31:33	12
7		Completed	10/18/2021 7:43:19	13
8		Completed	10/18/2021 7:55:11	14
9		Completed	10/18/2021 8:09:09	15
10		Completed	10/18/2021 8:21:01	16
11		Completed	10/18/2021 8:32:13	17
12		Completed	10/18/2021 8:43:11	18
13		Completed	10/18/2021 8:54:09	19
14		Completed	10/18/2021 9:05:07	20
15		Completed	10/18/2021 9:19:05	21
16		Completed	10/18/2021 9:45:16	10
17		Completed	10/18/2021 9:56:32	11
18		Completed	10/18/2021 10:10:37	22
19		Completed	10/18/2021 10:21:50	23
20		Completed	10/18/2021 10:32:48	24
21		Completed	10/18/2021 10:43:46	25
22		Completed	10/18/2021 11:06:28	10
23		Completed	10/18/2021 11:17:41	11
24		Completed	10/18/2021 11:31:39	12
25		Completed	10/18/2021 11:43:24	13
26		Completed	10/18/2021 11:55:23	14
27		Completed	10/19/2021 12:06:58	26
28		Completed	10/19/2021 12:18:24	27
29		Completed	10/19/2021 12:29:23	28
30		Completed	10/19/2021 12:40:22	29
31		Completed	10/19/2021 12:51:21	30
32		Completed	10/19/2021 1:02:20	31
33		Completed	10/19/2021 1:13:19	32
34		Completed	10/19/2021 1:36:00	33
35		Completed	10/19/2021 1:50:12	34
36		Completed	10/19/2021 2:01:26	35
37		Completed	10/19/2021 2:12:25	36
38		Completed	10/19/2021 2:23:24	37
39		Completed	10/19/2021 2:34:23	38
40		Completed	10/19/2021 2:57:25	33
41		Completed	10/19/2021 3:08:43	34
42		Completed	10/19/2021 3:19:42	12
43		Completed	10/19/2021 3:31:05	13
44		Completed	10/19/2021 3:42:32	14
45		Completed	10/19/2021 3:53:31	39
46		Completed	10/19/2021 4:04:48	40
47		Completed	10/19/2021 4:19:05	41
48		Completed	10/19/2021 4:33:38	42
49		Completed	10/19/2021 4:47:57	43
50		Completed	10/19/2021 4:59:49	44
51		Completed	10/19/2021 5:26:11	45

	Notes	Status	Date / Time	Vial
52		Completed	10/19/2021 5:40:27	46
53		Completed	10/19/2021 5:52:04	47
54		Completed	10/19/2021 6:03:41	48
55		Completed	10/19/2021 6:17:59	49
56		Completed	10/19/2021 6:32:15	50
57		Completed	10/19/2021 6:55:13	45
58		Completed	10/19/2021 7:06:31	46

TOC-Control L Report

2021_10_18_002_CAL.tlx

Instr.Information

Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Cal. Curve

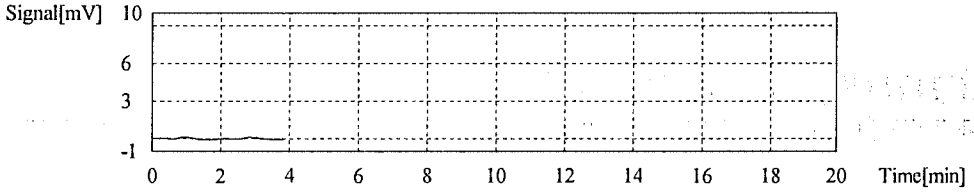
Sample Name:	CAL
Sample ID:	3100604915
Cal. Curve:	10_18_2021_CAL.2021_10_18_16_58_17.cal
Status	Completed

Type	Anal
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.4413	50uL	1.000	*******		10/18/2021 5:05:46 PM
2	0.3599	50uL	1.000	*******		10/18/2021 5:08:30 PM

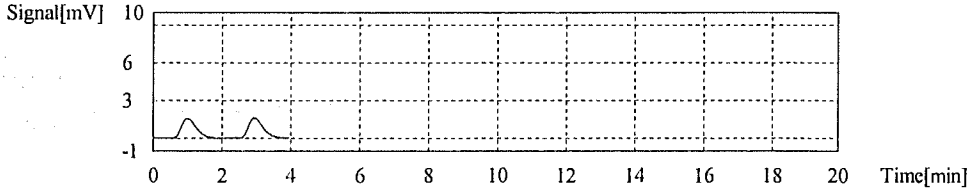
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	0.4006



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.706	50uL	1.000	*******		10/18/2021 5:16:31 PM
2	4.841	50uL	1.000	*******		10/18/2021 5:19:17 PM

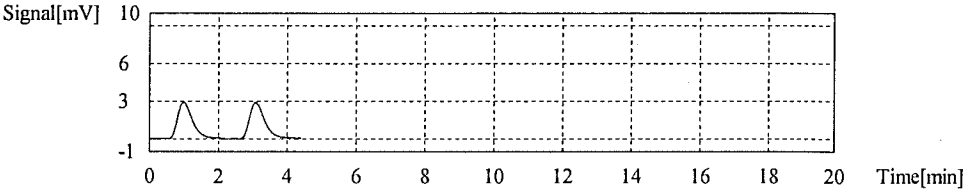
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	4.774



Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	8.591	50uL	1.000	*******		10/18/2021 5:27:25 PM
2	8.821	50uL	1.000	*******		10/18/2021 5:30:25 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	8.706



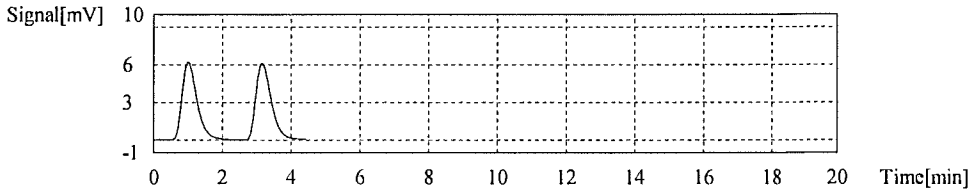
TOC-Control L Report

2021_10_18_002_CAL.tlx

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	18.75	50uL	1.000	*******		10/18/2021 5:38:50 PM
2	19.05	50uL	1.000	*******		10/18/2021 5:41:41 PM

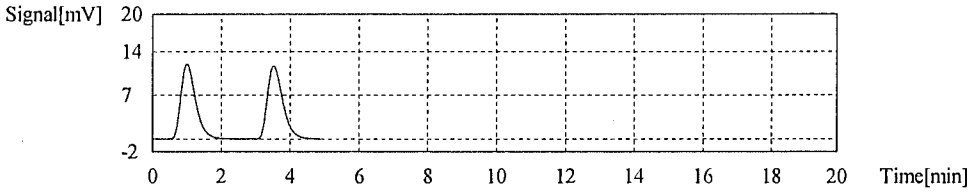
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 18.90



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	36.59	50uL	1.000	*******		10/18/2021 5:50:32 PM
2	36.43	50uL	1.000	*******		10/18/2021 5:53:07 PM

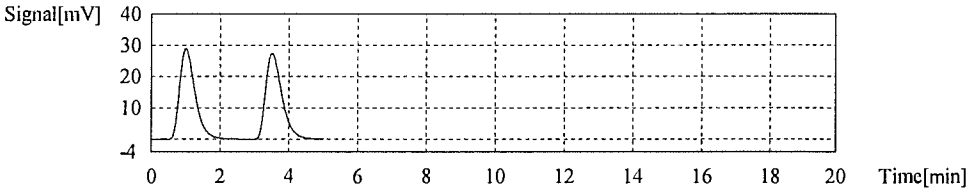
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 36.51



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	91.39	50uL	1.000	*******		10/18/2021 6:01:53 PM
2	90.81	50uL	1.000	*******		10/18/2021 6:04:38 PM

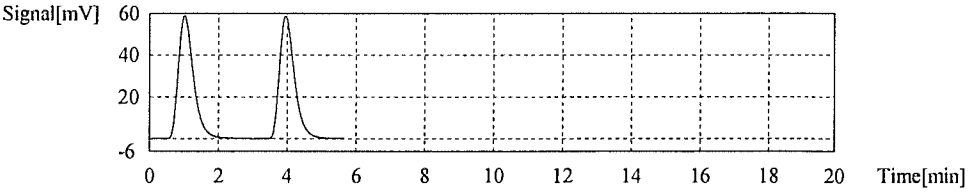
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 91.10



Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	181.9	50uL	1.000	*******		10/18/2021 6:13:42 PM
2	179.5	50uL	1.000	*******		10/18/2021 6:16:39 PM

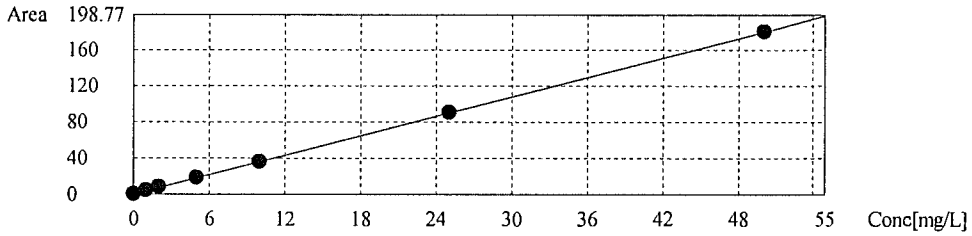
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 180.7



TOC-Control L Report

2021_10_18_002_CAL.tlx

Slope:	3.596
Intercept	0.000
r^2	1.0000
r	1.0000
RSE(%)	N/A
Zero Shift	Yes



Sample

Sample Name: ICV
Sample ID:
Origin: 10_18_2021_CAL.cal
Status Completed
Chk. Result

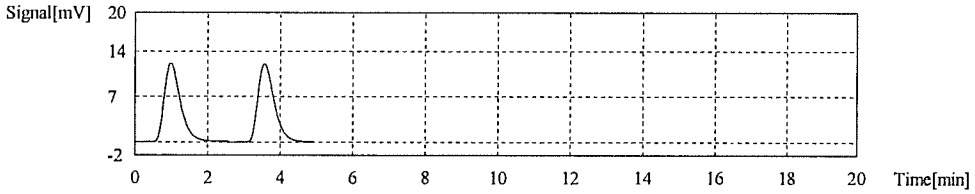
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.45mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.59	10.45mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/18/2021 6:40:52 PM
2	37.58	10.45mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/18/2021 6:43:39 PM

Mean Area 37.59
Mean Conc. 10.45mg/L



Sample

Sample Name: ICB
Sample ID:
Origin: 10_18_2021_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06854mg/L

1. Det

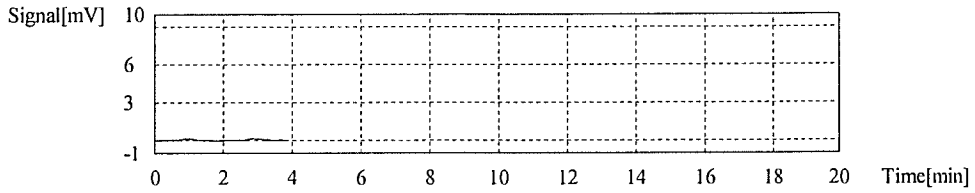
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2173	0.06042mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/18/2021 6:51:37 PM
2	0.2757	0.07666mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/18/2021 6:54:37 PM

TOC-Control L Report

2021_10_18_002_CAL.tlx

Mean Area	0.2465
Mean Conc.	0.06854mg/L



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	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
1	Unknown	NPOC	CCV	317195504	10_18_2021_CAL.cal	1.000	NPOC:22.84mg/
2	Unknown	NPOC	CCB		10_18_2021_CAL.cal	1.000	NPOC:0.07257
3	Unknown	NPOC	MBLK- 10252021		10_18_2021_CAL.cal	1.000	NPOC:0.07437
4	Unknown	NPOC	LCS- 10252021	3100604423	10_18_2021_CAL.cal	1.000	NPOC:9.275mg/
5	Unknown	NPOC	LCSD- 10252021		10_18_2021_CAL.cal	1.000	NPOC:9.169mg/
6	Unknown	NPOC	HS21101020-01DF20		10_18_2021_CAL.cal	1.000	NPOC:11.85mg/
7	Unknown	NPOC	HS21101020-02DF20		10_18_2021_CAL.cal	1.000	NPOC:10.63mg/
8	Unknown	NPOC	HS21101020-03DF20		10_18_2021_CAL.cal	1.000	NPOC:21.52mg/
9	Unknown	NPOC	HS21101279-01		10_18_2021_CAL.cal	1.000	NPOC:13.91mg/
10	Unknown	NPOC	HS21100785-01		10_18_2021_CAL.cal	1.000	NPOC:5.499mg/
11	Unknown	NPOC	HS21100785-01MS		10_18_2021_CAL.cal	1.000	NPOC:16.28mg/
12	Unknown	NPOC	CCV	317195504	10_18_2021_CAL.cal	1.000	NPOC:22.86mg/
13	Unknown	NPOC	CCB		10_18_2021_CAL.cal	1.000	NPOC:0.3344m

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	Notes	Status	Date / Time	Vial
1		Completed	10/25/2021 12:10:53	1
2		Completed	10/25/2021 12:44:54	2
3		Completed	10/25/2021 12:55:52	3
4		Completed	10/25/2021 1:07:09	4
5		Completed	10/25/2021 1:18:33	5
6		Completed	10/25/2021 1:29:48	6
7		Completed	10/25/2021 1:41:03	7
8		Completed	10/25/2021 1:52:24	8
9		Completed	10/25/2021 2:03:42	9
10		Completed	10/25/2021 2:17:53	10
11		Completed	10/25/2021 2:32:37	11
12		Completed	10/25/2021 2:47:38	1
13		Completed	10/25/2021 2:59:48	2

TOC-Control L Report

2021_10_25_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: CCV
Sample ID: 317195504
Origin: 10_18_2021_CAL.cal
Status: Completed
Chk. Result:

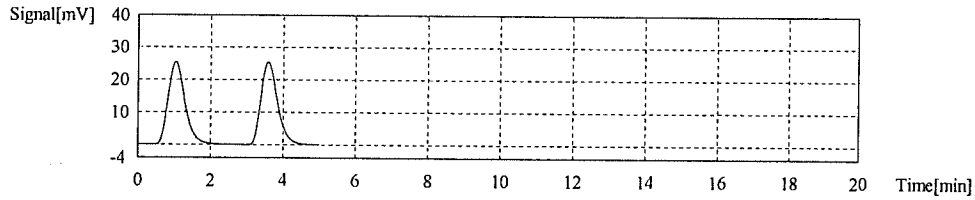
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.84mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	82.28	22.88mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 12:08:01 PM
2	82.01	22.80mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 12:10:53 PM

Mean Area: 82.15
Mean Conc.: 22.84mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 10_18_2021_CAL.cal
Status: Completed
Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.07257mg/L

1. Det

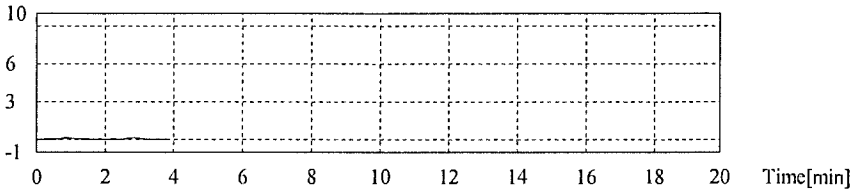
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2304	0.06406mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 12:41:54 PM
2	0.2916	0.08108mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 12:44:54 PM

TOC-Control L Report

2021_10_25_001.tlx

Mean Area 0.2610
Mean Conc. 0.07257mg/L



Sample

Sample Name: MBLK- 10252021
Sample ID:
Origin: 10_18_2021_CAL.cal
Status Completed
Chk. Result

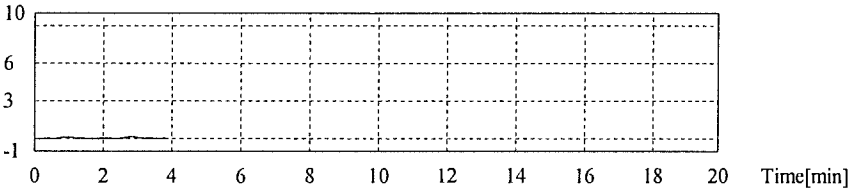
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.07437mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2829	0.07866mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 12:52:52 PM
2	0.2520	0.07007mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 12:55:52 PM

Mean Area 0.2675
Mean Conc. 0.07437mg/L



Sample

Sample Name: LCS- 10252021
Sample ID: 3100604423
Origin: 10_18_2021_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.275mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	33.48	9.309mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 1:04:10 PM
2	33.23	9.240mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 1:07:09 PM

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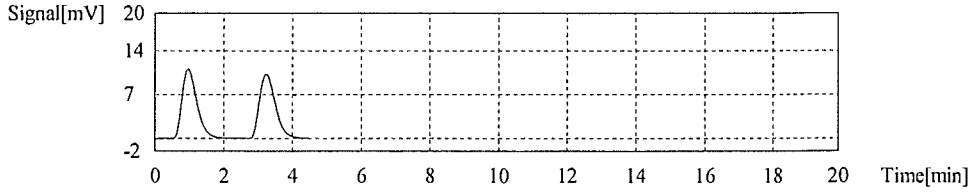
Mean Area 33.36
Mean Conc. 9.275mg/L



Sample

Sample Name: LCSD- 10252021
Sample ID:
Origin: 10_18_2021_CAL.cal
Status Completed
Chk. Result

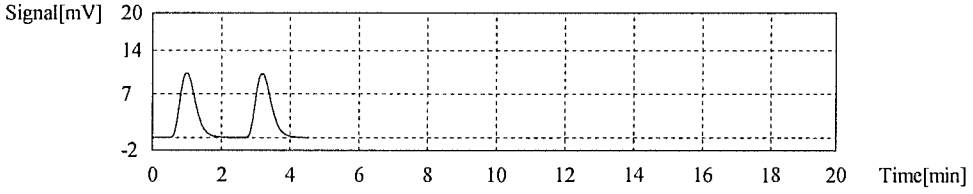
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.169mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.71	9.095mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 1:15:25 PM
2	33.24	9.243mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 1:18:33 PM

Mean Area 32.98
Mean Conc. 9.169mg/L



Sample

Sample Name: HS21100785-01
Sample ID:
Origin: 10_18_2021_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.499mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.07	5.859mg/L	50uL	1.000	E	10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 2:11:55 PM
2	19.99	5.558mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 2:14:55 PM
3	19.56	5.439mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 2:17:53 PM

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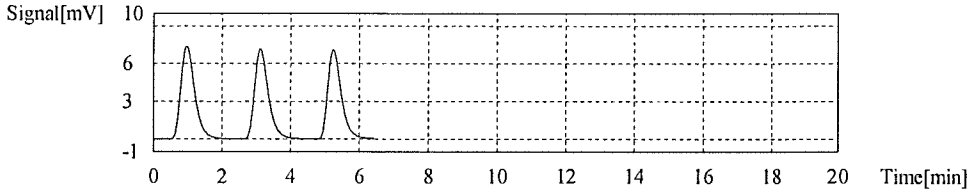
Mean Area 19.78
Mean Conc. 5.499mg/L



Sample

Sample Name: HS21100785-01MS
Sample ID:
Origin: 10_18_2021_CAL.cal
Status Completed
Chk. Result

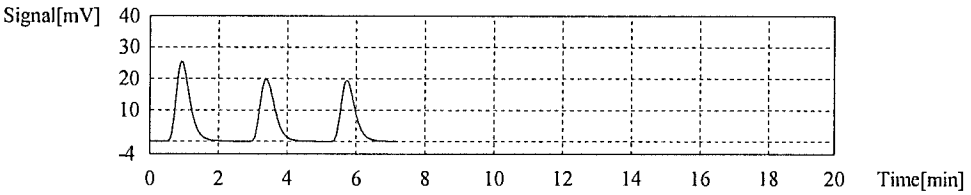
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.28mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	72.43	20.14mg/L	50uL	1.000	E	10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 2:26:37 PM
2	60.02	16.69mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 2:29:32 PM
3	57.08	15.87mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 2:32:37 PM

Mean Area 58.55
Mean Conc. 16.28mg/L



Sample

Sample Name: CCV
Sample ID: 317195504
Origin: 10_18_2021_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.86mg/L

1. Det

Anal.: NPOC

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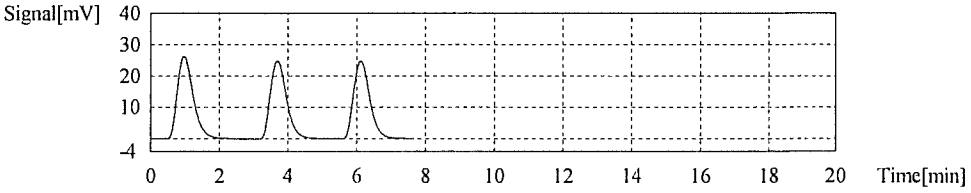
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	86.15	23.95mg/L	50uL	1.000	E	10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 2:41:46 PM
2	82.38	22.91mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 2:44:30 PM
3	82.02	22.81mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 2:47:38 PM

Mean Area 82.20
Mean Conc. 22.86mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 10_18_2021_CAL.cal
Status Completed
Chk. Result

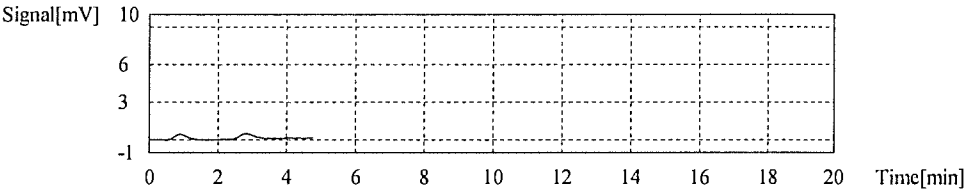
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3344mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.171	0.3256mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 2:55:51 PM
2	1.234	0.3431mg/L	50uL	1.000		10_18_2021_CAL.2021_10_18_16_58_17.cal	10/25/2021 2:59:48 PM

Mean Area 1.203
Mean Conc. 0.3344mg/L



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	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
1	Unknown	NPOC	RINSE		10_18_2021_CAL.cal	1.000	NPOC:0.06454
2	Unknown	NPOC	RINSE		10_18_2021_CAL.cal	1.000	NPOC:0.06455
3	Unknown	NPOC	RINSE		10_18_2021_CAL.cal	1.000	NPOC:0.07074
4	Standard	NPOC	CAL	3100604915	10_25_2021_CAL.202	1.000	
5	Unknown	NPOC	ICB		10_25_2021_CAL.cal	1.000	NPOC:0.09179
6	Unknown	NPOC	ICV	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.60mg/
7	Unknown	NPOC	ICB		10_25_2021_CAL.cal	1.000	NPOC:0.05172
8	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.01239
9	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.73mg/
10	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.06181
11	Unknown	NPOC	MBLK-10252021		10_25_2021_CAL.cal	1.000	NPOC:0.05600
12	Unknown	NPOC	LCS-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:9.287mg/
13	Unknown	NPOC	LCSD-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.83mg/
14	Unknown	NPOC	HS21101075-01DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2805m
15	Unknown	NPOC	HS21101075-01MSDF1		10_25_2021_CAL.cal	1.000	NPOC:12.37mg/
16	Unknown	NPOC	HS21101075-02DF10		10_25_2021_CAL.cal	1.000	NPOC:0.3788m
17	Unknown	NPOC	HS21101075-03DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2410m
18	Unknown	NPOC	HS21101075-04DF10		10_25_2021_CAL.cal	1.000	NPOC:0.3913m
19	Unknown	NPOC	HS21101075-05DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2171m
20	Unknown	NPOC	HS21101075-06DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1665m
21	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.66mg/
22	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.05208
23	Unknown	NPOC	HS21101075-07DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1747m
24	Unknown	NPOC	HS21101075-08DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1648m
25	Unknown	NPOC	HS21101075-09DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1167m
26	Unknown	NPOC	HS21101075-10DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1071m
27	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.76mg/
28	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.05571
29	Unknown	NPOC	MBLK-10252021		10_25_2021_CAL.cal	1.000	NPOC:0.06486
30	Unknown	NPOC	LCS-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:9.320mg/
31	Unknown	NPOC	LCSD-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.96mg/
32	Unknown	NPOC	HS21101075-11DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1323m
33	Unknown	NPOC	HS21101075-11MSDF1		10_25_2021_CAL.cal	1.000	NPOC:11.21mg/
34	Unknown	NPOC	HS21101075-12DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2792m
35	Unknown	NPOC	HS21101080-01DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1261m
36	Unknown	NPOC	HS21101080-02DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1407m
37	Unknown	NPOC	HS21101080-03DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1267m
38	Unknown	NPOC	HS21101080-04DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1381m
39	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.74mg/
40	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.09212
41	Unknown	NPOC	HS21101080-05DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1654m
42	Unknown	NPOC	HS21101080-06DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1460m
43	Unknown	NPOC	HS21101080-07DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1360m
44	Unknown	NPOC	HS21101080-08DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1453m
45	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.54mg/
46	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1296m
47	Unknown	NPOC	MBLK-10252021		10_25_2021_CAL.cal	1.000	NPOC:0.05576
48	Unknown	NPOC	LCS-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:9.292mg/
49	Unknown	NPOC	LCSD-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.94mg/
50	Unknown	NPOC	HS21101080-09DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2259m
51	Unknown	NPOC	HS21101080-09MSDF1		10_25_2021_CAL.cal	1.000	NPOC:11.03mg/

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	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
52	Unknown	NPOC	HS21101080-10DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1935m
53	Unknown	NPOC	HS21101080-11DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1278m
54	Unknown	NPOC	HS21101080-12DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1284m
55	Unknown	NPOC	HS21101080-13DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1196m
56	Unknown	NPOC	HS21101080-14DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2314m
57	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.69mg/
58	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.02809
59	Unknown	NPOC	HS21101083-01DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2332m
60	Unknown	NPOC	HS21101083-02DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2108m
61	Unknown	NPOC	HS21101083-03DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2038m
62	Unknown	NPOC	HS21101083-04DF10		10_25_2021_CAL.cal	1.000	NPOC:0.3380m
63	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.53mg/
64	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1115m
65	Unknown	NPOC	MBLK-10252021		10_25_2021_CAL.cal	1.000	NPOC:0.06795
66	Unknown	NPOC	LCS-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:9.230mg/
67	Unknown	NPOC	LCSD-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.89mg/
68	Unknown	NPOC	HS21101083-05DF10		10_25_2021_CAL.cal	1.000	NPOC:0.4956m
69	Unknown	NPOC	HS21101083-05MSDF1		10_25_2021_CAL.cal	1.000	NPOC:11.17mg/
70	Unknown	NPOC	HS21101083-06DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2640m
71	Unknown	NPOC	HS21101083-07DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2414m
72	Unknown	NPOC	HS21101083-08DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2102m
73	Unknown	NPOC	HS21101083-09DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1629m
74	Unknown	NPOC	HS21101083-10DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1838m
75	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.60mg/
76	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1118m
77	Unknown	NPOC	HS21101083-11DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1718m
78	Unknown	NPOC	HS21101083-12DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1978m
79	Unknown	NPOC	HS21101083-13DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2415m
80	Unknown	NPOC	HS21101083-14DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2981m
81	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.57mg/
82	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1184m

	Notes	Status	Date / Time	Vial
1		Completed	10/25/2021 6:02:30	64
2		Completed	10/25/2021 6:13:46	65
3		Completed	10/25/2021 6:24:47	66
4		Completed	10/25/2021 8:13:11	1, 2, 3, 4, 5,
5		Completed	10/25/2021 8:29:06	1
6		Completed	10/25/2021 8:45:09	8
7		Completed	10/25/2021 9:01:04	1
8		Completed	10/25/2021 9:48:50	64
9		Completed	10/25/2021 10:05:19	9
10		Completed	10/25/2021 10:21:02	10
11		Completed	10/25/2021 10:36:45	11
12		Completed	10/25/2021 10:52:59	12
13		Completed	10/25/2021 11:09:01	13
14		Completed	10/25/2021 11:24:44	14
15		Completed	10/25/2021 11:40:52	15
16		Completed	10/25/2021 11:56:35	16
17		Completed	10/26/2021 12:12:18	17
18		Completed	10/26/2021 12:28:01	18
19		Completed	10/26/2021 12:43:44	19
20		Completed	10/26/2021 12:59:27	20
21		Completed	10/26/2021 1:15:58	9
22		Completed	10/26/2021 1:31:41	10
23		Completed	10/26/2021 1:47:30	21
24		Completed	10/26/2021 2:03:13	22
25		Completed	10/26/2021 2:18:56	23
26		Completed	10/26/2021 2:34:39	24
27		Completed	10/26/2021 2:50:56	9
28		Completed	10/26/2021 3:06:39	10
29		Completed	10/26/2021 3:22:22	11
30		Completed	10/26/2021 3:38:27	12
31		Completed	10/26/2021 3:54:35	13
32		Completed	10/26/2021 4:10:25	25
33		Completed	10/26/2021 4:26:25	26
34		Completed	10/26/2021 4:42:08	27
35		Completed	10/26/2021 4:57:52	28
36		Completed	10/26/2021 5:13:36	29
37		Completed	10/26/2021 5:29:20	30
38		Completed	10/26/2021 5:45:04	31
39		Completed	10/26/2021 6:01:22	32
40		Completed	10/26/2021 6:17:06	33
41		Completed	10/26/2021 6:32:50	34
42		Completed	10/26/2021 6:48:35	35
43		Completed	10/26/2021 7:04:19	36
44		Completed	10/26/2021 7:20:02	37
45		Completed	10/26/2021 7:36:27	32
46		Completed	10/26/2021 7:52:11	33
47		Completed	10/26/2021 8:07:55	11
48		Completed	10/26/2021 8:23:52	12
49		Completed	10/26/2021 8:39:51	13
50		Completed	10/26/2021 8:55:33	38
51		Completed	10/26/2021 9:11:37	39

	Notes	Status	Date / Time	Vial
52		Completed	10/26/2021 9:27:20	40
53		Completed	10/26/2021 9:43:06	41
54		Completed	10/26/2021 9:58:51	42
55		Completed	10/26/2021 10:14:35	43
56		Completed	10/26/2021 10:30:21	44
57		Completed	10/26/2021 10:46:46	32
58		Completed	10/26/2021 11:02:30	33
59		Completed	10/26/2021 11:18:23	45
60		Completed	10/26/2021 11:34:07	46
61		Completed	10/26/2021 11:49:51	47
62		Completed	10/26/2021 12:05:36	48
63		Completed	10/26/2021 12:21:57	49
64		Completed	10/26/2021 12:37:42	50
65		Completed	10/26/2021 12:53:28	11
66		Completed	10/26/2021 1:09:27	12
67		Completed	10/26/2021 1:25:38	13
68		Completed	10/26/2021 1:41:34	51
69		Completed	10/26/2021 1:57:34	52
70		Completed	10/26/2021 2:13:19	53
71		Completed	10/26/2021 2:29:04	54
72		Completed	10/26/2021 2:44:49	55
73		Completed	10/26/2021 3:00:34	56
74		Completed	10/26/2021 3:16:19	57
75		Completed	10/26/2021 3:32:39	49
76		Completed	10/26/2021 3:48:24	50
77		Completed	10/26/2021 4:04:17	58
78		Completed	10/26/2021 4:20:02	59
79		Completed	10/26/2021 4:35:47	60
80		Completed	10/26/2021 4:51:32	61
81		Completed	10/26/2021 5:07:56	49
82		Completed	10/26/2021 5:23:41	50

TOC-Control L Report

2021_10_25_002.tlx

Instr.Information

Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Cal. Curve

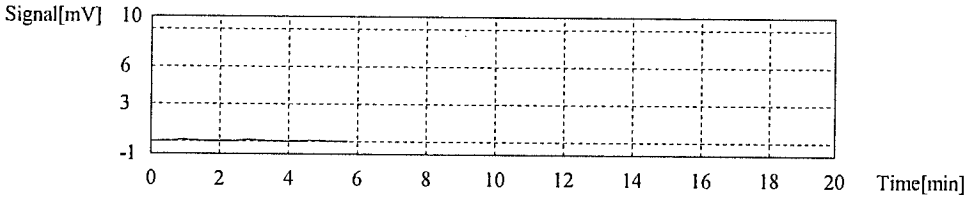
Sample Name:	CAL
Sample ID:	3100604915
Cal. Curve:	10_25_2021_CAL.2021_10_25_18_24_47.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.1779	50uL	1.000	*******		10/25/2021 6:33:22 PM
2	0.000	50uL	1.000	*******		10/25/2021 6:36:36 PM
3	0.000	50uL	1.000	*******		10/25/2021 6:39:50 PM

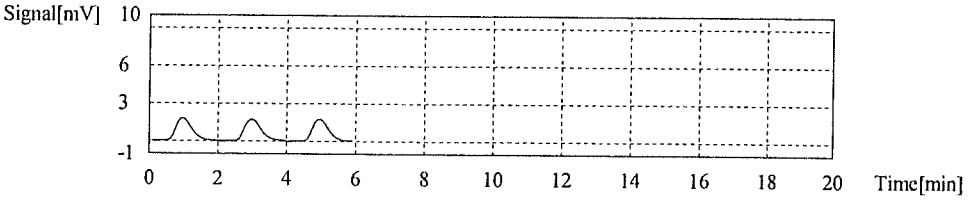
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	0.05930



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	5.679	50uL	1.000	*******		10/25/2021 6:48:38 PM
2	5.762	50uL	1.000	*******		10/25/2021 6:51:52 PM
3	5.629	50uL	1.000	*******		10/25/2021 6:55:02 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	5.690



Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.704	50uL	1.000	*******		10/25/2021 7:03:55 PM
2	7.453	50uL	1.000	*******		10/25/2021 7:07:06 PM
3	7.508	50uL	1.000	*******		10/25/2021 7:10:22 PM

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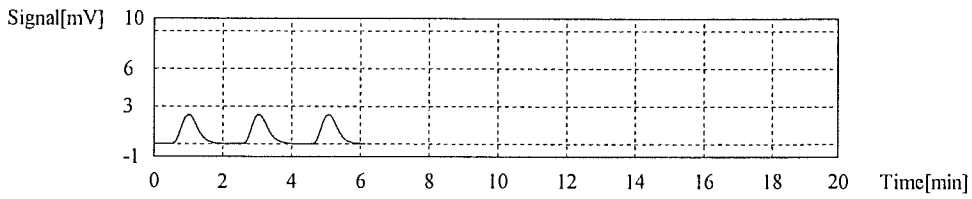
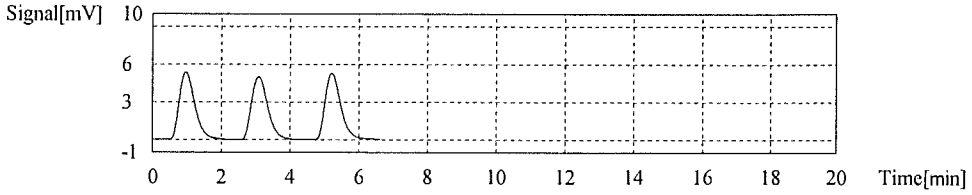
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	7.555



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	16.62	50uL	1.000	*******		10/25/2021 7:19:15 PM
2	16.58	50uL	1.000	*******		10/25/2021 7:22:33 PM
3	16.79	50uL	1.000	*******		10/25/2021 7:26:01 PM

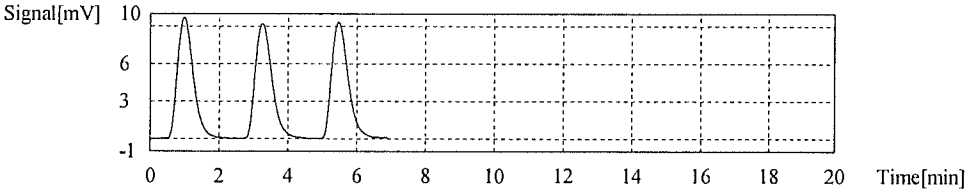
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	16.66



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.96	50uL	1.000	*******		10/25/2021 7:35:05 PM
2	31.10	50uL	1.000	*******		10/25/2021 7:38:17 PM
3	31.16	50uL	1.000	*******		10/25/2021 7:41:41 PM

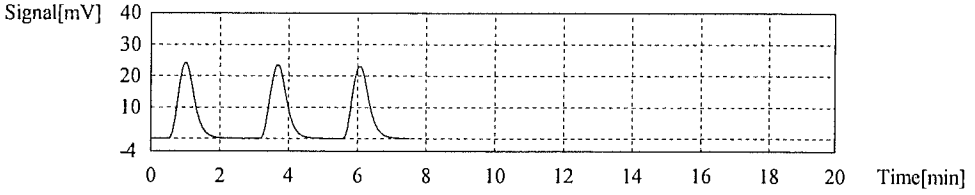
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	31.07



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	79.40	50uL	1.000	*******		10/25/2021 7:51:09 PM
2	79.56	50uL	1.000	*******		10/25/2021 7:54:09 PM
3	79.35	50uL	1.000	*******		10/25/2021 7:57:24 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	79.44



Conc: 50.00mg/L

TOC-Control L Report

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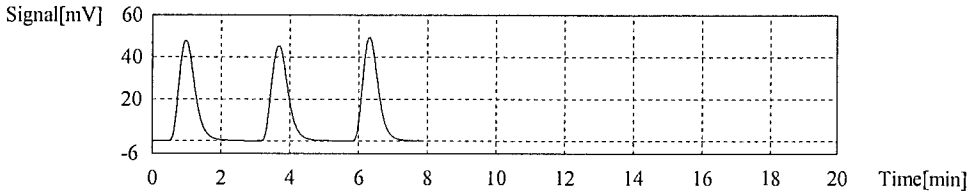
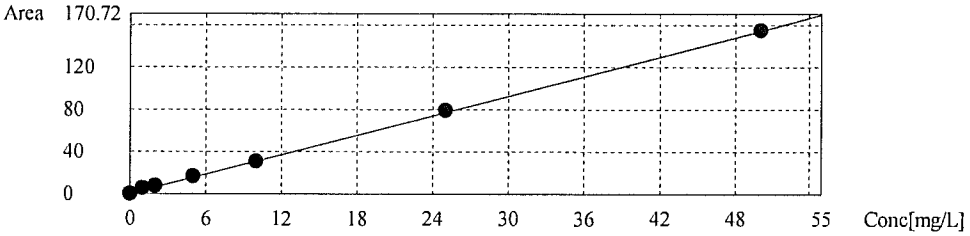
No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	156.1	50uL	1.000	*******		10/25/2021 8:06:53 PM
2	154.0	50uL	1.000	*******		10/25/2021 8:10:05 PM
3	155.5	50uL	1.000	*******		10/25/2021 8:13:11 PM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 155.2



Slope: 3.086
Intercept 0.000
r^2 0.9997
r 0.9999
RSE(%) N/A
Zero Shift Yes



Sample

Sample Name: ICV
Sample ID: 3100604423
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

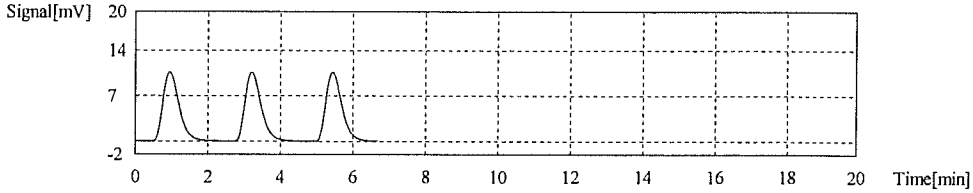
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.74	10.61mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 8:38:14 PM
2	32.74	10.61mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 8:41:41 PM
3	32.67	10.59mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 8:45:09 PM

Mean Area 32.72
Mean Conc. 10.60mg/L



Sample

TOC-Control L Report

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Sample Name: ICB
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

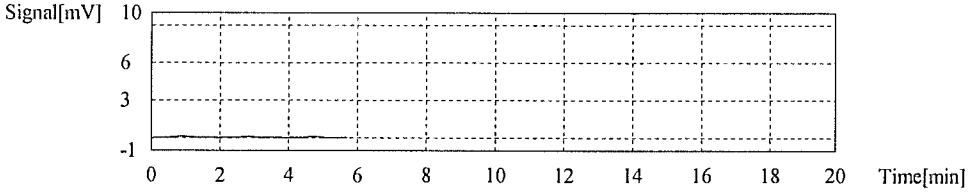
Type	Anal	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05172mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1343	0.04352mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 8:54:04 PM
2	0.1944	0.06299mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 8:57:34 PM
3	0.1502	0.04867mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 9:01:04 PM

Mean Area 0.1596
Mean Conc. 0.05172mg/L



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	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
1	Unknown	NPOC	CCV	317195504	TOC_W 9060.met	1.000	NPOC:26.04mg/
2	Unknown	NPOC	CCB		TOC_W 9060.met	1.000	NPOC:0.04591
3	Unknown	NPOC	MBLK-10262021		TOC_W 9060.met	1.000	NPOC:0.08479
4	Unknown	NPOC	LCS-10262021	3100604423	TOC_W 9060.met	1.000	NPOC:10.45mg/
5	Unknown	NPOC	LCSD-10262021	3100604423	TOC_W 9060.met	1.000	NPOC:10.48mg/
6	Unknown	NPOC	HS21101000-07DF10		TOC_W 9060.met	1.000	NPOC:0.3268m
7	Unknown	NPOC	HS21101000-07MSDF1		TOC_W 9060.met	1.000	NPOC:11.21mg/
8	Unknown	NPOC	HS21101006-08DF10		TOC_W 9060.met	1.000	NPOC:0.2574m
9	Unknown	NPOC	HS21101006-09DF10		TOC_W 9060.met	1.000	NPOC:0.2475m
10	Unknown	NPOC	HS21101006-10DF10		TOC_W 9060.met	1.000	NPOC:0.3631m
11	Unknown	NPOC	HS21101035-01DF10		TOC_W 9060.met	1.000	NPOC:0.4395m
12	Unknown	NPOC	HS21101035-02DF10		TOC_W 9060.met	1.000	NPOC:0.2674m
13	Unknown	NPOC	CCV	317195504	TOC_W 9060.met	1.000	NPOC:25.17mg/
14	Unknown	NPOC	CCB		TOC_W 9060.met	1.000	NPOC:0.1371m
15	Unknown	NPOC	HS21101035-17DF10		TOC_W 9060.met	1.000	NPOC:0.4852m
16	Unknown	NPOC	HS21101035-18DF10		TOC_W 9060.met	1.000	NPOC:1.533mg/
17	Unknown	NPOC	HS21101100-04DF10		TOC_W 9060.met	1.000	NPOC:0.2107m
18	Unknown	NPOC	HS21101100-05DF10		TOC_W 9060.met	1.000	NPOC:0.2715m
19	Unknown	NPOC	CCV	317195504	TOC_W 9060.met	1.000	NPOC:24.88mg/
20	Unknown	NPOC	CCB		TOC_W 9060.met	1.000	NPOC:0.1214m
21	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.28mg/
22	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.09375
23	Unknown	NPOC	MBLK-10262021		10_25_2021_CAL.cal	1.000	NPOC:0.05684
24	Unknown	NPOC	LCS-10262021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.58mg/
25	Unknown	NPOC	LCSD-10262021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.54mg/
26	Unknown	NPOC	HS21101083-15DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2093m
27	Unknown	NPOC	HS21101083-15MSDF1		10_25_2021_CAL.cal	1.000	NPOC:10.82mg/
28	Unknown	NPOC	HS21101083-16DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2649m
29	Unknown	NPOC	HS21101143-04DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1449m
30	Unknown	NPOC	HS21101143-05DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2811m
31	Unknown	NPOC	HS21101143-06DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1846m
32	Unknown	NPOC	HS21101143-07DF20		10_25_2021_CAL.cal	1.000	NPOC:0.2700m
33	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.55mg/
34	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.08457
35	Unknown	NPOC	HS21101143-08DF20		10_25_2021_CAL.cal	1.000	NPOC:0.4844m
36	Unknown	NPOC	HS21101143-01DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2929m
37	Unknown	NPOC	HS21101143-02DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2145m
38	Unknown	NPOC	HS21101143-03DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1882m
39	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.56mg/
40	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.06637
41	Unknown	NPOC	MBLK-10262021		10_25_2021_CAL.cal	1.000	NPOC:0.05790
42	Unknown	NPOC	LCS-10262021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.61mg/
43	Unknown	NPOC	LCSD-10262021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.60mg/
44	Unknown	NPOC	HS21101109-01		10_25_2021_CAL.cal	1.000	NPOC:10.29mg/
45	Unknown	NPOC	HS21101110-01		10_25_2021_CAL.cal	1.000	NPOC:12.78mg/
46	Unknown	NPOC	HS21100785-02		10_25_2021_CAL.cal	1.000	NPOC:18.98mg/
47	Unknown	NPOC	HS21100785-03		10_25_2021_CAL.cal	1.000	NPOC:6.657mg/
48	Unknown	NPOC	HS21100785-04		10_25_2021_CAL.cal	1.000	NPOC:54.39mg/
49	Unknown	NPOC	HS21100785-05		10_25_2021_CAL.cal	1.000	NPOC:21.56mg/
50	Unknown	NPOC	HS21100865-01DF20		10_25_2021_CAL.cal	1.000	NPOC:33.09mg/
51	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.66mg/

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	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
52	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.2540m
53	Unknown	NPOC	HS21100865-02DF20		10_25_2021_CAL.cal	1.000	NPOC:29.66mg/
54	Unknown	NPOC	HS21101194-01		10_25_2021_CAL.cal	1.000	NPOC:6.060mg/
55	Unknown	NPOC	HS21101194-01MS		10_25_2021_CAL.cal	1.000	NPOC:16.66mg/
56	Unknown	NPOC	HS21101269-01		10_25_2021_CAL.cal	1.000	NPOC:9.848mg/
57	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.59mg/
58	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1930m
59	Unknown	NPOC	MBLK-10262021		10_25_2021_CAL.cal	1.000	NPOC:0.1018m
60	Unknown	NPOC	LCS-10262021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.56mg/
61	Unknown	NPOC	LCSD-10262021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.53mg/
62	Unknown	NPOC	HS21101195-01		10_25_2021_CAL.cal	1.000	NPOC:5.077mg/
63	Unknown	NPOC	HS21101195-01MS		10_25_2021_CAL.cal	1.000	NPOC:16.11mg/
64	Unknown	NPOC	HS21101472-01		10_25_2021_CAL.cal	1.000	NPOC:0.1766m
65	Unknown	NPOC	HS21101476-01		10_25_2021_CAL.cal	1.000	NPOC:0.1142m
66	Unknown	NPOC	HS21100881-01		10_25_2021_CAL.cal	1.000	NPOC:28.33mg/
67	Unknown	NPOC	HS21100881-02		10_25_2021_CAL.cal	1.000	NPOC:26.11mg/
68	Unknown	NPOC	HS21100881-03		10_25_2021_CAL.cal	1.000	NPOC:4.306mg/
69	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.87mg/
70	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.2164m
71	Unknown	NPOC	HS21100881-05		10_25_2021_CAL.cal	1.000	NPOC:16.84mg/
72	Unknown	NPOC	HS21100881-06		10_25_2021_CAL.cal	1.000	NPOC:17.98mg/
73	Unknown	NPOC	HS21100881-07		10_25_2021_CAL.cal	1.000	NPOC:5.541mg/
74	Unknown	NPOC	HS21101112-01		10_25_2021_CAL.cal	1.000	NPOC:5.796mg/
75	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:26.05mg/
76	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.2280m

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	Notes	Status	Date / Time	Vial
1		Completed	10/26/2021 8:34:40	1
2		Completed	10/26/2021 8:49:06	2
3		Completed	10/26/2021 9:03:31	3
4		Completed	10/26/2021 9:19:11	4
5		Completed	10/26/2021 9:35:21	5
6		Completed	10/26/2021 9:50:28	6
7		Completed	10/26/2021 10:06:40	7
8		Completed	10/26/2021 10:21:06	8
9		Completed	10/26/2021 10:35:34	9
10		Completed	10/26/2021 10:50:01	10
11		Completed	10/26/2021 11:04:26	11
12		Completed	10/26/2021 11:18:51	12
13		Completed	10/26/2021 11:49:42	1
14		Completed	10/27/2021 12:04:09	2
15		Completed	10/27/2021 12:18:42	13
16		Completed	10/27/2021 12:33:09	14
17		Completed	10/27/2021 12:47:36	15
18		Completed	10/27/2021 1:02:03	16
19		Completed	10/27/2021 1:33:29	1
20		Completed	10/27/2021 1:47:56	2
21		Completed	10/27/2021 2:03:34	17
22		Completed	10/27/2021 2:19:17	18
23		Completed	10/27/2021 2:35:07	3
24		Completed	10/27/2021 2:51:07	4
25		Completed	10/27/2021 3:07:08	5
26		Completed	10/27/2021 3:22:58	19
27		Completed	10/27/2021 3:39:02	20
28		Completed	10/27/2021 3:54:45	21
29		Completed	10/27/2021 4:10:29	22
30		Completed	10/27/2021 4:26:11	23
31		Completed	10/27/2021 4:41:54	24
32		Completed	10/27/2021 4:57:37	25
33		Completed	10/27/2021 5:29:44	17
34		Completed	10/27/2021 5:45:28	18
35		Completed	10/27/2021 6:01:14	26
36		Completed	10/27/2021 6:16:57	27
37		Completed	10/27/2021 6:32:42	28
38		Completed	10/27/2021 6:48:25	29
39		Completed	10/27/2021 7:20:33	17
40		Completed	10/27/2021 7:36:16	18
41		Completed	10/27/2021 7:52:05	3
42		Completed	10/27/2021 8:08:07	4
43		Completed	10/27/2021 8:24:15	5
44		Completed	10/27/2021 8:40:31	30
45		Completed	10/27/2021 8:56:35	31
46		Completed	10/27/2021 9:12:42	32
47		Completed	10/27/2021 9:28:37	33
48		Completed	10/27/2021 9:44:50	34
49		Completed	10/27/2021 10:00:54	35
50		Completed	10/27/2021 10:17:13	36
51		Completed	10/27/2021 10:49:19	37

	Notes	Status	Date / Time	Vial
52		Completed	10/27/2021 11:05:03	38
53		Completed	10/27/2021 11:21:07	39
54		Completed	10/27/2021 11:36:54	40
55		Completed	10/27/2021 11:52:58	41
56		Completed	10/27/2021 12:08:54	42
57		Completed	10/27/2021 12:41:22	37
58		Completed	10/27/2021 12:57:06	38
59		Completed	10/27/2021 1:12:58	3
60		Completed	10/27/2021 1:29:00	4
61		Completed	10/27/2021 1:45:02	5
62		Completed	10/27/2021 2:01:03	43
63		Completed	10/27/2021 2:17:12	44
64		Completed	10/27/2021 2:32:56	45
65		Completed	10/27/2021 2:48:39	46
66		Completed	10/27/2021 3:04:55	47
67		Completed	10/27/2021 3:21:17	48
68		Completed	10/27/2021 3:37:03	49
69		Completed	10/27/2021 4:09:27	37
70		Completed	10/27/2021 4:25:11	38
71		Completed	10/27/2021 4:41:33	50
72		Completed	10/27/2021 4:57:39	51
73		Completed	10/27/2021 5:13:35	52
74		Completed	10/27/2021 5:29:53	53
75		Completed	10/27/2021 5:46:08	37
76		Completed	10/27/2021 6:01:52	38

TOC-Control L Report

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Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: CCV
Sample ID: 317195504
Origin: 10_25_2021_CAL.cal
Status: Completed
Chk. Result:

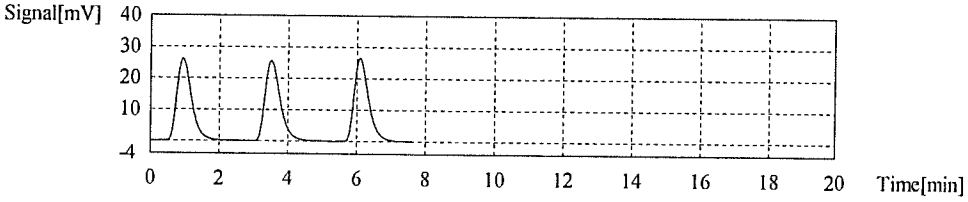
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.56mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.62	25.47mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 7:13:40 AM
2	79.12	25.64mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 7:17:13 AM
3	78.89	25.56mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 7:20:33 AM

Mean Area: 78.88
Mean Conc.: 25.56mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 10_25_2021_CAL.cal
Status: Completed
Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06637mg/L

1. Det

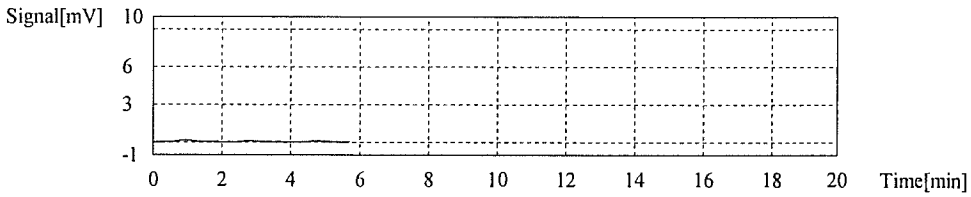
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3420	0.1108mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 7:29:16 AM
2	0.1510	0.04893mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 7:32:45 AM
3	0.1215	0.03937mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 7:36:16 AM

TOC-Control L Report

2021_10_26_001.tlx

Mean Area 0.2048
Mean Conc. 0.06637mg/L



Sample

Sample Name: MBLK-10262021
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

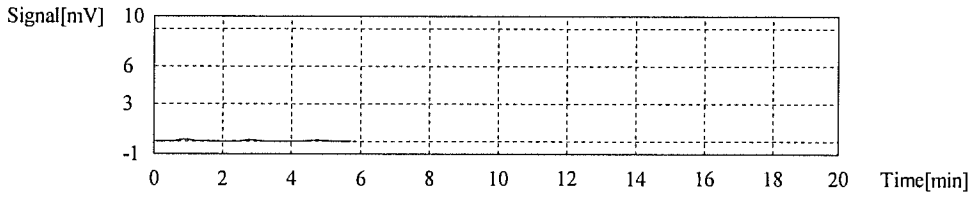
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05790mg/L

1. Det

Anal.: NPOC

No.	Area	Conc	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3163	0.1025mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 7:45:05 AM
2	0.2198	0.07122mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 7:48:34 AM
3	0.000	0.000mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 7:52:05 AM

Mean Area 0.1787
Mean Conc. 0.05790mg/L



Sample

Sample Name: LCS-10262021
Sample ID: 3100604423
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.61mg/L

1. Det

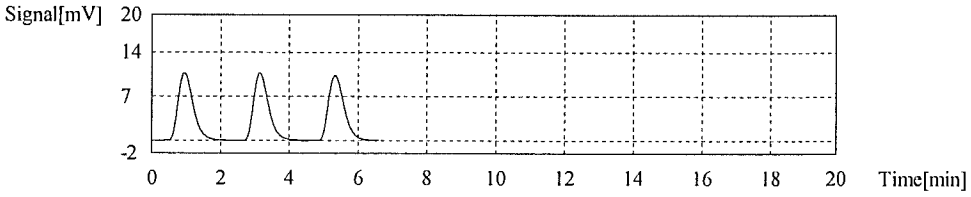
Anal.: NPOC

TOC-Control L Report

2021_10_26_001.tlx

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.64	10.58mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 8:01:06 AM
2	32.70	10.60mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 8:04:33 AM
3	32.92	10.67mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 8:08:07 AM

Mean Area 32.75
Mean Conc. 10.61mg/L



Sample

Sample Name: LCSD-10262021
Sample ID: 3100604423
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

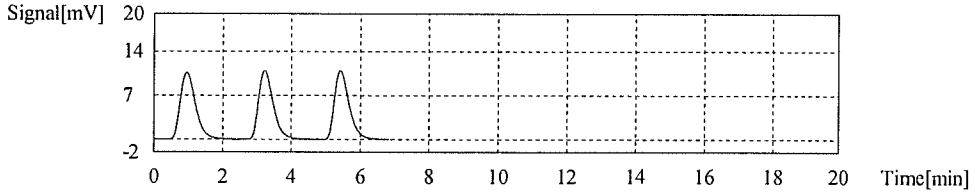
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.77	10.62mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 8:17:13 AM
2	32.76	10.61mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 8:20:39 AM
3	32.65	10.58mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 8:24:15 AM

Mean Area 32.73
Mean Conc. 10.60mg/L



Sample

Sample Name: HS21100785-02
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.98mg/L

1. Det

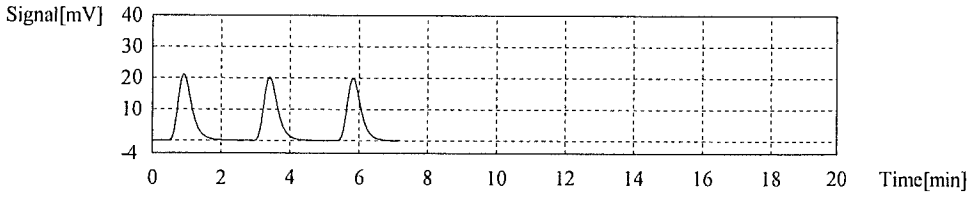
TOC-Control L Report

2021_10_26_001.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	60.38	19.56mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 9:05:54 AM
2	58.08	18.82mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 9:09:19 AM
3	57.28	18.56mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 9:12:42 AM

Mean Area 58.58
Mean Conc. 18.98mg/L



Sample

Sample Name: HS21100785-03
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

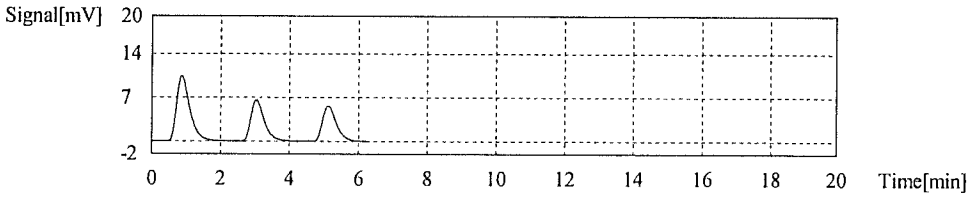
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.657mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.16	9.124mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 9:21:41 AM
2	17.66	5.722mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 9:25:06 AM
3	15.82	5.126mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 9:28:37 AM

Mean Area 20.55
Mean Conc. 6.657mg/L



Sample

Sample Name: HS21100785-04
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:54.39mg/L

TOC-Control L Report

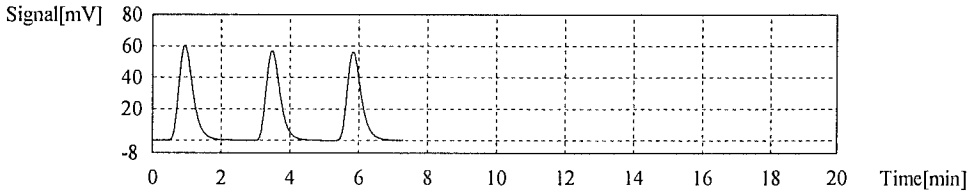
2021_10_26_001.tlx

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	175.5	56.86mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 9:37:59 AM
2	164.8	53.40mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 9:41:19 AM
3	163.3	52.91mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 9:44:50 AM

Mean Area 167.9
Mean Conc. 54.39mg/L



Sample

Sample Name: HS21100785-05
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

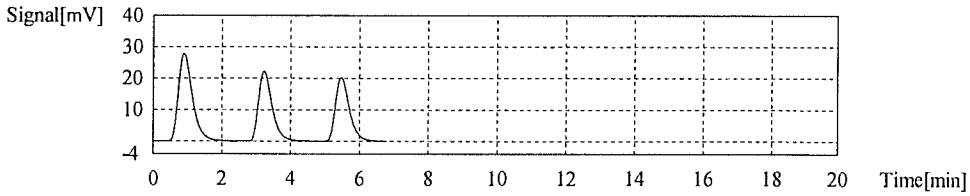
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.56mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.74	25.84mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 9:53:59 AM
2	62.02	20.10mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 9:57:24 AM
3	57.85	18.74mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 10:00:54 AM

Mean Area 66.54
Mean Conc. 21.56mg/L



Sample

Sample Name: CCV
Sample ID: 317195504
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

TOC-Control L Report

2021_10_26_001.tlx

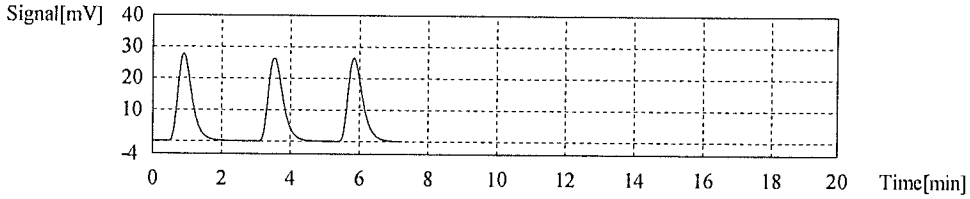
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.66mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.15	25.65mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 10:42:39 AM
2	79.21	25.67mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 10:45:52 AM
3	79.25	25.68mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 10:49:19 AM

Mean Area 79.20
Mean Conc. 25.66mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

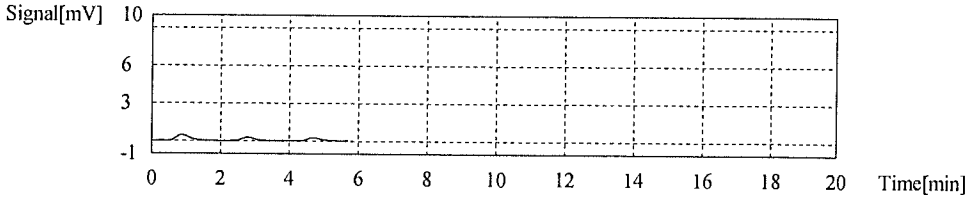
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2540mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.146	0.3713mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 10:58:03 AM
2	0.5754	0.1864mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 11:01:33 AM
3	0.6303	0.2042mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 11:05:03 AM

Mean Area 0.7839
Mean Conc. 0.2540mg/L



Sample

TOC-Control L Report

2021_10_26_001.tlx

Sample Name: HS21101194-01
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

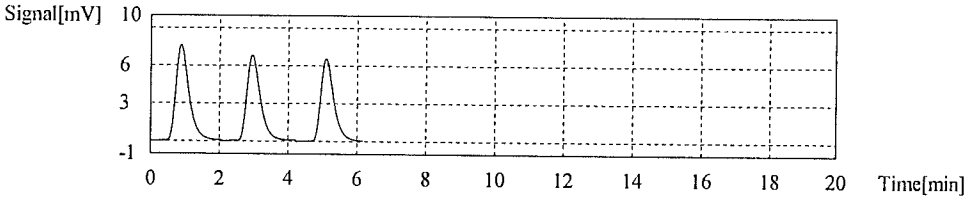
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.060mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.30	6.578mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 11:30:01 AM
2	18.52	6.001mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 11:33:36 AM
3	17.29	5.602mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 11:36:54 AM

Mean Area 18.70
Mean Conc. 6.060mg/L



Sample

Sample Name: HS21101194-01MS
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

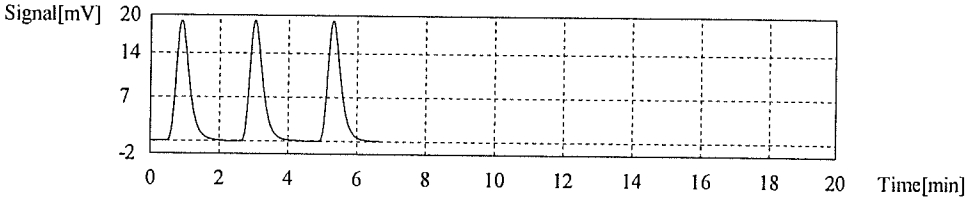
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.66mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.63	16.73mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 11:45:53 AM
2	51.16	16.58mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 11:49:30 AM
3	51.47	16.68mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 11:52:58 AM

Mean Area 51.42
Mean Conc. 16.66mg/L



TOC-Control L Report

2021_10_26_001.tlx

Sample

Sample Name: CCV
Sample ID: 317195504
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

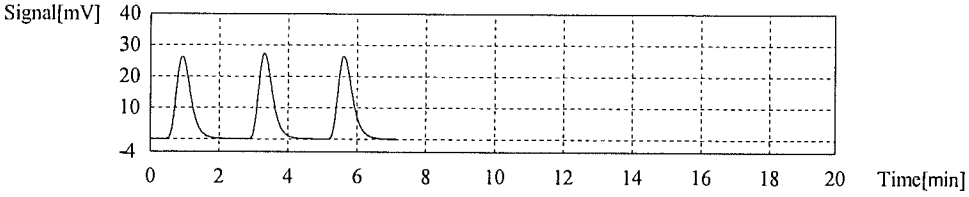
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.59mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.50	25.44mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 12:34:20 PM
2	78.50	25.44mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 12:37:45 PM
3	79.97	25.91mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 12:41:22 PM

Mean Area 78.99
Mean Conc. 25.59mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

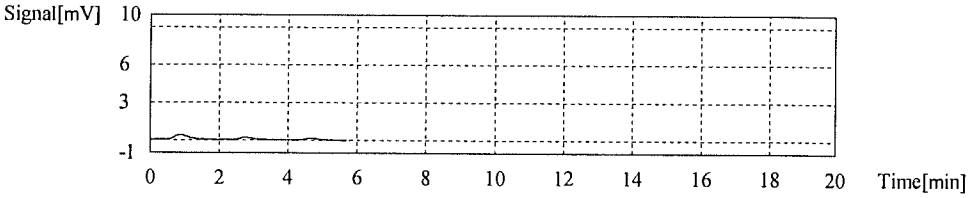
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1930mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9230	0.2991mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 12:50:06 PM
2	0.4548	0.1474mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 12:53:36 PM
3	0.4096	0.1327mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 12:57:06 PM

Mean Area 0.5958
Mean Conc. 0.1930mg/L



HS21100881 Longhorn Army Ammunition Plant
16 October 2021 Cover Page

ALS WO# HS21100881

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WorkOrder: HS21100881

Longhorn Army Ammunition Plant 16 October 2021

Aptim Environmental & Infrastucture, Inc.

Vicki Graves
10333 Richmond Ave Ste 1030
Houston TX 77042

21-Nov-2021

HS21100881 Longhorn Army Ammunition Plant
16 October 2021 Final

ALS WO# HS21100881

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October 31, 2021

Vicki Graves
Aptim Environmental & Infrastucture, Inc.
10333 Richmond Ave
Ste 1030
Houston, TX 77042

Work Order: **HS21100881**

Laboratory Results for: **Longhorn Army Ammunition Plant 16 October 2021**

Dear Vicki Graves ,

ALS Environmental received 8 sample(s) on Oct 15, 2021 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: DAYNA.FISHER
Ragen Giga
Project Manager

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
Work Order: HS21100881

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21100881-01	16WW25-211014	Groundwater		14-Oct-2021 08:25	15-Oct-2021 10:20	☐
HS21100881-02	16WW25-211014-FD	Groundwater		14-Oct-2021 08:25	15-Oct-2021 10:20	☐
HS21100881-03	16WW26-211014	Groundwater		14-Oct-2021 09:15	15-Oct-2021 10:20	☐
HS21100881-04	16WW30-211014	Groundwater		14-Oct-2021 10:05	15-Oct-2021 10:20	☐
HS21100881-05	16WW29-211014	Groundwater		14-Oct-2021 10:45	15-Oct-2021 10:20	☐
HS21100881-06	16WW29-211014-FD	Groundwater		14-Oct-2021 10:45	15-Oct-2021 10:20	☐
HS21100881-07	16WW55-211014	Groundwater		14-Oct-2021 11:40	15-Oct-2021 10:20	☐
HS21100881-08	Trip Blank-211014	Water	CG-082521-467	14-Oct-2021 00:00	15-Oct-2021 10:20	☐

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc. **CASE NARRATIVE**
Project: Longhorn Army Ammunition Plant 16 October 2021
Work Order: HS21100881

GC Semivolatiles by Method RSK-175

Batch ID: R394382

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Volatiles by Method SW8260

Batch ID: R393999

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Batch ID: R394174

Sample ID: HS21101283-10MS

- MS and MSD are for an unrelated sample

WetChemistry by Method SM5310B

Batch ID: R394343

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SM2320B

Batch ID: R393968

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc. **CASE NARRATIVE**
Project: Longhorn Army Ammunition Plant 16 October 2021
Work Order: HS21100881

WetChemistry by Method SW9056

Batch ID: R394571

Sample ID: HS21101035-01MS

- MS and MSD are for an unrelated sample (Sulfate)

Batch ID: R393668

Sample ID: 16WW25-211014 (HS21100881-01)

- Sample ran at 5X due to high concentration of SO4

Sample ID: 16WW25-211014-FD (HS21100881-02)

- Sample ran at 5X due to high concentration of SO4

Sample ID: 16WW29-211014 (HS21100881-05)

- Sample ran at 2X due to high concentration of SO4

Sample ID: 16WW29-211014-FD (HS21100881-06)

- Sample ran at 2X due to high concentration of SO4

Sample ID: 16WW55-211014 (HS21100881-07)

- Sample ran at 2X due to high concentration of SO4

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
Sample ID: 16WW25-211014
Collection Date: 14-Oct-2021 08:25

ANALYTICAL REPORT
WorkOrder:HS21100881
Lab ID:HS21100881-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 02:30
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 02:30
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 02:30
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 02:30
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 02:30
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 02:30
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 02:30
Surr: 1,2-Dichloroethane-d4	*98.6*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 02:30*
Surr: 4-Bromofluorobenzene	*97.4*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 02:30*
Surr: Dibromofluoromethane	*97.5*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 02:30*
Surr: Toluene-d8	*99.4*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 02:30*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	26-Oct-2021 10:39
Ethene	0.000500	U	0.000234	0.000500	0.00100	mg/L	1	26-Oct-2021 10:39
Methane	**0.0120**		**0.000107**	**0.000250**	**0.000500**	**mg/L**	1	26-Oct-2021 10:39
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**76.7**		**5.00**	**5.00**	**5.00**	**mg/L**	1	21-Oct-2021 21:57
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**28.3**		**0.500**	**1.00**	**1.00**	**mg/L**	1	27-Oct-2021 15:04
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Bromide	0.500	U	0.150	0.500	0.500	mg/L	5	15-Oct-2021 17:14
Nitrogen, Nitrate (As N)	0.500	U	0.150	0.500	0.500	mg/L	5	15-Oct-2021 17:14
Sulfate	**4,250**		**20.0**	**50.0**	**50.0**	**mg/L**	100	29-Oct-2021 22:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
Sample ID: 16WW25-211014-FD
Collection Date: 14-Oct-2021 08:25

ANALYTICAL REPORT
WorkOrder:HS21100881
Lab ID:HS21100881-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 02:51
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 02:51
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 02:51
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 02:51
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 02:51
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 02:51
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 02:51
Surr: 1,2-Dichloroethane-d4	*96.9*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 02:51*
Surr: 4-Bromofluorobenzene	*98.8*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 02:51*
Surr: Dibromofluoromethane	*95.0*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 02:51*
Surr: Toluene-d8	*97.6*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 02:51*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	26-Oct-2021 10:49
Ethene	**0.00194**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	26-Oct-2021 10:49
Methane	**0.00766**		**0.000107**	**0.000250**	**0.000500**	**mg/L**	1	26-Oct-2021 10:49
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**110**		**5.00**	**5.00**	**5.00**	**mg/L**	1	21-Oct-2021 22:03
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**26.1**		**0.500**	**1.00**	**1.00**	**mg/L**	1	27-Oct-2021 15:21
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Bromide	0.500	U	0.150	0.500	0.500	mg/L	5	15-Oct-2021 17:21
Nitrogen, Nitrate (As N)	0.500	U	0.150	0.500	0.500	mg/L	5	15-Oct-2021 17:21
Sulfate	**4,070**		**20.0**	**50.0**	**50.0**	**mg/L**	100	29-Oct-2021 22:24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
Sample ID: 16WW26-211014
Collection Date: 14-Oct-2021 09:15

ANALYTICAL REPORT
WorkOrder:HS21100881
Lab ID:HS21100881-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 03:12
1,1-Dichloroethene	**0.77**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	23-Oct-2021 03:12
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 03:12
cis-1,2-Dichloroethene	**36**		**0.20**	**0.50**	**1.0**	**ug/L**	1	23-Oct-2021 03:12
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 03:12
Trichloroethene	**500**		**2.0**	**5.0**	**10**	**ug/L**	10	25-Oct-2021 17:12
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 03:12
Surr: 1,2-Dichloroethane-d4	*97.2*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 03:12*
Surr: 1,2-Dichloroethane-d4	*91.2*			**0**	*81-118*	*%REC*	*10*	*25-Oct-2021 17:12*
Surr: 4-Bromofluorobenzene	*97.2*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 03:12*
Surr: 4-Bromofluorobenzene	*97.8*			**0**	*85-114*	*%REC*	*10*	*25-Oct-2021 17:12*
Surr: Dibromofluoromethane	*94.6*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 03:12*
Surr: Dibromofluoromethane	*95.8*			**0**	*80-119*	*%REC*	*10*	*25-Oct-2021 17:12*
Surr: Toluene-d8	*97.3*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 03:12*
Surr: Toluene-d8	*96.9*			**0**	*89-112*	*%REC*	*10*	*25-Oct-2021 17:12*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	26-Oct-2021 10:58
Ethene	**0.00218**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	26-Oct-2021 10:58
Methane	**0.00549**		**0.000107**	**0.000250**	**0.000500**	**mg/L**	1	26-Oct-2021 10:58
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**24.3**		**5.00**	**5.00**	**5.00**	**mg/L**	1	21-Oct-2021 22:08
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**4.31**		**0.500**	**1.00**	**1.00**	**mg/L**	1	27-Oct-2021 15:37
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Bromide	0.100	U	0.0300	0.100	0.100	mg/L	1	15-Oct-2021 17:28
Nitrogen, Nitrate (As N)	0.100	U	0.0300	0.100	0.100	mg/L	1	15-Oct-2021 17:28
Sulfate	**342**		**2.00**	**5.00**	**5.00**	**mg/L**	10	29-Oct-2021 22:46

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21100881
Sample ID: 16WW30-211014 Lab ID:HS21100881-04
Collection Date: 14-Oct-2021 10:05 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 03:33
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 03:33
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 03:33
cis-1,2-Dichloroethene	**1.2**		**0.20**	**0.50**	**1.0**	**ug/L**	1	23-Oct-2021 03:33
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 03:33
Trichloroethene	**32**		**0.20**	**0.50**	**1.0**	**ug/L**	1	23-Oct-2021 03:33
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 03:33
Surr: 1,2-Dichloroethane-d4	*98.7*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 03:33*
Surr: 4-Bromofluorobenzene	*98.0*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 03:33*
Surr: Dibromofluoromethane	*96.9*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 03:33*
Surr: Toluene-d8	*98.1*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 03:33*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
Sample ID: 16WW29-211014
Collection Date: 14-Oct-2021 10:45

ANALYTICAL REPORT
WorkOrder:HS21100881
Lab ID:HS21100881-05
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 03:54
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 03:54
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 03:54
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 03:54
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 03:54
Trichloroethene	**0.64**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	23-Oct-2021 03:54
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 03:54
Surr: 1,2-Dichloroethane-d4	*98.4*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 03:54*
Surr: 4-Bromofluorobenzene	*97.6*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 03:54*
Surr: Dibromofluoromethane	*97.6*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 03:54*
Surr: Toluene-d8	*97.7*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 03:54*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	26-Oct-2021 11:07
Ethene	**0.00366**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	26-Oct-2021 11:07
Methane	**0.0198**		**0.000107**	**0.000250**	**0.000500**	**mg/L**	1	26-Oct-2021 11:07
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**24.0**		**5.00**	**5.00**	**5.00**	**mg/L**	1	21-Oct-2021 22:13
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**16.8**		**0.500**	**1.00**	**1.00**	**mg/L**	1	27-Oct-2021 16:41
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Bromide	0.200	U	0.0600	0.200	0.200	mg/L	2	15-Oct-2021 17:51
Nitrogen, Nitrate (As N)	0.200	U	0.0600	0.200	0.200	mg/L	2	15-Oct-2021 17:51
Sulfate	**1,700**		**20.0**	**50.0**	**50.0**	**mg/L**	100	29-Oct-2021 23:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21100881
Sample ID: 16WW29-211014-FD Lab ID:HS21100881-06
Collection Date: 14-Oct-2021 10:45 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 04:15
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 04:15
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 04:15
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 04:15
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 04:15
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 04:15
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 04:15
Surr: 1,2-Dichloroethane-d4	*97.1*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 04:15*
Surr: 4-Bromofluorobenzene	*96.6*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 04:15*
Surr: Dibromofluoromethane	*96.9*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 04:15*
Surr: Toluene-d8	*101*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 04:15*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	26-Oct-2021 11:17
Ethene	**0.00232**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	26-Oct-2021 11:17
Methane	**0.0214**		**0.000107**	**0.000250**	**0.000500**	**mg/L**	1	26-Oct-2021 11:17
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**26.5**		**5.00**	**5.00**	**5.00**	**mg/L**	1	21-Oct-2021 22:18
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**18.0**		**0.500**	**1.00**	**1.00**	**mg/L**	1	27-Oct-2021 16:57
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Bromide	0.200	U	0.0600	0.200	0.200	mg/L	2	15-Oct-2021 18:20
Nitrogen, Nitrate (As N)	0.200	U	0.0600	0.200	0.200	mg/L	2	15-Oct-2021 18:20
Sulfate	**1,890**		**20.0**	**50.0**	**50.0**	**mg/L**	100	29-Oct-2021 23:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21100881
Sample ID: 16WW55-211014 Lab ID:HS21100881-07
Collection Date: 14-Oct-2021 11:40 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	5.0	U	1.5	5.0	5.0	ug/L	5	25-Oct-2021 17:33
1,1-Dichloroethene	**5.5**		**1.0**	**2.5**	**5.0**	**ug/L**	5	25-Oct-2021 17:33
1,2-Dichloroethane	**28**		**1.0**	**2.5**	**5.0**	**ug/L**	5	25-Oct-2021 17:33
cis-1,2-Dichloroethene	**660**		**1.0**	**2.5**	**5.0**	**ug/L**	5	25-Oct-2021 17:33
Methylene chloride	5.0	U	2.0	5.0	10	ug/L	5	25-Oct-2021 17:33
Trichloroethene	**2,900**		**10**	**25**	**50**	**ug/L**	50	25-Oct-2021 17:54
Vinyl chloride	2.5	U	1.0	2.5	5.0	ug/L	5	25-Oct-2021 17:33
Surr: 1,2-Dichloroethane-d4	*92.0*			**0**	*81-118*	*%REC*	*5*	*25-Oct-2021 17:33*
Surr: 1,2-Dichloroethane-d4	*91.5*			**0**	*81-118*	*%REC*	*50*	*25-Oct-2021 17:54*
Surr: 4-Bromofluorobenzene	*97.4*			**0**	*85-114*	*%REC*	*5*	*25-Oct-2021 17:33*
Surr: 4-Bromofluorobenzene	*98.2*			**0**	*85-114*	*%REC*	*50*	*25-Oct-2021 17:54*
Surr: Dibromofluoromethane	*95.7*			**0**	*80-119*	*%REC*	*5*	*25-Oct-2021 17:33*
Surr: Dibromofluoromethane	*95.2*			**0**	*80-119*	*%REC*	*50*	*25-Oct-2021 17:54*
Surr: Toluene-d8	*98.8*			**0**	*89-112*	*%REC*	*5*	*25-Oct-2021 17:33*
Surr: Toluene-d8	*97.4*			**0**	*89-112*	*%REC*	*50*	*25-Oct-2021 17:54*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	26-Oct-2021 11:28
Ethene	**0.00145**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	26-Oct-2021 11:28
Methane	**0.0109**		**0.000107**	**0.000250**	**0.000500**	**mg/L**	1	26-Oct-2021 11:28
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**303**		**5.00**	**5.00**	**5.00**	**mg/L**	1	21-Oct-2021 22:24
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**5.54**		**0.500**	**1.00**	**1.00**	**mg/L**	1	27-Oct-2021 17:13
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Bromide	0.200	U	0.0600	0.200	0.200	mg/L	2	15-Oct-2021 18:28
Nitrogen, Nitrate (As N)	**0.311**		**0.0600**	**0.200**	**0.200**	**mg/L**	2	15-Oct-2021 18:28
Sulfate	**638**		**4.00**	**10.0**	**10.0**	**mg/L**	20	29-Oct-2021 23:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21100881
Sample ID: Trip Blank-211014 Lab ID:HS21100881-08
Collection Date: 14-Oct-2021 00:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 00:24
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 00:24
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 00:24
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 00:24
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 00:24
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 00:24
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 00:24
Surr: 1,2-Dichloroethane-d4	*97.0*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 00:24*
Surr: 4-Bromofluorobenzene	*99.0*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 00:24*
Surr: Dibromofluoromethane	*96.1*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 00:24*
Surr: Toluene-d8	*99.7*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 00:24*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100881

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R393668 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Groundwater	
HS21100881-01	16WW25-211014	14 Oct 2021 08:25			15 Oct 2021 17:14	5
HS21100881-02	16WW25-211014-FD	14 Oct 2021 08:25			15 Oct 2021 17:21	5
HS21100881-03	16WW26-211014	14 Oct 2021 09:15			15 Oct 2021 17:28	1
HS21100881-05	16WW29-211014	14 Oct 2021 10:45			15 Oct 2021 17:51	2
HS21100881-06	16WW29-211014-FD	14 Oct 2021 10:45			15 Oct 2021 18:20	2
HS21100881-07	16WW55-211014	14 Oct 2021 11:40			15 Oct 2021 18:28	2
Batch ID: R393968 (0)	**Test Name :** ALKALINITY BY SM 2320B-2011				**Matrix:** Groundwater	
HS21100881-01	16WW25-211014	14 Oct 2021 08:25			21 Oct 2021 21:57	1
HS21100881-02	16WW25-211014-FD	14 Oct 2021 08:25			21 Oct 2021 22:03	1
HS21100881-03	16WW26-211014	14 Oct 2021 09:15			21 Oct 2021 22:08	1
HS21100881-05	16WW29-211014	14 Oct 2021 10:45			21 Oct 2021 22:13	1
HS21100881-06	16WW29-211014-FD	14 Oct 2021 10:45			21 Oct 2021 22:18	1
HS21100881-07	16WW55-211014	14 Oct 2021 11:40			21 Oct 2021 22:24	1
Batch ID: R393999 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS21100881-08	Trip Blank-211014	14 Oct 2021 00:00			23 Oct 2021 00:24	1
Batch ID: R393999 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS21100881-01	16WW25-211014	14 Oct 2021 08:25			23 Oct 2021 02:30	1
HS21100881-02	16WW25-211014-FD	14 Oct 2021 08:25			23 Oct 2021 02:51	1
HS21100881-03	16WW26-211014	14 Oct 2021 09:15			23 Oct 2021 03:12	1
HS21100881-04	16WW30-211014	14 Oct 2021 10:05			23 Oct 2021 03:33	1
HS21100881-05	16WW29-211014	14 Oct 2021 10:45			23 Oct 2021 03:54	1
HS21100881-06	16WW29-211014-FD	14 Oct 2021 10:45			23 Oct 2021 04:15	1
Batch ID: R394174 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS21100881-03	16WW26-211014	14 Oct 2021 09:15			25 Oct 2021 17:12	10
HS21100881-07	16WW55-211014	14 Oct 2021 11:40			25 Oct 2021 17:54	50
HS21100881-07	16WW55-211014	14 Oct 2021 11:40			25 Oct 2021 17:33	5
Batch ID: R394343 (0)	**Test Name :** TOTAL ORGANIC CARBON - SM5310B-2011				**Matrix:** Groundwater	
HS21100881-01	16WW25-211014	14 Oct 2021 08:25			27 Oct 2021 15:04	1
HS21100881-02	16WW25-211014-FD	14 Oct 2021 08:25			27 Oct 2021 15:21	1
HS21100881-03	16WW26-211014	14 Oct 2021 09:15			27 Oct 2021 15:37	1
HS21100881-05	16WW29-211014	14 Oct 2021 10:45			27 Oct 2021 16:41	1
HS21100881-06	16WW29-211014-FD	14 Oct 2021 10:45			27 Oct 2021 16:57	1
HS21100881-07	16WW55-211014	14 Oct 2021 11:40			27 Oct 2021 17:13	1

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100881

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R394382 (1)	**Test Name :** DISSOLVED GASES BY RSK-175				**Matrix:** Groundwater	
HS21100881-01	16WW25-211014	14 Oct 2021 08:25			26 Oct 2021 10:39	1
HS21100881-02	16WW25-211014-FD	14 Oct 2021 08:25			26 Oct 2021 10:49	1
HS21100881-03	16WW26-211014	14 Oct 2021 09:15			26 Oct 2021 10:58	1
HS21100881-05	16WW29-211014	14 Oct 2021 10:45			26 Oct 2021 11:07	1
HS21100881-06	16WW29-211014-FD	14 Oct 2021 10:45			26 Oct 2021 11:17	1
HS21100881-07	16WW55-211014	14 Oct 2021 11:40			26 Oct 2021 11:28	1
Batch ID: R394571 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Groundwater	
HS21100881-01	16WW25-211014	14 Oct 2021 08:25			29 Oct 2021 22:16	100
HS21100881-02	16WW25-211014-FD	14 Oct 2021 08:25			29 Oct 2021 22:24	100
HS21100881-03	16WW26-211014	14 Oct 2021 09:15			29 Oct 2021 22:46	10
HS21100881-05	16WW29-211014	14 Oct 2021 10:45			29 Oct 2021 23:08	100
HS21100881-06	16WW29-211014-FD	14 Oct 2021 10:45			29 Oct 2021 23:16	100
HS21100881-07	16WW55-211014	14 Oct 2021 11:40			29 Oct 2021 23:23	20

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100881

QC BATCH REPORT

Batch ID: R394382 (1) **Instrument:** FID-4 **Method:** DISSOLVED GASES BY RSK-175

MBLK Sample ID: **MBLK-211026** Units: **mg/L** Analysis Date: **26-Oct-2021 08:57**
Client ID: Run ID: **FID-4_394382** SeqNo: **6342554** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.000500	0.00100								U
Ethene	0.000500	0.00100								U
Methane	0.000250	0.000500								U

LCS Sample ID: **LCS-211026** Units: **mg/L** Analysis Date: **26-Oct-2021 09:05**
Client ID: Run ID: **FID-4_394382** SeqNo: **6342555** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.0164	0.00100	0.01804	0	90.7	75 - 125				
Ethene	0.0133	0.00100	0.0168	0	79.3	75 - 125				
Methane	0.00826	0.000500	0.009647	0	85.6	75 - 125				

LCSD Sample ID: **LCSD-211026** Units: **mg/L** Analysis Date: **26-Oct-2021 09:14**
Client ID: Run ID: **FID-4_394382** SeqNo: **6342556** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.0203	0.00100	0.01804	0	112	75 - 125	0.01636	21.5	30	
Ethene	0.0162	0.00100	0.0168	0	96.2	75 - 125	0.01332	19.3	30	
Methane	0.0109	0.000500	0.009647	0	113	75 - 125	0.008255	27.3	30	

DUP Sample ID: **HS21100881-01DUP** Units: **mg/L** Analysis Date: **26-Oct-2021 12:57**
Client ID: **16WW25-211014** Run ID: **FID-4_394382** SeqNo: **6342565** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.000500	0.00100					0	0	30	U
Ethene	0.000500	0.00100					0	0	30	U
Methane	0.0126	0.000500					0.01196	5.24	30	

The following samples were analyzed in this batch: HS21100881-01 HS21100881-02 HS21100881-03 HS21100881-05 HS21100881-06 HS21100881-07

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100881

QC BATCH REPORT

Batch ID: R393999 (0) **Instrument: VOA6** **Method: VOLATILES ORGANICS BY METHOD 8260C**

MBLK Sample ID: **VBLKW-211022** Units: **ug/L** Analysis Date: **23-Oct-2021 00:03**
Client ID: Run ID: **VOA6_393999** SeqNo: **6334909** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	1.0	1.0								U
1,1-Dichloroethene	0.50	1.0								U
1,2-Dichloroethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
Methylene chloride	1.0	2.0								U
Trichloroethene	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*49.79*	*1.0*	*50*	*0*	*99.6*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*50.03*	*1.0*	*50*	*0*	*100*	*85 - 114*				
Surr: Dibromofluoromethane	*48.91*	*1.0*	*50*	*0*	*97.8*	*80 - 119*				
Surr: Toluene-d8	*49.86*	*1.0*	*50*	*0*	*99.7*	*89 - 112*				

LCS Sample ID: **VLCSW-211022** Units: **ug/L** Analysis Date: **22-Oct-2021 23:21**
Client ID: Run ID: **VOA6_393999** SeqNo: **6334908** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	20.77	1.0	20	0	104	80 - 119				
1,1-Dichloroethene	21.24	1.0	20	0	106	71 - 131				
1,2-Dichloroethane	21.72	1.0	20	0	109	73 - 128				
cis-1,2-Dichloroethene	22.57	1.0	20	0	113	78 - 123				
Methylene chloride	23.84	2.0	20	0	119	74 - 124				
Trichloroethene	21.39	1.0	20	0	107	79 - 123				
Vinyl chloride	21.12	1.0	20	0	106	58 - 137				
Surr: 1,2-Dichloroethane-d4	*54.54*	*1.0*	*50*	*0*	*109*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*52.2*	*1.0*	*50*	*0*	*104*	*85 - 114*				
Surr: Dibromofluoromethane	*55.55*	*1.0*	*50*	*0*	*111*	*80 - 119*				
Surr: Toluene-d8	*47.38*	*1.0*	*50*	*0*	*94.8*	*89 - 112*				

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100881

QC BATCH REPORT

Batch ID: R393999 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21101144-10MS** Units: **ug/L** Analysis Date: **23-Oct-2021 01:27**
Client ID: Run ID: **VOA6_393999** SeqNo: **6334913** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	17.86	1.0	20	0	89.3	80 - 119				
1,1-Dichloroethene	15.88	1.0	20	0	79.4	71 - 131				
1,2-Dichloroethane	17.65	1.0	20	0	88.3	73 - 128				
cis-1,2-Dichloroethene	22.29	1.0	20	0.7577	108	78 - 123				
Methylene chloride	16.99	2.0	20	0	84.9	74 - 124				
Trichloroethene	25.53	1.0	20	6.202	96.6	79 - 123				
Vinyl chloride	14.18	1.0	20	0	70.9	58 - 137				
Surr: 1,2-Dichloroethane-d4	*47.1*	*1.0*	*50*	*0*	*94.2*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*51.19*	*1.0*	*50*	*0*	*102*	*85 - 114*				
Surr: Dibromofluoromethane	*46.65*	*1.0*	*50*	*0*	*93.3*	*80 - 119*				
Surr: Toluene-d8	*48.27*	*1.0*	*50*	*0*	*96.5*	*89 - 112*				

MSD Sample ID: **HS21101144-10MSD** Units: **ug/L** Analysis Date: **23-Oct-2021 01:48**
Client ID: Run ID: **VOA6_393999** SeqNo: **6334914** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	18.69	1.0	20	0	93.5	80 - 119	17.86	4.59	20	
1,1-Dichloroethene	15.89	1.0	20	0	79.4	71 - 131	15.88	0.0568	20	
1,2-Dichloroethane	18	1.0	20	0	90.0	73 - 128	17.65	1.93	20	
cis-1,2-Dichloroethene	18.32	1.0	20	0.7577	87.8	78 - 123	22.29	19.6	20	
Methylene chloride	17.27	2.0	20	0	86.4	74 - 124	16.99	1.65	20	
Trichloroethene	24.06	1.0	20	6.202	89.3	79 - 123	25.53	5.92	20	
Vinyl chloride	14.28	1.0	20	0	71.4	58 - 137	14.18	0.725	20	
Surr: 1,2-Dichloroethane-d4	*47.55*	*1.0*	*50*	*0*	*95.1*	*81 - 118*	*47.1*	*0.958*	*20*	
Surr: 4-Bromofluorobenzene	*50.63*	*1.0*	*50*	*0*	*101*	*85 - 114*	*51.19*	*1.09*	*20*	
Surr: Dibromofluoromethane	*46.25*	*1.0*	*50*	*0*	*92.5*	*80 - 119*	*46.65*	*0.864*	*20*	
Surr: Toluene-d8	*48.72*	*1.0*	*50*	*0*	*97.4*	*89 - 112*	*48.27*	*0.912*	*20*	

The following samples were analyzed in this batch:

HS21100881-01	HS21100881-02	HS21100881-03	HS21100881-04
HS21100881-05	HS21100881-06	HS21100881-08	

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100881

QC BATCH REPORT

Batch ID: R394174 (0) **Instrument: VOA6** **Method: VOLATILES ORGANICS BY METHOD 8260C**

MBLK Sample ID: **VBLKW-211025** Units: **ug/L** Analysis Date: **25-Oct-2021 12:17**
Client ID: Run ID: **VOA6_394174** SeqNo: **6337695** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	1.0	1.0								U
1,1-Dichloroethene	0.50	1.0								U
1,2-Dichloroethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
Methylene chloride	1.0	2.0								U
Trichloroethene	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*44.47*	*1.0*	*50*	*0*	*88.9*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.67*	*1.0*	*50*	*0*	*97.3*	*85 - 114*				
Surr: Dibromofluoromethane	*46.93*	*1.0*	*50*	*0*	*93.9*	*80 - 119*				
Surr: Toluene-d8	*48.55*	*1.0*	*50*	*0*	*97.1*	*89 - 112*				

LCS Sample ID: **VLCSW-211025** Units: **ug/L** Analysis Date: **25-Oct-2021 11:35**
Client ID: Run ID: **VOA6_394174** SeqNo: **6337694** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	19.88	1.0	20	0	99.4	80 - 119				
1,1-Dichloroethene	19.75	1.0	20	0	98.8	71 - 131				
1,2-Dichloroethane	19.64	1.0	20	0	98.2	73 - 128				
cis-1,2-Dichloroethene	20.99	1.0	20	0	105	78 - 123				
Methylene chloride	21.81	2.0	20	0	109	74 - 124				
Trichloroethene	20.85	1.0	20	0	104	79 - 123				
Vinyl chloride	18.63	1.0	20	0	93.1	58 - 137				
Surr: 1,2-Dichloroethane-d4	*49.07*	*1.0*	*50*	*0*	*98.1*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*49.34*	*1.0*	*50*	*0*	*98.7*	*85 - 114*				
Surr: Dibromofluoromethane	*51.67*	*1.0*	*50*	*0*	*103*	*80 - 119*				
Surr: Toluene-d8	*46.08*	*1.0*	*50*	*0*	*92.2*	*89 - 112*				

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100881

QC BATCH REPORT

Batch ID: R394174 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21101283-10MS** Units: **ug/L** Analysis Date: **25-Oct-2021 14:02**
Client ID: Run ID: **VOA6_394174** SeqNo: **6337700** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	187.5	10	200	0	93.7	80 - 119				
1,1-Dichloroethene	171.4	10	200	8.191	81.6	71 - 131				
1,2-Dichloroethane	179.5	10	200	0	89.7	73 - 128				
cis-1,2-Dichloroethene	1693	10	200	1576	58.3	78 - 123				SO
Methylene chloride	183.7	20	200	0	91.8	74 - 124				
Trichloroethene	1022	10	200	888.5	66.9	79 - 123				SO
Vinyl chloride	294.6	10	200	185.2	54.7	58 - 137				S
Surr: 1,2-Dichloroethane-d4	*441.2*	*10*	*500*	*0*	*88.2*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*500*	*10*	*500*	*0*	*100*	*85 - 114*				
Surr: Dibromofluoromethane	*474.6*	*10*	*500*	*0*	*94.9*	*80 - 119*				
Surr: Toluene-d8	*479.8*	*10*	*500*	*0*	*96.0*	*89 - 112*				

MSD Sample ID: **HS21101283-10MSD** Units: **ug/L** Analysis Date: **25-Oct-2021 14:23**
Client ID: Run ID: **VOA6_394174** SeqNo: **6337701** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	188.6	10	200	0	94.3	80 - 119	187.5	0.606	20	
1,1-Dichloroethene	161.8	10	200	8.191	76.8	71 - 131	171.4	5.75	20	
1,2-Dichloroethane	175.2	10	200	0	87.6	73 - 128	179.5	2.4	20	
cis-1,2-Dichloroethene	1672	10	200	1576	47.8	78 - 123	1693	1.25	20	SO
Methylene chloride	179.5	20	200	0	89.7	74 - 124	183.7	2.3	20	
Trichloroethene	974.8	10	200	888.5	43.2	79 - 123	1022	4.75	20	SO
Vinyl chloride	272.7	10	200	185.2	43.8	58 - 137	294.6	7.69	20	S
Surr: 1,2-Dichloroethane-d4	*442*	*10*	*500*	*0*	*88.4*	*81 - 118*	*441.2*	*0.201*	*20*	
Surr: 4-Bromofluorobenzene	*490.9*	*10*	*500*	*0*	*98.2*	*85 - 114*	*500*	*1.84*	*20*	
Surr: Dibromofluoromethane	*472.1*	*10*	*500*	*0*	*94.4*	*80 - 119*	*474.6*	*0.534*	*20*	
Surr: Toluene-d8	*483.4*	*10*	*500*	*0*	*96.7*	*89 - 112*	*479.8*	*0.745*	*20*	

The following samples were analyzed in this batch: HS21100881-03 HS21100881-07

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100881

QC BATCH REPORT

Batch ID: R393668 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **15-Oct-2021 14:15**
Client ID: Run ID: **ICS-Integrion_393668** SeqNo: **6325056** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	0.100	0.100								U
Nitrogen, Nitrate (As N)	0.100	0.100								U

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **15-Oct-2021 14:23**
Client ID: Run ID: **ICS-Integrion_393668** SeqNo: **6325057** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	3.979	0.100	4	0	99.5	80 - 120				
Nitrogen, Nitrate (As N)	3.829	0.100	4	0	95.7	80 - 120				

MS Sample ID: **HS21100867-06MS** Units: **mg/L** Analysis Date: **15-Oct-2021 16:51**
Client ID: Run ID: **ICS-Integrion_393668** SeqNo: **6325066** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	1.701	0.100	2	0	85.1	80 - 120				
Nitrogen, Nitrate (As N)	1.937	0.100	2	0	96.9	80 - 120				

MS Sample ID: **HS21100119-12MS** Units: **mg/L** Analysis Date: **15-Oct-2021 23:17**
Client ID: Run ID: **ICS-Integrion_393668** SeqNo: **6325091** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	2.22	0.100	2	0	111	80 - 120				
Nitrogen, Nitrate (As N)	1.926	0.100	2	0.0097	95.8	80 - 120				

MSD Sample ID: **HS21100867-06MSD** Units: **mg/L** Analysis Date: **15-Oct-2021 16:59**
Client ID: Run ID: **ICS-Integrion_393668** SeqNo: **6325067** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	1.71	0.100	2	0	85.5	80 - 120	1.701	0.528	20	
Nitrogen, Nitrate (As N)	1.937	0.100	2	0	96.8	80 - 120	1.937	0.0361	20	

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100881

QC BATCH REPORT

Batch ID: R393668 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MSD Sample ID: **HS21100119-12MSD** Units: **mg/L** Analysis Date: **15-Oct-2021 23:24**
Client ID: Run ID: **ICS-Integrion_393668** SeqNo: **6325092** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	2.27	0.100	2	0	114	80 - 120	2.22	2.22	20	
Nitrogen, Nitrate (As N)	1.929	0.100	2	0.0097	96.0	80 - 120	1.926	0.145	20	

The following samples were analyzed in this batch: HS21100881-01 HS21100881-02 HS21100881-03 HS21100881-05 HS21100881-06 HS21100881-07

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100881

QC BATCH REPORT

Batch ID: R393968 (0) **Instrument: ManTech01** **Method: ALKALINITY BY SM 2320B-2011**

MBLK Sample ID: **WBLKW1-211021** Units: **mg/L** Analysis Date: **21-Oct-2021 19:15**
Client ID: Run ID: **ManTech01_393968** SeqNo: **6332673** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	5.00	5.00								U

LCS Sample ID: **LCS1-211021** Units: **mg/L** Analysis Date: **21-Oct-2021 19:23**
Client ID: Run ID: **ManTech01_393968** SeqNo: **6332674** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1023	5.00	1000	0	102	85 - 115				

LCSD Sample ID: **LCSD1-211021** Units: **mg/L** Analysis Date: **21-Oct-2021 19:32**
Client ID: Run ID: **ManTech01_393968** SeqNo: **6332675** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1019	5.00	1000	0	102	85 - 115	1023	0.414	20	

DUP Sample ID: **HS21101156-04DUP** Units: **mg/L** Analysis Date: **21-Oct-2021 19:46**
Client ID: Run ID: **ManTech01_393968** SeqNo: **6332677** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	163.4	5.00					146.7	10.8	20	

The following samples were analyzed in this batch: HS21100881-01 HS21100881-02 HS21100881-03 HS21100881-05 HS21100881-06 HS21100881-07

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100881

QC BATCH REPORT

Batch ID: R394343 (0) **Instrument: TOC_04** **Method: TOTAL ORGANIC CARBON - SM5310B-2011**

MBLK Sample ID: **MBLK-10262021** Units: **mg/L** Analysis Date: **27-Oct-2021 13:12**
Client ID: Run ID: **TOC_04_394343** SeqNo: **6341607** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	1.00	1.00								U

LCS Sample ID: **LCS-10262021** Units: **mg/L** Analysis Date: **27-Oct-2021 13:29**
Client ID: Run ID: **TOC_04_394343** SeqNo: **6341608** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.56	1.00	10	0	106	85 - 115				

LCSD Sample ID: **LCSD-10262021** Units: **mg/L** Analysis Date: **27-Oct-2021 13:45**
Client ID: Run ID: **TOC_04_394343** SeqNo: **6341609** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.53	1.00	10	0	105	85 - 115	10.56	0.284	20	

MS Sample ID: **HS21101195-01MS** Units: **mg/L** Analysis Date: **27-Oct-2021 14:17**
Client ID: Run ID: **TOC_04_394343** SeqNo: **6341611** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	16.11	1.00	10	5.077	110	80 - 120				

The following samples were analyzed in this batch: HS21100881-01 HS21100881-02 HS21100881-03 HS21100881-05 HS21100881-06 HS21100881-07

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21100881

QC BATCH REPORT

Batch ID: R394571 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **29-Oct-2021 21:17**
Client ID: Run ID: **ICS-Integrion_394571** SeqNo: **6347006** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	0.500	0.500								U

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **29-Oct-2021 21:24**
Client ID: Run ID: **ICS-Integrion_394571** SeqNo: **6347007** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	20.09	0.500	20	0	100	80 - 120				

MS Sample ID: **HS21101035-01MS** Units: **mg/L** Analysis Date: **29-Oct-2021 21:39**
Client ID: Run ID: **ICS-Integrion_394571** SeqNo: **6347009** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	4018	25.0	500	3376	128	80 - 120				SO

MS Sample ID: **HS21100881-03MS** Units: **mg/L** Analysis Date: **29-Oct-2021 22:53**
Client ID: **16WW26-211014** Run ID: **ICS-Integrion_394571** SeqNo: **6347019** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	457.5	5.00	100	342.5	115	80 - 120				

MSD Sample ID: **HS21101035-01MSD** Units: **mg/L** Analysis Date: **29-Oct-2021 21:47**
Client ID: Run ID: **ICS-Integrion_394571** SeqNo: **6347010** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	3971	25.0	500	3376	119	80 - 120	4018	1.17	20	O

MSD Sample ID: **HS21100881-03MSD** Units: **mg/L** Analysis Date: **29-Oct-2021 23:01**
Client ID: **16WW26-211014** Run ID: **ICS-Integrion_394571** SeqNo: **6347020** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	444	5.00	100	342.5	102	80 - 120	457.5	2.99	20	

The following samples were analyzed in this batch: HS21100881-01 HS21100881-02 HS21100881-03 HS21100881-05 HS21100881-06 HS21100881-07

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: **HS21100881**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-33	30-Jun-2022
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2021-2022	31-Jul-2022
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2021-2022	30-Jun-2022
North Carolina	624-2021	31-Dec-2021
Texas	T104704231-21-28	30-Apr-2022

ALS Houston, US Date: 31-Oct-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
Work Order: HS21100881

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS21100881-01	16WW25-211014	Login	10/15/2021 2:06:22 PM	PMG	WET219
HS21100881-01	16WW25-211014	Login	10/15/2021 2:06:22 PM	PMG	VOA008
HS21100881-01	16WW25-211014	Login	10/15/2021 2:06:22 PM	PMG	RSK010
HS21100881-01	16WW25-211014	Login	10/15/2021 2:06:22 PM	PMG	WET233

ALS Houston, US Date: 31-Oct-21

Sample Receipt Checklist

Work Order ID: HS21100881 **Date/Time Received:** 15-Oct-2021 10:20

Client Name: CBI-Houston **Received by:** Jared R. Makan

Completed By:	/S/ Paresh M. Giga	15-Oct-2021 14:14	**Reviewed by:**	/S/ Ragen Giga	17-Oct-2021 19:28
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **GW/Water** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:none
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.4C U/c	IR31	
Cooler(s)/Kit(s):	47556		
Date/Time sample(s) sent to storage:	10/15/2021 14:30		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Ragen Giga

Page 1 of 1

Project: APTIM
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No. 501032

Job: LHAAP 16 October 2021

Prepared By: Scott Beesinger

P.O. Number

Field Sample I.D. / Time	Sample Matrix	Date /	MS / MSD	No. OF CONTAINERS	VOC by SW 8260B	TOC by SM5310C	MEE by RSK 175	Anions (bromide, sulfate, nitrate) by SW9056 and Alkalinity by SM2320	Bromide by SW9056	Perchlorate by SW6850	Metals (arsenic, chromium, manganese, nickel, thallium) by SW6020				Remarks (Preservatives, etc.)	Lab I.D.#
16WW25-211014	WG	10/14/21/0825		9	X	X	X	X	X							
16WW25-211014-FD	WG	10/14/21/0825		9	X	X	X	X	X							
16WW26-211014	WG	10/14/21/0915		9	X	X	X	X	X	SB						
16WW30-211014	WG	10/14/21/1005		3	X											
16WW29-211014	WG	10/14/21/1045		9	X	X	X	X	X							
16WW29-211014-FD	WG	10/14/21/1045		9	X	X	X	X	X							
16WW55-211014	WG	10/14/21/1140		9	X	X	X	X	X							
TRIP BLANK-211014	W	10/14/21		2	X											

Additional Remarks: Standard TAT on all parameters. Please email results to Vicki.Graves@aptim.com and invoices to fedinvoices@aptim.com

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	10/14/21	1430	J. Wilson								

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition
J. Wilson	10/15/21	10:20							

Remarks: Cooler 47556 1R231
Temp 1.4°C CFO

HS21100881

Aptim Environmental & Infrastucture, Inc.
Longhorn Army Ammunition Plant 16 October 2021

ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

47556

CUSTODY SEAL

Date: 10/14/21 Time: 1430
Name: Scott Beesinger
Company: BHATE

Seal Broken By: GM
Date: 10/15/21

47556 OCT 15 2021

Part # 159469-434 RIT2 EXP 03/22

ORIGIN ID:SGRA (903) 930-6193
SCOTT BEESINGER
APTIM ENVIROMENTAL & INFASTRUCTURE
1203-B EAST GRAND AVE
PMB 202
MARSHALL, TX 75670
UNITED STATES US

SHIP DATE: 28JUN21
ACTWGT: 1.00 LB MAN
CAD: 0221247/CAFE3504
DIMS: 26x14x14 IN

TO SHIPPING DEPT
ALS LABORATORY GROUP
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099
(281) 530-5656
REF: LHAAP-16-BO 79249-RG

RMA:

FedEx Express

FedEx
TRK# 0221 9473 0845 1357

FRI - 15 OCT AA
PRIORITY OVERNIGHT

AB SGRA

77099
TX-US
IAH

4230674 14Oct2021 GGGA 56DG3/14BA/1B23

HS21100881 8260 Raw Data

ALS WO# HS21100881

MSVOA06-Logbook

Batch: 46738 **Analyst:** Presenta Cabuscanan

Date: 10-08-2021 **Reviewer:**

Method: 8260 **Laboratory:** Houston

Comments:

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pl
1	BFB	TUNE	10-08-2021 12:47 pm	1.00	50 mL	50 mL	X100801.D	Liquid	Y	W
2	VSTD000.25	ICAL1	10-08-2021 01:08 pm	1.00	50 mL	50 mL	X100802.D	Liquid	Y	N
3	VSTD000.5	ICAL2	10-08-2021 01:50 pm	1.00	50 mL	50 mL	X100803.D	Liquid	Y	N
4	VSTD001	ICAL3	10-08-2021 02:11 pm	1.00	50 mL	50 mL	X100804.D	Liquid	Y	N
5	VSTD002	ICAL4	10-08-2021 02:32 pm	1.00	50 mL	50 mL	X100805.D	Liquid	Y	N
6	VSTD005	ICAL5	10-08-2021 02:53 pm	1.00	50 mL	50 mL	X100806.D	Liquid	Y	N
7	VSTD020	ICAL6	10-08-2021 03:14 pm	1.00	50 mL	50 mL	X100807.D	Liquid	Y	N
8	VSTD050	ICAL7	10-08-2021 03:34 pm	1.00	50 mL	50 mL	X100808.D	Liquid	Y	N
9	VSTD100	ICAL8	10-08-2021 03:55 pm	1.00	50 mL	50 mL	X100809.D	Liquid	Y	N
10	VSTD150	ICAL9	10-08-2021 04:16 pm	1.00	50 mL	50 mL	X100810.D	Liquid	Y	N
11	VSTD200	ICAL	10-08-2021 04:37 pm	1.00	50 mL	50 mL	X100811.D	Liquid	Y	N
12	BLANK	SAMP	10-08-2021 04:58 pm	1.00	50 mL	50 mL	X100812.D	Liquid	Y	N
13	BLANK	SAMP	10-08-2021 05:19 pm	1.00	50 mL	50 mL	X100813.D	Liquid	Y	N
14	CCV	CCV	10-08-2021 05:40 pm	1.00	50 mL	50 mL	X100814.D	Liquid	Y	N
15	BFB	TUNE	10-08-2021 06:01 pm	1.00	50 mL	50 mL	Y100801.D	Liquid	Y	N
16	CCV	CCV	10-08-2021 06:22 pm	1.00	50 mL	50 mL	Y100802a.D	Liquid	Y	N
17	CCV	CCV	10-08-2021 06:43 pm	1.00	50 mL	50 mL	Y100803.D	Liquid	Y	N
18	CCB	SAMP	10-08-2021 07:04 pm	1.00	50 mL	50 mL	Y100804.D	Liquid	Y	N
19	VLCSW-211008	LCS	10-08-2021 07:25 pm	1.00	50 mL	50 mL	Y100805.D	Liquid	Y	N
20	BLANK	SAMP	10-08-2021 07:46 pm	1.00	50 mL	50 mL	Y100806.D	Liquid	Y	N
21	BLANK	SAMP	10-08-2021 08:07 pm	1.00	50 mL	50 mL	Y100807.D	Liquid	Y	N
22	VBLKW-211008	MBLK	10-08-2021 08:28 pm	1.00	50 mL	50 mL	Y100808.D	Liquid	Y	N
23	HS21100202-01	SAMP	10-08-2021 08:49 pm	1.00	50 mL	50 mL	Y100809.D	Liquid	Y	N
24	HS21100202-03	SAMP	10-08-2021 09:10 pm	1.00	50 mL	50 mL	Y100810.D	Liquid	Y	N
25	HS21100202-04	SAMP	10-08-2021 09:31 pm	1.00	50 mL	50 mL	Y100811.D	Liquid	Y	N
26	HS21100461-01	SAMP	10-08-2021 09:52 pm	1.00	50 mL	50 mL	Y100812.D	Liquid	Y	N
27	HS21100461-02	SAMP	10-08-2021 10:14 pm	1.00	50 mL	50 mL	Y100813.D	Liquid	Y	N
28	HS21100461-03	SAMP	10-08-2021 10:35 pm	1.00	50 mL	50 mL	Y100814.D	Liquid	Y	N
29	HS21100300-01	SAMP	10-08-2021 10:56 pm	1.00	50 mL	50 mL	Y100815.D	Liquid	Y	N
30	HS21100300-03	SAMP	10-08-2021 11:17 pm	1.00	50 mL	50 mL	Y100816.D	Liquid	Y	N
31	HS21100300-04	SAMP	10-08-2021 11:38 pm	1.00	50 mL	50 mL	Y100817.D	Liquid	Y	N
32	HS21100300-05	SAMP	10-08-2021 11:59 pm	1.00	50 mL	50 mL	Y100818.D	Liquid	Y	N
33	HS21100300-06	SAMP	10-09-2021 12:20 am	1.00	50 mL	50 mL	Y100819.D	Liquid	Y	N
34	HS21100300-07	SAMP	10-09-2021 12:41 am	1.00	50 mL	50 mL	Y100820.D	Liquid	Y	N
35	HS21100308-01	SAMP	10-09-2021 01:02 am	1.00	50 mL	50 mL	Y100821.D	Liquid	Y	N
36	HS21100246-05	SAMP	10-09-2021 01:23 am	1.00	50 mL	50 mL	Y100822.D	Liquid	Y	N
37	HS21100300-06MS	MS	10-09-2021 01:44 am	1.00	50 mL	50 mL	Y100823.D	Liquid	Y	N
38	HS21100300-06MSD	MSD	10-09-2021 02:05 am	1.00	50 mL	50 mL	Y100824.D	Liquid	Y	N
39	CCV-END	CCV	10-09-2021 02:26 am	1.00	50 mL	50 mL	Y100825.D	Liquid	Y	N
40	HS21100312-08	SAMP	10-09-2021 02:47 am	1.00	50 mL	50 mL	Y100826.D	Liquid	Y	N
41	HS21100316-11	SAMP	10-09-2021 03:08 am	1.00	50 mL	50 mL	Y100827.D	Liquid	Y	N

MSVOA06 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
42	HS21100320-11	SAMP	10-09-2021 03:29 am	1.00	50 mL	50 mL	Y100828.D	Liquid	Y	NA
43	HS21100323-19	SAMP	10-09-2021 03:50 am	1.00	50 mL	50 mL	Y100829.D	Liquid	Y	NA
44	HS21100399-11	SAMP	10-09-2021 04:11 am	1.00	50 mL	50 mL	Y100830.D	Liquid	Y	NA
45	HS21100457-07	SAMP	10-09-2021 04:32 am	1.00	50 mL	50 mL	Y100831.D	Liquid	Y	NA
46	BLANK	SAMP	10-09-2021 04:53 am	1.00	50 mL	50 mL	Y100832.D	Liquid	Y	NA

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
cis-1,2-Dichloroethene	50.00	50.82	102	80-120
Vinyl Chloride	50.00	47.21	94	80-120
Methylene Chloride	50.00	52.41	105	80-120
1,1-Dichloroethene	50.00	48.47	97	80-120
1,2-Dichloroethane	50.00	47.98	96	80-120
Trichloroethene	50.00	46.25	92	80-120
1,1,2-Trichloroethane	50.00	47.89	96	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Lab File ID: X100801 BFB Injection Date: 10/08/21

Instrument ID: VOA6 BFB Injection Time: 1247

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.7
75	30.0 - 60.0% of mass 95	47.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	1.2 (1.2)1
174	Greater than 50.0% of mass 95	97.4
175	5.0 - 9.0% of mass 174	7.0 (7.2)1
176	95.0 - 101.0% of mass 174	92.6 (95.0)1
177	5.0 - 9.0% of mass 176	5.8 (6.3)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD000.25	VSTD000.25	X100802	10/08/21	1308
02	VSTD000.5	VSTD000.5	X100803	10/08/21	1350
03	VSTD001	VSTD001	X100804	10/08/21	1411
04	VSTD002	VSTD002	X100805	10/08/21	1432
05	VSTD005	VSTD005	X100806	10/08/21	1453
06	VSTD020	VSTD020	X100807	10/08/21	1514
07	VSTD050	VSTD050	X100808	10/08/21	1534
08	VSTD100	VSTD100	X100809	10/08/21	1555
09	VSTD150	VSTD150	X100810	10/08/21	1616
10	VSTD200	VSTD200	X100811	10/08/21	1637
11	ICV	ICV	X100814	10/08/21	1740
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Instrument ID: VOA6 Calibration Date(s): 10/08/21 10/08/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1308 1350

LAB FILE ID: RF0.25: X100802 RF0.5: X100803

COMPOUND	RF0.25	RF0.5	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX C
Methylene Chloride		2444	LINR	-2.53e-002	2.35098937	0.9995671	0.
1,1,2-Trichloroethane		0.263	AVRG		0.26680323	9.145	
Trichloroethene		0.432	AVRG		0.37820923	13.102	
Vinyl Chloride		0.582	AVRG		0.52422244	12.478	
1,1-Dichloroethene		0.463	AVRG		0.44601099	8.294	
1,2-Dichloroethane		0.420	AVRG		0.41941937	7.419	
cis-1,2-Dichloroethene		0.474	AVRG		0.51982554	7.323	
1,2-Dichloroethane-d4		3361	LINR	-4.07e-002	2.09187623	0.9992556	0.
Dibromofluoromethane		2999	LINR	-2.28e-002	2.08394752	0.9991289	0.
4-Bromofluorobenzene		4606	LINR	-2.74e-002	2.35257164	0.9998215	0.
Toluene-d8		1.599	AVRG		1.26890009	13.667	

FORM VI VOA

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100801.D Page 1

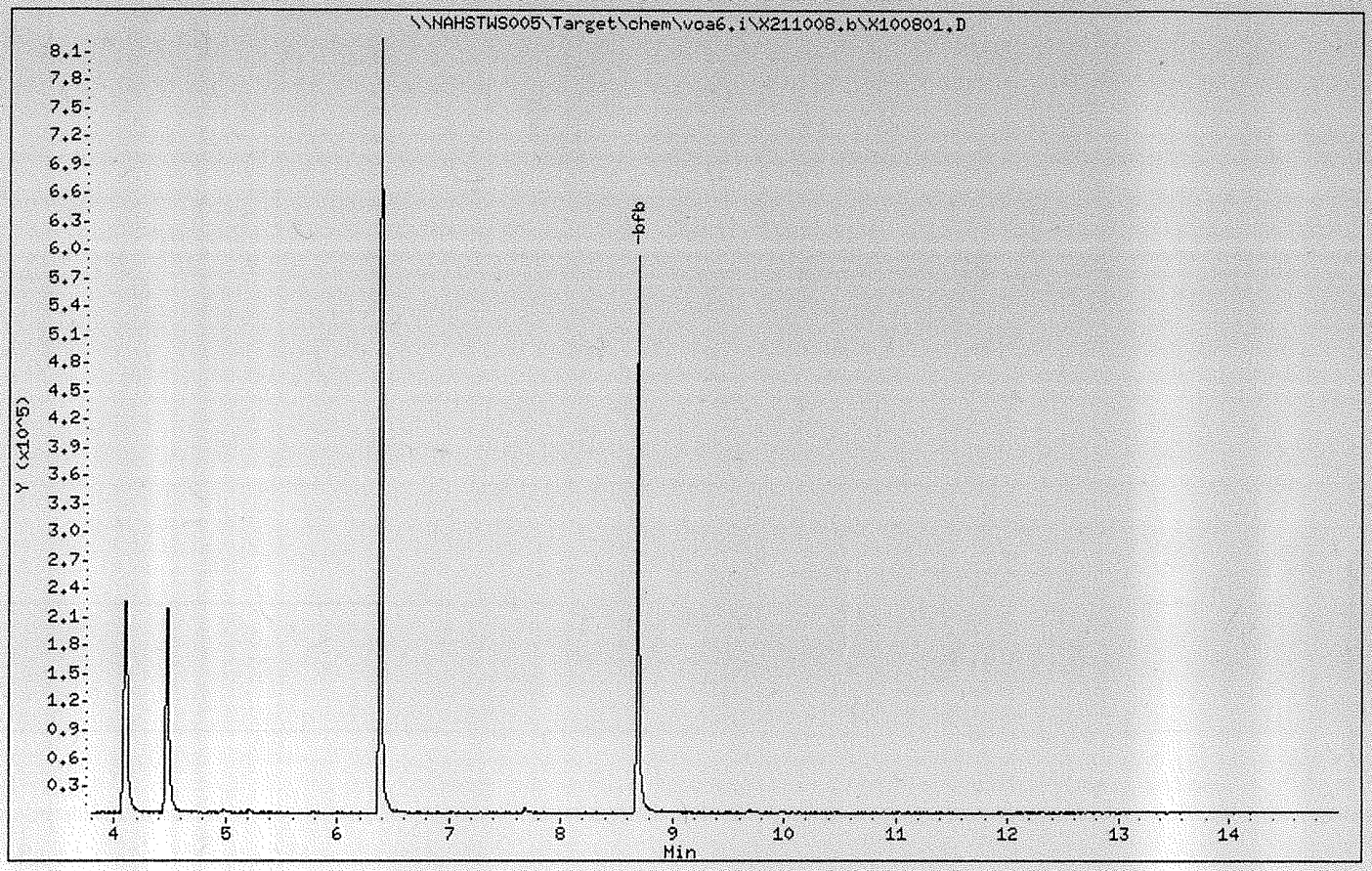
Date : 08-OCT-2021 12:47

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100801.D Page 2

Date : 08-OCT-2021 12:47

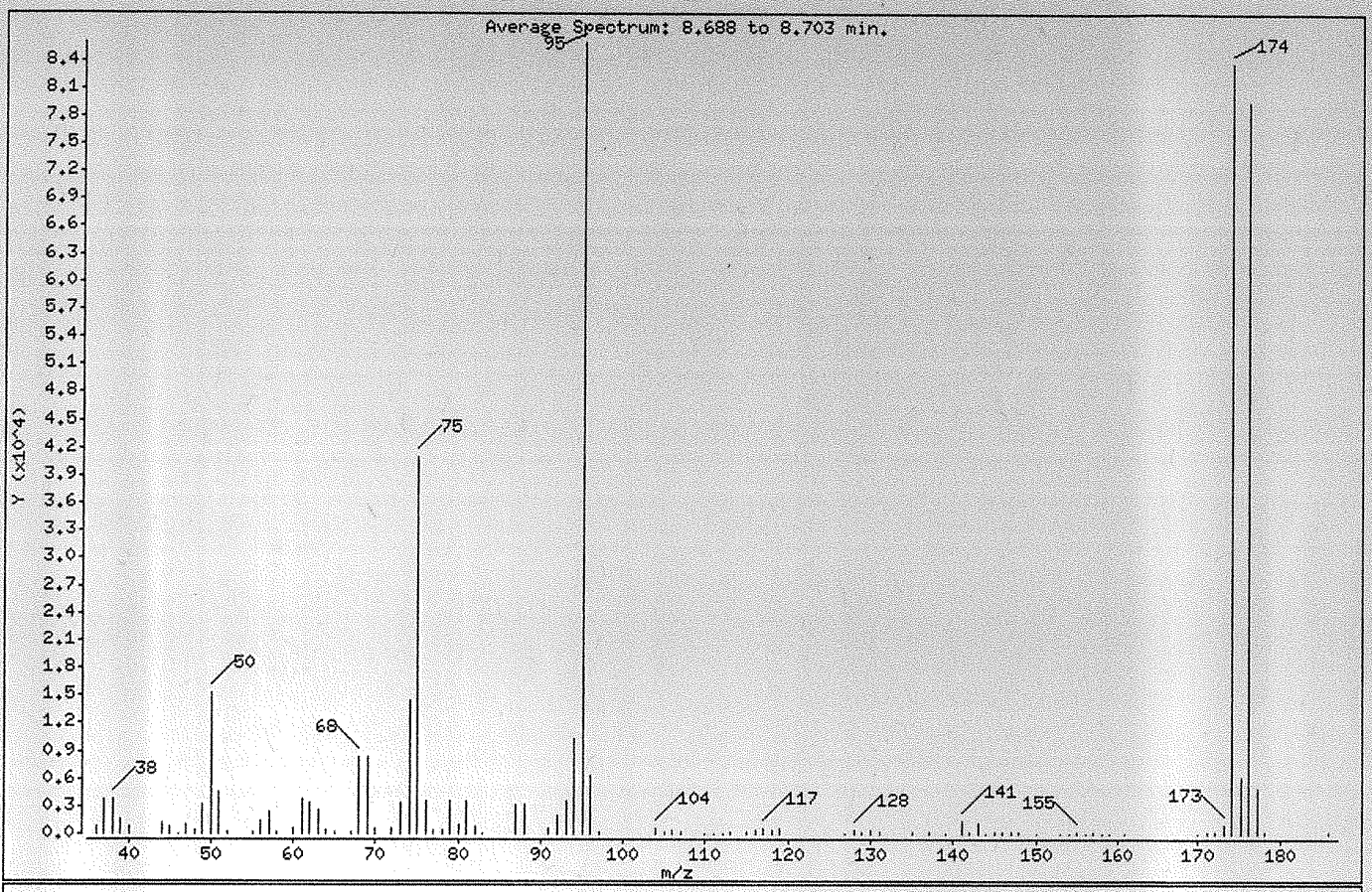
Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.71
75	30.00 - 60.00% of mass 95	47.69
96	5.00 - 9.00% of mass 95	7.32
173	Less than 2.00% of mass 174	1.20 (1.23)
174	Greater than 50.00% of mass 95	97.43
175	5.00 - 9.00% of mass 174	7.05 (7.23)
176	95.00 - 101.00% of mass 174	92.59 (95.04)
177	5.00 - 9.00% of mass 176	5.83 (6.29)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100801.D Page 3

Date : 08-OCT-2021 12:47

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: X100801.D
Spectrum: Average Spectrum: 8.688 to 8.703 min.
Location of Maximum: 95.00
Number of points: 97

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	721	68.00	8366	105.00	192	146.00	142
37.00	3717	69.00	8247	106.00	438	147.00	134
38.00	3771	70.00	615	107.00	141	148.00	289
39.00	1498	72.00	610	110.00	76	150.00	47
40.00	771	73.00	3268	111.00	49	153.00	46
44.00	1225	74.00	14376	112.00	54	154.00	53
45.00	737	75.00	40960	113.00	150	155.00	276
46.00	93	76.00	3492	115.00	122	156.00	53
47.00	941	77.00	424	116.00	377	157.00	170
48.00	494	78.00	347	117.00	538	158.00	19
49.00	3152	79.00	3638	118.00	436	159.00	95
50.00	15214	80.00	1045	119.00	531	161.00	42
51.00	4568	81.00	3579	127.00	20	170.00	84
52.00	226	82.00	724	128.00	342	171.00	114
55.00	222	83.00	48	129.00	164	172.00	273
56.00	1360	87.00	3265	130.00	318	173.00	1029
57.00	2449	88.00	3096	131.00	136	174.00	83672
58.00	103	91.00	525	135.00	216	175.00	6051
60.00	630	92.00	2021	137.00	140	176.00	79520
61.00	3789	93.00	3470	139.00	44	177.00	5006
62.00	3324	94.00	10275	141.00	1339	178.00	134
63.00	2658	95.00	85880	142.00	123	186.00	131
64.00	410	96.00	6283	143.00	1219		
65.00	116	97.00	107	144.00	57		
67.00	212	104.00	516	145.00	106		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D Page 1
Report Date: 12-Nov-2021 13:19

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Lab Smp Id: VSTD000.25 Client Smp ID: VSTD000.25
Inj Date : 08-OCT-2021 13:08
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.25;VSTD000.25;1;1;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 13:19 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 13:08 Cal File: X100802.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

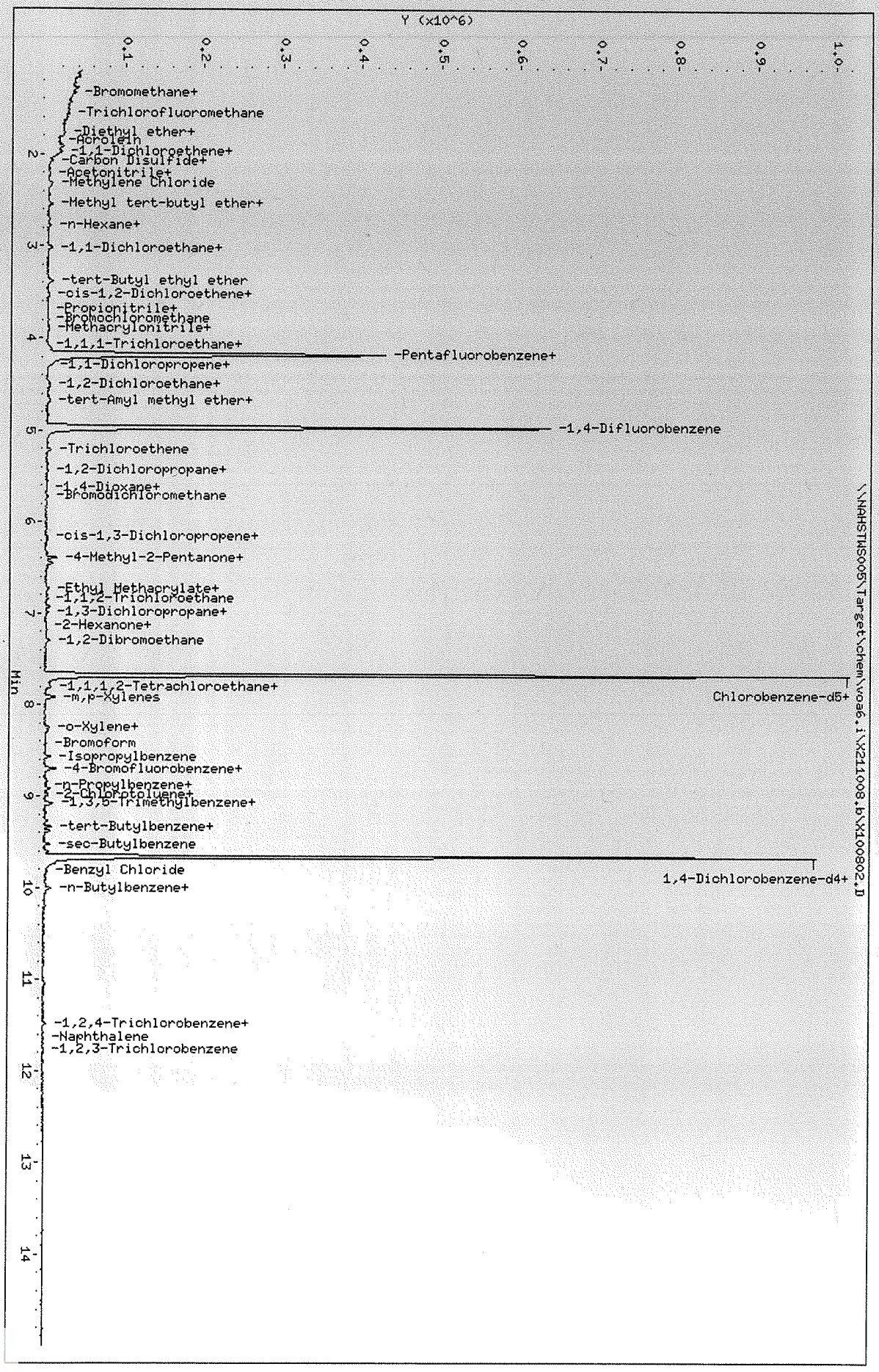
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	361573	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	549183	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	504808	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	236339	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	2269	0.25000	(a)
$ 35 1,2-Dichloroethane-d4	65	4.490	4.490	(1.074)	3143	0.25000	(Ta)
$ 48 Toluene-d8	98	6.395	6.395	(0.834)	8062	0.25000	0.62(aM)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	6096	0.25000	0.05(a)
11 1,1-Dichloroethene	96	1.918	1.918	(0.459)	1039	0.25000	0.32(a)
33 1,2-Dichloroethane	62	4.569	4.569	(0.921)	1501	0.25000	0.32(a)
27 cis-1,2-Dichloroethene	96	3.544	3.544	(0.848)	1215	0.25000	0.32(a)
17 Methylene Chloride	84	2.312	2.312	(0.553)	2242	0.25000	(a)
53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	1010	0.25000	0.37(a)
38 Trichloroethene	130	5.213	5.213	(1.051)	1791	0.25000	0.43(aM)
5 Vinyl Chloride	62	1.145	1.145	(0.274)	1292	0.25000	0.34(aM)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

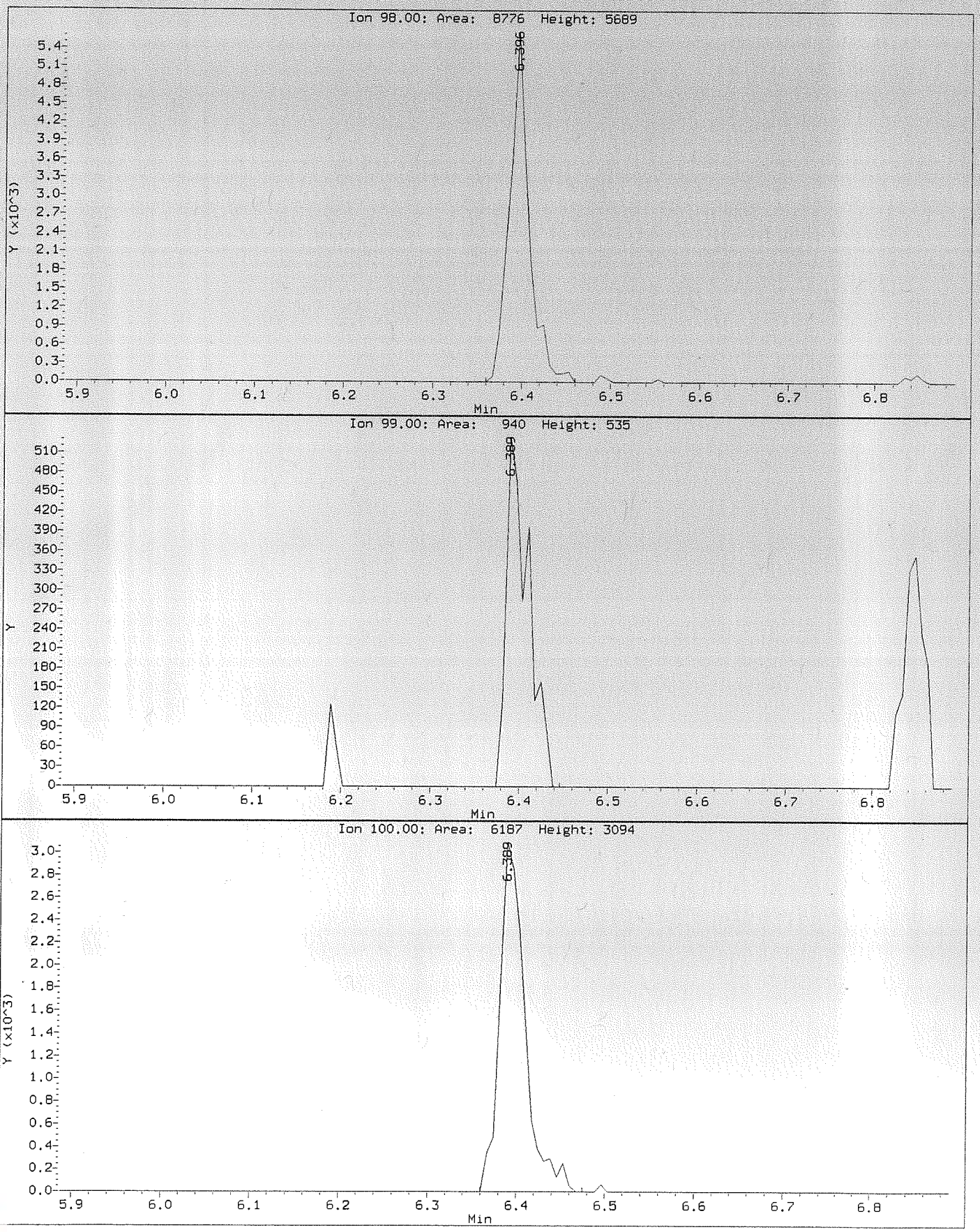


Data File: \\NAHSTMS005\Target\chem\voa6.i\X211008.b\X100802.D
Date : 08-OCT-2021 13:08
Client ID: VSTD000.25
Sample Info: VSTD000.25;VSTD000.25;1;1;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Toluene-d8
CAS Number: 2037-26-5



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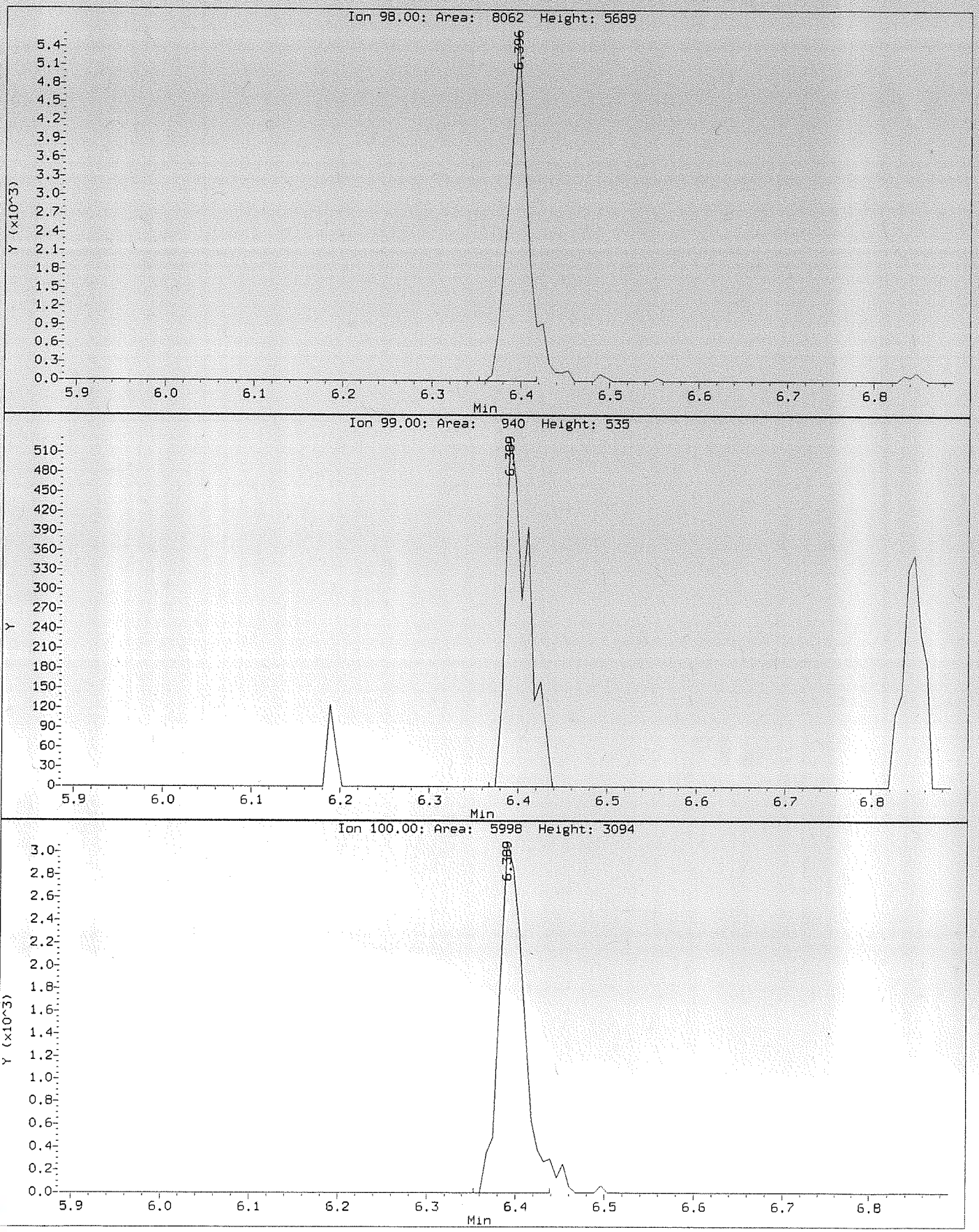
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Toluene-d8
CAS Number: 2037-26-5



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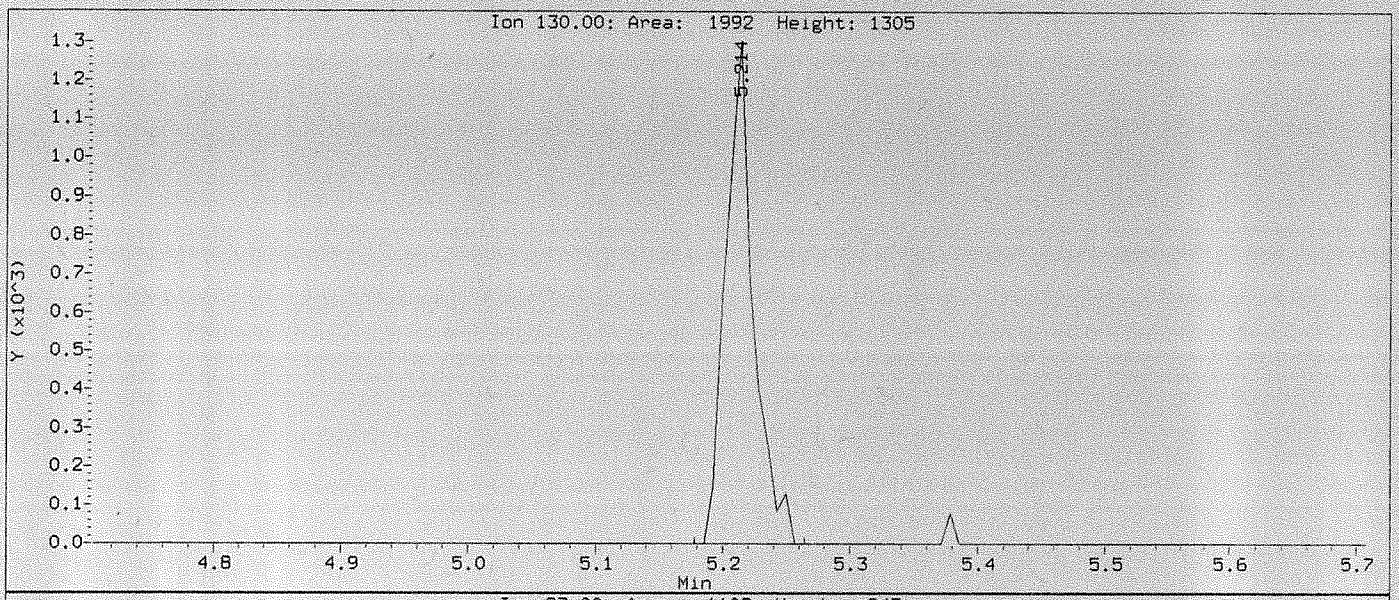
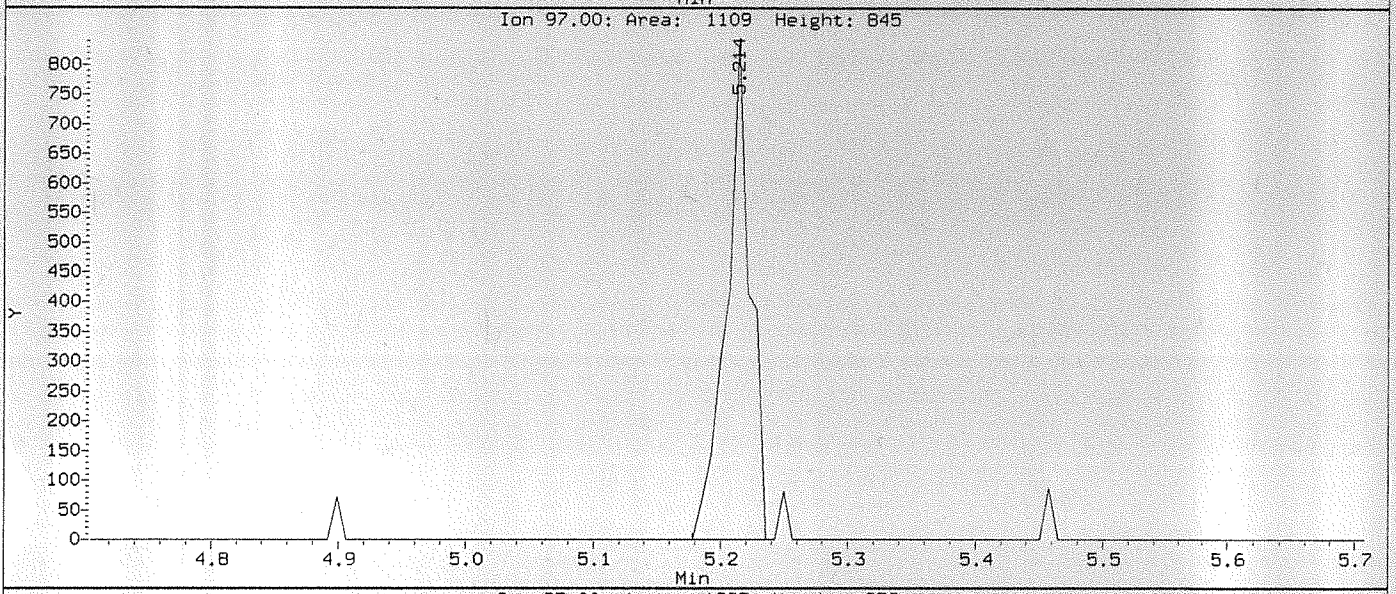
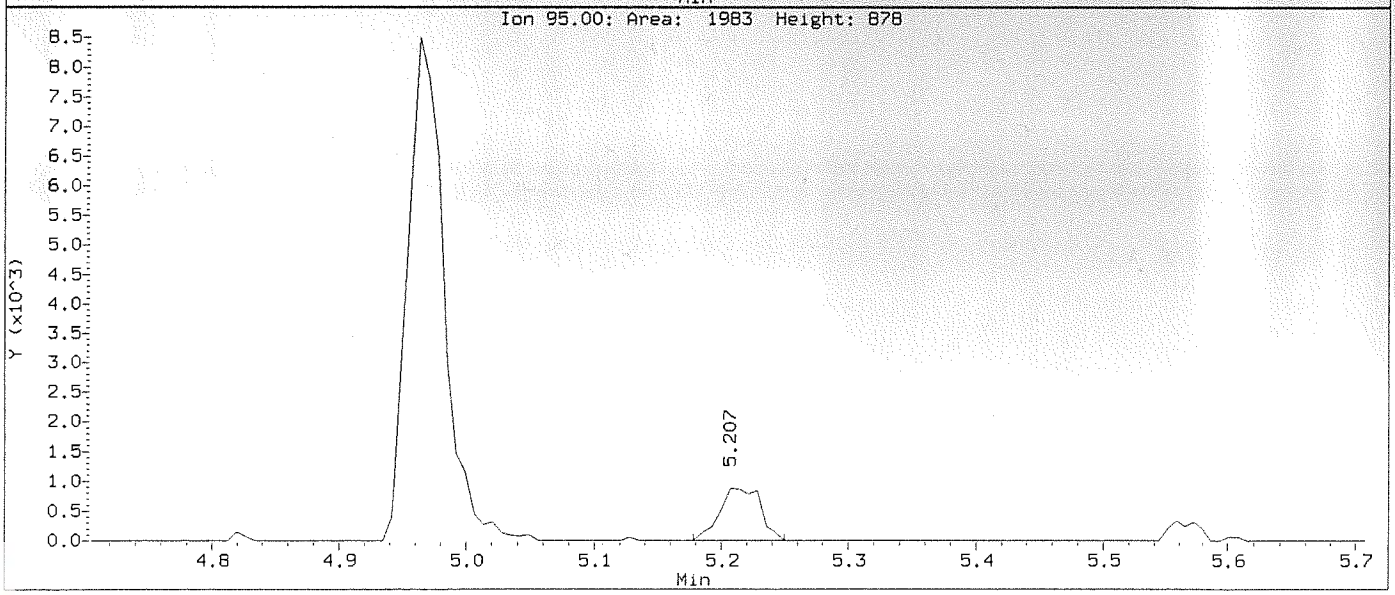
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Trichloroethene
CAS Number: 79-01-6

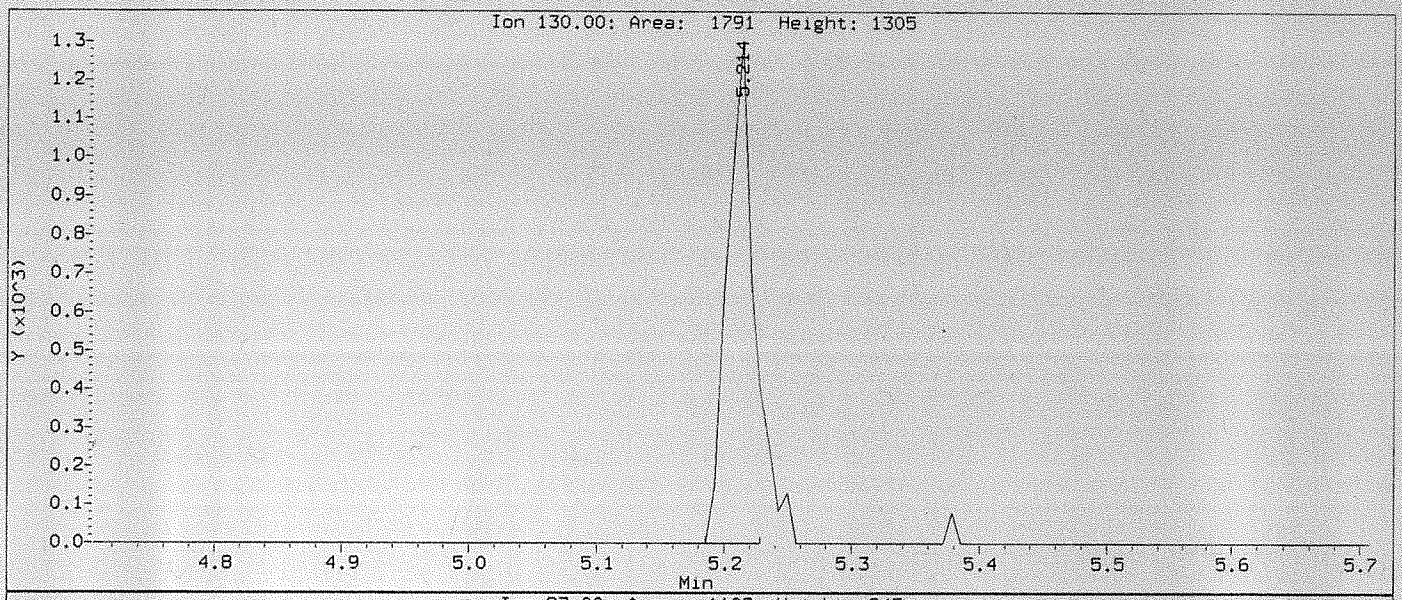


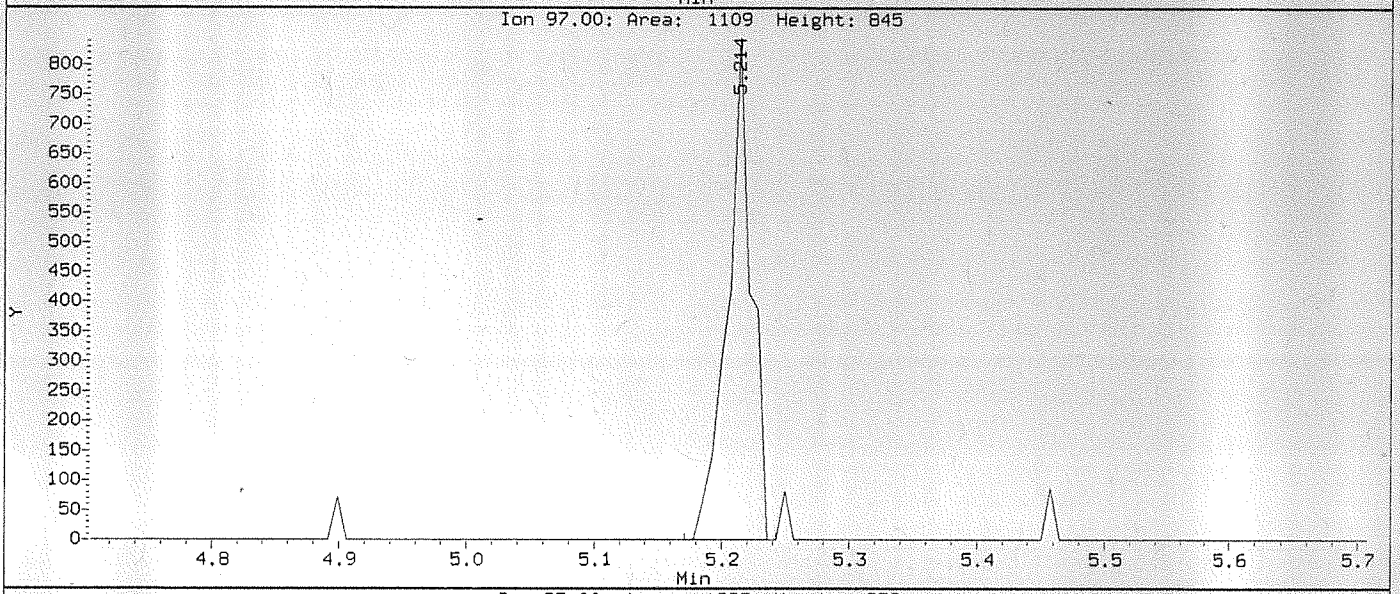


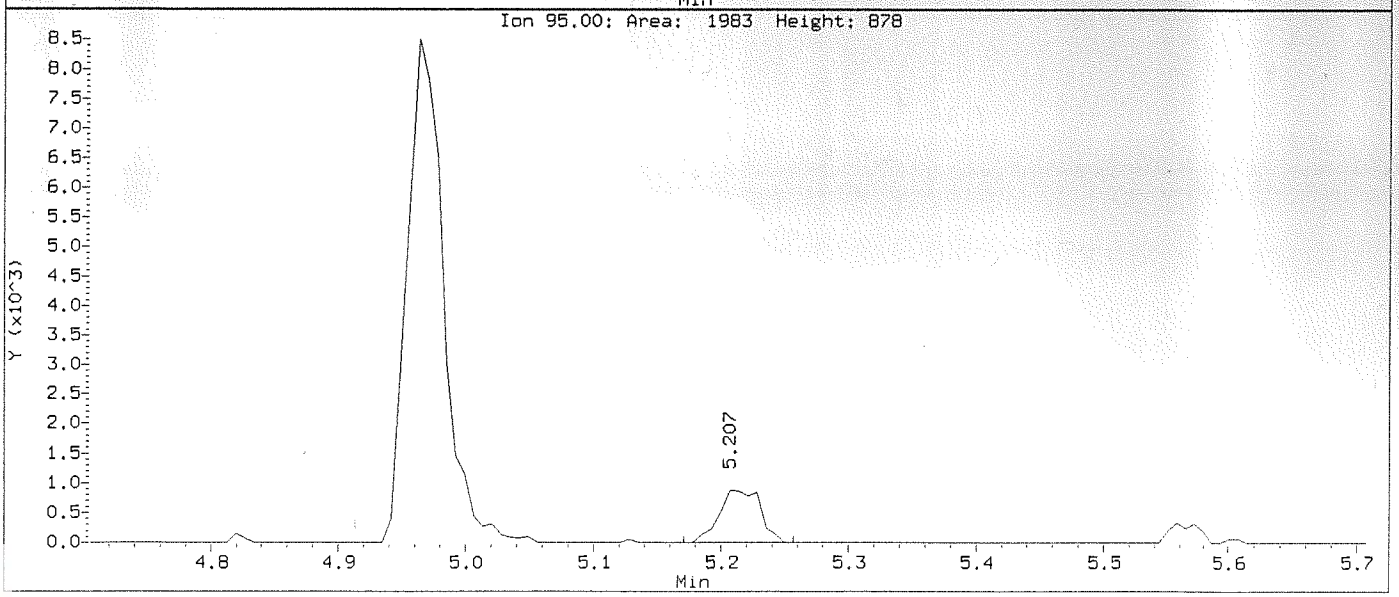


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Trichloroethene
CAS Number: 79-01-6

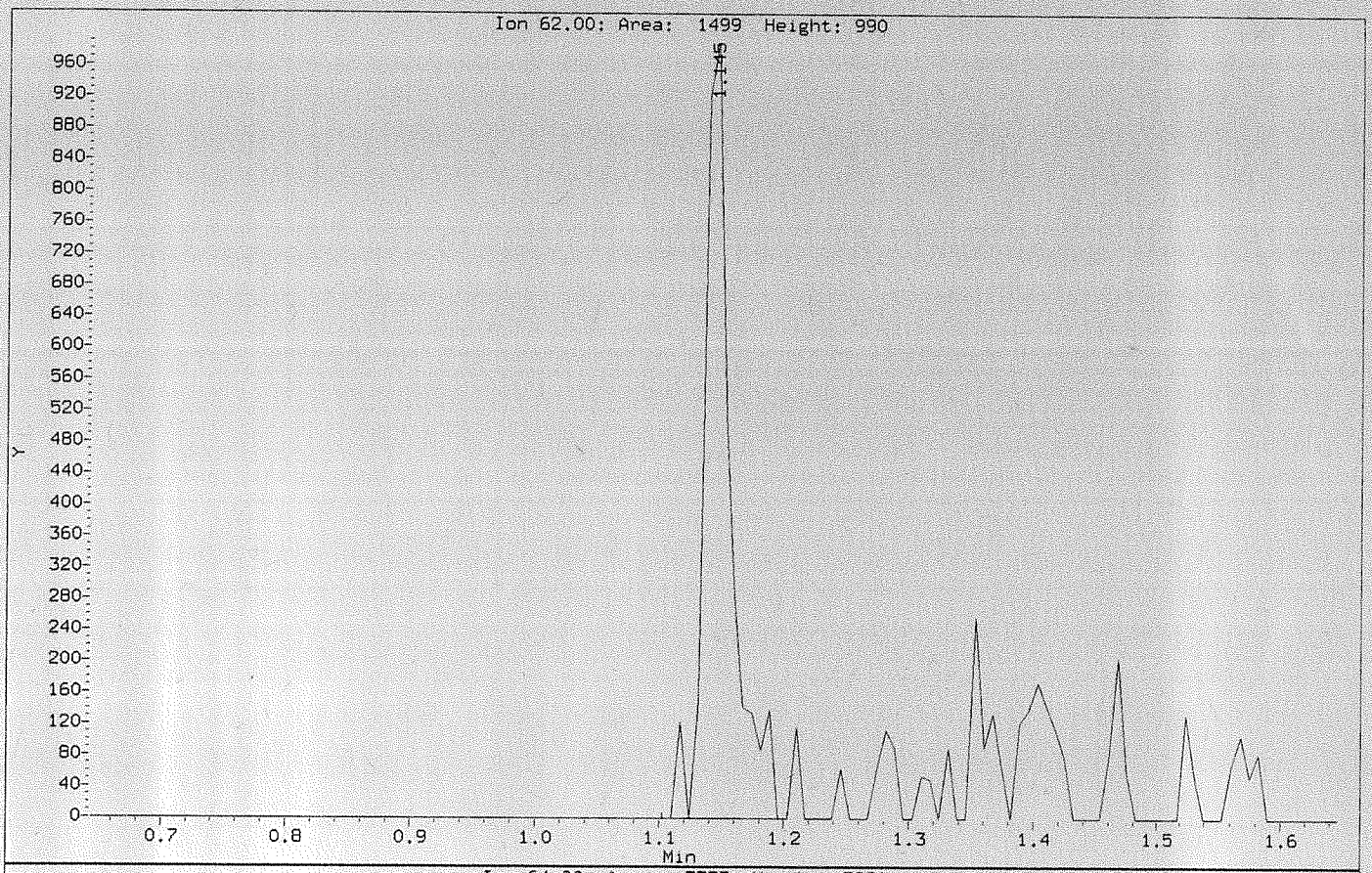


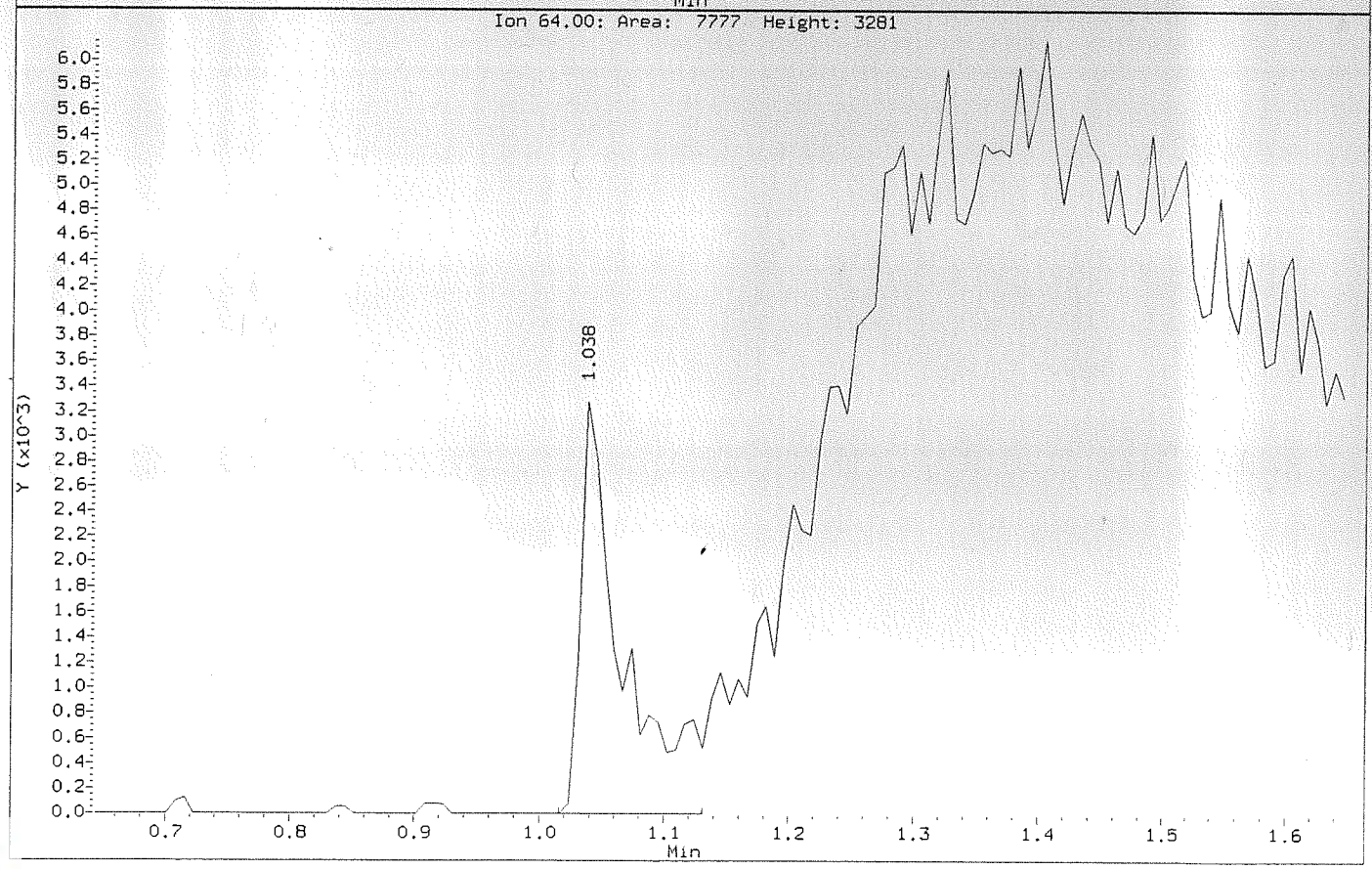




Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Vinyl Chloride
CAS Number: 75-01-4





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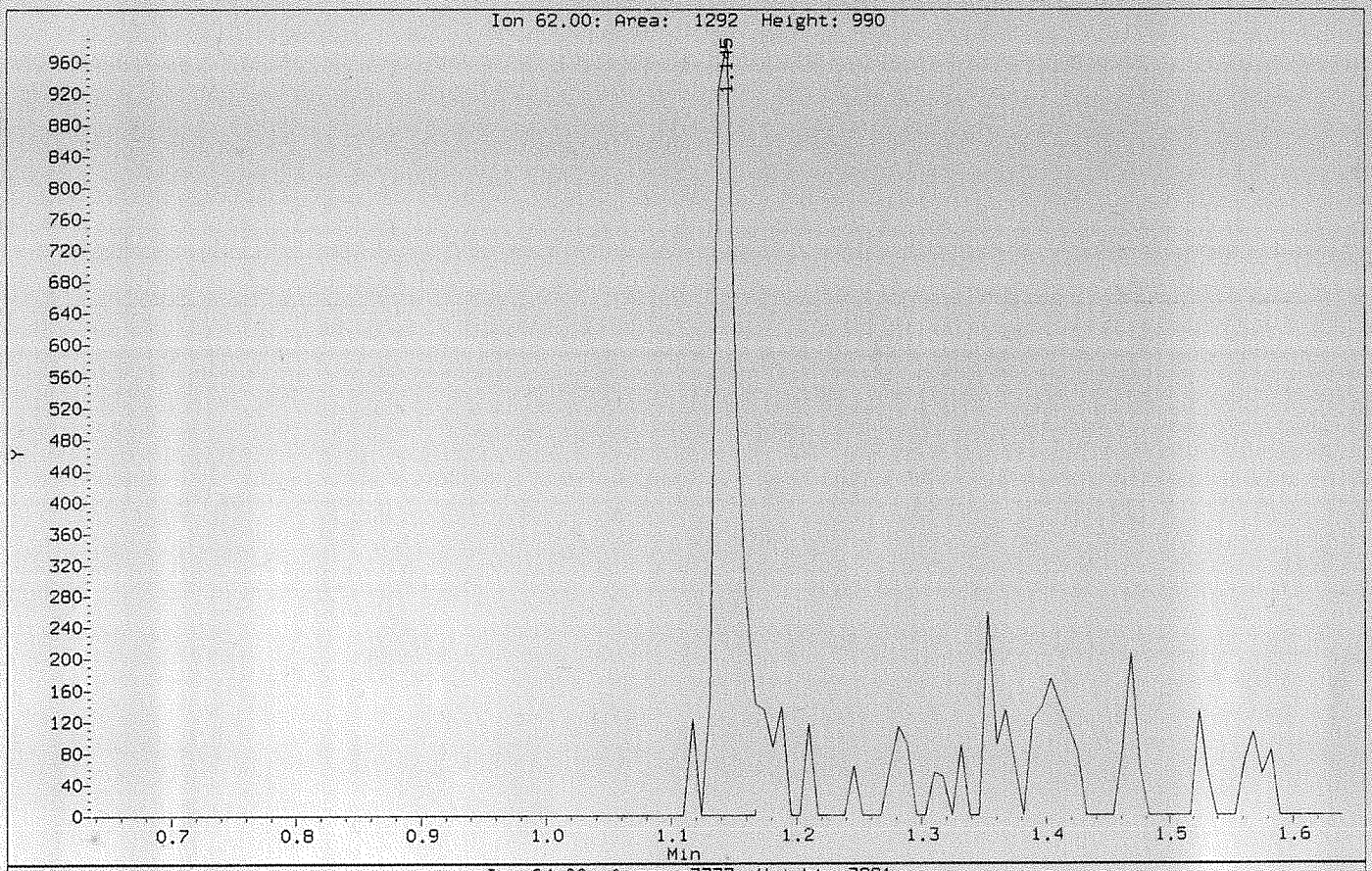
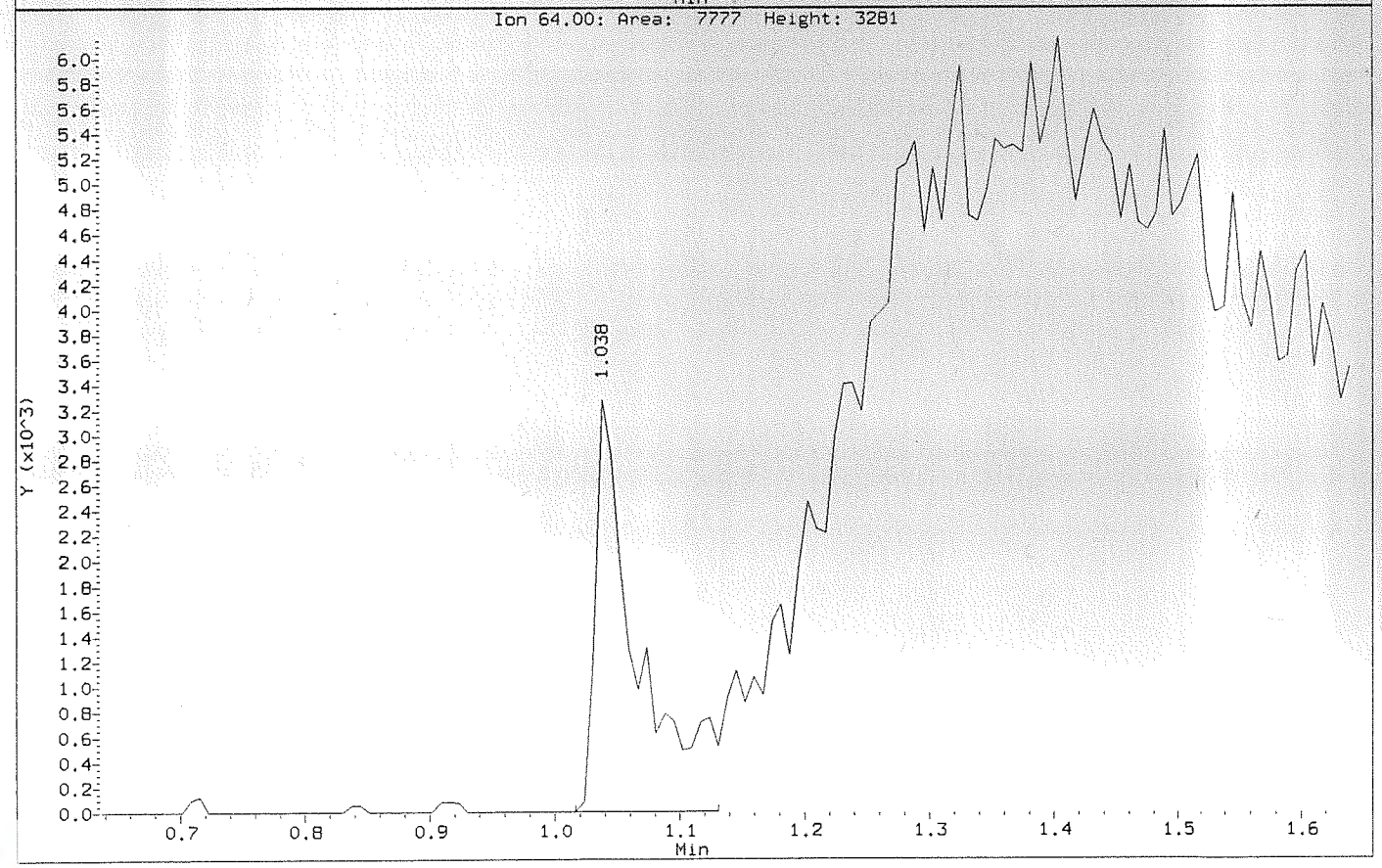
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Vinyl Chloride
CAS Number: 75-01-4





Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D Page 1
Report Date: 12-Nov-2021 13:19

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Lab Smp Id: VSTD000.5 Client Smp ID: VSTD000.5
Inj Date : 08-OCT-2021 13:50
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.5;VSTD000.5;1;2;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 13:19 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 13:08 Cal File: X100802.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

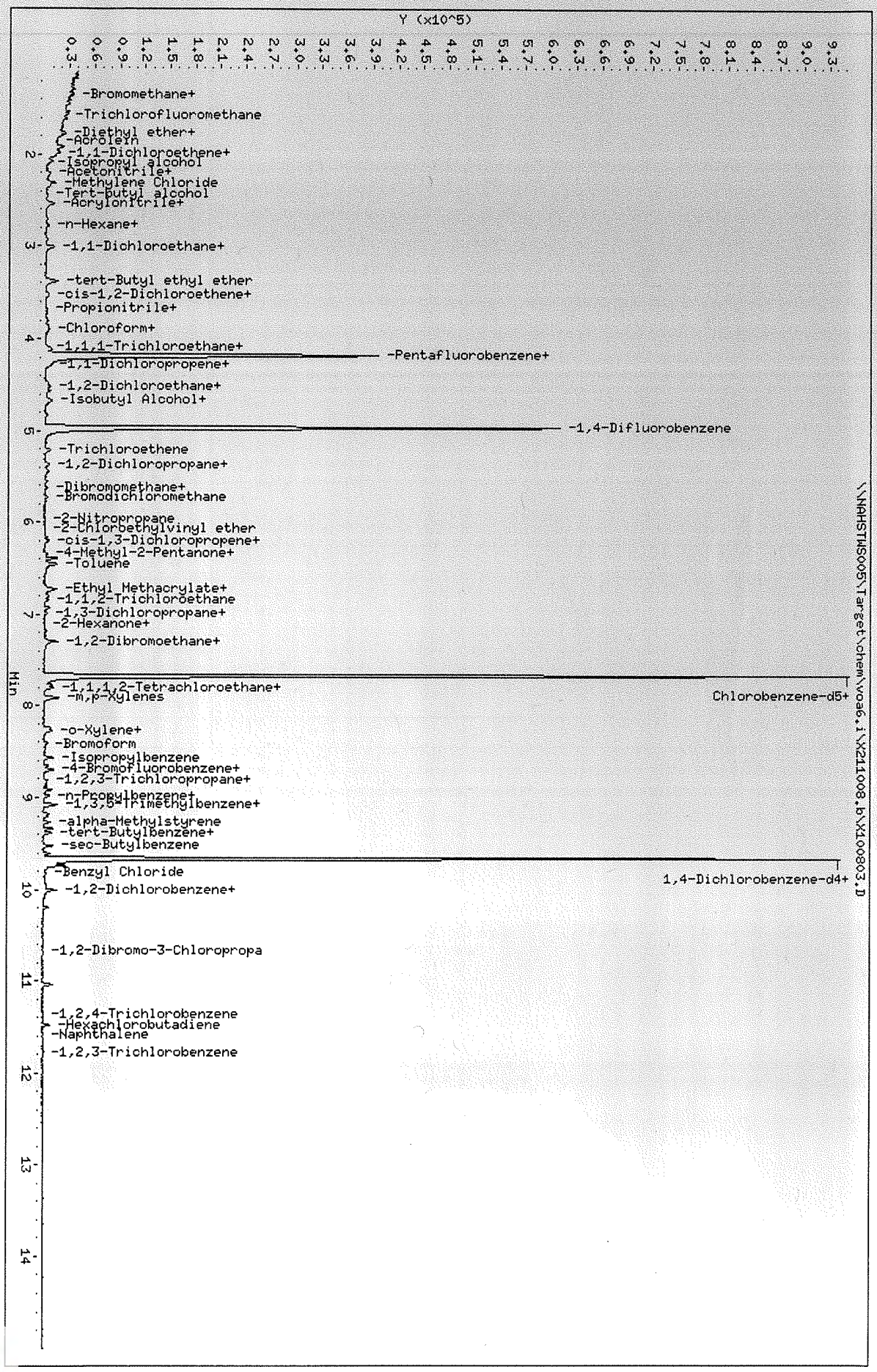
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	331902	50.0000		
$ 30 Dibromofluoromethane	113	4.111	4.111	(0.983)	2999	0.50000		(a)
$ 35 1,2-Dichloroethane-d4	65	4.490	4.490	(1.074)	3361	0.50000		(Ta)
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	519409	50.0000		
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	485516	50.0000		
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	7763	0.50000	0.63	(aM)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	4606	0.50000		(a)
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	222200	50.0000		
5 Vinyl Chloride	62	1.145	1.145	(0.274)	1932	0.50000	0.55	(aM)
11 1,1-Dichloroethene	96	1.926	1.926	(0.461)	1538	0.50000	0.51	(a)
53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	1277	0.50000	0.49	(a)
17 Methylene Chloride	84	2.305	2.305	(0.551)	2444	0.50000		(aM)
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	1575	0.50000	0.45	(a)
33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	2184	0.50000	0.50	(a)
38 Trichloroethene	130	5.214	5.214	(1.051)	2243	0.50000	0.57	(aM)

QC Flag Legend

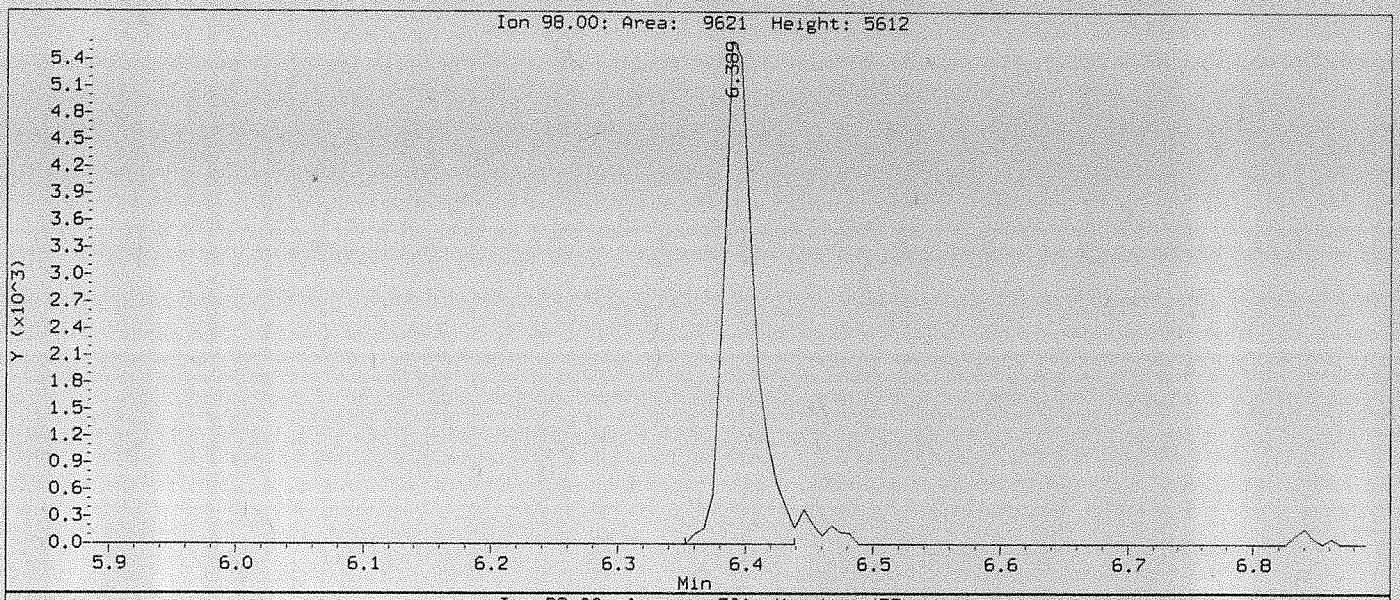
T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

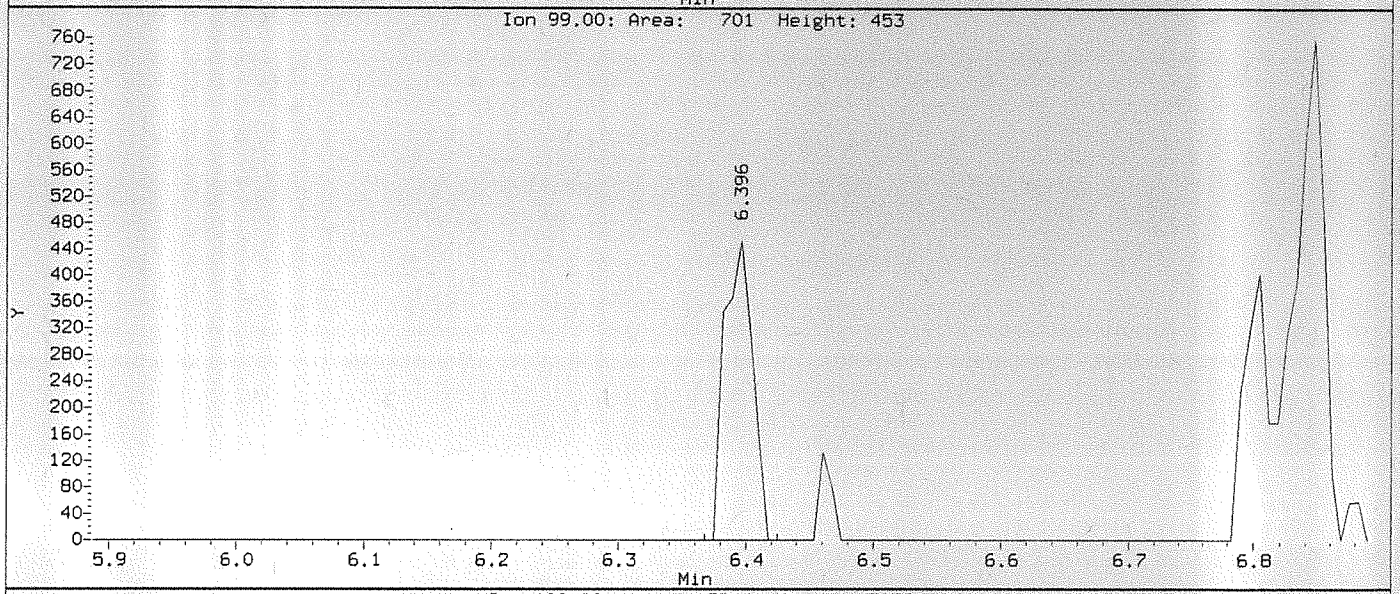


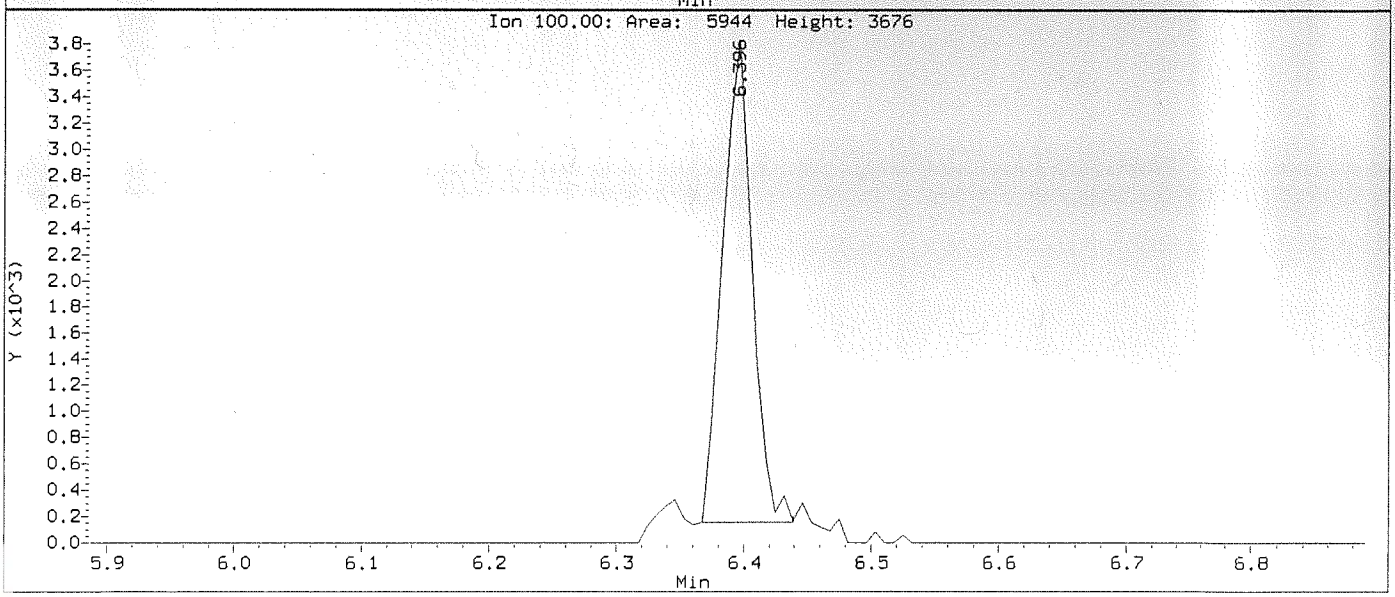
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Date : 08-OCT-2021 13:50
Client ID: VSTD000.5
Instrument: voa6.i
Sample Info: VSTD000.5;VSTD000.5;1;2;;
Purge Volume: 5.0
Operator: PC
Column phase: DB624
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Toluene-d8
CAS Number: 2037-26-5







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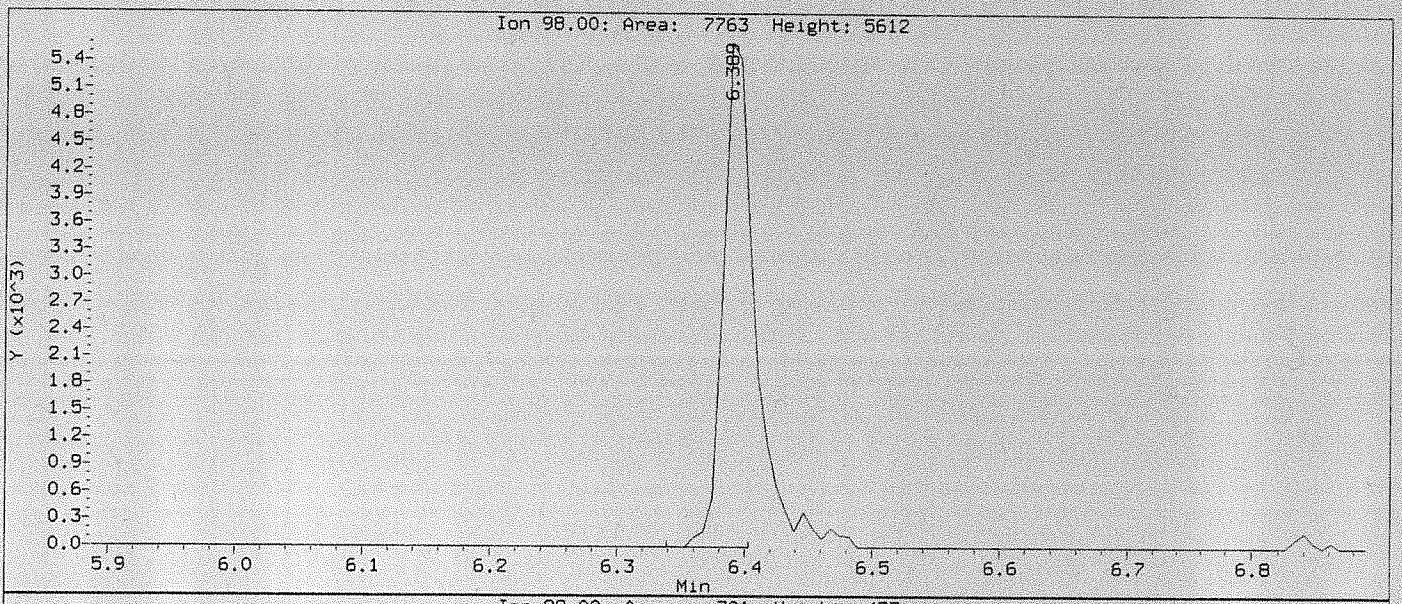
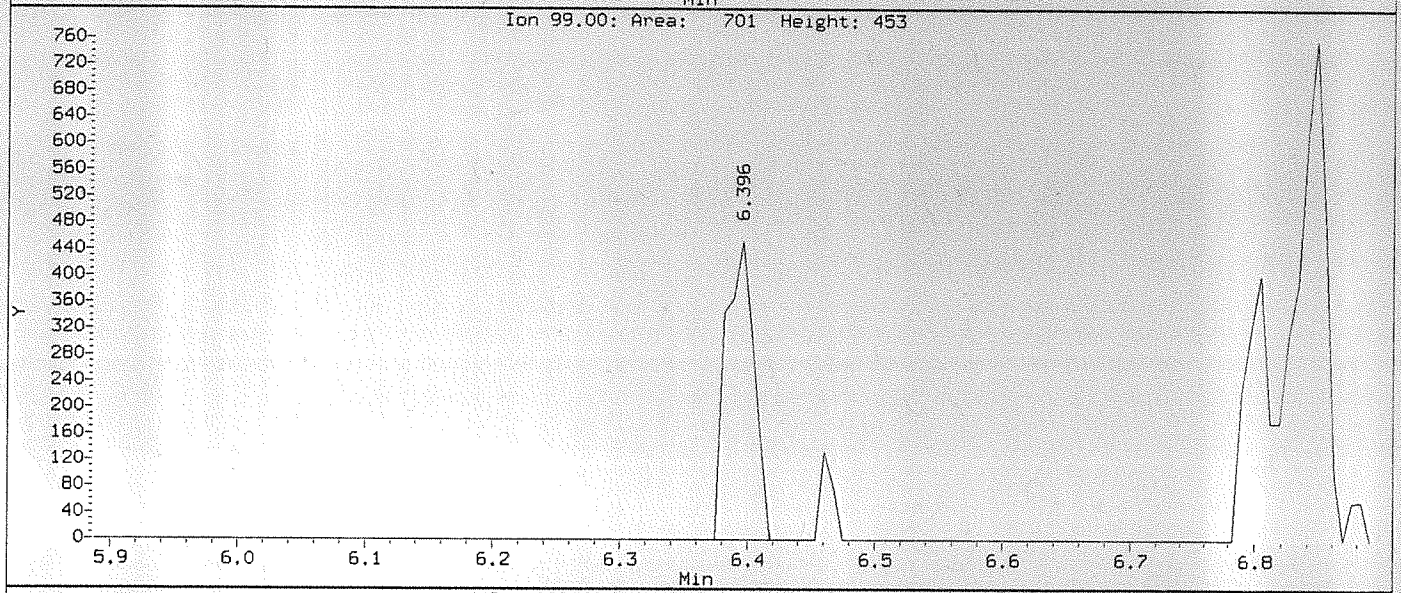
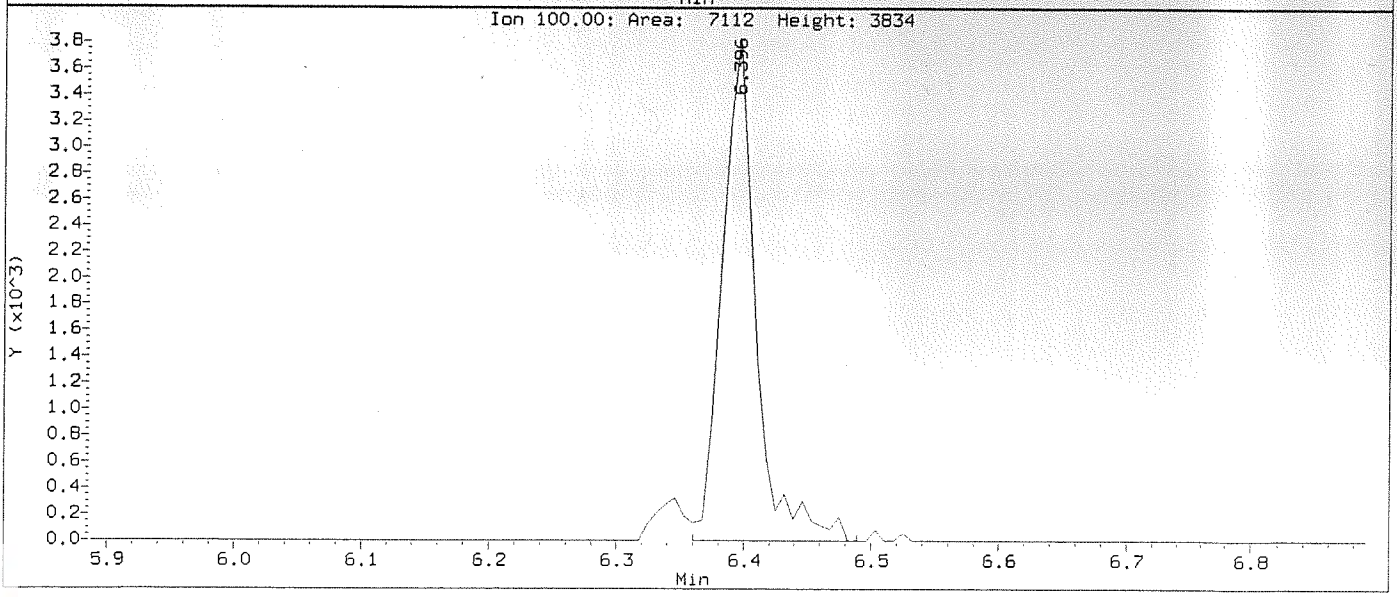
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Toluene-d8
CAS Number: 2037-26-5







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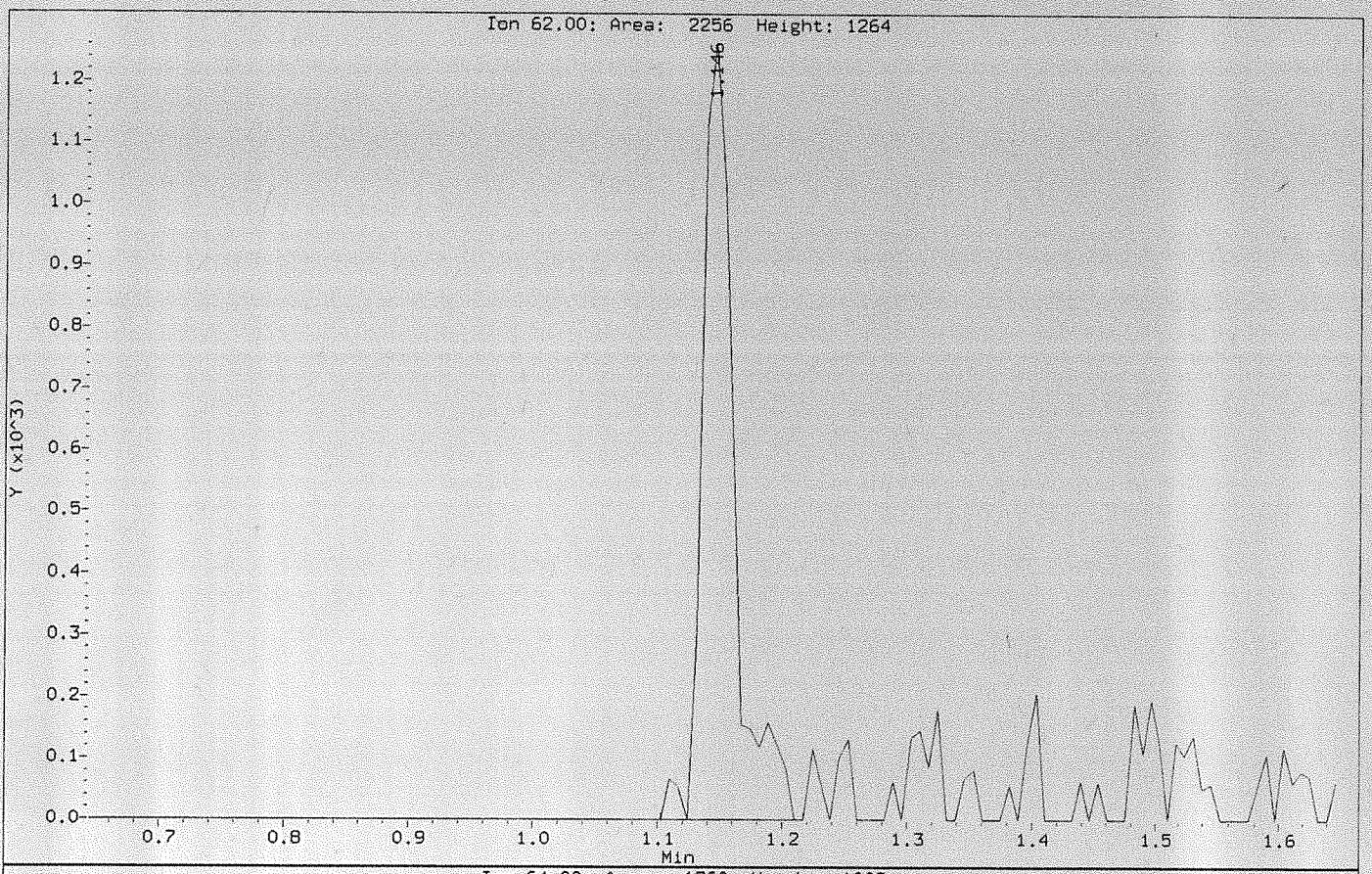
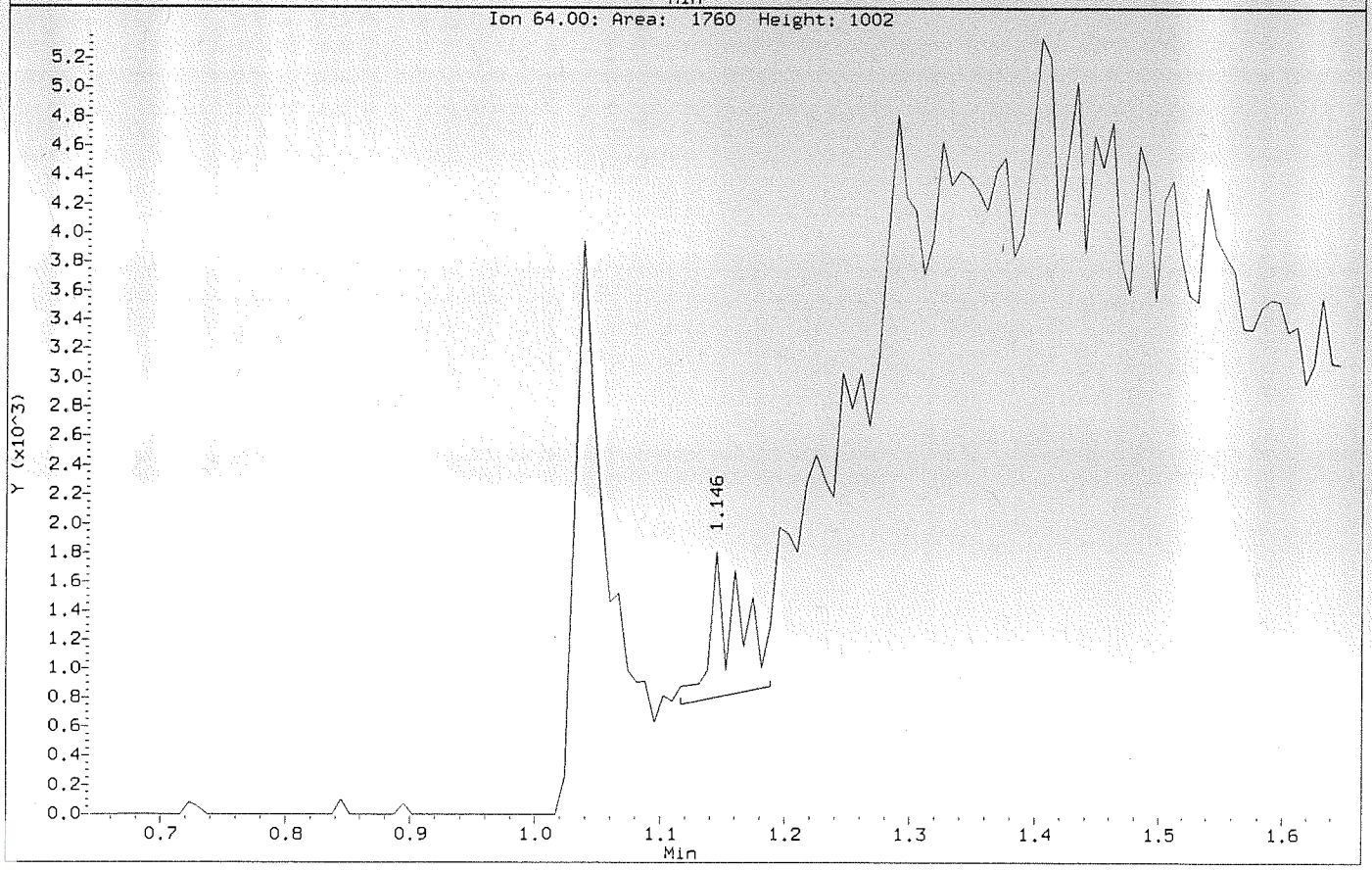
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Vinyl Chloride
CAS Number: 75-01-4





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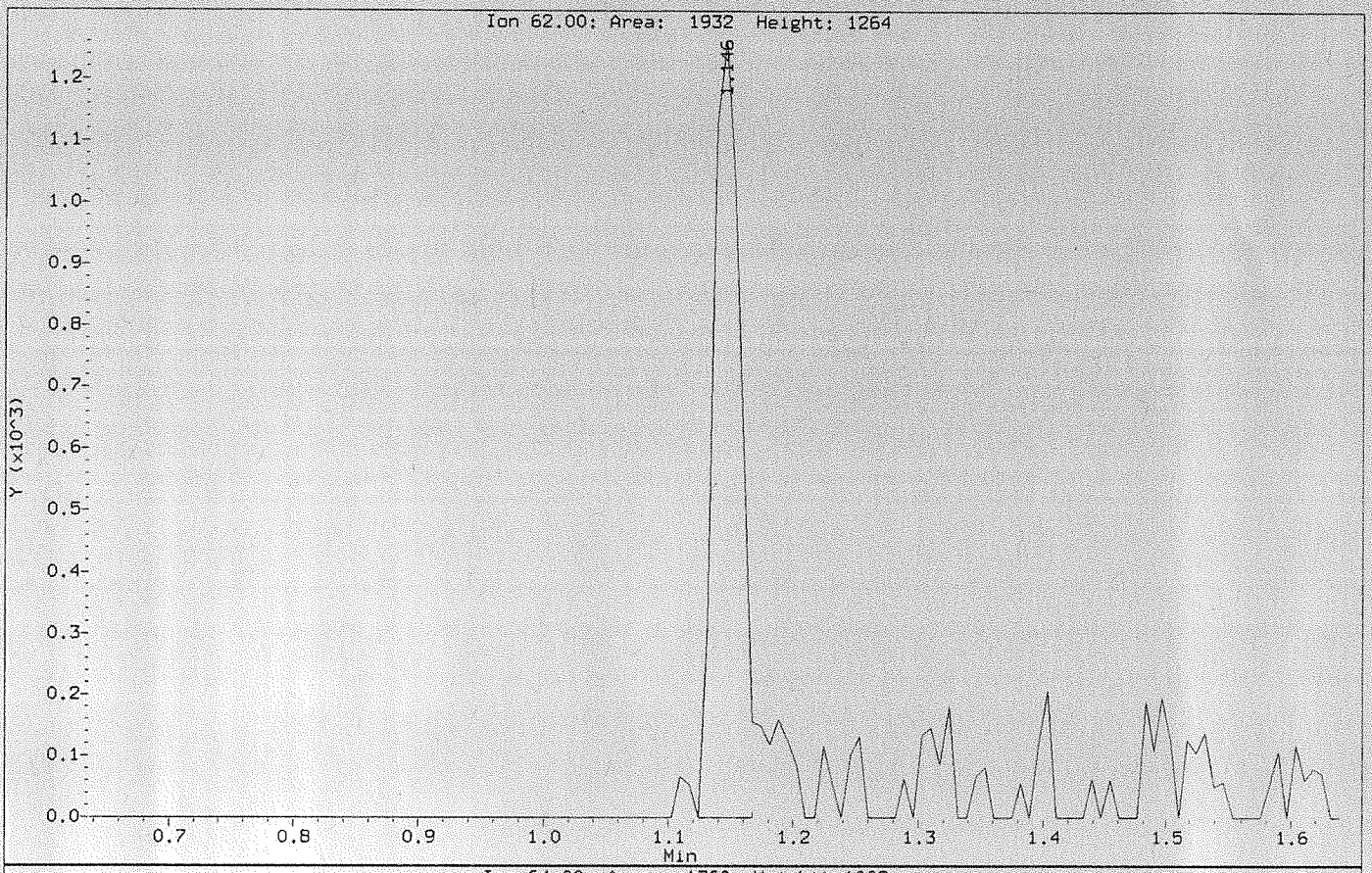
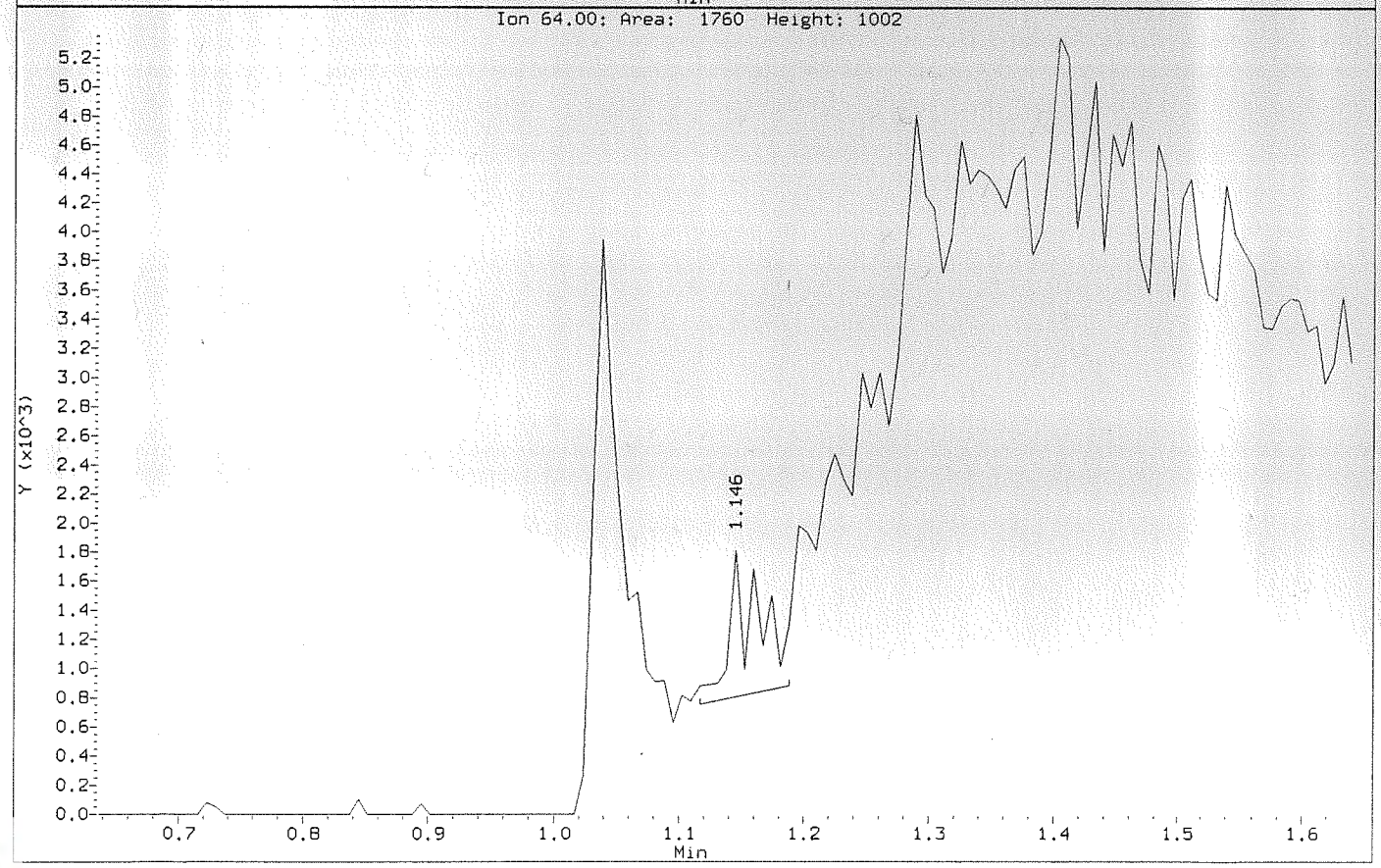
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Vinyl Chloride
CAS Number: 75-01-4





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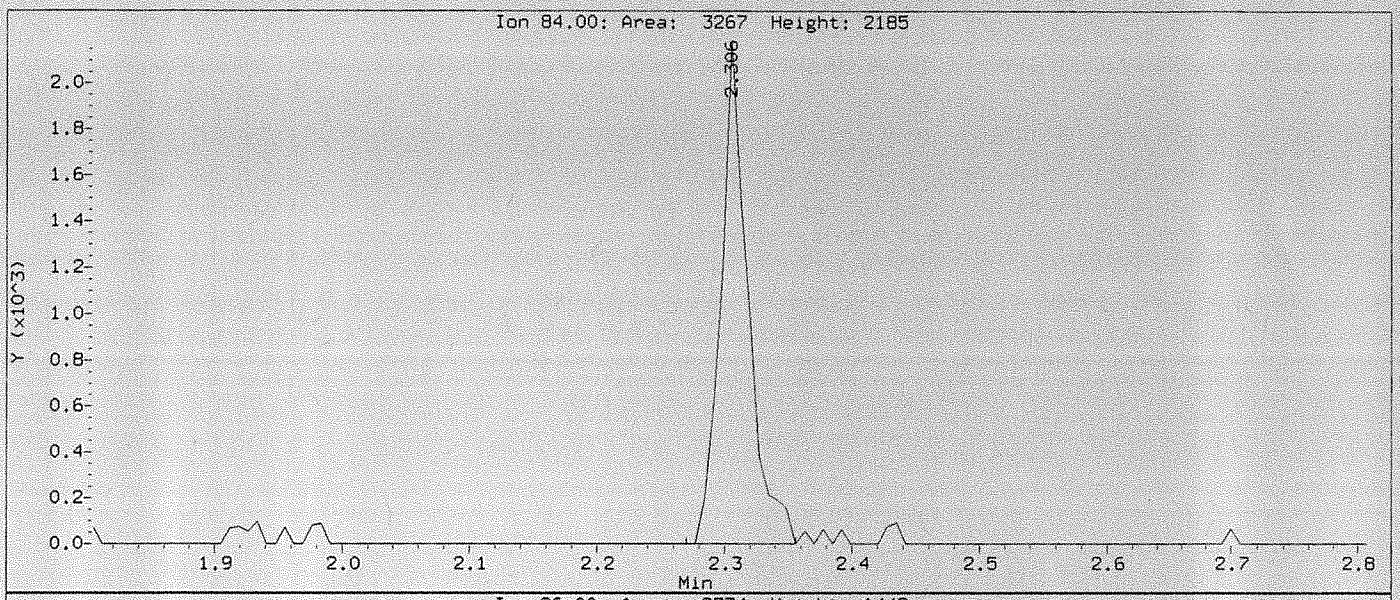
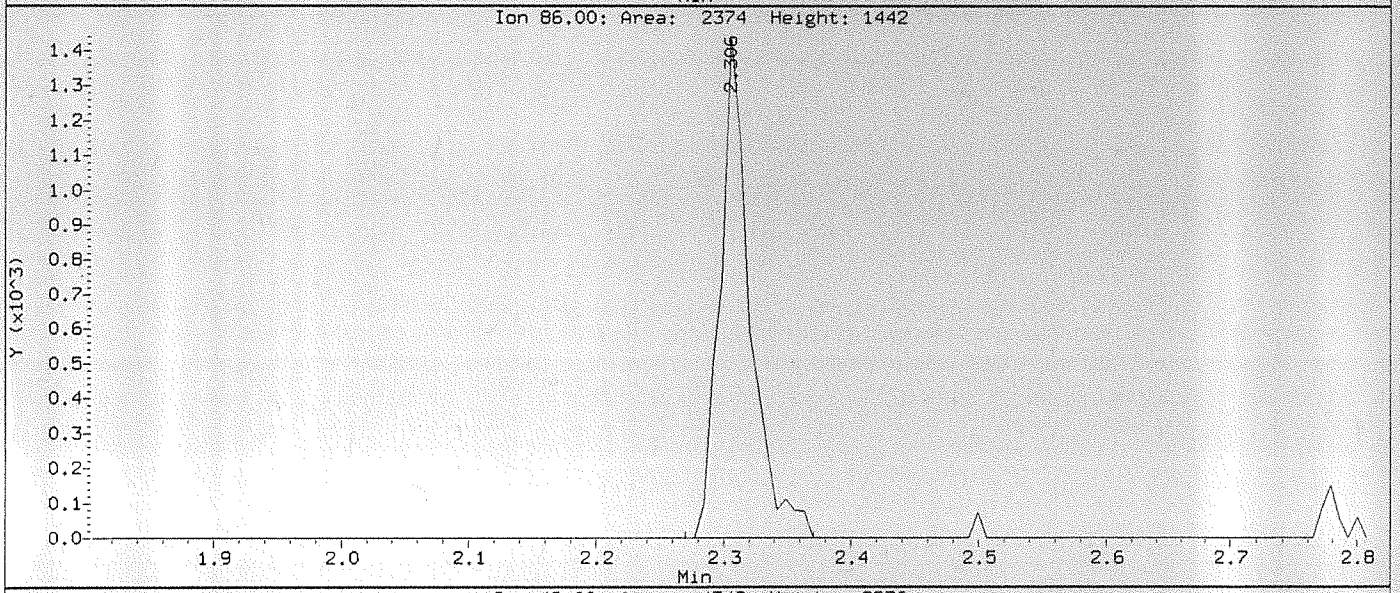
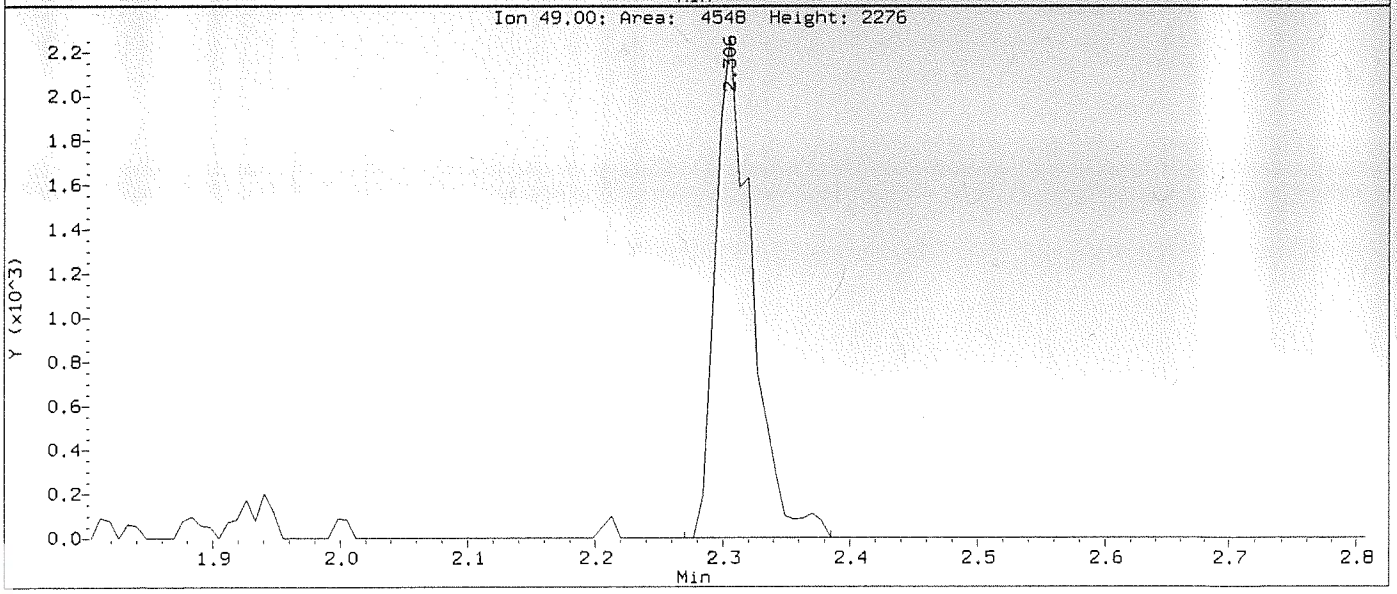
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Methylene Chloride
CAS Number: 75-09-2







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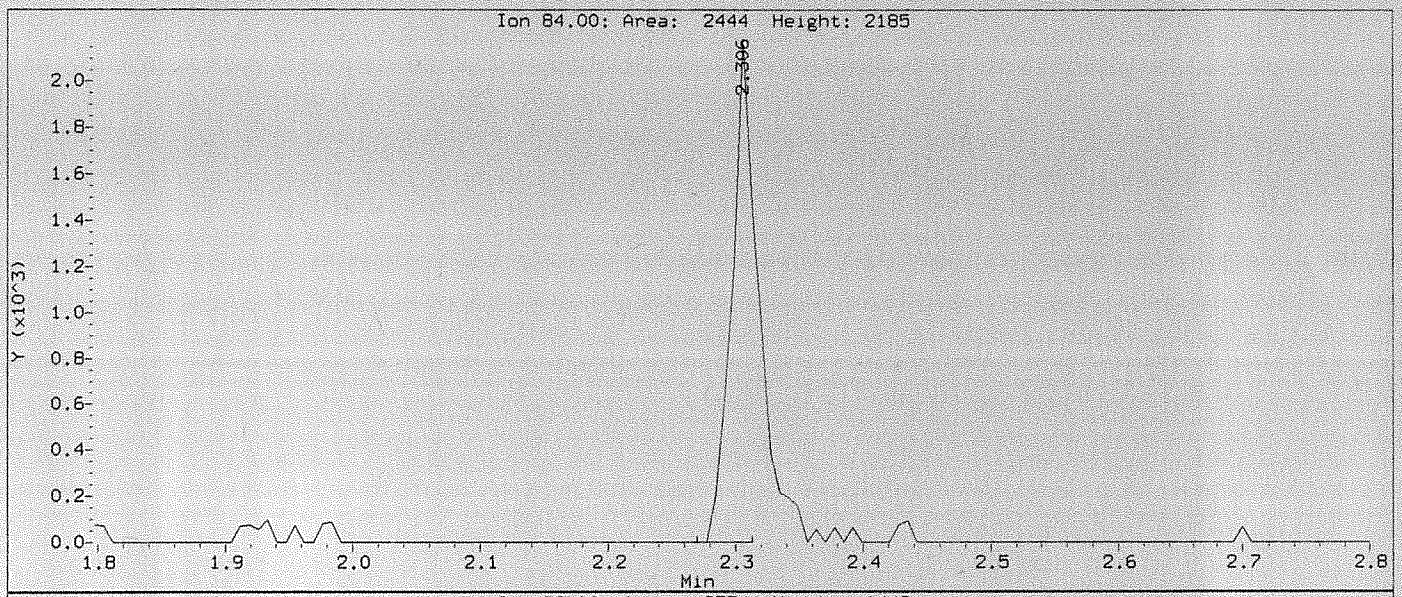
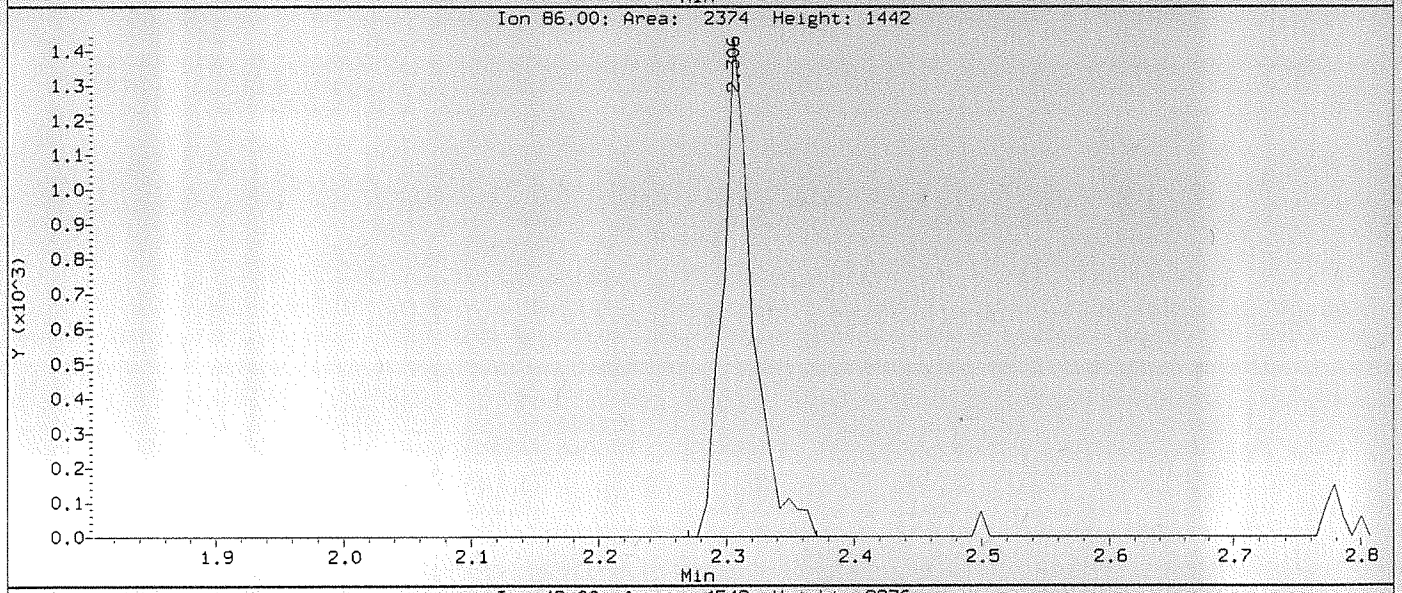
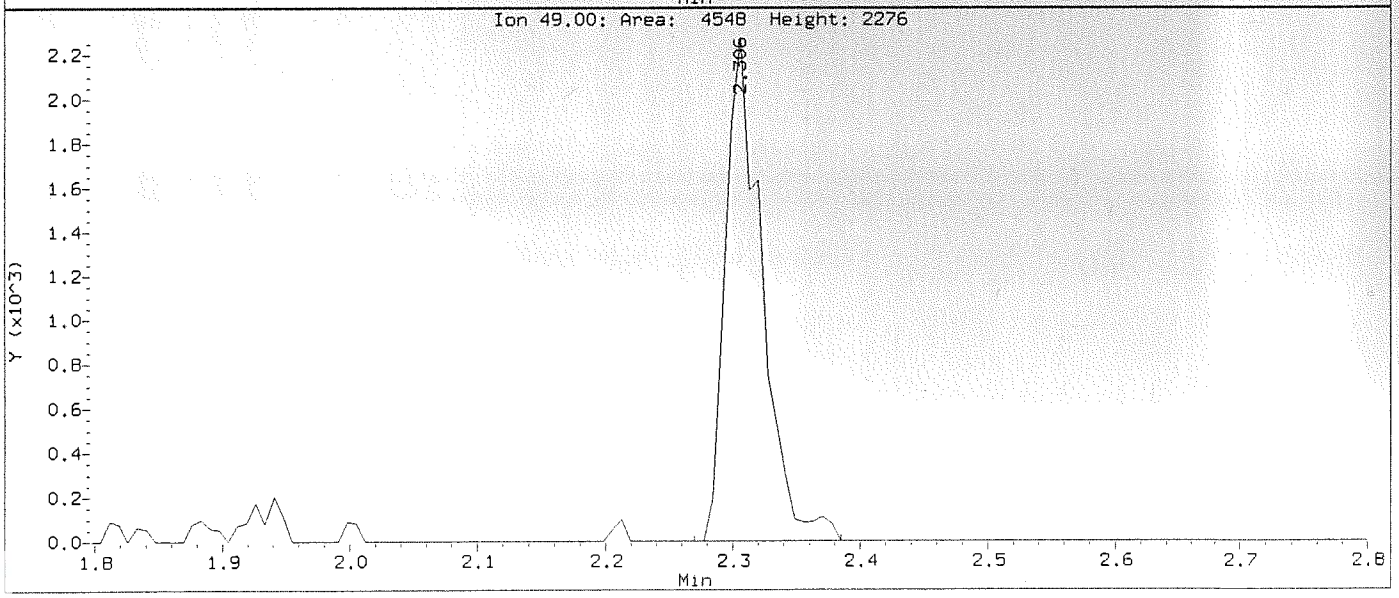
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Methylene Chloride
CAS Number: 75-09-2







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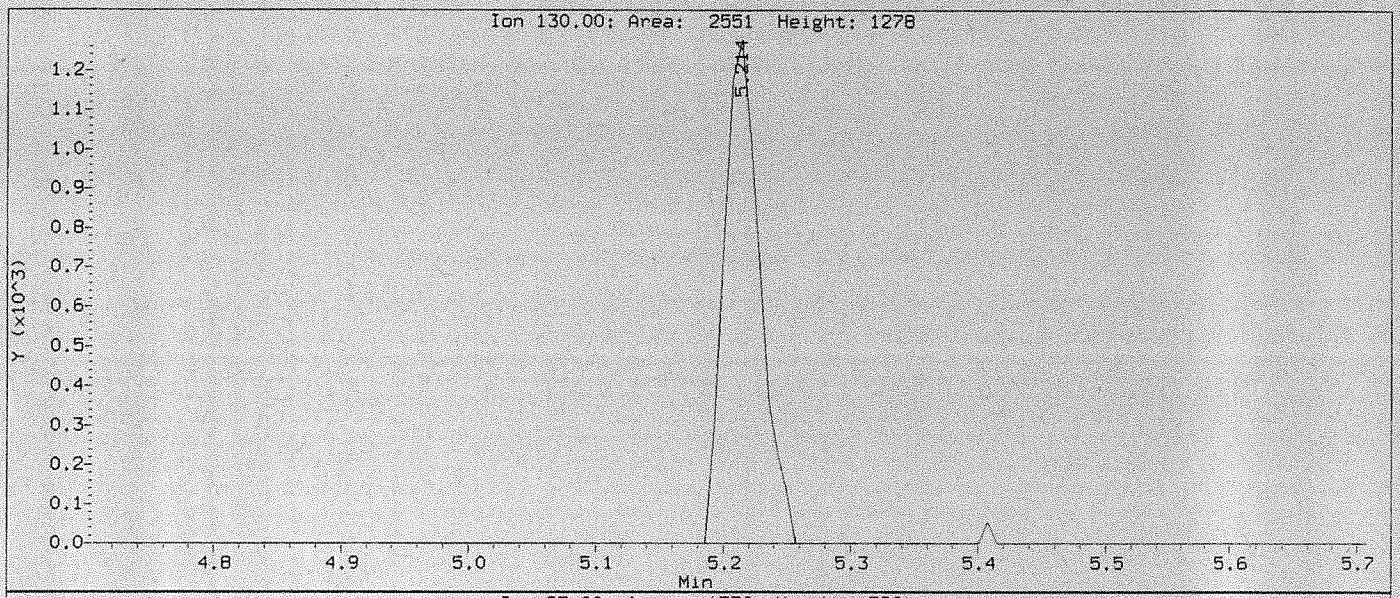
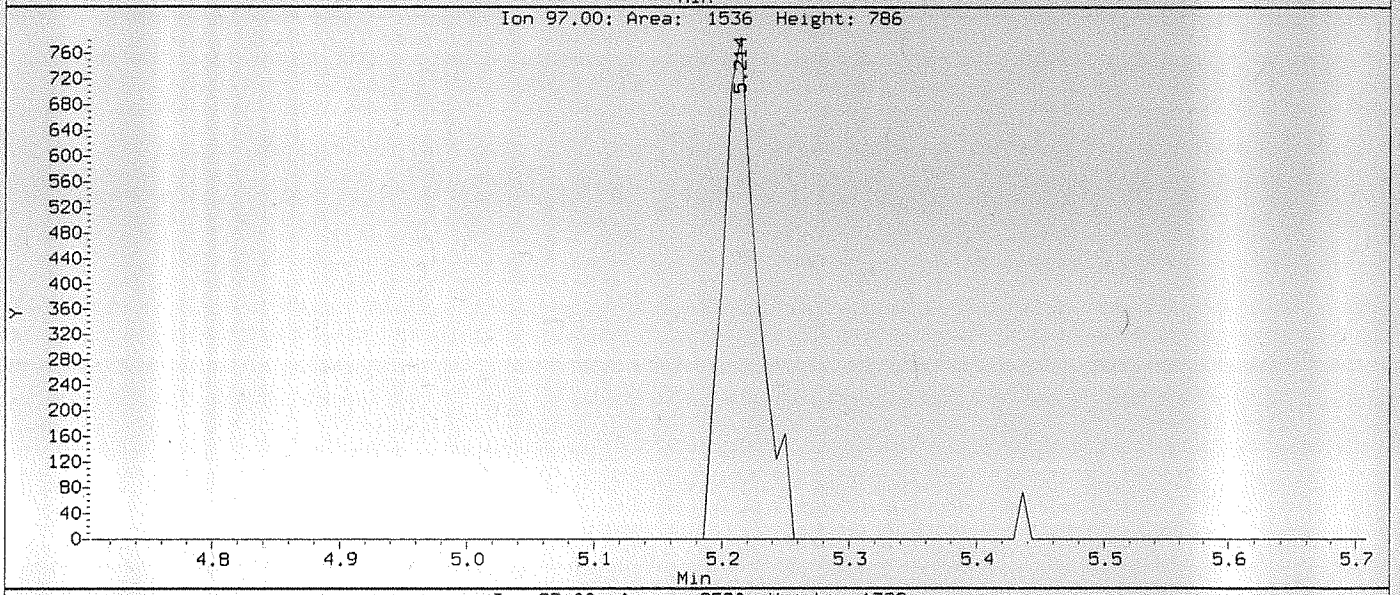
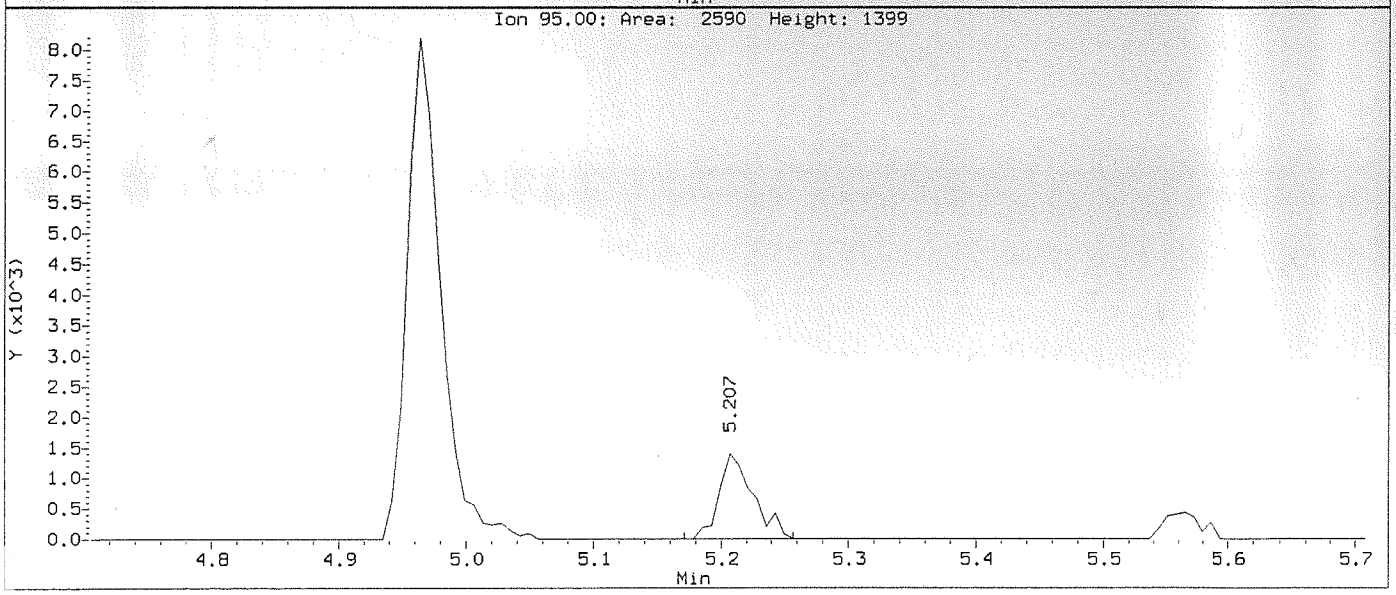
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Trichloroethene
CAS Number: 79-01-6

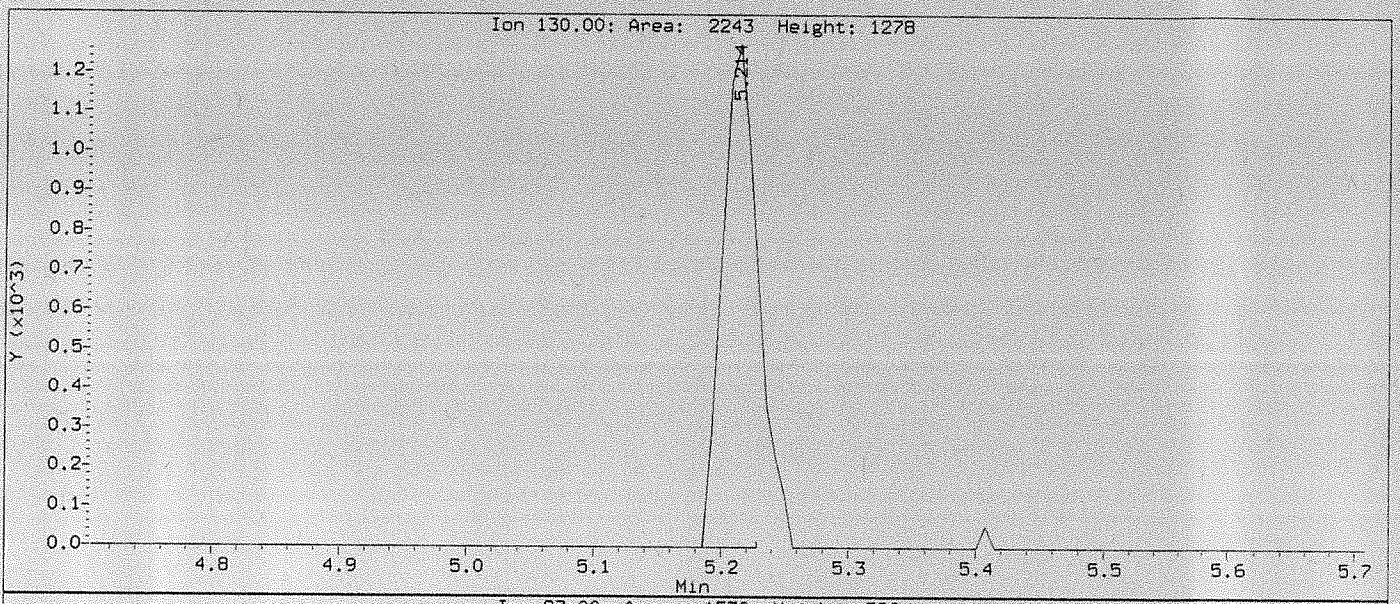


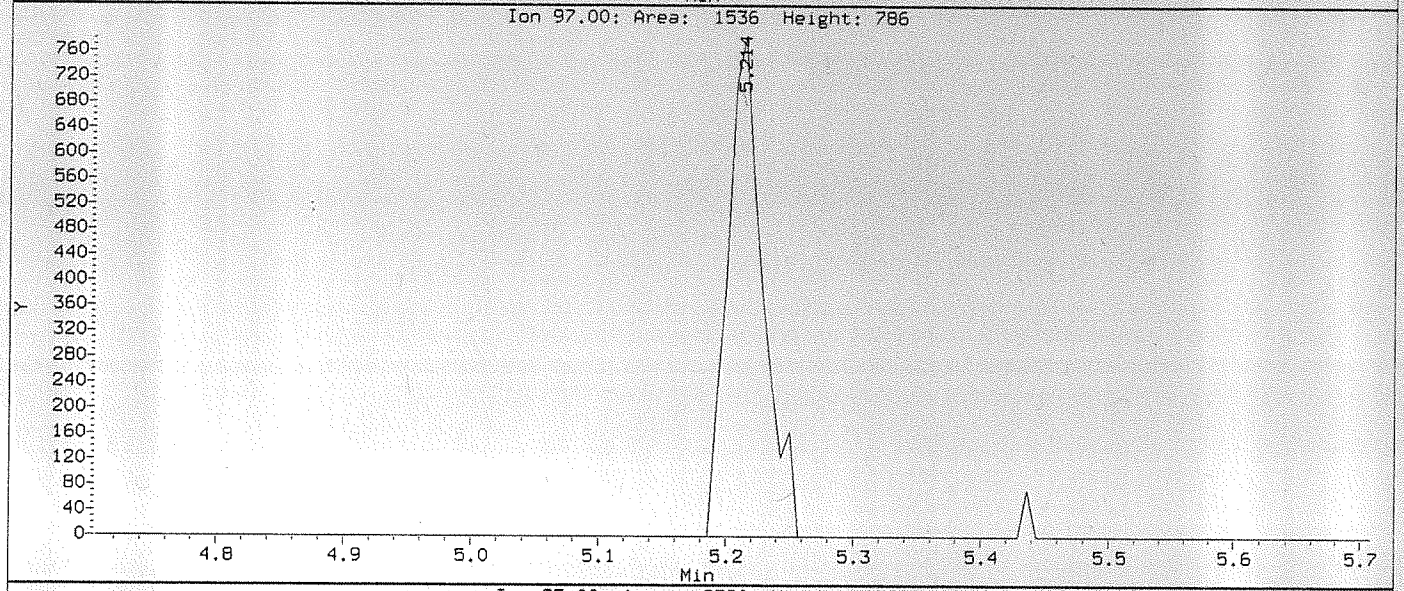


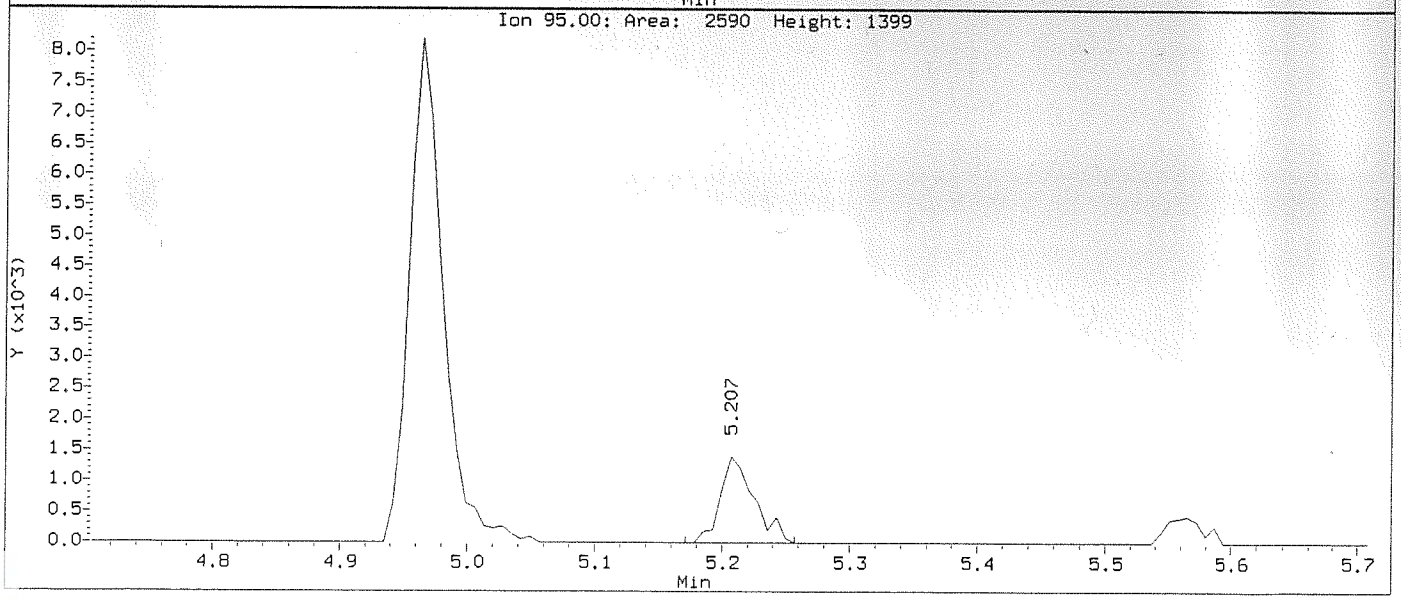


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Trichloroethene
CAS Number: 79-01-6







Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D Page 1
Report Date: 12-Nov-2021 13:19

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Lab Smp Id: VSTD001 Client Smp ID: VSTD001
Inj Date : 08-OCT-2021 14:11
Operator : PC Inst ID: voa6.i
Smp Info : VSTD001;VSTD001;1;3;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 13:19 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 13:50 Cal File: X100803.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

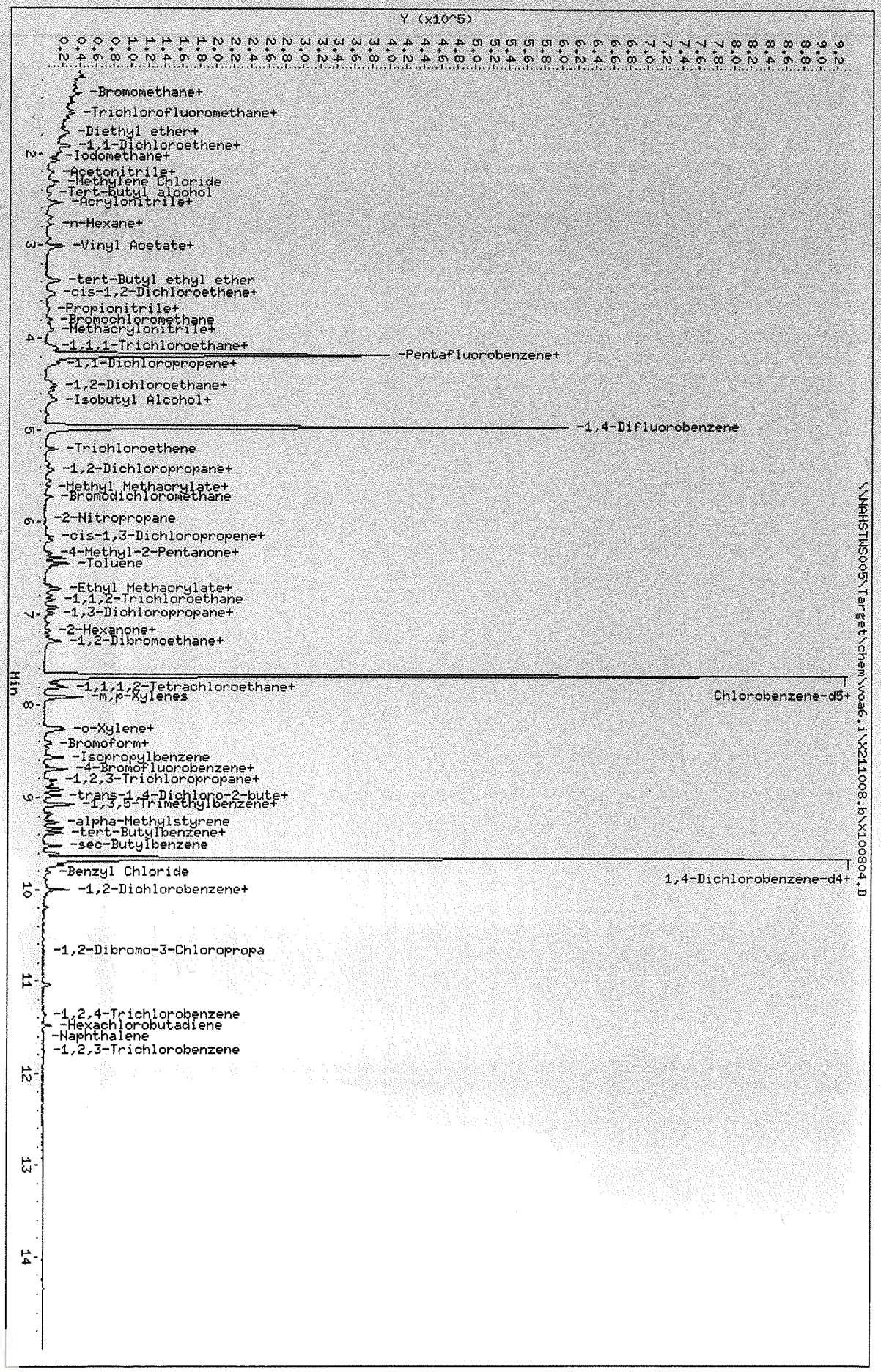
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	330851	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	4837	1.00000	0.38(a)
$ 35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	5961	1.00000	(a)
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	510278	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	471635	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	13455	1.00000	1.12(aM)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	8328	1.00000	0.70(a)
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	225436	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	3928	1.00000	1.13(aM)
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	3245	1.00000	1.09(a)
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	2510	1.00000	0.99(a)
17 Methylene Chloride	84	2.313	2.313	(0.553)	4333	1.00000	0.27(aM)
27 cis-1,2-Dichloroethene	96	3.538	3.538	(0.846)	3601	1.00000	1.04(a)
33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	4814	1.00000	1.12(a)
38 Trichloroethene	130	5.214	5.214	(1.051)	4864	1.00000	1.26(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

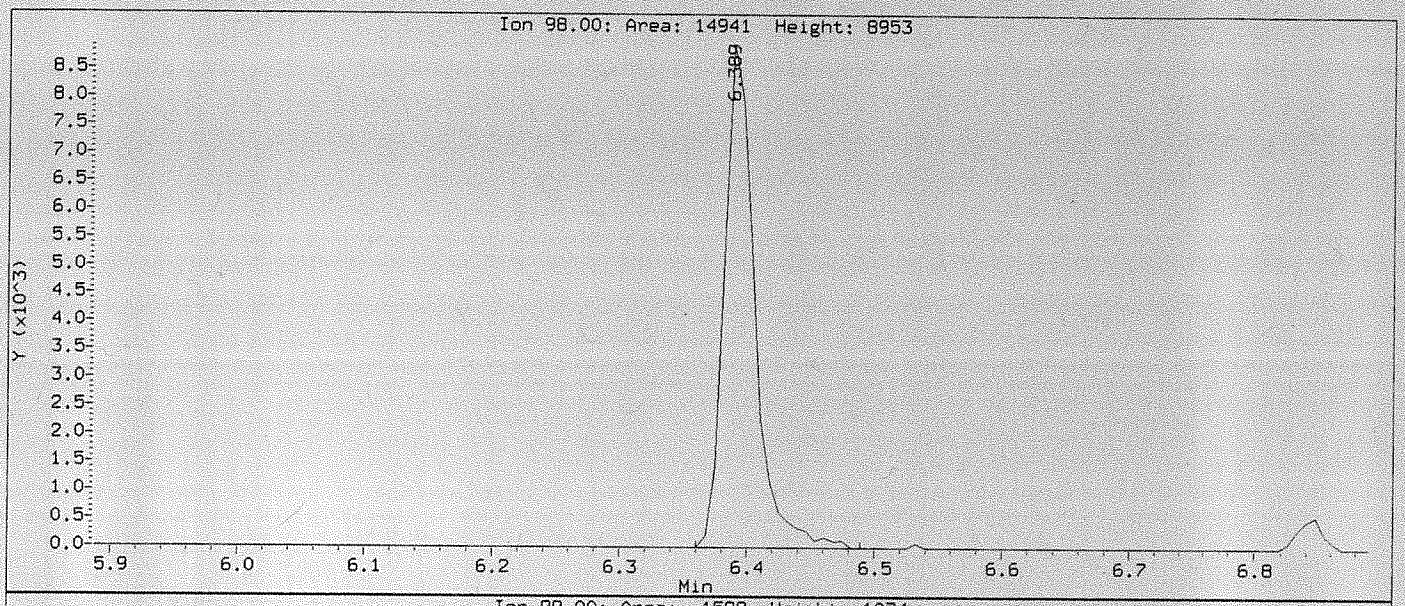


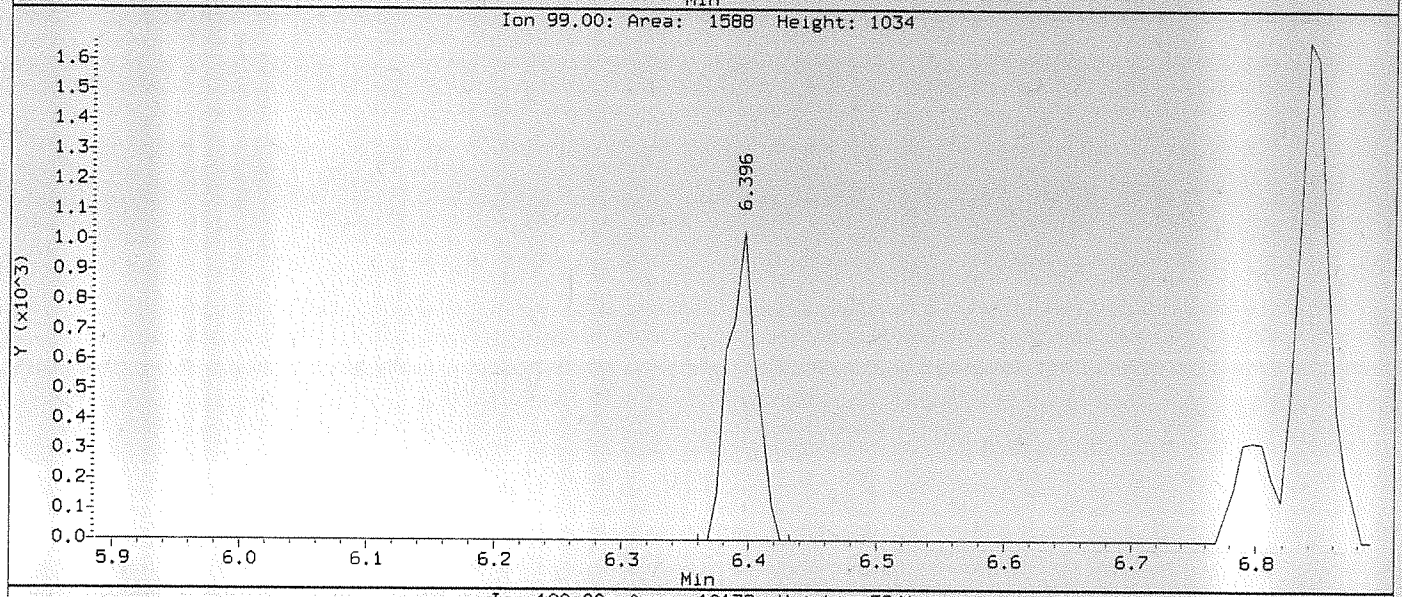
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Date : 08-OCT-2021 14:11
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;;
Purge Volume: 5.0
Column phase: DB624

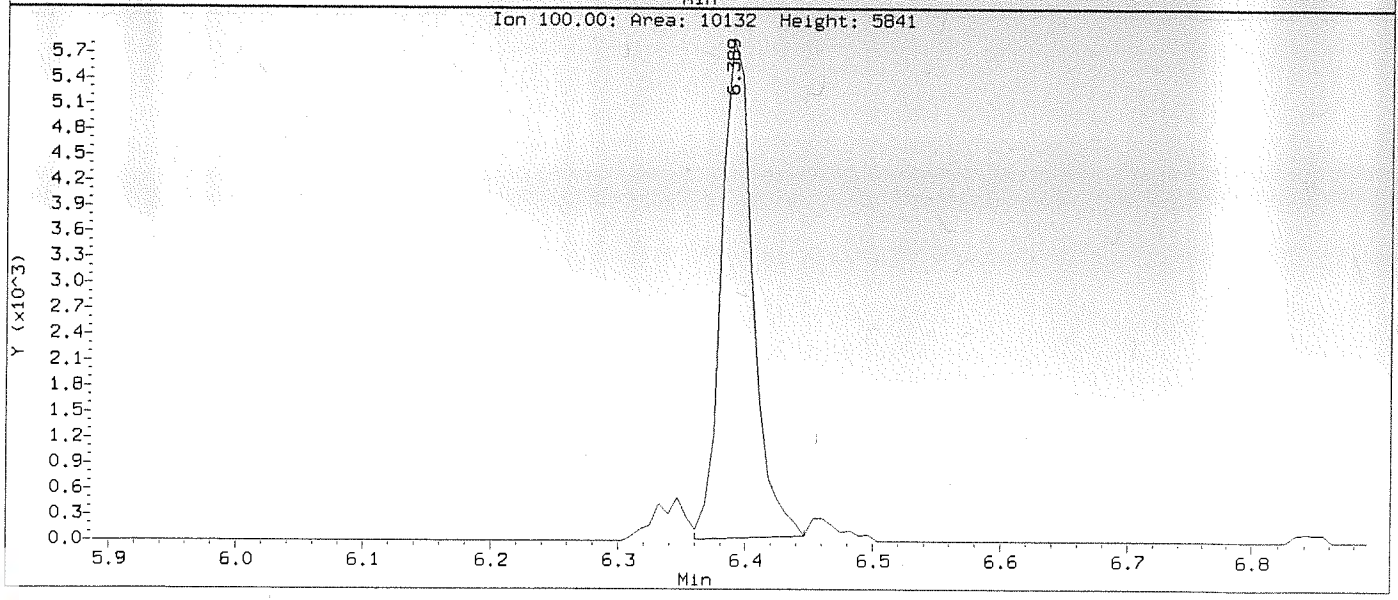
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Toluene-d8
CAS Number: 2037-26-5

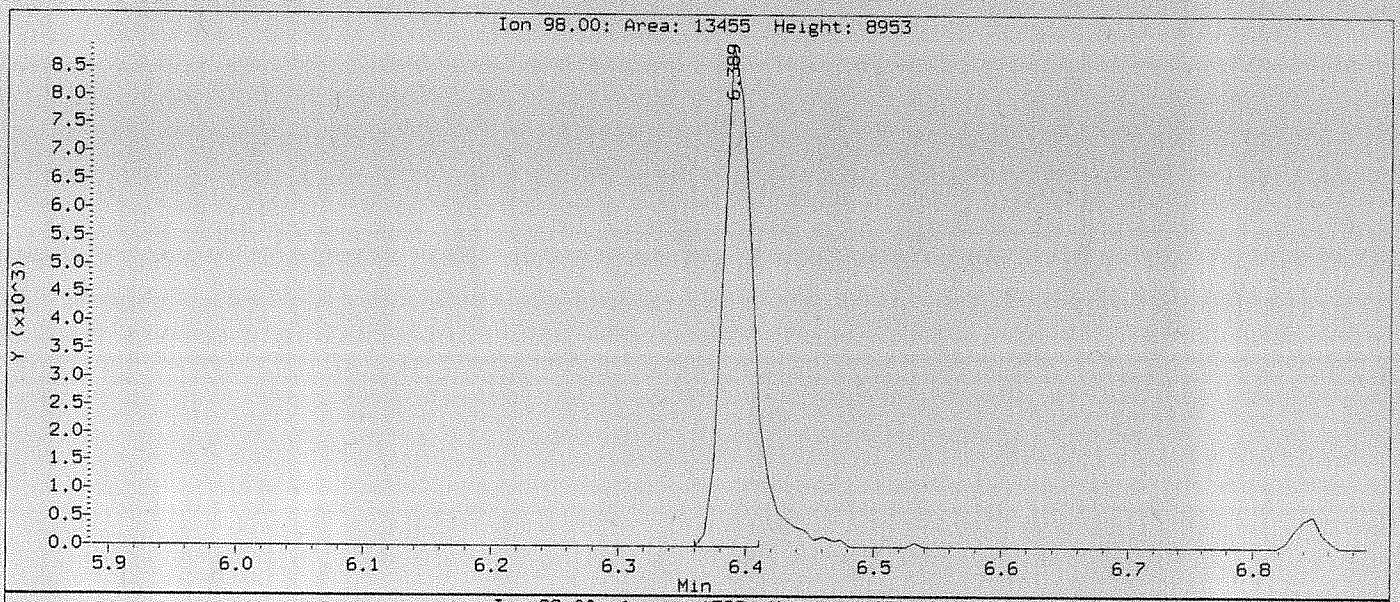


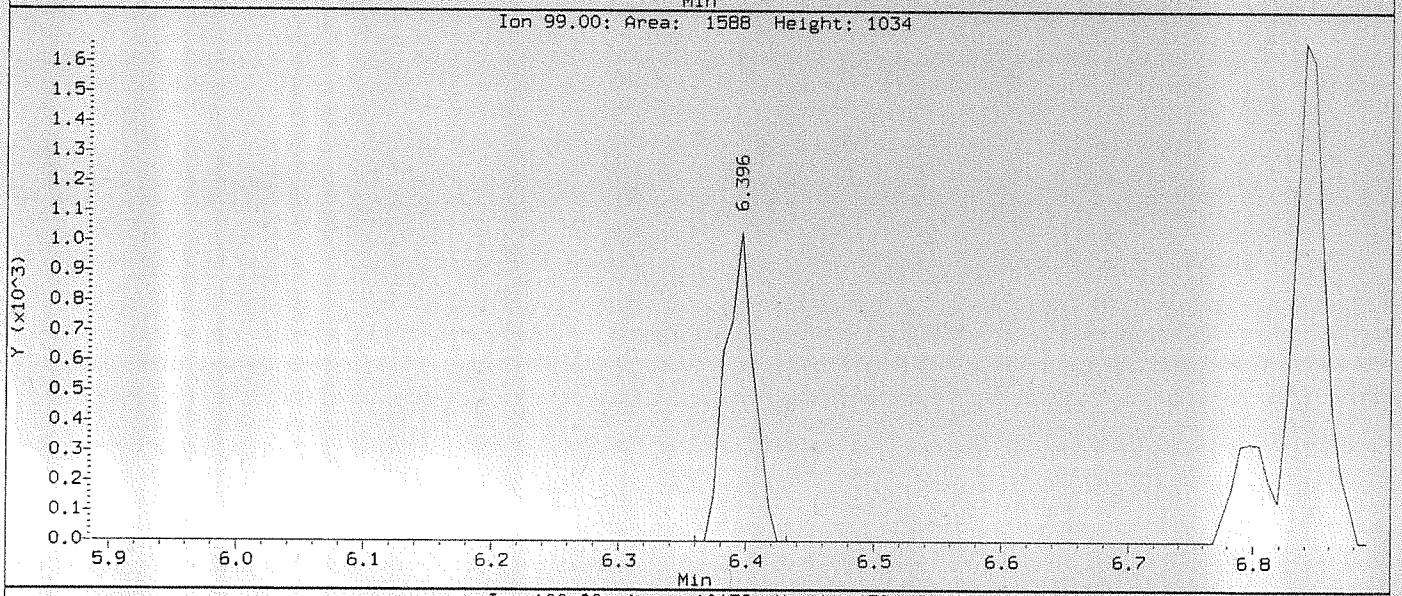


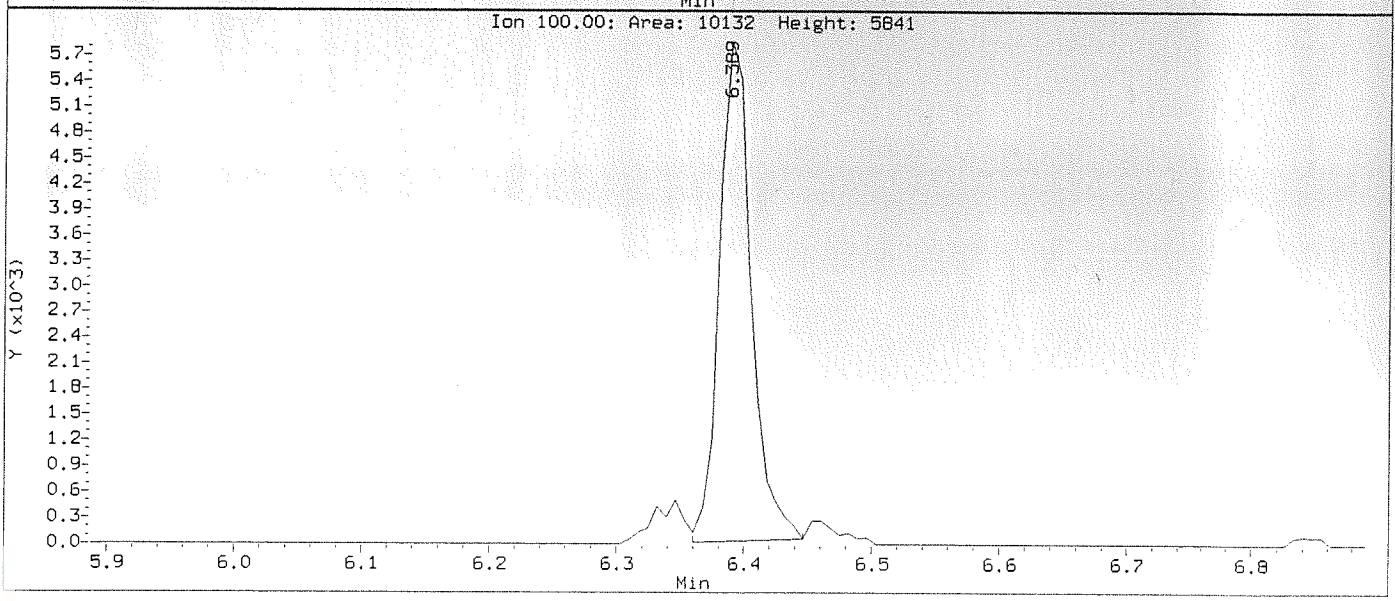


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Toluene-d8
CAS Number: 2037-26-5

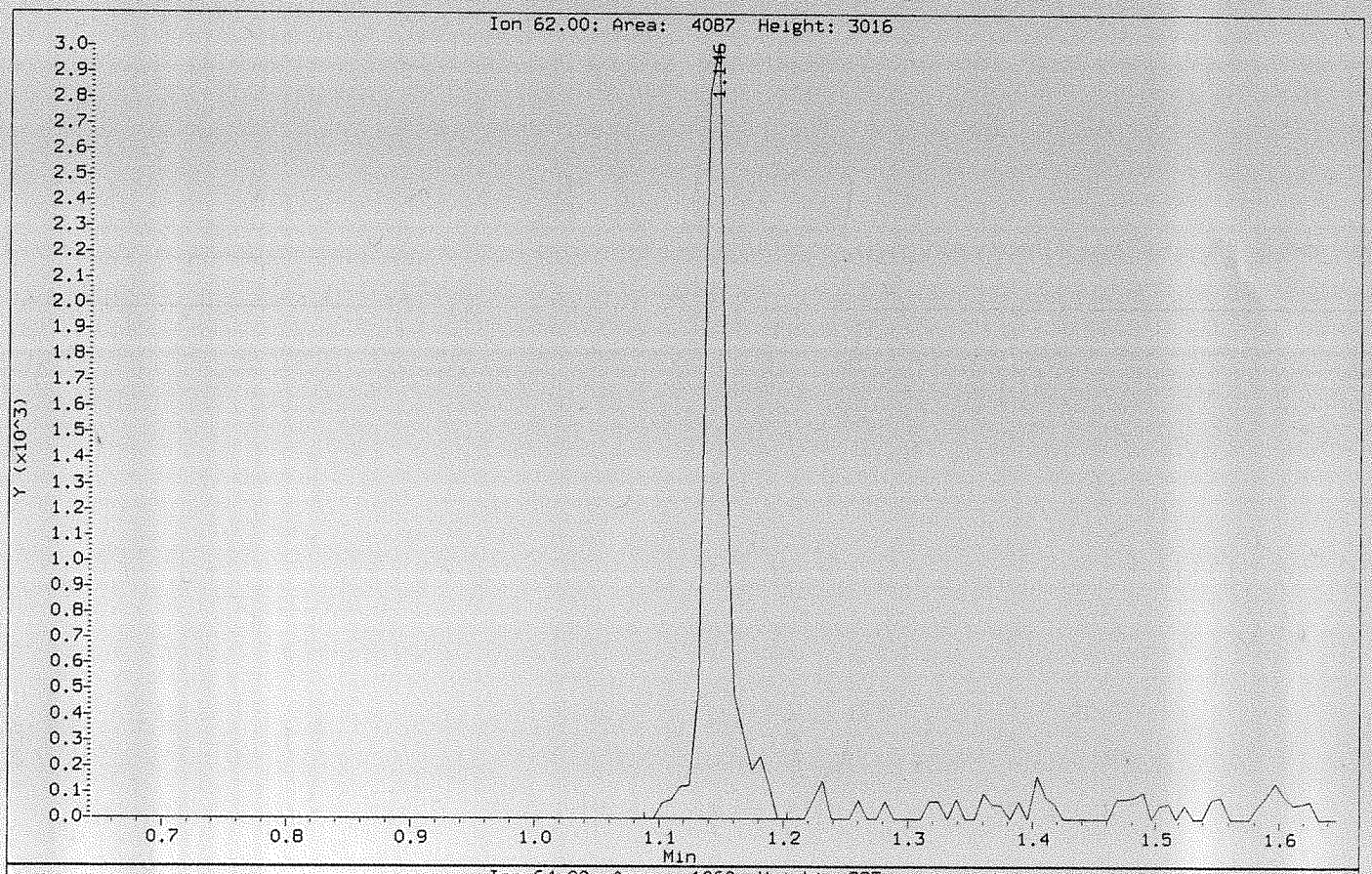


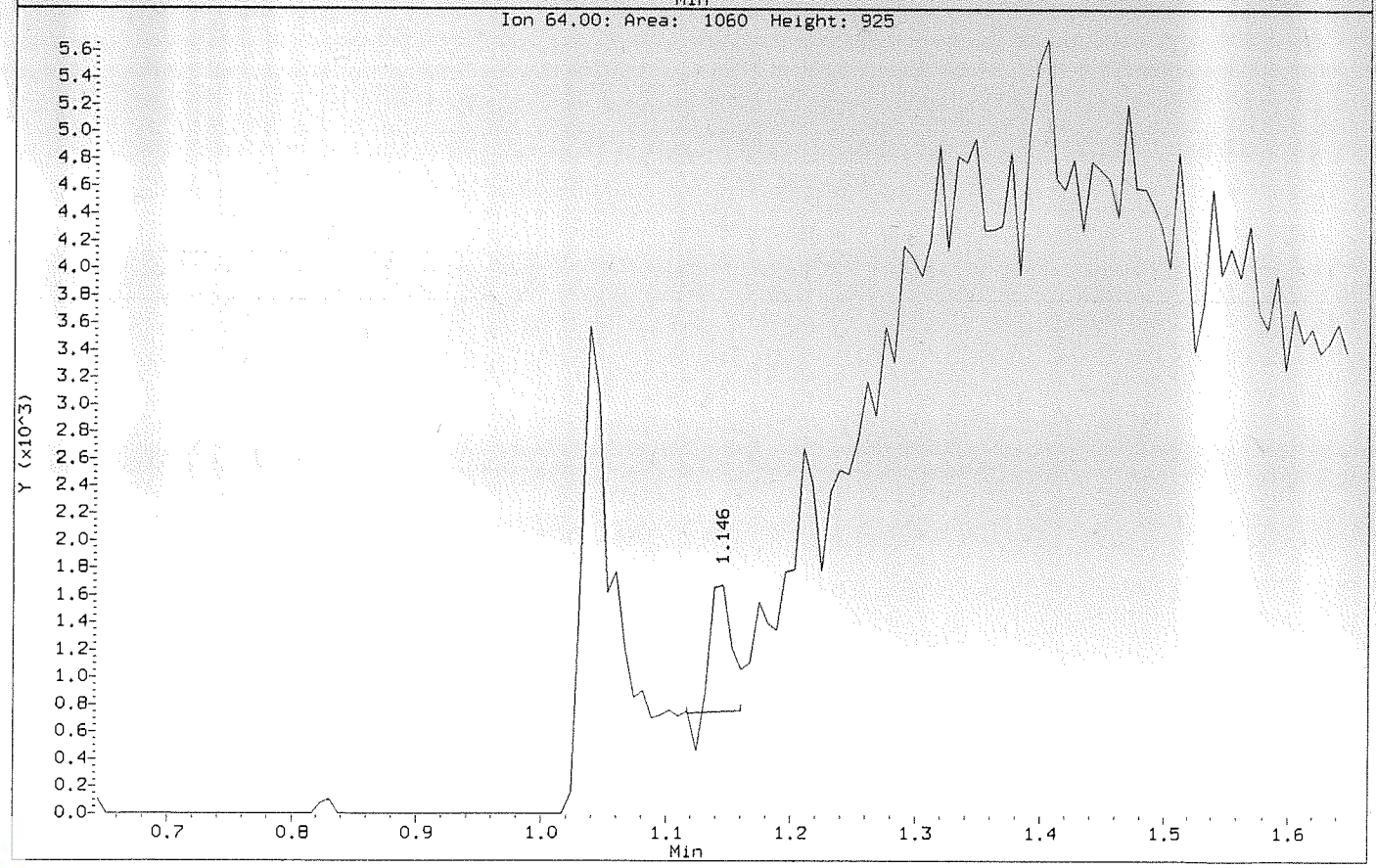




Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

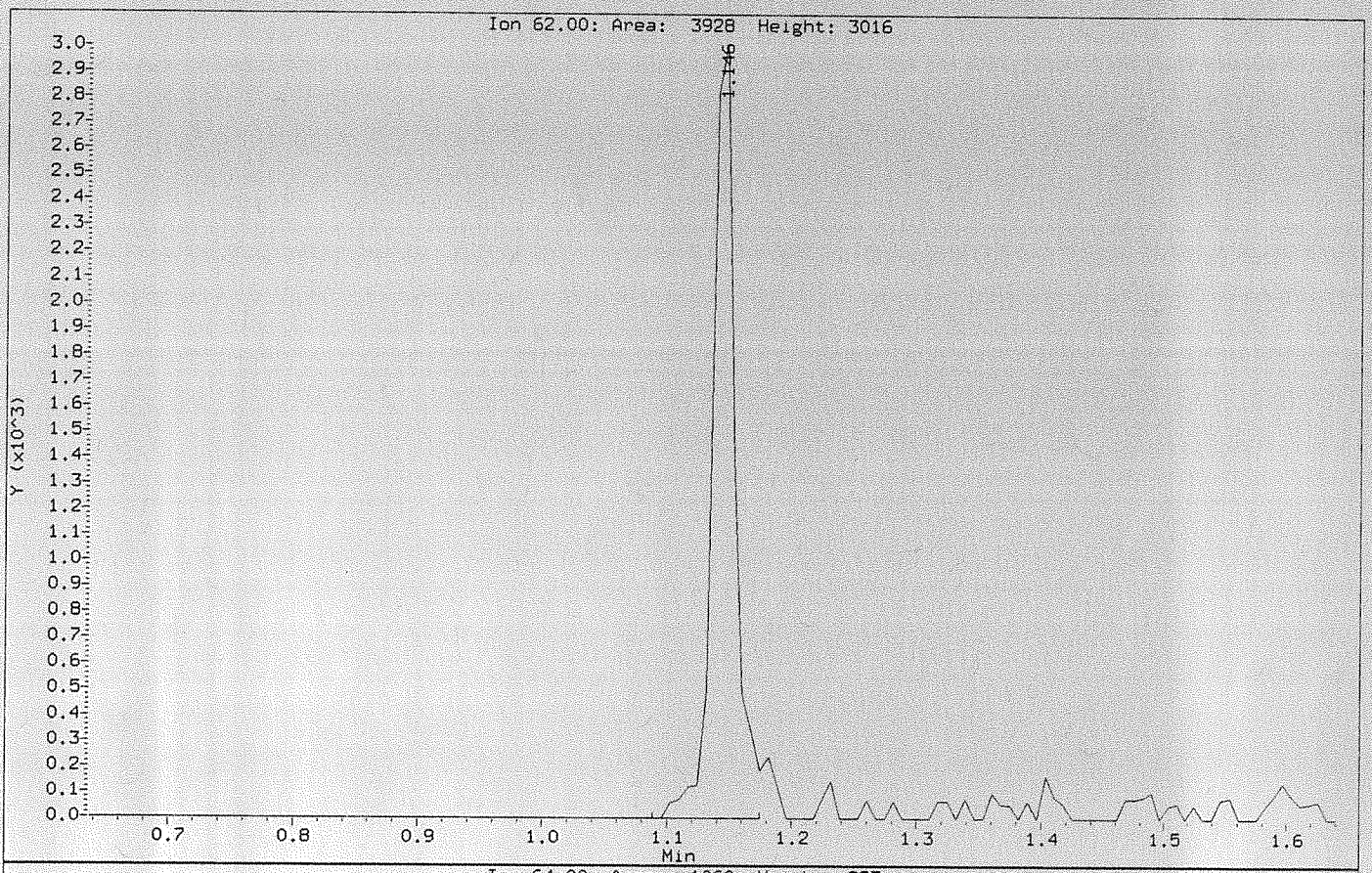
Compound: Vinyl Chloride
CAS Number: 75-01-4

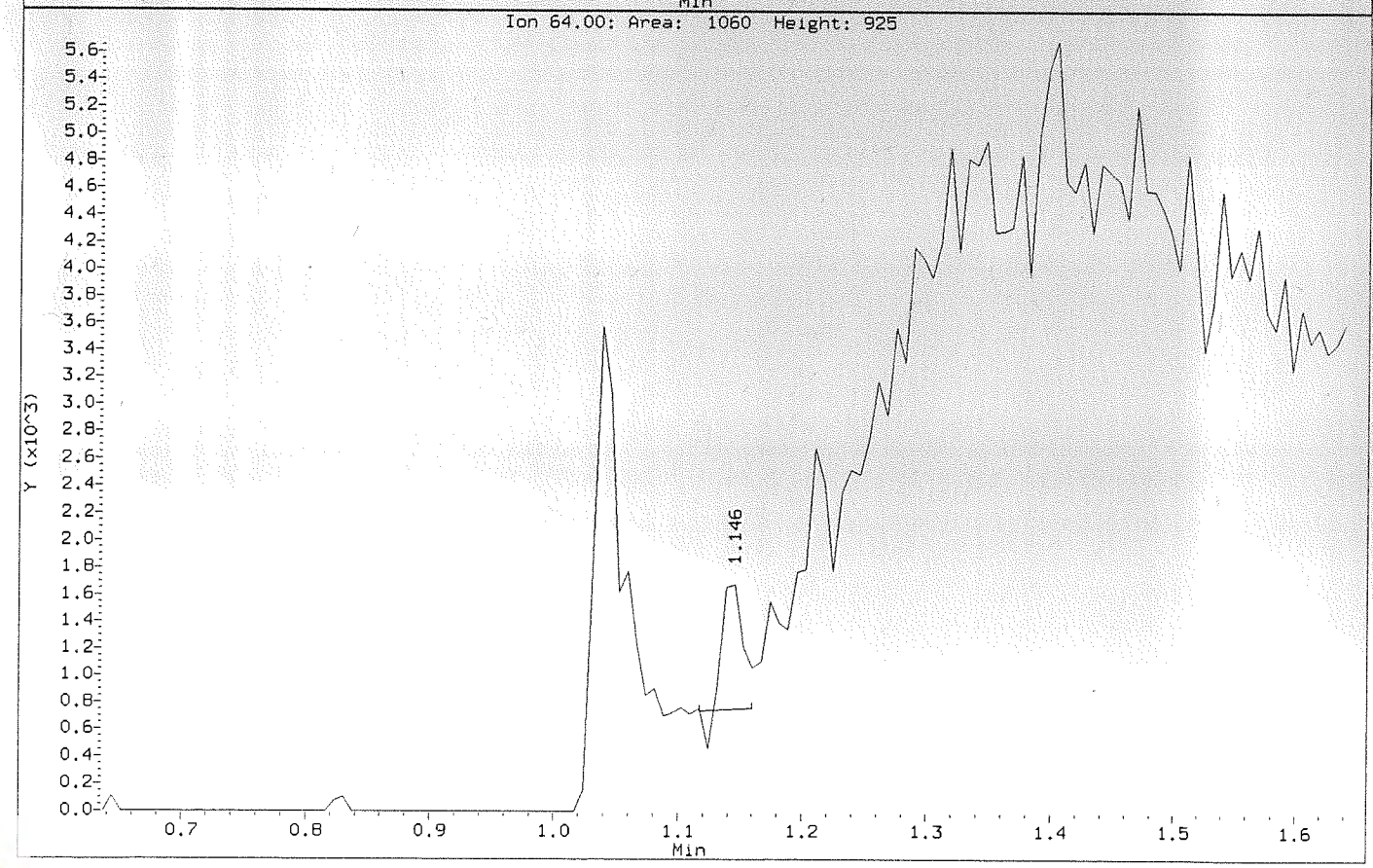




Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

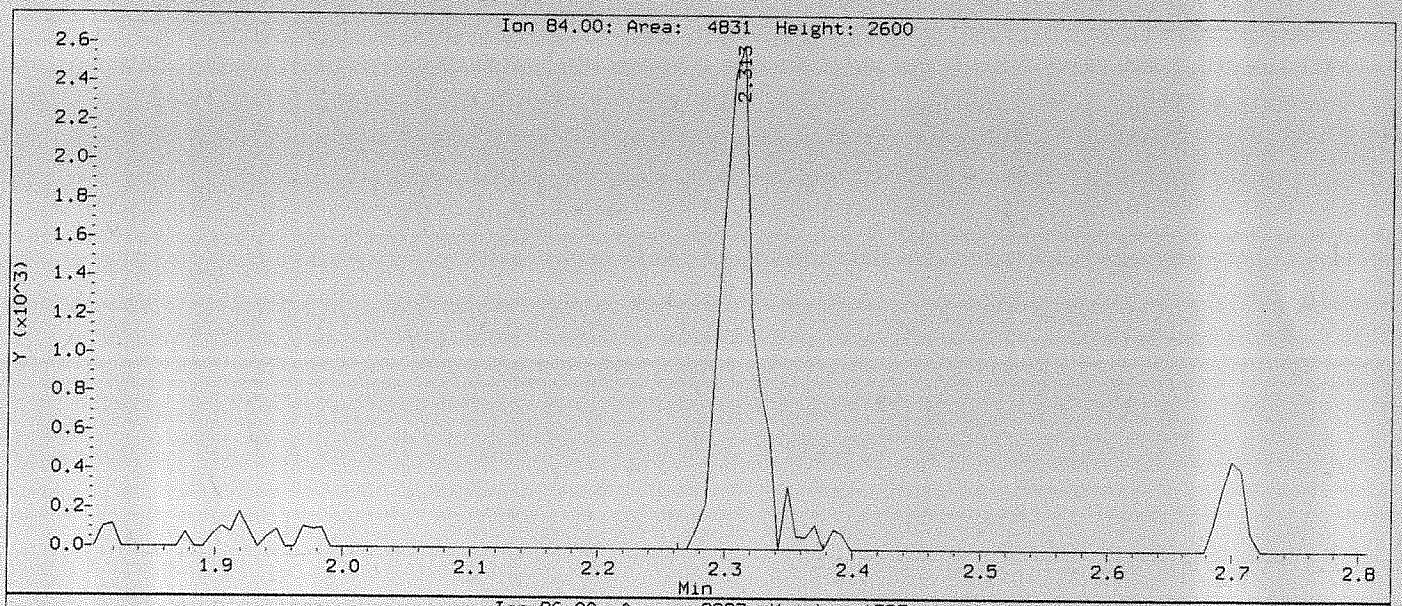
Compound: Vinyl Chloride
CAS Number: 75-01-4

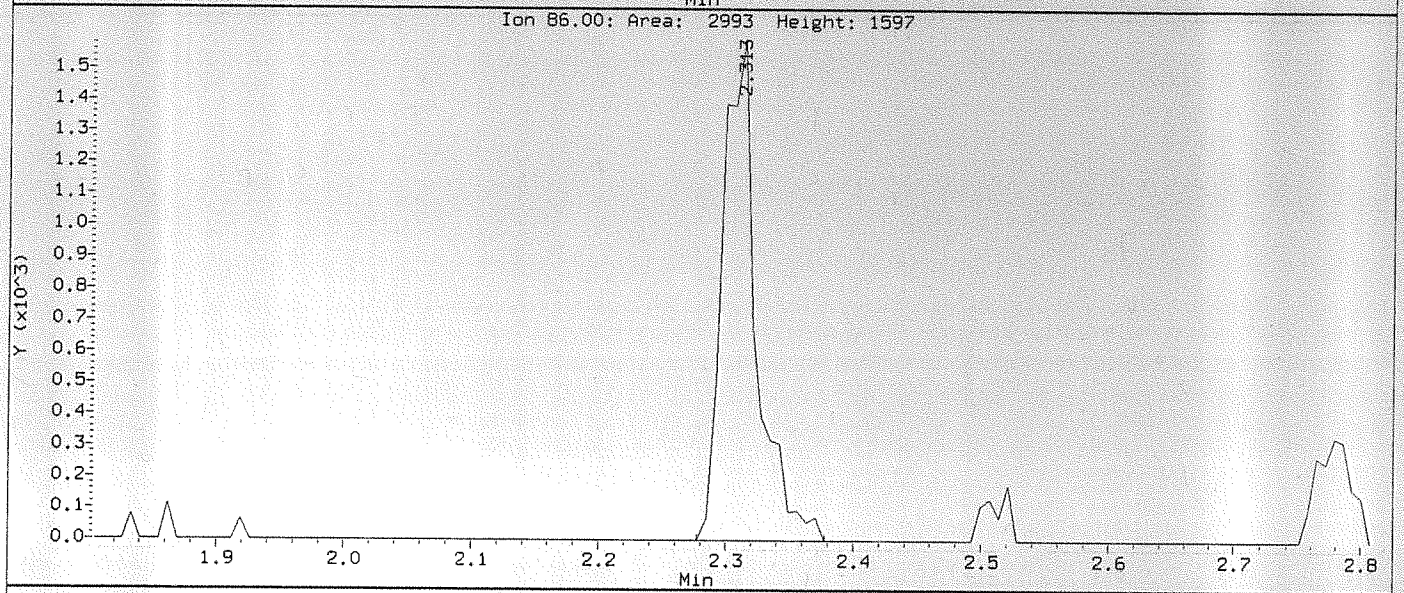


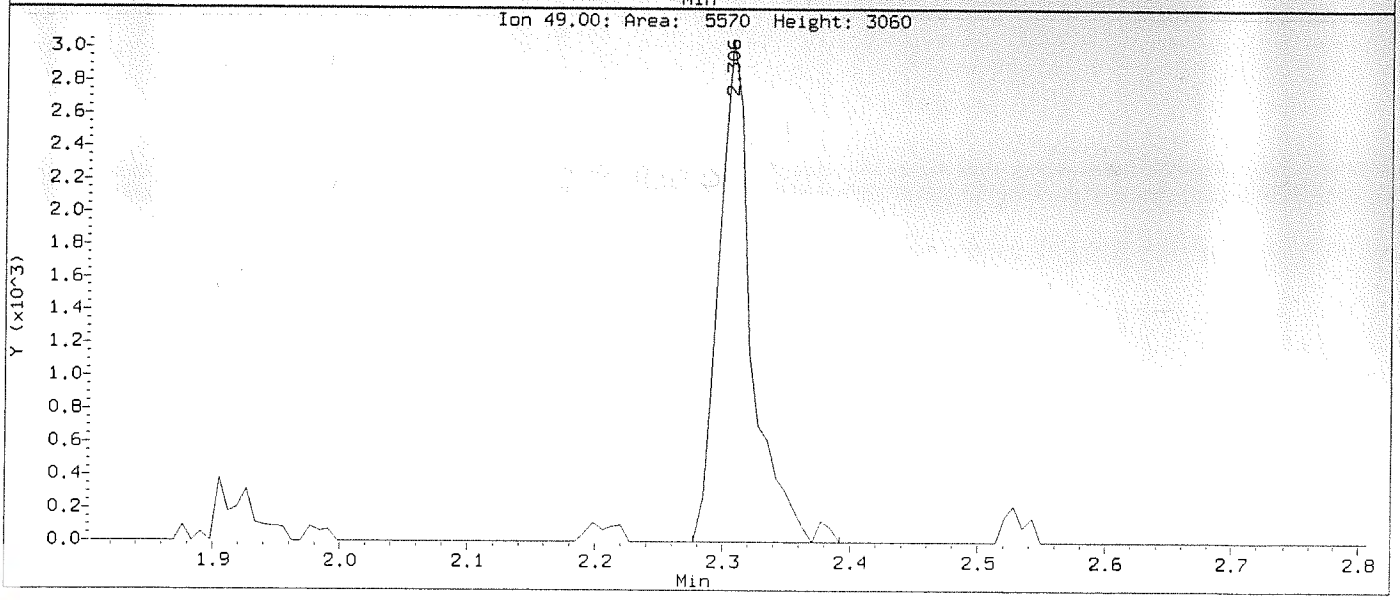


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Methylene Chloride
CAS Number: 75-09-2

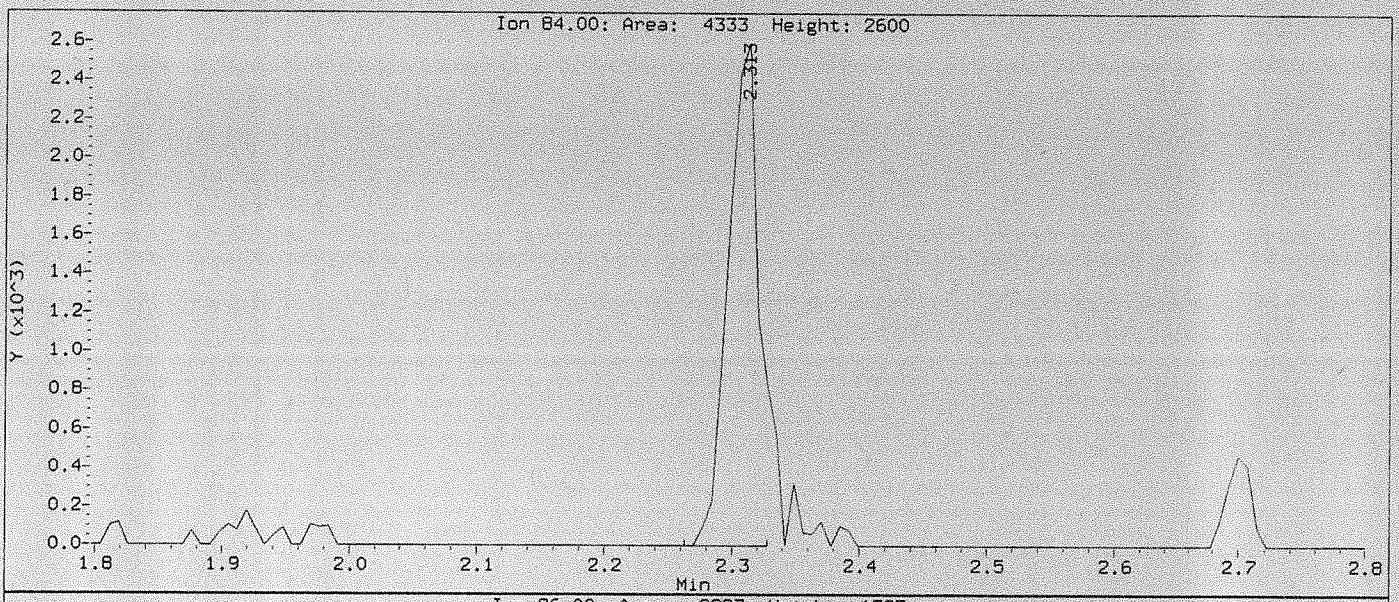


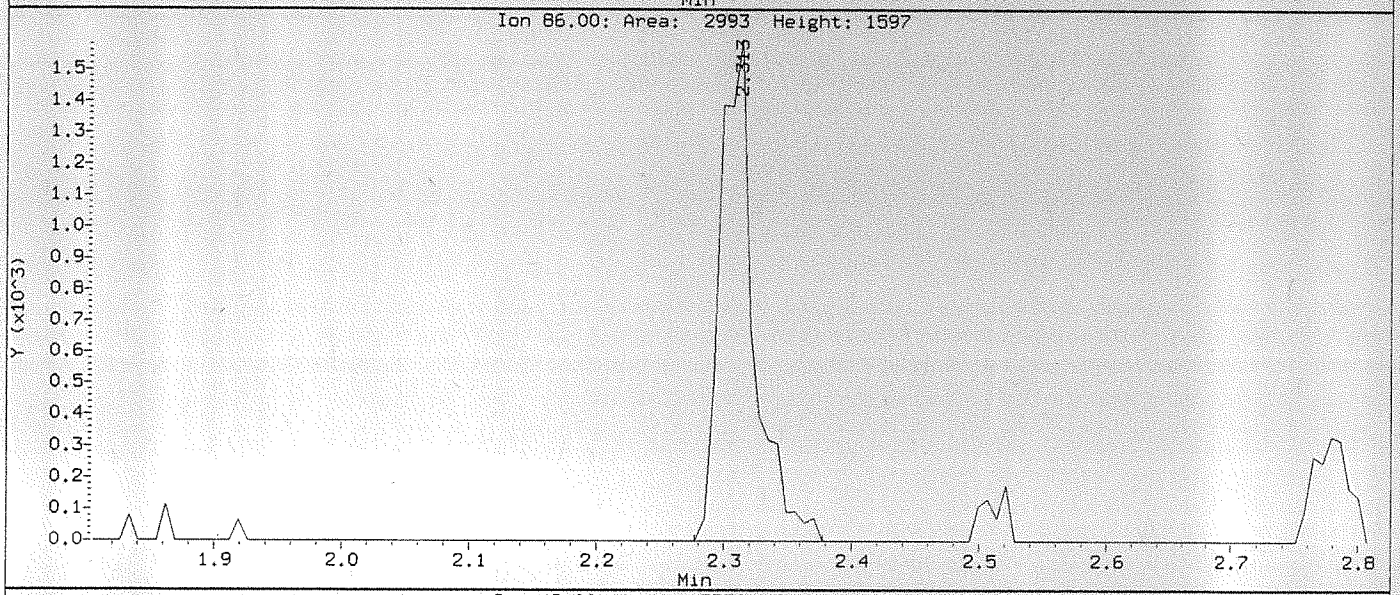


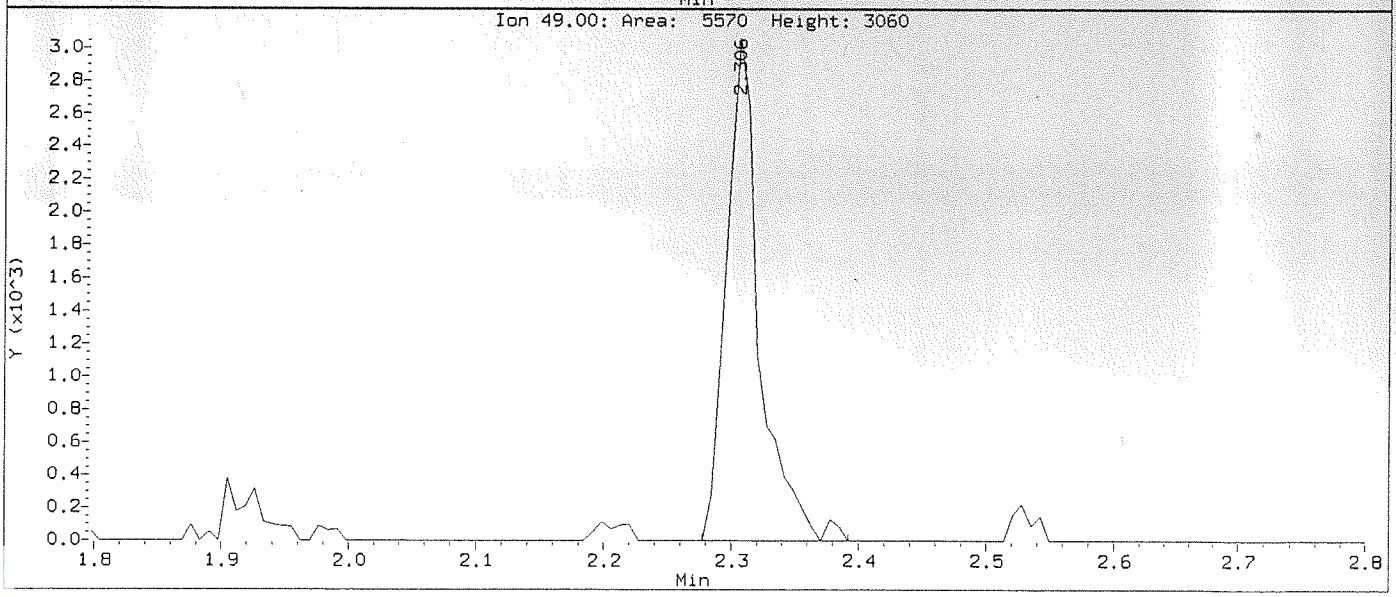


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Methylene Chloride
CAS Number: 75-09-2







Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100805.D Page 1
Report Date: 12-Nov-2021 13:19

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100805.D
Lab Smp Id: VSTD002 Client Smp ID: VSTD002
Inj Date : 08-OCT-2021 14:32
Operator : PC Inst ID: voa6.i
Smp Info : VSTD002;VSTD002;1;4;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 13:19 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 14:11 Cal File: X100804.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

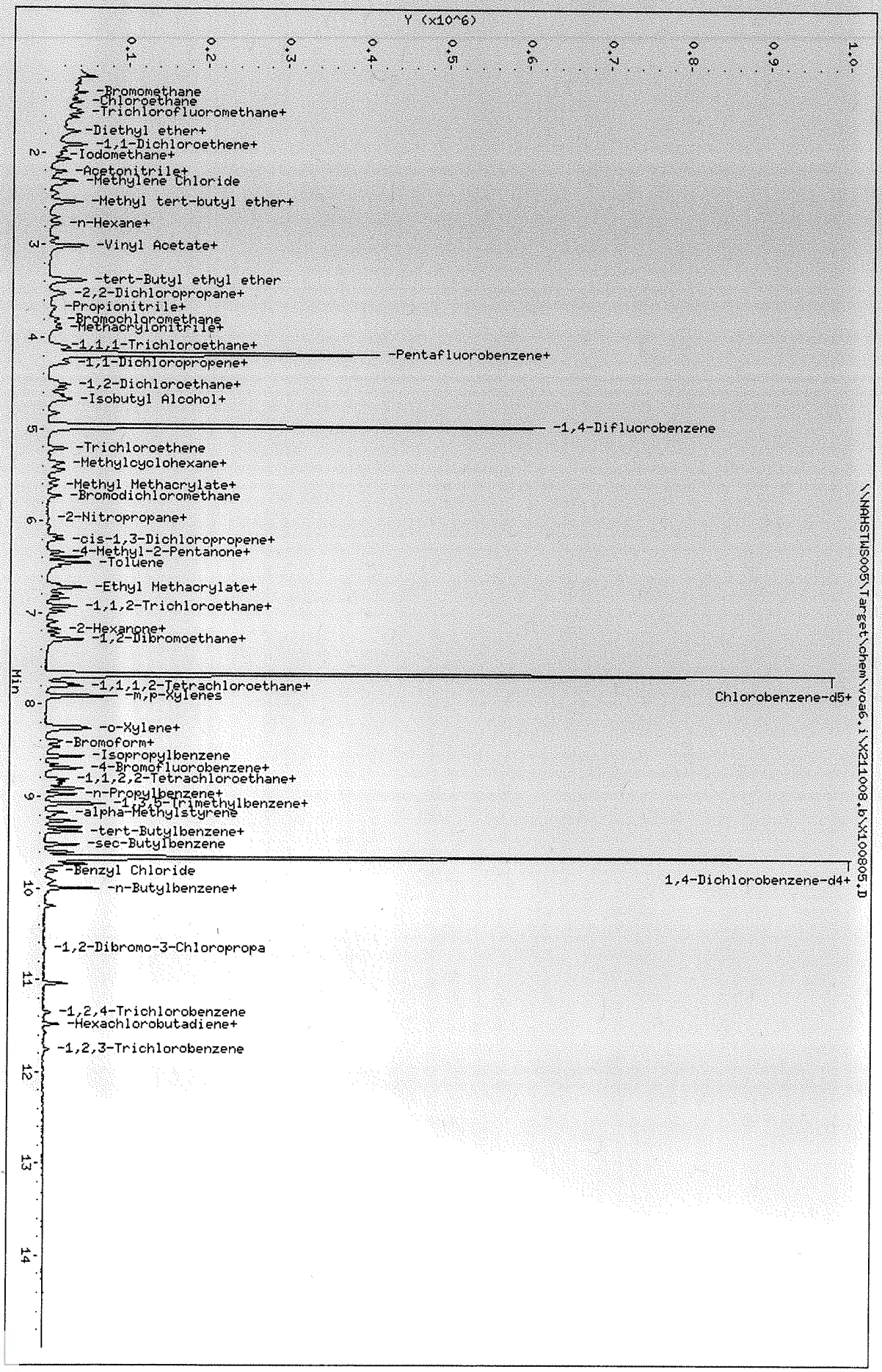
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	337388	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	8290	2.00000	1.41(a)
$ 35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	9717	2.00000	0.97(a)
* 36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	523249	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	483928	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	26169	2.00000	2.13(aM)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	13893	2.00000	2.00(a)
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	230329	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	7904	2.00000	2.23(a)
11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	6379	2.00000	2.11(a)
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	6097	2.00000	2.36(a)
17 Methylene Chloride	84	2.305	2.305	(0.551)	7762	2.00000	1.43(a)
27 cis-1,2-Dichloroethene	96	3.537	3.537	(0.846)	7524	2.00000	2.14(a)
33 1,2-Dichloroethane	62	4.562	4.562	(0.918)	9049	2.00000	2.06(a)
38 Trichloroethene	130	5.214	5.214	(1.049)	8221	2.00000	2.07(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

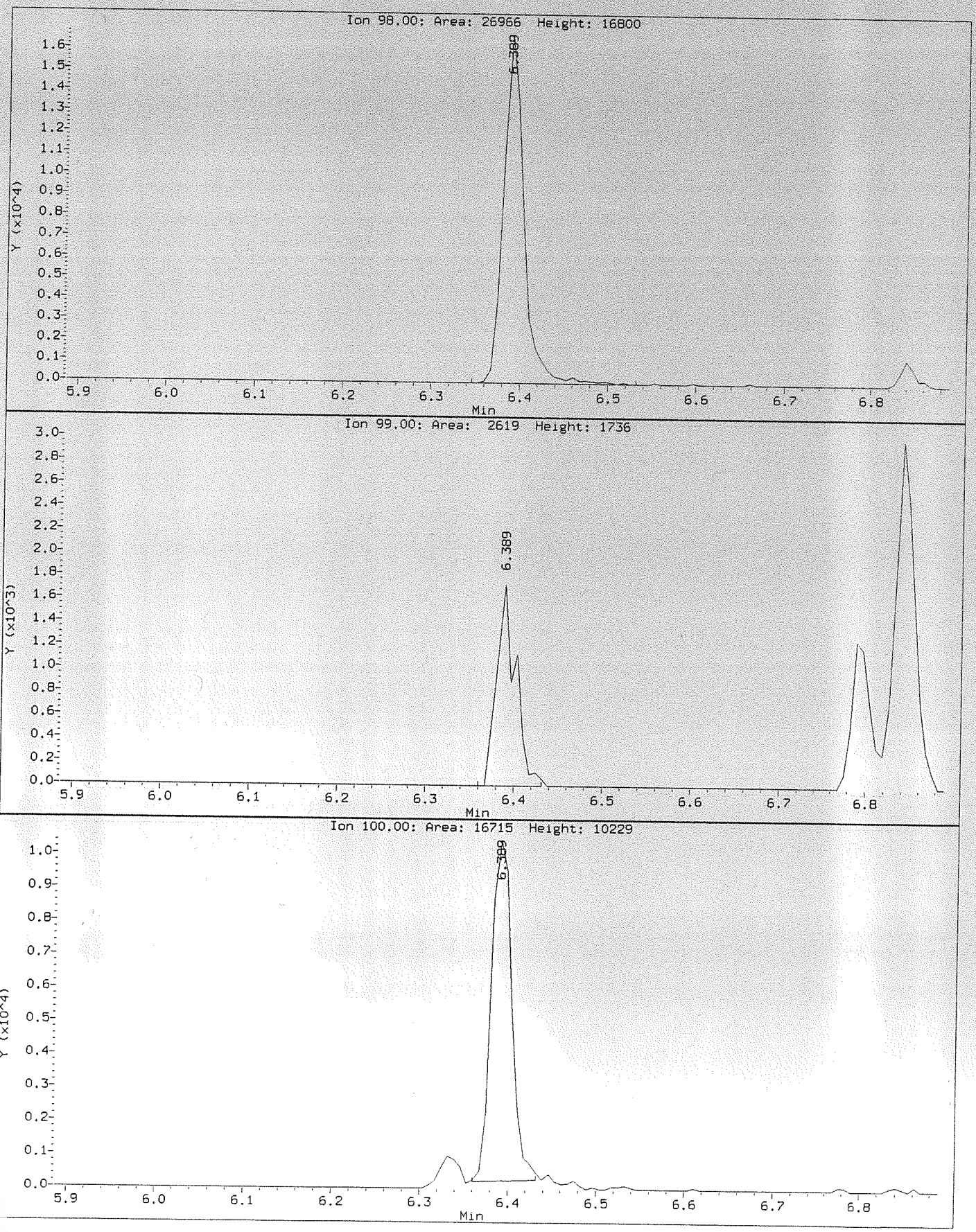


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100805.D
Date : 08-OCT-2021 14:32
Client ID: VSTD002
Sample Info: VSTD002:VSTD002:1:4:;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

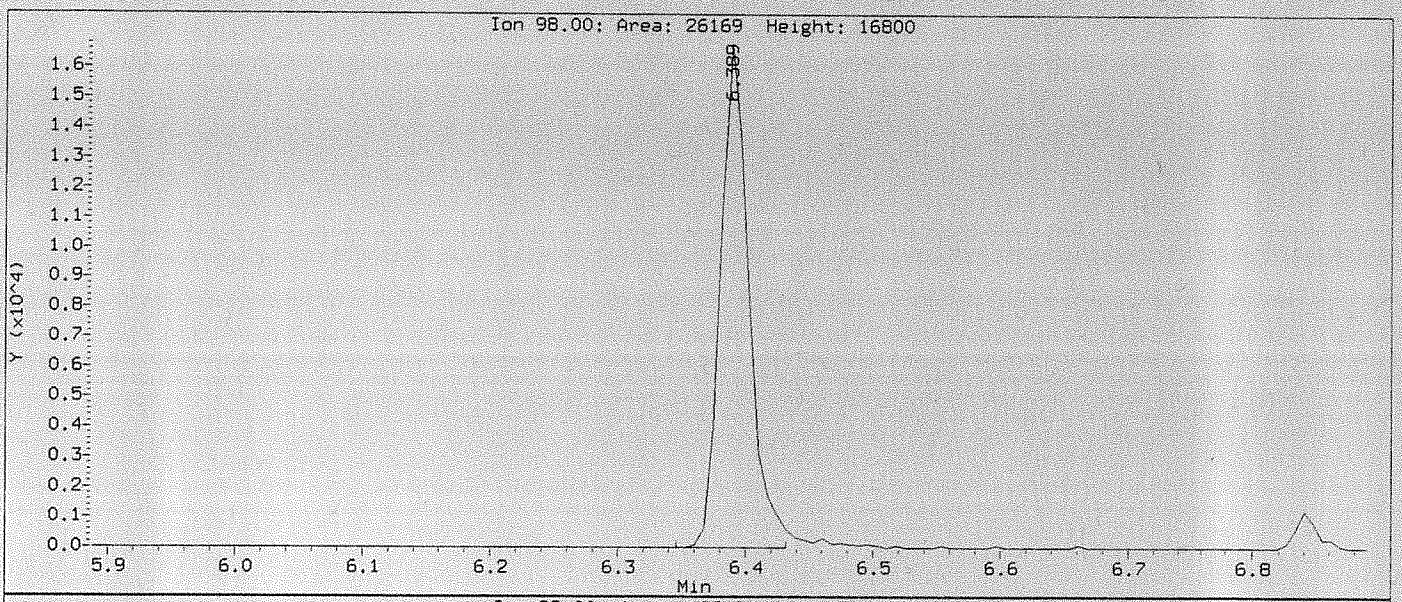
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\before\X100805.D
Injection Date: 08-OCT-2021 14:32
Instrument: voa6.i
Client Sample ID: VSTD002

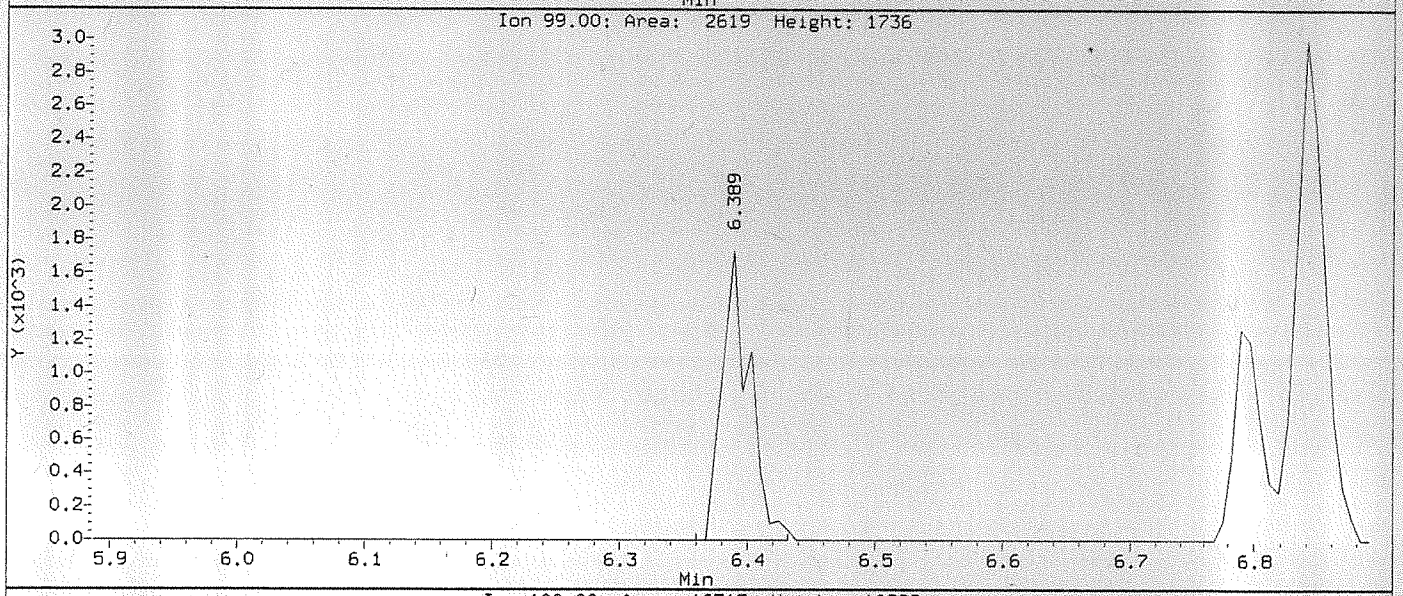
Compound: Toluene-d8
CAS Number: 2037-26-5

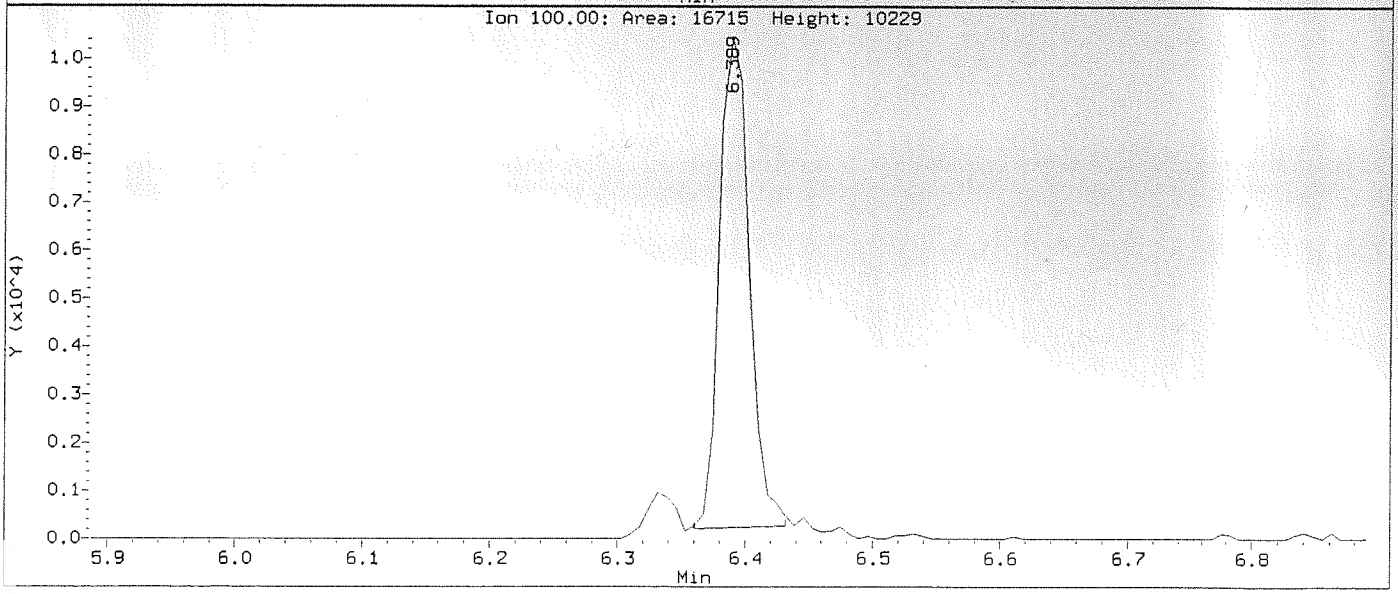


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100805.D
Injection Date: 08-OCT-2021 14:32
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Toluene-d8
CAS Number: 2037-26-5







Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100806.D Page 1
Report Date: 12-Nov-2021 13:19

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100806.D
Lab Smp Id: VSTD005 Client Smp ID: VSTD005
Inj Date : 08-OCT-2021 14:53
Operator : PC Inst ID: voa6.i
Smp Info : VSTD005;VSTD005;1;5;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 13:19 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 14:32 Cal File: X100805.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

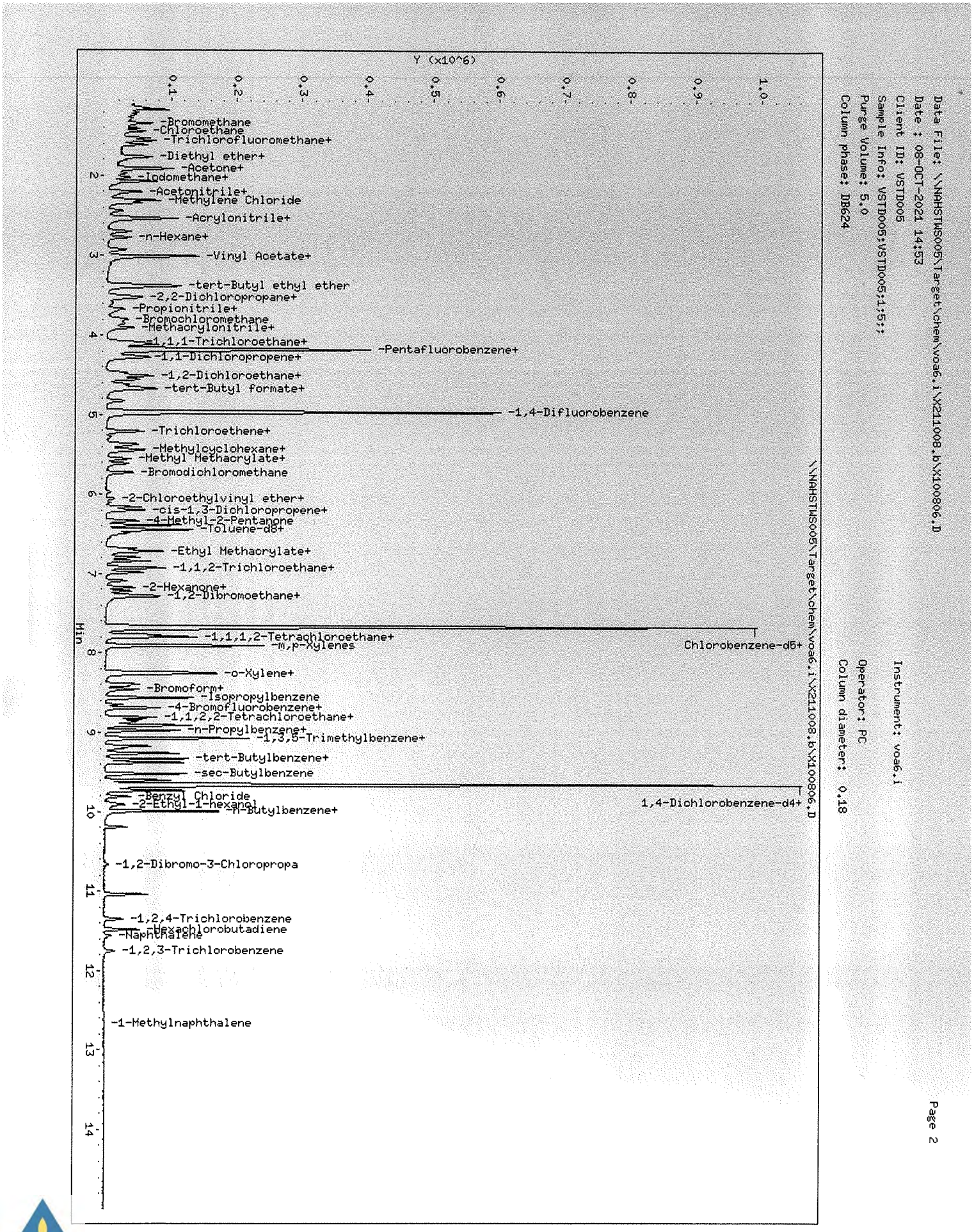
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	333400	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	20676	5.00000	5.32
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	22194	5.00000	4.92(a)
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	515627	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	479811	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	65046	5.00000	5.34
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	24945	5.00000	4.74(a)
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	229555	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	20005	5.00000	5.72
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	16670	5.00000	5.60
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	14434	5.00000	5.63
17 Methylene Chloride	84	2.305	2.305	(0.551)	19276	5.00000	5.52
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	19489	5.00000	5.62
33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	23534	5.00000	5.44
38 Trichloroethene	130	5.206	5.206	(1.049)	20177	5.00000	5.17

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100806.D
Date : 08-OCT-2021 14:53
Client ID: VSTD005
Instrument: voa6.i
Sample Info: VSTD005;VSTD005;1;5;;
Operator: PC
Purge Volume: 5.0
Column diameter: 0.18
Column phase: DB624
Page 2
Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
-Bromomethane
-Chloroethane
-Trichlorofluoromethane+
-Diethyl ether+
-Acetone+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Acrylonitrile+
-n-Hexane+
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2,2-Dichloropropane+
-Propionitrile+
-Bromochloromethane
-Methacrylonitrile+
-1,1,1-Trichloroethane+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-tert-Butyl formate+
-1,4-Difluorobenzene
-Trichloroethene+
-Methylcyclohexane+
-Methyl Methacrylate+
-Bromodichloromethane
-2-Chloroethylvinyl ether+
-cis-1,3-Dichloropropene+
-4-Methyl-2-Pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone+
-1,2-Dibromoethane+
-1,1,1,2-Tetrachloroethane+
-m,p-Xylenes
Chlorobenzene-d5+
\\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100806.D
-o-Xylene+
-Bromoform+
-Isopropylbenzene
-4-Bromofluorobenzene+
-1,1,2,2-Tetrachloroethane+
-n-Propylbenzene+
-1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-Benzyl Chloride
1,4-Dichlorobenzene-d4+
-2-Ethyl-1-hexanol
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-1-Methylnaphthalene
Min
2
3
4
5
6
7
8
9
10
11
12
13
14

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100807.D Page 1
Report Date: 12-Nov-2021 13:19

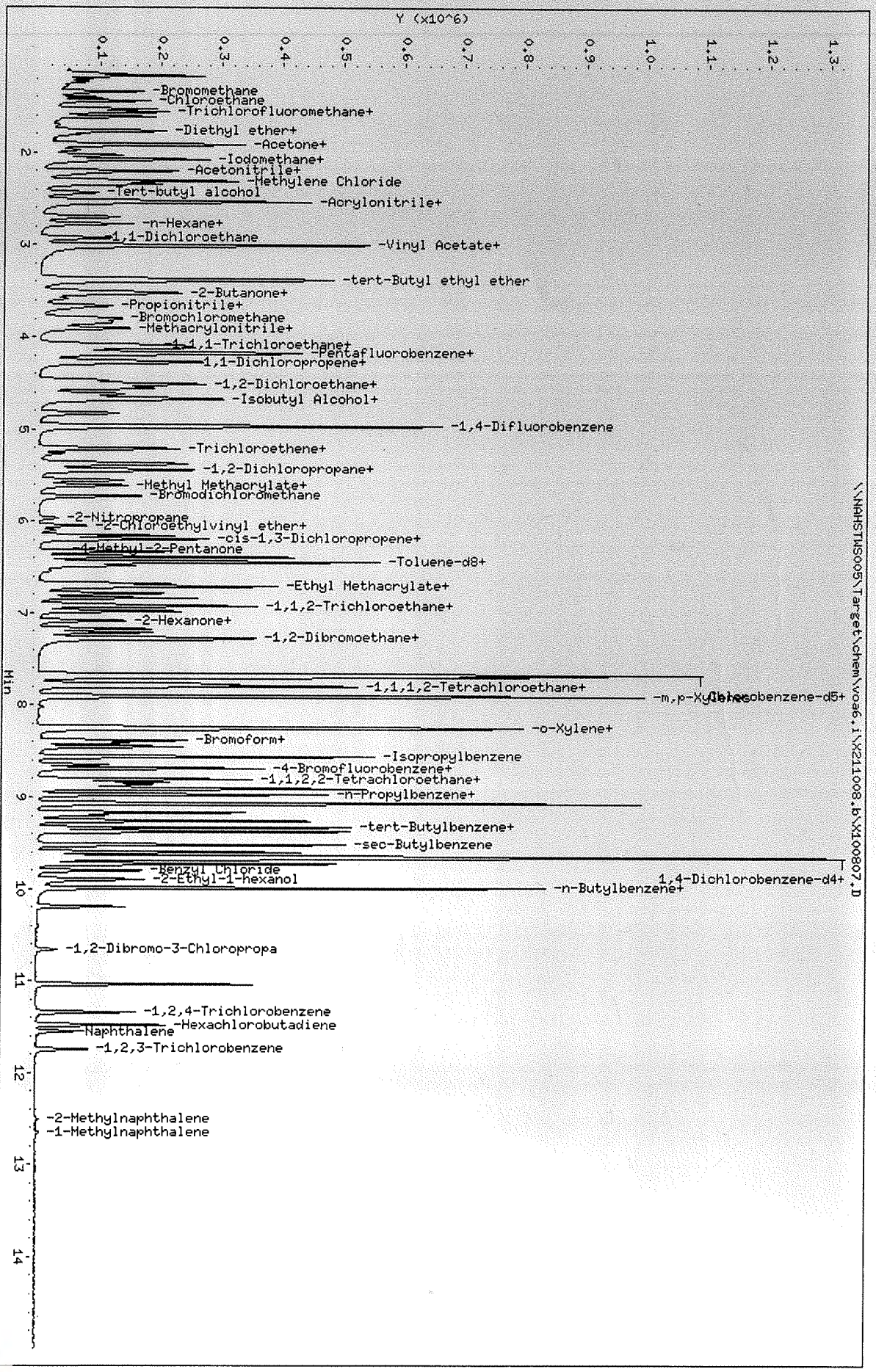
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100807.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 08-OCT-2021 15:14
Operator : PC Inst ID: voa6.i
Smp Info : VSTD020;VSTD020;1;6;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 13:19 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 14:53 Cal File: X100806.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	359250	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	78657	20.0000	21.67
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	84053	20.0000	22.43
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	552025	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	521772	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	248228	20.0000	18.74
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	96265	20.0000	20.33
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	270684	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	73837	20.0000	19.60
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	63174	20.0000	19.71
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	53753	20.0000	19.30
17 Methylene Chloride	84	2.306	2.306	(0.551)	70665	20.0000	21.85
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	77585	20.0000	20.77
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	94822	20.0000	20.47
38 Trichloroethene	130	5.207	5.207	(1.049)	78065	20.0000	18.69


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100807.D
Date : 08-OCT-2021 15:14
Client ID: VSTD020
Sample Info: VSTD020,VSTD020,1,6,,,
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
\\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100807.D
Y (x10^6)
Min
-Bromomethane
-Chloroethane
-Trichlorofluoromethane+
-Diethyl ether+
-Acetone+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2-Butanone+
-Propionitrile+
-Bromochloromethane
-Methacrylonitrile+
-1,1,1-Trichloroethane+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
-Trichloroethene+
-1,2-Dichloropropane+
-Methyl Methacrylate+
-Bromodichloromethane
-2-Nitropropane
-2-Chloroethylvinyl ether+
-cis-1,3-Dichloropropene+
-4-Methyl-2-Pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone+
-1,2-Dibromoethane+
-1,1,1,2-Tetrachloroethane+
-m,p-Xylene
-Chlorobenzene-d5+
-o-Xylene+
-Bromoform+
-Isopropylbenzene
-4-Bromofluorobenzene+
-1,1,2,2-Tetrachloroethane+
-n-Propylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-Benzyl Chloride
-2-Ethyl-1-hexanol
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene
-1-Methylnaphthalene

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100808.D Page 1
Report Date: 12-Nov-2021 13:19

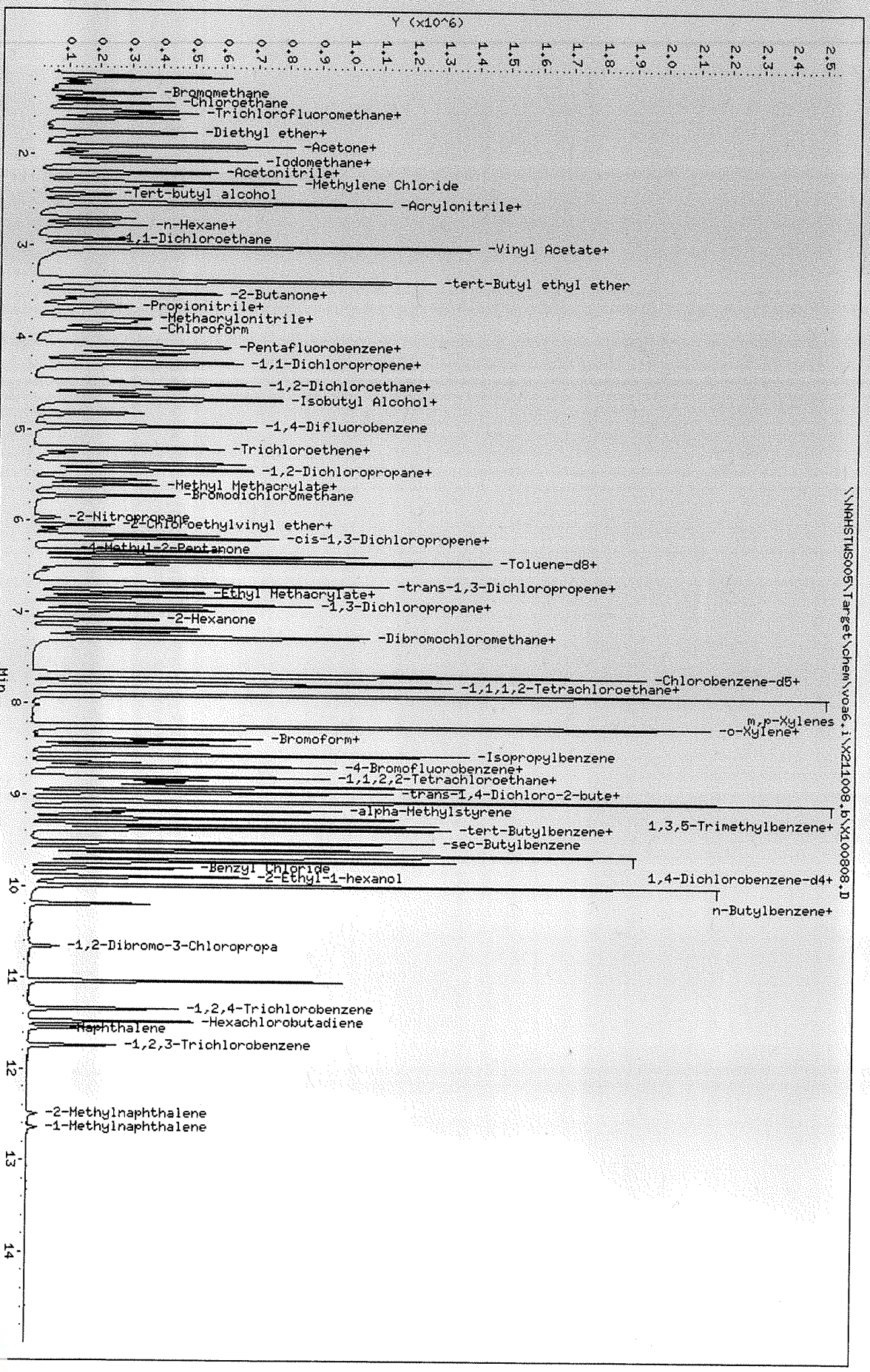
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100808.D
Lab Smp Id: VSTD050 Client Smp ID: VSTD050
Inj Date : 08-OCT-2021 15:34
Operator : PC Inst ID: voa6.i
Smp Info : VSTD050;VSTD050;1;7;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 13:19 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:14 Cal File: X100807.D
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	392113	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	192579	50.0000	50.03
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	202478	50.0000	51.97
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	589876	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	564124	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	634808	50.0000	44.34
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	246655	50.0000	50.06
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	290705	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	182737	50.0000	44.44
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	159624	50.0000	45.63
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	140168	50.0000	46.56
17 Methylene Chloride	84	2.305	2.305	(0.551)	173952	50.0000	50.88
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	196461	50.0000	48.19
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	236990	50.0000	47.89
38 Trichloroethene	130	5.206	5.206	(1.049)	197218	50.0000	44.20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Date : 08-OCT-2021 15:34
Client ID: VSTD050
Instrument: voa6.i
Sample Info: VSTD050;VSTD050;1;7;;
Purge Volume: 5.0
Operator: PC
Column phase: DB624
Column diameter: 0.18
Page 2
Y (x10^6)
\\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100808.D
Min
-Bromomethane
-Chloroethane
-Trichlorofluoromethane+
-Diethyl ether+
-Acetone+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2-Butanone+
-Propionitrile+
-Methacrylonitrile+
-Chloroform
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
-Trichloroethene+
-1,2-Dichloropropane+
-Methyl Methacrylate+
-Bromodichloromethane
-2-Nitropropane
-2-Chloroethylvinyl ether+
-cis-1,3-Dichloropropene+
-4-Methyl-2-Pentanone
-Toluene-d8+
-trans-1,3-Dichloropropene+
-Ethyl Methacrylate+
-1,3-Dichloropropane+
-2-Hexanone
-Dibromochloromethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
m,p-Xylenes
-o-Xylene+
-Bromoform+
-Isopropylbenzene
-4-Bromofluorobenzene+
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
-alpha-Methylstyrene
1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-Benzyl Chloride
-2-Ethyl-1-hexanol
1,4-Dichlorobenzene-d4+
n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene
-1-Methylnaphthalene

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100809.D Page 1
Report Date: 12-Nov-2021 13:19

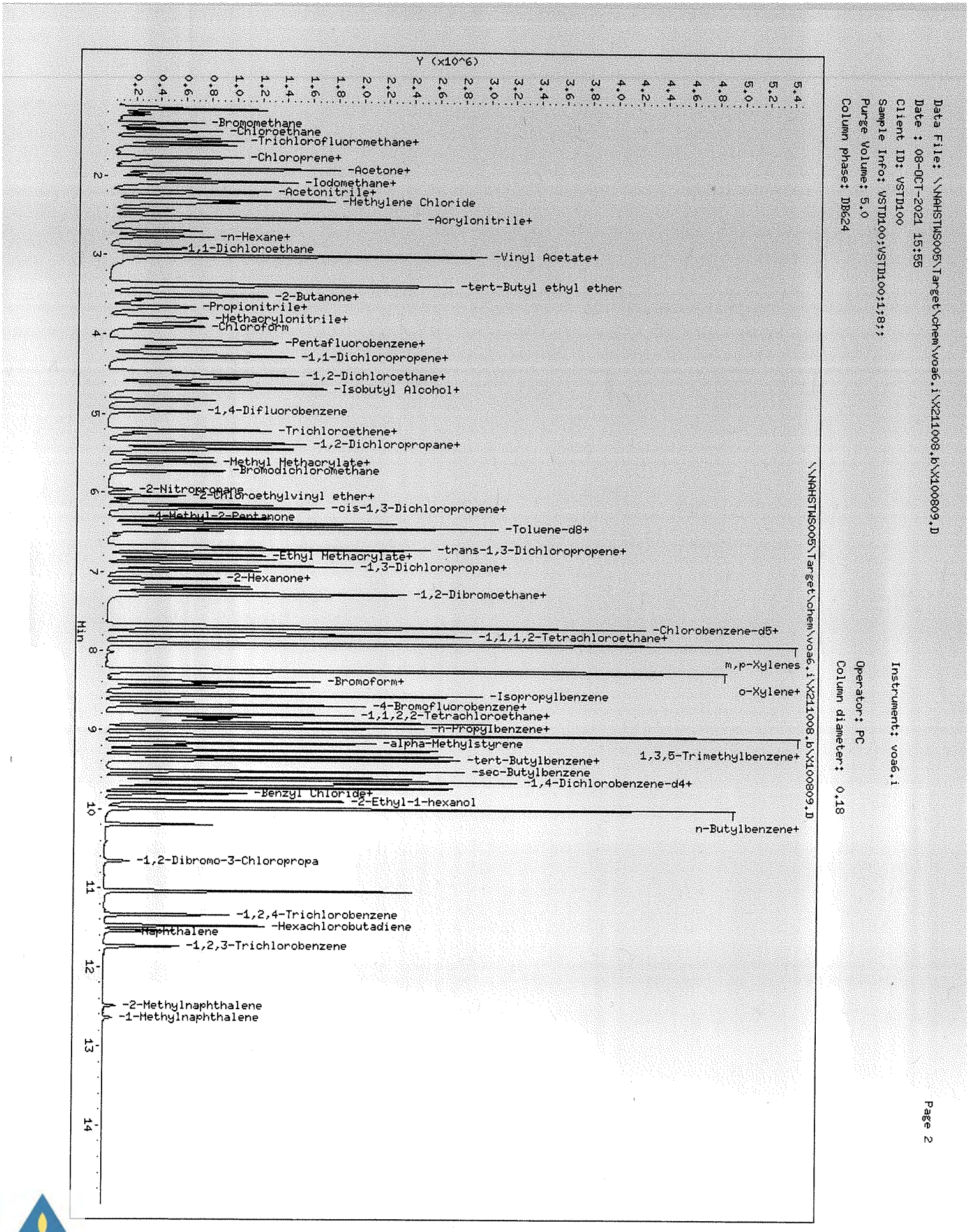
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100809.D
Lab Smp Id: VSTD100 Client Smp ID: VSTD100
Inj Date : 08-OCT-2021 15:55
Operator : PC Inst ID: voa6.i
Smp Info : VSTD100;VSTD100;1;8;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 13:19 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	418066	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	417318	100.000	102.87
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	416593	100.000	102.19
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	613866	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	579251	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	1348785	100.000	91.75
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	511094	100.000	102.41
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	297050	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	381795	100.000	87.10
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	343969	100.000	92.23
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	291528	100.000	94.31
	17 Methylene Chloride	84	2.305	2.305	(0.551)	361756	100.000	100.44
	27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	413298	100.000	95.08
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	479766	100.000	93.17
	38 Trichloroethene	130	5.206	5.206	(1.049)	421689	100.000	90.81


Data File: \\NAHSTMS005\Target\chem\voa6.i\X211008.b\X100809.D
Date : 08-OCT-2021 15:55
Client ID: VSTD100
Sample Info: VSTD100;VSTD100;1;8;;
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
\\NAHSTMS005\Target\chem\voa6.i\X211008.b\X100809.D
Y (x10^6)
Min
-Bromomethane
-Chloroethane
-Trichlorofluoromethane+
-Chloroprene+
-Acetone+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2-Butanone+
-Propionitrile+
-Methacrylonitrile+
-Chloroform
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
-Trichloroethene+
-1,2-Dichloropropane+
-Methyl Methacrylate+
-Bromodichloromethane
-2-Nitropropane
-2-Chloroethylvinyl ether+
-cis-1,3-Dichloropropene+
-4-Methyl-2-Pentanone
-Toluene-d8+
-trans-1,3-Dichloropropene+
-Ethyl Methacrylate+
-1,3-Dichloropropane+
-2-Hexanone+
-1,2-Dibromoethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
m,p-Xylenes
-Bromoform+
o-Xylene+
-Isopropylbenzene
-4-Bromofluorobenzene+
-1,1,2,2-Tetrachloroethane+
-n-Propylbenzene+
-alpha-Methylstyrene
1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-1,4-Dichlorobenzene-d4+
-Benzyl Chloride+
-2-Ethyl-1-hexanol
n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene
-1-Methylnaphthalene

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100810.D Page 1
Report Date: 12-Nov-2021 13:19

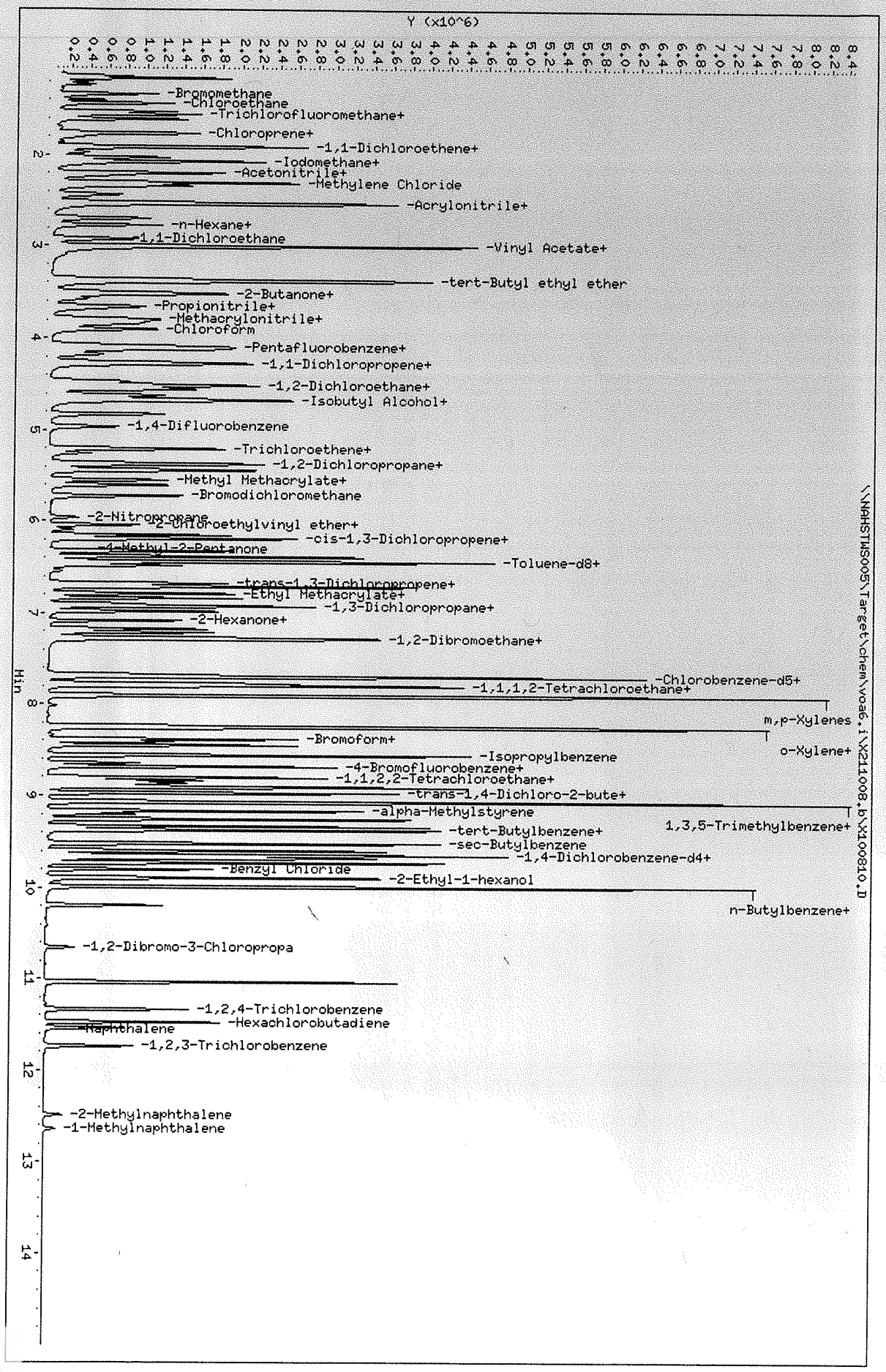
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100810.D
Lab Smp Id: VSTD150 Client Smp ID: VSTD150
Inj Date : 08-OCT-2021 16:16
Operator : PC Inst ID: voa6.i
Smp Info : VSTD150;VSTD150;1;9;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 13:19 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:55 Cal File: X100809.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	430506	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	604609	150.000	145.19
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	610768	150.000	146.35
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	614424	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	583017	50.0000	
$ 48 Toluene-d8	98	6.389	6.389	(0.833)	1910689	150.000	129.13
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	745510	150.000	149.04
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	301016	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	580048	150.000	128.51
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	518774	150.000	135.09
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	432811	150.000	139.12
17 Methylene Chloride	84	2.306	2.306	(0.551)	542343	150.000	146.81
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	618894	150.000	138.27
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	711577	150.000	138.06
38 Trichloroethene	130	5.207	5.207	(1.049)	618285	150.000	133.03


Data File: \\NAHSTWS005\Target\chem\voa6_i\X211008_b\X100810.D
Date : 08-OCT-2021 16:16
Client ID: WSTD150
Sample Info: WSTD150;WSTD150;1;9;;
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6_i
Operator: PC
Column diameter: 0.18
Y (x10^6)
Min
\\NAHSTWS005\Target\chem\voa6_i\X211008_b\X100810.D
-Bromomethane
-Chloroethane
-Trichlorofluoromethane+
-Chloroprene+
-1,1-Dichloroethene+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2-Butanone+
-Propionitrile+
-Methacrylonitrile+
-Chloroform
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
-Trichloroethene+
-1,2-Dichloropropane+
-Methyl Methacrylate+
-Bromodichloromethane
-2-Nitropropane
-2-Chloroethylvinyl ether+
-cis-1,3-Dichloropropene+
-4-Methyl-2-Pentanone
-Toluene-d8+
-trans-1,3-Dichloropropene+
-Ethyl Methacrylate+
-1,3-Dichloropropane+
-2-Hexanone+
-1,2-Dibromoethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
m,p-Xylenes
o-Xylene+
-Bromoform+
-Isopropylbenzene
-4-Bromofluorobenzene+
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
-alpha-Methylstyrene
1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-1,4-Dichlorobenzene-d4+
-Benzyl Chloride
-2-Ethyl-1-hexanol
n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene
-1-Methylnaphthalene

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100811.D Page 1
Report Date: 12-Nov-2021 13:19

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100811.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 08-OCT-2021 16:37
Operator : PC Inst ID: voa6.i
Smp Info : VSTD200;VSTD200;1;10;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 13:19 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 16:16 Cal File: X100810.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

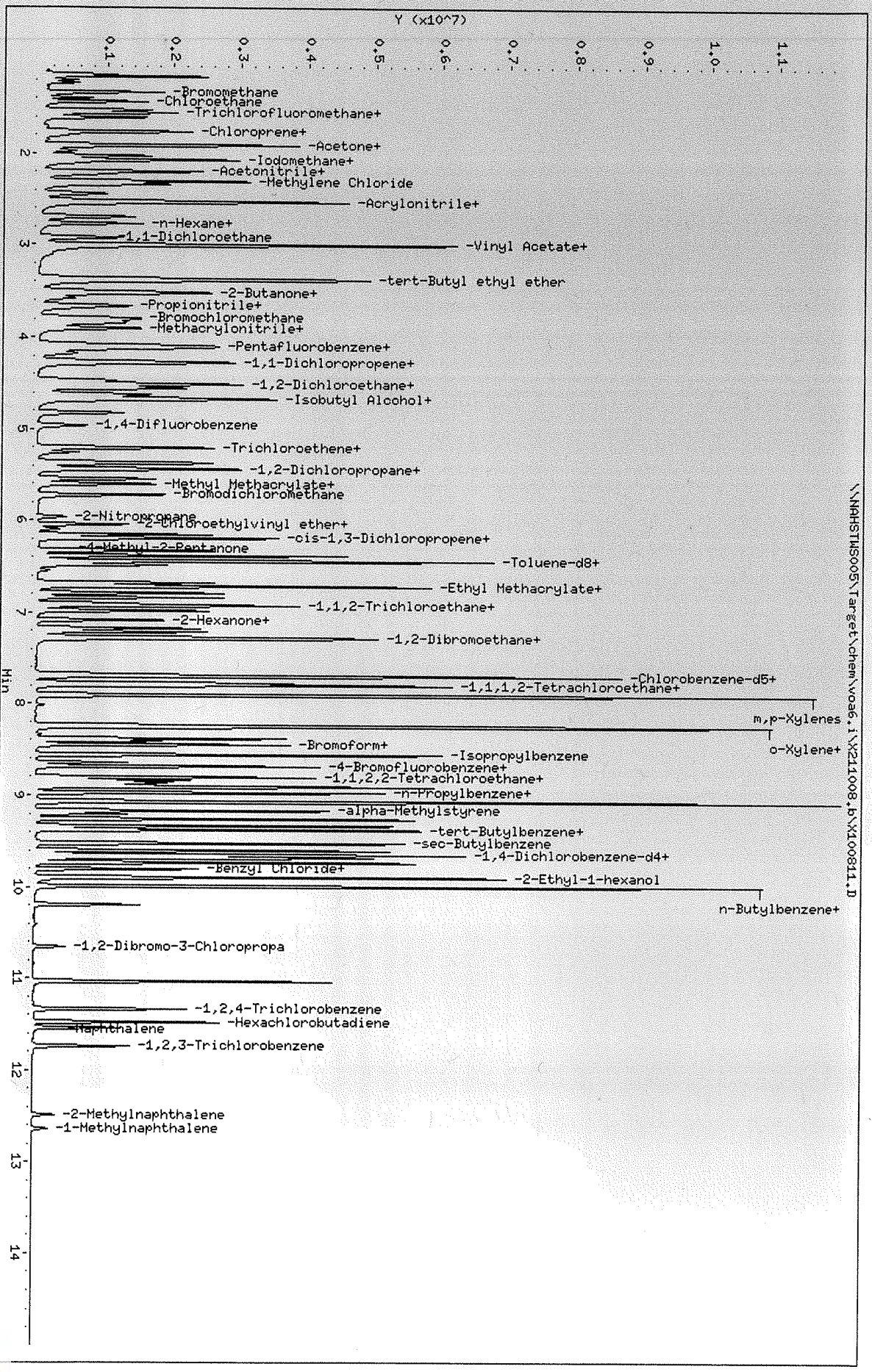
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	430833	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	839119	200.000	201.80(A)
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	835313	200.000	200.75(A)
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	629406	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	592993	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	2646847	200.000	175.88
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	1012260	200.000	199.42
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	308327	50.0000	
5 Vinyl Chloride	62	1.138	1.138	(0.272)	811647	200.000	179.68
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	737348	200.000	191.86
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	595829	200.000	188.30
17 Methylene Chloride	84	2.298	2.298	(0.550)	743741	200.000	201.65(A)
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	867147	200.000	193.59
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	971365	200.000	183.98
38 Trichloroethene	130	5.206	5.206	(1.049)	867502	200.000	182.21

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: \\NAHSTNS005\Target\chem\voa6.i\X211008.b\X100811.D
Date : 08-OCT-2021 16:37
Client ID: VSTD200
Sample Info: VSTD200;VSTD200;1;10;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100814.D Page 1
Report Date: 12-Nov-2021 13:19

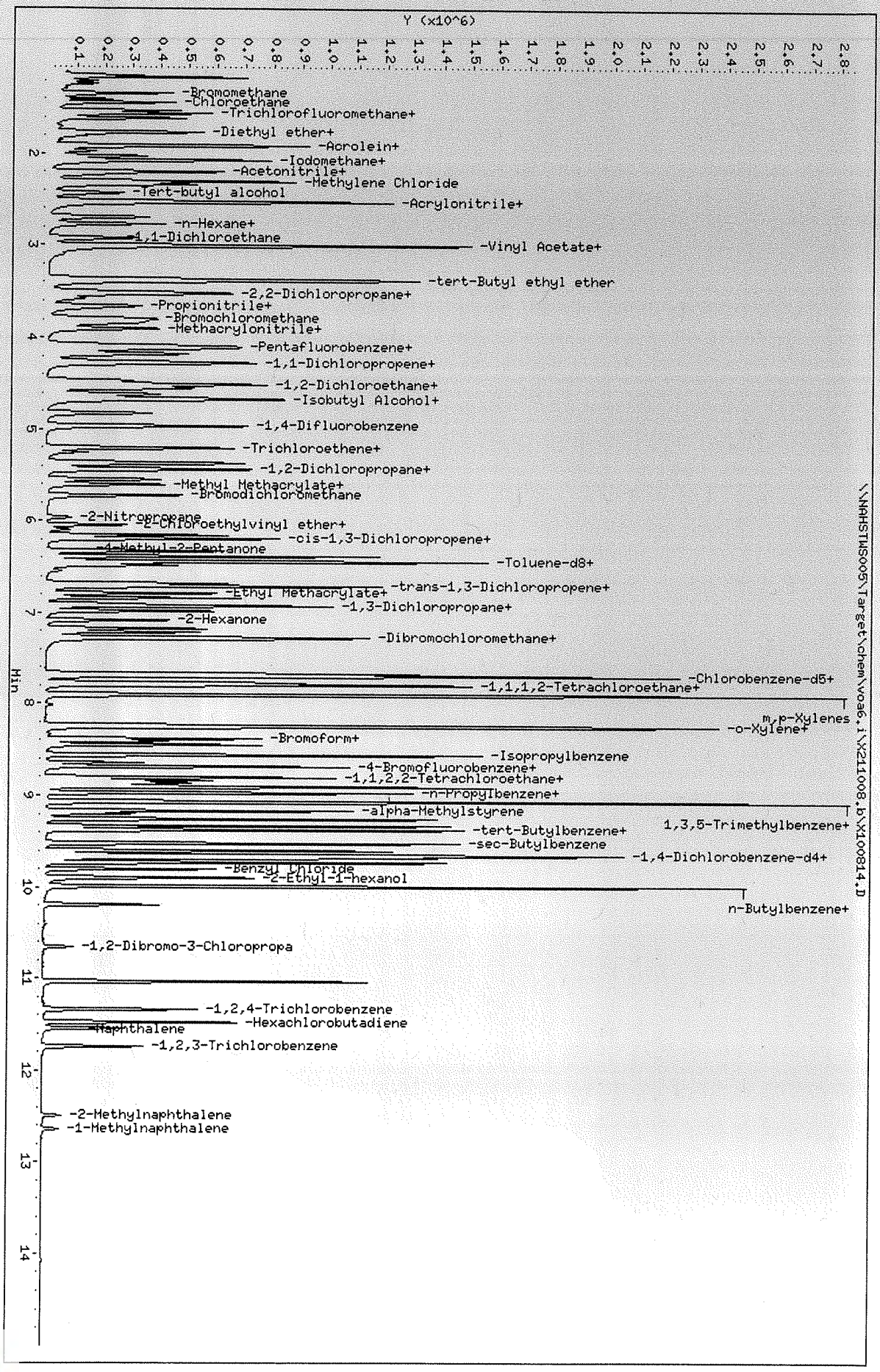
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100814.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 08-OCT-2021 17:40
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;ICV
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 12-Nov-2021 13:19 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 16:37 Cal File: X100811.D
Als bottle: 15 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	411437	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	220373	54.6695	54.66
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	220262	53.9602	53.96
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	626955	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	584793	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	702141	47.3113	47.31
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	271877	53.3185	53.31
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	301385	50.0000	
5 Vinyl Chloride	62	1.145	1.138	(0.274)	203682	47.2176	47.21
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	177902	48.4732	48.47
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	149441	47.8902	47.89
17 Methylene Chloride	84	2.305	2.298	(0.551)	187907	52.4189	52.41
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	217393	50.8223	50.82
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	252375	47.9879	47.98
38 Trichloroethene	130	5.206	5.206	(1.049)	219352	46.2533	46.25


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100814.D
Date : 08-OCT-2021 17:40
Client ID: ICV
Sample Info: CCV;CCV;2;;;ICV
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
Page 2
Y (x10^6)
Min
\\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100814.D
-Bromomethane
-Chloroethane
-Trichlorofluoromethane+
-Diethyl ether+
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2,2-Dichloropropane+
-Propionitrile+
-Bromochloromethane
-Methacrylonitrile+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
-Trichloroethene+
-1,2-Dichloropropane+
-Methyl Methacrylate+
-Bromodichloromethane
-2-Nitropropane
-2-Chloroethylvinyl ether+
-cis-1,3-Dichloropropene+
-4-Methyl-2-Pentanone
-Toluene-d8+
-trans-1,3-Dichloropropene+
-Ethyl Methacrylate+
-1,3-Dichloropropane+
-2-Hexanone
-Dibromochloromethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
m,p-Xylenes
-o-Xylene+
-Bromoform+
-Isopropylbenzene
-4-Bromofluorobenzene+
-1,1,2,2-Tetrachloroethane+
-n-Propylbenzene+
-alpha-Methylstyrene
1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-1,4-Dichlorobenzene-d4+
-Benzyl Chloride
-2-Ethyl-1-hexanol
n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene
-1-Methylnaphthalene

MSVOA06 -Logbook

Batch: 46876
Date: 10-22-2021
Method: 8260
Comments:

Analyst: Presenta Cabascango
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	
1	BFB	BFB	10-22-2021 10:43 am	1.00	0.00 mL	0.00 mL	X102201.D	Liquid	Y	N
2	CCV	CCV	10-22-2021 11:04 am	1.00	5.00 mL	0.00 mL	X102202a.D	Liquid	Y	N
3	CCV	CCV	10-22-2021 11:25 am	1.00	5.00 mL	0.00 mL	X102203.D	Liquid	Y	N
4	CCB	SAMP	10-22-2021 11:46 am	1.00	5.00 mL	0.00 mL	X102204.D	Liquid	Y	N
5	VLCSW-211022	LCS	10-22-2021 12:07 pm	1.00	5.00 mL	0.00 mL	X102205.D	Liquid	Y	N
6	BLANK	SAMP	10-22-2021 12:28 pm	1.00	5.00 mL	0.00 mL	X102206.D	Liquid	Y	N
7	VBLKW-211022	MBLK	10-22-2021 12:49 pm	1.00	5.00 mL	0.00 mL	X102207.D	Liquid	Y	N
8	HS21101069-01	SAMP	10-22-2021 01:10 pm	1.00	5.00 mL	0.00 mL	X102208.D	Liquid	Y	N
9	HS21101069-02	SAMP	10-22-2021 01:31 pm	1.00	5.00 mL	0.00 mL	X102209.D	Liquid	Y	N
10	HS21101118-07	SAMP	10-22-2021 01:52 pm	1.00	5.00 mL	0.00 mL	X102210.D	Liquid	Y	N
11	HS21101072-01	SAMP	10-22-2021 02:13 pm	1.00	5.00 mL	0.00 mL	X102211.D	Liquid	Y	N
12	HS21101100-03	SAMP	10-22-2021 02:35 pm	1.00	5.00 mL	0.00 mL	X102212.D	Liquid	Y	N
13	HS21101118-03	SAMP	10-22-2021 02:56 pm	1.00	5.00 mL	0.00 mL	X102213.D	Liquid	Y	N
14	HS21101100-03MS	MS	10-22-2021 03:17 pm	1.00	5.00 mL	0.00 mL	X102214.D	Liquid	Y	N
15	HS21101100-03MSD	MSD	10-22-2021 03:38 pm	1.00	5.00 mL	0.00 mL	X102215.D	Liquid	Y	N
16	HS21101118-03MS	MS	10-22-2021 03:59 pm	1.00	5.00 mL	0.00 mL	X102216.D	Liquid	Y	N
17	HS21101118-03MSD	MSD	10-22-2021 04:20 pm	1.00	5.00 mL	0.00 mL	X102217.D	Liquid	Y	N
18	HS21100785-04	SAMP	10-22-2021 04:41 pm	100.0(	5.00 mL	0.00 mL	X102218.D	Liquid	Y	N
19	HS21101100-01	SAMP	10-22-2021 05:02 pm	1.00	5.00 mL	0.00 mL	X102219.D	Liquid	Y	N
20	HS21101100-02	SAMP	10-22-2021 05:23 pm	1.00	5.00 mL	0.00 mL	X102220.D	Liquid	Y	N
21	HS21101118-01	SAMP	10-22-2021 05:44 pm	1.00	5.00 mL	0.00 mL	X102221.D	Liquid	Y	N
22	HS21101118-02	SAMP	10-22-2021 06:05 pm	1.00	5.00 mL	0.00 mL	X102222.D	Liquid	Y	N
23	HS21101118-04	SAMP	10-22-2021 06:26 pm	1.00	5.00 mL	0.00 mL	X102223.D	Liquid	Y	N
24	HS21101118-05	SAMP	10-22-2021 06:47 pm	1.00	5.00 mL	0.00 mL	X102224.D	Liquid	Y	N
25	HS21101118-06	SAMP	10-22-2021 07:08 pm	1.00	5.00 mL	0.00 mL	X102225.D	Liquid	Y	N
26	HS21101118-08	SAMP	10-22-2021 07:29 pm	1.00	5.00 mL	0.00 mL	X102226.D	Liquid	Y	N
27	HS21101118-09	SAMP	10-22-2021 07:50 pm	1.00	5.00 mL	0.00 mL	X102227.D	Liquid	Y	N
28	HS21101118-10	SAMP	10-22-2021 08:11 pm	1.00	5.00 mL	0.00 mL	X102228.D	Liquid	Y	N
29	HS21101118-11	SAMP	10-22-2021 08:33 pm	1.00	5.00 mL	0.00 mL	X102229.D	Liquid	Y	N
30	HS21101118-12	SAMP	10-22-2021 08:54 pm	1.00	5.00 mL	0.00 mL	X102230.D	Liquid	Y	N
31	HS21101120-02	SAMP	10-22-2021 09:15 pm	1.00	5.00 mL	0.00 mL	X102231.D	Liquid	Y	N
32	CCV-END	CCV	10-22-2021 09:36 pm	1.00	5.00 mL	0.00 mL	X102232.D	Liquid	Y	N
33	BFB	BFB	10-22-2021 09:57 pm	1.00	0.00 mL	0.00 mL	Y102201.D	Liquid	Y	N
34	CCV	CCV	10-22-2021 10:18 pm	1.00	5.00 mL	0.00 mL	Y102202a.D	Liquid	Y	N
35	CCV	CCV	10-22-2021 10:38 pm	1.00	5.00 mL	0.00 mL	Y102203.D	Liquid	Y	N
36	CCB	SAMP	10-22-2021 11:00 pm	1.00	5.00 mL	0.00 mL	Y102204.D	Liquid	Y	N
37	VLCSW-211022	LCS	10-22-2021 11:21 pm	1.00	5.00 mL	0.00 mL	Y102205.D	Liquid	Y	N
38	BLANK	SAMP	10-22-2021 11:42 pm	1.00	5.00 mL	0.00 mL	Y102206.D	Liquid	Y	N
39	VBLKW-211022	MBLK	10-23-2021 12:03 am	1.00	5.00 mL	0.00 mL	Y102207.D	Liquid	Y	N
40	HS21100881-08	SAMP	10-23-2021 12:24 am	1.00	5.00 mL	0.00 mL	Y102208.D	Liquid	Y	N
41	HS21101144-10	SAMP	10-23-2021 12:45 am	1.00	5.00 mL	0.00 mL	Y102209.D	Liquid	Y	N

MSVOA06 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
42	HS21100785-05	SAMP	10-23-2021 01:06 am	10.00	5.00 mL	0.00 mL	Y102210.D	Liquid	Y	N
43	HS21101144-10MS	MS	10-23-2021 01:27 am	1.00	5.00 mL	0.00 mL	Y102211.D	Liquid	Y	N
44	HS21101144-10MSD	MSD	10-23-2021 01:48 am	1.00	5.00 mL	0.00 mL	Y102212.D	Liquid	Y	N
45	HS21100785-05	SAMP	10-23-2021 02:09 am	100.0(	5.00 mL	0.00 mL	Y102213.D	Liquid	Y	N
46	HS21100881-01	SAMP	10-23-2021 02:30 am	1.00	5.00 mL	0.00 mL	Y102214.D	Liquid	Y	N
47	HS21100881-02	SAMP	10-23-2021 02:51 am	1.00	5.00 mL	0.00 mL	Y102215.D	Liquid	Y	N
48	HS21100881-03	SAMP	10-23-2021 03:12 am	1.00	5.00 mL	0.00 mL	Y102216.D	Liquid	Y	N
49	HS21100881-04	SAMP	10-23-2021 03:33 am	1.00	5.00 mL	0.00 mL	Y102217.D	Liquid	Y	N
50	HS21100881-05	SAMP	10-23-2021 03:54 am	1.00	5.00 mL	0.00 mL	Y102218.D	Liquid	Y	N
51	HS21100881-06	SAMP	10-23-2021 04:15 am	1.00	5.00 mL	0.00 mL	Y102219.D	Liquid	Y	N
52	HS21101144-01	SAMP	10-23-2021 04:36 am	1.00	5.00 mL	0.00 mL	Y102220.D	Liquid	Y	N
53	HS21101144-02	SAMP	10-23-2021 04:57 am	1.00	5.00 mL	0.00 mL	Y102221.D	Liquid	Y	N
54	HS21101144-03	SAMP	10-23-2021 05:19 am	1.00	5.00 mL	0.00 mL	Y102222.D	Liquid	Y	N
55	HS21101144-04	SAMP	10-23-2021 05:40 am	1.00	5.00 mL	0.00 mL	Y102223.D	Liquid	Y	N
56	HS21101144-05	SAMP	10-23-2021 06:01 am	1.00	5.00 mL	0.00 mL	Y102224.D	Liquid	Y	N
57	HS21101144-06	SAMP	10-23-2021 06:22 am	1.00	5.00 mL	0.00 mL	Y102225.D	Liquid	Y	N
58	HS21101144-07	SAMP	10-23-2021 06:43 am	1.00	5.00 mL	0.00 mL	Y102226.D	Liquid	Y	N
59	HS21101144-08	SAMP	10-23-2021 07:04 am	1.00	5.00 mL	0.00 mL	Y102227.D	Liquid	Y	N
60	HS21101144-09	SAMP	10-23-2021 07:25 am	1.00	5.00 mL	0.00 mL	Y102228.D	Liquid	Y	N
61	HS21101144-11	SAMP	10-23-2021 07:46 am	1.00	5.00 mL	0.00 mL	Y102229.D	Liquid	Y	N
62	CCV-END	CCV	10-23-2021 08:07 am	1.00	5.00 mL	0.00 mL	Y102230.D	Liquid	Y	N
63	BLANK	SAMP	10-23-2021 08:28 am	1.00	5.00 mL	0.00 mL	Y102231.D	Liquid	Y	N

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE)#	SMC3 (TOL)#	OTHER #	TOT OUT
01	VLCSW-211022	111	109	95	104	0
02	VBLKW-211022	98	100	100	100	0
03	HS21100881-08	96	97	100	99	0
04	HS21101144-10MS	93	94	96	102	0
05	HS21101144-10MSD	92	95	97	101	0
06	HS21100881-01	97	99	99	97	0
07	HS21100881-02	95	97	98	99	0
08	HS21100881-03	94	97	97	97	0
09	HS21100881-04	97	99	98	98	0
10	HS21100881-05	98	98	98	98	0
11	HS21100881-06	97	97	100	96	0
12						
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		QC LIMITS
SMC1	= Dibromofluoromethane	(70-130)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(70-130)
SMC3 (TOL)	= Toluene-d8	(70-130)
OTHER	= 4-Bromofluorobenzene	(70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.
VBLKW-211022

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Lab File ID: Y102207 Lab Sample ID: VBLKW-211022

Date Analyzed: 10/23/21 Time Analyzed: 0003

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSW-211022	VLCSW-211022	Y102205	2321
02	HS21100881-08	HS21100881-08	Y102208	0024
03	HS21101144-10MS	HS21101144-10MS	Y102211	0127
04	HS21101144-10MSD	HS21101144-10MSD	Y102212	0148
05	HS21100881-01	HS21100881-01	Y102214	0230
06	HS21100881-02	HS21100881-02	Y102215	0251
07	HS21100881-03	HS21100881-03	Y102216	0312
08	HS21100881-04	HS21100881-04	Y102217	0333
09	HS21100881-05	HS21100881-05	Y102218	0354
10	HS21100881-06	HS21100881-06	Y102219	0415
11				
12				
13				
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30				

COMMENTS:

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Lab File ID: Y102201 BFB Injection Date: 10/22/21

Instrument ID: VOA6 BFB Injection Time: 2157

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.1
75	30.0 - 60.0% of mass 95	45.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1.3 (1.2)1
174	Greater than 50.0% of mass 95	105.1
175	5.0 - 9.0% of mass 174	8.1 (7.7)1
176	95.0 - 101.0% of mass 174	100.6 (95.7)1
177	5.0 - 9.0% of mass 176	6.6 (6.6)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	Y102203	10/22/21	2238
02	VLCSW-211022	VLCSW-211022	Y102205	10/22/21	2321
03	VBLKW-211022	VBLKW-211022	Y102207	10/23/21	0003
04	HS21100881-08	HS21100881-08	Y102208	10/23/21	0024
05	HS21101144-10MS	HS21101144-10MS	Y102211	10/23/21	0127
06	HS21101144-10MSD	HS21101144-10MSD	Y102212	10/23/21	0148
07	HS21100881-01	HS21100881-01	Y102214	10/23/21	0230
08	HS21100881-02	HS21100881-02	Y102215	10/23/21	0251
09	HS21100881-03	HS21100881-03	Y102216	10/23/21	0312
10	HS21100881-04	HS21100881-04	Y102217	10/23/21	0333
11	HS21100881-05	HS21100881-05	Y102218	10/23/21	0354
12	HS21100881-06	HS21100881-06	Y102219	10/23/21	0415
13	CCV-END	CCV-END	Y102230	10/23/21	0807
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Instrument ID: VOA6 Calibration Date: 10/22/21 Time: 2238

Lab File ID: Y102203 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	58.053382	50.000000	0.5046419	0.1	-16.11	20.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2632155	0.2632155	0.1	1.42	20.00	AVRG
Trichloroethene	0.3780000	0.3737733	0.3737733	0.2	1.12	20.00	AVRG
Vinyl Chloride	0.5240000	0.4889596	0.4889596	0.1	6.69	20.00	AVRG
1,1-Dichloroethene	0.4460000	0.4338378	0.4338378	0.1	2.73	20.00	AVRG
1,2-Dichloroethane	0.4190000	0.4244280	0.4244280	0.1	-1.30	20.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.5571767	0.5571767	0.1	-7.15	20.00	AVRG
1,2-Dichloroethane-d4	55.262366	50.000000	0.5477975	0.1	-10.52	20.00	LINR
Dibromofluoromethane	53.886870	50.000000	0.5281069	0.1	-7.77	20.00	LINR
4-Bromofluorobenzene	50.430047	50.000000	0.4403561	0.1	-0.86	20.00	LINR
Toluene-d8	1.2690000	1.1597129	1.1597129	0.1	8.61	20.00	AVRG

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Instrument ID: VOA6 Calibration Date: 10/23/21 Time: 0807

Lab File ID: Y102230 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	56.780632	50.000000	0.4938146	0.1	-13.56	50.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2706202	0.2706202	0.1	-1.36	50.00	AVRG
Trichloroethene	0.3780000	0.3749428	0.3749428	0.2	0.81	50.00	AVRG
Vinyl Chloride	0.5240000	0.5018019	0.5018019	0.1	4.24	50.00	AVRG
1,1-Dichloroethene	0.4460000	0.4468975	0.4468975	0.1	-0.20	50.00	AVRG
1,2-Dichloroethane	0.4190000	0.4200821	0.4200821	0.1	-0.26	50.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.5585789	0.5585789	0.1	-7.42	50.00	AVRG
1,2-Dichloroethane-d4	54.547410	50.000000	0.5409619	0.1	-9.09	50.00	LINR
Dibromofluoromethane	54.646112	50.000000	0.5353935	0.1	-9.29	50.00	LINR
4-Bromofluorobenzene	51.560672	50.000000	0.4499679	0.1	-3.12	50.00	LINR
Toluene-d8	1.2690000	1.1850777	1.1850777	0.1	6.61	50.00	AVRG

FORM VII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Lab File ID (Standard): Y102203 Date Analyzed: 10/22/21

Instrument ID: VOA6 Time Analyzed: 2238

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	IS1 RT #	IS2(DFB) AREA #	IS2(DFB) RT #	IS3(CBZ) AREA #	IS3(CBZ) RT #
	12 HOUR STD	325080	4.18	496341	4.96	475447	7.67
	UPPER LIMIT	650160	4.68	992682	5.46	950894	8.17
	LOWER LIMIT	162540	3.68	248171	4.46	237724	7.17
	CLIENT SAMPLE NO.						
01	VLCSW-211022	325777	4.18	502348	4.96	472530	7.67
02	VBLKW-211022	407299	4.18	580225	4.96	514915	7.67
03	HS21100881-08	416553	4.18	587613	4.96	525381	7.67
04	HS21101144-10MS	435726	4.18	599713	4.96	542462	7.67
05	HS21101144-10MSD	437807	4.18	605731	4.96	542436	7.67
06	HS21100881-01	404873	4.18	570563	4.96	503958	7.67
07	HS21100881-02	419730	4.18	594908	4.96	530598	7.67
08	HS21100881-03	413305	4.18	583059	4.96	529649	7.67
09	HS21100881-04	409895	4.18	586702	4.96	525153	7.67
10	HS21100881-05	403197	4.18	569693	4.96	509752	7.67
11	HS21100881-06	408691	4.18	573217	4.97	504837	7.67
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Lab File ID (Standard): Y102203 Date Analyzed: 10/22/21

Instrument ID: VOA6 Time Analyzed: 2238

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	241833	9.66				
	UPPER LIMIT	483666	10.16				
	LOWER LIMIT	120917	9.16				
	CLIENT SAMPLE NO.						
01	VLCSW-211022	242376	9.66				
02	VBLKW-211022	243199	9.66				
03	HS21100881-08	246938	9.66				
04	HS21101144-10MS	273265	9.66				
05	HS21101144-10MSD	267399	9.66				
06	HS21100881-01	234817	9.66				
07	HS21100881-02	255035	9.66				
08	HS21100881-03	250127	9.66				
09	HS21100881-04	250345	9.66				
10	HS21100881-05	240194	9.66				
11	HS21100881-06	238675	9.66				
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

FORM VIII VOA

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102201.D

Page 1

Date : 22-OCT-2021 21:57

Client ID: BFB

Instrument: voa6.i

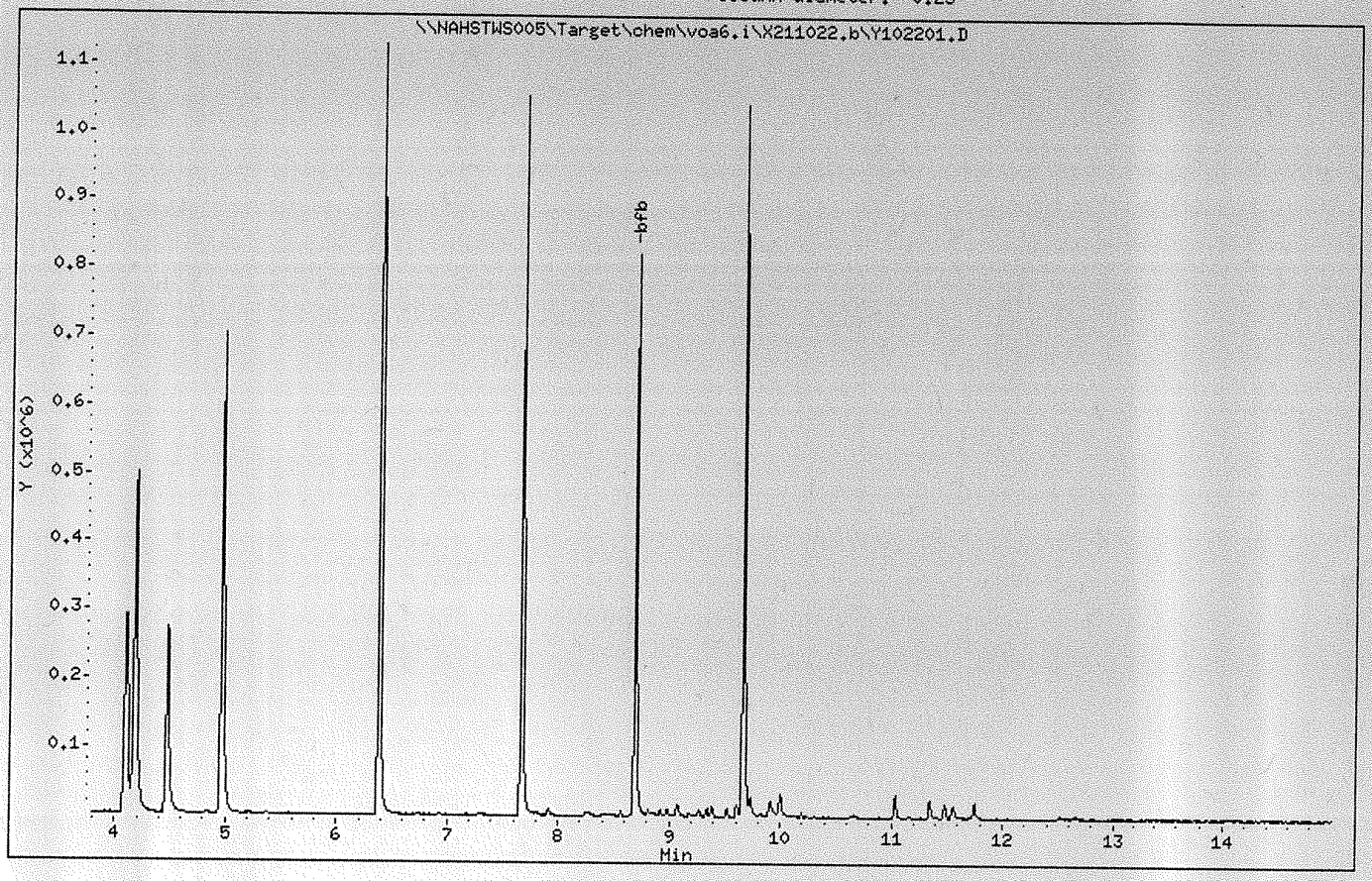
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102201.D

Page 2

Date : 22-OCT-2021 21:57

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

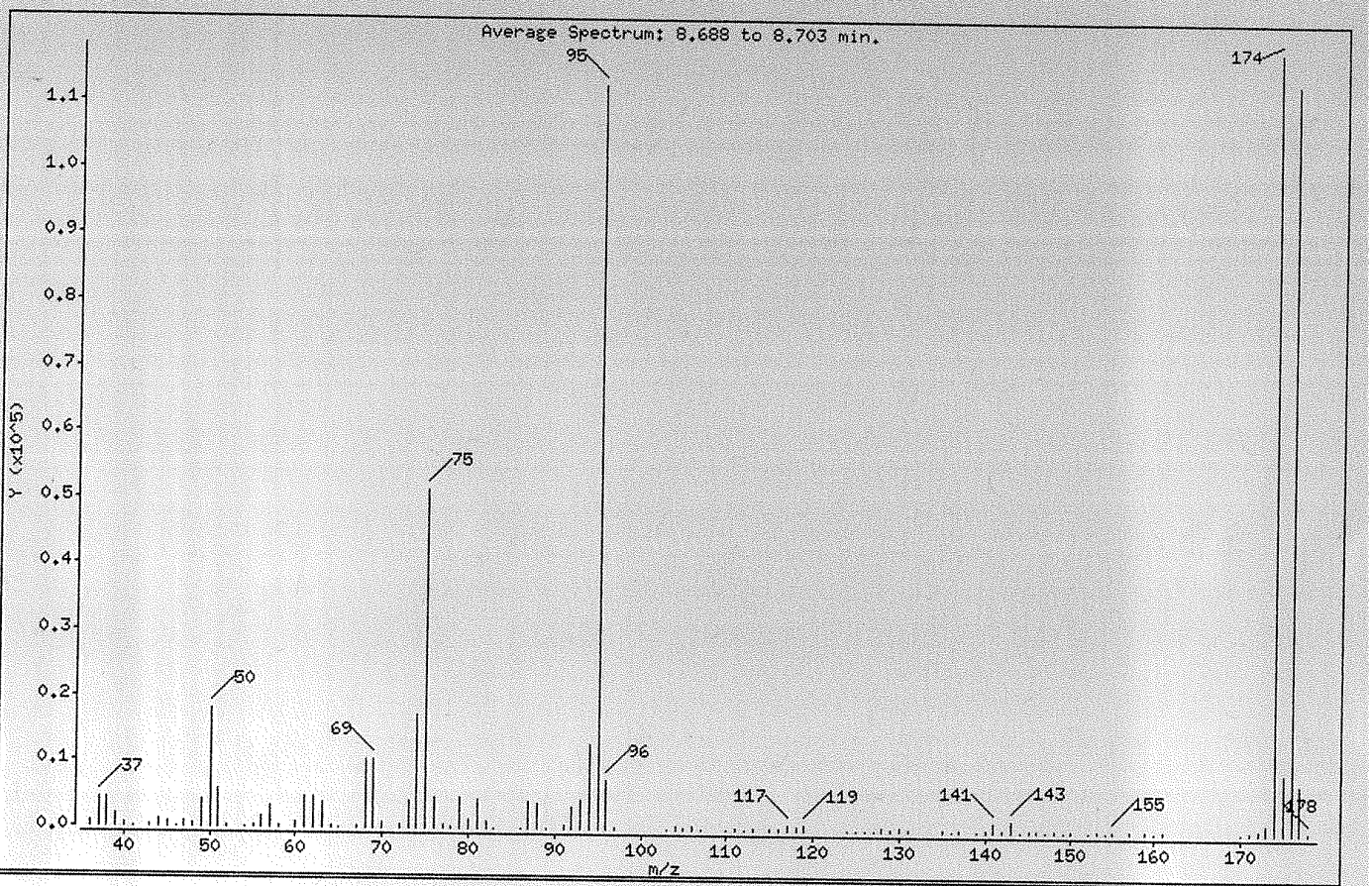
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.10
75	30.00 - 60.00% of mass 95	45.43
96	5.00 - 9.00% of mass 95	6.47
173	Less than 2.00% of mass 174	1.26 (1.20)
174	Greater than 50.00% of mass 95	105.11
175	5.00 - 9.00% of mass 174	8.09 (7.70)
176	95.00 - 101.00% of mass 174	100.62 (95.73)
177	5.00 - 9.00% of mass 176	6.61 (6.57)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102201.D

Date : 22-OCT-2021 21:57

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: Y102201.D
Spectrum: Average Spectrum: 8.688 to 8.703 min.
Location of Maximum: 174.00
Number of points: 108

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	880	68.00	10250	105.00	205	144.00	50
37.00	4421	69.00	10439	106.00	565	145.00	159
38.00	4321	70.00	943	107.00	96	146.00	274
39.00	1813	72.00	477	110.00	79	147.00	52
40.00	535	73.00	4215	111.00	212	148.00	273
41.00	61	74.00	17272	112.00	33	149.00	54
43.00	151	75.00	51200	113.00	158	150.00	139
44.00	1141	76.00	4633	115.00	172	152.00	29
45.00	814	77.00	582	116.00	396	153.00	139
46.00	67	78.00	385	117.00	798	154.00	51
47.00	846	79.00	4543	118.00	422	155.00	353
48.00	576	80.00	1312	119.00	706	157.00	305
49.00	4111	81.00	4275	124.00	111	159.00	166
50.00	18136	82.00	957	125.00	40	160.00	86
51.00	5645	83.00	68	126.00	57	161.00	145
52.00	222	86.00	44	127.00	40	170.00	90
54.00	33	87.00	4098	128.00	521	171.00	214
55.00	405	88.00	3905	129.00	272	172.00	418
56.00	1681	89.00	27	130.00	510	173.00	1424
57.00	3209	91.00	518	131.00	215	174.00	118456
58.00	166	92.00	3259	135.00	235	175.00	9123
60.00	885	93.00	4491	136.00	41	176.00	113408
61.00	4732	94.00	12715	137.00	200	177.00	7452
62.00	4773	95.00	112704	139.00	65	178.00	187
63.00	3896	96.00	7287	140.00	147		
64.00	303	97.00	274	141.00	1396		
65.00	93	103.00	56	142.00	194		
67.00	317	104.00	516	143.00	1526		

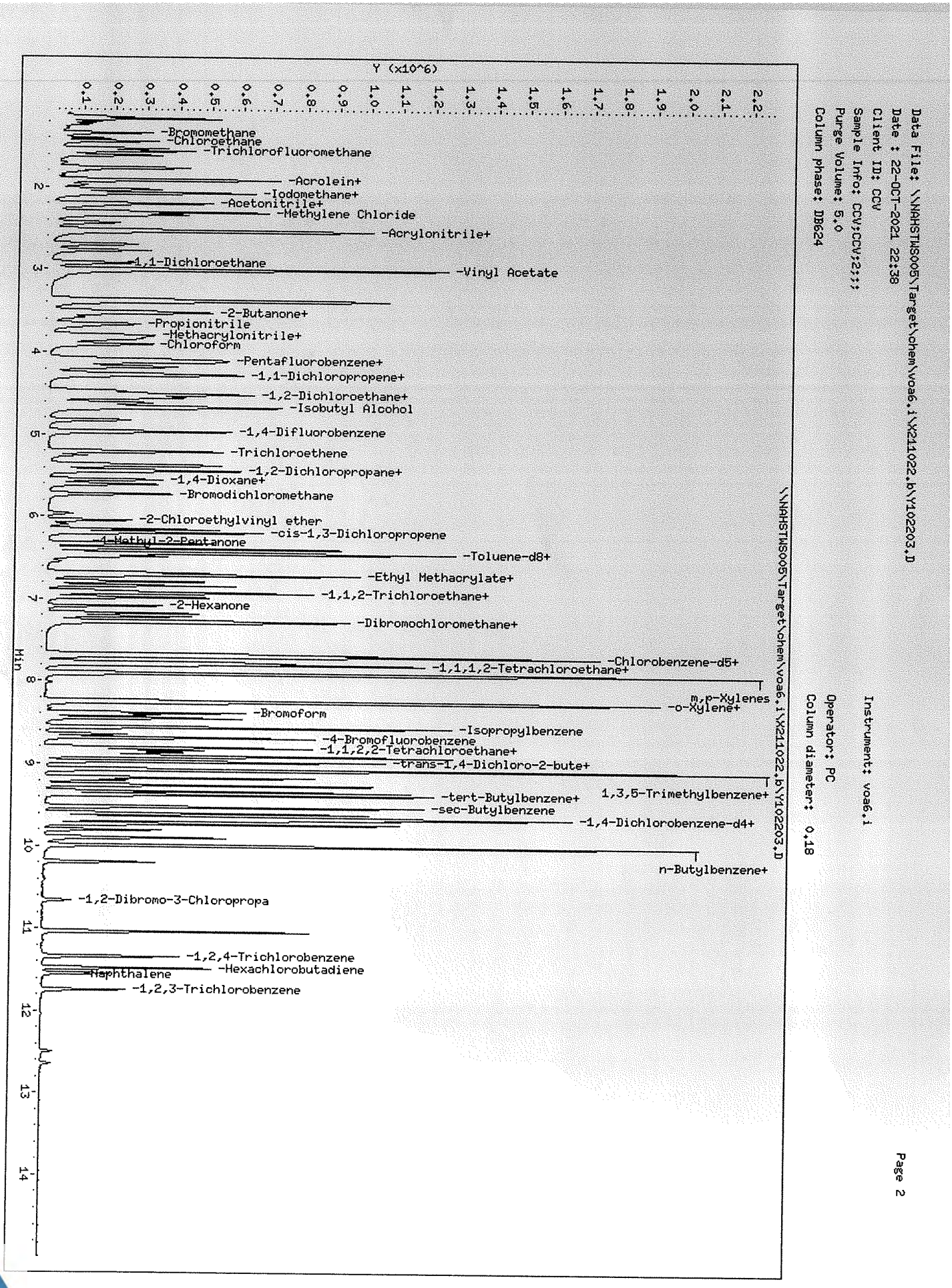
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102203.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 22-OCT-2021 22:38
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 13:13 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 32 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	325080	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	171677	50.0000	53.88
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	178078	50.0000	55.26
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	496341	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	475447	50.0000	
$ 48 Toluene-d8	98	6.389	6.389	(0.833)	551382	50.0000	45.69
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	209366	50.0000	50.43
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	241833	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	158951	50.0000	46.63
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	141032	50.0000	48.63
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	125145	50.0000	49.32
17 Methylene Chloride	84	2.306	2.306	(0.551)	164049	50.0000	58.05
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	181127	50.0000	53.59
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	210661	50.0000	50.59
38 Trichloroethene	130	5.207	5.207	(1.049)	185519	50.0000	49.41


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102203.D
Date : 22-OCT-2021 22:38
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
Page 2
Y (x10^6)
Min
\\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102203.D
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Acrylonitrile+
-1,1-Dichloroethane
-Vinyl Acetate
-2-Butanone+
-Propionitrile
-Methacrylonitrile+
-Chloroform
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-4-Methyl-2-Pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone
-Dibromochloromethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
m,p-Xylenes
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-1,4-Dichlorobenzene-d4+
n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102205.D Page 1
Report Date: 12-Nov-2021 13:13

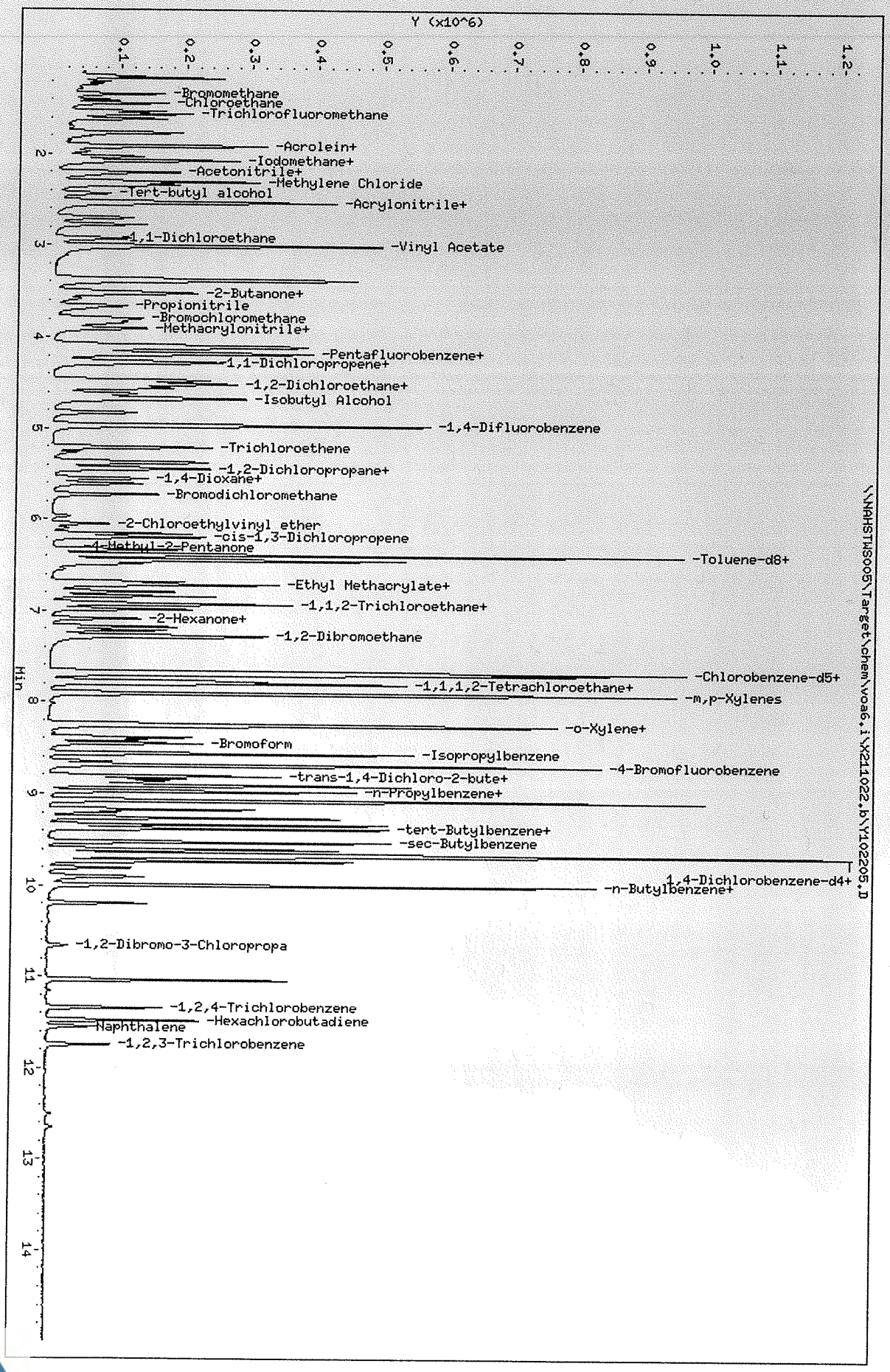
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102205.D
Lab Smp Id: VLCSW-211022 Client Smp ID: VLCSW-211022
Inj Date : 22-OCT-2021 23:21
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-211022;VLCSW-211022;3;;LCS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 13:13 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 34 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	325777	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	177232	55.5459	55.54
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	176212	54.5407	54.54
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	502348	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	472530	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	568156	47.3784	47.37
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	215179	52.1969	52.19
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	242376	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	72147	21.1228	21.12
11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	61711	21.2357	21.23
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	52377	20.7726	20.77
17 Methylene Chloride	84	2.305	2.306	(0.551)	69568	23.8351	23.83
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	76454	22.5732	22.57
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	91523	21.7194	21.71
38 Trichloroethene	130	5.206	5.207	(1.049)	81294	21.3940	21.39


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102205.D
Date : 22-OCT-2021 23:21
Client ID: VLCSW-211022
Sample Info: VLCSW-211022;VLCSW-211022;3;;LCS
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
Y (x10^6)
Min
\\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102205.D
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-1,1-Dichloroethane
-Vinyl Acetate
-2-Butanone+
-Propionitrile
-Bromochloromethane
-Methacrylonitrile+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-4-Methyl-2-Pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone+
-1,2-Dibromoethane
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
-m,p-Xylenes
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-trans-1,4-Dichloro-2-bute+
-n-Propylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
Naphthalene
-1,2,3-Trichlorobenzene

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102207.D Page 1
Report Date: 12-Nov-2021 13:13

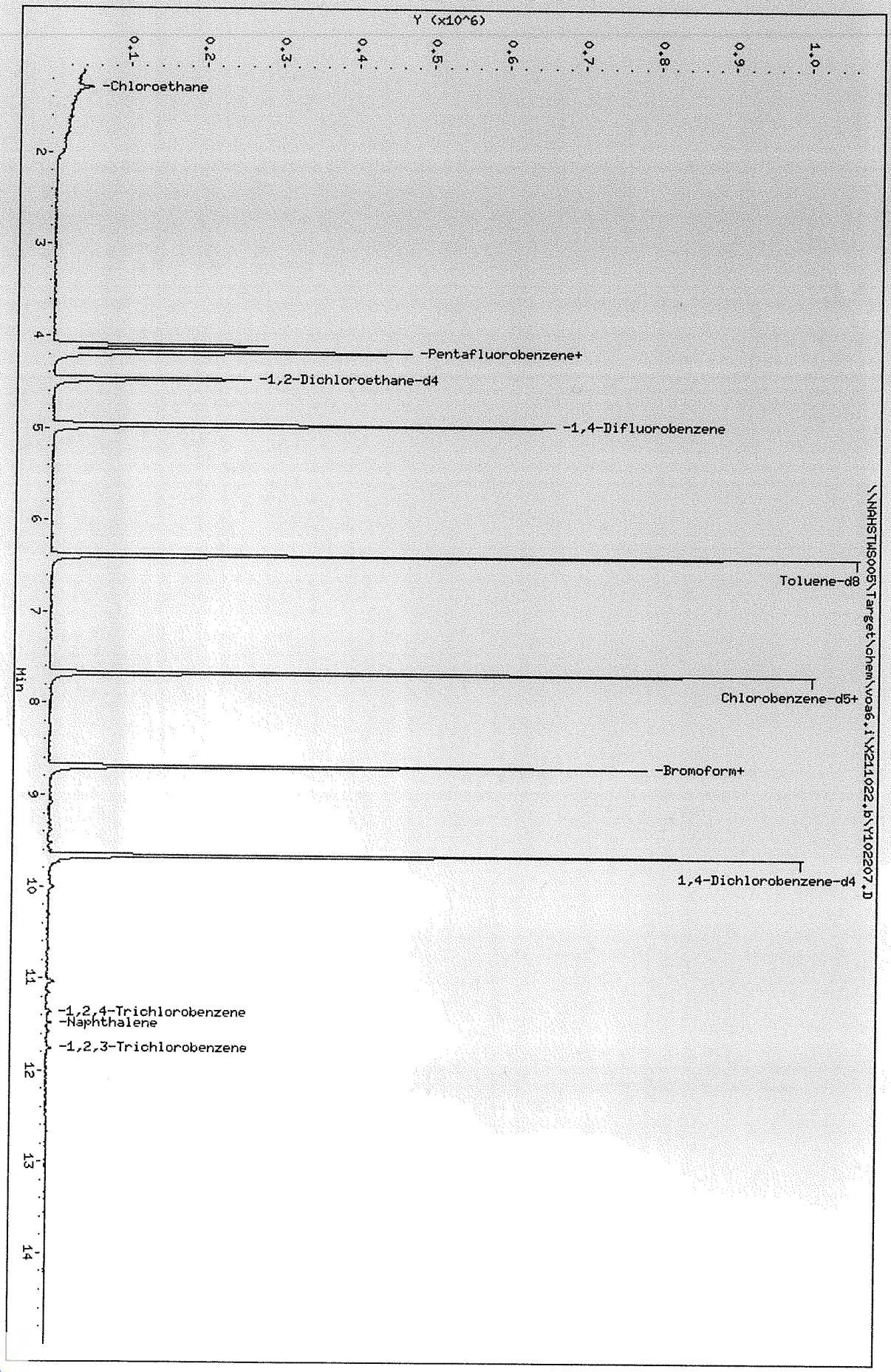
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102207.D
Lab Smp Id: VBLKW-211022 Client Smp ID: VBLKW-211022
Inj Date : 23-OCT-2021 00:03
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-211022;VBLKW-211022;3;;BLANK
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 13:13 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 36 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	407299	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	195648	48.9112	48.91
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	201812	49.7912	49.79
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	580225	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	514915	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	651498	49.8563	49.85
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	224993	50.0296	50.02
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	243199	50.0000	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Date : 23-OCT-2021 00:03
Client ID: VBLKW-211022
Sample Info: VBLKW-211022;VBLKW-211022;3;;BLANK
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
Page 2
Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
2
3
4
5
6
7
8
9
10
11
12
13
14
Min
-Chloroethane
-Pentafluorobenzene+
-1,2-Dichloroethane-d4
-1,4-Difluorobenzene
Toluene-d8
Chlorobenzene-d5+
-Bromoform+
1,4-Dichlorobenzene-d4
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
\\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102207.D

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102208.D Page 1
Report Date: 12-Nov-2021 13:11

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102208.D
Lab Smp Id: HS21100881-08 Client Smp ID: HS21100881-08
Inj Date : 23-OCT-2021 00:24
Operator : PC Inst ID: voa6.i
Smp Info : HS21100881-08;HS21100881-08;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 13:07 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 37
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

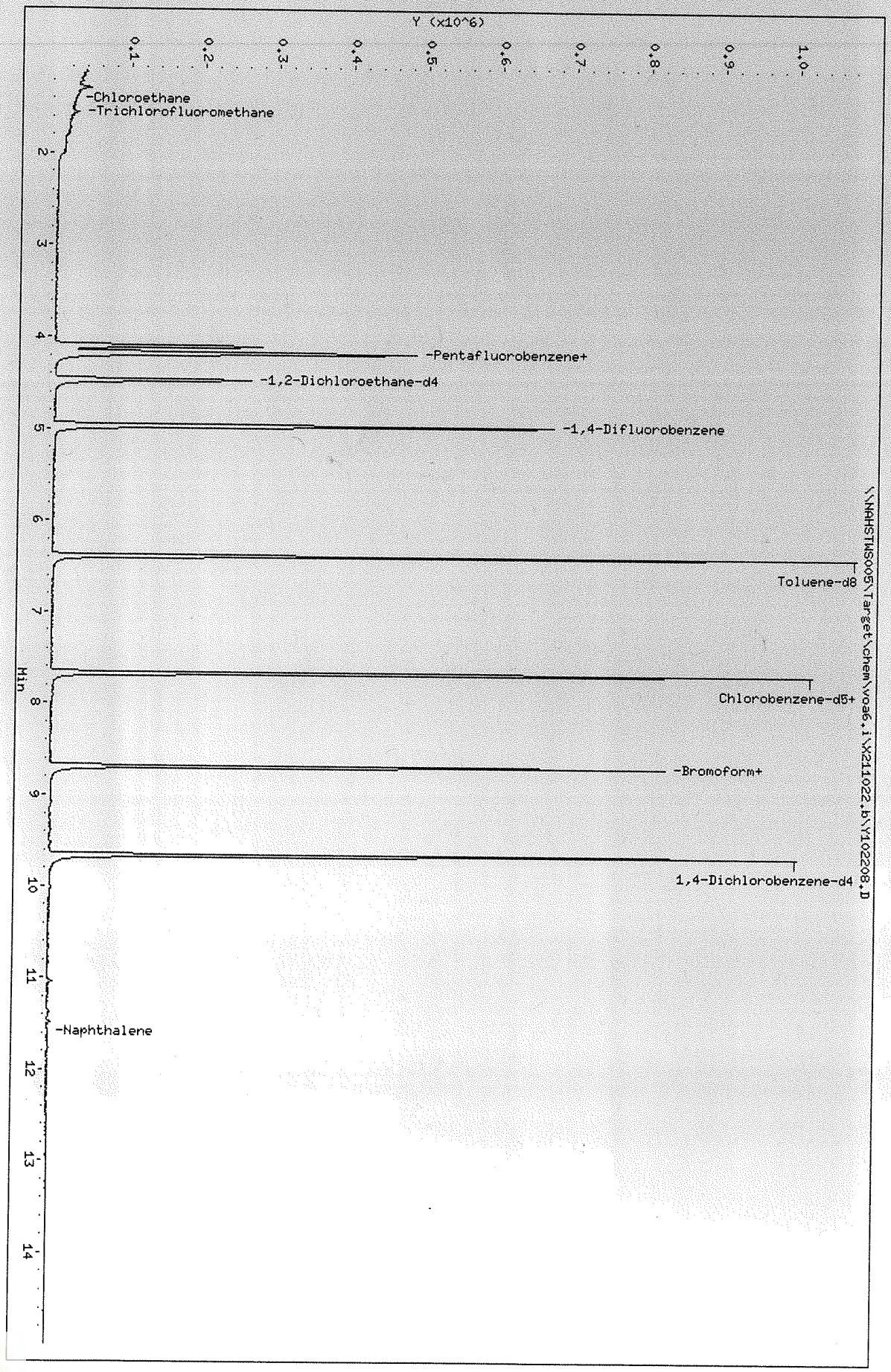
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	416553	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	196592	48.0354	48.03
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	201252	48.4992	48.49
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	587613	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	525381	50.0000	
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	664453	49.8348	49.83
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	227157	49.4902	49.49
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	246938	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102208.D
Date : 23-OCT-2021 00:24
Client ID: HS21100881-08
Sample Info: HS21100881-08;HS21100881-08;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102211.D Page 1
Report Date: 12-Nov-2021 13:13

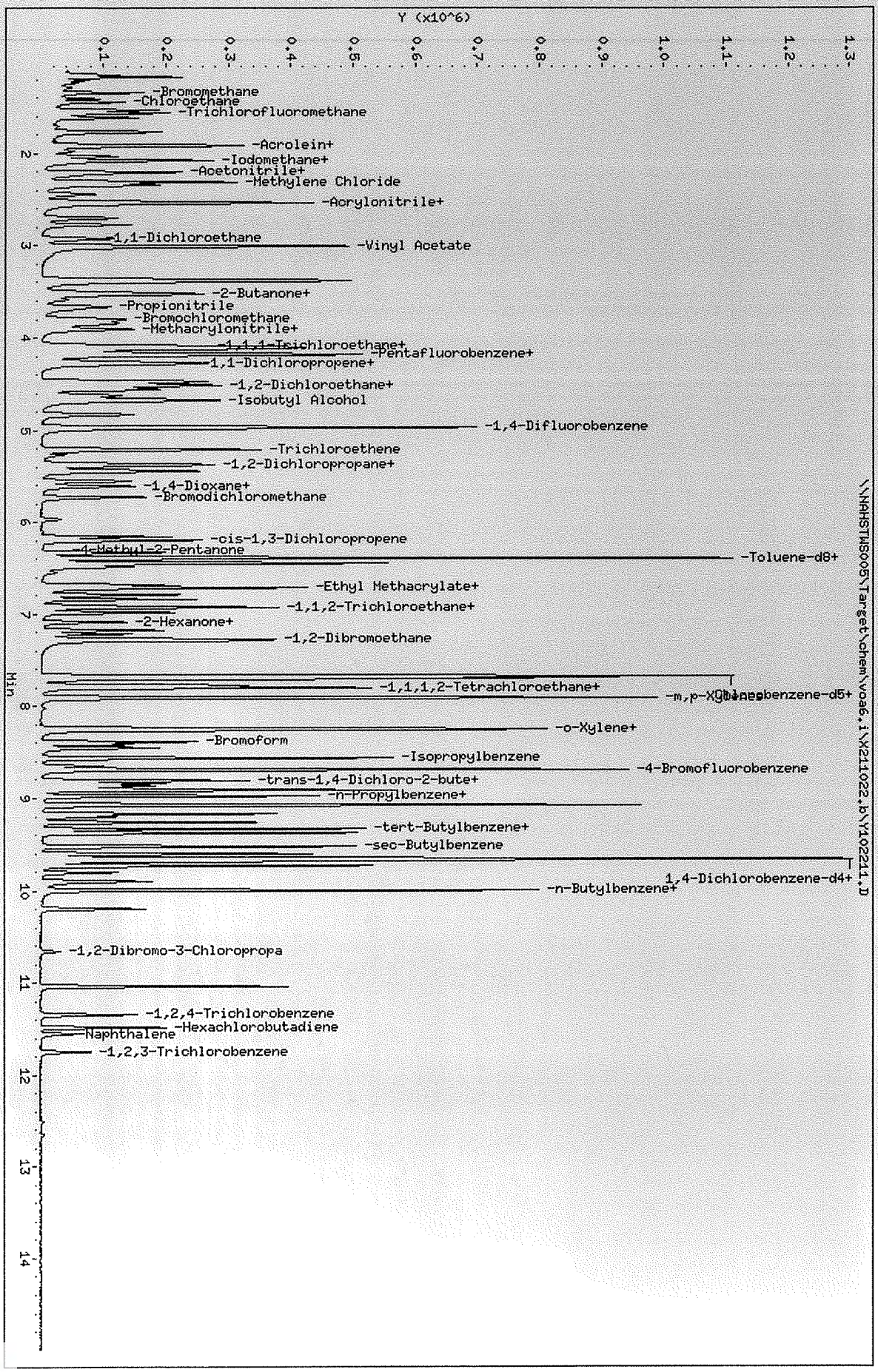
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102211.D
Lab Smp Id: HS21101144-10MS Client Smp ID: HS21101144-10MS
Inj Date : 23-OCT-2021 01:27
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-10MS;HS21101144-10MS;3;;MS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 13:13 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 40 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		QUANT SIG					CONCENTRATIONS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	419726	50.0000	
$	30 Dibromofluoromethane	113	4.996	4.996	(0.879)	193838	46.6478	46.64
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	394687	47.1052	47.10
*	36 1,4-Difluorobenzene	114	4.961	4.961	(1.000)	599712	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	943482	50.0000	
$	48 Toluene-d8	98	6.389	6.389	(0.832)	664581	48.2743	48.27
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.131)	243375	51.1887	51.19
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	373265	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	64759	14.1756	14.17
	11 1,1-Dichloroethene	96	1.912	1.913	(0.457)	61723	15.0800	15.08
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	51687	17.8563	17.85
	17 Methylene Chloride	84	2.306	2.306	(0.551)	67667	16.9881	16.98
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	100974	22.2858	22.28
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	58811	17.6941	17.69
	38 Trichloroethene	130	5.207	5.207	(1.049)	115604	25.5281	25.52



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102211.D
Date : 23-OCT-2021 01:27
Client ID: HS2110144-10HS
Sample Info: HS2110144-10HS;HS2110144-10HS;3;;HS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102212.D Page 1
Report Date: 12-Nov-2021 13:13

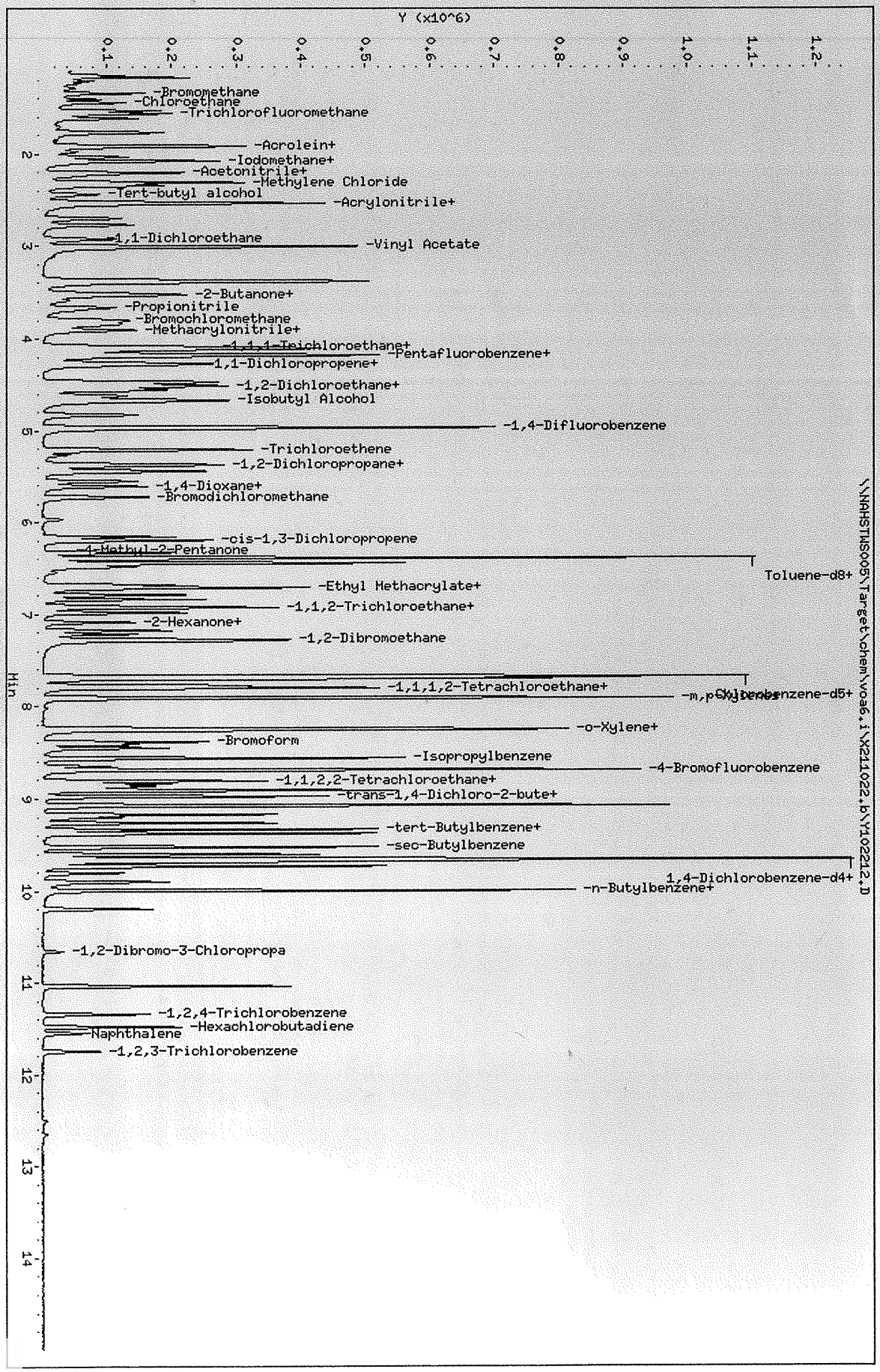
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102212.D
Lab Smp Id: HS21101144-10MSD Client Smp ID: HS21101144-10MSD
Inj Date : 23-OCT-2021 01:48
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-10MSD;HS21101144-10MSD;3;;MSD
Misc Info : HS18090001;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 13:13 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 40 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	437807	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	199106	46.2464	46.24
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	207562	47.5535	47.55
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	605731	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	542436	50.0000	
$	48 Toluene-d8	98	6.388	6.389	(0.833)	670638	48.7172	48.71
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	239794	50.6315	50.63
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	267399	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	65542	14.2788	14.27
	11 1,1-Dichloroethene	96	1.919	1.912	(0.459)	62052	15.8890	15.88
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	54112	18.6949	18.69
	17 Methylene Chloride	84	2.305	2.306	(0.551)	69041	17.2702	17.27
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	83386	18.3199	18.31
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	91446	17.9973	17.99
	38 Trichloroethene	130	5.206	5.207	(1.049)	110244	24.0610	24.06


Y (x10^6)
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0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
Min
2
3
4
5
6
7
8
9
10
11
12
13
14
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-1,1-Dichloroethane
-Vinyl Acetate
-2-Butanone+
-Propionitrile
-Bromochloromethane
-Methacrylonitrile+
-1,1,1-Trichloroethane+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-cis-1,3-Dichloropropene
-4-Methyl-2-Pentanone
Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone+
-1,2-Dibromoethane
-1,1,1,2-Tetrachloroethane+
-m,p-Xylenes
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
-tert-Butylbenzene+
-sec-Butylbenzene
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Naphthalene
-Hexachlorobutadiene
-1,2,3-Trichlorobenzene
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Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102212.D
Date : 23-OCT-2021 01:48
Client ID: HS2110144-10HSD
Sample Info: HS2110144-10HSD:HS2110144-10HSD:3::HSD
Purge Volume: 5.0
Column phase: DB624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
Page 2

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102214.D Page 1
Report Date: 12-Nov-2021 13:11

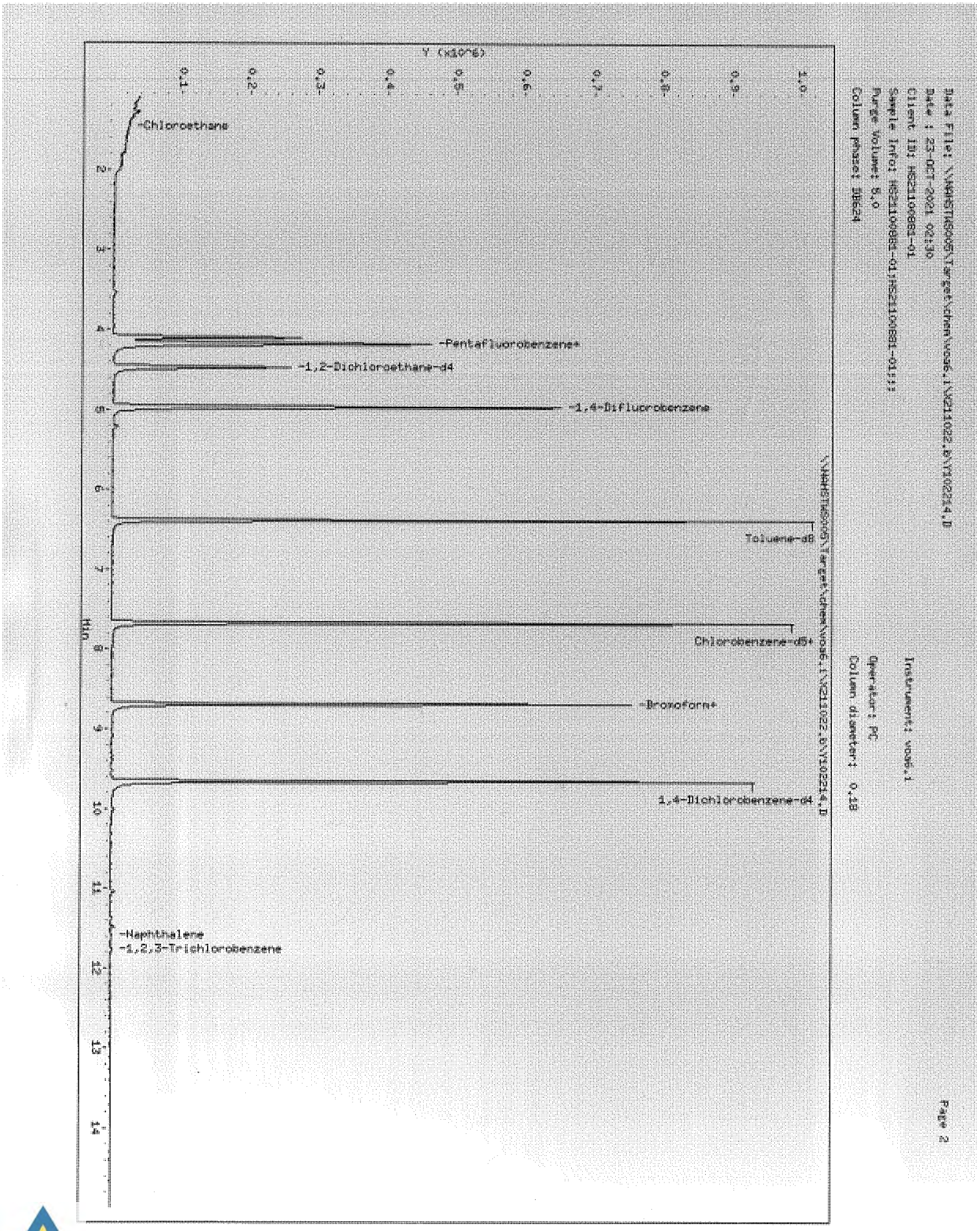
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102214.D
Lab Smp Id: HS21100881-01 Client Smp ID: HS21100881-01
Inj Date : 23-OCT-2021 02:30
Operator : PC Inst ID: voa6.i
Smp Info : HS21100881-01;HS21100881-01;;;
Misc Info : HS18090001;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 13:07 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 42
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	404871	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	193817	48.7399	48.73
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	190717	49.3023	49.30
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	570563	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	503958	50.0000	
$	48 Toluene-d8	98	6.388	6.389	(0.833)	635728	49.7073	49.70
$	69 4-Bromofluorobenzene	95	8.680	8.680	(1.133)	214615	48.7240	48.72
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	234817	50.0000	


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
-Chloroethane
-Pentafluorobenzene+
-1,2-Dichloroethane-d4
-1,4-Difluorobenzene
Toluene-d8
Chlorobenzene-d5+
-Bromoform+
1,4-Dichlorobenzene-d4
-Naphthalene
-1,2,3-Trichlorobenzene
2
3
4
5
6
7
8
9
10
11
12
13
14
min
Data File: \\NAMISTM0005\Terastchem\vocs1\V221022.b\V102214.D
Date : 22-OCT-2021 02:36
Client ID: MS2110888-01
Sample Info: MS2110888-01,MS2110888-01,,,

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102215.D Page 1
Report Date: 12-Nov-2021 13:11

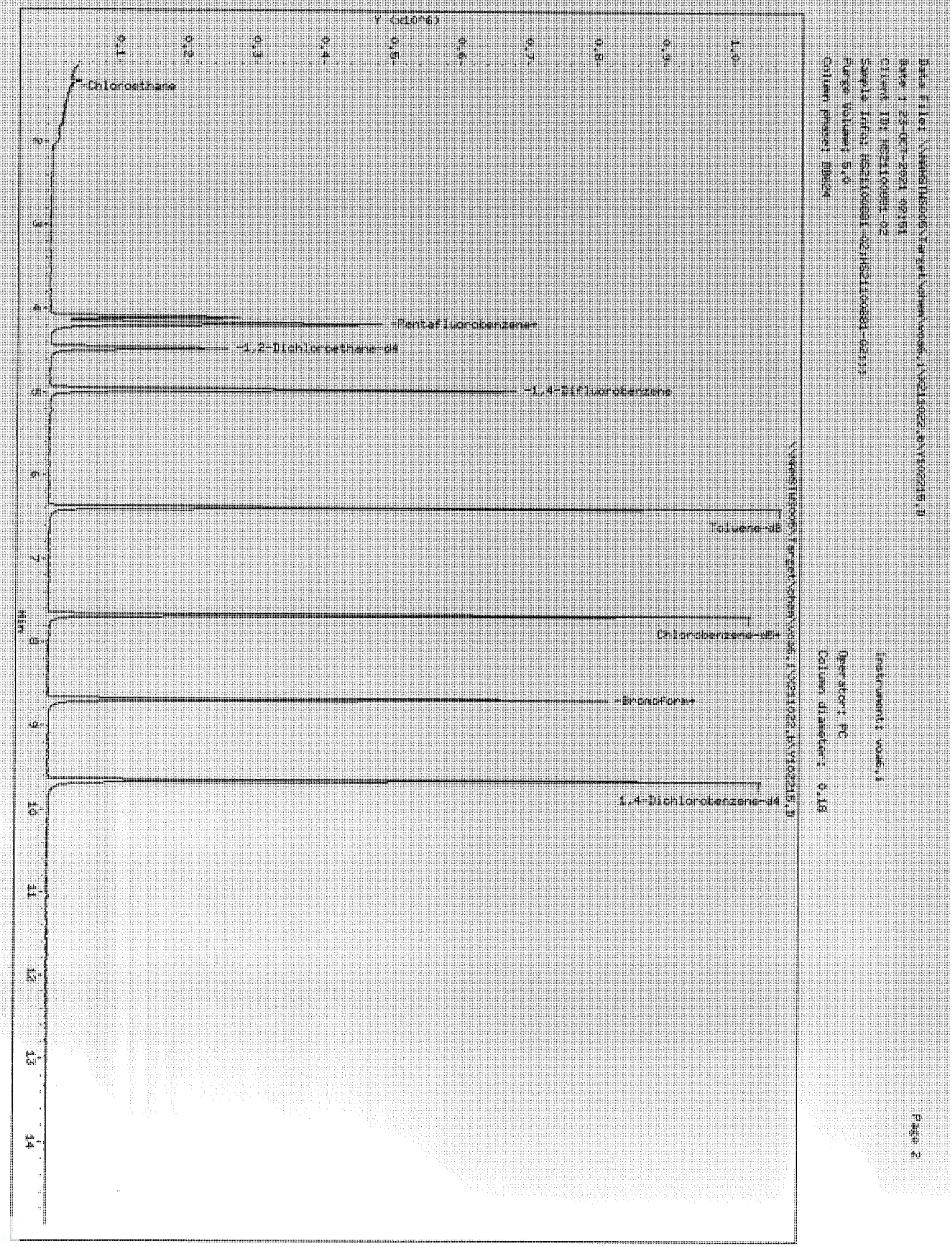
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102215.D
Lab Smp Id: HS21100881-02 Client Smp ID: HS21100881-02
Inj Date : 23-OCT-2021 02:51
Operator : PC Inst ID: voa6.i
Smp Info : HS21100881-02;HS21100881-02;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 13:07 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 43
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	419730	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.096	(0.981)	195949	47.5013	47.50
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	202832	48.4606	48.46
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	594908	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	530598	50.0000	
$	48 Toluene-d8	98	6.386	6.389	(0.833)	656911	48.7847	48.78
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	228908	49.3783	49.37
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	295035	50.0000	


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
-Chloroethane
-Pentafluorobenzene+
-1,2-Dichloroethane-d4
-1,4-Difluorobenzene
Toluene-d8
Chlorobenzene-d5+
-Bromoform+
1,4-Dichlorobenzene-d4
Min
2
4
6
8
10
11
12
14
Data File: \\WSSETHSDOS\Target\Chem\Vocs_1\V221022.b\V10221S.D
Date: 23-OCT-2021 02:51
Client ID: RS2110488-02
Sample Info: RS2110488-02;HBS2110000881-02;1;1
Purge Volume: 5.0
Column phase: DB624
Instrument: voc6.i
Operator: PC
Column diameter: 0.18
Page 2

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102216.D Page 1
Report Date: 12-Nov-2021 13:11

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102216.D
Lab Smp Id: HS21100881-03 Client Smp ID: HS21100881-03
Inj Date : 23-OCT-2021 03:12
Operator : PC Inst ID: voa6.i
Smp Info : HS21100881-03;HS21100881-03;;;
Misc Info : HS18090001;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 13:07 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 44
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

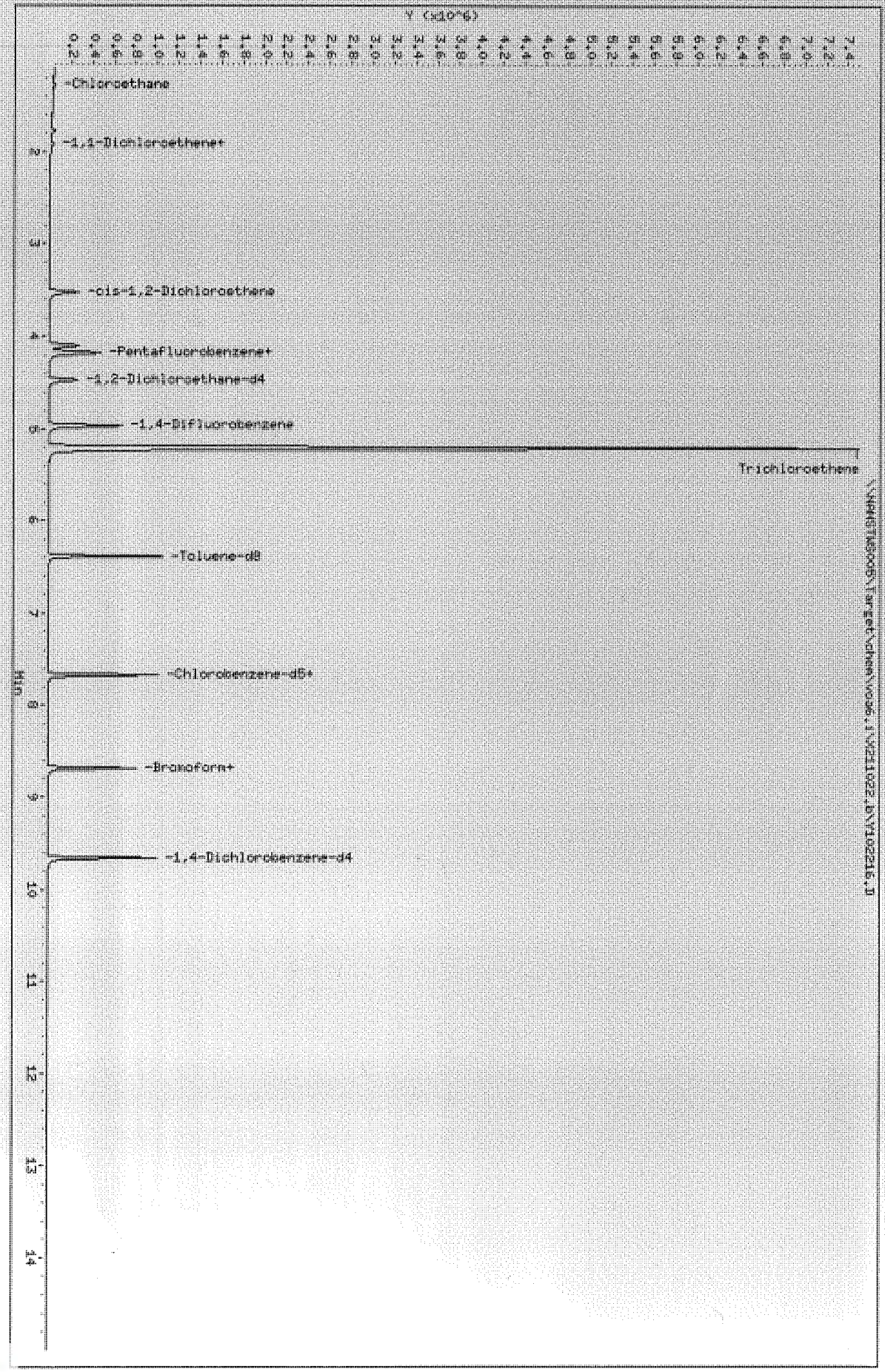
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	413305	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.096	(0.981)	192112	47.2924	47.29
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	200174	48.6216	48.62
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	583059	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	529669	50.0000	
$	48 Toluene-d8	98	6.388	6.389	(0.833)	653618	48.6271	48.62
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	225051	48.8131	48.81
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	290127	50.0000	
	11 1,1-Dichloroethene	96	1.919	1.912	(0.499)	2854	0.77412	0.77(a)
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	153477	35.7178	35.71
	38 Trichloroethene	130	5.207	5.207	(1.049)	2466999	559.364	559.36(A)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.


Y (x10^6)
-Chloroethane
-1,1-Dichloroethene+
-cis-1,2-Dichloroethene
-Pentafluorobenzene+
-1,2-Dichloroethane-d4
-1,4-Difluorobenzene
Trichloroethene
-Toluene-d8
-Chlorobenzene-d5+
-Bromoform+
-1,4-Dichlorobenzene-d4
Min

Data File: \\MAHSTW8008\Target\vhen\voa6.i\M211022.b\Y102216.D Page 3

Date : 23-OCT-2021 03:12

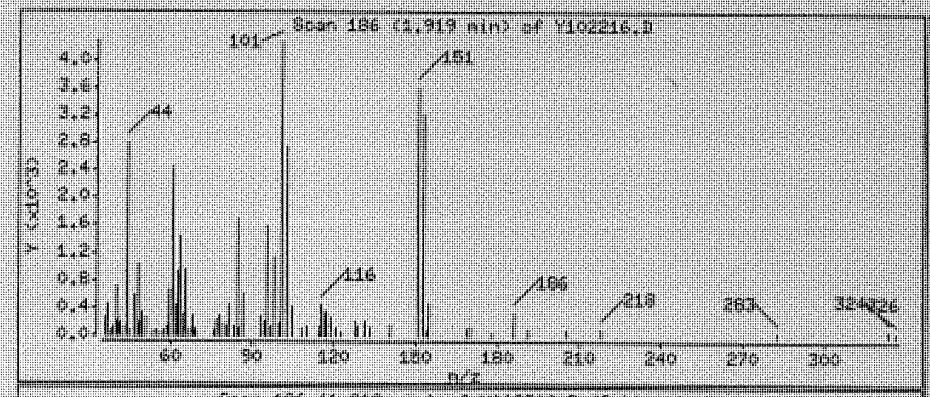
Client ID: HS21100881-03 Instrument: voa6.i

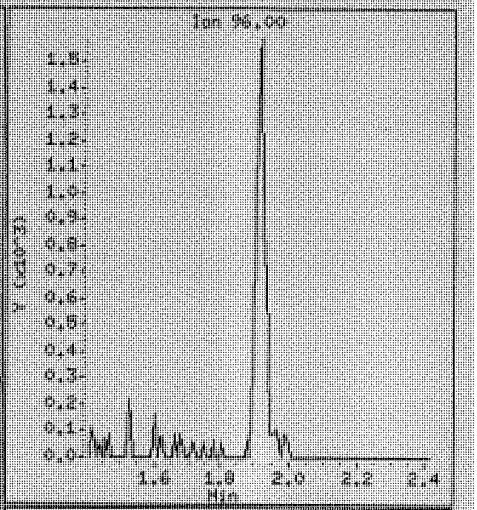
Sample Info: HS21100881-03;HS21100881-03;;;

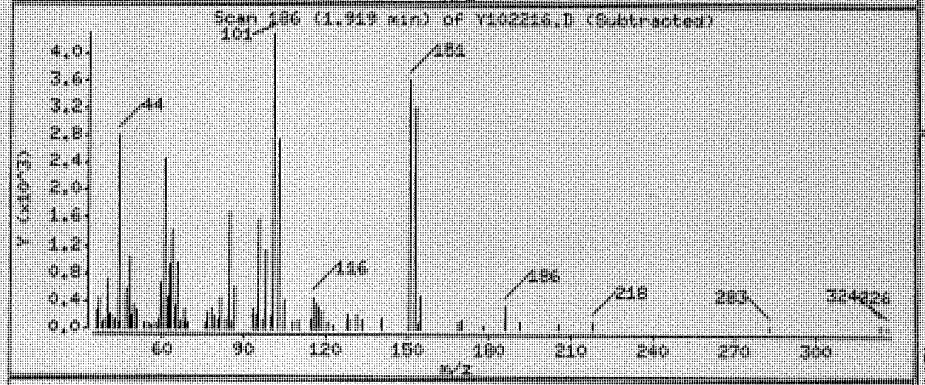
Purge Volume: 5.0 Operator: PC

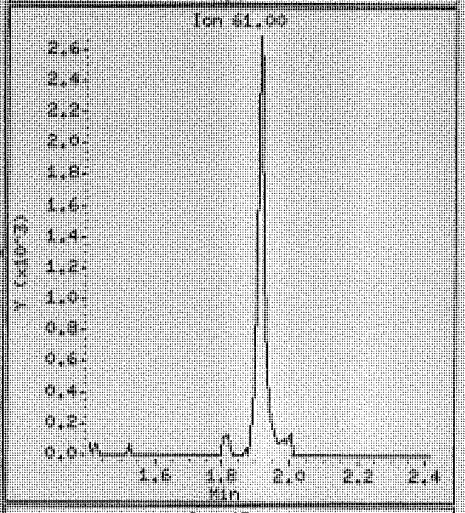
Column phase: DB624 Column diameter: 0.18

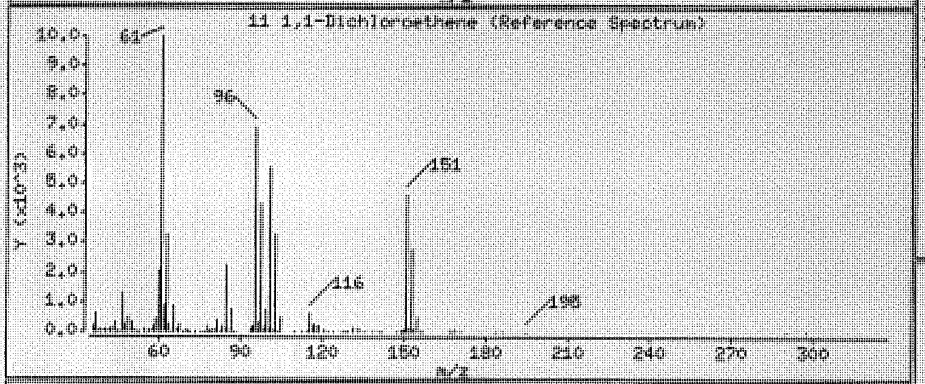
11 1,1-Dichloroethene Concentration: 0.77 ug/l

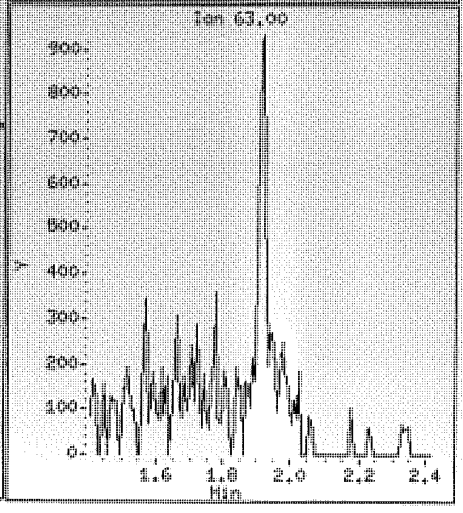


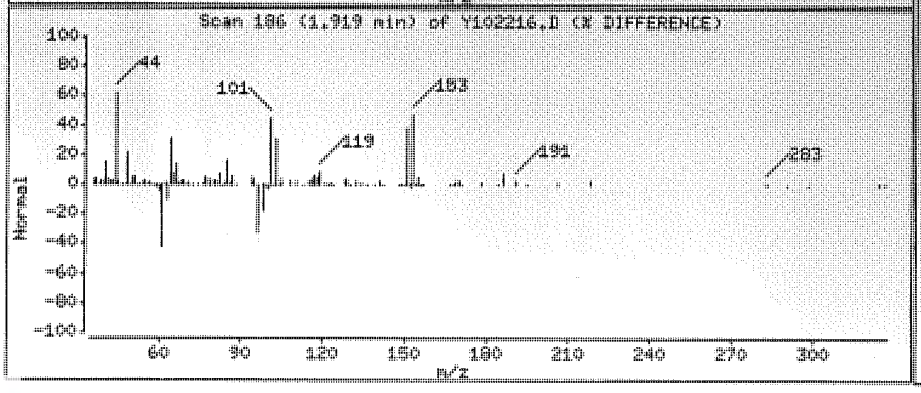












Data File: \\V40HSTWS005\Target\chem\voa6.i\X211022.b\Y102216.D Page 4

Date : 23-OCT-2021 03:12

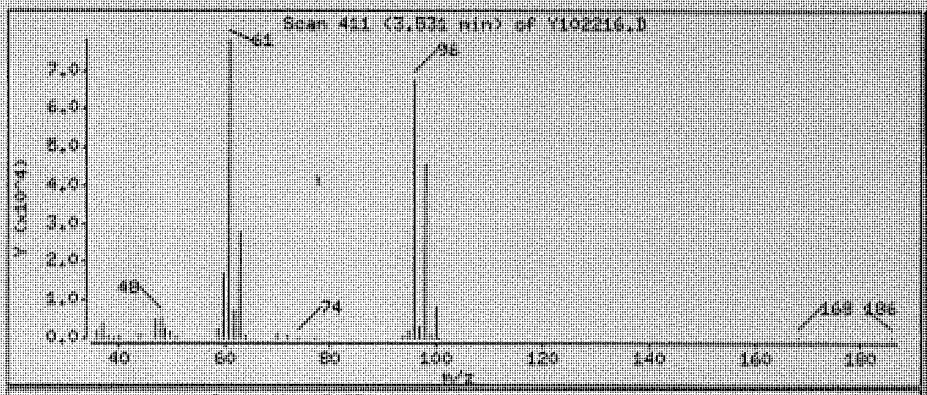
Client ID: HS21100681-03 Instrument: voa6.i

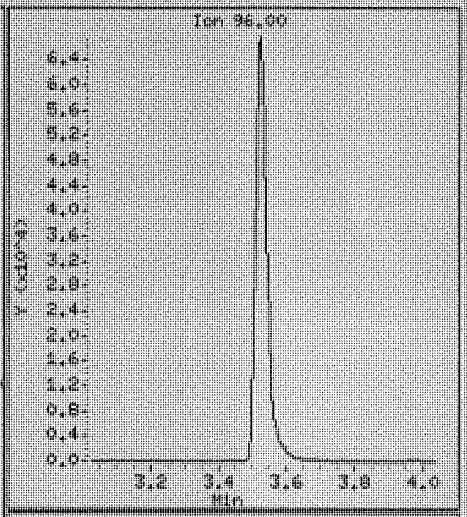
Sample Info: HS21100681-03;HS21100681-03;;;

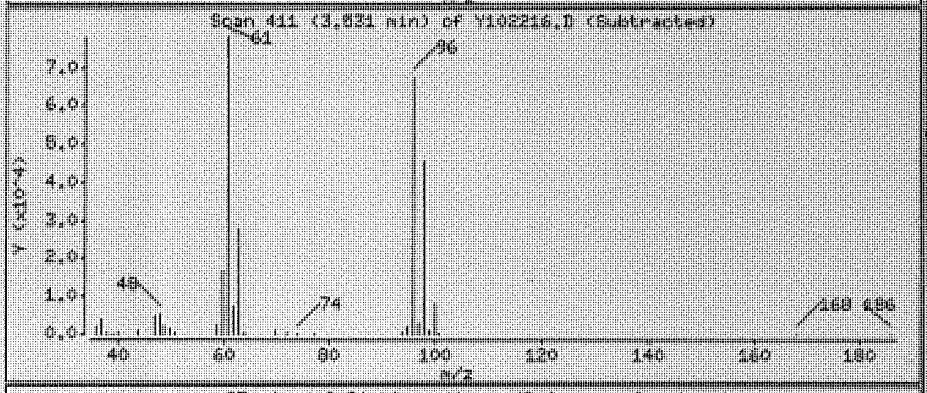
Purge Volume: 5.0 Operator: PC

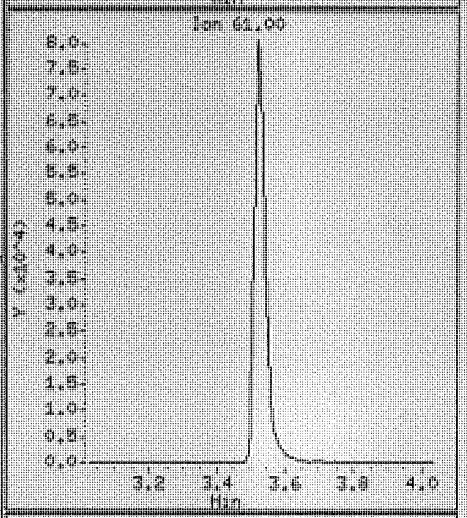
Column phase: DB624 Column diameter: 0.18

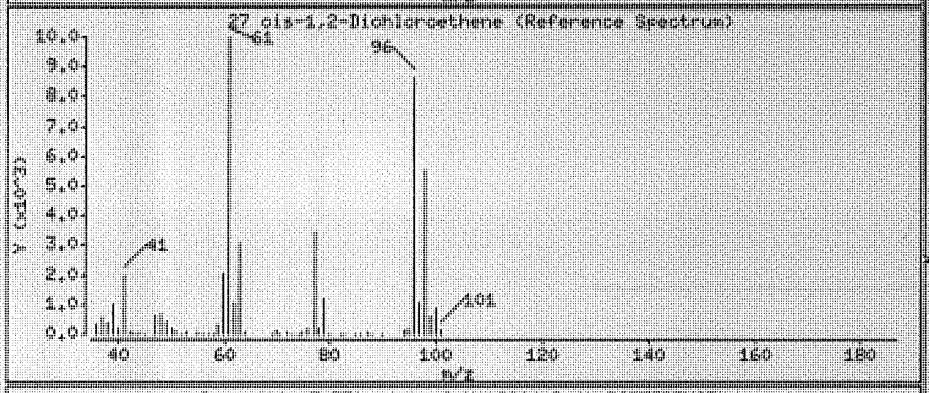
27 cis-1,2-Dichloroethene Concentration: 35.71 ug/l

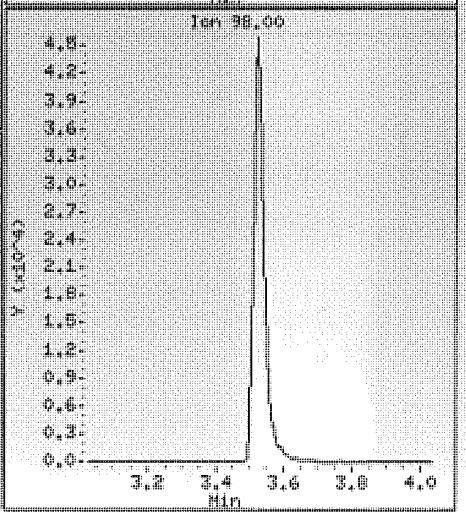


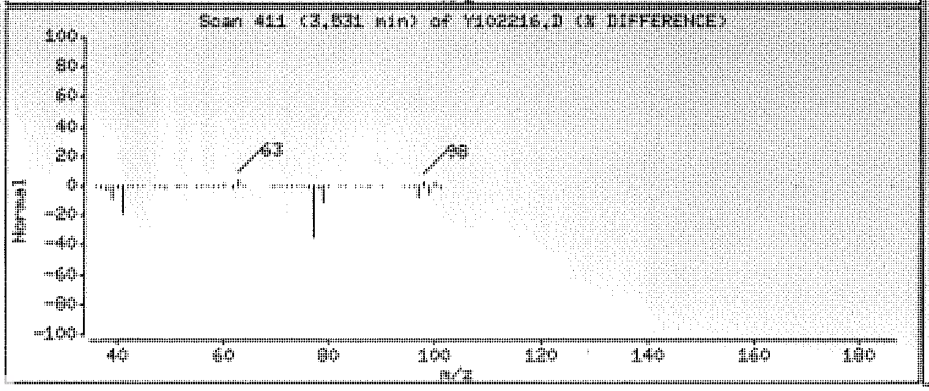












Data File: \\HHHSTW8008\Target\chem\voa6.i\X211022.b\Y102216.D Page 6

Date : 23-OCT-2021 03:12

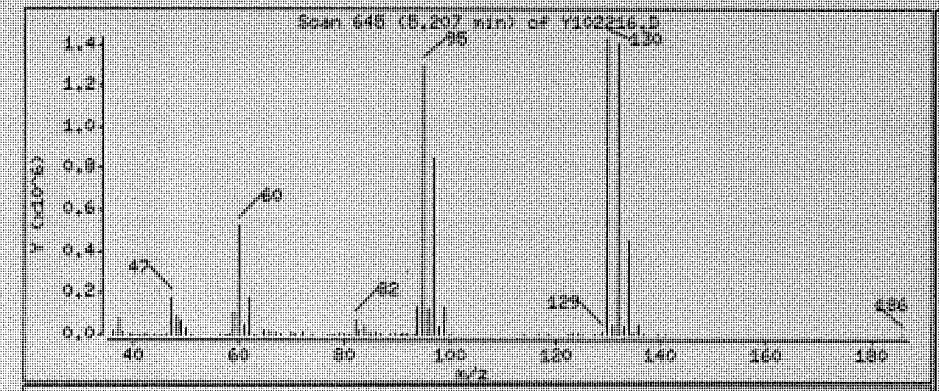
Client ID: HS21100881-03 Instrument: voa6.i

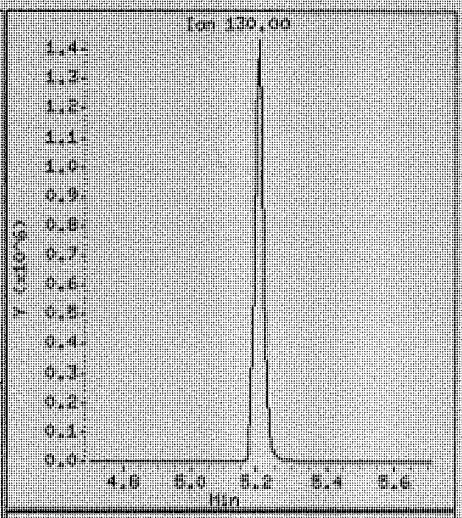
Sample Info: HS21100881-03;HS21100881-03;;;

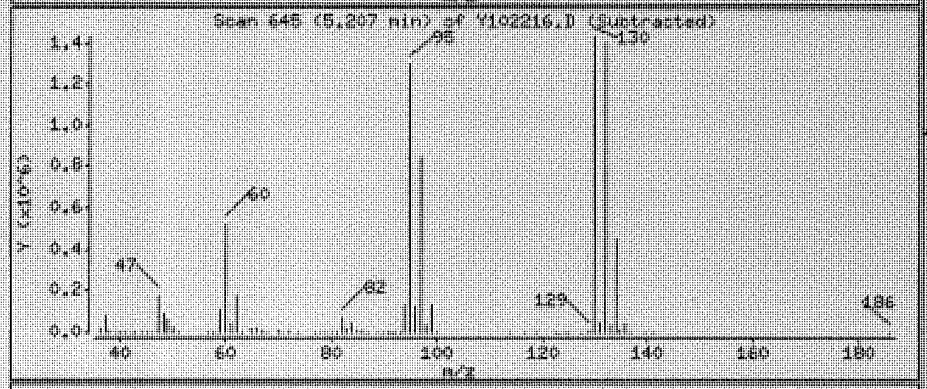
Purge Volume: 5.0 Operator: PC

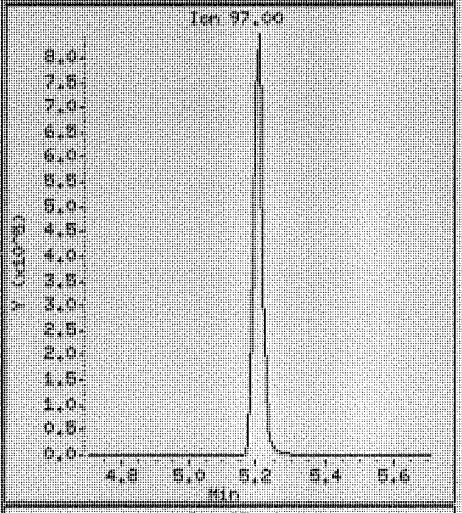
Column phase: DB624 Column diameter: 0.18

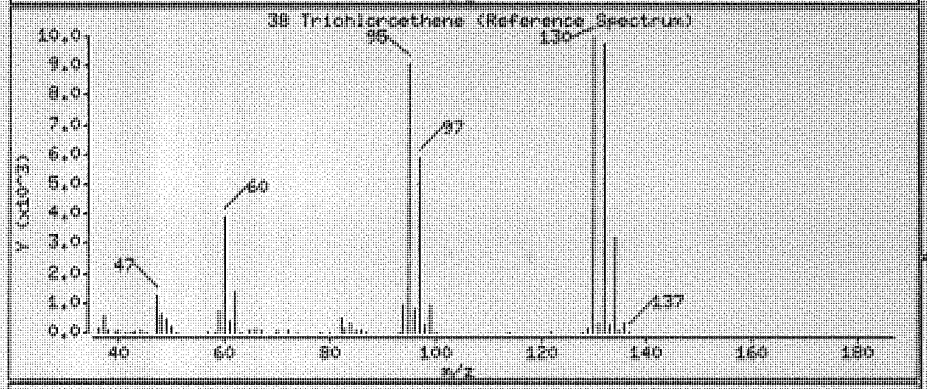
38 Trichloroethene Concentration: 569.36 ug/l

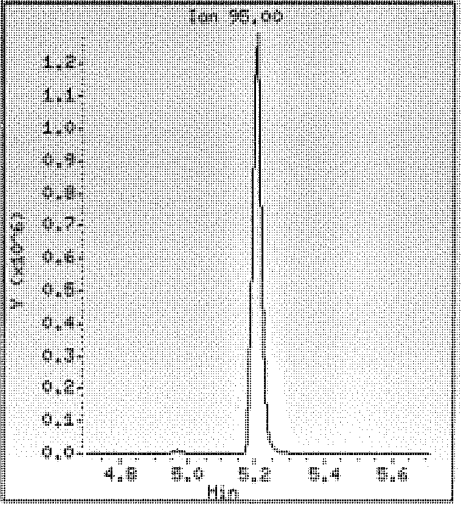


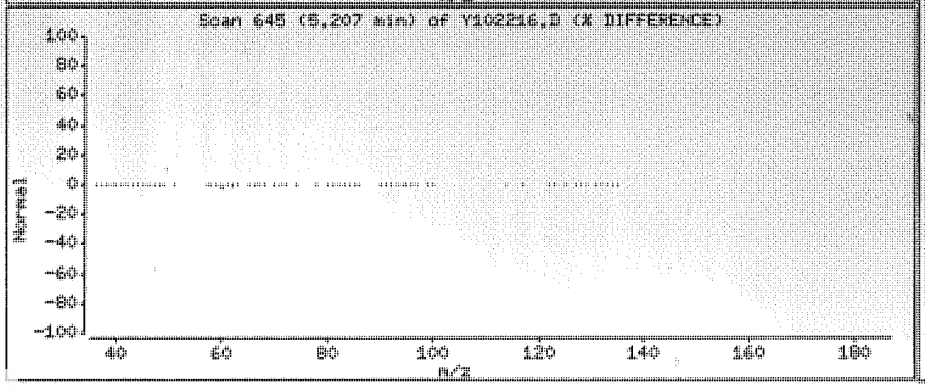












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102217.D Page 1
Report Date: 12-Nov-2021 13:11

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102217.D
Lab Smp Id: HS21100881-04 Client Smp ID: HS21100881-04
Inj Date : 23-OCT-2021 03:33
Operator : PC Inst ID: voa6.i
Smp Info : HS21100881-04;HS21100881-04;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 13:07 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 45
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

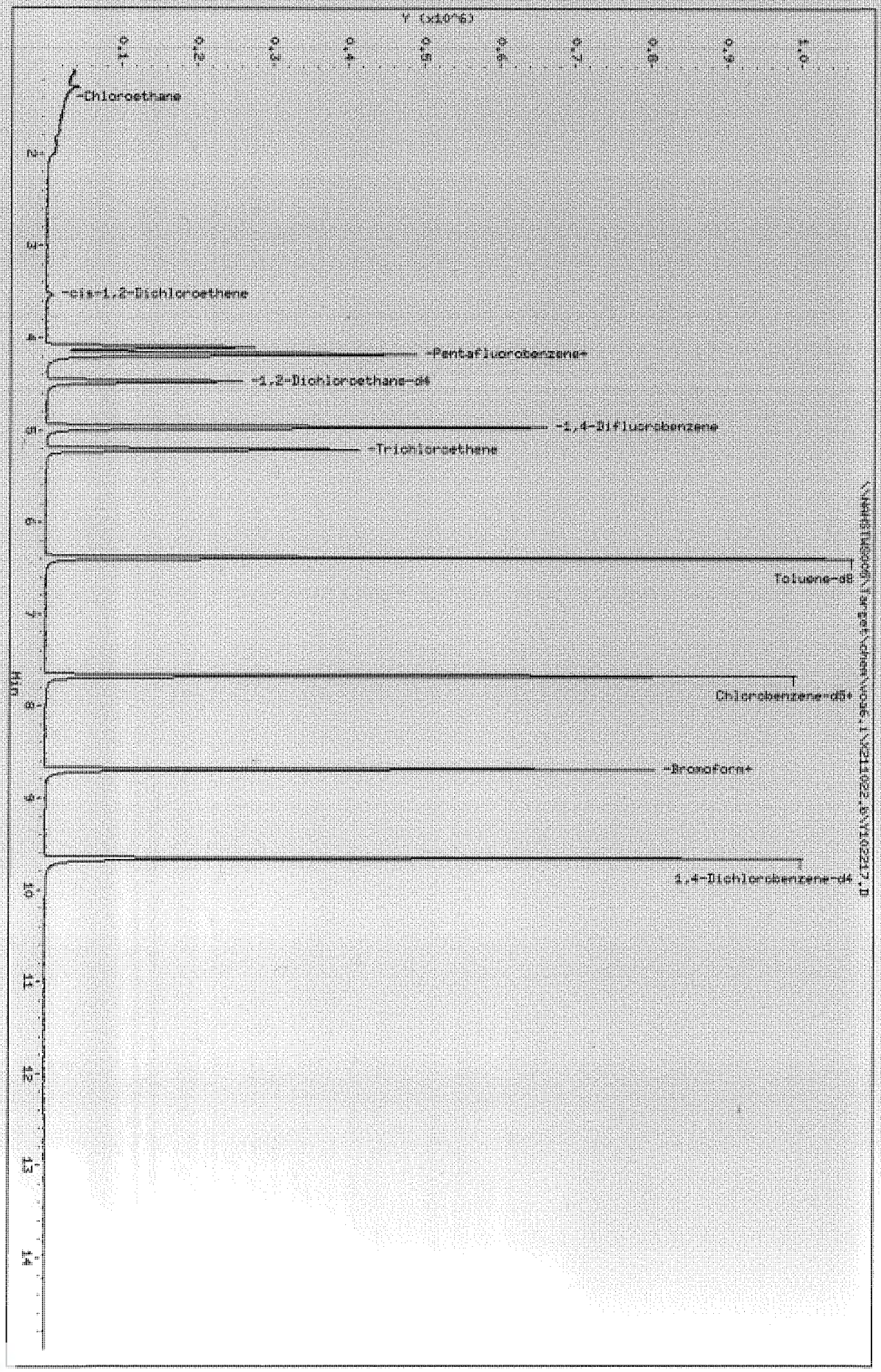
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1	Pentafluorobenzene	168	4.182	4.182	(1.000)	409895	50.0000	
$	30	Dibromofluoromethane	113	4.096	4.096	(0.979)	195052	48.4427	48.44
$	35	1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	201327	49.3392	49.33
*	36	1,4-Difluorobenzene	114	4.963	4.963	(1.000)	586702	50.0000	
*	47	Chlorobenzene-d5	117	7.671	7.671	(1.000)	525153	50.0000	
$	48	Toluene-d8	98	6.389	6.389	(0.833)	653666	49.0470	49.04
$	49	4-Bromofluorobenzene	95	8.688	8.688	(1.133)	224799	48.9841	48.98
*	70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	250345	50.0000	
	27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.846)	5025	1.17917	1.17[a]
	38	Trichloroethene	130	5.207	5.207	(1.049)	140973	31.7655	31.76

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\HHSTMS05\Target\chem\voa6.i\V211022.b\V1022217.D
Date : 23-OCT-2021 03:33
Client ID: HS211008881-04
Sample Info: HS211008881-04,HS211008881-04,1,1
Purge Volume: 5.0
Column phase: RTX-624
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\WAHSTWS008\Target\chem\voa6.i\V211022.b\V102217.D Page 3

Date : 23-OCT-2021 03:33

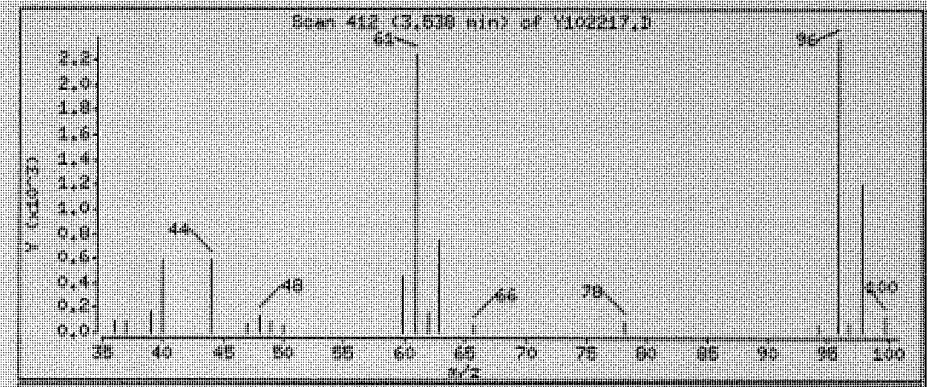
Client ID: HS2110088I-04 Instrument: voa6.i

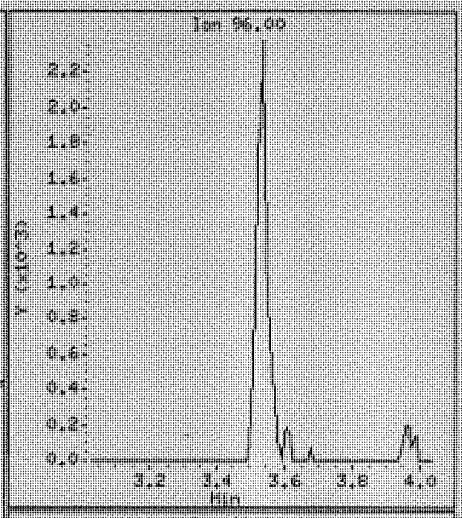
Sample Info: HS2110088I-04;HS2110088I-04;;;

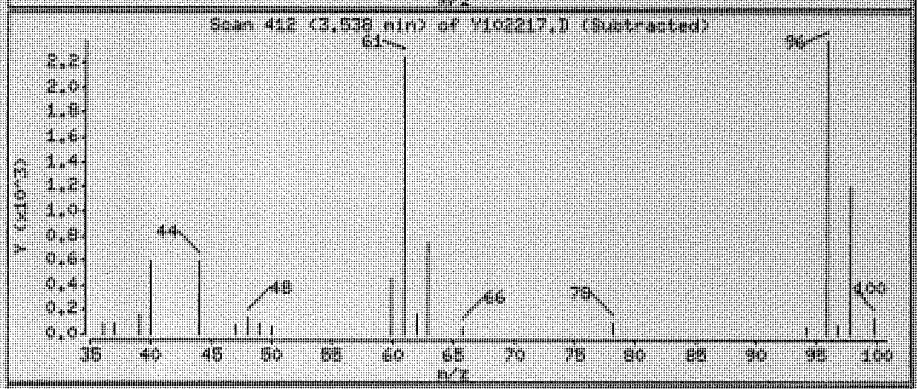
Purge Volume: 5.0 Operator: PC

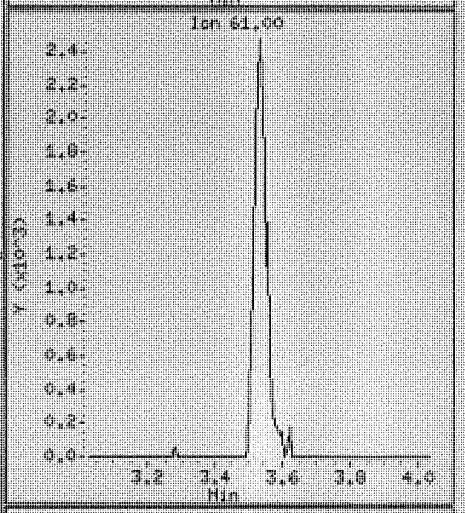
Column phase: DB624 Column diameter: 0.18

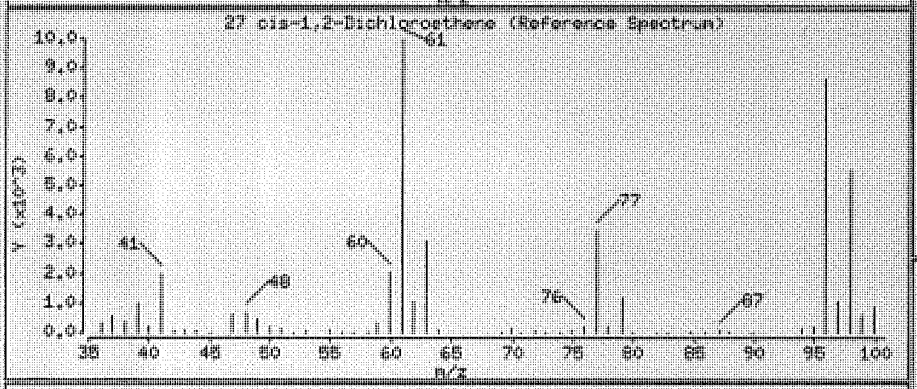
27 cis-1,2-Dichloroethene Concentration: 1.17 ug/l

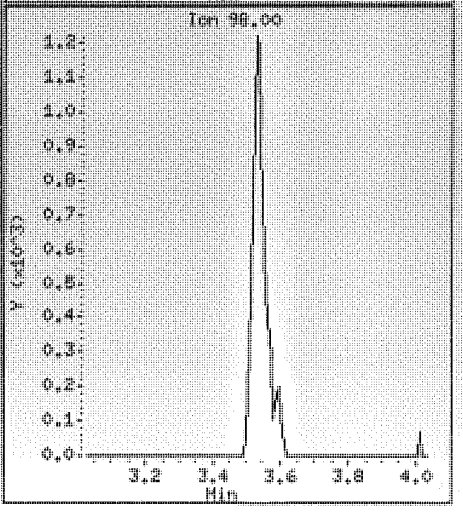


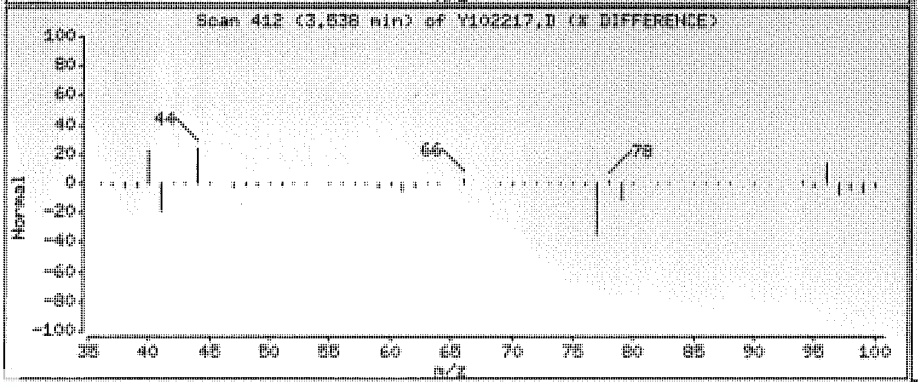












Data File: \\N0HSTWS009\Target\chem\voa6.i\X211022.b\Y102217.D Page 4

Date : 23-OCT-2021 03:33

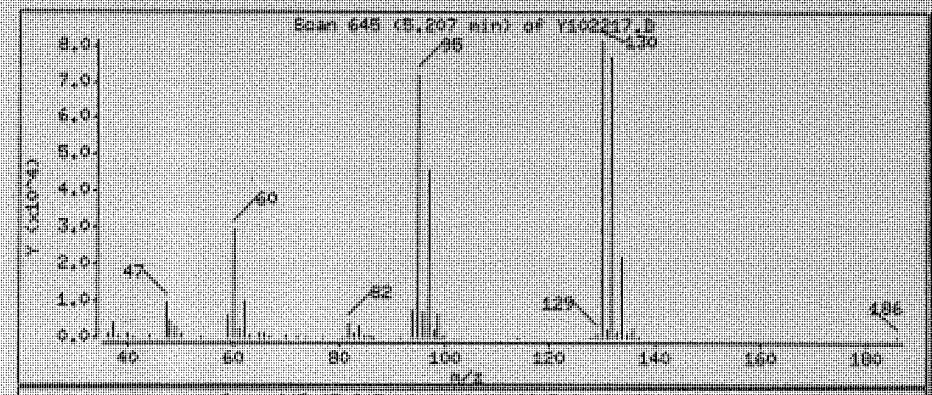
Client ID: HS21100881-04 Instrument: voa6.i

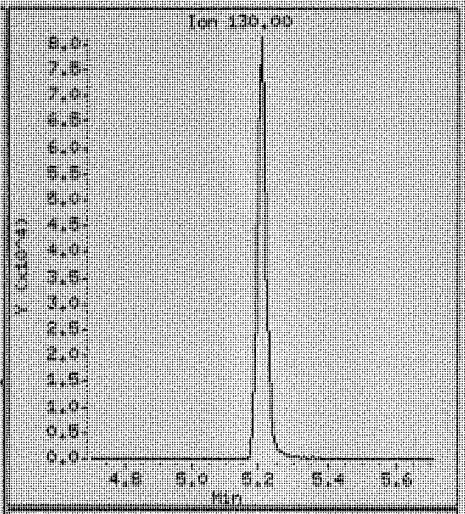
Sample Info: HS21100881-04;HS21100881-04;;;

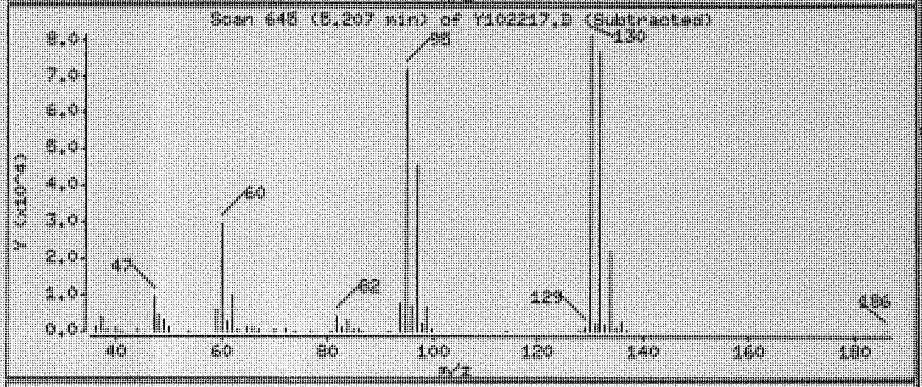
Purge Volume: 5.0 Operator: PC

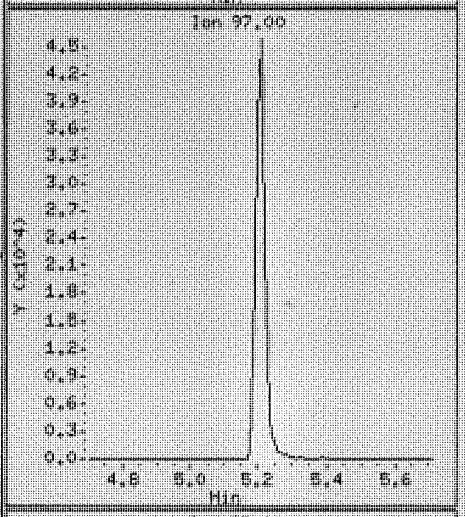
Column phase: DB624 Column diameter: 0.18

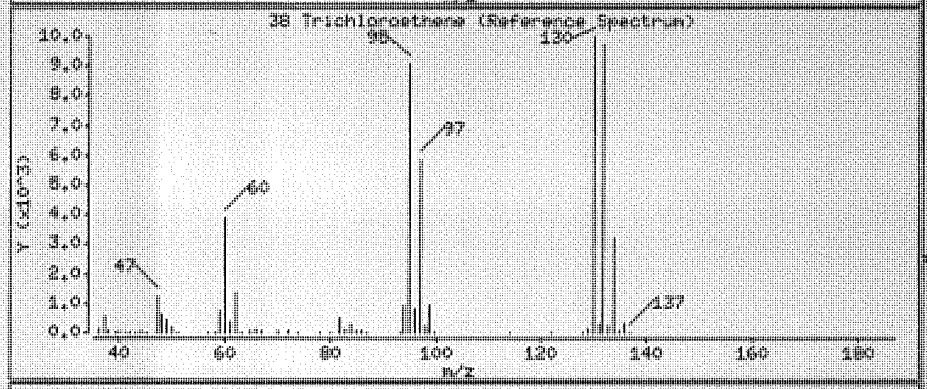
38 Trichloroethene Concentration: 31.76 ug/l

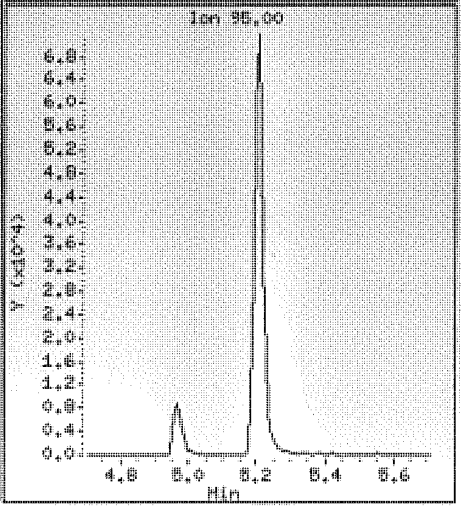


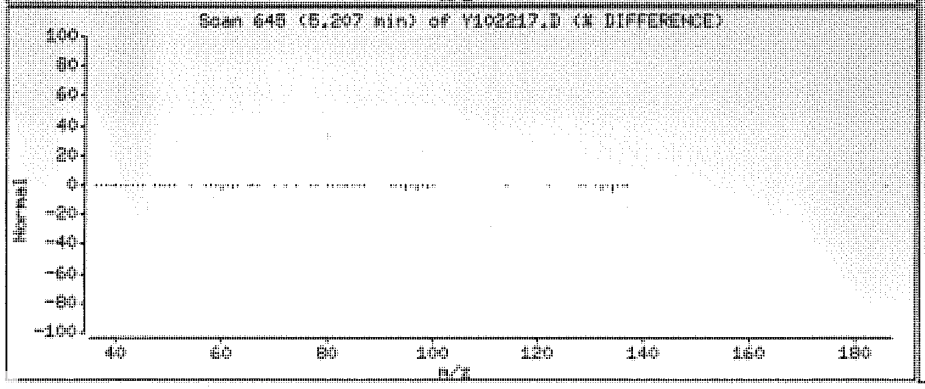












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102218.D Page 1
Report Date: 12-Nov-2021 13:11

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102218.D
Lab Smp Id: HS21100881-05 Client Smp ID: HS21100881-05
Inj Date : 23-OCT-2021 03:54
Operator : PC Inst ID: voa6.i
Smp Info : HS21100881-05;HS21100881-05;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 13:07 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 46
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

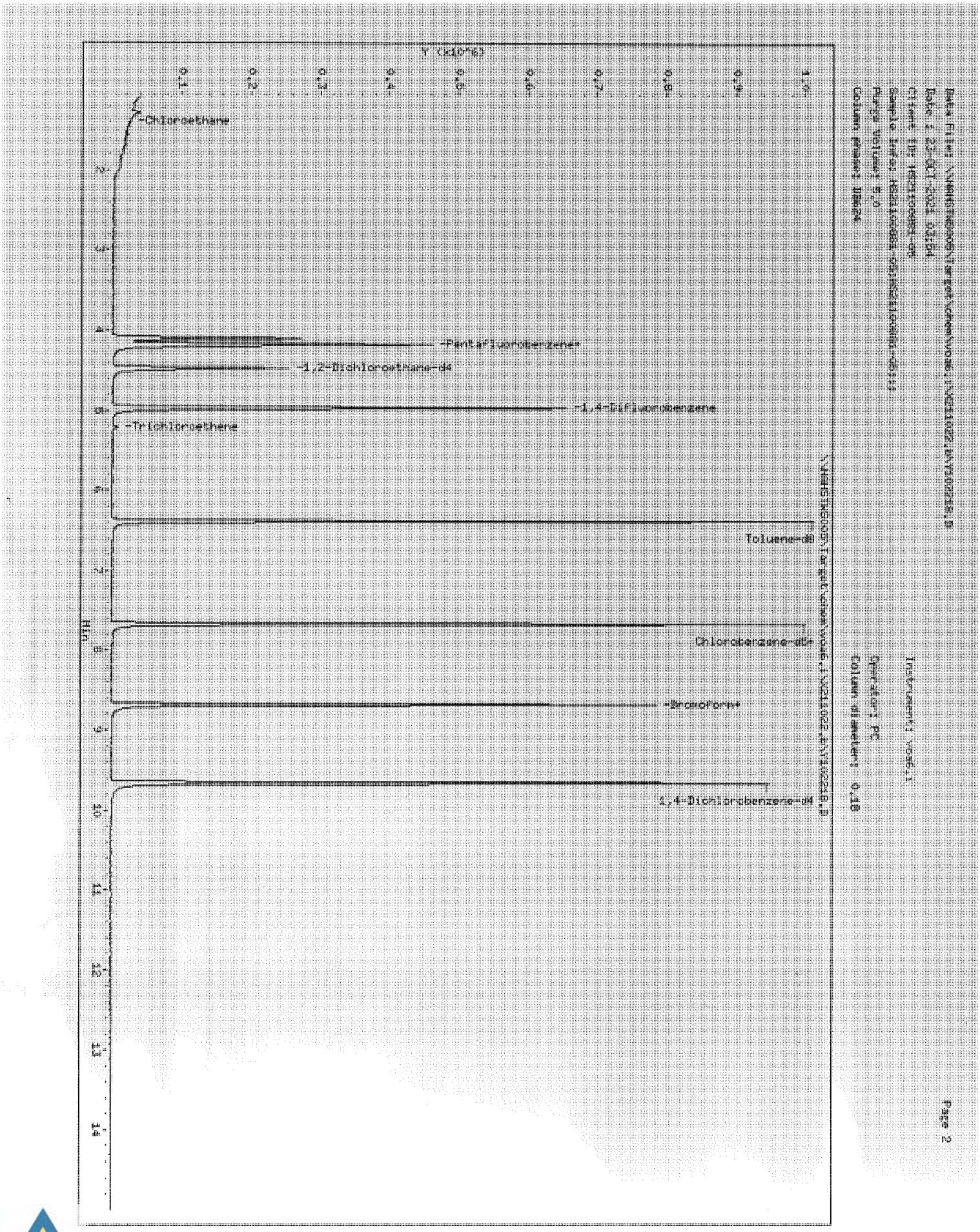
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIO MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	403197	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.096	(0.981)	193152	48.7754	48.77
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	197509	49.2022	49.20
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	569691	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	509752	50.0000	
$	48 Toluene-d8	98	6.389	6.389	(0.833)	612094	48.9616	48.96
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	217416	48.8017	48.80
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	240194	50.0000	
	38 Trichloroethene	130	5.214	5.207	(1.051)	2777	0.64443	0.64[a]

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).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Date : 23-OCT-2023 03:54
Client ID: HS2310083-08
Sample Info: HS2310083-08,HS2310083-08,,,

Data File: \\NEHGTWS005\Target\chem\voa6.i\V211022.b\Y102218.D Page 3

Date : 23-OCT-2021 03:54

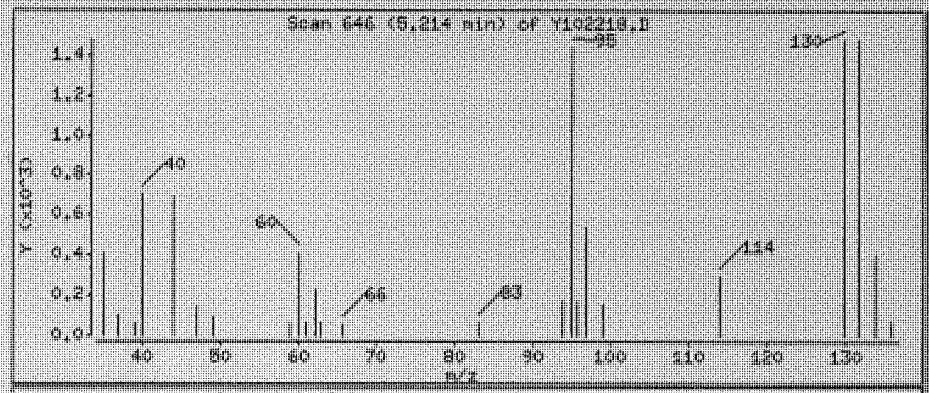
Client ID: HG21100881-08 Instrument: voa6.i

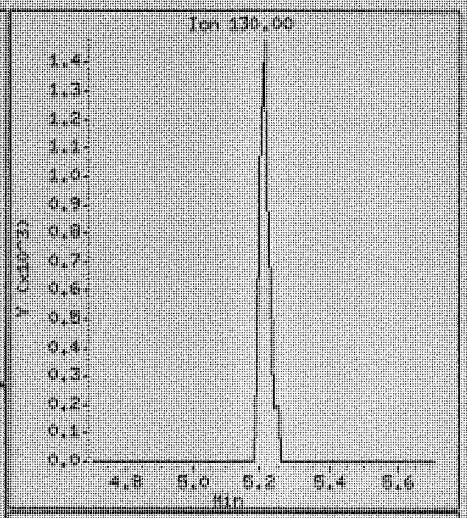
Sample Info: HG21100881-05;HG21100881-08;;;

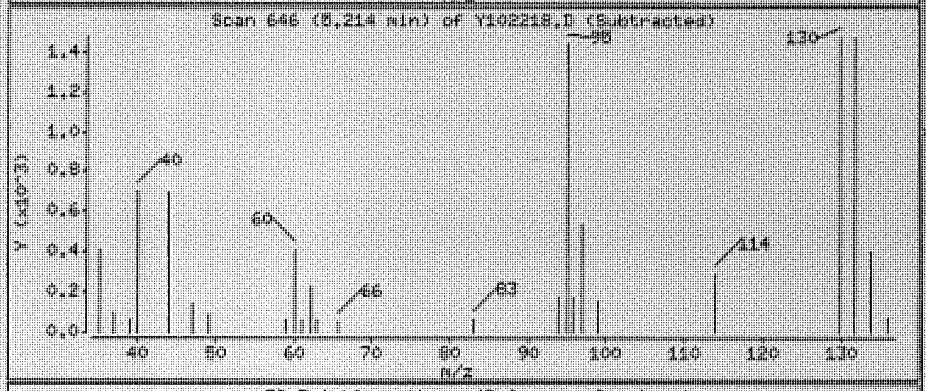
Purge Volume: 5.0 Operator: PC

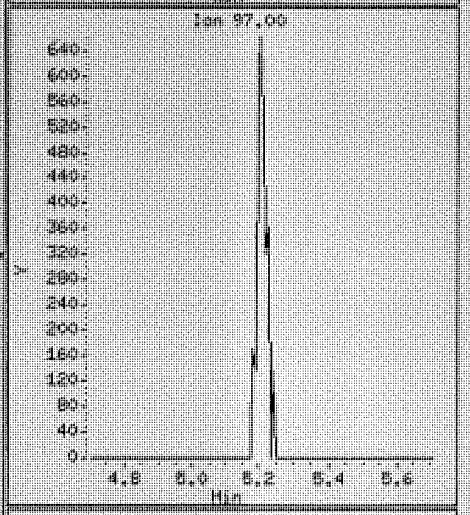
Column phase: DB624 Column diameter: 0.18

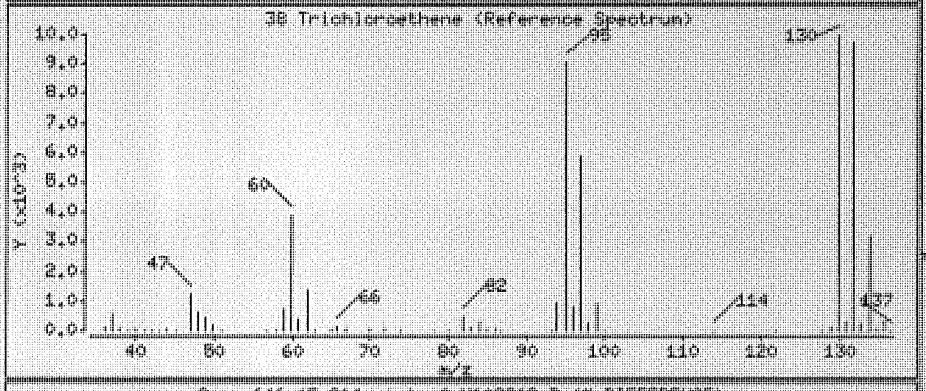
38 Trichloroethene Concentration: 0.64 ug/l

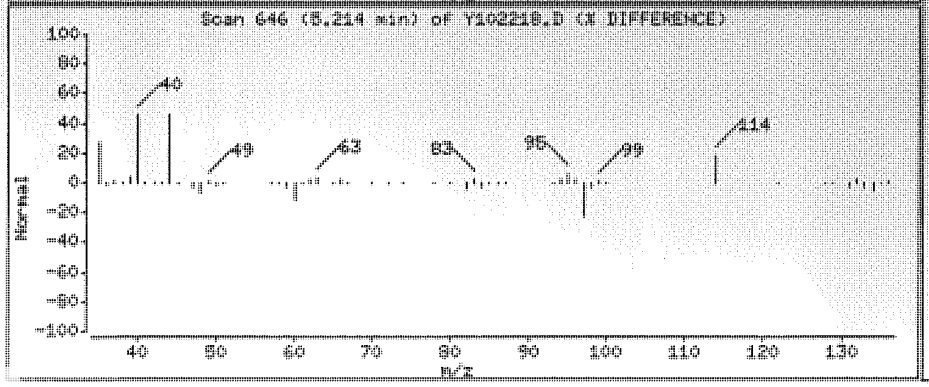


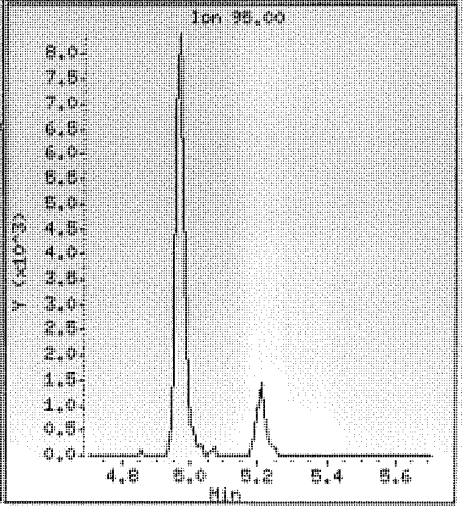












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102219.D Page 1
Report Date: 12-Nov-2021 13:11

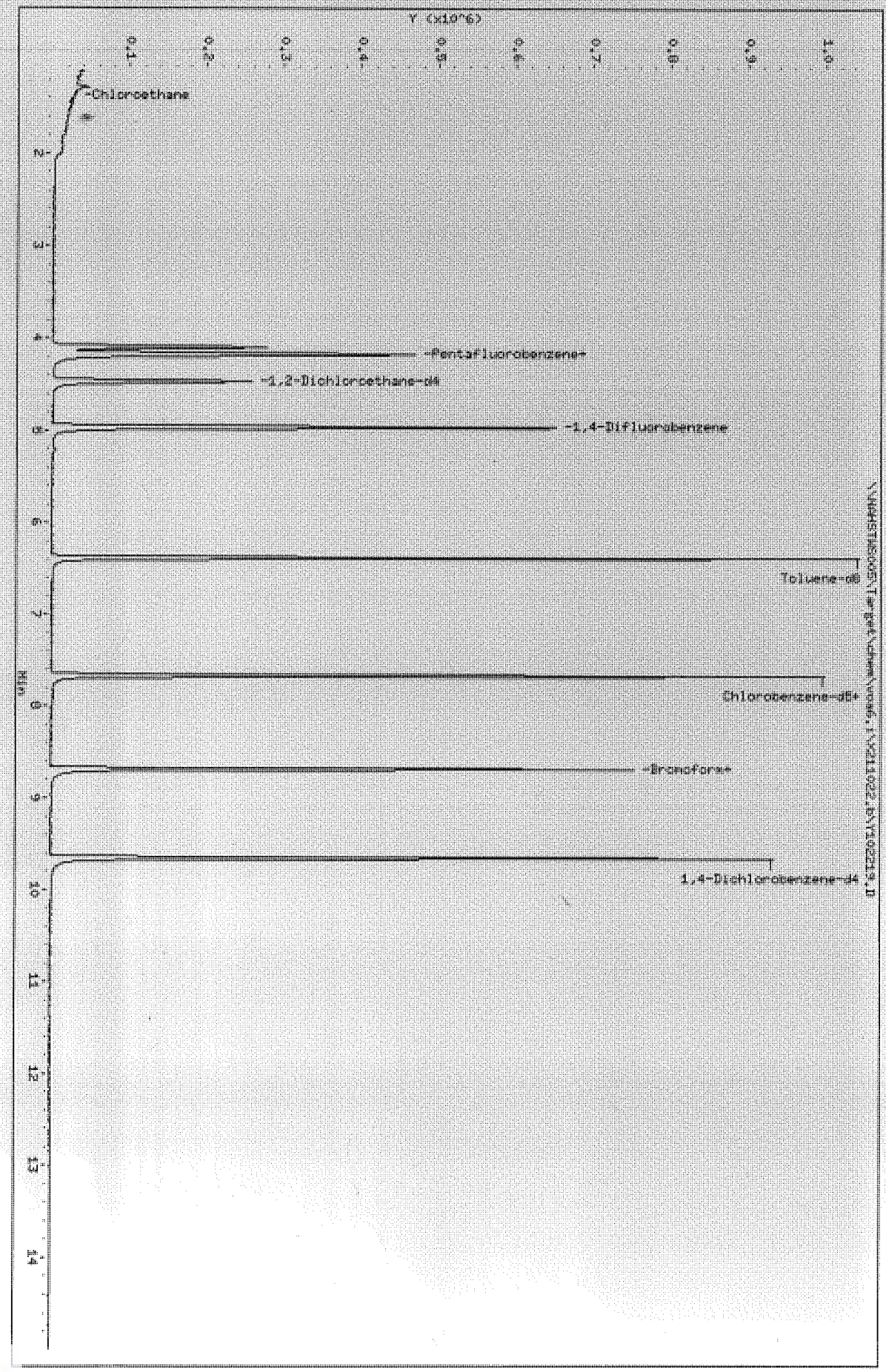
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102219.D
Lab Smp Id: HS21100881-06 Client Smp ID: HS21100881-06
Inj Date : 23-OCT-2021 04:15
Operator : PC Inst ID: voa6.i
Smp Info : HS21100881-06;HS21100881-06;;;
Misc Info : HS18090001;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 13:07 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 47
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	408691	50.0000	
$	30 Dibromofluoromethane	113	4.101	4.096	(0.981)	194521	48.4934	48.45
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	197622	48.5423	48.54
*	36 1,4-Difluorobenzene	114	4.970	4.963	(1.000)	871217	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	804837	50.0000	
$	48 Toluene-d8	98	6.380	6.389	(0.833)	644109	50.2748	50.27
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	213163	48.2932	48.29
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	258675	50.0000	


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Min
1
2
3
4
5
6
7
8
9
10
11
12
13
14
-Chloroethane
-Pentafluorobenzene-
-1,2-Dichloroethane-d4
-1,4-Difluorobenzene
Toluene-d8
Chlorobenzene-d5
-Bromoform-
1,4-Dichlorobenzene-d4

Page 2

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102230.D Page 1
Report Date: 12-Nov-2021 13:13

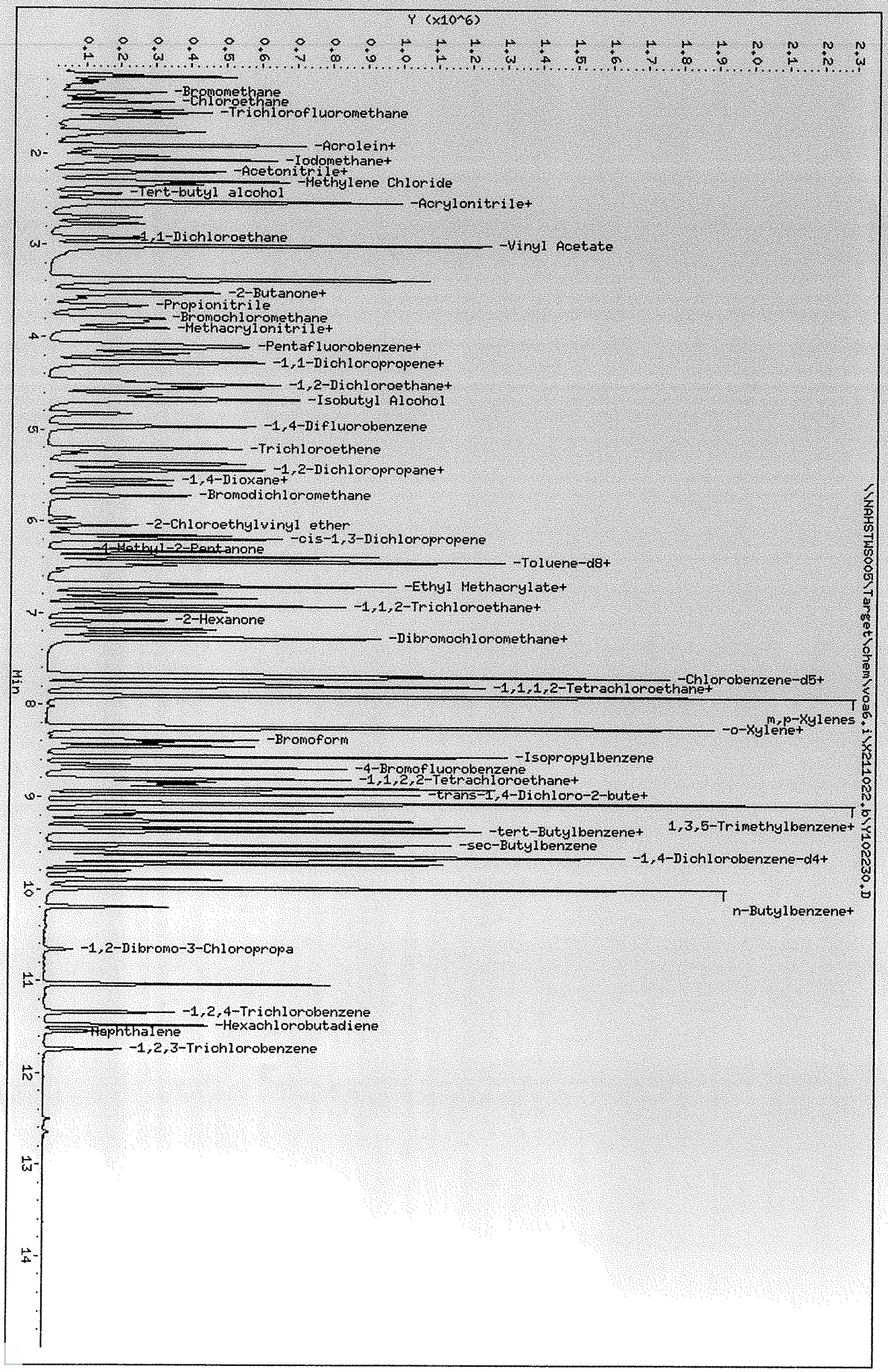
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102230.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 23-OCT-2021 08:07
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 12-Nov-2021 13:13 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 58 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	325766	50.0000	
$	10 Dibromofluoromethane	113	4.103	4.103	(0.981)	174413	50.0000	54.64
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	176227	50.0000	54.54
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	500607	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	472607	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	560076	50.0000	46.69
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	212658	50.0000	51.56
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	243698	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	163470	50.0000	47.86
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	145584	50.0000	50.09
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	127897	50.0000	50.71
	17 Methylene Chloride	84	2.305	2.305	(0.551)	160868	50.0000	56.78
	37 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	181966	50.0000	53.72
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	210044	50.0000	50.07
	38 Trichloroethene	130	5.206	5.206	(1.049)	107474	50.0000	49.56


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102230.D
Date : 23-OCT-2021 08:07
Client ID: CCV-END
Instrument: voa6.i
Sample Info: CCV-END;CCV-END;2;;;
Operator: PC
Purge Volume: 5.0
Column diameter: 0.18
Column phase: DB624
Page 2
Y (x10^6)
\\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102230.D
Min
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
1,1-Dichloroethane
-Vinyl Acetate
-2-Butanone+
-Propionitrile
-Bromochloromethane
-Methacrylonitrile+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
4-Methyl-2-Pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone
-Dibromochloromethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
m,p-Xylenes
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-1,4-Dichlorobenzene-d4+
n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
Naphthalene
-1,2,3-Trichlorobenzene

MSVOA06 -Logbook

Batch: 465884 **Analyst:** Qin Xu
Date: 10-25-2021 **Reviewer:**
Method: 8260 **Laboratory:** Houston
Comments:

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	
1	BFB	TUNE	10-25-2021 10:11 am	1.00	0.00 mL	0.00 mL	X102501.D	Liquid	Y	N
2	CCV	CCV	10-25-2021 10:32 am	1.00	5.00 mL	0.00 mL	X102502a.D	Liquid	Y	N
3	CCV	CCV	10-25-2021 10:53 am	1.00	5.00 mL	0.00 mL	X102503.D	Liquid	Y	N
4	CCB	SAMP	10-25-2021 11:14 am	1.00	5.00 mL	0.00 mL	X102504.D	Liquid	Y	N
5	VLCSW-211025	LCS	10-25-2021 11:35 am	1.00	5.00 mL	0.00 mL	X102505.D	Liquid	Y	N
6	BLANK	SAMP	10-25-2021 11:56 am	1.00	5.00 mL	0.00 mL	X102506.D	Liquid	Y	N
7	VBLKW-211025	MBLK	10-25-2021 12:17 pm	1.00	5.00 mL	0.00 mL	X102507.D	Liquid	Y	N
8	HS21101309-01	SAMP	10-25-2021 12:38 pm	1.00	5.00 mL	0.00 mL	X102508.D	Liquid	Y	N
9	HS21101182-02	SAMP	10-25-2021 12:59 pm	1.00	5.00 mL	0.00 mL	X102509.D	Liquid	Y	N
10	HS21101283-10	SAMP	10-25-2021 01:20 pm	10.00	5.00 mL	0.00 mL	X102510.D	Liquid	Y	N
11	HS21101182-01	SAMP	10-25-2021 01:41 pm	1.00	5.00 mL	0.00 mL	X102511.D	Liquid	Y	N
12	HS21101283-10MS	MS	10-25-2021 02:02 pm	10.00	5.00 mL	0.00 mL	X102512.D	Liquid	Y	N
13	HS21101283-10MSD	MSD	10-25-2021 02:23 pm	10.00	5.00 mL	0.00 mL	X102513.D	Liquid	Y	N
14	HS21101306-01	SAMP	10-25-2021 02:44 pm	10.00	5.00 mL	0.00 mL	X102514.D	Liquid	Y	N
15	HS21101283-04	SAMP	10-25-2021 03:05 pm	100.00	5.00 mL	0.00 mL	X102515.D	Liquid	Y	N
16	HS21101283-09	SAMP	10-25-2021 03:26 pm	5.00	5.00 mL	0.00 mL	X102516.D	Liquid	Y	N
17	HS21101144-17	SAMP	10-25-2021 03:47 pm	1.00	5.00 mL	0.00 mL	X102517.D	Liquid	Y	N
18	HS21101102-05	SAMP	10-25-2021 04:08 pm	1.00	5.00 mL	0.00 mL	X102518.D	Liquid	Y	N
19	HS21101144-13	SAMP	10-25-2021 04:29 pm	1.00	5.00 mL	0.00 mL	X102519.D	Liquid	Y	N
20	HS21101144-15	SAMP	10-25-2021 04:50 pm	1.00	5.00 mL	0.00 mL	X102520.D	Liquid	Y	N
21	HS21100881-03	SAMP	10-25-2021 05:12 pm	10.00	5.00 mL	0.00 mL	X102521.D	Liquid	Y	N
22	HS21100881-07	SAMP	10-25-2021 05:33 pm	5.00	5.00 mL	0.00 mL	X102522.D	Liquid	Y	N
23	HS21100881-07	SAMP	10-25-2021 05:54 pm	50.00	5.00 mL	0.00 mL	X102523.D	Liquid	Y	N
24	HS21101144-16	SAMP	10-25-2021 06:15 pm	5.00	5.00 mL	0.00 mL	X102524.D	Liquid	Y	N
25	HS21101144-16	SAMP	10-25-2021 06:36 pm	25.00	5.00 mL	0.00 mL	X102525.D	Liquid	Y	N
26	HS21101144-12	SAMP	10-25-2021 06:57 pm	10.00	5.00 mL	0.00 mL	X102526.D	Liquid	Y	N
27	HS21101144-12mlr	SAMP	10-25-2021 07:18 pm	50.00	5.00 mL	0.00 mL	X102527.D	Liquid	Y	N
28	HS21101144-14	SAMP	10-25-2021 07:39 pm	10.00	5.00 mL	0.00 mL	X102528.D	Liquid	Y	N
29	HS21101144-14	SAMP	10-25-2021 08:00 pm	100.00	5.00 mL	0.00 mL	X102529.D	Liquid	Y	N
30	CCV-END	CCV	10-25-2021 08:21 pm	1.00	5.00 mL	0.00 mL	X102530.D	Liquid	Y	N
31	BFB	TUNE	10-25-2021 08:42 pm	1.00	0.00 mL	0.00 mL	Y102501.D	Liquid	Y	N
32	CCV	CCV	10-25-2021 09:03 pm	1.00	5.00 mL	0.00 mL	Y102502a.D	Liquid	Y	N
33	CCV	CCV	10-25-2021 09:24 pm	1.00	5.00 mL	0.00 mL	Y102503.D	Liquid	Y	N
34	CCB	SAMP	10-25-2021 09:45 pm	1.00	5.00 mL	0.00 mL	Y102504.D	Liquid	Y	N
35	VLCSW-211025	LCS	10-25-2021 10:06 pm	1.00	5.00 mL	0.00 mL	Y102505.D	Liquid	Y	N
36	BLANK	SAMP	10-25-2021 10:27 pm	1.00	5.00 mL	0.00 mL	Y102506.D	Liquid	Y	N
37	VBLKW-211025	MBLK	10-25-2021 10:48 pm	1.00	5.00 mL	0.00 mL	Y102507.D	Liquid	Y	N
38	HS21101119-21	SAMP	10-25-2021 11:09 pm	1.00	5.00 mL	0.00 mL	Y102508.D	Liquid	Y	N
39	HS21101119-22	SAMP	10-25-2021 11:30 pm	1.00	5.00 mL	0.00 mL	Y102509.D	Liquid	Y	N
40	HS21101119-05	SAMP	10-25-2021 11:51 pm	10.00	5.00 mL	0.00 mL	Y102510.D	Liquid	Y	N
41	HS21101119-05MS	MS	10-26-2021 12:12 am	10.00	5.00 mL	0.00 mL	Y102511.D	Liquid	Y	N

MSVOA06-Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	I
42	HS21101119-05MSD	MSD	10-26-2021 12:33 am	10.00	5.00 mL	0.00 mL	Y102512.D	Liquid	Y	N
43	BLANK	SAMP	10-26-2021 12:54 am	1.00	5.00 mL	0.00 mL	Y102513.D	Liquid	Y	N
44	HS21101119-03	SAMP	10-26-2021 01:15 am	1.00	5.00 mL	0.00 mL	Y102514.D	Liquid	Y	N
45	HS21101119-06	SAMP	10-26-2021 01:36 am	1.00	5.00 mL	0.00 mL	Y102515.D	Liquid	Y	N
46	HS21101119-07	SAMP	10-26-2021 01:58 am	1.00	5.00 mL	0.00 mL	Y102516.D	Liquid	Y	N
47	HS21101119-01	SAMP	10-26-2021 02:19 am	1.00	5.00 mL	0.00 mL	Y102517.D	Liquid	Y	N
48	HS21101119-02	SAMP	10-26-2021 02:40 am	1.00	5.00 mL	0.00 mL	Y102518.D	Liquid	Y	N
49	HS21101119-12	SAMP	10-26-2021 03:01 am	1.00	5.00 mL	0.00 mL	Y102519.D	Liquid	Y	N
50	HS21101124-01	SAMP	10-26-2021 03:22 am	1.00	5.00 mL	0.00 mL	Y102520.D	Liquid	Y	N
51	HS21101124-02	SAMP	10-26-2021 03:43 am	1.00	5.00 mL	0.00 mL	Y102521.D	Liquid	Y	N
52	HS21101124-03	SAMP	10-26-2021 04:04 am	1.00	5.00 mL	0.00 mL	Y102522.D	Liquid	Y	N
53	HS21101124-04	SAMP	10-26-2021 04:25 am	1.00	5.00 mL	0.00 mL	Y102523.D	Liquid	Y	N
54	HS21101124-07	SAMP	10-26-2021 04:46 am	1.00	5.00 mL	0.00 mL	Y102524.D	Liquid	Y	N
55	HS21101124-08	SAMP	10-26-2021 05:07 am	1.00	5.00 mL	0.00 mL	Y102525.D	Liquid	Y	N
56	HS21101067-02	SAMP	10-26-2021 05:28 am	1.00	5.00 mL	0.00 mL	Y102526.D	Liquid	Y	N
57	HS21101119-08	SAMP	10-26-2021 05:49 am	5.00	5.00 mL	0.00 mL	Y102527.D	Liquid	Y	N
58	HS21101125-07	SAMP	10-26-2021 06:10 am	10.00	5.00 mL	0.00 mL	Y102528.D	Liquid	Y	N
59	HS21101125-05	SAMP	10-26-2021 06:31 am	2000.0	5.00 mL	0.00 mL	Y102529.D	Liquid	Y	N
60	HS21101067-04	SAMP	10-26-2021 06:53 am	5.00	5.00 mL	0.00 mL	Y102530.D	Liquid	Y	N

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE)#	SMC3 (TOL)#	OTHER #	TOT OUT
01	VLCSW-211025	103	98	92	99	0
02	VBLKW-211025	94	89	97	97	0
03	HS21101283-10MS	95	88	96	100	0
04	HS21101283-10MSD	94	88	97	98	0
05	HS21100881-03	96	91	97	98	0
06	HS21100881-07	96	92	99	97	0
07	HS21100881-07	95	92	97	98	0
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		QC LIMITS
SMC1	= Dibromofluoromethane	(70-130)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(70-130)
SMC3 (TOL)	= Toluene-d8	(70-130)
OTHER	= 4-Bromofluorobenzene	(70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.
VBLKW-211025

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Lab File ID: X102507 Lab Sample ID: VBLKW-211025

Date Analyzed: 10/25/21 Time Analyzed: 1217

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSW-211025	VLCSW-211025	X102505	1135
02	HS21101283-10MS	HS21101283-10MS	X102512	1402
03	HS21101283-10MSD	HS21101283-10MSD	X102513	1423
04	HS21100881-03	HS21100881-03	X102521	1712
05	HS21100881-07	HS21100881-07	X102522	1733
06	HS21100881-07	HS21100881-07	X102523	1754
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COMMENTS:

FORM IV VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Lab File ID: X102501 BFB Injection Date: 10/25/21

Instrument ID: VOA6 BFB Injection Time: 1011

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.8
75	30.0 - 60.0% of mass 95	43.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1.3 (1.3)1
174	Greater than 50.0% of mass 95	103.9
175	5.0 - 9.0% of mass 174	8.2 (7.9)1
176	95.0 - 101.0% of mass 174	101.1 (97.3)1
177	5.0 - 9.0% of mass 176	6.3 (6.2)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	X102503	10/25/21	1053
02	VLCSW-211025	VLCSW-211025	X102505	10/25/21	1135
03	VBLKW-211025	VBLKW-211025	X102507	10/25/21	1217
04	HS21101283-10MS	HS21101283-10MS	X102512	10/25/21	1402
05	HS21101283-10MSD	HS21101283-10MSD	X102513	10/25/21	1423
06	HS21100881-03	HS21100881-03	X102521	10/25/21	1712
07	HS21100881-07	HS21100881-07	X102522	10/25/21	1733
08	HS21100881-07	HS21100881-07	X102523	10/25/21	1754
09	CCV-END	CCV-END	X102530	10/25/21	2021
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FORM V VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Instrument ID: VOA6 Calibration Date: 10/25/21 Time: 1053

Lab File ID: X102503 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	53.294778	50.000000	0.4641602	0.1	-6.59	20.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2597805	0.2597805	0.1	2.70	20.00	AVRG
Trichloroethene	0.3780000	0.3910415	0.3910415	0.2	-3.45	20.00	AVRG
Vinyl Chloride	0.5240000	0.4831466	0.4831466	0.1	7.80	20.00	AVRG
1,1-Dichloroethene	0.4460000	0.4411489	0.4411489	0.1	1.09	20.00	AVRG
1,2-Dichloroethane	0.4190000	0.4057512	0.4057512	0.1	3.16	20.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.5282063	0.5282063	0.1	-1.58	20.00	AVRG
1,2-Dichloroethane-d4	47.396023	50.000000	0.4726890	0.1	5.21	20.00	LINR
Dibromofluoromethane	50.790076	50.000000	0.4983865	0.1	-1.50	20.00	LINR
4-Bromofluorobenzene	50.377666	50.000000	0.4399108	0.1	-0.76	20.00	LINR
Toluene-d8	1.2690000	1.1488387	1.1488387	0.1	9.47	20.00	AVRG

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Instrument ID: VOA6 Calibration Date: 10/25/21 Time: 2021

Lab File ID: X102530 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	56.815481	50.000000	0.4941110	0.1	-13.63	50.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2766528	0.2766528	0.1	-3.62	50.00	AVRG
Trichloroethene	0.3780000	0.3993255	0.3993255	0.2	-5.64	50.00	AVRG
Vinyl Chloride	0.5240000	0.4846699	0.4846699	0.1	7.50	50.00	AVRG
1,1-Dichloroethene	0.4460000	0.4437734	0.4437734	0.1	0.50	50.00	AVRG
1,2-Dichloroethane	0.4190000	0.4164170	0.4164170	0.1	0.62	50.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.5889261	0.5889261	0.1	-13.26	50.00	AVRG
1,2-Dichloroethane-d4	51.643972	50.000000	0.5132027	0.1	-3.29	50.00	LINR
Dibromofluoromethane	55.450185	50.000000	0.5431103	0.1	-10.90	50.00	LINR
4-Bromofluorobenzene	52.763171	50.000000	0.4601908	0.1	-5.53	50.00	LINR
Toluene-d8	1.2690000	1.1979136	1.1979136	0.1	5.60	50.00	AVRG

FORM VII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Lab File ID (Standard): X102503 Date Analyzed: 10/25/21

Instrument ID: VOA6 Time Analyzed: 1053

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1		IS2(DFB)		IS3(CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	369687	4.18	530670	4.96	502786	7.67
	UPPER LIMIT	739374	4.68	1061340	5.46	1005572	8.17
	LOWER LIMIT	184844	3.68	265335	4.46	251393	7.17
	CLIENT SAMPLE NO.						
01	VLCSW-211025	352703	4.18	517367	4.96	486612	7.67
02	VBLKW-211025	457768	4.18	620796	4.96	553034	7.67
03	HS21101283-10MS	456912	4.18	628124	4.96	562367	7.67
04	HS21101283-10MSD	457740	4.18	627926	4.96	557282	7.67
05	HS21100881-03	430986	4.18	596952	4.96	529831	7.67
06	HS21100881-07	426304	4.18	589088	4.96	505653	7.67
07	HS21100881-07	432029	4.18	595902	4.96	528331	7.67
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IS1 = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Lab File ID (Standard): X102503 Date Analyzed: 10/25/21

Instrument ID: VOA6 Time Analyzed: 1053

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	261533	9.66				
	UPPER LIMIT	523066	10.16				
	LOWER LIMIT	130767	9.16				
	CLIENT SAMPLE NO.						
01	VLCSW-211025	250764	9.66				
02	VBLKW-211025	269448	9.66				
03	HS21101283-10MS	296917	9.66				
04	HS21101283-10MSD	278021	9.66				
05	HS21100881-03	252000	9.66				
06	HS21100881-07	234843	9.66				
07	HS21100881-07	248034	9.66				
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

Data File: \\HHSTWS008\Target\chem\voa6.i\H211025.b\H102501.D Page 1

Date : 25-OCT-2021 10:11

Client ID: BFB

Instrument: voa6.i

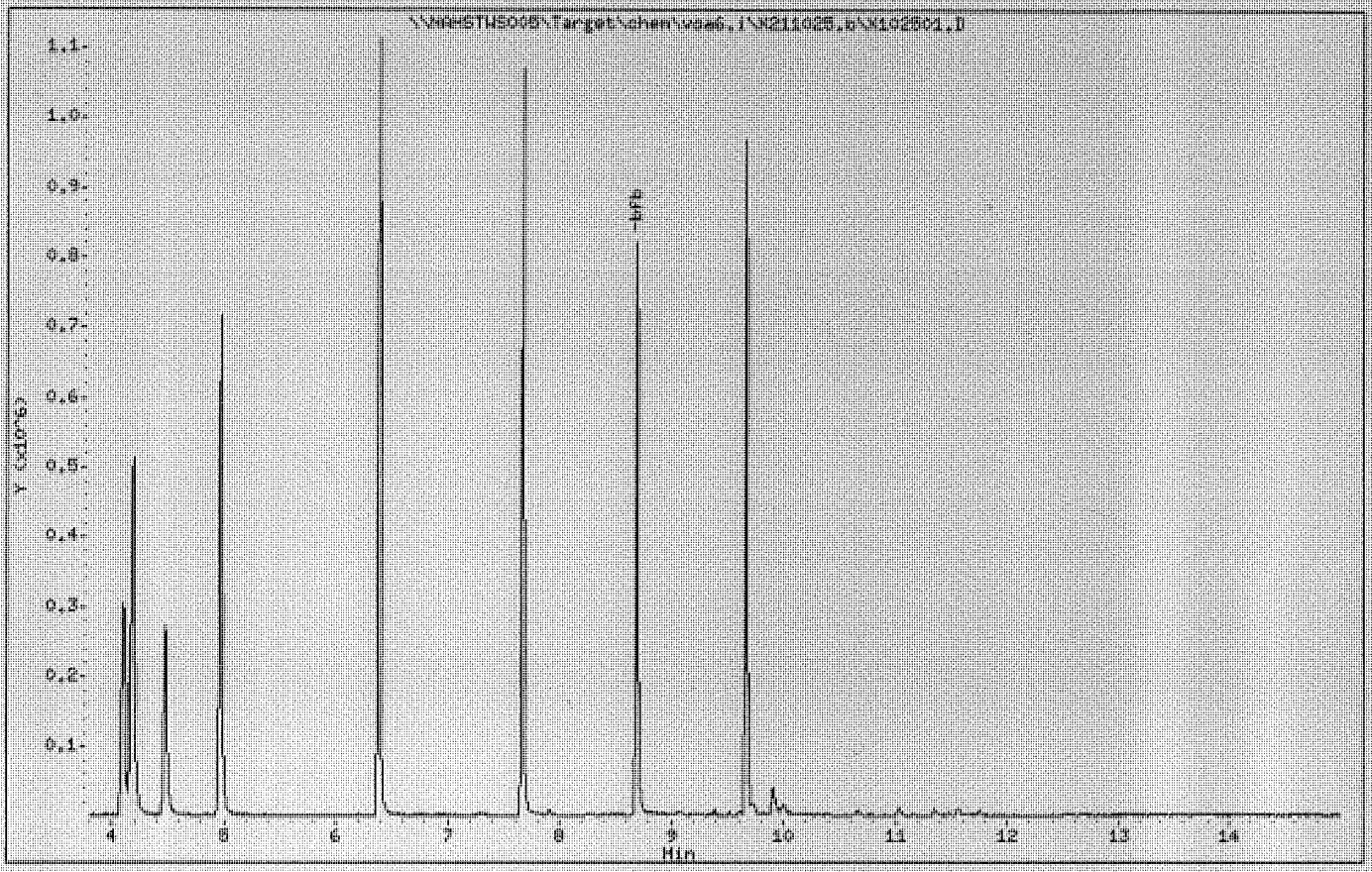
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\WHSTWS005\Target\chem\voa6.i\VX211026.b\vx102601.D Page 2

Date : 26-OCT-2021 10:11

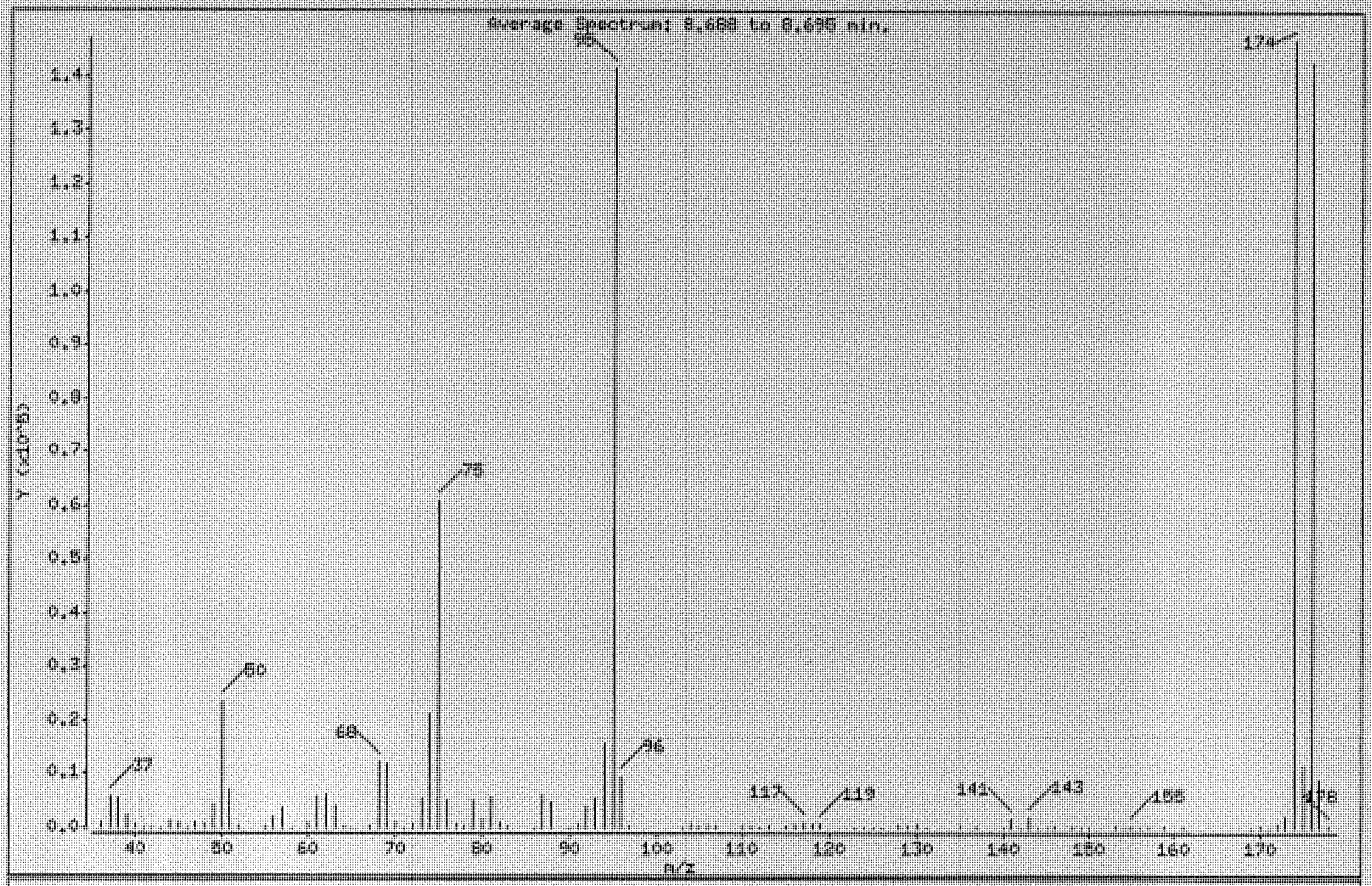
Client ID: BFB Instrument: voa6.i

Sample Info: BFB:BFB:3::BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.81
75	30.00 - 60.00% of mass 95	43.12
96	5.00 - 9.00% of mass 95	6.64
173	Less than 2.00% of mass 174	1.34 (1.29)
174	Greater than 50.00% of mass 95	103.93
175	5.00 - 9.00% of mass 174	8.17 (7.86)
176	95.00 - 101.00% of mass 174	101.10 (97.28)
177	5.00 - 9.00% of mass 176	6.26 (6.19)

Data File: \\HGHSTMS005\Target\chem\vcas6.i\V211025.b\X102501.D Page 3

Date : 25-OCT-2021 10:11

Client ID: BFB

Instrument: vcas6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: X102501.D

Spectrum: Average Spectrum: 0.600 to 0.690 min.

Location of Maximum: 174.00

Number of points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	934	67.00	329	97.00	285	142.00	158
37.00	5758	68.00	12279	103.00	29	143.00	1906
38.00	5265	69.00	11961	104.00	737	144.00	34
39.00	2333	70.00	907	105.00	349	145.00	63
40.00	737	71.00	157	106.00	822	146.00	213
41.00	69	72.00	518	107.00	196	148.00	417
42.00	132	73.00	9286	110.00	212	149.00	122
43.00	164	74.00	21472	111.00	232	150.00	160
44.00	1469	75.00	41032	112.00	127	153.00	186
45.00	1183	76.00	5045	113.00	262	154.00	110
46.00	104	77.00	669	115.00	218	155.00	500
47.00	962	78.00	428	116.00	543	156.00	148
48.00	764	79.00	5057	117.00	1092	157.00	309
49.00	4819	80.00	1632	118.00	514	159.00	192
50.00	23792	81.00	5643	119.00	796	161.00	198
51.00	7183	82.00	1155	123.00	47	169.00	53
52.00	386	83.00	206	124.00	116	170.00	221
55.00	420	86.00	93	125.00	73	171.00	76
56.00	1928	87.00	6123	126.00	60	172.00	822
57.00	3688	88.00	4650	128.00	601	173.00	1902
58.00	148	90.00	69	129.00	347	174.00	147072
60.00	1012	91.00	738	130.00	536	175.00	11563
61.00	5847	92.00	3997	131.00	151	176.00	143104
62.00	5954	93.00	5458	135.00	315	177.00	8856
63.00	4200	94.00	15716	137.00	273	178.00	305
64.00	502	95.00	141504	140.00	119		
65.00	35	96.00	9396	141.00	1798		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102503.D Page 1
Report Date: 12-Nov-2021 13:28

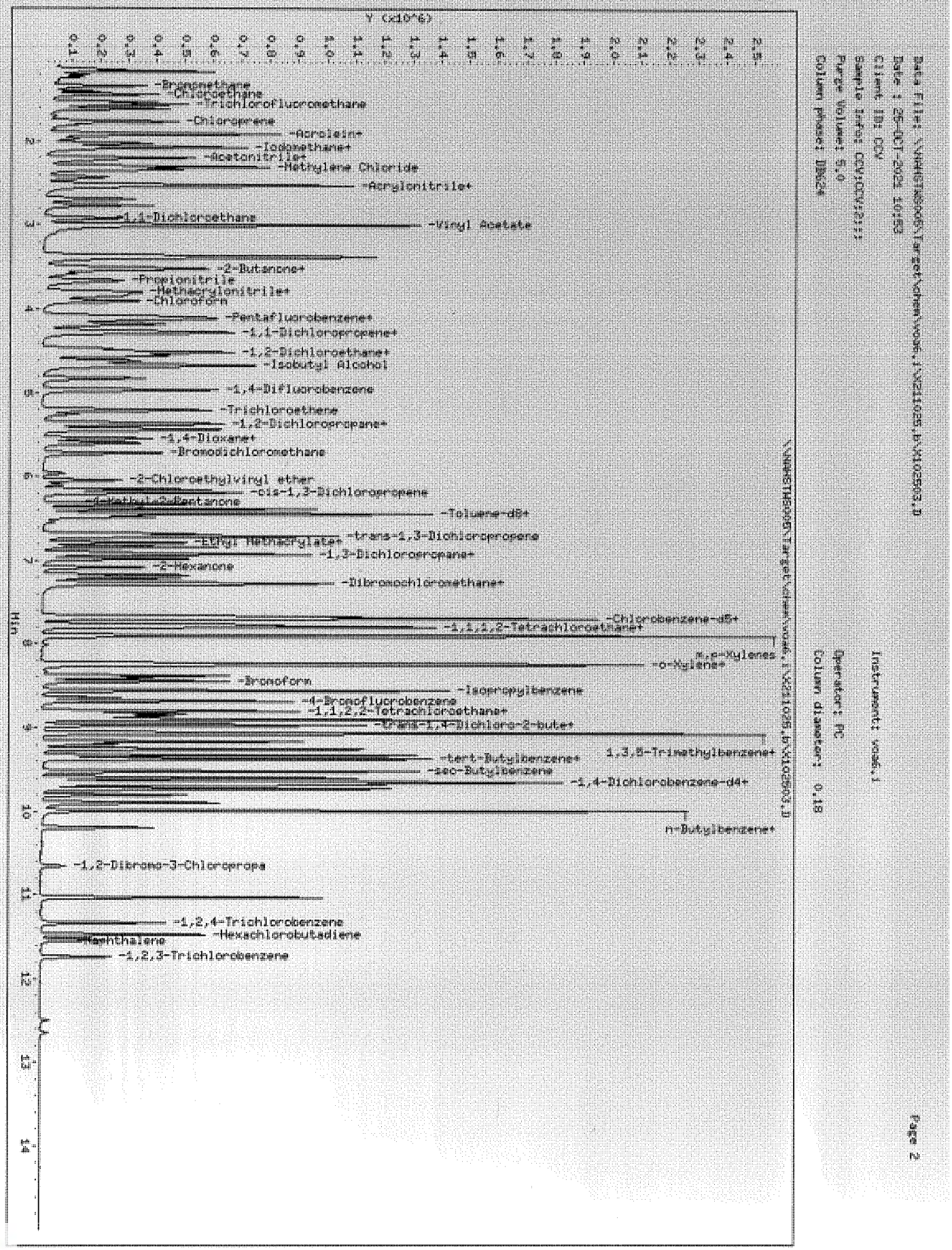
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102503.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 25-OCT-2021 10:53
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 12-Nov-2021 13:28 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	369687	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	184247	50.0000	50.79
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	174710	50.0000	47.19
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	530670	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	502786	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	577620	50.0000	45.26
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	221181	50.0000	50.37
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	261533	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	178613	50.0000	46.08
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	163087	50.0000	49.45
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	130614	50.0000	48.68
	17 Methylene Chloride	84	2.309	2.309	(0.552)	171594	50.0000	51.29
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	195271	50.0000	50.80
	33 1,2-Dichloroethane	62	4.585	4.585	(0.918)	215320	50.0000	48.37
	38 Trichloroethene	130	5.206	5.206	(1.049)	207914	50.0000	51.69


Y (x10^6)
Data File: \\HHBSDATA\ChemStation\Agilent\Chem\5975\DATA\2023\JAN\25JAN23\01169221.D
Date : 25-JAN-2023 10:53
Client ID: 100
Sample Info: CCV100ng/ml
Purge Volume: 5.0
Column phase: DB624
Instrument: 5975.1
Operator: PC
Quantitation: 0.18
Page 2
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Chloroprene
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Acrylonitrile+
-1,1-Dichloroethane
-Vinyl Acetate
-2-Butanone+
-Propionitrile
-Methacrylonitrile+
-Chloroform
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-4-Methyl-2-Pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-trans-1,3-Dichloropropene
-1,3-Dichloropropane+
-2-Hexanone
-Dibromochloromethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
m,p-Xylenes
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
-tert-Butylbenzene+
1,3,5-Trimethylbenzene+
-sec-Butylbenzene
-1,4-Dichlorobenzene-d4+
n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102505.D Page 1
Report Date: 12-Nov-2021 13:29

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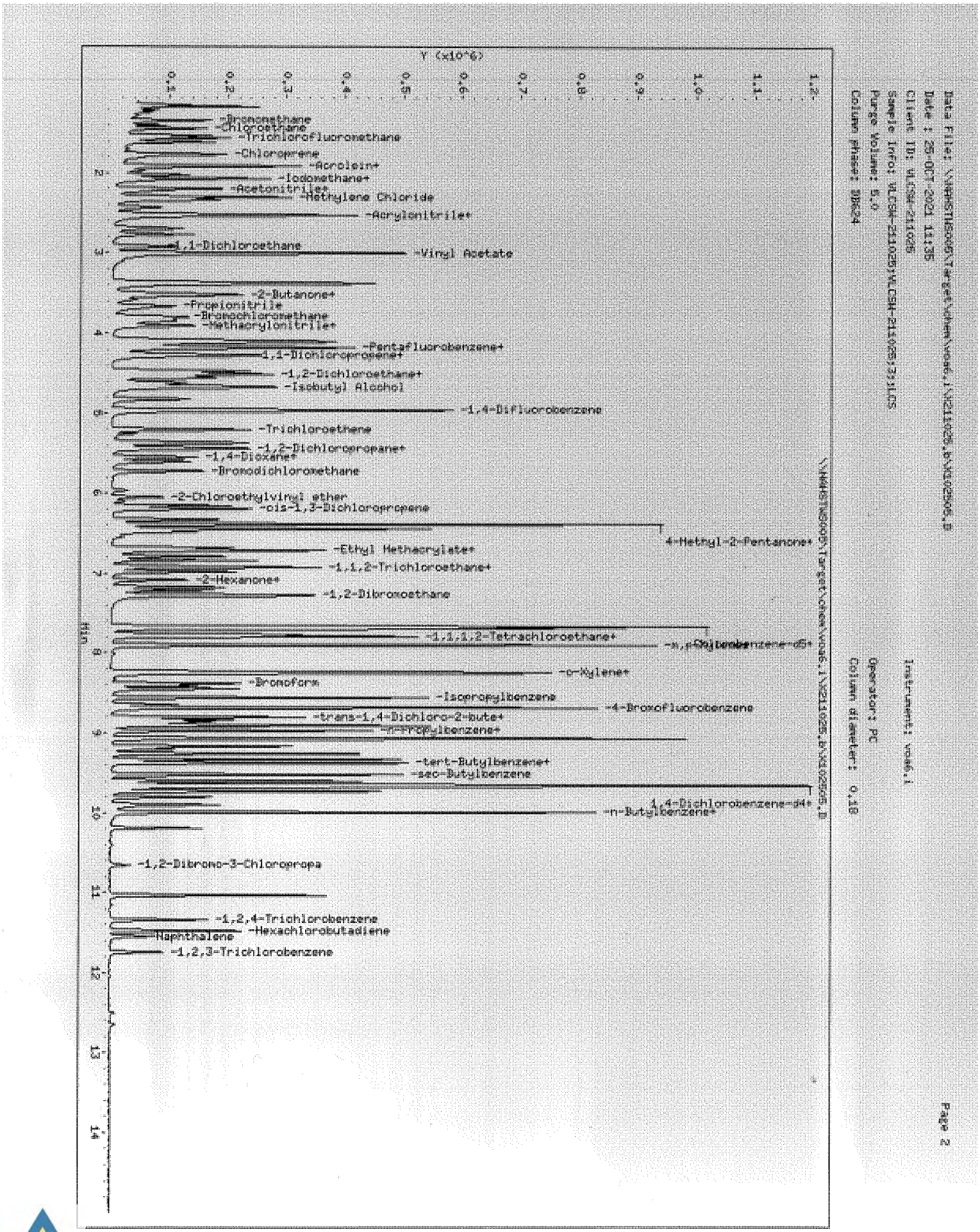
Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102505.D
Lab Smp Id: VLCSW-211025 Client Smp ID: VLCSW-211025
Inj Date : 25-OCT-2021 11:35
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-211025;VLCSW-211025;3;;LCS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 12-Nov-2021 13:28 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS, ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	352703	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	178763	51.6706	51.67
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	172326	49.0693	49.06
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	517367	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	486612	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	569048	46.0796	46.07
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	209773	49.3399	49.33
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	250764	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	68885	18.6282	18.62
	11 1,1-Dichloroethene	96	1.911	1.919	(0.457)	62146	19.7528	19.75
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	51631	19.8841	19.88
	17 Methylene Chloride	84	2.305	2.305	(0.551)	69250	21.8128	21.81
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	76951	20.9854	20.98
	33 1,2-Dichloroethane	62	4.595	4.595	(0.918)	85255	19.6446	19.64
	38 Trichloroethene	130	5.206	5.206	(1.049)	81577	20.8452	20.84


Y (x10^6)
Bromomethane
Chloroethane
Trichlorofluoromethane
Chloroprene
Acrolein+
Iodomethane+
Acetonitrile+
Methylene Chloride
Acrylonitrile+
1,1-Dichloroethene
Vinyl Acetate
2-Butanone+
Propionitrile
Bromochloromethane
Methacrylonitrile+
Pentafluorobenzene+
1,1-Dichloropropene+
1,2-Dichloroethane+
Isobutyl Alcohol
1,4-Difluorobenzene
Trichloroethene
1,2-Dichloropropane+
1,4-Dioxane+
Bromodichloromethane
2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
4-Methyl-2-Pentanone+
Ethyl Methacrylate+
1,1,2-Trichloroethane+
2-Hexanone+
1,2-Dibromoethane
1,1,1,2-Tetrachloroethane+
m,p-Xylene-d6+
o-Xylene+
Bromoform
Isopropylbenzene
4-Bromofluorobenzene
trans-1,4-Dichloro-2-bute+
n-Propylbenzene+
tert-Butylbenzene+
sec-Butylbenzene
1,4-Dichlorobenzene-d4+
n-Butylbenzene+
1,2-Dibromo-3-Chloroprope
1,2,4-Trichlorobenzene
Naphthalene
Hexachlorobutadiene
1,2,3-Trichlorobenzene
Data File: \\NAMSTNAS05\Target\Chem\VOA5.i\VA210625.b\VA0625.B
Date : 25-OCT-2021 11:35
Client ID: VLCS4_211025
Sample Info: VLCS4_211025,VOLCSH_211025,31,LCS
Purge Volume: 5.0
Column phase: DB624
Instrument: voa5.i
Operator: PC
Column diameter: 0.18
Page 2

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102507.D Page 1
Report Date: 12-Nov-2021 13:29

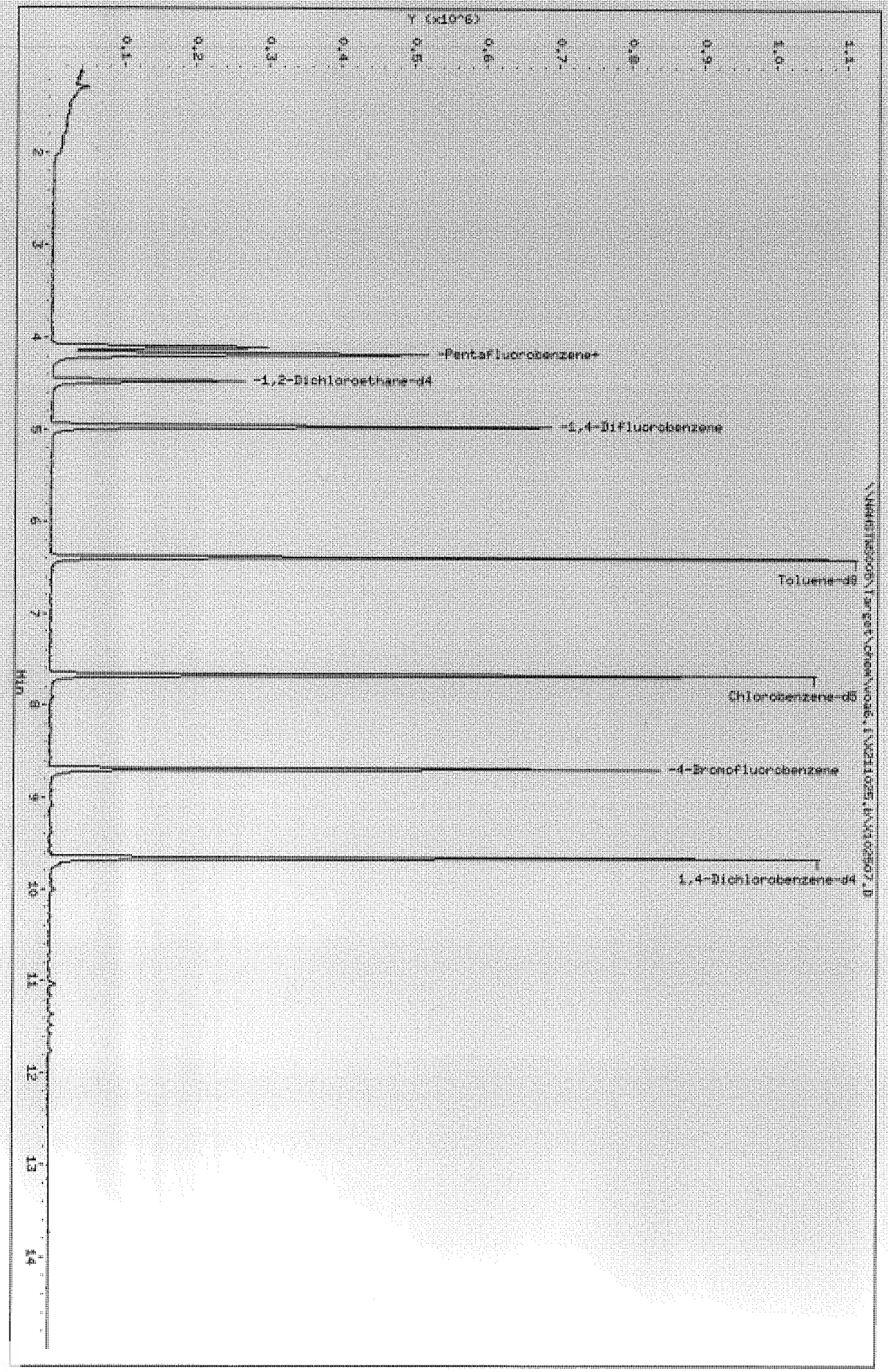
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102507.D
Lab Smp Id: VBLKW-211025 Client Smp ID: VBLKW-211025
Inj Date : 25-OCT-2021 12:17
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-211025;VBLKW-211025;3;;BLANK
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 12-Nov-2021 13:28 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.162	4.162	(1.000)	457768	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.103	(0.979)	211194	46.9316	46.93
$	35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.068)	203512	44.4659	44.46
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	620796	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	553034	50.0000	
$	48 Toluene-d8	98	6.340	6.340	(0.833)	681416	48.5515	48.55
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	235279	48.6747	48.67
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	249448	50.0000	


Y (x10^6)
-Pentafluorobenzene-
-1,2-Dichloroethane-d4
-1,4-Difluorobenzene
Toluene-d8
Chlorobenzene-d5
-4-Bromofluorobenzene
1,4-Dichlorobenzene-d4
Min

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102512.D Page 1
Report Date: 12-Nov-2021 13:29

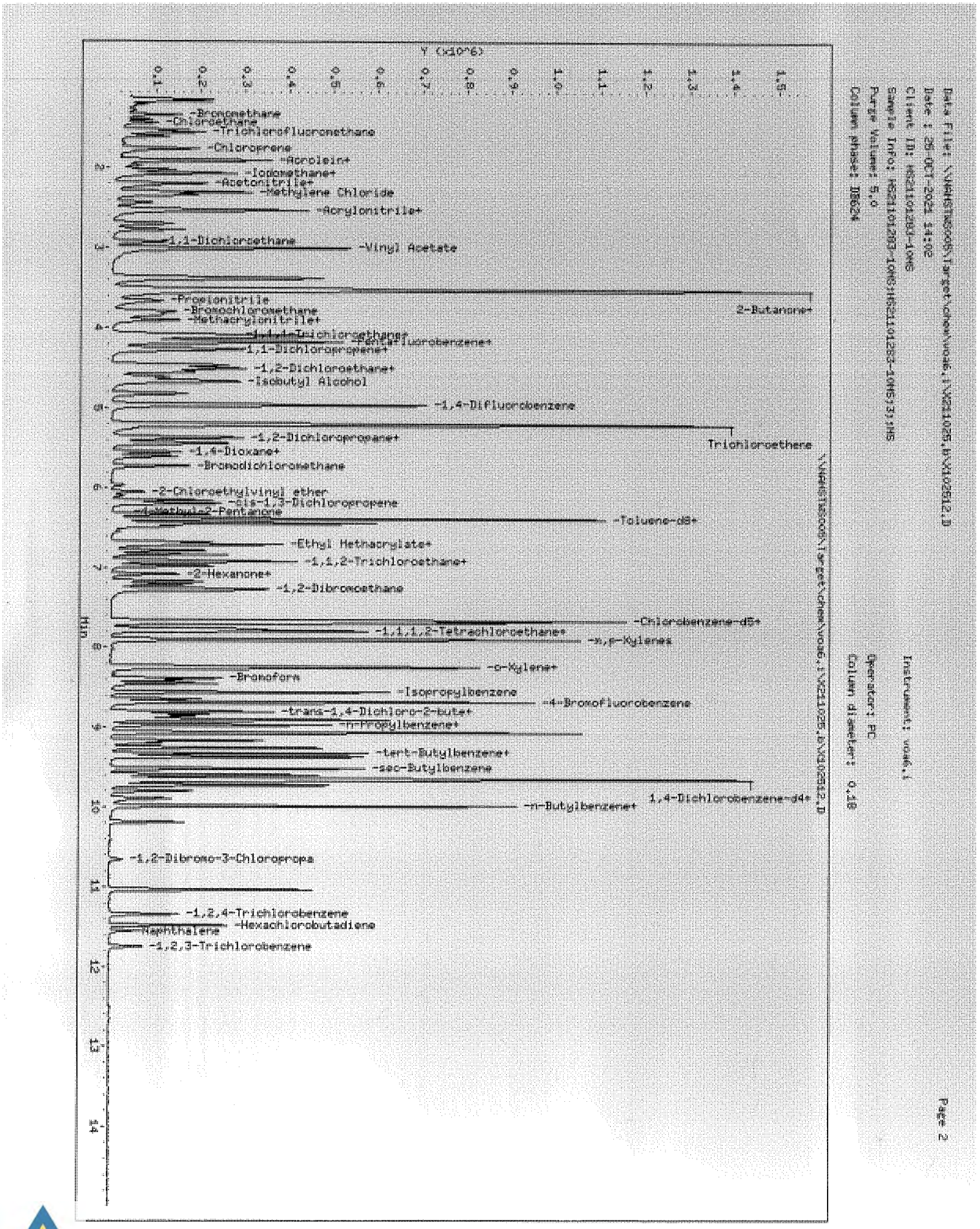
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102512.D
Lab Smp Id: HS21101283-10MS Client Smp ID: HS21101283-10MS
Inj Date : 25-OCT-2021 14:02
Operator : PC Inst ID: voa6.i
Smp Info : HS21101283-10MS;HS21101283-10MS;3;;MS
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 12-Nov-2021 13:28 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 12 QC Sample: MS
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIO MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	456912	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.103	(0.979)	213111	47.4588	47.45
$	35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.069)	201603	44.1158	44.11
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	628124	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	562367	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	684793	47.9824	47.98
$	69 4-Bromofluorobenzene	95	8.680	8.680	(1.131)	345606	50.0042	50.00
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	336917	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	141105	39.4954	394.95
	11 1,1-Dichloroethene	96	1.912	1.919	(0.457)	69844	17.1365	171.36
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	56297	18.7472	187.47
	17 Methylene Chloride	84	2.306	2.305	(0.551)	76322	18.3683	183.68
	27 cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	804050	169.263	1692.63
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	94565	17.9476	179.47
	38 Trichloroethene	130	5.207	5.206	(1.049)	485686	102.223	1022.22


Y (x10^6)
Run
-Bromoethane
-Chloroethane
-Trichlorofluoromethane
-Chloroprene
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Acrylonitrile+
1,1-Dichloroethane
-Vinyl Acetate
-Propionitrile
-Bromochloromethane
-Methacrylonitrile+
-1,1,1-Trichloroethane
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
2-Butanone+
-Pentafluorobenzene+
-1,4-Difluorobenzene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
Trichloroethene
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-4-Methyl-2-Pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone+
-1,2-Dibromoethane
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
-m,p-Xylenes
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-trans-1,4-Dichloro-2-bute+
-n-Propylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-n-Butylbenzene+
1,4-Dichlorobenzene-d4+
-1,2-Dibromo-3-Chloropro
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
Data File: \\HHSTA5000\Target\chem\voa6.i\v251025.b\v1025f12.D
Date : 25-OCT-2025 14:02
Client ID: 8260/624/1ml5
Sample Info: 8260/624-10ml5:HBC111@1283-10ml5:10ml5
Purge Volume: 5.0
Column Phase: DB624
\\HHSTA5000\Target\chem\voa6.i\v251025.b\v1025f12.D
Instrument: voa6.i
Operator: PC
Column diameter: 0.18
Page 2

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102513.D Page 1
Report Date: 12-Nov-2021 13:29

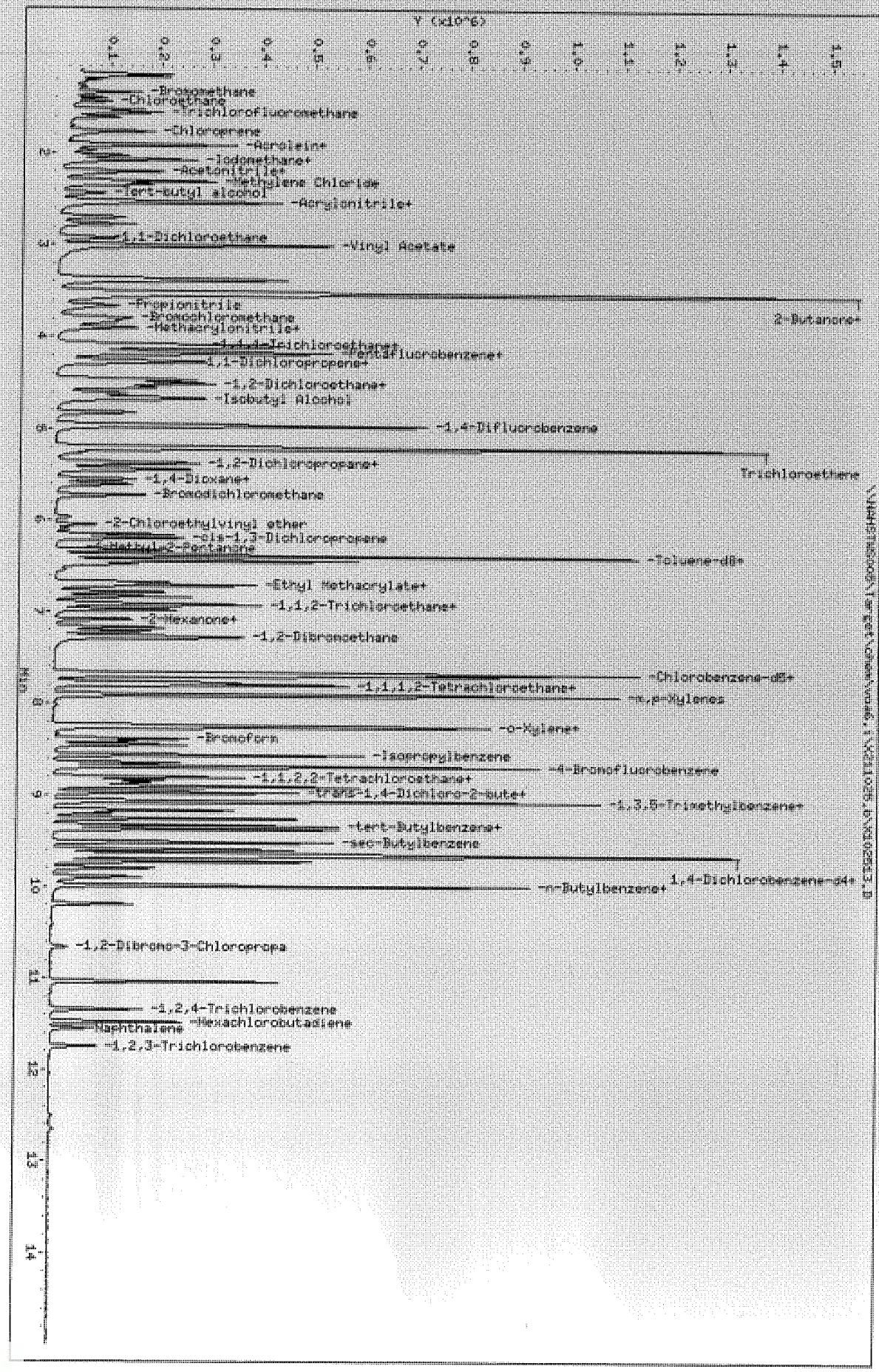
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102513.D
Lab Smp Id: HS21101283-10MSD Client Smp ID: HS21101283-10MSD
Inj Date : 25-OCT-2021 14:23
Operator : PC Inst ID: voa6.i
Smp Info : HS21101283-10MSD;HS21101283-10MSD;3;;MSD
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 12-Nov-2021 13:28 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 12 QC Sample: MSD
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	457740	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.103	(0.979)	212387	47.2061	47.20
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	202358	44.2046	44.20
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	627926	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	557282	50.0000	
$	48 Toluene-d8	98	6.389	6.388	(0.833)	681875	48.3412	48.34
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	239084	49.0821	49.08
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	278021	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	130890	27.2736	272.73
	11 1,1-Dichloroethene	96	1.912	1.919	(0.457)	66063	16.1795	161.79
	93 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	56087	18.8611	188.61
	17 Methylene Chloride	84	2.306	2.305	(0.551)	74831	17.9499	179.49
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	795526	167.166	1671.65
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	92291	17.5219	175.21
	38 Trichloroethene	130	5.207	5.206	(1.049)	463911	97.4816	974.81


Y (x10^6)
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Chloroprene
-Acrolein+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-tert-butyl alcohol
-Acrylonitrile+
1,1-Dichloroethane
-Vinyl Acetate
-Propionitrile
-Bromochloromethane
-Methacrylonitrile+
-1,1,1-Trichloroethane+
-Difluorobenzene+
1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
2-Butanone+
-1,2-Dichloropropane+
-1,4-Dioxane+
-Dibromochloromethane
Trichloroethene
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-4-Methyl-2-pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone+
-1,2-Dibromoethane
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
-m,p-Xylenes
-o-Xylene+
-Bromoform
-Isopropylbenzene
-1,1,2,2-Tetrachloroethane+
-4-Bromofluorobenzene
-trans-1,4-Dichloro-2-bute+
-1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Naphthalene
-Hexachlorobutadiene
-1,2,3-Trichlorobenzene
Min
Data File: \\HHBSITHS005\Target\Chem\vnav6.i\220128\28128513.D
Date : 28-OCT-2021 14:23
Client ID: HS210028B-10MSD
Sample Info: HS210028B-10MSD,HS210128B-1HHBD,3,,HSD
Purge Volume: 5.0
Column phase: DB624
Instrument: vnav6.i
Operator: PC
Column diameter: 0.18
Page 2

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102521.D Page 1
Report Date: 12-Nov-2021 13:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102521.D
Lab Smp Id: HS21100881-03 Client Smp ID: HS21100881-03
Inj Date : 25-OCT-2021 17:12
Operator : PC Inst ID: voa6.i
Smp Info : HS21100881-03;HS21100881-03;;;
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 12-Nov-2021 13:14 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 20
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

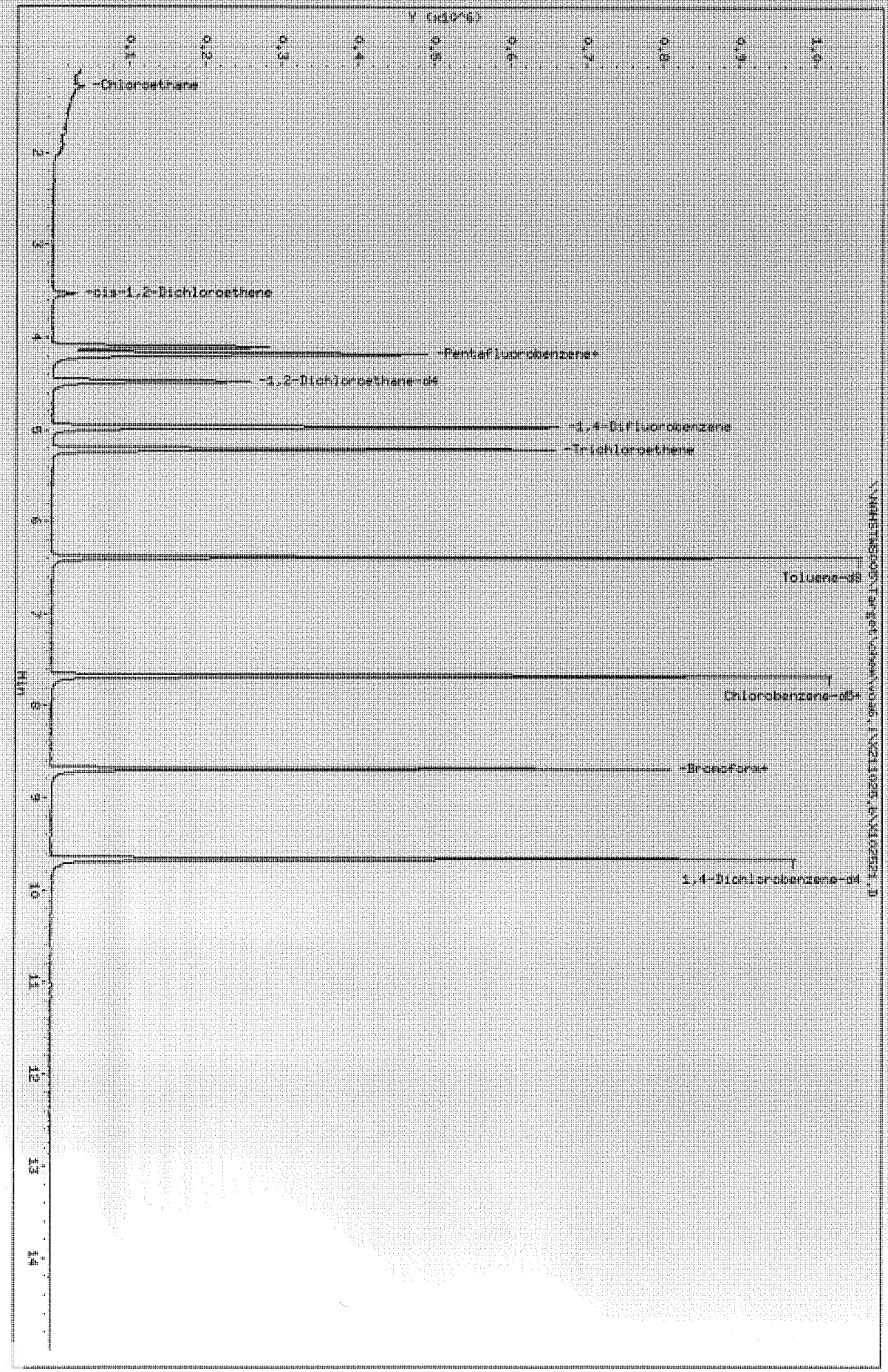
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIO MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	430986	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	202928	47.9204	47.92
$	35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	196214	45.5043	45.50
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	596952	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	529831	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	651554	48.4569	48.45
$	69 4-Bromofluorobenzene	95	8.686	8.686	(1.133)	226523	48.9223	48.92
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	252000	50.0000	
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	17193	3.88172	38.81(a)
	38 Trichloroethene	130	5.206	5.207	(1.049)	223527	49.5027	495.02

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Y (x10^6)
Min
-Chloroethane
-cis-1,2-Dichloroethene
-Pentafluorobenzene+
-1,2-Dichloroethane-d4
-1,4-Difluorobenzene
-Trichloroethene
Toluene-d8
Chlorobenzene-d5+
-Bromofor+
1,4-Dichlorobenzene-d4

Data File: \\WGHSTWS005\Target\chem\voa6.i\X211025.b\X102521.D

Page 3

Date : 25-OCT-2021 17:12

Client ID: HS21100881-03

Instrument: voa6.i

Sample Info: HS21100881-03;HS21100881-03;;;

Purge Volume: 5.0

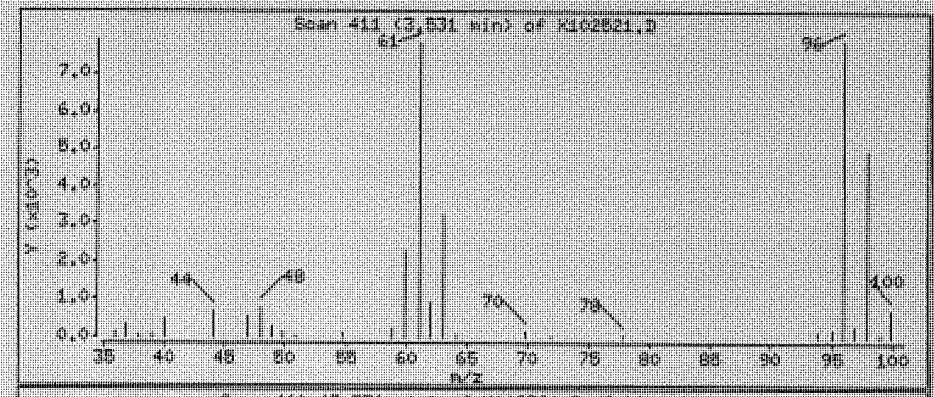
Operator: MC

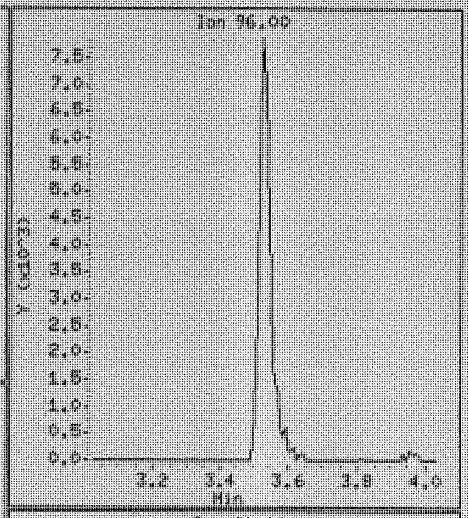
Column phase: DB624

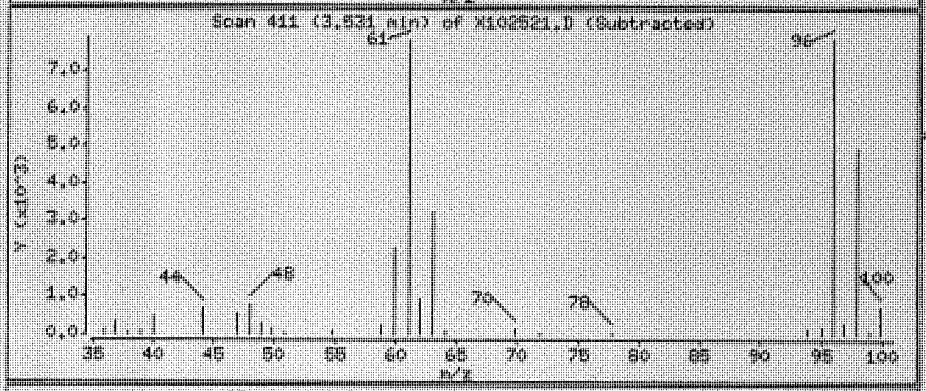
Column diameter: 0.18

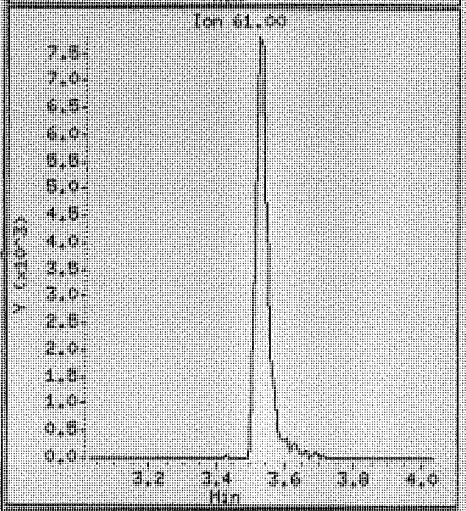
27 cis-1,2-Dichloroethene

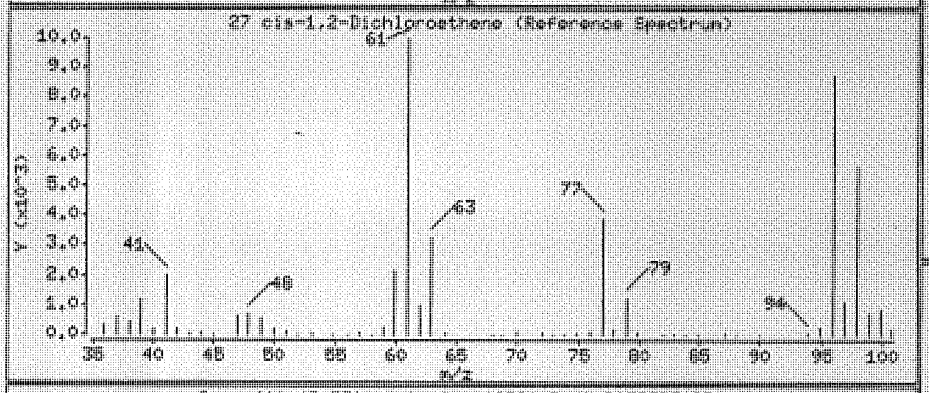
Concentration: 38.81 ug/l

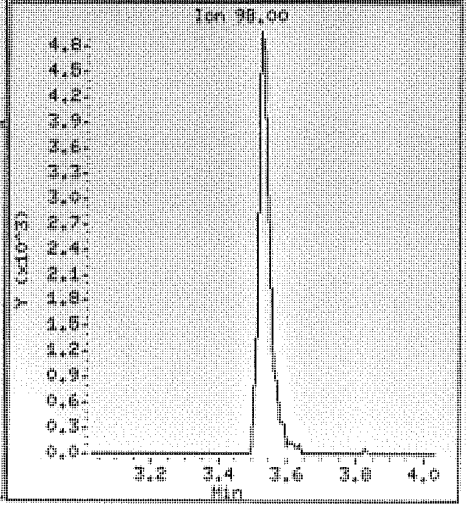


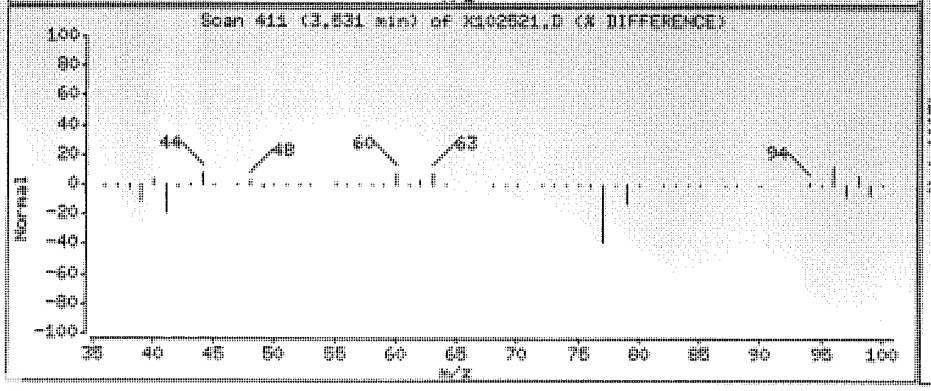












Data File: \\NWHSTWS005\Target\chem\voa6.i\X211026.b\X102521.D Page 4

Date : 26-OCT-2021 17:12

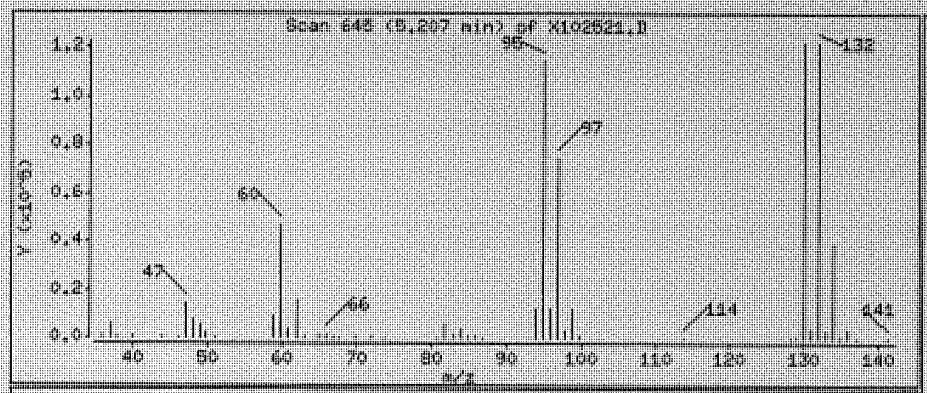
Client ID: HS21100881-03 Instrument: voa6.i

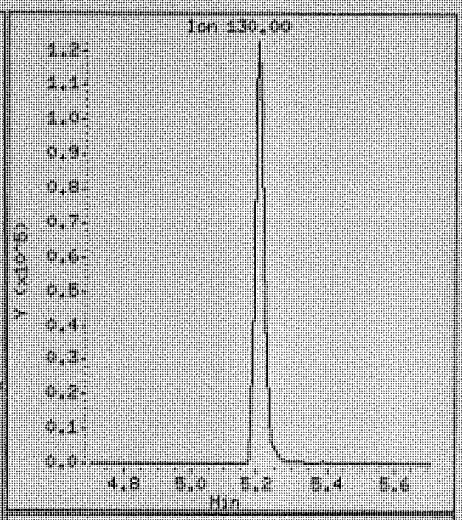
Sample Info: HS21100881-03;HS21100881-03;;;

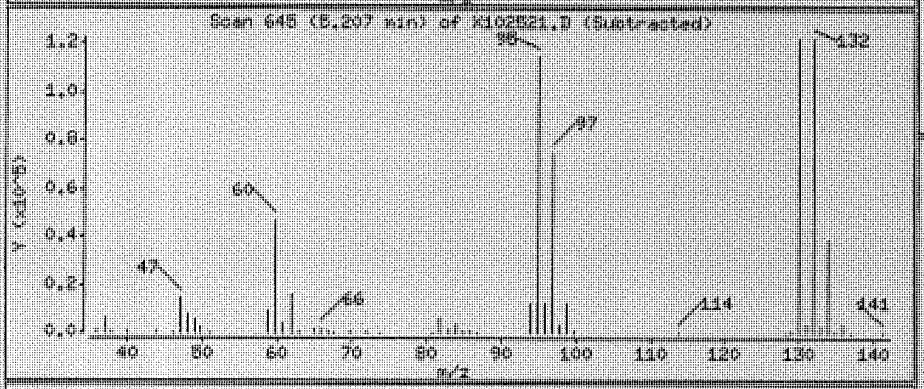
Purge Volume: 5.0 Operator: PC

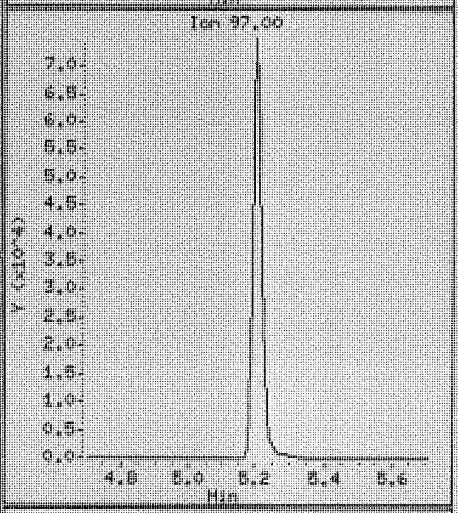
Column phase: DB624 Column diameter: 0.18

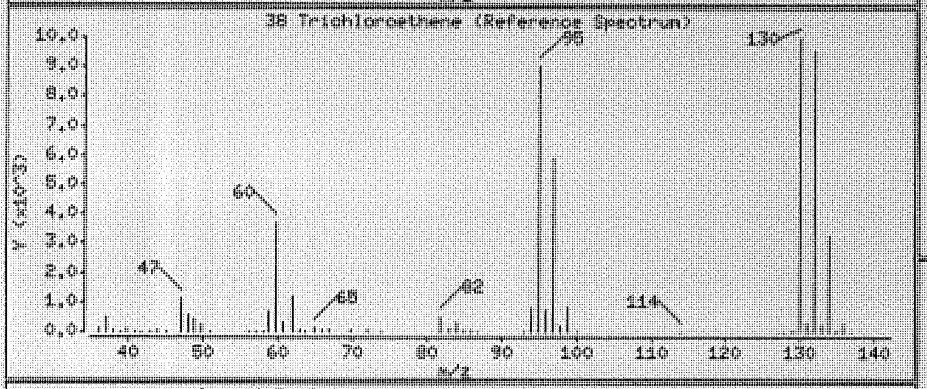
38 Trichloroethene Concentration: 496.02 ug/l

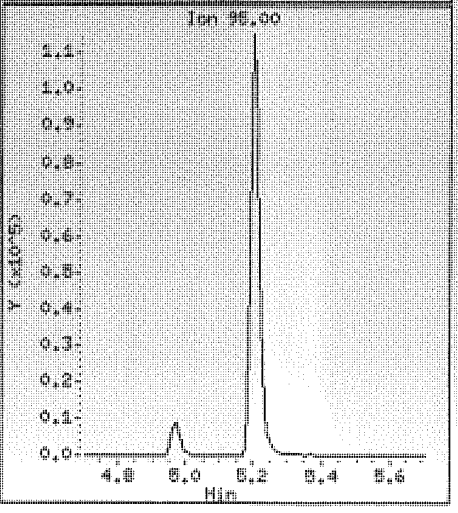


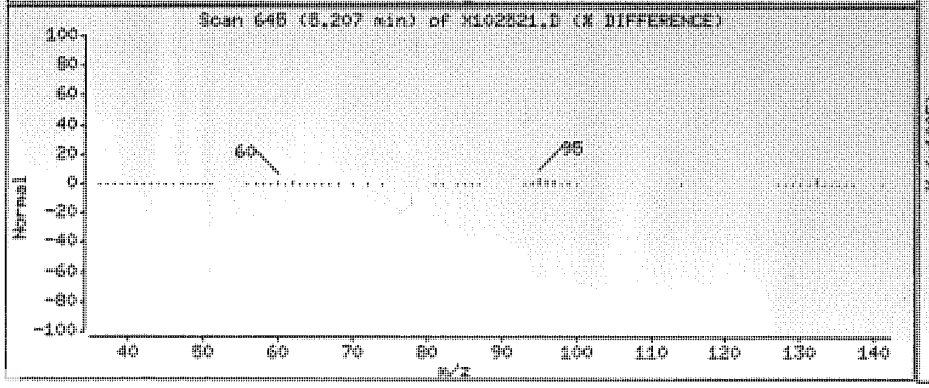












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102522.D Page 1
Report Date: 12-Nov-2021 13:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102522.D
Lab Smp Id: HS21100881-07 Client Smp ID: HS21100881-07
Inj Date : 25-OCT-2021 17:33
Operator : PC Inst ID: voa6.i
Smp Info : HS21100881-07;HS21100881-07;;;
Misc Info : HS18090001;WATER;0;5;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 12-Nov-2021 13:14 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 21
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

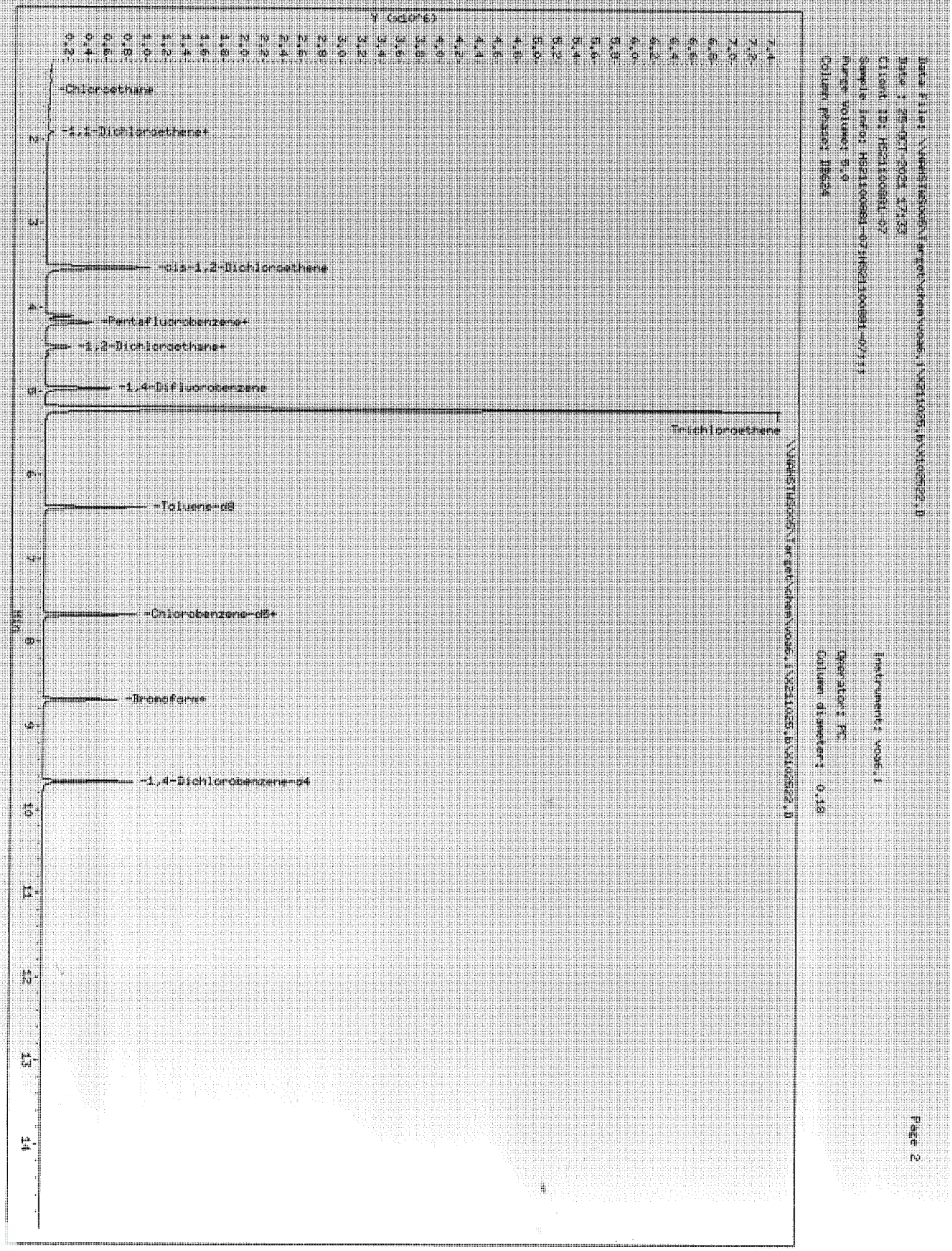
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	5.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	426104	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.096	(0.981)	200442	47.8516	47.85
$	35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	195719	45.9859	45.98
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	589608	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	505653	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	633978	49.4042	49.40
$	69 4-Bromofluorobenzene	95	8.698	8.698	(1.133)	215221	48.6978	48.69
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	234843	50.0000	
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	4218	1.10920	5.54(a)
	27 cis-1,2-Dichloroethene	96	3.533	3.530	(0.842)	586267	132.278	661.39
	33 1,2-Dichloroethane	62	4.562	4.555	(0.919)	27376	5.54002	27.70
	38 Trichloroethene	130	5.207	5.207	(1.049)	2502406	561.585	2807.92(A)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.


Data File: \\VAHSTNAS05\Target\Chem\voas,\V211025.b\V1025Z2.D
Date : 25-OCT-2021 17:33
Client ID: HS211006Q1-07
Sample Info: HS211006Q1-07;HS211006BH-07(1)
Purge Volume: 5.0
Column phase: DB624
Instrument: voas.1
Operator: PC
Column diameter: 0.18
\\VAHSTNAS05\Target\Chem\voas,\V211025.b\V1025Z2.D
Page 2
Y (ions)
-Chloroethane
-1,1-Dichloroethene+
-cis-1,2-Dichloroethene
-Pentafluorobenzene+
-1,2-Dichloroethane+
-1,4-Difluorobenzene
Trichloroethene
-Toluene-d8
-Chlorobenzene-d5+
-Bromoform+
-1,4-Dichlorobenzene-d4
Min

Data File: \\HHSTWS005\Target\chem\voa6.i\X211025.b\X102522.D Page 3

Date : 25-OCT-2021 17:33

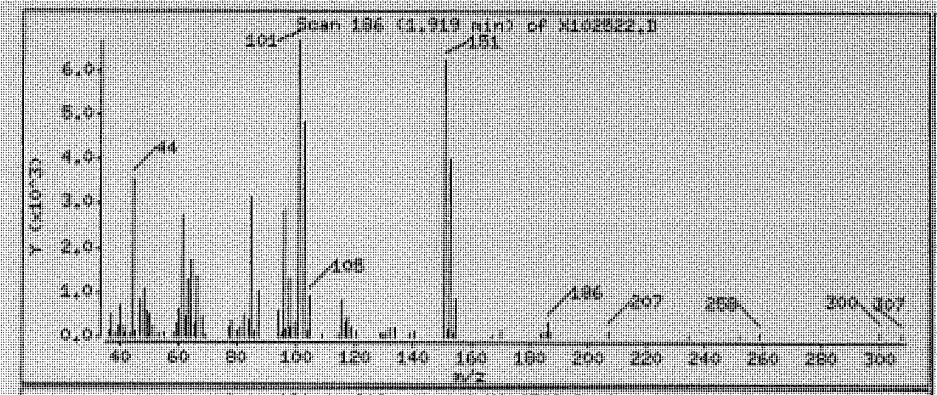
Client ID: HS2110088I-07 Instrument: voa6.i

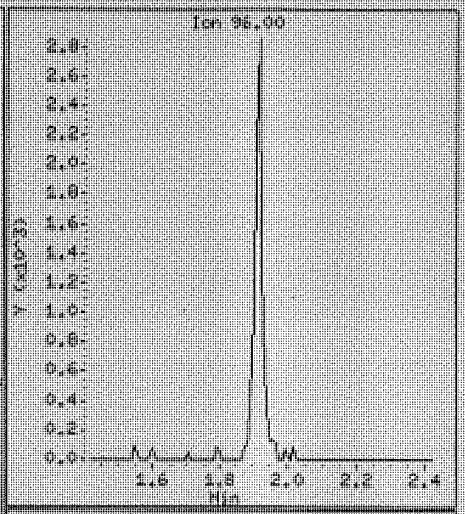
Sample Info: HS2110088I-07;HS2110088I-07;;;

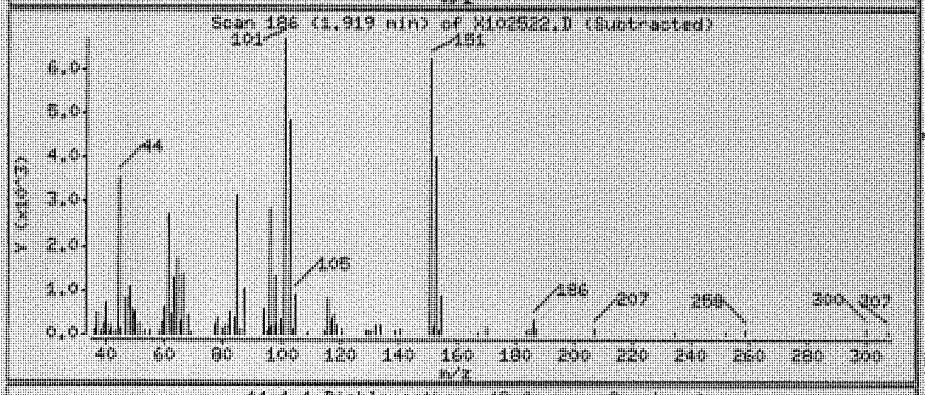
Purge Volume: 5.0 Operator: PC

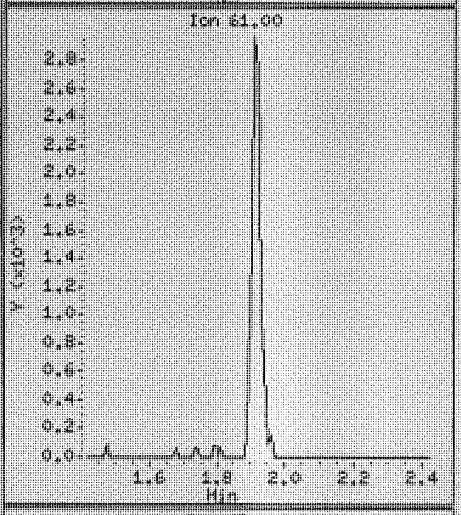
Column phase: DB624 Column diameter: 0.18

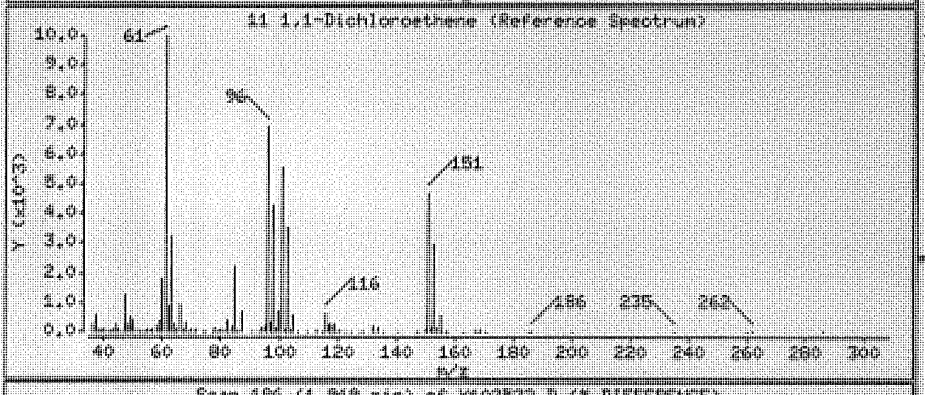
11 1,1-Dichloroethene Concentration: 0.54 ug/l

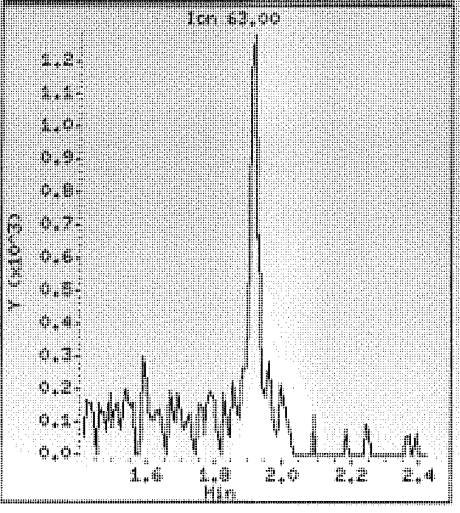


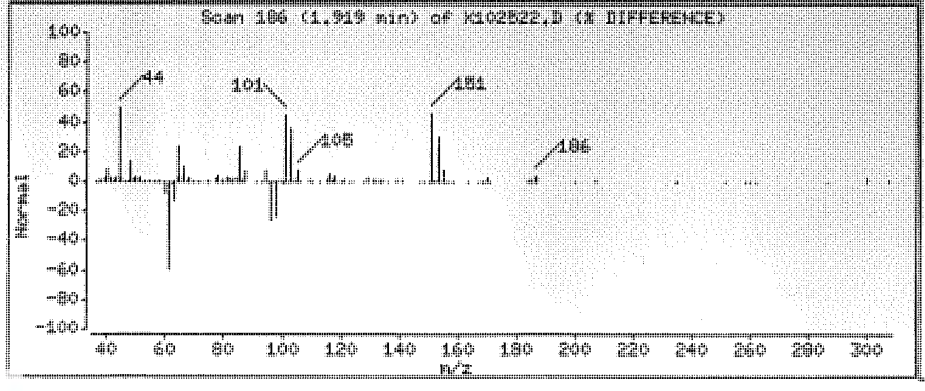












Data File: \\N4HSTWS00B\Target\chem\voa6.i\V211026.b\X102522.D

Page 4

Date : 25-OCT-2021 17:33

Client ID: HS21100881-07

Instrument: voa6.i

Sample Info: HS21100881-07;HS21100881-07;;;

Purge Volume: 5.0

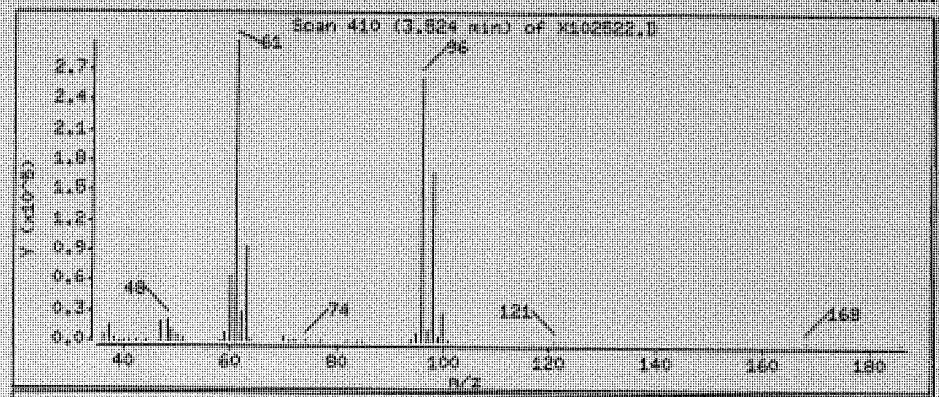
Operator: PC

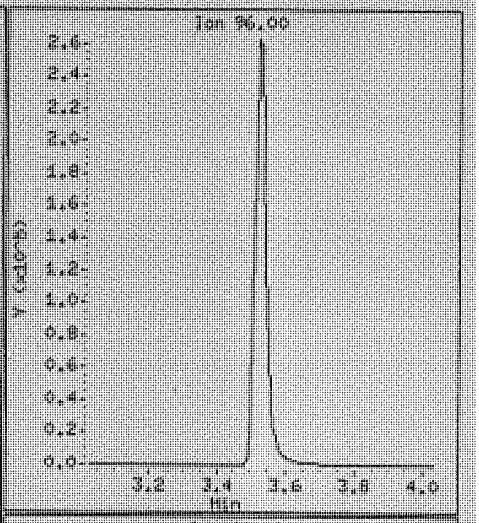
Column phase: DB624

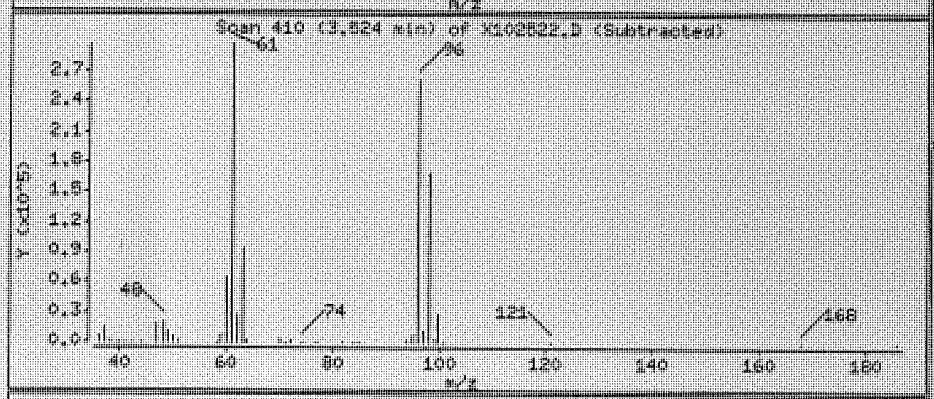
Column diameter: 0.18

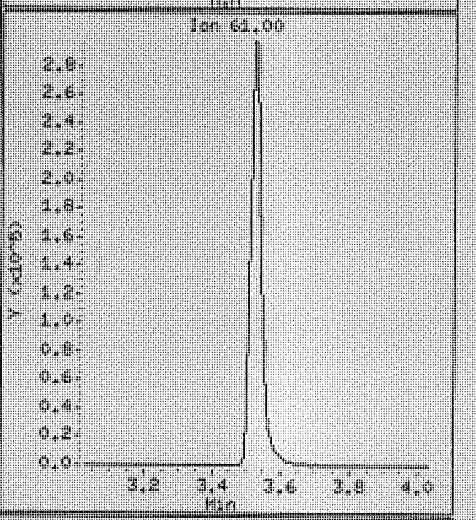
27 cis-1,2-Dichloroethene

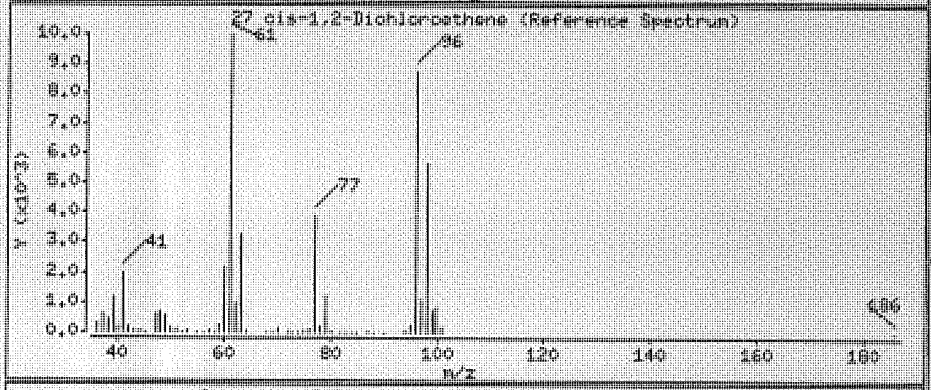
Concentration: 661.39 ug/l

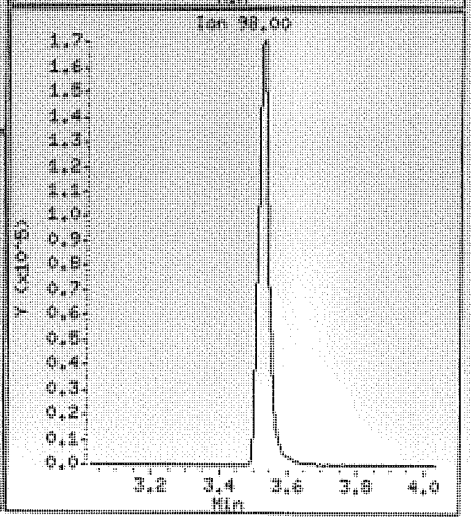


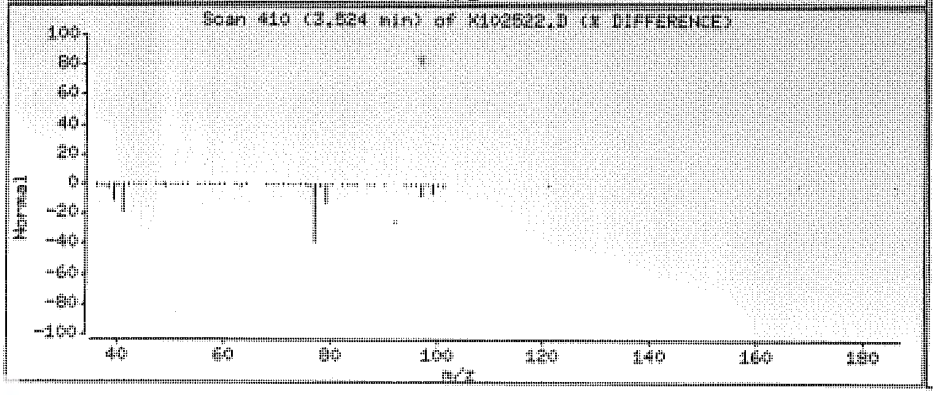












Data File: \\NRHSTWS006\Target\chem\voa6.i\X211025.b\X102622.D

Page 5

Date : 25-OCT-2021 17:32

Client ID: HS21100881-07

Instrument: voa6.i

Sample Info: HS21100881-07;HS21100881-07;;;

Purge Volume: 5.0

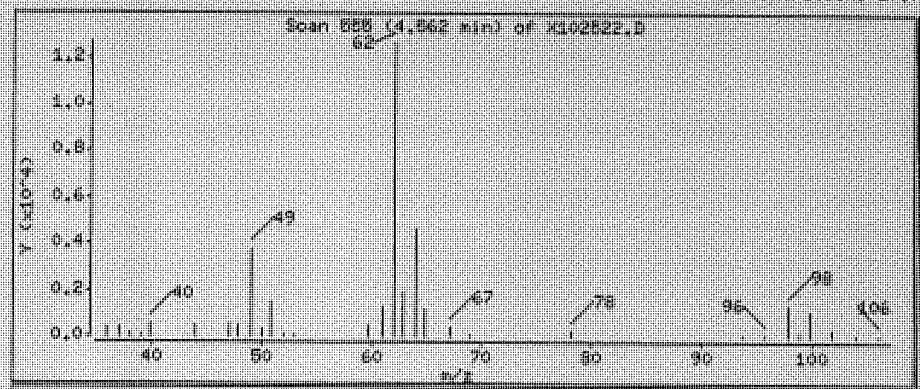
Operator: PC

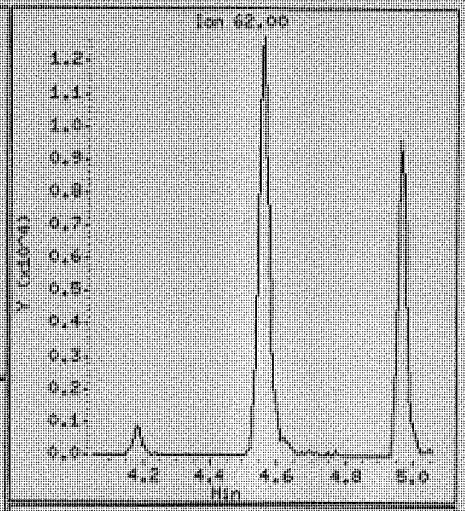
Column phase: DB624

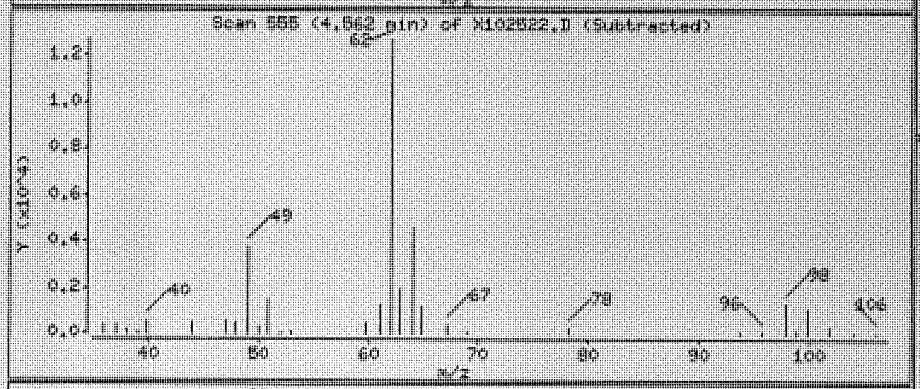
Column diameter: 0.18

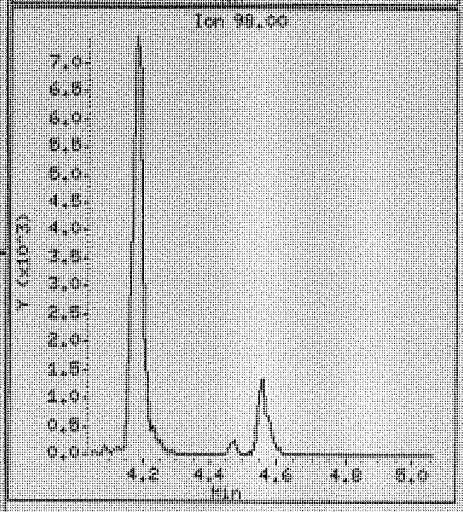
33 1,2-Dichloroethane

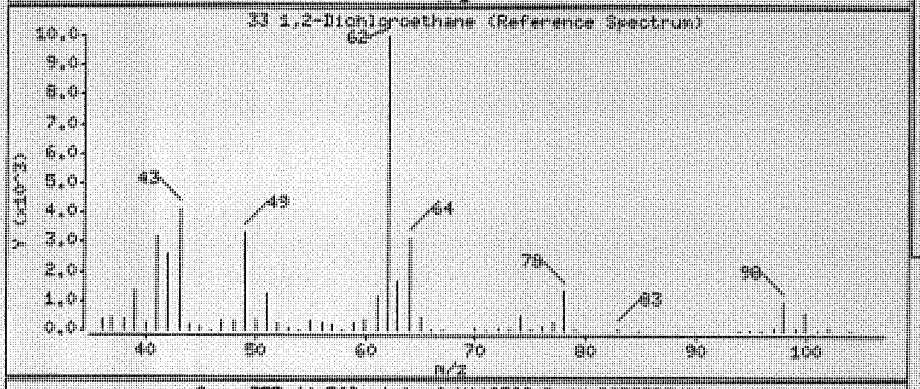
Concentration: 27.70 ug/l

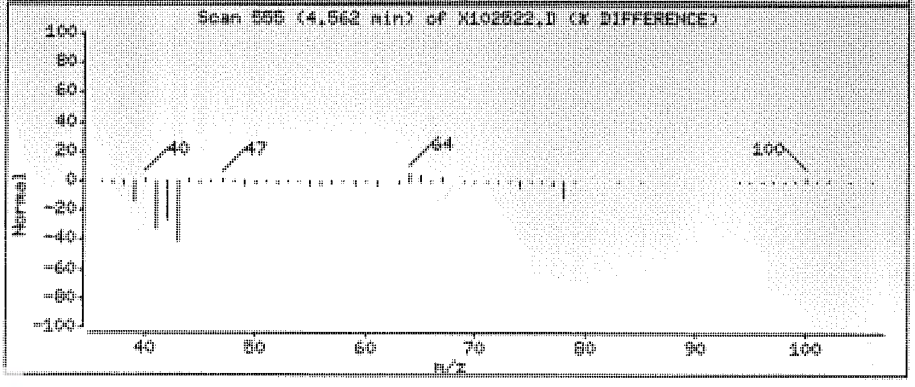












Data File: \\NSHSTWS005\Target\chem\voa6.i\X211025.b\X102522.D Page 6

Date : 25-OCT-2021 17:33

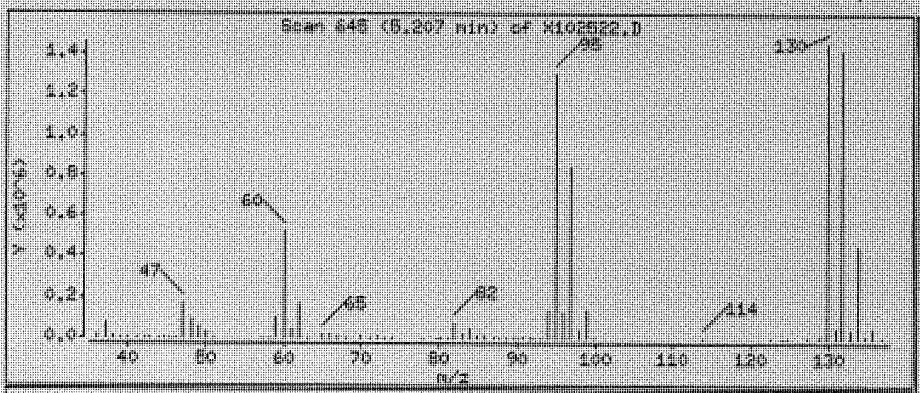
Client ID: HS21100881-07 Instrument: voa6.i

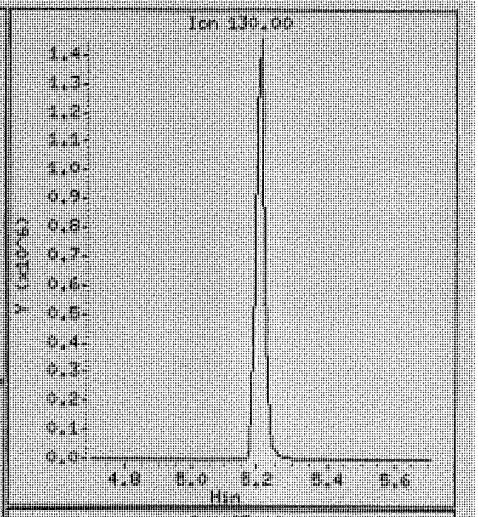
Sample Info: HS21100881-07;HS21100881-07;;;

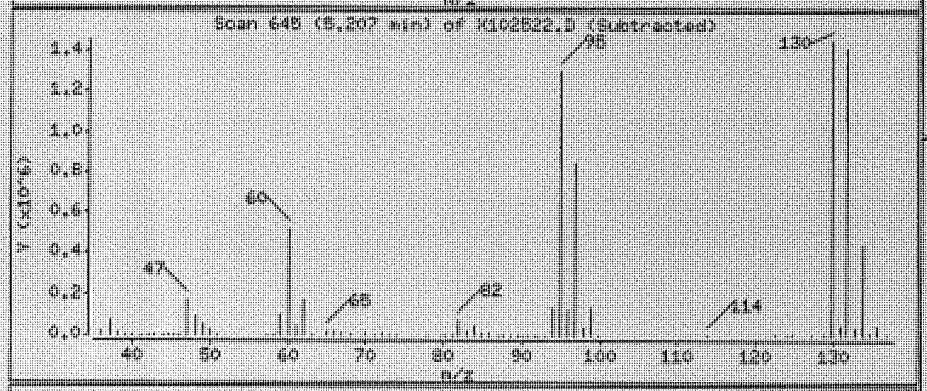
Purge Volume: 5.0 Operator: PC

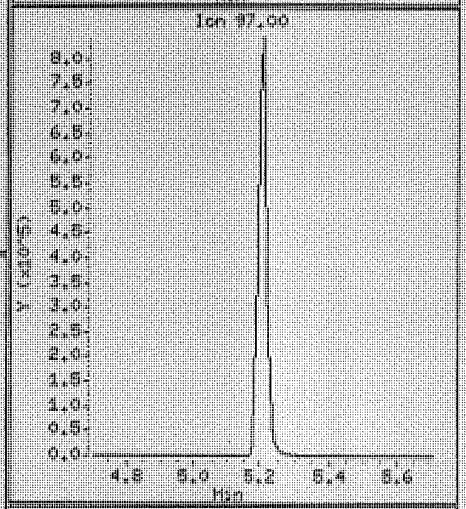
Column phase: DB624 Column diameter: 0.18

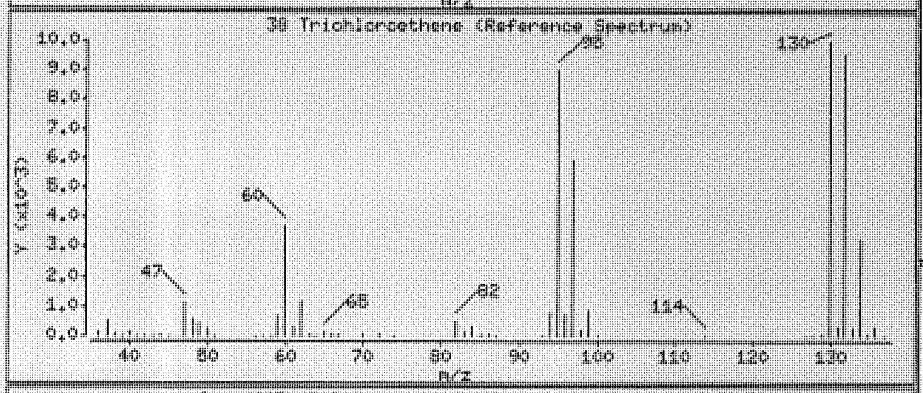
38 Trichloroethene Concentration: 2807.92 ug/l

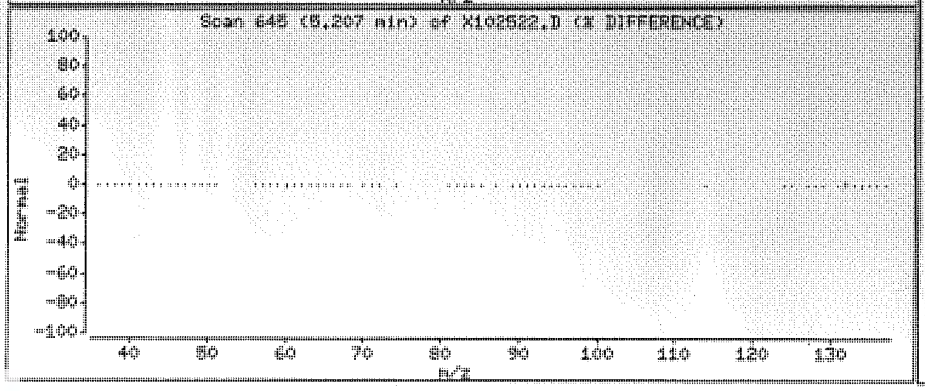


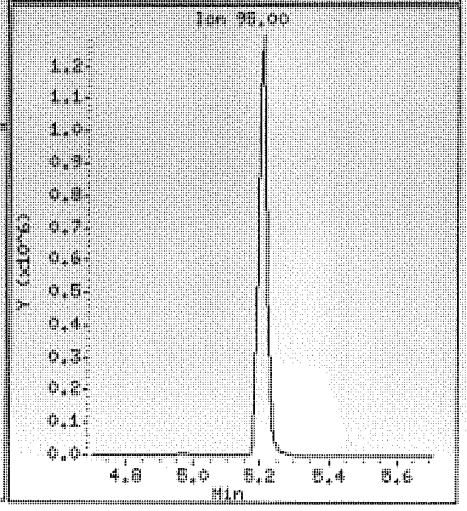












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102523.D Page 1
Report Date: 12-Nov-2021 13:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102523.D
Lab Smp Id: HS21100881-07 Client Smp ID: HS21100881-07
Inj Date : 25-OCT-2021 17:54
Operator : PC Inst ID: voa6.i
Smp Info : HS21100881-07;HS21100881-07;;;
Misc Info : HS18090001;WATER;0;50;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 12-Nov-2021 13:14 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 22
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

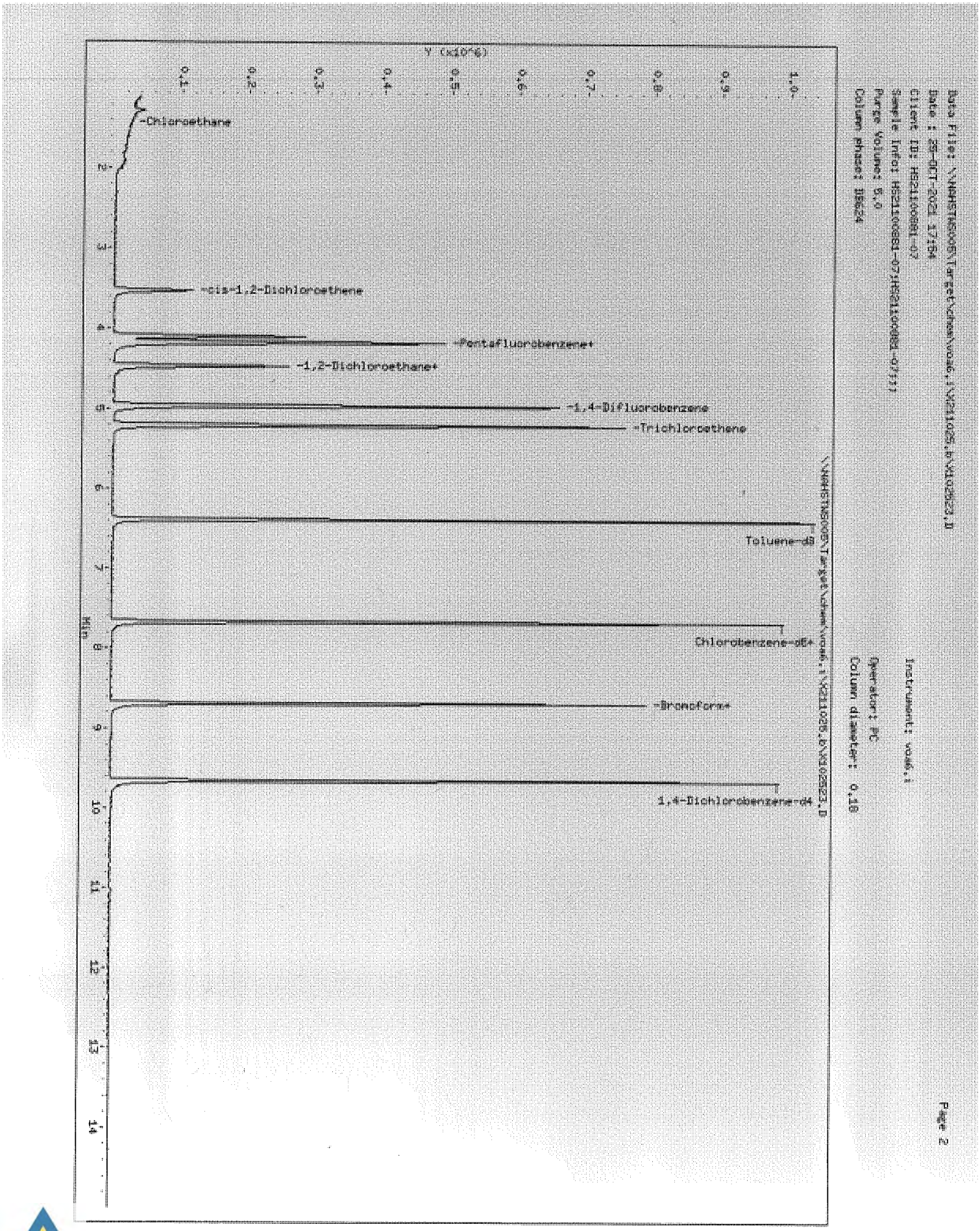
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	50.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

			QUANT SIO					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
*	1	Pentafluorobenzene	168	4.182	4.182	(1.000)	932029	50.0000	
$	30	Dibromofluoromethane	113	4.103	4.096	(0.981)	202099	47.4020	47.40
$	35	1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	197467	45.7727	45.77
*	36	1,4-Difluorobenzene	114	4.963	4.963	(1.000)	585902	50.0000	
*	47	Chlorobenzene-d5	117	7.671	7.671	(1.000)	526331	50.0000	
$	48	Toluene-d8	98	6.389	6.389	(0.833)	452669	48.6776	48.67
$	69	4-Bromofluorobenzene	95	8.608	8.608	(1.123)	235716	49.1080	49.10
*	70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	248034	50.0000	
	27	cis-1,2-Dichloroethene	96	3.930	3.930	(0.844)	63345	14.1030	705.15
	33	1,2-Dichloroethane	62	4.562	4.555	(0.919)	3487	0.69759	34.87(a)
	38	Trichloroethene	130	5.207	5.207	(1.049)	257010	57.0181	2850.90

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Data File: \\HHSTA600S\Target\Chem\voa6_1\VA211025.D\VA0525.D
Date : 25-OCT-2021 17:54
Client ID: HS2110008B1-02
Sample Info: HS2110008B1-02;HS2110008B-07;1;1
Purge Volume: 5.0
Column phase: 1B624
Instrument: voa6_1
Operator: PC
Column diameter: 0.18
Page 2
Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
MIN
2
3
4
5
6
7
8
9
10
11
12
13
14
-Chloroethane
-cis-1,2-Dichloroethene
-Pentafluorobenzene+
-1,2-Dichloroethane+
-1,4-Difluorobenzene
-Trichloroethene
Toluene-d8
Chlorobenzene-d5+
-Bromoform+
1,4-Dichlorobenzene-d4
\\HHSTA600S\Target\Chem\voa6_1\VA211025.D\VA0525.D

Data File: \\NWHSTW8005\Target\chem\vca6.i\x211025.b\x102823.D Page 3

Date : 25-OCT-2021 17:54

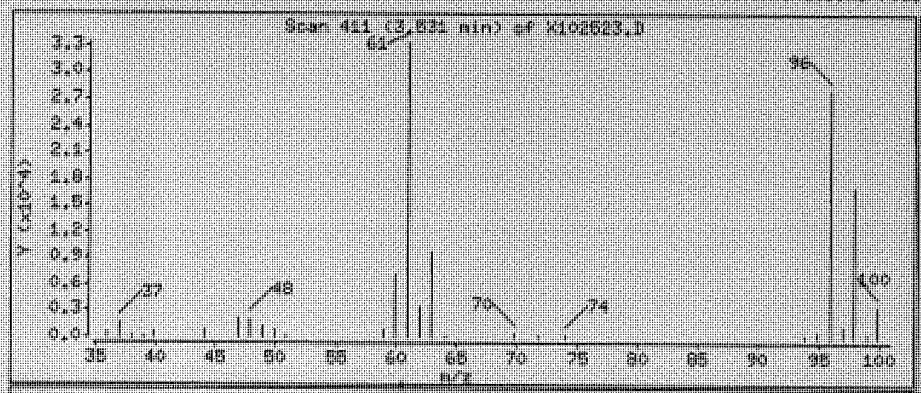
Client ID: HS21100881-07 Instrument: vca6.i

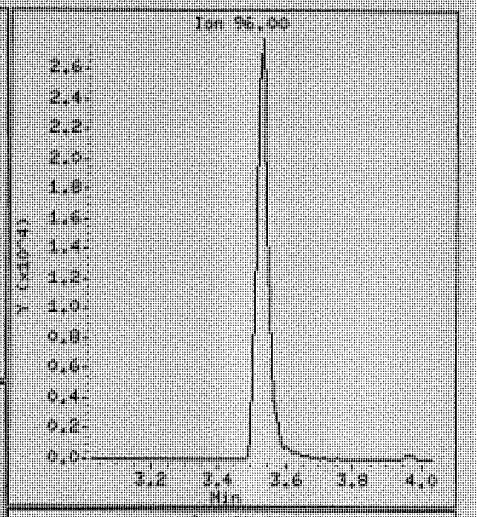
Sample Info: HS21100881-07;HS21100881-07;;;

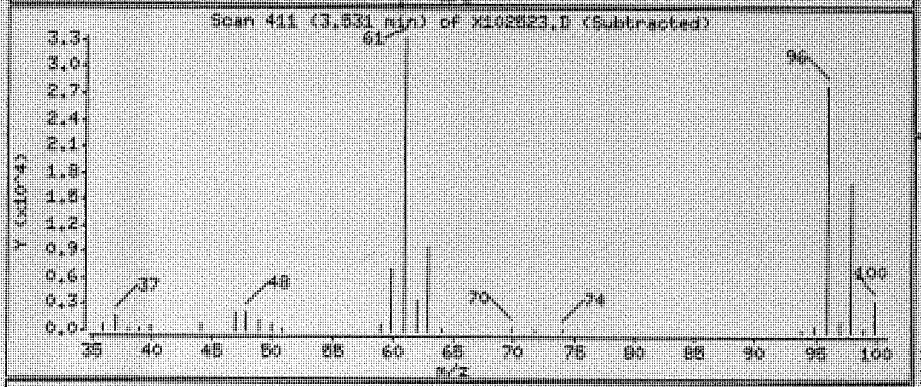
Purge Volume: 5.0 Operator: PC

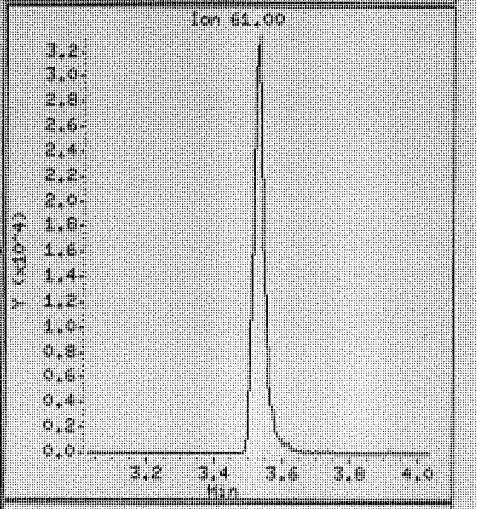
Column phase: DB624 Column diameter: 0.18

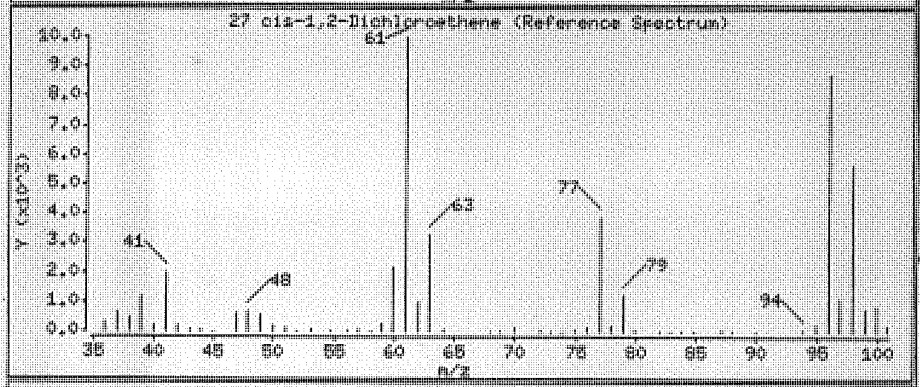
27 cis-1,2-Dichloroethene Concentration: 705.15 ug/l

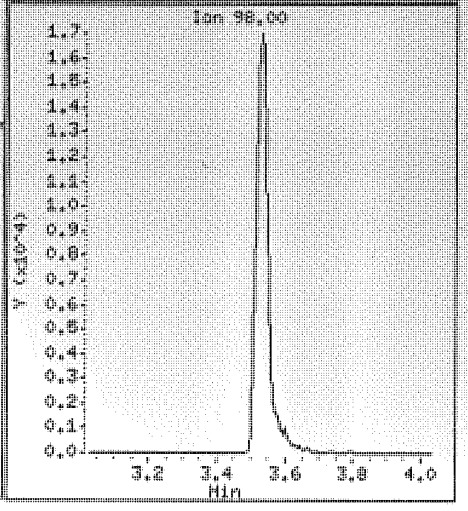


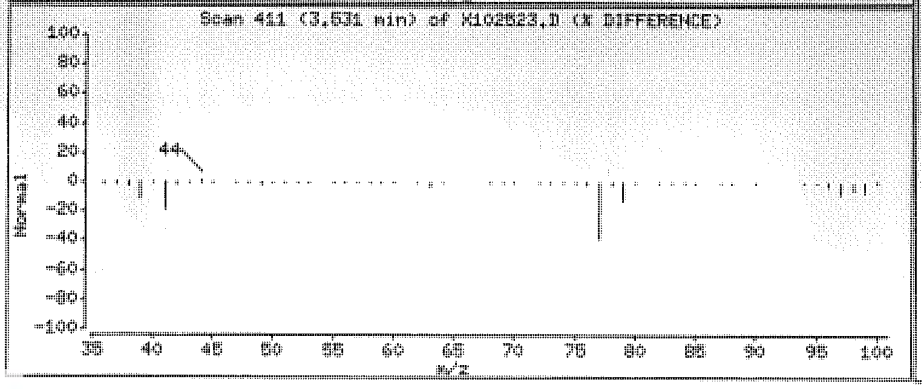












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211028.b\X102523.D Page 4

Date : 28-OCT-2021 17:54

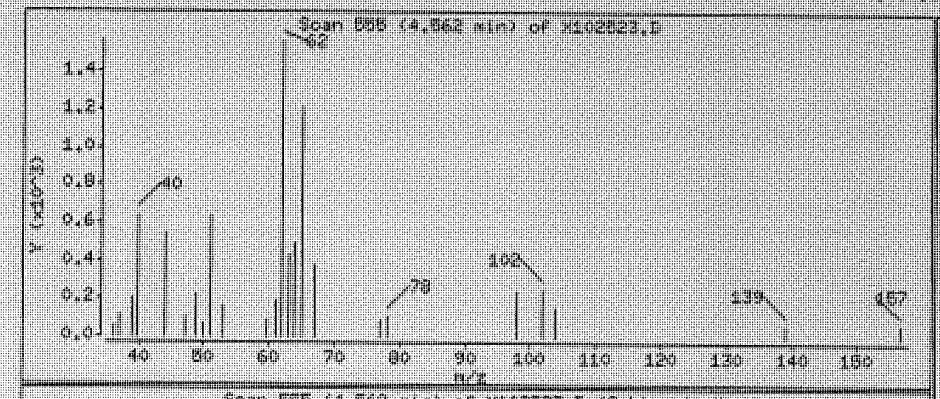
Client ID: HS21100881-07 Instrument: voa6.i

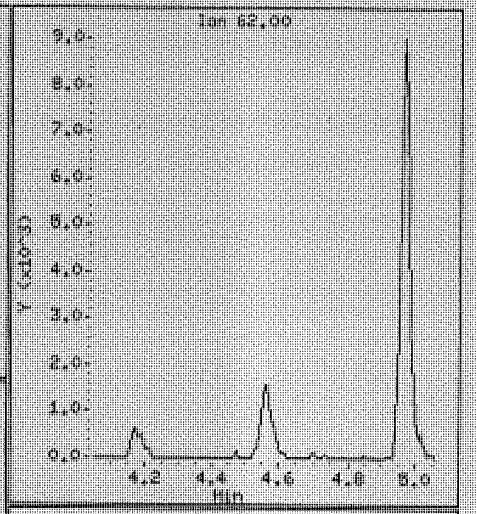
Sample Info: HS21100881-07;HS21100881-07;;;

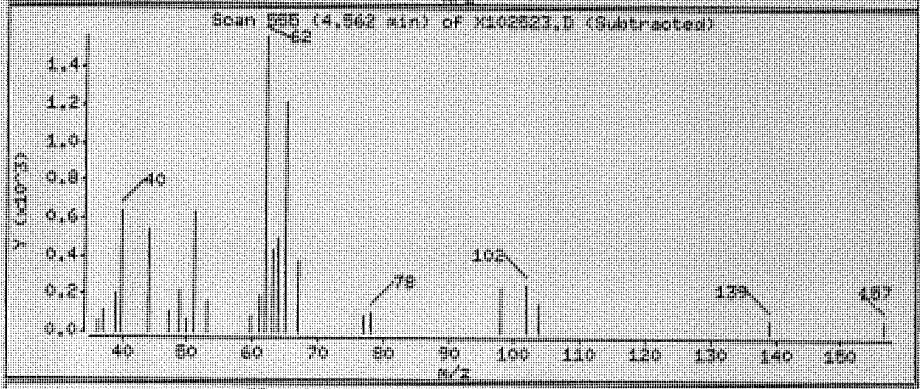
Purge Volume: 5.0 Operator: PC

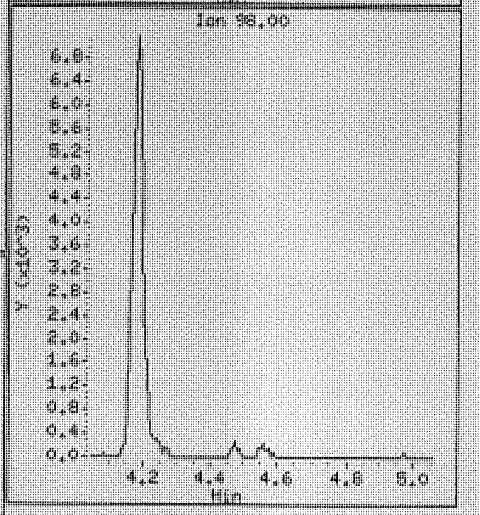
Column phase: DB624 Column diameter: 0.18

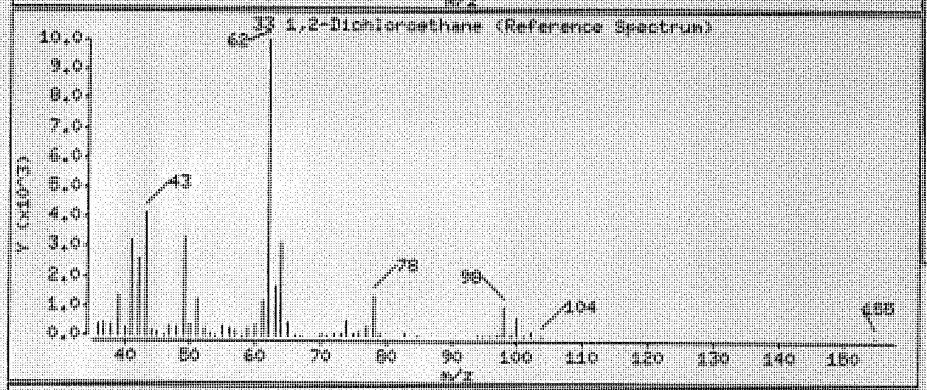
33 1,2-Dichloroethane Concentration: 34.97 ug/l

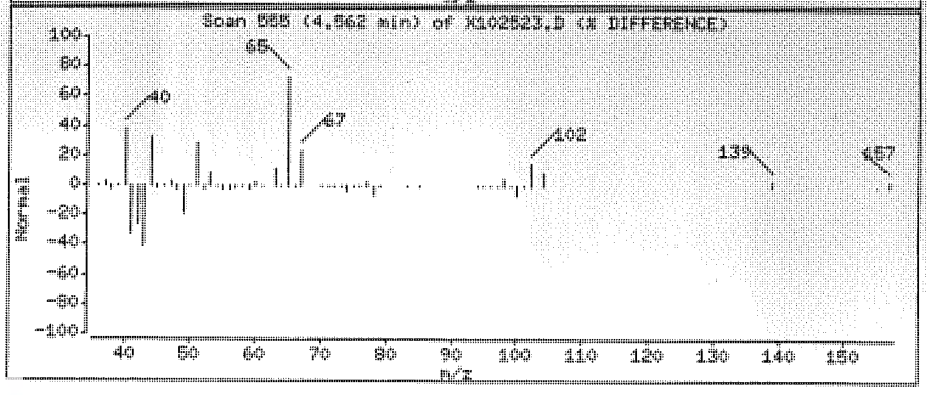












Data File: \\WPHSTMS006\Target\chem\voa6.i\V211026.b\X102823.D

Page 8

Date : 26-OCT-2021 17:54

Client ID: HS21100881-07

Instrument: voa6.i

Sample Info: HS21100881-07;HS21100881-07;;;

Purge Volume: 5.0

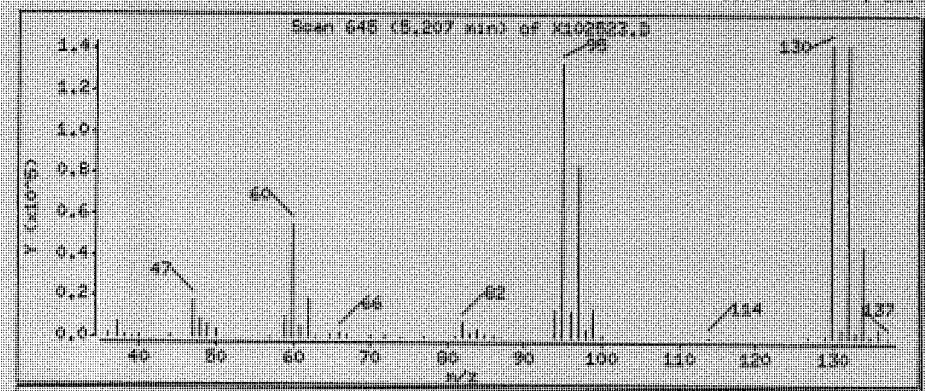
Operator: PC

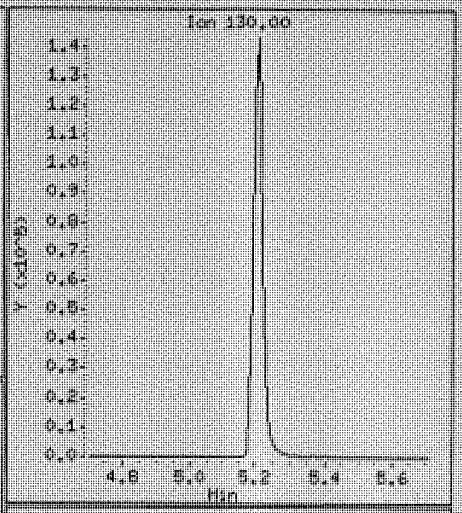
Column phase: DB624

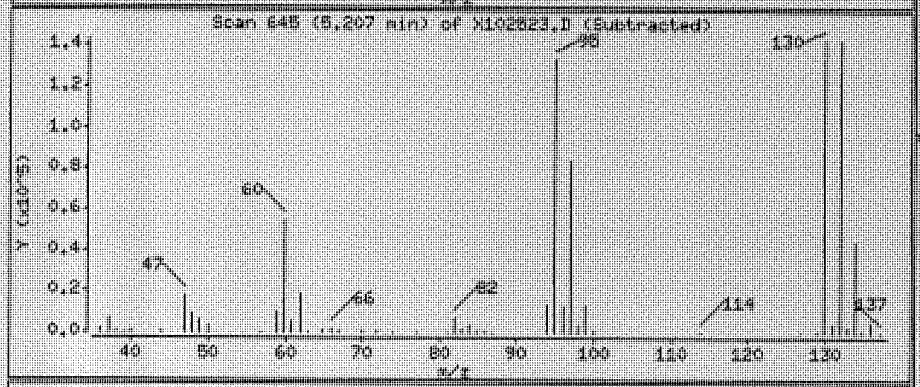
Column diameter: 0.18

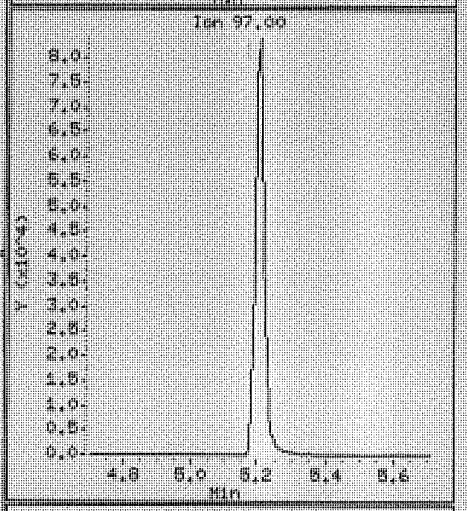
38 Trichloroethene

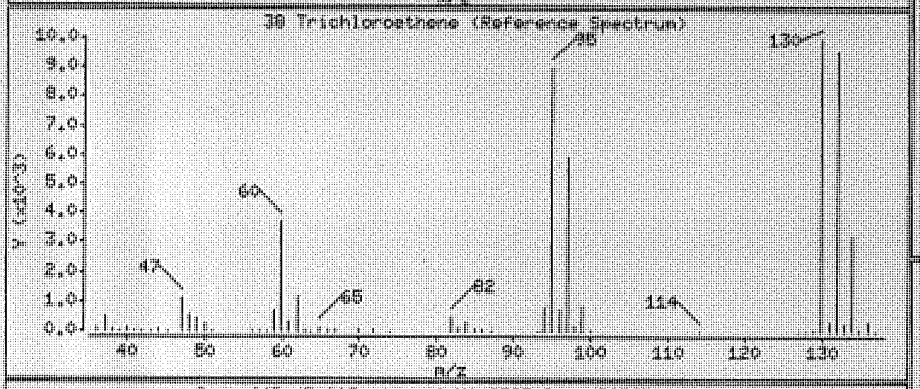
Concentration: 2850.90 ug/l

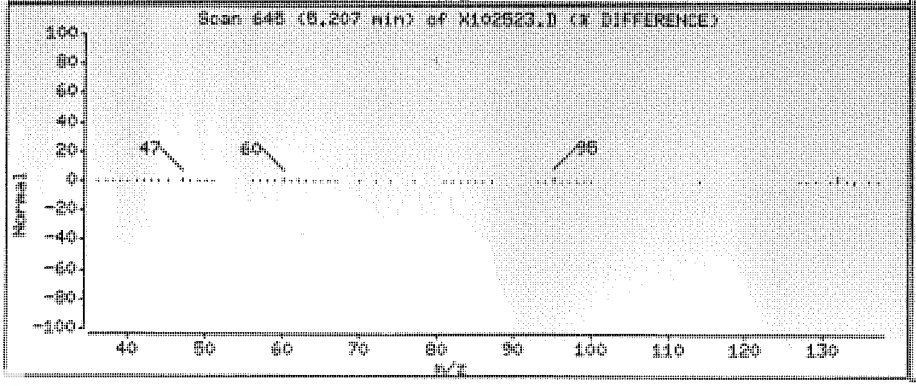


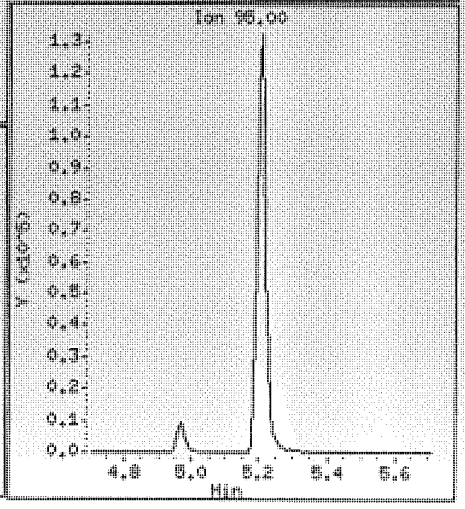












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102530.D Page 1
Report Date: 12-Nov-2021 13:29

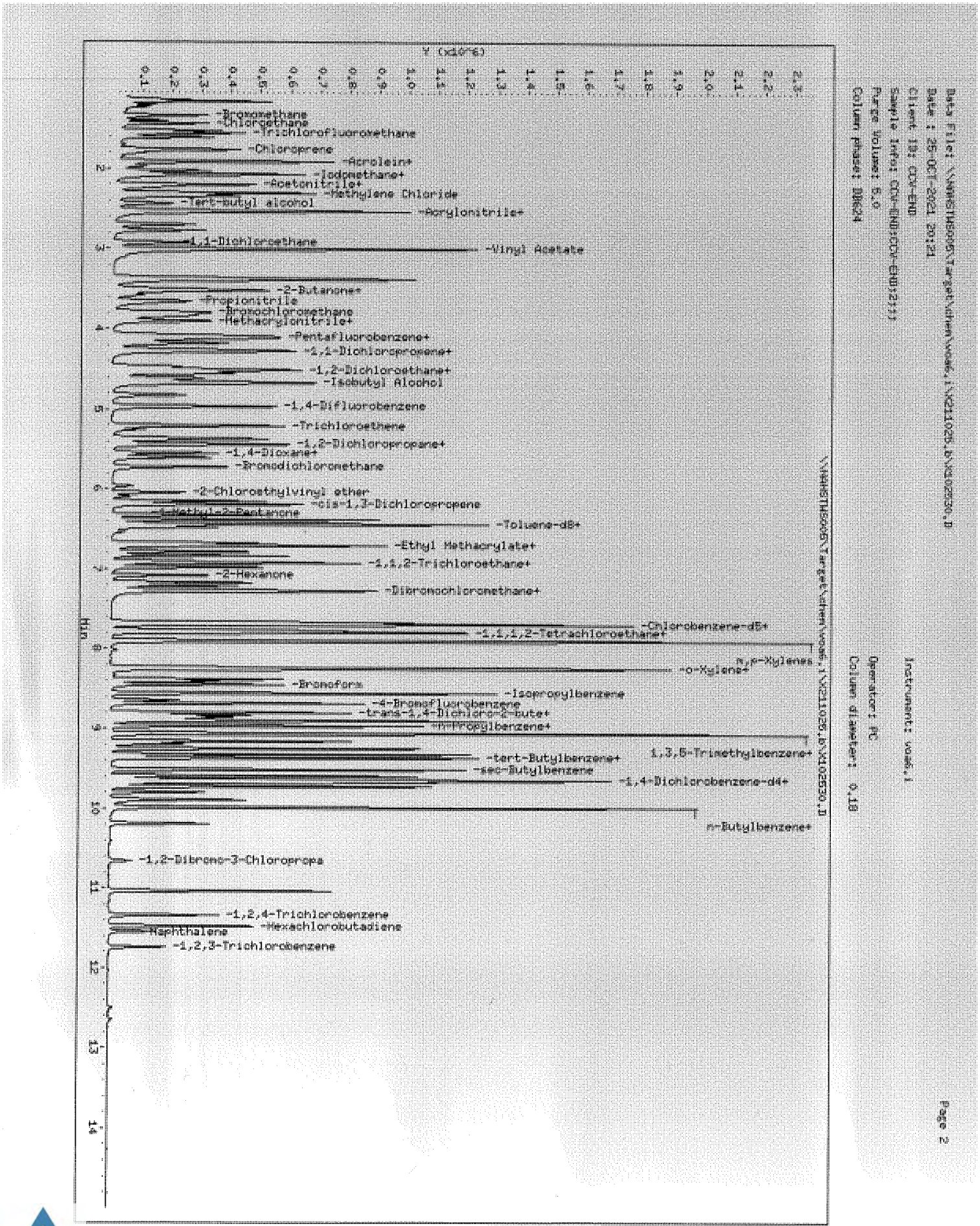
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102530.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 25-OCT-2021 20:21
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 12-Nov-2021 13:29 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	329515	50.0000	
$	10 Dibromofluoromethane	113	4.096	4.096	(0.979)	178943	50.0000	55.45
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	169108	50.0000	51.64
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	491356	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	464051	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	565893	50.0000	47.20
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	213552	50.0000	52.76
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	239073	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	159704	50.0000	46.22
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	146230	50.0000	49.74
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	128181	50.0000	51.84
	17 Methylene Chloride	84	2.305	2.305	(0.551)	162817	50.0000	56.81
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	194060	50.0000	56.64
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	204609	50.0000	49.64
	38 Trichloroethene	130	5.207	5.207	(1.049)	196211	50.0000	52.79


Y (x10^6)
-Bromoethane
-Chloroethane
-Trichlorofluoroethane
-Chloroprene
-Acrolein+
-Iodoethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-1,1-Dichloroethene
-Vinyl Acetate
-2-Butanone+
-Propionitrile
-Bromochloroethane
-Methacrylonitrile+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol
-1,4-Difluorobenzene
-Trichloroethene
-1,2-Dichloropropane+
-1,4-Dioxane+
-Bromodichloromethane
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-4-Methyl-2-Pentanone
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-2-Hexanone
-Dibromochloromethane+
-1,1,1,2-Tetrachloroethane+
-Chlorobenzene-d5+
m,p-Xylenes
-o-Xylene+
-Bromoform
-Isopropylbenzene
-4-Bromofluorobenzene
-trans-1,4-Dichloro-2-bute+
-n-Propylbenzene+
-tert-Butylbenzene+
1,3,5-Trimethylbenzene+
-sec-Butylbenzene
-1,4-Dichlorobenzene-d4+
n-Butylbenzene+
-1,2-Dibromo-3-Chloropro
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
Data File: \\NAMSTL8005\Target\chem\vocs1\VOC110525.b\V0525D.D
Date : 25-OCT-2021 20:24
Client ID: CCV-END
Sample Info: CCV-END,VOC-ENDV0211
Purge Volume: 5.0
Column phase: DB624
Instrument: voc1
Operator: DC
Column diameter: 0.18
Page: 2

HS21100881 RSK 175 Raw Data

ALS WO# HS21100881

FID04 -Logbook

Batch: 26730
Date: 01-24-2017
Method: RSK 175 ICAL
Comments: Target Sequence 170124

Analyst: Nosa Izekor
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
1	ICAL1	CALIB_1	01-24-2017 09:06 am	1.00	0.00 mL	0.00 mL	001.D	Liquid	Y	N
2	ICAL2	CALIB_2	01-24-2017 09:30 am	1.00	0.00 mL	0.00 mL	002.D	Liquid	Y	N
3	ICAL3	CALIB_3	01-24-2017 09:59 am	1.00	0.00 mL	0.00 mL	003.D	Liquid	Y	N
4	ICAL4	CALIB_4	01-24-2017 10:15 am	1.00	0.00 mL	0.00 mL	004.D	Liquid	Y	N
5	ICAL5	CALIB_5	01-24-2017 10:39 am	1.00	0.00 mL	0.00 mL	005.D	Liquid	Y	N
6	ICAL6	CALIB_6	01-24-2017 10:57 am	1.00	0.00 mL	0.00 mL	006.D	Liquid	Y	N
7	ICAL7	CALIB_7	01-24-2017 11:13 am	1.00	0.00 mL	0.00 mL	007.D	Liquid	Y	N
8	ICV	METHSPIKI	01-24-2017 12:05 pm	1.00	0.00 mL	0.00 mL	008.D	Liquid	Y	N
9	LCS-170124	LCS	01-24-2017 12:24 pm	1.00	0.00 mL	0.00 mL	009.D	Liquid	Y	N
10	LCSD-170124	LCSD	01-24-2017 12:40 pm	1.00	0.00 mL	0.00 mL	010.D	Liquid	Y	N
11	MBLK-170124	MBLK	01-24-2017 12:57 pm	1.00	0.00 mL	0.00 mL	011.D	Liquid	Y	N
12	HS17010778-01	SAMP	01-24-2017 01:14 pm	1.00	0.00 mL	0.00 mL	012.D	Liquid	Y	N
13	HS17010779-01	SAMP	01-24-2017 01:31 pm	1.00	0.00 mL	0.00 mL	013.D	Liquid	Y	N
14	HS17010779-01DUP	SAMP	01-24-2017 01:47 pm	1.00	0.00 mL	0.00 mL	014.D	Liquid	Y	N
15	CCV	CCV	01-24-2017 02:01 pm	1.00	0.00 mL	0.00 mL	015.D	Liquid	Y	N

Chemical	Value
ICAL STD ID	30010700217
ICV STD ID	30010700610

FORM 3
WATER GASES METHOD SPIKE RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Matrix Spike - ENG SC Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
Ethene	16.800	19.090	114	75-125
Methane	9.647	9.597	99	75-125
Ethane	18.043	19.657	109	75-125
Propane	26.463	27.238	103	75-125
N-Butane	34.955	36.010	103	75-125

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

_____

FORM III GASES

FORM 6
GASES INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Instrument ID: FID-4 Calibration Date(s): 01/24/17 01/24/17

Column: RTX-PLOT ID: 0.53 (mm) Calibration Time(s): 0906 1113

LAB FILE ID: RF10: 001 RF25: 002 RF50: 003
RF100: 004 RF250: 005 RF500: 006

COMPOUND	RF10	RF25	RF50	RF100	RF250	RF500
Ethene	535.608	567.359	564.985	516.024	665.282	425.678
Methane	968.912	978.238	1019.699	880.798	960.713	930.704
Ethane	602.493	670.177	658.908	597.201	808.513	817.630
Propane	500	1279	2602	4785	18294	38286
N-Butane	438	936	2034	3864	18446	42817

FORM VI GASES

FORM 6
GASES INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS2110088

Instrument ID: FID-4 Calibration Date(s): 01/24/17 01/24/17

Column: RTX-PLOT ID: 0.53 (mm) Calibration Time(s): 0906 1113

RF1000: 007

COMPOUND	RF1000	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MA
Ethene	828.858	AVRG		586.256273		21.932	
Methane	1081.580	AVRG		974.377787		6.550	
Ethane	999.335	AVRG		736.322546		19.885	
Propane	96509	2ORDR	0.97987006	1.529e-003	-4.58e-009	0.9991365	0
N-Butane	114164	2ORDR	2.46870151	1.834e-003	-5.54e-009	0.9980766	0

FORM VI GASES

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\001.D
Lab Smp Id: ICAL1 Client Smp ID: ICAL1
Inj Date : 24-JAN-2017 09:06
Operator : JA Inst ID: FID-4.i
Smp Info : ICAL1;ICAL1;;;
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 09:06 Cal File: 001.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.043	1.030	0.013	374	0.38600	0.383(a)
2 Ethene	1.553	1.556	-0.003	361	0.67400	0.615(a)
3 Ethane	1.716	1.723	-0.007	435	0.72200	0.590(a)
4 Propane	4.073	4.113	-0.040	500	1.05900	1.743
5 N-Butane	7.640	7.690	-0.050	438	1.39800	3.271

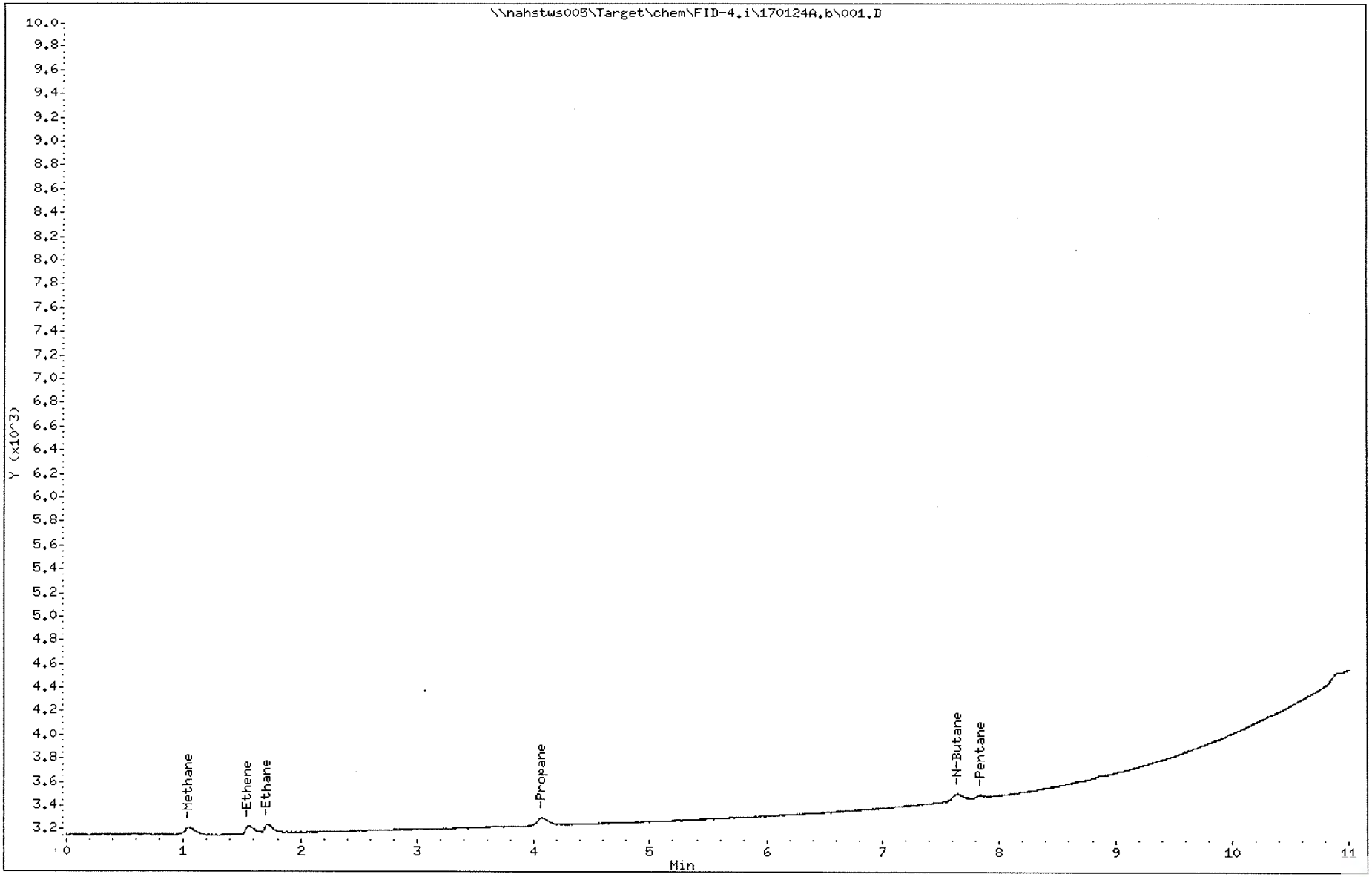
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\001.D
Date : 24-JAN-2017 09:06
Client ID: ICAL1
Sample Info: ICAL1;ICAL1;;;

Instrument: FID-4.i
Operator: JA
Column diameter: 0.53

Column phase: Rtx-PLOT



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\002.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\002.D
Lab Smp Id: ICAL2 Client Smp ID: ICAL2
Inj Date : 24-JAN-2017 09:30
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL2;ICAL2;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 09:59 Cal File: 003.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.023	1.030	-0.007	944	0.96500	0.968
2 Ethene	1.560	1.556	0.004	956	1.68500	1.630
3 Ethane	1.723	1.723	0.000	1209	1.80400	1.641
4 Propane	4.123	4.113	0.010	1279	2.64600	2.927
5 N-Butane	7.716	7.690	0.026	936	3.49600	4.180

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\002.D

Date : 24-JAN-2017 09:30

Client ID: ICAL2

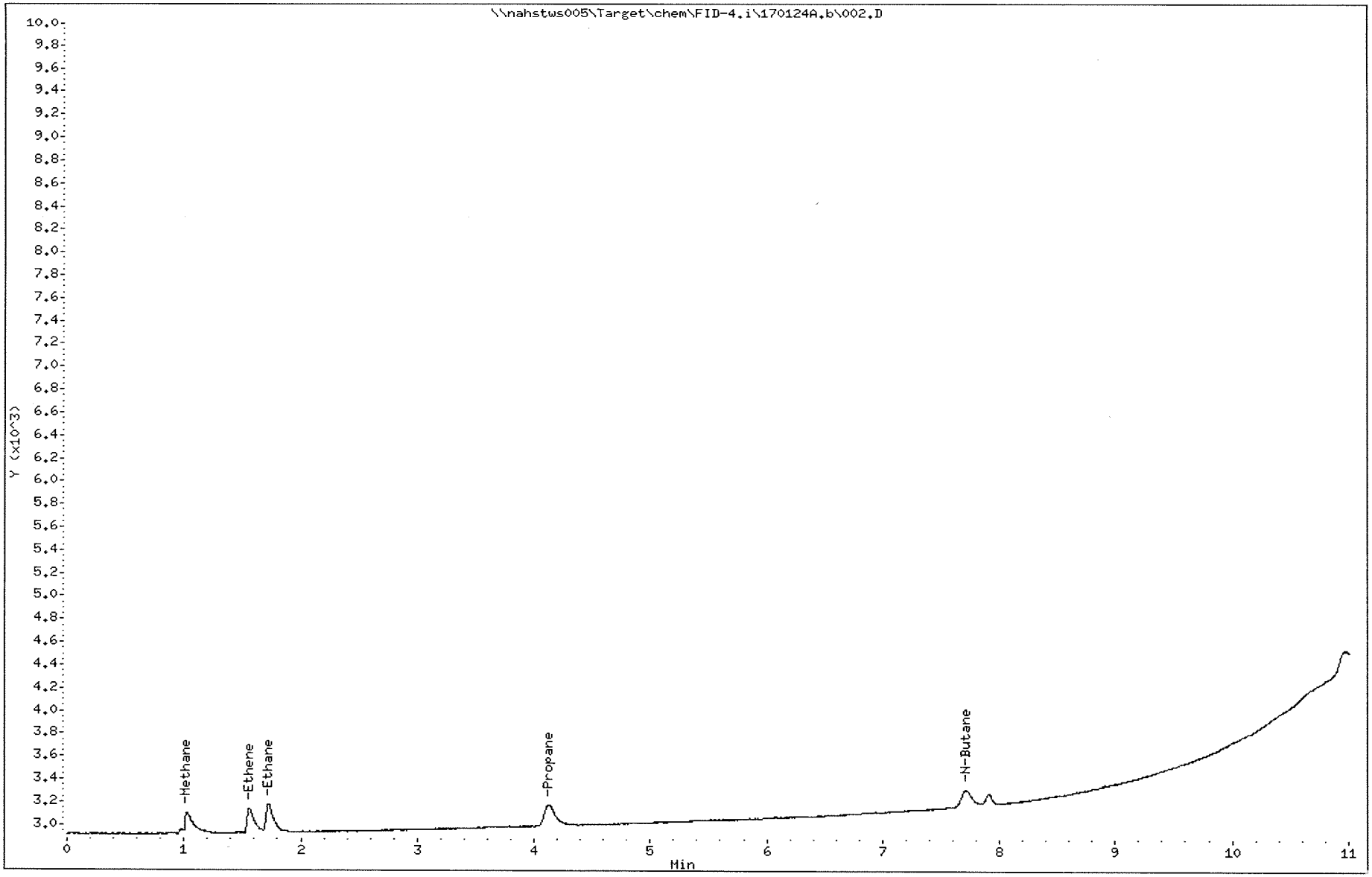
Instrument: FID-4.i

Sample Info: ICAL2;ICAL2;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\003.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

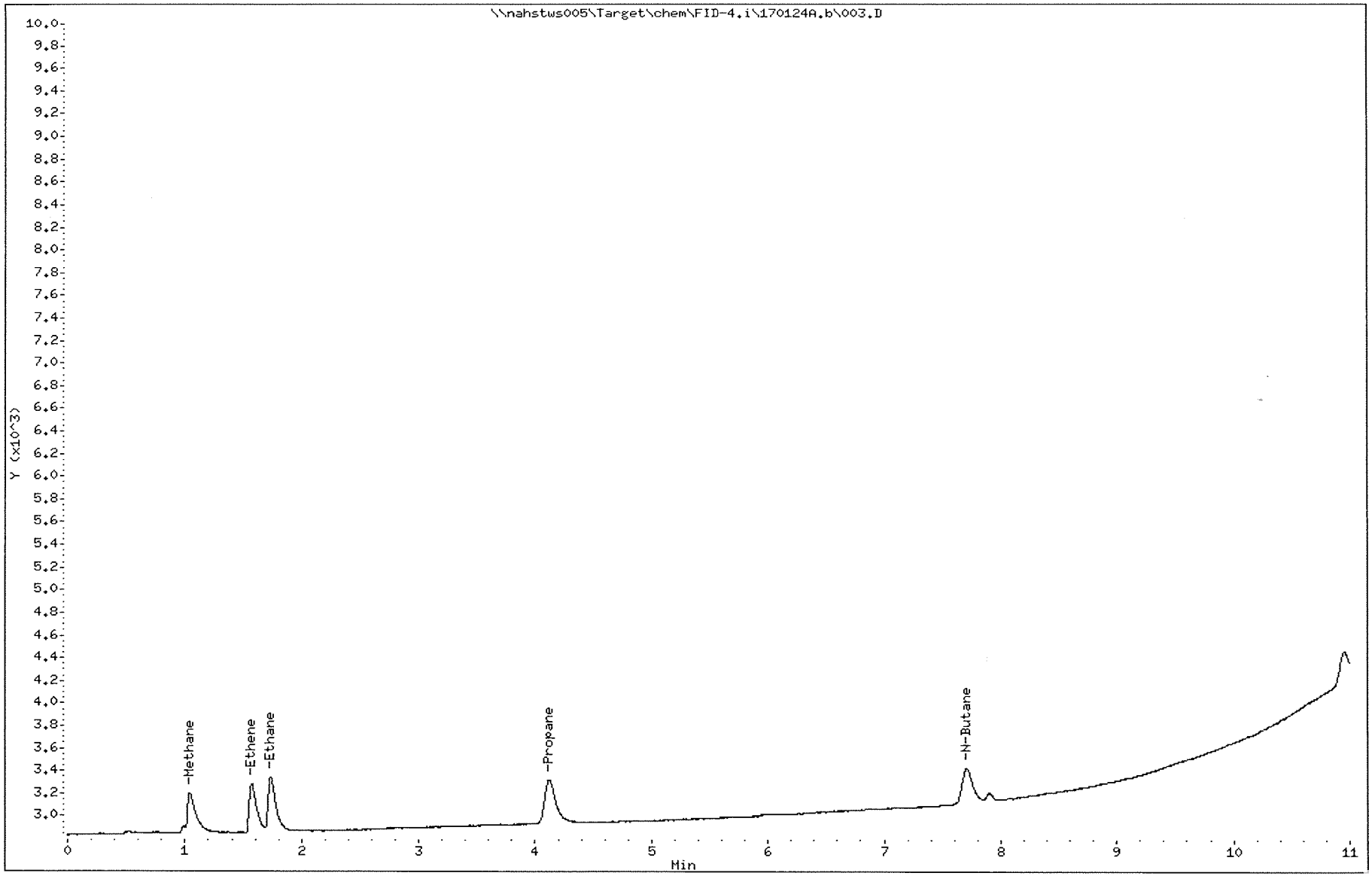
Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\003.D
Lab Smp Id: ICAL3 Client Smp ID: ICAL3
Inj Date : 24-JAN-2017 09:59
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL3;ICAL3;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.043	1.030	0.013	1967	1.92900	2.018
2 Ethene	1.570	1.556	0.014	1904	3.37000	3.247
3 Ethane	1.736	1.723	0.013	2378	3.60900	3.229
4 Propane	4.123	4.113	0.010	2602	5.29300	4.926
5 N-Butane	7.703	7.690	0.013	2034	6.99100	6.176

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\003.D
Date : 24-JAN-2017 09:59
Client ID: ICAL3
Sample Info: ICAL3;ICAL3;;;

Instrument: FID-4.i
Operator: MA
Column phase: Rtx-PLOT
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\004.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\004.D
Lab Smp Id: ICAL4 Client Smp ID: ICAL4
Inj Date : 24-JAN-2017 10:15
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL4;ICAL4;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 09:30 Cal File: 002.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

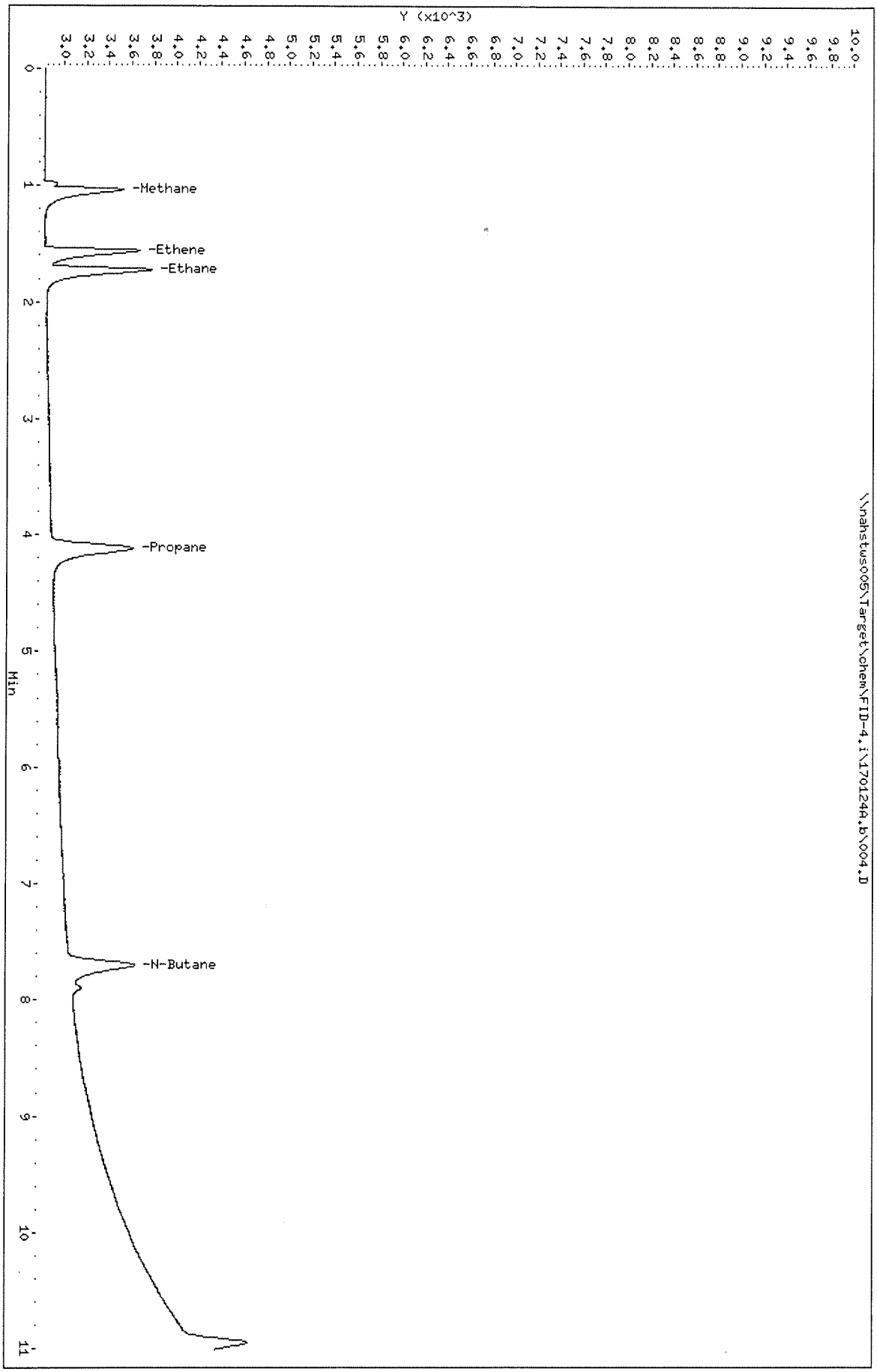
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	1.033	1.030	0.003	3399	3.85900	3.488
2 Ethene	1.563	1.556	0.007	3478	6.74000	5.932
3 Ethane	1.726	1.723	0.003	4310	7.21700	5.853
4 Propane	4.120	4.113	0.007	4785	10.5850	8.190
5 N-Butane	7.703	7.690	0.013	3864	13.9820	9.473(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\004.D
Date : 24-JAN-2017 10:15
Client ID: ICAL4
Sample Info: ICAL4;ICAL4;;;
Column phase: Rtx-PLOT

Instrument: FID-4.i
Operator: MA
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\005.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\005.D
Lab Smp Id: ICAL5 Client Smp ID: ICAL5
Inj Date : 24-JAN-2017 10:39
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL5;ICAL5;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:39 Cal File: 005.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

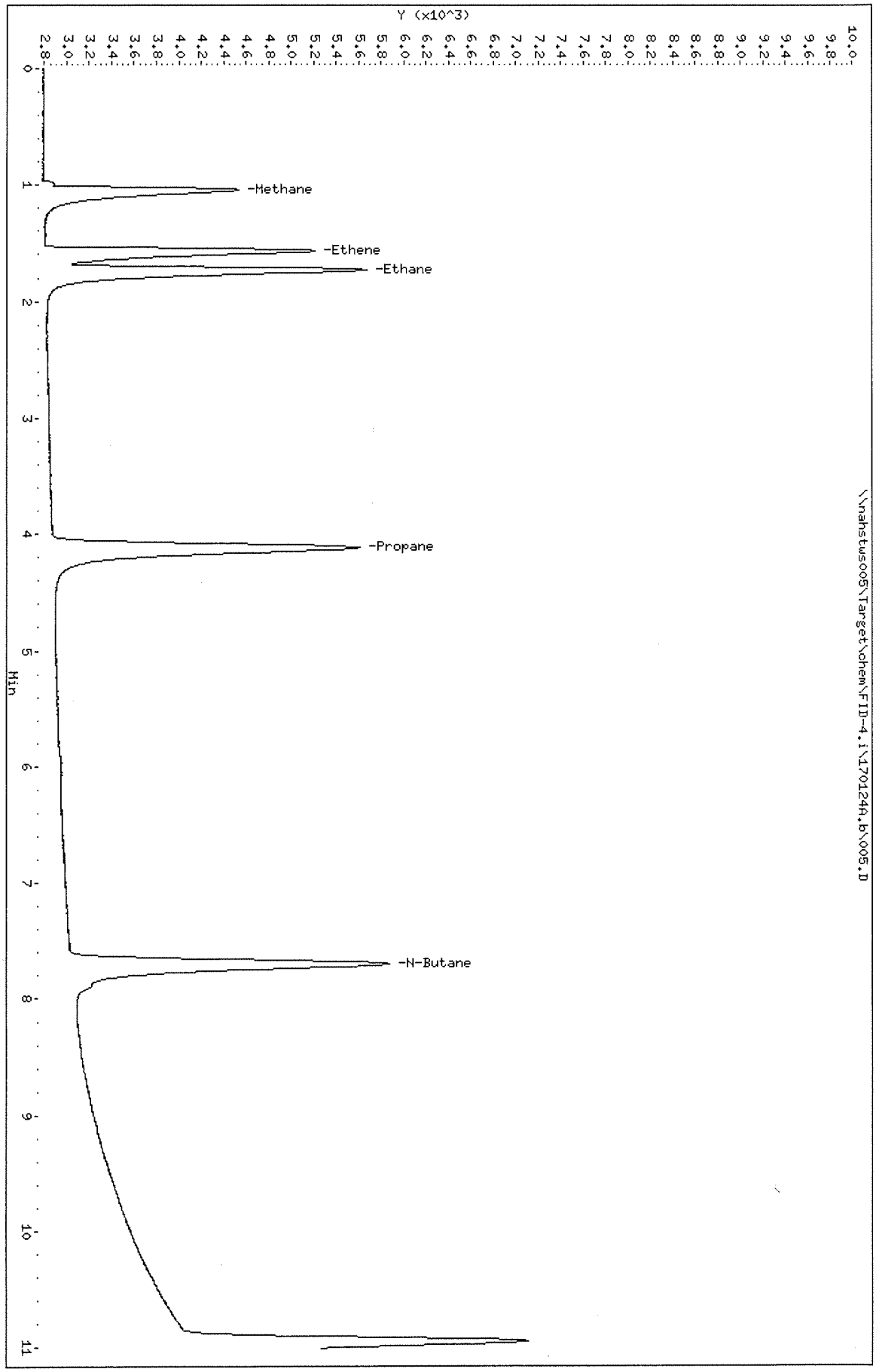
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.043	1.030	0.013	9268	9.64700	9.511
2 Ethene	1.570	1.556	0.014	11210	16.8500	19.121
3 Ethane	1.733	1.723	0.010	14588	18.0430	19.811
4 Propane	4.120	4.113	0.007	18294	26.4630	27.415
5 N-Butane	7.700	7.690	0.010	18446	34.9550	34.419(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\005.D
Date : 24-JAN-2017 10:39
Client ID: ICAL5
Sample Info: ICAL5;ICAL5;;;
Column phase: Rtx-PLOT

Instrument: FID-4.i
Operator: MA
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\006.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

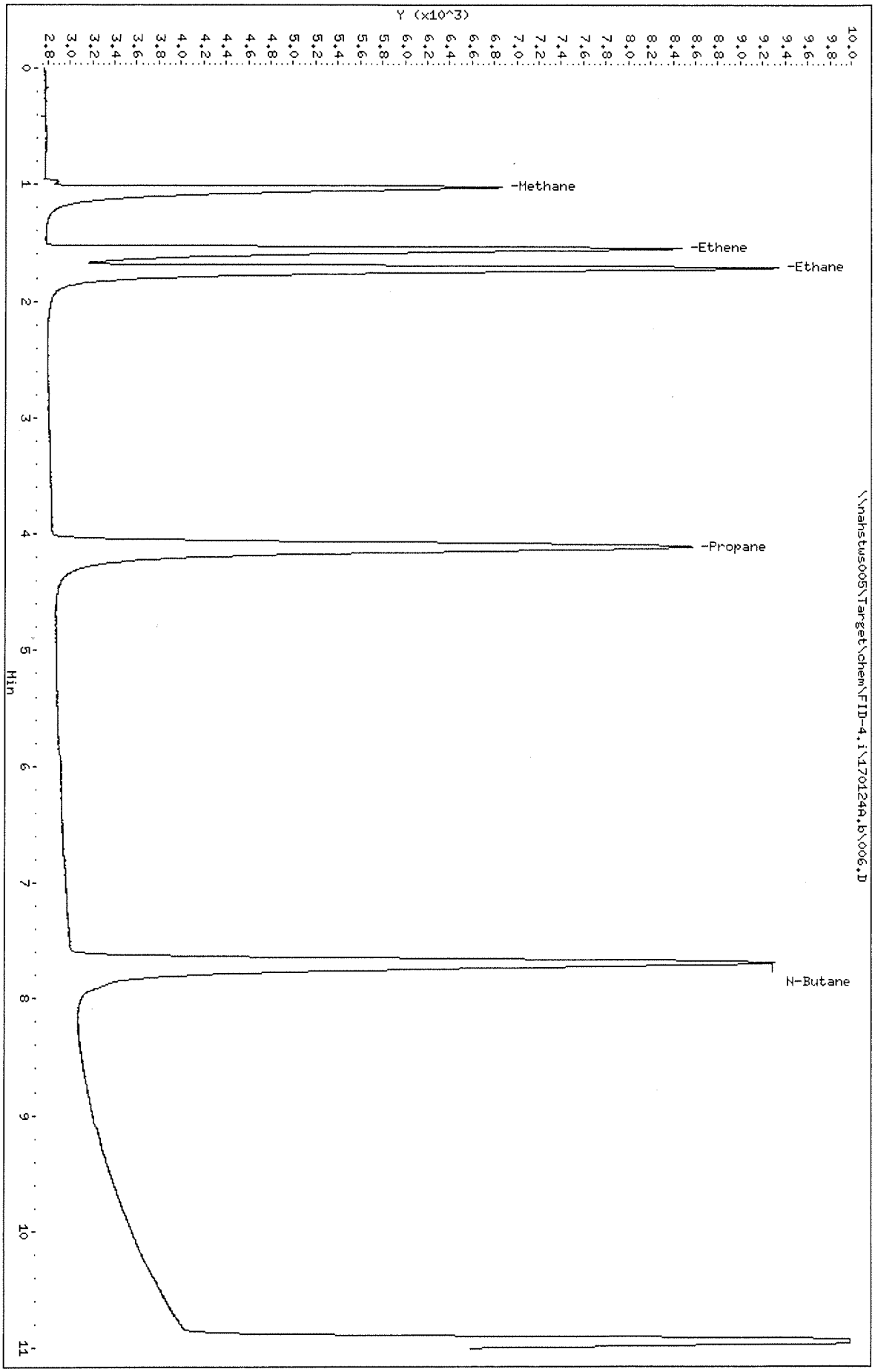
Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\006.D
Lab Smp Id: ICAL6 Client Smp ID: ICAL6
Inj Date : 24-JAN-2017 10:57
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL6;ICAL6;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:39 Cal File: 005.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1 Methane	1.023	1.030	-0.007	17957	19.2940	18.429
2 Ethene	1.550	1.556	-0.006	22910	53.8200	39.078
3 Ethane	1.716	1.723	-0.007	29505	36.0860	40.070
4 Propane	4.110	4.113	-0.003	38286	52.9260	52.796
5 N-Butane	7.696	7.690	0.006	42817	69.9110	70.855

Data File: \\nahstws005\Target\chem\FID-4,i\170124A,b\006.D
Date : 24-JAN-2017 10:57
Client ID: ICAL6
Sample Info: ICAL6;ICAL6;;;
Column phase: Rtx-PLOT

Instrument: FID-4,i
Operator: MA
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\007.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\007.D
Lab Smp Id: ICAL7 Client Smp ID: ICAL7
Inj Date : 24-JAN-2017 11:13
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL7;ICAL7;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:57 Cal File: 006.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

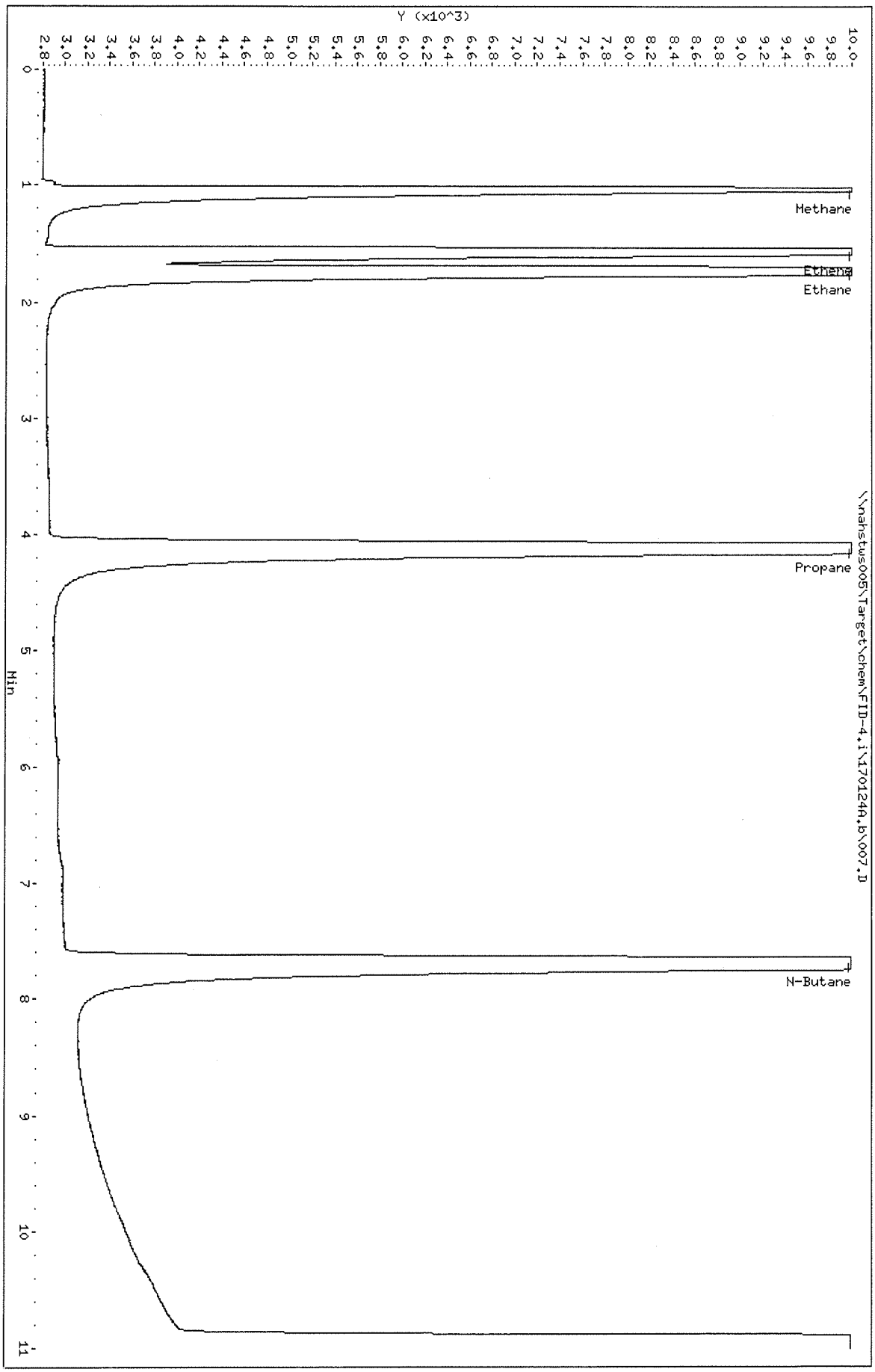
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.030	1.030	0.000	41736	38.5880	42.833(A)
2 Ethene	1.556	1.556	0.000	55865	67.4000	95.291(A)
3 Ethane	1.723	1.723	0.000	72124	72.1720	97.951(A)
4 Propane	4.113	4.113	0.000	96509	105.852	105.844
5 N-Butane	7.690	7.690	0.000	114164	139.821	139.707

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\007.D
Date : 24-JAN-2017 11:13
Client ID: ICAL7
Sample Info: ICAL7;ICAL7;;;
Column phase: Rtx-PLOT

Instrument: FID-4.i
Operator: MA
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\008.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

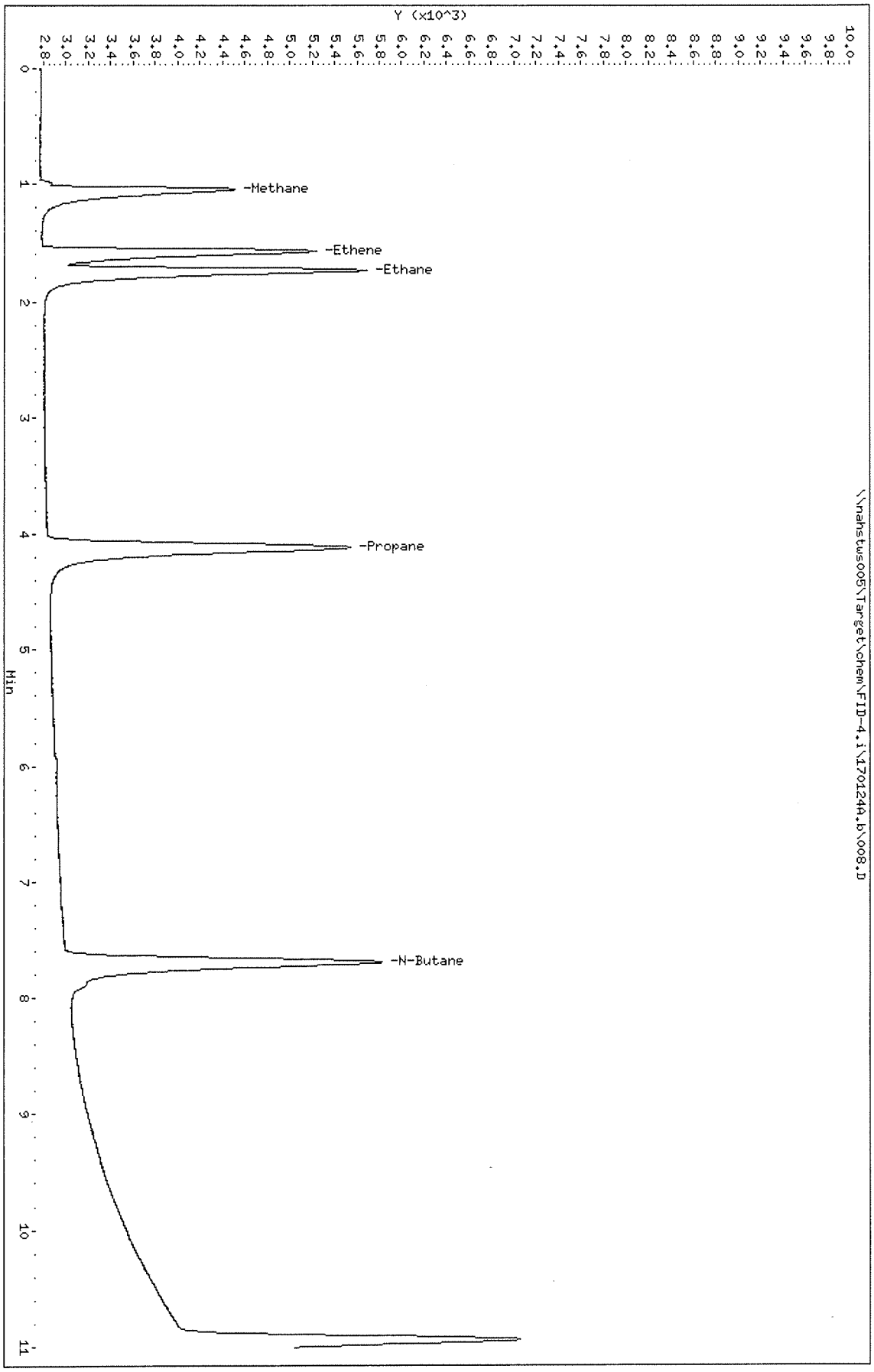
Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\008.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-JAN-2017 12:05
Operator : MA Inst ID: FID-4.i
Smp Info : ICV;ICV;;;
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
Als bottle: 8 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	1.046	1.030	0.016	9352	9.59792	9.597
2 Ethene	1.573	1.556	0.017	11192	19.0906	19.090
3 Ethane	1.736	1.723	0.013	14474	19.6571	19.657
4 Propane	4.116	4.113	0.003	18164	27.2381	27.238
5 N-Butane	7.696	7.690	0.006	19425	36.0103	36.010

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\008.D
Date : 24-JAN-2017 12:05
Client ID: ICV
Sample Info: ICV;ICV;;;
Column phase: Rtx-PLOT

Instrument: FID-4.i
Operator: MA
Column diameter: 0.53



FID04 -Logbook

Batch: 46949
Date: 10-26-2021
Method: rsk175
Comments:

Analyst: Purvi Lad
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
1	RSK-CCV	CCV	10-26-2021 08:44 am	1.00	0.00 mL	0.00 mL	001.D	Liquid	Y	N
2	MBLK-211026	MBLK	10-26-2021 08:57 am	1.00	0.00 mL	0.00 mL	002.D	Liquid	Y	N
3	LCS-211026	LCS	10-26-2021 09:05 am	1.00	0.00 mL	0.00 mL	003.D	Liquid	Y	N
4	LCSD-211026	LCSD	10-26-2021 09:14 am	1.00	0.00 mL	0.00 mL	004.D	Liquid	Y	N
5	HS21101283-01	SAMP	10-26-2021 09:23 am	1.00	0.00 mL	32.18	005.D	Liquid	Y	>
6	HS21101283-02	SAMP	10-26-2021 09:31 am	1.00	0.00 mL	32.15	006.D	Liquid	Y	>
7	HS21101283-03	SAMP	10-26-2021 09:39 am	1.00	0.00 mL	32.76	007.D	Liquid	Y	>
8	HS21101283-04	SAMP	10-26-2021 09:51 am	1.00	0.00 mL	31.69	008.D	Liquid	Y	>
9	HS21101283-05	SAMP	10-26-2021 09:59 am	1.00	0.00 mL	32.73	009.D	Liquid	Y	>
10	HS21101283-06	SAMP	10-26-2021 10:08 am	1.00	0.00 mL	32.08	010.D	Liquid	Y	>
11	RSK-CCV	CCV	10-26-2021 10:19 am	1.00	0.00 mL	0.00 mL	011.D	Liquid	Y	N
12	HS21101283-07	SAMP	10-26-2021 10:31 am	1.00	0.00 mL	32.50	012.D	Liquid	Y	>
13	HS21100881-01	SAMP	10-26-2021 10:39 am	1.00	0.00 mL	32.48	013.D	Liquid	Y	N
14	HS21100881-02	SAMP	10-26-2021 10:49 am	1.00	0.00 mL	30.60	014.D	Liquid	Y	N
15	HS21100881-03	SAMP	10-26-2021 10:58 am	1.00	0.00 mL	30.35	015.D	Liquid	Y	<
16	HS21100881-05	SAMP	10-26-2021 11:07 am	1.00	0.00 mL	31.58	016.D	Liquid	Y	<
17	HS21100881-06	SAMP	10-26-2021 11:17 am	1.00	0.00 mL	31.62	017.D	Liquid	Y	<
18	HS21100881-07	SAMP	10-26-2021 11:28 am	1.00	0.00 mL	31.09	018.D	Liquid	Y	<
19	HS21101283-01	SAMP	10-26-2021 11:47 am	500.0(	0.00 mL	0.00 mL	019.D	Liquid	Y	N
20	HS21101283-02	SAMP	10-26-2021 11:57 am	100.0(	0.00 mL	0.00 mL	020.D	Liquid	Y	N
21	HS21101283-04	SAMP	10-26-2021 12:07 pm	400.0(	0.00 mL	0.00 mL	021.D	Liquid	Y	N
22	RSK-CCV	CCV	10-26-2021 12:21 pm	1.00	0.00 mL	0.00 mL	022.D	Liquid	Y	N
23	HS21101283-05	SAMP	10-26-2021 12:29 pm	100.0(	0.00 mL	0.00 mL	023.D	Liquid	Y	N
24	HS21101283-06	SAMP	10-26-2021 12:37 pm	100.0(	0.00 mL	0.00 mL	024.D	Liquid	Y	N
25	HS21101283-07	SAMP	10-26-2021 12:47 pm	200.0(	0.00 mL	0.00 mL	025.D	Liquid	Y	N
26	HS21100881-01DUP	SAMP	10-26-2021 12:57 pm	1.00	0.00 mL	0.00 mL	026.D	Liquid	Y	N
27	HS21101170-05	SAMP	10-26-2021 01:08 pm	1.00	0.00 mL	32.56	027.D	Liquid	Y	<
28	HS21101170-06	SAMP	10-26-2021 01:17 pm	1.00	0.00 mL	31.75	028.D	Liquid	Y	<
29	HS21101170-07	SAMP	10-26-2021 01:25 pm	1.00	0.00 mL	31.71	029.D	Liquid	Y	<
30	HS21101170-08	SAMP	10-26-2021 01:39 pm	1.00	0.00 mL	31.91	030.D	Liquid	Y	<
31	HS21101170-09	SAMP	10-26-2021 02:08 pm	1.00	0.00 mL	31.43	031.D	Liquid	Y	<
32	HS21101345-01	SAMP	10-26-2021 02:16 pm	1.00	0.00 mL	32.13	032.D	Liquid	Y	<
33	RSK-CCV	CCV	10-26-2021 02:26 pm	1.00	0.00 mL	0.00 mL	033.D	Liquid	Y	N
34	HS21101346-01	SAMP	10-26-2021 02:39 pm	1.00	0.00 mL	31.43	034.D	Liquid	Y	<
35	RSK-CCV	CCV	10-26-2021 02:47 pm	1.00	0.00 mL	0.00 mL	035.D	Liquid	Y	N
36	RSK-CCV	CCV	10-26-2021 02:58 pm	1.00	0.00 mL	0.00 mL	036.D	Liquid	Y	N
37	MBLK-211026	MBLK	10-26-2021 03:10 pm	1.00	0.00 mL	0.00 mL	037.D	Liquid	Y	N
38	LCS-211026	LCS	10-26-2021 03:26 pm	1.00	0.00 mL	0.00 mL	038.D	Liquid	Y	N
39	LCSD-211026	LCSD	10-26-2021 03:42 pm	1.00	0.00 mL	0.00 mL	039.D	Liquid	Y	N
40	HS21101335-01	SAMP	10-26-2021 03:58 pm	1.00	0.00 mL	32.94	040.D	Liquid	Y	<
41	HS21101335-01DUP	SAMP	10-26-2021 04:09 pm	1.00	0.00 mL	0.00 mL	041.D	Liquid	Y	N

FID04 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
42	RSK-CCV	CCV	10-26-2021 04:24 pm	1.00	0.00 mL	0.00 mL	042.D	Liquid	Y	N

Chemical	Value
pH Paper	300107065-15
CCV/LC/LSD/MS/MSD	300107063-06

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Instrument ID: FID-4 Calibration Date: 10/26/21 Time: 0844

Lab File ID: 001 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	720.00222	0.01	-0.07	20.00	AVRG
Methane	974.99200	968.28029	0.01	0.69	20.00	AVRG
Ethene	585.76000	507.41840	0.01	13.37	20.00	AVRG

FORM VII GASES

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Instrument ID: FID-4 Calibration Date: 10/26/21 Time: 1019

Lab File ID: 011 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	723.54930	0.01	-0.56	20.00	AVRG
Methane	974.99200	1010.4696	0.01	-3.64	20.00	AVRG
Ethene	585.76000	561.78042	0.01	4.09	20.00	AVRG

FORM VII GASES

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Instrument ID: FID-4 Calibration Date: 10/26/21 Time: 1221

Lab File ID: 022 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	654.04866	0.01	9.10	20.00	AVRG
Methane	974.99200	872.18825	0.01	10.54	20.00	AVRG
Ethene	585.76000	510.38576	0.01	12.87	20.00	AVRG

FORM VII GASES

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Instrument ID: FID-4 Calibration Date: 10/26/21 Time: 1426

Lab File ID: 033 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	727.31807	0.01	-1.09	20.00	AVRG
Methane	974.99200	1055.6650	0.01	-8.27	20.00	AVRG
Ethene	585.76000	536.32047	0.01	8.44	20.00	AVRG

FORM VII GASES

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21100881

Instrument ID: FID-4 Calibration Date: 10/26/21 Time: 1447

Lab File ID: 035 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	734.85562	0.01	-2.14	20.00	AVRG
Methane	974.99200	953.35337	0.01	2.22	20.00	AVRG
Ethene	585.76000	505.93472	0.01	13.63	20.00	AVRG

FORM VII GASES

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\001.D Page 1
Report Date: 17-Nov-2021 08:52

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\001.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 26-OCT-2021 08:44
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.490	0.490	0.000	9341	9.64700	9.580
2 Ethene	0.736	0.736	0.000	8550	16.8500	14.596
3 Ethane	0.820	0.820	0.000	12991	18.0430	18.055

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\001.D

Date : 26-OCT-2021 08:44

Client ID: RSK-CCV

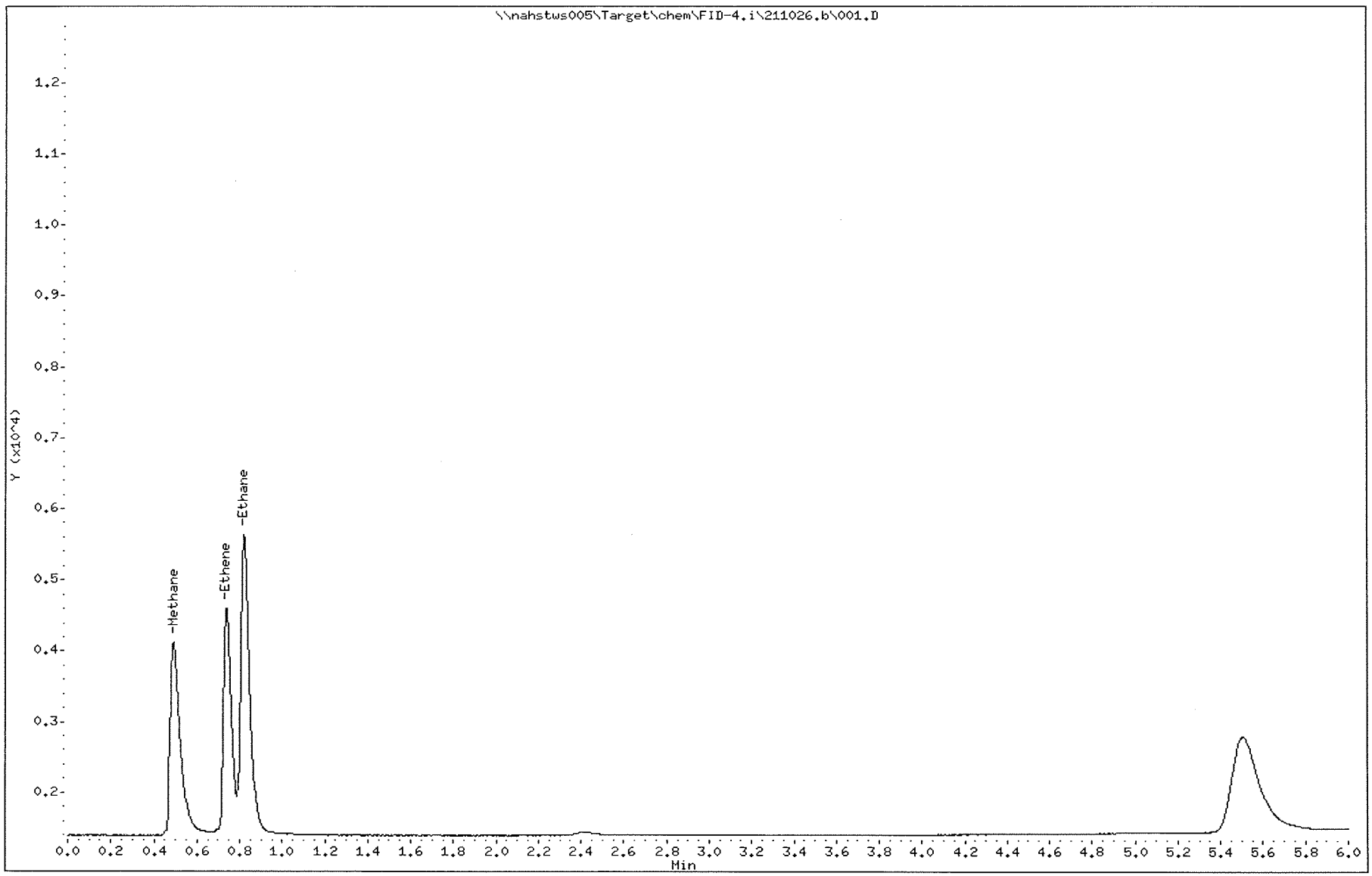
Instrument: FID-4.i

Sample Info: RSK-CCV;RSK-CCV;2;4

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\Before\001.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 26-OCT-2021 08:44
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment   :
Method   : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

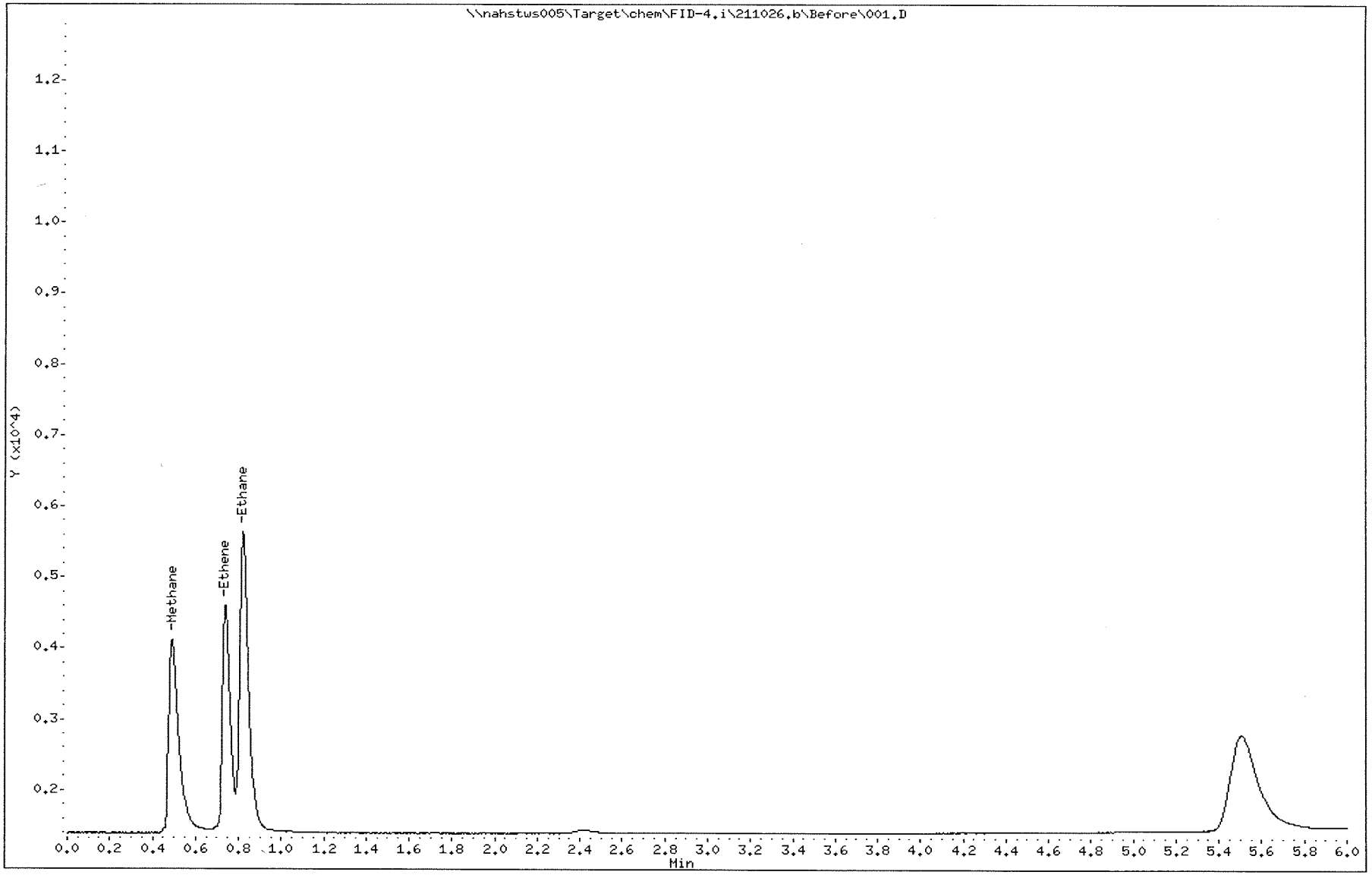
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.490	0.490	0.000	9320	9.64700	9.559
2 Ethene	0.736	0.736	0.000	8478	16.8500	14.473
3 Ethane	0.820	0.820	0.000	12954	18.0430	18.004

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\001.D
Date : 26-OCT-2021 08:44
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Instrument: FID-4.i
Operator: PL
Column diameter: 0.53

Column phase: Rtx-PLOT



Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\002.D Page 1
Report Date: 17-Nov-2021 08:52

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\002.D
Lab Smp Id: MBLK-211026 Client Smp ID: MBLK-211026
Inj Date : 26-OCT-2021 08:57
Operator : PL Inst ID: FID-4.i
Smp Info : MBLK-211026;MBLK-211026;3;;BLANK
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\002.D

Date : 26-OCT-2021 08:57

Client ID: MBLK-211026

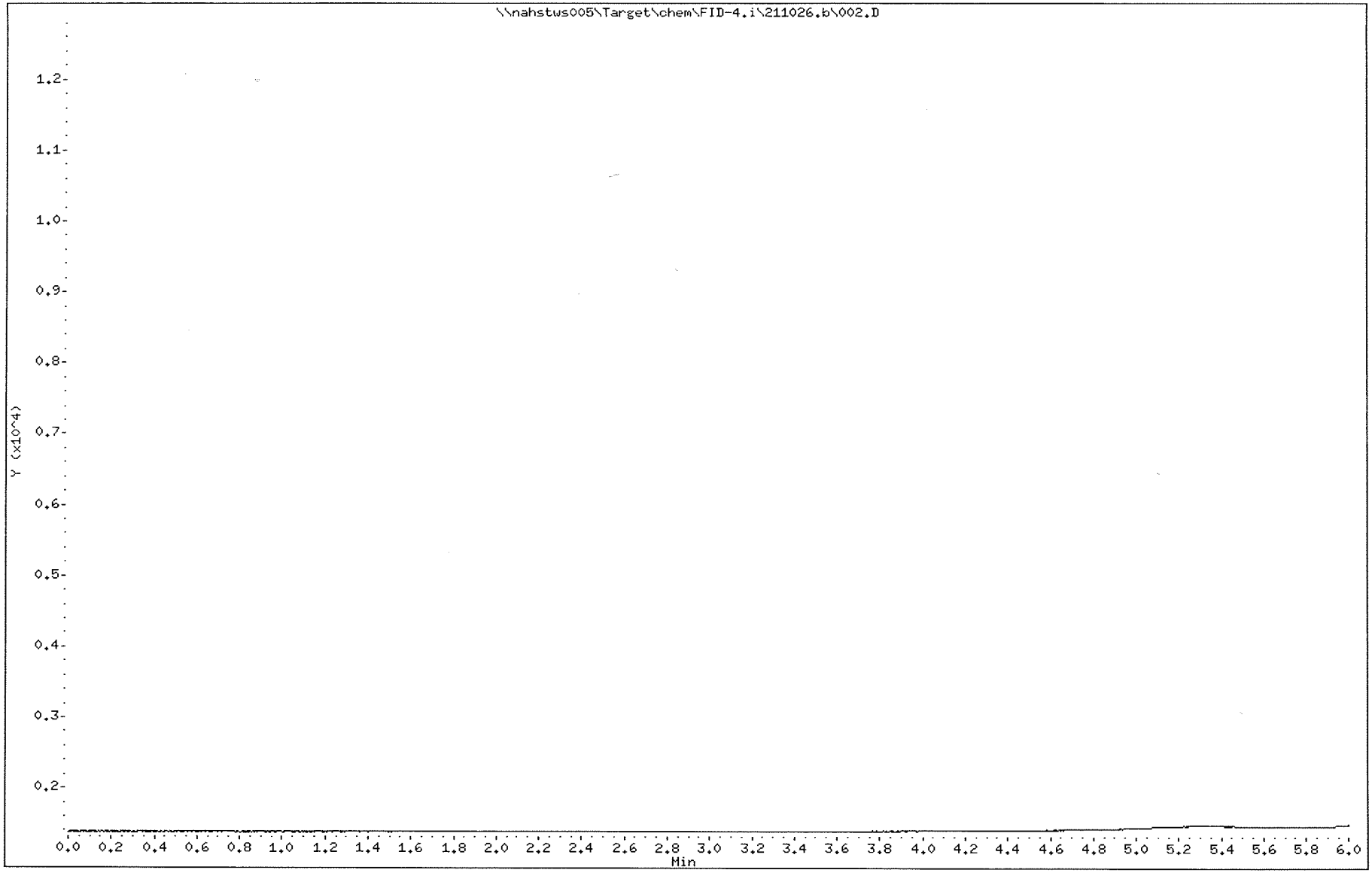
Instrument: FID-4.i

Sample Info: MBLK-211026;MBLK-211026;3;;BLANK

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\Before\002.D
Lab Smp Id: MBLK-211026 Client Smp ID: MBLK-211026
Inj Date : 26-OCT-2021 08:57
Operator : PL Inst ID: FID-4.i
Smp Info : MBLK-211026;MBLK-211026;3;;BLANK
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\002.D

Date : 26-OCT-2021 08:57

Client ID: MBLK-211026

Instrument: FID-4.i

Sample Info: MBLK-211026;MBLK-211026;3;;BLANK

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\003.D Page 1
Report Date: 17-Nov-2021 08:52

ALS Laboratory Group

Dissolved Gases Analysis

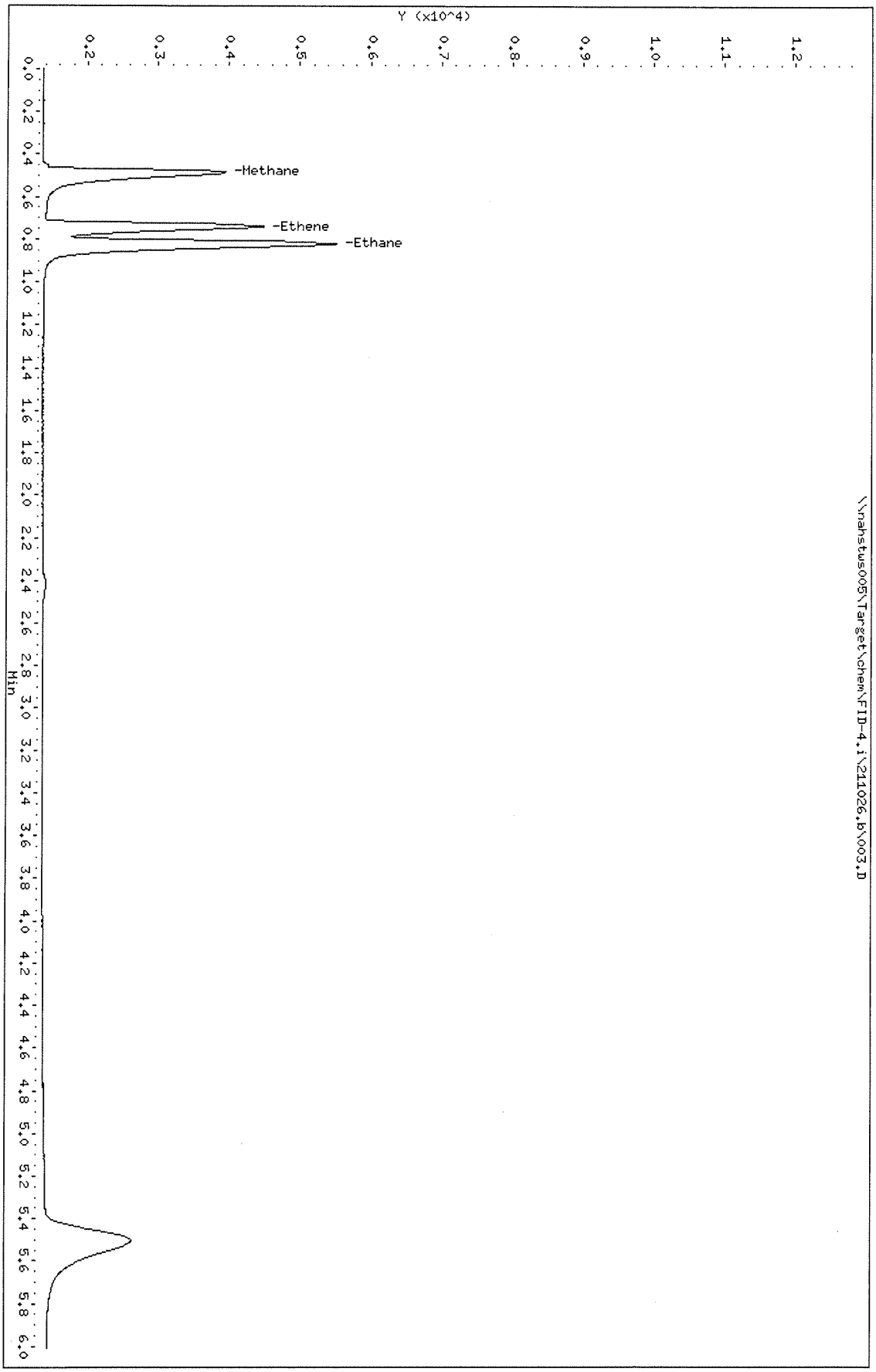
Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\003.D
Lab Smp Id: LCS-211026 Client Smp ID: LCS-211026
Inj Date : 26-OCT-2021 09:05
Operator : PL Inst ID: FID-4.i
Smp Info : LCS-211026;LCS-211026;3;;LCS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.483	0.490	-0.007	8049	8.25545	8.255
2 Ethene	0.740	0.736	0.004	7800	13.3160	13.316
3 Ethane	0.820	0.820	0.000	11769	16.3574	16.357

Data File: \\nahstus005\Target\chem\FID-4.i\211026.b\003.D
Date : 26-OCT-2021 09:05
Client ID: LCS-211026
Sample Info: LCS-211026;LCS-211026;3;;LCS
Column phase: Rtx-PLOT

Instrument: FID-4.i
Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\003.D Page 1
Report Date: 17-Nov-2021 08:53

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\Before\003.D
Lab Smp Id: LCS-211026 Client Smp ID: LCS-211026
Inj Date : 26-OCT-2021 09:05
Operator : PL Inst ID: FID-4.i
Smp Info : LCS-211026;LCS-211026;3;;LCS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.483	0.490	-0.007	8021	8.22673	8.226
2 Ethene	0.740	0.736	0.004	7742	13.2170	13.217
3 Ethane	0.820	0.820	0.000	11718	16.2865	16.286

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\003.D

Date : 26-OCT-2021 09:05

Client ID: LCS-211026

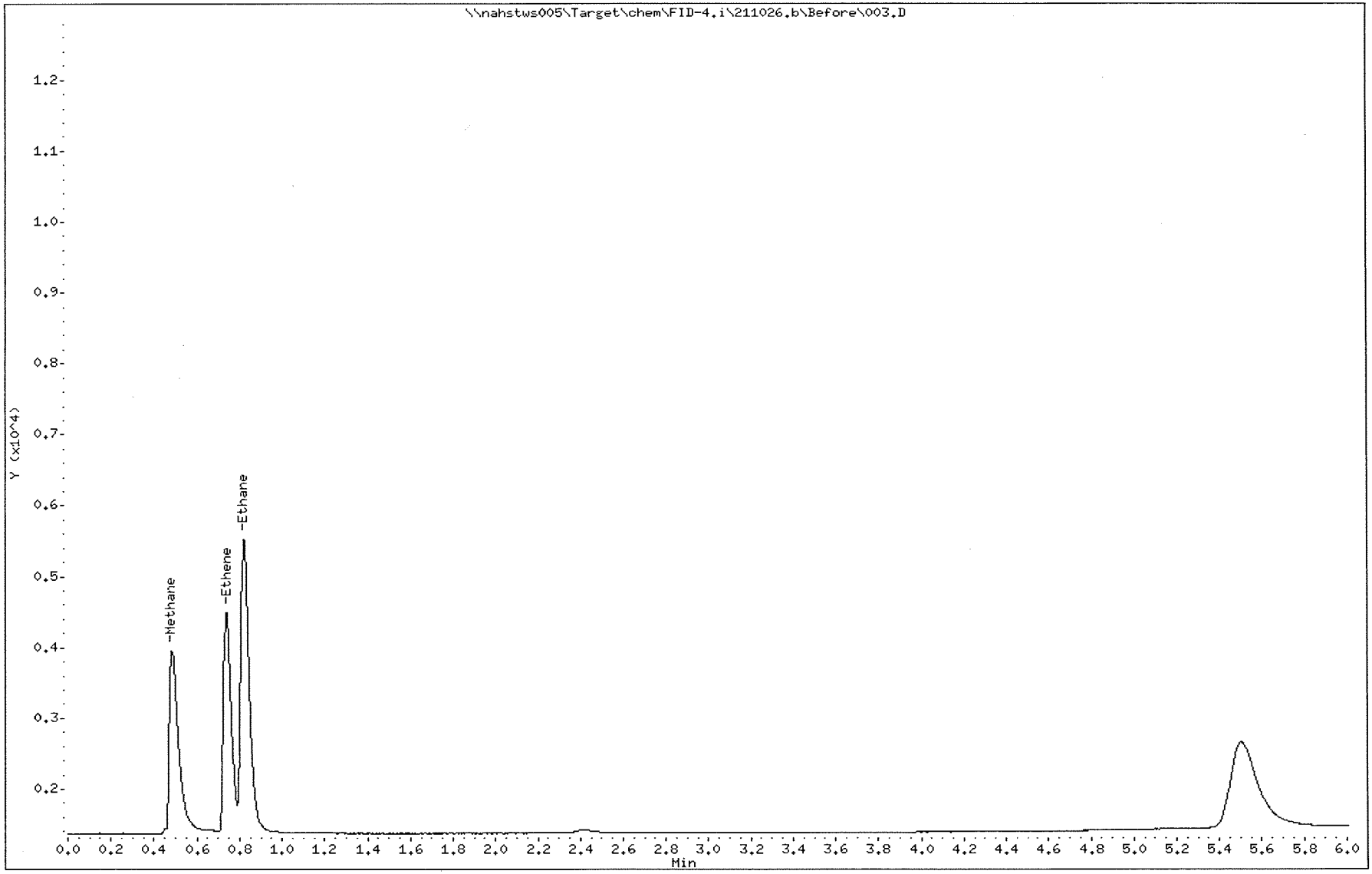
Instrument: FID-4.i

Sample Info: LCS-211026;LCS-211026;3;;LCS

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\004.D Page 1
Report Date: 17-Nov-2021 08:52

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\004.D
Lab Smp Id: LCSD-211026 Client Smp ID: LCSD-211026
Inj Date : 26-OCT-2021 09:14
Operator : PL Inst ID: FID-4.i
Smp Info : LCSD-211026;LCSD-211026;3;;LCSD
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 4 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.483	0.490	-0.007	10591	10.8626	10.862
2 Ethene	0.733	0.736	-0.003	9464	16.1568	16.156
3 Ethane	0.816	0.820	-0.004	14598	20.2894	20.289

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\004.D

Date : 26-OCT-2021 09:14

Client ID: LCSD-211026

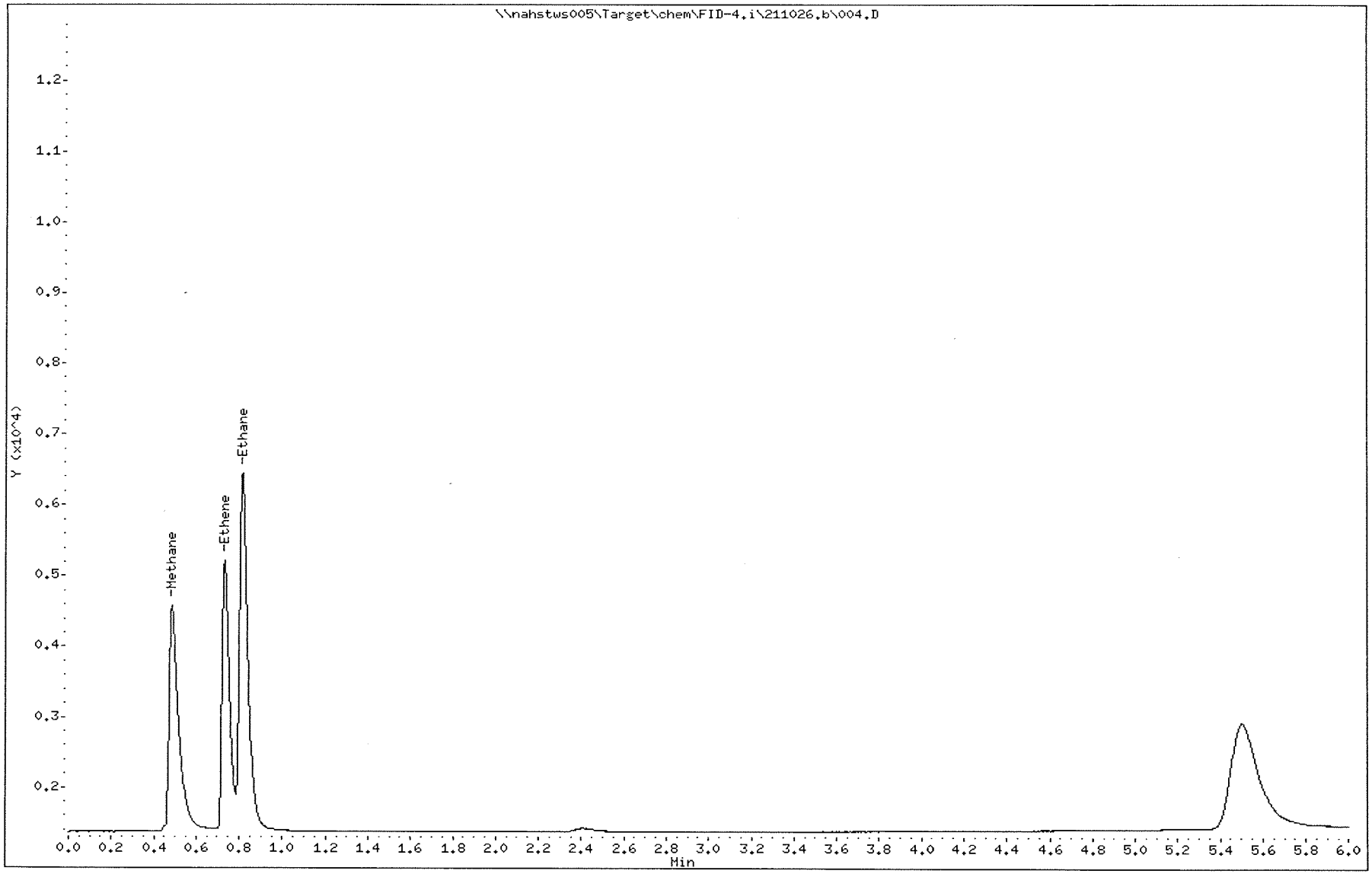
Instrument: FID-4.i

Sample Info: LCSD-211026;LCSD-211026;3;;LCSD

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\Before\004.D
Lab Smp Id: LCSD-211026 Client Smp ID: LCSD-211026
Inj Date : 26-OCT-2021 09:14
Operator : PL Inst ID: FID-4.i
Smp Info : LCSD-211026;LCSD-211026;3;;LCSD
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 4 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

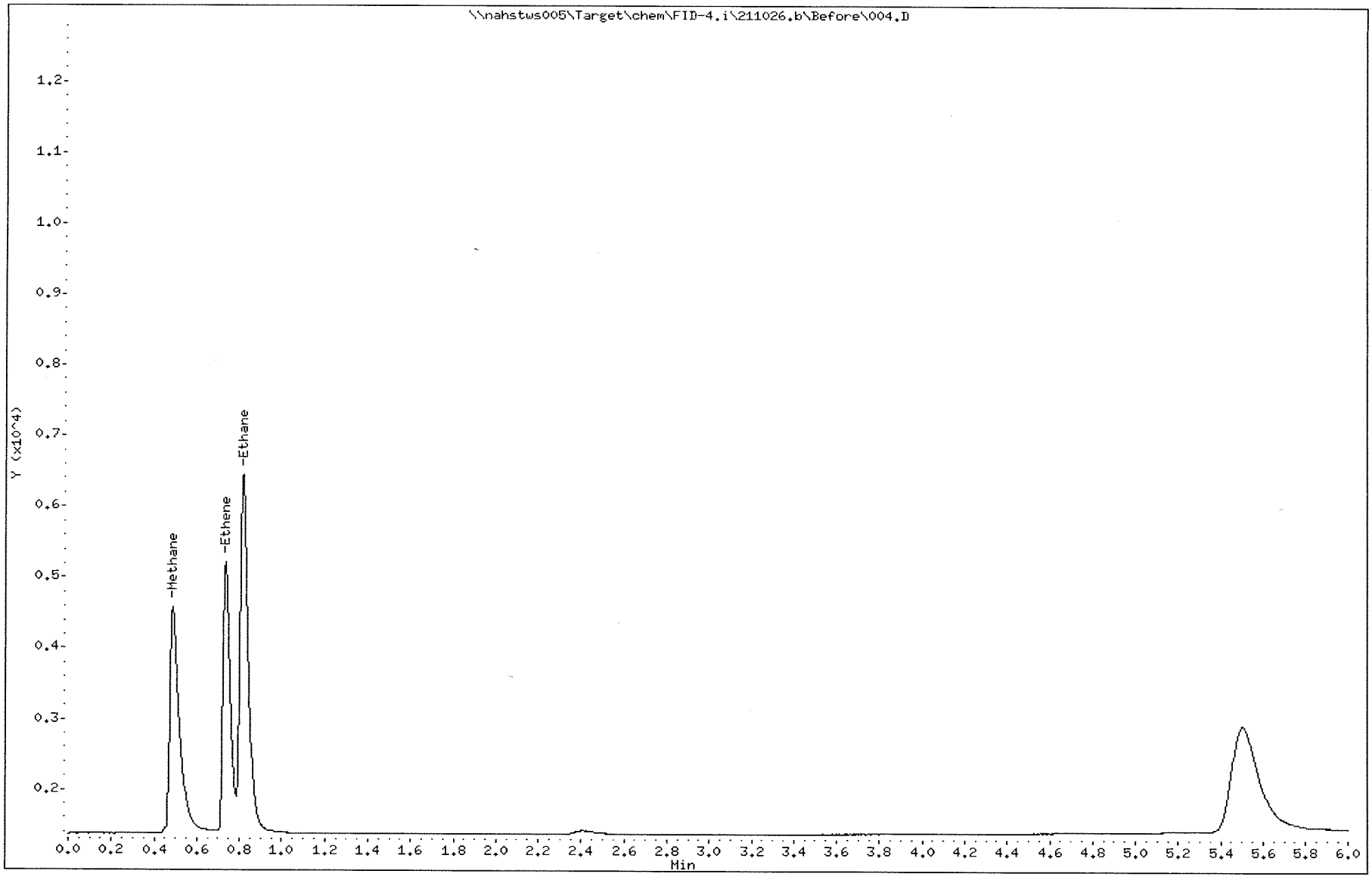
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.483	0.490	-0.007	10555	10.8257	10.825
2 Ethene	0.733	0.736	-0.003	9392	16.0339	16.033
3 Ethane	0.816	0.820	-0.004	14499	20.1518	20.151

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\004.D
Date : 26-OCT-2021 09:14
Client ID: LCSD-211026
Sample Info: LCSD-211026;LCSD-211026;3;;LCSD

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\011.D Page 1
Report Date: 17-Nov-2021 08:52

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\011.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 26-OCT-2021 10:19
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.476	0.490	-0.014	9748	9.64700	9.998
2 Ethene	0.730	0.736	-0.006	9466	16.8500	16.160
3 Ethane	0.810	0.820	-0.010	13055	18.0430	18.144

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\011.D

Date : 26-OCT-2021 10:19

Client ID: RSK-CCV

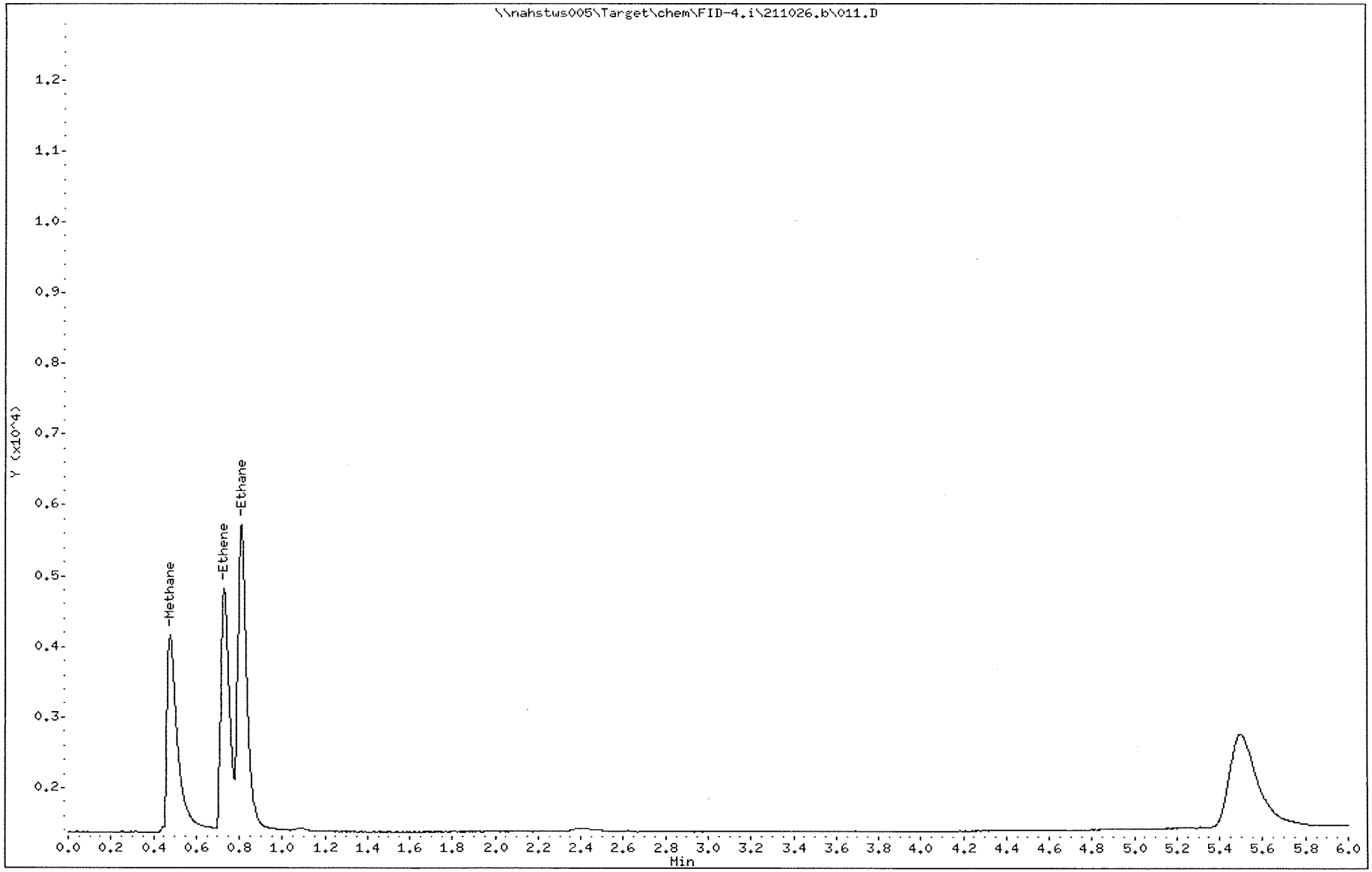
Instrument: FID-4.i

Sample Info: RSK-CCV;RSK-CCV;2;4

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\Before\011.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 26-OCT-2021 10:19
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment   :
Method   : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.476	0.490	-0.014	9724	9.64700	9.973
2 Ethene	0.730	0.736	-0.006	9453	16.8500	16.137
3 Ethane	0.810	0.820	-0.010	13009	18.0430	18.080

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\011.D

Date : 26-OCT-2021 10:19

Client ID: RSK-CCV

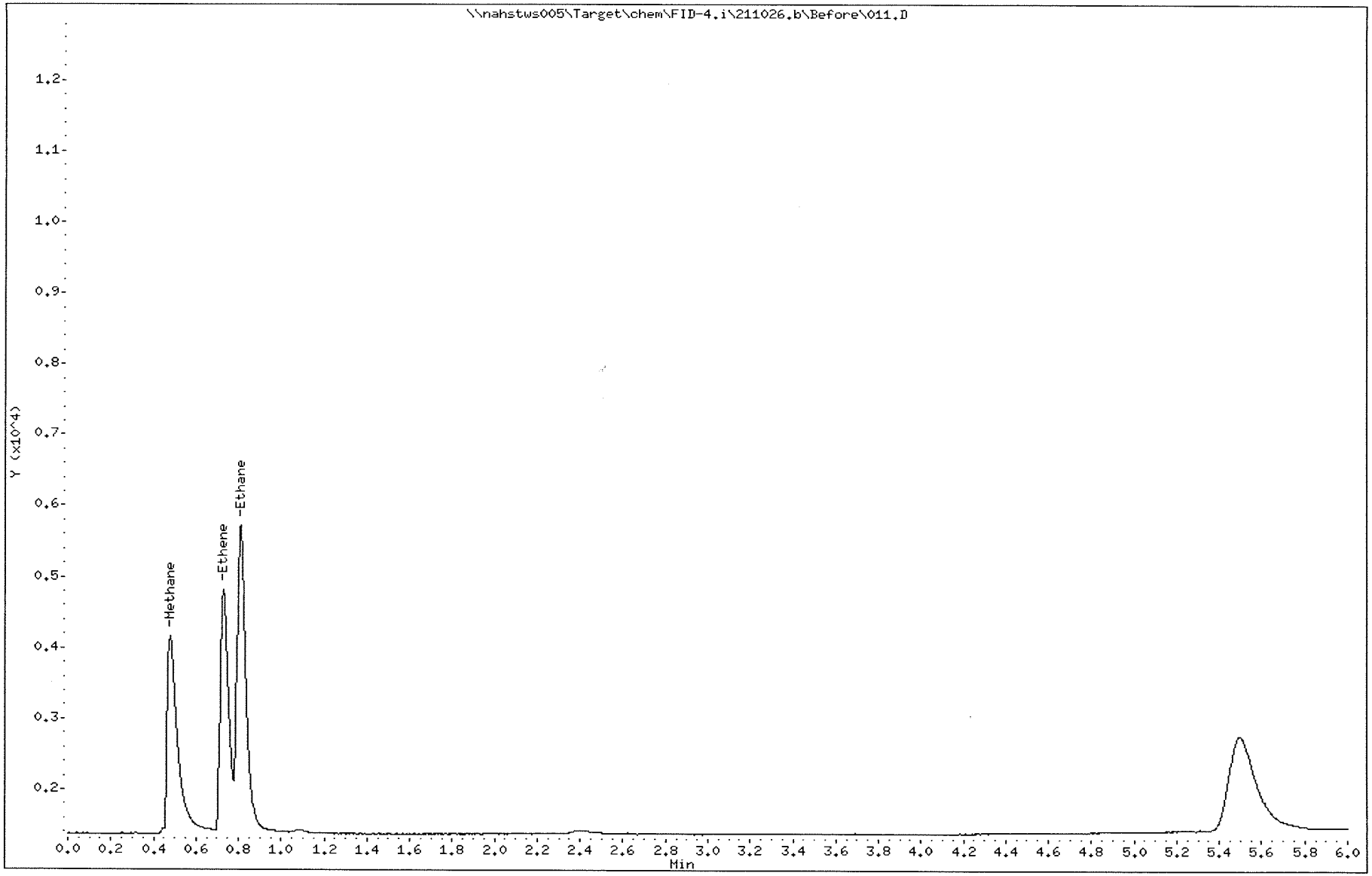
Instrument: FID-4.i

Sample Info: RSK-CCV;RSK-CCV;2;4

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\013.D Page 1
Report Date: 17-Nov-2021 08:52

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\013.D
Lab Smp Id: HS21100881-01 Client Smp ID: HS21100881-01
Inj Date : 26-OCT-2021 10:39
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100881-01;HS21100881-01
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.486	0.490	-0.004	11660	11.9591	11.959(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\013.D

Date : 26-OCT-2021 10:39

Client ID: HS21100881-01

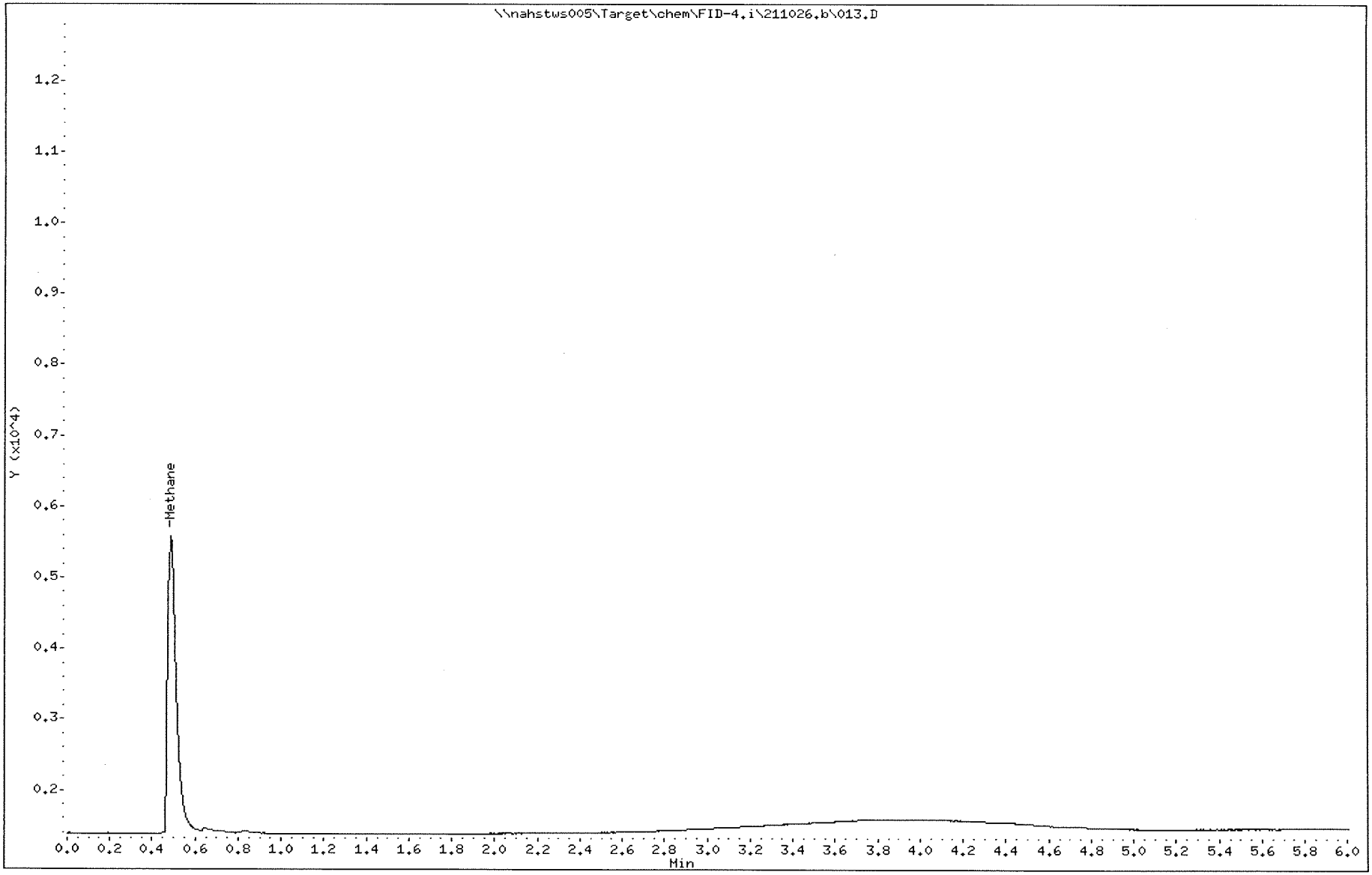
Instrument: FID-4.i

Sample Info: HS21100881-01;HS21100881-01

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\Before\013.D
Lab Smp Id: HS21100881-01 Client Smp ID: HS21100881-01
Inj Date : 26-OCT-2021 10:39
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100881-01;HS21100881-01
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.486	0.490	-0.004	12020	12.3283	12.328
3 Ethane	0.826	0.820	0.006	225	0.31272	0.312(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\013.D

Date : 26-OCT-2021 10:39

Client ID: HS21100881-01

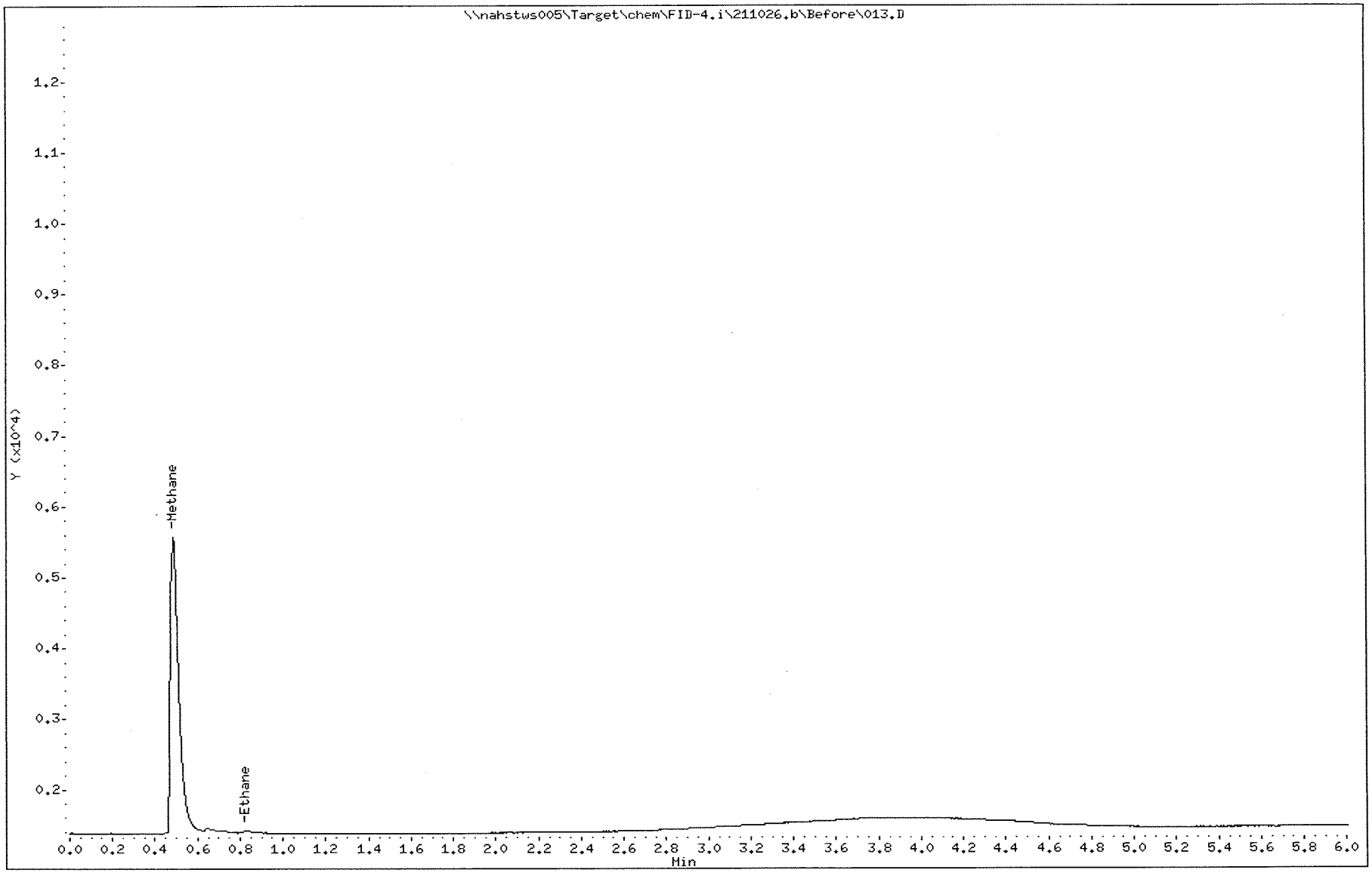
Instrument: FID-4.i

Sample Info: HS21100881-01;HS21100881-01

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\014.D Page 1
Report Date: 17-Nov-2021 08:52

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\014.D
Lab Smp Id: HS21100881-02 Client Smp ID: HS21100881-02
Inj Date : 26-OCT-2021 10:49
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100881-02;HS21100881-02
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.470	0.490	-0.020	7465	7.65647	7.656(M)
2 Ethene	0.746	0.736	0.010	1137	1.94107	1.941(M)

QC Flag Legend

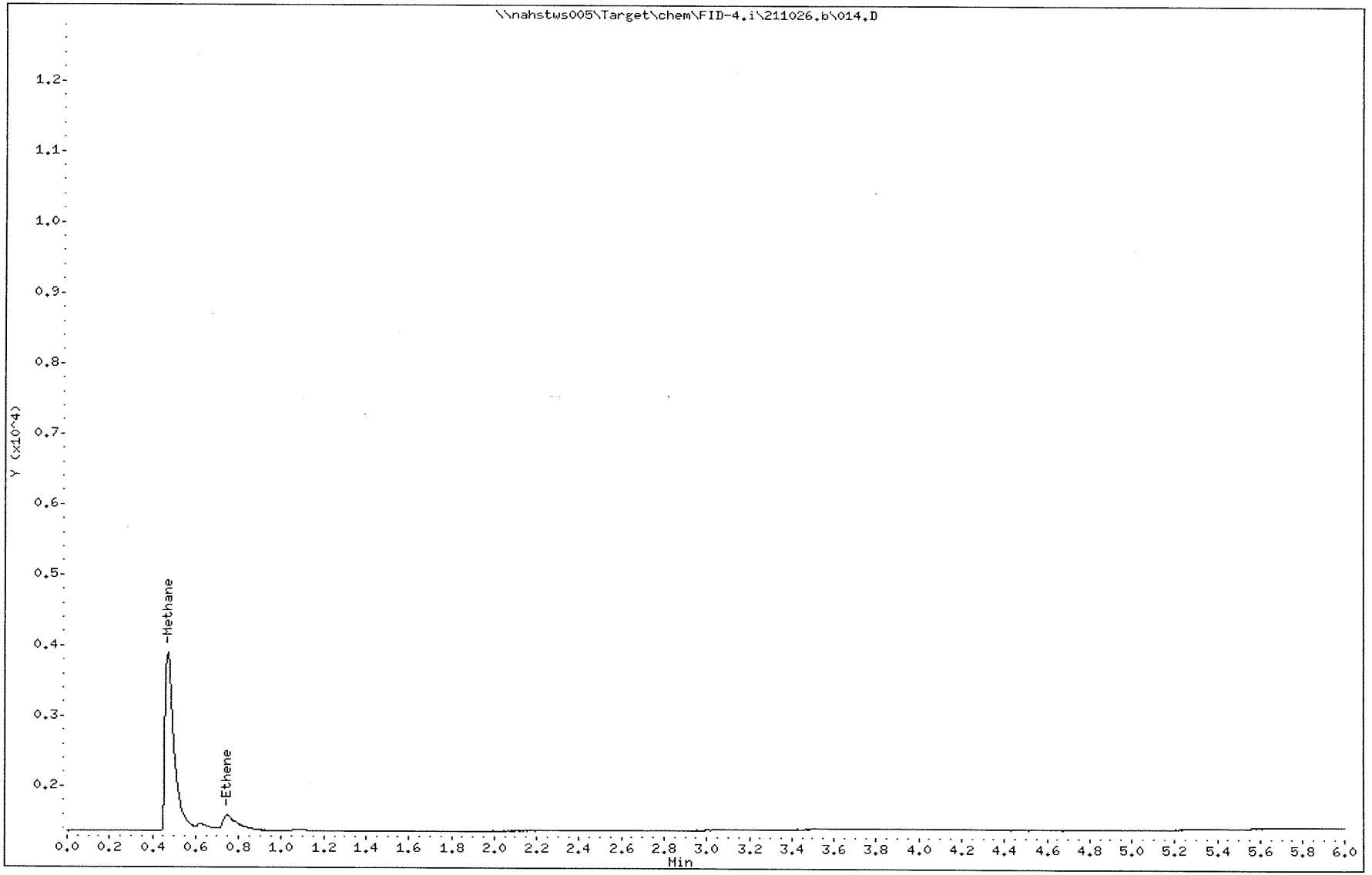
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\014.D
Date : 26-OCT-2021 10:49
Client ID: HS21100881-02
Sample Info: HS21100881-02;HS21100881-02

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\014.D Page 1
Report Date: 17-Nov-2021 08:53

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\Before\014.D
Lab Smp Id: HS21100881-02 Client Smp ID: HS21100881-02
Inj Date : 26-OCT-2021 10:49
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100881-02;HS21100881-02
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.470	0.490	-0.020	7788	7.98776	7.987
2 Ethene	0.746	0.736	0.010	1093	1.86595	1.865

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\014.D

Date : 26-OCT-2021 10:49

Client ID: HS21100881-02

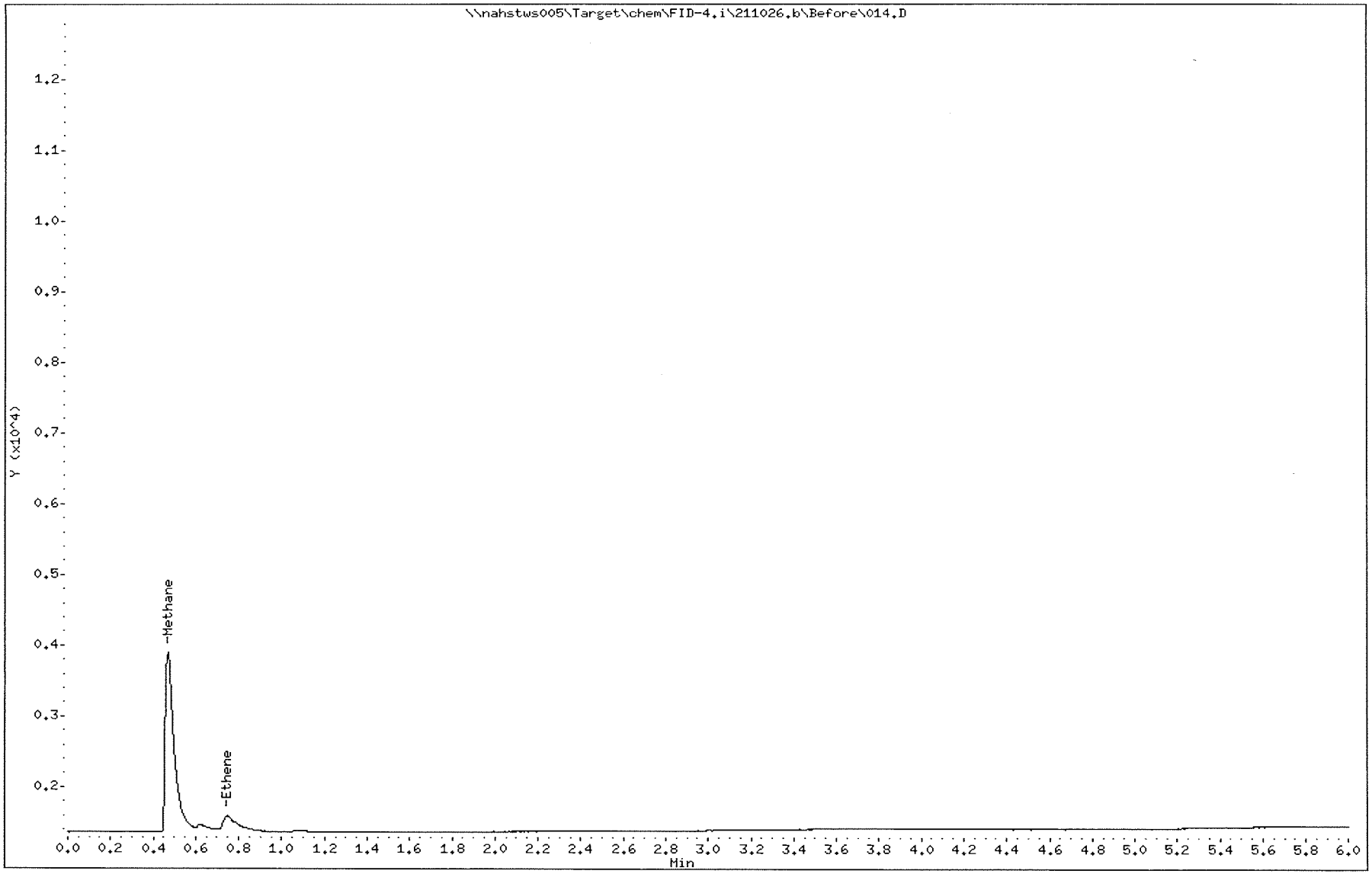
Instrument: FID-4.i

Sample Info: HS21100881-02;HS21100881-02

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\015.D Page 1
Report Date: 17-Nov-2021 08:52

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\015.D
Lab Smp Id: HS21100881-03 Client Smp ID: HS21100881-03
Inj Date : 26-OCT-2021 10:58
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100881-03;HS21100881-03
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.483	0.490	-0.007	5353	5.49030	5.490(M)
2 Ethene	0.743	0.736	0.007	1275	2.17666	2.176(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\015.D

Date : 26-OCT-2021 10:58

Client ID: HS21100881-03

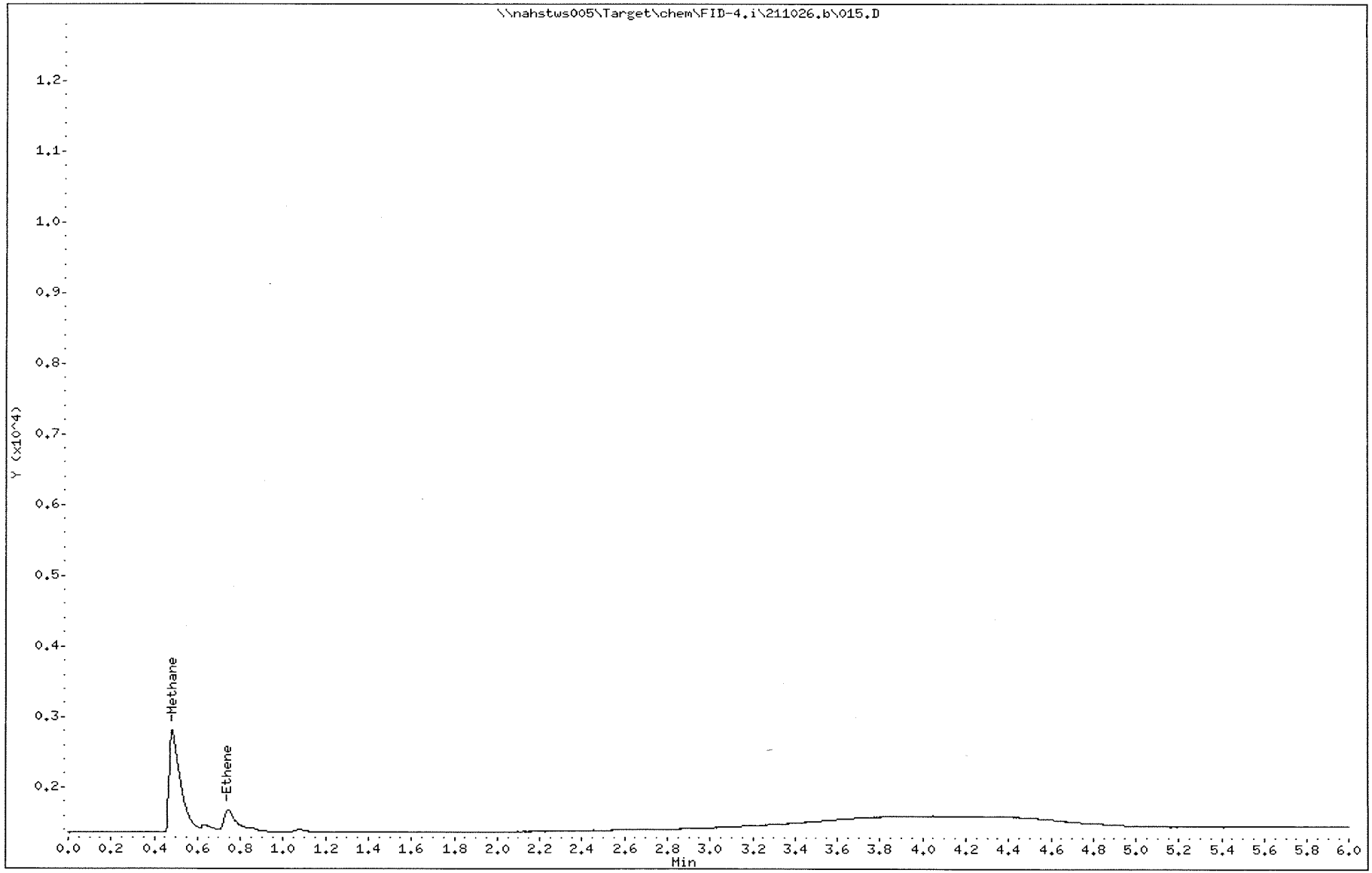
Instrument: FID-4.i

Sample Info: HS21100881-03;HS21100881-03

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\Before\015.D
Lab Smp Id: HS21100881-03 Client Smp ID: HS21100881-03
Inj Date : 26-OCT-2021 10:58
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100881-03;HS21100881-03
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.483	0.490	-0.007	5690	5.83594	5.835
2 Ethene	0.743	0.736	0.007	1537	2.62394	2.623

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\015.D

Date : 26-OCT-2021 10:58

Client ID: HS21100881-03

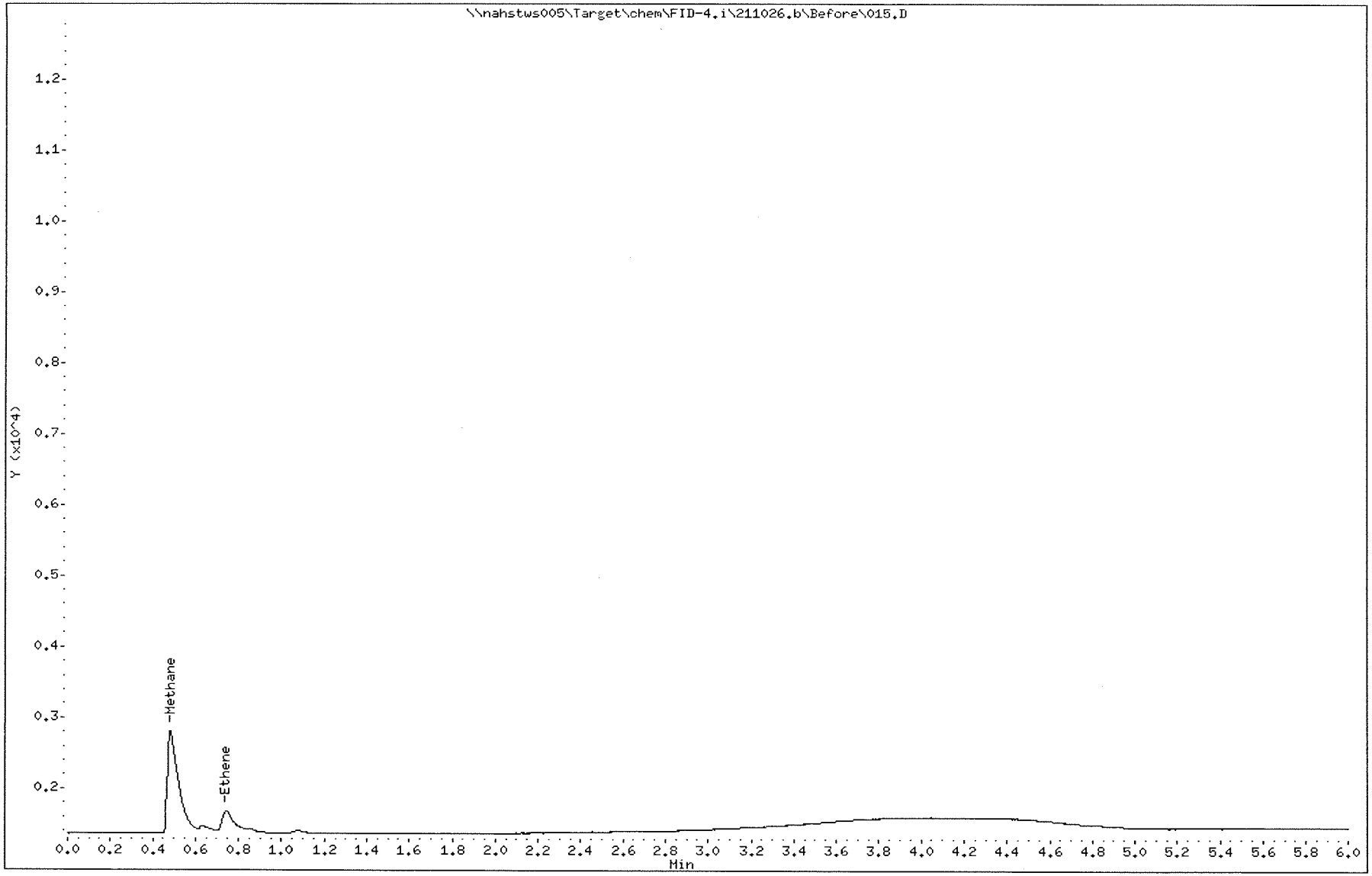
Instrument: FID-4.i

Sample Info: HS21100881-03;HS21100881-03

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\016.D
Lab Smp Id: HS21100881-05 Client Smp ID: HS21100881-05
Inj Date : 26-OCT-2021 11:07
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100881-05;HS21100881-05
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.476	0.490	-0.014	19286	19.7807	19.780(M)
2 Ethene	0.773	0.736	0.037	2143	3.65849	3.658

QC Flag Legend

M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\016.D

Date : 26-OCT-2021 11:07

Client ID: HS21100881-05

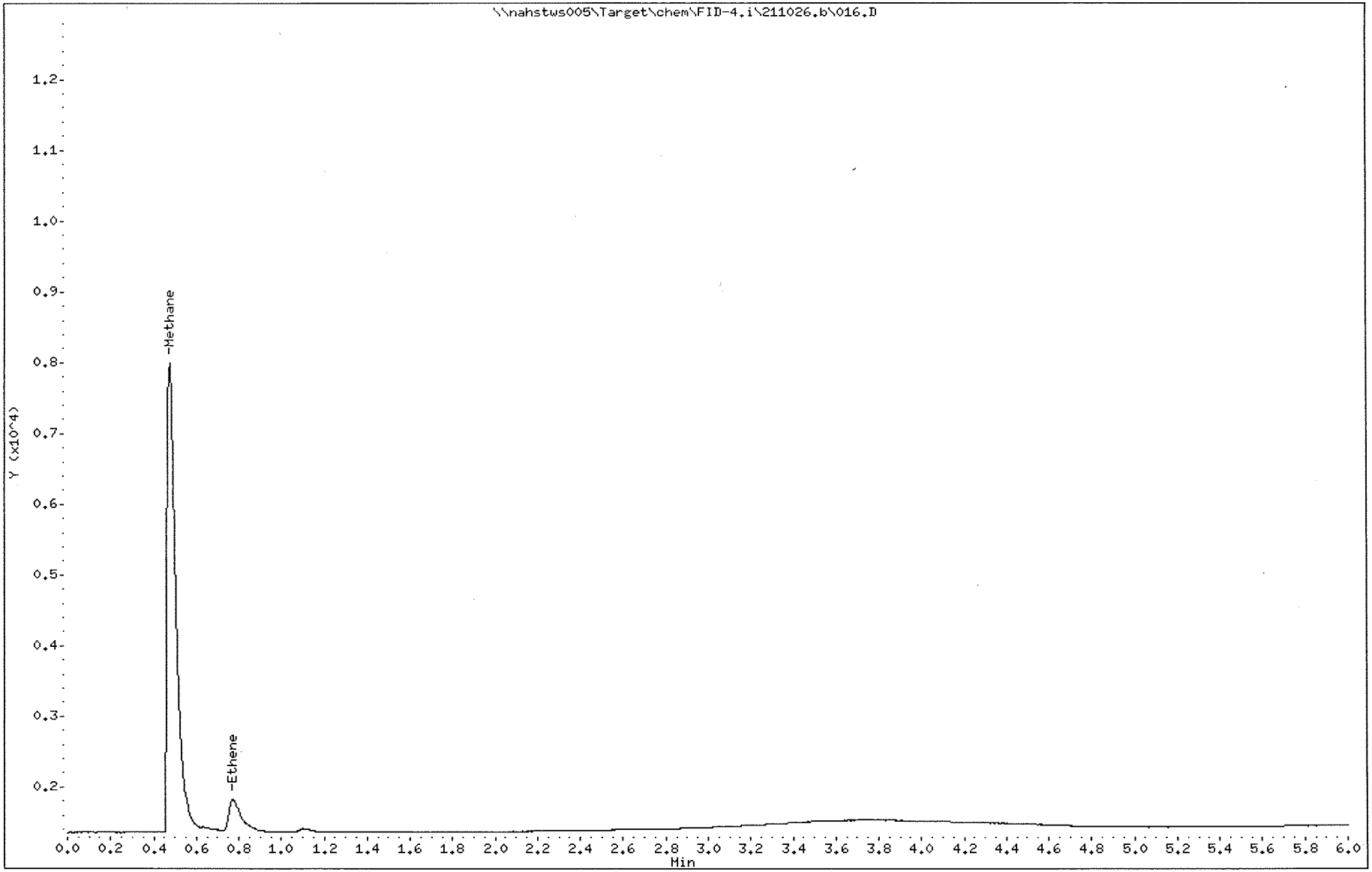
Instrument: FID-4.i

Sample Info: HS21100881-05;HS21100881-05

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\Before\016.D
Lab Smp Id: HS21100881-05 Client Smp ID: HS21100881-05
Inj Date : 26-OCT-2021 11:07
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100881-05;HS21100881-05
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.476	0.490	-0.014	19524	20.0248	20.024
3 Ethane	0.773	0.820	-0.047	1994	2.77141	2.771

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\016.D

Date : 26-OCT-2021 11:07

Client ID: HS21100881-05

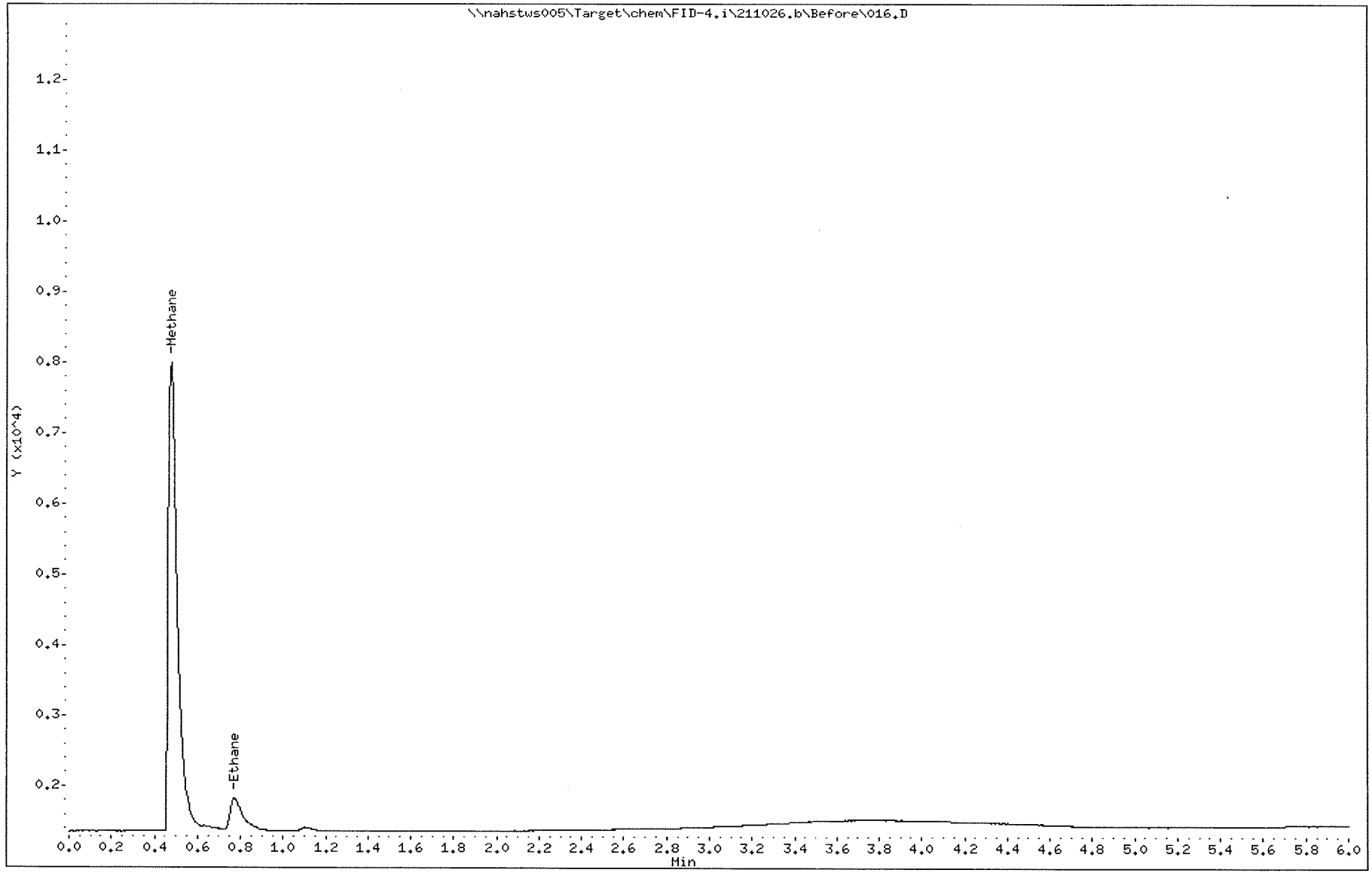
Instrument: FID-4.i

Sample Info: HS21100881-05;HS21100881-05

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\017.D
Lab Smp Id: HS21100881-06 Client Smp ID: HS21100881-06
Inj Date : 26-OCT-2021 11:17
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100881-06;HS21100881-06
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.470	0.490	-0.020	20826	21.3602	21.360(M)
2 Ethene	0.756	0.736	0.020	1359	2.32006	2.320(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\017.D

Date : 26-OCT-2021 11:17

Client ID: HS21100881-06

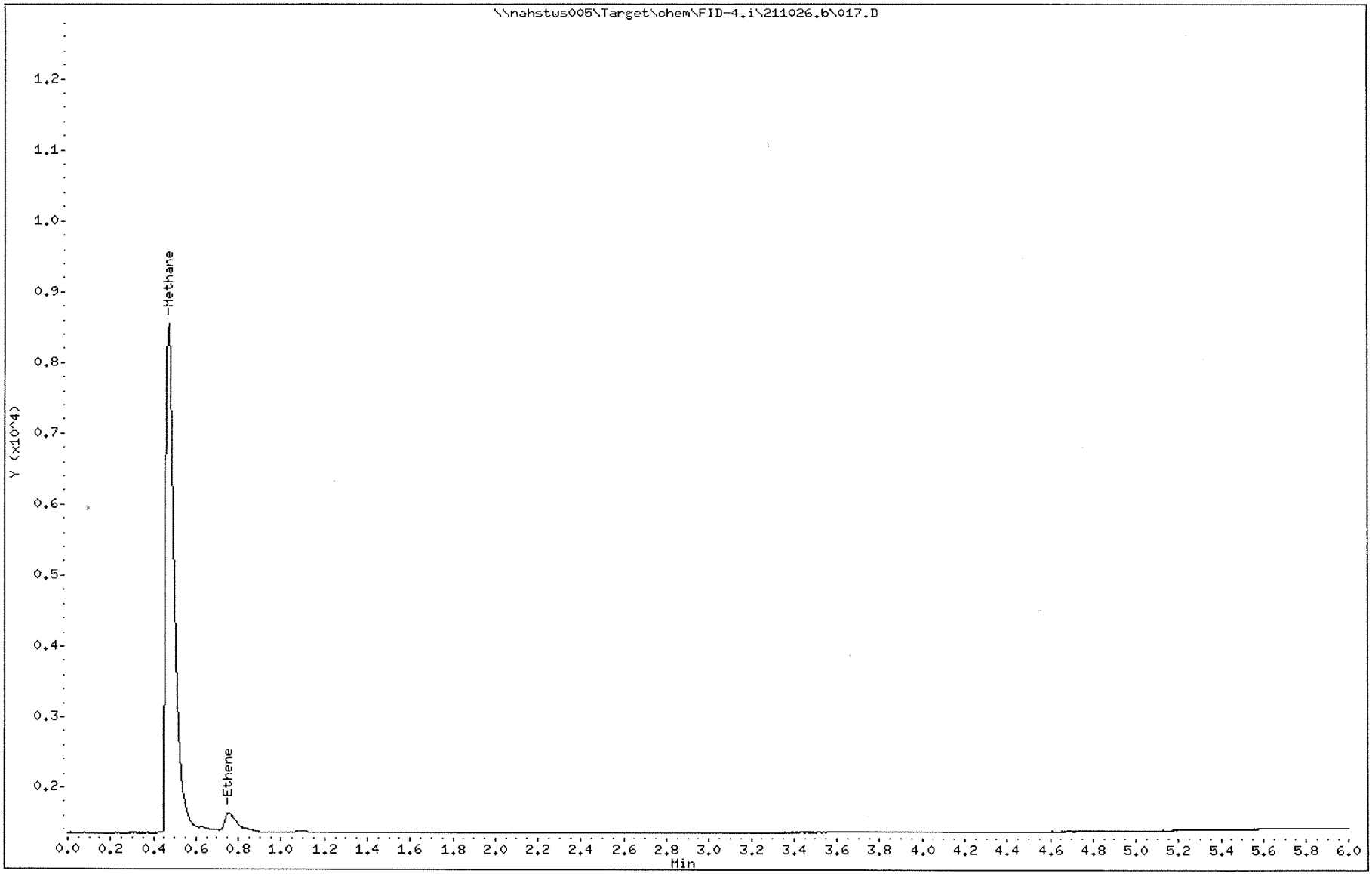
Sample Info: HS21100881-06;HS21100881-06

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\017.D Page 1
Report Date: 17-Nov-2021 08:53

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\Before\017.D
Lab Smp Id: HS21100881-06 Client Smp ID: HS21100881-06
Inj Date : 26-OCT-2021 11:17
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100881-06;HS21100881-06
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.470	0.490	-0.020	21068	21.6084	21.608
2 Ethene	0.756	0.736	0.020	1382	2.35933	2.359

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\017.D

Date : 26-OCT-2021 11:17

Client ID: HS21100881-06

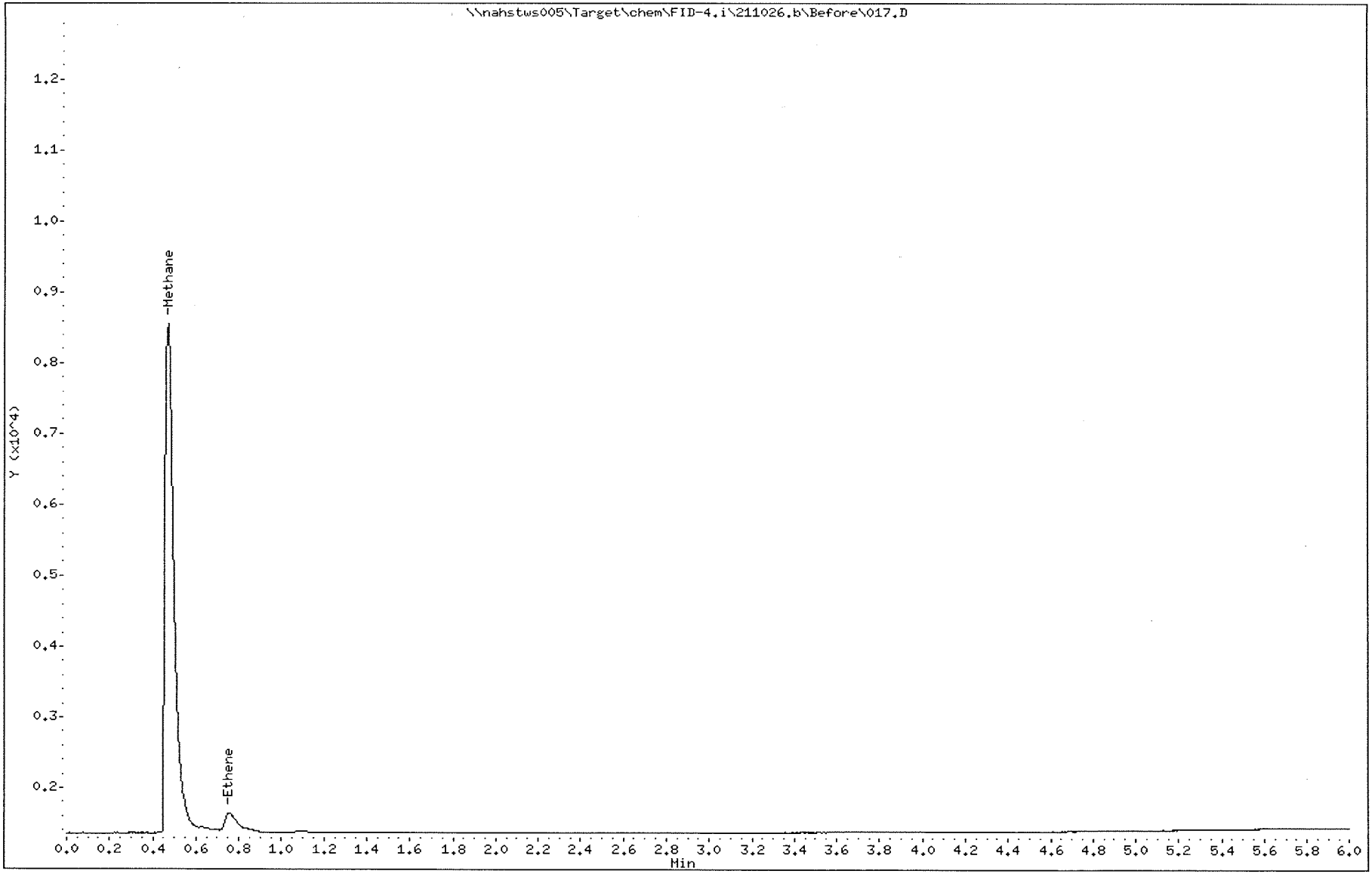
Instrument: FID-4.i

Sample Info: HS21100881-06;HS21100881-06

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\018.D Page 1
Report Date: 17-Nov-2021 08:52

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\018.D
Lab Smp Id: HS21100881-07 Client Smp ID: HS21100881-07
Inj Date : 26-OCT-2021 11:28
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100881-07;HS21100881-07
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.473	0.490	-0.017	10591	10.8626	10.862(M)
2 Ethene	0.733	0.736	-0.003	851	1.45281	1.452(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\018.D

Date : 26-OCT-2021 11:28

Client ID: HS21100881-07

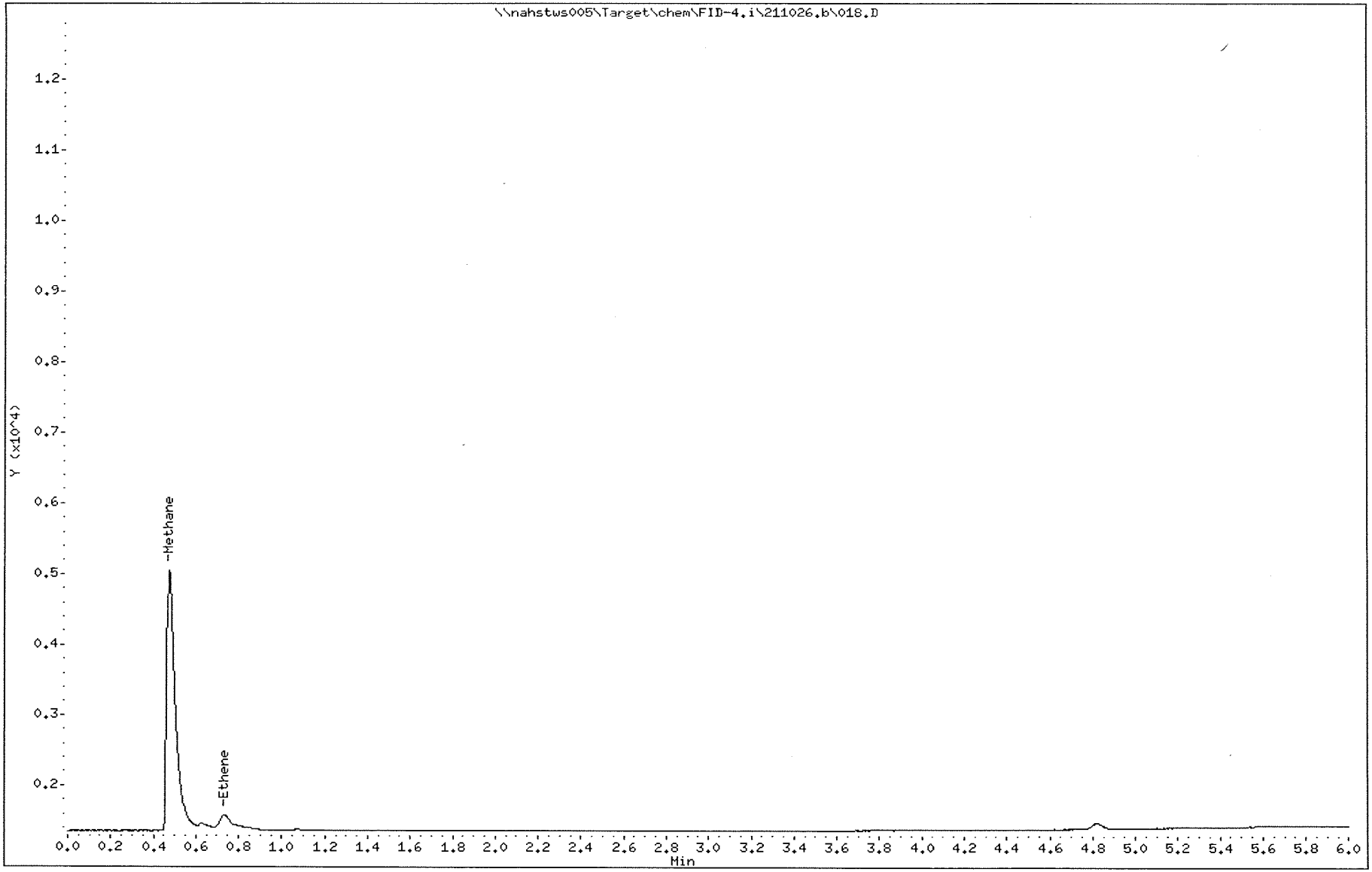
Instrument: FID-4.i

Sample Info: HS21100881-07;HS21100881-07

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\Before\018.D
Lab Smp Id: HS21100881-07 Client Smp ID: HS21100881-07
Inj Date : 26-OCT-2021 11:28
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100881-07;HS21100881-07
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.473	0.490	-0.017	10899	11.1785	11.178
2 Ethene	0.736	0.736	0.000	1217	2.07764	2.077

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\018.D

Date : 26-OCT-2021 11:28

Client ID: HS21100881-07

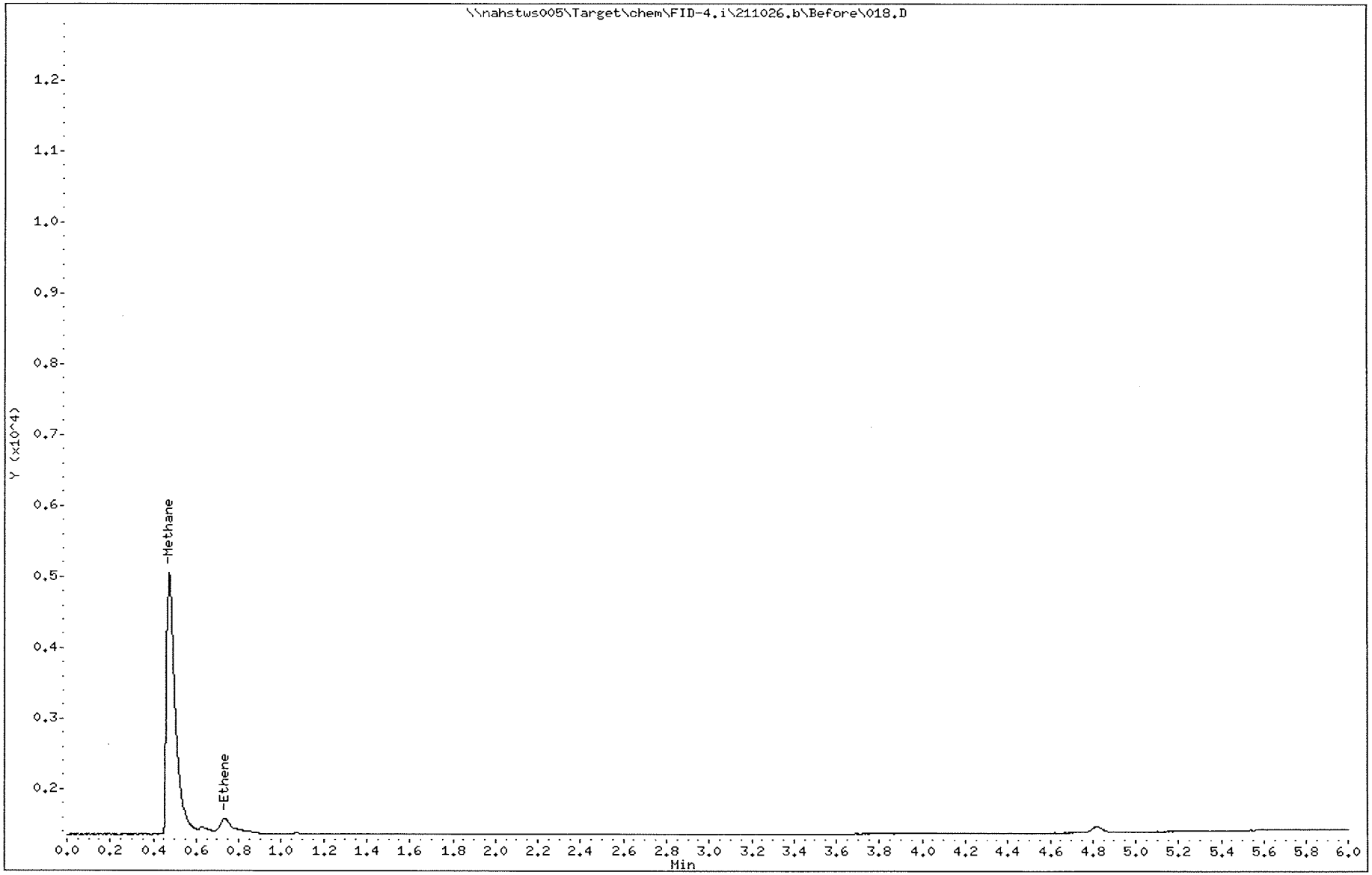
Instrument: FID-4.i

Sample Info: HS21100881-07;HS21100881-07

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\022.D Page 1
Report Date: 17-Nov-2021 08:52

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\022.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 26-OCT-2021 12:21
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.490	0.490	0.000	8414	9.64700	8.629
2 Ethene	0.740	0.736	0.004	8600	16.8500	14.681
3 Ethane	0.820	0.820	0.000	11801	18.0430	16.401

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\022.D

Date : 26-OCT-2021 12:21

Client ID: RSK-CCV

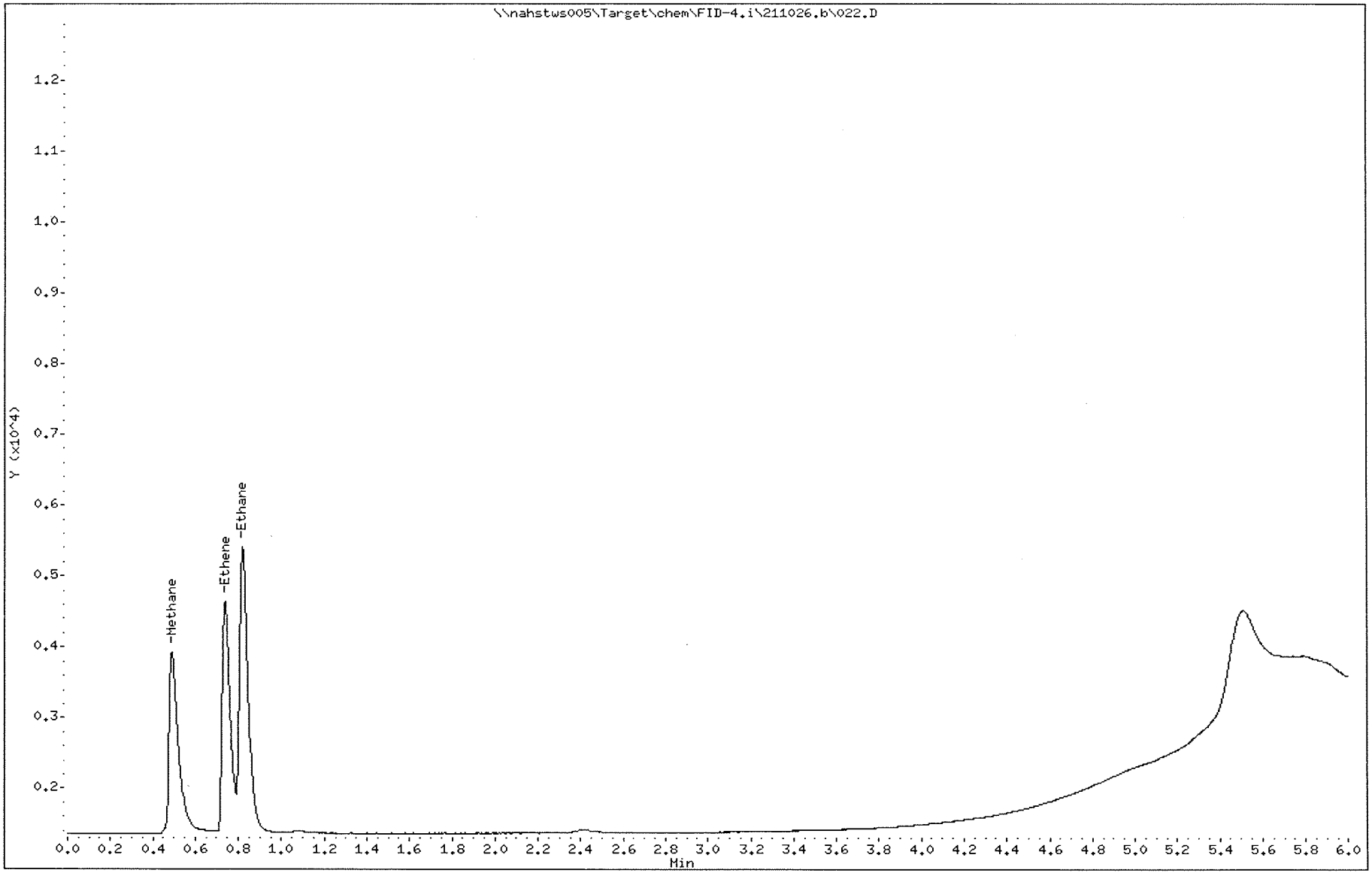
Instrument: FID-4.i

Sample Info: RSK-CCV;RSK-CCV;2;4

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\Before\022.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 26-OCT-2021 12:21
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.490	0.490	0.000	8390	9.64700	8.605
2 Ethene	0.740	0.736	0.004	8581	16.8500	14.649
3 Ethane	0.820	0.820	0.000	11887	18.0430	16.521

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\022.D

Date : 26-OCT-2021 12:21

Client ID: RSK-CCV

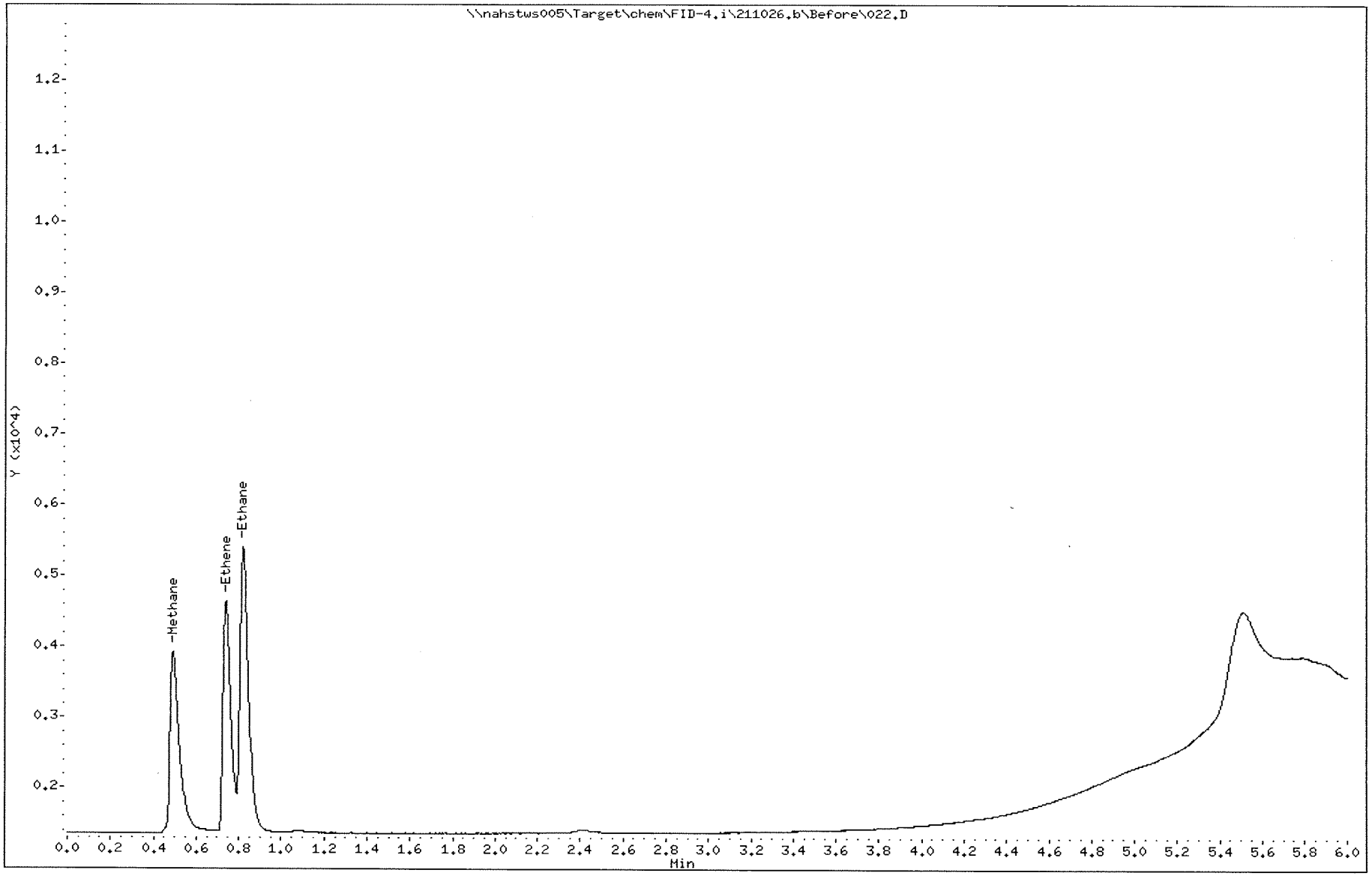
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\026.D
Lab Smp Id: HS21100881-01DUP Client Smp ID: HS21100881-01DUP
Inj Date : 26-OCT-2021 12:57
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100881-01DUP;HS21100881-01DUP
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.480	0.490	-0.010	12288	12.6032	12.603(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\026.D

Date : 26-OCT-2021 12:57

Client ID: HS21100881-01DUP

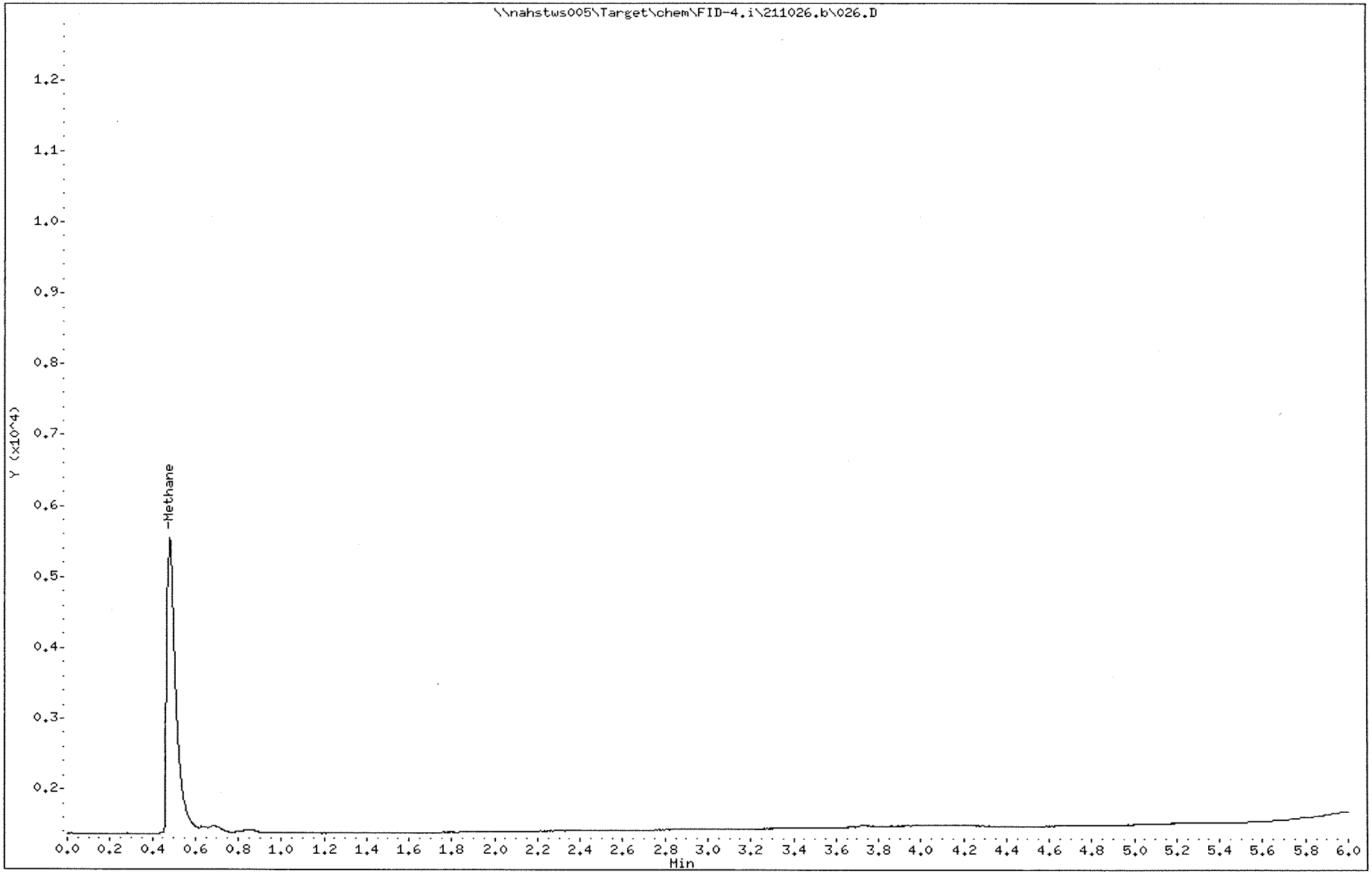
Instrument: FID-4.i

Sample Info: HS21100881-01DUP;HS21100881-01DUP

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\026.D Page 1
Report Date: 17-Nov-2021 08:53

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\Before\026.D
Lab Smp Id: HS21100881-01DUP Client Smp ID: HS21100881-01DUP
Inj Date : 26-OCT-2021 12:57
Operator : PL Inst ID: FID-4.i
Smp Info : HS21100881-01DUP;HS21100881-01DUP
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.480	0.490	-0.010	12902	13.2329	13.232
3 Ethane	0.853	0.820	0.033	386	0.53649	0.536(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\026.D

Date : 26-OCT-2021 12:57

Client ID: HS21100881-01DUP

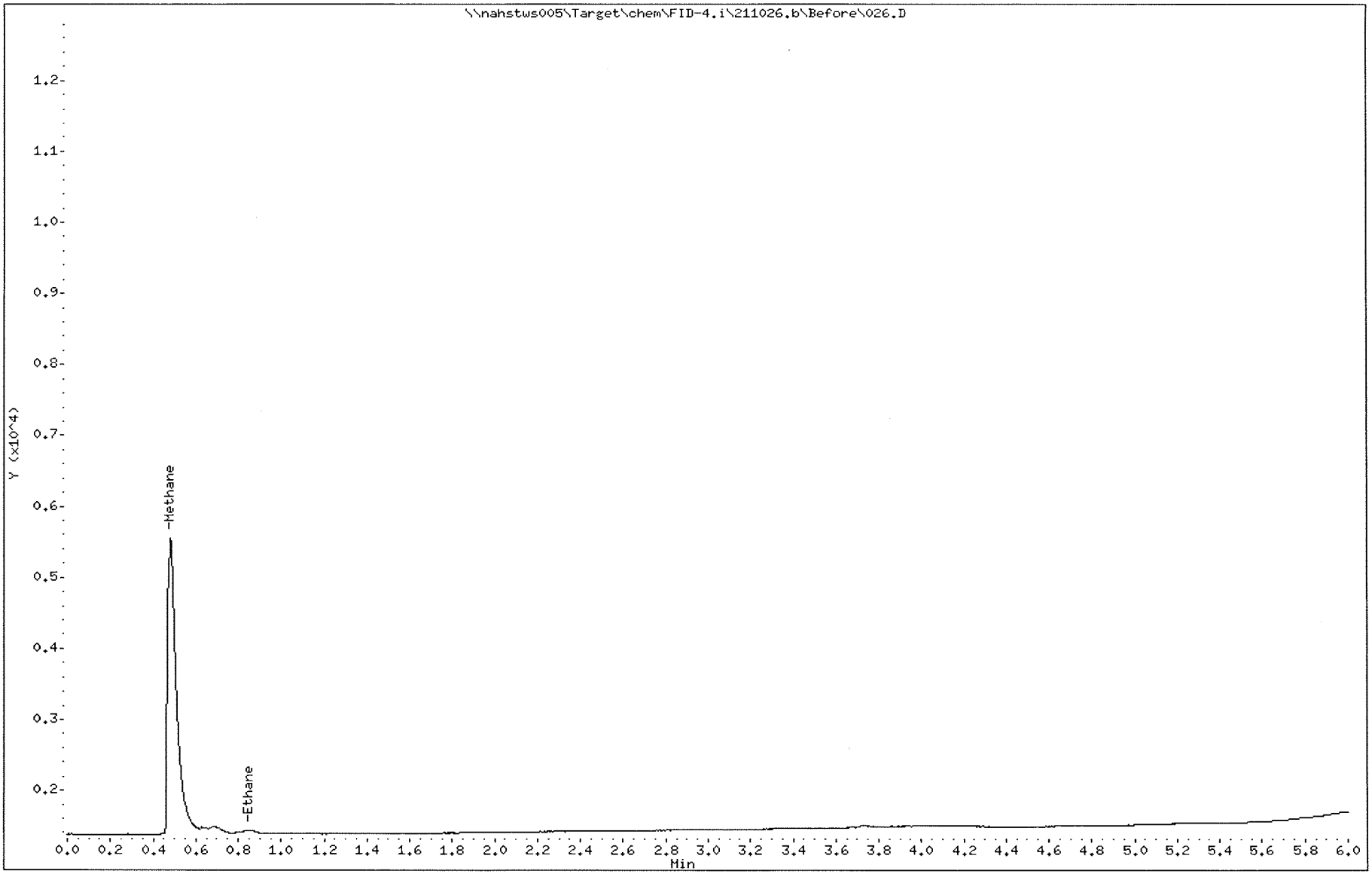
Instrument: FID-4.i

Sample Info: HS21100881-01DUP;HS21100881-01DUP

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\033.D Page 1
Report Date: 17-Nov-2021 08:52

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\033.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 26-OCT-2021 14:26
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

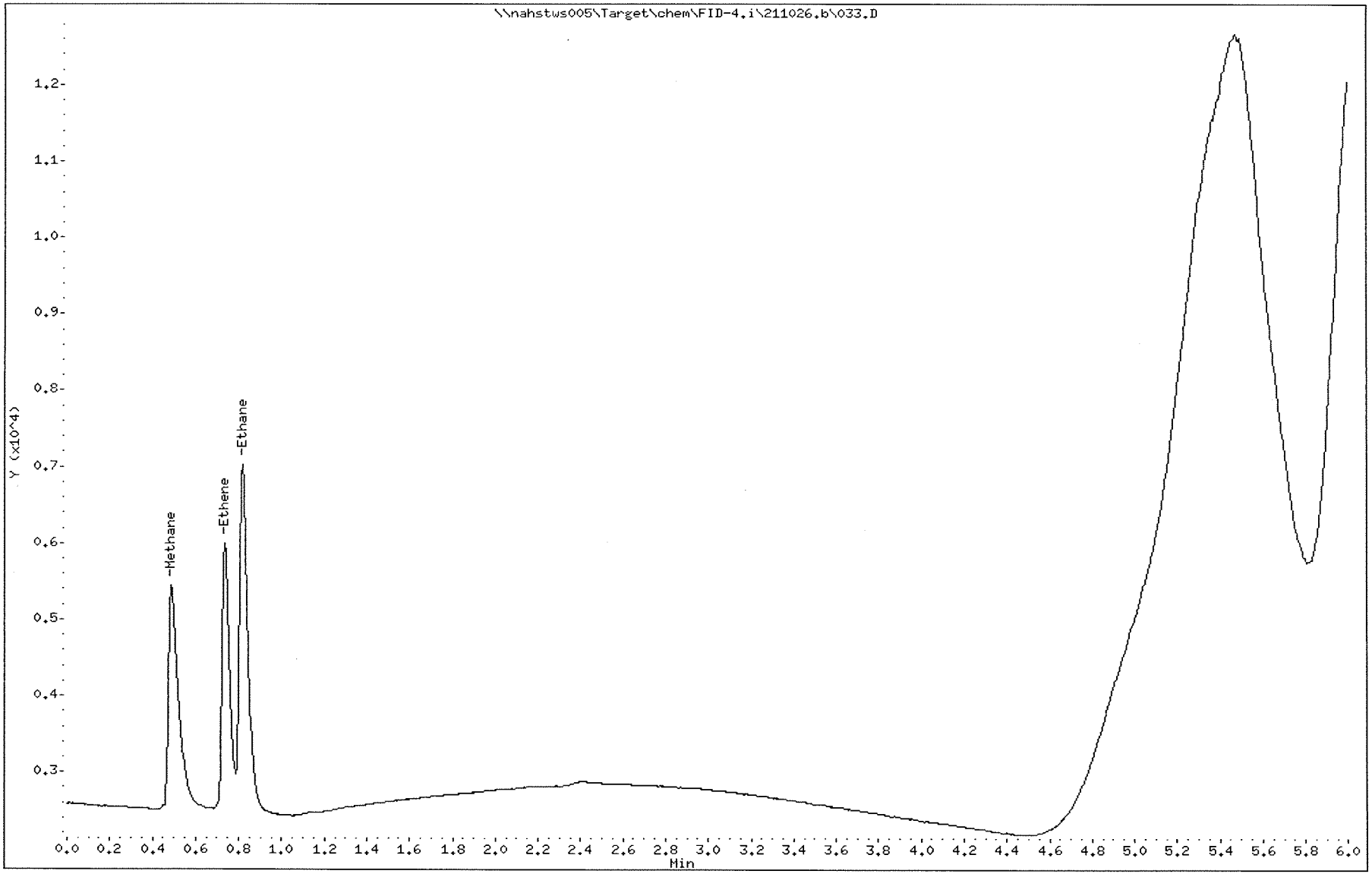
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.486	0.490	-0.004	10184	9.64700	10.445
2 Ethene	0.736	0.736	0.000	9037	16.8500	15.427
3 Ethane	0.816	0.820	-0.004	13123	18.0430	18.239

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\033.D
Date : 26-OCT-2021 14:26
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\033.D Page 1
Report Date: 17-Nov-2021 08:53

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\Before\033.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 26-OCT-2021 14:26
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment   :
Method   : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.486	0.490	-0.004	10073	9.64700	10.331
2 Ethene	0.736	0.736	0.000	8823	16.8500	15.062
3 Ethane	0.816	0.820	-0.004	12854	18.0430	17.865

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\033.D

Date : 26-OCT-2021 14:26

Client ID: RSK-CCV

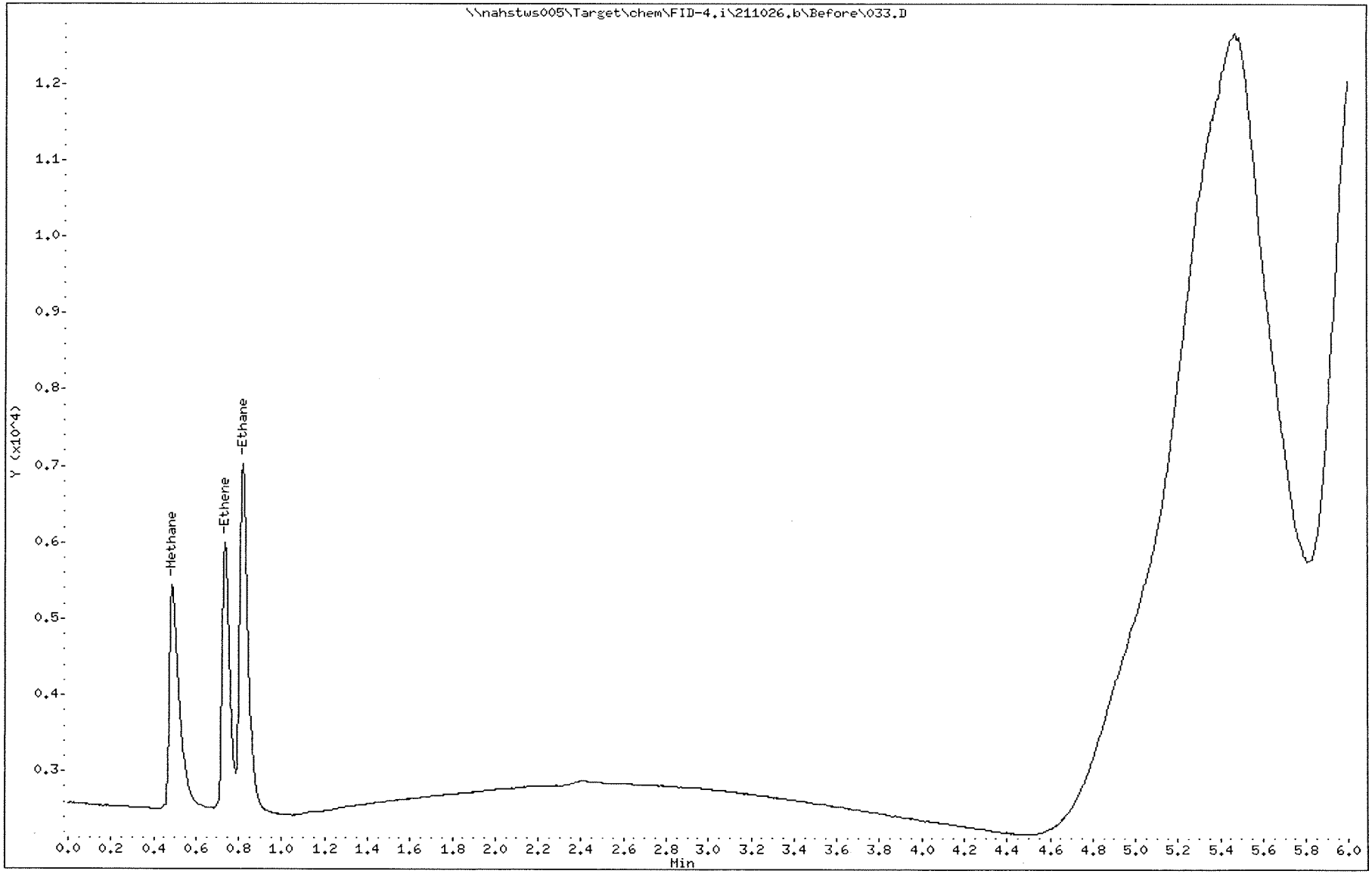
Instrument: FID-4.i

Sample Info: RSK-CCV;RSK-CCV;2;4

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\035.D Page 1
Report Date: 17-Nov-2021 08:52

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\035.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 26-OCT-2021 14:47
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 35 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

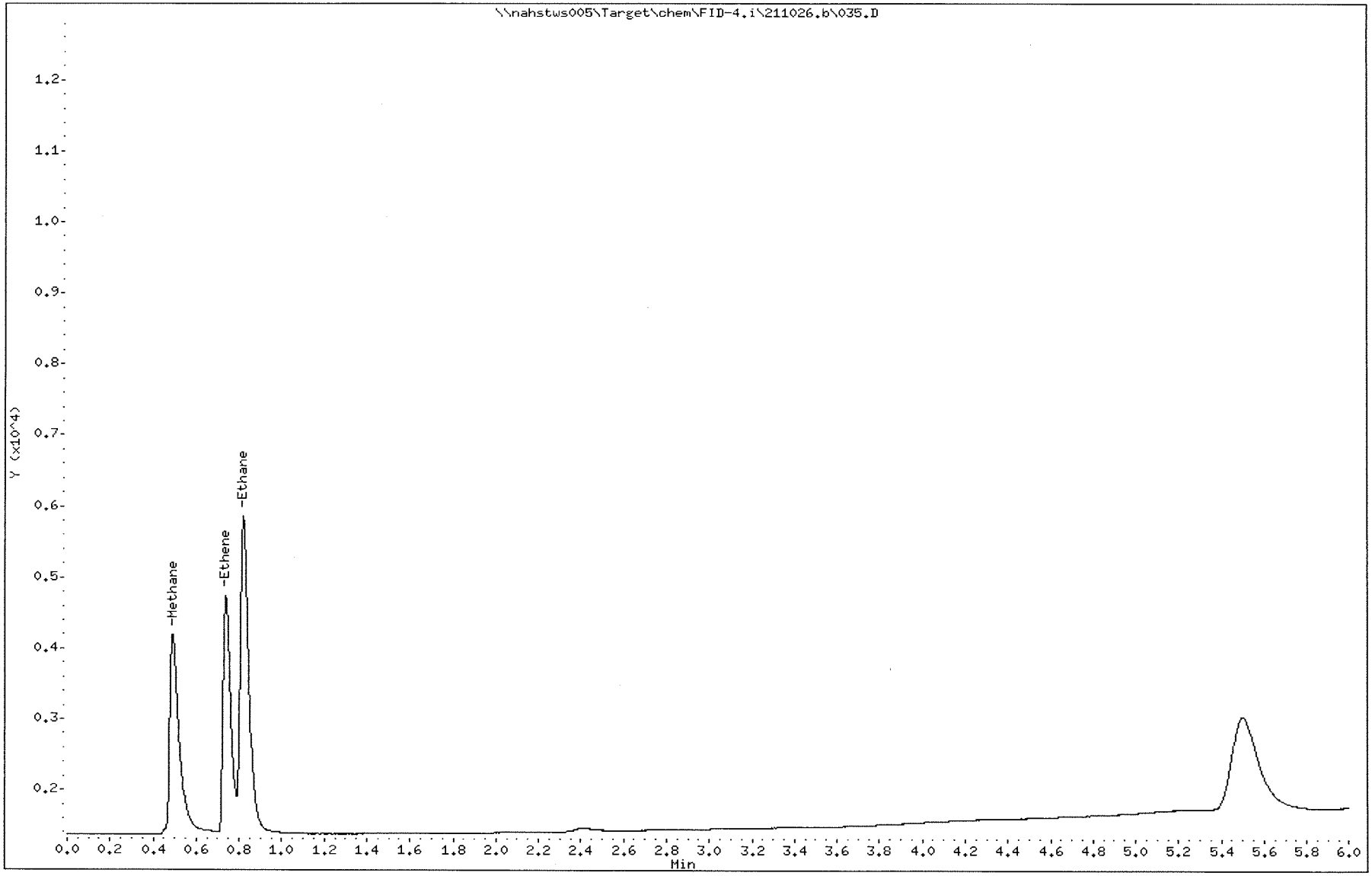
Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.490	0.490	0.000	9197	9.64700	9.432
2 Ethene	0.736	0.736	0.000	8525	16.8500	14.553
3 Ethane	0.820	0.820	0.000	13259	18.0430	18.428

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\035.D
Date : 26-OCT-2021 14:47
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Instrument: FID-4.i
Operator: PL
Column diameter: 0.53

Column phase: Rtx-PLOT



Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\035.D Page 1
Report Date: 17-Nov-2021 08:53

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211026.b\Before\035.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 26-OCT-2021 14:47
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211026.b\RSKNI3.m
Meth Date : 17-Nov-2021 08:46 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 35 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.490	0.490	0.000	9169	9.64700	9.404
2 Ethene	0.736	0.736	0.000	8460	16.8500	14.442
3 Ethane	0.820	0.820	0.000	13197	18.0430	18.342

Data File: \\nahstws005\Target\chem\FID-4.i\211026.b\Before\035.D

Date : 26-OCT-2021 14:47

Client ID: RSK-CCV

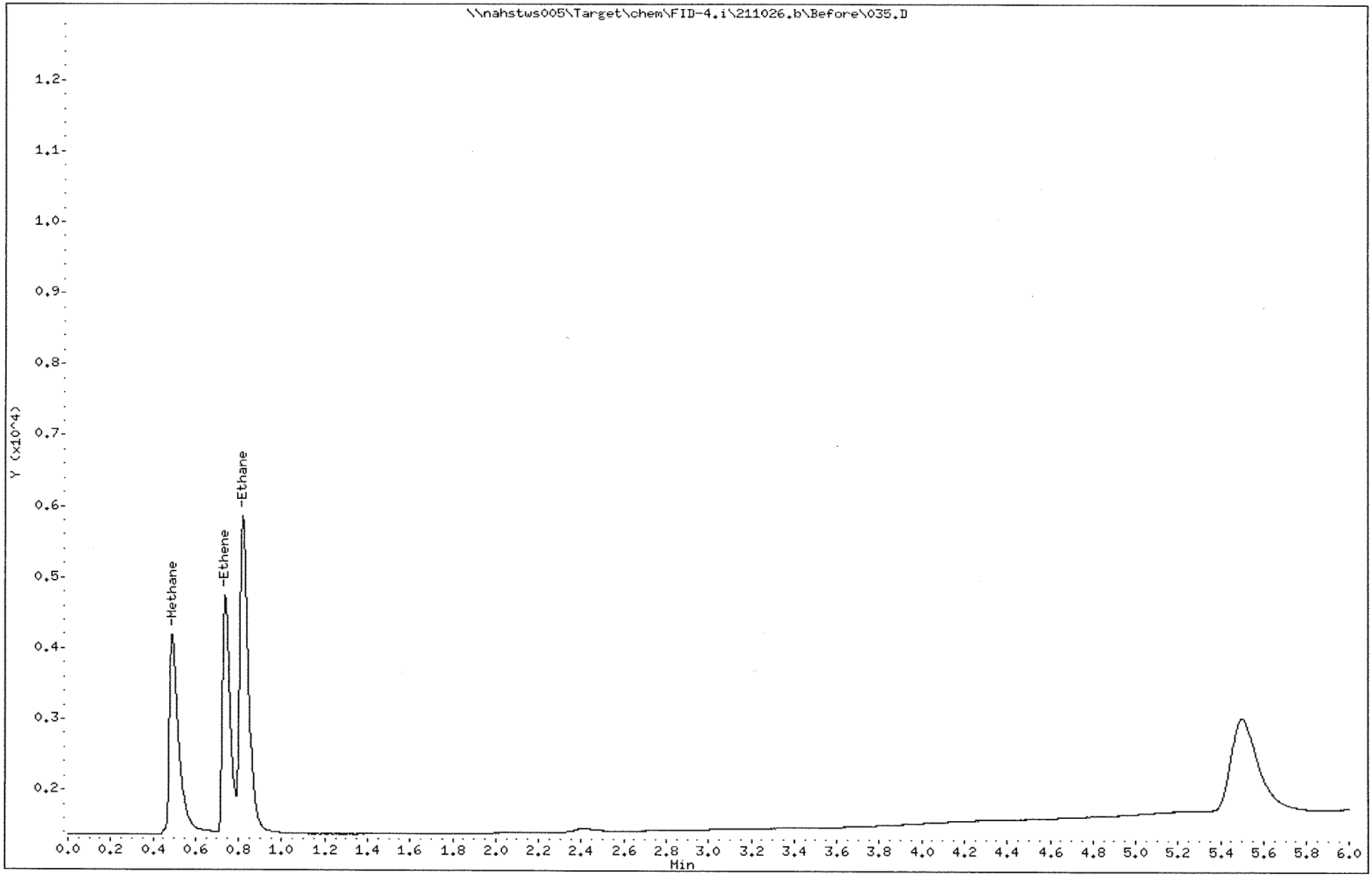
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53



HS21100881 9056_Wetchem IC

ALS WO# HS21100881

Sequence: 101521
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method	Processing Method	Volume	Status	Inject Time
	STD1		Calibratic	BA1	1.00	1	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 2:57:23 PM -05:00
	STD2		Calibratic	BA2	1.00	2	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:04:47 PM -05:00
	STD3		Calibratic	BA3	1.00	3	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:12:12 PM -05:00
	STD4		Calibratic	BA4	1.00	4	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:19:37 PM -05:00
	STD5		Calibratic	BA5	1.00	5	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:27:03 PM -05:00
	STD6		Calibratic	BA6	1.00	6	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:34:27 PM -05:00
	ICV		Unknown	BA7	1.00		Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:41:50 PM -05:00
	ICB		Unknown	BA8	1.00		Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:56:37 PM -05:00
	CCV1		Unknown	R3	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 1:46:03 PM -05:00
	CCB		Unknown	R6	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 1:53:28 PM -05:00
	MBLK		Unknown	R5	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 2:15:43 PM -05:00
	LCS		Unknown	R2	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 2:23:08 PM -05:00
	CCV		Unknown	R1	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 2:52:46 PM -05:00
	CCB		Unknown	R4	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 3:00:10 PM -05:00
	CCV1		Unknown	R3	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 4:29:17 PM -05:00
	CCB		Unknown	R6	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 4:36:43 PM -05:00
	HS21100867-06		Unknown	GA1	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 4:44:13 PM -05:00
	HS21100867-06MS		Unknown	GA2	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 4:51:38 PM -05:00
	HS21100867-06MSD		Unknown	GA3	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 4:59:07 PM -05:00
	HS21100881-01DF5		Unknown	GA5	5.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 5:14:00 PM -05:00
	HS21100881-02DF5		Unknown	GA6	5.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 5:21:24 PM -05:00
	HS21100881-03		Unknown	GA7	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 5:28:48 PM -05:00
	HS21100881-03MS		Unknown	GA8	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 5:36:13 PM -05:00
	HS21100881-03MSD		Unknown	GB1	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 5:43:44 PM -05:00
	HS21100881-05DF2		Unknown	GB2	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 5:51:09 PM -05:00
	CCV		Unknown	R1	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 6:06:02 PM -05:00
	CCB		Unknown	R4	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 6:13:28 PM -05:00
	HS21100881-06DF2		Unknown	GB3	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 6:20:54 PM -05:00
	HS21100881-07DF2		Unknown	GB4	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 6:28:19 PM -05:00
	CCV1		Unknown	R3	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 7:35:02 PM -05:00
	CCB		Unknown	R6	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 7:42:26 PM -05:00
	CCV1		Unknown	R3	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 10:47:44 PM -05:00
	CCB		Unknown	R6	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 10:55:08 PM -05:00
	HS21100119-12		Unknown	BA1	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 11:10:03 PM -05:00
	HS21100119-12MS		Unknown	BA2	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 11:17:28 PM -05:00
	HS21100119-12MSD		Unknown	BA3	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/15/2021 11:24:52 PM -05:00
	CCV		Unknown	R1	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/16/2021 12:24:18 AM -05:00
	CCB		Unknown	R4	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/16/2021 12:31:43 AM -05:00

Sequence: 101521
Injection #6: STD6

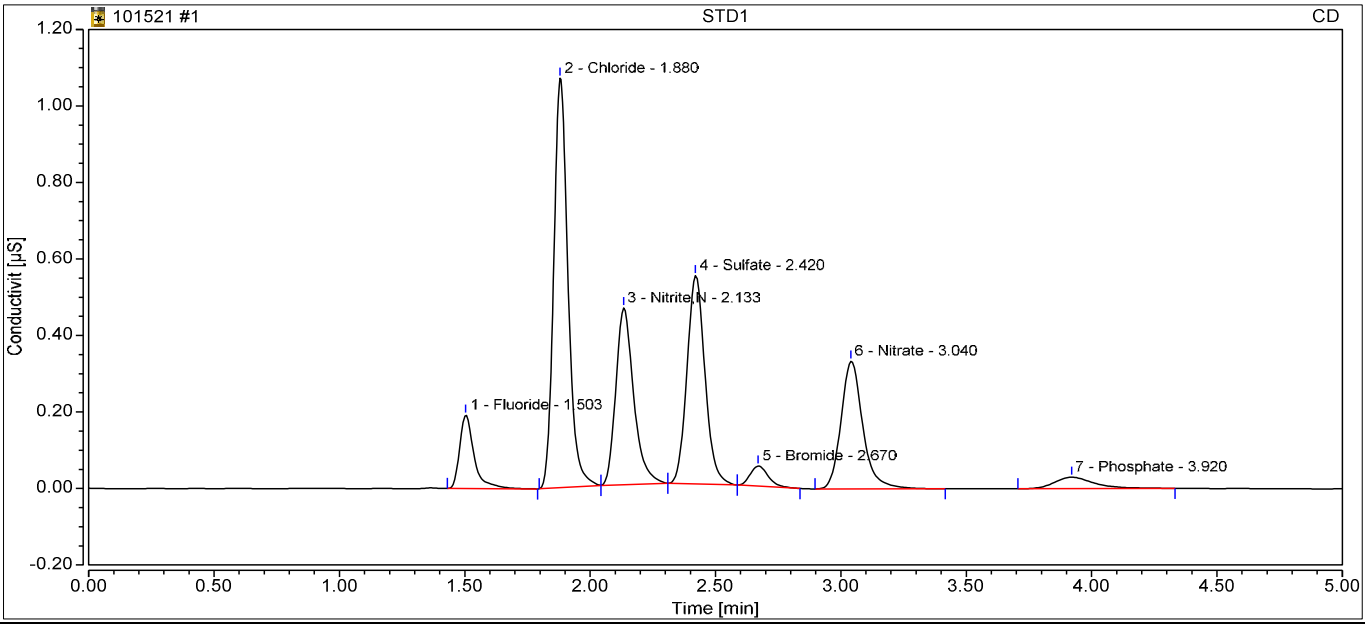
Calibration

Peak No.	Peak Name	Cal.Type	Eval.Type	Number of Points	Rel.Std.Dev. %	Coeff.of Determination	C0 (Offset)	C1 (Slope)	C2 (Curve)
1	*Fluoride*	*Lin, WithOffset, 1/*	*Area*	*6*	*14.8917*	*0.99901*	*-0.0076*	*0.2037*	*0.0000*
2	Chloride	Lin, WithOffset, 1/	Area	6	6.3298	0.99978	0.0062	0.1342	0.0000
3	Nitrite,N	Quad, WithOffset,	Area	6	6.9766	0.99974	0.0102	0.2986	-0.0023
4	Sulfate	Lin, WithOffset, 1/	Area	6	6.6535	0.99977	-0.0001	0.0971	0.0000
5	Bromide	Lin, WithOffset, 1/	Area	6	8.9157	0.99963	-0.0016	0.0548	0.0000
6	Nitrate	Lin, WithOffset, 1/	Area	6	6.7024	0.99976	0.0001	0.3403	0.0000
n.a.	Chlorate	Lin, WithOffset, 1/	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
7	Phosphate	Quad, WithOffset,	Area	6	11.6511	0.99965	-0.0052	0.0981	0.0012
Maximum					**14.8917**	0.99978			
Minimum					6.3298	**0.99901**			

1 STD1

Sample Name:	**STD1**	*Injection Volume:*	**5.00**
Vial Number:	**BA1**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 14:57**	*Sample Weight:*	**1.0000**

Run Time:



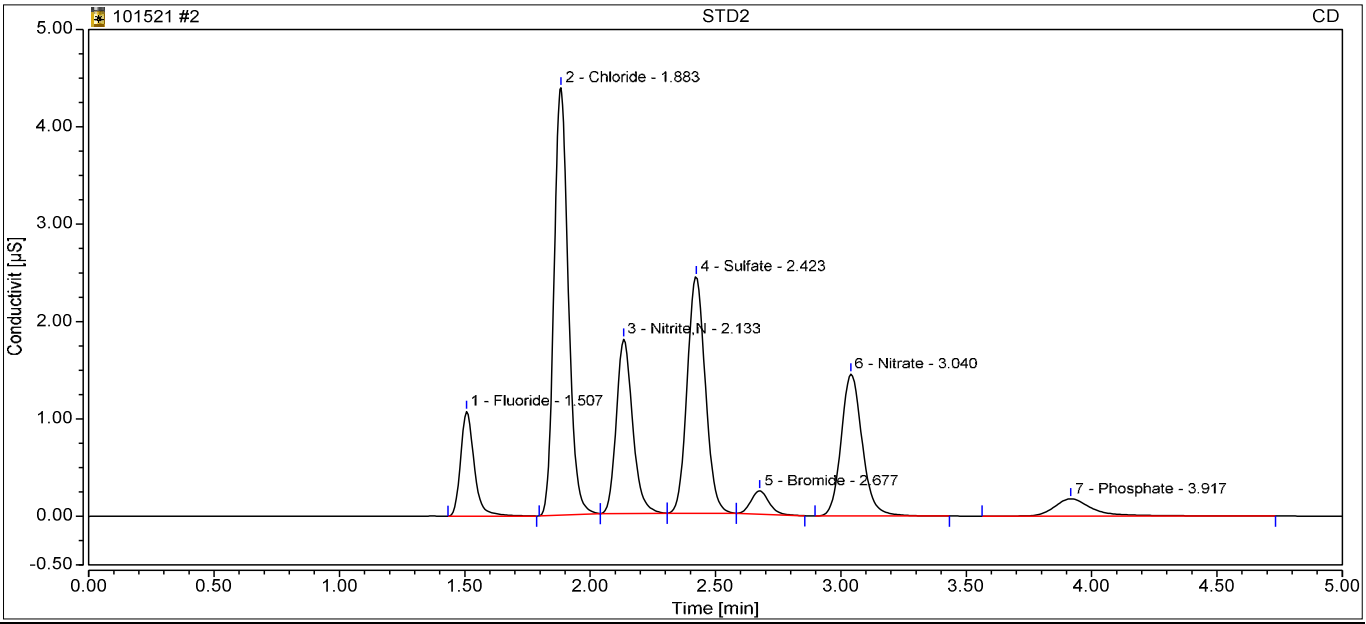
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	0.013	0.1005	0.1005	1.0000
2	1.88	Chloride	BMB	0.070	0.4785	0.4785	1.0000
3	2.13	Nitrite,N	BMB	0.038	0.0937	0.0937	1.0000
4	2.42	Sulfate	BMB	0.045	0.4684	0.4684	1.0000
5	2.67	Bromide	BMB	0.004	0.1078	0.1078	1.0000
6	3.04	Nitrate	BMB	0.034	0.0982	0.0982	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.92	Phosphate	BMB	0.005	0.1085	0.1085	1.0000
Total:			**0.000**	**0.210**		**1.46**	

2 STD2

Sample Name:	**STD2**	*Injection Volume:*	**5.00**
Vial Number:	**BA2**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:04**	*Sample Weight:*	**1.0000**

Run Time:



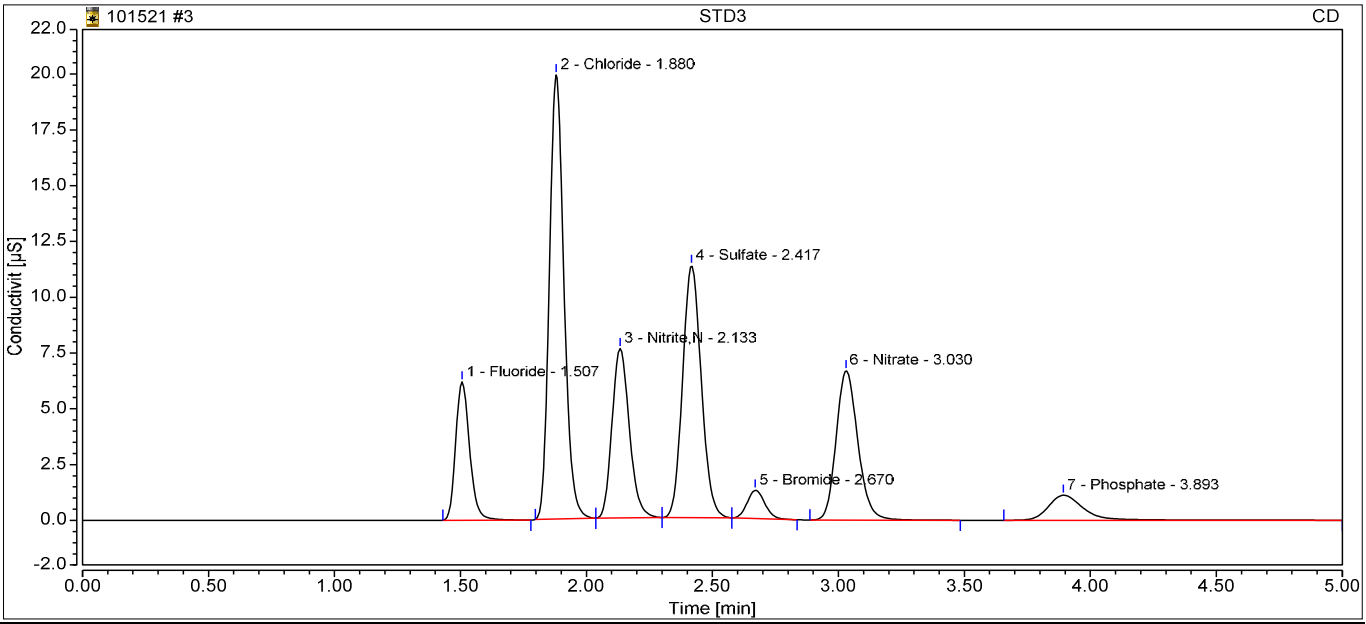
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.068	0.3708	0.3708	1.0000
2	1.88	Chloride	BMB	0.290	2.1158	2.1158	1.0000
3	2.13	Nitrite,N	BMB	0.135	0.4190	0.4190	1.0000
4	2.42	Sulfate	BMB	0.204	2.1052	2.1052	1.0000
5	2.68	Bromide	BMB	0.020	0.3906	0.3906	1.0000
6	3.04	Nitrate	BMB	0.142	0.4172	0.4172	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.92	Phosphate	BMB	0.032	0.3731	0.3731	1.0000
Total:			**0.000**	**0.891**		**6.19**	

3 STD3

Sample Name:	**STD3**	*Injection Volume:*	**5.00**
Vial Number:	**BA3**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:12**	*Sample Weight:*	**1.0000**

Run Time:



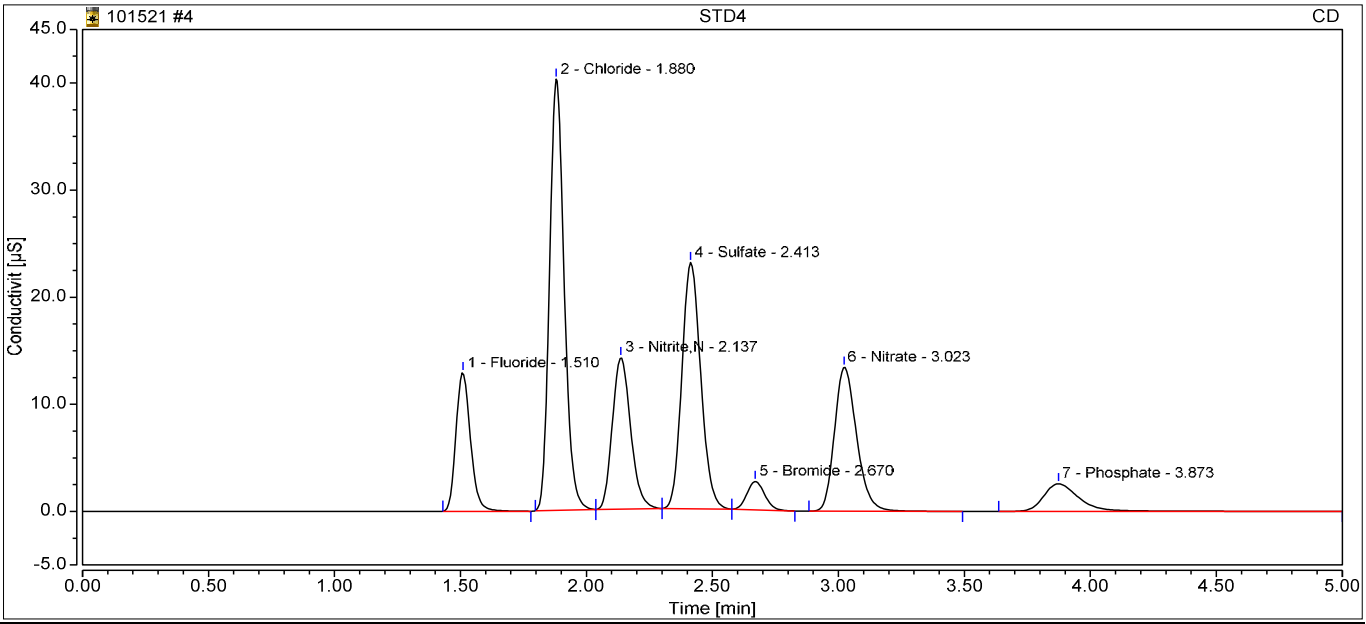
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.401	2.0041	2.0041	1.0000
2	1.88	Chloride	BMB	1.334	9.8953	9.8953	1.0000
3	2.13	Nitrite,N	BMB	0.605	2.0242	2.0242	1.0000
4	2.42	Sulfate	BMB	0.971	10.0035	10.0035	1.0000
5	2.67	Bromide	BMB	0.103	1.9116	1.9116	1.0000
6	3.03	Nitrate	BMB	0.668	1.9622	1.9622	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.89	Phosphate	BMB	0.185	1.8909	1.8909	1.0000
Total:			**0.000**	**4.266**		**29.69**	

4 STD4

Sample Name:	**STD4**	*Injection Volume:*	**5.00**
Vial Number:	**BA4**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:19**	*Sample Weight:*	**1.0000**

Run Time:



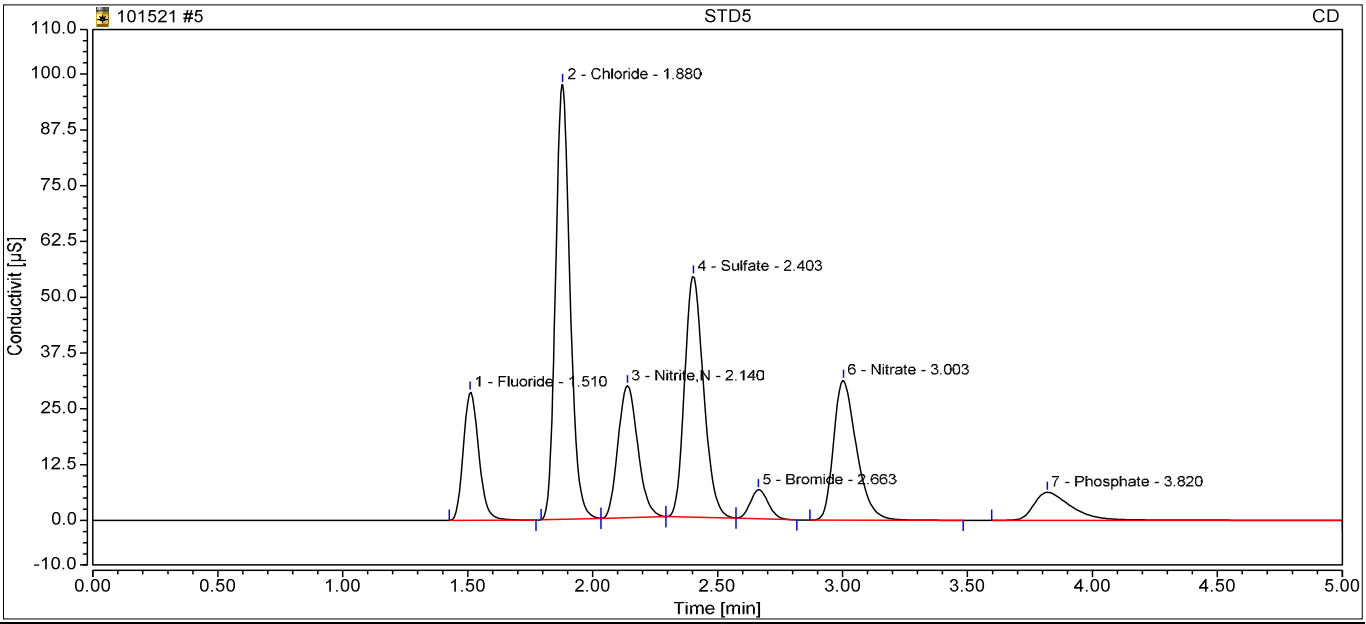
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.866	4.2910	4.2910	1.0000
2	1.88	Chloride	BMB	2.709	20.1365	20.1365	1.0000
3	2.14	Nitrite,N	BMB	1.191	4.0819	4.0819	1.0000
4	2.41	Sulfate	BMB	1.991	20.5124	20.5124	1.0000
5	2.67	Bromide	BMB	0.216	3.9679	3.9679	1.0000
6	3.02	Nitrate	BMB	1.366	4.0146	4.0146	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.87	Phosphate	BMB	0.424	4.1568	4.1568	1.0000
Total:			**0.000**	**8.762**		**61.16**	

5 STD5

Sample Name:	**STD5**	*Injection Volume:*	**5.00**
Vial Number:	**BA5**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:27**	*Sample Weight:*	**1.0000**

Run Time:



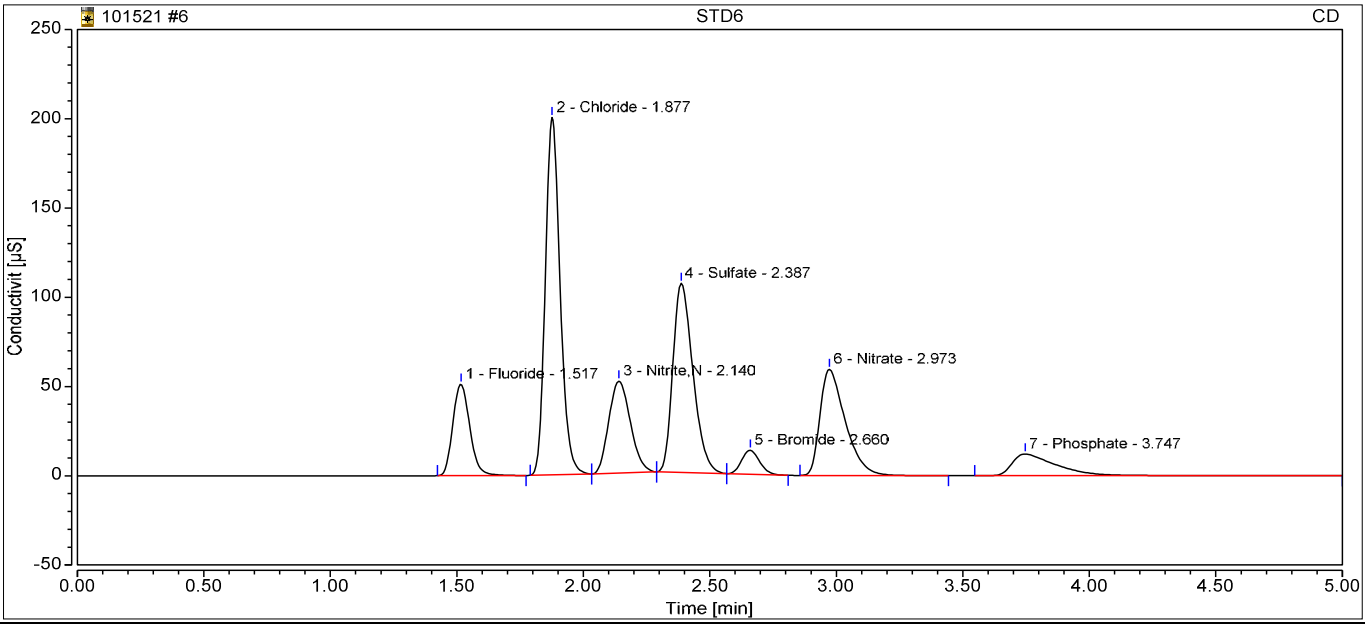
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	2.057	10.1376	10.1376	1.0000
2	1.88	Chloride	BMB	6.582	48.9987	48.9987	1.0000
3	2.14	Nitrite,N	BMB	2.709	9.7764	9.7764	1.0000
4	2.40	Sulfate	BMB	4.762	49.0593	49.0593	1.0000
5	2.66	Bromide	BMB	0.537	9.8247	9.8247	1.0000
6	3.00	Nitrate	BMB	3.333	9.7942	9.7942	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.82	Phosphate	BMB	1.095	9.9725	9.9725	1.0000
Total:			**0.000**	**21.075**		**147.56**	

6 STD6

Sample Name:	**STD6**	*Injection Volume:*	**5.00**
Vial Number:	**BA6**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:34**	*Sample Weight:*	**1.0000**

Run Time:



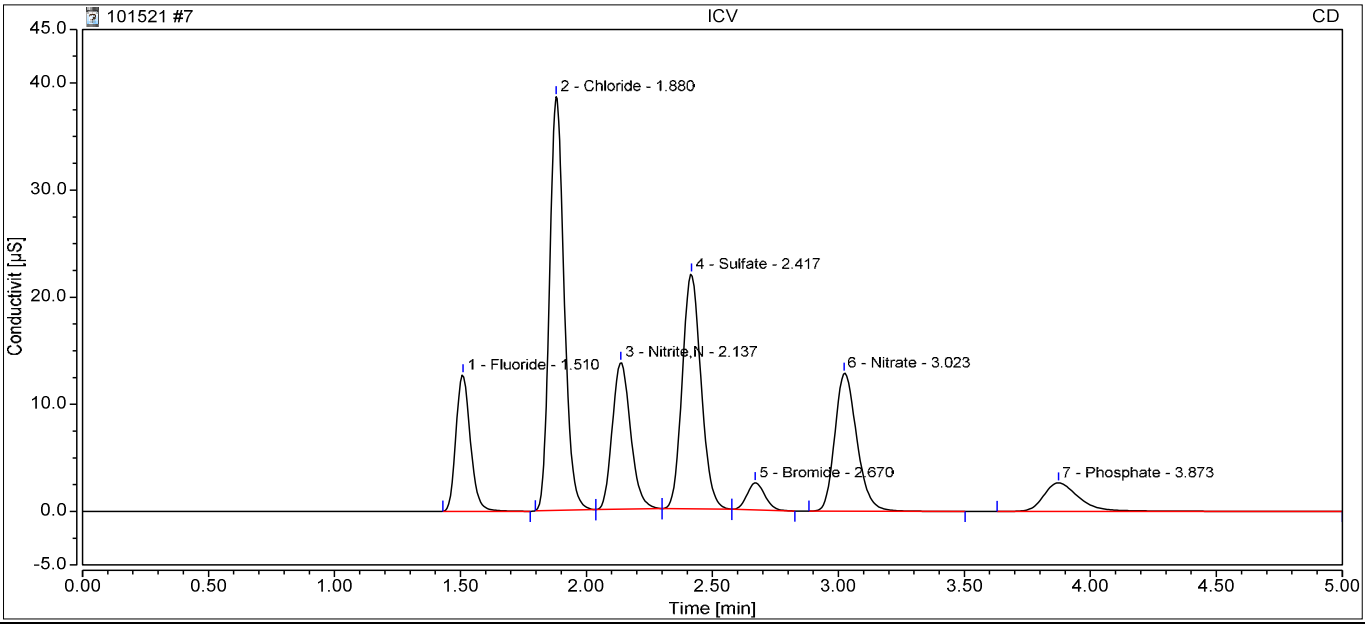
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	3.983	19.5961	19.5961	1.0000
2	1.88	Chloride	BMB	13.545	100.8752	100.8752	1.0000
3	2.14	Nitrite,N	BMB	5.085	20.1110	20.1110	1.0000
4	2.39	Sulfate	BMB	9.740	100.3513	100.3513	1.0000
5	2.66	Bromide	BMB	1.110	20.2973	20.2973	1.0000
6	2.97	Nitrate	BMB	6.879	20.2136	20.2136	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.75	Phosphate	BMB	2.448	19.9964	19.9964	1.0000
Total:			**0.000**	**42.790**		**301.44**	

7 ICV

Sample Name:	**ICV**	*Injection Volume:*	**5.00**
Vial Number:	**BA7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:41**	*Sample Weight:*	**1.0000**

Run Time:



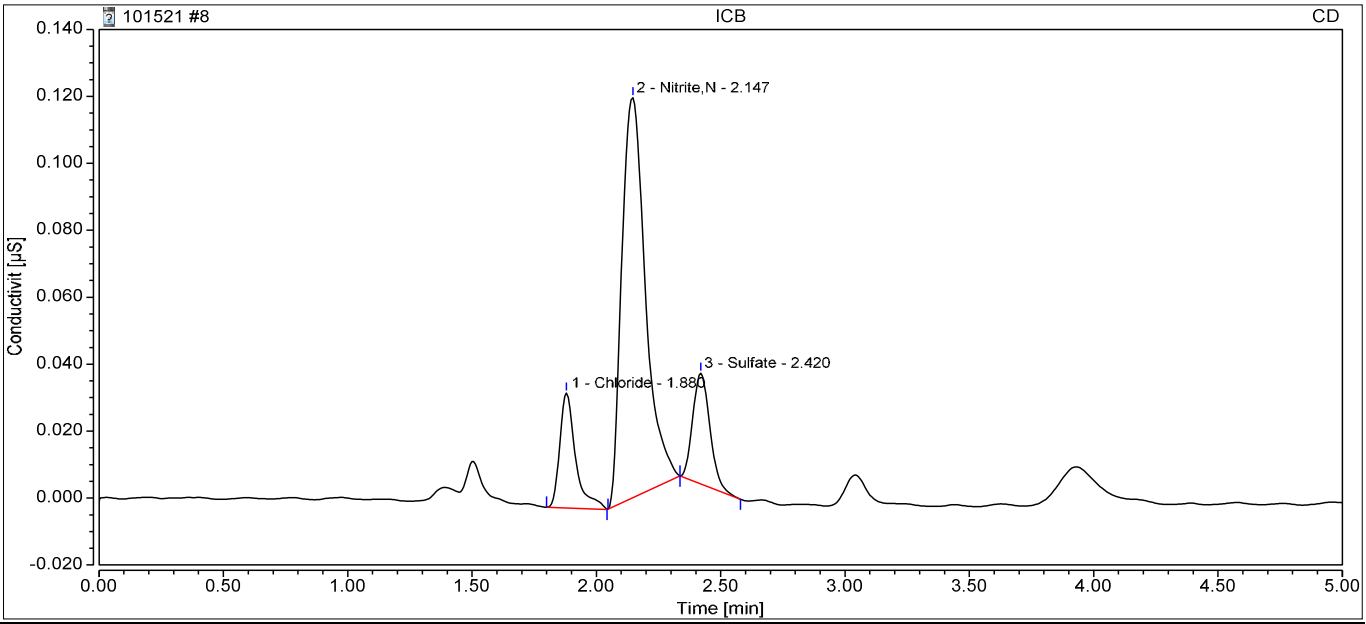
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.849	4.2062	4.2062	1.0000
2	1.88	Chloride	BMB	2.597	19.3008	19.3008	1.0000
3	2.14	Nitrite,N	BMB	1.152	3.9447	3.9447	1.0000
4	2.42	Sulfate	BMB	1.895	19.5248	19.5248	1.0000
5	2.67	Bromide	BMB	0.207	3.7999	3.7999	1.0000
6	3.02	Nitrate	BMB	1.307	3.8406	3.8406	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.87	Phosphate	BMB	0.438	4.2917	4.2917	1.0000
Total:			**0.000**	**8.445**		**58.91**	

8 ICB

Sample Name:	**ICB**	*Injection Volume:*	**5.00**
Vial Number:	**BA8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:56**	*Sample Weight:*	**1.0000**

Run Time:



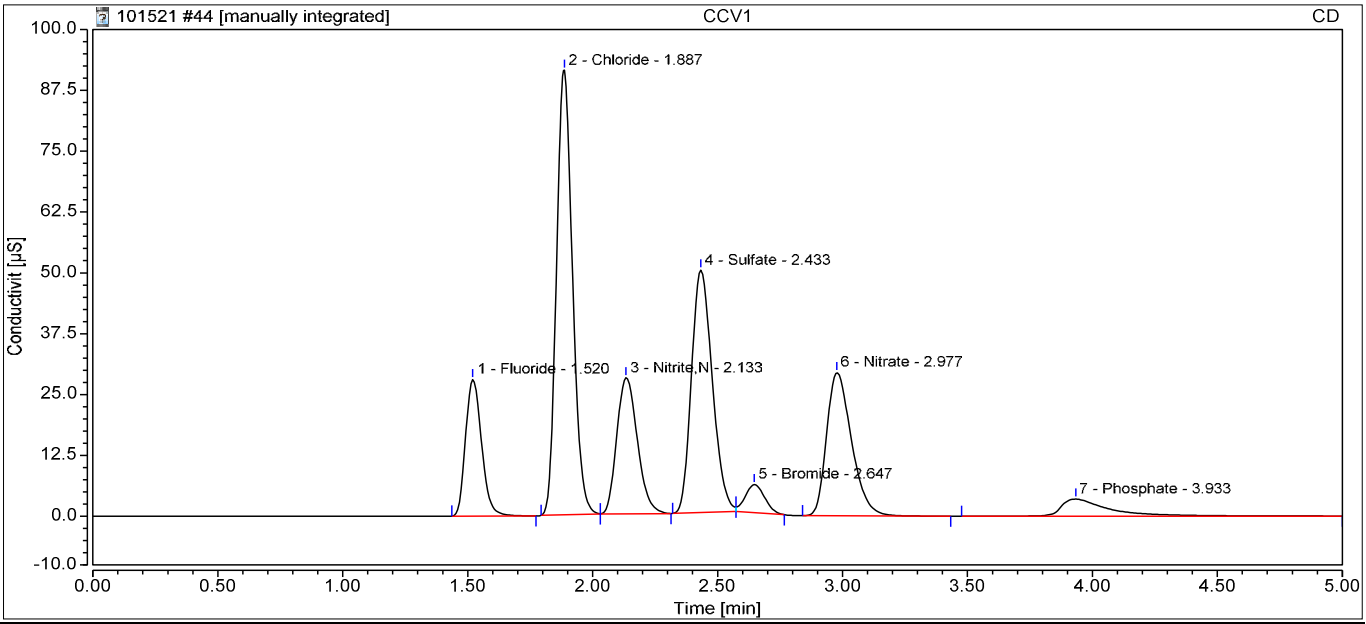
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.003	n.a.	n.a.	1.0000
2	2.15	Nitrite,N	BMB	0.013	0.0102	0.0102	1.0000
3	2.42	Sulfate	BMB	0.003	0.0287	0.0287	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.018**		**0.04**	

44 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 13:46**	*Sample Weight:*	**1.0000**

Run Time:



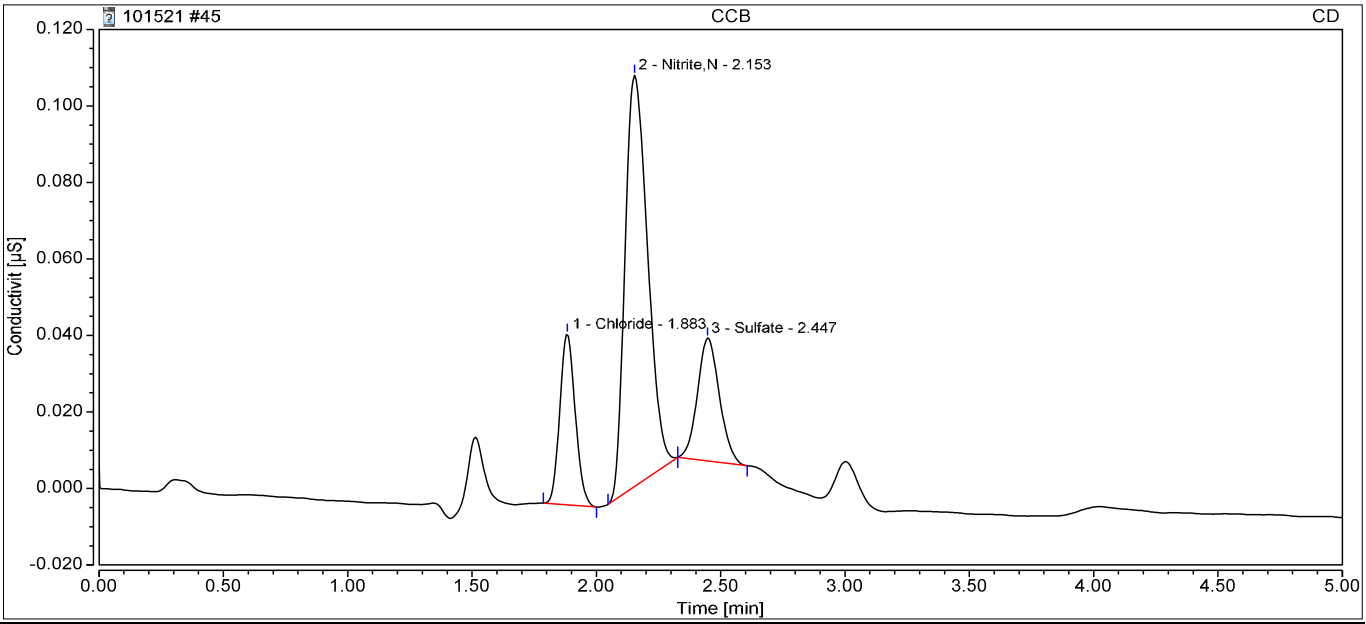
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	2.089	10.2961	10.2961	1.0000
2	1.89	Chloride	BMB	6.778	50.4522	50.4522	1.0000
3	2.13	Nitrite,N	BMB	2.670	9.6213	9.6213	1.0000
4	2.43	Sulfate	BM *	4.808	49.5390	49.5390	1.0000
5	2.65	Bromide	MB*	0.521	9.5335	9.5335	1.0000
6	2.98	Nitrate	BMB	3.405	10.0059	10.0059	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.93	Phosphate	BMB	0.799	7.4938	7.4938	1.0000
Total:			**0.000**	**21.069**		**146.94**	

45 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 13:53**	*Sample Weight:*	**1.0000**

Run Time:



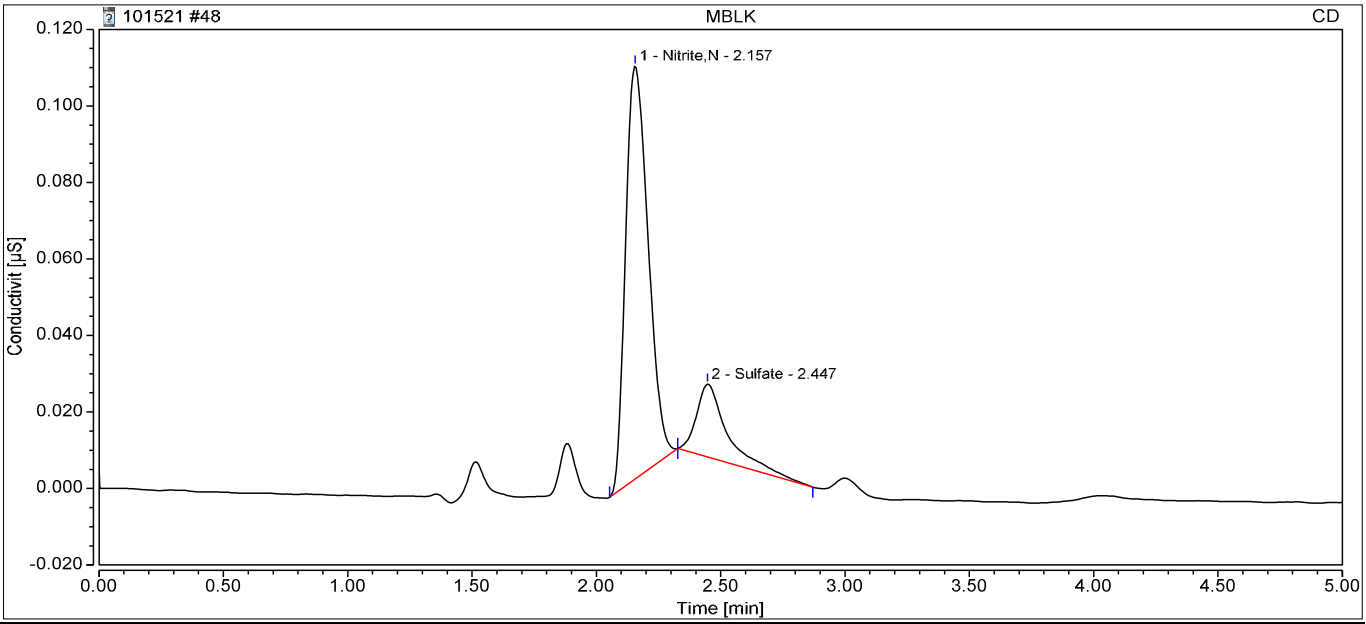
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.003	n.a.	n.a.	1.0000
2	2.15	Nitrite,N	BMB	0.011	0.0038	0.0038	1.0000
3	2.45	Sulfate	BMB	0.003	0.0352	0.0352	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.018**		**0.04**	

48 MBLK

Sample Name:	**MBLK**	*Injection Volume:*	**5.00**
Vial Number:	**R5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 14:15**	*Sample Weight:*	**1.0000**

Run Time:



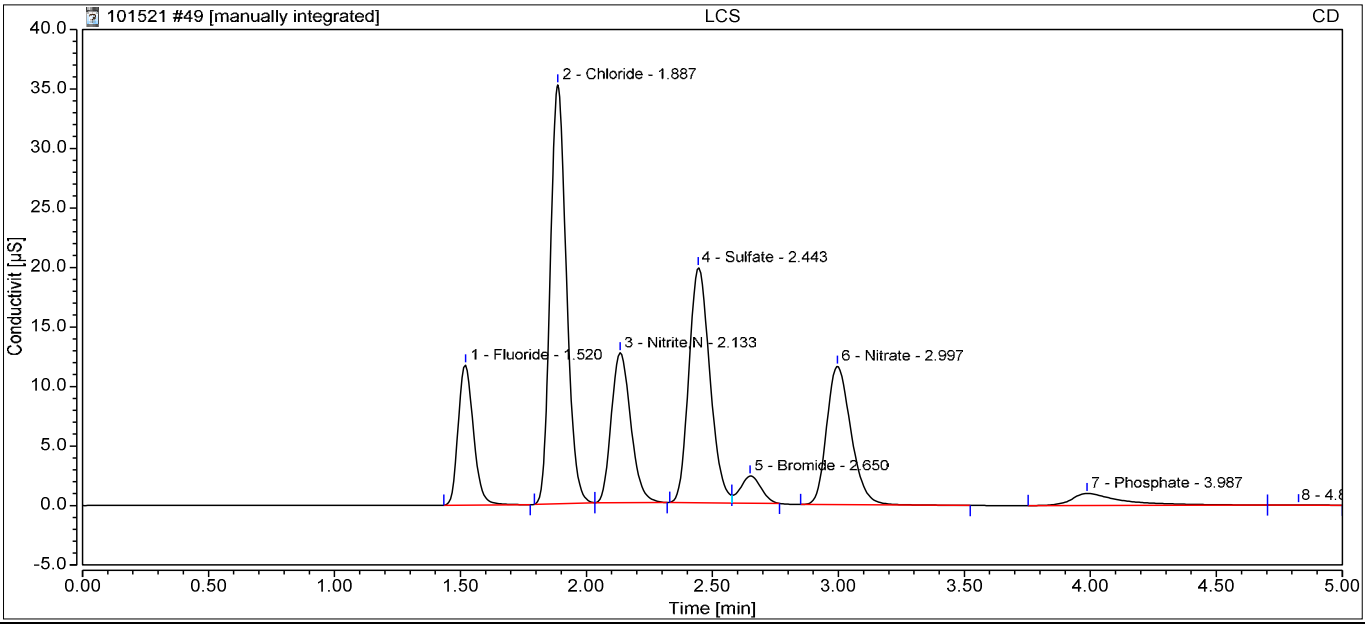
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.16	Nitrite,N	BMB	0.011	0.0040	0.0040	1.0000
2	2.45	Sulfate	BMB	0.003	0.0301	0.0301	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.014**		**0.03**	

49 LCS

Sample Name:	**LCS**	*Injection Volume:*	**5.00**
Vial Number:	**R2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 14:23**	*Sample Weight:*	**1.0000**

Run Time:



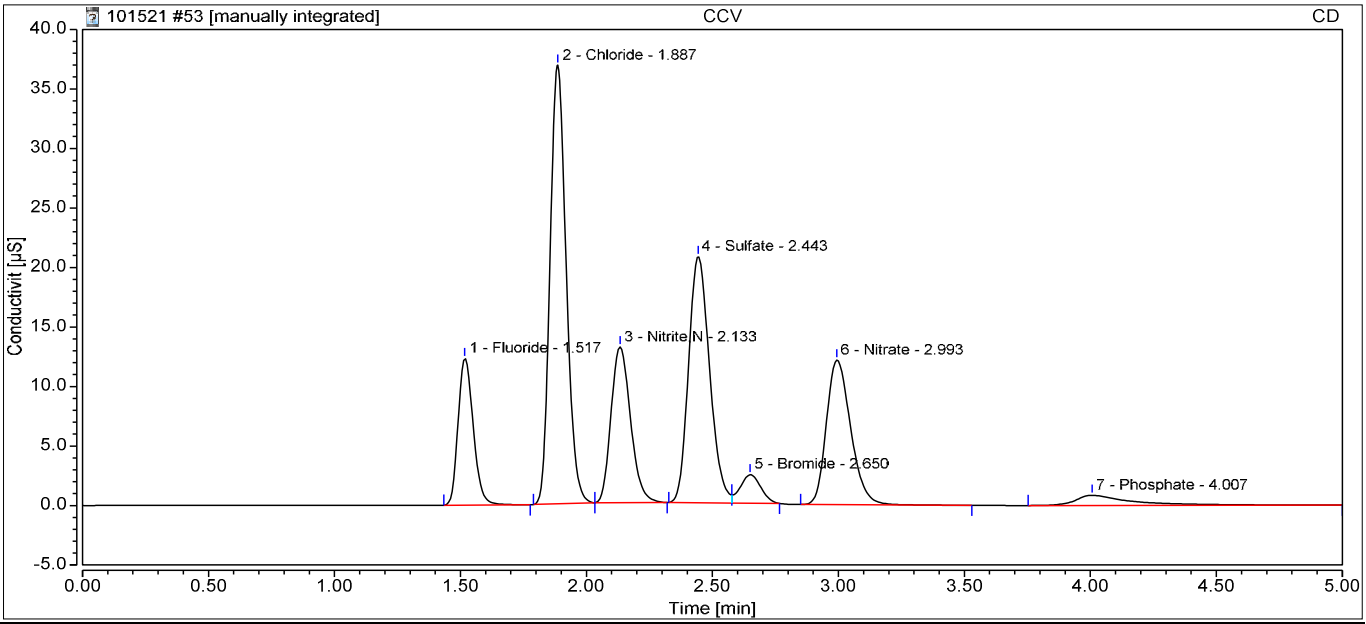
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.829	4.1064	4.1064	1.0000
2	1.89	Chloride	BMB	2.608	19.3883	19.3883	1.0000
3	2.13	Nitrite,N	BMB	1.129	3.8614	3.8614	1.0000
4	2.44	Sulfate	BM *	1.908	19.6610	19.6610	1.0000
5	2.65	Bromide	MB*	0.216	3.9793	3.9793	1.0000
6	3.00	Nitrate	BMB	1.303	3.8290	3.8290	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.99	Phosphate	BMB	0.232	2.3533	2.3533	1.0000
Total:			**0.000**	**8.226**		**57.18**	

53 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 14:52**	*Sample Weight:*	**1.0000**

Run Time:



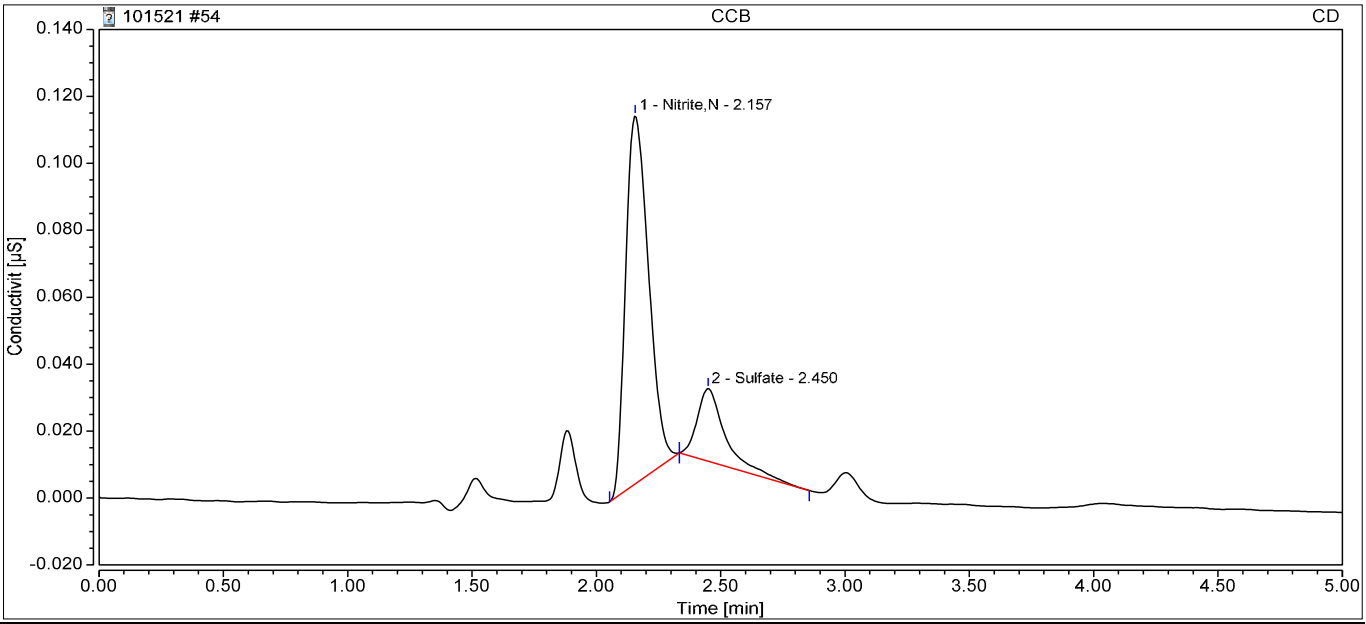
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.862	4.2706	4.2706	1.0000
2	1.89	Chloride	BMB	2.728	20.2766	20.2766	1.0000
3	2.13	Nitrite,N	BMB	1.175	4.0259	4.0259	1.0000
4	2.44	Sulfate	BM *	2.001	20.6137	20.6137	1.0000
5	2.65	Bromide	MB*	0.227	4.1684	4.1684	1.0000
6	2.99	Nitrate	BMB	1.361	3.9976	3.9976	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.01	Phosphate	BMB	0.227	2.3014	2.3014	1.0000
Total:			**0.000**	**8.580**		**59.65**	

54 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 15:00**	*Sample Weight:*	**1.0000**

Run Time:

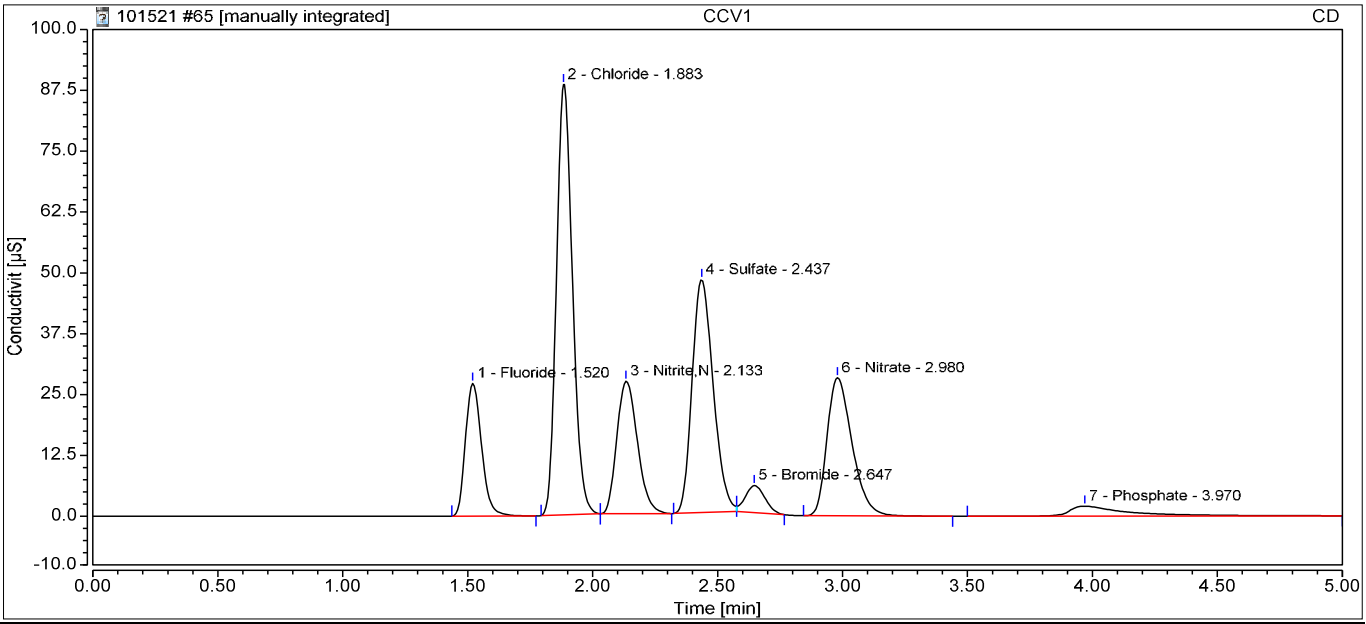


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.16	Nitrite,N	BMB	0.012	0.0053	0.0053	1.0000
2	2.45	Sulfate	BMB	0.003	0.0308	0.0308	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.015**		**0.04**	

65 CCV1			
Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 16:29**	*Sample Weight:*	**1.0000**

Run Time:



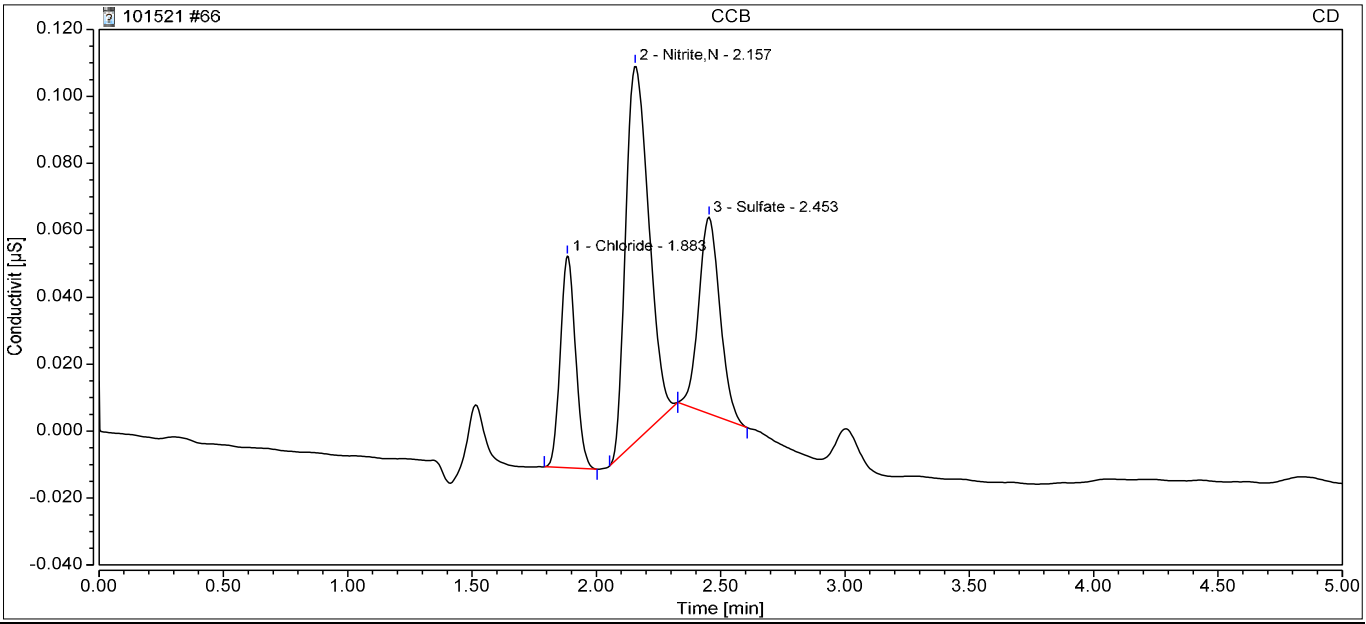
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	2.039	10.0519	10.0519	1.0000
2	1.88	Chloride	BMB	6.575	48.9401	48.9401	1.0000
3	2.13	Nitrite,N	BMB	2.607	9.3750	9.3750	1.0000
4	2.44	Sulfate	BM *	4.668	48.0970	48.0970	1.0000
5	2.65	Bromide	MB*	0.503	9.2103	9.2103	1.0000
6	2.98	Nitrate	BMB	3.298	9.6918	9.6918	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.97	Phosphate	BMB	0.569	5.4775	5.4775	1.0000
Total:			**0.000**	**20.260**		**140.84**	

66 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 16:36**	*Sample Weight:*	**1.0000**

Run Time:



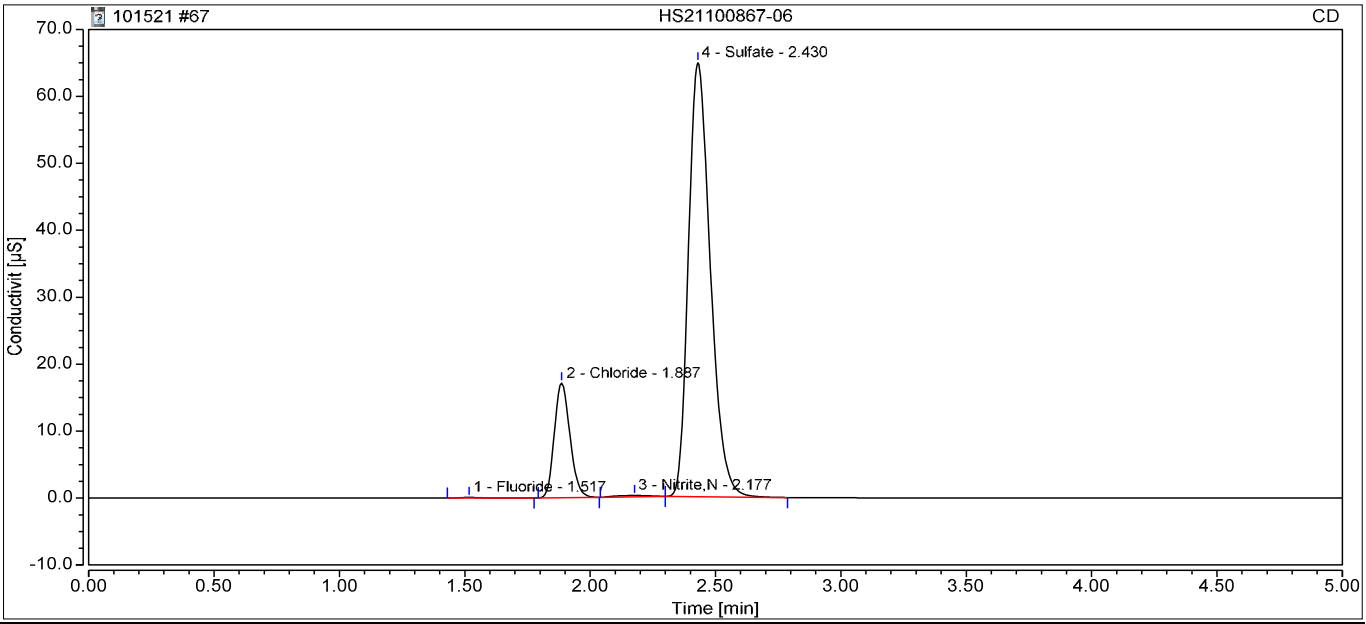
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.004	n.a.	n.a.	1.0000
2	2.16	Nitrite,N	BMB	0.012	0.0065	0.0065	1.0000
3	2.45	Sulfate	BMB	0.006	0.0614	0.0614	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.022**		**0.07**	

67 HS21100867-06

Sample Name:	**HS21100867-06**	*Injection Volume:*	**5.00**
Vial Number:	**GA1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 16:44**	*Sample Weight:*	**1.0000**

Run Time:



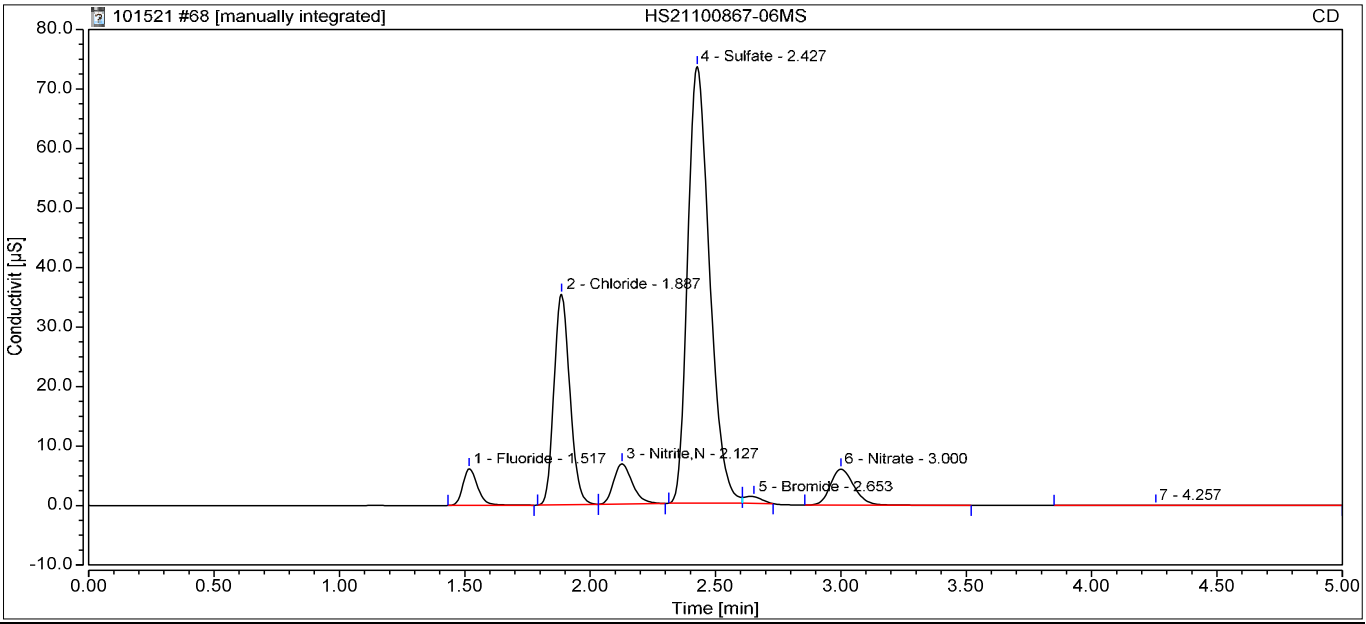
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.010	0.0844	0.0844	1.0000
2	1.89	Chloride	BMB	1.238	9.1794	9.1794	1.0000
3	2.18	Nitrite,N	BMB	0.033	0.0777	0.0777	1.0000
4	2.43	Sulfate	BMB	6.569	67.6778	67.6778	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**7.850**		**77.02**	

68 HS21100867-06MS

Sample Name:	**HS21100867-06MS**	*Injection Volume:*	**5.00**
Vial Number:	**GA2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 16:51**	*Sample Weight:*	**1.0000**

Run Time:



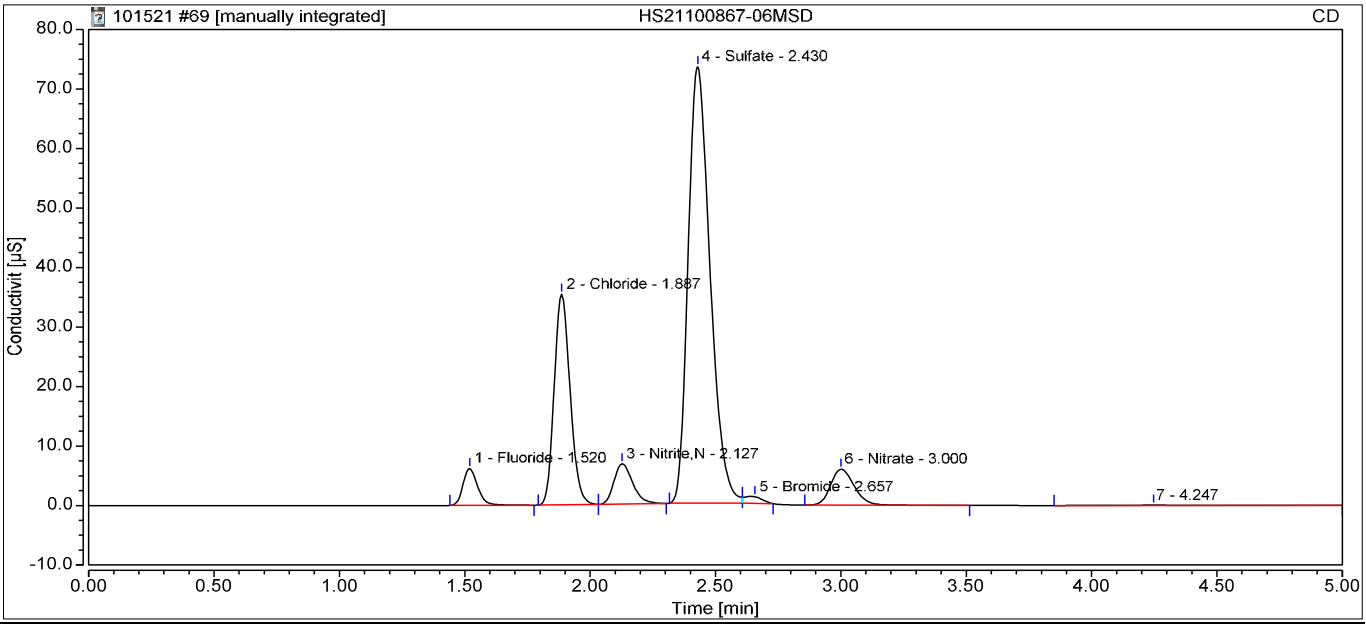
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.421	2.1053	2.1053	1.0000
2	1.89	Chloride	BMB	2.595	19.2920	19.2920	1.0000
3	2.13	Nitrite,N	BMB	0.585	1.9543	1.9543	1.0000
4	2.43	Sulfate	BM *	7.454	76.7936	76.7936	1.0000
5	2.65	Bromide	MB*	0.092	1.7013	1.7013	1.0000
6	3.00	Nitrate	BMB	0.659	1.9374	1.9374	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**11.806**		**103.78**	

69 HS21100867-06MSD

Sample Name:	**HS21100867-06MSD**	*Injection Volume:*	**5.00**
Vial Number:	**GA3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 16:59**	*Sample Weight:*	**1.0000**

Run Time:



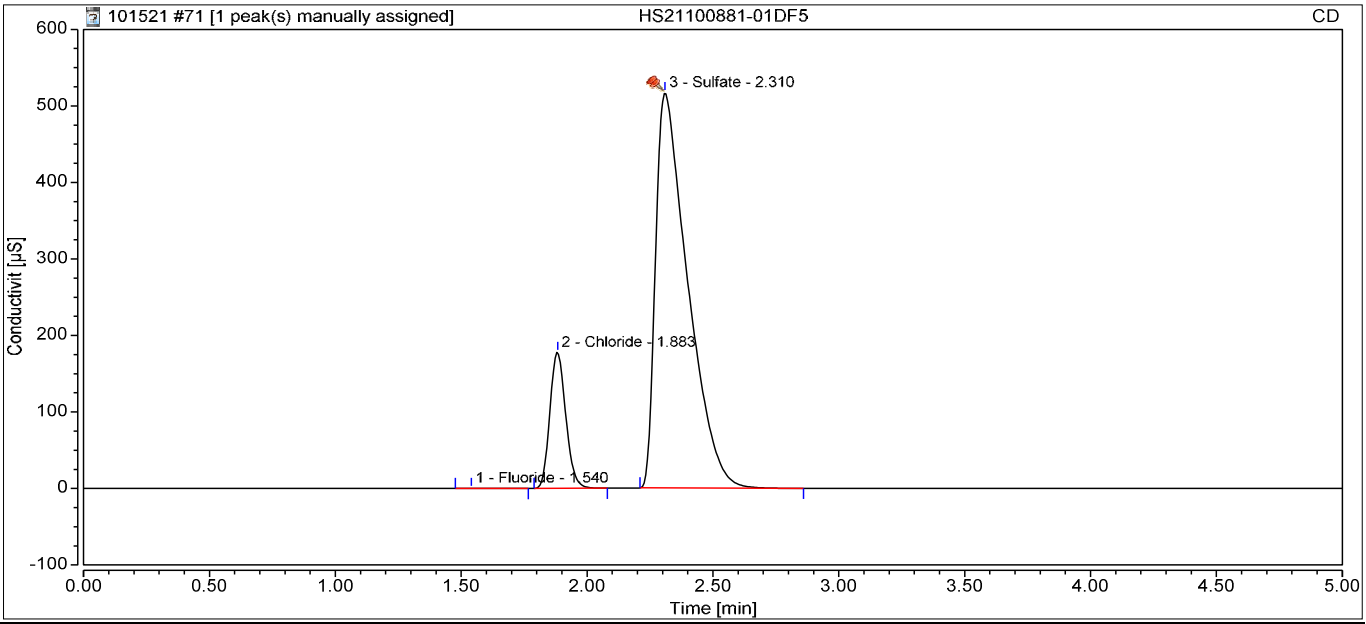
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.421	2.1069	2.1069	1.0000
2	1.89	Chloride	BMB	2.597	19.3029	19.3029	1.0000
3	2.13	Nitrite,N	BMB	0.585	1.9564	1.9564	1.0000
4	2.43	Sulfate	BM *	7.443	76.6864	76.6864	1.0000
5	2.66	Bromide	MB*	0.092	1.7103	1.7103	1.0000
6	3.00	Nitrate	BMB	0.659	1.9367	1.9367	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**11.798**		**103.70**	

71 HS21100881-01DF5

Sample Name:	**HS21100881-01DF5**	*Injection Volume:*	**5.00**
Vial Number:	**GA5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Recording Time:	**10/15/2021 17:14**	*Sample Weight:*	**1.0000**

Run Time:



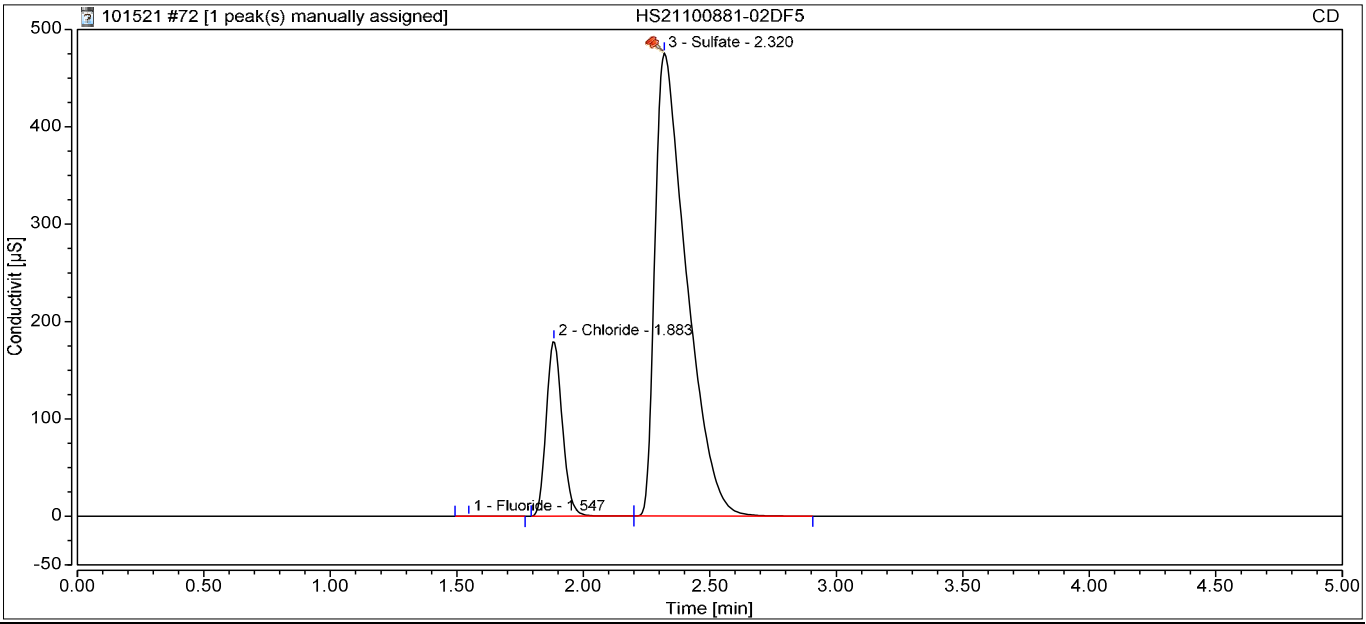
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BMB	0.004	0.0564	0.2822	5.0000
2	1.88	Chloride	BMB	13.019	96.9588	484.7938	5.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	5.0000
3	2.31	Sulfate	BMB^	76.309	786.1902	3930.9508	5.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	5.0000
Total:			**0.000**	**89.332**		**4416.03**	

72 HS21100881-02DF5

Sample Name:	**HS21100881-02DF5**	*Injection Volume:*	**5.00**
Vial Number:	**GA6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Recording Time:	**10/15/2021 17:21**	*Sample Weight:*	**1.0000**

Run Time:



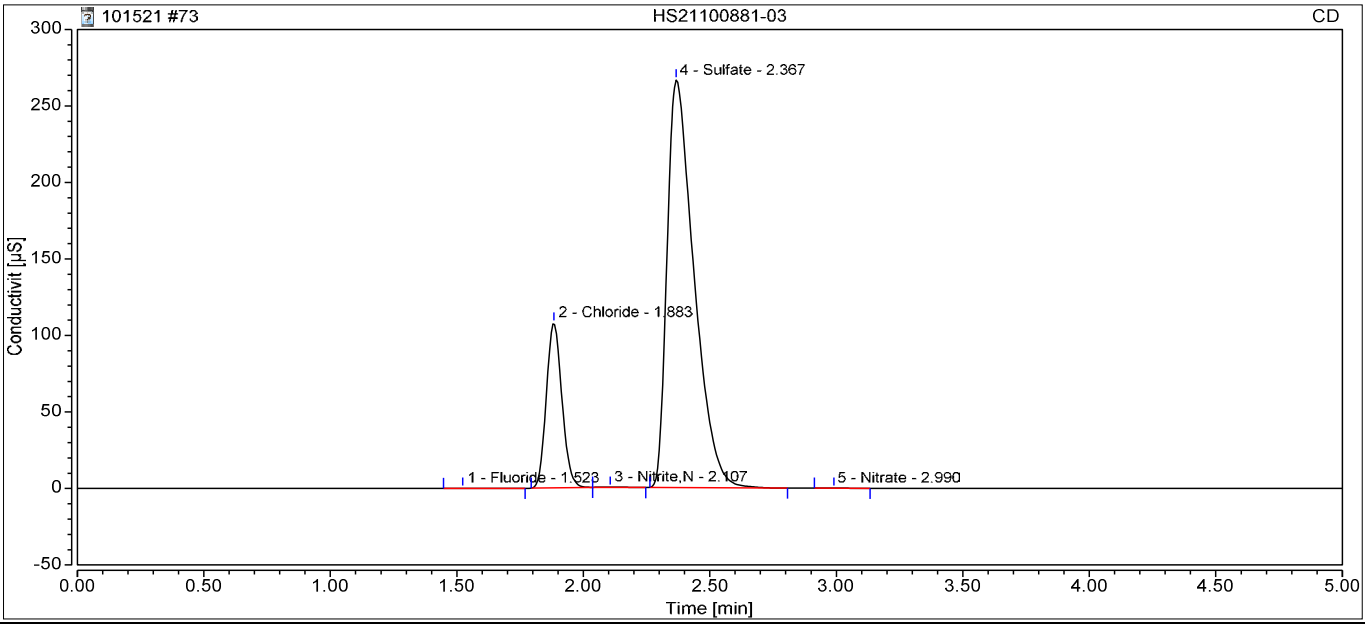
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	0.003	0.0514	0.2568	5.0000
2	1.88	Chloride	BMB	13.186	98.1967	490.9837	5.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	5.0000
3	2.32	Sulfate	BMB^	68.553	706.2824	3531.4122	5.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	5.0000
Total:			**0.000**	**81.741**		**4022.65**	

73 HS21100881-03

Sample Name:	**HS21100881-03**	*Injection Volume:*	**5.00**
Vial Number:	**GA7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 17:28**	*Sample Weight:*	**1.0000**

Run Time:



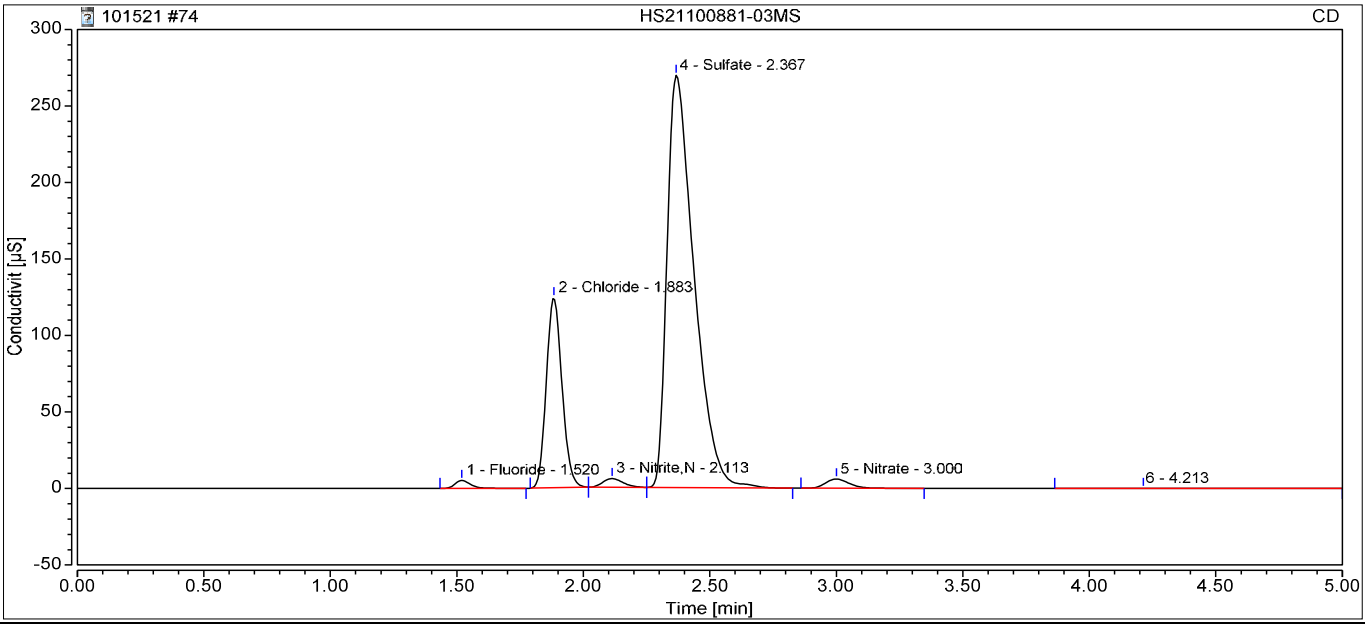
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.010	0.0840	0.0840	1.0000
2	1.88	Chloride	BMB	7.701	57.3353	57.3353	1.0000
3	2.11	Nitrite,N	BMB	0.024	0.0467	0.0467	1.0000
4	2.37	Sulfate	BMB	32.840	338.3379	338.3379	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
5	2.99	Nitrate	BMB	0.002	0.0060	0.0060	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**40.577**		**395.81**	

74 HS21100881-03MS

Sample Name:	**HS21100881-03MS**	*Injection Volume:*	**5.00**
Vial Number:	**GA8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 17:36**	*Sample Weight:*	**1.0000**

Run Time:



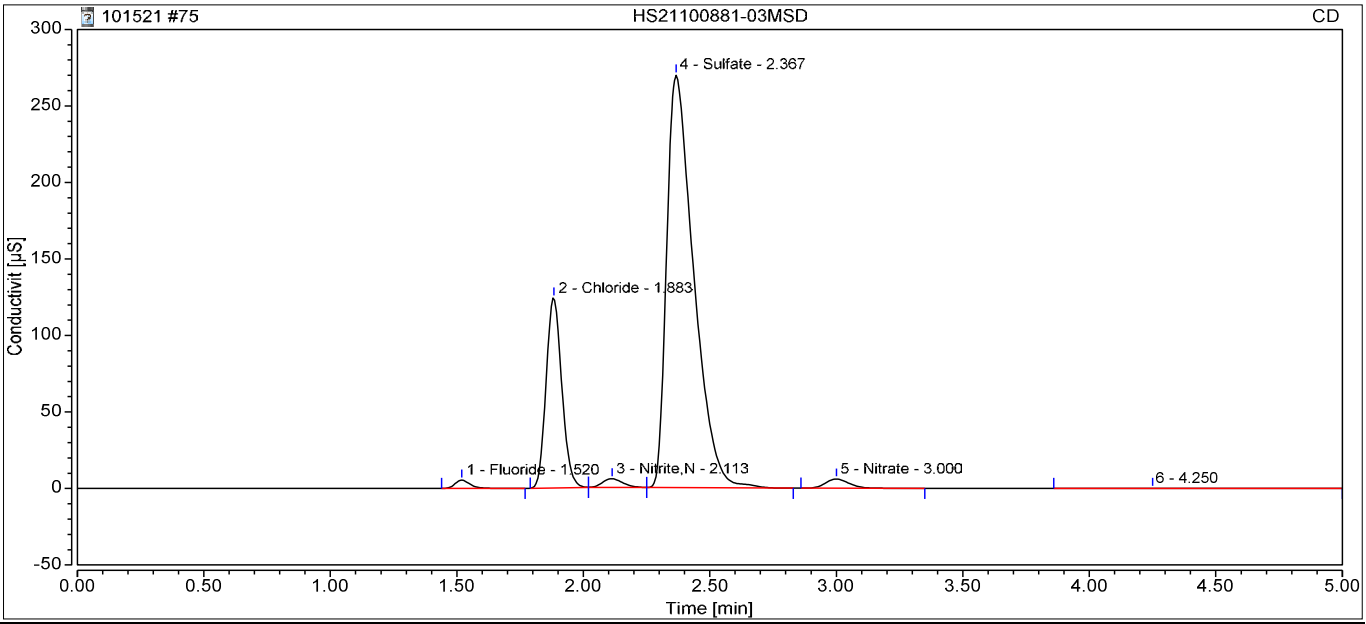
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.375	1.8764	1.8764	1.0000
2	1.88	Chloride	BMB	8.922	66.4335	66.4335	1.0000
3	2.11	Nitrite,N	BMB	0.518	1.7235	1.7235	1.0000
4	2.37	Sulfate	BMB	33.307	343.1551	343.1551	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
5	3.00	Nitrate	BMB	0.653	1.9173	1.9173	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**43.775**		**415.11**	

75 HS21100881-03MSD

Sample Name:	**HS21100881-03MSD**	*Injection Volume:*	**5.00**
Vial Number:	**GB1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 17:43**	*Sample Weight:*	**1.0000**

Run Time:



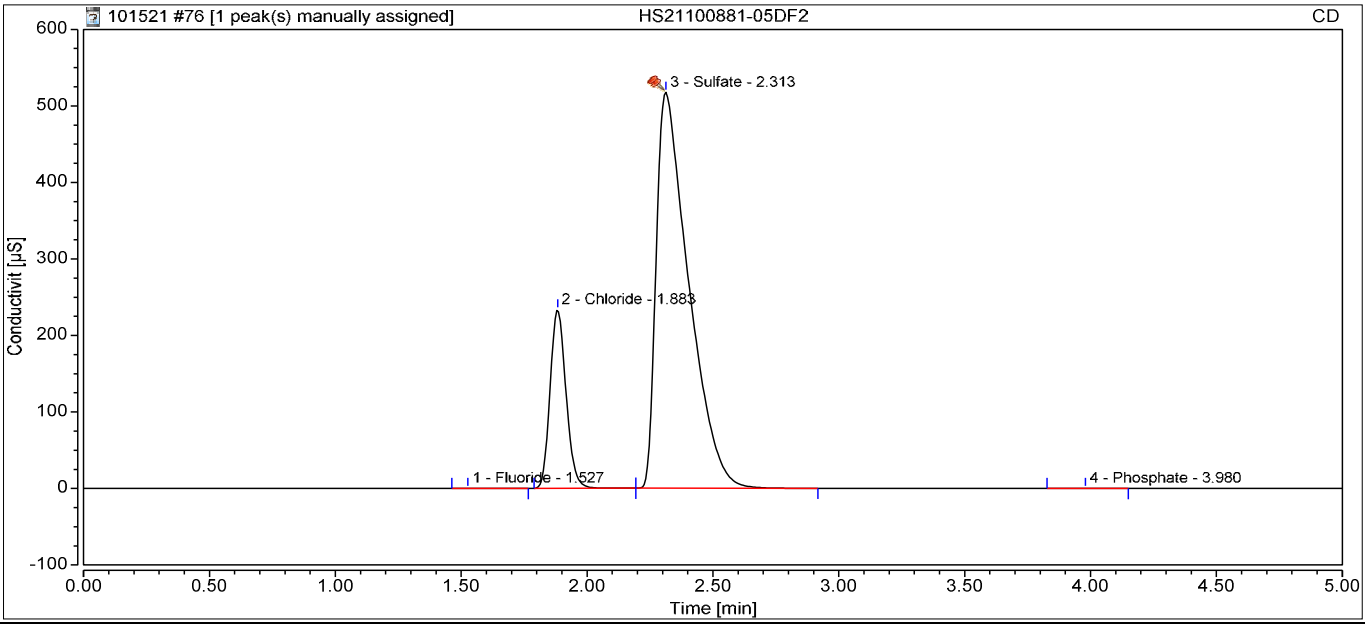
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.382	1.9138	1.9138	1.0000
2	1.88	Chloride	BMB	8.916	66.3852	66.3852	1.0000
3	2.11	Nitrite,N	BMB	0.515	1.7127	1.7127	1.0000
4	2.37	Sulfate	BMB	33.313	343.2142	343.2142	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
5	3.00	Nitrate	BMB	0.653	1.9196	1.9196	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**43.779**		**415.15**	

76 HS21100881-05DF2

Sample Name:	**HS21100881-05DF2**	*Injection Volume:*	**5.00**
Vial Number:	**GB2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/15/2021 17:51**	*Sample Weight:*	**1.0000**

Run Time:



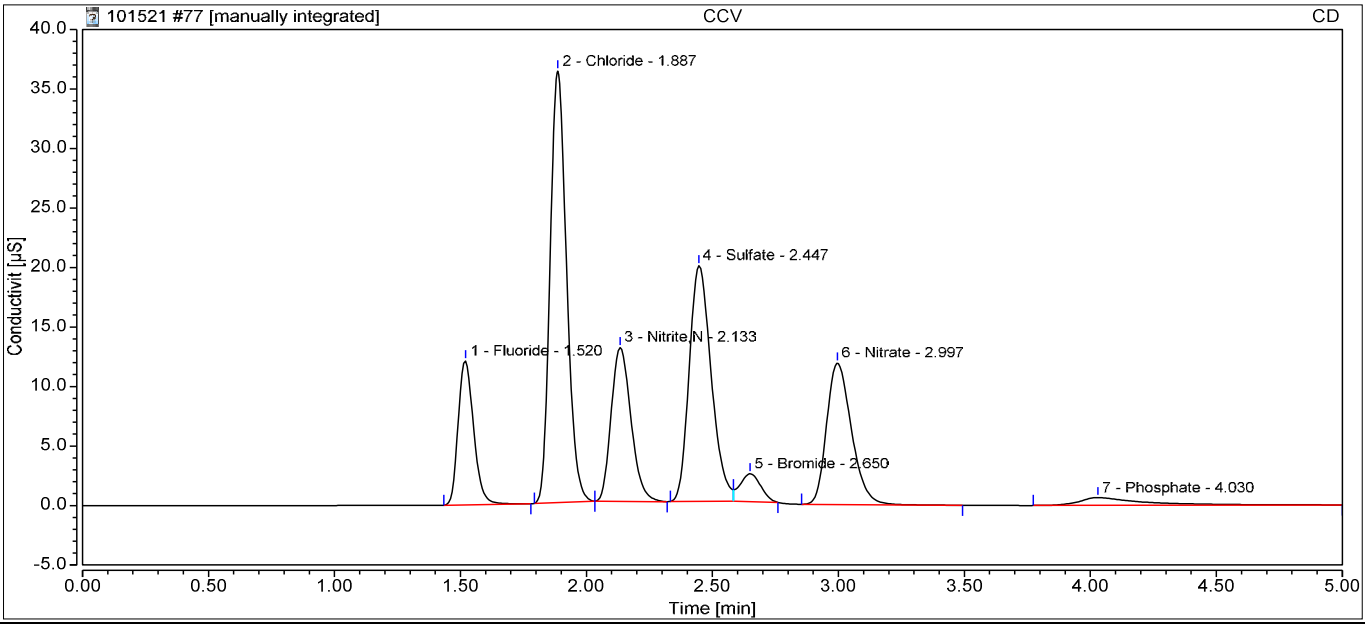
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.53	Fluoride	BMB	0.012	0.0965	0.1929	2.0000
2	1.88	Chloride	BMB	17.130	127.5833	255.1667	2.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	2.0000
3	2.31	Sulfate	BMB^	77.083	794.1625	1588.3250	2.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	2.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	2.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	2.0000
4	3.98	Phosphate	BMB	0.002	0.0755	0.1509	2.0000
Total:			**0.000**	**94.226**		**1843.84**	

77 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 18:06**	*Sample Weight:*	**1.0000**

Run Time:

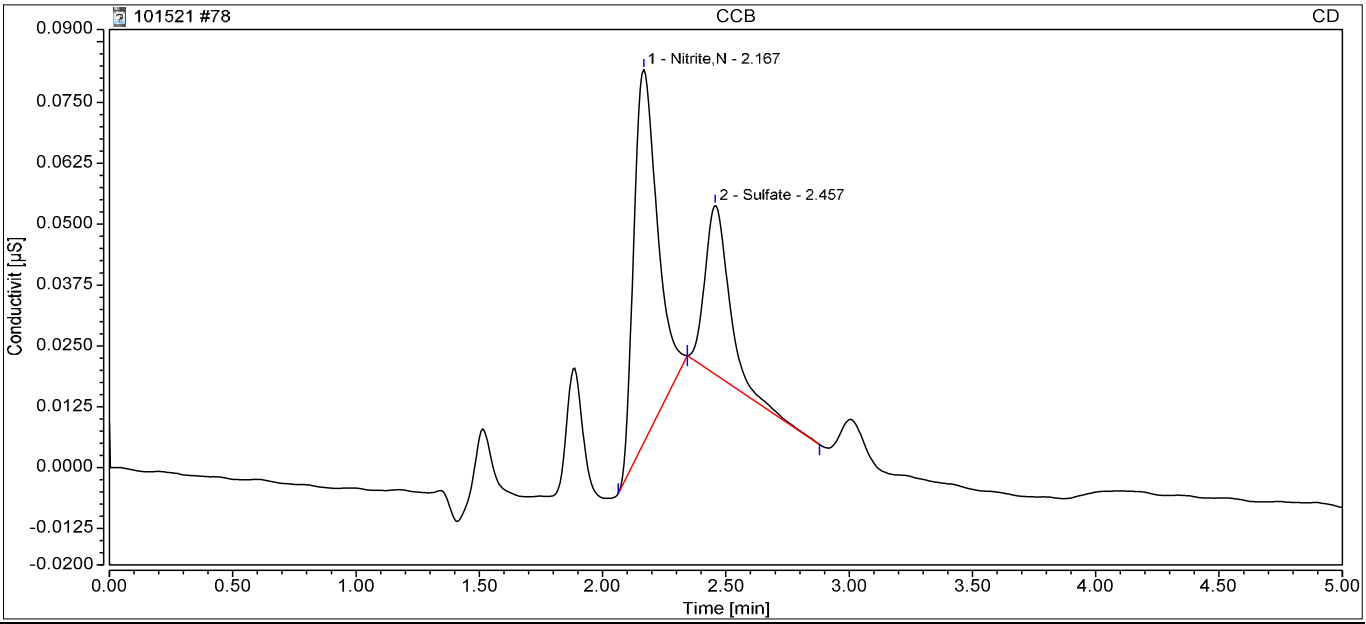


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.865	4.2871	4.2871	1.0000
2	1.89	Chloride	BMB	2.744	20.3963	20.3963	1.0000
3	2.13	Nitrite,N	BMB	1.178	4.0370	4.0370	1.0000
4	2.45	Sulfate	BM *	2.005	20.6612	20.6612	1.0000
5	2.65	Bromide	MB*	0.224	4.1238	4.1238	1.0000
6	3.00	Nitrate	BMB	1.359	3.9926	3.9926	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.03	Phosphate	BMB	0.198	2.0247	2.0247	1.0000
Total:			**0.000**	**8.574**		**59.52**	

78 CCB			
Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 18:13**	*Sample Weight:*	**1.0000**

Run Time:



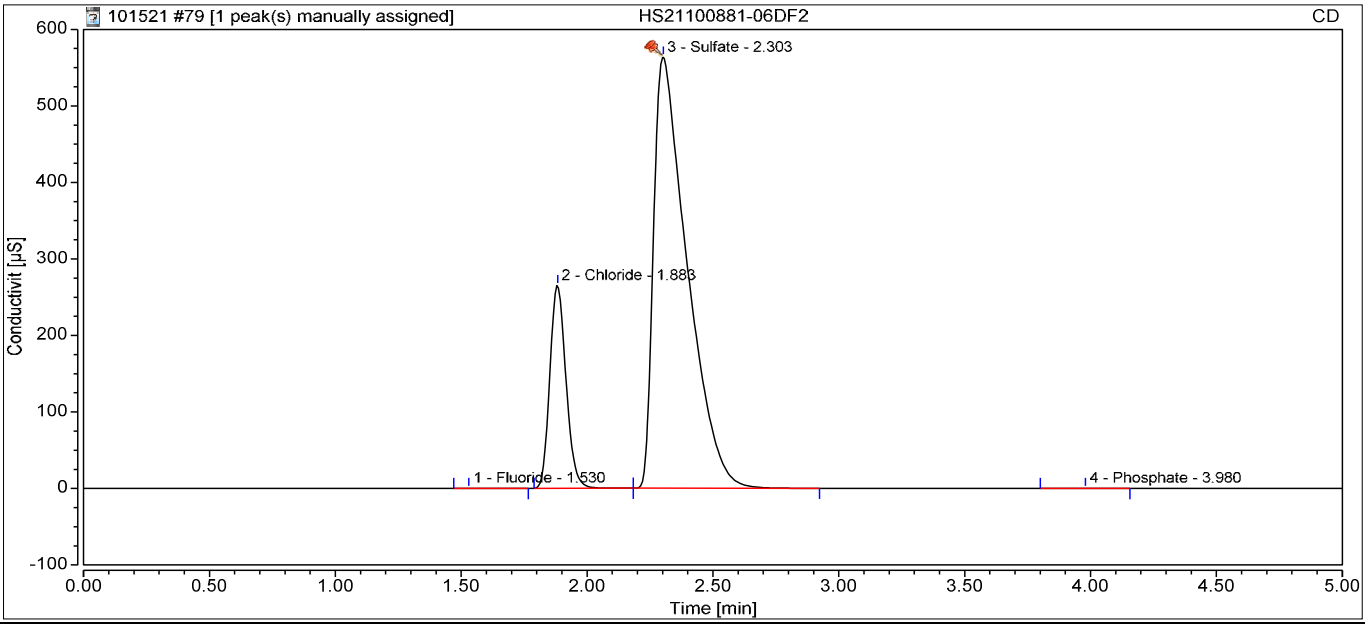
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.17	Nitrite,N	BMB	0.008	n.a.	n.a.	1.0000
2	2.46	Sulfate	BMB	0.004	0.0425	0.0425	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.012**		**0.04**	

79 HS21100881-06DF2

Sample Name:	**HS21100881-06DF2**	*Injection Volume:*	**5.00**
Vial Number:	**GB3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/15/2021 18:20**	*Sample Weight:*	**1.0000**

Run Time:



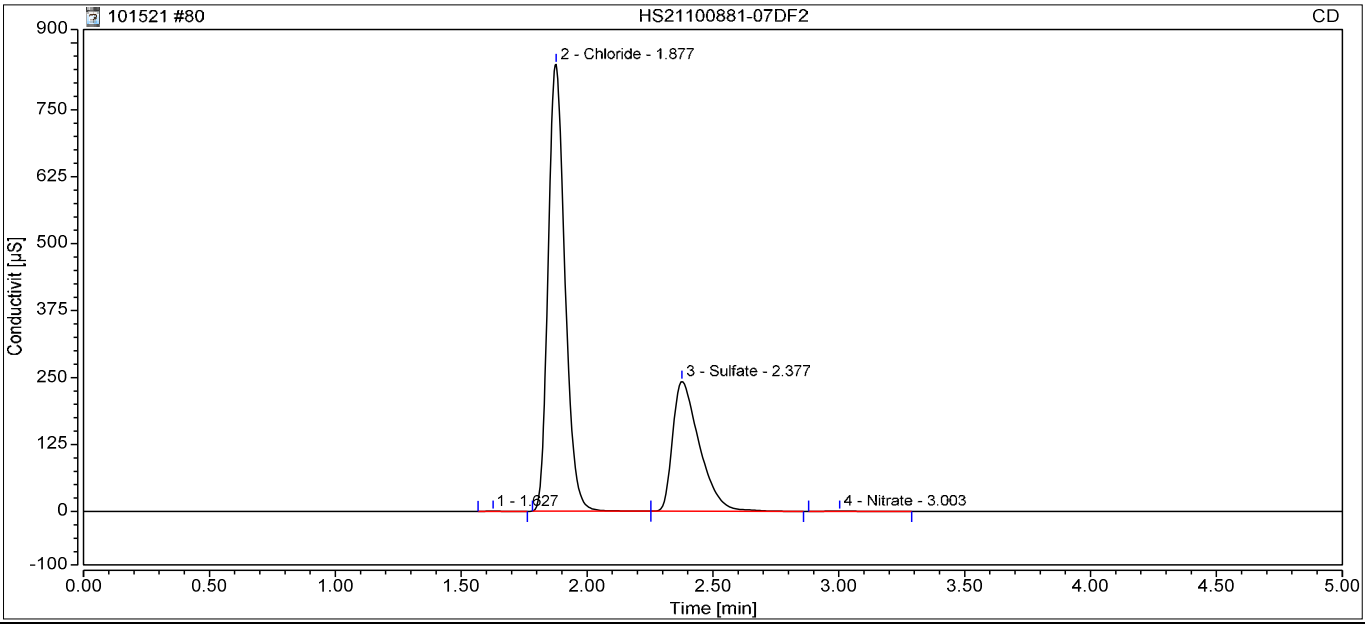
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.53	Fluoride	BMB	0.008	0.0782	0.1564	2.0000
2	1.88	Chloride	BMB	19.753	147.1266	294.2531	2.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	2.0000
3	2.30	Sulfate	BMB^	86.933	895.6530	1791.3060	2.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	2.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	2.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	2.0000
4	3.98	Phosphate	BMB	0.003	0.0800	0.1599	2.0000
Total:			**0.000**	**106.697**		**2085.88**	

80 HS21100881-07DF2

Sample Name:	**HS21100881-07DF2**	*Injection Volume:*	**5.00**
Vial Number:	**GB4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/15/2021 18:28**	*Sample Weight:*	**1.0000**

Run Time:



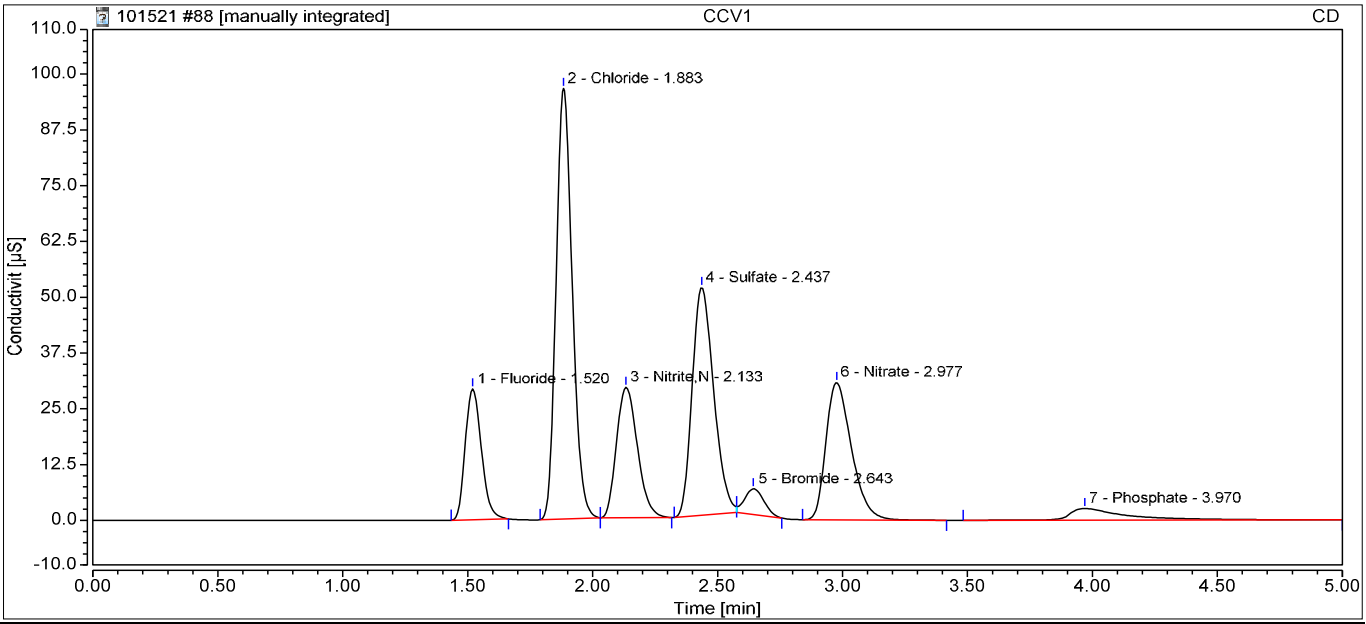
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	2.0000
2	1.88	Chloride	BMB	64.361	479.4933	958.9865	2.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	2.0000
3	2.38	Sulfate	BMB	29.769	306.7006	613.4012	2.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	2.0000
4	3.00	Nitrate	BMB	0.053	0.1555	0.3110	2.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			**0.000**	**94.183**		**1572.70**	

88 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 19:35**	*Sample Weight:*	**1.0000**

Run Time:



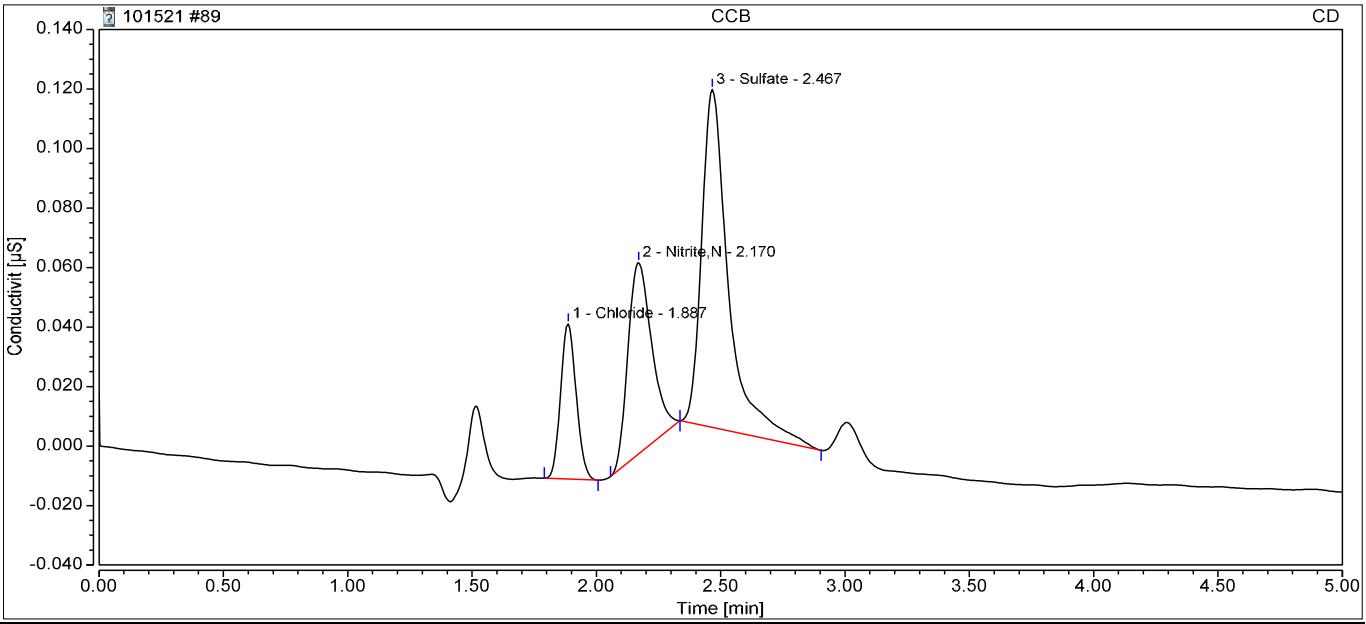
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB*	2.198	10.8292	10.8292	1.0000
2	1.88	Chloride	BMB	7.244	53.9277	53.9277	1.0000
3	2.13	Nitrite,N	BMB	2.841	10.2983	10.2983	1.0000
4	2.44	Sulfate	BM *	5.074	52.2823	52.2823	1.0000
5	2.64	Bromide	MB*	0.515	9.4282	9.4282	1.0000
6	2.98	Nitrate	BMB	3.640	10.6961	10.6961	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.97	Phosphate	BMB	0.705	6.6808	6.6808	1.0000
Total:			**0.000**	**22.217**		**154.14**	

89 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 19:42**	*Sample Weight:*	**1.0000**

Run Time:



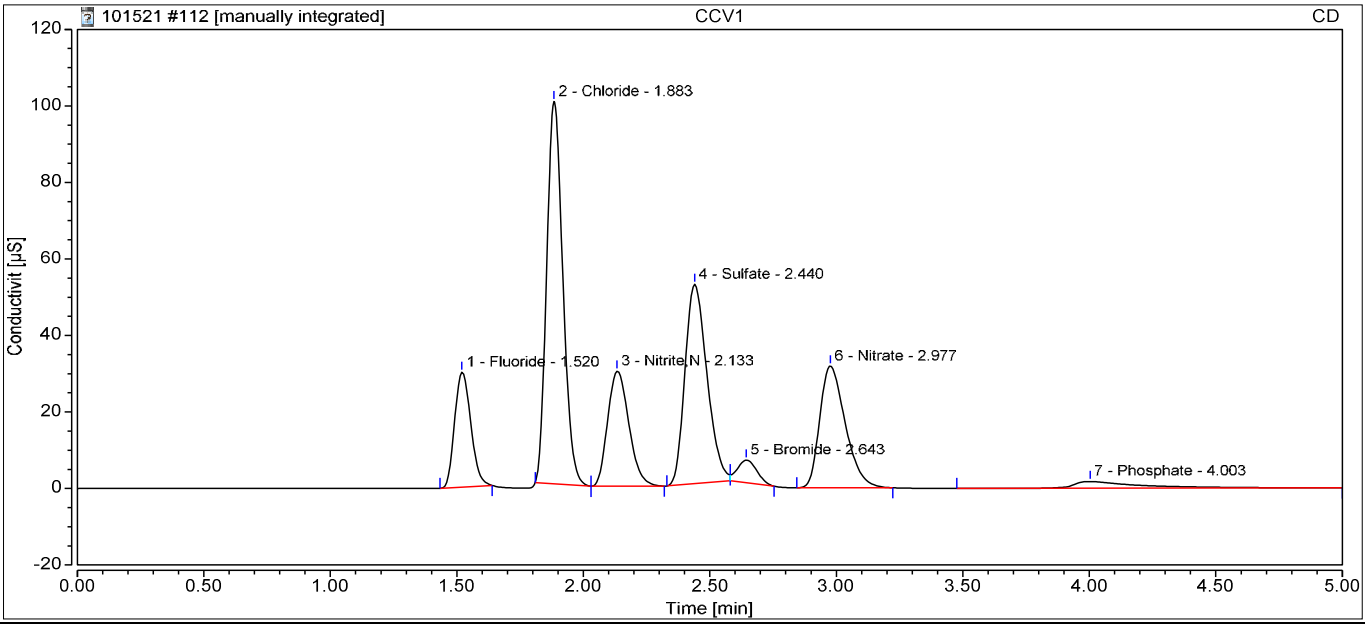
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.89	Chloride	BMB	0.004	n.a.	n.a.	1.0000
2	2.17	Nitrite,N	BMB	0.007	n.a.	n.a.	1.0000
3	2.47	Sulfate	BMB	0.014	0.1483	0.1483	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.025**		**0.15**	

112 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 22:47**	*Sample Weight:*	**1.0000**

Run Time:



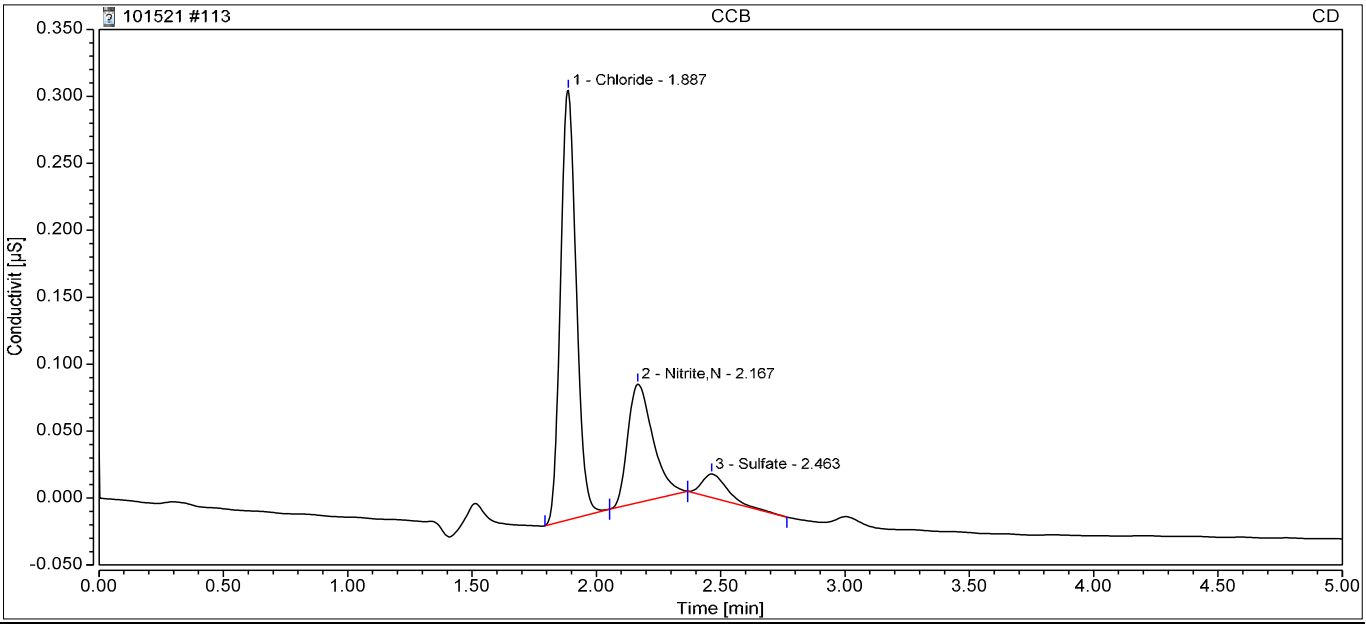
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB*	2.229	10.9808	10.9808	1.0000
2	1.88	Chloride	BMB*	7.386	54.9865	54.9865	1.0000
3	2.13	Nitrite,N	BMB	2.919	10.6086	10.6086	1.0000
4	2.44	Sulfate	BM *	5.247	54.0615	54.0615	1.0000
5	2.64	Bromide	MB*	0.530	9.7046	9.7046	1.0000
6	2.98	Nitrate	BMB*	3.726	10.9485	10.9485	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.00	Phosphate	BMB	0.555	5.3494	5.3494	1.0000
Total:			**0.000**	**22.591**		**156.64**	

113 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 22:55**	*Sample Weight:*	**1.0000**

Run Time:



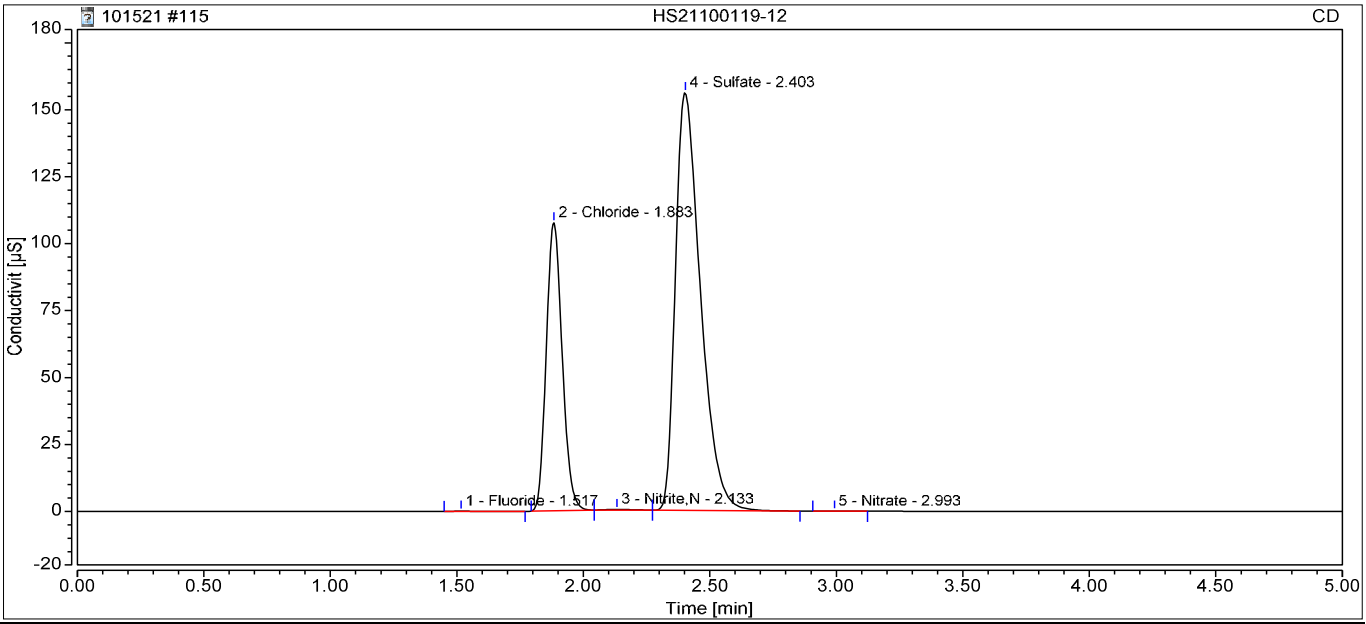
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.89	Chloride	BMB	0.024	0.1297	0.1297	1.0000
2	2.17	Nitrite,N	BMB	0.010	0.0007	0.0007	1.0000
3	2.46	Sulfate	BMB	0.002	0.0230	0.0230	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.036**		**0.15**	

115 HS21100119-12

Sample Name:	**HS21100119-12**	*Injection Volume:*	**5.00**
Vial Number:	**BA1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 23:10**	*Sample Weight:*	**1.0000**

Run Time:



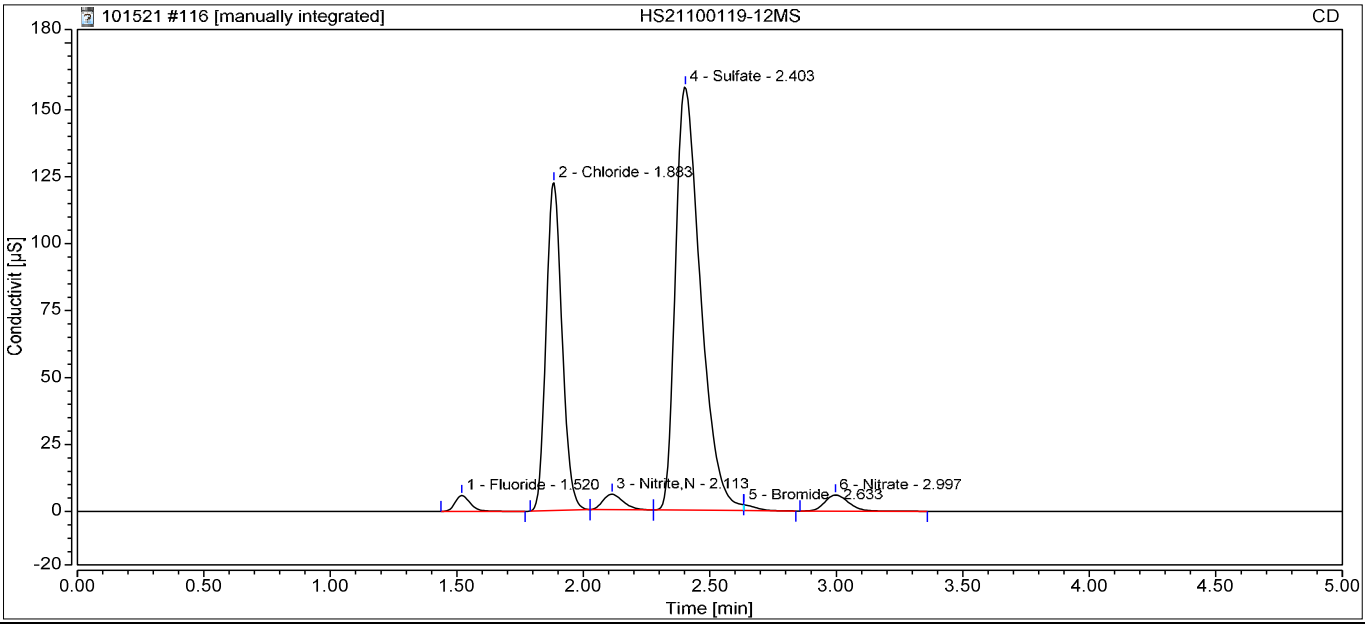
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.010	0.0842	0.0842	1.0000
2	1.88	Chloride	BMB	7.833	58.3188	58.3188	1.0000
3	2.13	Nitrite,N	BMB	0.030	0.0654	0.0654	1.0000
4	2.40	Sulfate	BMB	17.905	184.4743	184.4743	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
5	2.99	Nitrate	BMB	0.003	0.0097	0.0097	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**25.781**		**242.95**	

116 HS21100119-12MS

Sample Name:	**HS21100119-12MS**	*Injection Volume:*	**5.00**
Vial Number:	**BA2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 23:17**	*Sample Weight:*	**1.0000**

Run Time:



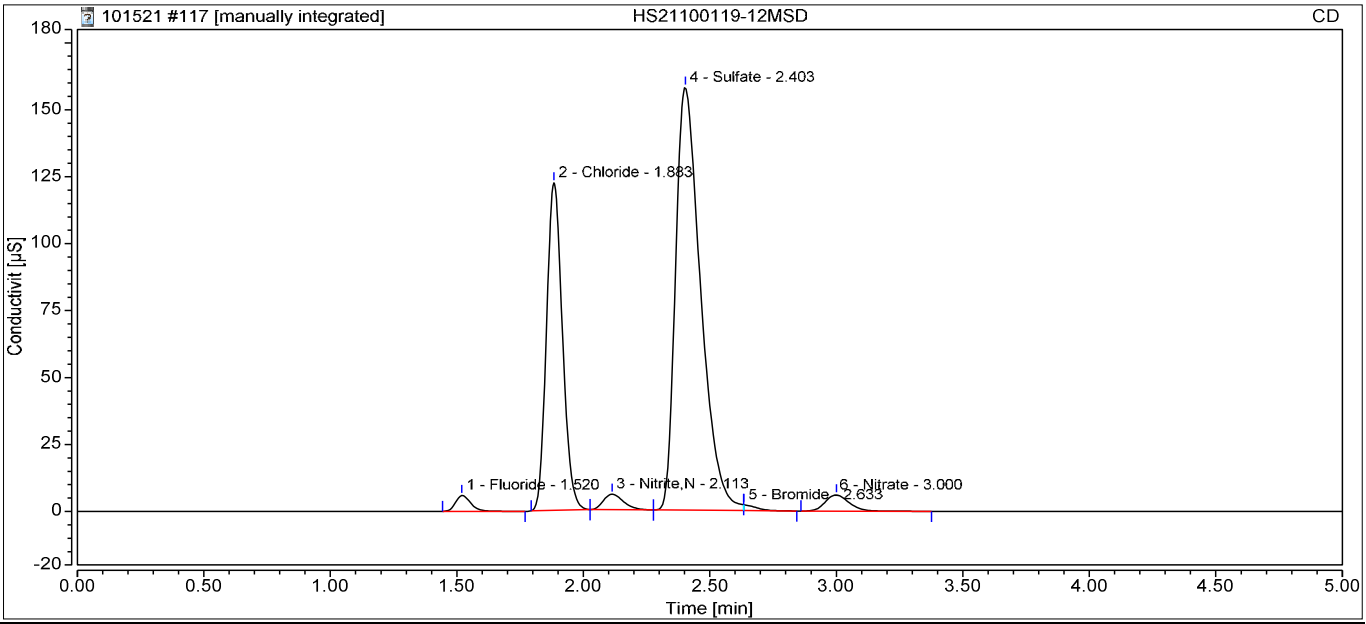
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.417	2.0847	2.0847	1.0000
2	1.88	Chloride	BMB	8.924	66.4426	66.4426	1.0000
3	2.11	Nitrite,N	BMB	0.536	1.7864	1.7864	1.0000
4	2.40	Sulfate	BM *	18.151	187.0102	187.0102	1.0000
5	2.63	Bromide	MB*	0.120	2.2202	2.2202	1.0000
6	3.00	Nitrate	BMB	0.656	1.9264	1.9264	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**28.804**		**261.47**	

117 HS21100119-12MSD

Sample Name:	**HS21100119-12MSD**	*Injection Volume:*	**5.00**
Vial Number:	**BA3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/15/2021 23:24**	*Sample Weight:*	**1.0000**

Run Time:



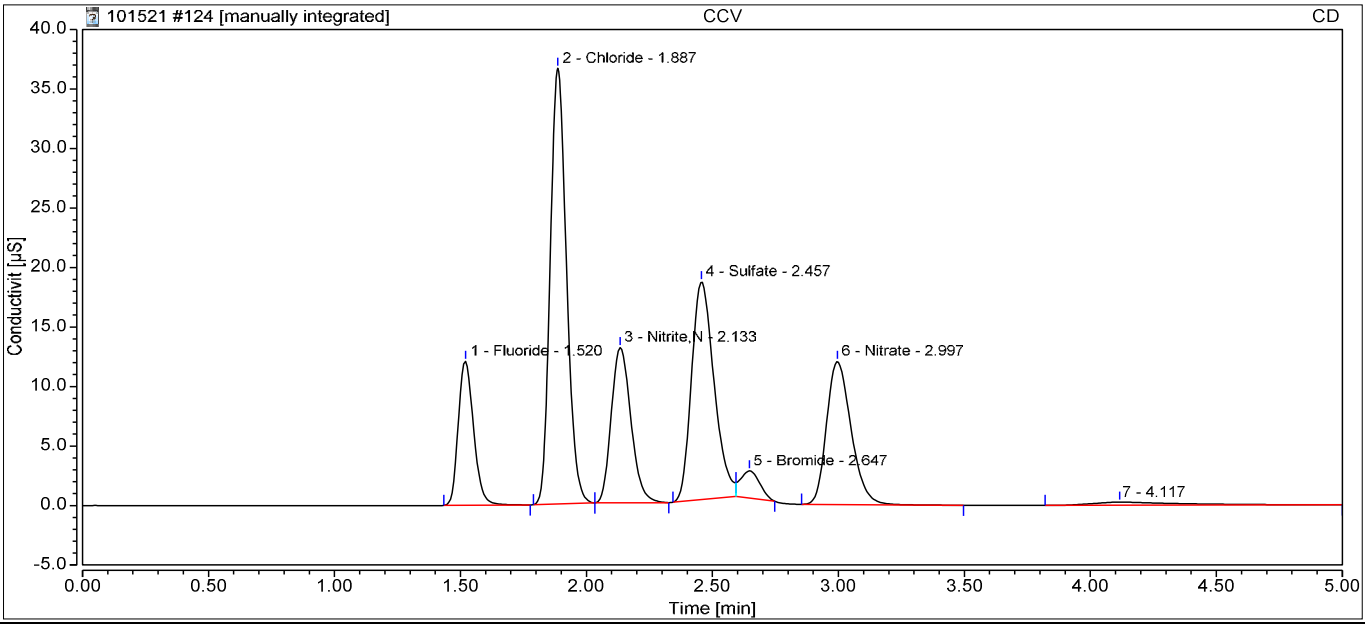
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.417	2.0855	2.0855	1.0000
2	1.88	Chloride	BMB	8.924	66.4482	66.4482	1.0000
3	2.11	Nitrite,N	BMB	0.534	1.7782	1.7782	1.0000
4	2.40	Sulfate	BM *	18.145	186.9472	186.9472	1.0000
5	2.63	Bromide	MB*	0.123	2.2700	2.2700	1.0000
6	3.00	Nitrate	BMB	0.657	1.9292	1.9292	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**28.800**		**261.46**	

124 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/16/2021 00:24**	*Sample Weight:*	**1.0000**

Run Time:



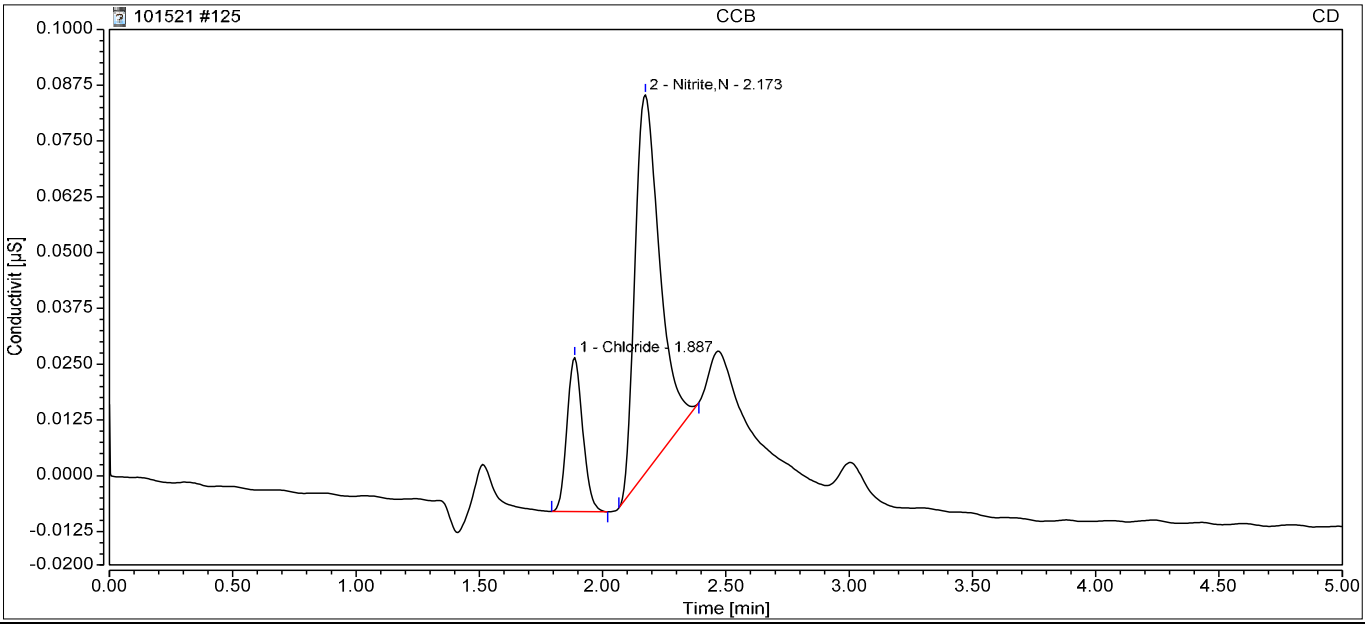
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.856	4.2428	4.2428	1.0000
2	1.89	Chloride	BMB	2.739	20.3588	20.3588	1.0000
3	2.13	Nitrite,N	BMB	1.179	4.0413	4.0413	1.0000
4	2.46	Sulfate	BM *	1.897	19.5503	19.5503	1.0000
5	2.65	Bromide	MB*	0.203	3.7382	3.7382	1.0000
6	3.00	Nitrate	BMB	1.358	3.9889	3.9889	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.232**		**55.92**	

125 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/16/2021 00:31**	*Sample Weight:*	**1.0000**

Run Time:



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.89	Chloride	BMB	0.003	n.a.	n.a.	1.0000
2	2.17	Nitrite,N	BMB	0.010	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.012**		**0.00**	

Sequence: 102921
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method	Processing Method	Volume	Status	Inject Time
	STD1		Calibratio	BA1	1.00	1	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 2:57:23 PM -05:00
	STD2		Calibratio	BA2	1.00	2	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:04:47 PM -05:00
	STD3		Calibratio	BA3	1.00	3	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:12:12 PM -05:00
	STD4		Calibratio	BA4	1.00	4	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:19:37 PM -05:00
	STD5		Calibratio	BA5	1.00	5	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:27:03 PM -05:00
	STD6		Calibratio	BA6	1.00	6	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:34:27 PM -05:00
	ICV		Unknown	BA7	1.00		Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:41:50 PM -05:00
	ICB		Unknown	BA8	1.00		Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:56:37 PM -05:00
	CCV1		Unknown	R3	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 9:02:44 PM -05:00
	CCB		Unknown	R7	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 9:10:09 PM -05:00
	MBLK		Unknown	R5	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 9:17:34 PM -05:00
	LCS		Unknown	R2	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 9:24:59 PM -05:00
	HS21101035-01		Unknown	GA3	50.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 9:32:24 PM -05:00
	HS21101035-01MS		Unknown	GA4	50.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 9:39:48 PM -05:00
	HS21101035-01MSD		Unknown	GA5	50.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 9:47:11 PM -05:00
	HS21100881-01		Unknown	GB1	100.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 10:16:47 PM -05:00
	HS21100881-02		Unknown	GB2	100.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 10:24:10 PM -05:00
	CCV		Unknown	R1	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 10:31:36 PM -05:00
	CCB		Unknown	R4	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 10:39:00 PM -05:00
	HS21100881-03		Unknown	GB3	10.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 10:46:26 PM -05:00
	HS21100881-03MS		Unknown	GB4	10.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 10:53:50 PM -05:00
	HS21100881-03MSD		Unknown	GB5	10.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 11:01:14 PM -05:00
	HS21100881-05		Unknown	GB6	100.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 11:08:39 PM -05:00
	HS21100881-06		Unknown	GB7	100.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 11:16:04 PM -05:00
	HS21100881-07		Unknown	GB8	20.00		Anions Program IS	Anions Proce	5.0	Finished	10/29/2021 11:23:27 PM -05:00
	CCV1		Unknown	R3	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/30/2021 12:00:30 AM -05:00
	CCB		Unknown	R7	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/30/2021 12:07:56 AM -05:00

Sequence: 101521
Injection #6: STD6

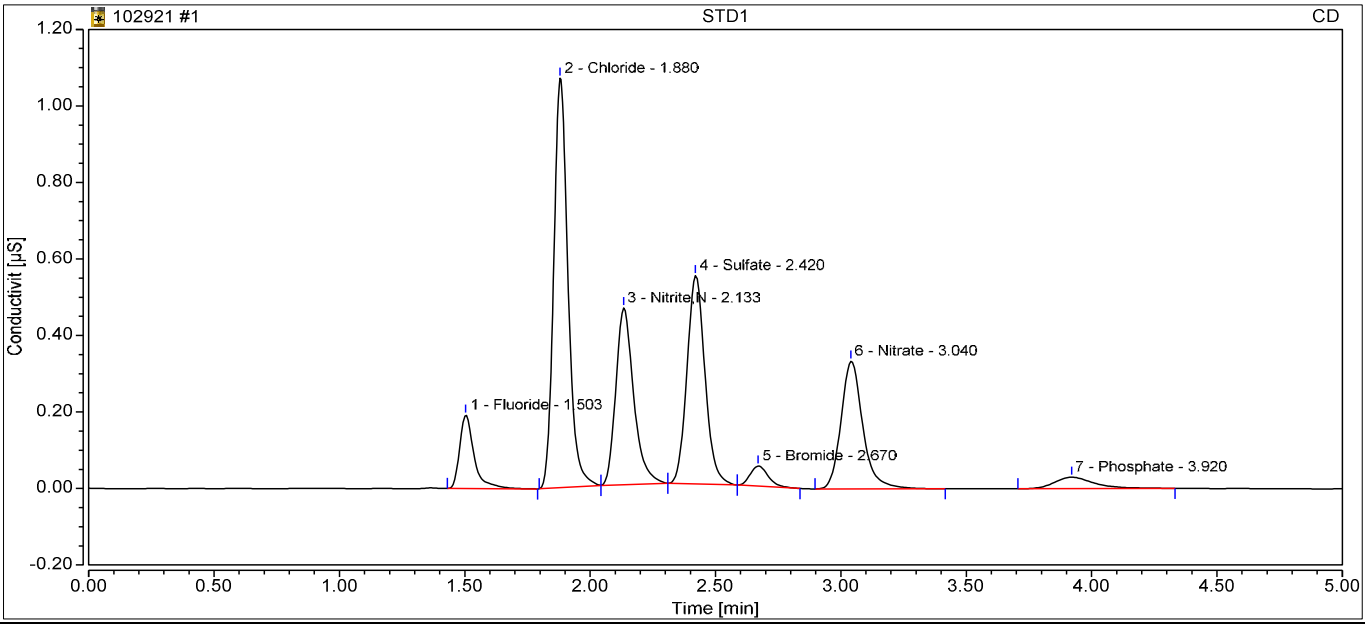
Calibration

Peak No.	Peak Name	Cal.Type	Eval.Type	Number of Points	Rel.Std.Dev. %	Coeff.of Determination	C0 (Offset)	C1 (Slope)	C2 (Curve)
1	*Fluoride*	*Lin, WithOffset, 1/*	*Area*	*6*	*14.8917*	*0.99901*	*-0.0076*	*0.2037*	*0.0000*
2	Chloride	Lin, WithOffset, 1/	Area	6	6.3298	0.99978	0.0062	0.1342	0.0000
3	Nitrite,N	Quad, WithOffset,	Area	6	6.9766	0.99974	0.0102	0.2986	-0.0023
4	Sulfate	Lin, WithOffset, 1/	Area	6	6.6535	0.99977	-0.0001	0.0971	0.0000
5	Bromide	Lin, WithOffset, 1/	Area	6	8.9157	0.99963	-0.0016	0.0548	0.0000
6	Nitrate	Lin, WithOffset, 1/	Area	6	6.7024	0.99976	0.0001	0.3403	0.0000
n.a.	Chlorate	Lin, WithOffset, 1/	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
7	Phosphate	Quad, WithOffset,	Area	6	11.6511	0.99965	-0.0052	0.0981	0.0012
Maximum					**14.8917**	0.99978			
Minimum					6.3298	**0.99901**			

1 STD1

Sample Name:	**STD1**	*Injection Volume:*	**5.00**
Vial Number:	**BA1**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 14:57**	*Sample Weight:*	**1.0000**

Run Time:



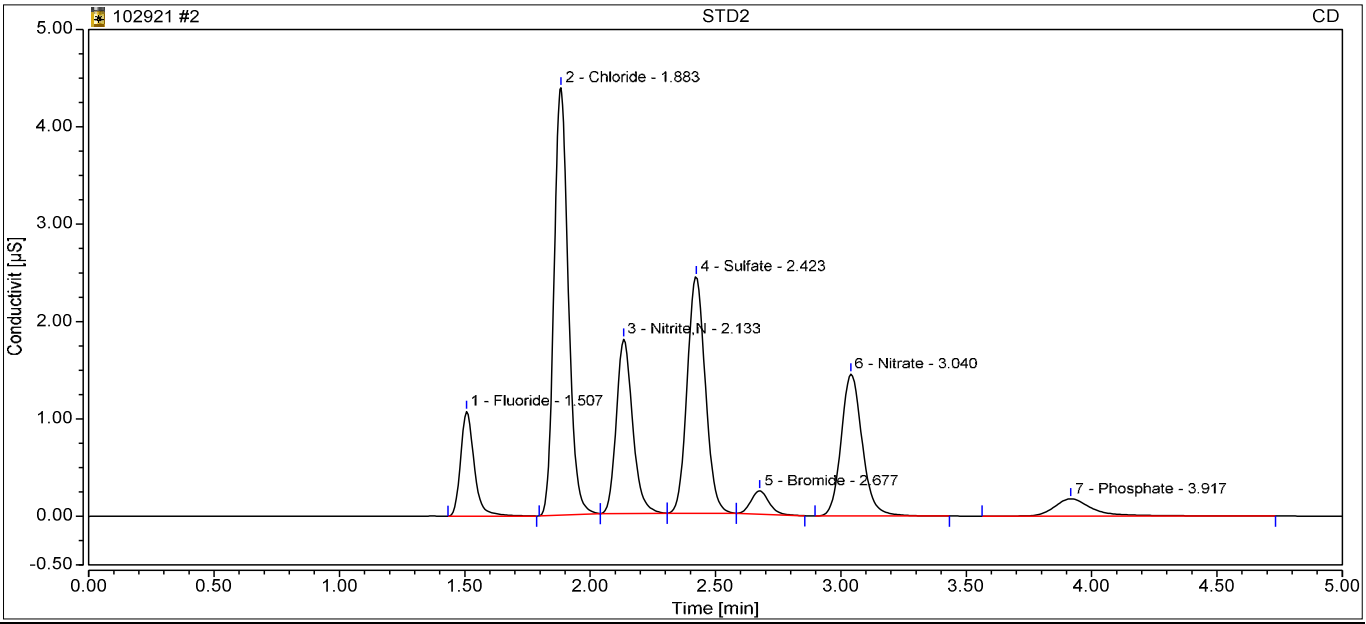
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	0.013	0.1005	0.1005	1.0000
2	1.88	Chloride	BMB	0.070	0.4785	0.4785	1.0000
3	2.13	Nitrite,N	BMB	0.038	0.0937	0.0937	1.0000
4	2.42	Sulfate	BMB	0.045	0.4684	0.4684	1.0000
5	2.67	Bromide	BMB	0.004	0.1078	0.1078	1.0000
6	3.04	Nitrate	BMB	0.034	0.0982	0.0982	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.92	Phosphate	BMB	0.005	0.1085	0.1085	1.0000
Total:			**0.000**	**0.210**		**1.46**	

2 STD2

Sample Name:	**STD2**	*Injection Volume:*	**5.00**
Vial Number:	**BA2**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:04**	*Sample Weight:*	**1.0000**

Run Time:



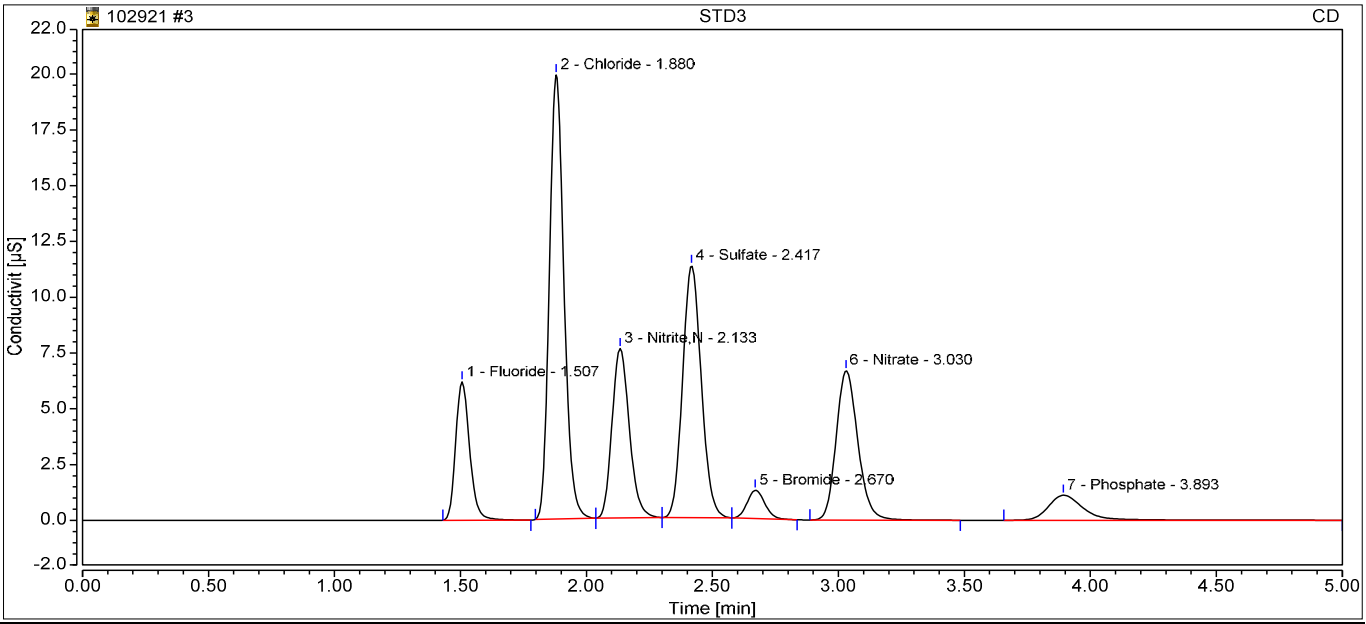
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.068	0.3708	0.3708	1.0000
2	1.88	Chloride	BMB	0.290	2.1158	2.1158	1.0000
3	2.13	Nitrite,N	BMB	0.135	0.4190	0.4190	1.0000
4	2.42	Sulfate	BMB	0.204	2.1052	2.1052	1.0000
5	2.68	Bromide	BMB	0.020	0.3906	0.3906	1.0000
6	3.04	Nitrate	BMB	0.142	0.4172	0.4172	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.92	Phosphate	BMB	0.032	0.3731	0.3731	1.0000
Total:			**0.000**	**0.891**		**6.19**	

3 STD3

Sample Name:	**STD3**	*Injection Volume:*	**5.00**
Vial Number:	**BA3**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:12**	*Sample Weight:*	**1.0000**

Run Time:



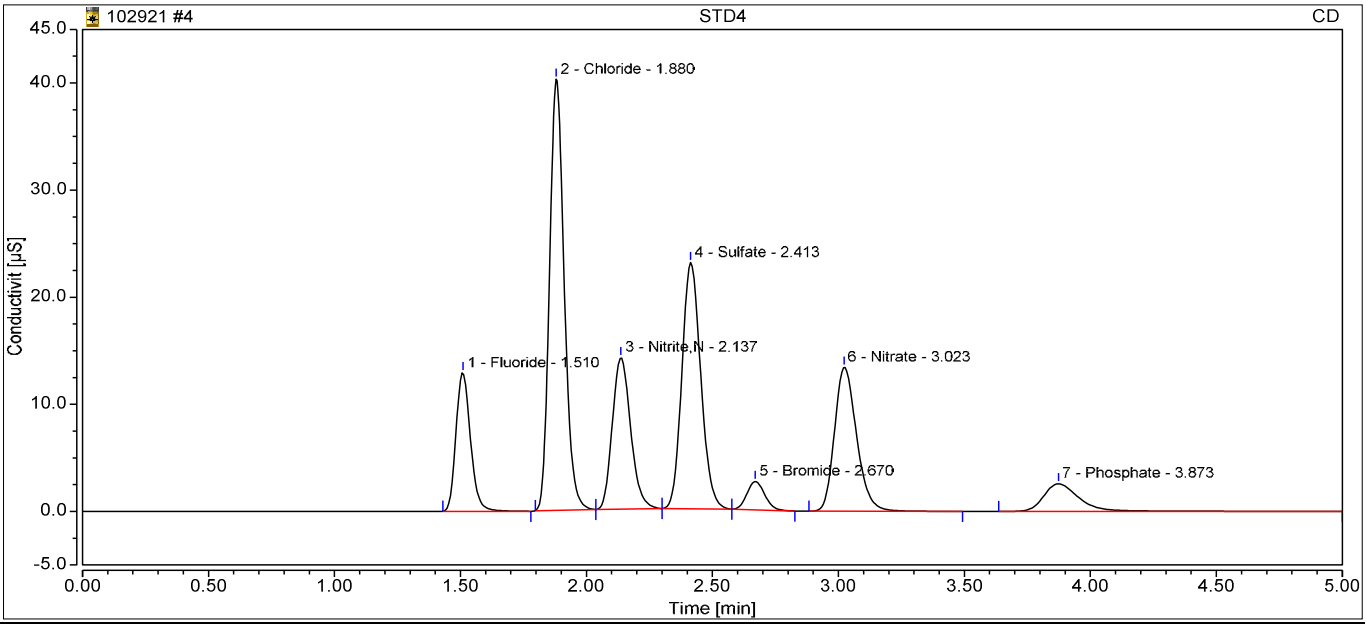
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.401	2.0041	2.0041	1.0000
2	1.88	Chloride	BMB	1.334	9.8953	9.8953	1.0000
3	2.13	Nitrite,N	BMB	0.605	2.0242	2.0242	1.0000
4	2.42	Sulfate	BMB	0.971	10.0035	10.0035	1.0000
5	2.67	Bromide	BMB	0.103	1.9116	1.9116	1.0000
6	3.03	Nitrate	BMB	0.668	1.9622	1.9622	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.89	Phosphate	BMB	0.185	1.8909	1.8909	1.0000
Total:			**0.000**	**4.266**		**29.69**	

4 STD4

Sample Name:	**STD4**	*Injection Volume:*	**5.00**
Vial Number:	**BA4**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:19**	*Sample Weight:*	**1.0000**

Run Time:



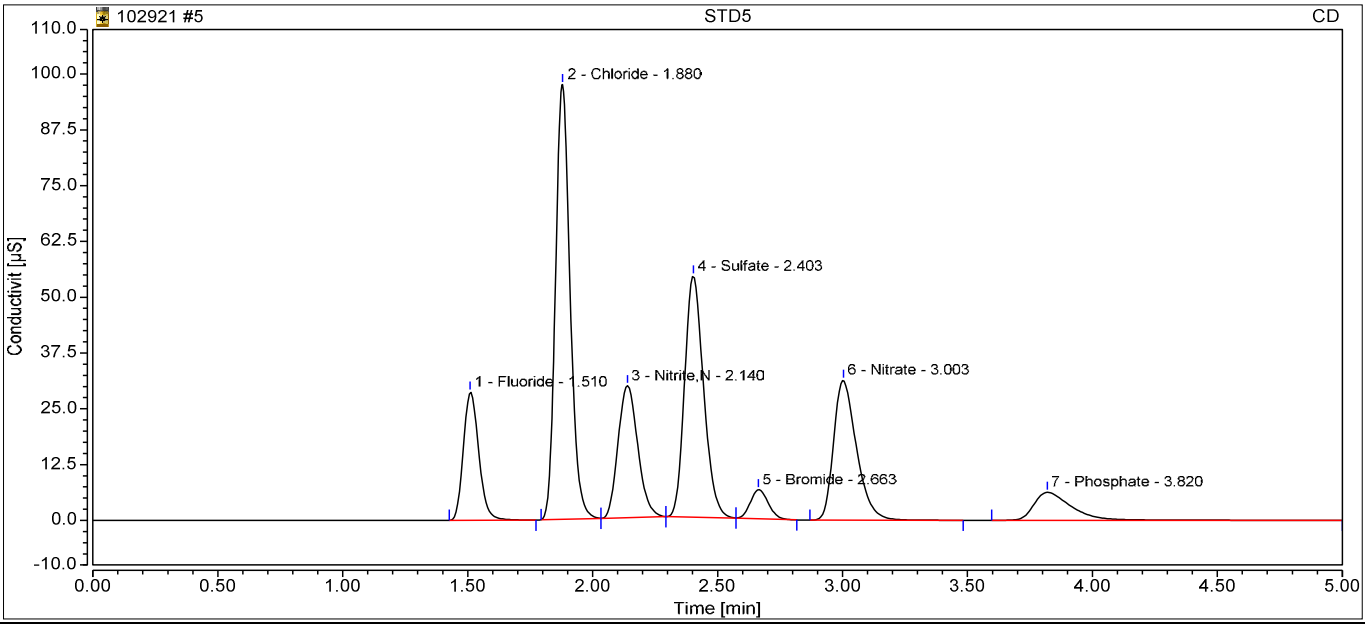
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.866	4.2910	4.2910	1.0000
2	1.88	Chloride	BMB	2.709	20.1365	20.1365	1.0000
3	2.14	Nitrite,N	BMB	1.191	4.0819	4.0819	1.0000
4	2.41	Sulfate	BMB	1.991	20.5124	20.5124	1.0000
5	2.67	Bromide	BMB	0.216	3.9679	3.9679	1.0000
6	3.02	Nitrate	BMB	1.366	4.0146	4.0146	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.87	Phosphate	BMB	0.424	4.1568	4.1568	1.0000
Total:			**0.000**	**8.762**		**61.16**	

5 STD5

Sample Name:	**STD5**	*Injection Volume:*	**5.00**
Vial Number:	**BA5**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:27**	*Sample Weight:*	**1.0000**

Run Time:



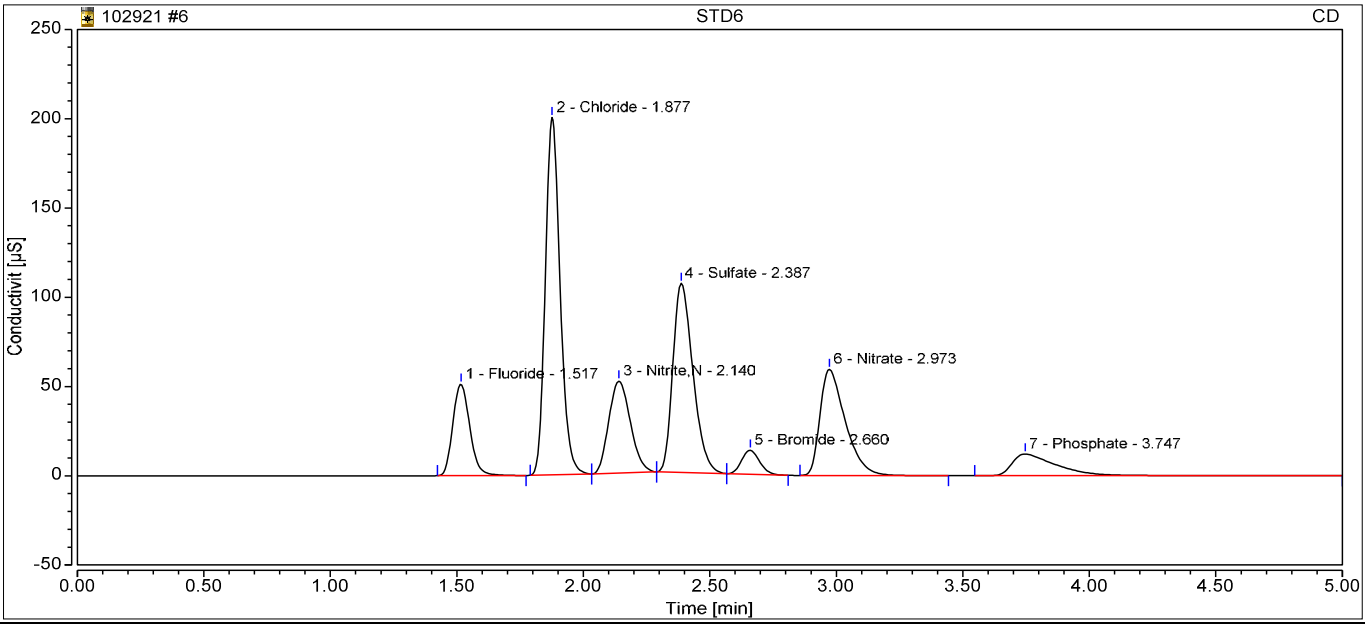
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	2.057	10.1376	10.1376	1.0000
2	1.88	Chloride	BMB	6.582	48.9987	48.9987	1.0000
3	2.14	Nitrite,N	BMB	2.709	9.7764	9.7764	1.0000
4	2.40	Sulfate	BMB	4.762	49.0593	49.0593	1.0000
5	2.66	Bromide	BMB	0.537	9.8247	9.8247	1.0000
6	3.00	Nitrate	BMB	3.333	9.7942	9.7942	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.82	Phosphate	BMB	1.095	9.9725	9.9725	1.0000
Total:			**0.000**	**21.075**		**147.56**	

6 STD6

Sample Name:	**STD6**	*Injection Volume:*	**5.00**
Vial Number:	**BA6**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:34**	*Sample Weight:*	**1.0000**

Run Time:



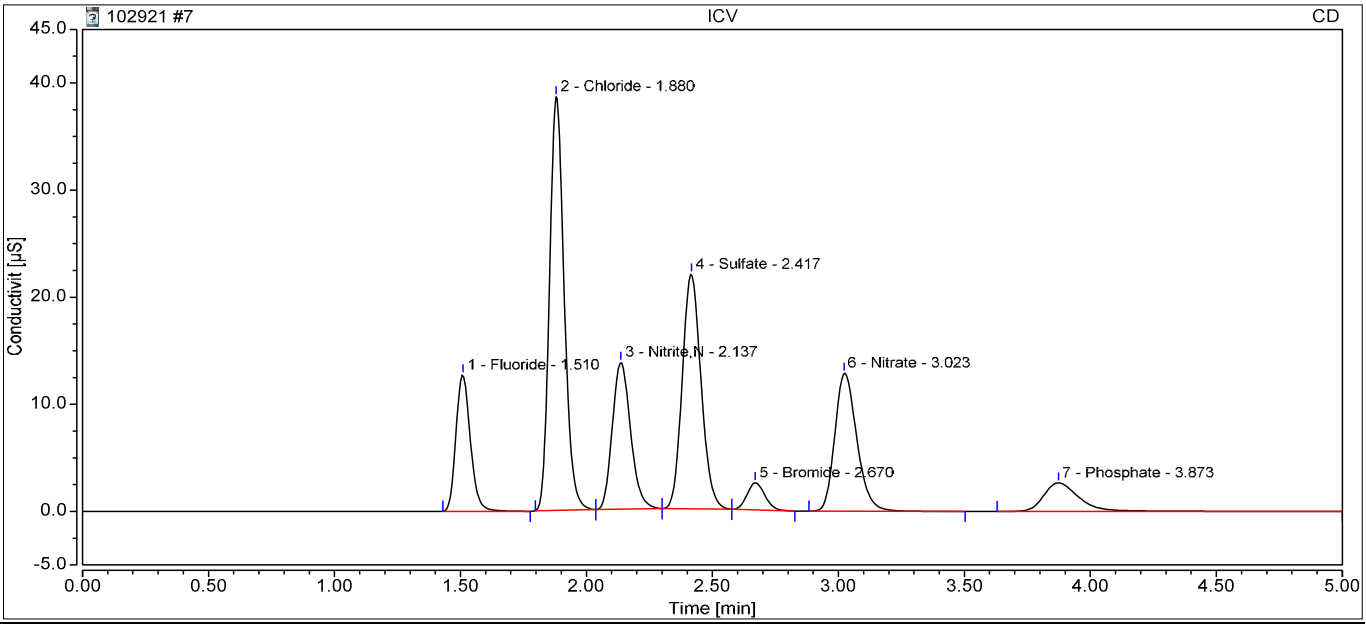
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	3.983	19.5961	19.5961	1.0000
2	1.88	Chloride	BMB	13.545	100.8752	100.8752	1.0000
3	2.14	Nitrite,N	BMB	5.085	20.1110	20.1110	1.0000
4	2.39	Sulfate	BMB	9.740	100.3513	100.3513	1.0000
5	2.66	Bromide	BMB	1.110	20.2973	20.2973	1.0000
6	2.97	Nitrate	BMB	6.879	20.2136	20.2136	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.75	Phosphate	BMB	2.448	19.9964	19.9964	1.0000
Total:			**0.000**	**42.790**		**301.44**	

7 ICV

Sample Name:	**ICV**	*Injection Volume:*	**5.00**
Vial Number:	**BA7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:41**	*Sample Weight:*	**1.0000**

Run Time:



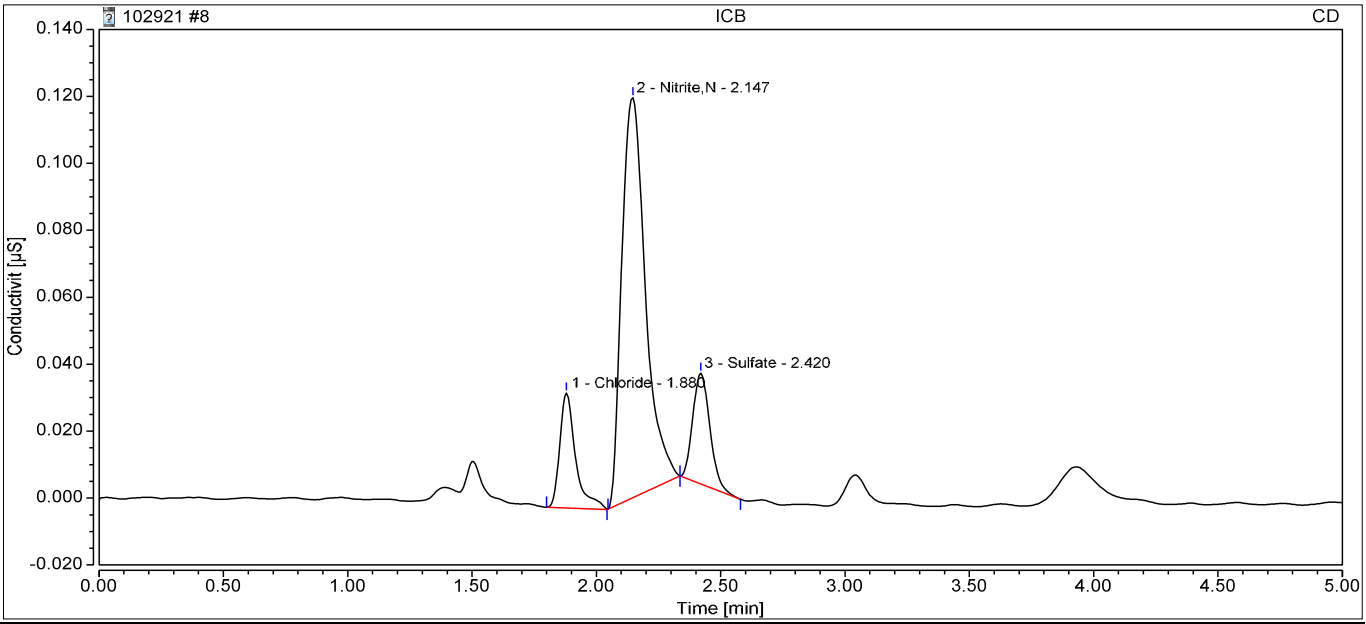
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.849	4.2062	4.2062	1.0000
2	1.88	Chloride	BMB	2.597	19.3008	19.3008	1.0000
3	2.14	Nitrite,N	BMB	1.152	3.9447	3.9447	1.0000
4	2.42	Sulfate	BMB	1.895	19.5248	19.5248	1.0000
5	2.67	Bromide	BMB	0.207	3.7999	3.7999	1.0000
6	3.02	Nitrate	BMB	1.307	3.8406	3.8406	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.87	Phosphate	BMB	0.438	4.2917	4.2917	1.0000
Total:			**0.000**	**8.445**		**58.91**	

8 ICB

Sample Name:	**ICB**	*Injection Volume:*	**5.00**
Vial Number:	**BA8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:56**	*Sample Weight:*	**1.0000**

Run Time:



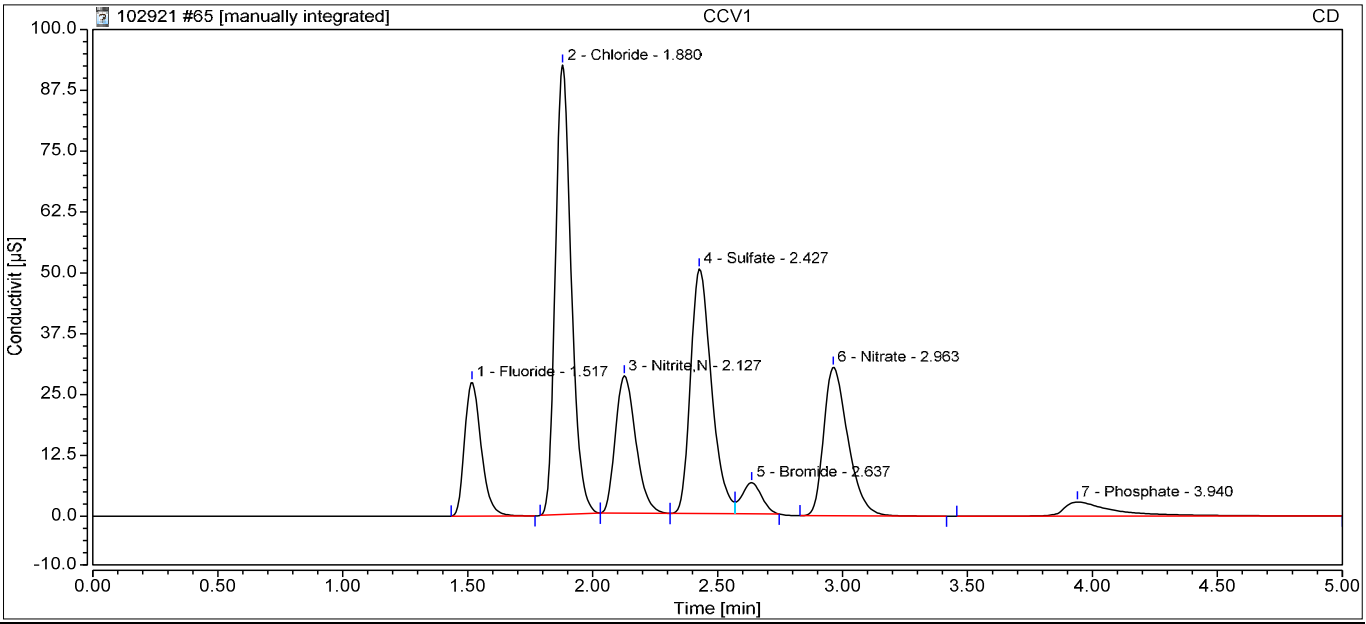
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.003	n.a.	n.a.	1.0000
2	2.15	Nitrite,N	BMB	0.013	0.0102	0.0102	1.0000
3	2.42	Sulfate	BMB	0.003	0.0287	0.0287	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.018**		**0.04**	

65 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/29/2021 21:02**	*Sample Weight:*	**1.0000**

Run Time:



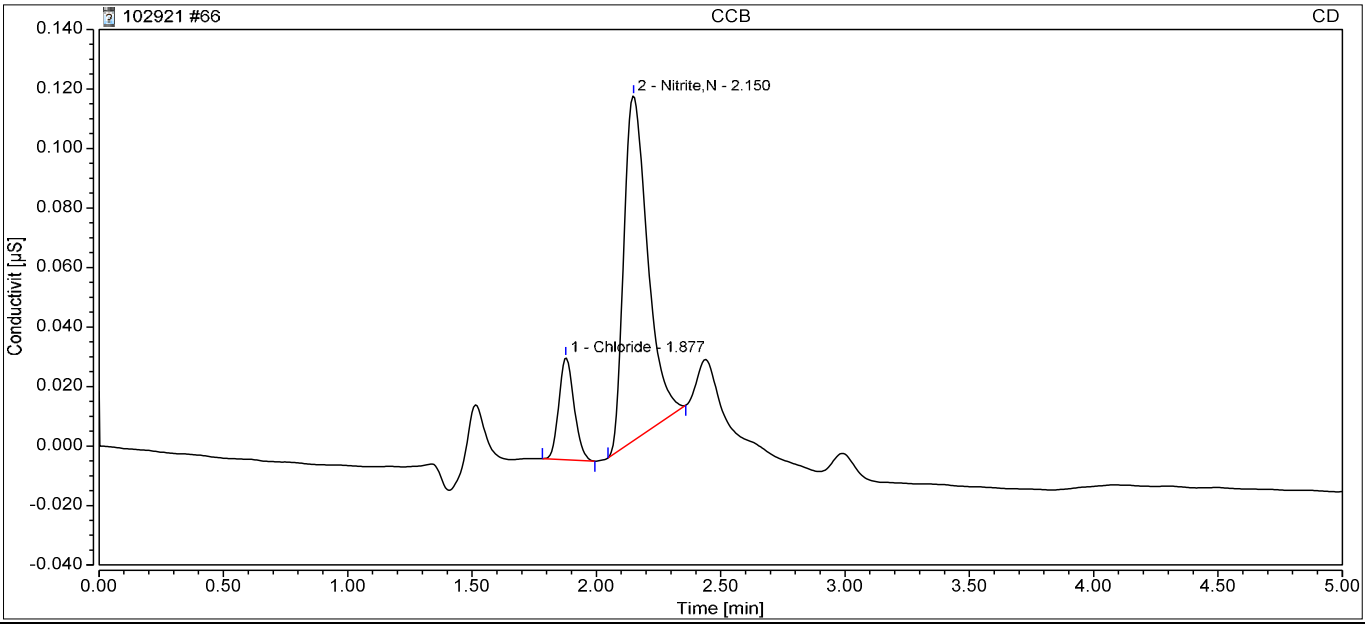
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	2.118	10.4374	10.4374	1.0000
2	1.88	Chloride	BMB	6.821	50.7794	50.7794	1.0000
3	2.13	Nitrite,N	BMb*	2.677	9.6504	9.6504	1.0000
4	2.43	Sulfate	bM *	4.901	50.4993	50.4993	1.0000
5	2.64	Bromide	MB*	0.592	10.8423	10.8423	1.0000
6	2.96	Nitrate	BMB	3.435	10.0943	10.0943	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.94	Phosphate	BMB	0.701	6.6481	6.6481	1.0000
Total:			**0.000**	**21.247**		**148.95**	

66 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/29/2021 21:10**	*Sample Weight:*	**1.0000**

Run Time:



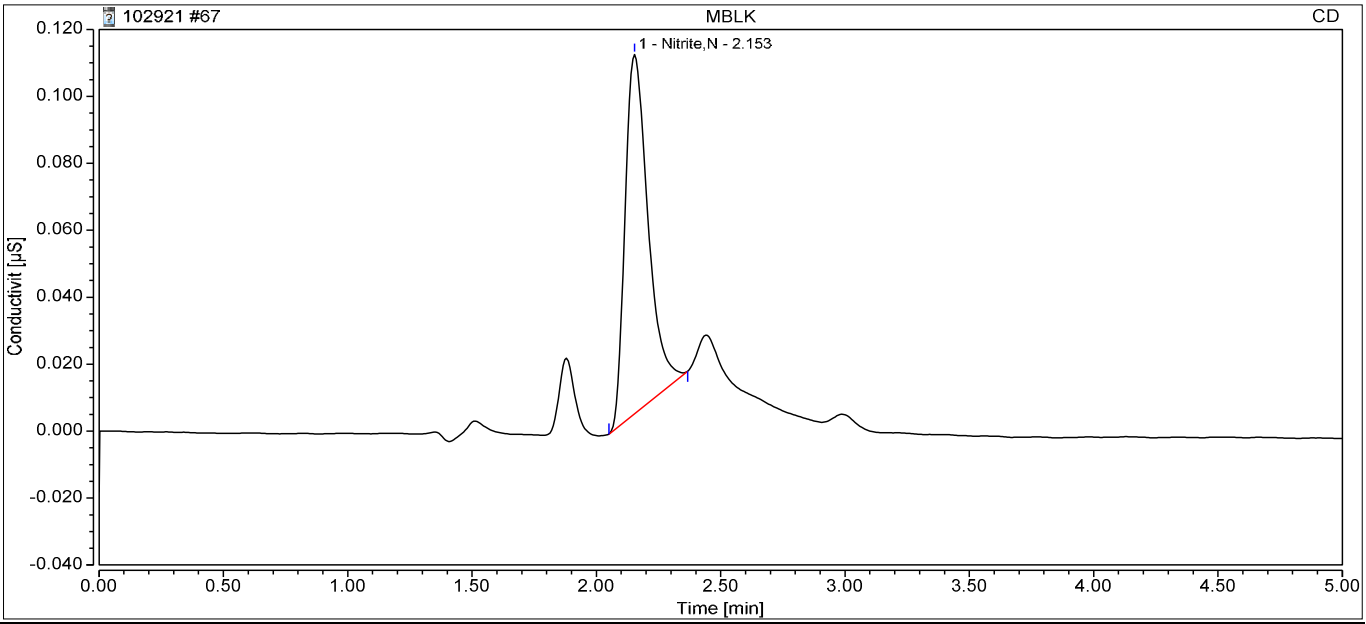
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.002	n.a.	n.a.	1.0000
2	2.15	Nitrite,N	BMB	0.013	0.0091	0.0091	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.015**		**0.01**	

67 MBLK

Sample Name:	**MBLK**	*Injection Volume:*	**5.00**
Vial Number:	**R5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/29/2021 21:17**	*Sample Weight:*	**1.0000**

Run Time:



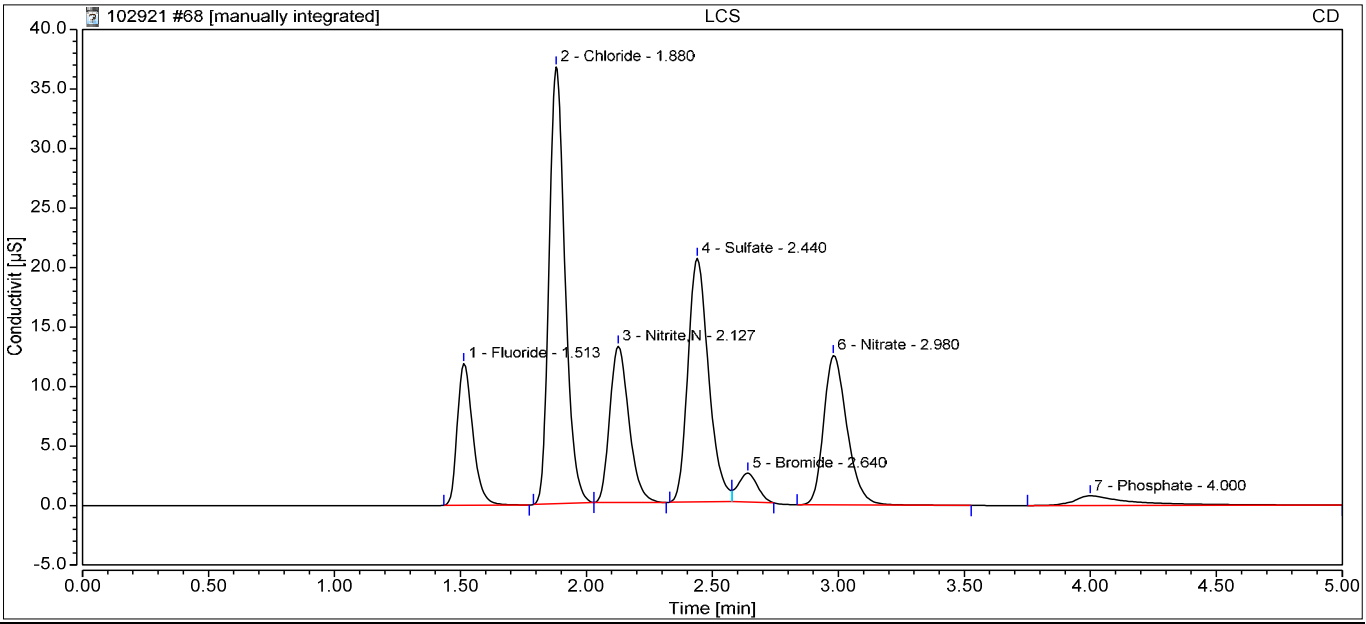
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.15	Nitrite,N	BMB	0.011	0.0044	0.0044	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.011**		**0.00**	

68 LCS

Sample Name:	**LCS**	*Injection Volume:*	**5.00**
Vial Number:	**R2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/29/2021 21:24**	*Sample Weight:*	**1.0000**

Run Time:



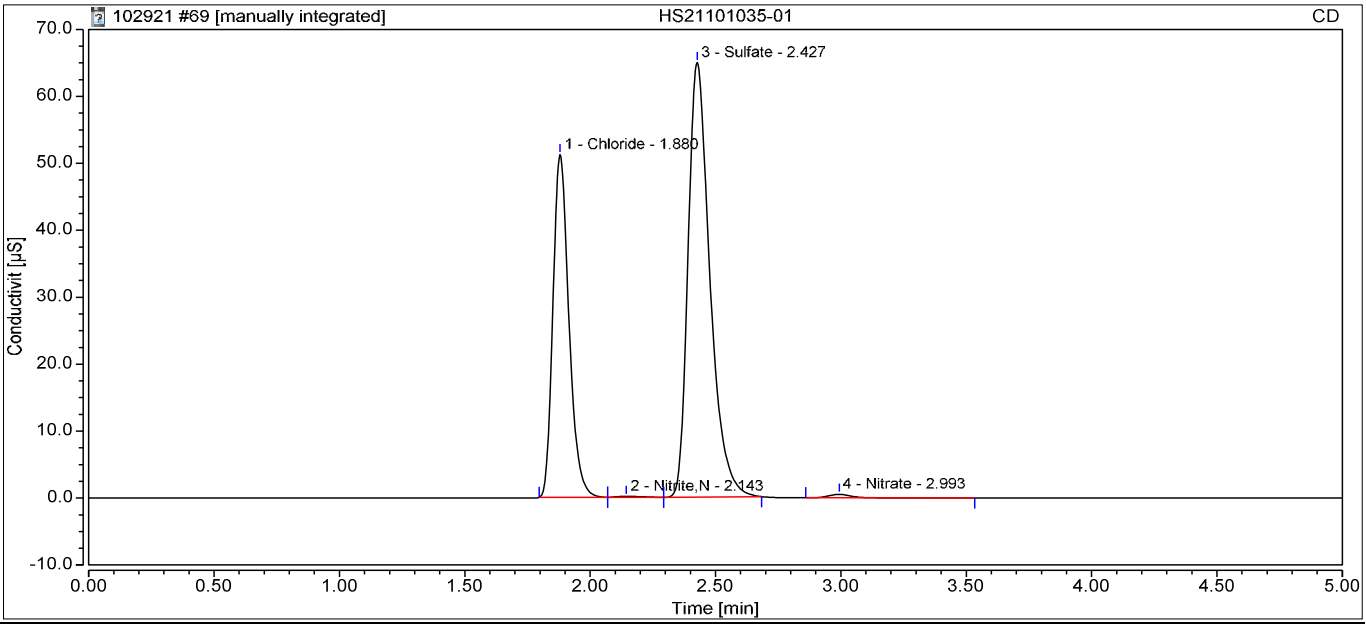
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.854	4.2292	4.2292	1.0000
2	1.88	Chloride	BMB	2.692	20.0130	20.0130	1.0000
3	2.13	Nitrite,N	BMB	1.160	3.9722	3.9722	1.0000
4	2.44	Sulfate	BM *	1.950	20.0927	20.0927	1.0000
5	2.64	Bromide	MB*	0.217	3.9815	3.9815	1.0000
6	2.98	Nitrate	BMB	1.347	3.9579	3.9579	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.00	Phosphate	BMB	0.217	2.2085	2.2085	1.0000
Total:			**0.000**	**8.437**		**58.45**	

69 HS21101035-01

Sample Name:	**HS21101035-01**	*Injection Volume:*	**5.00**
Vial Number:	**GA3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**50.0000**
Recording Time:	**10/29/2021 21:32**	*Sample Weight:*	**1.0000**

Run Time:

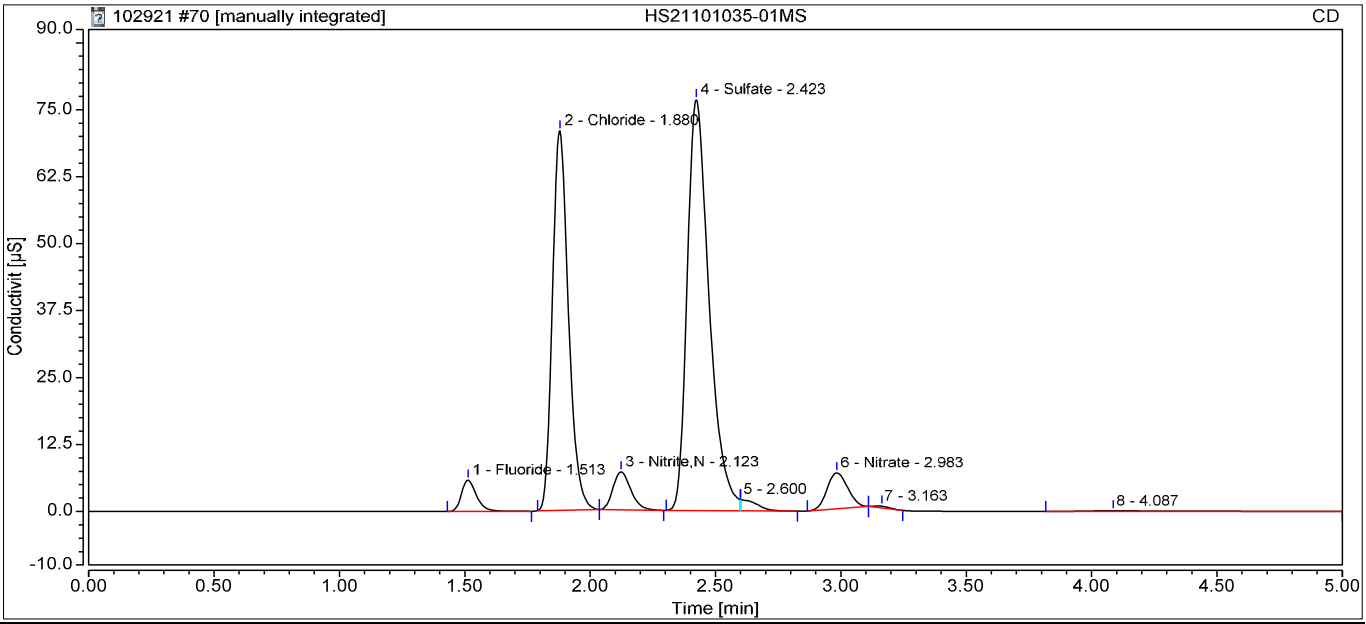


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	50.0000
1	1.88	Chloride	BMB	3.771	28.0508	1402.5377	50.0000
2	2.14	Nitrite,N	BMb*	0.017	0.0227	1.1368	50.0000
3	2.43	Sulfate	bMB*	6.554	67.5229	3376.1438	50.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	50.0000
4	2.99	Nitrate	BMB	0.055	0.1598	7.9911	50.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	50.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	50.0000
Total:			**0.000**	**10.396**		**4787.81**	

70	*HS21101035-01MS*		
Sample Name:	**HS21101035-01MS**	*Injection Volume:*	**5.00**
Vial Number:	**GA4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**50.0000**
Recording Time:	**10/29/2021 21:39**	*Sample Weight:*	**1.0000**

Run Time:

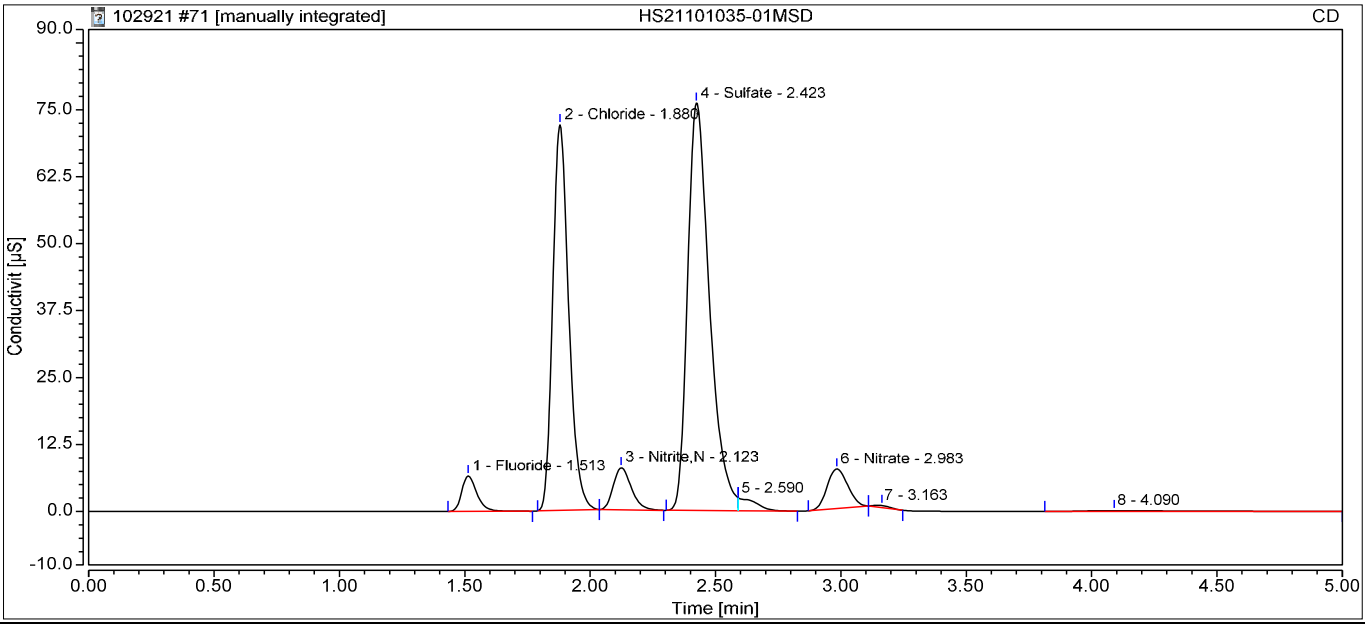


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.407	2.0336	101.6798	50.0000
2	1.88	Chloride	BMB	5.238	38.9791	1948.9543	50.0000
3	2.12	Nitrite,N	BMB	0.586	1.9597	97.9836	50.0000
4	2.42	Sulfate	BM *	7.799	80.3517	4017.5830	50.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	50.0000
6	2.98	Nitrate	BMB	0.641	1.8828	94.1411	50.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	50.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	50.0000
Total:			**0.000**	**14.670**		**6260.34**	

71	*HS21101035-01MSD*		
Sample Name:	**HS21101035-01MSD**	*Injection Volume:*	**5.00**
Vial Number:	**GA5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**50.0000**
Recording Time:	**10/29/2021 21:47**	*Sample Weight:*	**1.0000**

Run Time:

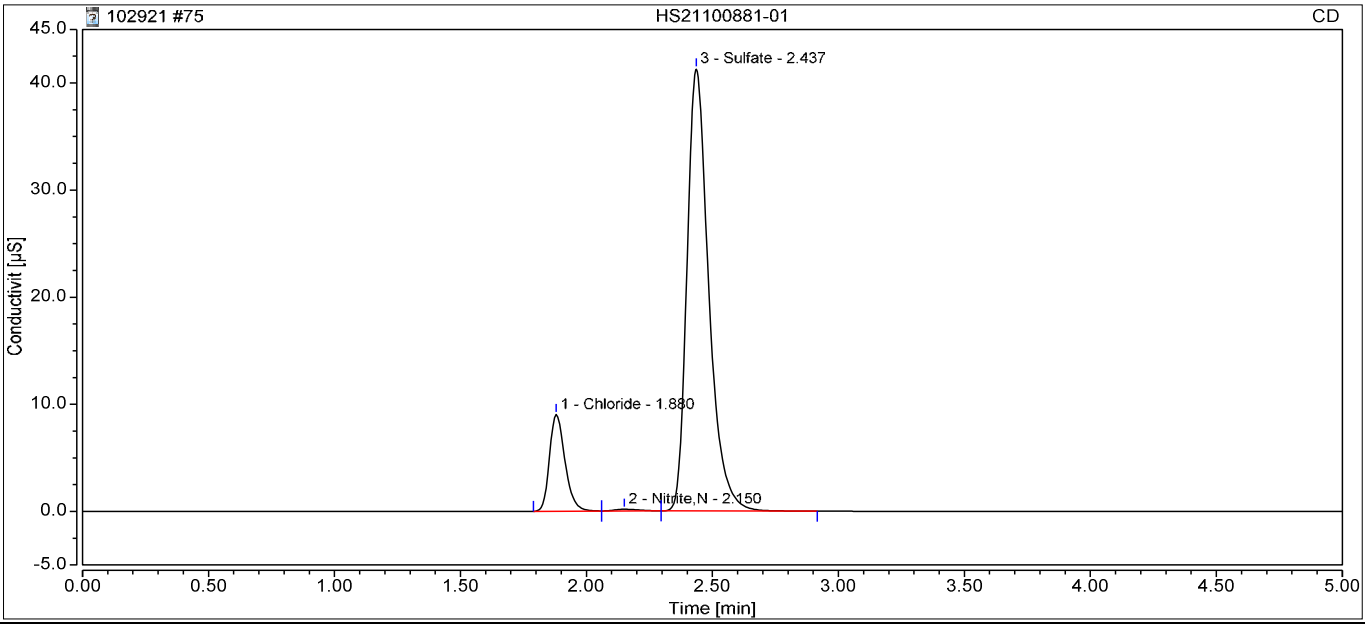


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.465	2.3213	116.0641	50.0000
2	1.88	Chloride	BMB	5.318	39.5773	1978.8653	50.0000
3	2.12	Nitrite,N	BMB	0.654	2.1931	109.6539	50.0000
4	2.42	Sulfate	BM *	7.708	79.4195	3970.9759	50.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	50.0000
6	2.98	Nitrate	BMB	0.707	2.0767	103.8333	50.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	50.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	50.0000
Total:			**0.000**	**14.852**		**6279.39**	

75 HS21100881-01			
Sample Name:	**HS21100881-01**	*Injection Volume:*	**5.00**
Vial Number:	**GB1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**100.0000**
Recording Time:	**10/29/2021 22:16**	*Sample Weight:*	**1.0000**

Run Time:



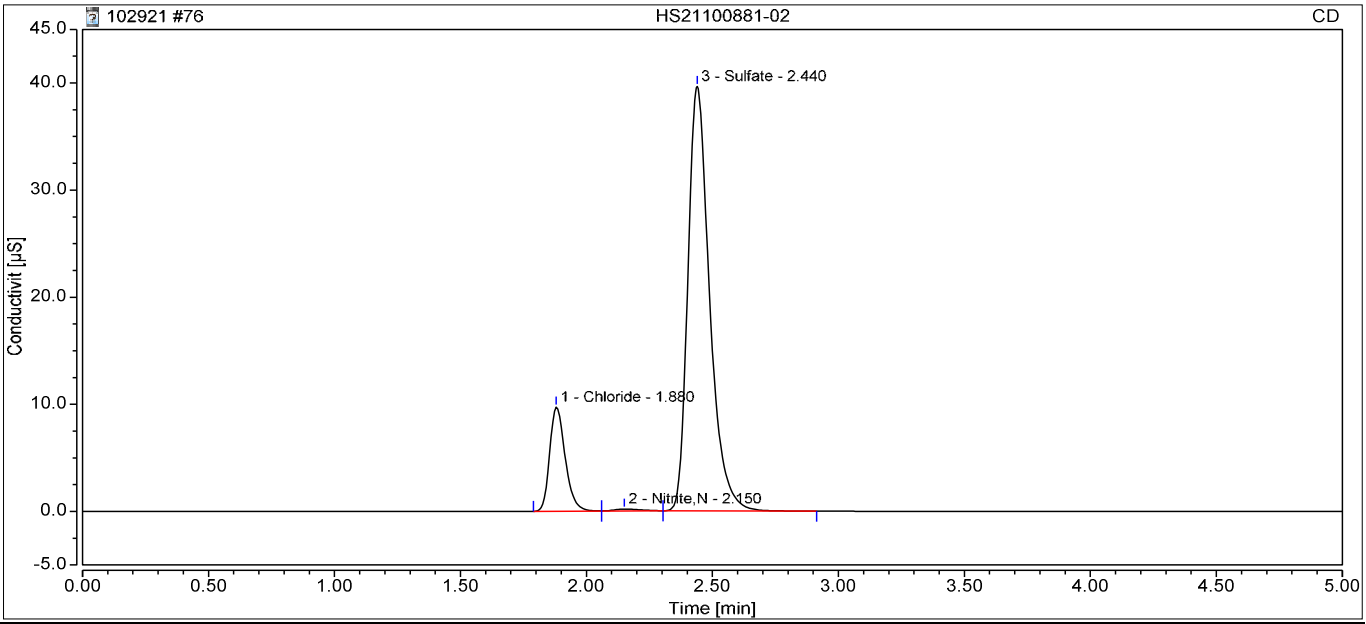
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	100.0000
1	1.88	Chloride	BMB	0.644	4.7523	475.2339	100.0000
2	2.15	Nitrite,N	BMB	0.017	0.0234	2.3385	100.0000
3	2.44	Sulfate	BMB	4.126	42.5081	4250.8088	100.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	100.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	100.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	100.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	100.0000
Total:			**0.000**	**4.787**		**4728.38**	

76 HS21100881-02

Sample Name:	**HS21100881-02**	*Injection Volume:*	**5.00**
Vial Number:	**GB2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**100.0000**
Recording Time:	**10/29/2021 22:24**	*Sample Weight:*	**1.0000**

Run Time:



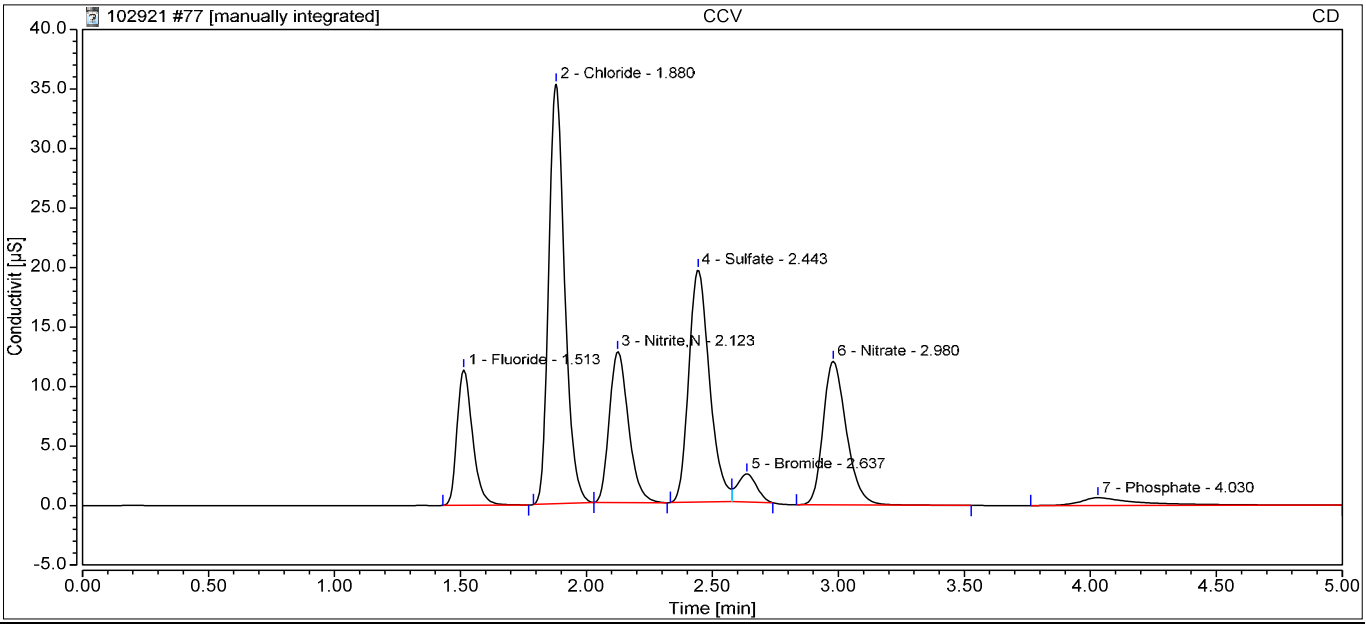
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	100.0000
1	1.88	Chloride	BMB	0.694	5.1240	512.4043	100.0000
2	2.15	Nitrite,N	BMB	0.019	0.0298	2.9814	100.0000
3	2.44	Sulfate	BMB	3.950	40.6970	4069.7023	100.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	100.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	100.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	100.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	100.0000
Total:			**0.000**	**4.663**		**4585.09**	

77 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/29/2021 22:31**	*Sample Weight:*	**1.0000**

Run Time:



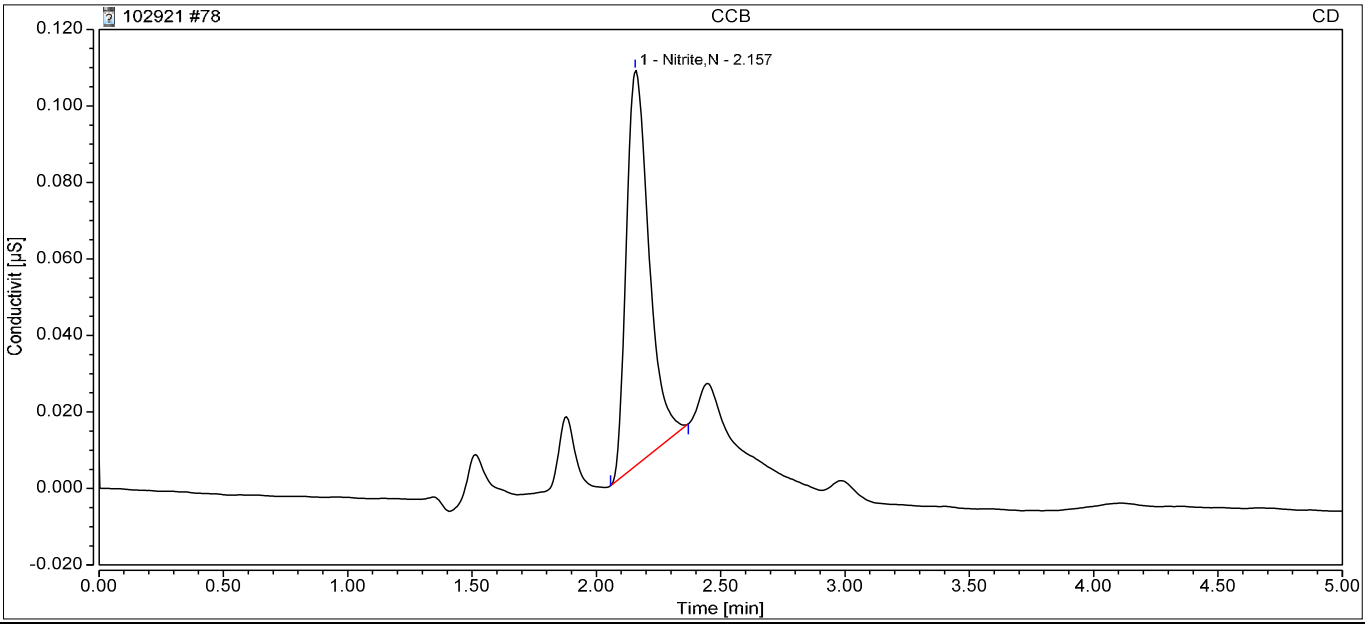
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.815	4.0376	4.0376	1.0000
2	1.88	Chloride	BMB	2.586	19.2192	19.2192	1.0000
3	2.12	Nitrite,N	BMB	1.118	3.8247	3.8247	1.0000
4	2.44	Sulfate	BM *	1.862	19.1827	19.1827	1.0000
5	2.64	Bromide	MB*	0.209	3.8455	3.8455	1.0000
6	2.98	Nitrate	BMB	1.294	3.8014	3.8014	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.03	Phosphate	BMB	0.180	1.8417	1.8417	1.0000
Total:			**0.000**	**8.063**		**55.75**	

78 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/29/2021 22:39**	*Sample Weight:*	**1.0000**

Run Time:



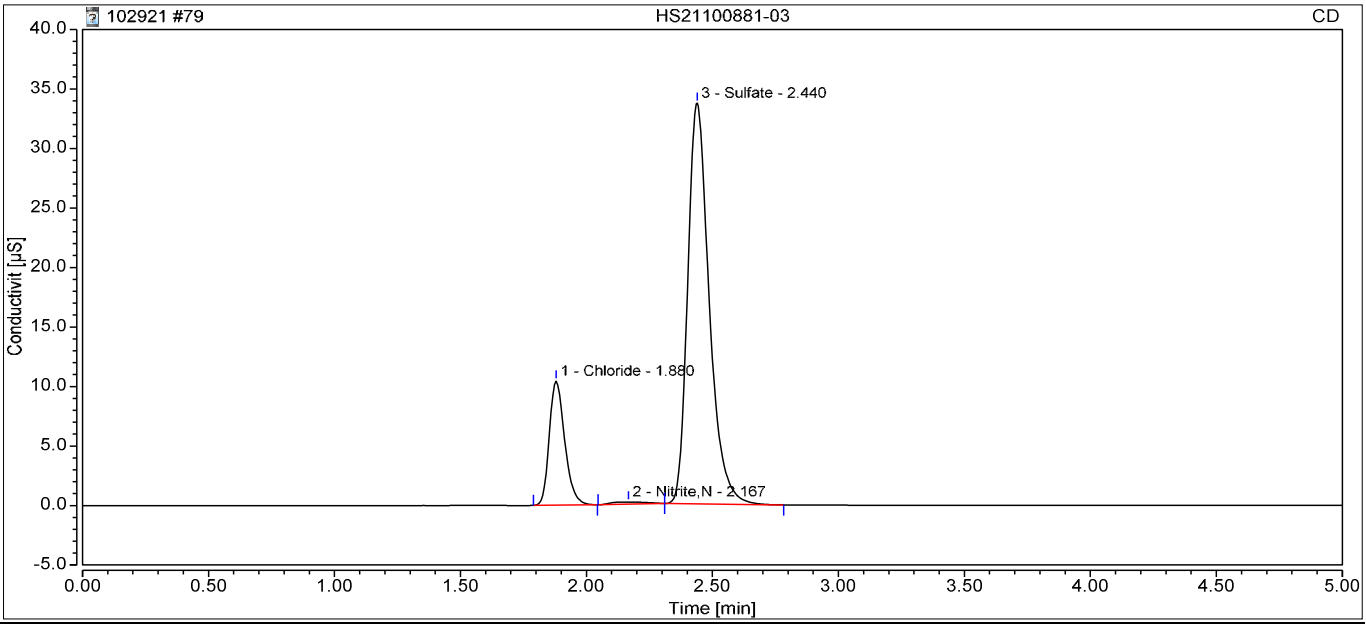
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.16	Nitrite,N	BMB	0.011	0.0027	0.0027	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.011**		**0.00**	

79 HS21100881-03

Sample Name:	**HS21100881-03**	*Injection Volume:*	**5.00**
Vial Number:	**GB3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**10/29/2021 22:46**	*Sample Weight:*	**1.0000**

Run Time:



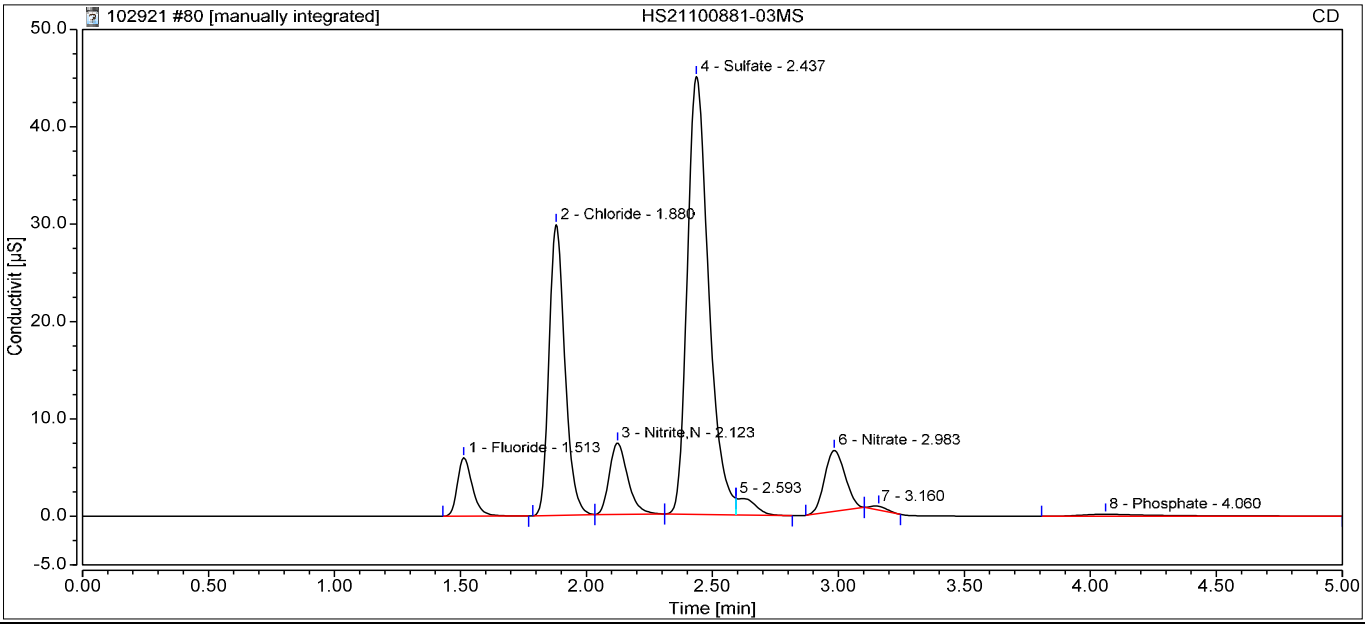
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	10.0000
1	1.88	Chloride	BMB	0.742	5.4816	54.8156	10.0000
2	2.17	Nitrite,N	BMB	0.029	0.0633	0.6331	10.0000
3	2.44	Sulfate	BMB	3.324	34.2499	342.4990	10.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	10.0000
Total:			**0.000**	**4.095**		**397.95**	

80 HS21100881-03MS

Sample Name:	**HS21100881-03MS**	*Injection Volume:*	**5.00**
Vial Number:	**GB4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**10/29/2021 22:53**	*Sample Weight:*	**1.0000**

Run Time:



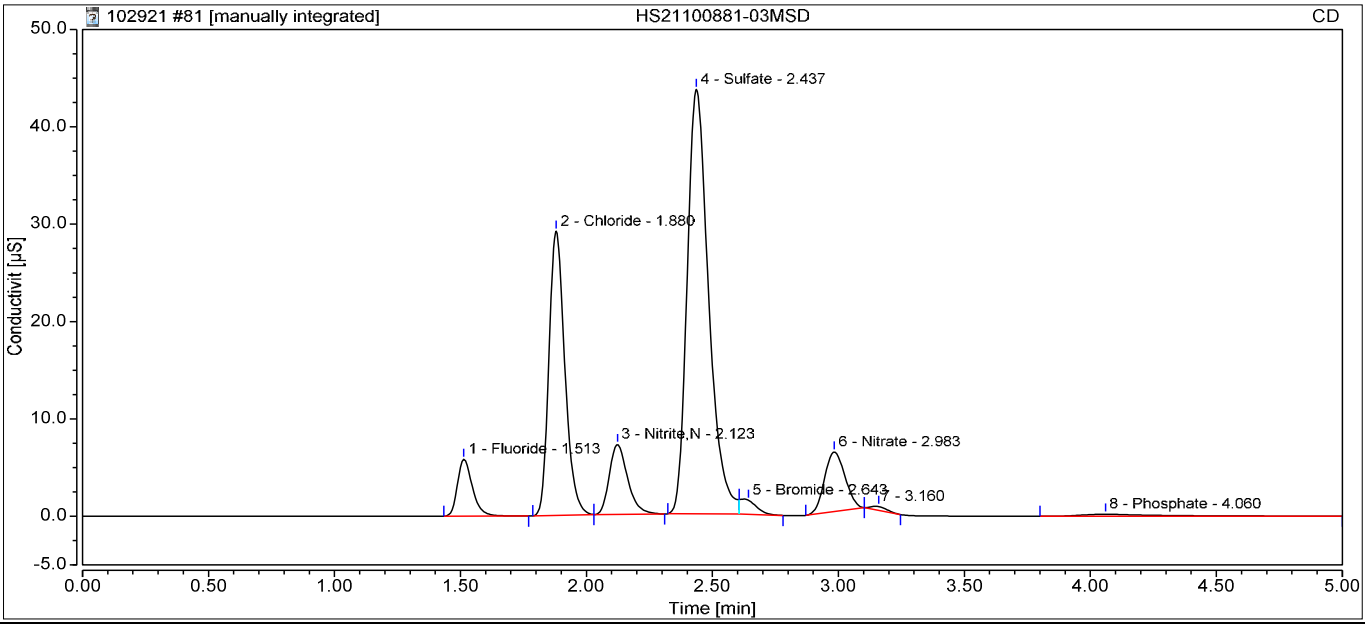
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.415	2.0772	20.7720	10.0000
2	1.88	Chloride	BMB	2.180	16.1975	161.9751	10.0000
3	2.12	Nitrite,N	BMB	0.619	2.0711	20.7111	10.0000
4	2.44	Sulfate	BM *	4.441	45.7522	457.5219	10.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	10.0000
6	2.98	Nitrate	BMB	0.591	1.7353	17.3532	10.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	10.0000
8	4.06	Phosphate	BMB	0.075	0.8139	8.1386	10.0000
Total:			**0.000**	**8.321**		**686.47**	

81 HS21100881-03MSD

Sample Name:	**HS21100881-03MSD**	*Injection Volume:*	**5.00**
Vial Number:	**GB5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**10/29/2021 23:01**	*Sample Weight:*	**1.0000**

Run Time:



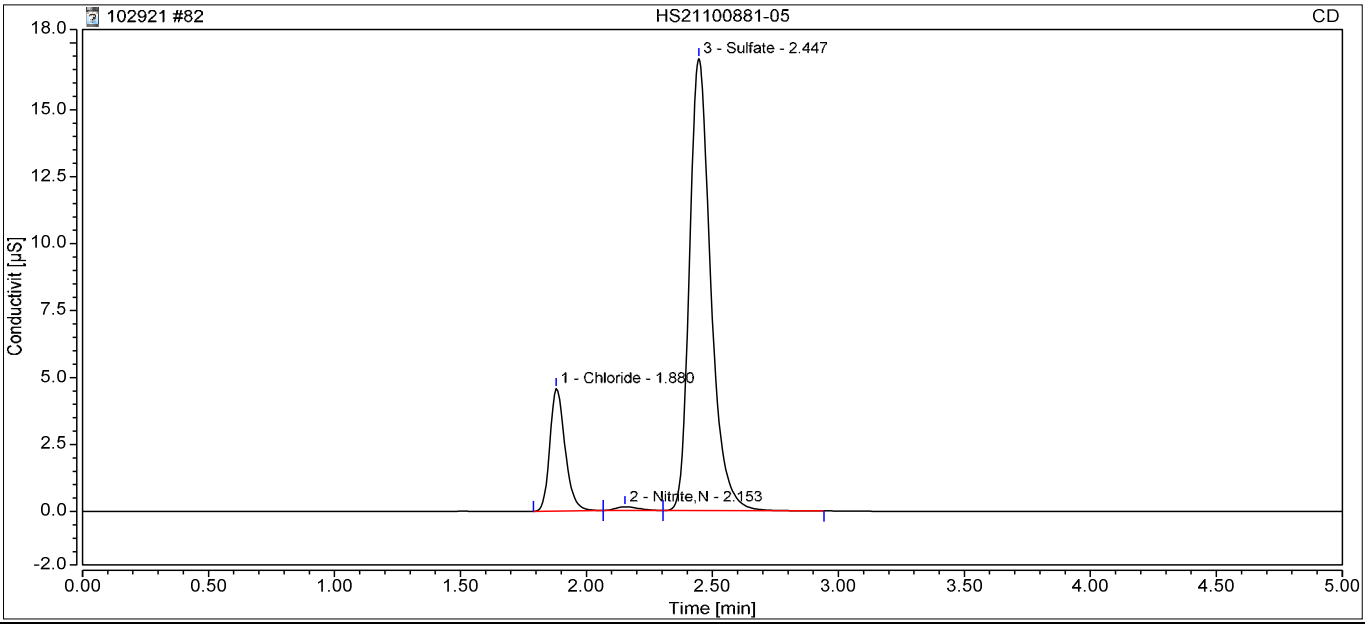
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.405	2.0256	20.2563	10.0000
2	1.88	Chloride	BMB	2.133	15.8479	158.4786	10.0000
3	2.12	Nitrite,N	BMB	0.605	2.0239	20.2394	10.0000
4	2.44	Sulfate	BM *	4.310	44.4030	444.0300	10.0000
5	2.64	Bromide	MB*	0.113	2.0943	20.9433	10.0000
6	2.98	Nitrate	BMB	0.577	1.6958	16.9579	10.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	10.0000
8	4.06	Phosphate	BMB	0.077	0.8300	8.2996	10.0000
Total:			**0.000**	**8.220**		**689.21**	

82 HS21100881-05

Sample Name:	**HS21100881-05**	*Injection Volume:*	**5.00**
Vial Number:	**GB6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**100.0000**
Recording Time:	**10/29/2021 23:08**	*Sample Weight:*	**1.0000**

Run Time:



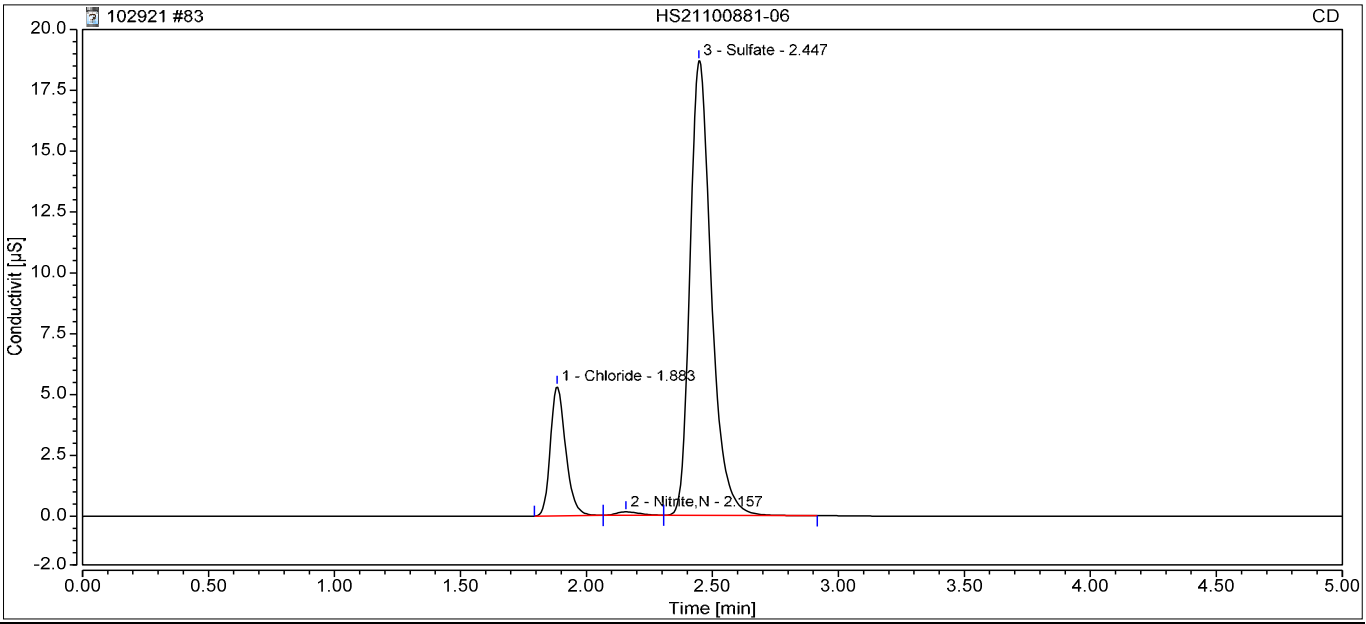
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	100.0000
1	1.88	Chloride	BMB	0.321	2.3427	234.2748	100.0000
2	2.15	Nitrite,N	BMB	0.014	0.0135	1.3525	100.0000
3	2.45	Sulfate	BMB	1.650	16.9984	1699.8381	100.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	100.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	100.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	100.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	100.0000
Total:			**0.000**	**1.985**		**1935.47**	

83 HS21100881-06

Sample Name:	**HS21100881-06**	*Injection Volume:*	**5.00**
Vial Number:	**GB7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**100.0000**
Recording Time:	**10/29/2021 23:16**	*Sample Weight:*	**1.0000**

Run Time:



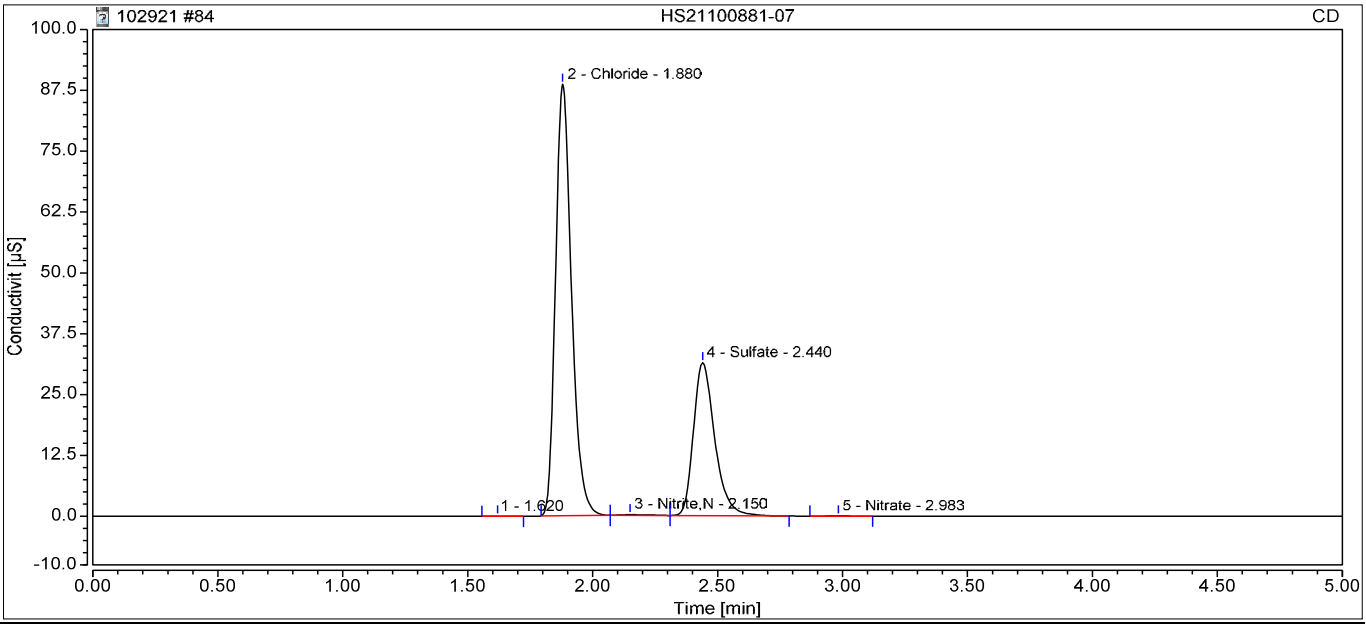
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	100.0000
1	1.88	Chloride	BMB	0.374	2.7382	273.8187	100.0000
2	2.16	Nitrite,N	BMB	0.015	0.0166	1.6575	100.0000
3	2.45	Sulfate	BMB	1.832	18.8804	1888.0430	100.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	100.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	100.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	100.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	100.0000
Total:			**0.000**	**2.221**		**2163.52**	

84 HS21100881-07

Sample Name:	**HS21100881-07**	*Injection Volume:*	**5.00**
Vial Number:	**GB8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**20.0000**
Recording Time:	**10/29/2021 23:23**	*Sample Weight:*	**1.0000**

Run Time:



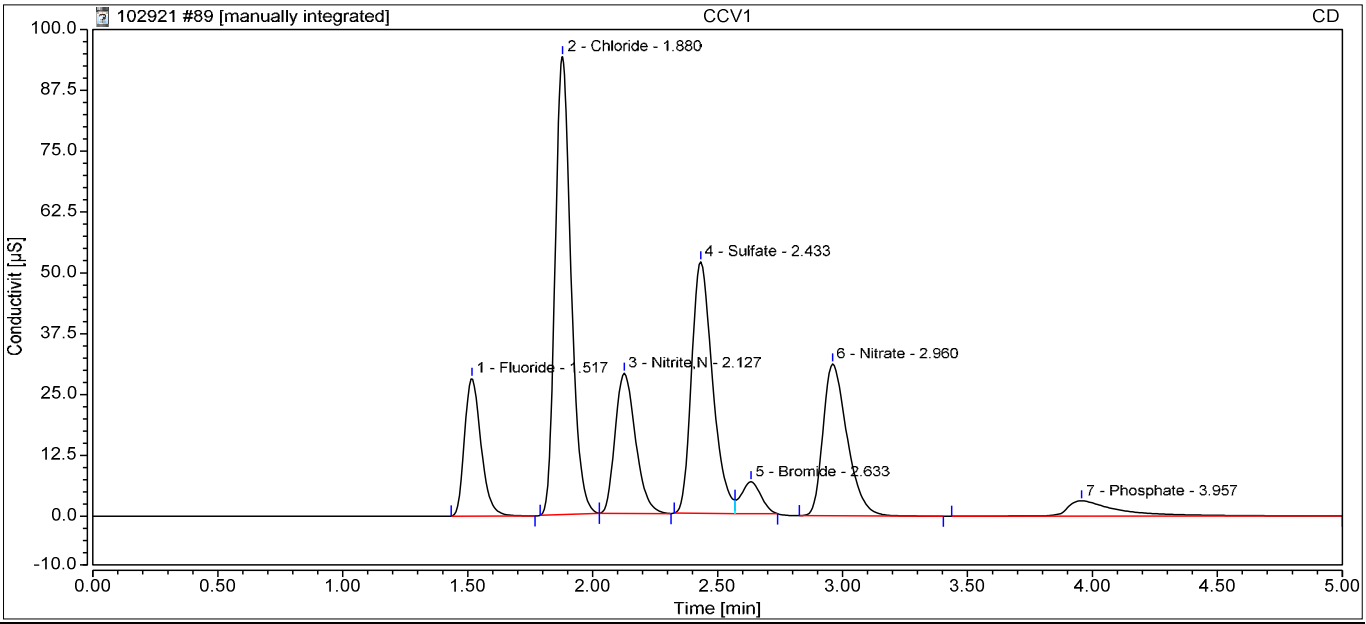
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	20.0000
2	1.88	Chloride	BMB	6.568	48.8905	977.8101	20.0000
3	2.15	Nitrite,N	BMB	0.019	0.0297	0.5946	20.0000
4	2.44	Sulfate	BMB	3.096	31.9022	638.0441	20.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	20.0000
5	2.98	Nitrate	BMB	0.004	0.0115	0.2300	20.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	20.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	20.0000
Total:			**0.000**	**9.687**		**1616.68**	

89 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/30/2021 00:00**	*Sample Weight:*	**1.0000**

Run Time:



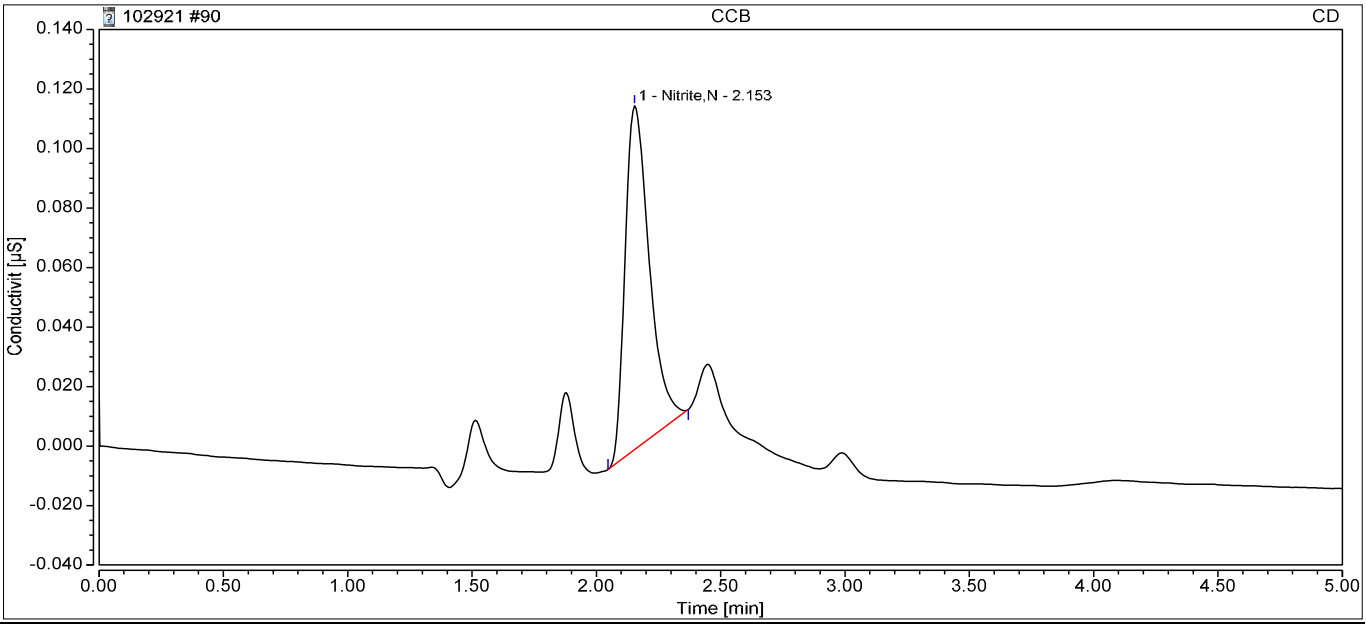
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	2.169	10.6871	10.6871	1.0000
2	1.88	Chloride	BMB	6.932	51.6017	51.6017	1.0000
3	2.13	Nitrite,N	BMB	2.730	9.8577	9.8577	1.0000
4	2.43	Sulfate	BM *	5.037	51.8981	51.8981	1.0000
5	2.63	Bromide	MB*	0.599	10.9600	10.9600	1.0000
6	2.96	Nitrate	BMB	3.497	10.2758	10.2758	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.96	Phosphate	BMB	0.759	7.1514	7.1514	1.0000
Total:			**0.000**	**21.723**		**152.43**	

90 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/30/2021 00:07**	*Sample Weight:*	**1.0000**

Run Time:



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.15	Nitrite,N	BMB	0.013	0.0096	0.0096	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.013**		**0.01**	

HS21100881 Wet Chemistry Raw Data

ALS WO# HS21100881

Report Date: 10/21/2021 : 6:07

PC-TitratION PLUS
Calibration Report

Calibration Record # 2418

Calibration Settings

Calibration ID	PH CAL 4-7-10	Date	10/21/2021
Channel	1	Time	6:07 PM
Probe Type	pH	Temperature	295.72 K 22.57 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-58.613	CorrCoeff	0.9999
Intercept	-1.953	Equation: Y = (-58.613) X + (-1.953)	

Calibration Validity True Operator

	Result	Minimum	Maximum
Slope	-58.613	-65.00	-53.00
Intercept	-1.953	-100.00	100.00
Correlation Coefficient	0.9999	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	4.00	175.29
	7.00	-4.76
	10.00	-176.39

#393968 (A)

#393972 (B)

MDA

PC-TitratION PLUS by Man-Tech Associates, Inc.
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Report Date: 10/22/2021 : 2:13 AM

PC-TitratION PLUS
Water Analysis Report

Run Number 4207 **Order Number** 20211021-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
ICV-PH	10/21/2021	7:03 PM	22.84	-1.00	6.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
TAP WATER	10/21/2021	7:09 PM	22.78	-1.00	6.95	.00	296.98	296.98	.00	.00	.00	2.83	2.83
WBLKW1-211021	10/21/2021	7:15 PM	22.74	-1.00	5.93	.00	1.67	1.67	.00	.00	.00	.05	.05
LCS1-211021	10/21/2021	7:23 PM	22.72	-1.00	10.72	517.07	1,023.24	.00	1,012.34	10.90	4.92	9.75	9.75
LCSD1-211021	10/21/2021	7:32 PM	22.58	-1.00	10.73	516.18	1,019.01	.00	1,005.66	13.35	4.92	9.70	9.70
HS21101156-04	10/21/2021	7:39 PM	23.31	-1.00	8.06	.00	146.70	146.70	.00	.00	.00	1.40	1.40
HS21101156-04DUP	10/21/2021	7:46 PM	23.73	-1.00	8.08	.00	163.45	163.45	.00	.00	.00	1.56	1.56
HS21101156-05	10/21/2021	7:52 PM	23.89	-1.00	7.97	.00	144.74	144.74	.00	.00	.00	1.38	1.38
HS21100865-01DF20	10/21/2021	8:03 PM	23.47	-1.00	11.52	966.05	1,342.09	.00	752.07	590.02	9.20	12.78	12.78
HS21100865-02DF20	10/21/2021	8:14 PM	22.90	-1.00	11.47	896.56	1,295.90	.00	798.68	497.22	8.54	12.34	12.34
HS21101019-01	10/21/2021	8:20 PM	22.57	-1.00	7.59	.00	203.68	203.68	.00	.00	.00	1.94	1.94
CCV-PH	10/21/2021	8:23 PM	22.45	-1.00	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	10/21/2021	8:32 PM	22.39	-1.00	10.58	474.19	1,080.04	131.66	948.38	.00	4.52	10.29	10.29
DI RINSE	10/21/2021	8:38 PM	22.31	-1.00	6.53	.00	1.89	1.89	.00	.00	.00	.05	.05
HS21101053-01	10/21/2021	8:44 PM	22.77	-1.00	5.77	.00	1.14	1.14	.00	.00	.00	.04	.04
HS21101152-01	10/21/2021	8:50 PM	23.19	-1.00	7.20	.00	261.17	261.17	.00	.00	.00	2.49	2.49
HS21101152-02	10/21/2021	8:56 PM	23.51	-1.00	7.23	.00	282.48	282.48	.00	.00	.00	2.69	2.69
HS21101152-03	10/21/2021	9:02 PM	23.54	-1.00	6.79	.00	341.77	341.77	.00	.00	.00	3.25	3.25
HS21101152-04	10/21/2021	9:09 PM	23.22	-1.00	6.90	.00	369.81	369.81	.00	.00	.00	3.52	3.52
HS21101152-05	10/21/2021	9:16 PM	22.95	-1.00	7.61	.00	212.46	212.46	.00	.00	.00	2.02	2.02
HS21101152-06	10/21/2021	9:22 PM	22.78	-1.00	6.96	.00	304.96	304.96	.00	.00	.00	2.90	2.90
HS21100769-09	10/21/2021	9:28 PM	22.58	-1.00	7.22	.00	315.12	315.12	.00	.00	.00	3.00	3.00
HS21101112-01	10/21/2021	9:35 PM	22.45	-1.00	7.38	.00	171.43	171.43	.00	.00	.00	1.63	1.63
CCV-PH	10/21/2021	9:38 PM	22.31	-1.00	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	10/21/2021	9:46 PM	22.17	-1.00	10.57	470.29	1,074.72	134.14	940.58	.00	4.48	10.24	10.24
DI RINSE	10/21/2021	9:52 PM	22.14	-1.00	6.40	.00	1.78	1.78	.00	.00	.00	.05	.05
HS21100881-01	10/21/2021	9:57 PM	22.49	-1.00	5.34	.00	76.67	76.67	.00	.00	.00	.73	.73

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Run Number 4207 **Order Number** 20211021-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
HS21100881-02	10/21/2021	10:03 PM	22.93	-1.00	5.28	.00	110.40	110.40	.00	.00	.00	1.05	1.05
HS21100881-03	10/21/2021	10:08 PM	23.39	-1.00	4.86	.00	24.26	24.26	.00	.00	.00	.23	.23
HS21100881-05	10/21/2021	10:13 PM	23.51	-1.00	5.20	.00	24.03	24.03	.00	.00	.00	.23	.23
HS21100881-06	10/21/2021	10:18 PM	23.44	-1.00	5.24	.00	26.49	26.49	.00	.00	.00	.25	.25
HS21100881-07	10/21/2021	10:24 PM	23.07	-1.00	5.93	.00	302.75	302.75	.00	.00	.00	2.88	2.88
WLCS-211021	10/21/2021	10:32 PM	22.78	-1.00	10.68	497.14	1,013.97	19.68	994.29	.00	4.73	9.66	9.66
WLCSD2-211021	10/21/2021	10:41 PM	22.51	-1.00	10.70	503.36	1,013.08	6.36	1,006.72	.00	4.79	9.65	9.65
CCV-PH	10/21/2021	10:44 PM	22.26	-1.00	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCVALK	10/21/2021	10:54 PM	22.16	-1.00	10.55	481.61	1,092.03	128.81	963.22	.00	4.59	10.40	10.40
DI RINSE	10/21/2021	11:00 PM	22.31	-1.00	6.29	.00	1.99	1.99	.00	.00	.00	.05	.05
WBLKW2-211021	10/21/2021	11:05 PM	22.75	-1.00	5.64	.00	1.16	1.16	.00	.00	.00	.04	.04
HS21100884-02	10/21/2021	11:12 PM	23.11	-1.00	7.34	.00	347.62	347.62	.00	.00	.00	3.31	3.31
HS21100884-02DUP	10/21/2021	11:18 PM	23.41	-1.00	7.37	.00	350.36	350.36	.00	.00	.00	3.34	3.34
HS21100884-03	10/21/2021	11:24 PM	23.64	-1.00	7.88	.00	225.65	225.65	.00	.00	.00	2.15	2.15
HS21100884-06	10/21/2021	11:31 PM	23.17	-1.00	8.34	4.76	469.53	460.02	9.52	.00	.05	4.47	4.47
HS21100884-07	10/21/2021	11:38 PM	22.77	-1.00	8.02	.00	342.85	342.85	.00	.00	.00	3.27	3.27
HS21100884-09	10/21/2021	11:44 PM	22.42	-1.00	7.87	.00	264.26	264.26	.00	.00	.00	2.52	2.52
HS21100884-10	10/21/2021	11:50 PM	22.28	-1.00	7.49	.00	287.61	287.61	.00	.00	.00	2.74	2.74
HS21100884-11	10/21/2021	11:57 PM	22.19	-1.00	9.81	45.83	73.76	.00	55.84	17.91	.44	.70	.70
HS21100884-12	10/22/2021	12:05 AM	22.35	-1.00	10.36	111.64	150.31	.00	77.32	72.98	1.06	1.43	1.43
CCV-PH	10/22/2021	12:08 AM	22.84	-1.00	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	10/22/2021	12:16 AM	22.92	-1.00	10.53	465.88	1,076.50	144.75	931.75	.00	4.44	10.25	10.25
DI RINSE	10/22/2021	12:23 AM	23.36	-1.00	6.33	.00	2.10	2.10	.00	.00	.00	.05	.05
HS21100807-05	10/22/2021	12:31 AM	23.57	-1.00	7.72	.00	630.06	630.06	.00	.00	.00	6.00	6.00
HS21100807-06	10/22/2021	12:39 AM	23.15	-1.00	7.70	.00	802.28	802.28	.00	.00	.00	7.64	7.64
HS21100807-07	10/22/2021	12:45 AM	22.60	-1.00	7.76	.00	435.44	435.44	.00	.00	.00	4.15	4.15
HS21100807-08	10/22/2021	12:51 AM	22.35	-1.00	7.65	.00	355.86	355.86	.00	.00	.00	3.39	3.39
HS21100807-09	10/22/2021	12:57 AM	22.19	-1.00	8.07	.00	424.06	424.06	.00	.00	.00	4.04	4.04
HS21100807-10	10/22/2021	1:04 AM	22.25	-1.00	7.38	.00	353.42	353.42	.00	.00	.00	3.37	3.37
HS21100785-01	10/22/2021	1:10 AM	22.72	-1.00	5.33	.00	161.67	161.67	.00	.00	.00	1.54	1.54

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Run Number 4207 **Order Number** 20211021-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
HS21100785-02	10/22/2021	1:15 AM	23.06	-1.00	5.57	.00	164.31	164.31	.00	.00	.00	1.56	1.56
CCV-PH	10/22/2021	1:18 AM	23.27	-1.00	7.08	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	10/22/2021	1:27 AM	23.30	-1.00	10.51	454.00	1,079.35	171.36	907.99	.00	4.32	10.28	10.28
DI RINSE	10/22/2021	1:33 AM	23.68	-1.00	6.03	.00	2.11	2.11	.00	.00	.00	.05	.05
HS21100785-03	10/22/2021	1:39 AM	23.20	-1.00	6.02	.00	365.44	365.44	.00	.00	.00	3.48	3.48
HS21100785-04	10/22/2021	1:47 AM	22.75	-1.00	6.23	.00	1,022.54	1,022.54	.00	.00	.00	9.74	9.74
HS21100785-05	10/22/2021	1:53 AM	22.31	-1.00	5.91	.00	482.14	482.14	.00	.00	.00	4.59	4.59
CCV-PH	10/22/2021	1:56 AM	22.02	-1.00	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	10/22/2021	2:05 AM	22.00	-1.00	10.51	456.46	1,072.73	159.80	912.92	.00	4.35	10.22	10.22
DI-RINSE	10/22/2021	2:11 AM	22.67	-1.00	6.01	.00	2.15	2.15	.00	.00	.00	.05	.05

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	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
1	Unknown	NPOC	RINSE		10_18_2021_CAL.cal	1.000	NPOC:0.06454
2	Unknown	NPOC	RINSE		10_18_2021_CAL.cal	1.000	NPOC:0.06455
3	Unknown	NPOC	RINSE		10_18_2021_CAL.cal	1.000	NPOC:0.07074
4	Standard	NPOC	CAL	3100604915	10_25_2021_CAL.202	1.000	
5	Unknown	NPOC	ICB		10_25_2021_CAL.cal	1.000	NPOC:0.09179
6	Unknown	NPOC	ICV	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.60mg/
7	Unknown	NPOC	ICB		10_25_2021_CAL.cal	1.000	NPOC:0.05172
8	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.01239
9	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.73mg/
10	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.06181
11	Unknown	NPOC	MBLK-10252021		10_25_2021_CAL.cal	1.000	NPOC:0.05600
12	Unknown	NPOC	LCS-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:9.287mg/
13	Unknown	NPOC	LCSD-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.83mg/
14	Unknown	NPOC	HS21101075-01DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2805m
15	Unknown	NPOC	HS21101075-01MSDF1		10_25_2021_CAL.cal	1.000	NPOC:12.37mg/
16	Unknown	NPOC	HS21101075-02DF10		10_25_2021_CAL.cal	1.000	NPOC:0.3788m
17	Unknown	NPOC	HS21101075-03DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2410m
18	Unknown	NPOC	HS21101075-04DF10		10_25_2021_CAL.cal	1.000	NPOC:0.3913m
19	Unknown	NPOC	HS21101075-05DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2171m
20	Unknown	NPOC	HS21101075-06DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1665m
21	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.66mg/
22	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.05208
23	Unknown	NPOC	HS21101075-07DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1747m
24	Unknown	NPOC	HS21101075-08DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1648m
25	Unknown	NPOC	HS21101075-09DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1167m
26	Unknown	NPOC	HS21101075-10DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1071m
27	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.76mg/
28	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.05571
29	Unknown	NPOC	MBLK-10252021		10_25_2021_CAL.cal	1.000	NPOC:0.06486
30	Unknown	NPOC	LCS-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:9.320mg/
31	Unknown	NPOC	LCSD-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.96mg/
32	Unknown	NPOC	HS21101075-11DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1323m
33	Unknown	NPOC	HS21101075-11MSDF1		10_25_2021_CAL.cal	1.000	NPOC:11.21mg/
34	Unknown	NPOC	HS21101075-12DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2792m
35	Unknown	NPOC	HS21101080-01DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1261m
36	Unknown	NPOC	HS21101080-02DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1407m
37	Unknown	NPOC	HS21101080-03DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1267m
38	Unknown	NPOC	HS21101080-04DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1381m
39	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.74mg/
40	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.09212
41	Unknown	NPOC	HS21101080-05DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1654m
42	Unknown	NPOC	HS21101080-06DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1460m
43	Unknown	NPOC	HS21101080-07DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1360m
44	Unknown	NPOC	HS21101080-08DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1453m
45	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.54mg/
46	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1296m
47	Unknown	NPOC	MBLK-10252021		10_25_2021_CAL.cal	1.000	NPOC:0.05576
48	Unknown	NPOC	LCS-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:9.292mg/
49	Unknown	NPOC	LCSD-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.94mg/
50	Unknown	NPOC	HS21101080-09DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2259m
51	Unknown	NPOC	HS21101080-09MSDF1		10_25_2021_CAL.cal	1.000	NPOC:11.03mg/

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	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
52	Unknown	NPOC	HS21101080-10DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1935m
53	Unknown	NPOC	HS21101080-11DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1278m
54	Unknown	NPOC	HS21101080-12DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1284m
55	Unknown	NPOC	HS21101080-13DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1196m
56	Unknown	NPOC	HS21101080-14DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2314m
57	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.69mg/
58	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.02809
59	Unknown	NPOC	HS21101083-01DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2332m
60	Unknown	NPOC	HS21101083-02DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2108m
61	Unknown	NPOC	HS21101083-03DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2038m
62	Unknown	NPOC	HS21101083-04DF10		10_25_2021_CAL.cal	1.000	NPOC:0.3380m
63	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.53mg/
64	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1115m
65	Unknown	NPOC	MBLK-10252021		10_25_2021_CAL.cal	1.000	NPOC:0.06795
66	Unknown	NPOC	LCS-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:9.230mg/
67	Unknown	NPOC	LCSD-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.89mg/
68	Unknown	NPOC	HS21101083-05DF10		10_25_2021_CAL.cal	1.000	NPOC:0.4956m
69	Unknown	NPOC	HS21101083-05MSDF1		10_25_2021_CAL.cal	1.000	NPOC:11.17mg/
70	Unknown	NPOC	HS21101083-06DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2640m
71	Unknown	NPOC	HS21101083-07DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2414m
72	Unknown	NPOC	HS21101083-08DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2102m
73	Unknown	NPOC	HS21101083-09DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1629m
74	Unknown	NPOC	HS21101083-10DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1838m
75	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.60mg/
76	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1118m
77	Unknown	NPOC	HS21101083-11DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1718m
78	Unknown	NPOC	HS21101083-12DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1978m
79	Unknown	NPOC	HS21101083-13DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2415m
80	Unknown	NPOC	HS21101083-14DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2981m
81	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.57mg/
82	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1184m

	Notes	Status	Date / Time	Vial
1		Completed	10/25/2021 6:02:30	64
2		Completed	10/25/2021 6:13:46	65
3		Completed	10/25/2021 6:24:47	66
4		Completed	10/25/2021 8:13:11	1, 2, 3, 4, 5,
5		Completed	10/25/2021 8:29:06	1
6		Completed	10/25/2021 8:45:09	8
7		Completed	10/25/2021 9:01:04	1
8		Completed	10/25/2021 9:48:50	64
9		Completed	10/25/2021 10:05:19	9
10		Completed	10/25/2021 10:21:02	10
11		Completed	10/25/2021 10:36:45	11
12		Completed	10/25/2021 10:52:59	12
13		Completed	10/25/2021 11:09:01	13
14		Completed	10/25/2021 11:24:44	14
15		Completed	10/25/2021 11:40:52	15
16		Completed	10/25/2021 11:56:35	16
17		Completed	10/26/2021 12:12:18	17
18		Completed	10/26/2021 12:28:01	18
19		Completed	10/26/2021 12:43:44	19
20		Completed	10/26/2021 12:59:27	20
21		Completed	10/26/2021 1:15:58	9
22		Completed	10/26/2021 1:31:41	10
23		Completed	10/26/2021 1:47:30	21
24		Completed	10/26/2021 2:03:13	22
25		Completed	10/26/2021 2:18:56	23
26		Completed	10/26/2021 2:34:39	24
27		Completed	10/26/2021 2:50:56	9
28		Completed	10/26/2021 3:06:39	10
29		Completed	10/26/2021 3:22:22	11
30		Completed	10/26/2021 3:38:27	12
31		Completed	10/26/2021 3:54:35	13
32		Completed	10/26/2021 4:10:25	25
33		Completed	10/26/2021 4:26:25	26
34		Completed	10/26/2021 4:42:08	27
35		Completed	10/26/2021 4:57:52	28
36		Completed	10/26/2021 5:13:36	29
37		Completed	10/26/2021 5:29:20	30
38		Completed	10/26/2021 5:45:04	31
39		Completed	10/26/2021 6:01:22	32
40		Completed	10/26/2021 6:17:06	33
41		Completed	10/26/2021 6:32:50	34
42		Completed	10/26/2021 6:48:35	35
43		Completed	10/26/2021 7:04:19	36
44		Completed	10/26/2021 7:20:02	37
45		Completed	10/26/2021 7:36:27	32
46		Completed	10/26/2021 7:52:11	33
47		Completed	10/26/2021 8:07:55	11
48		Completed	10/26/2021 8:23:52	12
49		Completed	10/26/2021 8:39:51	13
50		Completed	10/26/2021 8:55:33	38
51		Completed	10/26/2021 9:11:37	39

	Notes	Status	Date / Time	Vial
52		Completed	10/26/2021 9:27:20	40
53		Completed	10/26/2021 9:43:06	41
54		Completed	10/26/2021 9:58:51	42
55		Completed	10/26/2021 10:14:35	43
56		Completed	10/26/2021 10:30:21	44
57		Completed	10/26/2021 10:46:46	32
58		Completed	10/26/2021 11:02:30	33
59		Completed	10/26/2021 11:18:23	45
60		Completed	10/26/2021 11:34:07	46
61		Completed	10/26/2021 11:49:51	47
62		Completed	10/26/2021 12:05:36	48
63		Completed	10/26/2021 12:21:57	49
64		Completed	10/26/2021 12:37:42	50
65		Completed	10/26/2021 12:53:28	11
66		Completed	10/26/2021 1:09:27	12
67		Completed	10/26/2021 1:25:38	13
68		Completed	10/26/2021 1:41:34	51
69		Completed	10/26/2021 1:57:34	52
70		Completed	10/26/2021 2:13:19	53
71		Completed	10/26/2021 2:29:04	54
72		Completed	10/26/2021 2:44:49	55
73		Completed	10/26/2021 3:00:34	56
74		Completed	10/26/2021 3:16:19	57
75		Completed	10/26/2021 3:32:39	49
76		Completed	10/26/2021 3:48:24	50
77		Completed	10/26/2021 4:04:17	58
78		Completed	10/26/2021 4:20:02	59
79		Completed	10/26/2021 4:35:47	60
80		Completed	10/26/2021 4:51:32	61
81		Completed	10/26/2021 5:07:56	49
82		Completed	10/26/2021 5:23:41	50

TOC-Control L Report

2021_10_25_002.tlx

Instr.Information

Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Cal. Curve

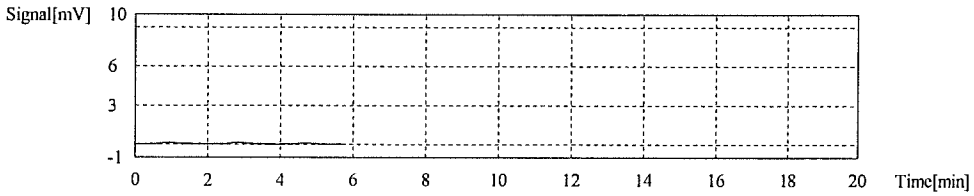
Sample Name:	CAL
Sample ID:	3100604915
Cal. Curve:	10_25_2021_CAL.2021_10_25_18_24_47.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.1779	50uL	1.000	*******		10/25/2021 6:33:22 PM
2	0.000	50uL	1.000	*******		10/25/2021 6:36:36 PM
3	0.000	50uL	1.000	*******		10/25/2021 6:39:50 PM

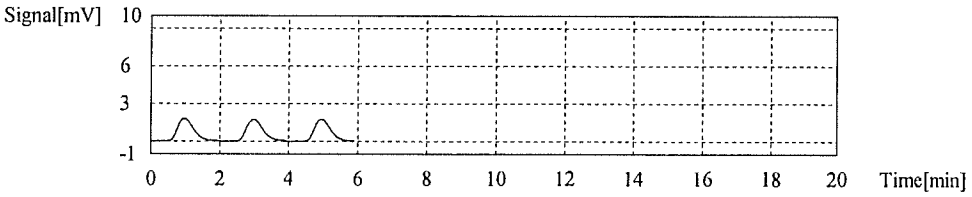
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	0.05930



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	5.679	50uL	1.000	*******		10/25/2021 6:48:38 PM
2	5.762	50uL	1.000	*******		10/25/2021 6:51:52 PM
3	5.629	50uL	1.000	*******		10/25/2021 6:55:02 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	5.690



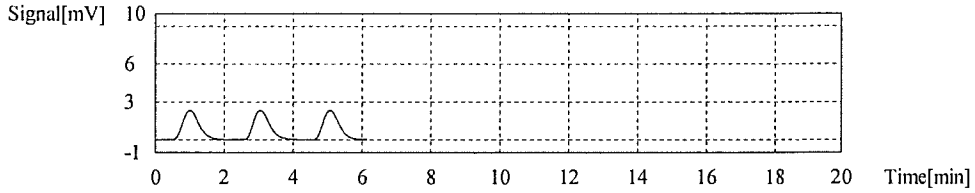
Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.704	50uL	1.000	*******		10/25/2021 7:03:55 PM
2	7.453	50uL	1.000	*******		10/25/2021 7:07:06 PM
3	7.508	50uL	1.000	*******		10/25/2021 7:10:22 PM

TOC-Control L Report

2021_10_25_002.tlx

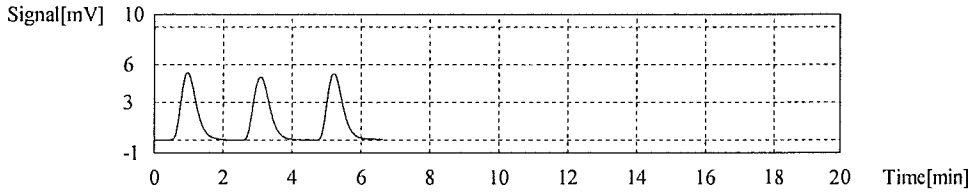
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 7.555



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	16.62	50uL	1.000	*******		10/25/2021 7:19:15 PM
2	16.58	50uL	1.000	*******		10/25/2021 7:22:33 PM
3	16.79	50uL	1.000	*******		10/25/2021 7:26:01 PM

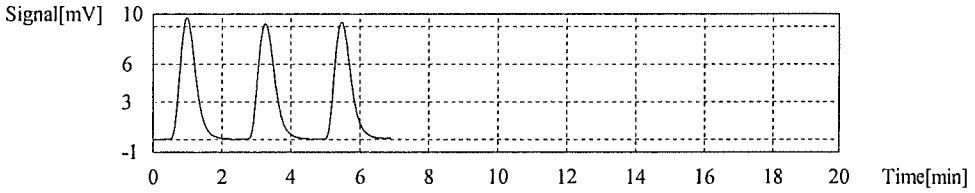
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 16.66



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.96	50uL	1.000	*******		10/25/2021 7:35:05 PM
2	31.10	50uL	1.000	*******		10/25/2021 7:38:17 PM
3	31.16	50uL	1.000	*******		10/25/2021 7:41:41 PM

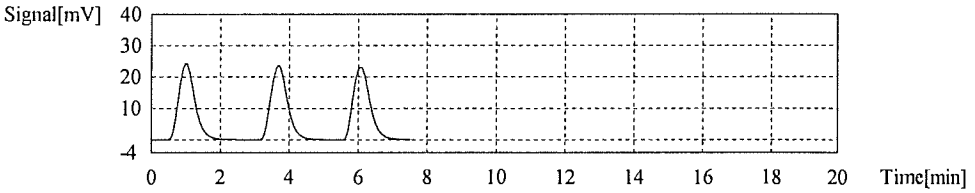
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 31.07



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	79.40	50uL	1.000	*******		10/25/2021 7:51:09 PM
2	79.56	50uL	1.000	*******		10/25/2021 7:54:09 PM
3	79.35	50uL	1.000	*******		10/25/2021 7:57:24 PM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 79.44



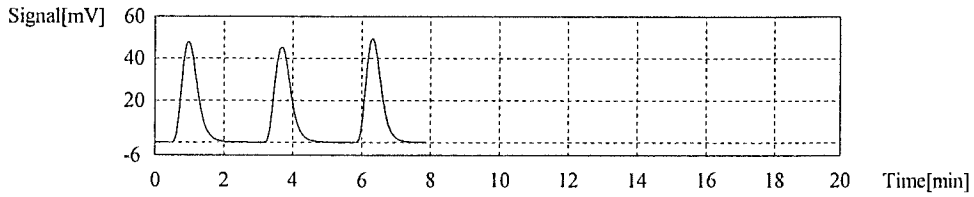
Conc: 50.00mg/L

TOC-Control L Report

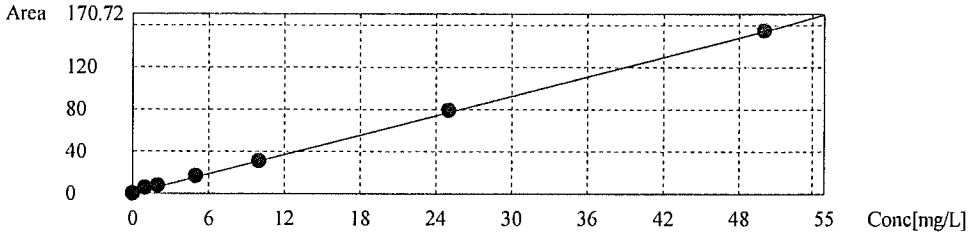
2021_10_25_002.tlx

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	156.1	50uL	1.000	*******		10/25/2021 8:06:53 PM
2	154.0	50uL	1.000	*******		10/25/2021 8:10:05 PM
3	155.5	50uL	1.000	*******		10/25/2021 8:13:11 PM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 155.2



Slope: 3.086
Intercept 0.000
r^2 0.9997
r 0.9999
RSE(%) N/A
Zero Shift Yes



Sample

Sample Name: ICV
Sample ID: 3100604423
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

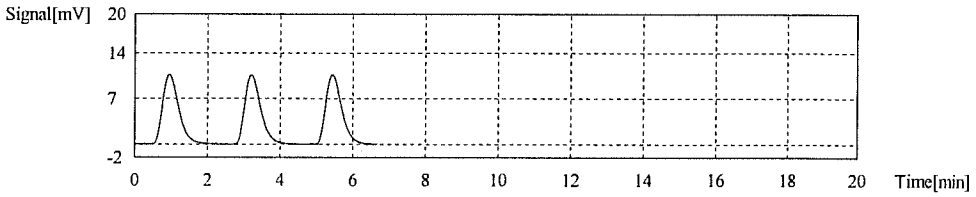
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.74	10.61mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 8:38:14 PM
2	32.74	10.61mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 8:41:41 PM
3	32.67	10.59mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 8:45:09 PM

Mean Area 32.72
Mean Conc. 10.60mg/L



Sample

TOC-Control L Report

2021_10_25_002.tlx

Sample Name: ICB
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

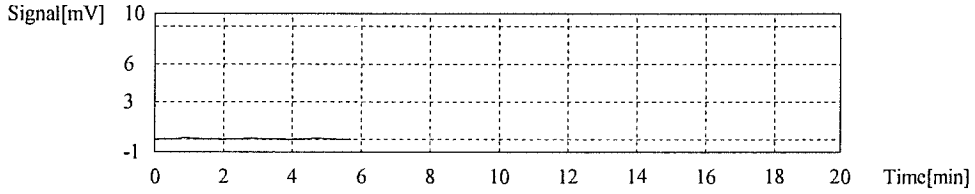
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05172mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1343	0.04352mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 8:54:04 PM
2	0.1944	0.06299mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 8:57:34 PM
3	0.1502	0.04867mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 9:01:04 PM

Mean Area 0.1596
Mean Conc. 0.05172mg/L



	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
1	Unknown	NPOC	CCV	317195504	TOC_W 9060.met	1.000	NPOC:26.04mg/
2	Unknown	NPOC	CCB		TOC_W 9060.met	1.000	NPOC:0.04591
3	Unknown	NPOC	MBLK-10262021		TOC_W 9060.met	1.000	NPOC:0.08479
4	Unknown	NPOC	LCS-10262021	3100604423	TOC_W 9060.met	1.000	NPOC:10.45mg/
5	Unknown	NPOC	LCSD-10262021	3100604423	TOC_W 9060.met	1.000	NPOC:10.48mg/
6	Unknown	NPOC	HS21101000-07DF10		TOC_W 9060.met	1.000	NPOC:0.3268m
7	Unknown	NPOC	HS21101000-07MSDF1		TOC_W 9060.met	1.000	NPOC:11.21mg/
8	Unknown	NPOC	HS21101006-08DF10		TOC_W 9060.met	1.000	NPOC:0.2574m
9	Unknown	NPOC	HS21101006-09DF10		TOC_W 9060.met	1.000	NPOC:0.2475m
10	Unknown	NPOC	HS21101006-10DF10		TOC_W 9060.met	1.000	NPOC:0.3631m
11	Unknown	NPOC	HS21101035-01DF10		TOC_W 9060.met	1.000	NPOC:0.4395m
12	Unknown	NPOC	HS21101035-02DF10		TOC_W 9060.met	1.000	NPOC:0.2674m
13	Unknown	NPOC	CCV	317195504	TOC_W 9060.met	1.000	NPOC:25.17mg/
14	Unknown	NPOC	CCB		TOC_W 9060.met	1.000	NPOC:0.1371m
15	Unknown	NPOC	HS21101035-17DF10		TOC_W 9060.met	1.000	NPOC:0.4852m
16	Unknown	NPOC	HS21101035-18DF10		TOC_W 9060.met	1.000	NPOC:1.533mg/
17	Unknown	NPOC	HS21101100-04DF10		TOC_W 9060.met	1.000	NPOC:0.2107m
18	Unknown	NPOC	HS21101100-05DF10		TOC_W 9060.met	1.000	NPOC:0.2715m
19	Unknown	NPOC	CCV	317195504	TOC_W 9060.met	1.000	NPOC:24.88mg/
20	Unknown	NPOC	CCB		TOC_W 9060.met	1.000	NPOC:0.1214m
21	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.28mg/
22	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.09375
23	Unknown	NPOC	MBLK-10262021		10_25_2021_CAL.cal	1.000	NPOC:0.05684
24	Unknown	NPOC	LCS-10262021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.58mg/
25	Unknown	NPOC	LCSD-10262021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.54mg/
26	Unknown	NPOC	HS21101083-15DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2093m
27	Unknown	NPOC	HS21101083-15MSDF1		10_25_2021_CAL.cal	1.000	NPOC:10.82mg/
28	Unknown	NPOC	HS21101083-16DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2649m
29	Unknown	NPOC	HS21101143-04DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1449m
30	Unknown	NPOC	HS21101143-05DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2811m
31	Unknown	NPOC	HS21101143-06DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1846m
32	Unknown	NPOC	HS21101143-07DF20		10_25_2021_CAL.cal	1.000	NPOC:0.2700m
33	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.55mg/
34	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.08457
35	Unknown	NPOC	HS21101143-08DF20		10_25_2021_CAL.cal	1.000	NPOC:0.4844m
36	Unknown	NPOC	HS21101143-01DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2929m
37	Unknown	NPOC	HS21101143-02DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2145m
38	Unknown	NPOC	HS21101143-03DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1882m
39	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.56mg/
40	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.06637
41	Unknown	NPOC	MBLK-10262021		10_25_2021_CAL.cal	1.000	NPOC:0.05790
42	Unknown	NPOC	LCS-10262021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.61mg/
43	Unknown	NPOC	LCSD-10262021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.60mg/
44	Unknown	NPOC	HS21101109-01		10_25_2021_CAL.cal	1.000	NPOC:10.29mg/
45	Unknown	NPOC	HS21101110-01		10_25_2021_CAL.cal	1.000	NPOC:12.78mg/
46	Unknown	NPOC	HS21100785-02		10_25_2021_CAL.cal	1.000	NPOC:18.98mg/
47	Unknown	NPOC	HS21100785-03		10_25_2021_CAL.cal	1.000	NPOC:6.657mg/
48	Unknown	NPOC	HS21100785-04		10_25_2021_CAL.cal	1.000	NPOC:54.39mg/
49	Unknown	NPOC	HS21100785-05		10_25_2021_CAL.cal	1.000	NPOC:21.56mg/
50	Unknown	NPOC	HS21100865-01DF20		10_25_2021_CAL.cal	1.000	NPOC:33.09mg/
51	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.66mg/

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
52	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.2540m
53	Unknown	NPOC	HS21100865-02DF20		10_25_2021_CAL.cal	1.000	NPOC:29.66mg/
54	Unknown	NPOC	HS21101194-01		10_25_2021_CAL.cal	1.000	NPOC:6.060mg/
55	Unknown	NPOC	HS21101194-01MS		10_25_2021_CAL.cal	1.000	NPOC:16.66mg/
56	Unknown	NPOC	HS21101269-01		10_25_2021_CAL.cal	1.000	NPOC:9.848mg/
57	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.59mg/
58	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1930m
59	Unknown	NPOC	MBLK-10262021		10_25_2021_CAL.cal	1.000	NPOC:0.1018m
60	Unknown	NPOC	LCS-10262021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.56mg/
61	Unknown	NPOC	LCSD-10262021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.53mg/
62	Unknown	NPOC	HS21101195-01		10_25_2021_CAL.cal	1.000	NPOC:5.077mg/
63	Unknown	NPOC	HS21101195-01MS		10_25_2021_CAL.cal	1.000	NPOC:16.11mg/
64	Unknown	NPOC	HS21101472-01		10_25_2021_CAL.cal	1.000	NPOC:0.1766m
65	Unknown	NPOC	HS21101476-01		10_25_2021_CAL.cal	1.000	NPOC:0.1142m
66	Unknown	NPOC	HS21100881-01		10_25_2021_CAL.cal	1.000	NPOC:28.33mg/
67	Unknown	NPOC	HS21100881-02		10_25_2021_CAL.cal	1.000	NPOC:26.11mg/
68	Unknown	NPOC	HS21100881-03		10_25_2021_CAL.cal	1.000	NPOC:4.306mg/
69	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.87mg/
70	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.2164m
71	Unknown	NPOC	HS21100881-05		10_25_2021_CAL.cal	1.000	NPOC:16.84mg/
72	Unknown	NPOC	HS21100881-06		10_25_2021_CAL.cal	1.000	NPOC:17.98mg/
73	Unknown	NPOC	HS21100881-07		10_25_2021_CAL.cal	1.000	NPOC:5.541mg/
74	Unknown	NPOC	HS21101112-01		10_25_2021_CAL.cal	1.000	NPOC:5.796mg/
75	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:26.05mg/
76	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.2280m

	Notes	Status	Date / Time	Vial
1		Completed	10/26/2021 8:34:40	1
2		Completed	10/26/2021 8:49:06	2
3		Completed	10/26/2021 9:03:31	3
4		Completed	10/26/2021 9:19:11	4
5		Completed	10/26/2021 9:35:21	5
6		Completed	10/26/2021 9:50:28	6
7		Completed	10/26/2021 10:06:40	7
8		Completed	10/26/2021 10:21:06	8
9		Completed	10/26/2021 10:35:34	9
10		Completed	10/26/2021 10:50:01	10
11		Completed	10/26/2021 11:04:26	11
12		Completed	10/26/2021 11:18:51	12
13		Completed	10/26/2021 11:49:42	1
14		Completed	10/27/2021 12:04:09	2
15		Completed	10/27/2021 12:18:42	13
16		Completed	10/27/2021 12:33:09	14
17		Completed	10/27/2021 12:47:36	15
18		Completed	10/27/2021 1:02:03	16
19		Completed	10/27/2021 1:33:29	1
20		Completed	10/27/2021 1:47:56	2
21		Completed	10/27/2021 2:03:34	17
22		Completed	10/27/2021 2:19:17	18
23		Completed	10/27/2021 2:35:07	3
24		Completed	10/27/2021 2:51:07	4
25		Completed	10/27/2021 3:07:08	5
26		Completed	10/27/2021 3:22:58	19
27		Completed	10/27/2021 3:39:02	20
28		Completed	10/27/2021 3:54:45	21
29		Completed	10/27/2021 4:10:29	22
30		Completed	10/27/2021 4:26:11	23
31		Completed	10/27/2021 4:41:54	24
32		Completed	10/27/2021 4:57:37	25
33		Completed	10/27/2021 5:29:44	17
34		Completed	10/27/2021 5:45:28	18
35		Completed	10/27/2021 6:01:14	26
36		Completed	10/27/2021 6:16:57	27
37		Completed	10/27/2021 6:32:42	28
38		Completed	10/27/2021 6:48:25	29
39		Completed	10/27/2021 7:20:33	17
40		Completed	10/27/2021 7:36:16	18
41		Completed	10/27/2021 7:52:05	3
42		Completed	10/27/2021 8:08:07	4
43		Completed	10/27/2021 8:24:15	5
44		Completed	10/27/2021 8:40:31	30
45		Completed	10/27/2021 8:56:35	31
46		Completed	10/27/2021 9:12:42	32
47		Completed	10/27/2021 9:28:37	33
48		Completed	10/27/2021 9:44:50	34
49		Completed	10/27/2021 10:00:54	35
50		Completed	10/27/2021 10:17:13	36
51		Completed	10/27/2021 10:49:19	37

	Notes	Status	Date / Time	Vial
52		Completed	10/27/2021 11:05:03	38
53		Completed	10/27/2021 11:21:07	39
54		Completed	10/27/2021 11:36:54	40
55		Completed	10/27/2021 11:52:58	41
56		Completed	10/27/2021 12:08:54	42
57		Completed	10/27/2021 12:41:22	37
58		Completed	10/27/2021 12:57:06	38
59		Completed	10/27/2021 1:12:58	3
60		Completed	10/27/2021 1:29:00	4
61		Completed	10/27/2021 1:45:02	5
62		Completed	10/27/2021 2:01:03	43
63		Completed	10/27/2021 2:17:12	44
64		Completed	10/27/2021 2:32:56	45
65		Completed	10/27/2021 2:48:39	46
66		Completed	10/27/2021 3:04:55	47
67		Completed	10/27/2021 3:21:17	48
68		Completed	10/27/2021 3:37:03	49
69		Completed	10/27/2021 4:09:27	37
70		Completed	10/27/2021 4:25:11	38
71		Completed	10/27/2021 4:41:33	50
72		Completed	10/27/2021 4:57:39	51
73		Completed	10/27/2021 5:13:35	52
74		Completed	10/27/2021 5:29:53	53
75		Completed	10/27/2021 5:46:08	37
76		Completed	10/27/2021 6:01:52	38

TOC-Control L Report

2021_10_26_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: CCV
Sample ID: 317195504
Origin: 10_25_2021_CAL.cal
Status: Completed
Chk. Result:

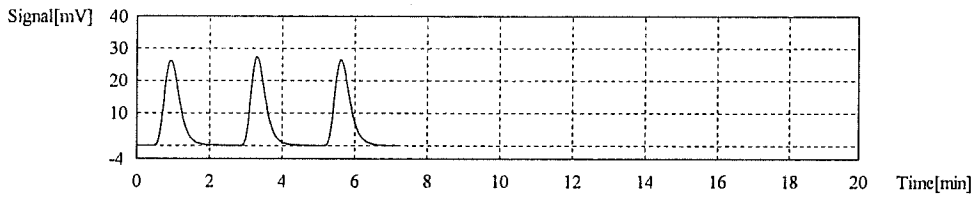
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.59mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.50	25.44mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 12:34:20 PM
2	78.50	25.44mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 12:37:45 PM
3	79.97	25.91mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 12:41:22 PM

Mean Area: 78.99
Mean Conc.: 25.59mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 10_25_2021_CAL.cal
Status: Completed
Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1930mg/L

1. Det

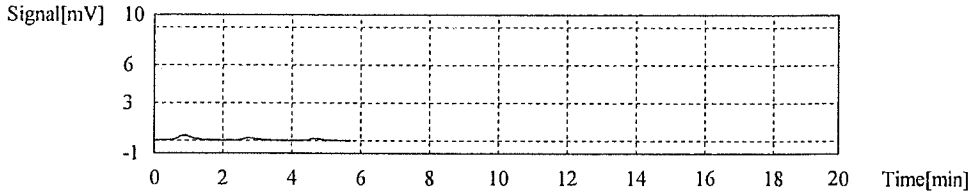
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9230	0.2991mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 12:50:06 PM
2	0.4548	0.1474mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 12:53:36 PM
3	0.4096	0.1327mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 12:57:06 PM

TOC-Control L Report

2021_10_26_001.tlx

Mean Area 0.5958
Mean Conc. 0.1930mg/L



Sample

Sample Name: MBLK-10262021
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

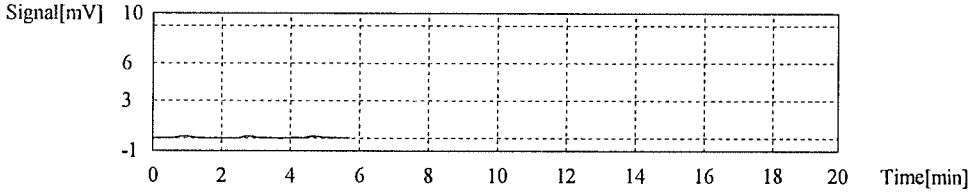
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1018mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3716	0.1204mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 1:05:58 PM
2	0.3662	0.1187mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 1:09:28 PM
3	0.2045	0.06626mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 1:12:58 PM

Mean Area 0.3141
Mean Conc. 0.1018mg/L



Sample

Sample Name: LCS-10262021
Sample ID: 3100604423
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.56mg/L

1. Det

Anal.: NPOC

TOC-Control L Report

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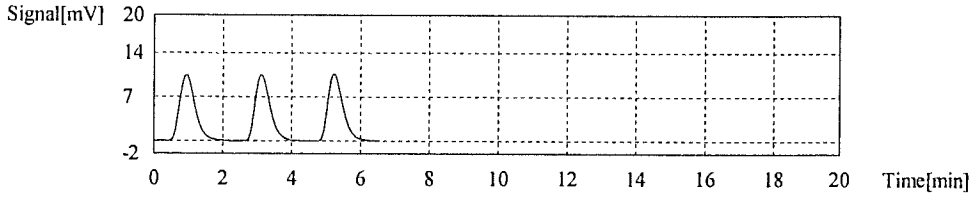
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.60	10.56mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 1:21:58 PM
2	32.41	10.50mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 1:25:25 PM
3	32.72	10.60mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 1:29:00 PM

Mean Area 32.58
Mean Conc. 10.56mg/L



Sample

Sample Name: LCSD-10262021
Sample ID: 3100604423
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

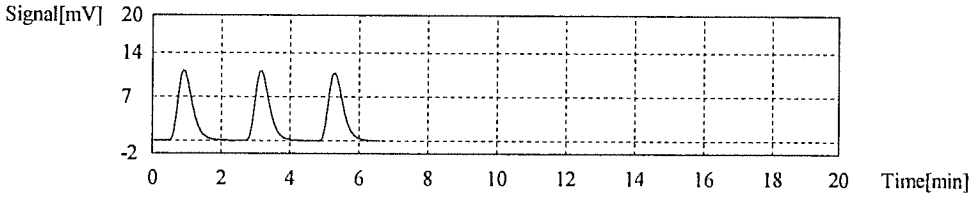
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.53mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.73	10.61mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 1:38:02 PM
2	32.42	10.50mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 1:41:26 PM
3	32.36	10.49mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 1:45:02 PM

Mean Area 32.50
Mean Conc. 10.53mg/L



Sample

Sample Name: HS21101195-01
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.077mg/L

1. Det

TOC-Control L Report

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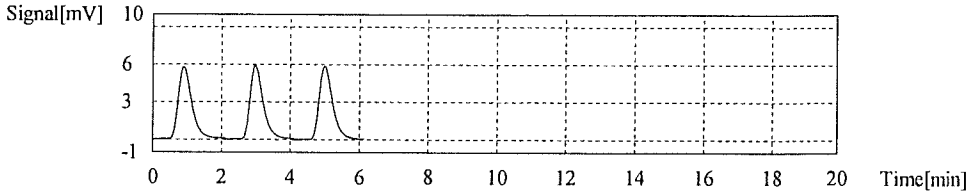
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.55	5.038mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 1:54:07 PM
2	15.55	5.038mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 1:57:31 PM
3	15.91	5.155mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 2:01:03 PM

Mean Area 15.67
Mean Conc. 5.077mg/L



Sample

Sample Name: HS21101195-01MS
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

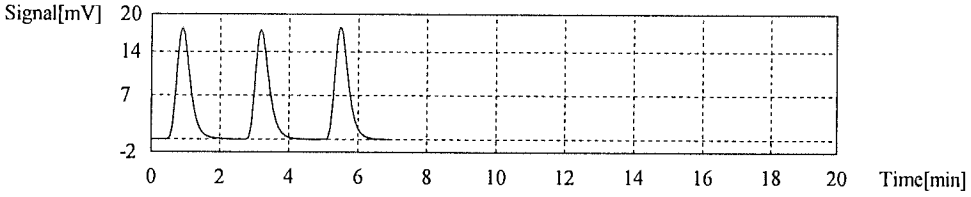
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.11mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	49.71	16.11mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 2:10:11 PM
2	49.54	16.05mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 2:13:40 PM
3	49.91	16.17mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 2:17:12 PM

Mean Area 49.72
Mean Conc. 16.11mg/L



Sample

Sample Name: HS21100881-01
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.33mg/L

TOC-Control L Report

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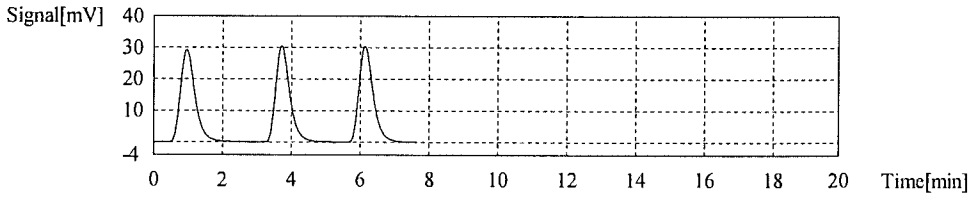
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	86.98	28.18mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 2:58:16 PM
2	87.03	28.20mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 3:01:24 PM
3	88.29	28.61mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 3:04:55 PM

Mean Area 87.43
Mean Conc. 28.33mg/L



Sample

Sample Name: HS21100881-02
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

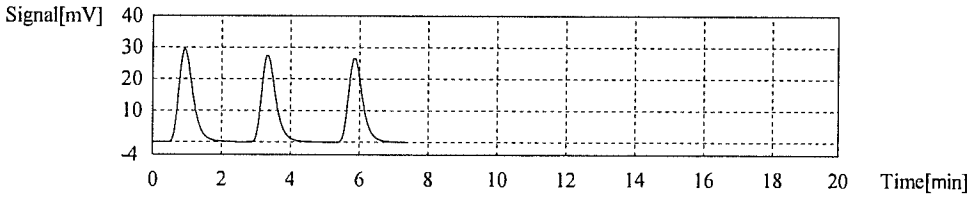
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.11mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	84.75	27.46mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 3:14:11 PM
2	79.39	25.72mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 3:17:48 PM
3	77.57	25.13mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 3:21:17 PM

Mean Area 80.57
Mean Conc. 26.11mg/L



Sample

Sample Name: HS21100881-03
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

TOC-Control L Report

2021_10_26_001.tlx

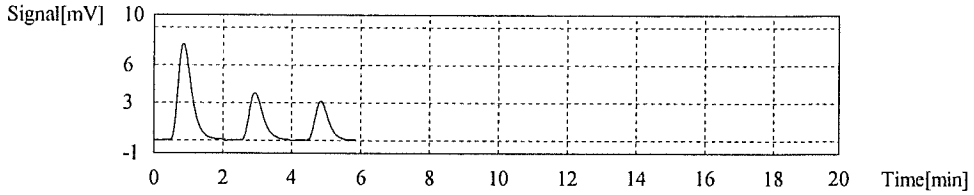
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.306mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.91	6.775mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 3:30:12 PM
2	10.54	3.415mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 3:33:33 PM
3	8.422	2.729mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 3:37:03 PM

Mean Area 13.29
Mean Conc. 4.306mg/L



Sample

Sample Name: CCV
Sample ID: 317195504
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

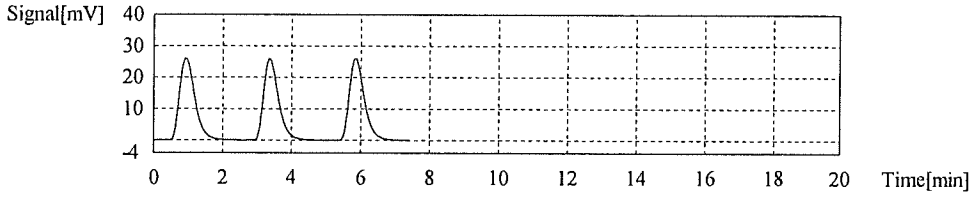
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.87mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.82	26.19mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 4:02:26 PM
2	78.80	25.53mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 4:05:58 PM
3	79.89	25.89mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 4:09:27 PM

Mean Area 79.84
Mean Conc. 25.87mg/L



Sample

TOC-Control L Report

2021_10_26_001.tlx

Sample Name: CCB
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

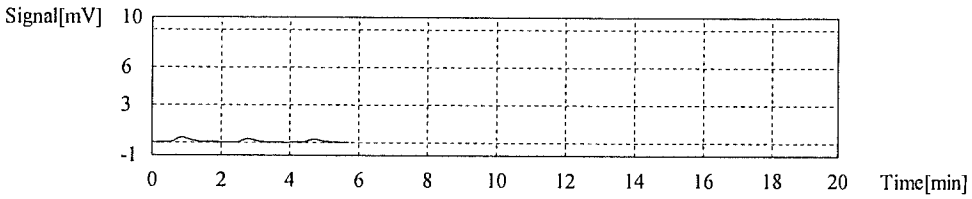
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2164mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8691	0.2816mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 4:18:11 PM
2	0.6573	0.2130mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 4:21:41 PM
3	0.4770	0.1546mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 4:25:11 PM

Mean Area 0.6678
Mean Conc. 0.2164mg/L



Sample

Sample Name: HS21100881-05
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

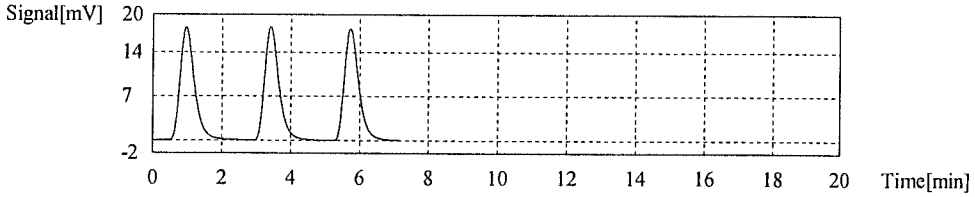
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.84mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.73	16.76mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 4:34:38 PM
2	52.27	16.94mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 4:38:01 PM
3	51.91	16.82mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 4:41:33 PM

Mean Area 51.97
Mean Conc. 16.84mg/L



TOC-Control L Report

2021_10_26_001.tlx

Sample

Sample Name: HS21100881-06
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

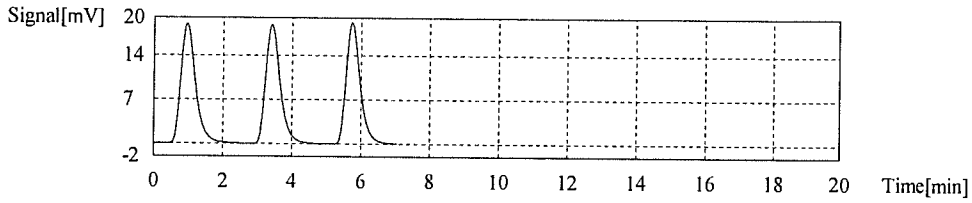
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:17.98mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	56.18	18.20mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 4:50:51 PM
2	55.27	17.91mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 4:54:15 PM
3	55.01	17.82mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 4:57:39 PM

Mean Area 55.49
Mean Conc. 17.98mg/L



Sample

Sample Name: HS21100881-07
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

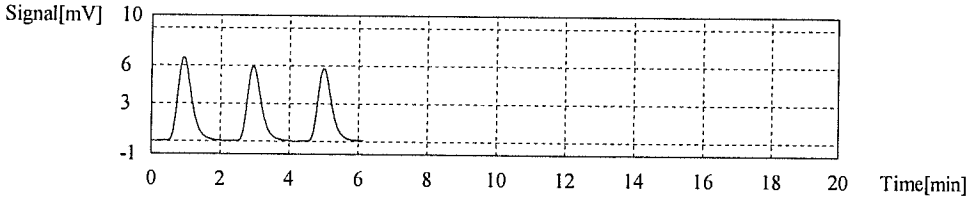
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.541mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.63	6.036mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 5:06:31 PM
2	16.51	5.350mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 5:10:02 PM
3	16.16	5.236mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 5:13:35 PM

Mean Area 17.10
Mean Conc. 5.541mg/L



TOC-Control L Report

2021_10_26_001.tlx

Sample

Sample Name: CCV
Sample ID: 317195504
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

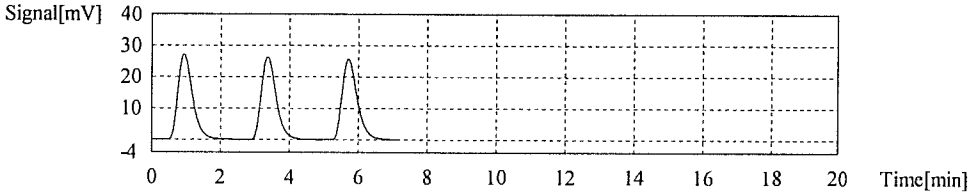
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.05mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.38	26.37mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 5:39:07 PM
2	80.19	25.98mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 5:42:35 PM
3	79.62	25.80mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 5:46:08 PM

Mean Area 80.40
Mean Conc. 26.05mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

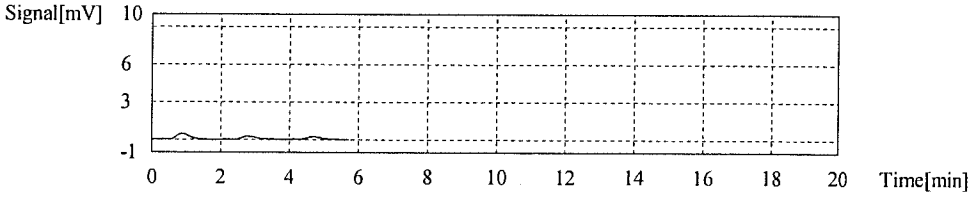
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2280mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.066	0.3454mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 5:54:52 PM
2	0.5896	0.1910mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 5:58:22 PM
3	0.4555	0.1476mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/27/2021 6:01:52 PM

Mean Area 0.7037
Mean Conc. 0.2280mg/L



HS21101144 Longhorn Army Ammunition Plant
16 October 2021 Cover Page

ALS WO# HS21101144

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WorkOrder: HS21101144

Longhorn Army Ammunition Plant 16 October 2021

Aptim Environmental & Infrastucture, Inc.

Vicki Graves
10333 Richmond Ave Ste 1030
Houston TX 77042

22-Nov-2021

HS21101144 Longhorn Army Ammunition Plant
16 October 2021 Final REV01

ALS WO# HS21101144

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November 30, 2021

Vicki Graves
Aptim Environmental & Infrastucture, Inc.
10333 Richmond Ave
Ste 1030
Houston, TX 77042

Work Order: **HS21101144**

Laboratory Results for: **Longhorn Army Ammunition Plant 16 October 2021**

Dear Vicki Graves ,

ALS Environmental received 17 sample(s) on Oct 20, 2021 for the analysis presented in the following report.

This is a REVISED REPORT. Please see the Case Narrative for discussion concerning this revision.

Regards,

Generated By: JUMOKE.LAWAL
Ragen Giga
Project Manager

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
Work Order: HS21101144

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21101144-01	16WW34-211018	Groundwater		18-Oct-2021 08:00	20-Oct-2021 10:05	☐
HS21101144-02	16WW34-211018-FD	Groundwater		18-Oct-2021 08:00	20-Oct-2021 10:05	☐
HS21101144-03	16WW33-211018	Groundwater		18-Oct-2021 08:40	20-Oct-2021 10:05	☐
HS21101144-04	16WW32-211018	Groundwater		18-Oct-2021 09:30	20-Oct-2021 10:05	☐
HS21101144-05	16WW31-211018	Groundwater		18-Oct-2021 10:10	20-Oct-2021 10:05	☐
HS21101144-06	16WW46-211018	Groundwater		18-Oct-2021 10:50	20-Oct-2021 10:05	☐
HS21101144-07	16WW27-211018	Groundwater		18-Oct-2021 11:40	20-Oct-2021 10:05	☐
HS21101144-08	16WW43-211018	Groundwater		18-Oct-2021 12:25	20-Oct-2021 10:05	☐
HS21101144-09	16RW05-211018	Groundwater		18-Oct-2021 13:15	20-Oct-2021 10:05	☐
HS21101144-10	16WW56-211019	Groundwater		19-Oct-2021 07:45	20-Oct-2021 10:05	☐
HS21101144-11	16WW22-211019	Groundwater		19-Oct-2021 08:40	20-Oct-2021 10:05	☐
HS21101144-12	16WW41-211019	Groundwater		19-Oct-2021 09:35	20-Oct-2021 10:05	☐
HS21101144-13	16WW21-211019	Groundwater		19-Oct-2021 10:40	20-Oct-2021 10:05	☐
HS21101144-14	16WW48-211019	Groundwater		19-Oct-2021 11:25	20-Oct-2021 10:05	☐
HS21101144-15	16WW49-211019	Groundwater		19-Oct-2021 12:15	20-Oct-2021 10:05	☐
HS21101144-16	16WW51-211019	Groundwater		19-Oct-2021 12:55	20-Oct-2021 10:05	☐
HS21101144-17	Trip Blank-211019	Water	CG-082521-494	19-Oct-2021 00:00	20-Oct-2021 10:05	☐

ALS Houston, US Date: 30-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **CASE NARRATIVE**
Project: Longhorn Army Ammunition Plant 16 October 2021
Work Order: HS21101144

Work Order Comments

• Report revised to include the ICAL/CCV's for Alkalinity for 11/2/21 to the Data Package (Pages 377-381)

GC Semivolatiles by Method RSK-175

Batch ID: R394516

Sample ID: 16WW56-211019 (HS21101144-10MS)

• The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

Sample ID: 16WW56-211019 (HS21101144-10MSD)

• The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

• The RPD between the MS and MSD was outside of the control limit.

GCMS Volatiles by Method SW8260

Batch ID: R394174

Sample ID: 16WW41-211019 (HS21101144-12)

• Lowest practical dilution for sample HS21101144-12 due to matrix.

Sample ID: HS21101283-10MS

• MS and MSD are for an unrelated sample

Batch ID: R393999

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SM5310B

Batch ID: R394838

Sample ID: 16WW56-211019 (HS21101144-10MS)

• The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

WetChemistry by Method SM2320B

Batch ID: R394478,R394792

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 30-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **CASE NARRATIVE**
Project: Longhorn Army Ammunition Plant 16 October 2021
Work Order: HS21101144

WetChemistry by Method SW9056

Batch ID: R394428

Sample ID: 16WW22-211019 (HS21101144-11)

- Sample was analyzed outside of the holding time due to laboratory error. Sample results should be considered estimated.
- The reporting limit(s) is/are elevated due to dilution for high concentrations of non-target analytes.

Sample ID: 16WW41-211019 (HS21101144-12)

- 5X dilution due to high concentration of SO4

Sample ID: 16WW48-211019 (HS21101144-14)

- 2X dilution due to high concentration of SO4

Sample ID: 16WW56-211019 (HS21101144-10)

- Sample was analyzed outside of the holding time due to laboratory error. Sample results should be considered estimated.
- The reporting limit(s) is/are elevated due to dilution for high concentrations of non-target analytes.

Batch ID: R394930

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101144
Sample ID: 16WW34-211018 Lab ID:HS21101144-01
Collection Date: 18-Oct-2021 08:00 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 04:36
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 04:36
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 04:36
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 04:36
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 04:36
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 04:36
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 04:36
Surr: 1,2-Dichloroethane-d4	*95.7*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 04:36*
Surr: 4-Bromofluorobenzene	*99.6*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 04:36*
Surr: Dibromofluoromethane	*94.7*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 04:36*
Surr: Toluene-d8	*98.6*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 04:36*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101144
Sample ID: 16WW34-211018-FD Lab ID:HS21101144-02
Collection Date: 18-Oct-2021 08:00 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 04:57
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 04:57
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 04:57
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 04:57
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 04:57
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 04:57
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 04:57
Surr: 1,2-Dichloroethane-d4	*96.6*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 04:57*
Surr: 4-Bromofluorobenzene	*102*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 04:57*
Surr: Dibromofluoromethane	*97.6*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 04:57*
Surr: Toluene-d8	*99.4*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 04:57*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**

Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101144

Sample ID: 16WW33-211018 Lab ID:HS21101144-03

Collection Date: 18-Oct-2021 08:40 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 05:19
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 05:19
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 05:19
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 05:19
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 05:19
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 05:19
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 05:19
Surr: 1,2-Dichloroethane-d4	*96.8*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 05:19*
Surr: 4-Bromofluorobenzene	*100*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 05:19*
Surr: Dibromofluoromethane	*95.5*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 05:19*
Surr: Toluene-d8	*103*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 05:19*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101144
Sample ID: 16WW32-211018 Lab ID:HS21101144-04
Collection Date: 18-Oct-2021 09:30 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 05:40
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 05:40
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 05:40
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 05:40
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 05:40
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 05:40
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 05:40
Surr: 1,2-Dichloroethane-d4	*97.2*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 05:40*
Surr: 4-Bromofluorobenzene	*98.0*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 05:40*
Surr: Dibromofluoromethane	*94.8*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 05:40*
Surr: Toluene-d8	*99.4*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 05:40*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**

Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101144

Sample ID: 16WW31-211018 Lab ID:HS21101144-05

Collection Date: 18-Oct-2021 10:10 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 06:01
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 06:01
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 06:01
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 06:01
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 06:01
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 06:01
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 06:01
Surr: 1,2-Dichloroethane-d4	*98.1*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 06:01*
Surr: 4-Bromofluorobenzene	*97.0*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 06:01*
Surr: Dibromofluoromethane	*96.7*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 06:01*
Surr: Toluene-d8	*97.1*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 06:01*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**

Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101144

Sample ID: 16WW46-211018 Lab ID:HS21101144-06

Collection Date: 18-Oct-2021 10:50 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 06:22
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 06:22
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 06:22
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 06:22
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 06:22
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 06:22
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 06:22
Surr: 1,2-Dichloroethane-d4	*96.6*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 06:22*
Surr: 4-Bromofluorobenzene	*97.4*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 06:22*
Surr: Dibromofluoromethane	*95.7*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 06:22*
Surr: Toluene-d8	*99.9*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 06:22*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101144
Sample ID: 16WW27-211018 Lab ID:HS21101144-07
Collection Date: 18-Oct-2021 11:40 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 06:43
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 06:43
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 06:43
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 06:43
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 06:43
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 06:43
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 06:43
Surr: 1,2-Dichloroethane-d4	*98.6*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 06:43*
Surr: 4-Bromofluorobenzene	*97.4*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 06:43*
Surr: Dibromofluoromethane	*95.4*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 06:43*
Surr: Toluene-d8	*96.7*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 06:43*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.

ANALYTICAL REPORT

Project: Longhorn Army Ammunition Plant 16 October 2021

WorkOrder:HS21101144

Sample ID: 16WW43-211018

Lab ID:HS21101144-08

Collection Date: 18-Oct-2021 12:25

Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 07:04
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 07:04
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 07:04
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 07:04
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 07:04
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 07:04
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 07:04
Surr: 1,2-Dichloroethane-d4	*96.1*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 07:04*
Surr: 4-Bromofluorobenzene	*97.4*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 07:04*
Surr: Dibromofluoromethane	*96.8*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 07:04*
Surr: Toluene-d8	*97.8*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 07:04*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**

Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101144

Sample ID: 16RW05-211018 Lab ID:HS21101144-09

Collection Date: 18-Oct-2021 13:15 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 07:25
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 07:25
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 07:25
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 07:25
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 07:25
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 07:25
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 07:25
Surr: 1,2-Dichloroethane-d4	*99.1*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 07:25*
Surr: 4-Bromofluorobenzene	*96.6*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 07:25*
Surr: Dibromofluoromethane	*96.7*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 07:25*
Surr: Toluene-d8	*95.1*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 07:25*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
Sample ID: 16WW56-211019
Collection Date: 19-Oct-2021 07:45

ANALYTICAL REPORT
WorkOrder:HS21101144
Lab ID:HS21101144-10
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 00:45
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 00:45
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 00:45
cis-1,2-Dichloroethene	**0.76**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	23-Oct-2021 00:45
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 00:45
Trichloroethene	**6.2**		**0.20**	**0.50**	**1.0**	**ug/L**	1	23-Oct-2021 00:45
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 00:45
Surr: 1,2-Dichloroethane-d4	*97.4*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 00:45*
Surr: 4-Bromofluorobenzene	*101*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 00:45*
Surr: Dibromofluoromethane	*96.0*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 00:45*
Surr: Toluene-d8	*100*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 00:45*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	28-Oct-2021 12:34
Ethene	0.000500	U	0.000234	0.000500	0.00100	mg/L	1	28-Oct-2021 12:34
Methane	**0.000952**		**0.000107**	**0.000250**	**0.000500**	**mg/L**	1	28-Oct-2021 12:34
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**186**		**5.00**	**5.00**	**5.00**	**mg/L**	1	02-Nov-2021 17:44
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**1.34**		**0.500**	**1.00**	**1.00**	**mg/L**	1	03-Nov-2021 05:26
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Bromide	**1.55**		**0.0600**	**0.200**	**0.200**	**mg/L**	2	21-Oct-2021 08:56
Nitrogen, Nitrate (As N)	0.200	HU	0.0600	0.200	0.200	mg/L	2	21-Oct-2021 08:56
Sulfate	**137**		**0.400**	**1.00**	**1.00**	**mg/L**	2	21-Oct-2021 08:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
Sample ID: 16WW22-211019
Collection Date: 19-Oct-2021 08:40

ANALYTICAL REPORT
WorkOrder:HS21101144
Lab ID:HS21101144-11
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	23-Oct-2021 07:46
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 07:46
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 07:46
cis-1,2-Dichloroethene	**2.5**		**0.20**	**0.50**	**1.0**	**ug/L**	1	23-Oct-2021 07:46
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	23-Oct-2021 07:46
Trichloroethene	**7.6**		**0.20**	**0.50**	**1.0**	**ug/L**	1	23-Oct-2021 07:46
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	23-Oct-2021 07:46
Surr: 1,2-Dichloroethane-d4	*98.1*			**0**	*81-118*	*%REC*	*1*	*23-Oct-2021 07:46*
Surr: 4-Bromofluorobenzene	*99.2*			**0**	*85-114*	*%REC*	*1*	*23-Oct-2021 07:46*
Surr: Dibromofluoromethane	*96.8*			**0**	*80-119*	*%REC*	*1*	*23-Oct-2021 07:46*
Surr: Toluene-d8	*96.2*			**0**	*89-112*	*%REC*	*1*	*23-Oct-2021 07:46*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	28-Oct-2021 11:58
Ethene	**0.000951**	J	**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	28-Oct-2021 11:58
Methane	**0.00111**		**0.000107**	**0.000250**	**0.000500**	**mg/L**	1	28-Oct-2021 11:58
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**205**		**5.00**	**5.00**	**5.00**	**mg/L**	1	28-Oct-2021 21:38
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**3.04**		**0.500**	**1.00**	**1.00**	**mg/L**	1	03-Nov-2021 05:58
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Bromide	**1.80**		**0.0600**	**0.200**	**0.200**	**mg/L**	2	21-Oct-2021 09:18
Nitrogen, Nitrate (As N)	0.200	HU	0.0600	0.200	0.200	mg/L	2	21-Oct-2021 09:18
Sulfate	**166**		**0.400**	**1.00**	**1.00**	**mg/L**	2	21-Oct-2021 09:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101144
Sample ID: 16WW41-211019 Lab ID:HS21101144-12
Collection Date: 19-Oct-2021 09:35 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	10	U	3.0	10	10	ug/L	10	25-Oct-2021 18:57
1,1-Dichloroethene	5.0	U	2.0	5.0	10	ug/L	10	25-Oct-2021 18:57
1,2-Dichloroethane	5.0	U	2.0	5.0	10	ug/L	10	25-Oct-2021 18:57
cis-1,2-Dichloroethene	**920**		**2.0**	**5.0**	**10**	**ug/L**	10	25-Oct-2021 18:57
Methylene chloride	10	U	4.0	10	20	ug/L	10	25-Oct-2021 18:57
Trichloroethene	**1,900**		**2.0**	**5.0**	**10**	**ug/L**	10	25-Oct-2021 18:57
Vinyl chloride	**59**		**2.0**	**5.0**	**10**	**ug/L**	10	25-Oct-2021 18:57
Surr: 1,2-Dichloroethane-d4	*90.8*			**0**	*81-118*	*%REC*	*10*	*25-Oct-2021 18:57*
Surr: 4-Bromofluorobenzene	*98.3*			**0**	*85-114*	*%REC*	*10*	*25-Oct-2021 18:57*
Surr: Dibromofluoromethane	*95.4*			**0**	*80-119*	*%REC*	*10*	*25-Oct-2021 18:57*
Surr: Toluene-d8	*97.4*			**0**	*89-112*	*%REC*	*10*	*25-Oct-2021 18:57*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	28-Oct-2021 12:06
Ethene	**0.00441**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	28-Oct-2021 12:06
Methane	**0.00337**		**0.000107**	**0.000250**	**0.000500**	**mg/L**	1	28-Oct-2021 12:06
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**850**		**5.00**	**5.00**	**5.00**	**mg/L**	1	28-Oct-2021 21:47
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**37.9**		**0.500**	**1.00**	**1.00**	**mg/L**	1	03-Nov-2021 06:14
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Bromide	0.500	U	0.150	0.500	0.500	mg/L	5	21-Oct-2021 09:25
Nitrogen, Nitrate (As N)	0.500	U	0.150	0.500	0.500	mg/L	5	21-Oct-2021 09:25
Sulfate	**1,450**		**10.0**	**25.0**	**25.0**	**mg/L**	50	04-Nov-2021 14:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101144
Sample ID: 16WW21-211019 Lab ID:HS21101144-13
Collection Date: 19-Oct-2021 10:40 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	25-Oct-2021 16:29
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	25-Oct-2021 16:29
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	25-Oct-2021 16:29
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	25-Oct-2021 16:29
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	25-Oct-2021 16:29
Trichloroethene	**0.56**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	25-Oct-2021 16:29
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	25-Oct-2021 16:29
Surr: 1,2-Dichloroethane-d4	*91.4*			**0**	*81-118*	*%REC*	*1*	*25-Oct-2021 16:29*
Surr: 4-Bromofluorobenzene	*98.2*			**0**	*85-114*	*%REC*	*1*	*25-Oct-2021 16:29*
Surr: Dibromofluoromethane	*95.7*			**0**	*80-119*	*%REC*	*1*	*25-Oct-2021 16:29*
Surr: Toluene-d8	*98.1*			**0**	*89-112*	*%REC*	*1*	*25-Oct-2021 16:29*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
Sample ID: 16WW48-211019
Collection Date: 19-Oct-2021 11:25

ANALYTICAL REPORT
WorkOrder:HS21101144
Lab ID:HS21101144-14
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	10	U	3.0	10	10	ug/L	10	25-Oct-2021 19:39
1,1-Dichloroethene	**37**		**2.0**	**5.0**	**10**	**ug/L**	10	25-Oct-2021 19:39
1,2-Dichloroethane	**35**		**2.0**	**5.0**	**10**	**ug/L**	10	25-Oct-2021 19:39
cis-1,2-Dichloroethene	**17,000**		**20**	**50**	**100**	**ug/L**	100	25-Oct-2021 20:00
Methylene chloride	10	U	4.0	10	20	ug/L	10	25-Oct-2021 19:39
Trichloroethene	**15,000**		**20**	**50**	**100**	**ug/L**	100	25-Oct-2021 20:00
Vinyl chloride	**170**		**2.0**	**5.0**	**10**	**ug/L**	10	25-Oct-2021 19:39
Surr: 1,2-Dichloroethane-d4	*91.1*			**0**	*81-118*	*%REC*	*100*	*25-Oct-2021 20:00*
Surr: 1,2-Dichloroethane-d4	*89.5*			**0**	*81-118*	*%REC*	*10*	*25-Oct-2021 19:39*
Surr: 4-Bromofluorobenzene	*99.8*			**0**	*85-114*	*%REC*	*10*	*25-Oct-2021 19:39*
Surr: 4-Bromofluorobenzene	*96.9*			**0**	*85-114*	*%REC*	*100*	*25-Oct-2021 20:00*
Surr: Dibromofluoromethane	*94.6*			**0**	*80-119*	*%REC*	*10*	*25-Oct-2021 19:39*
Surr: Dibromofluoromethane	*94.5*			**0**	*80-119*	*%REC*	*100*	*25-Oct-2021 20:00*
Surr: Toluene-d8	*99.9*			**0**	*89-112*	*%REC*	*10*	*25-Oct-2021 19:39*
Surr: Toluene-d8	*97.9*			**0**	*89-112*	*%REC*	*100*	*25-Oct-2021 20:00*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	**0.00236**		**0.000144**	**0.000500**	**0.00100**	**mg/L**	1	28-Oct-2021 13:04
Ethene	**0.0233**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	28-Oct-2021 13:04
Methane	**0.00674**		**0.000107**	**0.000250**	**0.000500**	**mg/L**	1	28-Oct-2021 13:04
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**409**		**5.00**	**5.00**	**5.00**	**mg/L**	1	28-Oct-2021 21:53
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**15.7**		**0.500**	**1.00**	**1.00**	**mg/L**	1	03-Nov-2021 06:30
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Bromide	0.200	U	0.0600	0.200	0.200	mg/L	2	21-Oct-2021 09:33
Nitrogen, Nitrate (As N)	0.200	U	0.0600	0.200	0.200	mg/L	2	21-Oct-2021 09:33
Sulfate	**2,530**		**40.0**	**100**	**100**	**mg/L**	200	04-Nov-2021 14:58

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**

Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101144

Sample ID: 16WW49-211019 Lab ID:HS21101144-15

Collection Date: 19-Oct-2021 12:15 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	25-Oct-2021 16:50
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	25-Oct-2021 16:50
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	25-Oct-2021 16:50
cis-1,2-Dichloroethene	**72**		**0.20**	**0.50**	**1.0**	**ug/L**	1	25-Oct-2021 16:50
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	25-Oct-2021 16:50
Trichloroethene	**30**		**0.20**	**0.50**	**1.0**	**ug/L**	1	25-Oct-2021 16:50
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	25-Oct-2021 16:50
Surr: 1,2-Dichloroethane-d4	*90.2*			**0**	*81-118*	*%REC*	*1*	*25-Oct-2021 16:50*
Surr: 4-Bromofluorobenzene	*95.8*			**0**	*85-114*	*%REC*	*1*	*25-Oct-2021 16:50*
Surr: Dibromofluoromethane	*93.8*			**0**	*80-119*	*%REC*	*1*	*25-Oct-2021 16:50*
Surr: Toluene-d8	*96.9*			**0**	*89-112*	*%REC*	*1*	*25-Oct-2021 16:50*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101144
Sample ID: 16WW51-211019 Lab ID:HS21101144-16
Collection Date: 19-Oct-2021 12:55 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,2-Trichloroethane	5.0	U	1.5	5.0	5.0	ug/L	5	25-Oct-2021 18:15
1,1-Dichloroethene	2.5	U	1.0	2.5	5.0	ug/L	5	25-Oct-2021 18:15
1,2-Dichloroethane	2.5	U	1.0	2.5	5.0	ug/L	5	25-Oct-2021 18:15
cis-1,2-Dichloroethene	**140**		**1.0**	**2.5**	**5.0**	**ug/L**	5	25-Oct-2021 18:15
Methylene chloride	5.0	U	2.0	5.0	10	ug/L	5	25-Oct-2021 18:15
Trichloroethene	**2,500**		**5.0**	**12**	**25**	**ug/L**	25	25-Oct-2021 18:36
Vinyl chloride	2.5	U	1.0	2.5	5.0	ug/L	5	25-Oct-2021 18:15
Surr: 1,2-Dichloroethane-d4	*93.0*			**0**	*81-118*	*%REC*	*5*	*25-Oct-2021 18:15*
Surr: 1,2-Dichloroethane-d4	*93.1*			**0**	*81-118*	*%REC*	*25*	*25-Oct-2021 18:36*
Surr: 4-Bromofluorobenzene	*99.7*			**0**	*85-114*	*%REC*	*5*	*25-Oct-2021 18:15*
Surr: 4-Bromofluorobenzene	*98.6*			**0**	*85-114*	*%REC*	*25*	*25-Oct-2021 18:36*
Surr: Dibromofluoromethane	*95.8*			**0**	*80-119*	*%REC*	*5*	*25-Oct-2021 18:15*
Surr: Dibromofluoromethane	*95.0*			**0**	*80-119*	*%REC*	*25*	*25-Oct-2021 18:36*
Surr: Toluene-d8	*99.1*			**0**	*89-112*	*%REC*	*5*	*25-Oct-2021 18:15*
Surr: Toluene-d8	*95.7*			**0**	*89-112*	*%REC*	*25*	*25-Oct-2021 18:36*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.

ANALYTICAL REPORT

Project: Longhorn Army Ammunition Plant 16 October 2021

WorkOrder:HS21101144

Sample ID: Trip Blank-211019

Lab ID:HS21101144-17

Collection Date: 19-Oct-2021 00:00

Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	25-Oct-2021 15:47
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	25-Oct-2021 15:47
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	25-Oct-2021 15:47
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	25-Oct-2021 15:47
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	25-Oct-2021 15:47
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	25-Oct-2021 15:47
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	25-Oct-2021 15:47
Surr: 1,2-Dichloroethane-d4	*92.4*			**0**	*81-118*	*%REC*	*1*	*25-Oct-2021 15:47*
Surr: 4-Bromofluorobenzene	*97.5*			**0**	*85-114*	*%REC*	*1*	*25-Oct-2021 15:47*
Surr: Dibromofluoromethane	*95.4*			**0**	*80-119*	*%REC*	*1*	*25-Oct-2021 15:47*
Surr: Toluene-d8	*95.3*			**0**	*89-112*	*%REC*	*1*	*25-Oct-2021 15:47*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101144

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R393999 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS21101144-01	16WW34-211018	18 Oct 2021 08:00			23 Oct 2021 04:36	1
HS21101144-02	16WW34-211018-FD	18 Oct 2021 08:00			23 Oct 2021 04:57	1
HS21101144-03	16WW33-211018	18 Oct 2021 08:40			23 Oct 2021 05:19	1
HS21101144-04	16WW32-211018	18 Oct 2021 09:30			23 Oct 2021 05:40	1
HS21101144-05	16WW31-211018	18 Oct 2021 10:10			23 Oct 2021 06:01	1
HS21101144-06	16WW46-211018	18 Oct 2021 10:50			23 Oct 2021 06:22	1
HS21101144-07	16WW27-211018	18 Oct 2021 11:40			23 Oct 2021 06:43	1
HS21101144-08	16WW43-211018	18 Oct 2021 12:25			23 Oct 2021 07:04	1
HS21101144-09	16RW05-211018	18 Oct 2021 13:15			23 Oct 2021 07:25	1
HS21101144-10	16WW56-211019	19 Oct 2021 07:45			23 Oct 2021 00:45	1
HS21101144-11	16WW22-211019	19 Oct 2021 08:40			23 Oct 2021 07:46	1
Batch ID: R394174 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS21101144-17	Trip Blank-211019	19 Oct 2021 00:00			25 Oct 2021 15:47	1
Batch ID: R394174 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS21101144-12	16WW41-211019	19 Oct 2021 09:35			25 Oct 2021 18:57	10
HS21101144-13	16WW21-211019	19 Oct 2021 10:40			25 Oct 2021 16:29	1
HS21101144-14	16WW48-211019	19 Oct 2021 11:25			25 Oct 2021 20:00	100
HS21101144-14	16WW48-211019	19 Oct 2021 11:25			25 Oct 2021 19:39	10
HS21101144-15	16WW49-211019	19 Oct 2021 12:15			25 Oct 2021 16:50	1
HS21101144-16	16WW51-211019	19 Oct 2021 12:55			25 Oct 2021 18:36	25
HS21101144-16	16WW51-211019	19 Oct 2021 12:55			25 Oct 2021 18:15	5
Batch ID: R394428 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Groundwater	
HS21101144-10	16WW56-211019	19 Oct 2021 07:45			21 Oct 2021 08:56	2
HS21101144-11	16WW22-211019	19 Oct 2021 08:40			21 Oct 2021 09:18	2
HS21101144-12	16WW41-211019	19 Oct 2021 09:35			21 Oct 2021 09:25	5
HS21101144-14	16WW48-211019	19 Oct 2021 11:25			21 Oct 2021 09:33	2
Batch ID: R394478 (0)	**Test Name :** ALKALINITY BY SM 2320B-2011				**Matrix:** Groundwater	
HS21101144-11	16WW22-211019	19 Oct 2021 08:40			28 Oct 2021 21:38	1
HS21101144-12	16WW41-211019	19 Oct 2021 09:35			28 Oct 2021 21:47	1
HS21101144-14	16WW48-211019	19 Oct 2021 11:25			28 Oct 2021 21:53	1
Batch ID: R394516 (0)	**Test Name :** DISSOLVED GASES BY RSK-175				**Matrix:** Groundwater	
HS21101144-10	16WW56-211019	19 Oct 2021 07:45			28 Oct 2021 12:34	1
HS21101144-11	16WW22-211019	19 Oct 2021 08:40			28 Oct 2021 11:58	1
HS21101144-12	16WW41-211019	19 Oct 2021 09:35			28 Oct 2021 12:06	1
HS21101144-14	16WW48-211019	19 Oct 2021 11:25			28 Oct 2021 13:04	1
Batch ID: R394792 (0)	**Test Name :** ALKALINITY BY SM 2320B-2011				**Matrix:** Groundwater	
HS21101144-10	16WW56-211019	19 Oct 2021 07:45			02 Nov 2021 17:44	1

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101144

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R394838 (0)	**Test Name :** TOTAL ORGANIC CARBON - SM5310B-2011				**Matrix:** Groundwater	
HS21101144-10	16WW56-211019	19 Oct 2021 07:45			03 Nov 2021 05:26	1
HS21101144-11	16WW22-211019	19 Oct 2021 08:40			03 Nov 2021 05:58	1
HS21101144-12	16WW41-211019	19 Oct 2021 09:35			03 Nov 2021 06:14	1
HS21101144-14	16WW48-211019	19 Oct 2021 11:25			03 Nov 2021 06:30	1
Batch ID: R394930 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Groundwater	
HS21101144-12	16WW41-211019	19 Oct 2021 09:35			04 Nov 2021 14:51	50
HS21101144-14	16WW48-211019	19 Oct 2021 11:25			04 Nov 2021 14:58	200

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101144

QC BATCH REPORT

Batch ID: R394516 (0) **Instrument:** FID-4 **Method:** DISSOLVED GASES BY RSK-175

MBLK Sample ID: **MBLK-211028** Units: **mg/L** Analysis Date: **28-Oct-2021 08:59**
Client ID: Run ID: **FID-4_394516** SeqNo: **6345575** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.000500	0.00100								U
Ethene	0.000500	0.00100								U
Methane	0.000250	0.000500								U

LCS Sample ID: **LCS-211028** Units: **mg/L** Analysis Date: **28-Oct-2021 09:10**
Client ID: Run ID: **FID-4_394516** SeqNo: **6345576** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.0169	0.00100	0.01804	0	93.6	75 - 125				
Ethene	0.0131	0.00100	0.0168	0	77.8	75 - 125				
Methane	0.00962	0.000500	0.009647	0	99.7	75 - 125				

MS Sample ID: **HS21101144-10MS** Units: **mg/L** Analysis Date: **28-Oct-2021 12:42**
Client ID: **16WW56-211019** Run ID: **FID-4_394516** SeqNo: **6345597** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.00940	0.00100	0.01804	0	52.1	75 - 125				S
Ethene	0.00964	0.00100	0.0168	0	57.4	75 - 125				S
Methane	0.00512	0.000500	0.009647	0.0009518	43.3	75 - 125				S

MSD Sample ID: **HS21101144-10MSD** Units: **mg/L** Analysis Date: **28-Oct-2021 12:52**
Client ID: **16WW56-211019** Run ID: **FID-4_394516** SeqNo: **6345598** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.0141	0.00100	0.01804	0	78.3	75 - 125	0.009397	40.2	30	R
Ethene	0.0147	0.00100	0.0168	0	87.4	75 - 125	0.009639	41.5	30	R
Methane	0.00506	0.000500	0.009647	0.0009518	42.6	75 - 125	0.005125	1.31	30	S

The following samples were analyzed in this batch: HS21101144-10 HS21101144-11 HS21101144-12 HS21101144-14

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101144

QC BATCH REPORT

Batch ID: R393999 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-211022** Units: **ug/L** Analysis Date: **23-Oct-2021 00:03**
Client ID: Run ID: **VOA6_393999** SeqNo: **6334909** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	1.0	1.0								U
1,1-Dichloroethene	0.50	1.0								U
1,2-Dichloroethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
Methylene chloride	1.0	2.0								U
Trichloroethene	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*49.79*	*1.0*	*50*	*0*	*99.6*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*50.03*	*1.0*	*50*	*0*	*100*	*85 - 114*				
Surr: Dibromofluoromethane	*48.91*	*1.0*	*50*	*0*	*97.8*	*80 - 119*				
Surr: Toluene-d8	*49.86*	*1.0*	*50*	*0*	*99.7*	*89 - 112*				

LCS Sample ID: **VLCSW-211022** Units: **ug/L** Analysis Date: **22-Oct-2021 23:21**
Client ID: Run ID: **VOA6_393999** SeqNo: **6334908** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	20.77	1.0	20	0	104	80 - 119				
1,1-Dichloroethene	21.24	1.0	20	0	106	71 - 131				
1,2-Dichloroethane	21.72	1.0	20	0	109	73 - 128				
cis-1,2-Dichloroethene	22.57	1.0	20	0	113	78 - 123				
Methylene chloride	23.84	2.0	20	0	119	74 - 124				
Trichloroethene	21.39	1.0	20	0	107	79 - 123				
Vinyl chloride	21.12	1.0	20	0	106	58 - 137				
Surr: 1,2-Dichloroethane-d4	*54.54*	*1.0*	*50*	*0*	*109*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*52.2*	*1.0*	*50*	*0*	*104*	*85 - 114*				
Surr: Dibromofluoromethane	*55.55*	*1.0*	*50*	*0*	*111*	*80 - 119*				
Surr: Toluene-d8	*47.38*	*1.0*	*50*	*0*	*94.8*	*89 - 112*				

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101144

QC BATCH REPORT

Batch ID: R393999 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21101144-10MS** Units: **ug/L** Analysis Date: **23-Oct-2021 01:27**
Client ID: **16WW56-211019** Run ID: **VOA6_393999** SeqNo: **6334913** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	17.86	1.0	20	0	89.3	80 - 119				
1,1-Dichloroethene	15.88	1.0	20	0	79.4	71 - 131				
1,2-Dichloroethane	17.65	1.0	20	0	88.3	73 - 128				
cis-1,2-Dichloroethene	22.29	1.0	20	0.7577	108	78 - 123				
Methylene chloride	16.99	2.0	20	0	84.9	74 - 124				
Trichloroethene	25.53	1.0	20	6.202	96.6	79 - 123				
Vinyl chloride	14.18	1.0	20	0	70.9	58 - 137				
Surr: 1,2-Dichloroethane-d4	*47.1*	*1.0*	*50*	*0*	*94.2*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*51.19*	*1.0*	*50*	*0*	*102*	*85 - 114*				
Surr: Dibromofluoromethane	*46.65*	*1.0*	*50*	*0*	*93.3*	*80 - 119*				
Surr: Toluene-d8	*48.27*	*1.0*	*50*	*0*	*96.5*	*89 - 112*				

MSD Sample ID: **HS21101144-10MSD** Units: **ug/L** Analysis Date: **23-Oct-2021 01:48**
Client ID: **16WW56-211019** Run ID: **VOA6_393999** SeqNo: **6334914** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	18.69	1.0	20	0	93.5	80 - 119	17.86	4.59	20	
1,1-Dichloroethene	15.89	1.0	20	0	79.4	71 - 131	15.88	0.0568	20	
1,2-Dichloroethane	18	1.0	20	0	90.0	73 - 128	17.65	1.93	20	
cis-1,2-Dichloroethene	18.32	1.0	20	0.7577	87.8	78 - 123	22.29	19.6	20	
Methylene chloride	17.27	2.0	20	0	86.4	74 - 124	16.99	1.65	20	
Trichloroethene	24.06	1.0	20	6.202	89.3	79 - 123	25.53	5.92	20	
Vinyl chloride	14.28	1.0	20	0	71.4	58 - 137	14.18	0.725	20	
Surr: 1,2-Dichloroethane-d4	*47.55*	*1.0*	*50*	*0*	*95.1*	*81 - 118*	*47.1*	*0.958*	*20*	
Surr: 4-Bromofluorobenzene	*50.63*	*1.0*	*50*	*0*	*101*	*85 - 114*	*51.19*	*1.09*	*20*	
Surr: Dibromofluoromethane	*46.25*	*1.0*	*50*	*0*	*92.5*	*80 - 119*	*46.65*	*0.864*	*20*	
Surr: Toluene-d8	*48.72*	*1.0*	*50*	*0*	*97.4*	*89 - 112*	*48.27*	*0.912*	*20*	

The following samples were analyzed in this batch:

HS21101144-01	HS21101144-02	HS21101144-03	HS21101144-04
HS21101144-05	HS21101144-06	HS21101144-07	HS21101144-08
HS21101144-09	HS21101144-10	HS21101144-11	

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101144

QC BATCH REPORT

Batch ID: R394174 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-211025** Units: **ug/L** Analysis Date: **25-Oct-2021 12:17**
Client ID: Run ID: **VOA6_394174** SeqNo: **6337695** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	1.0	1.0								U
1,1-Dichloroethene	0.50	1.0								U
1,2-Dichloroethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
Methylene chloride	1.0	2.0								U
Trichloroethene	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*44.47*	*1.0*	*50*	*0*	*88.9*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.67*	*1.0*	*50*	*0*	*97.3*	*85 - 114*				
Surr: Dibromofluoromethane	*46.93*	*1.0*	*50*	*0*	*93.9*	*80 - 119*				
Surr: Toluene-d8	*48.55*	*1.0*	*50*	*0*	*97.1*	*89 - 112*				

LCS Sample ID: **VLCSW-211025** Units: **ug/L** Analysis Date: **25-Oct-2021 11:35**
Client ID: Run ID: **VOA6_394174** SeqNo: **6337694** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	19.88	1.0	20	0	99.4	80 - 119				
1,1-Dichloroethene	19.75	1.0	20	0	98.8	71 - 131				
1,2-Dichloroethane	19.64	1.0	20	0	98.2	73 - 128				
cis-1,2-Dichloroethene	20.99	1.0	20	0	105	78 - 123				
Methylene chloride	21.81	2.0	20	0	109	74 - 124				
Trichloroethene	20.85	1.0	20	0	104	79 - 123				
Vinyl chloride	18.63	1.0	20	0	93.1	58 - 137				
Surr: 1,2-Dichloroethane-d4	*49.07*	*1.0*	*50*	*0*	*98.1*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*49.34*	*1.0*	*50*	*0*	*98.7*	*85 - 114*				
Surr: Dibromofluoromethane	*51.67*	*1.0*	*50*	*0*	*103*	*80 - 119*				
Surr: Toluene-d8	*46.08*	*1.0*	*50*	*0*	*92.2*	*89 - 112*				

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101144

QC BATCH REPORT

Batch ID: R394174 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21101283-10MS** Units: **ug/L** Analysis Date: **25-Oct-2021 14:02**
Client ID: Run ID: **VOA6_394174** SeqNo: **6337700** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	187.5	10	200	0	93.7	80 - 119				
1,1-Dichloroethene	171.4	10	200	8.191	81.6	71 - 131				
1,2-Dichloroethane	179.5	10	200	0	89.7	73 - 128				
cis-1,2-Dichloroethene	1693	10	200	1576	58.3	78 - 123				SO
Methylene chloride	183.7	20	200	0	91.8	74 - 124				
Trichloroethene	1022	10	200	888.5	66.9	79 - 123				SO
Vinyl chloride	294.6	10	200	185.2	54.7	58 - 137				S
Surr: 1,2-Dichloroethane-d4	*441.2*	*10*	*500*	*0*	*88.2*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*500*	*10*	*500*	*0*	*100*	*85 - 114*				
Surr: Dibromofluoromethane	*474.6*	*10*	*500*	*0*	*94.9*	*80 - 119*				
Surr: Toluene-d8	*479.8*	*10*	*500*	*0*	*96.0*	*89 - 112*				

MSD Sample ID: **HS21101283-10MSD** Units: **ug/L** Analysis Date: **25-Oct-2021 14:23**
Client ID: Run ID: **VOA6_394174** SeqNo: **6337701** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	188.6	10	200	0	94.3	80 - 119	187.5	0.606	20	
1,1-Dichloroethene	161.8	10	200	8.191	76.8	71 - 131	171.4	5.75	20	
1,2-Dichloroethane	175.2	10	200	0	87.6	73 - 128	179.5	2.4	20	
cis-1,2-Dichloroethene	1672	10	200	1576	47.8	78 - 123	1693	1.25	20	SO
Methylene chloride	179.5	20	200	0	89.7	74 - 124	183.7	2.3	20	
Trichloroethene	974.8	10	200	888.5	43.2	79 - 123	1022	4.75	20	SO
Vinyl chloride	272.7	10	200	185.2	43.8	58 - 137	294.6	7.69	20	S
Surr: 1,2-Dichloroethane-d4	*442*	*10*	*500*	*0*	*88.4*	*81 - 118*	*441.2*	*0.201*	*20*	
Surr: 4-Bromofluorobenzene	*490.9*	*10*	*500*	*0*	*98.2*	*85 - 114*	*500*	*1.84*	*20*	
Surr: Dibromofluoromethane	*472.1*	*10*	*500*	*0*	*94.4*	*80 - 119*	*474.6*	*0.534*	*20*	
Surr: Toluene-d8	*483.4*	*10*	*500*	*0*	*96.7*	*89 - 112*	*479.8*	*0.745*	*20*	

The following samples were analyzed in this batch: HS21101144-12 HS21101144-13 HS21101144-14 HS21101144-15 HS21101144-16 HS21101144-17

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101144

QC BATCH REPORT

Batch ID: R394428 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **21-Oct-2021 23:54**
Client ID: Run ID: **ICS-Integrion_394428** SeqNo: **6343667** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	0.100	0.100								U
Nitrogen, Nitrate (As N)	0.100	0.100								U
Sulfate	0.500	0.500								U

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **22-Oct-2021 00:02**
Client ID: Run ID: **ICS-Integrion_394428** SeqNo: **6343668** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	4.082	0.100	4	0	102	80 - 120				
Nitrogen, Nitrate (As N)	3.863	0.100	4	0	96.6	80 - 120				
Sulfate	19.91	0.500	20	0	99.6	80 - 120				

MS Sample ID: **HS21101171-02MS** Units: **mg/L** Analysis Date: **22-Oct-2021 00:31**
Client ID: Run ID: **ICS-Integrion_394428** SeqNo: **6343671** PrepDate: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	67.74	0.200	4	63.28	112	80 - 120				EO
Nitrogen, Nitrate (As N)	3.785	0.200	4	0.0124	94.3	80 - 120				
Sulfate	18.78	1.00	20	0	93.9	80 - 120				

MS Sample ID: **HS21101144-10MS** Units: **mg/L** Analysis Date: **21-Oct-2021 09:03**
Client ID: **16WW56-211019** Run ID: **ICS-Integrion_394428** SeqNo: **6344024** PrepDate: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	5.151	0.200	4	1.548	90.1	80 - 120				
Nitrogen, Nitrate (As N)	3.673	0.200	4	0.0112	91.5	80 - 120				
Sulfate	153.6	1.00	20	137.3	81.1	80 - 120				O

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101144

QC BATCH REPORT

Batch ID: R394428 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MSD Sample ID: **HS21101171-02MSD** Units: **mg/L** Analysis Date: **22-Oct-2021 00:39**
Client ID: Run ID: **ICS-Integrion_394428** SeqNo: **6343672** PrepDate: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	67.11	0.200	4	63.28	95.8	80 - 120	67.74	0.933	20	EO
Nitrogen, Nitrate (As N)	3.79	0.200	4	0.0124	94.4	80 - 120	3.785	0.127	20	
Sulfate	18.75	1.00	20	0	93.7	80 - 120	18.78	0.147	20	

MSD Sample ID: **HS21101144-10MSD** Units: **mg/L** Analysis Date: **21-Oct-2021 09:10**
Client ID: **16WW56-211019** Run ID: **ICS-Integrion_394428** SeqNo: **6344025** PrepDate: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	5.356	0.200	4	1.548	95.2	80 - 120	5.151	3.89	20	
Nitrogen, Nitrate (As N)	3.702	0.200	4	0.0112	92.3	80 - 120	3.673	0.781	20	
Sulfate	155.5	1.00	20	137.3	90.9	80 - 120	153.6	1.26	20	O

The following samples were analyzed in this batch: HS21101144-10 HS21101144-11 HS21101144-12 HS21101144-14

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101144

QC BATCH REPORT

Batch ID: R394478 (0) **Instrument: ManTech01** **Method: ALKALINITY BY SM 2320B-2011**

MBLK Sample ID: **WBLKW2-211028** Units: **mg/L** Analysis Date: **28-Oct-2021 21:22**
Client ID: Run ID: **ManTech01_394478** SeqNo: **6344815** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	5.00	5.00								U

LCS Sample ID: **WLCS2-211028** Units: **mg/L** Analysis Date: **28-Oct-2021 20:49**
Client ID: Run ID: **ManTech01_394478** SeqNo: **6344811** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1036	5.00	1000	0	104	85 - 115				

LCSD Sample ID: **WLCSD2-211028** Units: **mg/L** Analysis Date: **28-Oct-2021 20:59**
Client ID: Run ID: **ManTech01_394478** SeqNo: **6344812** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1046	5.00	1000	0	105	85 - 115	1036	0.996	20	

DUP Sample ID: **HS21101171-02DUP** Units: **mg/L** Analysis Date: **28-Oct-2021 22:19**
Client ID: Run ID: **ManTech01_394478** SeqNo: **6344821** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1089	5.00					1111	1.97	20	

The following samples were analyzed in this batch: HS21101144-11 HS21101144-12 HS21101144-14

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101144

QC BATCH REPORT

Batch ID: R394792 (0) **Instrument: ManTech01** **Method: ALKALINITY BY SM 2320B-2011**

MBLK Sample ID: **WBLKW1-211102** Units: **mg/L** Analysis Date: **02-Nov-2021 17:21**
Client ID: Run ID: **ManTech01_394792** SeqNo: **6351470** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	5.00	5.00								U

LCS Sample ID: **LCS1-211102** Units: **mg/L** Analysis Date: **02-Nov-2021 17:30**
Client ID: Run ID: **ManTech01_394792** SeqNo: **6351471** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1067	5.00	1000	0	107	85 - 115				

LCSD Sample ID: **LCSD1-211102** Units: **mg/L** Analysis Date: **02-Nov-2021 17:38**
Client ID: Run ID: **ManTech01_394792** SeqNo: **6351472** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1060	5.00	1000	0	106	85 - 115	1067	0.639	20	

DUP Sample ID: **HS21101144-10DUP** Units: **mg/L** Analysis Date: **02-Nov-2021 17:50**
Client ID: **16WW56-211019** Run ID: **ManTech01_394792** SeqNo: **6351474** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	176.4	5.00					186.1	5.36	20	

The following samples were analyzed in this batch: HS21101144-10

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101144

QC BATCH REPORT

Batch ID: R394838 (0) **Instrument:** TOC_04 **Method:** TOTAL ORGANIC CARBON - SM5310B-2011

MBLK Sample ID: **MBLK-11022021** Units: **mg/L** Analysis Date: **03-Nov-2021 04:38**
Client ID: Run ID: **TOC_04_394838** SeqNo: **6352401** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	1.00	1.00								U

LCS Sample ID: **LCS-11022021** Units: **mg/L** Analysis Date: **03-Nov-2021 04:54**
Client ID: Run ID: **TOC_04_394838** SeqNo: **6352402** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.64	1.00	10	0	106	85 - 115				

LCSD Sample ID: **LCSD-11022021** Units: **mg/L** Analysis Date: **03-Nov-2021 05:10**
Client ID: Run ID: **TOC_04_394838** SeqNo: **6352403** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.66	1.00	10	0	107	85 - 115	10.64	0.188	20	

MS Sample ID: **HS21101144-10MS** Units: **mg/L** Analysis Date: **03-Nov-2021 05:42**
Client ID: **16WW56-211019** Run ID: **TOC_04_394838** SeqNo: **6352405** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	15.03	1.00	10	1.342	137	80 - 120				S

The following samples were analyzed in this batch: HS21101144-10 HS21101144-11 HS21101144-12 HS21101144-14

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101144

QC BATCH REPORT

Batch ID: R394930 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **04-Nov-2021 14:36**
Client ID: Run ID: **ICS-Integrion_394930** SeqNo: **6354898** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	0.500	0.500								U

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **04-Nov-2021 14:44**
Client ID: Run ID: **ICS-Integrion_394930** SeqNo: **6354899** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	20.12	0.500	20	0	101	80 - 120				

MS Sample ID: **HS21110037-05MS** Units: **mg/L** Analysis Date: **04-Nov-2021 15:13**
Client ID: Run ID: **ICS-Integrion_394930** SeqNo: **6354903** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	98.35	2.50	50	48.66	99.4	80 - 120				

MSD Sample ID: **HS21110037-05MSD** Units: **mg/L** Analysis Date: **04-Nov-2021 15:21**
Client ID: Run ID: **ICS-Integrion_394930** SeqNo: **6354904** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	98.27	2.50	50	48.66	99.2	80 - 120	98.35	0.0809	20	

The following samples were analyzed in this batch: HS21101144-12 HS21101144-14

ALS Houston, US Date: 05-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: **HS21101144**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-33	30-Jun-2022
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2021-2022	31-Jul-2022
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2021-2022	30-Jun-2022
North Carolina	624-2021	31-Dec-2021
Texas	T104704231-21-28	30-Apr-2022

ALS Houston, US Date: 05-Nov-21

Sample Receipt Checklist

Work Order ID: HS21101144 **Date/Time Received:** 20-Oct-2021 10:05

Client Name: CBI-Houston **Received by:** Paresh M. Giga

Completed By:	/S/ Paresh M. Giga	21-Oct-2021 08:37	**Reviewed by:**	/S/ Ragen Giga	21-Oct-2021 15:09
	eSignature	Date/Time		eSignature	Date/Time

Matrices: GW/Water Carrier name: FedEx Priority Overnight

	Yes	No	Not Present
Shipping container/cooler in good condition?	☑	☐	☐
Custody seals intact on shipping container/cooler?	☑	☐	☐
Custody seals intact on sample bottles?	☐	☐	☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	☐	☐	☑
Chain of custody present?	☑	☐	
Chain of custody signed when relinquished and received?	☑	☐	
Samplers name present on COC?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	

3 Page(s)

COC IDs:none

Temperature(s)/Thermometer(s):	1.6C U/c	IR31
Cooler(s)/Kit(s):	47723	
Date/Time sample(s) sent to storage:	10/21/2021 08:40	

	Yes	No		
Water - VOA vials have zero headspace?	☑	☐	No VOA vials submitted	☐
Water - pH acceptable upon receipt?	☐	☐	N/A	☑
pH adjusted?	☐	☐	N/A	☑
pH adjusted by:				

Login Notes: Cooler missed triage by login.
NO3 samples given to analyst 10/21/21 @ 08:10.
1st NO3 alresdy out of hold 07:45.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281)530-5656 ATTN: Raggen Giga

Project: APTIM
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No. 501032

Job: LHAAP 16 October 2021

Prepared By: Scott Beesinger

P.O. Number

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	VOC by SW 8260B	TOC by SM5310C	MEE by RSK 175	Anions (bromide, sulfate, nitrate) by SW9056 and Alkalinity by SM2320	Bromide by SW9056	Perchlorate by SW6850	Metals (arsenic, chromium, manganese, nickel, thallium) by SW6020				Remarks (Preservatives, etc.)	Lab I.D.#
16WW34-211018	WG	10/18/21/0800		3	X											
16WW34-211018-FD	WG	10/18/21/0800		3	X											
16WW33-211018	WG	10/18/21/0840		3	X											
16WW32-211018	WG	10/18/21/0930		3	X											
16WW31-211018	WG	10/18/21/1010		3	X											
16WW46-211018	WG	10/18/21/1050		3	X											
16WW27-211018	WG	10/18/21/1140		3	X											
16WW43-211018	WG	10/18/21/1225		3	X											

Additional Remarks: Standard TAT on all parameters. Please email results to Vicki.Graves@aptim.com and invoices to fedinvoices@aptim.com

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
				10/20/2021	10:45						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:
UIC-
47723 1.6°
431
Office

HS21101144

Aptim Environmental & Infrastucture, Inc.
Longhorn Army Ammunition Plant 16 October 2021

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CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Ragen Giga

Project: APTIM
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No. 501032

Job: **LHAAP 16 October 2021**

Prepared By: Scott Beesinger

P.O. Number

Field Sample I.D.	Time	Sample Matrix	Date /	MS / MSD	No. OF CONTAINERS	VOC by SW 8260B	TOC by SM5310C	MEE by RSK 175	Anions (bromide, sulfate, nitrate) by SW9056 and Alkalinity by SM2320	Bromide by SW9056	Perchlorate by SW6850	Metals (arsenic, chromium, manganese, nickel, thallium) by SW6020				Remarks (Preservatives, etc.)	Lab I.D.#
16RW05-211018		WG	10/18/21 / 1315		3	X											
16WW56-211019		WG	10/19/21 / 0745		9	X	X	X	X	X							
16WW56-211019-MS		WG	10/19/21 / 0745		9	X	X	X	X	X							
16WW56-211019-MSD		WG	10/19/21 / 0745		9	X	X	X	X	X							
16WW22-211019		WG	10/19/21 / 0840		9	X	X	X	X	X							
16WW41-211019		WG	10/19/21 / 0935		9	X	X	X	X	X							
16WW21-211019		WG	10/19/21 / 1040		3	X											
16WW48-211019		WG	10/19/21 / 1125		9	X	X	X	X	X							

Additional Remarks: Standard TAT on all parameters. Please email results to Vicki.Graves@aptim.com and invoices to fedinvoices@aptim.com

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	10/19/21	1430		10/20/2021	10:05						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:

HS21101144

Aptim Environmental & Infrastucture, Inc.
Longhorn Army Ammunition Plant 16 October 2021

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CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Ragen Giga

Project: APTIM
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No.: 501032

Job: **LHAAP 16 October 2021**

Prepared By: Scott Beesinger

P.O. Number:

Field Sample I.D. / Time	Sample Matrix	Date /	MS / MSD	No. OF CONTAINERS	VOC by SW 8260B	TOC by SM5310C	MEE by RSK 175	Anions (bromide, sulfate, nitrate) by SW9056 and Alkalinity by SM2320	Bromide by SW9056	Perchlorate by SW6850	Metals (arsenic, chromium, manganese, nickel, thallium) by SW6020				Remarks (Preservatives, etc.)	Lab I.D.#
16WW49-211019	WG	10/19/21 1215		3	X											
16WW51-211019	WG	10/19/21 1255		3	X											
TRIP BLANK-211019	WG	10/19/21		2	X											

Additional Remarks: Standard TAT on all parameters. Please email results to Vicki.Graves@aptim.com and invoices to fedinvoices@aptim.com

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	10/19/21	1430		10/20/2021	10:45						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:

HS21101144

Aptim Environmental & Infrastucture, Inc.
Longhorn Army Ammunition Plant 16 October 2021

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ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

47723

CUSTODY SEAL

Date: 10/19/21 Time: 1430
Name: Scott Beesinger
Company: BHMT

Seal Broken By:
Date: 10/20/21

47723 OCT 20 2021

47723

ORIGIN ID:SGRA (903) 930-6193
SCOTT BEESINGER
APTIM ENVIROMENTAL & INFASTRUCTURE
1203-B EAST GRAND AVE
PMB 202
MARSHALL, TX 75670
UNITED STATES US

SHIP DATE: 27SEP21
ACTWGT: 1.00 LB MAN
CAD: 0221247/CAFE3504
DIMS: 26x14x14 IN

TO SHIPPING DEPT
ALS LABORATORY GROUP
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099
(281) 530-5656
REF: LHAAP 04 - RG

RMA:

FedEx Express

FedEx
TRK# 5300 5222 6043
0221

WED - 20 OCT 10:30A
PRIORITY OVERNIGHT

AB SGRA

77099
TX-US IAH

#5213643 10/19 $6DJ3/143A/FE4A

HS21101144 8260 Raw Data

ALS WO# HS21101144

MSVOA06 -Logbook

Batch: 46738
Date: 10-08-2021
Method: 8260
Comments:

Analyst: Presenta Cabascango
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status
1	BFB	TUNE	10-08-2021 12:47 pm	1.00	50 mL	50 mL	X100801.D	Liquid	Y
2	VSTD000.25	ICAL1	10-08-2021 01:08 pm	1.00	50 mL	50 mL	X100802.D	Liquid	Y
3	VSTD000.5	ICAL2	10-08-2021 01:50 pm	1.00	50 mL	50 mL	X100803.D	Liquid	Y
4	VSTD001	ICAL3	10-08-2021 02:11 pm	1.00	50 mL	50 mL	X100804.D	Liquid	Y
5	VSTD002	ICAL4	10-08-2021 02:32 pm	1.00	50 mL	50 mL	X100805.D	Liquid	Y
6	VSTD005	ICAL5	10-08-2021 02:53 pm	1.00	50 mL	50 mL	X100806.D	Liquid	Y
7	VSTD020	ICAL6	10-08-2021 03:14 pm	1.00	50 mL	50 mL	X100807.D	Liquid	Y
8	VSTD050	ICAL7	10-08-2021 03:34 pm	1.00	50 mL	50 mL	X100808.D	Liquid	Y
9	VSTD100	ICAL8	10-08-2021 03:55 pm	1.00	50 mL	50 mL	X100809.D	Liquid	Y
10	VSTD150	ICAL9	10-08-2021 04:16 pm	1.00	50 mL	50 mL	X100810.D	Liquid	Y
11	VSTD200	ICAL	10-08-2021 04:37 pm	1.00	50 mL	50 mL	X100811.D	Liquid	Y
12	BLANK	SAMP	10-08-2021 04:58 pm	1.00	50 mL	50 mL	X100812.D	Liquid	Y
13	BLANK	SAMP	10-08-2021 05:19 pm	1.00	50 mL	50 mL	X100813.D	Liquid	Y
14	CCV	CCV	10-08-2021 05:40 pm	1.00	50 mL	50 mL	X100814.D	Liquid	Y
15	BFB	TUNE	10-08-2021 06:01 pm	1.00	50 mL	50 mL	Y100801.D	Liquid	Y
16	CCV	CCV	10-08-2021 06:22 pm	1.00	50 mL	50 mL	Y100802a.D	Liquid	Y
17	CCV	CCV	10-08-2021 06:43 pm	1.00	50 mL	50 mL	Y100803.D	Liquid	Y
18	CCB	SAMP	10-08-2021 07:04 pm	1.00	50 mL	50 mL	Y100804.D	Liquid	Y
19	VLCSW-211008	LCS	10-08-2021 07:25 pm	1.00	50 mL	50 mL	Y100805.D	Liquid	Y
20	BLANK	SAMP	10-08-2021 07:46 pm	1.00	50 mL	50 mL	Y100806.D	Liquid	Y
21	BLANK	SAMP	10-08-2021 08:07 pm	1.00	50 mL	50 mL	Y100807.D	Liquid	Y
22	VBLKW-211008	MBLK	10-08-2021 08:28 pm	1.00	50 mL	50 mL	Y100808.D	Liquid	Y
23	HS21100202-01	SAMP	10-08-2021 08:49 pm	1.00	50 mL	50 mL	Y100809.D	Liquid	Y
24	HS21100202-03	SAMP	10-08-2021 09:10 pm	1.00	50 mL	50 mL	Y100810.D	Liquid	Y
25	HS21100202-04	SAMP	10-08-2021 09:31 pm	1.00	50 mL	50 mL	Y100811.D	Liquid	Y
26	HS21100461-01	SAMP	10-08-2021 09:52 pm	1.00	50 mL	50 mL	Y100812.D	Liquid	Y
27	HS21100461-02	SAMP	10-08-2021 10:14 pm	1.00	50 mL	50 mL	Y100813.D	Liquid	Y
28	HS21100461-03	SAMP	10-08-2021 10:35 pm	1.00	50 mL	50 mL	Y100814.D	Liquid	Y
29	HS21100300-01	SAMP	10-08-2021 10:56 pm	1.00	50 mL	50 mL	Y100815.D	Liquid	Y
30	HS21100300-03	SAMP	10-08-2021 11:17 pm	1.00	50 mL	50 mL	Y100816.D	Liquid	Y
31	HS21100300-04	SAMP	10-08-2021 11:38 pm	1.00	50 mL	50 mL	Y100817.D	Liquid	Y
32	HS21100300-05	SAMP	10-08-2021 11:59 pm	1.00	50 mL	50 mL	Y100818.D	Liquid	Y
33	HS21100300-06	SAMP	10-09-2021 12:20 am	1.00	50 mL	50 mL	Y100819.D	Liquid	Y
34	HS21100300-07	SAMP	10-09-2021 12:41 am	1.00	50 mL	50 mL	Y100820.D	Liquid	Y
35	HS21100308-01	SAMP	10-09-2021 01:02 am	1.00	50 mL	50 mL	Y100821.D	Liquid	Y
36	HS21100246-05	SAMP	10-09-2021 01:23 am	1.00	50 mL	50 mL	Y100822.D	Liquid	Y
37	HS21100300-06MS	MS	10-09-2021 01:44 am	1.00	50 mL	50 mL	Y100823.D	Liquid	Y
38	HS21100300-06MSD	MSD	10-09-2021 02:05 am	1.00	50 mL	50 mL	Y100824.D	Liquid	Y
39	CCV-END	CCV	10-09-2021 02:26 am	1.00	50 mL	50 mL	Y100825.D	Liquid	Y
40	HS21100312-08	SAMP	10-09-2021 02:47 am	1.00	50 mL	50 mL	Y100826.D	Liquid	Y
41	HS21100316-11	SAMP	10-09-2021 03:08 am	1.00	50 mL	50 mL	Y100827.D	Liquid	Y

MSVOA06 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status
42	HS21100320-11	SAMP	10-09-2021 03:29 am	1.00	50 mL	50 mL	Y100828.D	Liquid	Y
43	HS21100323-19	SAMP	10-09-2021 03:50 am	1.00	50 mL	50 mL	Y100829.D	Liquid	Y
44	HS21100399-11	SAMP	10-09-2021 04:11 am	1.00	50 mL	50 mL	Y100830.D	Liquid	Y
45	HS21100457-07	SAMP	10-09-2021 04:32 am	1.00	50 mL	50 mL	Y100831.D	Liquid	Y
46	BLANK	SAMP	10-09-2021 04:53 am	1.00	50 mL	50 mL	Y100832.D	Liquid	Y

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
Methylene Chloride	50.00	52.41	105	80-120
1,1,2-Trichloroethane	50.00	47.89	96	80-120
Trichloroethene	50.00	46.25	92	80-120
Vinyl Chloride	50.00	47.21	94	80-120
1,1-Dichloroethene	50.00	48.47	97	80-120
1,2-Dichloroethane	50.00	47.98	96	80-120
cis-1,2-Dichloroethene	50.00	50.82	102	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM III VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Lab File ID: X100801 BFB Injection Date: 10/08/21

Instrument ID: VOA6 BFB Injection Time: 1247

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.7
75	30.0 - 60.0% of mass 95	47.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	1.2 (1.2)1
174	Greater than 50.0% of mass 95	97.4
175	5.0 - 9.0% of mass 174	7.0 (7.2)1
176	95.0 - 101.0% of mass 174	92.6 (95.0)1
177	5.0 - 9.0% of mass 176	5.8 (6.3)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD000.25	VSTD000.25	X100802	10/08/21	1308
02	VSTD000.5	VSTD000.5	X100803	10/08/21	1350
03	VSTD001	VSTD001	X100804	10/08/21	1411
04	VSTD002	VSTD002	X100805	10/08/21	1432
05	VSTD005	VSTD005	X100806	10/08/21	1453
06	VSTD020	VSTD020	X100807	10/08/21	1514
07	VSTD050	VSTD050	X100808	10/08/21	1534
08	VSTD100	VSTD100	X100809	10/08/21	1555
09	VSTD150	VSTD150	X100810	10/08/21	1616
10	VSTD200	VSTD200	X100811	10/08/21	1637
11	ICV	ICV	X100814	10/08/21	1740
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Instrument ID: VOA6 Calibration Date(s): 10/08/21 10/08/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1308 1637

LAB FILE ID: RF0.25: X100802 RF0.5: X100803 RF1: X100804
RF2: X100805 RF5: X100806 RF20: X100807

COMPOUND	RF0.25	RF0.5	RF1	RF2	RF5	RF20
Methylene Chloride		2444	4333	7762	19276	70665
1,1,2-Trichloroethane		0.263	0.266	0.315	0.301	0.258
Trichloroethene		0.432	0.477	0.393	0.391	0.354
Vinyl Chloride		0.582	0.594	0.586	0.600	0.514
1,1-Dichloroethene		0.463	0.490	0.473	0.500	0.440
1,2-Dichloroethane		0.420	0.472	0.432	0.456	0.429
cis-1,2-Dichloroethene		0.474	0.544	0.558	0.584	0.540
1,2-Dichloroethane-d4		3361	5961	9717	22194	84053
Dibromofluoromethane		2999	4837	8290	20676	78657
4-Bromofluorobenzene		4606	8328	13893	24945	96265
Toluene-d8		1.599	1.426	1.352	1.356	1.189

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS2110114

Instrument ID: VOA6 Calibration Date(s): 10/08/21 10/08/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1308 1637

LAB FILE ID: RF50: X100808 RF100: X100809 RF150: X100810
RF200: X100811

COMPOUND	RF50	RF100	RF150	RF200
Methylene Chloride	173952	361756	542343	743741
1,1,2-Trichloroethane	0.248	0.252	0.247	0.251
Trichloroethene	0.334	0.343	0.335	0.344
Vinyl Chloride	0.466	0.457	0.449	0.471
1,1-Dichloroethene	0.407	0.411	0.402	0.428
1,2-Dichloroethane	0.402	0.391	0.386	0.386
cis-1,2-Dichloroethene	0.501	0.494	0.479	0.503
1,2-Dichloroethane-d4	202478	416593	610768	835313
Dibromofluoromethane	192579	417318	604609	839119
4-Bromofluorobenzene	246655	511094	745510	1012260
Toluene-d8	1.125	1.164	1.092	1.116

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS2110114

Instrument ID: VOA6 Calibration Date(s): 10/08/21 10/08/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1308 1637

COMPOUND	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2
Methylene Chloride	LINR	-2.53e-002	2.35098937	0.9995671	0.9900000
1,1,2-Trichloroethane	AVRG		0.26680323	9.145	15.000
Trichloroethene	AVRG		0.37820923	13.102	15.000
Vinyl Chloride	AVRG		0.52422244	12.478	15.000
1,1-Dichloroethene	AVRG		0.44601099	8.294	15.000
1,2-Dichloroethane	AVRG		0.41941937	7.419	15.000
cis-1,2-Dichloroethene	AVRG		0.51982554	7.323	15.000
1,2-Dichloroethane-d4	LINR	-4.07e-002	2.09187623	0.9992556	0.9900000
Dibromofluoromethane	LINR	-2.28e-002	2.08394752	0.9991289	0.9900000
4-Bromofluorobenzene	LINR	-2.74e-002	2.35257164	0.9998215	0.9900000
Toluene-d8	AVRG		1.26890009	13.667	15.000

FORM VI VOA

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100801.D

Date : 08-OCT-2021 12:47

Client ID: BFB

Instrument: voa6.i

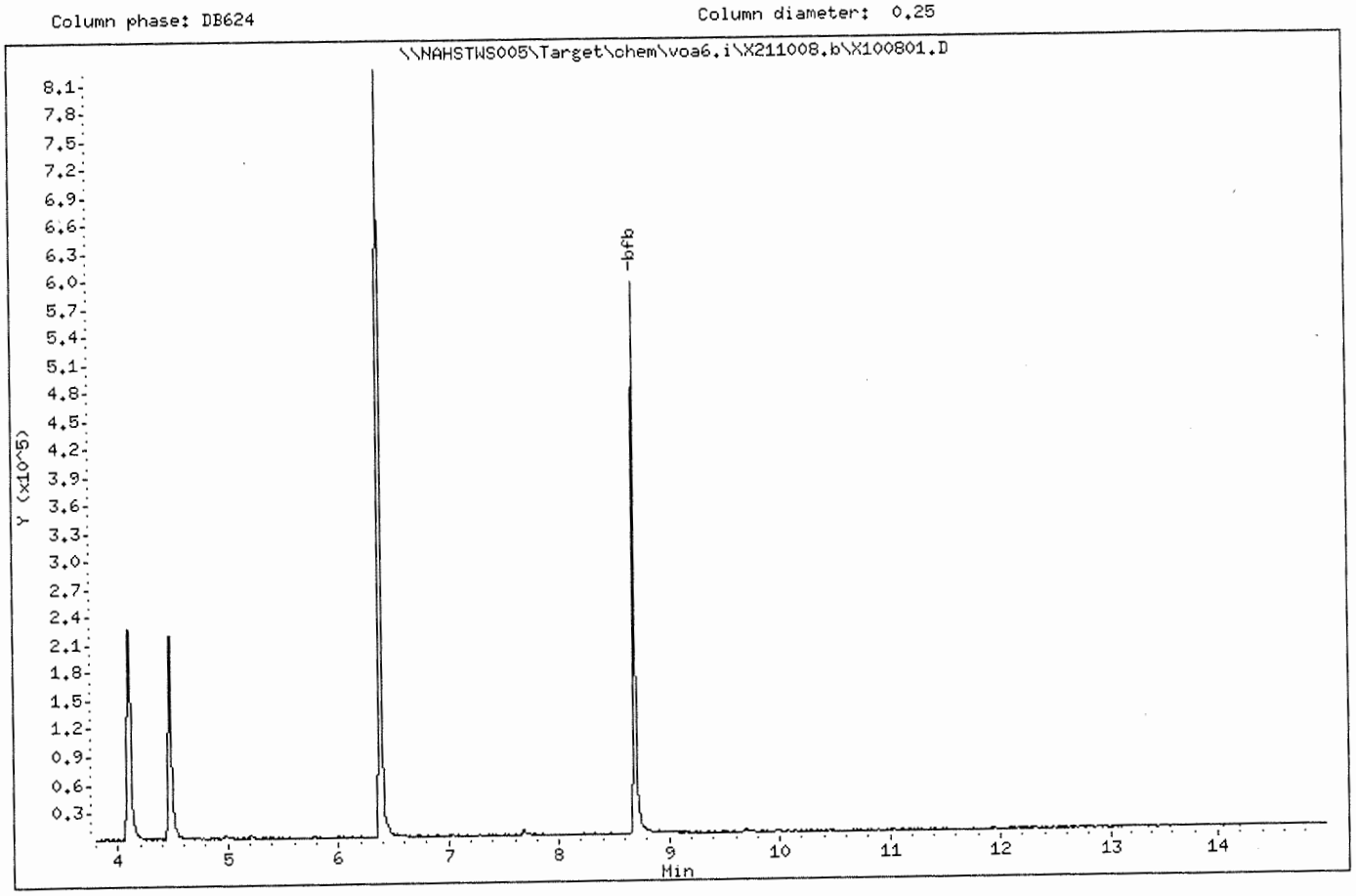
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100801.D

Date : 08-OCT-2021 12:47

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

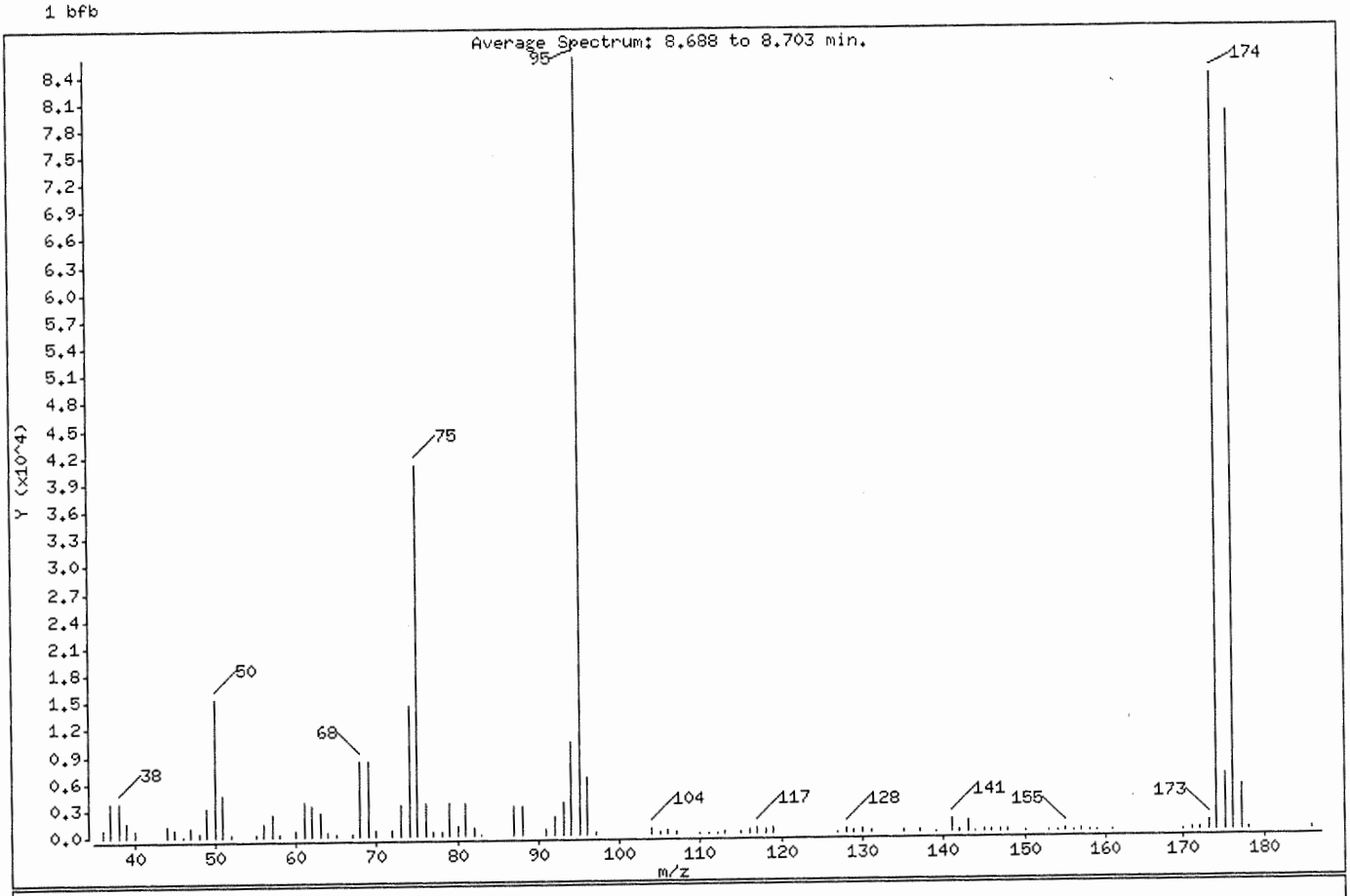
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.71
75	30.00 - 60.00% of mass 95	47.69
96	5.00 - 9.00% of mass 95	7.32
173	Less than 2.00% of mass 174	1.20 (1.23)
174	Greater than 50.00% of mass 95	97.43
175	5.00 - 9.00% of mass 174	7.05 (7.23)
176	95.00 - 101.00% of mass 174	92.59 (95.04)
177	5.00 - 9.00% of mass 176	5.83 (6.29)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100801.D

Date : 08-OCT-2021 12:47

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: X100801.D
Spectrum: Average Spectrum: 8.688 to 8.703 min.
Location of Maximum: 95.00
Number of points: 97

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	721	68.00	8366	105.00	192	146.00	142
37.00	3717	69.00	8247	106.00	438	147.00	134
38.00	3771	70.00	615	107.00	141	148.00	289
39.00	1498	72.00	610	110.00	76	150.00	47
40.00	771	73.00	3268	111.00	49	153.00	46
44.00	1225	74.00	14376	112.00	54	154.00	53
45.00	737	75.00	40960	113.00	150	155.00	276
46.00	93	76.00	3492	115.00	122	156.00	53
47.00	941	77.00	424	116.00	377	157.00	170
48.00	494	78.00	347	117.00	538	158.00	19
49.00	3152	79.00	3638	118.00	436	159.00	95
50.00	15214	80.00	1045	119.00	531	161.00	42
51.00	4568	81.00	3579	127.00	20	170.00	84
52.00	226	82.00	724	128.00	342	171.00	114
55.00	222	83.00	48	129.00	164	172.00	273
56.00	1360	87.00	3265	130.00	318	173.00	1029
57.00	2449	88.00	3096	131.00	136	174.00	83672
58.00	103	91.00	525	135.00	216	175.00	6051
60.00	630	92.00	2021	137.00	140	176.00	79520
61.00	3789	93.00	3470	139.00	44	177.00	5006
62.00	3324	94.00	10275	141.00	1339	178.00	134
63.00	2658	95.00	85880	142.00	123	186.00	131
64.00	410	96.00	6283	143.00	1219		
65.00	116	97.00	107	144.00	57		
67.00	212	104.00	516	145.00	106		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D Page 1
Report Date: 15-Nov-2021 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Lab Smp Id: VSTD000.25 Client Smp ID: VSTD000.25
Inj Date : 08-OCT-2021 13:08
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.25;VSTD000.25;1;1;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 15-Nov-2021 16:15 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 16:37 Cal File: X100811.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

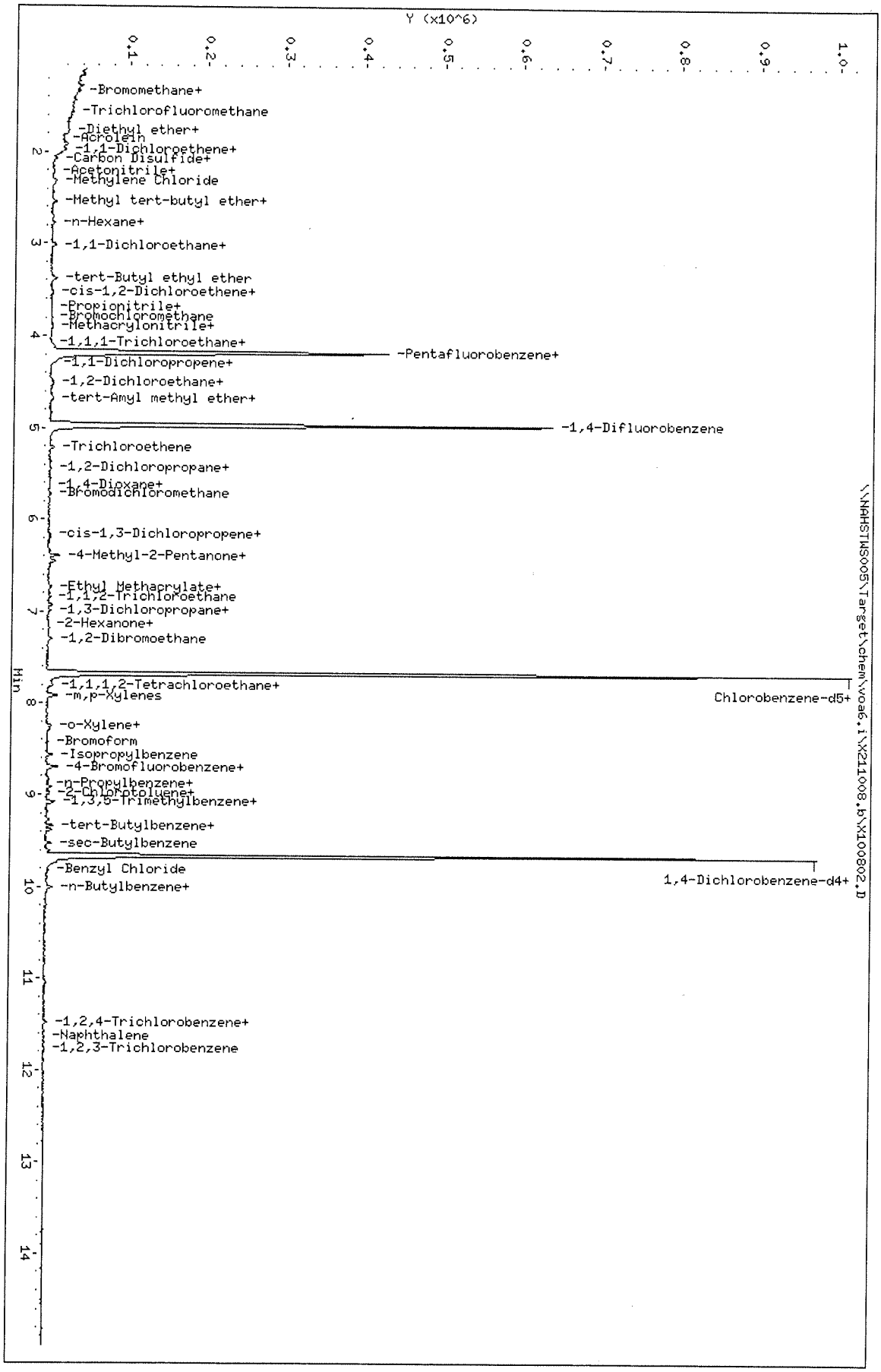
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	361573	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	549183	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	504808	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	236339	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	2269	0.25000	(a)
$ 35 1,2-Dichloroethane-d4	65	4.490	4.490	(1.074)	3143	0.25000	(Ta)
$ 48 Toluene-d8	98	6.395	6.395	(0.834)	8062	0.25000	0.59(aM)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	6096	0.25000	0.06(a)
11 1,1-Dichloroethene	96	1.918	1.918	(0.459)	1039	0.25000	0.32(a)
33 1,2-Dichloroethane	62	4.569	4.569	(0.921)	1501	0.25000	0.32(a)
27 cis-1,2-Dichloroethene	96	3.544	3.544	(0.848)	1215	0.25000	0.32(a)
17 Methylene Chloride	84	2.312	2.312	(0.553)	2242	0.25000	(a)
53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	1010	0.25000	0.37(a)
38 Trichloroethene	130	5.213	5.213	(1.051)	1791	0.25000	0.42(aM)
5 Vinyl Chloride	62	1.145	1.145	(0.274)	1292	0.25000	0.33(aM)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

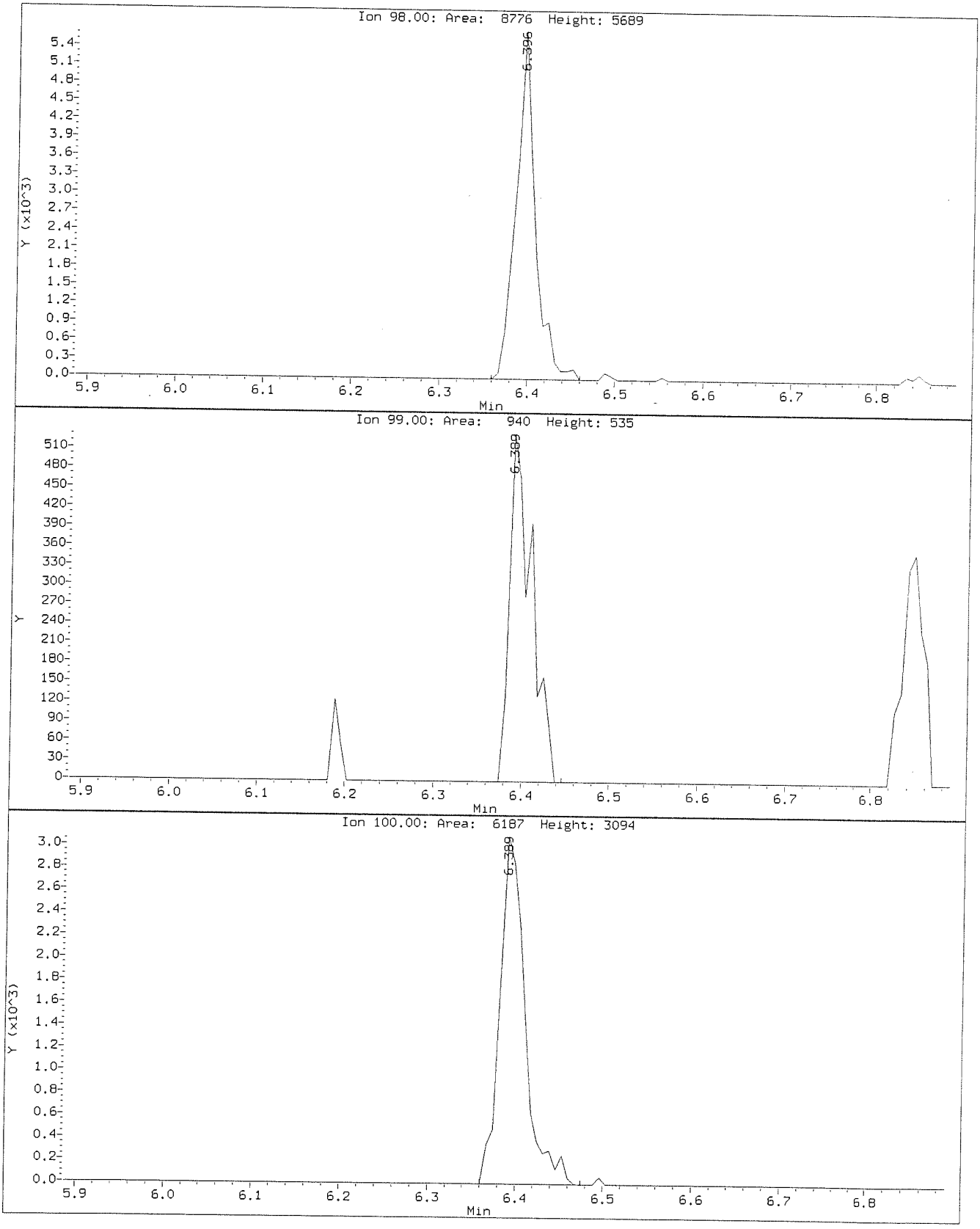


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Date : 08-OCT-2021 13:08
Client ID: VSTD000.25
Sample Info: VSTD000.25;VSTD000.25;1;1;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

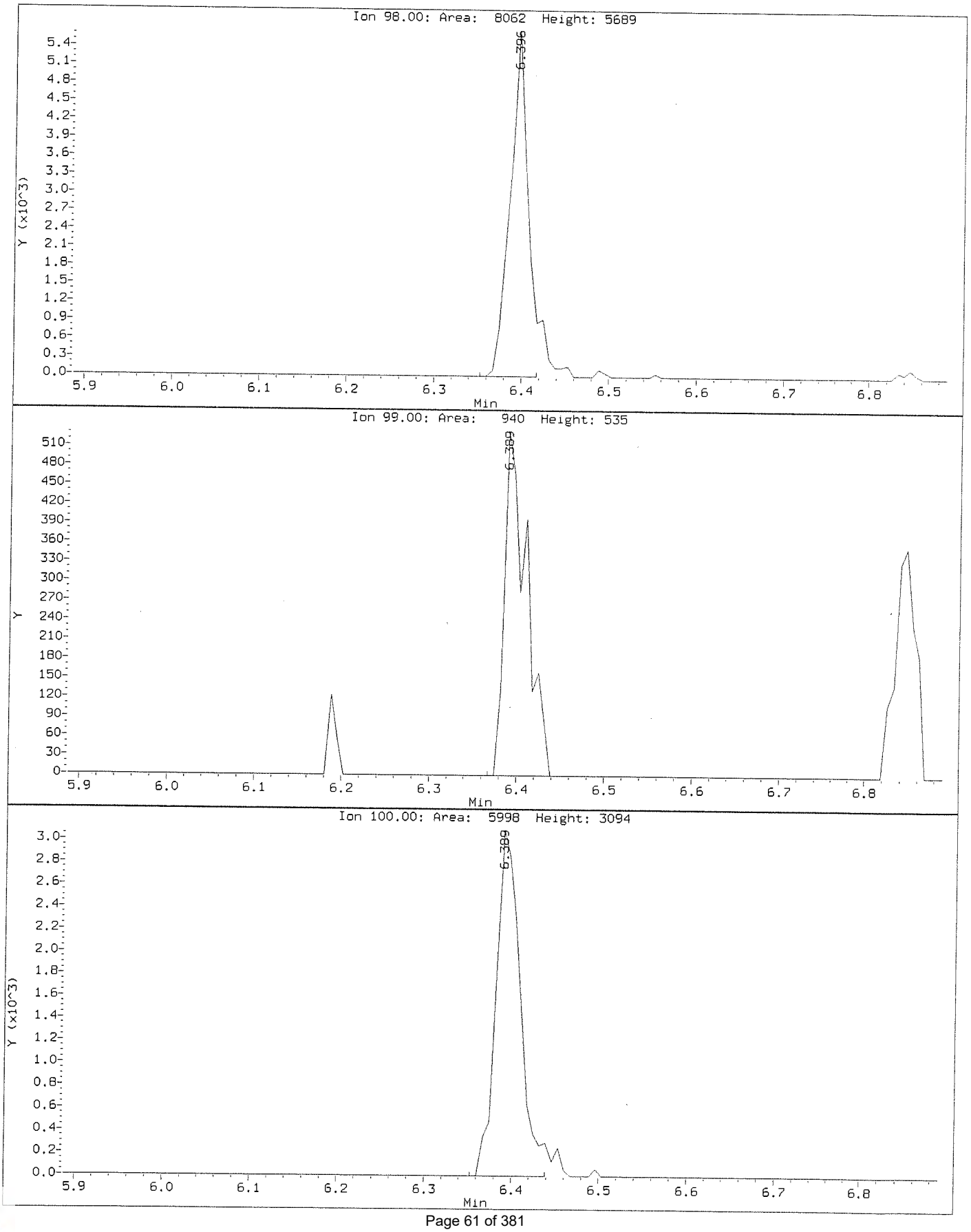
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Toluene-d8
CAS Number: 2037-26-5



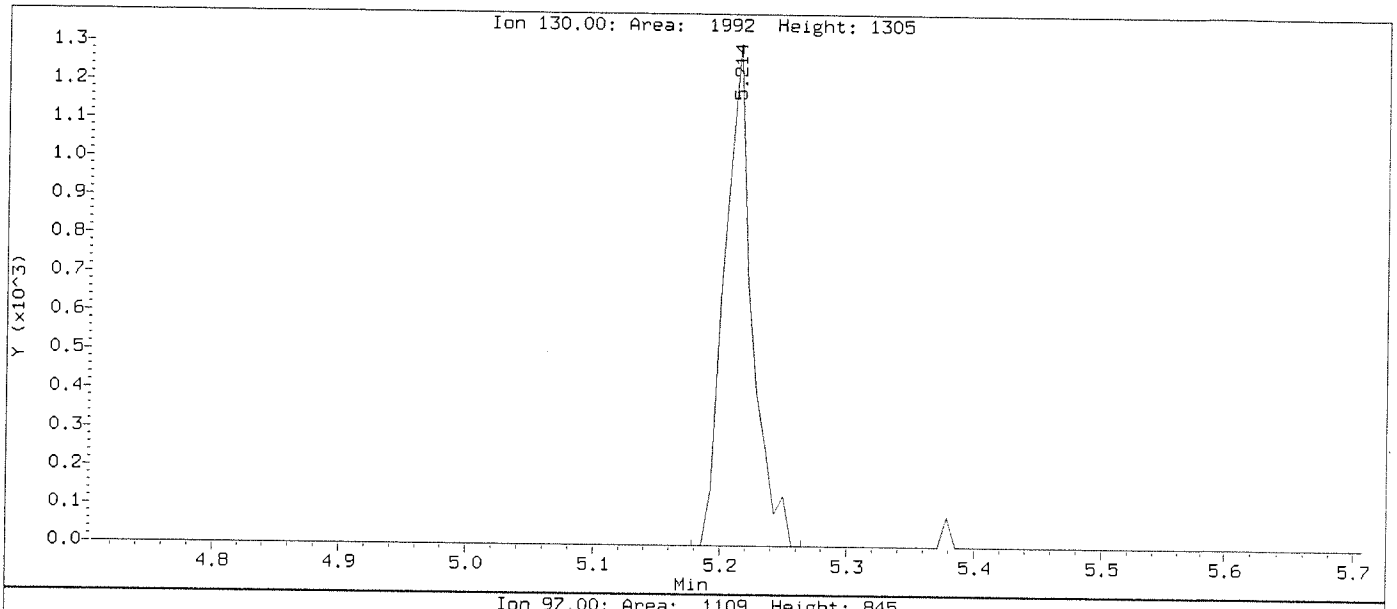
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

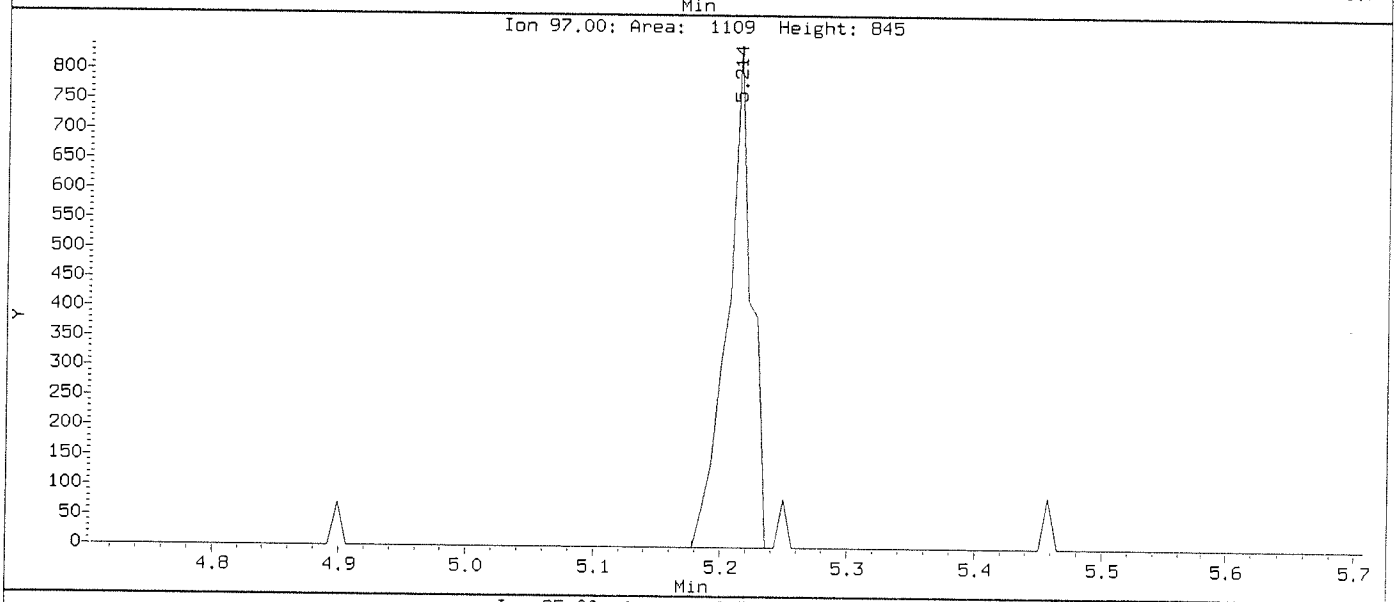
Compound: Toluene-d8
CAS Number: 2037-26-5

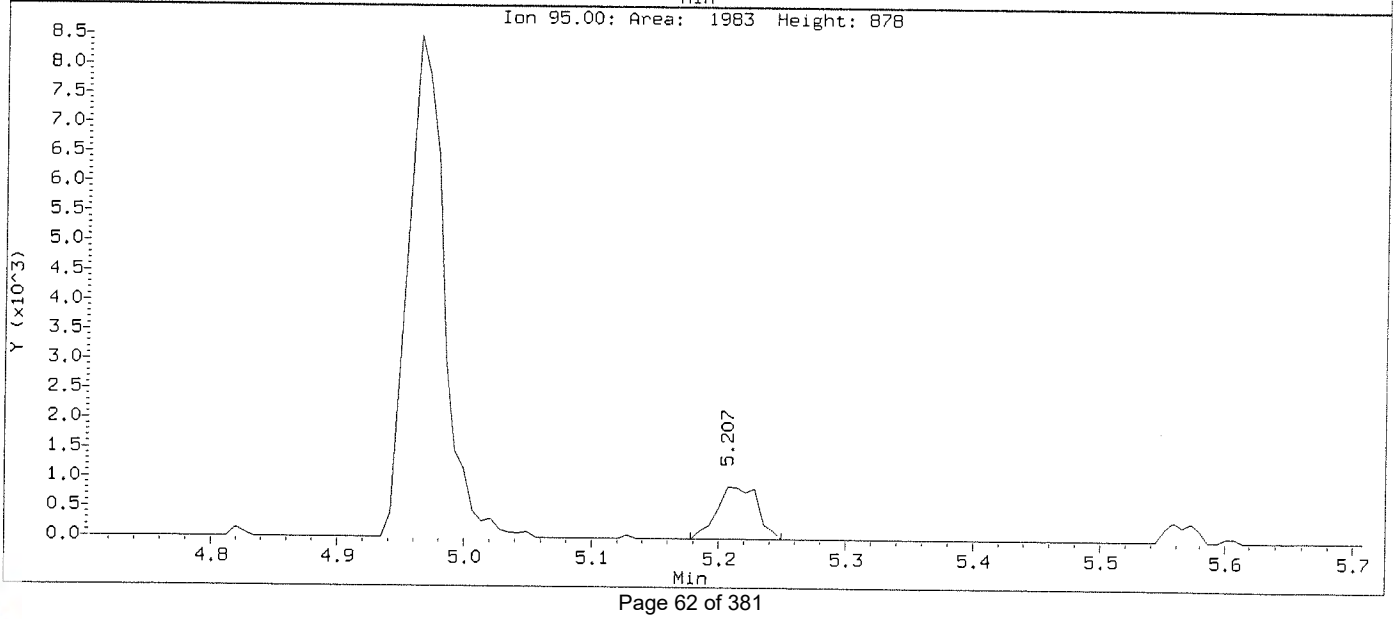


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Trichloroethene
CAS Number: 79-01-6

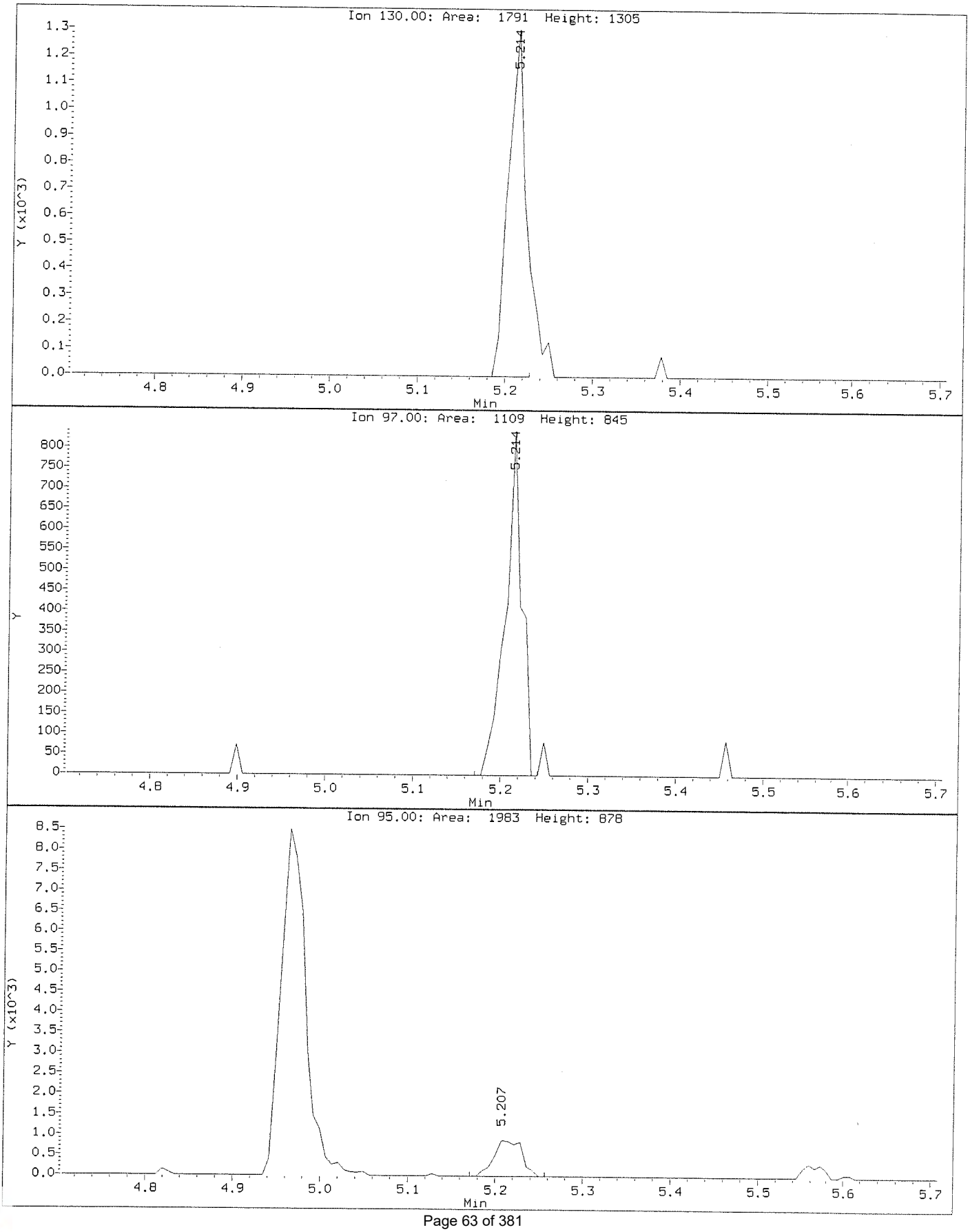






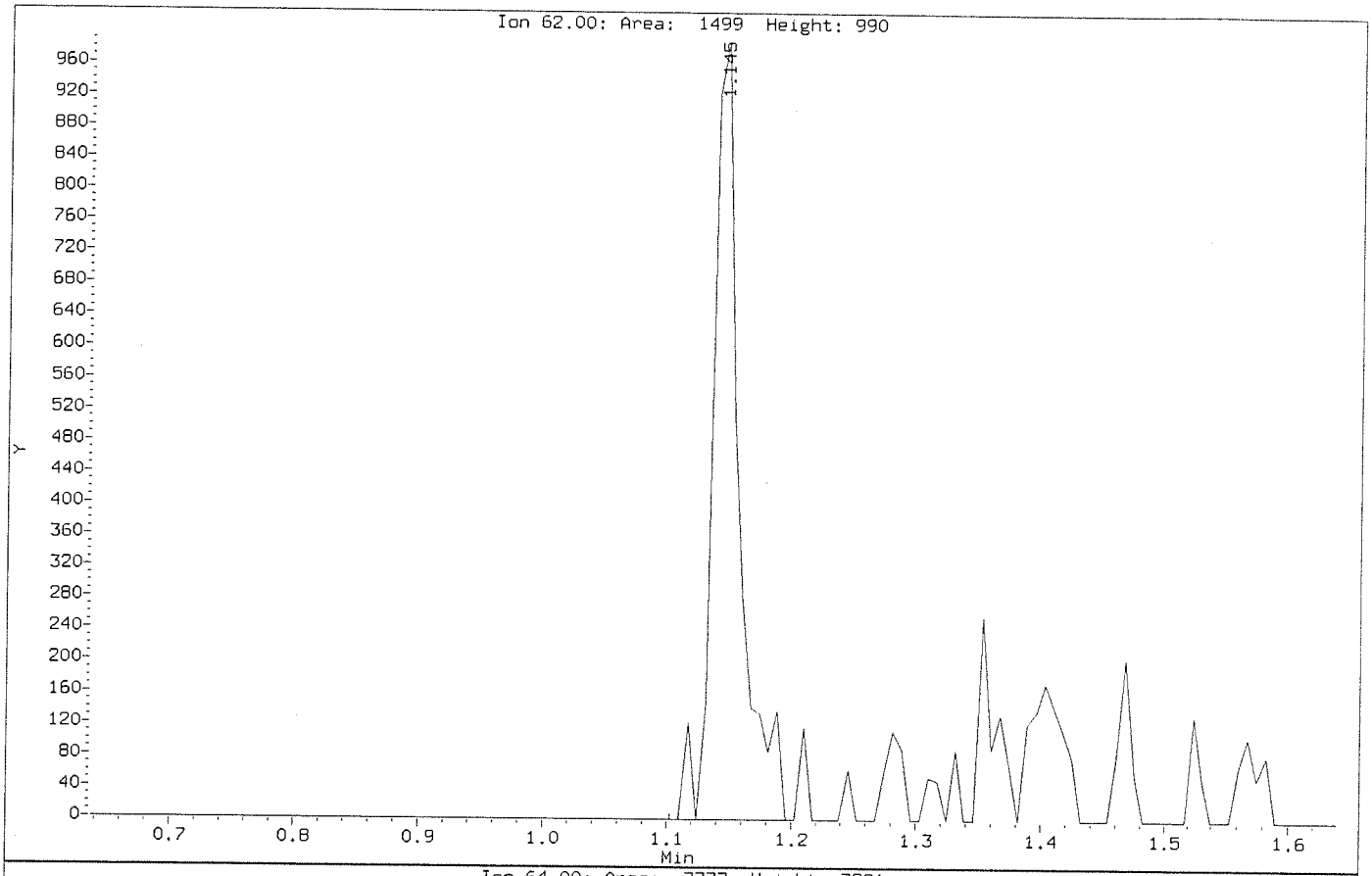
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

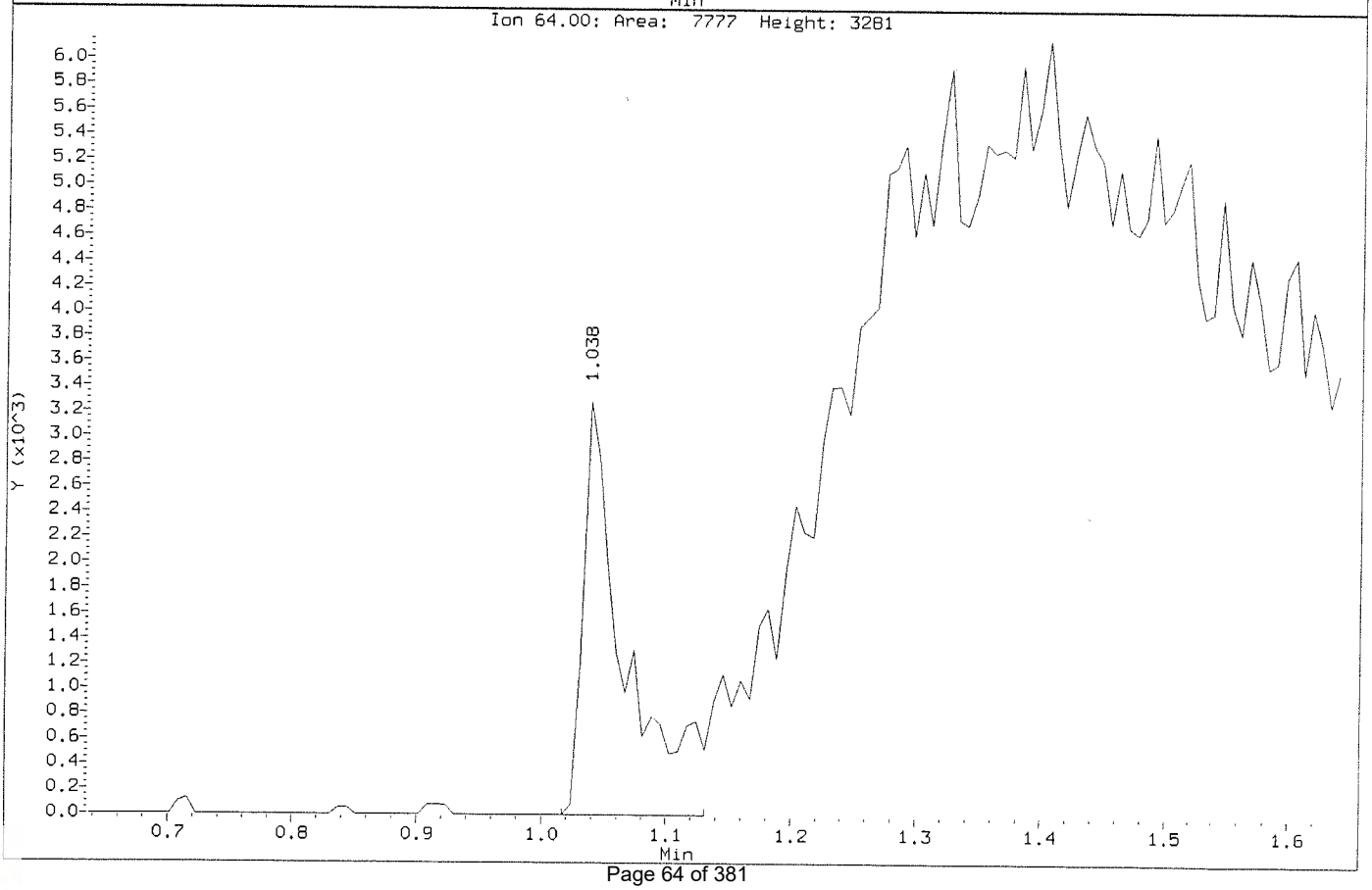
Compound: Trichloroethene
CAS Number: 79-01-6



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

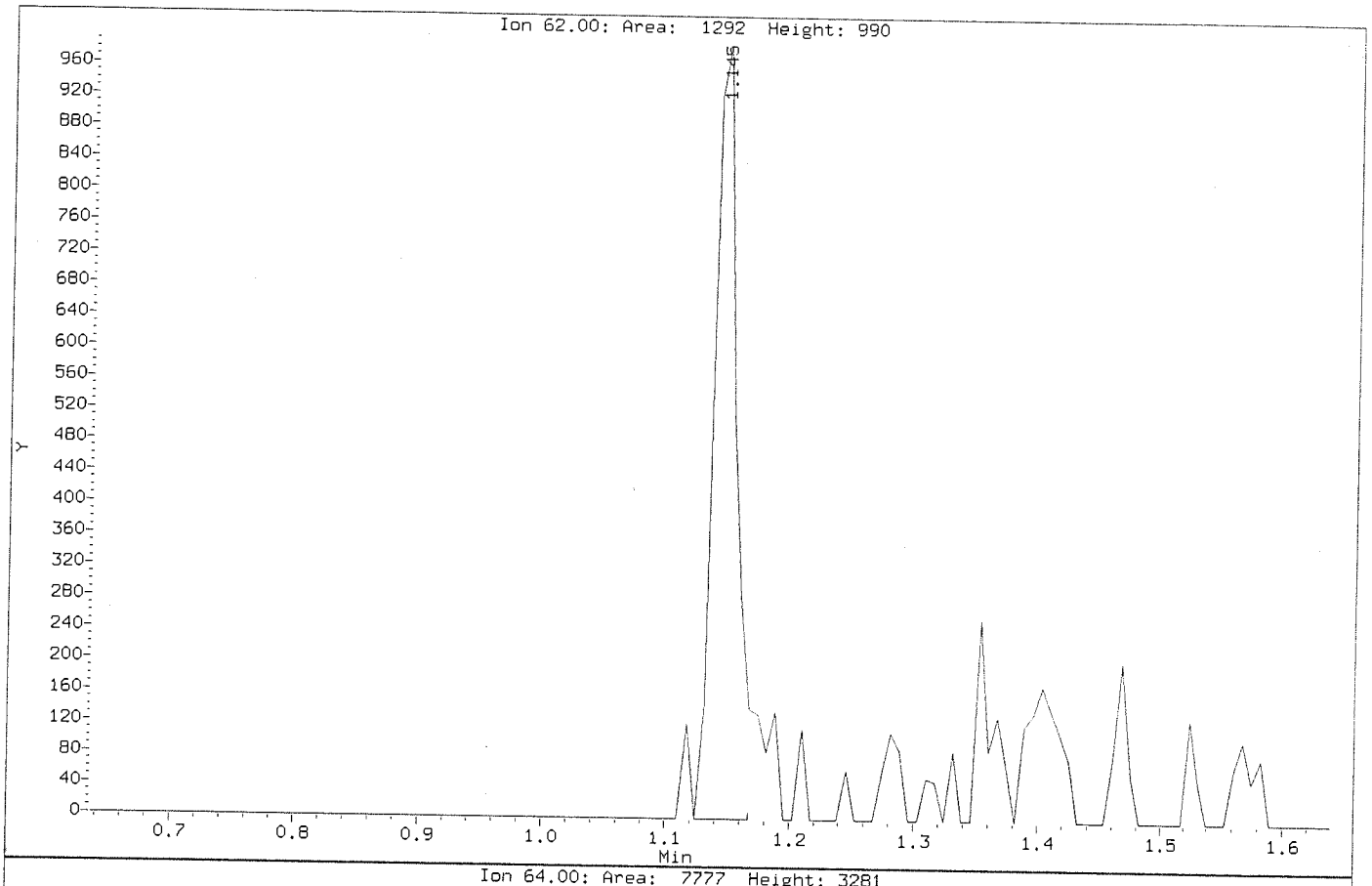
Compound: Vinyl Chloride
CAS Number: 75-01-4

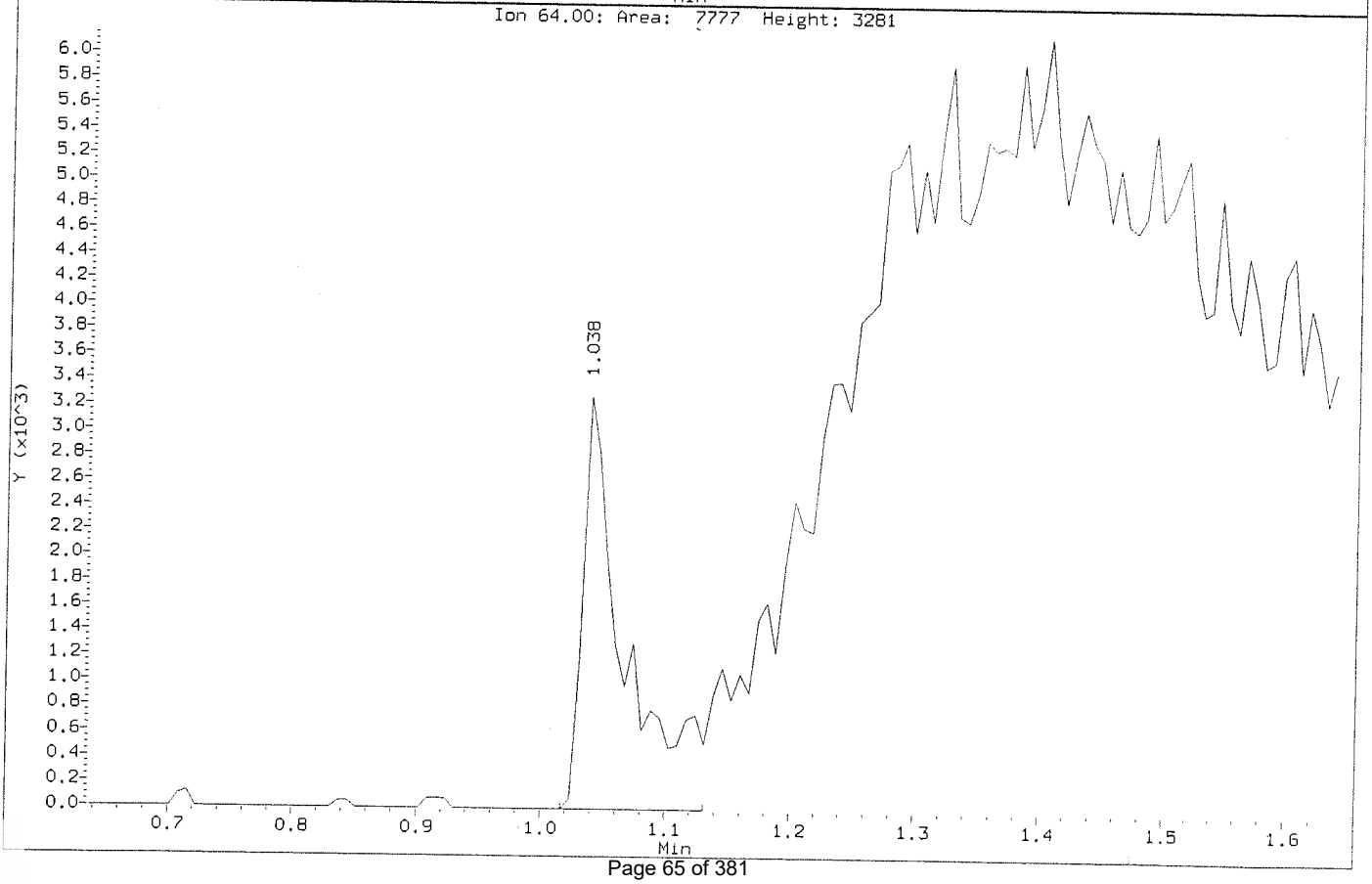




Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Vinyl Chloride
CAS Number: 75-01-4





Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D Page 1
Report Date: 15-Nov-2021 16:15

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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Lab Smp Id: VSTD000.5 Client Smp ID: VSTD000.5
Inj Date : 08-OCT-2021 13:50
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.5;VSTD000.5;1;2;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 15-Nov-2021 16:15 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 13:08 Cal File: X100802.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

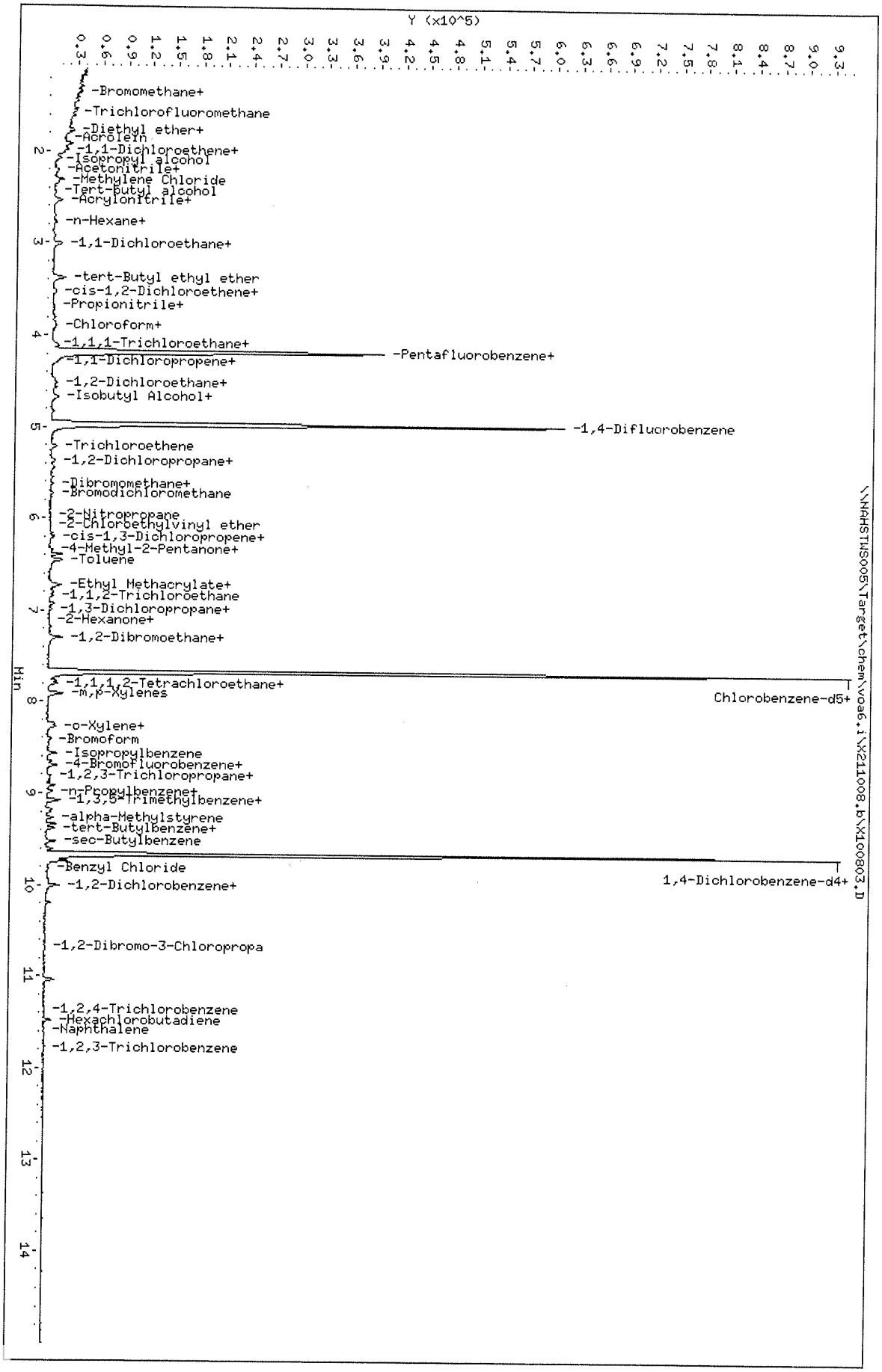
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	331902	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	519409	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	485516	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	222200	50.0000	
$ 30 Dibromofluoromethane	113	4.111	4.111	(0.983)	2999	0.50000	(a)
$ 35 1,2-Dichloroethane-d4	65	4.490	4.490	(1.074)	3361	0.50000	(Ta)
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	7763	0.50000	0.59 (aM)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	4606	0.50000	(a)
11 1,1-Dichloroethene	96	1.926	1.926	(0.461)	1538	0.50000	0.51 (a)
33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	2184	0.50000	0.50 (a)
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	1575	0.50000	0.45 (a)
17 Methylene Chloride	84	2.305	2.305	(0.551)	2444	0.50000	(aM)
53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	1277	0.50000	0.49 (a)
38 Trichloroethene	130	5.214	5.214	(1.051)	2243	0.50000	0.56 (aM)
5 Vinyl Chloride	62	1.145	1.145	(0.274)	1932	0.50000	0.54 (aM)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

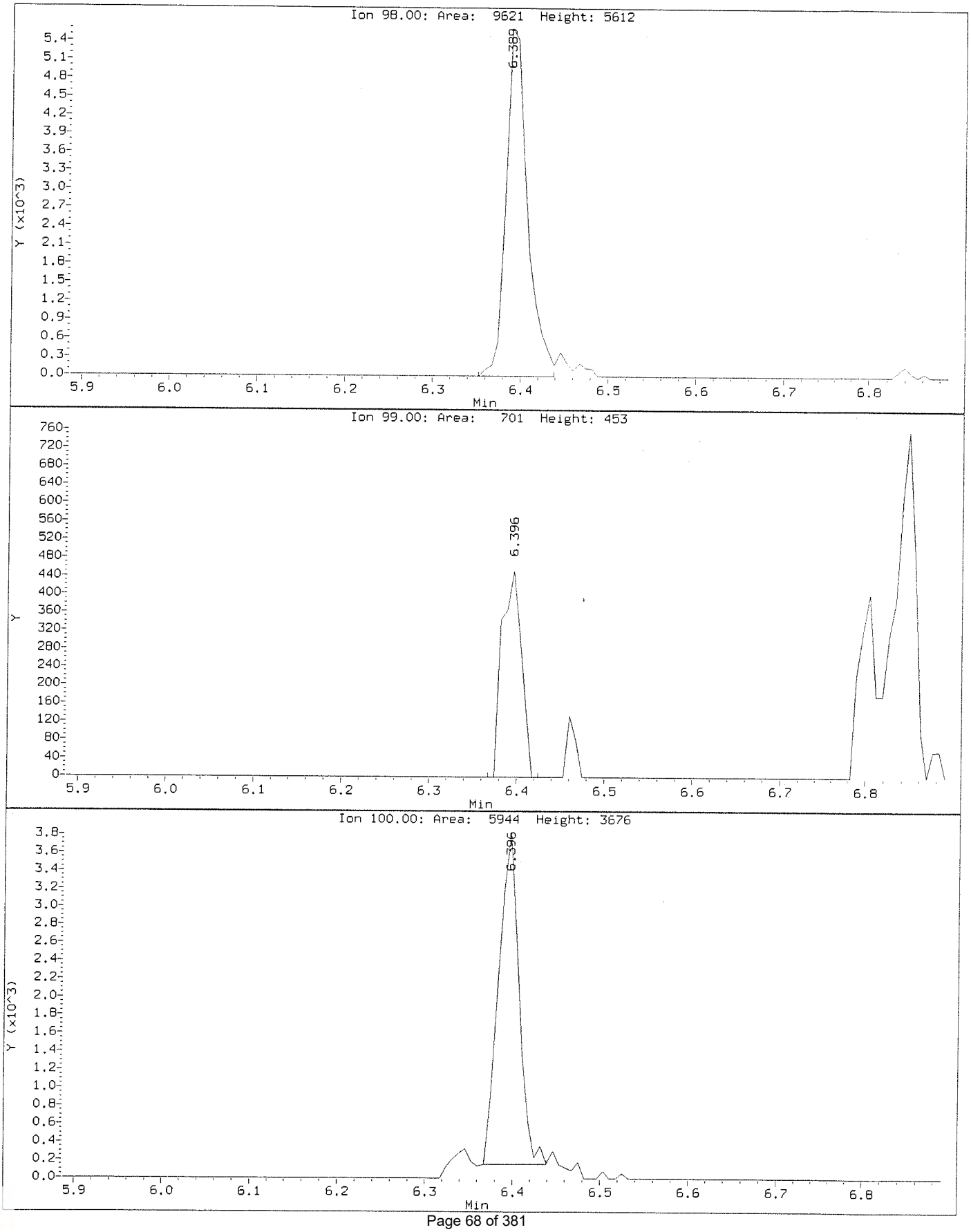


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Date : 08-OCT-2021 13:50
Client ID: VSTD000.5
Sample Info: VSTD000.5;VSTD000.5;1;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

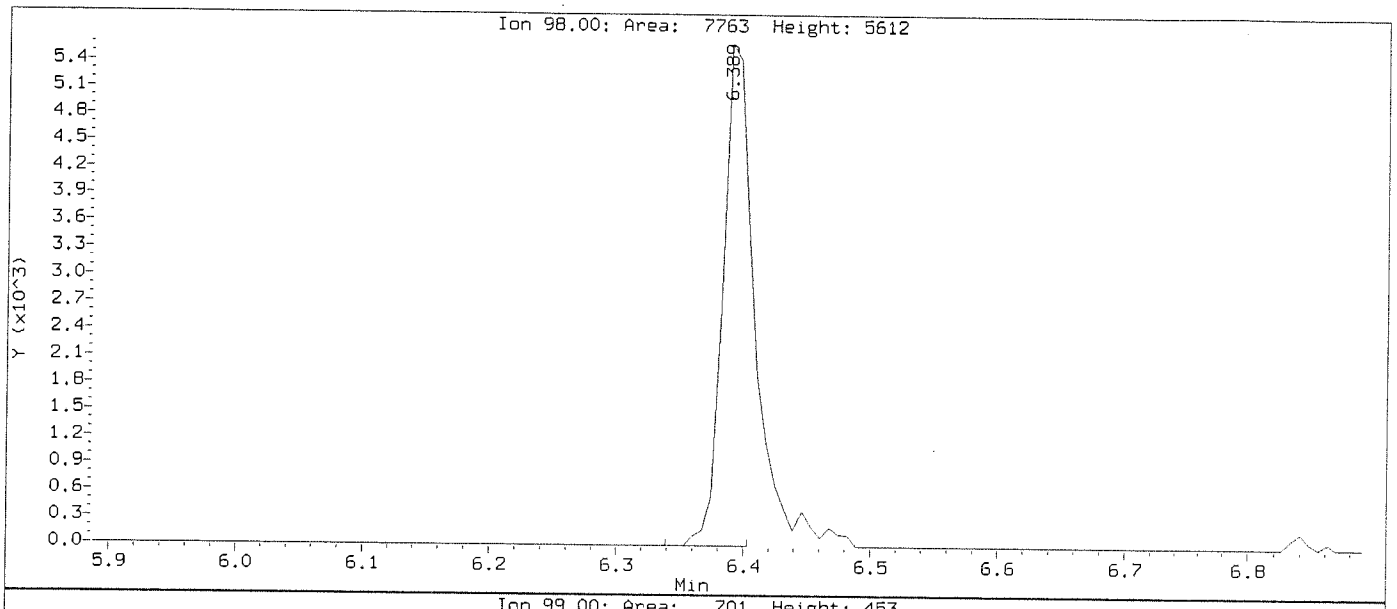
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

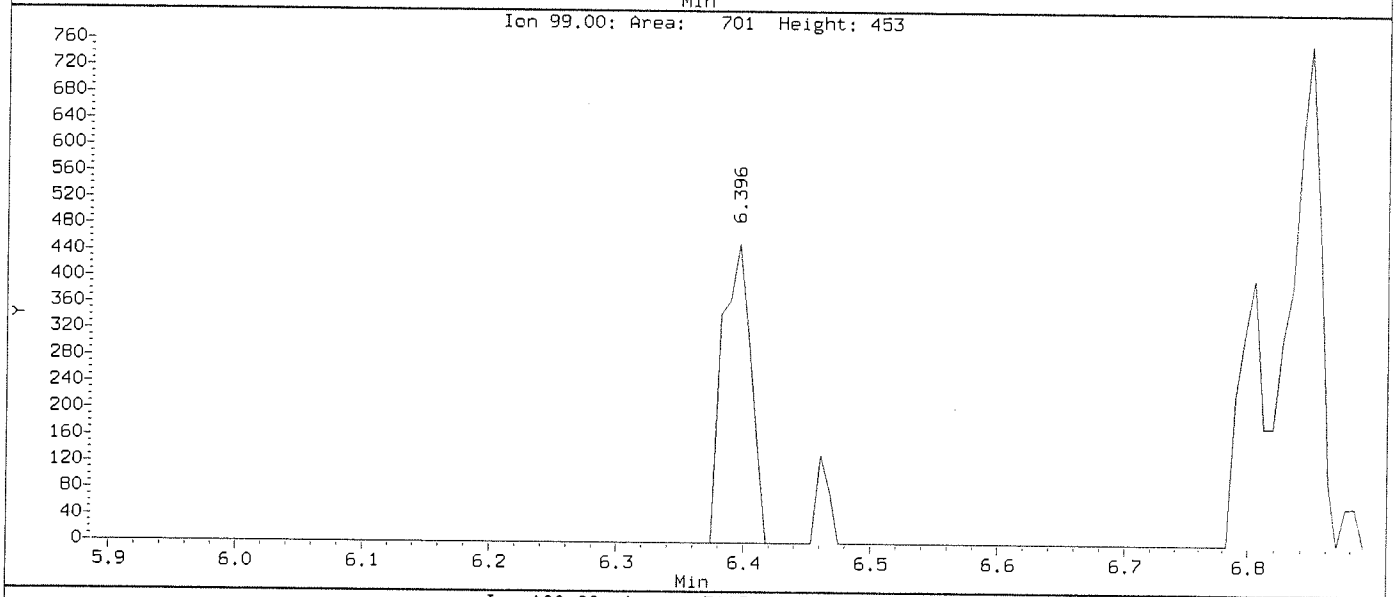
Compound: Toluene-d8
CAS Number: 2037-26-5

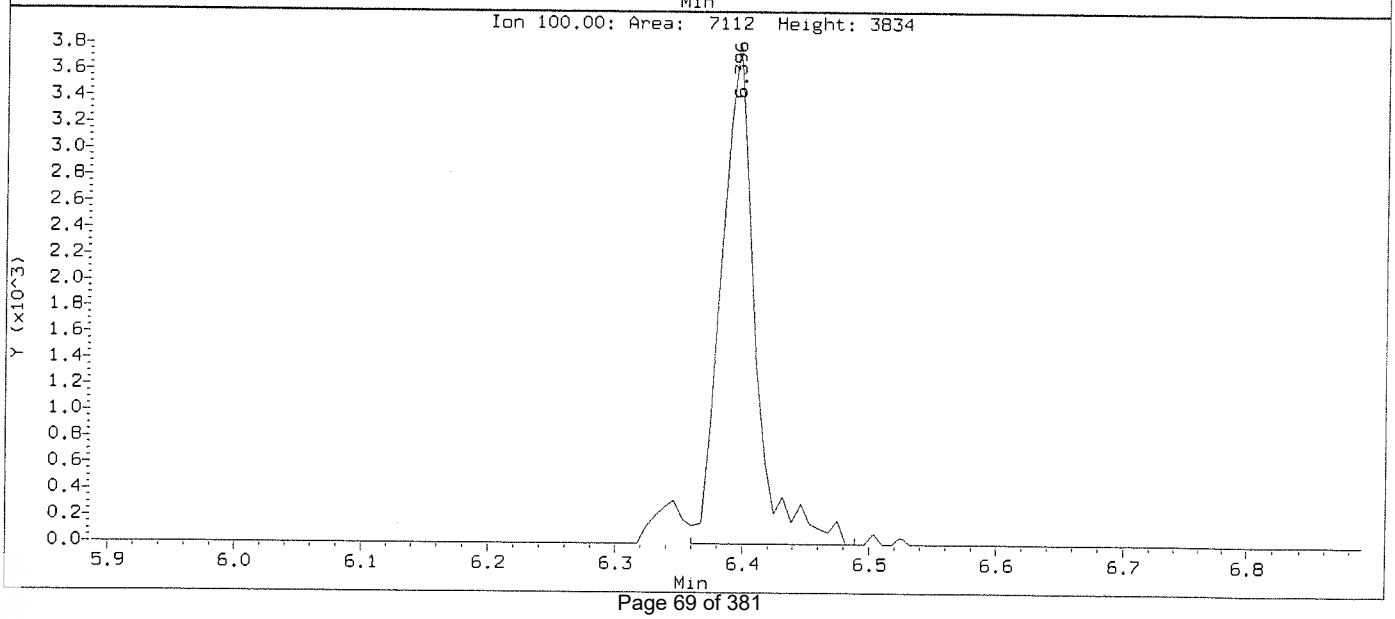


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Toluene-d8
CAS Number: 2037-26-5

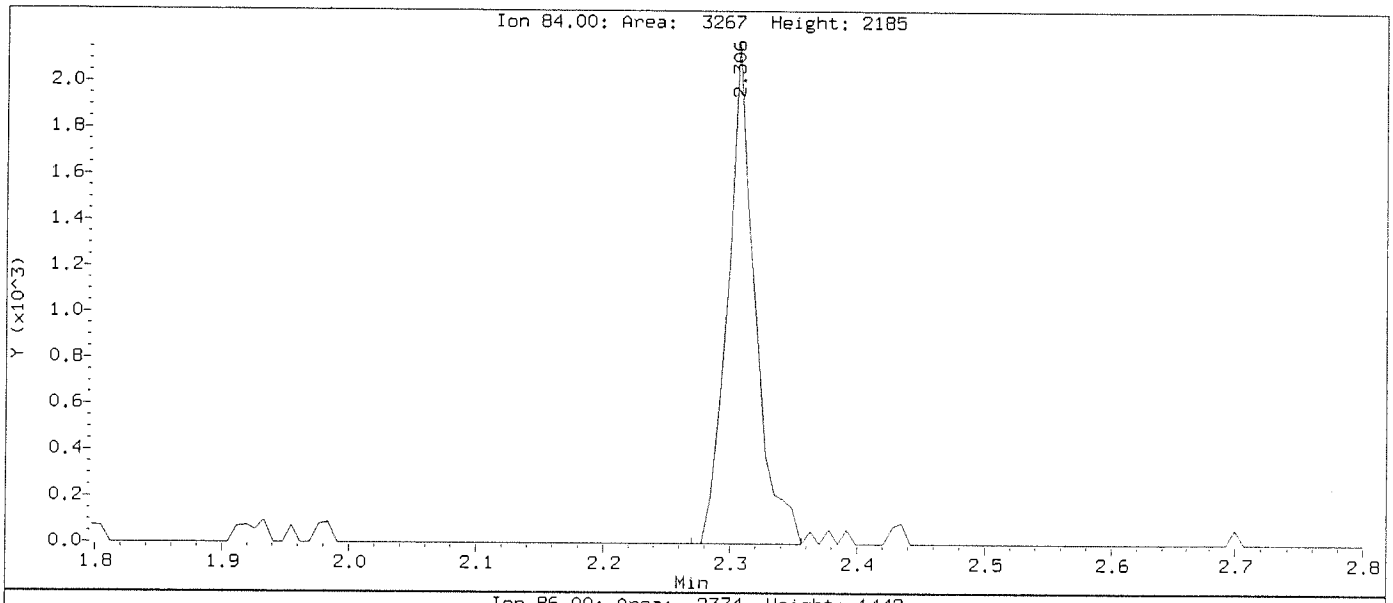


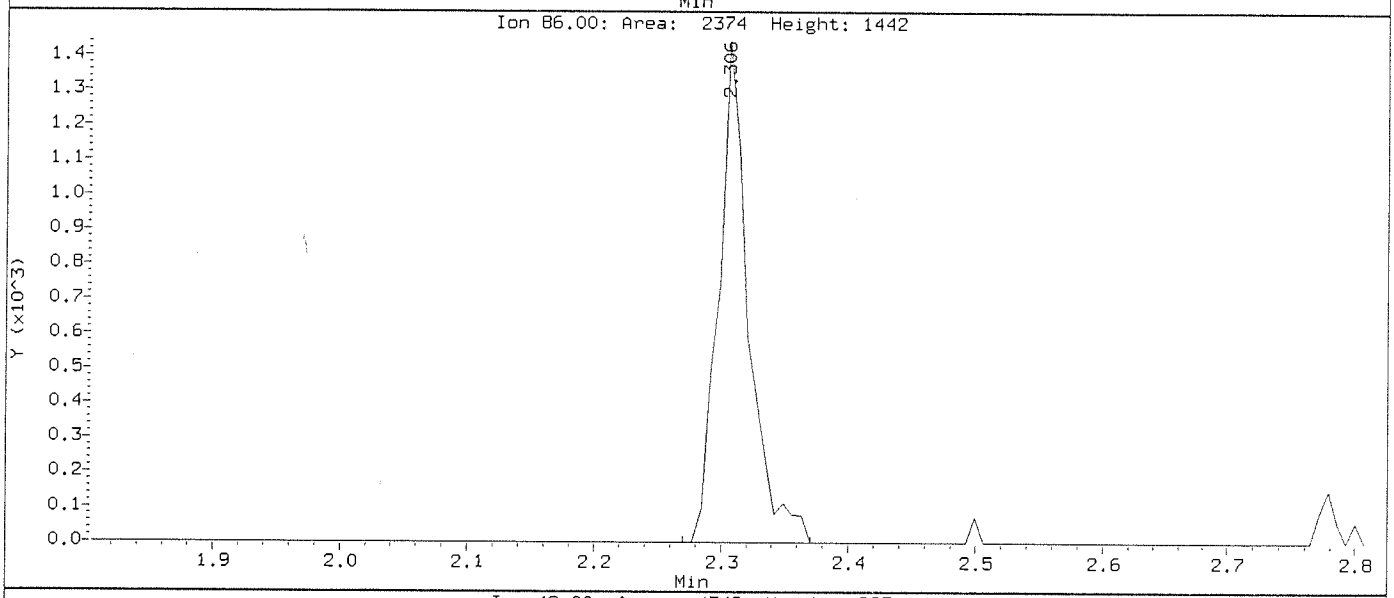


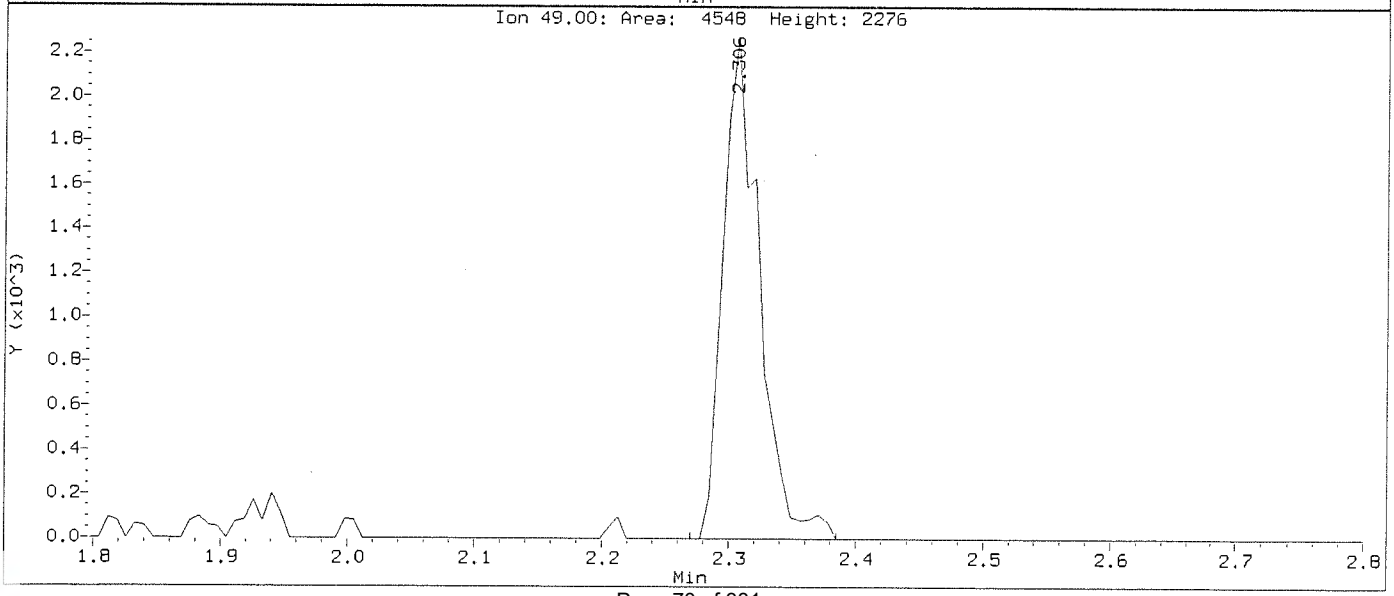


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Methylene Chloride
CAS Number: 75-09-2

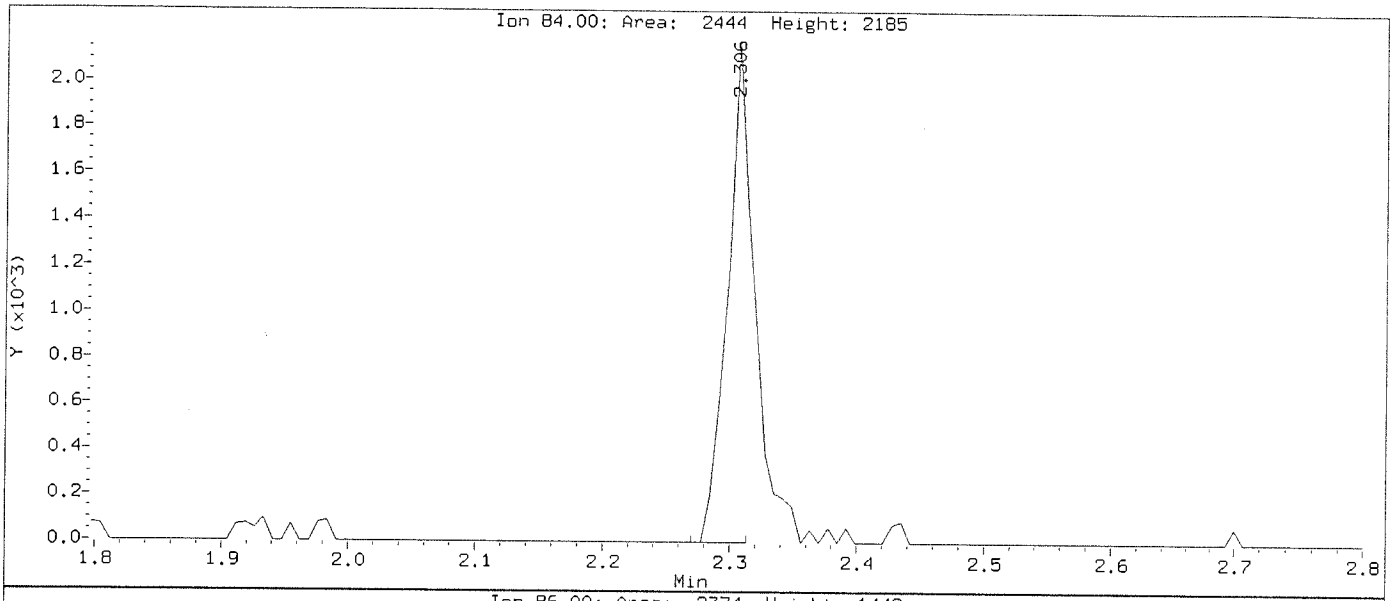


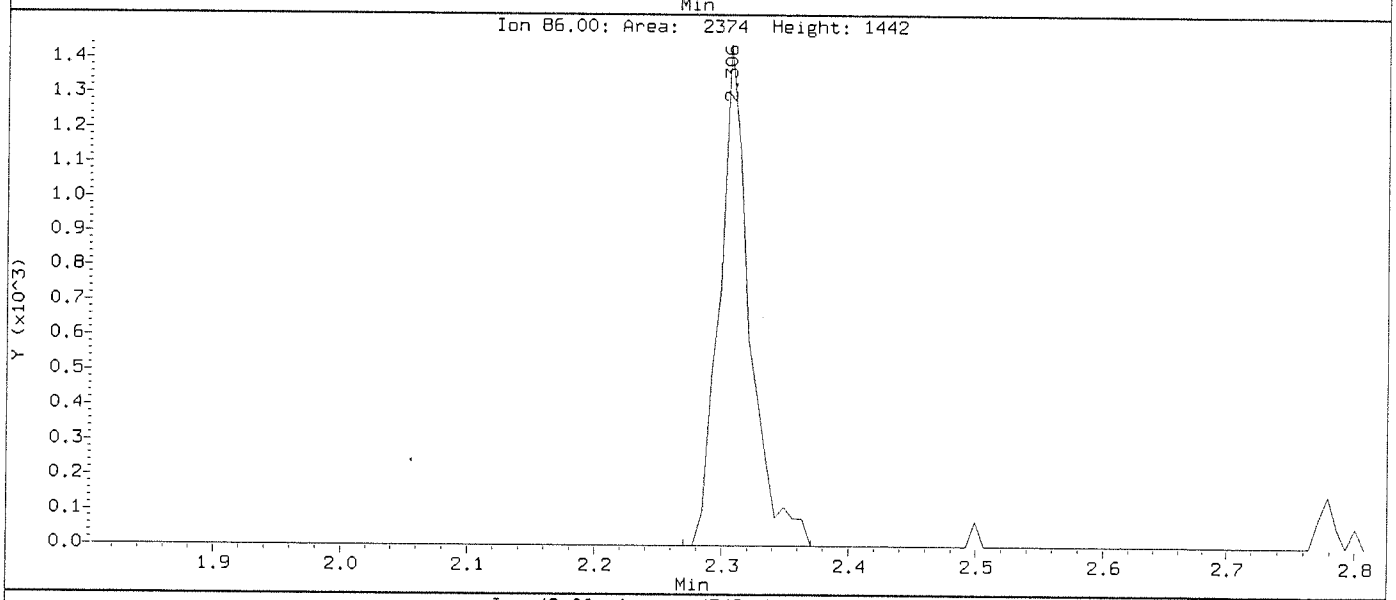


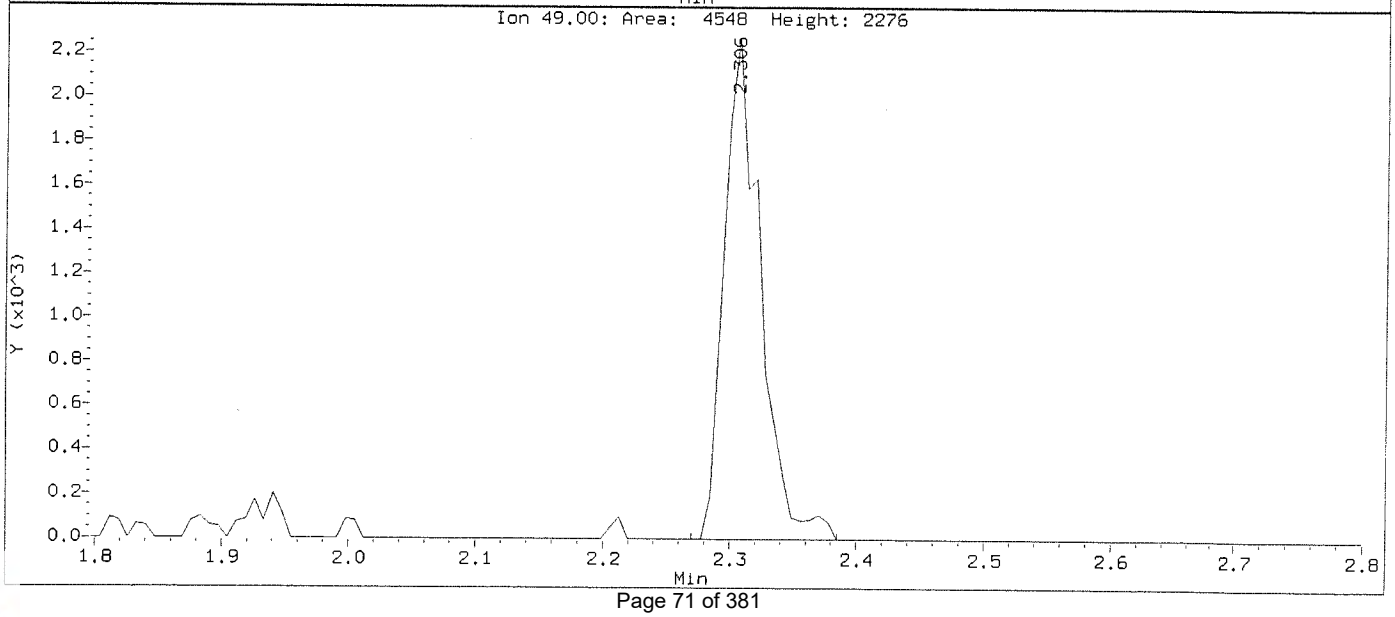


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Methylene Chloride
CAS Number: 75-09-2

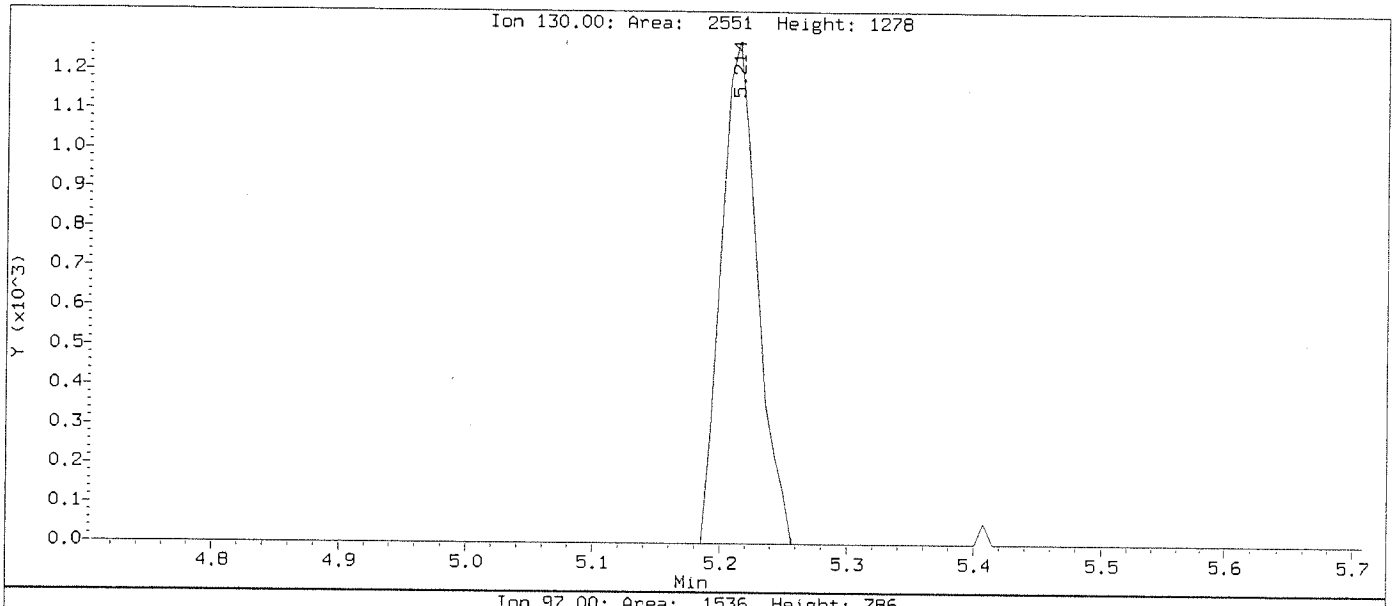


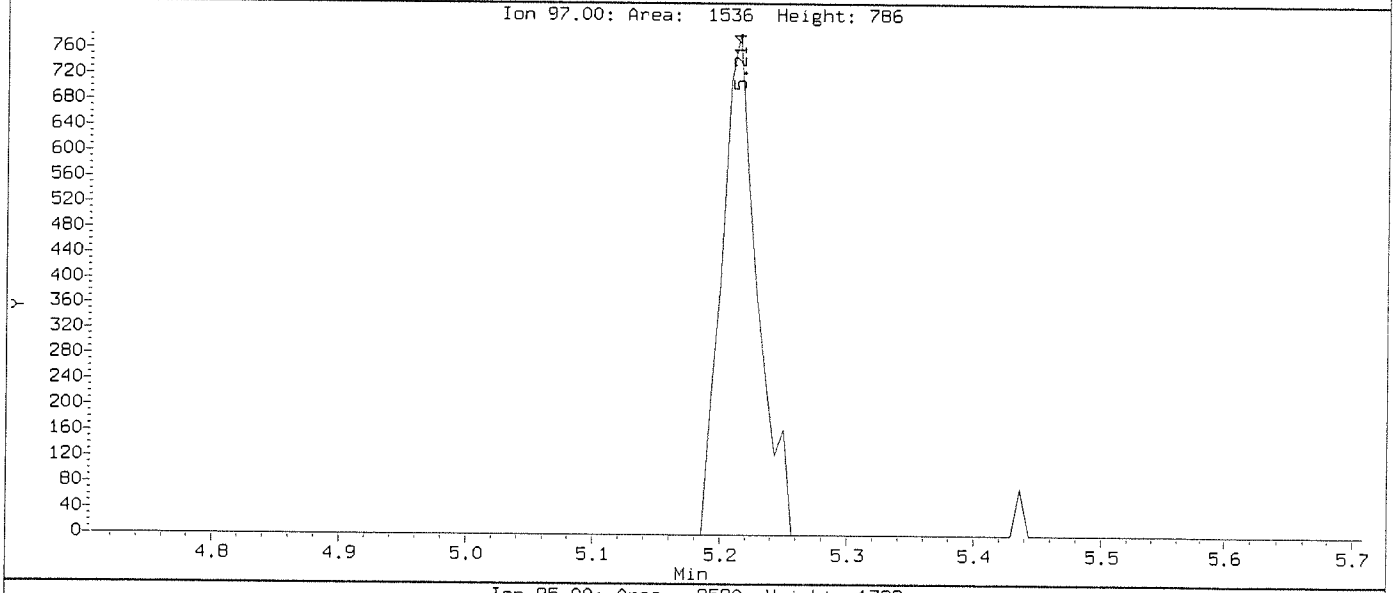


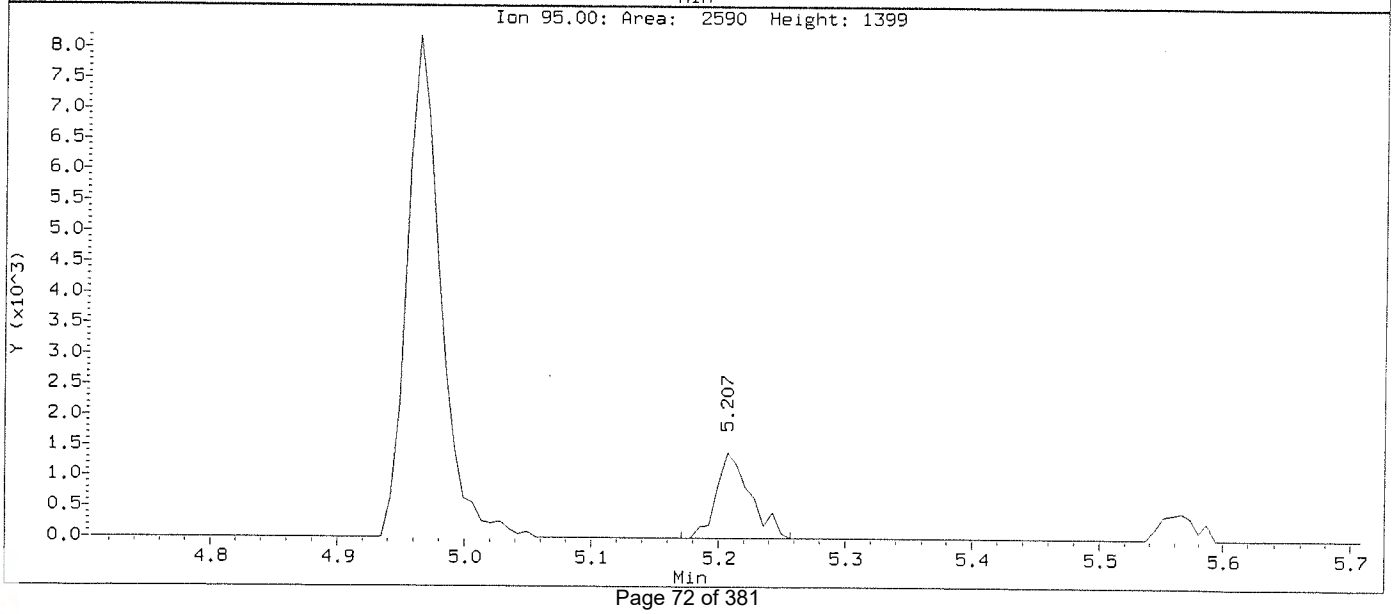


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Trichloroethene
CAS Number: 79-01-6

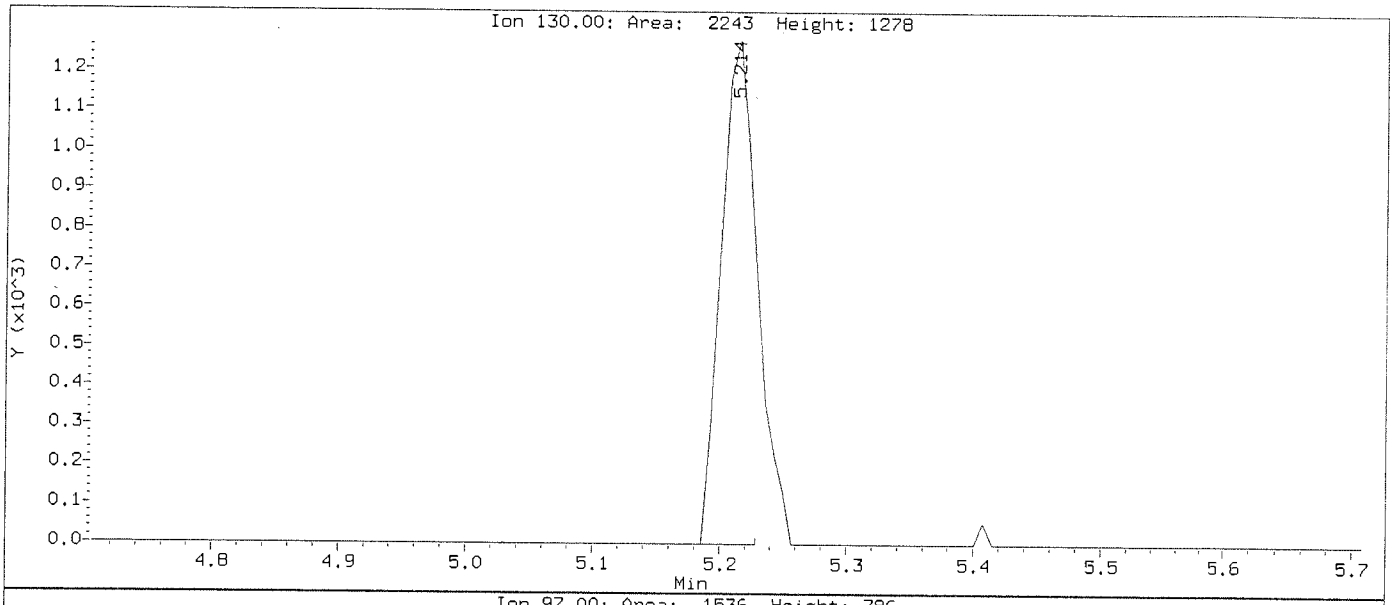


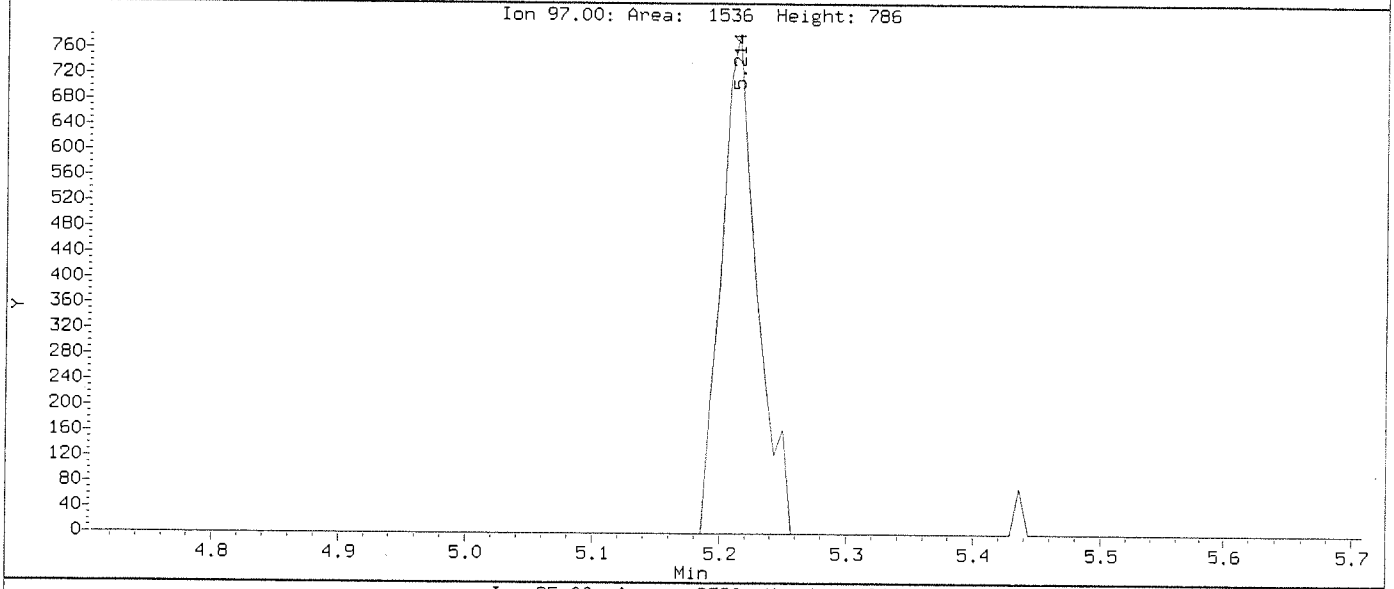


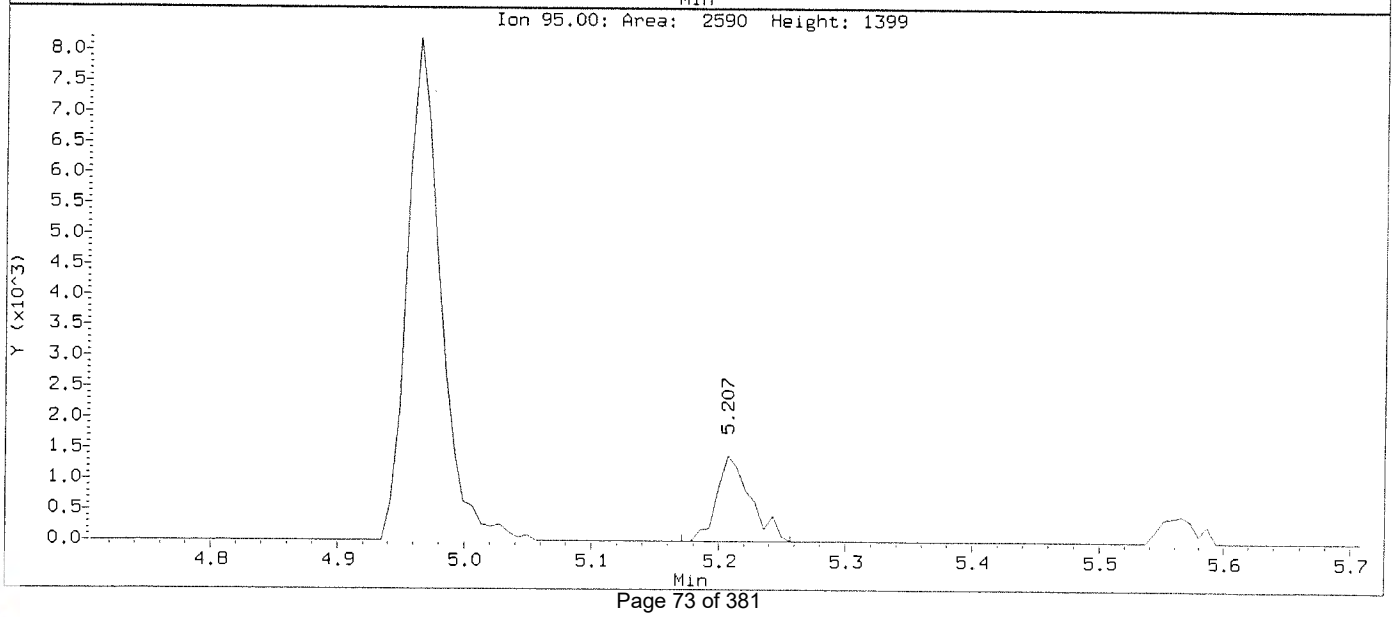


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Trichloroethene
CAS Number: 79-01-6

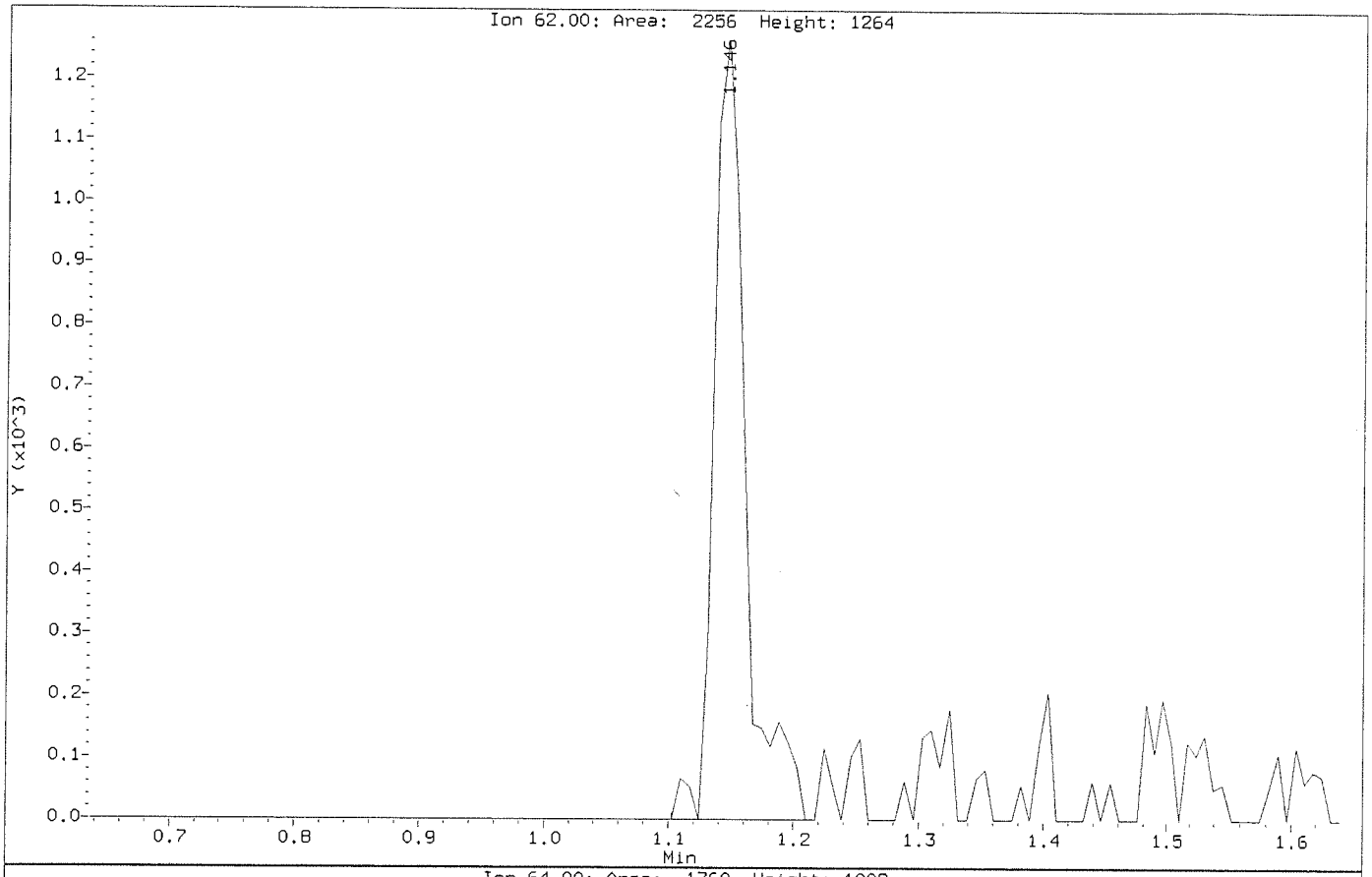


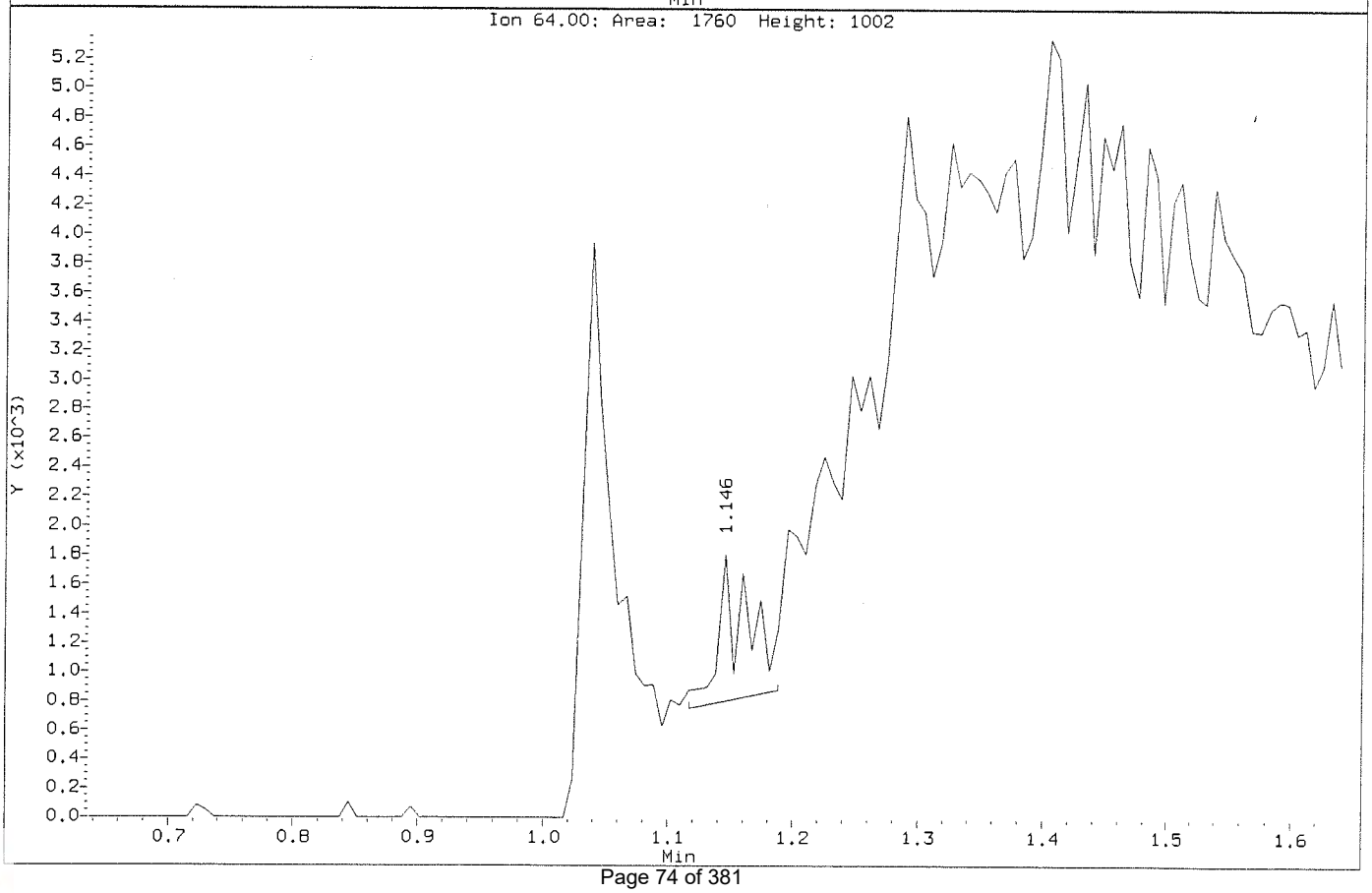




Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

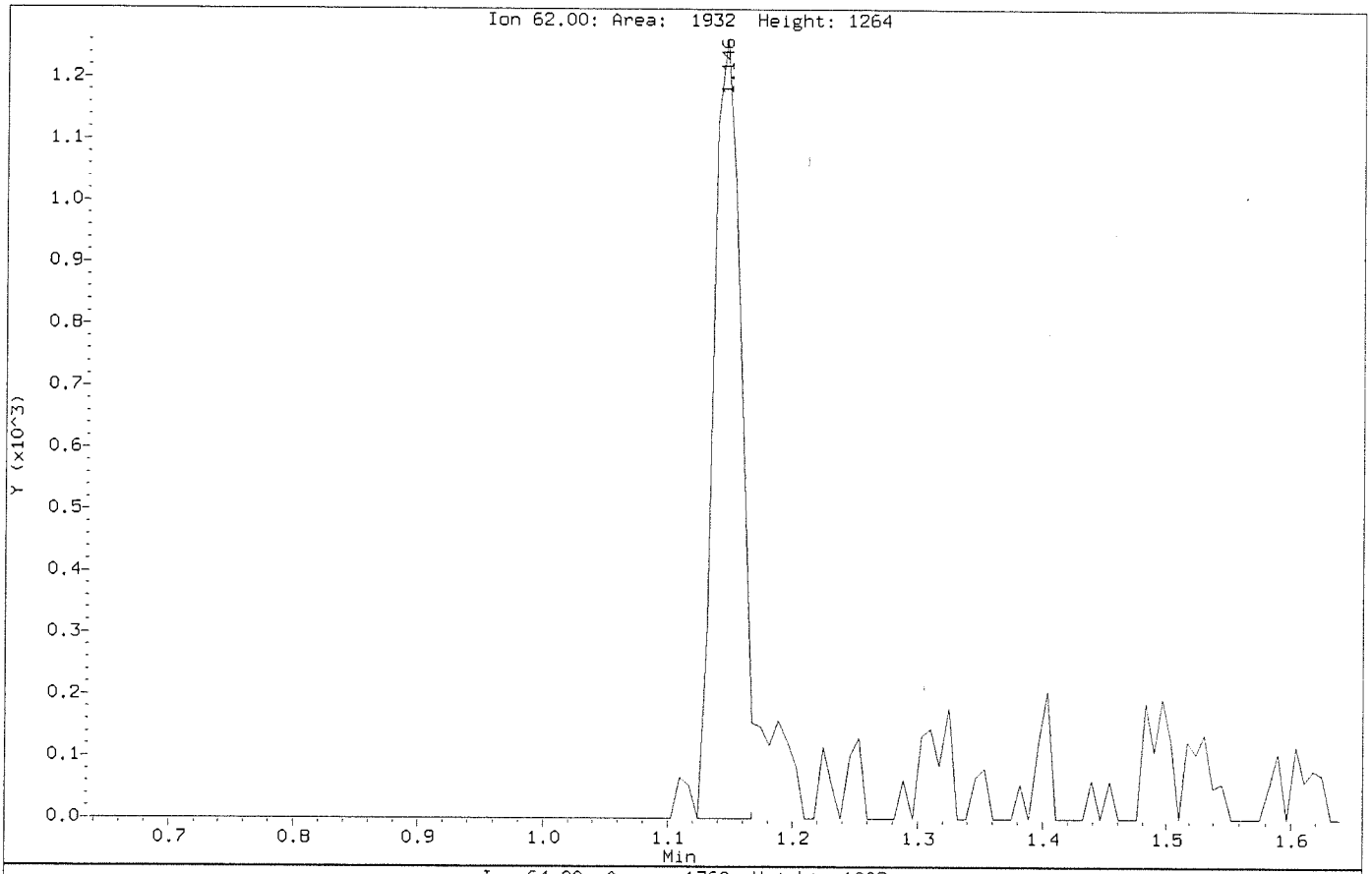
Compound: Vinyl Chloride
CAS Number: 75-01-4

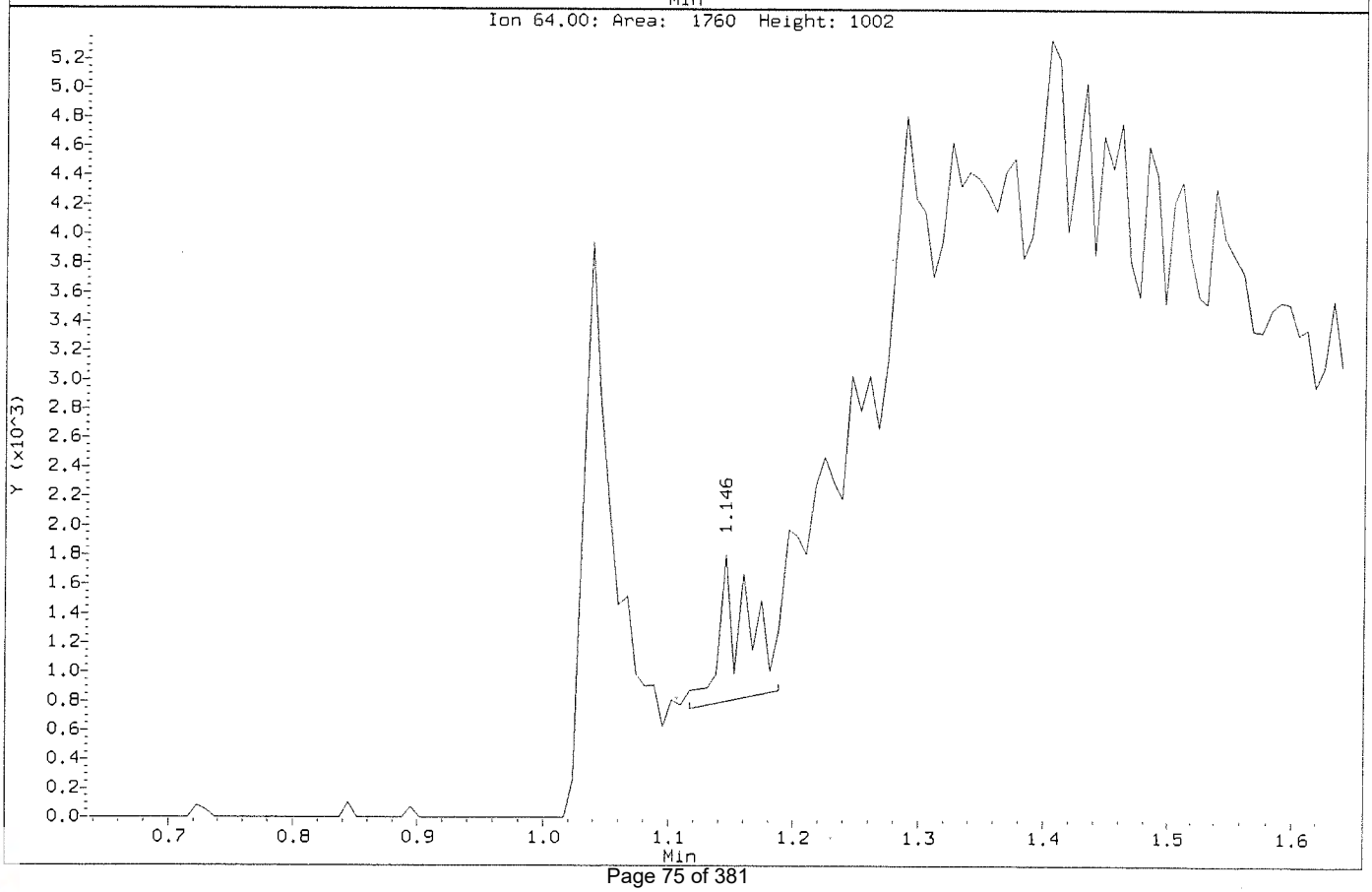




Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Vinyl Chloride
CAS Number: 75-01-4





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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Lab Smp Id: VSTD001 Client Smp ID: VSTD001
Inj Date : 08-OCT-2021 14:11
Operator : PC Inst ID: voa6.i
Smp Info : VSTD001;VSTD001;1;3;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 15-Nov-2021 16:15 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 13:50 Cal File: X100803.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

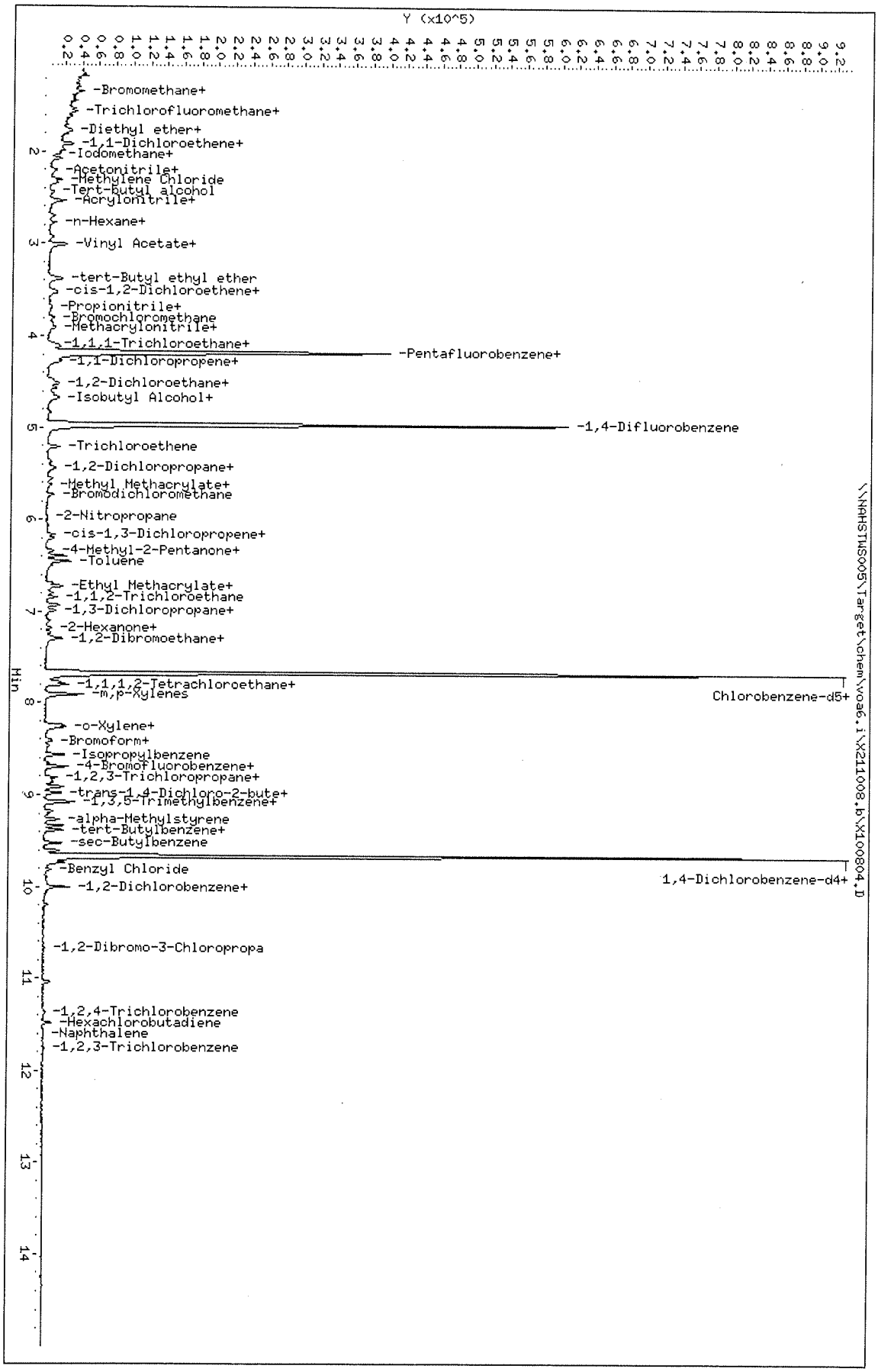
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	330851	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	510278	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	471635	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	225436	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	4837	1.00000	0.38(a)
$ 35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	5961	1.00000	(a)
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	13455	1.00000	1.10(aM)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	8328	1.00000	0.70(a)
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	3245	1.00000	1.09(a)
33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	4814	1.00000	1.12(a)
27 cis-1,2-Dichloroethene	96	3.538	3.538	(0.846)	3601	1.00000	1.04(a)
17 Methylene Chloride	84	2.313	2.313	(0.553)	4333	1.00000	0.23(aM)
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	2510	1.00000	0.99(a)
38 Trichloroethene	130	5.214	5.214	(1.051)	4864	1.00000	1.26(a)
5 Vinyl Chloride	62	1.145	1.145	(0.274)	3928	1.00000	1.12(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

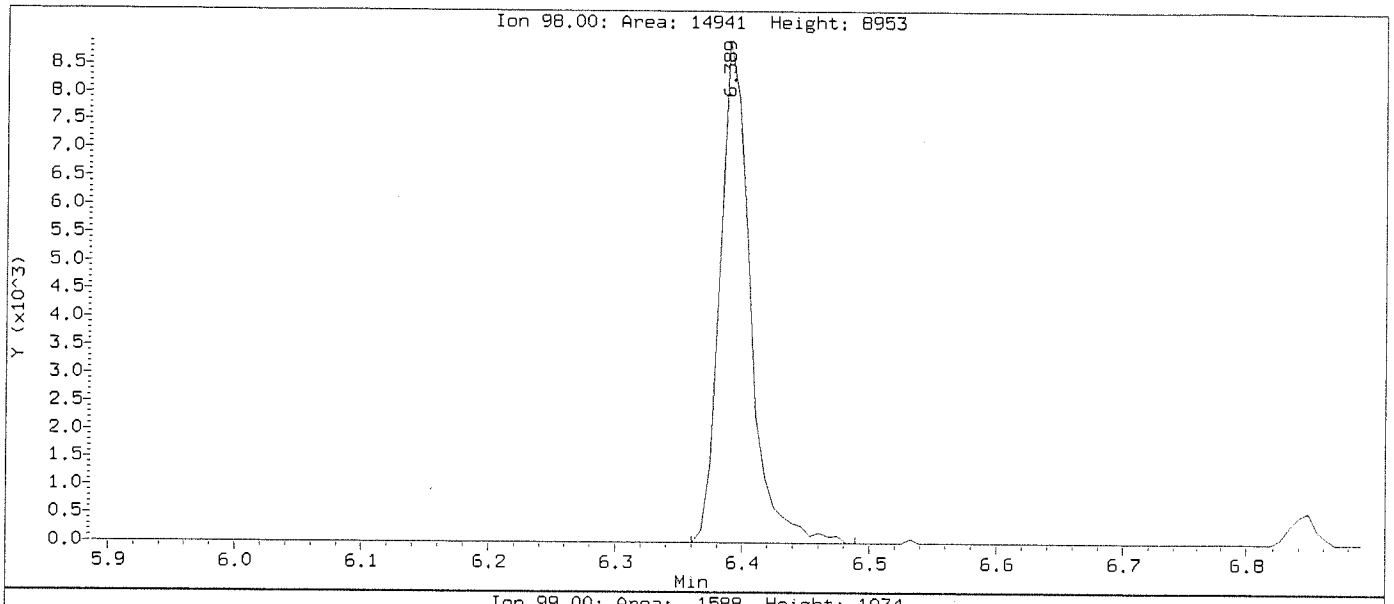


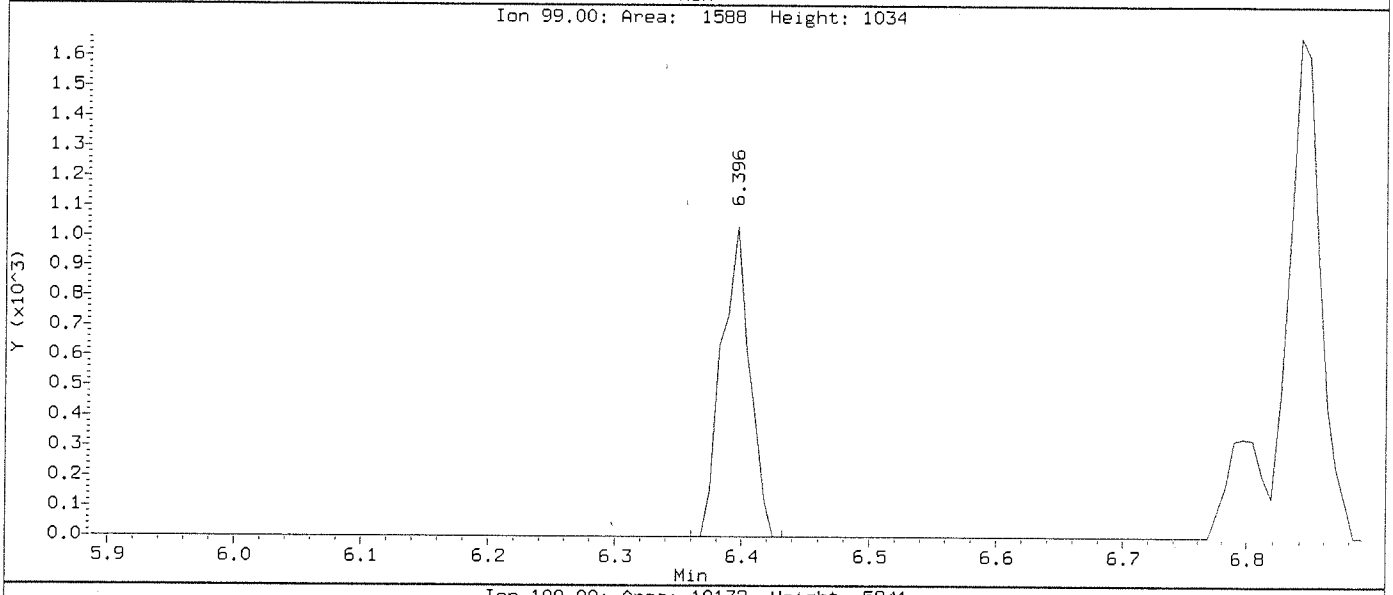
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Date : 08-OCT-2021 14:11
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;;
Purge Volume: 5.0
Column phase: DB624

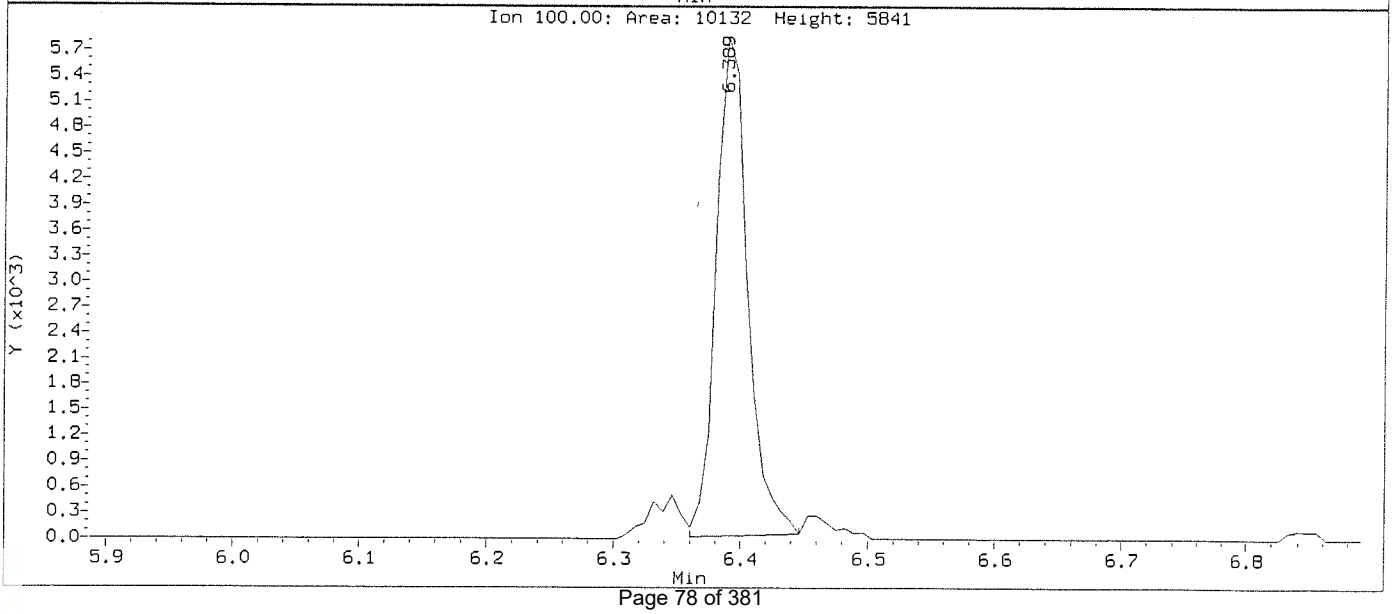
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Toluene-d8
CAS Number: 2037-26-5

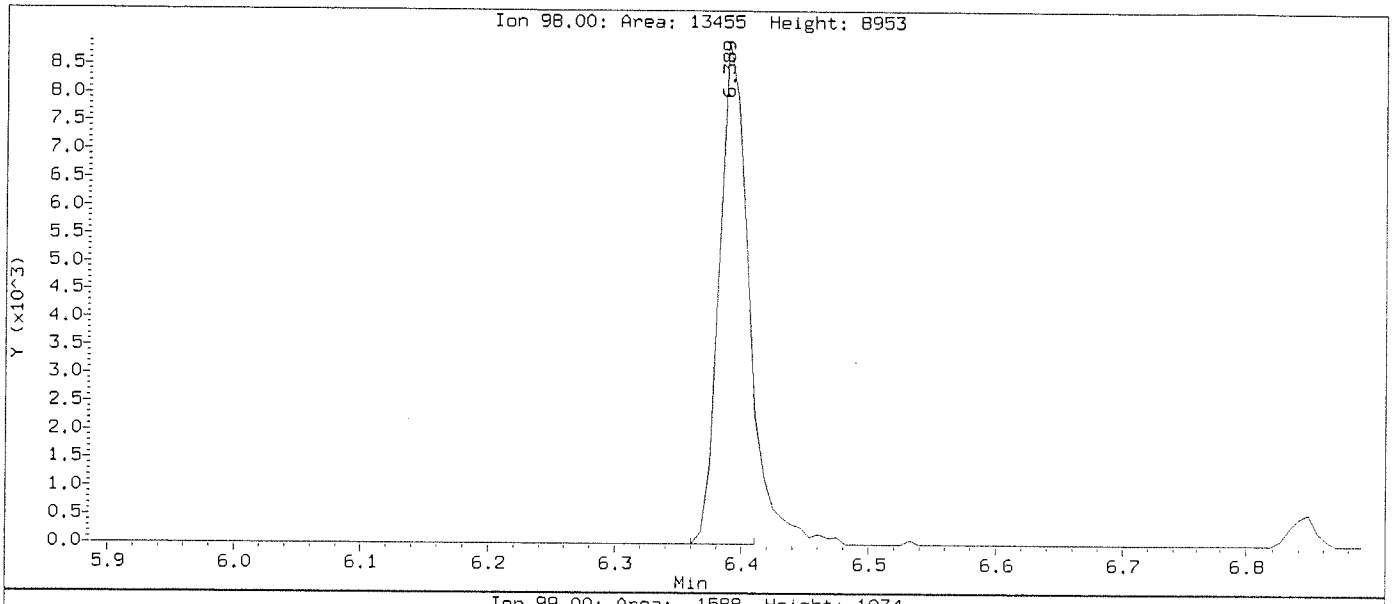


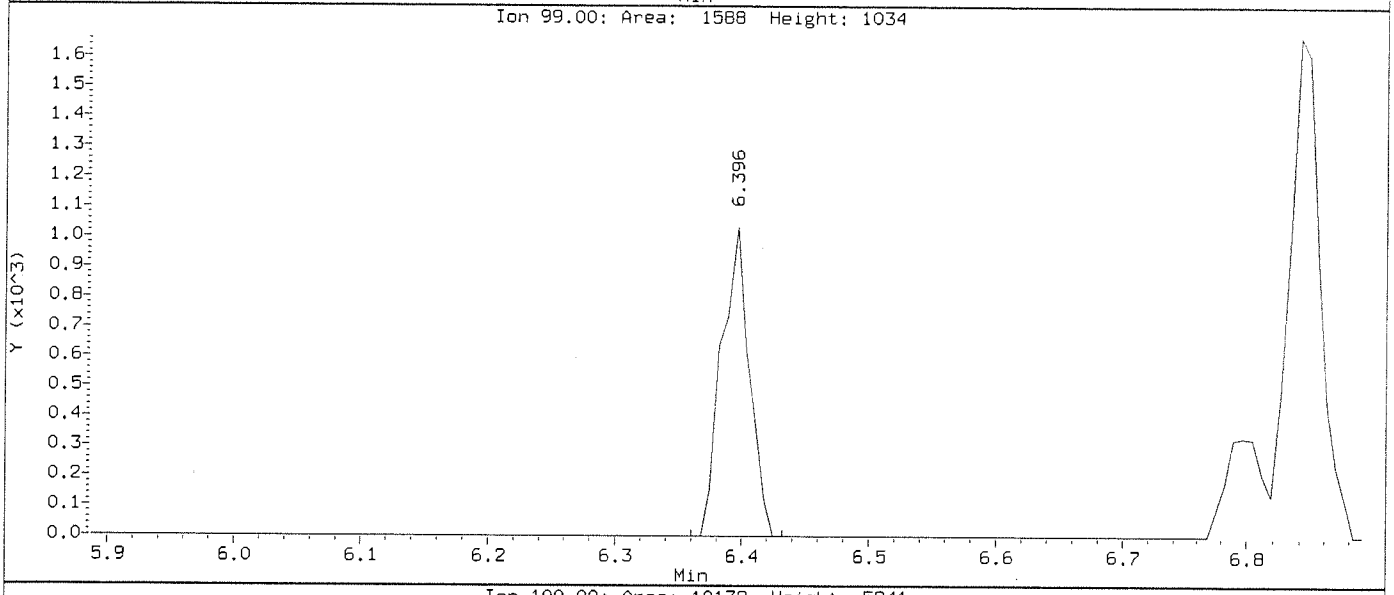


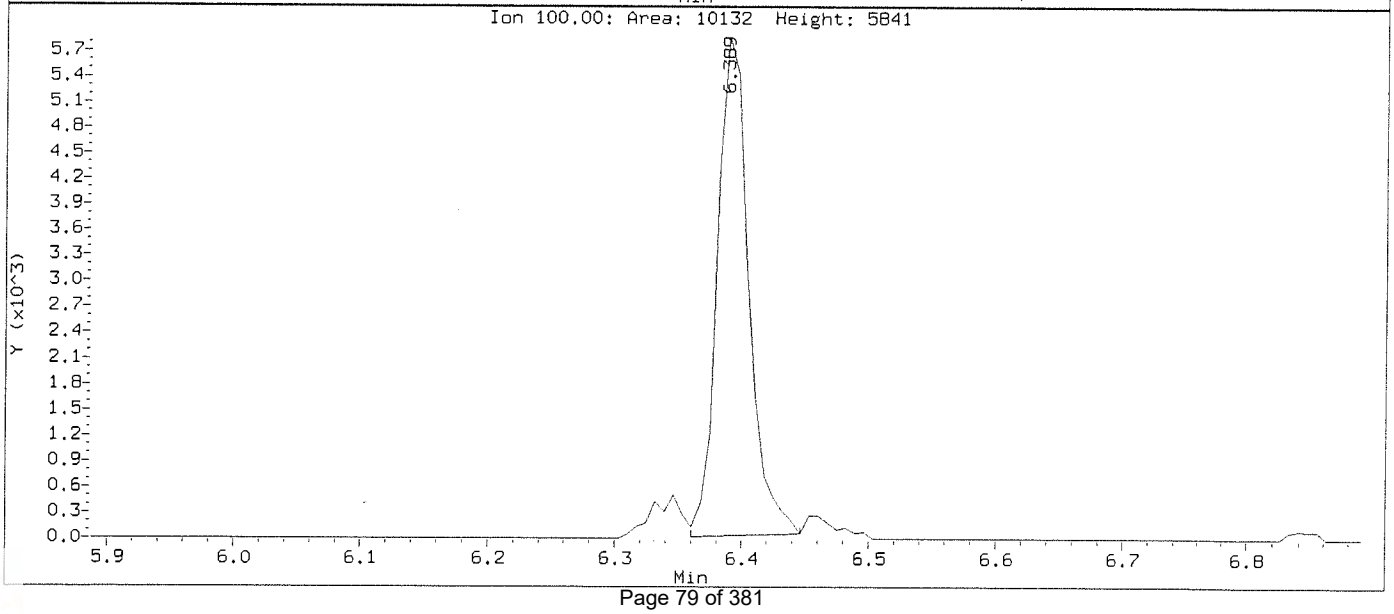


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Toluene-d8
CAS Number: 2037-26-5

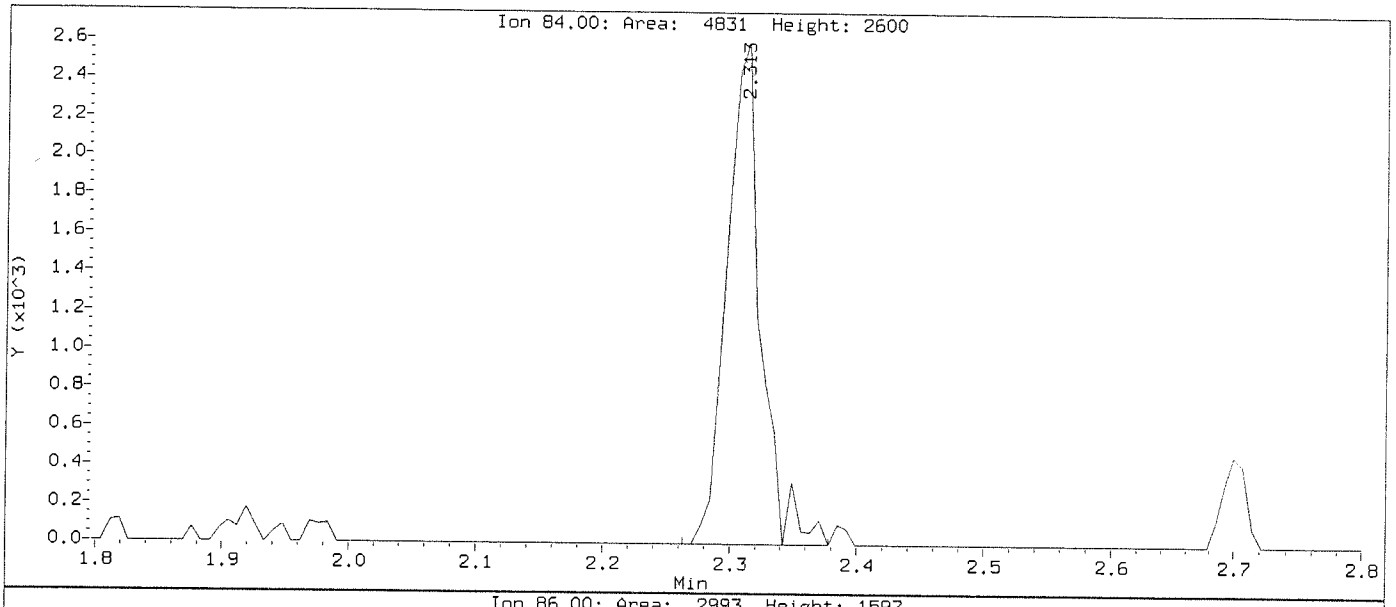


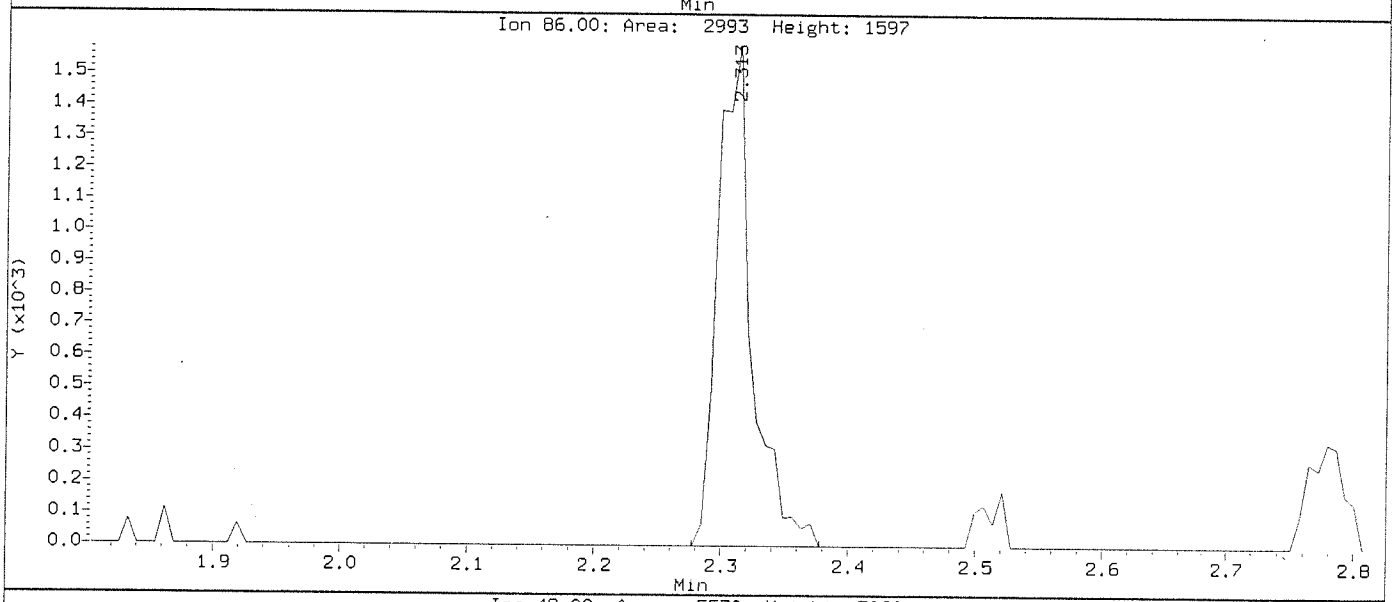


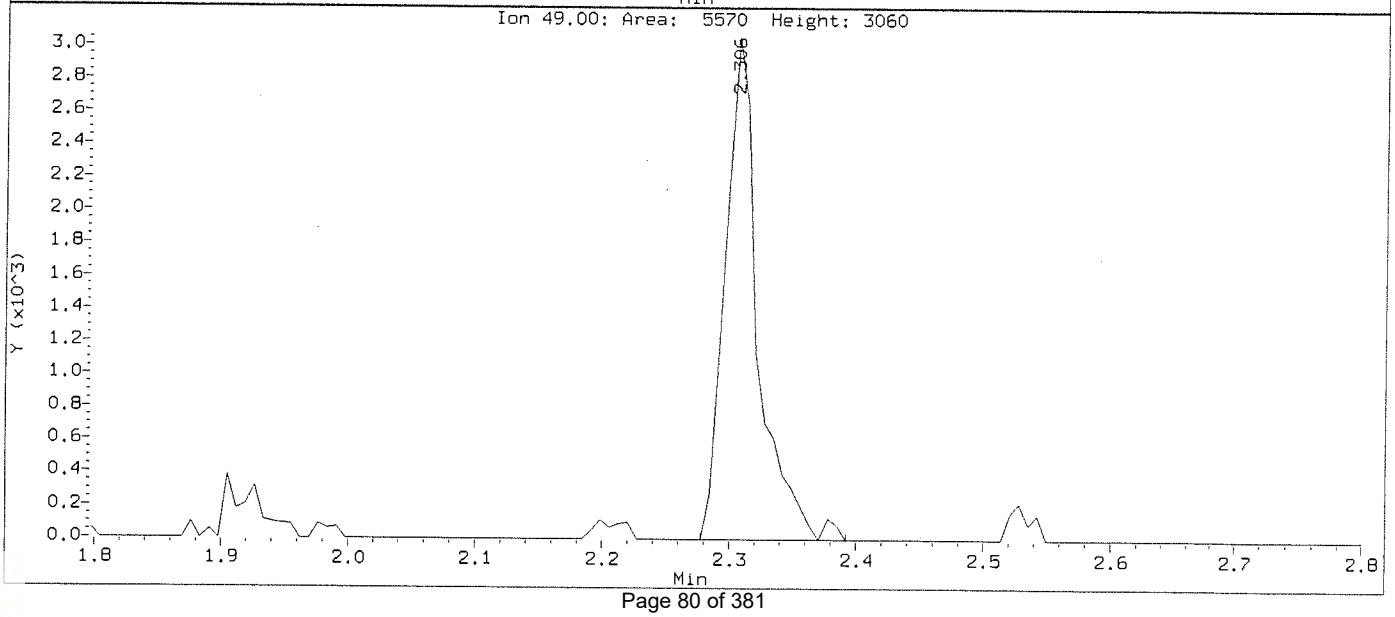


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Methylene Chloride
CAS Number: 75-09-2

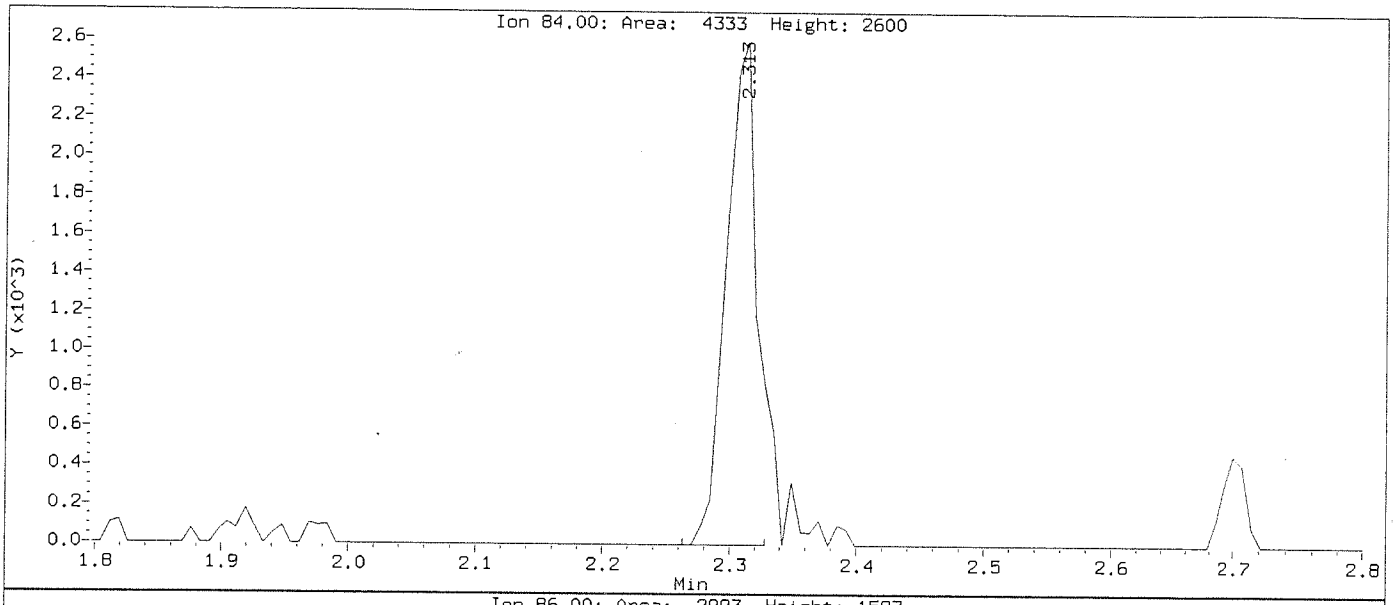


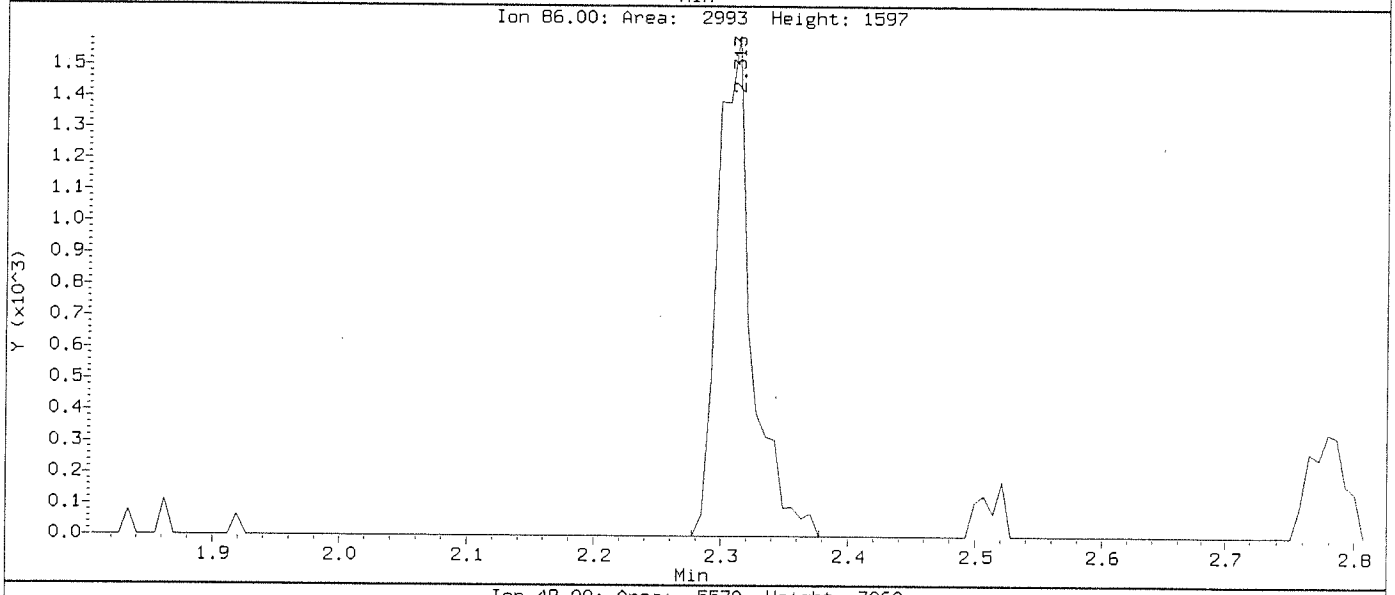


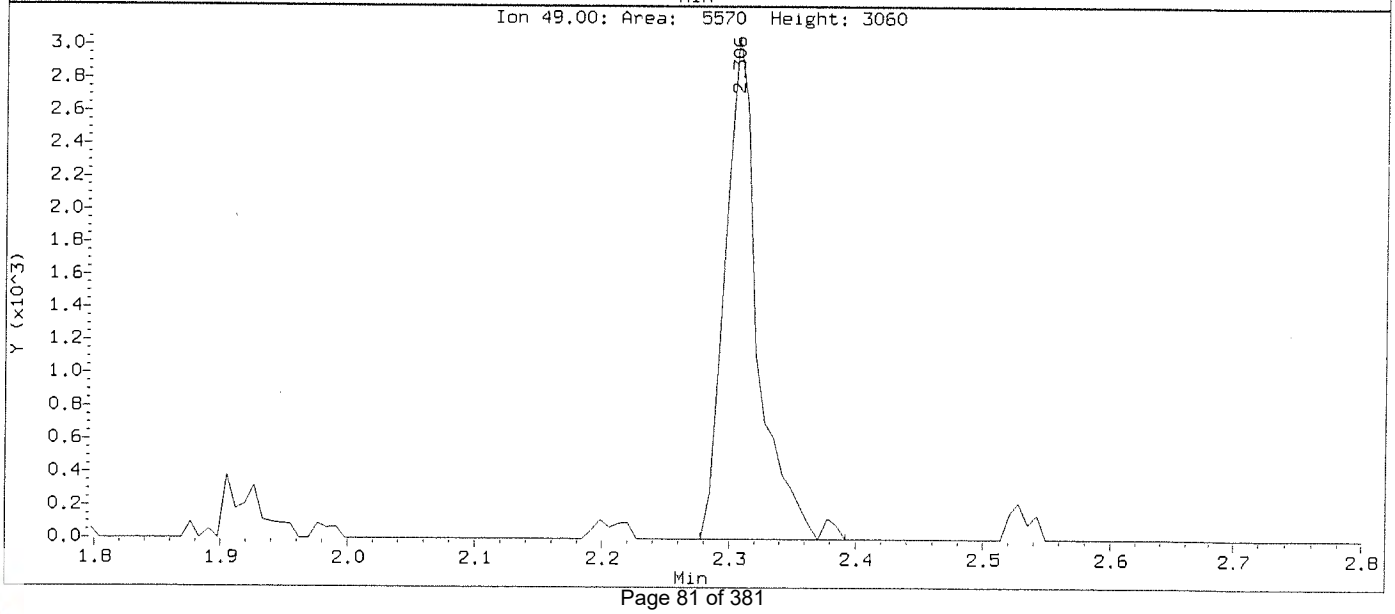


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Methylene Chloride
CAS Number: 75-09-2

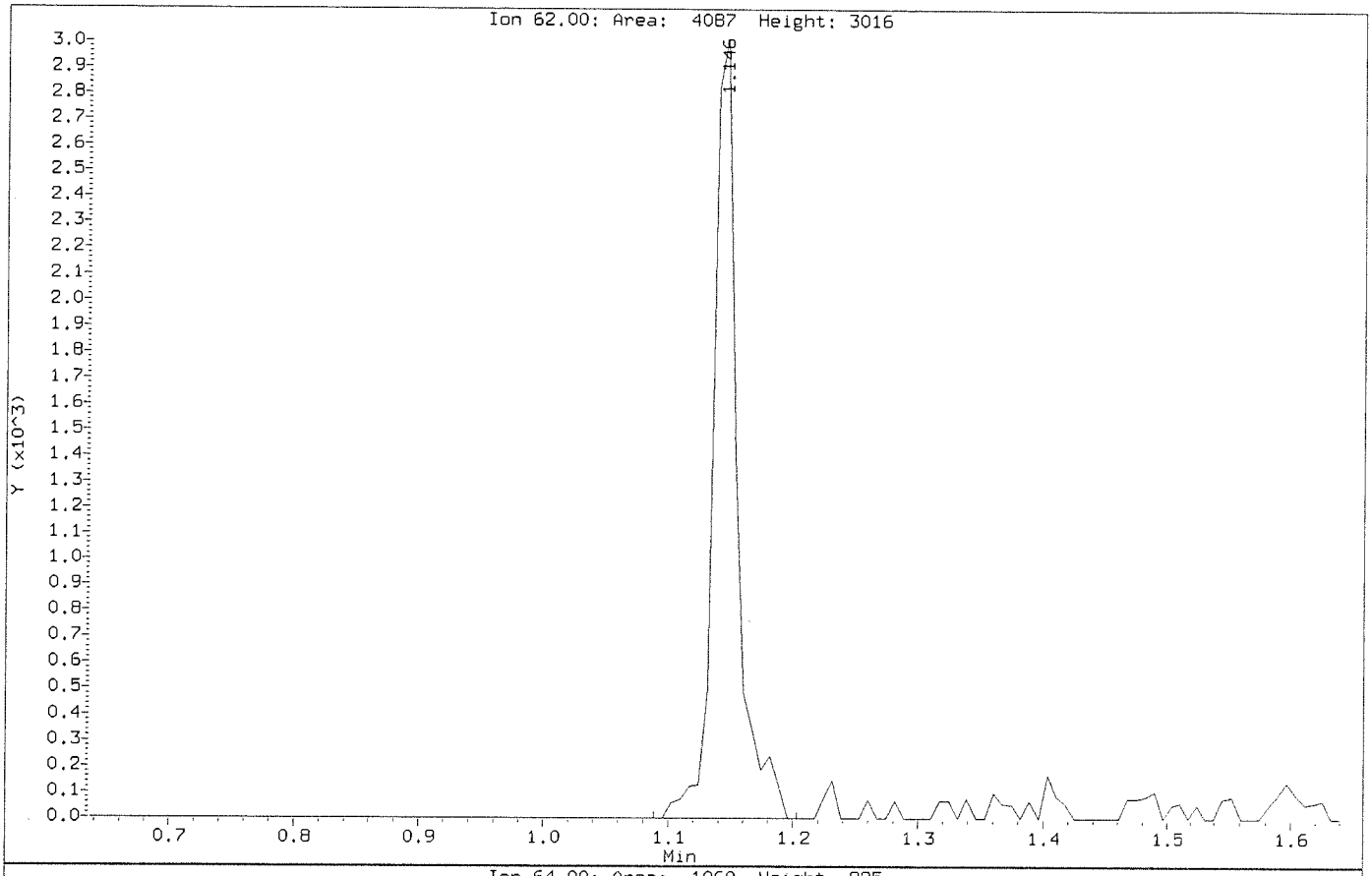


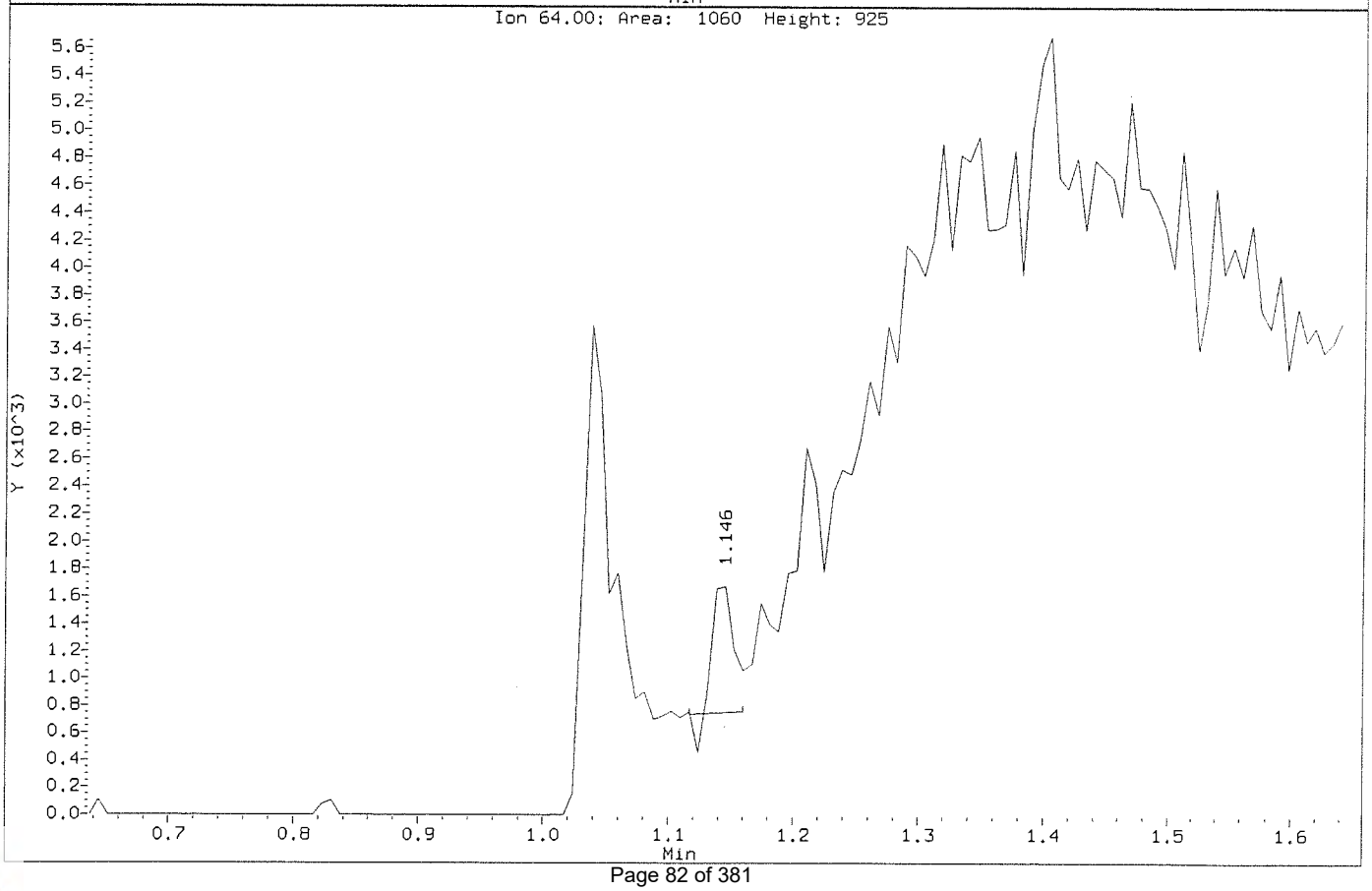




Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

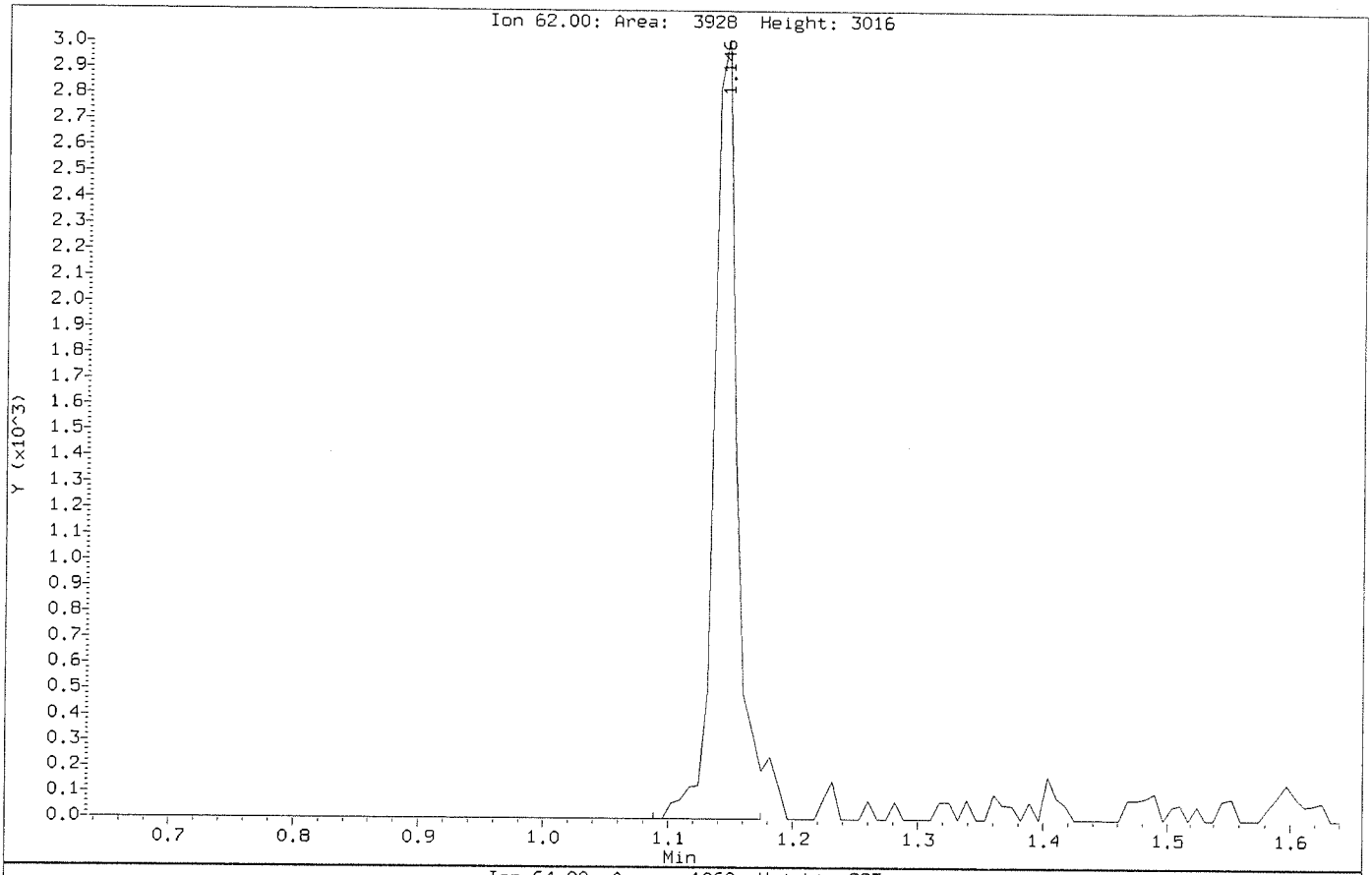
Compound: Vinyl Chloride
CAS Number: 75-01-4

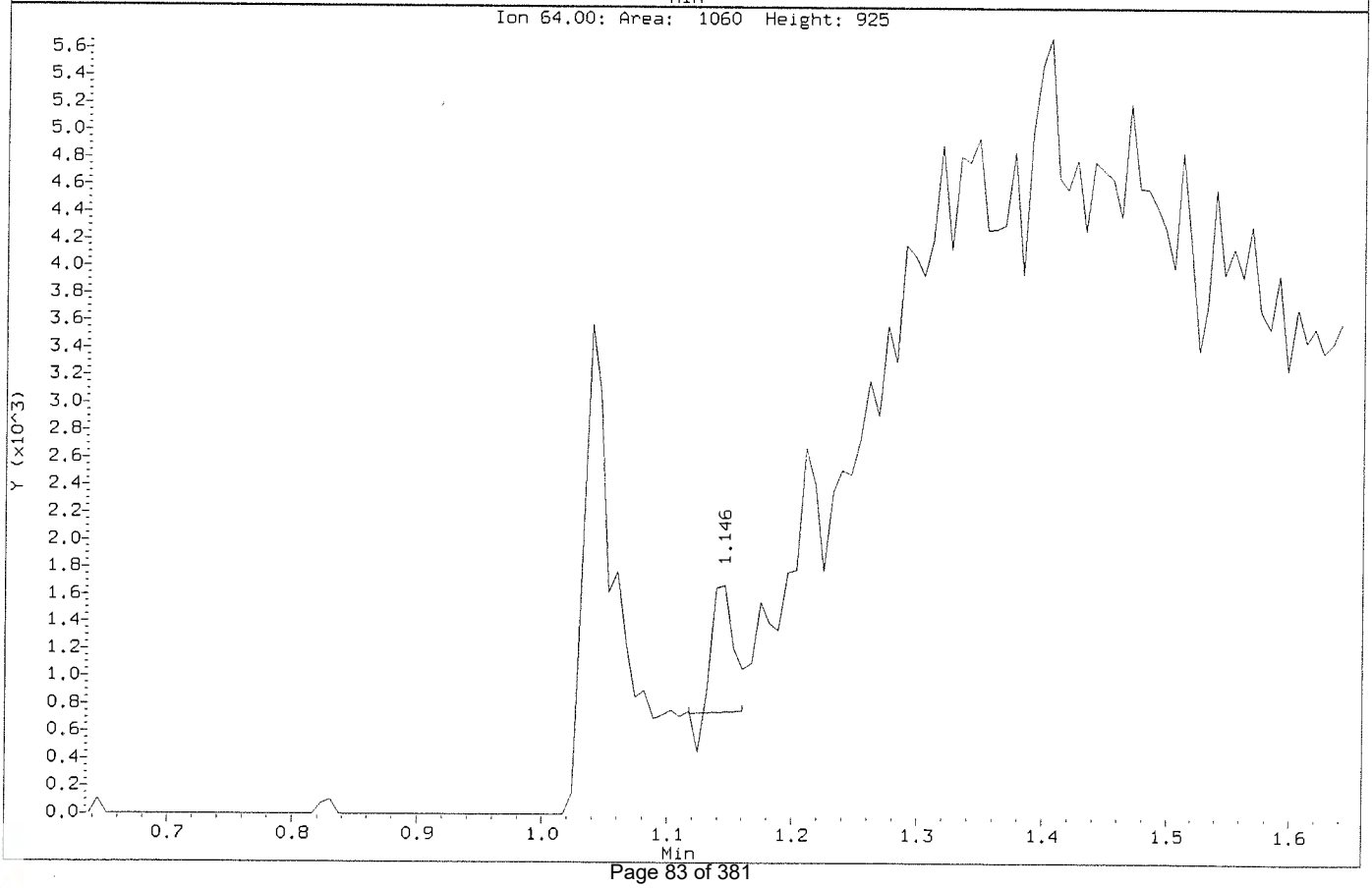




Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Vinyl Chloride
CAS Number: 75-01-4





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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100805.D
Lab Smp Id: VSTD002 Client Smp ID: VSTD002
Inj Date : 08-OCT-2021 14:32
Operator : PC Inst ID: voa6.i
Smp Info : VSTD002;VSTD002;1;4;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 15-Nov-2021 16:15 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 14:11 Cal File: X100804.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

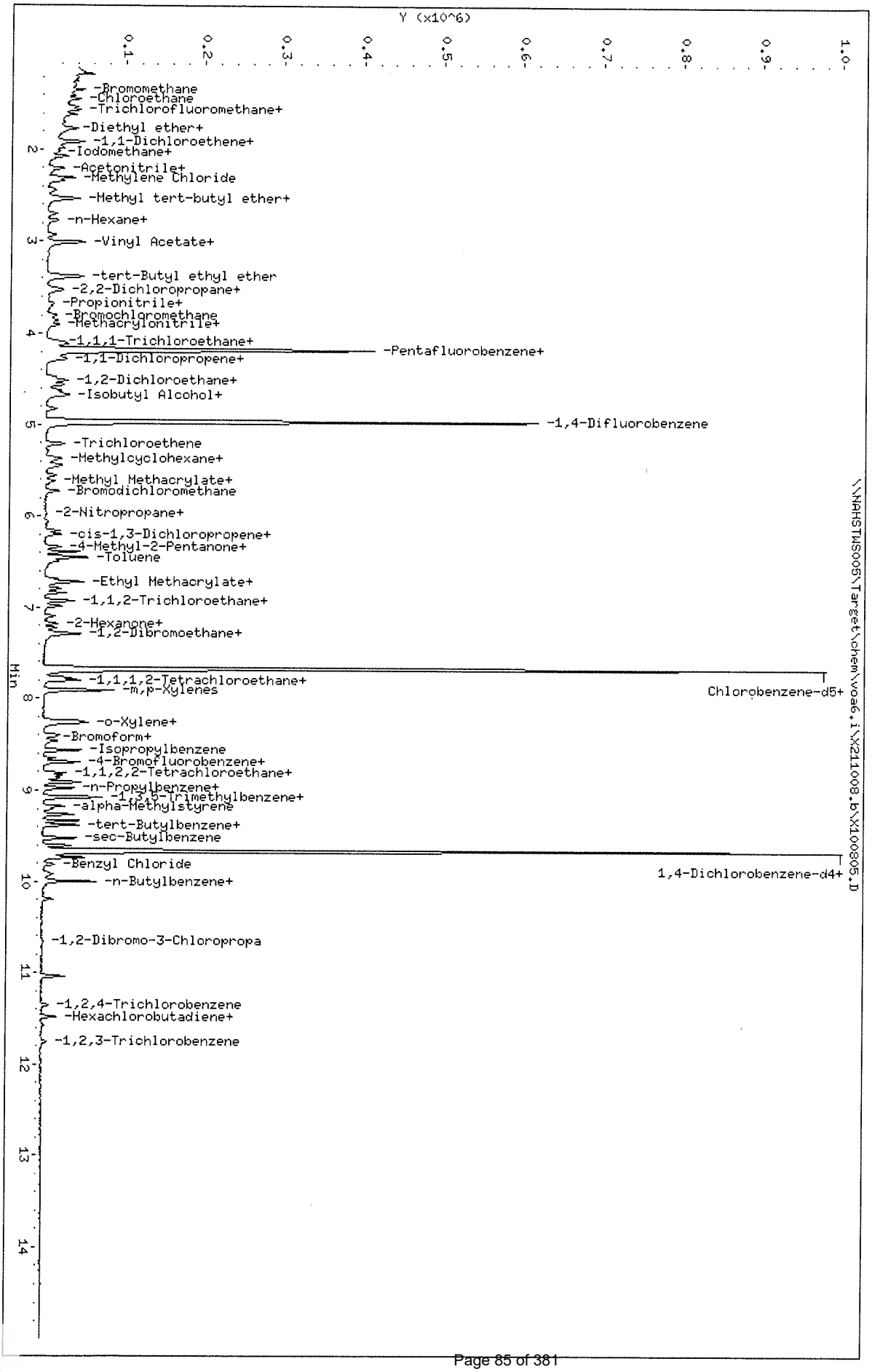
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	337388	50.0000	
* 36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	523249	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	483928	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	230329	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	8290	2.00000	1.41(a)
$ 35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	9717	2.00000	0.97(a)
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	26169	2.00000	2.12(aM)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	13893	2.00000	2.00(a)
11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	6379	2.00000	2.11(a)
33 1,2-Dichloroethane	62	4.562	4.562	(0.918)	9049	2.00000	2.06(a)
27 cis-1,2-Dichloroethene	96	3.537	3.537	(0.846)	7524	2.00000	2.14(a)
17 Methylene Chloride	84	2.305	2.305	(0.551)	7762	2.00000	1.43(a)
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	6097	2.00000	2.36(a)
38 Trichloroethene	130	5.214	5.214	(1.049)	8221	2.00000	2.07(a)
5 Vinyl Chloride	62	1.145	1.145	(0.274)	7904	2.00000	2.23(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

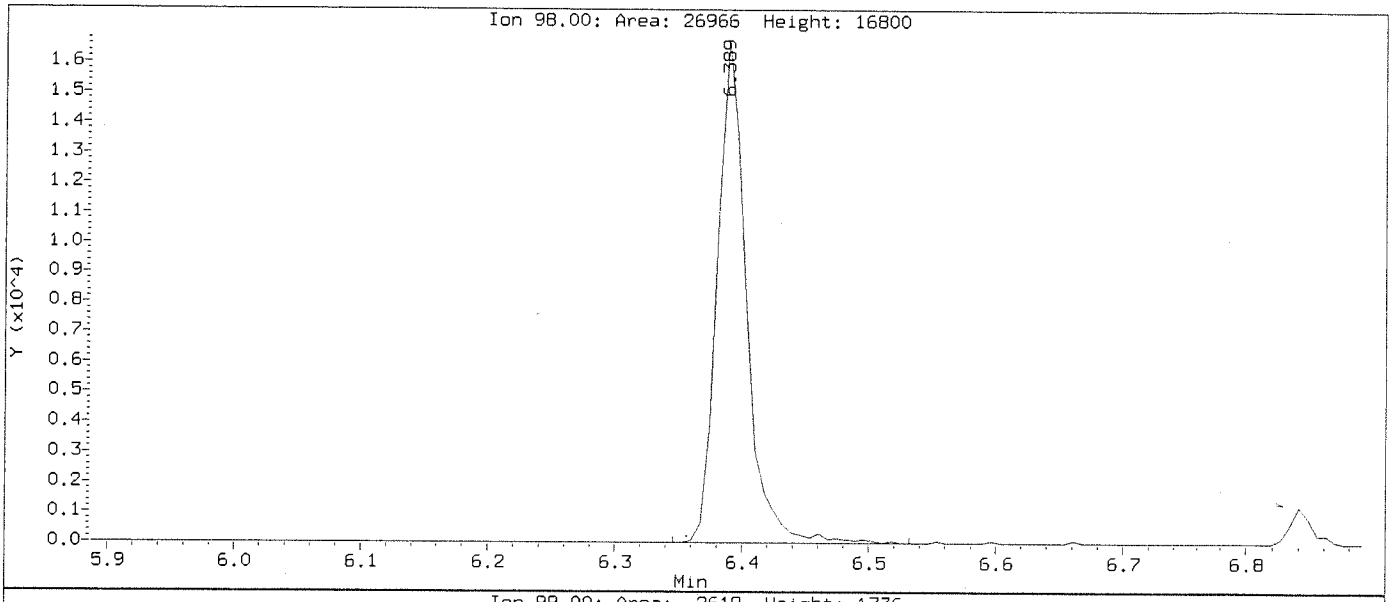


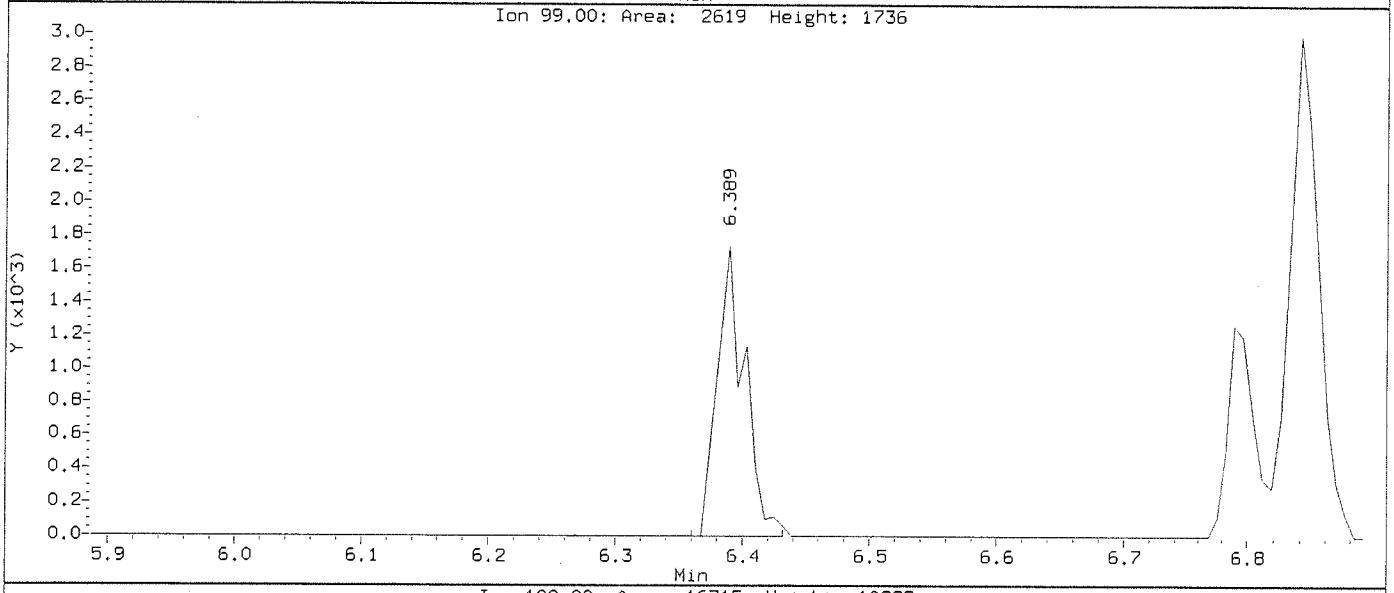
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100805.D
Date : 08-OCT-2021 14:32
Client ID: VSTD002
Sample Info: VSTD002;VSTD002;1;4;;
Purge Volume: 5.0
Column phase: DB624

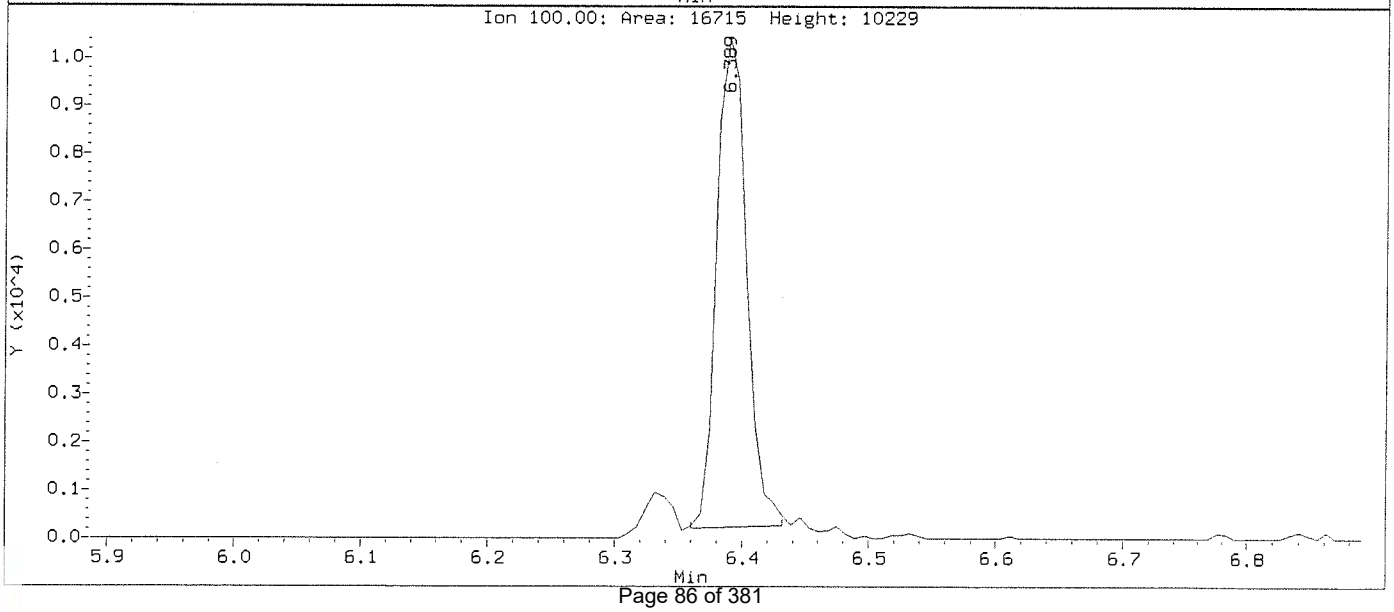
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100805.D
Injection Date: 08-OCT-2021 14:32
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Toluene-d8
CAS Number: 2037-26-5

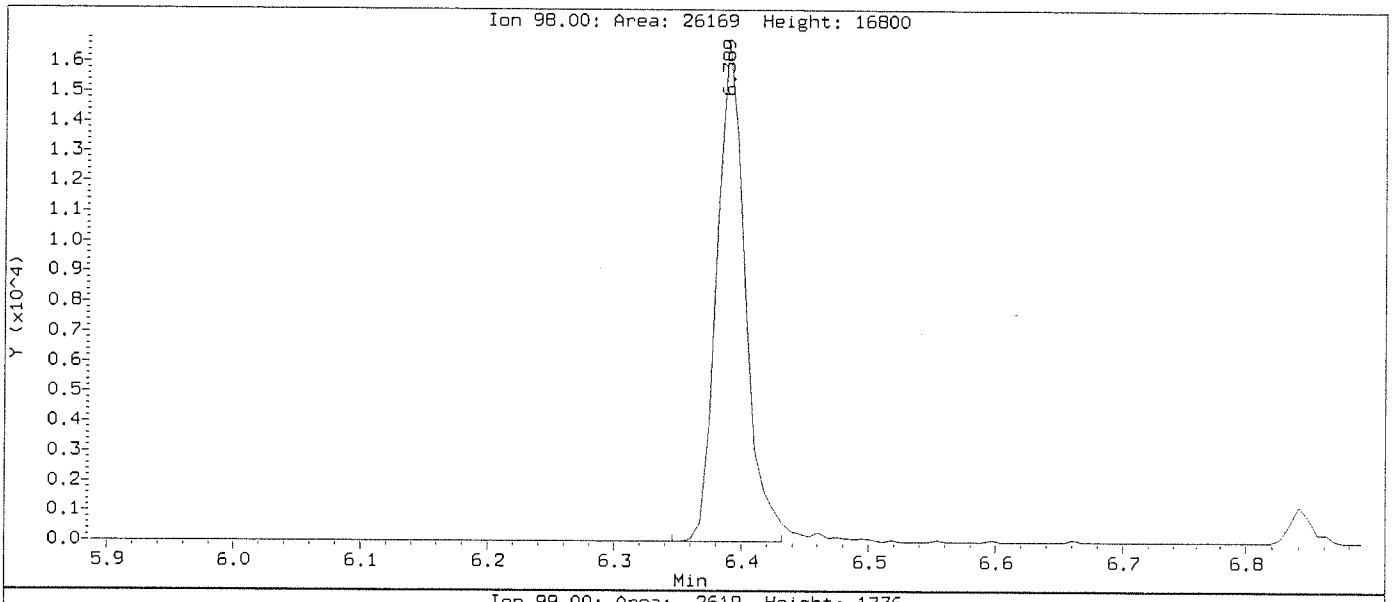


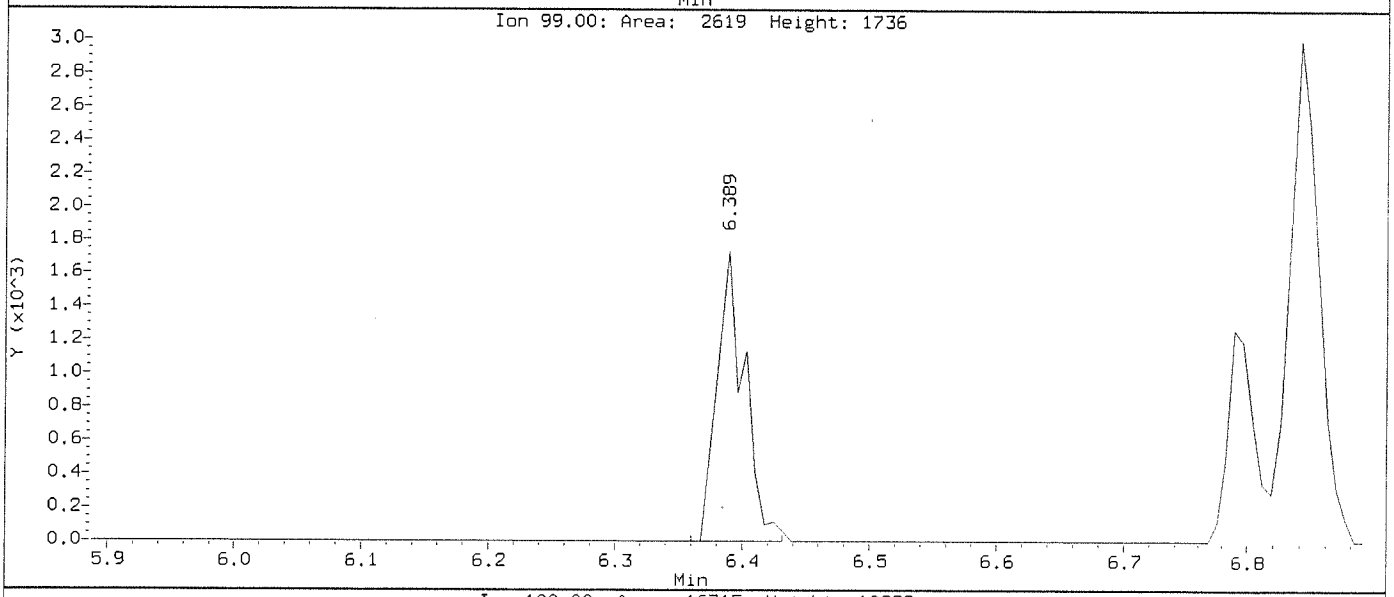


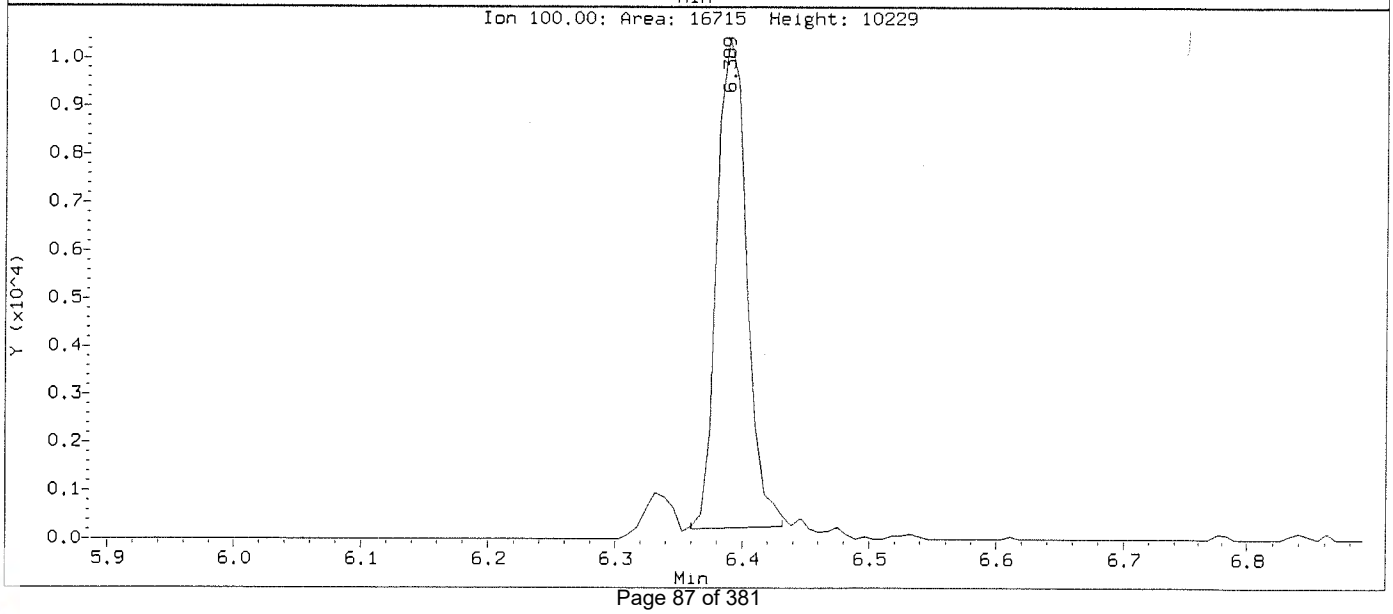


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100805.D
Injection Date: 08-OCT-2021 14:32
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Toluene-d8
CAS Number: 2037-26-5







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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100806.D
Lab Smp Id: VSTD005 Client Smp ID: VSTD005
Inj Date : 08-OCT-2021 14:53
Operator : PC Inst ID: voa6.i
Smp Info : VSTD005;VSTD005;1;5;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 15-Nov-2021 16:15 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 14:32 Cal File: X100805.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

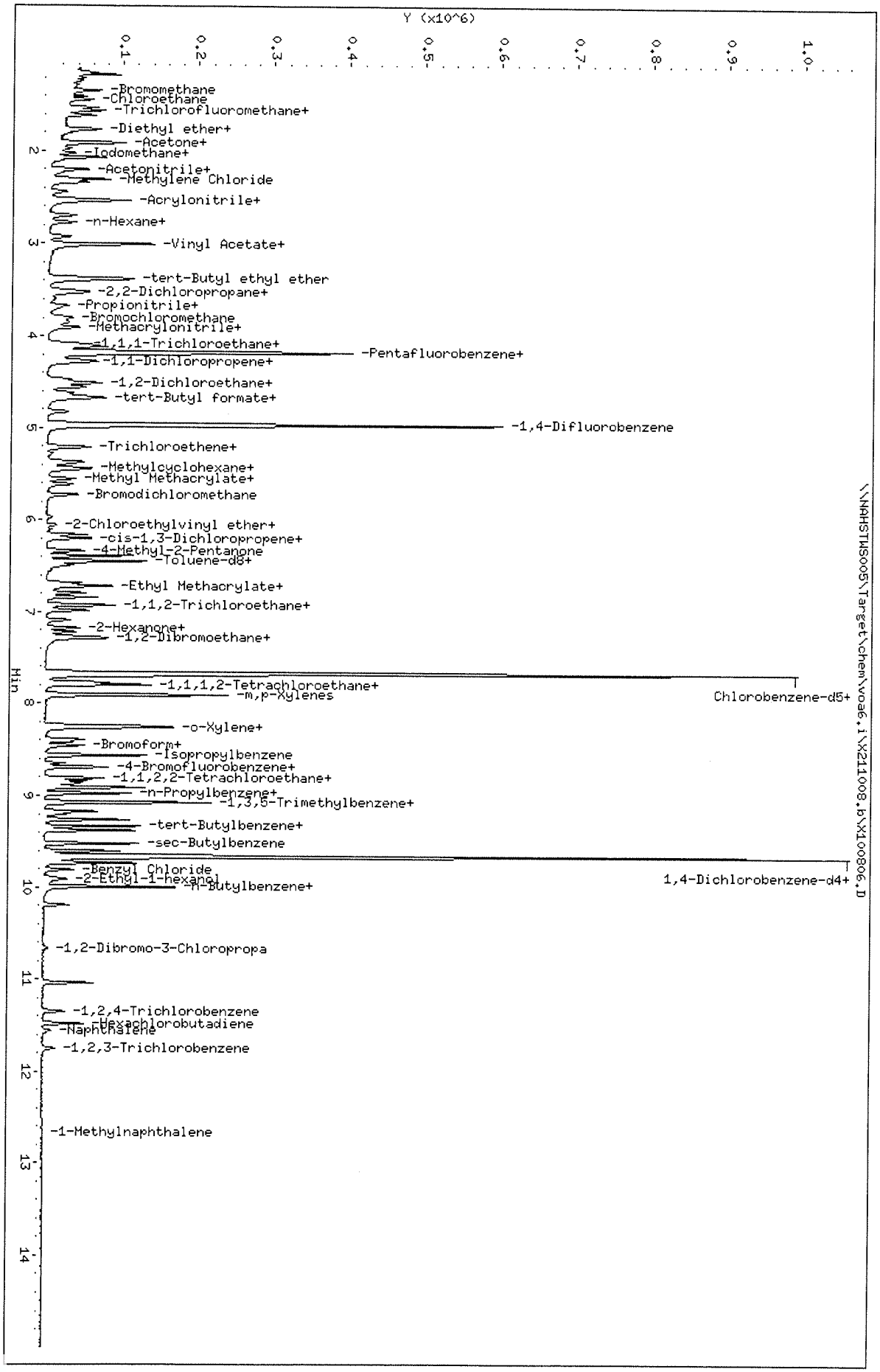
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	333400	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	515627	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	479811	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	229555	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	20676	5.00000	5.32
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	22194	5.00000	4.92(a)
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	65046	5.00000	5.34
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	24945	5.00000	4.74(a)
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	16670	5.00000	5.60
33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	23534	5.00000	5.44
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	19489	5.00000	5.62
17 Methylene Chloride	84	2.305	2.305	(0.551)	19276	5.00000	5.52
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	14434	5.00000	5.63
38 Trichloroethene	130	5.206	5.206	(1.049)	20177	5.00000	5.17
5 Vinyl Chloride	62	1.145	1.145	(0.274)	20005	5.00000	5.72

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100806.D
Date : 08-OCT-2021 14:53
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100807.D Page 1
Report Date: 15-Nov-2021 16:15

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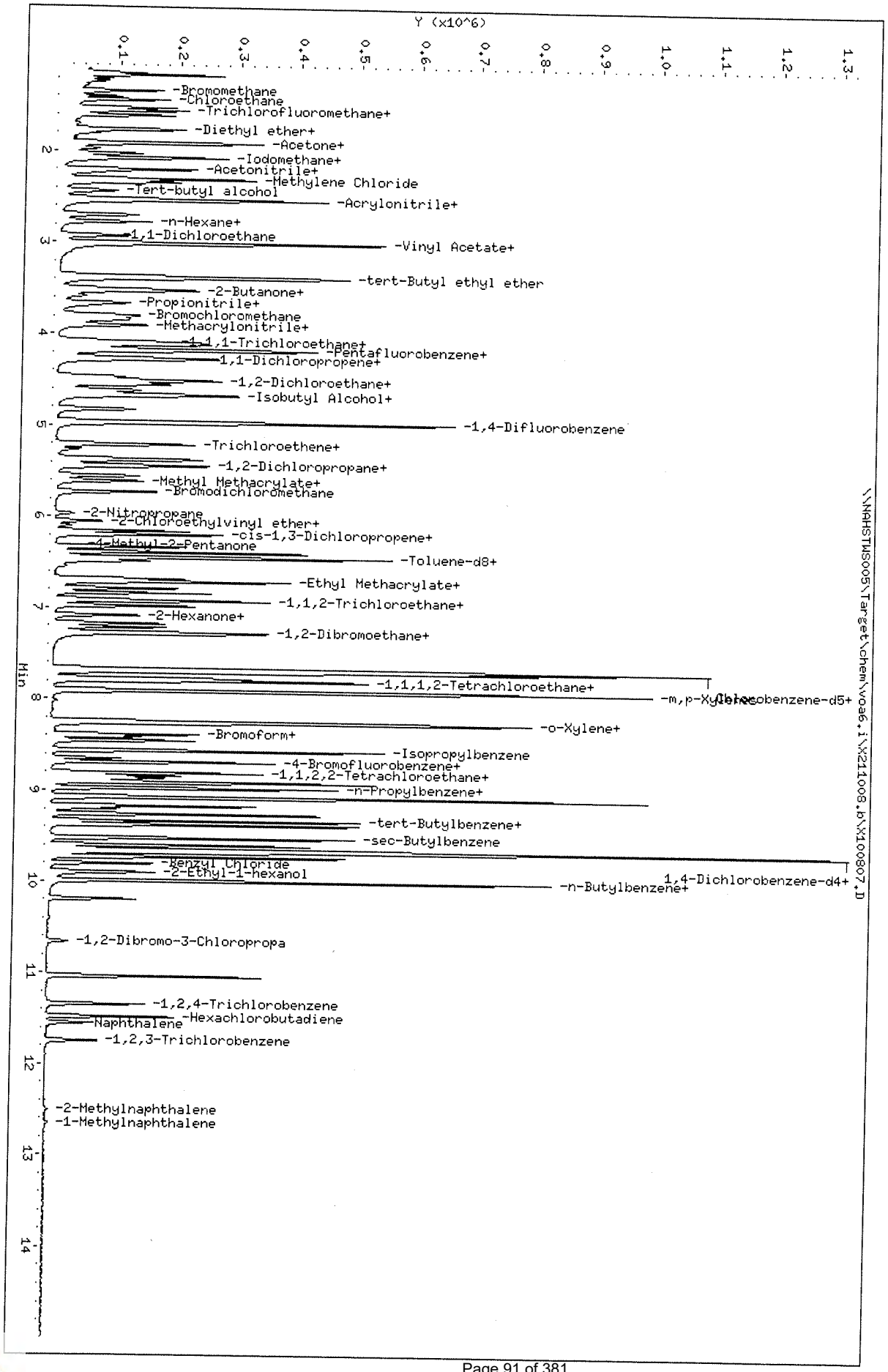
Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100807.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 08-OCT-2021 15:14
Operator : PC Inst ID: voa6.i
Smp Info : VSTD020;VSTD020;1;6;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 15-Nov-2021 16:15 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 14:53 Cal File: X100806.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	359250	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	552025	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	521772	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	270684	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	78657	20.0000	21.67
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	84053	20.0000	22.43
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	248228	20.0000	18.74
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	96265	20.0000	20.33
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	63174	20.0000	19.71
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	94822	20.0000	20.47
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	77585	20.0000	20.77
17 Methylene Chloride	84	2.306	2.306	(0.551)	70665	20.0000	21.85
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	53753	20.0000	19.30
38 Trichloroethene	130	5.207	5.207	(1.049)	78065	20.0000	18.69
5 Vinyl Chloride	62	1.145	1.145	(0.274)	73837	20.0000	19.60



Data File: \\NAHSTMS005\Target\chem\voa6.i\X211008.b\X100807.D
Date : 08-OCT-2021 15:14
Client ID: VSTD020
Sample Info: VSTD020;VSTD020;1;6;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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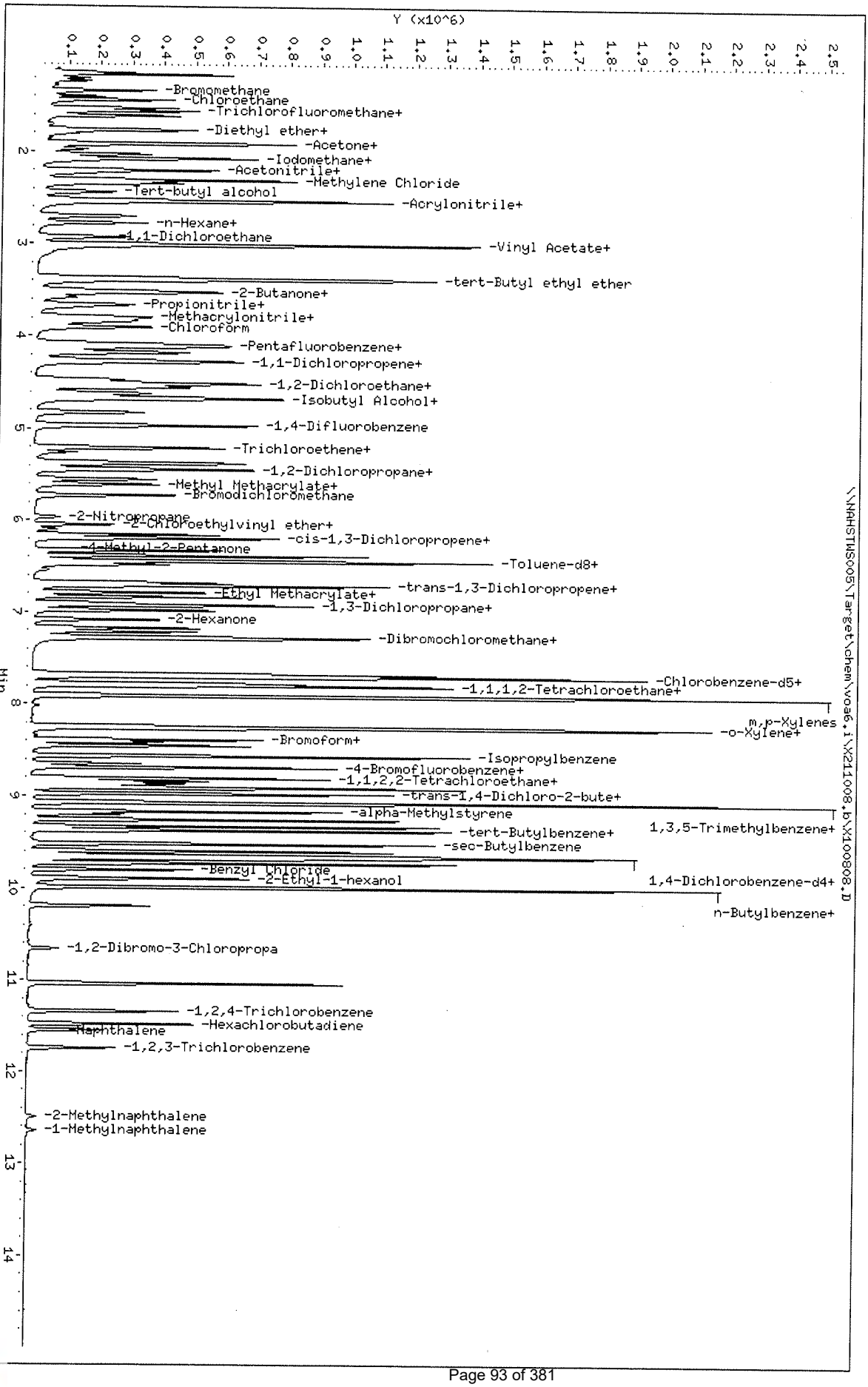
Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100808.D
Lab Smp Id: VSTD050 Client Smp ID: VSTD050
Inj Date : 08-OCT-2021 15:34
Operator : PC Inst ID: voa6.i
Smp Info : VSTD050;VSTD050;1;7;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 15-Nov-2021 16:15 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:14 Cal File: X100807.D
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	392113	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	589876	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	564124	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	290705	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	192579	50.0000	50.03
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	202478	50.0000	51.97
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	634808	50.0000	44.34
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	246655	50.0000	50.06
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	159624	50.0000	45.63
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	236990	50.0000	47.89
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	196461	50.0000	48.19
17 Methylene Chloride	84	2.305	2.305	(0.551)	173952	50.0000	50.88
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	140168	50.0000	46.56
38 Trichloroethene	130	5.206	5.206	(1.049)	197218	50.0000	44.20
5 Vinyl Chloride	62	1.145	1.145	(0.274)	182737	50.0000	44.44



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100808.D
Date : 08-OCT-2021 15:34
Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100809.D Page 1
Report Date: 15-Nov-2021 16:15

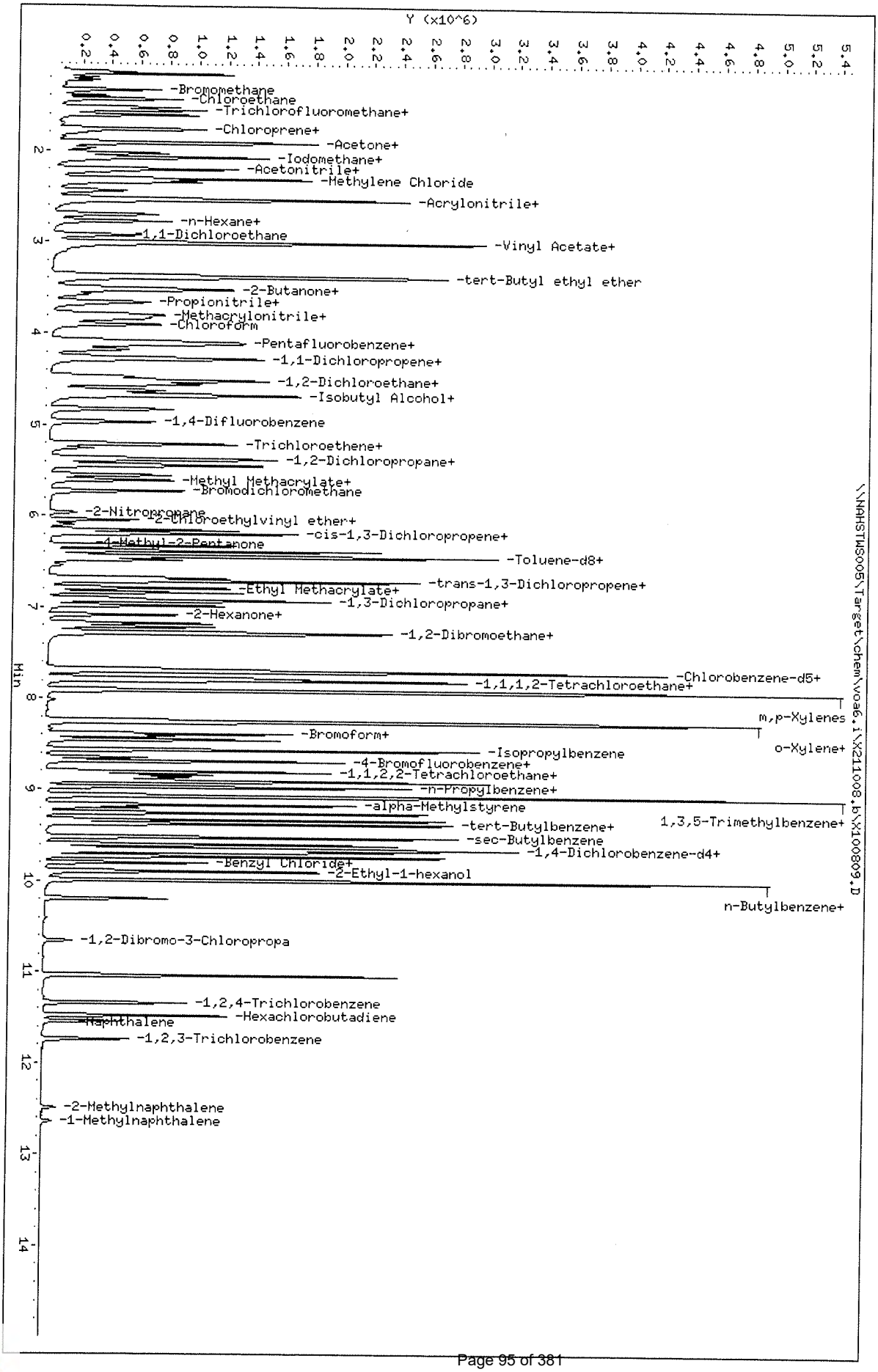
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100809.D
Lab Smp Id: VSTD100 Client Smp ID: VSTD100
Inj Date : 08-OCT-2021 15:55
Operator : PC Inst ID: voa6.i
Smp Info : VSTD100;VSTD100;1;8;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 15-Nov-2021 16:15 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	418066	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	613866	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	579251	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	297050	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	417318	100.000	102.87
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	416593	100.000	102.19
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1348785	100.000	91.75
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	511094	100.000	102.41
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	343969	100.000	92.23
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	479766	100.000	93.17
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	413298	100.000	95.08
17 Methylene Chloride	84	2.305	2.305	(0.551)	361756	100.000	100.44
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	291528	100.000	94.31
38 Trichloroethene	130	5.206	5.206	(1.049)	421689	100.000	90.81
5 Vinyl Chloride	62	1.145	1.145	(0.274)	381795	100.000	87.10



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100809.D
Date : 08-OCT-2021 15:55
Client ID: VSTD100
Sample Info: VSTD100;VSTD100;1;8;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

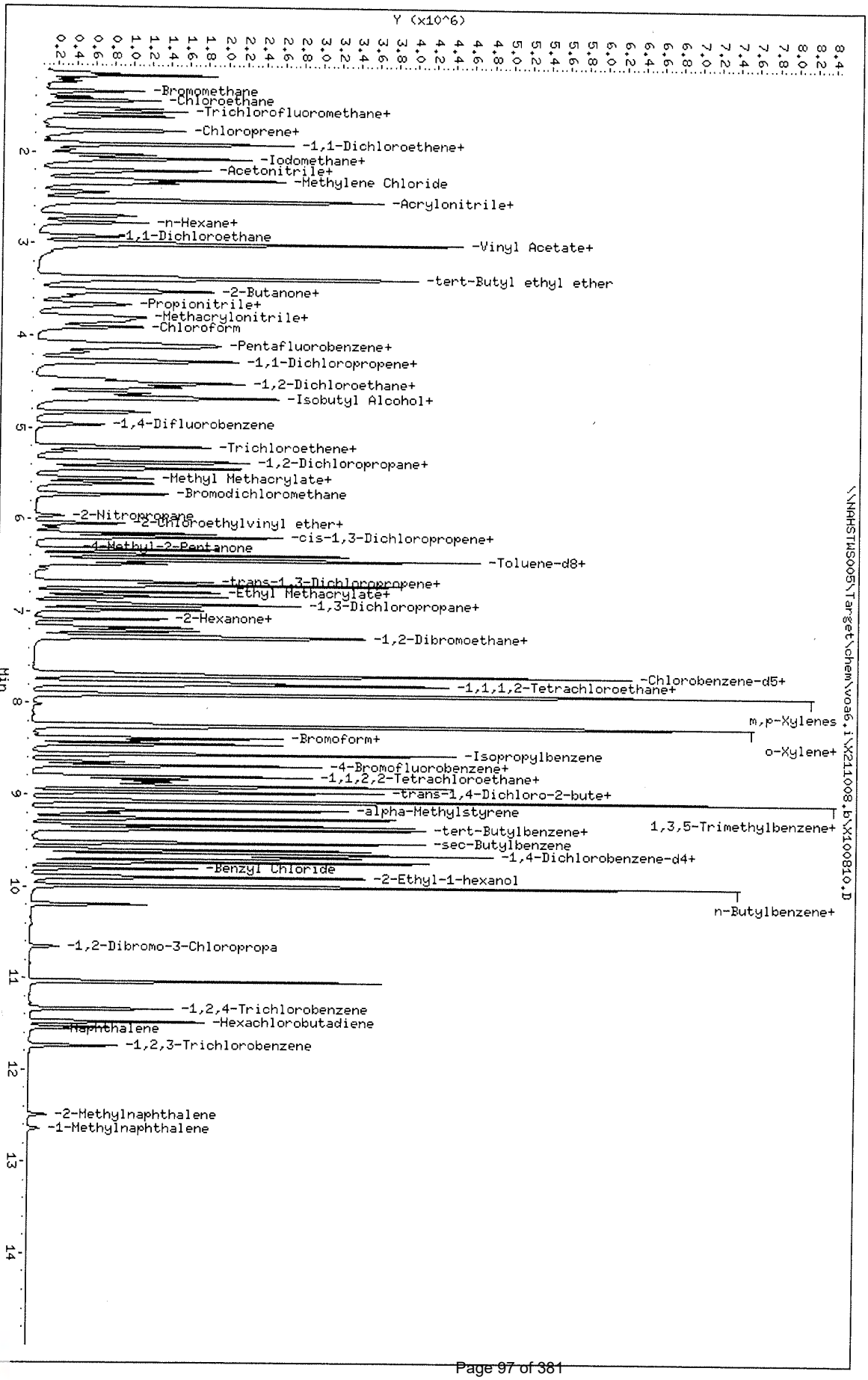
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100810.D
Lab Smp Id: VSTD150 Client Smp ID: VSTD150
Inj Date : 08-OCT-2021 16:16
Operator : PC Inst ID: voa6.i
Smp Info : VSTD150;VSTD150;1;9;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 15-Nov-2021 16:15 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:55 Cal File: X100809.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	430506	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	614424	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	583017	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	301016	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	604609	150.000	145.19
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	610768	150.000	146.35
$ 48 Toluene-d8	98	6.389	6.389	(0.833)	1910689	150.000	129.13
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	745510	150.000	149.04
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	518774	150.000	135.09
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	711577	150.000	138.06
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	618894	150.000	138.27
17 Methylene Chloride	84	2.306	2.306	(0.551)	542343	150.000	146.81
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	432811	150.000	139.12
38 Trichloroethene	130	5.207	5.207	(1.049)	618285	150.000	133.03
5 Vinyl Chloride	62	1.145	1.145	(0.274)	580048	150.000	128.51



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100810.D
Date : 08-OCT-2021 16:16
Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;9;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100811.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 08-OCT-2021 16:37
Operator : PC Inst ID: voa6.i
Smp Info : VSTD200;VSTD200;1;10;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 15-Nov-2021 16:15 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 16:16 Cal File: X100810.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

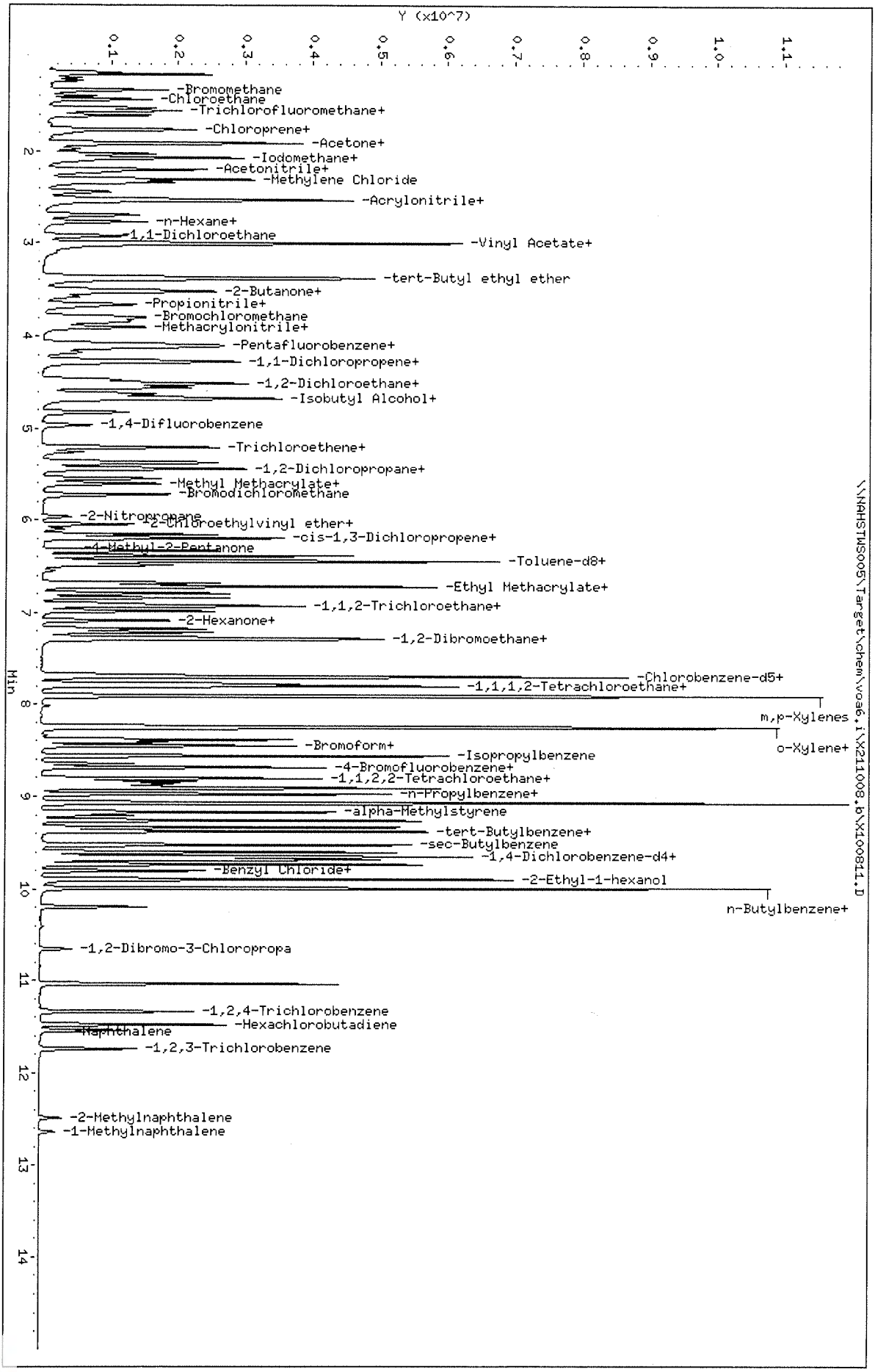
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	430833	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	629406	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	592993	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	308327	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	839119	200.000	201.80(A)
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	835313	200.000	200.75(A)
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	2646847	200.000	175.88
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	1012260	200.000	199.42
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	737348	200.000	191.86
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	971365	200.000	183.98
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	867147	200.000	193.59
17 Methylene Chloride	84	2.298	2.298	(0.550)	743741	200.000	201.65(A)
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	595829	200.000	188.30
38 Trichloroethene	130	5.206	5.206	(1.049)	867502	200.000	182.21
5 Vinyl Chloride	62	1.138	1.138	(0.272)	811647	200.000	179.68

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100811.D
Date : 08-OCT-2021 16:37
Client ID: WSTD200
Sample Info: WSTD200;WSTD200;1;10;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

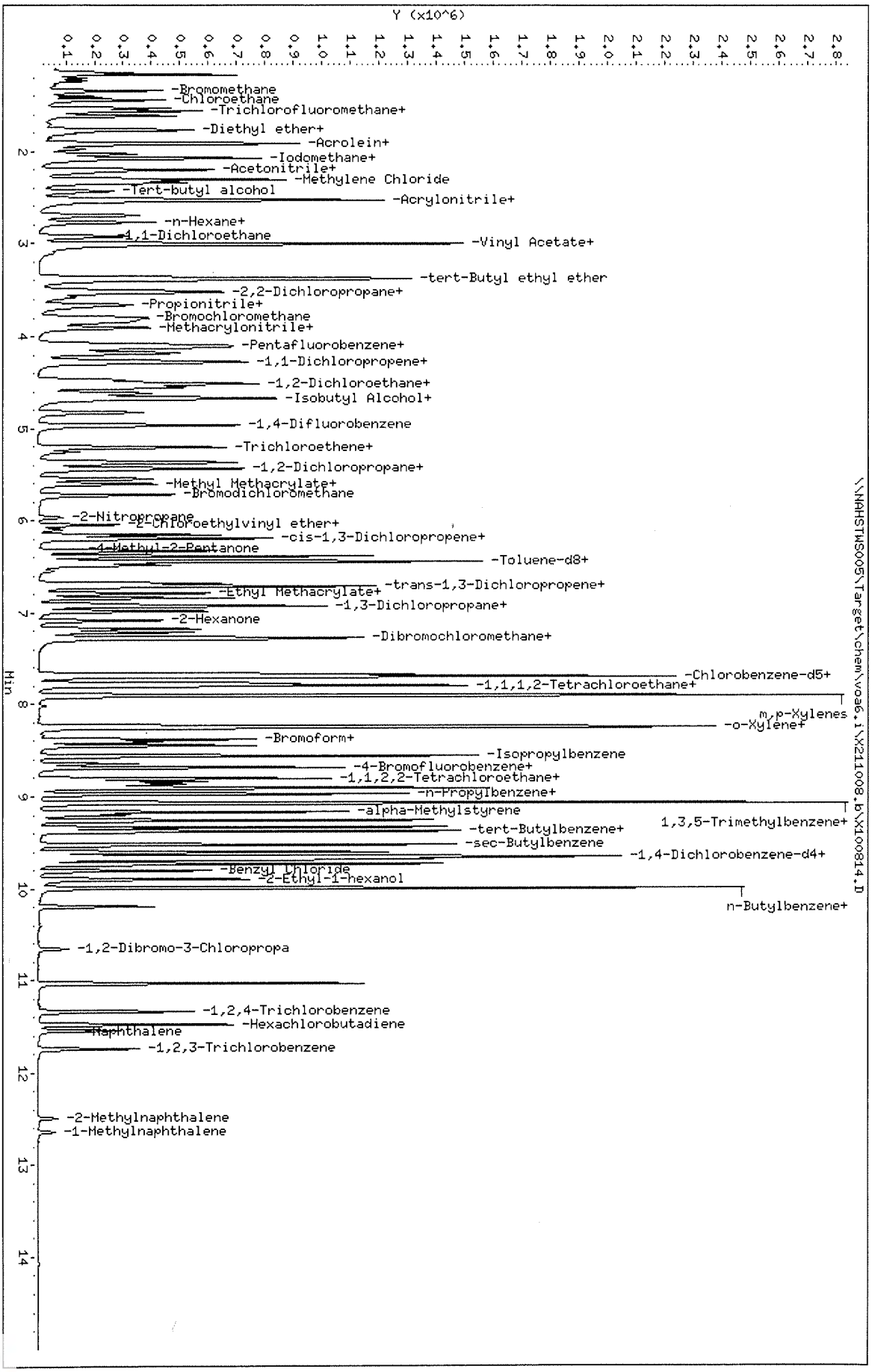
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100814.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 08-OCT-2021 17:40
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;ICV
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 15-Nov-2021 16:15 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 16:37 Cal File: X100811.D
Als bottle: 15 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	411437	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	626955	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	584793	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	301385	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	220373	54.6695	54.66
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	220262	53.9602	53.96
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	702141	47.3113	47.31
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	271877	53.3185	53.31
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	177902	48.4732	48.47
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	252375	47.9879	47.98
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	217393	50.8223	50.82
17 Methylene Chloride	84	2.305	2.298	(0.551)	187907	52.4189	52.41
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	149441	47.8902	47.89
38 Trichloroethene	130	5.206	5.206	(1.049)	219352	46.2533	46.25
5 Vinyl Chloride	62	1.145	1.138	(0.274)	203682	47.2176	47.21



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100814.D
Date : 08-OCT-2021 17:40
Client ID: ICV
Sample Info: CCV;CCV;2;;;ICV
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

MSVOA06 -Logbook

Batch: 46876
Date: 10-22-2021
Method: 8260
Comments:

Analyst: Presenta Cabascango
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pl
1	BFB	BFB	10-22-2021 10:43 am	1.00	0.00 mL	0.00 mL	X102201.D	Liquid	Y	N/
2	CCV	CCV	10-22-2021 11:04 am	1.00	5.00 mL	0.00 mL	X102202a.D	Liquid	Y	N/
3	CCV	CCV	10-22-2021 11:25 am	1.00	5.00 mL	0.00 mL	X102203.D	Liquid	Y	N/
4	CCB	SAMP	10-22-2021 11:46 am	1.00	5.00 mL	0.00 mL	X102204.D	Liquid	Y	N/
5	VLCSW-211022	LCS	10-22-2021 12:07 pm	1.00	5.00 mL	0.00 mL	X102205.D	Liquid	Y	N/
6	BLANK	SAMP	10-22-2021 12:28 pm	1.00	5.00 mL	0.00 mL	X102206.D	Liquid	Y	N/
7	VBLKW-211022	MBLK	10-22-2021 12:49 pm	1.00	5.00 mL	0.00 mL	X102207.D	Liquid	Y	N/
8	HS21101069-01	SAMP	10-22-2021 01:10 pm	1.00	5.00 mL	0.00 mL	X102208.D	Liquid	Y	N/
9	HS21101069-02	SAMP	10-22-2021 01:31 pm	1.00	5.00 mL	0.00 mL	X102209.D	Liquid	Y	N/
10	HS21101118-07	SAMP	10-22-2021 01:52 pm	1.00	5.00 mL	0.00 mL	X102210.D	Liquid	Y	N/
11	HS21101072-01	SAMP	10-22-2021 02:13 pm	1.00	5.00 mL	0.00 mL	X102211.D	Liquid	Y	N/
12	HS21101100-03	SAMP	10-22-2021 02:35 pm	1.00	5.00 mL	0.00 mL	X102212.D	Liquid	Y	N/
13	HS21101118-03	SAMP	10-22-2021 02:56 pm	1.00	5.00 mL	0.00 mL	X102213.D	Liquid	Y	N/
14	HS21101100-03MS	MS	10-22-2021 03:17 pm	1.00	5.00 mL	0.00 mL	X102214.D	Liquid	Y	N/
15	HS21101100-03MSD	MSD	10-22-2021 03:38 pm	1.00	5.00 mL	0.00 mL	X102215.D	Liquid	Y	N/
16	HS21101118-03MS	MS	10-22-2021 03:59 pm	1.00	5.00 mL	0.00 mL	X102216.D	Liquid	Y	N/
17	HS21101118-03MSD	MSD	10-22-2021 04:20 pm	1.00	5.00 mL	0.00 mL	X102217.D	Liquid	Y	N/
18	HS21100785-04	SAMP	10-22-2021 04:41 pm	100.0(	5.00 mL	0.00 mL	X102218.D	Liquid	Y	N/
19	HS21101100-01	SAMP	10-22-2021 05:02 pm	1.00	5.00 mL	0.00 mL	X102219.D	Liquid	Y	N/
20	HS21101100-02	SAMP	10-22-2021 05:23 pm	1.00	5.00 mL	0.00 mL	X102220.D	Liquid	Y	N/
21	HS21101118-01	SAMP	10-22-2021 05:44 pm	1.00	5.00 mL	0.00 mL	X102221.D	Liquid	Y	N/
22	HS21101118-02	SAMP	10-22-2021 06:05 pm	1.00	5.00 mL	0.00 mL	X102222.D	Liquid	Y	N/
23	HS21101118-04	SAMP	10-22-2021 06:26 pm	1.00	5.00 mL	0.00 mL	X102223.D	Liquid	Y	N/
24	HS21101118-05	SAMP	10-22-2021 06:47 pm	1.00	5.00 mL	0.00 mL	X102224.D	Liquid	Y	N/
25	HS21101118-06	SAMP	10-22-2021 07:08 pm	1.00	5.00 mL	0.00 mL	X102225.D	Liquid	Y	N/
26	HS21101118-08	SAMP	10-22-2021 07:29 pm	1.00	5.00 mL	0.00 mL	X102226.D	Liquid	Y	N/
27	HS21101118-09	SAMP	10-22-2021 07:50 pm	1.00	5.00 mL	0.00 mL	X102227.D	Liquid	Y	N/
28	HS21101118-10	SAMP	10-22-2021 08:11 pm	1.00	5.00 mL	0.00 mL	X102228.D	Liquid	Y	N/
29	HS21101118-11	SAMP	10-22-2021 08:33 pm	1.00	5.00 mL	0.00 mL	X102229.D	Liquid	Y	N/
30	HS21101118-12	SAMP	10-22-2021 08:54 pm	1.00	5.00 mL	0.00 mL	X102230.D	Liquid	Y	N/
31	HS21101120-02	SAMP	10-22-2021 09:15 pm	1.00	5.00 mL	0.00 mL	X102231.D	Liquid	Y	N/
32	CCV-END	CCV	10-22-2021 09:36 pm	1.00	5.00 mL	0.00 mL	X102232.D	Liquid	Y	N/
33	BFB	BFB	10-22-2021 09:57 pm	1.00	0.00 mL	0.00 mL	Y102201.D	Liquid	Y	N/
34	CCV	CCV	10-22-2021 10:18 pm	1.00	5.00 mL	0.00 mL	Y102202a.D	Liquid	Y	N/
35	CCV	CCV	10-22-2021 10:38 pm	1.00	5.00 mL	0.00 mL	Y102203.D	Liquid	Y	N/
36	CCB	SAMP	10-22-2021 11:00 pm	1.00	5.00 mL	0.00 mL	Y102204.D	Liquid	Y	N/
37	VLCSW-211022	LCS	10-22-2021 11:21 pm	1.00	5.00 mL	0.00 mL	Y102205.D	Liquid	Y	N/
38	BLANK	SAMP	10-22-2021 11:42 pm	1.00	5.00 mL	0.00 mL	Y102206.D	Liquid	Y	N/
39	VBLKW-211022	MBLK	10-23-2021 12:03 am	1.00	5.00 mL	0.00 mL	Y102207.D	Liquid	Y	N/
40	HS21100881-08	SAMP	10-23-2021 12:24 am	1.00	5.00 mL	0.00 mL	Y102208.D	Liquid	Y	N/
41	HS21101144-10	SAMP	10-23-2021 12:45 am	1.00	5.00 mL	0.00 mL	Y102209.D	Liquid	Y	N/

MSVOA06 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
42	HS21100785-05	SAMP	10-23-2021 01:06 am	10.00	5.00 mL	0.00 mL	Y102210.D	Liquid	Y	N
43	HS21101144-10MS	MS	10-23-2021 01:27 am	1.00	5.00 mL	0.00 mL	Y102211.D	Liquid	Y	N
44	HS21101144-10MSD	MSD	10-23-2021 01:48 am	1.00	5.00 mL	0.00 mL	Y102212.D	Liquid	Y	N
45	HS21100785-05	SAMP	10-23-2021 02:09 am	100.0(	5.00 mL	0.00 mL	Y102213.D	Liquid	Y	N
46	HS21100881-01	SAMP	10-23-2021 02:30 am	1.00	5.00 mL	0.00 mL	Y102214.D	Liquid	Y	N
47	HS21100881-02	SAMP	10-23-2021 02:51 am	1.00	5.00 mL	0.00 mL	Y102215.D	Liquid	Y	N
48	HS21100881-03	SAMP	10-23-2021 03:12 am	1.00	5.00 mL	0.00 mL	Y102216.D	Liquid	Y	N
49	HS21100881-04	SAMP	10-23-2021 03:33 am	1.00	5.00 mL	0.00 mL	Y102217.D	Liquid	Y	N
50	HS21100881-05	SAMP	10-23-2021 03:54 am	1.00	5.00 mL	0.00 mL	Y102218.D	Liquid	Y	N
51	HS21100881-06	SAMP	10-23-2021 04:15 am	1.00	5.00 mL	0.00 mL	Y102219.D	Liquid	Y	N
52	HS21101144-01	SAMP	10-23-2021 04:36 am	1.00	5.00 mL	0.00 mL	Y102220.D	Liquid	Y	N
53	HS21101144-02	SAMP	10-23-2021 04:57 am	1.00	5.00 mL	0.00 mL	Y102221.D	Liquid	Y	N
54	HS21101144-03	SAMP	10-23-2021 05:19 am	1.00	5.00 mL	0.00 mL	Y102222.D	Liquid	Y	N
55	HS21101144-04	SAMP	10-23-2021 05:40 am	1.00	5.00 mL	0.00 mL	Y102223.D	Liquid	Y	N
56	HS21101144-05	SAMP	10-23-2021 06:01 am	1.00	5.00 mL	0.00 mL	Y102224.D	Liquid	Y	N
57	HS21101144-06	SAMP	10-23-2021 06:22 am	1.00	5.00 mL	0.00 mL	Y102225.D	Liquid	Y	N
58	HS21101144-07	SAMP	10-23-2021 06:43 am	1.00	5.00 mL	0.00 mL	Y102226.D	Liquid	Y	N
59	HS21101144-08	SAMP	10-23-2021 07:04 am	1.00	5.00 mL	0.00 mL	Y102227.D	Liquid	Y	N
60	HS21101144-09	SAMP	10-23-2021 07:25 am	1.00	5.00 mL	0.00 mL	Y102228.D	Liquid	Y	N
61	HS21101144-11	SAMP	10-23-2021 07:46 am	1.00	5.00 mL	0.00 mL	Y102229.D	Liquid	Y	N
62	CCV-END	CCV	10-23-2021 08:07 am	1.00	5.00 mL	0.00 mL	Y102230.D	Liquid	Y	N
63	BLANK	SAMP	10-23-2021 08:28 am	1.00	5.00 mL	0.00 mL	Y102231.D	Liquid	Y	N

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

	CLIENT SAMPLE NO.	SMC1 (DCE) #	SMC2 #	SMC3 #	OTHER (TOL) #	TOT OUT
01	VLCSW-211022	109	111	104	95	0
02	VBLKW-211022	100	98	100	100	0
03	HS21101144-10	97	96	101	100	0
04	HS21101144-10MS	94	93	102	96	0
05	HS21101144-10MSD	95	92	101	97	0
06	HS21101144-01	96	95	100	99	0
07	HS21101144-02	97	98	102	99	0
08	HS21101144-03	97	96	100	103	0
09	HS21101144-04	97	95	98	99	0
10	HS21101144-05	98	97	97	97	0
11	HS21101144-06	96	96	97	100	0
12	HS21101144-07	98	95	97	97	0
13	HS21101144-08	96	97	97	98	0
14	HS21101144-09	99	97	96	95	0
15	HS21101144-11	98	97	99	96	0
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						

		QC LIMITS
SMC1 (DCE)	= 1,2-Dichloroethane-d4	(0-130)
SMC2	= Dibromofluoromethane	(0-130)
SMC3	= 4-Bromofluorobenzene	(0-130)
OTHER(TOL)	= Toluene-d8	(0-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

VBLKW-211022

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Lab File ID: Y102207 Lab Sample ID: VBLKW-211022

Date Analyzed: 10/23/21 Time Analyzed: 0003

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSW-211022	VLCSW-211022	Y102205	2321
02	HS21101144-10	HS21101144-10	Y102209	0045
03	HS21101144-10MS	HS21101144-10MS	Y102211	0127
04	HS21101144-10MSD	HS21101144-10MSD	Y102212	0148
05	HS21101144-01	HS21101144-01	Y102220	0436
06	HS21101144-02	HS21101144-02	Y102221	0457
07	HS21101144-03	HS21101144-03	Y102222	0519
08	HS21101144-04	HS21101144-04	Y102223	0540
09	HS21101144-05	HS21101144-05	Y102224	0601
10	HS21101144-06	HS21101144-06	Y102225	0622
11	HS21101144-07	HS21101144-07	Y102226	0643
12	HS21101144-08	HS21101144-08	Y102227	0704
13	HS21101144-09	HS21101144-09	Y102228	0725
14	HS21101144-11	HS21101144-11	Y102229	0746
15				
16				
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30				

COMMENTS:

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Lab File ID: Y102201 BFB Injection Date: 10/22/21

Instrument ID: VOA6 BFB Injection Time: 2157

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.1
75	30.0 - 60.0% of mass 95	45.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1.3 (1.2)1
174	Greater than 50.0% of mass 95	105.1
175	5.0 - 9.0% of mass 174	8.1 (7.7)1
176	95.0 - 101.0% of mass 174	100.6 (95.7)1
177	5.0 - 9.0% of mass 176	6.6 (6.6)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	Y102203	10/22/21	2238
02	VLCSW-211022	VLCSW-211022	Y102205	10/22/21	2321
03	VBLKW-211022	VBLKW-211022	Y102207	10/23/21	0003
04	HS21101144-10	HS21101144-10	Y102209	10/23/21	0045
05	HS21101144-10MS	HS21101144-10MS	Y102211	10/23/21	0127
06	HS21101144-10MSD	HS21101144-10MSD	Y102212	10/23/21	0148
07	HS21101144-01	HS21101144-01	Y102220	10/23/21	0436
08	HS21101144-02	HS21101144-02	Y102221	10/23/21	0457
09	HS21101144-03	HS21101144-03	Y102222	10/23/21	0519
10	HS21101144-04	HS21101144-04	Y102223	10/23/21	0540
11	HS21101144-05	HS21101144-05	Y102224	10/23/21	0601
12	HS21101144-06	HS21101144-06	Y102225	10/23/21	0622
13	HS21101144-07	HS21101144-07	Y102226	10/23/21	0643
14	HS21101144-08	HS21101144-08	Y102227	10/23/21	0704
15	HS21101144-09	HS21101144-09	Y102228	10/23/21	0725
16	HS21101144-11	HS21101144-11	Y102229	10/23/21	0746
17	CCV-END	CCV-END	Y102230	10/23/21	0807
18					
19					
20					
21					
22					

FORM V VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Instrument ID: VOA6 Calibration Date: 10/22/21 Time: 2238

Lab File ID: Y102203 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	58.053382	50.000000	0.5046419	0.1	-16.11	20.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2632155	0.2632155	0.1	1.42	20.00	AVRG
Trichloroethene	0.3780000	0.3737733	0.3737733	0.2	1.12	20.00	AVRG
Vinyl Chloride	0.5240000	0.4889596	0.4889596	0.1	6.69	20.00	AVRG
1,1-Dichloroethene	0.4460000	0.4338378	0.4338378	0.1	2.73	20.00	AVRG
1,2-Dichloroethane	0.4190000	0.4244280	0.4244280	0.1	-1.30	20.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.5571767	0.5571767	0.1	-7.15	20.00	AVRG
1,2-Dichloroethane-d4	55.262366	50.000000	0.5477975	0.1	-10.52	20.00	LINR
Dibromofluoromethane	53.886870	50.000000	0.5281069	0.1	-7.77	20.00	LINR
4-Bromofluorobenzene	50.430047	50.000000	0.4403561	0.1	-0.86	20.00	LINR
Toluene-d8	1.2690000	1.1597129	1.1597129	0.1	8.61	20.00	AVRG

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Instrument ID: VOA6 Calibration Date: 10/23/21 Time: 0807

Lab File ID: Y102230 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	56.780632	50.000000	0.4938146	0.1	-13.56	50.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2706202	0.2706202	0.1	-1.36	50.00	AVRG
Trichloroethene	0.3780000	0.3749428	0.3749428	0.2	0.81	50.00	AVRG
Vinyl Chloride	0.5240000	0.5018019	0.5018019	0.1	4.24	50.00	AVRG
1,1-Dichloroethene	0.4460000	0.4468975	0.4468975	0.1	-0.20	50.00	AVRG
1,2-Dichloroethane	0.4190000	0.4200821	0.4200821	0.1	-0.26	50.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.5585789	0.5585789	0.1	-7.42	50.00	AVRG
1,2-Dichloroethane-d4	54.547410	50.000000	0.5409619	0.1	-9.09	50.00	LINR
Dibromofluoromethane	54.646112	50.000000	0.5353935	0.1	-9.29	50.00	LINR
4-Bromofluorobenzene	51.560672	50.000000	0.4499679	0.1	-3.12	50.00	LINR
Toluene-d8	1.2690000	1.1850777	1.1850777	0.1	6.61	50.00	AVRG

FORM VII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Lab File ID (Standard): Y102203 Date Analyzed: 10/22/21

Instrument ID: VOA6 Time Analyzed: 2238

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1(DCB) AREA #	RT #	IS2(CBZ) AREA #	RT #	IS3(DFB) AREA #	RT #
	12 HOUR STD	241833	9.66	475447	7.67	496341	4.96
	UPPER LIMIT	483666	10.16	950894	8.17	992682	5.46
	LOWER LIMIT	120917	9.16	237724	7.17	248171	4.46
	CLIENT SAMPLE NO.						
01	VLCSW-211022	242376	9.66	472530	7.67	502348	4.96
02	VBLKW-211022	243199	9.66	514915	7.67	580225	4.96
03	HS21101144-10	246016	9.66	511042	7.67	580274	4.96
04	HS21101144-10MS	273265	9.66	542462	7.67	599713	4.96
05	HS21101144-10MSD	267399	9.66	542436	7.67	605731	4.96
06	HS21101144-01	251806	9.66	521047	7.67	580211	4.96
07	HS21101144-02	259134	9.66	513784	7.67	576286	4.96
08	HS21101144-03	239433	9.66	498000	7.67	577308	4.96
09	HS21101144-04	241772	9.66	511500	7.67	575471	4.96
10	HS21101144-05	245490	9.66	527207	7.67	578022	4.96
11	HS21101144-06	238482	9.66	509763	7.67	565747	4.96
12	HS21101144-07	247437	9.66	525839	7.67	576799	4.96
13	HS21101144-08	244151	9.66	516082	7.67	568207	4.96
14	HS21101144-09	239629	9.66	519187	7.67	570729	4.96
15	HS21101144-11	255060	9.66	522805	7.67	575927	4.96
16							
17							
18							
19							
20							

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

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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Lab File ID (Standard): Y102203 Date Analyzed: 10/22/21

Instrument ID: VOA6 Time Analyzed: 2238

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

	CLIENT SAMPLE NO.	IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	325080	4.18				
	UPPER LIMIT	650160	4.68				
	LOWER LIMIT	162540	3.68				
01	VLCSW-211022	325777	4.18				
02	VBLKW-211022	407299	4.18				
03	HS21101144-10	407992	4.18				
04	HS21101144-10MS	435726	4.18				
05	HS21101144-10MSD	437807	4.18				
06	HS21101144-01	413382	4.18				
07	HS21101144-02	410711	4.18				
08	HS21101144-03	411601	4.18				
09	HS21101144-04	407834	4.18				
10	HS21101144-05	410144	4.18				
11	HS21101144-06	405842	4.18				
12	HS21101144-07	411939	4.18				
13	HS21101144-08	403964	4.18				
14	HS21101144-09	402970	4.18				
15	HS21101144-11	406109	4.18				
16							
17							
18							
19							
20							

IS4 = Pentafluorobenzene

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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102201.D

Date : 22-OCT-2021 21:57

Client ID: BFB

Instrument: voa6.i

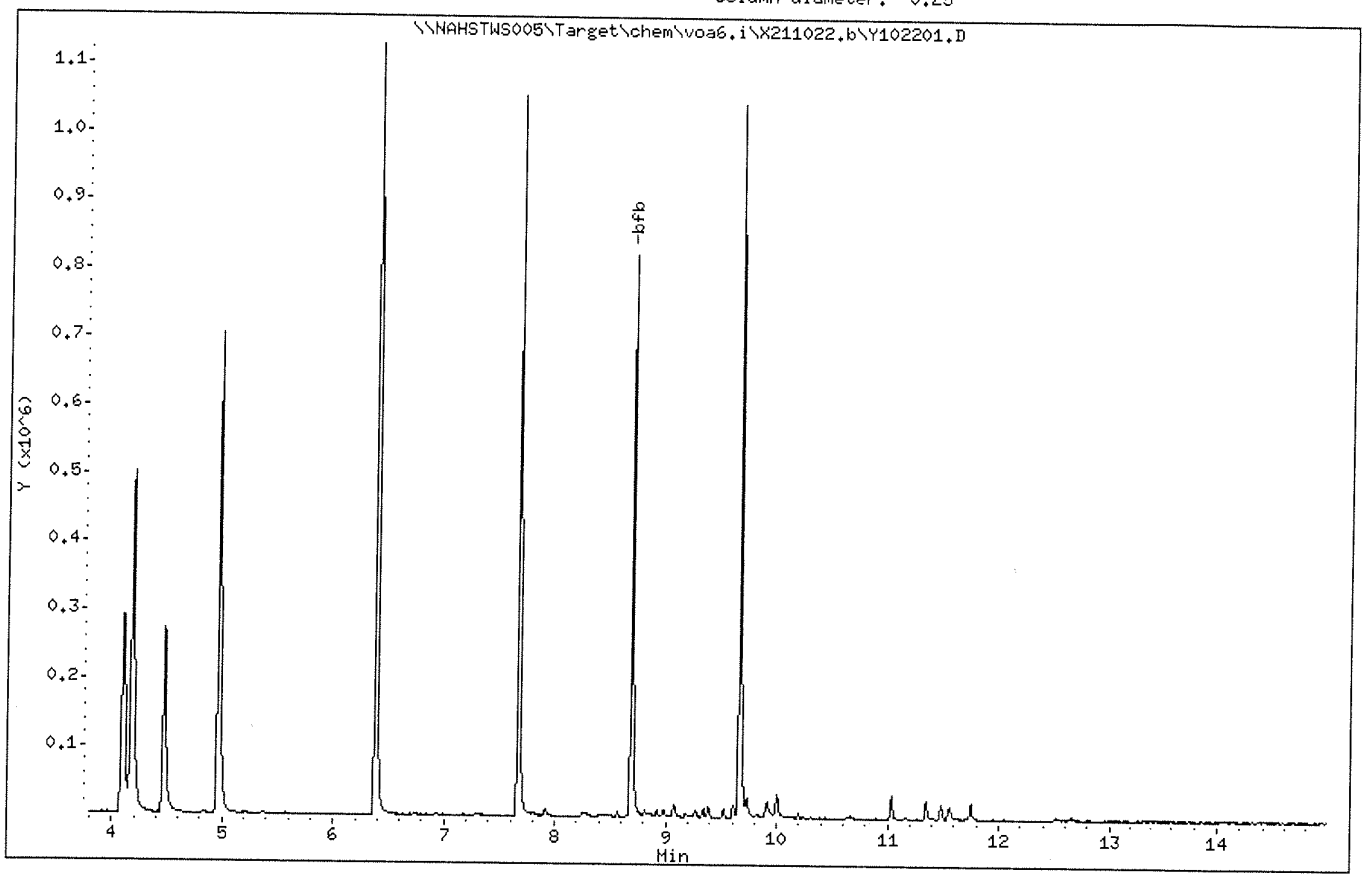
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102201.D

Date : 22-OCT-2021 21:57

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

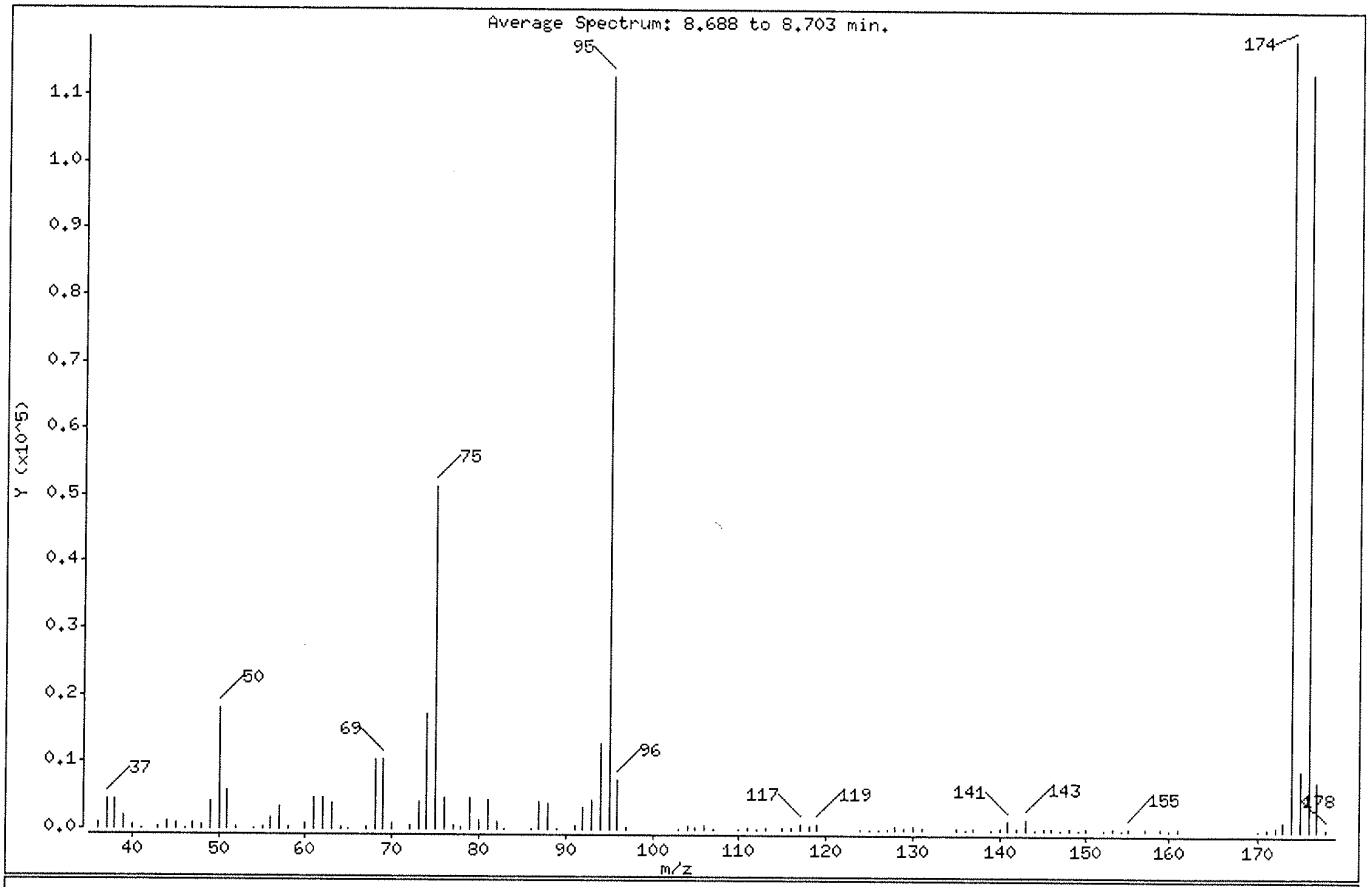
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.10
75	30.00 - 60.00% of mass 95	45.43
96	5.00 - 9.00% of mass 95	6.47
173	Less than 2.00% of mass 174	1.26 (1.20)
174	Greater than 50.00% of mass 95	105.11
175	5.00 - 9.00% of mass 174	8.09 (7.70)
176	95.00 - 101.00% of mass 174	100.62 (95.73)
177	5.00 - 9.00% of mass 176	6.61 (6.57)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102201.D

Date : 22-OCT-2021 21:57

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: Y102201.D
Spectrum: Average Spectrum: 8.688 to 8.703 min.
Location of Maximum: 174.00
Number of points: 108

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	880	68.00	10250	105.00	205	144.00	50
37.00	4421	69.00	10439	106.00	565	145.00	159
38.00	4321	70.00	943	107.00	96	146.00	274
39.00	1813	72.00	477	110.00	79	147.00	52
40.00	535	73.00	4215	111.00	212	148.00	273
41.00	61	74.00	17272	112.00	33	149.00	54
43.00	151	75.00	51200	113.00	158	150.00	139
44.00	1141	76.00	4633	115.00	172	152.00	29
45.00	814	77.00	582	116.00	396	153.00	139
46.00	67	78.00	385	117.00	798	154.00	51
47.00	846	79.00	4543	118.00	422	155.00	353
48.00	576	80.00	1312	119.00	706	157.00	305
49.00	4111	81.00	4275	124.00	111	159.00	166
50.00	18136	82.00	957	125.00	40	160.00	86
51.00	5645	83.00	68	126.00	57	161.00	145
52.00	222	86.00	44	127.00	40	170.00	90
54.00	33	87.00	4098	128.00	521	171.00	214
55.00	405	88.00	3905	129.00	272	172.00	418
56.00	1681	89.00	27	130.00	510	173.00	1424
57.00	3209	91.00	518	131.00	215	174.00	118456
58.00	166	92.00	3259	135.00	235	175.00	9123
60.00	885	93.00	4491	136.00	41	176.00	113408
61.00	4732	94.00	12715	137.00	200	177.00	7452
62.00	4773	95.00	112704	139.00	65	178.00	187
63.00	3896	96.00	7287	140.00	147		
64.00	303	97.00	274	141.00	1396		
65.00	93	103.00	56	142.00	194		
67.00	317	104.00	516	143.00	1526		

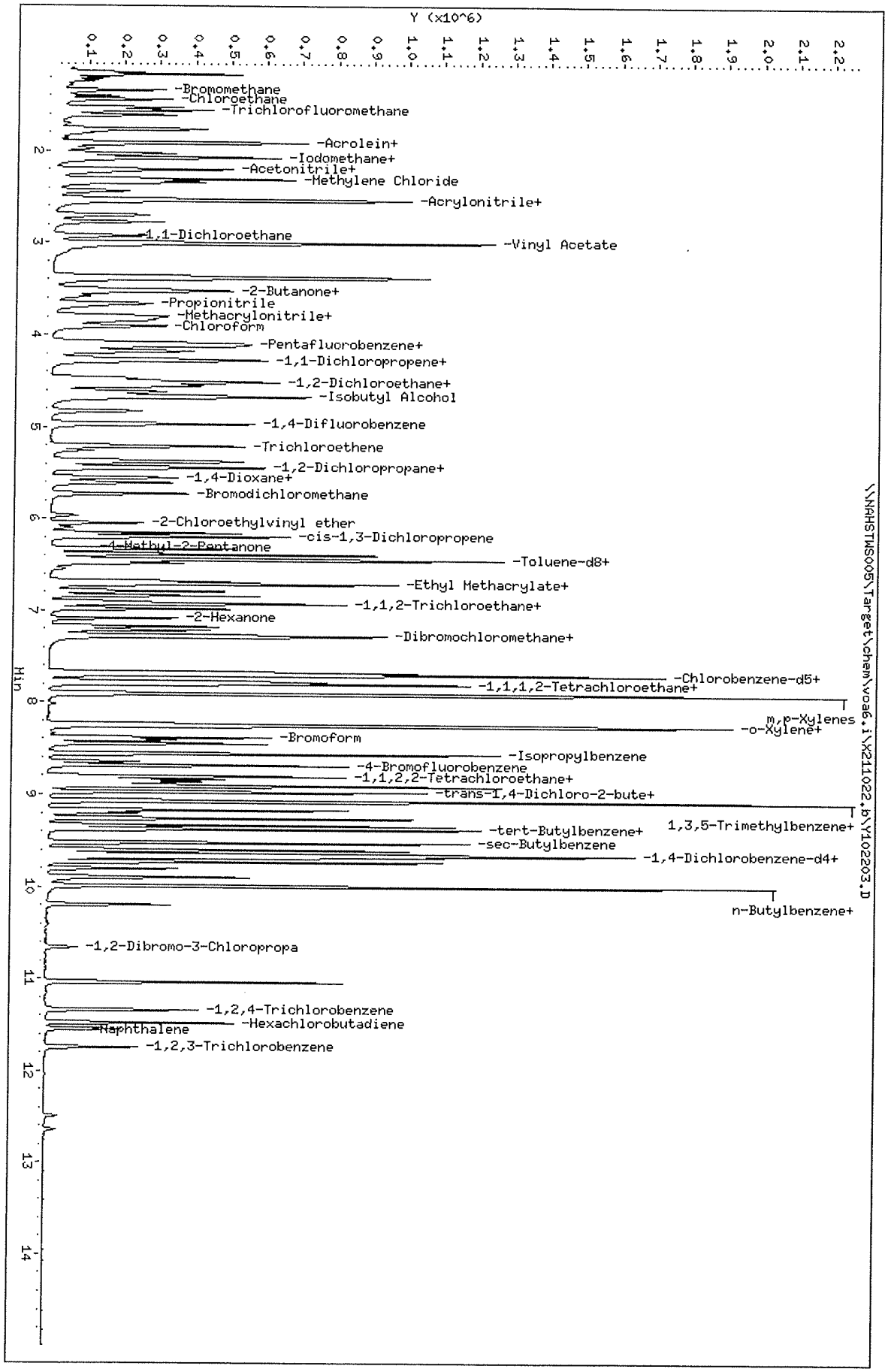
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102203.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 22-OCT-2021 22:38
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:36 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 32 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	325080	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	496341	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	475447	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	241833	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	171677	50.0000	53.88
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	178078	50.0000	55.26
$ 48 Toluene-d8	98	6.389	6.389	(0.833)	551382	50.0000	45.69
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	209366	50.0000	50.43
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	141032	50.0000	48.63
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	210661	50.0000	50.59
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	181127	50.0000	53.59
17 Methylene Chloride	84	2.306	2.306	(0.551)	164049	50.0000	58.05
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	125145	50.0000	49.32
38 Trichloroethene	130	5.207	5.207	(1.049)	185519	50.0000	49.41
5 Vinyl Chloride	62	1.145	1.145	(0.274)	158951	50.0000	46.63



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102203.D
Date : 22-OCT-2021 22:38
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102205.D Page 1
Report Date: 15-Nov-2021 15:36

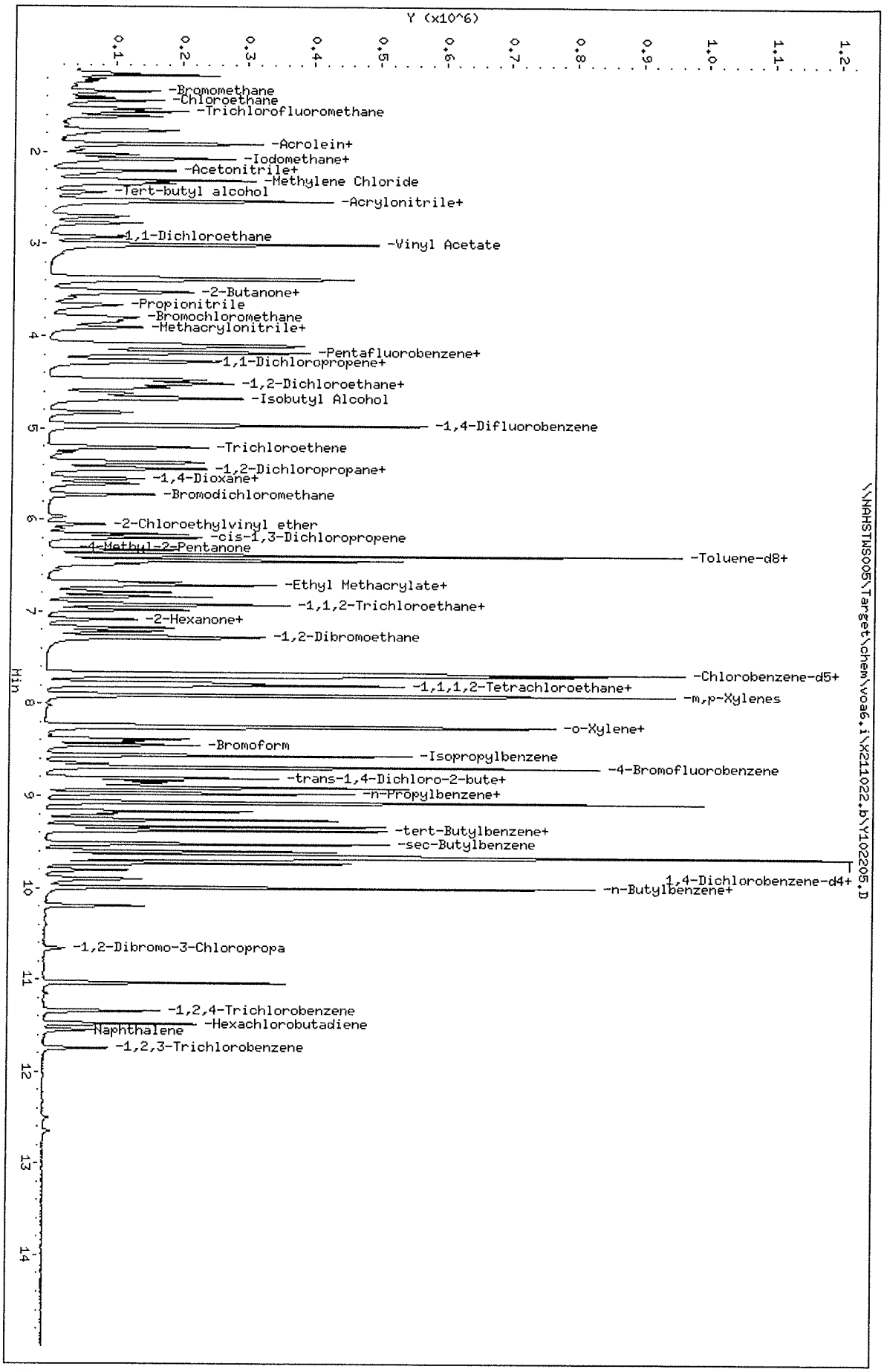
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102205.D
Lab Smp Id: VLCSW-211022 Client Smp ID: VLCSW-211022
Inj Date : 22-OCT-2021 23:21
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-211022;VLCSW-211022;3;;LCS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:36 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 34 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	325777	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	502348	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	472530	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	242376	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	177232	55.5459	55.54
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	176212	54.5407	54.54
$	48 Toluene-d8	98	6.388	6.389	(0.833)	568156	47.3784	47.37
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	215179	52.1969	52.19
	11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	61711	21.2357	21.23
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	91523	21.7194	21.71
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	76454	22.5732	22.57
	17 Methylene Chloride	84	2.305	2.306	(0.551)	69568	23.8351	23.83
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	52377	20.7726	20.77
	38 Trichloroethene	130	5.206	5.207	(1.049)	81294	21.3940	21.39
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	72147	21.1228	21.12



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102205.D
Date : 22-OCT-2021 23:21
Client ID: VLCSW-211022
Sample Info: VLCSW-211022;VLCSW-211022;3;;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102207.D Page 1
Report Date: 15-Nov-2021 15:36

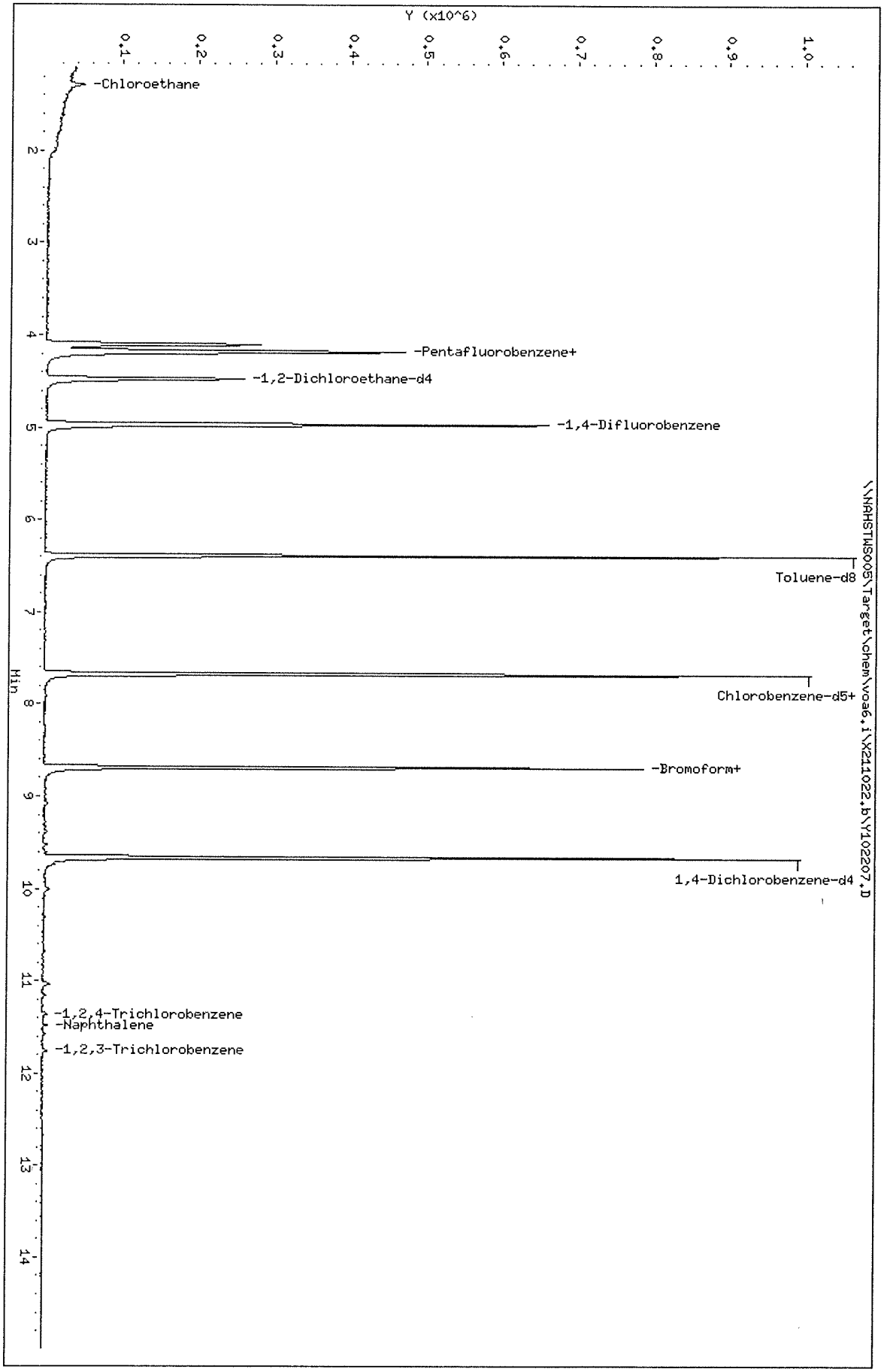
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102207.D
Lab Smp Id: VBLKW-211022 Client Smp ID: VBLKW-211022
Inj Date : 23-OCT-2021 00:03
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-211022;VBLKW-211022;3;;BLANK
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:36 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 36 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	407299	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	580225	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	514915	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	243199	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.096	(0.981)	195648	48.9112	48.91
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	201812	49.7912	49.79
$	48 Toluene-d8	98	6.388	6.389	(0.833)	651498	49.8563	49.85
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	224993	50.0296	50.02



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102207.D
Date : 23-OCT-2021 00:03
Client ID: VBLKW-211022
Sample Info: VBLKW-211022;VBLKW-211022;3;;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102209.D Page 1
Report Date: 15-Nov-2021 15:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102209.D
Lab Smp Id: HS21101144-10 Client Smp ID: HS21101144-10
Inj Date : 23-OCT-2021 00:45
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-10;HS21101144-10;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:27 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 38
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

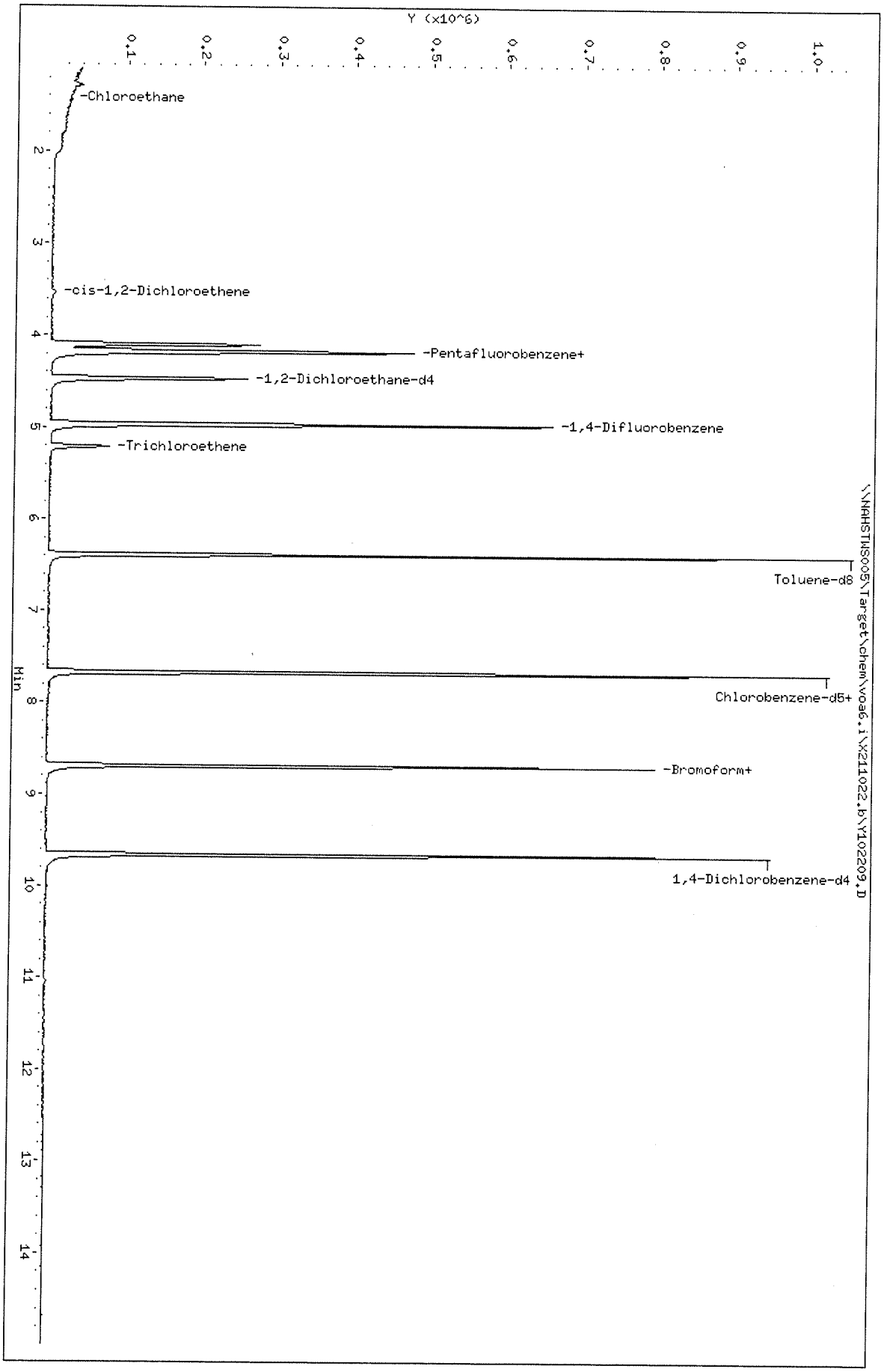
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	407992	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	580274	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	511042	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	246016	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	192446	48.0084	48.00
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	197887	48.6969	48.69
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	649346	50.0682	50.06
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	225615	50.5623	50.56
27 cis-1,2-Dichloroethene	96	3.537	3.530	(0.846)	3214	0.75772	0.75(a)
38 Trichloroethene	130	5.214	5.206	(1.051)	27223	6.20213	6.20

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102209.D
Date : 23-OCT-2021 00:45
Client ID: HS2101144-10
Sample Info: HS2101144-10;HS2101144-10;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102209.D

Date : 23-OCT-2021 00:45

Client ID: HS21101144-10

Instrument: voa6.i

Sample Info: HS21101144-10;HS21101144-10;;;

Purge Volume: 5.0

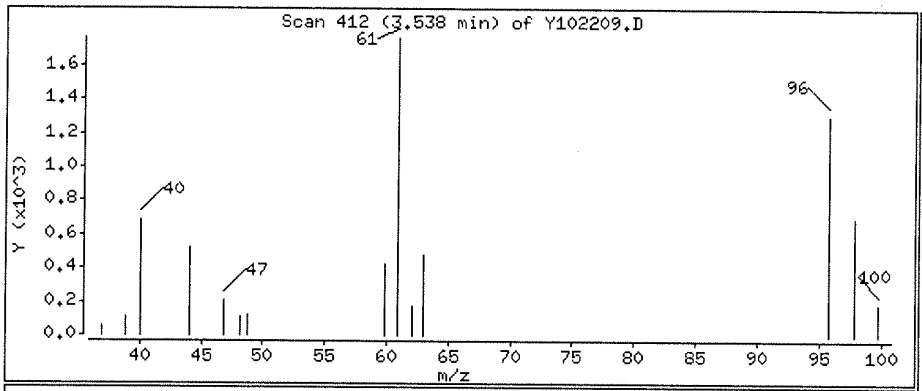
Operator: PC

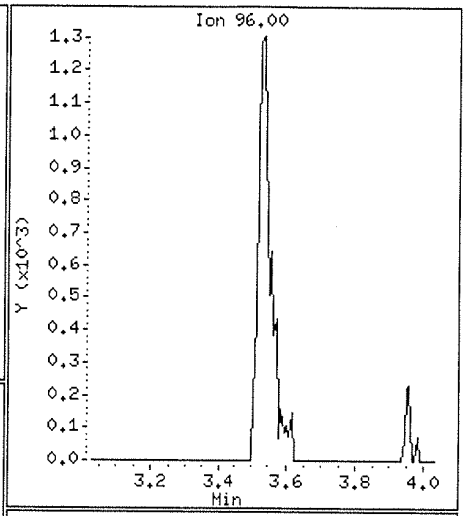
Column phase: DB624

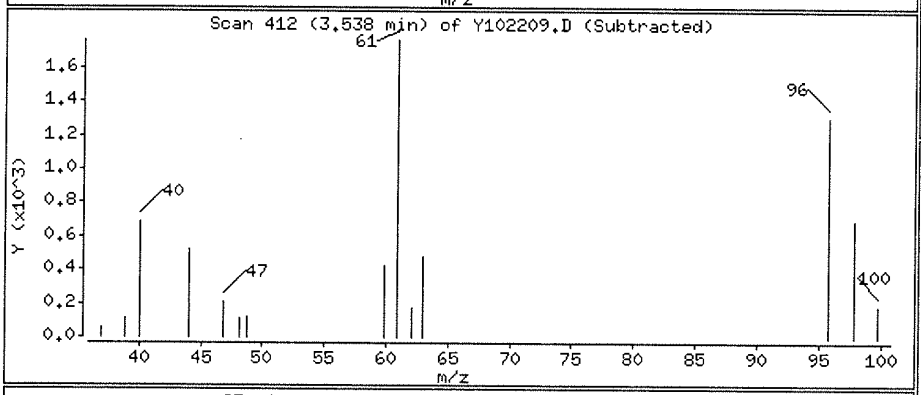
Column diameter: 0.18

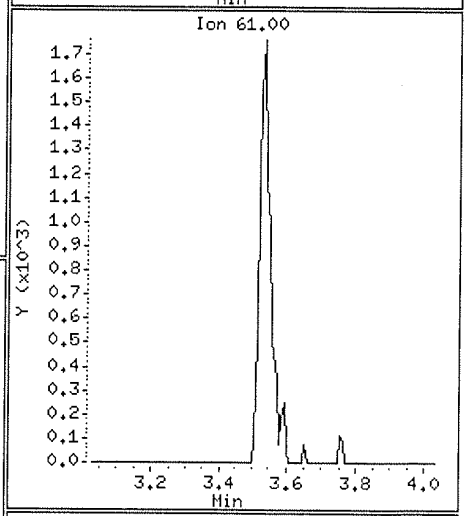
27 cis-1,2-Dichloroethene

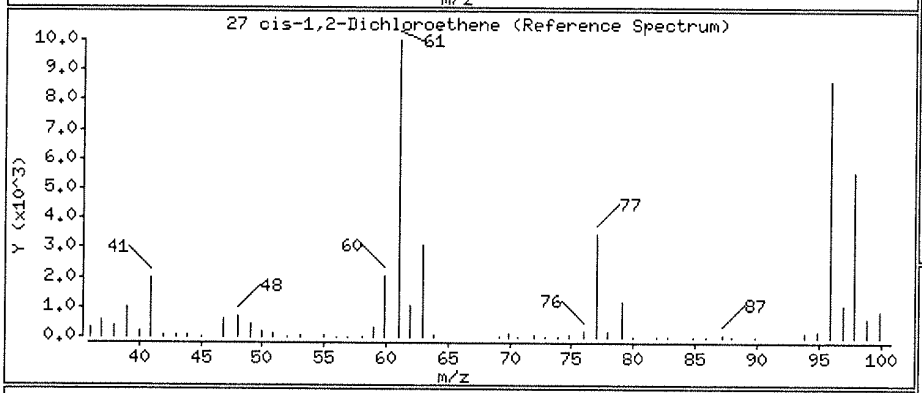
Concentration: 0.75 ug/l

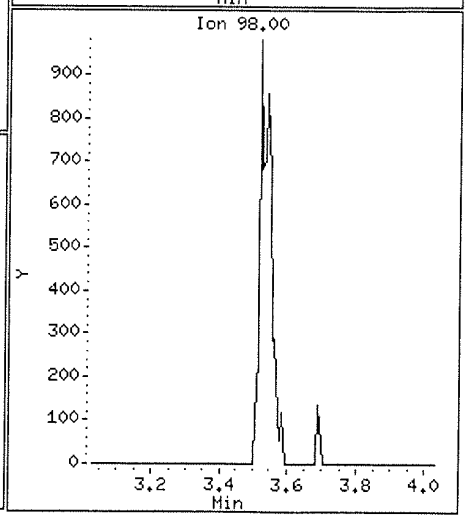


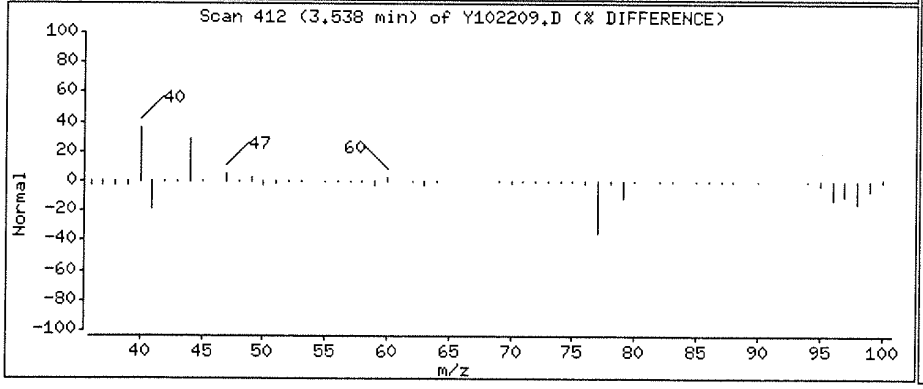












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102209.D

Date : 23-OCT-2021 00:45

Client ID: HS21101144-10

Instrument: voa6.i

Sample Info: HS21101144-10;HS21101144-10;;;

Purge Volume: 5.0

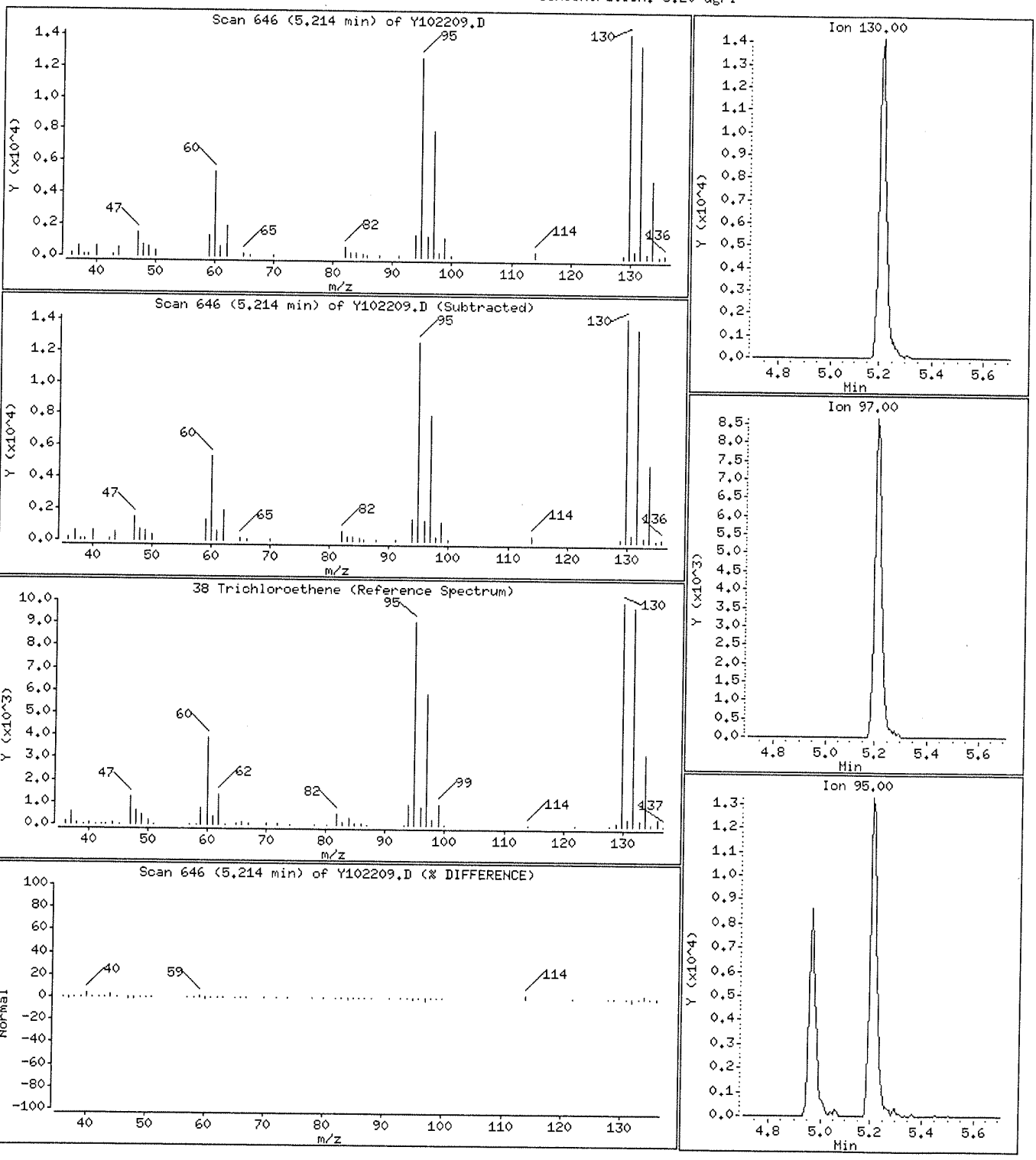
Operator: PC

Column phase: DB624

Column diameter: 0.18

38 Trichloroethene

Concentration: 6.20 ug/l



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102211.D Page 1
Report Date: 15-Nov-2021 15:36

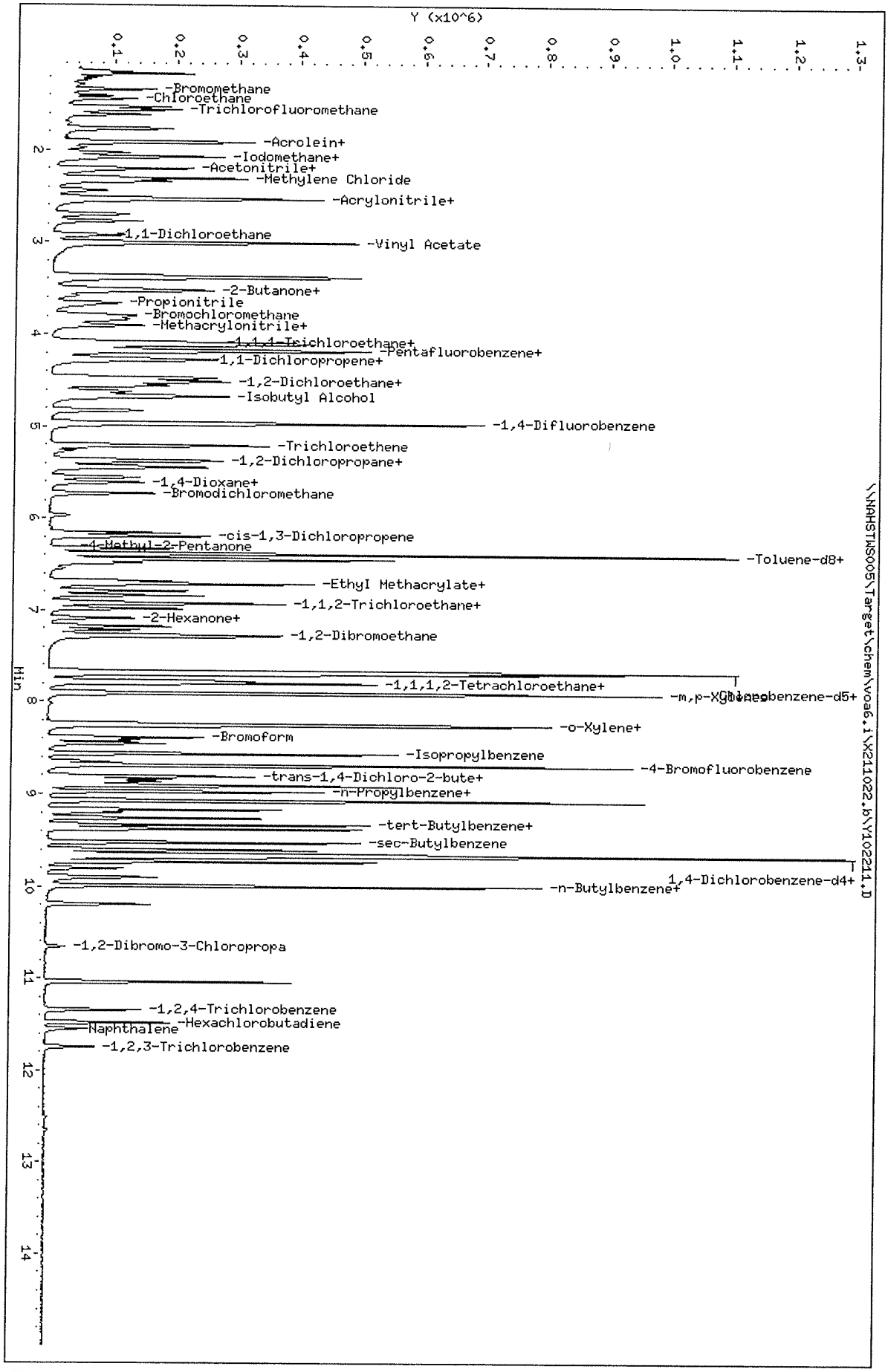
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102211.D
Lab Smp Id: HS21101144-10MS Client Smp ID: HS21101144-10MS
Inj Date : 23-OCT-2021 01:27
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-10MS;HS21101144-10MS;3;;MS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:36 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 40 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	435726	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	599713	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	542462	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	273265	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	199838	46.6478	46.64
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	204687	47.1002	47.10
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	664581	48.2749	48.27
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	242375	51.1887	51.18
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	61722	15.8800	15.88
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	88811	17.6541	17.65
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	100974	22.2899	22.28
17 Methylene Chloride	84	2.306	2.306	(0.551)	67667	16.9881	16.98
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	51687	17.8563	17.85
38 Trichloroethene	130	5.207	5.207	(1.049)	115804	25.5281	25.52
5 Vinyl Chloride	62	1.145	1.145	(0.274)	64759	14.1756	14.17



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102211.D
Date : 23-OCT-2021 01:27
Client ID: HS21101144-10MS
Sample Info: HS21101144-10MS;HS21101144-10MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102212.D Page 1
Report Date: 15-Nov-2021 15:36

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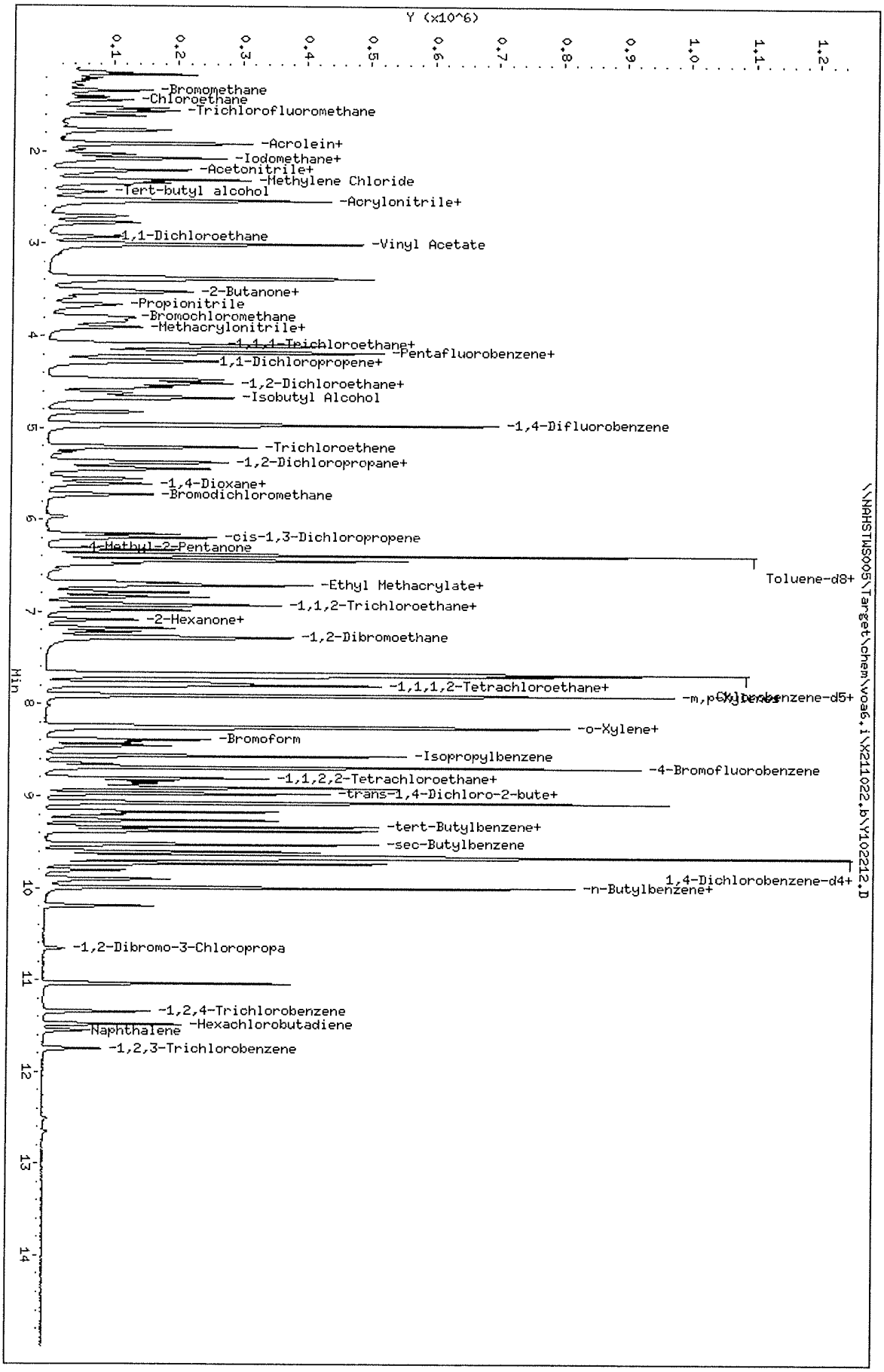
Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102212.D
Lab Smp Id: HS21101144-10MSD Client Smp ID: HS21101144-10MSD
Inj Date : 23-OCT-2021 01:48
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-10MSD;HS21101144-10MSD;3;;MSD
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:36 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 40 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	437807	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	605731	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	542436	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	267399	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	199106	46.2464	46.24
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	207562	47.5535	47.55
$ 48 Toluene-d8	98	6.388	6.389	(0.833)	670638	48.7172	48.71
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	239794	50.6315	50.63
11 1,1-Dichloroethene	96	1.919	1.912	(0.459)	62052	15.8890	15.88
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	91446	17.9973	17.99
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	83386	18.3199	18.31
17 Methylene Chloride	84	2.305	2.306	(0.551)	69041	17.2702	17.27
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	54112	18.6949	18.69
38 Trichloroethene	130	5.206	5.207	(1.049)	110244	24.0610	24.06
5 Vinyl Chloride	62	1.145	1.145	(0.274)	65542	14.2788	14.27



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102212.D
Date : 23-OCT-2021 01:48
Client ID: HS21101144-10HSD
Sample Info: HS21101144-10HSD;HS21101144-10HSD;3;;HSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102220.D
Lab Smp Id: HS21101144-01 Client Smp ID: HS21101144-01
Inj Date : 23-OCT-2021 04:36
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-01;HS21101144-01;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:27 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 48
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

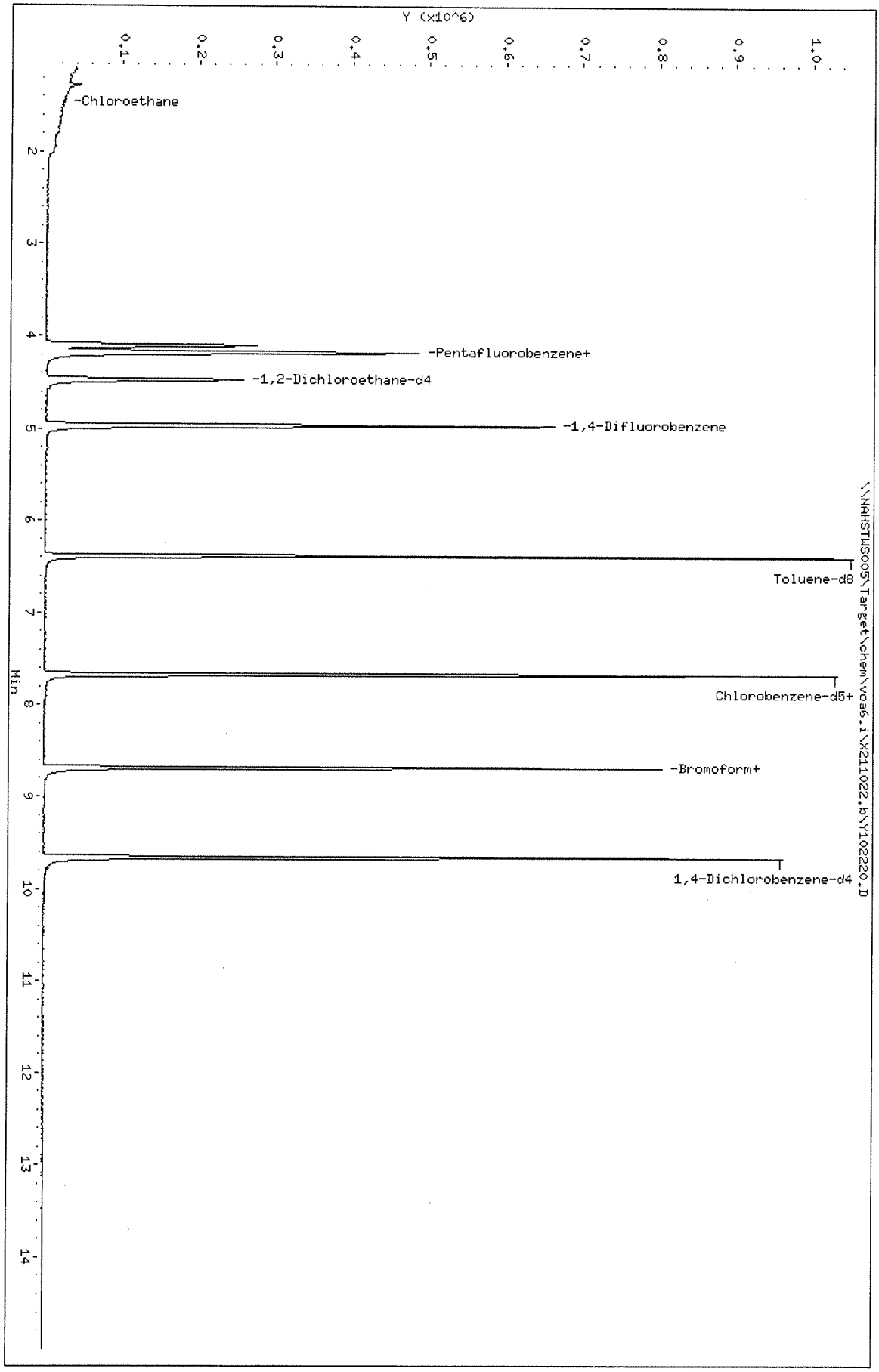
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	413382	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	580211	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	521047	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	251806	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	192454	47.3696	47.36
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	197070	47.8287	47.82
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	652135	49.3177	49.31
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	226704	49.8110	49.81

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102220.D
Date : 23-OCT-2021 04:36
Client ID: HS21101144-01
Sample Info: HS21101144-01;HS21101144-01;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102221.D Page 1
Report Date: 15-Nov-2021 15:32

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102221.D
Lab Smp Id: HS21101144-02 Client Smp ID: HS21101144-02
Inj Date : 23-OCT-2021 04:57
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-02;HS21101144-02;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:27 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 49
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

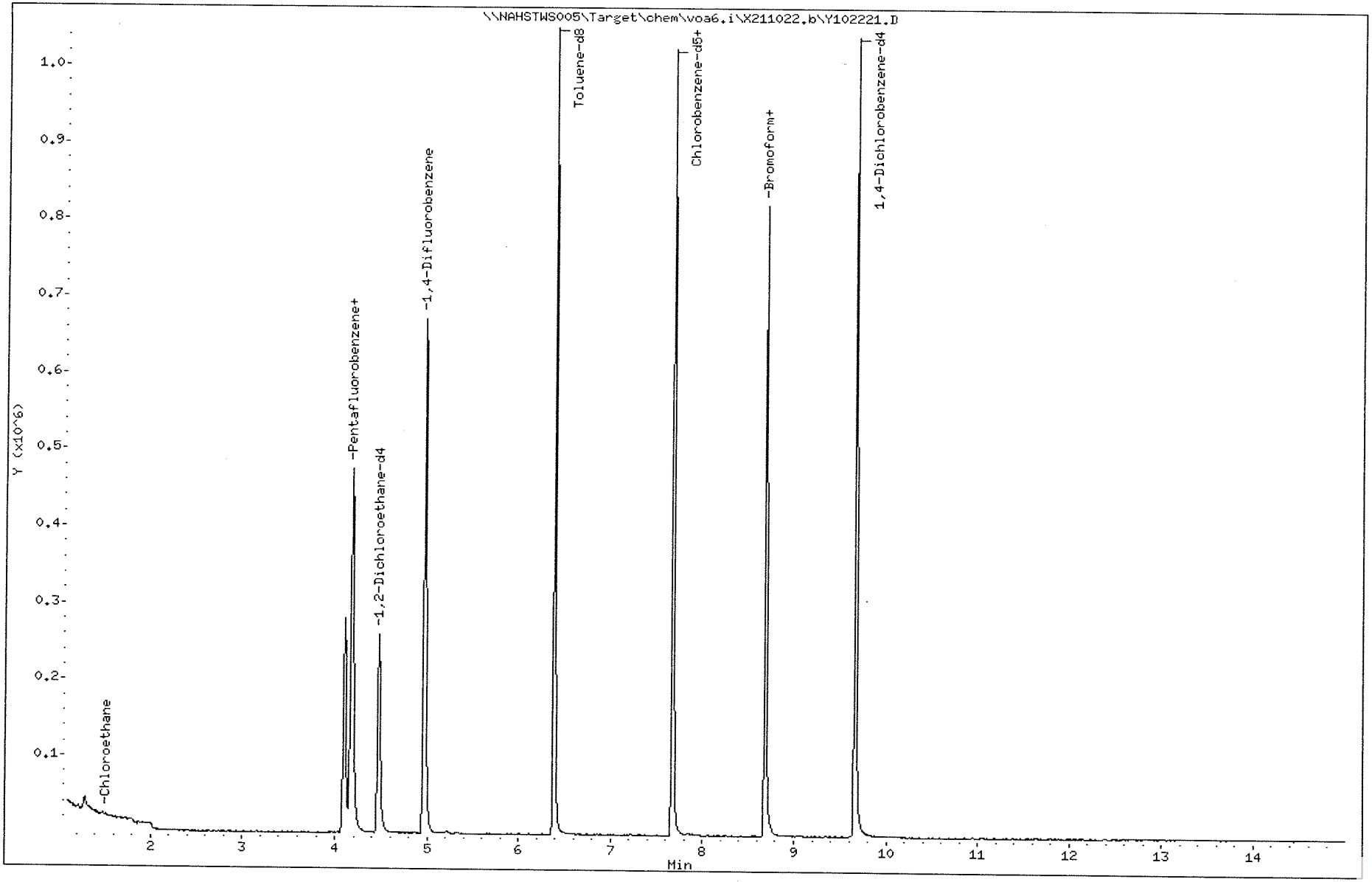
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	410711	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	576286	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	513784	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	259134	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	196823	48.7935	48.79
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	197662	48.3038	48.30
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	648200	49.7131	49.71
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	229373	51.1455	51.14

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102221.D
Date : 23-OCT-2021 04:57
Client ID: HS21101144-02
Sample Info: HS21101144-02;HS21101144-02;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i

Operator: PC
Column diameter: 0.18



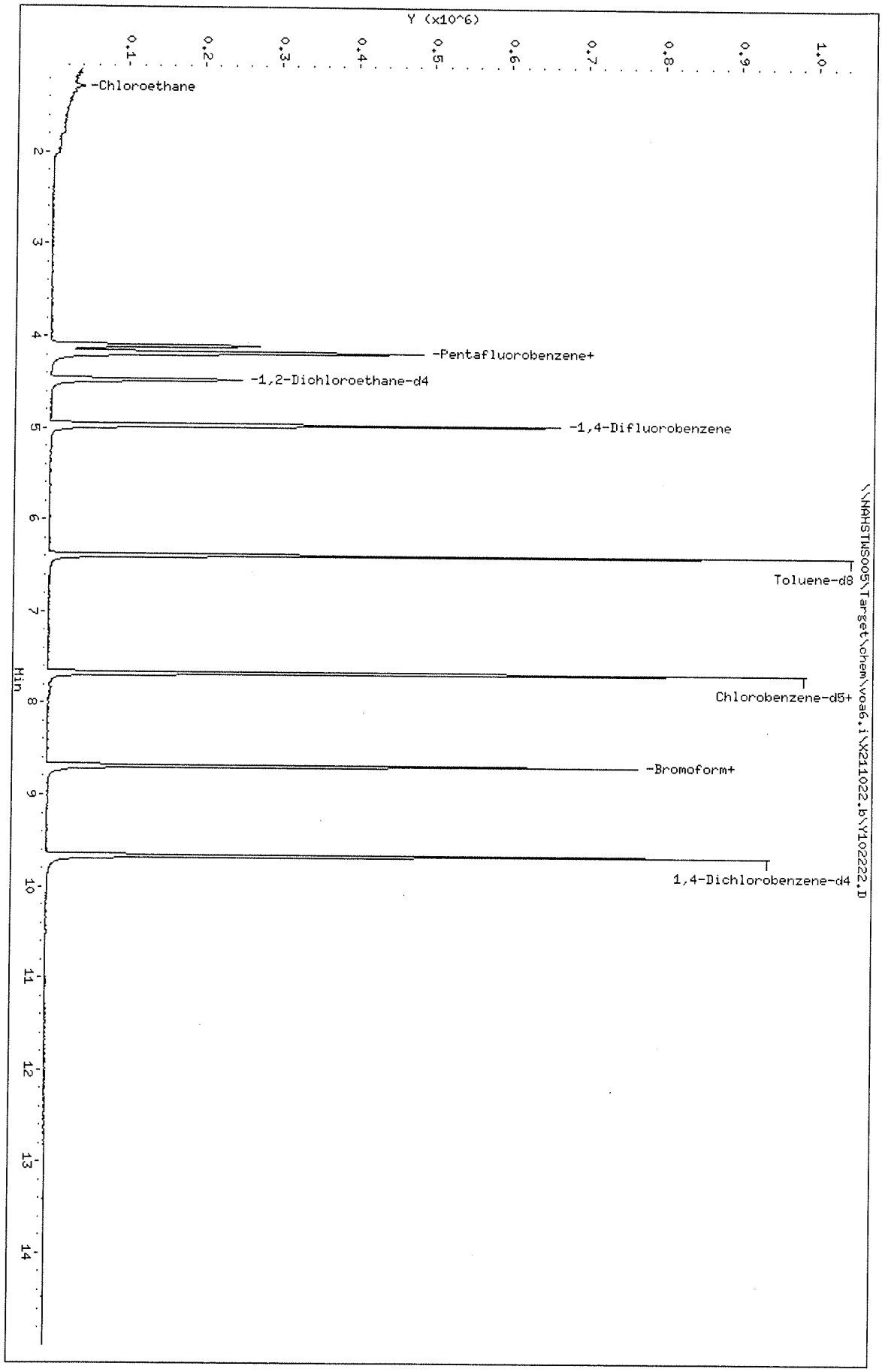
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102222.D
Lab Smp Id: HS21101144-03 Client Smp ID: HS21101144-03
Inj Date : 23-OCT-2021 05:19
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-03;HS21101144-03;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:27 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 50
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	411601	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	577308	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	498000	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	239433	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	193132	47.7512	47.75
$ 35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.069)	198503	48.4086	48.40
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	651339	51.5371	51.53
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	217714	50.0561	50.05



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Date : 23-OCT-2021 05:19
Client ID: HS21101144-03
Sample Info: HS21101144-03;HS21101144-03;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

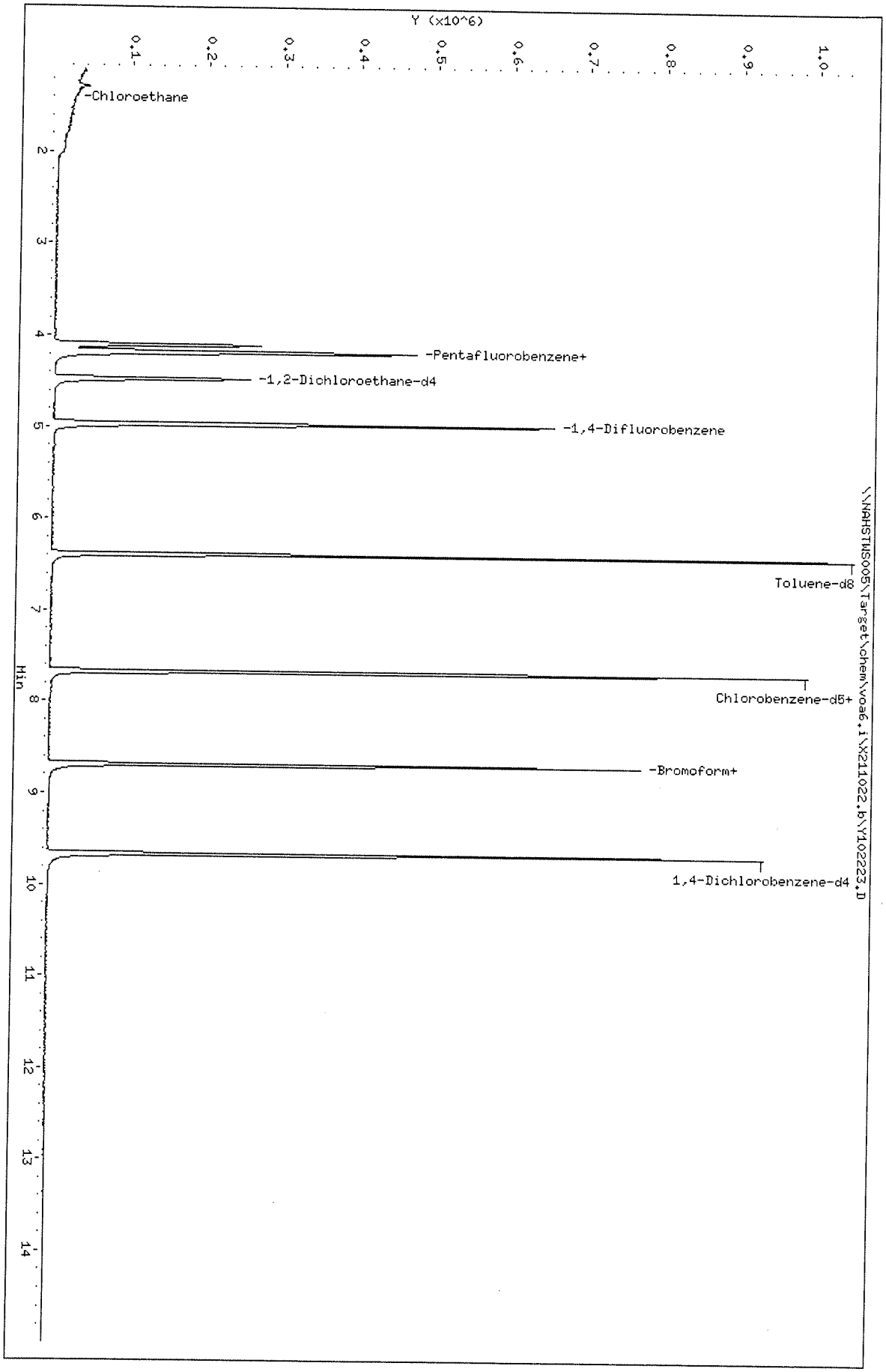
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102223.D
Lab Smp Id: HS21101144-04 Client Smp ID: HS21101144-04
Inj Date : 23-OCT-2021 05:40
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-04;HS21101144-04;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:27 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 51
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	407834	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	575471	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	511500	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	241772	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	189992	47.4005	47.40
$ 35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.069)	197432	48.5999	48.59
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	644948	49.6846	49.68
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	218922	48.9766	48.97



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Date : 23-OCT-2021 05:40
Client ID: HS21101144-04
Sample Info: HS21101144-04;HS21101144-04;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

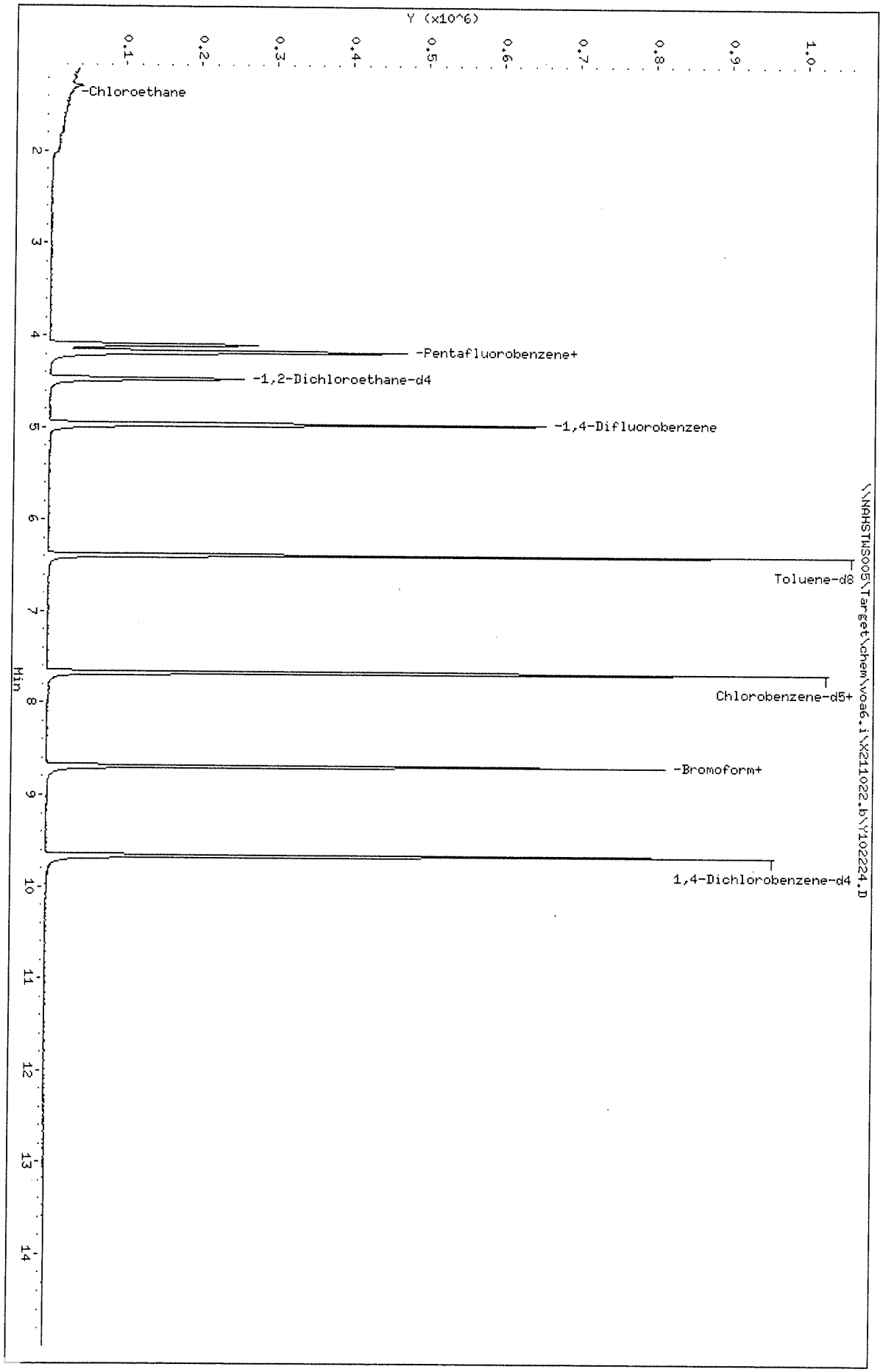
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102224.D
Lab Smp Id: HS21101144-05 Client Smp ID: HS21101144-05
Inj Date : 23-OCT-2021 06:01
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-05;HS21101144-05;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:27 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 52
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	410144	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	578022	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	527207	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	245490	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	194754	48.3369	48.33
$ 35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.069)	200387	49.0683	49.06
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	649619	48.5535	48.55
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	223484	48.4945	48.49



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102224.D
Date : 23-OCT-2021 06:01
Client ID: HS21101144-05
Sample Info: HS21101144-05;HS21101144-05;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102225.D
Lab Smp Id: HS21101144-06 Client Smp ID: HS21101144-06
Inj Date : 23-OCT-2021 06:22
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-06;HS21101144-06;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:27 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 53
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

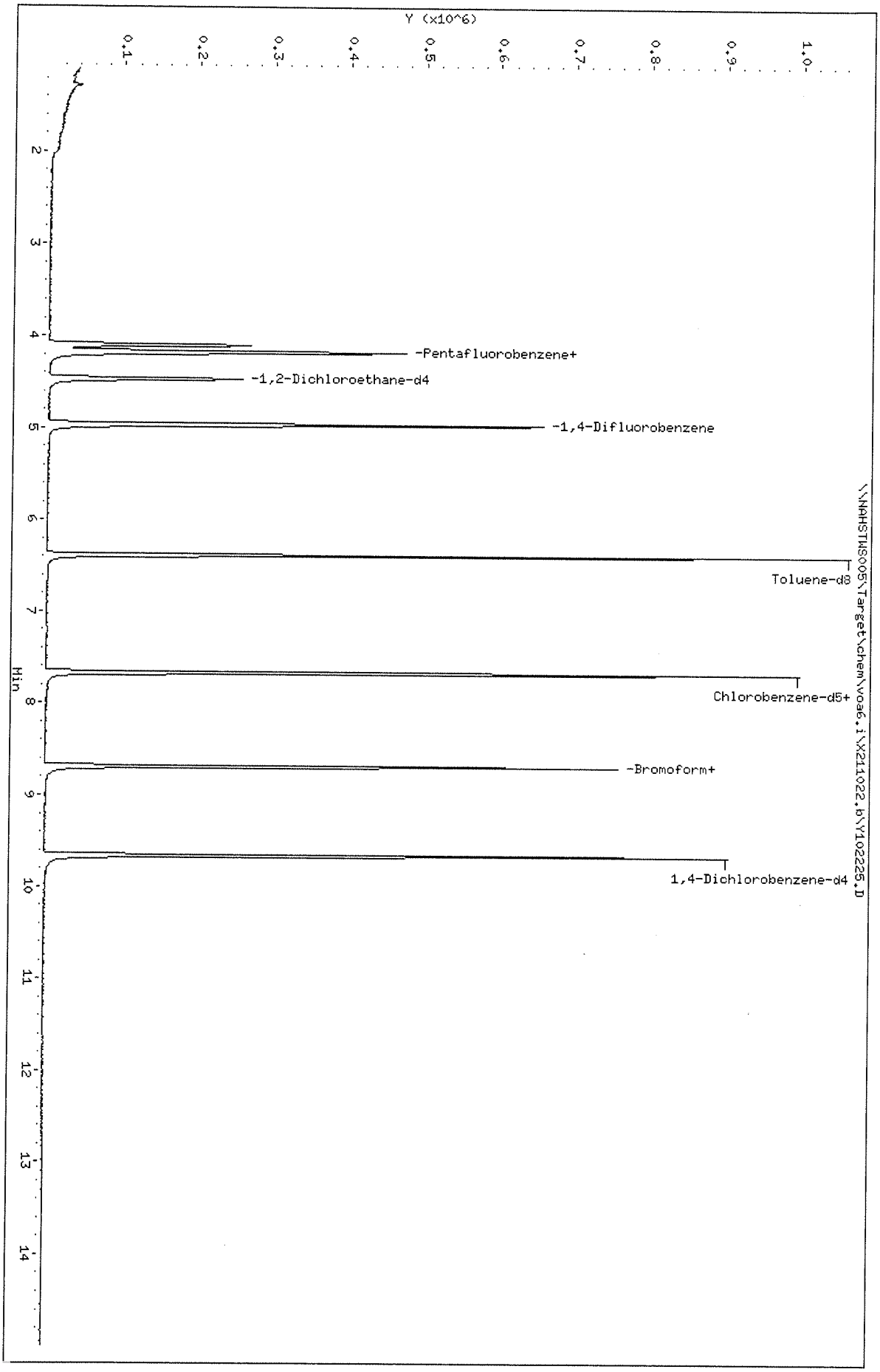
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	405842	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	565747	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	509763	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	238482	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	190862	47.8621	47.86
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	195274	48.2923	48.29
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	645970	49.9329	49.93
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	217047	48.7155	48.71

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102225.D
Date : 23-OCT-2021 06:22
Client ID: HS21101144-06
Sample Info: HS21101144-06;HS21101144-06;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102226.D Page 1
Report Date: 15-Nov-2021 15:33

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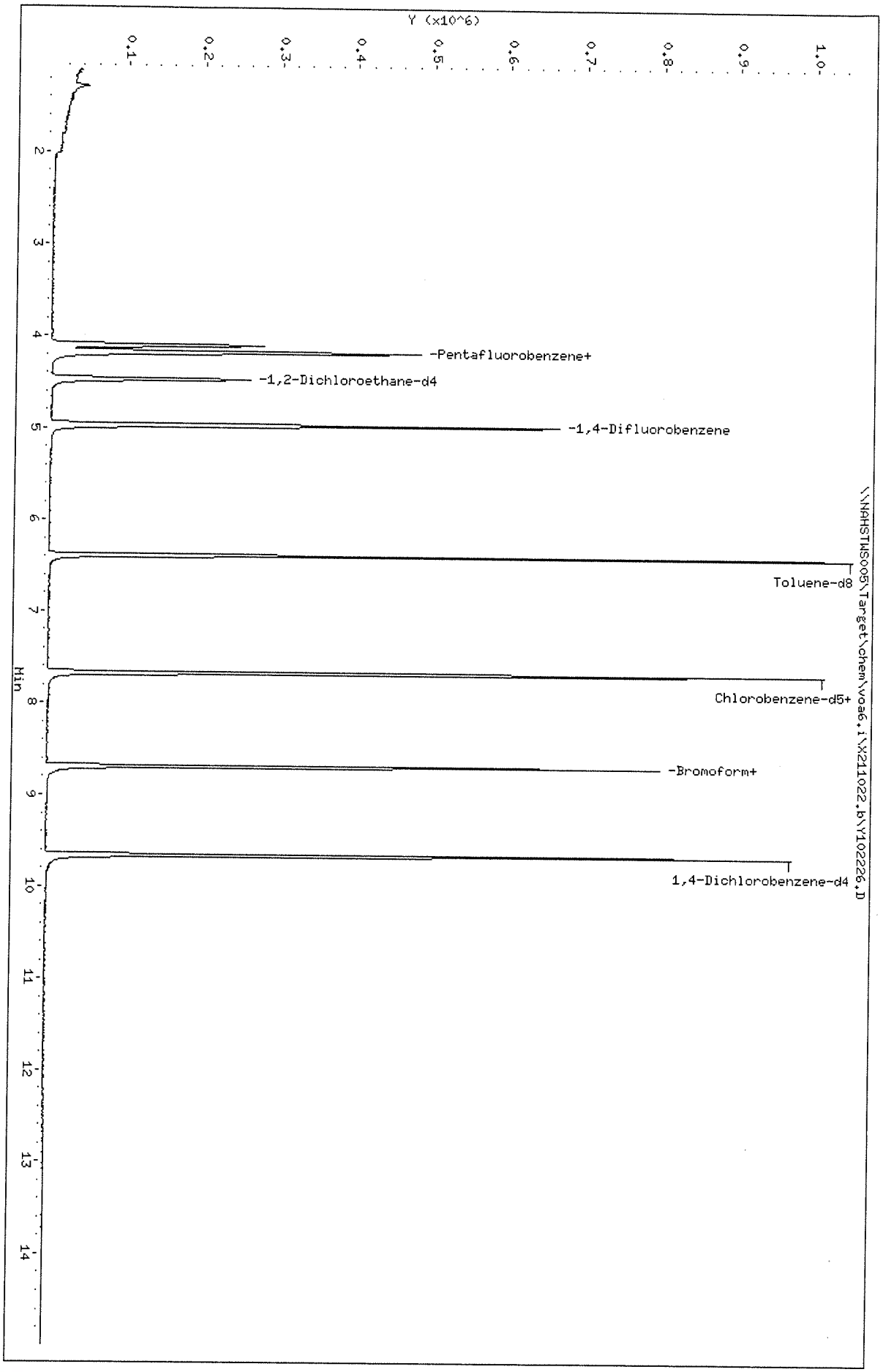
Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102226.D
Lab Smp Id: HS21101144-07 Client Smp ID: HS21101144-07
Inj Date : 23-OCT-2021 06:43
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-07;HS21101144-07;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:27 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 54
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	411939	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	576799	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	525839	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	247437	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	193154	47.7166	47.71
$ 35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.069)	202152	49.2938	49.29
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	645489	48.3703	48.37
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	223890	48.7151	48.71



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Date : 23-OCT-2021 06:43
Client ID: HS21101144-07
Sample Info: HS21101144-07;HS21101144-07;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102227.D Page 1
Report Date: 15-Nov-2021 15:33

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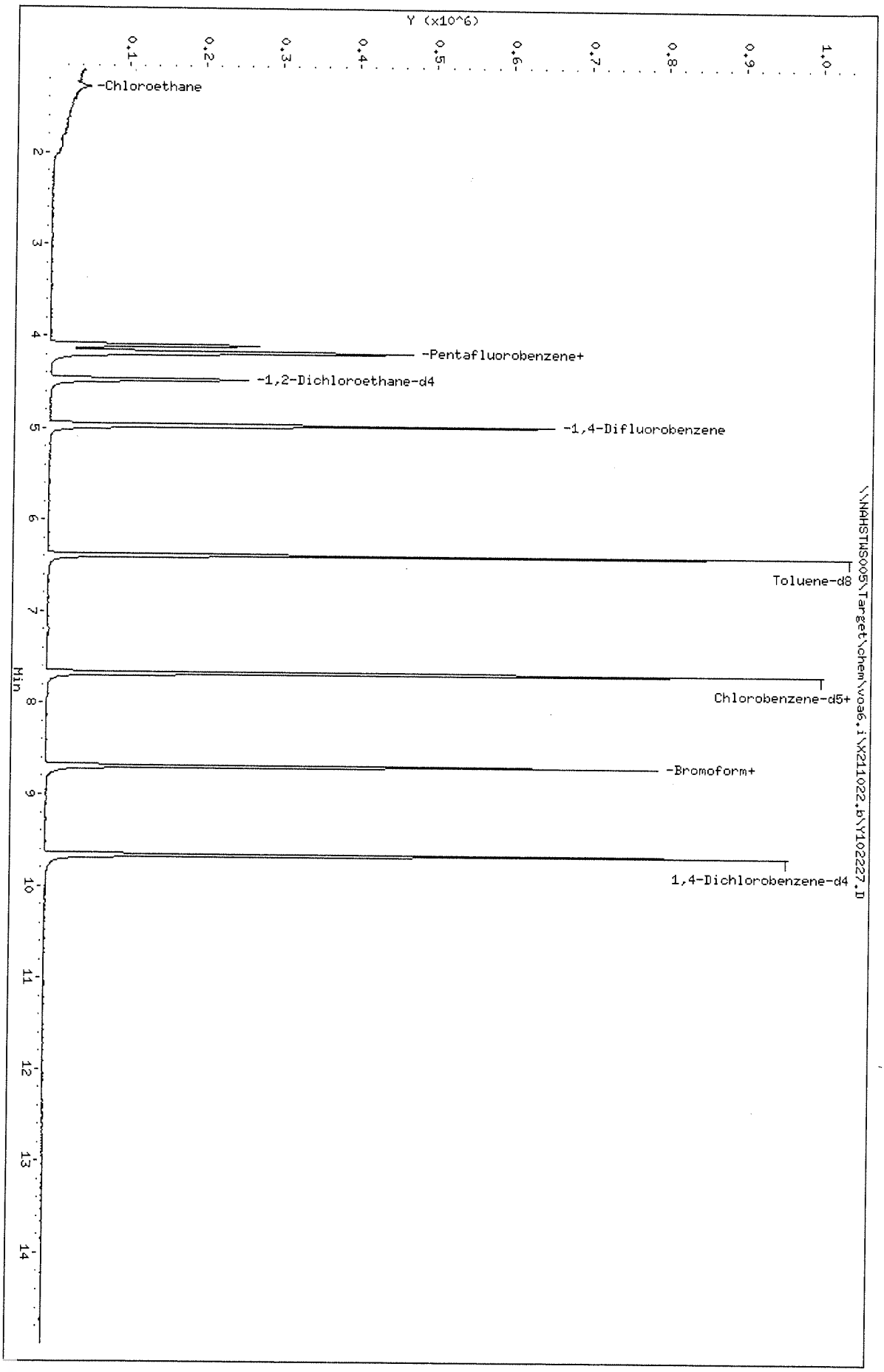
Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102227.D
Lab Smp Id: HS21101144-08 Client Smp ID: HS21101144-08
Inj Date : 23-OCT-2021 07:04
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-08;HS21101144-08;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:27 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 55
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	403964	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	568207	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	516082	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	244151	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	192070	48.4015	48.40
$ 35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.069)	193498	48.0664	48.06
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	640212	48.8819	48.88
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	219575	48.6785	48.67



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102227.D
Date : 23-OCT-2021 07:04
Client ID: HS21101144-08
Sample Info: HS21101144-08;HS21101144-08;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102228.D Page 1
Report Date: 15-Nov-2021 15:33

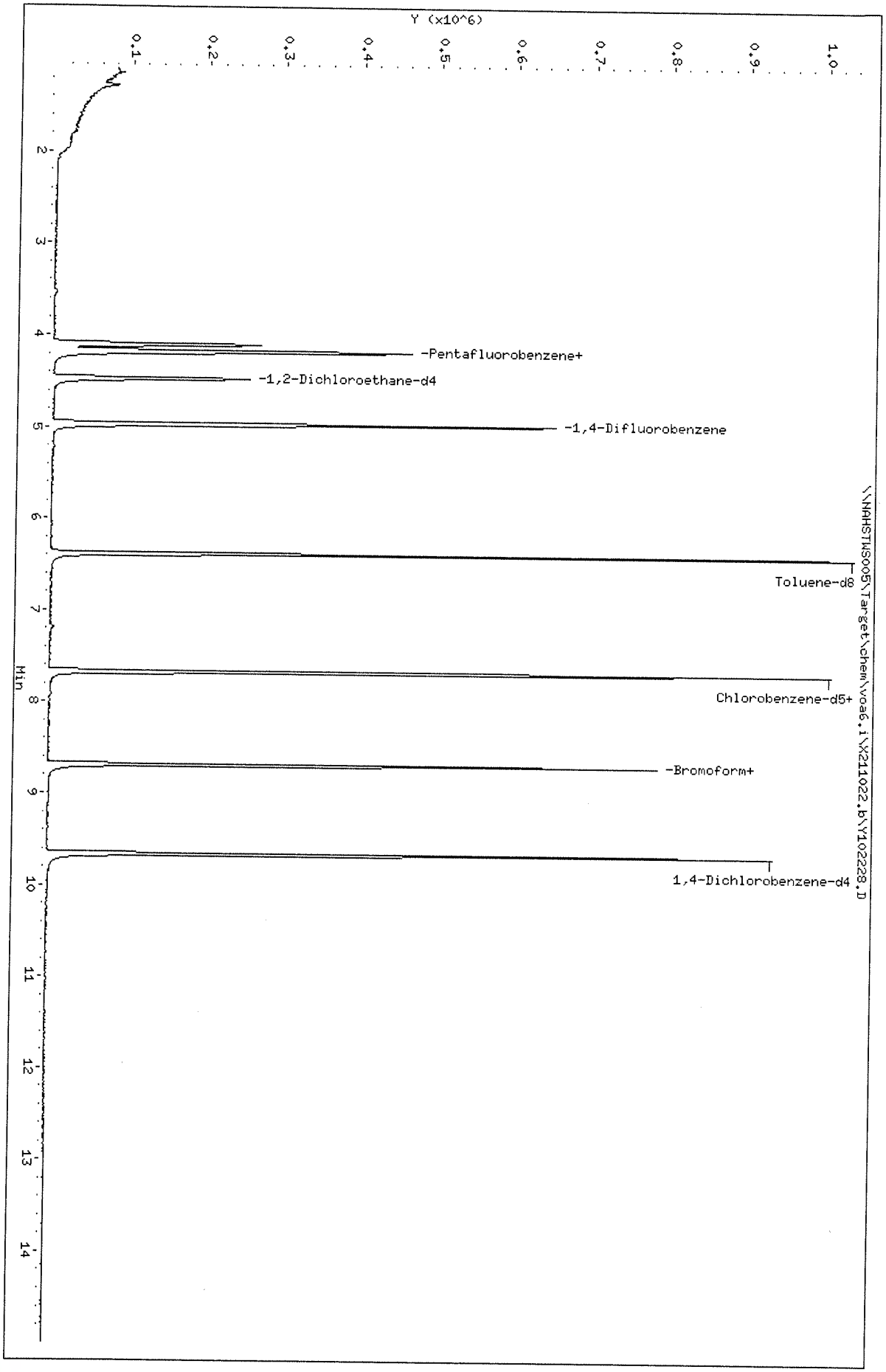
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102228.D
Lab Smp Id: HS21101144-09 Client Smp ID: HS21101144-09
Inj Date : 23-OCT-2021 07:25
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-09;HS21101144-09;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:27 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 56
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	402970	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	570729	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	519187	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	239629	50.0000	
$ 30 Dibromofluoromethane	113	4.104	4.103	(0.981)	191404	48.3515	48.35
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	198749	49.5529	49.55
$ 48 Toluene-d8	98	6.389	6.388	(0.833)	626754	47.5681	47.56
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	219119	48.2758	48.27



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102228.D
Date : 23-OCT-2021 07:25
Client ID: HS21101144-09
Sample Info: HS21101144-09;HS21101144-09;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102229.D Page 1
Report Date: 15-Nov-2021 15:33

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102229.D
Lab Smp Id: HS21101144-11 Client Smp ID: HS21101144-11
Inj Date : 23-OCT-2021 07:46
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-11;HS21101144-11;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:27 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 57
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

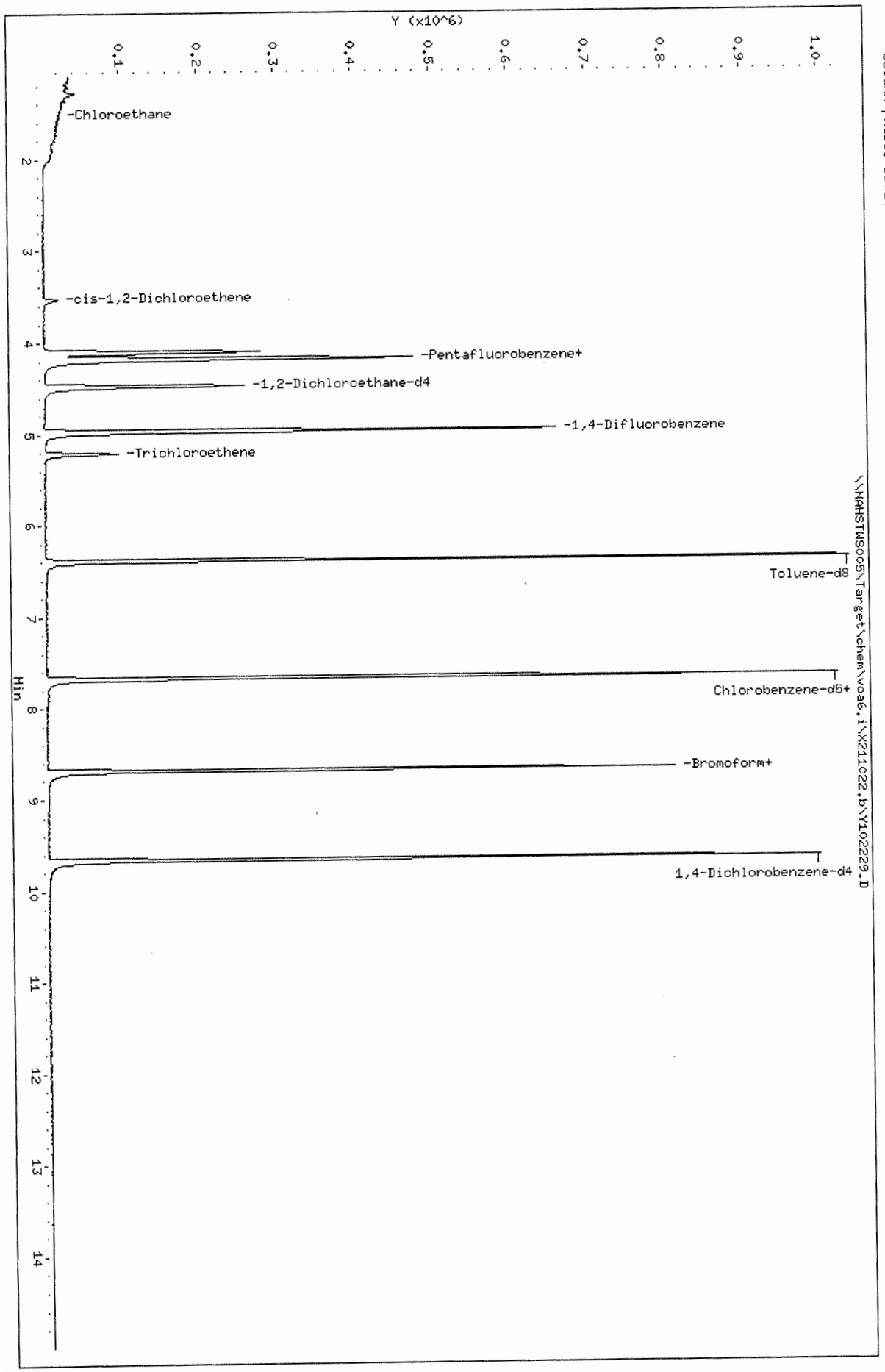
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	406109	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	575927	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	522805	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	255060	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	193048	48.3908	48.39
$ 35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.068)	198300	49.0385	49.03
$ 48 Toluene-d8	98	6.389	6.388	(0.833)	638103	48.0943	48.09
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	226574	49.6096	49.60
27 cis-1,2-Dichloroethene	96	3.538	3.530	(0.846)	10466	2.47885	2.47(a)
38 Trichloroethene	130	5.207	5.206	(1.049)	33213	7.62392	7.62

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102229.D
Date : 23-OCT-2021 07:46
Client ID: HS21101144-11
Sample Info: HS21101144-11;HS21101144-11;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102229.D

Date : 23-OCT-2021 07:46

Client ID: HS21101144-11

Instrument: voa6.i

Sample Info: HS21101144-11;HS21101144-11;;;

Purge Volume: 5.0

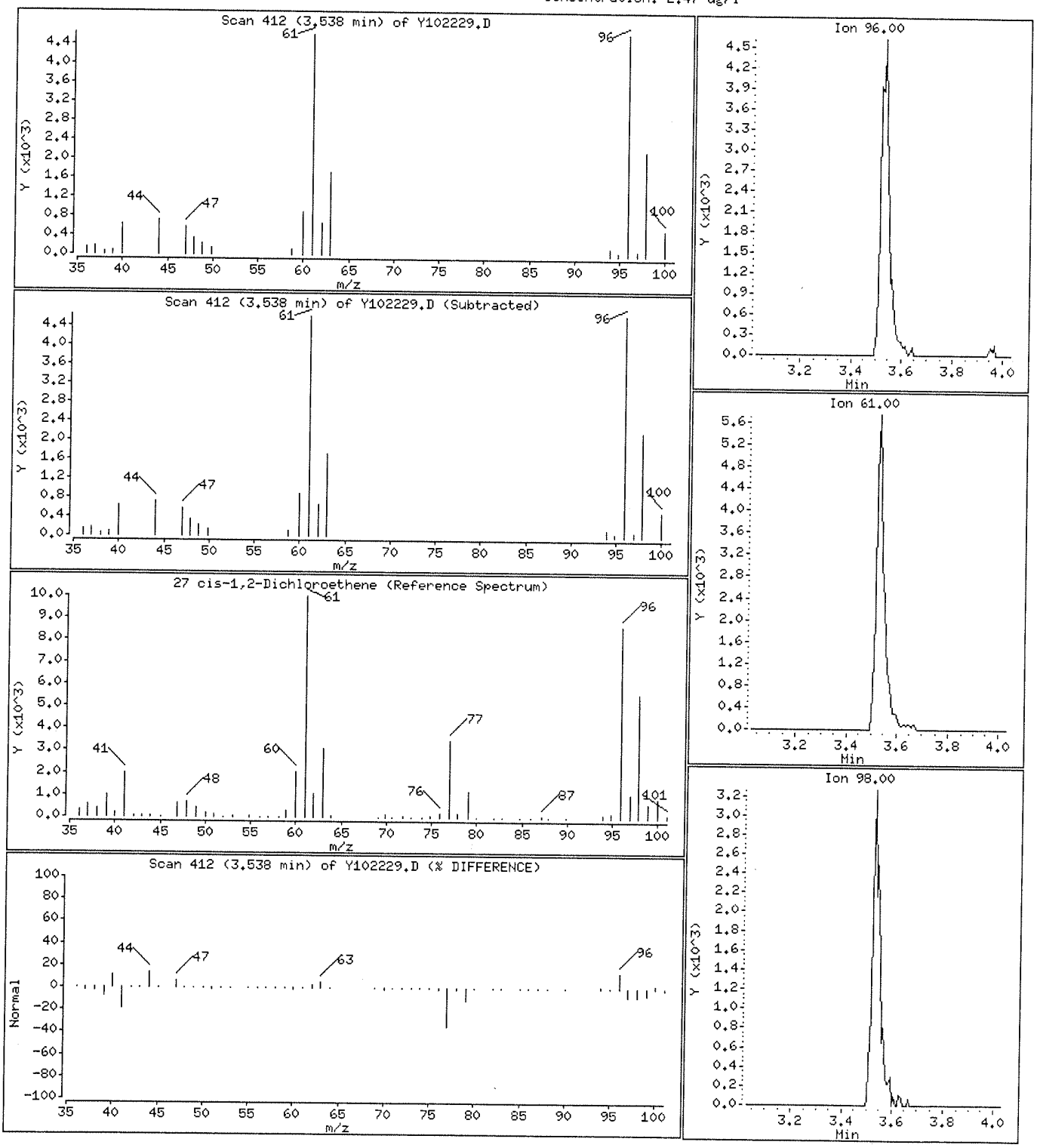
Operator: PC

Column phase: DB624

Column diameter: 0.18

27 cis-1,2-Dichloroethene

Concentration: 2.47 ug/l



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102229.D

Date : 23-OCT-2021 07:46

Client ID: HS21101144-11

Instrument: voa6.i

Sample Info: HS21101144-11;HS21101144-11;;;

Purge Volume: 5.0

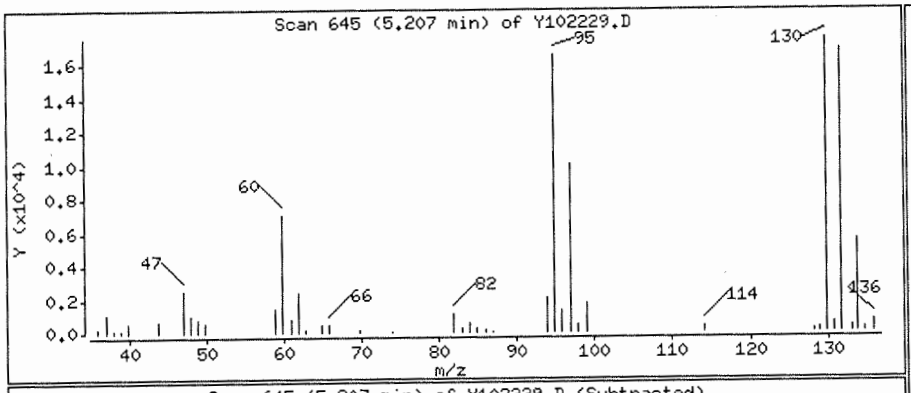
Operator: PC

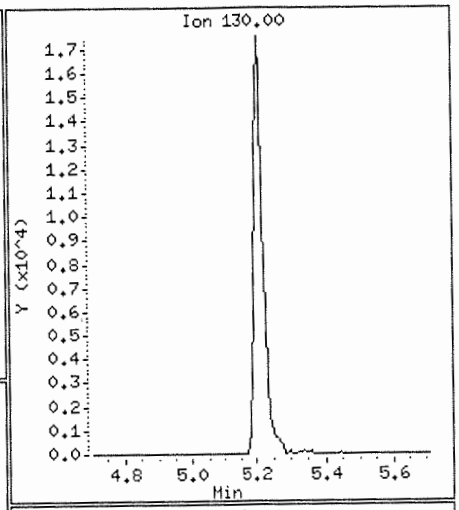
Column phase: DB624

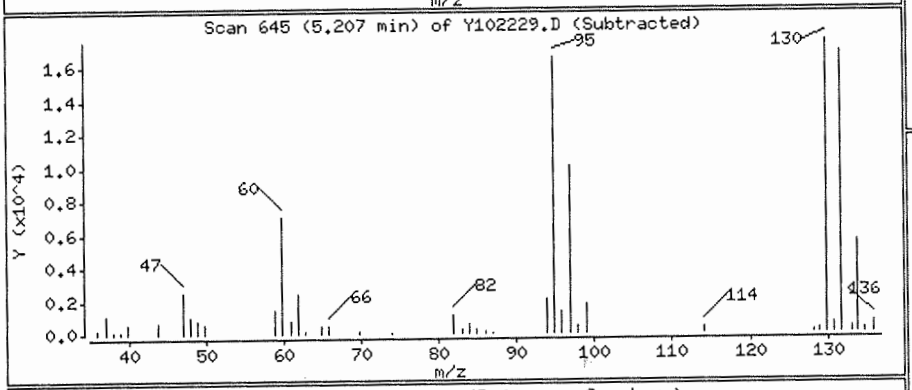
Column diameter: 0.18

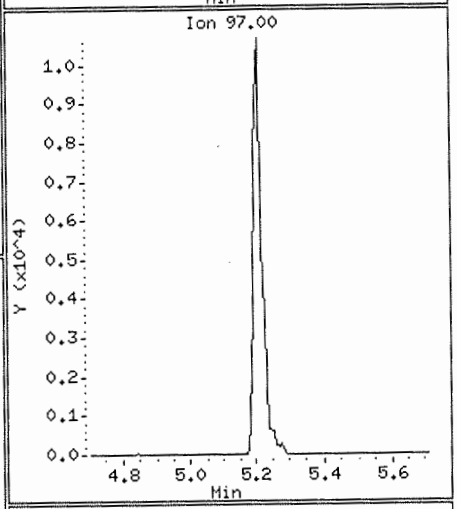
38 Trichloroethene

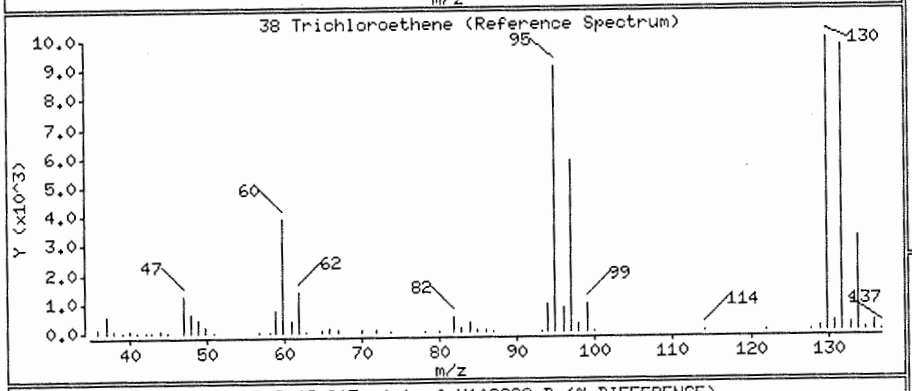
Concentration: 7.62 ug/l

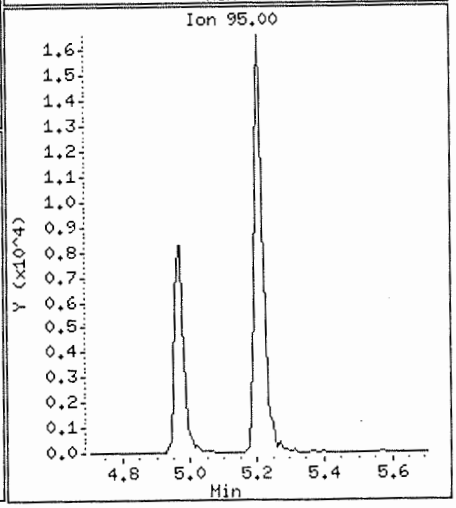


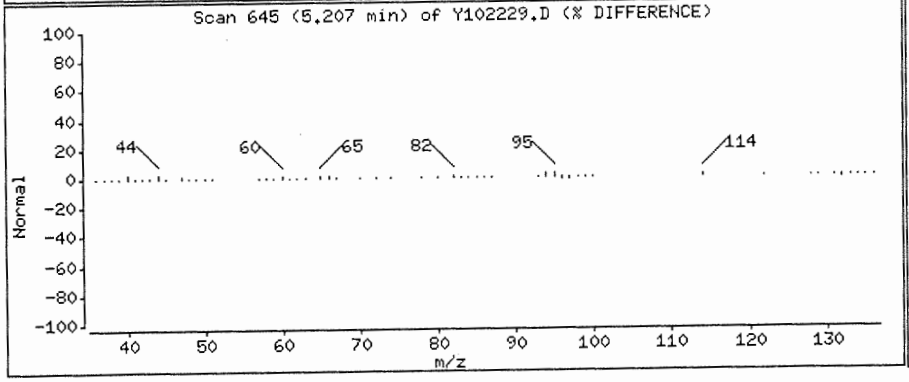












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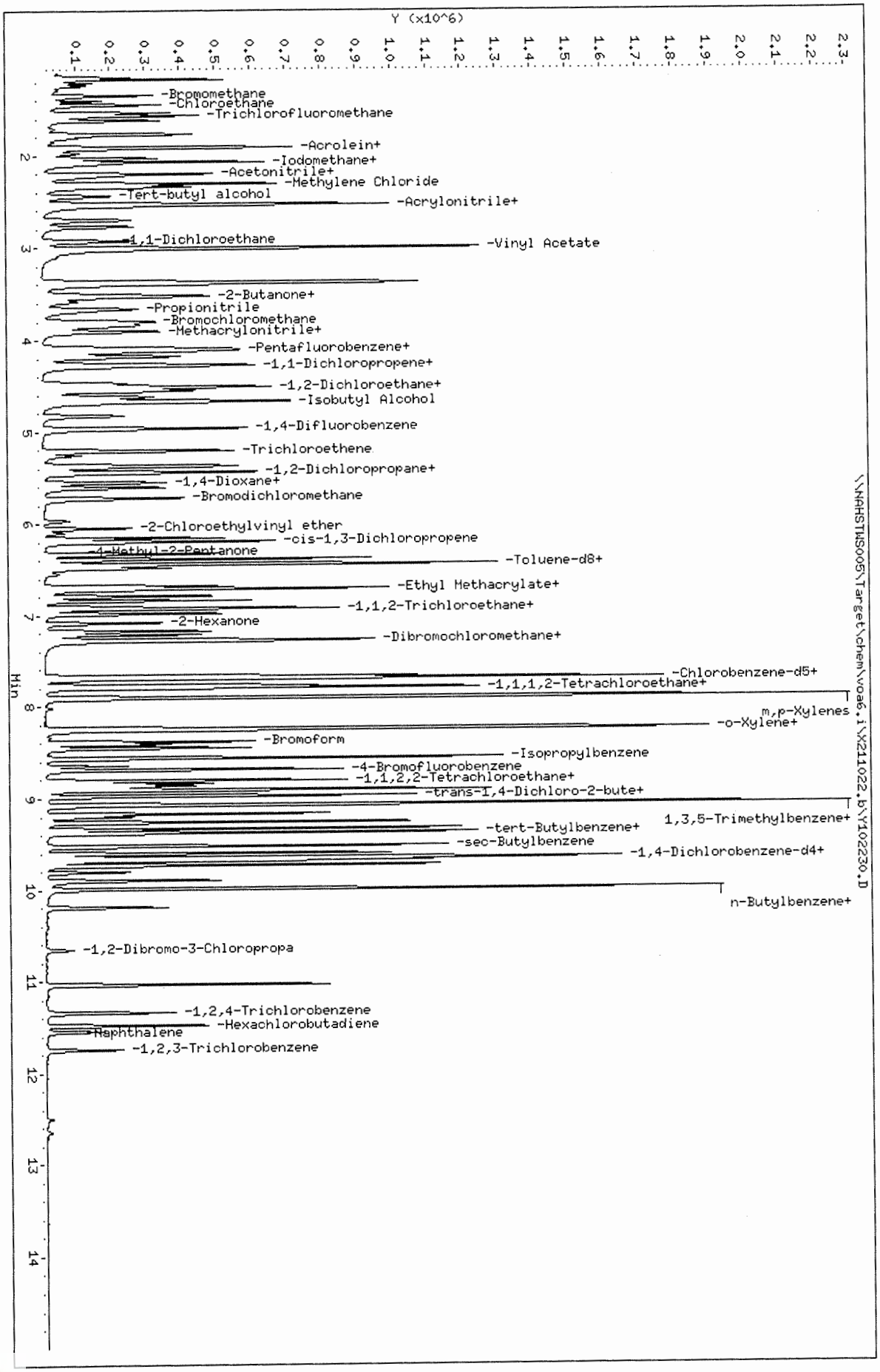
Data file : \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102230.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 23-OCT-2021 08:07
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211022.b\8260W.m
Meth Date : 15-Nov-2021 15:35 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 58 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	325766	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	500007	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	472607	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	243698	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	174413	50.0000	54.64
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	176227	50.0000	54.54
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	560076	50.0000	46.69
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	212658	50.0000	51.56
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	145584	50.0000	50.09
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	210044	50.0000	50.07
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	181966	50.0000	53.72
17 Methylene Chloride	84	2.305	2.305	(0.551)	160868	50.0000	56.78
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	127897	50.0000	50.71
38 Trichloroethene	130	5.206	5.206	(1.049)	187474	50.0000	49.56
5 Vinyl Chloride	62	1.145	1.145	(0.274)	163470	50.0000	47.86



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211022.b\Y102230.D
Date : 23-OCT-2021 08:07
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

MSVOA06 -Logbook

Batch: 46884
Date: 10-25-2021
Method: 8260
Comments:

Analyst: Qin Xu
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
1	BFB	TUNE	10-25-2021 10:11 am	1.00	0.00 mL	0.00 mL	X102501.D	Liquid	Y	N
2	CCV	CCV	10-25-2021 10:32 am	1.00	5.00 mL	0.00 mL	X102502a.D	Liquid	Y	N
3	CCV	CCV	10-25-2021 10:53 am	1.00	5.00 mL	0.00 mL	X102503.D	Liquid	Y	N
4	CCB	SAMP	10-25-2021 11:14 am	1.00	5.00 mL	0.00 mL	X102504.D	Liquid	Y	N
5	VLCSW-211025	LCS	10-25-2021 11:35 am	1.00	5.00 mL	0.00 mL	X102505.D	Liquid	Y	N
6	BLANK	SAMP	10-25-2021 11:56 am	1.00	5.00 mL	0.00 mL	X102506.D	Liquid	Y	N
7	VBLKW-211025	MBLK	10-25-2021 12:17 pm	1.00	5.00 mL	0.00 mL	X102507.D	Liquid	Y	N
8	HS21101309-01	SAMP	10-25-2021 12:38 pm	1.00	5.00 mL	0.00 mL	X102508.D	Liquid	Y	N
9	HS21101182-02	SAMP	10-25-2021 12:59 pm	1.00	5.00 mL	0.00 mL	X102509.D	Liquid	Y	N
10	HS21101283-10	SAMP	10-25-2021 01:20 pm	10.00	5.00 mL	0.00 mL	X102510.D	Liquid	Y	N
11	HS21101182-01	SAMP	10-25-2021 01:41 pm	1.00	5.00 mL	0.00 mL	X102511.D	Liquid	Y	N
12	HS21101283-10MS	MS	10-25-2021 02:02 pm	10.00	5.00 mL	0.00 mL	X102512.D	Liquid	Y	N
13	HS21101283-10MSD	MSD	10-25-2021 02:23 pm	10.00	5.00 mL	0.00 mL	X102513.D	Liquid	Y	N
14	HS21101306-01	SAMP	10-25-2021 02:44 pm	10.00	5.00 mL	0.00 mL	X102514.D	Liquid	Y	N
15	HS21101283-04	SAMP	10-25-2021 03:05 pm	100.0(	5.00 mL	0.00 mL	X102515.D	Liquid	Y	N
16	HS21101283-09	SAMP	10-25-2021 03:26 pm	5.00	5.00 mL	0.00 mL	X102516.D	Liquid	Y	N
17	HS21101144-17	SAMP	10-25-2021 03:47 pm	1.00	5.00 mL	0.00 mL	X102517.D	Liquid	Y	N
18	HS21101102-05	SAMP	10-25-2021 04:08 pm	1.00	5.00 mL	0.00 mL	X102518.D	Liquid	Y	N
19	HS21101144-13	SAMP	10-25-2021 04:29 pm	1.00	5.00 mL	0.00 mL	X102519.D	Liquid	Y	N
20	HS21101144-15	SAMP	10-25-2021 04:50 pm	1.00	5.00 mL	0.00 mL	X102520.D	Liquid	Y	N
21	HS21100881-03	SAMP	10-25-2021 05:12 pm	10.00	5.00 mL	0.00 mL	X102521.D	Liquid	Y	N
22	HS21100881-07	SAMP	10-25-2021 05:33 pm	5.00	5.00 mL	0.00 mL	X102522.D	Liquid	Y	N
23	HS21100881-07	SAMP	10-25-2021 05:54 pm	50.00	5.00 mL	0.00 mL	X102523.D	Liquid	Y	N
24	HS21101144-16	SAMP	10-25-2021 06:15 pm	5.00	5.00 mL	0.00 mL	X102524.D	Liquid	Y	N
25	HS21101144-16	SAMP	10-25-2021 06:36 pm	25.00	5.00 mL	0.00 mL	X102525.D	Liquid	Y	N
26	HS21101144-12	SAMP	10-25-2021 06:57 pm	10.00	5.00 mL	0.00 mL	X102526.D	Liquid	Y	N
27	HS21101144-12n/r	SAMP	10-25-2021 07:18 pm	50.00	5.00 mL	0.00 mL	X102527.D	Liquid	Y	N
28	HS21101144-14	SAMP	10-25-2021 07:39 pm	10.00	5.00 mL	0.00 mL	X102528.D	Liquid	Y	N
29	HS21101144-14	SAMP	10-25-2021 08:00 pm	100.0(	5.00 mL	0.00 mL	X102529.D	Liquid	Y	N
30	CCV-END	CCV	10-25-2021 08:21 pm	1.00	5.00 mL	0.00 mL	X102530.D	Liquid	Y	N
31	BFB	TUNE	10-25-2021 08:42 pm	1.00	0.00 mL	0.00 mL	Y102501.D	Liquid	Y	N
32	CCV	CCV	10-25-2021 09:03 pm	1.00	5.00 mL	0.00 mL	Y102502a.D	Liquid	Y	N
33	CCV	CCV	10-25-2021 09:24 pm	1.00	5.00 mL	0.00 mL	Y102503.D	Liquid	Y	N
34	CCB	SAMP	10-25-2021 09:45 pm	1.00	5.00 mL	0.00 mL	Y102504.D	Liquid	Y	N
35	VLCSW-211025	LCS	10-25-2021 10:06 pm	1.00	5.00 mL	0.00 mL	Y102505.D	Liquid	Y	N
36	BLANK	SAMP	10-25-2021 10:27 pm	1.00	5.00 mL	0.00 mL	Y102506.D	Liquid	Y	N
37	VBLKW-211025	MBLK	10-25-2021 10:48 pm	1.00	5.00 mL	0.00 mL	Y102507.D	Liquid	Y	N
38	HS21101119-21	SAMP	10-25-2021 11:09 pm	1.00	5.00 mL	0.00 mL	Y102508.D	Liquid	Y	N
39	HS21101119-22	SAMP	10-25-2021 11:30 pm	1.00	5.00 mL	0.00 mL	Y102509.D	Liquid	Y	N
40	HS21101119-05	SAMP	10-25-2021 11:51 pm	10.00	5.00 mL	0.00 mL	Y102510.D	Liquid	Y	N
41	HS21101119-05MS	MS	10-26-2021 12:12 am	10.00	5.00 mL	0.00 mL	Y102511.D	Liquid	Y	N

MSVOA06 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pl
42	HS21101119-05MSD	MSD	10-26-2021 12:33 am	10.00	5.00 mL	0.00 mL	Y102512.D	Liquid	Y	N/
43	BLANK	SAMP	10-26-2021 12:54 am	1.00	5.00 mL	0.00 mL	Y102513.D	Liquid	Y	N/
44	HS21101119-03	SAMP	10-26-2021 01:15 am	1.00	5.00 mL	0.00 mL	Y102514.D	Liquid	Y	N/
45	HS21101119-06	SAMP	10-26-2021 01:36 am	1.00	5.00 mL	0.00 mL	Y102515.D	Liquid	Y	N/
46	HS21101119-07	SAMP	10-26-2021 01:58 am	1.00	5.00 mL	0.00 mL	Y102516.D	Liquid	Y	N/
47	HS21101119-01	SAMP	10-26-2021 02:19 am	1.00	5.00 mL	0.00 mL	Y102517.D	Liquid	Y	N/
48	HS21101119-02	SAMP	10-26-2021 02:40 am	1.00	5.00 mL	0.00 mL	Y102518.D	Liquid	Y	N/
49	HS21101119-12	SAMP	10-26-2021 03:01 am	1.00	5.00 mL	0.00 mL	Y102519.D	Liquid	Y	N/
50	HS21101124-01	SAMP	10-26-2021 03:22 am	1.00	5.00 mL	0.00 mL	Y102520.D	Liquid	Y	N/
51	HS21101124-02	SAMP	10-26-2021 03:43 am	1.00	5.00 mL	0.00 mL	Y102521.D	Liquid	Y	N/
52	HS21101124-03	SAMP	10-26-2021 04:04 am	1.00	5.00 mL	0.00 mL	Y102522.D	Liquid	Y	N/
53	HS21101124-04	SAMP	10-26-2021 04:25 am	1.00	5.00 mL	0.00 mL	Y102523.D	Liquid	Y	N/
54	HS21101124-07	SAMP	10-26-2021 04:46 am	1.00	5.00 mL	0.00 mL	Y102524.D	Liquid	Y	N/
55	HS21101124-08	SAMP	10-26-2021 05:07 am	1.00	5.00 mL	0.00 mL	Y102525.D	Liquid	Y	N/
56	HS21101067-02	SAMP	10-26-2021 05:28 am	1.00	5.00 mL	0.00 mL	Y102526.D	Liquid	Y	N/
57	HS21101119-08	SAMP	10-26-2021 05:49 am	5.00	5.00 mL	0.00 mL	Y102527.D	Liquid	Y	N/
58	HS21101125-07	SAMP	10-26-2021 06:10 am	10.00	5.00 mL	0.00 mL	Y102528.D	Liquid	Y	N/
59	HS21101125-05	SAMP	10-26-2021 06:31 am	2000.0	5.00 mL	0.00 mL	Y102529.D	Liquid	Y	N/
60	HS21101067-04	SAMP	10-26-2021 06:53 am	5.00	5.00 mL	0.00 mL	Y102530.D	Liquid	Y	N/

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

	CLIENT SAMPLE NO.	SMC1 (DCE) #	SMC2 #	SMC3 #	OTHER (TOL) #	TOT OUT
01	VLCSW-211025	98	103	99	92	0
02	VBLKW-211025	89	94	97	97	0
03	HS21101283-10MS	88	95	100	96	0
04	HS21101283-10MSD	88	94	98	97	0
05	HS21101144-17	92	95	97	95	0
06	HS21101144-13	91	96	98	98	0
07	HS21101144-15	90	94	96	97	0
08	HS21101144-16	93	95	99	96	0
09	HS21101144-12	91	95	98	97	0
10	HS21101144-14	91	94	97	98	0
11						
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28						

		QC LIMITS
SMC1 (DCE)	= 1,2-Dichloroethane-d4	(0-130)
SMC2	= Dibromofluoromethane	(0-130)
SMC3	= 4-Bromofluorobenzene	(0-130)
OTHER(TOL)	= Toluene-d8	(0-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

VBLKW-211025

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Lab File ID: X102507 Lab Sample ID: VBLKW-211025

Date Analyzed: 10/25/21 Time Analyzed: 1217

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSW-211025	VLCSW-211025	X102505	1135
02	HS21101283-10MS	HS21101283-10MS	X102512	1402
03	HS21101283-10MSD	HS21101283-10MSD	X102513	1423
04	HS21101144-17	HS21101144-17	X102517	1547
05	HS21101144-13	HS21101144-13	X102519	1629
06	HS21101144-15	HS21101144-15	X102520	1650
07	HS21101144-16	HS21101144-16	X102524	1815
08	HS21101144-16	HS21101144-16	X102525	1836
09	HS21101144-12	HS21101144-12	X102526	1857
10	HS21101144-14	HS21101144-14	X102528	1939
11	HS21101144-14	HS21101144-14	X102529	2000
12				
13				
14				
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COMMENTS:

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Lab File ID: X102501 BFB Injection Date: 10/25/21

Instrument ID: VOA6 BFB Injection Time: 1011

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.8
75	30.0 - 60.0% of mass 95	43.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1.3 (1.3)1
174	Greater than 50.0% of mass 95	103.9
175	5.0 - 9.0% of mass 174	8.2 (7.9)1
176	95.0 - 101.0% of mass 174	101.1 (97.3)1
177	5.0 - 9.0% of mass 176	6.3 (6.2)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	X102503	10/25/21	1053
02	VLCSW-211025	VLCSW-211025	X102505	10/25/21	1135
03	VBLKW-211025	VBLKW-211025	X102507	10/25/21	1217
04	HS21101283-10MS	HS21101283-10MS	X102512	10/25/21	1402
05	HS21101283-10MSD	HS21101283-10MSD	X102513	10/25/21	1423
06	HS21101144-17	HS21101144-17	X102517	10/25/21	1547
07	HS21101144-13	HS21101144-13	X102519	10/25/21	1629
08	HS21101144-15	HS21101144-15	X102520	10/25/21	1650
09	HS21101144-16	HS21101144-16	X102524	10/25/21	1815
10	HS21101144-16	HS21101144-16	X102525	10/25/21	1836
11	HS21101144-12	HS21101144-12	X102526	10/25/21	1857
12	HS21101144-14	HS21101144-14	X102528	10/25/21	1939
13	HS21101144-14	HS21101144-14	X102529	10/25/21	2000
14	CCV-END	CCV-END	X102530	10/25/21	2021
15					
16					
17					
18					
19					
20					
21					
22					

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Instrument ID: VOA6 Calibration Date: 10/25/21 Time: 1053

Lab File ID: X102503 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	53.294778	50.000000	0.4641602	0.1	-6.59	20.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2597805	0.2597805	0.1	2.70	20.00	AVRG
Trichloroethene	0.3780000	0.3910415	0.3910415	0.2	-3.45	20.00	AVRG
Vinyl Chloride	0.5240000	0.4831466	0.4831466	0.1	7.80	20.00	AVRG
1,1-Dichloroethene	0.4460000	0.4411489	0.4411489	0.1	1.09	20.00	AVRG
1,2-Dichloroethane	0.4190000	0.4057512	0.4057512	0.1	3.16	20.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.5282063	0.5282063	0.1	-1.58	20.00	AVRG
1,2-Dichloroethane-d4	47.396023	50.000000	0.4725890	0.1	5.21	20.00	LINR
Dibromofluoromethane	50.790076	50.000000	0.4983865	0.1	-1.58	20.00	LINR
4-Bromofluorobenzene	50.377666	50.000000	0.4399108	0.1	-0.76	20.00	LINR
Toluene-d8	1.2690000	1.1488387	1.1488387	0.1	9.47	20.00	AVRG

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Instrument ID: VOA6 Calibration Date: 10/25/21 Time: 1053

Lab File ID: X102503 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	53.294778	50.000000	0.4641602	0.1	-6.59	50.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2597805	0.2597805	0.1	2.70	50.00	AVRG
Trichloroethene	0.3780000	0.3910415	0.3910415	0.2	-3.45	50.00	AVRG
Vinyl Chloride	0.5240000	0.4831466	0.4831466	0.1	7.80	50.00	AVRG
1,1-Dichloroethene	0.4460000	0.4411489	0.4411489	0.1	1.09	50.00	AVRG
1,2-Dichloroethane	0.4190000	0.4057512	0.4057512	0.1	3.16	50.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.5282063	0.5282063	0.1	-1.58	50.00	AVRG
1,2-Dichloroethane-d4	47.396023	50.000000	0.4725890	0.1	5.21	50.00	LINR
Dibromofluoromethane	50.790076	50.000000	0.4983865	0.1	-1.58	50.00	LINR
4-Bromofluorobenzene	50.377666	50.000000	0.4399108	0.1	-0.76	50.00	LINR
Toluene-d8	1.2690000	1.1488387	1.1488387	0.1	9.47	50.00	AVRG

FORM VII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Lab File ID (Standard): X102503 Date Analyzed: 10/25/21

Instrument ID: VOA6 Time Analyzed: 1053

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1(DCB) AREA #	RT #	IS2(CBZ) AREA #	RT #	IS3(DFB) AREA #	RT #
	12 HOUR STD	261533	9.66	502786	7.67	530670	4.96
	UPPER LIMIT	523066	10.16	1005572	8.17	1061340	5.46
	LOWER LIMIT	130767	9.16	251393	7.17	265335	4.46
	CLIENT SAMPLE NO.						
01	VLCSW-211025	250764	9.66	486612	7.67	517367	4.96
02	VBLKW-211025	269448	9.66	553034	7.67	620796	4.96
03	HS21101283-10MS	296917	9.66	562367	7.67	628124	4.96
04	HS21101283-10MSD	278021	9.66	557282	7.67	627926	4.96
05	HS21101144-17	270607	9.66	556981	7.67	615316	4.96
06	HS21101144-13	248098	9.66	532255	7.67	606745	4.96
07	HS21101144-15	258119	9.66	529741	7.67	599637	4.96
08	HS21101144-16	257724	9.66	524113	7.67	596497	4.96
09	HS21101144-16	247543	9.66	524412	7.67	592811	4.96
10	HS21101144-12	246240	9.66	526509	7.67	596813	4.96
11	HS21101144-14	251727	9.66	519245	7.67	596342	4.96
12	HS21101144-14	247955	9.66	527230	7.67	599274	4.96
13							
14							
15							
16							
17							
18							
19							
20							

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

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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Lab File ID (Standard): X102503 Date Analyzed: 10/25/21

Instrument ID: VOA6 Time Analyzed: 1053

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	369687	4.18				
	UPPER LIMIT	739374	4.68				
	LOWER LIMIT	184844	3.68				
	CLIENT SAMPLE NO.						
01	VLCSW-211025	352703	4.18				
02	VBLKW-211025	457768	4.18				
03	HS21101283-10MS	456912	4.18				
04	HS21101283-10MSD	457740	4.18				
05	HS21101144-17	442866	4.18				
06	HS21101144-13	438686	4.18				
07	HS21101144-15	436869	4.18				
08	HS21101144-16	429593	4.18				
09	HS21101144-16	427748	4.18				
10	HS21101144-12	433757	4.18				
11	HS21101144-14	437098	4.18				
12	HS21101144-14	435336	4.18				
13							
14							
15							
16							
17							
18							
19							
20							

IS4 = Pentafluorobenzene

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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102501.D

Date : 25-OCT-2021 10:11

Client ID: BFB

Instrument: voa6.i

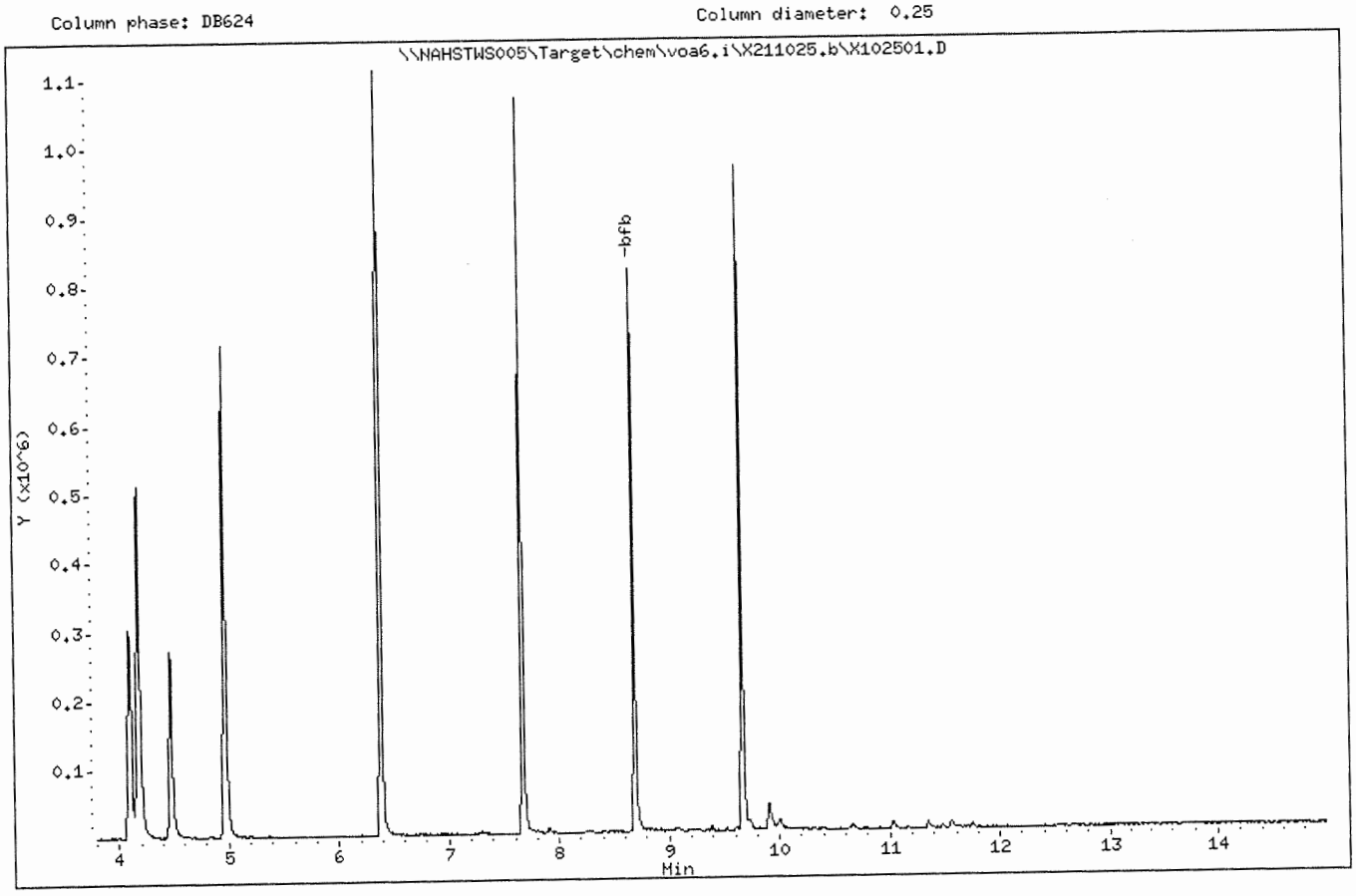
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102501.D

Date : 25-OCT-2021 10:11

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

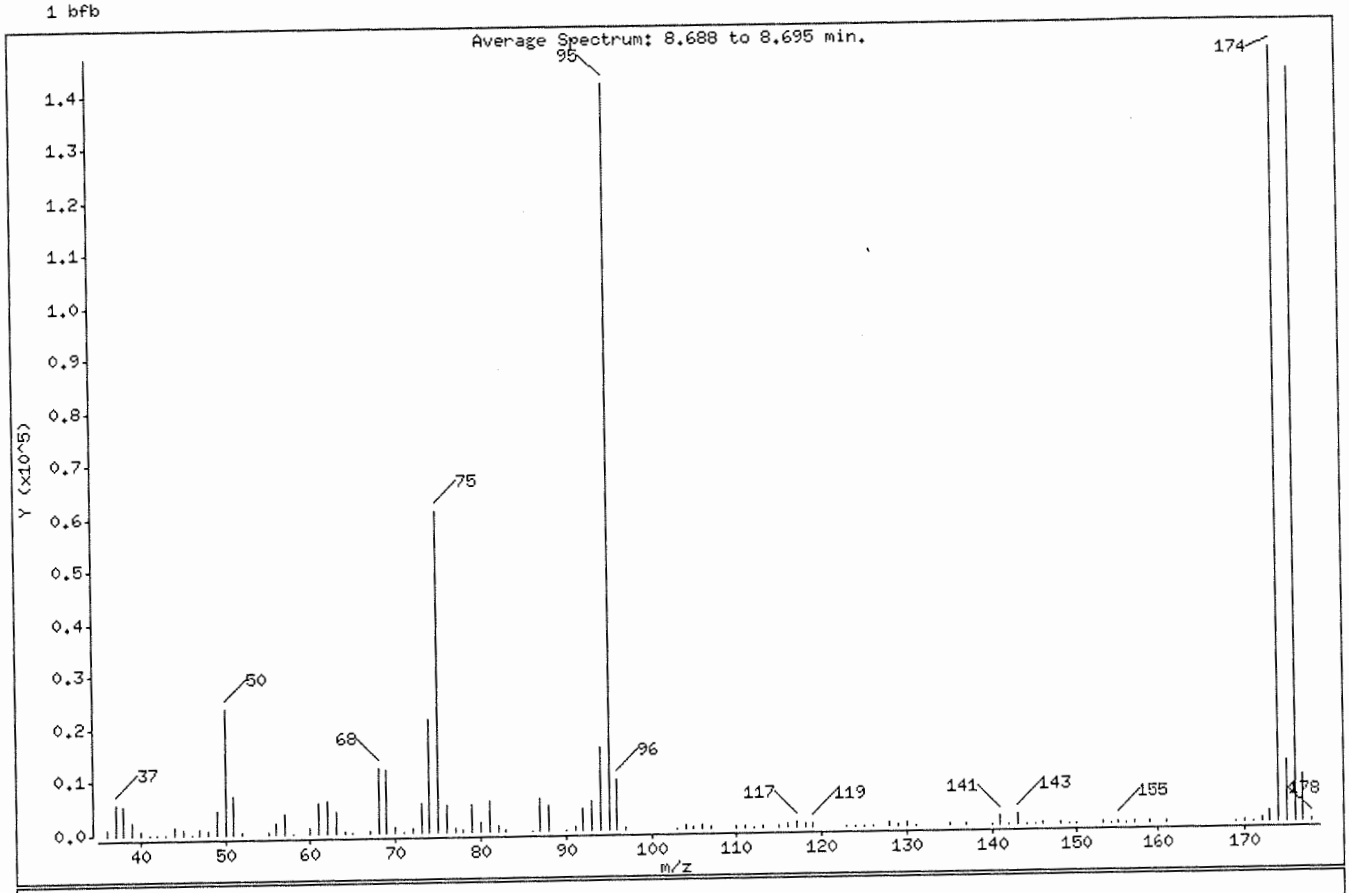
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.81
75	30.00 - 60.00% of mass 95	43.12
96	5.00 - 9.00% of mass 95	6.64
173	Less than 2.00% of mass 174	1.34 (1.29)
174	Greater than 50.00% of mass 95	103.93
175	5.00 - 9.00% of mass 174	8.17 (7.86)
176	95.00 - 101.00% of mass 174	101.10 (97.28)
177	5.00 - 9.00% of mass 176	6.26 (6.19)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102501.D

Date : 25-OCT-2021 10:11

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: X102501.D
Spectrum: Average Spectrum: 8.688 to 8.695 min.
Location of Maximum: 174.00
Number of points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	934	67.00	329	97.00	285	142.00	158
37.00	5758	68.00	12270	103.00	29	143.00	1986
38.00	5265	69.00	11961	104.00	737	144.00	34
39.00	2333	70.00	907	105.00	349	145.00	63
40.00	737	71.00	157	106.00	822	146.00	213
41.00	69	72.00	518	107.00	195	148.00	417
42.00	132	73.00	5286	110.00	212	149.00	122
43.00	164	74.00	21472	111.00	232	150.00	160
44.00	1469	75.00	61032	112.00	127	153.00	186
45.00	1183	76.00	5045	113.00	262	154.00	110
46.00	104	77.00	668	115.00	218	155.00	500
47.00	902	78.00	428	116.00	543	156.00	145
48.00	764	79.00	5057	117.00	1002	157.00	309
49.00	4519	80.00	1532	118.00	514	159.00	192
50.00	23792	81.00	5643	119.00	796	161.00	188
51.00	7183	82.00	1155	123.00	47	169.00	53
52.00	386	83.00	206	124.00	116	170.00	221
55.00	420	86.00	93	125.00	73	171.00	76
56.00	1925	87.00	6123	126.00	60	172.00	522
57.00	3688	88.00	4650	128.00	601	173.00	1902
58.00	148	90.00	69	129.00	367	174.00	147072
60.00	1012	91.00	738	130.00	536	175.00	11563
61.00	5847	92.00	3997	131.00	151	176.00	143104
62.00	5954	93.00	5458	135.00	315	177.00	8856
63.00	4200	94.00	15716	137.00	273	178.00	305
64.00	502	95.00	141504	140.00	119		
65.00	35	96.00	9395	141.00	1798		

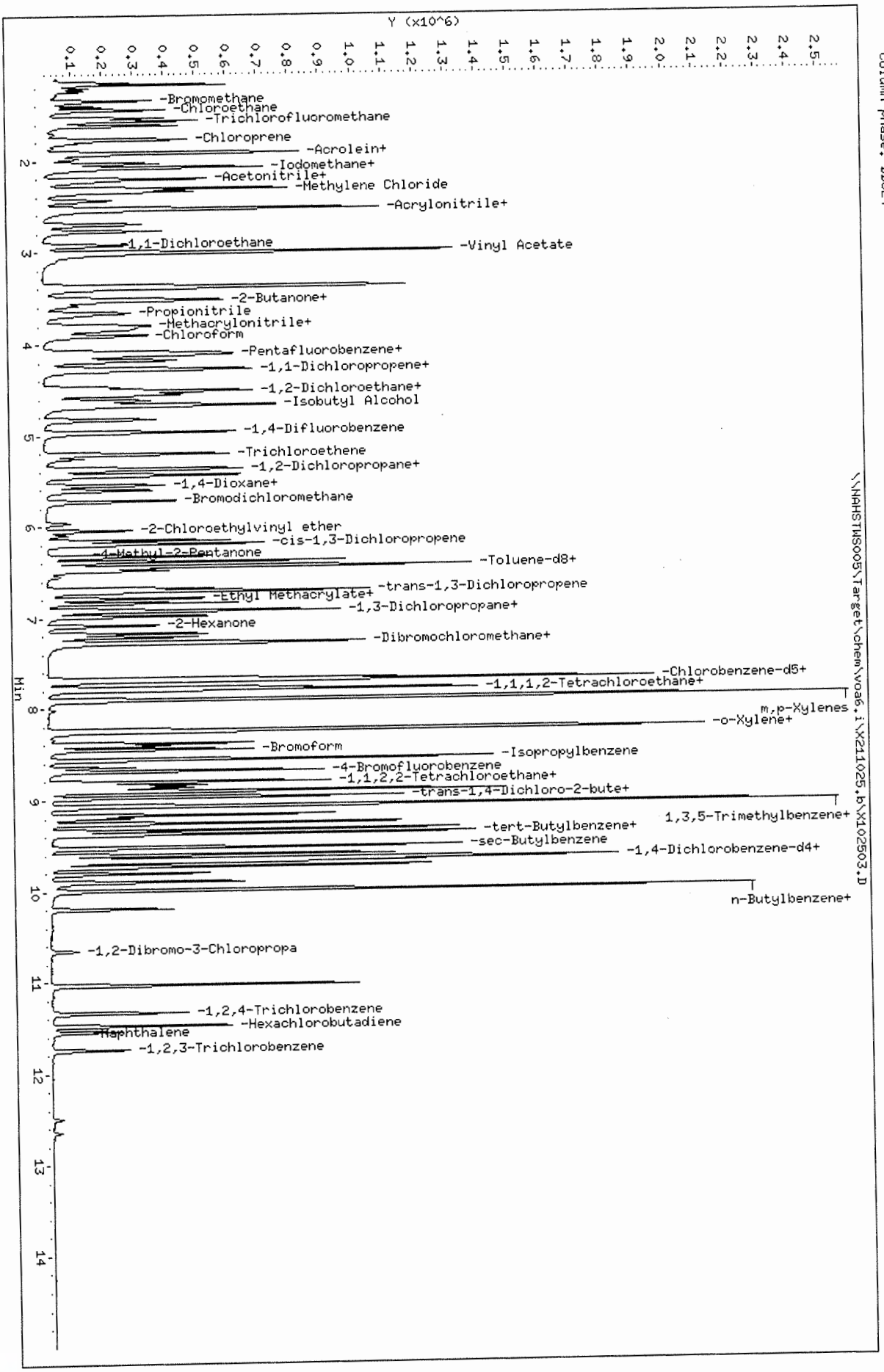
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102503.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 25-OCT-2021 10:53
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 15-Nov-2021 15:55 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	369687	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	530670	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	502786	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	261533	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	184247	50.0000	50.79
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	174710	50.0000	47.39
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	577620	50.0000	45.26
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	221181	50.0000	50.37
11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	163087	50.0000	49.45
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	215320	50.0000	48.37
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	195271	50.0000	50.80
17 Methylene Chloride	84	2.305	2.305	(0.551)	171594	50.0000	53.29
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	130614	50.0000	48.68
38 Trichloroethene	130	5.206	5.206	(1.049)	207514	50.0000	51.69
5 Vinyl Chloride	62	1.145	1.145	(0.274)	178613	50.0000	46.08



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102503.D
Date : 25-OCT-2021 10:53
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102505.D Page 1
Report Date: 15-Nov-2021 15:55

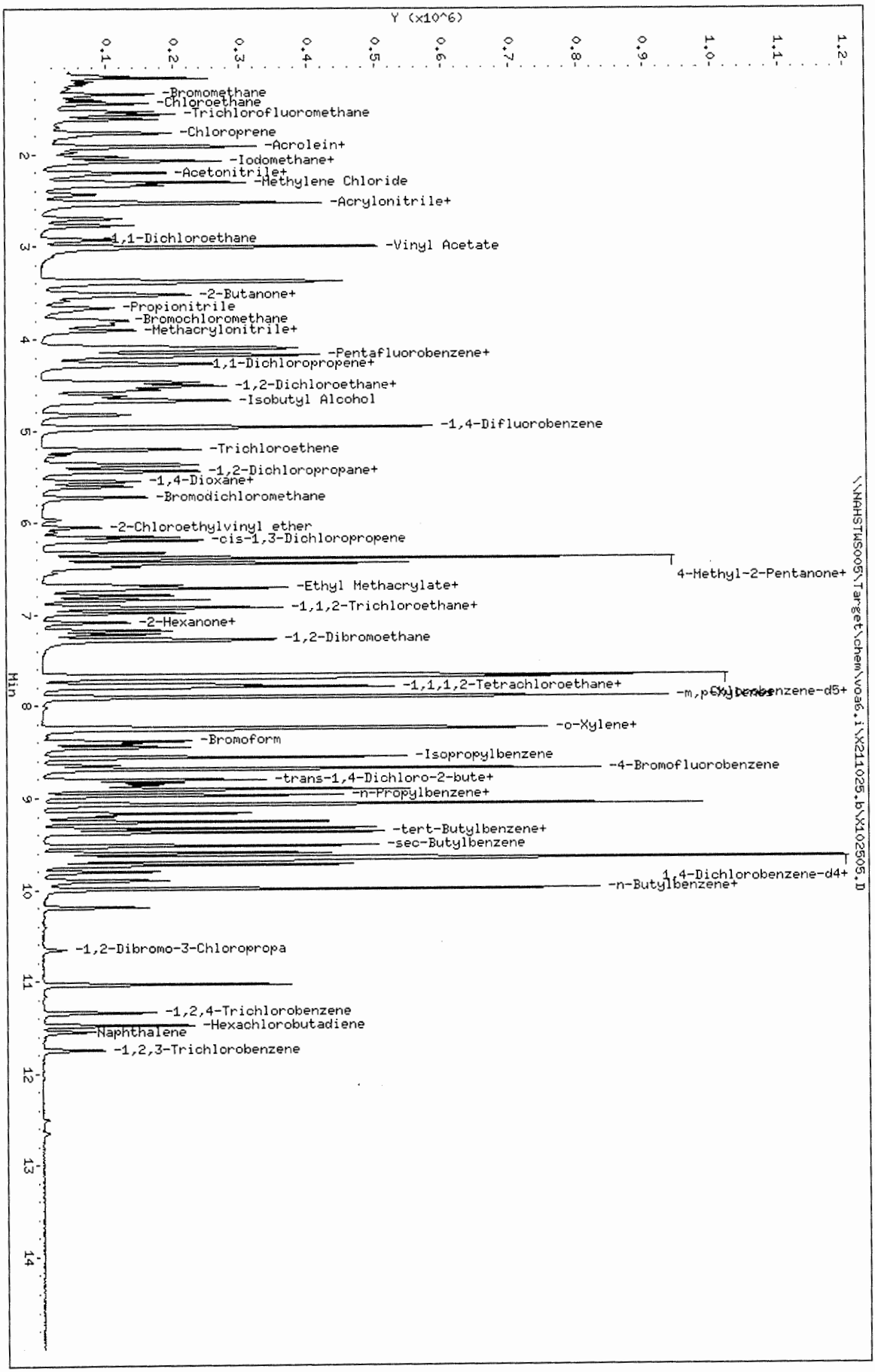
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102505.D
Lab Smp Id: VLCSW-211025 Client Smp ID: VLCSW-211025
Inj Date : 25-OCT-2021 11:35
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-211025;VLCSW-211025;3;;LCS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 15-Nov-2021 15:55 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	352703	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	517367	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	486612	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	250764	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	178763	51.6706	51.67
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	172326	49.0693	49.06
$	48 Toluene-d8	98	6.388	6.388	(0.833)	569048	46.0796	46.07
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	209773	49.3399	49.33
	11 1,1-Dichloroethene	96	1.911	1.919	(0.457)	62146	19.7528	19.75
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	85255	19.6446	19.64
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	76951	20.9854	20.98
	17 Methylene Chloride	84	2.305	2.305	(0.551)	69250	21.8128	21.81
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	51631	19.8841	19.88
	38 Trichloroethene	130	5.206	5.206	(1.049)	81577	20.8452	20.84
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	68885	18.6282	18.62



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102505.D
Date : 25-OCT-2021 11:35
Client ID: VLCSW-211025
Sample Info: VLCSW-211025;VLCSW-211025;3;;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102507.D Page 1
Report Date: 15-Nov-2021 15:55

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102507.D
Lab Smp Id: VBLKW-211025 Client Smp ID: VBLKW-211025
Inj Date : 25-OCT-2021 12:17
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-211025;VBLKW-211025;3;;BLANK
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 15-Nov-2021 15:55 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	457768	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	620796	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	553034	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	269448	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	211194	46.9316	46.93
$ 35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.068)	203512	44.4659	44.46
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	681416	48.5515	48.55
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	235279	48.6747	48.67

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102507.D

Date : 25-OCT-2021 12:17

Client ID: VBLKW-211025

Instrument: voa6.i

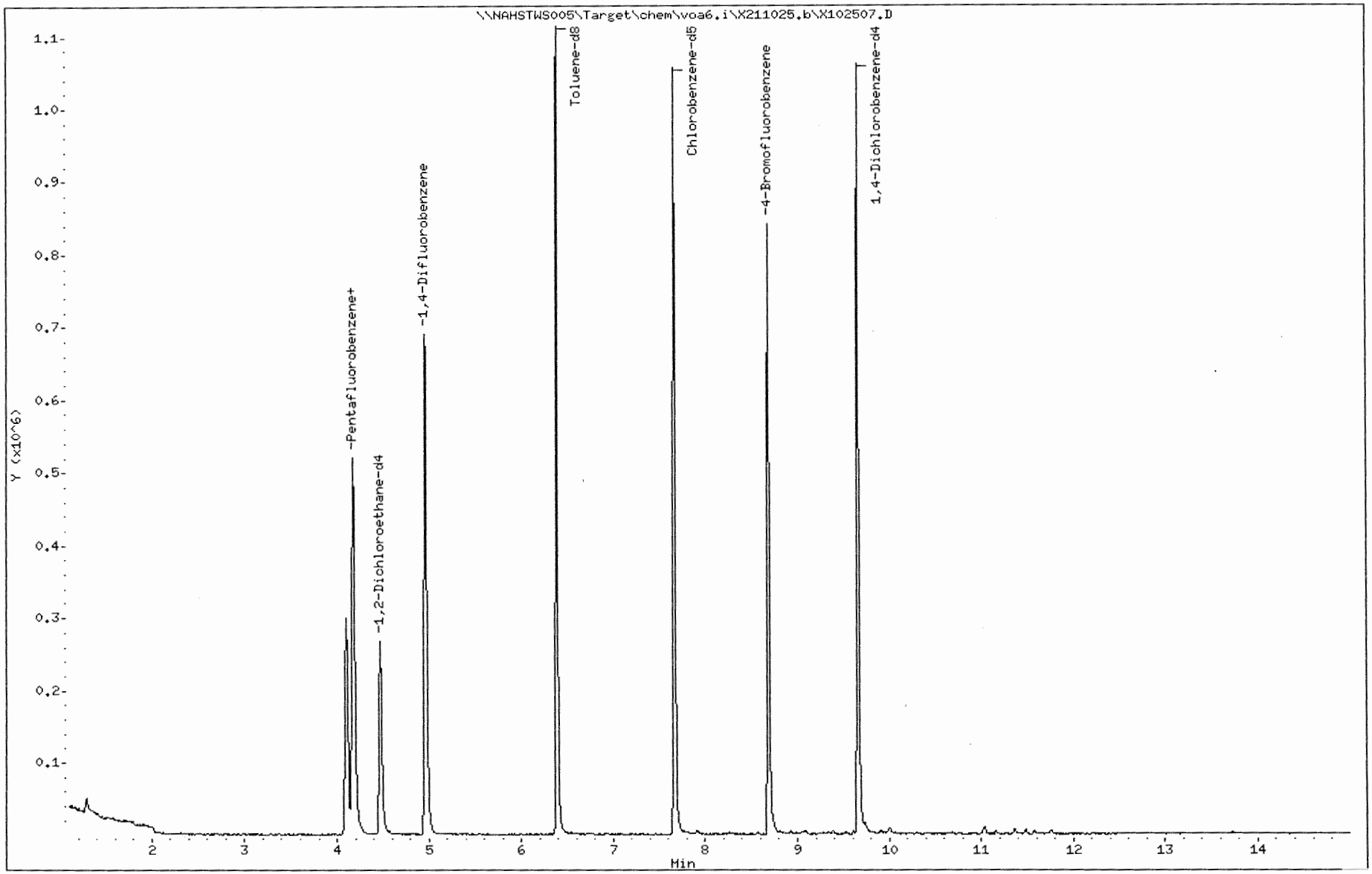
Sample Info: VBLKW-211025;VBLKW-211025;3;;BLANK

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102512.D Page 1
Report Date: 15-Nov-2021 15:55

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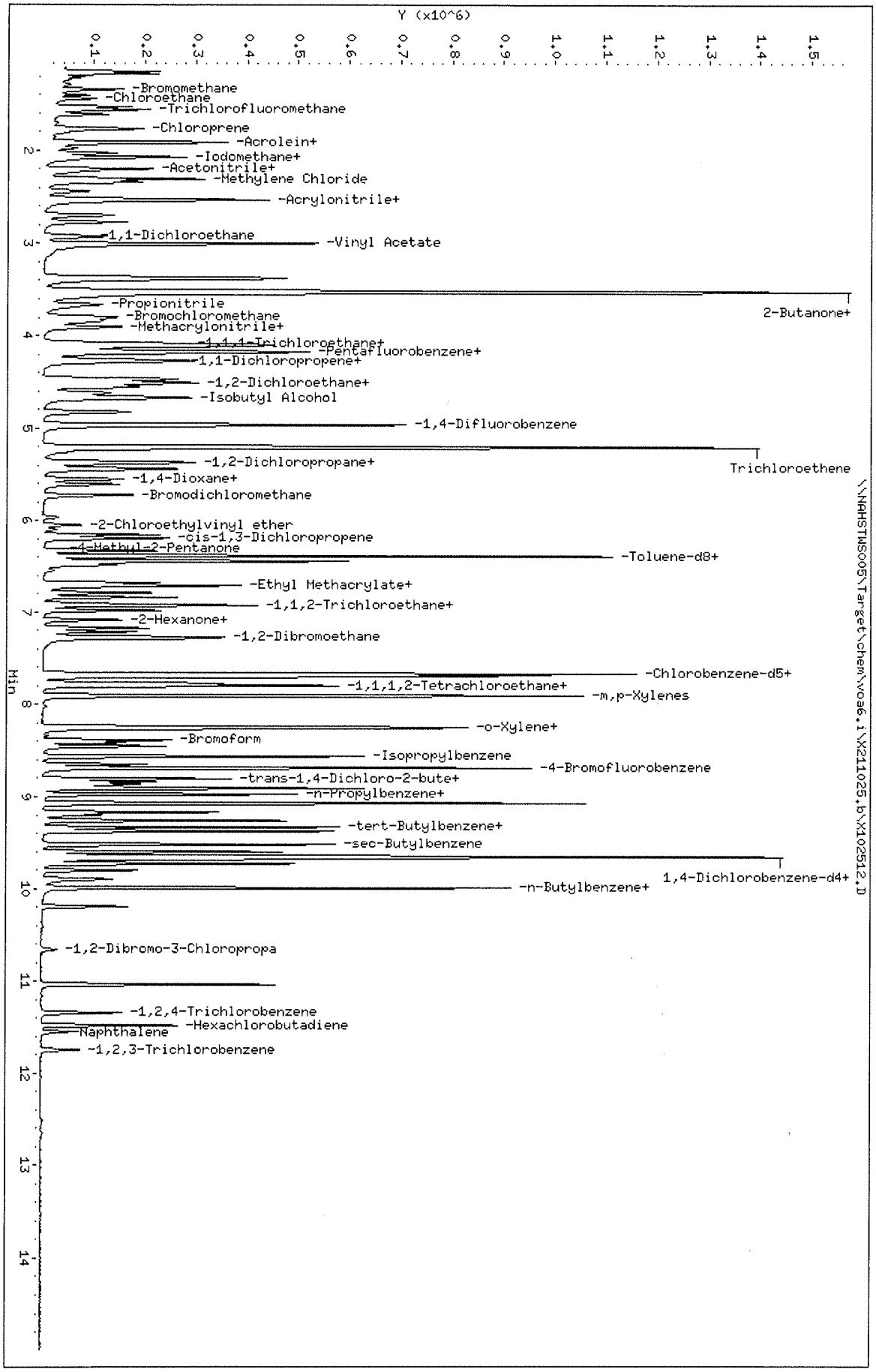
Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102512.D
Lab Smp Id: HS21101283-10MS Client Smp ID: HS21101283-10MS
Inj Date : 25-OCT-2021 14:02
Operator : PC Inst ID: voa6.i
Smp Info : HS21101283-10MS;HS21101283-10MS;3;;MS
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 15-Nov-2021 15:55 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 12 QC Sample: MS
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	456912	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	628124	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	562367	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	296917	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	213111	47.4588	47.45
$ 35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.069)	201602	44.1158	44.11
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	684793	47.9824	47.98
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	245606	50.0042	50.00
11 1,1-Dichloroethene	96	1.912	1.919	(0.457)	69844	17.1365	171.36
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	94565	17.9476	179.47
27 cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	804050	169.263	1692.63
17 Methylene Chloride	84	2.306	2.305	(0.551)	76322	18.3683	183.68
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	56257	18.7472	187.47
38 Trichloroethene	130	5.207	5.206	(1.049)	485686	102.223	1022.22
5 Vinyl Chloride	62	1.145	1.145	(0.274)	141105	29.4554	294.55



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102512.D
Date : 25-OCT-2021 14:02
Client ID: HS2110283-10HS
Sample Info: HS2110283-10HS;HS2110283-10HS;3;;HS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102513.D Page 1
Report Date: 15-Nov-2021 15:55

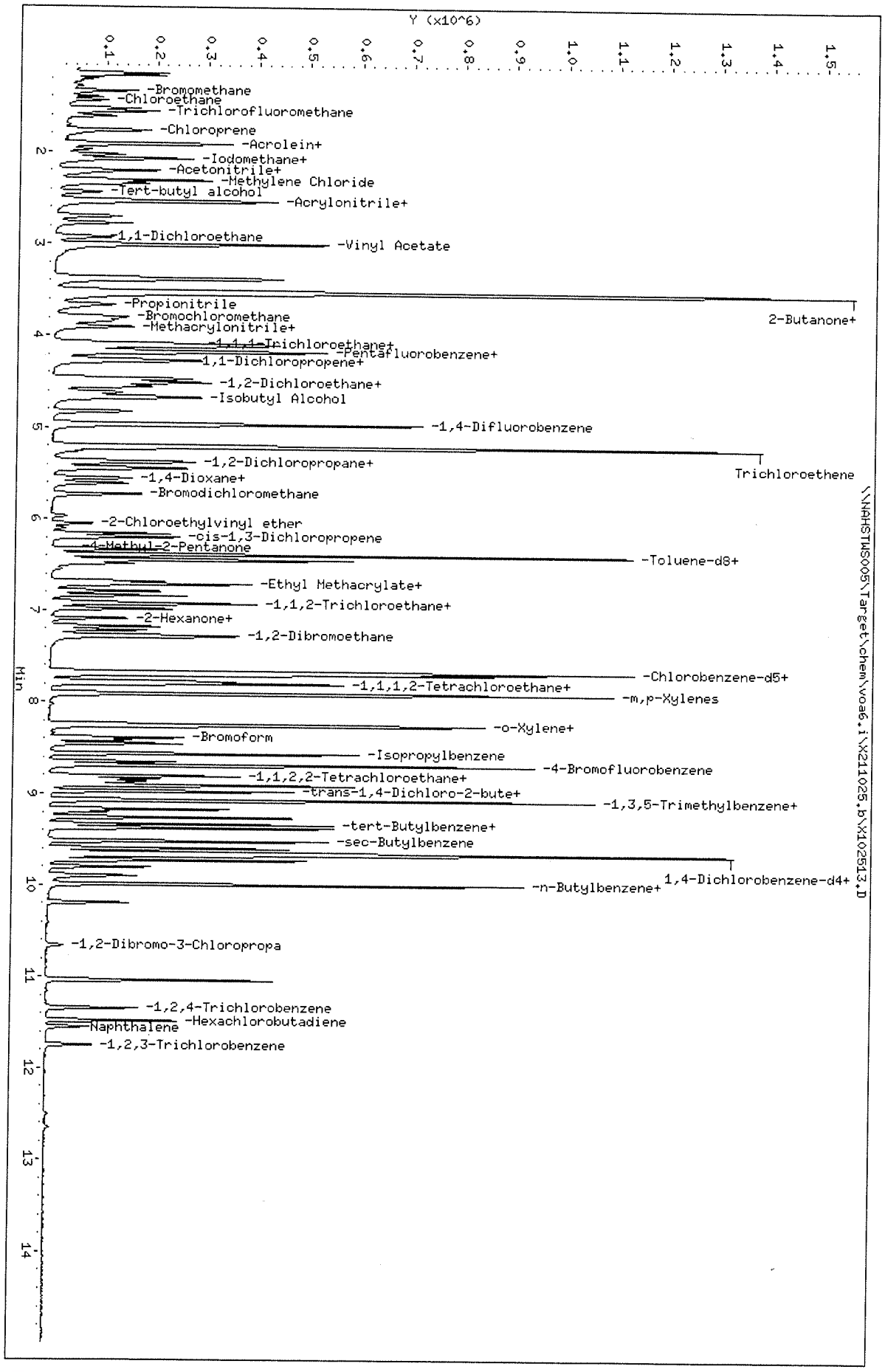
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102513.D
Lab Smp Id: HS21101283-10MSD Client Smp ID: HS21101283-10MSD
Inj Date : 25-OCT-2021 14:23
Operator : PC Inst ID: voa6.i
Smp Info : HS21101283-10MSD;HS21101283-10MSD;3;;MSD
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 15-Nov-2021 15:55 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 12 QC Sample: MSD
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	457740	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	627926	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	557282	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	278021	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.103	(0.979)	212387	47.2061	47.20
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	202356	44.2046	44.20
$	48 Toluene-d8	98	6.389	6.388	(0.833)	683675	48.3412	48.34
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	239064	49.0921	49.09
	11 1,1-Dichloroethene	96	1.912	1.919	(0.457)	66063	16.1795	161.79
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	92293	17.5219	175.21
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	795526	167.166	1671.65
	17 Methylene Chloride	84	2.306	2.305	(0.551)	74831	17.9499	179.49
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	56087	18.8611	188.61
	38 Trichloroethene	130	5.207	5.206	(1.049)	463013	97.4816	974.81
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	130890	27.2736	272.73



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Date : 25-OCT-2021 14:23
Client ID: HS21101283-10MSD
Sample Info: HS21101283-10MSD;HS21101283-10MSD;3;;HSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102517.D Page 1
Report Date: 15-Nov-2021 15:53

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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102517.D
Lab Smp Id: HS21101144-17 Client Smp ID: HS21101144-17
Inj Date : 25-OCT-2021 15:47
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-17;HS21101144-17;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 15-Nov-2021 15:50 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

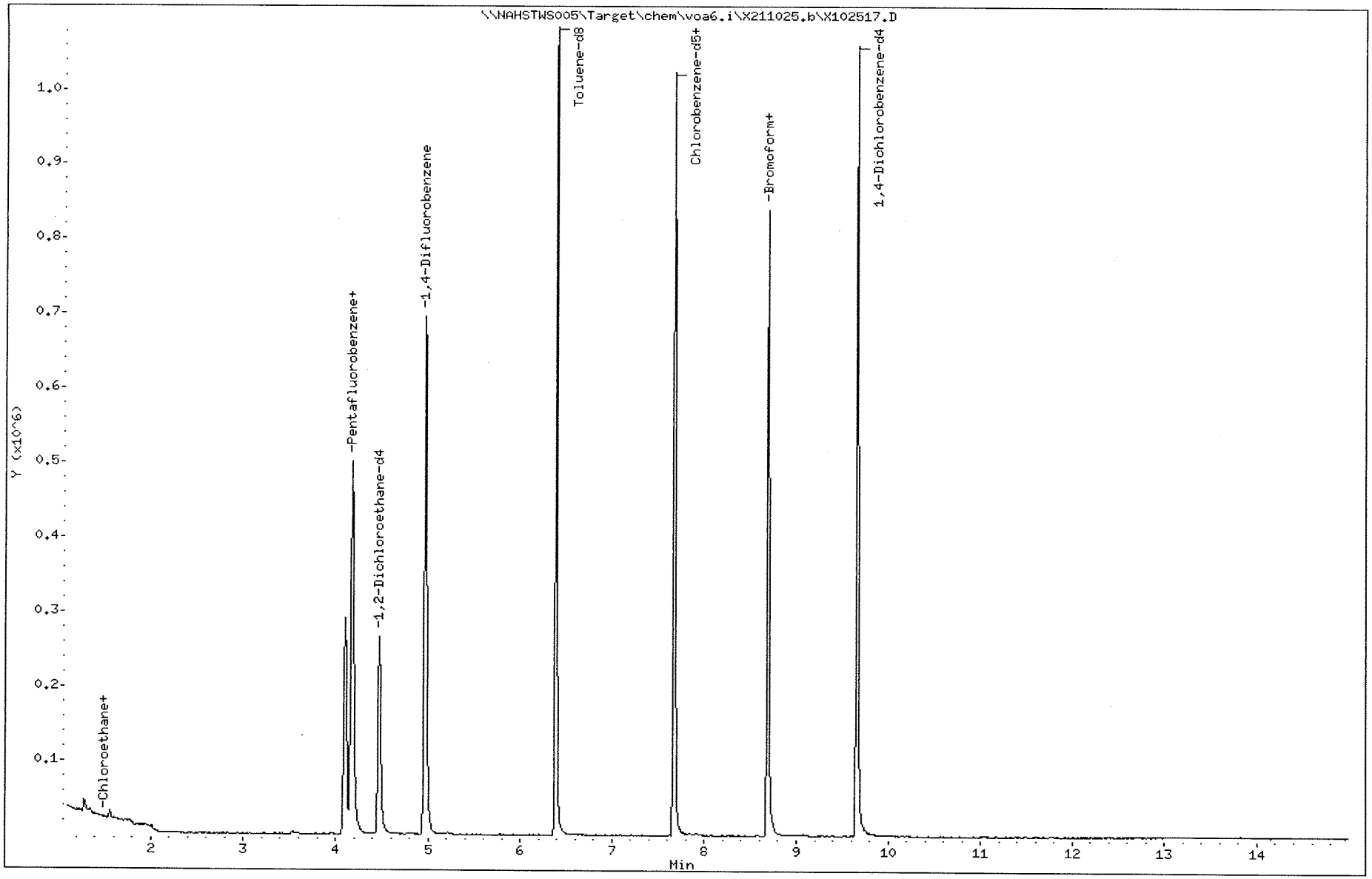
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	442866	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	615316	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	556981	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	270607	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	207673	47.7208	47.72
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	204285	46.2131	46.21
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	673411	47.6412	47.64
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	237290	48.7448	48.74

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102517.D
Date : 25-OCT-2021 15:47
Client ID: HS21101144-17
Sample Info: HS21101144-17;HS21101144-17;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102519.D Page 1
Report Date: 15-Nov-2021 15:53

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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102519.D
Lab Smp Id: HS21101144-13 Client Smp ID: HS21101144-13
Inj Date : 25-OCT-2021 16:29
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-13;HS21101144-13;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 15-Nov-2021 15:50 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

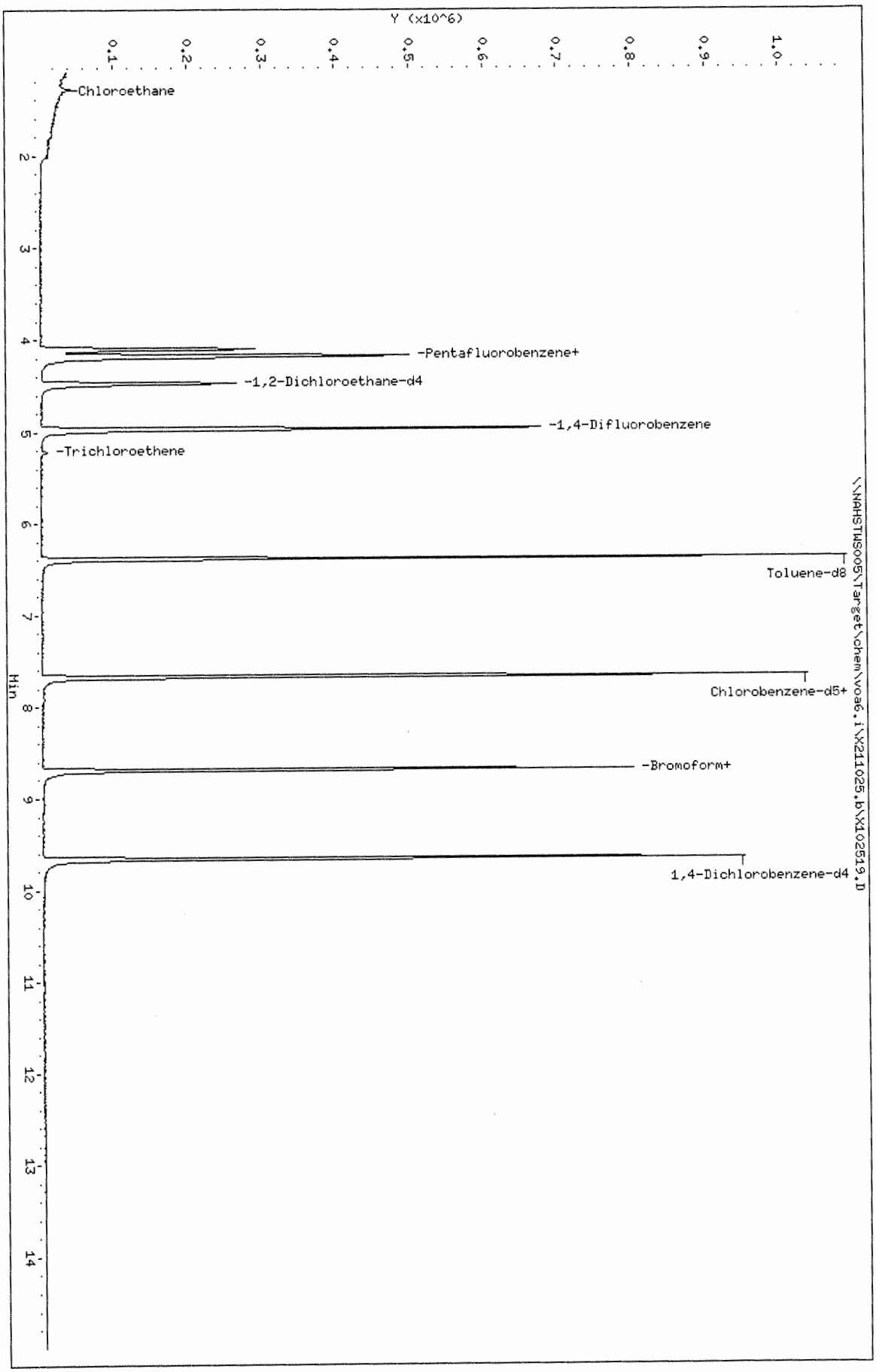
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	438686	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	606745	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	532255	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	248098	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	206229	47.8433	47.84
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	200176	45.6932	45.69
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	662713	49.0623	49.06
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	228475	49.1247	49.12
38 Trichloroethene	130	5.214	5.207	(1.051)	2549	0.55539	0.55(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102519.D
Date : 25-OCT-2021 16:29
Client ID: HS21101144-13
Sample Info: HS21101144-13;HS21101144-13;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102519.D

Date : 25-OCT-2021 16:29

Client ID: HS21101144-13

Instrument: voa6.i

Sample Info: HS21101144-13;HS21101144-13;;;

Purge Volume: 5.0

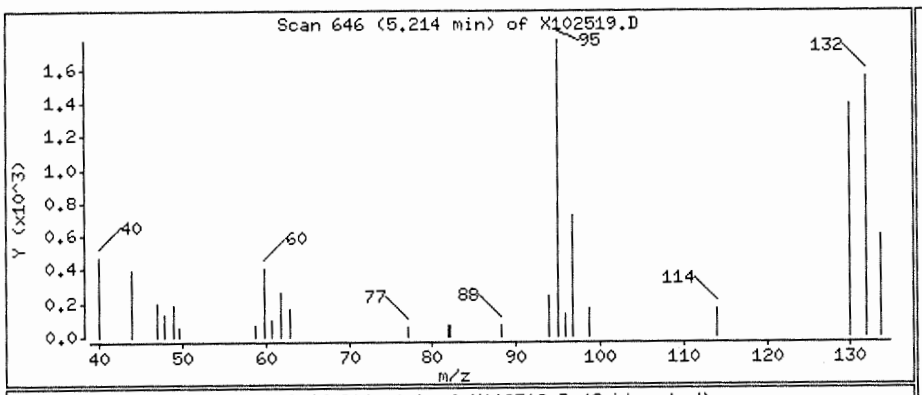
Operator: PC

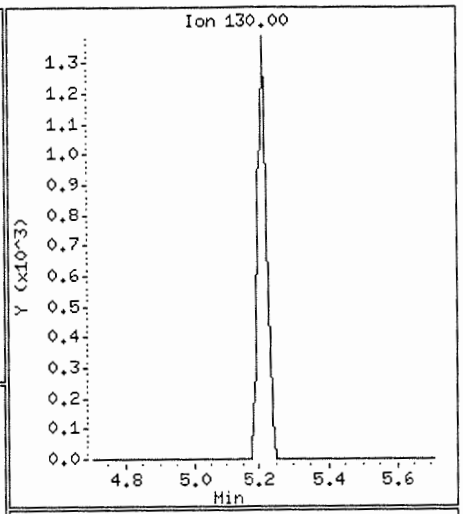
Column phase: DB624

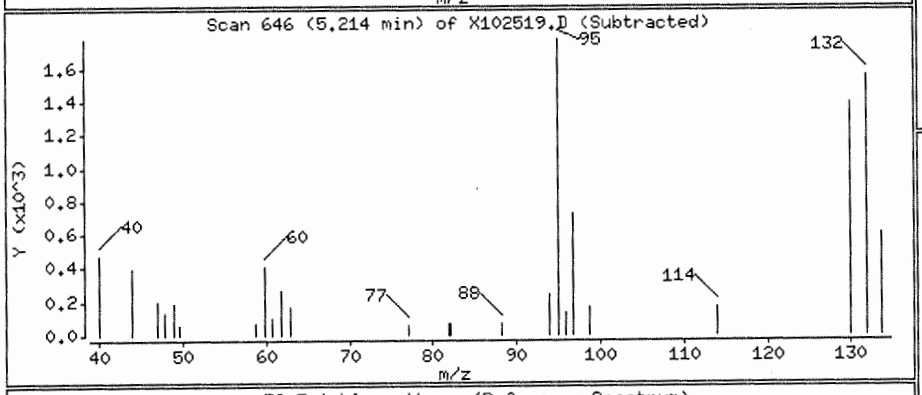
Column diameter: 0.18

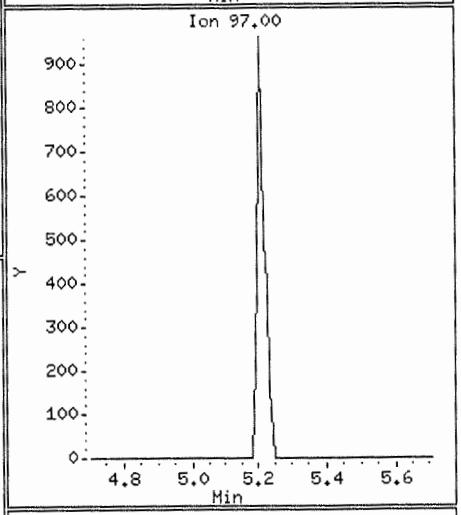
38 Trichloroethene

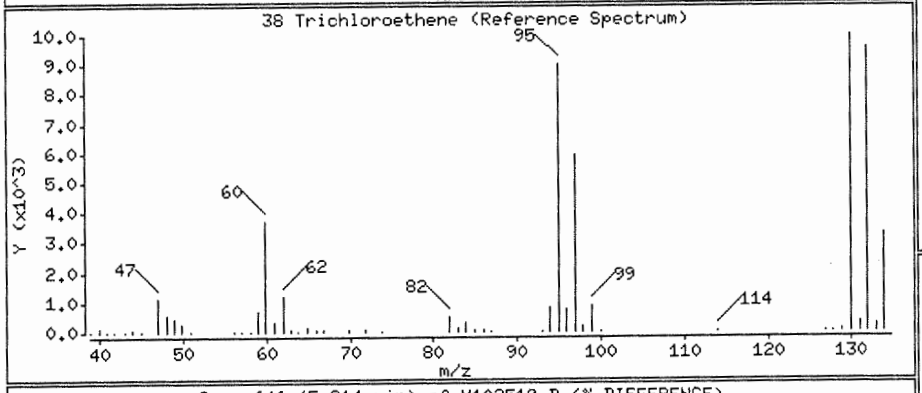
Concentration: 0.55 ug/l

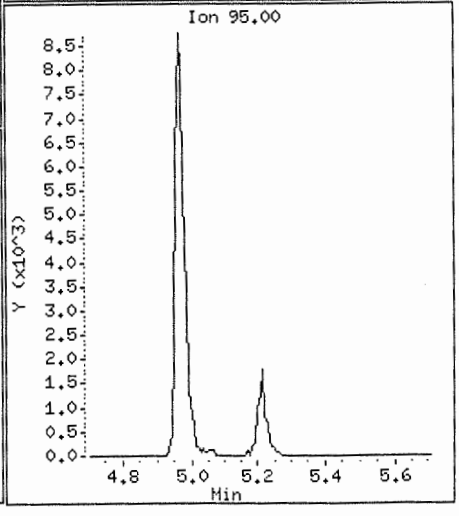


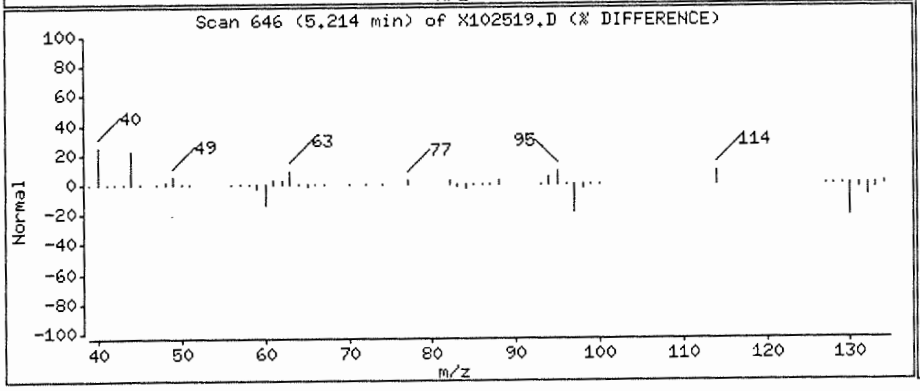












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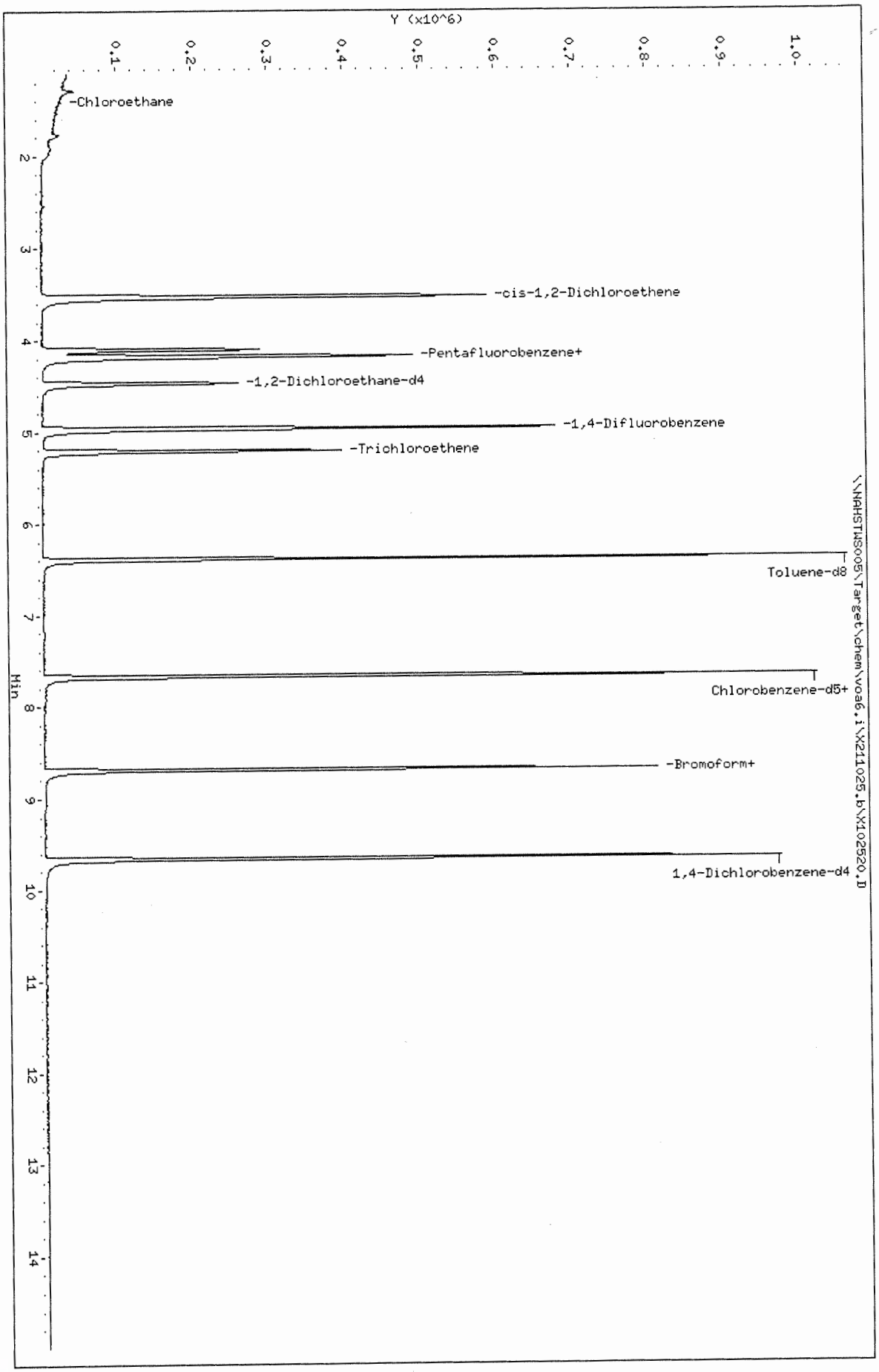
Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102520.D
Lab Smp Id: HS21101144-15 Client Smp ID: HS21101144-15
Inj Date : 25-OCT-2021 16:50
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-15;HS21101144-15;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 15-Nov-2021 15:50 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	436869	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	599637	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	529741	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	258119	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	201397	46.8946	46.89
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	196962	45.1222	45.12
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	651663	48.4732	48.47
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	221790	47.8799	47.87
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	326374	71.8583	71.85
38 Trichloroethene	130	5.206	5.207	(1.049)	135004	29.7643	29.76



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102520.D
Date : 25-OCT-2021 16:50
Client ID: HS21101144-15
Sample Info: HS21101144-15;HS21101144-15;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102520.D

Date : 25-OCT-2021 16:50

Client ID: HS21101144-15

Instrument: voa6.i

Sample Info: HS21101144-15;HS21101144-15;;;

Purge Volume: 5.0

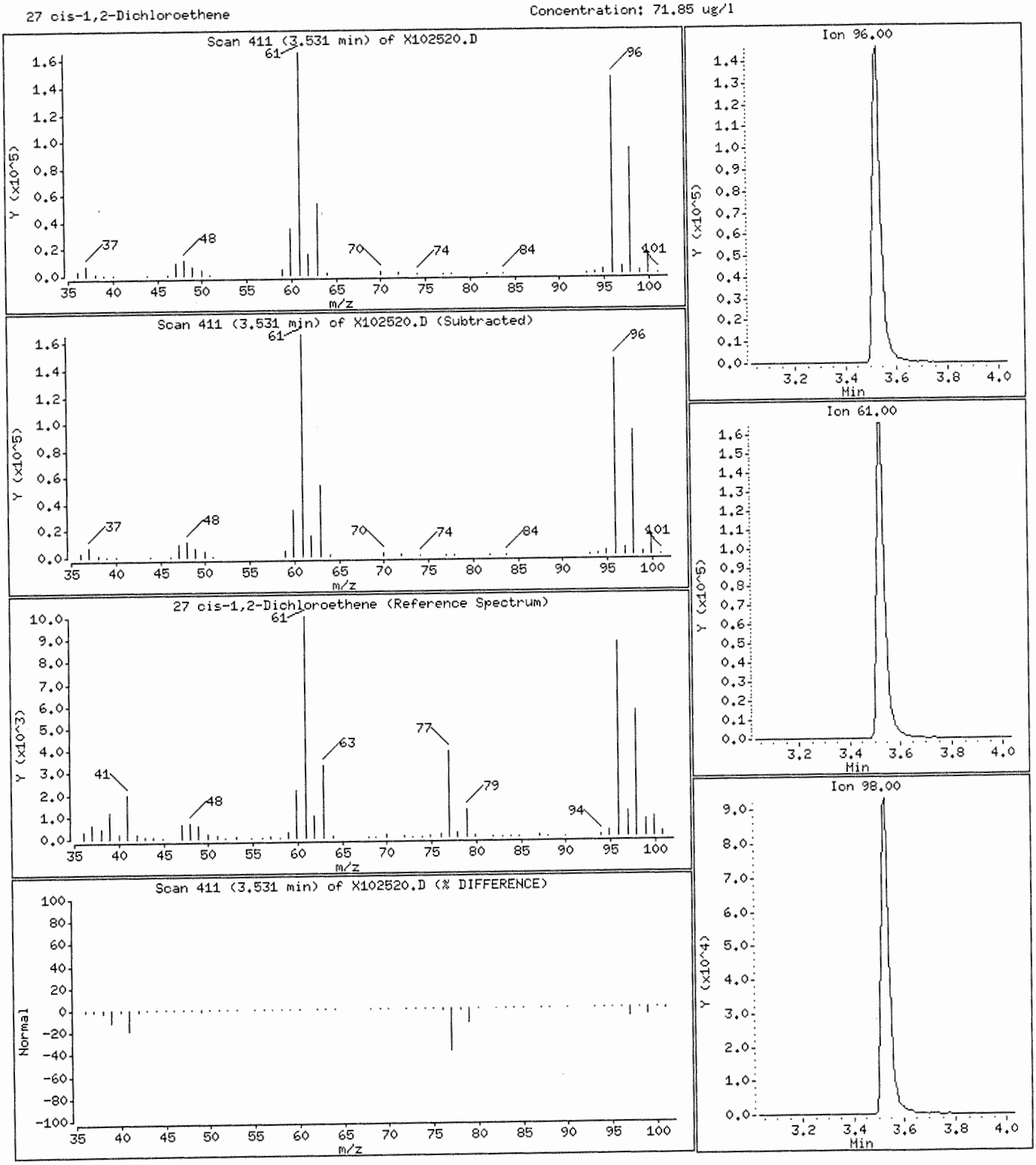
Operator: PC

Column phase: DB624

Column diameter: 0.18

27 cis-1,2-Dichloroethene

Concentration: 71.85 ug/l



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102520.D

Date : 25-OCT-2021 16:50

Client ID: HS21101144-15

Instrument: voa6.i

Sample Info: HS21101144-15;HS21101144-15;;;

Purge Volume: 5.0

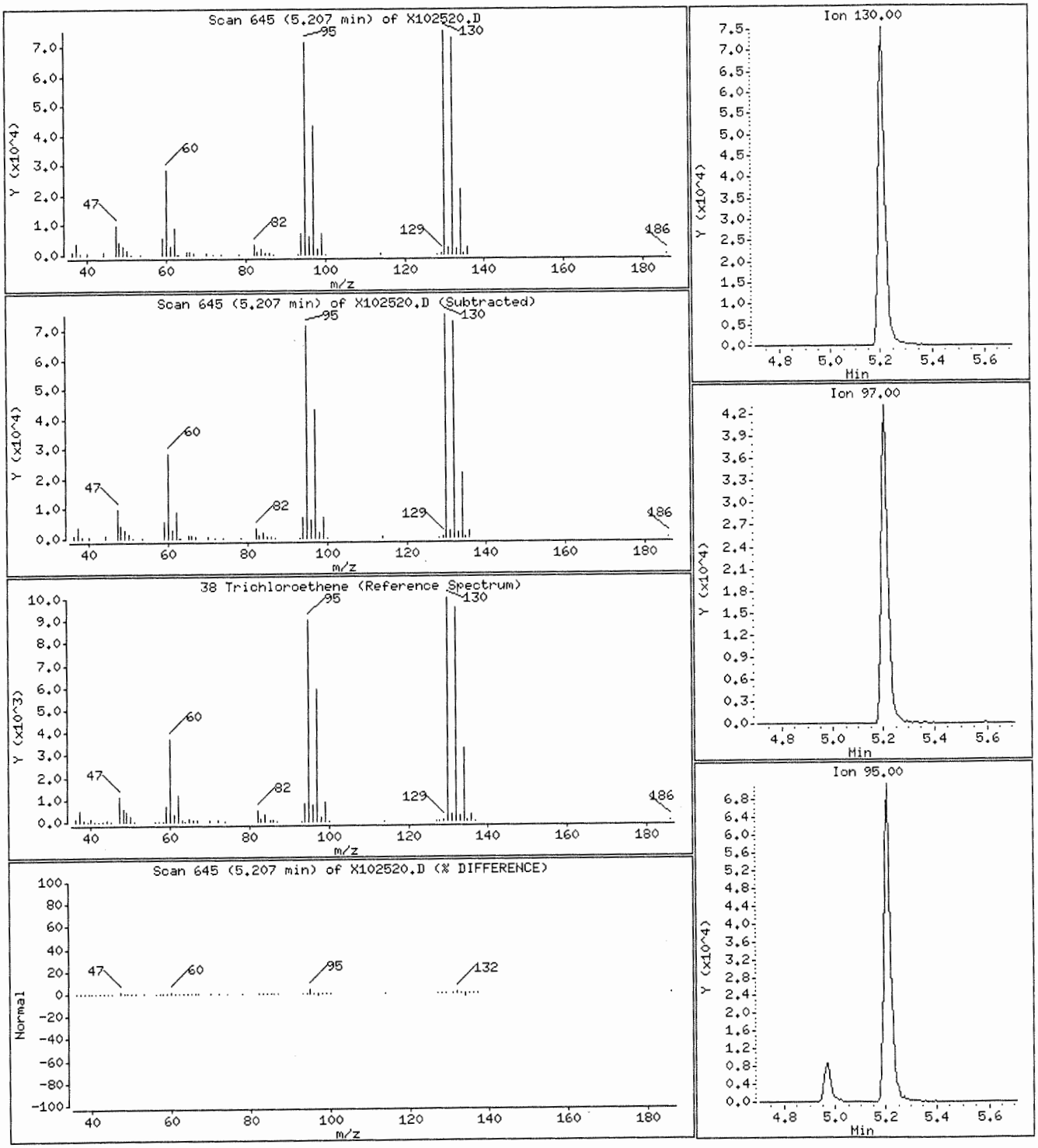
Operator: PC

Column phase: DB624

Column diameter: 0.18

38 Trichloroethene

Concentration: 29.76 ug/l



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102524.D Page 1
Report Date: 15-Nov-2021 15:53

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102524.D
Lab Smp Id: HS21101144-16 Client Smp ID: HS21101144-16
Inj Date : 25-OCT-2021 18:15
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-16;HS21101144-16;;;
Misc Info : HS18090001;WATER;0;5;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 15-Nov-2021 15:50 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 23
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	5.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	429593	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	596497	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	524113	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	257724	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	202197	47.9022	47.90
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	199382	46.5100	46.51
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	659005	49.5457	49.54
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	228188	49.8446	49.84
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	128103	28.6823	143.41
38 Trichloroethene	130	5.206	5.207	(1.049)	2202702	488.186	2440.93(A)

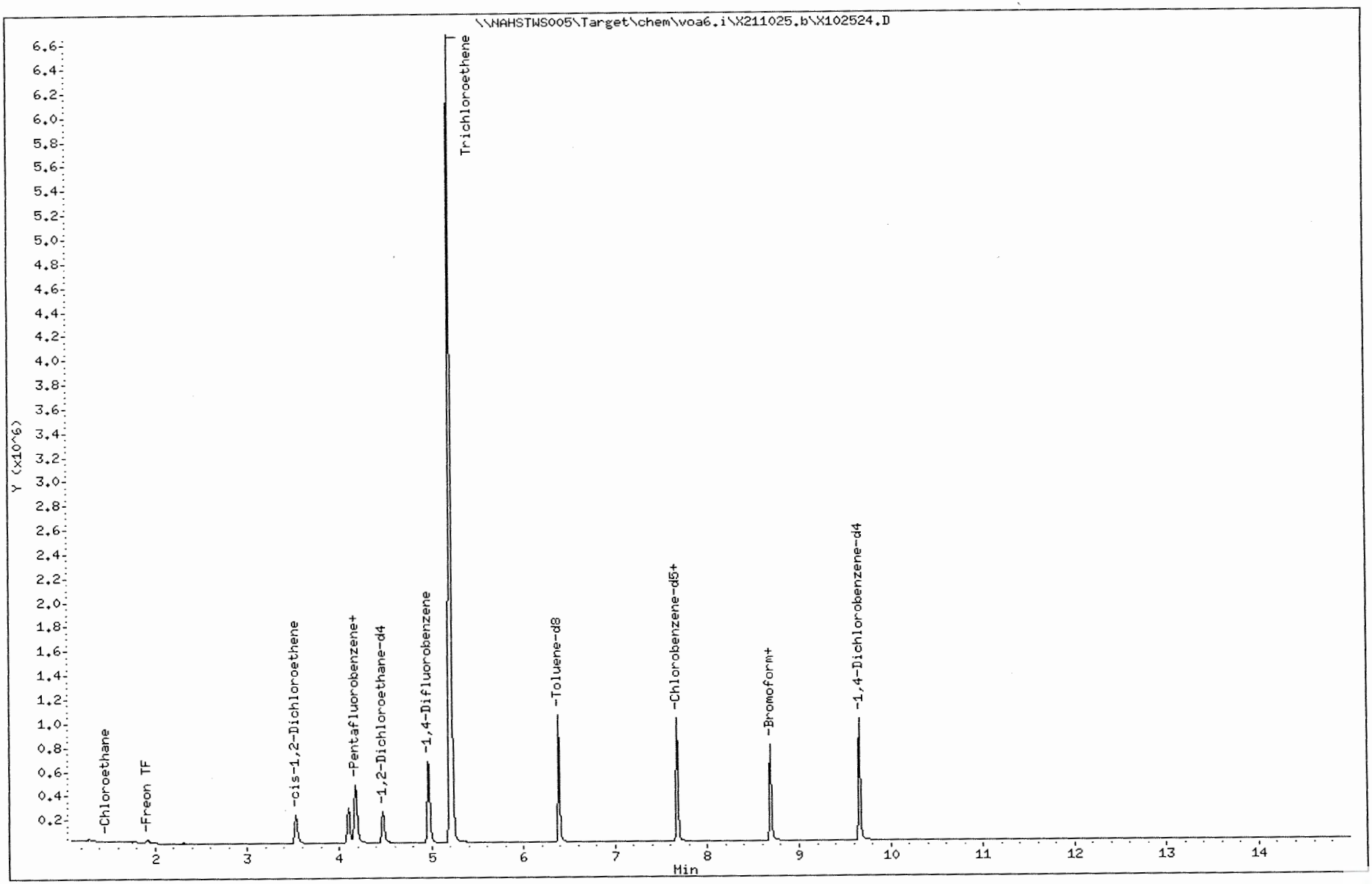
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102524.D
Date : 25-OCT-2021 18:15
Client ID: HS21101144-16
Sample Info: HS21101144-16;HS21101144-16;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i

Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102524.D

Date : 25-OCT-2021 18:15

Client ID: HS21101144-16

Instrument: voa6.i

Sample Info: HS21101144-16;HS21101144-16;;;

Purge Volume: 5.0

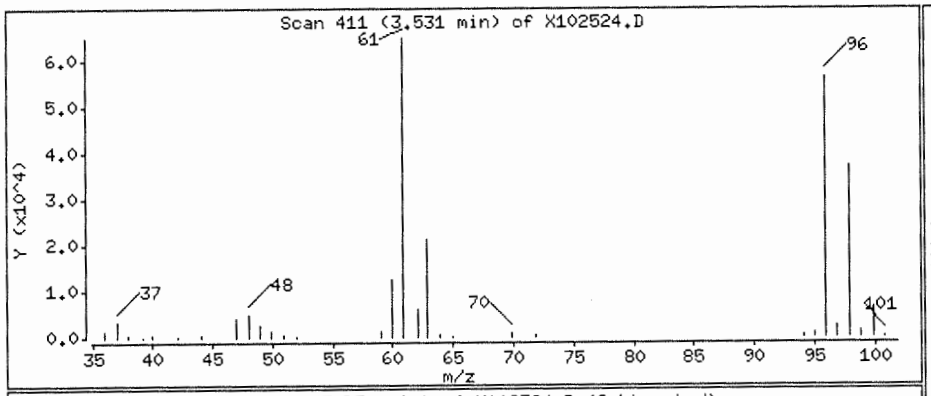
Operator: PC

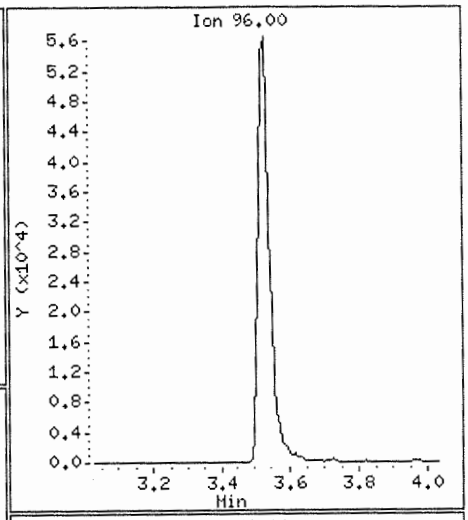
Column phase: DB624

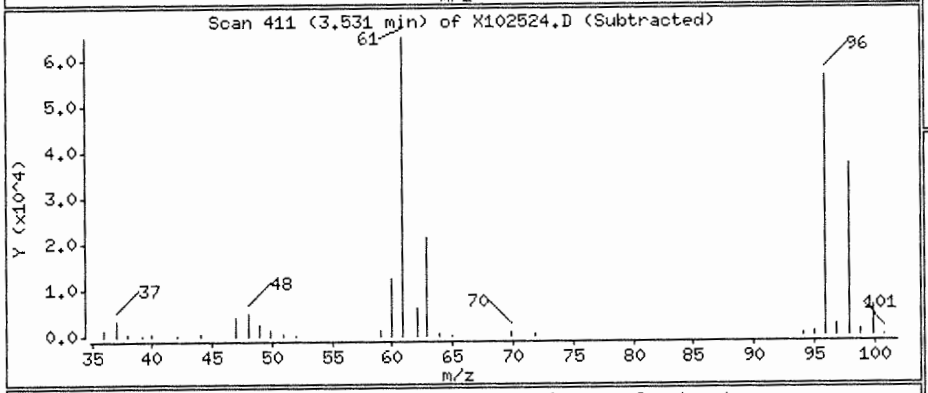
Column diameter: 0.18

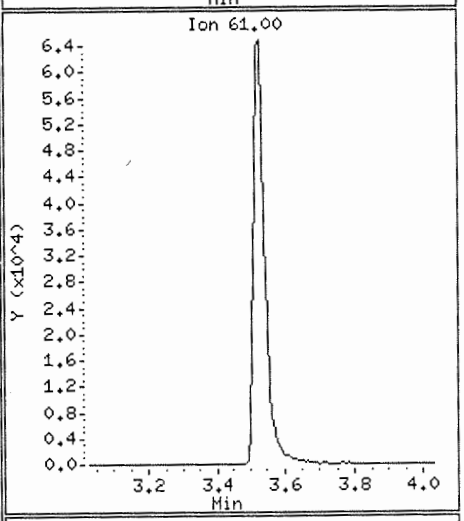
27 cis-1,2-Dichloroethene

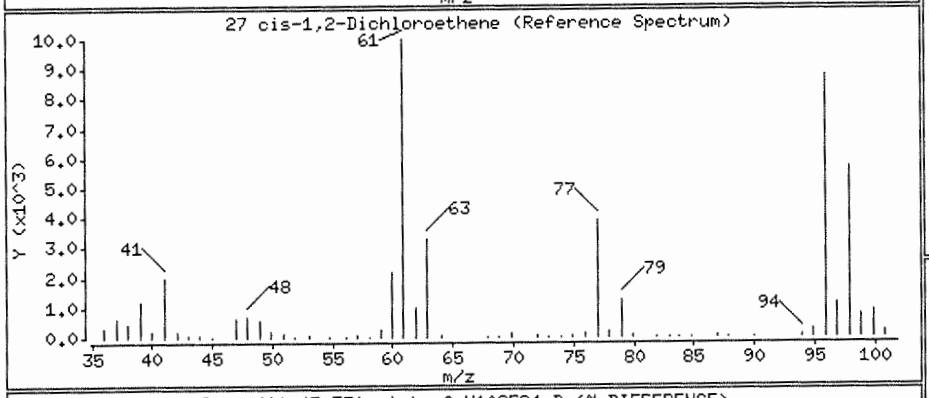
Concentration: 143.41 ug/l

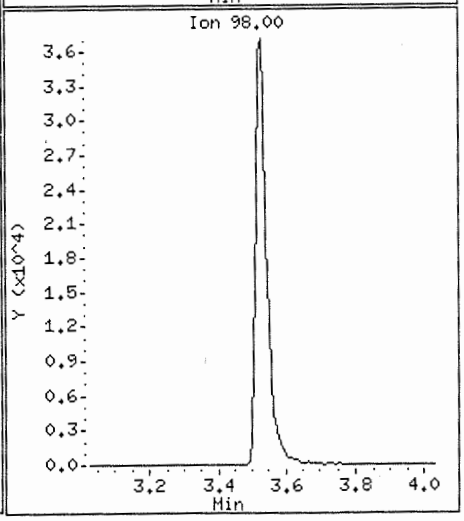


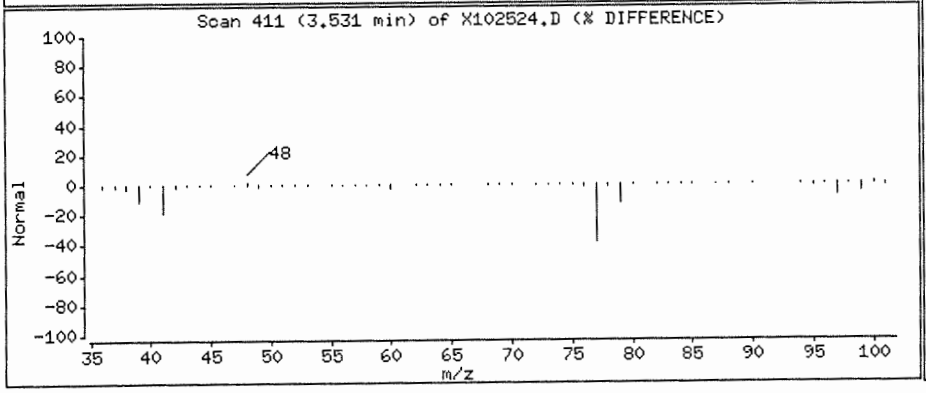












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102524.D

Date : 25-OCT-2021 18:15

Client ID: HS21101144-16

Instrument: voa6.i

Sample Info: HS21101144-16;HS21101144-16;;;

Purge Volume: 5.0

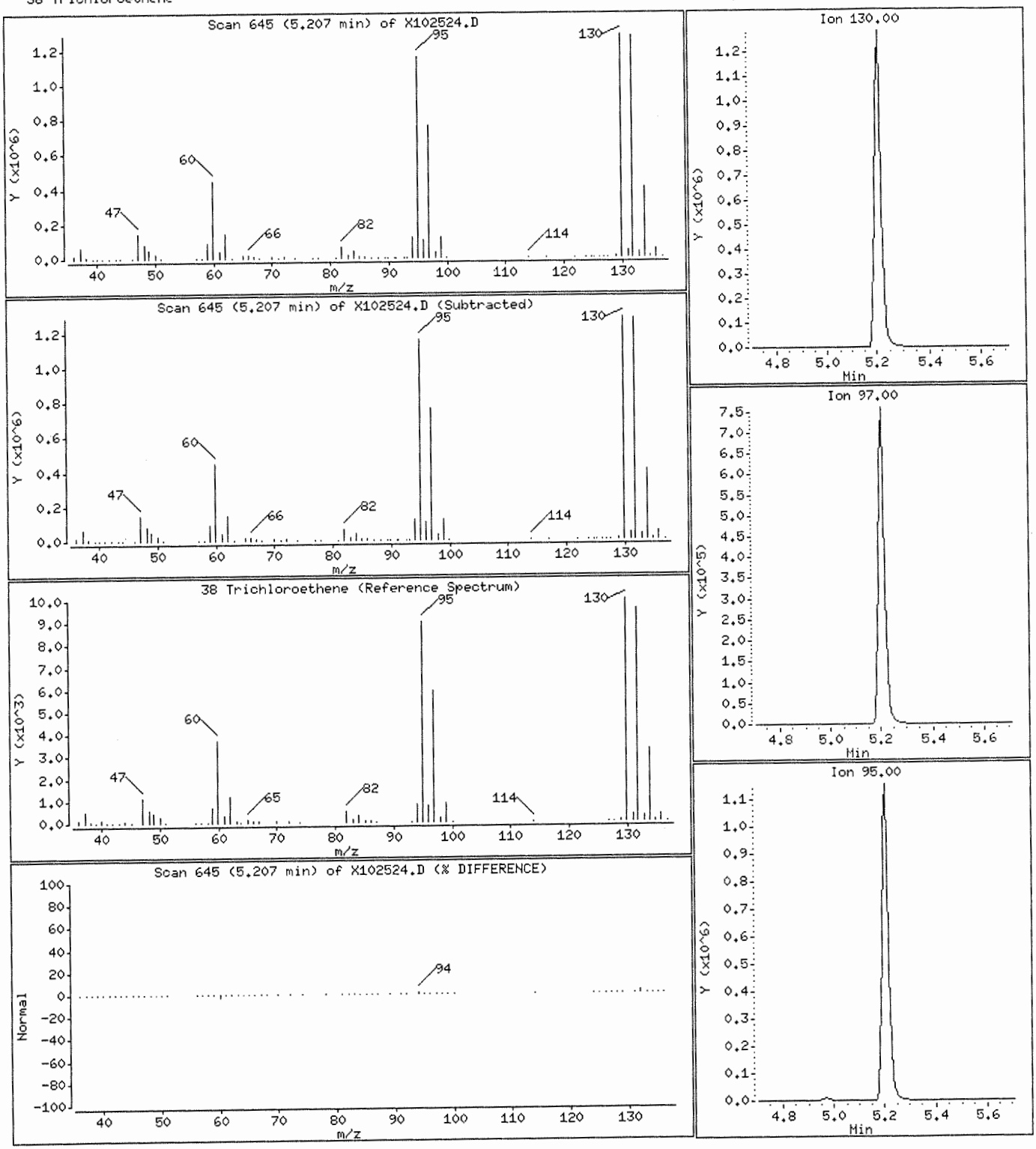
Operator: PC

Column phase: DB624

Column diameter: 0.18

38 Trichloroethene

Concentration: 2440.93 ug/l



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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102525.D
Lab Smp Id: HS21101144-16 Client Smp ID: HS21101144-16
Inj Date : 25-OCT-2021 18:36
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-16;HS21101144-16;;;
Misc Info : HS18090001;WATER;0;25;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 15-Nov-2021 15:50 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 24
Dil Factor: 25.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

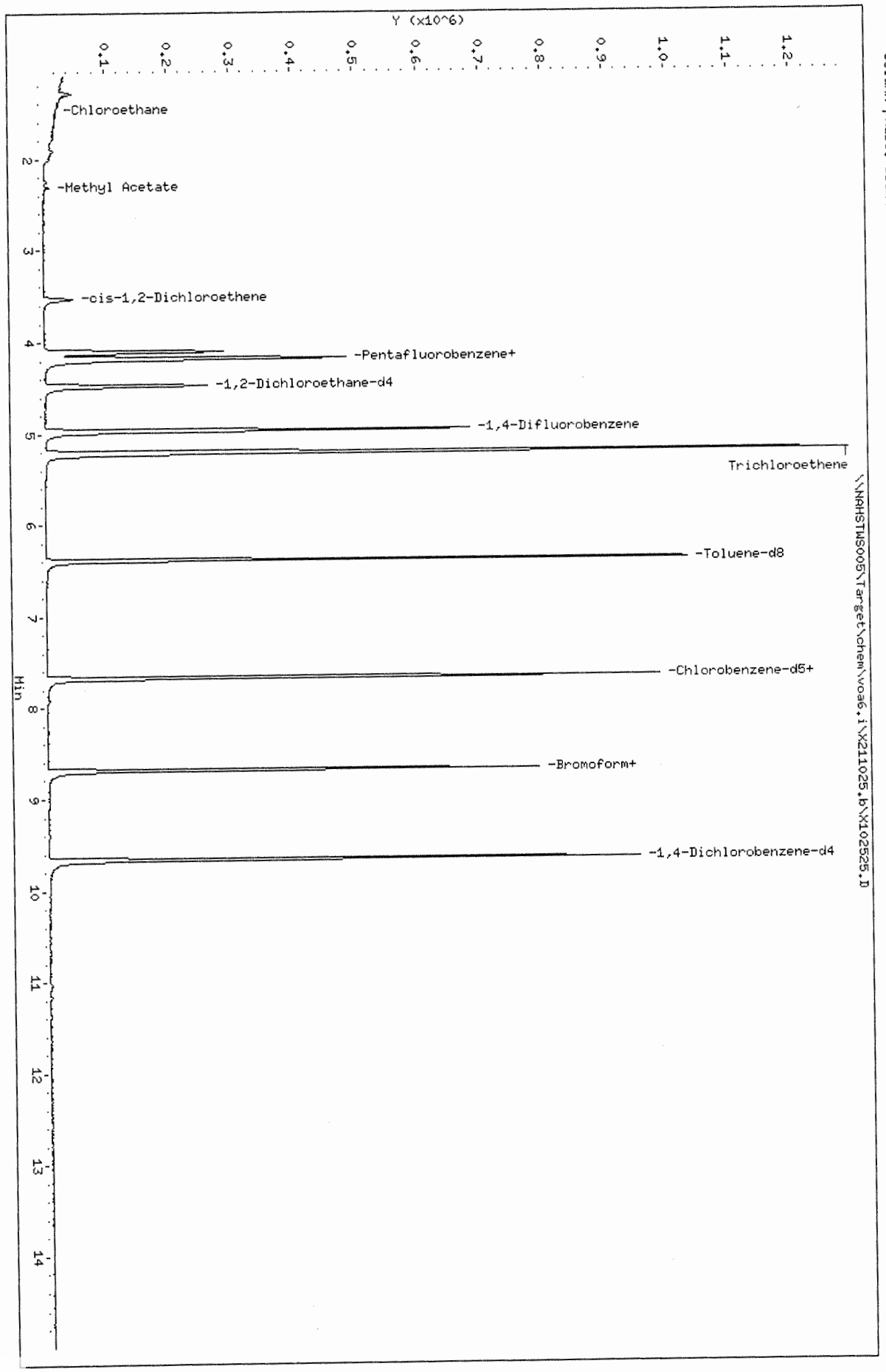
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	25.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	427748	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	592811	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	524412	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	247543	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	199771	47.5228	47.52
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	198589	46.5255	46.52
$ 48 Toluene-d8	98	6.389	6.388	(0.833)	636886	47.8555	47.85
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	225914	49.3054	49.30
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	26738	6.01248	150.31
38 Trichloroethene	130	5.207	5.207	(1.049)	441057	98.3595	2458.98

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102525.D
Date : 25-OCT-2021 18:36
Client ID: HS21101144-16
Sample Info: HS21101144-16;HS21101144-16;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102525.D

Date : 25-OCT-2021 18:36

Client ID: HS21101144-16

Instrument: voa6.i

Sample Info: HS21101144-16;HS21101144-16;;;

Purge Volume: 5.0

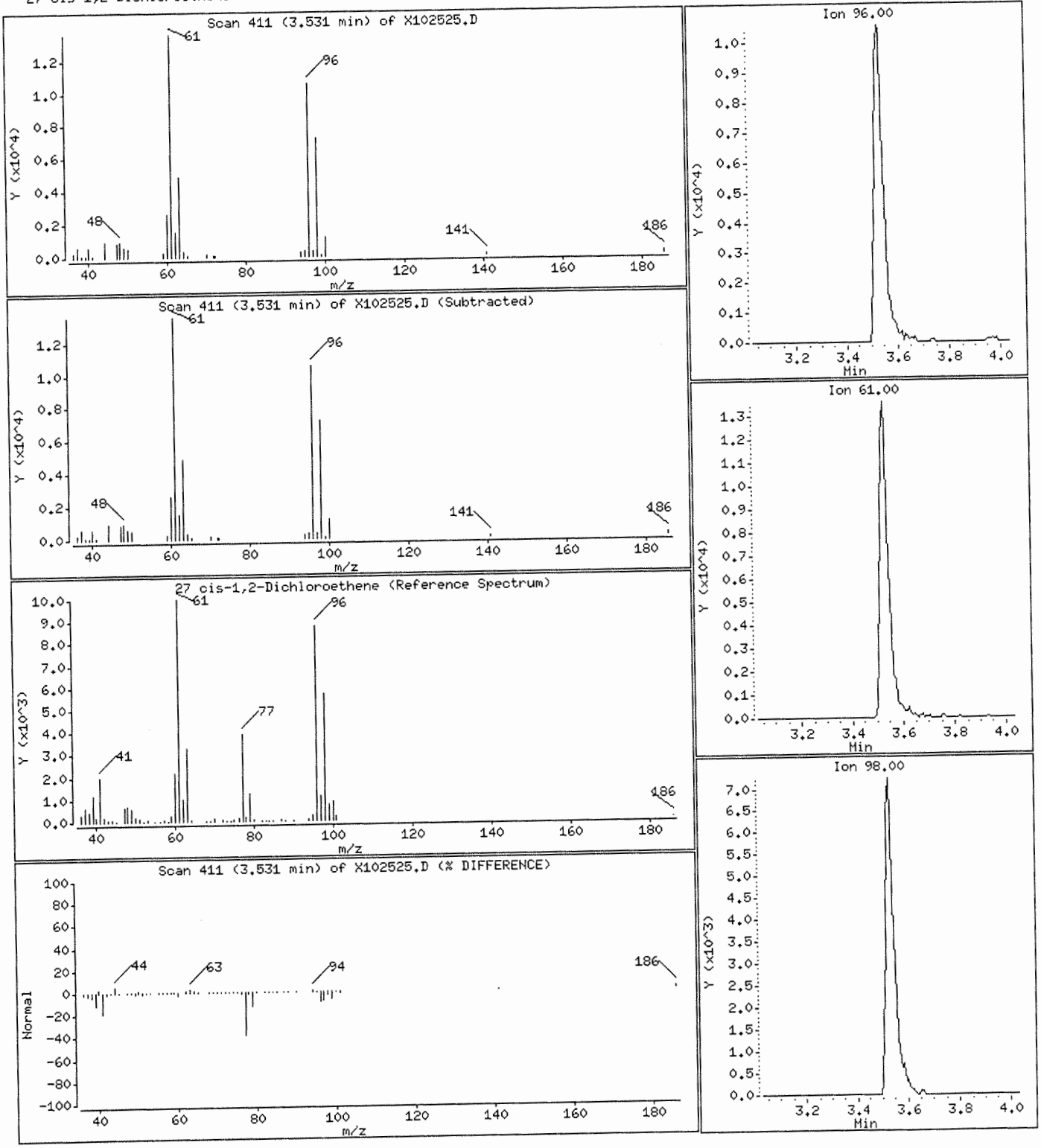
Operator: PC

Column phase: DB624

Column diameter: 0.18

27 cis-1,2-Dichloroethene

Concentration: 150.31 ug/l



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102525.D

Date : 25-OCT-2021 18:36

Client ID: HS21101144-16

Instrument: voa6.i

Sample Info: HS21101144-16;HS21101144-16;;;

Purge Volume: 5.0

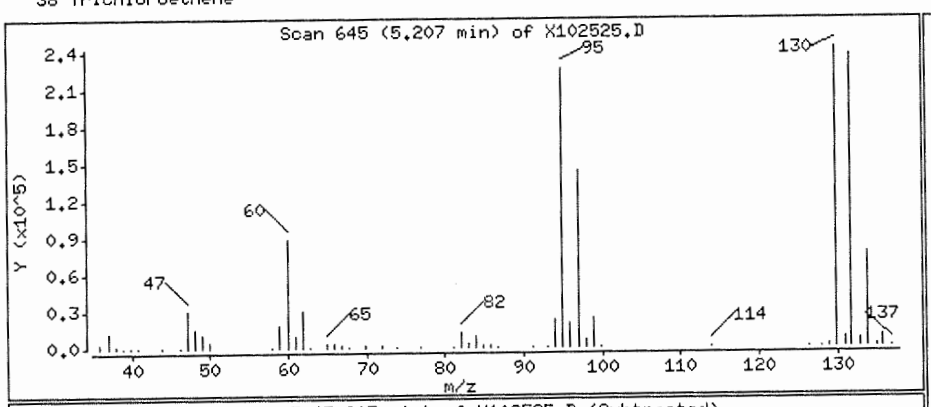
Operator: PC

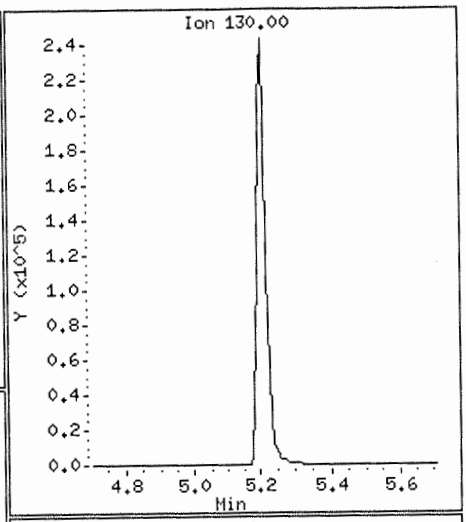
Column phase: DB624

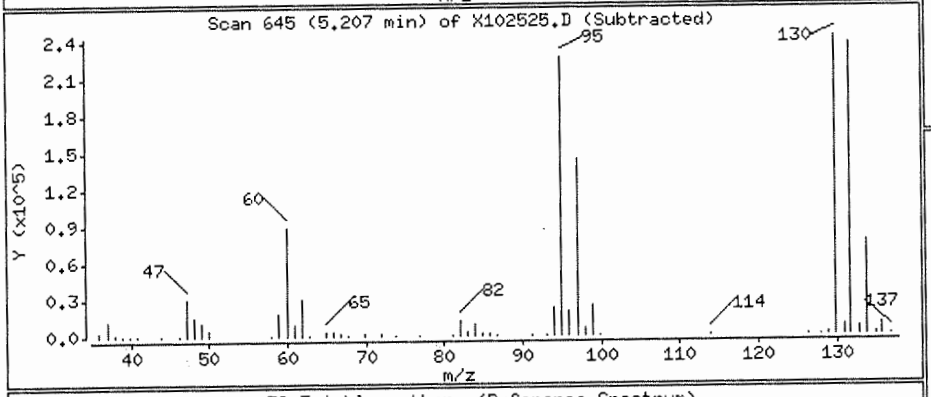
Column diameter: 0.18

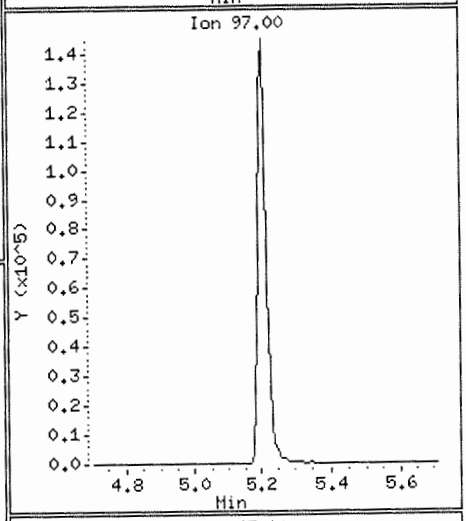
38 Trichloroethene

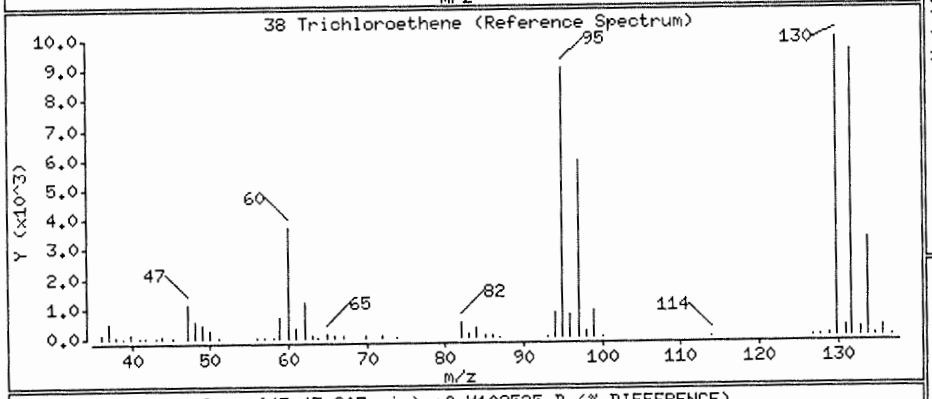
Concentration: 2458.98 ug/l

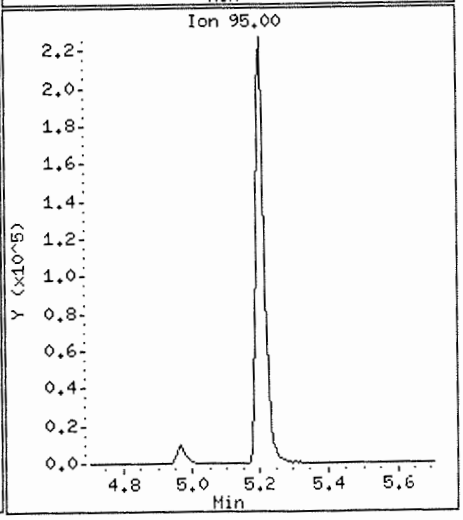


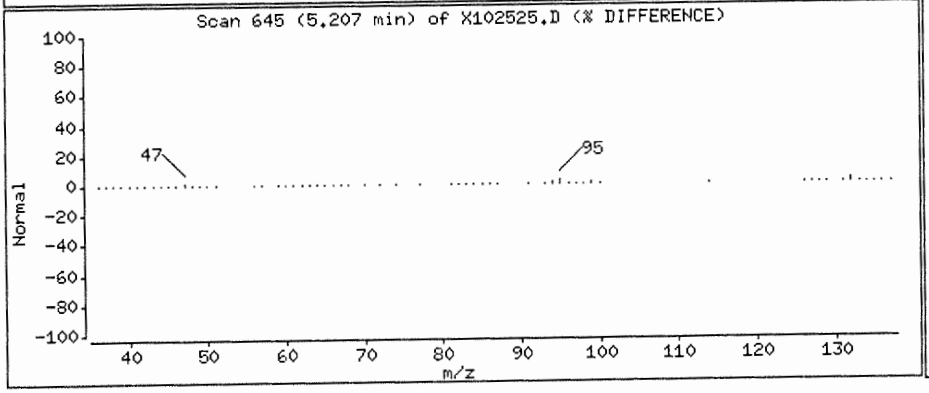












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102526.D Page 1
Report Date: 15-Nov-2021 15:53

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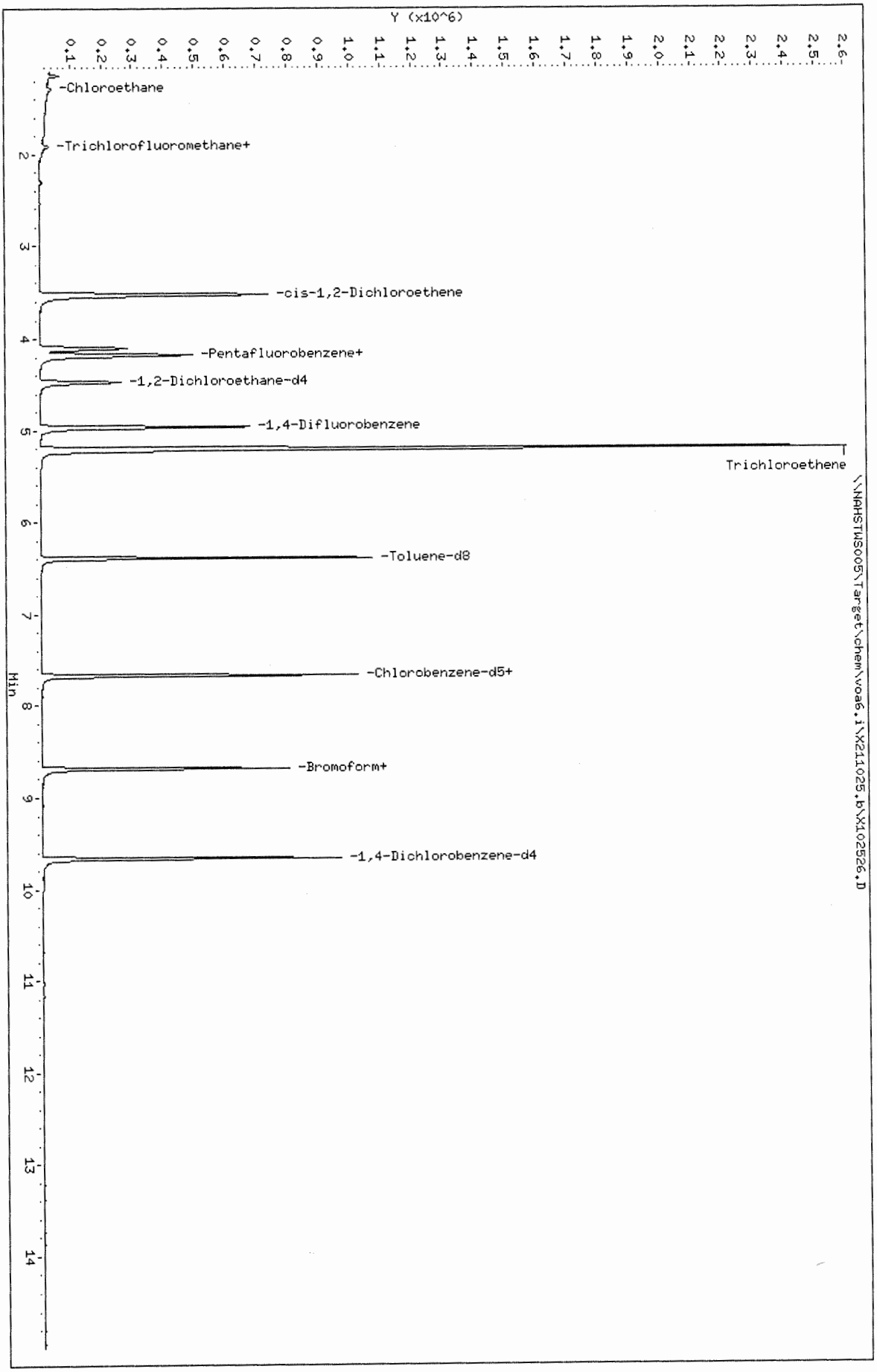
Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102526.D
Lab Smp Id: HS21101144-12 Client Smp ID: HS21101144-12
Inj Date : 25-OCT-2021 18:57
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-12;HS21101144-12;;;
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 15-Nov-2021 15:50 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 25
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	433757	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	596813	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	526509	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	246240	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	203236	47.6810	47.68
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	196652	45.3857	45.38
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	651021	48.7227	48.72
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	226026	49.1286	49.12
27 cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	414672	91.9540	919.53
38 Trichloroethene	130	5.207	5.207	(1.049)	868950	192.484	1924.83
5 Vinyl Chloride	62	1.145	1.145	(0.274)	26618	5.85306	58.53



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102526.D
Date : 25-OCT-2021 18:57
Client ID: HS211011144-12
Sample Info: HS211011144-12;HS211011144-12;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102526.D

Date : 25-OCT-2021 18:57

Client ID: HS21101144-12

Instrument: voa6.i

Sample Info: HS21101144-12;HS21101144-12;;;

Purge Volume: 5.0

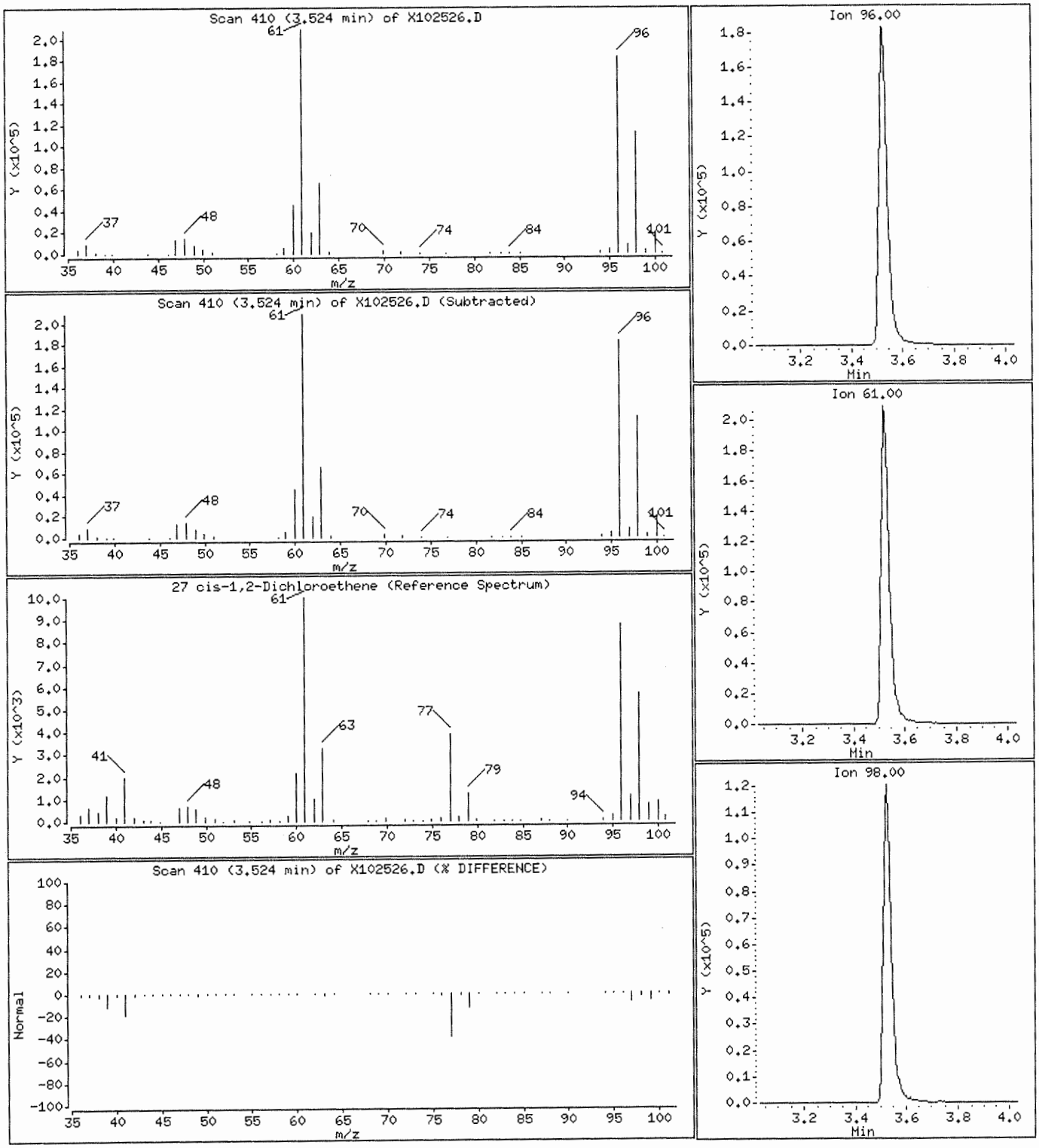
Operator: PC

Column phase: DB624

Column diameter: 0.18

27 cis-1,2-Dichloroethene

Concentration: 919.53 ug/l



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102526.D

Date : 25-OCT-2021 18:57

Client ID: HS21101144-12

Instrument: voa6.i

Sample Info: HS21101144-12;HS21101144-12;;;

Purge Volume: 5.0

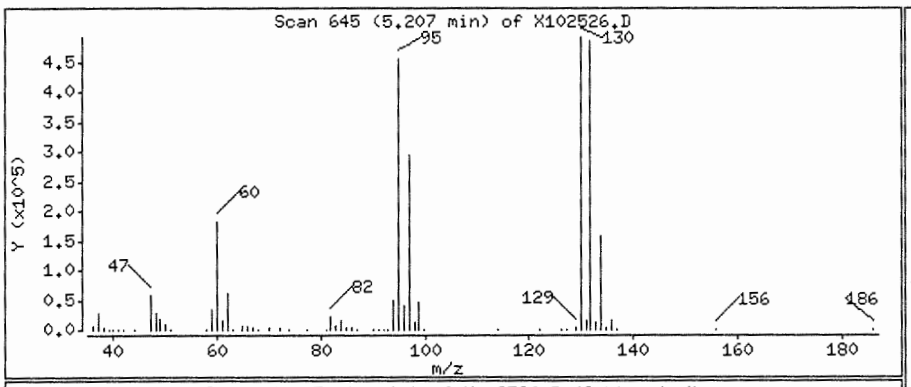
Operator: PC

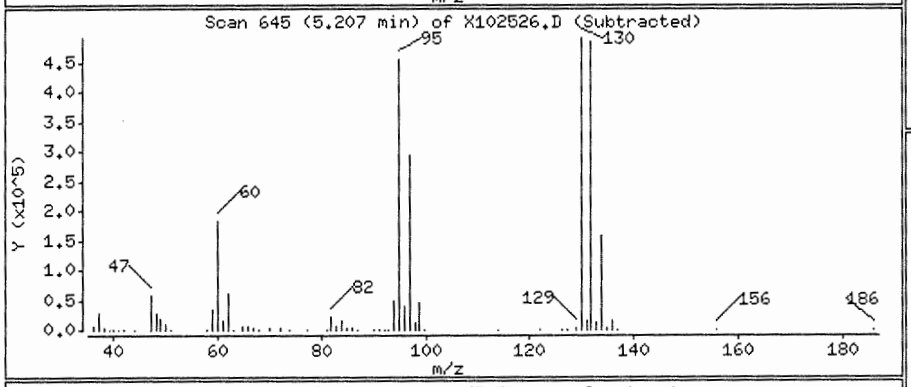
Column phase: DB624

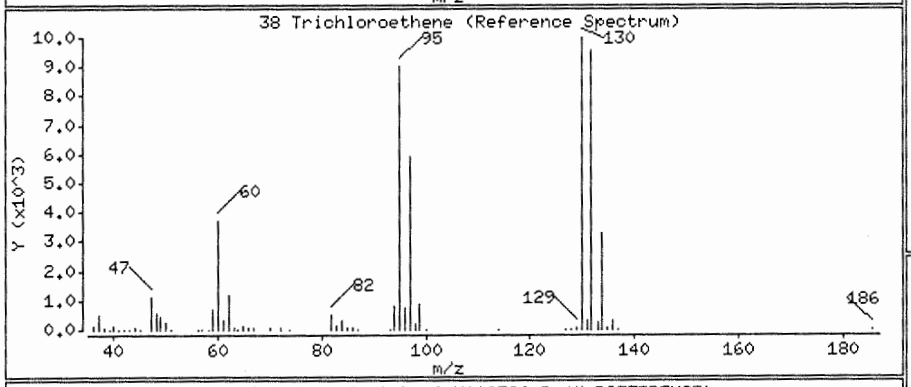
Column diameter: 0.18

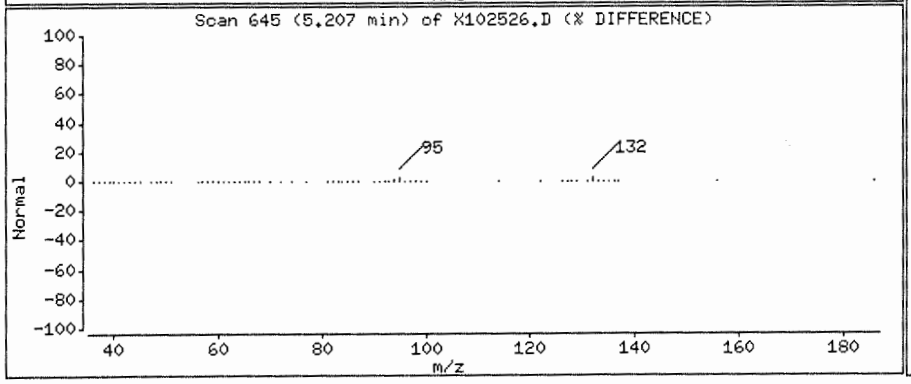
38 Trichloroethene

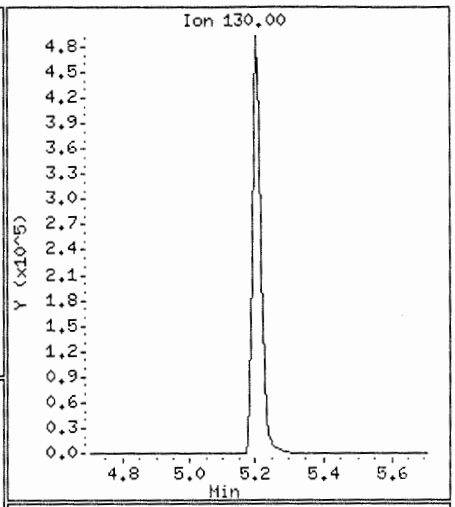
Concentration: 1924.83 ug/l

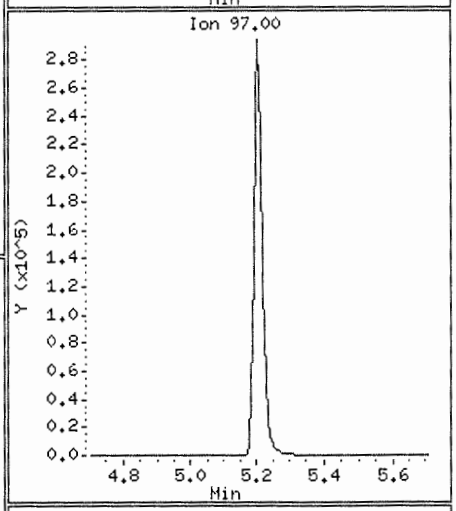


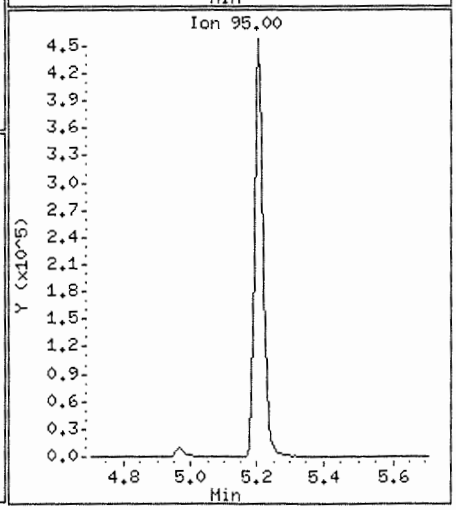












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102526.D

Date : 25-OCT-2021 18:57

Client ID: HS21101144-12

Instrument: voa6.i

Sample Info: HS21101144-12;HS21101144-12;;;

Purge Volume: 5.0

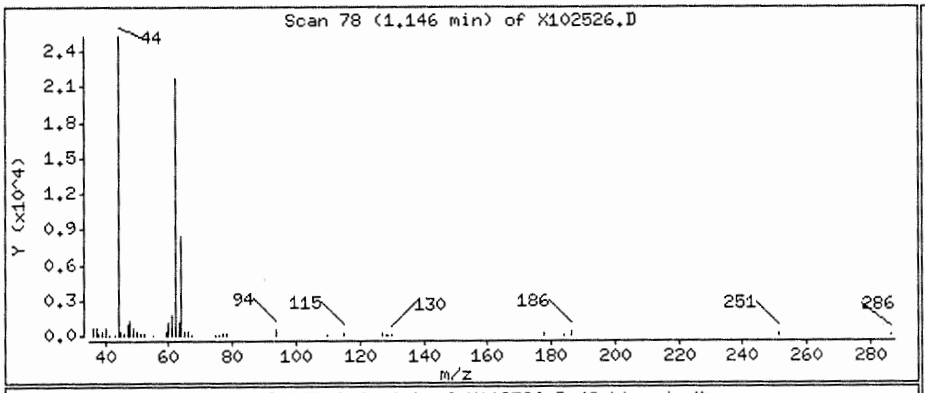
Operator: PC

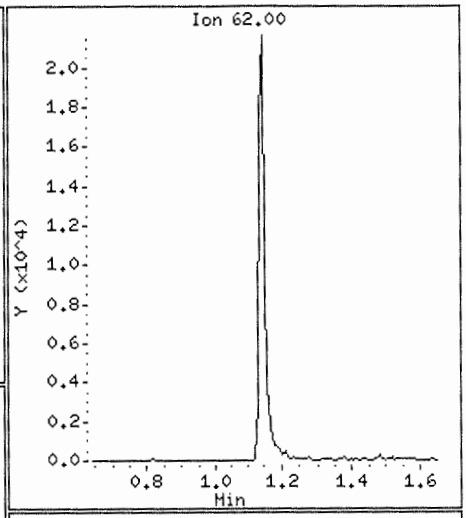
Column phase: DB624

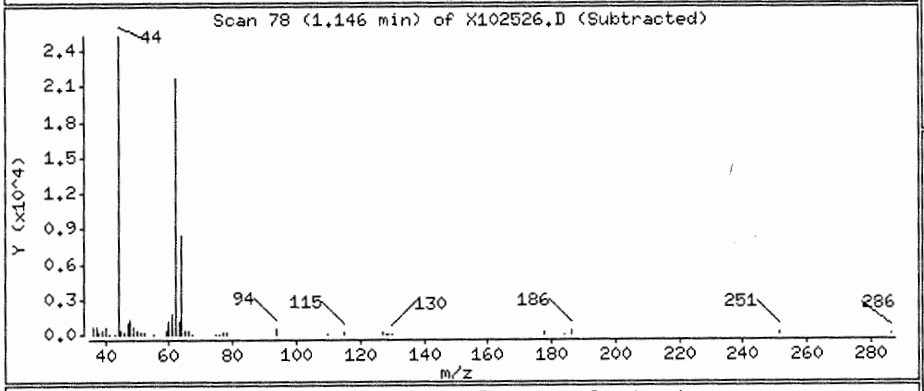
Column diameter: 0.18

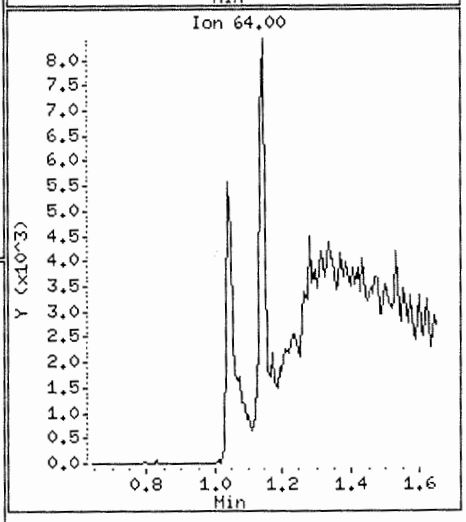
5 Vinyl Chloride

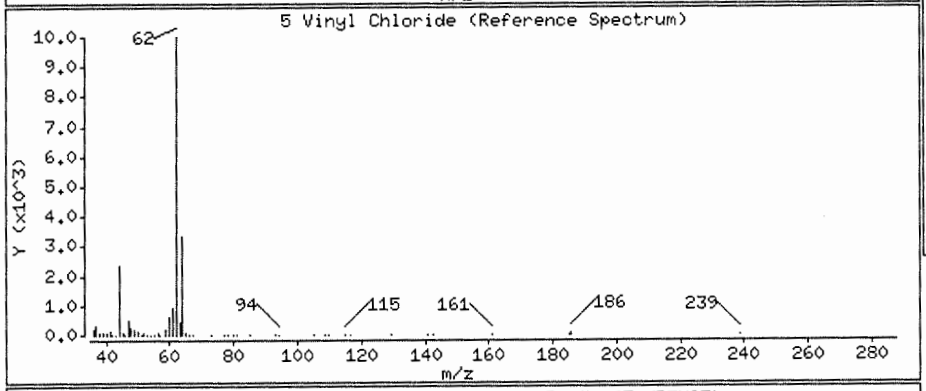
Concentration: 58.53 ug/l

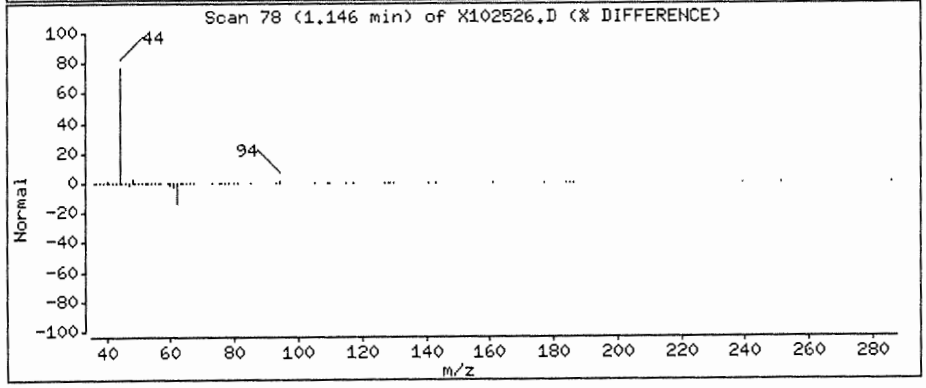












ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102528.D
Lab Smp Id: HS21101144-14 Client Smp ID: HS21101144-14
Inj Date : 25-OCT-2021 19:39
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-14;HS21101144-14;;;
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 15-Nov-2021 15:50 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 27
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

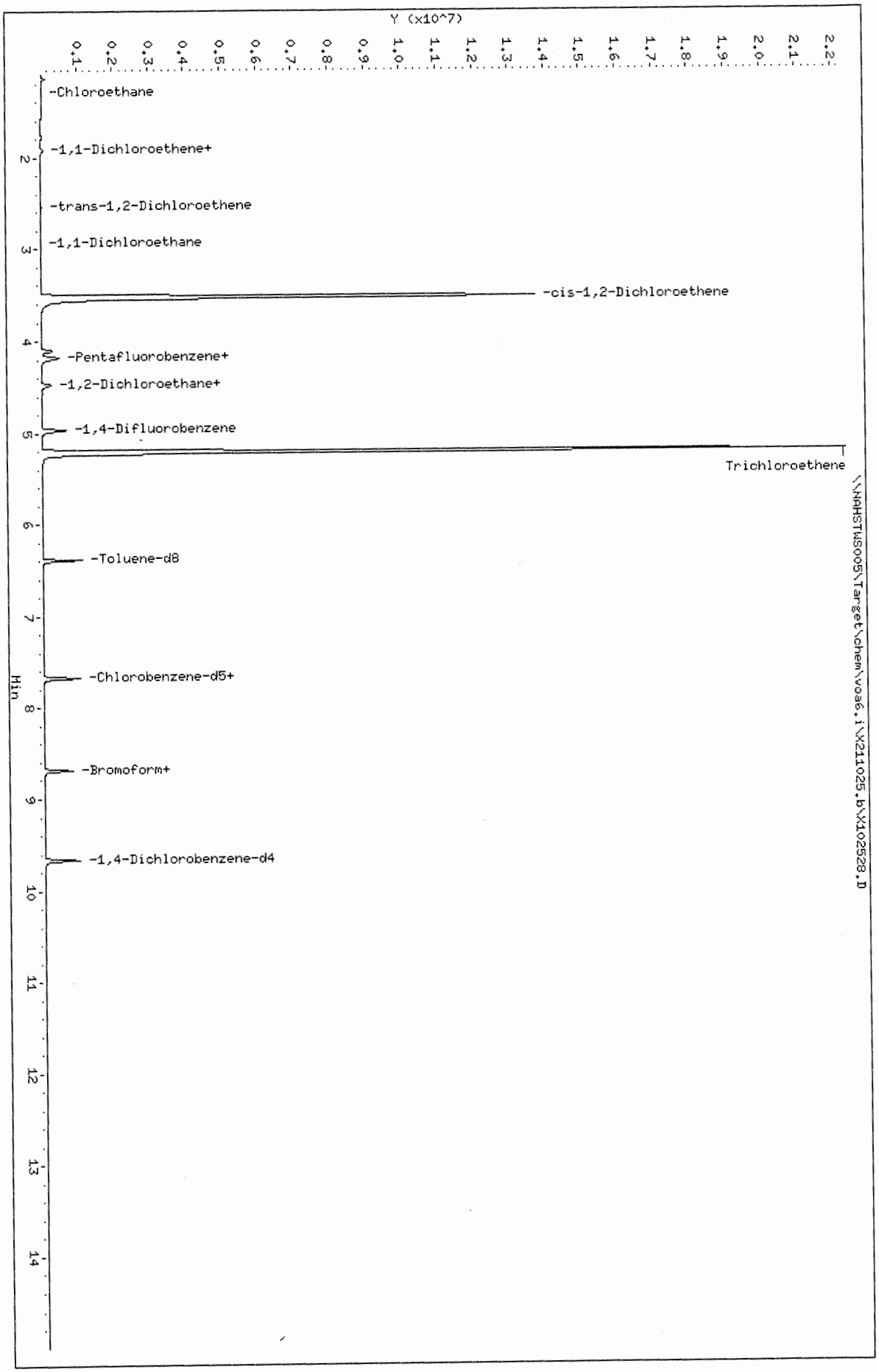
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	437098	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	596342	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	519245	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	251727	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	203119	47.2799	47.27
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	195583	44.7675	44.76
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	658243	49.9524	49.95
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	226303	49.8977	49.89
11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	14576	3.73838	37.38(a)
33 1,2-Dichloroethane	62	4.562	4.555	(0.919)	17504	3.49916	34.99(a)
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	7293203	1604.91	16049.14(AM)
38 Trichloroethene	130	5.206	5.207	(1.049)	7175051	1590.62	15906.23(A)
5 Vinyl Chloride	62	1.145	1.145	(0.274)	76875	16.7749	167.74

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102528.D
Date : 25-OCT-2021 19:39
Client ID: HS21101144-14
Sample Info: HS21101144-14;HS21101144-14;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102528.D

Date : 25-OCT-2021 19:39

Client ID: HS21101144-14

Instrument: voa6.i

Sample Info: HS21101144-14;HS21101144-14;;;

Purge Volume: 5.0

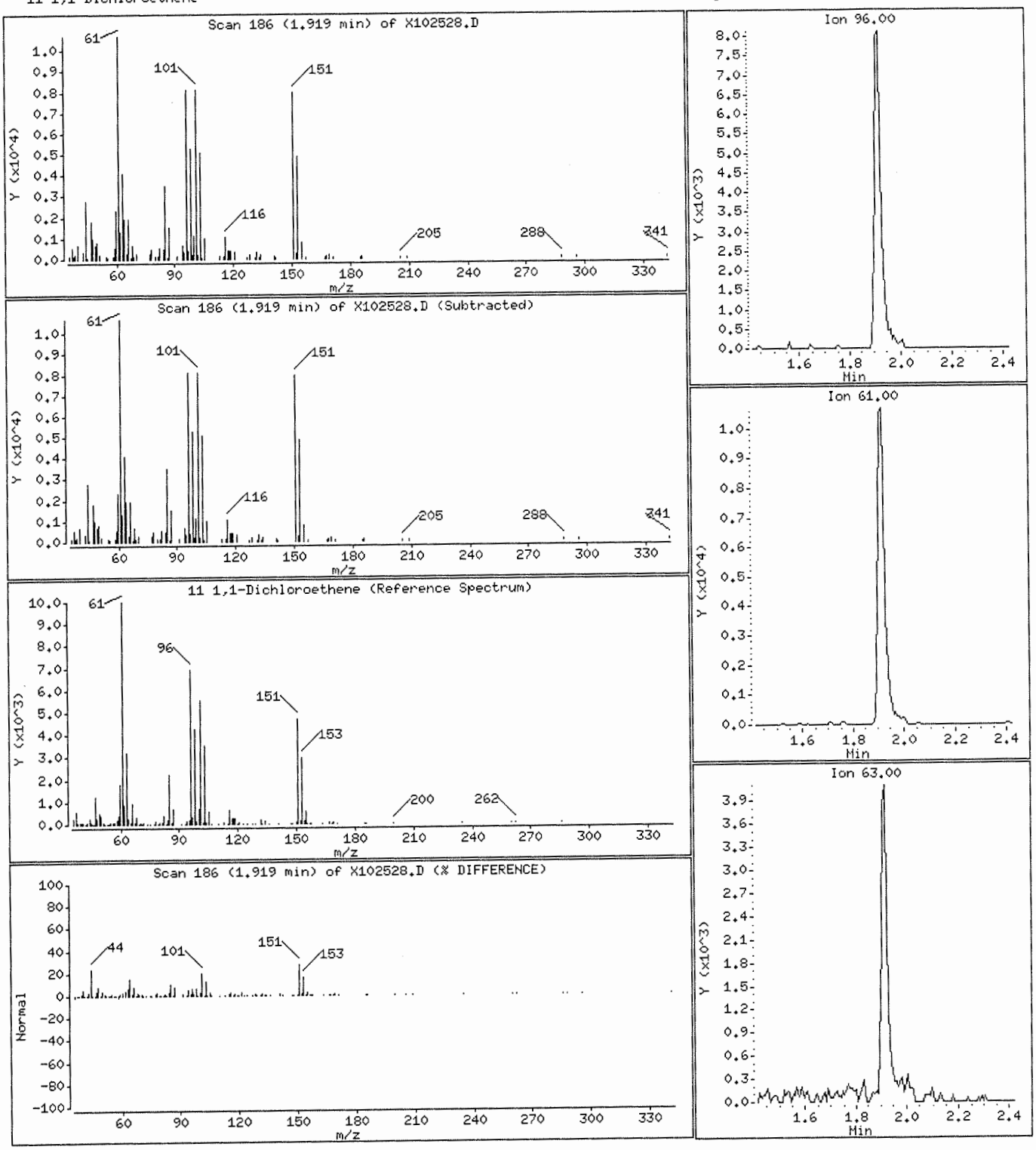
Operator: PC

Column phase: DB624

Column diameter: 0.18

11 1,1-Dichloroethene

Concentration: 37.38 ug/l



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102528.D

Date : 25-OCT-2021 19:39

Client ID: HS21101144-14

Instrument: voa6.i

Sample Info: HS21101144-14;HS21101144-14;;;

Purge Volume: 5.0

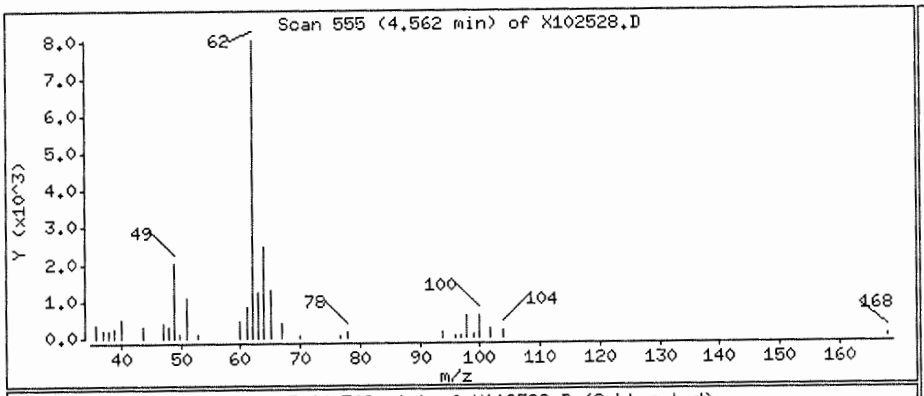
Operator: PC

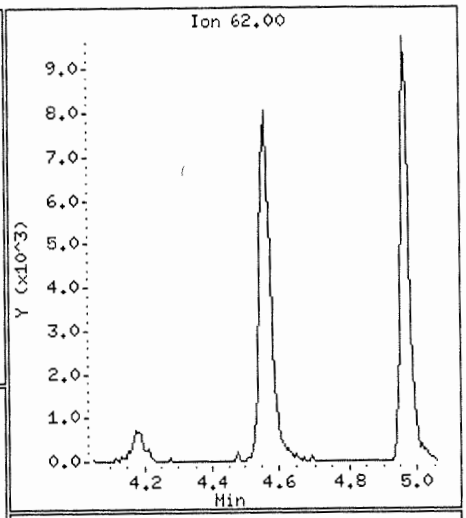
Column phase: DB624

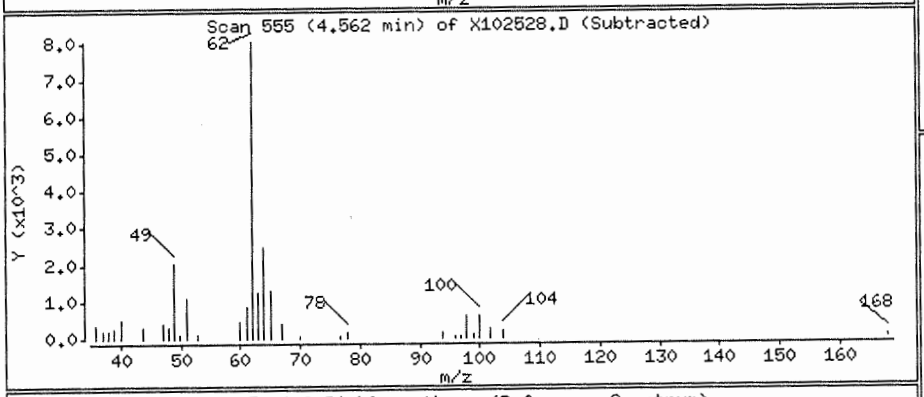
Column diameter: 0.18

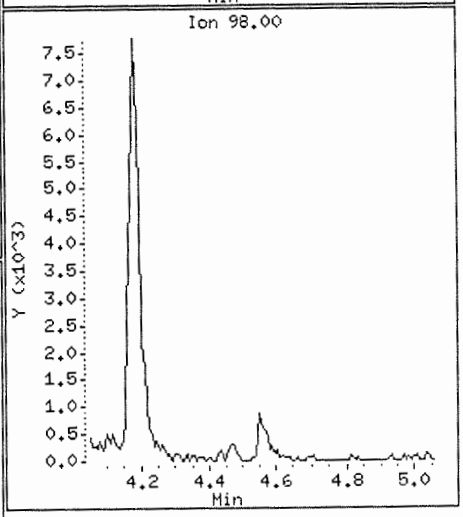
33 1,2-Dichloroethane

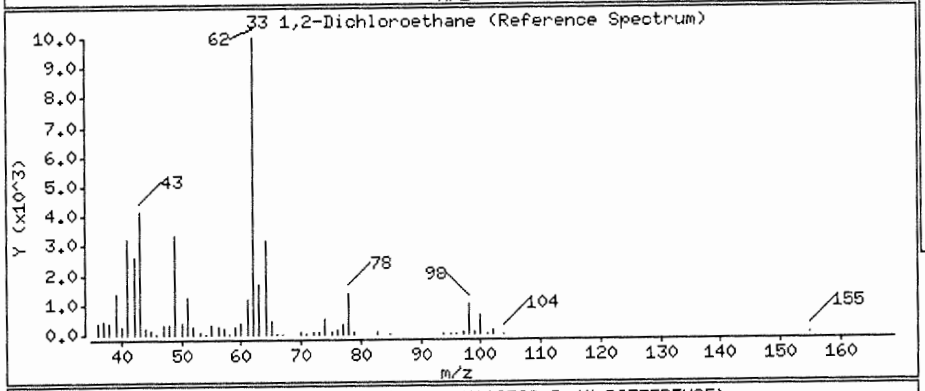
Concentration: 34.99 ug/l

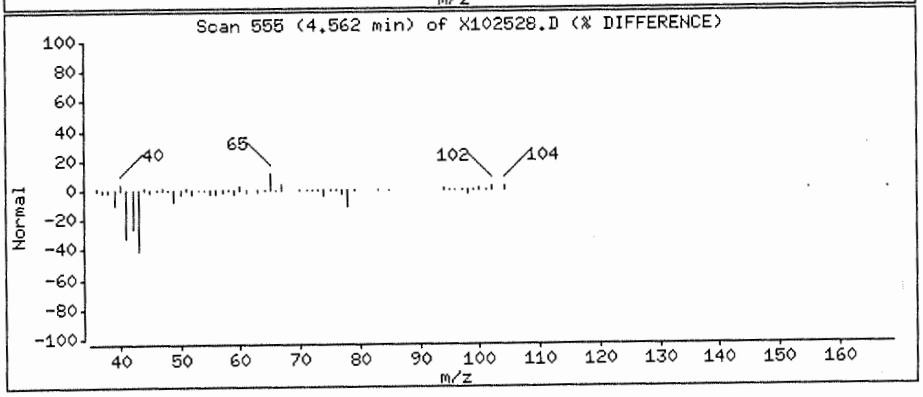












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102528.D

Date : 25-OCT-2021 19:39

Client ID: HS21101144-14

Instrument: voa6.i

Sample Info: HS21101144-14;HS21101144-14;;;

Purge Volume: 5.0

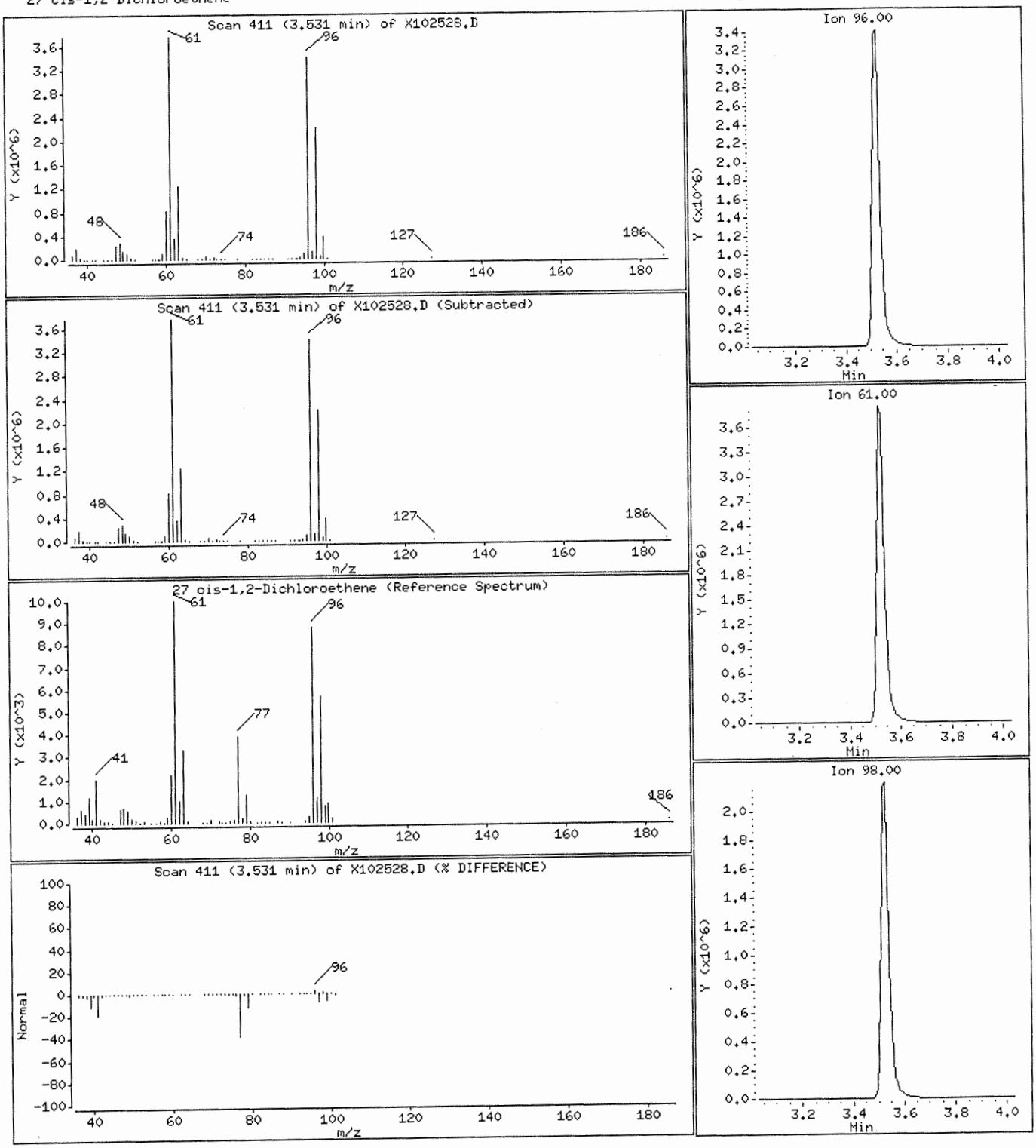
Operator: PC

Column phase: DB624

Column diameter: 0.18

27 cis-1,2-Dichloroethene

Concentration: 16049.14 ug/l



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102528.D

Date : 25-OCT-2021 19:39

Client ID: HS21101144-14

Instrument: voa6.i

Sample Info: HS21101144-14;HS21101144-14;;;

Purge Volume: 5.0

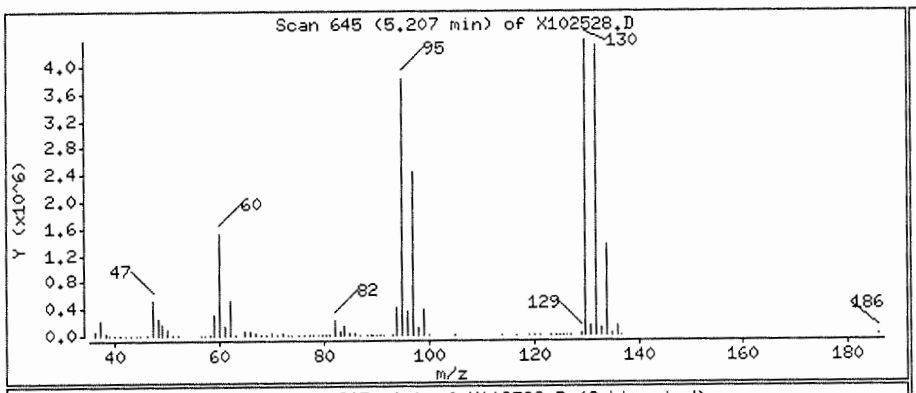
Operator: PC

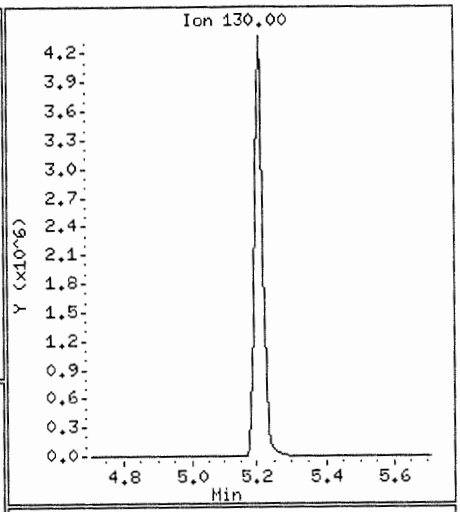
Column phase: DB624

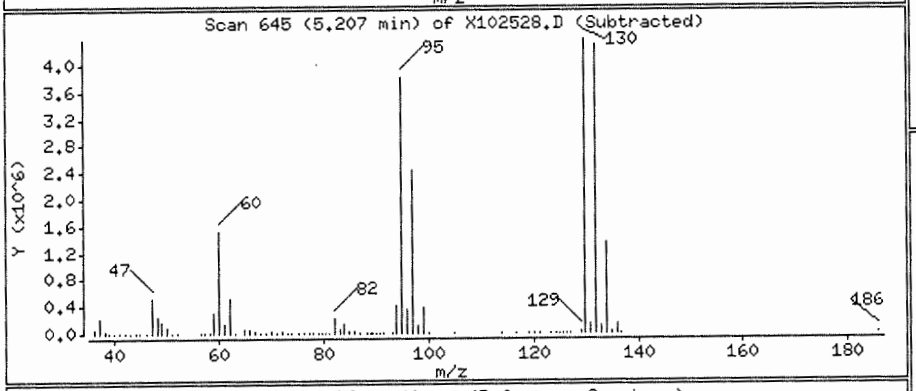
Column diameter: 0.18

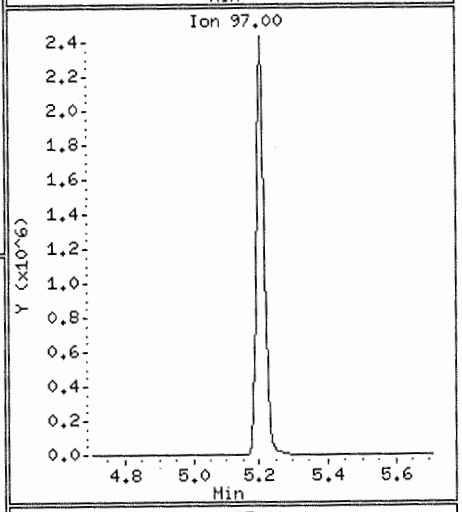
38 Trichloroethene

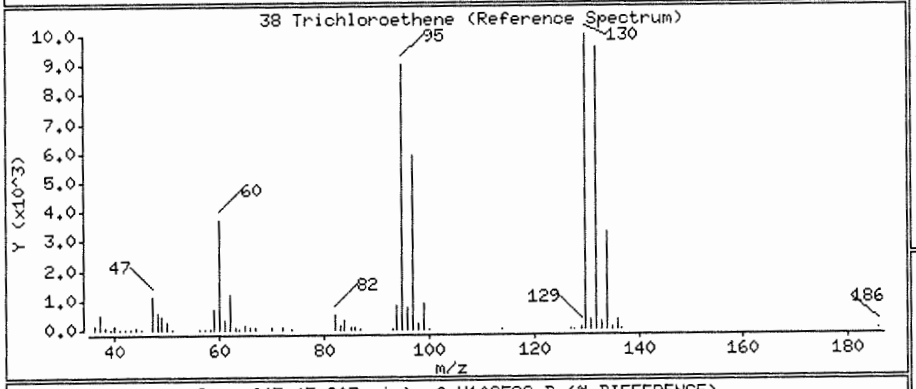
Concentration: 15906.23 ug/l

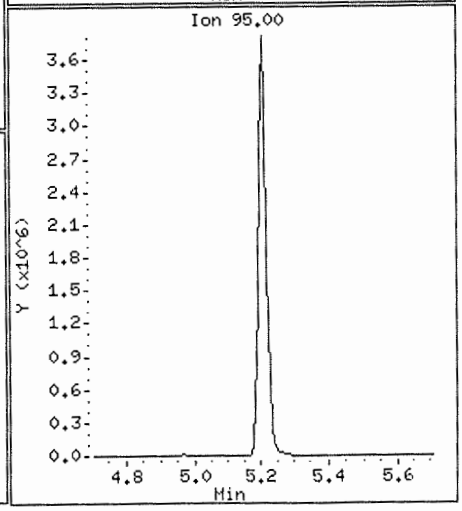


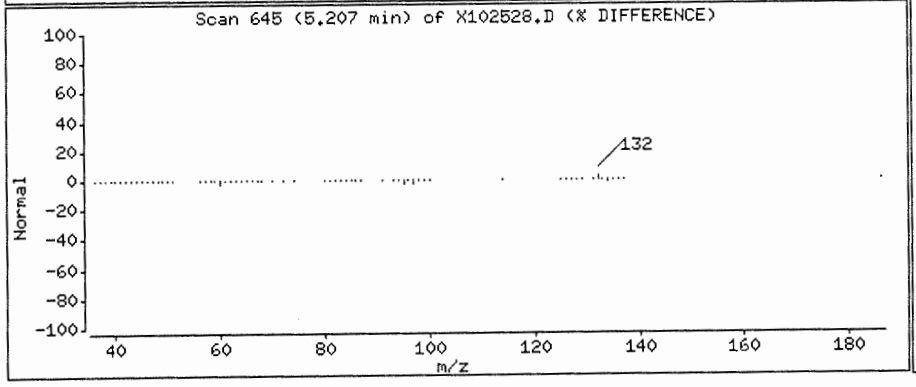












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102528.D

Date : 25-OCT-2021 19:39

Client ID: HS21101144-14

Instrument: voa6.i

Sample Info: HS21101144-14;HS21101144-14;;;

Purge Volume: 5.0

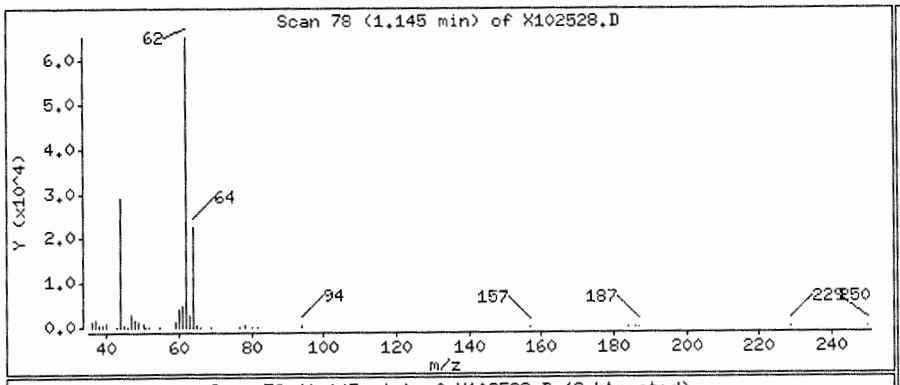
Operator: PC

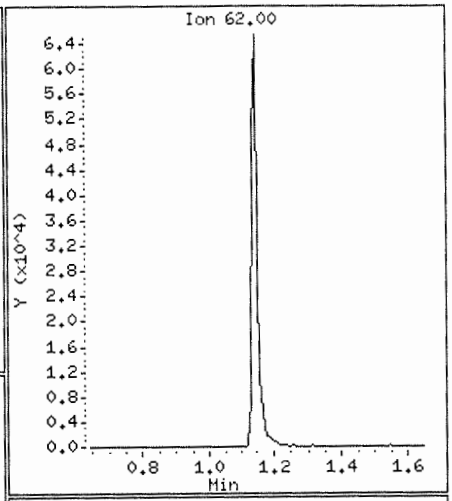
Column phase: DB624

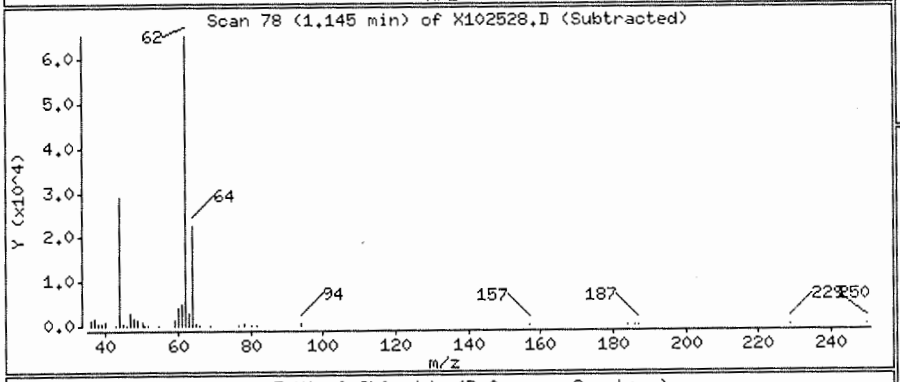
Column diameter: 0.18

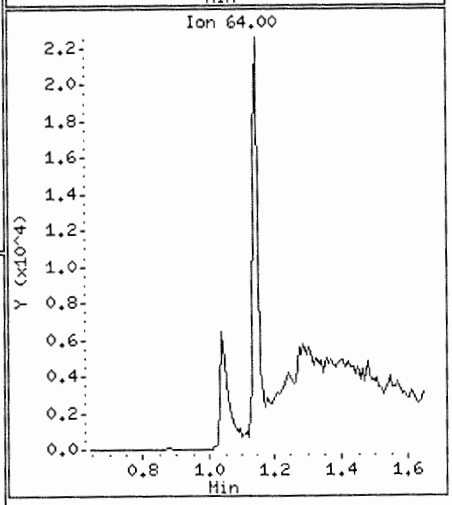
5 Vinyl Chloride

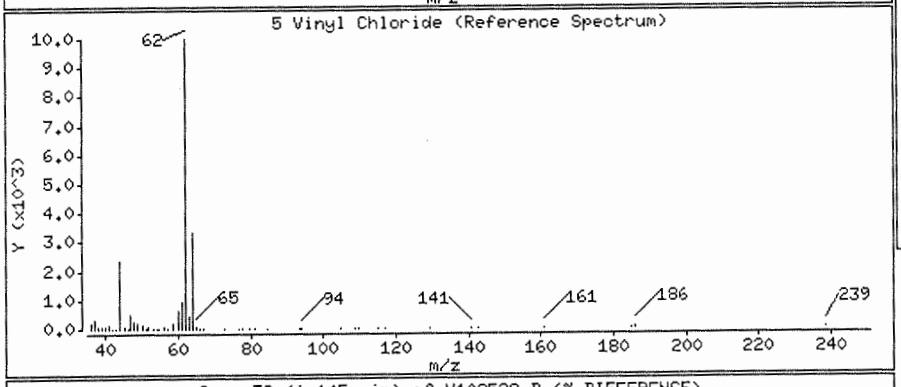
Concentration: 167.74 ug/l

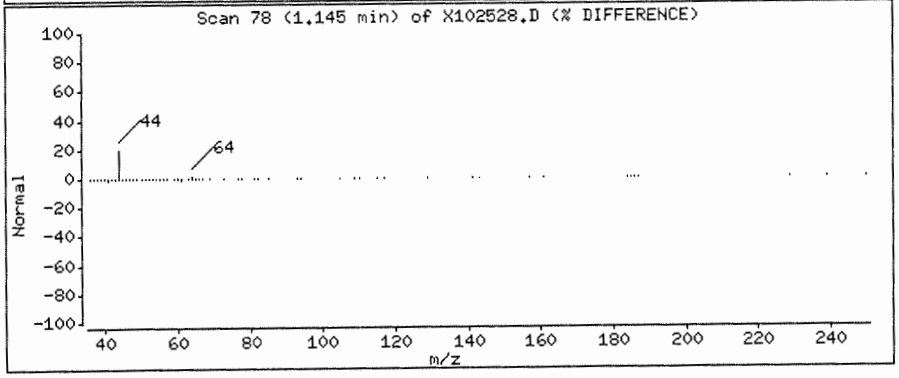






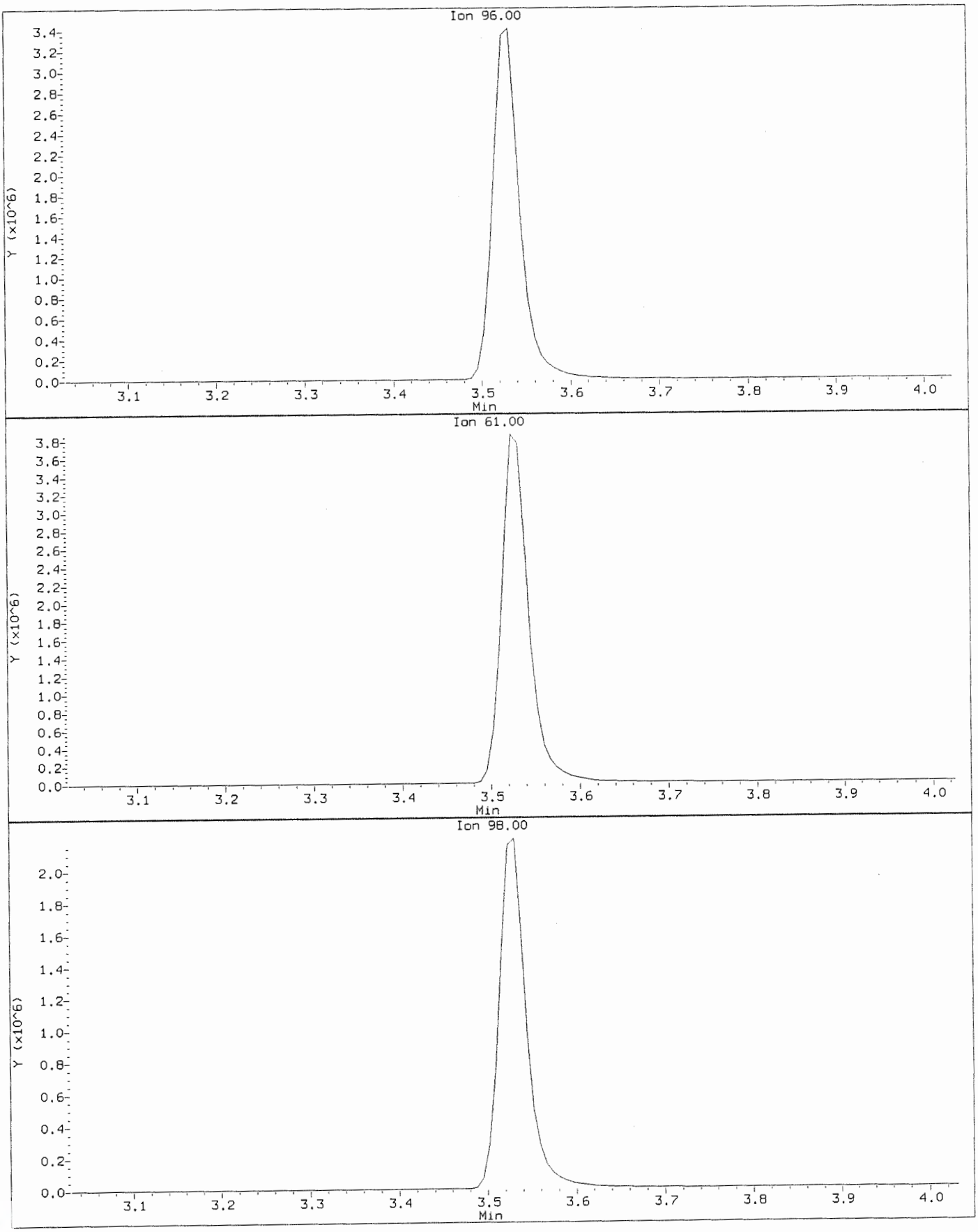






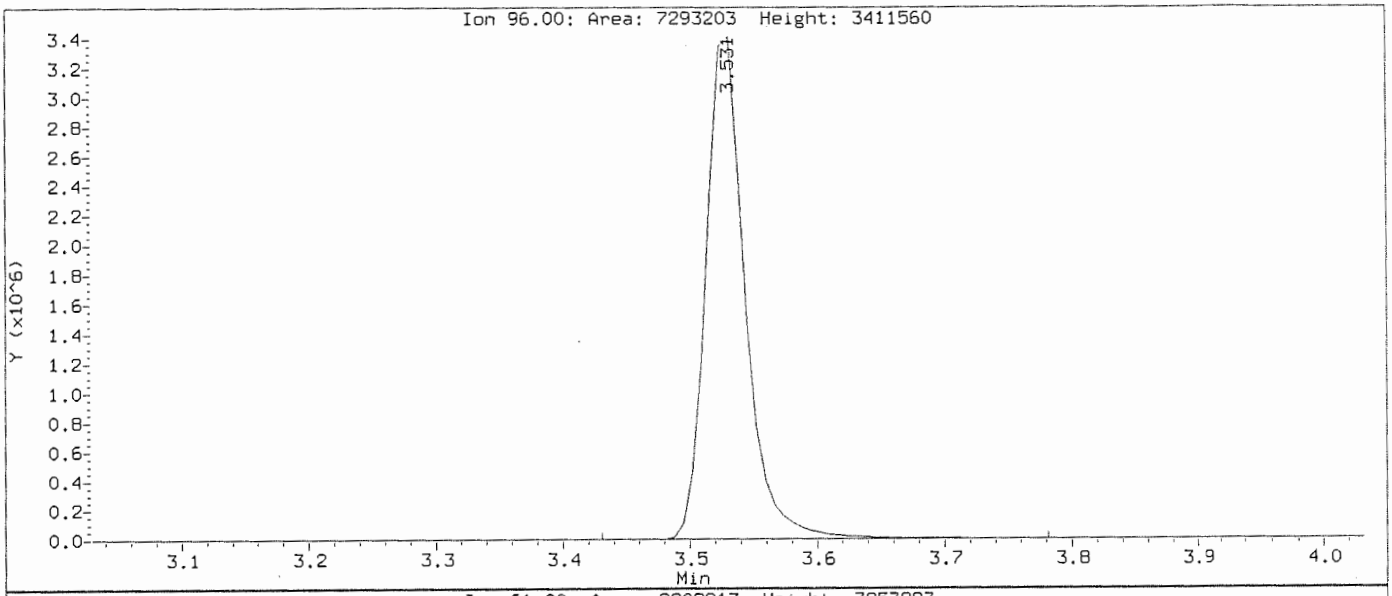
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\Before\X102528.D
Injection Date: 25-OCT-2021 19:39
Instrument: voa6.i
Client Sample ID: HS21101144-14

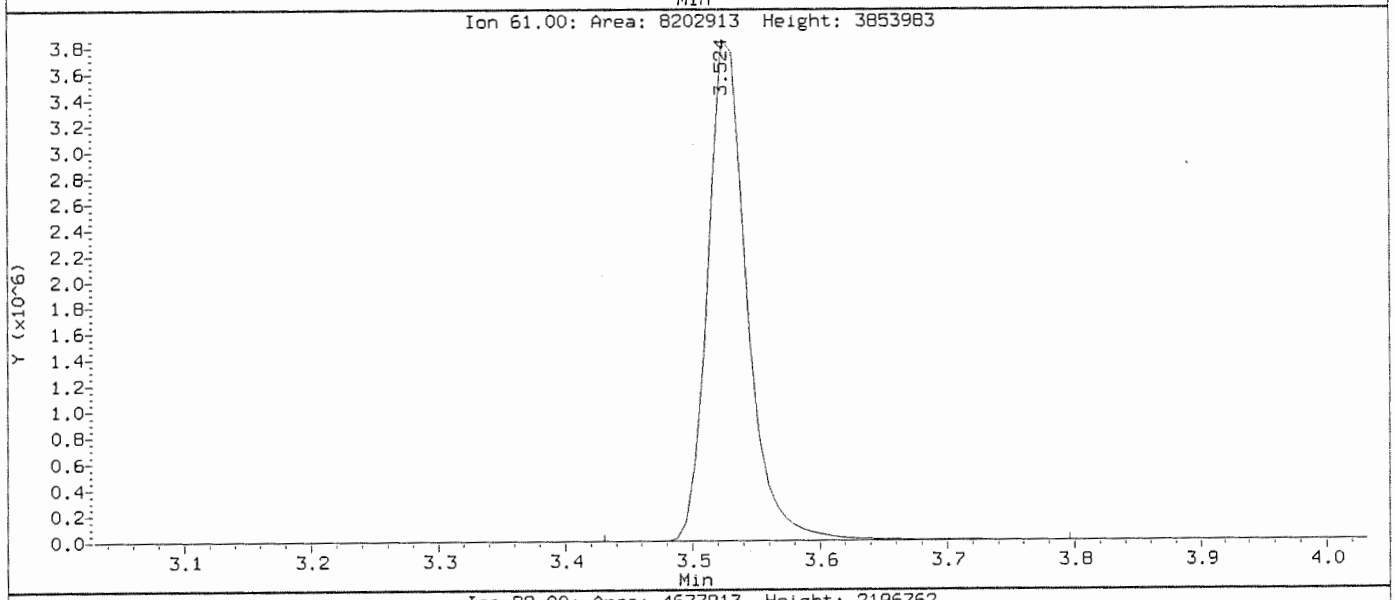
Compound: cis-1,2-Dichloroethene
CAS Number: 156-59-2

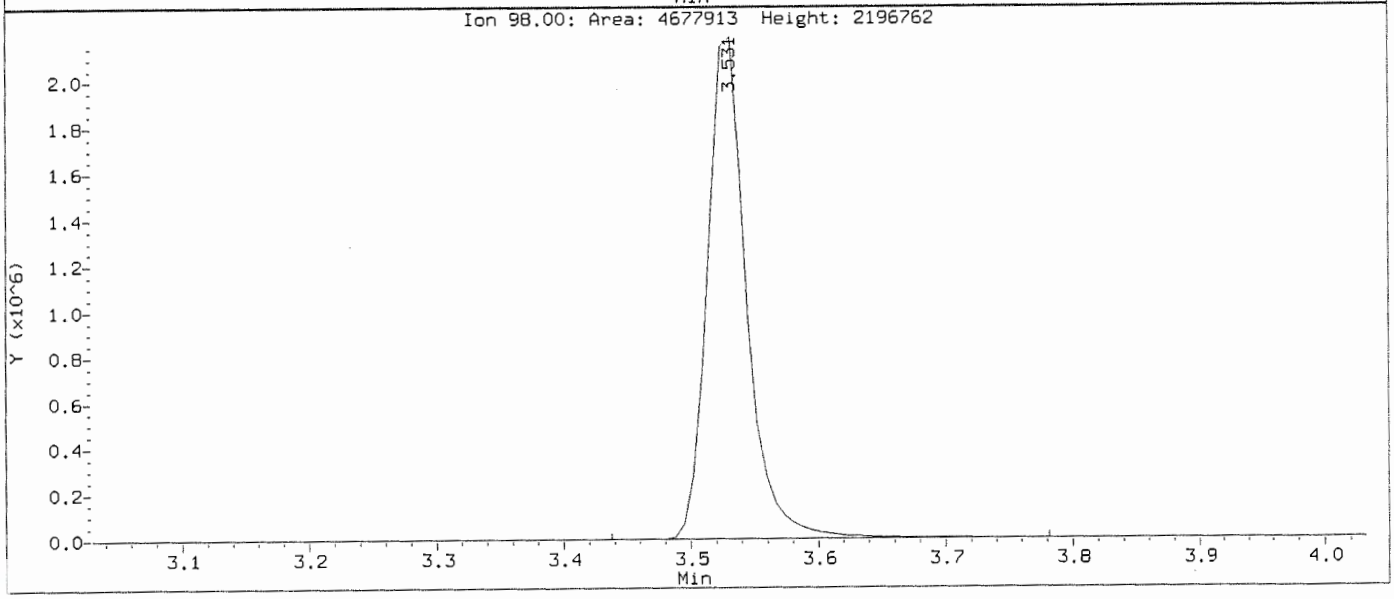


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102528.D
Injection Date: 25-OCT-2021 19:39
Instrument: voa6.i
Client Sample ID: HS21101144-14

Compound: cis-1,2-Dichloroethene
CAS Number: 156-59-2







Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102529.D Page 1
Report Date: 15-Nov-2021 15:53

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102529.D
Lab Smp Id: HS21101144-14 Client Smp ID: HS21101144-14
Inj Date : 25-OCT-2021 20:00
Operator : PC Inst ID: voa6.i
Smp Info : HS21101144-14;HS21101144-14;;;
Misc Info : HS18090001;WATER;0;100;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 15-Nov-2021 15:50 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 28
Dil Factor: 100.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

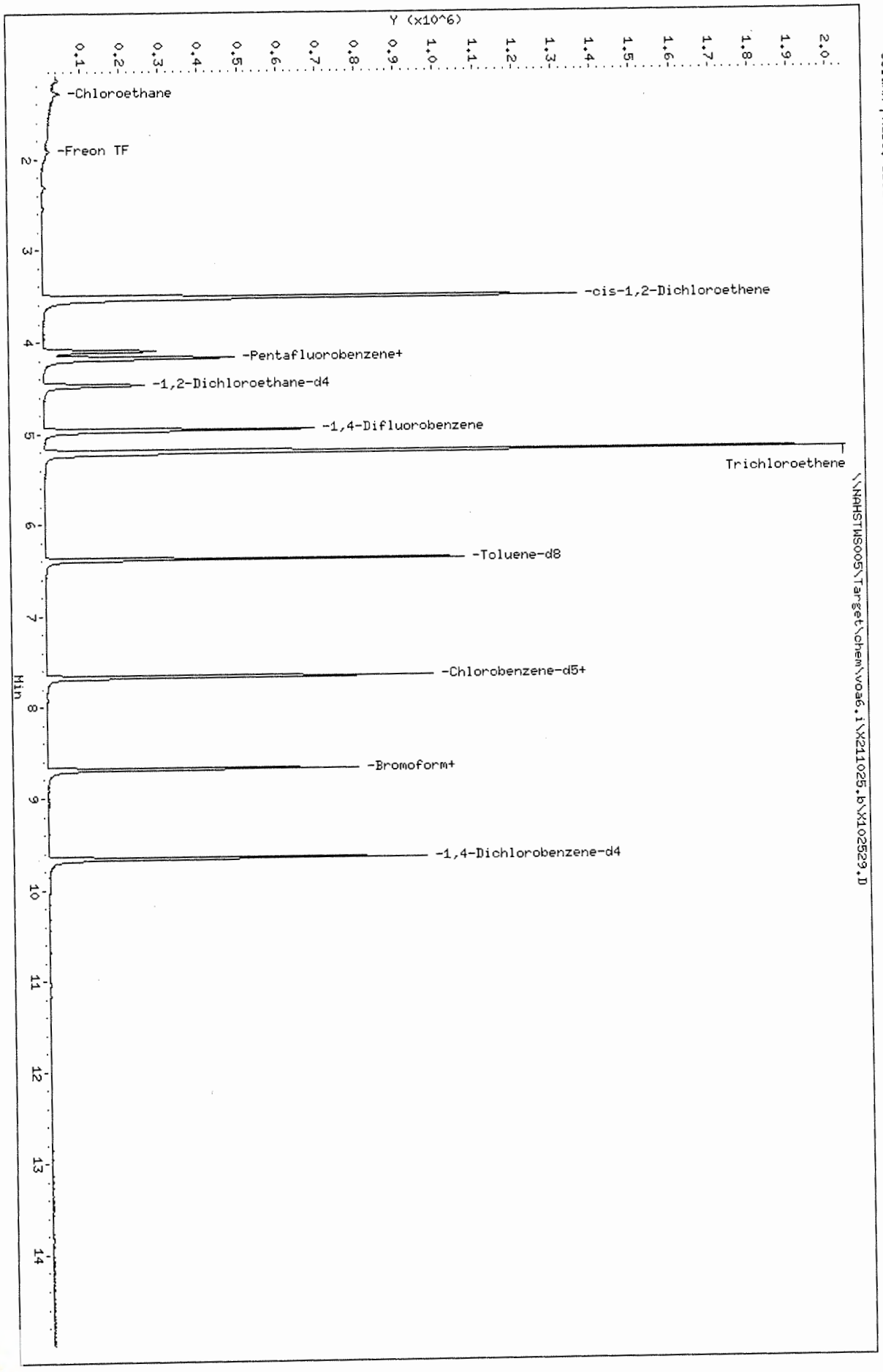
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	100.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	435336	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	599274	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	527230	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	247955	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	202207	47.2576	47.25
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	198082	45.5573	45.55
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	654741	48.9341	48.93
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	223319	48.4556	48.45
27 cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	755222	166.864	16686.39
38 Trichloroethene	130	5.207	5.207	(1.049)	678380	149.653	14965.30
5 Vinyl Chloride	62	1.145	1.145	(0.274)	8702	1.90655	190.65(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102529.D

Date : 25-OCT-2021 20:00

Client ID: HS21101144-14

Sample Info: HS21101144-14;HS21101144-14;;;

Purge Volume: 5.0

Column phase: DB624

Instrument: voa6.i

Operator: PC

Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102529.D

Date : 25-OCT-2021 20:00

Client ID: HS21101144-14

Instrument: voa6.i

Sample Info: HS21101144-14;HS21101144-14;;;

Purge Volume: 5.0

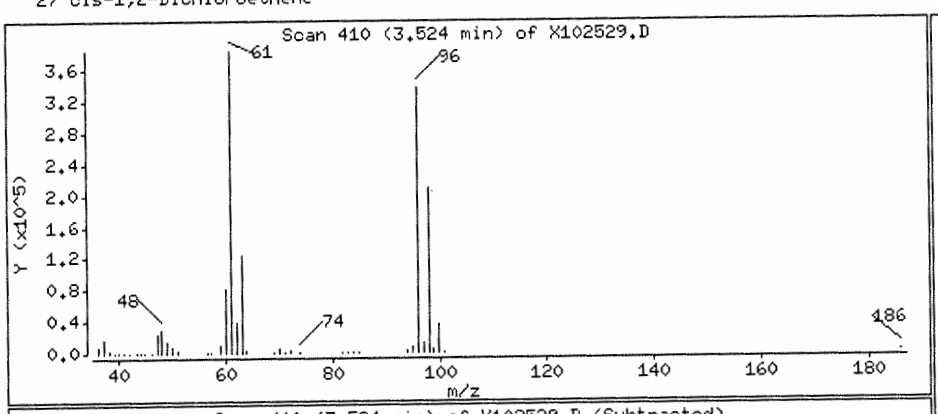
Operator: PC

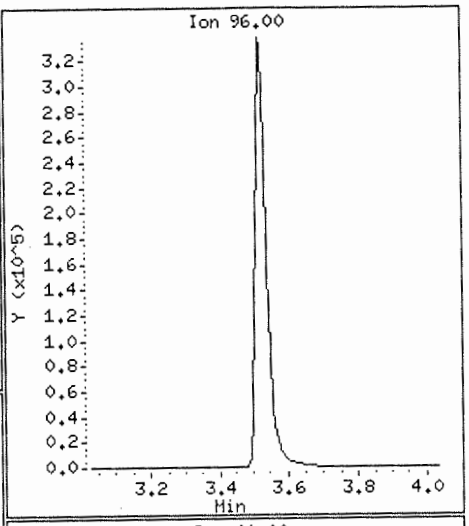
Column phase: DB624

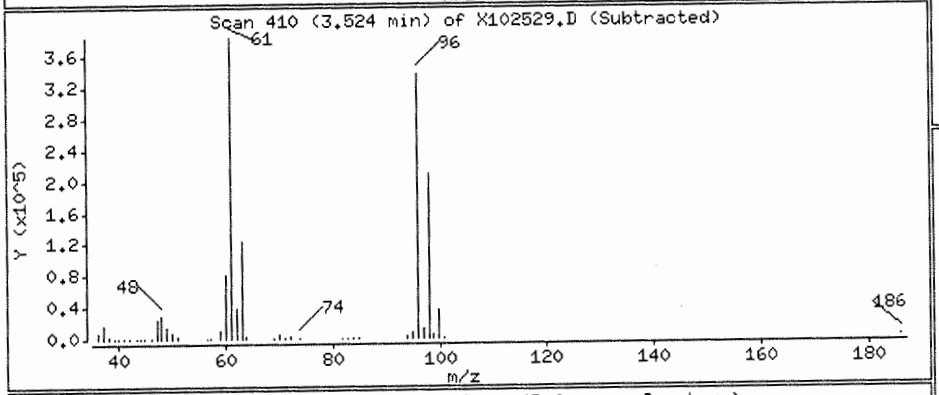
Column diameter: 0.18

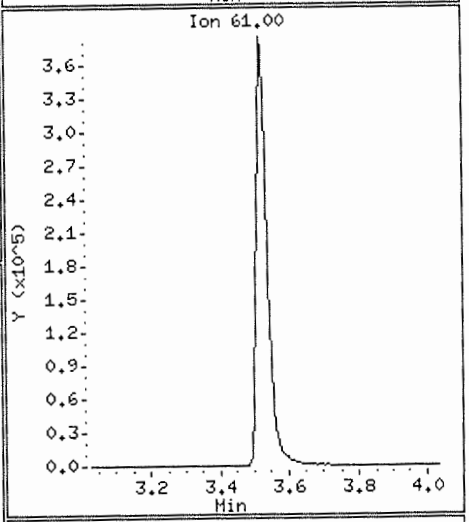
27 cis-1,2-Dichloroethene

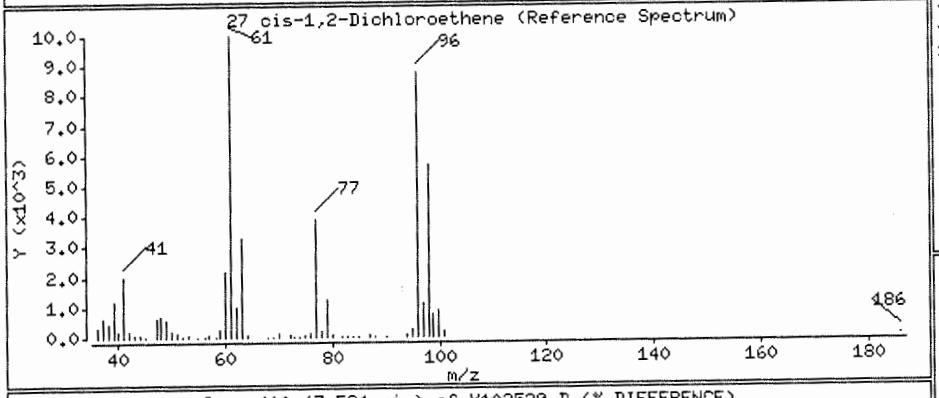
Concentration: 16686.39 ug/l

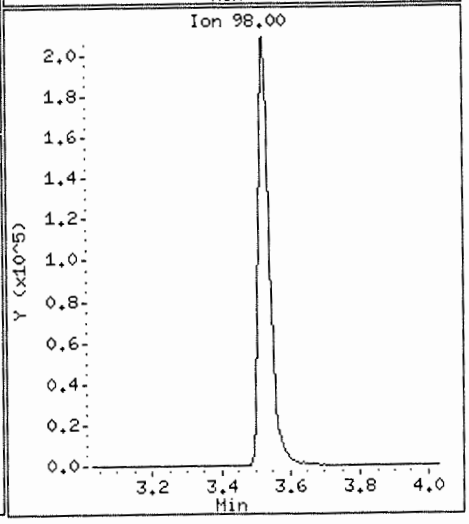


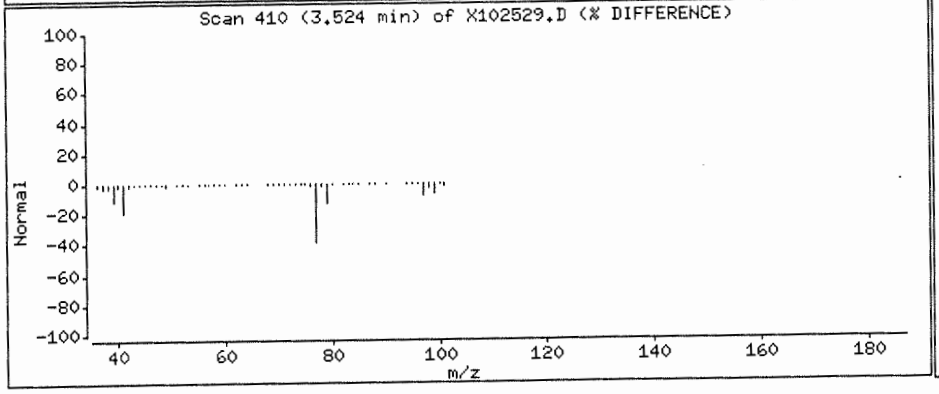












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102529.D

Date : 25-OCT-2021 20:00

Client ID: HS21101144-14

Instrument: voa6.i

Sample Info: HS21101144-14;HS21101144-14;;;

Purge Volume: 5.0

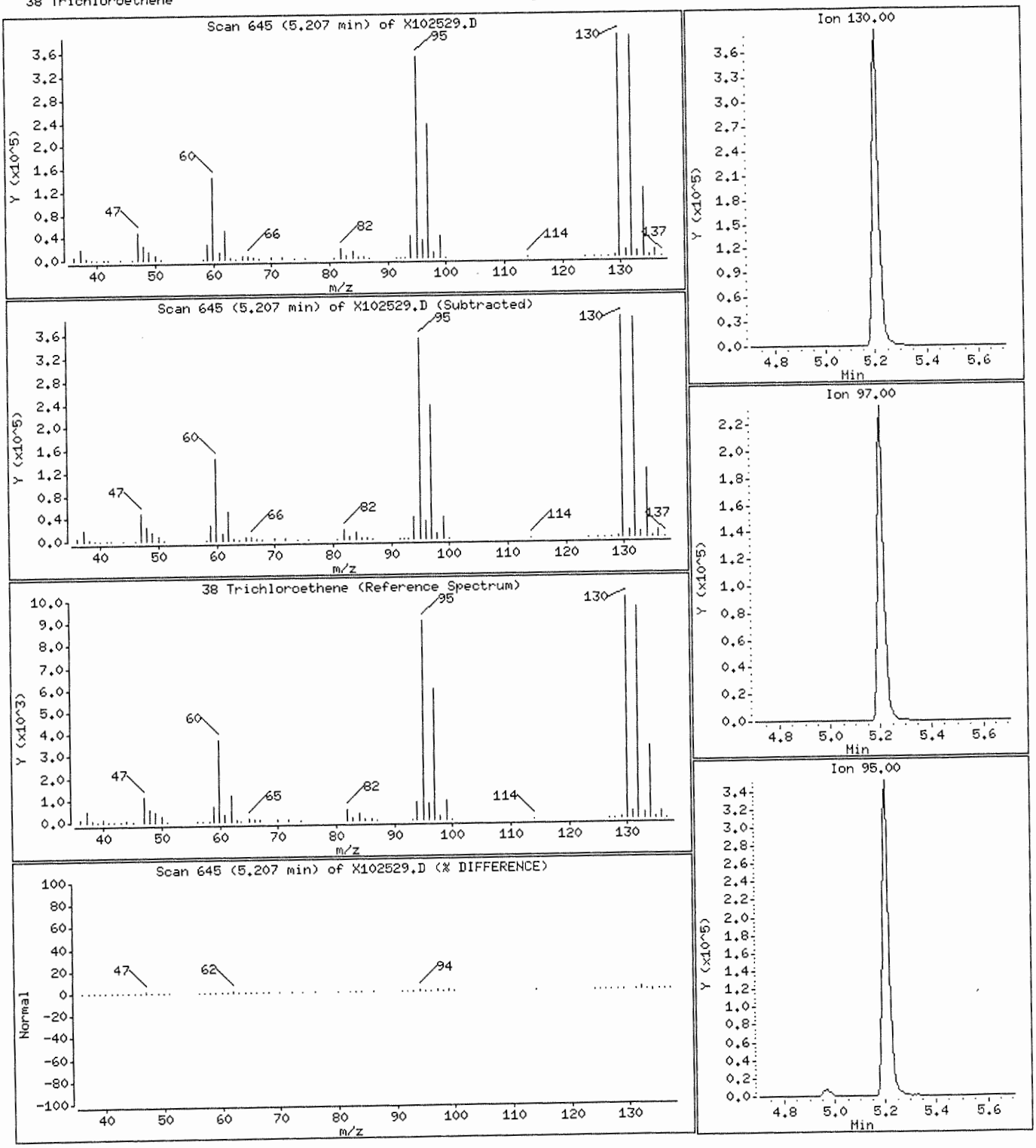
Operator: PC

Column phase: DB624

Column diameter: 0.18

38 Trichloroethene

Concentration: 14965.30 ug/l



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102529.D

Date : 25-OCT-2021 20:00

Client ID: HS21101144-14

Instrument: voa6.i

Sample Info: HS21101144-14;HS21101144-14;;;

Purge Volume: 5.0

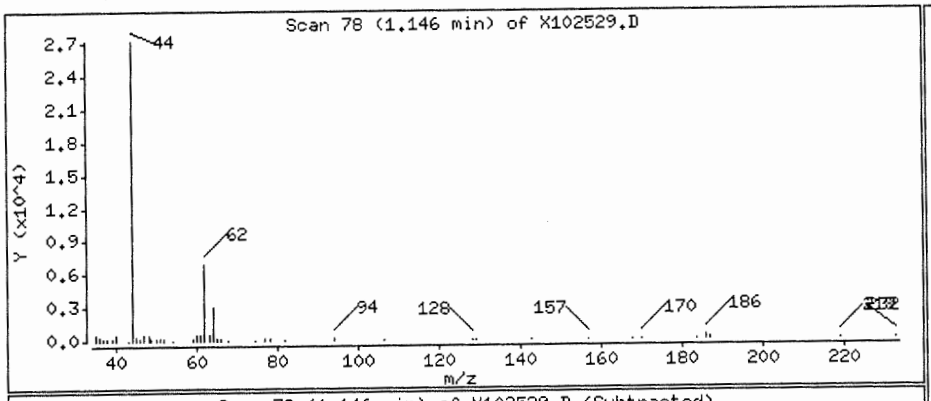
Operator: PC

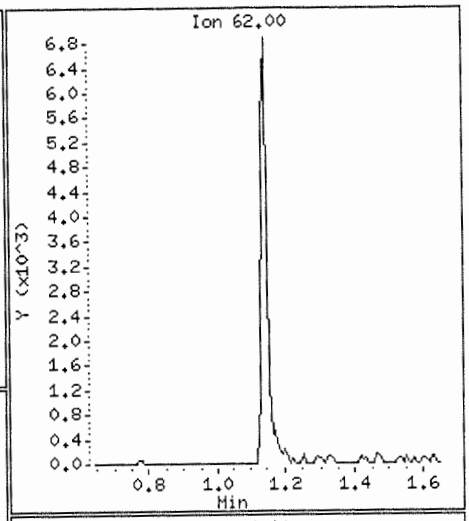
Column phase: DB624

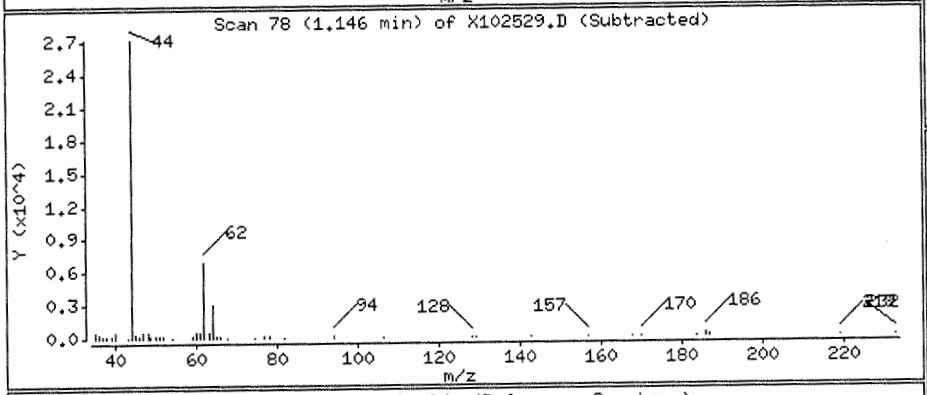
Column diameter: 0.18

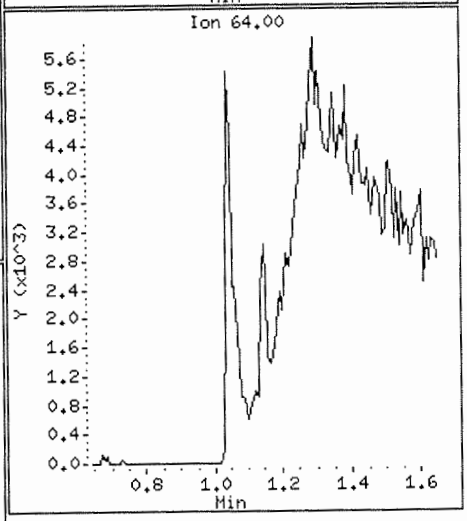
5 Vinyl Chloride

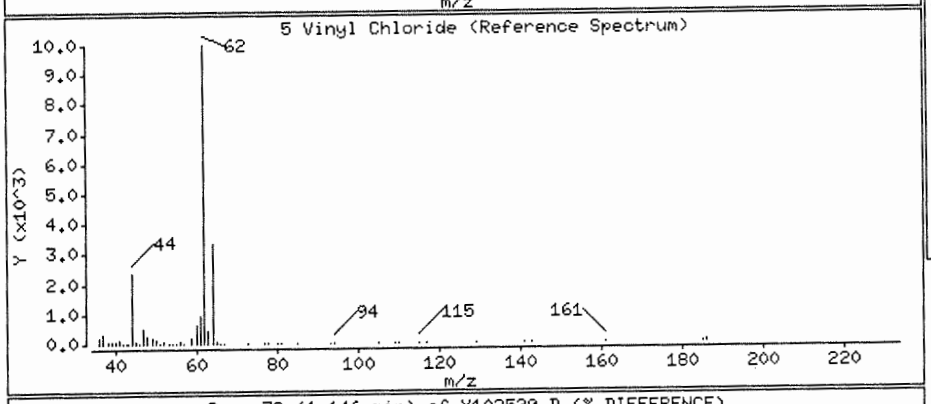
Concentration: 190.65 ug/l

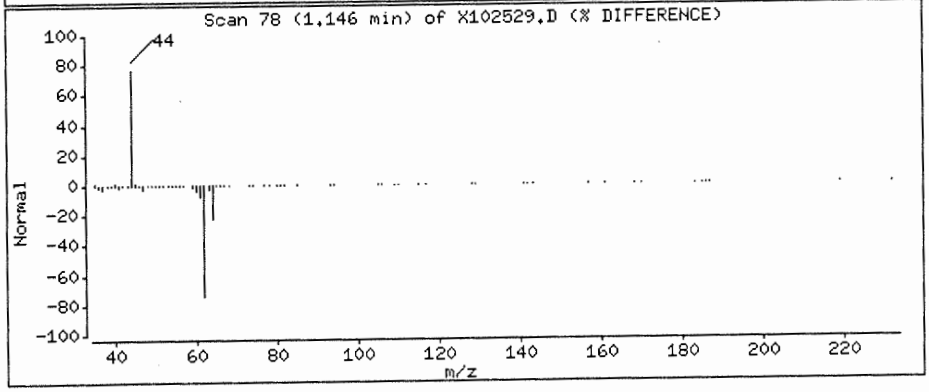












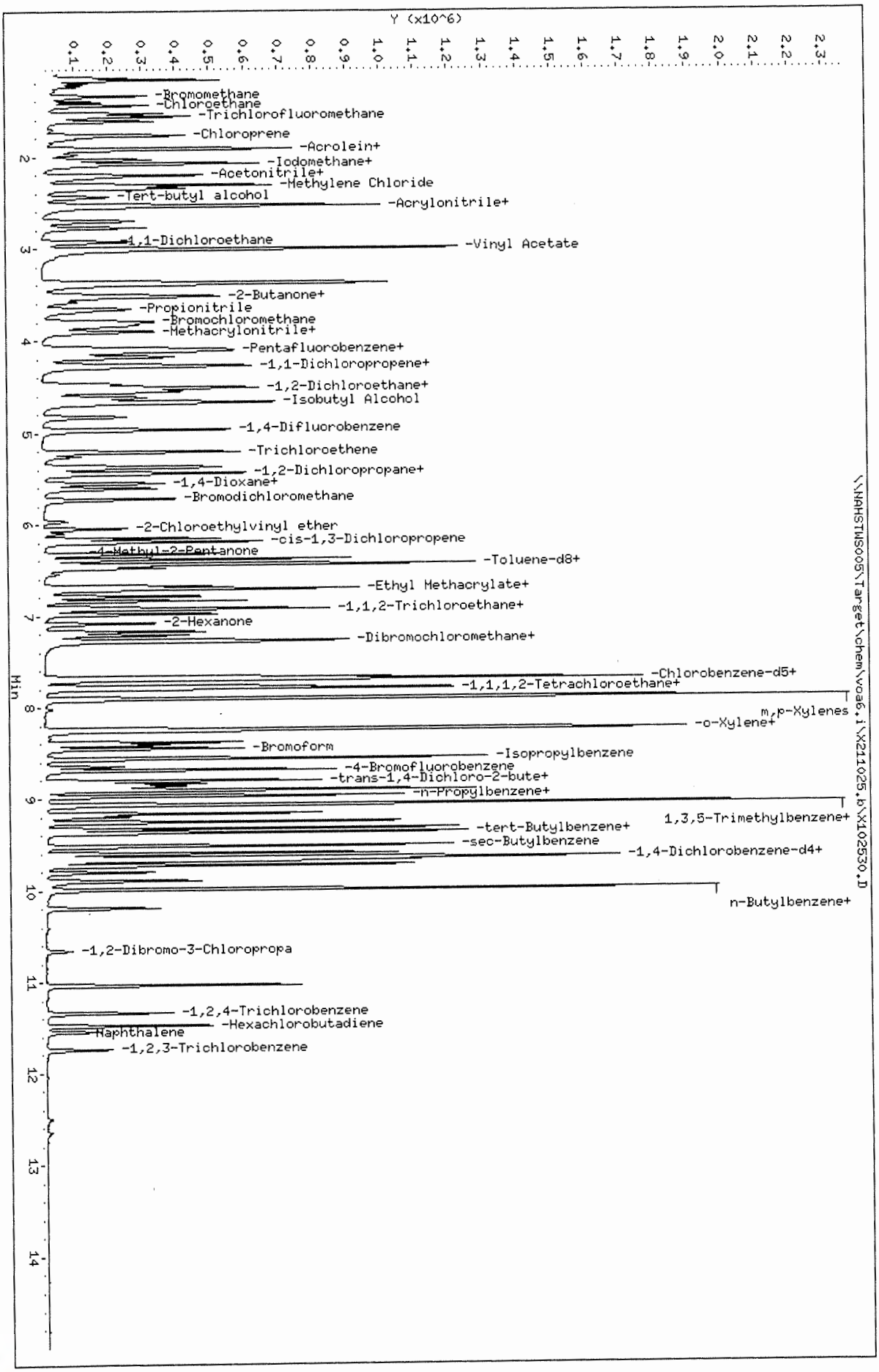
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102530.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 25-OCT-2021 20:21
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211025.b\8260W.m
Meth Date : 15-Nov-2021 15:55 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	329515	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	491356	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	464051	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	239073	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	178963	50.0000	55.45
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	169108	50.0000	51.64
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	555893	50.0000	47.20
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	213552	50.0000	52.76
11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	146230	50.0000	49.74
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	204609	50.0000	49.64
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	194060	50.0000	56.64
17 Methylene Chloride	84	2.305	2.305	(0.551)	162817	50.0000	56.81
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	128381	50.0000	51.84
38 Trichloroethene	130	5.207	5.207	(1.049)	196211	50.0000	52.79
5 Vinyl Chloride	62	1.145	1.145	(0.274)	159706	50.0000	46.22



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102530.D
Date : 25-OCT-2021 20:21
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;;
Purge Volume: 5.0
Column phase: DB624

\\NAHSTWS005\Target\chem\voa6.i\X211025.b\X102530.D

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

HS21101144 RSK175 Raw Data

ALS WO# HS21101144

FID04 -Logbook

Batch: 26730 **Analyst:** Nosa Izekor

Date: 01-24-2017 **Reviewer:**

Method: RSK 175 ICAL **Laboratory:** Houston

Comments: Target Sequence 170124

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
1	ICAL1	CALIB_1	01-24-2017 09:06 am	1.00	0.00 mL	0.00 mL	001.D	Liquid	Y	N
2	ICAL2	CALIB_2	01-24-2017 09:30 am	1.00	0.00 mL	0.00 mL	002.D	Liquid	Y	N
3	ICAL3	CALIB_3	01-24-2017 09:59 am	1.00	0.00 mL	0.00 mL	003.D	Liquid	Y	N
4	ICAL4	CALIB_4	01-24-2017 10:15 am	1.00	0.00 mL	0.00 mL	004.D	Liquid	Y	N
5	ICAL5	CALIB_5	01-24-2017 10:39 am	1.00	0.00 mL	0.00 mL	005.D	Liquid	Y	N
6	ICAL6	CALIB_6	01-24-2017 10:57 am	1.00	0.00 mL	0.00 mL	006.D	Liquid	Y	N
7	ICAL7	CALIB_7	01-24-2017 11:13 am	1.00	0.00 mL	0.00 mL	007.D	Liquid	Y	N
8	ICV	METHSPIKI	01-24-2017 12:05 pm	1.00	0.00 mL	0.00 mL	008.D	Liquid	Y	N
9	LCS-170124	LCS	01-24-2017 12:24 pm	1.00	0.00 mL	0.00 mL	009.D	Liquid	Y	N
10	LCSD-170124	LCSD	01-24-2017 12:40 pm	1.00	0.00 mL	0.00 mL	010.D	Liquid	Y	N
11	MBLK-170124	MBLK	01-24-2017 12:57 pm	1.00	0.00 mL	0.00 mL	011.D	Liquid	Y	N
12	HS17010778-01	SAMP	01-24-2017 01:14 pm	1.00	0.00 mL	0.00 mL	012.D	Liquid	Y	N
13	HS17010779-01	SAMP	01-24-2017 01:31 pm	1.00	0.00 mL	0.00 mL	013.D	Liquid	Y	N
14	HS17010779-01DUP	SAMP	01-24-2017 01:47 pm	1.00	0.00 mL	0.00 mL	014.D	Liquid	Y	N
15	CCV	CCV	01-24-2017 02:01 pm	1.00	0.00 mL	0.00 mL	015.D	Liquid	Y	N

Chemical	Value
ICAL STD ID	30010700217
ICV STD ID	30010700610

FORM 3
WATER GASES METHOD SPIKE RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Matrix Spike - ENG SC Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
Ethene	16.800	19.090	114	75-125
Methane	9.647	9.597	99	75-125
Ethane	18.043	19.657	109	75-125
Propane	26.463	27.238	103	75-125
N-Butane	34.955	36.010	103	75-125

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

_____

FORM III GASES

FORM 6
GASES INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Instrument ID: FID-4 Calibration Date(s): 01/24/17 01/24/17

Column: RTX-PLOT ID: 0.53 (mm) Calibration Time(s): 0906 1113

LAB FILE ID: RF10: 001 RF25: 002 RF50: 003
RF100: 004 RF250: 005 RF500: 006

COMPOUND	RF10	RF25	RF50	RF100	RF250	RF500
Ethene	535.608	567.359	564.985	516.024	665.282	425.678
Methane	968.912	978.238	1019.699	880.798	960.713	930.704
Ethane	602.493	670.177	658.908	597.201	808.513	817.630
Propane	500	1279	2602	4785	18294	38286
N-Butane	438	936	2034	3864	18446	42817

FORM VI GASES

FORM 6
GASES INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS2110114

Instrument ID: FID-4 Calibration Date(s): 01/24/17 01/24/17

Column: RTX-PLOT ID: 0.53 (mm) Calibration Time(s): 0906 1113

RF1000: 007

COMPOUND	RF1000	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MA
Ethene	828.858	AVRG		586.256273		21.932	
Methane	1081.580	AVRG		974.377787		6.550	
Ethane	999.335	AVRG		736.322546		19.885	
Propane	96509	2ORDR	0.97987006	1.529e-003	-4.58e-009	0.9991365	0
N-Butane	114164	2ORDR	2.46870151	1.834e-003	-5.54e-009	0.9980766	0

FORM VI GASES

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\001.D
Lab Smp Id: ICAL1 Client Smp ID: ICAL1
Inj Date : 24-JAN-2017 09:06
Operator : JA Inst ID: FID-4.i
Smp Info : ICAL1;ICAL1;;;
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 09:06 Cal File: 001.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.043	1.030	0.013	374	0.38600	0.383(a)
2 Ethene	1.553	1.556	-0.003	361	0.67400	0.615(a)
3 Ethane	1.716	1.723	-0.007	435	0.72200	0.590(a)
4 Propane	4.073	4.113	-0.040	500	1.05900	1.743
5 N-Butane	7.640	7.690	-0.050	438	1.39800	3.271

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\001.D

Date : 24-JAN-2017 09:06

Client ID: ICAL1

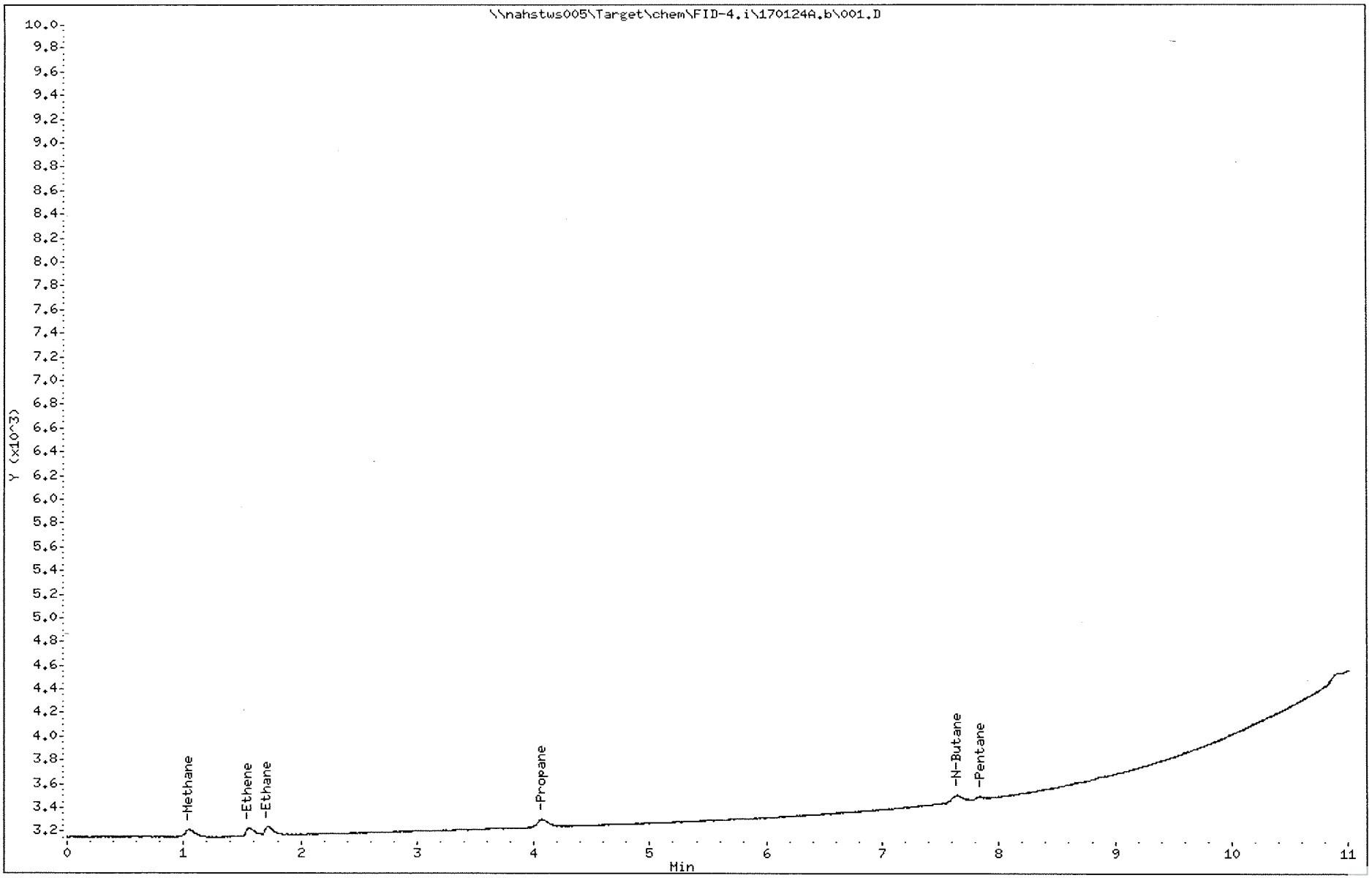
Instrument: FID-4.i

Sample Info: ICAL1;ICAL1;;;

Operator: JA

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\002.D
Lab Smp Id: ICAL2 Client Smp ID: ICAL2
Inj Date : 24-JAN-2017 09:30
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL2;ICAL2;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 09:59 Cal File: 003.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	1.023	1.030	-0.007	944	0.96500	0.968
2 Ethene	1.560	1.556	0.004	956	1.68500	1.630
3 Ethane	1.723	1.723	0.000	1209	1.80400	1.641
4 Propane	4.123	4.113	0.010	1279	2.64600	2.927
5 N-Butane	7.716	7.690	0.026	936	3.49600	4.180

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\002.D

Date : 24-JAN-2017 09:30

Client ID: ICAL2

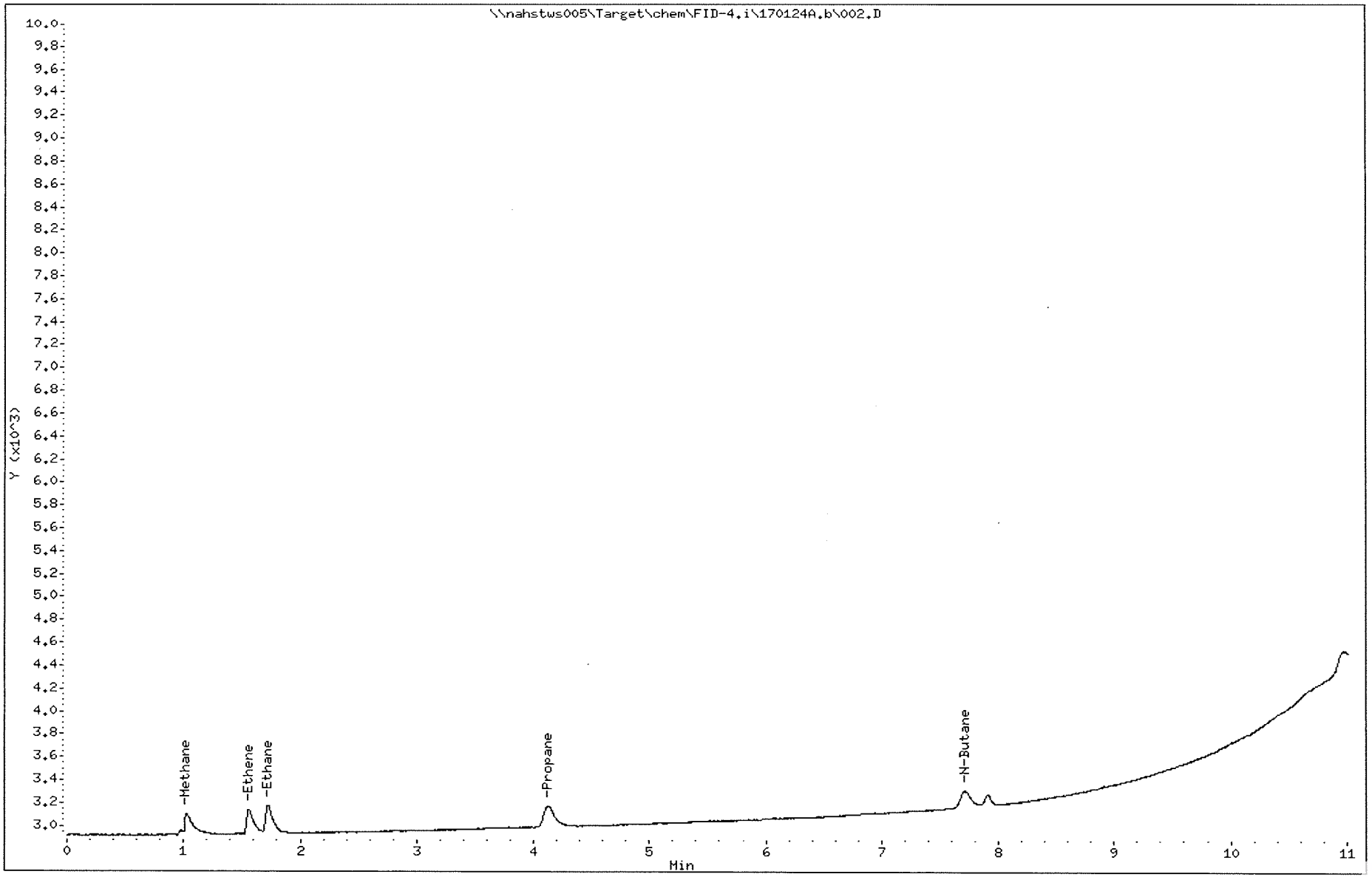
Instrument: FID-4.i

Sample Info: ICAL2;ICAL2;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\003.D
Lab Smp Id: ICAL3 Client Smp ID: ICAL3
Inj Date : 24-JAN-2017 09:59
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL3;ICAL3;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	1.043	1.030	0.013	1967	1.92900	2.018
2 Ethene	1.570	1.556	0.014	1904	3.37000	3.247
3 Ethane	1.736	1.723	0.013	2378	3.60900	3.229
4 Propane	4.123	4.113	0.010	2602	5.29300	4.926
5 N-Butane	7.703	7.690	0.013	2034	6.99100	6.176

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\003.D

Date : 24-JAN-2017 09:59

Client ID: ICAL3

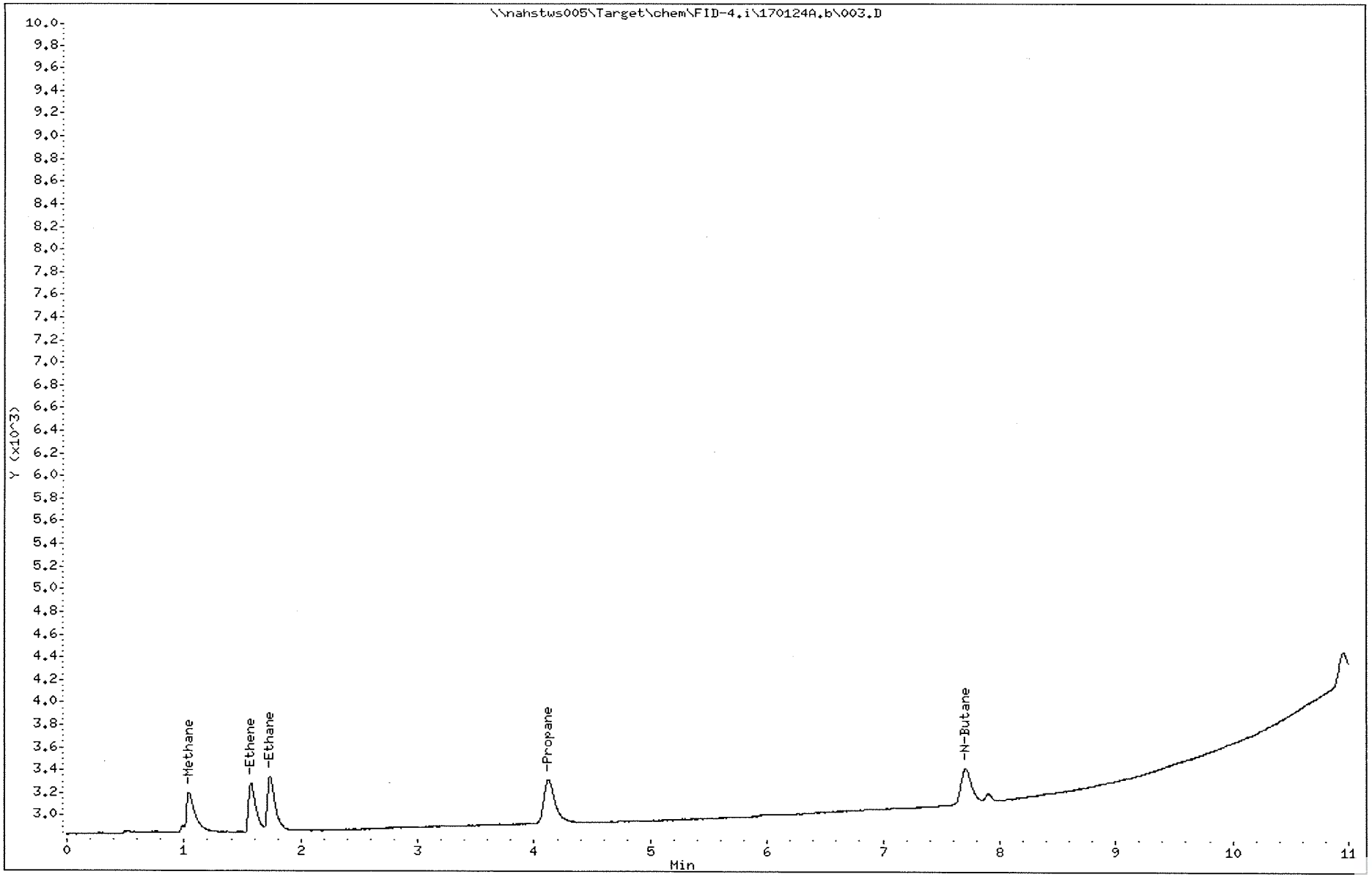
Instrument: FID-4.i

Sample Info: ICAL3;ICAL3;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\004.D
Lab Smp Id: ICAL4 Client Smp ID: ICAL4
Inj Date : 24-JAN-2017 10:15
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL4;ICAL4;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 09:30 Cal File: 002.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.033	1.030	0.003	3399	3.85900	3.488
2 Ethene	1.563	1.556	0.007	3478	6.74000	5.932
3 Ethane	1.726	1.723	0.003	4310	7.21700	5.853
4 Propane	4.120	4.113	0.007	4785	10.5850	8.190
5 N-Butane	7.703	7.690	0.013	3864	13.9820	9.473(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\004.D

Date : 24-JAN-2017 10:15

Client ID: ICAL4

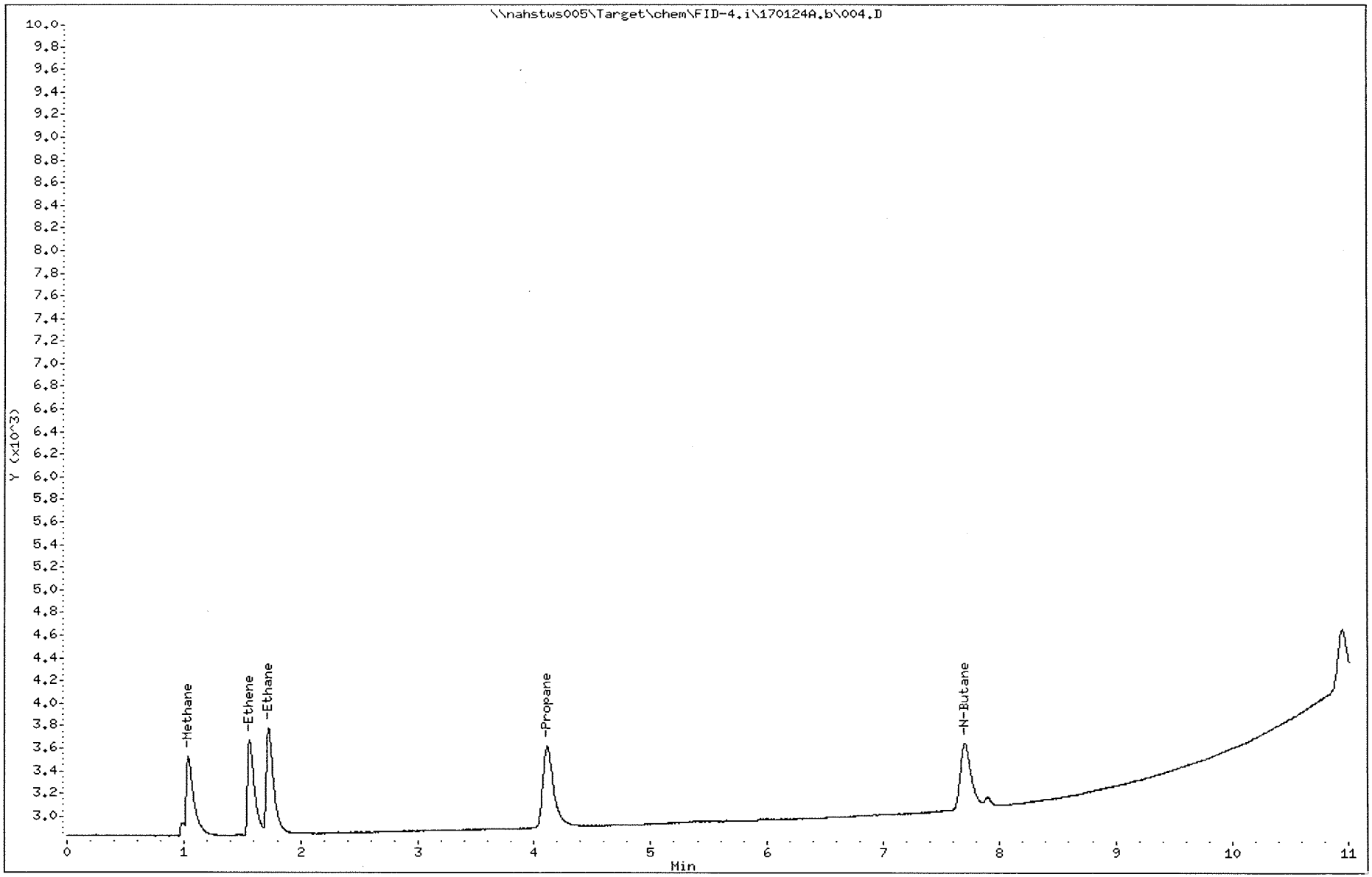
Instrument: FID-4.i

Sample Info: ICAL4;ICAL4;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\005.D
Lab Smp Id: ICAL5 Client Smp ID: ICAL5
Inj Date : 24-JAN-2017 10:39
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL5;ICAL5;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:39 Cal File: 005.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.043	1.030	0.013	9268	9.64700	9.511
2 Ethene	1.570	1.556	0.014	11210	16.8500	19.121
3 Ethane	1.733	1.723	0.010	14588	18.0430	19.811
4 Propane	4.120	4.113	0.007	18294	26.4630	27.415
5 N-Butane	7.700	7.690	0.010	18446	34.9550	34.419(M)

QC Flag Legend

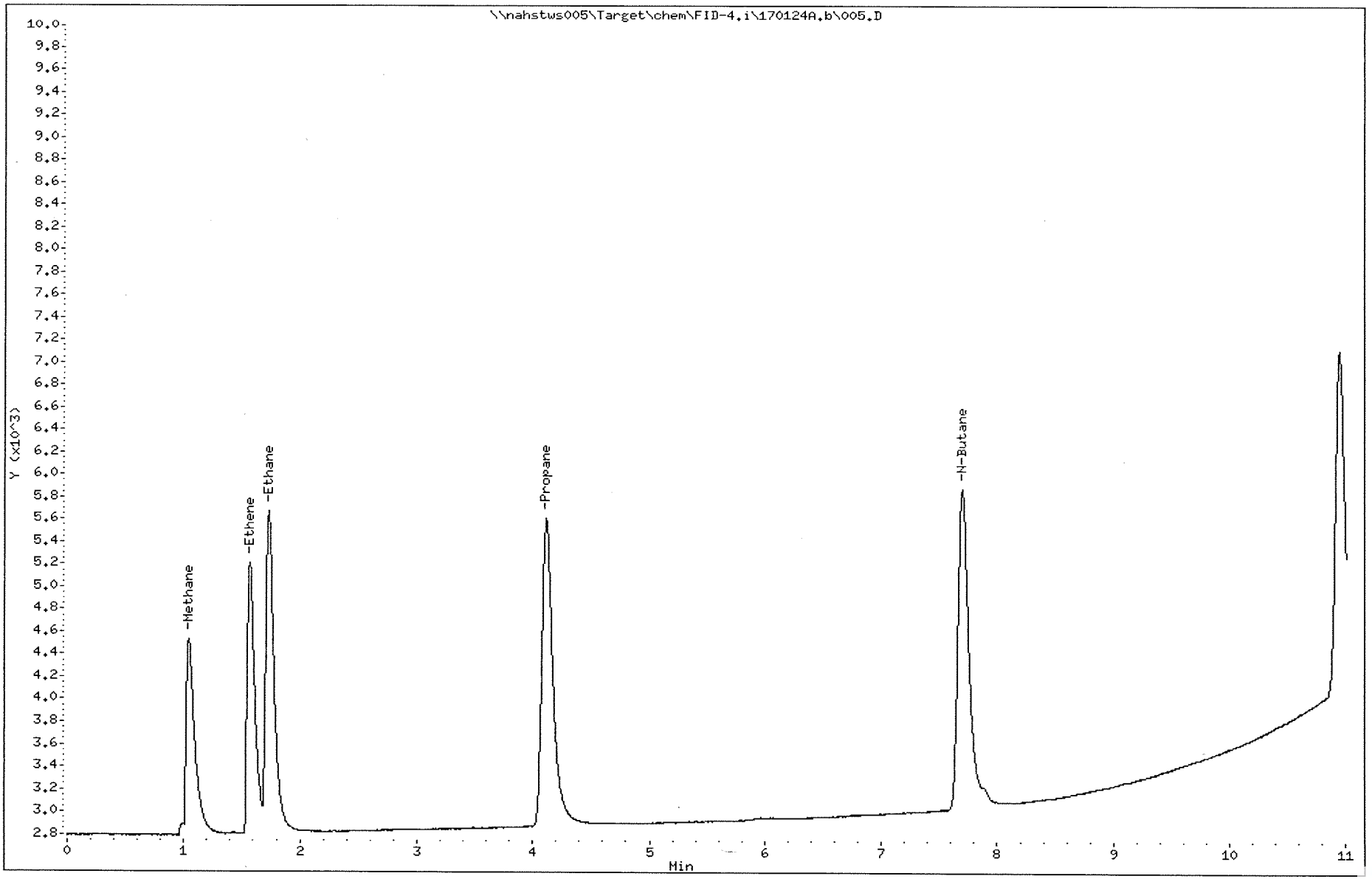
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\005.D
Date : 24-JAN-2017 10:39
Client ID: ICAL5
Sample Info: ICAL5;ICAL5;;;

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: MA
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\006.D
Lab Smp Id: ICAL6 Client Smp ID: ICAL6
Inj Date : 24-JAN-2017 10:57
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL6;ICAL6;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:39 Cal File: 005.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1 Methane	1.023	1.030	-0.007	17957	19.2940	18.429
2 Ethene	1.550	1.556	-0.006	22910	53.8200	39.078
3 Ethane	1.716	1.723	-0.007	29505	36.0860	40.070
4 Propane	4.110	4.113	-0.003	38286	52.9260	52.796
5 N-Butane	7.696	7.690	0.006	42817	69.9110	70.855

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\006.D

Date : 24-JAN-2017 10:57

Client ID: ICAL6

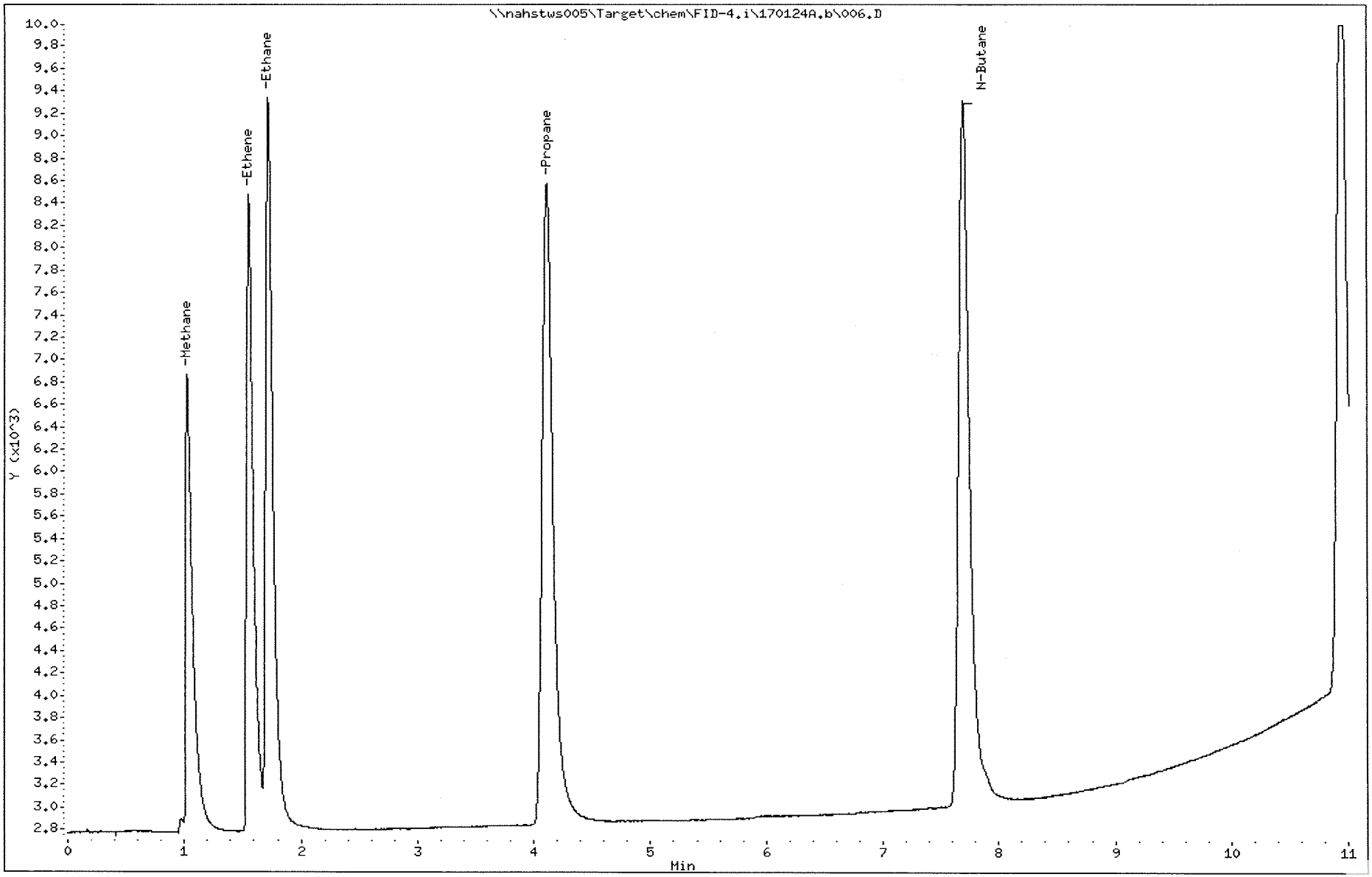
Sample Info: ICAL6;ICAL6;;;

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: MA

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\007.D
Lab Smp Id: ICAL7 Client Smp ID: ICAL7
Inj Date : 24-JAN-2017 11:13
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL7;ICAL7;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:57 Cal File: 006.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1 Methane	1.030	1.030	0.000	41736	38.5880	42.833(A)
2 Ethene	1.556	1.556	0.000	55865	67.4000	95.291(A)
3 Ethane	1.723	1.723	0.000	72124	72.1720	97.951(A)
4 Propane	4.113	4.113	0.000	96509	105.852	105.844
5 N-Butane	7.690	7.690	0.000	114164	139.821	139.707

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\007.D

Date : 24-JAN-2017 11:13

Client ID: ICAL7

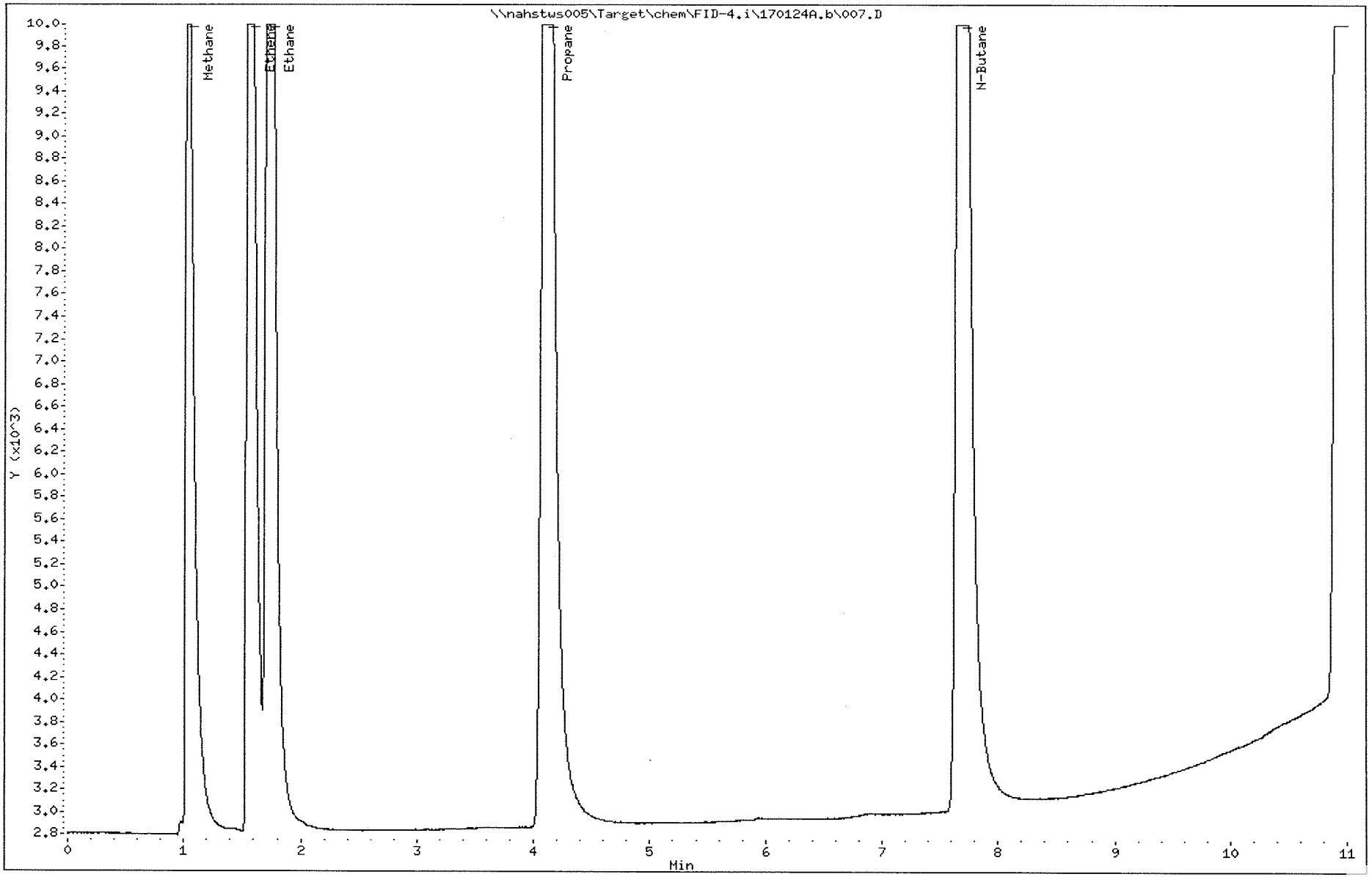
Sample Info: ICAL7;ICAL7;;;

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: MA

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\008.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-JAN-2017 12:05
Operator : MA Inst ID: FID-4.i
Smp Info : ICV;ICV;;;
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
Als bottle: 8 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	1.046	1.030	0.016	9352	9.59792	9.597
2 Ethene	1.573	1.556	0.017	11192	19.0906	19.090
3 Ethane	1.736	1.723	0.013	14474	19.6571	19.657
4 Propane	4.116	4.113	0.003	18164	27.2381	27.238
5 N-Butane	7.696	7.690	0.006	19425	36.0103	36.010

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\008.D

Date : 24-JAN-2017 12:05

Client ID: ICV

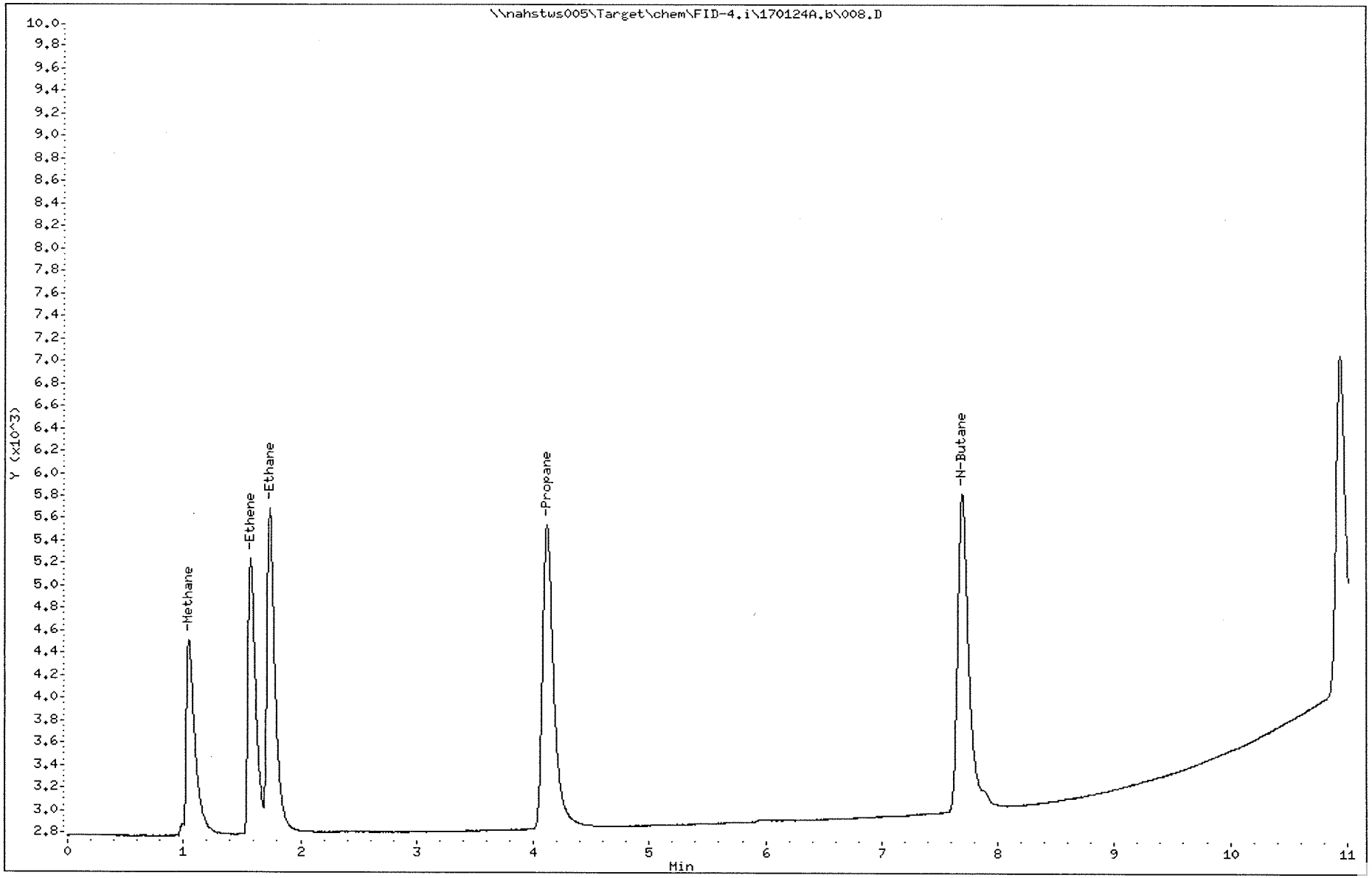
Sample Info: ICV;ICV;;;

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: MA

Column diameter: 0.53



FID04 - Logbook

Batch: 47188 **Analyst:** Purvi Lad

Date: 10-28-2021 **Reviewer:**

Method: rsk175 **Laboratory:** Houston

Comments:

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	RSK-CCV	CCV	10-28-2021 08:44 am	1.00	0.00 mL	0.00 mL	001.D	Liquid	Y	NA
2	MBLK-211028	MBLK	10-28-2021 08:59 am	1.00	0.00 mL	0.00 mL	002.D	Liquid	Y	NA
3	LCS-211028	LCS	10-28-2021 09:10 am	1.00	0.00 mL	0.00 mL	003.D	Liquid	Y	NA
4	HS21101161-01	SAMP	10-28-2021 09:18 am	1.00	0.00 mL	0.00 mL	004.D	Liquid	Y	<2
5	HS21101161-02	SAMP	10-28-2021 09:28 am	1.00	0.00 mL	0.00 mL	005.D	Liquid	Y	<2
6	HS21101161-03	SAMP	10-28-2021 09:38 am	1.00	0.00 mL	0.00 mL	006.D	Liquid	Y	<2
7	HS21101161-04	SAMP	10-28-2021 09:47 am	1.00	0.00 mL	0.00 mL	007.D	Liquid	Y	<2
8	HS21101161-05	SAMP	10-28-2021 09:57 am	1.00	0.00 mL	0.00 mL	008.D	Liquid	Y	<2
9	HS21101161-06	SAMP	10-28-2021 10:05 am	1.00	0.00 mL	0.00 mL	009.D	Liquid	Y	<2
10	HS21101161-07	SAMP	10-28-2021 10:15 am	1.00	0.00 mL	0.00 mL	010.D	Liquid	Y	<2
11	RSK-CCV	CCV	10-28-2021 10:24 am	1.00	0.00 mL	0.00 mL	011.D	Liquid	Y	NA
12	HS21101161-08	SAMP	10-28-2021 10:33 am	1.00	0.00 mL	0.00 mL	012.D	Liquid	Y	<2
13	HS21101277-01	SAMP	10-28-2021 10:48 am	1.00	0.00 mL	0.00 mL	013.D	Liquid	Y	<2
14	HS21101277-02	SAMP	10-28-2021 11:01 am	1.00	0.00 mL	0.00 mL	014.D	Liquid	Y	<2
15	HS21101277-03	SAMP	10-28-2021 11:10 am	1.00	0.00 mL	0.00 mL	015.D	Liquid	Y	<2
16	HS21101277-04	SAMP	10-28-2021 11:22 am	1.00	0.00 mL	0.00 mL	016.D	Liquid	Y	<2
17	HS21101277-05	SAMP	10-28-2021 11:29 am	1.00	0.00 mL	0.00 mL	017.D	Liquid	Y	<2
18	HS21101277-06	SAMP	10-28-2021 11:39 am	1.00	0.00 mL	0.00 mL	018.D	Liquid	Y	<2
19	HS21101287-11	SAMP	10-28-2021 11:47 am	1.00	0.00 mL	0.00 mL	019.D	Liquid	Y	<2
20	HS21101144-11	SAMP	10-28-2021 11:58 am	1.00	0.00 mL	0.00 mL	020.D	Liquid	Y	<2
21	HS21101144-12	SAMP	10-28-2021 12:06 pm	1.00	0.00 mL	0.00 mL	021.D	Liquid	Y	<2
22	RSK-CCV	CCV	10-28-2021 12:16 pm	1.00	0.00 mL	0.00 mL	022.D	Liquid	Y	NA
23	HS21101144-10	SAMP	10-28-2021 12:34 pm	1.00	0.00 mL	0.00 mL	023.D	Liquid	Y	<2
24	HS21101144-10MS	MS	10-28-2021 12:42 pm	1.00	0.00 mL	0.00 mL	024.D	Liquid	Y	<2
25	HS21101144-10MSD	MSD	10-28-2021 12:52 pm	1.00	0.00 mL	0.00 mL	025.D	Liquid	Y	<2
26	HS21101144-13	SAMP	10-28-2021 01:04 pm	1.00	0.00 mL	0.00 mL	026.D	Liquid	Y	<2
27	HS21101161-04	SAMP	10-28-2021 01:25 pm	100.0(	0.00 mL	0.00 mL	027.D	Liquid	Y	<2
28	HS21101161-05	SAMP	10-28-2021 02:08 pm	100.0(	0.00 mL	0.00 mL	028.D	Liquid	Y	<2
29	HS21101161-06	SAMP	10-28-2021 02:16 pm	400.0(	0.00 mL	0.00 mL	029.D	Liquid	Y	<2
30	HS21101161-07	SAMP	10-28-2021 02:25 pm	400.0(	0.00 mL	0.00 mL	030.D	Liquid	Y	<2
31	HS21101161-08	SAMP	10-28-2021 02:33 pm	200.0(	0.00 mL	0.00 mL	031.D	Liquid	Y	<2
32	HS21101277-01	SAMP	10-28-2021 02:43 pm	100.0(	0.00 mL	0.00 mL	032.D	Liquid	Y	<2
33	RSK-CCV	CCV	10-28-2021 02:52 pm	1.00	0.00 mL	0.00 mL	033.D	Liquid	Y	NA
34	HS21101277-03	SAMP	10-28-2021 03:02 pm	200.0(	0.00 mL	0.00 mL	034.D	Liquid	Y	<2
35	HS21101277-04	SAMP	10-28-2021 03:11 pm	400.0(	0.00 mL	0.00 mL	035.D	Liquid	Y	<2
36	HS21101277-05	SAMP	10-28-2021 03:21 pm	400.0(	0.00 mL	0.00 mL	036.D	Liquid	Y	<2
37	HS21101277-06	SAMP	10-28-2021 03:29 pm	400.0(	0.00 mL	0.00 mL	037.D	Liquid	Y	<2
38	HS21101287-11	SAMP	10-28-2021 03:40 pm	100.0(	0.00 mL	0.00 mL	038.D	Liquid	Y	<2
39	RSK-CCV	CCV	10-28-2021 04:06 pm	1.00	0.00 mL	0.00 mL	039.D	Liquid	Y	NA

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Instrument ID: FID-4 Calibration Date: 10/28/21 Time: 0844

Lab File ID: 001 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	716.84310	0.01	0.37	20.00	AVRG
Methane	974.99200	1017.4147	0.01	-4.35	20.00	AVRG
Ethene	585.76000	477.86350	0.01	18.42	20.00	AVRG

FORM VII GASES

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Instrument ID: FID-4 Calibration Date: 10/28/21 Time: 1024

Lab File ID: 011 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	829.18583	0.01	-15.25	20.00	AVRG
Methane	974.99200	997.40852	0.01	-2.30	20.00	AVRG
Ethene	585.76000	539.88131	0.01	7.83	20.00	AVRG

FORM VII GASES

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Instrument ID: FID-4 Calibration Date: 10/28/21 Time: 1216

Lab File ID: 022 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	708.69589	0.01	1.50	20.00	AVRG
Methane	974.99200	907.32870	0.01	6.94	20.00	AVRG
Ethene	585.76000	502.55193	0.01	14.20	20.00	AVRG

FORM VII GASES

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Instrument ID: FID-4 Calibration Date: 10/28/21 Time: 1452

Lab File ID: 033 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	691.51471	0.01	3.89	20.00	AVRG
Methane	974.99200	919.97512	0.01	5.64	20.00	AVRG
Ethene	585.76000	476.32047	0.01	18.68	20.00	AVRG

FORM VII GASES

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Instrument ID: FID-4 Calibration Date: 10/28/21 Time: 1606

Lab File ID: 039 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	678.93366	0.01	5.64	20.00	AVRG
Methane	974.99200	848.65761	0.01	12.96	20.00	AVRG
Ethene	585.76000	474.83680	0.01	18.94	20.00	AVRG

FORM VII GASES

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\001.D Page 1
Report Date: 17-Nov-2021 09:04

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\001.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 28-OCT-2021 08:44
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.483	0.480	0.003	9815	9.64700	10.066
2 Ethene	0.733	0.730	0.003	8052	16.8500	13.746
3 Ethane	0.813	0.810	0.003	12934	18.0430	17.976

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\001.D

Date : 28-OCT-2021 08:44

Client ID: RSK-CCV

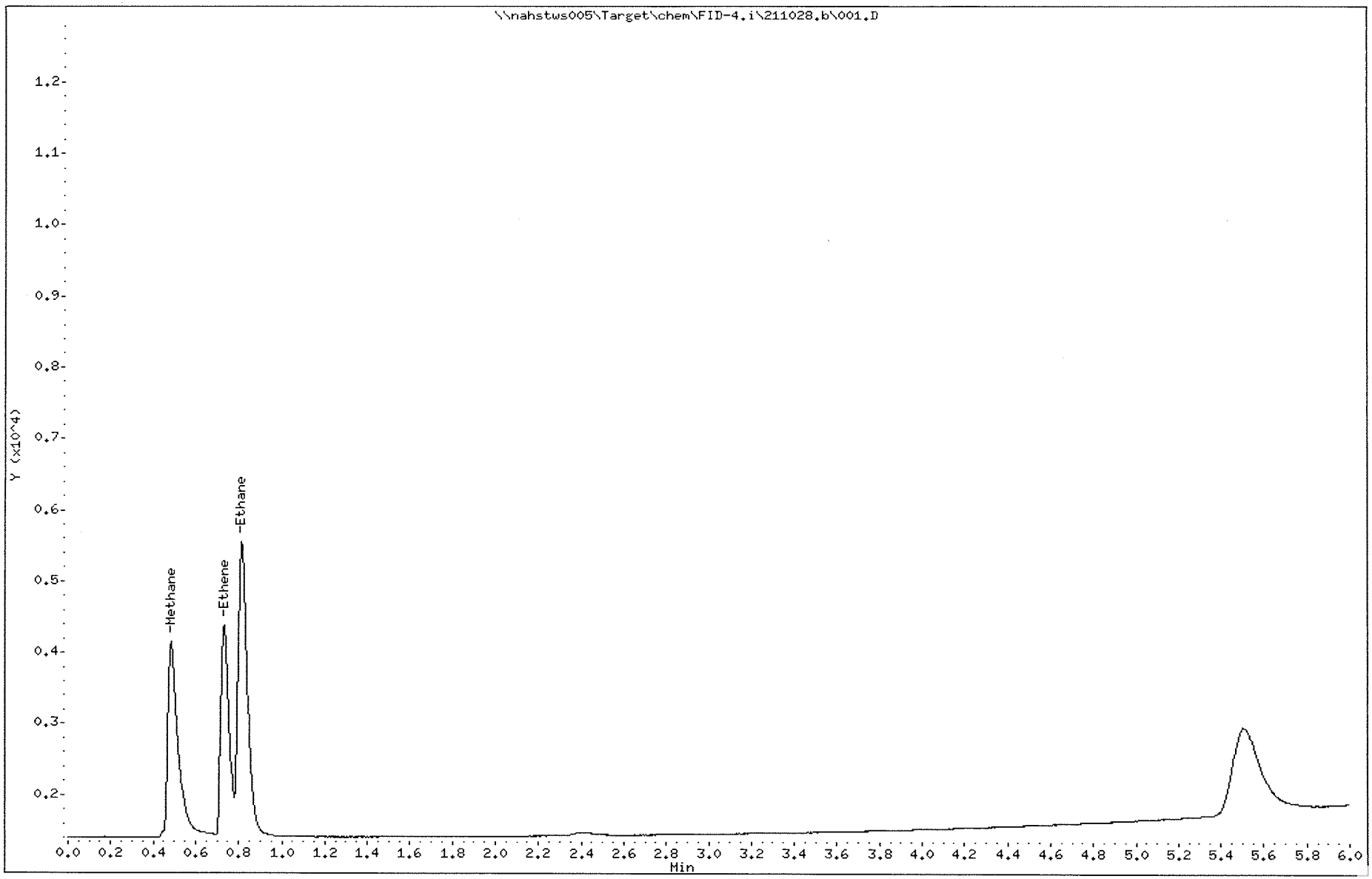
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\Before\001.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 28-OCT-2021 08:44
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

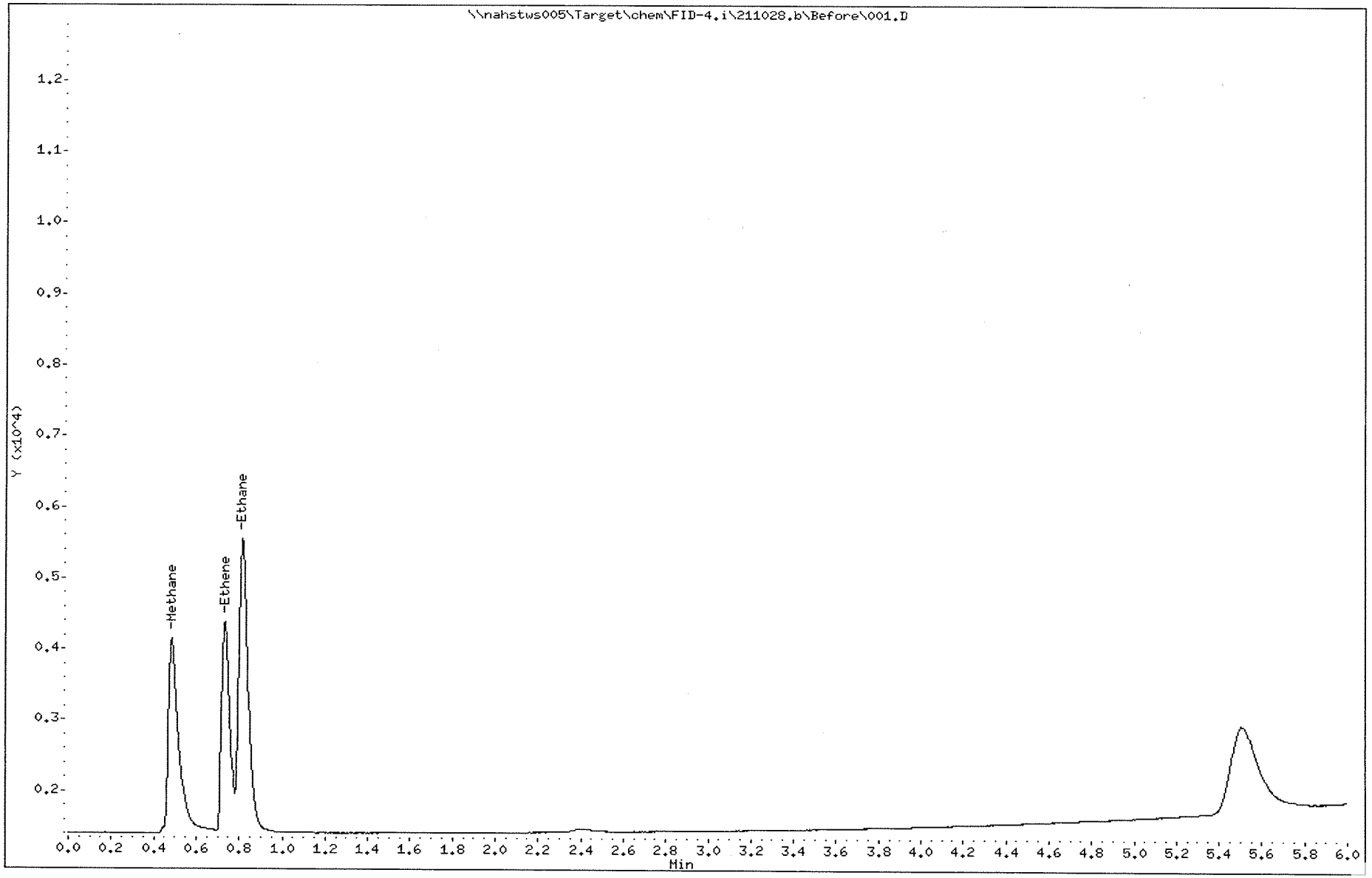
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.483	0.480	0.003	9771	9.64700	10.021
2 Ethene	0.733	0.730	0.003	7965	16.8500	13.597
3 Ethane	0.813	0.810	0.003	12807	18.0430	17.800

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\Before\001.D
Date : 28-OCT-2021 08:44
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\002.D Page 1
Report Date: 17-Nov-2021 09:04

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\002.D
Lab Smp Id: MBLK-211028 Client Smp ID: MBLK-211028
Inj Date : 28-OCT-2021 08:59
Operator : PL Inst ID: FID-4.i
Smp Info : MBLK-211028;MBLK-211028;3;;BLANK
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

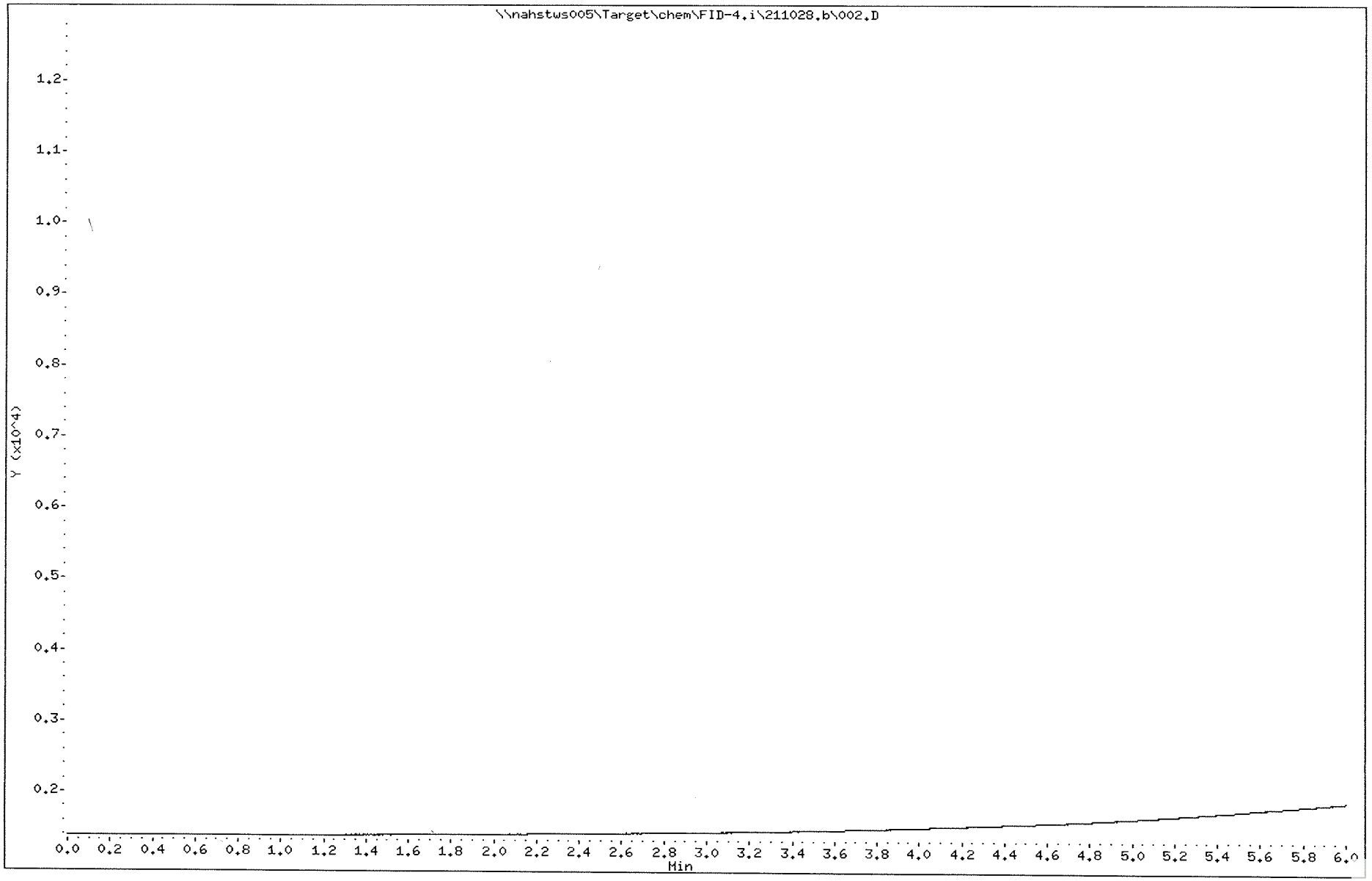
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\002.D
Date : 28-OCT-2021 08:59
Client ID: MBLK-211028
Sample Info: MBLK-211028;MBLK-211028;3;;BLANK

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\Before\002.D
Lab Smp Id: MBLK-211028 Client Smp ID: MBLK-211028
Inj Date : 28-OCT-2021 08:59
Operator : PL Inst ID: FID-4.i
Smp Info : MBLK-211028;MBLK-211028;3;;BLANK
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
==========	====	========	========	========	=======	=======

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\Before\002.D

Date : 28-OCT-2021 08:59

Client ID: MBLK-211028

Instrument: FID-4.i

Sample Info: MBLK-211028;MBLK-211028;3;;BLANK

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\003.D Page 1
Report Date: 17-Nov-2021 09:04

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\003.D
Lab Smp Id: LCS-211028 Client Smp ID: LCS-211028
Inj Date : 28-OCT-2021 09:10
Operator : PL Inst ID: FID-4.i
Smp Info : LCS-211028;LCS-211028;3;;LCS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

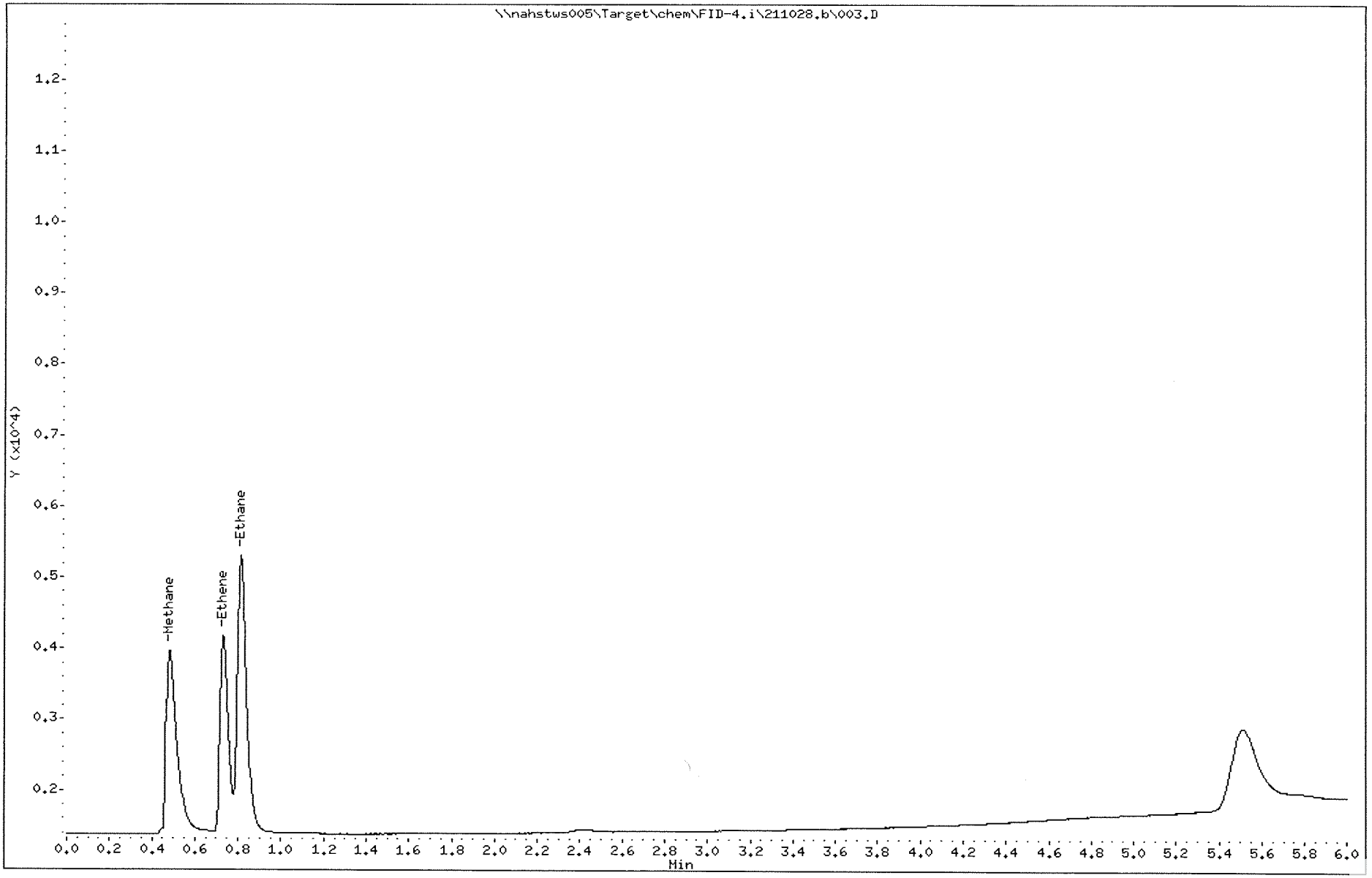
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.480	0.480	0.000	9375	9.61546	9.615
2 Ethene	0.730	0.730	0.000	7660	13.0770	13.077
3 Ethane	0.813	0.810	0.003	12147	16.8828	16.882

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\003.D
Date : 28-OCT-2021 09:10
Client ID: LCS-211028
Sample Info: LCS-211028;LCS-211028;3;;LCS

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\Before\003.D
Lab Smp Id: LCS-211028 Client Smp ID: LCS-211028
Inj Date : 28-OCT-2021 09:10
Operator : PL Inst ID: FID-4.i
Smp Info : LCS-211028;LCS-211028;3;;LCS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

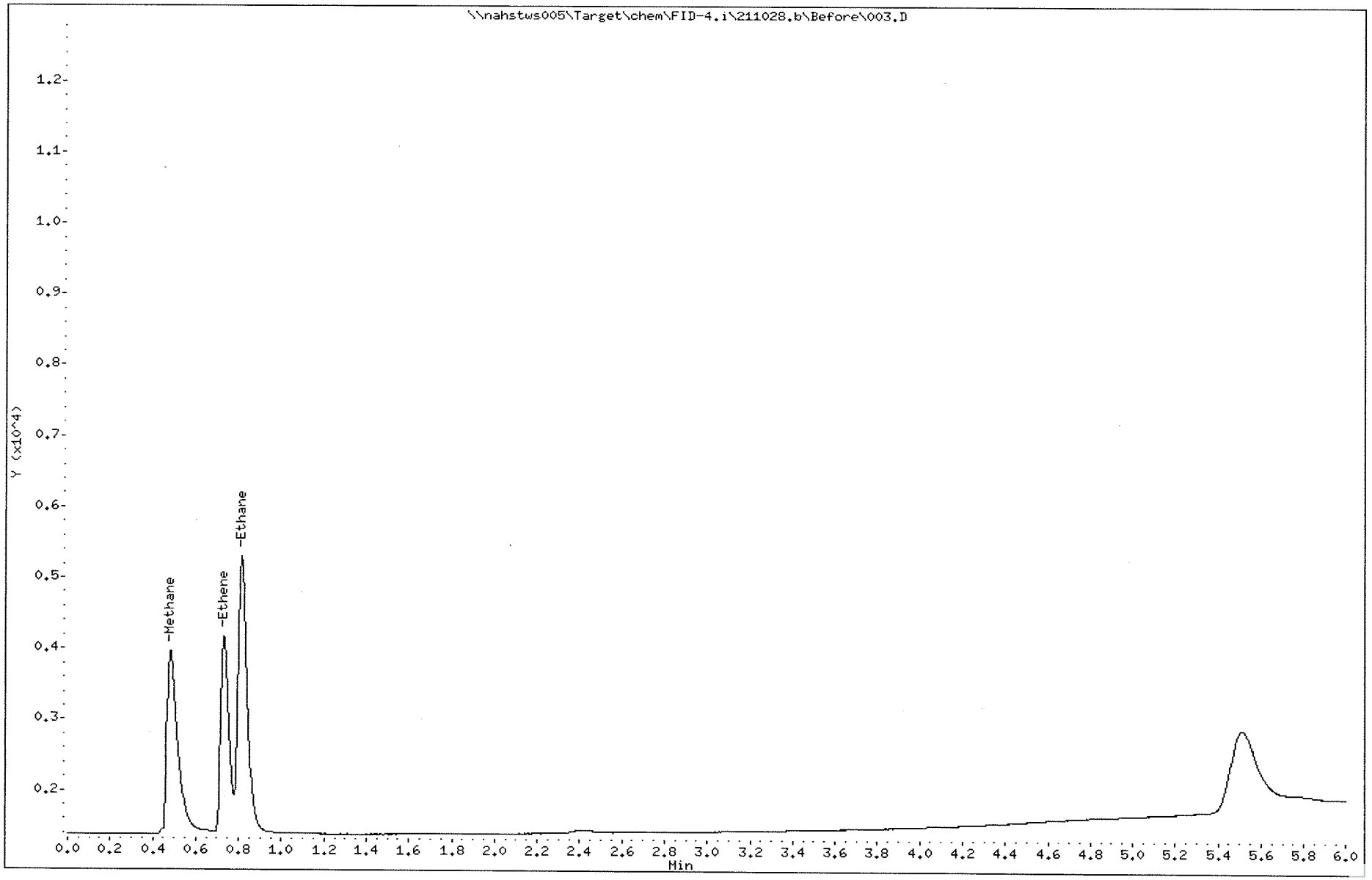
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.480	0.480	0.000	9314	9.55290	9.552
2 Ethene	0.730	0.730	0.000	7561	12.9080	12.908
3 Ethane	0.813	0.810	0.003	11992	16.6674	16.667

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\Before\003.D
Date : 28-OCT-2021 09:10
Client ID: LCS-211028
Sample Info: LCS-211028;LCS-211028;3;;LCS

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\011.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 28-OCT-2021 10:24
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

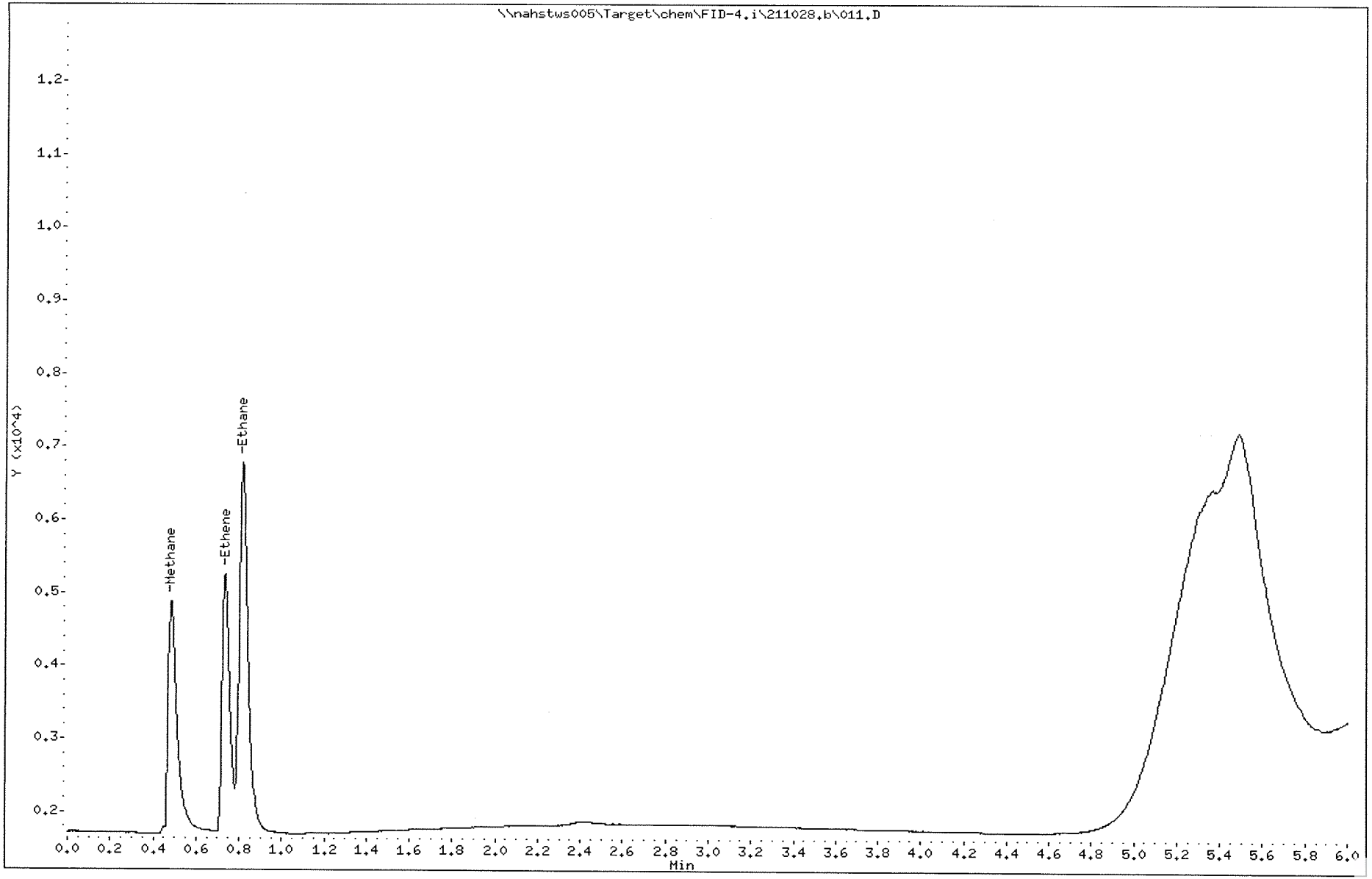
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.480	0.480	0.000	9622	9.64700	9.868
2 Ethene	0.733	0.730	0.003	9097	16.8500	15.530
3 Ethane	0.813	0.810	0.003	14961	18.0430	20.793

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\011.D
Date : 28-OCT-2021 10:24
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\Before\011.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 28-OCT-2021 10:24
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.480	0.480	0.000	9626	9.64700	9.872
2 Ethene	0.733	0.730	0.003	9031	16.8500	15.417
3 Ethane	0.813	0.810	0.003	14898	18.0430	20.706

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\Before\011.D

Date : 28-OCT-2021 10:24

Client ID: RSK-CCV

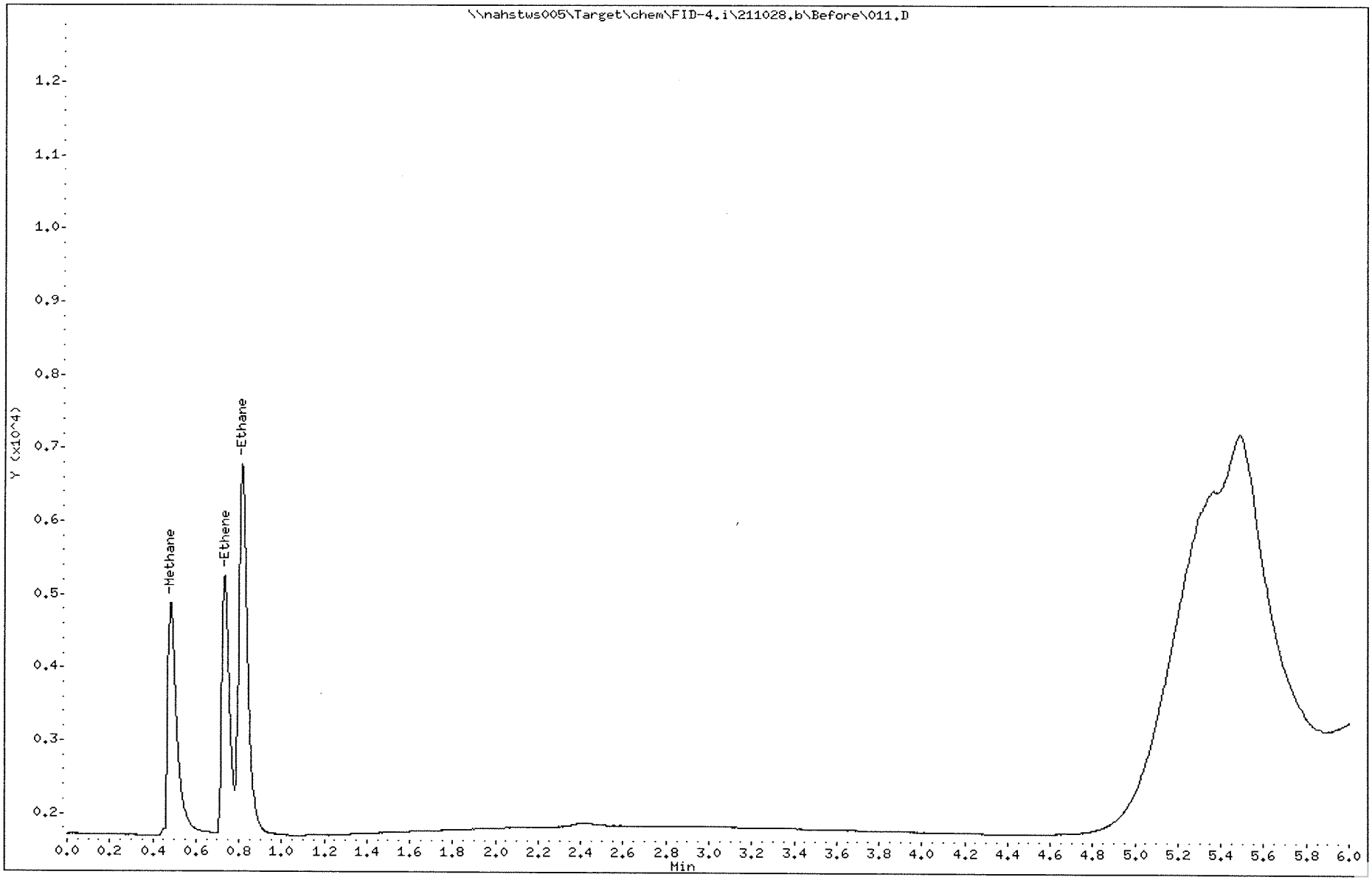
Instrument: FID-4.i

Sample Info: RSK-CCV;RSK-CCV;2;4

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\020.D
Lab Smp Id: HS21101144-11 Client Smp ID: HS21101144-11
Inj Date : 28-OCT-2021 11:58
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101144-11;HS21101144-11
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.516	0.480	0.036	1081	1.10873	1.108
2 Ethene	0.713	0.730	-0.017	557	0.95090	0.950(M)

QC Flag Legend

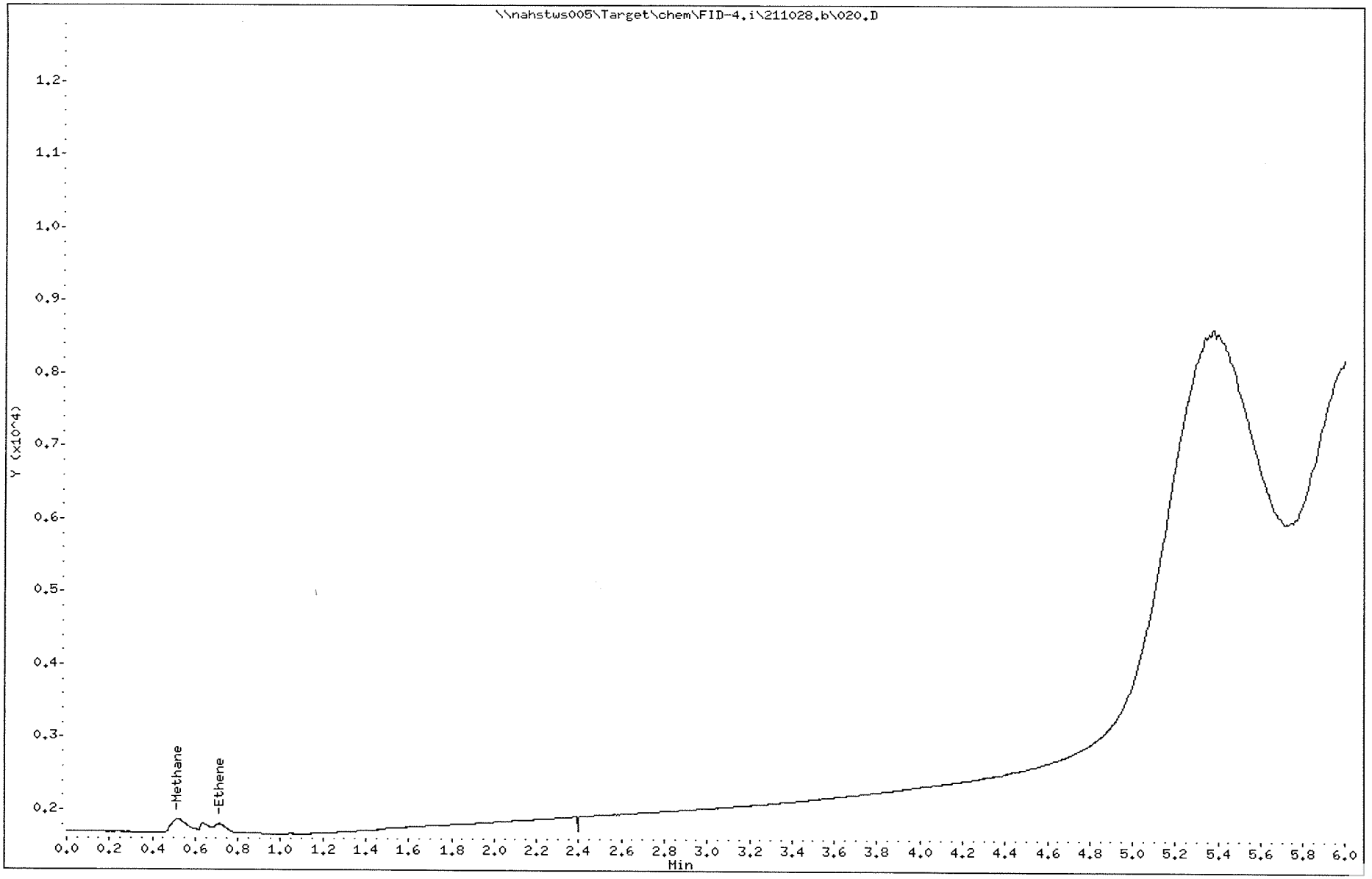
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\020.D
Date : 28-OCT-2021 11:58
Client ID: HS21101144-11
Sample Info: HS21101144-11;HS21101144-11

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\Before\020.D
Lab Smp Id: HS21101144-11 Client Smp ID: HS21101144-11
Inj Date : 28-OCT-2021 11:58
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101144-11;HS21101144-11
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

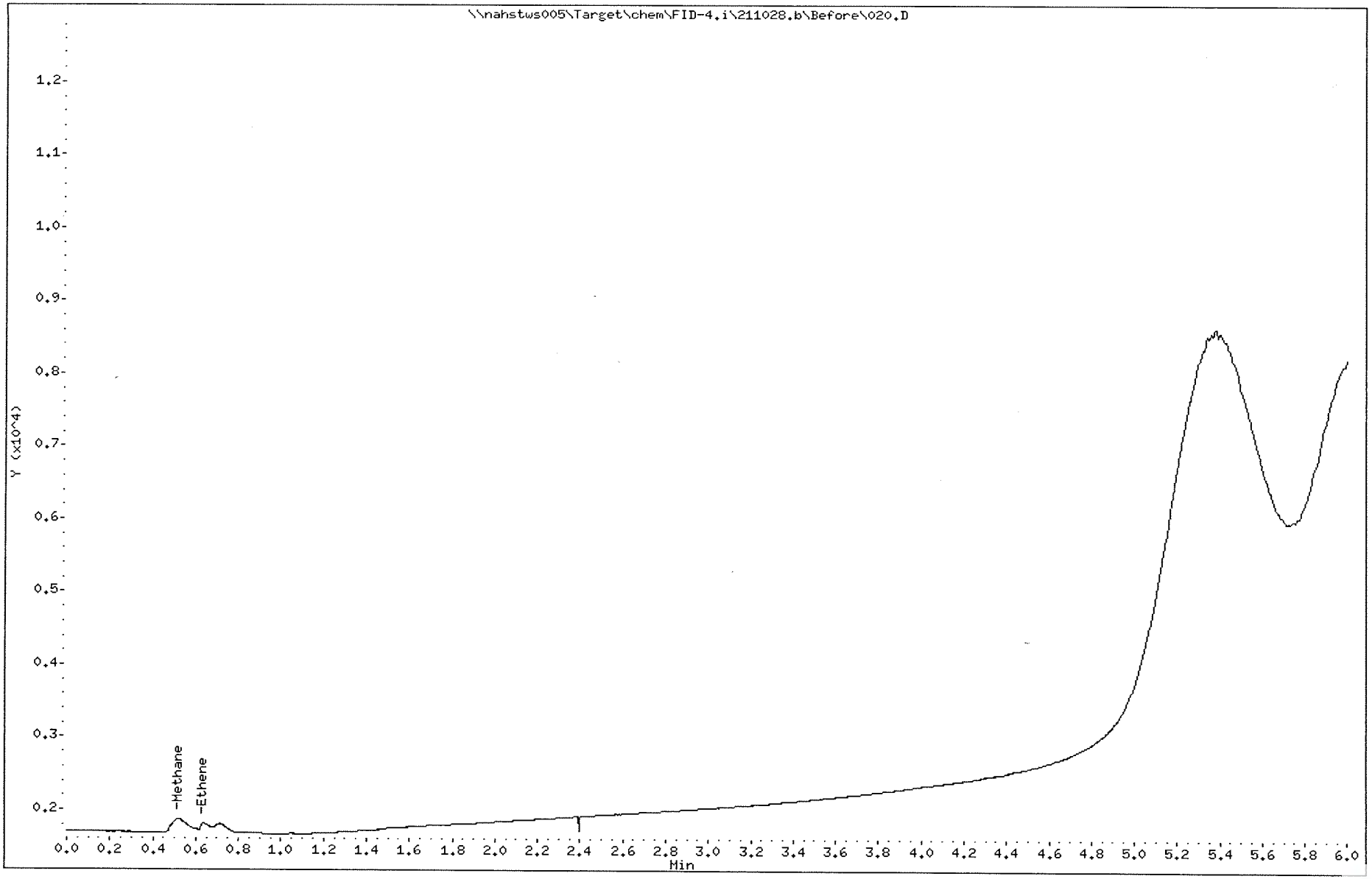
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.516	0.480	0.036	999	1.02462	1.024
2 Ethene	0.633	0.730	-0.097	795	1.35721	1.357

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\Before\020.D
Date : 28-OCT-2021 11:58
Client ID: HS21101144-11
Sample Info: HS21101144-11;HS21101144-11

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\021.D Page 1
Report Date: 17-Nov-2021 09:04

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\021.D
Lab Smp Id: HS21101144-12 Client Smp ID: HS21101144-12
Inj Date : 28-OCT-2021 12:06
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101144-12;HS21101144-12
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

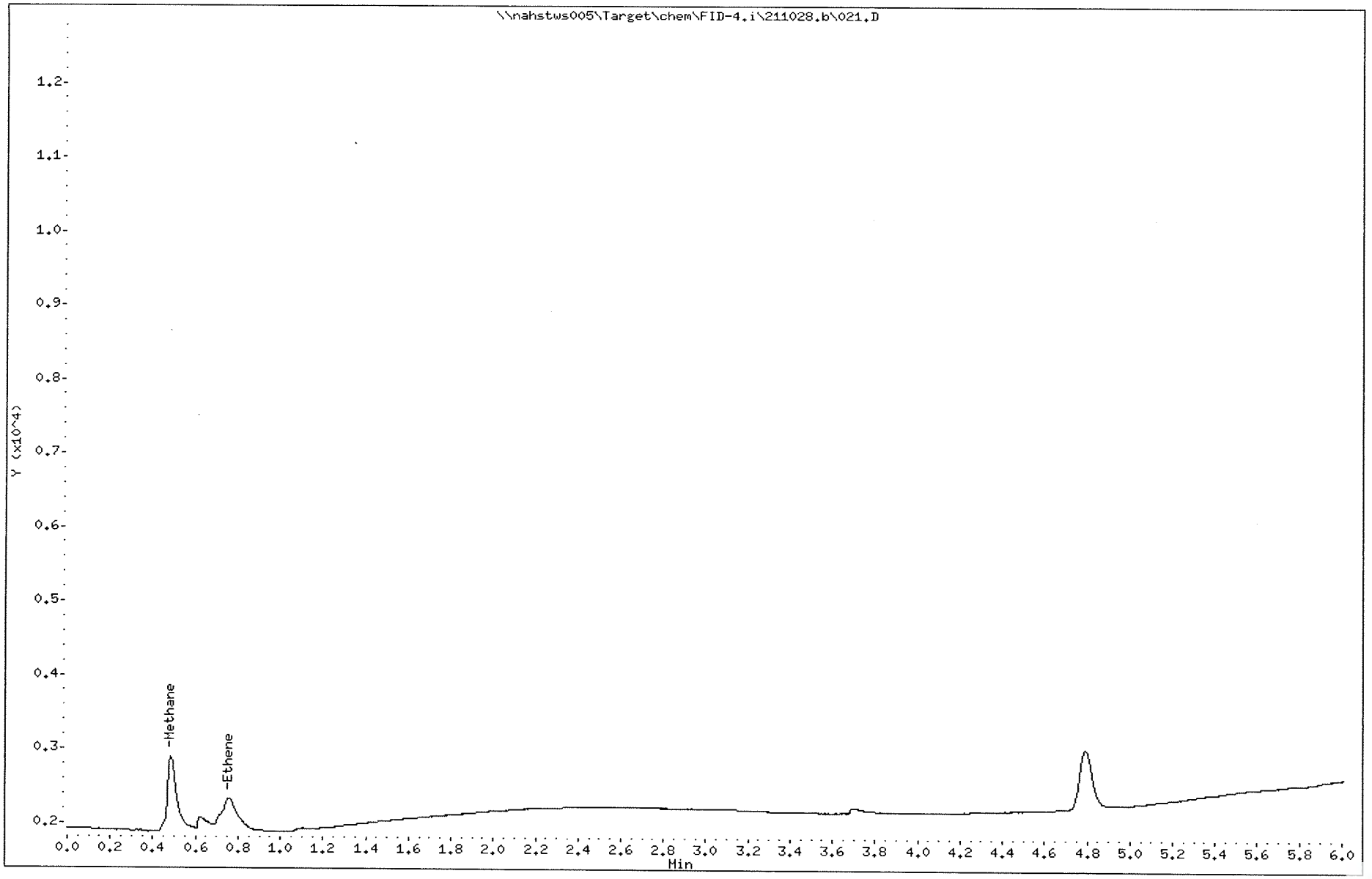
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.483	0.480	0.003	3288	3.37233	3.372
2 Ethene	0.756	0.730	0.026	2584	4.41136	4.411

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\021.D
Date : 28-OCT-2021 12:06
Client ID: HS21101144-12
Sample Info: HS21101144-12;HS21101144-12

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\Before\021.D
Lab Smp Id: HS21101144-12 Client Smp ID: HS21101144-12
Inj Date : 28-OCT-2021 12:06
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101144-12;HS21101144-12
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

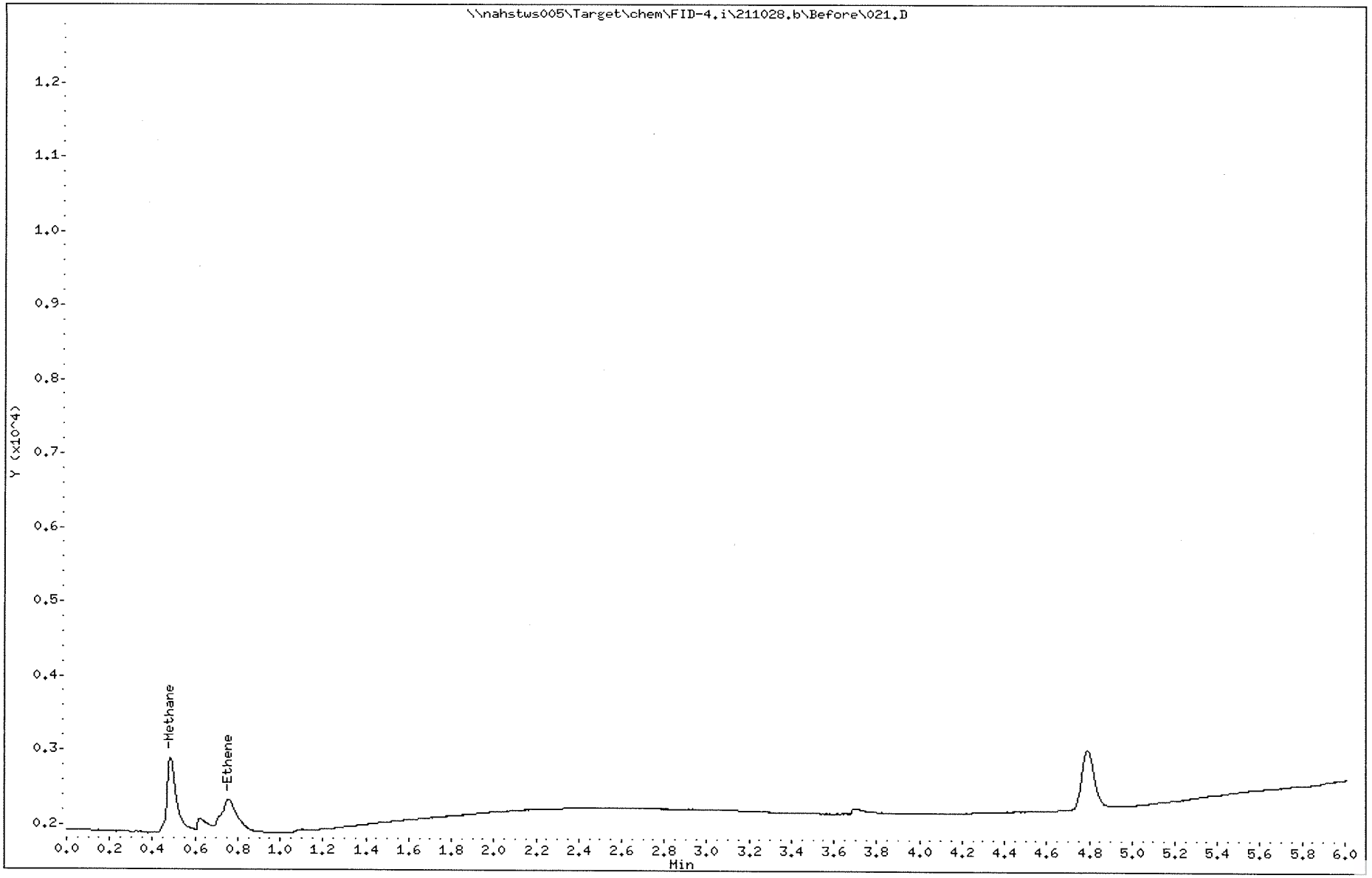
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.483	0.480	0.003	3270	3.35387	3.353
2 Ethene	0.756	0.730	0.026	2513	4.29015	4.290

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\Before\021.D
Date : 28-OCT-2021 12:06
Client ID: HS21101144-12
Sample Info: HS21101144-12;HS21101144-12

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\022.D Page 1
Report Date: 17-Nov-2021 09:04

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\022.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 28-OCT-2021 12:16
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

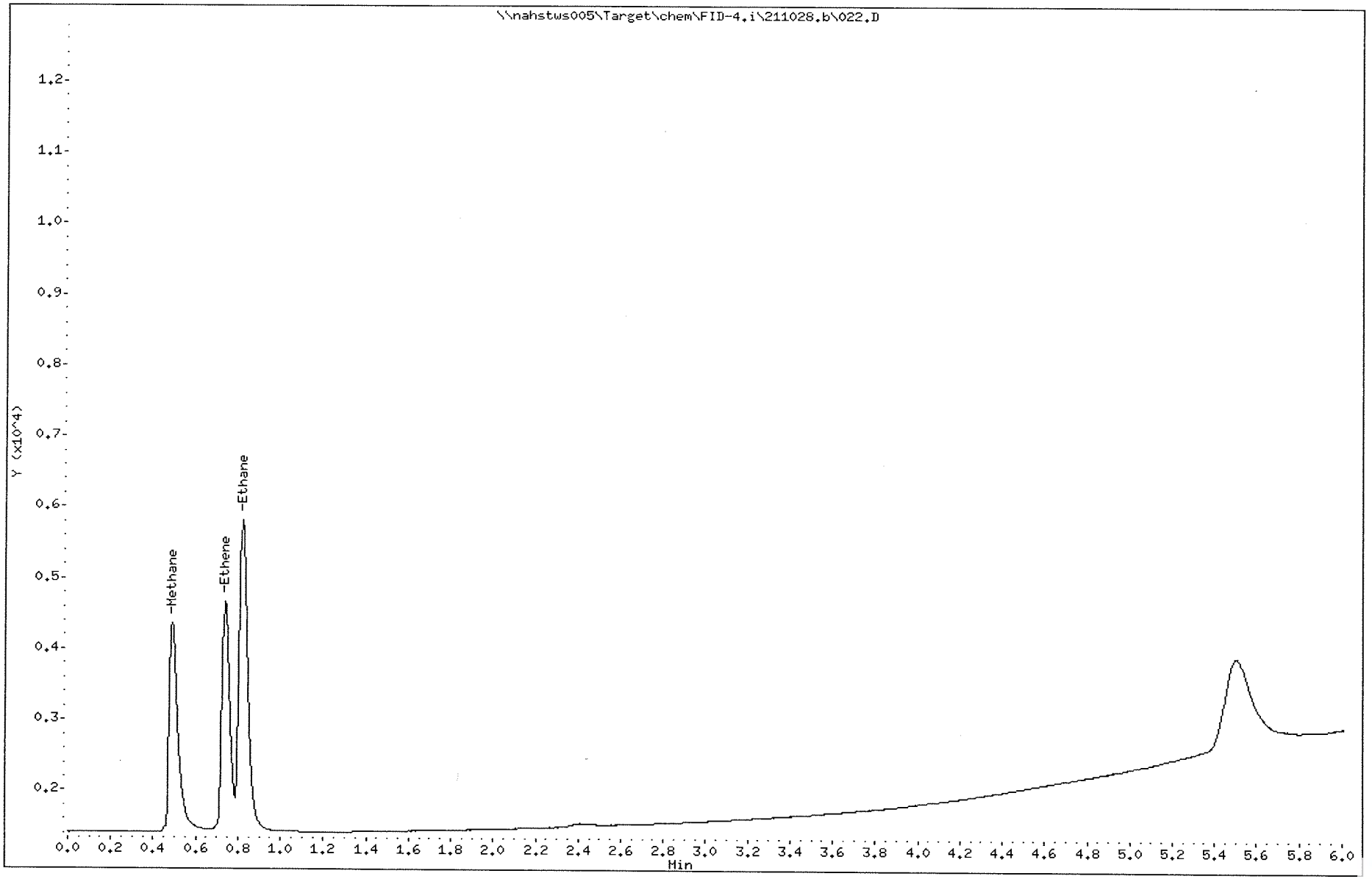
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.486	0.480	0.006	8753	9.64700	8.977
2 Ethene	0.736	0.730	0.006	8468	16.8500	14.456
3 Ethane	0.820	0.810	0.010	12787	18.0430	17.772

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\022.D
Date : 28-OCT-2021 12:16
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\Before\022.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 28-OCT-2021 12:16
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

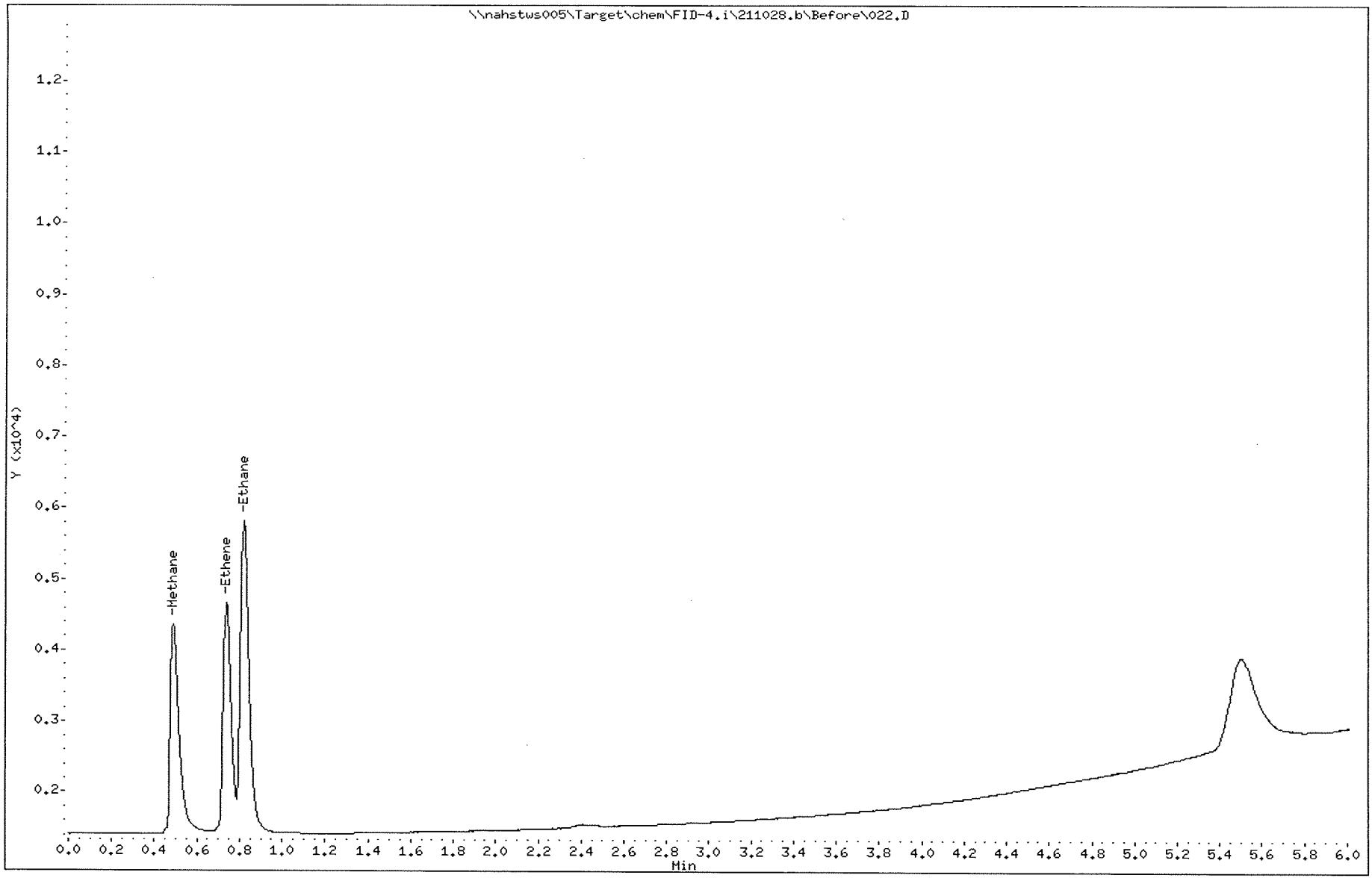
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.486	0.480	0.006	8696	9.64700	8.919
2 Ethene	0.736	0.730	0.006	8365	16.8500	14.280
3 Ethane	0.820	0.810	0.010	12648	18.0430	17.579

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\Before\022.D
Date : 28-OCT-2021 12:16
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\023.D Page 1
Report Date: 17-Nov-2021 09:04

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\023.D
Lab Smp Id: HS21101144-10 Client Smp ID: HS21101144-10
Inj Date : 28-OCT-2021 12:34
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101144-10;HS21101144-10
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 23
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

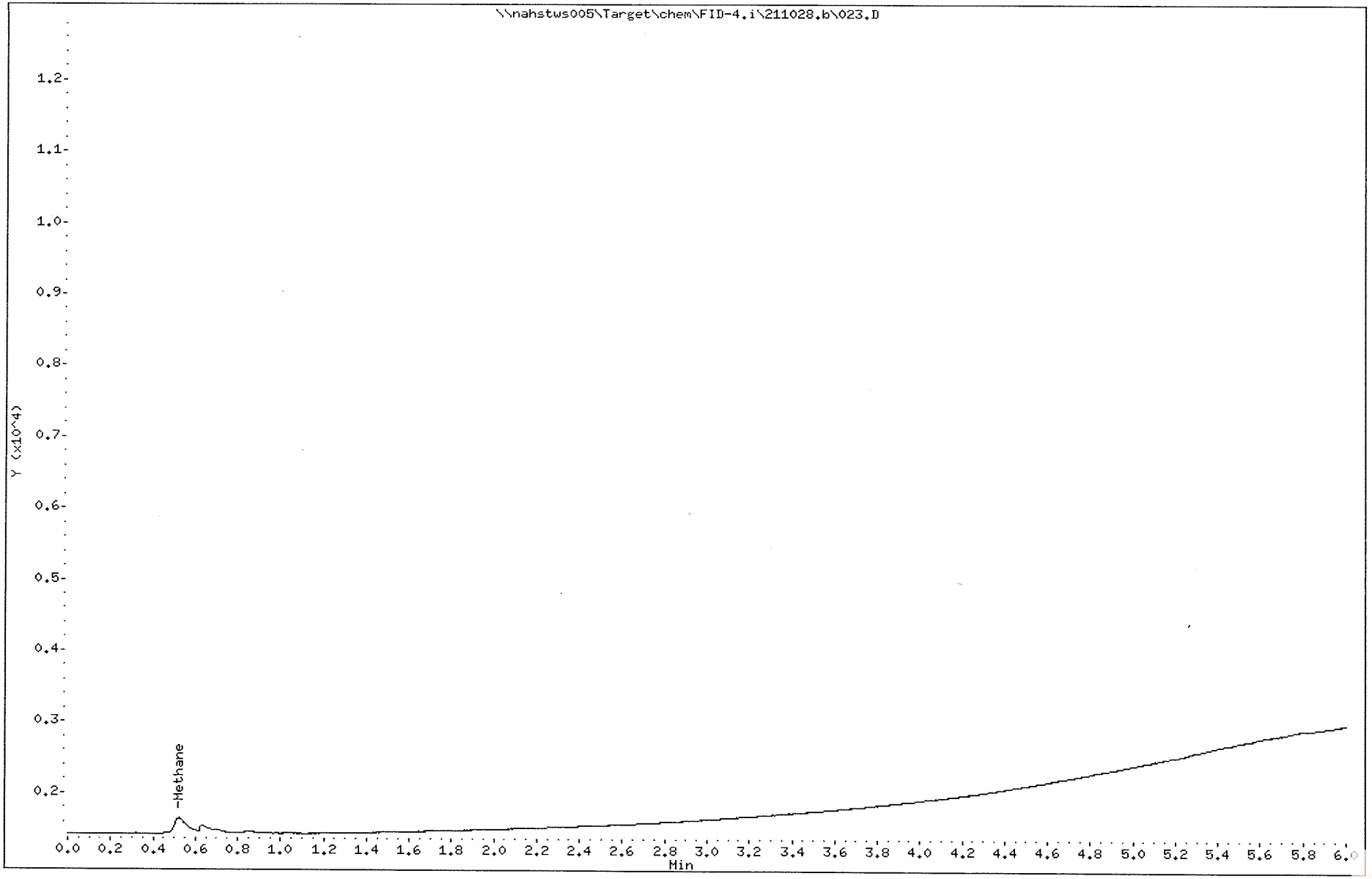
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.523	0.480	0.043	928	0.95180	0.951

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\023.D
Date : 28-OCT-2021 12:34
Client ID: HS21101144-10
Sample Info: HS21101144-10;HS21101144-10

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\Before\023.D
Lab Smp Id: HS21101144-10 Client Smp ID: HS21101144-10
Inj Date : 28-OCT-2021 12:34
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101144-10;HS21101144-10
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 23
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.523	0.480	0.043	826	0.84719	0.847

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\Before\023.D

Date : 28-OCT-2021 12:34

Client ID: HS21101144-10

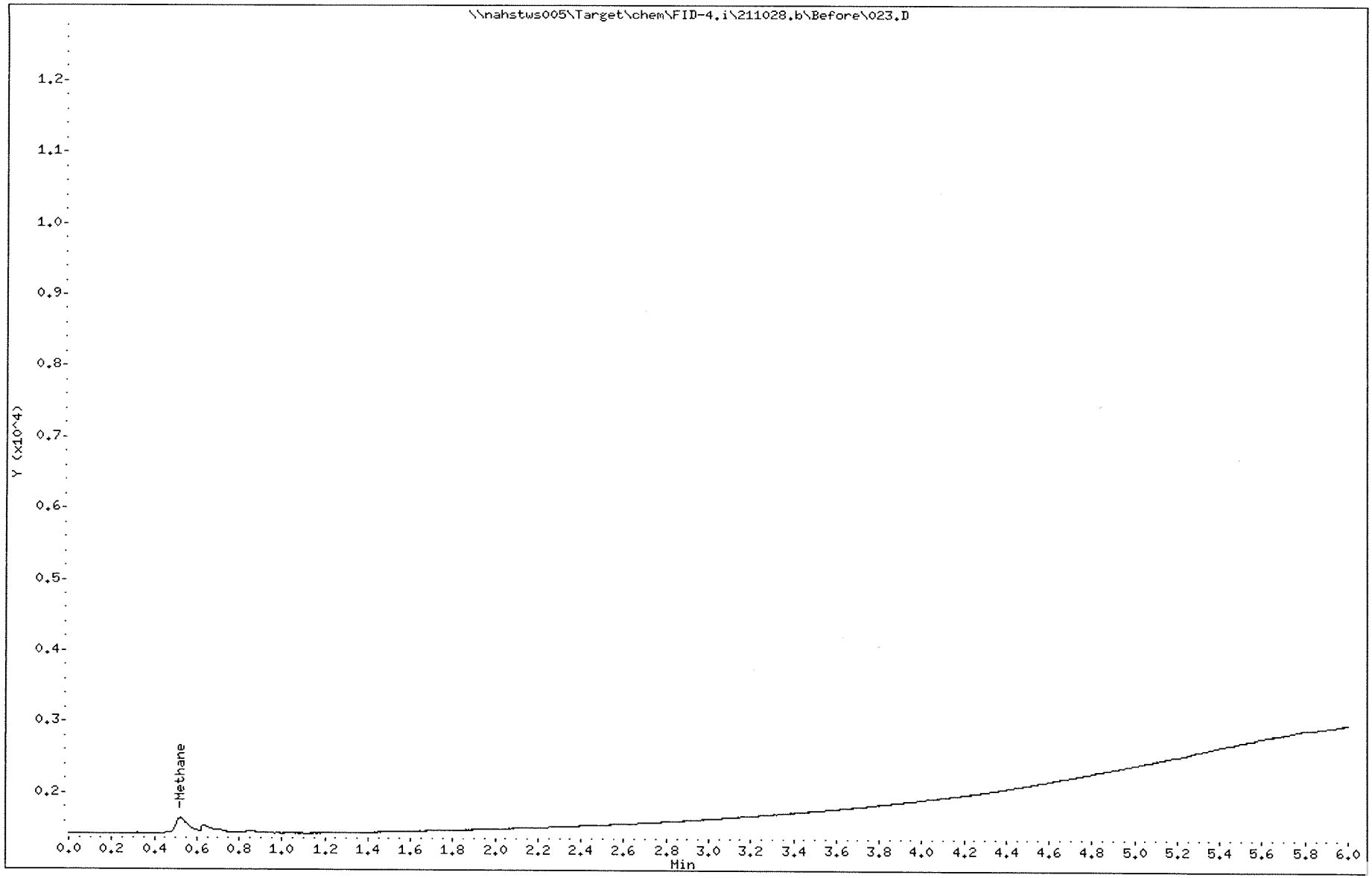
Instrument: FID-4.i

Sample Info: HS21101144-10;HS21101144-10

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\024.D
Lab Smp Id: HS21101144-10MS Client Smp ID: HS21101144-10MS
Inj Date : 28-OCT-2021 12:42
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101144-10MS;HS21101144-10MS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 24 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.480	0.480	0.000	4997	5.12517	5.125(R)
2 Ethene	0.723	0.730	-0.007	5646	9.63875	9.638(RM)
3 Ethane	0.810	0.810	0.000	6761	9.39694	9.396(R)

QC Flag Legend

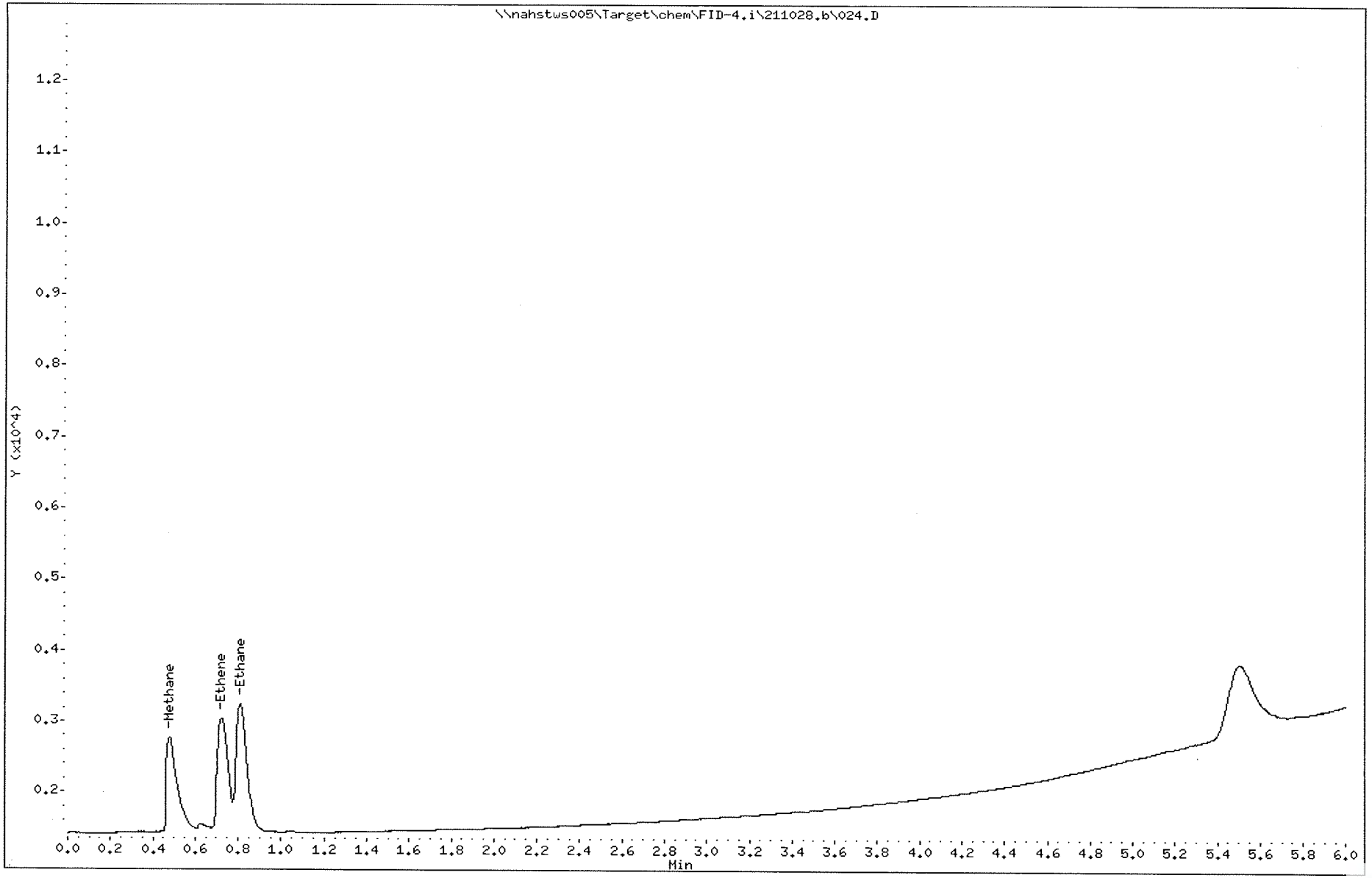
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\024.D
Date : 28-OCT-2021 12:42
Client ID: HS21101144-10MS
Sample Info: HS21101144-10MS;HS21101144-10MS

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\Before\024.D
Lab Smp Id: HS21101144-10MS Client Smp ID: HS21101144-10MS
Inj Date : 28-OCT-2021 12:42
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101144-10MS;HS21101144-10MS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 24 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.480	0.480	0.000	4804	4.92722	4.927(R)
2 Ethene	0.723	0.730	-0.007	5848	9.98360	9.983(R)
3 Ethane	0.810	0.810	0.000	6584	9.15093	9.150(R)

QC Flag Legend

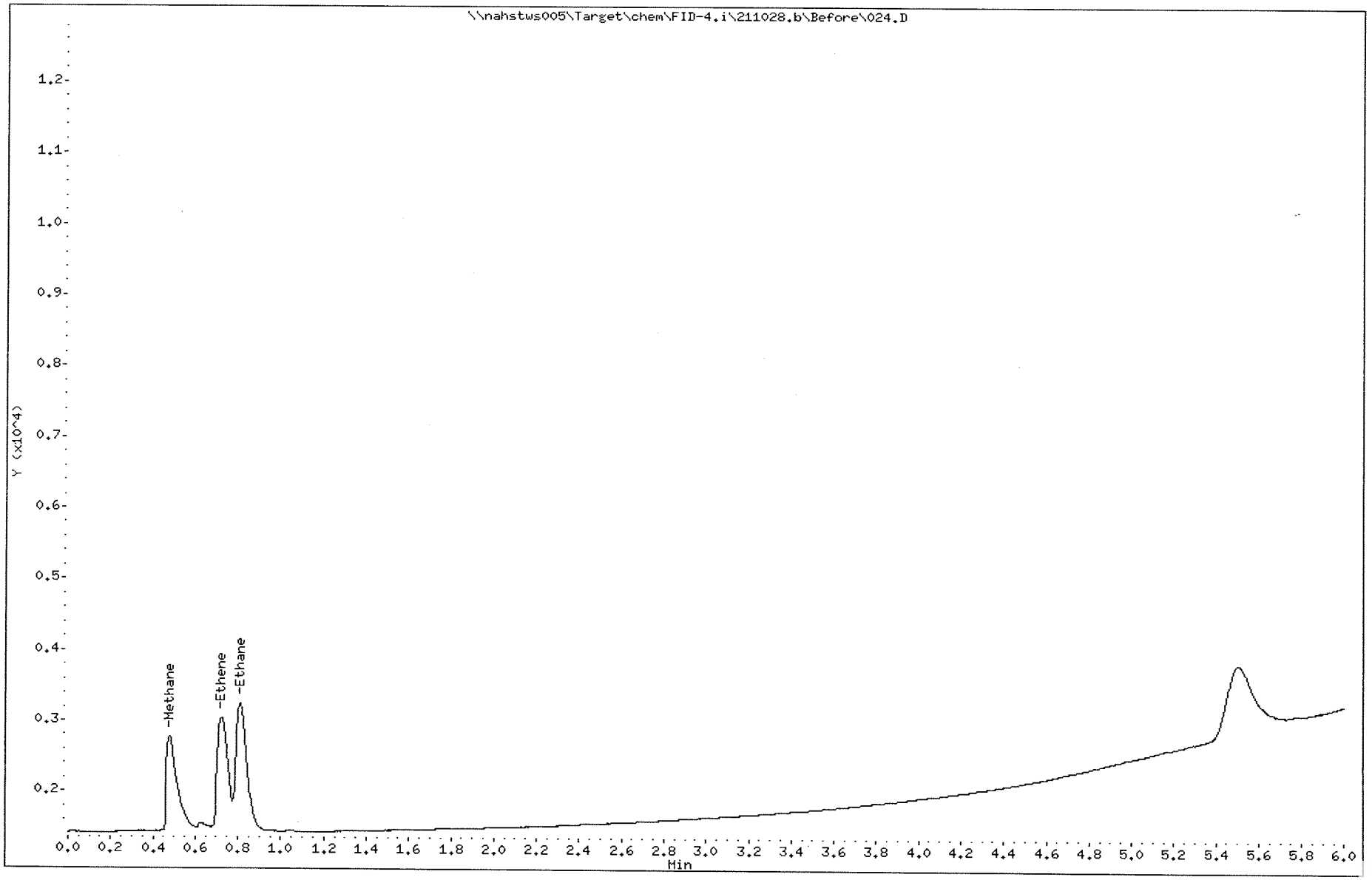
R - Spike/Surrogate failed recovery limits.

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\Before\024.D
Date : 28-OCT-2021 12:42
Client ID: HS21101144-10MS
Sample Info: HS21101144-10MS;HS21101144-10MS

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\025.D
Lab Smp Id: HS21101144-10MSD Client Smp ID: HS21101144-10MSD
Inj Date : 28-OCT-2021 12:52
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101144-10MSD;HS21101144-10MSD
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 25 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.480	0.480	0.000	4932	5.05850	5.058(R)
2 Ethene	0.723	0.730	-0.007	8605	14.6903	14.690(M)
3 Ethane	0.806	0.810	-0.004	10166	14.1295	14.129

QC Flag Legend

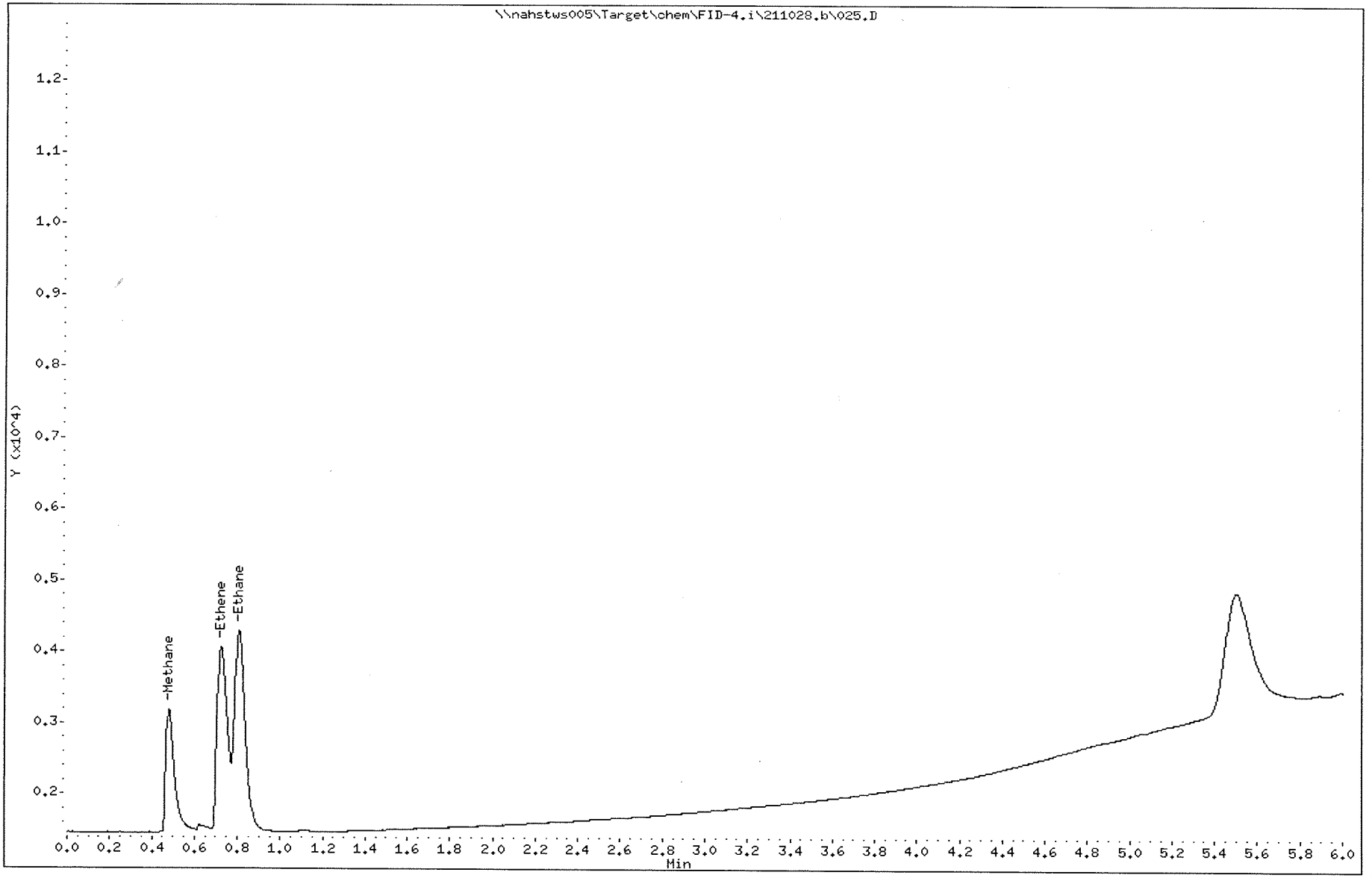
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\025.D
Date : 28-OCT-2021 12:52
Client ID: HS21101144-10MSD
Sample Info: HS21101144-10MSD;HS21101144-10MSD

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\Before\025.D
Lab Smp Id: HS21101144-10MSD Client Smp ID: HS21101144-10MSD
Inj Date : 28-OCT-2021 12:52
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101144-10MSD;HS21101144-10MSD
Misc Info : ;1;0;1
Comment   :
Method   : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 25 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.480	0.480	0.000	4881	5.00619	5.006(R)
2 Ethene	0.723	0.730	-0.007	8758	14.9515	14.951
3 Ethane	0.806	0.810	-0.004	9987	13.8807	13.880

QC Flag Legend

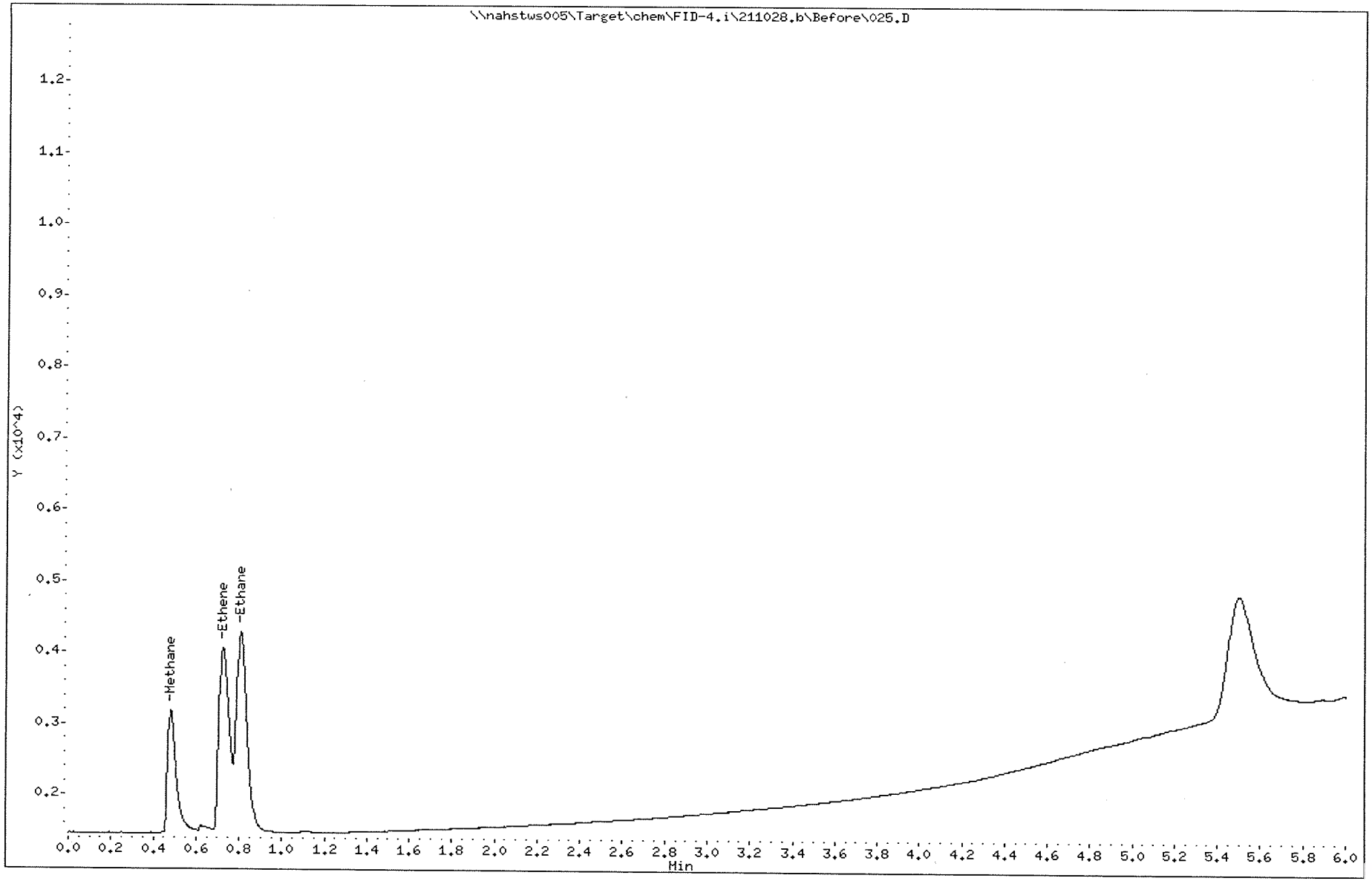
R - Spike/Surrogate failed recovery limits.

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\Before\025.D
Date : 28-OCT-2021 12:52
Client ID: HS21101144-10MSD
Sample Info: HS21101144-10MSD;HS21101144-10MSD

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\026.D Page 1
Report Date: 17-Nov-2021 09:04

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\026.D
Lab Smp Id: HS21101144-14 Client Smp ID: HS21101144-14
Inj Date : 28-OCT-2021 13:04
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101144-14;HS21101144-14
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.476	0.480	-0.004	6570	6.73851	6.738
2 Ethene	0.716	0.730	-0.014	13621	23.2535	23.253(M)
3 Ethane	0.823	0.810	0.013	1699	2.36140	2.361(M)

QC Flag Legend

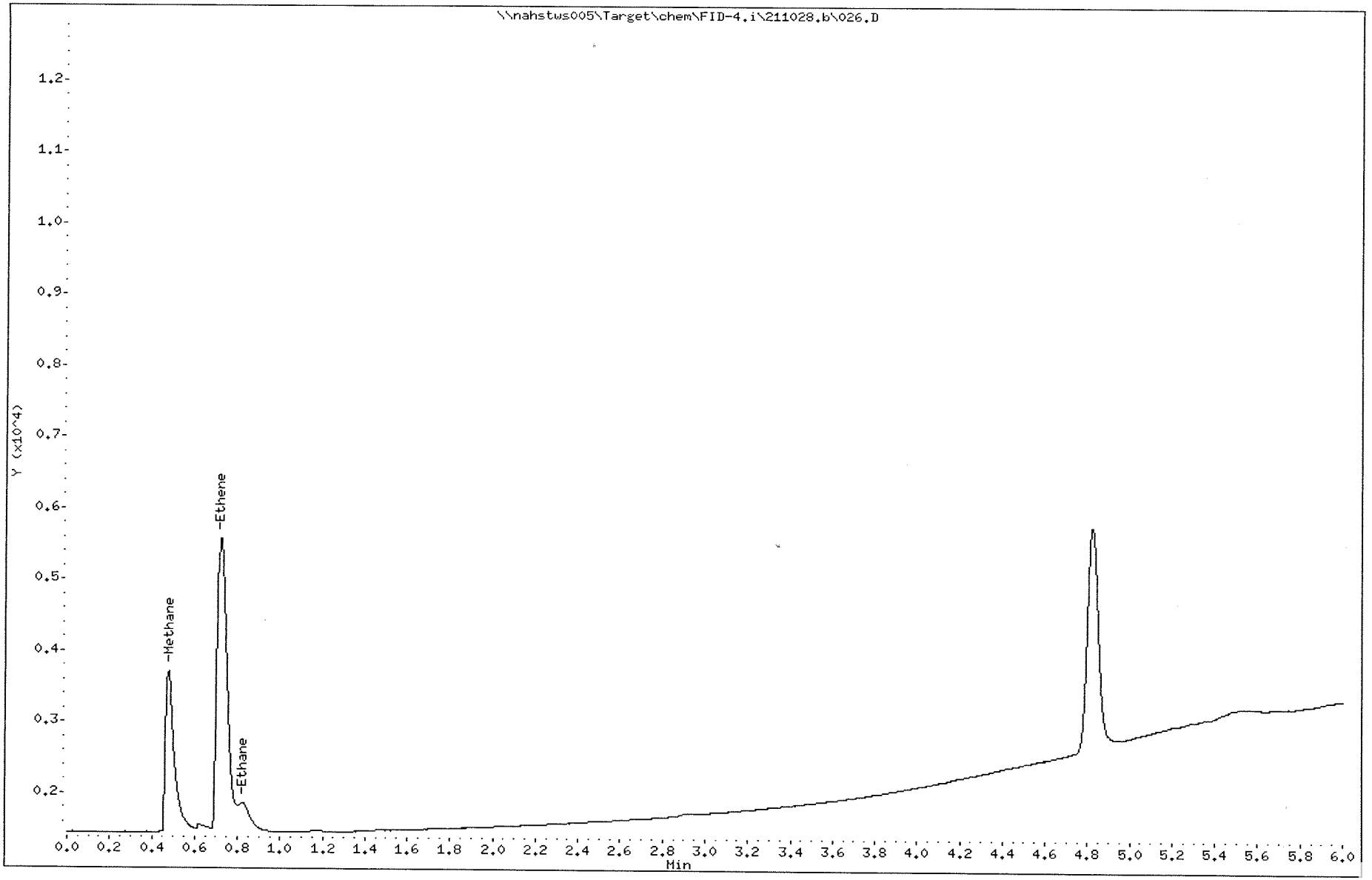
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\026.D
Date : 28-OCT-2021 13:04
Client ID: HS21101144-14
Sample Info: HS21101144-14;HS21101144-14

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\Before\026.D
Lab Smp Id: HS21101144-14 Client Smp ID: HS21101144-14
Inj Date : 28-OCT-2021 13:04
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101144-14;HS21101144-14
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

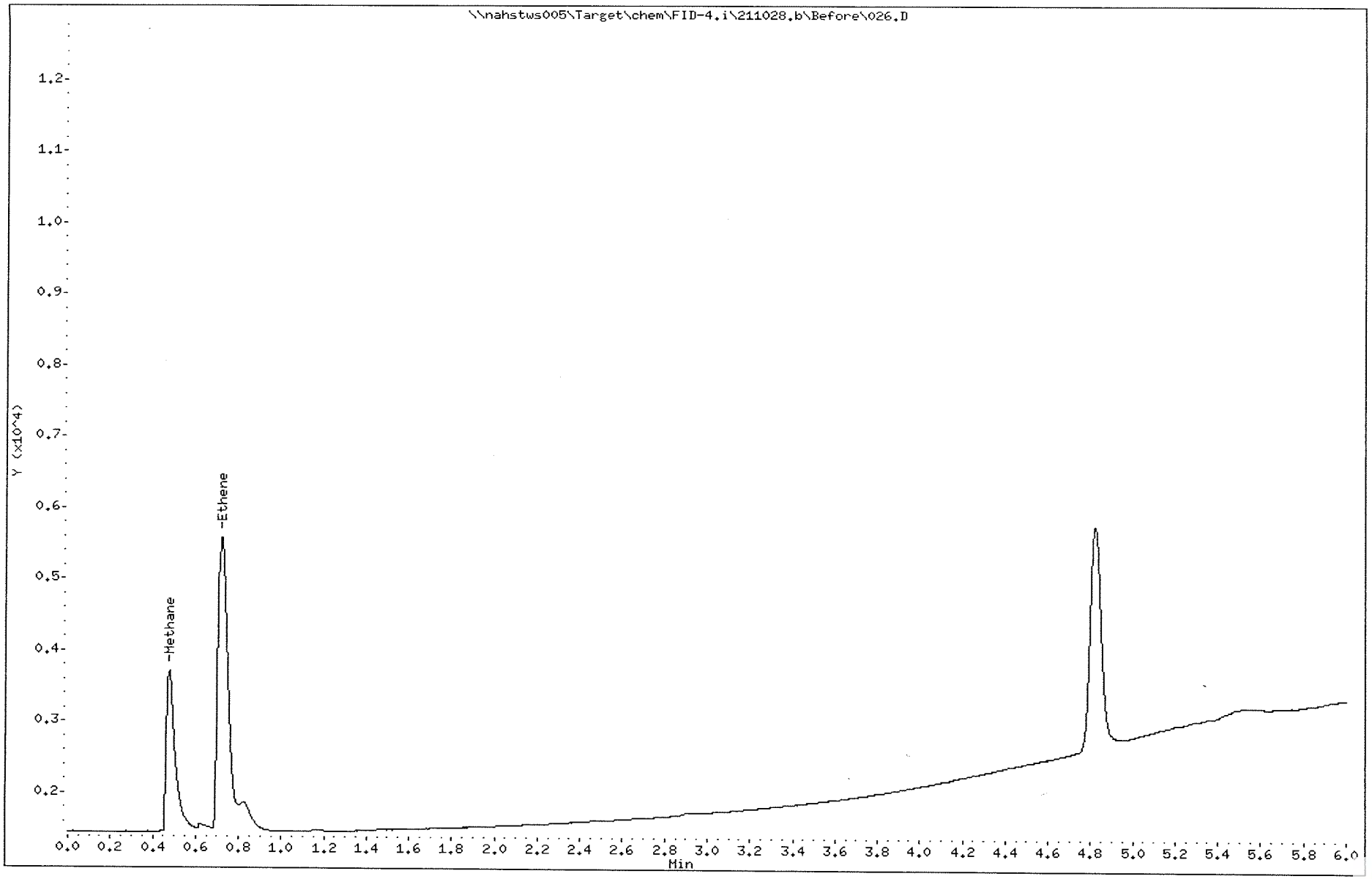
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.476	0.480	-0.004	6433	6.59800	6.598
2 Ethene	0.720	0.730	-0.010	15250	26.0345	26.034

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\Before\026.D
Date : 28-OCT-2021 13:04
Client ID: HS21101144-14
Sample Info: HS21101144-14;HS21101144-14

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\033.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 28-OCT-2021 14:52
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

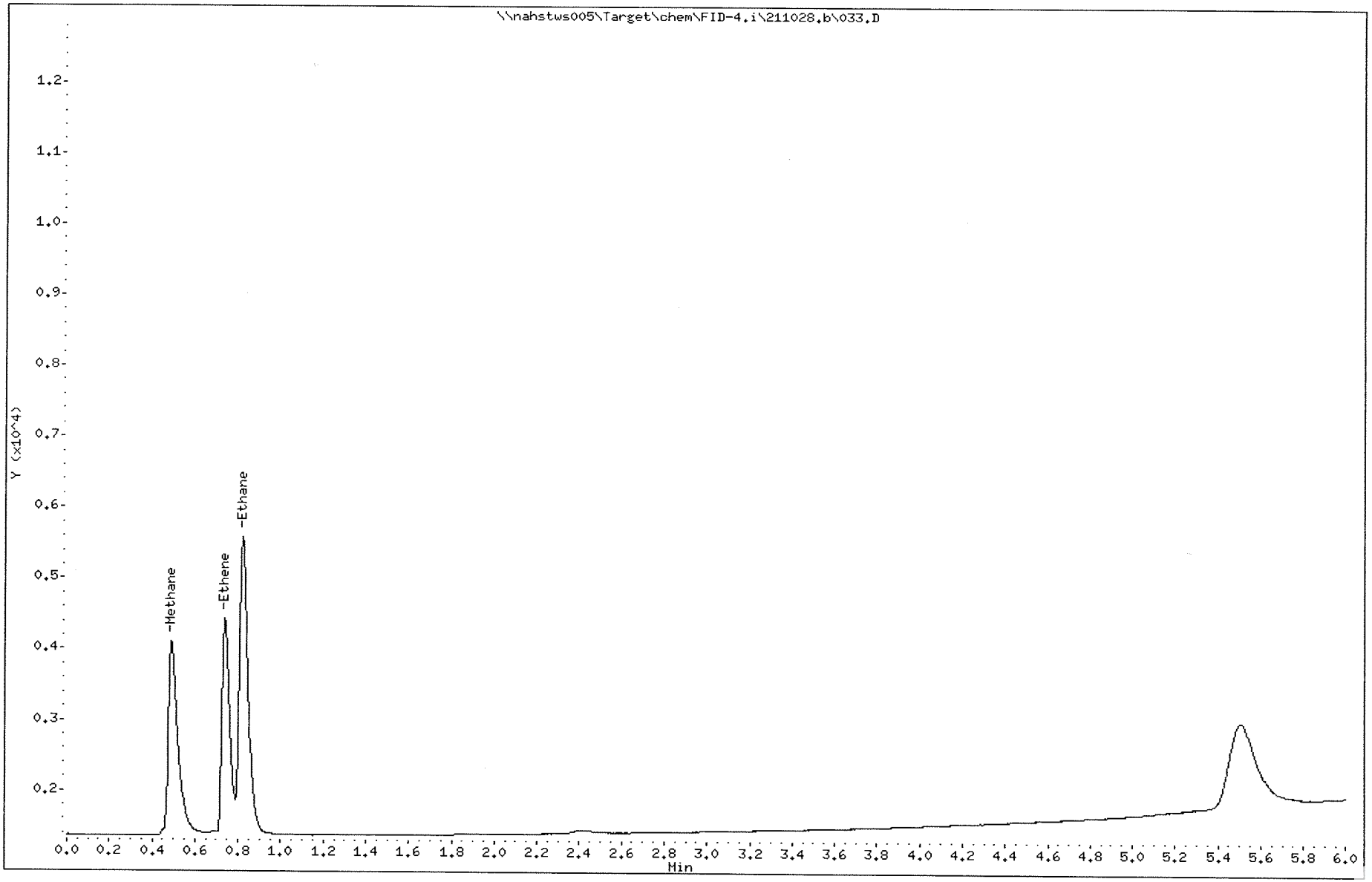
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.486	0.480	0.006	8875	9.64700	9.102
2 Ethene	0.736	0.730	0.006	8026	16.8500	13.701
3 Ethane	0.820	0.810	0.010	12477	18.0430	17.341

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\033.D
Date : 28-OCT-2021 14:52
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\Before\033.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 28-OCT-2021 14:52
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment   :
Method   : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

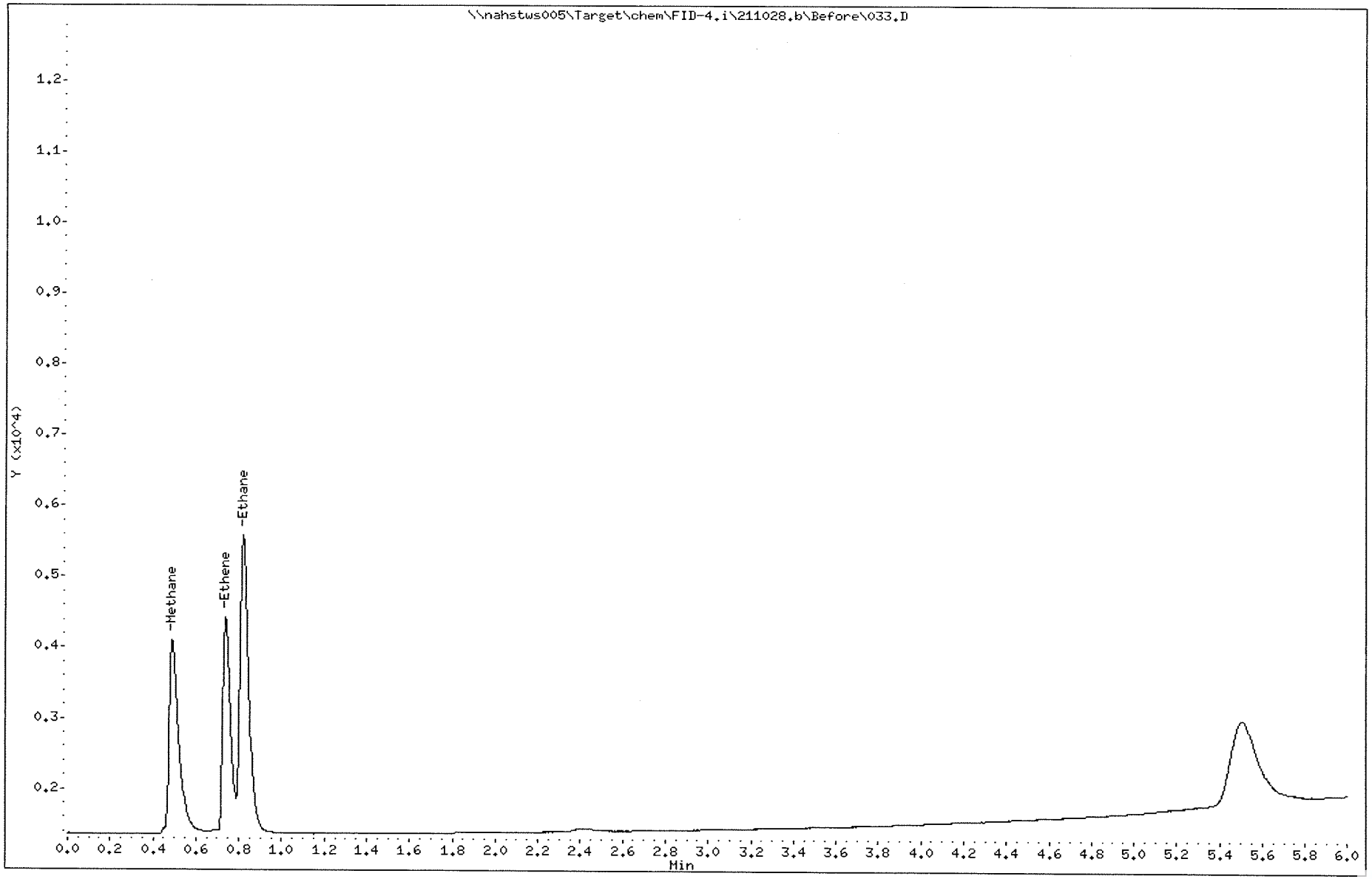
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.486	0.480	0.006	8818	9.64700	9.044
2 Ethene	0.736	0.730	0.006	7920	16.8500	13.520
3 Ethane	0.820	0.810	0.010	12348	18.0430	17.162

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\Before\033.D
Date : 28-OCT-2021 14:52
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\039.D Page 1
Report Date: 17-Nov-2021 09:04

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\039.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 28-OCT-2021 16:06
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 39 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

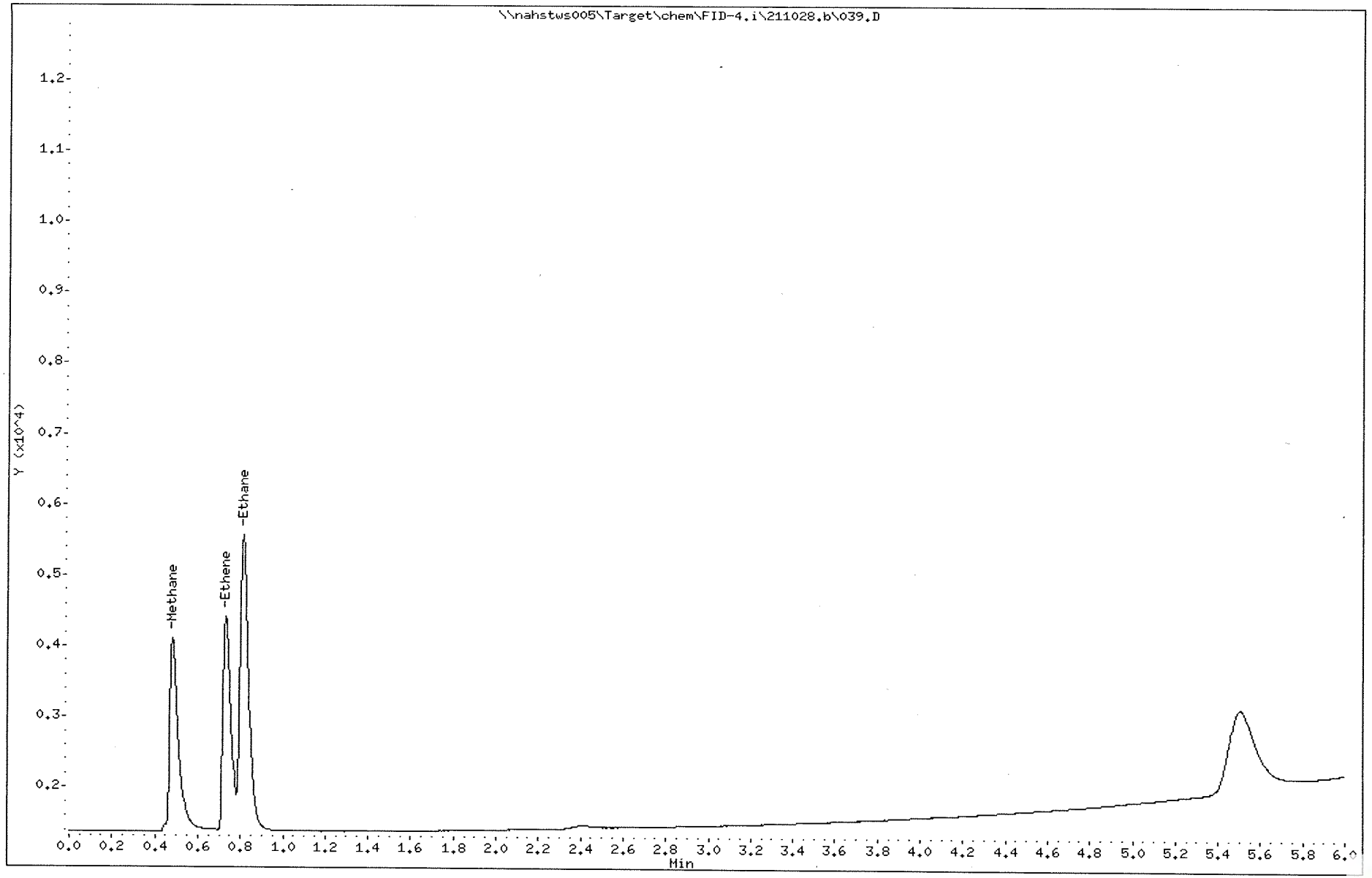
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.480	0.480	0.000	8187	9.64700	8.396
2 Ethene	0.730	0.730	0.000	8001	16.8500	13.659
3 Ethane	0.810	0.810	0.000	12250	18.0430	17.025

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\039.D
Date : 28-OCT-2021 16:06
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211028.b\Before\039.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 28-OCT-2021 16:06
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211028.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:01 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 39 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

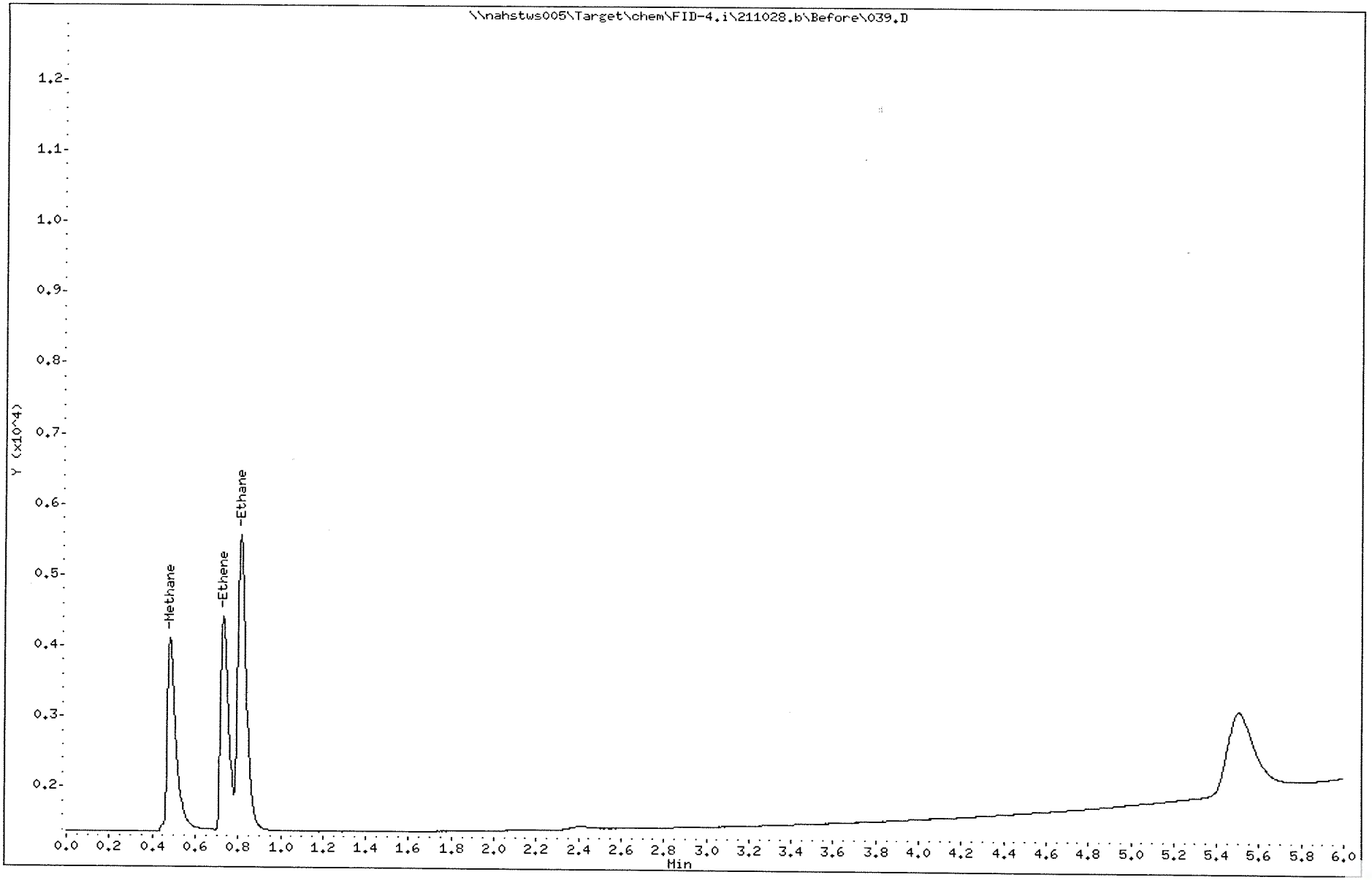
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.480	0.480	0.000	8117	9.64700	8.325
2 Ethene	0.730	0.730	0.000	7907	16.8500	13.498
3 Ethane	0.810	0.810	0.000	12106	18.0430	16.825

Data File: \\nahstws005\Target\chem\FID-4.i\211028.b\Before\039.D
Date : 28-OCT-2021 16:06
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



FID04 -Logbook

Batch: 47190
Date: 10-29-2021
Method: rsk175
Comments:

Analyst: Purvi Lad
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	RSK-CCV	CCV	10-29-2021 08:29 am	1.00	0.00 mL	0.00 mL	001.D	Liquid	Y	NA
2	MBLK-211029	MBLK	10-29-2021 08:58 am	1.00	0.00 mL	0.00 mL	002.D	Liquid	Y	NA
3	LCS-211029	LCS	10-29-2021 09:09 am	1.00	0.00 mL	0.00 mL	003.D	Liquid	Y	NA
4	LCSD-211029	LCSD	10-29-2021 09:20 am	1.00	0.00 mL	0.00 mL	004.D	Liquid	Y	NA
5	HS21101266-02	SAMP	10-29-2021 09:28 am	1.00	0.00 mL	0.00 mL	005.D	Liquid	Y	<2
6	HS21101266-03	SAMP	10-29-2021 09:36 am	1.00	0.00 mL	0.00 mL	006.D	Liquid	Y	<2
7	HS21101266-04	SAMP	10-29-2021 09:44 am	1.00	0.00 mL	0.00 mL	007.D	Liquid	Y	<2
8	HS21101266-05	SAMP	10-29-2021 09:56 am	1.00	0.00 mL	0.00 mL	008.D	Liquid	Y	<2
9	HS21101266-06	SAMP	10-29-2021 10:04 am	1.00	0.00 mL	0.00 mL	009.D	Liquid	Y	<2
10	HS21101266-07	SAMP	10-29-2021 10:17 am	1.00	0.00 mL	0.00 mL	010.D	Liquid	Y	<2
11	RSK-CCV	CCV	10-29-2021 10:37 am	1.00	0.00 mL	0.00 mL	011.D	Liquid	Y	NA
12	HS21101266-02	SAMP	10-29-2021 10:51 am	400.0(	0.00 mL	0.00 mL	012.D	Liquid	Y	<2
13	HS21101266-03	SAMP	10-29-2021 11:02 am	500.0(	0.00 mL	0.00 mL	013.D	Liquid	Y	<2
14	HS21101266-05	SAMP	10-29-2021 11:25 am	100.0(	0.00 mL	0.00 mL	015.D	Liquid	Y	<2
15	HS21101266-04	SAMP	10-29-2021 12:28 pm	500.0(	0.00 mL	0.00 mL	014.D	Liquid	Y	<2
16	HS21101266-06	SAMP	10-29-2021 12:39 pm	200.0(	0.00 mL	0.00 mL	016.D	Liquid	Y	<2
17	HS21101266-07	SAMP	10-29-2021 01:00 pm	500.0(	0.00 mL	0.00 mL	017.D	Liquid	Y	<2
18	HS21101564-21	SAMP	10-29-2021 01:12 pm	1.00	0.00 mL	0.00 mL	018.D	Liquid	Y	<2
19	HS21101564-22	SAMP	10-29-2021 01:21 pm	1.00	0.00 mL	0.00 mL	019.D	Liquid	Y	<2
20	HS21101564-23	SAMP	10-29-2021 01:29 pm	1.00	0.00 mL	0.00 mL	020.D	Liquid	Y	<2
21	HS21101564-24	SAMP	10-29-2021 01:37 pm	1.00	0.00 mL	0.00 mL	021.D	Liquid	Y	<2
22	RSK-CCV	CCV	10-29-2021 01:51 pm	1.00	0.00 mL	0.00 mL	022.D	Liquid	Y	NA
23	HS21101564-21	SAMP	10-29-2021 01:59 pm	200.0(	0.00 mL	0.00 mL	023.D	Liquid	Y	<2
24	HS21101564-22	SAMP	10-29-2021 02:07 pm	100.0(	0.00 mL	0.00 mL	024.D	Liquid	Y	<2
25	HS21101564-23	SAMP	10-29-2021 02:15 pm	200.0(	0.00 mL	0.00 mL	025.D	Liquid	Y	<2
26	HS21101564-24	SAMP	10-29-2021 02:33 pm	500.0(	0.00 mL	0.00 mL	026.D	Liquid	Y	<2
27	HS21101161-01	SAMP	10-29-2021 02:41 pm	5.00	0.00 mL	0.00 mL	028.D	Liquid	Y	<2
28	RSK-CCV	CCV	10-29-2021 03:03 pm	1.00	0.00 mL	0.00 mL	029.D	Liquid	Y	NA

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Instrument ID: FID-4 Calibration Date: 10/29/21 Time: 1351

Lab File ID: 022 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	764.00820	0.01	-6.19	20.00	AVRG
Methane	974.99200	1018.4513	0.01	-4.46	20.00	AVRG
Ethene	585.76000	507.83383	0.01	13.30	20.00	AVRG

FORM VII GASES

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101144

Instrument ID: FID-4 Calibration Date: 10/29/21 Time: 1503

Lab File ID: 029 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	741.34013	0.01	-3.04	20.00	AVRG
Methane	974.99200	933.76179	0.01	4.23	20.00	AVRG
Ethene	585.76000	663.08605	0.01	-13.20	20.00	AVRG

FORM VII GASES

Data File: \\nahstws005\Target\chem\FID-4.i\211029.b\022.D Page 1
Report Date: 17-Nov-2021 09:06

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211029.b\022.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 29-OCT-2021 13:51
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211029.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:05 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.483	0.483	0.000	9825	9.64700	10.077
2 Ethene	0.733	0.740	-0.007	8557	16.8500	14.608(M)
3 Ethane	0.816	0.803	0.013	13785	18.0430	19.159

QC Flag Legend

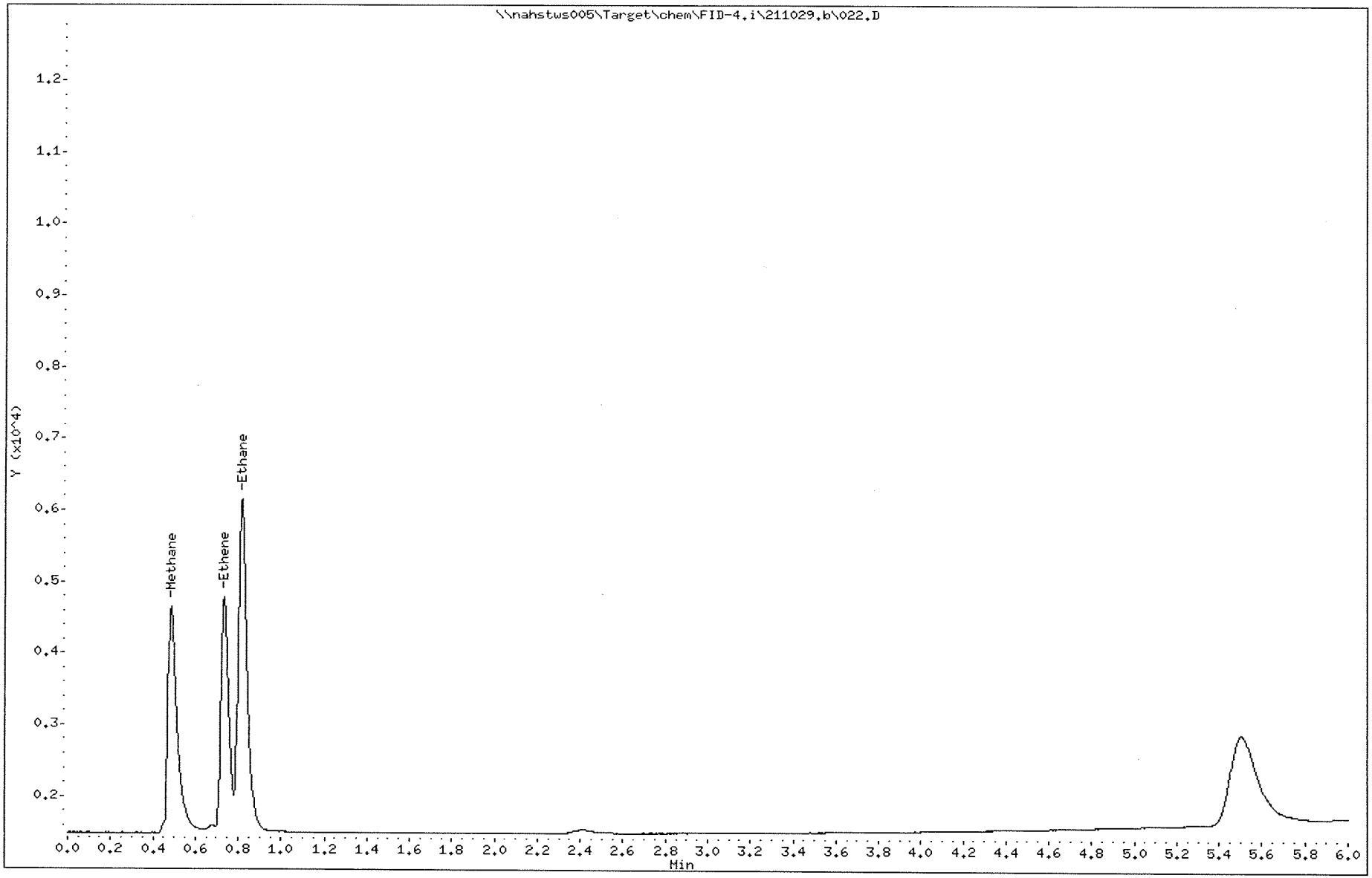
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211029.b\022.D
Date : 29-OCT-2021 13:51
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211029.b\Before\022.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 29-OCT-2021 13:51
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211029.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:08 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

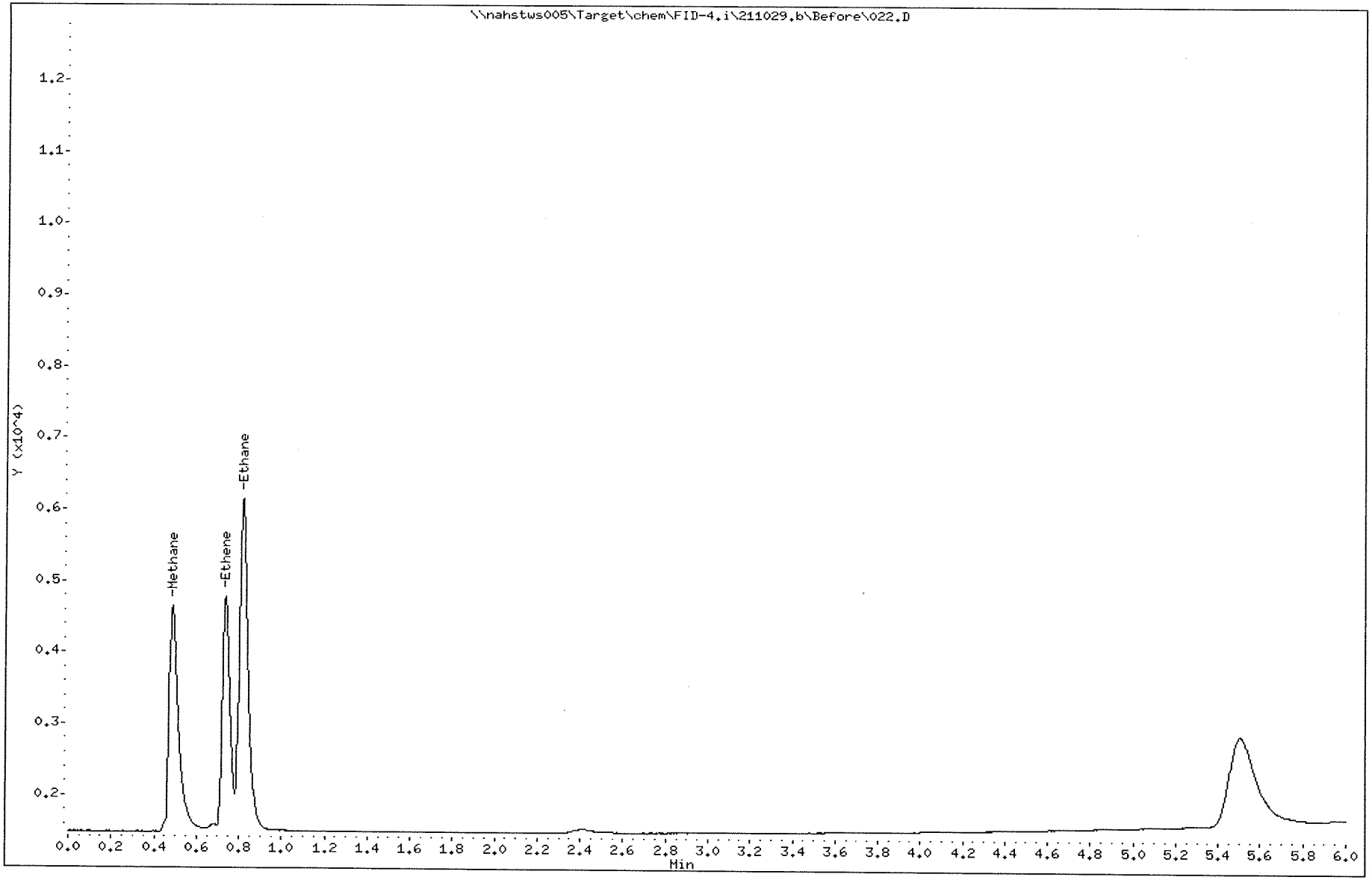
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.483	0.480	0.003	9744	9.64700	9.993
2 Ethene	0.733	0.730	0.003	8704	16.8500	14.859
3 Ethane	0.816	0.810	0.006	13590	18.0430	18.888

Data File: \\nahstws005\Target\chem\FID-4.i\211029.b\Before\022.D
Date : 29-OCT-2021 13:51
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211029.b\029.D Page 1
Report Date: 17-Nov-2021 09:06

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211029.b\029.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 29-OCT-2021 15:03
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211029.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:05 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.480	0.483	-0.003	9008	9.64700	9.239(M)
2 Ethene	0.730	0.740	-0.010	11173	16.8500	19.074(M)
3 Ethane	0.810	0.803	0.007	13376	18.0430	18.590(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211029.b\029.D

Date : 29-OCT-2021 15:03

Client ID: RSK-CCV

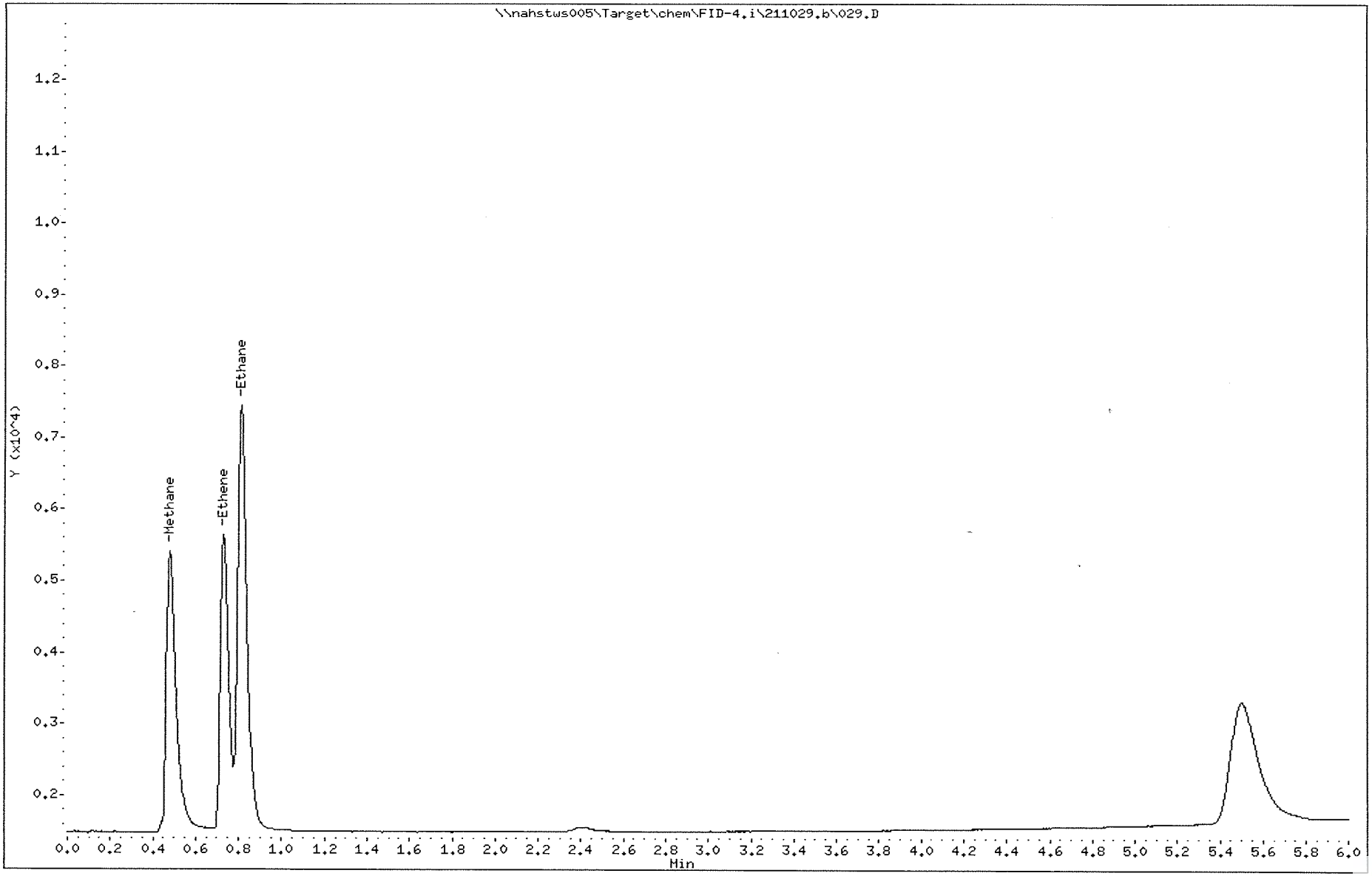
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211029.b\Before\029.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 29-OCT-2021 15:03
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211029.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:08 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

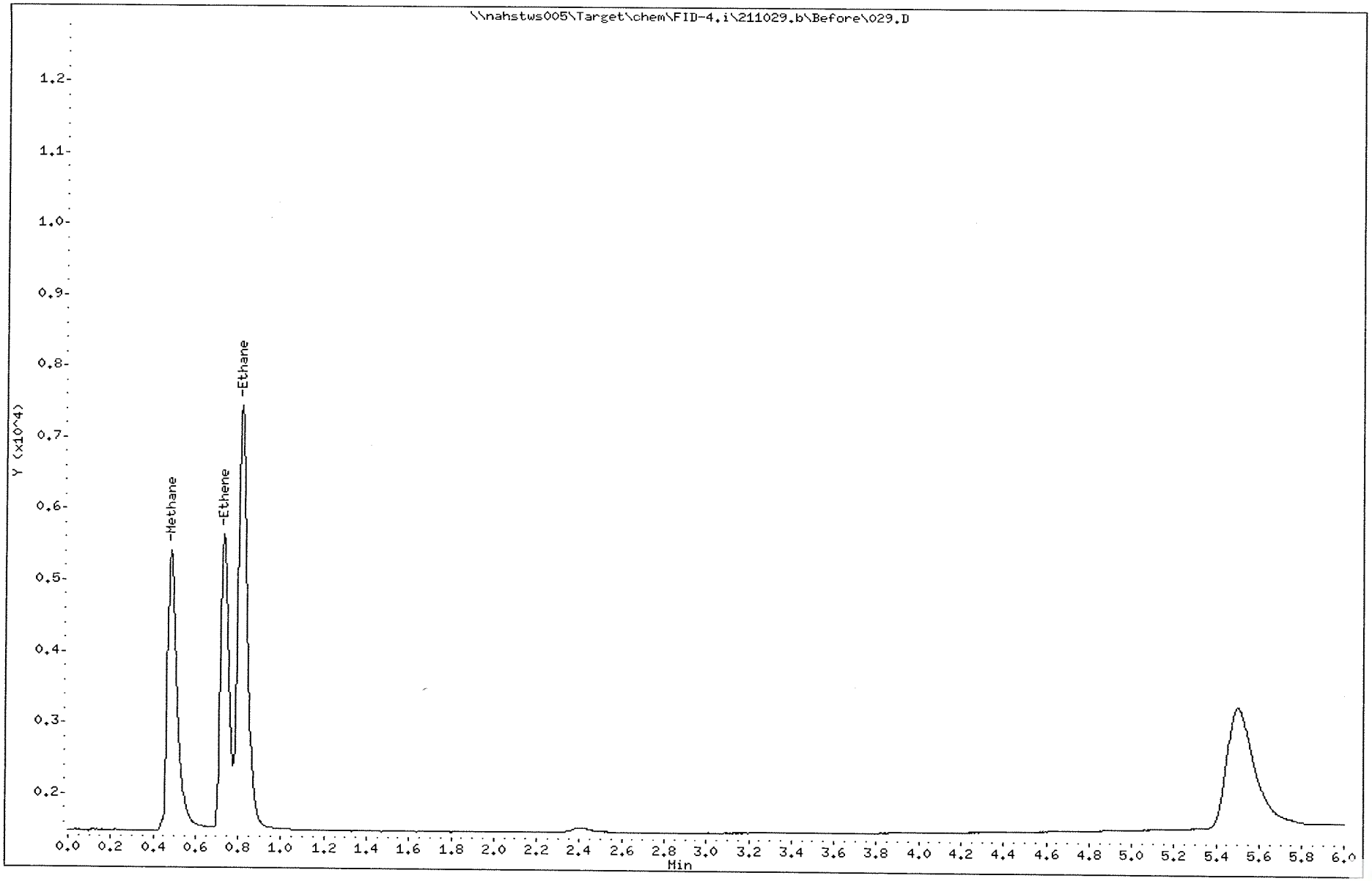
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.480	0.480	0.000	12773	9.64700	13.100
2 Ethene	0.730	0.730	0.000	11277	16.8500	19.251
3 Ethane	0.810	0.810	0.000	18640	18.0430	25.907

Data File: \\nahstws005\Target\chem\FID-4.i\211029.b\Before\029.D
Date : 29-OCT-2021 15:03
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



HS21101144 9056_Wetchem IC

ALS WO# HS21101144

Sequence: 102121
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method	Processing Method	Volume	Status	Inject Time
	STD1		Calibratio	BA1	1.00	1	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 2:57:23 PM -05:00
	STD2		Calibratio	BA2	1.00	2	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:04:47 PM -05:00
	STD3		Calibratio	BA3	1.00	3	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:12:12 PM -05:00
	STD4		Calibratio	BA4	1.00	4	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:19:37 PM -05:00
	STD5		Calibratio	BA5	1.00	5	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:27:03 PM -05:00
	STD6		Calibratio	BA6	1.00	6	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:34:27 PM -05:00
	ICV		Unknown	BA7	1.00		Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:41:50 PM -05:00
	ICB		Unknown	BA8	1.00		Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:56:37 PM -05:00
	CCV		Unknown	R1	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 8:26:25 AM -05:00
	CCB		Unknown	R4	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 8:33:50 AM -05:00
	HS21101144-10DF2		Unknown	GA1	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 8:56:08 AM -05:00
	HS21101144-10MSDF2		Unknown	GA2	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 9:03:32 AM -05:00
	HS21101144-10MSDDF2		Unknown	GA3	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 9:10:57 AM -05:00
	HS21101144-11DF2		Unknown	GA4	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 9:18:21 AM -05:00
	HS21101144-12DF5		Unknown	GA5	5.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 9:25:46 AM -05:00
	HS21101144-14DF2		Unknown	GA6	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 9:33:10 AM -05:00
	CCV1		Unknown	R3	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 11:22:45 AM -05:00
	CCB		Unknown	R6	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 11:30:11 AM -05:00
	CCV1		Unknown	R3	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 11:32:22 PM -05:00
	CCB		Unknown	R7	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 11:47:12 PM -05:00
	MBLK		Unknown	R5	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 11:54:37 PM -05:00
	LCS		Unknown	R2	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/22/2021 12:02:02 AM -05:00
	HS21101171-02DF2		Unknown	RE5	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/22/2021 12:24:15 AM -05:00
	HS21101171-02MSDF2		Unknown	RE6	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/22/2021 12:31:39 AM -05:00
	HS21101171-02MSDDF2		Unknown	RE7	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/22/2021 12:39:03 AM -05:00
	CCV		Unknown	R1	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/22/2021 1:08:47 AM -05:00
	CCB		Unknown	R4	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/22/2021 1:23:37 AM -05:00

Sequence: 101521
Injection #6: STD6

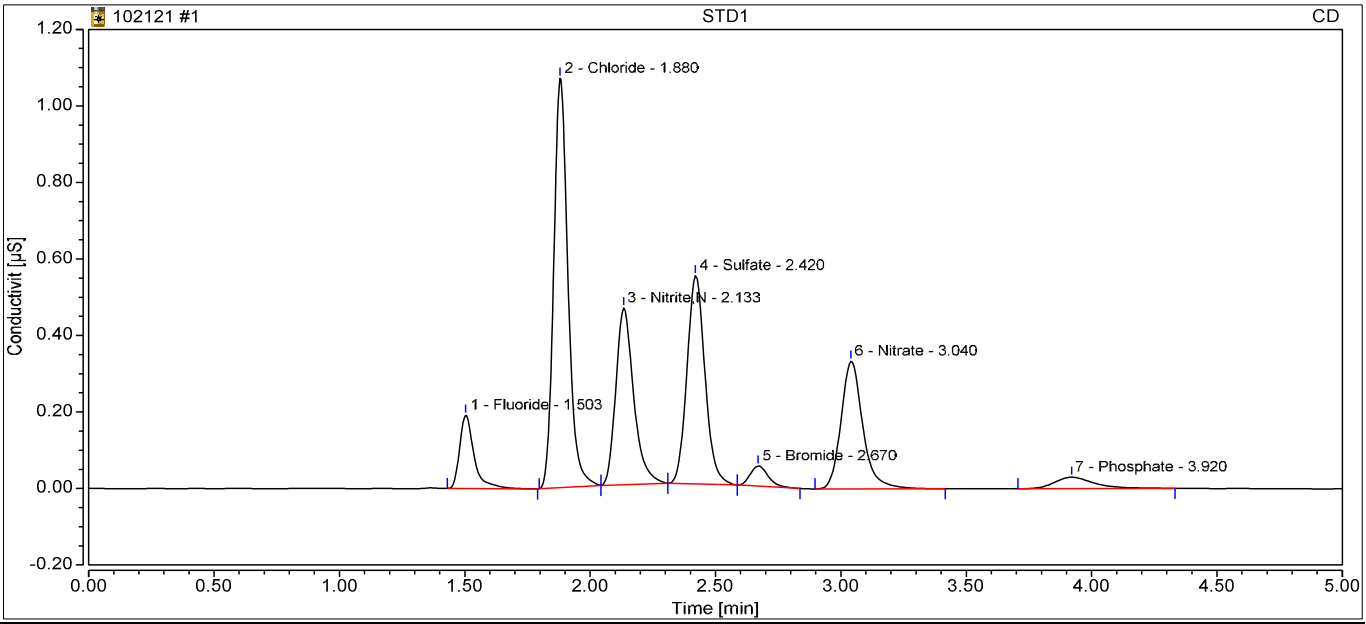
Calibration

Peak No.	Peak Name	Cal.Type	Eval.Type	Number of Points	Rel.Std.Dev. %	Coeff.of Determination	C0 (Offset)	C1 (Slope)	C2 (Curve)
1	*Fluoride*	*Lin, WithOffset, 1/*	*Area*	*6*	*14.8917*	*0.99901*	*-0.0076*	*0.2037*	*0.0000*
2	Chloride	Lin, WithOffset, 1/	Area	6	6.3298	0.99978	0.0062	0.1342	0.0000
3	Nitrite,N	Quad, WithOffset,	Area	6	6.9766	0.99974	0.0102	0.2986	-0.0023
4	Sulfate	Lin, WithOffset, 1/	Area	6	6.6535	0.99977	-0.0001	0.0971	0.0000
5	Bromide	Lin, WithOffset, 1/	Area	6	8.9157	0.99963	-0.0016	0.0548	0.0000
6	Nitrate	Lin, WithOffset, 1/	Area	6	6.7024	0.99976	0.0001	0.3403	0.0000
n.a.	Chlorate	Lin, WithOffset, 1/	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
7	Phosphate	Quad, WithOffset,	Area	6	11.6511	0.99965	-0.0052	0.0981	0.0012
Maximum					**14.8917**	0.99978			
Minimum					6.3298	**0.99901**			

1 STD1

Sample Name:	**STD1**	*Injection Volume:*	**5.00**
Vial Number:	**BA1**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 14:57**	*Sample Weight:*	**1.0000**

Run Time:



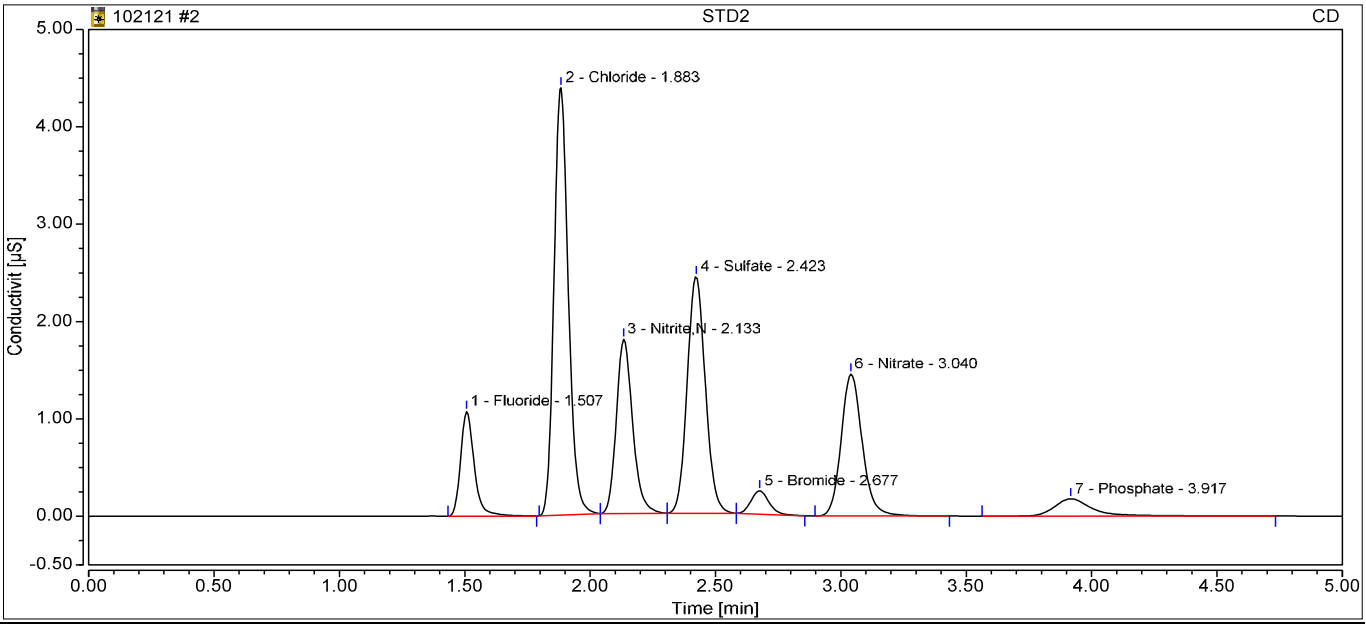
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	0.013	0.1005	0.1005	1.0000
2	1.88	Chloride	BMB	0.070	0.4785	0.4785	1.0000
3	2.13	Nitrite,N	BMB	0.038	0.0937	0.0937	1.0000
4	2.42	Sulfate	BMB	0.045	0.4684	0.4684	1.0000
5	2.67	Bromide	BMB	0.004	0.1078	0.1078	1.0000
6	3.04	Nitrate	BMB	0.034	0.0982	0.0982	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.92	Phosphate	BMB	0.005	0.1085	0.1085	1.0000
Total:			**0.000**	**0.210**		**1.46**	

2 STD2

Sample Name:	**STD2**	*Injection Volume:*	**5.00**
Vial Number:	**BA2**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:04**	*Sample Weight:*	**1.0000**

Run Time:



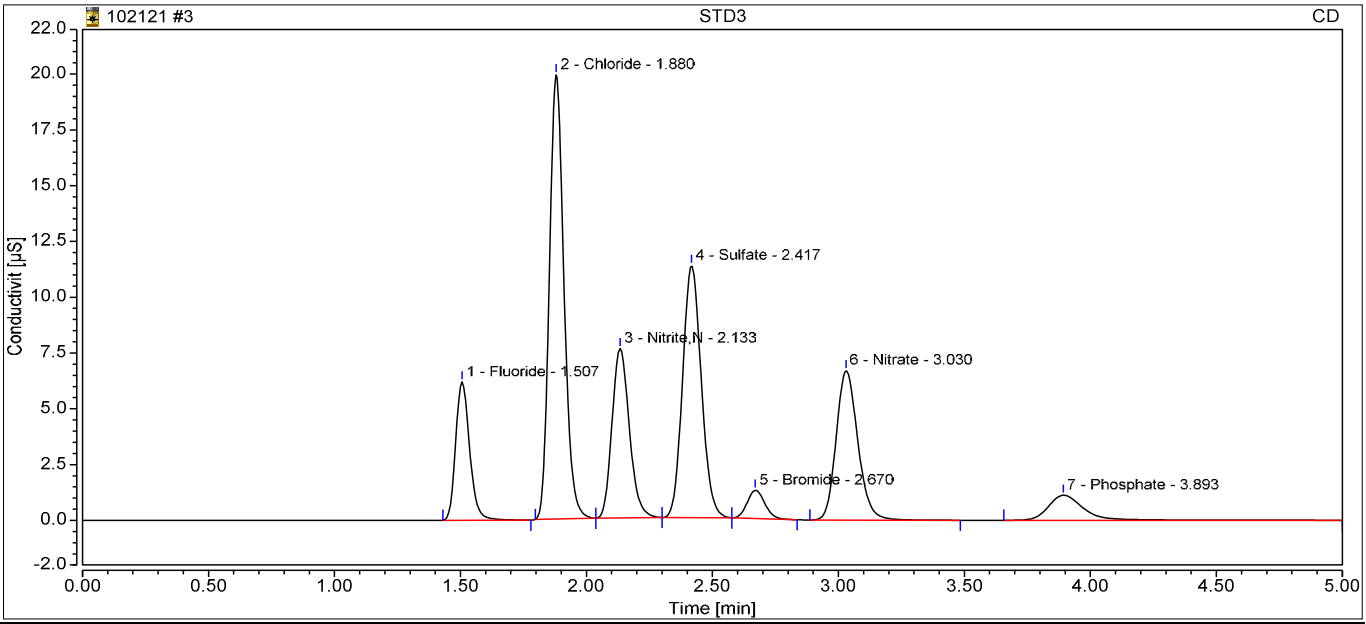
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.068	0.3708	0.3708	1.0000
2	1.88	Chloride	BMB	0.290	2.1158	2.1158	1.0000
3	2.13	Nitrite,N	BMB	0.135	0.4190	0.4190	1.0000
4	2.42	Sulfate	BMB	0.204	2.1052	2.1052	1.0000
5	2.68	Bromide	BMB	0.020	0.3906	0.3906	1.0000
6	3.04	Nitrate	BMB	0.142	0.4172	0.4172	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.92	Phosphate	BMB	0.032	0.3731	0.3731	1.0000
Total:			**0.000**	**0.891**		**6.19**	

3 STD3

Sample Name:	**STD3**	*Injection Volume:*	**5.00**
Vial Number:	**BA3**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:12**	*Sample Weight:*	**1.0000**

Run Time:



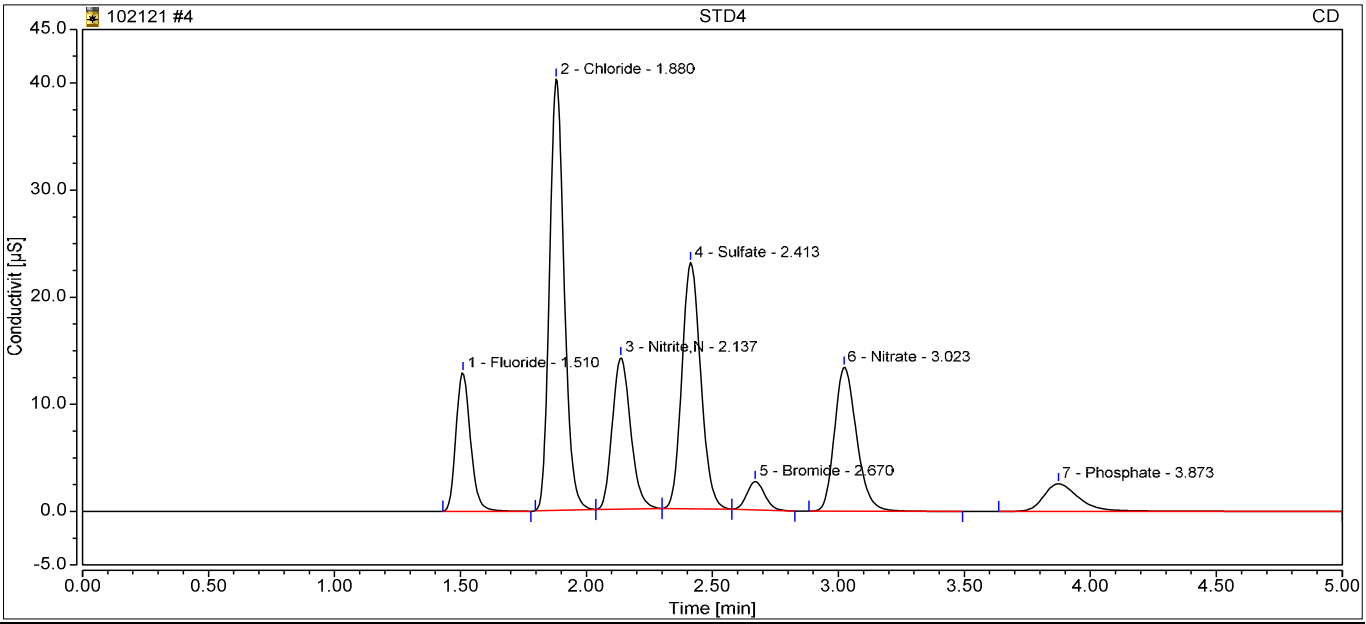
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.401	2.0041	2.0041	1.0000
2	1.88	Chloride	BMB	1.334	9.8953	9.8953	1.0000
3	2.13	Nitrite,N	BMB	0.605	2.0242	2.0242	1.0000
4	2.42	Sulfate	BMB	0.971	10.0035	10.0035	1.0000
5	2.67	Bromide	BMB	0.103	1.9116	1.9116	1.0000
6	3.03	Nitrate	BMB	0.668	1.9622	1.9622	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.89	Phosphate	BMB	0.185	1.8909	1.8909	1.0000
Total:			**0.000**	**4.266**		**29.69**	

4 STD4

Sample Name:	**STD4**	*Injection Volume:*	**5.00**
Vial Number:	**BA4**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:19**	*Sample Weight:*	**1.0000**

Run Time:

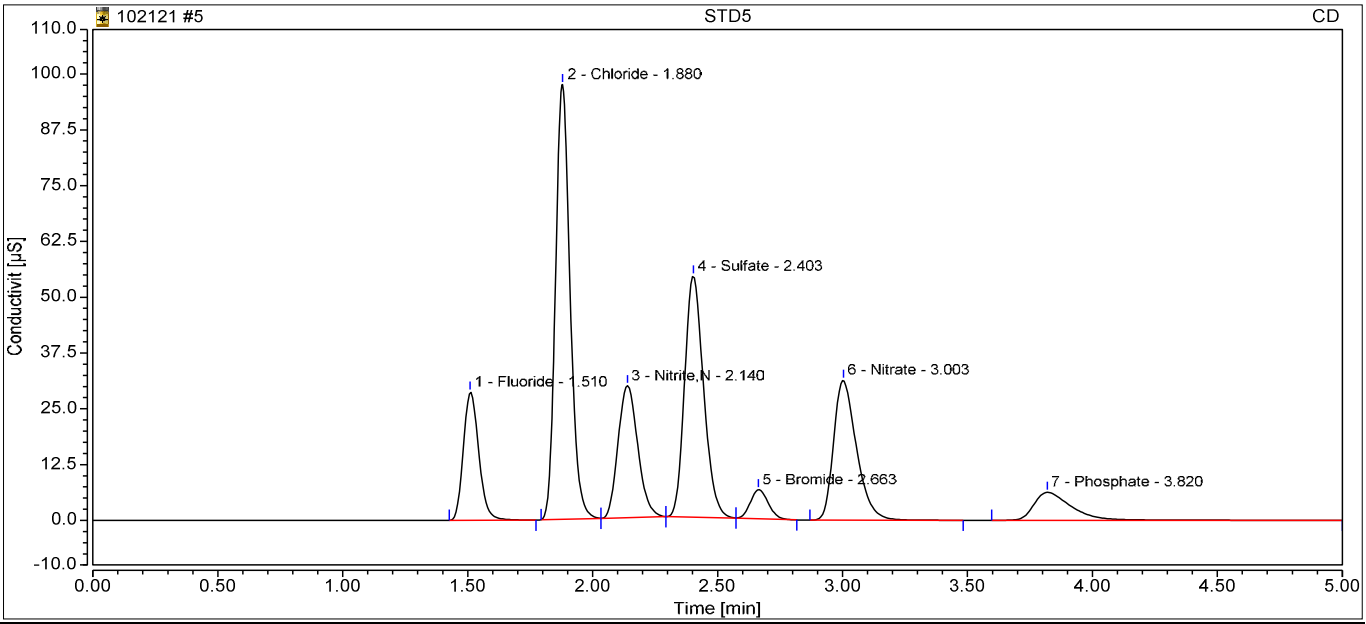


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.866	4.2910	4.2910	1.0000
2	1.88	Chloride	BMB	2.709	20.1365	20.1365	1.0000
3	2.14	Nitrite,N	BMB	1.191	4.0819	4.0819	1.0000
4	2.41	Sulfate	BMB	1.991	20.5124	20.5124	1.0000
5	2.67	Bromide	BMB	0.216	3.9679	3.9679	1.0000
6	3.02	Nitrate	BMB	1.366	4.0146	4.0146	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.87	Phosphate	BMB	0.424	4.1568	4.1568	1.0000
Total:			**0.000**	**8.762**		**61.16**	

5 STD5			
Sample Name:	**STD5**	*Injection Volume:*	**5.00**
Vial Number:	**BA5**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:27**	*Sample Weight:*	**1.0000**

Run Time:



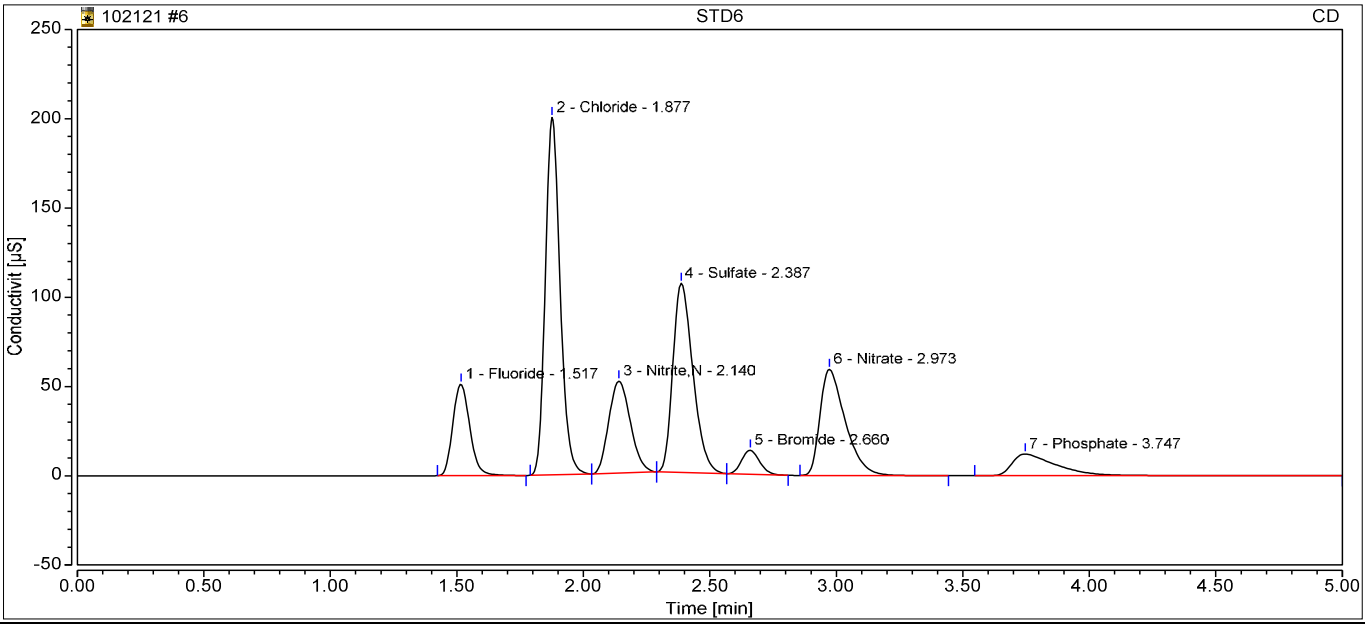
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	2.057	10.1376	10.1376	1.0000
2	1.88	Chloride	BMB	6.582	48.9987	48.9987	1.0000
3	2.14	Nitrite,N	BMB	2.709	9.7764	9.7764	1.0000
4	2.40	Sulfate	BMB	4.762	49.0593	49.0593	1.0000
5	2.66	Bromide	BMB	0.537	9.8247	9.8247	1.0000
6	3.00	Nitrate	BMB	3.333	9.7942	9.7942	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.82	Phosphate	BMB	1.095	9.9725	9.9725	1.0000
Total:			**0.000**	**21.075**		**147.56**	

6 STD6

Sample Name:	**STD6**	*Injection Volume:*	**5.00**
Vial Number:	**BA6**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:34**	*Sample Weight:*	**1.0000**

Run Time:



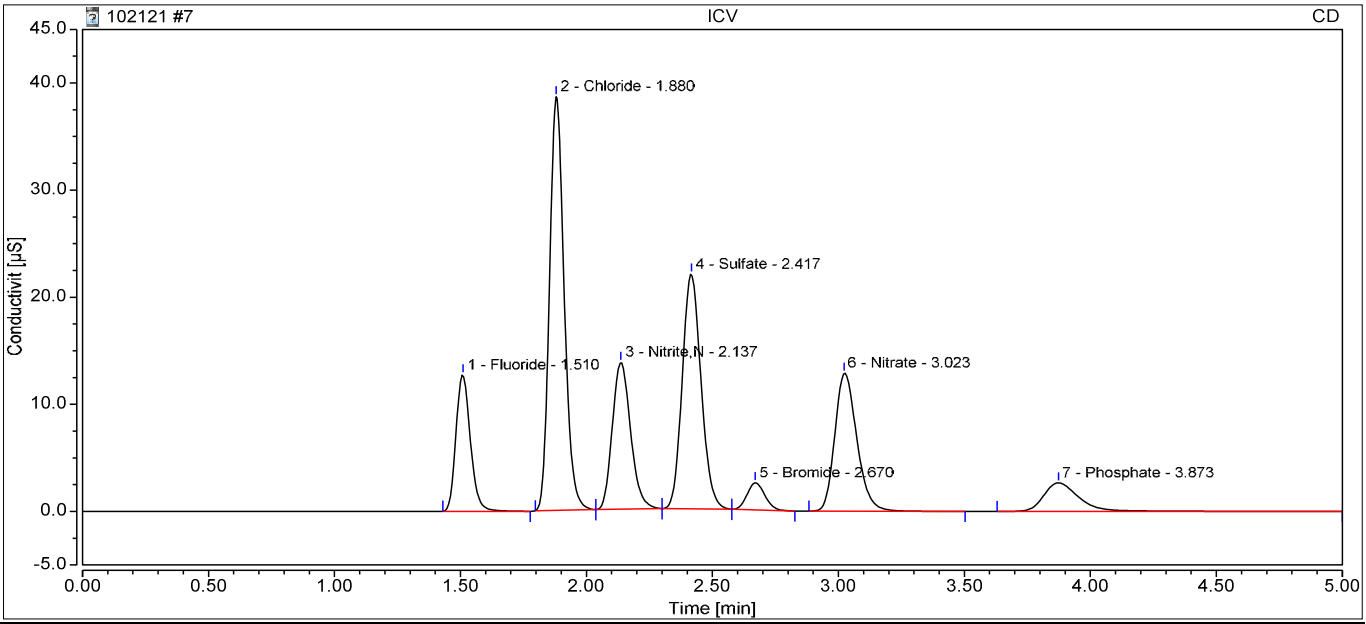
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	3.983	19.5961	19.5961	1.0000
2	1.88	Chloride	BMB	13.545	100.8752	100.8752	1.0000
3	2.14	Nitrite,N	BMB	5.085	20.1110	20.1110	1.0000
4	2.39	Sulfate	BMB	9.740	100.3513	100.3513	1.0000
5	2.66	Bromide	BMB	1.110	20.2973	20.2973	1.0000
6	2.97	Nitrate	BMB	6.879	20.2136	20.2136	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.75	Phosphate	BMB	2.448	19.9964	19.9964	1.0000
Total:			**0.000**	**42.790**		**301.44**	

7 ICV

Sample Name:	**ICV**	*Injection Volume:*	**5.00**
Vial Number:	**BA7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:41**	*Sample Weight:*	**1.0000**

Run Time:



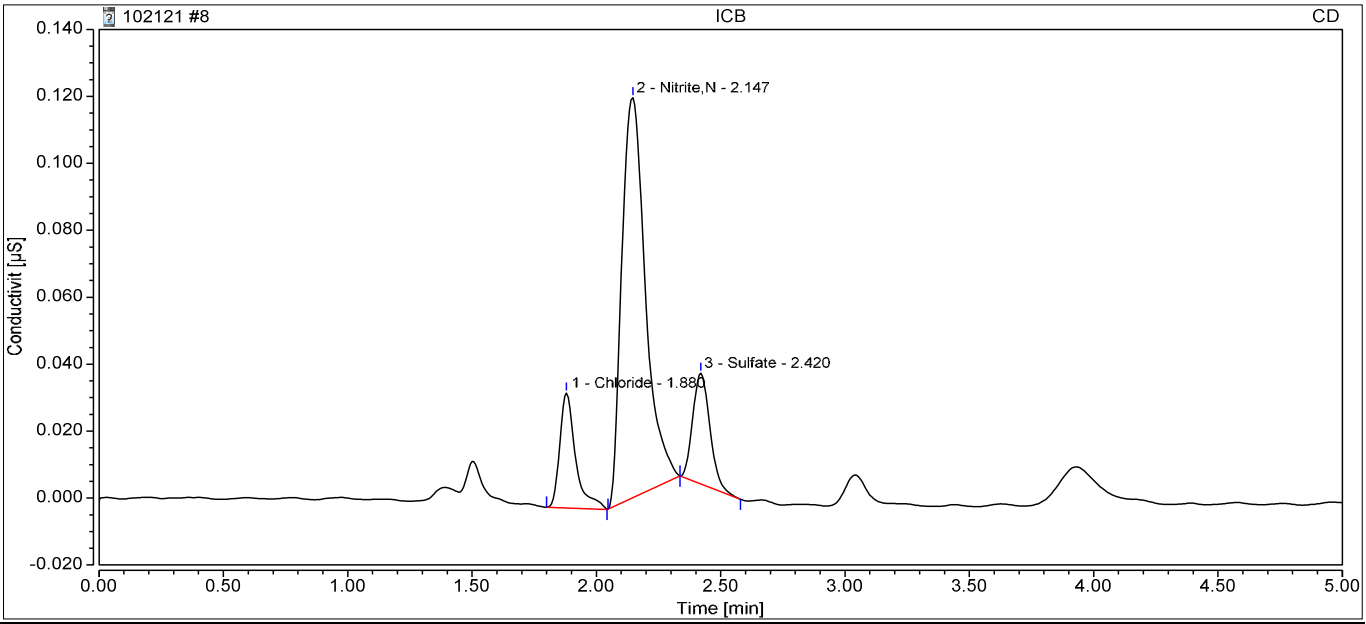
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.849	4.2062	4.2062	1.0000
2	1.88	Chloride	BMB	2.597	19.3008	19.3008	1.0000
3	2.14	Nitrite,N	BMB	1.152	3.9447	3.9447	1.0000
4	2.42	Sulfate	BMB	1.895	19.5248	19.5248	1.0000
5	2.67	Bromide	BMB	0.207	3.7999	3.7999	1.0000
6	3.02	Nitrate	BMB	1.307	3.8406	3.8406	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.87	Phosphate	BMB	0.438	4.2917	4.2917	1.0000
Total:			**0.000**	**8.445**		**58.91**	

8 ICB

Sample Name:	**ICB**	*Injection Volume:*	**5.00**
Vial Number:	**BA8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:56**	*Sample Weight:*	**1.0000**

Run Time:

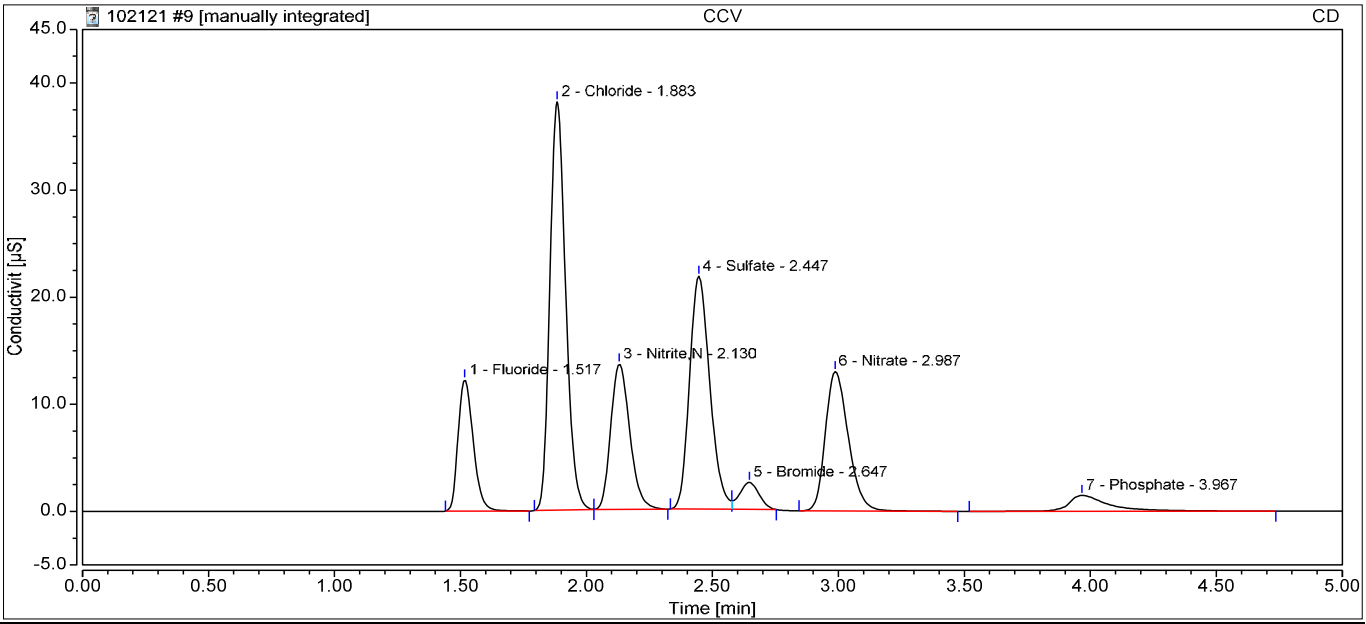


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.003	n.a.	n.a.	1.0000
2	2.15	Nitrite,N	BMB	0.013	0.0102	0.0102	1.0000
3	2.42	Sulfate	BMB	0.003	0.0287	0.0287	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.018**		**0.04**	

9 CCV			
Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/21/2021 08:26**	*Sample Weight:*	**1.0000**

Run Time:



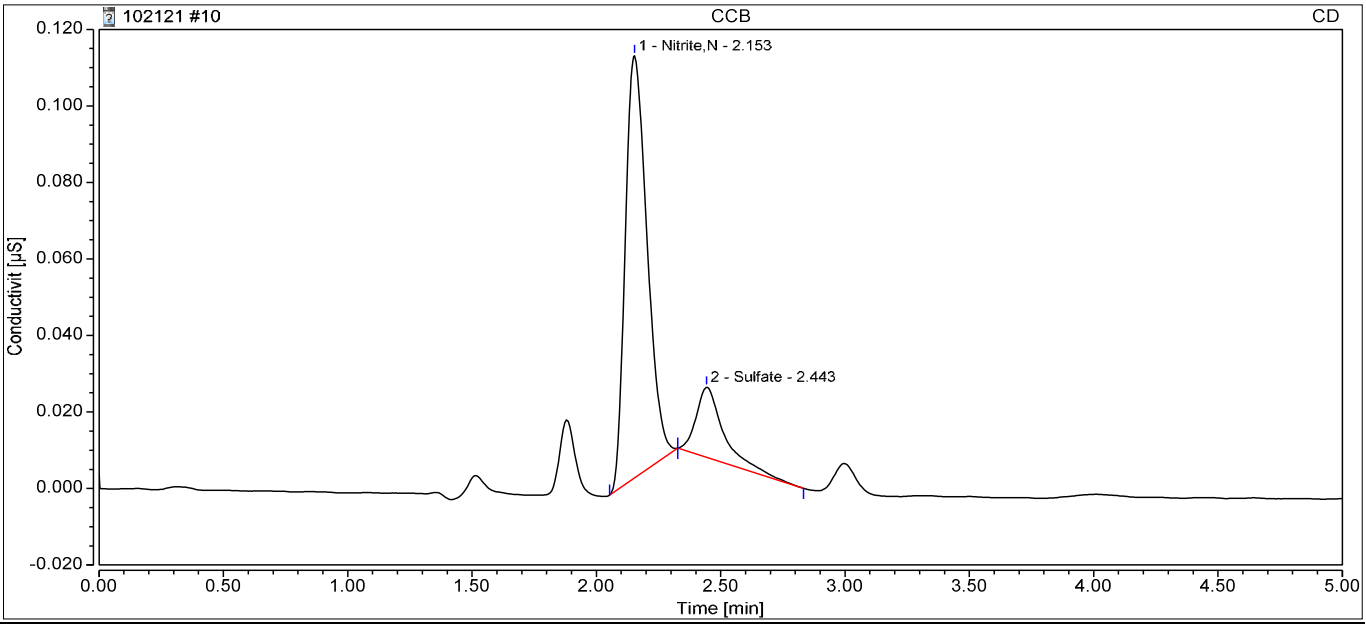
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.855	4.2381	4.2381	1.0000
2	1.88	Chloride	BMB	2.757	20.4993	20.4993	1.0000
3	2.13	Nitrite,N	BMB	1.188	4.0709	4.0709	1.0000
4	2.45	Sulfate	BM *	2.030	20.9114	20.9114	1.0000
5	2.65	Bromide	MB*	0.227	4.1768	4.1768	1.0000
6	2.99	Nitrate	BMB	1.373	4.0348	4.0348	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.97	Phosphate	BMB	0.278	2.7939	2.7939	1.0000
Total:			**0.000**	**8.709**		**60.73**	

10 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/21/2021 08:33**	*Sample Weight:*	**1.0000**

Run Time:



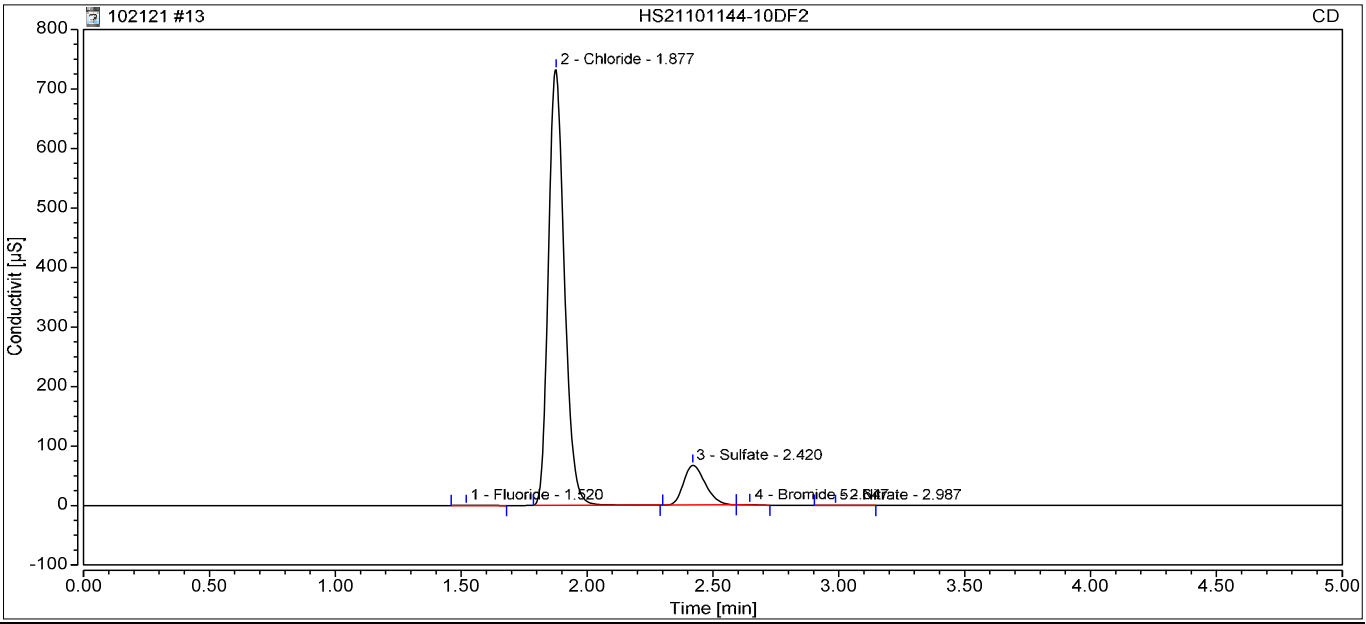
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.15	Nitrite,N	BMB	0.011	0.0035	0.0035	1.0000
2	2.44	Sulfate	BMB	0.002	0.0260	0.0260	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.014**		**0.03**	

13 HS21101144-10DF2

Sample Name:	**HS21101144-10DF2**	*Injection Volume:*	**5.00**
Vial Number:	**GA1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/21/2021 08:56**	*Sample Weight:*	**1.0000**

Run Time:



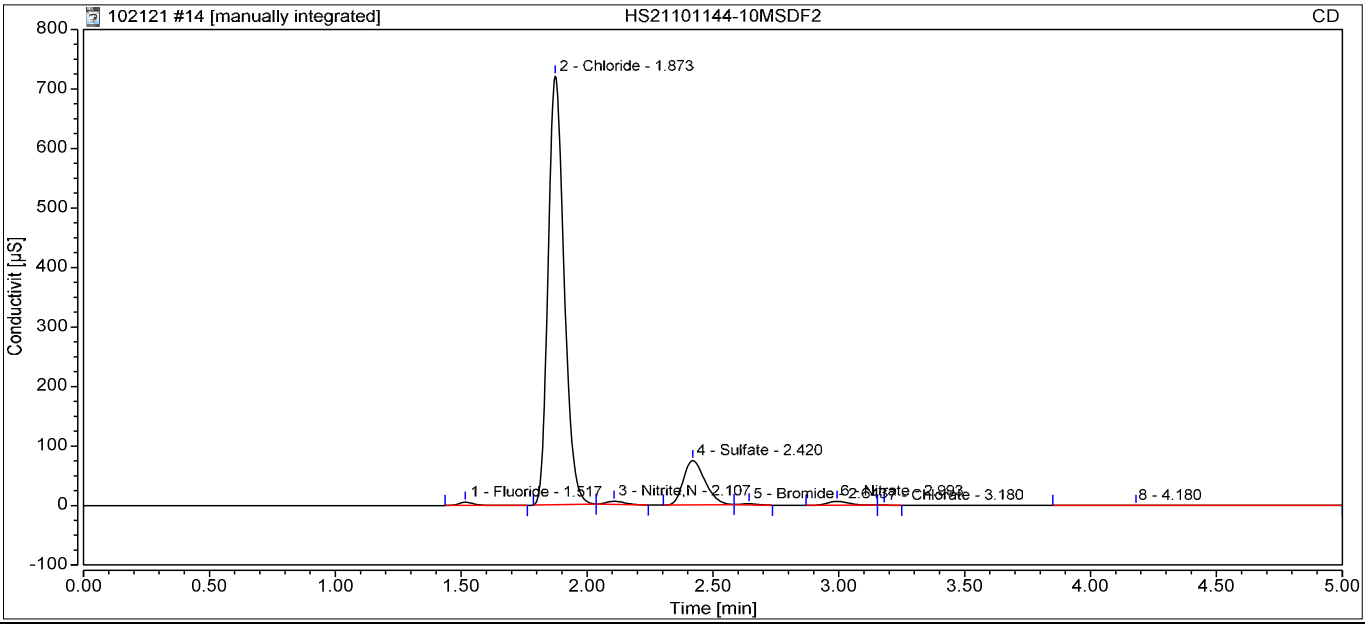
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.007	0.0724	0.1448	2.0000
2	1.88	Chloride	BMB	53.862	401.2660	802.5319	2.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	2.0000
3	2.42	Sulfate	BMB	6.665	68.6680	137.3360	2.0000
4	2.65	Bromide	BMB	0.041	0.7739	1.5477	2.0000
5	2.99	Nitrate	BMB	0.002	0.0056	0.0112	2.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			**0.000**	**60.576**		**941.57**	

14 HS21101144-10MSDF2

Sample Name:	**HS21101144-10MSDF2**	*Injection Volume:*	**5.00**
Vial Number:	**GA2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/21/2021 09:03**	*Sample Weight:*	**1.0000**

Run Time:



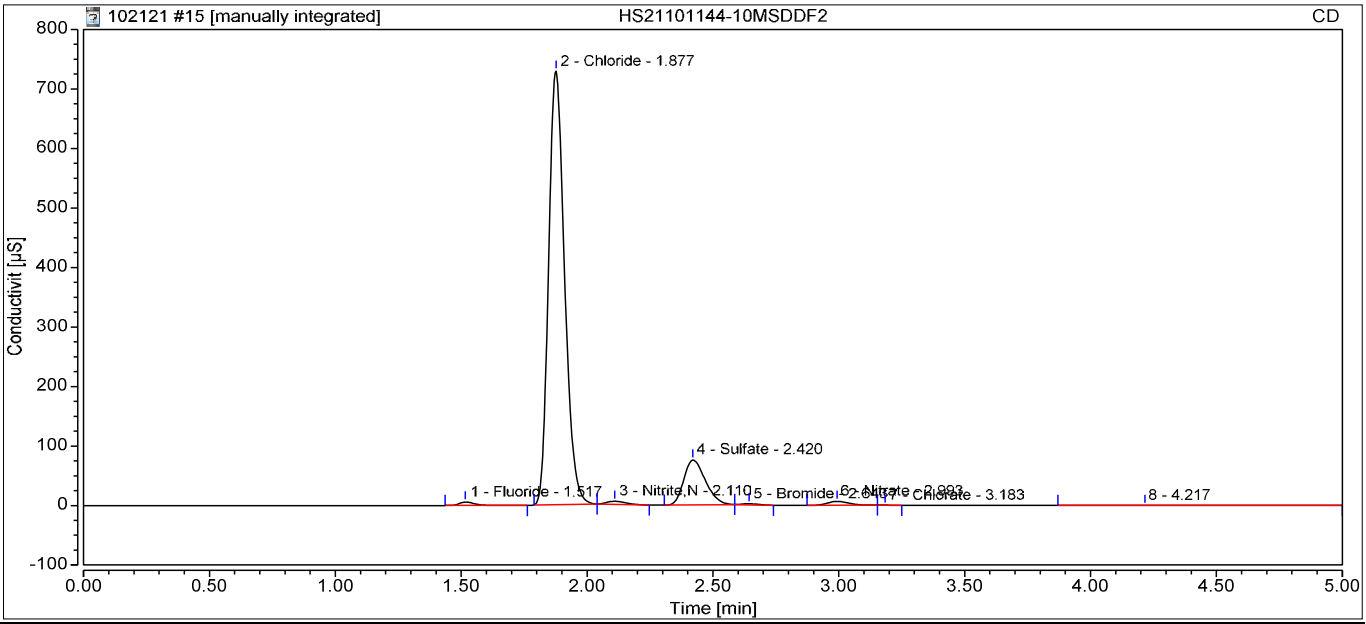
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.397	1.9845	3.9690	2.0000
2	1.87	Chloride	BMB	52.970	394.6265	789.2530	2.0000
3	2.11	Nitrite,N	BMB	0.435	1.4392	2.8783	2.0000
4	2.42	Sulfate	BM *	7.452	76.7810	153.5621	2.0000
5	2.64	Bromide	MB*	0.140	2.5756	5.1511	2.0000
6	2.99	Nitrate	BMB	0.625	1.8365	3.6730	2.0000
7	3.18	Chlorate	BMB	0.003	n.a.	n.a.	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			**0.000**	**62.022**		**958.49**	

15 HS21101144-10MSDDF2

Sample Name:	**HS21101144-10MSDDF2**	*Injection Volume:*	**5.00**
Vial Number:	**GA3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/21/2021 09:10**	*Sample Weight:*	**1.0000**

Run Time:



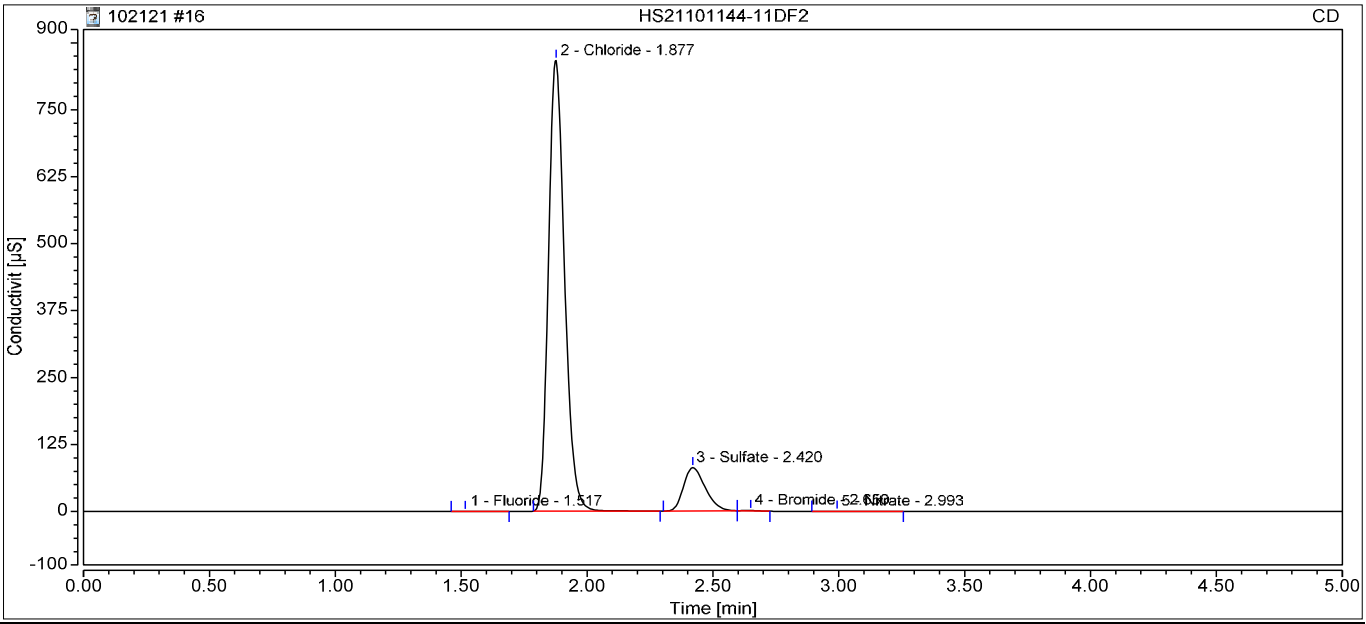
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.410	2.0505	4.1010	2.0000
2	1.88	Chloride	BMB	53.395	397.7862	795.5724	2.0000
3	2.11	Nitrite,N	BMB	0.437	1.4474	2.8947	2.0000
4	2.42	Sulfate	BM *	7.547	77.7556	155.5112	2.0000
5	2.64	Bromide	MB*	0.145	2.6779	5.3559	2.0000
6	2.99	Nitrate	BMB	0.630	1.8509	3.7019	2.0000
7	3.18	Chlorate	BMB	0.003	n.a.	n.a.	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			**0.000**	**62.567**		**967.14**	

16 HS21101144-11DF2

Sample Name:	**HS21101144-11DF2**	*Injection Volume:*	**5.00**
Vial Number:	**GA4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/21/2021 09:18**	*Sample Weight:*	**1.0000**

Run Time:



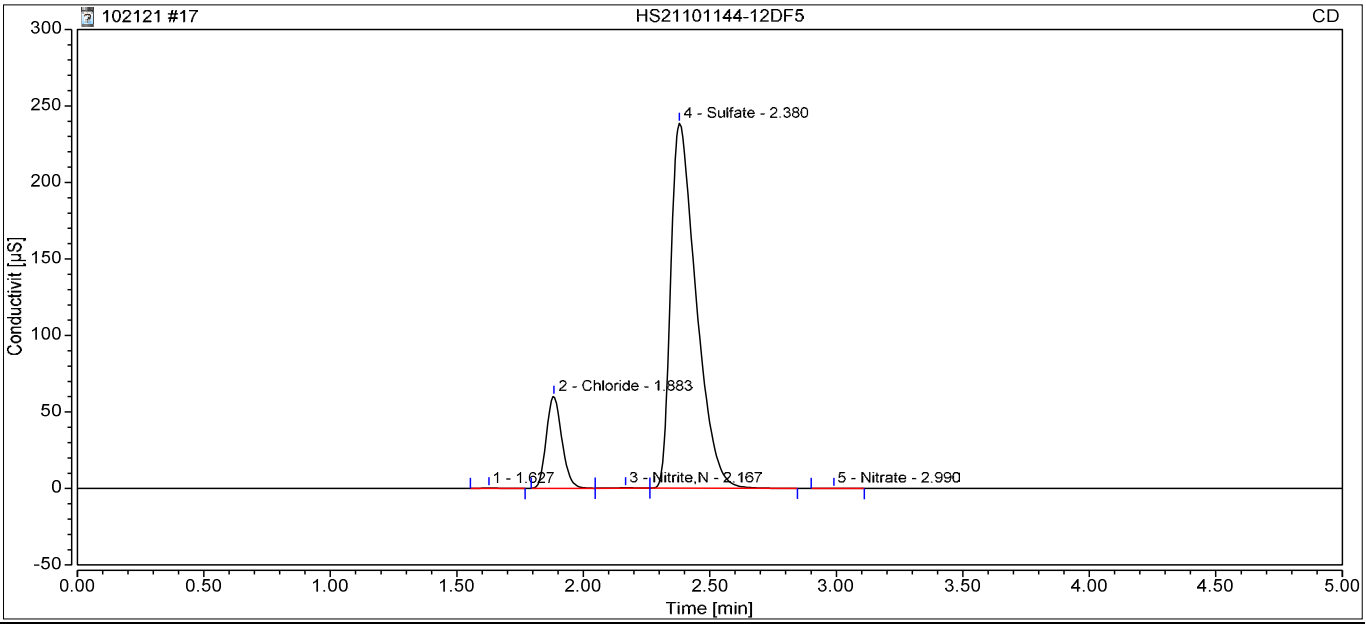
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.011	0.0927	0.1854	2.0000
2	1.88	Chloride	BMB	62.220	463.5410	927.0819	2.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	2.0000
3	2.42	Sulfate	BMB	8.076	83.2094	166.4188	2.0000
4	2.65	Bromide	BMB	0.048	0.9002	1.8003	2.0000
5	2.99	Nitrate	BMB	0.006	0.0159	0.0318	2.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			**0.000**	**70.361**		**1095.52**	

17 HS21101144-12DF5

Sample Name:	**HS21101144-12DF5**	*Injection Volume:*	**5.00**
Vial Number:	**GA5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Recording Time:	**10/21/2021 09:25**	*Sample Weight:*	**1.0000**

Run Time:



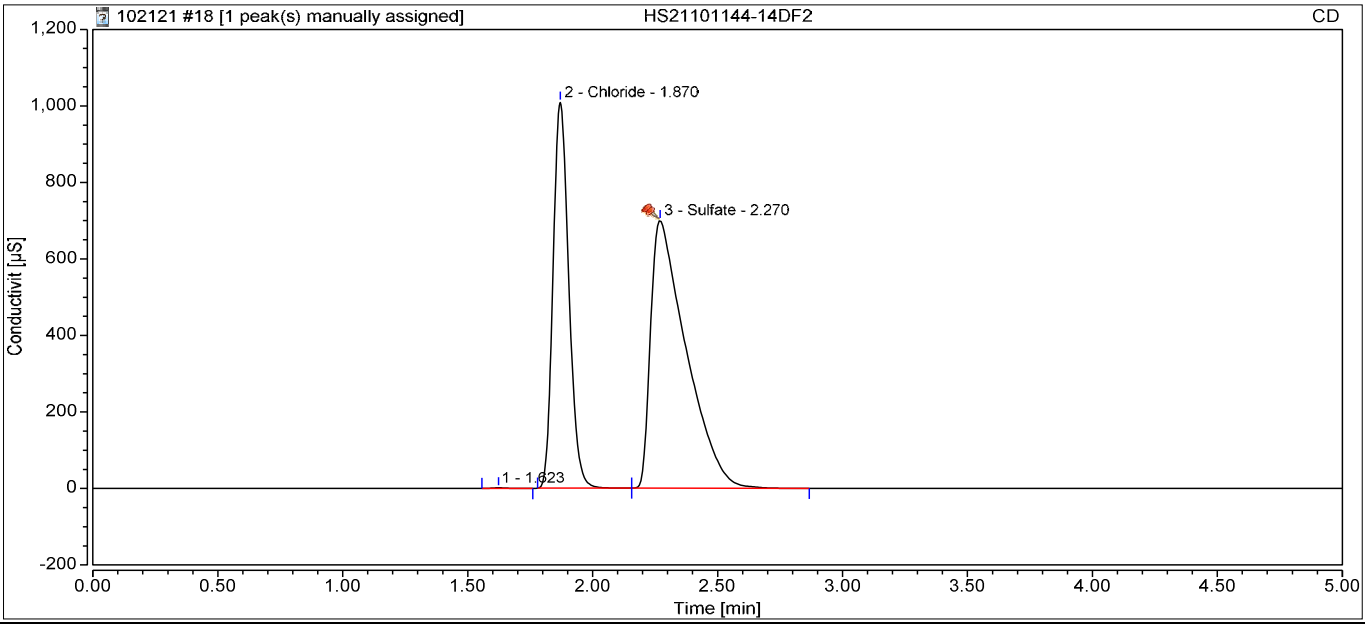
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	5.0000
2	1.88	Chloride	BMB	4.291	31.9261	159.6303	5.0000
3	2.17	Nitrite,N	BMB	0.020	0.0336	0.1681	5.0000
4	2.38	Sulfate	BMB	27.702	285.4066	1427.0328	5.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	5.0000
5	2.99	Nitrate	BMB	0.003	0.0086	0.0429	5.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	5.0000
Total:			**0.000**	**32.016**		**1586.87**	

18 HS21101144-14DF2

Sample Name:	**HS21101144-14DF2**	*Injection Volume:*	**5.00**
Vial Number:	**GA6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/21/2021 09:33**	*Sample Weight:*	**1.0000**

Run Time:

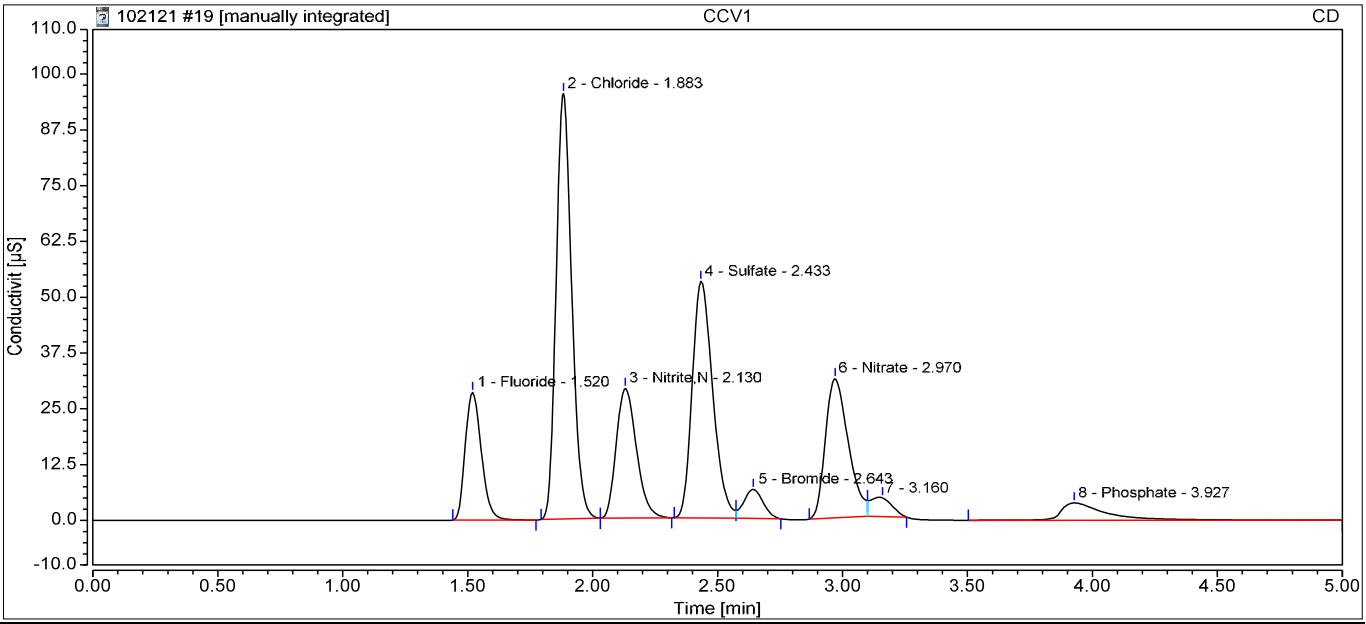


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	2.0000
2	1.87	Chloride	BMB	73.759	549.5176	1099.0352	2.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	2.0000
3	2.27	Sulfate	BMB^	114.885	1183.6346	2367.2692	2.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	2.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	2.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			**0.000**	**188.644**		**3466.30**	

19 CCV1			
Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/21/2021 11:22**	*Sample Weight:*	**1.0000**

Run Time:



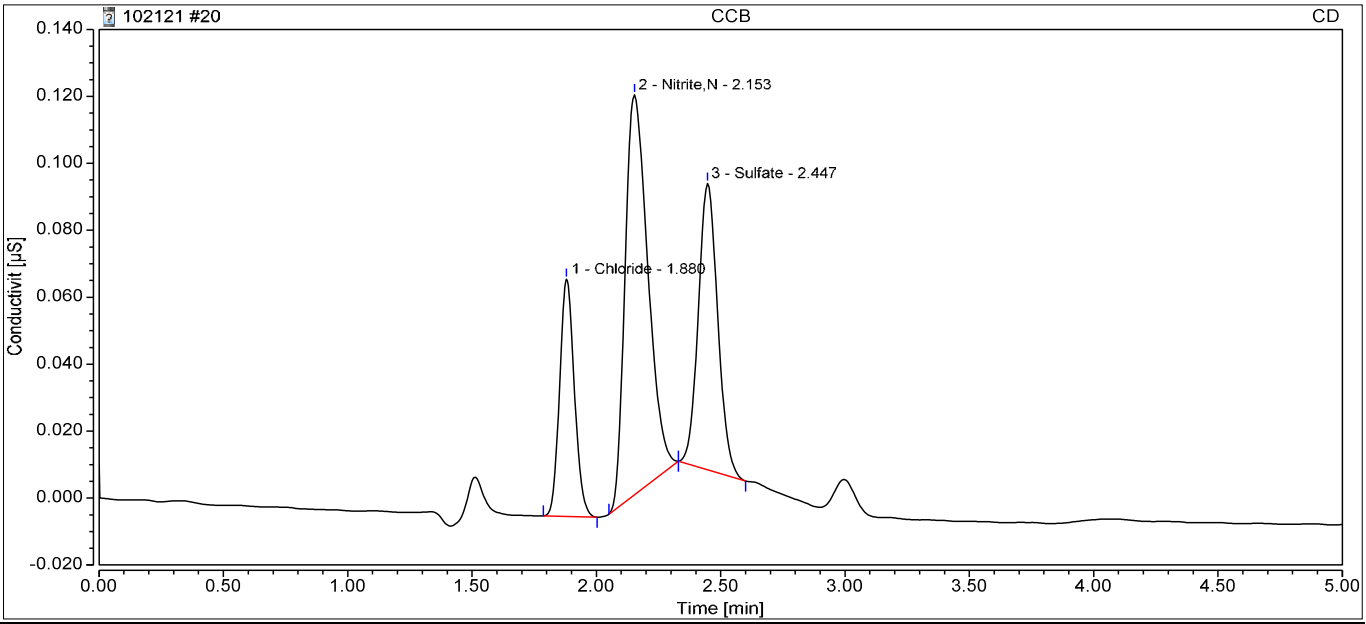
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	2.138	10.5335	10.5335	1.0000
2	1.88	Chloride	BMB	6.911	51.4482	51.4482	1.0000
3	2.13	Nitrite,N	BMB	2.730	9.8581	9.8581	1.0000
4	2.43	Sulfate	BM *	5.045	51.9740	51.9740	1.0000
5	2.64	Bromide	MB*	0.585	10.7121	10.7121	1.0000
6	2.97	Nitrate	BM *	3.318	9.7505	9.7505	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
8	3.93	Phosphate	BMB	0.824	7.7066	7.7066	1.0000
Total:			**0.000**	**21.550**		**151.98**	

20 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/21/2021 11:30**	*Sample Weight:*	**1.0000**

Run Time:



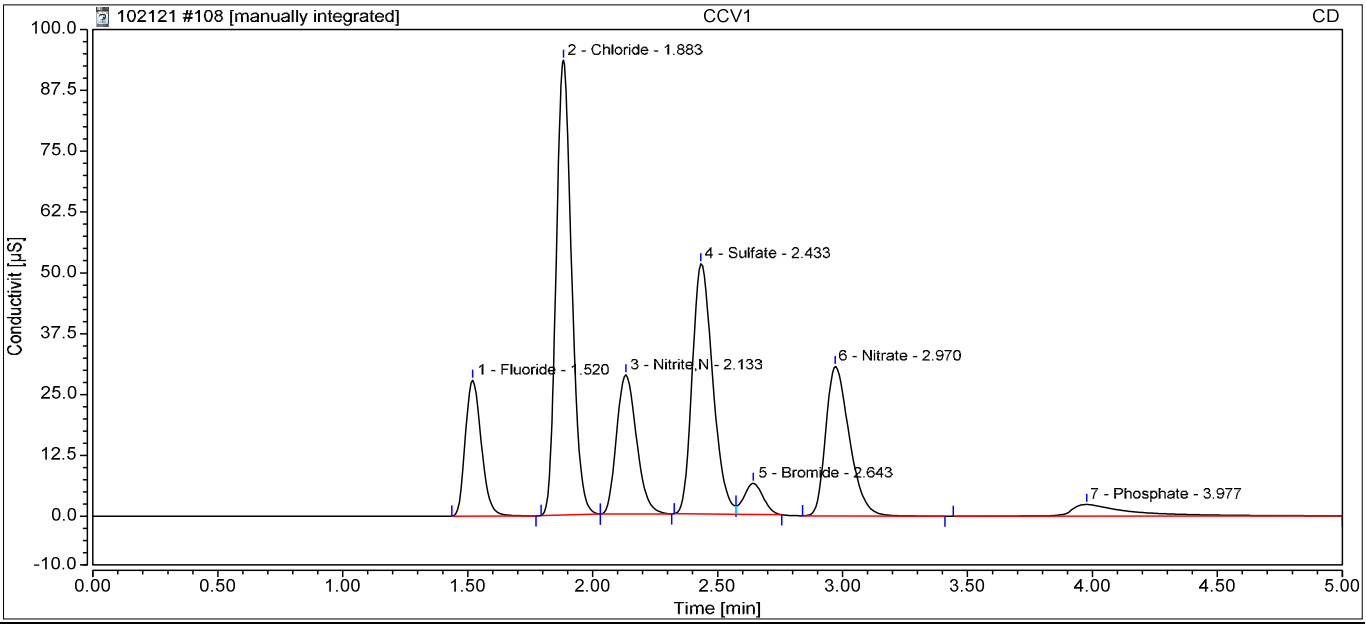
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.005	n.a.	n.a.	1.0000
2	2.15	Nitrite,N	BMB	0.013	0.0084	0.0084	1.0000
3	2.45	Sulfate	BMB	0.008	0.0813	0.0813	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.025**		**0.09**	

108 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/21/2021 23:32**	*Sample Weight:*	**1.0000**

Run Time:



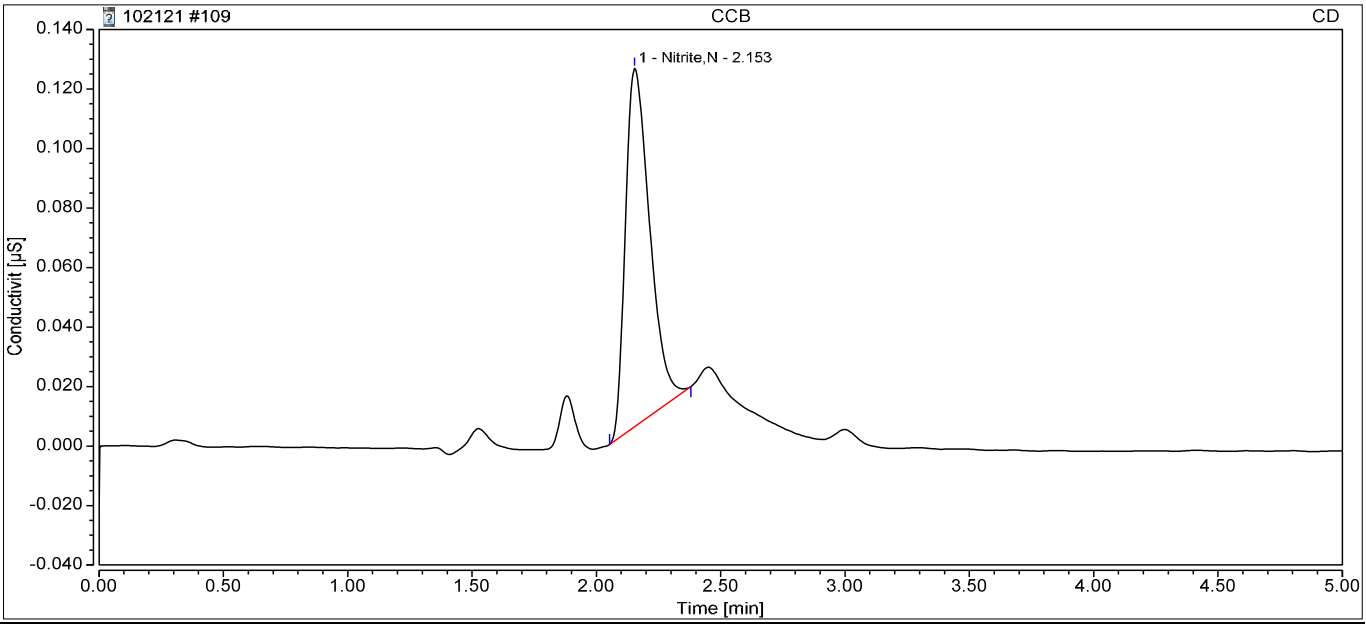
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	2.073	10.2181	10.2181	1.0000
2	1.88	Chloride	BMB	6.714	49.9768	49.9768	1.0000
3	2.13	Nitrite,N	BMB	2.654	9.5578	9.5578	1.0000
4	2.43	Sulfate	BM *	4.897	50.4559	50.4559	1.0000
5	2.64	Bromide	MB*	0.574	10.5017	10.5017	1.0000
6	2.97	Nitrate	BMB	3.375	9.9166	9.9166	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.98	Phosphate	BMB	0.655	6.2413	6.2413	1.0000
Total:			**0.000**	**20.941**		**146.87**	

109 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/21/2021 23:47**	*Sample Weight:*	**1.0000**

Run Time:



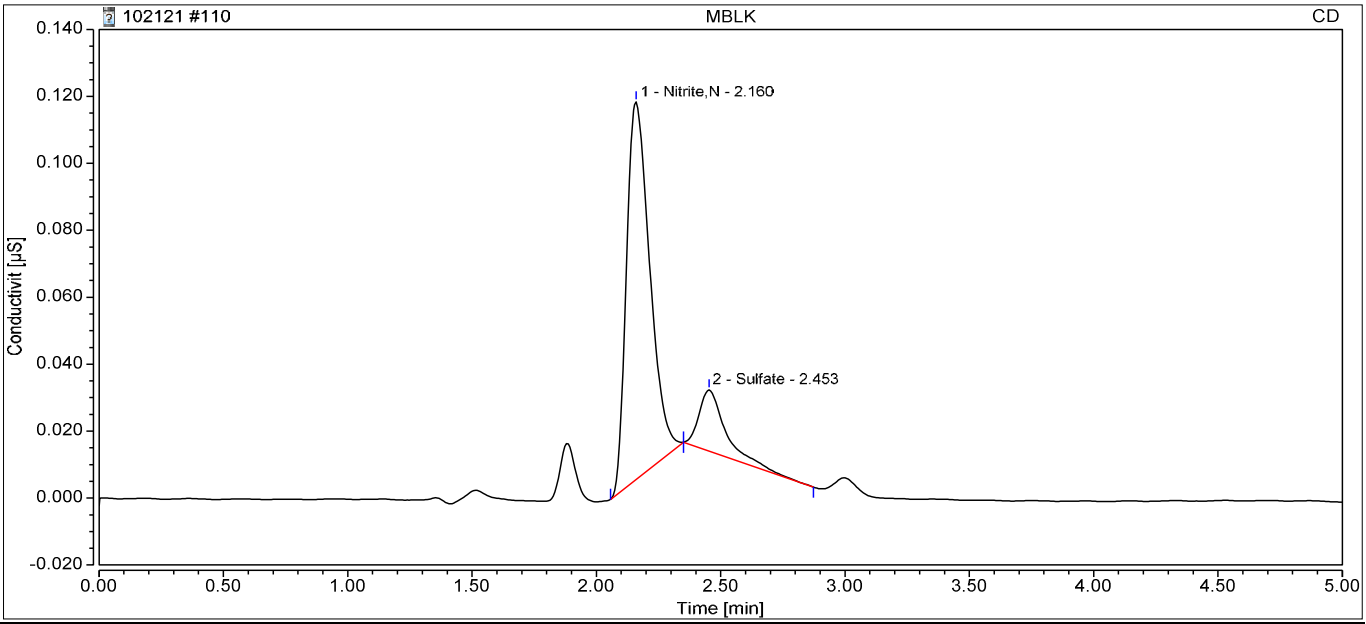
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.15	Nitrite,N	BMB	0.014	0.0115	0.0115	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.014**		**0.01**	

110 MBLK

Sample Name:	**MBLK**	*Injection Volume:*	**5.00**
Vial Number:	**R5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/21/2021 23:54**	*Sample Weight:*	**1.0000**

Run Time:



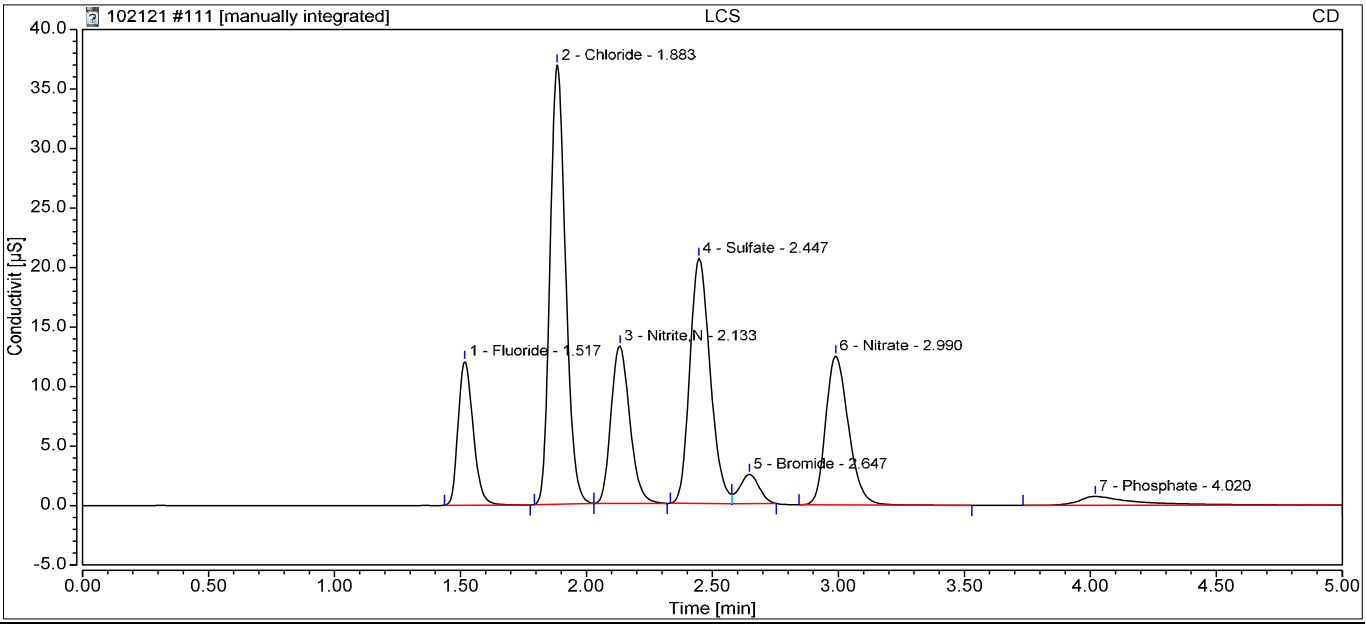
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.16	Nitrite,N	BMB	0.012	0.0070	0.0070	1.0000
2	2.45	Sulfate	BMB	0.002	0.0248	0.0248	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.015**		**0.03**	

111 LCS

Sample Name:	**LCS**	*Injection Volume:*	**5.00**
Vial Number:	**R2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/22/2021 00:02**	*Sample Weight:*	**1.0000**

Run Time:



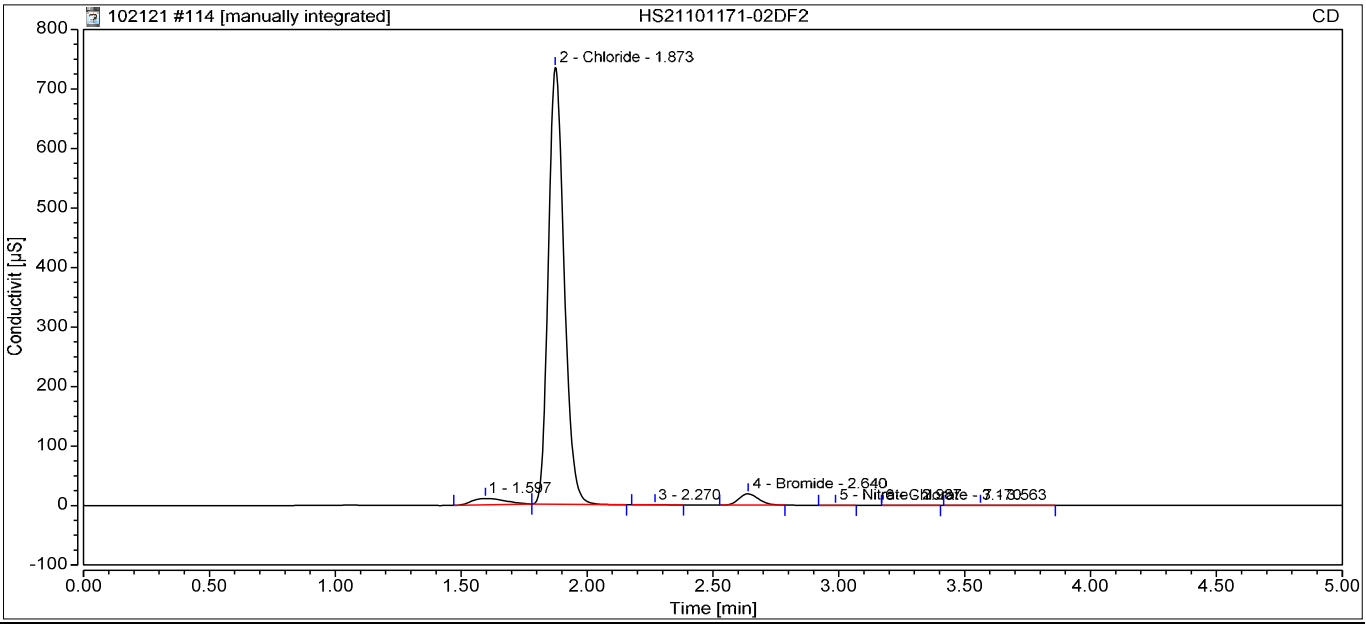
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.837	4.1454	4.1454	1.0000
2	1.88	Chloride	BMB	2.641	19.6280	19.6280	1.0000
3	2.13	Nitrite,N	BMB	1.141	3.9054	3.9054	1.0000
4	2.45	Sulfate	BM *	1.933	19.9121	19.9121	1.0000
5	2.65	Bromide	MB*	0.222	4.0816	4.0816	1.0000
6	2.99	Nitrate	BMB	1.315	3.8626	3.8626	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.02	Phosphate	BMB	0.206	2.0944	2.0944	1.0000
Total:			**0.000**	**8.293**		**57.63**	

114 HS21101171-02DF2

Sample Name:	**HS21101171-02DF2**	*Injection Volume:*	**5.00**
Vial Number:	**RE5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/22/2021 00:24**	*Sample Weight:*	**1.0000**

Run Time:



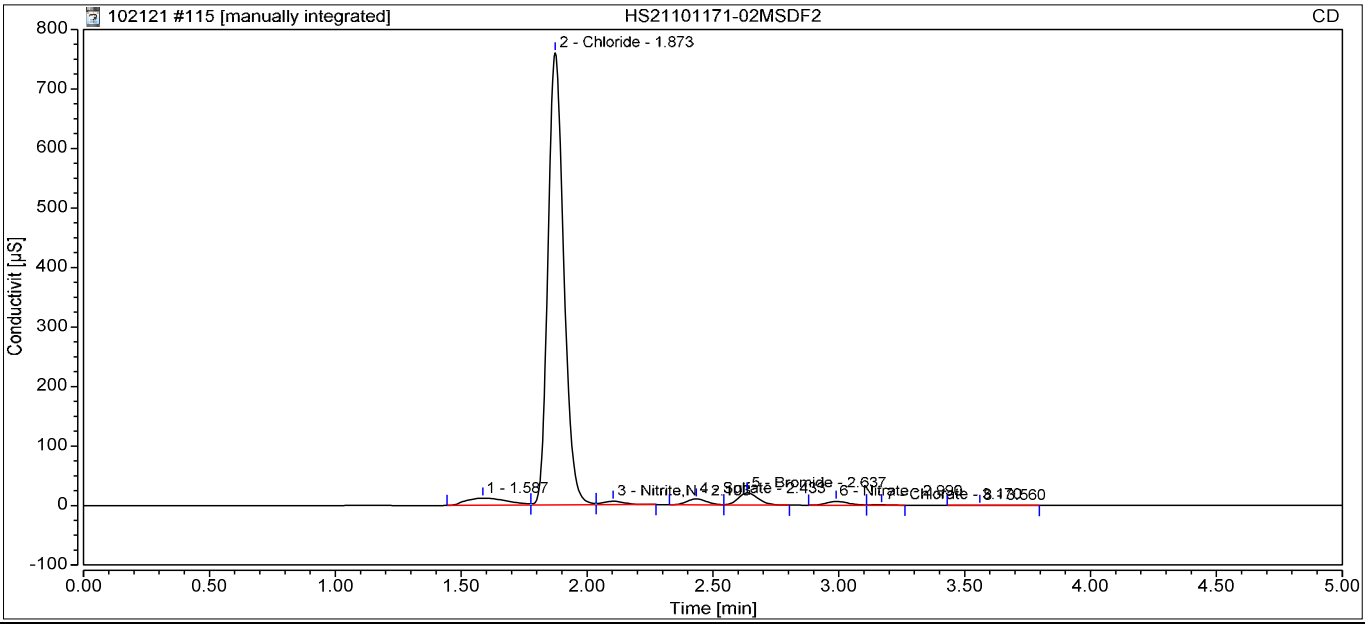
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	2.0000
2	1.87	Chloride	BMB	53.265	396.8210	793.6420	2.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	2.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	2.0000
4	2.64	Bromide	BMB*	1.731	31.6391	63.2781	2.0000
5	2.99	Nitrate	BMB	0.002	0.0062	0.0124	2.0000
6	3.17	Chlorate	BMB	0.003	n.a.	n.a.	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			**0.000**	**55.001**		**856.93**	

115 HS21101171-02MSDF2

Sample Name:	**HS21101171-02MSDF2**	*Injection Volume:*	**5.00**
Vial Number:	**RE6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/22/2021 00:31**	*Sample Weight:*	**1.0000**

Run Time:



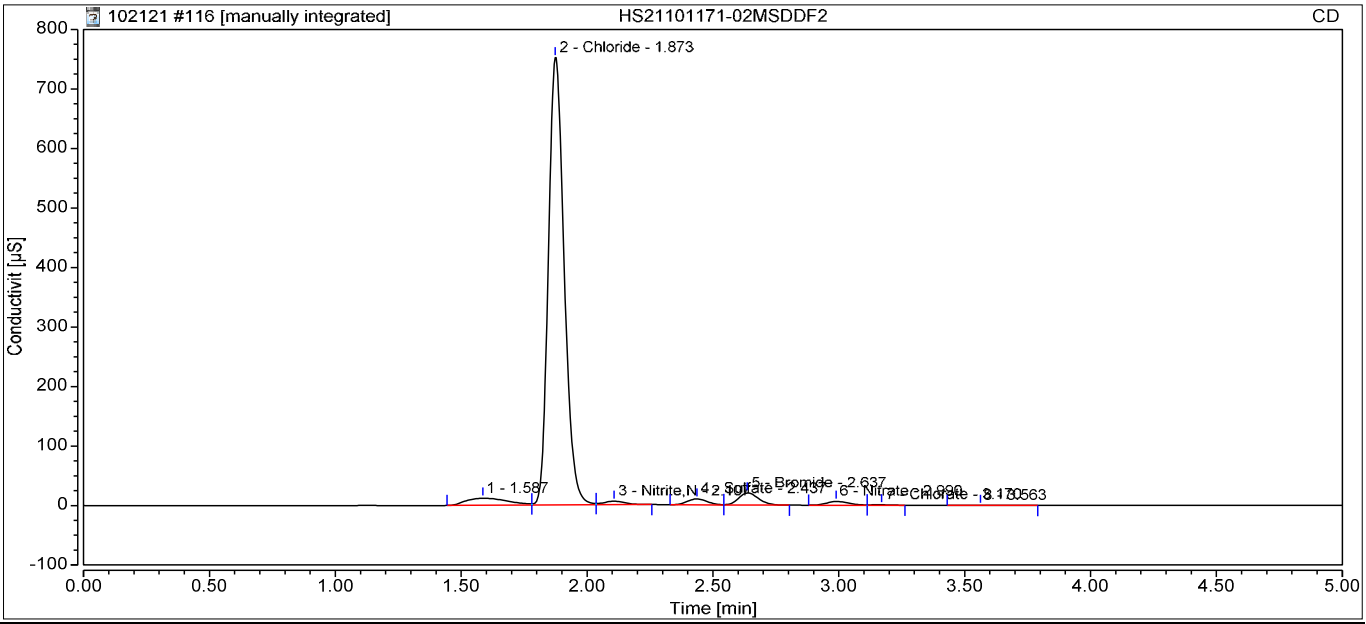
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	2.0000
2	1.87	Chloride	M *	55.289	411.8985	823.7971	2.0000
3	2.10	Nitrite,N	MB*	0.582	1.9426	3.8852	2.0000
4	2.43	Sulfate	BM *	0.911	9.3887	18.7773	2.0000
5	2.64	Bromide	MB*	1.853	33.8692	67.7384	2.0000
6	2.99	Nitrate	BM *	0.644	1.8926	3.7852	2.0000
7	3.17	Chlorate	MB*	0.076	n.a.	n.a.	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			**0.000**	**59.355**		**917.98**	

116 HS21101171-02MSDDF2

Sample Name:	**HS21101171-02MSDDF2**	*Injection Volume:*	**5.00**
Vial Number:	**RE7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/22/2021 00:39**	*Sample Weight:*	**1.0000**

Run Time:



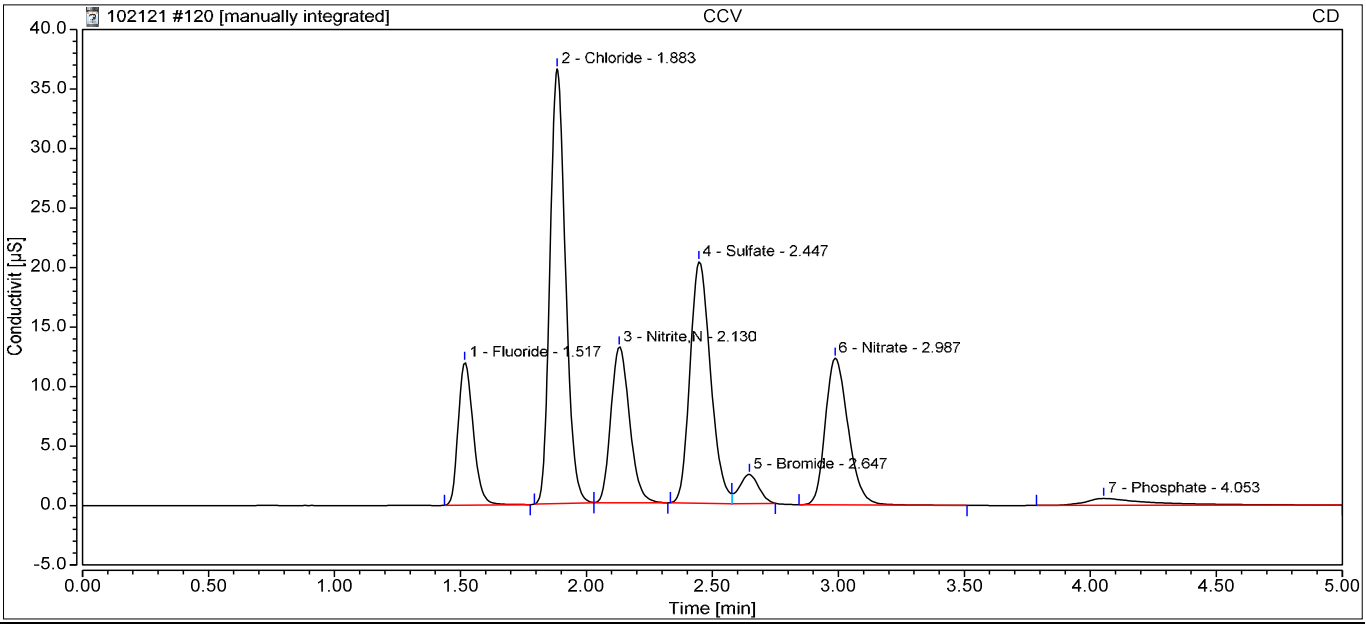
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	2.0000
2	1.87	Chloride	M *	54.630	406.9900	813.9801	2.0000
3	2.11	Nitrite,N	MB*	0.572	1.9085	3.8170	2.0000
4	2.44	Sulfate	BM *	0.910	9.3749	18.7499	2.0000
5	2.64	Bromide	MB*	1.836	33.5548	67.1096	2.0000
6	2.99	Nitrate	BM *	0.645	1.8950	3.7900	2.0000
7	3.17	Chlorate	MB*	0.074	n.a.	n.a.	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			**0.000**	**58.667**		**907.45**	

120 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/22/2021 01:08**	*Sample Weight:*	**1.0000**

Run Time:



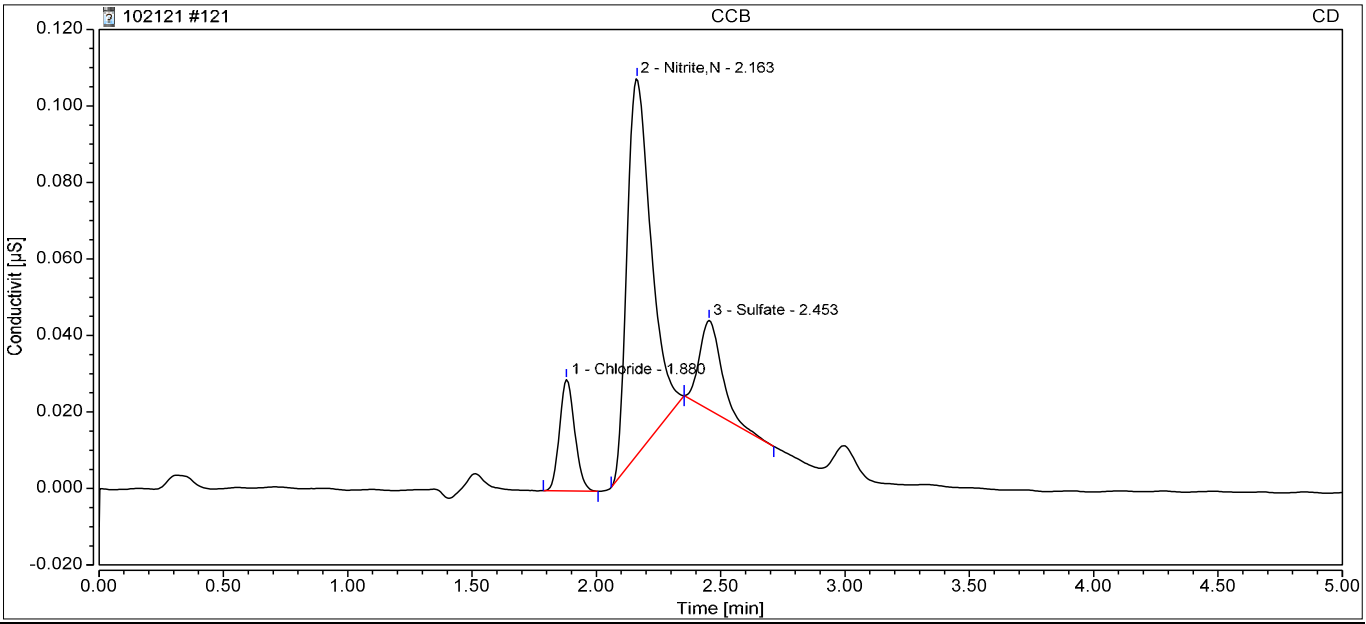
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.829	4.1101	4.1101	1.0000
2	1.88	Chloride	BMB	2.605	19.3632	19.3632	1.0000
3	2.13	Nitrite,N	BMB	1.124	3.8447	3.8447	1.0000
4	2.45	Sulfate	BM *	1.921	19.7950	19.7950	1.0000
5	2.65	Bromide	MB*	0.220	4.0455	4.0455	1.0000
6	2.99	Nitrate	BMB	1.294	3.8013	3.8013	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.05	Phosphate	BMB	0.179	1.8400	1.8400	1.0000
Total:			**0.000**	**8.173**		**56.80**	

121 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/22/2021 01:23**	*Sample Weight:*	**1.0000**

Run Time:



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.002	n.a.	n.a.	1.0000
2	2.16	Nitrite,N	BMB	0.011	0.0028	0.0028	1.0000
3	2.45	Sulfate	BMB	0.002	0.0263	0.0263	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.015**		**0.03**	

Sequence: 110421
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method	Processing Method	Volume	Status
	STD1		Calibratio	BB1	1.00	1	Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	STD2		Calibratio	BB2	1.00	2	Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	STD3		Calibratio	BB3	1.00	3	Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	STD4		Calibratio	BB4	1.00	4	Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	STD5		Calibratio	BB5	1.00	5	Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	STD6		Calibratio	BB6	1.00	6	Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	ICV		Unknown	BA7	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	ICB		Unknown	BA8	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	CCB		Unknown	R6	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	MBLK		Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	LCS		Unknown	R2	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	HS21101144-12DF50		Unknown	RD3	50.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	HS21101144-14DF200		Unknown	RD4	200.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	HS21110037-05DF5		Unknown	RD5	5.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	HS21110037-05MSDF5		Unknown	RD6	5.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	HS21110037-05MSDDF5		Unknown	RD7	5.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	CCB		Unknown	R4	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished

Sequence: 110421
Last Update Operator: alshs.nouser

Inject Time
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11/4/2021 3:21:16 PM -05:00
11/4/2021 3:51:00 PM -05:00
11/4/2021 3:58:26 PM -05:00

Sequence: 110421
Injection #6: STD6

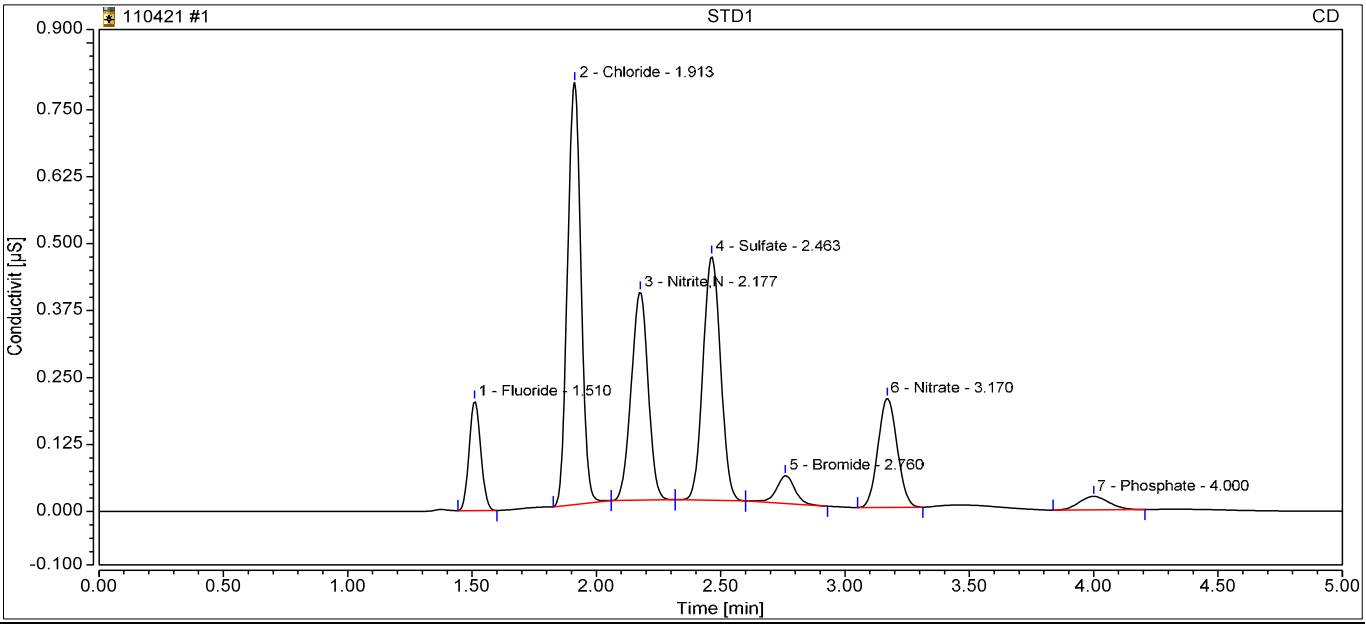
Calibration

Peak No.	Peak Name	Cal.Type	Eval.Type	Number of Points	Rel.Std.Dev. %	Coeff.of Determination	C0 (Offset)	C1 (Slope)	C2 (Curve)
1	*Fluoride*	*Lin, WithOffset, 1/*	*Area*	*6*	*27.8876*	*0.99658*	*-0.0083*	*0.2107*	*0.0000*
2	Chloride	Lin, WithOffset, 1/	Area	6	10.8147	0.99945	-0.0187	0.1414	0.0000
3	Nitrite,N	Quad, WithOffset,	Area	6	13.6827	0.99907	-0.0001	0.3141	-0.0036
4	Sulfate	Lin, WithOffset, 1/	Area	6	12.4596	0.99926	-0.0126	0.1039	0.0000
5	Bromide	Lin, WithOffset, 1/	Area	6	18.4384	0.99858	-0.0030	0.0609	0.0000
6	Nitrate	Lin, WithOffset, 1/	Area	6	10.9439	0.99950	-0.0172	0.3553	0.0000
n.a.	Chlorate	Lin, WithOffset, 1/	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	Quad, WithOffset,	Area	5	27.6931	0.99780	-0.0107	0.1204	0.0006
Maximum					**27.8876**	0.99950			
Minimum					10.8147	**0.99658**			

1 STD1

Sample Name:	**STD1**	*Injection Volume:*	**5.00**
Vial Number:	**BB1**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/03/2021 16:47**	*Sample Weight:*	**1.0000**

Run Time:

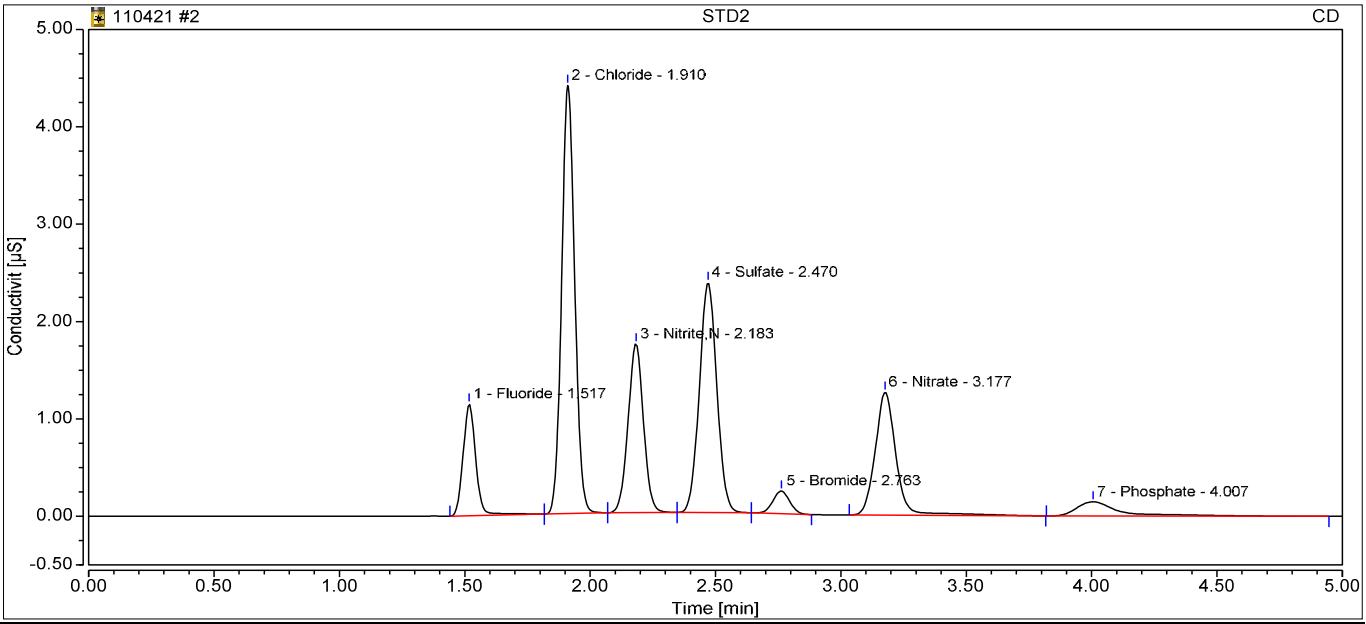


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.011	0.0921	0.0921	1.0000
2	1.91	Chloride	BMB	0.049	0.4810	0.4810	1.0000
3	2.18	Nitrite,N	BMB	0.031	0.0978	0.0978	1.0000
4	2.46	Sulfate	BMB	0.037	0.4805	0.4805	1.0000
5	2.76	Bromide	BMB	0.004	0.1226	0.1226	1.0000
6	3.17	Nitrate	BMB	0.018	0.0999	0.0999	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.00	Phosphate	BMB	0.004	0.1178	0.1178	1.0000
Total:			**0.000**	**0.155**		**1.49**	

2 STD2			
Sample Name:	**STD2**	*Injection Volume:*	**5.00**
Vial Number:	**BB2**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/03/2021 16:55**	*Sample Weight:*	**1.0000**

Run Time:



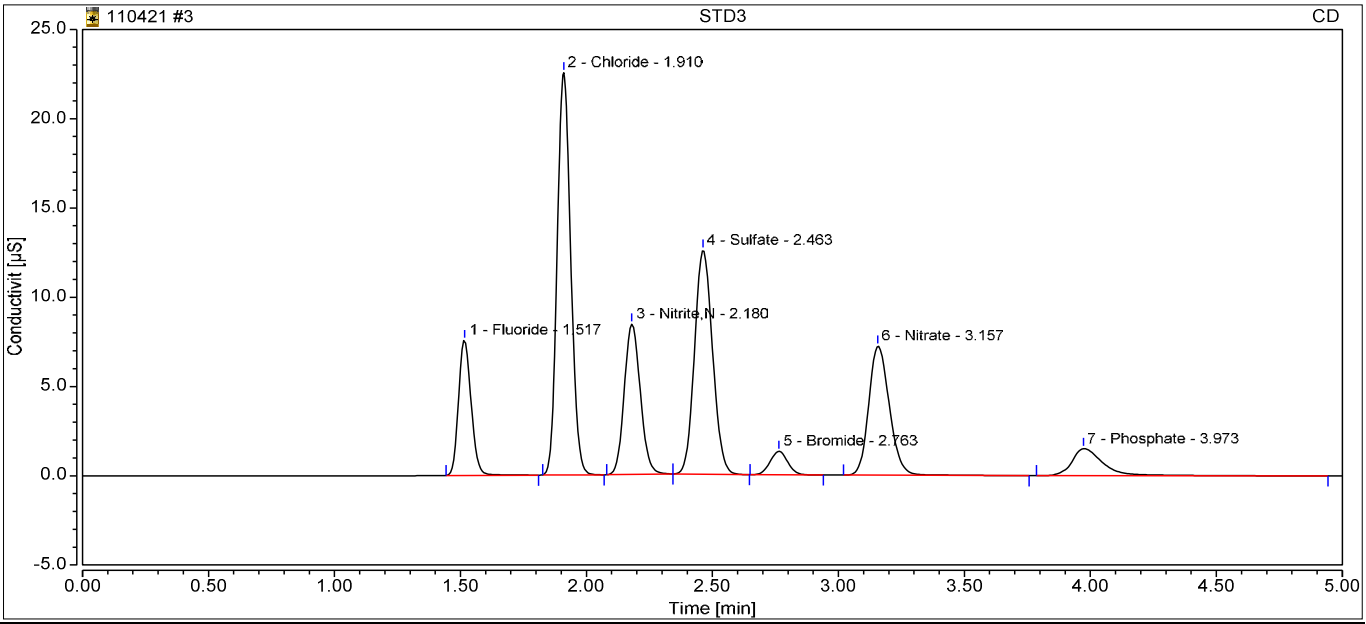
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.068	0.3607	0.3607	1.0000
2	1.91	Chloride	BMB	0.265	2.0057	2.0057	1.0000
3	2.18	Nitrite,N	BMB	0.123	0.3950	0.3950	1.0000
4	2.47	Sulfate	BMB	0.191	1.9556	1.9556	1.0000
5	2.76	Bromide	BMB	0.018	0.3462	0.3462	1.0000
6	3.18	Nitrate	BMB	0.122	0.3914	0.3914	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.01	Phosphate	BMB	0.029	0.3309	0.3309	1.0000
Total:			**0.000**	**0.816**		**5.79**	

3 STD3

Sample Name:	**STD3**	*Injection Volume:*	**5.00**
Vial Number:	**BB3**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/03/2021 17:02**	*Sample Weight:*	**1.0000**

Run Time:



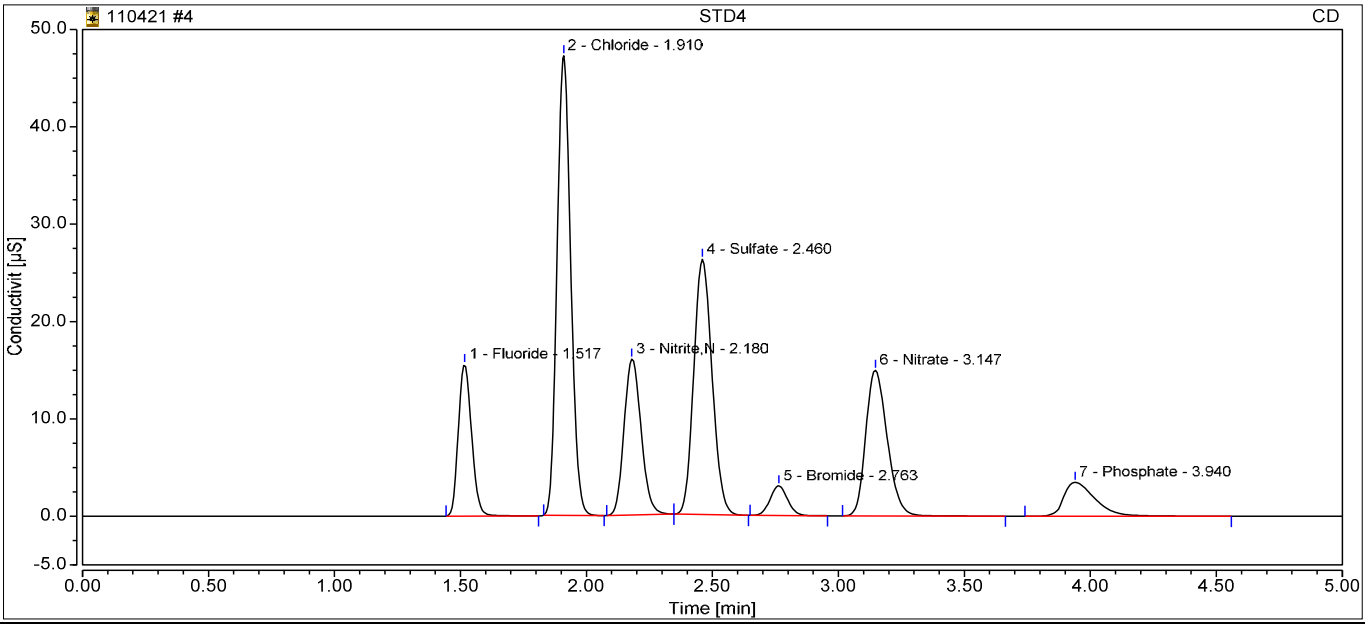
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.442	2.1349	2.1349	1.0000
2	1.91	Chloride	BMB	1.402	10.0450	10.0450	1.0000
3	2.18	Nitrite,N	BMB	0.623	2.0307	2.0307	1.0000
4	2.46	Sulfate	BMB	1.041	10.1470	10.1470	1.0000
5	2.76	Bromide	BMB	0.106	1.7946	1.7946	1.0000
6	3.16	Nitrate	BMB	0.689	1.9863	1.9863	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.97	Phosphate	BMB	0.219	1.8914	1.8914	1.0000
Total:			**0.000**	**4.522**		**30.03**	

4 STD4

Sample Name:	**STD4**	*Injection Volume:*	**5.00**
Vial Number:	**BB4**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/03/2021 17:10**	*Sample Weight:*	**1.0000**

Run Time:



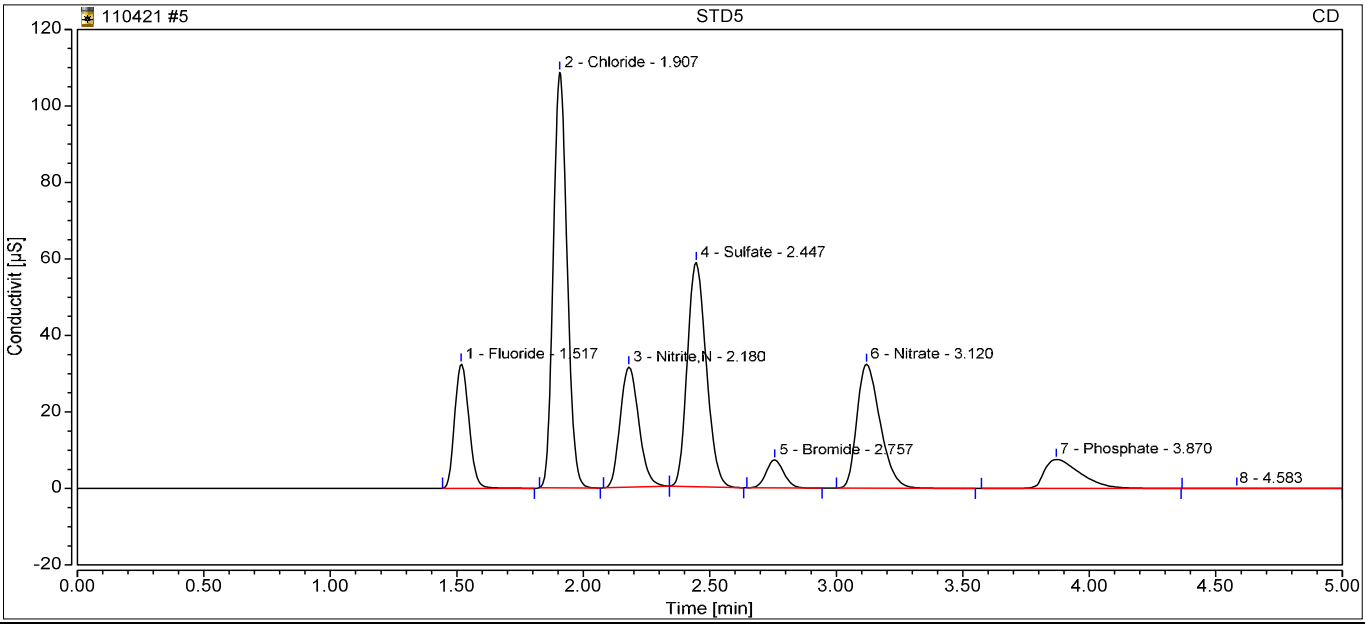
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.950	4.5474	4.5474	1.0000
2	1.91	Chloride	BMB	2.964	21.0908	21.0908	1.0000
3	2.18	Nitrite,N	BMB	1.258	4.2075	4.2075	1.0000
4	2.46	Sulfate	BMB	2.212	21.4145	21.4145	1.0000
5	2.76	Bromide	BMB	0.244	4.0546	4.0546	1.0000
6	3.15	Nitrate	BMB	1.476	4.2029	4.2029	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.94	Phosphate	BMB	0.509	4.2200	4.2200	1.0000
Total:			**0.000**	**9.612**		**63.74**	

5 STD5

Sample Name:	**STD5**	*Injection Volume:*	**5.00**
Vial Number:	**BB5**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/03/2021 17:17**	*Sample Weight:*	**1.0000**

Run Time:



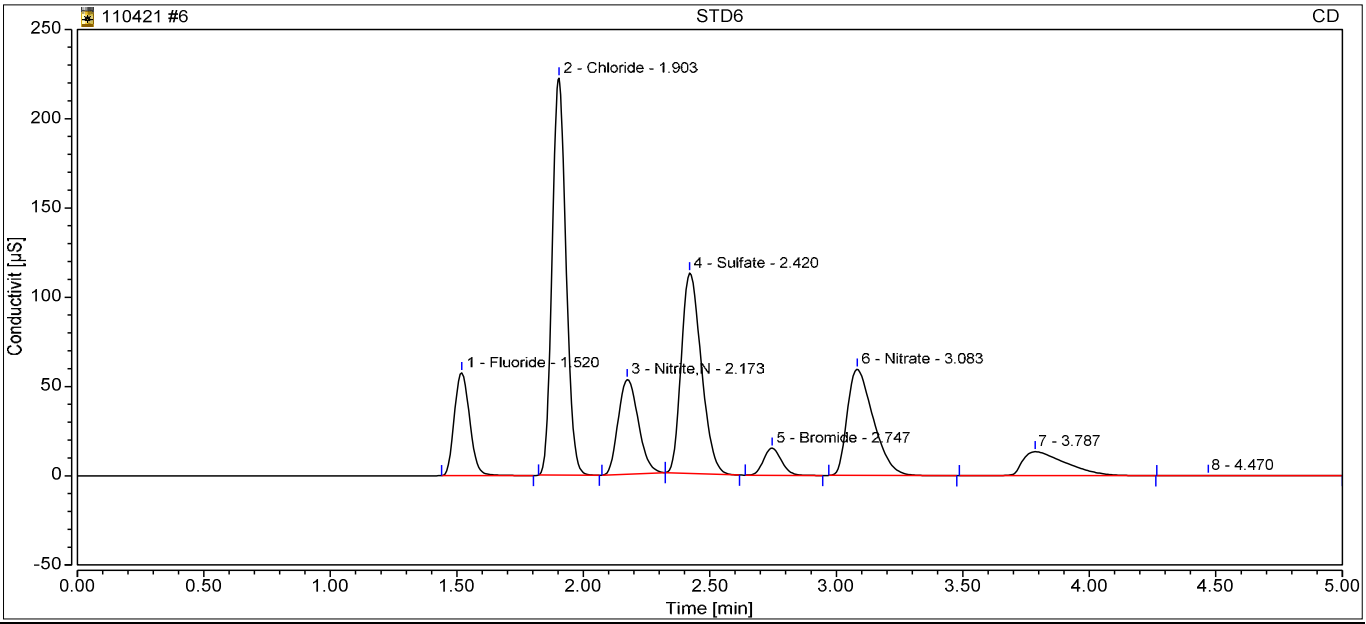
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	2.119	10.0932	10.0932	1.0000
2	1.91	Chloride	BMB	6.872	48.7329	48.7329	1.0000
3	2.18	Nitrite,N	BMB	2.675	9.5625	9.5625	1.0000
4	2.45	Sulfate	BMB	5.085	49.0735	49.0735	1.0000
5	2.76	Bromide	BMB	0.592	9.7669	9.7669	1.0000
6	3.12	Nitrate	BMB	3.447	9.7499	9.7499	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.87	Phosphate	BMB	1.248	9.9393	9.9393	1.0000
Total:			**0.000**	**22.037**		**146.92**	

6 STD6

Sample Name:	**STD6**	*Injection Volume:*	**5.00**
Vial Number:	**BB6**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/03/2021 17:25**	*Sample Weight:*	**1.0000**

Run Time:

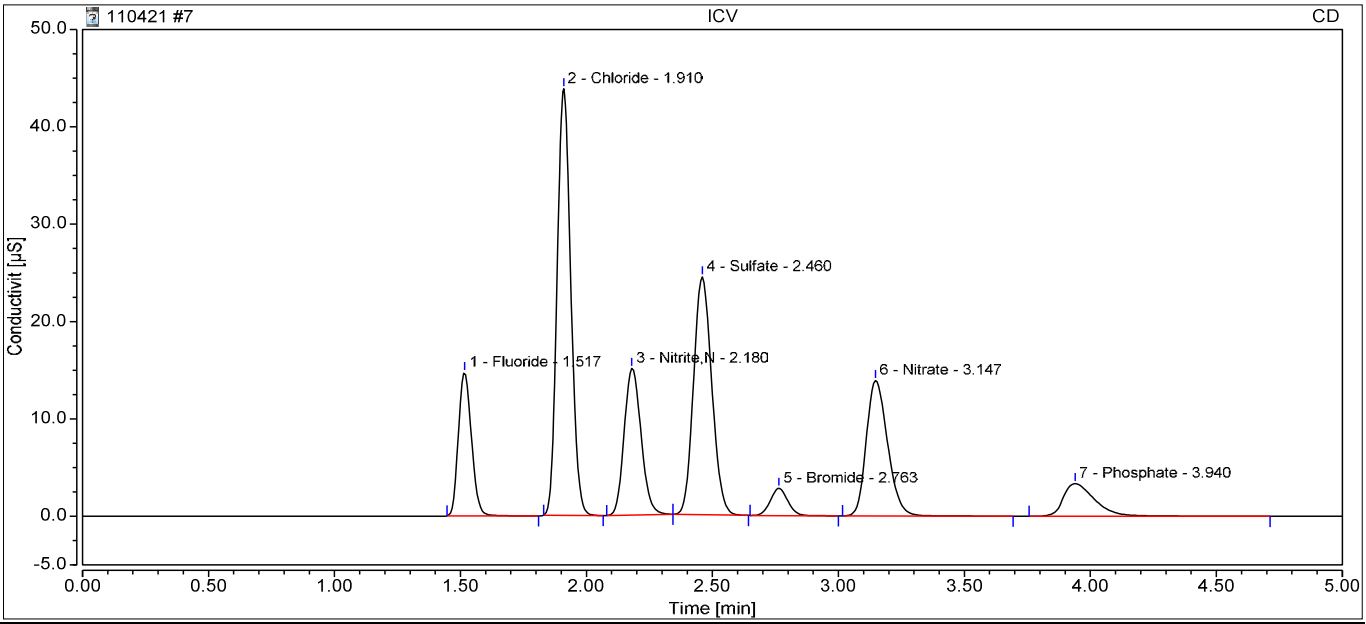


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	4.053	19.2717	19.2717	1.0000
2	1.90	Chloride	BMB	14.142	100.1446	100.1446	1.0000
3	2.17	Nitrite,N	BMB	4.884	20.2397	20.2397	1.0000
4	2.42	Sulfate	BMB	10.316	99.4289	99.4289	1.0000
5	2.75	Bromide	BMB	1.240	20.4151	20.4151	1.0000
6	3.08	Nitrate	BMB	7.113	20.0696	20.0696	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**41.749**		**279.57**	

7 ICV			
Sample Name:	**ICV**	*Injection Volume:*	**5.00**
Vial Number:	**BA7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/03/2021 17:34**	*Sample Weight:*	**1.0000**

Run Time:



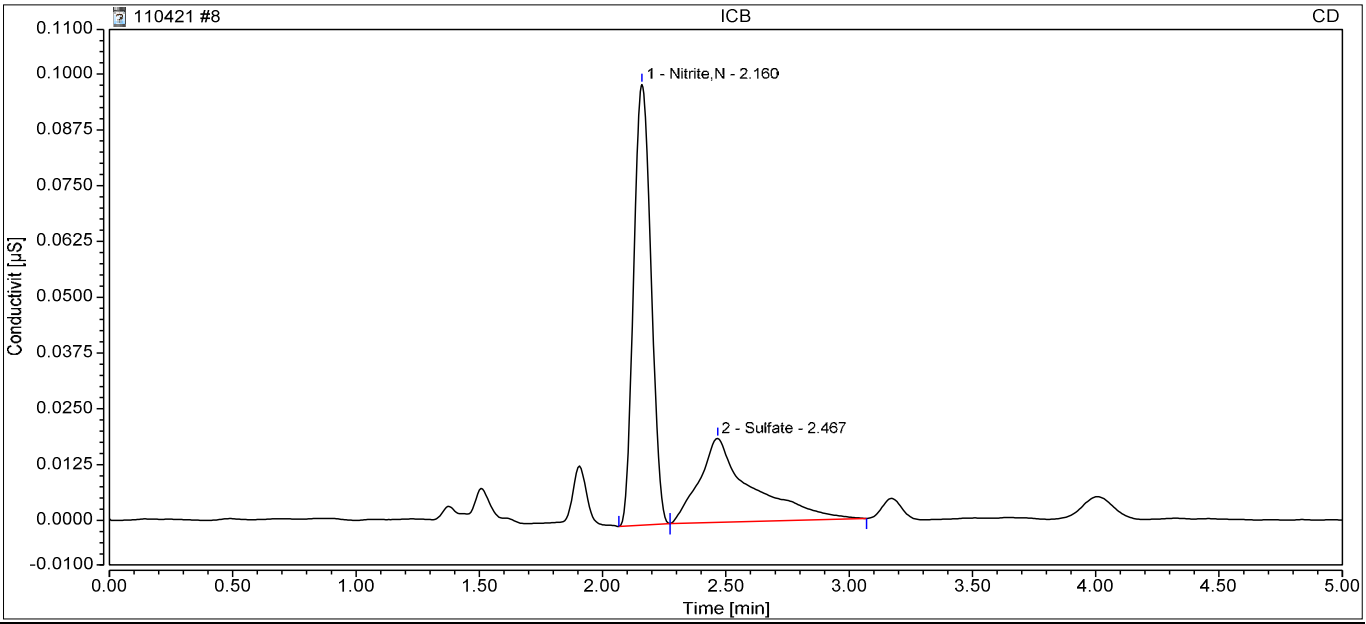
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.887	4.2482	4.2482	1.0000
2	1.91	Chloride	BMB	2.749	19.5719	19.5719	1.0000
3	2.18	Nitrite,N	BMB	1.174	3.9149	3.9149	1.0000
4	2.46	Sulfate	BMB	2.051	19.8617	19.8617	1.0000
5	2.76	Bromide	BMB	0.224	3.7196	3.7196	1.0000
6	3.15	Nitrate	BMB	1.365	3.8915	3.8915	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.94	Phosphate	BMB	0.490	4.0717	4.0717	1.0000
Total:			**0.000**	**8.940**		**59.28**	

8 ICB

Sample Name:	**ICB**	*Injection Volume:*	**5.00**
Vial Number:	**BA8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/03/2021 17:41**	*Sample Weight:*	**1.0000**

Run Time:



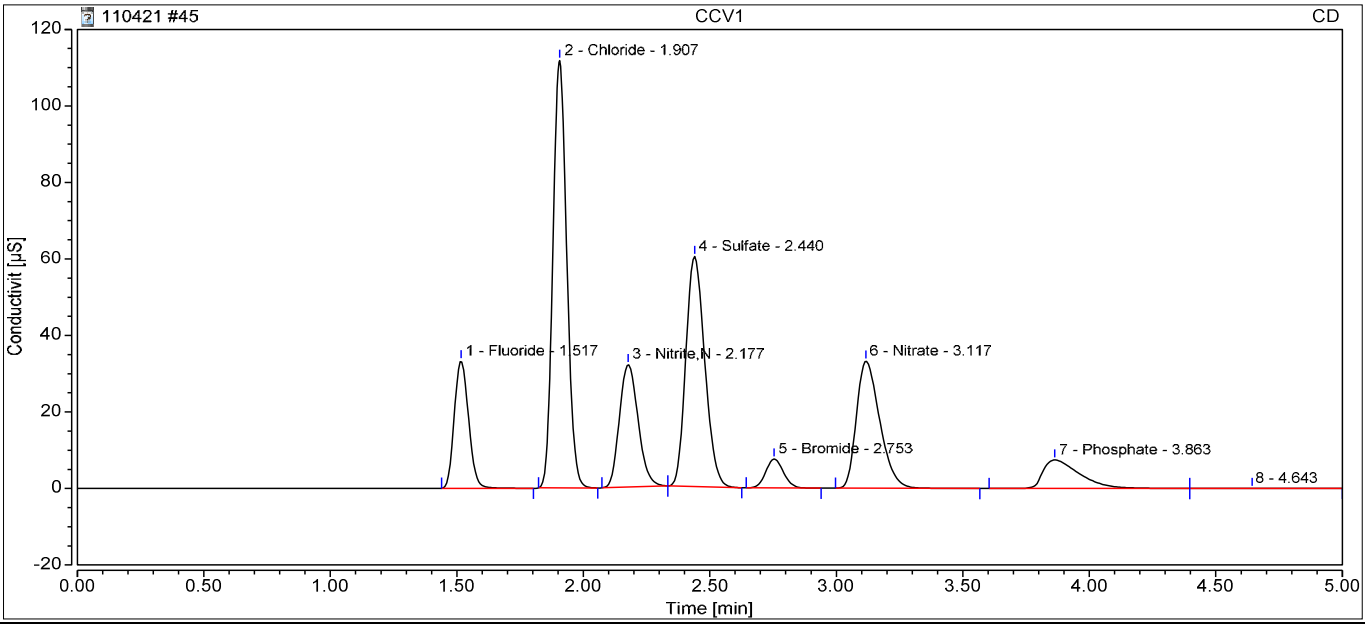
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.16	Nitrite,N	BMB	0.008	0.0260	0.0260	1.0000
2	2.47	Sulfate	BMB	0.005	0.1656	0.1656	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.013**		**0.19**	

45 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/04/2021 14:14**	*Sample Weight:*	**1.0000**

Run Time:



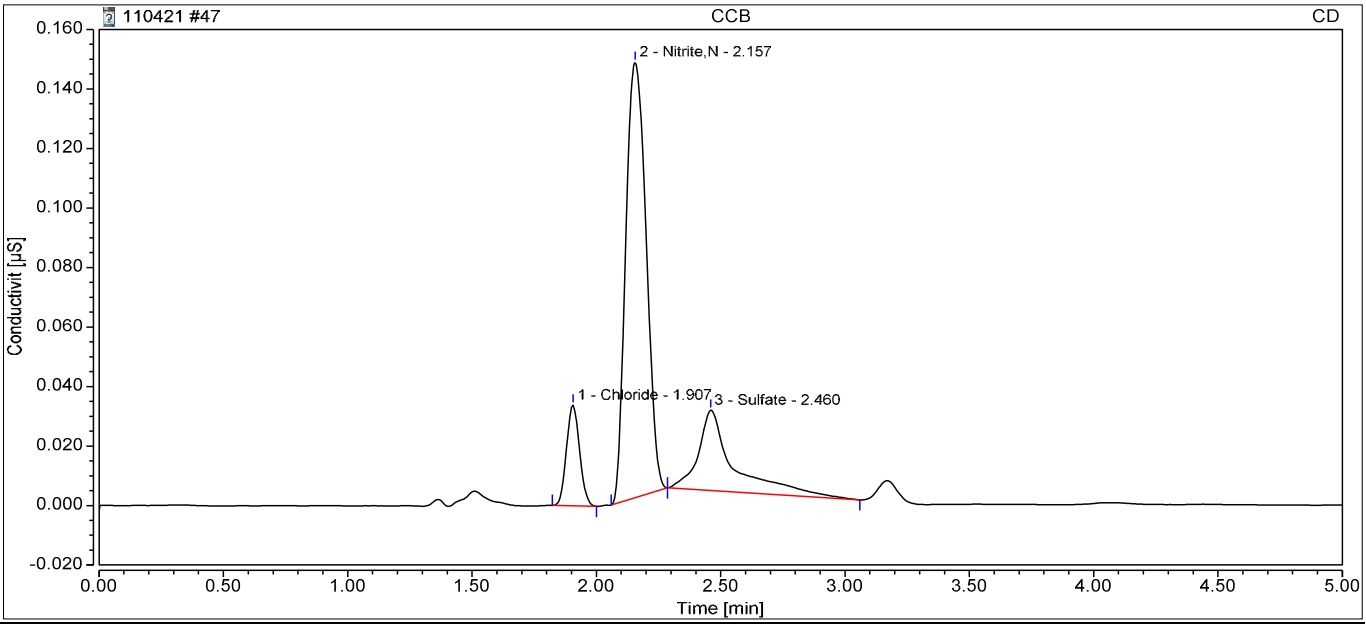
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	2.182	10.3944	10.3944	1.0000
2	1.91	Chloride	BMB	7.085	50.2348	50.2348	1.0000
3	2.18	Nitrite,N	BMB	2.743	9.8424	9.8424	1.0000
4	2.44	Sulfate	BMB	5.225	50.4238	50.4238	1.0000
5	2.75	Bromide	BMB	0.614	10.1380	10.1380	1.0000
6	3.12	Nitrate	BMB	3.551	10.0426	10.0426	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.86	Phosphate	BMB	1.247	9.9324	9.9324	1.0000
Total:			**0.000**	**22.648**		**151.01**	

47 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/04/2021 14:29**	*Sample Weight:*	**1.0000**

Run Time:



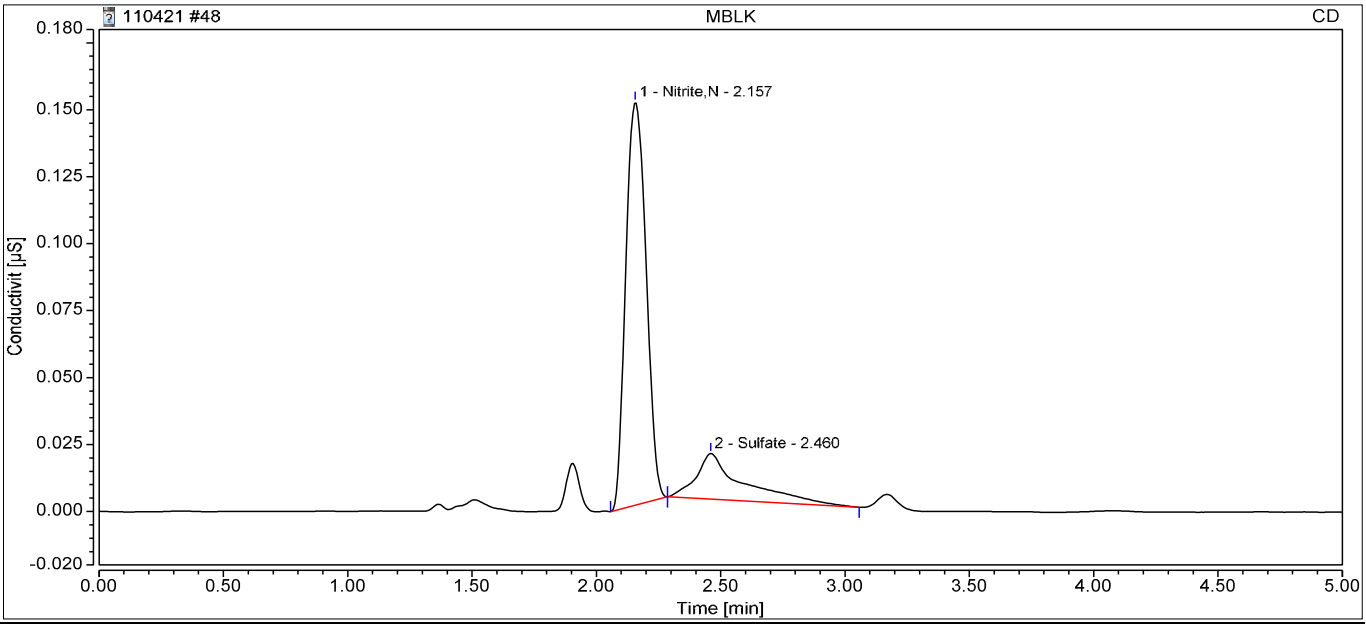
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.91	Chloride	BMB	0.002	0.1467	0.1467	1.0000
2	2.16	Nitrite,N	BMB	0.014	0.0447	0.0447	1.0000
3	2.46	Sulfate	BMB	0.004	0.1645	0.1645	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.021**		**0.36**	

48 MBLK

Sample Name:	**MBLK**	*Injection Volume:*	**5.00**
Vial Number:	**R5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/04/2021 14:36**	*Sample Weight:*	**1.0000**

Run Time:



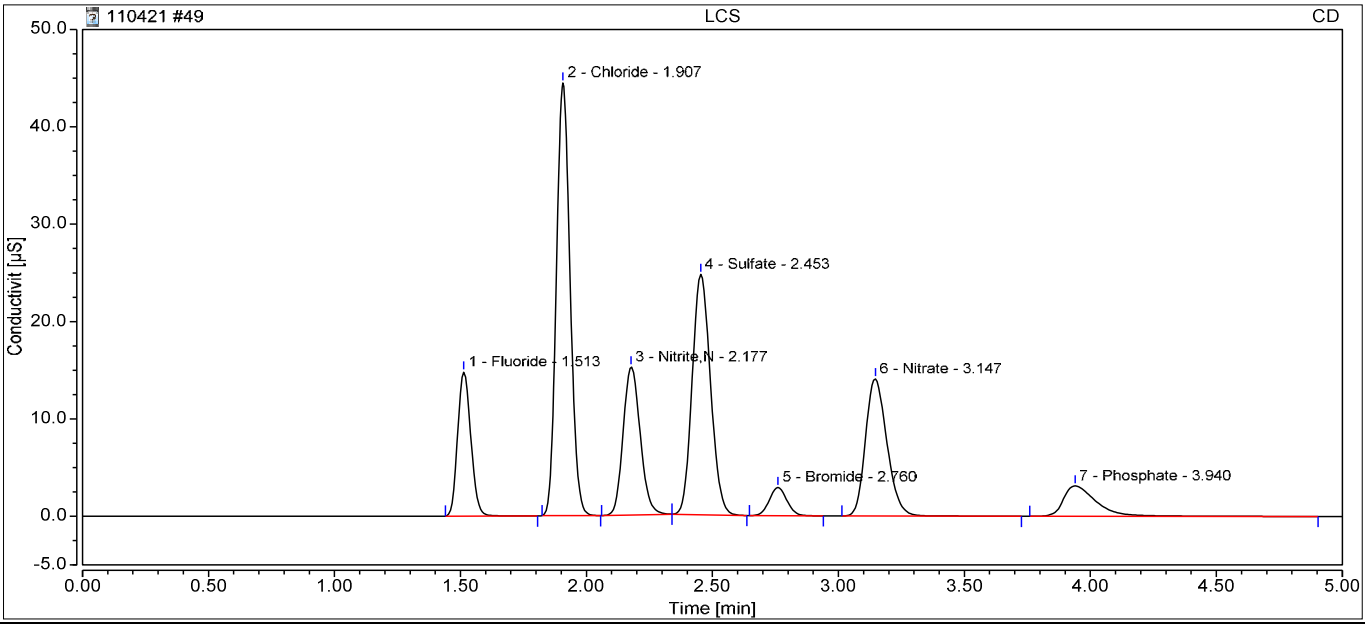
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.16	Nitrite,N	BMB	0.014	0.0457	0.0457	1.0000
2	2.46	Sulfate	BMB	0.004	0.1575	0.1575	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.018**		**0.20**	

49 LCS

Sample Name:	**LCS**	*Injection Volume:*	**5.00**
Vial Number:	**R2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/04/2021 14:44**	*Sample Weight:*	**1.0000**

Run Time:



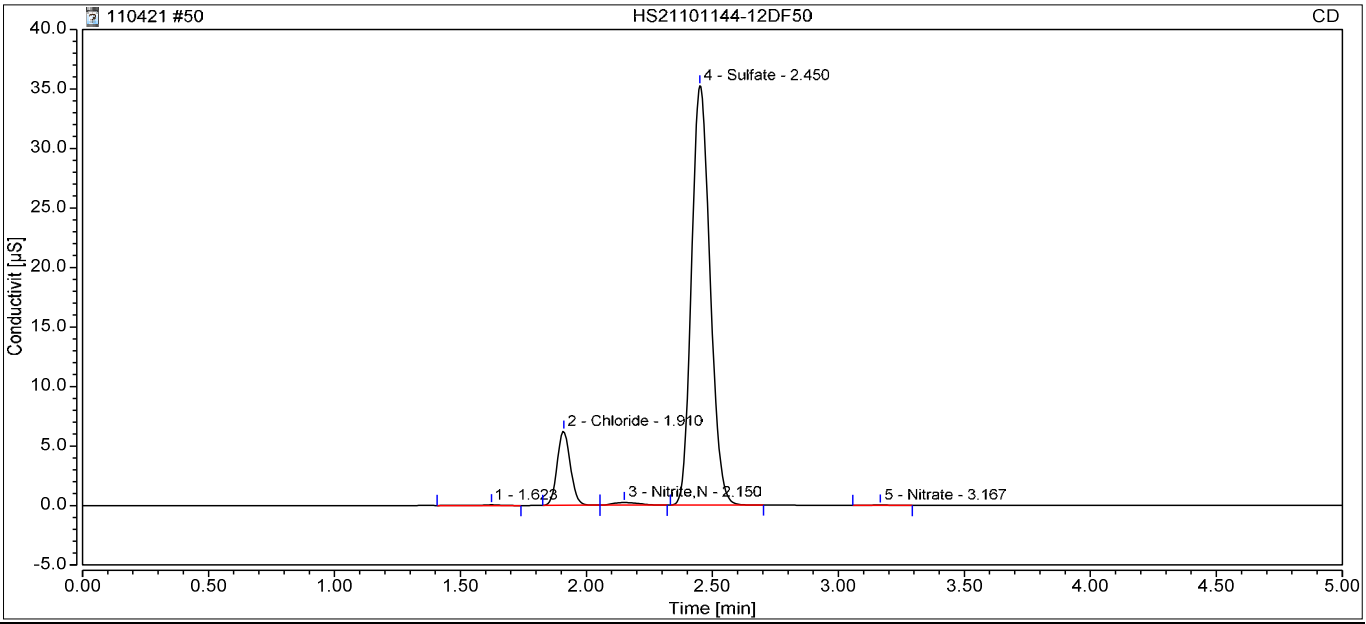
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.899	4.3077	4.3077	1.0000
2	1.91	Chloride	BMB	2.796	19.9048	19.9048	1.0000
3	2.18	Nitrite,N	BMB	1.197	3.9948	3.9948	1.0000
4	2.45	Sulfate	BMB	2.078	20.1211	20.1211	1.0000
5	2.76	Bromide	BMB	0.233	3.8813	3.8813	1.0000
6	3.15	Nitrate	BMB	1.393	3.9701	3.9701	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.94	Phosphate	BMB	0.475	3.9554	3.9554	1.0000
Total:			**0.000**	**9.072**		**60.14**	

50 HS21101144-12DF50

Sample Name:	**HS21101144-12DF50**	*Injection Volume:*	**5.00**
Vial Number:	**RD3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**50.0000**
Recording Time:	**11/04/2021 14:51**	*Sample Weight:*	**1.0000**

Run Time:



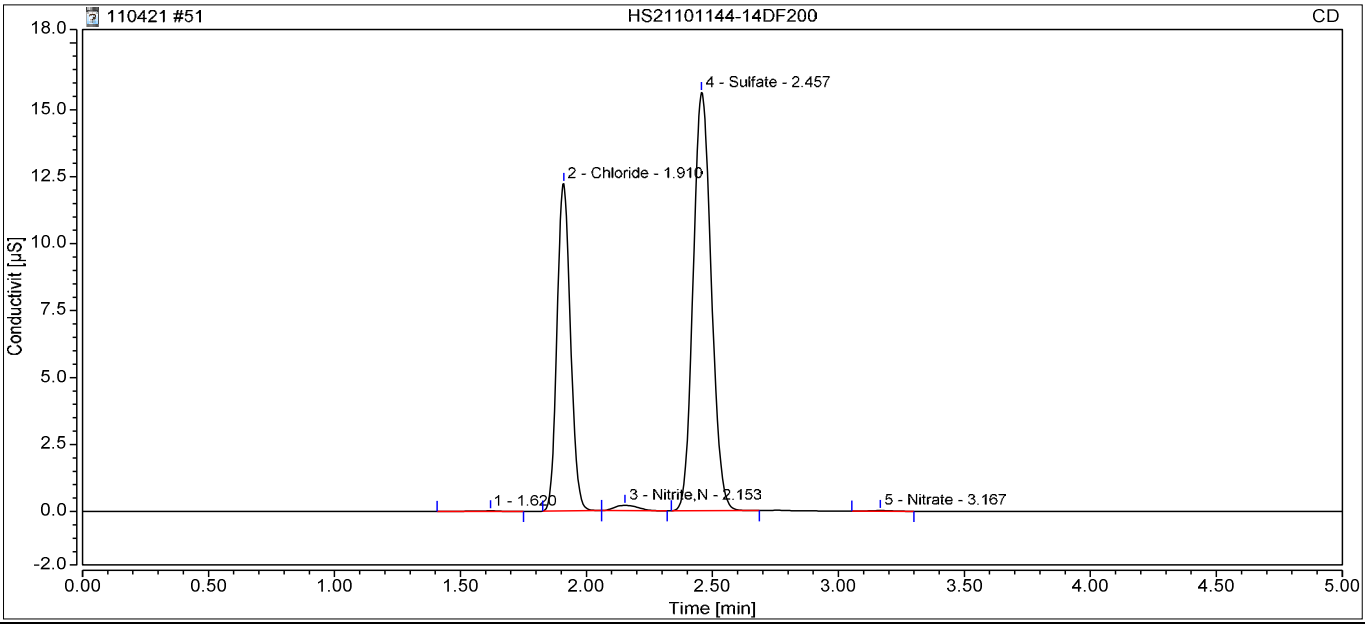
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	50.0000
2	1.91	Chloride	BMB	0.378	2.8082	140.4123	50.0000
3	2.15	Nitrite,N	BMB	0.026	0.0839	4.1950	50.0000
4	2.45	Sulfate	BMB	3.007	29.0677	1453.3871	50.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	50.0000
5	3.17	Nitrate	BMB	0.002	0.0545	2.7269	50.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	50.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	50.0000
Total:			**0.000**	**3.414**		**1600.72**	

51 HS21101144-14DF200

Sample Name:	**HS21101144-14DF200**	*Injection Volume:*	**5.00**
Vial Number:	**RD4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**200.0000**
Recording Time:	**11/04/2021 14:58**	*Sample Weight:*	**1.0000**

Run Time:



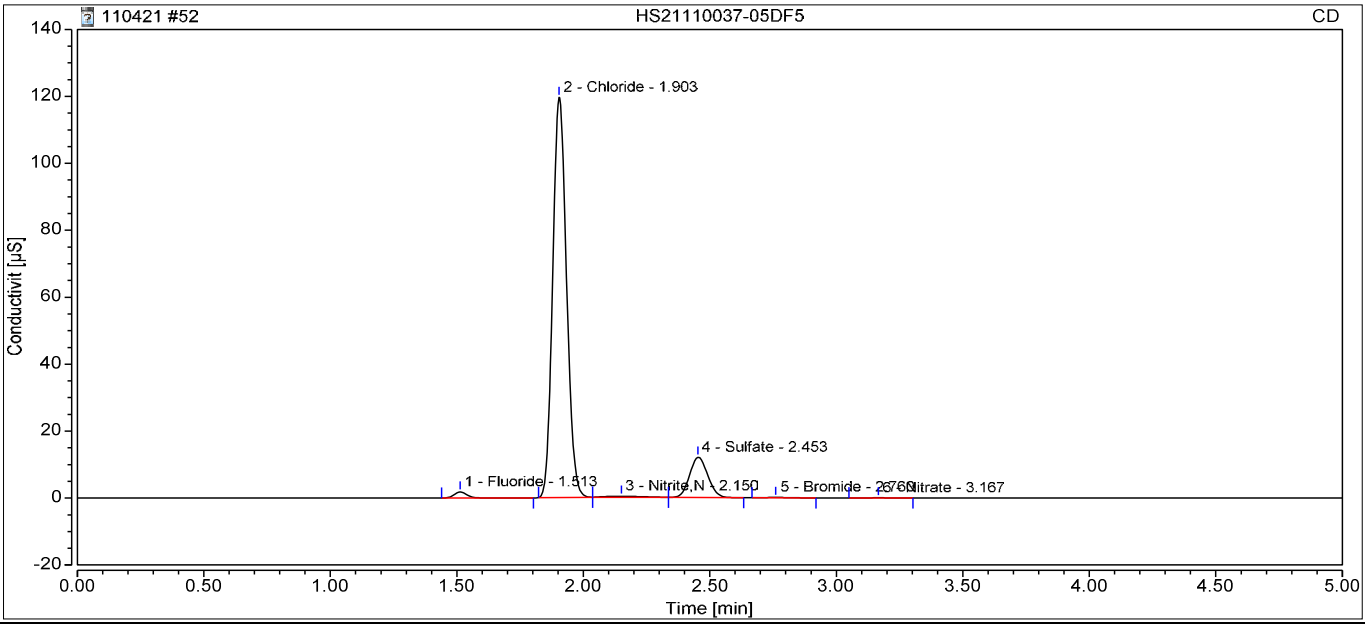
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	200.0000
2	1.91	Chloride	BMB	0.755	5.4721	1094.4148	200.0000
3	2.15	Nitrite,N	BMB	0.022	0.0689	13.7790	200.0000
4	2.46	Sulfate	BMB	1.303	12.6602	2532.0447	200.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	200.0000
5	3.17	Nitrate	BMB	0.002	0.0545	10.8990	200.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	200.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	200.0000
Total:			**0.000**	**2.081**		**3651.14**	

52 HS21110037-05DF5

Sample Name:	**HS21110037-05DF5**	*Injection Volume:*	**5.00**
Vial Number:	**RD5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Recording Time:	**11/04/2021 15:06**	*Sample Weight:*	**1.0000**

Run Time:



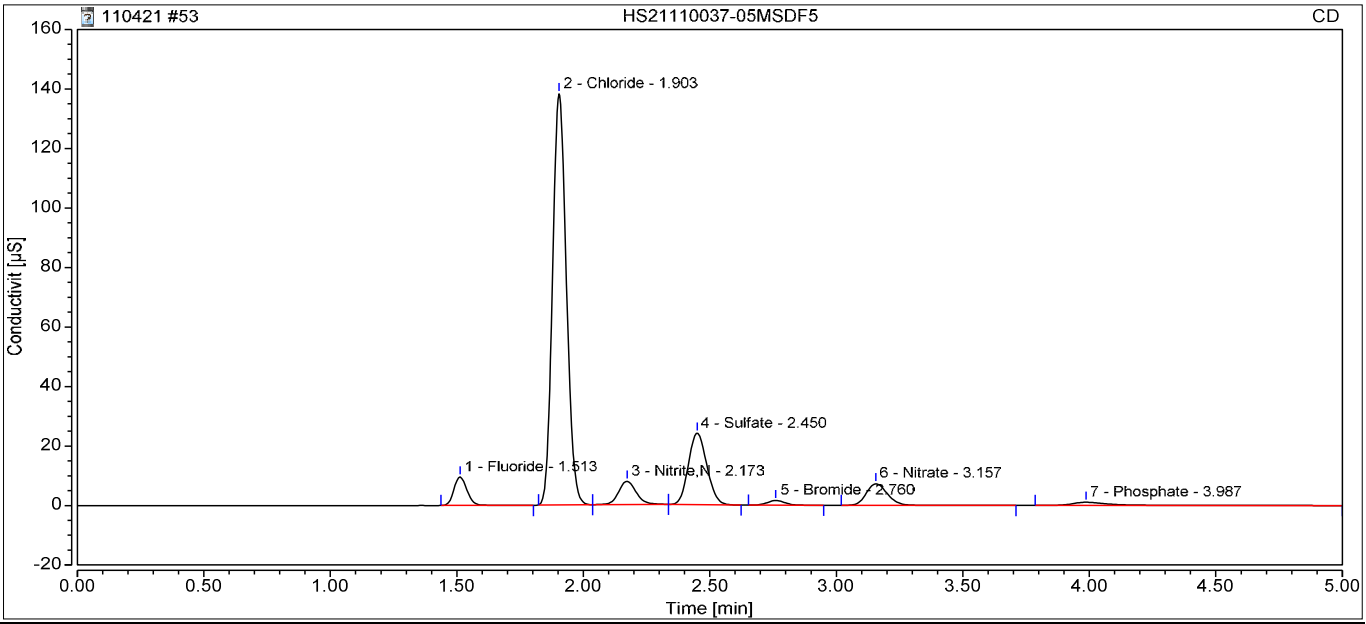
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.110	0.5600	2.8002	5.0000
2	1.90	Chloride	BMB	7.539	53.4481	267.2404	5.0000
3	2.15	Nitrite,N	BMB	0.049	0.1581	0.7905	5.0000
4	2.45	Sulfate	BMB	0.998	9.7312	48.6561	5.0000
5	2.76	Bromide	BMB	0.012	0.2398	1.1988	5.0000
6	3.17	Nitrate	BMB	0.004	0.0592	0.2961	5.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	5.0000
Total:			**0.000**	**8.712**		**320.98**	

53 HS21110037-05MSDF5

Sample Name:	**HS21110037-05MSDF5**	*Injection Volume:*	**5.00**
Vial Number:	**RD6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Recording Time:	**11/04/2021 15:13**	*Sample Weight:*	**1.0000**

Run Time:



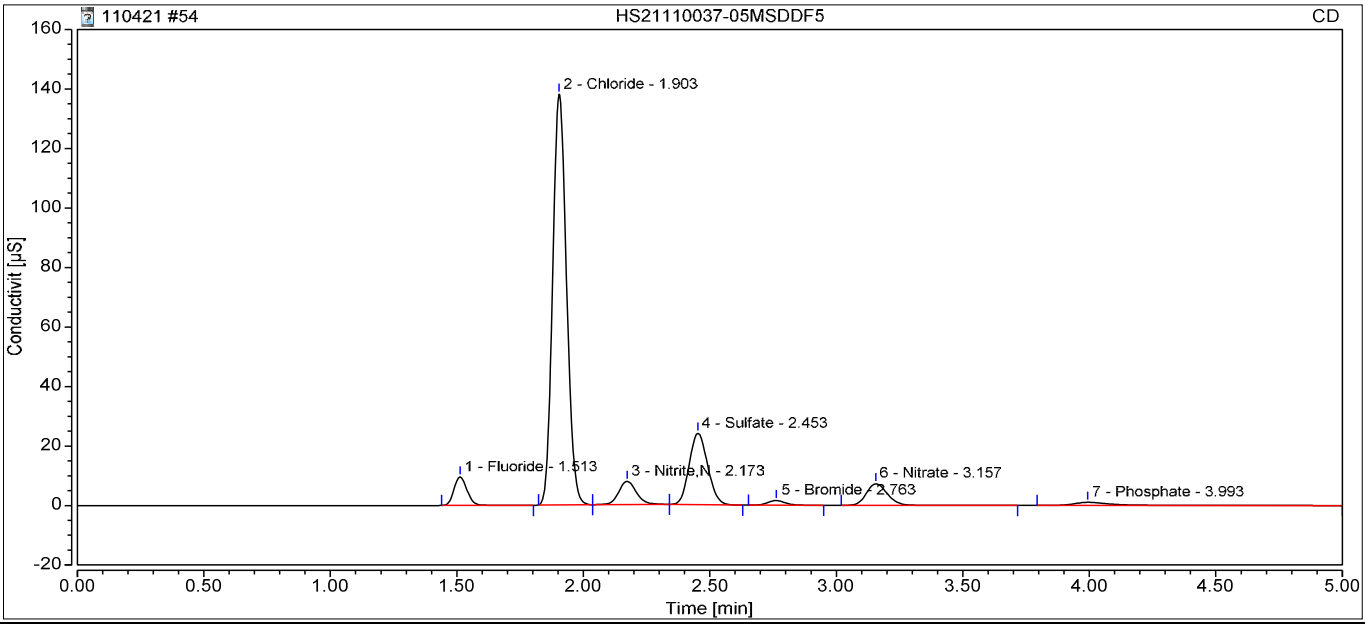
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.578	2.7805	13.9024	5.0000
2	1.90	Chloride	BMB	8.731	61.8786	309.3932	5.0000
3	2.17	Nitrite,N	BMB	0.630	2.0530	10.2651	5.0000
4	2.45	Sulfate	BMB	2.031	19.6701	98.3506	5.0000
5	2.76	Bromide	BMB	0.126	2.1107	10.5533	5.0000
6	3.16	Nitrate	BMB	0.700	2.0192	10.0958	5.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	5.0000
7	3.99	Phosphate	BMB	0.194	1.6856	8.4278	5.0000
Total:			**0.000**	**12.989**		**460.99**	

54 HS21110037-05MSDDF5

Sample Name:	**HS21110037-05MSDDF5**	*Injection Volume:*	**5.00**
Vial Number:	**RD7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Recording Time:	**11/04/2021 15:21**	*Sample Weight:*	**1.0000**

Run Time:



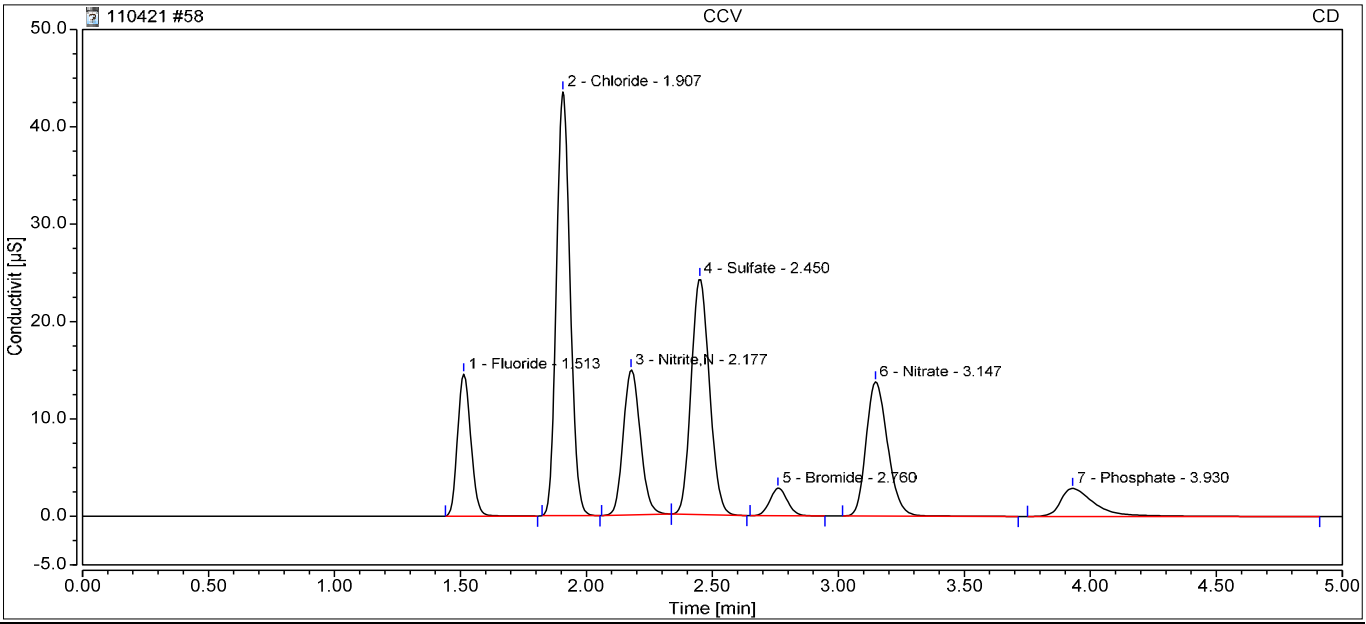
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.576	2.7710	13.8552	5.0000
2	1.90	Chloride	BMB	8.732	61.8825	309.4124	5.0000
3	2.17	Nitrite,N	BMB	0.631	2.0593	10.2963	5.0000
4	2.45	Sulfate	BMB	2.029	19.6542	98.2708	5.0000
5	2.76	Bromide	BMB	0.125	2.1080	10.5400	5.0000
6	3.16	Nitrate	BMB	0.698	2.0123	10.0615	5.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	5.0000
7	3.99	Phosphate	BMB	0.195	1.6927	8.4633	5.0000
Total:			**0.000**	**12.986**		**460.90**	

58 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/04/2021 15:51**	*Sample Weight:*	**1.0000**

Run Time:

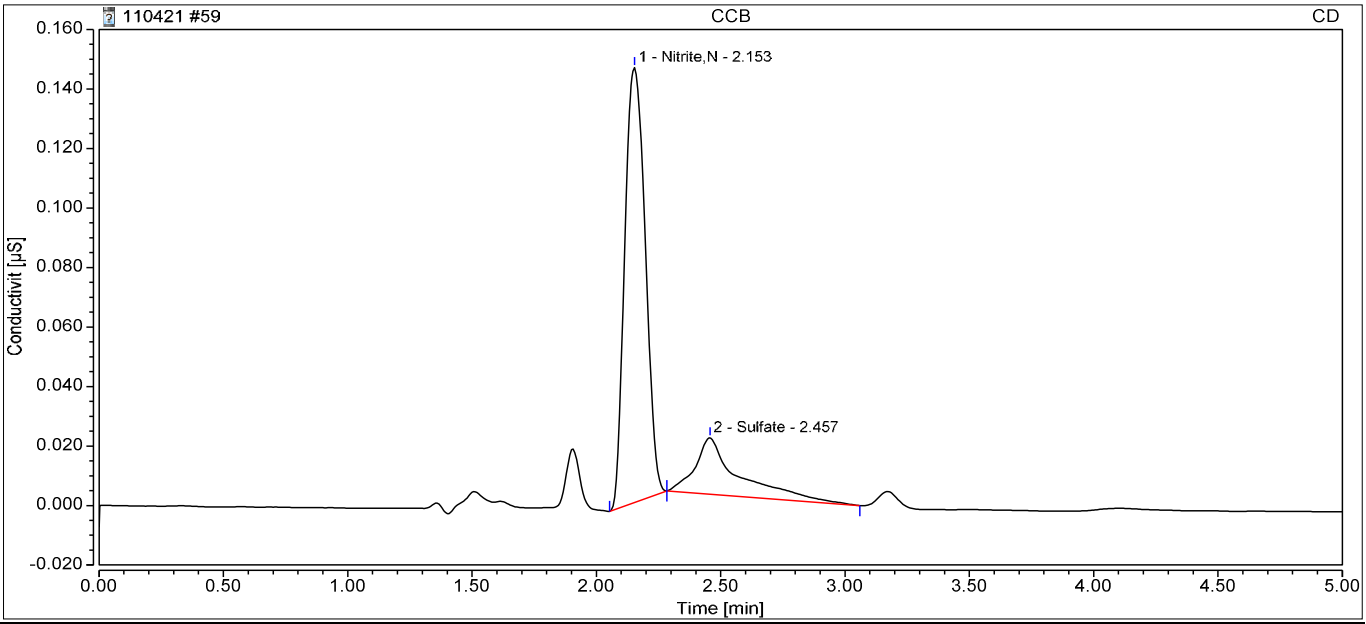


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.891	4.2653	4.2653	1.0000
2	1.91	Chloride	BMB	2.744	19.5346	19.5346	1.0000
3	2.18	Nitrite,N	BMB	1.172	3.9058	3.9058	1.0000
4	2.45	Sulfate	BMB	2.038	19.7426	19.7426	1.0000
5	2.76	Bromide	BMB	0.228	3.7905	3.7905	1.0000
6	3.15	Nitrate	BMB	1.364	3.8885	3.8885	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.93	Phosphate	BMB	0.454	3.7851	3.7851	1.0000
Total:			**0.000**	**8.890**		**58.91**	

59 CCB			
Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/04/2021 15:58**	*Sample Weight:*	**1.0000**

Run Time:



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.15	Nitrite,N	BMB	0.014	0.0449	0.0449	1.0000
2	2.46	Sulfate	BMB	0.004	0.1582	0.1582	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.018**		**0.20**	

HS21101144 Wet Chemistry Raw Data

ALS WO# HS21101144

PC-TitratION PLUS
Calibration Report

Calibration Record # 2420

Calibration Settings

Calibration ID	PH CAL 4-7-10	Date	10/28/2021
Channel	1	Time	6:14 PM
Probe Type	pH	Temperature	296.53 K 23.38 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-58.572	CorrCoeff	0.9999
Intercept	-2.030	Equation: Y = (-58.572) X + (-2.030)	

Calibration Validity True Operator

	Result	Minimum	Maximum
Slope	-58.572	-65.00	-53.00
Intercept	-2.030	-100.00	100.00
Correlation Coefficient	0.9999	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	4.00	175.17
	7.00	-5.00
	10.00	-176.26

394476 (A)

394478 (B)

MDA

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Report Date: 10/28/2021 : 11:42 PM

PC-TitratION PLUS
Water Analysis Report

Run Number 4211 **Order Number** 20211028-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
ICV-PH	10/28/2021	6:42 PM	23.06	-1.00	6.06	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
TAP WATER	10/28/2021	6:46 PM	22.86	-1.00	6.18	.00	59.03	59.03	.00	.00	.00	.56	.56
WBLKW1-211028	10/28/2021	6:52 PM	22.83	-1.00	7.30	.00	227.70	227.70	.00	.00	.00	2.17	2.17
LCS1-211028	10/28/2021	7:01 PM	22.67	-1.00	10.74	523.46	1,028.03	.00	1,009.14	18.89	4.99	9.79	9.79
LCSD1-211028	10/28/2021	7:09 PM	22.35	-1.00	10.74	528.28	1,036.73	.00	1,016.91	19.82	5.03	9.87	9.87
HS21101620-02	10/28/2021	7:16 PM	22.39	-1.00	8.04	.00	151.81	151.81	.00	.00	.00	1.45	1.45
HS21101620-02DUP	10/28/2021	7:23 PM	22.61	-1.00	8.05	.00	168.00	168.00	.00	.00	.00	1.60	1.60
HS21101620-03	10/28/2021	7:29 PM	22.90	-1.00	7.91	.00	148.06	148.06	.00	.00	.00	1.41	1.41
HS21101504-01	10/28/2021	7:34 PM	23.12	-1.00	6.95	.00	304.52	304.52	.00	.00	.00	2.90	2.90
HS21101504-02	10/28/2021	7:40 PM	23.25	-1.00	7.03	.00	300.30	300.30	.00	.00	.00	2.86	2.86
HS21101504-03	10/28/2021	7:46 PM	23.51	-1.00	6.89	.00	292.95	292.95	.00	.00	.00	2.79	2.79
CCV-PH	10/28/2021	7:49 PM	23.88	-1.00	7.08	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	10/28/2021	7:58 PM	23.81	-1.00	10.60	481.21	1,088.62	126.21	962.41	.00	4.58	10.37	10.37
DI RINSE	10/28/2021	8:03 PM	24.05	-1.00	5.92	.00	1.71	1.71	.00	.00	.00	.05	.05
HS21101504-04	10/28/2021	8:09 PM	23.89	-1.00	7.22	.00	222.87	222.87	.00	.00	.00	2.12	2.12
HS21101504-05	10/28/2021	8:16 PM	23.41	-1.00	7.05	.00	324.49	324.49	.00	.00	.00	3.09	3.09
HS21101504-06	10/28/2021	8:22 PM	23.01	-1.00	6.87	.00	244.51	244.51	.00	.00	.00	2.33	2.33
HS21101504-07	10/28/2021	8:29 PM	22.60	-1.00	7.38	.00	246.76	246.76	.00	.00	.00	2.35	2.35
HS21101578-01	10/28/2021	8:35 PM	22.37	-1.00	7.16	.00	264.69	264.69	.00	.00	.00	2.52	2.52
HS21101584-01	10/28/2021	8:41 PM	21.99	-1.00	7.92	.00	226.40	226.40	.00	.00	.00	2.16	2.16
WLCS2-211028	10/28/2021	8:49 PM	21.69	-1.00	10.74	525.39	1,036.04	.00	1,021.30	14.74	5.00	9.87	9.87
WLCSD2-211028	10/28/2021	8:59 PM	22.32	-1.00	10.73	534.75	1,046.41	.00	1,023.32	23.09	5.09	9.97	9.97
CCV-PH	10/28/2021	9:02 PM	22.70	-1.00	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	10/28/2021	9:11 PM	22.66	-1.00	10.58	479.40	1,101.47	142.66	958.80	.00	4.57	10.49	10.49
DI RINSE	10/28/2021	9:17 PM	22.92	-1.00	5.91	.00	1.63	1.63	.00	.00	.00	.05	.05
WBLKW2-211028	10/28/2021	9:22 PM	22.93	-1.00	5.46	.00	1.19	1.19	.00	.00	.00	.04	.04
HS21101144-10	10/28/2021	9:28 PM	23.04	-1.00	5.43	.00	.99	.99	.00	.00	.00	.04	.04

TH
WBLKW1-211028

Run Number 4211 **Order Number** 20211028-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
HS21101144-10DUP	10/28/2021	9:33 PM	23.14	-1.00	5.50	.00	172.77	172.77	.00	.00	.00	1.65	1.65
HS21101144-11	10/28/2021	9:38 PM	23.27	-1.00	5.68	.00	205.27	205.27	.00	.00	.00	1.95	1.95
HS21101144-12	10/28/2021	9:47 PM	23.28	-1.00	6.10	.00	849.92	849.92	.00	.00	.00	8.09	8.09
HS21101144-14	10/28/2021	9:53 PM	23.39	-1.00	6.18	.00	408.77	408.77	.00	.00	.00	3.89	3.89
HS21101171-01	10/28/2021	10:01 PM	23.36	-1.00	6.58	.00	773.97	773.97	.00	.00	.00	7.37	7.37
HS21101171-02	10/28/2021	10:10 PM	23.39	-1.00	6.38	.00	1,111.17	1,111.17	.00	.00	.00	10.58	10.58
HS21101171-02DUP	10/28/2021	10:19 PM	23.43	-1.00	6.39	.00	1,089.46	1,089.46	.00	.00	.00	10.38	10.38
CCV-PH	10/28/2021	10:22 PM	23.47	-1.00	7.08	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCVALK	10/28/2021	10:31 PM	23.28	-1.00	10.54	475.62	1,096.55	145.31	951.24	.00	4.53	10.44	10.44
DI RINSE	10/28/2021	10:37 PM	23.56	-1.00	5.74	.00	1.55	1.55	.00	.00	.00	.05	.05
HS21101171-03	10/28/2021	10:44 PM	23.54	-1.00	6.12	.00	610.19	610.19	.00	.00	.00	5.81	5.81
HS21101171-04	10/28/2021	10:53 PM	23.54	-1.00	6.43	.00	1,050.86	1,050.86	.00	.00	.00	10.01	10.01
HS21101272-03	10/28/2021	10:59 PM	23.57	-1.00	6.07	.00	547.19	547.19	.00	.00	.00	5.21	5.21
HS21101272-07	10/28/2021	11:05 PM	25.46	-1.00	4.90	.00	324.20	324.20	.00	.00	.00	3.09	3.09
HS21101272-08	10/28/2021	11:11 PM	25.64	-1.00	4.88	.00	297.64	297.64	.00	.00	.00	2.83	2.83
HS21101272-10	10/28/2021	11:23 PM	23.67	-1.00	5.19	.00	1,506.57	1,506.57	.00	.00	.00	14.35	14.35
CCV-PH	10/28/2021	11:26 PM	23.64	-1.00	7.08	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	10/28/2021	11:35 PM	23.41	-1.00	10.51	464.04	1,098.86	170.78	928.08	.00	4.42	10.47	10.47
DI RINSE	10/28/2021	11:40 PM	23.65	-1.00	5.73	.00	2.09	2.09	.00	.00	.00	.05	.05

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C:\TOC-L\Data\2021_10_25_002.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
1	Unknown	NPOC	RINSE		10_18_2021_CAL.cal	1.000	NPOC:0.06454
2	Unknown	NPOC	RINSE		10_18_2021_CAL.cal	1.000	NPOC:0.06455
3	Unknown	NPOC	RINSE		10_18_2021_CAL.cal	1.000	NPOC:0.07074
4	Standard	NPOC	CAL	3100604915	10_25_2021_CAL.202	1.000	
5	Unknown	NPOC	ICB		10_25_2021_CAL.cal	1.000	NPOC:0.09179
6	Unknown	NPOC	ICV	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.60mg/
7	Unknown	NPOC	ICB		10_25_2021_CAL.cal	1.000	NPOC:0.05172
8	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.01239
9	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.73mg/
10	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.06181
11	Unknown	NPOC	MBLK-10252021		10_25_2021_CAL.cal	1.000	NPOC:0.05600
12	Unknown	NPOC	LCS-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:9.287mg/
13	Unknown	NPOC	LCSD-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.83mg/
14	Unknown	NPOC	HS21101075-01DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2805m
15	Unknown	NPOC	HS21101075-01MSDF1		10_25_2021_CAL.cal	1.000	NPOC:12.37mg/
16	Unknown	NPOC	HS21101075-02DF10		10_25_2021_CAL.cal	1.000	NPOC:0.3788m
17	Unknown	NPOC	HS21101075-03DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2410m
18	Unknown	NPOC	HS21101075-04DF10		10_25_2021_CAL.cal	1.000	NPOC:0.3913m
19	Unknown	NPOC	HS21101075-05DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2171m
20	Unknown	NPOC	HS21101075-06DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1665m
21	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.66mg/
22	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.05208
23	Unknown	NPOC	HS21101075-07DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1747m
24	Unknown	NPOC	HS21101075-08DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1648m
25	Unknown	NPOC	HS21101075-09DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1167m
26	Unknown	NPOC	HS21101075-10DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1071m
27	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.76mg/
28	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.05571
29	Unknown	NPOC	MBLK-10252021		10_25_2021_CAL.cal	1.000	NPOC:0.06486
30	Unknown	NPOC	LCS-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:9.320mg/
31	Unknown	NPOC	LCSD-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.96mg/
32	Unknown	NPOC	HS21101075-11DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1323m
33	Unknown	NPOC	HS21101075-11MSDF1		10_25_2021_CAL.cal	1.000	NPOC:11.21mg/
34	Unknown	NPOC	HS21101075-12DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2792m
35	Unknown	NPOC	HS21101080-01DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1261m
36	Unknown	NPOC	HS21101080-02DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1407m
37	Unknown	NPOC	HS21101080-03DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1267m
38	Unknown	NPOC	HS21101080-04DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1381m
39	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.74mg/
40	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.09212
41	Unknown	NPOC	HS21101080-05DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1654m
42	Unknown	NPOC	HS21101080-06DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1460m
43	Unknown	NPOC	HS21101080-07DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1360m
44	Unknown	NPOC	HS21101080-08DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1453m
45	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.54mg/
46	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1296m
47	Unknown	NPOC	MBLK-10252021		10_25_2021_CAL.cal	1.000	NPOC:0.05576
48	Unknown	NPOC	LCS-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:9.292mg/
49	Unknown	NPOC	LCSD-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.94mg/
50	Unknown	NPOC	HS21101080-09DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2259m
51	Unknown	NPOC	HS21101080-09MSDF1		10_25_2021_CAL.cal	1.000	NPOC:11.03mg/

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	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
52	Unknown	NPOC	HS21101080-10DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1935m
53	Unknown	NPOC	HS21101080-11DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1278m
54	Unknown	NPOC	HS21101080-12DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1284m
55	Unknown	NPOC	HS21101080-13DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1196m
56	Unknown	NPOC	HS21101080-14DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2314m
57	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.69mg/
58	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.02809
59	Unknown	NPOC	HS21101083-01DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2332m
60	Unknown	NPOC	HS21101083-02DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2108m
61	Unknown	NPOC	HS21101083-03DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2038m
62	Unknown	NPOC	HS21101083-04DF10		10_25_2021_CAL.cal	1.000	NPOC:0.3380m
63	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.53mg/
64	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1115m
65	Unknown	NPOC	MBLK-10252021		10_25_2021_CAL.cal	1.000	NPOC:0.06795
66	Unknown	NPOC	LCS-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:9.230mg/
67	Unknown	NPOC	LCSD-10252021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.89mg/
68	Unknown	NPOC	HS21101083-05DF10		10_25_2021_CAL.cal	1.000	NPOC:0.4956m
69	Unknown	NPOC	HS21101083-05MSDF1		10_25_2021_CAL.cal	1.000	NPOC:11.17mg/
70	Unknown	NPOC	HS21101083-06DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2640m
71	Unknown	NPOC	HS21101083-07DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2414m
72	Unknown	NPOC	HS21101083-08DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2102m
73	Unknown	NPOC	HS21101083-09DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1629m
74	Unknown	NPOC	HS21101083-10DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1838m
75	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.60mg/
76	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1118m
77	Unknown	NPOC	HS21101083-11DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1718m
78	Unknown	NPOC	HS21101083-12DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1978m
79	Unknown	NPOC	HS21101083-13DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2415m
80	Unknown	NPOC	HS21101083-14DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2981m
81	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.57mg/
82	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1184m

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	Notes	Status	Date / Time	Vial
1		Completed	10/25/2021 6:02:30	64
2		Completed	10/25/2021 6:13:46	65
3		Completed	10/25/2021 6:24:47	66
4		Completed	10/25/2021 8:13:11	1, 2, 3, 4, 5,
5		Completed	10/25/2021 8:29:06	1
6		Completed	10/25/2021 8:45:09	8
7		Completed	10/25/2021 9:01:04	1
8		Completed	10/25/2021 9:48:50	64
9		Completed	10/25/2021 10:05:19	9
10		Completed	10/25/2021 10:21:02	10
11		Completed	10/25/2021 10:36:45	11
12		Completed	10/25/2021 10:52:59	12
13		Completed	10/25/2021 11:09:01	13
14		Completed	10/25/2021 11:24:44	14
15		Completed	10/25/2021 11:40:52	15
16		Completed	10/25/2021 11:56:35	16
17		Completed	10/26/2021 12:12:18	17
18		Completed	10/26/2021 12:28:01	18
19		Completed	10/26/2021 12:43:44	19
20		Completed	10/26/2021 12:59:27	20
21		Completed	10/26/2021 1:15:58	9
22		Completed	10/26/2021 1:31:41	10
23		Completed	10/26/2021 1:47:30	21
24		Completed	10/26/2021 2:03:13	22
25		Completed	10/26/2021 2:18:56	23
26		Completed	10/26/2021 2:34:39	24
27		Completed	10/26/2021 2:50:56	9
28		Completed	10/26/2021 3:06:39	10
29		Completed	10/26/2021 3:22:22	11
30		Completed	10/26/2021 3:38:27	12
31		Completed	10/26/2021 3:54:35	13
32		Completed	10/26/2021 4:10:25	25
33		Completed	10/26/2021 4:26:25	26
34		Completed	10/26/2021 4:42:08	27
35		Completed	10/26/2021 4:57:52	28
36		Completed	10/26/2021 5:13:36	29
37		Completed	10/26/2021 5:29:20	30
38		Completed	10/26/2021 5:45:04	31
39		Completed	10/26/2021 6:01:22	32
40		Completed	10/26/2021 6:17:06	33
41		Completed	10/26/2021 6:32:50	34
42		Completed	10/26/2021 6:48:35	35
43		Completed	10/26/2021 7:04:19	36
44		Completed	10/26/2021 7:20:02	37
45		Completed	10/26/2021 7:36:27	32
46		Completed	10/26/2021 7:52:11	33
47		Completed	10/26/2021 8:07:55	11
48		Completed	10/26/2021 8:23:52	12
49		Completed	10/26/2021 8:39:51	13
50		Completed	10/26/2021 8:55:33	38
51		Completed	10/26/2021 9:11:37	39

	Notes	Status	Date / Time	Vial
52		Completed	10/26/2021 9:27:20	40
53		Completed	10/26/2021 9:43:06	41
54		Completed	10/26/2021 9:58:51	42
55		Completed	10/26/2021 10:14:35	43
56		Completed	10/26/2021 10:30:21	44
57		Completed	10/26/2021 10:46:46	32
58		Completed	10/26/2021 11:02:30	33
59		Completed	10/26/2021 11:18:23	45
60		Completed	10/26/2021 11:34:07	46
61		Completed	10/26/2021 11:49:51	47
62		Completed	10/26/2021 12:05:36	48
63		Completed	10/26/2021 12:21:57	49
64		Completed	10/26/2021 12:37:42	50
65		Completed	10/26/2021 12:53:28	11
66		Completed	10/26/2021 1:09:27	12
67		Completed	10/26/2021 1:25:38	13
68		Completed	10/26/2021 1:41:34	51
69		Completed	10/26/2021 1:57:34	52
70		Completed	10/26/2021 2:13:19	53
71		Completed	10/26/2021 2:29:04	54
72		Completed	10/26/2021 2:44:49	55
73		Completed	10/26/2021 3:00:34	56
74		Completed	10/26/2021 3:16:19	57
75		Completed	10/26/2021 3:32:39	49
76		Completed	10/26/2021 3:48:24	50
77		Completed	10/26/2021 4:04:17	58
78		Completed	10/26/2021 4:20:02	59
79		Completed	10/26/2021 4:35:47	60
80		Completed	10/26/2021 4:51:32	61
81		Completed	10/26/2021 5:07:56	49
82		Completed	10/26/2021 5:23:41	50

TOC-Control L Report

2021_10_25_002.tlx

Instr.Information

Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Cal. Curve

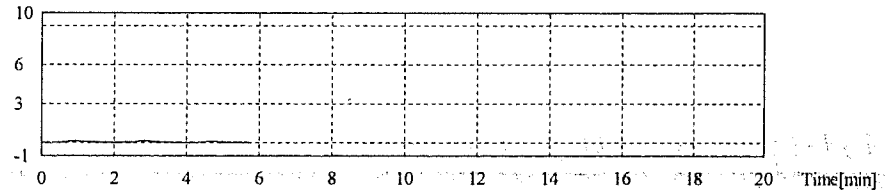
Sample Name:	CAL
Sample ID:	3100604915
Cal. Curve:	10_25_2021_CAL.2021_10_25_18_24_47.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.1779	50uL	1.000	*******		10/25/2021 6:33:22 PM
2	0.000	50uL	1.000	*******		10/25/2021 6:36:36 PM
3	0.000	50uL	1.000	*******		10/25/2021 6:39:50 PM

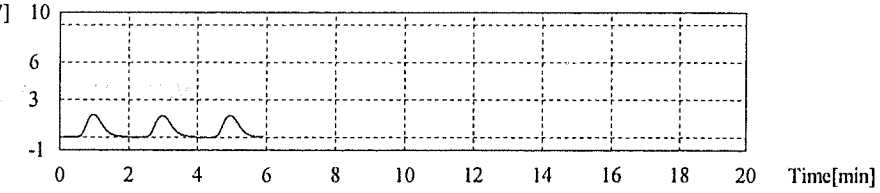
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	0.05930



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	5.679	50uL	1.000	*******		10/25/2021 6:48:38 PM
2	5.762	50uL	1.000	*******		10/25/2021 6:51:52 PM
3	5.629	50uL	1.000	*******		10/25/2021 6:55:02 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	5.690



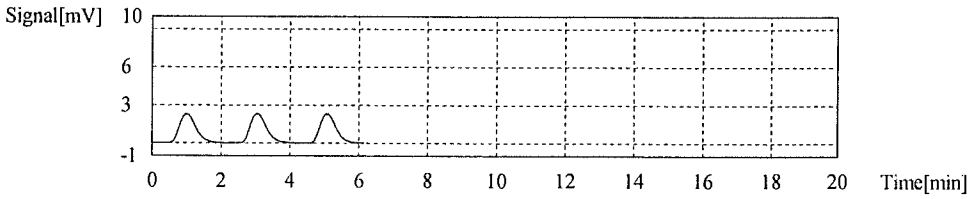
Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.704	50uL	1.000	*******		10/25/2021 7:03:55 PM
2	7.453	50uL	1.000	*******		10/25/2021 7:07:06 PM
3	7.508	50uL	1.000	*******		10/25/2021 7:10:22 PM

TOC-Control L Report

2021_10_25_002.tlx

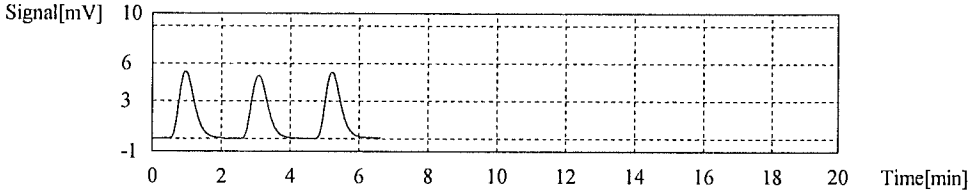
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	7.555



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	16.62	50uL	1.000	*******		10/25/2021 7:19:15 PM
2	16.58	50uL	1.000	*******		10/25/2021 7:22:33 PM
3	16.79	50uL	1.000	*******		10/25/2021 7:26:01 PM

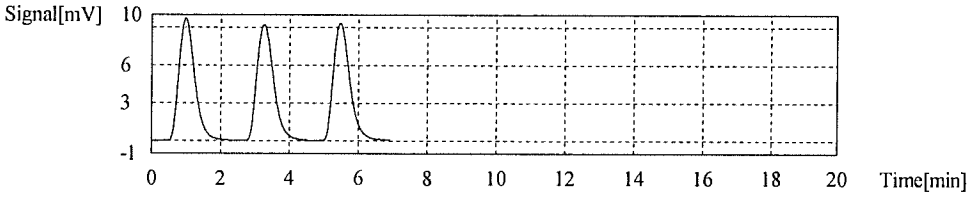
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	16.66



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.96	50uL	1.000	*******		10/25/2021 7:35:05 PM
2	31.10	50uL	1.000	*******		10/25/2021 7:38:17 PM
3	31.16	50uL	1.000	*******		10/25/2021 7:41:41 PM

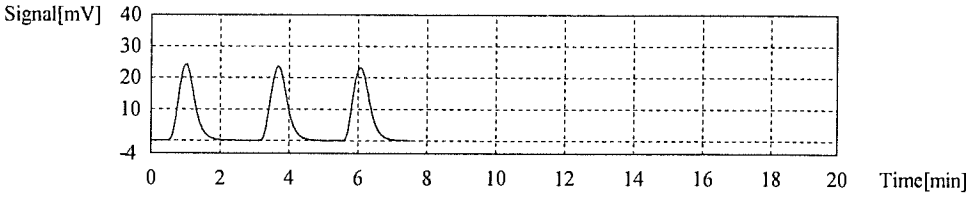
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	31.07



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	79.40	50uL	1.000	*******		10/25/2021 7:51:09 PM
2	79.56	50uL	1.000	*******		10/25/2021 7:54:09 PM
3	79.35	50uL	1.000	*******		10/25/2021 7:57:24 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	79.44



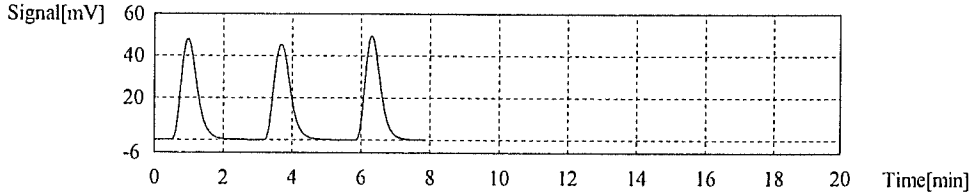
Conc: 50.00mg/L

TOC-Control L Report

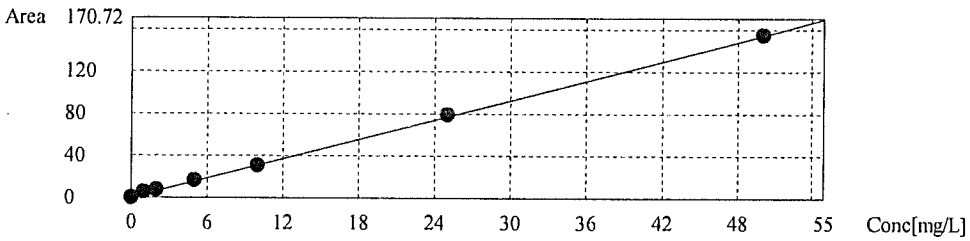
2021_10_25_002.tlx

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	156.1	50uL	1.000	*******		10/25/2021 8:06:53 PM
2	154.0	50uL	1.000	*******		10/25/2021 8:10:05 PM
3	155.5	50uL	1.000	*******		10/25/2021 8:13:11 PM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 155.2



Slope: 3.086
Intercept 0.000
r^2 0.9997
r 0.9999
RSE(%) N/A
Zero Shift Yes



Sample

Sample Name: ICV
Sample ID: 3100604423
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

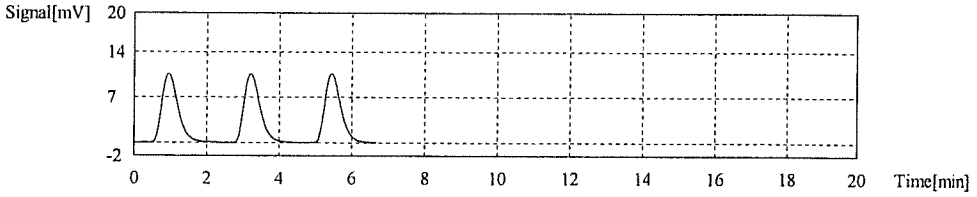
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.74	10.61mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 8:38:14 PM
2	32.74	10.61mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 8:41:41 PM
3	32.67	10.59mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 8:45:09 PM

Mean Area 32.72
Mean Conc. 10.60mg/L



Sample

TOC-Control L Report

2021_10_25_002.tlx

Sample Name: ICB
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

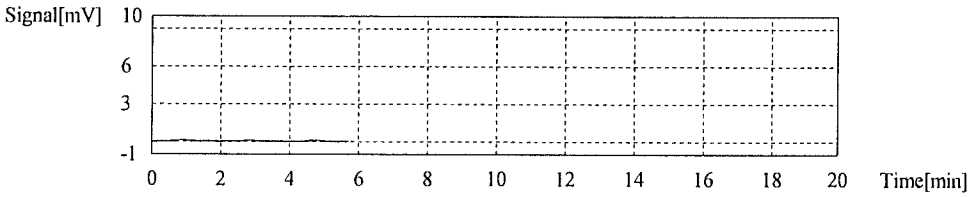
Type	Anal	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05172mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1343	0.04352mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 8:54:04 PM
2	0.1944	0.06299mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 8:57:34 PM
3	0.1502	0.04867mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	10/25/2021 9:01:04 PM

Mean Area 0.1596
Mean Conc. 0.05172mg/L



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	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
1	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:26.48mg/
2	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.08713
3	Unknown	NPOC	MBLK-11022021		10_25_2021_CAL.cal	1.000	NPOC:0.04376
4	Unknown	NPOC	LCS-11022021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.73mg/
5	Unknown	NPOC	LCSD-11022021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.65mg/
6	Unknown	NPOC	HS21101575-05DF10		10_25_2021_CAL.cal	1.000	NPOC:0.4614m
7	Unknown	NPOC	HS21101575-06DF10		10_25_2021_CAL.cal	1.000	NPOC:1.702mg/
8	Unknown	NPOC	HS21101663-01DF10		10_25_2021_CAL.cal	1.000	NPOC:0.4357m
9	Unknown	NPOC	HS21101663-01MSDF1		10_25_2021_CAL.cal	1.000	NPOC:12.60mg/
10	Unknown	NPOC	HS21101663-02DF10		10_25_2021_CAL.cal	1.000	NPOC:1.230mg/
11	Unknown	NPOC	HS21101663-03DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2907m
12	Unknown	NPOC	HS21101575-01DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2168m
13	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.63mg/
14	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.09372
15	Unknown	NPOC	HS21101575-02DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2987m
16	Unknown	NPOC	HS21101575-03DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2224m
17	Unknown	NPOC	HS21101575-04DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1748m
18	Unknown	NPOC	HS21101575-07DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1840m
19	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.74mg/
20	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.07664
21	Unknown	NPOC	MBLK-11022021		10_25_2021_CAL.cal	1.000	NPOC:0.06666
22	Unknown	NPOC	LCS-11022021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.59mg/
23	Unknown	NPOC	LCSD-11022021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.44mg/
24	Unknown	NPOC	HS21101575-08DF10		10_25_2021_CAL.cal	1.000	NPOC:0.3589m
25	Unknown	NPOC	HS21101575-09DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1371m
26	Unknown	NPOC	HS21101575-10DF10		10_25_2021_CAL.cal	1.000	NPOC:0.1450m
27	Unknown	NPOC	HS21101575-11DF10		10_25_2021_CAL.cal	1.000	NPOC:0.2043m
28	Unknown	NPOC	HS21101575-12DF11		10_25_2021_CAL.cal	1.000	NPOC:0.4842m
29	Unknown	NPOC	HS21101575-13DF10		10_25_2021_CAL.cal	1.000	NPOC:0.3785m
30	Unknown	NPOC	HS21101575-14DF10		10_25_2021_CAL.cal	1.000	NPOC:0.3857m
31	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.66mg/
32	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1192m
33	Unknown	NPOC	HS21101575-15DF10		10_25_2021_CAL.cal	1.000	NPOC:0.3362m
34	Unknown	NPOC	HS21101666-01DF10		10_25_2021_CAL.cal	1.000	NPOC:1.642mg/
35	Unknown	NPOC	HS21101666-02DF10		10_25_2021_CAL.cal	1.000	NPOC:7.281mg/
36	Unknown	NPOC	HS21101666-02MSDF1		10_25_2021_CAL.cal	1.000	NPOC:18.13mg/
37	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:26.13mg/
38	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.09305
39	Unknown	NPOC	MBLK-11022021		10_25_2021_CAL.cal	1.000	NPOC:0.03107
40	Unknown	NPOC	LCS-11022021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.64mg/
41	Unknown	NPOC	LCSD-11022021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.66mg/
42	Unknown	NPOC	HS21101144-10		10_25_2021_CAL.cal	1.000	NPOC:1.342mg/
43	Unknown	NPOC	HS21101144-10MS		10_25_2021_CAL.cal	1.000	NPOC:15.03mg/
44	Unknown	NPOC	HS21101144-11		10_25_2021_CAL.cal	1.000	NPOC:3.045mg/
45	Unknown	NPOC	HS21101144-12		10_25_2021_CAL.cal	1.000	NPOC:37.88mg/
46	Unknown	NPOC	HS21101144-14		10_25_2021_CAL.cal	1.000	NPOC:15.74mg/
47	Unknown	NPOC	HS21101528-01		10_25_2021_CAL.cal	1.000	NPOC:8.531mg/
48	Unknown	NPOC	HS21101531-01		10_25_2021_CAL.cal	1.000	NPOC:11.27mg/
49	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:26.46mg/
50	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.3280m
51	Unknown	NPOC	HS21101534-01		10_25_2021_CAL.cal	1.000	NPOC:4.808mg/

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	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilut	Result
52	Unknown	NPOC	HS21101538-01		10_25_2021_CAL.cal	1.000	NPOC:5.249mg/
53	Unknown	NPOC	HS21101663-01DF10		10_25_2021_CAL.cal	1.000	NPOC:0.5860m
54	Unknown	NPOC	HS21101663-02DF10		10_25_2021_CAL.cal	1.000	NPOC:1.689mg/
55	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:25.95mg/
56	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.2002m
57	Unknown	NPOC	MBLK-11022021		10_25_2021_CAL.cal	1.000	NPOC:0.1213m
58	Unknown	NPOC	LCS-11022021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.69mg/
59	Unknown	NPOC	LCSD-11022021	3100604423	10_25_2021_CAL.cal	1.000	NPOC:10.71mg/
60	Unknown	NPOC	HS21101663-03DF10		10_25_2021_CAL.cal	1.000	NPOC:0.3343m
61	Unknown	NPOC	HS21101171-01		10_25_2021_CAL.cal	1.000	NPOC:158.8mg/
62	Unknown	NPOC	HS21101171-02		10_25_2021_CAL.cal	1.000	NPOC:241.4mg/
63	Unknown	NPOC	HS21101171-02MS		10_25_2021_CAL.cal	1.000	NPOC:267.3mg/
64	Unknown	NPOC	HS21101171-03		10_25_2021_CAL.cal	1.000	NPOC:19.48mg/
65	Unknown	NPOC	HS21101171-04		10_25_2021_CAL.cal	1.000	NPOC:69.42mg/
66	Unknown	NPOC	HS21101620-04		10_25_2021_CAL.cal	1.000	NPOC:10.15mg/
67	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:26.04mg/
68	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1605m
69	Unknown	NPOC	HS21101620-05		10_25_2021_CAL.cal	1.000	NPOC:5.046mg/
70	Unknown	NPOC	HS21101621-01		10_25_2021_CAL.cal	1.000	NPOC:3.064mg/
71	Unknown	NPOC	HS21101272-03		10_25_2021_CAL.cal	1.000	NPOC:8.461mg/
72	Unknown	NPOC	HS21101272-04		10_25_2021_CAL.cal	1.000	NPOC:11.29mg/
73	Unknown	NPOC	CCV	317195504	10_25_2021_CAL.cal	1.000	NPOC:26.10mg/
74	Unknown	NPOC	CCB		10_25_2021_CAL.cal	1.000	NPOC:0.1947m

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	Notes	Status	Date / Time	Vial
1		Completed	11/2/2021 6:35:45 P	1
2		Completed	11/2/2021 6:51:28 P	2
3		Completed	11/2/2021 7:07:11 P	3
4		Completed	11/2/2021 7:23:37 P	4
5		Completed	11/2/2021 7:39:35 P	5
6		Completed	11/2/2021 7:55:18 P	6
7		Completed	11/2/2021 8:11:01 P	7
8		Completed	11/2/2021 8:26:44 P	8
9		Completed	11/2/2021 8:42:58 P	9
10		Completed	11/2/2021 8:58:42 P	10
11		Completed	11/2/2021 9:14:25 P	11
12		Completed	11/2/2021 9:30:08 P	12
13		Completed	11/2/2021 9:46:56 P	1
14		Completed	11/2/2021 10:02:39	2
15		Completed	11/2/2021 10:18:28	13
16		Completed	11/2/2021 10:34:11	14
17		Completed	11/2/2021 10:49:54	15
18		Completed	11/2/2021 11:05:37	16
19		Completed	11/2/2021 11:21:59	1
20		Completed	11/2/2021 11:37:42	2
21		Completed	11/2/2021 11:53:25	3
22		Completed	11/3/2021 12:09:25	4
23		Completed	11/3/2021 12:25:19	5
24		Completed	11/3/2021 12:41:08	17
25		Completed	11/3/2021 12:56:51	18
26		Completed	11/3/2021 1:12:34 A	19
27		Completed	11/3/2021 1:28:17 A	20
28		Completed	11/3/2021 1:44:00 A	21
29		Completed	11/3/2021 1:59:43 A	22
30		Completed	11/3/2021 2:15:26 A	23
31		Completed	11/3/2021 2:31:36 A	24
32		Completed	11/3/2021 2:47:19 A	25
33		Completed	11/3/2021 3:03:02 A	26
34		Completed	11/3/2021 3:18:46 A	27
35		Completed	11/3/2021 3:34:43 A	28
36		Completed	11/3/2021 3:50:48 A	29
37		Completed	11/3/2021 4:07:11 A	24
38		Completed	11/3/2021 4:22:54 A	25
39		Completed	11/3/2021 4:38:39 A	3
40		Completed	11/3/2021 4:54:41 A	4
41		Completed	11/3/2021 5:10:35 A	5
42		Completed	11/3/2021 5:26:34 A	30
43		Completed	11/3/2021 5:42:36 A	31
44		Completed	11/3/2021 5:58:20 A	32
45		Completed	11/3/2021 6:14:44 A	33
46		Completed	11/3/2021 6:30:48 A	34
47		Completed	11/3/2021 6:46:44 A	35
48		Completed	11/3/2021 7:02:42 A	36
49		Completed	11/3/2021 7:19:04 A	24
50		Completed	11/3/2021 7:34:47 A	25
51		Completed	11/3/2021 7:50:57 A	37

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	Notes	Status	Date / Time	Vial
52		Completed	11/3/2021 8:06:56 A	38
53		Completed	11/3/2021 8:22:40 A	39
54		Completed	11/3/2021 8:38:24 A	40
55		Completed	11/3/2021 8:54:30 A	41
56		Completed	11/3/2021 9:10:14 A	42
57		Completed	11/3/2021 9:26:03 A	3
58		Completed	11/3/2021 9:42:06 A	4
59		Completed	11/3/2021 9:58:04 A	5
60		Completed	11/3/2021 10:13:57	43
61		Completed	11/3/2021 10:30:18	44
62		Completed	11/3/2021 10:46:45	45
63		Completed	11/3/2021 11:03:11	46
64		Completed	11/3/2021 11:19:18	47
65		Completed	11/3/2021 11:38:25	48
66		Completed	11/3/2021 11:54:29	49
67		Completed	11/3/2021 12:26:31	41
68		Completed	11/3/2021 12:42:15	42
69		Completed	11/3/2021 12:58:14	50
70		Completed	11/3/2021 1:13:59 P	51
71		Completed	11/3/2021 1:30:01 P	52
72		Completed	11/3/2021 1:46:08 P	53
73		Completed	11/3/2021 2:18:00 P	41
74		Completed	11/3/2021 2:33:45 P	42

TOC-Control L Report

2021_11_02_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: CCV
Sample ID: 317195504
Origin: 10_25_2021_CAL.cal
Status: Completed
Chk. Result:

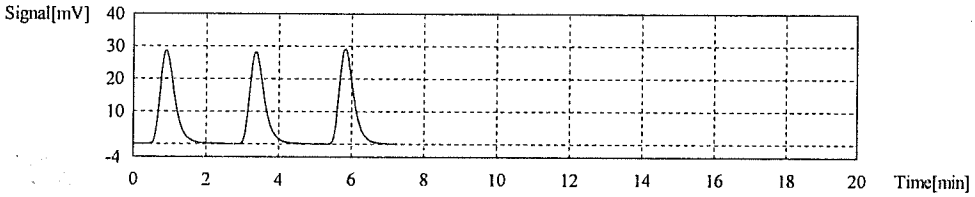
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.13mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.38	26.04mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 4:00:18 AM
2	80.42	26.06mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 4:03:49 AM
3	81.17	26.30mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 4:07:11 AM

Mean Area: 80.66
Mean Conc.: 26.13mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 10_25_2021_CAL.cal
Status: Completed
Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09305mg/L

1. Det

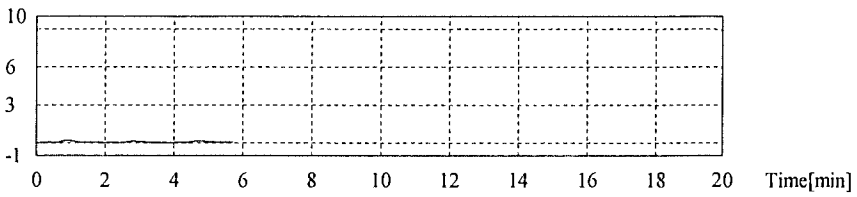
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3618	0.1172mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 4:15:55 AM
2	0.2457	0.07961mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 4:19:24 AM
3	0.2540	0.08230mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 4:22:54 AM

TOC-Control L Report

2021_11_02_001.tlx

Mean Area 0.2872
Mean Conc. 0.09305mg/L



Sample

Sample Name: MBLK-11022021
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

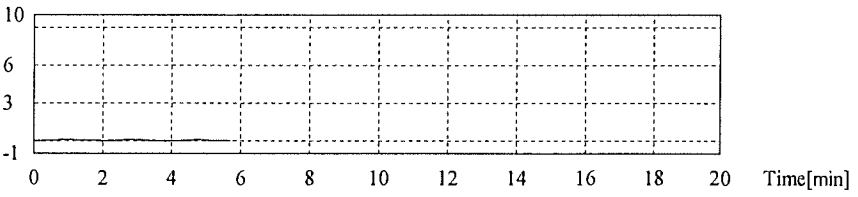
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03107mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1347	0.04365mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 4:31:39 AM
2	0.1530	0.04957mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 4:35:09 AM
3	0.000	0.000mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 4:38:39 AM

Mean Area 0.09590
Mean Conc. 0.03107mg/L



Sample

Sample Name: LCS-11022021
Sample ID: 3100604423
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.64mg/L

1. Det

Anal.: NPOC

TOC-Control L Report

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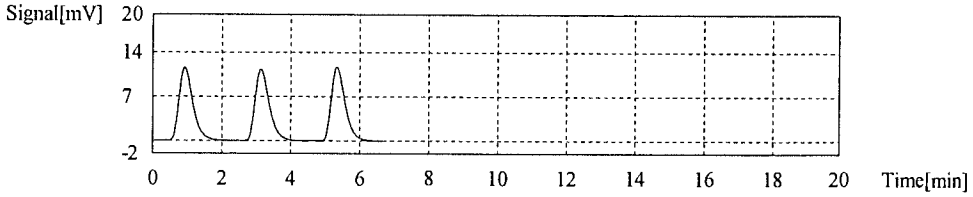
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.74	10.61mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 4:47:40 AM
2	32.88	10.65mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 4:51:11 AM
3	32.91	10.66mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 4:54:41 AM

Mean Area 32.84
Mean Conc. 10.64mg/L



Sample

Sample Name: LCSD-11022021
Sample ID: 3100604423
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

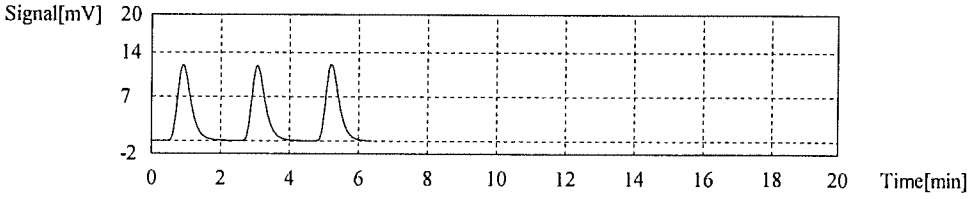
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.66mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.96	10.68mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 5:03:39 AM
2	32.69	10.59mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 5:07:09 AM
3	33.02	10.70mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 5:10:35 AM

Mean Area 32.89
Mean Conc. 10.66mg/L



Sample

Sample Name: HS21101144-10
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.342mg/L

1. Det

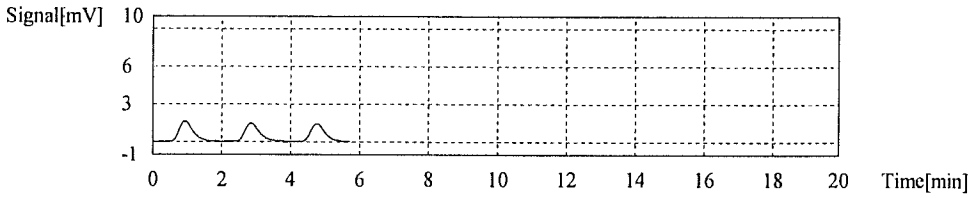
TOC-Control L Report

2021_11_02_001.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.422	1.433mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 5:19:34 AM
2	3.981	1.290mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 5:23:04 AM
3	4.025	1.304mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 5:26:34 AM

Mean Area 4.143
Mean Conc. 1.342mg/L



Sample

Sample Name: HS21101144-10MS
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

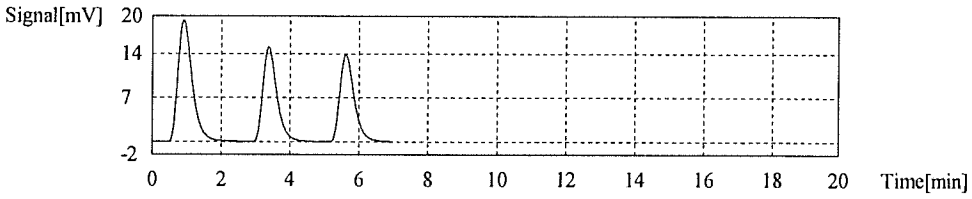
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.03mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	56.15	18.19mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 5:35:51 AM
2	43.03	13.94mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 5:39:08 AM
3	39.97	12.95mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 5:42:36 AM

Mean Area 46.38
Mean Conc. 15.03mg/L



Sample

Sample Name: HS21101144-11
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.045mg/L

TOC-Control L Report

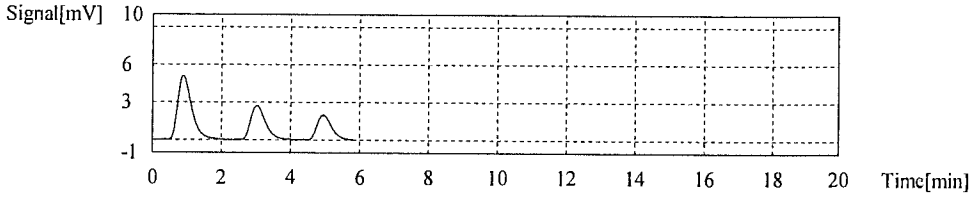
2021_11_02_001.tlx

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.28	4.627mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 5:51:31 AM
2	7.977	2.585mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 5:54:51 AM
3	5.933	1.922mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 5:58:20 AM

Mean Area 9.397
Mean Conc. 3.045mg/L



Sample

Sample Name: HS21101144-12
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

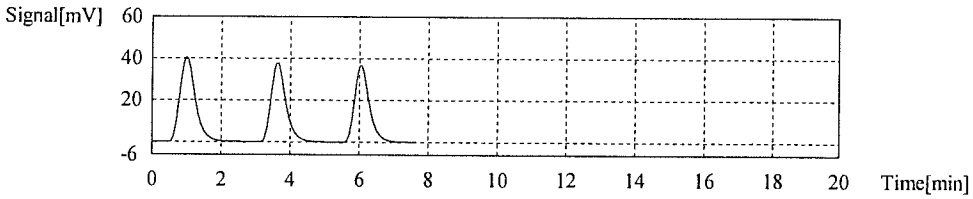
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:37.88mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	127.6	41.34mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 6:07:48 AM
2	113.4	36.74mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 6:11:05 AM
3	109.7	35.54mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 6:14:44 AM

Mean Area 116.9
Mean Conc. 37.88mg/L



Sample

Sample Name: HS21101144-14
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

TOC-Control L Report

2021_11_02_001.tlx

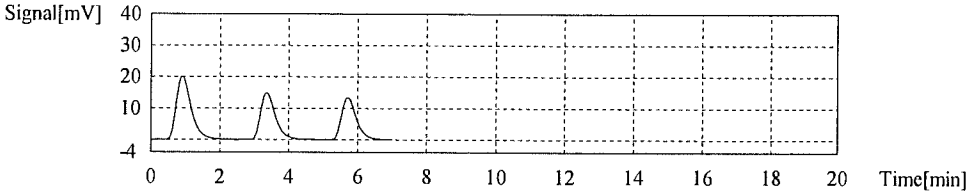
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.74mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	60.89	19.73mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 6:23:59 AM
2	44.50	14.42mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 6:27:25 AM
3	40.37	13.08mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 6:30:48 AM

Mean Area 48.59
Mean Conc. 15.74mg/L



Sample

Sample Name: CCV
Sample ID: 317195504
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

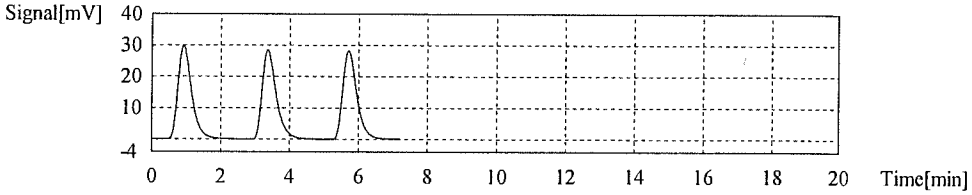
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.46mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	83.24	26.97mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 7:12:06 AM
2	81.29	26.34mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 7:15:27 AM
3	80.46	26.07mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 7:19:04 AM

Mean Area 81.66
Mean Conc. 26.46mg/L



Sample

TOC-Control L Report

2021_11_02_001.tlx

Sample Name: CCB
Sample ID:
Origin: 10_25_2021_CAL.cal
Status Completed
Chk. Result

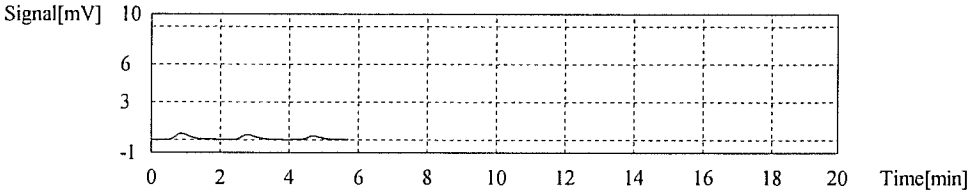
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3280mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.242	0.4024mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 7:27:47 AM
2	1.077	0.3490mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 7:31:17 AM
3	0.7182	0.2327mg/L	50uL	1.000		10_25_2021_CAL.2021_10_25_18_24_47.cal	11/3/2021 7:34:47 AM

Mean Area 1.012
Mean Conc. 0.3280mg/L



HS21101144 Wet Chemistry Raw Data_ALK

ALS WO# HS21101144

Report Date: 11/02/2021 : 4:15 PM

PC-TitratION PLUS
Calibration Report

Calibration Record # 2421

Calibration Settings

Calibration ID	PH CAL 4-7-10	Date	11/02/2021
Channel	1	Time	4:15 PM
Probe Type	pH	Temperature	295.87 K 22.72 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-58.652	CorrCoeff	0.9999
Intercept	-1.707	Equation:	Y = (-58.652) X + (-1.707)

Calibration Validity True Operator

	Result	Minimum	Maximum
Slope	-58.652	-65.00	-53.00
Intercept	-1.707	-100.00	100.00
Correlation Coefficient	0.9999	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	4.00	175.65
	7.00	-4.51
	10.00	-176.26

394792 (A)

394793 (B)

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Report Date: 11/3/2021 : 12:48 AM

PC-TitratION PLUS
Water Analysis Report

Run Number 4213 **Order Number** 20211102-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
ICV-PH	11/2/2021	5:09 PM	22.72	-1.00	6.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
TAP WATER	11/2/2021	5:15 PM	22.64	-1.00	6.91	.00	287.21	287.21	.00	.00	.00	2.74	2.74
WBLKW1-211102	11/2/2021	5:21 PM	22.48	-1.00	5.83	.00	1.66	1.66	.00	.00	.00	.05	.05
LCS1-211102	11/2/2021	5:30 PM	22.84	-1.00	10.74	538.85	1,066.82	.00	1,055.93	10.88	5.13	10.16	10.16
LCSD1-211102	11/2/2021	5:38 PM	23.49	-1.00	10.73	537.55	1,060.02	.00	1,044.92	15.09	5.12	10.10	10.10
HS21101144-10	11/2/2021	5:44 PM	23.54	-1.00	5.64	.00	186.12	186.12	.00	.00	.00	1.77	1.77
HS21101144-10DUP	11/2/2021	5:50 PM	23.25	-1.00	5.63	.00	176.40	176.40	.00	.00	.00	1.68	1.68
HS21101771-13	11/2/2021	5:56 PM	22.93	-1.00	7.77	.00	341.55	341.55	.00	.00	.00	3.25	3.25
HS21101771-13DUP	11/2/2021	6:02 PM	22.80	-1.00	7.93	.00	342.52	342.52	.00	.00	.00	3.26	3.26
HS21101771-01	11/2/2021	6:10 PM	22.80	-1.00	7.88	.00	1,219.48	1,219.48	.00	.00	.00	11.61	11.61
HS21101771-02	11/2/2021	6:20 PM	23.12	-1.00	8.16	.00	1,194.75	1,194.75	.00	.00	.00	11.38	11.38
CCV-PH	11/2/2021	6:23 PM	23.78	-1.00	7.08	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	11/2/2021	6:32 PM	23.72	-1.00	10.59	493.35	1,133.30	146.61	986.69	.00	4.70	10.79	10.79
DI RINSE	11/2/2021	6:38 PM	23.75	-1.00	6.28	.00	2.26	2.26	.00	.00	.00	.05	.05
HS21101663-01	11/2/2021	6:45 PM	23.51	-1.00	8.06	.00	268.02	268.02	.00	.00	.00	2.55	2.55
HS21101663-02	11/2/2021	6:53 PM	23.28	-1.00	7.61	.00	667.57	667.57	.00	.00	.00	6.36	6.36
HS21101663-03	11/2/2021	7:00 PM	23.03	-1.00	7.64	.00	745.32	745.32	.00	.00	.00	7.10	7.10
HS21101666-01	11/2/2021	7:09 PM	23.27	-1.00	7.39	.00	1,030.46	1,030.46	.00	.00	.00	9.81	9.81
HS21101666-02	11/2/2021	7:18 PM	23.60	-1.00	7.34	.00	1,062.87	1,062.87	.00	.00	.00	10.12	10.12
HS21110079-01	11/2/2021	7:24 PM	23.88	-1.00	6.98	.00	297.25	297.25	.00	.00	.00	2.83	2.83
HS21110079-02	11/2/2021	7:31 PM	23.73	-1.00	7.00	.00	306.21	306.21	.00	.00	.00	2.92	2.92
HS21110079-03	11/2/2021	7:35 PM	23.33	-1.00	5.59	.00	1.45	1.45	.00	.00	.00	.05	.05
HS21101771-03	11/2/2021	7:44 PM	23.19	-1.00	8.19	.00	1,140.47	1,140.47	.00	.00	.00	10.86	10.86
CCV-PH	11/2/2021	7:47 PM	22.98	-1.00	7.08	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	11/2/2021	7:57 PM	22.95	-1.00	10.59	499.80	1,124.71	125.12	999.59	.00	4.76	10.71	10.71
DI RINSE	11/2/2021	8:03 PM	23.49	-1.00	6.20	.00	1.81	1.81	.00	.00	.00	.05	.05
HS21101771-04	11/2/2021	8:12 PM	23.62	-1.00	8.31	3.74	1,193.15	1,185.67	7.49	.00	.04	11.36	11.36

Run Number 4213 **Order Number** 20211102-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
HS21101771-05	11/2/2021	8:20 PM	23.86	-1.00	7.86	.00	642.75	642.75	.00	.00	.00	6.12	6.12
HS21101771-06	11/2/2021	8:27 PM	23.81	-1.00	7.88	.00	527.24	527.24	.00	.00	.00	5.02	5.02
HS21101771-07	11/2/2021	8:34 PM	23.35	-1.00	7.66	.00	404.14	404.14	.00	.00	.00	3.85	3.85
HS21101771-08	11/2/2021	8:40 PM	23.03	-1.00	7.43	.00	297.82	297.82	.00	.00	.00	2.84	2.84
HS21101771-09	11/2/2021	8:47 PM	23.23	-1.00	7.76	.00	308.55	308.55	.00	.00	.00	2.94	2.94
WLCS-211102	11/2/2021	8:57 PM	23.46	-1.00	10.75	528.35	1,074.51	17.82	1,056.69	.00	5.03	10.23	10.23
WLCSD2-211102	11/2/2021	9:06 PM	23.76	-1.00	10.72	527.48	1,058.23	3.26	1,054.96	.00	5.02	10.08	10.08
CCV-PH	11/2/2021	9:09 PM	23.97	-1.00	7.09	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCVALK	11/2/2021	9:18 PM	23.80	-1.00	10.56	483.77	1,113.39	145.85	967.54	.00	4.61	10.60	10.60
DI RINSE	11/2/2021	9:24 PM	23.51	-1.00	6.30	.00	1.73	1.73	.00	.00	.00	.05	.05
WBLKW2-211102	11/2/2021	9:30 PM	23.22	-1.00	5.66	.00	.89	.89	.00	.00	.00	.04	.04
HS21101771-10	11/2/2021	9:39 PM	23.27	-1.00	8.59	28.42	891.69	834.84	56.85	.00	.27	8.49	8.49
HS21101771-11	11/2/2021	9:46 PM	23.59	-1.00	9.05	51.04	200.72	98.63	102.09	.00	.49	1.91	1.91
HS21101771-12	11/2/2021	9:52 PM	23.72	-1.00	7.83	.00	318.85	318.85	.00	.00	.00	3.04	3.04
HS21101771-14	11/2/2021	9:59 PM	23.88	-1.00	7.97	.00	446.20	446.20	.00	.00	.00	4.25	4.25
HS21101771-15	11/2/2021	10:06 PM	23.99	-1.00	7.96	.00	350.33	350.33	.00	.00	.00	3.34	3.34
HS21101771-16	11/2/2021	10:14 PM	23.75	-1.00	7.69	.00	495.76	495.76	.00	.00	.00	4.72	4.72
HS21101771-17	11/2/2021	10:21 PM	23.30	-1.00	7.77	.00	603.15	603.15	.00	.00	.00	5.74	5.74
HS21101771-18	11/2/2021	10:29 PM	23.28	-1.00	7.94	.00	712.18	712.18	.00	.00	.00	6.78	6.78
HS21101771-19	11/2/2021	10:37 PM	23.59	-1.00	8.33	6.38	1,165.75	1,152.99	12.77	.00	.06	11.10	11.10
CCV-PH	11/2/2021	10:40 PM	23.81	-1.00	7.09	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	11/2/2021	10:50 PM	23.72	-1.00	10.55	486.53	1,108.50	135.44	973.06	.00	4.63	10.56	10.56
DI RINSE	11/2/2021	10:56 PM	23.96	-1.00	6.24	.00	1.88	1.88	.00	.00	.00	.05	.05
HS21101771-20	11/2/2021	11:05 PM	23.99	-1.00	8.17	.00	1,114.77	1,114.77	.00	.00	.00	10.62	10.62
HS21101773-01	11/2/2021	11:14 PM	23.60	-1.00	7.93	.00	758.33	758.33	.00	.00	.00	7.22	7.22
HS21101773-02	11/2/2021	11:21 PM	22.89	-1.00	7.81	.00	503.39	503.39	.00	.00	.00	4.79	4.79
HS21101773-03	11/2/2021	11:27 PM	23.19	-1.00	7.68	.00	427.78	427.78	.00	.00	.00	4.07	4.07
HS21101773-04	11/2/2021	11:35 PM	23.54	-1.00	9.60	84.80	200.45	30.86	169.59	.00	.81	1.91	1.91
HS21101773-05	11/2/2021	11:41 PM	23.73	-1.00	7.57	.00	327.62	327.62	.00	.00	.00	3.12	3.12
HS21101773-06	11/2/2021	11:48 PM	23.88	-1.00	7.73	.00	316.54	316.54	.00	.00	.00	3.01	3.01

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Run Number 4213 **Order Number** 20211102-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
HS21101773-07	11/2/2021	11:55 PM	23.99	-1.00	7.71	.00	382.03	382.03	.00	.00	.00	3.64	3.64
CCV-PH	11/2/2021	11:58 PM	24.12	-1.00	7.10	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	11/3/2021	12:08 AM	24.02	-1.00	10.54	483.55	1,119.70	152.59	967.11	.00	4.61	10.66	10.66
DI RINSE	11/3/2021	12:14 AM	23.65	-1.00	6.25	.00	2.70	2.70	.00	.00	.00	.06	.06
HS21101773-08	11/3/2021	12:21 AM	23.27	-1.00	7.78	.00	465.93	465.93	.00	.00	.00	4.44	4.44
HS21101773-09	11/3/2021	12:27 AM	23.54	-1.00	8.08	.00	574.58	574.58	.00	.00	.00	5.47	5.47
CCV-PH	11/3/2021	12:31 AM	23.70	-1.00	7.09	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	11/3/2021	12:40 AM	23.68	-1.00	10.51	463.42	1,122.41	195.57	926.84	.00	4.41	10.69	10.69
DI-RINSE	11/3/2021	12:46 AM	23.96	-1.00	6.19	.00	2.41	2.41	.00	.00	.00	.06	.06

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HS21101171 Longhorn Army Ammunition Plant
16 October 2021 Cover Page

ALS WO# HS21101171

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WorkOrder: HS21101171

Longhorn Army Ammunition Plant 16 October 2021

Aptim Environmental & Infrastucture, Inc.

Vicki Graves
10333 Richmond Ave Ste 1030
Houston TX 77042

22-Nov-2021

HS21101171 Longhorn Army Ammunition Plant
16 October 2021 Final

ALS WO# HS21101171

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November 08, 2021

Vicki Graves
Aptim Environmental & Infrastucture, Inc.
10333 Richmond Ave
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Houston, TX 77042

Work Order: **HS21101171**

Laboratory Results for: **Longhorn Army Ammunition Plant 16 October 2021**

Dear Vicki Graves ,

ALS Environmental received 9 sample(s) on Oct 21, 2021 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
Ragen Giga
Project Manager

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
Work Order: HS21101171

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21101171-01	16IW09-211020	Groundwater		20-Oct-2021 07:55	21-Oct-2021 11:40	☐
HS21101171-02	16IW10-211020	Groundwater		20-Oct-2021 09:05	21-Oct-2021 11:40	☐
HS21101171-03	16EW01-211020	Groundwater		20-Oct-2021 10:10	21-Oct-2021 11:40	☐
HS21101171-04	16EW03-211020	Groundwater		20-Oct-2021 11:00	21-Oct-2021 11:40	☐
HS21101171-05	16EW02-211020	Groundwater		20-Oct-2021 11:50	21-Oct-2021 11:40	☐
HS21101171-06	16EW04-211020	Groundwater		20-Oct-2021 12:30	21-Oct-2021 11:40	☐
HS21101171-07	16EW08-211020	Groundwater		20-Oct-2021 13:10	21-Oct-2021 11:40	☐
HS21101171-08	16RW04-211020	Groundwater		20-Oct-2021 13:50	21-Oct-2021 11:40	☐
HS21101171-09	Trip Blank-211020	Water	CG-061121-135	20-Oct-2021 00:00	21-Oct-2021 11:40	☐

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **CASE NARRATIVE**
Project: Longhorn Army Ammunition Plant 16 October 2021
Work Order: HS21101171

GC Semivolatiles by Method RSK-175

Batch ID: R394683

Sample ID: 16IW10-211020 (HS21101171-02MS)

- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

Sample ID: 16IW10-211020 (HS21101171-02MSD)

- The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

GCMS Volatiles by Method SW8260

Batch ID: R394702

Sample ID: 16EW03-211020 (HS21101171-04)

- Lowest practical dilution for sample hs21101171-04 due to high concentration of non-target compound.

Sample ID: 16EW08-211020 (HS21101171-07)

- Lowest practical dilution for sample hs21101171-07 due to matrix.

Sample ID: 16IW10-211020 (HS21101171-02)

- Lowest practical dilution for sample hs2110171-02 due to matrix.

Sample ID: 16RW04-211020 (HS21101171-08)

- Lowest practical dilution for sample hs21101171-08 due to matrix.

Batch ID: R394797

Sample ID: 16EW02-211020 (HS21101171-05MS)

- MS/MSD failed QC limit for some few compounds

WetChemistry by Method SM5310B

Batch ID: R394840

Sample ID: 16IW10-211020 (HS21101171-02MS)

- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

Batch ID: R395030

Sample ID: 16IW10-211020 (HS21101171-02MS)

- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

WetChemistry by Method SM2320B

Batch ID: R394478

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **CASE NARRATIVE**
Project: Longhorn Army Ammunition Plant 16 October 2021
Work Order: HS21101171

WetChemistry by Method SW9056

Batch ID: R394428

Sample ID: 16EW01-211020 (HS21101171-03)

- 5X dilution due to high concentration of SO4

Sample ID: 16EW03-211020 (HS21101171-04)

- 5X dilution due to high concentration of SO4

Batch ID: R395000

Sample ID: 16IW10-211020 (HS21101171-02MS)

- The matrix spike recovery was outside of the control limits. However, the matrix spike duplicate recovery and the RPD between the MS and MSD were in control. (Bromide)

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101171
Sample ID: 16IW09-211020 Lab ID:HS21101171-01
Collection Date: 20-Oct-2021 07:55 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	01-Nov-2021 14:54
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	01-Nov-2021 14:54
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	01-Nov-2021 14:54
cis-1,2-Dichloroethene	**3.5**		**0.20**	**0.50**	**1.0**	**ug/L**	1	01-Nov-2021 14:54
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	01-Nov-2021 14:54
Trichloroethene	**0.99**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	01-Nov-2021 14:54
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	01-Nov-2021 14:54
Surr: 1,2-Dichloroethane-d4	*87.9*			**0**	*81-118*	*%REC*	*1*	*01-Nov-2021 14:54*
Surr: 4-Bromofluorobenzene	*96.8*			**0**	*85-114*	*%REC*	*1*	*01-Nov-2021 14:54*
Surr: Dibromofluoromethane	*94.3*			**0**	*80-119*	*%REC*	*1*	*01-Nov-2021 14:54*
Surr: Toluene-d8	*93.2*			**0**	*89-112*	*%REC*	*1*	*01-Nov-2021 14:54*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	01-Nov-2021 10:00
Ethene	0.000500	U	0.000234	0.000500	0.00100	mg/L	1	01-Nov-2021 10:00
Methane	**2.54**		**0.0107**	**0.0250**	**0.0500**	**mg/L**	100	01-Nov-2021 11:39
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**774**		**5.00**	**5.00**	**5.00**	**mg/L**	1	28-Oct-2021 22:01
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**140**		**5.00**	**10.0**	**10.0**	**mg/L**	10	05-Nov-2021 02:09
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Bromide	**3.89**		**0.0300**	**0.100**	**0.100**	**mg/L**	1	22-Oct-2021 00:16
Nitrogen, Nitrate (As N)	0.100	U	0.0300	0.100	0.100	mg/L	1	22-Oct-2021 00:16
Sulfate	**1.34**		**0.200**	**0.500**	**0.500**	**mg/L**	1	22-Oct-2021 00:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101171
Sample ID: 16IW10-211020 Lab ID:HS21101171-02
Collection Date: 20-Oct-2021 09:05 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	10	U	3.0	10	10	ug/L	10	01-Nov-2021 15:15
1,1-Dichloroethene	5.0	U	2.0	5.0	10	ug/L	10	01-Nov-2021 15:15
1,2-Dichloroethane	5.0	U	2.0	5.0	10	ug/L	10	01-Nov-2021 15:15
cis-1,2-Dichloroethene	**11**		**2.0**	**5.0**	**10**	**ug/L**	10	01-Nov-2021 15:15
Methylene chloride	10	U	4.0	10	20	ug/L	10	01-Nov-2021 15:15
Trichloroethene	5.0	U	2.0	5.0	10	ug/L	10	01-Nov-2021 15:15
Vinyl chloride	5.0	U	2.0	5.0	10	ug/L	10	01-Nov-2021 15:15
Surr: 1,2-Dichloroethane-d4	*87.8*			**0**	*81-118*	*%REC*	*10*	*01-Nov-2021 15:15*
Surr: 4-Bromofluorobenzene	*99.3*			**0**	*85-114*	*%REC*	*10*	*01-Nov-2021 15:15*
Surr: Dibromofluoromethane	*93.6*			**0**	*80-119*	*%REC*	*10*	*01-Nov-2021 15:15*
Surr: Toluene-d8	*95.0*			**0**	*89-112*	*%REC*	*10*	*01-Nov-2021 15:15*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	01-Nov-2021 10:08
Ethene	**0.0132**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	01-Nov-2021 10:08
Methane	**2.52**		**0.0107**	**0.0250**	**0.0500**	**mg/L**	100	01-Nov-2021 12:04
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**1,110**		**5.00**	**5.00**	**5.00**	**mg/L**	1	28-Oct-2021 22:10
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**203**		**5.00**	**10.0**	**10.0**	**mg/L**	10	05-Nov-2021 02:25
ANIONS BY SW9056A		**Method:SW9056**						Analyst: TH
Bromide	**59.6**		**0.300**	**1.00**	**1.00**	**mg/L**	10	05-Nov-2021 02:08
Nitrogen, Nitrate (As N)	0.200	U	0.0600	0.200	0.200	mg/L	2	22-Oct-2021 00:24
Sulfate	1.00	U	0.400	1.00	1.00	mg/L	2	22-Oct-2021 00:24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101171
Sample ID: 16EW01-211020 Lab ID:HS21101171-03
Collection Date: 20-Oct-2021 10:10 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	10	U	3.0	10	10	ug/L	10	01-Nov-2021 19:28
1,1-Dichloroethene	**6.8**	J	**2.0**	**5.0**	**10**	**ug/L**	10	01-Nov-2021 19:28
1,2-Dichloroethane	**8.0**	J	**2.0**	**5.0**	**10**	**ug/L**	10	01-Nov-2021 19:28
cis-1,2-Dichloroethene	**3,400**		**20**	**50**	**100**	**ug/L**	100	01-Nov-2021 19:49
Methylene chloride	10	U	4.0	10	20	ug/L	10	01-Nov-2021 19:28
Trichloroethene	**970**		**2.0**	**5.0**	**10**	**ug/L**	10	01-Nov-2021 19:28
Vinyl chloride	**180**		**2.0**	**5.0**	**10**	**ug/L**	10	01-Nov-2021 19:28
Surr: 1,2-Dichloroethane-d4	*89.3*			**0**	*81-118*	*%REC*	*100*	*01-Nov-2021 19:49*
Surr: 1,2-Dichloroethane-d4	*88.3*			**0**	*81-118*	*%REC*	*10*	*01-Nov-2021 19:28*
Surr: 4-Bromofluorobenzene	*95.6*			**0**	*85-114*	*%REC*	*10*	*01-Nov-2021 19:28*
Surr: 4-Bromofluorobenzene	*95.6*			**0**	*85-114*	*%REC*	*100*	*01-Nov-2021 19:49*
Surr: Dibromofluoromethane	*92.6*			**0**	*80-119*	*%REC*	*10*	*01-Nov-2021 19:28*
Surr: Dibromofluoromethane	*91.5*			**0**	*80-119*	*%REC*	*100*	*01-Nov-2021 19:49*
Surr: Toluene-d8	*96.2*			**0**	*89-112*	*%REC*	*10*	*01-Nov-2021 19:28*
Surr: Toluene-d8	*96.0*			**0**	*89-112*	*%REC*	*100*	*01-Nov-2021 19:49*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	01-Nov-2021 11:04
Ethene	**0.0509**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	01-Nov-2021 11:04
Methane	**0.122**		**0.00107**	**0.00250**	**0.00500**	**mg/L**	10	01-Nov-2021 12:13
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**610**		**5.00**	**5.00**	**5.00**	**mg/L**	1	28-Oct-2021 22:44
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**19.5**		**0.500**	**1.00**	**1.00**	**mg/L**	1	03-Nov-2021 11:19
ANIONS BY SW9056A		**Method:SW9056**						Analyst: TH
Bromide	**10.1**		**3.00**	**10.0**	**10.0**	**mg/L**	100	05-Nov-2021 02:30
Nitrogen, Nitrate (As N)	0.500	U	0.150	0.500	0.500	mg/L	5	22-Oct-2021 00:46
Sulfate	**3,150**		**20.0**	**50.0**	**50.0**	**mg/L**	100	05-Nov-2021 02:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101171
Sample ID: 16EW03-211020 Lab ID:HS21101171-04
Collection Date: 20-Oct-2021 11:00 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	10	U	3.0	10	10	ug/L	10	01-Nov-2021 20:10
1,1-Dichloroethene	5.0	U	2.0	5.0	10	ug/L	10	01-Nov-2021 20:10
1,2-Dichloroethane	5.0	U	2.0	5.0	10	ug/L	10	01-Nov-2021 20:10
cis-1,2-Dichloroethene	**270**		**2.0**	**5.0**	**10**	**ug/L**	10	01-Nov-2021 20:10
Methylene chloride	10	U	4.0	10	20	ug/L	10	01-Nov-2021 20:10
Trichloroethene	**54**		**2.0**	**5.0**	**10**	**ug/L**	10	01-Nov-2021 20:10
Vinyl chloride	**92**		**2.0**	**5.0**	**10**	**ug/L**	10	01-Nov-2021 20:10
Surr: 1,2-Dichloroethane-d4	*88.5*			**0**	*81-118*	*%REC*	*10*	*01-Nov-2021 20:10*
Surr: 4-Bromofluorobenzene	*95.7*			**0**	*85-114*	*%REC*	*10*	*01-Nov-2021 20:10*
Surr: Dibromofluoromethane	*92.7*			**0**	*80-119*	*%REC*	*10*	*01-Nov-2021 20:10*
Surr: Toluene-d8	*95.3*			**0**	*89-112*	*%REC*	*10*	*01-Nov-2021 20:10*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: PPM
Ethane	0.000500	U	0.000144	0.000500	0.00100	mg/L	1	01-Nov-2021 11:18
Ethene	**0.131**		**0.00234**	**0.00500**	**0.0100**	**mg/L**	10	01-Nov-2021 12:21
Methane	**0.164**		**0.00107**	**0.00250**	**0.00500**	**mg/L**	10	01-Nov-2021 12:21
ALKALINITY BY SM 2320B-2011		**Method:SM2320B**						Analyst: TH
Alkalinity, Total (As CaCO3)	**1,050**		**5.00**	**5.00**	**5.00**	**mg/L**	1	28-Oct-2021 22:53
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: JAC
Organic Carbon, Total	**67.0**		**1.00**	**2.00**	**2.00**	**mg/L**	2	05-Nov-2021 02:57
ANIONS BY SW9056A		**Method:SW9056**						Analyst: TH
Bromide	**9.02**		**1.50**	**5.00**	**5.00**	**mg/L**	50	05-Nov-2021 02:37
Nitrogen, Nitrate (As N)	0.500	U	0.150	0.500	0.500	mg/L	5	22-Oct-2021 00:53
Sulfate	**1,860**		**10.0**	**25.0**	**25.0**	**mg/L**	50	05-Nov-2021 02:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101171
Sample ID: 16EW02-211020 Lab ID:HS21101171-05
Collection Date: 20-Oct-2021 11:50 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,2-Trichloroethane	**7.2**	J	**3.0**	**10**	**10**	**ug/L**	10	01-Nov-2021 20:52
1,1-Dichloroethene	**65**		**2.0**	**5.0**	**10**	**ug/L**	10	01-Nov-2021 20:52
1,2-Dichloroethane	**37**		**2.0**	**5.0**	**10**	**ug/L**	10	01-Nov-2021 20:52
cis-1,2-Dichloroethene	**22,000**		**50**	**120**	**250**	**ug/L**	250	02-Nov-2021 14:20
Methylene chloride	10	U	4.0	10	20	ug/L	10	01-Nov-2021 20:52
Trichloroethene	**23,000**		**50**	**120**	**250**	**ug/L**	250	02-Nov-2021 14:20
Vinyl chloride	**630**		**2.0**	**5.0**	**10**	**ug/L**	10	01-Nov-2021 20:52
Surr: 1,2-Dichloroethane-d4	*88.3*			**0**	*81-118*	*%REC*	*10*	*01-Nov-2021 20:52*
Surr: 1,2-Dichloroethane-d4	*88.3*			**0**	*81-118*	*%REC*	*250*	*02-Nov-2021 14:20*
Surr: 4-Bromofluorobenzene	*96.5*			**0**	*85-114*	*%REC*	*10*	*01-Nov-2021 20:52*
Surr: 4-Bromofluorobenzene	*98.2*			**0**	*85-114*	*%REC*	*250*	*02-Nov-2021 14:20*
Surr: Dibromofluoromethane	*92.2*			**0**	*80-119*	*%REC*	*10*	*01-Nov-2021 20:52*
Surr: Dibromofluoromethane	*90.6*			**0**	*80-119*	*%REC*	*250*	*02-Nov-2021 14:20*
Surr: Toluene-d8	*97.3*			**0**	*89-112*	*%REC*	*10*	*01-Nov-2021 20:52*
Surr: Toluene-d8	*100.0*			**0**	*89-112*	*%REC*	*250*	*02-Nov-2021 14:20*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101171
Sample ID: 16EW04-211020 Lab ID:HS21101171-06
Collection Date: 20-Oct-2021 12:30 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,2-Trichloroethane	10	U	3.0	10	10	ug/L	10	01-Nov-2021 21:34
1,1-Dichloroethene	**5.6**	J	**2.0**	**5.0**	**10**	**ug/L**	10	01-Nov-2021 21:34
1,2-Dichloroethane	5.0	U	2.0	5.0	10	ug/L	10	01-Nov-2021 21:34
cis-1,2-Dichloroethene	**1,300**		**2.0**	**5.0**	**10**	**ug/L**	10	01-Nov-2021 21:34
Methylene chloride	10	U	4.0	10	20	ug/L	10	01-Nov-2021 21:34
Trichloroethene	**5,100**		**20**	**50**	**100**	**ug/L**	100	01-Nov-2021 21:55
Vinyl chloride	**15**		**2.0**	**5.0**	**10**	**ug/L**	10	01-Nov-2021 21:34
Surr: 1,2-Dichloroethane-d4	*89.4*			**0**	*81-118*	*%REC*	*10*	*01-Nov-2021 21:34*
Surr: 1,2-Dichloroethane-d4	*90.8*			**0**	*81-118*	*%REC*	*100*	*01-Nov-2021 21:55*
Surr: 4-Bromofluorobenzene	*96.7*			**0**	*85-114*	*%REC*	*10*	*01-Nov-2021 21:34*
Surr: 4-Bromofluorobenzene	*98.7*			**0**	*85-114*	*%REC*	*100*	*01-Nov-2021 21:55*
Surr: Dibromofluoromethane	*94.3*			**0**	*80-119*	*%REC*	*10*	*01-Nov-2021 21:34*
Surr: Dibromofluoromethane	*94.1*			**0**	*80-119*	*%REC*	*100*	*01-Nov-2021 21:55*
Surr: Toluene-d8	*98.4*			**0**	*89-112*	*%REC*	*10*	*01-Nov-2021 21:34*
Surr: Toluene-d8	*97.3*			**0**	*89-112*	*%REC*	*100*	*01-Nov-2021 21:55*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**

Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101171

Sample ID: 16EW08-211020 Lab ID:HS21101171-07

Collection Date: 20-Oct-2021 13:10 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	5.0	U	1.5	5.0	5.0	ug/L	5	01-Nov-2021 18:25
1,1-Dichloroethene	2.5	U	1.0	2.5	5.0	ug/L	5	01-Nov-2021 18:25
1,2-Dichloroethane	2.5	U	1.0	2.5	5.0	ug/L	5	01-Nov-2021 18:25
cis-1,2-Dichloroethene	**14**		**1.0**	**2.5**	**5.0**	**ug/L**	5	01-Nov-2021 18:25
Methylene chloride	5.0	U	2.0	5.0	10	ug/L	5	01-Nov-2021 18:25
Trichloroethene	**3.3**	J	**1.0**	**2.5**	**5.0**	**ug/L**	5	01-Nov-2021 18:25
Vinyl chloride	2.5	U	1.0	2.5	5.0	ug/L	5	01-Nov-2021 18:25
Surr: 1,2-Dichloroethane-d4	*89.3*			**0**	*81-118*	*%REC*	*5*	*01-Nov-2021 18:25*
Surr: 4-Bromofluorobenzene	*95.2*			**0**	*85-114*	*%REC*	*5*	*01-Nov-2021 18:25*
Surr: Dibromofluoromethane	*95.6*			**0**	*80-119*	*%REC*	*5*	*01-Nov-2021 18:25*
Surr: Toluene-d8	*96.9*			**0**	*89-112*	*%REC*	*5*	*01-Nov-2021 18:25*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**

Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101171

Sample ID: 16RW04-211020 Lab ID:HS21101171-08

Collection Date: 20-Oct-2021 13:50 Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,2-Trichloroethane	10	U	3.0	10	10	ug/L	10	01-Nov-2021 18:46
1,1-Dichloroethene	5.0	U	2.0	5.0	10	ug/L	10	01-Nov-2021 18:46
1,2-Dichloroethane	5.0	U	2.0	5.0	10	ug/L	10	01-Nov-2021 18:46
cis-1,2-Dichloroethene	**88**		**2.0**	**5.0**	**10**	**ug/L**	10	01-Nov-2021 18:46
Methylene chloride	10	U	4.0	10	20	ug/L	10	01-Nov-2021 18:46
Trichloroethene	**1,600**		**2.0**	**5.0**	**10**	**ug/L**	10	01-Nov-2021 18:46
Vinyl chloride	5.0	U	2.0	5.0	10	ug/L	10	01-Nov-2021 18:46
Surr: 1,2-Dichloroethane-d4	*87.2*			**0**	*81-118*	*%REC*	*10*	*01-Nov-2021 18:46*
Surr: 4-Bromofluorobenzene	*93.7*			**0**	*85-114*	*%REC*	*10*	*01-Nov-2021 18:46*
Surr: Dibromofluoromethane	*92.6*			**0**	*80-119*	*%REC*	*10*	*01-Nov-2021 18:46*
Surr: Toluene-d8	*97.5*			**0**	*89-112*	*%REC*	*10*	*01-Nov-2021 18:46*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc. **ANALYTICAL REPORT**
Project: Longhorn Army Ammunition Plant 16 October 2021 WorkOrder:HS21101171
Sample ID: Trip Blank-211020 Lab ID:HS21101171-09
Collection Date: 20-Oct-2021 00:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	01-Nov-2021 14:33
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	01-Nov-2021 14:33
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	01-Nov-2021 14:33
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	01-Nov-2021 14:33
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	01-Nov-2021 14:33
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	01-Nov-2021 14:33
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	01-Nov-2021 14:33
Surr: 1,2-Dichloroethane-d4	*86.3*			**0**	*81-118*	*%REC*	*1*	*01-Nov-2021 14:33*
Surr: 4-Bromofluorobenzene	*97.1*			**0**	*85-114*	*%REC*	*1*	*01-Nov-2021 14:33*
Surr: Dibromofluoromethane	*93.4*			**0**	*80-119*	*%REC*	*1*	*01-Nov-2021 14:33*
Surr: Toluene-d8	*92.2*			**0**	*89-112*	*%REC*	*1*	*01-Nov-2021 14:33*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101171

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R394428 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Groundwater	
HS21101171-01	16IW09-211020	20 Oct 2021 07:55			22 Oct 2021 00:16	1
HS21101171-02	16IW10-211020	20 Oct 2021 09:05			22 Oct 2021 00:24	2
HS21101171-03	16EW01-211020	20 Oct 2021 10:10			22 Oct 2021 00:46	5
HS21101171-04	16EW03-211020	20 Oct 2021 11:00			22 Oct 2021 00:53	5
Batch ID: R394478 (0)	**Test Name :** ALKALINITY BY SM 2320B-2011				**Matrix:** Groundwater	
HS21101171-01	16IW09-211020	20 Oct 2021 07:55			28 Oct 2021 22:01	1
HS21101171-02	16IW10-211020	20 Oct 2021 09:05			28 Oct 2021 22:10	1
HS21101171-03	16EW01-211020	20 Oct 2021 10:10			28 Oct 2021 22:44	1
HS21101171-04	16EW03-211020	20 Oct 2021 11:00			28 Oct 2021 22:53	1
Batch ID: R394683 (0)	**Test Name :** DISSOLVED GASES BY RSK-175				**Matrix:** Groundwater	
HS21101171-01	16IW09-211020	20 Oct 2021 07:55			01 Nov 2021 11:39	100
HS21101171-01	16IW09-211020	20 Oct 2021 07:55			01 Nov 2021 10:00	1
HS21101171-02	16IW10-211020	20 Oct 2021 09:05			01 Nov 2021 12:04	100
HS21101171-02	16IW10-211020	20 Oct 2021 09:05			01 Nov 2021 10:08	1
HS21101171-03	16EW01-211020	20 Oct 2021 10:10			01 Nov 2021 12:13	10
HS21101171-03	16EW01-211020	20 Oct 2021 10:10			01 Nov 2021 11:04	1
HS21101171-04	16EW03-211020	20 Oct 2021 11:00			01 Nov 2021 12:21	10
HS21101171-04	16EW03-211020	20 Oct 2021 11:00			01 Nov 2021 11:18	1
Batch ID: R394702 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS21101171-09	Trip Blank-211020	20 Oct 2021 00:00			01 Nov 2021 14:33	1
Batch ID: R394702 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS21101171-01	16IW09-211020	20 Oct 2021 07:55			01 Nov 2021 14:54	1
HS21101171-02	16IW10-211020	20 Oct 2021 09:05			01 Nov 2021 15:15	10
HS21101171-03	16EW01-211020	20 Oct 2021 10:10			01 Nov 2021 19:49	100
HS21101171-03	16EW01-211020	20 Oct 2021 10:10			01 Nov 2021 19:28	10
HS21101171-04	16EW03-211020	20 Oct 2021 11:00			01 Nov 2021 20:10	10
HS21101171-05	16EW02-211020	20 Oct 2021 11:50			01 Nov 2021 20:52	10
HS21101171-06	16EW04-211020	20 Oct 2021 12:30			01 Nov 2021 21:55	100
HS21101171-06	16EW04-211020	20 Oct 2021 12:30			01 Nov 2021 21:34	10
HS21101171-07	16EW08-211020	20 Oct 2021 13:10			01 Nov 2021 18:25	5
HS21101171-08	16RW04-211020	20 Oct 2021 13:50			01 Nov 2021 18:46	10
Batch ID: R394797 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS21101171-05	16EW02-211020	20 Oct 2021 11:50			02 Nov 2021 14:20	250
Batch ID: R394840 (0)	**Test Name :** TOTAL ORGANIC CARBON - SM5310B-2011				**Matrix:** Groundwater	
HS21101171-03	16EW01-211020	20 Oct 2021 10:10			03 Nov 2021 11:19	1

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101171

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R395000 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Groundwater	
HS21101171-02	16IW10-211020	20 Oct 2021 09:05			05 Nov 2021 02:08	10
HS21101171-03	16EW01-211020	20 Oct 2021 10:10			05 Nov 2021 02:30	100
HS21101171-04	16EW03-211020	20 Oct 2021 11:00			05 Nov 2021 02:37	50
Batch ID: R395030 (0)	**Test Name :** TOTAL ORGANIC CARBON - SM5310B-2011				**Matrix:** Groundwater	
HS21101171-01	16IW09-211020	20 Oct 2021 07:55			05 Nov 2021 02:09	10
HS21101171-02	16IW10-211020	20 Oct 2021 09:05			05 Nov 2021 02:25	10
HS21101171-04	16EW03-211020	20 Oct 2021 11:00			05 Nov 2021 02:57	2

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101171

QC BATCH REPORT

Batch ID: R394683 (0) **Instrument:** FID-4 **Method:** DISSOLVED GASES BY RSK-175

MBLK Sample ID: **MBLK-211101** Units: **mg/L** Analysis Date: **01-Nov-2021 09:25**
Client ID: Run ID: **FID-4_394683** SeqNo: **6351816** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.000500	0.00100								U
Ethene	0.000500	0.00100								U
Methane	0.000250	0.000500								U

LCS Sample ID: **LCS-211101** Units: **mg/L** Analysis Date: **01-Nov-2021 09:50**
Client ID: Run ID: **FID-4_394683** SeqNo: **6351856** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.0179	0.00100	0.01804	0	99.4	75 - 125				
Ethene	0.0192	0.00100	0.0168	0	114	75 - 125				
Methane	0.00985	0.000500	0.009647	0	102	75 - 125				

MS Sample ID: **HS21101171-02MS** Units: **mg/L** Analysis Date: **01-Nov-2021 10:45**
Client ID: **16IW10-211020** Run ID: **FID-4_394683** SeqNo: **6351820** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.0142	0.00100	0.01804	0	78.8	75 - 125				
Ethene	0.0245	0.00100	0.0168	0.01321	67.0	75 - 125				S
Methane	1.89	0.000500	0.009647	2.319	-4480	75 - 125				SEO

MSD Sample ID: **HS21101171-02MSD** Units: **mg/L** Analysis Date: **01-Nov-2021 10:56**
Client ID: **16IW10-211020** Run ID: **FID-4_394683** SeqNo: **6351821** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.0160	0.00100	0.01804	0	88.8	75 - 125	0.01421	12	30	
Ethene	0.0230	0.00100	0.0168	0.01321	58.2	75 - 125	0.02447	6.25	30	S
Methane	1.97	0.000500	0.009647	2.319	-3660	75 - 125	1.887	4.09	30	SEO

The following samples were analyzed in this batch: HS21101171-01 HS21101171-02 HS21101171-03 HS21101171-04

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101171

QC BATCH REPORT

Batch ID: R394702 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-211101** Units: **ug/L** Analysis Date: **01-Nov-2021 14:08**
Client ID: Run ID: **VOA6_394702** SeqNo: **6349755** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	1.0	1.0								U
1,1-Dichloroethene	0.50	1.0								U
1,2-Dichloroethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
Methylene chloride	1.0	2.0								U
Trichloroethene	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*41.74*	*1.0*	*50*	*0*	*83.5*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*47.11*	*1.0*	*50*	*0*	*94.2*	*85 - 114*				
Surr: Dibromofluoromethane	*46.84*	*1.0*	*50*	*0*	*93.7*	*80 - 119*				
Surr: Toluene-d8	*47.8*	*1.0*	*50*	*0*	*95.6*	*89 - 112*				

LCS Sample ID: **VLCSW-211101** Units: **ug/L** Analysis Date: **01-Nov-2021 13:27**
Client ID: Run ID: **VOA6_394702** SeqNo: **6349754** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	19.5	1.0	20	0	97.5	80 - 119				
1,1-Dichloroethene	18.83	1.0	20	0	94.2	71 - 131				
1,2-Dichloroethane	19.46	1.0	20	0	97.3	73 - 128				
cis-1,2-Dichloroethene	20.75	1.0	20	0	104	78 - 123				
Methylene chloride	20.98	2.0	20	0	105	74 - 124				
Trichloroethene	20.65	1.0	20	0	103	79 - 123				
Vinyl chloride	18	1.0	20	0	90.0	58 - 137				
Surr: 1,2-Dichloroethane-d4	*46.81*	*1.0*	*50*	*0*	*93.6*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*49.9*	*1.0*	*50*	*0*	*99.8*	*85 - 114*				
Surr: Dibromofluoromethane	*50.43*	*1.0*	*50*	*0*	*101*	*80 - 119*				
Surr: Toluene-d8	*45.48*	*1.0*	*50*	*0*	*91.0*	*89 - 112*				

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101171

QC BATCH REPORT

Batch ID: R394702 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21101171-02MS** Units: **ug/L** Analysis Date: **01-Nov-2021 15:36**
Client ID: **16IW10-211020** Run ID: **VOA6_394702** SeqNo: **6349759** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	195.6	10	200	0	97.8	80 - 119				
1,1-Dichloroethene	173.6	10	200	0	86.8	71 - 131				
1,2-Dichloroethane	180.1	10	200	0	90.0	73 - 128				
cis-1,2-Dichloroethene	188.6	10	200	11.3	88.7	78 - 123				
Methylene chloride	174.5	20	200	0	87.3	74 - 124				
Trichloroethene	206	10	200	0	103	79 - 123				
Vinyl chloride	177.4	10	200	0	88.7	58 - 137				
Surr: 1,2-Dichloroethane-d4	*422.9*	*10*	*500*	*0*	*84.6*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*491.8*	*10*	*500*	*0*	*98.4*	*85 - 114*				
Surr: Dibromofluoromethane	*462*	*10*	*500*	*0*	*92.4*	*80 - 119*				
Surr: Toluene-d8	*481.3*	*10*	*500*	*0*	*96.3*	*89 - 112*				

MSD Sample ID: **HS21101171-02MSD** Units: **ug/L** Analysis Date: **01-Nov-2021 15:57**
Client ID: **16IW10-211020** Run ID: **VOA6_394702** SeqNo: **6349760** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	184.1	10	200	0	92.1	80 - 119	195.6	6.07	20	
1,1-Dichloroethene	164.9	10	200	0	82.4	71 - 131	173.6	5.19	20	
1,2-Dichloroethane	176.9	10	200	0	88.5	73 - 128	180.1	1.75	20	
cis-1,2-Dichloroethene	178.3	10	200	11.3	83.5	78 - 123	188.6	5.66	20	
Methylene chloride	170.4	20	200	0	85.2	74 - 124	174.5	2.4	20	
Trichloroethene	191.1	10	200	0	95.5	79 - 123	206	7.53	20	
Vinyl chloride	164	10	200	0	82.0	58 - 137	177.4	7.84	20	
Surr: 1,2-Dichloroethane-d4	*418.4*	*10*	*500*	*0*	*83.7*	*81 - 118*	*422.9*	*1.07*	*20*	
Surr: 4-Bromofluorobenzene	*490.6*	*10*	*500*	*0*	*98.1*	*85 - 114*	*491.8*	*0.254*	*20*	
Surr: Dibromofluoromethane	*458*	*10*	*500*	*0*	*91.6*	*80 - 119*	*462*	*0.874*	*20*	
Surr: Toluene-d8	*483.5*	*10*	*500*	*0*	*96.7*	*89 - 112*	*481.3*	*0.447*	*20*	

The following samples were analyzed in this batch:

HS21101171-01	HS21101171-02	HS21101171-03	HS21101171-04
HS21101171-05	HS21101171-06	HS21101171-07	HS21101171-08
HS21101171-09			

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101171

QC BATCH REPORT

Batch ID: R394797 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-211102** Units: **ug/L** Analysis Date: **02-Nov-2021 12:56**
Client ID: Run ID: **VOA6_394797** SeqNo: **6351627** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	0.50	1.0								U
Trichloroethene	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*43.99*	*1.0*	*50*	*0*	*88.0*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*49.05*	*1.0*	*50*	*0*	*98.1*	*85 - 114*				
Surr: Dibromofluoromethane	*45.71*	*1.0*	*50*	*0*	*91.4*	*80 - 119*				
Surr: Toluene-d8	*48.24*	*1.0*	*50*	*0*	*96.5*	*89 - 112*				

LCS Sample ID: **VLCSW-211102** Units: **ug/L** Analysis Date: **02-Nov-2021 12:14**
Client ID: Run ID: **VOA6_394797** SeqNo: **6351626** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	20	1.0	20	0	100.0	78 - 123				
Trichloroethene	20	1.0	20	0	100	79 - 123				
Surr: 1,2-Dichloroethane-d4	*46.67*	*1.0*	*50*	*0*	*93.3*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*50.32*	*1.0*	*50*	*0*	*101*	*85 - 114*				
Surr: Dibromofluoromethane	*50.02*	*1.0*	*50*	*0*	*100*	*80 - 119*				
Surr: Toluene-d8	*46.12*	*1.0*	*50*	*0*	*92.2*	*89 - 112*				

MS Sample ID: **HS21101171-05MS** Units: **ug/L** Analysis Date: **02-Nov-2021 15:02**
Client ID: **16EW02-211020** Run ID: **VOA6_394797** SeqNo: **6351630** PrepDate: DF: **250**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	25180	250	5000	22240	58.8	78 - 123				SO
Trichloroethene	25950	250	5000	22890	61.3	79 - 123				SO
Surr: 1,2-Dichloroethane-d4	*11010*	*250*	*12500*	*0*	*88.1*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*12430*	*250*	*12500*	*0*	*99.4*	*85 - 114*				
Surr: Dibromofluoromethane	*11580*	*250*	*12500*	*0*	*92.6*	*80 - 119*				
Surr: Toluene-d8	*11960*	*250*	*12500*	*0*	*95.6*	*89 - 112*				

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101171

QC BATCH REPORT

Batch ID: R394797 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS21101171-05MSD** Units: **ug/L** Analysis Date: **02-Nov-2021 15:23**
Client ID: **16EW02-211020** Run ID: **VOA6_394797** SeqNo: **6351631** PrepDate: DF: **250**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	25310	250	5000	22240	61.5	78 - 123	25180	0.531	20	SO
Trichloroethene	26210	250	5000	22890	66.4	79 - 123	25950	0.985	20	SO
Surr: 1,2-Dichloroethane-d4	*10650*	*250*	*12500*	*0*	*85.2*	*81 - 118*	*11010*	*3.26*	*20*	
Surr: 4-Bromofluorobenzene	*12040*	*250*	*12500*	*0*	*96.3*	*85 - 114*	*12430*	*3.16*	*20*	
Surr: Dibromofluoromethane	*11220*	*250*	*12500*	*0*	*89.7*	*80 - 119*	*11580*	*3.16*	*20*	
Surr: Toluene-d8	*12010*	*250*	*12500*	*0*	*96.1*	*89 - 112*	*11960*	*0.47*	*20*	

The following samples were analyzed in this batch: HS21101171-05

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101171

QC BATCH REPORT

Batch ID: R394428 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **21-Oct-2021 23:54**
Client ID: Run ID: **ICS-Integrion_394428** SeqNo: **6343667** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	0.100	0.100								U
Nitrogen, Nitrate (As N)	0.100	0.100								U
Sulfate	0.500	0.500								U

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **22-Oct-2021 00:02**
Client ID: Run ID: **ICS-Integrion_394428** SeqNo: **6343668** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	4.082	0.100	4	0	102	80 - 120				
Nitrogen, Nitrate (As N)	3.863	0.100	4	0	96.6	80 - 120				
Sulfate	19.91	0.500	20	0	99.6	80 - 120				

MS Sample ID: **HS21101171-02MS** Units: **mg/L** Analysis Date: **22-Oct-2021 00:31**
Client ID: **16IW10-211020** Run ID: **ICS-Integrion_394428** SeqNo: **6343671** PrepDate: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	67.74	0.200	4	63.28	112	80 - 120				EO
Nitrogen, Nitrate (As N)	3.785	0.200	4	0.0124	94.3	80 - 120				
Sulfate	18.78	1.00	20	0	93.9	80 - 120				

MS Sample ID: **HS21101144-10MS** Units: **mg/L** Analysis Date: **21-Oct-2021 09:03**
Client ID: Run ID: **ICS-Integrion_394428** SeqNo: **6344024** PrepDate: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	5.151	0.200	4	1.548	90.1	80 - 120				
Nitrogen, Nitrate (As N)	3.673	0.200	4	0.0112	91.5	80 - 120				
Sulfate	153.6	1.00	20	137.3	81.1	80 - 120				O

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101171

QC BATCH REPORT

Batch ID: R394428 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY SW9056A

MSD Sample ID: **HS21101171-02MSD** Units: **mg/L** Analysis Date: **22-Oct-2021 00:39**
Client ID: **16IW10-211020** Run ID: **ICS-Integrion_394428** SeqNo: **6343672** PrepDate: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	67.11	0.200	4	63.28	95.8	80 - 120	67.74	0.933	20	EO
Nitrogen, Nitrate (As N)	3.79	0.200	4	0.0124	94.4	80 - 120	3.785	0.127	20	
Sulfate	18.75	1.00	20	0	93.7	80 - 120	18.78	0.147	20	

MSD Sample ID: **HS21101144-10MSD** Units: **mg/L** Analysis Date: **21-Oct-2021 09:10**
Client ID: Run ID: **ICS-Integrion_394428** SeqNo: **6344025** PrepDate: DF: **2**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	5.356	0.200	4	1.548	95.2	80 - 120	5.151	3.89	20	
Nitrogen, Nitrate (As N)	3.702	0.200	4	0.0112	92.3	80 - 120	3.673	0.781	20	
Sulfate	155.5	1.00	20	137.3	90.9	80 - 120	153.6	1.26	20	O

The following samples were analyzed in this batch: HS21101171-01 HS21101171-02 HS21101171-03 HS21101171-04

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101171

QC BATCH REPORT

Batch ID: R394478 (0) **Instrument: ManTech01** **Method: ALKALINITY BY SM 2320B-2011**

MBLK Sample ID: **WBLKW2-211028** Units: **mg/L** Analysis Date: **28-Oct-2021 21:22**
Client ID: Run ID: **ManTech01_394478** SeqNo: **6344815** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	5.00	5.00								U

LCS Sample ID: **WLCS2-211028** Units: **mg/L** Analysis Date: **28-Oct-2021 20:49**
Client ID: Run ID: **ManTech01_394478** SeqNo: **6344811** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1036	5.00	1000	0	104	85 - 115				

LCSD Sample ID: **WLCSD2-211028** Units: **mg/L** Analysis Date: **28-Oct-2021 20:59**
Client ID: Run ID: **ManTech01_394478** SeqNo: **6344812** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1046	5.00	1000	0	105	85 - 115	1036	0.996	20	

DUP Sample ID: **HS21101171-02DUP** Units: **mg/L** Analysis Date: **28-Oct-2021 22:19**
Client ID: **16IW10-211020** Run ID: **ManTech01_394478** SeqNo: **6344821** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1089	5.00					1111	1.97	20	

The following samples were analyzed in this batch: HS21101171-01 HS21101171-02 HS21101171-03 HS21101171-04

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101171

QC BATCH REPORT

Batch ID: R394840 (0) **Instrument:** TOC_04 **Method:** TOTAL ORGANIC CARBON - SM5310B-2011

MBLK Sample ID: **MBLK-11022021** Units: **mg/L** Analysis Date: **03-Nov-2021 09:26**
Client ID: Run ID: **TOC_04_394840** SeqNo: **6352465** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	1.00	1.00								U

LCS Sample ID: **LCS-11022021** Units: **mg/L** Analysis Date: **03-Nov-2021 09:42**
Client ID: Run ID: **TOC_04_394840** SeqNo: **6352466** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.69	1.00	10	0	107	85 - 115				

LCSD Sample ID: **LCSD-11022021** Units: **mg/L** Analysis Date: **03-Nov-2021 09:58**
Client ID: Run ID: **TOC_04_394840** SeqNo: **6352467** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.71	1.00	10	0	107	85 - 115	10.69	0.187	20	

MS Sample ID: **HS21101171-02MS** Units: **mg/L** Analysis Date: **03-Nov-2021 11:03**
Client ID: **16IW10-211020** Run ID: **TOC_04_394840** SeqNo: **6352471** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	267.3	1.00	10	241.4	259	80 - 120				SEO

The following samples were analyzed in this batch: HS21101171-03

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101171

QC BATCH REPORT

Batch ID: R395000 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY SW9056A

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **05-Nov-2021 01:53**
Client ID: Run ID: **ICS-Integrion_395000** SeqNo: **6356584** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	0.100	0.100								U
Sulfate	0.500	0.500								U

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **05-Nov-2021 02:00**
Client ID: Run ID: **ICS-Integrion_395000** SeqNo: **6356585** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	3.867	0.100	4	0	96.7	80 - 120				
Sulfate	20.15	0.500	20	0	101	80 - 120				

MS Sample ID: **HS21101171-02MS** Units: **mg/L** Analysis Date: **05-Nov-2021 02:15**
Client ID: **16IW10-211020** Run ID: **ICS-Integrion_395000** SeqNo: **6356587** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	83.76	1.00	20	59.64	121	80 - 120				S
Sulfate	106.3	5.00	100	0	106	80 - 120				

MSD Sample ID: **HS21101171-02MSD** Units: **mg/L** Analysis Date: **05-Nov-2021 02:22**
Client ID: **16IW10-211020** Run ID: **ICS-Integrion_395000** SeqNo: **6356588** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	82.32	1.00	20	59.64	113	80 - 120	83.76	1.74	20	
Sulfate	104.6	5.00	100	0	105	80 - 120	106.3	1.6	20	

The following samples were analyzed in this batch: HS21101171-02 HS21101171-03 HS21101171-04

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: HS21101171

QC BATCH REPORT

Batch ID: R395030 (0) **Instrument:** TOC_04 **Method:** TOTAL ORGANIC CARBON - SM5310B-2011

MBLK Sample ID: **MBLK-11042021** Units: **mg/L** Analysis Date: **05-Nov-2021 01:21**
Client ID: Run ID: **TOC_04_395030** SeqNo: **6357165** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	1.00	1.00								U

LCS Sample ID: **LCS-11042021** Units: **mg/L** Analysis Date: **05-Nov-2021 01:37**
Client ID: Run ID: **TOC_04_395030** SeqNo: **6357166** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.66	1.00	10	0	107	85 - 115				

LCSD Sample ID: **LCSD-11042021** Units: **mg/L** Analysis Date: **05-Nov-2021 01:53**
Client ID: Run ID: **TOC_04_395030** SeqNo: **6357167** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.78	1.00	10	0	108	85 - 115	10.66	1.12	20	

MS Sample ID: **HS21101171-02MS** Units: **mg/L** Analysis Date: **05-Nov-2021 02:41**
Client ID: **16IW10-211020** Run ID: **TOC_04_395030** SeqNo: **6357170** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	220.3	10.0	100	203.2	17.1	80 - 120				S

The following samples were analyzed in this batch: HS21101171-01 HS21101171-02 HS21101171-04

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
WorkOrder: **HS21101171**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-33	30-Jun-2022
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2021-2022	31-Jul-2022
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2021-2022	30-Jun-2022
North Carolina	624-2021	31-Dec-2021
Texas	T104704231-21-28	30-Apr-2022

ALS Houston, US Date: 08-Nov-21

Client: Aptim Environmental & Infrastucture, Inc.
Project: Longhorn Army Ammunition Plant 16 October 2021
Work Order: HS21101171

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS21101171-01	16IW09-211020	Login	10/21/2021 2:40:17 PM	PMG	WET198
HS21101171-01	16IW09-211020	Login	10/21/2021 2:40:17 PM	PMG	VOA139
HS21101171-01	16IW09-211020	Login	10/21/2021 2:40:17 PM	PMG	RSK028
HS21101171-01	16IW09-211020	Login	10/21/2021 2:40:17 PM	PMG	WET167

ALS Houston, US Date: 08-Nov-21

Sample Receipt Checklist

Work Order ID: HS21101171 **Date/Time Received:** 21-Oct-2021 11:40

Client Name: CBI-Houston **Received by:** Pablo Marinez

Completed By:	/S/ Paresh M. Giga	21-Oct-2021 14:51	**Reviewed by:**	/S/ Ragen Giga	22-Oct-2021 10:47
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **GW/Water** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	2 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:none
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.1C U/C	IR31	
Cooler(s)/Kit(s):	46462		
Date/Time sample(s) sent to storage:	10/21/2021 15:10		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Ragen Giga

Project: APTIM LONGHORN ARMY AMMN. PLANT (LHAAP) GROUNDWATER TREATMENT PLANT (GWTP) KARNACK, TEXAS	Project No. 501032
Job: **LHAAP 16 October 2021**	
Prepared By: Scott Beesinger	P.O. Number

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	VOC by SW 8260B	TOC by SM5310C	MEE by RSK 175	Anions (bromide, sulfate, nitrate) by SW9056 and Alkalinity by SM2320	Bromide by SW9056	Perchlorate by SW6850	Metals (arsenic, chromium, manganese, nickel, thallium) by SW6020				Remarks (Preservatives, etc.)	Lab I.D.#
16IW09-211020	W6	10/20/21/0755		9	X	X	X	X	X							
16IW10-211020	W6	10/20/21/0905		9	X	X	X	X	X							
16IW10-211020-MS	W6	10/20/21/0905		9	X	X	X	X	X							
16IW10-211020-MSD	W6	10/20/21/0905		9	X	X	X	X	X							
16EW01-211020	W6	10/20/21/1010		9	X	X	X	X	X							
16EW03-211020	W6	10/20/21/1100		9	X	X	X	X	X							
16EW02-211020	W6	10/20/21/1150		3	X											
16EW04-211020	W6	10/20/21/1230		3	X											

Additional Remarks: Standard TAT on all parameters. Please email results to Vicki.Graves@aptim.com and invoices to fedinvoices@aptim.com

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	10/20/21	1430		10/21/21	11:40						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:

HS21101171

Aptim Environmental & Infrastucture, Inc.
Longhorn Army Ammunition Plant 16 October 2021

46461
1.1C
1831
1641

(Word) S:\Forms\Chain of Custody - BiWeekly

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Ragen Giga

Project: APTIM
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No. 501032

Job: LHAAP 16 October 2021

Prepared By: Scott Beesinger

P.O. Number

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	VOC by SW 8260B	TOC by SM5310C	MEE by RSK 175	Anions (bromide, sulfate, nitrate) by SW9056 and Alkalinity by SM2320	Bromide by SW9056	Perchlorate by SW6850	Metals (arsenic, chromium, manganese, nickel, thallium) by SW6020				Remarks (Preservatives, etc.)	Lab I.D.#
16EWO8-211020	WG	10/20/21/1310		3	X											
16RWO4-211020	WG	10/20/21/1350		3	X											
TRIPBLANK-211020	WG	10/20/21/		2	X											

Additional Remarks: Standard TAT on all parameters. Please email results to Vicki.Graves@aptim.com and invoices to fedinvoices@aptim.com

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
	10/20/21	1430									

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:

HS21101171
Aptim Environmental & Infrastucture. Inc.
Longhorn Army Ammunition Plant 16 October 2021

46462
1.1C
1R31
CFO

(Word) S:\l-ces\Forms\Chain of Custody - BiWeekly

ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5856
Fax. +1 281 530 5887

46462

CUSTODY SEAL

Date: 10/20/21 Time: 1430
Name: Scott Beesinger
Company: EHA

Seal Broken By: SM
Date: 10/27/21

46462 OCT 21 2021

46462

ORIGIN ID:SGRA (903) 930-6193
SCOTT BEESINGER
APTIM ENVIRONMENTAL & INFRASTRUCTURE
1203-B EAST GRAND AVE
PMB 202
MARSHALL, TX 75670
UNITED STATES US

SHIP DATE: 27SEP21
ACTWGT: 1.00 LB MAN
CAD: 5221247/CAFE3504
DIMS: 26x14x14 IN

TO SHIPPING DEPT
ALS LABORATORY GROUP
10450 STANCLIFF RD.
SUITE 210
HOUSTON TX 77099
(281)-530-5856
REF: LHAAP 04 – RG

RMA:

Fed Expr

TRK# 5222 5941

PRIORITY OVERNIGHT

AB SGRA

77099
TX-US
IAH

4730674 700C/28/1 SGRA 5600/1400/1873

HS21101171 8260 Raw Data

ALS WO# HS21101171

MSVOA06 -Logbook

Batch: 46738
Date: 10-08-2021
Method: 8260
Comments:

Analyst: Presenta Cabascango
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	10-08-2021 12:47 pm	1.00	50 mL	50 mL	X100801.D	Liquid	Y	NA
2	VSTD000.25	ICAL1	10-08-2021 01:08 pm	1.00	50 mL	50 mL	X100802.D	Liquid	Y	NA
3	VSTD000.5	ICAL2	10-08-2021 01:50 pm	1.00	50 mL	50 mL	X100803.D	Liquid	Y	NA
4	VSTD001	ICAL3	10-08-2021 02:11 pm	1.00	50 mL	50 mL	X100804.D	Liquid	Y	NA
5	VSTD002	ICAL4	10-08-2021 02:32 pm	1.00	50 mL	50 mL	X100805.D	Liquid	Y	NA
6	VSTD005	ICAL5	10-08-2021 02:53 pm	1.00	50 mL	50 mL	X100806.D	Liquid	Y	NA
7	VSTD020	ICAL6	10-08-2021 03:14 pm	1.00	50 mL	50 mL	X100807.D	Liquid	Y	NA
8	VSTD050	ICAL7	10-08-2021 03:34 pm	1.00	50 mL	50 mL	X100808.D	Liquid	Y	NA
9	VSTD100	ICAL8	10-08-2021 03:55 pm	1.00	50 mL	50 mL	X100809.D	Liquid	Y	NA
10	VSTD150	ICAL9	10-08-2021 04:16 pm	1.00	50 mL	50 mL	X100810.D	Liquid	Y	NA
11	VSTD200	ICAL	10-08-2021 04:37 pm	1.00	50 mL	50 mL	X100811.D	Liquid	Y	NA
12	BLANK	SAMP	10-08-2021 04:58 pm	1.00	50 mL	50 mL	X100812.D	Liquid	Y	NA
13	BLANK	SAMP	10-08-2021 05:19 pm	1.00	50 mL	50 mL	X100813.D	Liquid	Y	NA
14	CCV	CCV	10-08-2021 05:40 pm	1.00	50 mL	50 mL	X100814.D	Liquid	Y	NA
15	BFB	TUNE	10-08-2021 06:01 pm	1.00	50 mL	50 mL	Y100801.D	Liquid	Y	NA
16	CCV	CCV	10-08-2021 06:22 pm	1.00	50 mL	50 mL	Y100802a.D	Liquid	Y	NA
17	CCV	CCV	10-08-2021 06:43 pm	1.00	50 mL	50 mL	Y100803.D	Liquid	Y	NA
18	CCB	SAMP	10-08-2021 07:04 pm	1.00	50 mL	50 mL	Y100804.D	Liquid	Y	NA
19	VLCSW-211008	LCS	10-08-2021 07:25 pm	1.00	50 mL	50 mL	Y100805.D	Liquid	Y	NA
20	BLANK	SAMP	10-08-2021 07:46 pm	1.00	50 mL	50 mL	Y100806.D	Liquid	Y	NA
21	BLANK	SAMP	10-08-2021 08:07 pm	1.00	50 mL	50 mL	Y100807.D	Liquid	Y	NA
22	VBLKW-211008	MBLK	10-08-2021 08:28 pm	1.00	50 mL	50 mL	Y100808.D	Liquid	Y	NA
23	HS21100202-01	SAMP	10-08-2021 08:49 pm	1.00	50 mL	50 mL	Y100809.D	Liquid	Y	NA
24	HS21100202-03	SAMP	10-08-2021 09:10 pm	1.00	50 mL	50 mL	Y100810.D	Liquid	Y	NA
25	HS21100202-04	SAMP	10-08-2021 09:31 pm	1.00	50 mL	50 mL	Y100811.D	Liquid	Y	NA
26	HS21100461-01	SAMP	10-08-2021 09:52 pm	1.00	50 mL	50 mL	Y100812.D	Liquid	Y	NA
27	HS21100461-02	SAMP	10-08-2021 10:14 pm	1.00	50 mL	50 mL	Y100813.D	Liquid	Y	NA
28	HS21100461-03	SAMP	10-08-2021 10:35 pm	1.00	50 mL	50 mL	Y100814.D	Liquid	Y	NA
29	HS21100300-01	SAMP	10-08-2021 10:56 pm	1.00	50 mL	50 mL	Y100815.D	Liquid	Y	NA
30	HS21100300-03	SAMP	10-08-2021 11:17 pm	1.00	50 mL	50 mL	Y100816.D	Liquid	Y	NA
31	HS21100300-04	SAMP	10-08-2021 11:38 pm	1.00	50 mL	50 mL	Y100817.D	Liquid	Y	NA
32	HS21100300-05	SAMP	10-08-2021 11:59 pm	1.00	50 mL	50 mL	Y100818.D	Liquid	Y	NA
33	HS21100300-06	SAMP	10-09-2021 12:20 am	1.00	50 mL	50 mL	Y100819.D	Liquid	Y	NA
34	HS21100300-07	SAMP	10-09-2021 12:41 am	1.00	50 mL	50 mL	Y100820.D	Liquid	Y	NA
35	HS21100308-01	SAMP	10-09-2021 01:02 am	1.00	50 mL	50 mL	Y100821.D	Liquid	Y	NA
36	HS21100246-05	SAMP	10-09-2021 01:23 am	1.00	50 mL	50 mL	Y100822.D	Liquid	Y	NA
37	HS21100300-06MS	MS	10-09-2021 01:44 am	1.00	50 mL	50 mL	Y100823.D	Liquid	Y	NA
38	HS21100300-06MSD	MSD	10-09-2021 02:05 am	1.00	50 mL	50 mL	Y100824.D	Liquid	Y	NA
39	CCV-END	CCV	10-09-2021 02:26 am	1.00	50 mL	50 mL	Y100825.D	Liquid	Y	NA
40	HS21100312-08	SAMP	10-09-2021 02:47 am	1.00	50 mL	50 mL	Y100826.D	Liquid	Y	NA
41	HS21100316-11	SAMP	10-09-2021 03:08 am	1.00	50 mL	50 mL	Y100827.D	Liquid	Y	NA

MSVOA06 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
42	HS21100320-11	SAMP	10-09-2021 03:29 am	1.00	50 mL	50 mL	Y100828.D	Liquid	Y	NA
43	HS21100323-19	SAMP	10-09-2021 03:50 am	1.00	50 mL	50 mL	Y100829.D	Liquid	Y	NA
44	HS21100399-11	SAMP	10-09-2021 04:11 am	1.00	50 mL	50 mL	Y100830.D	Liquid	Y	NA
45	HS21100457-07	SAMP	10-09-2021 04:32 am	1.00	50 mL	50 mL	Y100831.D	Liquid	Y	NA
46	BLANK	SAMP	10-09-2021 04:53 am	1.00	50 mL	50 mL	Y100832.D	Liquid	Y	NA

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
cis-1,2-Dichloroethene	50.00	50.82	102	80-120
Vinyl Chloride	50.00	47.21	94	80-120
Methylene Chloride	50.00	52.41	105	80-120
1,1-Dichloroethene	50.00	48.47	97	80-120
1,2-Dichloroethane	50.00	47.98	96	80-120
Trichloroethene	50.00	46.25	92	80-120
1,1,2-Trichloroethane	50.00	47.89	96	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM III VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Lab File ID: X100801 BFB Injection Date: 10/08/21

Instrument ID: VOA6 BFB Injection Time: 1247

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.7
75	30.0 - 60.0% of mass 95	47.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	1.2 (1.2)1
174	Greater than 50.0% of mass 95	97.4
175	5.0 - 9.0% of mass 174	7.0 (7.2)1
176	95.0 - 101.0% of mass 174	92.6 (95.0)1
177	5.0 - 9.0% of mass 176	5.8 (6.3)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD000.25	VSTD000.25	X100802	10/08/21	1308
02	VSTD000.5	VSTD000.5	X100803	10/08/21	1350
03	VSTD001	VSTD001	X100804	10/08/21	1411
04	VSTD002	VSTD002	X100805	10/08/21	1432
05	VSTD005	VSTD005	X100806	10/08/21	1453
06	VSTD020	VSTD020	X100807	10/08/21	1514
07	VSTD050	VSTD050	X100808	10/08/21	1534
08	VSTD100	VSTD100	X100809	10/08/21	1555
09	VSTD150	VSTD150	X100810	10/08/21	1616
10	VSTD200	VSTD200	X100811	10/08/21	1637
11	ICV	ICV	X100814	10/08/21	1740
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Instrument ID: VOA6 Calibration Date(s): 10/08/21 10/08/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1308 1637

LAB FILE ID: RF0.25: X100802 RF0.5: X100803 RF1: X100804
RF2: X100805 RF5: X100806 RF20: X100807

COMPOUND	RF0.25	RF0.5	RF1	RF2	RF5	RF20
Methylene Chloride		2444	4333	7762	19276	70665
1,1,2-Trichloroethane		0.263	0.266	0.315	0.301	0.258
Trichloroethene		0.432	0.477	0.393	0.391	0.354
Vinyl Chloride		0.582	0.594	0.586	0.600	0.514
1,1-Dichloroethene		0.463	0.490	0.473	0.500	0.440
1,2-Dichloroethane		0.420	0.472	0.432	0.456	0.429
cis-1,2-Dichloroethene		0.474	0.544	0.558	0.584	0.540
1,2-Dichloroethane-d4		3361	5961	9717	22194	84053
Dibromofluoromethane		2999	4837	8290	20676	78657
4-Bromofluorobenzene		4606	8328	13893	24945	96265
Toluene-d8		1.599	1.426	1.352	1.356	1.189

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS2110117

Instrument ID: VOA6 Calibration Date(s): 10/08/21 10/08/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1308 1637

LAB FILE ID: RF50: X100808 RF100: X100809 RF150: X100810
RF200: X100811

COMPOUND	RF50	RF100	RF150	RF200
Methylene Chloride	173952	361756	542343	743741
1,1,2-Trichloroethane	0.248	0.252	0.247	0.251
Trichloroethene	0.334	0.343	0.335	0.344
Vinyl Chloride	0.466	0.457	0.449	0.471
1,1-Dichloroethene	0.407	0.411	0.402	0.428
1,2-Dichloroethane	0.402	0.391	0.386	0.386
cis-1,2-Dichloroethene	0.501	0.494	0.479	0.503
1,2-Dichloroethane-d4	202478	416593	610768	835313
Dibromofluoromethane	192579	417318	604609	839119
4-Bromofluorobenzene	246655	511094	745510	1012260
Toluene-d8	1.125	1.164	1.092	1.116

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS2110117

Instrument ID: VOA6 Calibration Date(s): 10/08/21 10/08/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1308 1637

COMPOUND	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2
Methylene Chloride	LINR	-2.53e-002	2.35098937	0.9995671	0.9900000
1,1,2-Trichloroethane	AVRG		0.26680323	9.145	15.000
Trichloroethene	AVRG		0.37820923	13.102	15.000
Vinyl Chloride	AVRG		0.52422244	12.478	15.000
1,1-Dichloroethene	AVRG		0.44601099	8.294	15.000
1,2-Dichloroethane	AVRG		0.41941937	7.419	15.000
cis-1,2-Dichloroethene	AVRG		0.51982554	7.323	15.000
1,2-Dichloroethane-d4	LINR	-4.07e-002	2.09187623	0.9992556	0.9900000
Dibromofluoromethane	LINR	-2.28e-002	2.08394752	0.9991289	0.9900000
4-Bromofluorobenzene	LINR	-2.74e-002	2.35257164	0.9998215	0.9900000
Toluene-d8	AVRG		1.26890009	13.667	15.000

FORM VI VOA

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100801.D

Date : 08-OCT-2021 12:47

Client ID: BFB

Instrument: voa6.i

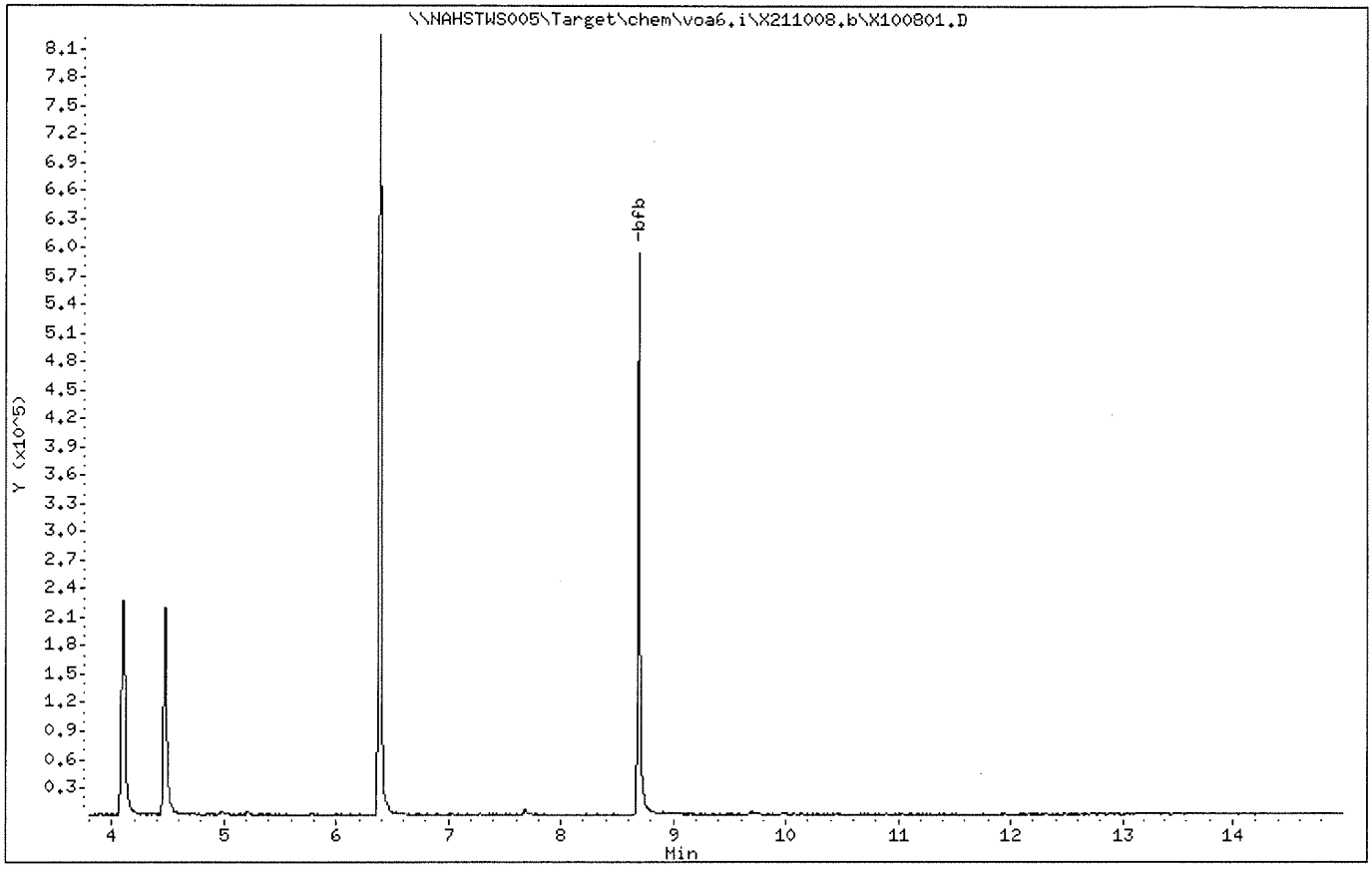
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100801.D

Date : 08-OCT-2021 12:47

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

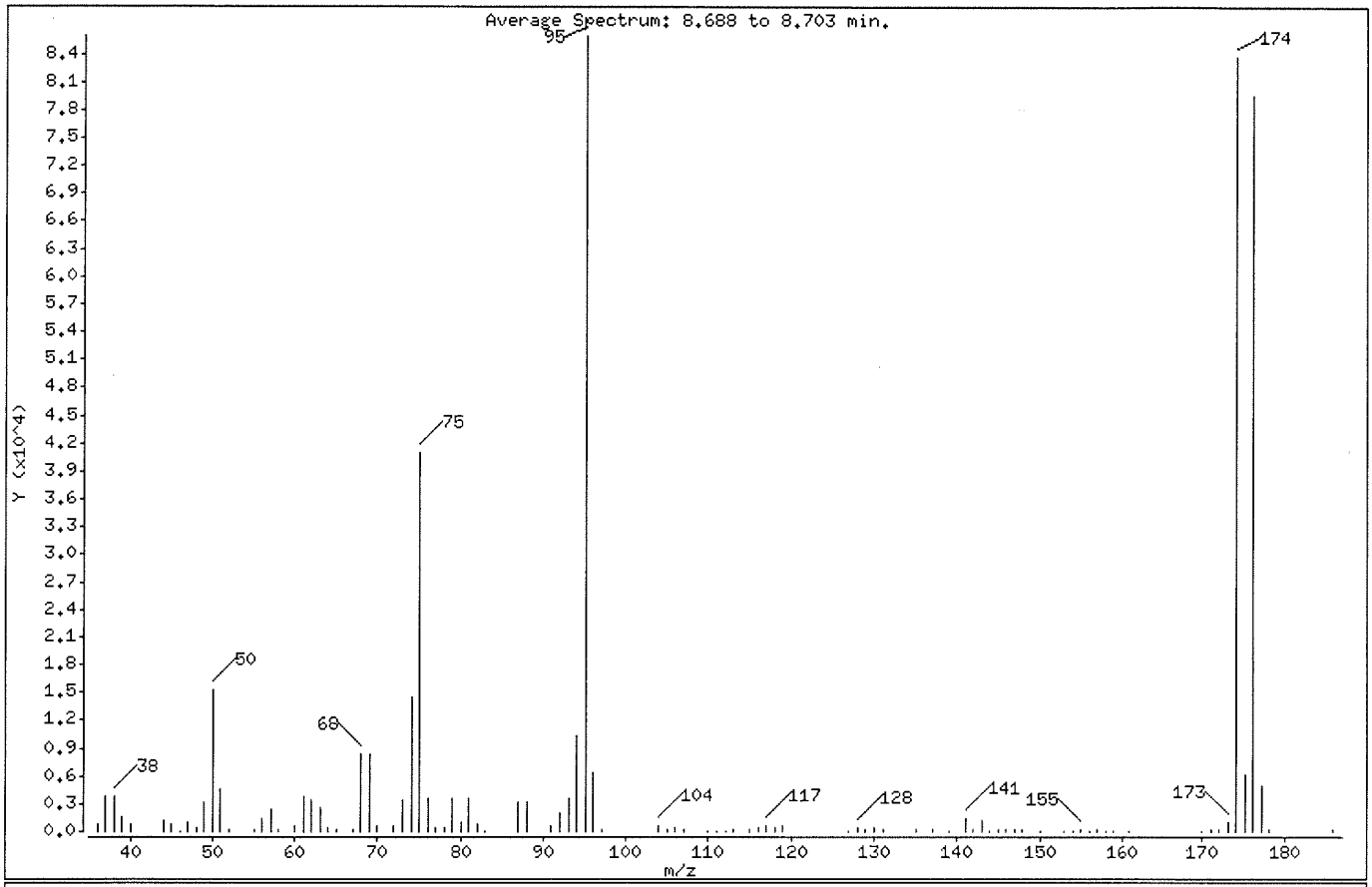
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.71
75	30.00 - 60.00% of mass 95	47.69
96	5.00 - 9.00% of mass 95	7.32
173	Less than 2.00% of mass 174	1.20 (1.23)
174	Greater than 50.00% of mass 95	97.43
175	5.00 - 9.00% of mass 174	7.05 (7.23)
176	95.00 - 101.00% of mass 174	92.59 (95.04)
177	5.00 - 9.00% of mass 176	5.83 (6.29)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100801.D

Date : 08-OCT-2021 12:47

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: X100801.D

Spectrum: Average Spectrum: 8.688 to 8.703 min.

Location of Maximum: 95.00

Number of points: 97

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	721	68.00	8366	105.00	192	146.00	142
37.00	3717	69.00	8247	106.00	438	147.00	134
38.00	3771	70.00	615	107.00	141	148.00	289
39.00	1498	72.00	610	110.00	76	150.00	47
40.00	771	73.00	3268	111.00	49	153.00	46
44.00	1225	74.00	14376	112.00	54	154.00	53
45.00	737	75.00	40960	113.00	150	155.00	276
46.00	93	76.00	3492	115.00	122	156.00	53
47.00	941	77.00	424	116.00	377	157.00	170
48.00	494	78.00	347	117.00	538	158.00	19
49.00	3152	79.00	3638	118.00	436	159.00	95
50.00	15214	80.00	1045	119.00	531	161.00	42
51.00	4568	81.00	3579	127.00	20	170.00	84
52.00	226	82.00	724	128.00	342	171.00	114
55.00	222	83.00	48	129.00	164	172.00	273
56.00	1360	87.00	3265	130.00	318	173.00	1029
57.00	2449	88.00	3096	131.00	136	174.00	83672
58.00	103	91.00	525	135.00	216	175.00	6051
60.00	630	92.00	2021	137.00	140	176.00	79520
61.00	3789	93.00	3470	139.00	44	177.00	5006
62.00	3324	94.00	10275	141.00	1339	178.00	134
63.00	2658	95.00	85880	142.00	123	186.00	131
64.00	410	96.00	6283	143.00	1219		
65.00	116	97.00	107	144.00	57		
67.00	212	104.00	516	145.00	106		

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Lab Smp Id: VSTD000.25 Client Smp ID: VSTD000.25
Inj Date : 08-OCT-2021 13:08
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.25;VSTD000.25;1;1;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 16-Nov-2021 15:57 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 13:50 Cal File: X100803.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

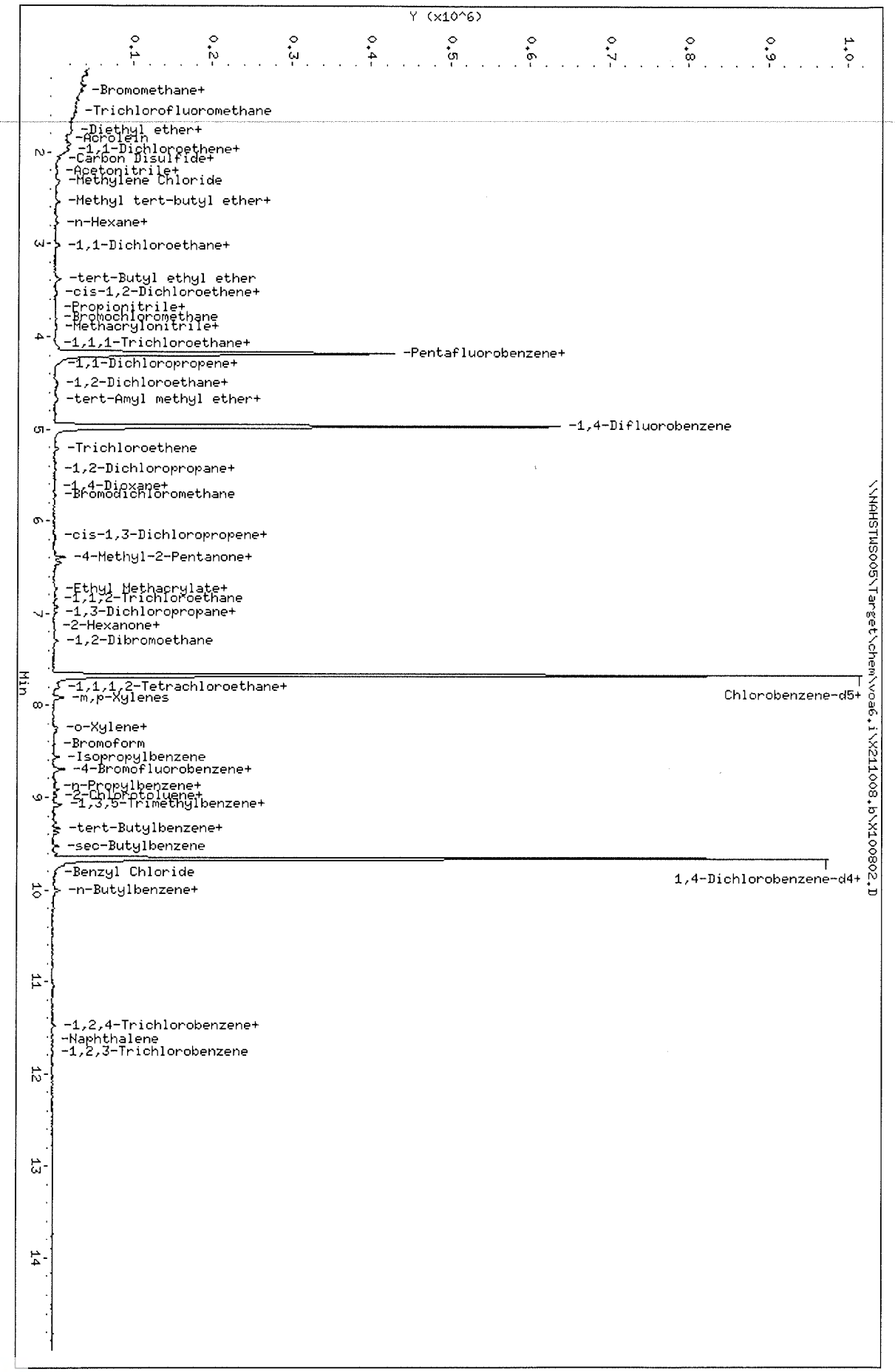
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		QUANT SIG					AMOUNTS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	361573	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	549183	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	504808	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	236339	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	2269	0.25000	(a)
$	35 1,2-Dichloroethane-d4	65	4.490	4.490	(1.074)	3143	0.25000	(Ta)
$	48 Toluene-d8	98	6.395	6.395	(0.834)	8062	0.25000	0.62(aM)
$	69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	6096	0.25000	0.05(a)
	11 1,1-Dichloroethene	96	1.918	1.918	(0.459)	1039	0.25000	0.32(a)
	33 1,2-Dichloroethane	62	4.569	4.569	(0.921)	1501	0.25000	0.32(a)
	27 cis-1,2-Dichloroethene	96	3.544	3.544	(0.848)	1215	0.25000	0.32(a)
	17 Methylene Chloride	84	2.312	2.312	(0.553)	2242	0.25000	(a)
	53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	1010	0.25000	0.37(a)
	38 Trichloroethene	130	5.213	5.213	(1.051)	1791	0.25000	0.43(aM)
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	1292	0.25000	0.34(aM)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

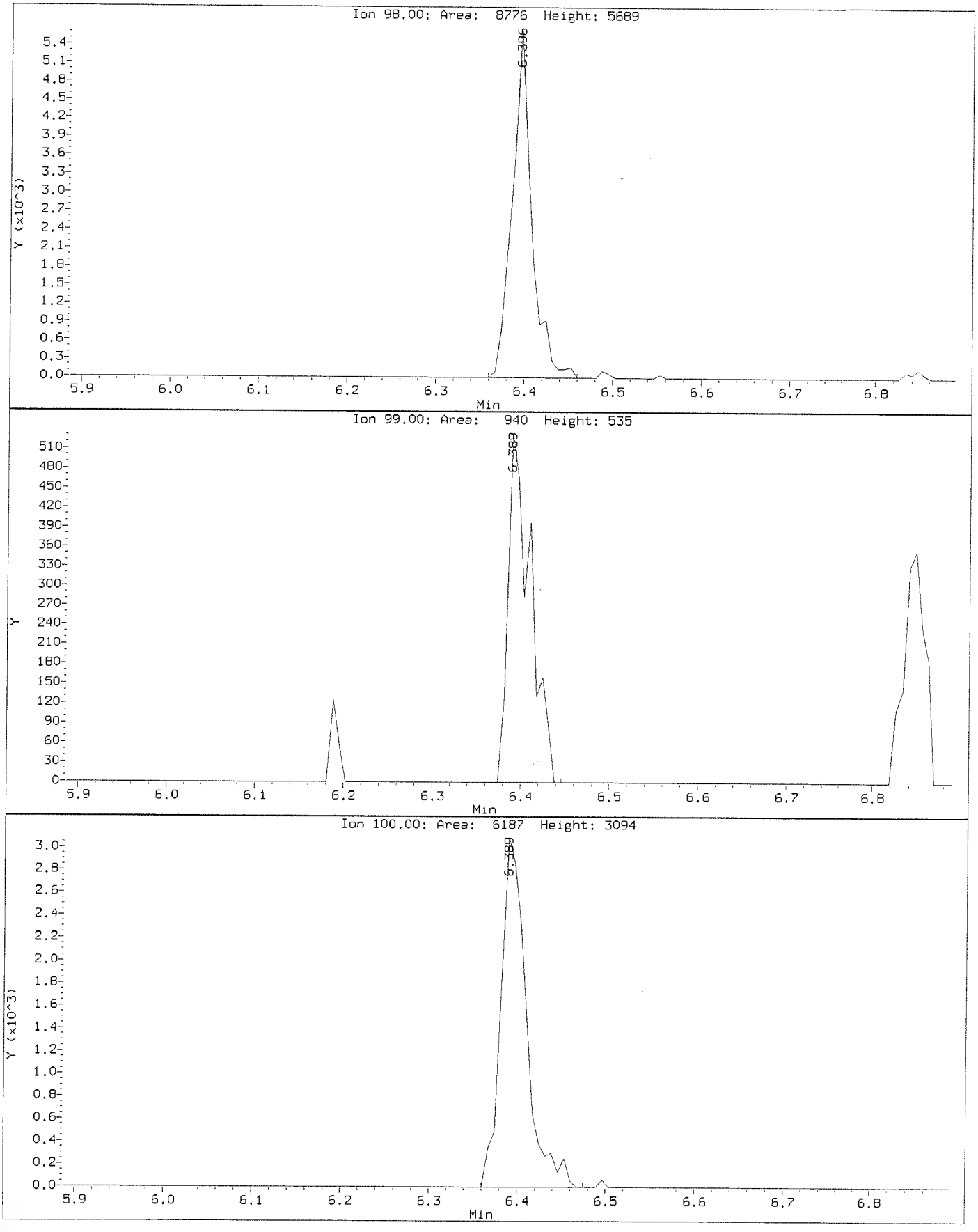


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Date : 08-OCT-2021 13:08
Client ID: VSTD000.25
Sample Info: VSTD000.25;VSTD000.25;1;1;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

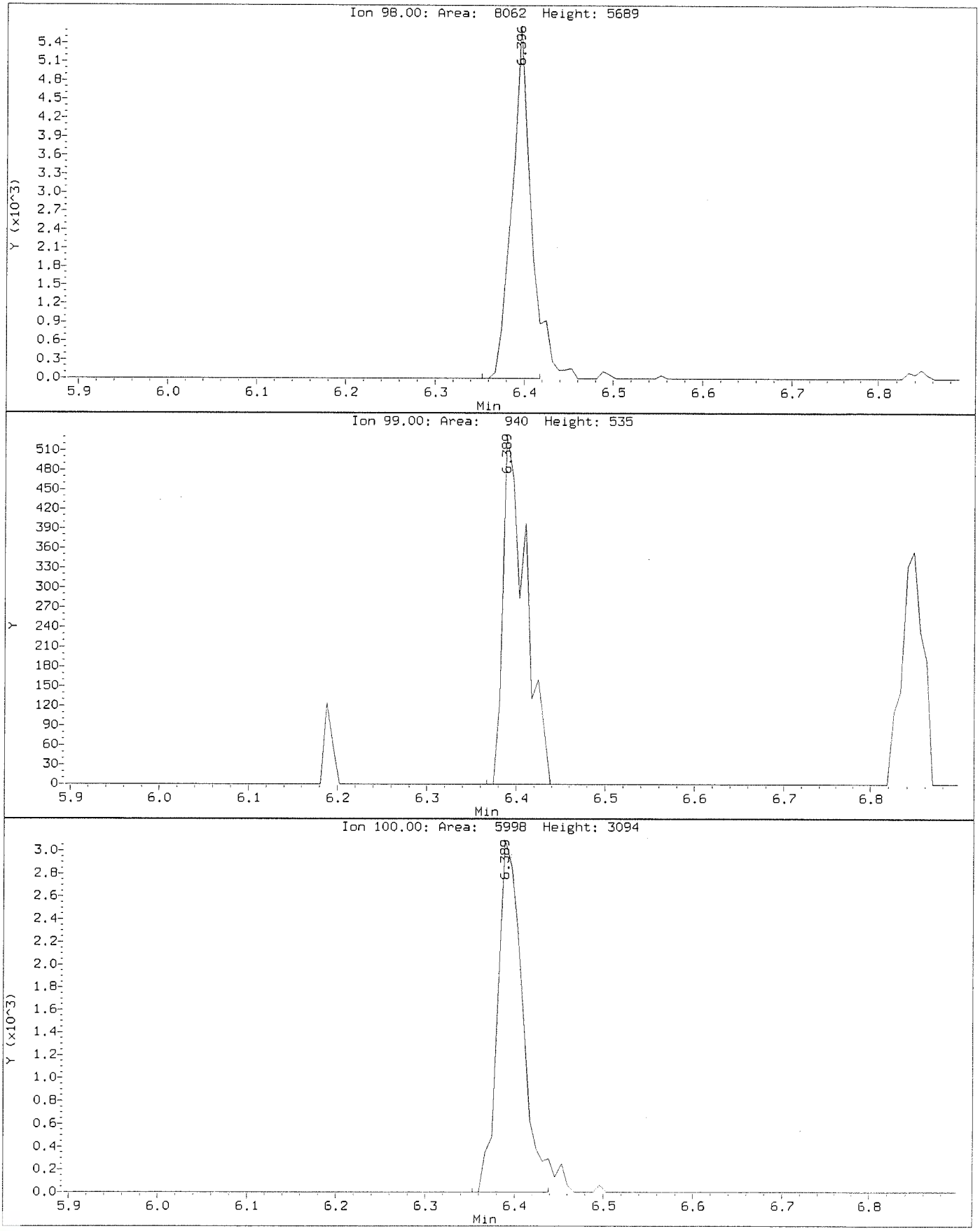
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Toluene-d8
CAS Number: 2037-26-5



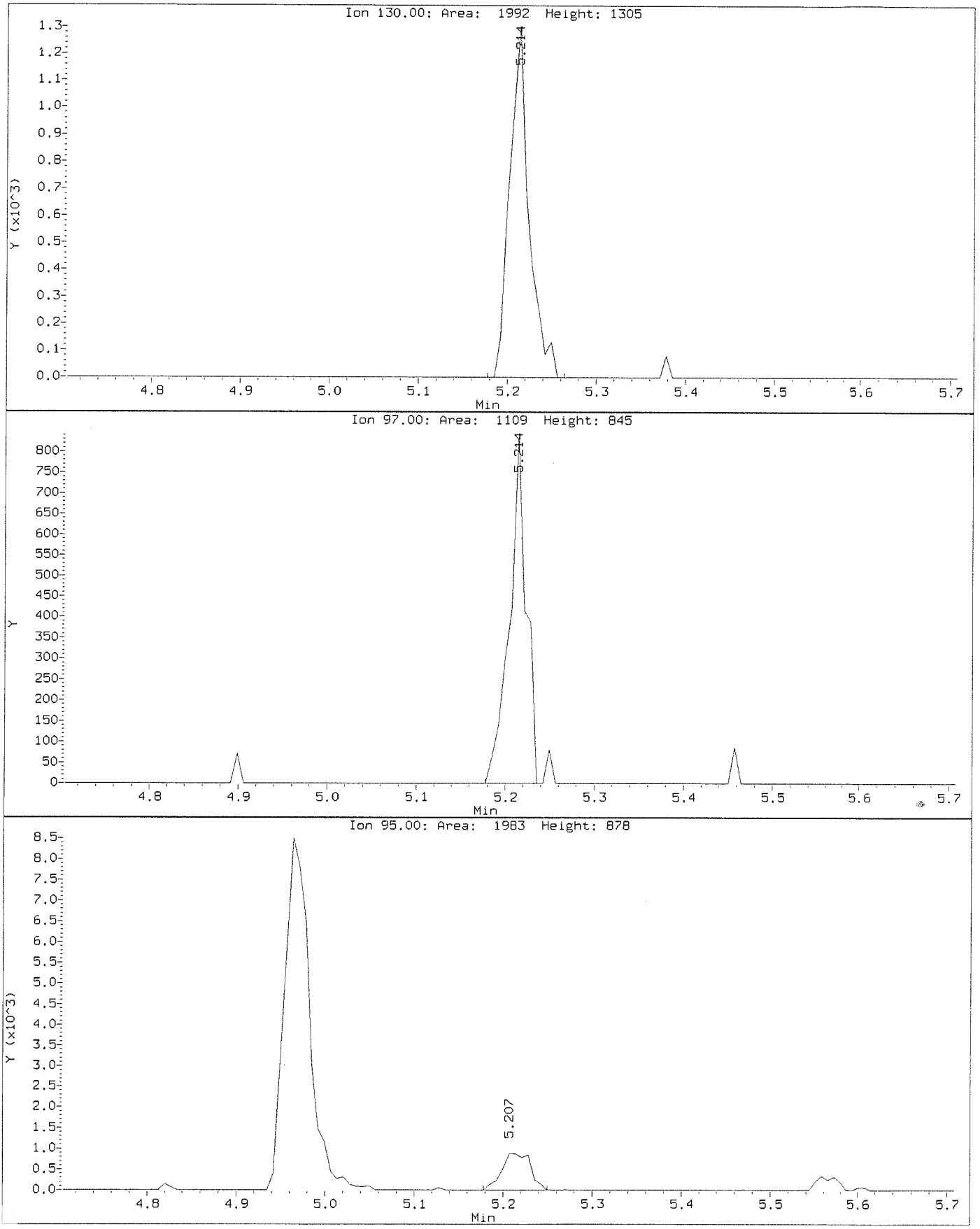
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Toluene-d8
CAS Number: 2037-26-5



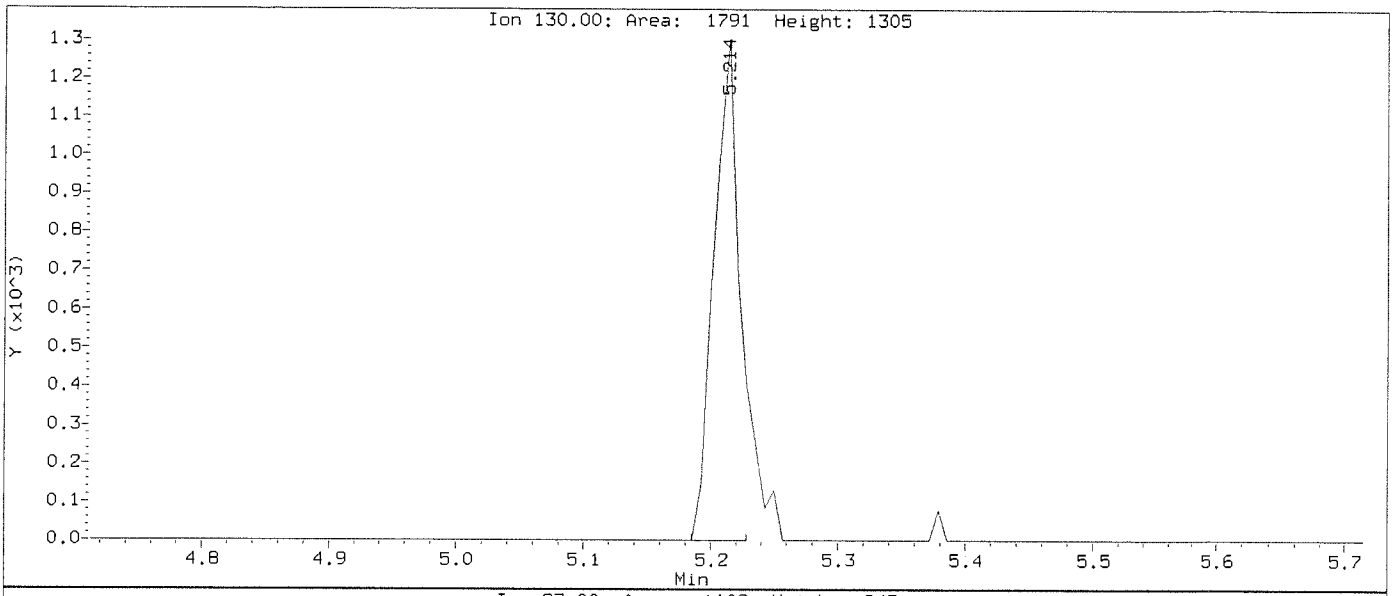
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

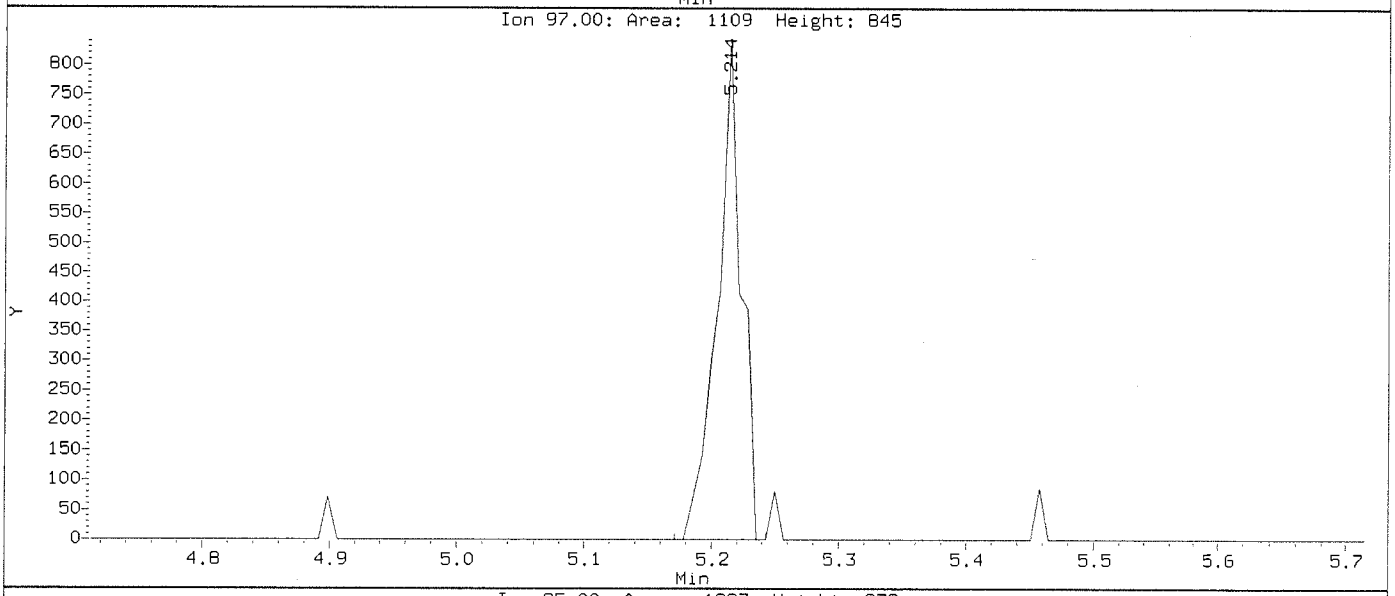
Compound: Trichloroethene
CAS Number: 79-01-6

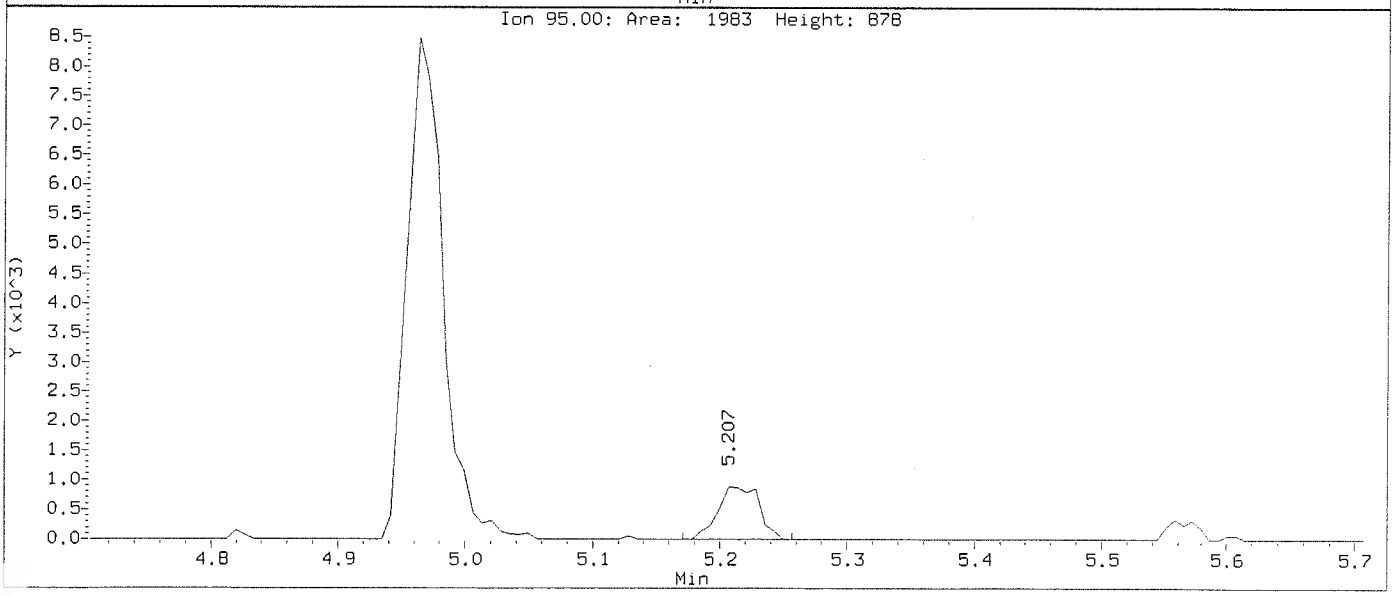


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Trichloroethene
CAS Number: 79-01-6

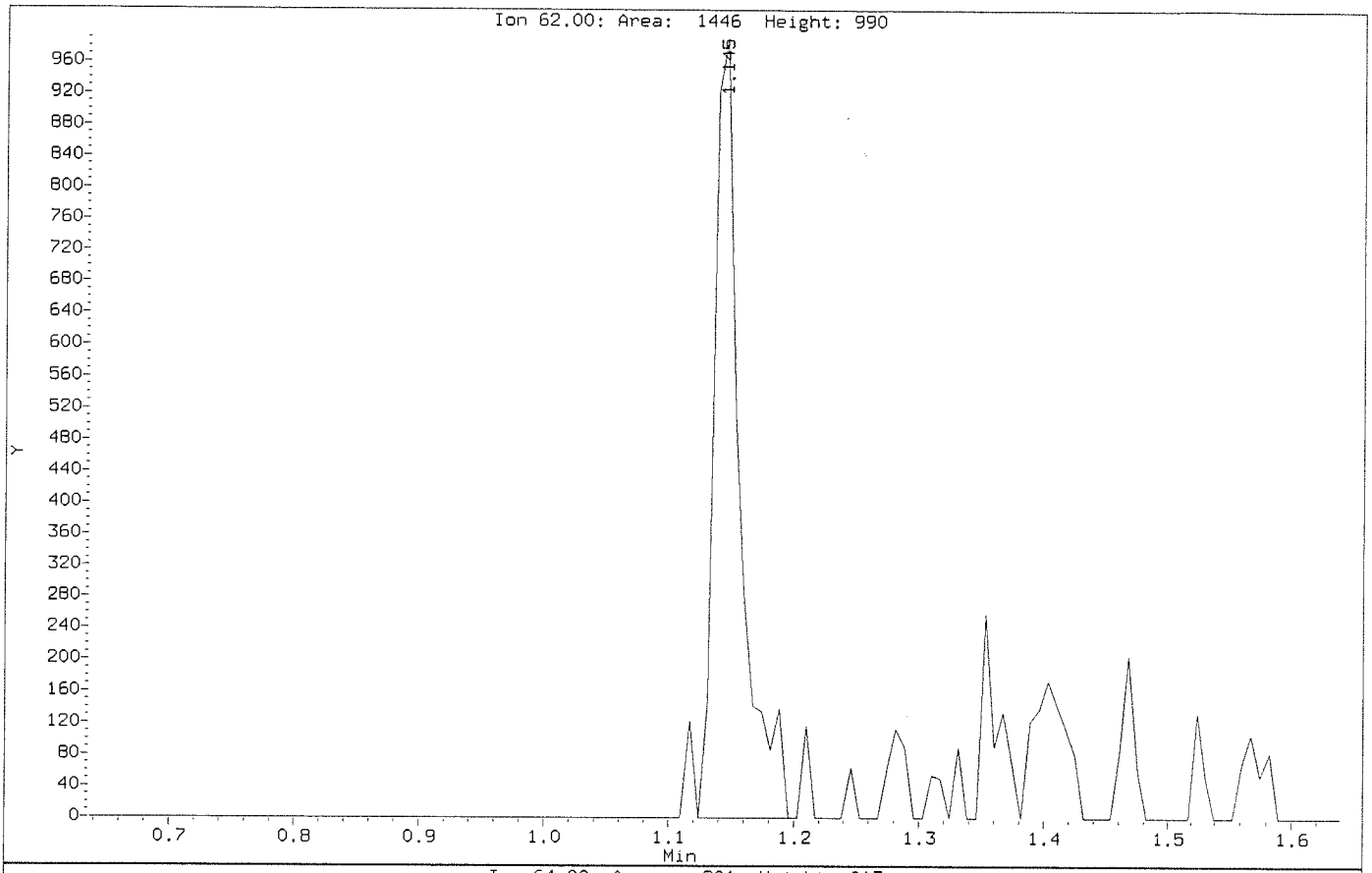


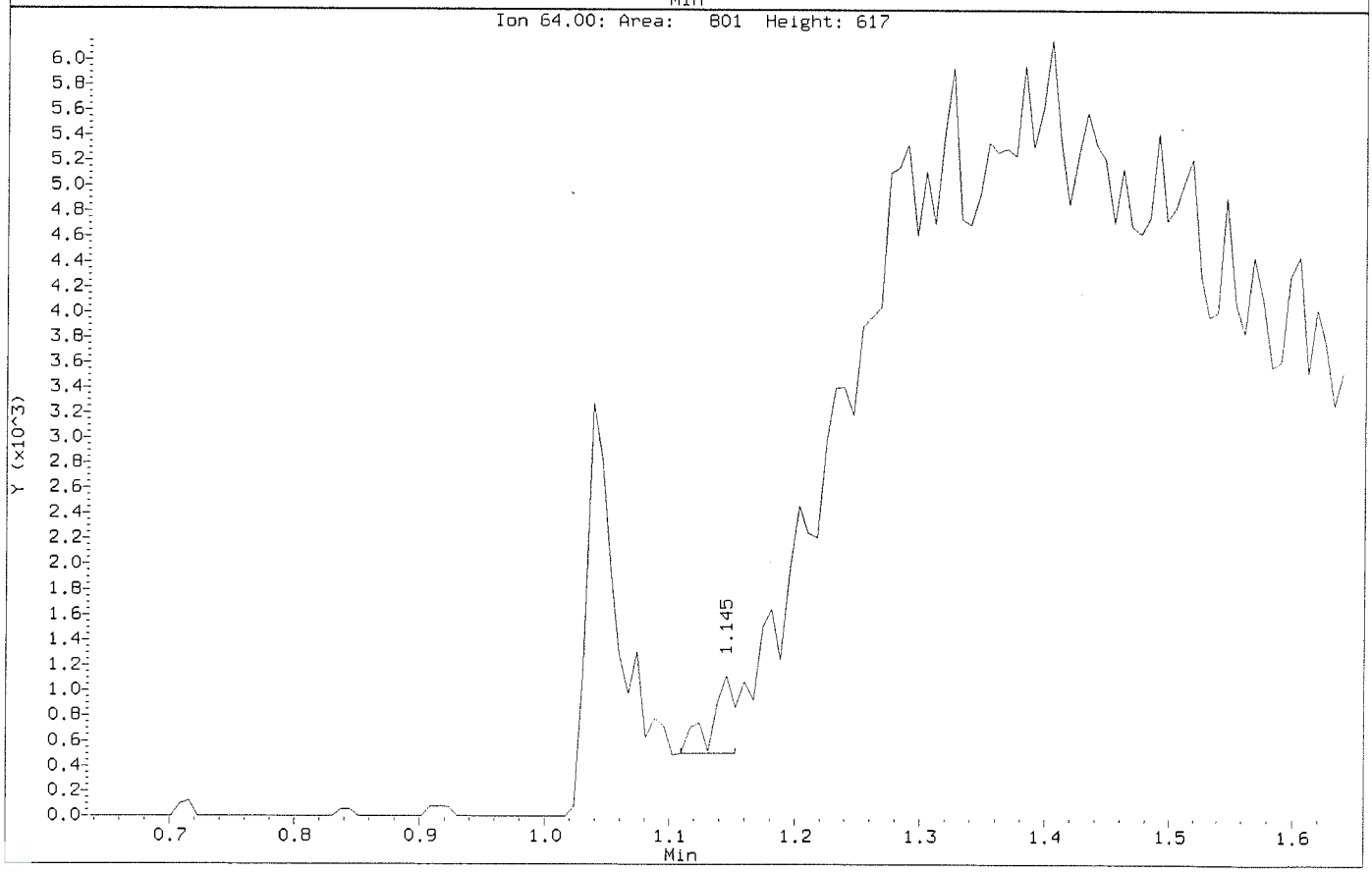




Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

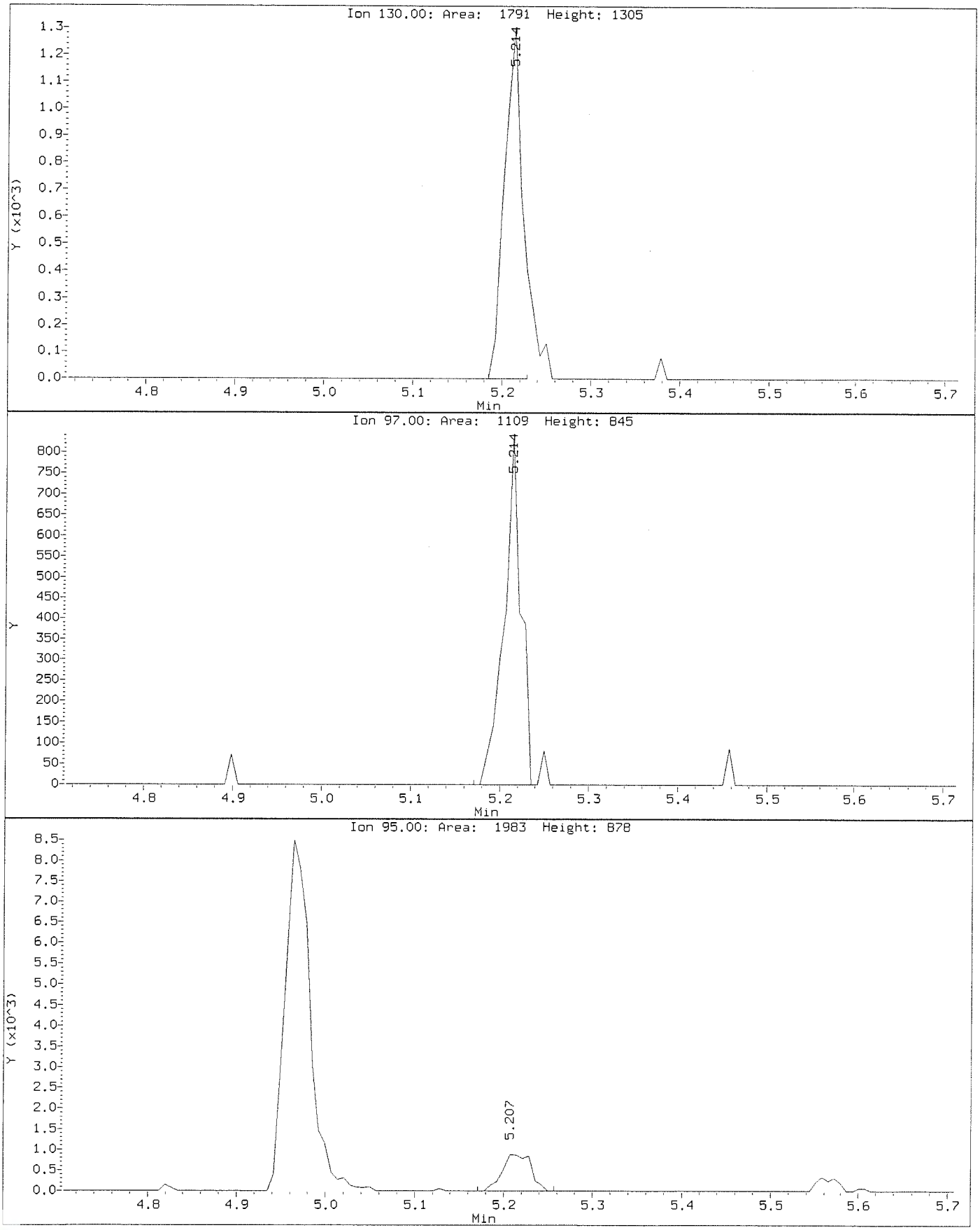
Compound: Vinyl Chloride
CAS Number: 75-01-4





Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100802.D
Injection Date: 08-OCT-2021 13:08
Instrument: voa6.i
Client Sample ID: VSTD000.25

Compound: Trichloroethene
CAS Number: 79-01-6



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D Page 1
Report Date: 16-Nov-2021 15:58

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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Lab Smp Id: VSTD000.5 Client Smp ID: VSTD000.5
Inj Date : 08-OCT-2021 13:50
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.5;VSTD000.5;1;2;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 16-Nov-2021 15:58 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 13:08 Cal File: X100802.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260_dryclean.su
Target Version: 4.14
Processing Host: NAHSTW7017

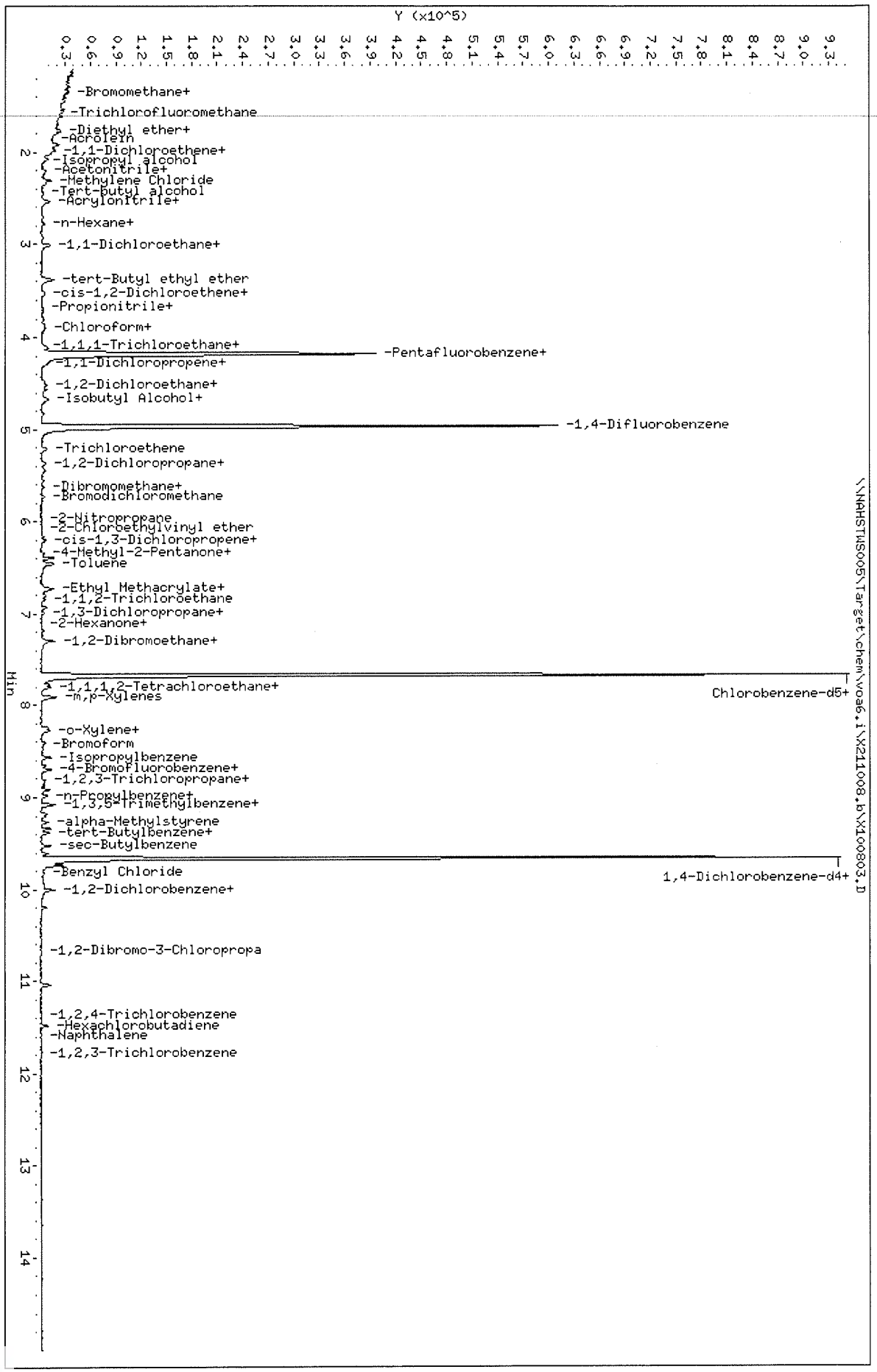
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	331902	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	519409	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	485516	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	222200	50.0000	
$ 30 Dibromofluoromethane	113	4.111	4.111	(0.983)	2999	0.50000	(a)
$ 35 1,2-Dichloroethane-d4	65	4.490	4.490	(1.074)	3361	0.50000	(Ta)
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	7763	0.50000	0.63(aM)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	4606	0.50000	(a)
11 1,1-Dichloroethene	96	1.926	1.926	(0.461)	1538	0.50000	0.51(a)
33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	2184	0.50000	0.50(a)
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	1575	0.50000	0.45(a)
17 Methylene Chloride	84	2.305	2.305	(0.551)	2444	0.50000	(aM)
53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	1277	0.50000	0.49(a)
38 Trichloroethene	130	5.214	5.214	(1.051)	2243	0.50000	0.57(aM)
5 Vinyl Chloride	62	1.145	1.145	(0.274)	1932	0.50000	0.55(aM)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

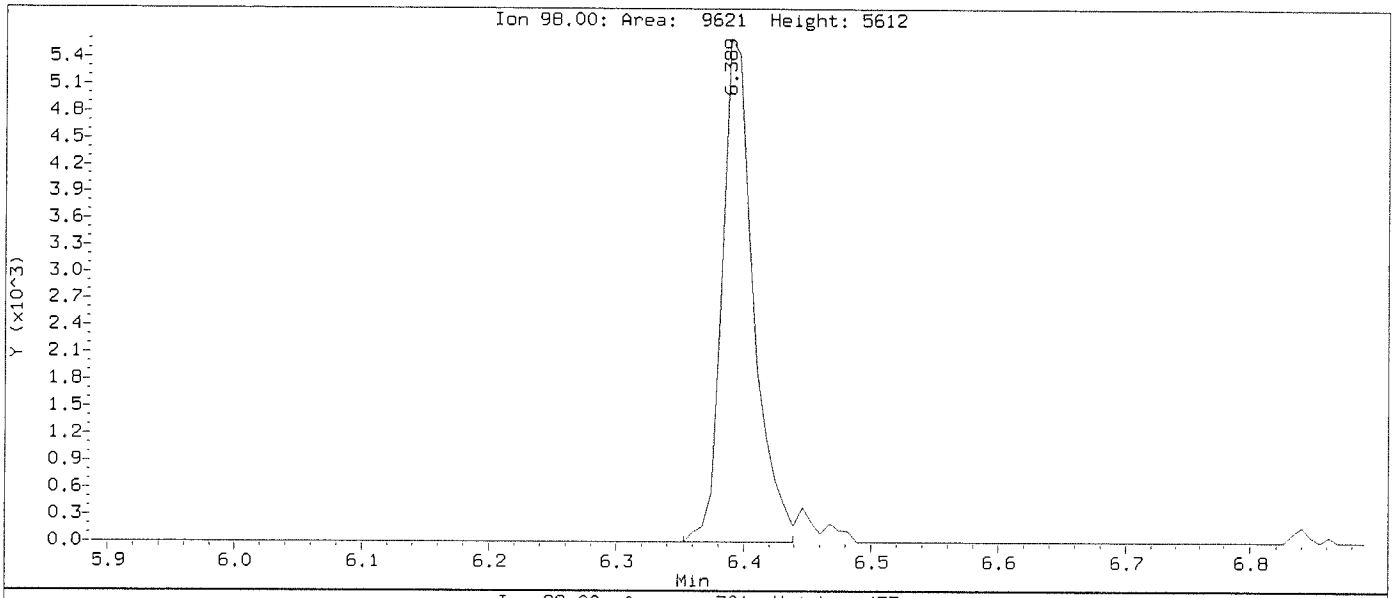


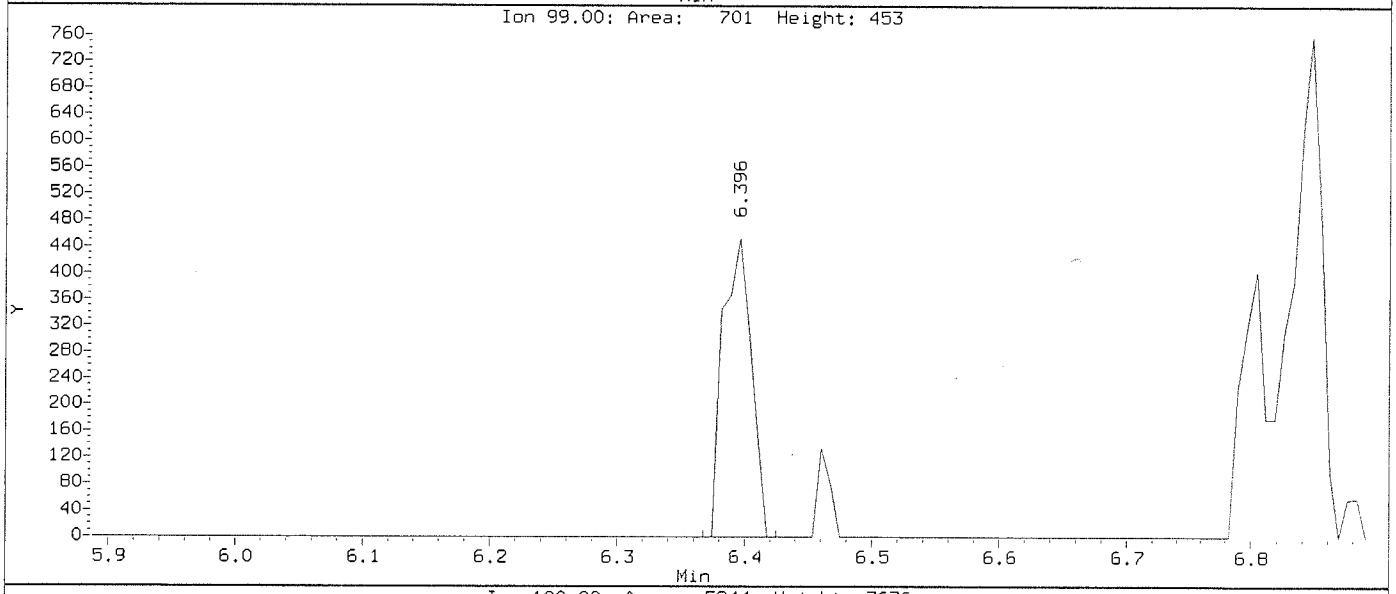
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Date : 08-OCT-2021 13:50
Client ID: VSTD000.5
Sample Info: VSTD000.5;VSTD000.5;1;2;;
Purge Volume: 5.0
Column phase: DB624

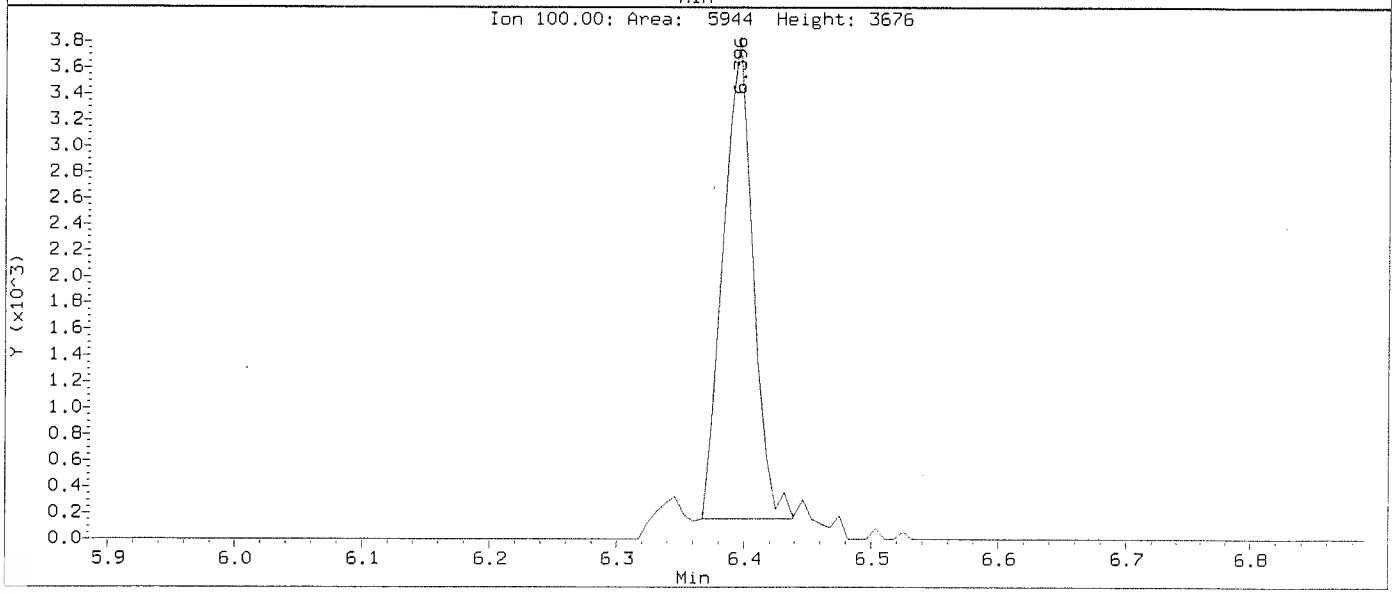
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Toluene-d8
CAS Number: 2037-26-5

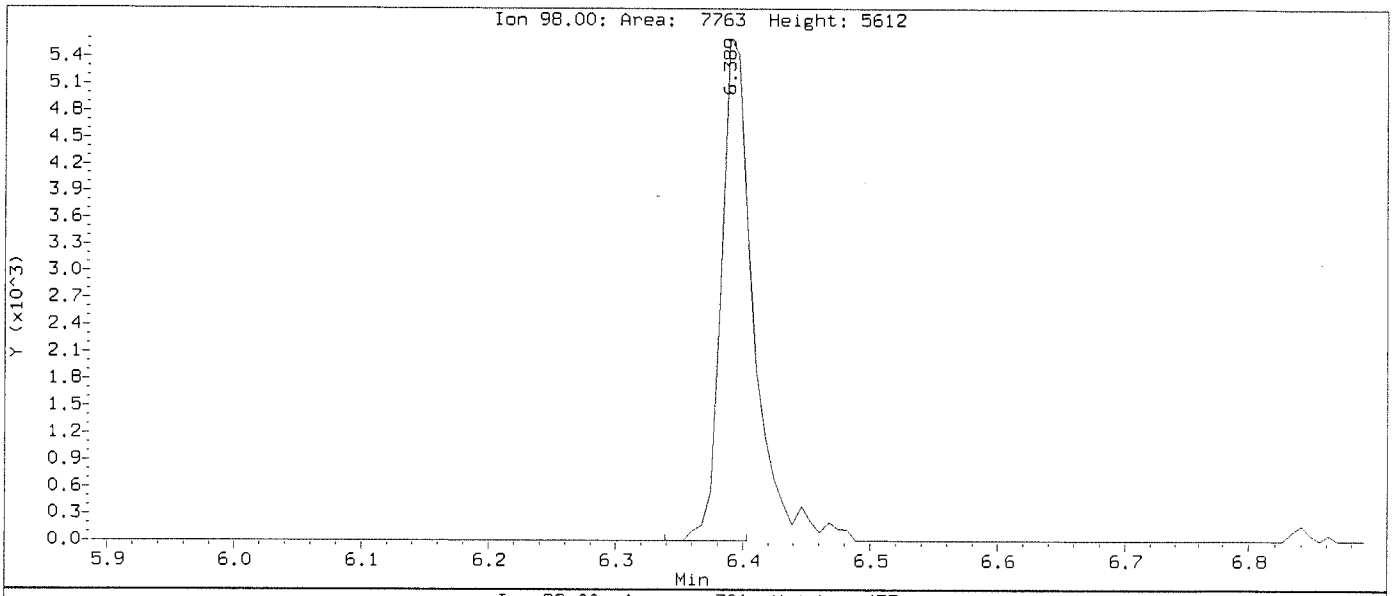


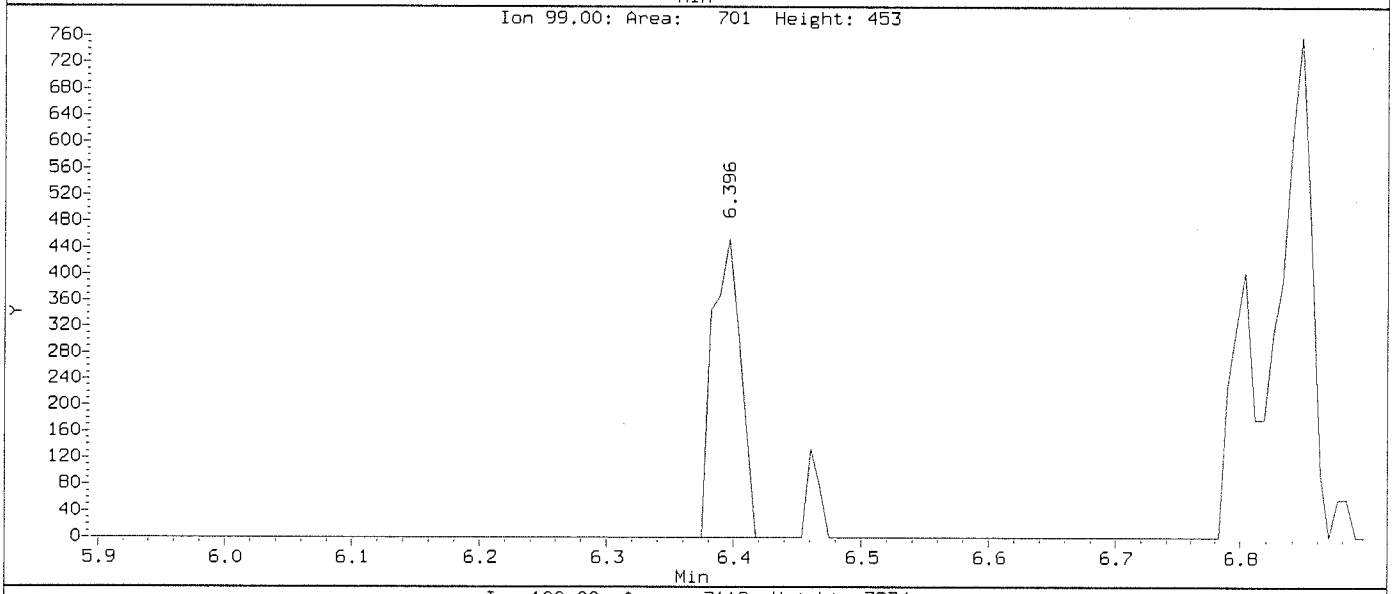


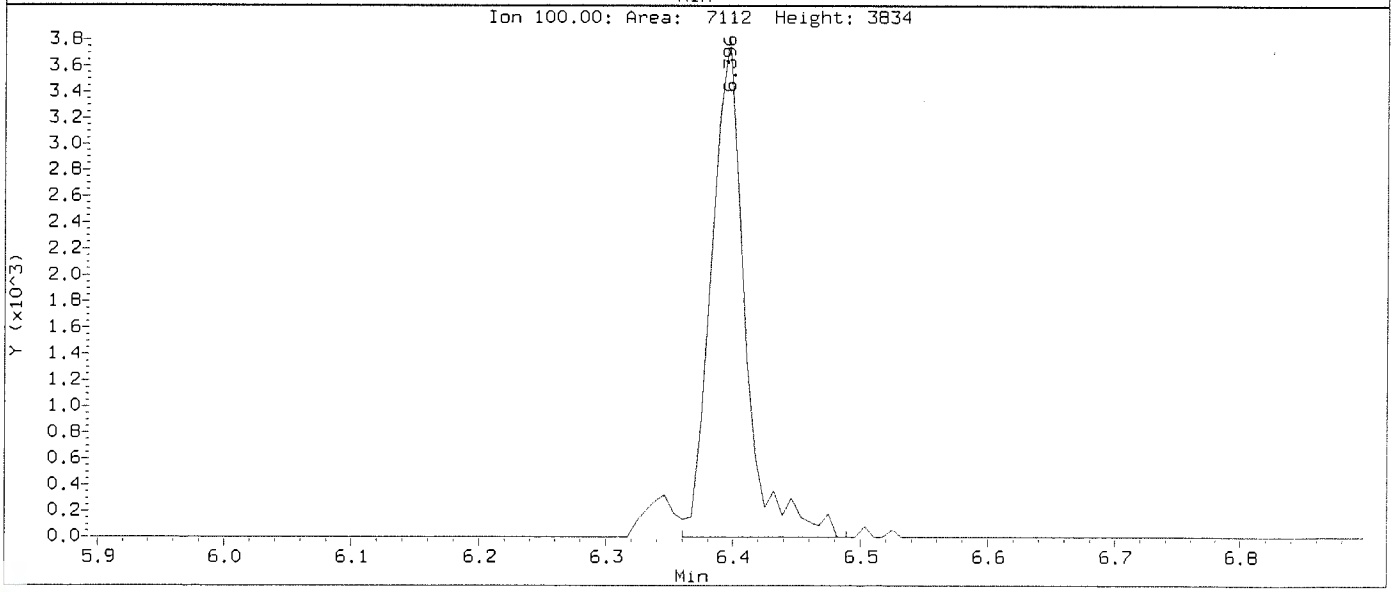


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Toluene-d8
CAS Number: 2037-26-5

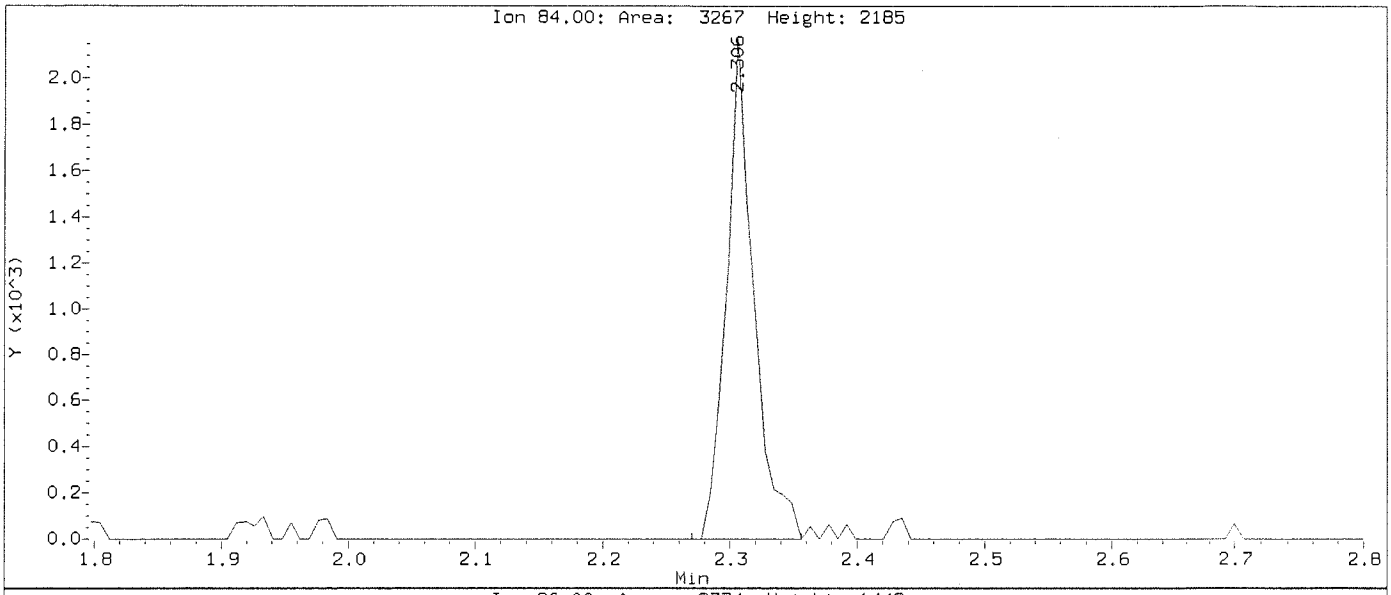


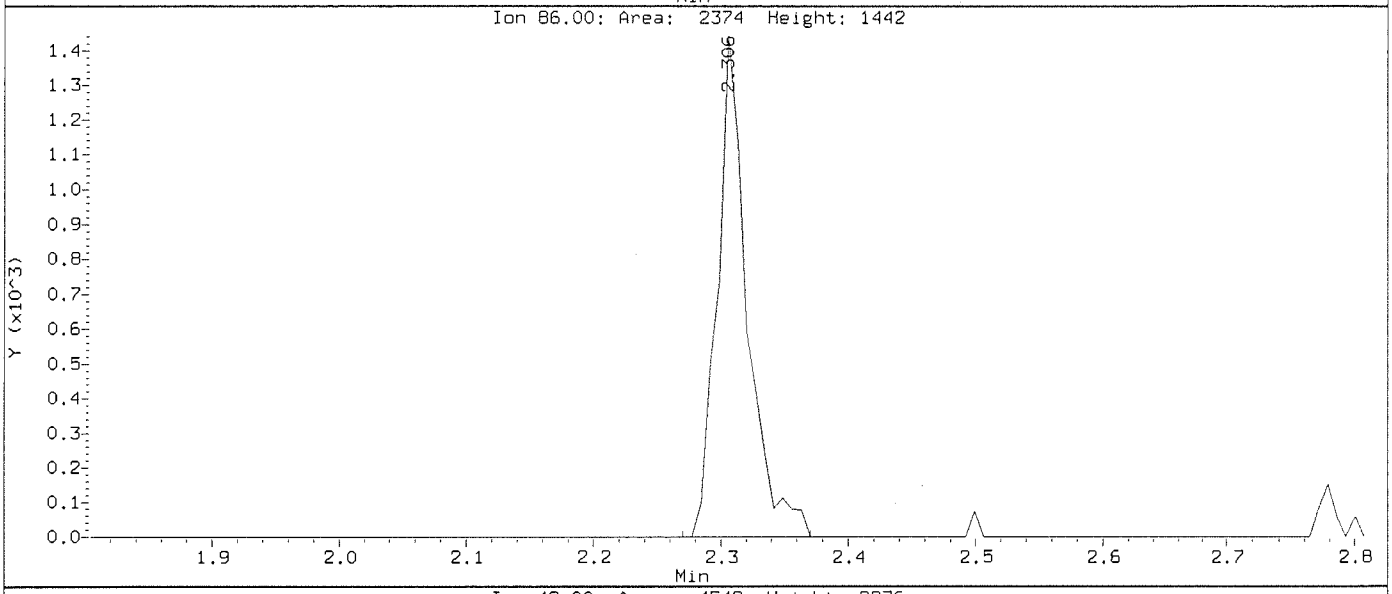


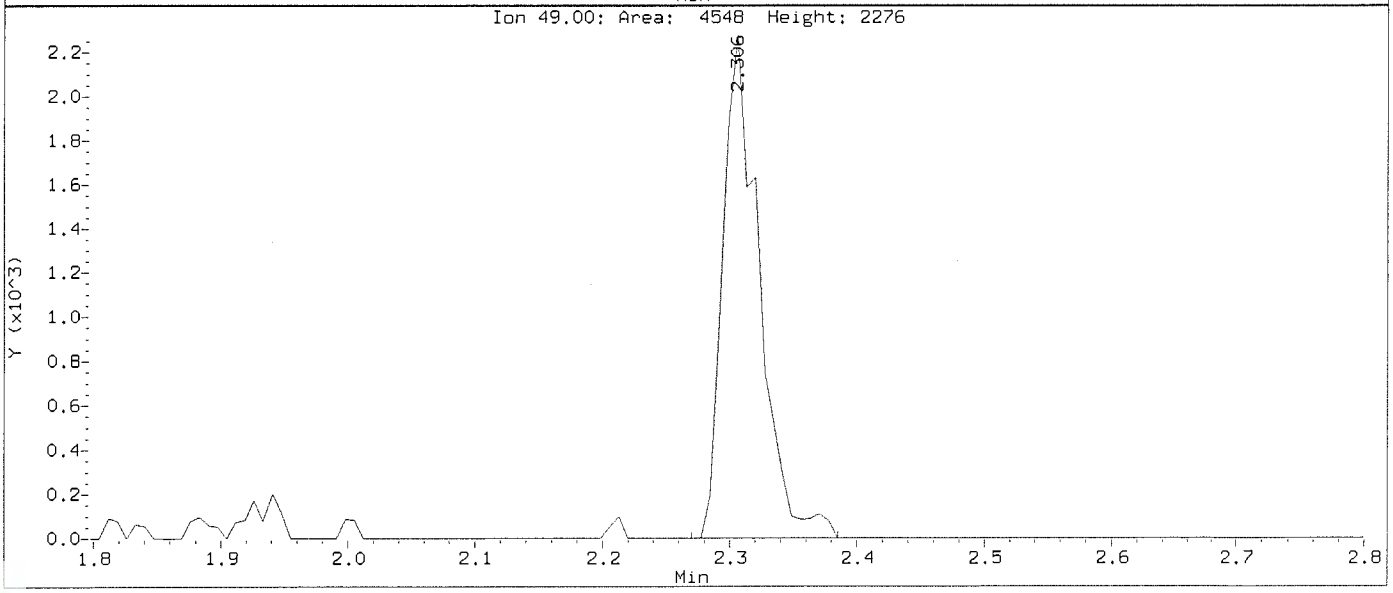


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Methylene Chloride
CAS Number: 75-09-2

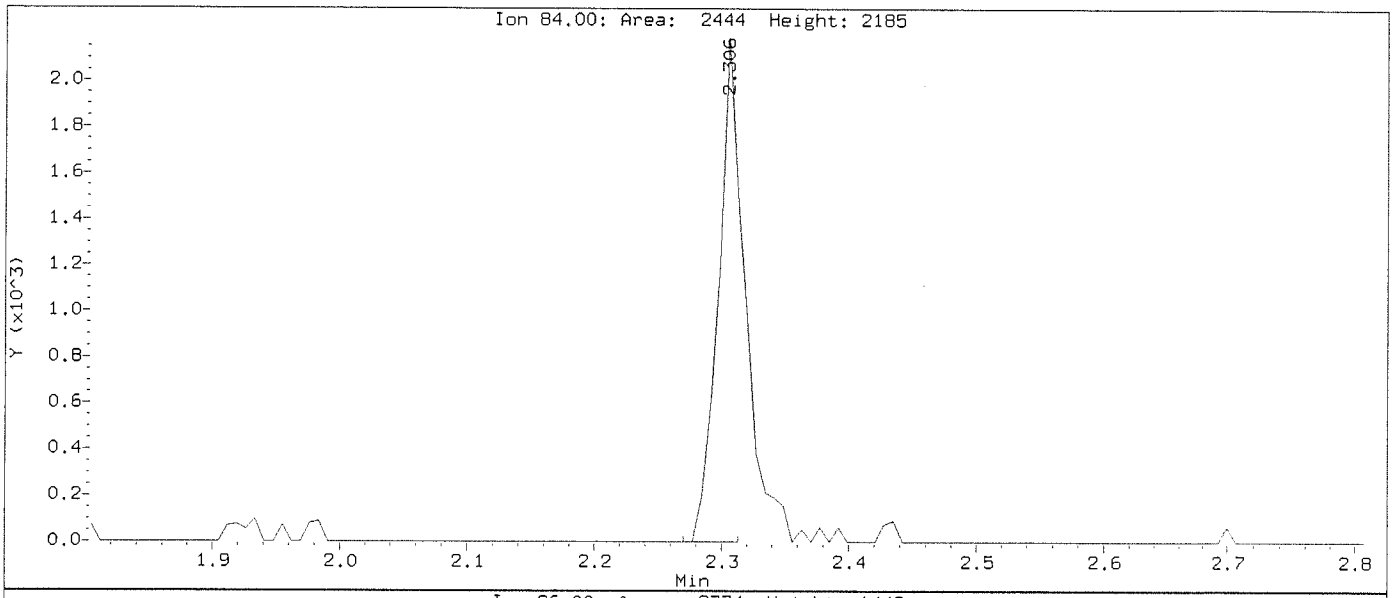


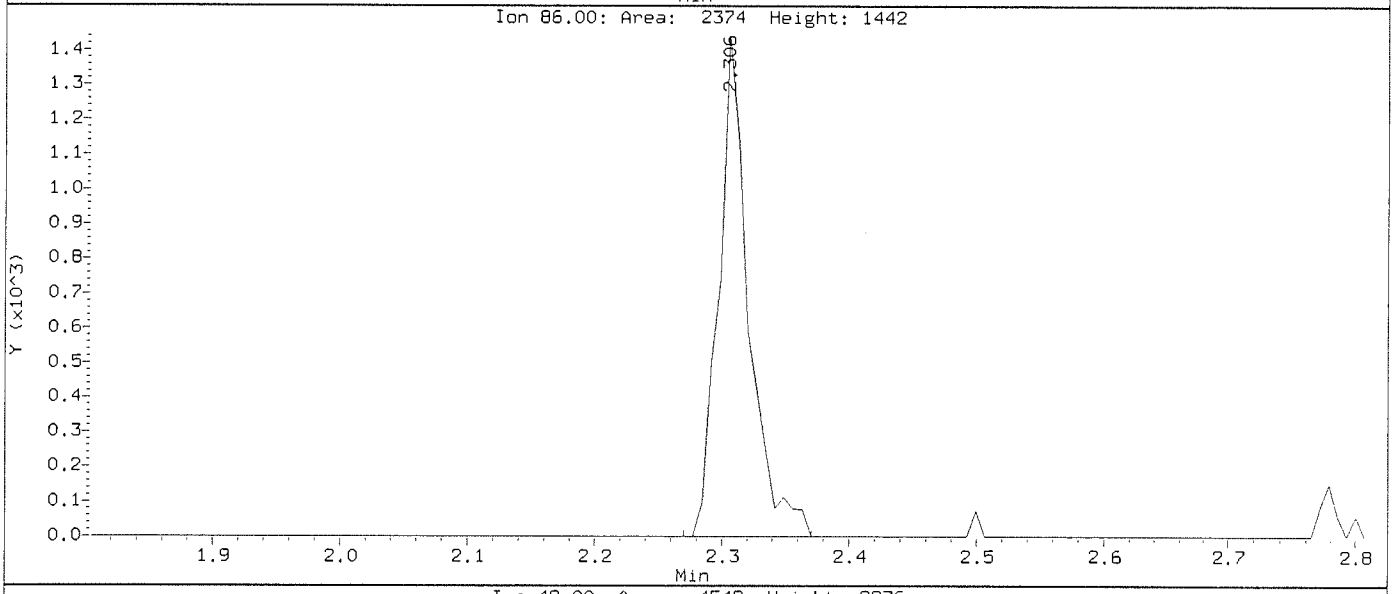


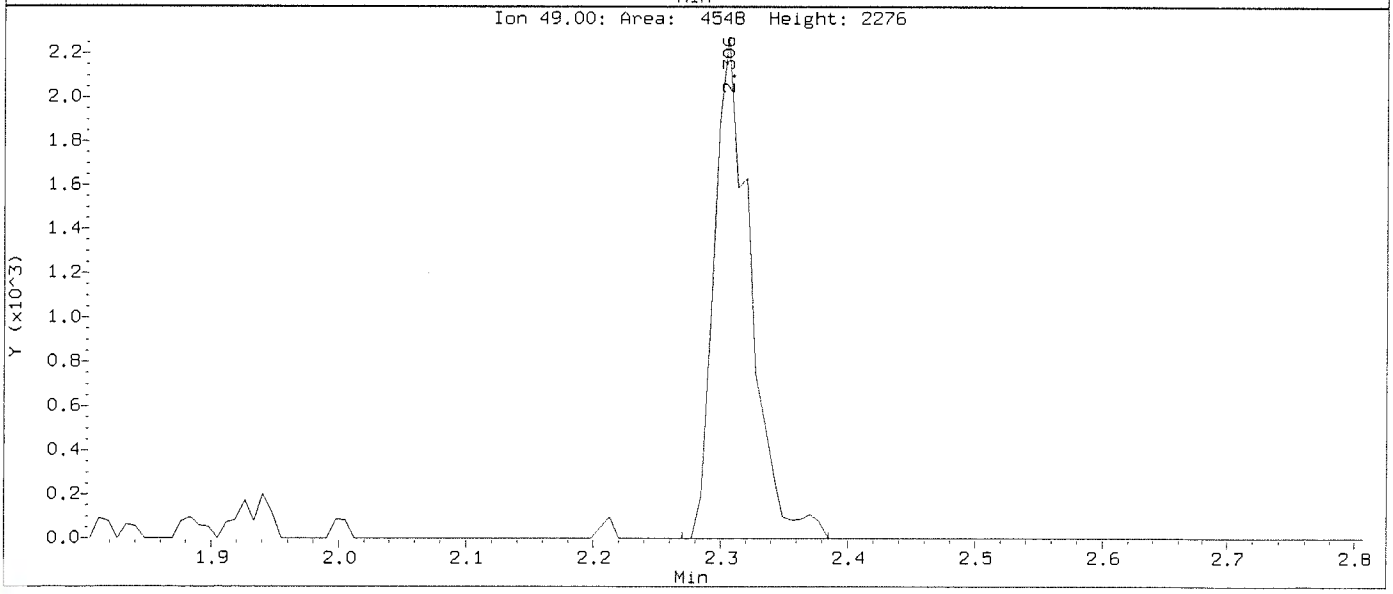


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Methylene Chloride
CAS Number: 75-09-2

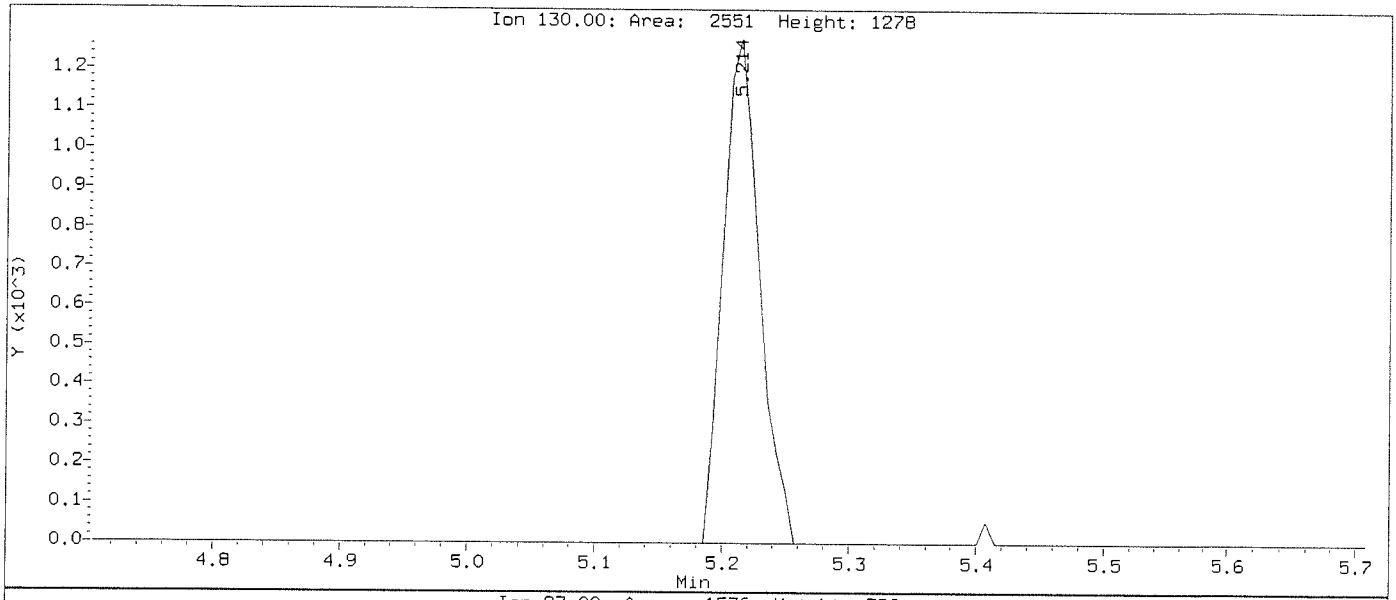


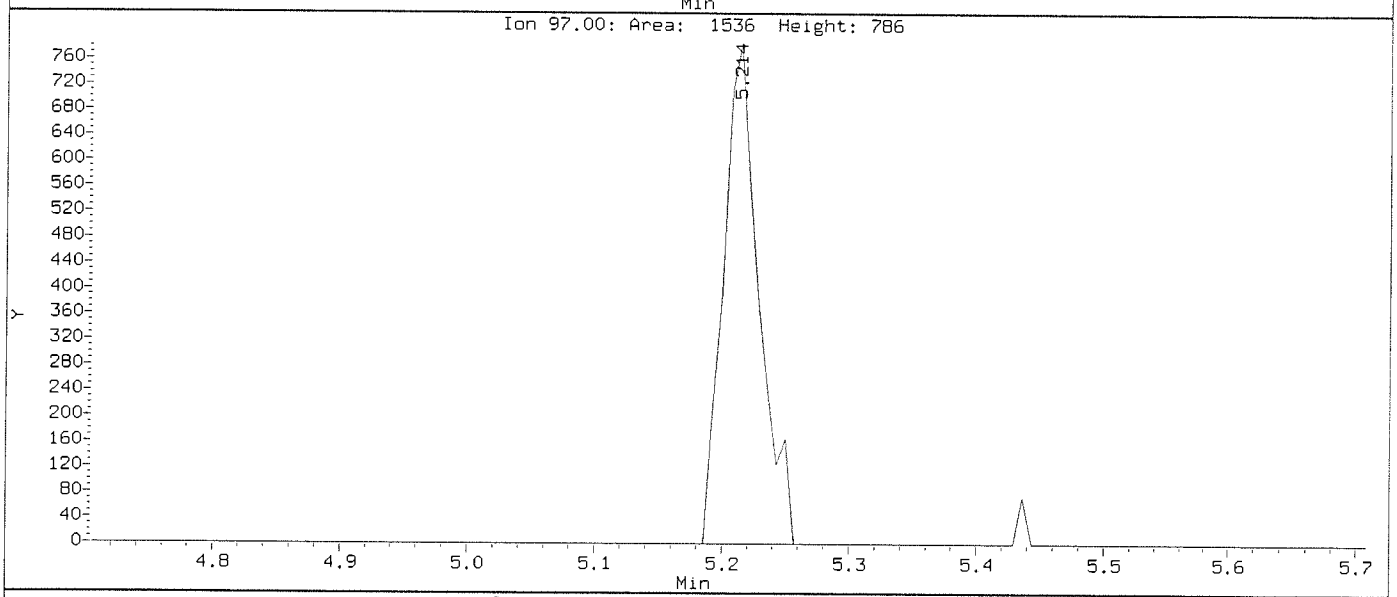


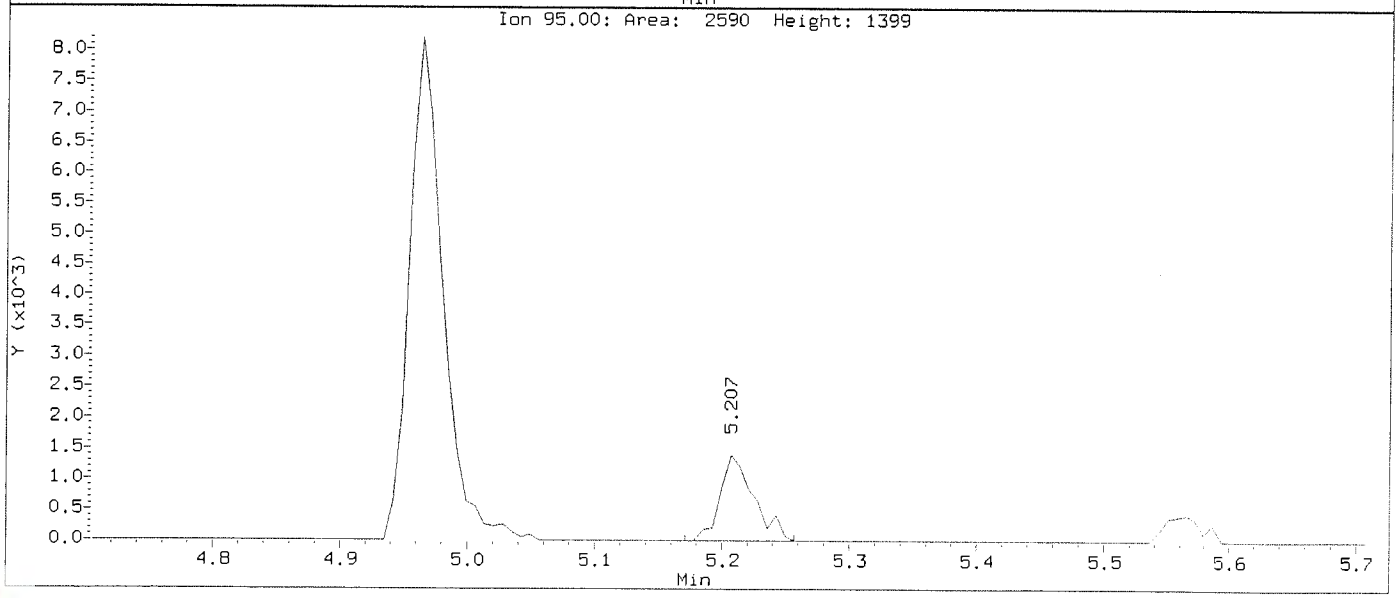


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Trichloroethene
CAS Number: 79-01-6

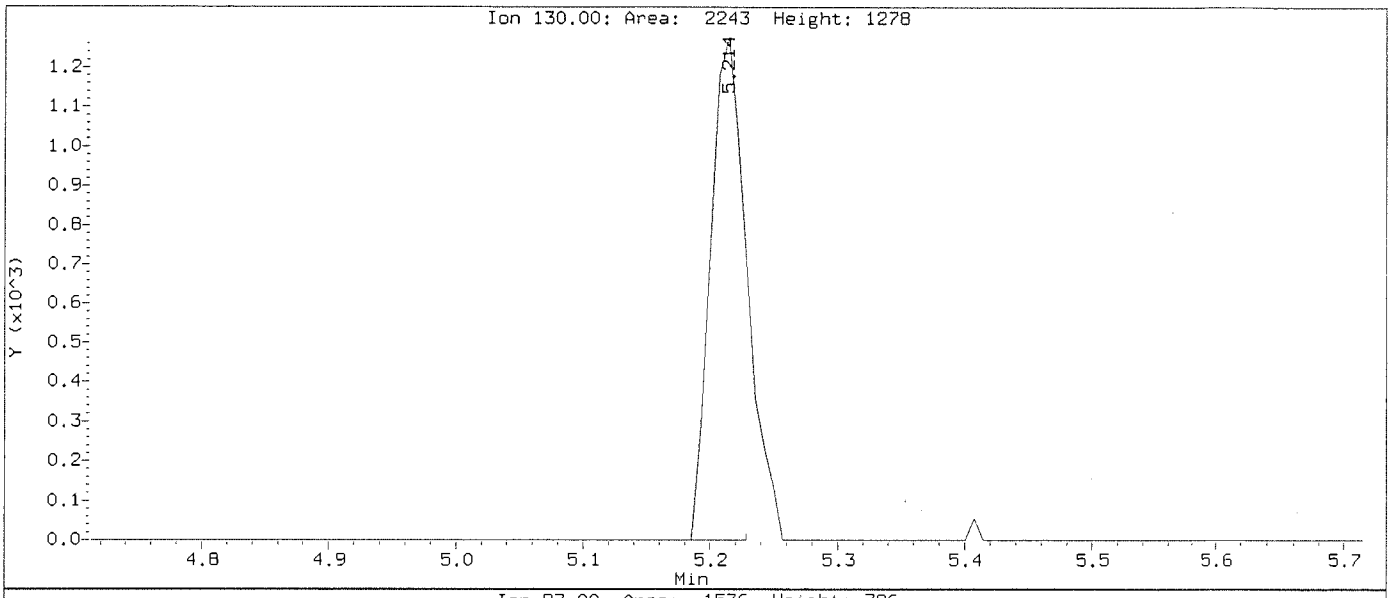


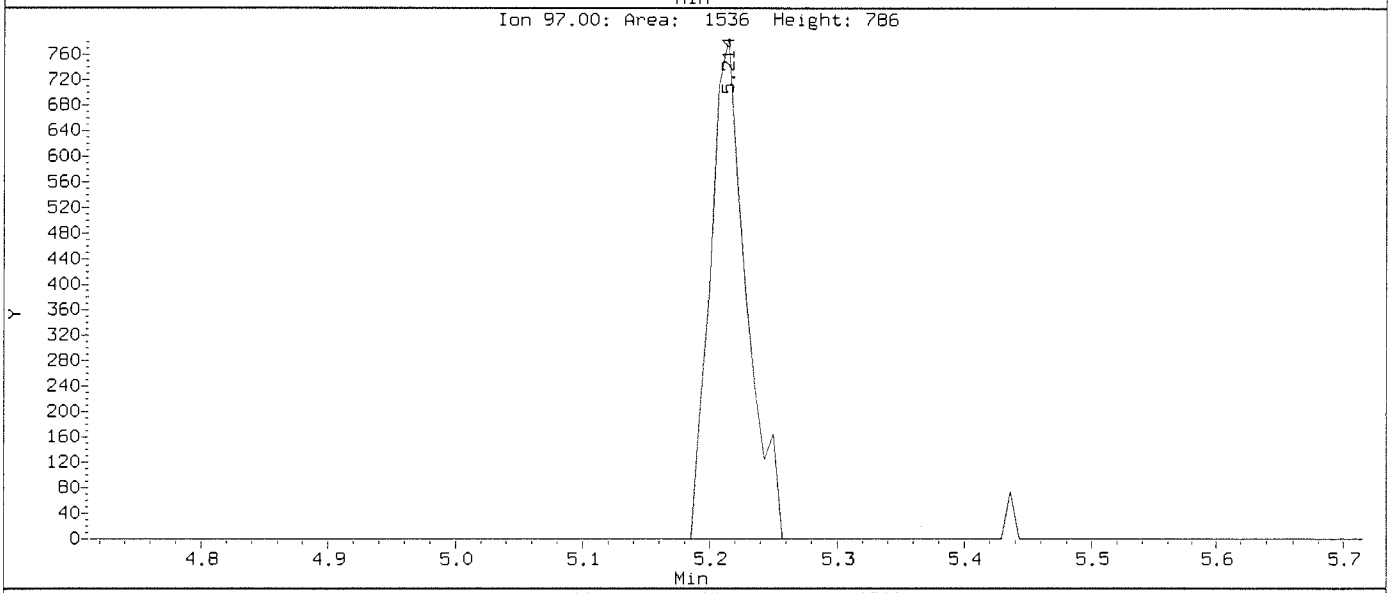


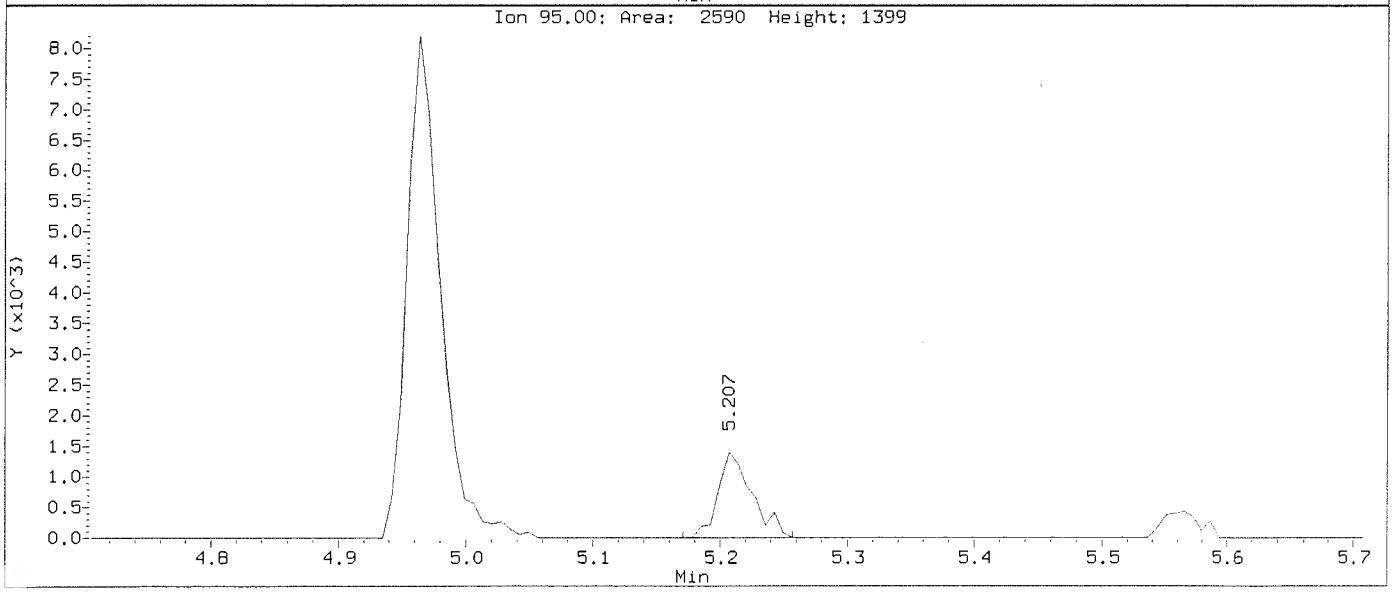


Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Trichloroethene
CAS Number: 79-01-6

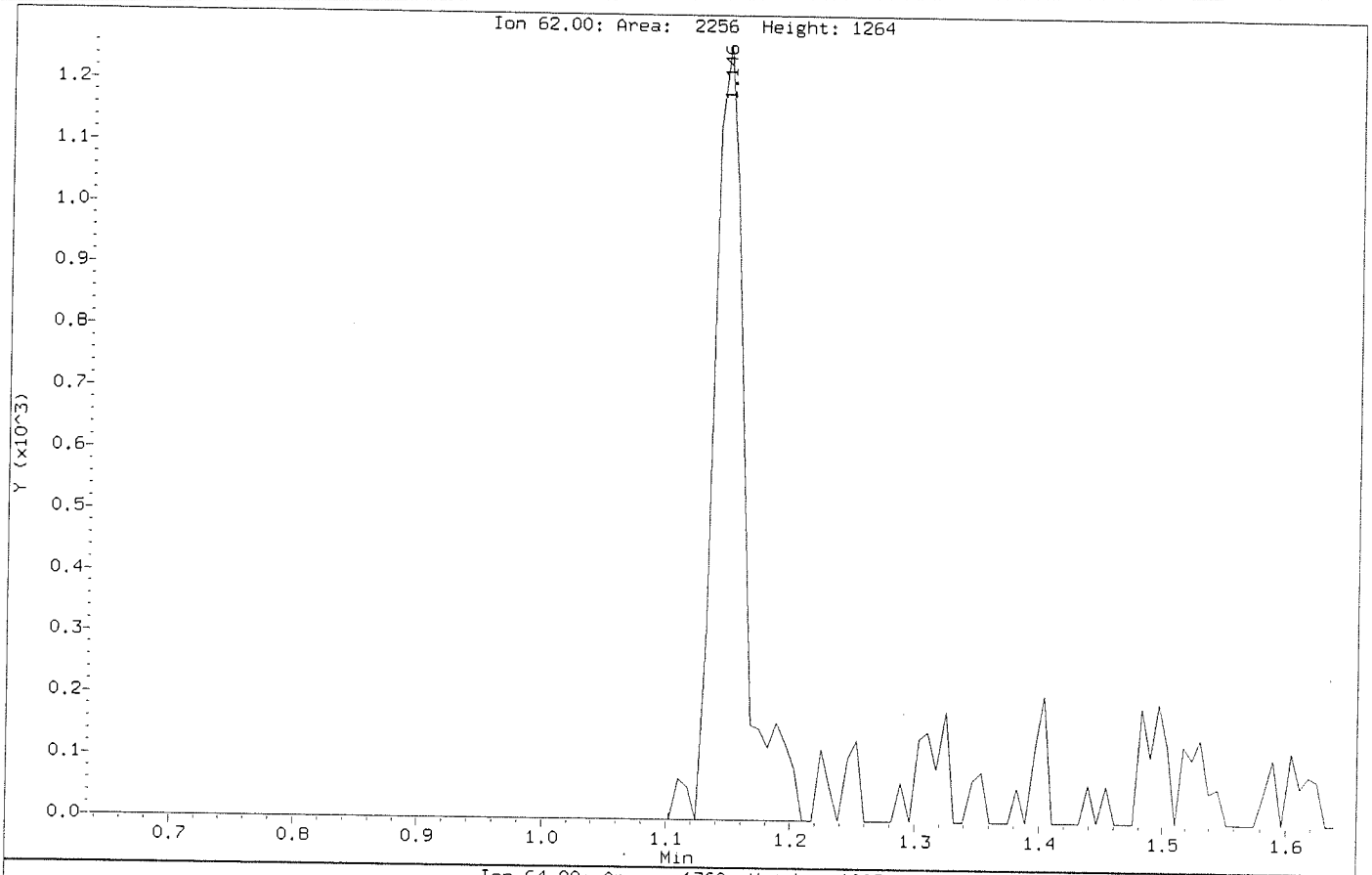


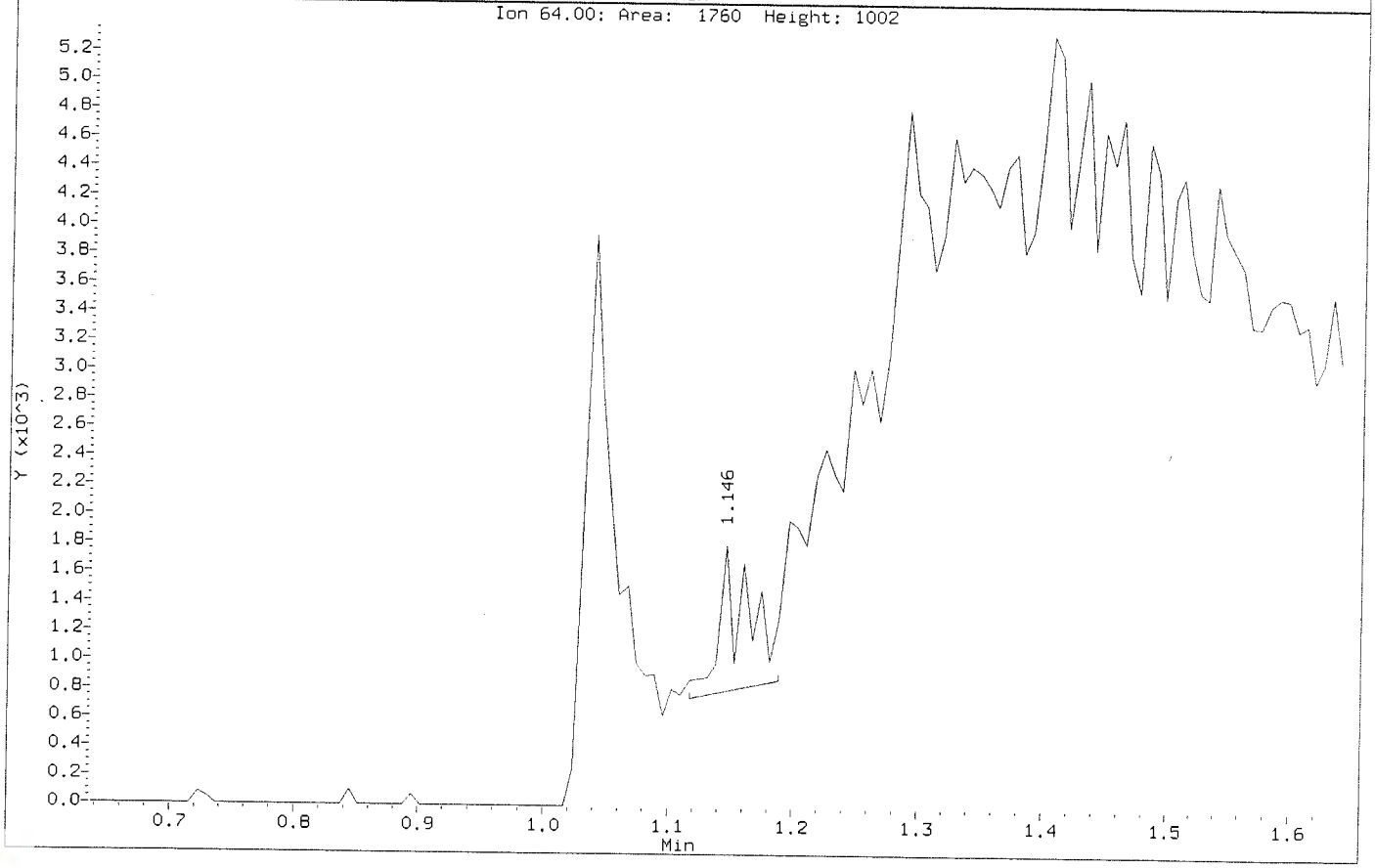




Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

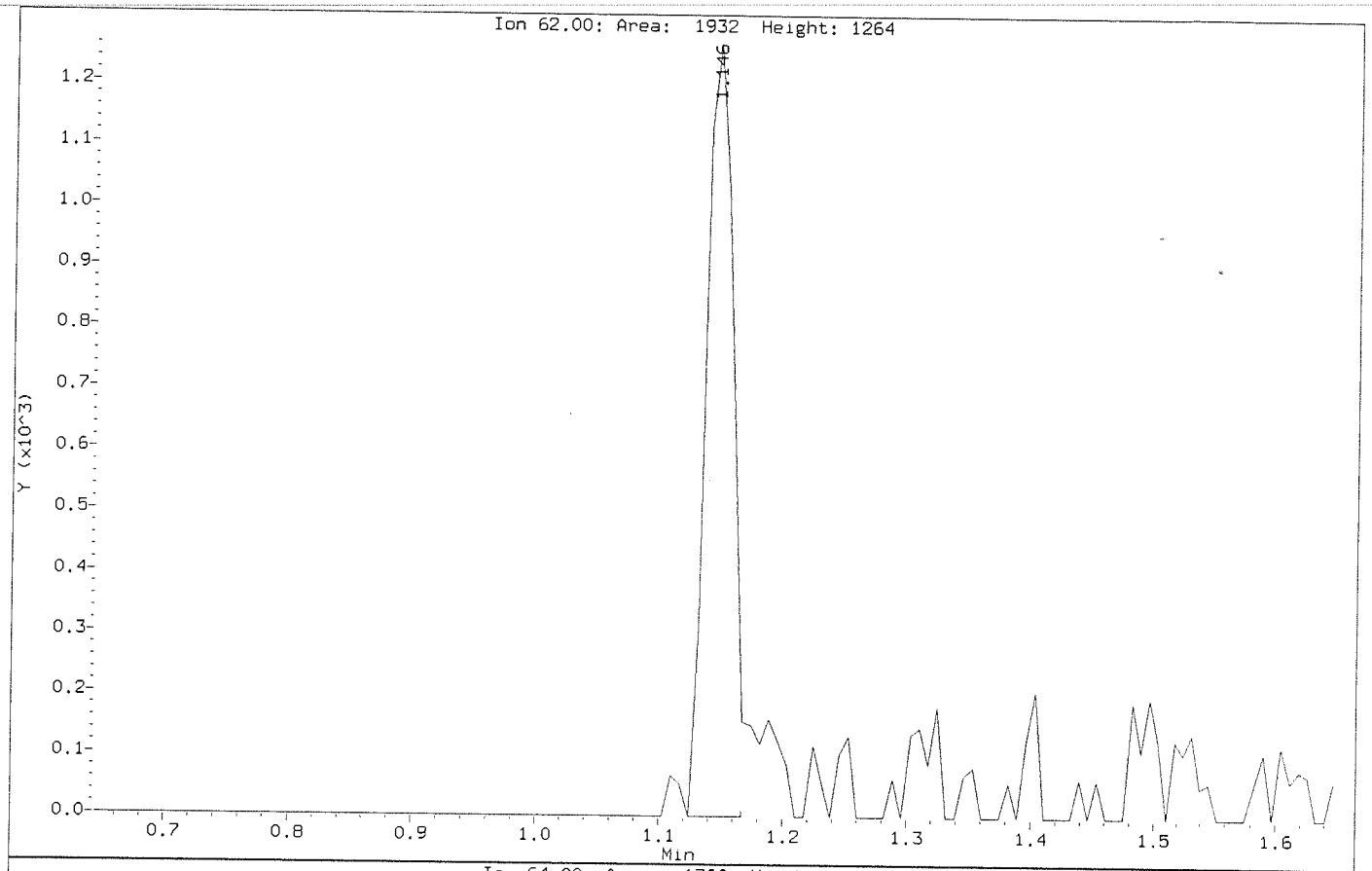
Compound: Vinyl Chloride
CAS Number: 75-01-4

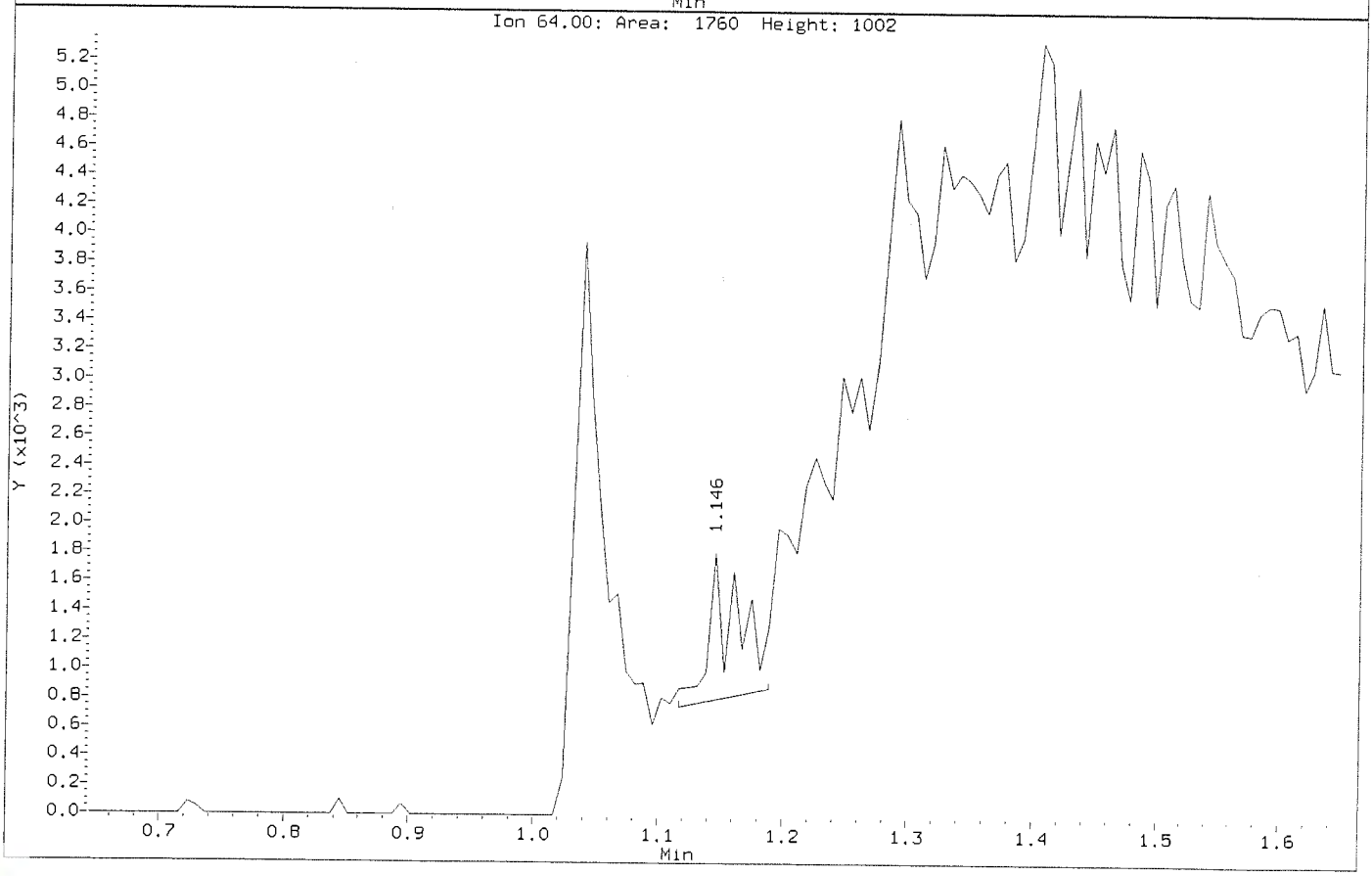




Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100803.D
Injection Date: 08-OCT-2021 13:50
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Vinyl Chloride
CAS Number: 75-01-4





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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Lab Smp Id: VSTD001 Client Smp ID: VSTD001
Inj Date : 08-OCT-2021 14:11
Operator : PC Inst ID: voa6.i
Smp Info : VSTD001;VSTD001;1;3;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 16-Nov-2021 16:30 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 14:11 Cal File: X100804.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

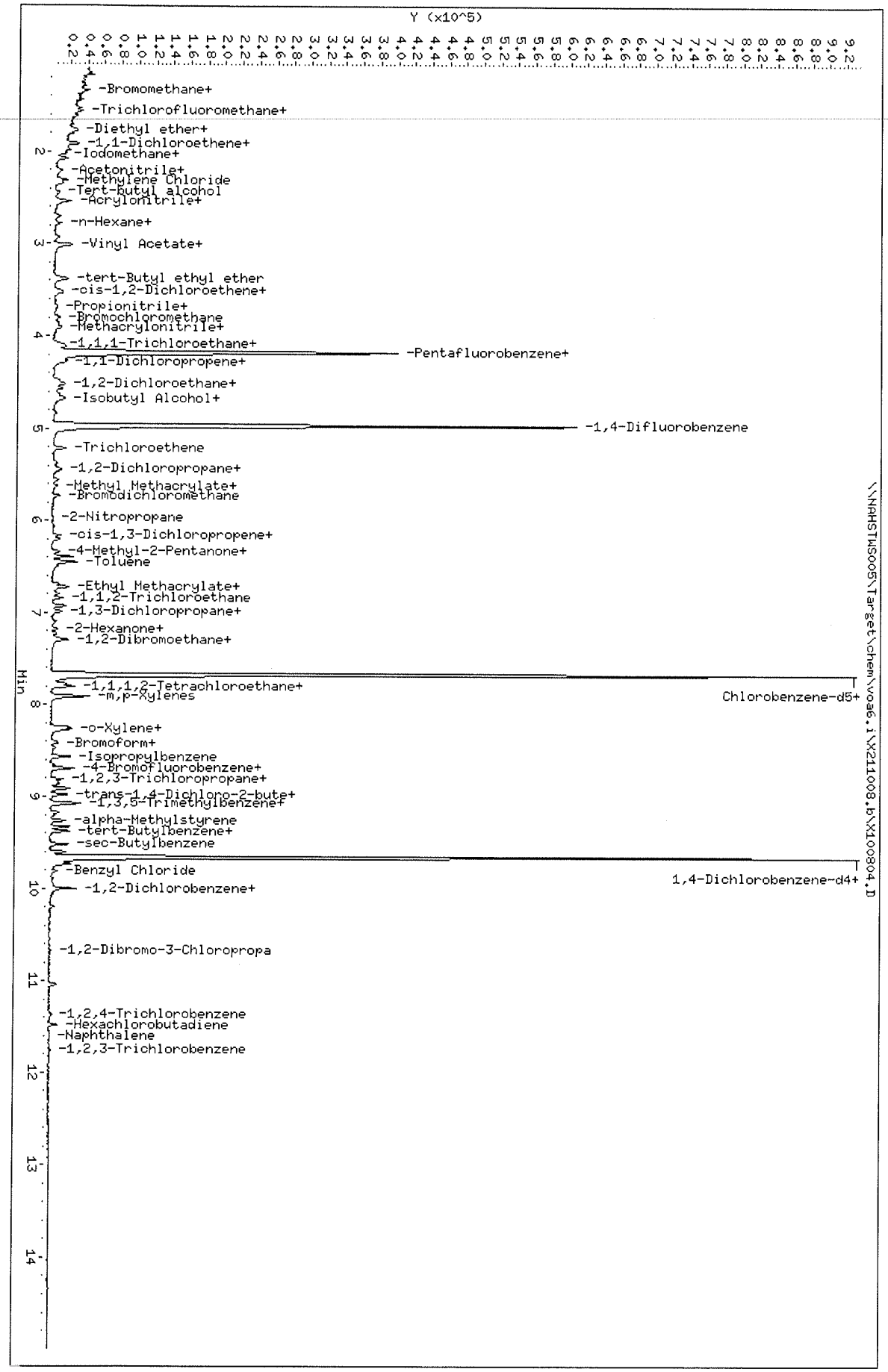
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	330851	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	4837	1.00000	0.38(a)
$ 35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	5961	1.00000	(a)
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	510278	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	471635	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	13455	1.00000	1.12(aM)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	8328	1.00000	0.70(a)
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	225436	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	3928	1.00000	1.13(aM)
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	3245	1.00000	1.09(a)
17 Methylene Chloride	84	2.313	2.313	(0.553)	4333	1.00000	0.27(aM)
27 cis-1,2-Dichloroethene	96	3.538	3.538	(0.846)	3601	1.00000	1.04(a)
33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	4814	1.00000	1.12(a)
38 Trichloroethene	130	5.214	5.214	(1.051)	4864	1.00000	1.26(a)
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	2510	1.00000	0.99(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

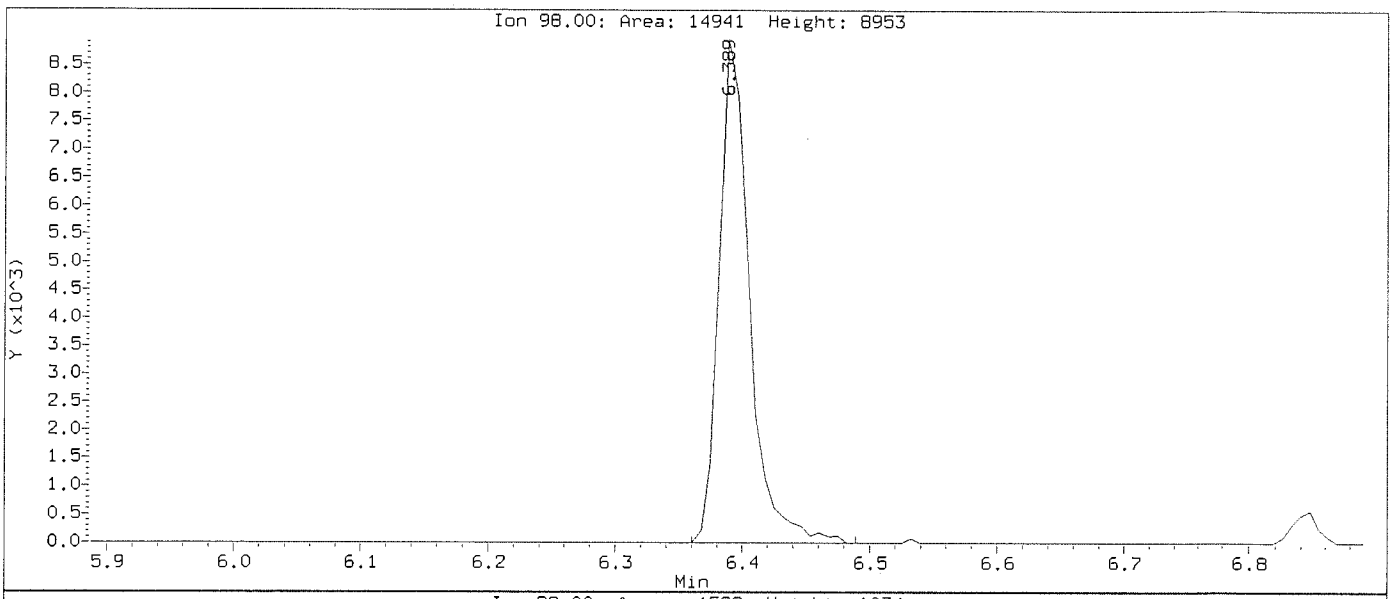


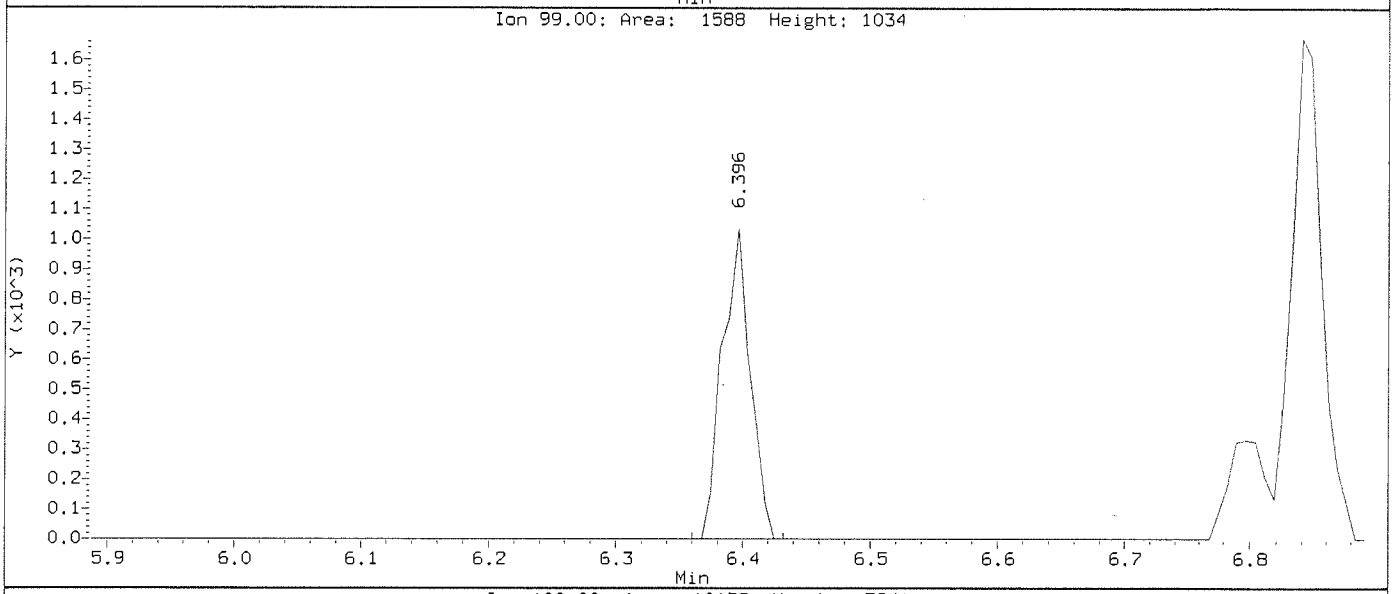
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Date : 08-OCT-2021 14:11
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;;
Purge Volume: 5.0
Column phase: DB624

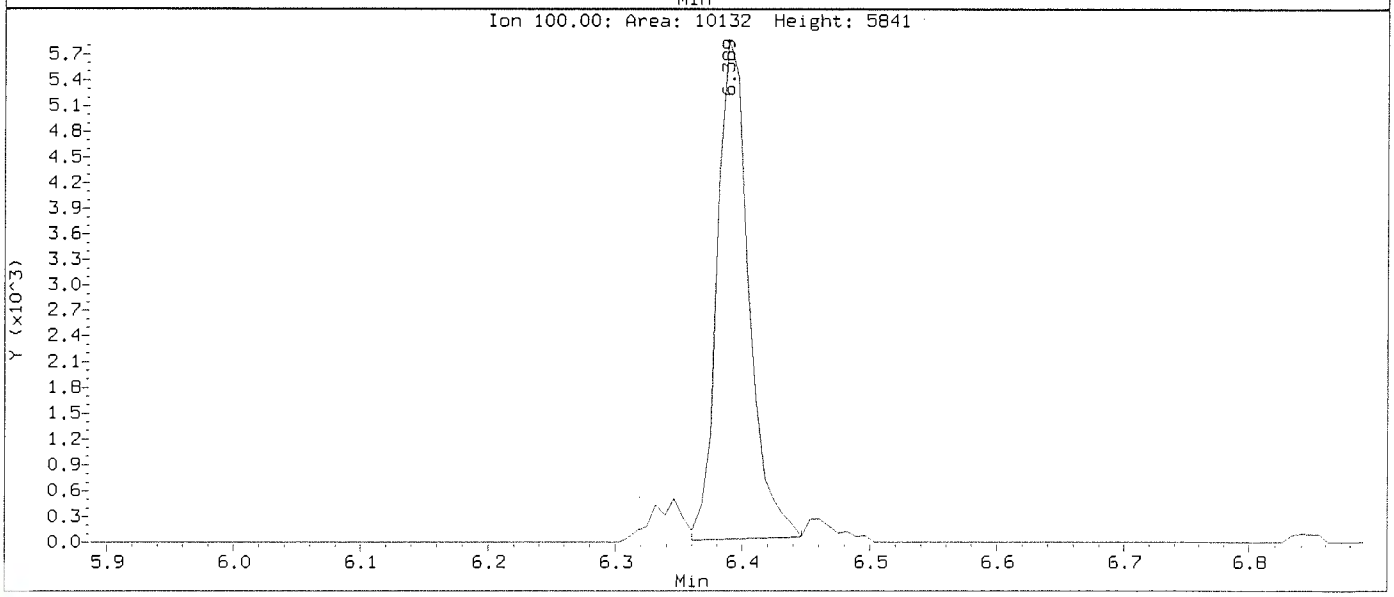
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Toluene-d8
CAS Number: 2037-26-5

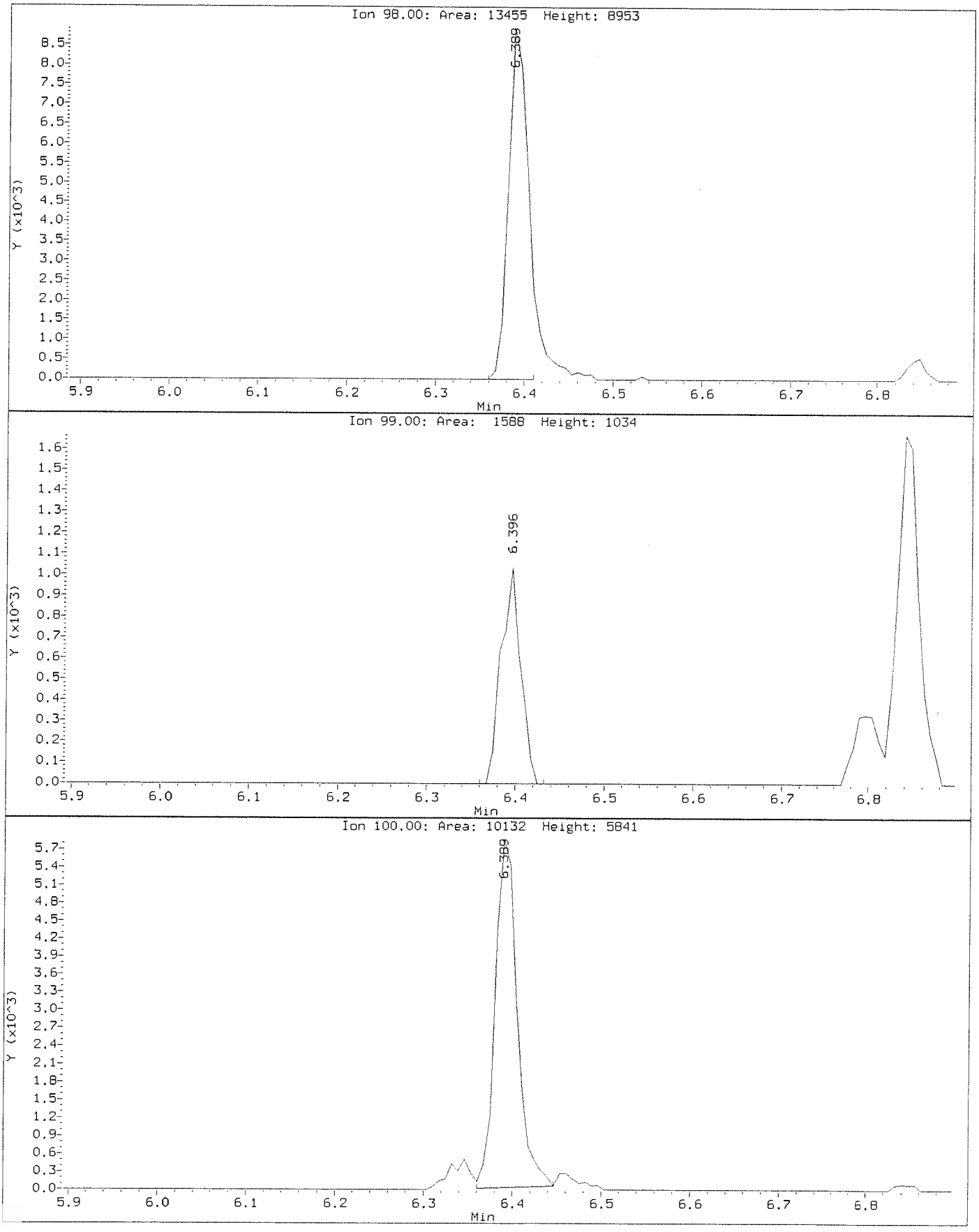






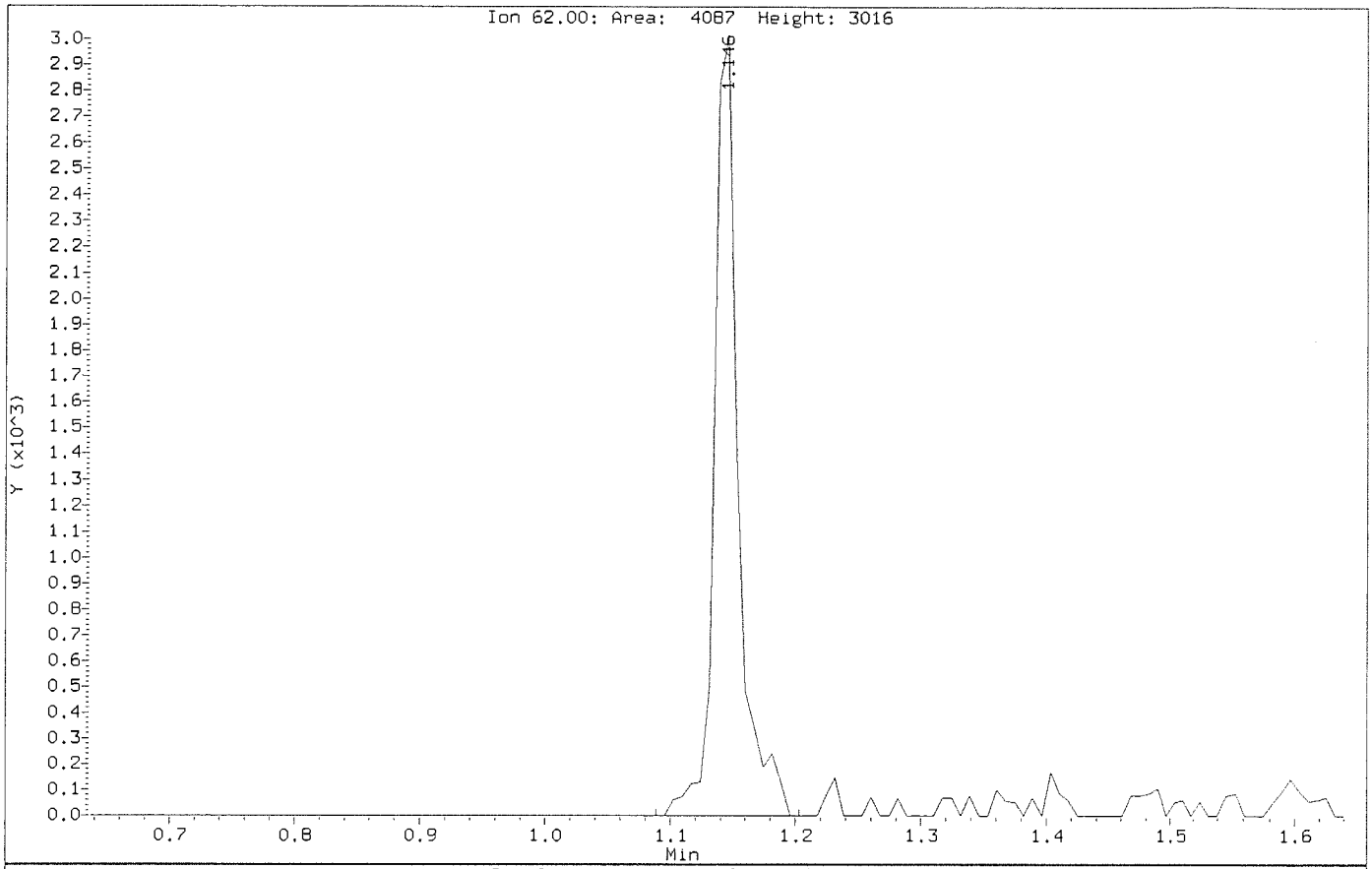
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

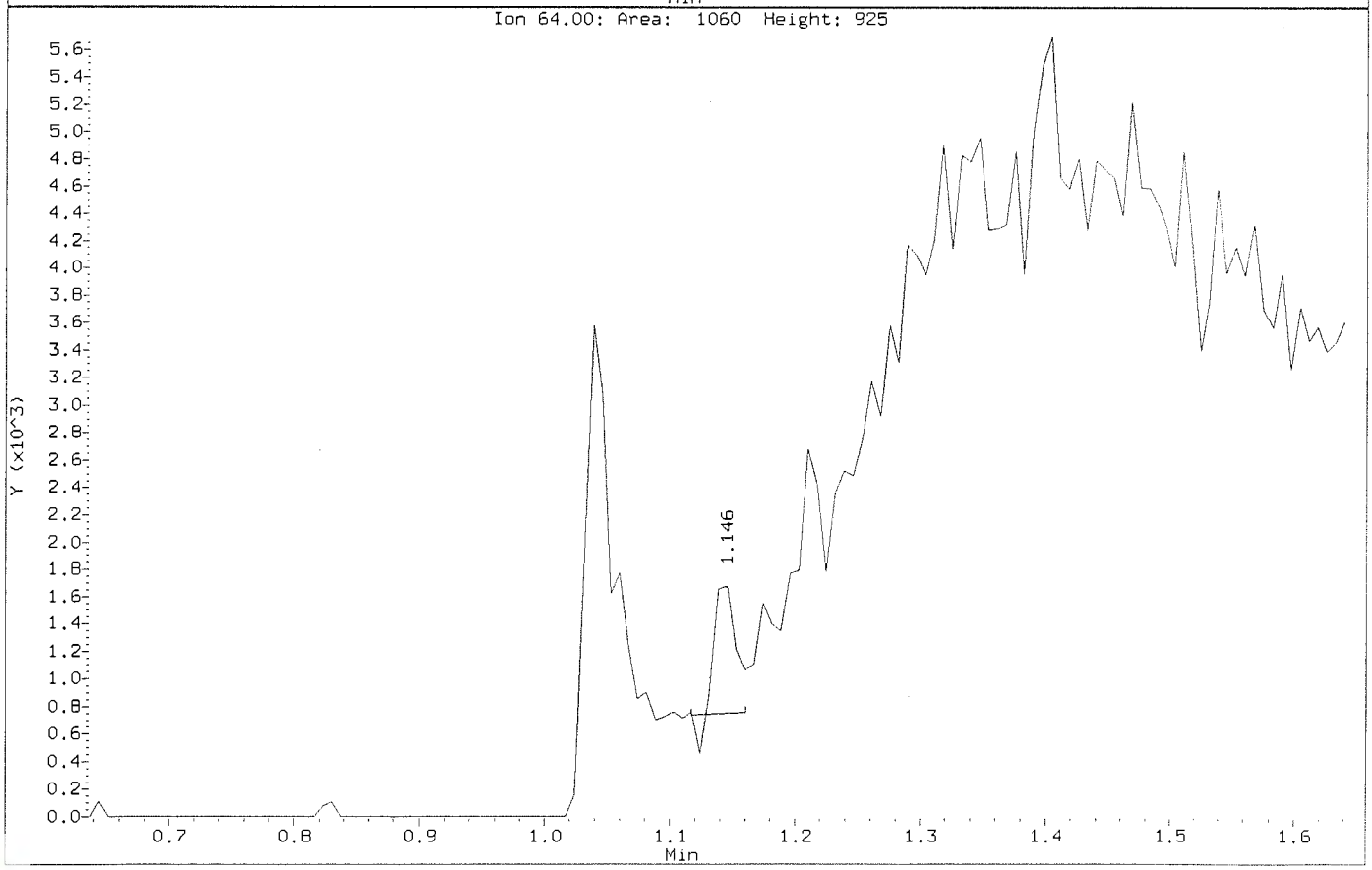
Compound: Toluene-d8
CAS Number: 2037-26-5



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

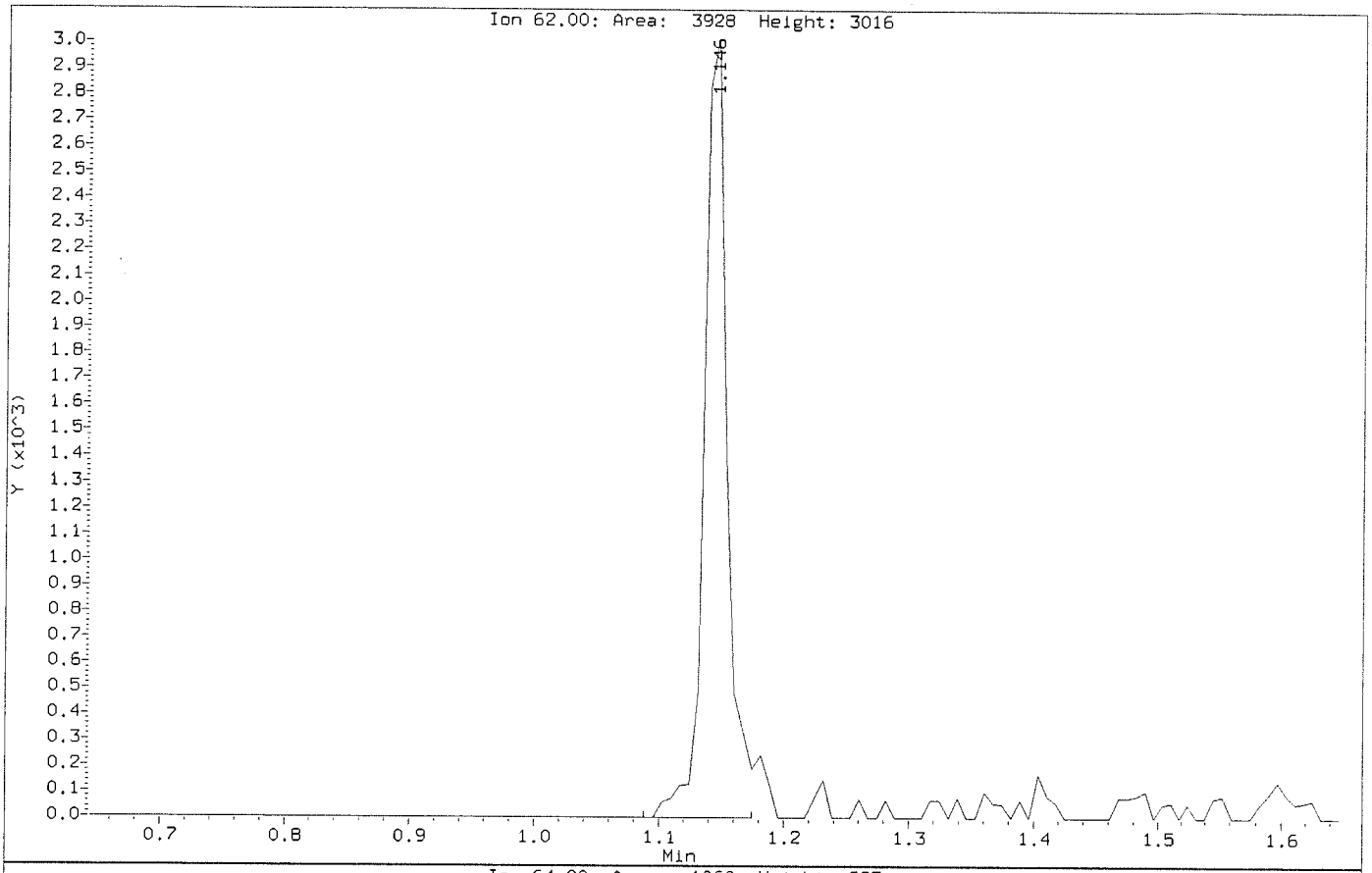
Compound: Vinyl Chloride
CAS Number: 75-01-4

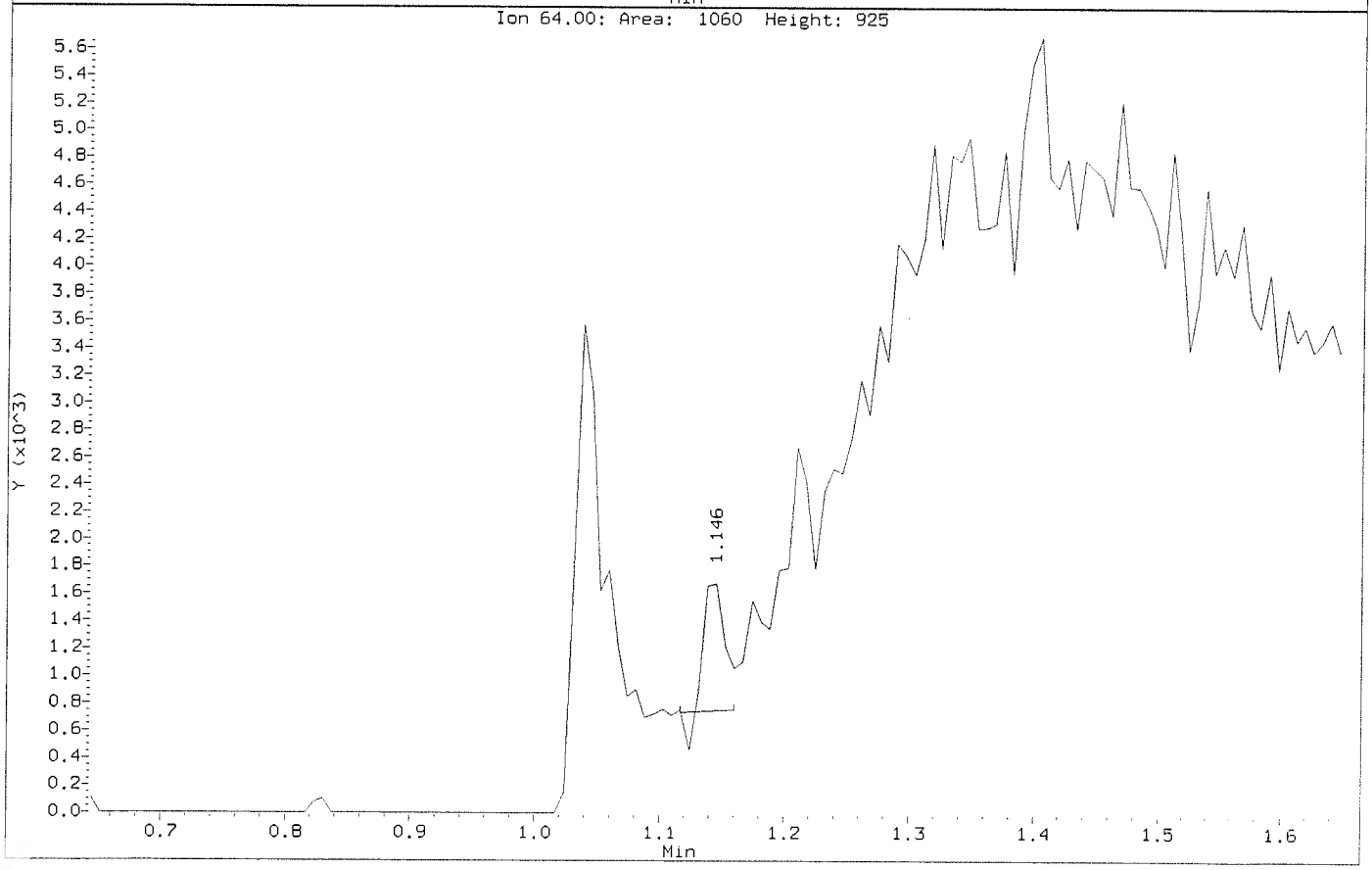




Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

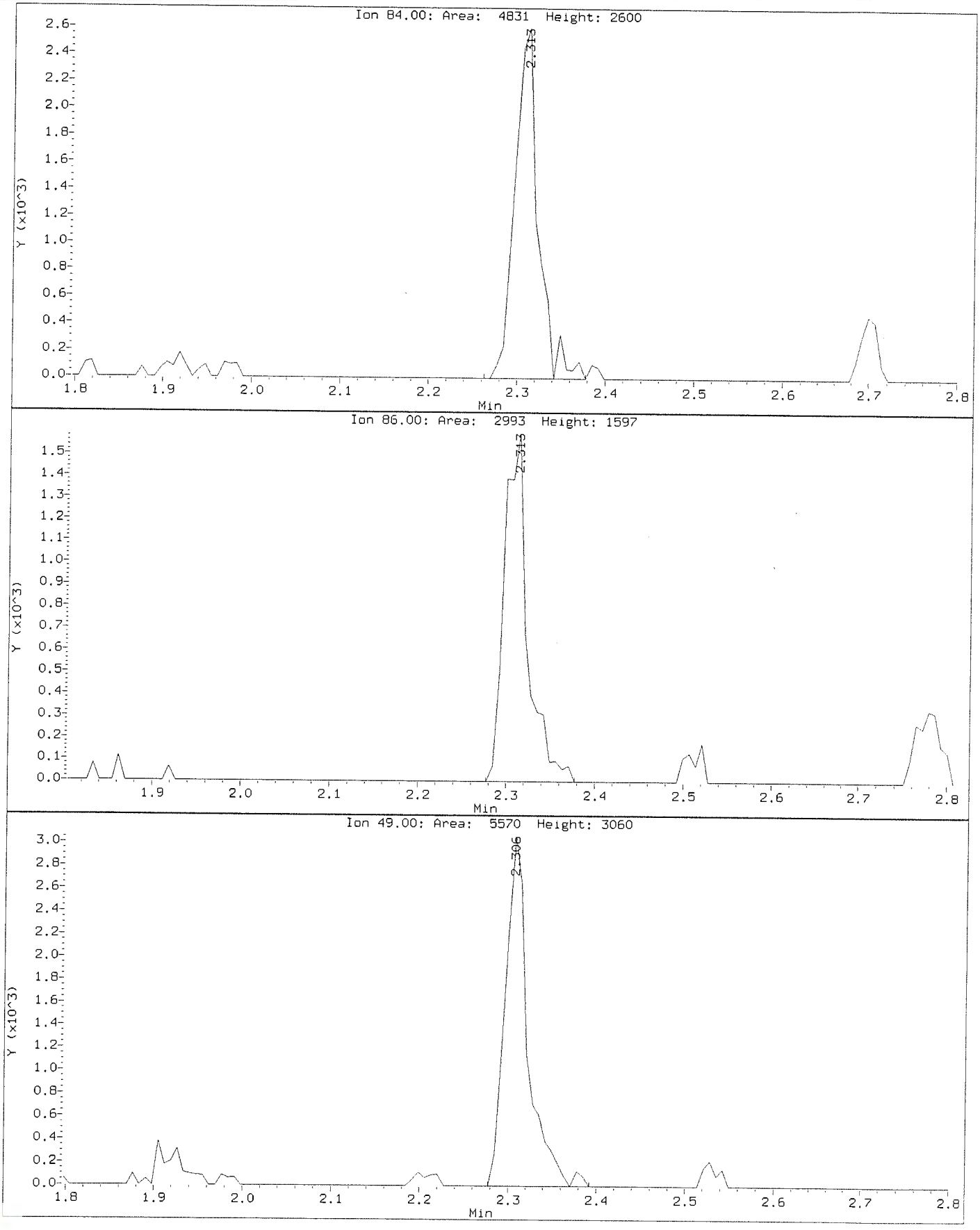
Compound: Vinyl Chloride
CAS Number: 75-01-4





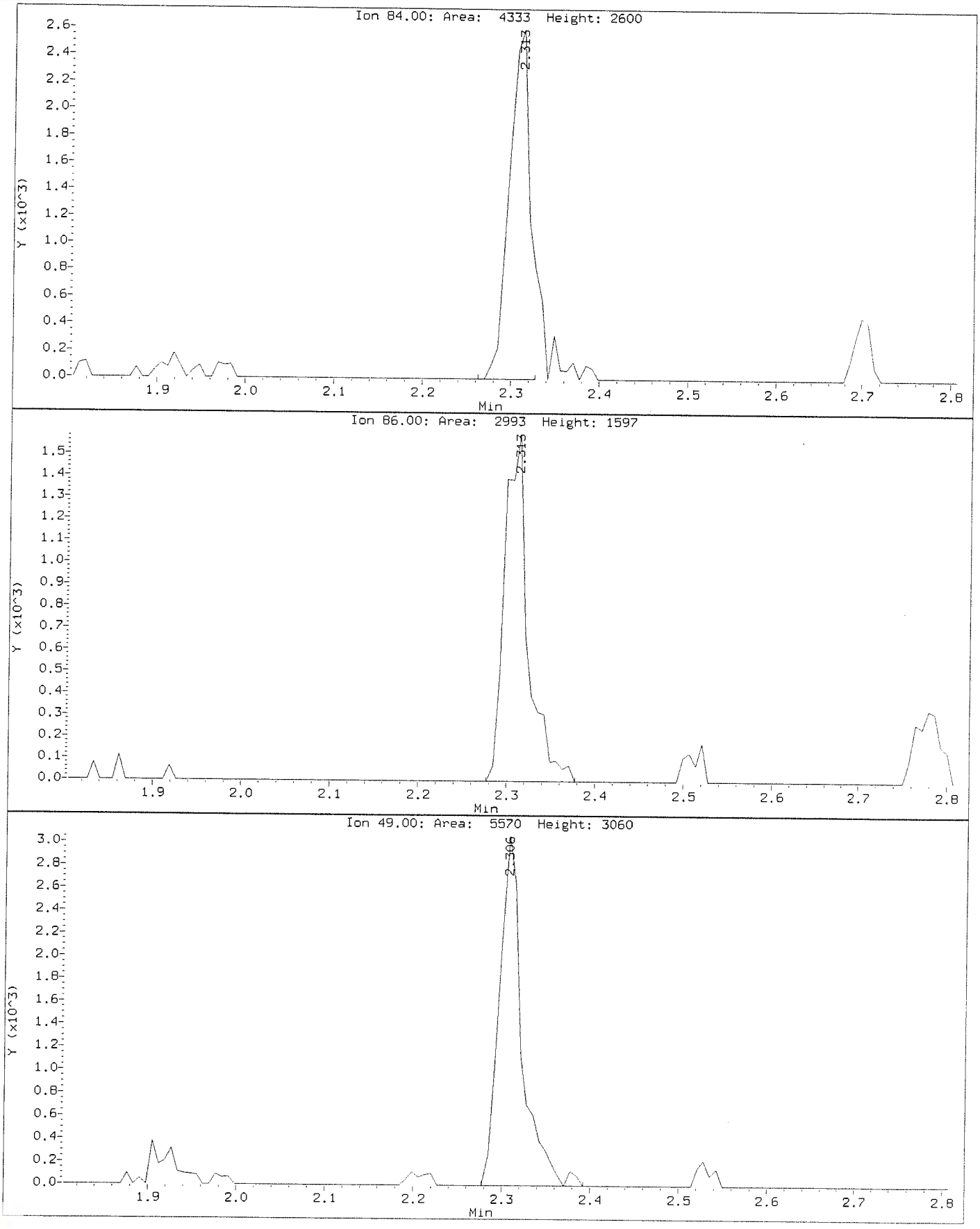
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Methylene Chloride
CAS Number: 75-09-2



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100804.D
Injection Date: 08-OCT-2021 14:11
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Methylene Chloride
CAS Number: 75-09-2



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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100805.D
Lab Smp Id: VSTD002 Client Smp ID: VSTD002
Inj Date : 08-OCT-2021 14:32
Operator : PC Inst ID: voa6.i
Smp Info : VSTD002;VSTD002;1;4;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 16-Nov-2021 15:50 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 14:11 Cal File: X100804.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

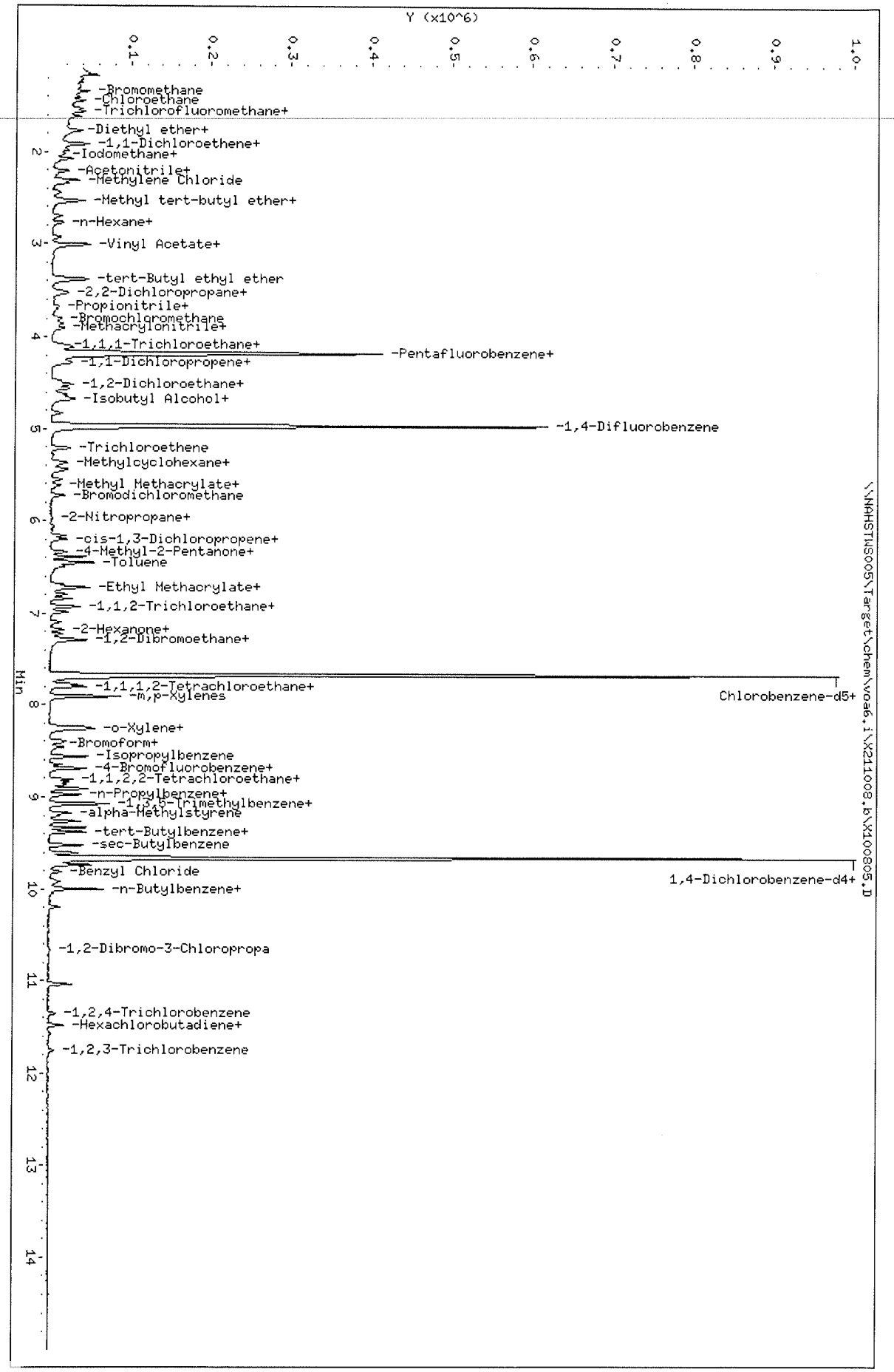
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	337388	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	8290	2.00000	1.41(a)
$ 35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	9717	2.00000	0.97(a)
* 36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	523249	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	483928	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	26169	2.00000	2.13(aM)
$ 69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	13893	2.00000	2.00(a)
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	230329	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	7904	2.00000	2.23(a)
11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	6379	2.00000	2.11(a)
17 Methylene Chloride	84	2.305	2.305	(0.551)	7762	2.00000	1.43(a)
27 cis-1,2-Dichloroethene	96	3.537	3.537	(0.846)	7524	2.00000	2.14(a)
33 1,2-Dichloroethane	62	4.562	4.562	(0.918)	9049	2.00000	2.06(a)
38 Trichloroethene	130	5.214	5.214	(1.049)	8221	2.00000	2.07(a)
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	6097	2.00000	2.36(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

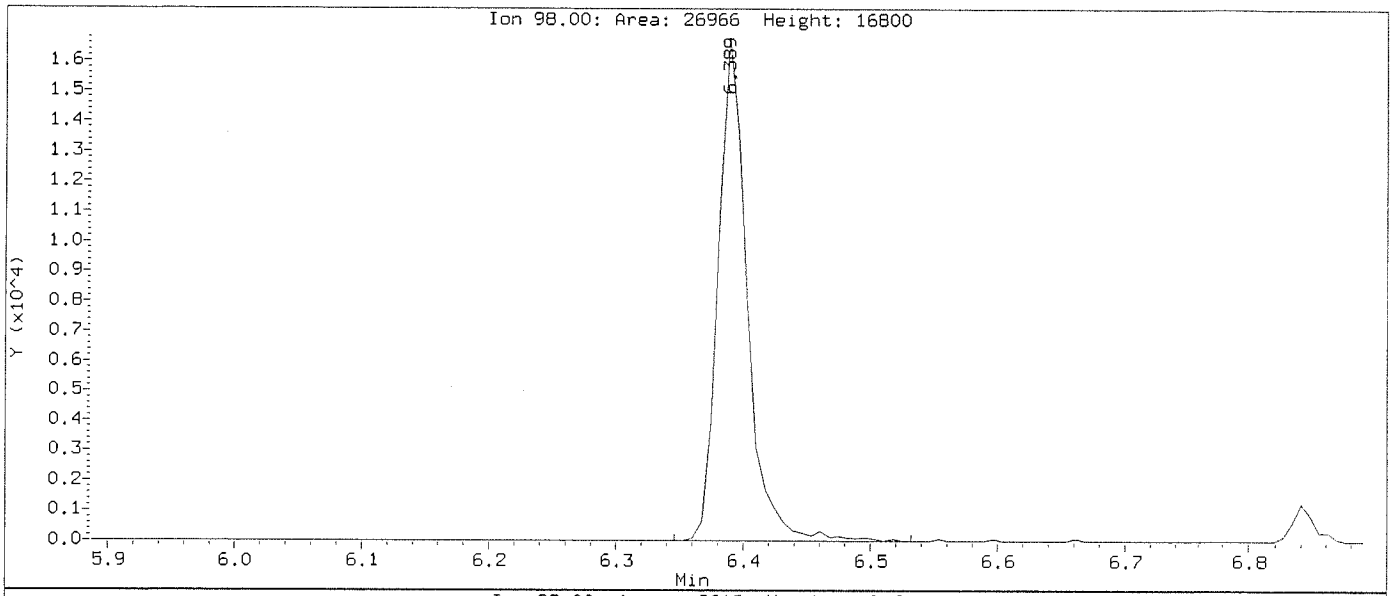


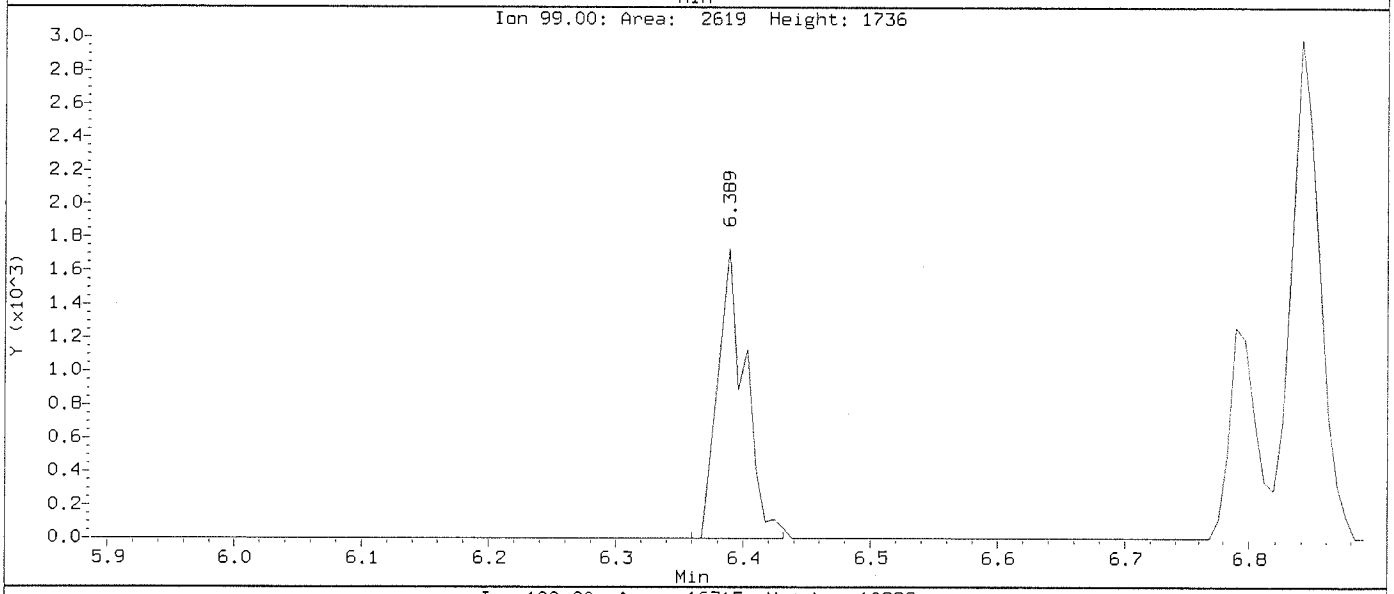
Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100805.D
Date : 08-OCT-2021 14:32
Client ID: VSTD002
Sample Info: VSTD002;VSTD002!1;4;;
Purge Volume: 5.0
Column phase: DB624

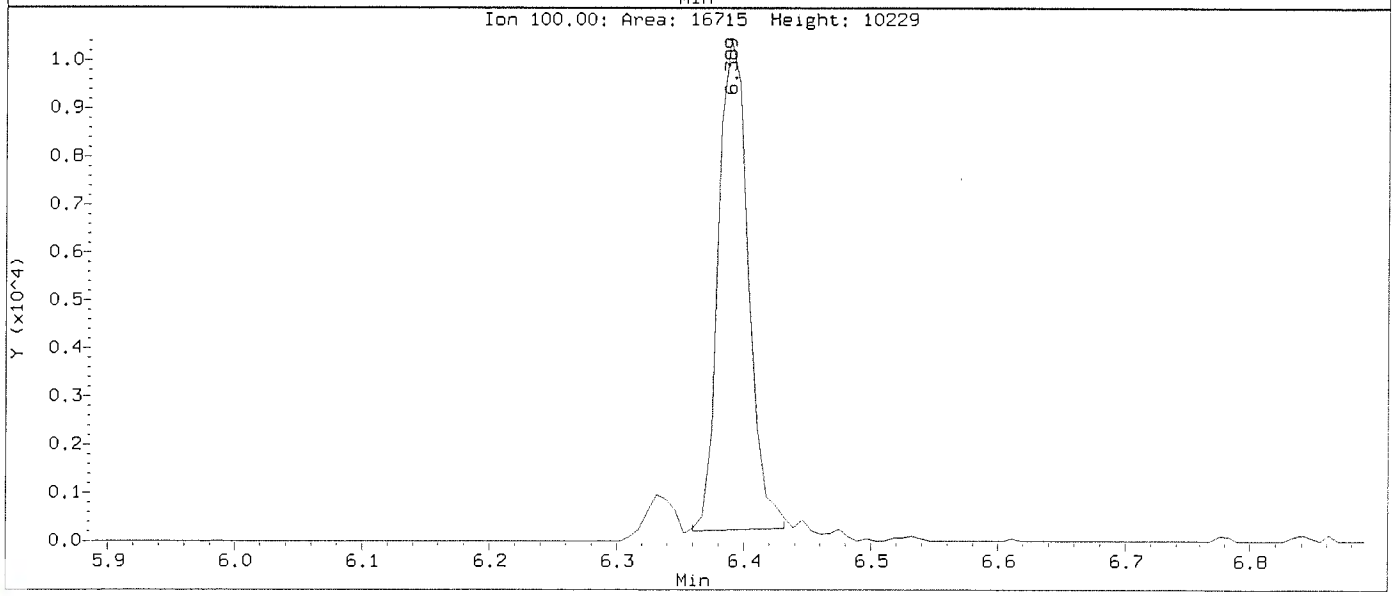
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\Before\X100805.D
Injection Date: 08-OCT-2021 14:32
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Toluene-d8
CAS Number: 2037-26-5

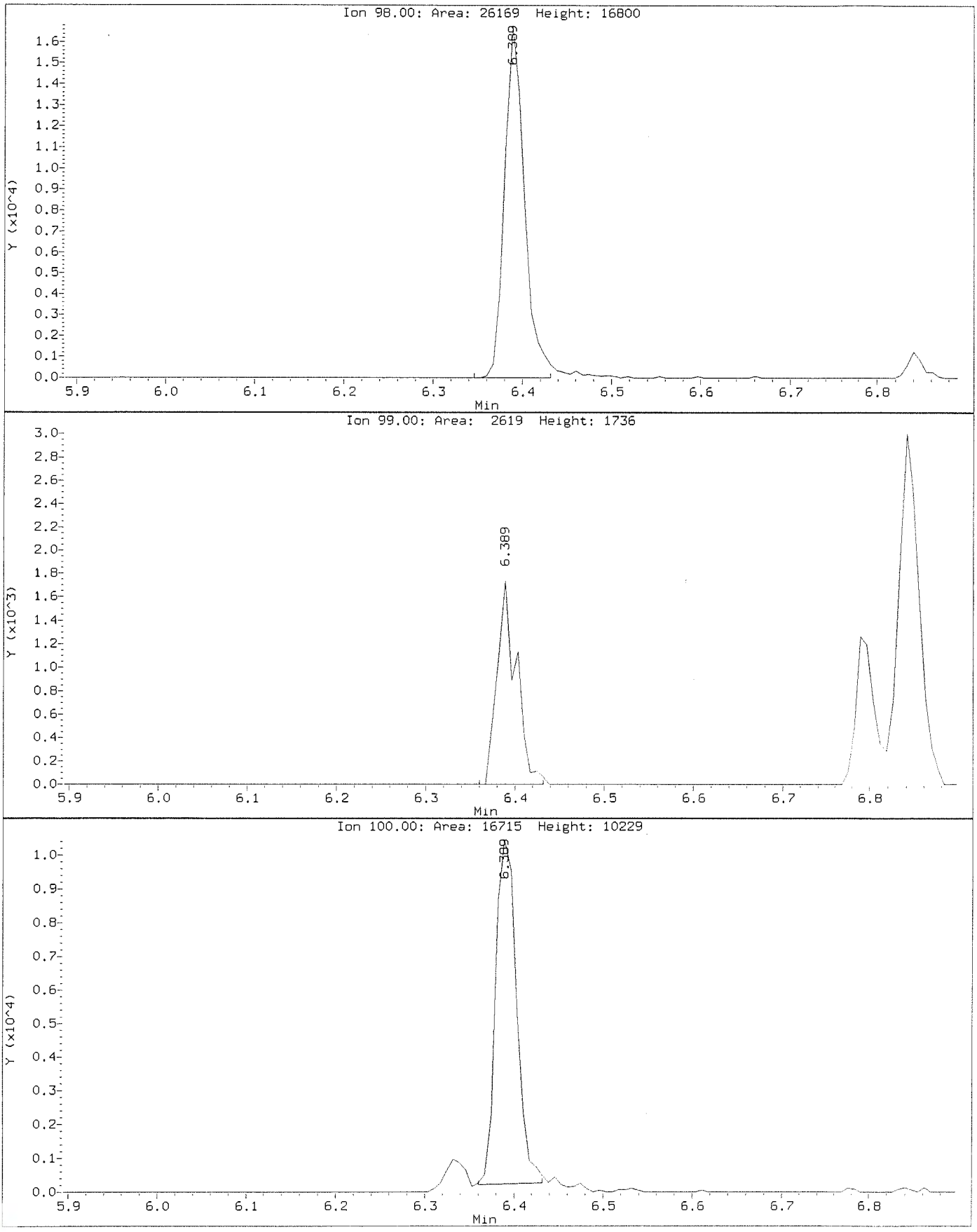






Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100805.D
Injection Date: 08-OCT-2021 14:32
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Toluene-d8
CAS Number: 2037-26-5



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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100806.D
Lab Smp Id: VSTD005 Client Smp ID: VSTD005
Inj Date : 08-OCT-2021 14:53
Operator : PC Inst ID: voa6.i
Smp Info : VSTD005;VSTD005;1;5;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 16-Nov-2021 15:50 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 14:32 Cal File: X100805.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

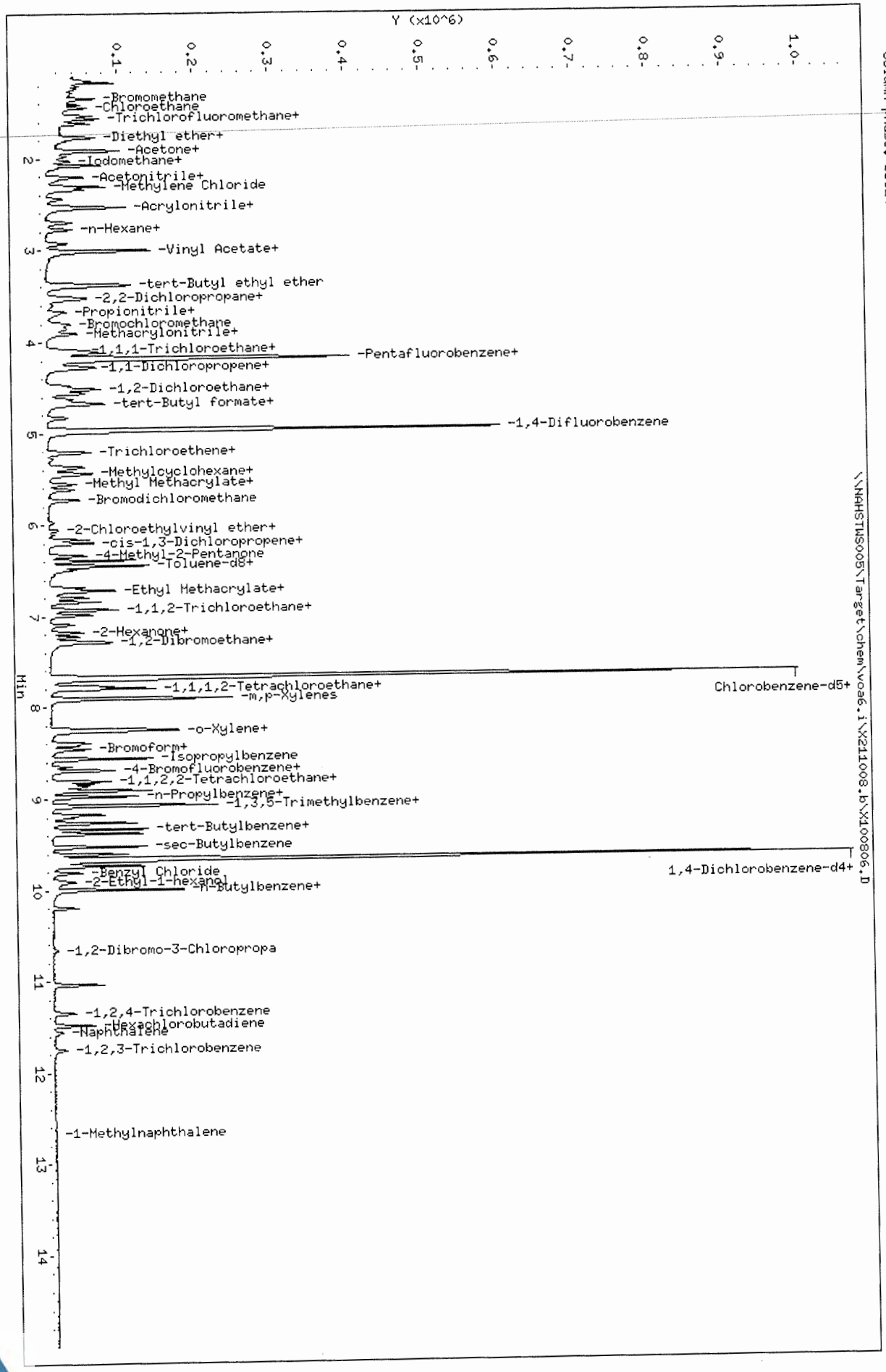
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	333400	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	20676	5.00000	5.32
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	22194	5.00000	4.92(a)
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	515627	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	479811	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	65046	5.00000	5.34
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	24945	5.00000	4.74(a)
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	229555	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	20005	5.00000	5.72
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	16670	5.00000	5.60
17 Methylene Chloride	84	2.305	2.305	(0.551)	19276	5.00000	5.52
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	19489	5.00000	5.62
33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	23534	5.00000	5.44
38 Trichloroethene	130	5.206	5.206	(1.049)	20177	5.00000	5.17
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	14434	5.00000	5.63

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100806.D
Date : 08-OCT-2021 14:53
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;;
Purge Volume: 5.0
Column Phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100807.D Page 1
Report Date: 16-Nov-2021 15:50

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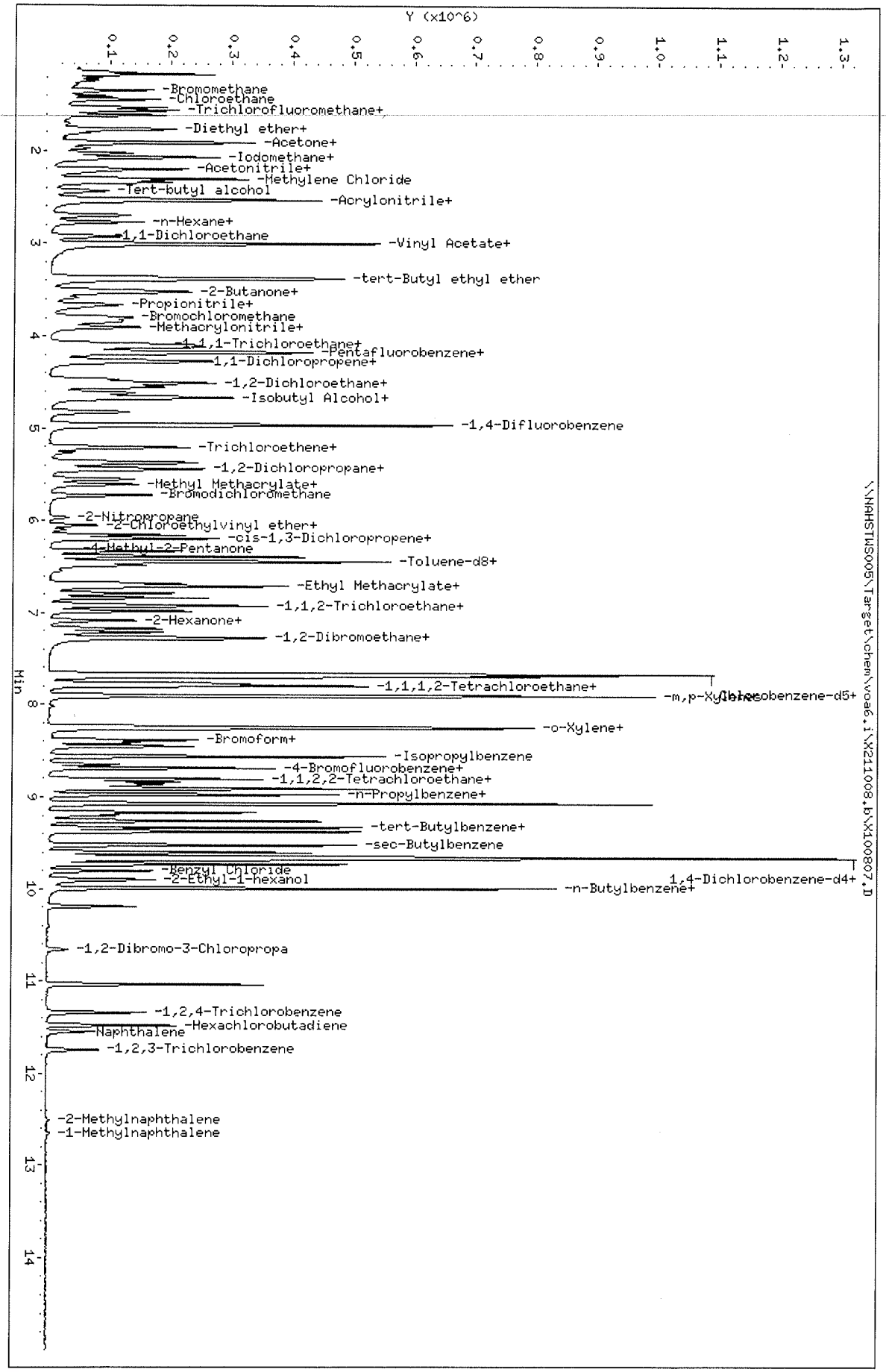
Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100807.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 08-OCT-2021 15:14
Operator : PC Inst ID: voa6.i
Smp Info : VSTD020;VSTD020;1;6;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 16-Nov-2021 15:50 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 14:53 Cal File: X100806.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	359250	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	78657	20.0000	21.67
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	84053	20.0000	22.43
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	552025	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	521772	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	248228	20.0000	18.74
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	96265	20.0000	20.33
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	270684	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	73837	20.0000	19.60
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	63174	20.0000	19.71
	17 Methylene Chloride	84	2.306	2.306	(0.551)	70665	20.0000	21.85
	27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	77585	20.0000	20.77
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	94822	20.0000	20.47
	38 Trichloroethene	130	5.207	5.207	(1.049)	78065	20.0000	18.69
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	53753	20.0000	19.30



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100807.D
Date : 08-OCT-2021 15:14
Client ID: VSTD020
Sample Info: VSTD020;VSTD020;1;6;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100808.D Page 1
Report Date: 16-Nov-2021 15:50

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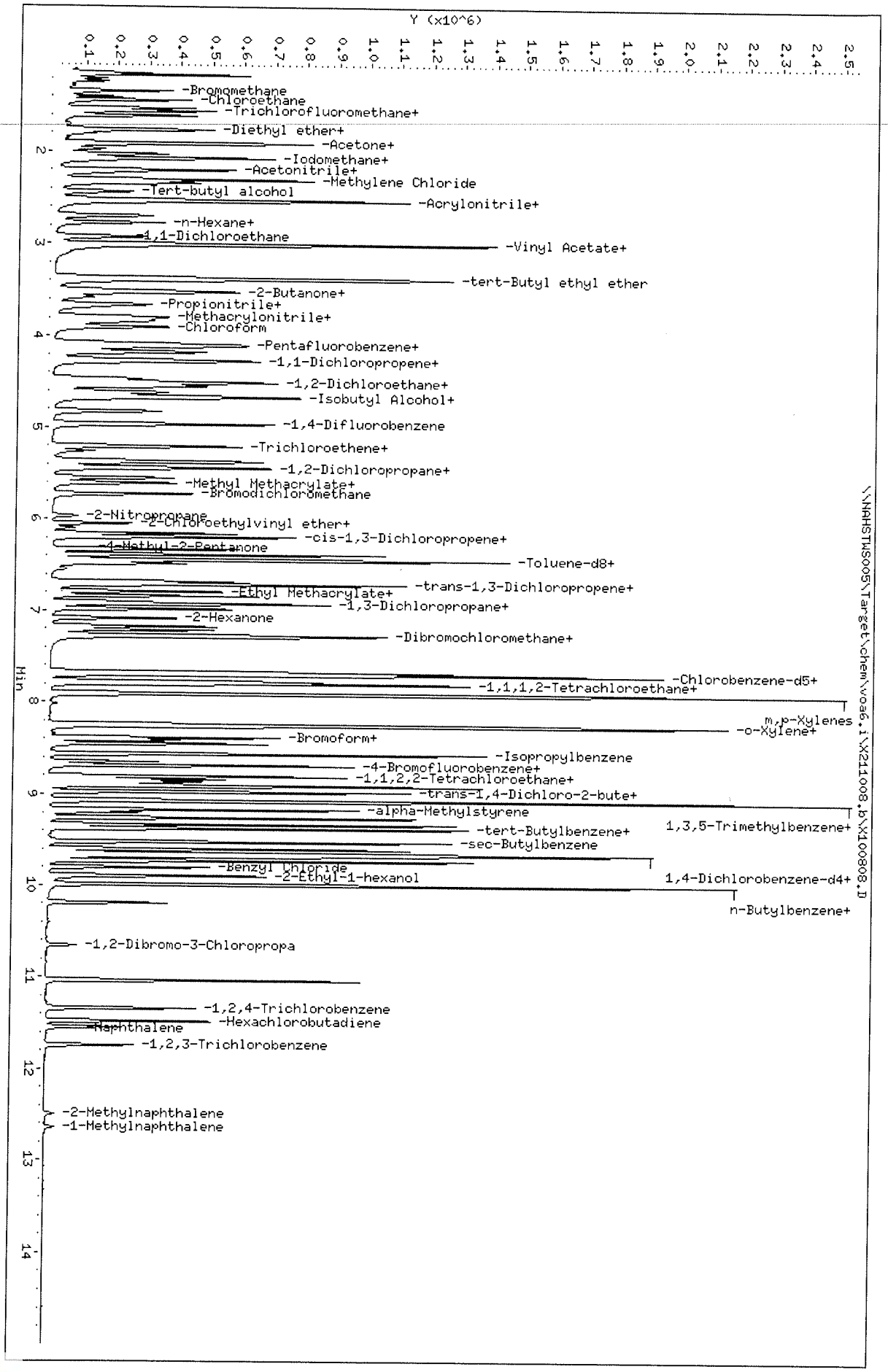
Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100808.D
Lab Smp Id: VSTD050 Client Smp ID: VSTD050
Inj Date : 08-OCT-2021 15:34
Operator : PC Inst ID: voa6.i
Smp Info : VSTD050;VSTD050;1;7;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 16-Nov-2021 15:50 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:14 Cal File: X100807.D
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	392113	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	192579	50.0000	50.03
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	202478	50.0000	51.97
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	589876	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	564124	50.0000	
$	48 Toluene-d8	98	6.388	6.388	(0.833)	634808	50.0000	44.34
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	246655	50.0000	50.06
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	290705	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	182737	50.0000	44.44
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	159624	50.0000	45.63
	17 Methylene Chloride	84	2.305	2.305	(0.551)	173952	50.0000	50.88
	27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	196461	50.0000	48.19
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	236990	50.0000	47.89
	38 Trichloroethene	130	5.206	5.206	(1.049)	197218	50.0000	44.20
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	140168	50.0000	46.56



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100808.D
Date : 08-OCT-2021 15:34
Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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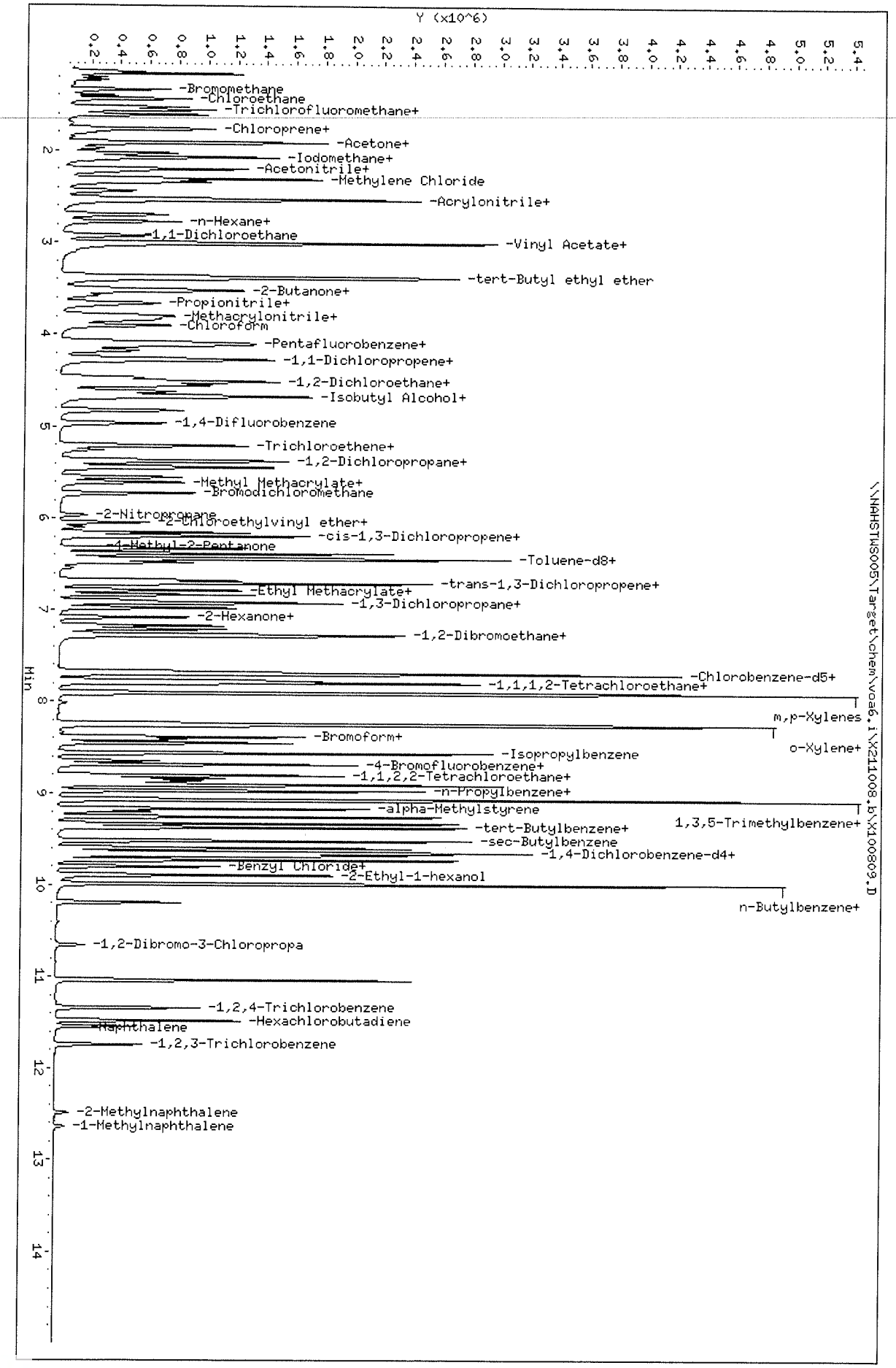
Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100809.D
Lab Smp Id: VSTD100 Client Smp ID: VSTD100
Inj Date : 08-OCT-2021 15:55
Operator : PC Inst ID: voa6.i
Smp Info : VSTD100;VSTD100;1;8;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 16-Nov-2021 15:50 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	418066	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	417318	100.000	102.87
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	416593	100.000	102.19
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	613866	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	579251	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	1348785	100.000	91.75
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	511094	100.000	102.41
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	297050	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	381795	100.000	87.10
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	343969	100.000	92.23
17 Methylene Chloride	84	2.305	2.305	(0.551)	361756	100.000	100.44
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	413298	100.000	95.08
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	479766	100.000	93.17
38 Trichloroethene	130	5.206	5.206	(1.049)	421689	100.000	90.81
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	291528	100.000	94.31



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100809.D
Date : 08-OCT-2021 15:55
Client ID: VSTD100
Sample Info: VSTD100;VSTD100;1;8;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

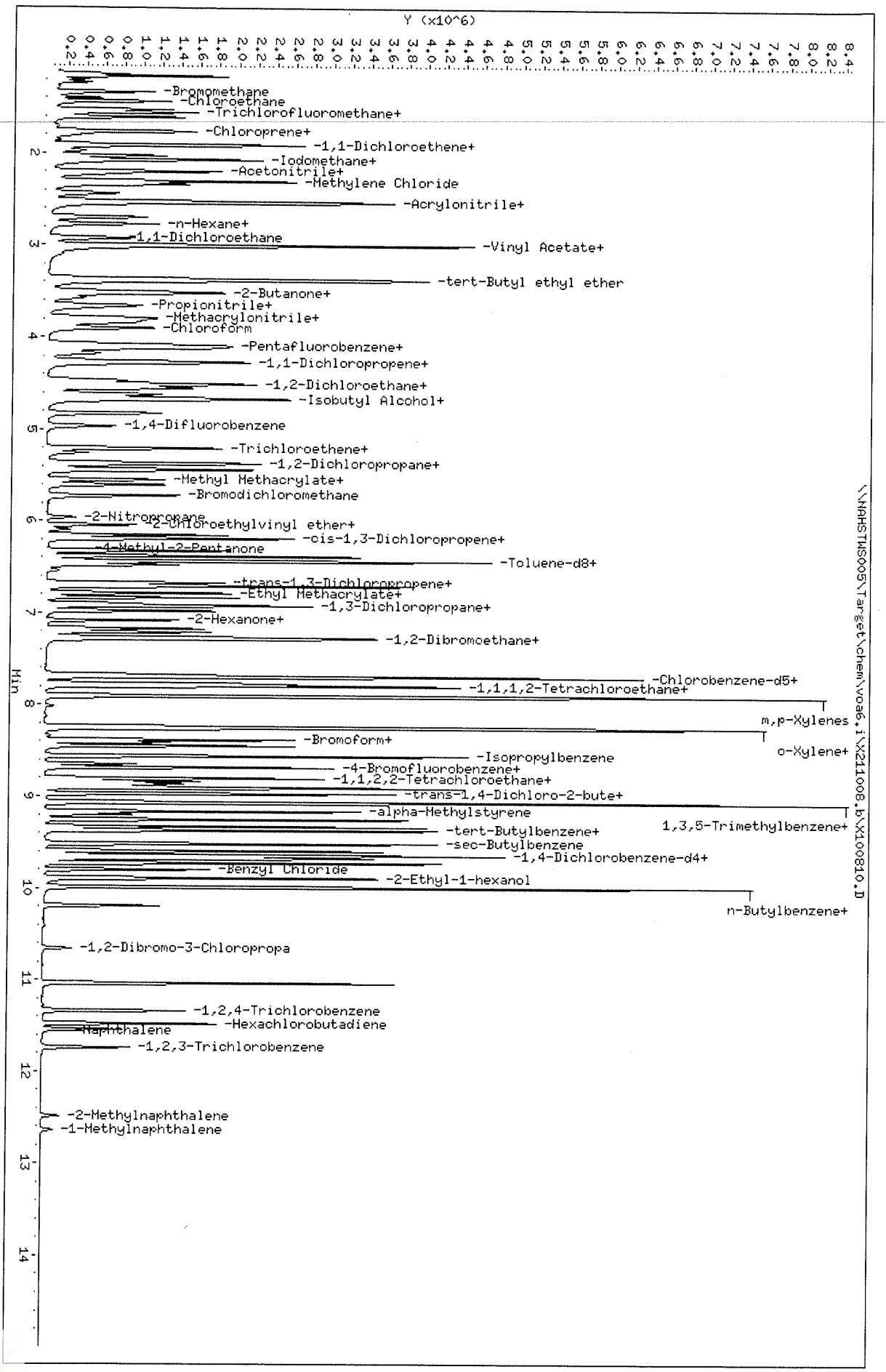
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100810.D
Lab Smp Id: VSTD150 Client Smp ID: VSTD150
Inj Date : 08-OCT-2021 16:16
Operator : PC Inst ID: voa6.i
Smp Info : VSTD150;VSTD150;1;9;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 16-Nov-2021 15:50 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:55 Cal File: X100809.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	430506	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	604609	150.000	145.19
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	610768	150.000	146.35
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	614424	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	583017	50.0000	
$ 48 Toluene-d8	98	6.389	6.389	(0.833)	1910689	150.000	129.13
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	745510	150.000	149.04
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	301016	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	580048	150.000	128.51
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	518774	150.000	135.09
17 Methylene Chloride	84	2.306	2.306	(0.551)	542343	150.000	146.81
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	618894	150.000	138.27
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	711577	150.000	138.06
38 Trichloroethene	130	5.207	5.207	(1.049)	618285	150.000	133.03
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	432811	150.000	139.12



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100810.D
Date : 08-OCT-2021 16:16
Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;9;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100811.D Page 1
Report Date: 16-Nov-2021 15:50

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100811.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 08-OCT-2021 16:37
Operator : PC Inst ID: voa6.i
Smp Info : VSTD200;VSTD200;1;10;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 16-Nov-2021 15:50 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 16:16 Cal File: X100810.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

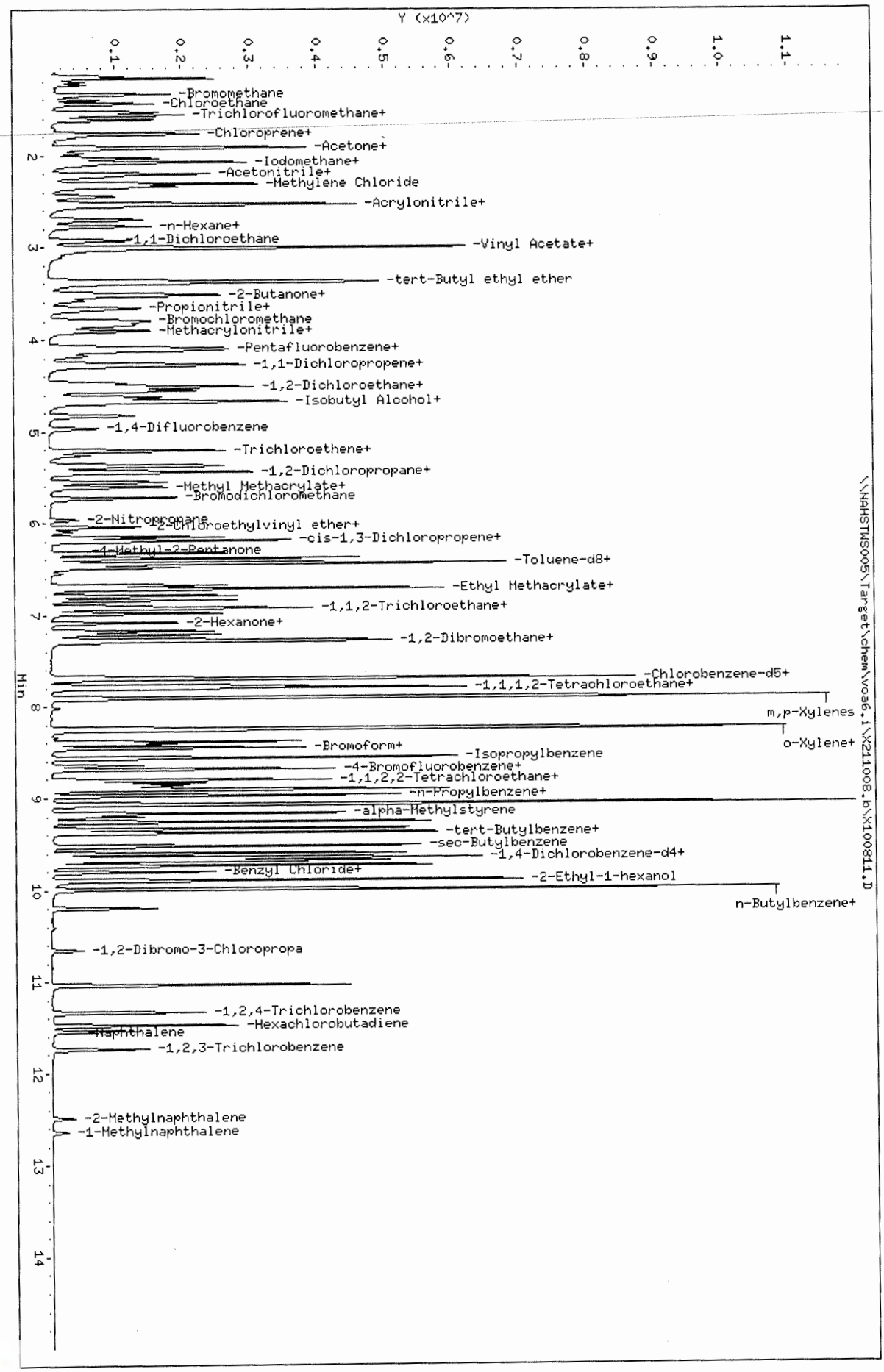
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	430833	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	839119	200.000	201.80(A)
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	835313	200.000	200.75(A)
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	629406	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	592993	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	2646847	200.000	175.88
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	1012260	200.000	199.42
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	308327	50.0000	
5 Vinyl Chloride	62	1.138	1.138	(0.272)	811647	200.000	179.68
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	737348	200.000	191.86
17 Methylene Chloride	84	2.298	2.298	(0.550)	743741	200.000	201.65(A)
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	867147	200.000	193.59
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	971365	200.000	183.98
38 Trichloroethene	130	5.206	5.206	(1.049)	867502	200.000	182.21
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	595829	200.000	188.30

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100811.D
Date : 08-OCT-2021 16:37
Client ID: VSTD200
Sample Info: VSTD200;VSTD200;1;10;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100814.D Page 1
Report Date: 16-Nov-2021 15:50

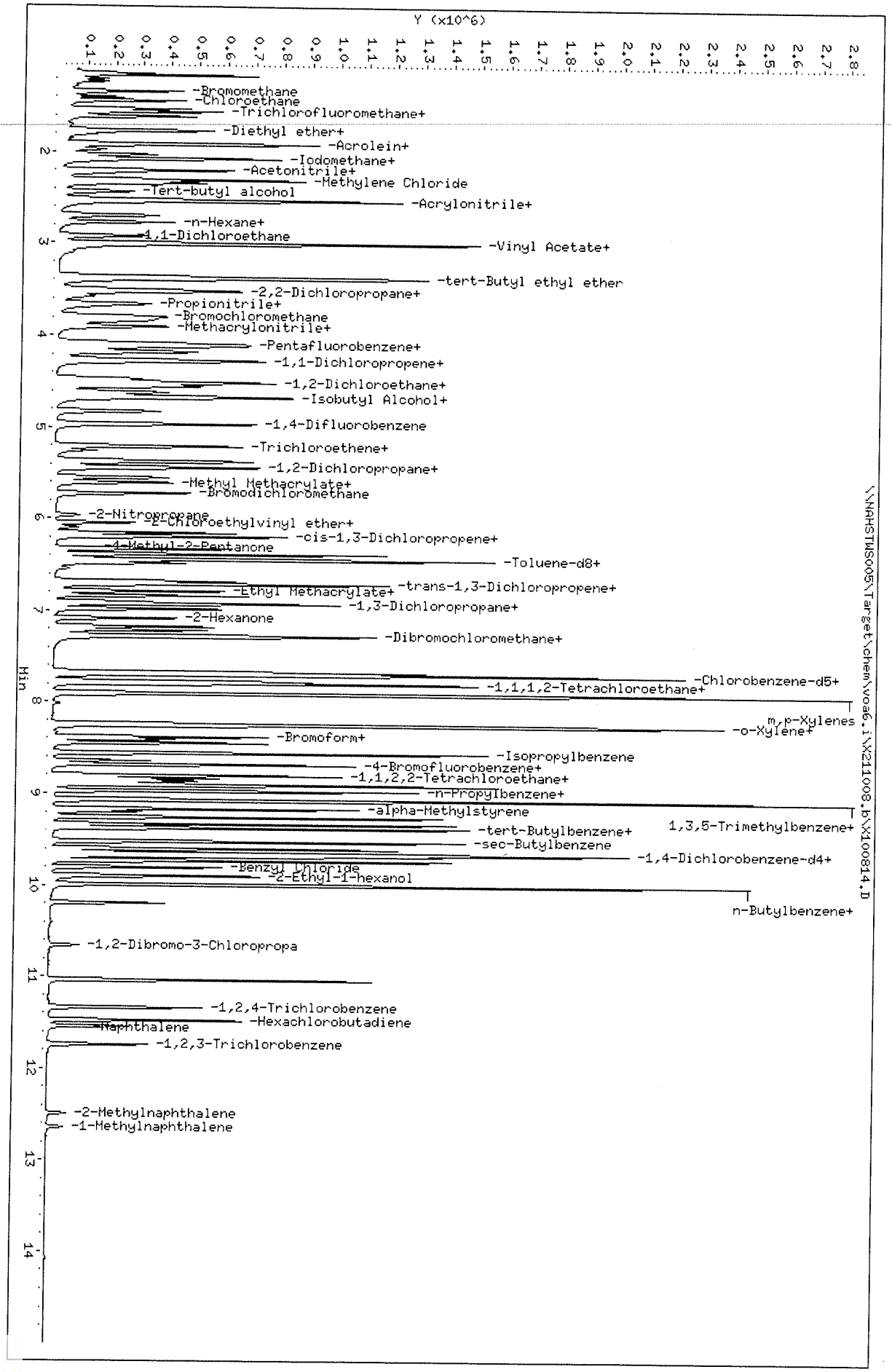
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100814.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 08-OCT-2021 17:40
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;ICV
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211008.b\8260W.m
Meth Date : 16-Nov-2021 15:50 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 16:37 Cal File: X100811.D
Als bottle: 15 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	411437	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	220373	54.6695	54.66
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	220262	53.9602	53.96
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	626955	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	584793	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	702141	47.3113	47.31
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	271877	53.3185	53.31
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	301385	50.0000	
5 Vinyl Chloride	62	1.145	1.138	(0.274)	203682	47.2176	47.21
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	177902	48.4732	48.47
17 Methylene Chloride	84	2.305	2.298	(0.551)	187907	52.4189	52.41
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	217393	50.8223	50.82
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	252375	47.9879	47.98
38 Trichloroethene	130	5.206	5.206	(1.049)	219352	46.2533	46.25
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	149441	47.8902	47.89



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211008.b\X100814.D
Date : 08-OCT-2021 17:40
Client ID: ICV
Sample Info: CCV;CCV;2;;;ICV
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

MSVOA06 -Logbook

Batch: 47031
Date: 11-01-2021
Method: 8260
Comments:

Analyst: Presenta Cabascango
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	11-01-2021 12:03 pm	1.00	50 mL	50 mL	X110101.D	Liquid	Y	NA
2	CCV	CCV	11-01-2021 12:24 pm	1.00	50 mL	50 mL	X110102a.D	Liquid	Y	NA
3	CCV	CCV	11-01-2021 12:45 pm	1.00	50 mL	50 mL	X110103.D	Liquid	Y	NA
4	CCB	SAMP	11-01-2021 01:06 pm	1.00	50 mL	50 mL	X110104.D	Liquid	Y	NA
5	VLCSW-211101	LCS	11-01-2021 01:27 pm	1.00	50 mL	50 mL	X110105.D	Liquid	Y	NA
6	BLANK	SAMP	11-01-2021 01:48 pm	1.00	50 mL	50 mL	X110106.D	Liquid	Y	NA
7	VBLKW-211101	MBLK	11-01-2021 02:08 pm	1.00	50 mL	50 mL	X110107.D	Liquid	Y	NA
8	HS21101171-09	SAMP	11-01-2021 02:33 pm	1.00	50 mL	50 mL	X110108.D	Liquid	Y	NA
9	HS21101171-01	SAMP	11-01-2021 02:54 pm	1.00	50 mL	50 mL	X110109.D	Liquid	Y	NA
10	HS21101171-02	SAMP	11-01-2021 03:15 pm	10.00	5 mL	50 mL	X110110.D	Liquid	Y	NA
11	HS21101171-02MS	MS	11-01-2021 03:36 pm	10.00	5 mL	50 mL	X110111.D	Liquid	Y	NA
12	HS21101171-02MSD	MSD	11-01-2021 03:57 pm	10.00	5 mL	50 mL	X110112.D	Liquid	Y	NA
13	HS21101670-09	SAMP	11-01-2021 04:19 pm	250.0(	200 µL	50 mL	X110113.D	Liquid	Y	NA
14	HS21101670-10	SAMP	11-01-2021 04:40 pm	25.00	2 mL	50 mL	X110114.D	Liquid	Y	NA
15	HS21101272-11	SAMP	11-01-2021 05:01 pm	1.00	50 mL	50 mL	X110115.D	Liquid	Y	NA
16	HS21101272-01	SAMP	11-01-2021 05:22 pm	1.00	50 mL	50 mL	X110116.D	Liquid	Y	NA
17	HS21101272-02	SAMP	11-01-2021 05:43 pm	1.00	50 mL	50 mL	X110117.D	Liquid	Y	NA
18	HS21101272-03	SAMP	11-01-2021 06:04 pm	1.00	50 mL	50 mL	X110118.D	Liquid	Y	NA
19	HS21101171-07	SAMP	11-01-2021 06:25 pm	5.00	10 mL	50 mL	X110119.D	Liquid	Y	NA
20	HS21101171-08	SAMP	11-01-2021 06:46 pm	10.00	5 mL	50 mL	X110120.D	Liquid	Y	NA
21	HS21101171-08n/r	SAMP	11-01-2021 07:07 pm	50.00	1 mL	50 mL	X110121.D	Liquid	Y	NA
22	HS21101171-03	SAMP	11-01-2021 07:28 pm	10.00	5 mL	50 mL	X110122.D	Liquid	Y	NA
23	HS21101171-03	SAMP	11-01-2021 07:49 pm	100.0(	500 µL	50 mL	X110123.D	Liquid	Y	NA
24	HS21101171-04	SAMP	11-01-2021 08:10 pm	10.00	5 mL	50 mL	X110124.D	Liquid	Y	NA
25	HS21101171-04n/r	SAMP	11-01-2021 08:31 pm	100.0(	500 µL	50 mL	X110125.D	Liquid	Y	NA
26	HS21101171-05	SAMP	11-01-2021 08:52 pm	10.00	5 mL	50 mL	X110126.D	Liquid	Y	NA
27	HS21101171-05o/c	SAMP	11-01-2021 09:13 pm	100.0(	500 µL	50 mL	X110127.D	Liquid	Y	NA
28	HS21101171-06	SAMP	11-01-2021 09:34 pm	10.00	5 mL	50 mL	X110128.D	Liquid	Y	NA
29	HS21101171-06	SAMP	11-01-2021 09:55 pm	100.0(	500 µL	50 mL	X110129.D	Liquid	Y	NA
30	CCV	CCV	11-01-2021 10:58 pm	1.00	50 mL	50 mL	X110130.D	Liquid	Y	NA

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

	CLIENT SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER #	TOT OUT
01	VLCSW-211101	101	94	91	100	0
02	VBLKW-211101	94	83	96	94	0
03	HS21101171-09	93	86	92	97	0
04	HS21101171-01	94	88	93	97	0
05	HS21101171-02	94	88	95	99	0
06	HS21101171-02MS	92	84	96	98	0
07	HS21101171-02MSD	92	84	97	98	0
08	HS21101171-07	96	89	97	95	0
09	HS21101171-08	93	87	97	94	0
10	HS21101171-03	93	88	96	96	0
11	HS21101171-03	91	89	96	96	0
12	HS21101171-04	93	88	95	96	0
13	HS21101171-05	92	88	97	96	0
14	HS21101171-06	94	89	98	97	0
15	HS21101171-06	94	91	97	99	0
16						
17						
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27						
28						

		QC LIMITS
SMC1	= Dibromofluoromethane	(70-130)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(70-130)
SMC3 (TOL)	= Toluene-d8	(70-130)
OTHER	= 4-Bromofluorobenzene	(70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

VBLKW-211101

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Lab File ID: X110107 Lab Sample ID: VBLKW-211101

Date Analyzed: 11/01/21 Time Analyzed: 1408

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSW-211101	VLCSW-211101	X110105	1327
02	HS21101171-09	HS21101171-09	X110108	1433
03	HS21101171-01	HS21101171-01	X110109	1454
04	HS21101171-02	HS21101171-02	X110110	1515
05	HS21101171-02MS	HS21101171-02MS	X110111	1536
06	HS21101171-02MSD	HS21101171-02MSD	X110112	1557
07	HS21101171-07	HS21101171-07	X110119	1825
08	HS21101171-08	HS21101171-08	X110120	1846
09	HS21101171-03	HS21101171-03	X110122	1928
10	HS21101171-03	HS21101171-03	X110123	1949
11	HS21101171-04	HS21101171-04	X110124	2010
12	HS21101171-05	HS21101171-05	X110126	2052
13	HS21101171-06	HS21101171-06	X110128	2134
14	HS21101171-06	HS21101171-06	X110129	2155
15				
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COMMENTS:

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Lab File ID: X110101 BFB Injection Date: 11/01/21

Instrument ID: VOA6 BFB Injection Time: 1203

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.1
75	30.0 - 60.0% of mass 95	43.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	1.2 (1.1)1
174	Greater than 50.0% of mass 95	110.2
175	5.0 - 9.0% of mass 174	8.0 (7.3)1
176	95.0 - 101.0% of mass 174	107.3 (97.4)1
177	5.0 - 9.0% of mass 176	6.5 (6.0)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	X110103	11/01/21	1245
02	VLCSW-211101	VLCSW-211101	X110105	11/01/21	1327
03	VBLKW-211101	VBLKW-211101	X110107	11/01/21	1408
04	HS21101171-09	HS21101171-09	X110108	11/01/21	1433
05	HS21101171-01	HS21101171-01	X110109	11/01/21	1454
06	HS21101171-02	HS21101171-02	X110110	11/01/21	1515
07	HS21101171-02MS	HS21101171-02MS	X110111	11/01/21	1536
08	HS21101171-02MSD	HS21101171-02MSD	X110112	11/01/21	1557
09	HS21101171-07	HS21101171-07	X110119	11/01/21	1825
10	HS21101171-08	HS21101171-08	X110120	11/01/21	1846
11	HS21101171-03	HS21101171-03	X110122	11/01/21	1928
12	HS21101171-03	HS21101171-03	X110123	11/01/21	1949
13	HS21101171-04	HS21101171-04	X110124	11/01/21	2010
14	HS21101171-05	HS21101171-05	X110126	11/01/21	2052
15	HS21101171-06	HS21101171-06	X110128	11/01/21	2134
16	HS21101171-06	HS21101171-06	X110129	11/01/21	2155
17	CCV	CCV	X110130	11/01/21	2258
18					
19					
20					
21					
22					

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Instrument ID: VOA6 Calibration Date: 11/01/21 Time: 1245

Lab File ID: X110103 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	51.912728	50.000000	0.4524030	0.1	-3.82	20.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2580803	0.2580803	0.1	3.34	20.00	AVRG
Trichloroethene	0.3780000	0.3879375	0.3879375	0.2	-2.63	20.00	AVRG
Vinyl Chloride	0.5240000	0.4527255	0.4527255	0.1	13.60	20.00	AVRG
1,1-Dichloroethene	0.4460000	0.4134664	0.4134664	0.1	7.29	20.00	AVRG
1,2-Dichloroethane	0.4190000	0.3907652	0.3907652	0.1	6.74	20.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.5204410	0.5204410	0.1	-0.08	20.00	AVRG
1,2-Dichloroethane-d4	46.524345	50.000000	0.4642550	0.1	6.95	20.00	LINR
Dibromofluoromethane	50.582127	50.000000	0.4963907	0.1	-1.16	20.00	LINR
4-Bromofluorobenzene	50.069774	50.000000	0.4372933	0.1	-0.14	20.00	LINR
Toluene-d8	1.2690000	1.1530504	1.1530504	0.1	9.14	20.00	AVRG

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Instrument ID: VOA6 Calibration Date: 11/01/21 Time: 2258

Lab File ID: X110130 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	46.498714	50.000000	0.4063457	0.1	7.00	50.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2334720	0.2334720	0.1	12.56	50.00	AVRG
Trichloroethene	0.3780000	0.3447311	0.3447311	0.2	8.80	50.00	AVRG
Vinyl Chloride	0.5240000	0.4034181	0.4034181	0.1	23.01	50.00	AVRG
1,1-Dichloroethene	0.4460000	0.3689895	0.3689895	0.1	17.27	50.00	AVRG
1,2-Dichloroethane	0.4190000	0.3563921	0.3563921	0.1	14.94	50.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.4656333	0.4656333	0.1	10.46	50.00	AVRG
1,2-Dichloroethane-d4	44.113617	50.000000	0.4412066	0.1	11.77	50.00	LINR
Dibromofluoromethane	45.732224	50.000000	0.4498454	0.1	8.54	50.00	LINR
4-Bromofluorobenzene	48.335446	50.000000	0.4225492	0.1	3.33	50.00	LINR
Toluene-d8	1.2690000	1.0936106	1.0936106	0.1	13.82	50.00	AVRG

FORM VII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Lab File ID (Standard): X110103 Date Analyzed: 11/01/21

Instrument ID: VOA6 Time Analyzed: 1245

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	378333	4.18	546387	4.96	514092	7.67
	UPPER LIMIT	756666	4.68	1092774	5.46	1028184	8.17
	LOWER LIMIT	189167	3.68	273194	4.46	257046	7.17
	CLIENT SAMPLE NO.						
01	VLCSW-211101	367436	4.18	525759	4.96	501975	7.67
02	VBLKW-211101	417417	4.18	572635	4.97	517366	7.67
03	HS21101171-09	453671	4.18	614606	4.96	582400	7.67
04	HS21101171-01	418271	4.18	579382	4.96	534434	7.67
05	HS21101171-02	420794	4.18	573930	4.96	528953	7.67
06	HS21101171-02MS	435400	4.18	577015	4.96	515482	7.67
07	HS21101171-02MSD	444095	4.18	599368	4.96	532224	7.67
08	HS21101171-07	423784	4.18	574159	4.96	512419	7.67
09	HS21101171-08	423305	4.18	569481	4.96	505779	7.67
10	HS21101171-03	428871	4.18	582939	4.96	513918	7.67
11	HS21101171-03	423505	4.18	577677	4.96	513833	7.67
12	HS21101171-04	430701	4.18	583477	4.96	523935	7.67
13	HS21101171-05	424081	4.18	574164	4.96	498712	7.67
14	HS21101171-06	430231	4.18	584436	4.96	511014	7.67
15	HS21101171-06	420138	4.18	572693	4.96	508682	7.67
16							
17							
18							
19							
20							

IS1 = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Lab File ID (Standard): X110103 Date Analyzed: 11/01/21

Instrument ID: VOA6 Time Analyzed: 1245

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	263500	9.66				
	UPPER LIMIT	527000	10.16				
	LOWER LIMIT	131750	9.16				
	CLIENT SAMPLE NO.						
01	VLCSW-211101	261767	9.66				
02	VBLKW-211101	242233	9.66				
03	HS21101171-09	287461	9.66				
04	HS21101171-01	265985	9.66				
05	HS21101171-02	250380	9.66				
06	HS21101171-02MS	248757	9.66				
07	HS21101171-02MSD	273279	9.66				
08	HS21101171-07	249498	9.66				
09	HS21101171-08	225785	9.66				
10	HS21101171-03	246077	9.66				
11	HS21101171-03	239042	9.66				
12	HS21101171-04	248465	9.66				
13	HS21101171-05	233347	9.66				
14	HS21101171-06	243787	9.66				
15	HS21101171-06	250746	9.66				
16							
17							
18							
19							
20							

IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

FORM VIII VOA

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110101.D

Date : 01-NOV-2021 12:03

Client ID: BFB

Instrument: voa6.i

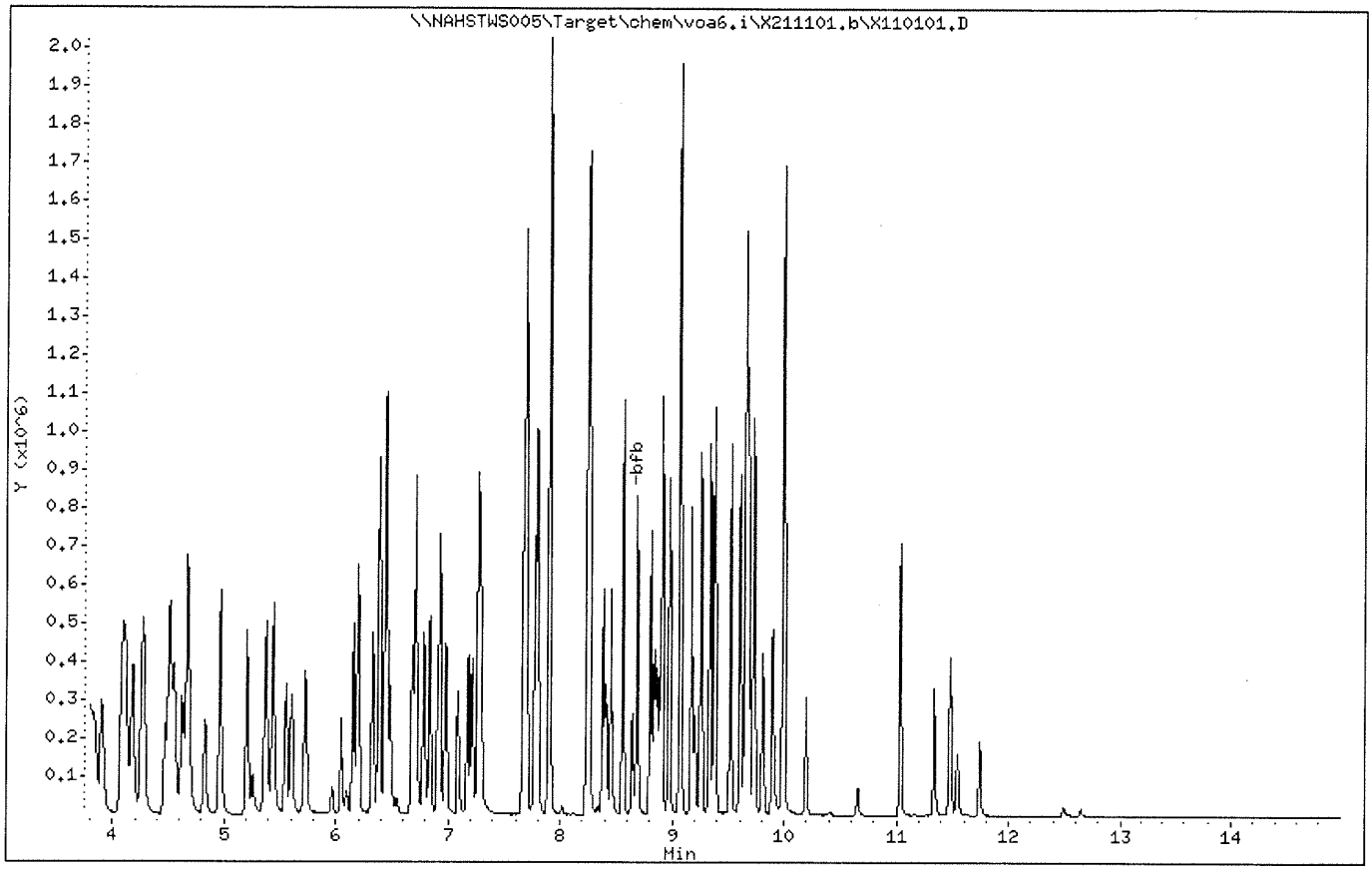
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110101.D

Date : 01-NOV-2021 12:03

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

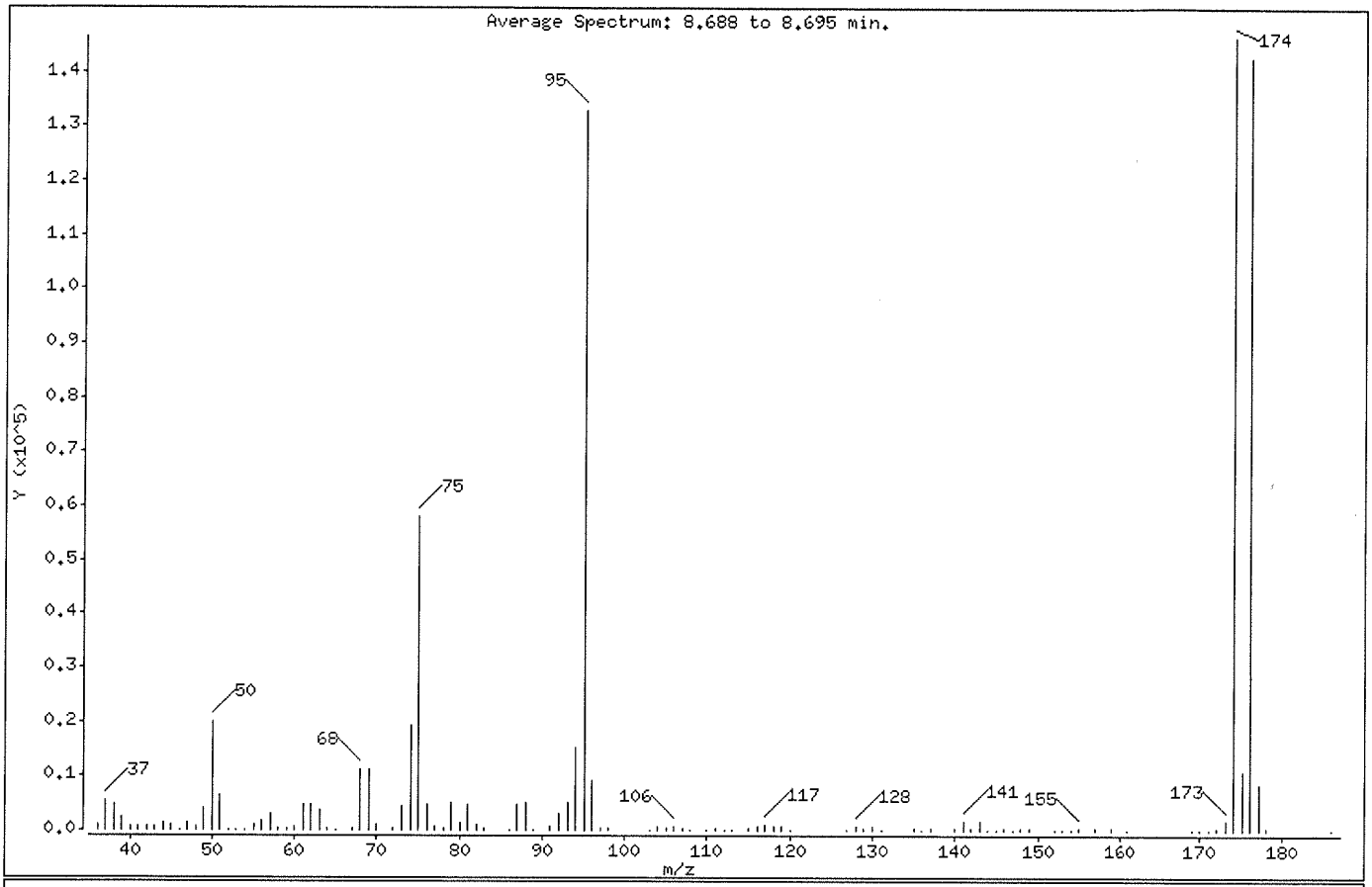
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.10
75	30.00 - 60.00% of mass 95	43.70
96	5.00 - 9.00% of mass 95	6.83
173	Less than 2.00% of mass 174	1.21 (1.10)
174	Greater than 50.00% of mass 95	110.22
175	5.00 - 9.00% of mass 174	8.03 (7.29)
176	95.00 - 101.00% of mass 174	107.34 (97.38)
177	5.00 - 9.00% of mass 176	6.46 (6.02)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110101.D

Date : 01-NOV-2021 12:03

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: X110101.D
Spectrum: Average Spectrum: 8.688 to 8.695 min.
Location of Maximum: 174.00
Number of points: 110

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1009	64.00	435	97.00	256	142.00	275
37.00	5234	65.00	110	98.00	356	143.00	1661
38.00	4573	67.00	327	103.00	121	144.00	54
39.00	2307	68.00	11254	104.00	677	145.00	104
40.00	773	69.00	11079	105.00	368	146.00	256
41.00	541	70.00	1062	106.00	762	147.00	126
42.00	534	72.00	421	107.00	199	148.00	351
43.00	579	73.00	4471	108.00	46	149.00	216
44.00	1429	74.00	19216	110.00	147	152.00	44
45.00	1010	75.00	57992	111.00	286	153.00	129
46.00	29	76.00	4814	112.00	69	154.00	126
47.00	1449	77.00	762	113.00	136	155.00	460
48.00	681	78.00	474	115.00	267	157.00	340
49.00	4148	79.00	4921	116.00	589	159.00	230
50.00	20032	80.00	1443	117.00	923	161.00	69
51.00	6358	81.00	4742	118.00	711	169.00	60
52.00	139	82.00	1005	119.00	734	170.00	143
53.00	102	83.00	197	120.00	76	171.00	164
54.00	71	86.00	110	127.00	145	172.00	308
55.00	1089	87.00	4837	128.00	684	173.00	1610
56.00	1783	88.00	4962	129.00	287	174.00	146240
57.00	2959	89.00	43	130.00	591	175.00	10657
58.00	295	91.00	665	131.00	156	176.00	142400
59.00	244	92.00	3178	135.00	365	177.00	8570
60.00	812	93.00	5140	136.00	94	178.00	311
61.00	4650	94.00	15210	137.00	235	186.00	135
62.00	4669	95.00	132672	140.00	256		
63.00	3681	96.00	9063	141.00	1760		

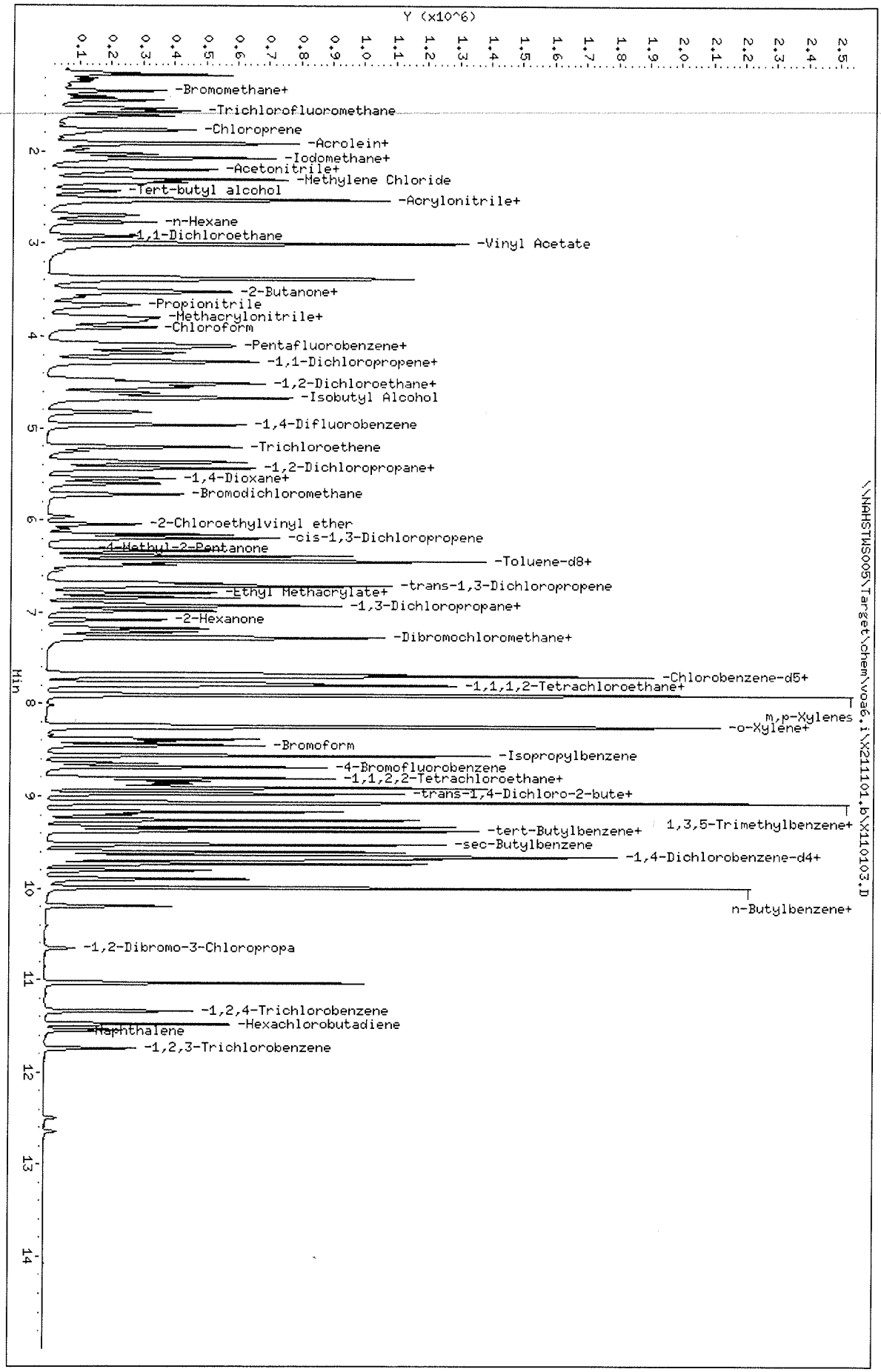
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110103.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 01-NOV-2021 12:45
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:22 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	378333	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	187801	50.0000	50.58
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	175643	50.0000	46.52
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	546387	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	514092	50.0000	
$	48 Toluene-d8	98	6.381	6.381	(0.832)	592774	50.0000	45.43
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	224809	50.0000	50.06
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	263500	50.0000	
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	171281	50.0000	43.18
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	156428	50.0000	46.35
	17 Methylene Chloride	84	2.305	2.305	(0.551)	171159	50.0000	51.91
	27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	196900	50.0000	50.05
	33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	213509	50.0000	46.58
	38 Trichloroethene	130	5.206	5.206	(1.049)	211964	50.0000	51.28
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	132677	50.0000	48.36



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110103.D
Date : 01-NOV-2021 12:45
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

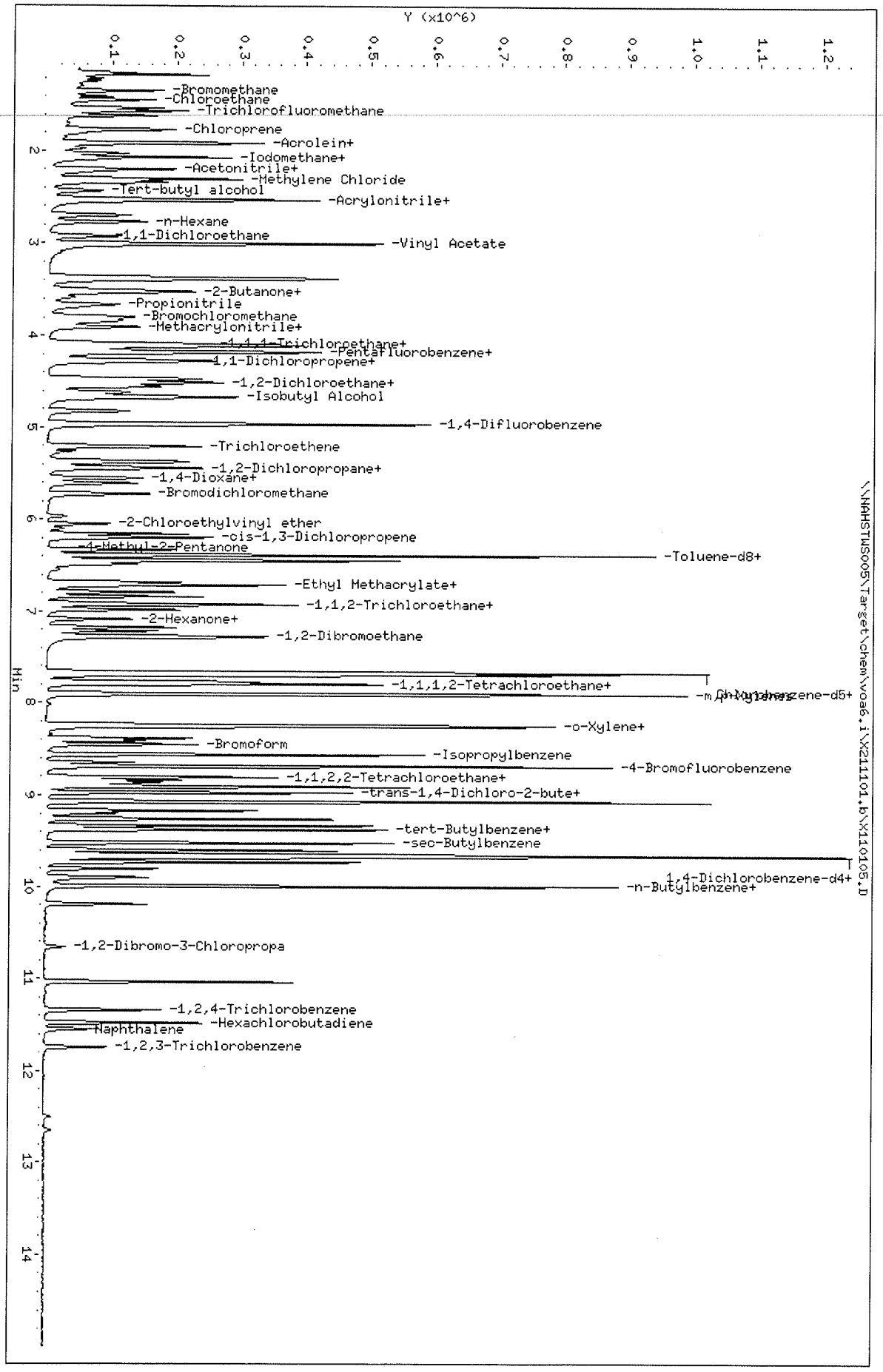
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110105.D
Lab Smp Id: VLCSW-211101 Client Smp ID: VLCSW-211101
Inj Date : 01-NOV-2021 13:27
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-211101;VLCSW-211101;3;;LCS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:22 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	367436	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	181856	50.4302	50.43
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	171589	46.8104	46.81
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	525759	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	501975	50.0000	
$ 48 Toluene-d8	98	6.388	6.381	(0.833)	579378	45.4802	45.48
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	218792	49.9014	49.90
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	261767	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	69356	18.0035	18.00
11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	61728	18.8332	18.83
17 Methylene Chloride	84	2.305	2.305	(0.551)	69535	20.9785	20.97
27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	79284	20.7547	20.75
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	85820	19.4591	19.45
38 Trichloroethene	130	5.206	5.206	(1.049)	82143	20.6548	20.65
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	52244	19.5044	19.50



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110105.D
Date : 01-NOV-2021 13:27
Client ID: VLCSW-211101
Sample Info: VLCSW-211101;VLCSW-211101;3;;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110107.D Page 1
Report Date: 16-Nov-2021 14:22

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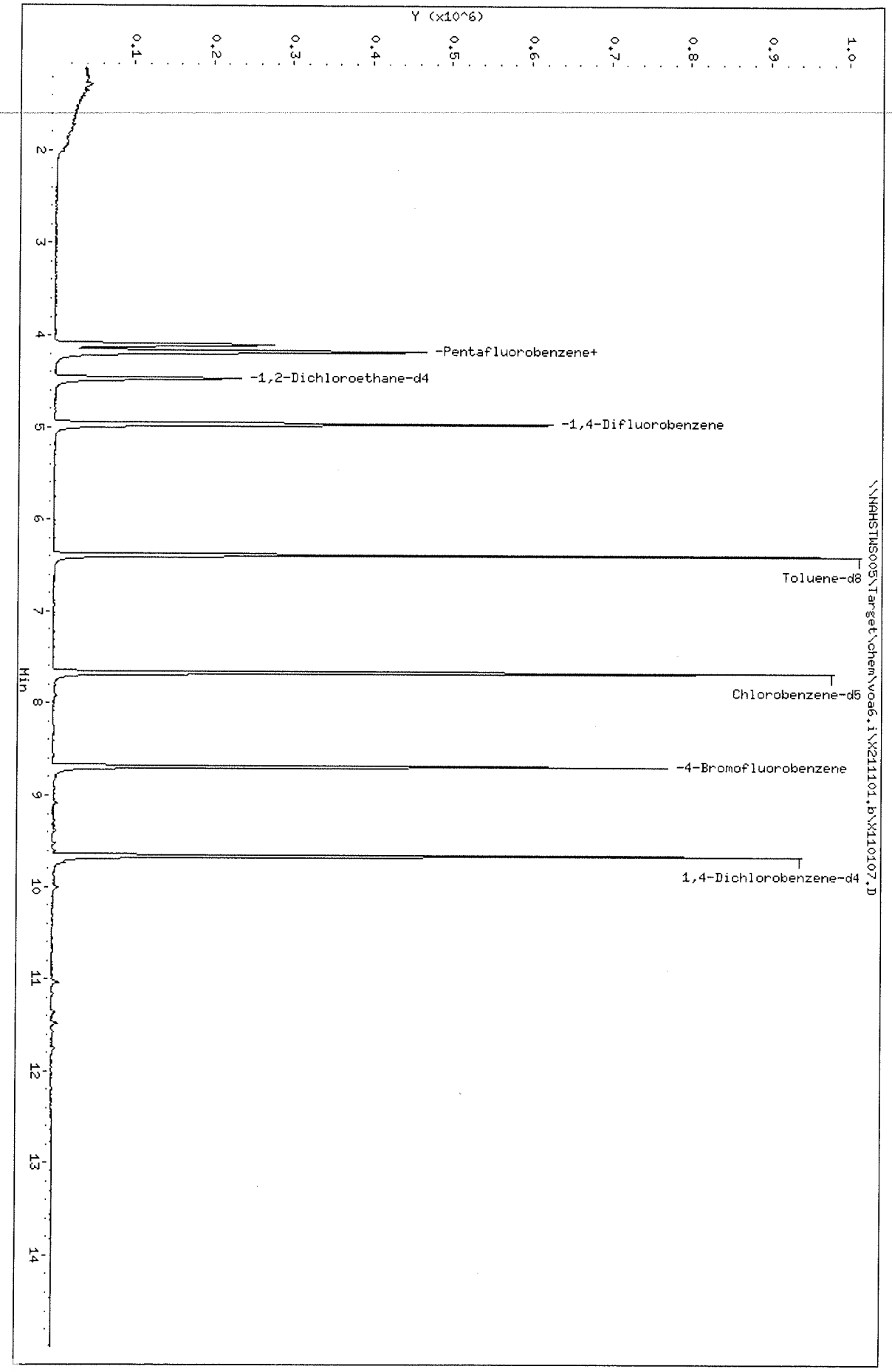
Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110107.D
Lab Smp Id: VBLKW-211101 Client Smp ID: VBLKW-211101
Inj Date : 01-NOV-2021 14:08
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-211101;VBLKW-211101;3;;BLANK
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:22 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	417417	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	192200	46.8373	46.83
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	174690	41.7389	41.73
* 36 1,4-Difluorobenzene	114	4.970	4.963	(1.000)	572635	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	517366	50.0000	
$ 48 Toluene-d8	98	6.388	6.381	(0.833)	627553	47.7964	47.79
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	213204	47.1057	47.10
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	242233	50.0000	



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110107.D
Date : 01-NOV-2021 14:08
Client ID: VBLKW-211101
Sample Info: VBLKW-211101;VBLKW-211101;3;;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110108.D Page 1
Report Date: 16-Nov-2021 14:20

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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110108.D
Lab Smp Id: HS21101171-09 Client Smp ID: HS21101171-09
Inj Date : 01-NOV-2021 14:33
Operator : PC Inst ID: voa6.i
Smp Info : HS21101171-09;HS21101171-09;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:17 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

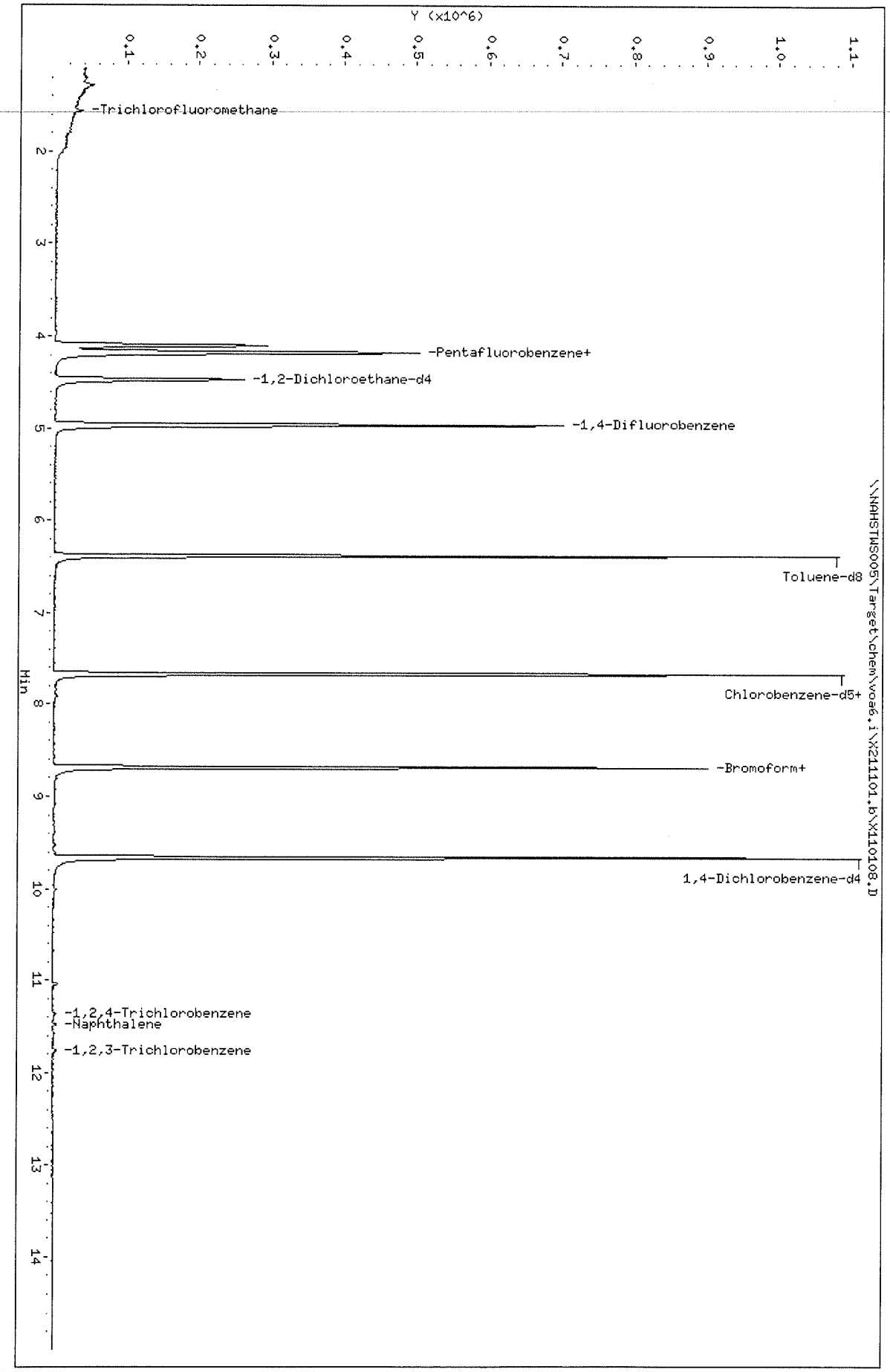
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	453671	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	208324	46.7066	46.70
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	195894	43.1295	43.12
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	614606	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	582400	50.0000	
$ 48 Toluene-d8	98	6.381	6.381	(0.832)	681276	46.0940	46.09
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	247123	48.5435	48.54
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	287461	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110108.D
Date : 01-NOV-2021 14:33
Client ID: HS21101171-09
Sample Info: HS21101171-09;HS21101171-09;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110109.D
Lab Smp Id: HS21101171-01 Client Smp ID: HS21101171-01
Inj Date : 01-NOV-2021 14:54
Operator : PC Inst ID: voa6.i
Smp Info : HS21101171-01;HS21101171-01;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:17 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

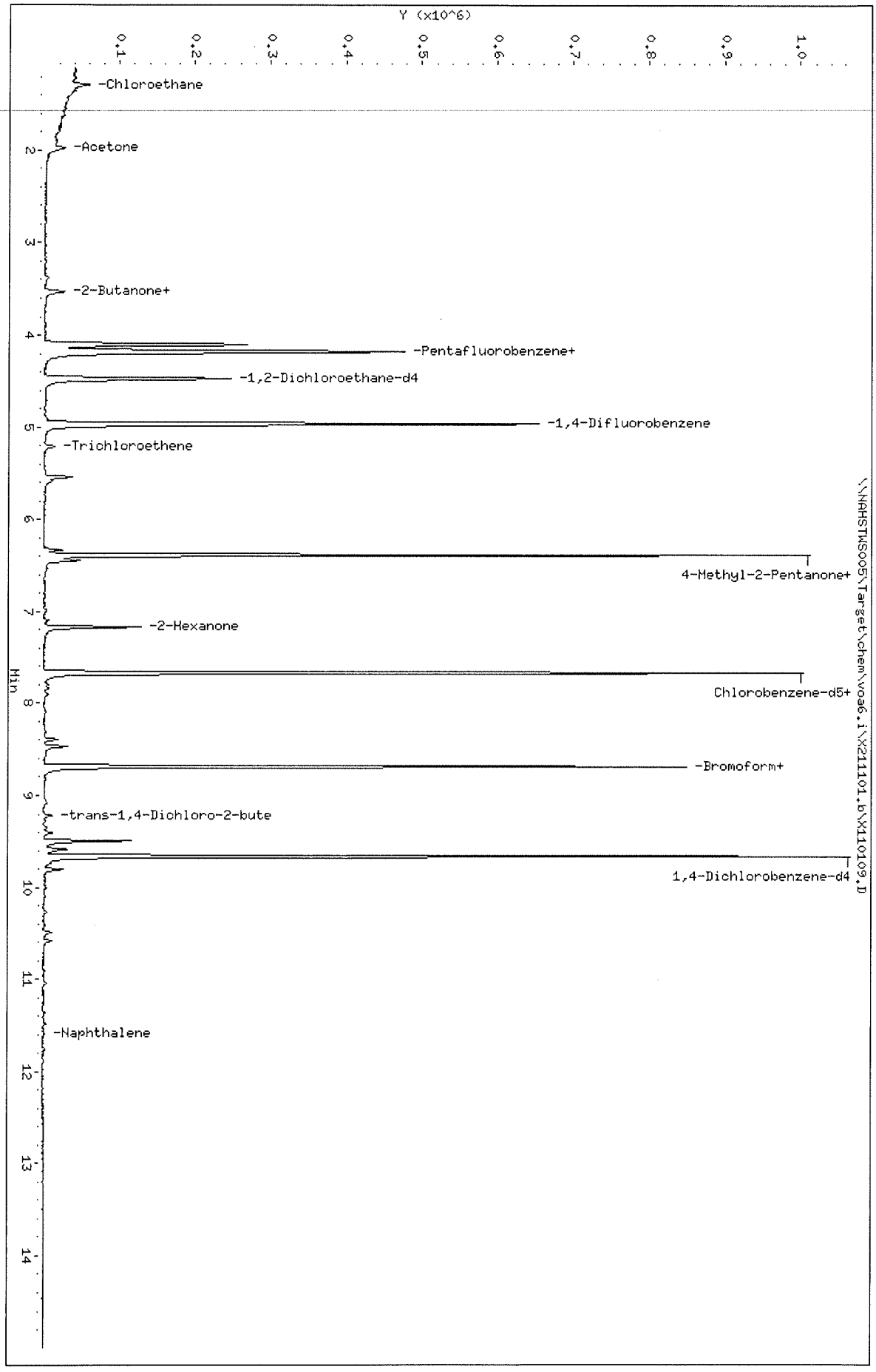
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	418271	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	193762	47.1284	47.12
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	183848	43.9396	43.93
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	579382	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	534434	50.0000	
$ 48 Toluene-d8	98	6.388	6.381	(0.833)	631797	46.5829	46.58
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	226038	48.3824	48.38
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	265985	50.0000	
27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	15434	3.54922	3.54(a)
38 Trichloroethene	130	5.206	5.206	(1.049)	4342	0.99075	0.99(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110109.D
Date : 01-NOV-2021 14:54
Client ID: HS21101171-01
Sample Info: HS21101171-01;HS21101171-01;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110109.D

Date : 01-NOV-2021 14:54

Client ID: HS21101171-01

Instrument: voa6.i

Sample Info: HS21101171-01;HS21101171-01;;;

Purge Volume: 5.0

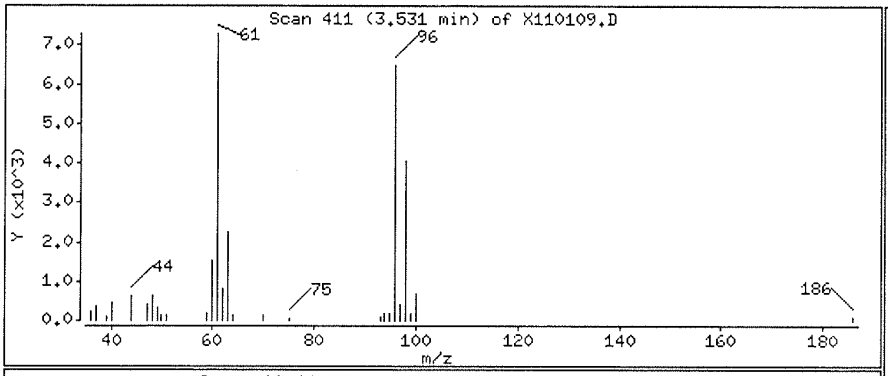
Operator: PC

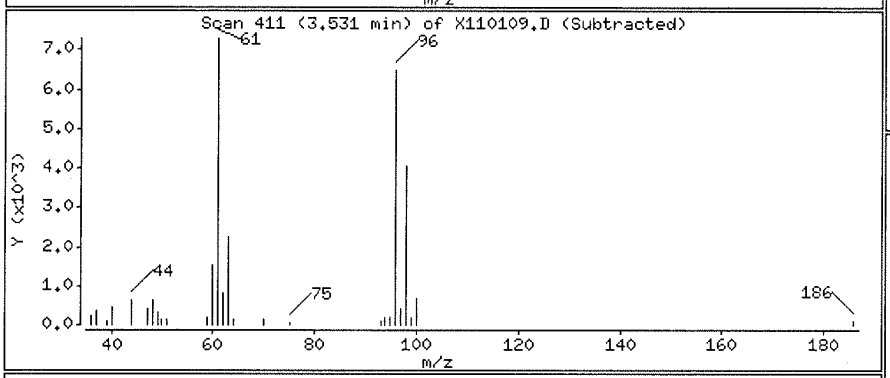
Column phase: DB624

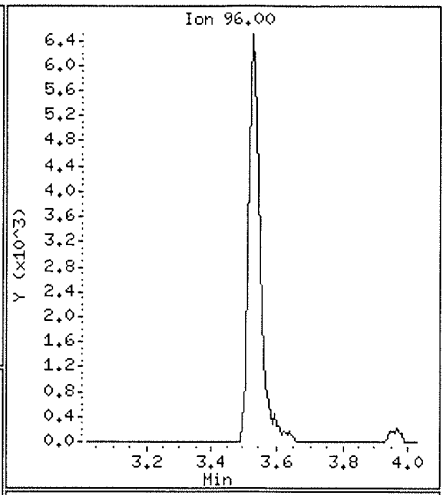
Column diameter: 0.18

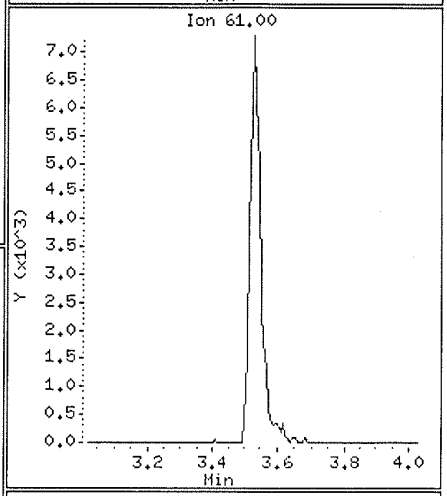
27 cis-1,2-Dichloroethene

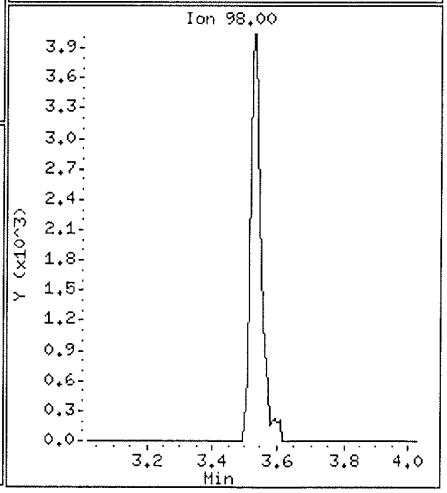
Concentration: 3.54 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110109.D

Date : 01-NOV-2021 14:54

Client ID: HS21101171-01

Instrument: voa6.i

Sample Info: HS21101171-01;HS21101171-01;;;

Purge Volume: 5.0

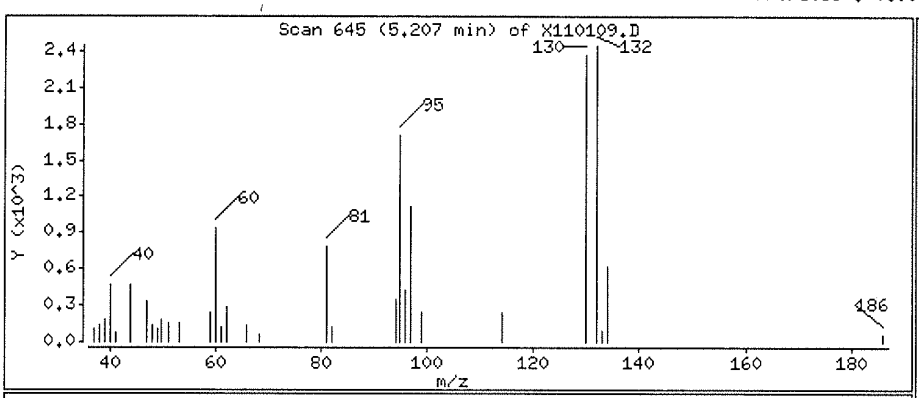
Operator: PC

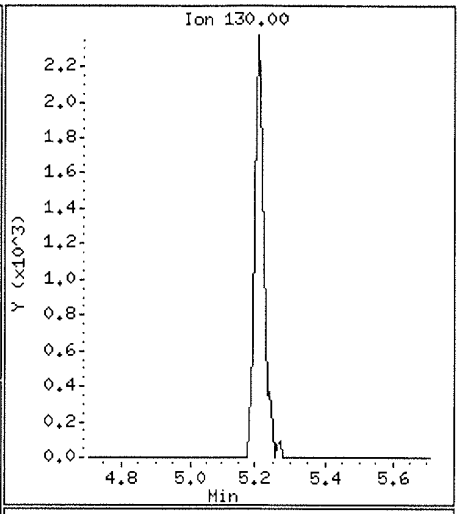
Column phase: DB624

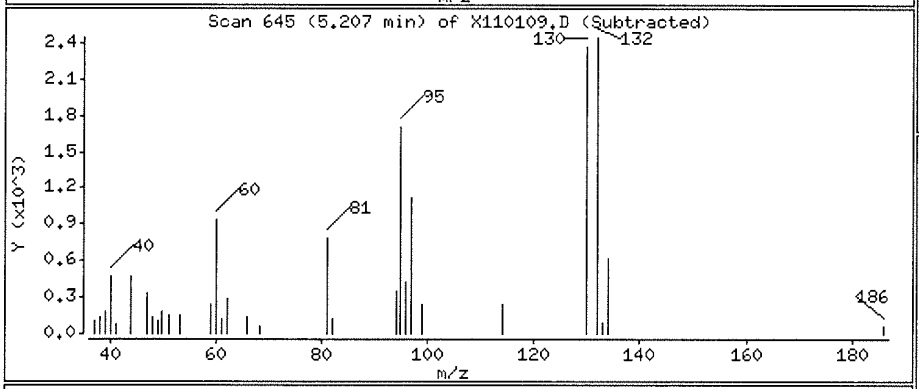
Column diameter: 0.18

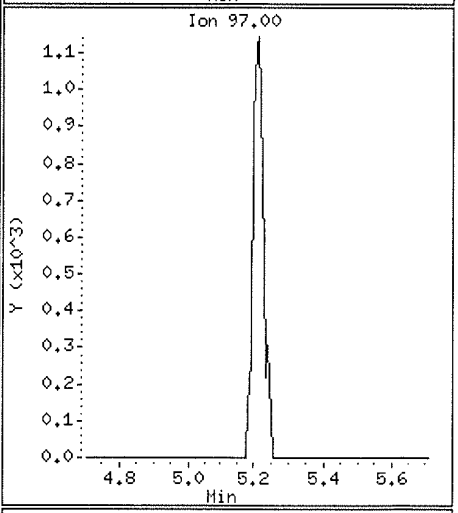
38 Trichloroethene

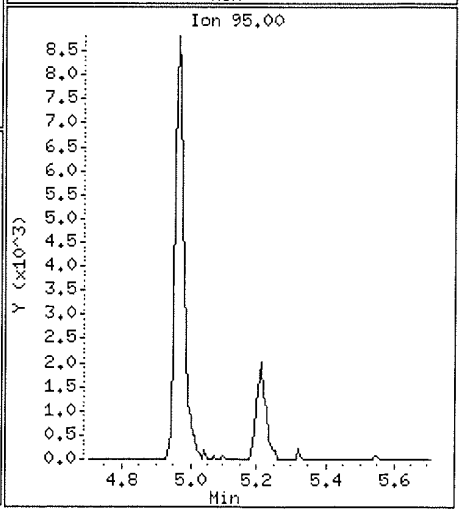
Concentration: 0.99 ug/l











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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110110.D
Lab Smp Id: HS21101171-02 Client Smp ID: HS21101171-02
Inj Date : 01-NOV-2021 15:15
Operator : PC Inst ID: voa6.i
Smp Info : HS21101171-02;HS21101171-02;;;
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:33 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 10
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

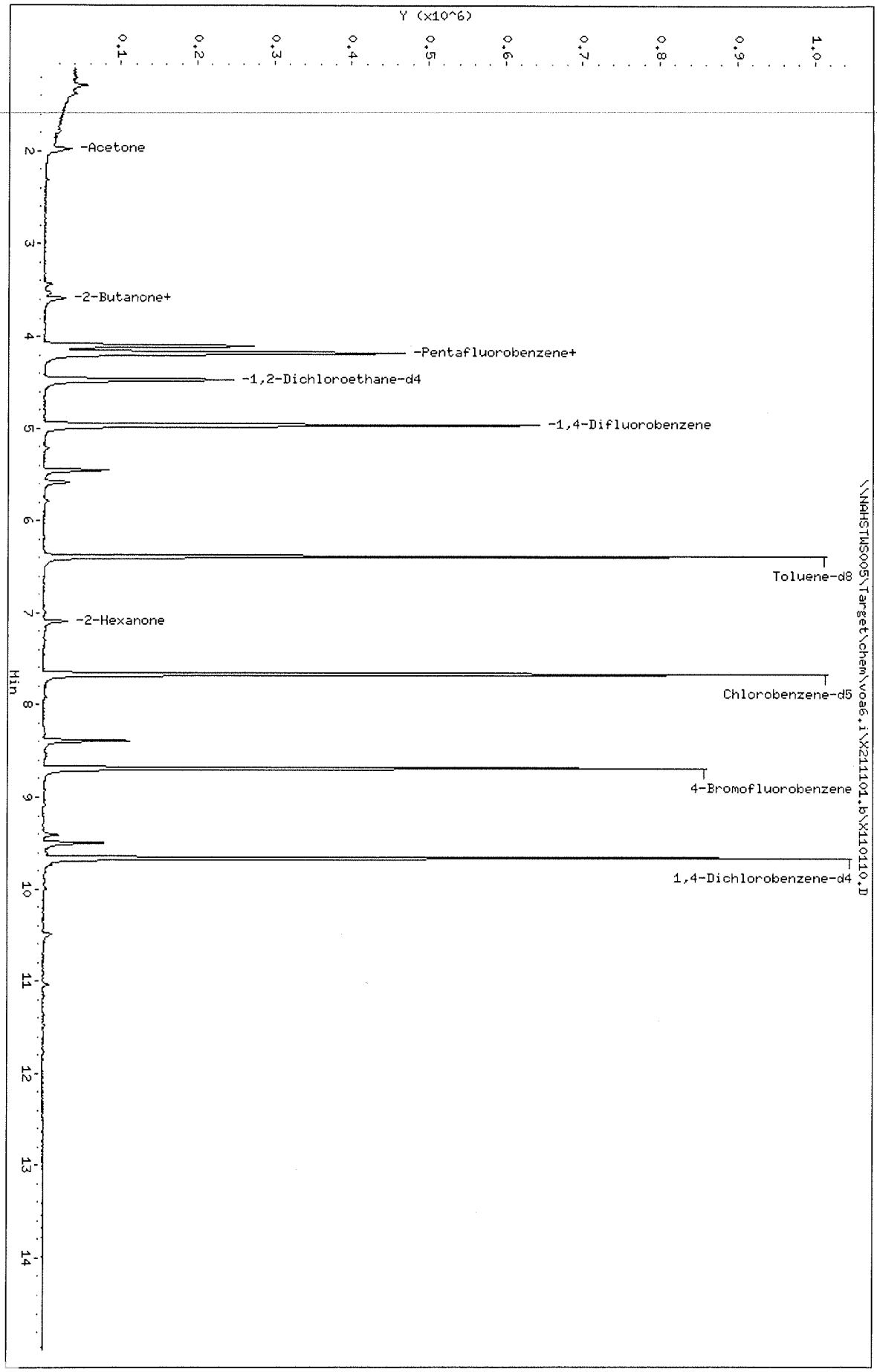
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	420794	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	193648	46.8108	46.81
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	184746	43.8872	43.88
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	573930	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	528953	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	637543	47.4936	47.49
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	229441	49.6547	49.65
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	250380	50.0000	
27 cis-1,2-Dichloroethene	96	3.537	3.530	(0.846)	4943	1.12988	11.29(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110110.D
Date : 01-NOV-2021 15:15
Client ID: HS21101171-02
Sample Info: HS21101171-02;HS21101171-02;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110110.D

Date : 01-NOV-2021 15:15

Client ID: HS21101171-02

Instrument: voa6.i

Sample Info: HS21101171-02;HS21101171-02;;;

Purge Volume: 5.0

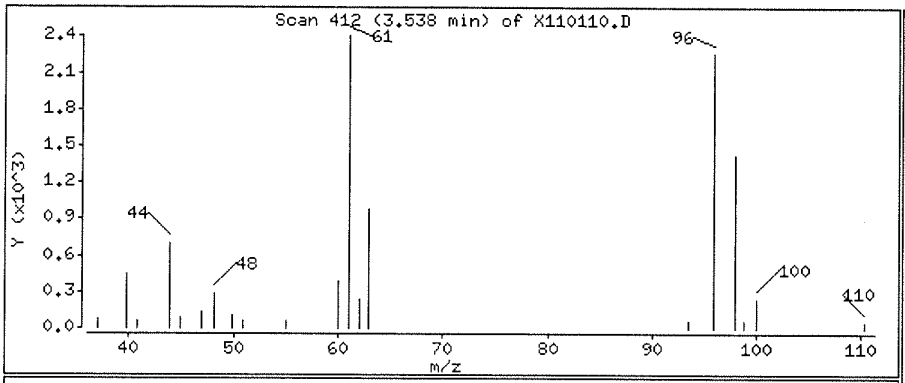
Operator: PC

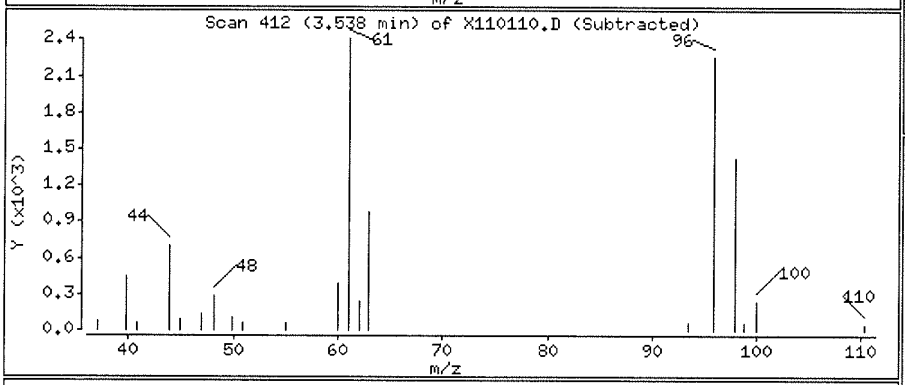
Column phase: DB624

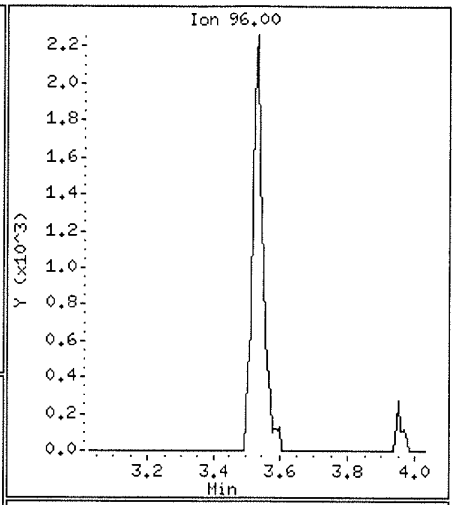
Column diameter: 0.18

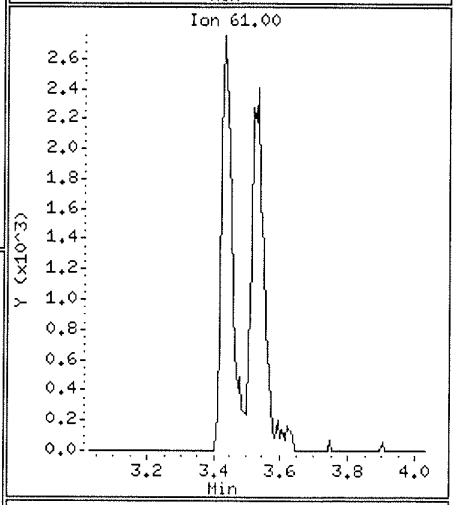
27 cis-1,2-Dichloroethene

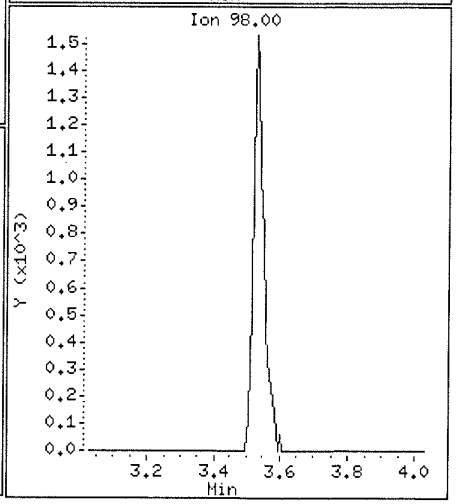
Concentration: 11.29 ug/l











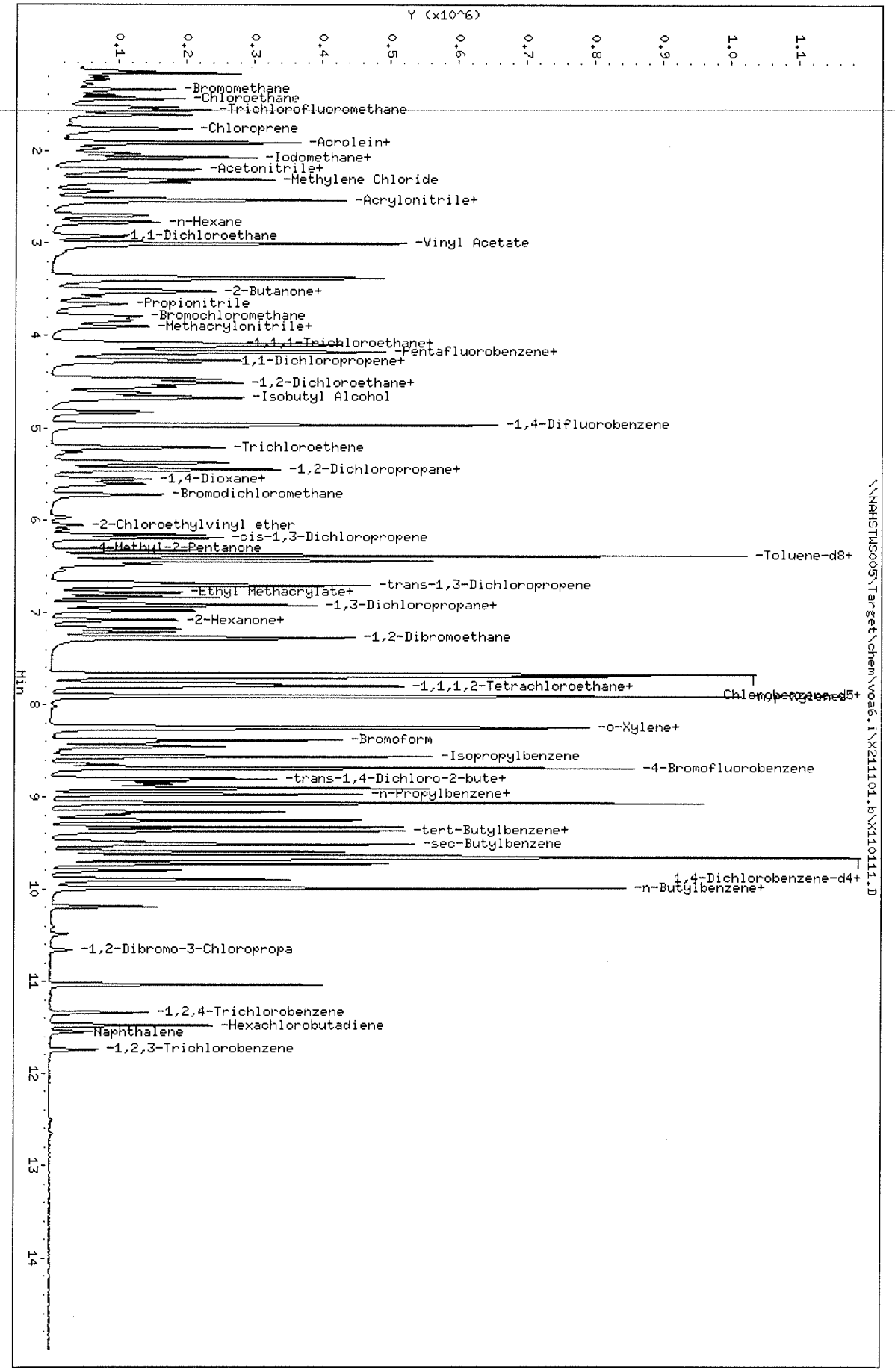
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110111.D
Lab Smp Id: HS21101171-02MS Client Smp ID: HS21101171-02MS
Inj Date : 01-NOV-2021 15:36
Operator : PC Inst ID: voa6.i
Smp Info : HS21101171-02MS;HS21101171-02MS;3;;MS
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:22 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 11 QC Sample: MS
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	435400	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	197834	46.2040	46.20
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	184499	42.2873	42.28
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	577015	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	515482	50.0000	
$ 48 Toluene-d8	98	6.388	6.381	(0.833)	629686	48.1341	48.13
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	221535	49.1840	49.18
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	248757	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	80990	17.7418	177.41
11 1,1-Dichloroethene	96	1.911	1.919	(0.457)	67440	17.3642	173.64
17 Methylene Chloride	84	2.305	2.305	(0.551)	69329	17.4505	174.50
27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	85389	18.8637	188.63
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	87150	18.0054	180.05
38 Trichloroethene	130	5.206	5.206	(1.049)	89925	20.6030	206.03
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	53814	19.5641	195.64



Data File: \\NAHSTMS005\Target\chem\voa6.i\X211101.b\X110111.D
Date : 01-NOV-2021 15:36
Client ID: HS21101171-02MS
Sample Info: HS21101171-02MS;HS21101171-02MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110112.D Page 1
Report Date: 16-Nov-2021 14:34

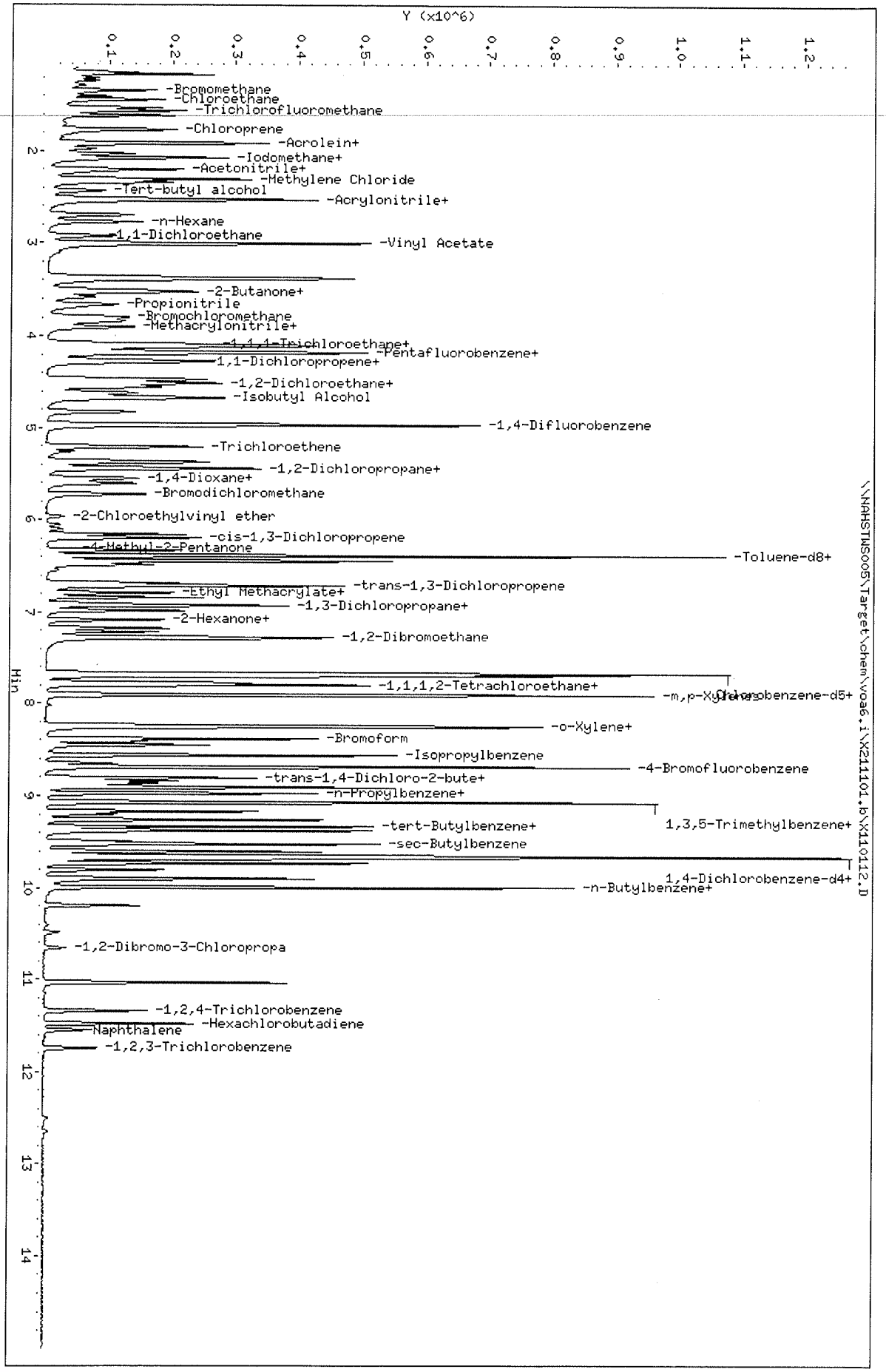
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110112.D
Lab Smp Id: HS21101171-02MSD Client Smp ID: HS21101171-02MSD
Inj Date : 01-NOV-2021 15:57
Operator : PC Inst ID: voa6.i
Smp Info : HS21101171-02MSD;HS21101171-02MSD;3;;MSD
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:34 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 11 QC Sample: MSD
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	444095	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	200072	45.8021	45.80
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	186276	41.8381	41.83
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	599368	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	532224	50.0000	
$ 48 Toluene-d8	98	6.381	6.388	(0.832)	653053	48.3500	48.35
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	228165	49.0591	49.05
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	273279	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	76377	16.4037	164.03
11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	65307	16.4857	164.85
17 Methylene Chloride	84	2.305	2.306	(0.551)	69147	17.0358	170.35
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	82301	17.8255	178.25
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	88954	17.6927	176.92
38 Trichloroethene	130	5.206	5.207	(1.049)	86627	19.1072	191.07
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	52288	18.4114	184.11



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110112.D
Date : 01-NOV-2021 15:57
Client ID: HS21101171-02HSD
Sample Info: HS21101171-02HSD;HS21101171-02HSD;3;;HSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110119.D
Lab Smp Id: HS21101171-07 Client Smp ID: HS21101171-07
Inj Date : 01-NOV-2021 18:25
Operator : PC Inst ID: voa6.i
Smp Info : HS21101171-07;HS21101171-07;;;
Misc Info : HS18090001;WATER;0;5;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:17 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 18
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

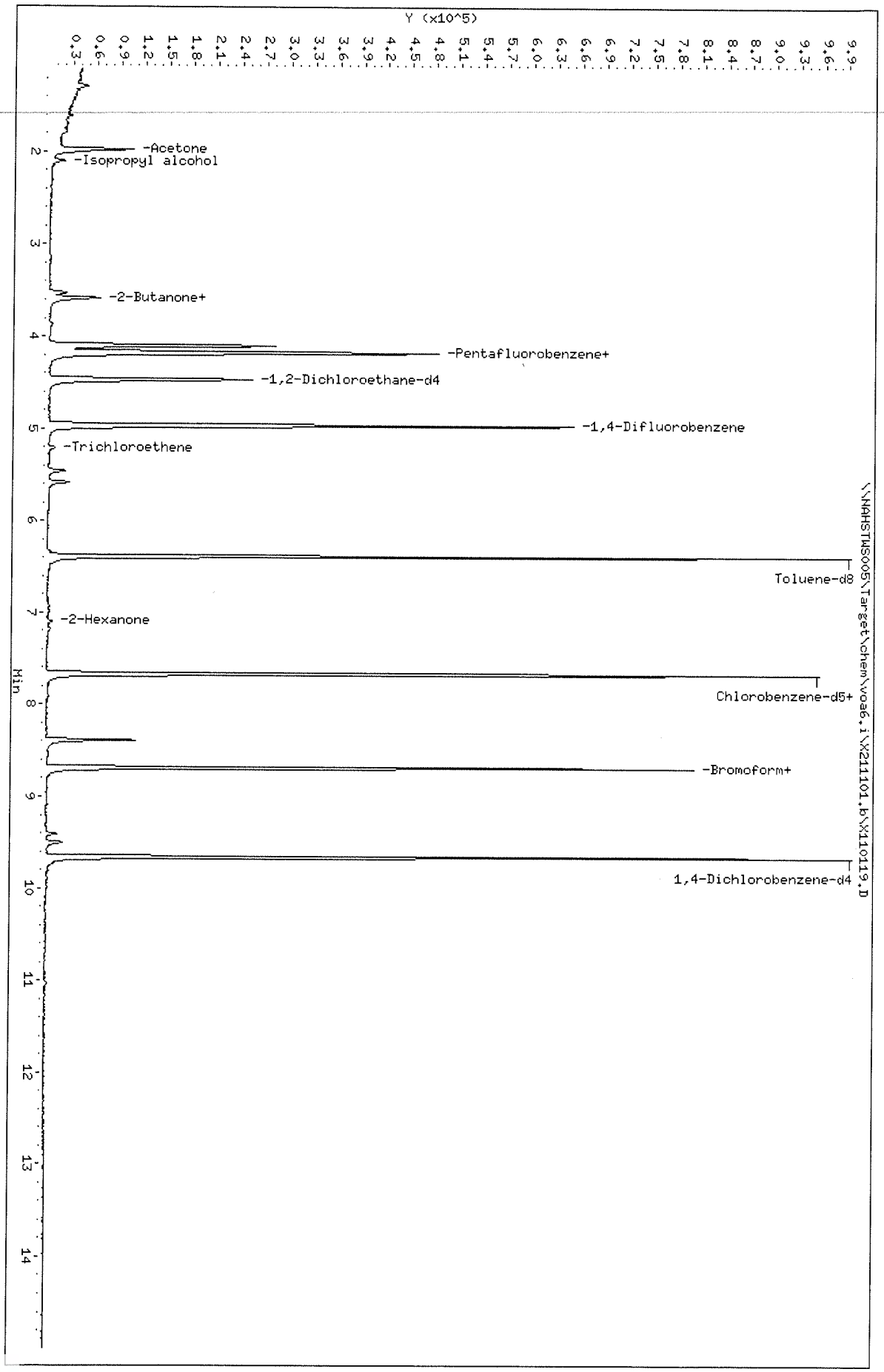
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	5.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	423784	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	198989	47.7857	47.78
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	189238	44.6718	44.67
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	574159	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	512419	50.0000	
$ 48 Toluene-d8	98	6.388	6.381	(0.833)	630348	48.4728	48.47
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	213225	47.5785	47.57
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	249498	50.0000	
27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	12740	2.89159	14.45(a)
38 Trichloroethene	130	5.214	5.206	(1.051)	2880	0.66313	3.31(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110119.D
Date : 01-NOV-2021 18:25
Client ID: HS21101171-07
Sample Info: HS21101171-07;HS21101171-07;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110119.D

Date : 01-NOV-2021 18:25

Client ID: HS21101171-07

Instrument: voa6.i

Sample Info: HS21101171-07;HS21101171-07;;;

Purge Volume: 5.0

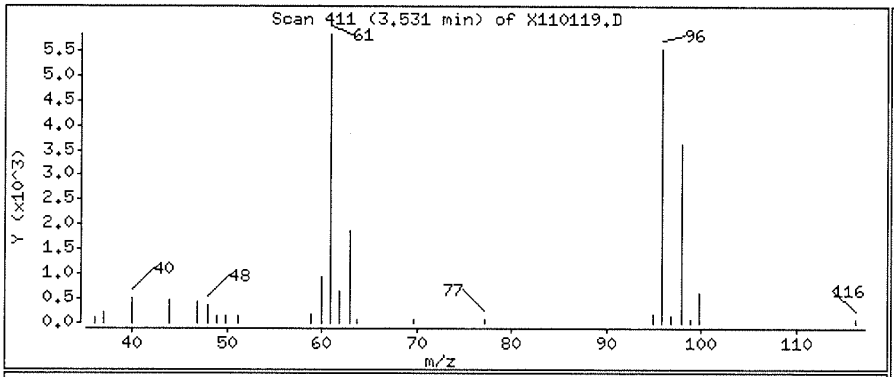
Operator: PC

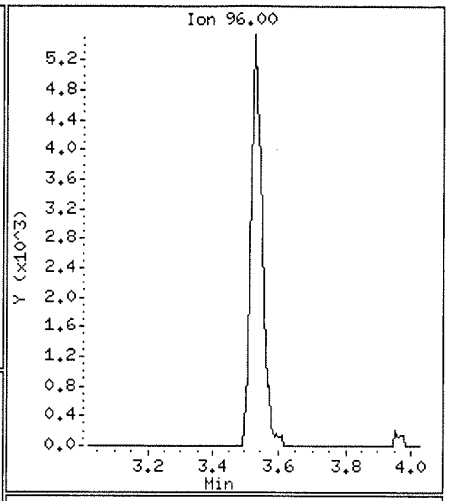
Column phase: DB624

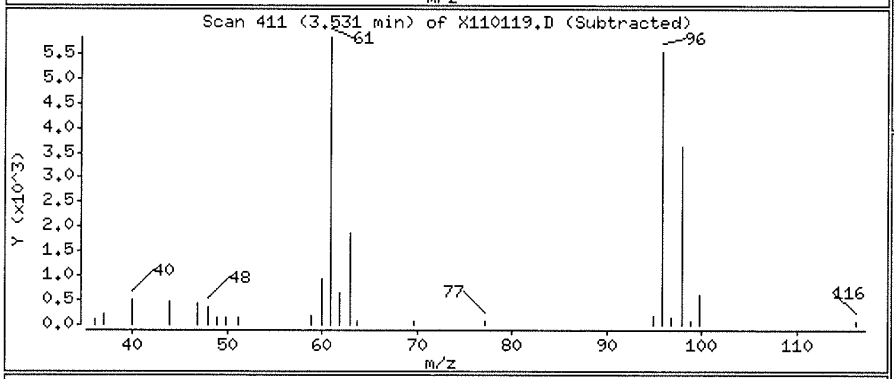
Column diameter: 0.18

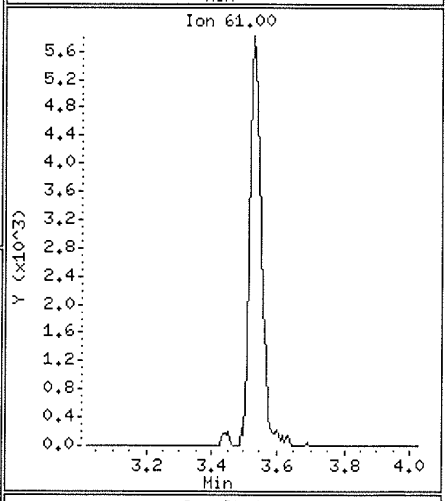
27 cis-1,2-Dichloroethene

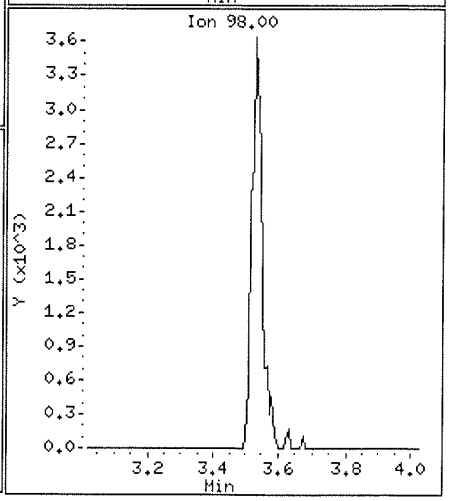
Concentration: 14.45 ug/l











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Date : 01-NOV-2021 18:25

Client ID: HS21101171-07

Instrument: voa6.i

Sample Info: HS21101171-07;HS21101171-07;;;

Purge Volume: 5.0

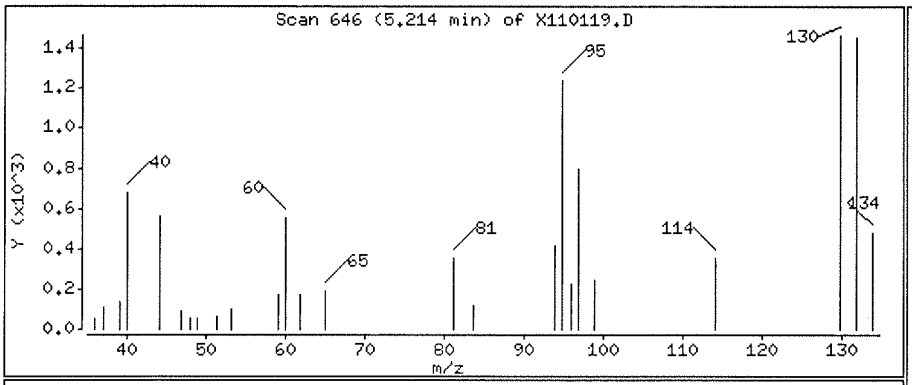
Operator: PC

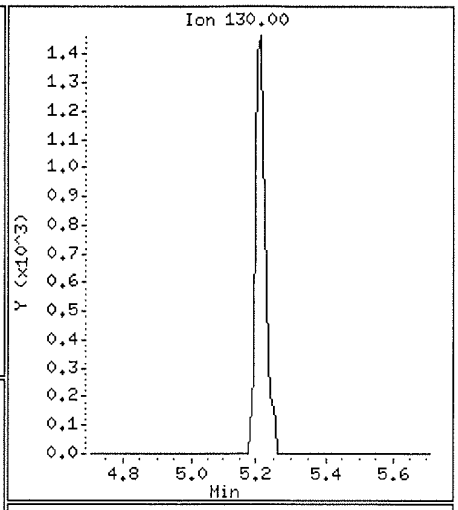
Column phase: DB624

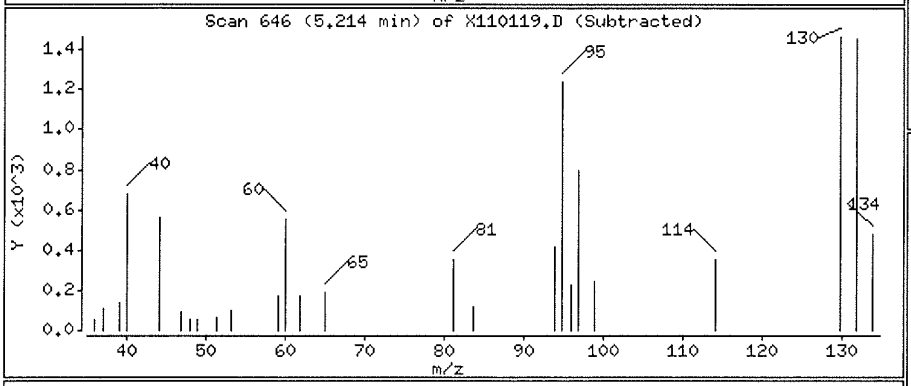
Column diameter: 0.18

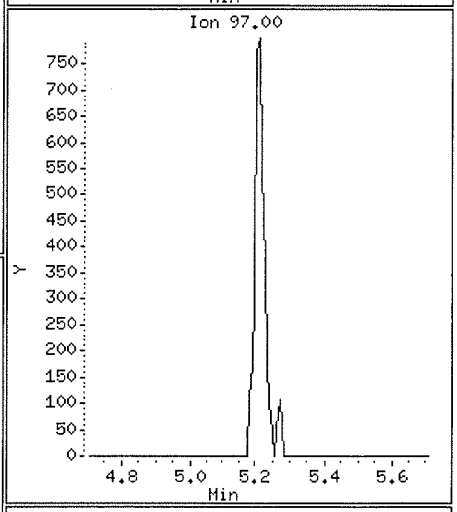
38 Trichloroethene

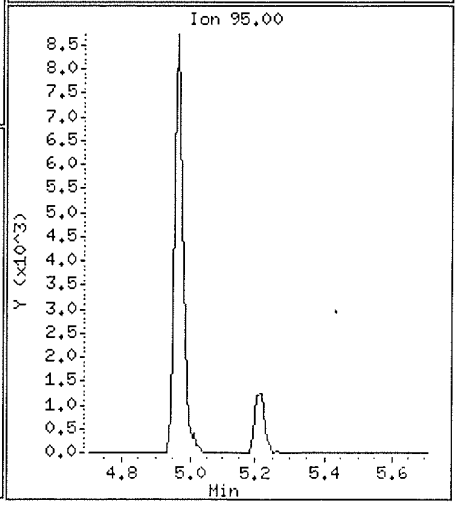
Concentration: 3.31 ug/l











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Report Date: 16-Nov-2021 14:20

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110120.D
Lab Smp Id: HS21101171-08 Client Smp ID: HS21101171-08
Inj Date : 01-NOV-2021 18:46
Operator : PC Inst ID: voa6.i
Smp Info : HS21101171-08;HS21101171-08;;;
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:17 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 19
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

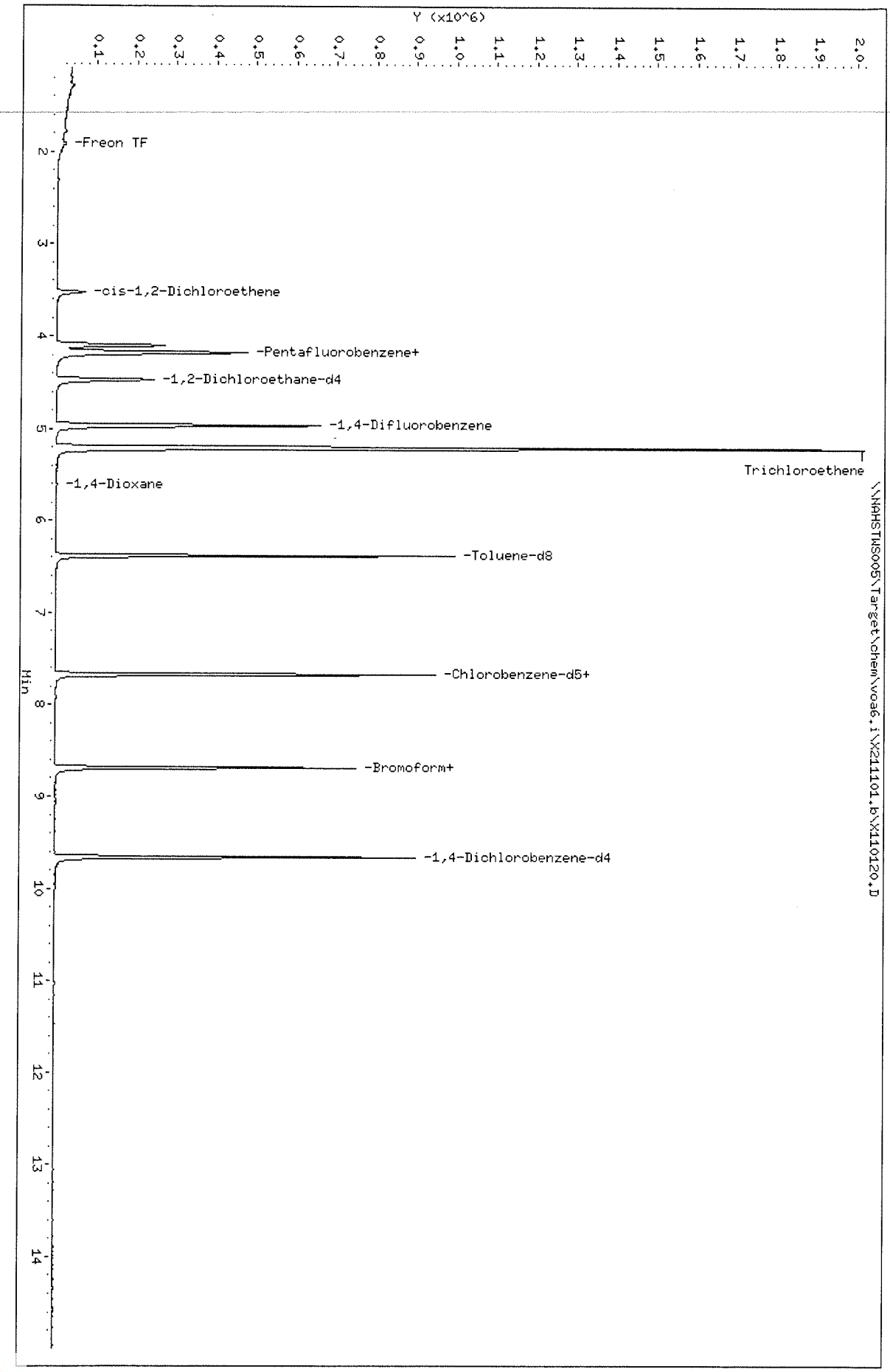
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	423305	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	192808	46.3196	46.31
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	184767	43.6199	43.61
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	569481	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	505779	50.0000	
$ 48 Toluene-d8	98	6.388	6.381	(0.833)	625479	48.7298	48.72
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	207432	46.8739	46.87
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	225785	50.0000	
27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	38876	8.83366	88.33
38 Trichloroethene	130	5.206	5.206	(1.049)	686337	159.329	1593.29

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110120.D
Date : 01-NOV-2021 18:46
Client ID: HS21101171-08
Sample Info: HS21101171-08;HS21101171-08;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110120.D Page 3

Date : 01-NOV-2021 18:46

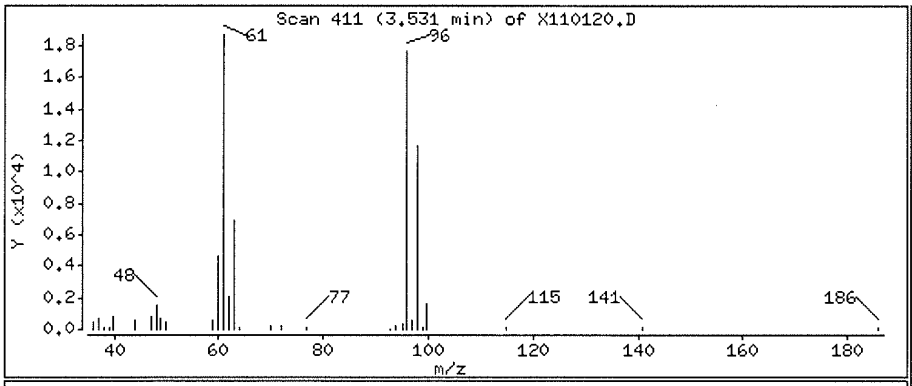
Client ID: HS21101171-08 Instrument: voa6.i

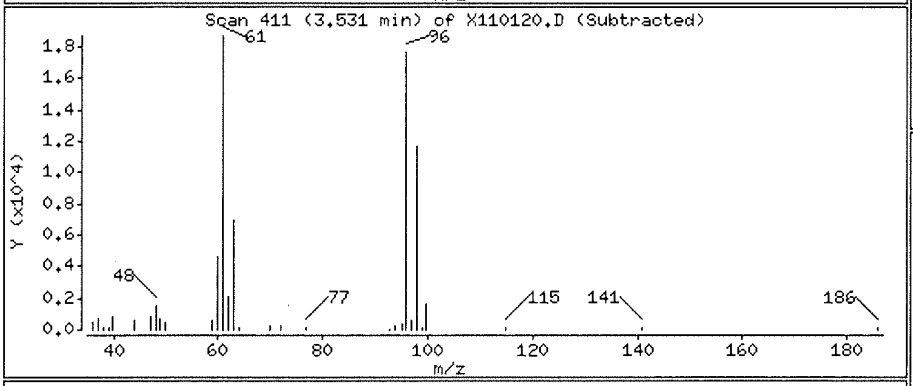
Sample Info: HS21101171-08;HS21101171-08;;;

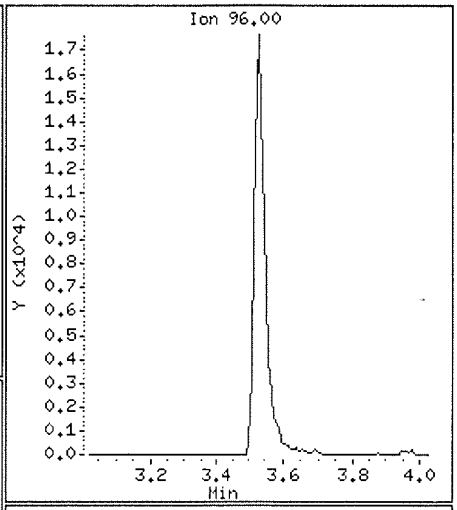
Purge Volume: 5.0 Operator: PC

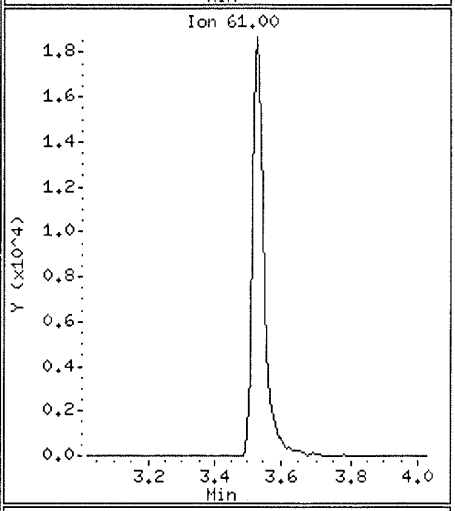
Column phase: DB624 Column diameter: 0.18

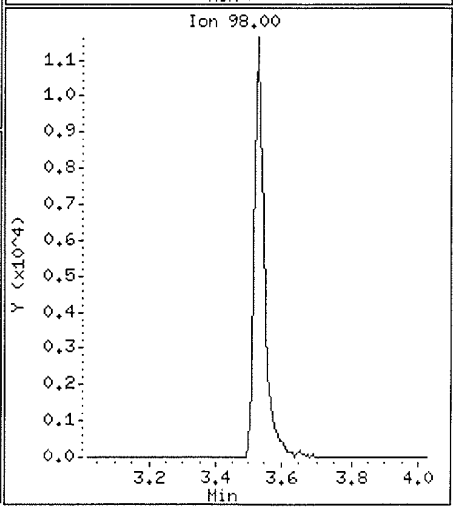
27 cis-1,2-Dichloroethene Concentration: 88.33 ug/l











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Date : 01-NOV-2021 18:46

Client ID: HS21101171-08

Instrument: voa6.i

Sample Info: HS21101171-08;HS21101171-08;;;

Purge Volume: 5.0

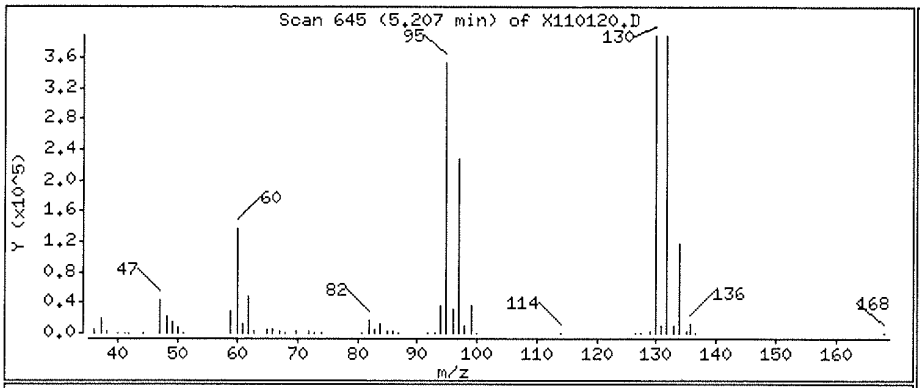
Operator: PC

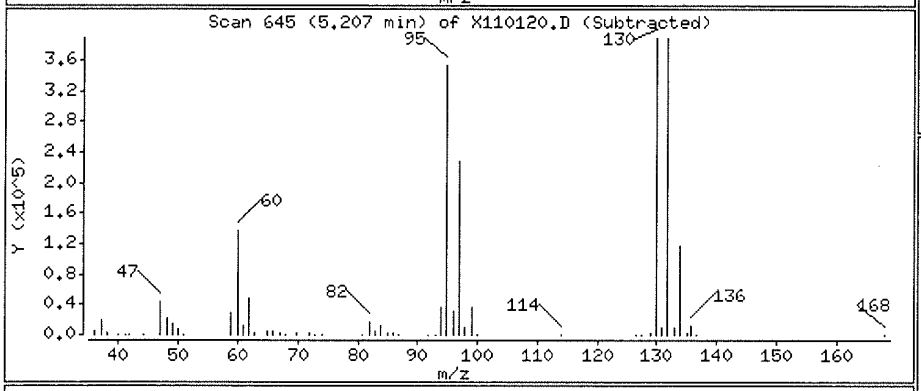
Column phase: DB624

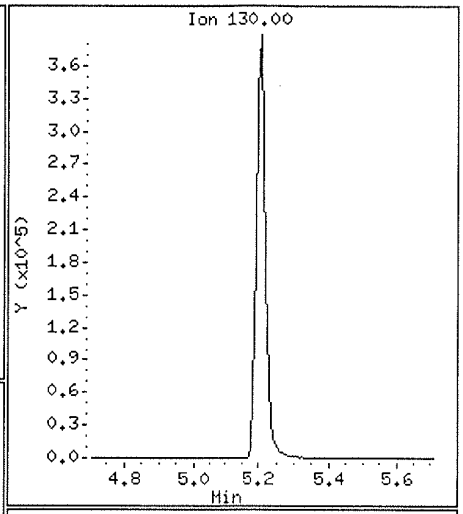
Column diameter: 0.18

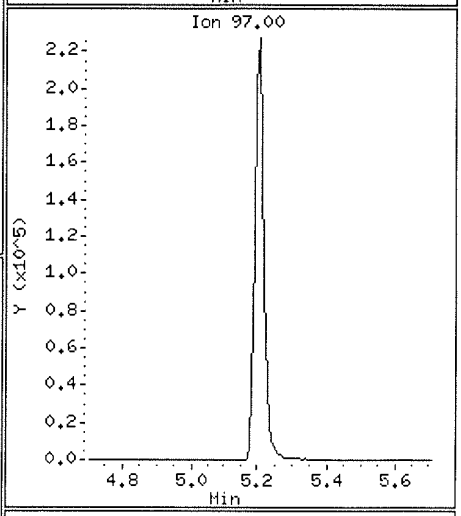
38 Trichloroethene

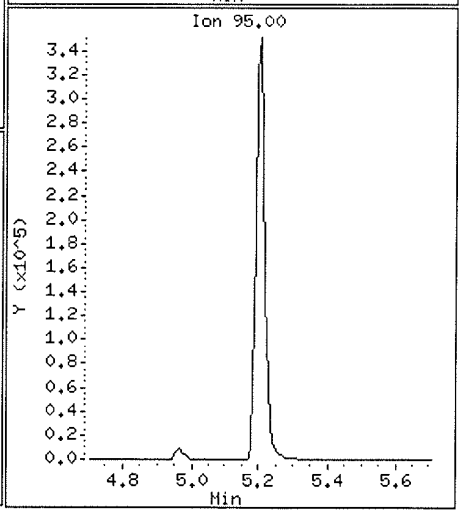
Concentration: 1593.29 ug/l











ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110122.D
Lab Smp Id: HS21101171-03 Client Smp ID: HS21101171-03
Inj Date : 01-NOV-2021 19:28
Operator : PC Inst ID: voa6.i
Smp Info : HS21101171-03;HS21101171-03;;;
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:17 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 21
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

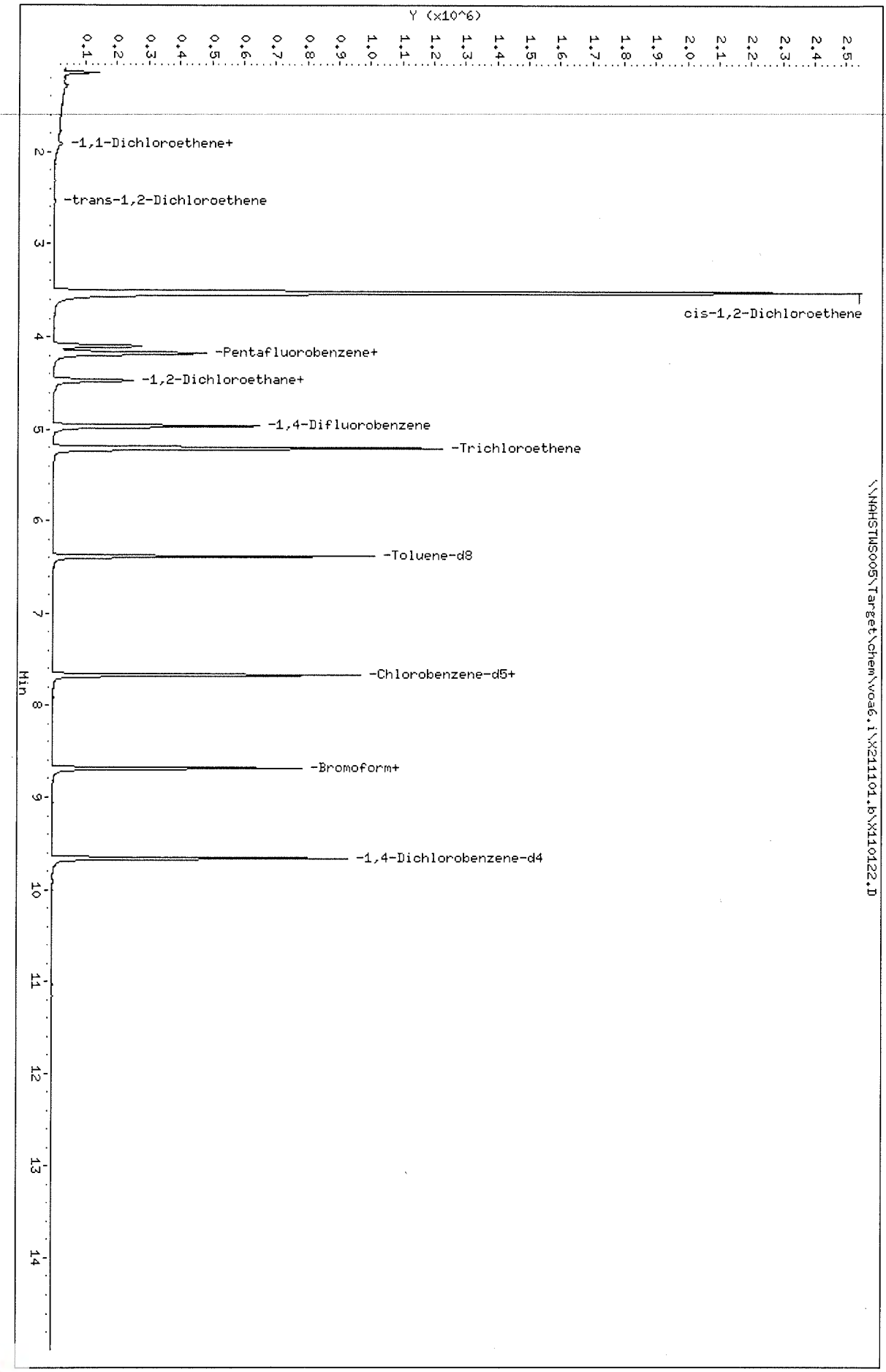
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	428871	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	195305	46.3103	46.31
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	189422	44.1627	44.16
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	582939	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	513918	50.0000	
$ 48 Toluene-d8	98	6.388	6.381	(0.833)	627341	48.1008	48.10
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	214763	47.7878	47.78
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	246077	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	81810	18.1942	181.94
11 1,1-Dichloroethene	96	1.911	1.919	(0.457)	2602	0.68015	6.80(a)
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	1383999	310.400	3103.99(A)
33 1,2-Dichloroethane	62	4.562	4.555	(0.919)	3914	0.80042	8.00(a)
38 Trichloroethene	130	5.206	5.206	(1.049)	429441	97.3909	973.90

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.



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Date : 01-NOV-2021 19:28

Client ID: HS2110171-03

Sample Info: HS2110171-03;HS2110171-03;;;

Purge Volume: 5.0

Column phase: DB624

Instrument: voa6.i

Operator: PC

Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110122.D

Date : 01-NOV-2021 19:28

Client ID: HS21101171-03

Instrument: voa6.i

Sample Info: HS21101171-03;HS21101171-03;;;

Purge Volume: 5.0

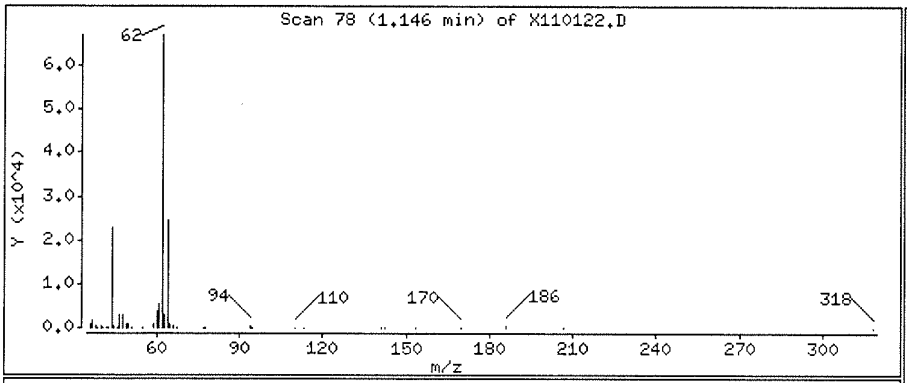
Operator: PC

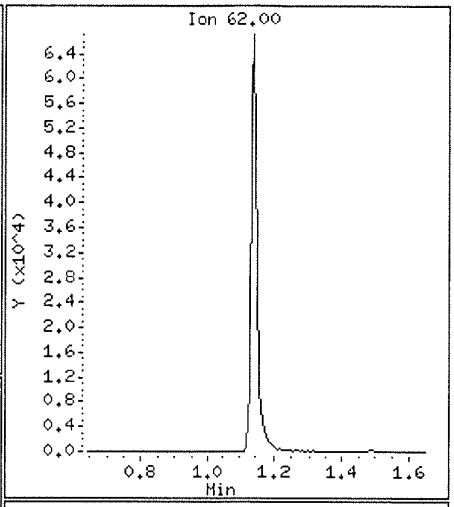
Column phase: DB624

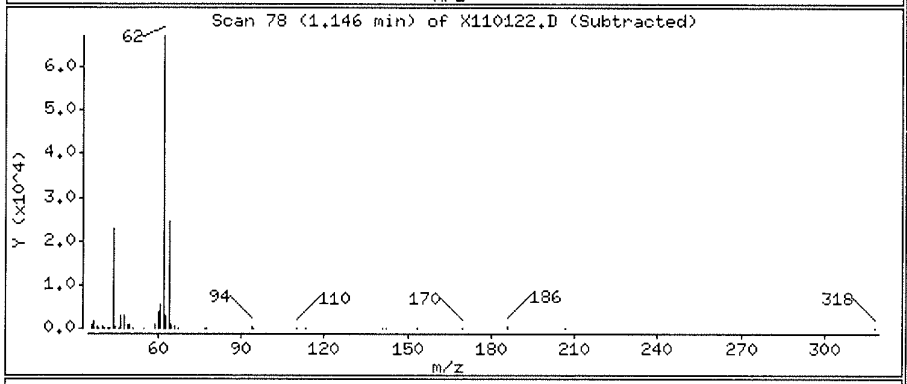
Column diameter: 0.18

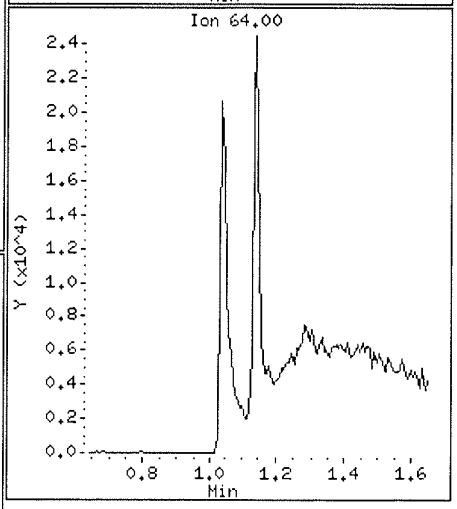
5 Vinyl Chloride

Concentration: 181.94 ug/l









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Date : 01-NOV-2021 19:28

Client ID: HS21101171-03

Instrument: voa6.i

Sample Info: HS21101171-03;HS21101171-03;;;

Purge Volume: 5.0

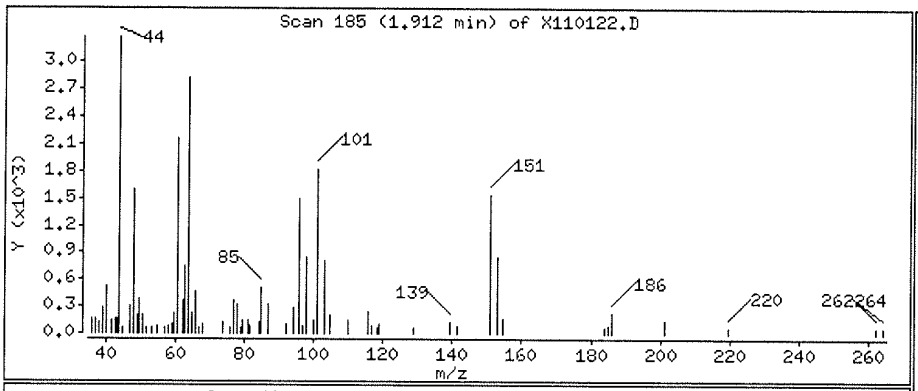
Operator: PC

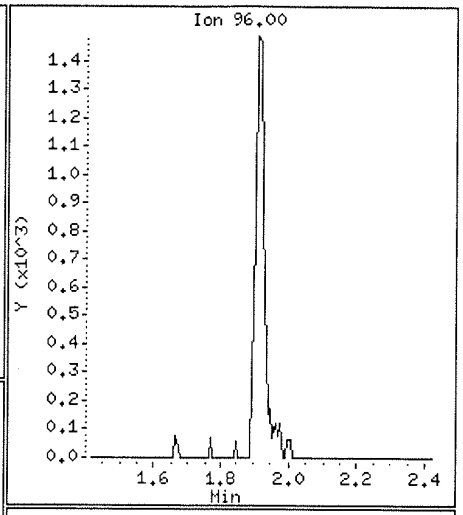
Column phase: DB624

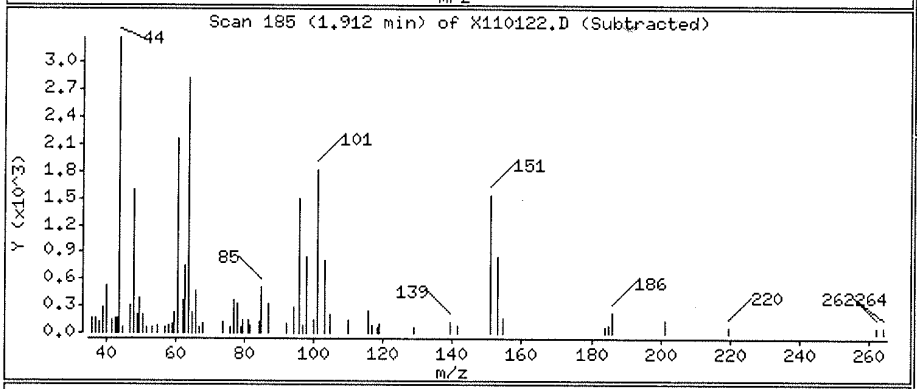
Column diameter: 0.18

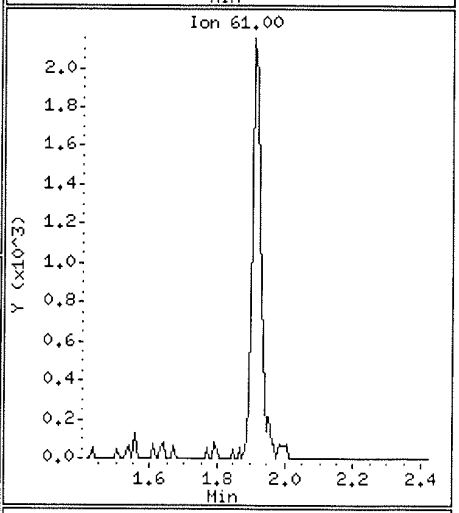
11 1,1-Dichloroethene

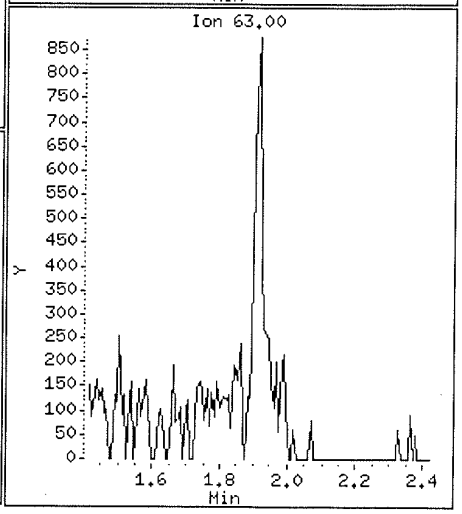
Concentration: 6.80 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110122.D

Date : 01-NOV-2021 19:28

Client ID: HS21101171-03

Instrument: voa6.i

Sample Info: HS21101171-03;HS21101171-03;;;

Purge Volume: 5.0

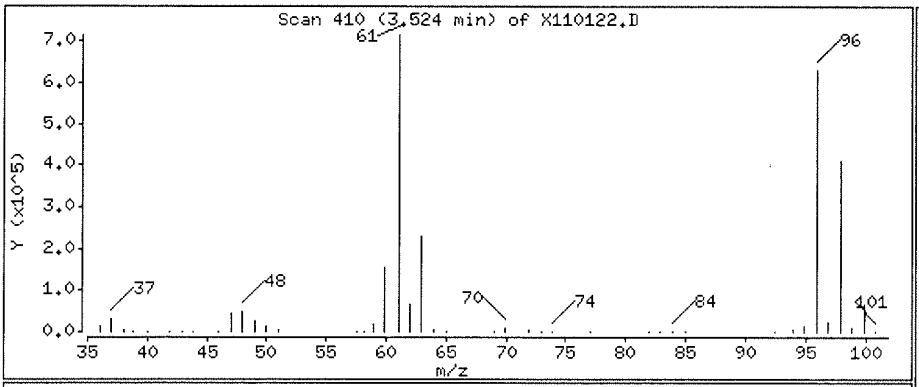
Operator: PC

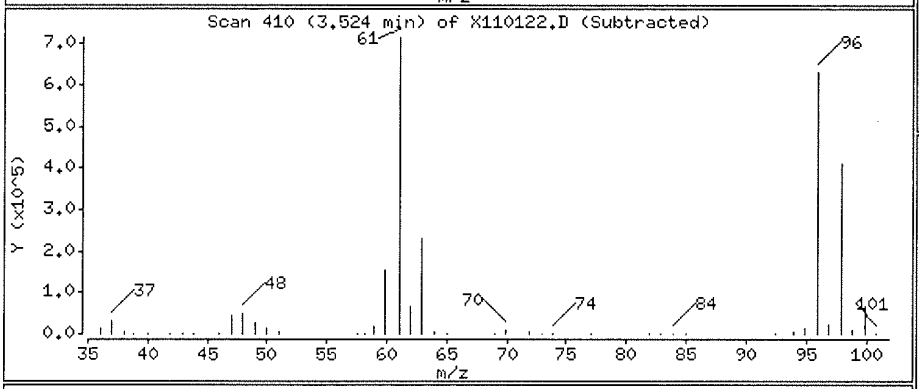
Column phase: DB624

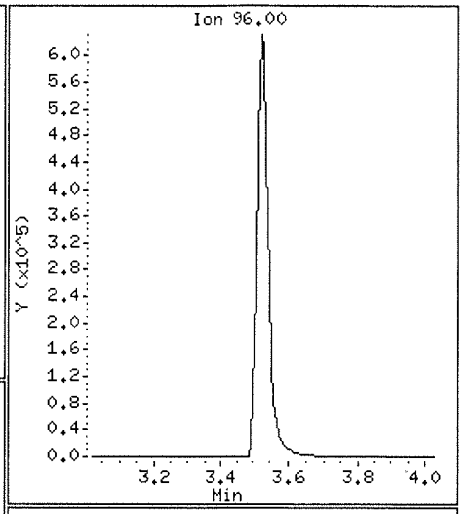
Column diameter: 0.18

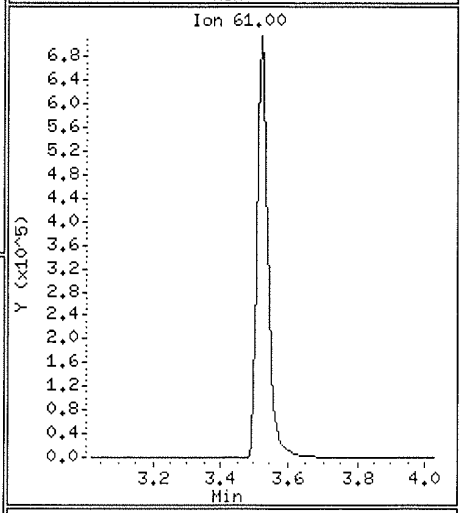
27 cis-1,2-Dichloroethene

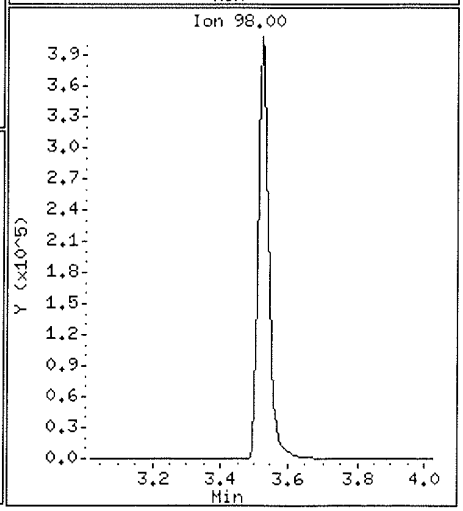
Concentration: 3103.99 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110122.D Page 6

Date : 01-NOV-2021 19:28

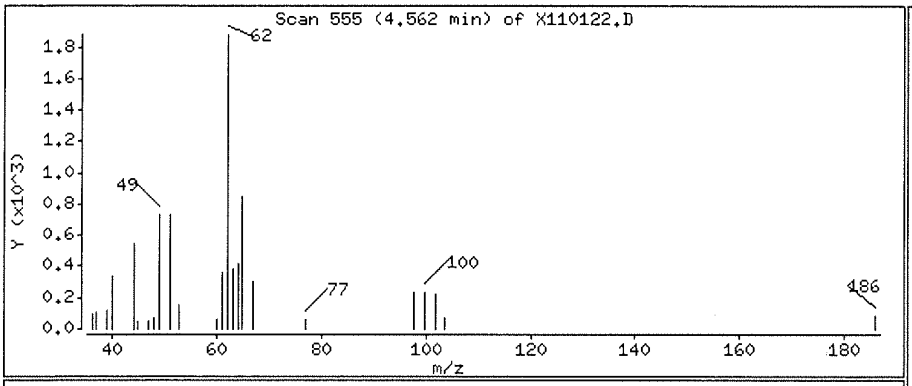
Client ID: HS21101171-03 Instrument: voa6.i

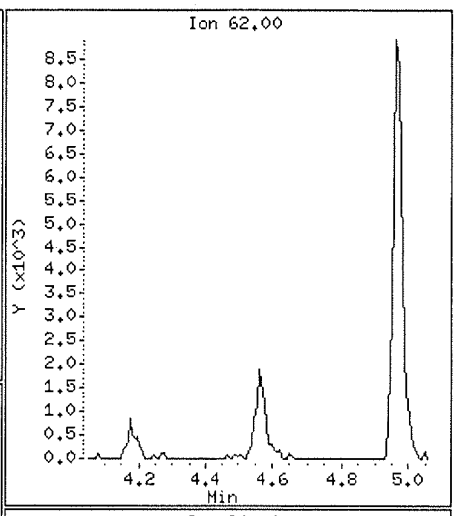
Sample Info: HS21101171-03;HS21101171-03;;;

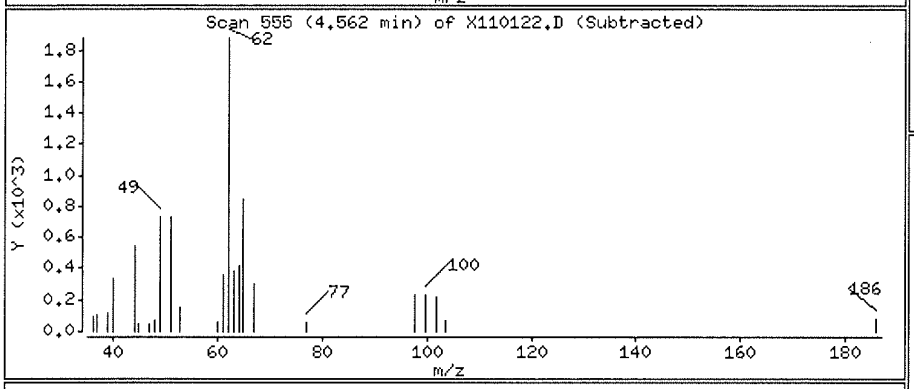
Purge Volume: 5.0 Operator: PC

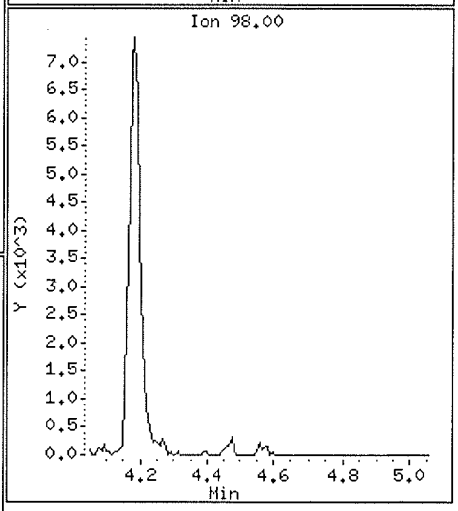
Column phase: DB624 Column diameter: 0.18

33 1,2-Dichloroethane Concentration: 8.00 ug/l









Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110122.D

Date : 01-NOV-2021 19:28

Client ID: HS21101171-03

Instrument: voa6.i

Sample Info: HS21101171-03;HS21101171-03;;;

Purge Volume: 5.0

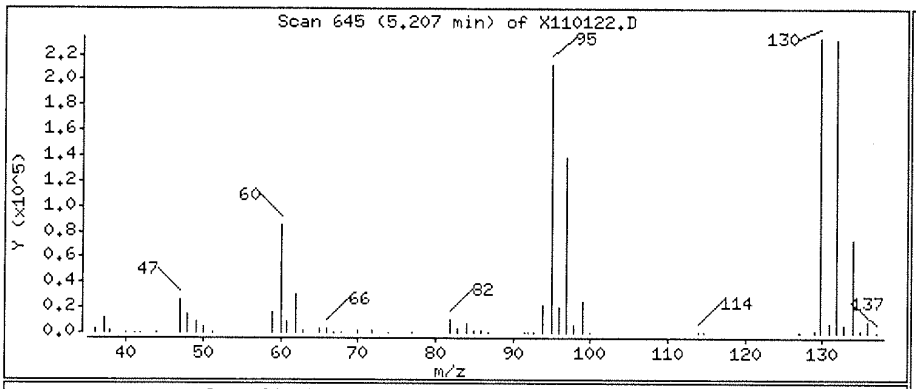
Operator: PC

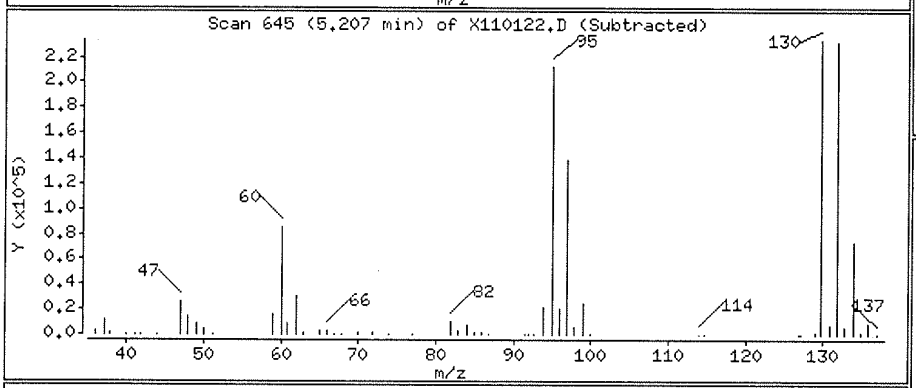
Column phase: DB624

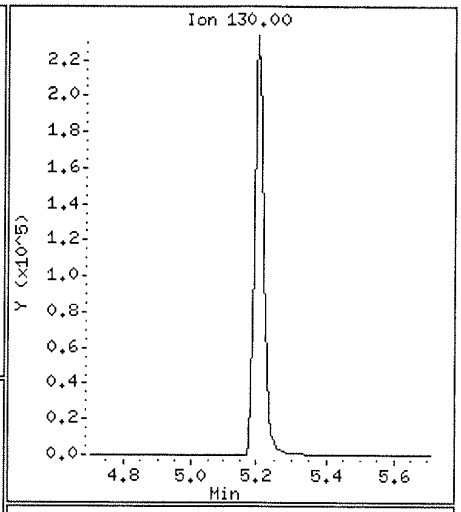
Column diameter: 0.18

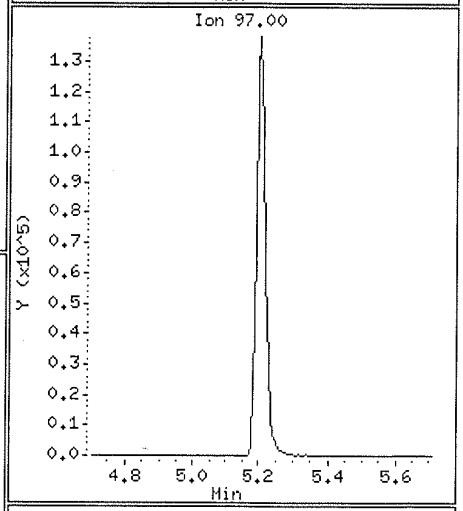
38 Trichloroethene

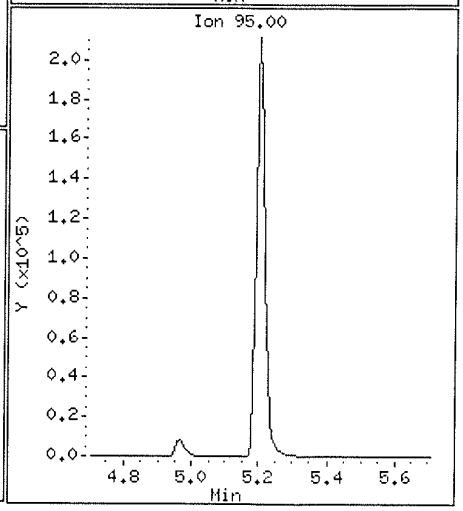
Concentration: 973.90 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110123.D Page 1
Report Date: 16-Nov-2021 14:20

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110123.D
Lab Smp Id: HS21101171-03 Client Smp ID: HS21101171-03
Inj Date : 01-NOV-2021 19:49
Operator : PC Inst ID: voa6.i
Smp Info : HS21101171-03;HS21101171-03;;;
Misc Info : HS18090001;WATER;0;100;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:17 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 22
Dil Factor: 100.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

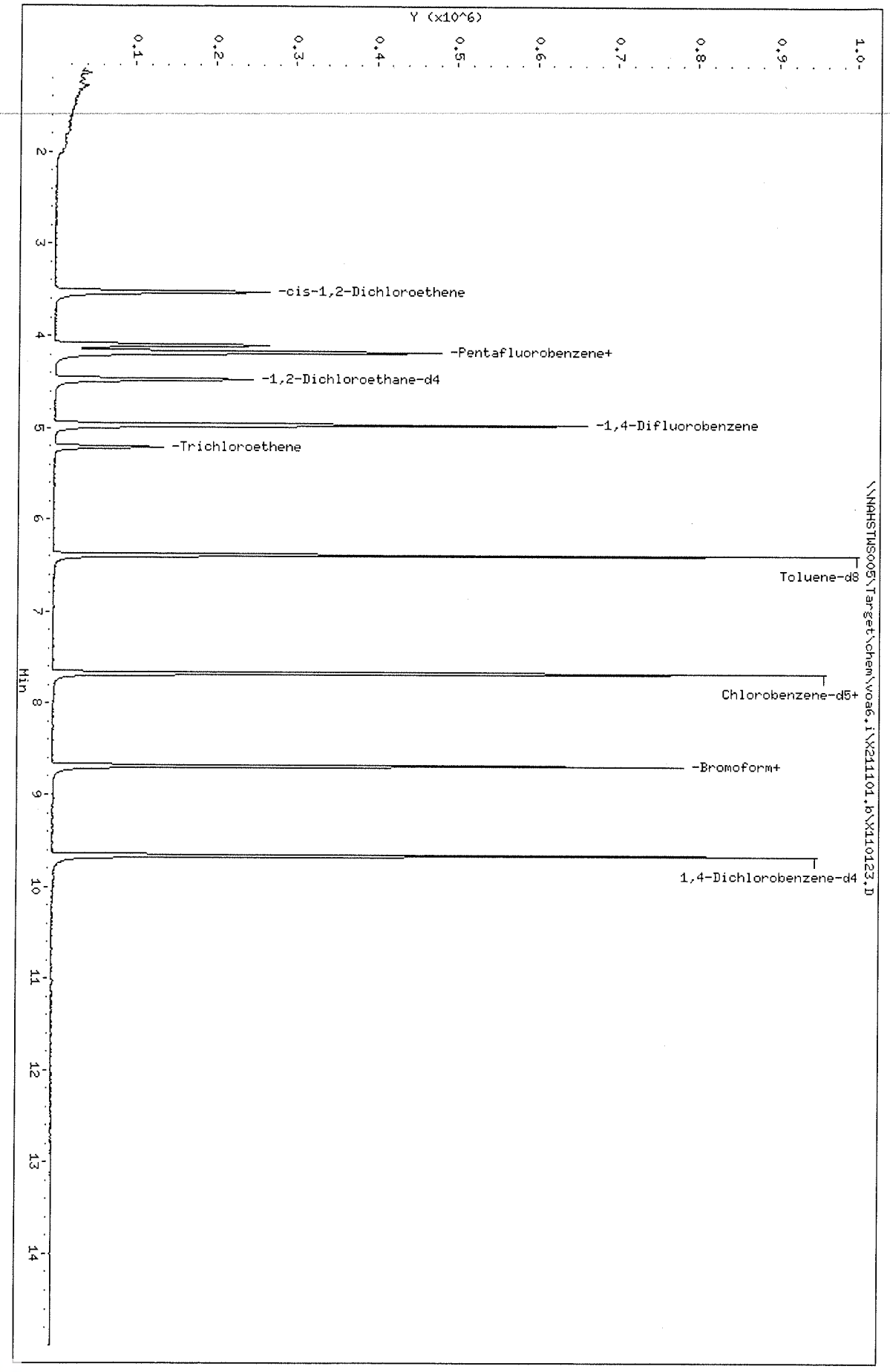
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	100.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	423505	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	190517	45.7335	45.73
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	189085	44.6648	44.66
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	577677	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	513833	50.0000	
$ 48 Toluene-d8	98	6.388	6.381	(0.833)	625772	47.9884	47.98
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	214746	47.7920	47.79
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	239042	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	8660	1.95036	195.03(a)
27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	149327	33.9150	3391.50
38 Trichloroethene	130	5.206	5.206	(1.049)	45930	10.5111	1051.11

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110123.D
Date : 01-NOV-2021 19:49
Client ID: HS21101171-03
Sample Info: HS21101171-03;HS21101171-03;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110123.D

Date : 01-NOV-2021 19:49

Client ID: HS21101171-03

Instrument: voa6.i

Sample Info: HS21101171-03;HS21101171-03;;;

Purge Volume: 5.0

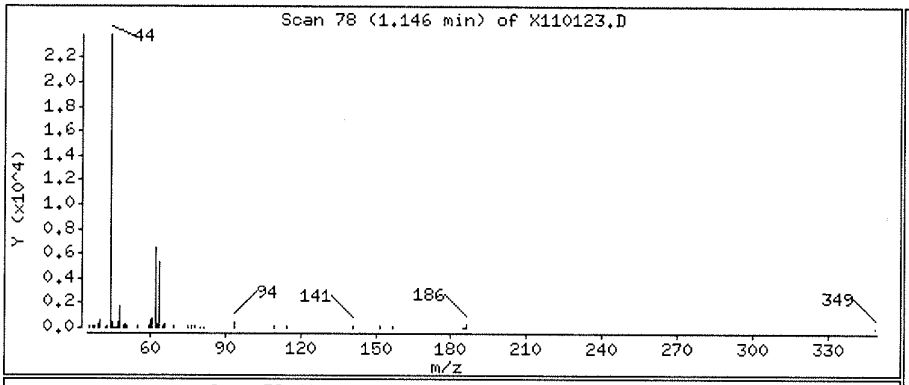
Operator: PC

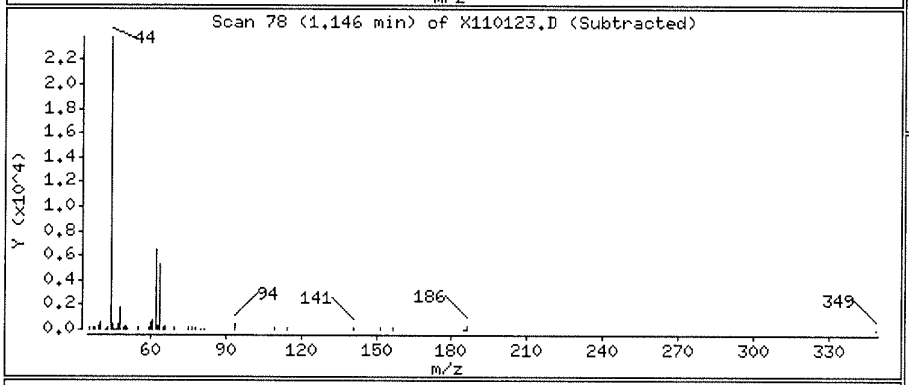
Column phase: DB624

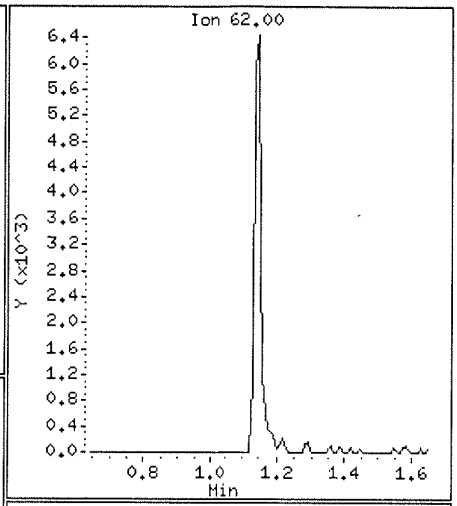
Column diameter: 0.18

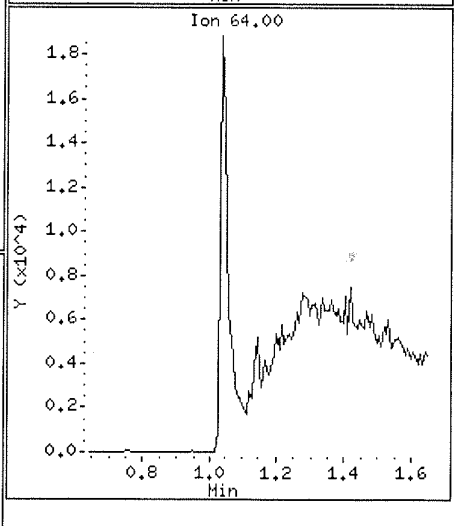
5 Vinyl Chloride

Concentration: 195.03 ug/l









Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110123.D

Date : 01-NOV-2021 19:49

Client ID: HS21101171-03

Instrument: voa6.i

Sample Info: HS21101171-03;HS21101171-03;;;

Purge Volume: 5.0

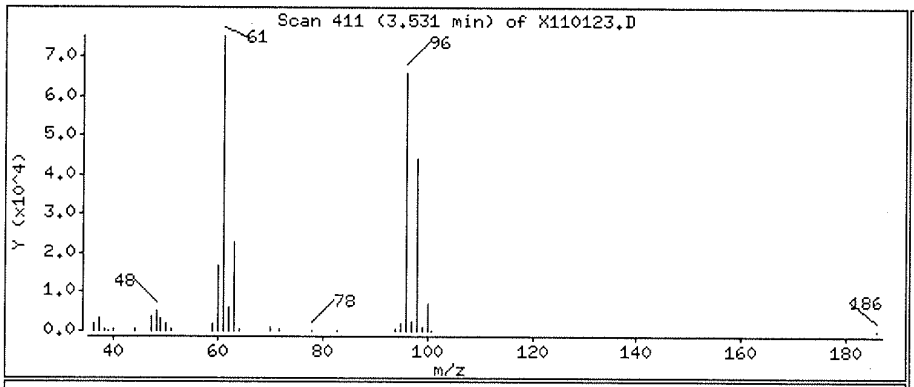
Operator: PC

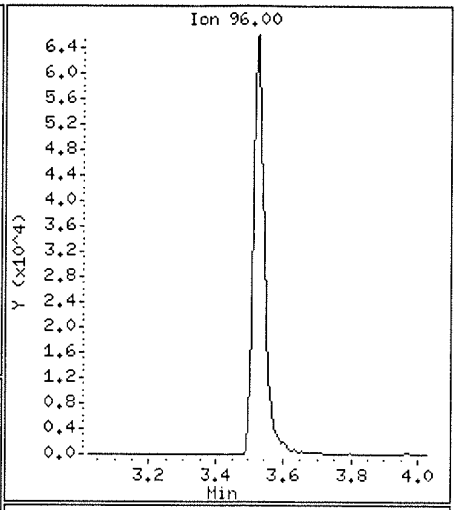
Column phase: DB624

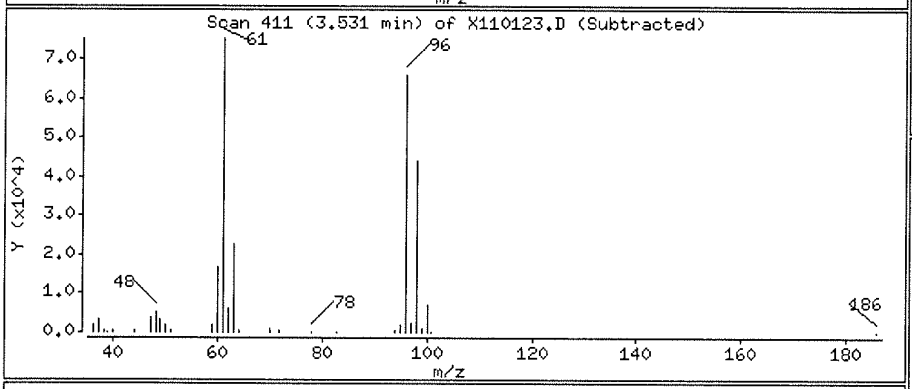
Column diameter: 0.18

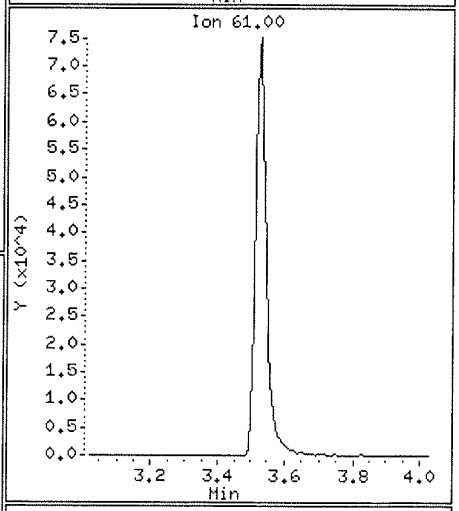
27 cis-1,2-Dichloroethene

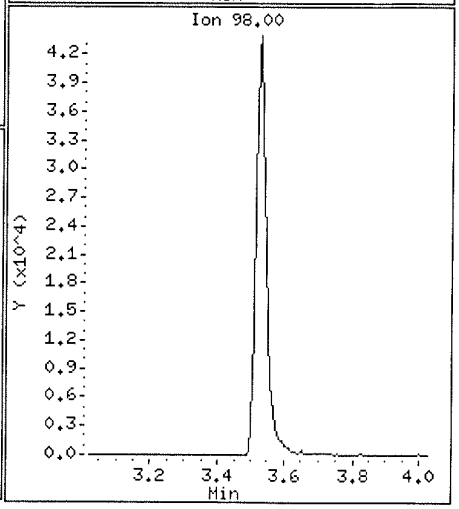
Concentration: 3391.50 ug/l











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Date : 01-NOV-2021 19:49

Client ID: HS21101171-03

Instrument: voa6.i

Sample Info: HS21101171-03;HS21101171-03;;;

Purge Volume: 5.0

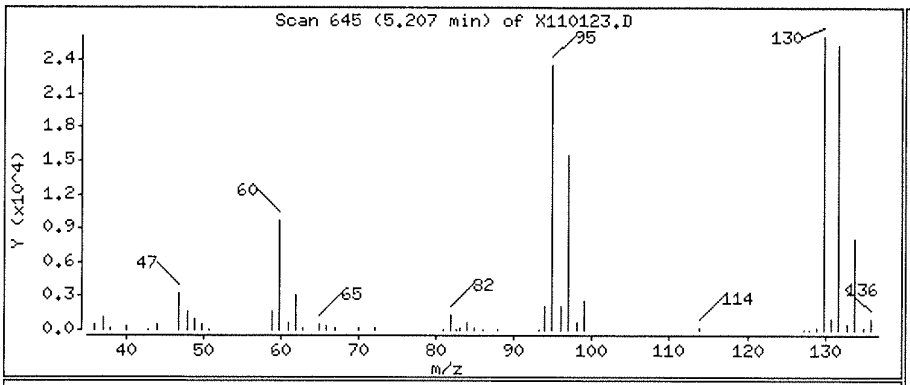
Operator: PC

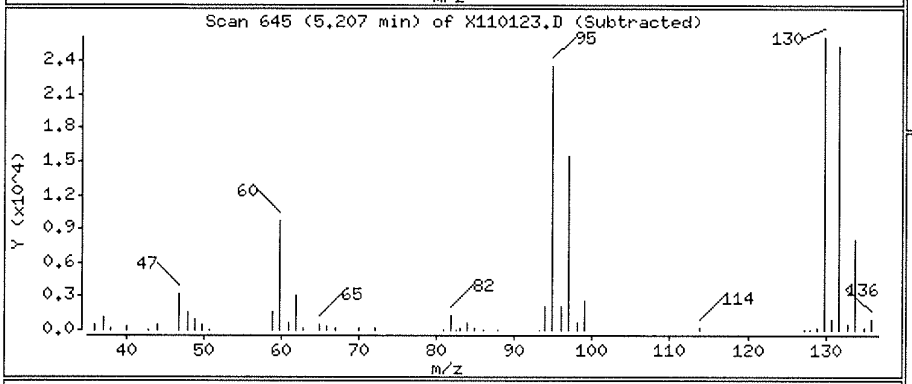
Column phase: DB624

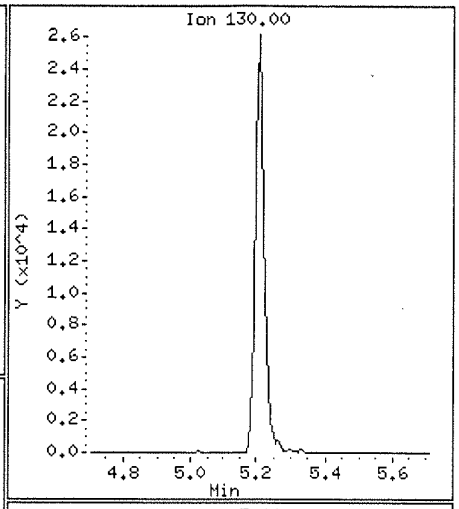
Column diameter: 0.18

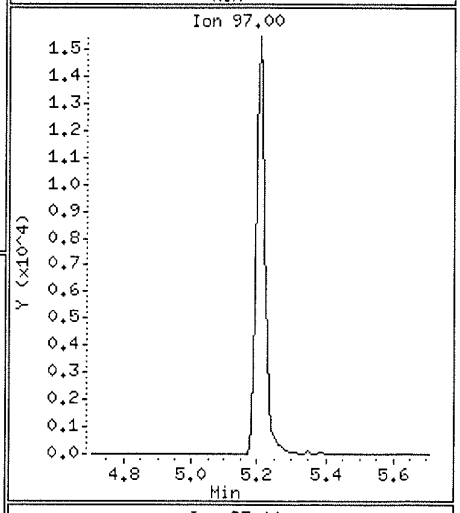
38 Trichloroethene

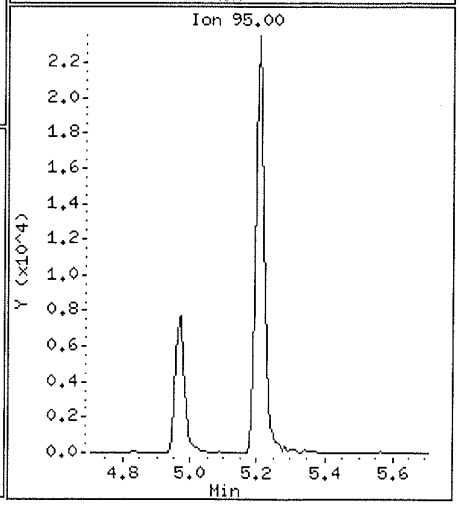
Concentration: 1051.11 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110124.D Page 1
Report Date: 16-Nov-2021 14:20

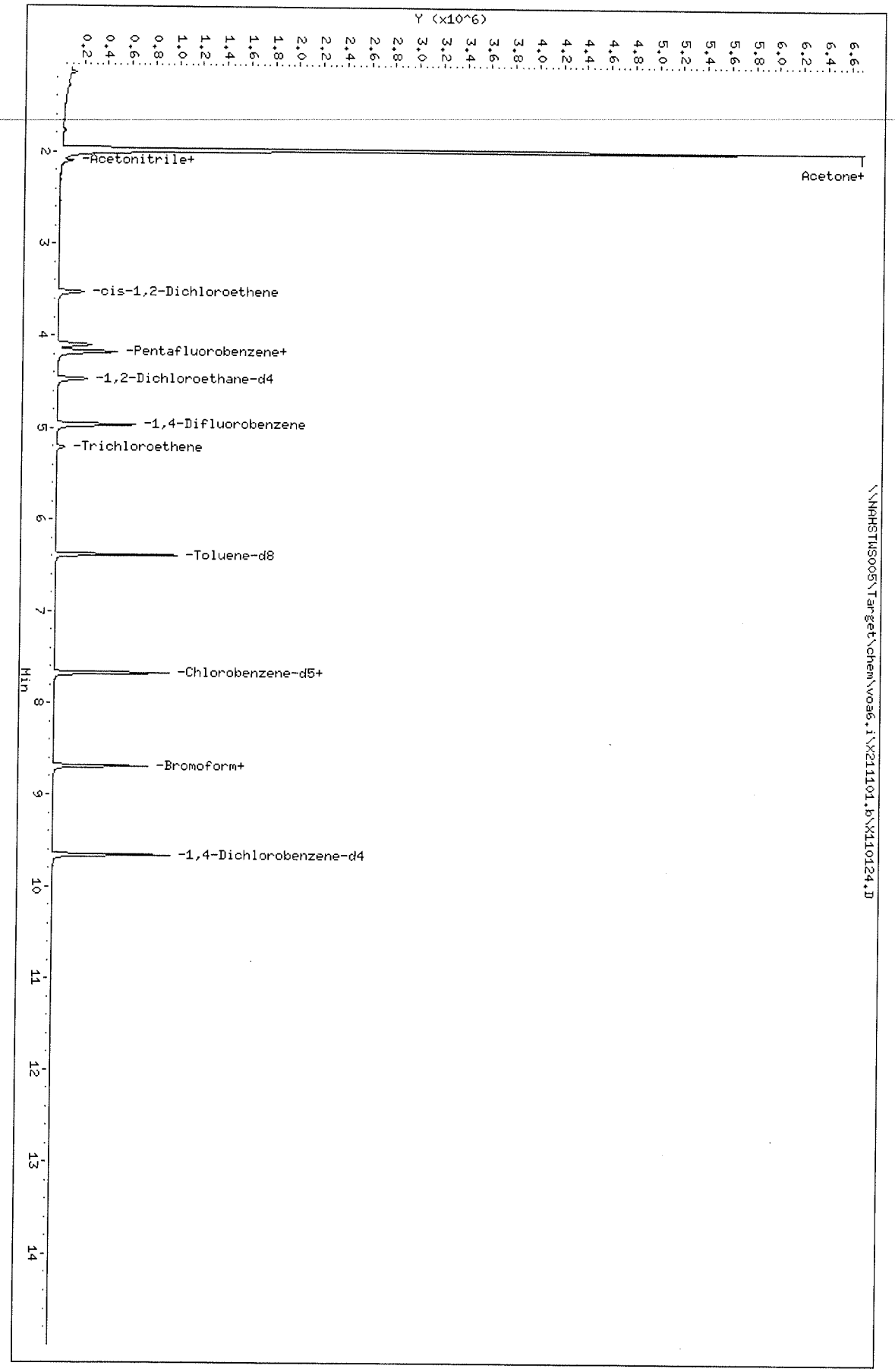
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110124.D
Lab Smp Id: HS21101171-04 Client Smp ID: HS21101171-04
Inj Date : 01-NOV-2021 20:10
Operator : PC Inst ID: voa6.i
Smp Info : HS21101171-04;HS21101171-04;;;
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:17 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 23
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.182	4.182	(1.000)	430701	50.0000	
$ 30	Dibromofluoromethane	113	4.104	4.096	(0.981)	196324	46.3552	46.35
$ 35	1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	190593	44.2508	44.25
* 36	1,4-Difluorobenzene	114	4.963	4.963	(1.000)	583477	50.0000	
* 47	Chlorobenzene-d5	117	7.671	7.671	(1.000)	523935	50.0000	
$ 48	Toluene-d8	98	6.389	6.381	(0.833)	633788	47.6661	47.66
$ 69	4-Bromofluorobenzene	95	8.688	8.688	(1.133)	219333	47.8740	47.87
* 70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	248465	50.0000	
5	Vinyl Chloride	62	1.145	1.145	(0.274)	41677	9.22943	92.29
27	cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	120539	26.9193	269.19
38	Trichloroethene	130	5.207	5.206	(1.049)	23884	5.41154	54.11



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110124.D
Date : 01-NOV-2021 20:10
Client ID: HS2110117I-04
Sample Info: HS2110117I-04;HS2110117I-04;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110124.D

Date : 01-NOV-2021 20:10

Client ID: HS21101171-04

Instrument: voa6.i

Sample Info: HS21101171-04;HS21101171-04;;;

Purge Volume: 5.0

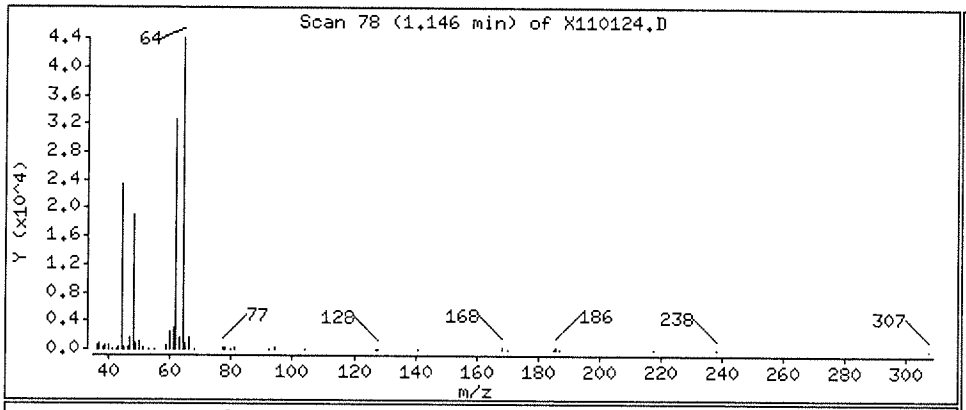
Operator: PC

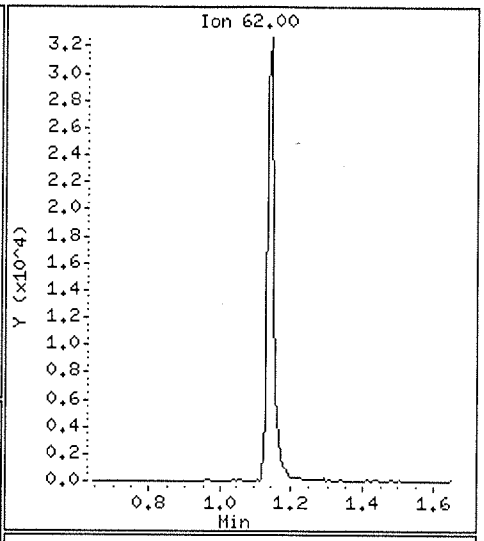
Column phase: DB624

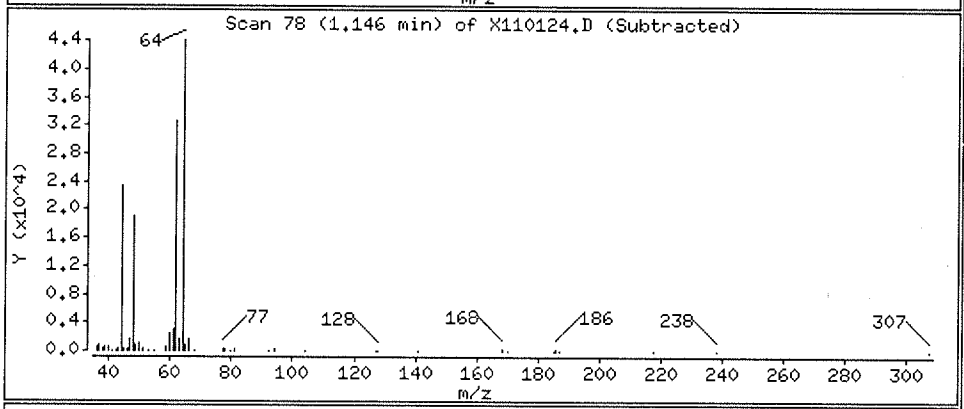
Column diameter: 0.18

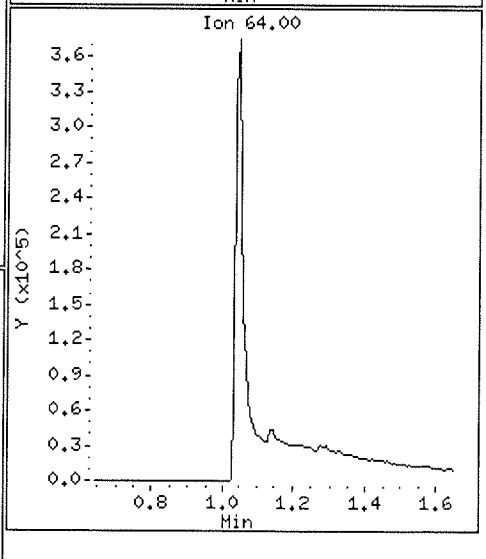
5 Vinyl Chloride

Concentration: 92.29 ug/l









Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110124.D

Date : 01-NOV-2021 20:10

Client ID: HS21101171-04

Instrument: voa6.i

Sample Info: HS21101171-04;HS21101171-04;;;

Purge Volume: 5.0

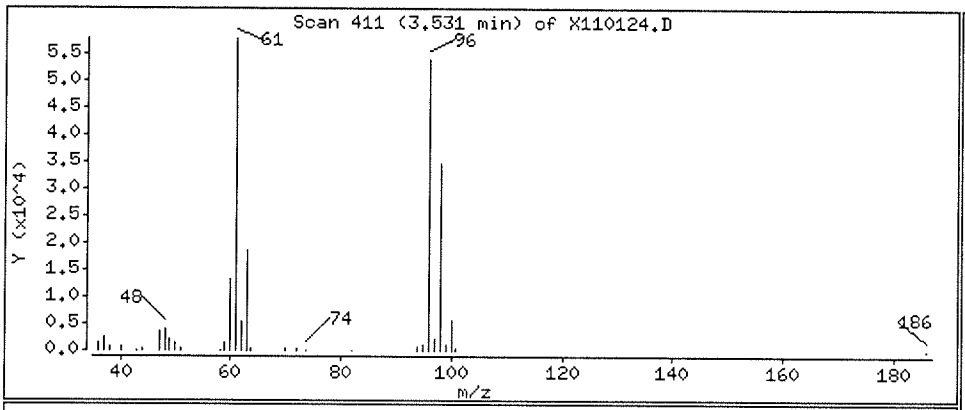
Operator: PC

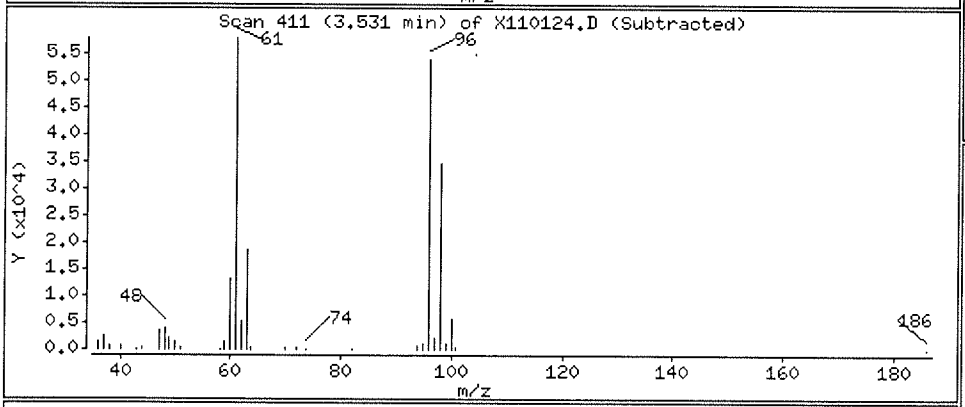
Column phase: DB624

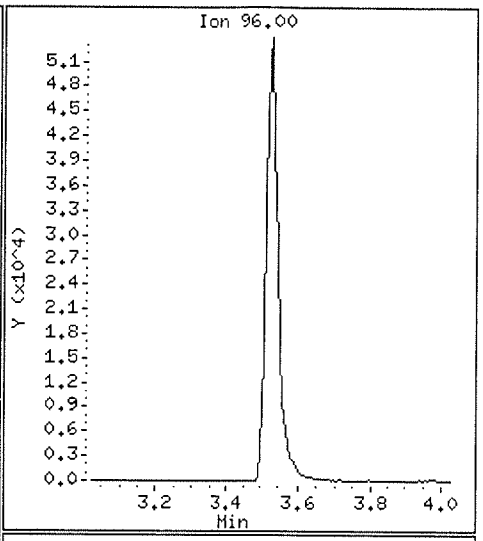
Column diameter: 0.18

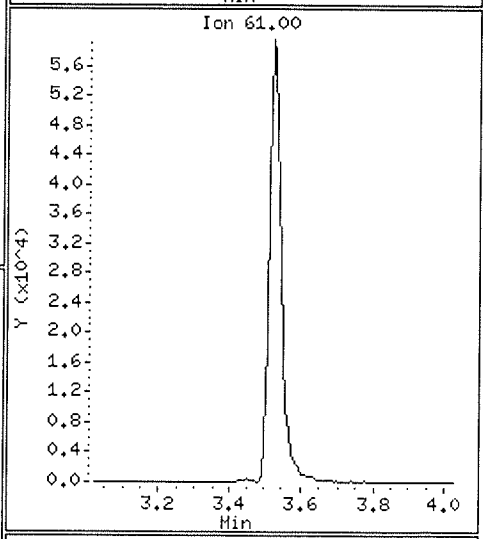
27 cis-1,2-Dichloroethene

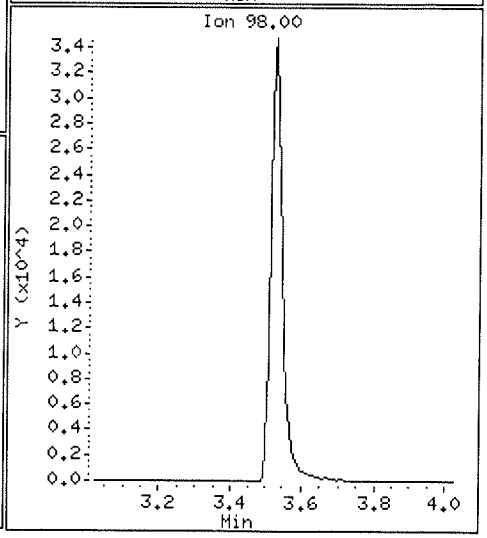
Concentration: 269.19 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110124.D

Date : 01-NOV-2021 20:10

Client ID: HS21101171-04

Instrument: voa6.i

Sample Info: HS21101171-04;HS21101171-04;;;

Purge Volume: 5.0

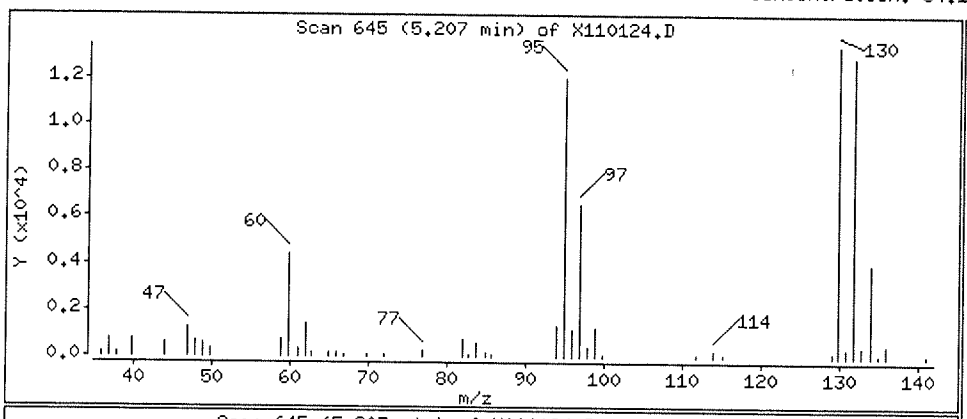
Operator: PC

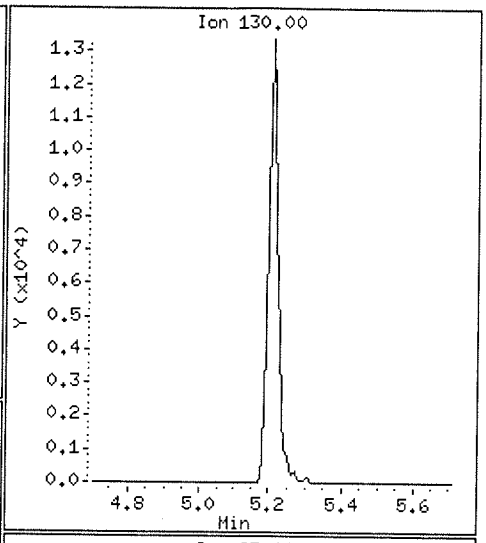
Column phase: DB624

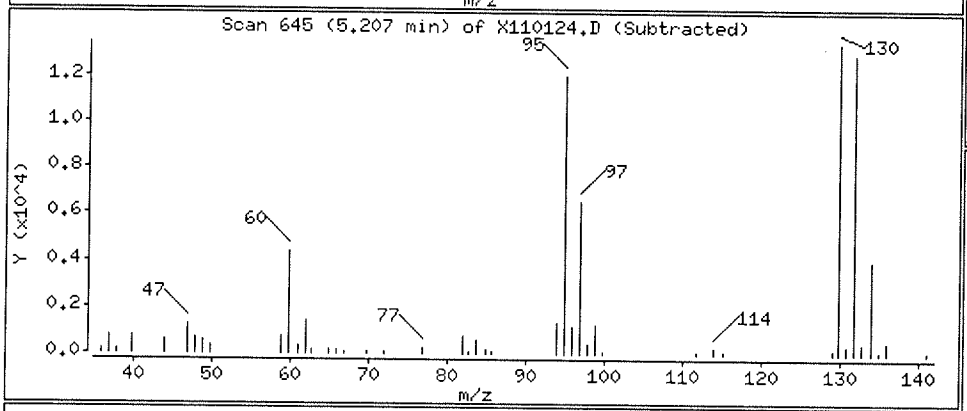
Column diameter: 0.18

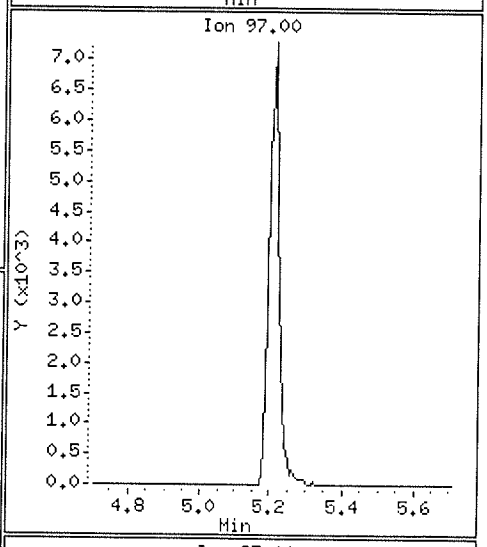
38 Trichloroethene

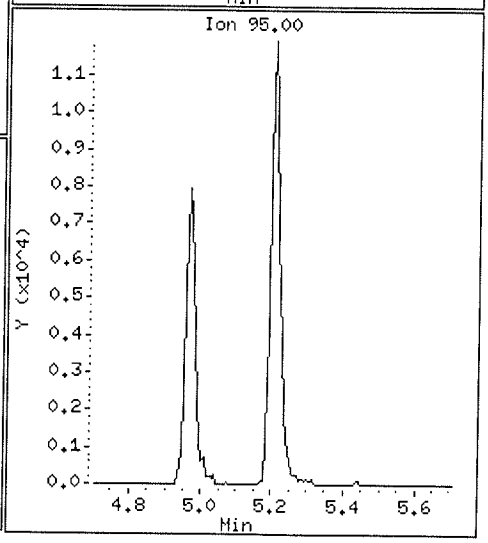
Concentration: 54.11 ug/l











ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110126.D
Lab Smp Id: HS21101171-05 Client Smp ID: HS21101171-05
Inj Date : 01-NOV-2021 20:52
Operator : PC Inst ID: voa6.i
Smp Info : HS21101171-05;HS21101171-05;;;
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:17 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 25
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

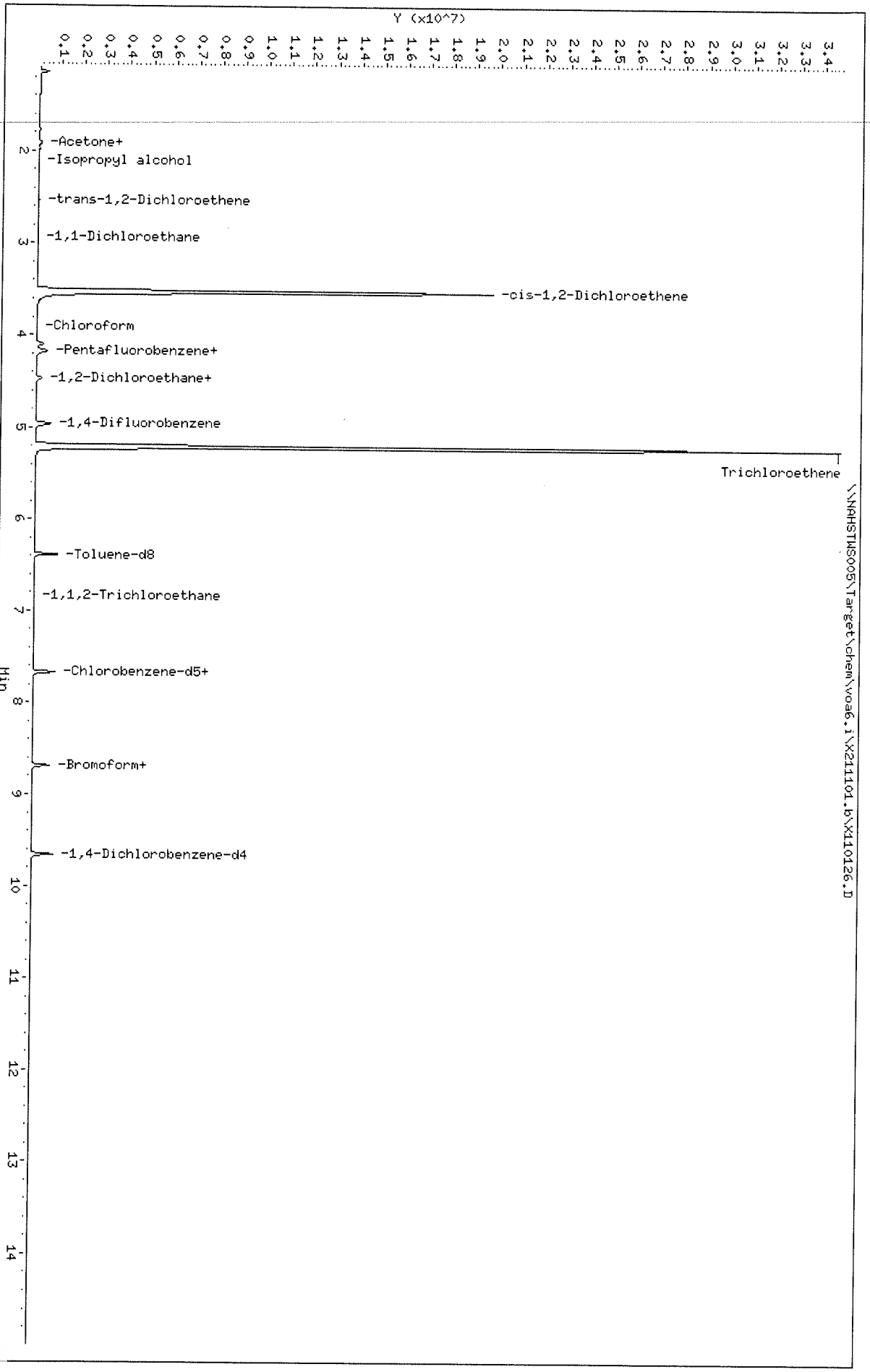
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	424081	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	192363	46.1234	46.12
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	187182	44.1320	44.13
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	574164	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	498712	50.0000	
$ 48 Toluene-d8	98	6.388	6.381	(0.833)	615983	48.6700	48.67
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	210444	48.2679	48.26
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	233347	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	279715	62.9102	629.10
11 1,1-Dichloroethene	96	1.912	1.919	(0.457)	24442	6.46119	64.61
27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	10204450	2314.48	23144.78(A)
33 1,2-Dichloroethane	62	4.562	4.555	(0.919)	17846	3.70533	37.05(a)
38 Trichloroethene	130	5.214	5.206	(1.051)	11235676	2587.03	25870.28(A)
53 1,1,2-Trichloroethane	83	6.847	6.840	(0.893)	1911	0.71811	7.18(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110126.D
Date : 01-NOV-2021 20:52
Client ID: HS21101171-05
Sample Info: HS21101171-05;HS21101171-05;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110126.D

Date : 01-NOV-2021 20:52

Client ID: HS21101171-05

Instrument: voa6.i

Sample Info: HS21101171-05;HS21101171-05;;;

Purge Volume: 5.0

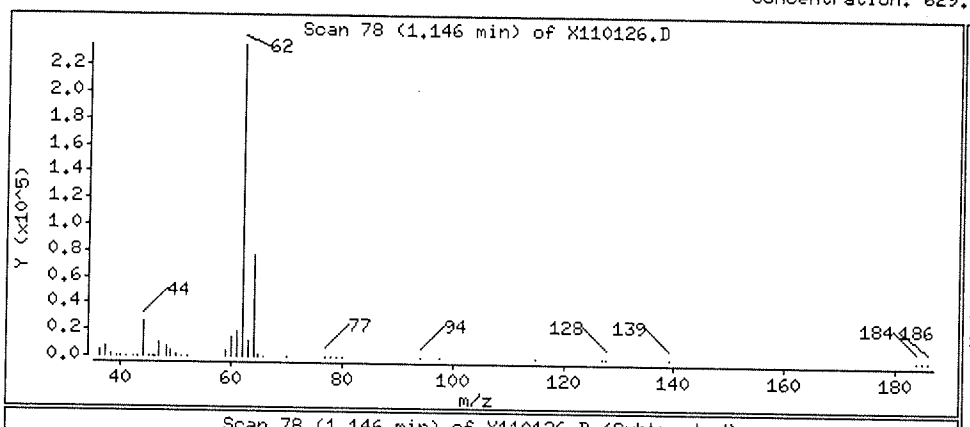
Operator: PC

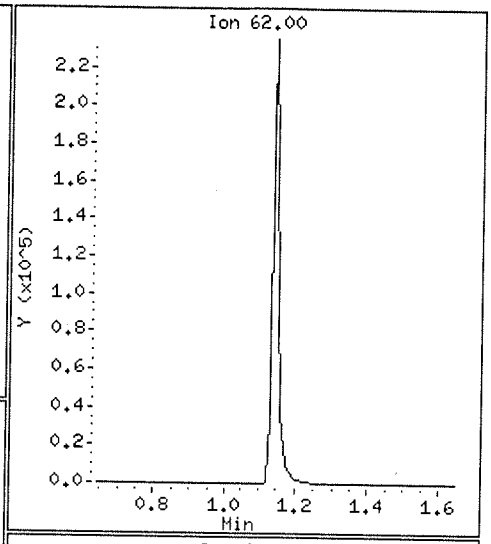
Column phase: DB624

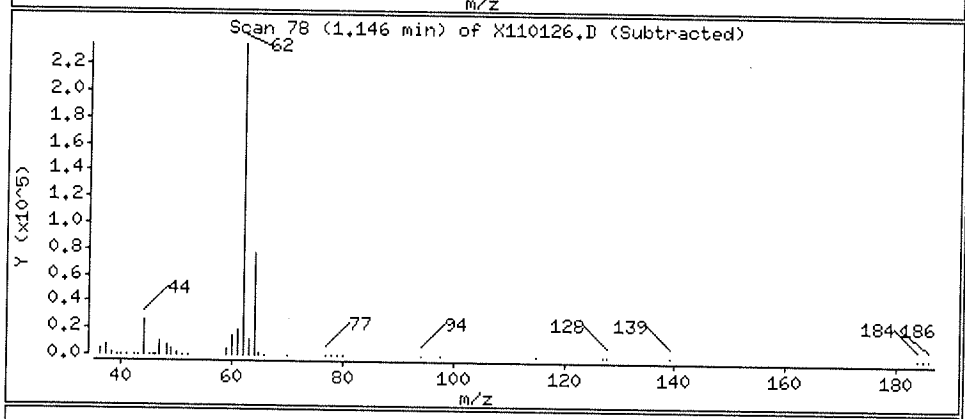
Column diameter: 0.18

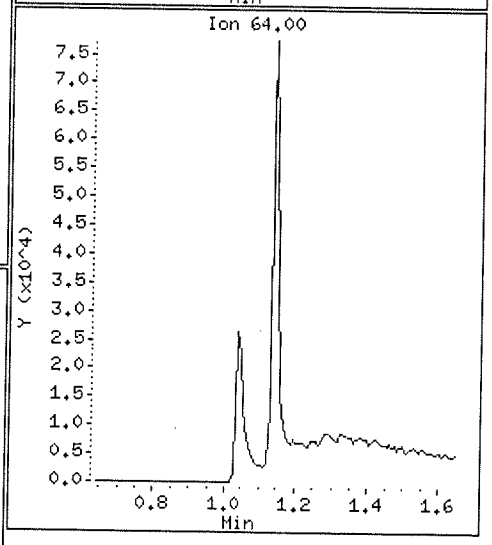
5 Vinyl Chloride

Concentration: 629.10 ug/l









Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110126.D

Date : 01-NOV-2021 20:52

Client ID: HS21101171-05

Instrument: voa6.i

Sample Info: HS21101171-05;HS21101171-05;;;

Purge Volume: 5.0

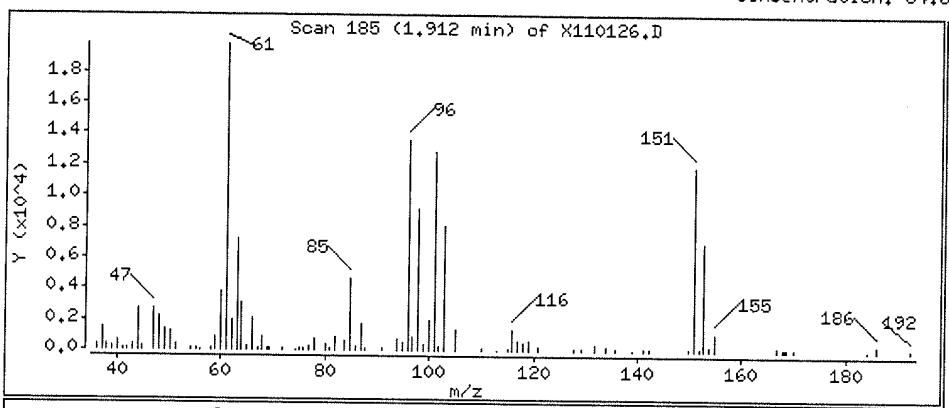
Operator: PC

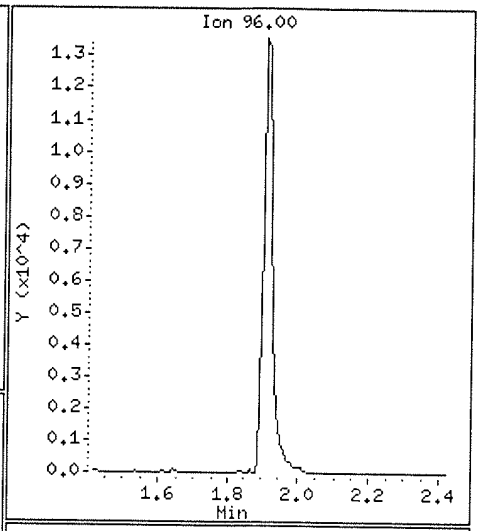
Column phase: DB624

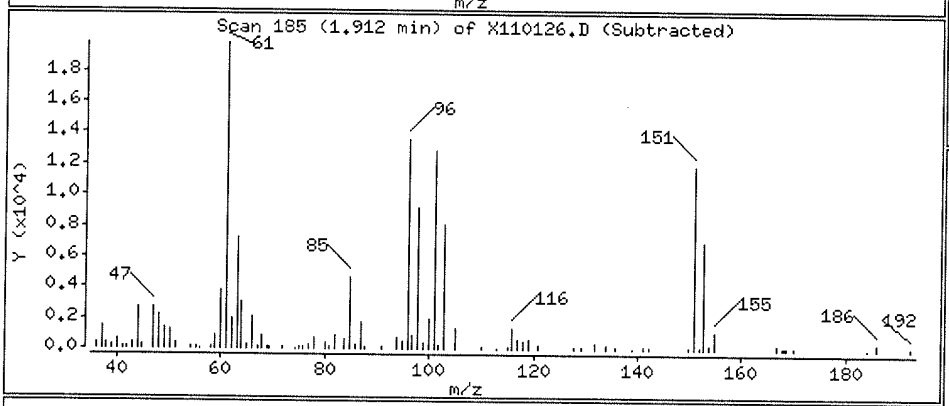
Column diameter: 0.18

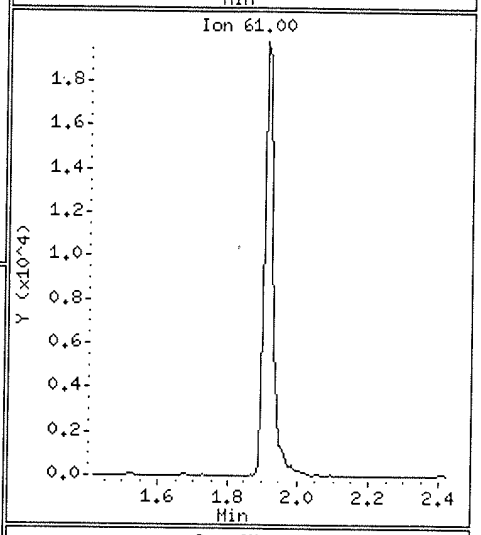
11 1,1-Dichloroethene

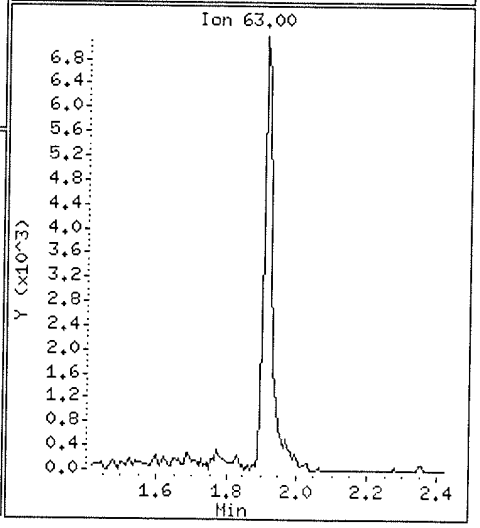
Concentration: 64.61 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110126.D

Date : 01-NOV-2021 20:52

Client ID: HS21101171-05

Instrument: voa6.i

Sample Info: HS21101171-05;HS21101171-05;;;

Purge Volume: 5.0

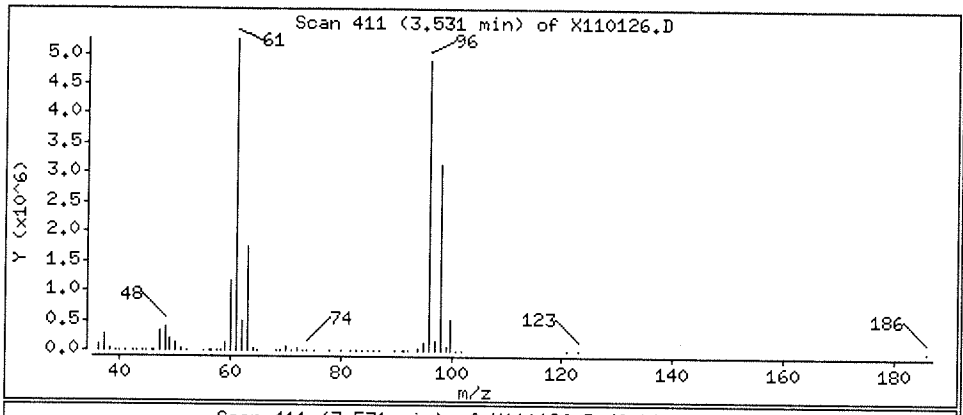
Operator: PC

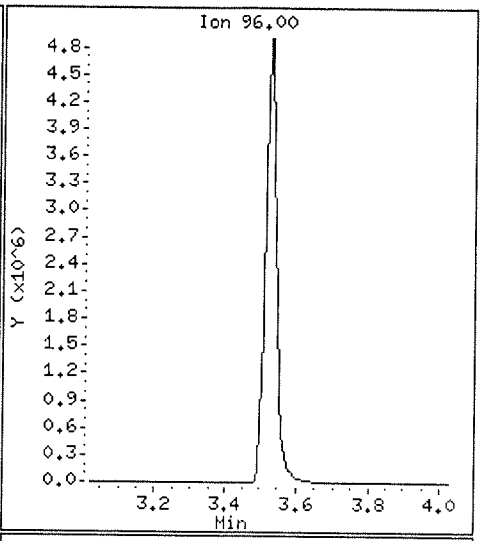
Column phase: DB624

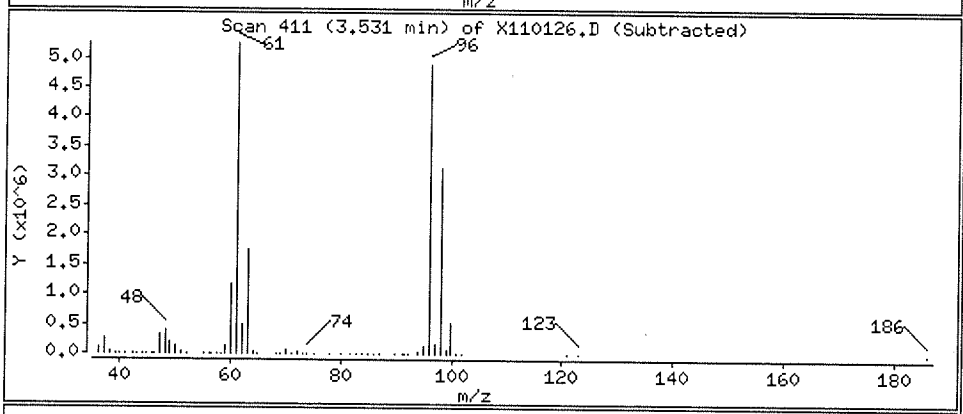
Column diameter: 0.18

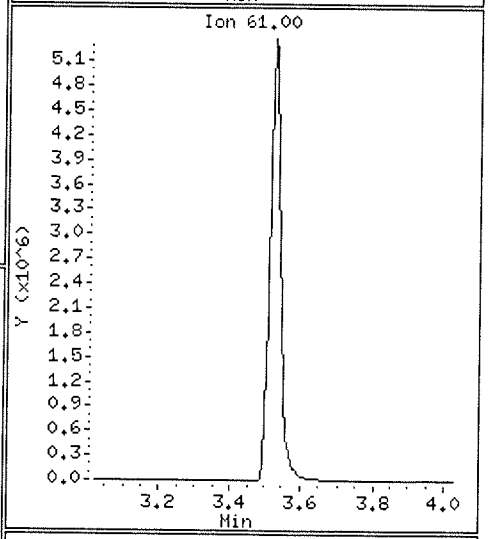
27 cis-1,2-Dichloroethene

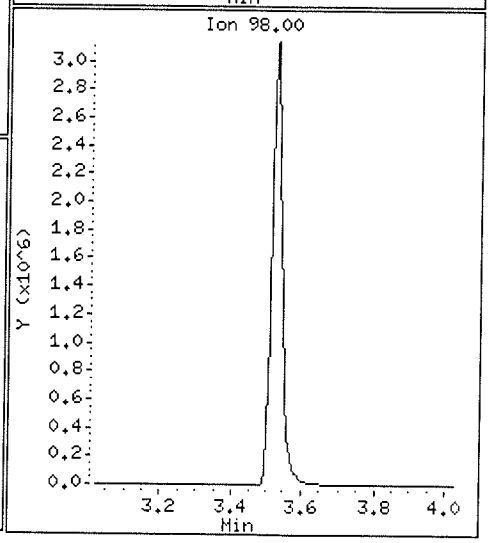
Concentration: 23144.78 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110126.D

Date : 01-NOV-2021 20:52

Client ID: HS21101171-05

Instrument: voa6.i

Sample Info: HS21101171-05;HS21101171-05;;;

Purge Volume: 5.0

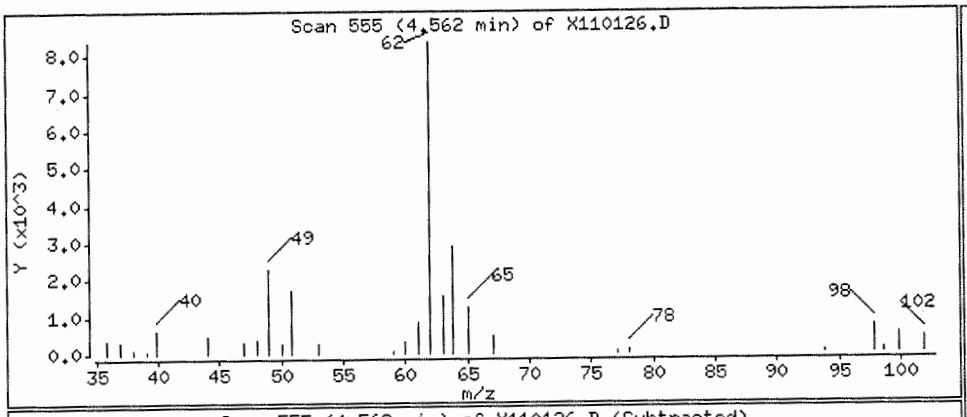
Operator: PC

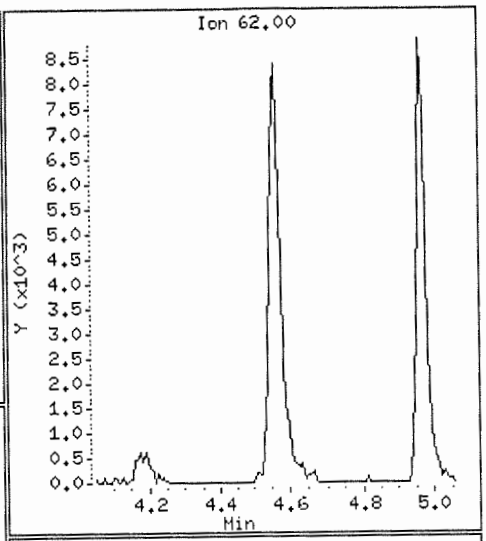
Column phase: DB624

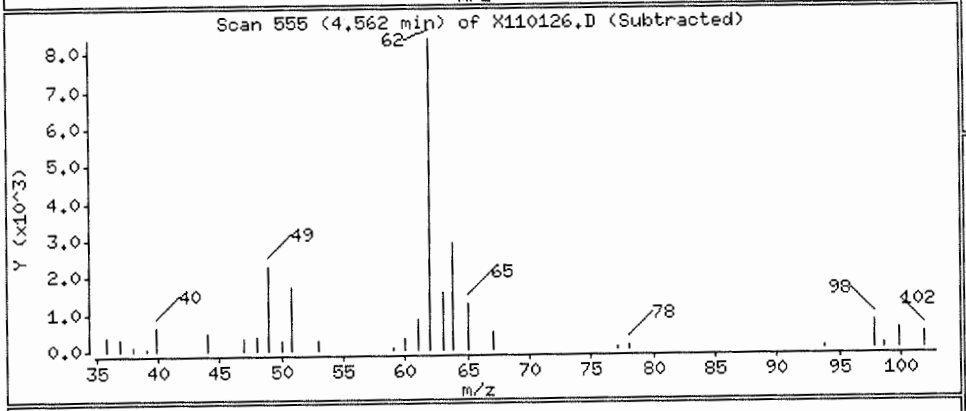
Column diameter: 0.18

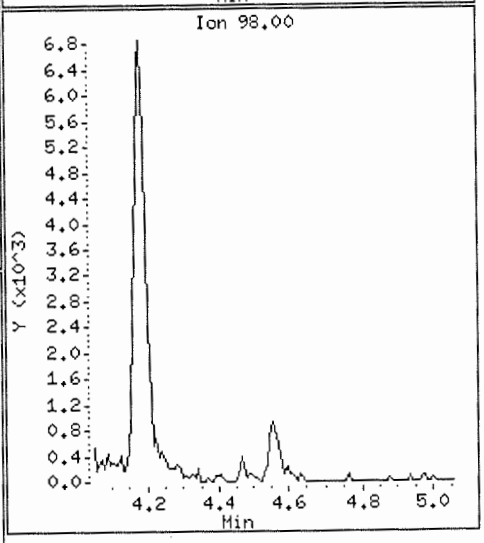
33 1,2-Dichloroethane

Concentration: 37.05 ug/l









Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110126.D

Date : 01-NOV-2021 20:52

Client ID: HS21101171-05

Instrument: voa6.i

Sample Info: HS21101171-05;HS21101171-05;;;

Purge Volume: 5.0

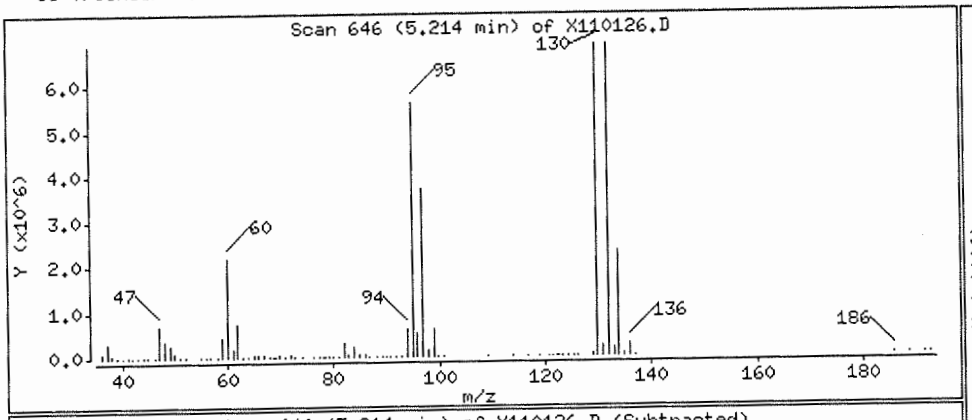
Operator: PC

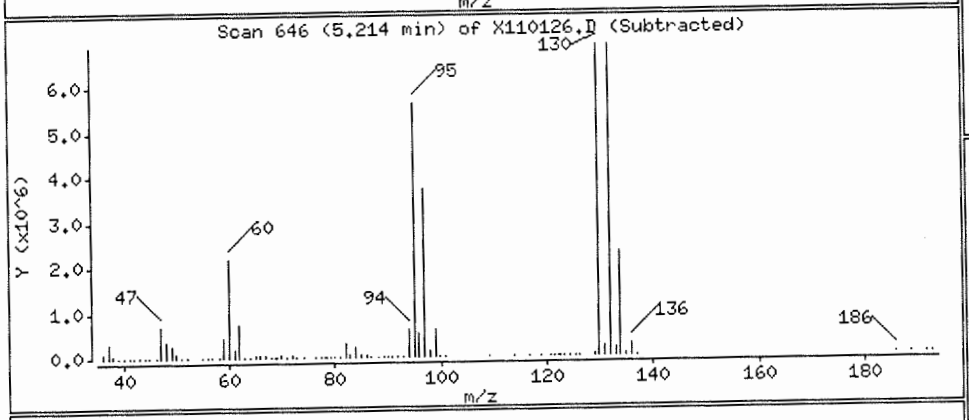
Column phase: DB624

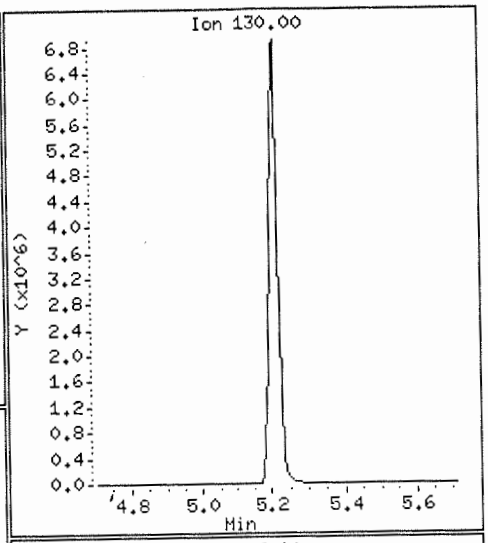
Column diameter: 0.18

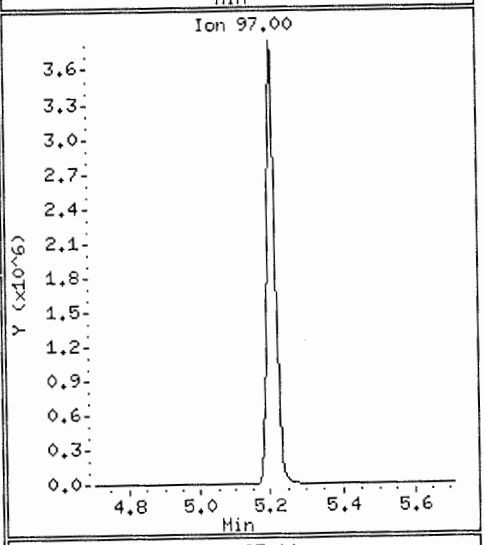
38 Trichloroethene

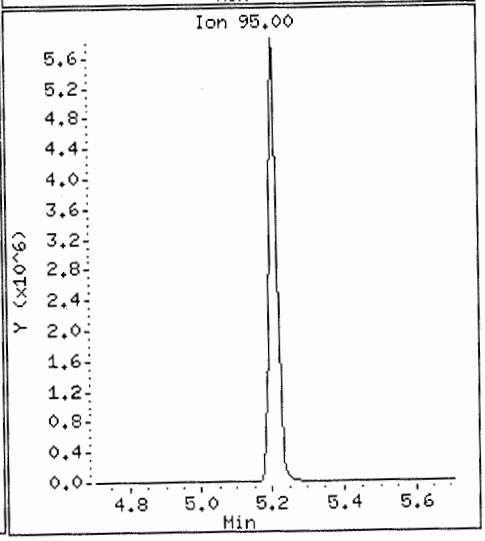
Concentration: 25870.28 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110126.D

Date : 01-NOV-2021 20:52

Client ID: HS21101171-05

Instrument: voa6.i

Sample Info: HS21101171-05;HS21101171-05;;;

Purge Volume: 5.0

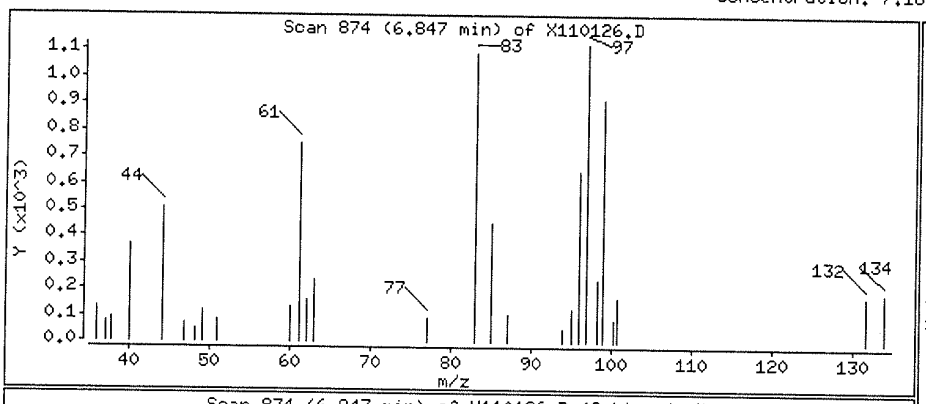
Operator: PC

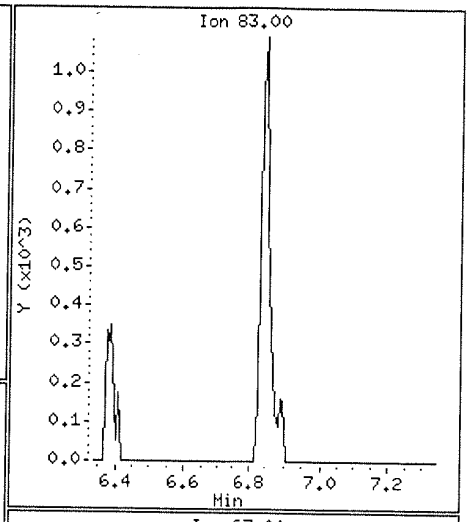
Column phase: DB624

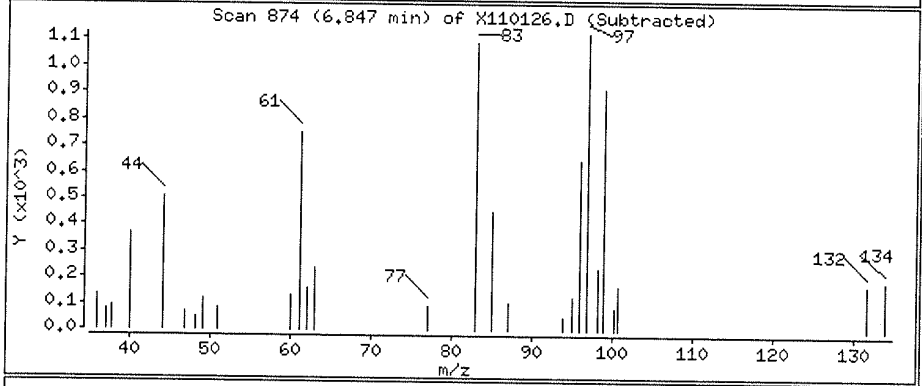
Column diameter: 0.18

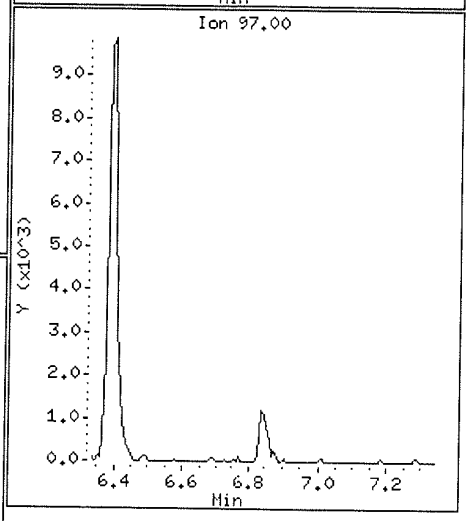
53 1,1,2-Trichloroethane

Concentration: 7.18 ug/l









ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110128.D
Lab Smp Id: HS21101171-06 Client Smp ID: HS21101171-06
Inj Date : 01-NOV-2021 21:34
Operator : PC Inst ID: voa6.i
Smp Info : HS21101171-06;HS21101171-06;;;
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:17 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 27
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

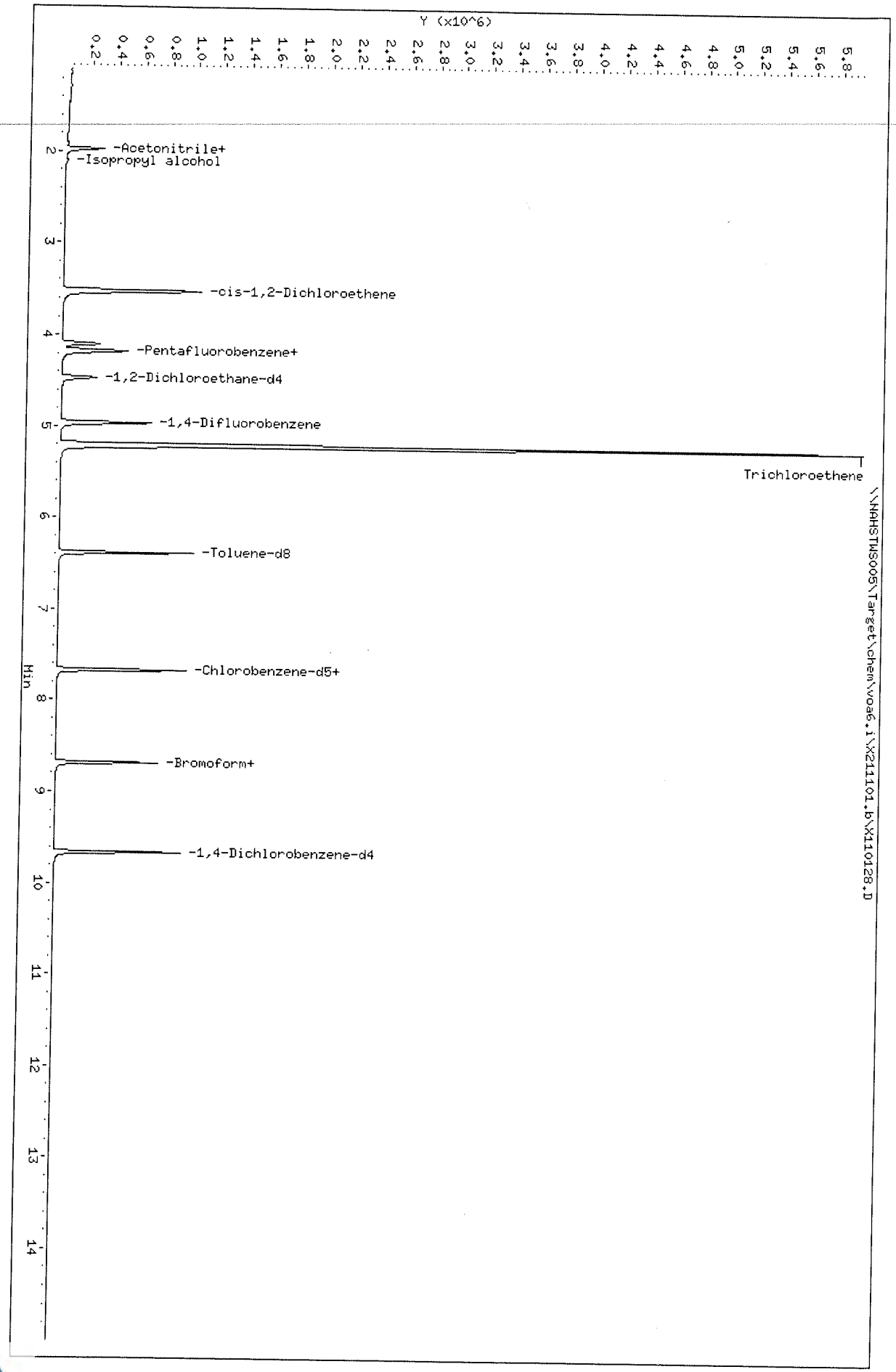
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	430231	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	199345	47.1388	47.13
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	192200	44.6920	44.69
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	584436	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	511014	50.0000	
$ 48 Toluene-d8	98	6.388	6.381	(0.833)	637840	49.1837	49.18
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	216075	48.3692	48.36
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	243787	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	6865	1.52192	15.21(a)
11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	2136	0.55658	5.56(a)
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	569639	127.353	1273.53
38 Trichloroethene	130	5.206	5.206	(1.049)	1978439	447.531	4475.31(A)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110128.D
Date : 01-NOV-2021 21:34
Client ID: HS21101171-06
Sample Info: HS21101171-06;HS21101171-06;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110128.D

Date : 01-NOV-2021 21:34

Client ID: HS21101171-06

Instrument: voa6.i

Sample Info: HS21101171-06;HS21101171-06;;;

Purge Volume: 5.0

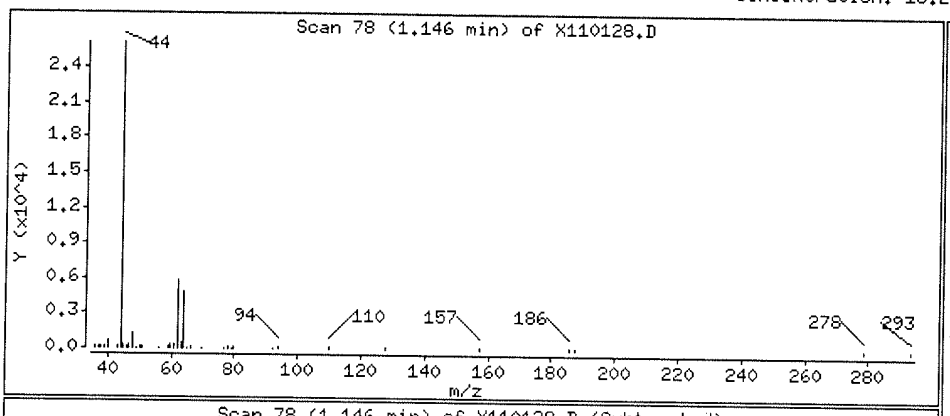
Operator: PC

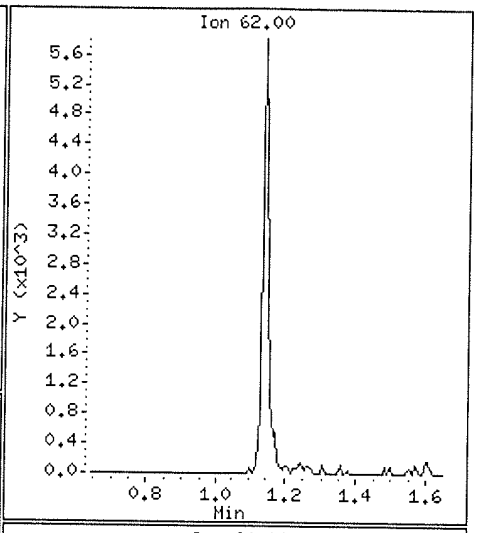
Column phase: DB624

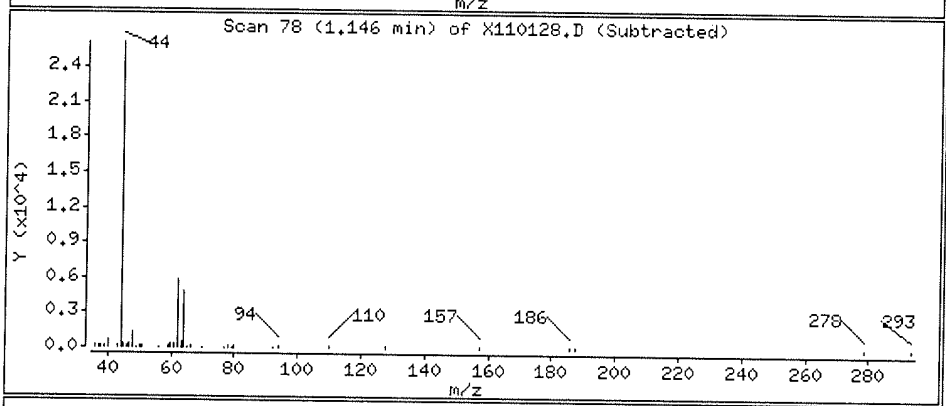
Column diameter: 0.18

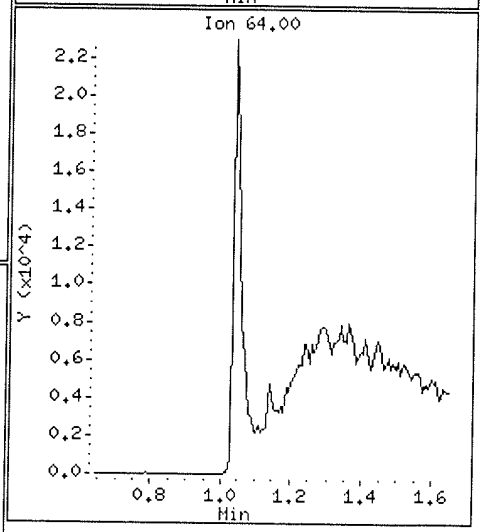
5 Vinyl Chloride

Concentration: 15.21 ug/l









Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110128.D

Date : 01-NOV-2021 21:34

Client ID: HS21101171-06

Instrument: voa6.i

Sample Info: HS21101171-06;HS21101171-06;;;

Purge Volume: 5.0

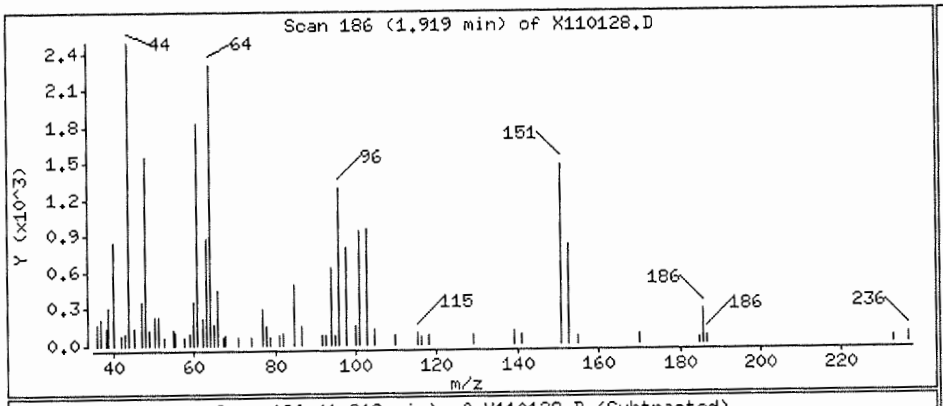
Operator: PC

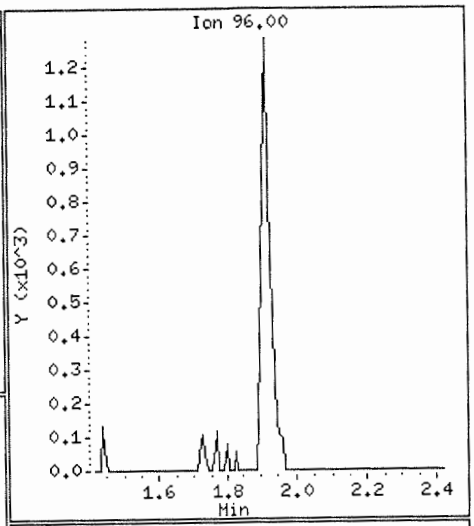
Column phase: DB624

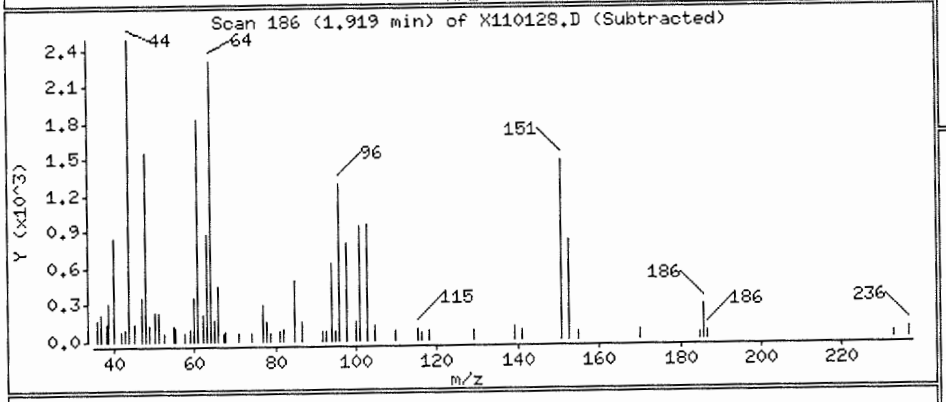
Column diameter: 0.18

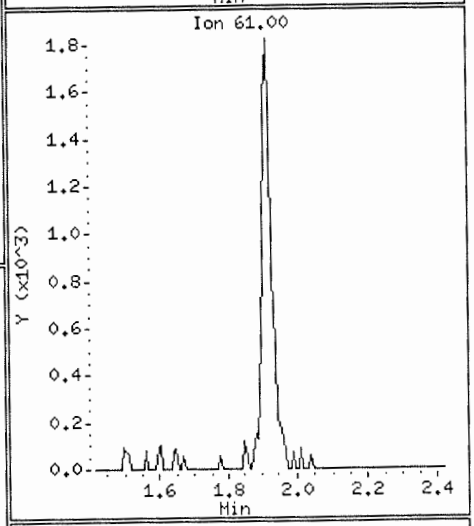
11 1,1-Dichloroethene

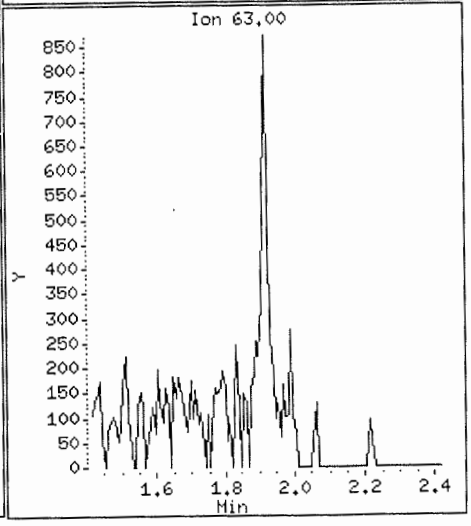
Concentration: 5.56 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110128.D

Date : 01-NOV-2021 21:34

Client ID: HS21101171-06

Instrument: voa6.i

Sample Info: HS21101171-06;HS21101171-06;;;

Purge Volume: 5.0

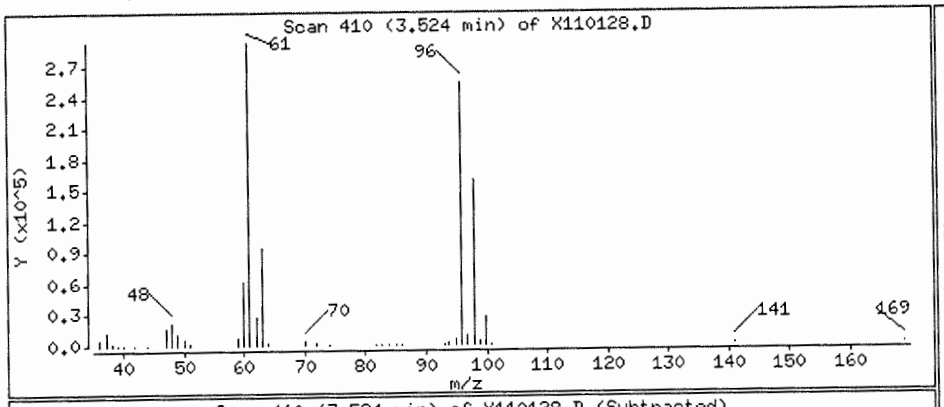
Operator: PC

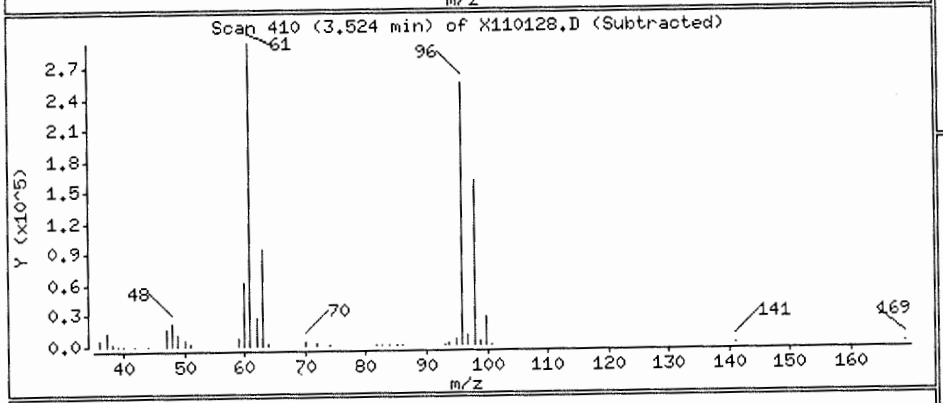
Column phase: DB624

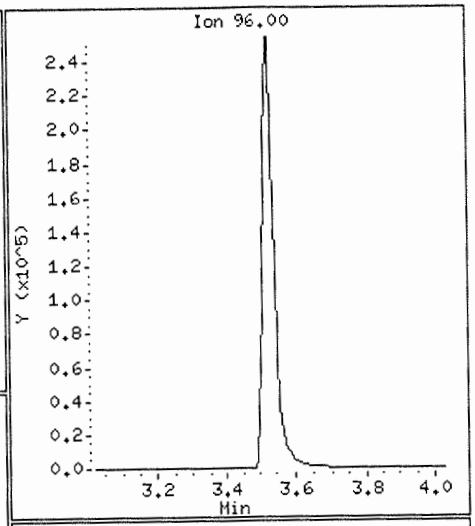
Column diameter: 0.18

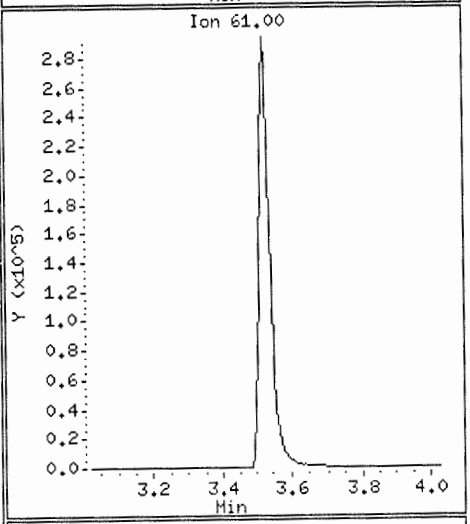
27 cis-1,2-Dichloroethene

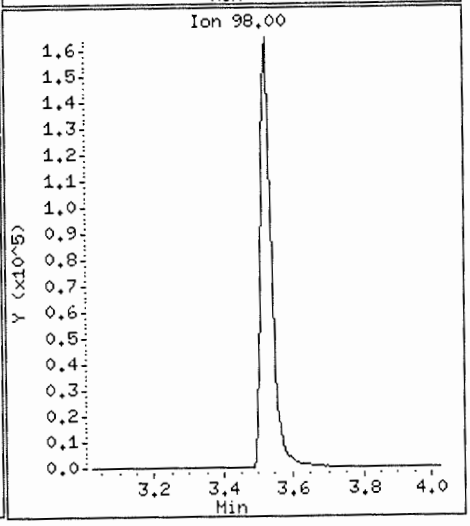
Concentration: 1273.53 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110128.D

Date : 01-NOV-2021 21:34

Client ID: HS21101171-06

Instrument: voa6.i

Sample Info: HS21101171-06;HS21101171-06;;;

Purge Volume: 5.0

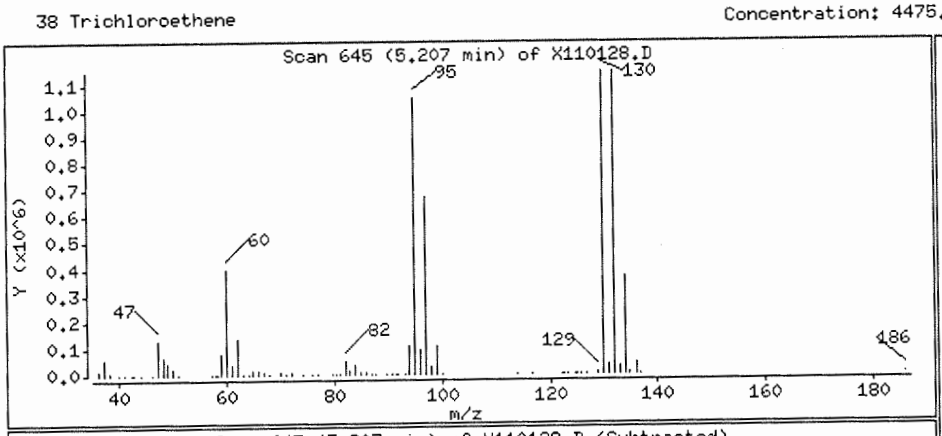
Operator: PC

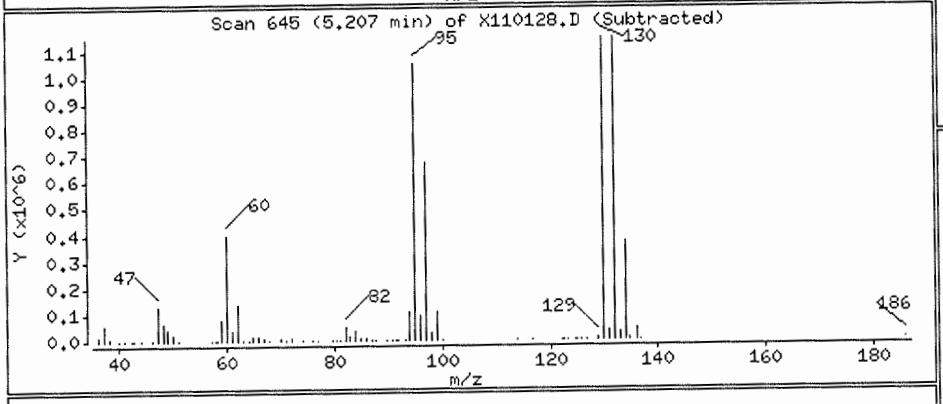
Column phase: DB624

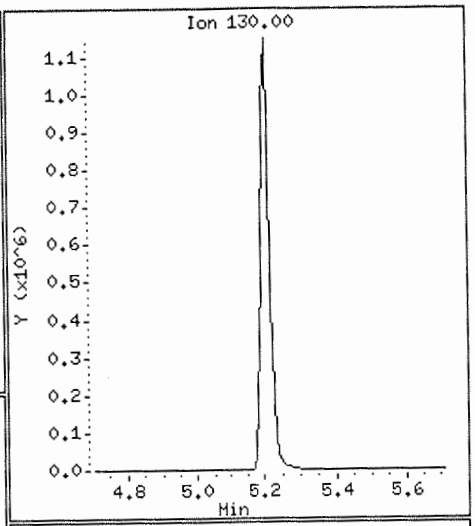
Column diameter: 0.18

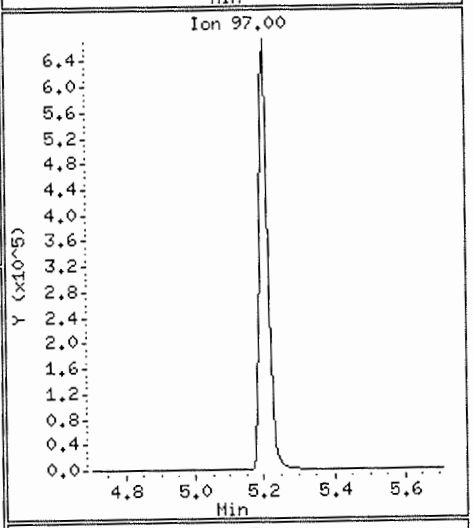
38 Trichloroethene

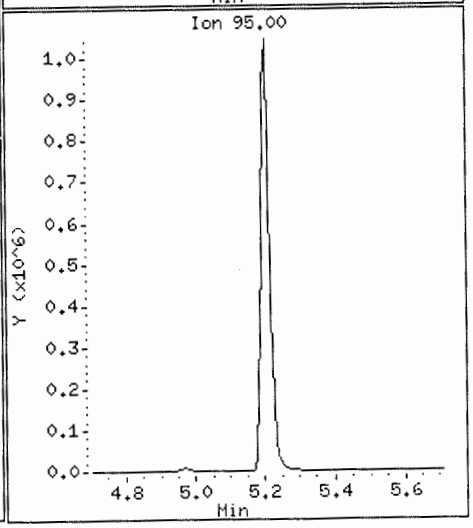
Concentration: 4475.31 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110129.D Page 1
Report Date: 16-Nov-2021 14:21

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110129.D
Lab Smp Id: HS21101171-06 Client Smp ID: HS21101171-06
Inj Date : 01-NOV-2021 21:55
Operator : PC Inst ID: voa6.i
Smp Info : HS21101171-06;HS21101171-06;;;
Misc Info : HS18090001;WATER;0;100;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:17 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 28
Dil Factor: 100.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

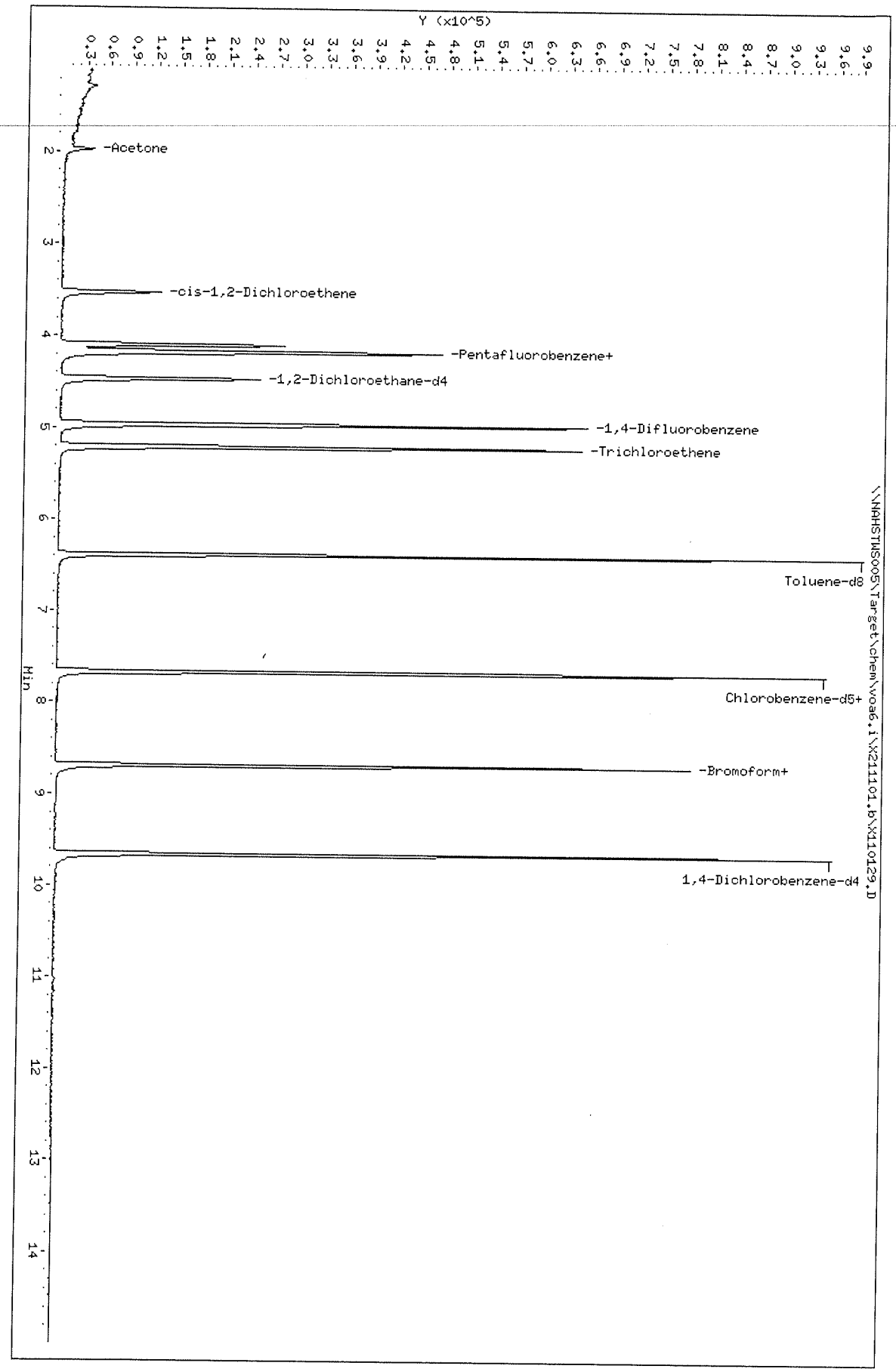
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	100.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	420138	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.096	(0.981)	194333	47.0556	47.05
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	190540	45.4013	45.40
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	572693	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	508682	50.0000	
$	48 Toluene-d8	98	6.388	6.381	(0.833)	628199	48.6624	48.66
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	219224	49.3254	49.32
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	250746	50.0000	
	27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	65159	14.9175	1491.74
	38 Trichloroethene	130	5.206	5.206	(1.049)	222471	51.3558	5135.57

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110129.D
Date : 01-NOV-2021 21:55
Client ID: HS21101171-06
Sample Info: HS21101171-06;HS21101171-06;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110129.D

Date : 01-NOV-2021 21:55

Client ID: HS21101171-06

Instrument: voa6.i

Sample Info: HS21101171-06;HS21101171-06;;;

Purge Volume: 5.0

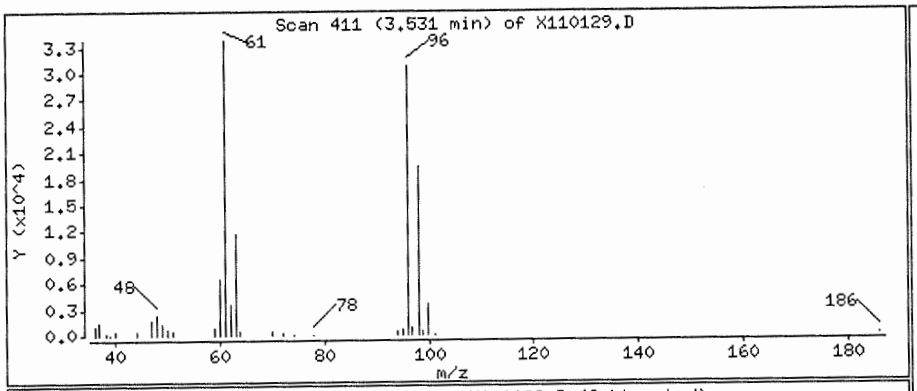
Operator: PC

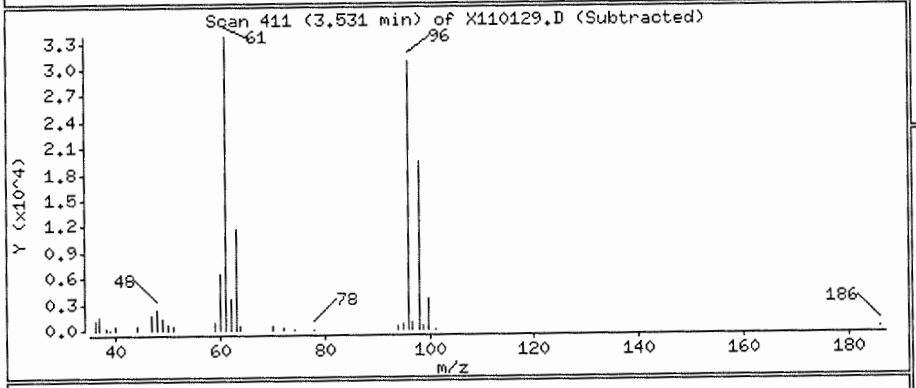
Column phase: DB624

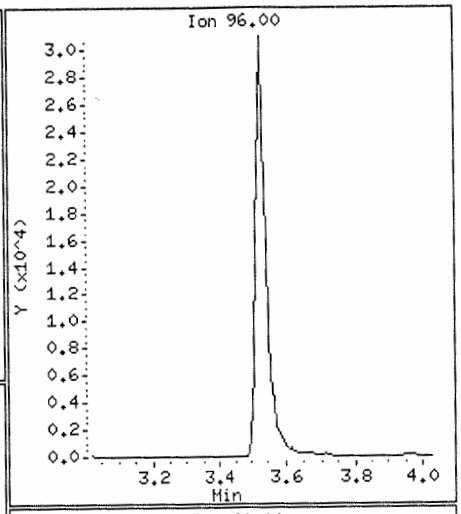
Column diameter: 0.18

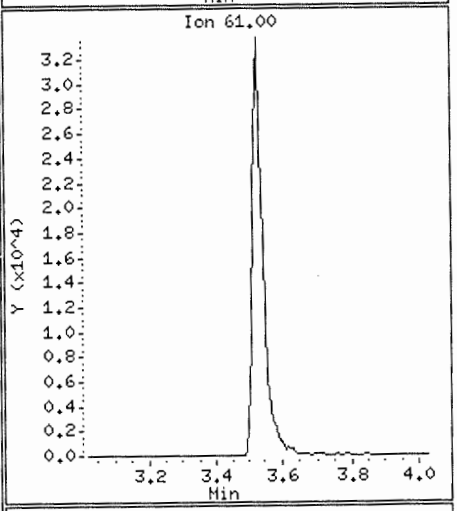
27 cis-1,2-Dichloroethene

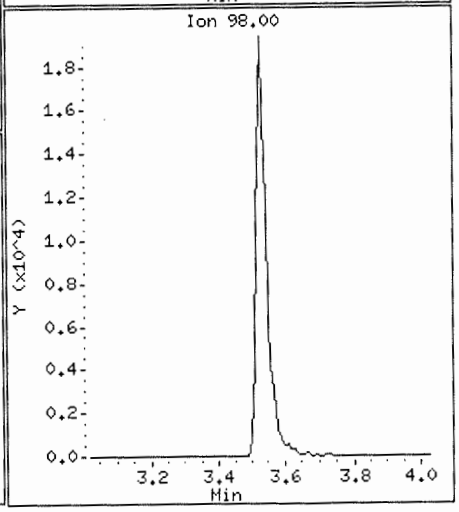
Concentration: 1491.74 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110129.D

Date : 01-NOV-2021 21:55

Client ID: HS21101171-06

Instrument: voa6.i

Sample Info: HS21101171-06;HS21101171-06;;;

Purge Volume: 5.0

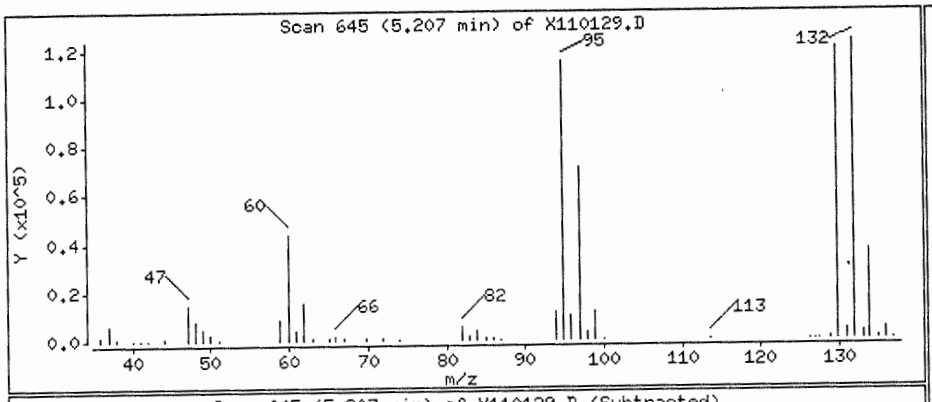
Operator: PC

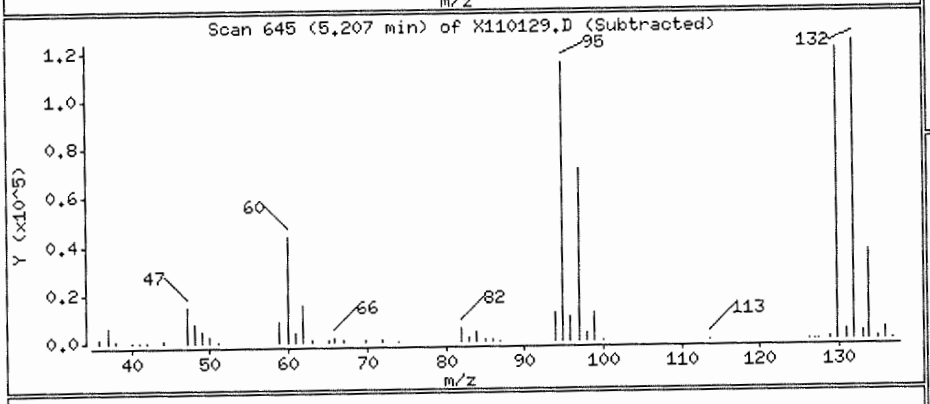
Column phase: DB624

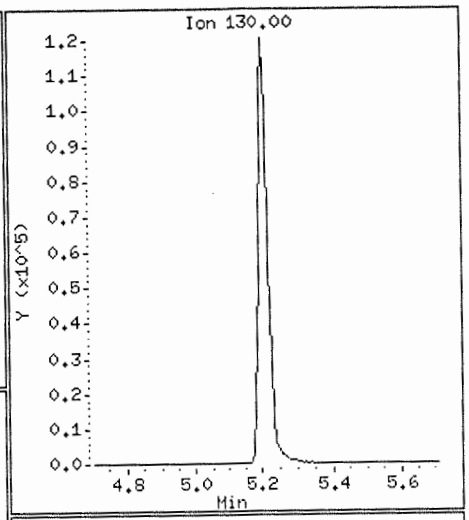
Column diameter: 0.18

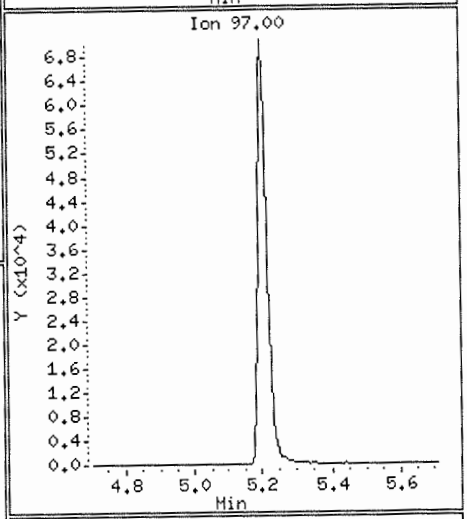
38 Trichloroethene

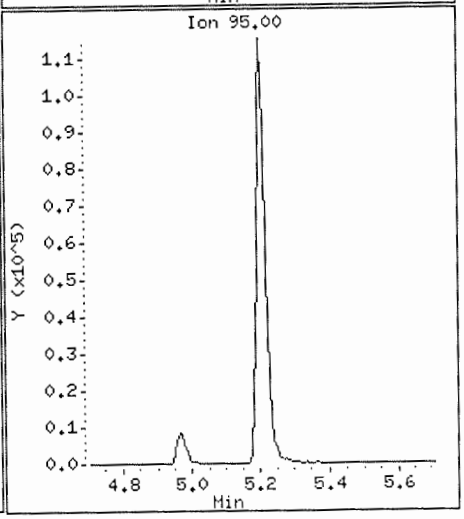
Concentration: 5135.57 ug/l











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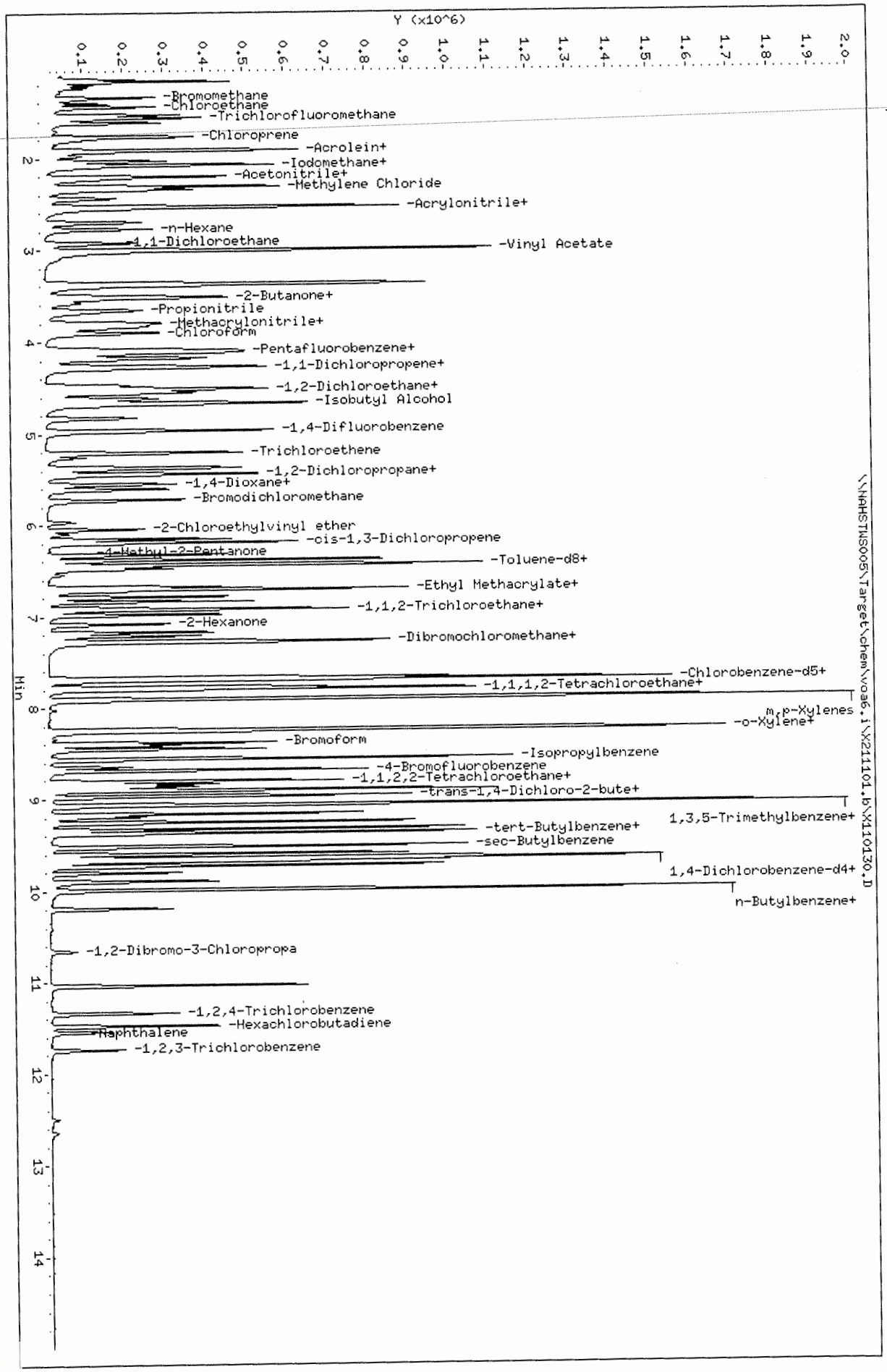
Data file : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110130.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 01-NOV-2021 22:58
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X211101.b\8260W.m
Meth Date : 16-Nov-2021 14:22 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	347037	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	156113	50.0000	45.73
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	153115	50.0000	44.11
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	494043	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	464424	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	507899	50.0000	43.09
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	196242	50.0000	48.33
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	244468	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	140001	50.0000	38.47
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	128053	50.0000	41.36
17 Methylene Chloride	84	2.306	2.306	(0.551)	141017	50.0000	46.49
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	161592	50.0000	44.78
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	176073	50.0000	42.48
38 Trichloroethene	130	5.207	5.207	(1.049)	170312	50.0000	45.57
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	108430	50.0000	43.75



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211101.b\X110130.D
Date : 01-NOV-2021 22:58
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

MSVOA06 -Logbook

Batch: 47032
Date: 11-02-2021
Method: 8260
Comments:

Analyst: Presenta Cabascango
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	11-02-2021 10:50 am	1.00	50 mL	50 mL	X110201.D	Liquid	Y	NA
2	CCV	CCV	11-02-2021 11:11 am	1.00	50 mL	50 mL	X110202a.D	Liquid	Y	NA
3	CCV	CCV	11-02-2021 11:32 am	1.00	50 mL	50 mL	X110203.D	Liquid	Y	NA
4	CCB	SAMP	11-02-2021 11:53 am	1.00	50 mL	50 mL	X110204.D	Liquid	Y	NA
5	VLCSW-211102	LCS	11-02-2021 12:14 pm	1.00	50 mL	50 mL	X110205.D	Liquid	Y	NA
6	BLANK	SAMP	11-02-2021 12:35 pm	1.00	50 mL	50 mL	X110206.D	Liquid	Y	NA
7	VBLKW-211102	MBLK	11-02-2021 12:56 pm	1.00	50 mL	50 mL	X110207.D	Liquid	Y	NA
8	HS21101275-02	SAMP	11-02-2021 01:17 pm	1.00	50 mL	50 mL	X110208.D	Liquid	Y	NA
9	HS21101275-10	SAMP	11-02-2021 01:38 pm	1.00	50 mL	50 mL	X110209.D	Liquid	Y	NA
10	HS21101275-11	SAMP	11-02-2021 01:59 pm	1.00	50 mL	50 mL	X110210.D	Liquid	Y	NA
11	HS21101171-05	SAMP	11-02-2021 02:20 pm	250.0(	200 µL	50 mL	X110211.D	Liquid	Y	NA
12	HS21101272-04	SAMP	11-02-2021 02:41 pm	10.00	5 mL	50 mL	X110212.D	Liquid	Y	NA
13	HS21101171-05MS	MS	11-02-2021 03:02 pm	250.0(	200 µL	50 mL	X110213.D	Liquid	Y	NA
14	HS21101171-05MSD	MSD	11-02-2021 03:23 pm	250.0(	200 µL	50 mL	X110214.D	Liquid	Y	NA
15	HS21101563-02	SAMP	11-02-2021 03:44 pm	1.00	50 mL	50 mL	X110215.D	Liquid	Y	NA
16	HS21101272-05	SAMP	11-02-2021 04:05 pm	10.00	5 mL	50 mL	X110216.D	Liquid	Y	NA
17	HS21101272-05n/r	SAMP	11-02-2021 04:26 pm	50.00	1 mL	50 mL	X110217.D	Liquid	Y	NA
18	HS21101272-10	SAMP	11-02-2021 04:47 pm	20.00	2.5 mL	50 mL	X110218.D	Liquid	Y	NA
19	HS21101272-10	SAMP	11-02-2021 05:08 pm	100.0(	500 µL	50 mL	X110219.D	Liquid	Y	NA
20	HS21101272-09	SAMP	11-02-2021 05:29 pm	5000.0	10 µL	50 mL	X110220.D	Liquid	Y	NA
21	HS21101272-06	SAMP	11-02-2021 05:51 pm	10000.(	5 µL	50 mL	X110221.D	Liquid	Y	NA
22	HS21101272-07	SAMP	11-02-2021 06:12 pm	10000.(	5 µL	50 mL	X110222.D	Liquid	Y	NA
23	HS21101272-08	SAMP	11-02-2021 06:33 pm	10000.(	5 µL	50 mL	X110223.D	Liquid	Y	NA
24	CCV-END	CCV	11-02-2021 06:54 pm	1.00	50 mL	50 mL	X110224.D	Liquid	Y	NA
25	HS21101542-25	SAMP	11-02-2021 07:15 pm	1.00	50 mL	50 mL	X110225.D	Liquid	Y	NA
26	HS21101762-02	SAMP	11-02-2021 07:36 pm	1.00	50 mL	50 mL	X110226.D	Liquid	Y	NA
27	HS21101308-01	SAMP	11-02-2021 07:57 pm	1.00	50 mL	50 mL	X110227.D	Liquid	Y	NA
28	HS21101308-02	SAMP	11-02-2021 08:18 pm	1.00	50 mL	50 mL	X110228.D	Liquid	Y	NA
29	HS21101308-03	SAMP	11-02-2021 08:39 pm	1.00	50 mL	50 mL	X110229.D	Liquid	Y	NA
30	HS21101308-04	SAMP	11-02-2021 09:00 pm	1.00	50 mL	50 mL	X110230.D	Liquid	Y	NA
31	BFB	TUNE	11-02-2021 09:21 pm	1.00	50 mL	50 mL	Y110201.D	Liquid	Y	NA
32	CCV	CCV	11-02-2021 09:42 pm	1.00	50 mL	50 mL	Y110202.D	Liquid	Y	NA
33	CCV	CCV	11-02-2021 10:03 pm	1.00	50 mL	50 mL	Y110203.D	Liquid	Y	NA
34	CCB	SAMP	11-02-2021 10:24 pm	1.00	50 mL	50 mL	Y110204.D	Liquid	Y	NA
35	VLCSW-211102	LCS	11-02-2021 10:45 pm	1.00	50 mL	50 mL	Y110205.D	Liquid	Y	NA
36	BLANK	SAMP	11-02-2021 11:06 pm	1.00	50 mL	50 mL	Y110206.D	Liquid	Y	NA
37	VBLKW-211102	MBLK	11-02-2021 11:27 pm	1.00	50 mL	50 mL	Y110207.D	Liquid	Y	NA
38	HS21101315-13	SAMP	11-02-2021 11:48 pm	1.00	50 mL	50 mL	Y110208.D	Liquid	Y	NA
39	HS21101178-02	SAMP	11-03-2021 12:09 am	1.00	50 mL	50 mL	Y110209.D	Liquid	Y	NA
40	HS21101178-01	SAMP	11-03-2021 12:30 am	10.00	5 mL	50 mL	Y110210.D	Liquid	Y	NA
41	HS21101315-10	SAMP	11-03-2021 12:51 am	10.00	5 mL	50 mL	Y110211.D	Liquid	Y	NA

MSVOA06 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
42	HS21101315-10	SAMP	11-03-2021 01:12 am	1.00	50 mL	50 mL	Y110212.D	Liquid	Y	N
43	HS21101315-10MS	MS	11-03-2021 01:33 am	10.00	5 mL	50 mL	Y110213.D	Liquid	Y	N
44	HS21101315-10MSD	MSD	11-03-2021 01:54 am	10.00	5 mL	50 mL	Y110214.D	Liquid	Y	N
45	BLANK	SAMP	11-03-2021 02:15 am	1.00	50 mL	50 mL	Y110215.D	Liquid	Y	N
46	HS21101723-01	SAMP	11-03-2021 02:36 am	1.00	50 mL	50 mL	Y110216.D	Liquid	Y	N
47	HS21101723-01	SAMP	11-03-2021 02:58 am	10.00	5 mL	50 mL	Y110217.D	Liquid	Y	N
48	HS21101723-02	SAMP	11-03-2021 03:19 am	1.00	50 mL	50 mL	Y110218.D	Liquid	Y	N
49	HS21101723-03	SAMP	11-03-2021 03:40 am	1.00	50 mL	50 mL	Y110219.D	Liquid	Y	N
50	HS21101723-04	SAMP	11-03-2021 04:01 am	1.00	50 mL	50 mL	Y110220.D	Liquid	Y	N
51	HS21101723-05	SAMP	11-03-2021 04:22 am	1.00	50 mL	50 mL	Y110221.D	Liquid	Y	N
52	HS21101723-06	SAMP	11-03-2021 04:43 am	1.00	50 mL	50 mL	Y110222.D	Liquid	Y	N
53	HS21101723-07	SAMP	11-03-2021 05:04 am	1.00	50 mL	50 mL	Y110223.D	Liquid	Y	N
54	HS21101723-08	SAMP	11-03-2021 05:25 am	1.00	50 mL	50 mL	Y110224.D	Liquid	Y	N
55	HS21101723-09	SAMP	11-03-2021 05:46 am	1.00	50 mL	50 mL	Y110225.D	Liquid	Y	N
56	HS21101723-10	SAMP	11-03-2021 06:07 am	1.00	50 mL	50 mL	Y110226.D	Liquid	Y	N
57	HS21101723-11	SAMP	11-03-2021 06:28 am	1.00	50 mL	50 mL	Y110227.D	Liquid	Y	N
58	HS21101263-17	SAMP	11-03-2021 06:49 am	1.00	50 mL	50 mL	Y110228.D	Liquid	Y	N
59	HS21101263-19	SAMP	11-03-2021 07:10 am	1.00	50 mL	50 mL	Y110229.D	Liquid	Y	N
60	HS21101263-22	SAMP	11-03-2021 07:31 am	5.00	10 mL	50 mL	Y110230.D	Liquid	Y	N
61	HS21101263-21	SAMP	11-03-2021 07:52 am	10.00	5 mL	50 mL	Y110231.D	Liquid	Y	N
62	BLANK	SAMP	11-03-2021 08:14 am	1.00	50 mL	50 mL	Y110250.D	Liquid	Y	N
63	HS21101263-19	SAMP	11-03-2021 09:09 am	20.00	2.5 mL	50 mL	Y110232.D	Liquid	Y	N
64	BLANK	SAMP	11-03-2021 09:39 am	20.00	2.5 mL	50 mL	Y110251A.D	Liquid	Y	N

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

	CLIENT SAMPLE NO.	SMC1 (DCE)#	SMC2 #	SMC3 #	OTHER (TOL)#	TOT OUT
01	VLCSW-211102	93	100	101	92	0
02	VBLKW-211102	88	91	98	96	0
03	HS21101171-05	88	91	98	100	0
04	HS21101171-05MS	88	93	99	96	0
05	HS21101171-05MSD	85	90	96	96	0
06						
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28						

		QC LIMITS
SMC1 (DCE)	= 1,2-Dichloroethane-d4	(0-130)
SMC2	= Dibromofluoromethane	(0-130)
SMC3	= 4-Bromofluorobenzene	(0-130)
OTHER(TOL)	= Toluene-d8	(0-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

VBLKW-211102

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Lab File ID: X110207 Lab Sample ID: VBLKW-211102

Date Analyzed: 11/02/21 Time Analyzed: 1256

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSW-211102	VLCSW-211102	X110205	1214
02	HS21101171-05	HS21101171-05	X110211	1420
03	HS21101171-05MS	HS21101171-05MS	X110213	1502
04	HS21101171-05MSD	HS21101171-05MSD	X110214	1523
05				
06				
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08				
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COMMENTS:

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Lab File ID: X110201 BFB Injection Date: 11/02/21

Instrument ID: VOA6 BFB Injection Time: 1050

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.2
75	30.0 - 60.0% of mass 95	48.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.8
173	Less than 2.0% of mass 174	0.8 (1.0)1
174	Greater than 50.0% of mass 95	77.5
175	5.0 - 9.0% of mass 174	6.0 (7.7)1
176	95.0 - 101.0% of mass 174	77.1 (99.6)1
177	5.0 - 9.0% of mass 176	6.5 (8.4)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	X110203	11/02/21	1132
02	VLCSW-211102	VLCSW-211102	X110205	11/02/21	1214
03	VBLKW-211102	VBLKW-211102	X110207	11/02/21	1256
04	HS21101171-05	HS21101171-05	X110211	11/02/21	1420
05	HS21101171-05MS	HS21101171-05MS	X110213	11/02/21	1502
06	HS21101171-05MSD	HS21101171-05MSD	X110214	11/02/21	1523
07	CCV	CCV-END	X110224	11/02/21	1854
08					
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20					
21					
22					

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Instrument ID: VOA6 Calibration Date: 11/02/21 Time: 1132

Lab File ID: X110203 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	49.309501	50.000000	0.4302572	0.1	1.38	20.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2612799	0.2612799	0.1	2.14	20.00	AVRG
Trichloroethene	0.3780000	0.3932259	0.3932259	0.2	-4.03	20.00	AVRG
Vinyl Chloride	0.5240000	0.4390689	0.4390689	0.1	16.21	20.00	AVRG
1,1-Dichloroethene	0.4460000	0.4013468	0.4013468	0.1	10.01	20.00	AVRG
1,2-Dichloroethane	0.4190000	0.3953979	0.3953979	0.1	5.63	20.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.5086958	0.5086958	0.1	2.17	20.00	AVRG
1,2-Dichloroethane-d4	46.185606	50.000000	0.4610164	0.1	7.63	20.00	LINR
Dibromofluoromethane	48.681480	50.000000	0.4781499	0.1	2.64	20.00	LINR
4-Bromofluorobenzene	49.868048	50.000000	0.4355784	0.1	0.26	20.00	LINR
Toluene-d8	1.2690000	1.1458128	1.1458128	0.1	9.71	20.00	AVRG

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Instrument ID: VOA6 Calibration Date: 11/02/21 Time: 1854

Lab File ID: X110224 Init. Calib. Date(s): 10/08/21 10/08/21

Init. Calib. Times: 1308 1637

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Methylene Chloride	47.436161	50.000000	0.4143206	0.1	5.13	50.00	LINR
1,1,2-Trichloroethane	0.2670000	0.2450041	0.2450041	0.1	8.24	50.00	AVRG
Trichloroethene	0.3780000	0.3533288	0.3533288	0.2	6.53	50.00	AVRG
Vinyl Chloride	0.5240000	0.4093926	0.4093926	0.1	21.87	50.00	AVRG
1,1-Dichloroethene	0.4460000	0.3699489	0.3699489	0.1	17.05	50.00	AVRG
1,2-Dichloroethane	0.4190000	0.3653519	0.3653519	0.1	12.80	50.00	AVRG
cis-1,2-Dichloroethene	0.5200000	0.4808852	0.4808852	0.1	7.52	50.00	AVRG
1,2-Dichloroethane-d4	46.899363	50.000000	0.4678405	0.1	6.20	50.00	LINR
Dibromofluoromethane	50.057434	50.000000	0.4913552	0.1	-0.11	50.00	LINR
4-Bromofluorobenzene	50.598380	50.000000	0.4417872	0.1	-1.20	50.00	LINR
Toluene-d8	1.2690000	1.1786514	1.1786514	0.1	7.12	50.00	AVRG

FORM VII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Lab File ID (Standard): X110203 Date Analyzed: 11/02/21

Instrument ID: VOA6 Time Analyzed: 1132

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1(DCB) AREA #	RT #	IS2(CBZ) AREA #	RT #	IS3(DFB) AREA #	RT #
	12 HOUR STD	257902	9.66	497302	7.67	523933	4.96
	UPPER LIMIT	515804	10.16	994604	8.17	1047866	5.46
	LOWER LIMIT	128951	9.16	248651	7.17	261967	4.46
	CLIENT SAMPLE NO.						
01	VLCSW-211102	254430	9.66	487096	7.67	517828	4.96
02	VBLKW-211102	253954	9.66	519460	7.67	584410	4.96
03	HS21101171-05	233446	9.66	488511	7.67	571667	4.96
04	HS21101171-05MS	286743	9.66	562087	7.67	625094	4.96
05	HS21101171-05MSD	271586	9.66	531431	7.67	594443	4.96
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18							
19							
20							

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

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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Lab File ID (Standard): X110203 Date Analyzed: 11/02/21

Instrument ID: VOA6 Time Analyzed: 1132

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	379724	4.18				
	UPPER LIMIT	759448	4.68				
	LOWER LIMIT	189862	3.68				
	CLIENT SAMPLE NO.						
01	VLCSW-211102	361174	4.18				
02	VBLKW-211102	430183	4.18				
03	HS21101171-05	423292	4.18				
04	HS21101171-05MS	459623	4.18				
05	HS21101171-05MSD	441577	4.18				
06							
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18							
19							
20							

IS4 = Pentafluorobenzene

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 values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110201.D

Date : 02-NOV-2021 10:50

Client ID: BFB

Instrument: voa6.i

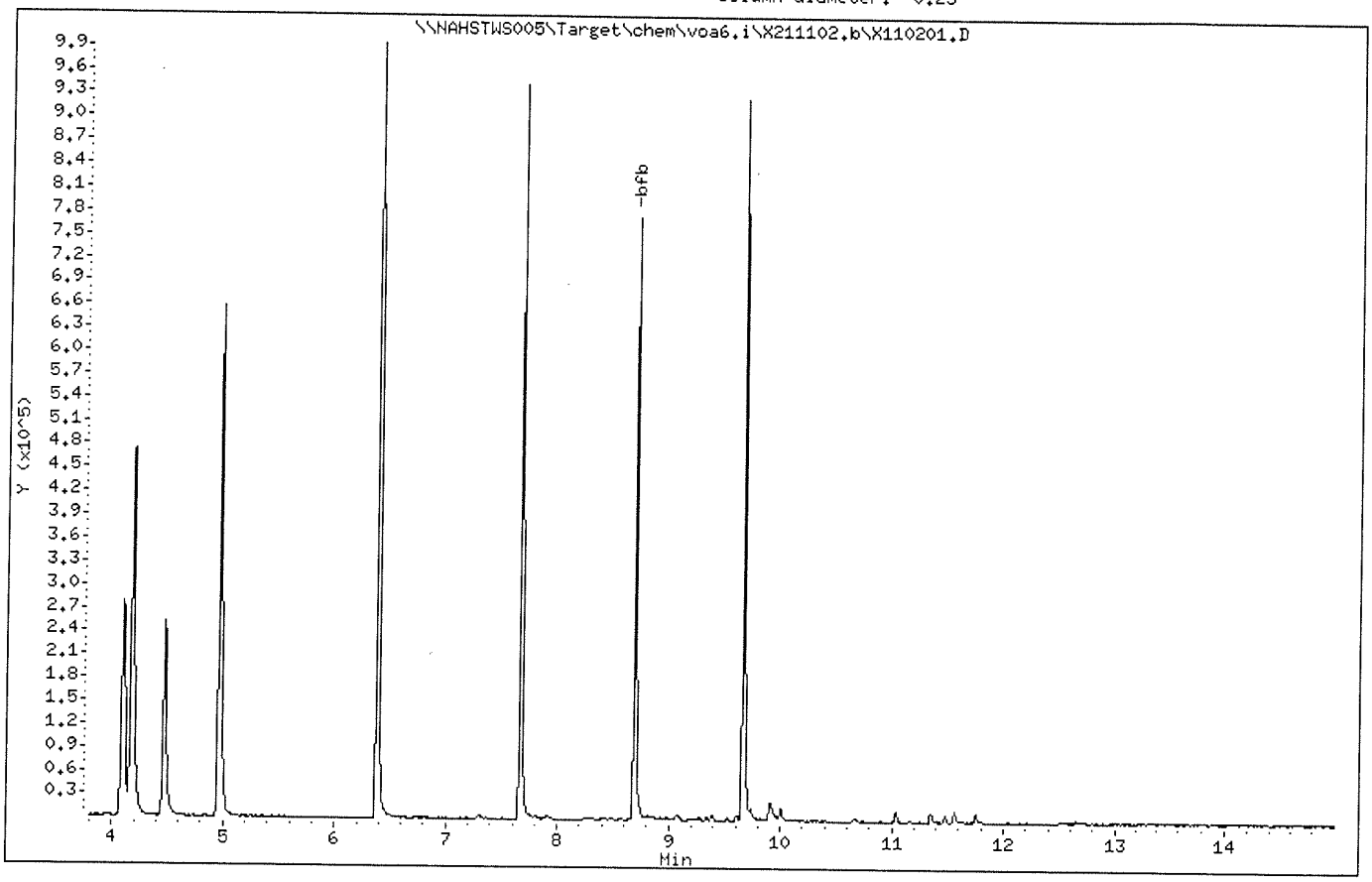
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110201.D

Date : 02-NOV-2021 10:50

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

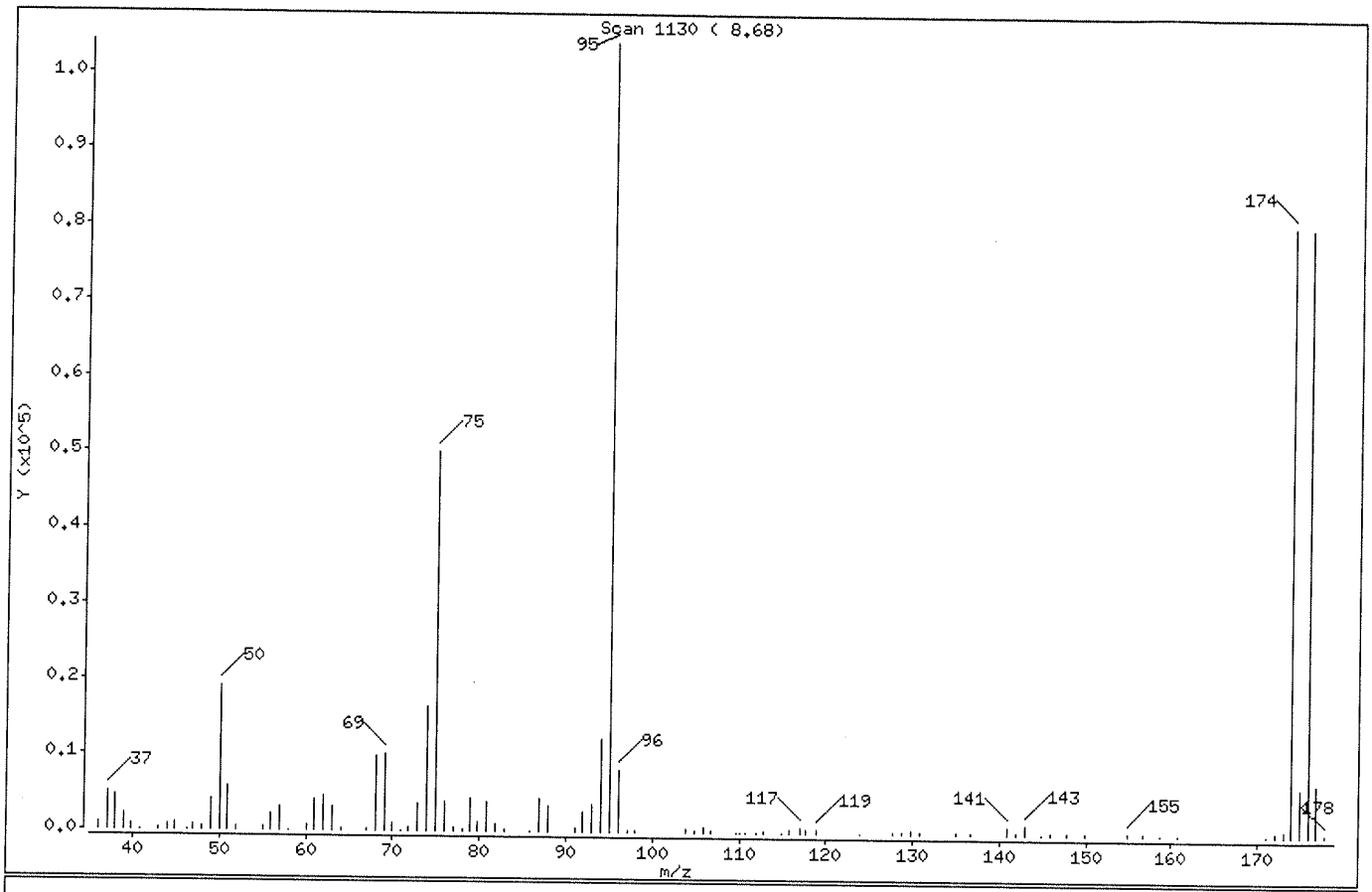
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.22
75	30.00 - 60.00% of mass 95	48.10
96	5.00 - 9.00% of mass 95	7.80
173	Less than 2.00% of mass 174	0.80 (1.04)
174	Greater than 50.00% of mass 95	77.46
175	5.00 - 9.00% of mass 174	5.98 (7.72)
176	95.00 - 101.00% of mass 174	77.11 (99.55)
177	5.00 - 9.00% of mass 176	6.48 (8.41)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110201.D

Date : 02-NOV-2021 10:50

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: X110201.D
Spectrum: Scan 1130 (8.68)
Location of Maximum: 95.00
Number of points: 93

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	921	64.10	181	94.00	12226	134.90	270
37.00	5143	67.00	246	95.00	103976	136.70	154
38.00	4476	68.00	9833	96.00	8109	140.80	1002
39.00	2220	69.00	10181	97.10	240	141.80	227
39.90	638	69.90	1066	98.00	131	142.90	1124
40.90	57	70.90	74	103.80	425	144.80	86
43.00	127	71.90	380	104.80	184	145.90	194
44.00	718	72.90	3622	105.80	608	147.70	300
44.90	940	74.00	16212	106.70	132	149.90	159
46.20	100	75.00	50008	109.70	51	154.90	179
47.00	821	76.00	3721	110.00	58	156.80	161
48.00	526	77.00	477	110.70	84	158.90	78
49.00	4031	78.00	353	111.90	59	160.90	112
50.00	18944	78.90	4380	112.80	130	171.00	114
51.00	5816	79.80	1215	114.90	80	171.90	465
51.90	446	80.90	3776	115.80	446	173.00	835
55.00	391	81.90	925	116.90	692	173.90	80536
56.00	2207	82.80	197	117.70	442	174.90	6217
57.00	3183	85.90	116	118.80	522	175.90	80176
58.00	72	86.90	4252	123.80	81	176.90	6742
60.00	776	88.00	3381	127.70	353	177.90	238
61.00	4123	91.00	385	128.70	224		
62.00	4466	91.90	2632	129.80	379		
63.00	3174	93.00	3610	130.80	296		

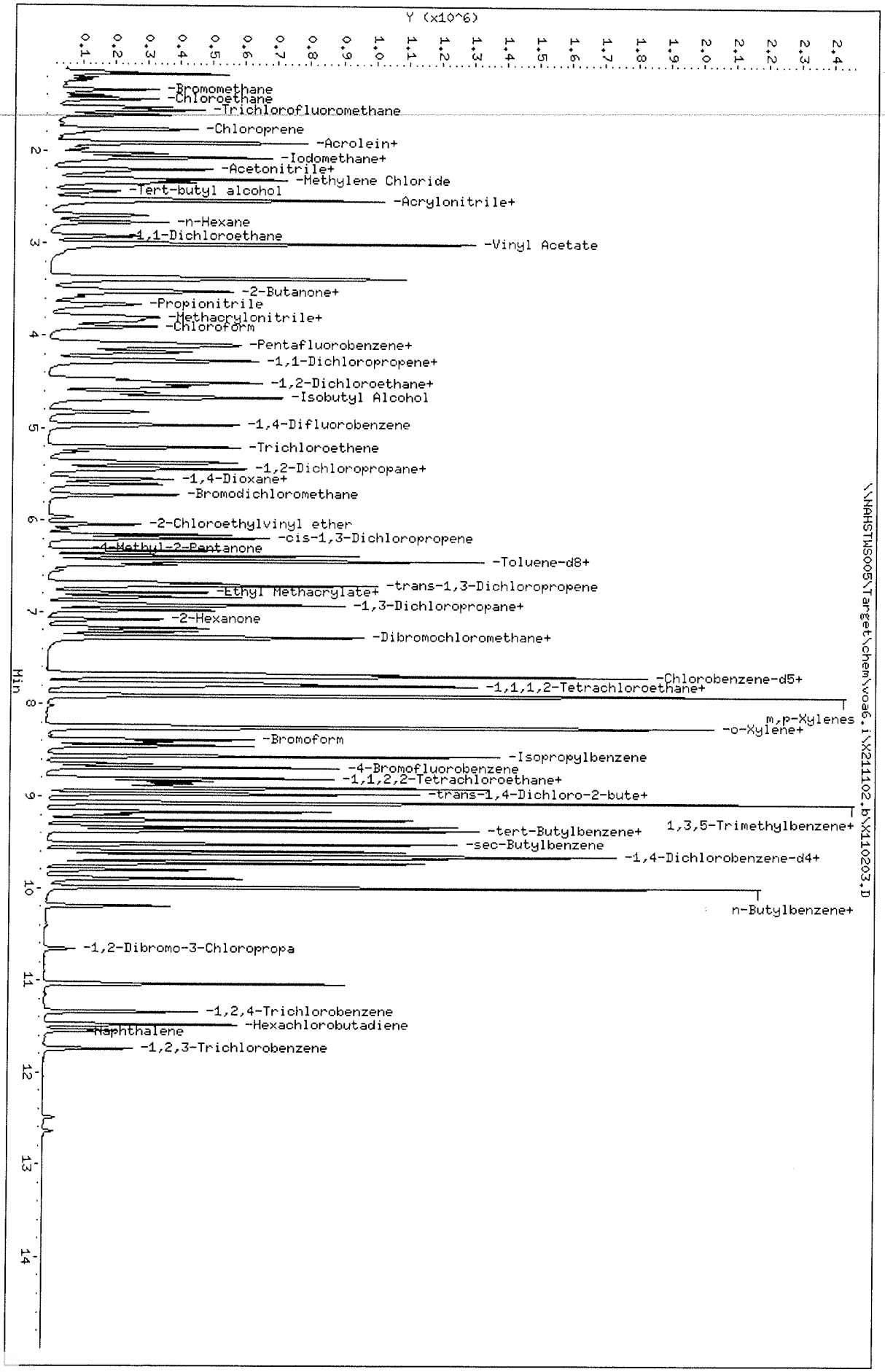
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110203.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 02-NOV-2021 11:32
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211102.b\8260W.m
Meth Date : 15-Nov-2021 16:56 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	379724	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	181565	50.0000	48.68
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	175059	50.0000	46.18
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	523933	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	497302	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	569815	50.0000	45.14
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	216614	50.0000	49.86
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	257902	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	166725	50.0000	41.87
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	152401	50.0000	44.99
17 Methylene Chloride	84	2.305	2.305	(0.551)	163379	50.0000	49.30
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	193164	50.0000	48.92
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	207162	50.0000	47.13
38 Trichloroethene	130	5.206	5.206	(1.049)	206024	50.0000	51.98
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	129935	50.0000	48.96



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110203.D
Date : 02-NOV-2021 11:32
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110205.D Page 1
Report Date: 15-Nov-2021 16:56

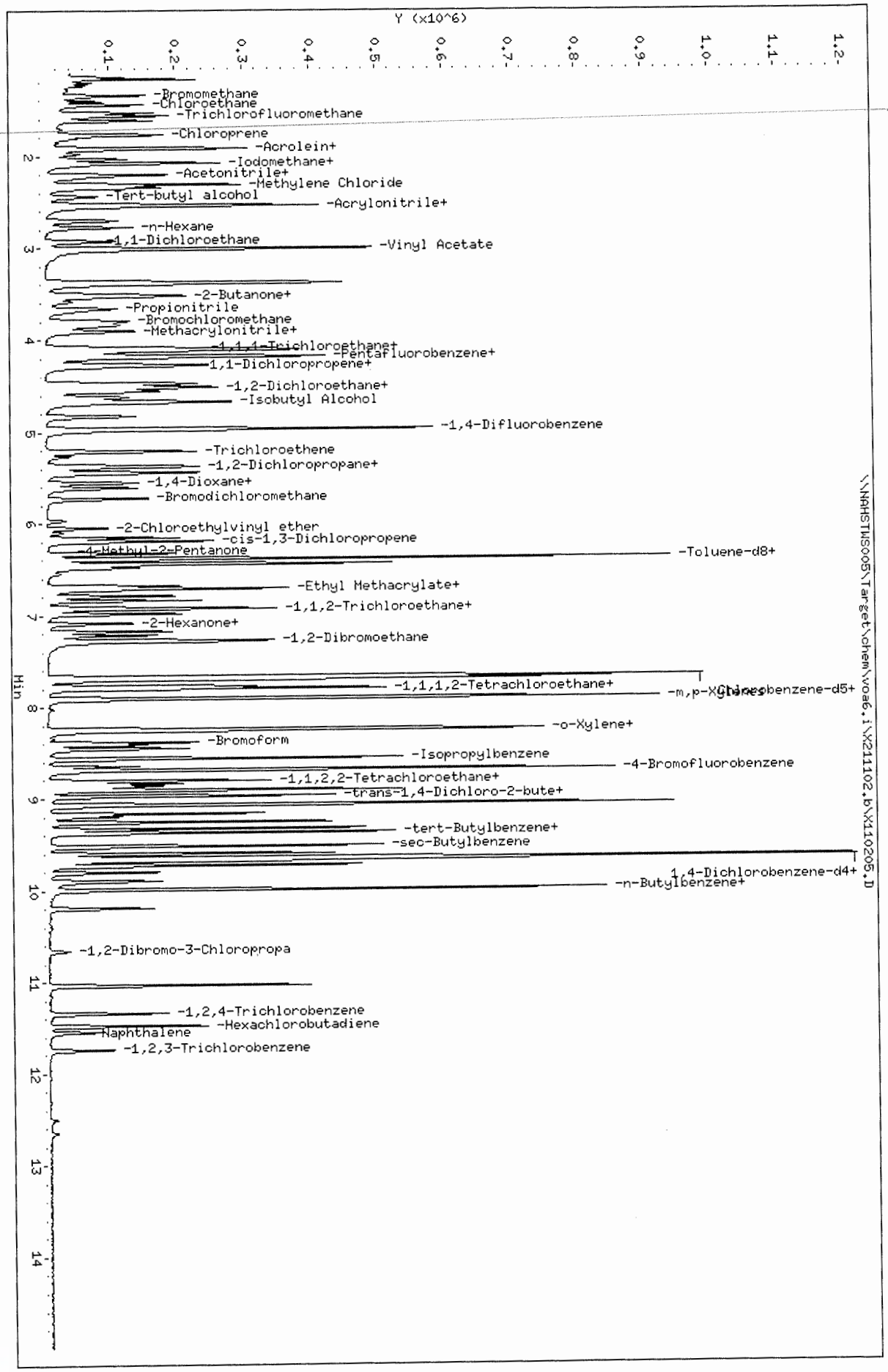
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110205.D
Lab Smp Id: VLCSW-211102 Client Smp ID: VLCSW-211102
Inj Date : 02-NOV-2021 12:14
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-211102;VLCSW-211102;3;;LCS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211102.b\8260W.m
Meth Date : 15-Nov-2021 16:56 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	361174	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	177322	50.0163	50.01
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	168178	46.6695	46.66
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	517828	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	487096	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	570097	46.1187	46.11
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	214045	50.3212	50.32
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	254430	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	64472	17.0259	17.02
11 1,1-Dichloroethene	96	1.919	1.911	(0.459)	58990	18.3099	18.30
17 Methylene Chloride	84	2.305	2.305	(0.551)	66465	20.3650	20.36
27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	75090	19.9976	19.99
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	81146	18.6811	18.68
38 Trichloroethene	130	5.206	5.206	(1.049)	78342	20.0008	20.00
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	49558	19.0668	19.06



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110205.D
Date : 02-NOV-2021 12:14
Client ID: VLCSW-211102
Sample Info: VLCSW-211102;VLCSW-211102;3;;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110207.D Page 1
Report Date: 15-Nov-2021 16:56

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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110207.D
Lab Smp Id: VBLKW-211102 Client Smp ID: VBLKW-211102
Inj Date : 02-NOV-2021 12:56
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-211102;VBLKW-211102;3;;BLANK
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211102.b\8260W.m
Meth Date : 15-Nov-2021 16:56 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

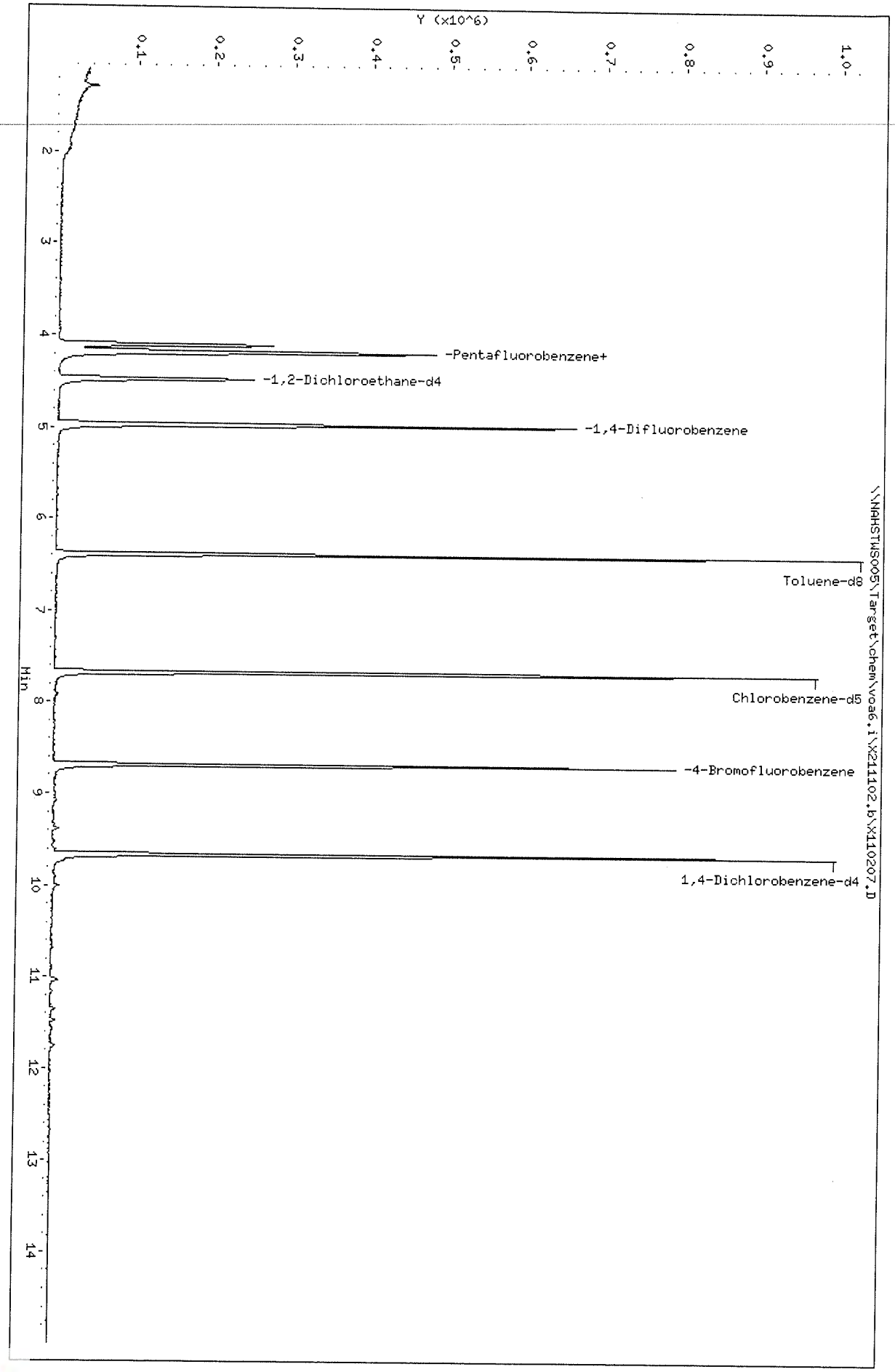
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	430183	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	193410	45.7066	45.70
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	189304	43.9931	43.99
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	584410	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	519460	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	635982	48.2431	48.24
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	222675	49.0550	49.05
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	253954	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110207.D
Date : 02-NOV-2021 12:56
Client ID: VBLKW-211102
Sample Info: VBLKW-211102;VBLKW-211102;3;;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



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Data file : \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110211.D
Lab Smp Id: HS21101171-05 Client Smp ID: HS21101171-05
Inj Date : 02-NOV-2021 14:20
Operator : PC Inst ID: voa6.i
Smp Info : HS21101171-05;HS21101171-05;;;
Misc Info : HS18090001;WATER;0;250;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211102.b\8260W.m
Meth Date : 15-Nov-2021 16:49 kori.bagsb Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 11
Dil Factor: 250.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	250.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	423292	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	188700	45.3098	45.30
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	186863	44.1393	44.13
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	571667	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	488511	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	619644	49.9816	49.98
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	209554	49.0901	49.09
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	233446	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	12046	2.71430	678.57(a)
27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	391480	88.9574	22239.34
38 Trichloroethene	130	5.206	5.206	(1.049)	395850	91.5431	22885.76

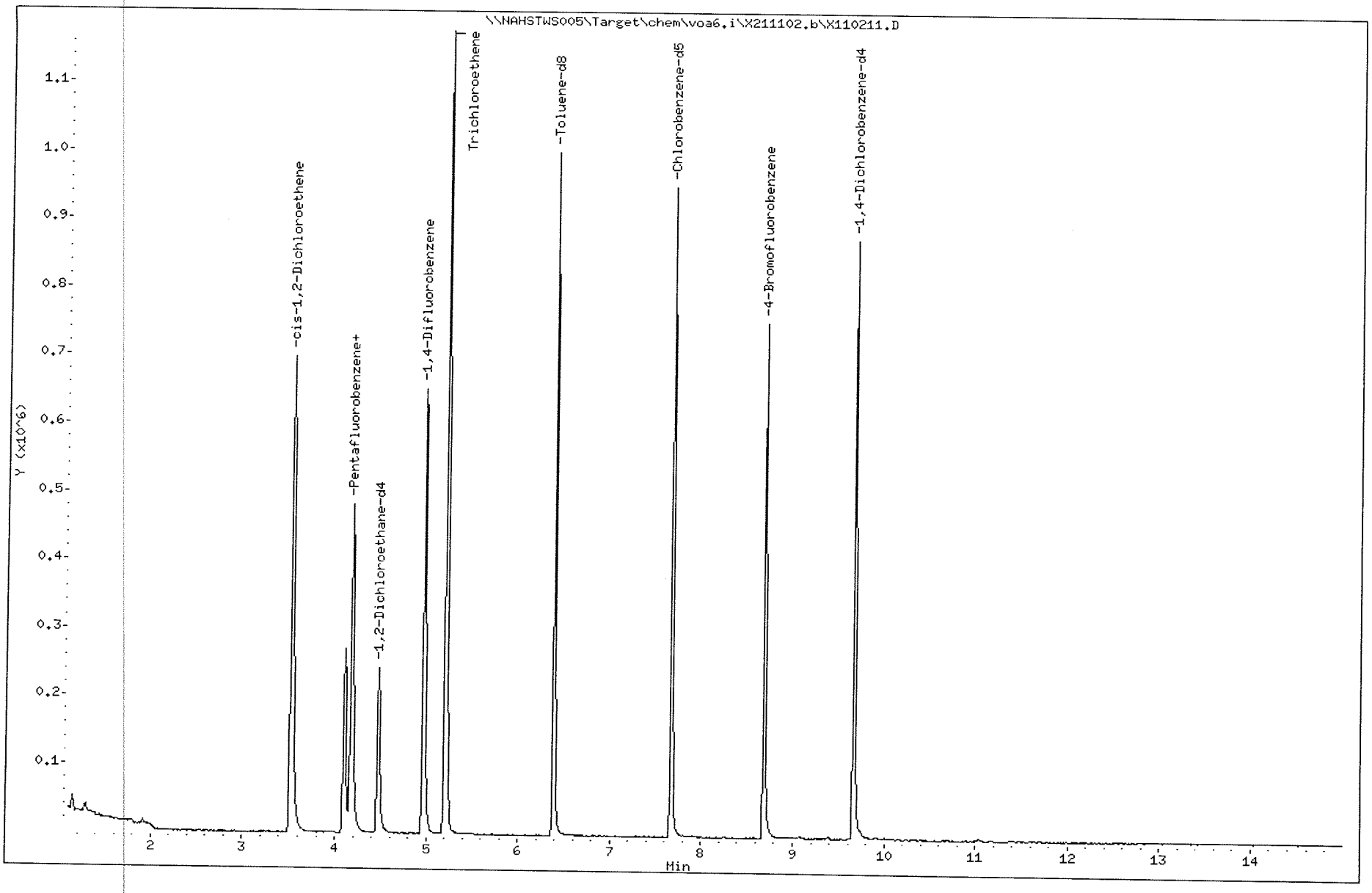
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110211.D
Date : 02-NOV-2021 14:20
Client ID: HS21101171-05
Sample Info: HS21101171-05;HS21101171-05;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i

Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110211.D

Date : 02-NOV-2021 14:20

Client ID: HS21101171-05

Instrument: voa6.i

Sample Info: HS21101171-05;HS21101171-05;;;

Purge Volume: 5.0

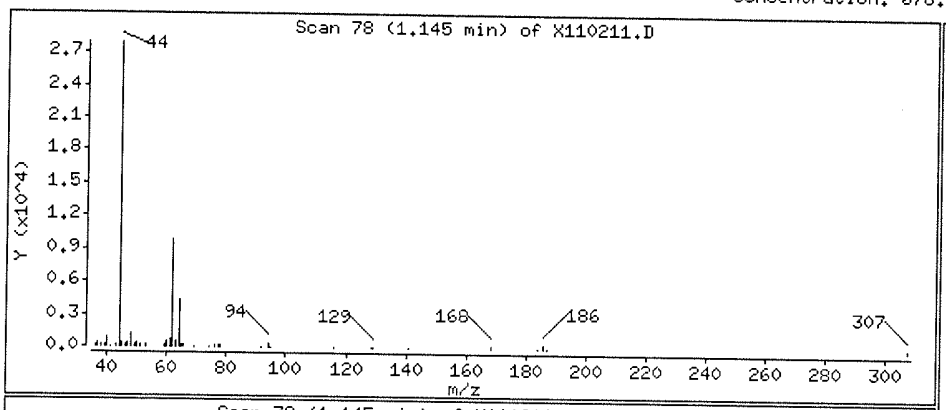
Operator: PC

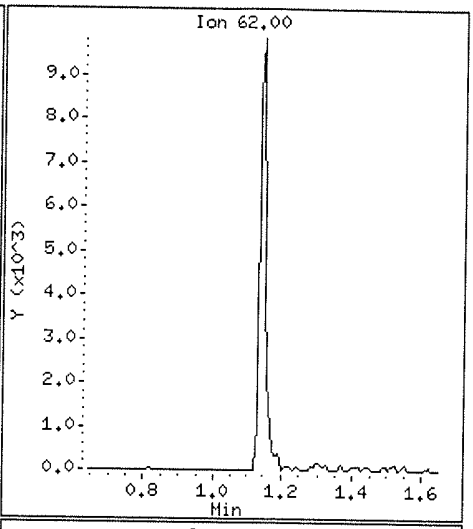
Column phase: DB624

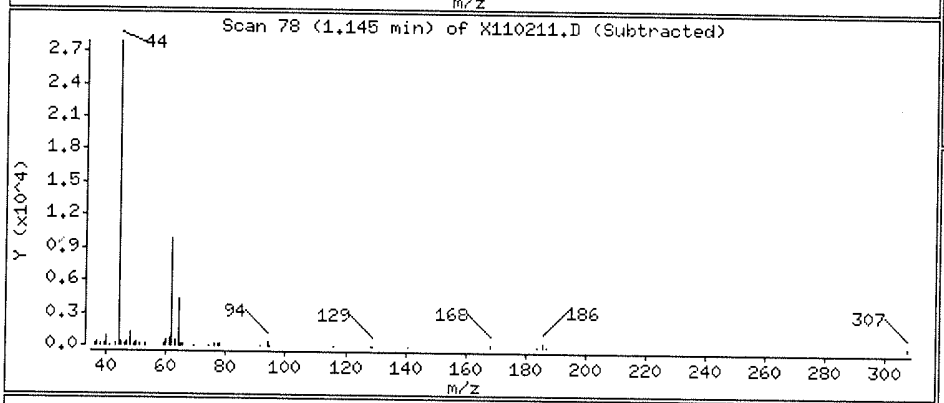
Column diameter: 0.18

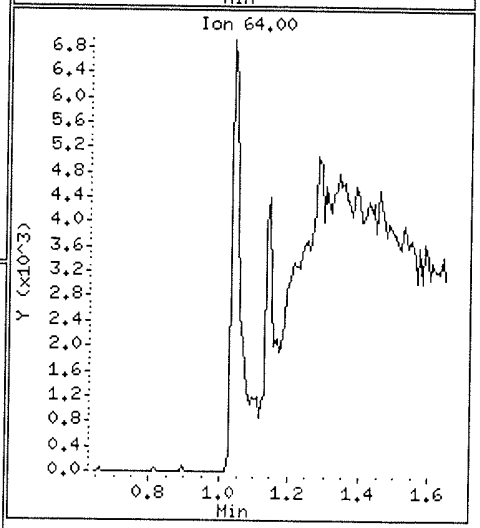
5 Vinyl Chloride

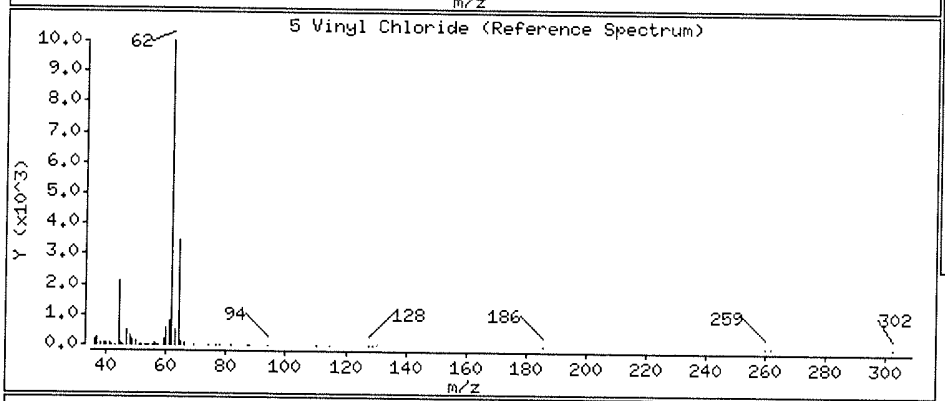
Concentration: 678.57 ug/l

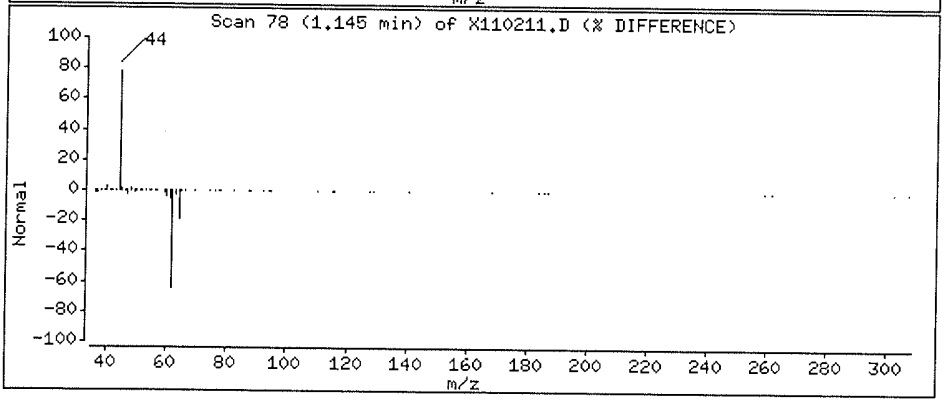












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110211.D

Date : 02-NOV-2021 14:20

Client ID: HS21101171-05

Instrument: voa6.i

Sample Info: HS21101171-05;HS21101171-05;;;

Purge Volume: 5.0

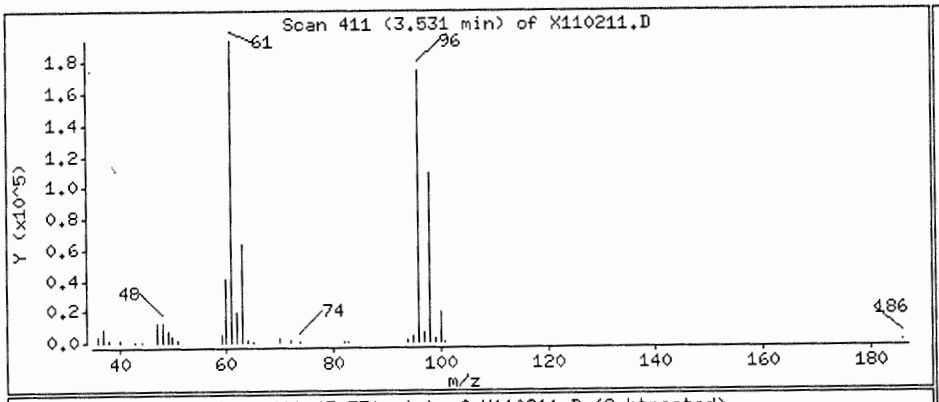
Operator: PC

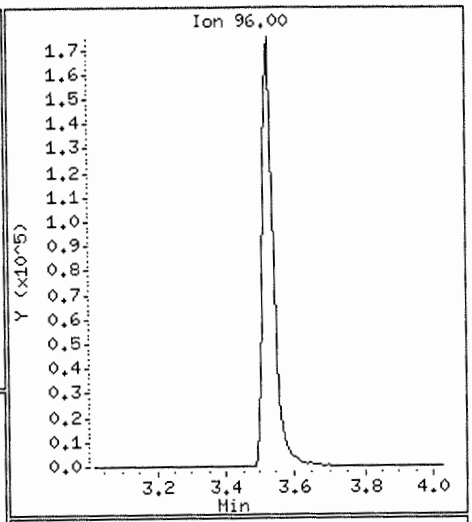
Column phase: DB624

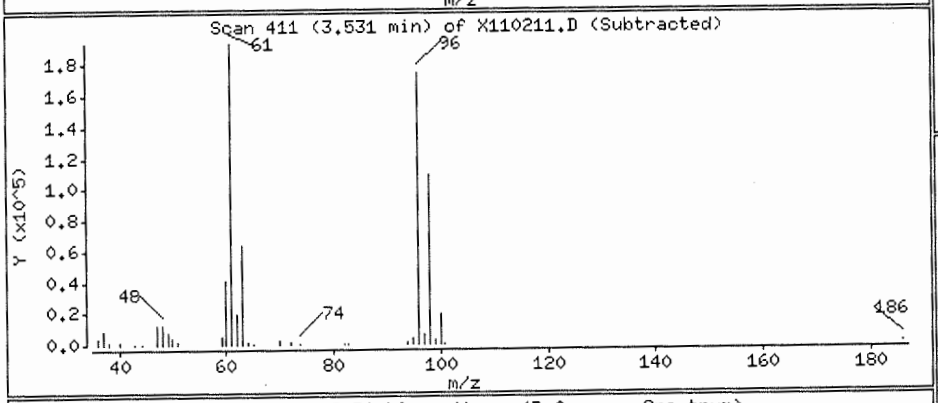
Column diameter: 0.18

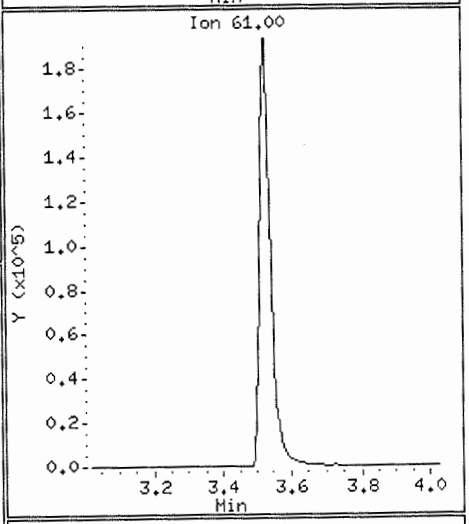
27 cis-1,2-Dichloroethene

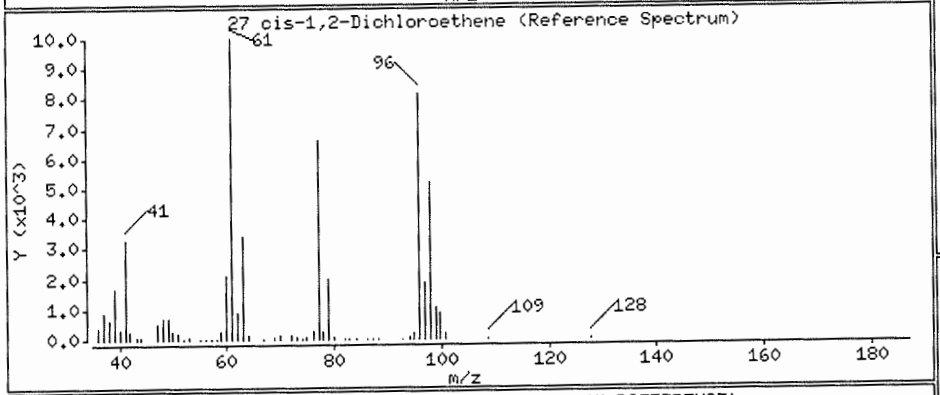
Concentration: 22239.34 ug/l

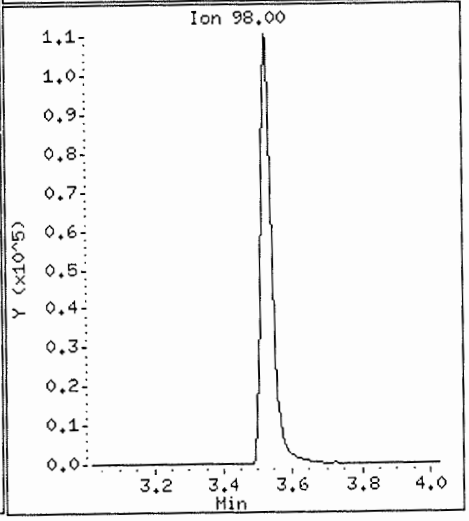


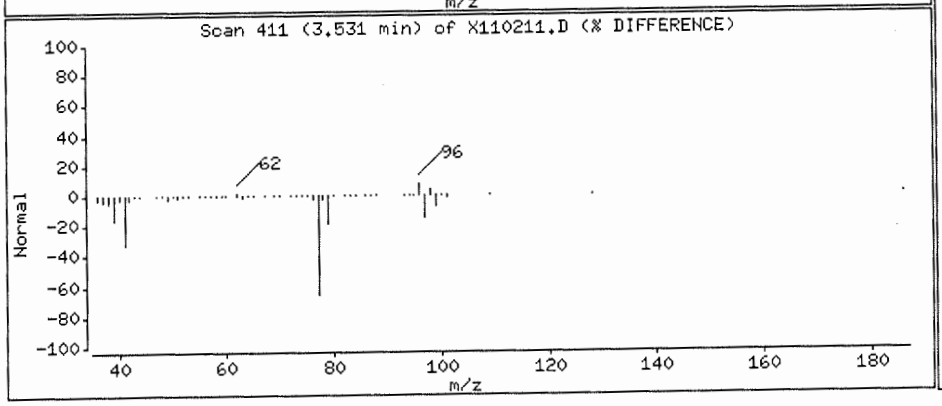












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110211.D

Date : 02-NOV-2021 14:20

Client ID: HS21101171-05

Instrument: voa6.i

Sample Info: HS21101171-05;HS21101171-05;;;

Purge Volume: 5.0

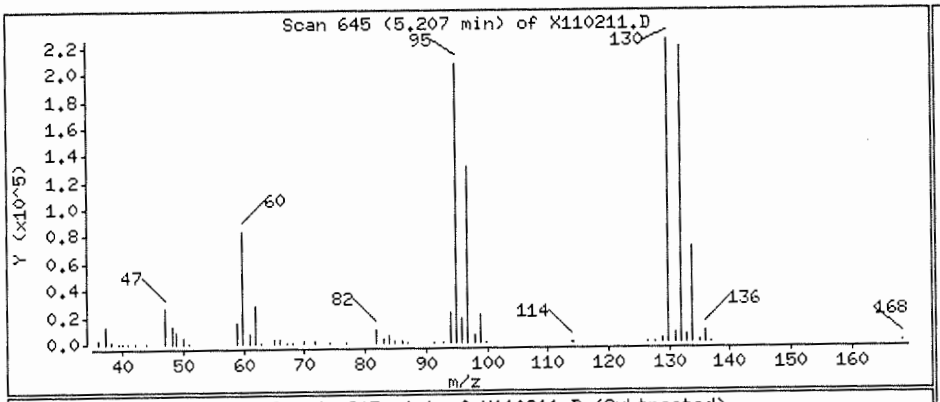
Operator: PC

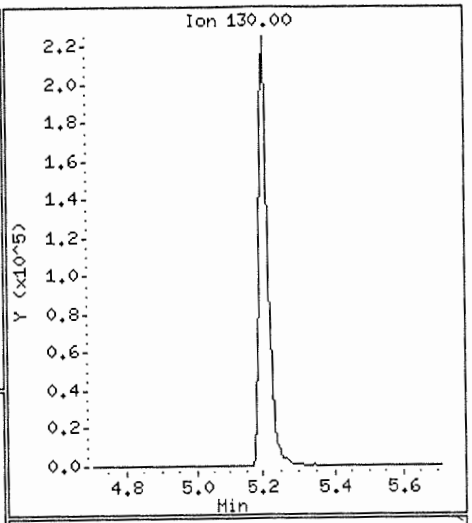
Column phase: DB624

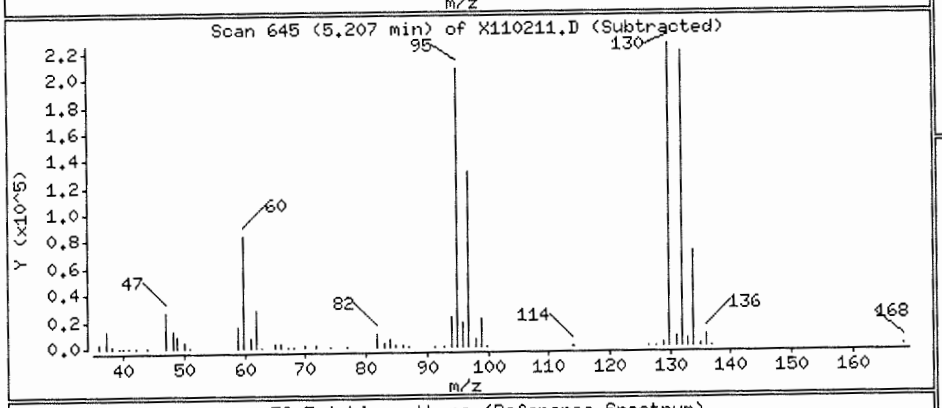
Column diameter: 0.18

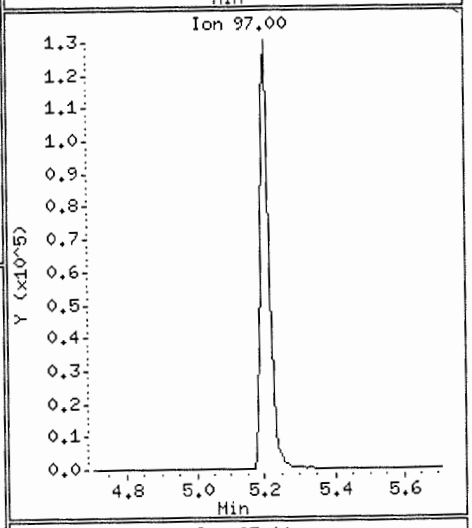
38 Trichloroethene

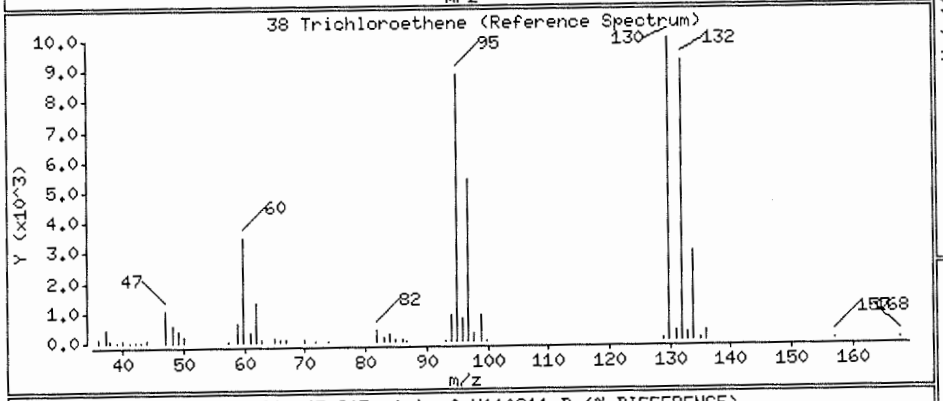
Concentration: 22885.76 ug/l

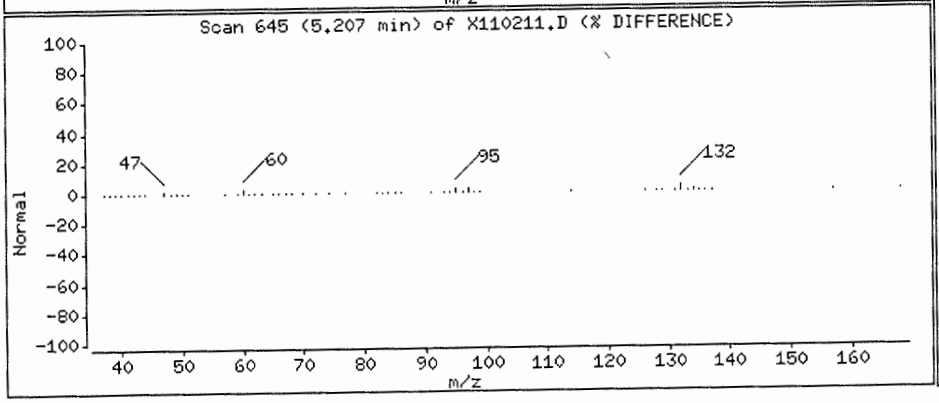


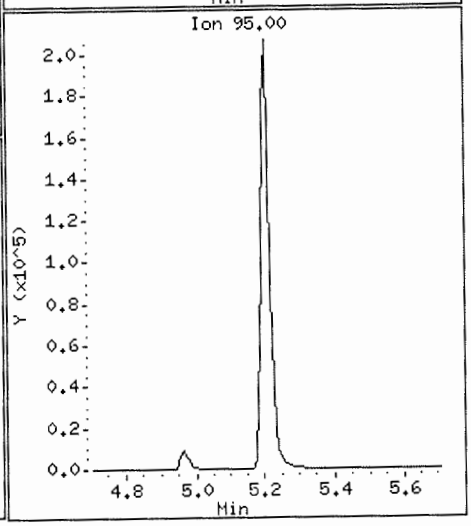












Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110213.D Page 1
Report Date: 15-Nov-2021 16:56

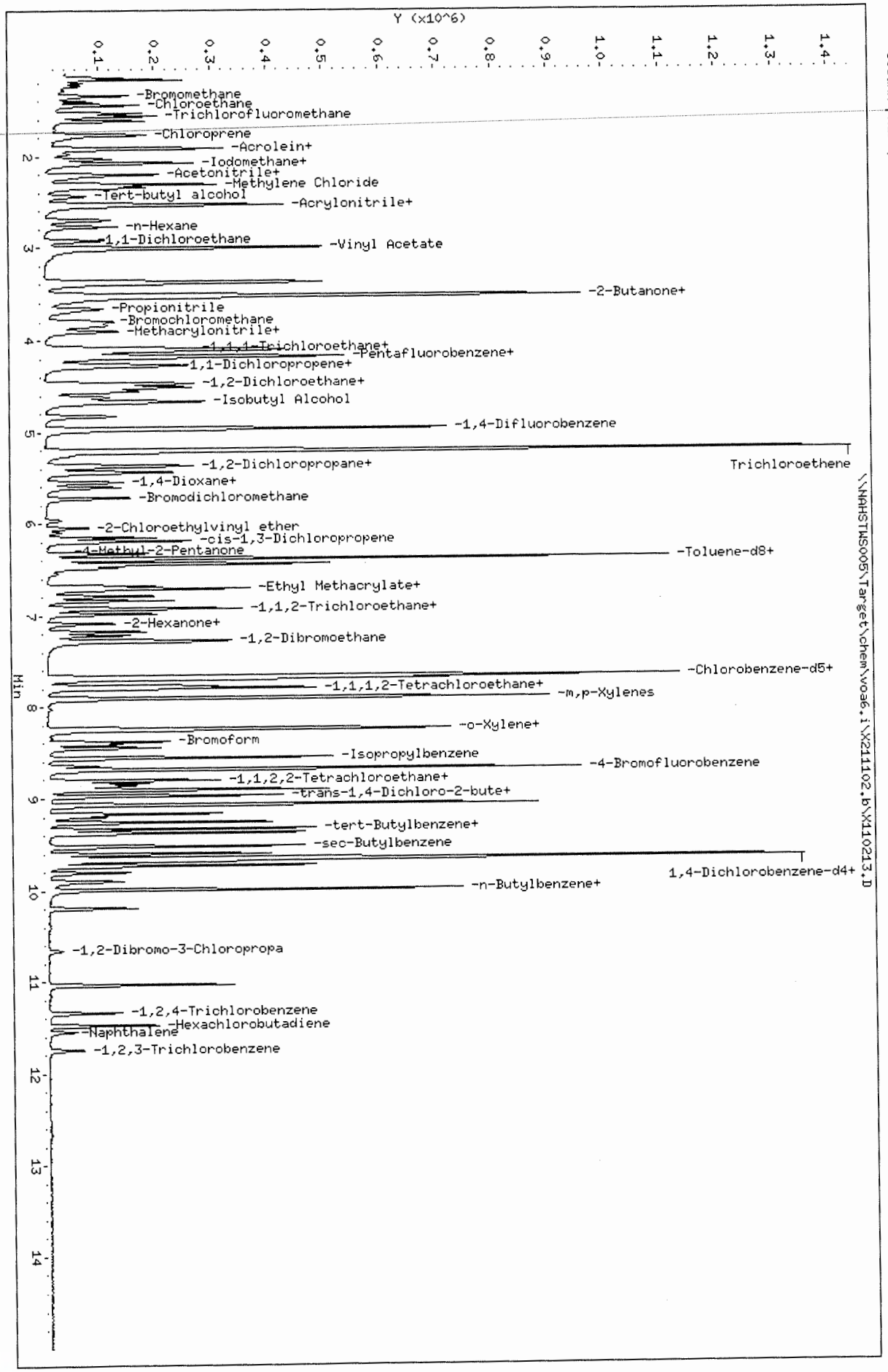
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110213.D
Lab Smp Id: HS21101171-05MS Client Smp ID: HS21101171-05MS
Inj Date : 02-NOV-2021 15:02
Operator : PC Inst ID: voa6.i
Smp Info : HS21101171-05MS;HS21101171-05MS;3;;MS
Misc Info : HS18090001;WATER;0;250;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211102.b\8260W.m
Meth Date : 15-Nov-2021 16:56 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 13 QC Sample: MS
Dil Factor: 250.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	250.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	459623	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	209336	46.3164	46.31
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	202417	44.0290	44.02
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	625094	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	562087	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	682154	47.8213	47.82
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	244080	49.7105	49.71
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	286743	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	81393	16.8904	4222.59
11 1,1-Dichloroethene	96	1.919	1.911	(0.459)	61963	15.1132	3778.28
17 Methylene Chloride	84	2.305	2.305	(0.551)	62660	14.7584	3689.60
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	481256	100.713	25178.32
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	81203	15.4863	3871.58
38 Trichloroethene	130	5.206	5.206	(1.049)	490803	103.801	25950.14
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	49459	16.4900	4122.50



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110213.D
Date : 02-NOV-2021 15:02
Client ID: HS2110171-05MS
Sample Info: HS2110171-05MS;HS2110171-05MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110214.D Page 1
Report Date: 15-Nov-2021 16:56

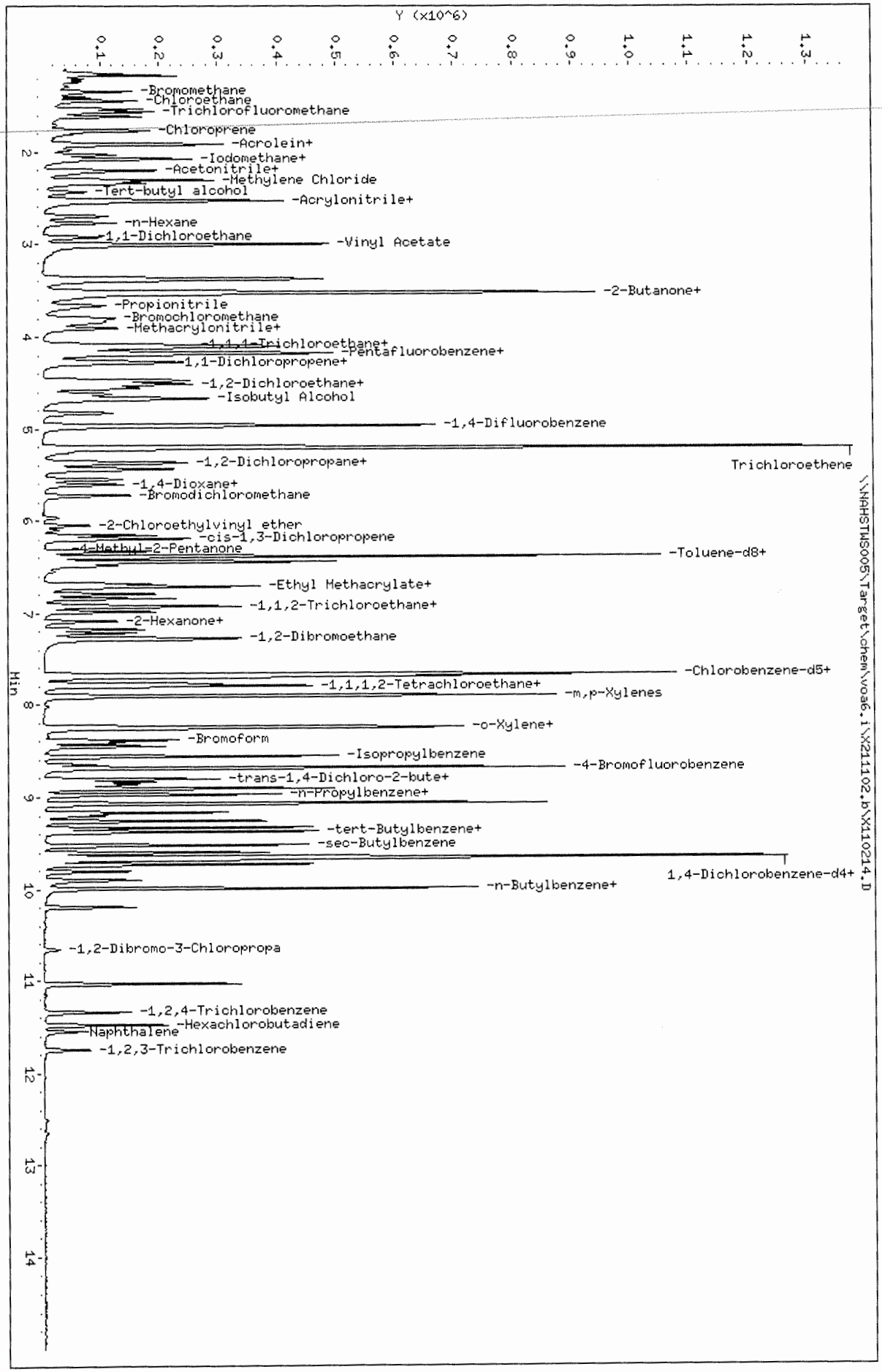
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110214.D
Lab Smp Id: HS21101171-05MSD Client Smp ID: HS21101171-05MSD
Inj Date : 02-NOV-2021 15:23
Operator : PC Inst ID: voa6.i
Smp Info : HS21101171-05MSD;HS21101171-05MSD;3;;MSD
Misc Info : HS18090001;WATER;0;250;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211102.b\8260W.m
Meth Date : 15-Nov-2021 16:56 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 13 QC Sample: MSD
Dil Factor: 250.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	250.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	441577	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	195006	44.8744	44.87
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	188513	42.6181	42.61
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	594443	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	531431	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	647986	48.0465	48.04
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	223780	48.1637	48.16
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	271586	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	76029	16.4220	4105.51
11 1,1-Dichloroethene	96	1.919	1.911	(0.459)	60513	15.3627	3840.66
17 Methylene Chloride	84	2.305	2.305	(0.551)	61308	15.0534	3763.35
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	464822	101.249	25312.35
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	78970	15.8370	3959.25
38 Trichloroethene	130	5.206	5.206	(1.049)	471358	104.828	26207.07
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	47769	16.8453	4211.31



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110214.D
Date : 02-NOV-2021 15:23
Client ID: HS21101171-05MSD
Sample Info: HS21101171-05MSD;HS21101171-05MSD;3;;MSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110224.D Page 1
Report Date: 15-Nov-2021 16:56

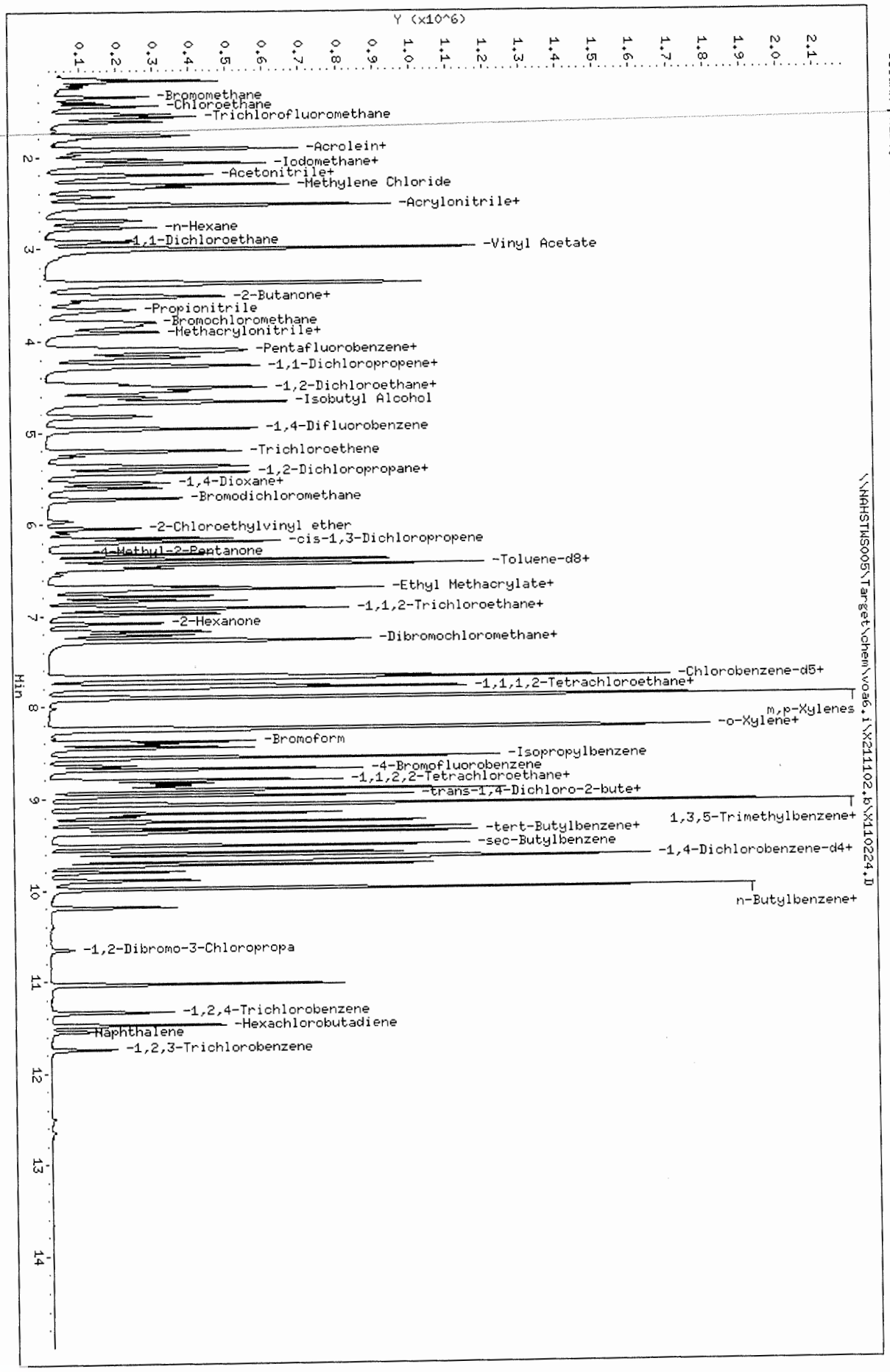
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110224.D
Lab Smp Id: CCV-END Client Smp ID: CCV
Inj Date : 02-NOV-2021 18:54
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV;2-END;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X211102.b\8260W.m
Meth Date : 15-Nov-2021 16:56 voa6.i Quant Type: ISTD
Cal Date : 08-OCT-2021 15:34 Cal File: X100808.D
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 01474-dod.sub
Target Version: 4.14
Processing Host: NAHSTW7017

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	361604	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	177676	50.0000	50.05
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	169173	50.0000	46.89
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	510683	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	481698	50.0000	
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	567754	50.0000	46.44
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	212808	50.0000	50.59
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	246382	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	148038	50.0000	39.04
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	133775	50.0000	41.47
17 Methylene Chloride	84	2.306	2.306	(0.551)	149820	50.0000	47.43
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	173890	50.0000	46.25
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	186579	50.0000	43.55
38 Trichloroethene	130	5.207	5.207	(1.049)	180439	50.0000	46.71
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	118018	50.0000	45.91



Data File: \\NAHSTWS005\Target\chem\voa6.i\X211102.b\X110224.D
Date : 02-NOV-2021 18:54
Client ID: CCV
Sample Info: CCV-END;CCV;2-END;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

HS21101171 RSK 175 Raw Data

ALS WO# HS21101171

FID04 -Logbook

Batch: 26730
Date: 01-24-2017
Method: RSK 175 ICAL
Comments: Target Sequence 170124

Analyst: Nosa Izekor
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
1	ICAL1	CALIB_1	01-24-2017 09:06 am	1.00	0.00 mL	0.00 mL	001.D	Liquid	Y	N
2	ICAL2	CALIB_2	01-24-2017 09:30 am	1.00	0.00 mL	0.00 mL	002.D	Liquid	Y	N
3	ICAL3	CALIB_3	01-24-2017 09:59 am	1.00	0.00 mL	0.00 mL	003.D	Liquid	Y	N
4	ICAL4	CALIB_4	01-24-2017 10:15 am	1.00	0.00 mL	0.00 mL	004.D	Liquid	Y	N
5	ICAL5	CALIB_5	01-24-2017 10:39 am	1.00	0.00 mL	0.00 mL	005.D	Liquid	Y	N
6	ICAL6	CALIB_6	01-24-2017 10:57 am	1.00	0.00 mL	0.00 mL	006.D	Liquid	Y	N
7	ICAL7	CALIB_7	01-24-2017 11:13 am	1.00	0.00 mL	0.00 mL	007.D	Liquid	Y	N
8	ICV	METHSPIKI	01-24-2017 12:05 pm	1.00	0.00 mL	0.00 mL	008.D	Liquid	Y	N
9	LCS-170124	LCS	01-24-2017 12:24 pm	1.00	0.00 mL	0.00 mL	009.D	Liquid	Y	N
10	LCSD-170124	LCSD	01-24-2017 12:40 pm	1.00	0.00 mL	0.00 mL	010.D	Liquid	Y	N
11	MBLK-170124	MBLK	01-24-2017 12:57 pm	1.00	0.00 mL	0.00 mL	011.D	Liquid	Y	N
12	HS17010778-01	SAMP	01-24-2017 01:14 pm	1.00	0.00 mL	0.00 mL	012.D	Liquid	Y	N
13	HS17010779-01	SAMP	01-24-2017 01:31 pm	1.00	0.00 mL	0.00 mL	013.D	Liquid	Y	N
14	HS17010779-01DUP	SAMP	01-24-2017 01:47 pm	1.00	0.00 mL	0.00 mL	014.D	Liquid	Y	N
15	CCV	CCV	01-24-2017 02:01 pm	1.00	0.00 mL	0.00 mL	015.D	Liquid	Y	N

Chemical	Value
ICAL STD ID	30010700217
ICV STD ID	30010700610

FORM 3
WATER GASES METHOD SPIKE RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Matrix Spike - ENG SC Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
Ethene	16.800	19.090	114	75-125
Methane	9.647	9.597	99	75-125
Ethane	18.043	19.657	109	75-125
Propane	26.463	27.238	103	75-125
N-Butane	34.955	36.010	103	75-125

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

_____

FORM III GASES

FORM 6
GASES INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Instrument ID: FID-4 Calibration Date(s): 01/24/17 01/24/17

Column: RTX-PLOT ID: 0.53 (mm) Calibration Time(s): 0906 1113

LAB FILE ID: RF10: 001 RF25: 002 RF50: 003
RF100: 004 RF250: 005 RF500: 006

COMPOUND	RF10	RF25	RF50	RF100	RF250	RF500
Ethene	535.608	567.359	564.985	516.024	665.282	425.678
Methane	968.912	978.238	1019.699	880.798	960.713	930.704
Ethane	602.493	670.177	658.908	597.201	808.513	817.630
Propane	500	1279	2602	4785	18294	38286
N-Butane	438	936	2034	3864	18446	42817

FORM VI GASES

FORM 6
GASES INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS2110117

Instrument ID: FID-4 Calibration Date(s): 01/24/17 01/24/17

Column: RTX-PLOT ID: 0.53 (mm) Calibration Time(s): 0906 1113

RF1000: 007

COMPOUND	RF1000	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MA
Ethene	828.858	AVRG		586.256273		21.932	
Methane	1081.580	AVRG		974.377787		6.550	
Ethane	999.335	AVRG		736.322546		19.885	
Propane	96509	2ORDR	0.97987006	1.529e-003	-4.58e-009	0.9991365	0
N-Butane	114164	2ORDR	2.46870151	1.834e-003	-5.54e-009	0.9980766	0

FORM VI GASES

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\001.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\001.D
Lab Smp Id: ICAL1 Client Smp ID: ICAL1
Inj Date : 24-JAN-2017 09:06
Operator : JA Inst ID: FID-4.i
Smp Info : ICAL1;ICAL1;;;
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 09:06 Cal File: 001.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

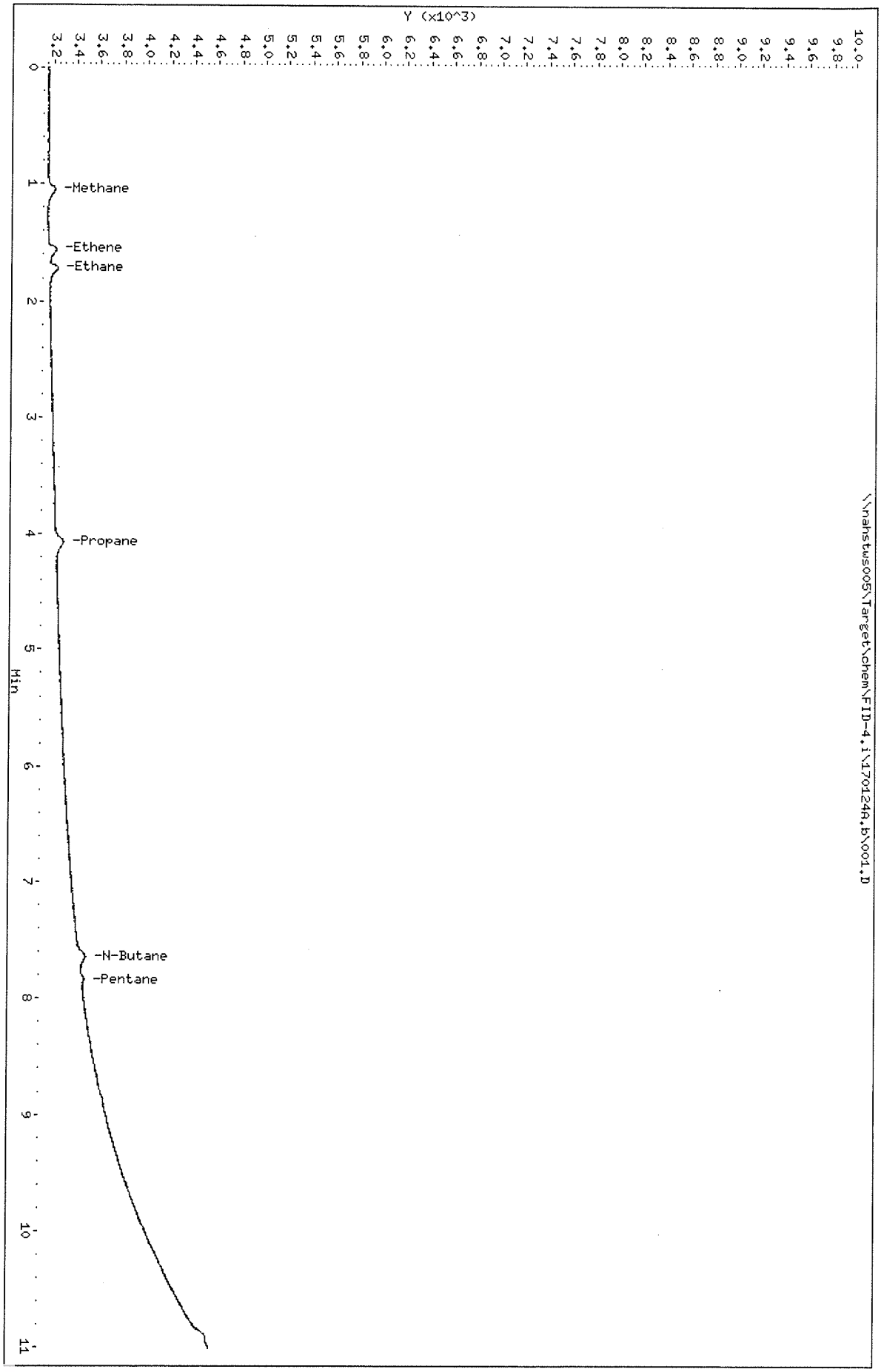
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.043	1.030	0.013	374	0.38600	0.383(a)
2 Ethene	1.553	1.556	-0.003	361	0.67400	0.615(a)
3 Ethane	1.716	1.723	-0.007	435	0.72200	0.590(a)
4 Propane	4.073	4.113	-0.040	500	1.05900	1.743
5 N-Butane	7.640	7.690	-0.050	438	1.39800	3.271

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\001.D
Date : 24-JAN-2017 09:06
Client ID: ICAL1
Sample Info: ICAL1;ICAL1;;;
Column phase: Rtx-PLOT

Instrument: FID-4.i
Operator: JA
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\002.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\002.D
Lab Smp Id: ICAL2 Client Smp ID: ICAL2
Inj Date : 24-JAN-2017 09:30
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL2;ICAL2;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 09:59 Cal File: 003.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

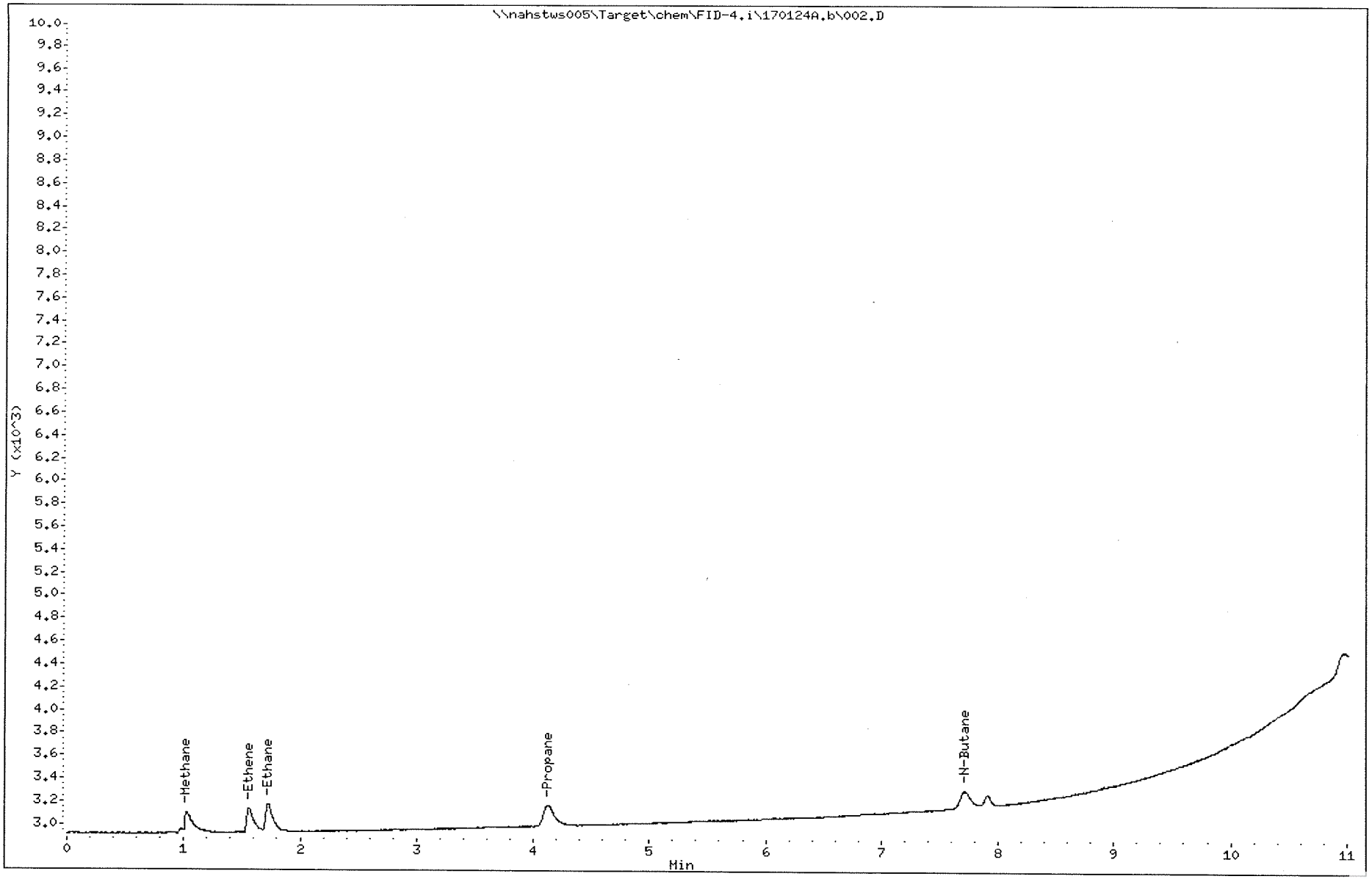
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.023	1.030	-0.007	944	0.96500	0.968
2 Ethene	1.560	1.556	0.004	956	1.68500	1.630
3 Ethane	1.723	1.723	0.000	1209	1.80400	1.641
4 Propane	4.123	4.113	0.010	1279	2.64600	2.927
5 N-Butane	7.716	7.690	0.026	936	3.49600	4.180

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\002.D
Date : 24-JAN-2017 09:30
Client ID: ICAL2
Sample Info: ICAL2;ICAL2;;;

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: MA
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\003.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\003.D
Lab Smp Id: ICAL3 Client Smp ID: ICAL3
Inj Date : 24-JAN-2017 09:59
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL3;ICAL3;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.043	1.030	0.013	1967	1.92900	2.018
2 Ethene	1.570	1.556	0.014	1904	3.37000	3.247
3 Ethane	1.736	1.723	0.013	2378	3.60900	3.229
4 Propane	4.123	4.113	0.010	2602	5.29300	4.926
5 N-Butane	7.703	7.690	0.013	2034	6.99100	6.176

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\003.D

Date : 24-JAN-2017 09:59

Client ID: ICAL3

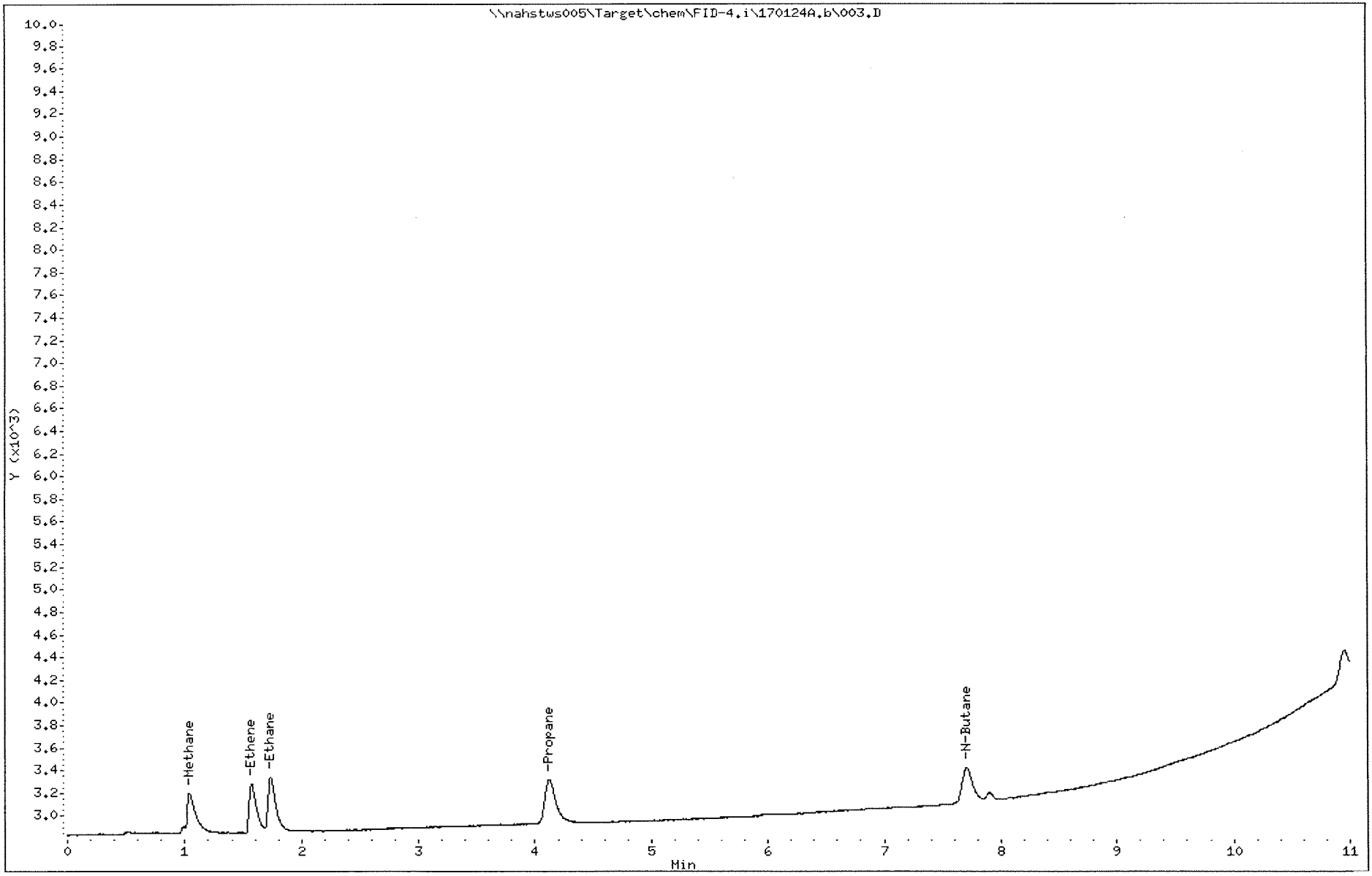
Instrument: FID-4.i

Sample Info: ICAL3;ICAL3;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\004.D
Lab Smp Id: ICAL4 Client Smp ID: ICAL4
Inj Date : 24-JAN-2017 10:15
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL4;ICAL4;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 09:30 Cal File: 002.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.033	1.030	0.003	3399	3.85900	3.488
2 Ethene	1.563	1.556	0.007	3478	6.74000	5.932
3 Ethane	1.726	1.723	0.003	4310	7.21700	5.853
4 Propane	4.120	4.113	0.007	4785	10.5850	8.190
5 N-Butane	7.703	7.690	0.013	3864	13.9820	9.473(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\004.D

Date : 24-JAN-2017 10:15

Client ID: ICAL4

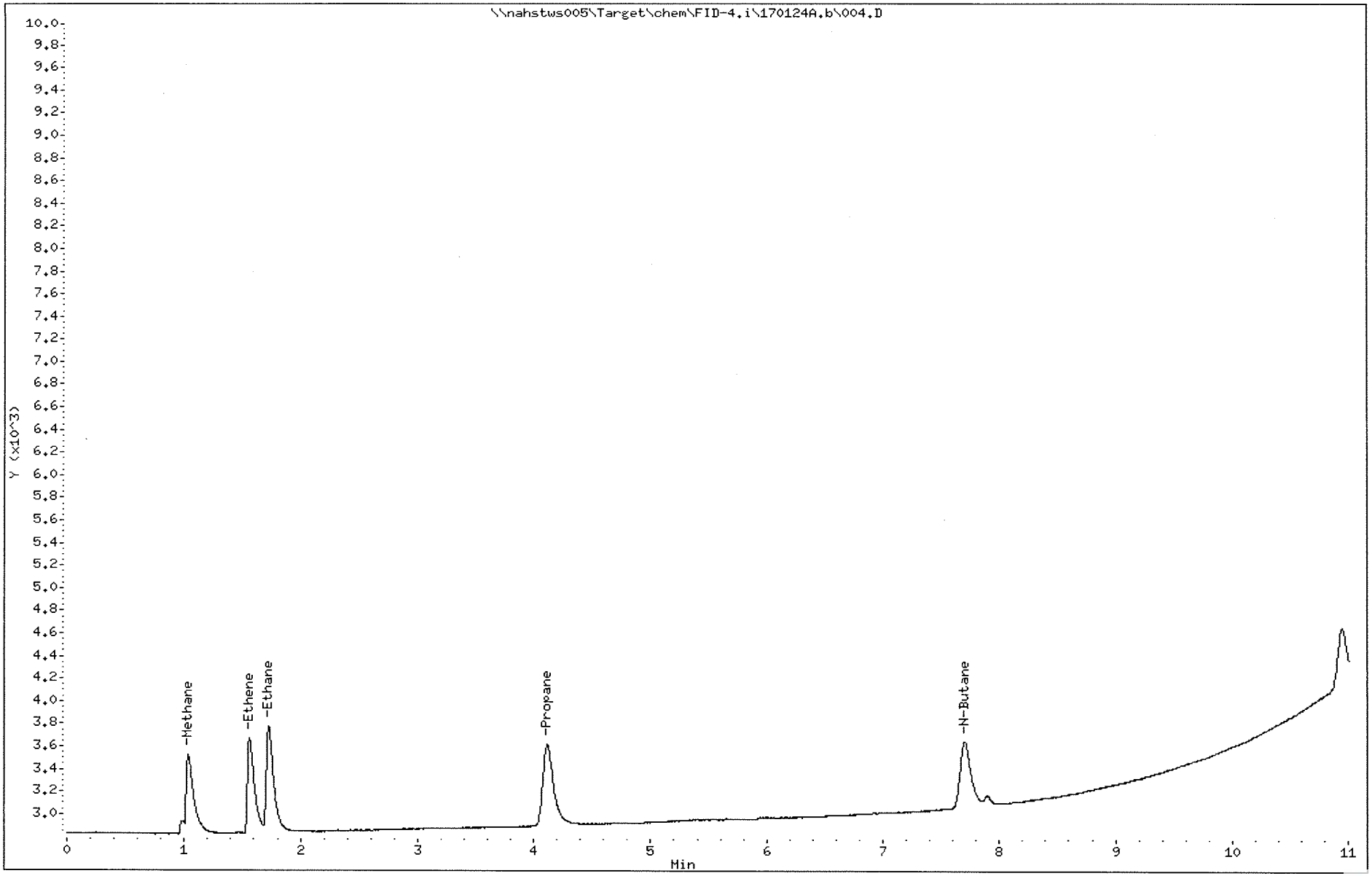
Sample Info: ICAL4;ICAL4;;;

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: MA

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\005.D
Lab Smp Id: ICAL5 Client Smp ID: ICAL5
Inj Date : 24-JAN-2017 10:39
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL5;ICAL5;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:39 Cal File: 005.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

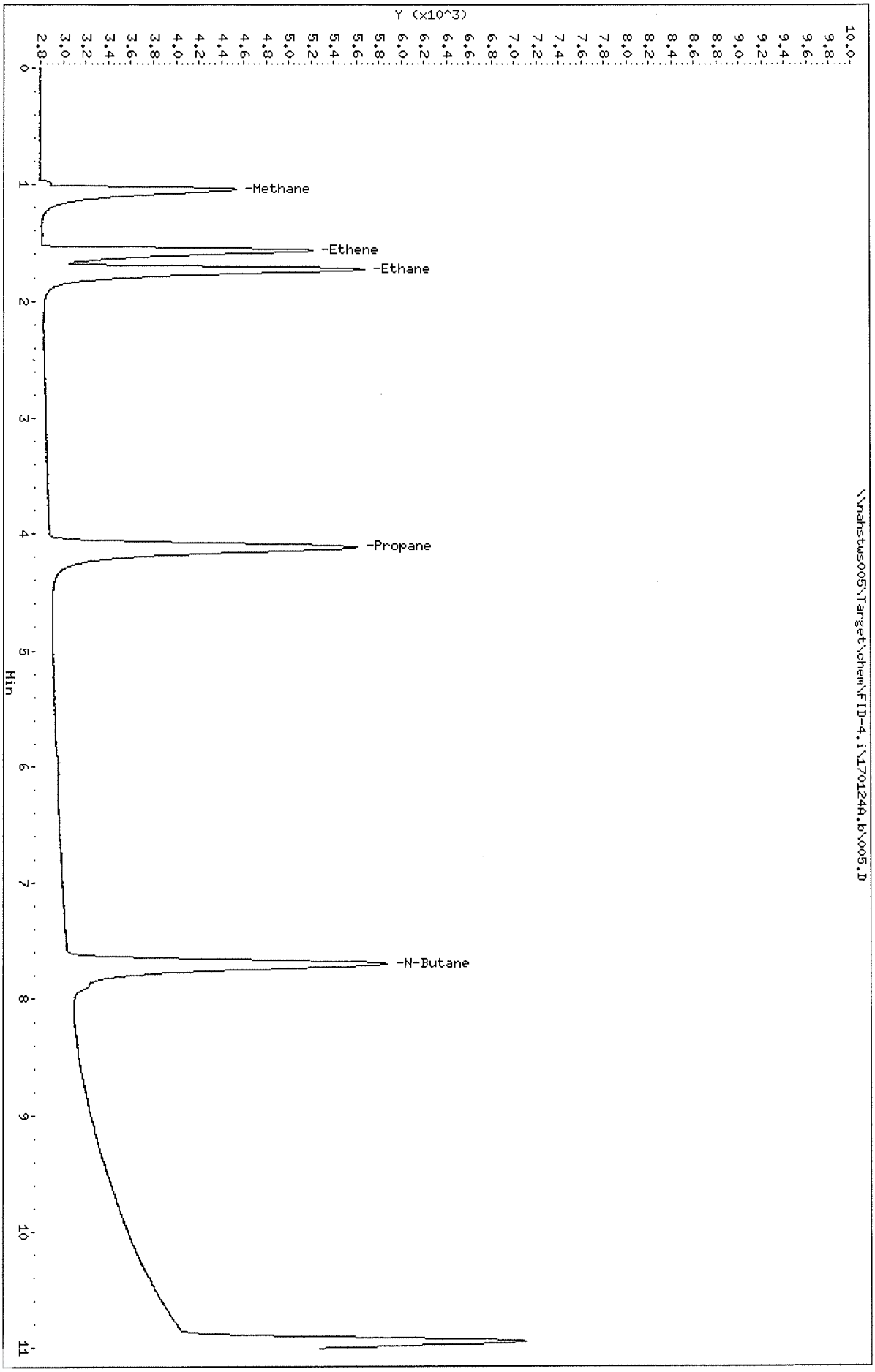
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.043	1.030	0.013	9268	9.64700	9.511
2 Ethene	1.570	1.556	0.014	11210	16.8500	19.121
3 Ethane	1.733	1.723	0.010	14588	18.0430	19.811
4 Propane	4.120	4.113	0.007	18294	26.4630	27.415
5 N-Butane	7.700	7.690	0.010	18446	34.9550	34.419(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\005.D
Date : 24-JAN-2017 10:39
Client ID: ICAL5
Sample Info: ICAL5;ICAL5;;;
Column phase: Rtx-PLOT

Instrument: FID-4.i
Operator: MA
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\006.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\006.D
Lab Smp Id: ICAL6 Client Smp ID: ICAL6
Inj Date : 24-JAN-2017 10:57
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL6;ICAL6;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:39 Cal File: 005.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

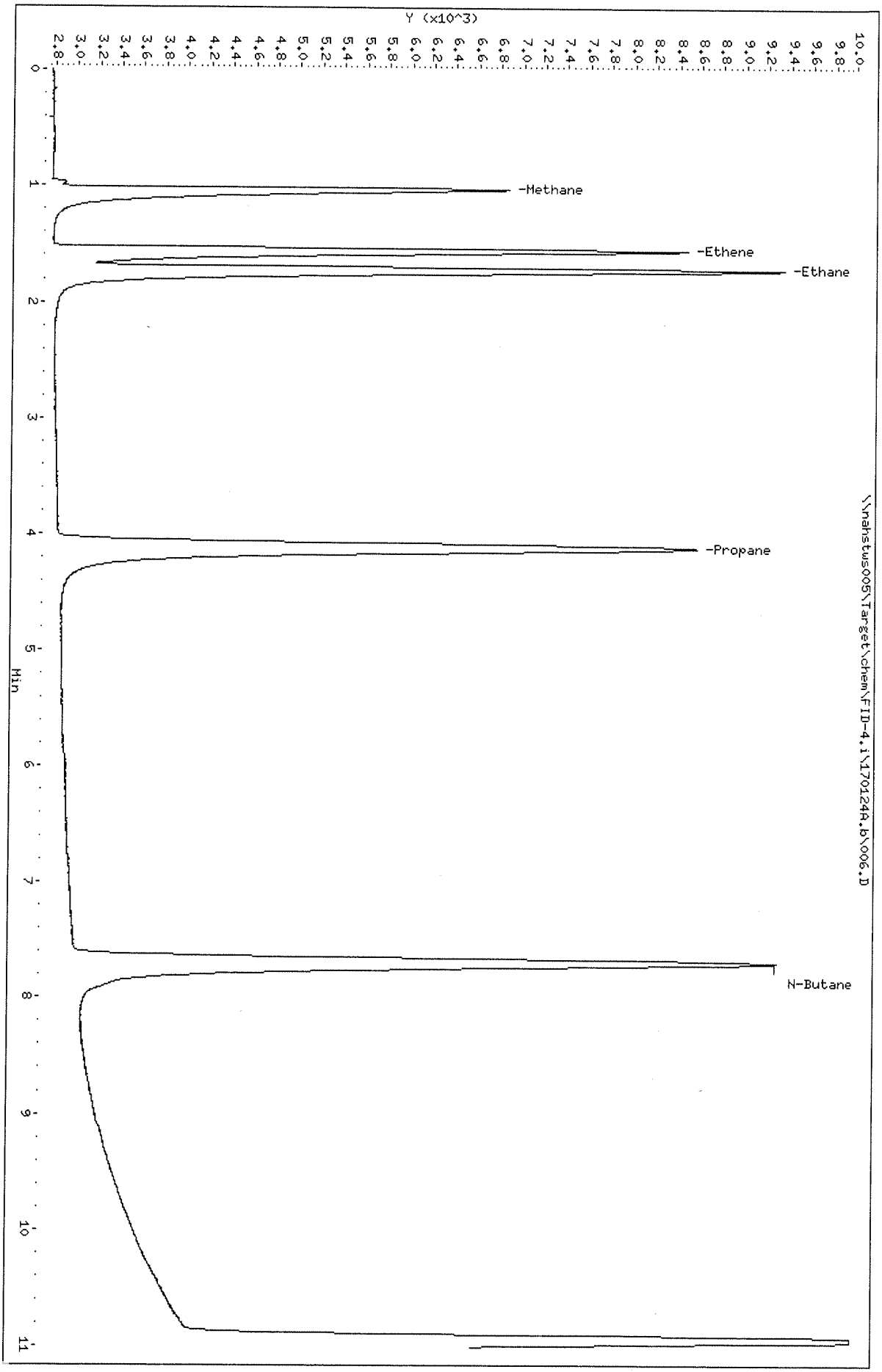
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.023	1.030	-0.007	17957	19.2940	18.429
2 Ethene	1.550	1.556	-0.006	22910	53.8200	39.078
3 Ethane	1.716	1.723	-0.007	29505	36.0860	40.070
4 Propane	4.110	4.113	-0.003	38286	52.9260	52.796
5 N-Butane	7.696	7.690	0.006	42817	69.9110	70.855

Data File: \\nahstws005\Target\chem\FID-4,i\170124A,b\006,D
Date : 24-JAN-2017 10:57
Client ID: ICAL6
Sample Info: ICAL6;ICAL6;;;

Instrument: FID-4,i

Operator: MA
Column diameter: 0.53

Column phase: Rtx-PLOT



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\007.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\007.D
Lab Smp Id: ICAL7 Client Smp ID: ICAL7
Inj Date : 24-JAN-2017 11:13
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL7;ICAL7;;;
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:57 Cal File: 006.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

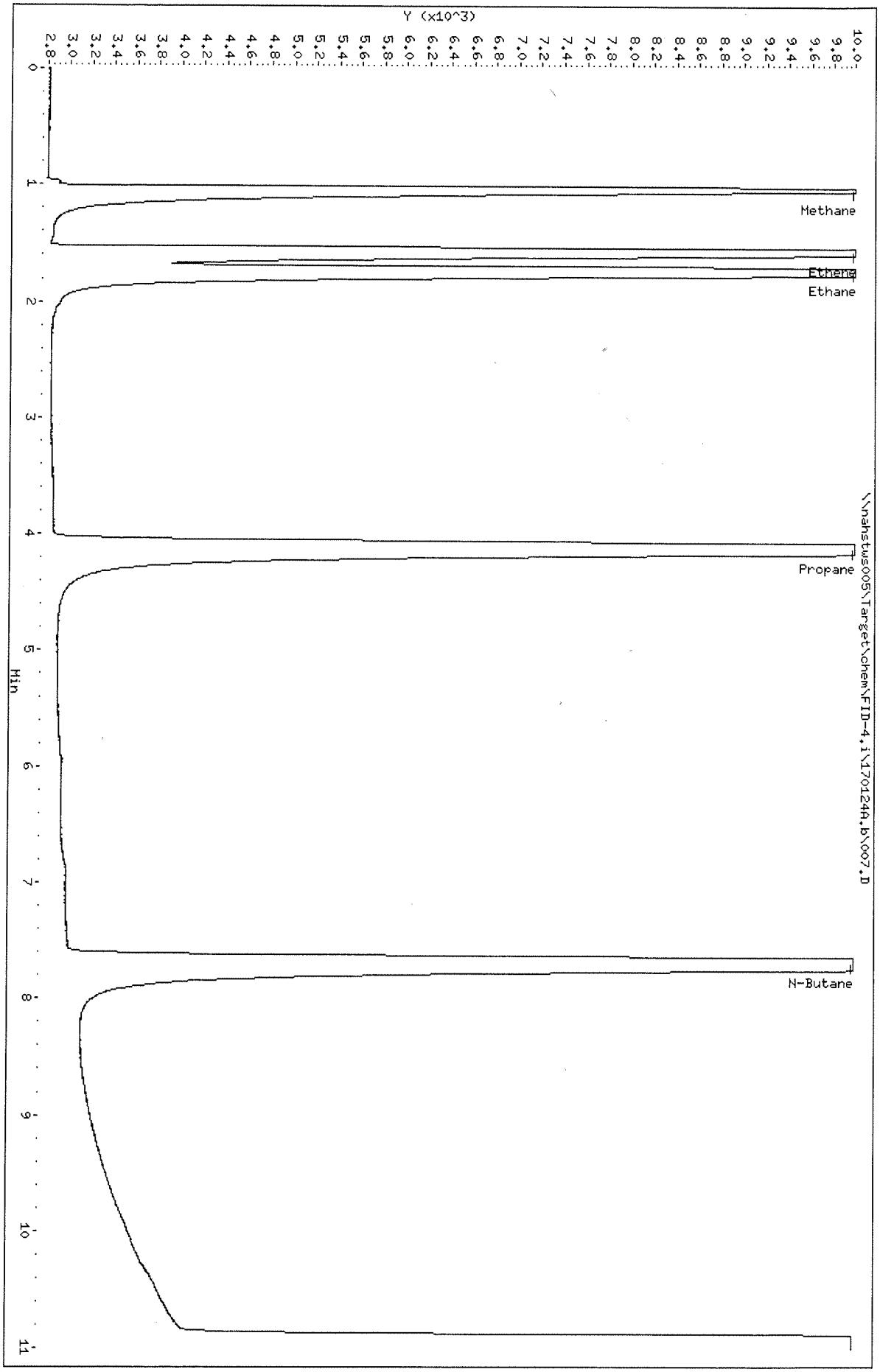
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.030	1.030	0.000	41736	38.5880	42.833(A)
2 Ethene	1.556	1.556	0.000	55865	67.4000	95.291(A)
3 Ethane	1.723	1.723	0.000	72124	72.1720	97.951(A)
4 Propane	4.113	4.113	0.000	96509	105.852	105.844
5 N-Butane	7.690	7.690	0.000	114164	139.821	139.707

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\007.D
Date : 24-JAN-2017 11:13
Client ID: ICAL7
Sample Info: ICAL7;ICAL7;;;
Column phase: Rtx-PLOT

Instrument: FID-4.i
Operator: MA
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\008.D Page 1
Report Date: 16-Nov-2021 16:05

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\170124A.b\008.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-JAN-2017 12:05
Operator : MA Inst ID: FID-4.i
Smp Info : ICV;ICV;;;
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124A.b\RSKNI2.m
Meth Date : 15-Nov-2021 14:10 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
Als bottle: 8 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

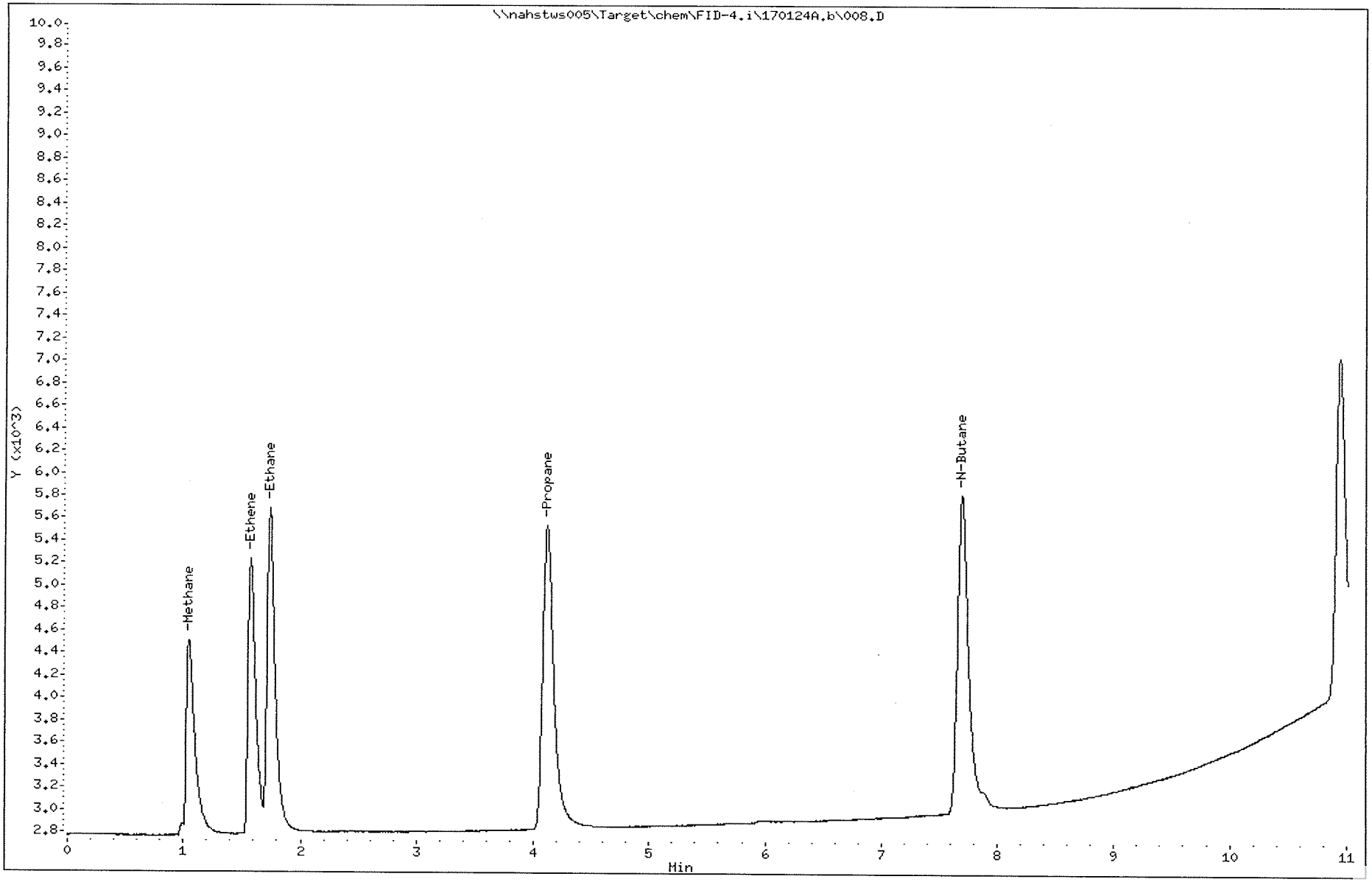
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	1.046	1.030	0.016	9352	9.59792	9.597
2 Ethene	1.573	1.556	0.017	11192	19.0906	19.090
3 Ethane	1.736	1.723	0.013	14474	19.6571	19.657
4 Propane	4.116	4.113	0.003	18164	27.2381	27.238
5 N-Butane	7.696	7.690	0.006	19425	36.0103	36.010

Data File: \\nahstws005\Target\chem\FID-4.i\170124A.b\008.D
Date : 24-JAN-2017 12:05
Client ID: ICV
Sample Info: ICV;ICV;;;

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: MA
Column diameter: 0.53



FID04 -Logbook

Batch: 47191
Date: 11-01-2021
Method: rsk175
Comments:

Analyst: Purvi Lad
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
1	RSK-CCV	CCV	11-01-2021 09:15 am	1.00	0.00 mL	0.00 mL	001.D	Liquid	Y	N
2	MBLK-211101	MBLK	11-01-2021 09:25 am	1.00	0.00 mL	0.00 mL	002.D	Liquid	Y	N
3	LCS-211101	LCS	11-01-2021 09:50 am	1.00	0.00 mL	0.00 mL	003.D	Liquid	Y	N
4	HS21101171-01	SAMP	11-01-2021 10:00 am	1.00	0.00 mL	0.00 mL	004.D	Liquid	Y	<
5	HS21101171-02	SAMP	11-01-2021 10:08 am	1.00	0.00 mL	0.00 mL	005.D	Liquid	Y	<
6	HS21101171-02MS	MS	11-01-2021 10:45 am	1.00	0.00 mL	0.00 mL	006.D	Liquid	Y	<
7	HS21101171-02MSD	MSD	11-01-2021 10:56 am	1.00	0.00 mL	0.00 mL	007.D	Liquid	Y	<
8	HS21101171-03	SAMP	11-01-2021 11:04 am	1.00	0.00 mL	0.00 mL	008.D	Liquid	Y	<
9	HS21101171-04	SAMP	11-01-2021 11:18 am	1.00	0.00 mL	0.00 mL	009.D	Liquid	Y	<
10	HS21101171-01	SAMP	11-01-2021 11:39 am	100.0(	0.00 mL	0.00 mL	010.D	Liquid	Y	<
11	RSK-CCV	CCV	11-01-2021 11:53 am	1.00	0.00 mL	0.00 mL	011.D	Liquid	Y	N
12	HS21101171-02	SAMP	11-01-2021 12:04 pm	100.0(	0.00 mL	0.00 mL	012.D	Liquid	Y	<
13	HS21101171-03	SAMP	11-01-2021 12:13 pm	10.00	0.00 mL	0.00 mL	013.D	Liquid	Y	<
14	HS21101171-04	SAMP	11-01-2021 12:21 pm	10.00	0.00 mL	0.00 mL	014.D	Liquid	Y	<
15	HS21101272-03	SAMP	11-01-2021 12:34 pm	1.00	0.00 mL	0.00 mL	015.D	Liquid	Y	<
16	HS21101272-04	SAMP	11-01-2021 12:48 pm	1.00	0.00 mL	0.00 mL	016.D	Liquid	Y	<
17	HS21101272-10	SAMP	11-01-2021 12:58 pm	1.00	0.00 mL	0.00 mL	017.D	Liquid	Y	<
18	HS21101272-03	SAMP	11-01-2021 01:10 pm	100.0(	0.00 mL	0.00 mL	018.D	Liquid	Y	<
19	HS21101272-04	SAMP	11-01-2021 01:18 pm	50.00	0.00 mL	0.00 mL	019.D	Liquid	Y	<
20	HS21101272-10	SAMP	11-01-2021 01:26 pm	100.0(	0.00 mL	0.00 mL	020.D	Liquid	Y	<
21	HS21101554-11	SAMP	11-01-2021 01:38 pm	1.00	0.00 mL	0.00 mL	021.D	Liquid	Y	<
22	RSK-CCV	CCV	11-01-2021 01:46 pm	1.00	0.00 mL	0.00 mL	022.D	Liquid	Y	N
23	HS21101554-12	SAMP	11-01-2021 01:55 pm	1.00	0.00 mL	0.00 mL	023.D	Liquid	Y	<
24	HS21101554-15	SAMP	11-01-2021 02:04 pm	1.00	0.00 mL	0.00 mL	024.D	Liquid	Y	<
25	HS21101554-11	SAMP	11-01-2021 02:15 pm	10.00	0.00 mL	0.00 mL	025.D	Liquid	Y	<
26	HS21101554-12	SAMP	11-01-2021 02:23 pm	10.00	0.00 mL	0.00 mL	026.D	Liquid	Y	<
27	RSK-CCV	CCV	11-01-2021 02:31 pm	1.00	0.00 mL	0.00 mL	027.D	Liquid	Y	N

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Instrument ID: FID-4 Calibration Date: 11/01/21 Time: 0915

Lab File ID: 001 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	703.26442	0.01	2.26	20.00	AVRG
Methane	974.99200	788.84627	0.01	19.09	20.00	AVRG
Ethene	585.76000	611.57270	0.01	-4.41	20.00	AVRG

FORM VII GASES

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Instrument ID: FID-4 Calibration Date: 11/01/21 Time: 1153

Lab File ID: 011 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	789.11489	0.01	-9.68	20.00	AVRG
Methane	974.99200	823.46844	0.01	15.54	20.00	AVRG
Ethene	585.76000	691.21662	0.01	-18.00	20.00	AVRG

FORM VII GASES

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Instrument ID: FID-4 Calibration Date: 11/01/21 Time: 1346

Lab File ID: 022 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	755.58388	0.01	-5.02	20.00	AVRG
Methane	974.99200	881.93221	0.01	9.54	20.00	AVRG
Ethene	585.76000	692.22552	0.01	-18.18	20.00	AVRG

FORM VII GASES

FORM 7B
GASES CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21101171

Instrument ID: FID-4 Calibration Date: 11/01/21 Time: 1431

Lab File ID: 027 Init. Calib. Date(s): 01/24/17 01/24/17

Init. Calib. Times: 0906 1113

GC Column: RTX-PLOT ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF250.00 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Ethane	719.48900	788.44981	0.01	-9.58	20.00	AVRG
Methane	974.99200	914.79216	0.01	6.17	20.00	AVRG
Ethene	585.76000	690.86053	0.01	-17.94	20.00	AVRG

FORM VII GASES

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\001.D Page 1
Report Date: 17-Nov-2021 09:44

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\001.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 01-NOV-2021 09:15
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:40 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

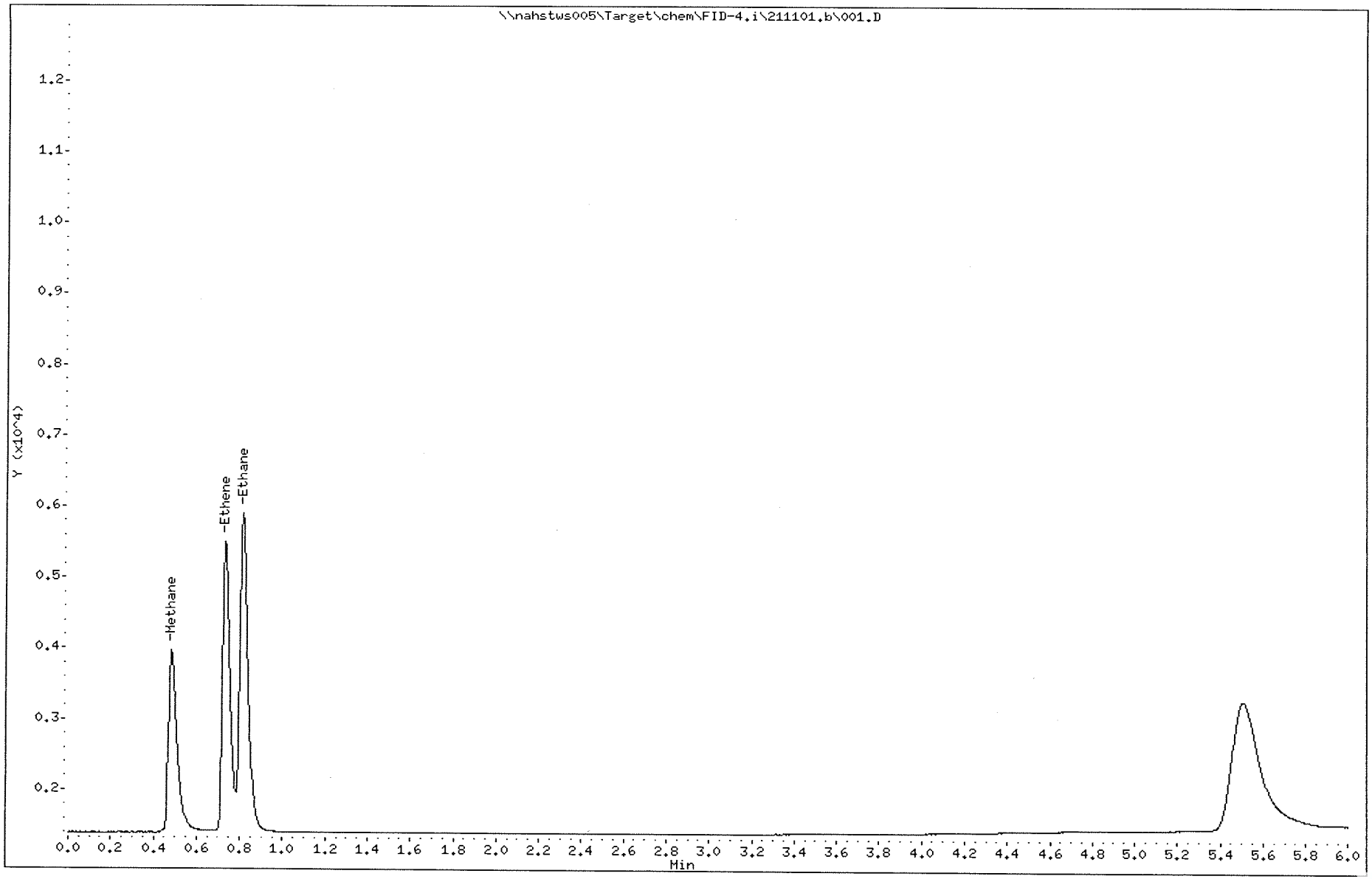
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.480	0.473	0.007	7610	9.64700	7.805
2 Ethene	0.730	0.726	0.004	10305	16.8500	17.592
3 Ethane	0.813	0.810	0.003	12689	18.0430	17.636

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\001.D
Date : 01-NOV-2021 09:15
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\001.D Page 1
Report Date: 17-Nov-2021 09:48

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\Before\001.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 01-NOV-2021 09:15
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:47 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

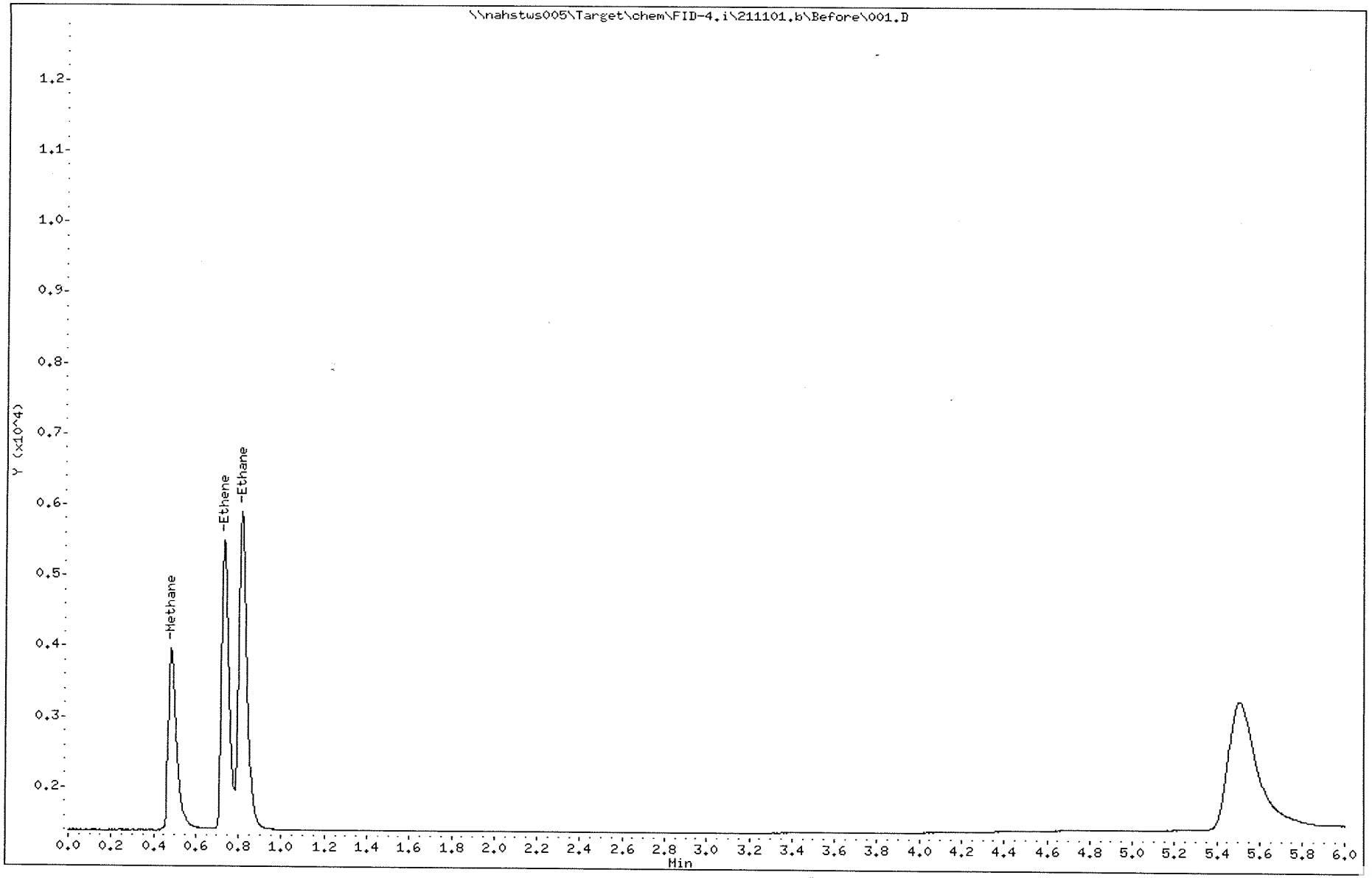
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.480	0.483	-0.003	7323	9.64700	7.510
2 Ethene	0.730	0.736	-0.006	10122	16.8500	17.280
3 Ethane	0.813	0.820	-0.007	12345	18.0430	17.157

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\001.D
Date : 01-NOV-2021 09:15
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\002.D Page 1
Report Date: 17-Nov-2021 09:44

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\002.D
Lab Smp Id: MBLK-211101 Client Smp ID: MBLK-211101
Inj Date : 01-NOV-2021 09:25
Operator : PL Inst ID: FID-4.i
Smp Info : MBLK-211101;MBLK-211101;3;;BLANK
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:40 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

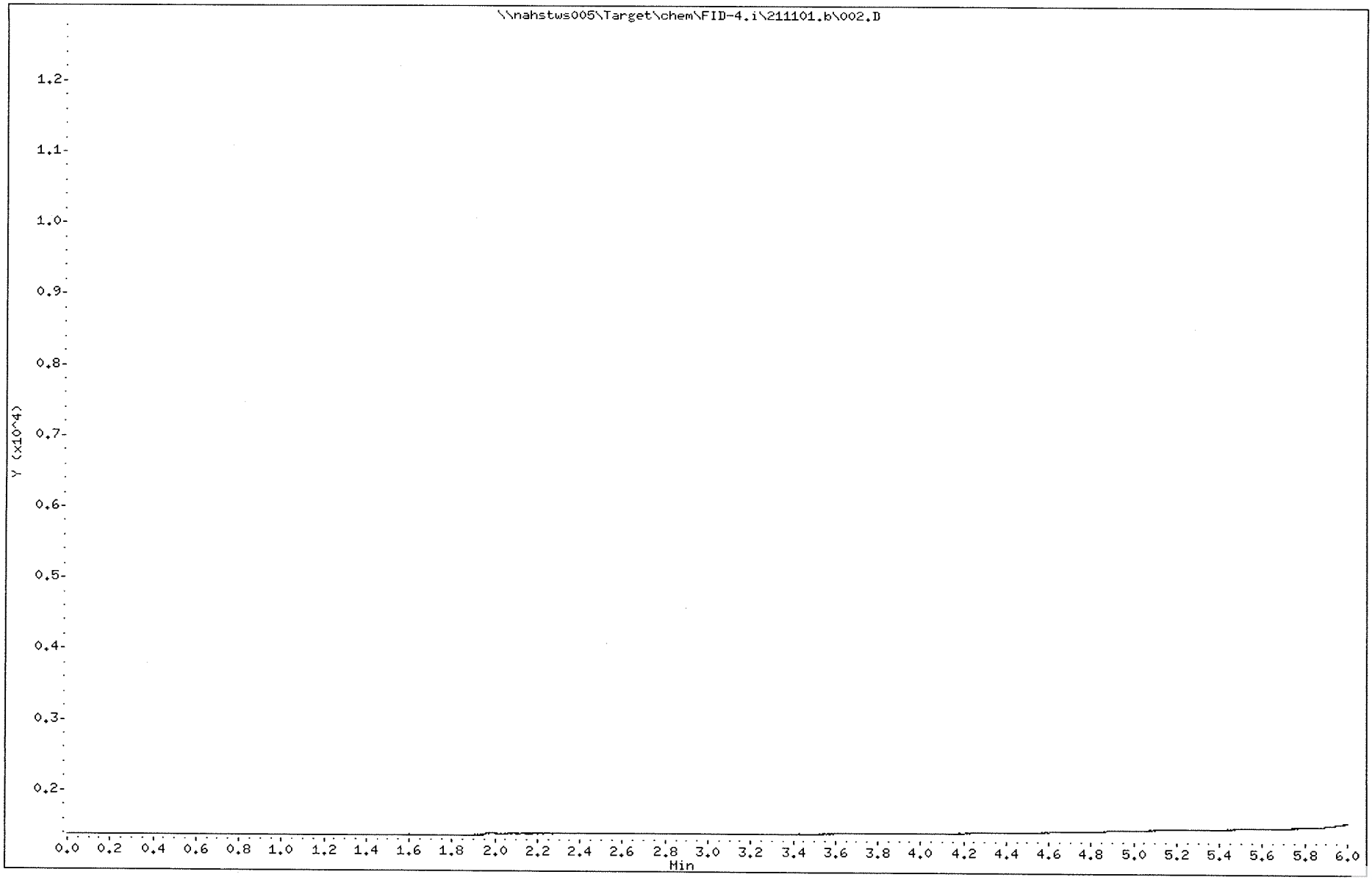
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\002.D
Date : 01-NOV-2021 09:25
Client ID: MBLK-211101
Sample Info: MBLK-211101;MBLK-211101;3;;BLANK

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\002.D Page 1
Report Date: 17-Nov-2021 09:48

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\Before\002.D
Lab Smp Id: MBLK-211101 Client Smp ID: MBLK-211101
Inj Date : 01-NOV-2021 09:25
Operator : PL Inst ID: FID-4.i
Smp Info : MBLK-211101;MBLK-211101;3;;BLANK
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:47 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\002.D

Date : 01-NOV-2021 09:25

Client ID: MBLK-211101

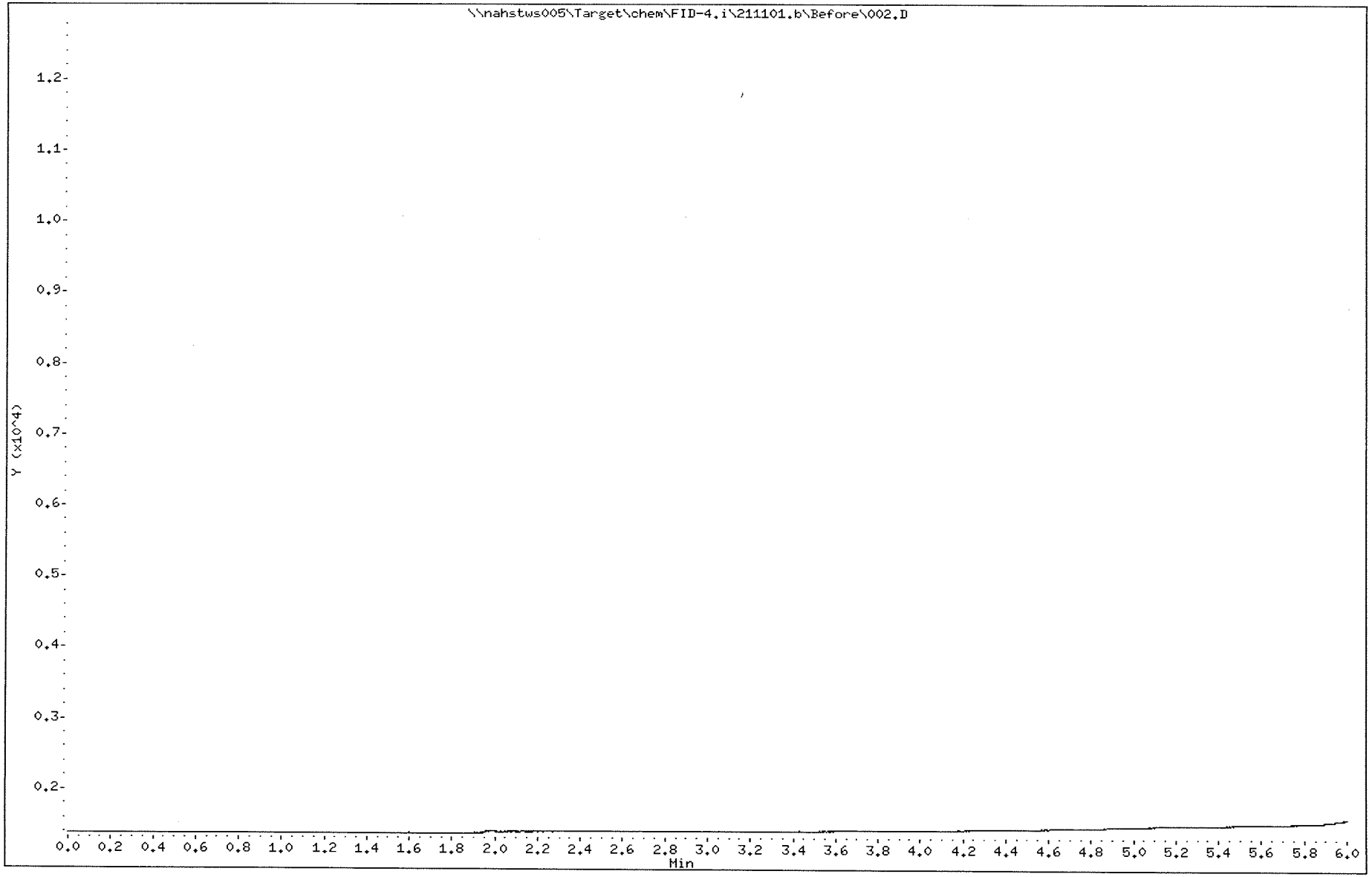
Instrument: FID-4.i

Sample Info: MBLK-211101;MBLK-211101;3;;BLANK

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\003.D Page 1
Report Date: 17-Nov-2021 09:44

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\003.D
Lab Smp Id: LCS-211101 Client Smp ID: LCS-211101
Inj Date : 01-NOV-2021 09:50
Operator : PL Inst ID: FID-4.i
Smp Info : LCS-211101;LCS-211101;3;;LCS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:40 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.486	0.473	0.013	9606	9.85239	9.852(M)
2 Ethene	0.733	0.726	0.007	11255	19.2143	19.214(M)
3 Ethane	0.816	0.810	0.006	12898	17.9266	17.926(M)

QC Flag Legend

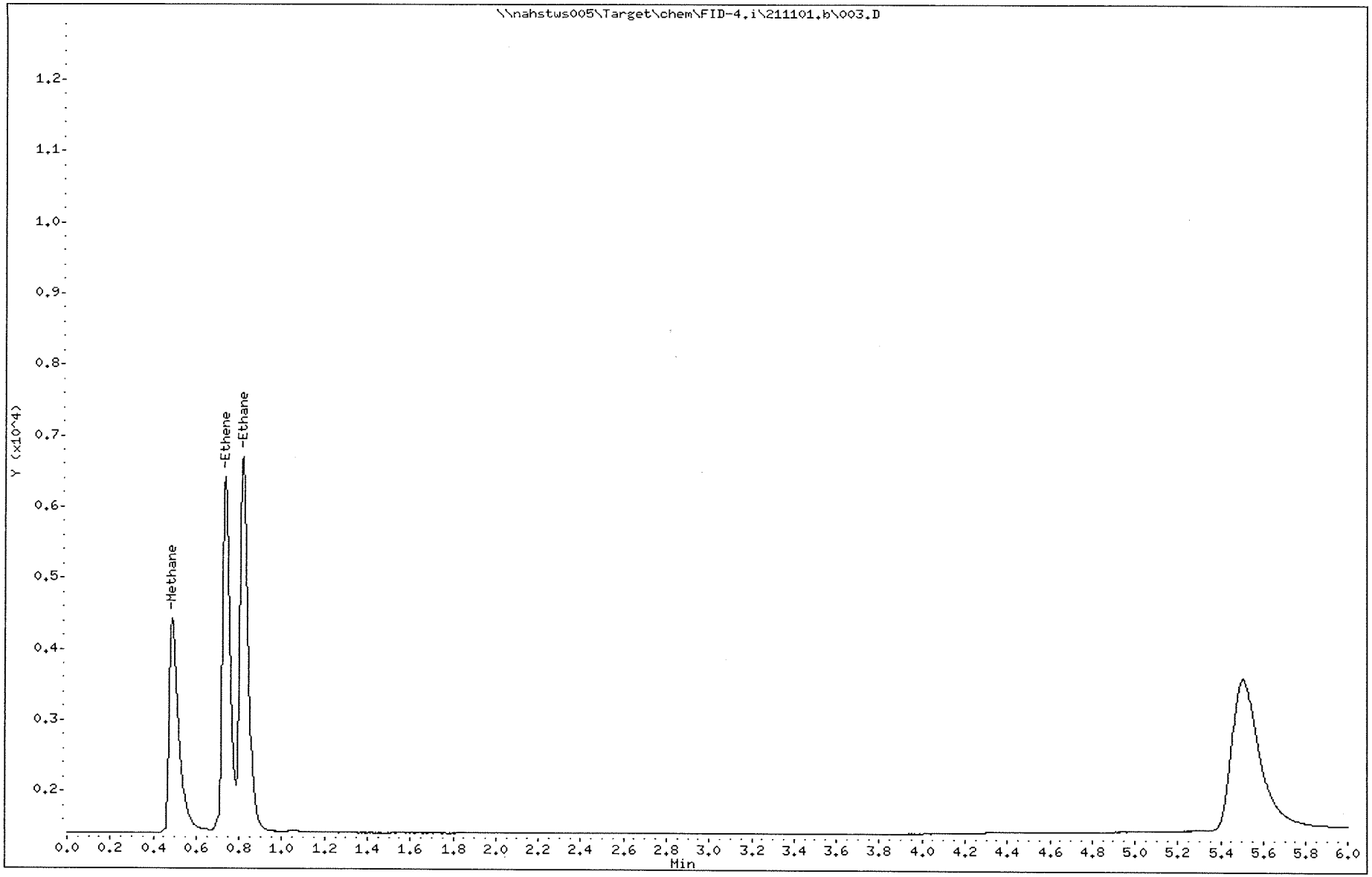
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\003.D
Date : 01-NOV-2021 09:50
Client ID: LCS-211101
Sample Info: LCS-211101;LCS-211101;3;;LCS

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\003.D Page 1
Report Date: 17-Nov-2021 09:48

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\Before\003.D
Lab Smp Id: LCS-211101 Client Smp ID: LCS-211101
Inj Date : 01-NOV-2021 09:50
Operator : PL Inst ID: FID-4.i
Smp Info : LCS-211101;LCS-211101;3;;LCS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:47 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.486	0.483	0.003	9750	10.0001	10.000
2 Ethene	0.733	0.736	-0.003	12775	21.8093	21.809(R)
3 Ethane	0.816	0.820	-0.004	14897	20.7050	20.704

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\003.D

Date : 01-NOV-2021 09:50

Client ID: LCS-211101

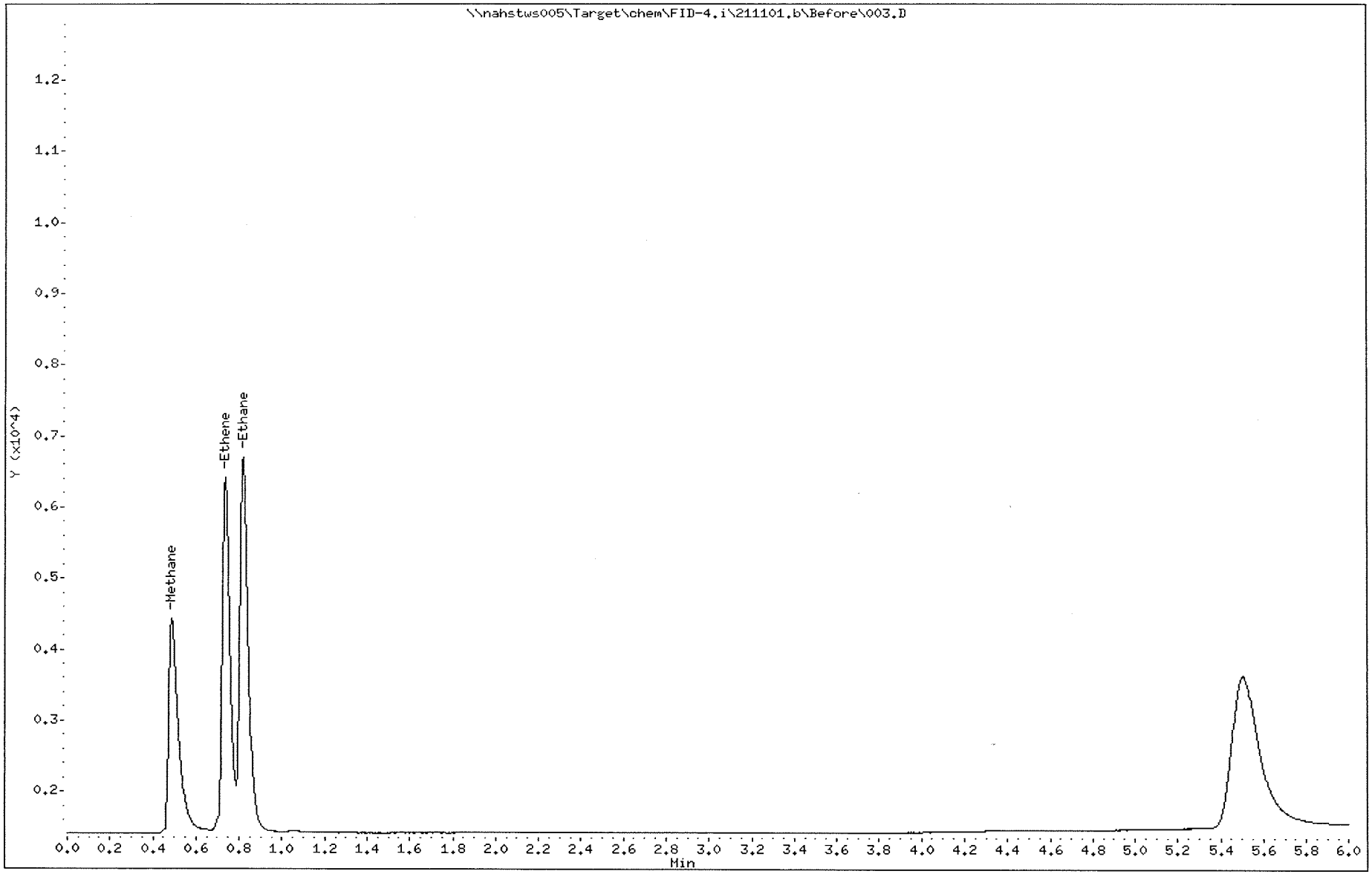
Instrument: FID-4.i

Sample Info: LCS-211101;LCS-211101;3;;LCS

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\004.D Page 1
Report Date: 17-Nov-2021 09:44

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\004.D
Lab Smp Id: HS21101171-01 Client Smp ID: HS21101171-01
Inj Date : 01-NOV-2021 10:00
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-01;HS21101171-01
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:40 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.483	0.473	0.010	2522119	2586.81	2586.809(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\004.D

Date : 01-NOV-2021 10:00

Client ID: HS21101171-01

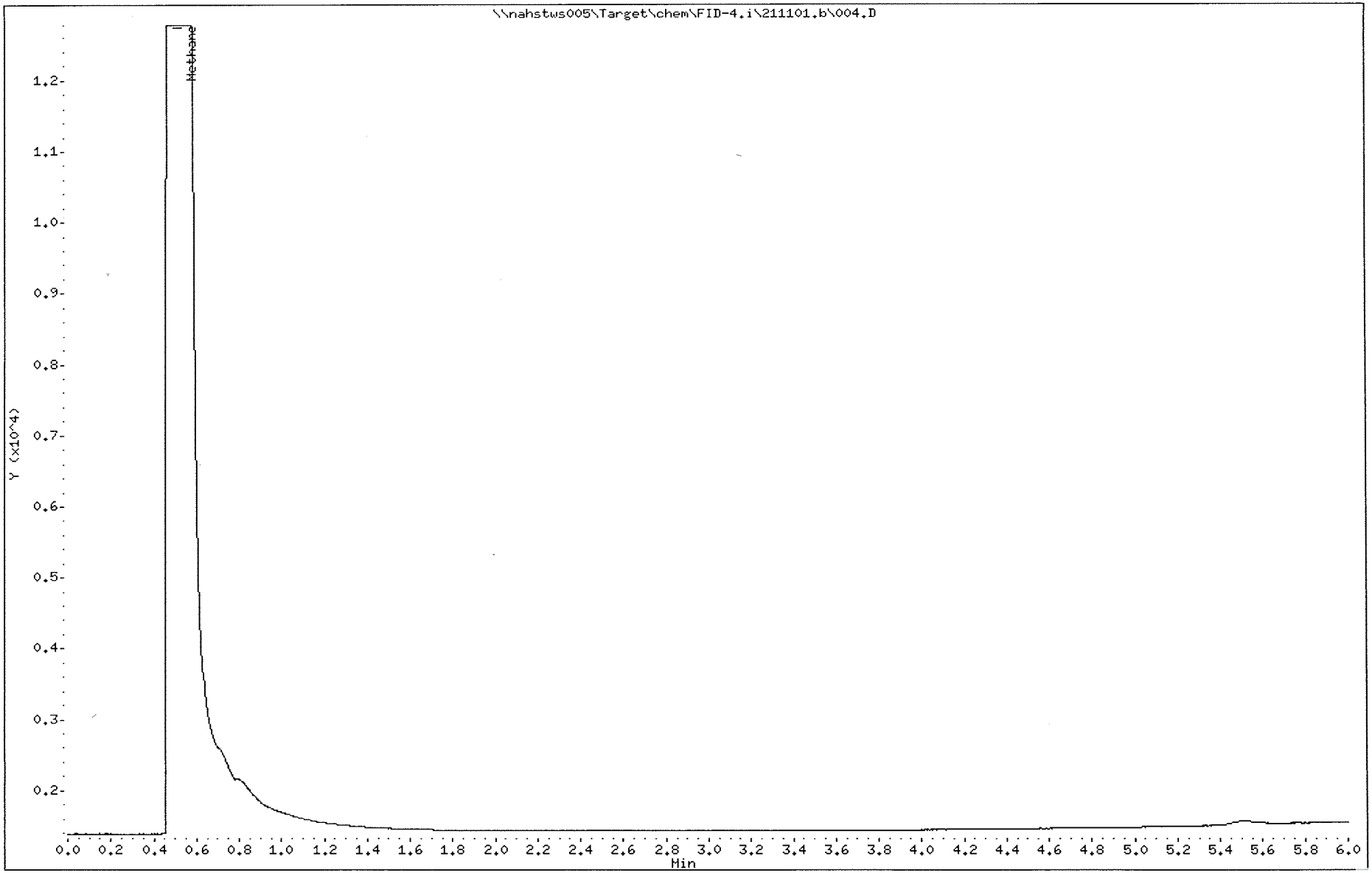
Instrument: FID-4.i

Sample Info: HS21101171-01;HS21101171-01

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\Before\004.D
Lab Smp Id: HS21101171-01 Client Smp ID: HS21101171-01
Inj Date : 01-NOV-2021 10:00
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-01;HS21101171-01
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:47 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.483	0.483	0.000	2522119	2586.81	2586.809(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\004.D

Date : 01-NOV-2021 10:00

Client ID: HS21101171-01

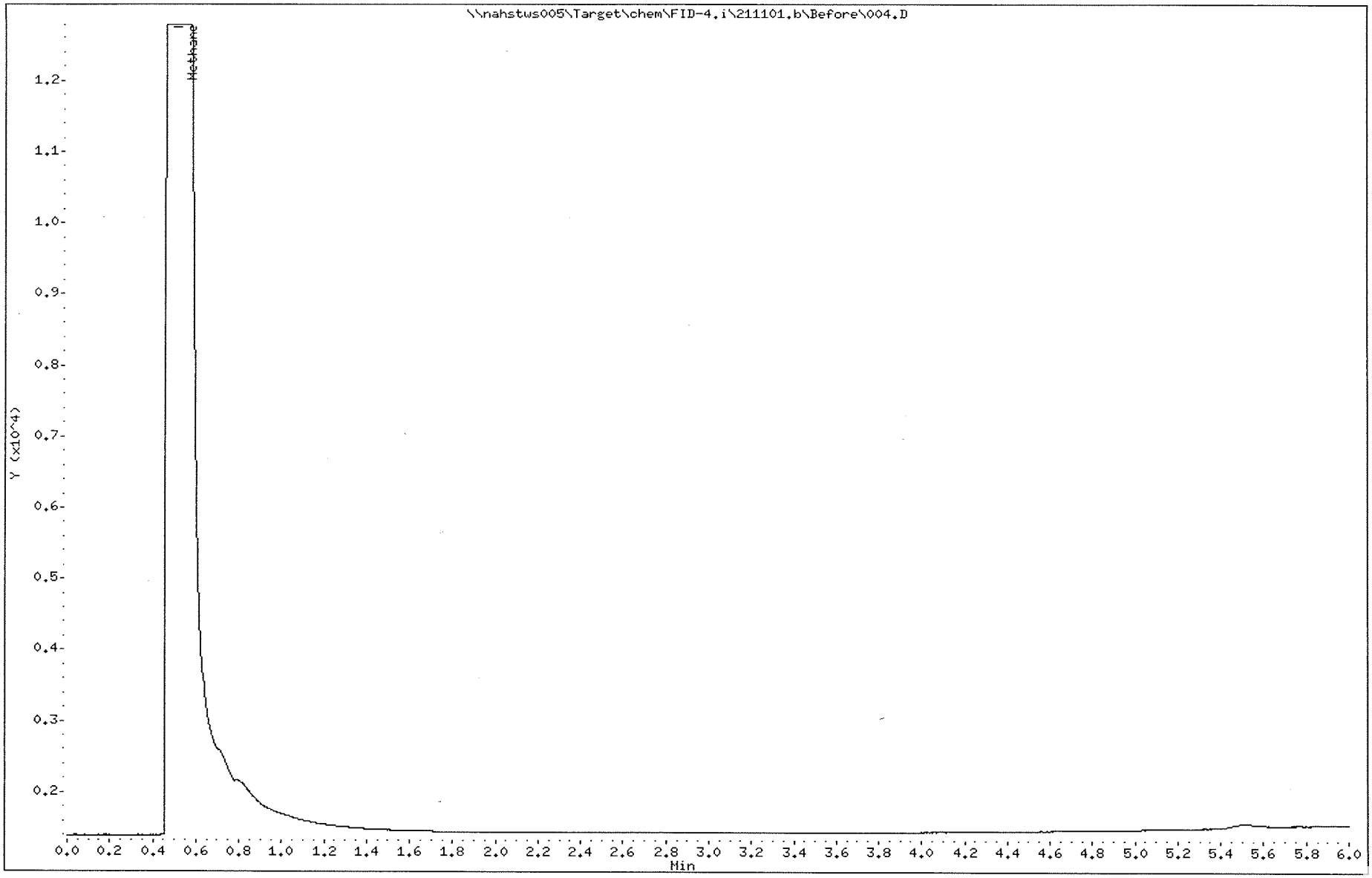
Instrument: FID-4.i

Sample Info: HS21101171-01;HS21101171-01

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\005.D Page 1
Report Date: 17-Nov-2021 09:44

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\005.D
Lab Smp Id: HS21101171-02 Client Smp ID: HS21101171-02
Inj Date : 01-NOV-2021 10:08
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-02;HS21101171-02
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:40 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.483	0.473	0.010	2261191	2319.19	2319.188(A)
2 Ethene	0.720	0.726	-0.006	7739	13.2119	13.211(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\005.D

Date : 01-NOV-2021 10:08

Client ID: HS21101171-02

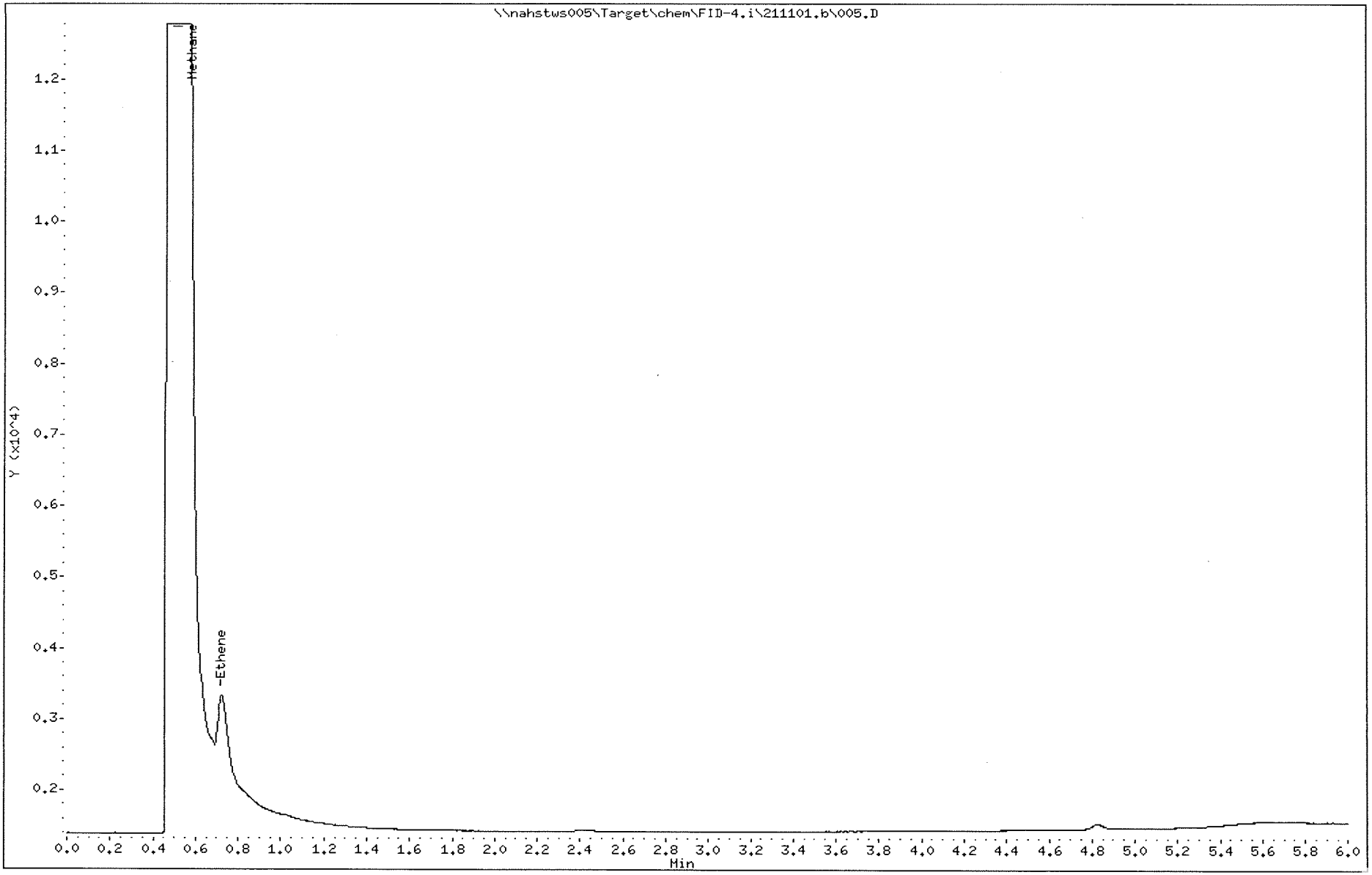
Instrument: FID-4.i

Sample Info: HS21101171-02;HS21101171-02

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\005.D Page 1
Report Date: 17-Nov-2021 09:48

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\Before\005.D
Lab Smp Id: HS21101171-02 Client Smp ID: HS21101171-02
Inj Date : 01-NOV-2021 10:08
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-02;HS21101171-02
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:47 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.483	0.483	0.000	2261191	2319.19	2319.188(A)
2 Ethene	0.720	0.736	-0.016	15632	26.6867	26.686

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\005.D

Date : 01-NOV-2021 10:08

Client ID: HS21101171-02

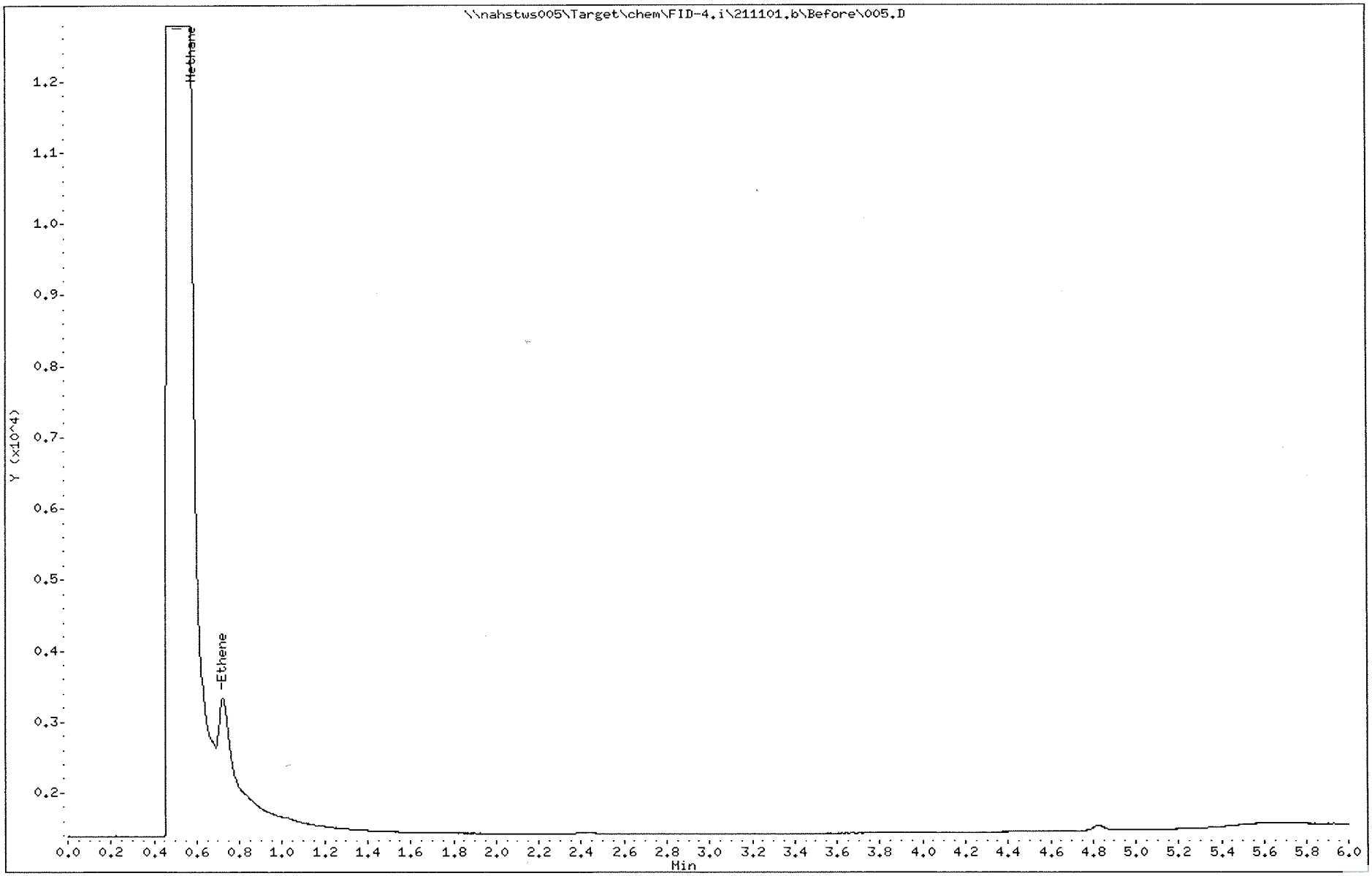
Instrument: FID-4.i

Sample Info: HS21101171-02;HS21101171-02

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\006.D Page 1
Report Date: 17-Nov-2021 09:44

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\006.D
Lab Smp Id: HS21101171-02MS Client Smp ID: HS21101171-02MS
Inj Date : 01-NOV-2021 10:45
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-02MS;HS21101171-02MS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:40 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 6 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.490	0.473	0.017	1839705	1886.89	1886.891(AR)
2 Ethene	0.730	0.726	0.004	14333	24.4690	24.469(R)
3 Ethane	0.816	0.810	0.006	10226	14.2129	14.212(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\006.D

Date : 01-NOV-2021 10:45

Client ID: HS21101171-02MS

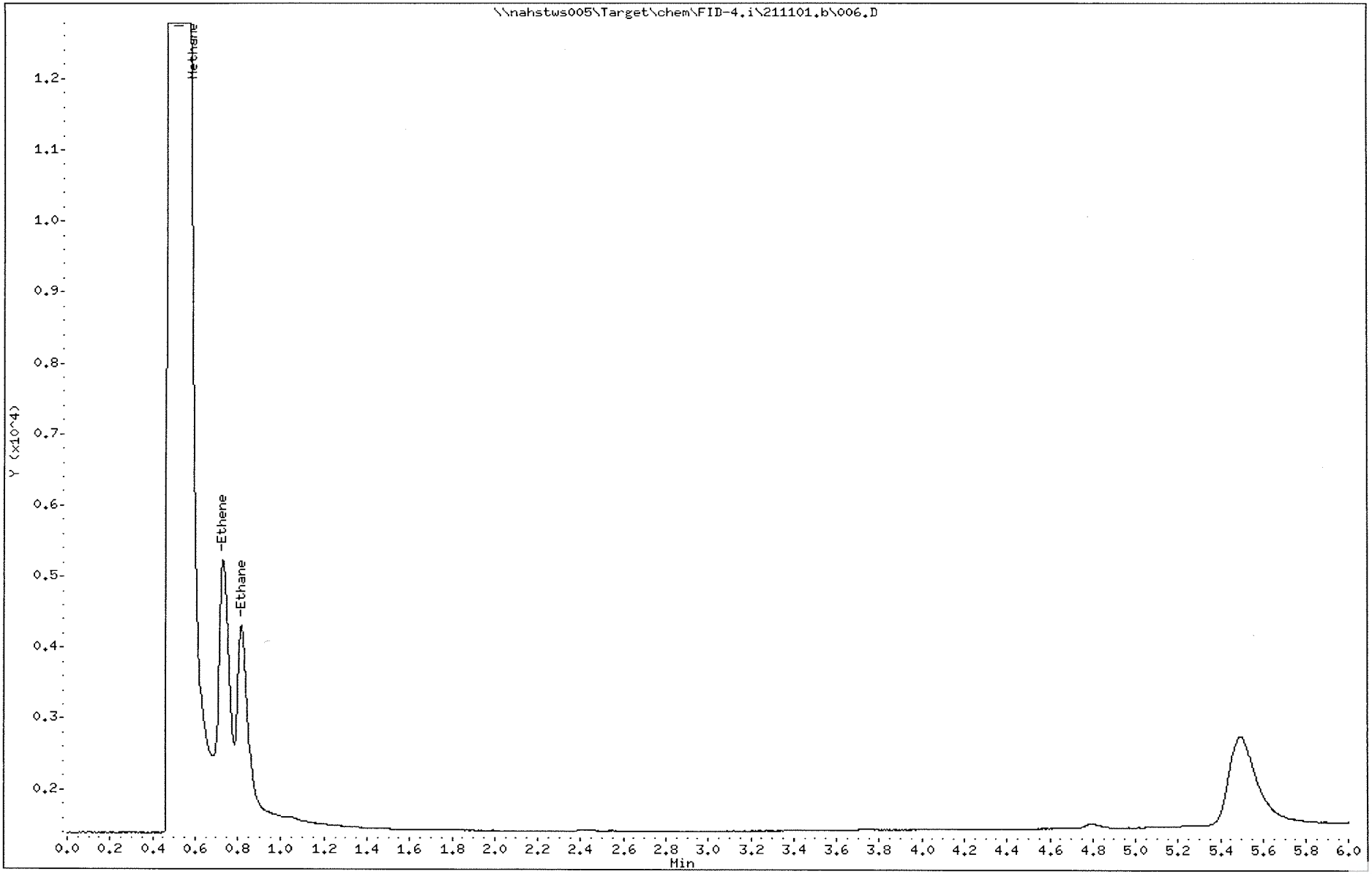
Sample Info: HS21101171-02MS;HS21101171-02MS

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\Before\006.D
Lab Smp Id: HS21101171-02MS Client Smp ID: HS21101171-02MS
Inj Date : 01-NOV-2021 10:45
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-02MS;HS21101171-02MS
Misc Info : ;1;0;1
Comment   :
Method   : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:47 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 6 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.490	0.483	0.007	1839705	1886.89	1886.891(AR)
2 Ethene	0.730	0.736	-0.006	14333	24.4690	24.469(R)
3 Ethane	0.816	0.820	-0.004	14163	19.6848	19.684

QC Flag Legend

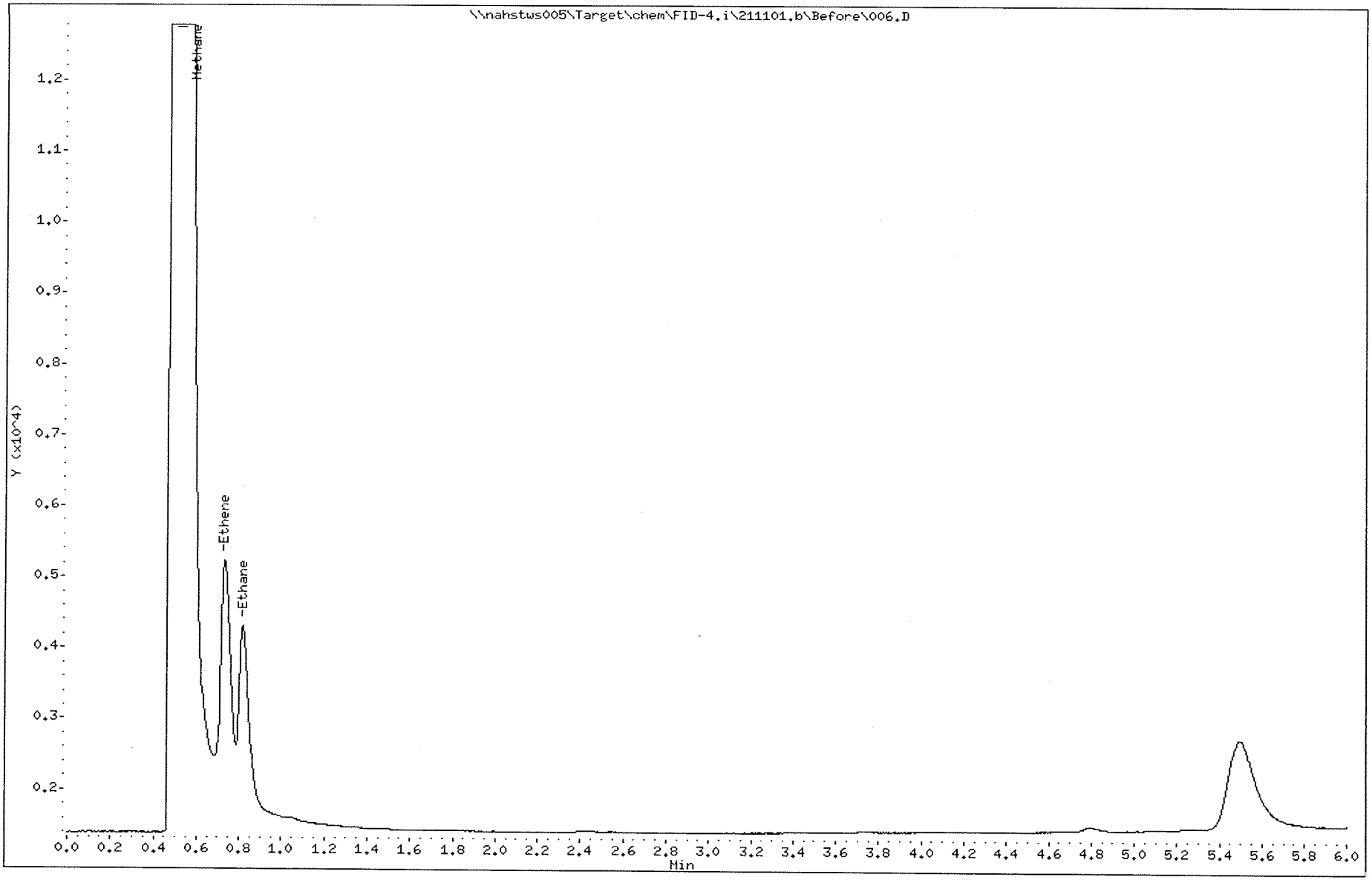
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\006.D
Date : 01-NOV-2021 10:45
Client ID: HS21101171-02MS
Sample Info: HS21101171-02MS;HS21101171-02MS

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\007.D Page 1
Report Date: 17-Nov-2021 09:44

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\007.D
Lab Smp Id: HS21101171-02MSD Client Smp ID: HS21101171-02MSD
Inj Date : 01-NOV-2021 10:56
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-02MSD;HS21101171-02MSD
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:40 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 7 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.490	0.473	0.017	1916512	1965.67	1965.668(AR)
2 Ethene	0.730	0.726	0.004	13465	22.9872	22.987(RM)
3 Ethane	0.816	0.810	0.006	11529	16.0239	16.023(M)

QC Flag Legend

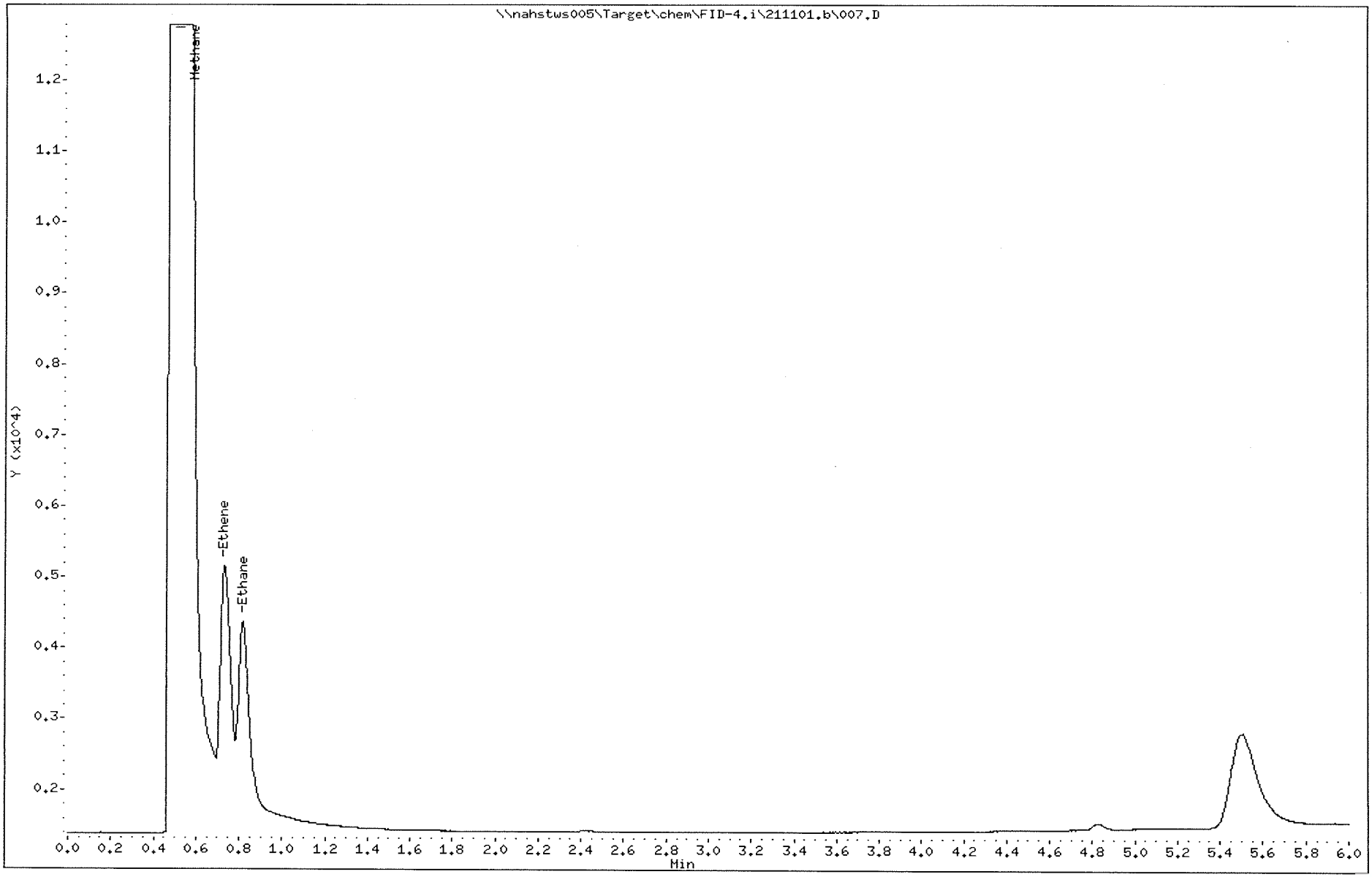
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\007.D
Date : 01-NOV-2021 10:56
Client ID: HS21101171-02MSD
Sample Info: HS21101171-02MSD;HS21101171-02MSD

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\007.D Page 1
Report Date: 17-Nov-2021 09:48

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\Before\007.D
Lab Smp Id: HS21101171-02MSD Client Smp ID: HS21101171-02MSD
Inj Date : 01-NOV-2021 10:56
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-02MSD;HS21101171-02MSD
Misc Info : ;1;0;1
Comment   :
Method   : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:47 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 7 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.490	0.483	0.007	1914712	1963.82	1963.822(AR)
2 Ethene	0.730	0.736	-0.006	21830	37.2678	37.267(R)

QC Flag Legend

A - Target compound detected but, quantitated amount
    exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\007.D

Date : 01-NOV-2021 10:56

Client ID: HS21101171-02MSD

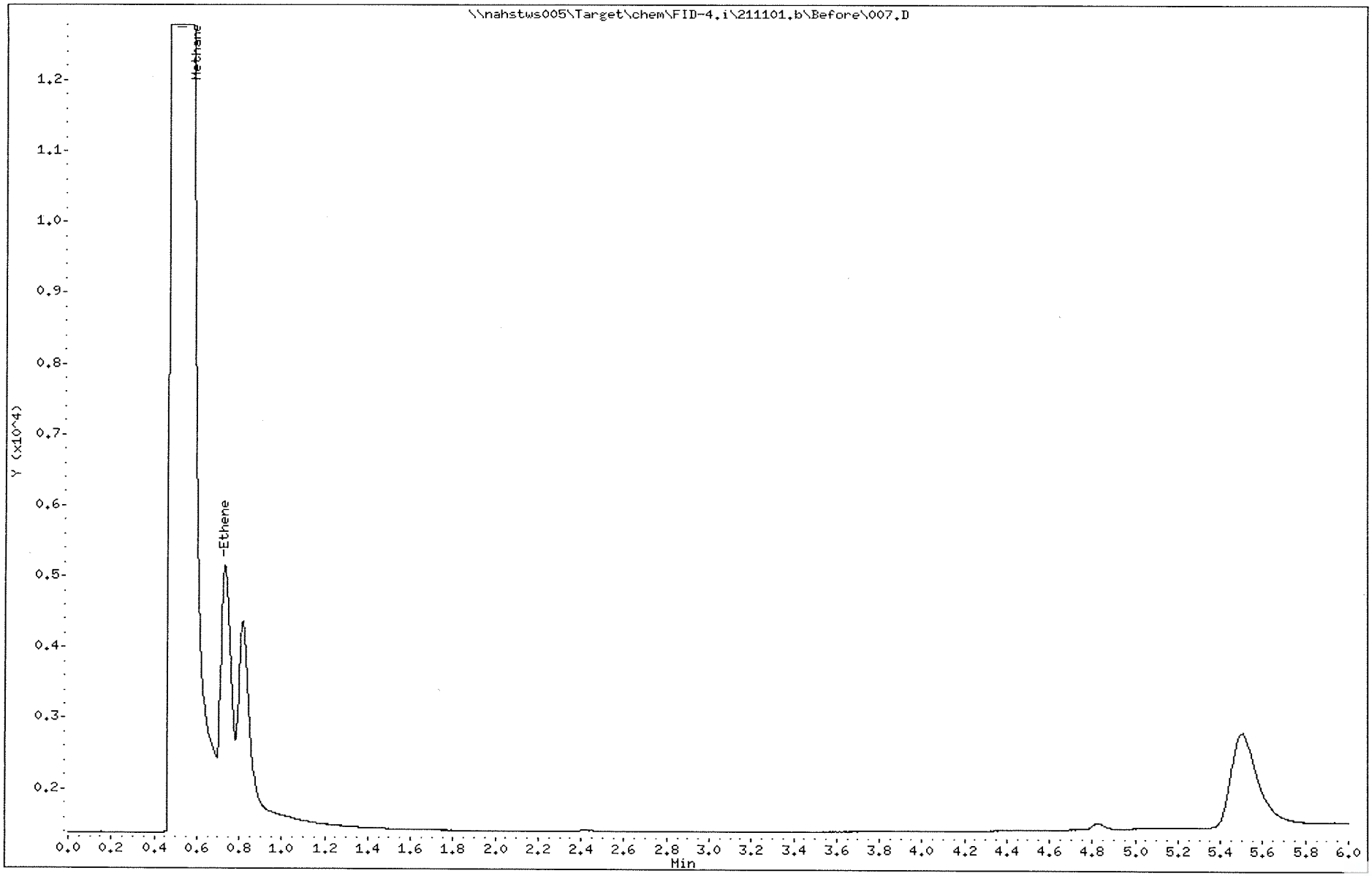
Sample Info: HS21101171-02MSD;HS21101171-02MSD

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\008.D Page 1
Report Date: 17-Nov-2021 09:44

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\008.D
Lab Smp Id: HS21101171-03 Client Smp ID: HS21101171-03
Inj Date : 01-NOV-2021 11:04
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-03;HS21101171-03
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:40 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.480	0.473	0.007	119386	122.448	122.448(A)
2 Ethene	0.726	0.726	0.000	29806	50.8843	50.884

QC Flag Legend

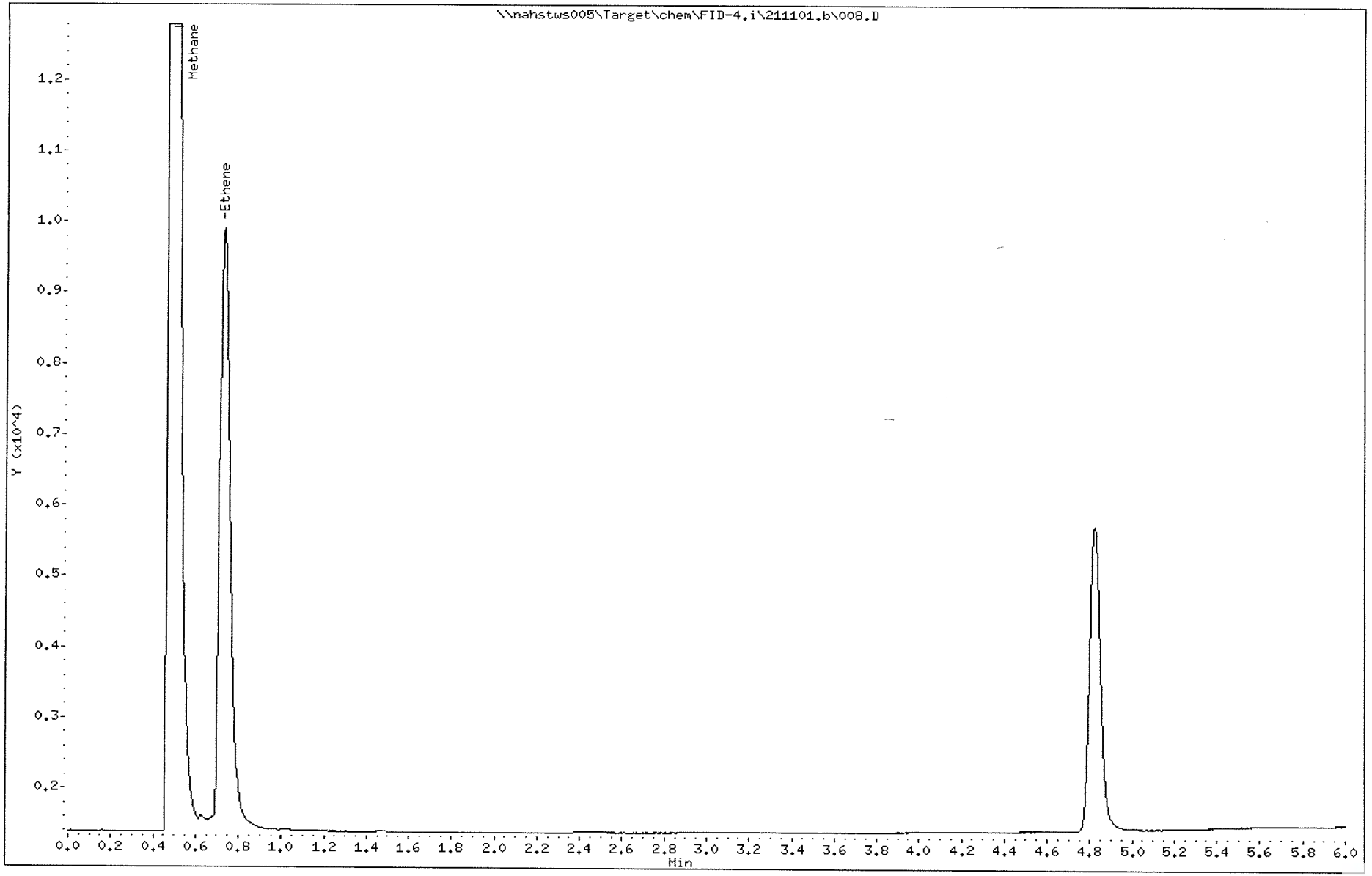
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\008.D
Date : 01-NOV-2021 11:04
Client ID: HS21101171-03
Sample Info: HS21101171-03;HS21101171-03

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\Before\008.D
Lab Smp Id: HS21101171-03 Client Smp ID: HS21101171-03
Inj Date : 01-NOV-2021 11:04
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-03;HS21101171-03
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:47 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.480	0.483	-0.003	119386	122.448	122.448(A)
2 Ethene	0.726	0.736	-0.010	29806	50.8843	50.884

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\008.D

Date : 01-NOV-2021 11:04

Client ID: HS21101171-03

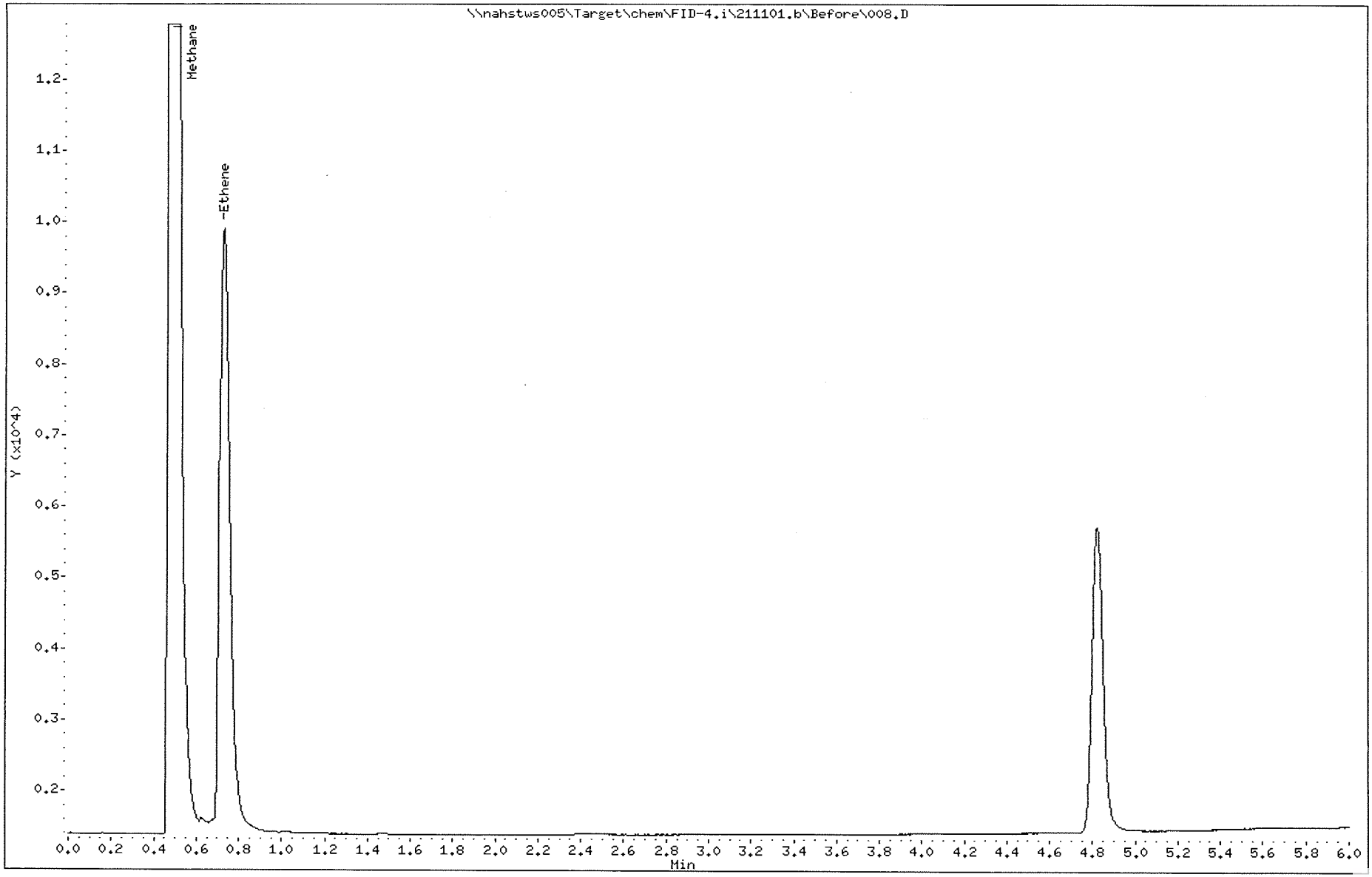
Instrument: FID-4.i

Sample Info: HS21101171-03;HS21101171-03

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\009.D
Lab Smp Id: HS21101171-04 Client Smp ID: HS21101171-04
Inj Date : 01-NOV-2021 11:18
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-04;HS21101171-04
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:40 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.486	0.473	0.013	115270	118.227	118.226(A)
2 Ethene	0.733	0.726	0.007	56769	96.9150	96.915(A)

QC Flag Legend

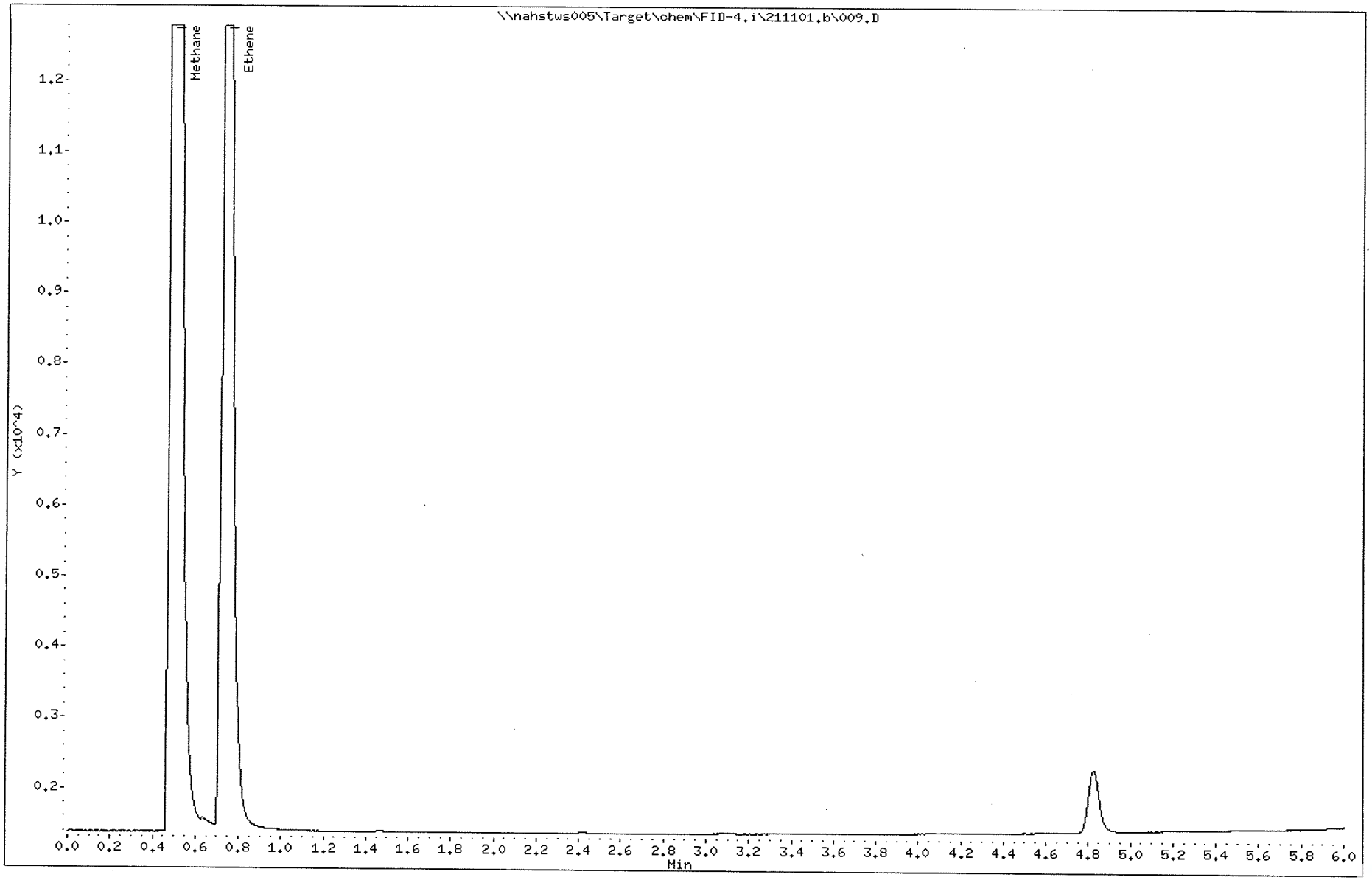
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\009.D
Date : 01-NOV-2021 11:18
Client ID: HS21101171-04
Sample Info: HS21101171-04;HS21101171-04

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\Before\009.D
Lab Smp Id: HS21101171-04 Client Smp ID: HS21101171-04
Inj Date : 01-NOV-2021 11:18
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-04;HS21101171-04
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:47 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.486	0.483	0.003	115270	118.227	118.226(A)
2 Ethene	0.733	0.736	-0.003	56769	96.9150	96.915(A)

QC Flag Legend

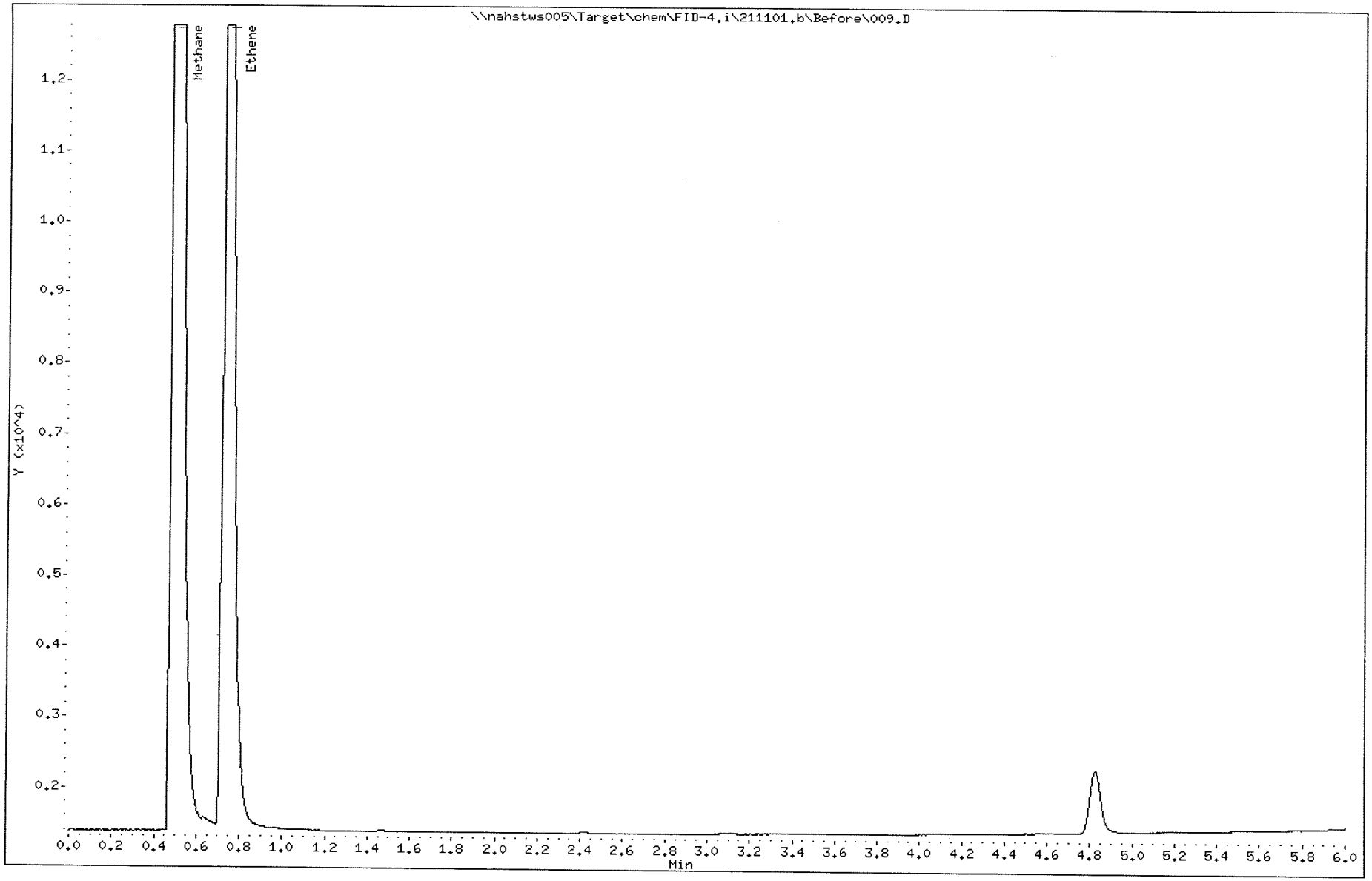
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\009.D
Date : 01-NOV-2021 11:18
Client ID: HS21101171-04
Sample Info: HS21101171-04;HS21101171-04

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\010.D
Lab Smp Id: HS21101171-01 Client Smp ID: HS21101171-01
Inj Date : 01-NOV-2021 11:39
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-01;HS21101171-01
Misc Info : ;1;0;100
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:40 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 10
Dil Factor: 100.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

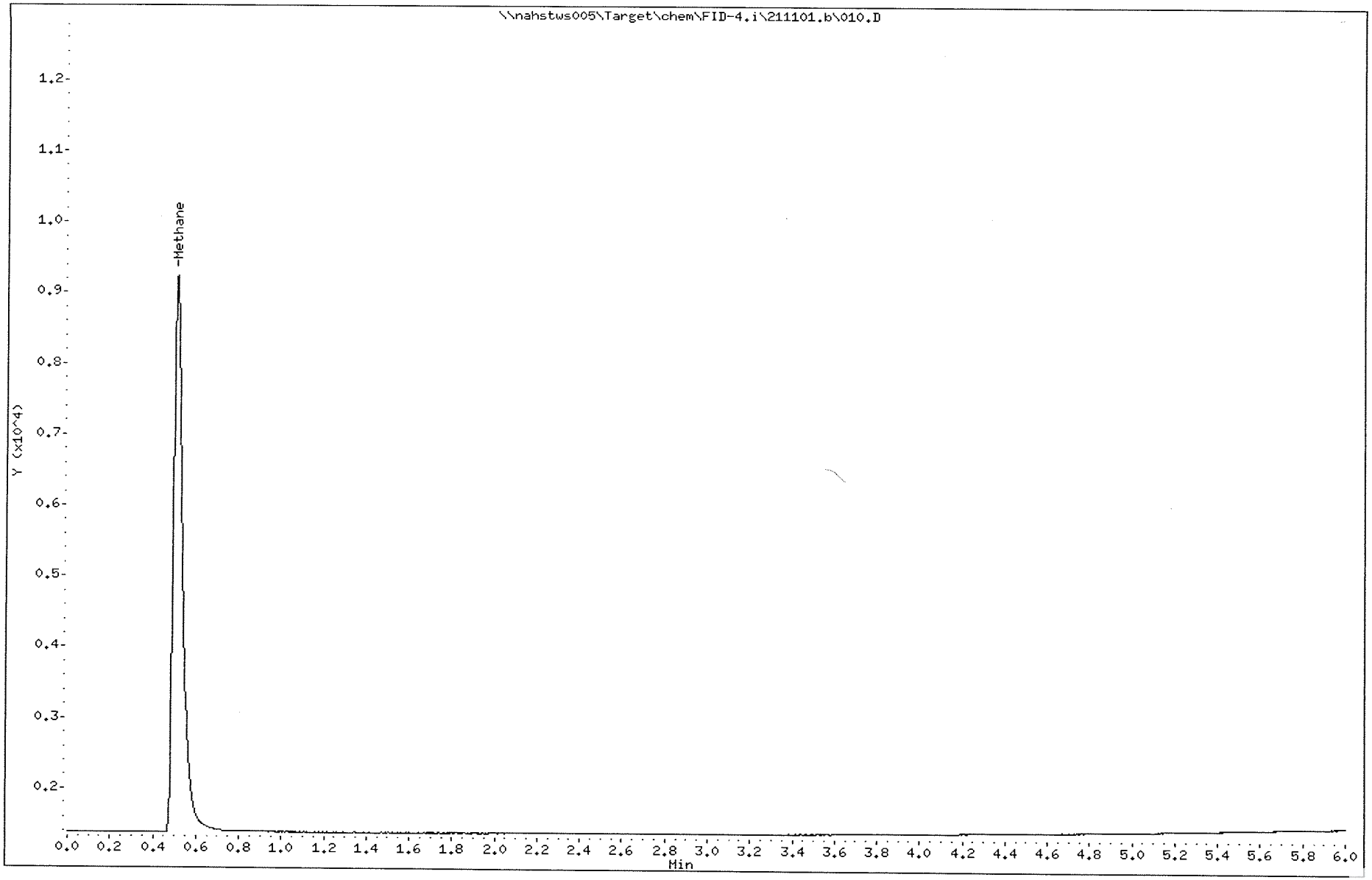
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.503	0.473	0.030	24776	25.4115	2541.148

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\010.D
Date : 01-NOV-2021 11:39
Client ID: HS21101171-01
Sample Info: HS21101171-01;HS21101171-01

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\010.D Page 1
Report Date: 17-Nov-2021 09:48

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\Before\010.D
Lab Smp Id: HS21101171-01 Client Smp ID: HS21101171-01
Inj Date : 01-NOV-2021 11:39
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-01;HS21101171-01
Misc Info : ;1;0;100
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:47 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 10
Dil Factor: 100.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.503	0.483	0.020	24776	25.4115	2541.148

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\010.D
Date : 01-NOV-2021 11:39
Client ID: HS21101171-01
Sample Info: HS21101171-01;HS21101171-01

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\011.D
Report Date: 17-Nov-2021 09:44

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\011.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 01-NOV-2021 11:53
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:40 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.480	0.473	0.007	7944	9.64700	8.147(M)
2 Ethene	0.730	0.726	0.004	11647	16.8500	19.883(M)
3 Ethane	0.810	0.810	0.000	14238	18.0430	19.789(M)

QC Flag Legend

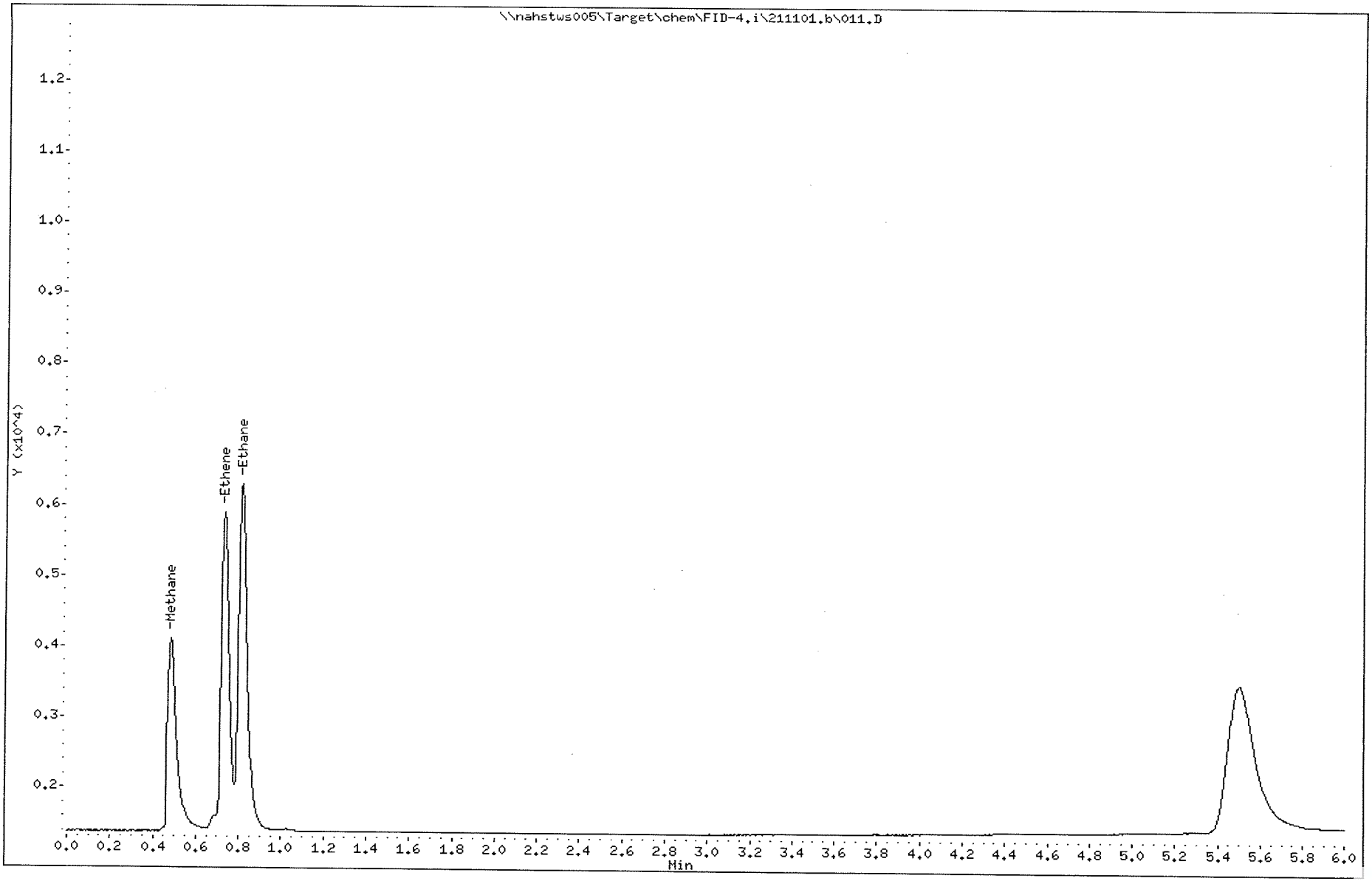
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\011.D
Date : 01-NOV-2021 11:53
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\Before\011.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 01-NOV-2021 11:53
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:47 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

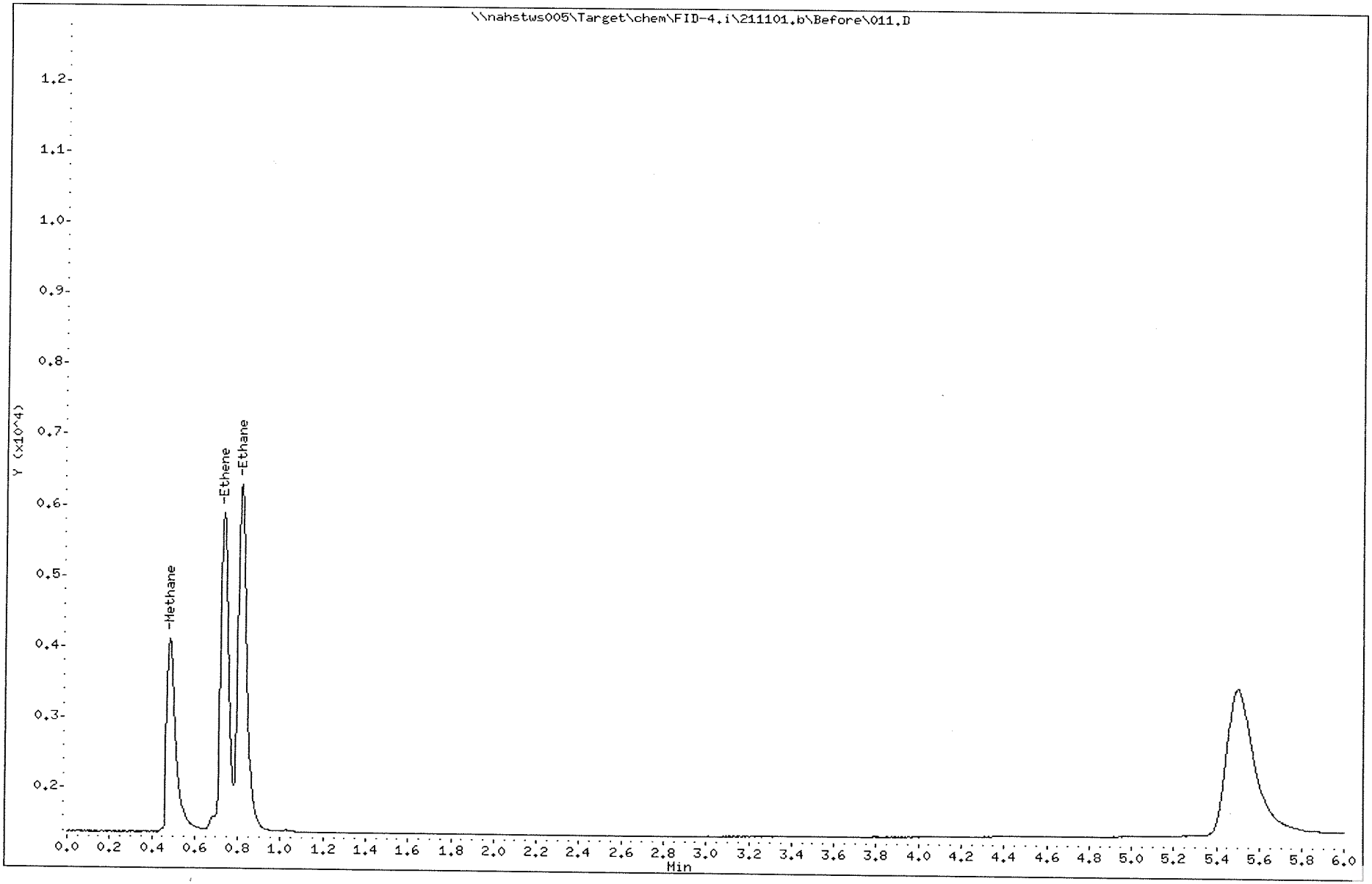
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.480	0.483	-0.003	8276	9.64700	8.488
2 Ethene	0.730	0.736	-0.006	12284	16.8500	20.971
3 Ethane	0.810	0.820	-0.010	14828	18.0430	20.609

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\011.D
Date : 01-NOV-2021 11:53
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\012.D
Report Date: 17-Nov-2021 09:44

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\012.D
Lab Smp Id: HS21101171-02 Client Smp ID: HS21101171-02
Inj Date : 01-NOV-2021 12:04
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-02;HS21101171-02
Misc Info : ;1;0;100
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:40 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 12
Dil Factor: 100.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.503	0.473	0.030	24551	25.1807	2518.071(M)

QC Flag Legend

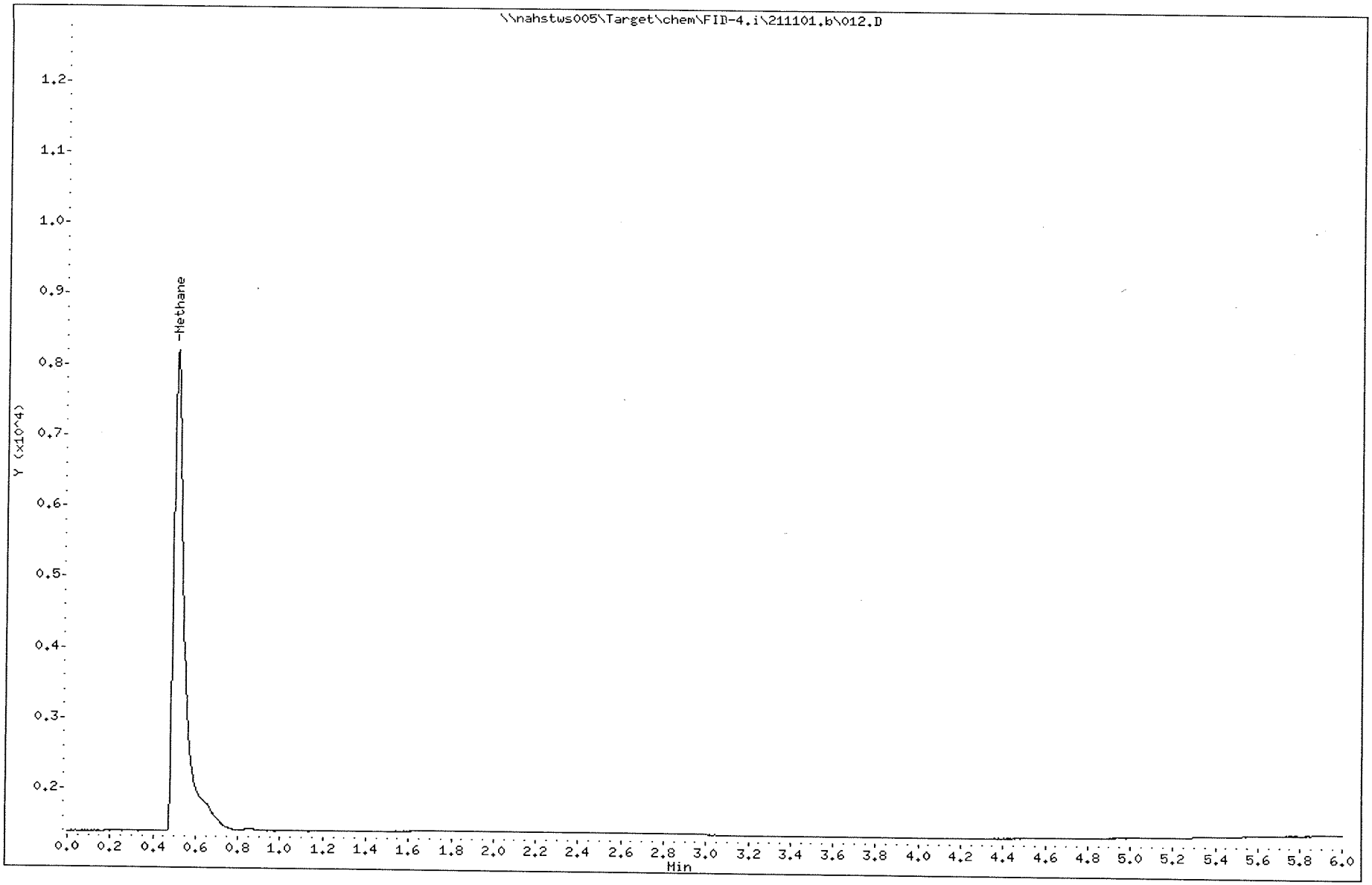
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\012.D
Date : 01-NOV-2021 12:04
Client ID: HS21101171-02
Sample Info: HS21101171-02;HS21101171-02

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\Before\012.D
Lab Smp Id: HS21101171-02 Client Smp ID: HS21101171-02
Inj Date : 01-NOV-2021 12:04
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-02;HS21101171-02
Misc Info : ;1;0;100
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:47 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 12
Dil Factor: 100.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

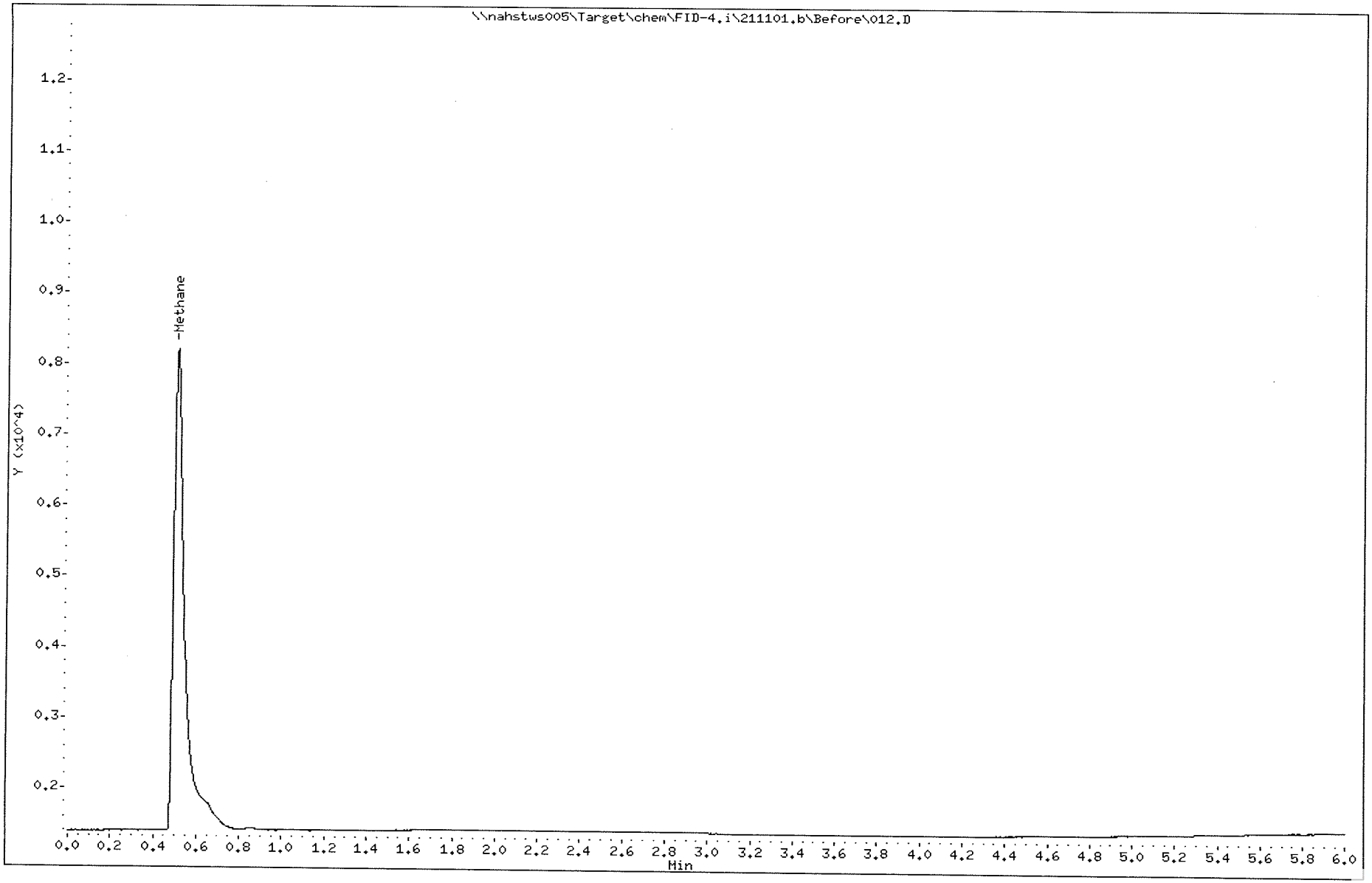
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.503	0.483	0.020	25782	26.4433	2644.328

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\012.D
Date : 01-NOV-2021 12:04
Client ID: HS21101171-02
Sample Info: HS21101171-02;HS21101171-02

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53

Column phase: Rtx-PLOT



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\013.D Page 1
Report Date: 17-Nov-2021 09:44

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\013.D
Lab Smp Id: HS21101171-03 Client Smp ID: HS21101171-03
Inj Date : 01-NOV-2021 12:13
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-03;HS21101171-03
Misc Info : ;1;0;10
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:40 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 13
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

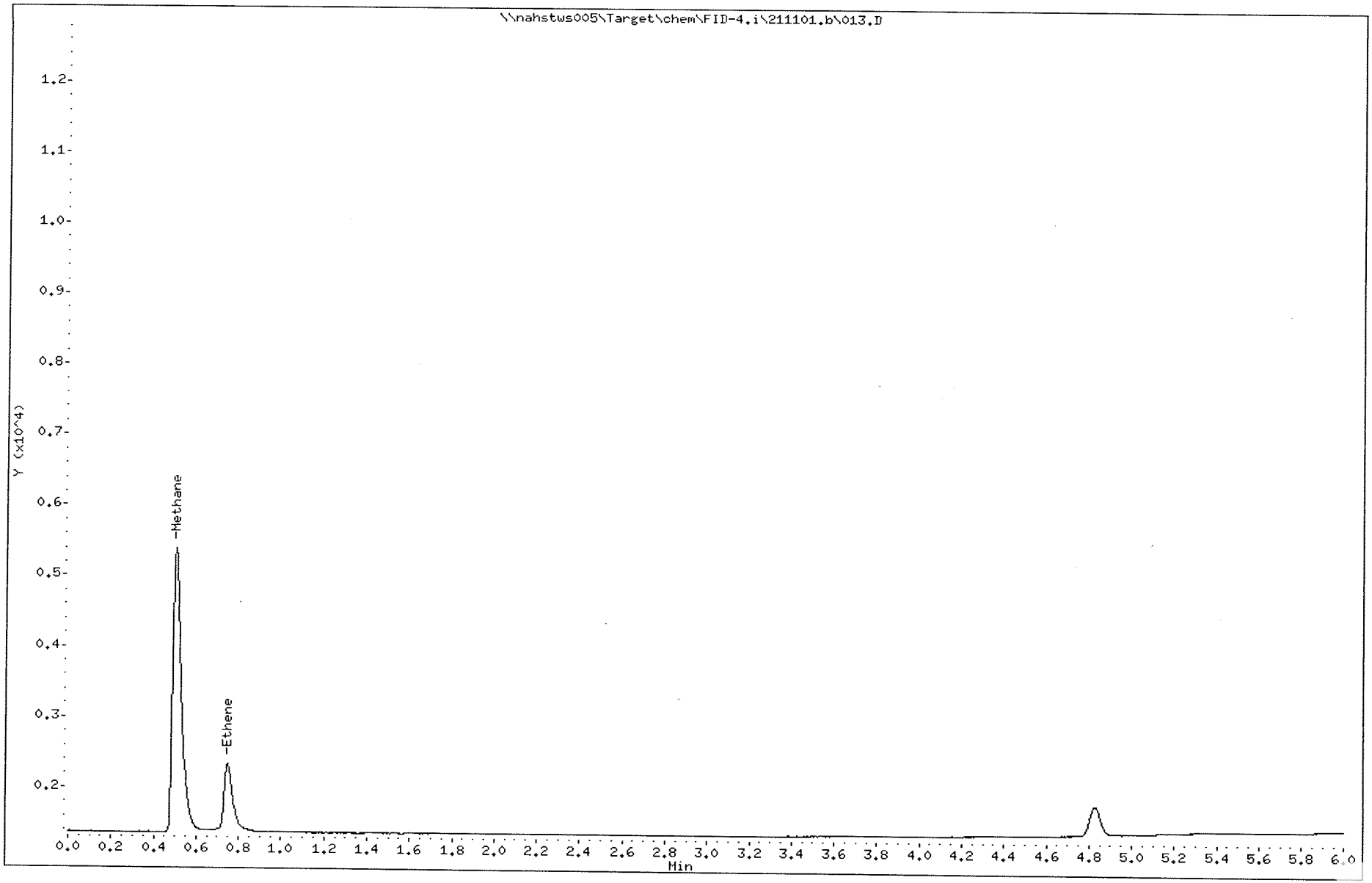
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.500	0.473	0.027	11918	12.2237	122.236
2 Ethene	0.746	0.726	0.020	3151	5.37933	53.793

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\013.D
Date : 01-NOV-2021 12:13
Client ID: HS21101171-03
Sample Info: HS21101171-03;HS21101171-03

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\Before\013.D
Lab Smp Id: HS21101171-03 Client Smp ID: HS21101171-03
Inj Date : 01-NOV-2021 12:13
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-03;HS21101171-03
Misc Info : ;1;0;10
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:47 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 13
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

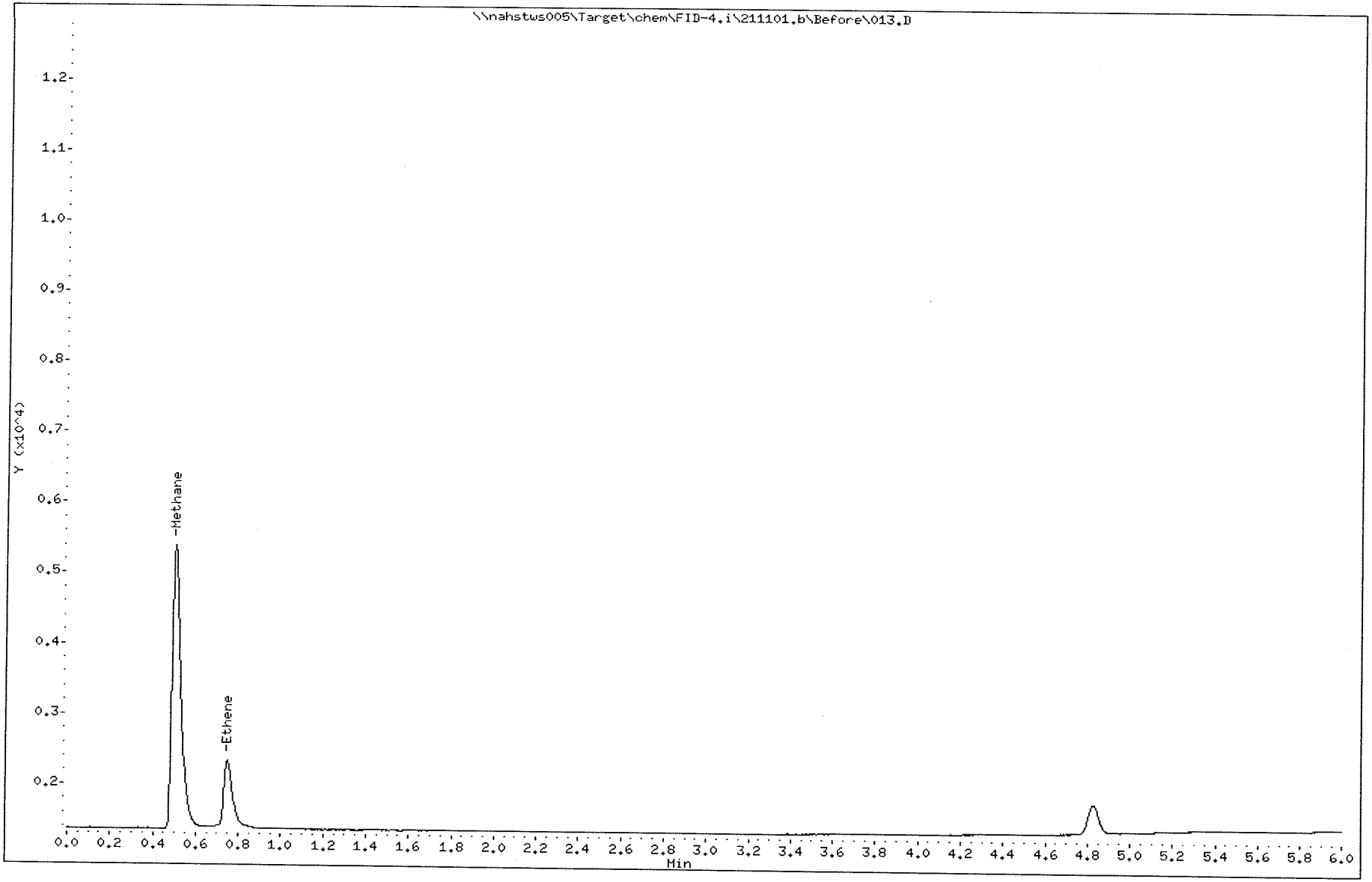
					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.500	0.483	0.017	11893	12.1980	121.980
2 Ethene	0.746	0.736	0.010	3103	5.29739	52.973

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\013.D
Date : 01-NOV-2021 12:13
Client ID: HS21101171-03
Sample Info: HS21101171-03;HS21101171-03

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\014.D
Report Date: 17-Nov-2021 09:44

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\014.D
Lab Smp Id: HS21101171-04 Client Smp ID: HS21101171-04
Inj Date : 01-NOV-2021 12:21
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-04;HS21101171-04
Misc Info : ;1;0;10
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:40 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 14
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

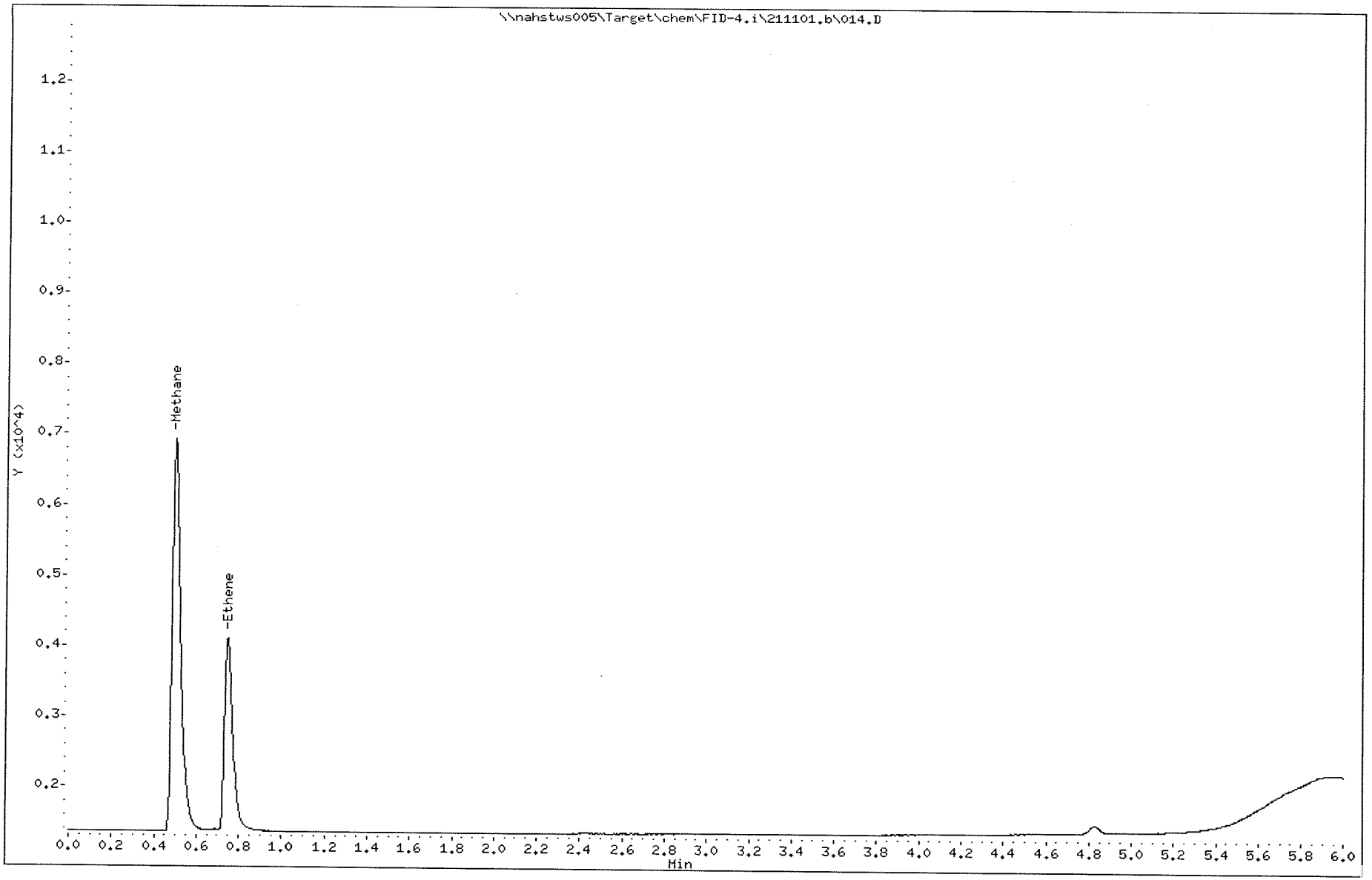
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.493	0.473	0.020	16010	16.4206	164.206
2 Ethene	0.746	0.726	0.020	7664	13.0838	130.838

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\014.D
Date : 01-NOV-2021 12:21
Client ID: HS21101171-04
Sample Info: HS21101171-04;HS21101171-04

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\Before\014.D
Lab Smp Id: HS21101171-04 Client Smp ID: HS21101171-04
Inj Date : 01-NOV-2021 12:21
Operator : PL Inst ID: FID-4.i
Smp Info : HS21101171-04;HS21101171-04
Misc Info : ;1;0;10
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:47 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 14
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

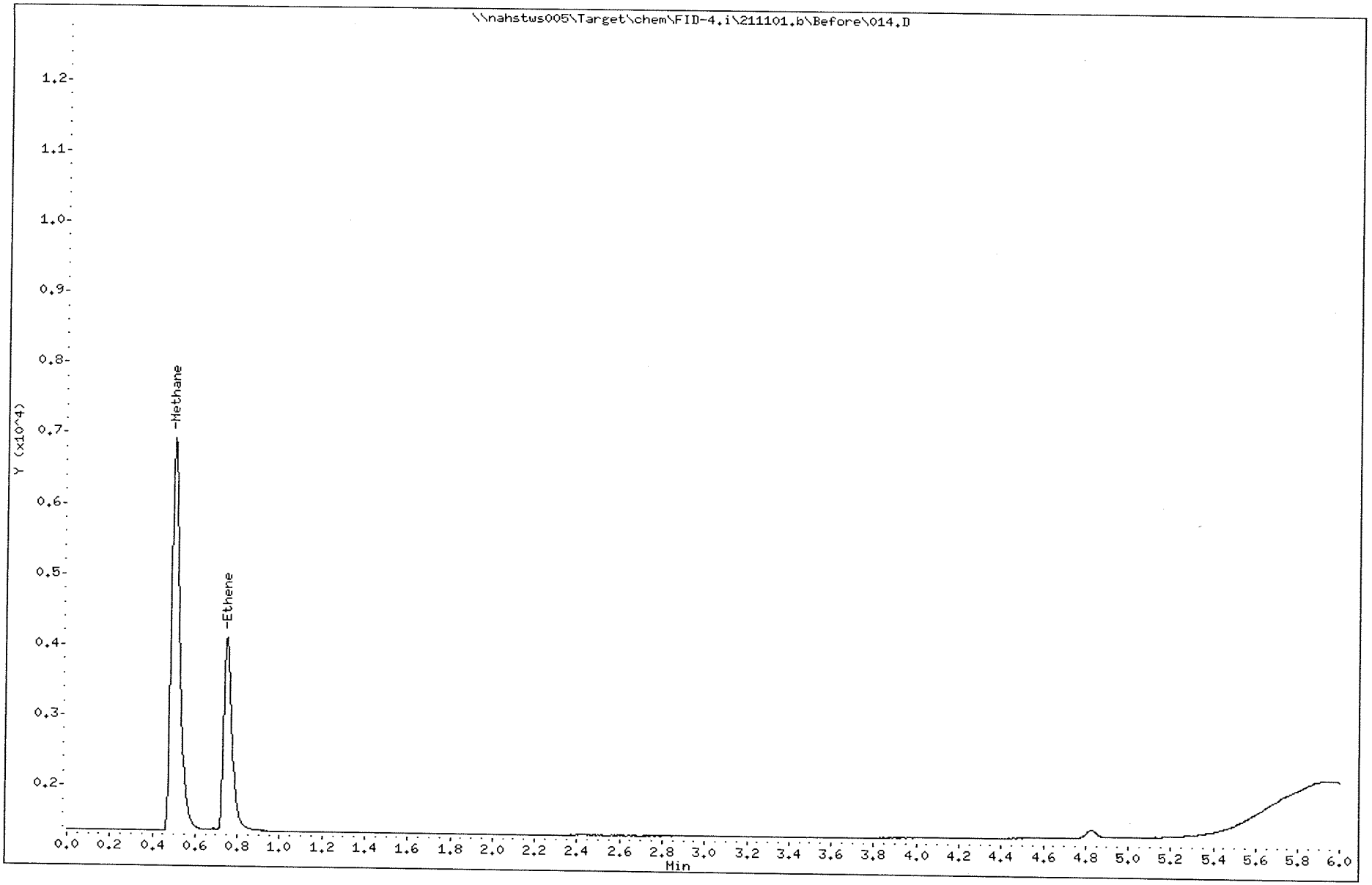
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.493	0.483	0.010	16010	16.4206	164.206
2 Ethene	0.746	0.736	0.010	7664	13.0838	130.838

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\014.D
Date : 01-NOV-2021 12:21
Client ID: HS21101171-04
Sample Info: HS21101171-04;HS21101171-04

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\022.D Page 1
Report Date: 17-Nov-2021 09:44

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\022.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 01-NOV-2021 13:46
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:40 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.473	0.473	0.000	8508	9.64700	8.726 (M)
2 Ethene	0.726	0.726	0.000	11664	16.8500	19.912 (M)
3 Ethane	0.810	0.810	0.000	13633	18.0430	18.948 (M)

QC Flag Legend

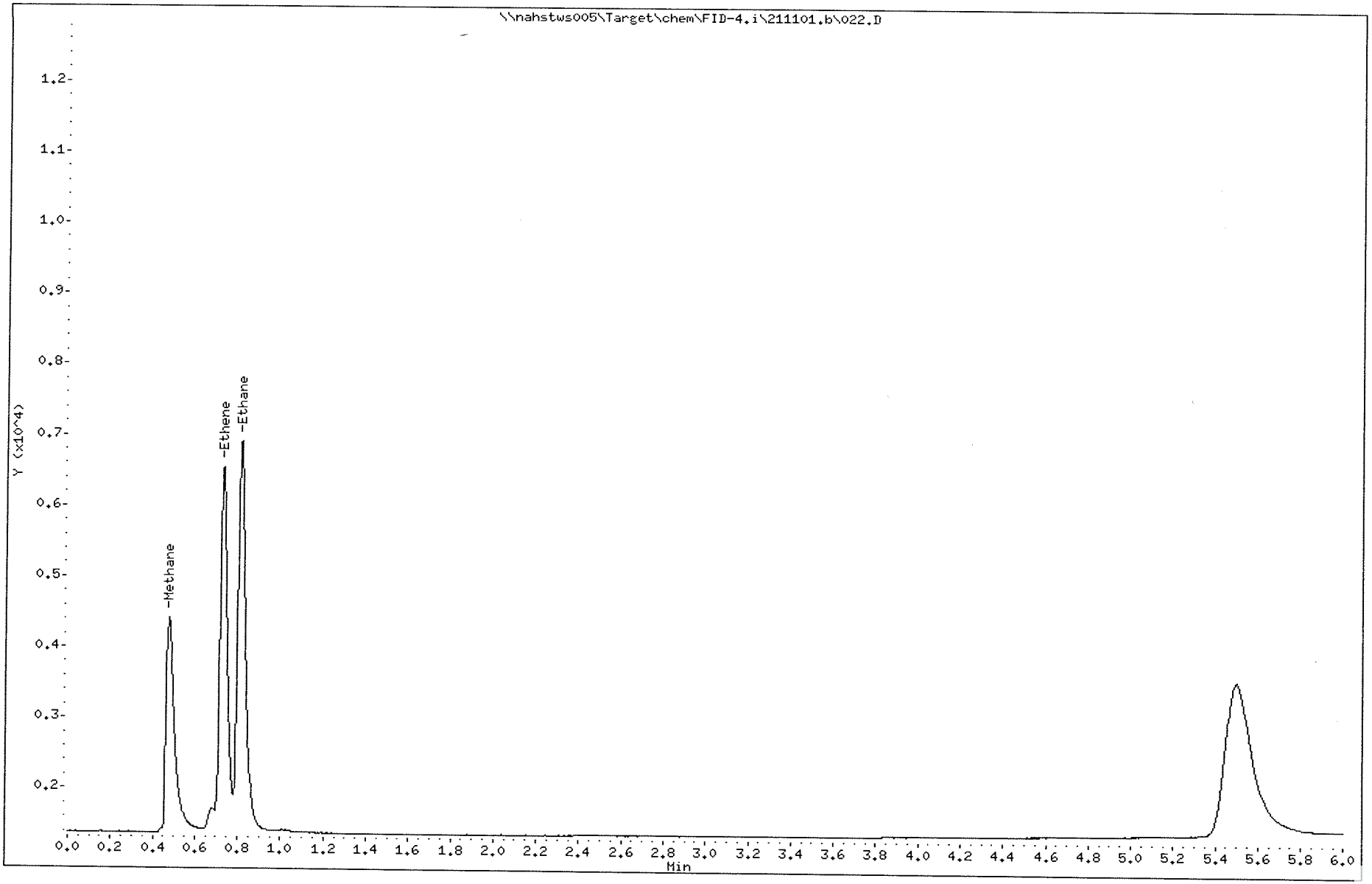
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\022.D
Date : 01-NOV-2021 13:46
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\Before\022.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 01-NOV-2021 13:46
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:47 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

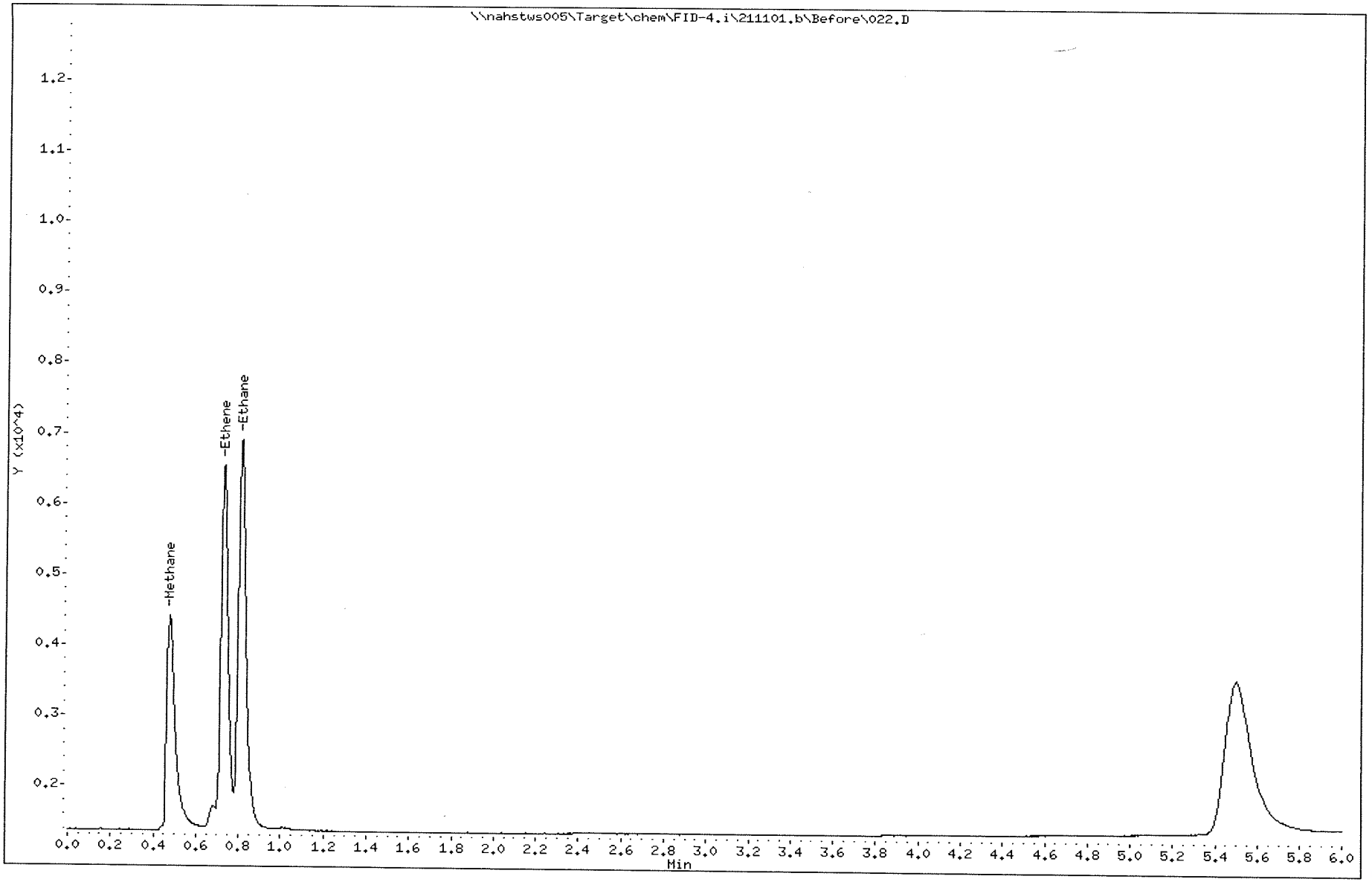
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.473	0.483	-0.010	8712	9.64700	8.935
2 Ethene	0.726	0.736	-0.010	13239	16.8500	22.601
3 Ethane	0.810	0.820	-0.010	15054	18.0430	20.923

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\022.D
Date : 01-NOV-2021 13:46
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



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Report Date: 17-Nov-2021 09:44

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\027.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 01-NOV-2021 14:31
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:40 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: ALSHSW7104

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

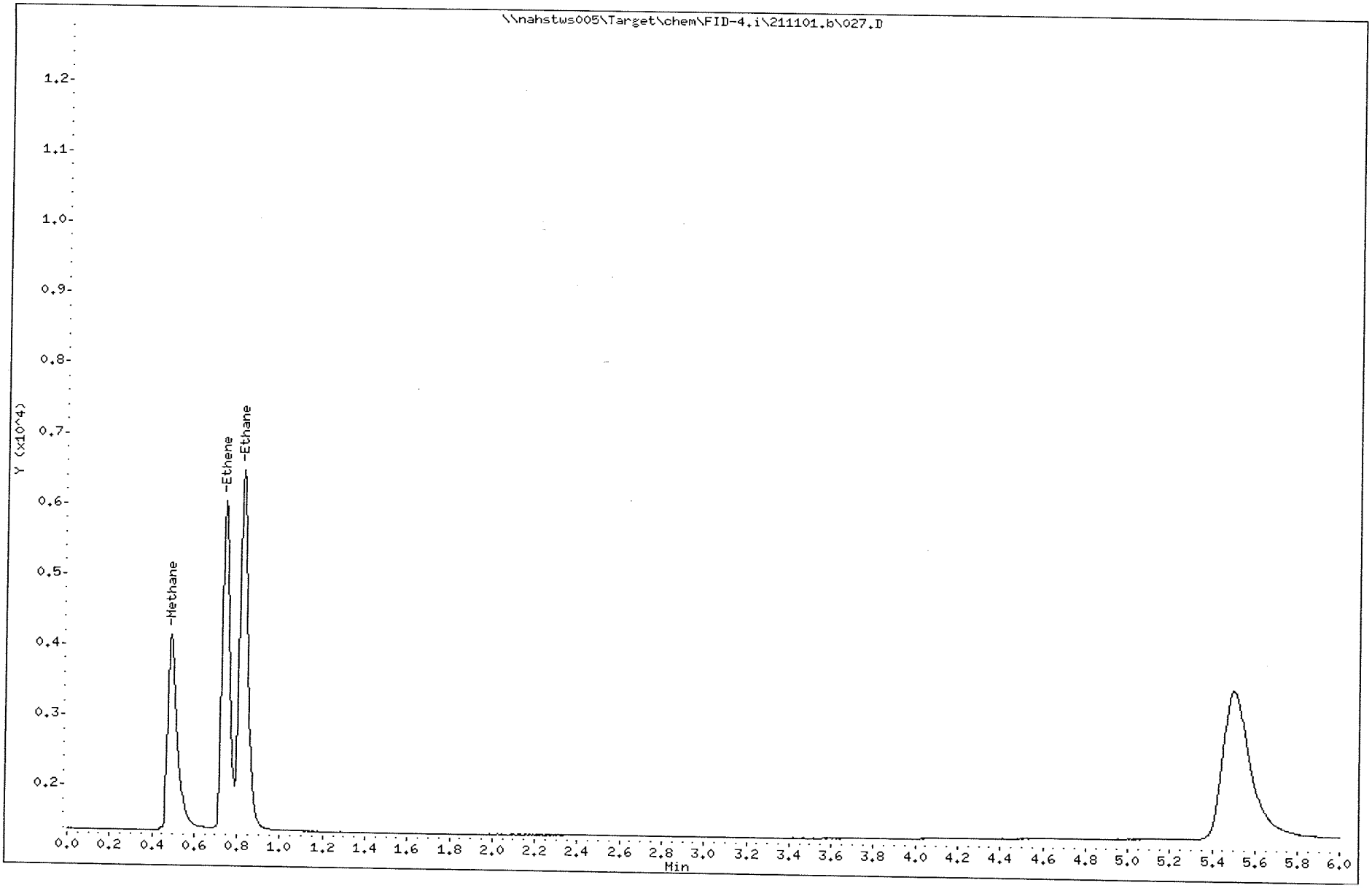
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.483	0.473	0.010	8825	9.64700	9.051
2 Ethene	0.736	0.726	0.010	11641	16.8500	19.873
3 Ethane	0.820	0.810	0.010	14226	18.0430	19.772

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\027.D
Date : 01-NOV-2021 14:31
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\027.D Page 1
Report Date: 17-Nov-2021 09:48

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\211101.b\Before\027.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 01-NOV-2021 14:31
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\211101.b\RSKNI3.m
Meth Date : 17-Nov-2021 09:47 linh.pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

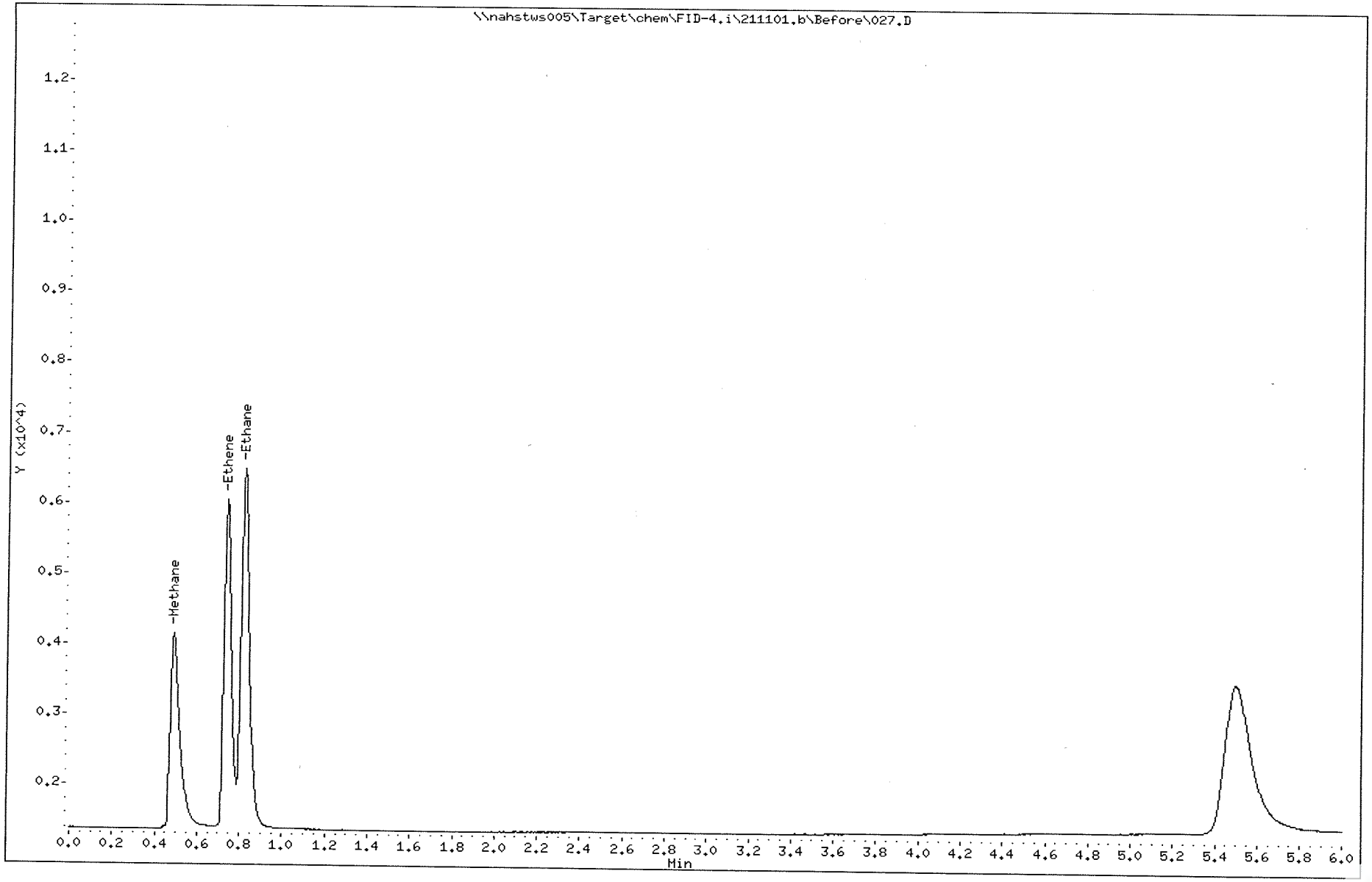
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	0.483	0.483	0.000	8992	9.64700	9.222
2 Ethene	0.736	0.736	0.000	11847	16.8500	20.224
3 Ethane	0.820	0.820	0.000	14566	18.0430	20.244

Data File: \\nahstws005\Target\chem\FID-4.i\211101.b\Before\027.D
Date : 01-NOV-2021 14:31
Client ID: RSK-CCV
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL
Column diameter: 0.53



HS21101171 9056_Wetchem IC

ALS WO# HS21101171

Sequence: 102121
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method	Processing Method	Volume	Status	Inject Time
	STD1		Calibratio	BA1	1.00	1	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 2:57:23 PM -05:00
	STD2		Calibratio	BA2	1.00	2	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:04:47 PM -05:00
	STD3		Calibratio	BA3	1.00	3	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:12:12 PM -05:00
	STD4		Calibratio	BA4	1.00	4	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:19:37 PM -05:00
	STD5		Calibratio	BA5	1.00	5	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:27:03 PM -05:00
	STD6		Calibratio	BA6	1.00	6	Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:34:27 PM -05:00
	ICV		Unknown	BA7	1.00		Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:41:50 PM -05:00
	ICB		Unknown	BA8	1.00		Anions Program IS	Anions Proce	5.0	Finished	9/8/2021 3:56:37 PM -05:00
	CCV		Unknown	R1	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 8:26:25 AM -05:00
	CCB		Unknown	R4	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 8:33:50 AM -05:00
	HS21101144-10DF2		Unknown	GA1	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 8:56:08 AM -05:00
	HS21101144-10MSDF2		Unknown	GA2	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 9:03:32 AM -05:00
	HS21101144-10MSDDF2		Unknown	GA3	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 9:10:57 AM -05:00
	CCV1		Unknown	R3	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 11:22:45 AM -05:00
	CCB		Unknown	R6	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 11:30:11 AM -05:00
	CCV1		Unknown	R3	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 11:32:22 PM -05:00
	CCB		Unknown	R7	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 11:47:12 PM -05:00
	MBLK		Unknown	R5	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/21/2021 11:54:37 PM -05:00
	LCS		Unknown	R2	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/22/2021 12:02:02 AM -05:00
	HS21101171-01		Unknown	RE4	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/22/2021 12:16:49 AM -05:00
	HS21101171-02DF2		Unknown	RE5	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/22/2021 12:24:15 AM -05:00
	HS21101171-02MSDF2		Unknown	RE6	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/22/2021 12:31:39 AM -05:00
	HS21101171-02MSDDF2		Unknown	RE7	2.00		Anions Program IS	Anions Proce	5.0	Finished	10/22/2021 12:39:03 AM -05:00
	HS21101171-03DF5		Unknown	RE8	5.00		Anions Program IS	Anions Proce	5.0	Finished	10/22/2021 12:46:28 AM -05:00
	HS21101171-04DF5		Unknown	BA1	5.00		Anions Program IS	Anions Proce	5.0	Finished	10/22/2021 12:53:57 AM -05:00
	CCV		Unknown	R1	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/22/2021 1:08:47 AM -05:00
	CCB		Unknown	R4	1.00		Anions Program IS	Anions Proce	5.0	Finished	10/22/2021 1:23:37 AM -05:00

Sequence: 101521
Injection #6: STD6

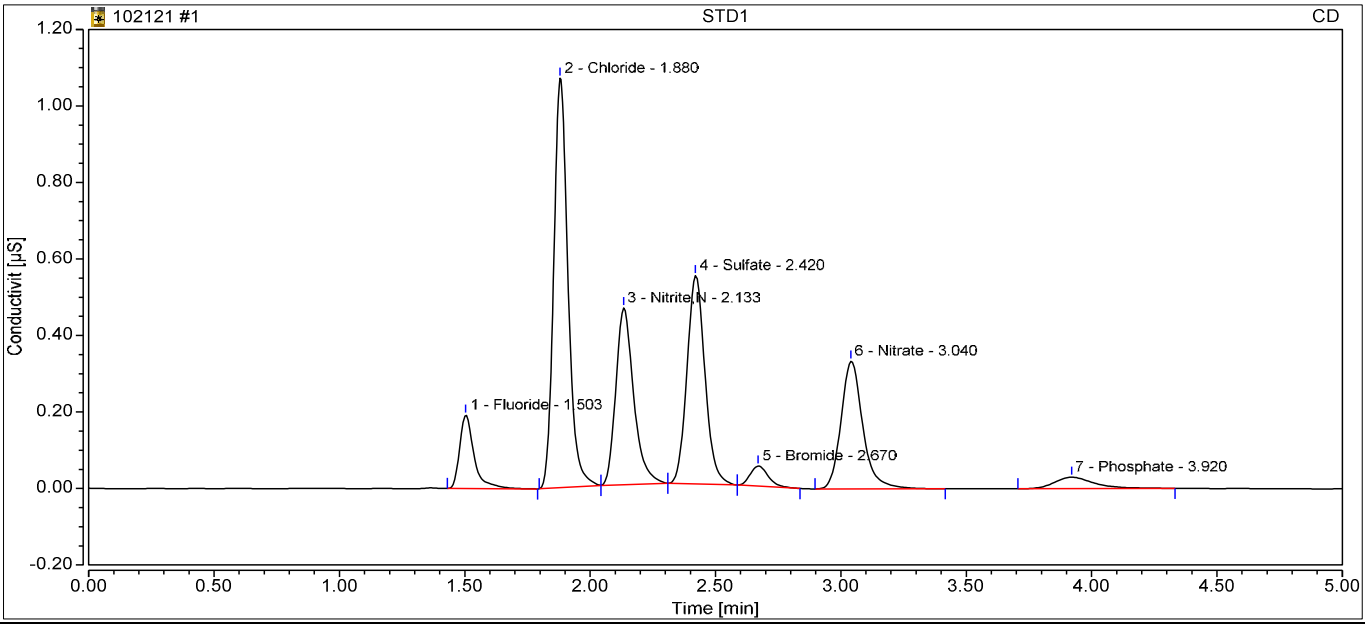
Calibration

Peak No.	Peak Name	Cal.Type	Eval.Type	Number of Points	Rel.Std.Dev. %	Coeff.of Determination	C0 (Offset)	C1 (Slope)	C2 (Curve)
1	*Fluoride*	*Lin, WithOffset, 1/*	*Area*	*6*	*14.8917*	*0.99901*	*-0.0076*	*0.2037*	*0.0000*
2	Chloride	Lin, WithOffset, 1/	Area	6	6.3298	0.99978	0.0062	0.1342	0.0000
3	Nitrite,N	Quad, WithOffset,	Area	6	6.9766	0.99974	0.0102	0.2986	-0.0023
4	Sulfate	Lin, WithOffset, 1/	Area	6	6.6535	0.99977	-0.0001	0.0971	0.0000
5	Bromide	Lin, WithOffset, 1/	Area	6	8.9157	0.99963	-0.0016	0.0548	0.0000
6	Nitrate	Lin, WithOffset, 1/	Area	6	6.7024	0.99976	0.0001	0.3403	0.0000
n.a.	Chlorate	Lin, WithOffset, 1/	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
7	Phosphate	Quad, WithOffset,	Area	6	11.6511	0.99965	-0.0052	0.0981	0.0012
Maximum					**14.8917**	0.99978			
Minimum					6.3298	**0.99901**			

1 STD1

Sample Name:	**STD1**	*Injection Volume:*	**5.00**
Vial Number:	**BA1**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 14:57**	*Sample Weight:*	**1.0000**

Run Time:



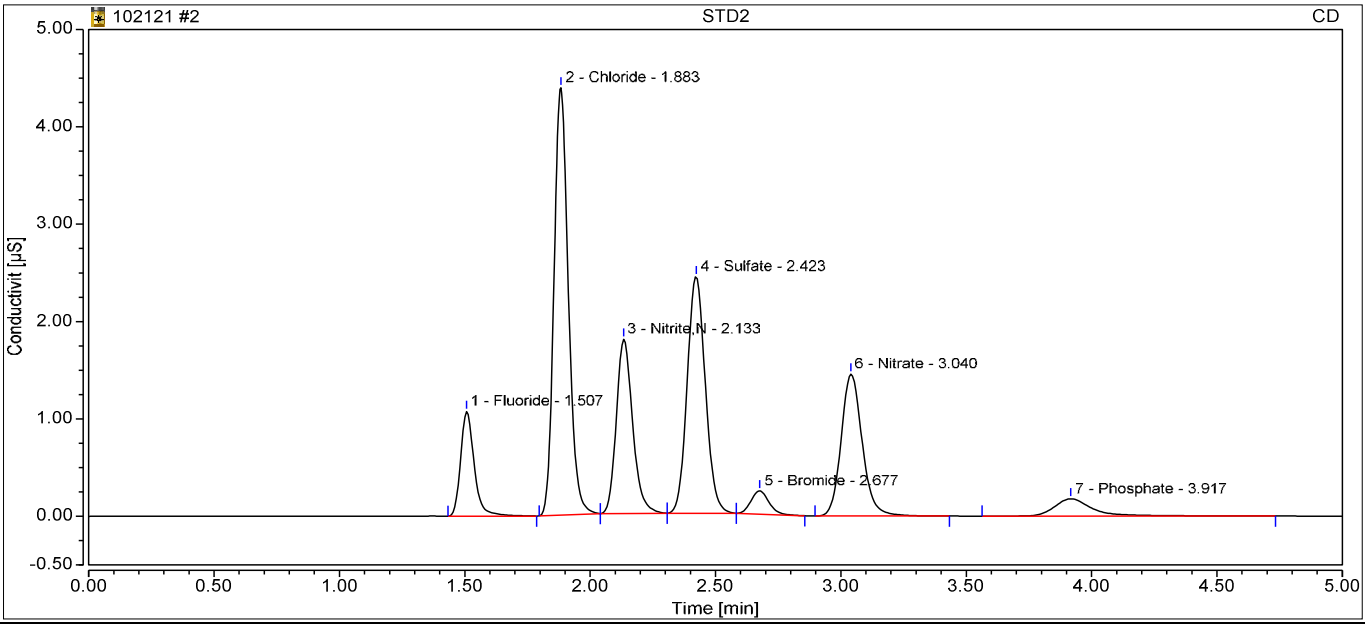
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	0.013	0.1005	0.1005	1.0000
2	1.88	Chloride	BMB	0.070	0.4785	0.4785	1.0000
3	2.13	Nitrite,N	BMB	0.038	0.0937	0.0937	1.0000
4	2.42	Sulfate	BMB	0.045	0.4684	0.4684	1.0000
5	2.67	Bromide	BMB	0.004	0.1078	0.1078	1.0000
6	3.04	Nitrate	BMB	0.034	0.0982	0.0982	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.92	Phosphate	BMB	0.005	0.1085	0.1085	1.0000
Total:			**0.000**	**0.210**		**1.46**	

2 STD2

Sample Name:	**STD2**	*Injection Volume:*	**5.00**
Vial Number:	**BA2**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:04**	*Sample Weight:*	**1.0000**

Run Time:



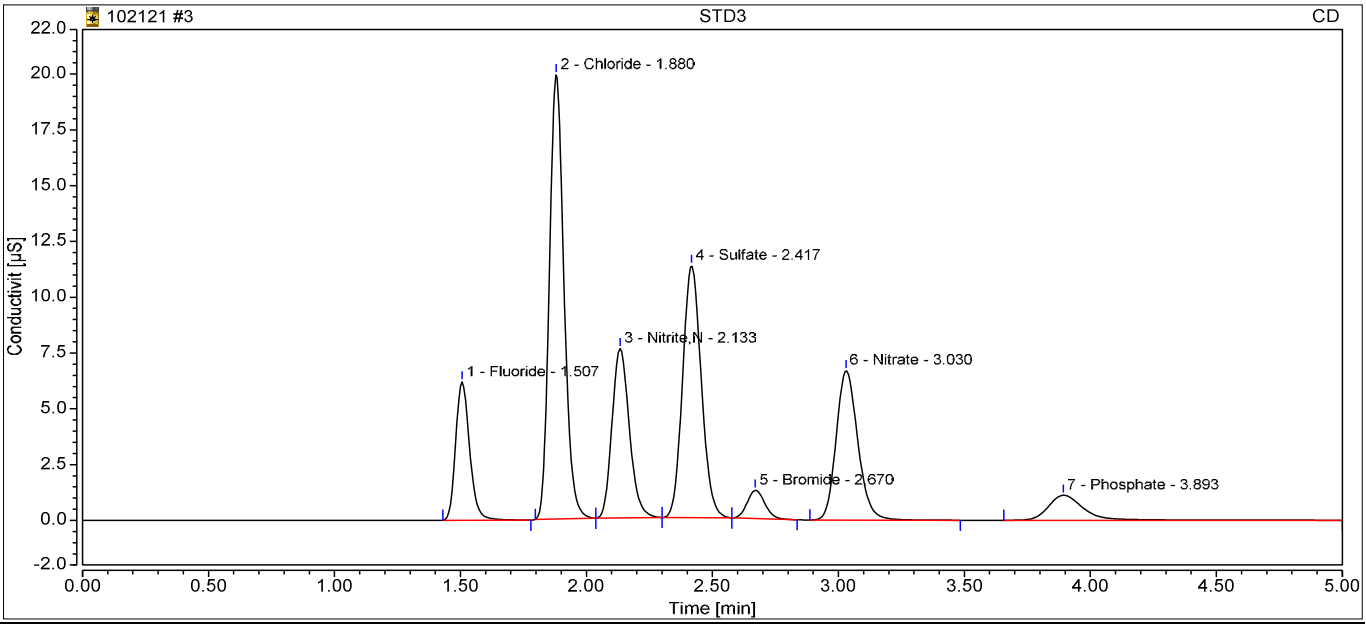
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.068	0.3708	0.3708	1.0000
2	1.88	Chloride	BMB	0.290	2.1158	2.1158	1.0000
3	2.13	Nitrite,N	BMB	0.135	0.4190	0.4190	1.0000
4	2.42	Sulfate	BMB	0.204	2.1052	2.1052	1.0000
5	2.68	Bromide	BMB	0.020	0.3906	0.3906	1.0000
6	3.04	Nitrate	BMB	0.142	0.4172	0.4172	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.92	Phosphate	BMB	0.032	0.3731	0.3731	1.0000
Total:			**0.000**	**0.891**		**6.19**	

3 STD3

Sample Name:	**STD3**	*Injection Volume:*	**5.00**
Vial Number:	**BA3**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:12**	*Sample Weight:*	**1.0000**

Run Time:



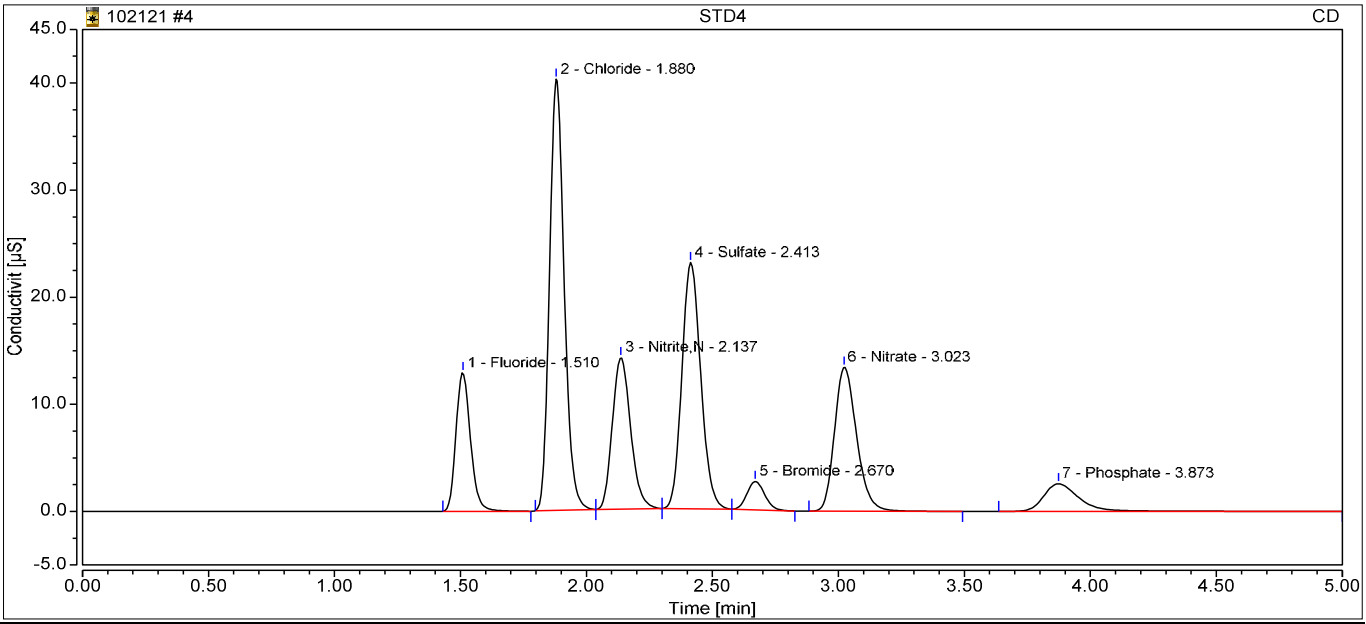
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.401	2.0041	2.0041	1.0000
2	1.88	Chloride	BMB	1.334	9.8953	9.8953	1.0000
3	2.13	Nitrite,N	BMB	0.605	2.0242	2.0242	1.0000
4	2.42	Sulfate	BMB	0.971	10.0035	10.0035	1.0000
5	2.67	Bromide	BMB	0.103	1.9116	1.9116	1.0000
6	3.03	Nitrate	BMB	0.668	1.9622	1.9622	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.89	Phosphate	BMB	0.185	1.8909	1.8909	1.0000
Total:			**0.000**	**4.266**		**29.69**	

4 STD4

Sample Name:	**STD4**	*Injection Volume:*	**5.00**
Vial Number:	**BA4**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:19**	*Sample Weight:*	**1.0000**

Run Time:



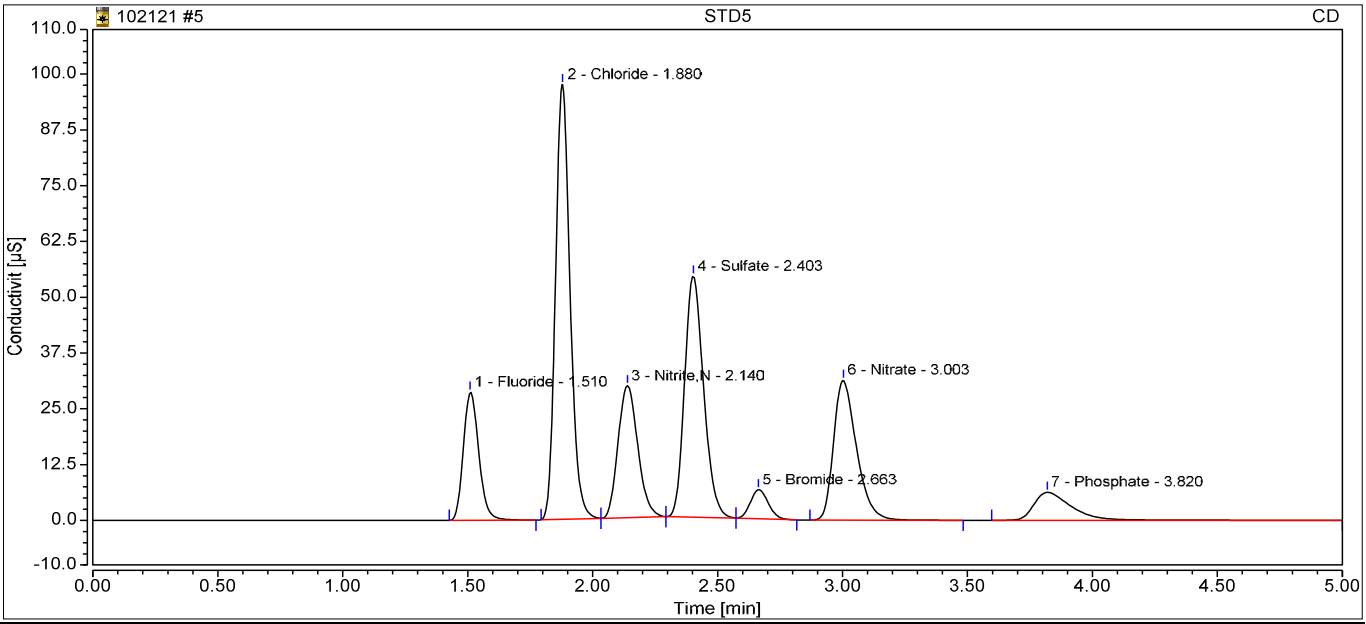
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.866	4.2910	4.2910	1.0000
2	1.88	Chloride	BMB	2.709	20.1365	20.1365	1.0000
3	2.14	Nitrite,N	BMB	1.191	4.0819	4.0819	1.0000
4	2.41	Sulfate	BMB	1.991	20.5124	20.5124	1.0000
5	2.67	Bromide	BMB	0.216	3.9679	3.9679	1.0000
6	3.02	Nitrate	BMB	1.366	4.0146	4.0146	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.87	Phosphate	BMB	0.424	4.1568	4.1568	1.0000
Total:			**0.000**	**8.762**		**61.16**	

5 STD5

Sample Name:	**STD5**	*Injection Volume:*	**5.00**
Vial Number:	**BA5**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:27**	*Sample Weight:*	**1.0000**

Run Time:



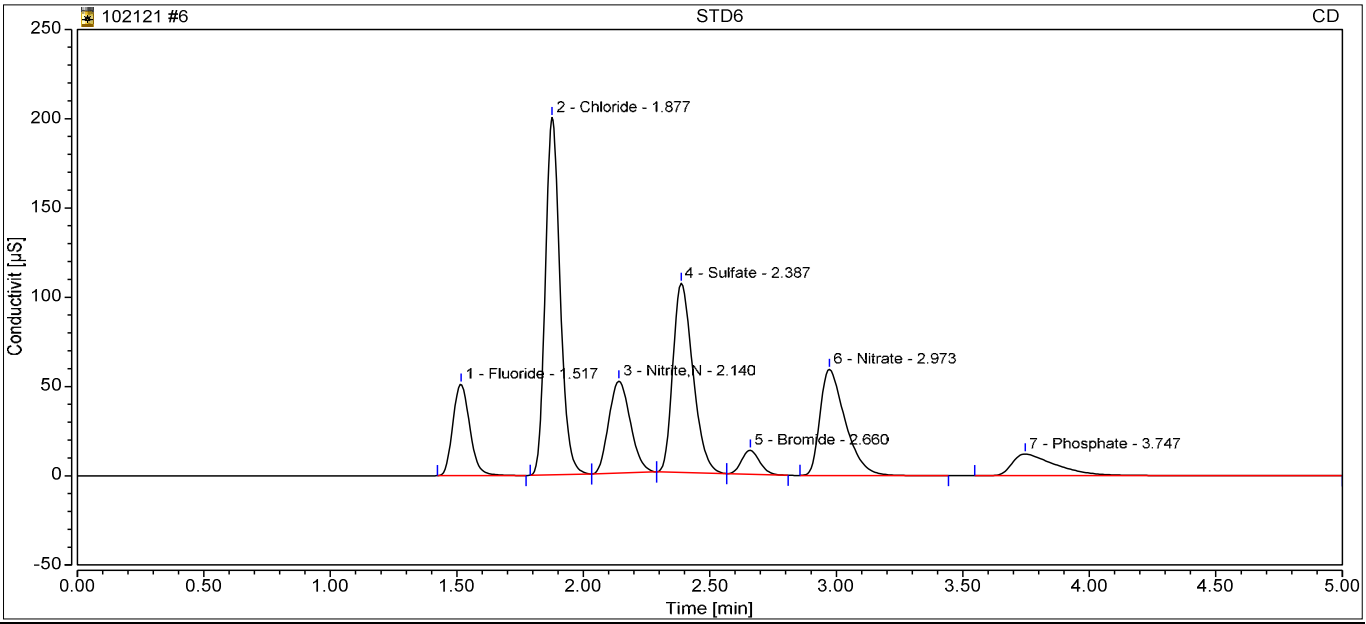
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	2.057	10.1376	10.1376	1.0000
2	1.88	Chloride	BMB	6.582	48.9987	48.9987	1.0000
3	2.14	Nitrite,N	BMB	2.709	9.7764	9.7764	1.0000
4	2.40	Sulfate	BMB	4.762	49.0593	49.0593	1.0000
5	2.66	Bromide	BMB	0.537	9.8247	9.8247	1.0000
6	3.00	Nitrate	BMB	3.333	9.7942	9.7942	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.82	Phosphate	BMB	1.095	9.9725	9.9725	1.0000
Total:			**0.000**	**21.075**		**147.56**	

6 STD6

Sample Name:	**STD6**	*Injection Volume:*	**5.00**
Vial Number:	**BA6**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:34**	*Sample Weight:*	**1.0000**

Run Time:



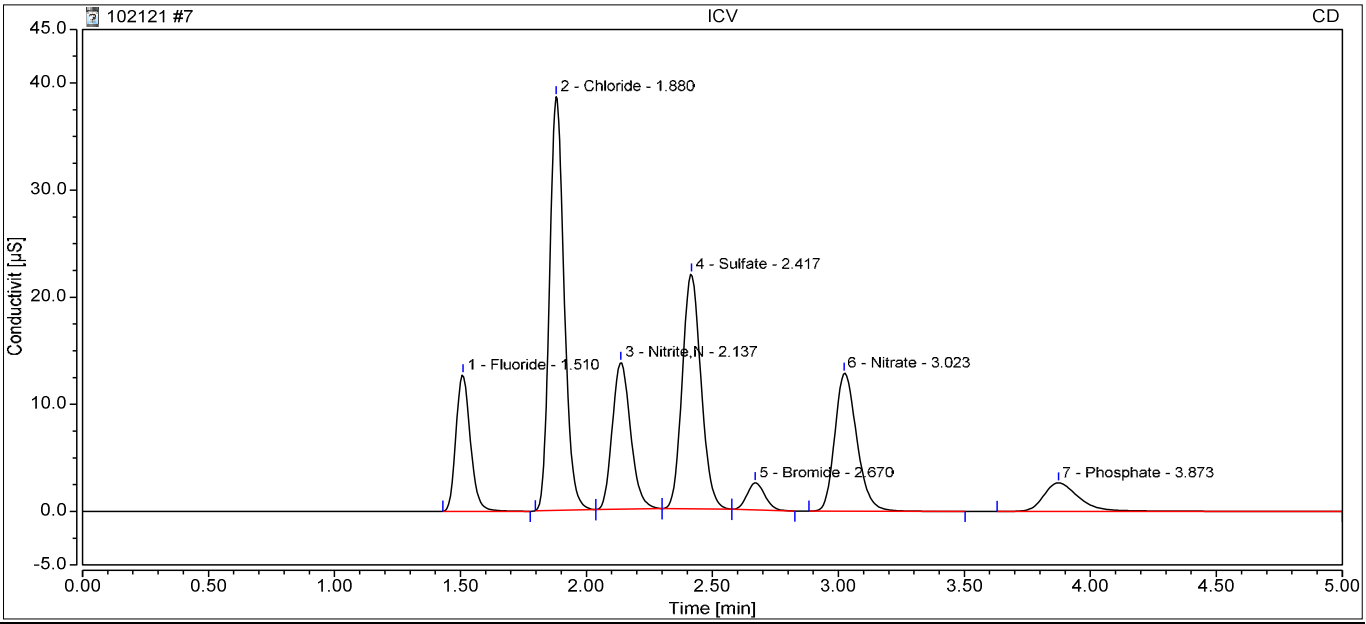
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	3.983	19.5961	19.5961	1.0000
2	1.88	Chloride	BMB	13.545	100.8752	100.8752	1.0000
3	2.14	Nitrite,N	BMB	5.085	20.1110	20.1110	1.0000
4	2.39	Sulfate	BMB	9.740	100.3513	100.3513	1.0000
5	2.66	Bromide	BMB	1.110	20.2973	20.2973	1.0000
6	2.97	Nitrate	BMB	6.879	20.2136	20.2136	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.75	Phosphate	BMB	2.448	19.9964	19.9964	1.0000
Total:			**0.000**	**42.790**		**301.44**	

7 ICV

Sample Name:	**ICV**	*Injection Volume:*	**5.00**
Vial Number:	**BA7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:41**	*Sample Weight:*	**1.0000**

Run Time:



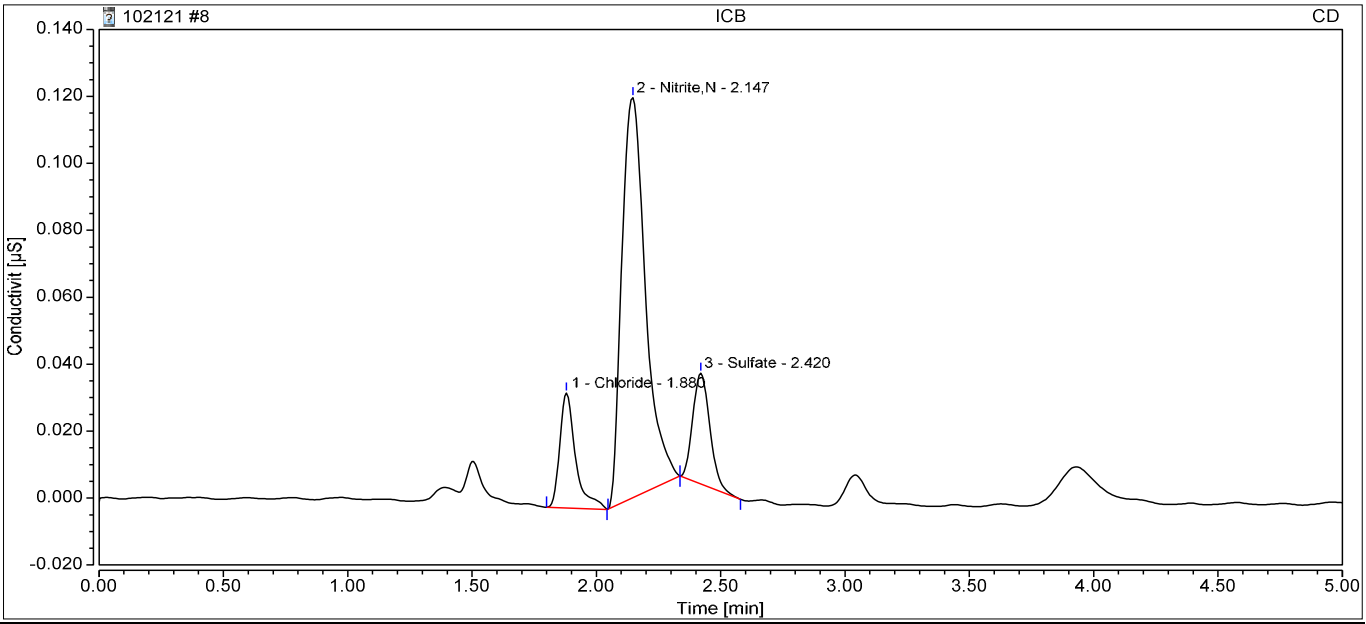
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.849	4.2062	4.2062	1.0000
2	1.88	Chloride	BMB	2.597	19.3008	19.3008	1.0000
3	2.14	Nitrite,N	BMB	1.152	3.9447	3.9447	1.0000
4	2.42	Sulfate	BMB	1.895	19.5248	19.5248	1.0000
5	2.67	Bromide	BMB	0.207	3.7999	3.7999	1.0000
6	3.02	Nitrate	BMB	1.307	3.8406	3.8406	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.87	Phosphate	BMB	0.438	4.2917	4.2917	1.0000
Total:			**0.000**	**8.445**		**58.91**	

8 ICB

Sample Name:	**ICB**	*Injection Volume:*	**5.00**
Vial Number:	**BA8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**09/08/2021 15:56**	*Sample Weight:*	**1.0000**

Run Time:

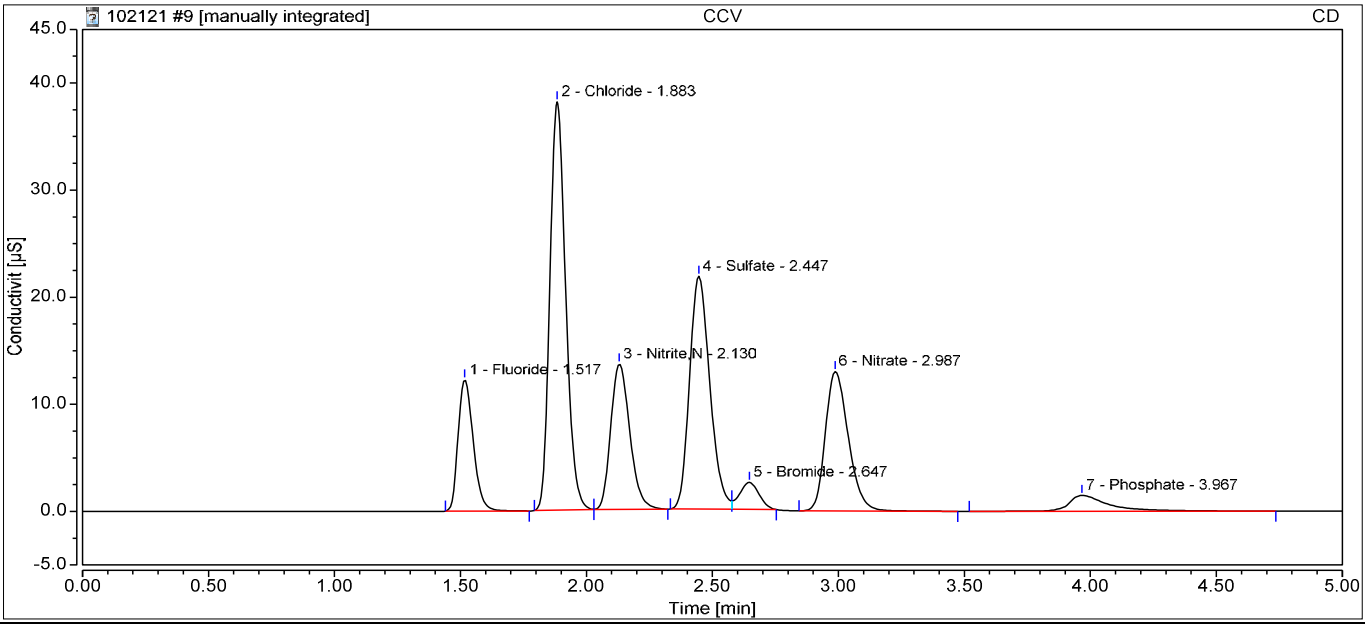


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.003	n.a.	n.a.	1.0000
2	2.15	Nitrite,N	BMB	0.013	0.0102	0.0102	1.0000
3	2.42	Sulfate	BMB	0.003	0.0287	0.0287	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.018**		**0.04**	

9 CCV			
Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/21/2021 08:26**	*Sample Weight:*	**1.0000**

Run Time:



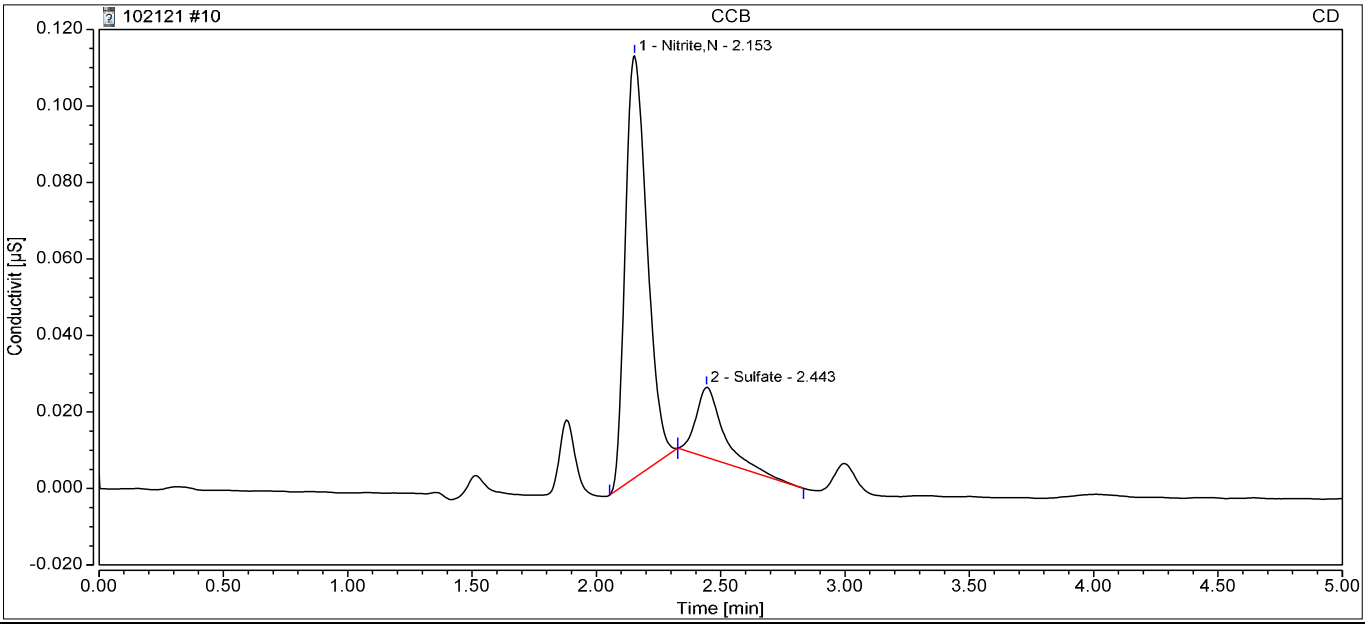
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.855	4.2381	4.2381	1.0000
2	1.88	Chloride	BMB	2.757	20.4993	20.4993	1.0000
3	2.13	Nitrite,N	BMB	1.188	4.0709	4.0709	1.0000
4	2.45	Sulfate	BM *	2.030	20.9114	20.9114	1.0000
5	2.65	Bromide	MB*	0.227	4.1768	4.1768	1.0000
6	2.99	Nitrate	BMB	1.373	4.0348	4.0348	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.97	Phosphate	BMB	0.278	2.7939	2.7939	1.0000
Total:			**0.000**	**8.709**		**60.73**	

10 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/21/2021 08:33**	*Sample Weight:*	**1.0000**

Run Time:



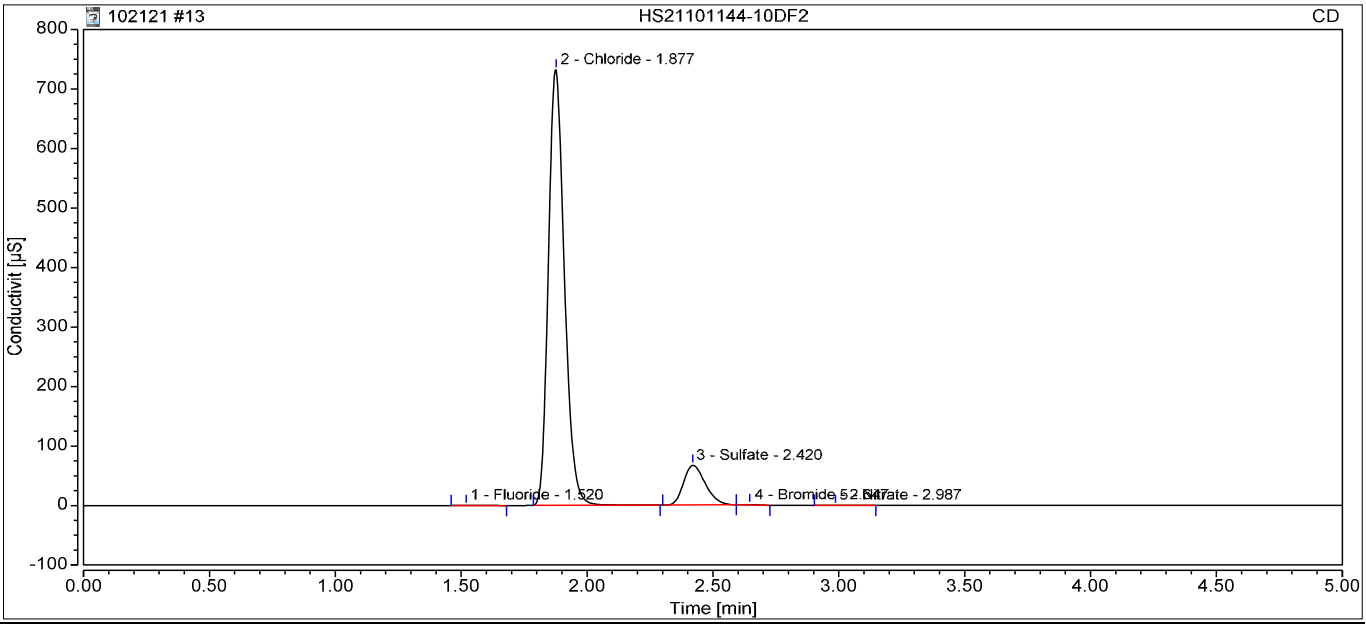
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.15	Nitrite,N	BMB	0.011	0.0035	0.0035	1.0000
2	2.44	Sulfate	BMB	0.002	0.0260	0.0260	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.014**		**0.03**	

13 HS21101144-10DF2

Sample Name:	**HS21101144-10DF2**	*Injection Volume:*	**5.00**
Vial Number:	**GA1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/21/2021 08:56**	*Sample Weight:*	**1.0000**

Run Time:



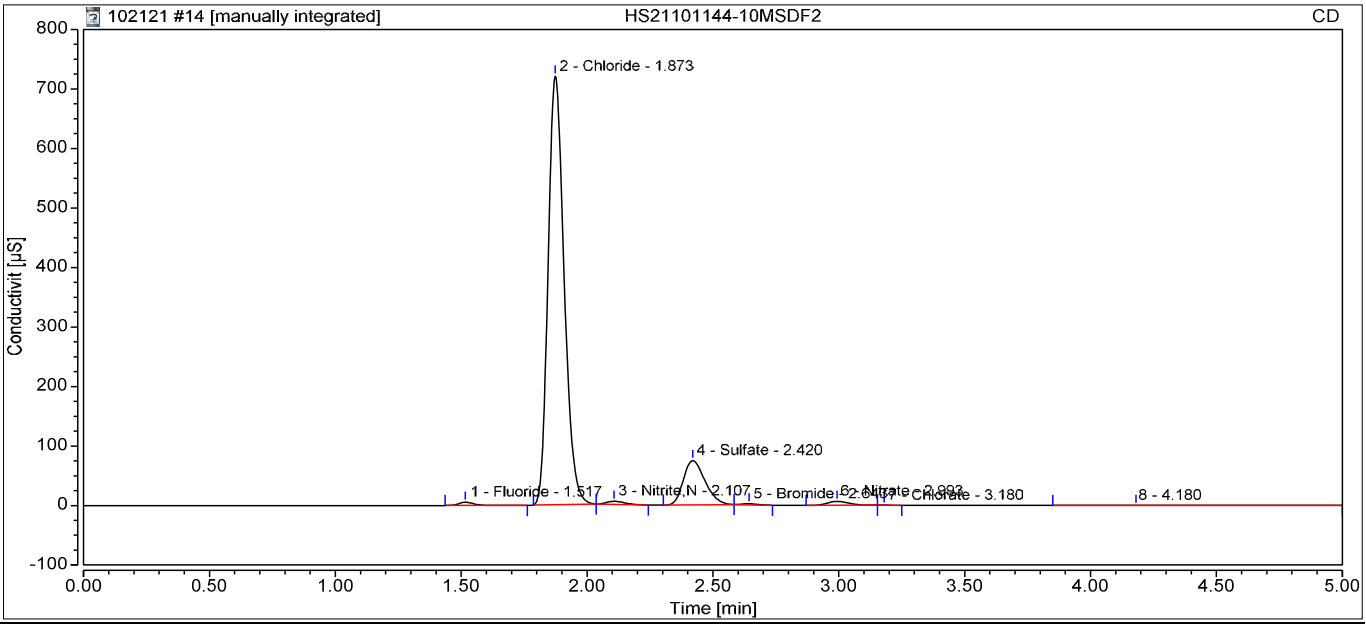
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.007	0.0724	0.1448	2.0000
2	1.88	Chloride	BMB	53.862	401.2660	802.5319	2.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	2.0000
3	2.42	Sulfate	BMB	6.665	68.6680	137.3360	2.0000
4	2.65	Bromide	BMB	0.041	0.7739	1.5477	2.0000
5	2.99	Nitrate	BMB	0.002	0.0056	0.0112	2.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			**0.000**	**60.576**		**941.57**	

14 HS21101144-10MSDF2

Sample Name:	**HS21101144-10MSDF2**	*Injection Volume:*	**5.00**
Vial Number:	**GA2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/21/2021 09:03**	*Sample Weight:*	**1.0000**

Run Time:



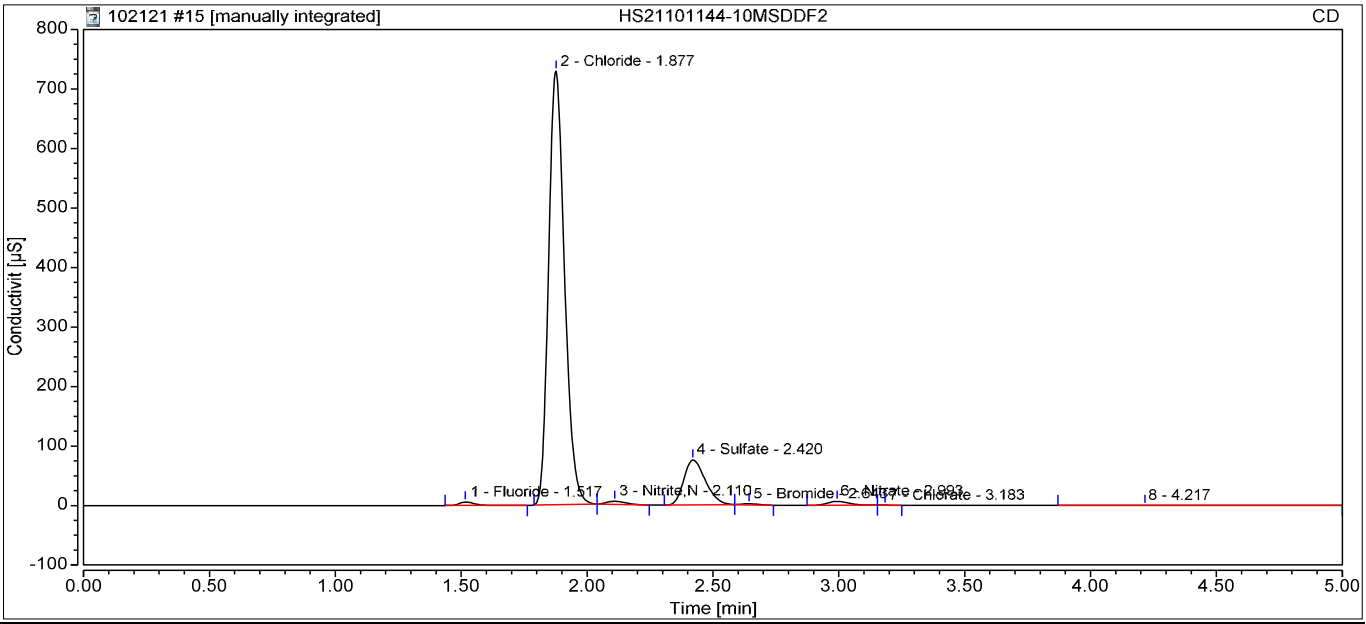
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.397	1.9845	3.9690	2.0000
2	1.87	Chloride	BMB	52.970	394.6265	789.2530	2.0000
3	2.11	Nitrite,N	BMB	0.435	1.4392	2.8783	2.0000
4	2.42	Sulfate	BM *	7.452	76.7810	153.5621	2.0000
5	2.64	Bromide	MB*	0.140	2.5756	5.1511	2.0000
6	2.99	Nitrate	BMB	0.625	1.8365	3.6730	2.0000
7	3.18	Chlorate	BMB	0.003	n.a.	n.a.	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			**0.000**	**62.022**		**958.49**	

15 HS21101144-10MSDDF2

Sample Name:	**HS21101144-10MSDDF2**	*Injection Volume:*	**5.00**
Vial Number:	**GA3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/21/2021 09:10**	*Sample Weight:*	**1.0000**

Run Time:



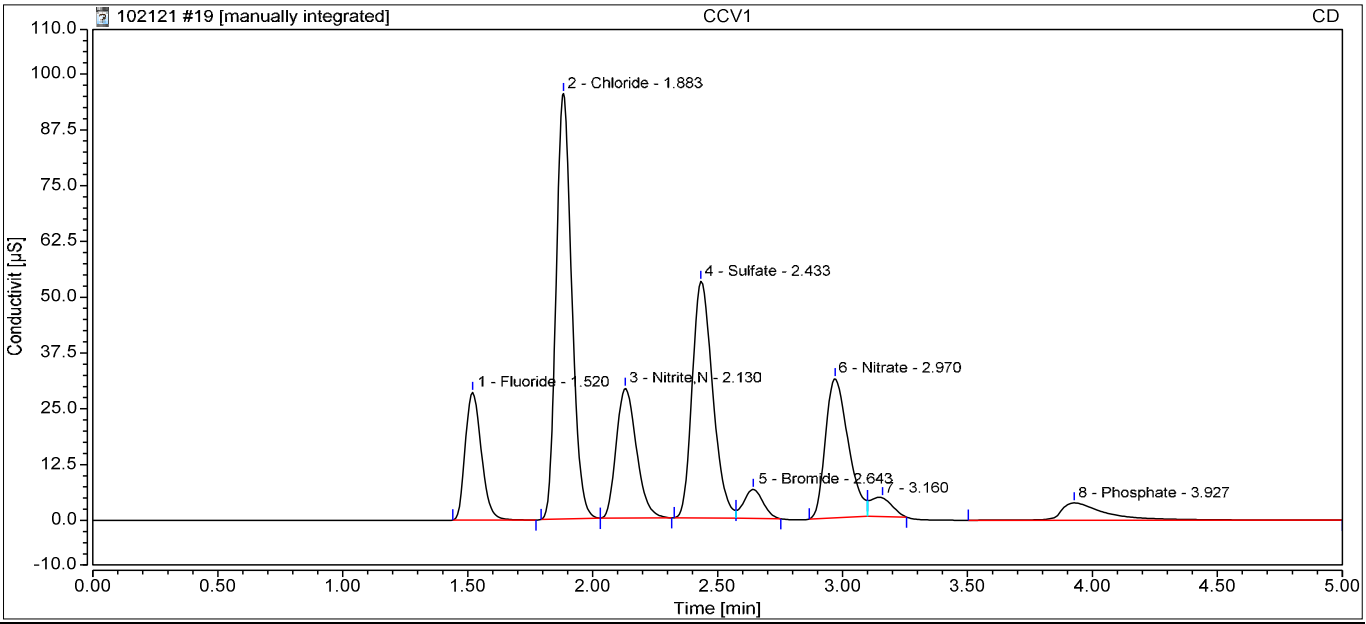
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.410	2.0505	4.1010	2.0000
2	1.88	Chloride	BMB	53.395	397.7862	795.5724	2.0000
3	2.11	Nitrite,N	BMB	0.437	1.4474	2.8947	2.0000
4	2.42	Sulfate	BM *	7.547	77.7556	155.5112	2.0000
5	2.64	Bromide	MB*	0.145	2.6779	5.3559	2.0000
6	2.99	Nitrate	BMB	0.630	1.8509	3.7019	2.0000
7	3.18	Chlorate	BMB	0.003	n.a.	n.a.	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			**0.000**	**62.567**		**967.14**	

19 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/21/2021 11:22**	*Sample Weight:*	**1.0000**

Run Time:



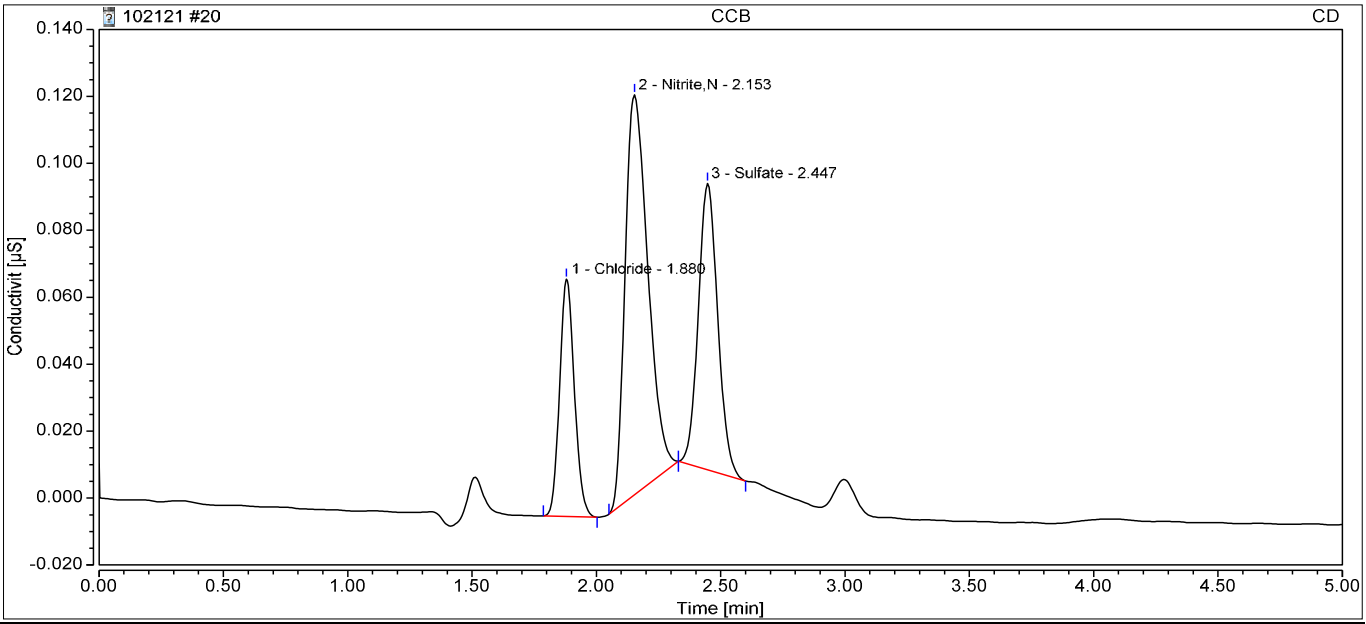
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	2.138	10.5335	10.5335	1.0000
2	1.88	Chloride	BMB	6.911	51.4482	51.4482	1.0000
3	2.13	Nitrite,N	BMB	2.730	9.8581	9.8581	1.0000
4	2.43	Sulfate	BM *	5.045	51.9740	51.9740	1.0000
5	2.64	Bromide	MB*	0.585	10.7121	10.7121	1.0000
6	2.97	Nitrate	BM *	3.318	9.7505	9.7505	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
8	3.93	Phosphate	BMB	0.824	7.7066	7.7066	1.0000
Total:			**0.000**	**21.550**		**151.98**	

20 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/21/2021 11:30**	*Sample Weight:*	**1.0000**

Run Time:



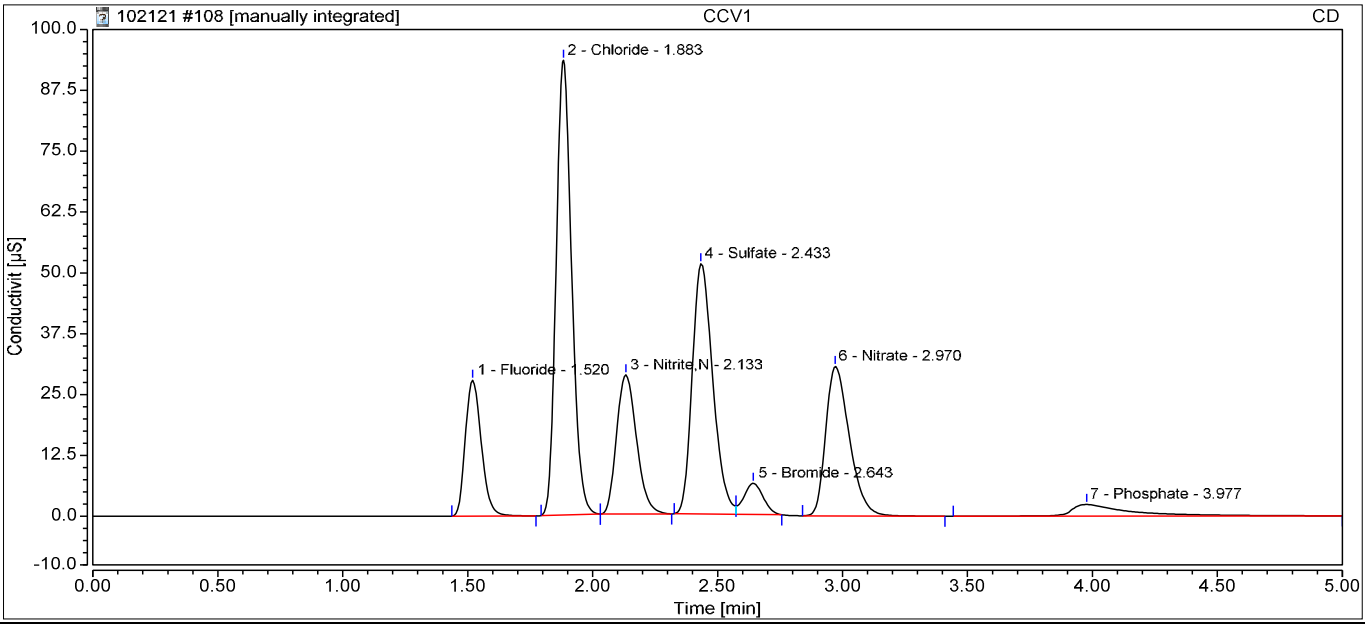
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.005	n.a.	n.a.	1.0000
2	2.15	Nitrite,N	BMB	0.013	0.0084	0.0084	1.0000
3	2.45	Sulfate	BMB	0.008	0.0813	0.0813	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.025**		**0.09**	

108 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/21/2021 23:32**	*Sample Weight:*	**1.0000**

Run Time:



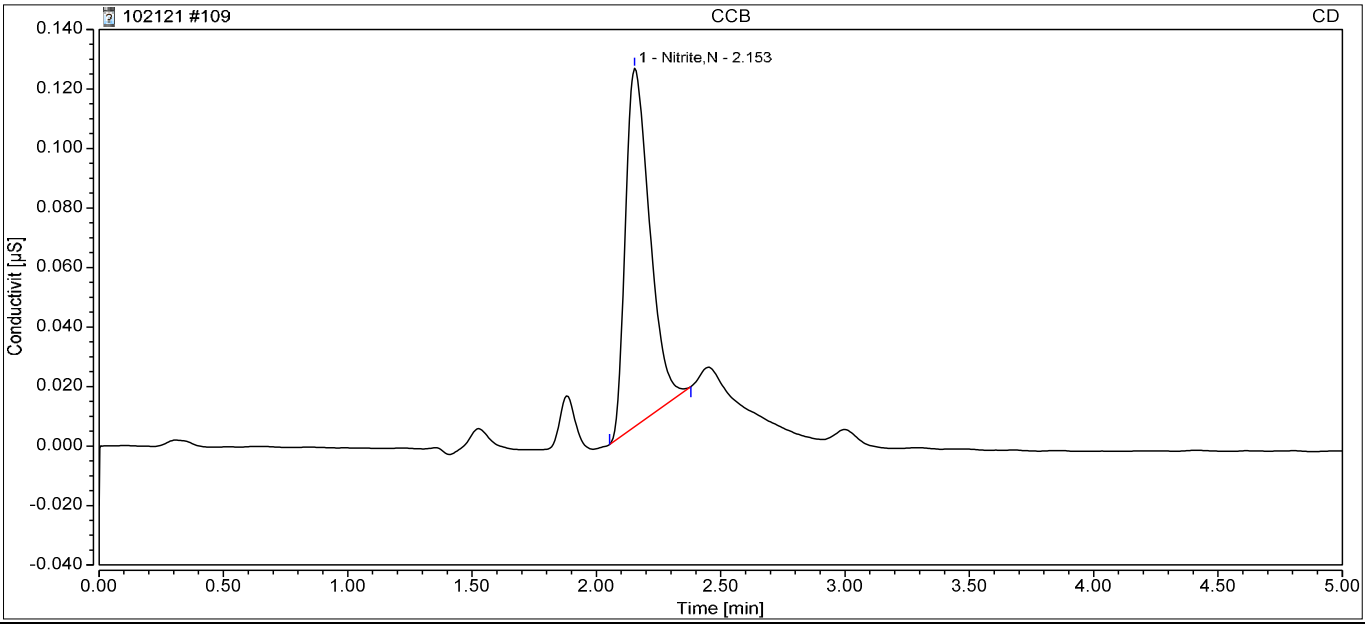
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	2.073	10.2181	10.2181	1.0000
2	1.88	Chloride	BMB	6.714	49.9768	49.9768	1.0000
3	2.13	Nitrite,N	BMB	2.654	9.5578	9.5578	1.0000
4	2.43	Sulfate	BM *	4.897	50.4559	50.4559	1.0000
5	2.64	Bromide	MB*	0.574	10.5017	10.5017	1.0000
6	2.97	Nitrate	BMB	3.375	9.9166	9.9166	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.98	Phosphate	BMB	0.655	6.2413	6.2413	1.0000
Total:			**0.000**	**20.941**		**146.87**	

109 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/21/2021 23:47**	*Sample Weight:*	**1.0000**

Run Time:



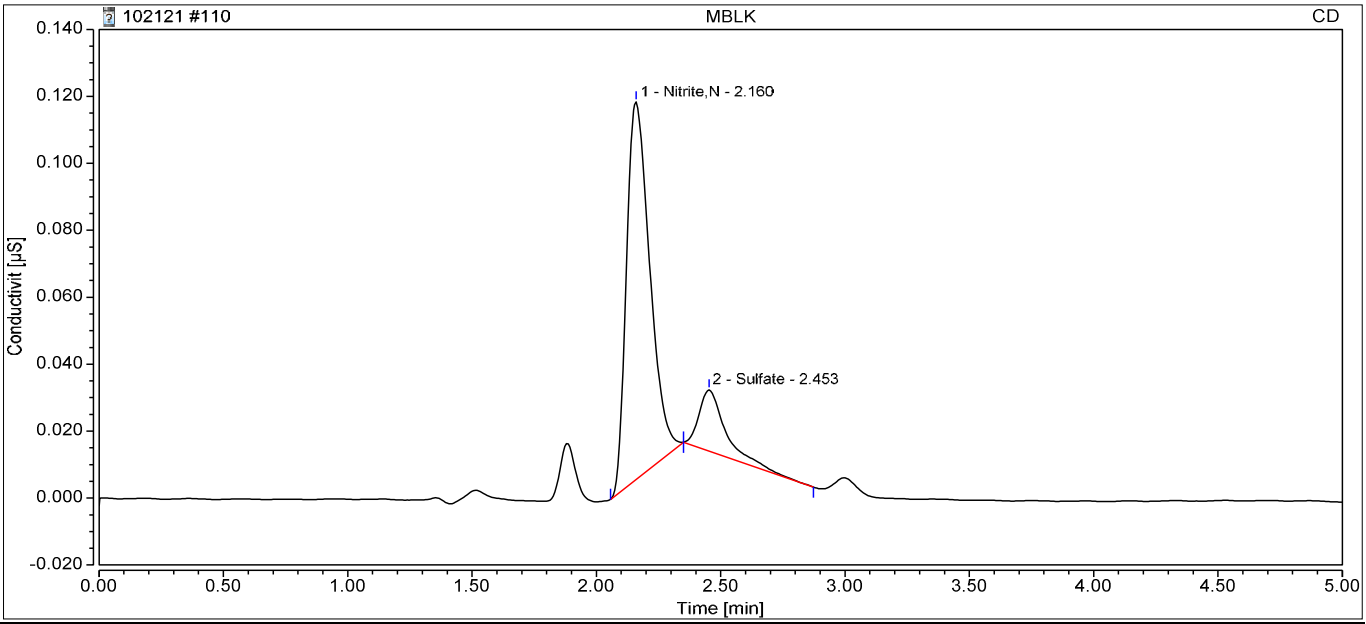
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.15	Nitrite,N	BMB	0.014	0.0115	0.0115	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.014**		**0.01**	

110 MBLK

Sample Name:	**MBLK**	*Injection Volume:*	**5.00**
Vial Number:	**R5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/21/2021 23:54**	*Sample Weight:*	**1.0000**

Run Time:



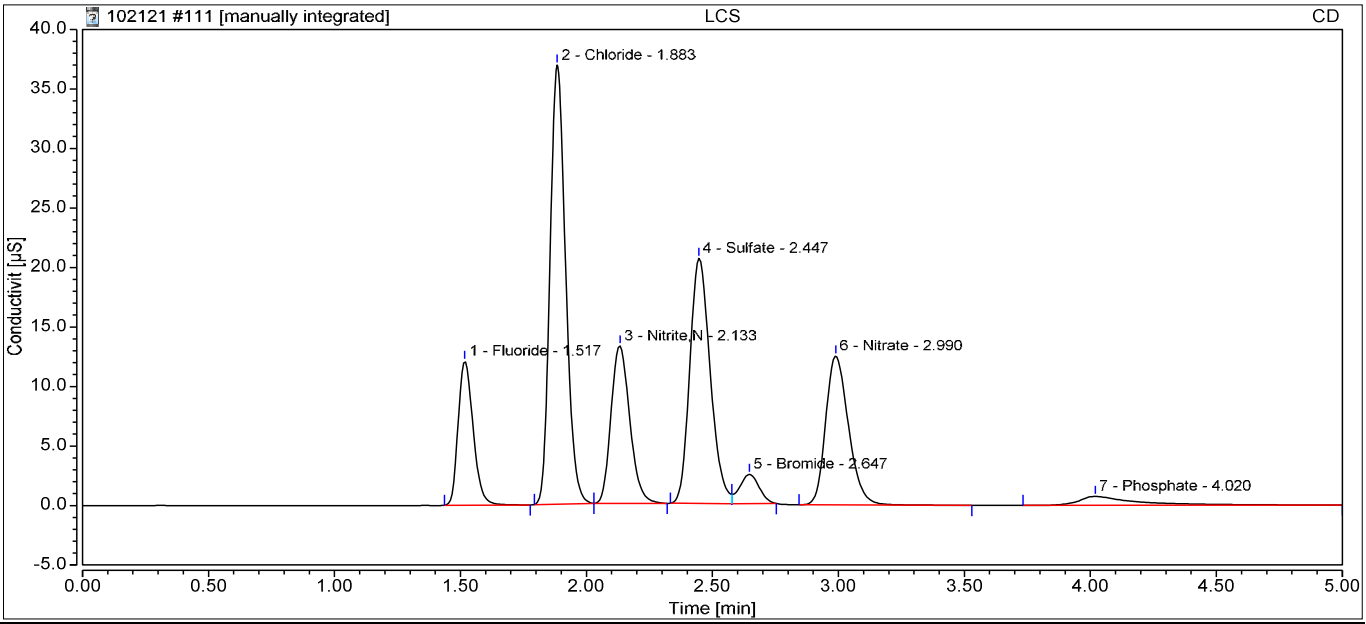
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.16	Nitrite,N	BMB	0.012	0.0070	0.0070	1.0000
2	2.45	Sulfate	BMB	0.002	0.0248	0.0248	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.015**		**0.03**	

111 LCS

Sample Name:	**LCS**	*Injection Volume:*	**5.00**
Vial Number:	**R2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/22/2021 00:02**	*Sample Weight:*	**1.0000**

Run Time:



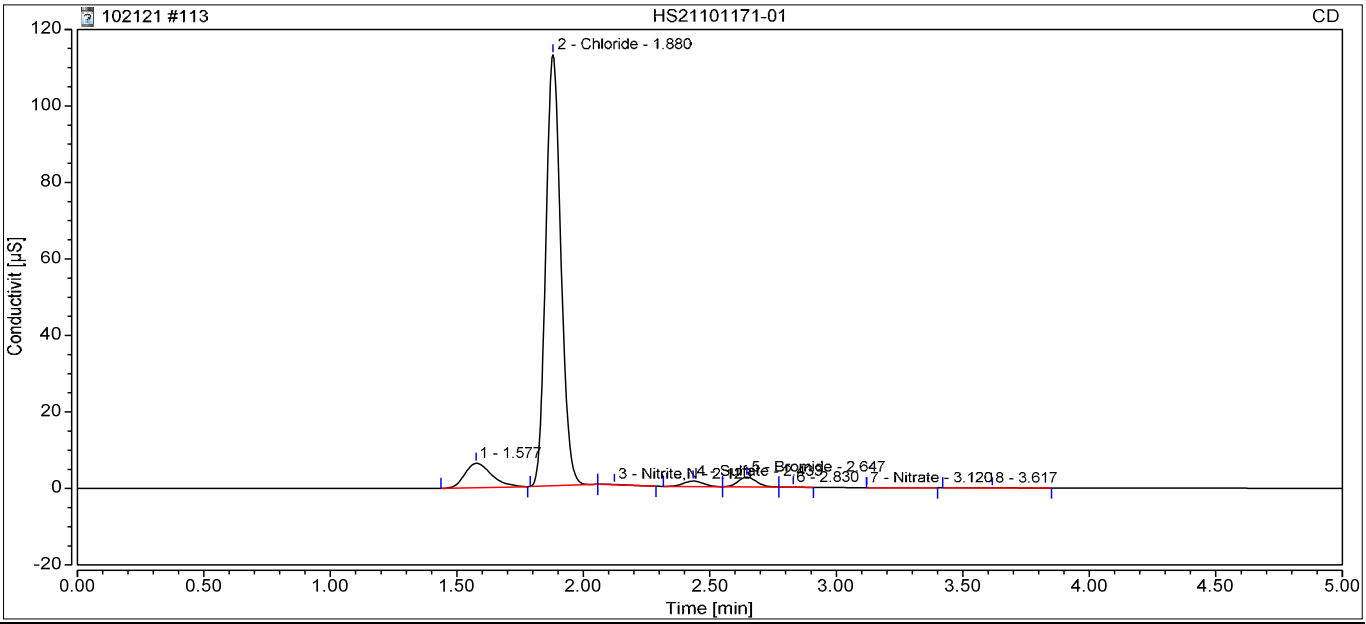
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.837	4.1454	4.1454	1.0000
2	1.88	Chloride	BMB	2.641	19.6280	19.6280	1.0000
3	2.13	Nitrite,N	BMB	1.141	3.9054	3.9054	1.0000
4	2.45	Sulfate	BM *	1.933	19.9121	19.9121	1.0000
5	2.65	Bromide	MB*	0.222	4.0816	4.0816	1.0000
6	2.99	Nitrate	BMB	1.315	3.8626	3.8626	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.02	Phosphate	BMB	0.206	2.0944	2.0944	1.0000
Total:			**0.000**	**8.293**		**57.63**	

113 HS21101171-01

Sample Name:	**HS21101171-01**	*Injection Volume:*	**5.00**
Vial Number:	**RE4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/22/2021 00:16**	*Sample Weight:*	**1.0000**

Run Time:



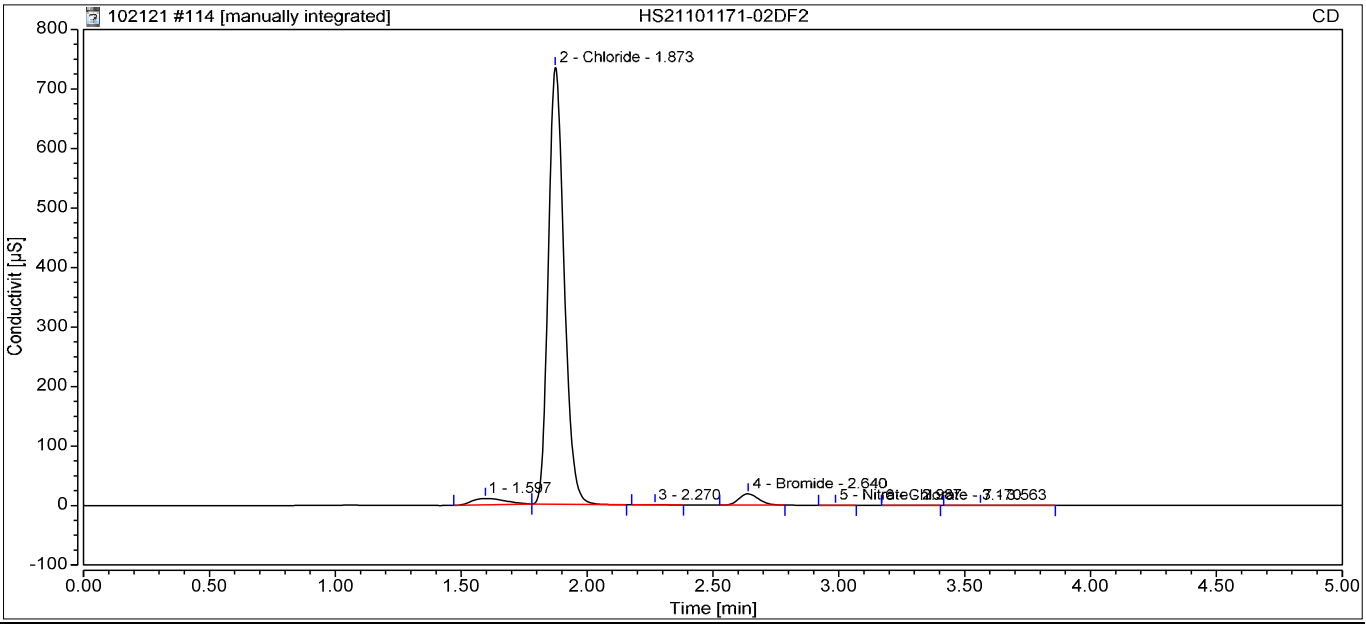
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
2	1.88	Chloride	BMB	7.784	57.9541	57.9541	1.0000
3	2.12	Nitrite,N	BMB	0.011	0.0031	0.0031	1.0000
4	2.43	Sulfate	BMB	0.130	1.3394	1.3394	1.0000
5	2.65	Bromide	BMB	0.211	3.8854	3.8854	1.0000
7	3.12	Nitrate	BMB	0.002	0.0058	0.0058	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.139**		**63.19**	

114 HS21101171-02DF2

Sample Name:	**HS21101171-02DF2**	*Injection Volume:*	**5.00**
Vial Number:	**RE5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/22/2021 00:24**	*Sample Weight:*	**1.0000**

Run Time:



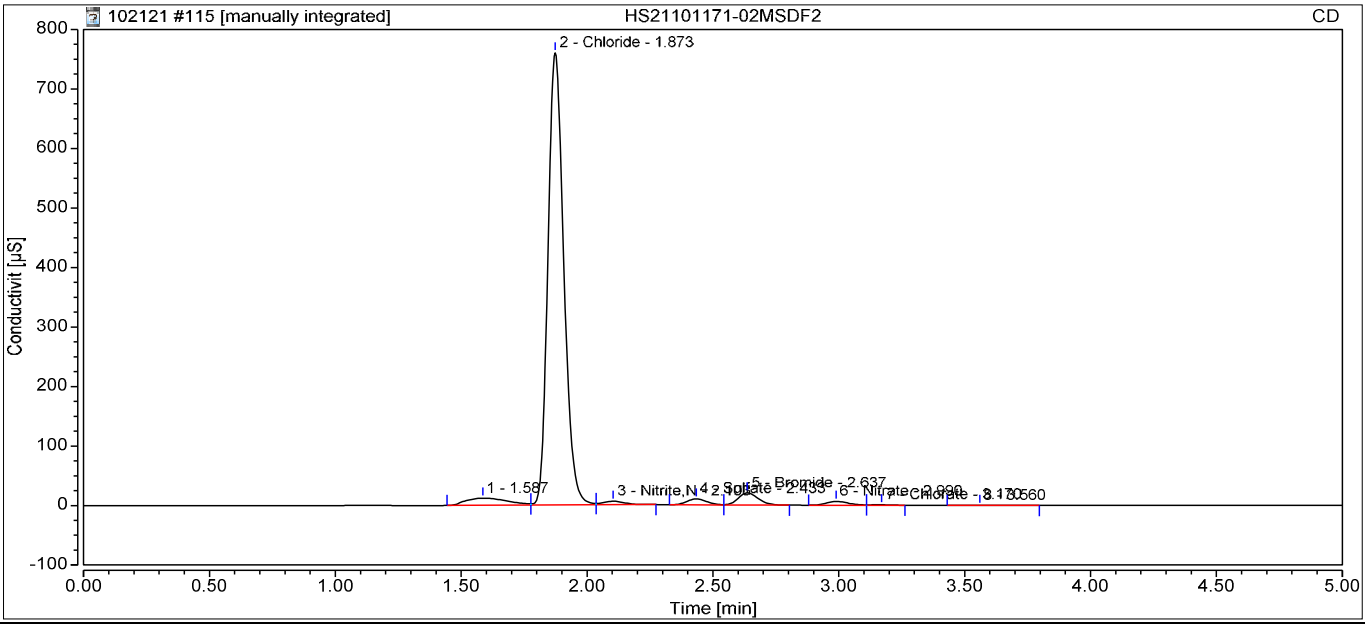
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	2.0000
2	1.87	Chloride	BMB	53.265	396.8210	793.6420	2.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	2.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	2.0000
4	2.64	Bromide	BMB*	1.731	31.6391	63.2781	2.0000
5	2.99	Nitrate	BMB	0.002	0.0062	0.0124	2.0000
6	3.17	Chlorate	BMB	0.003	n.a.	n.a.	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			**0.000**	**55.001**		**856.93**	

115 HS21101171-02MSDF2

Sample Name:	**HS21101171-02MSDF2**	*Injection Volume:*	**5.00**
Vial Number:	**RE6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/22/2021 00:31**	*Sample Weight:*	**1.0000**

Run Time:



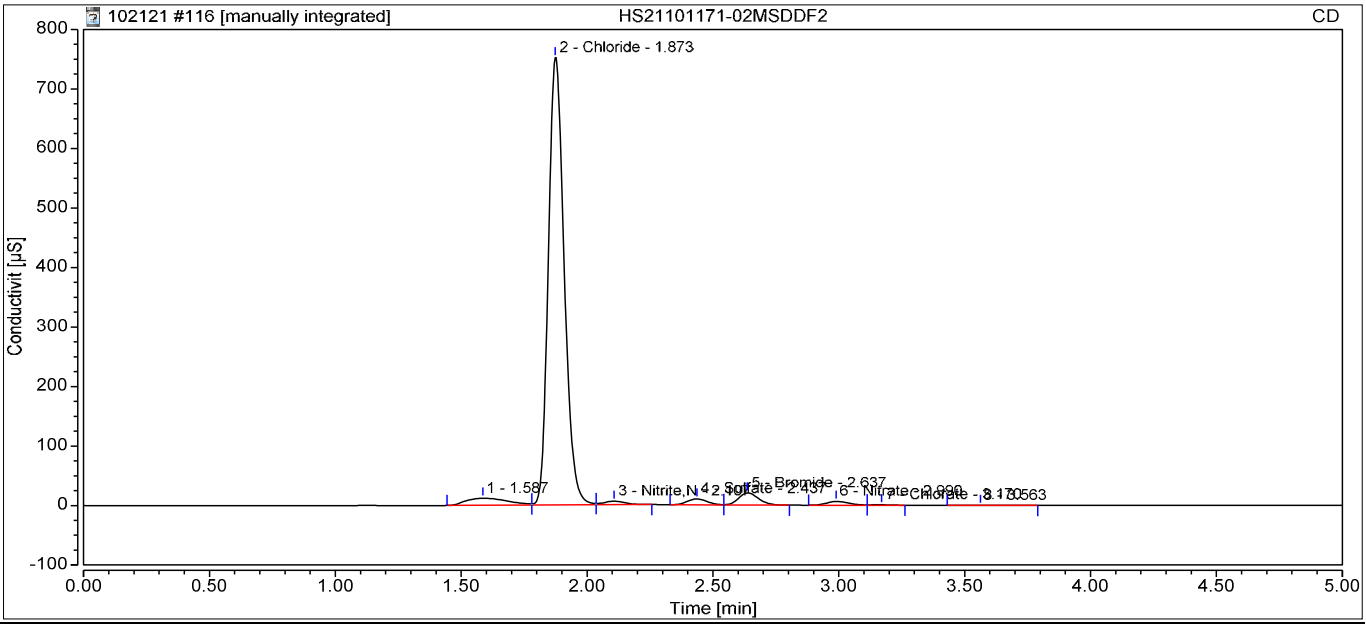
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	2.0000
2	1.87	Chloride	M *	55.289	411.8985	823.7971	2.0000
3	2.10	Nitrite,N	MB*	0.582	1.9426	3.8852	2.0000
4	2.43	Sulfate	BM *	0.911	9.3887	18.7773	2.0000
5	2.64	Bromide	MB*	1.853	33.8692	67.7384	2.0000
6	2.99	Nitrate	BM *	0.644	1.8926	3.7852	2.0000
7	3.17	Chlorate	MB*	0.076	n.a.	n.a.	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			**0.000**	**59.355**		**917.98**	

116 HS21101171-02MSDDF2

Sample Name:	**HS21101171-02MSDDF2**	*Injection Volume:*	**5.00**
Vial Number:	**RE7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Recording Time:	**10/22/2021 00:39**	*Sample Weight:*	**1.0000**

Run Time:



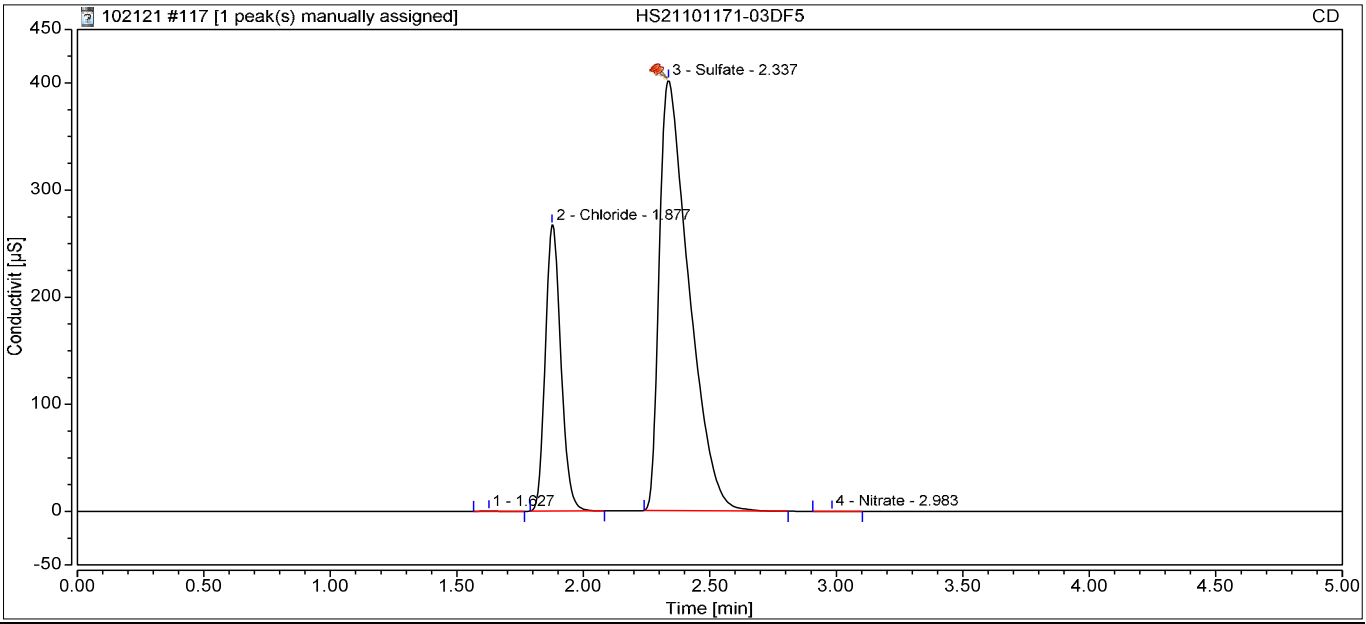
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	2.0000
2	1.87	Chloride	M *	54.630	406.9900	813.9801	2.0000
3	2.11	Nitrite,N	MB*	0.572	1.9085	3.8170	2.0000
4	2.44	Sulfate	BM *	0.910	9.3749	18.7499	2.0000
5	2.64	Bromide	MB*	1.836	33.5548	67.1096	2.0000
6	2.99	Nitrate	BM *	0.645	1.8950	3.7900	2.0000
7	3.17	Chlorate	MB*	0.074	n.a.	n.a.	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			**0.000**	**58.667**		**907.45**	

117 HS21101171-03DF5

Sample Name:	**HS21101171-03DF5**	*Injection Volume:*	**5.00**
Vial Number:	**RE8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Recording Time:	**10/22/2021 00:46**	*Sample Weight:*	**1.0000**

Run Time:



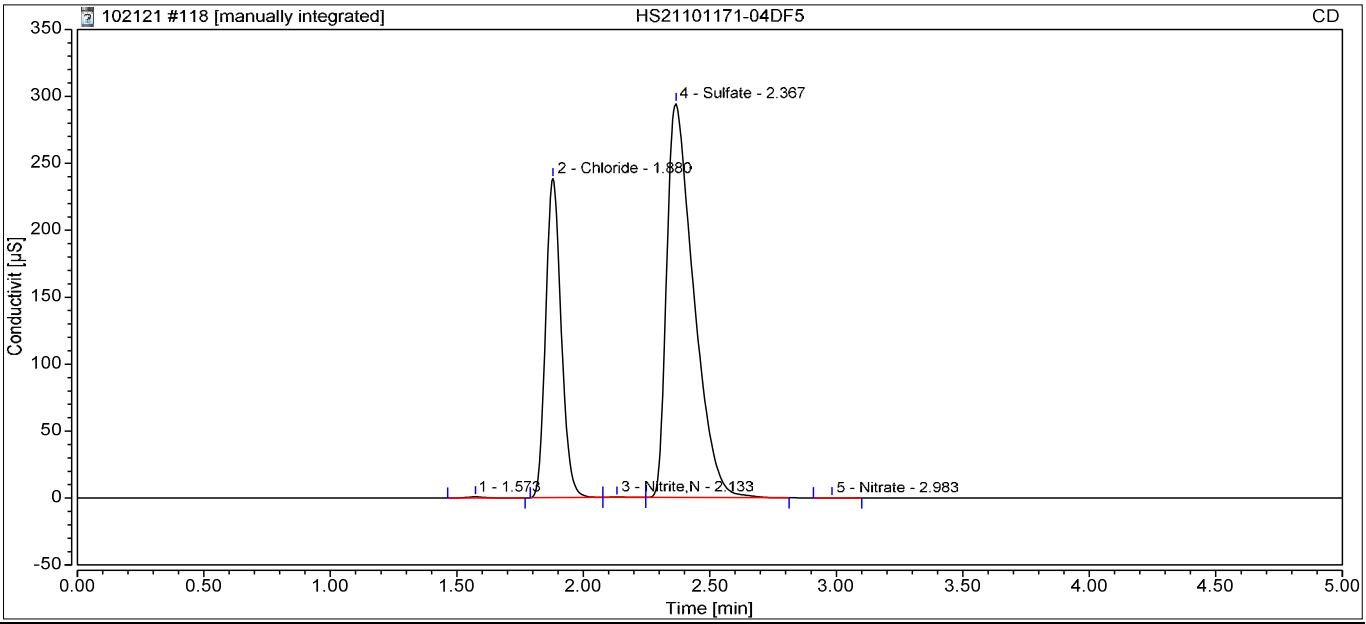
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	5.0000
2	1.88	Chloride	BMB	19.049	141.8806	709.4031	5.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	5.0000
3	2.34	Sulfate	BMB^	54.394	560.4068	2802.0341	5.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	5.0000
4	2.98	Nitrate	BMB	0.003	0.0085	0.0423	5.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	5.0000
Total:			**0.000**	**73.445**		**3511.48**	

118 HS21101171-04DF5

Sample Name:	**HS21101171-04DF5**	*Injection Volume:*	**5.00**
Vial Number:	**BA1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Recording Time:	**10/22/2021 00:53**	*Sample Weight:*	**1.0000**

Run Time:



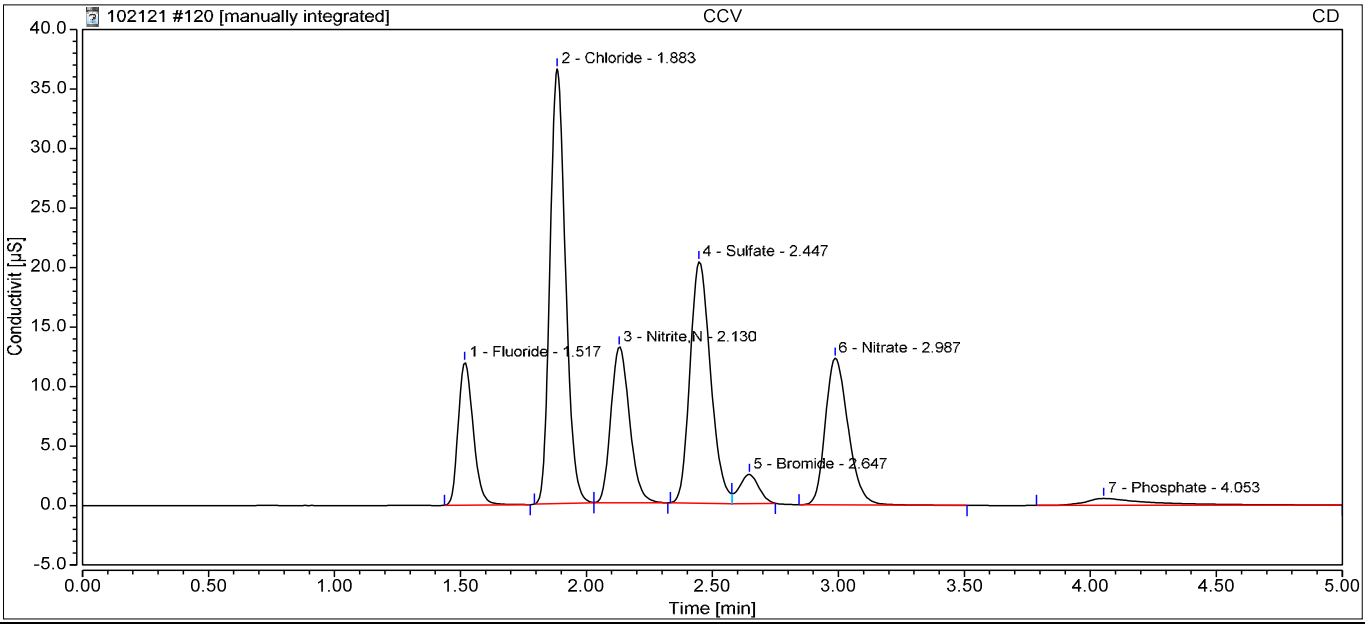
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	5.0000
2	1.88	Chloride	BMB	16.916	125.9888	629.9440	5.0000
3	2.13	Nitrite,N	BMb*	0.011	0.0013	0.0067	5.0000
4	2.37	Sulfate	bMB*	36.292	373.9074	1869.5371	5.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	5.0000
5	2.98	Nitrate	BMB	0.002	0.0056	0.0281	5.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	5.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	5.0000
Total:			**0.000**	**53.220**		**2499.52**	

120 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/22/2021 01:08**	*Sample Weight:*	**1.0000**

Run Time:



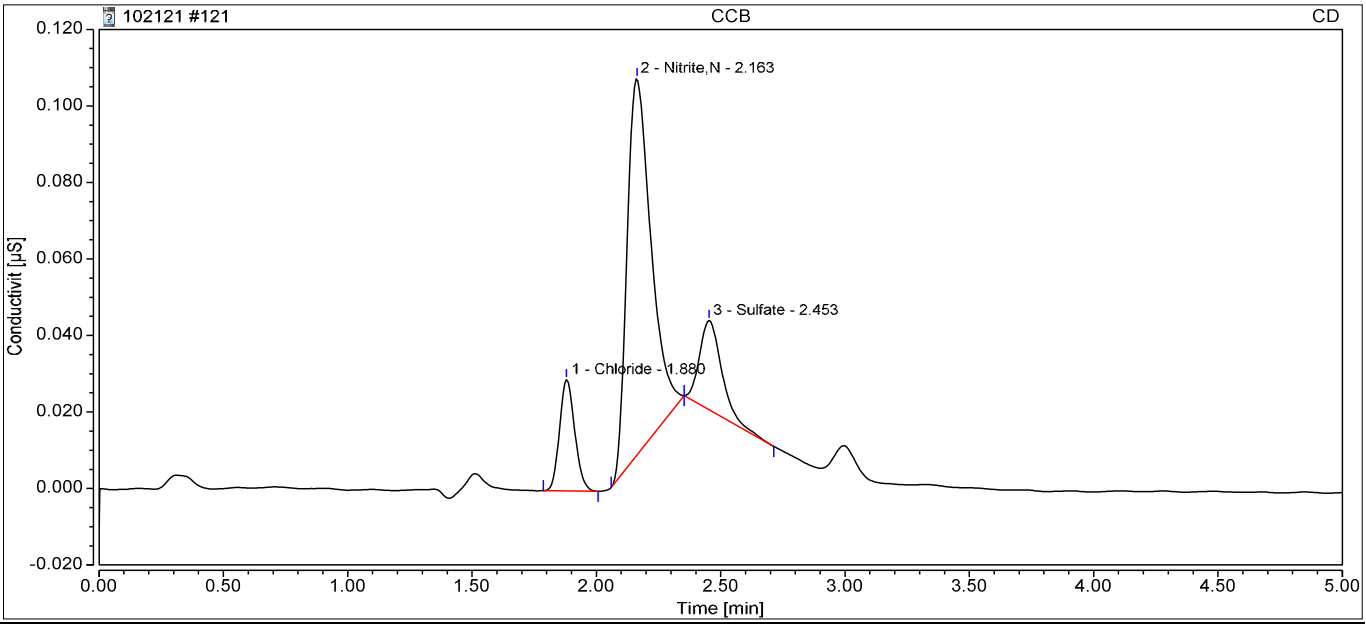
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.829	4.1101	4.1101	1.0000
2	1.88	Chloride	BMB	2.605	19.3632	19.3632	1.0000
3	2.13	Nitrite,N	BMB	1.124	3.8447	3.8447	1.0000
4	2.45	Sulfate	BM *	1.921	19.7950	19.7950	1.0000
5	2.65	Bromide	MB*	0.220	4.0455	4.0455	1.0000
6	2.99	Nitrate	BMB	1.294	3.8013	3.8013	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.05	Phosphate	BMB	0.179	1.8400	1.8400	1.0000
Total:			**0.000**	**8.173**		**56.80**	

121 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/22/2021 01:23**	*Sample Weight:*	**1.0000**

Run Time:



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.88	Chloride	BMB	0.002	n.a.	n.a.	1.0000
2	2.16	Nitrite,N	BMB	0.011	0.0028	0.0028	1.0000
3	2.45	Sulfate	BMB	0.002	0.0263	0.0263	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.015**		**0.03**	

Sequence: 110421
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method	Processing Method	Volume	Status
	STD1		Calibratio	BB1	1.00	1	Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	STD2		Calibratio	BB2	1.00	2	Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	STD3		Calibratio	BB3	1.00	3	Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	STD4		Calibratio	BB4	1.00	4	Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	STD5		Calibratio	BB5	1.00	5	Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	STD6		Calibratio	BB6	1.00	6	Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	ICV		Unknown	BA7	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	ICB		Unknown	BA8	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	CCB		Unknown	R4	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	MBLK		Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	LCS		Unknown	R2	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	HS21101171-02DF10		Unknown	BB1	10.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	HS21101171-02MSDF10		Unknown	BB2	10.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	HS21101171-02MSDDF10		Unknown	BB3	10.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	HS21101171-03DF100		Unknown	BB4	100.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	HS21101171-04DF50		Unknown	BB5	50.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished
	CCB		Unknown	R8	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Proce	5.0	Finished

Sequence: 110421
Last Update Operator: alshs.nouser

Inject Time
11/3/2021 4:47:51 PM -05:00
11/3/2021 4:55:19 PM -05:00
11/3/2021 5:02:47 PM -05:00
11/3/2021 5:10:15 PM -05:00
11/3/2021 5:17:44 PM -05:00
11/3/2021 5:25:12 PM -05:00
11/3/2021 5:34:10 PM -05:00
11/3/2021 5:41:38 PM -05:00
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11/5/2021 2:30:23 AM -05:00
11/5/2021 2:37:48 AM -05:00
11/5/2021 3:07:31 AM -05:00
11/5/2021 3:14:56 AM -05:00

Sequence: 110421
Injection #6: STD6

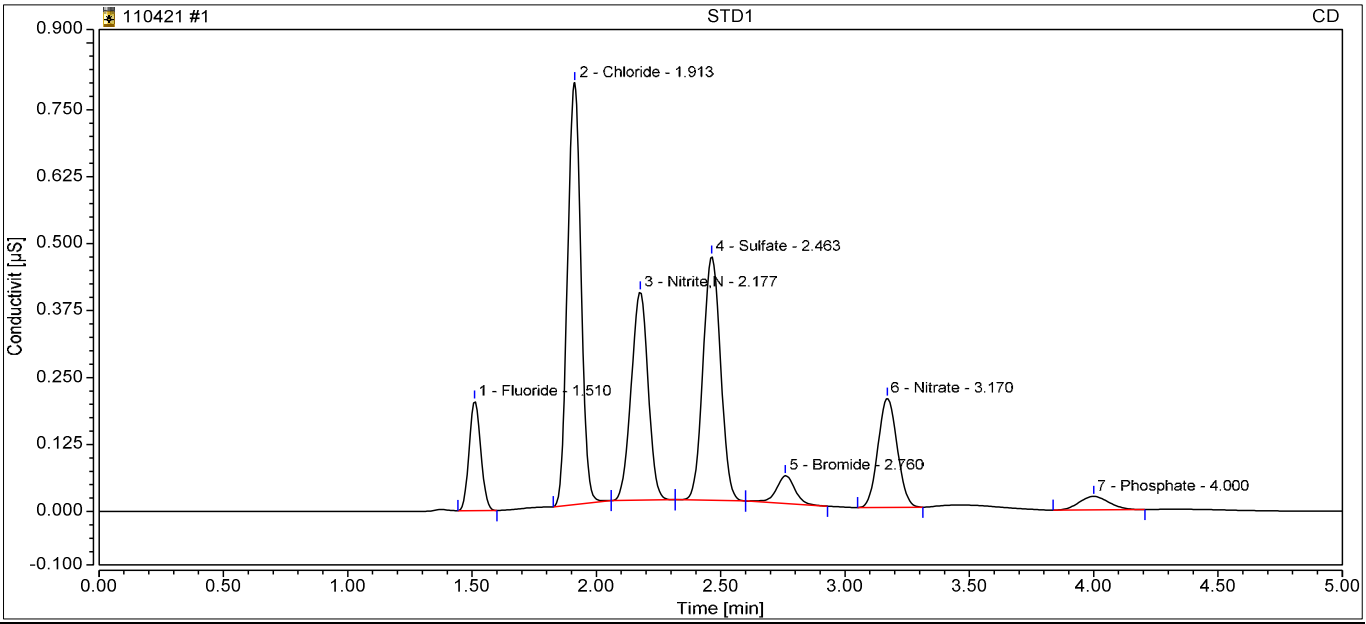
Calibration

Peak No.	Peak Name	Cal.Type	Eval.Type	Number of Points	Rel.Std.Dev. %	Coeff.of Determination	C0 (Offset)	C1 (Slope)	C2 (Curve)
1	*Fluoride*	*Lin, WithOffset, 1/*	*Area*	*6*	*27.8876*	*0.99658*	*-0.0083*	*0.2107*	*0.0000*
2	Chloride	Lin, WithOffset, 1/	Area	6	10.8147	0.99945	-0.0187	0.1414	0.0000
3	Nitrite,N	Quad, WithOffset,	Area	6	13.6827	0.99907	-0.0001	0.3141	-0.0036
4	Sulfate	Lin, WithOffset, 1/	Area	6	12.4596	0.99926	-0.0126	0.1039	0.0000
5	Bromide	Lin, WithOffset, 1/	Area	6	18.4384	0.99858	-0.0030	0.0609	0.0000
6	Nitrate	Lin, WithOffset, 1/	Area	6	10.9439	0.99950	-0.0172	0.3553	0.0000
n.a.	Chlorate	Lin, WithOffset, 1/	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	Quad, WithOffset,	Area	5	27.6931	0.99780	-0.0107	0.1204	0.0006
Maximum					**27.8876**	0.99950			
Minimum					10.8147	**0.99658**			

1 STD1

Sample Name:	**STD1**	*Injection Volume:*	**5.00**
Vial Number:	**BB1**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/03/2021 16:47**	*Sample Weight:*	**1.0000**

Run Time:



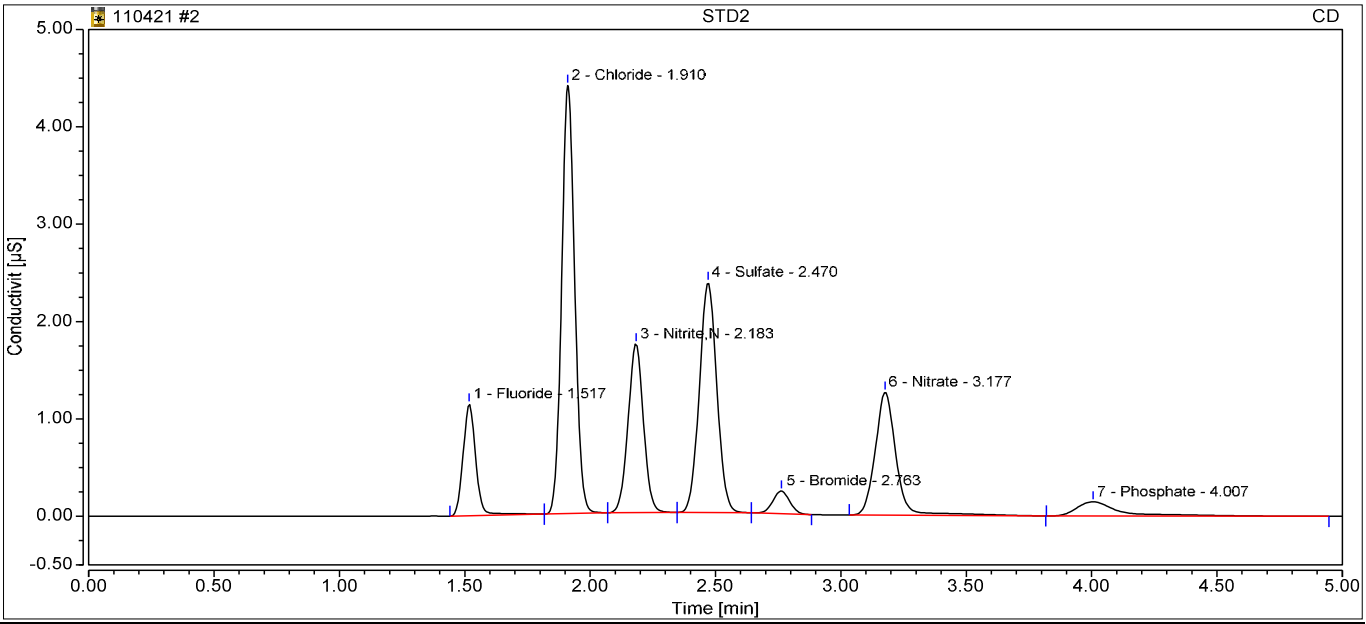
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.011	0.0921	0.0921	1.0000
2	1.91	Chloride	BMB	0.049	0.4810	0.4810	1.0000
3	2.18	Nitrite,N	BMB	0.031	0.0978	0.0978	1.0000
4	2.46	Sulfate	BMB	0.037	0.4805	0.4805	1.0000
5	2.76	Bromide	BMB	0.004	0.1226	0.1226	1.0000
6	3.17	Nitrate	BMB	0.018	0.0999	0.0999	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.00	Phosphate	BMB	0.004	0.1178	0.1178	1.0000
Total:			**0.000**	**0.155**		**1.49**	

2 STD2

Sample Name:	**STD2**	*Injection Volume:*	**5.00**
Vial Number:	**BB2**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/03/2021 16:55**	*Sample Weight:*	**1.0000**

Run Time:



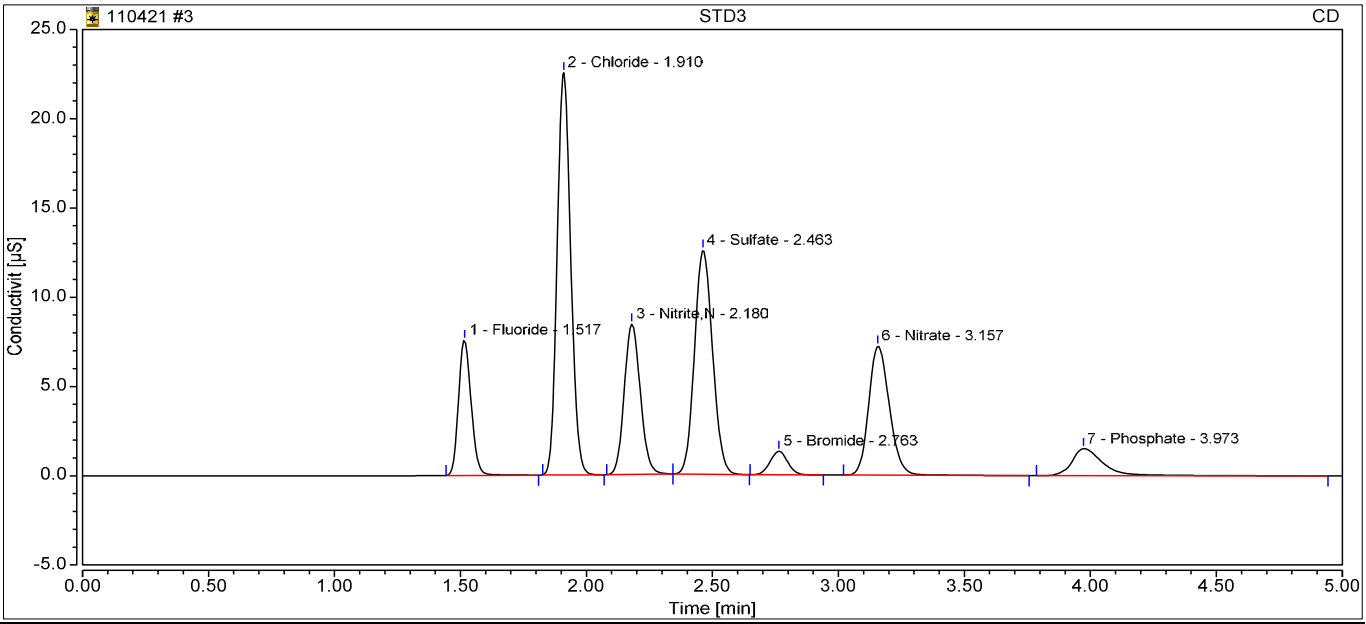
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.068	0.3607	0.3607	1.0000
2	1.91	Chloride	BMB	0.265	2.0057	2.0057	1.0000
3	2.18	Nitrite,N	BMB	0.123	0.3950	0.3950	1.0000
4	2.47	Sulfate	BMB	0.191	1.9556	1.9556	1.0000
5	2.76	Bromide	BMB	0.018	0.3462	0.3462	1.0000
6	3.18	Nitrate	BMB	0.122	0.3914	0.3914	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.01	Phosphate	BMB	0.029	0.3309	0.3309	1.0000
Total:			**0.000**	**0.816**		**5.79**	

3 STD3

Sample Name:	**STD3**	*Injection Volume:*	**5.00**
Vial Number:	**BB3**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/03/2021 17:02**	*Sample Weight:*	**1.0000**

Run Time:



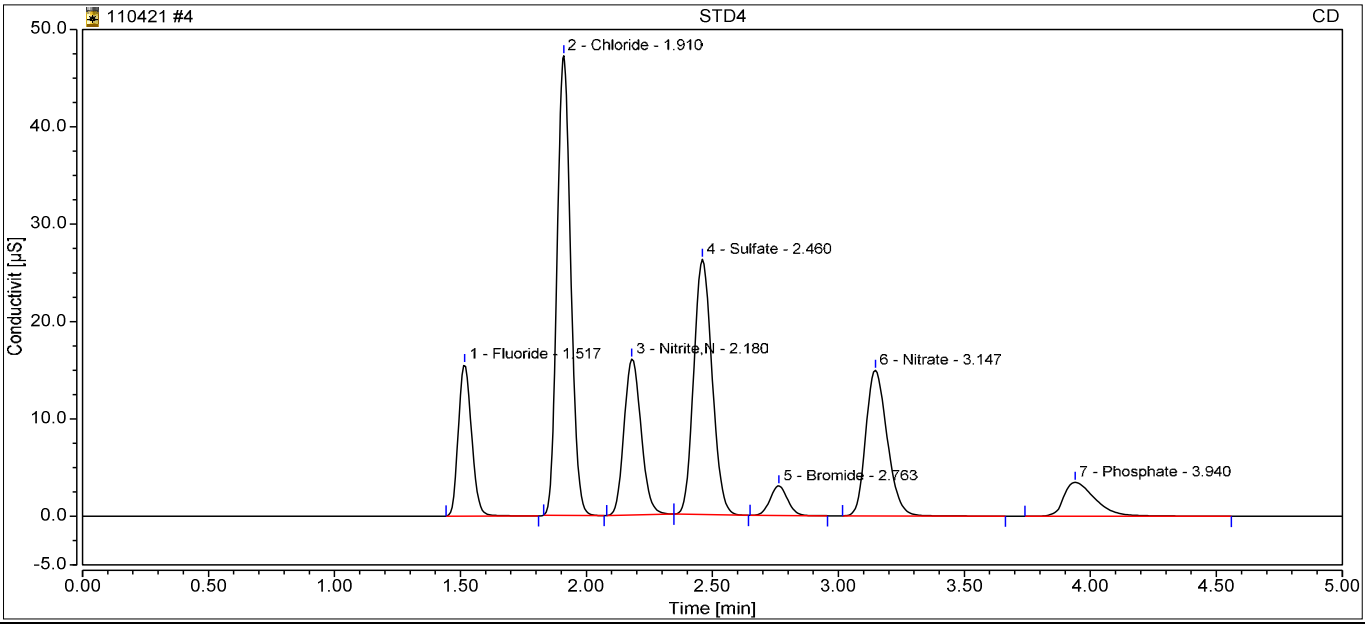
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.442	2.1349	2.1349	1.0000
2	1.91	Chloride	BMB	1.402	10.0450	10.0450	1.0000
3	2.18	Nitrite,N	BMB	0.623	2.0307	2.0307	1.0000
4	2.46	Sulfate	BMB	1.041	10.1470	10.1470	1.0000
5	2.76	Bromide	BMB	0.106	1.7946	1.7946	1.0000
6	3.16	Nitrate	BMB	0.689	1.9863	1.9863	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.97	Phosphate	BMB	0.219	1.8914	1.8914	1.0000
Total:			**0.000**	**4.522**		**30.03**	

4 STD4

Sample Name:	**STD4**	*Injection Volume:*	**5.00**
Vial Number:	**BB4**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/03/2021 17:10**	*Sample Weight:*	**1.0000**

Run Time:



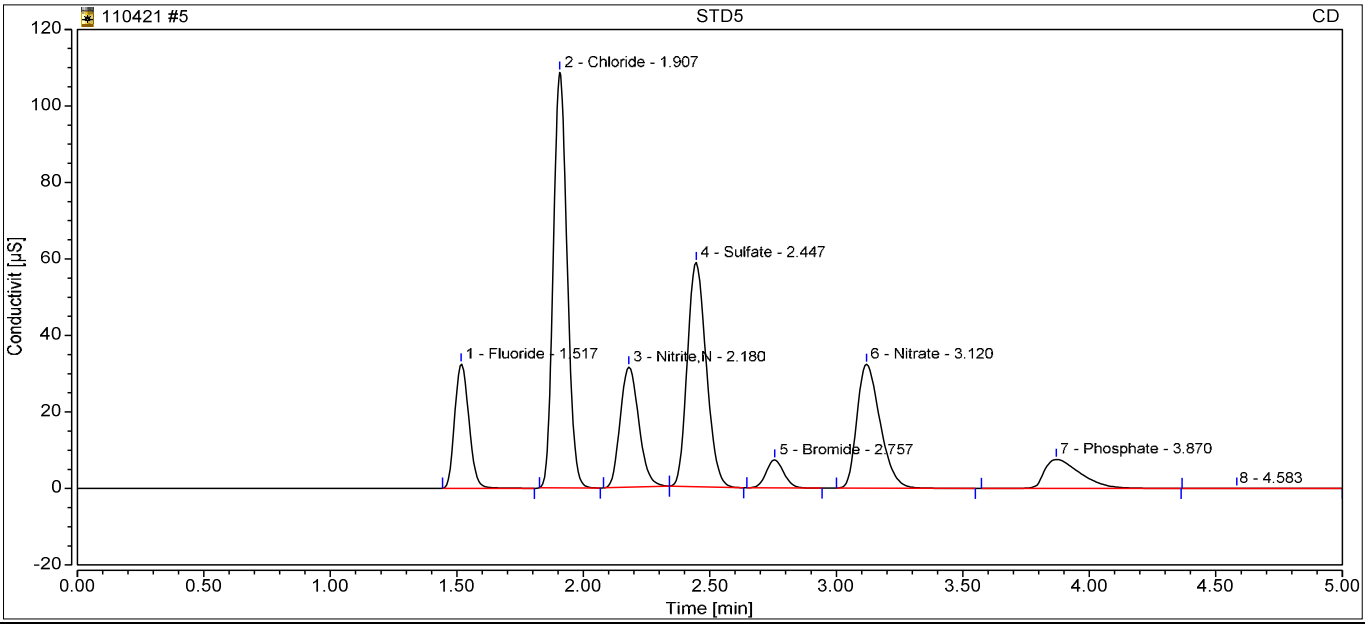
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.950	4.5474	4.5474	1.0000
2	1.91	Chloride	BMB	2.964	21.0908	21.0908	1.0000
3	2.18	Nitrite,N	BMB	1.258	4.2075	4.2075	1.0000
4	2.46	Sulfate	BMB	2.212	21.4145	21.4145	1.0000
5	2.76	Bromide	BMB	0.244	4.0546	4.0546	1.0000
6	3.15	Nitrate	BMB	1.476	4.2029	4.2029	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.94	Phosphate	BMB	0.509	4.2200	4.2200	1.0000
Total:			**0.000**	**9.612**		**63.74**	

5 STD5

Sample Name:	**STD5**	*Injection Volume:*	**5.00**
Vial Number:	**BB5**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/03/2021 17:17**	*Sample Weight:*	**1.0000**

Run Time:



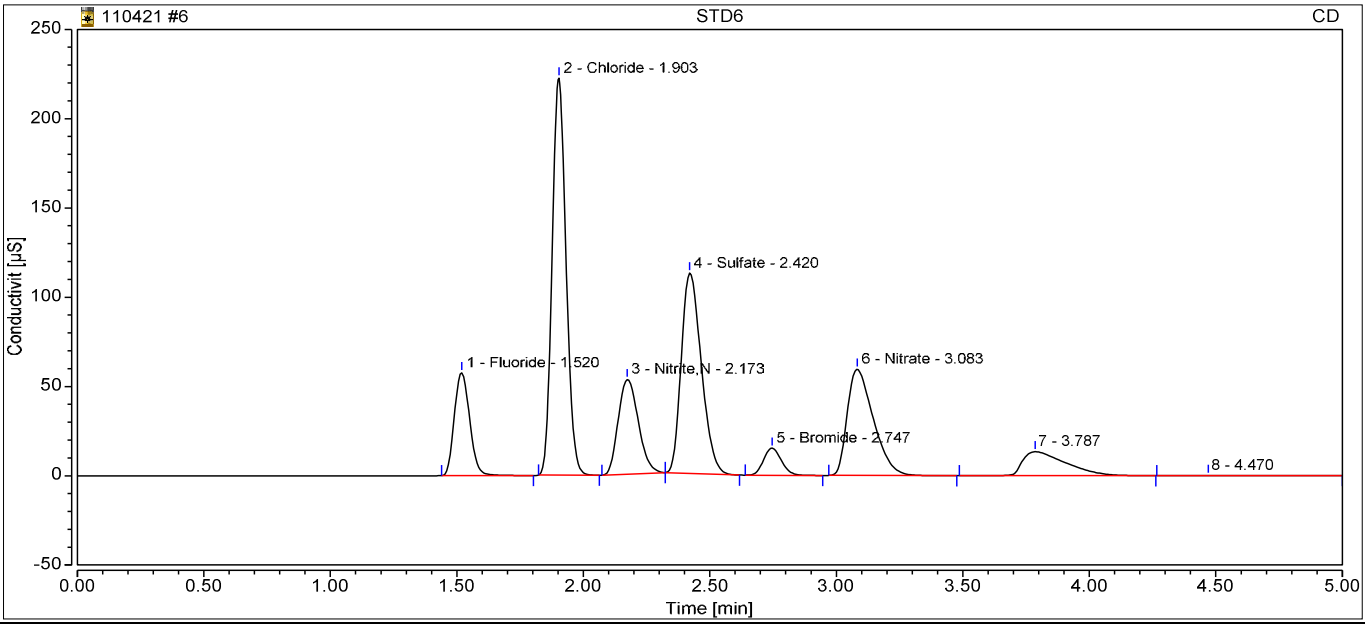
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	2.119	10.0932	10.0932	1.0000
2	1.91	Chloride	BMB	6.872	48.7329	48.7329	1.0000
3	2.18	Nitrite,N	BMB	2.675	9.5625	9.5625	1.0000
4	2.45	Sulfate	BMB	5.085	49.0735	49.0735	1.0000
5	2.76	Bromide	BMB	0.592	9.7669	9.7669	1.0000
6	3.12	Nitrate	BMB	3.447	9.7499	9.7499	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.87	Phosphate	BMB	1.248	9.9393	9.9393	1.0000
Total:			**0.000**	**22.037**		**146.92**	

6 STD6

Sample Name:	**STD6**	*Injection Volume:*	**5.00**
Vial Number:	**BB6**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/03/2021 17:25**	*Sample Weight:*	**1.0000**

Run Time:

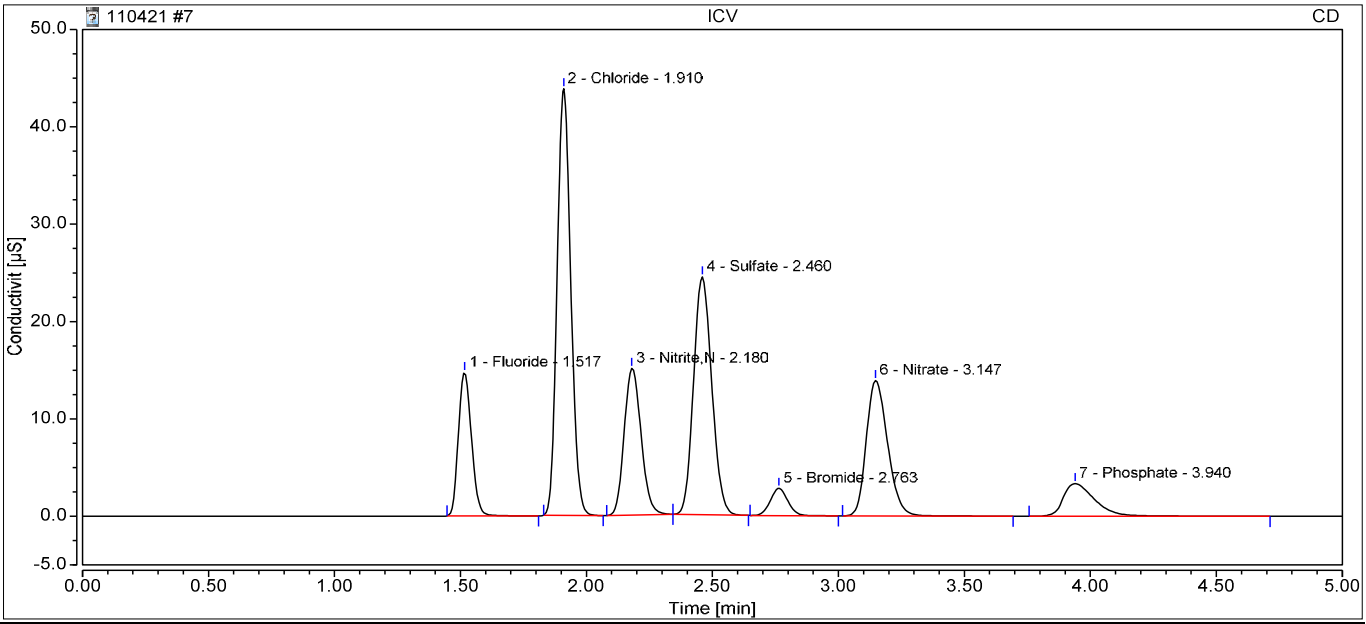


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	4.053	19.2717	19.2717	1.0000
2	1.90	Chloride	BMB	14.142	100.1446	100.1446	1.0000
3	2.17	Nitrite,N	BMB	4.884	20.2397	20.2397	1.0000
4	2.42	Sulfate	BMB	10.316	99.4289	99.4289	1.0000
5	2.75	Bromide	BMB	1.240	20.4151	20.4151	1.0000
6	3.08	Nitrate	BMB	7.113	20.0696	20.0696	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**41.749**		**279.57**	

7 ICV			
Sample Name:	**ICV**	*Injection Volume:*	**5.00**
Vial Number:	**BA7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/03/2021 17:34**	*Sample Weight:*	**1.0000**

Run Time:



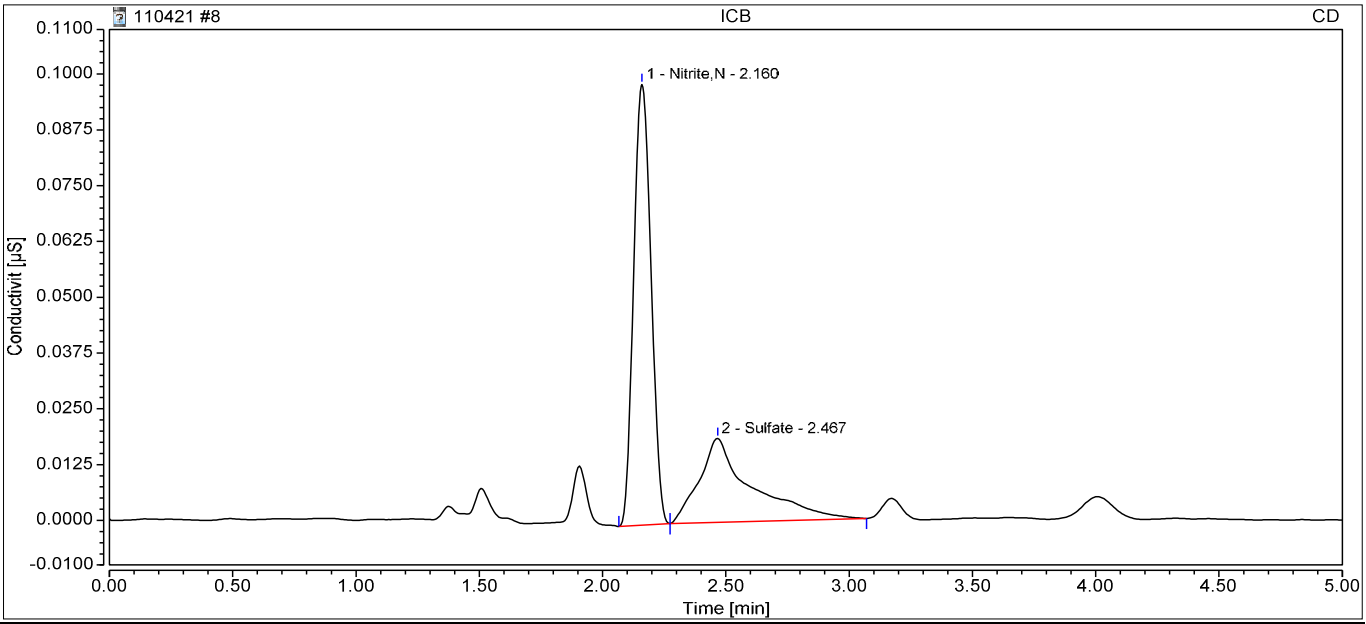
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.52	Fluoride	BMB	0.887	4.2482	4.2482	1.0000
2	1.91	Chloride	BMB	2.749	19.5719	19.5719	1.0000
3	2.18	Nitrite,N	BMB	1.174	3.9149	3.9149	1.0000
4	2.46	Sulfate	BMB	2.051	19.8617	19.8617	1.0000
5	2.76	Bromide	BMB	0.224	3.7196	3.7196	1.0000
6	3.15	Nitrate	BMB	1.365	3.8915	3.8915	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.94	Phosphate	BMB	0.490	4.0717	4.0717	1.0000
Total:			**0.000**	**8.940**		**59.28**	

8 ICB

Sample Name:	**ICB**	*Injection Volume:*	**5.00**
Vial Number:	**BA8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/03/2021 17:41**	*Sample Weight:*	**1.0000**

Run Time:



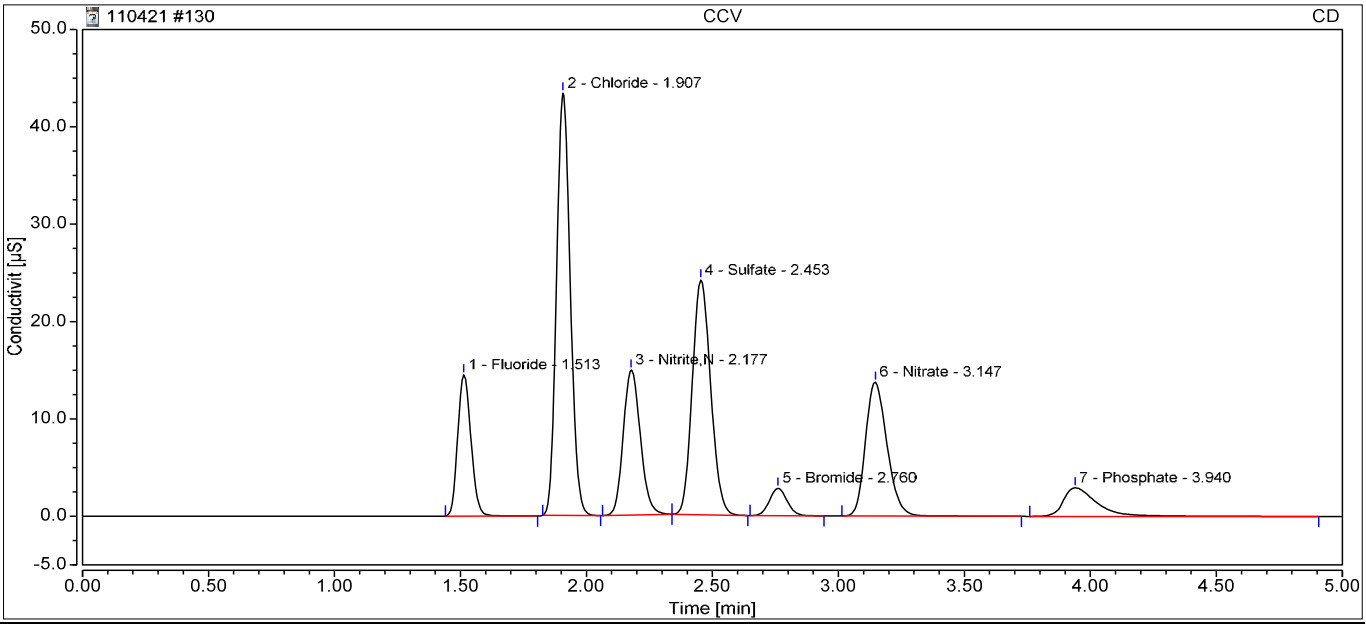
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.16	Nitrite,N	BMB	0.008	0.0260	0.0260	1.0000
2	2.47	Sulfate	BMB	0.005	0.1656	0.1656	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.013**		**0.19**	

130 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/05/2021 01:30**	*Sample Weight:*	**1.0000**

Run Time:



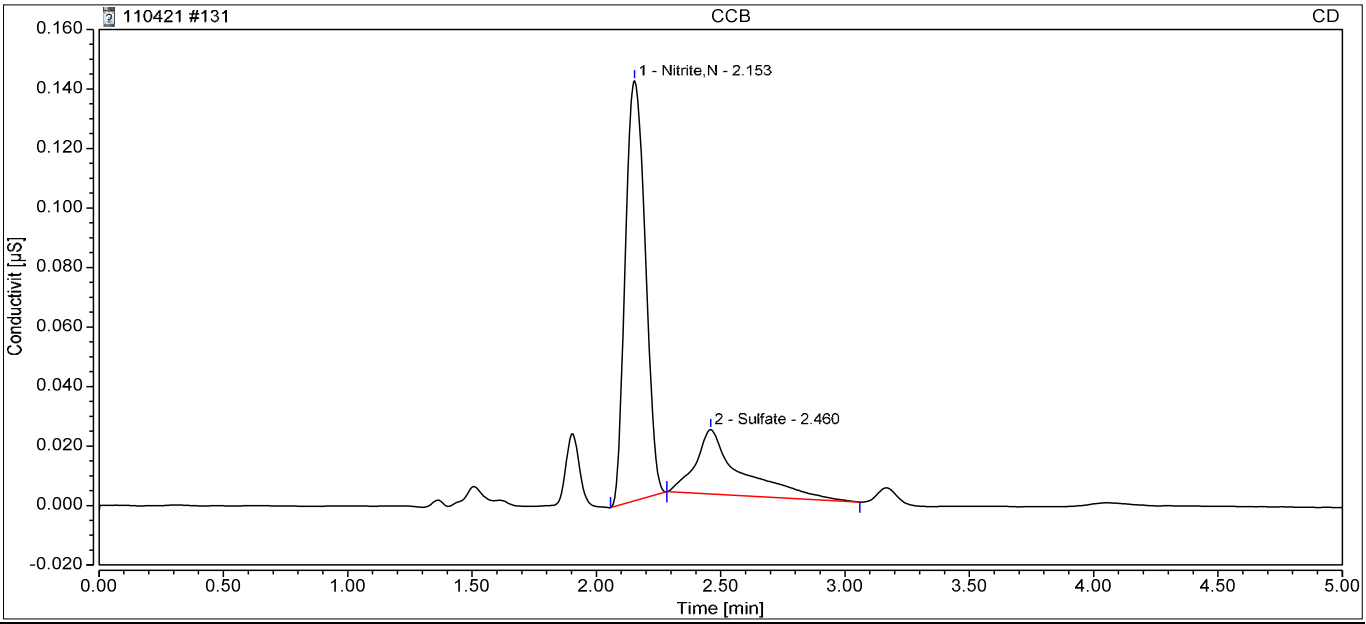
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.886	4.2434	4.2434	1.0000
2	1.91	Chloride	BMB	2.739	19.5010	19.5010	1.0000
3	2.18	Nitrite,N	BMB	1.173	3.9103	3.9103	1.0000
4	2.45	Sulfate	BMB	2.037	19.7270	19.7270	1.0000
5	2.76	Bromide	BMB	0.227	3.7780	3.7780	1.0000
6	3.15	Nitrate	BMB	1.363	3.8834	3.8834	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.94	Phosphate	BMB	0.455	3.7961	3.7961	1.0000
Total:			**0.000**	**8.879**		**58.84**	

131 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/05/2021 01:38**	*Sample Weight:*	**1.0000**

Run Time:



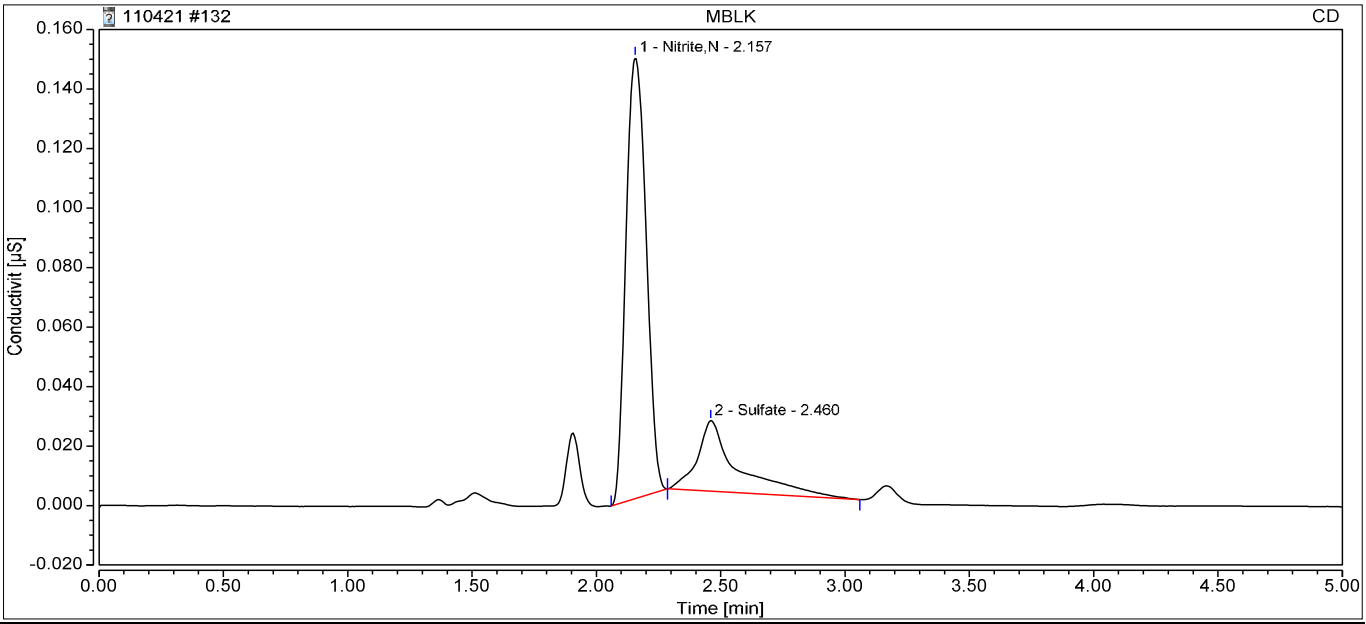
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.15	Nitrite,N	BMB	0.013	0.0422	0.0422	1.0000
2	2.46	Sulfate	BMB	0.005	0.1652	0.1652	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.018**		**0.21**	

132 MBLK

Sample Name:	**MBLK**	*Injection Volume:*	**5.00**
Vial Number:	**R5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/05/2021 01:53**	*Sample Weight:*	**1.0000**

Run Time:



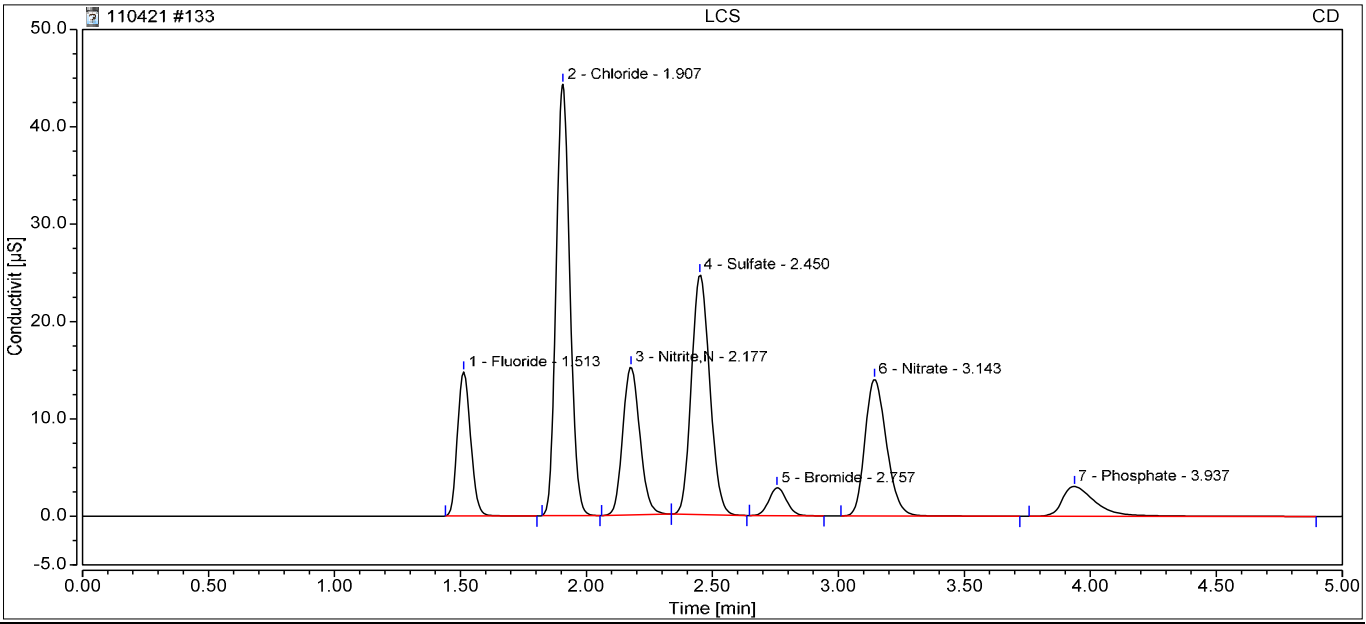
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.16	Nitrite,N	BMB	0.014	0.0448	0.0448	1.0000
2	2.46	Sulfate	BMB	0.005	0.1646	0.1646	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.018**		**0.21**	

133 LCS

Sample Name:	**LCS**	*Injection Volume:*	**5.00**
Vial Number:	**R2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**11/05/2021 02:00**	*Sample Weight:*	**1.0000**

Run Time:



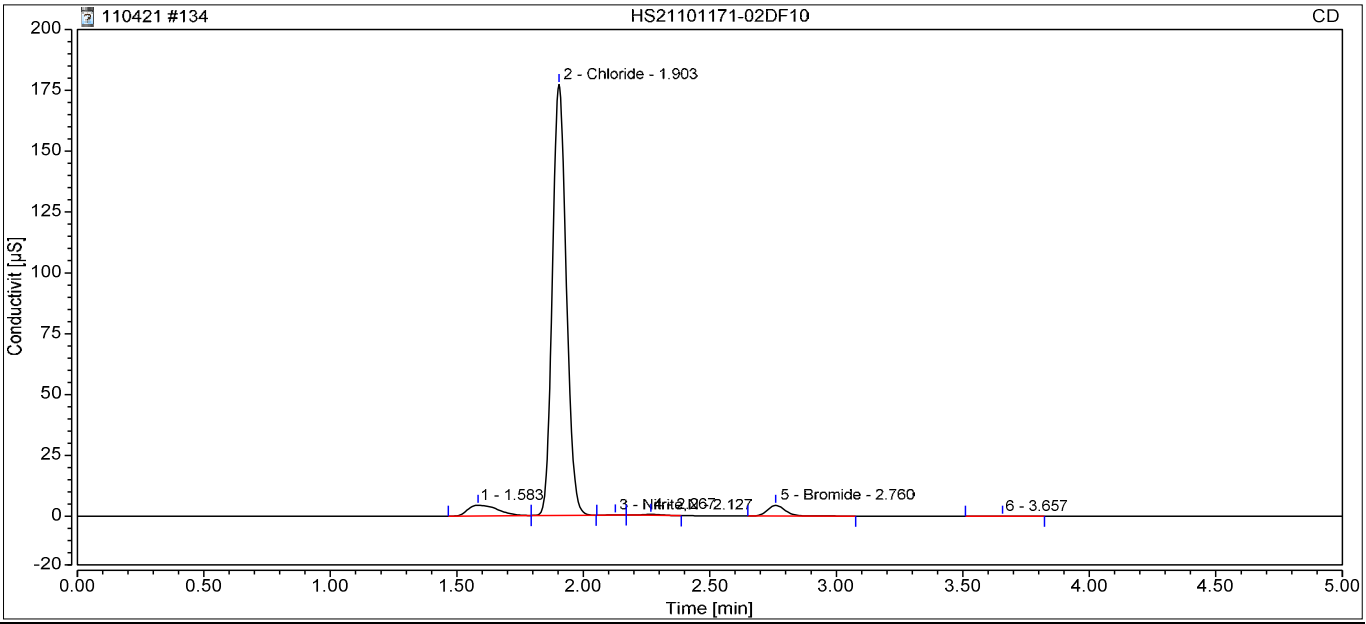
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.901	4.3158	4.3158	1.0000
2	1.91	Chloride	BMB	2.797	19.9157	19.9157	1.0000
3	2.18	Nitrite,N	BMB	1.197	3.9929	3.9929	1.0000
4	2.45	Sulfate	BMB	2.081	20.1511	20.1511	1.0000
5	2.76	Bromide	BMB	0.233	3.8673	3.8673	1.0000
6	3.14	Nitrate	BMB	1.393	3.9704	3.9704	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.94	Phosphate	BMB	0.473	3.9396	3.9396	1.0000
Total:			**0.000**	**9.075**		**60.15**	

134 HS21101171-02DF10

Sample Name:	**HS21101171-02DF10**	*Injection Volume:*	**5.00**
Vial Number:	**BB1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**11/05/2021 02:08**	*Sample Weight:*	**1.0000**

Run Time:



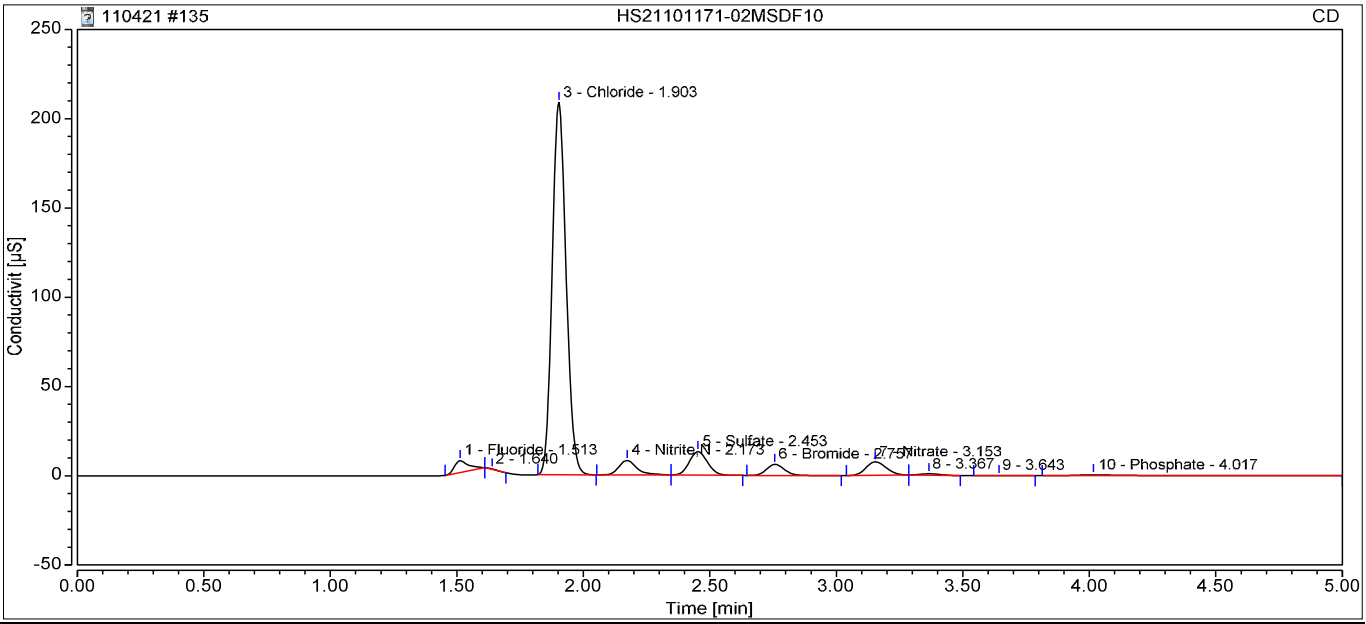
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	10.0000
2	1.90	Chloride	BMB	11.284	79.9285	799.2847	10.0000
3	2.13	Nitrite,N	BMB	0.003	0.0102	0.1015	10.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	10.0000
5	2.76	Bromide	BMB	0.360	5.9635	59.6346	10.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	10.0000
Total:			**0.000**	**11.647**		**859.02**	

135 HS21101171-02MSDF10

Sample Name:	**HS21101171-02MSDF10**	*Injection Volume:*	**5.00**
Vial Number:	**BB2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**11/05/2021 02:15**	*Sample Weight:*	**1.0000**

Run Time:



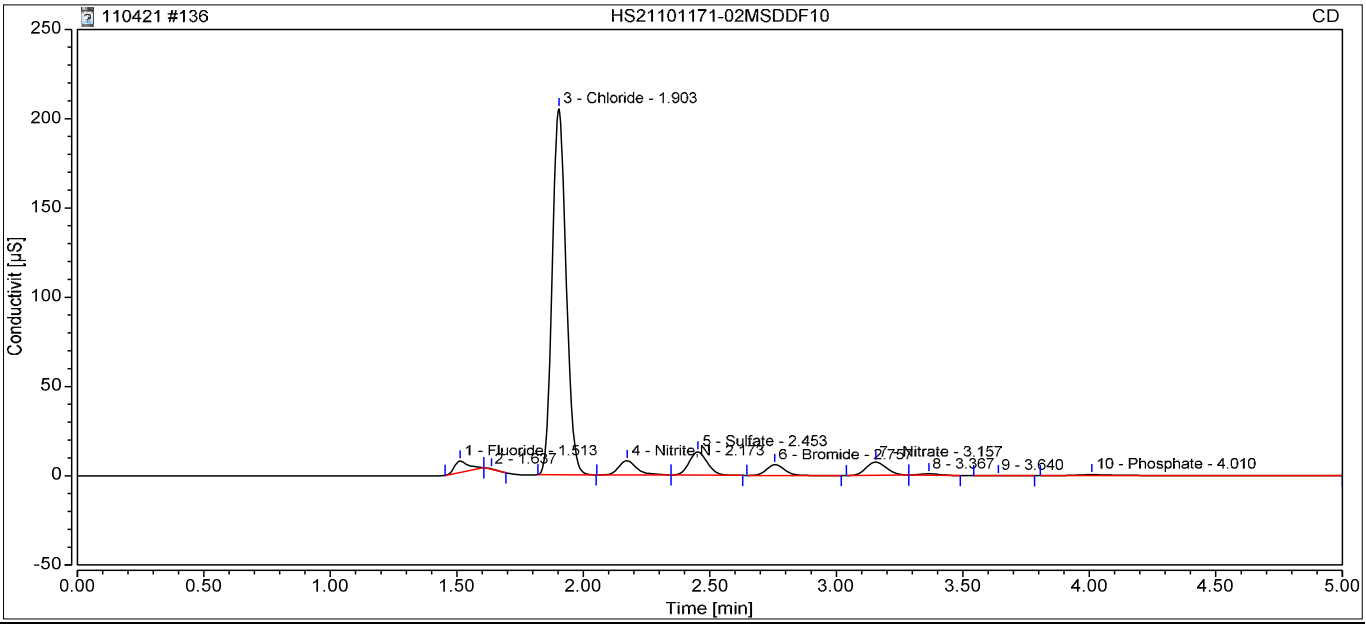
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.435	2.1026	21.0258	10.0000
3	1.90	Chloride	BMB	13.262	93.9182	939.1820	10.0000
4	2.17	Nitrite,N	BMB	0.665	2.1719	21.7192	10.0000
5	2.45	Sulfate	BMB	1.092	10.6304	106.3039	10.0000
6	2.76	Bromide	BMB	0.507	8.3764	83.7639	10.0000
7	3.15	Nitrate	BMB	0.698	2.0124	20.1240	10.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	10.0000
10	4.02	Phosphate	BMB	0.127	1.1373	11.3727	10.0000
Total:			**0.000**	**16.785**		**1203.49**	

136 HS21101171-02MSDDF10

Sample Name:	**HS21101171-02MSDDF10**	*Injection Volume:*	**5.00**
Vial Number:	**BB3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**11/05/2021 02:22**	*Sample Weight:*	**1.0000**

Run Time:



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.51	Fluoride	BMB	0.414	2.0018	20.0184	10.0000
3	1.90	Chloride	BMB	13.045	92.3820	923.8199	10.0000
4	2.17	Nitrite,N	BMB	0.655	2.1380	21.3797	10.0000
5	2.45	Sulfate	BMB	1.074	10.4619	104.6189	10.0000
6	2.76	Bromide	BMB	0.498	8.2320	82.3200	10.0000
7	3.16	Nitrate	BMB	0.685	1.9760	19.7601	10.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	10.0000
10	4.01	Phosphate	BMB	0.138	1.2251	12.2505	10.0000
Total:			**0.000**	**16.508**		**1184.17**	