LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 10

2024

Bate Stamp Number
01230073 – 01231436

Prepared for

Department of the Army
Longhorn Army Ammunition Plant

1976–2024

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

VOLUME 10

2024

A.	Title:	Report (Cont'd) – Draft Final Ninth Annual Remedial Action Operation Report, LHAAP-50, Former Sump Water Tank, Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas, March 2024
	Author(s):	Department of the Army
	Recipient:	Environmental Protection Agency and Texas Commission on Environmental Quality
	Date:	March 13, 2024
	Bate Stamp:	01230073–01231436

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221015.b\X101527.D Page 3

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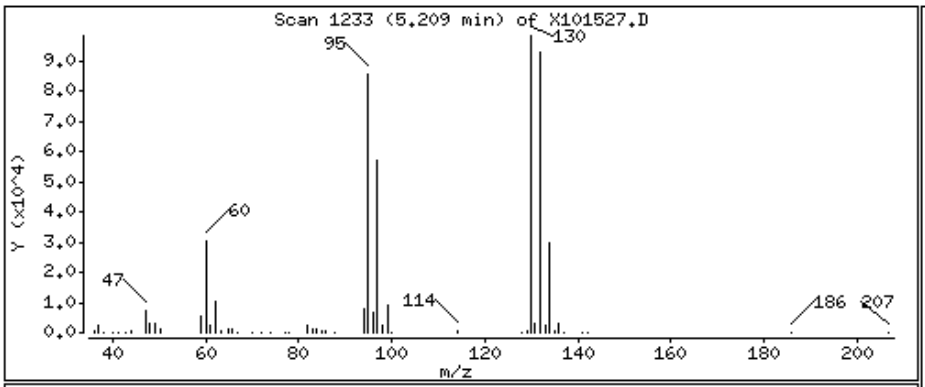
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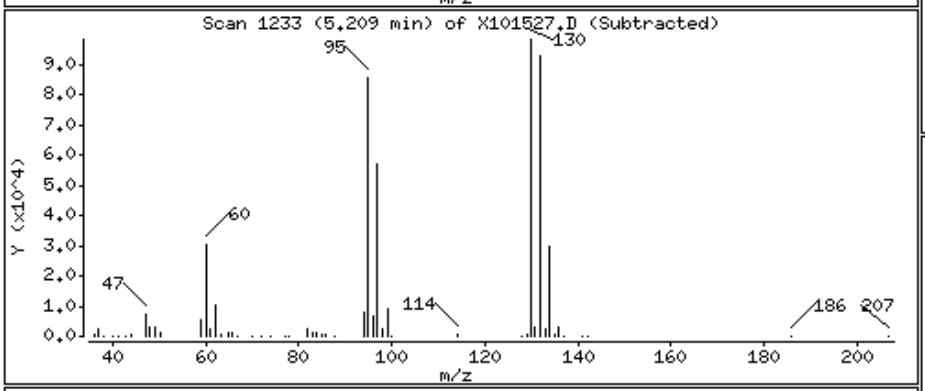
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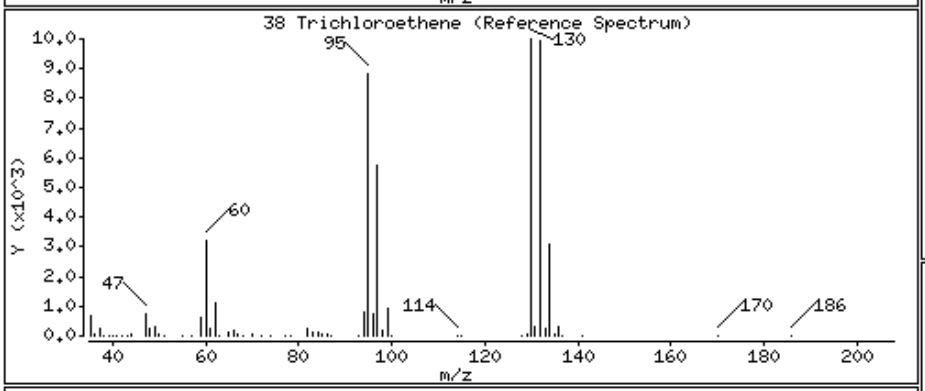
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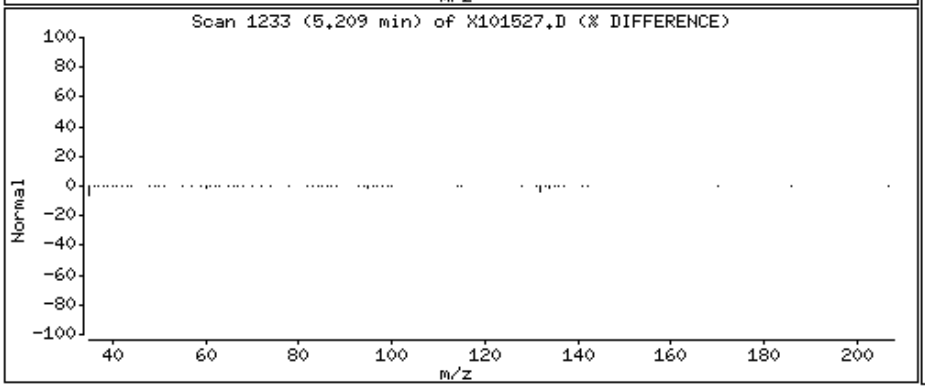
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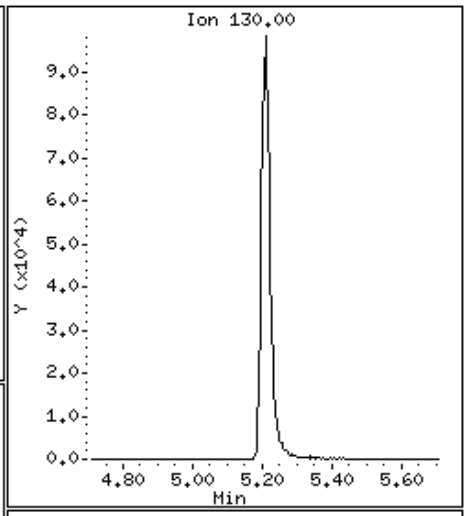
38 Trichloroethene Concentration: 8639.45 ug/l

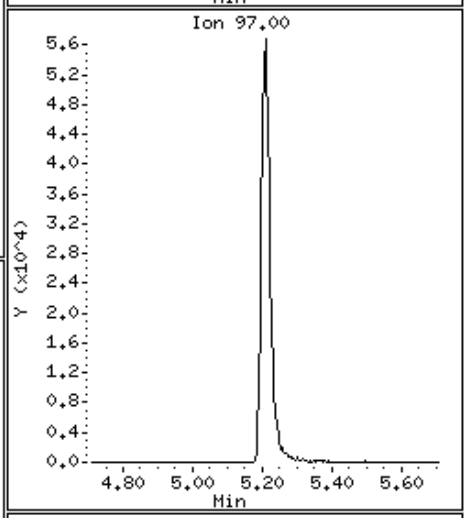


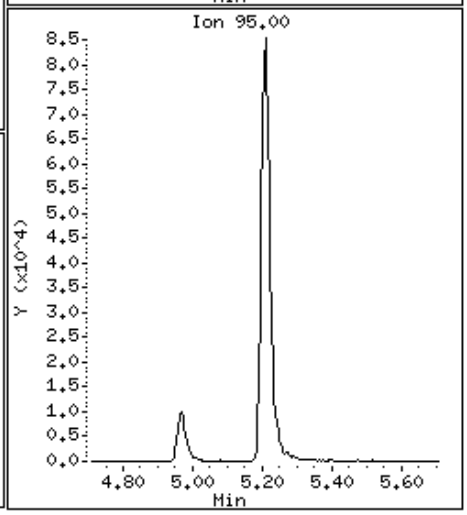












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LabSampID : HS22100577-02

NO MANUAL INTEGRATIONS

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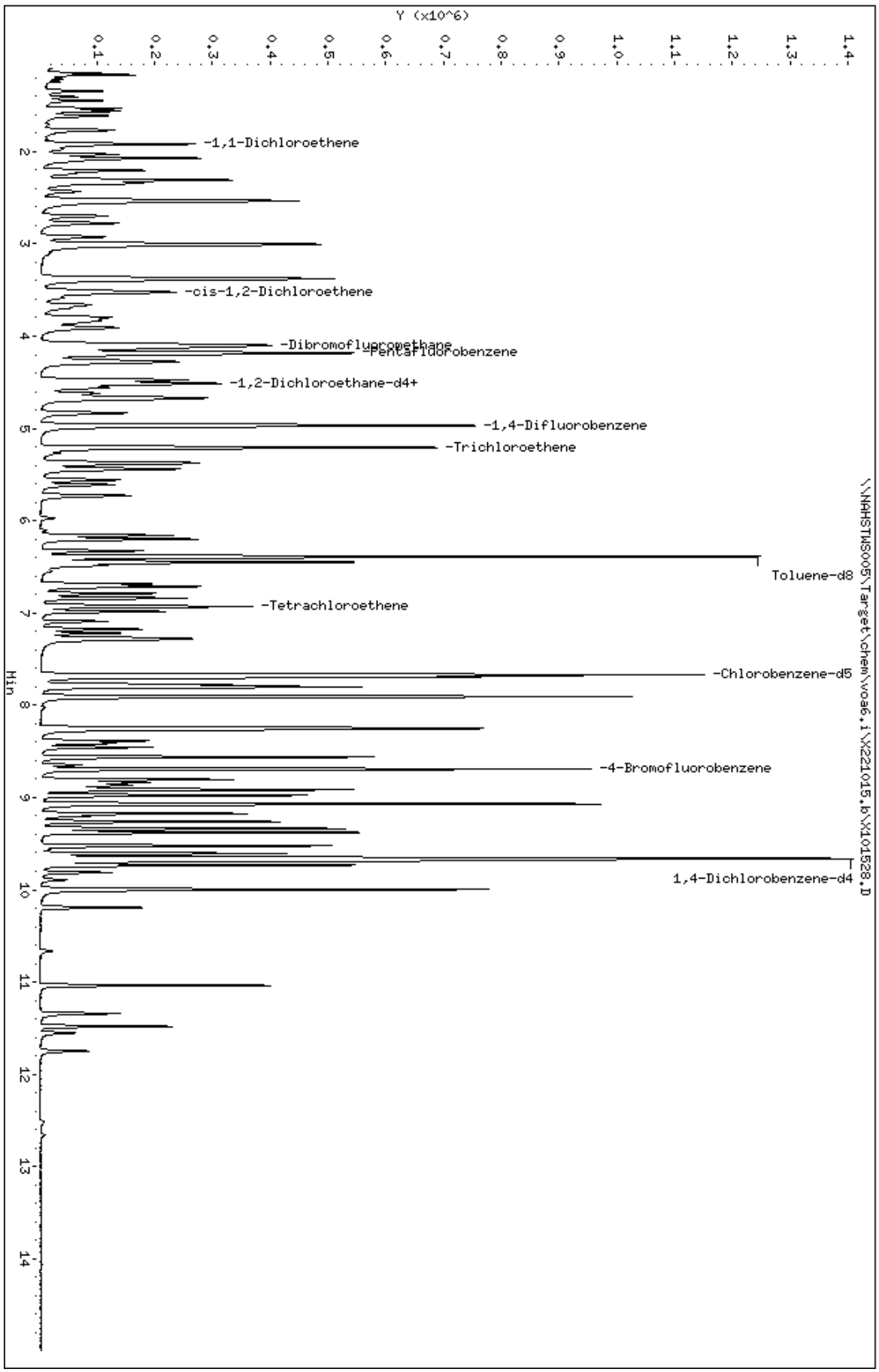
ALS Laboratory Group

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Operator : PC Inst ID: voa6.i
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Misc Info : HS22052000V6;WATER;0;1;
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Method   : \\NAHSTWS005\Target\chem\voa6.i\X221015.b\8260W.m
Meth Date : 28-Oct-2022 16:22 voa6.i Quant Type: ISTD
Cal Date : 14-OCT-2022 13:53 Cal File: X101408.D
Als bottle: 28 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0575-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	4.185	4.181	(1.000)	505702	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.980)	199964	43.8222	43.82
$ 35 1,2-Dichloroethane-d4	65	4.474	4.474	(1.069)	193011	42.8048	42.80
* 36 1,4-Difluorobenzene	114	4.969	4.968	(1.000)	678373	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	600147	50.0000	
$ 48 Toluene-d8	98	6.389	6.389	(0.833)	787911	52.3867	52.38
$ 69 4-Bromofluorobenzene	95	8.691	8.691	(1.133)	262891	49.0978	49.09
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	300865	50.0000	
5 Vinyl Chloride	62	1.145	1.149	(0.274)	61158	15.8766	15.87
11 1,1-Dichloroethene	96	1.917	1.917	(0.458)	52787	16.1389	16.13
27 cis-1,2-Dichloroethene	96	3.525	3.529	(0.842)	98403	18.6296	18.62
33 1,2-Dichloroethane	62	4.560	4.556	(0.918)	94433	18.8655	18.86
38 Trichloroethene	130	5.209	5.208	(1.048)	253787	49.7374	49.73
56 Tetrachloroethene	164	6.929	6.929	(0.903)	75349	18.1529	18.15



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Date : 15-OCT-2022 20:33
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Sample Info: HS22100577-01MS;HS22100577-01MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

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

Page 1

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221015.b\X101528.D
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InstruID : voa6.i
LabSampID : HS22100577-01MS

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221015.b\X101529.D Page 1
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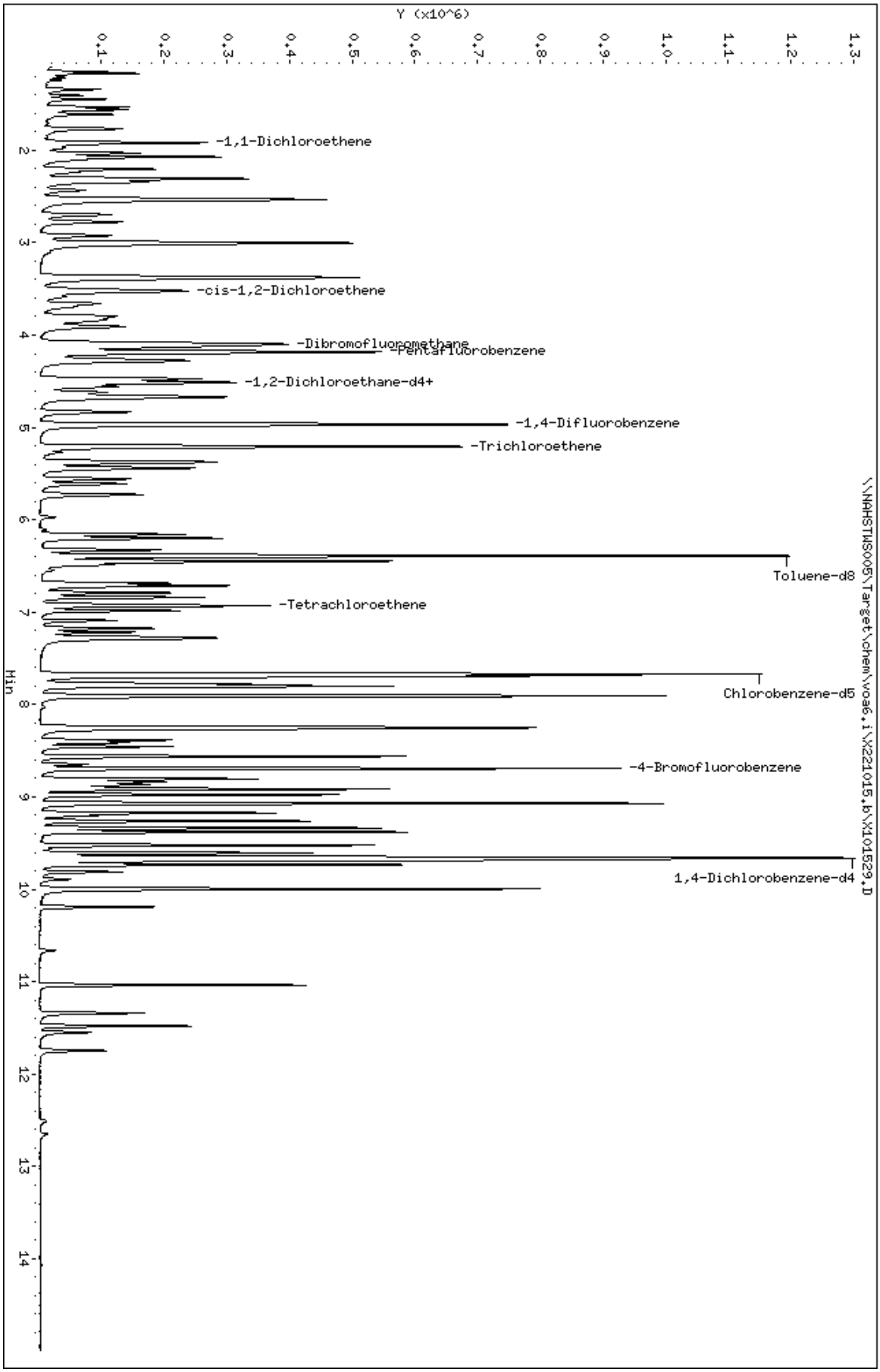
ALS Laboratory Group

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Inj Date : 15-OCT-2022 20:54
Operator : PC Inst ID: voa6.i
Smp Info : HS22100577-01MSD;HS22100577-01MSD;3;;MSD
Misc Info : HS22052000V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221015.b\8260W.m
Meth Date : 28-Oct-2022 16:22 voa6.i Quant Type: ISTD
Cal Date : 14-OCT-2022 13:53 Cal File: X101408.D
Als bottle: 28 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0575-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	4.181	4.181	(1.000)	498848	50.0000	
$ 30 Dibromofluoromethane	113	4.099	4.103	(0.980)	199626	44.3571	44.35
$ 35 1,2-Dichloroethane-d4	65	4.474	4.474	(1.070)	198300	44.6145	44.61
* 36 1,4-Difluorobenzene	114	4.969	4.968	(1.000)	668634	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	586328	50.0000	
$ 48 Toluene-d8	98	6.389	6.389	(0.833)	767943	52.2625	52.26
$ 69 4-Bromofluorobenzene	95	8.691	8.691	(1.133)	256262	48.9869	48.98
* 70 1,4-Dichlorobenzene-d4	152	9.666	9.662	(1.000)	281159	50.0000	
5 Vinyl Chloride	62	1.145	1.149	(0.274)	61940	16.3006	16.30
11 1,1-Dichloroethene	96	1.917	1.917	(0.459)	52907	16.3978	16.39
27 cis-1,2-Dichloroethene	96	3.529	3.529	(0.844)	99110	19.0212	19.02
33 1,2-Dichloroethane	62	4.560	4.556	(0.918)	96012	19.4603	19.46
38 Trichloroethene	130	5.208	5.208	(1.048)	246604	49.0336	49.03
56 Tetrachloroethene	164	6.929	6.929	(0.903)	75616	18.6465	18.64



Data File: \\NAHSTWS005\Target\chem\voa6,i\X221015,b\X101529,D
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Sample Info: HS22100577-01HSD;HS22100577-01HSD;3;;HSD
Purge Volume: 5.0
Column phase: DB624

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

Page 1

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InstruID : voa6.i
LabSampID : HS22100577-01MSD

NO MANUAL INTEGRATIONS

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Report Date: 28-Oct-2022 16:22

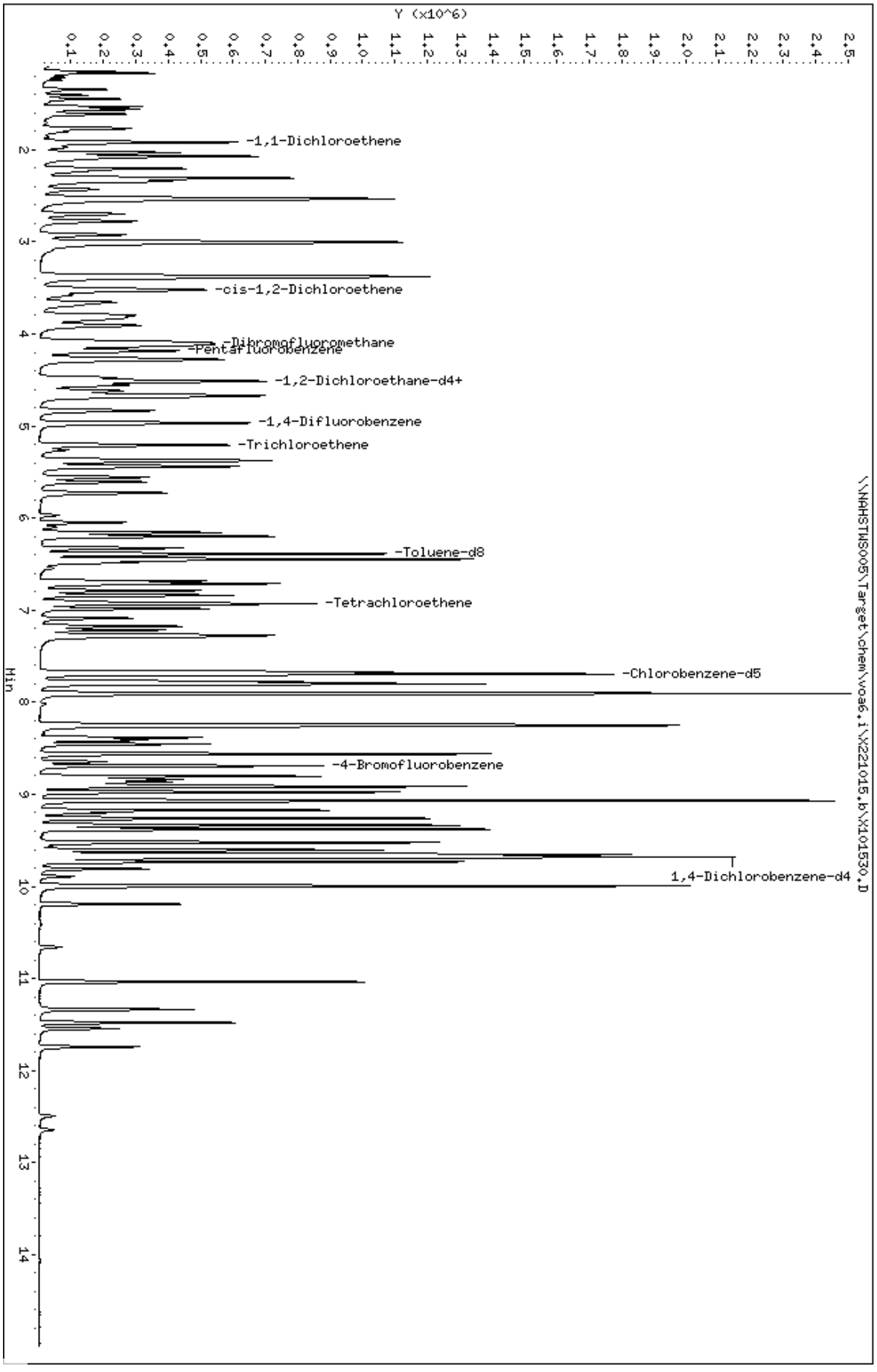
ALS Laboratory Group

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Inj Date : 15-OCT-2022 21:15
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;
Misc Info : HS22052000V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221015.b\8260W.m
Meth Date : 28-Oct-2022 16:22 voa6.i Quant Type: ISTD
Cal Date : 14-OCT-2022 13:53 Cal File: X101408.D
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0575-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	4.181	4.181	(1.000)	382154	50.0000	
$ 30 Dibromofluoromethane	113	4.099	4.099	(0.980)	181891	50.0000	52.88
$ 35 1,2-Dichloroethane-d4	65	4.474	4.474	(1.070)	175908	50.0000	51.78
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	581716	50.0000	
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	541345	50.0000	
$ 48 Toluene-d8	98	6.386	6.386	(0.833)	667428	50.0000	49.19
$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	244094	50.0000	50.54
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	276403	50.0000	
5 Vinyl Chloride	62	1.145	1.145	(0.274)	141550	50.0000	48.62
11 1,1-Dichloroethene	96	1.917	1.917	(0.459)	123810	50.0000	50.09
27 cis-1,2-Dichloroethene	96	3.529	3.529	(0.844)	201877	50.0000	50.57
33 1,2-Dichloroethane	62	4.556	4.556	(0.918)	214984	50.0000	50.08
38 Trichloroethene	130	5.208	5.208	(1.049)	214438	50.0000	49.00
56 Tetrachloroethene	164	6.929	6.929	(0.904)	180196	50.0000	48.12



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221015.b\X101530.D
Date : 15-OCT-2022 21:15
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

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221015.b\X101530.D
Inj Date : 15-OCT-2022 21:15
InstruID : voa6.i
LabSampID : CCV-END

NO MANUAL INTEGRATIONS

HS22100577-GCSEMI-RSK-175

ALS WO# HS22100577

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Form 1

Organic Analysis Data Sheet

Semi-Volatiles by RSK-175

Workorder

HS22100577

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP50 October 2022

10/28/2022

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 1 - Organic Analysis Data Sheet

Client Aptim Environmental & Infrastucture, Inc.

Project LHAAP50 October 2022

Workorder
HS22100577

Semi-Volatiles by RSK-175

HS22100577-01		Collected	Received	Matrix	Basis
50WW14-221011		10/11/22 07:55	10/12/22 09:00	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00143		0.000144	0.00100	0.00100	1	10/24/22 09:41	FID-4_420187	004
Ethene	mg/L	0.00100	U	0.000234	0.00100	0.00100	1	10/24/22 09:41	FID-4_420187	004
Methane	mg/L	0.00567		0.000107	0.000500	0.000500	1	10/24/22 09:41	FID-4_420187	004

Form 1 - Organic Analysis Data Sheet

Client Aptim Environmental & Infrastucture, Inc.

Project LHAAP50 October 2022

Workorder
HS22100577

Semi-Volatiles by RSK-175

HS22100577-02		Collected	Received	Matrix	Basis
50WW13-221011		10/11/22 08:55	10/12/22 09:00	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00100	U	0.000144	0.00100	0.00100	1	10/24/22 10:07	FID-4_420187	007
Ethene	mg/L	0.00187		0.000234	0.00100	0.00100	1	10/24/22 10:07	FID-4_420187	007
Methane	mg/L	0.0219		0.000107	0.000500	0.000500	1	10/24/22 10:07	FID-4_420187	007

Form 1 - Organic Analysis Data Sheet

Client Aptim Environmental & Infrastucture, Inc.

Project LHAAP50 October 2022

Workorder
HS22100577

Semi-Volatiles by RSK-175

HS22100577-03		Collected	Received	Matrix	Basis
50WW11-221011		10/11/22 09:40	10/12/22 09:00	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00100	U	0.000144	0.00100	0.00100	1	10/24/22 10:20	FID-4_420187	008
Ethene	mg/L	0.103		0.0117	0.0500	0.0500	50	10/24/22 12:23	FID-4_420187	019
Methane	mg/L	0.484		0.00535	0.0250	0.0250	50	10/24/22 12:23	FID-4_420187	019

Form 1 - Organic Analysis Data Sheet

Client Aptim Environmental & Infrastucture, Inc.

Project LHAAP50 October 2022

Workorder
HS22100577

Semi-Volatiles by RSK-175

HS22100577-04		Collected	Received	Matrix	Basis
50WW06-221011		10/11/22 10:30	10/12/22 09:00	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00100	U	0.000144	0.00100	0.00100	1	10/24/22 10:30	FID-4_420187	009
Ethene	mg/L	0.00313		0.000234	0.00100	0.00100	1	10/24/22 10:30	FID-4_420187	009
Methane	mg/L	0.0491		0.000428	0.00200	0.00200	4	10/24/22 12:33	FID-4_420187	020

Form 1 - Organic Analysis Data Sheet

Client Aptim Environmental & Infrastucture, Inc.

Project LHAAP50 October 2022

Workorder
HS22100577

Semi-Volatiles by RSK-175

HS22100577-05		Collected	Received	Matrix	Basis
50WW12-221011		10/11/22 11:20	10/12/22 09:00	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00100	U	0.000144	0.00100	0.00100	1	10/24/22 10:38	FID-4_420187	010
Ethene	mg/L	0.00100	U	0.000234	0.00100	0.00100	1	10/24/22 10:38	FID-4_420187	010
Methane	mg/L	9.86		0.0535	0.250	0.250	500	10/24/22 12:55	FID-4_420187	022

Form 1 - Organic Analysis Data Sheet

Client Aptim Environmental & Infrastucture, Inc.

Project LHAAP50 October 2022

Workorder
HS22100577

Semi-Volatiles by RSK-175

HS22100577-06		Collected	Received	Matrix	Basis
50WW12-221011-FD		10/11/22 11:20	10/12/22 09:00	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00100	U	0.000144	0.00100	0.00100	1	10/24/22 11:06	FID-4_420187	012
Ethene	mg/L	0.00100	U	0.000234	0.00100	0.00100	1	10/24/22 11:06	FID-4_420187	012
Methane	mg/L	8.29		0.0535	0.250	0.250	500	10/24/22 13:06	FID-4_420187	023

Form 1 - Organic Analysis Data Sheet

Client Aptim Environmental & Infrastucture, Inc.

Project LHAAP50 October 2022

Workorder
HS22100577

Semi-Volatiles by RSK-175

MBLK-221024	Collected	Received	Matrix	Basis
MBLK-221024	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00100	U	0.000144	0.00100	0.00100	1	10/24/22 09:23	FID-4_420187	002
Ethene	mg/L	0.00100	U	0.000234	0.00100	0.00100	1	10/24/22 09:23	FID-4_420187	002
Methane	mg/L	0.00100	U	0.000107	0.000500	0.000500	1	10/24/22 09:23	FID-4_420187	002

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Form 3A

Matrix Spike/Spike Duplicate Recovery

Workorder

HS22100577

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP50 October 2022

10/28/2022

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Aptim Environmental & Infrastucture, Inc.

Project LHAAP50 October 2022

Workorder **HS22100577**

50WW14-221011		HS22100577-01		HS22100577-01MS				HS22100577-01MSD						
Sample Matrix	Aqueous	**Run Date**	10/24/22	10/24/22				10/24/22						
Units	ug/L	**Run Time**	09:41	09:50				09:58						
		Data File	004.D	005.D				006.D						
Analyte	%R Limits	DF	Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
Ethane	75-125	1	1.430	19.82	18.04	102		19.79	18.04	102		30	0.100	
Ethene	75-125	1	0	18.86	16.80	112		19.87	16.80	118		30	5.20	
Methane	75-125	1	5.669	13.42	9.647	80		13.93	9.647	86		30	3.80	

		HS22100970-03		HS22100970-03MS				HS22100970-03MSD						
Sample Matrix	Aqueous	**Run Date**	10/24/22	10/24/22				10/24/22						
Units	ug/L	**Run Time**	13:42	13:50				13:58						
		Data File	027.D	028.D				029.D						
Analyte	%R Limits	DF	Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
Ethane	75-125	1	0	23.56	18.04	131	*	24.64	18.04	137	*	30	4.50	
Ethene	75-125	1	0	27.15	16.80	162	*	31.37	16.80	187	*	30	14.4	
Methane	75-125	1	2138	2165	9.647	275	*	2167	9.647	294	*	30	0.100	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits

right solutions.
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Form 3B

Laboratory Control Sample Recovery

Semi-Volatiles by RSK-175

Workorder

HS22100577

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP50 October 2022

10/28/2022

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3B - Laboratory Control Sample Recovery

Client Aptim Environmental & Infrastucture, Inc.

Project LHAAP50 October 2022

Workorder
HS22100577

Semi-Volatiles by RSK-175

FID-4_420187		QC ID	LCS-221024			
QC Matrix Aqueous	Units	Run Date	10/24/22			
	mg/L	Run Time	09:32			
Analyte	%R Limits	Spike Added	LCS Result	%R	Q	
Ethane	75-125	0.01804	0.0216	120		
Ethene	75-125	0.0168	0.0193	115		
Methane	75-125	0.009647	0.00930	96		

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits

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Form 4

Method Blank Summary

Semi-Volatiles by RSK-175

Workorder

HS22100577

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP50 October 2022

10/28/2022

ALS Environmental–Houston Laboratory
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Form 4 - Method Blank Summary

Client Aptim Environmental & Infrastucture, Inc.

Project LHAAP50 October 2022

Workorder
HS22100577

Semi-Volatiles by RSK-175

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	MBLK-221024	002.D	10/24/22 09:23	FID-4_420187
LCS-221024	LCS	LCS-221024	003.D	10/24/22 09:32	FID-4_420187
50WW14-221011	SAMP	HS22100577-01	004.D	10/24/22 09:41	FID-4_420187
50WW14-221011	MS	HS22100577-01MS	005.D	10/24/22 09:50	FID-4_420187
50WW14-221011	MSD	HS22100577-01MSD	006.D	10/24/22 09:58	FID-4_420187
50WW13-221011	SAMP	HS22100577-02	007.D	10/24/22 10:07	FID-4_420187
50WW11-221011	SAMP	HS22100577-03	008.D	10/24/22 10:20	FID-4_420187
50WW06-221011	SAMP	HS22100577-04	009.D	10/24/22 10:30	FID-4_420187
50WW12-221011	SAMP	HS22100577-05	010.D	10/24/22 10:38	FID-4_420187
50WW12-221011-FD	SAMP	HS22100577-06	012.D	10/24/22 11:06	FID-4_420187
50WW11-221011	SAMP	HS22100577-03	019.D	10/24/22 12:23	FID-4_420187
50WW06-221011	SAMP	HS22100577-04	020.D	10/24/22 12:33	FID-4_420187
50WW12-221011	SAMP	HS22100577-05	022.D	10/24/22 12:55	FID-4_420187
50WW12-221011-FD	SAMP	HS22100577-06	023.D	10/24/22 13:06	FID-4_420187
BatchQC	MS	HS22100970-03MS	028.D	10/24/22 13:50	FID-4_420187
BatchQC	MSD	HS22100970-03MSD	029.D	10/24/22 13:58	FID-4_420187

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Form 6

Initial Calibration Data

Workorder

HS22100577

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP50 October 2022

10/28/2022

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
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Initial Calibration Data

Client Aptim Environmental & Infrastucture, Inc.
Project LHAAP50 October 2022

Workorder HS22100577

RunID FID-4_322102

Volatiles Organics by Method 8260C

ICAL Start Date 24-JAN-2017 0906
ICAL End Date 24-JAN-2017 1113

Calibration Files

Calibration File Names

Level 1 ..FID-4.i\170124.b\001.D
Level 2 ..FID-4.i\170124.b\002.D
Level 3 ..FID-4.i\170124.b\003.D
Level 4 ..FID-4.i\170124.b\004.D
Level 5 ..FID-4.i\170124.b\005.D
Level 6 ..FID-4.i\170124.b\006.D
Level 7 ..FID-4.i\170124.b\007.D

Compound	Level 1 10.00 Level 7 1000.0	Level 2 25.00	Level 3 50.00	Level 4 100.00	Level 5 250.00	Level 6 500.00	Curve	b	m1	m2	%RSD or R^2	Q
Methane	969 1082	978	1020	881	961	931	AVRG		974		6.55041	
Ethene	536 829	567	565	516	665	426	AVRG		586		21.93197	
Ethane	602 999	670	659	597	809	818	AVRG		736		19.88517	
Propane	500 96509	1279	2602	4785	18294	38286	QUAD	0.97987	0.00153	-4.583e-00	0.99914	
N-Butane	438 114164	936	2034	3864	18446	42817	QUAD	2.46870	0.00183	-5.537e-00	0.99808	
Pentane	115 488	3945	2080	950	501	412	AVRG		1213		112	*

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

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Form 6I

Initial Calibration Verification (ICV)

Workorder

HS22100577

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP50 October 2022

10/28/2022

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
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Initial Calibration Verification (ICV)

Client Aptim Environmental & Infrastucture, Inc.

Project LHAAP50 October 2022

Workorder HS22100577

RunID FID-4_322102

Volatiles Organics by Method 8260C

Compound	Amount Added	Amount Recovered	% Recovered	Limits	Q
Methane	9.647	9.597	99.49	75-125	
Ethene	16.800	19.090	113.63	75-125	
Ethane	18.043	19.657	108.95	75-125	
Propane	26.463	27.238	102.93	75-125	
N-Butane	34.955	36.010	103.02	75-125	

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Form 7

Continuing Calibration Verification (CCV)

Workorder

HS22100577

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP50 October 2022

10/28/2022

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Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Continuing Calibration Verification (CCV)

Client Aptim Environmental & Infrastucture, Inc.
Project LHAAP50 October 2022

Workorder HS22100577

RunID FID-4_420187

Volatiles Organics by Method 8260C

Instrument ID FID-4.i Injection Date 24-OCT-2022 0911
Lab File ID 001.D ICAL Date(s) 24-JAN-2017 24-JAN-2017
Analysis Type WATER ICAL Times 0906 1113
Lab Sample ID RSK-CCV Quant Type ESTD

Compound	$\overline{RRF}$ / $\overline{RRF}$ / Amount	RF250	CCV RRF250	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Methane	975	980	980	0.010	-0.53424	20.0	Averaged	
Ethene	586	655	655	0.010	-11.80273	20.0	Averaged	
Ethane	719	839	839	0.010	-16.60213	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Aptim Environmental & Infrastucture, Inc.
Project LHAAP50 October 2022

Workorder HS22100577

RunID FID-4_420187

Volatiles Organics by Method 8260C

Instrument ID FID-4.i Injection Date 24-OCT-2022 1048
Lab File ID 011.D ICAL Date(s) 24-JAN-2017 24-JAN-2017
Analysis Type WATER ICAL Times 0906 1113
Lab Sample ID RSK-CCV Quant Type ESTD

Compound	$\overline{RRF}$ / $\overline{RRF}$ / Amount	RF250	CCV RRF250	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Methane	975	914	914	0.010	6.27011	20.0	Averaged	
Ethene	586	657	657	0.010	-12.20799	20.0	Averaged	
Ethane	719	849	849	0.010	-17.98869	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Aptim Environmental & Infrastucture, Inc.
Project LHAAP50 October 2022

Workorder HS22100577

RunID FID-4_420187

Volatiles Organics by Method 8260C

Instrument ID FID-4.i Injection Date 24-OCT-2022 1245
Lab File ID 021.D ICAL Date(s) 24-JAN-2017 24-JAN-2017
Analysis Type WATER ICAL Times 0906 1113
Lab Sample ID RSK-CCV Quant Type ESTD

Compound	$\overline{RRF}$ / $\overline{RRF}$ / Amount	RF250	CCV RRF250	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Methane	975	932	932	0.010	4.37765	20.0	Averaged	
Ethene	586	580	580	0.010	1.04420	20.0	Averaged	
Ethane	719	852	852	0.010	-18.41237	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Aptim Environmental & Infrastucture, Inc.
Project LHAAP50 October 2022

Workorder HS22100577

RunID FID-4_420187

Volatiles Organics by Method 8260C

Instrument ID FID-4.i Injection Date 24-OCT-2022 1424
Lab File ID 032.D ICAL Date(s) 24-JAN-2017 24-JAN-2017
Analysis Type WATER ICAL Times 0906 1113
Lab Sample ID RSK-CCV Quant Type ESTD

Compound	$\overline{RRF}$ / $\overline{RRF}$ / Amount	RF250	CCV RRF250	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Methane	975	898	898	0.010	7.88614	20.0	Averaged	
Ethene	586	639	639	0.010	-9.04692	20.0	Averaged	
Ethane	719	838	838	0.010	-16.54051	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Aptim Environmental & Infrastucture, Inc.
Project LHAAP50 October 2022

Workorder HS22100577

RunID FID-4_420187

Volatiles Organics by Method 8260C

Instrument ID FID-4.i Injection Date 24-OCT-2022 1454
Lab File ID 036.D ICAL Date(s) 24-JAN-2017 24-JAN-2017
Analysis Type WATER ICAL Times 0906 1113
Lab Sample ID RSK-CCV Quant Type ESTD

Compound	$\overline{RRF}$ / $\overline{RRF}$ / Amount	RF250	CCV RRF250	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Methane	975	1072	1072	0.010	-9.94337	20.0	Averaged	
Ethene	586	643	643	0.010	-9.71561	20.0	Averaged	
Ethane	719	838	838	0.010	-16.48659	20.0	Averaged	

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Analysis Run Log

Semi-Volatiles by RSK-175

Workorder

HS22100577

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP50 October 2022

10/28/2022

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
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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	pH
1	ICAL1	CALIB_1	01-24-2017 09:06 am	1.00	0.00 mL	0.00 mL	001.D	Liquid	Y	NA
2	ICAL2	CALIB_2	01-24-2017 09:30 am	1.00	0.00 mL	0.00 mL	002.D	Liquid	Y	NA
3	ICAL3	CALIB_3	01-24-2017 09:59 am	1.00	0.00 mL	0.00 mL	003.D	Liquid	Y	NA
4	ICAL4	CALIB_4	01-24-2017 10:15 am	1.00	0.00 mL	0.00 mL	004.D	Liquid	Y	NA
5	ICAL5	CALIB_5	01-24-2017 10:39 am	1.00	0.00 mL	0.00 mL	005.D	Liquid	Y	NA
6	ICAL6	CALIB_6	01-24-2017 10:57 am	1.00	0.00 mL	0.00 mL	006.D	Liquid	Y	NA
7	ICAL7	CALIB_7	01-24-2017 11:13 am	1.00	0.00 mL	0.00 mL	007.D	Liquid	Y	NA
8	ICV	METHSPIKI	01-24-2017 12:05 pm	1.00	0.00 mL	0.00 mL	008.D	Liquid	Y	NA
9	LCS-170124	LCS	01-24-2017 12:24 pm	1.00	0.00 mL	0.00 mL	009.D	Liquid	Y	NA
10	LCSD-170124	LCSD	01-24-2017 12:40 pm	1.00	0.00 mL	0.00 mL	010.D	Liquid	Y	NA
11	MBLK-170124	MBLK	01-24-2017 12:57 pm	1.00	0.00 mL	0.00 mL	011.D	Liquid	Y	NA
12	HS17010778-01	SAMP	01-24-2017 01:14 pm	1.00	0.00 mL	0.00 mL	012.D	Liquid	Y	NA
13	HS17010779-01	SAMP	01-24-2017 01:31 pm	1.00	0.00 mL	0.00 mL	013.D	Liquid	Y	NA
14	HS17010779-01DUP	SAMP	01-24-2017 01:47 pm	1.00	0.00 mL	0.00 mL	014.D	Liquid	Y	NA
15	CCV	CCV	01-24-2017 02:01 pm	1.00	0.00 mL	0.00 mL	015.D	Liquid	Y	NA

Chemical	Value
ICAL STD ID	30010700217
ICV STD ID	30010700610

Form 13 - Analysis Run Log

Client Aptim Environmental & Infrastucture, Inc.

Project LHAAP50 October 2022

Workorder
HS22100577

RUNID
FID-4_420187

Semi-Volatiles by RSK-175

Run ID FID-4_420187 **Start Date** 10/24/22 **EndDate** 10/24/22 **Matrix** Aqueous

Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
RSK-CCV	CCV	RSK-CCV	001.D	10/24/22 09:11	1
MBLK-221024	MBLK	MBLK-221024	002.D	10/24/22 09:23	1
LCS-221024	LCS	LCS-221024	003.D	10/24/22 09:32	1
50WW14-221011	SAMP	HS22100577-01	004.D	10/24/22 09:41	1
50WW14-221011	MS	HS22100577-01MS	005.D	10/24/22 09:50	1
50WW14-221011	MSD	HS22100577-01MSD	006.D	10/24/22 09:58	1
50WW13-221011	SAMP	HS22100577-02	007.D	10/24/22 10:07	1
50WW11-221011	SAMP	HS22100577-03	008.D	10/24/22 10:20	1
50WW06-221011	SAMP	HS22100577-04	009.D	10/24/22 10:30	1
50WW12-221011	SAMP	HS22100577-05	010.D	10/24/22 10:38	1
RSK-CCV	CCV	RSK-CCV	011.D	10/24/22 10:48	1
50WW12-221011-FD	SAMP	HS22100577-06	012.D	10/24/22 11:06	1
50WW11-221011	SAMP	HS22100577-03	019.D	10/24/22 12:23	50
50WW06-221011	SAMP	HS22100577-04	020.D	10/24/22 12:33	4
RSK-CCV	CCV	RSK-CCV	021.D	10/24/22 12:45	1
50WW12-221011	SAMP	HS22100577-05	022.D	10/24/22 12:55	500
50WW12-221011-FD	SAMP	HS22100577-06	023.D	10/24/22 13:06	500
BatchQC	MS	HS22100970-03MS	028.D	10/24/22 13:50	1
BatchQC	MSD	HS22100970-03MSD	029.D	10/24/22 13:58	1
RSK-CCV	CCV	RSK-CCV	032.D	10/24/22 14:24	1
RSK-CCV	CCV	RSK-CCV	036.D	10/24/22 14:54	1

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Raw Data FID-4 322102

Semi-Volatiles by RSK-175

Workorder

HS22100577

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP50 October 2022

10/28/2022

ALS Environmental–Houston Laboratory
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Phone (281) 530-5656 Fax (281) 530-5887
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Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\001.D Page 1
Report Date: 28-Sep-2022 10:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.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\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.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	1.043	1.043	0.000	374	0.38600	0.383(a)
2 Ethene	1.553	1.553	0.000	361	0.67400	0.615(a)
3 Ethane	1.716	1.716	0.000	435	0.72200	0.590(a)
4 Propane	4.073	4.073	0.000	500	1.05900	1.743
5 N-Butane	7.640	7.640	0.000	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\170124.b\001.D

Date : 24-JAN-2017 09:06

Client ID: ICAL1

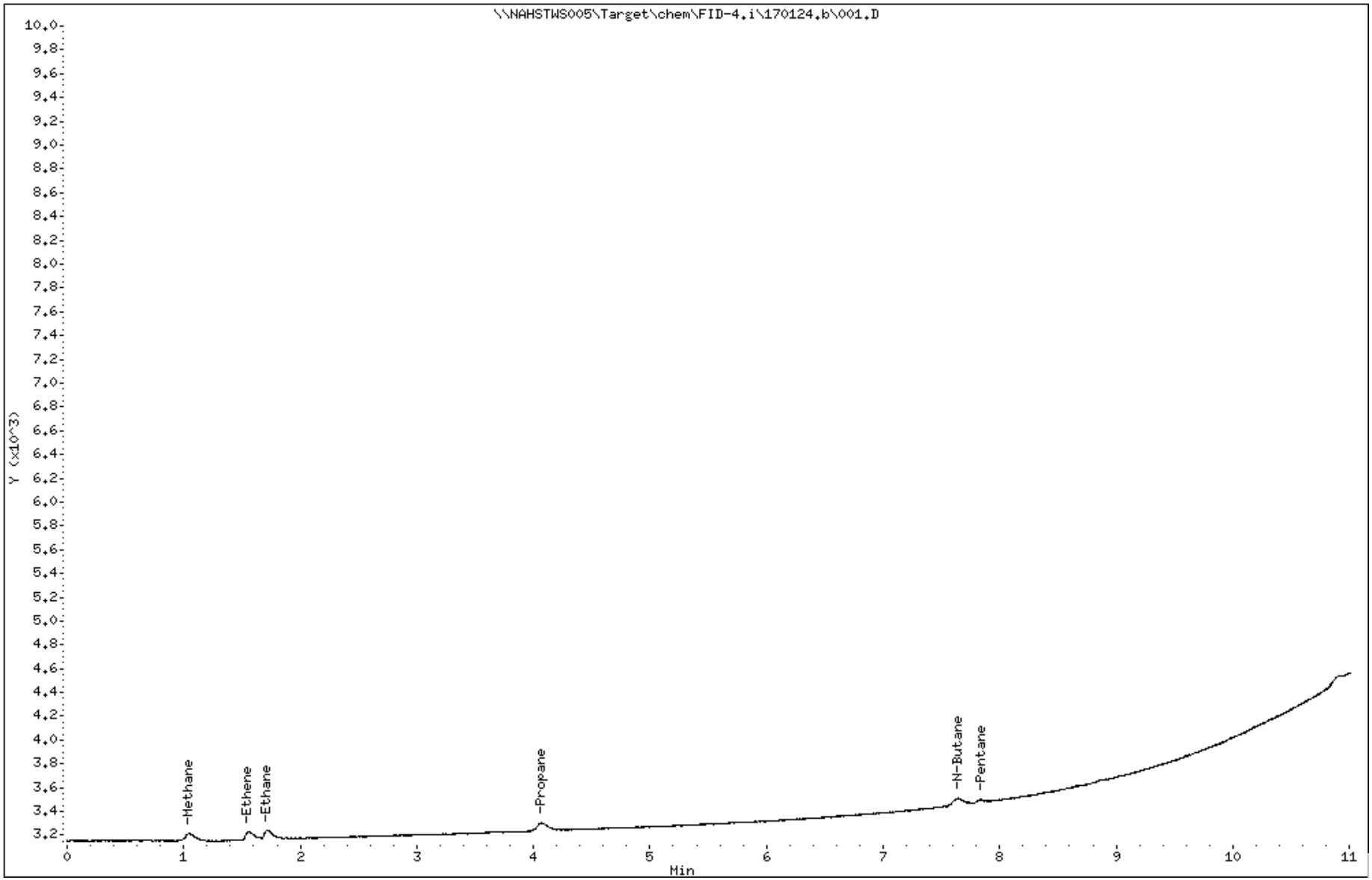
Instrument: FID-4.i

Sample Info: ICAL1;ICAL1;;;

Operator: JA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\001.D
Inj Date : 24-JAN-2017 09:06
InstruID : FID-4.i
LabSampID : ICAL1

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\002.D Page 1
Report Date: 28-Sep-2022 10:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.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\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 09:06 Cal File: 001.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.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	1.023	1.023	0.000	944	0.96500	0.968
2 Ethene	1.560	1.560	0.000	956	1.68500	1.630
3 Ethane	1.723	1.723	0.000	1209	1.80400	1.641
4 Propane	4.123	4.123	0.000	1279	2.64600	2.927
5 N-Butane	7.716	7.716	0.000	936	3.49600	4.180

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\002.D

Date : 24-JAN-2017 09:30

Client ID: ICAL2

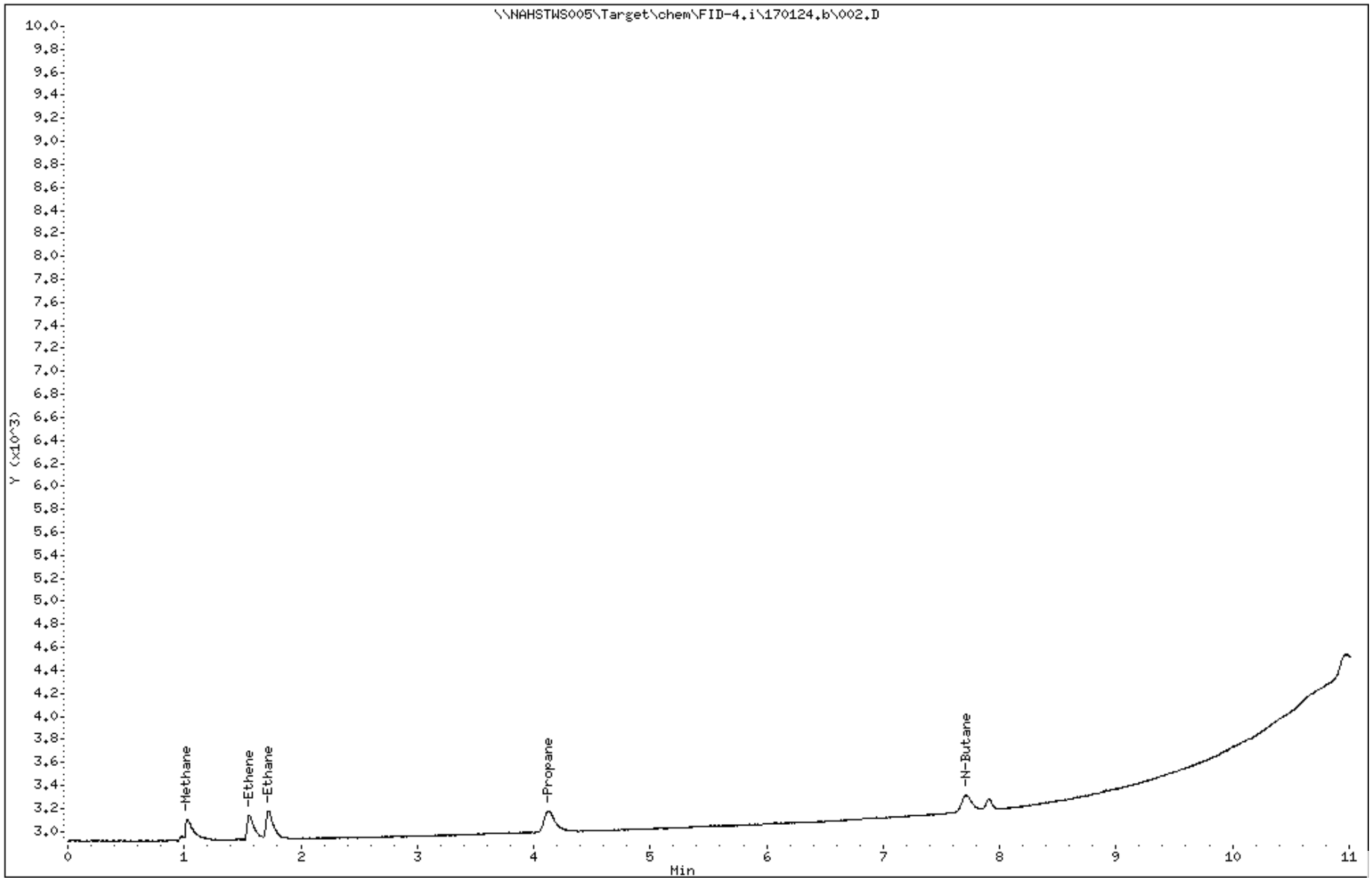
Instrument: FID-4.i

Sample Info: ICAL2;ICAL2;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\002.D
Inj Date : 24-JAN-2017 09:30
InstruID : FID-4.i
LabSampID : ICAL2

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.D Page 1
Report Date: 28-Sep-2022 10:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.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\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 09:30 Cal File: 002.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.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)	ON-COL (ug/L)
1 Methane	1.043	1.043	0.000	1967	1.92900	2.018
2 Ethene	1.570	1.570	0.000	1904	3.37000	3.247
3 Ethane	1.736	1.736	0.000	2378	3.60900	3.229
4 Propane	4.123	4.123	0.000	2602	5.29300	4.926
5 N-Butane	7.703	7.703	0.000	2034	6.99100	6.176

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.D

Date : 24-JAN-2017 09:59

Client ID: ICAL3

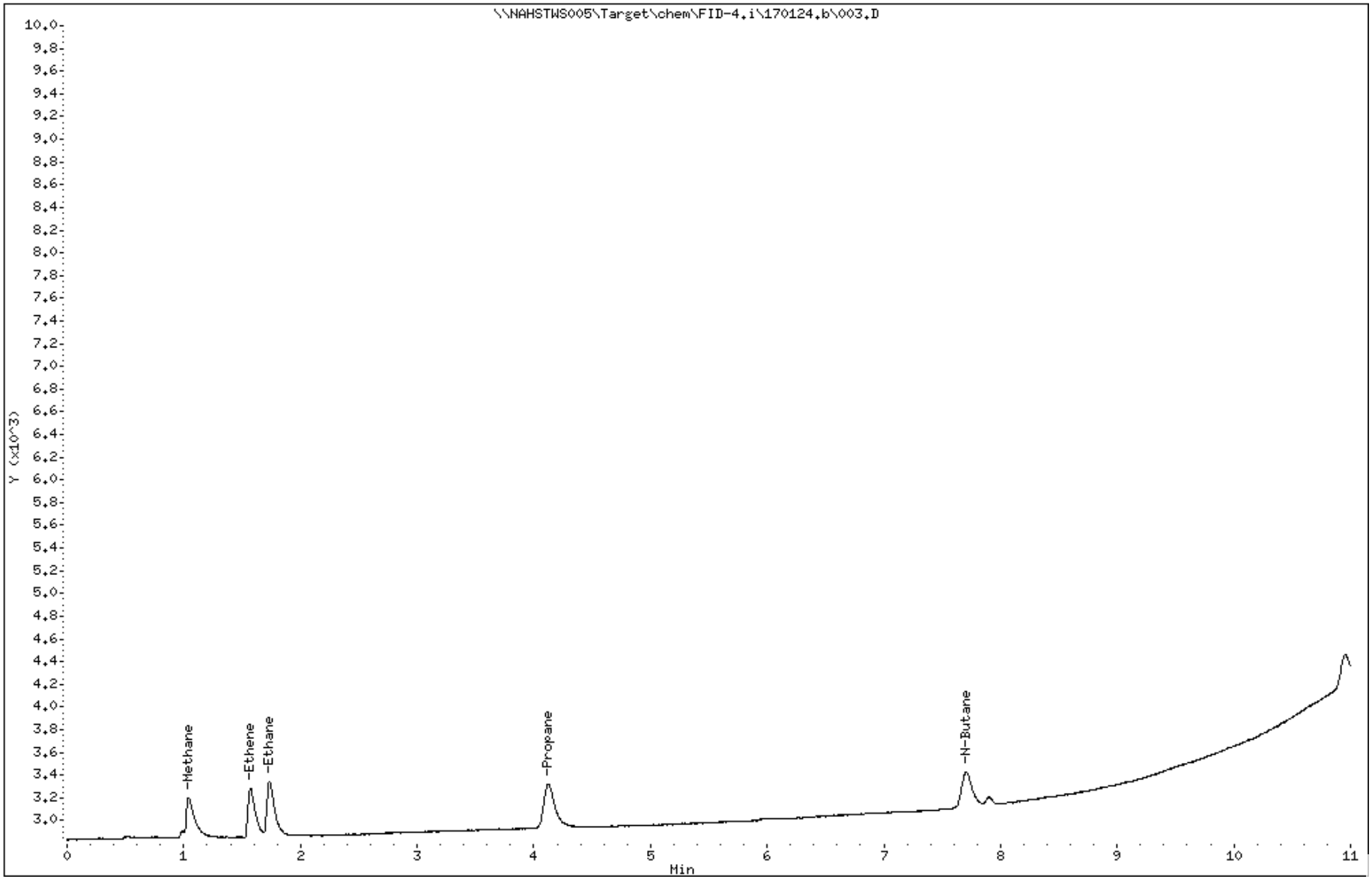
Instrument: FID-4.i

Sample Info: ICAL3;ICAL3;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.D
Inj Date : 24-JAN-2017 09:59
InstruID : FID-4.i
LabSampID : ICAL3

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D Page 1
Report Date: 28-Sep-2022 10:02

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.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\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:02 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.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)	ON-COL (ug/L)
1 Methane	1.033	1.033	0.000	3399	3.85900	3.488
2 Ethene	1.563	1.563	0.000	3478	6.74000	5.932
3 Ethane	1.726	1.726	0.000	4310	7.21700	5.853
4 Propane	4.120	4.120	0.000	4785	10.5850	8.190
5 N-Butane	7.703	7.703	0.000	3864	13.9820	9.473(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D

Date : 24-JAN-2017 10:15

Client ID: ICAL4

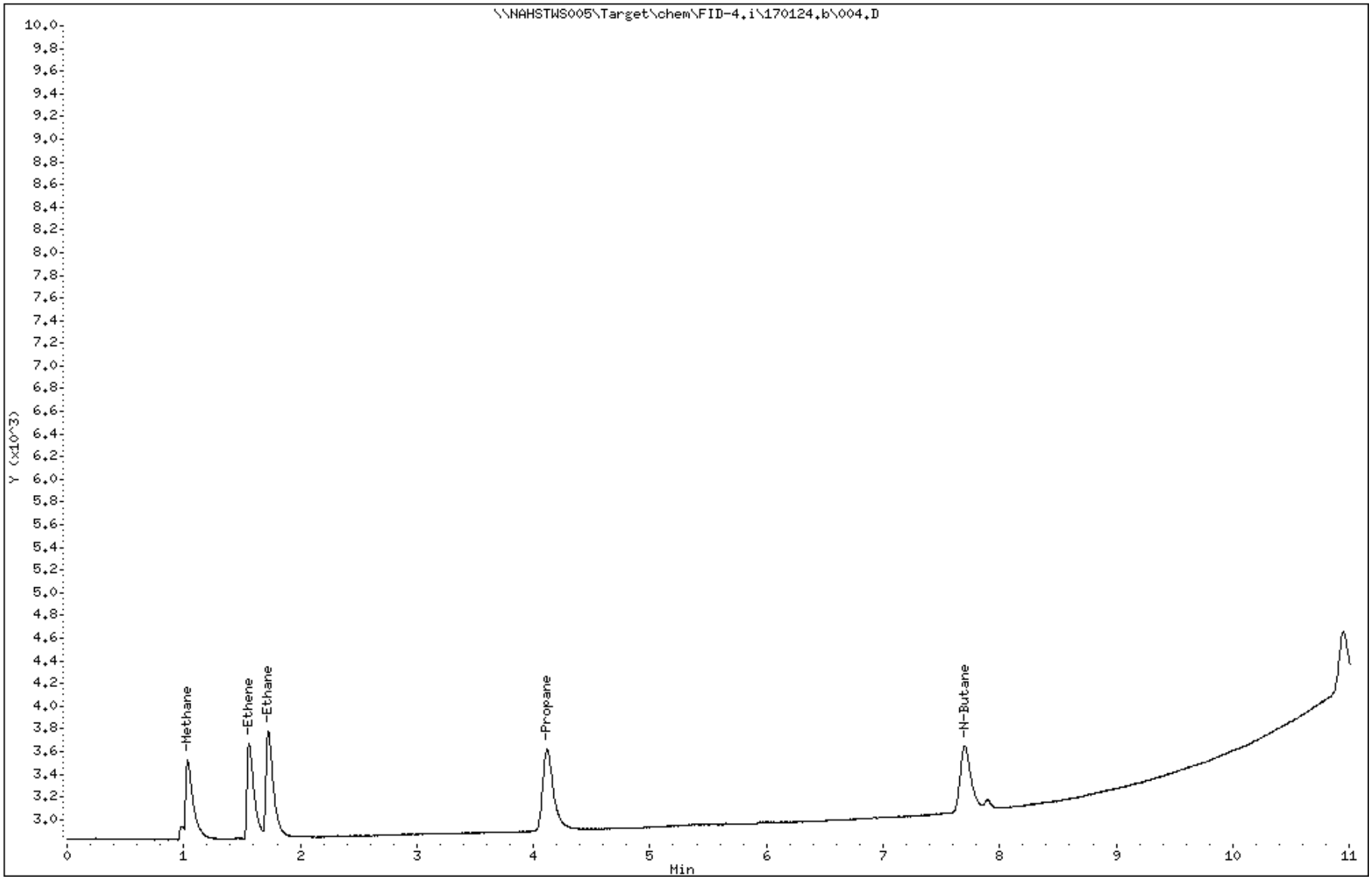
Instrument: FID-4.i

Sample Info: ICAL4;ICAL4;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



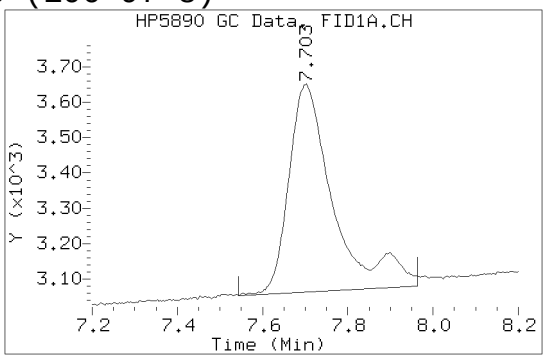
Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D
Inj Date : 24-JAN-2017 10:15
InstruID : FID-4.i
LabSampID : ICAL4

N-Butane (106-97-8)

Reason Code:

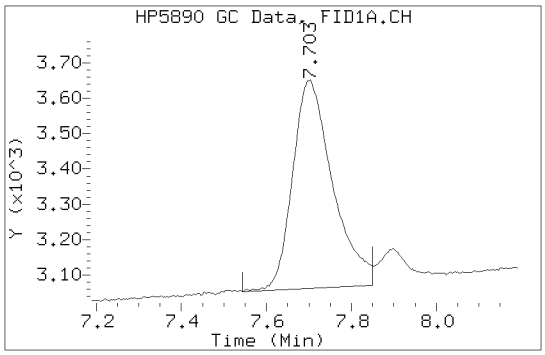
BEFORE

MASS
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AREA
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HEIGHT
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28-Sep-2022
10:02
linh
pham



AFTER

MASS
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AREA
3864
HEIGHT
591
28-Sep-2022
10:02
linh
pham



Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\005.D Page 1
Report Date: 28-Sep-2022 10:02

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.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\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:02 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

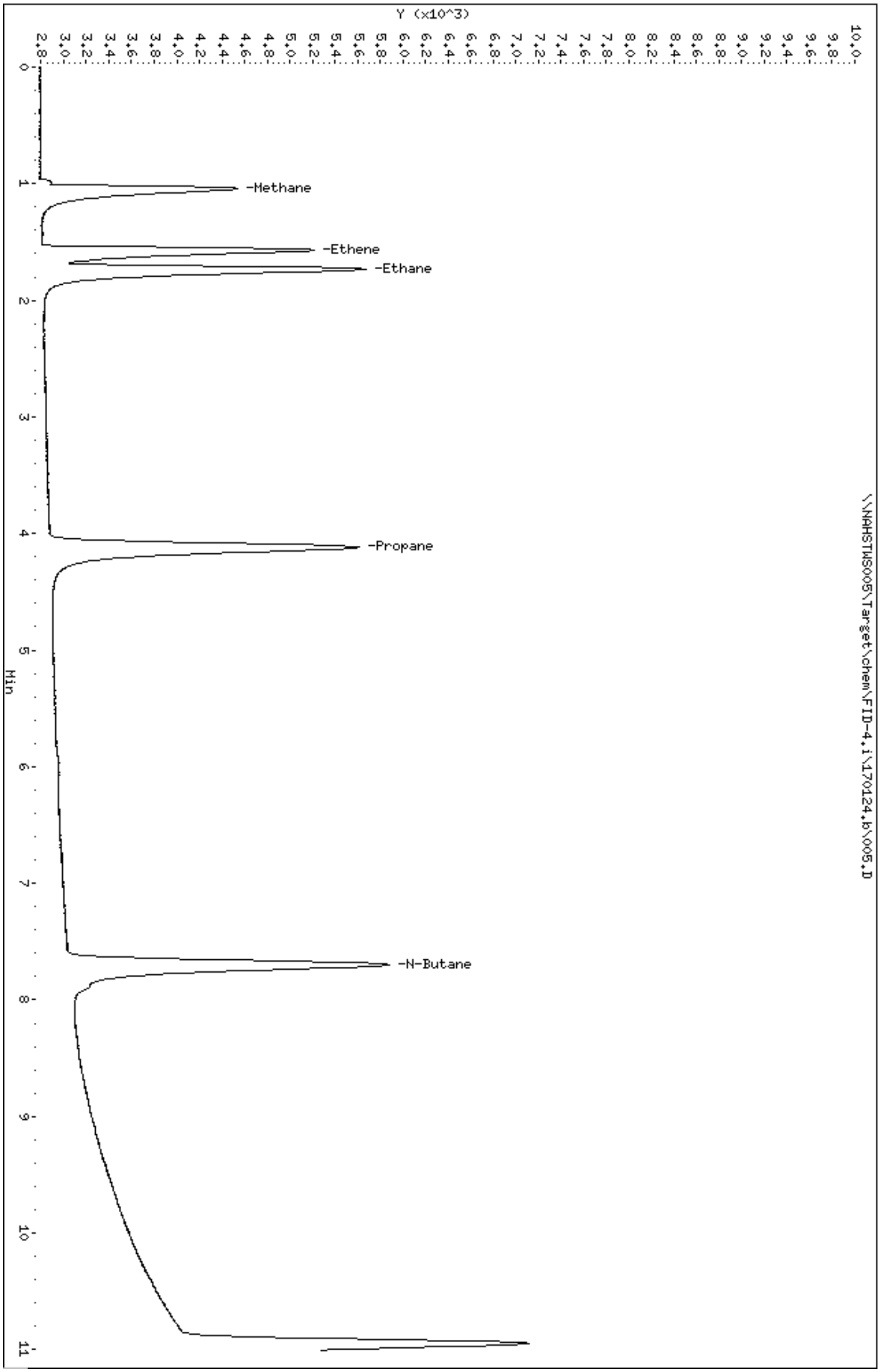
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1 Methane	1.043	1.043	0.000	9268	9.64700	9.511
2 Ethene	1.570	1.570	0.000	11210	16.8500	19.121
3 Ethane	1.733	1.733	0.000	14588	18.0430	19.811
4 Propane	4.120	4.120	0.000	18294	26.4630	27.415
5 N-Butane	7.700	7.700	0.000	18446	34.9550	34.419(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.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



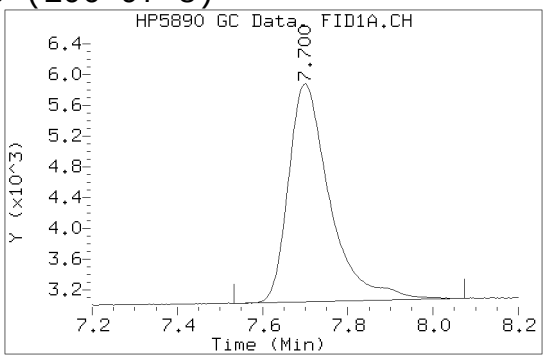
Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\005.D
Inj Date : 24-JAN-2017 10:39
InstruID : FID-4.i
LabSampID : ICAL5

N-Butane (106-97-8)

Reason Code:

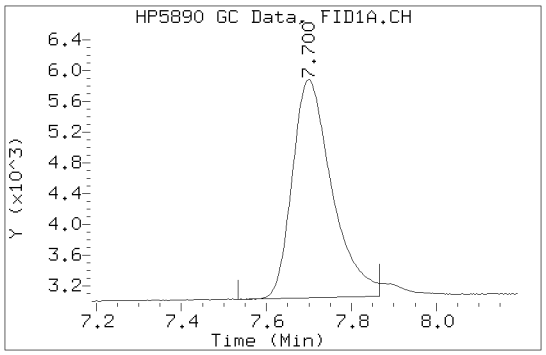
BEFORE

MASS
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AREA
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HEIGHT
2839
28-Sep-2022
10:02
linh
pham



AFTER

MASS
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HEIGHT
2838
28-Sep-2022
10:02
linh
pham



Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\006.D Page 1
Report Date: 28-Sep-2022 10:00

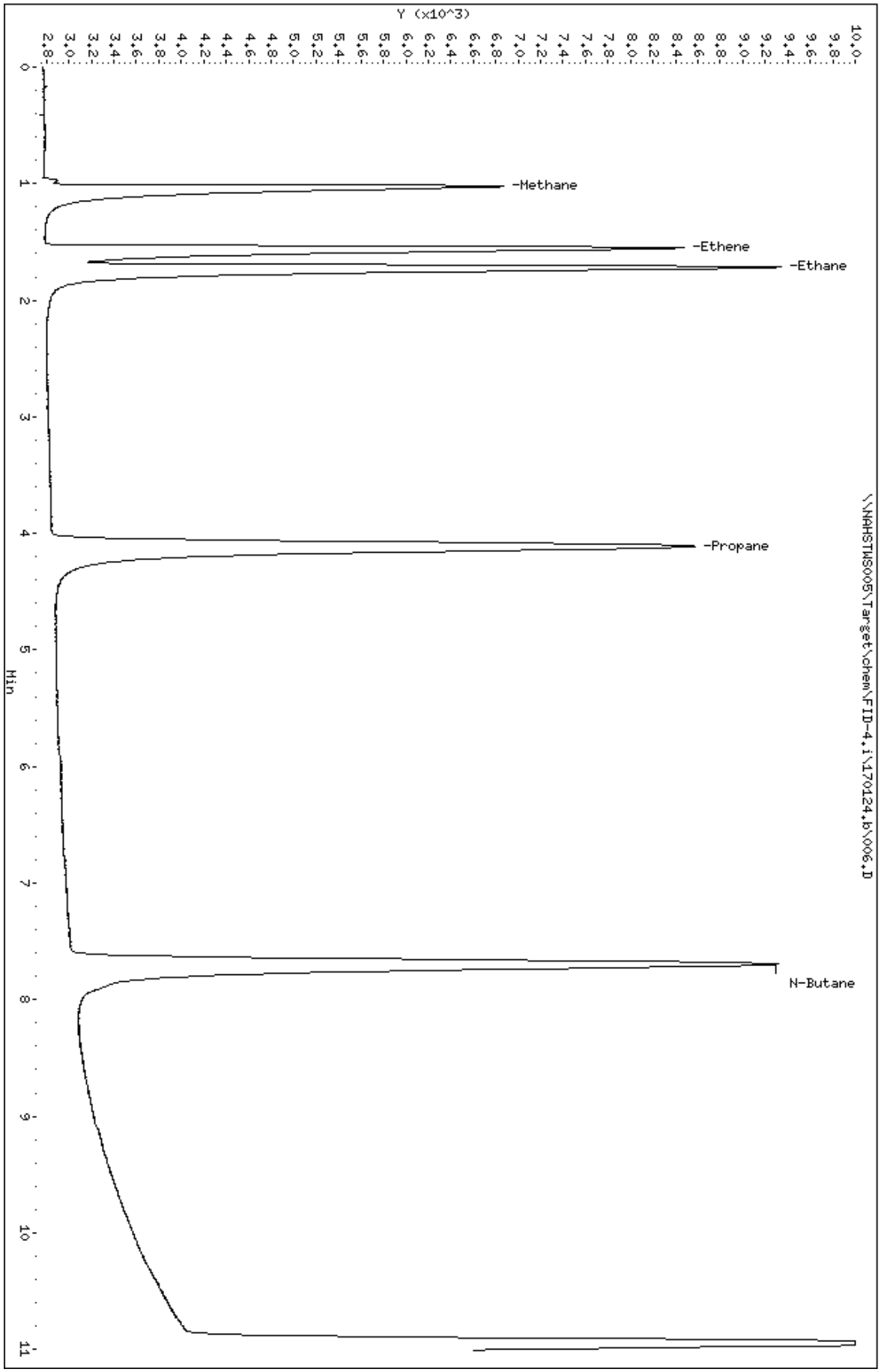
ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.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\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i 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
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)	ON-COL (ug/L)
1 Methane	1.023	1.023	0.000	17957	19.2940	18.429
2 Ethene	1.550	1.550	0.000	22910	53.8200	39.078
3 Ethane	1.716	1.716	0.000	29505	36.0860	40.070
4 Propane	4.110	4.110	0.000	38286	52.9260	52.796
5 N-Butane	7.696	7.696	0.000	42817	69.9110	70.855


Data File: \\NAHSTWS005\Target\chem\FID-4,i\170124,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
Page 1
Y (x10^3)
-Methane
-Ethene
-Ethane
-Propane
N-Butane
Min
\\NAHSTWS005\Target\chem\FID-4,i\170124,b\006,D

Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\006.D
Inj Date : 24-JAN-2017 10:57
InstruID : FID-4.i
LabSampID : ICAL6

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\007.D Page 1
Report Date: 28-Sep-2022 10:00

ALS Laboratory Group

Dissolved Gases Analysis

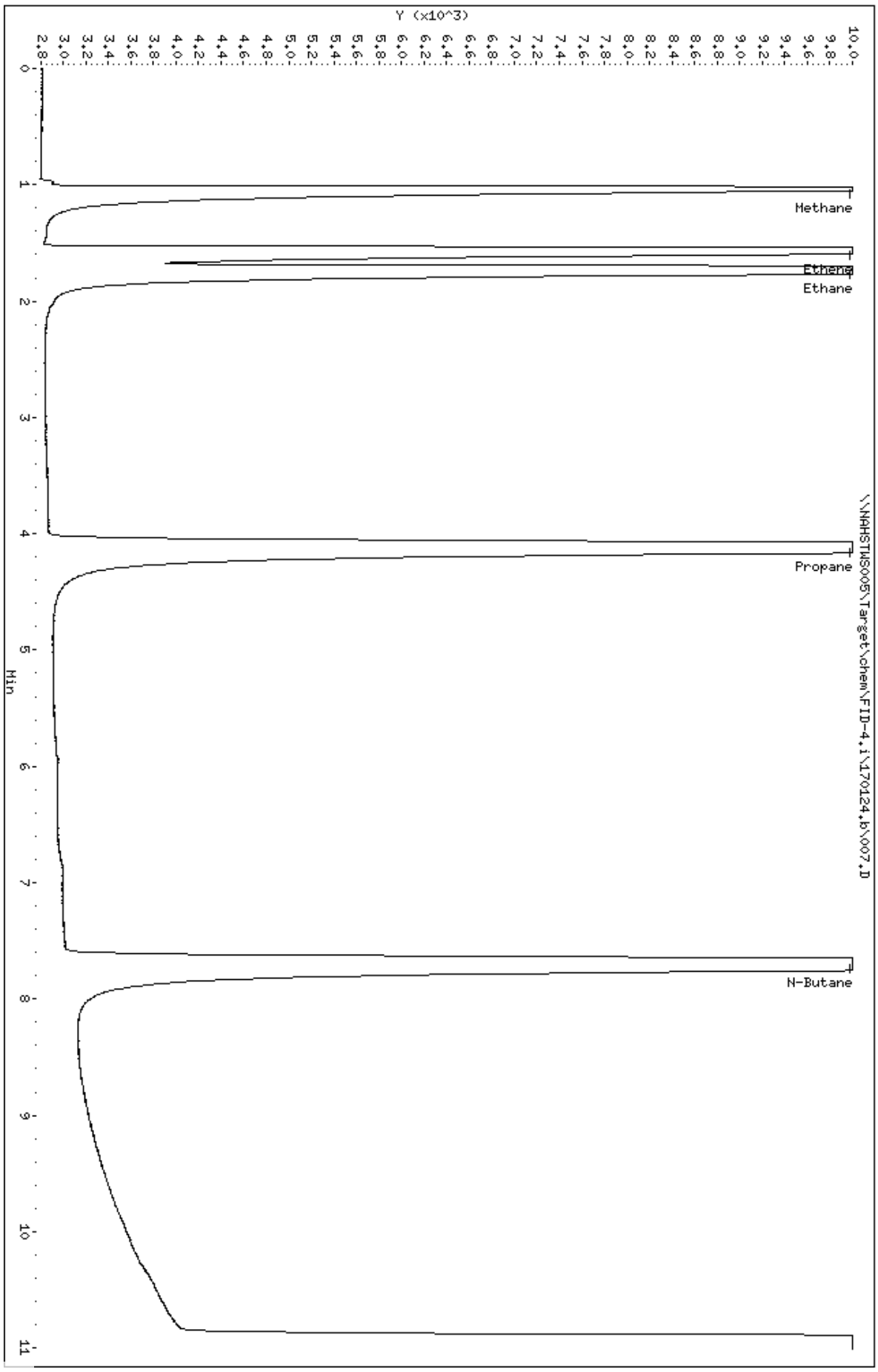
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Lab Smp Id: ICAL7 Client Smp ID: ICAL7
Inj Date : 24-JAN-2017 11:13
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL7;ICAL7;;;
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i 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
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	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\170124.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
Page 1
Y (x10^3)
Methane
Ethene
Ethane
Propane
N-Butane
Min
\\NAHSTWS005\Target\chem\FID-4.i\170124.b\007.D

Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\007.D
Inj Date : 24-JAN-2017 11:13
InstruID : FID-4.i
LabSampID : ICAL7

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\008.D Page 1
Report Date: 28-Sep-2022 10:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.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\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i 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
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	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\170124.b\008.D

Date : 24-JAN-2017 12:05

Client ID: ICV

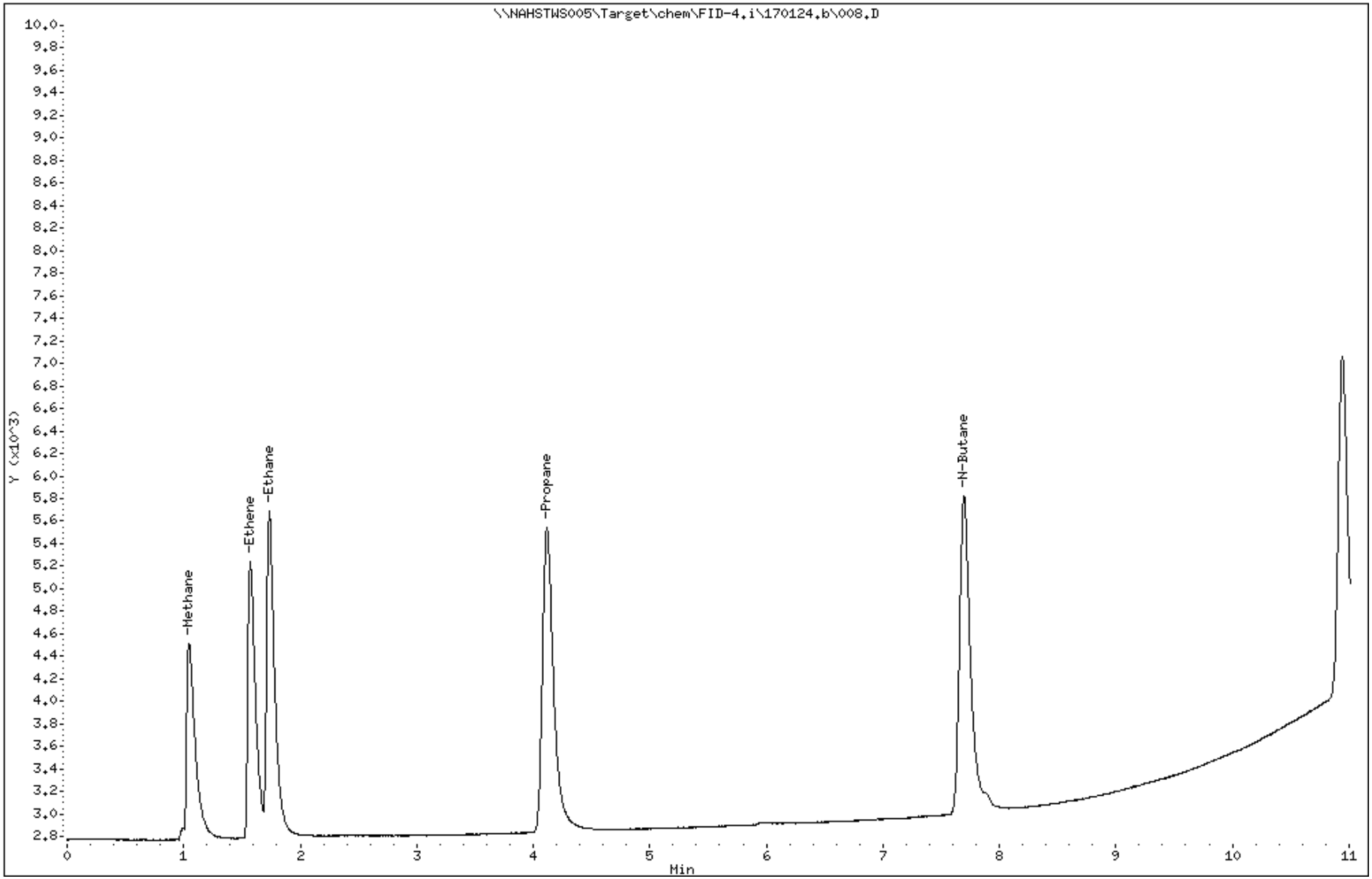
Instrument: FID-4.i

Sample Info: ICV;ICV;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\008.D
Inj Date : 24-JAN-2017 12:05
InstruID : FID-4.i
LabSampID : ICV

NO MANUAL INTEGRATIONS

right solutions.
right partner.

Raw Data FID-4 420187

Semi-Volatiles by RSK-175

Workorder

HS22100577

Client

Aptim Environmental & Infrastucture, Inc.

Project

LHAAP50 October 2022

10/28/2022

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\001.D Page 1
Report Date: 24-Oct-2022 09:23

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\001.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 24-OCT-2022 09:11
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\221024.b\RSKNI3.m
Meth Date : 24-Oct-2022 09:21 purvi.lad 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: NAHSTW7007

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	0.440	0.440	0.000	9456	9.64700	9.698
2 Ethene	0.663	0.663	0.000	11035	16.8500	18.838
3 Ethane	0.736	0.736	0.000	15137	18.0430	21.038

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\001.D

Date : 24-OCT-2022 09:11

Client ID: RSK-CCV

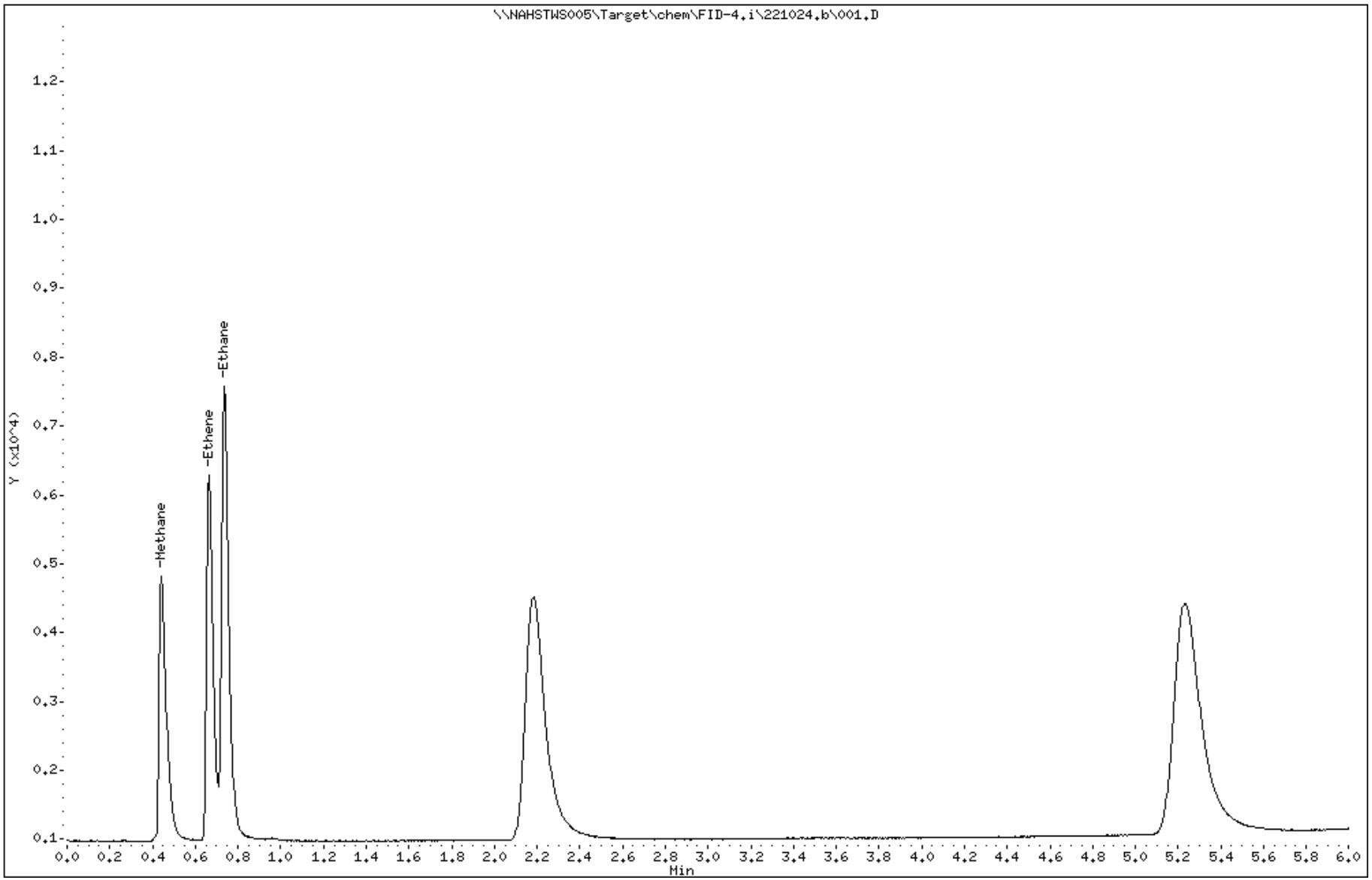
Instrument: FID-4.i

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\221024.b\001.D
Inj Date : 24-OCT-2022 09:11
InstruID : FID-4.i
LabSampID : RSK-CCV

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\002.D Page 1
Report Date: 24-Oct-2022 12:19

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\002.D
Lab Smp Id: MBLK-221024 Client Smp ID: MBLK-221024
Inj Date : 24-OCT-2022 09:23
Operator : PL Inst ID: FID-4.i
Smp Info : MBLK-221024;MBLK-221024;3;;BLANK
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\RSKNI3.m
Meth Date : 24-Oct-2022 11:04 purvi.lad 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: NAHSTW7007

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\221024.b\002.D

Date : 24-OCT-2022 09:23

Client ID: MBLK-221024

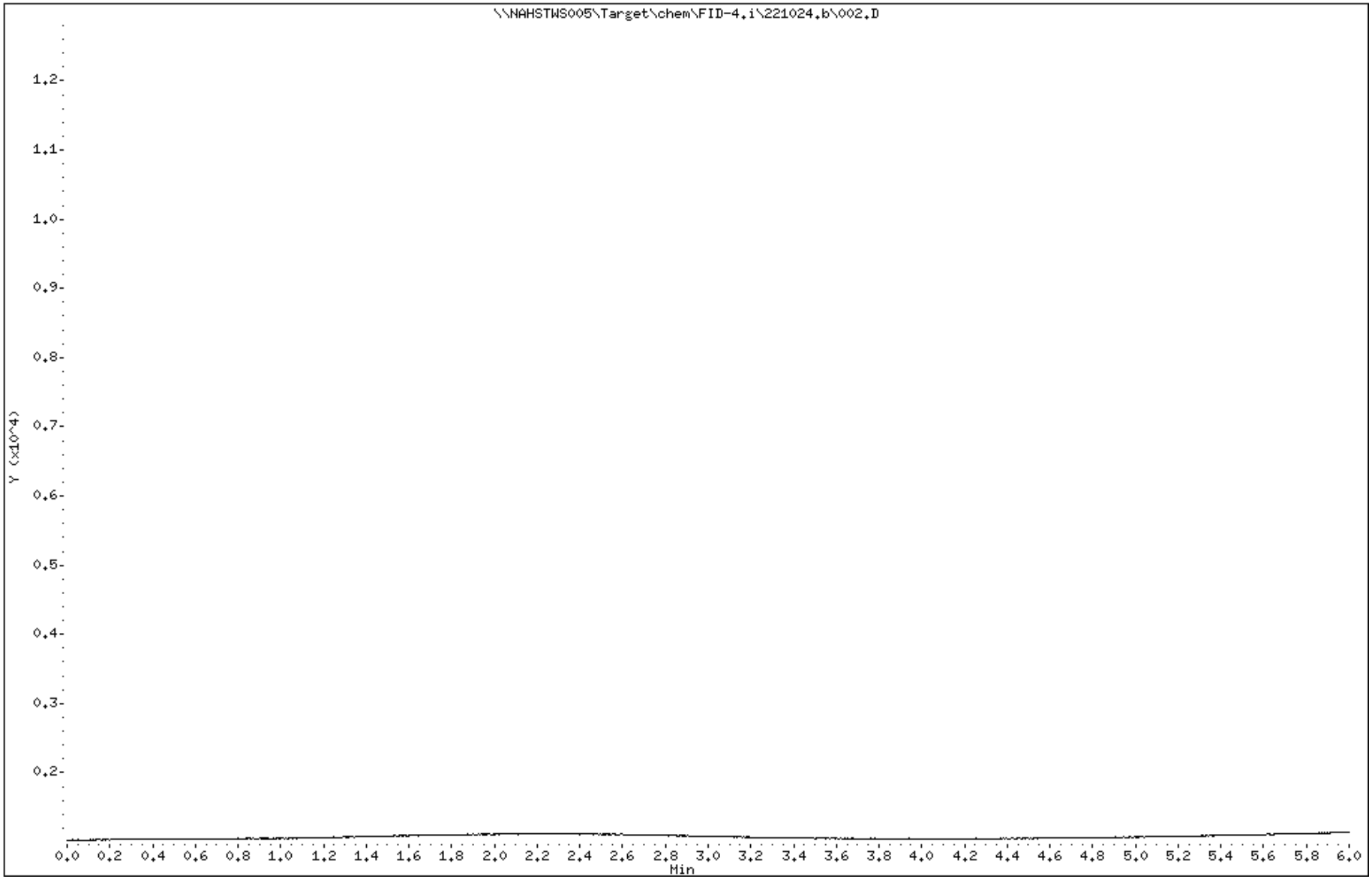
Instrument: FID-4.i

Sample Info: MBLK-221024;MBLK-221024;3;;BLANK

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\002.D
Inj Date : 24-OCT-2022 09:23
InstruID : FID-4.i
LabSampID : MBLK-221024

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\003.D Page 1
Report Date: 28-Oct-2022 09:20

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\003.D
Lab Smp Id: LCS-221024 Client Smp ID: LCS-221024
Inj Date : 24-OCT-2022 09:32
Operator : PL Inst ID: FID-4.i
Smp Info : LCS-221024;LCS-221024;3;;LCS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\RSKNI3.m
Meth Date : 25-Oct-2022 11:48 purvi.lad 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	0.433	0.443	-0.010	9066	9.29853	9.298
2 Ethene	0.656	0.670	-0.014	11327	19.3373	19.337
3 Ethane	0.726	0.743	-0.017	15555	21.6195	21.619

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\003.D

Date : 24-OCT-2022 09:32

Client ID: LCS-221024

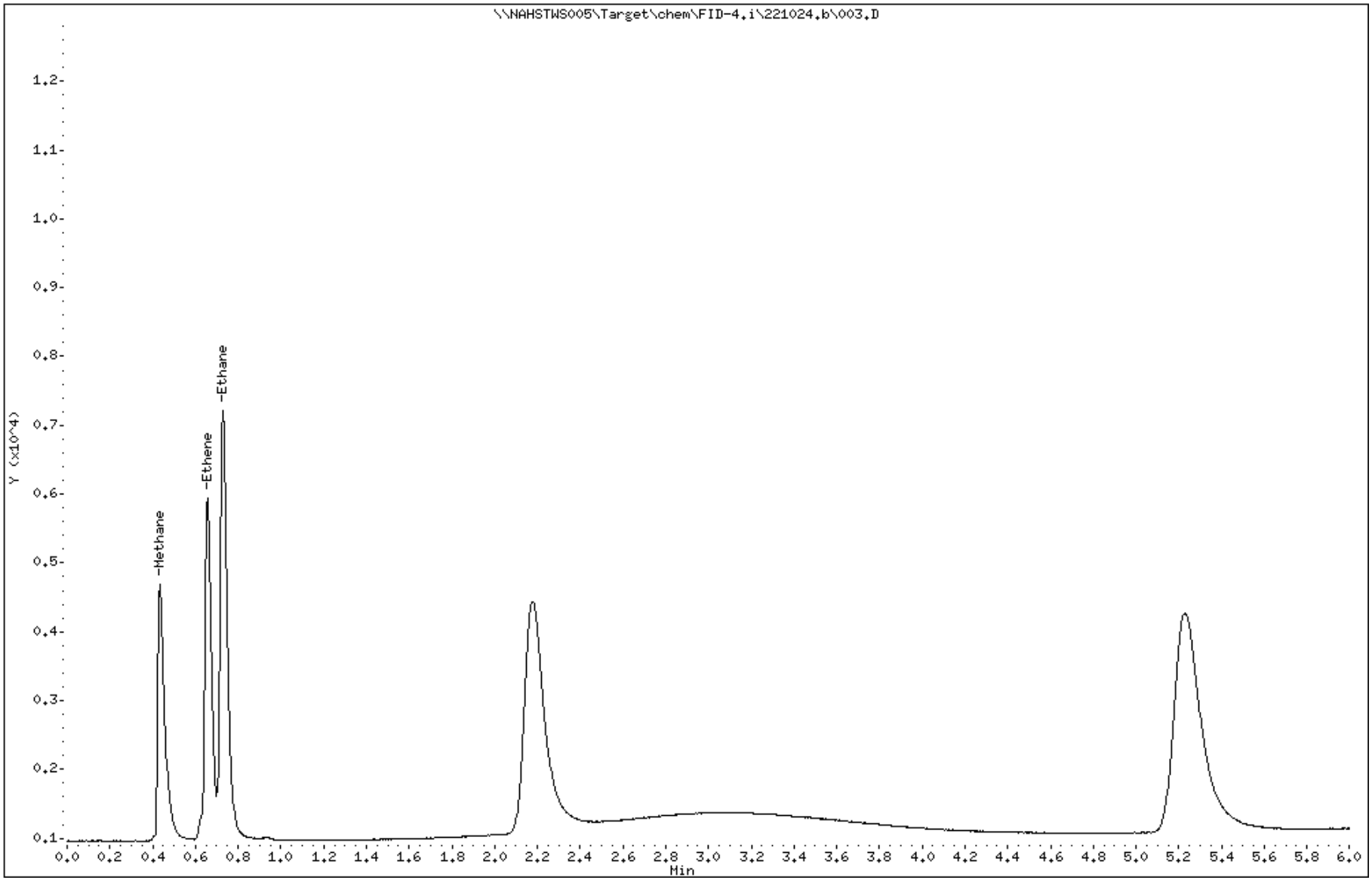
Instrument: FID-4.i

Sample Info: LCS-221024;LCS-221024;3;;LCS

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\003.D
Inj Date : 24-OCT-2022 09:32
InstruID : FID-4.i
LabSampID : LCS-221024

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\004.D Page 1
Report Date: 25-Oct-2022 11:46

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\004.D
Lab Smp Id: HS22100577-01 Client Smp ID: HS22100577-01
Inj Date : 24-OCT-2022 09:41
Operator : PL Inst ID: FID-4.i
Smp Info : HS22100577-01;HS22100577-01
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\RSKNI3.m
Meth Date : 25-Oct-2022 11:45 purvi.lad 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: NAHSTW7007

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	0.430	0.443	-0.013	5527	5.66876	5.668(M)
3 Ethane	0.720	0.743	-0.023	1029	1.43018	1.430(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\004.D

Date : 24-OCT-2022 09:41

Client ID: HS22100577-01

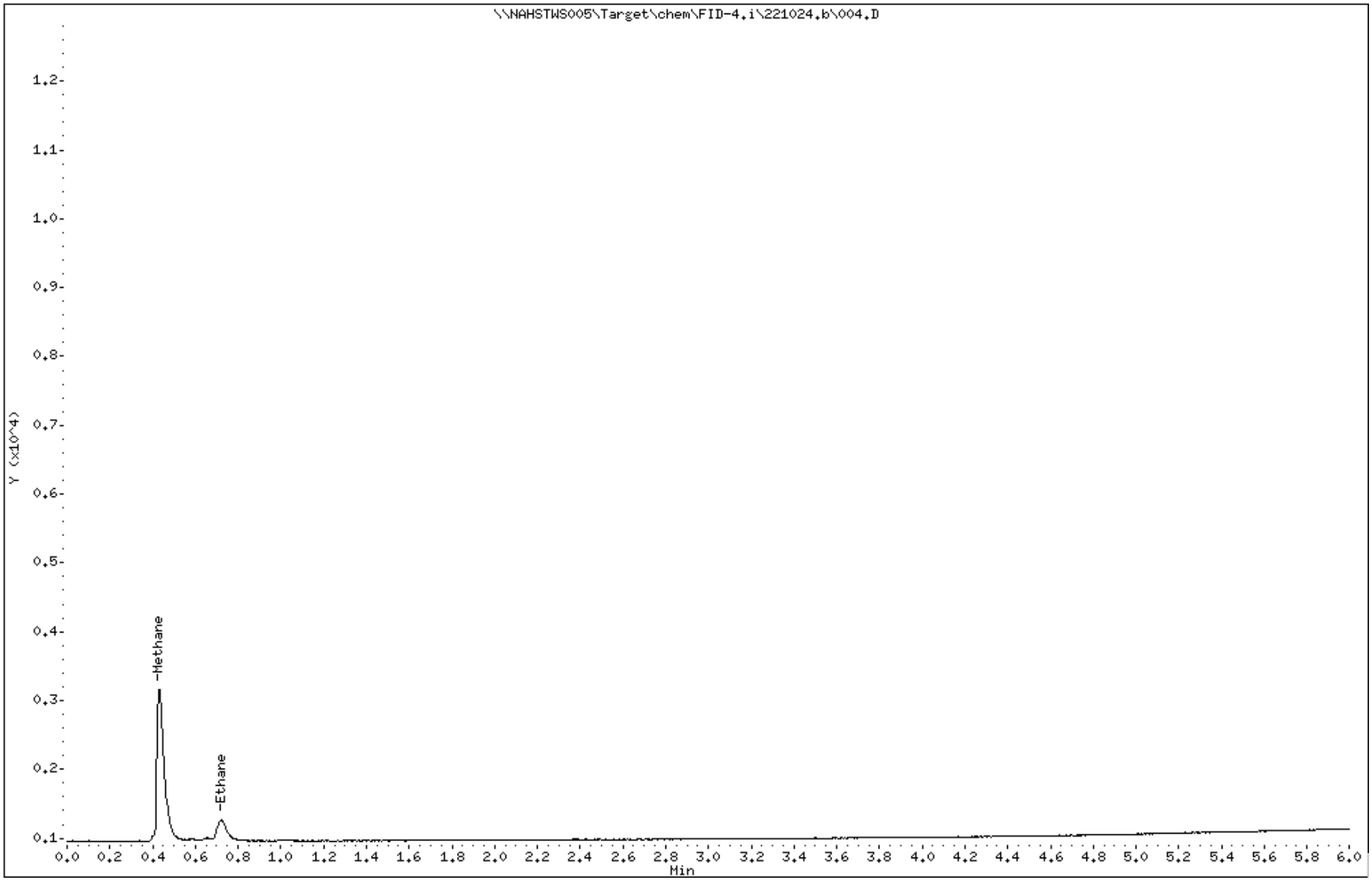
Instrument: FID-4.i

Sample Info: HS22100577-01;HS22100577-01

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



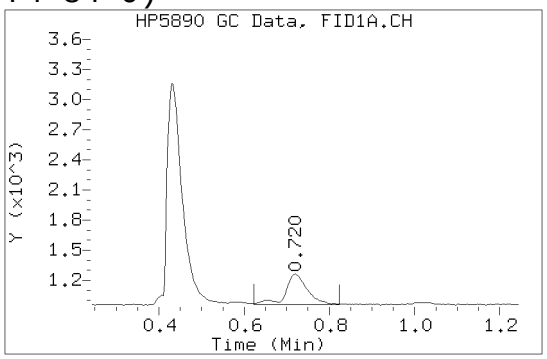
Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\004.D
Inj Date : 24-OCT-2022 09:41
InstruID : FID-4.i
LabSampID : HS22100577-01

Ethane (74-84-0)

Reason Code:

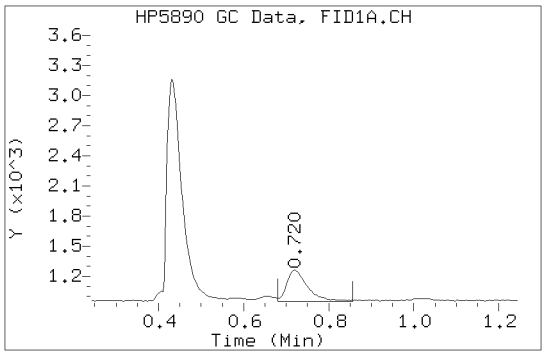
BEFORE

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44
AREA
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HEIGHT
308
24-Oct-2022
09:48
ALSHS
Server



AFTER

MASS
44
AREA
1029
HEIGHT
310
25-Oct-2022
11:46
ALSHS
Ser

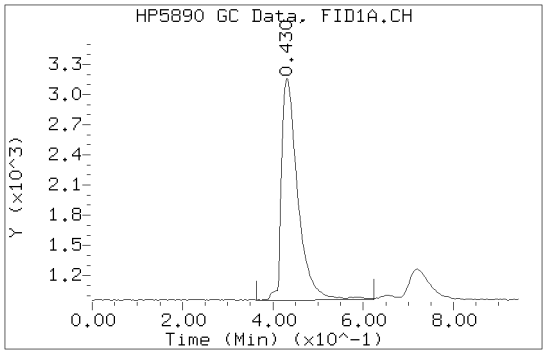


Methane (74-82-8)

Reason Code:

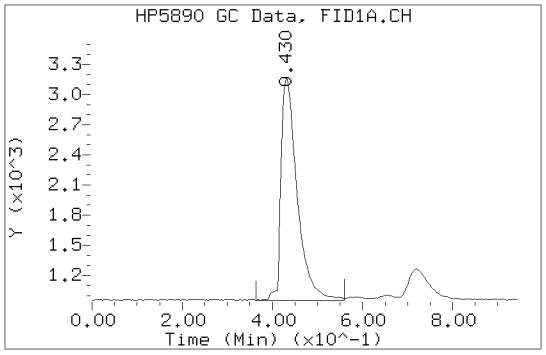
BEFORE

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AREA
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HEIGHT
0
24-Oct-2022
09:48
ALSHS
Server



AFTER

MASS
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AREA
5527
HEIGHT
2204
25-Oct-2022
11:46
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\005.D Page 1
Report Date: 25-Oct-2022 11:47

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\005.D
Lab Smp Id: HS22100577-01MS Client Smp ID: HS22100577-01MS
Inj Date : 24-OCT-2022 09:50
Operator : PL Inst ID: FID-4.i
Smp Info : HS22100577-01MS;HS22100577-01MS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\RSKNI3.m
Meth Date : 25-Oct-2022 11:45 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 5 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

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	0.426	0.443	-0.017	13081	13.4165	13.416(R)
2 Ethene	0.650	0.670	-0.020	11047	18.8592	18.859
3 Ethane	0.723	0.743	-0.020	14261	19.8210	19.820

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\005.D

Date : 24-OCT-2022 09:50

Client ID: HS22100577-01MS

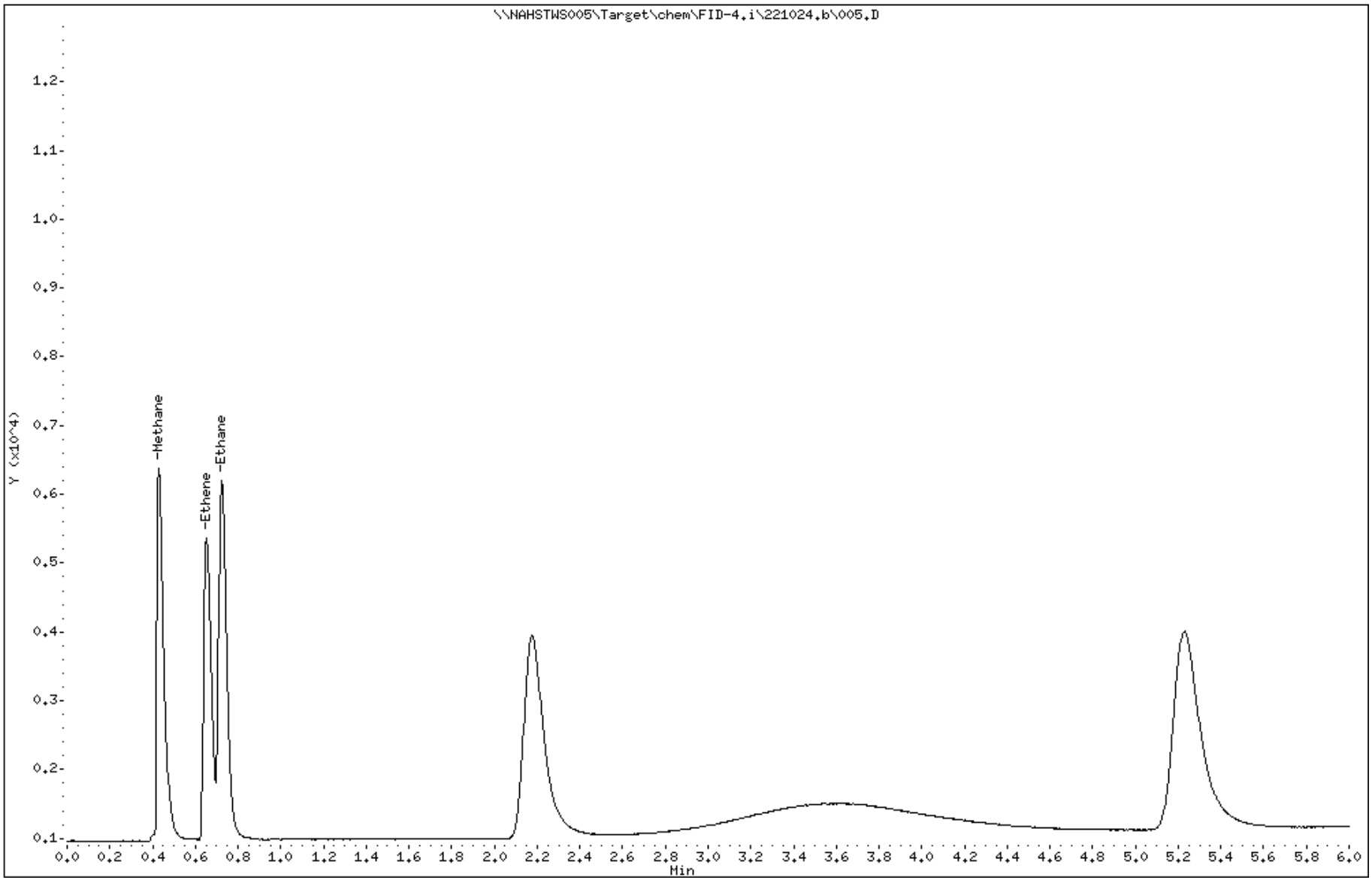
Instrument: FID-4.i

Sample Info: HS22100577-01MS;HS22100577-01MS

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\005.D
Inj Date : 24-OCT-2022 09:50
InstruID : FID-4.i
LabSampID : HS22100577-01MS

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\006.D Page 1
Report Date: 25-Oct-2022 11:47

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\006.D
Lab Smp Id: HS22100577-01MSD Client Smp ID: HS22100577-01MSD
Inj Date : 24-OCT-2022 09:58
Operator : PL Inst ID: FID-4.i
Smp Info : HS22100577-01MSD;HS22100577-01MSD
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\RSKNI3.m
Meth Date : 25-Oct-2022 11:45 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 6 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

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	0.436	0.443	-0.007	13585	13.9334	13.933(R)
2 Ethene	0.660	0.670	-0.010	11639	19.8699	19.869
3 Ethane	0.733	0.743	-0.010	14241	19.7932	19.793(M)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\006.D

Date : 24-OCT-2022 09:58

Client ID: HS22100577-01MSD

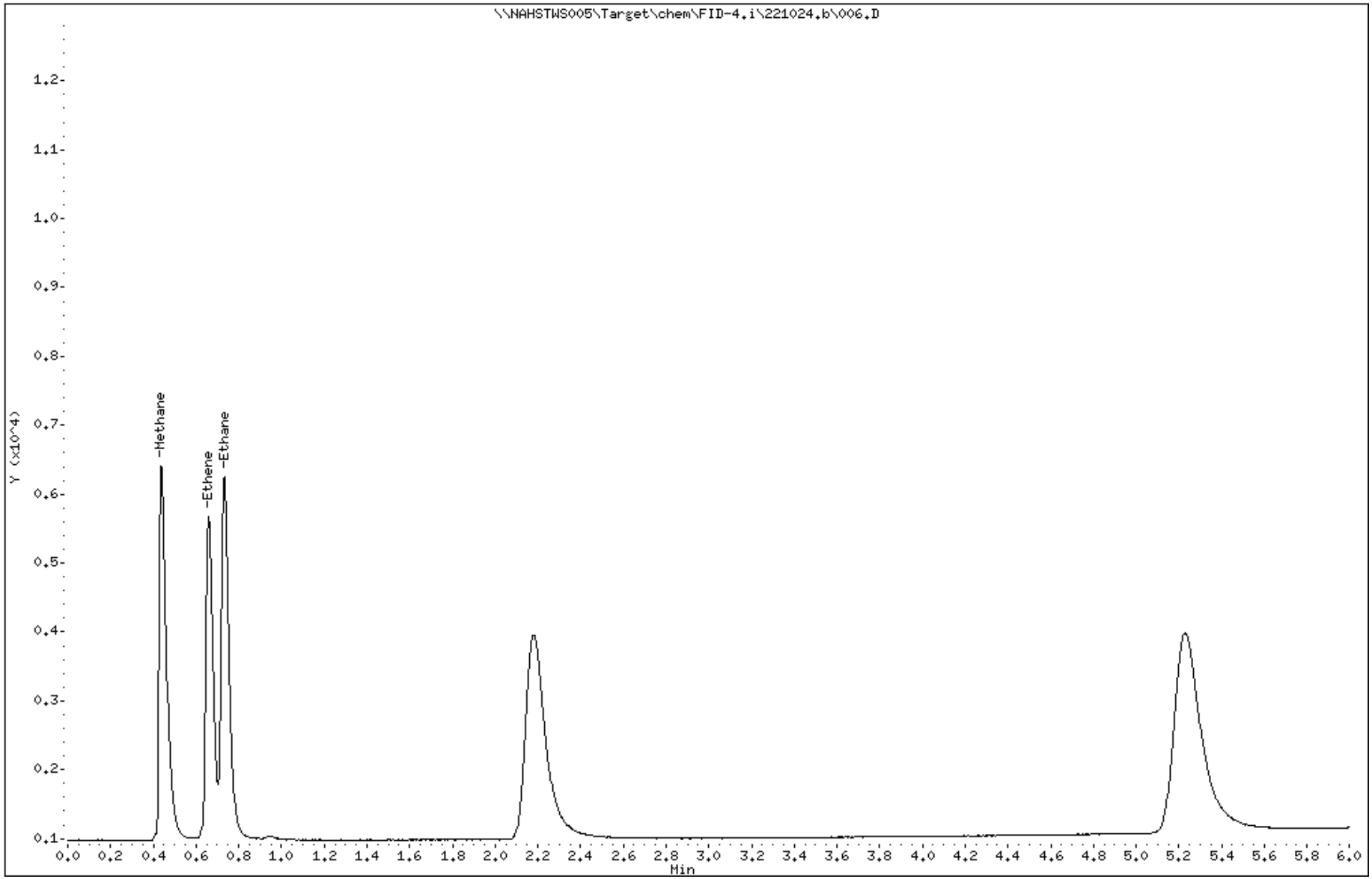
Instrument: FID-4.i

Sample Info: HS22100577-01MSD;HS22100577-01MSD

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



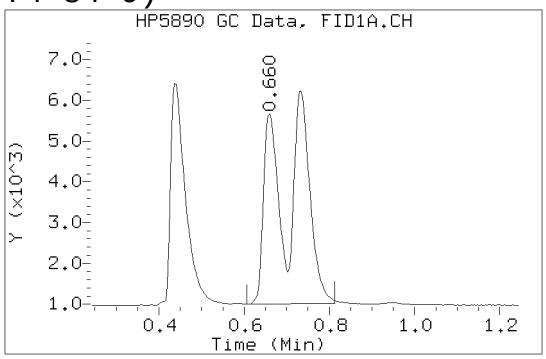
Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\006.D
Inj Date : 24-OCT-2022 09:58
InstruID : FID-4.i
LabSampID : HS22100577-01MSD

Ethane (74-84-0)

Reason Code:

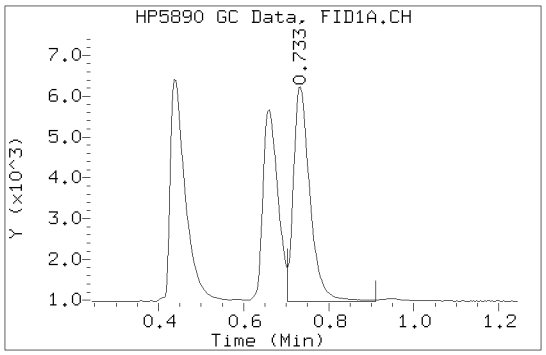
BEFORE

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4669
24-Oct-2022
10:06
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Server



AFTER

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HEIGHT
5266
25-Oct-2022
11:47
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\007.D Page 1
Report Date: 25-Oct-2022 11:48

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\007.D
Lab Smp Id: HS22100577-02 Client Smp ID: HS22100577-02
Inj Date : 24-OCT-2022 10:07
Operator : PL Inst ID: FID-4.i
Smp Info : HS22100577-02;HS22100577-02
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\RSKNI3.m
Meth Date : 25-Oct-2022 11:45 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

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	0.443	0.443	0.000	21368	21.9161	21.916
2 Ethene	0.646	0.670	-0.024	1096	1.87107	1.871(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\007.D

Date : 24-OCT-2022 10:07

Client ID: HS22100577-02

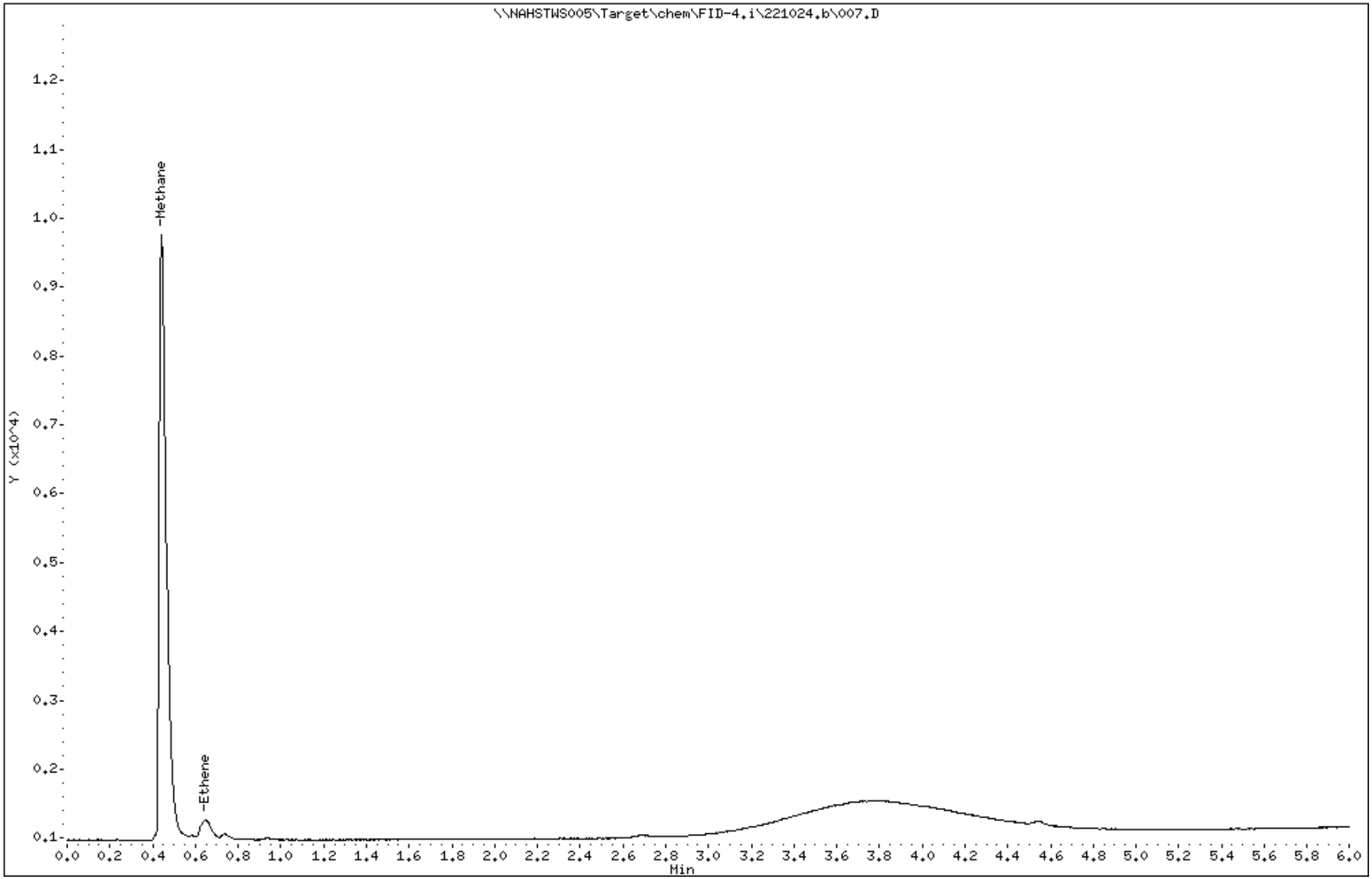
Instrument: FID-4.i

Sample Info: HS22100577-02;HS22100577-02

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



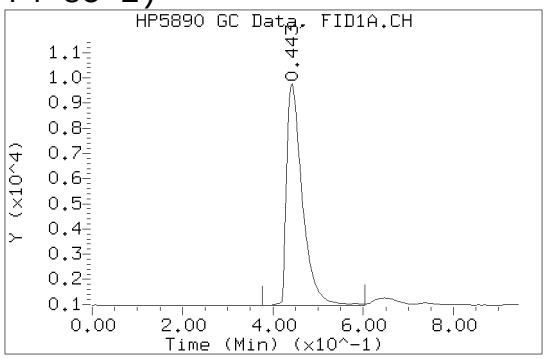
Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\007.D
Inj Date : 24-OCT-2022 10:07
InstruID : FID-4.i
LabSampID : HS22100577-02

Ethene (74-85-1)

Reason Code:

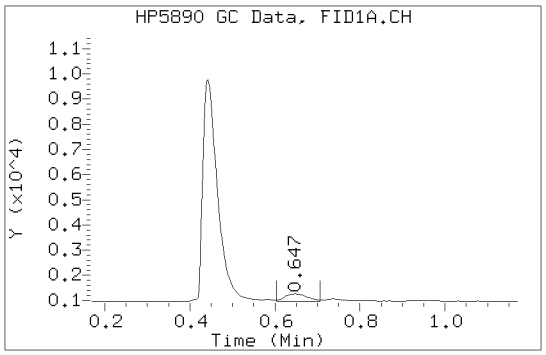
BEFORE

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AREA
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HEIGHT
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24-Oct-2022
10:14
ALSHS
Server



AFTER

MASS
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AREA
1096
HEIGHT
294
25-Oct-2022
11:48
ALSHS
Ser



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\008.D
Lab Smp Id: HS22100577-03 Client Smp ID: HS22100577-03
Inj Date : 24-OCT-2022 10:20
Operator : PL Inst ID: FID-4.i
Smp Info : HS22100577-03;HS22100577-03
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\RSKNI3.m
Meth Date : 24-Oct-2022 11:04 purvi.lad 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: NAHSTW7007

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	0.440	0.436	0.004	474282	486.447	486.446(A)

QC Flag Legend

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

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\008.D

Date : 24-OCT-2022 10:20

Client ID: HS22100577-03

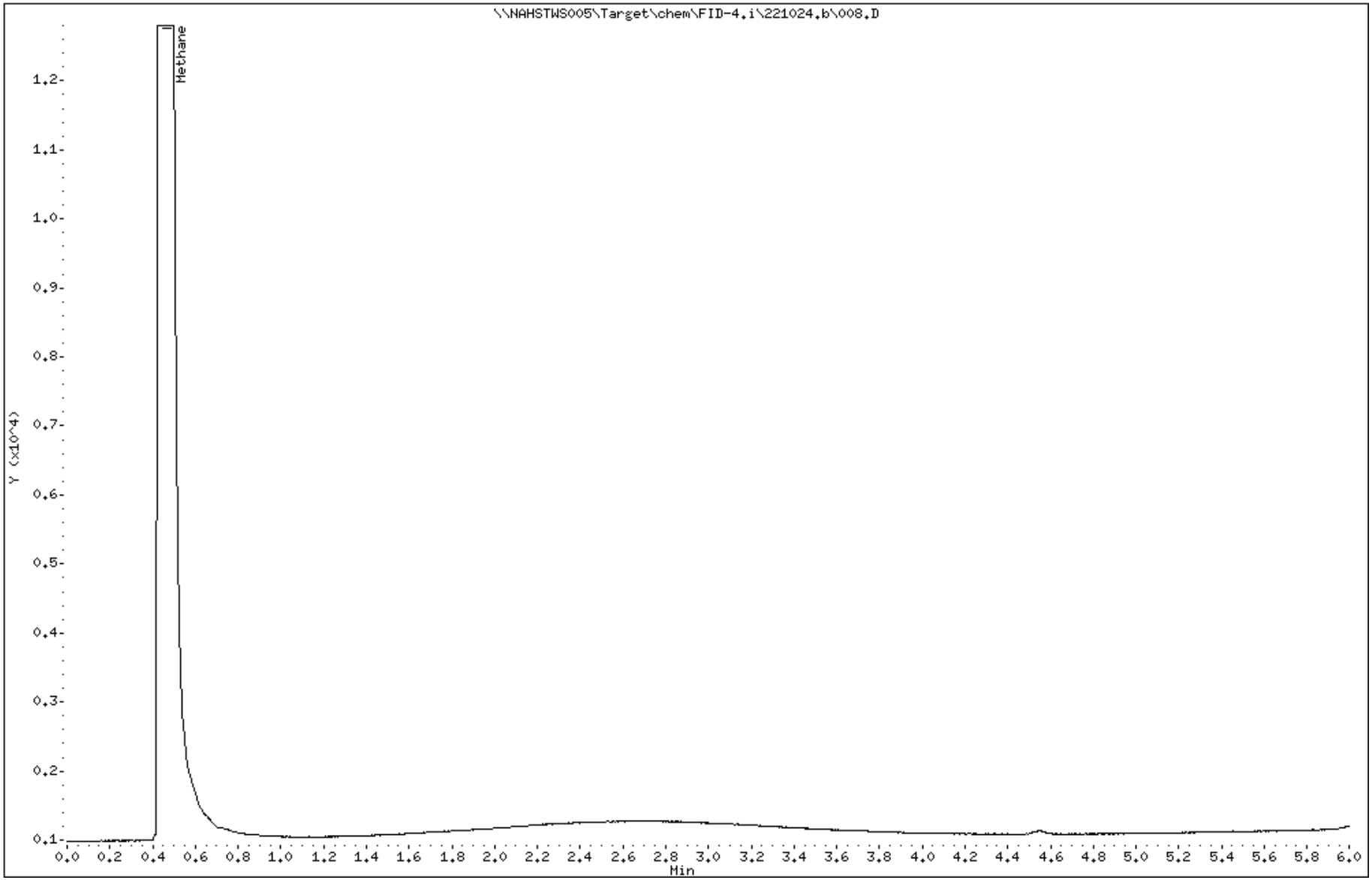
Instrument: FID-4.i

Sample Info: HS22100577-03;HS22100577-03

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\008.D
Inj Date : 24-OCT-2022 10:20
InstruID : FID-4.i
LabSampID : HS22100577-03

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\009.D Page 1
Report Date: 24-Oct-2022 12:18

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\009.D
Lab Smp Id: HS22100577-04 Client Smp ID: HS22100577-04
Inj Date : 24-OCT-2022 10:30
Operator : PL Inst ID: FID-4.i
Smp Info : HS22100577-04;HS22100577-04
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\RSKNI3.m
Meth Date : 24-Oct-2022 11:04 purvi.lad 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: NAHSTW7007

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	0.440	0.436	0.004	43395	44.5080	44.508(A)
2 Ethene	0.646	0.660	-0.014	1831	3.12585	3.125

QC Flag Legend

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

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\009.D

Date : 24-OCT-2022 10:30

Client ID: HS22100577-04

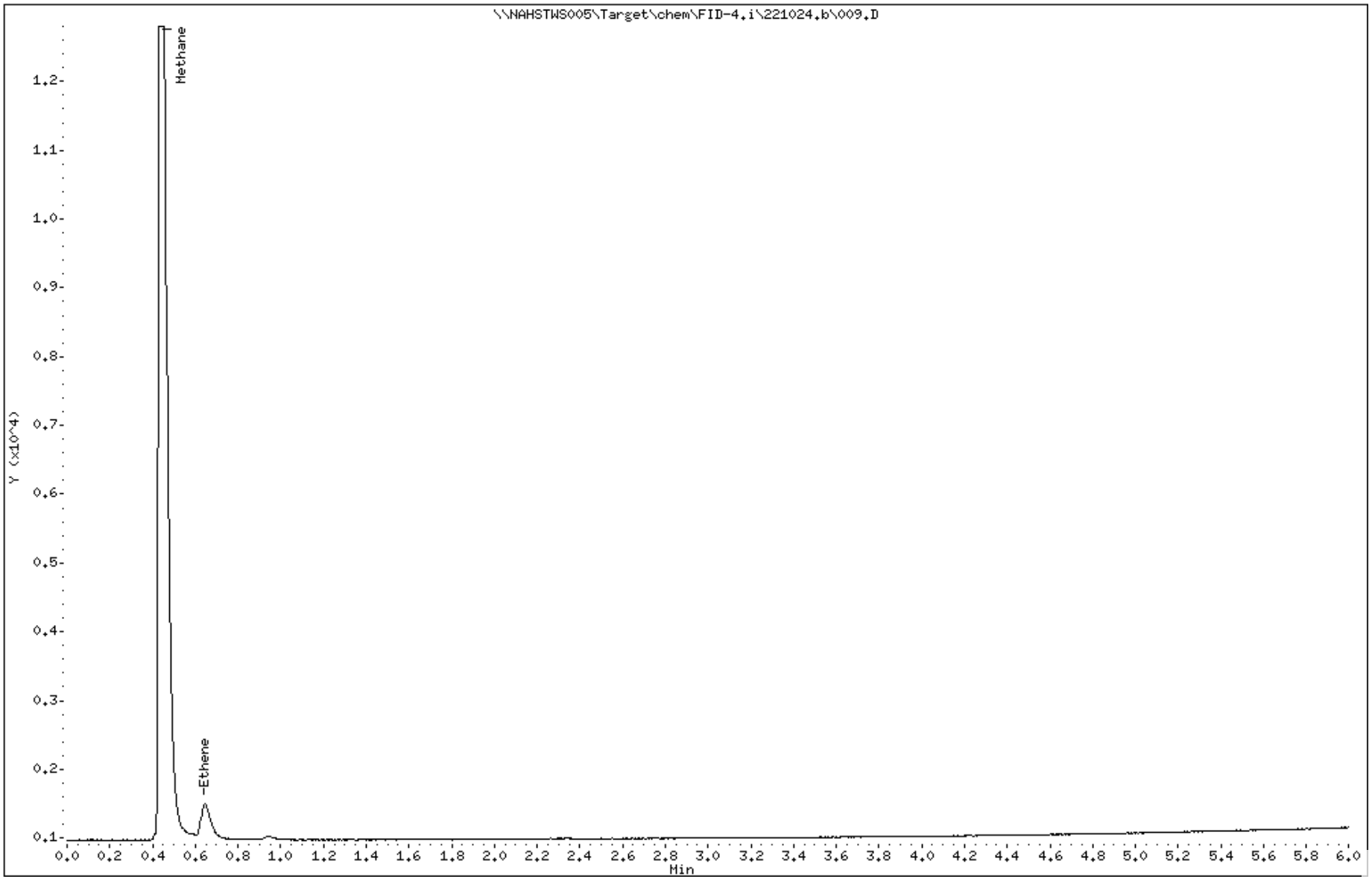
Instrument: FID-4.i

Sample Info: HS22100577-04;HS22100577-04

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\009.D
Inj Date : 24-OCT-2022 10:30
InstruID : FID-4.i
LabSampID : HS22100577-04

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\010.D
Lab Smp Id: HS22100577-05 Client Smp ID: HS22100577-05
Inj Date : 24-OCT-2022 10:38
Operator : PL Inst ID: FID-4.i
Smp Info : HS22100577-05;HS22100577-05
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\RSKNI3.m
Meth Date : 24-Oct-2022 11:04 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

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	0.423	0.436	-0.013	8105310	8313.20	8313.203(A)

QC Flag Legend

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

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\010.D

Date : 24-OCT-2022 10:38

Client ID: HS22100577-05

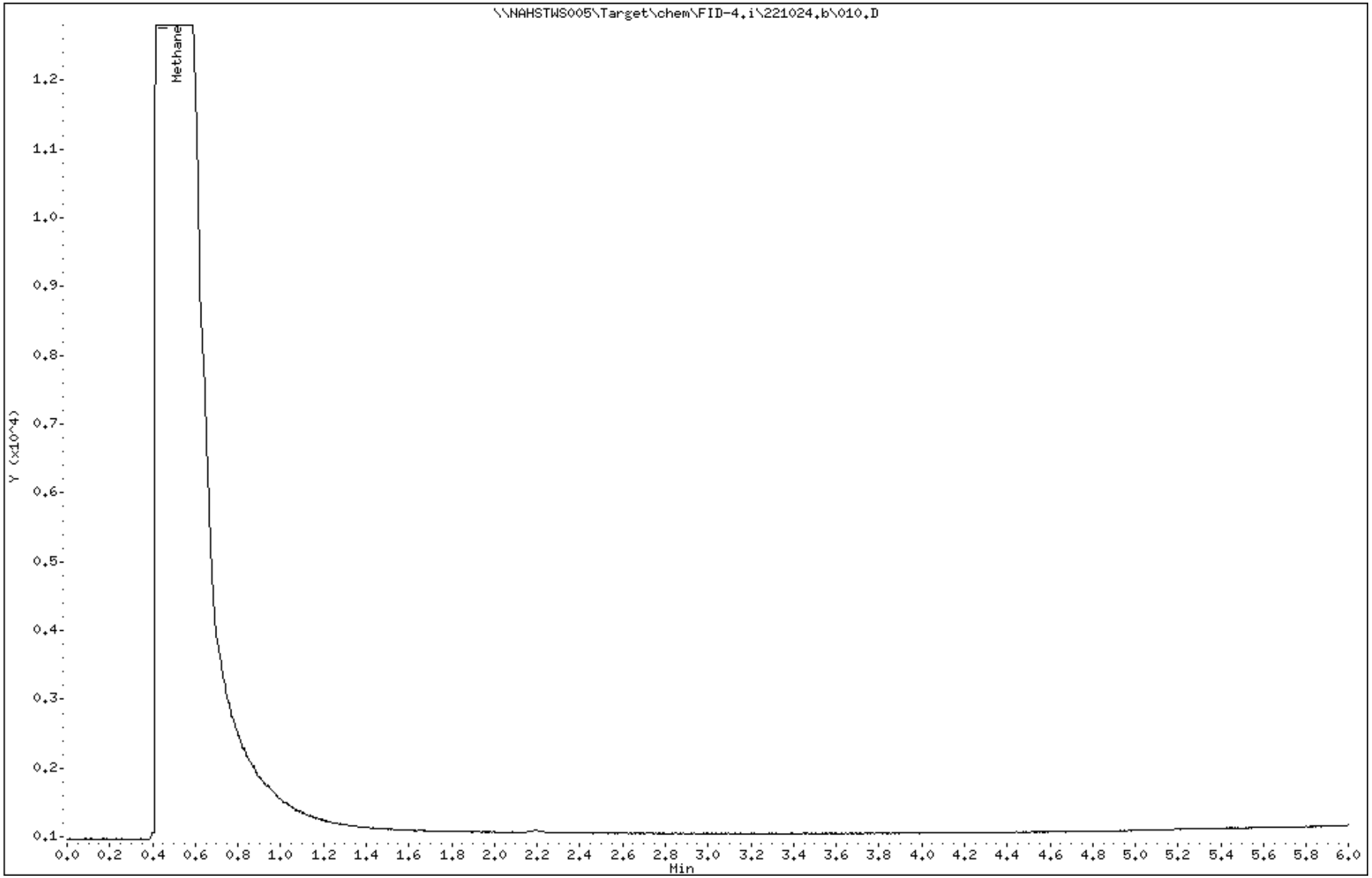
Instrument: FID-4.i

Sample Info: HS22100577-05;HS22100577-05

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\010.D
Inj Date : 24-OCT-2022 10:38
InstruID : FID-4.i
LabSampID : HS22100577-05

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\011.D Page 1
Report Date: 25-Oct-2022 11:49

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\011.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 24-OCT-2022 10:48
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\221024.b\RSKNI3.m
Meth Date : 25-Oct-2022 11:48 purvi.lad 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: NAHSTW7007

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	0.436	0.436	0.000	8816	9.64700	9.042
2 Ethene	0.660	0.660	0.000	11075	16.8500	18.907
3 Ethane	0.730	0.730	0.000	15317	18.0430	21.288(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\011.D

Date : 24-OCT-2022 10:48

Client ID: RSK-CCV

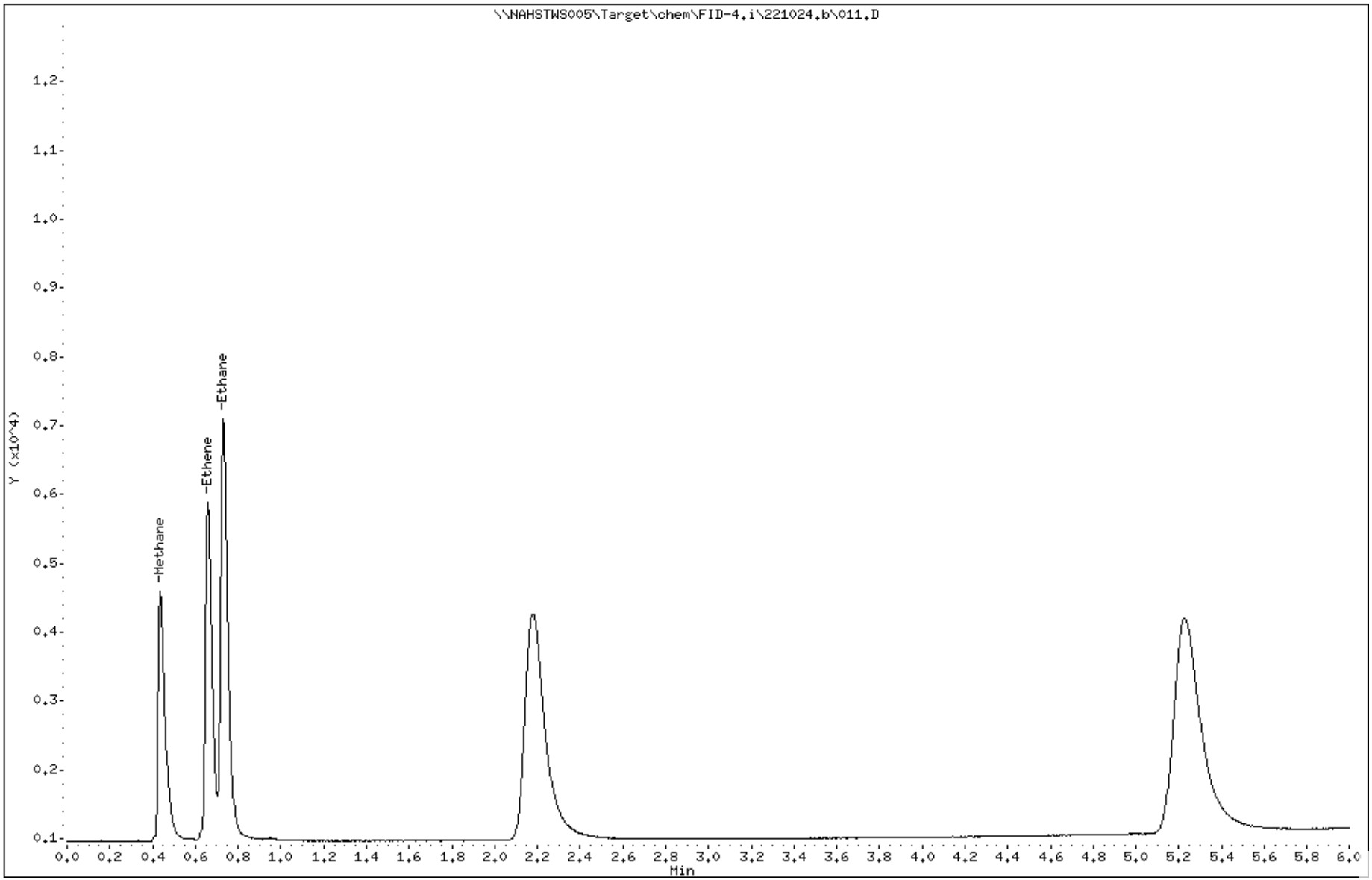
Instrument: FID-4.i

Sample Info: RSK-CCV;RSK-CCV;2;4

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



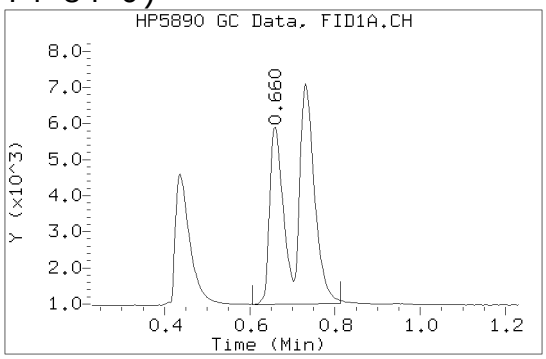
Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\011.D
Inj Date : 24-OCT-2022 10:48
InstruID : FID-4.i
LabSampID : RSK-CCV

Ethane (74-84-0)

Reason Code:

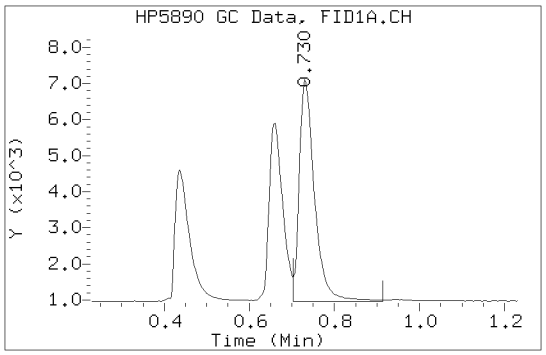
BEFORE

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24-Oct-2022
10:56
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Server



AFTER

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15317
HEIGHT
6138
25-Oct-2022
11:49
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\012.D Page 1
Report Date: 24-Oct-2022 12:18

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\012.D
Lab Smp Id: HS22100577-06 Client Smp ID: HS22100577-06
Inj Date : 24-OCT-2022 11:06
Operator : PL Inst ID: FID-4.i
Smp Info : HS22100577-06;HS22100577-06
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\RSKNI3.m
Meth Date : 24-Oct-2022 11:04 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

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	0.436	0.436	0.000	8031314	8237.31	8237.309(A)

QC Flag Legend

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

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\012.D

Date : 24-OCT-2022 11:06

Client ID: HS22100577-06

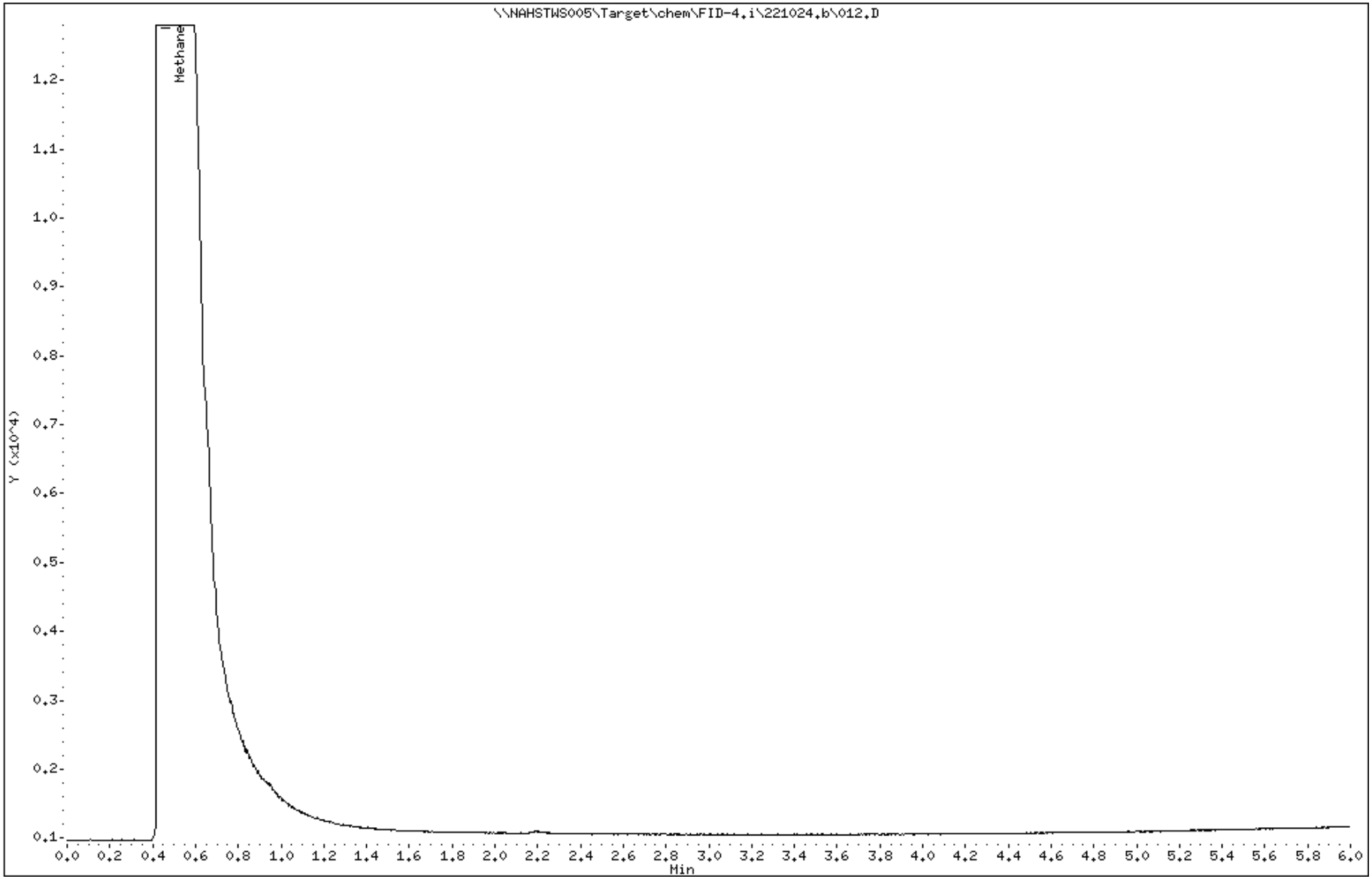
Instrument: FID-4.i

Sample Info: HS22100577-06;HS22100577-06

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\012.D
Inj Date : 24-OCT-2022 11:06
InstruID : FID-4.i
LabSampID : HS22100577-06

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\019.D Page 1
Report Date: 25-Oct-2022 11:57

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\019.D
Lab Smp Id: HS22100577-03 Client Smp ID: HS22100577-03
Inj Date : 24-OCT-2022 12:23
Operator : PL Inst ID: FID-4.i
Smp Info : HS22100577-03;HS22100577-03
Misc Info : ;1;0;50
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\RSKNI3.m
Meth Date : 25-Oct-2022 11:48 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 19
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

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	0.446	0.436	0.010	9437	9.67905	483.952
2 Ethene	0.660	0.660	0.000	1211	2.06740	103.369

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\019.D

Date : 24-OCT-2022 12:23

Client ID: HS22100577-03

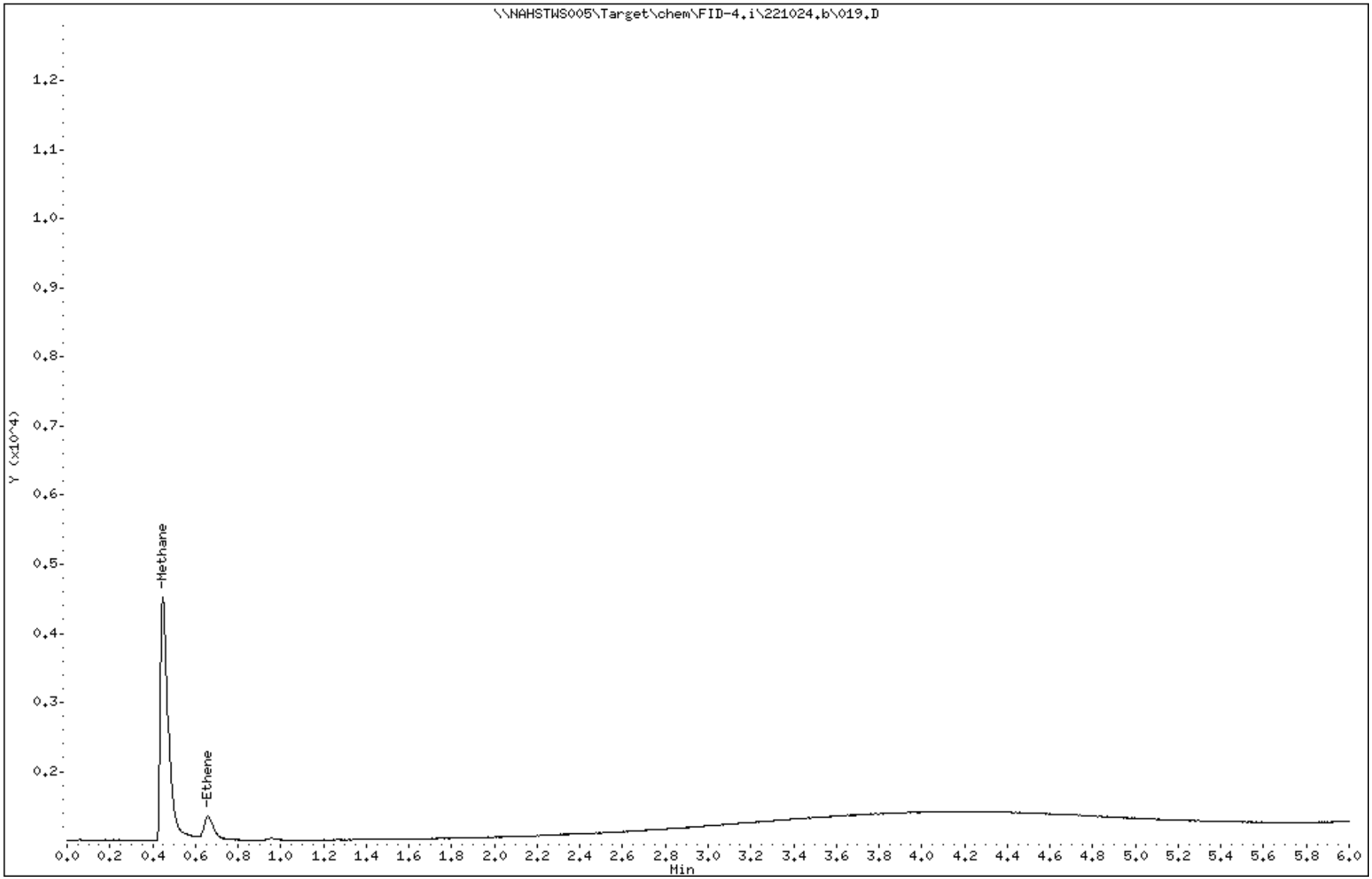
Instrument: FID-4.i

Sample Info: HS22100577-03;HS22100577-03

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\019.D
Inj Date : 24-OCT-2022 12:23
InstruID : FID-4.i
LabSampID : HS22100577-03

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\020.D Page 1
Report Date: 25-Oct-2022 11:57

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\020.D
Lab Smp Id: HS22100577-04 Client Smp ID: HS22100577-04
Inj Date : 24-OCT-2022 12:33
Operator : PL Inst ID: FID-4.i
Smp Info : HS22100577-04;HS22100577-04
Misc Info : ;1;0;4
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\RSKNI3.m
Meth Date : 25-Oct-2022 11:48 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 20
Dil Factor: 4.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

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	0.433	0.436	-0.003	11963	12.2698	49.079
2 Ethene	0.640	0.660	-0.020	1695	2.89367	11.574(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\020.D

Date : 24-OCT-2022 12:33

Client ID: HS22100577-04

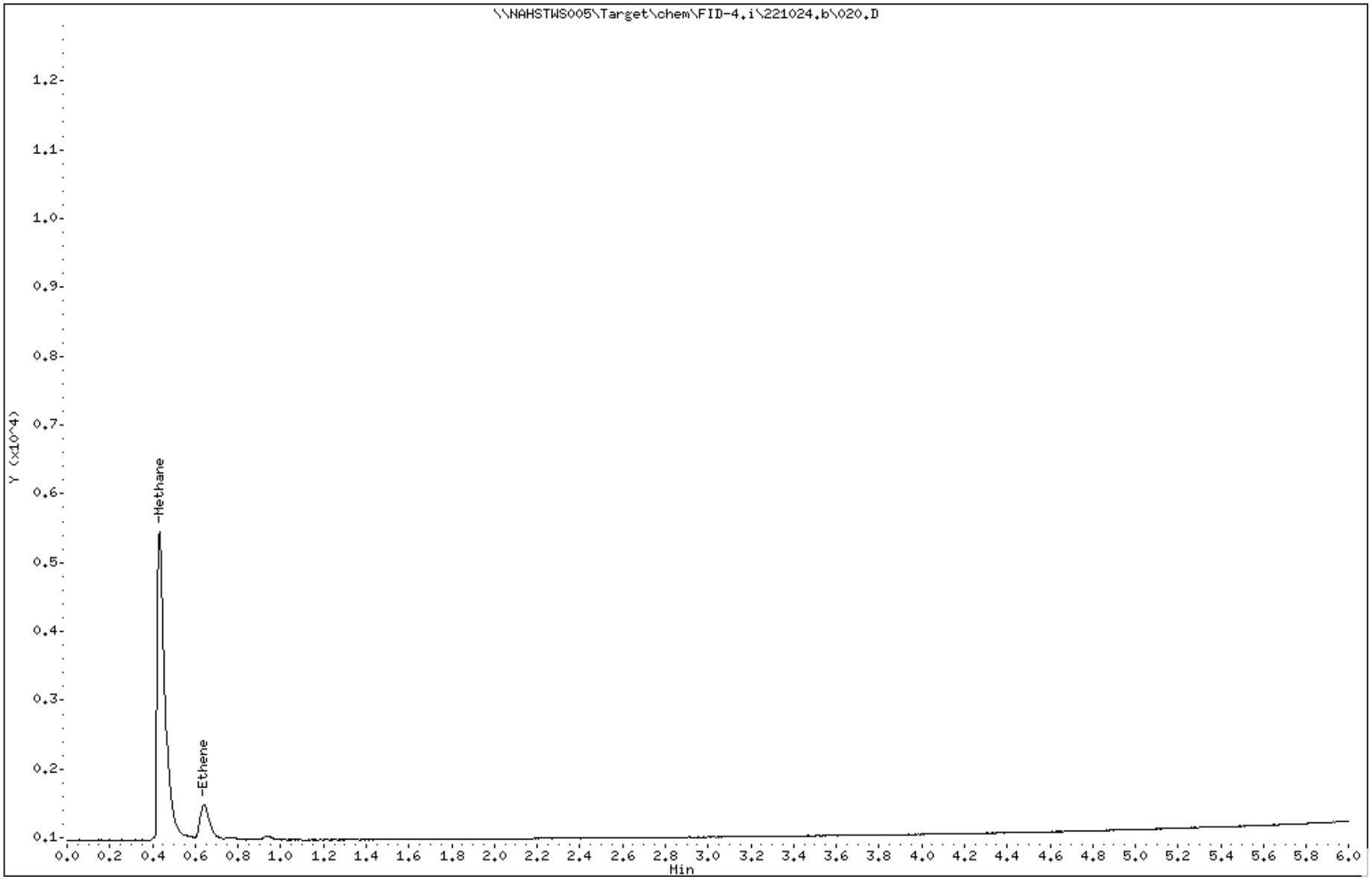
Instrument: FID-4.i

Sample Info: HS22100577-04;HS22100577-04

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



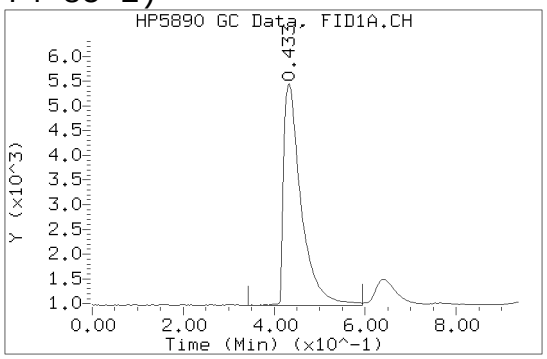
Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\020.D
Inj Date : 24-OCT-2022 12:33
InstruID : FID-4.i
LabSampID : HS22100577-04

Ethene (74-85-1)

Reason Code:

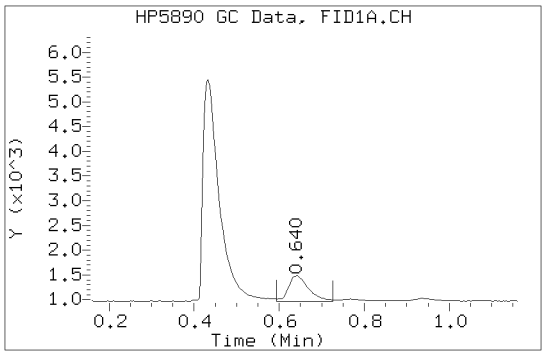
BEFORE

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AREA
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HEIGHT
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24-Oct-2022
12:40
ALSHS
Server



AFTER

MASS
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AREA
1695
HEIGHT
517
25-Oct-2022
11:57
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\021.D Page 1
Report Date: 25-Oct-2022 11:45

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\021.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 24-OCT-2022 12:45
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\221024.b\RSKNI3.m
Meth Date : 25-Oct-2022 11:45 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

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	0.433	0.433	0.000	8994	9.64700	9.224
2 Ethene	0.656	0.656	0.000	9767	16.8500	16.674
3 Ethane	0.726	0.726	0.000	15372	18.0430	21.365

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\021.D

Date : 24-OCT-2022 12:45

Client ID: RSK-CCV

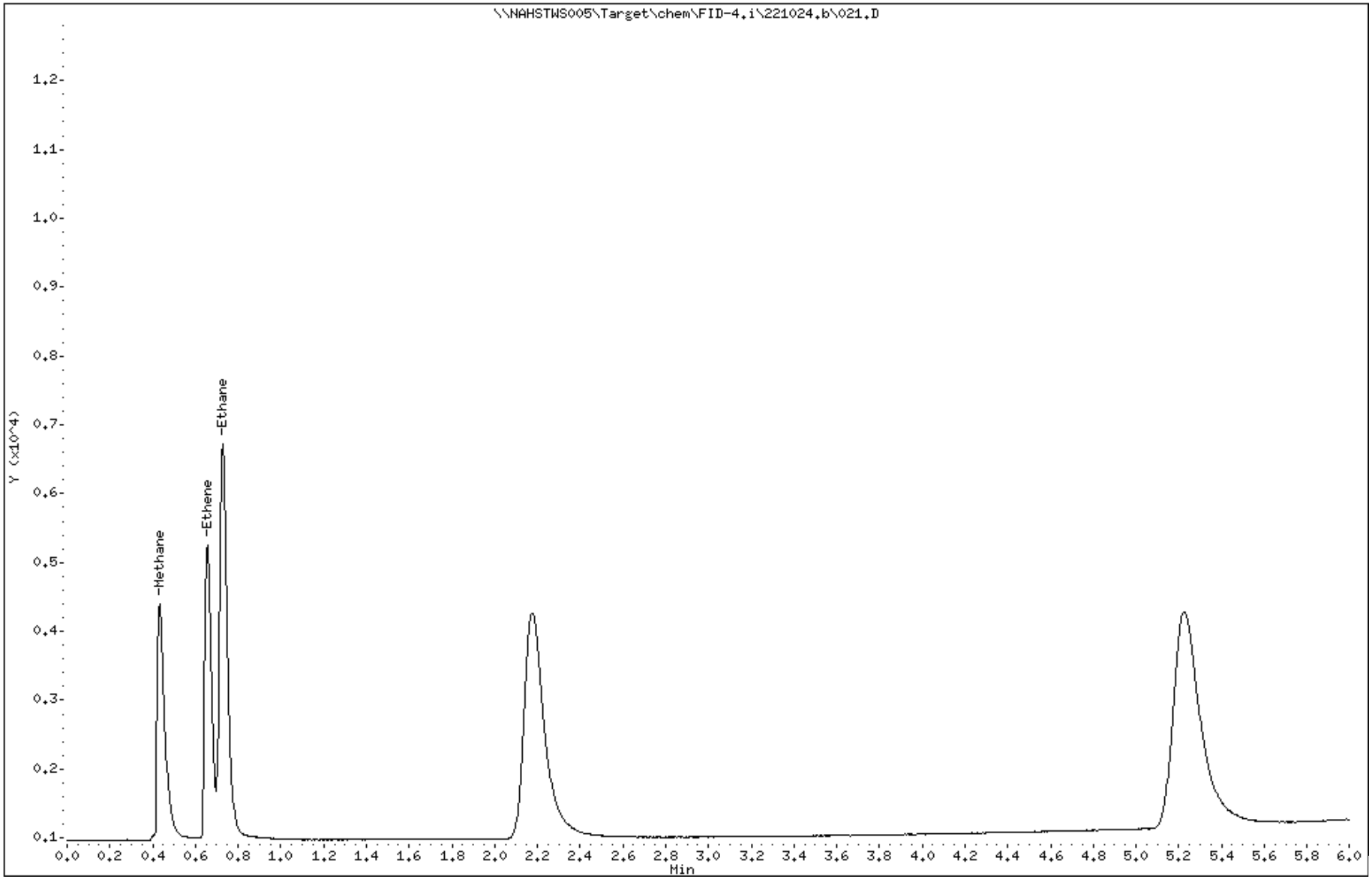
Instrument: FID-4.i

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\221024.b\021.D
Inj Date : 24-OCT-2022 12:45
InstruID : FID-4.i
LabSampID : RSK-CCV

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\022.D Page 1
Report Date: 25-Oct-2022 11:57

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\022.D
Lab Smp Id: HS22100577-05 Client Smp ID: HS22100577-05
Inj Date : 24-OCT-2022 12:55
Operator : PL Inst ID: FID-4.i
Smp Info : HS22100577-05;HS22100577-05
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\RSKNI3.m
Meth Date : 25-Oct-2022 11:48 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 22
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

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	0.460	0.436	0.024	19228	19.7212	19.721(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\022.D

Date : 24-OCT-2022 12:55

Client ID: HS22100577-05

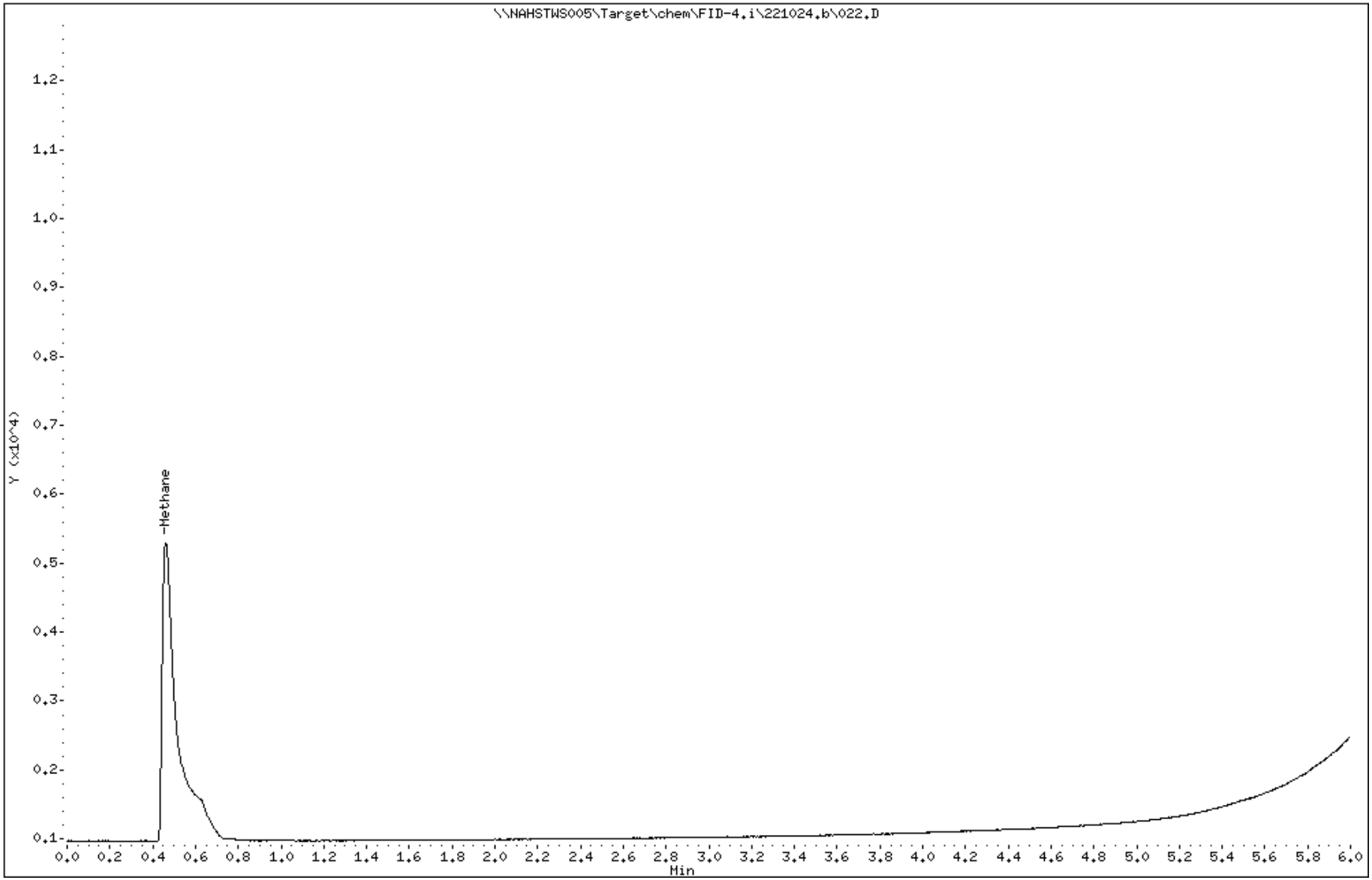
Instrument: FID-4.i

Sample Info: HS22100577-05;HS22100577-05

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



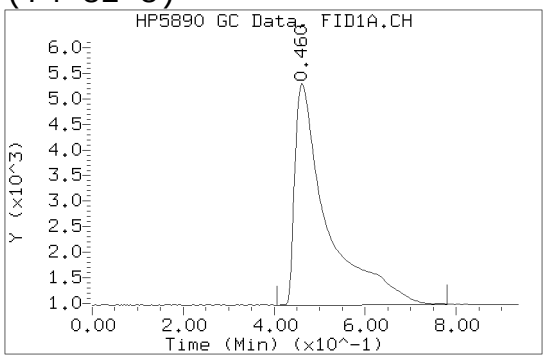
Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\022.D
Inj Date : 24-OCT-2022 12:55
InstruID : FID-4.i
LabSampID : HS22100577-05

Methane (74-82-8)

Reason Code:

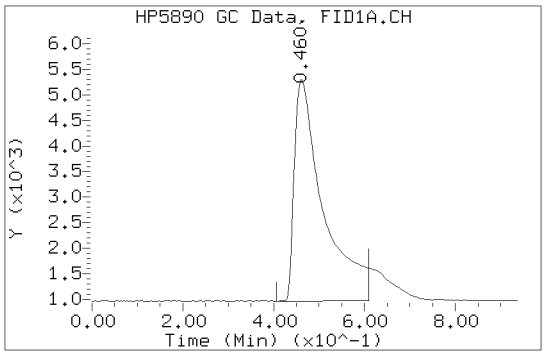
BEFORE

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HEIGHT
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24-Oct-2022
13:02
ALSHS
Server



AFTER

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25-Oct-2022
11:57
ALSHS
Ser



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\023.D
Lab Smp Id: HS22100577-06 Client Smp ID: HS22100577-06
Inj Date : 24-OCT-2022 13:06
Operator : PL Inst ID: FID-4.i
Smp Info : HS22100577-06;HS22100577-06
Misc Info : ;1;0;500
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\RSKNI3.m
Meth Date : 25-Oct-2022 11:48 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 23
Dil Factor: 500.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

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	0.460	0.443	0.017	16164	16.5786	8289.295(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\023.D

Date : 24-OCT-2022 13:06

Client ID: HS22100577-06

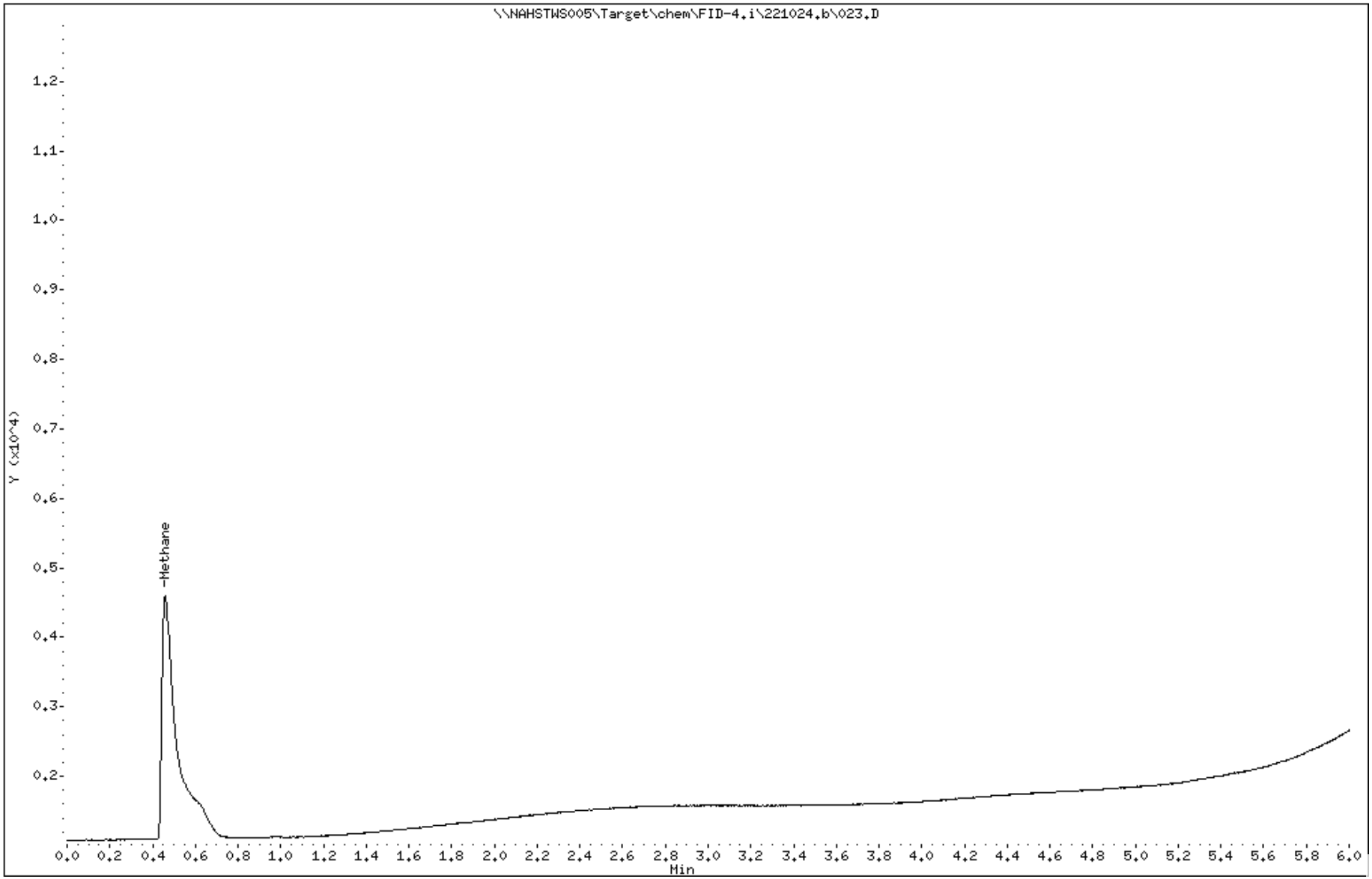
Instrument: FID-4.i

Sample Info: HS22100577-06;HS22100577-06

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



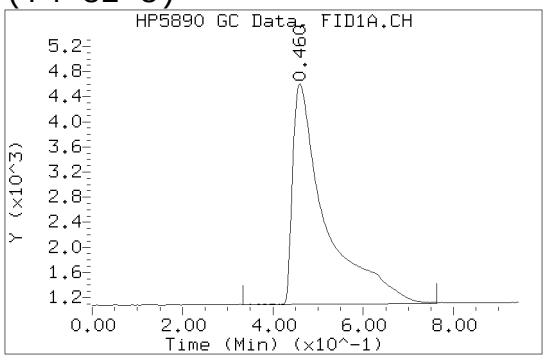
Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\023.D
Inj Date : 24-OCT-2022 13:06
InstruID : FID-4.i
LabSampID : HS22100577-06

Methane (74-82-8)

Reason Code:

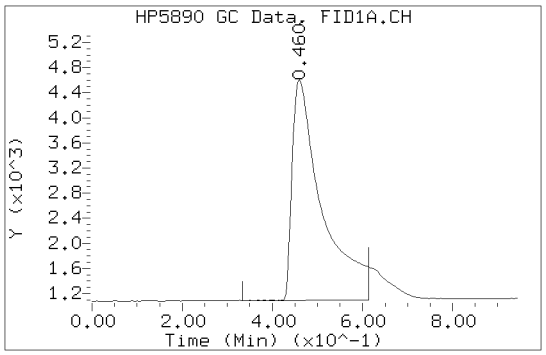
BEFORE

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HEIGHT
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24-Oct-2022
13:13
ALSHS
Server



AFTER

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AREA
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HEIGHT
3513
25-Oct-2022
12:33
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\028.D Page 1
Report Date: 25-Oct-2022 11:59

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\028.D
Lab Smp Id: HS22100970-03MS Client Smp ID: HS22100970-03MS
Inj Date : 24-OCT-2022 13:50
Operator : PL Inst ID: FID-4.i
Smp Info : HS22100970-03MS;HS22100970-03MS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\RSKNI3.m
Meth Date : 25-Oct-2022 11:48 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 28 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

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	0.440	0.436	0.004	2110786	2164.93	2164.925(AR)
2 Ethene	0.666	0.660	0.006	15904	27.1510	27.151(R)
3 Ethane	0.740	0.730	0.010	16949	23.5570	23.556(RM)

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\221024.b\028.D

Date : 24-OCT-2022 13:50

Client ID: HS22100970-03MS

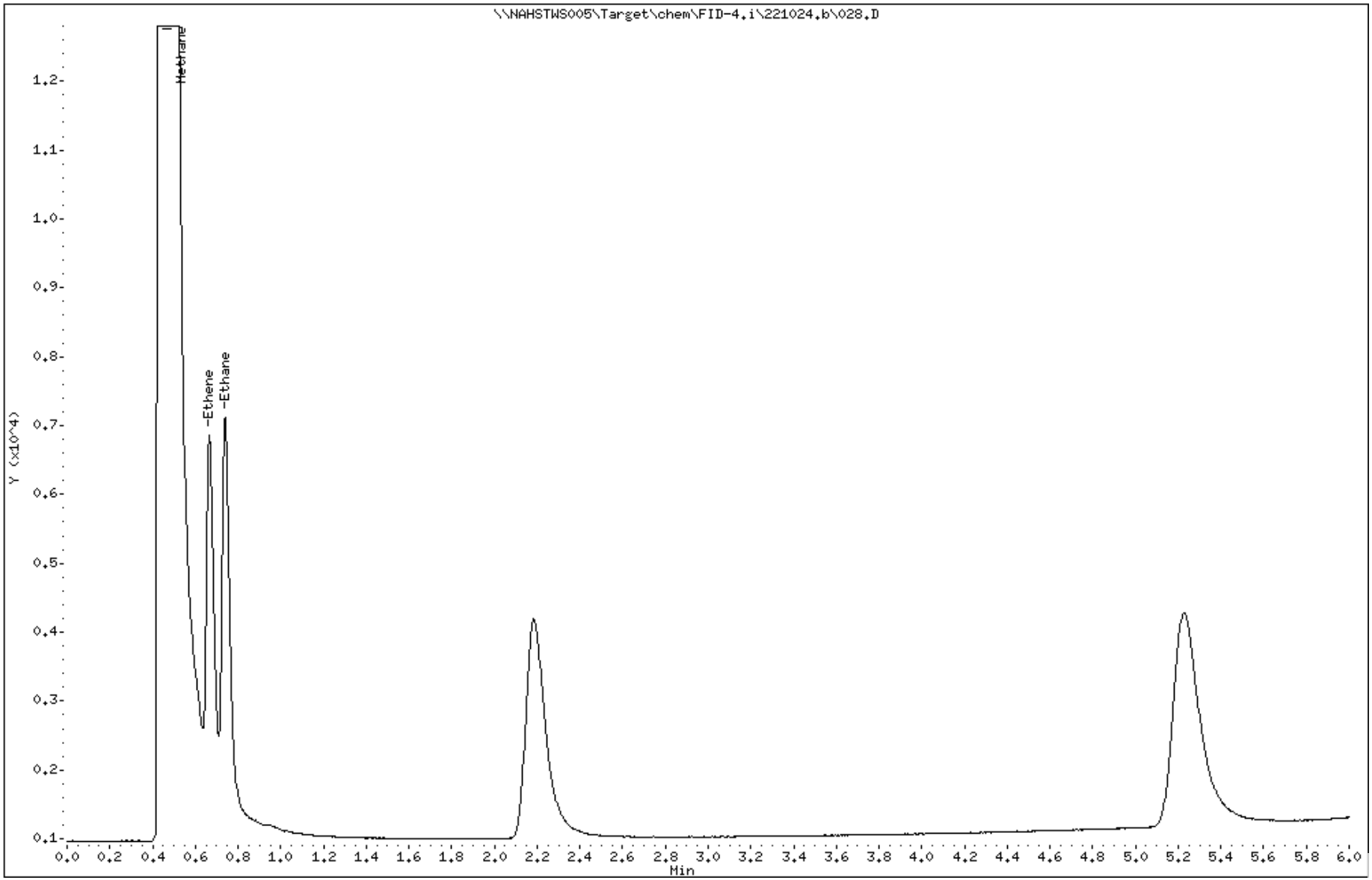
Instrument: FID-4.i

Sample Info: HS22100970-03MS;HS22100970-03MS

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



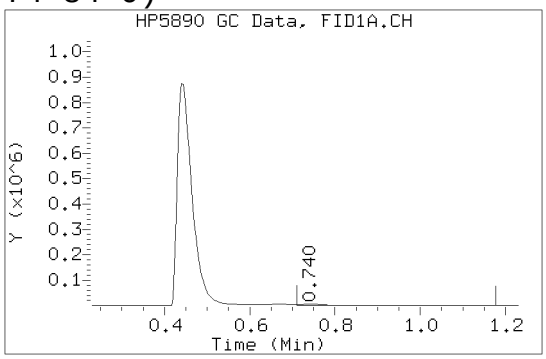
Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\028.D
Inj Date : 24-OCT-2022 13:50
InstruID : FID-4.i
LabSampID : HS22100970-03MS

Ethane (74-84-0)

Reason Code:

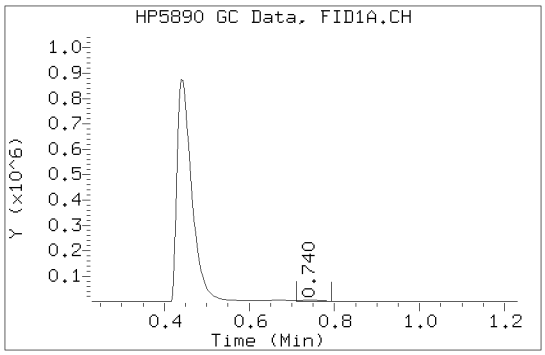
BEFORE

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6132
24-Oct-2022
13:58
ALSHS
Server



AFTER

MASS
44
AREA
16949
HEIGHT
6132
25-Oct-2022
11:59
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\029.D Page 1
Report Date: 25-Oct-2022 11:59

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\029.D
Lab Smp Id: HS22100970-03MSD Client Smp ID: HS22100970-03MSD
Inj Date : 24-OCT-2022 13:58
Operator : PL Inst ID: FID-4.i
Smp Info : HS22100970-03MSD;HS22100970-03MSD
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\RSKNI3.m
Meth Date : 25-Oct-2022 11:48 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 29 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

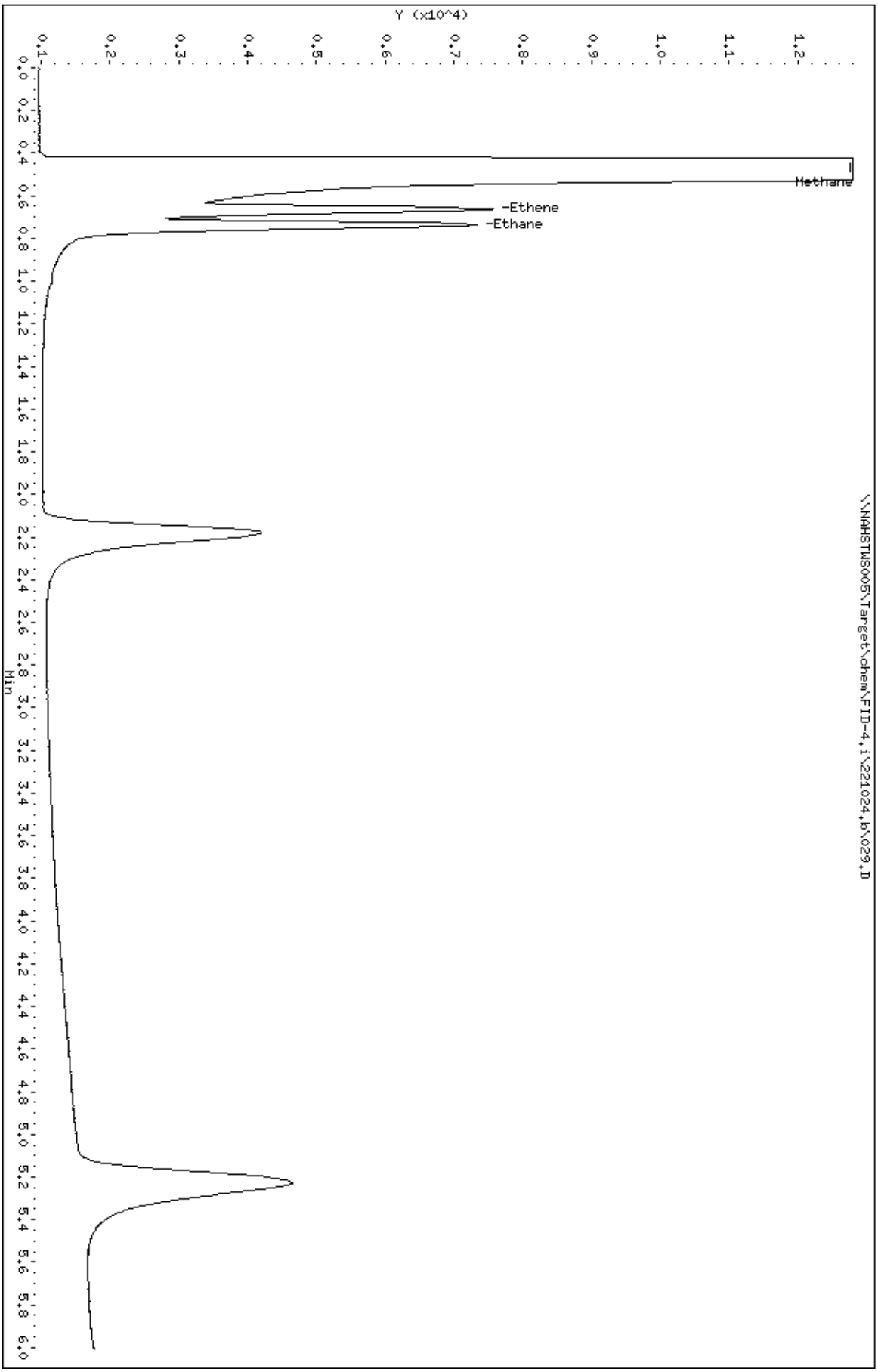
					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.440	0.436	0.004	2112614	2166.80	2166.800(AR)
2 Ethene	0.660	0.660	0.000	18378	31.3746	31.374(R)
3 Ethane	0.736	0.730	0.006	17725	24.6355	24.635(RM)

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\221024,b\029,D
Date : 24-OCT-2022 13:58
Client ID: HS22100970-03HSD
Sample Info: HS22100970-03HSD;HS22100970-03HSD
Column phase: Rtx-PLOT

Instrument: FID-4,i
Operator: PL
Column diameter: 0.53



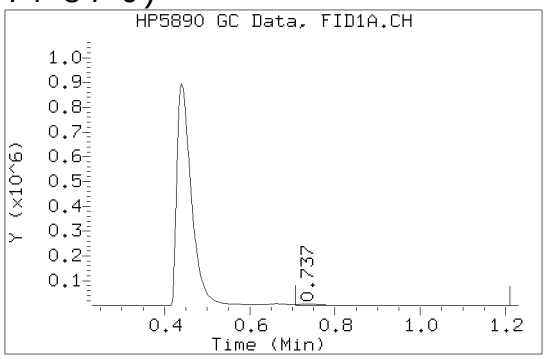
Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\029.D
Inj Date : 24-OCT-2022 13:58
InstruID : FID-4.i
LabSampID : HS22100970-03MSD

Ethane (74-84-0)

Reason Code:

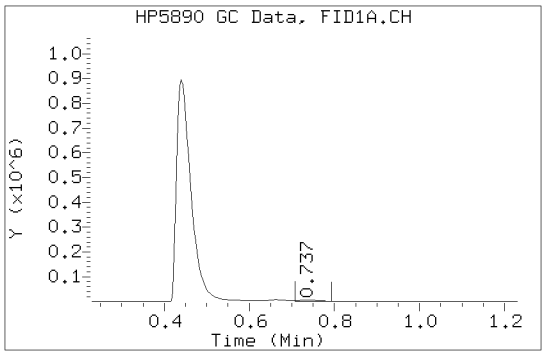
BEFORE

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44
AREA
22063
HEIGHT
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24-Oct-2022
14:05
ALSHS
Server



AFTER

MASS
44
AREA
17725
HEIGHT
6332
25-Oct-2022
11:59
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\032.D Page 1
Report Date: 25-Oct-2022 12:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\032.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 24-OCT-2022 14:24
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\221024.b\RSKNI3.m
Meth Date : 25-Oct-2022 11:48 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 32 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

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	0.440	0.440	0.000	8664	9.64700	8.886
2 Ethene	0.660	0.660	0.000	10763	16.8500	18.374
3 Ethane	0.733	0.733	0.000	15129	18.0430	21.027(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\032.D

Date : 24-OCT-2022 14:24

Client ID: RSK-CCV

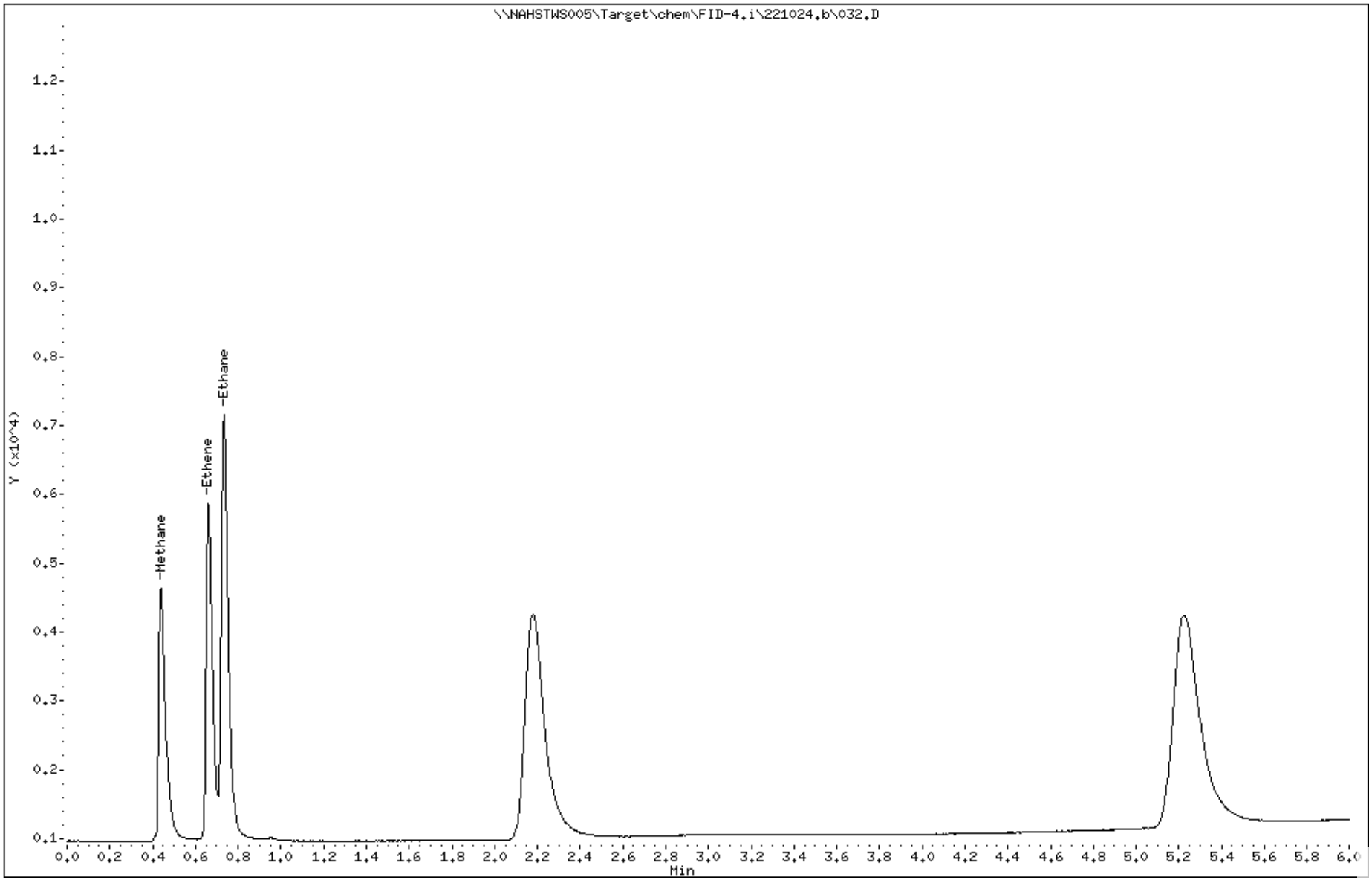
Sample Info: RSK-CCV;RSK-CCV;2;4

Column phase: Rtx-PLOT

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53



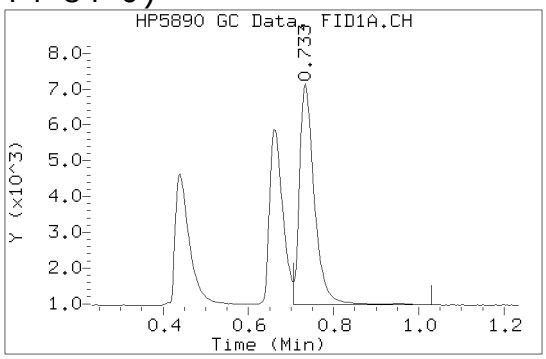
Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\032.D
Inj Date : 24-OCT-2022 14:24
InstruID : FID-4.i
LabSampID : RSK-CCV

Ethane (74-84-0)

Reason Code:

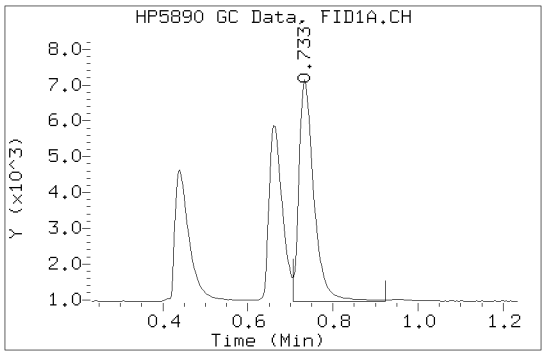
BEFORE

MASS
44
AREA
15010
HEIGHT
6178
24-Oct-2022
14:31
ALSHS
Server



AFTER

MASS
44
AREA
15129
HEIGHT
6191
25-Oct-2022
12:00
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\036.D Page 1
Report Date: 25-Oct-2022 12:01

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\036.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 24-OCT-2022 14:54
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\221024.b\RSKNI3.m
Meth Date : 25-Oct-2022 11:48 purvi.lad Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 36 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7007

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	0.443	0.443	0.000	10341	9.64700	10.606
2 Ethene	0.670	0.670	0.000	10829	16.8500	18.487
3 Ethane	0.743	0.743	0.000	15122	18.0430	21.017(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221024.b\036.D

Date : 24-OCT-2022 14:54

Client ID: RSK-CCV

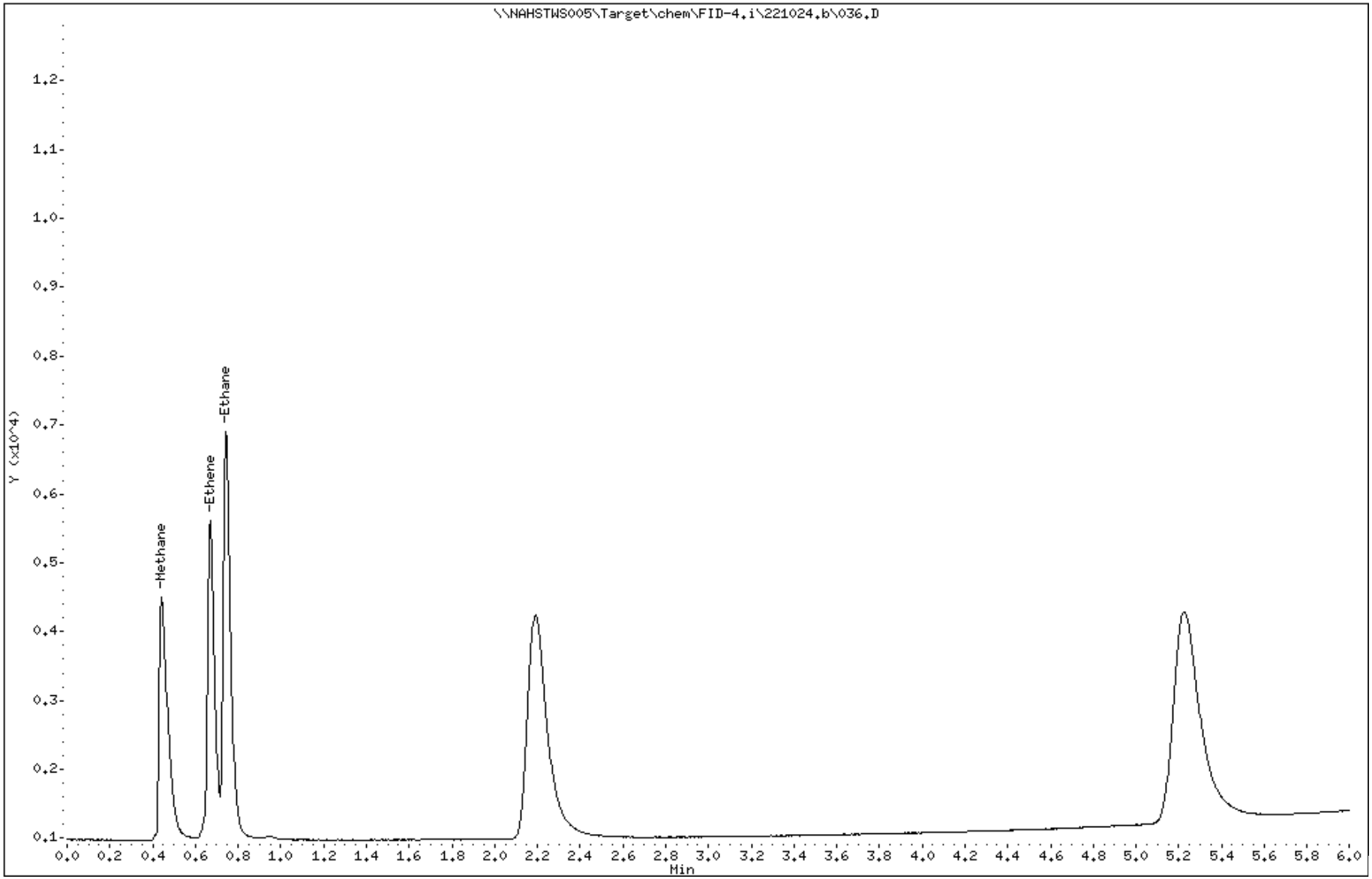
Instrument: FID-4.i

Sample Info: RSK-CCV;RSK-CCV;2;4

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



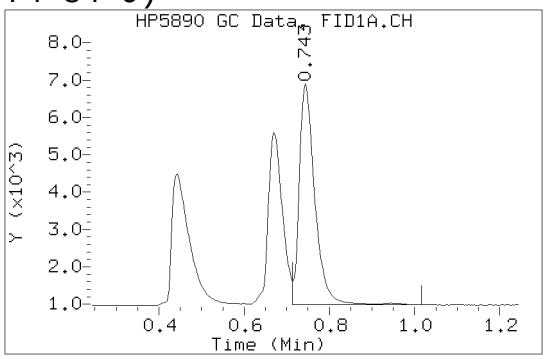
Data File : \\NAHSTWS005\Target\chem\FID-4.i\221024.b\036.D
Inj Date : 24-OCT-2022 14:54
InstruID : FID-4.i
LabSampID : RSK-CCV

Ethane (74-84-0)

Reason Code:

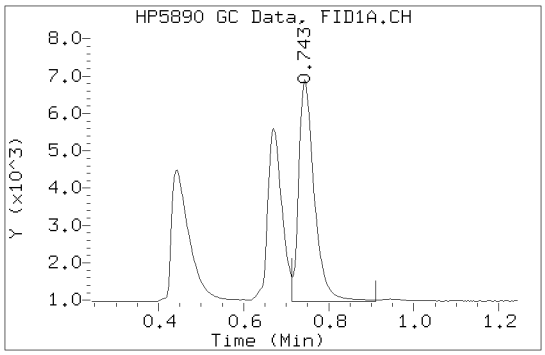
BEFORE

MASS
44
AREA
15047
HEIGHT
5916
24-Oct-2022
15:02
ALSHS
Server



AFTER

MASS
44
AREA
15122
HEIGHT
5932
25-Oct-2022
12:01
ALSHS
Ser



HS22100577 Wet Chemistry

ALS WO# HS22100577

C:\TOC-L\Data\2022_09_12_002.CAL.tlx

HS221005 77

	Type	Analysis	Sample Nam	Sample ID	Origin	Manual Diluti	Result	Notes	Status
1	Standard	NPOC	CAL	3100606211	09.12.2022.	1.000			Completed
2	Unknown	NPOC	ICV	3100606203	09.12.2022.	1.000	NPOC:10.12mg/		Completed
3	Unknown	NPOC	ICB		09.12.2022.	1.000	NPOC:0.2565mg		Completed

C:\TOC-L\Data\2022_09_12_002.CAL.tlx

	Date / Time	Vial
1	9/12/2022 3:	1, 2, 3, 4, 5,
2	9/12/2022 3:	8
3	9/12/2022 4:	1

TOC-Control L Report

2022_09_12_002.CAL.tlx

Instr.Information

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

Cal. Curve

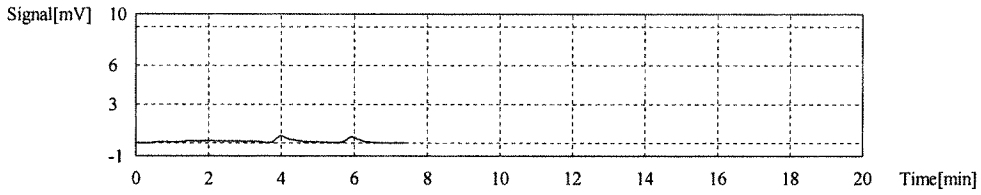
Sample Name:	CAL
Sample ID:	3100606211
Cal. Curve:	09.12.2022.2022_09_12_13_48_09.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1.724	50uL	1.000	*******		9/12/2022 1:58:20 PM
2	1.656	50uL	1.000	*******		9/12/2022 2:00:30 PM
3	1.075	50uL	1.000	*******		9/12/2022 2:02:37 PM

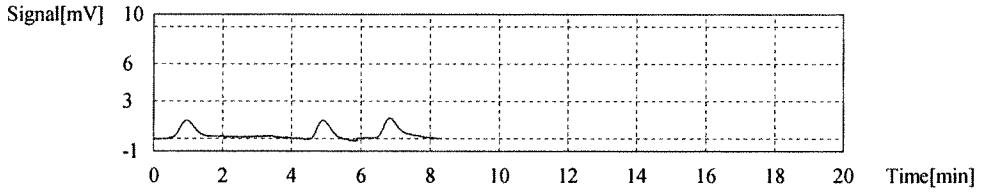
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	1.485



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.172	50uL	1.000	*******		9/12/2022 2:13:20 PM
2	4.566	50uL	1.000	*******		9/12/2022 2:15:31 PM
3	5.372	50uL	1.000	*******		9/12/2022 2:18:11 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	5.370



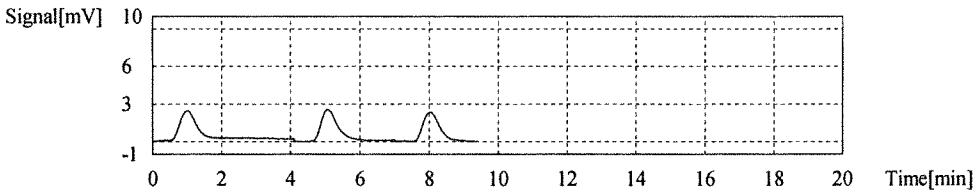
Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	9.434	50uL	1.000	*******		9/12/2022 2:29:04 PM
2	8.527	50uL	1.000	*******		9/12/2022 2:32:14 PM
3	7.960	50uL	1.000	*******		9/12/2022 2:34:50 PM

TOC-Control L Report

2022_09_12_002.CAL.tlx

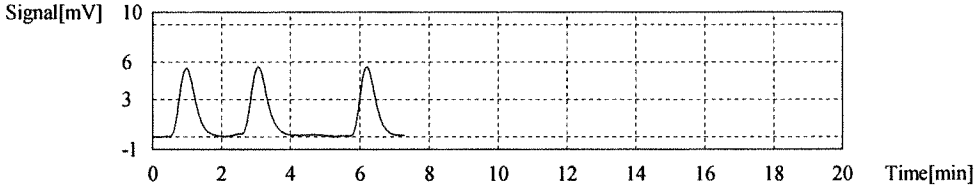
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 8.640



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	17.74	50uL	1.000	*******		9/12/2022 2:43:40 PM
2	19.48	50uL	1.000	*******		9/12/2022 2:47:03 PM
3	17.29	50uL	1.000	*******		9/12/2022 2:49:20 PM

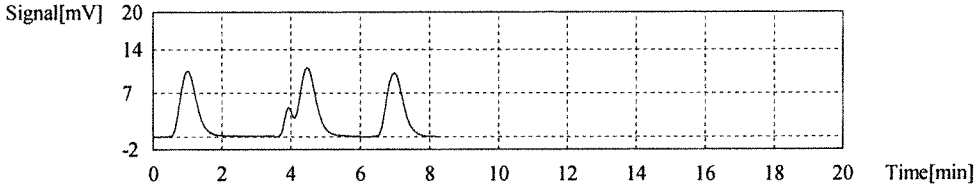
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 18.17



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	35.42	50uL	1.000	*******		9/12/2022 2:59:35 PM
2	44.64	50uL	1.000	*******		9/12/2022 3:02:21 PM
3	34.88	50uL	1.000	*******		9/12/2022 3:04:52 PM

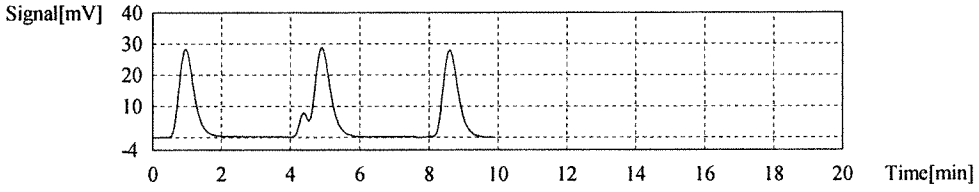
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 38.31



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	89.89	50uL	1.000	*******		9/12/2022 3:15:34 PM
2	104.9	50uL	1.000	*******		9/12/2022 3:19:31 PM
3	86.51	50uL	1.000	*******		9/12/2022 3:22:02 PM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 93.77



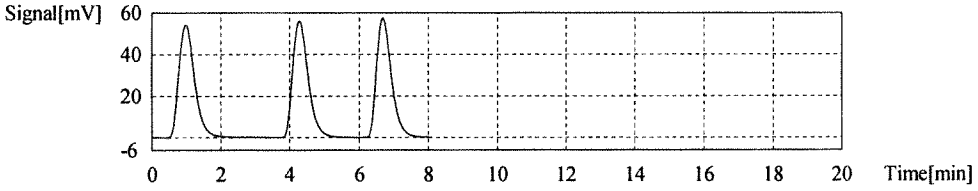
Conc: 50.00mg/L

TOC-Control L Report

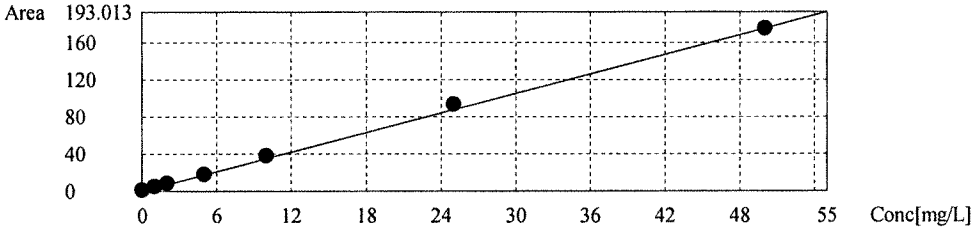
2022_09_12_002.CAL.tlx

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	176.2	50uL	1.000	*******		9/12/2022 3:32:07 PM
2	175.5	50uL	1.000	*******		9/12/2022 3:34:47 PM
3	174.7	50uL	1.000	*******		9/12/2022 3:37:18 PM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 175.5



Slope: 3.506
Intercept 0.000
r^2 0.9990
r 0.9995
RSE(%) N/A
Zero Shift Yes



Sample

Sample Name: ICV
Sample ID: 3100606203
Origin: 09.12.2022.cal
Status Completed
Chk. Result

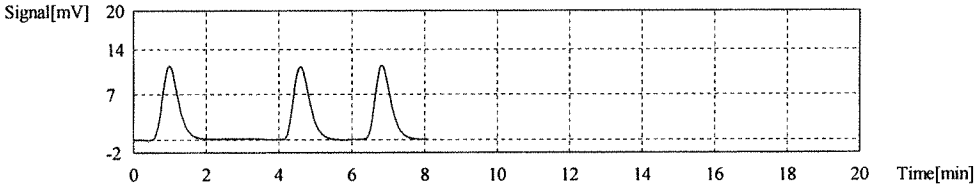
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.12mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	36.32	10.36mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	9/12/2022 3:47:42 PM
2	35.22	10.04mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	9/12/2022 3:50:09 PM
3	34.91	9.956mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	9/12/2022 3:52:36 PM

Mean Area 35.48
Mean Conc. 10.12mg/L



Sample

TOC-Control L Report

2022_09_12_002.CAL.tlx

Sample Name: ICB
Sample ID:
Origin: 09.12.2022.cal
Status Completed
Chk. Result

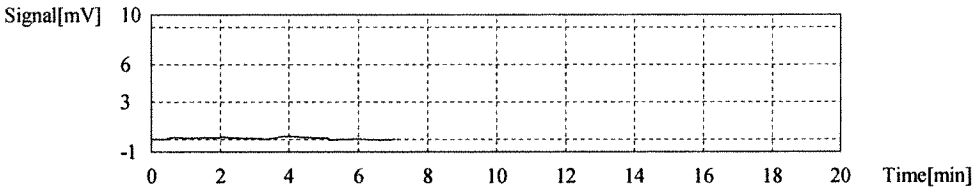
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2565mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.534	0.4375mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	9/12/2022 4:02:48 PM
2	0.9051	0.2581mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	9/12/2022 4:04:58 PM
3	0.2590	0.07387mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	9/12/2022 4:07:06 PM

Mean Area 0.8994
Mean Conc. 0.2565mg/L



C:\TOC-L\Data\2022_10_27_001.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes
1	Unknown	NPOC	CCV	320074508	09.12.2022.	1.000	NPOC:23.07mg/L	
2	Unknown	NPOC	CCB		09.12.2022.	1.000	NPOC:0.01272m	
3	Unknown	NPOC	MBLK-10272022		09.12.2022.	1.000	NPOC:0.00772m	
4	Unknown	NPOC	LCS-10272022	3100606203	09.12.2022.	1.000	NPOC:9.731mg/L	
5	Unknown	NPOC	LCSD-10272022		09.12.2022.	1.000	NPOC:9.737mg/L	
6	Unknown	NPOC	HS22100570-02DF20		09.12.2022.	1.000	NPOC:30.21mg/L	
7	Unknown	NPOC	HS22100570-03DF20		09.12.2022.	1.000	NPOC:21.74mg/L	
8	Unknown	NPOC	HS22100577-01		09.12.2022.	1.000	NPOC:1.233mg/L	
9	Unknown	NPOC	HS22100577-01MS		09.12.2022.	1.000	NPOC:10.83mg/L	
10	Unknown	NPOC	HS22100577-02		09.12.2022.	1.000	NPOC:2.074mg/L	
11	Unknown	NPOC	HS22100577-03		09.12.2022.	1.000	NPOC:1.784mg/L	
12	Unknown	NPOC	HS22100577-04		09.12.2022.	1.000	NPOC:2.417mg/L	
13	Unknown	NPOC	CCV	320074508	09.12.2022.	1.000	NPOC:22.86mg/L	
14	Unknown	NPOC	CCB		09.12.2022.	1.000	NPOC:0.1638mg/	
15	Unknown	NPOC	HS22100577-05		09.12.2022.	1.000	NPOC:1.689mg/L	
16	Unknown	NPOC	HS22100577-06		09.12.2022.	1.000	NPOC:1.655mg/L	
17	Unknown	NPOC	HS22100601-01		09.12.2022.	1.000	NPOC:12.56mg/L	
18	Unknown	NPOC	HS22100984-01		09.12.2022.	1.000	NPOC:11.96mg/L	
19	Unknown	NPOC	CCV	320074508	09.12.2022.	1.000	NPOC:22.96mg/L	
20	Unknown	NPOC	CCB		09.12.2022.	1.000	NPOC:0.03234m	
21	Unknown	NPOC	MBLK-10272022		09.12.2022.	1.000	NPOC:0.1335mg/	
22	Unknown	NPOC	LCS-10272022	3100606203	09.12.2022.	1.000	NPOC:9.744mg/L	
23	Unknown	NPOC	LCSD-10272022		09.12.2022.	1.000	NPOC:9.732mg/L	
24	Unknown	NPOC	HS22100599-01		09.12.2022.	1.000	NPOC:2.824mg/L	
25	Unknown	NPOC	HS22100599-01MS		09.12.2022.	1.000	NPOC:12.23mg/L	
26	Unknown	NPOC	CCV	320074508	09.12.2022.	1.000	NPOC:22.71mg/L	
27	Unknown	NPOC	CCB		09.12.2022.	1.000	NPOC:0.01907m	

C:\TOC-L\Data\2022_10_27_001.tlx

	Status	Date / Time	Vial
1	Completed	10/27/2022 12:29:3	1
2	Completed	10/27/2022 12:42:3	2
3	Completed	10/27/2022 12:55:2	3
4	Completed	10/27/2022 1:09:12	4
5	Completed	10/27/2022 1:23:01	5
6	Completed	10/27/2022 1:37:09	6
7	Completed	10/27/2022 1:51:21	7
8	Completed	10/27/2022 2:04:21	8
9	Completed	10/27/2022 2:18:07	9
10	Completed	10/27/2022 2:31:08	10
11	Completed	10/27/2022 2:47:01	11
12	Completed	10/27/2022 3:05:59	12
13	Completed	10/27/2022 3:21:17	1
14	Completed	10/27/2022 3:37:15	2
15	Completed	10/27/2022 3:53:27	13
16	Completed	10/27/2022 4:09:27	14
17	Completed	10/27/2022 4:26:08	15
18	Completed	10/27/2022 4:42:43	16
19	Completed	10/27/2022 4:57:35	1
20	Completed	10/27/2022 5:10:35	2
21	Completed	10/27/2022 5:26:32	3
22	Completed	10/27/2022 5:43:13	4
23	Completed	10/27/2022 5:59:42	5
24	Completed	10/27/2022 6:15:57	17
25	Completed	10/27/2022 6:32:36	18
26	Completed	10/27/2022 6:47:07	1
27	Completed	10/27/2022 7:00:02	2

TOC-Control L Report

2022_10_27_001.tlx

Instr.Information

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

Sample

Sample Name: CCV
Sample ID: 320074508
Origin: 09.12.2022.cal
Status: Completed
Chk. Result

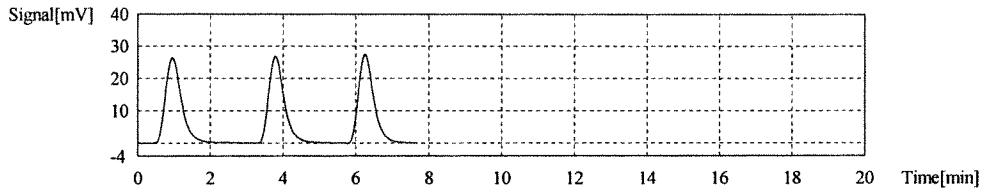
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.07mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.29	23.18mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 12:24:17 PM
2	80.69	23.01mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 12:27:01 PM
3	80.69	23.01mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 12:29:36 PM

Mean Area: 80.89
Mean Conc.: 23.07mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 09.12.2022.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01272mg/L

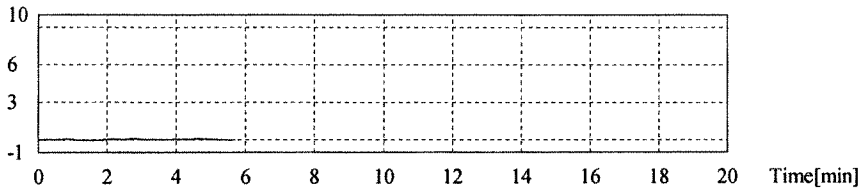
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	0.000mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 12:38:15 PM
2	0.1338	0.03816mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 12:40:25 PM
3	0.000	0.000mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 12:42:32 PM

TOC-Control L Report

Mean Area 0.04460
Mean Conc. 0.01272mg/L



Sample

Sample Name: MBLK-10272022
Sample ID:
Origin: 09.12.2022.cal
Status Completed
Chk. Result

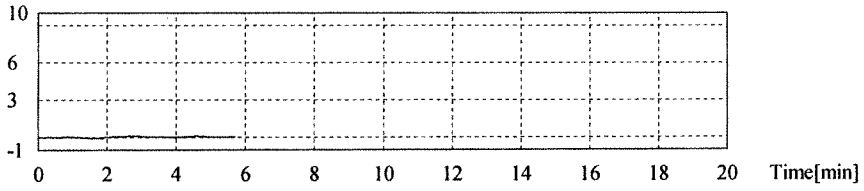
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.00772mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.08120	0.02316mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 12:51:11 PM
2	0.000	0.000mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 12:53:20 PM
3	0.000	0.000mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 12:55:27 PM

Mean Area 0.02707
Mean Conc. 0.00772mg/L



Sample

Sample Name: LCS-10272022
Sample ID: 3100606203
Origin: 09.12.2022.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.731mg/L

1. Det

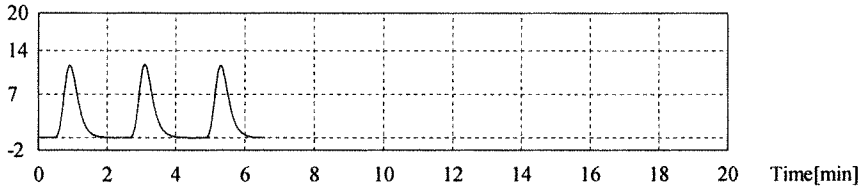
Anal.: NPOC

TOC-Control L Report

2022_10_27_001.tlx

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.14	9.737mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 1:04:23 PM
2	34.15	9.739mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 1:06:48 PM
3	34.07	9.717mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 1:09:12 PM

Mean Area 34.12
Mean Conc. 9.731mg/L



Sample

Sample Name: LCSD-10272022
Sample ID:
Origin: 09.12.2022.cal
Status Completed
Chk. Result

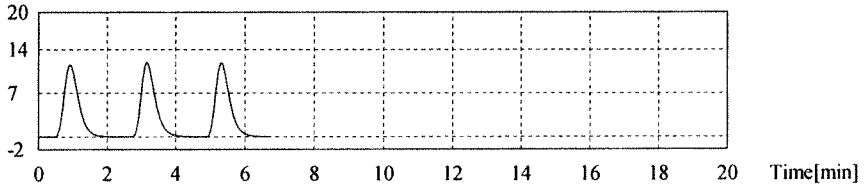
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.737mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.01	9.699mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 1:18:12 PM
2	34.35	9.796mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 1:20:34 PM
3	34.06	9.714mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 1:23:01 PM

Mean Area 34.14
Mean Conc. 9.737mg/L



Sample

Sample Name: HS22100577-01
Sample ID:
Origin: 09.12.2022.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.233mg/L

1. Det

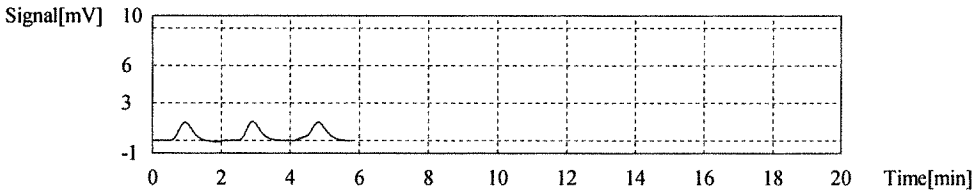
TOC-Control L Report

2022_10_27_001.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.197	1.197mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 2:00:05 PM
2	4.019	1.146mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 2:02:14 PM
3	4.756	1.356mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 2:04:21 PM

Mean Area 4.324
Mean Conc. 1.233mg/L



Sample

Sample Name: HS22100577-01MS
Sample ID:
Origin: 09.12.2022.cal
Status Completed
Chk. Result

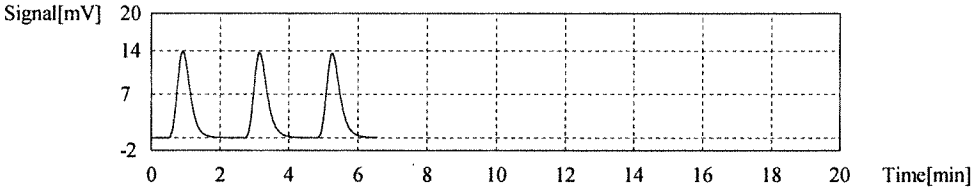
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.83mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.92	10.81mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 2:13:20 PM
2	37.96	10.83mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 2:15:40 PM
3	38.07	10.86mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 2:18:07 PM

Mean Area 37.98
Mean Conc. 10.83mg/L



Sample

Sample Name: HS22100577-02
Sample ID:
Origin: 09.12.2022.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.074mg/L

TOC-Control L Report

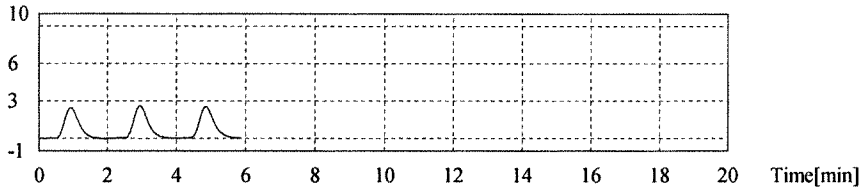
2022_10_27_001.tlx

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.135	2.035mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 2:26:52 PM
2	7.348	2.096mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 2:29:00 PM
3	7.337	2.092mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 2:31:08 PM

Mean Area 7.273
Mean Conc. 2.074mg/L



Sample

Sample Name: HS22100577-03
Sample ID:
Origin: 09.12.2022.cal
Status Completed
Chk. Result

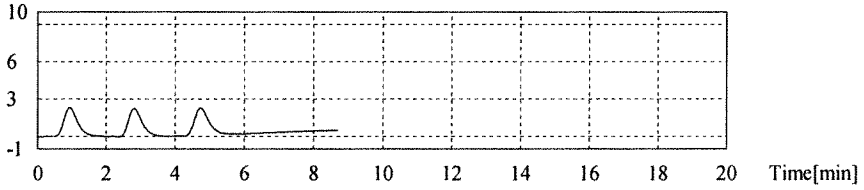
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.784mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.340	1.808mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 2:39:47 PM
2	6.144	1.752mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 2:41:54 PM
3	6.278	1.790mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 2:47:01 PM

Mean Area 6.254
Mean Conc. 1.784mg/L



Sample

Sample Name: HS22100577-04
Sample ID:
Origin: 09.12.2022.cal
Status Completed
Chk. Result

TOC-Control L Report

2022_10_27_001.tlx

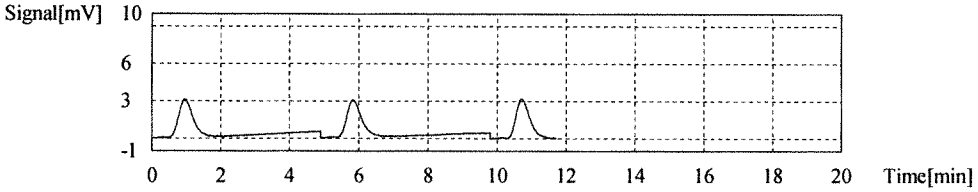
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.417mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.514	2.143mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 2:58:40 PM
2	8.925	2.545mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 3:03:49 PM
3	8.991	2.564mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 3:05:59 PM

Mean Area 8.477
Mean Conc. 2.417mg/L



Sample

Sample Name: CCV
Sample ID: 320074508
Origin: 09.12.2022.cal
Status Completed
Chk. Result

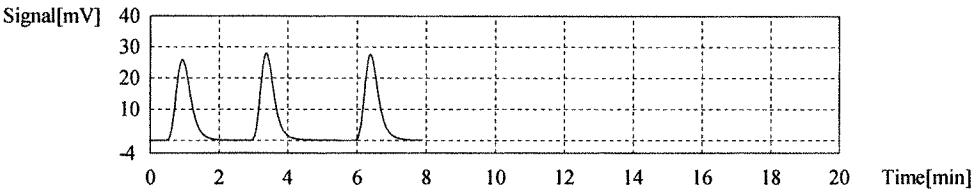
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.86mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.46	22.66mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 3:15:21 PM
2	81.21	23.16mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 3:18:37 PM
3	79.77	22.75mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 3:21:17 PM

Mean Area 80.15
Mean Conc. 22.86mg/L



Sample

TOC-Control L Report

2022_10_27_001.tlx

Sample Name: CCB
Sample ID:
Origin: 09.12.2022.cal
Status Completed
Chk. Result

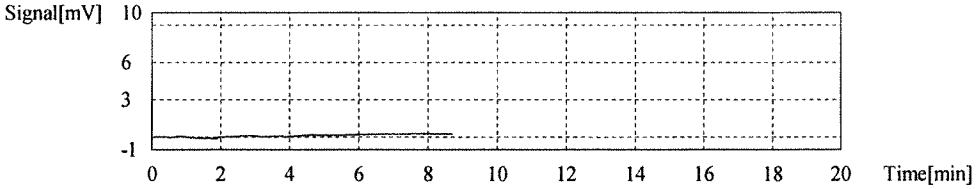
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1638mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1817	0.05182mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 3:29:56 PM
2	0.000	0.000mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 3:32:05 PM
3	1.541	0.4395mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 3:37:15 PM

Mean Area 0.5742
Mean Conc. 0.1638mg/L



Sample

Sample Name: HS22100577-05
Sample ID:
Origin: 09.12.2022.cal
Status Completed
Chk. Result

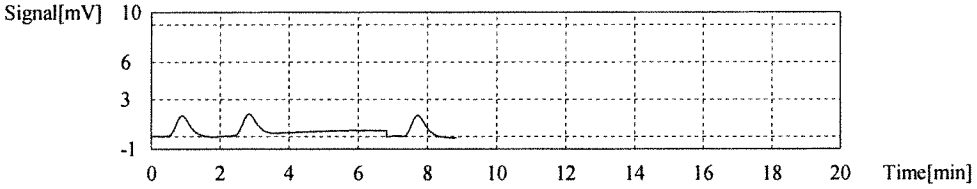
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.689mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.818	1.374mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 3:46:02 PM
2	7.474	2.132mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 3:51:11 PM
3	5.479	1.563mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 3:53:27 PM

Mean Area 5.924
Mean Conc. 1.689mg/L



TOC-Control L Report

2022_10_27_001.tlx

Sample

Sample Name: HS22100577-06
Sample ID:
Origin: 09.12.2022.cal
Status Completed
Chk. Result

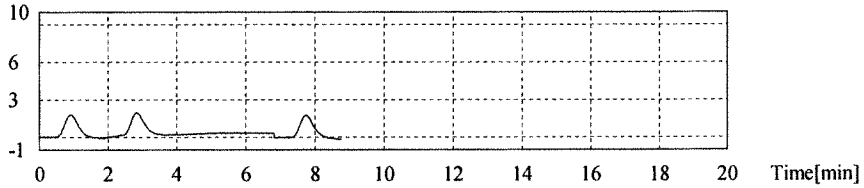
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.655mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.046	1.439mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 4:02:07 PM
2	7.232	2.063mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 4:07:16 PM
3	5.127	1.462mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 4:09:27 PM

Mean Area 5.802
Mean Conc. 1.655mg/L



Sample

Sample Name: CCV
Sample ID: 320074508
Origin: 09.12.2022.cal
Status Completed
Chk. Result

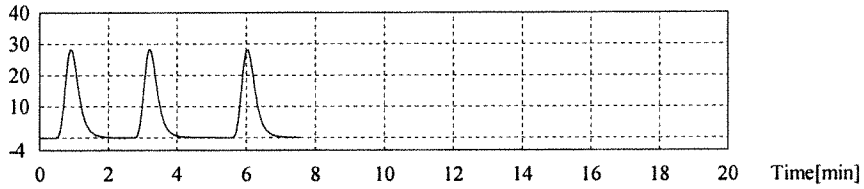
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.96mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.51	22.96mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 4:51:52 PM
2	80.52	22.96mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 4:54:55 PM
3	80.51	22.96mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 4:57:35 PM

Mean Area 80.51
Mean Conc. 22.96mg/L



TOC-Control L Report

2022_10_27_001.tlx

Sample

Sample Name: CCB
Sample ID:
Origin: 09.12.2022.cal
Status Completed
Chk. Result

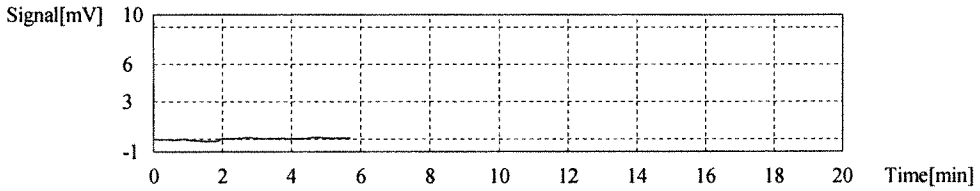
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03234mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.09700	0.02766mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 5:06:14 PM
2	0.1099	0.03134mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 5:08:26 PM
3	0.1333	0.03802mg/L	50uL	1.000		09.12.2022.2022_09_12_13_48_09.cal	10/27/2022 5:10:35 PM

Mean Area 0.1134
Mean Conc. 0.03234mg/L



HS22100577 9056_W IC

ALS WO# HS22100577

Sequence: 101222
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method	Processing Method	Volume	Status
	STD1		Calibratio	RA1	1.00	1	Anions Program IS	Anions Processing Method ISO	5.0	Finished
	STD2		Calibratio	RA2	1.00	2	Anions Program IS	Anions Processing Method ISO	5.0	Finished
	STD3		Calibratio	RA3	1.00	3	Anions Program IS	Anions Processing Method ISO	5.0	Finished
	STD4		Calibratio	RA4	1.00	4	Anions Program IS	Anions Processing Method ISO	5.0	Finished
	STD5		Calibratio	RA5	1.00	5	Anions Program IS	Anions Processing Method ISO	5.0	Finished
	STD6		Calibratio	RA6	1.00	6	Anions Program IS	Anions Processing Method ISO	5.0	Finished
	ICV		Unknown	RA7	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	ICB		Unknown	RA8	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	CCV1		Unknown	R3	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	CCB		Unknown	R7	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	MBLK	9056-W-SH	Unknown	R5	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	LCS		Unknown	R1	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	LCSD		Unknown	R2	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	HS22100577-01		Unknown	GC2	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	HS22100577-01MS		Unknown	GC3	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	HS22100577-01MSD		Unknown	GC4	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	HS22100577-01DF10		Unknown	GC5	10.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	HS22100577-02		Unknown	GC6	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	HS22100577-02DF10		Unknown	GC7	10.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	CCV		Unknown	R1	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	CCB		Unknown	R4	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	HS22100577-03		Unknown	GC8	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	HS22100577-03DF10		Unknown	GD1	10.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	HS22100577-04		Unknown	GD2	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	HS22100577-04DF5		Unknown	GD3	5.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	HS22100577-05DF5		Unknown	GD4	5.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	HS22100577-05DF50		Unknown	GD5	50.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	HS22100577-06DF5		Unknown	GD6	5.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	HS22100577-06DF50		Unknown	GD7	50.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	CCV1		Unknown	R3	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	CCB		Unknown	R8	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	CCV		Unknown	R1	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished
	CCB		Unknown	R4	1.00		Anions Program IS	Anions Processing Method ISO	5.0	Finished

Sequence: 101222
Last Update Operator: alshs.nouser

Inject Time
10/10/2022 7:37:40 AM -05:00
10/10/2022 7:42:57 AM -05:00
10/10/2022 7:48:14 AM -05:00
10/10/2022 7:53:31 AM -05:00
10/10/2022 7:58:49 AM -05:00
10/10/2022 8:04:06 AM -05:00
10/10/2022 8:09:23 AM -05:00
10/10/2022 8:25:13 AM -05:00
10/12/2022 4:17:17 PM -05:00
10/12/2022 4:22:34 PM -05:00
10/12/2022 4:33:09 PM -05:00
10/12/2022 4:47:19 PM -05:00
10/12/2022 4:52:36 PM -05:00
10/12/2022 4:57:53 PM -05:00
10/12/2022 5:03:11 PM -05:00
10/12/2022 5:08:28 PM -05:00
10/12/2022 5:13:45 PM -05:00
10/12/2022 5:19:02 PM -05:00
10/12/2022 5:24:20 PM -05:00
10/12/2022 5:40:12 PM -05:00
10/12/2022 5:45:29 PM -05:00
10/12/2022 5:50:46 PM -05:00
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10/12/2022 8:08:15 PM -05:00

Sequence: 101322
Injection #6: STD6

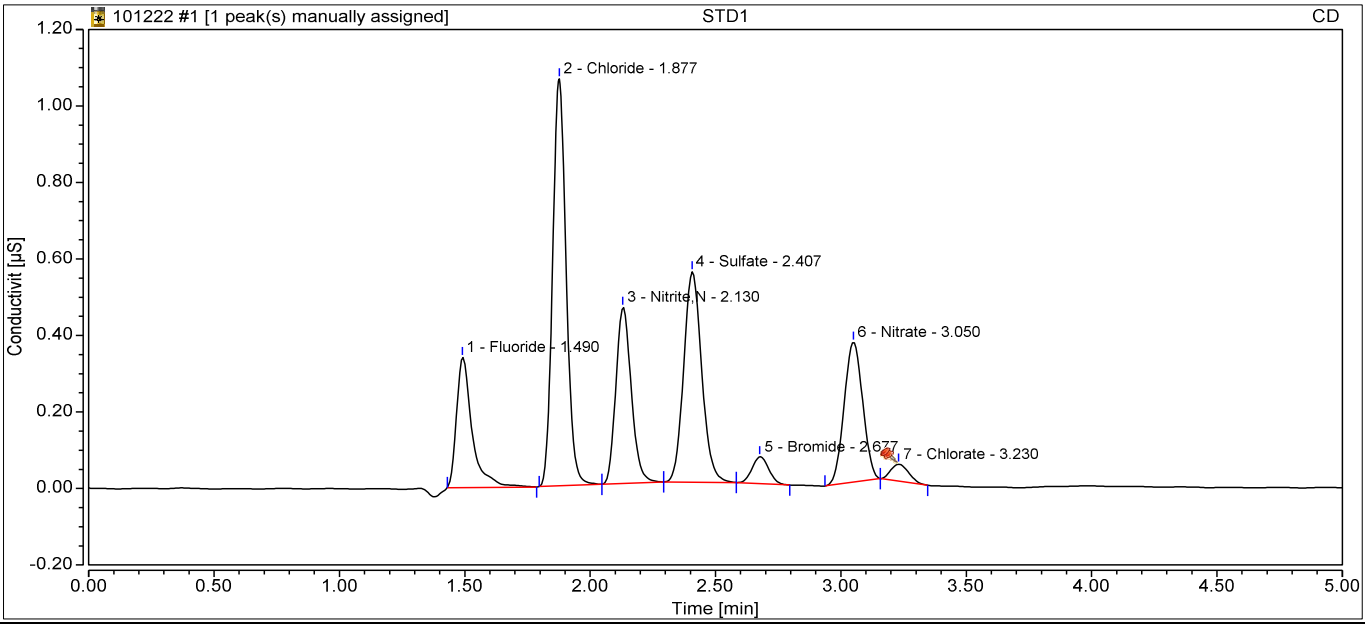
Calibration

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*	*20.0145*	*0.99752*	*0.0077*	*0.2078*	*0.0000*
2	Chloride	Lin, WithOffset, 1/	Area	6	6.3852	0.99979	-0.0035	0.1405	0.0000
3	Nitrite,N	Quad, WithOffset,	Area	6	5.3246	0.99985	0.0020	0.3117	-0.0039
4	Sulfate	Lin, WithOffset, 1/	Area	6	8.4228	0.99963	-0.0024	0.1017	0.0000
5	Bromide	Lin, WithOffset, 1/	Area	6	4.7119	0.99989	-0.0010	0.0606	0.0000
6	Nitrate	Lin, WithOffset, 1/	Area	6	10.4951	0.99943	-0.0017	0.3330	0.0000
7	Chlorate	Lin, WithOffset, 1/	Area	6	21.6341	0.99741	0.0004	0.0371	0.0000
8	Phosphate	Lin, WithOffset, 1/	Area	5	11.1419	0.99885	-0.0380	0.1188	0.0000
Maximum					**21.6341**	0.99989			
Minimum					4.7119	**0.99741**			

1 STD1

Sample Name:	**STD1**	*Injection Volume:*	**5.00**
Vial Number:	**RA1**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/10/2022 07:37**	*Sample Weight:*	**1.0000**

Run Time:

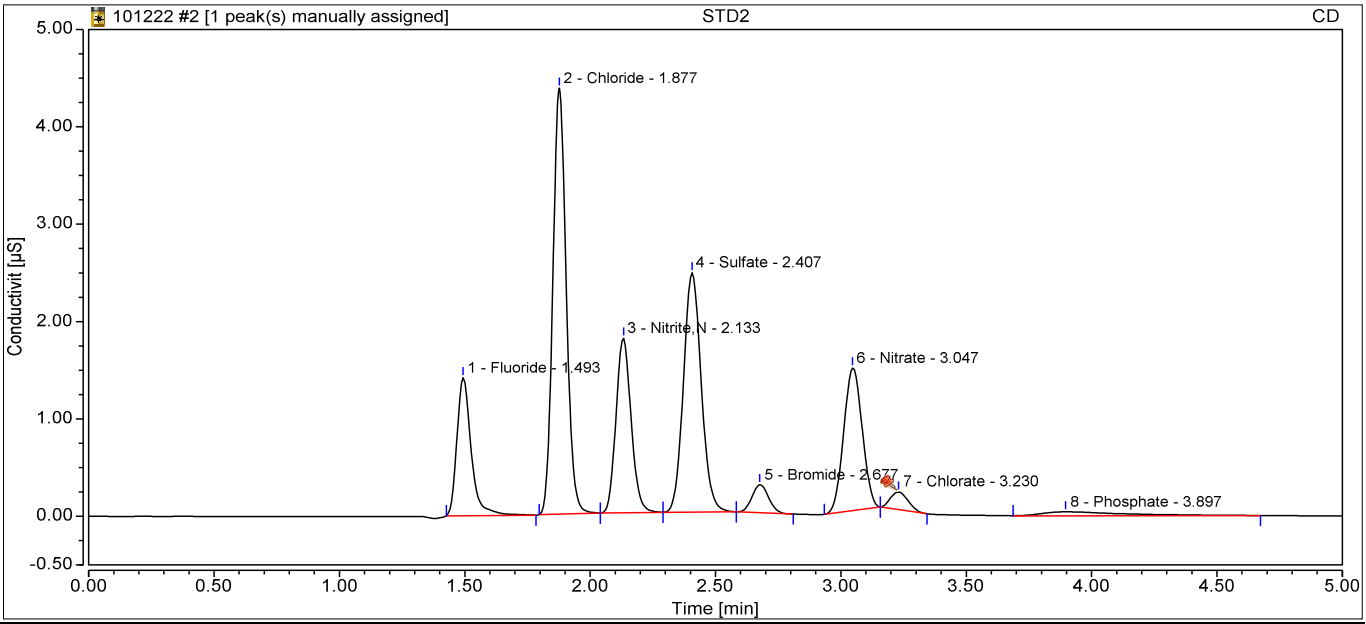


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.025	0.0811	0.0811	1.0000
2	1.88	Chloride	BMB	0.066	0.4976	0.4976	1.0000
3	2.13	Nitrite,N	BMB	0.033	0.0990	0.0990	1.0000
4	2.41	Sulfate	BMB	0.046	0.4740	0.4740	1.0000
5	2.68	Bromide	BMB	0.005	0.1056	0.1056	1.0000
6	3.05	Nitrate	BMB	0.031	0.0994	0.0994	1.0000
7	3.23	Chlorate	BMB^	0.004	0.0889	0.0889	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.210**		**1.45**	

2 STD2			
Sample Name:	**STD2**	*Injection Volume:*	**5.00**
Vial Number:	**RA2**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/10/2022 07:42**	*Sample Weight:*	**1.0000**

Run Time:



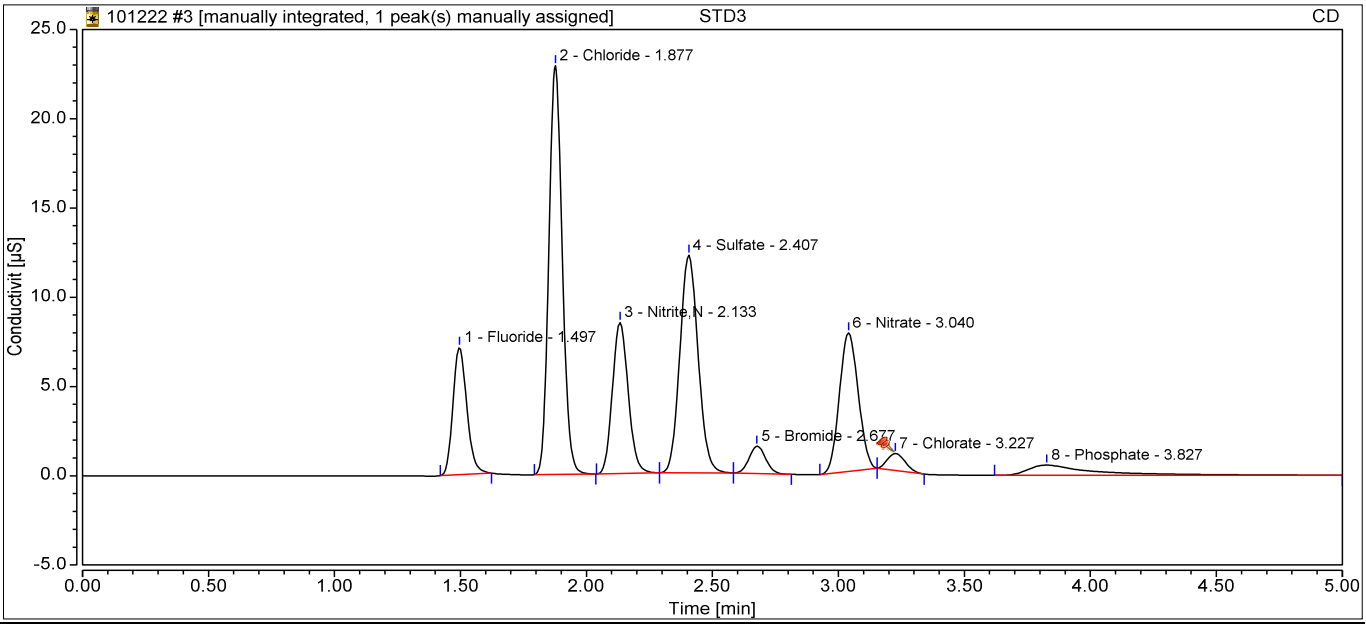
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.094	0.4131	0.4131	1.0000
2	1.88	Chloride	BMB	0.270	1.9442	1.9442	1.0000
3	2.13	Nitrite,N	BMB	0.125	0.3979	0.3979	1.0000
4	2.41	Sulfate	BMB	0.202	2.0126	2.0126	1.0000
5	2.68	Bromide	BMB	0.022	0.3815	0.3815	1.0000
6	3.05	Nitrate	BMB	0.126	0.3822	0.3822	1.0000
7	3.23	Chlorate	BMB^	0.015	0.3908	0.3908	1.0000
8	3.90	Phosphate	BMB	0.015	0.4466	0.4466	1.0000
Total:			**0.000**	**0.869**		**6.37**	

3 STD3

Sample Name:	**STD3**	*Injection Volume:*	**5.00**
Vial Number:	**RA3**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/10/2022 07:48**	*Sample Weight:*	**1.0000**

Run Time:



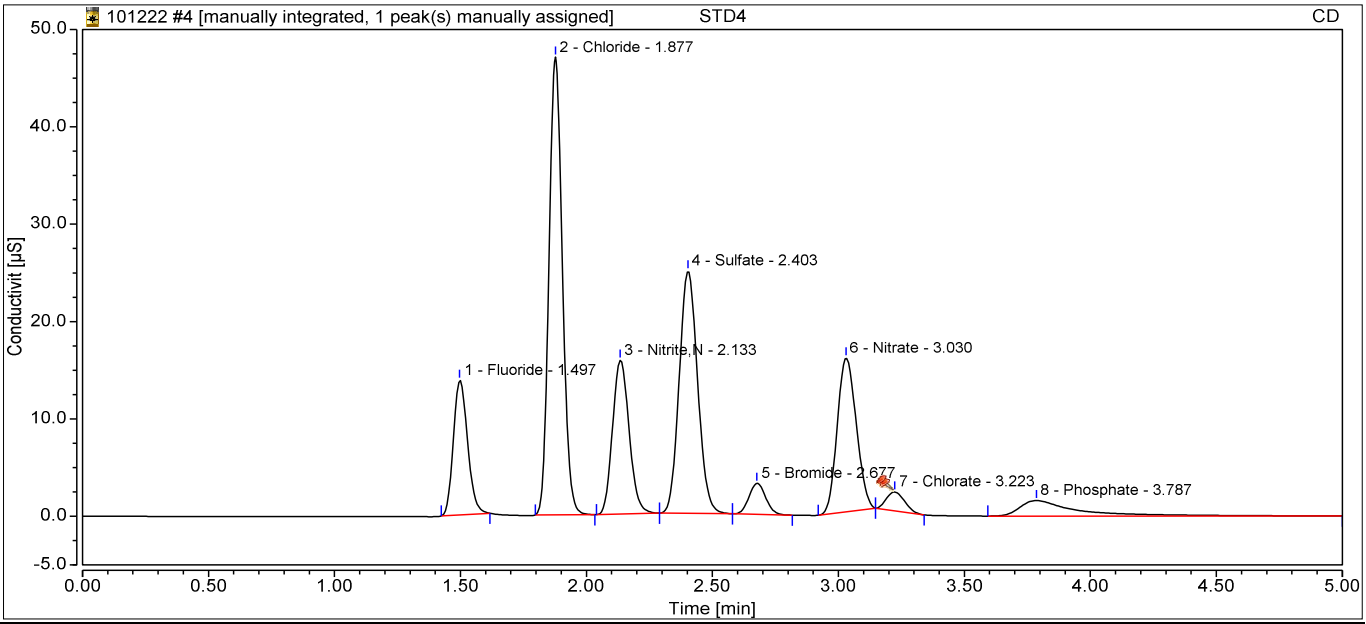
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB*	0.458	2.1654	2.1654	1.0000
2	1.88	Chloride	BMB	1.406	10.0344	10.0344	1.0000
3	2.13	Nitrite,N	BMB	0.615	2.0182	2.0182	1.0000
4	2.41	Sulfate	BMB	1.025	10.1022	10.1022	1.0000
5	2.68	Bromide	BMB	0.117	1.9479	1.9479	1.0000
6	3.04	Nitrate	BMB	0.669	2.0137	2.0137	1.0000
7	3.23	Chlorate	BMB^	0.078	2.0963	2.0963	1.0000
8	3.83	Phosphate	BMB	0.176	1.8044	1.8044	1.0000
Total:			**0.000**	**4.545**		**32.18**	

4 STD4

Sample Name:	**STD4**	*Injection Volume:*	**5.00**
Vial Number:	**RA4**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/10/2022 07:53**	*Sample Weight:*	**1.0000**

Run Time:



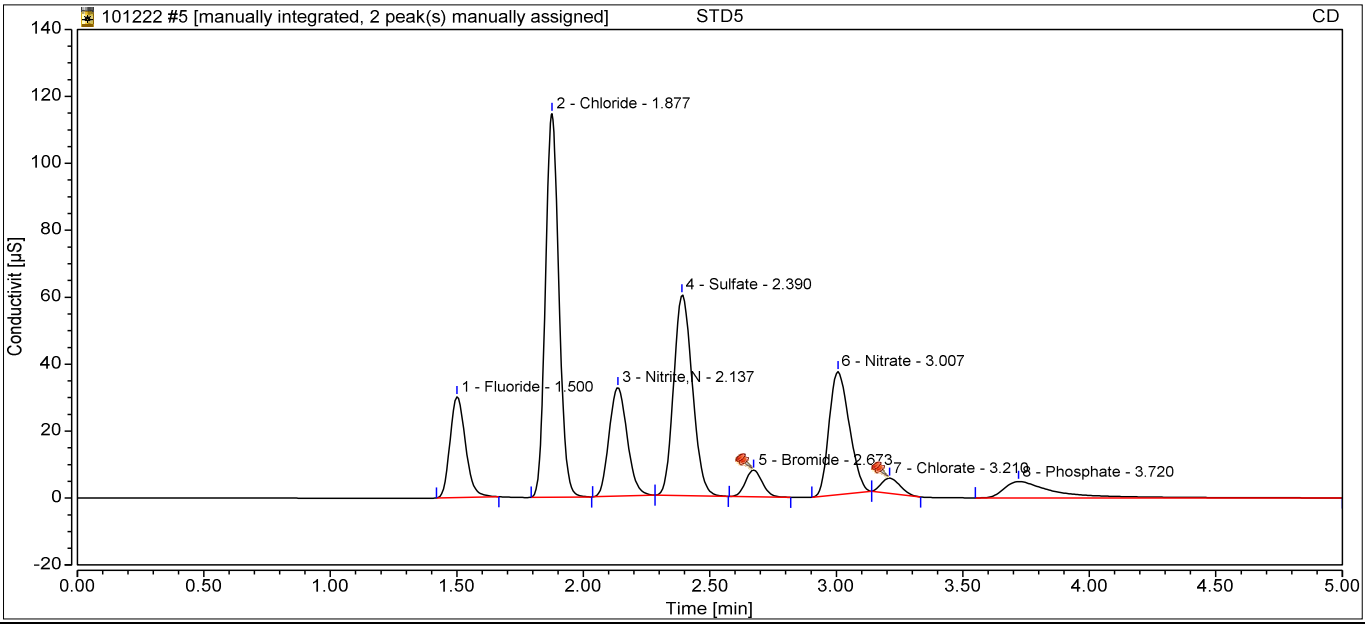
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB*	0.909	4.3400	4.3400	1.0000
2	1.88	Chloride	BMB	2.892	20.6079	20.6079	1.0000
3	2.13	Nitrite,N	BMB	1.208	4.0770	4.0770	1.0000
4	2.40	Sulfate	BMB	2.106	20.7353	20.7353	1.0000
5	2.68	Bromide	BMB	0.245	4.0508	4.0508	1.0000
6	3.03	Nitrate	BMB	1.385	4.1637	4.1637	1.0000
7	3.22	Chlorate	BMB^	0.162	4.3494	4.3494	1.0000
8	3.79	Phosphate	BMB	0.424	3.8846	3.8846	1.0000
Total:			**0.000**	**9.331**		**66.21**	

5 STD5

Sample Name:	**STD5**	*Injection Volume:*	**5.00**
Vial Number:	**RA5**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/10/2022 07:58**	*Sample Weight:*	**1.0000**

Run Time:



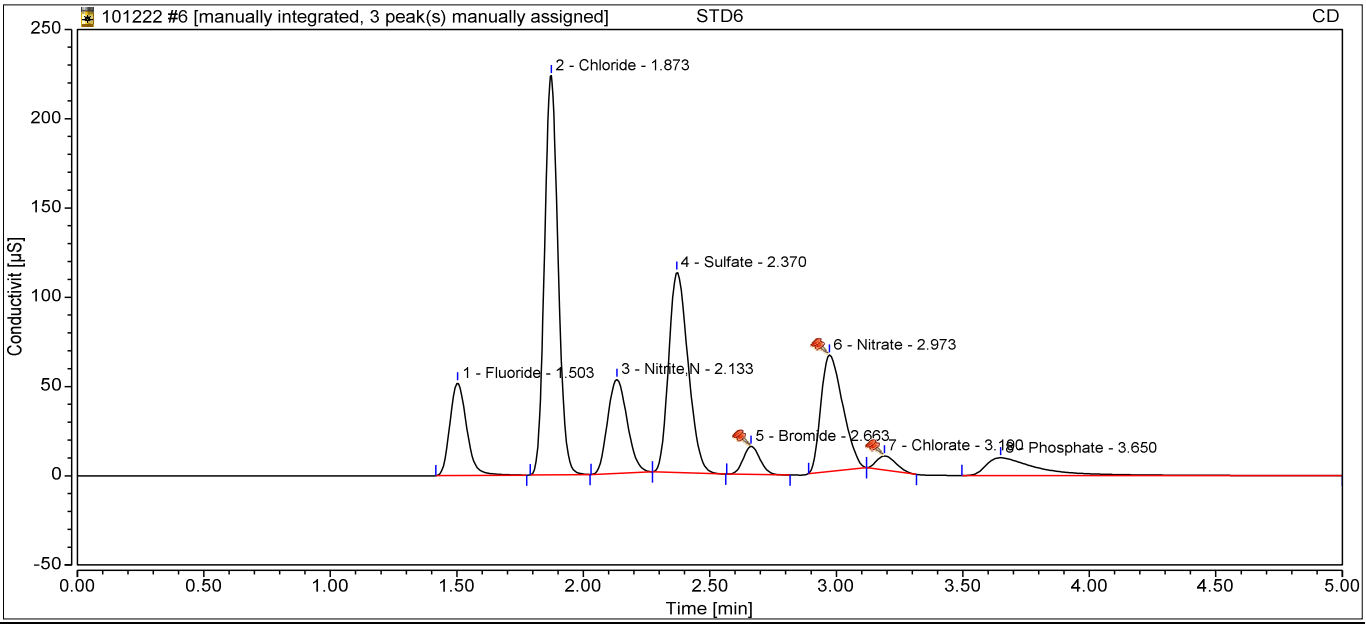
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB*	2.143	10.2751	10.2751	1.0000
2	1.88	Chloride	BMB	7.087	50.4701	50.4701	1.0000
3	2.14	Nitrite,N	BMB	2.690	9.8196	9.8196	1.0000
4	2.39	Sulfate	BMB	5.152	50.6944	50.6944	1.0000
5	2.67	Bromide	BMB^	0.609	10.0632	10.0632	1.0000
6	3.01	Nitrate	BMB	3.401	10.2161	10.2161	1.0000
7	3.21	Chlorate	BMB^	0.386	10.4063	10.4063	1.0000
8	3.72	Phosphate	BMB	1.143	9.9388	9.9388	1.0000
Total:			**0.000**	**22.611**		**161.88**	

6 STD6

Sample Name:	**STD6**	*Injection Volume:*	**5.00**
Vial Number:	**RA6**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/10/2022 08:04**	*Sample Weight:*	**1.0000**

Run Time:



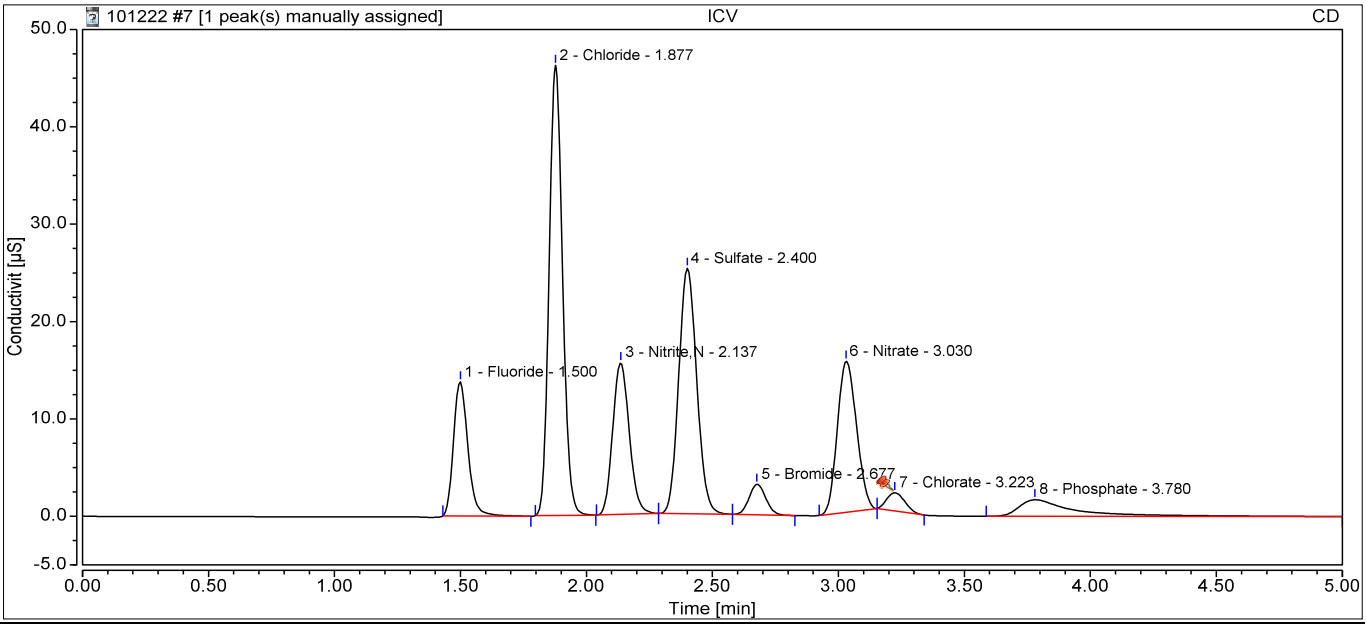
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	4.002	19.2253	19.2253	1.0000
2	1.87	Chloride	BMB	13.898	98.9458	98.9458	1.0000
3	2.13	Nitrite,N	BMB	4.705	20.1044	20.1044	1.0000
4	2.37	Sulfate	BMB	10.011	98.4814	98.4814	1.0000
5	2.66	Bromide	BMB^	1.209	19.9510	19.9510	1.0000
6	2.97	Nitrate	BMb*^	6.534	19.6249	19.6249	1.0000
7	3.19	Chlorate	bMB*^	0.712	19.1685	19.1685	1.0000
8	3.65	Phosphate	BMB	2.377	20.3256	20.3256	1.0000
Total:			**0.000**	**43.448**		**315.83**	

7 ICV

Sample Name:	**ICV**	*Injection Volume:*	**5.00**
Vial Number:	**RA7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/10/2022 08:09**	*Sample Weight:*	**1.0000**

Run Time:



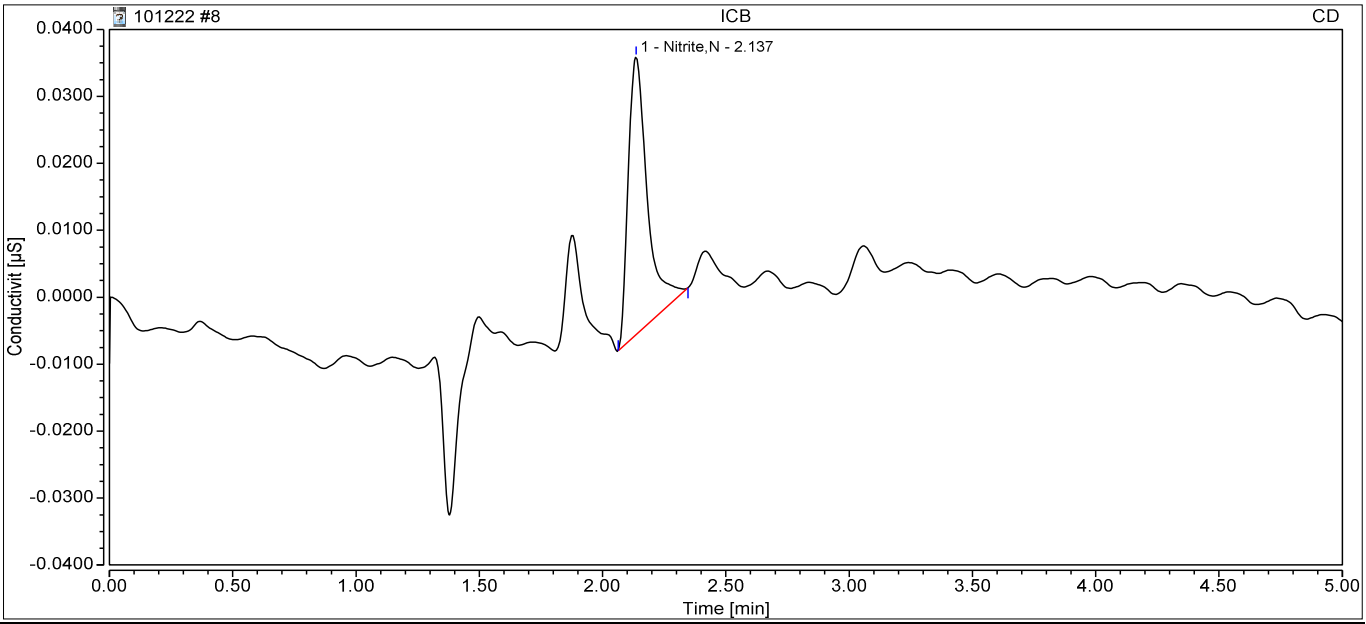
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	0.915	4.3668	4.3668	1.0000
2	1.88	Chloride	BMB	2.843	20.2631	20.2631	1.0000
3	2.14	Nitrite,N	BMB	1.187	4.0017	4.0017	1.0000
4	2.40	Sulfate	BMB	2.089	20.5666	20.5666	1.0000
5	2.68	Bromide	BMB	0.240	3.9812	3.9812	1.0000
6	3.03	Nitrate	BMB	1.368	4.1124	4.1124	1.0000
7	3.22	Chlorate	BMB^	0.157	4.2195	4.2195	1.0000
8	3.78	Phosphate	BMB	0.448	4.0869	4.0869	1.0000
Total:			**0.000**	**9.247**		**65.60**	

8 ICB

Sample Name:	**ICB**	*Injection Volume:*	**5.00**
Vial Number:	**RA8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/10/2022 08:25**	*Sample Weight:*	**1.0000**

Run Time:



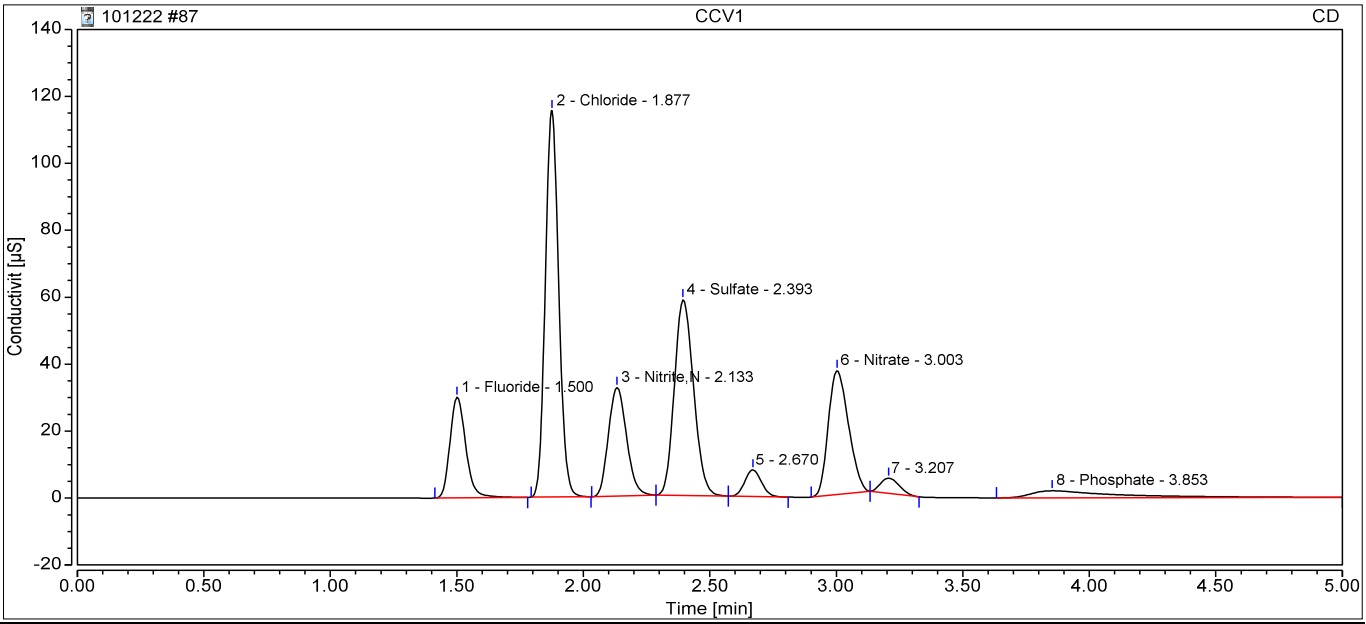
Integration Results

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
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.14	Nitrite,N	BMB	0.004	0.0055	0.0055	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**	**0.004**		**0.01**	

87 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 16:17**	*Sample Weight:*	**1.0000**

Run Time:



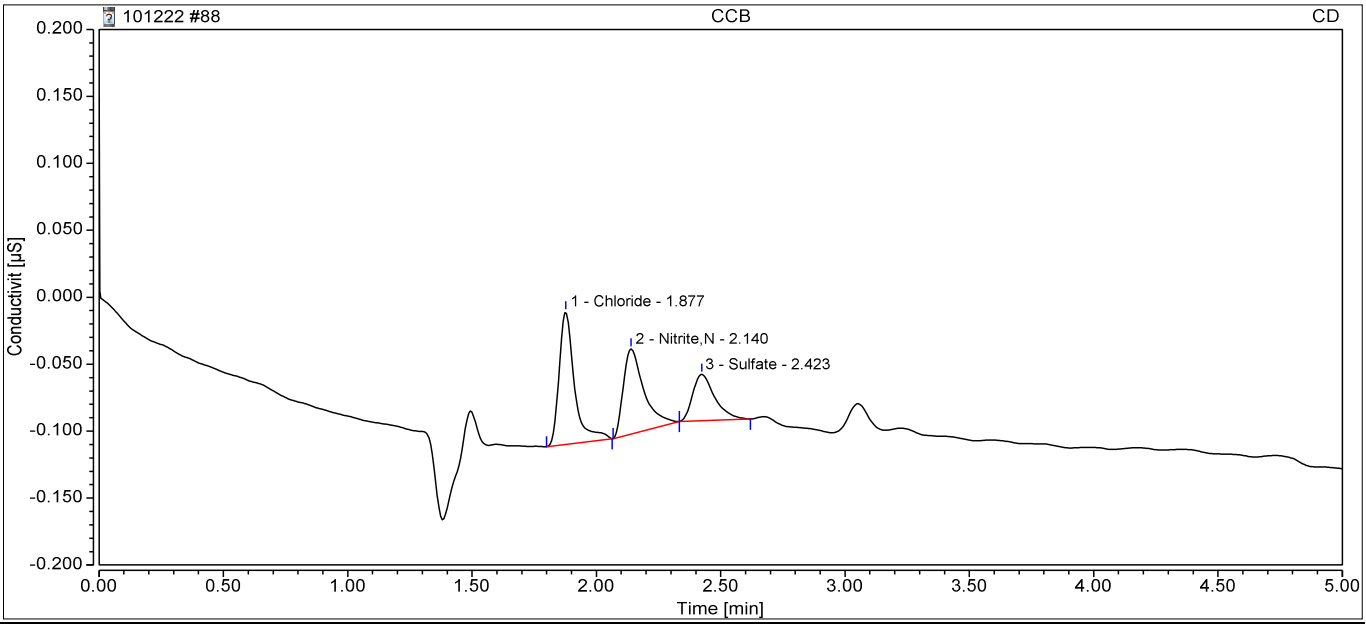
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	2.188	10.4950	10.4950	1.0000
2	1.88	Chloride	BMB	7.109	50.6241	50.6241	1.0000
3	2.13	Nitrite,N	BMB	2.700	9.8629	9.8629	1.0000
4	2.39	Sulfate	BMB	5.148	50.6576	50.6576	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
6	3.00	Nitrate	BMB	3.417	10.2661	10.2661	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
8	3.85	Phosphate	BMB	0.836	7.3527	7.3527	1.0000
Total:			**0.000**	**21.399**		**139.26**	

88 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 16:22**	*Sample Weight:*	**1.0000**

Run Time:



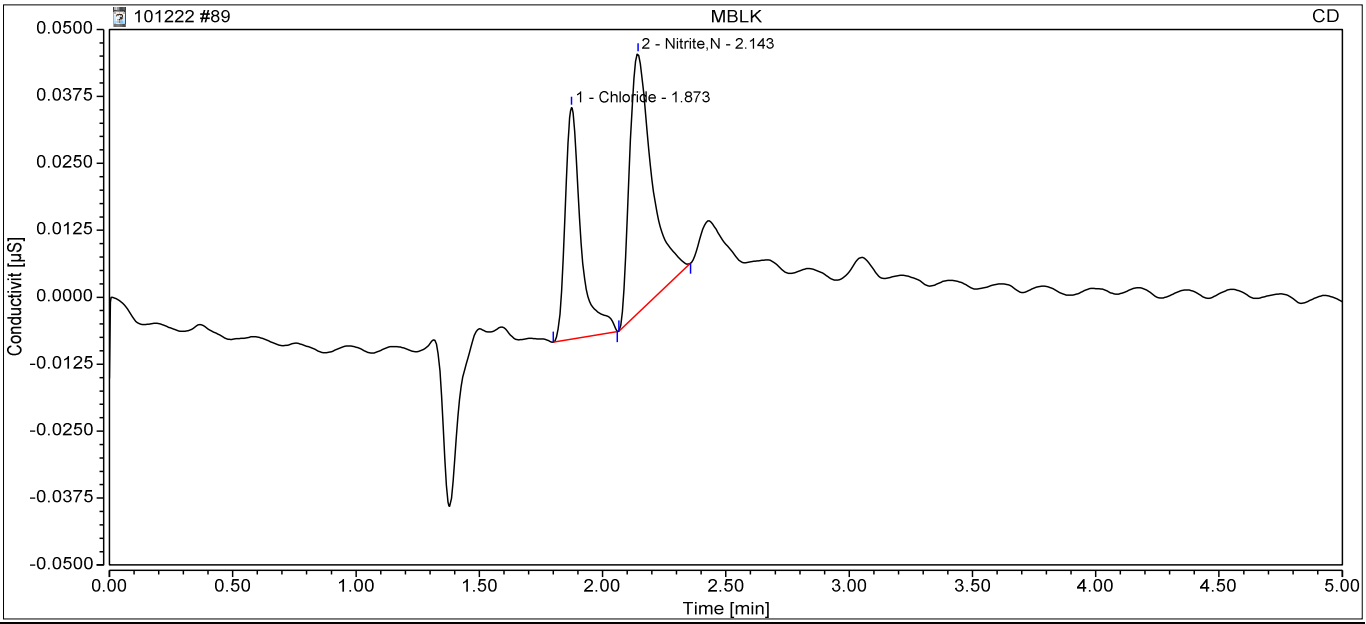
Integration Results

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	0.007	0.0759	0.0759	1.0000
2	2.14	Nitrite,N	BMB	0.006	0.0131	0.0131	1.0000
3	2.42	Sulfate	BMB	0.004	0.0584	0.0584	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**	**0.017**		**0.15**	

89 MBLK

Sample Name:	**MBLK**	*Injection Volume:*	**5.00**
Vial Number:	**R5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 16:33**	*Sample Weight:*	**1.0000**

Run Time:

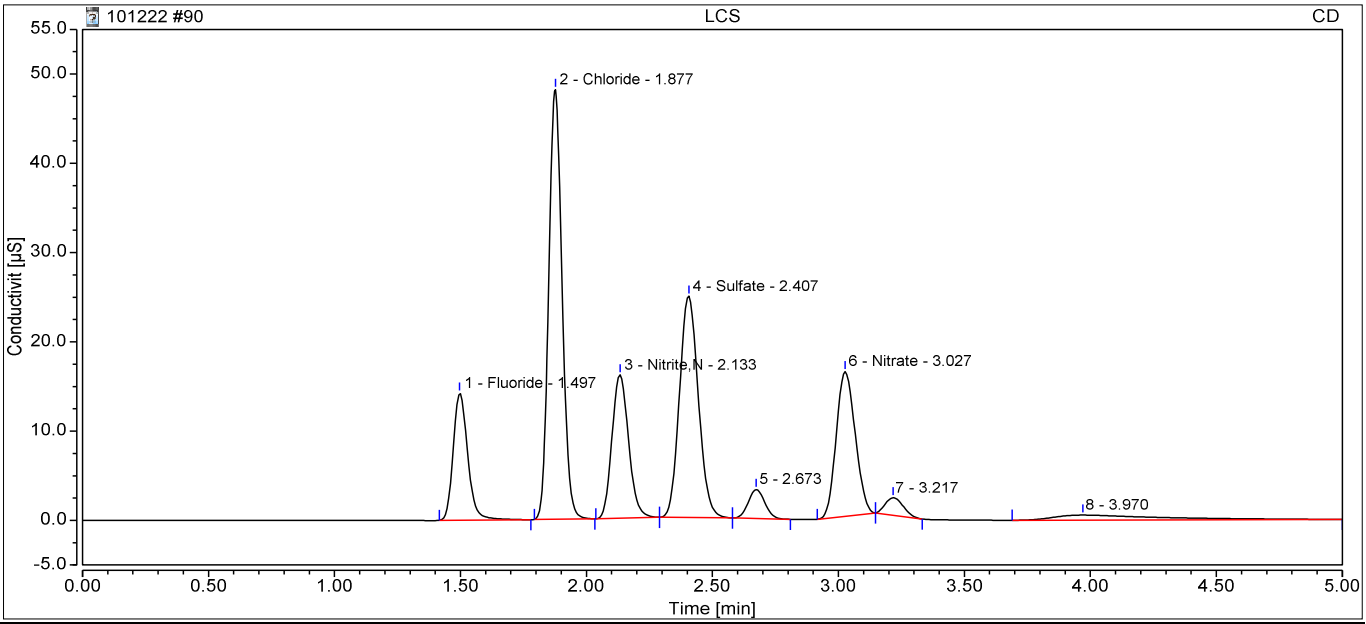


Integration Results

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
1	1.87	Chloride	BMB	0.003	0.0485	0.0485	1.0000
2	2.14	Nitrite,N	BMB	0.005	0.0099	0.0099	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**	**0.008**		**0.06**	

90 LCS			
Sample Name:	**LCS**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 16:47**	*Sample Weight:*	**1.0000**

Run Time:

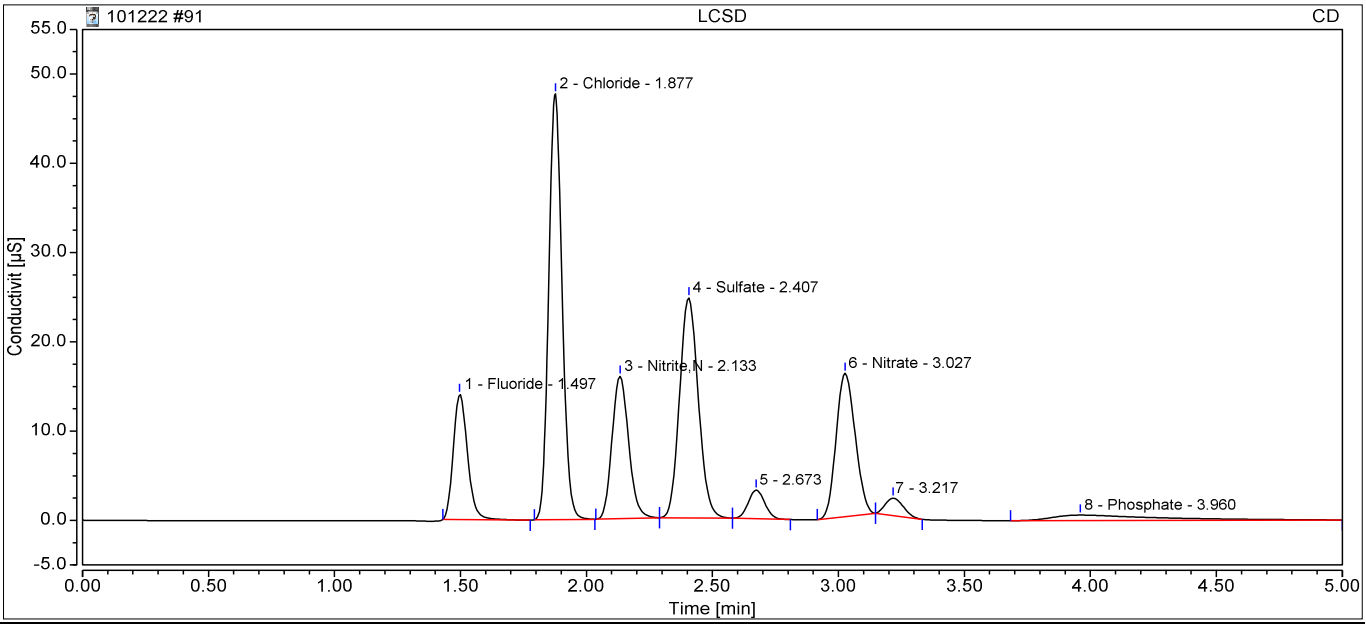


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	0.959	4.5797	4.5797	1.0000
2	1.88	Chloride	BMB	2.950	21.0237	21.0237	1.0000
3	2.13	Nitrite,N	BMB	1.229	4.1501	4.1501	1.0000
4	2.41	Sulfate	BMB	2.153	21.2007	21.2007	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
6	3.03	Nitrate	BMB	1.415	4.2545	4.2545	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**	**8.707**		**55.21**	

91 LCSD			
Sample Name:	**LCSD**	*Injection Volume:*	**5.00**
Vial Number:	**R2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 16:52**	*Sample Weight:*	**1.0000**

Run Time:

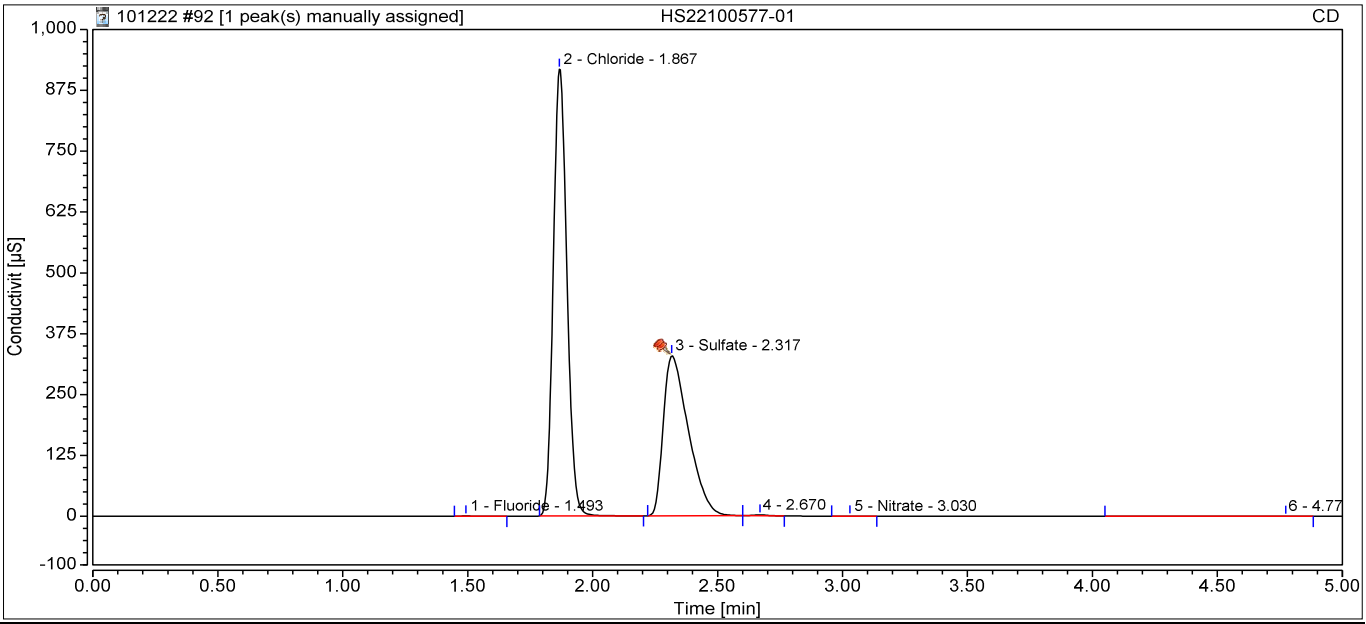


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	0.926	4.4192	4.4192	1.0000
2	1.88	Chloride	BMB	2.920	20.8074	20.8074	1.0000
3	2.13	Nitrite,N	BMB	1.219	4.1131	4.1131	1.0000
4	2.41	Sulfate	BMB	2.127	20.9387	20.9387	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
6	3.03	Nitrate	BMB	1.403	4.2186	4.2186	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
8	3.96	Phosphate	BMB	0.301	2.8490	2.8490	1.0000
Total:			**0.000**	**8.895**		**57.35**	

92	*HS22100577-01*		
Sample Name:	**HS22100577-01**	*Injection Volume:*	**5.00**
Vial Number:	**GC2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 16:57**	*Sample Weight:*	**1.0000**

Run Time:



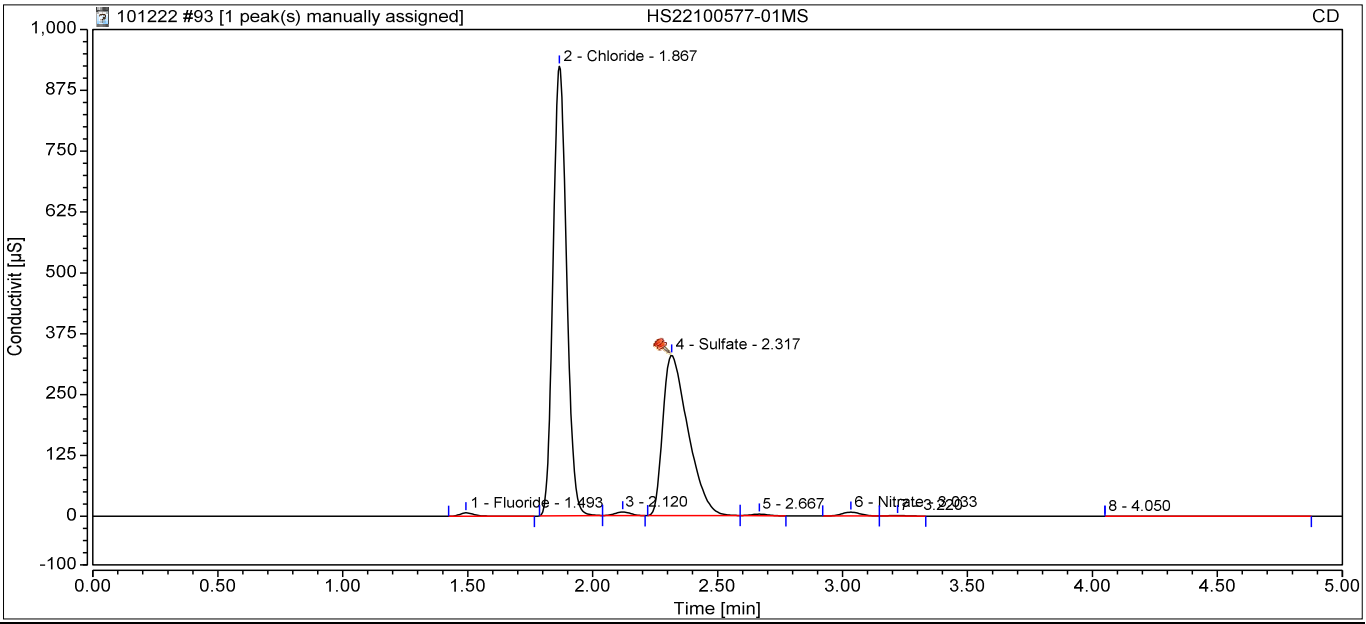
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.043	0.1715	0.1715	1.0000
2	1.87	Chloride	BMB	57.919	412.2604	412.2604	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
3	2.32	Sulfate	BMB^	38.264	376.3521	376.3521	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
5	3.03	Nitrate	BMB	0.004	0.0164	0.0164	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**	**96.230**		**788.80**	

93 HS22100577-01MS

Sample Name:	**HS22100577-01MS**	*Injection Volume:*	**5.00**
Vial Number:	**GC3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 17:03**	*Sample Weight:*	**1.0000**

Run Time:



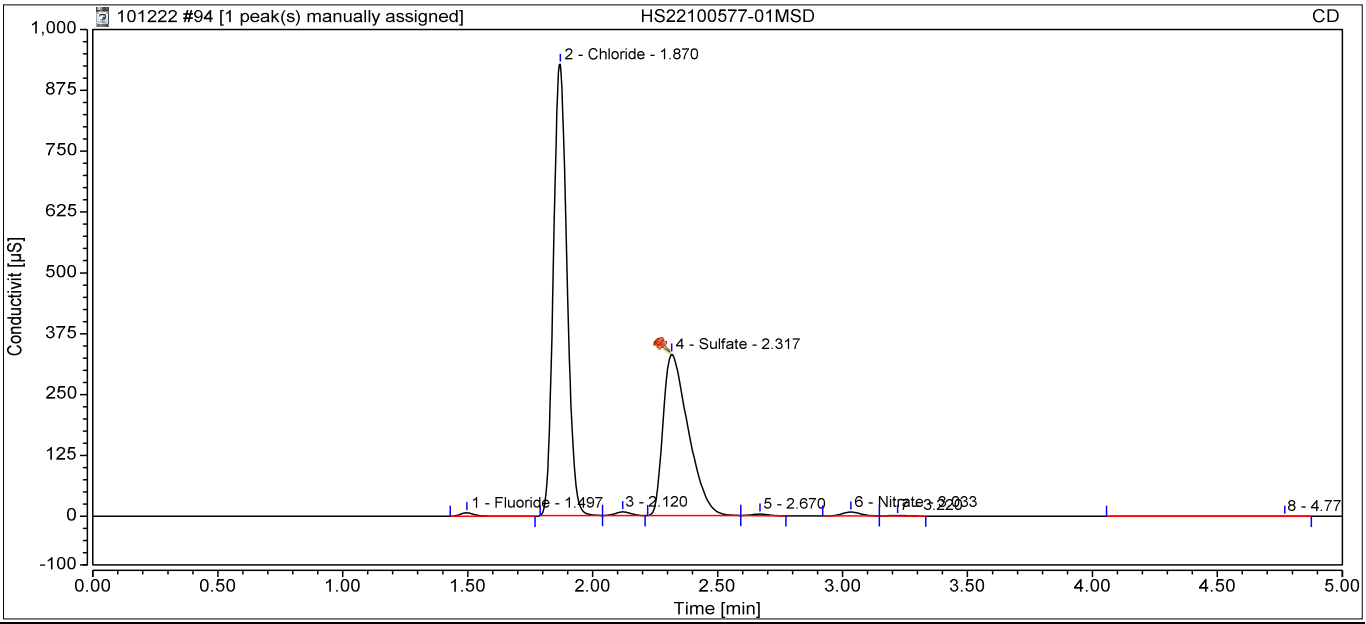
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.497	2.3555	2.3555	1.0000
2	1.87	Chloride	BMB	57.979	412.6909	412.6909	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
4	2.32	Sulfate	BMB^	38.397	377.6608	377.6608	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
6	3.03	Nitrate	BMB	0.674	2.0276	2.0276	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**	**97.547**		**794.73**	

94 HS22100577-01MSD

Sample Name:	**HS22100577-01MSD**	*Injection Volume:*	**5.00**
Vial Number:	**GC4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 17:08**	*Sample Weight:*	**1.0000**

Run Time:

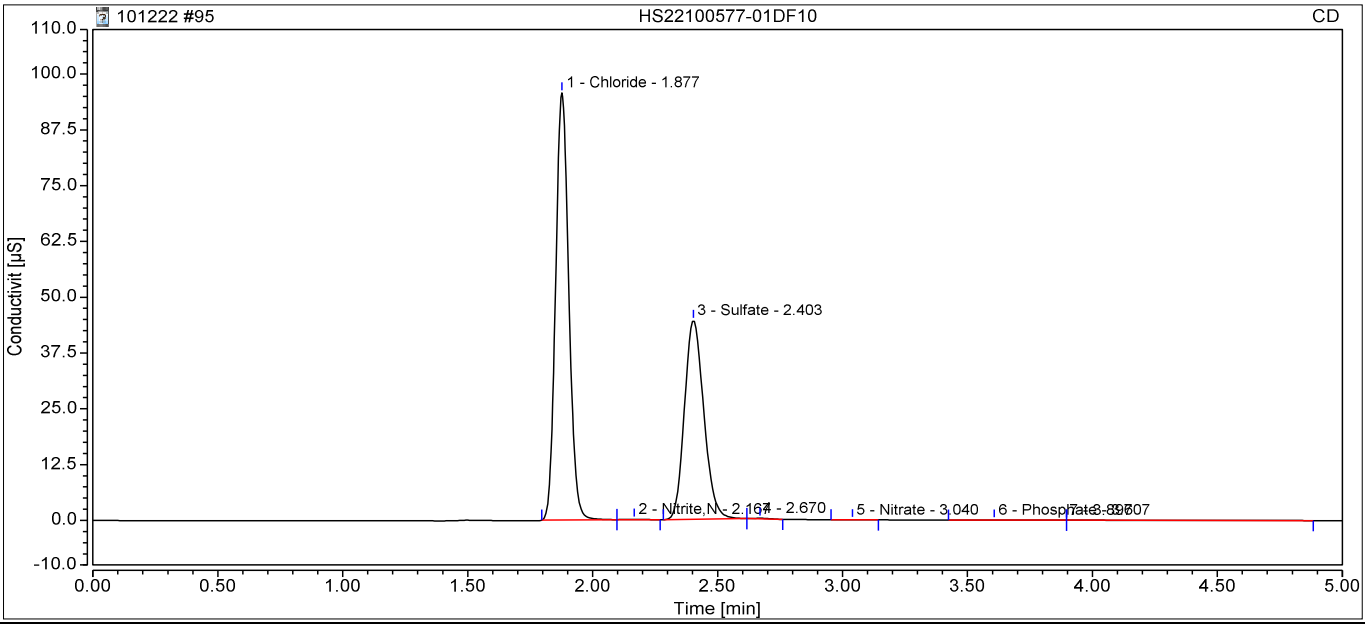


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	0.483	2.2893	2.2893	1.0000
2	1.87	Chloride	BMB	58.234	414.5036	414.5036	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
4	2.32	Sulfate	BMB^	38.646	380.1066	380.1066	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
6	3.03	Nitrate	BMB	0.681	2.0495	2.0495	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**	**98.044**		**798.95**	

95 HS22100577-01DF10			
Sample Name:	**HS22100577-01DF10**	*Injection Volume:*	**5.00**
Vial Number:	**GC5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**10/12/2022 17:13**	*Sample Weight:*	**1.0000**

Run Time:

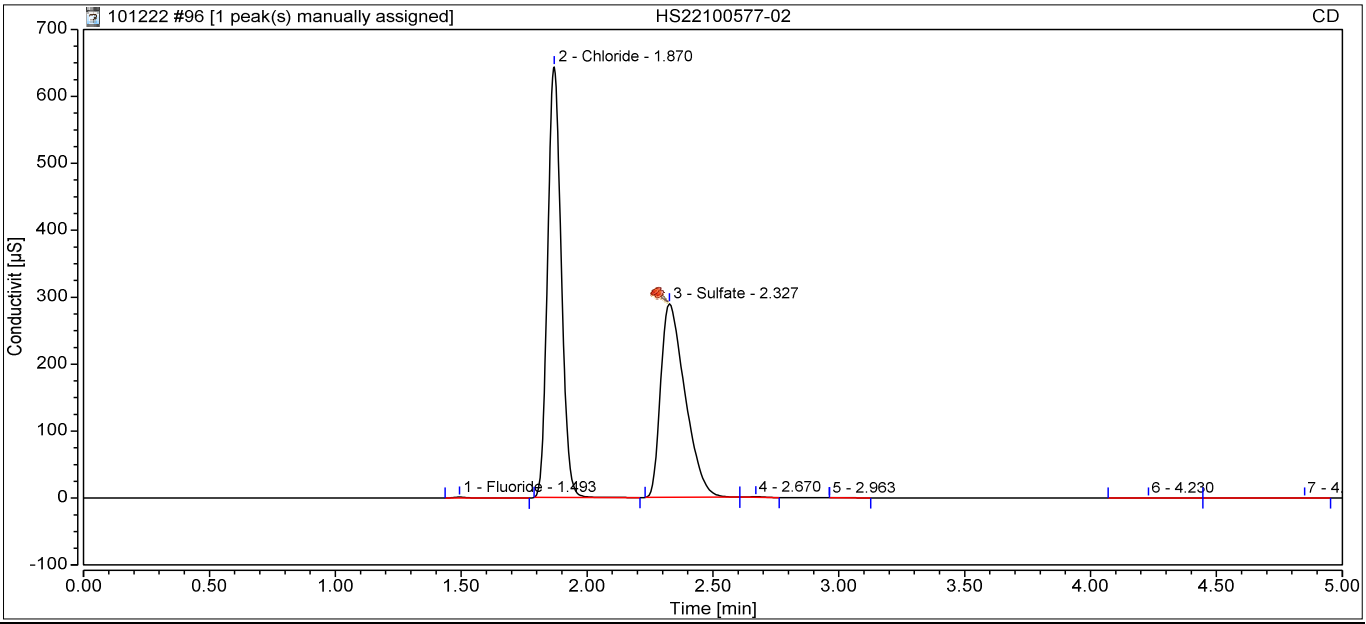


Integration Results

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.	10.0000
1	1.88	Chloride	BMB	5.868	41.7926	417.9256	10.0000
2	2.17	Nitrite,N	BMB	0.007	0.0174	0.1739	10.0000
3	2.40	Sulfate	BMB	4.001	39.3708	393.7081	10.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	10.0000
5	3.04	Nitrate	BMB	0.002	0.0116	0.1156	10.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	10.0000
6	3.61	Phosphate	BMB	0.004	0.3550	3.5495	10.0000
Total:			**0.000**	**9.883**		**815.47**	

96 HS22100577-02			
Sample Name:	**HS22100577-02**	*Injection Volume:*	**5.00**
Vial Number:	**GC6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 17:19**	*Sample Weight:*	**1.0000**

Run Time:



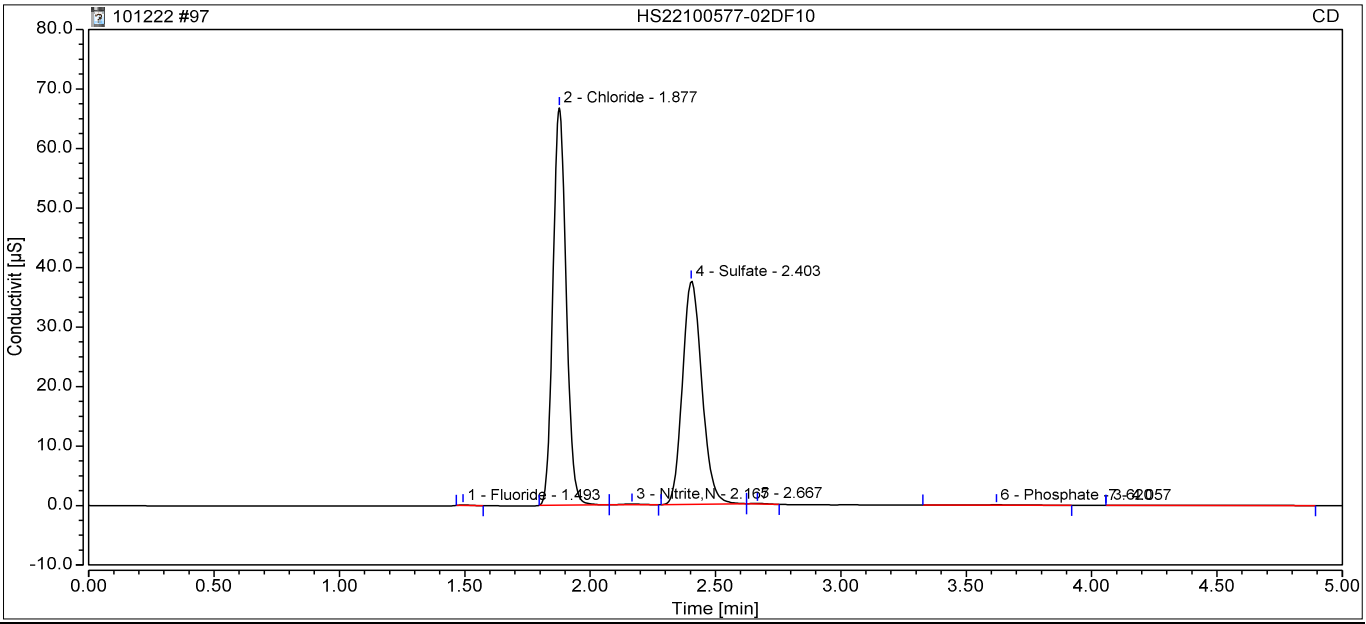
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.090	0.3941	0.3941	1.0000
2	1.87	Chloride	BMB	40.306	286.9036	286.9036	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
3	2.33	Sulfate	BMB^	32.400	318.6772	318.6772	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**	**72.796**		**605.97**	

97 HS22100577-02DF10

Sample Name:	**HS22100577-02DF10**	*Injection Volume:*	**5.00**
Vial Number:	**GC7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**10/12/2022 17:24**	*Sample Weight:*	**1.0000**

Run Time:



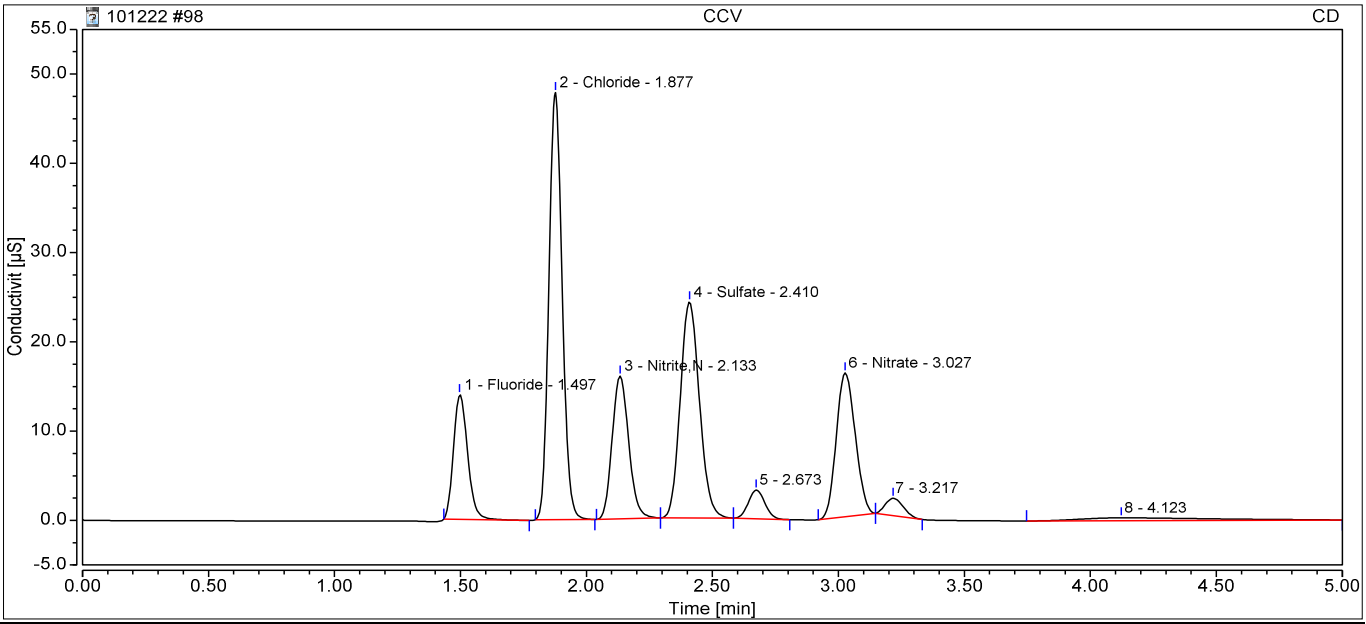
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.004	n.a.	n.a.	10.0000
2	1.88	Chloride	BMB	4.085	29.1020	291.0202	10.0000
3	2.17	Nitrite,N	BMB	0.011	0.0277	0.2773	10.0000
4	2.40	Sulfate	BMB	3.372	33.1889	331.8890	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
6	3.62	Phosphate	BMB	0.015	0.4456	4.4561	10.0000
Total:			**0.000**	**7.488**		**627.64**	

98 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 17:40**	*Sample Weight:*	**1.0000**

Run Time:



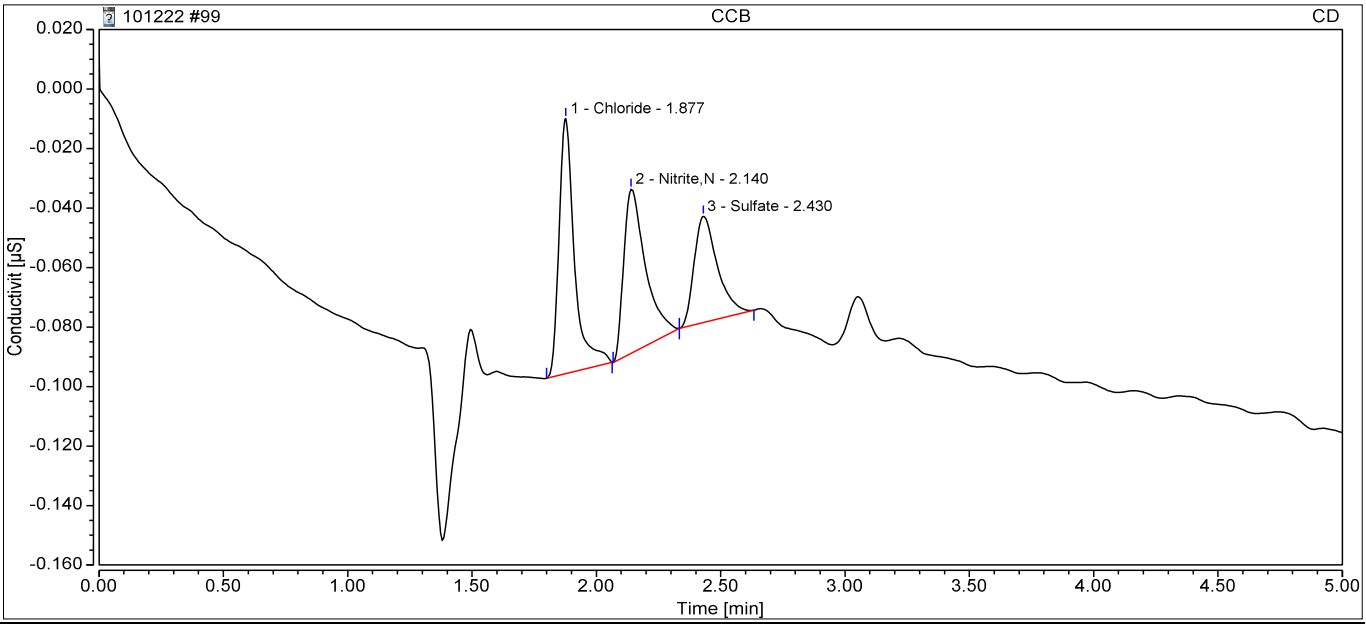
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	0.915	4.3655	4.3655	1.0000
2	1.88	Chloride	BMB	2.922	20.8212	20.8212	1.0000
3	2.13	Nitrite,N	BMB	1.219	4.1161	4.1161	1.0000
4	2.41	Sulfate	BMB	2.134	21.0095	21.0095	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
6	3.03	Nitrate	BMB	1.404	4.2222	4.2222	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**	**8.594**		**54.53**	

99 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 17:45**	*Sample Weight:*	**1.0000**

Run Time:



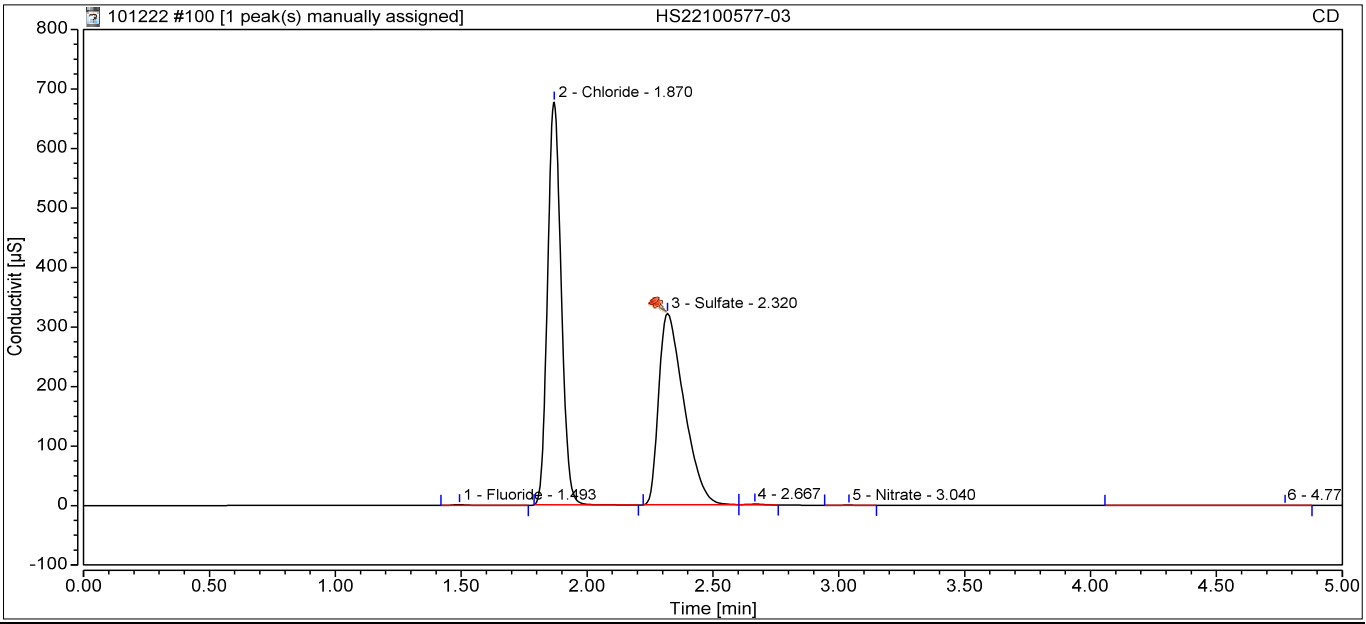
Integration Results

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	0.006	0.0694	0.0694	1.0000
2	2.14	Nitrite,N	BMB	0.006	0.0114	0.0114	1.0000
3	2.43	Sulfate	BMB	0.004	0.0615	0.0615	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**		**0.14**	

100 HS22100577-03

Sample Name:	**HS22100577-03**	*Injection Volume:*	**5.00**
Vial Number:	**GC8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 17:50**	*Sample Weight:*	**1.0000**

Run Time:



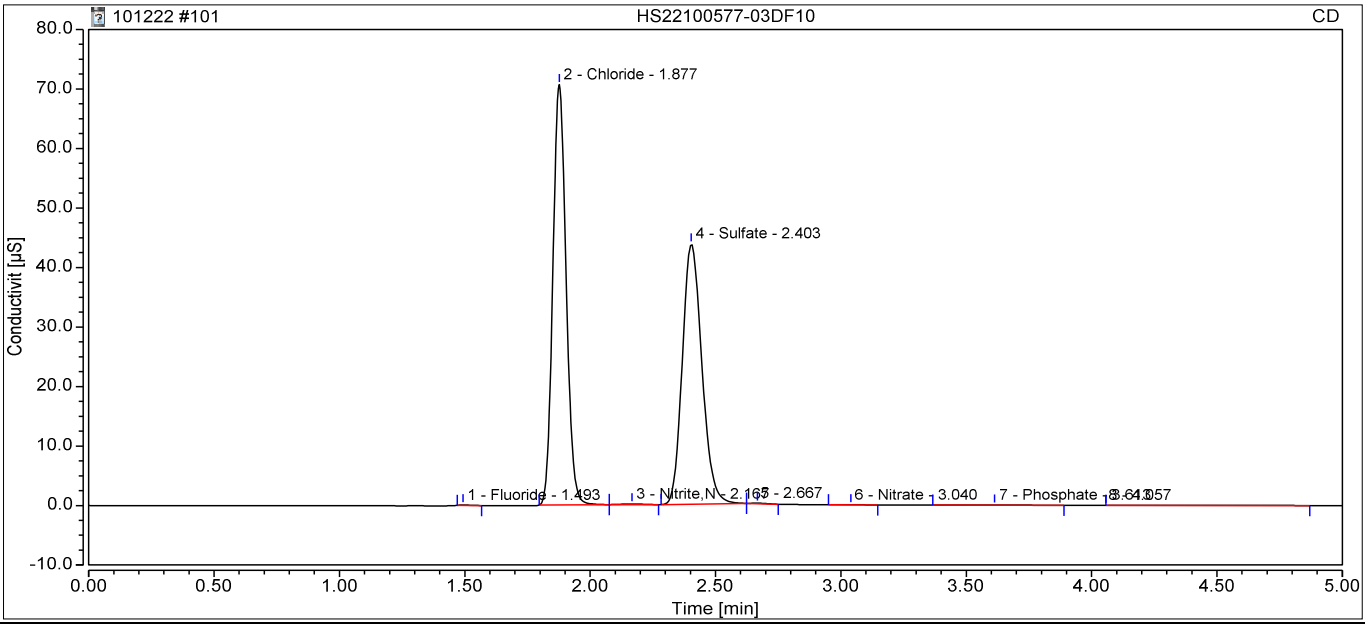
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.090	0.3938	0.3938	1.0000
2	1.87	Chloride	BMB	42.434	302.0493	302.0493	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
3	2.32	Sulfate	BMB^	37.237	366.2543	366.2543	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
5	3.04	Nitrate	BMB	0.015	0.0498	0.0498	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**	**79.776**		**668.75**	

101 HS22100577-03DF10

Sample Name:	**HS22100577-03DF10**	*Injection Volume:*	**5.00**
Vial Number:	**GD1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**10/12/2022 17:56**	*Sample Weight:*	**1.0000**

Run Time:



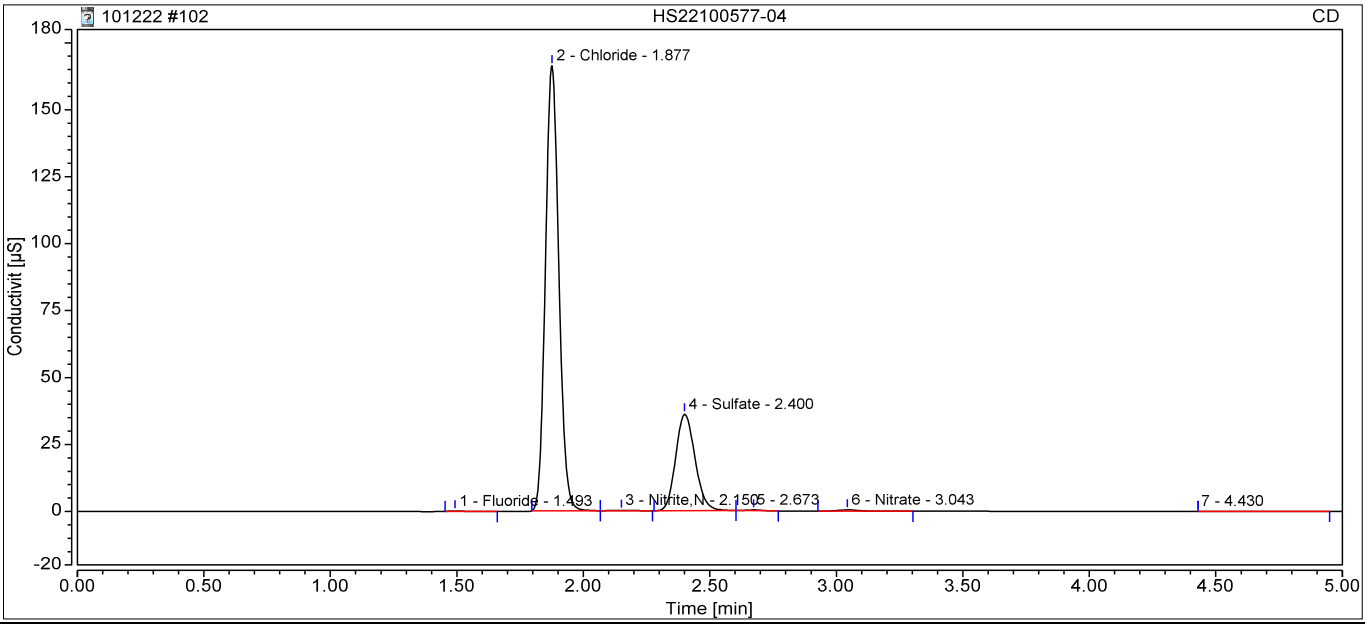
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.003	n.a.	n.a.	10.0000
2	1.88	Chloride	BMB	4.325	30.8050	308.0503	10.0000
3	2.17	Nitrite,N	BMB	0.010	0.0260	0.2596	10.0000
4	2.40	Sulfate	BMB	3.954	38.9109	389.1086	10.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	10.0000
6	3.04	Nitrate	BMB	0.003	0.0139	0.1389	10.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	10.0000
7	3.61	Phosphate	BMB	0.005	0.3608	3.6081	10.0000
Total:			**0.000**	**8.300**		**701.17**	

102 HS22100577-04

Sample Name:	**HS22100577-04**	*Injection Volume:*	**5.00**
Vial Number:	**GD2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 18:01**	*Sample Weight:*	**1.0000**

Run Time:



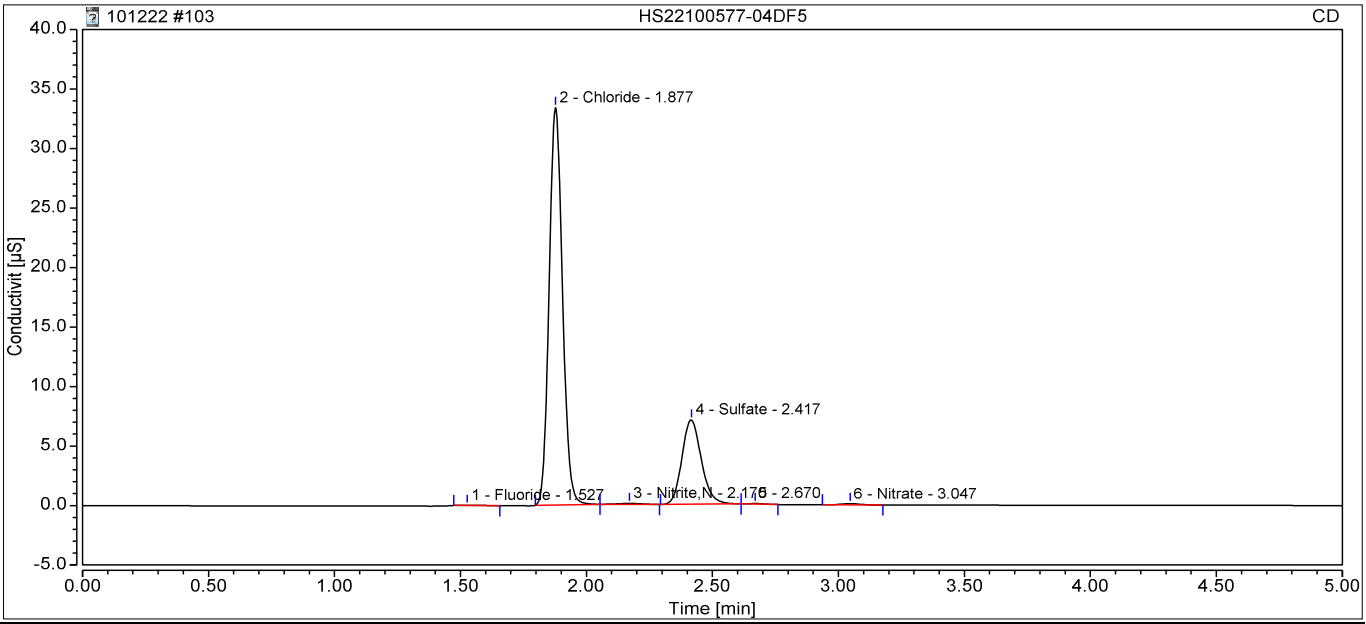
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.011	0.0159	0.0159	1.0000
2	1.88	Chloride	BMB	10.212	72.7076	72.7076	1.0000
3	2.15	Nitrite,N	BMB	0.015	0.0424	0.0424	1.0000
4	2.40	Sulfate	BMB	3.201	31.5023	31.5023	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
6	3.04	Nitrate	BMB	0.043	0.1330	0.1330	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**	**13.481**		**104.40**	

103 HS22100577-04DF5

Sample Name:	**HS22100577-04DF5**	*Injection Volume:*	**5.00**
Vial Number:	**GD3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Recording Time:	**10/12/2022 18:06**	*Sample Weight:*	**1.0000**

Run Time:



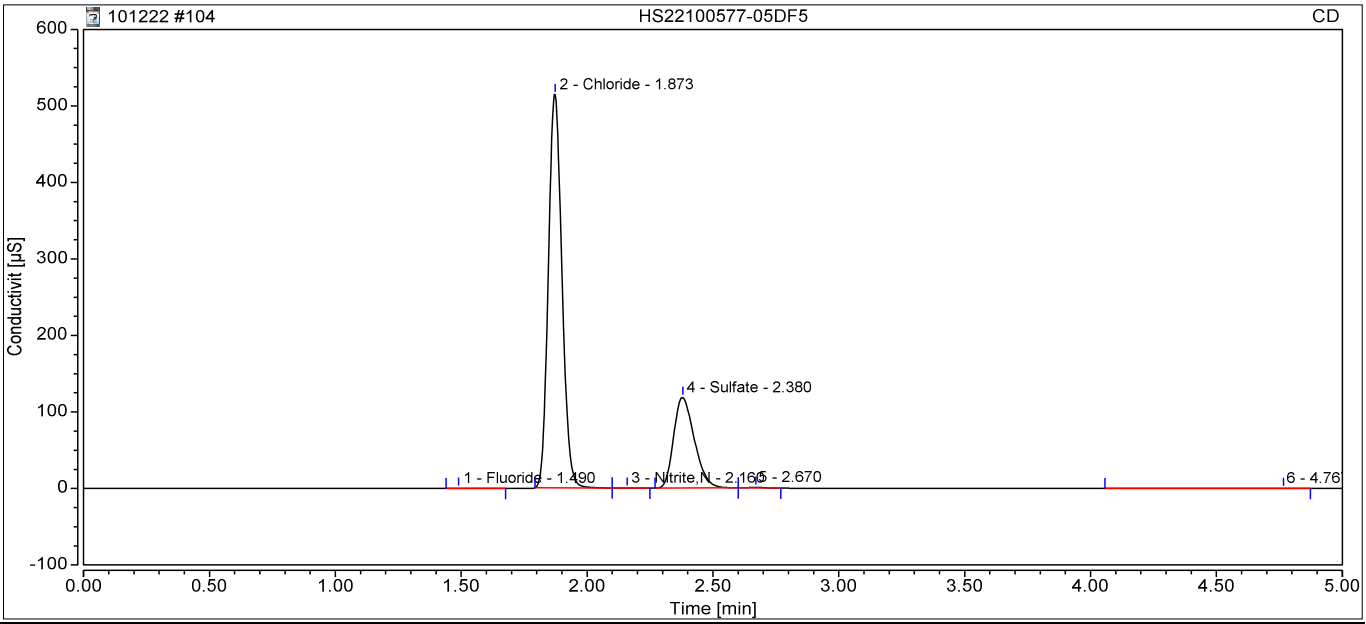
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.53	Fluoride	BMB	0.003	n.a.	n.a.	5.0000
2	1.88	Chloride	BMB	2.043	14.5649	72.8243	5.0000
3	2.17	Nitrite,N	BMB	0.010	0.0271	0.1353	5.0000
4	2.42	Sulfate	BMB	0.634	6.2561	31.2807	5.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	5.0000
6	3.05	Nitrate	BMB	0.010	0.0339	0.1693	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**	**2.700**		**104.41**	

104 HS22100577-05DF5

Sample Name:	**HS22100577-05DF5**	*Injection Volume:*	**5.00**
Vial Number:	**GD4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Recording Time:	**10/12/2022 18:11**	*Sample Weight:*	**1.0000**

Run Time:



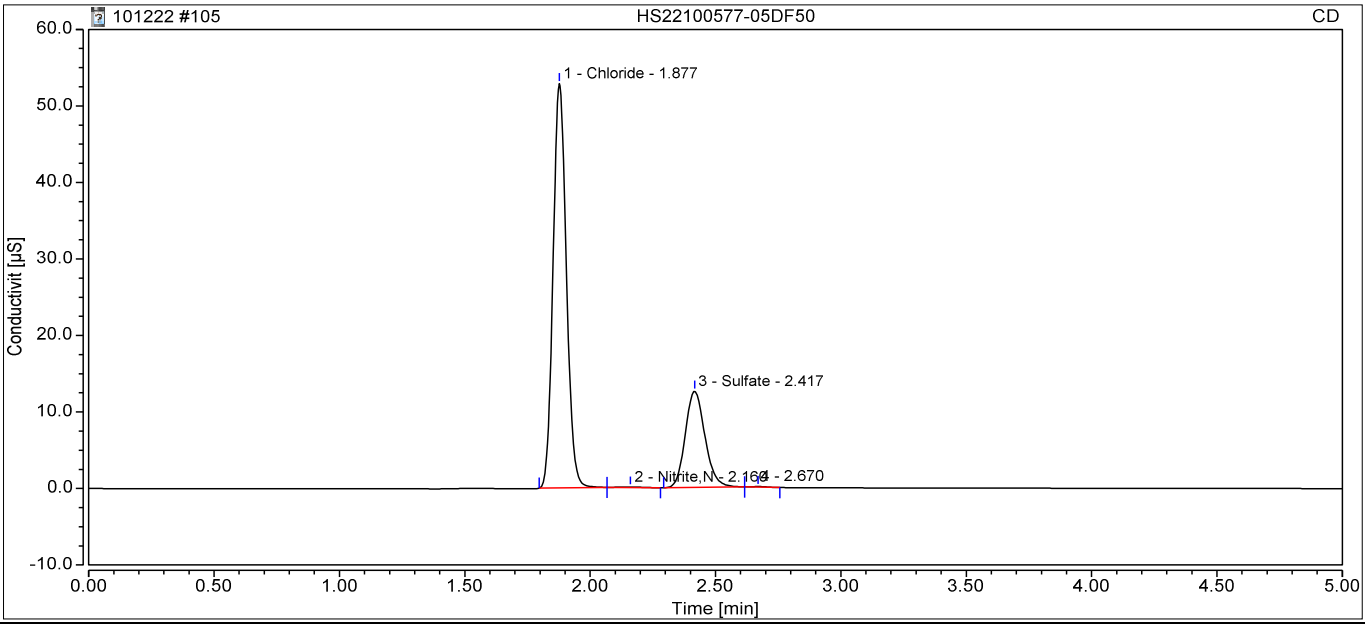
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.020	0.0606	0.3031	5.0000
2	1.87	Chloride	BMB	32.164	228.9526	1144.7628	5.0000
3	2.16	Nitrite,N	BMB	0.005	0.0099	0.0494	5.0000
4	2.38	Sulfate	BMB	11.286	111.0217	555.1085	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**	**43.475**		**1700.22**	

105 HS22100577-05DF50

Sample Name:	**HS22100577-05DF50**	*Injection Volume:*	**5.00**
Vial Number:	**GD5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**50.0000**
Recording Time:	**10/12/2022 18:17**	*Sample Weight:*	**1.0000**

Run Time:



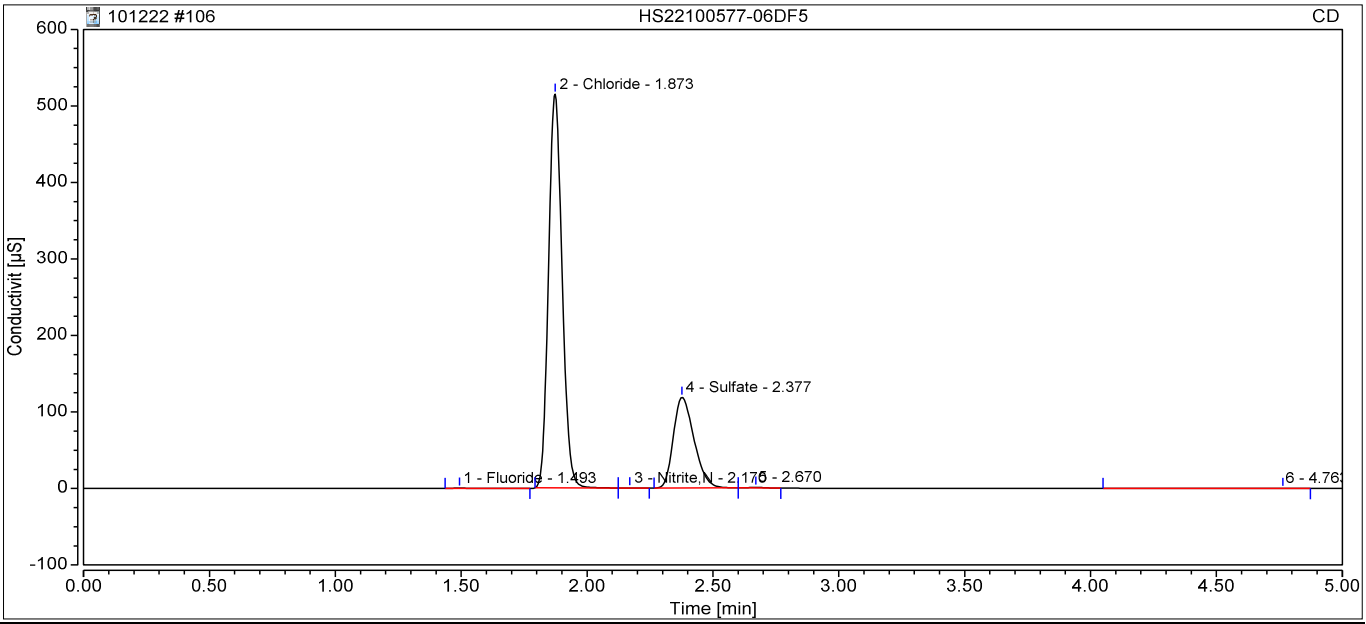
Integration Results

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.	50.0000
1	1.88	Chloride	BMB	3.242	23.1002	1155.0100	50.0000
2	2.16	Nitrite,N	BMB	0.007	0.0162	0.8102	50.0000
3	2.42	Sulfate	BMB	1.143	11.2644	563.2223	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**	**4.392**		**1719.04**	

106 HS22100577-06DF5

Sample Name:	**HS22100577-06DF5**	*Injection Volume:*	**5.00**
Vial Number:	**GD6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Recording Time:	**10/12/2022 18:22**	*Sample Weight:*	**1.0000**

Run Time:



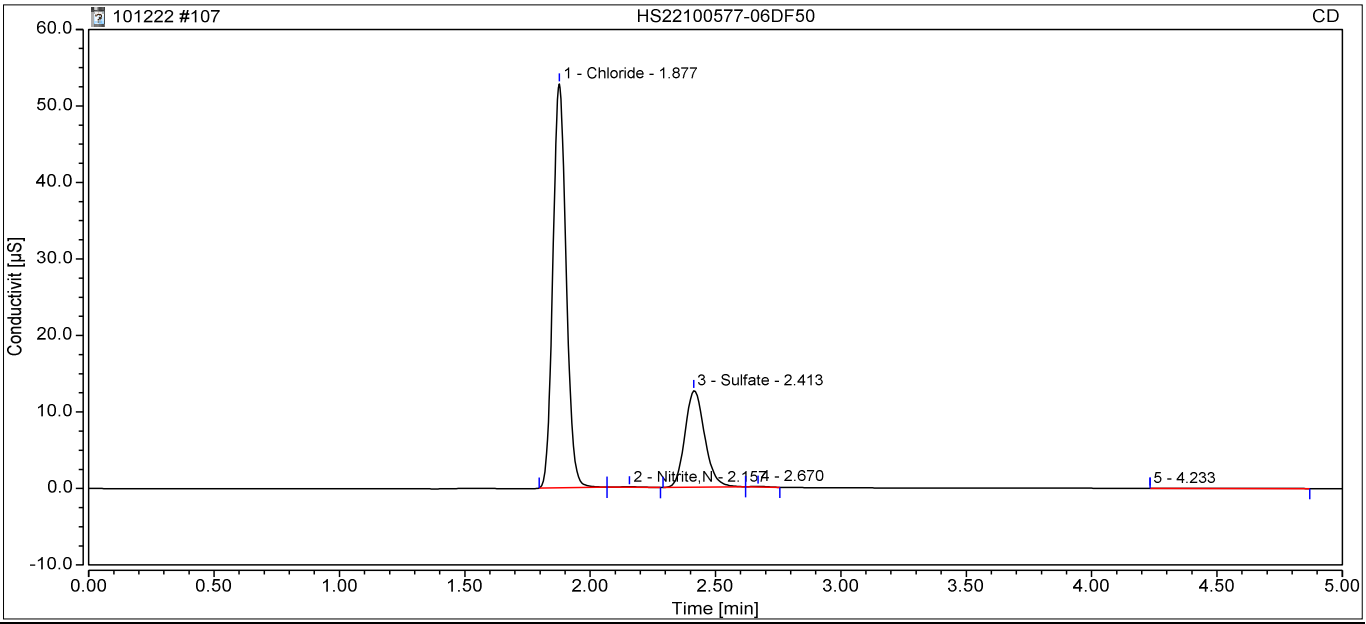
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.020	0.0597	0.2987	5.0000
2	1.87	Chloride	BMB	32.150	228.8501	1144.2504	5.0000
3	2.17	Nitrite,N	BMB	0.003	0.0020	0.0102	5.0000
4	2.38	Sulfate	BMB	11.287	111.0319	555.1595	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**	**43.459**		**1699.72**	

107 HS22100577-06DF50

Sample Name:	**HS22100577-06DF50**	*Injection Volume:*	**5.00**
Vial Number:	**GD7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**50.0000**
Recording Time:	**10/12/2022 18:27**	*Sample Weight:*	**1.0000**

Run Time:



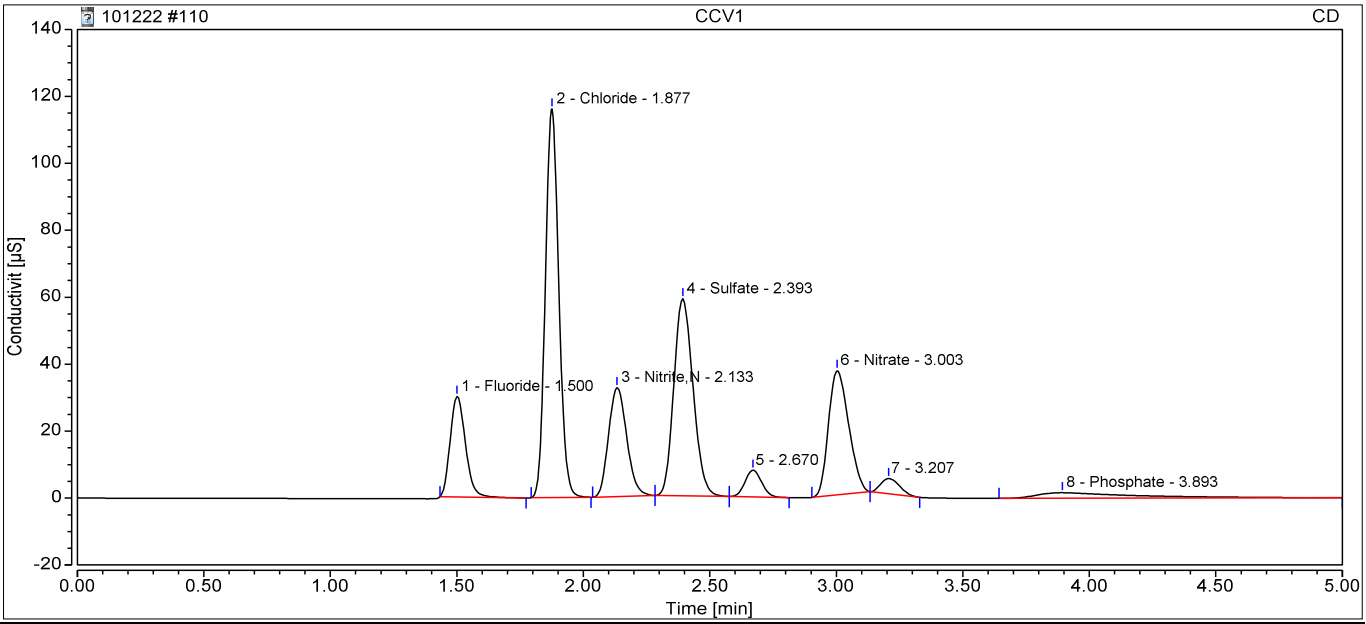
Integration Results

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	3.240	23.0885	1154.4234	50.0000
2	2.16	Nitrite,N	BMB	0.007	0.0157	0.7835	50.0000
3	2.41	Sulfate	BMB	1.153	11.3605	568.0247	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**	**4.400**		**1723.23**	

110 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 18:48**	*Sample Weight:*	**1.0000**

Run Time:



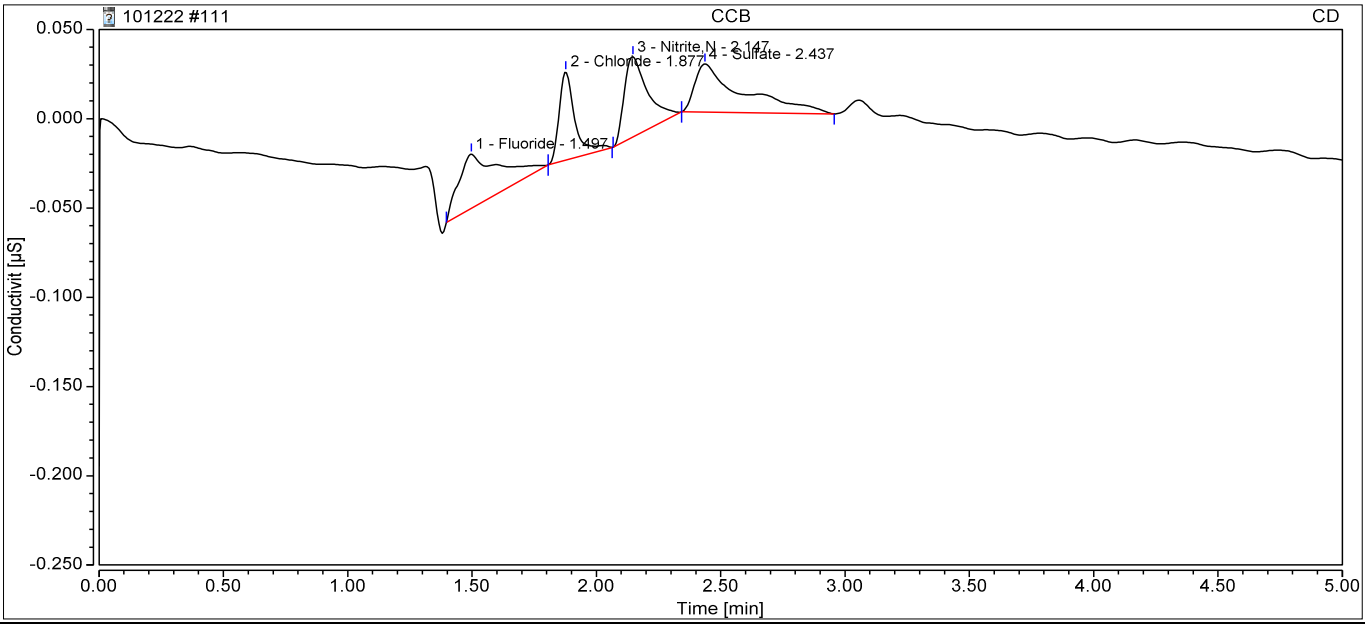
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	2.106	10.0974	10.0974	1.0000
2	1.88	Chloride	BMB	7.138	50.8277	50.8277	1.0000
3	2.13	Nitrite,N	BMB	2.705	9.8837	9.8837	1.0000
4	2.39	Sulfate	BMB	5.193	51.0928	51.0928	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
6	3.00	Nitrate	BMB	3.432	10.3090	10.3090	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
8	3.89	Phosphate	BMB	0.774	6.8358	6.8358	1.0000
Total:			**0.000**	**21.347**		**139.05**	

111 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 18:59**	*Sample Weight:*	**1.0000**

Run Time:



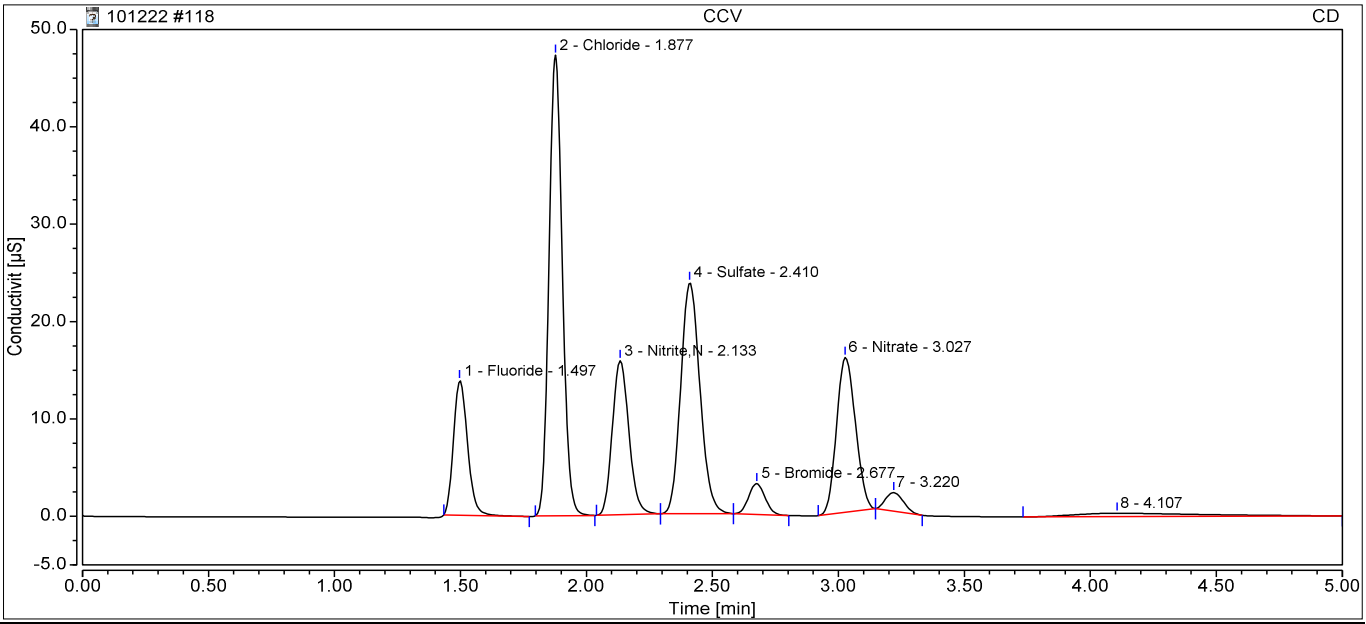
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	0.006	n.a.	n.a.	1.0000
2	1.88	Chloride	BMB	0.004	0.0511	0.0511	1.0000
3	2.15	Nitrite,N	BMB	0.005	0.0091	0.0091	1.0000
4	2.44	Sulfate	BMB	0.006	0.0827	0.0827	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**		**0.14**	

118 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 20:02**	*Sample Weight:*	**1.0000**

Run Time:



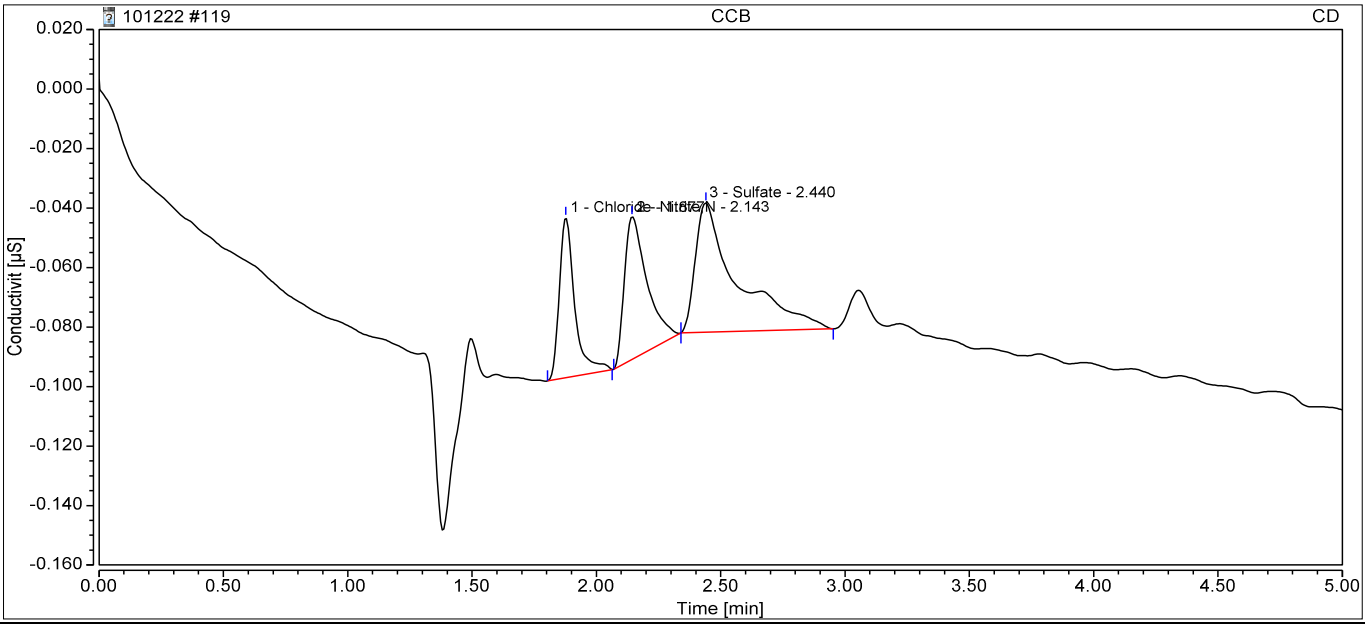
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	0.901	4.2987	4.2987	1.0000
2	1.88	Chloride	BMB	2.892	20.6081	20.6081	1.0000
3	2.13	Nitrite,N	BMB	1.209	4.0793	4.0793	1.0000
4	2.41	Sulfate	BMB	2.105	20.7250	20.7250	1.0000
5	2.68	Bromide	BMB	0.240	3.9771	3.9771	1.0000
6	3.03	Nitrate	BMB	1.387	4.1695	4.1695	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**	**8.734**		**57.86**	

119 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**10/12/2022 20:08**	*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.	1.0000
1	1.88	Chloride	BMB	0.004	0.0528	0.0528	1.0000
2	2.14	Nitrite,N	BMB	0.005	0.0096	0.0096	1.0000
3	2.44	Sulfate	BMB	0.008	0.1068	0.1068	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**	**0.017**		**0.17**	

HS22100577 E2200993 Perchlorate Level IV

ALS WO# HS22100577

October 19, 2022 Service Request No:E2200993

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS22100577

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory October 13, 2022
For your reference, these analyses have been assigned our service request number **E2200993.**

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.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

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 Environmental – US	**Service Request No.:**	E2200993
Project:	HS22100577	**Date Received:**	10/13/22
Sample Matrix:	GW		

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 IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Seven samples were received for analysis at ALS Environmental in Houston on 10/13/22.

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:

EQ2200469-02/03: 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 batch precision (MS/DMS) measurements were determined on another sample E2200993-001 in the extraction batch. The MS/DMS results are included.

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:**E2200993
Project: HS22100577

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2200993-001	50WW14-221011	10/11/2022	0755
E2200993-002	50WW13-221011	10/11/2022	0855
E2200993-003	50WW11-221011	10/11/2022	0940
E2200993-004	50WW06-221011	10/11/2022	1030
E2200993-005	50WW12-221011	10/11/2022	1120
E2200993-006	50WW12-221011-FD	10/11/2022	1120
E2200993-007	50WW29-221011	10/11/2022	1215

Service Request Summary

Folder #: **E2200993**
Client Name: ALS Environmental - US
Project Name: HS22100577
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 10/13/22
Internal Due Date: 10/26/2022
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS22100577
EDD: EQUIS
EFWEDD_LHAAP

9 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2200993-001	50WW14-221011	Ground Water	10/11/22 0755	**IV**
E2200993-002	50WW13-221011	Ground Water	10/11/22 0855	**IV**
E2200993-003	50WW11-221011	Ground Water	10/11/22 0940	**IV**
E2200993-004	50WW06-221011	Ground Water	10/11/22 1030	**IV**
E2200993-005	50WW12-221011	Ground Water	10/11/22 1120	**IV**
E2200993-006	50WW12-221011-FD	Ground Water	10/11/22 1120	**IV**
E2200993-007	50WW29-221011	Ground Water	10/11/22 1215	**IV**

Service Request Summary

Folder #: **E2200993**
Client Name: ALS Environmental - US
Project Name: HS22100577
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 10/13/22
Internal Due Date: 10/26/2022
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS22100577
EDD: EQUIS
EFWEDD_LHAAP

9 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	6	Level IV Due 11/2
Semivoa GCMS	ClO4 DOD/6850	1	MS/MSD

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	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
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.

Data Qualifiers

Lab Standard

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.
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
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028	12/31/2022
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2228443	12/31/2022
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Health	C819-2022	11/14/2022

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:** **20094**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@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:	HS22100577
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS22100577-01**	**50WW14-221011**	**Groundwater**	**11 Oct 2022 07:55**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			26 Oct 2022
2.	**HS22100577-02**	**50WW13-221011**	**Groundwater**	**11 Oct 2022 08:55**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			26 Oct 2022
3.	**HS22100577-03**	**50WW11-221011**	**Groundwater**	**11 Oct 2022 09:40**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			26 Oct 2022
4.	**HS22100577-04**	**50WW06-221011**	**Groundwater**	**11 Oct 2022 10:30**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			26 Oct 2022
5.	**HS22100577-05**	**50WW12-221011**	**Groundwater**	**11 Oct 2022 11:20**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			26 Oct 2022
6.	**HS22100577-06**	**50WW12-221011-FD**	**Groundwater**	**11 Oct 2022 11:20**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			26 Oct 2022
7.	**HS22100577-07**	**50WW29-221011**	**Groundwater**	**11 Oct 2022 12:15**
	Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			26 Oct 2022

Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **20094**

Comments: 50WW14-221011 (HS22100577-01) designate as MS/MSD
3 Week TAT for Level IV Data Package

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

QC Level: DOD IV (DoD Data Package)

Relinquished By: NR Date/Time:

Received By: Date/Time: 10/13/22 1500

Cooler ID(s): Temperature(s):

Cooler Receipt Form

ALS Environmental

Project Chemist JG

Client/Project ALS

Thermometer ID IR#1

Date/Time Received: 10/13/22 Initials: CG

Date/Time Logged in: 10/13/22 Initials CG

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

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

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

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		10/13/22	0800	CG	4.8	☒
						☐
						☐
						☐

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:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

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#: 408149 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 10/14/22 10:12

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2200993-001	50WW14-221011	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2200993-002	50WW13-221011	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2200993-003	50WW11-221011	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2200993-004	50WW06-221011	.01	6850/ClO4 DOD			Ground Water	10mL	
5	E2200993-005	50WW12-221011	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2200993-006	50WW12-221011-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2200993-007	50WW29-221011	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2200994-001	50WW09-221010	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2200994-002	50WW08-221010	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2200994-003	50WW22-221010	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2200994-004	50WW23-221010	.01	6850/ClO4 DOD			Ground Water	10mL	
12	E2200994-005	50WW05-221010	.01	6850/ClO4 DOD			Ground Water	10mL	
13	E2200994-006	50WW15-221010	.01	6850/ClO4 DOD			Ground Water	10mL	
14	E2200994-007	50WW16-221010	.01	6850/ClO4 DOD			Ground Water	10mL	
15	E2200994-008	50WW16-221010-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
16	E2200994-009	50WW18-221010	.01	6850/ClO4 DOD			Ground Water	10mL	
17	EQ2200469-01	MB		6850/ClO4 DOD			Liquid	10mL	
18	EQ2200469-02	LCS		6850/ClO4 DOD			Liquid	10mL	
19	EQ2200469-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
20	EQ2200469-04	50WW14-221011 MS	.01	6850/ClO4 DOD			Liquid	10mL	
21	EQ2200469-05	50WW14-221011 DMS	.01	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 222798 Logbook Ref: Perchlorate (1st Source) Expires On: 10/29/2022

EQ2200469-02	1.00µL	EQ2200469-03	1.00µL	EQ2200469-04	1.00µL	EQ2200469-05	1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 225266 Logbook Ref: Perchlorate Internal Standard Expires On: 01/31/2023

E2200993-001	100.00µL	E2200993-002	100.00µL	E2200993-003	100.00µL	E2200993-004	100.00µL	E2200993-005	100.00µL	E2200993-006	100.00µL
E2200993-007	100.00µL	E2200994-001	100.00µL	E2200994-002	100.00µL	E2200994-003	100.00µL	E2200994-004	100.00µL	E2200994-005	100.00µL
E2200994-006	100.00µL	E2200994-007	100.00µL	E2200994-008	100.00µL	E2200994-009	100.00µL	EQ2200469-01	100.00µL	EQ2200469-02	100.00µL
EQ2200469-03	100.00µL	EQ2200469-04	100.00µL	EQ2200469-05	100.00µL						

Preparation Information Benchsheet

Prep Run#: 408149 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 10/14/22 10:12

Preparation Materials

Water HPLC Grade	09/22/22 Water (225106)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 Syringe Filters (224414)
6850 Luer-Lok Syringes	Luer-Lok Syringes (221305)	6850 Pipette Tips 50-1000 uL	6850 Pipette Tips (221929)		

Preparation Steps

Step: Preparation
Started: 10/14/22 10:12
Finished: 10/14/22 10:31
By: XMI
Comments

Comments: _____

Reviewed By: TW Date: 10/14/22

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2200993
Project:	HS22100577	**Date Collected:**	10/11/22 0755
Sample Matrix:	Ground Water	**Date Received:**	10/13/22
Sample Name:	50WW14-221011	**Units:**	µg/L
Lab Code:	E2200993-001	**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	**0.101**		0.100	0.0500	0.0250	1	10/14/22	10/17/22 18:05	408149	781288	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2200993
Project:	HS22100577	**Date Collected:**	10/11/22 0855
Sample Matrix:	Ground Water	**Date Received:**	10/13/22
Sample Name:	50WW13-221011	**Units:**	µg/L
Lab Code:	E2200993-002	**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	**5310**		20.0	10.0	5.00	200	10/14/22	10/17/22 18:13	408149	781288	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2200993
Project:	HS22100577	**Date Collected:**	10/11/22 0940
Sample Matrix:	Ground Water	**Date Received:**	10/13/22
Sample Name:	50WW11-221011	**Units:**	µg/L
Lab Code:	E2200993-003	**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	**6280**		20.0	10.0	5.00	200	10/14/22	10/17/22 18:22	408149	781288	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2200993
Project:	HS22100577	**Date Collected:**	10/11/22 1030
Sample Matrix:	Ground Water	**Date Received:**	10/13/22
Sample Name:	50WW06-221011	**Units:**	µg/L
Lab Code:	E2200993-004	**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	**257**		1.00	0.500	0.250	10	10/14/22	10/17/22 18:30	408149	781288	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2200993
Project:	HS22100577	**Date Collected:**	10/11/22 1120
Sample Matrix:	Ground Water	**Date Received:**	10/13/22
Sample Name:	50WW12-221011	**Units:**	µg/L
Lab Code:	E2200993-005	**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	**17600**		100	50.0	25.0	1000	10/14/22	10/17/22 18:38	408149	781288	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2200993
Project:	HS22100577	**Date Collected:**	10/11/22 1120
Sample Matrix:	Ground Water	**Date Received:**	10/13/22
Sample Name:	50WW12-221011-FD	**Units:**	µg/L
Lab Code:	E2200993-006	**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	**17900**		100	50.0	25.0	1000	10/14/22	10/17/22 18:55	408149	781288	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2200993
Project:	HS22100577	**Date Collected:**	10/11/22 1215
Sample Matrix:	Ground Water	**Date Received:**	10/13/22
Sample Name:	50WW29-221011	**Units:**	µg/L
Lab Code:	E2200993-007	**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	**0.138**		0.100	0.0500	0.0250	1	10/14/22	10/17/22 19:12	408149	781288	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2200993
Project:	HS22100577	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2200469-01	**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	10/14/22	10/17/22 17:23	408149	781288	

Accuracy & Precision

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS22100577
Sample Matrix: Ground Water

Service Request: E2200993
Date Analyzed: 10/17/22

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: 408149

	Lab Control Sample EQ2200469-02			Duplicate Lab Control Sample EQ2200469-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.114	0.100	114	0.103	0.100	103	84 - 119	10	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:**	E2200993
Project:	HS22100577	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2200469-02	**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	**0.114**		0.100	0.0500	0.0250	1	10/14/22	10/17/22 17:31	408149	781288	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2200993
Project:	HS22100577	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2200469-03	**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	**0.103**		0.100	0.0500	0.0250	1	10/14/22	10/17/22 17:40	408149	781288	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2200993
Project:	HS22100577	**Date Collected:**	10/11/22
Sample Matrix:	Ground Water	**Date Received:**	10/13/22
		Date Analyzed:	10/17/22 - 10/18/22

Matrix Spike Summary

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

Sample Name:	50WW14-221011	**Units:**	µg/L
Lab Code:	E2200993-001	**Basis:**	NA

Analytical Method: 6850
Prep Method: Method

		50WW14-221011MS				50WW14-221011DMS					
		Matrix Spike				**Duplicate Matrix Spike**					
		EQ2200469-04				EQ2200469-05					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.101	0.187	0.100	86	0.200	0.100	99	84 - 119	7	15

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

Results flagged with a pound (#) indicate the control criteria is not applicable.

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:**	E2200993
Project:	HS22100577	**Date Collected:**	10/11/22 0755
Sample Matrix:	Ground Water	**Date Received:**	10/13/22
Sample Name:	50WW14-221011	**Units:**	µg/L
Lab Code:	EQ2200469-04	**Basis:**	NA
Run Type:	Matrix Spike		

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	**0.187**		0.100	0.0500	0.0250	1	10/14/22	10/17/22 17:48	408149	781288	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2200993
Project:	HS22100577	**Date Collected:**	10/11/22 0755
Sample Matrix:	Ground Water	**Date Received:**	10/13/22
Sample Name:	50WW14-221011	**Units:**	µg/L
Lab Code:	EQ2200469-05	**Basis:**	NA
Run Type:	Duplicate Matrix Spike		

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	**0.200**		0.100	0.0500	0.0250	1	10/14/22	10/18/22 11:03	408149	781799	

Initial Calibration

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

20221013

1st Review: XMI
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 10/13/2022
Cal. Std. xp: 1/31/2023
ICAL ID: EC2200014

Mobile Phases A:0.10% Formic Acid/Water 3210301-02 B:MeOH 224417

	Sample Name	File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1	20221013_016	Perchlorate6850c.lcm	1x	☒	225390	10/13/2022 10:53
2	PERCHLORATE2	20221013_017	Perchlorate6850c.lcm	1x	☒	225392	10/13/2022 11:02
3	PERCHLORATE3	20221013_018	Perchlorate6850c.lcm	1x	☒	225393	10/13/2022 11:10
4	PERCHLORATE4	20221013_019	Perchlorate6850c.lcm	1x	☒	225394	10/13/2022 11:19
5	PERCHLORATE5	20221013_020	Perchlorate6850c.lcm	1x	☒	225395	10/13/2022 11:27
6	PERCHLORATE6	20221013_021	Perchlorate6850c.lcm	1x	☒	225396	10/13/2022 11:35
7	PERCHLORATE7	20221013_022	Perchlorate6850c.lcm	1x	☒	225398	10/13/2022 11:44
8	PERCHLORATE8	20221013_023	Perchlorate6850c.lcm	1x	☒	225400	10/13/2022 11:52
9	PERCHLORATE9	20221013_024	Perchlorate6850c.lcm	1x	☒	225401	10/13/2022 12:01
10	PERCHLORATE10	20221013_025	Perchlorate6850c.lcm	1x	☒	225402	10/13/2022 12:09
11	PERCHLORATEICV	20221013_026	Perchlorate6850c.lcm	1x	☒	225404	10/13/2022 12:17
12	LODV	20221013_027	Perchlorate6850c.lcm	1x	☒	DNU-IR	10/13/2022 12:26
13	MB	20221013_028	Perchlorate6850c.lcm	1x	☒	IDOC	10/13/2022 12:34
14	LCS	20221013_029	Perchlorate6850c.lcm	1x	☒	IDOC-DNU-IR	10/13/2022 12:42
15	DLCS	20221013_030	Perchlorate6850c.lcm	1x	☒	IDOC-DNU-IR	10/13/2022 12:51
16	IB	20221013_031	Perchlorate6850c.lcm	1x	☒		10/13/2022 12:59
17	IB	20221013_032	Perchlorate6850c.lcm	1x	☒		10/13/2022 13:08
18	IB	20221013_033	Perchlorate6850c.lcm	1x	☒		10/13/2022 13:16
19	null	20221013_034	Perchlorate6850c.lcm	1x	☒		10/13/2022 13:21
20	null	20221013_035	Perchlorate6850c.lcm	1x	☒		10/13/2022 13:27
21	IB	20221013_036	Perchlorate6850c.lcm	1x	☒		10/13/2022 14:02
22	IB	20221013_037	Perchlorate6850c.lcm	1x	☒		10/13/2022 14:10
23	LODV	20221013_038	Perchlorate6850c.lcm	1x	☒	225199	10/13/2022 14:19
24	PERCHLORATE7	20221013_039	Perchlorate6850c.lcm	1x	☒	225398	10/13/2022 14:27
25	MB	20221013_040	Perchlorate6850c.lcm	1x	☒	IDOC	10/13/2022 14:44
26	LCS	20221013_041	Perchlorate6850c.lcm	1x	☒	IDOC	10/13/2022 14:52
27	DLCS	20221013_042	Perchlorate6850c.lcm	1x	☒	IDOC-DNU-IR	10/13/2022 15:01
28	LCS	20221013_043	Perchlorate6850c.lcm	1x	☒	IDOC	10/13/2022 15:09
29	DLCS	20221013_044	Perchlorate6850c.lcm	1x	☒	IDOC	10/13/2022 15:17
30	MB WIPE-1013PREP	20221013_045	Perchlorate6850c.lcm	1x	☒	DNU-IR	10/13/2022 15:26
31	MB WIPE-1013PREP	20221013_046	Perchlorate6850c.lcm	1x	☒	DNU-IR	10/13/2022 14:35
32	PERCHLORATE7	20221013_047	Perchlorate6850c.lcm	1x	☒	225398	10/13/2022 15:34
33	IB	20221013_048	Perchlorate6850c.lcm	1x	☒		10/13/2022 15:43
34	IB	20221013_049	Perchlorate6850c.lcm	1x	☒		10/13/2022 15:51
35	null	20221013_050	Perchlorate6850c.lcm	1x	☒		10/13/2022 15:56
36	null	20221013_051	Perchlorate6850c.lcm	1x	☒		10/13/2022 16:02

Initial Calibration - Detailed Report

Calibration ID: EC2200014 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2200014-01	PERCHLORATE1	20221013_016	10/13/2022 10:53
02	EC2200014-02	PERCHLORATE2	20221013_017	10/13/2022 11:02
03	EC2200014-03	PERCHLORATE3	20221013_018	10/13/2022 11:10
04	EC2200014-04	PERCHLORATE4	20221013_019	10/13/2022 11:19
05	EC2200014-05	PERCHLORATE5	20221013_020	10/13/2022 11:27
06	EC2200014-06	PERCHLORATE6	20221013_021	10/13/2022 11:35
07	EC2200014-07	PERCHLORATE7	20221013_022	10/13/2022 11:44
08	EC2200014-08	PERCHLORATE8	20221013_023	10/13/2022 11:52
09	EC2200014-09	PERCHLORATE9	20221013_024	10/13/2022 12:01
10	EC2200014-10	PERCHLORATE10	20221013_025	10/13/2022 12:09

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 5.871** **Average RF = 0.1347**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1373	02	0.5000	0.1357	03	0.7000	0.1336	04	1.0000	0.1416
05	2.0000	0.1235	06	5.0000	0.1283	07	10.0000	0.1522	08	20.0000	0.1315
09	30.0000	0.1332	10	50.0000	0.1302						

Analyte

Perchlorate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.102	1.9	02	0.5000	0.504	0.7	03	0.7000	0.694	-0.8
04	1.0000	1.05	5.1	05	2.0000	1.83	-8.3	06	5.0000	4.76	-4.8
07	10.0000	11.3	13.0	08	20.0000	19.5	-2.4	09	30.0000	29.7	-1.1
10	50.0000	48.3	-3.3								

Initial Calibration Verification Summary Report

Calibration ID:	EC2200014	**Instrument ID:**	E-LCMS-01
Datafile ID:	20221013_026	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2200014-11	T	Average RF	10	10.918	ng/mL	9.2	<= 15

Insight Report

Printed at 10/24/2022 11:16:28 AM

Method File: I:\LCMS01\DATA\20221013ICAL\20221013ICAL.lcm
Project File: I:\LCMS01\DATA\20221013ICAL\10132022_ICAL.damlp

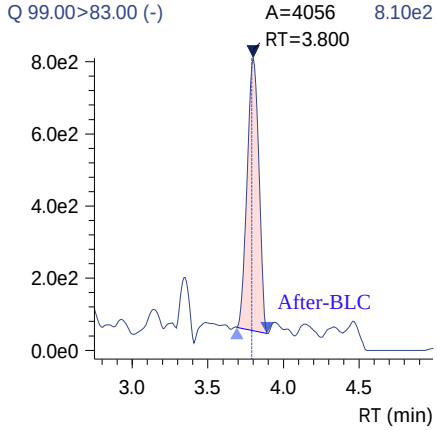
PERCHLORATE1

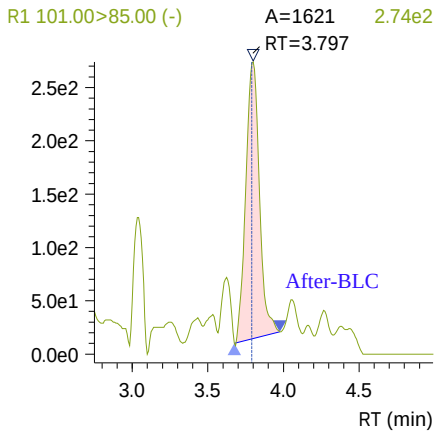
Sample ID: PERCHLORATE1
Date Acquired: 10/13/2022 10:53:53 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221013ICAL\20221013_016.lcd
Vial: 38 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.800	4056	295377	0.1019	ng/mL	101.00 >85.00	39.97	23.94 -44.46
Sodium Perchlorate -18O4_IS	Auto	3.796	295377	295377	1.0000	ng/mL	----	----	

Perchlorate

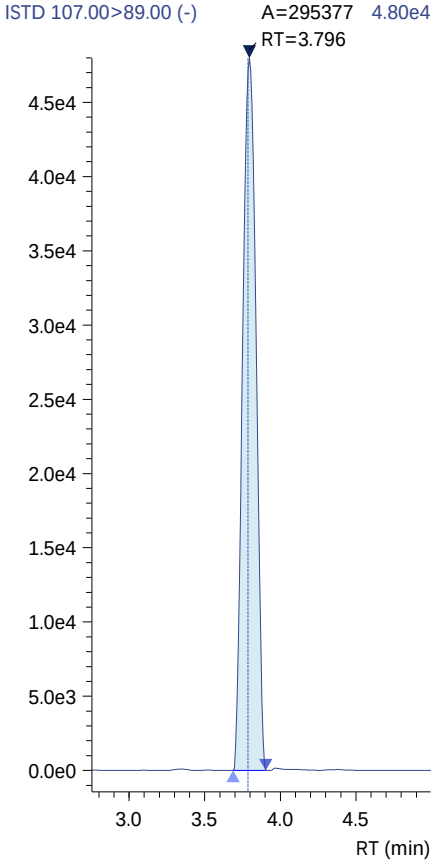
Conc 0.1019
R#1 39.97 (34.20)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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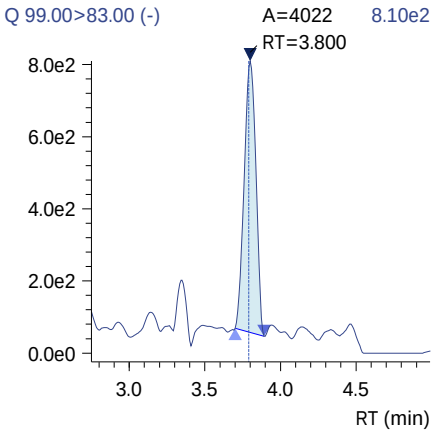
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Project File: I:\LCMS01\DATA\20221013ICAL\20221013ICAL.damlp

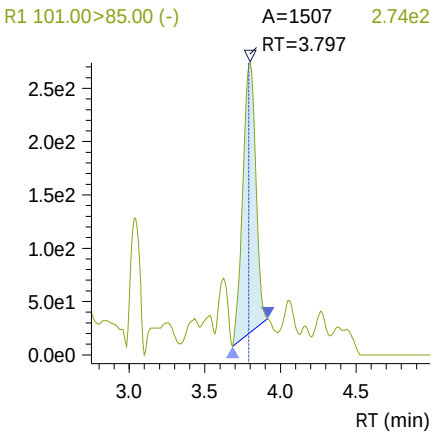
PERCHLORATE1

Sample ID: PERCHLORATE1
Date Acquired: 10/13/2022 10:53:53 AM
Acquired by: System Administrator
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Vial: 38 | Inj. Volume: 25.0000uL | Tray: 1

Perchlorate

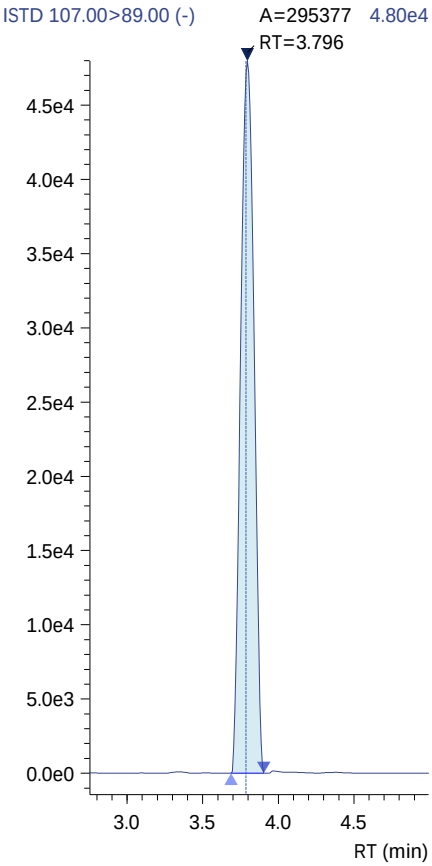
Conc 0.1012
R#1 37.47 (33.91)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/24/2022 11:16:28 AM

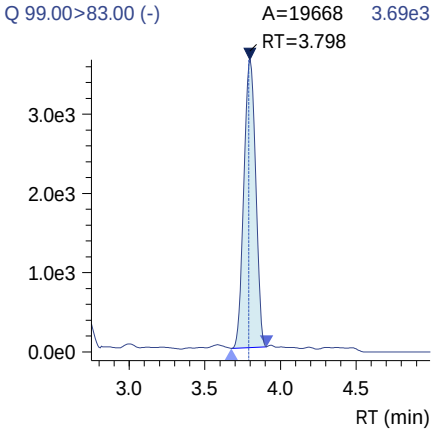
PERCHLORATE2

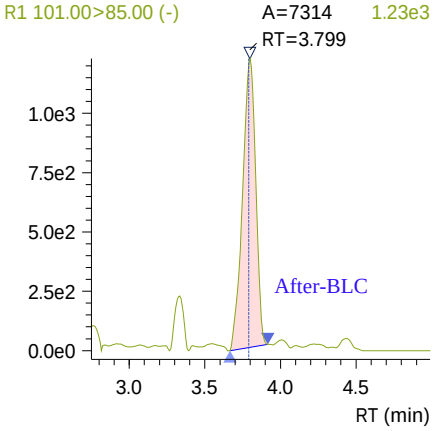
Sample ID: PERCHLORATE2
Date Acquired: 10/13/2022 11:02:18 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221013ICAL\20221013_017.lcd
Vial: 39 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.798	19668	289981	0.5035	ng/mL	101.00 >85.00	37.19	23.94 -44.46
Sodium Perchlorate -18O4_IS	Auto	3.796	289981	289981	1.0000	ng/mL	----	----	

Perchlorate

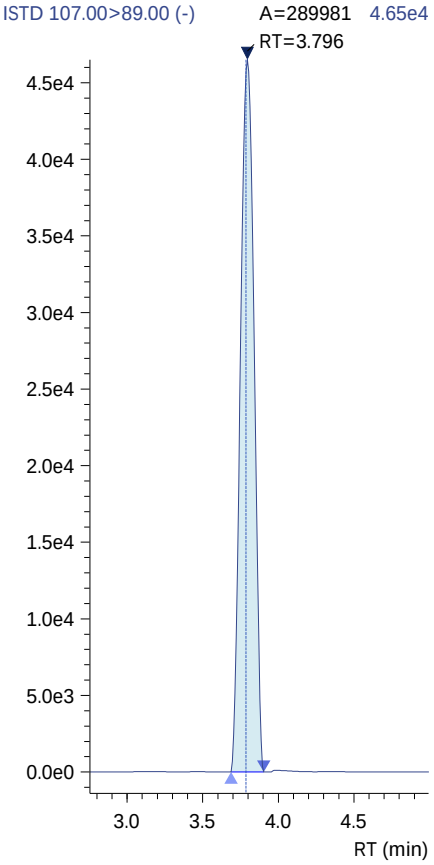
Conc 0.5035
R#1 37.19 (34.20)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

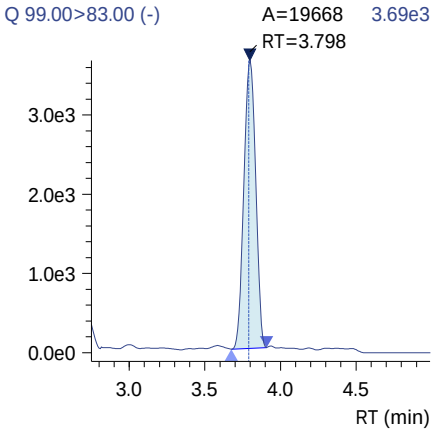
Printed at 10/24/2022 9:43:49 AM

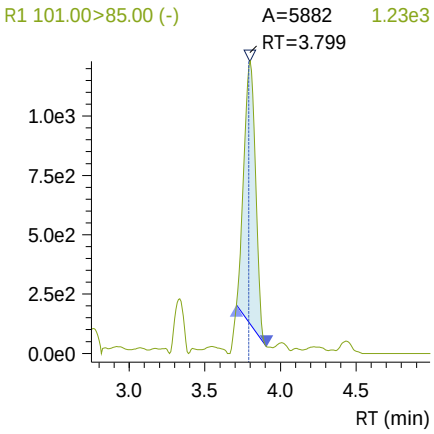
PERCHLORATE2

Sample ID: PERCHLORATE2
Date Acquired: 10/13/2022 11:02:18 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221013ICAL\20221013_017.lcd
Vial: 39 | Inj. Volume: 25.0000uL | Tray: 1

Perchlorate

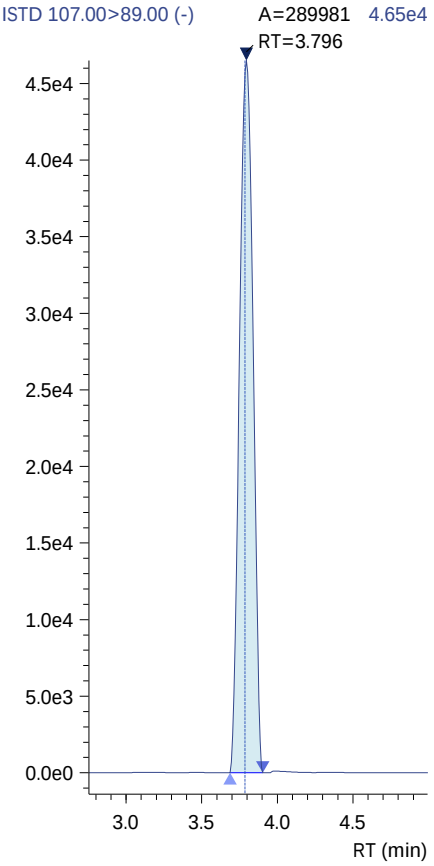
Conc 0.5040
R#1 29.91 (33.91)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/24/2022 11:16:28 AM

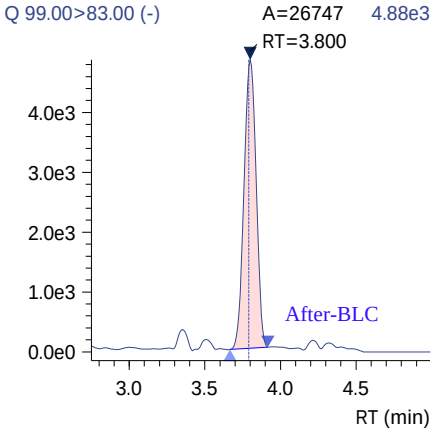
PERCHLORATE3

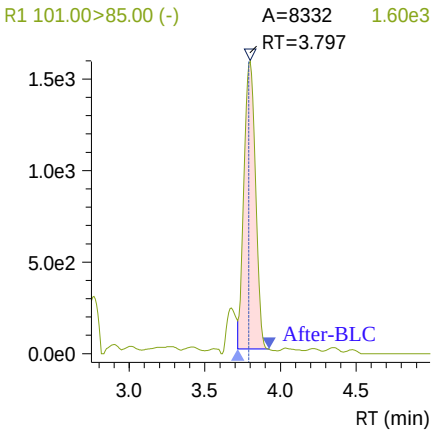
Sample ID: PERCHLORATE3
Date Acquired: 10/13/2022 11:10:43 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221013ICAL\20221013_018.lcd
Vial: 40 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.800	26747	286041	0.6942	ng/mL	101.00 >85.00	31.15	23.94 -44.46
Sodium Perchlorate -18O4_IS	Auto	3.796	286041	286041	1.0000	ng/mL	----	----	

Perchlorate

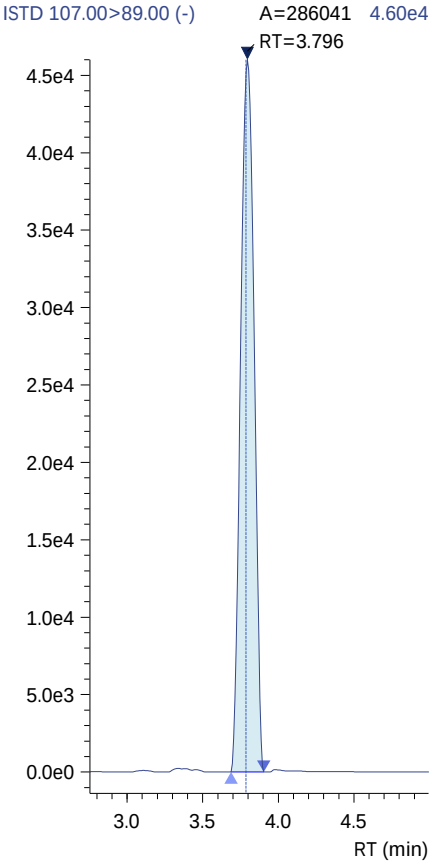
Conc 0.6942
R#1 31.15 (34.20)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/24/2022 9:43:49 AM

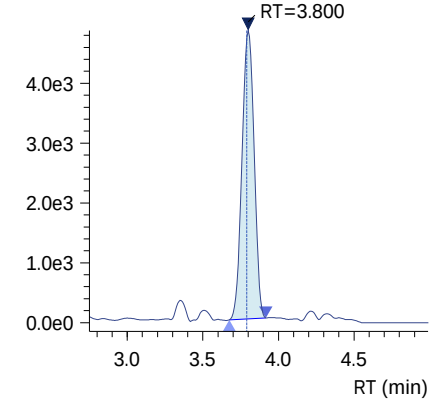
PERCHLORATE3

Sample ID: PERCHLORATE3
Date Acquired: 10/13/2022 11:10:43 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221013ICAL\20221013_018.lcd
Vial: 40 | Inj. Volume: 25.0000uL | Tray: 1

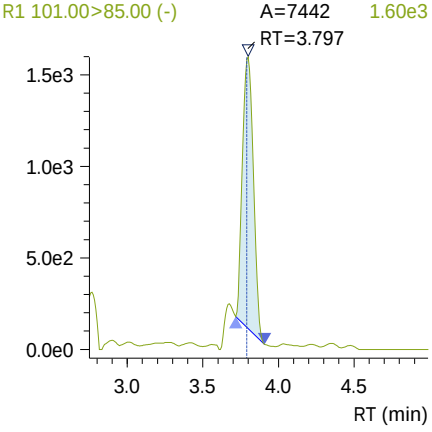
Perchlorate

Conc 0.6936
R#1 27.88 (33.91)

Q 99.00>83.00 (-) A=26697 4.88e3



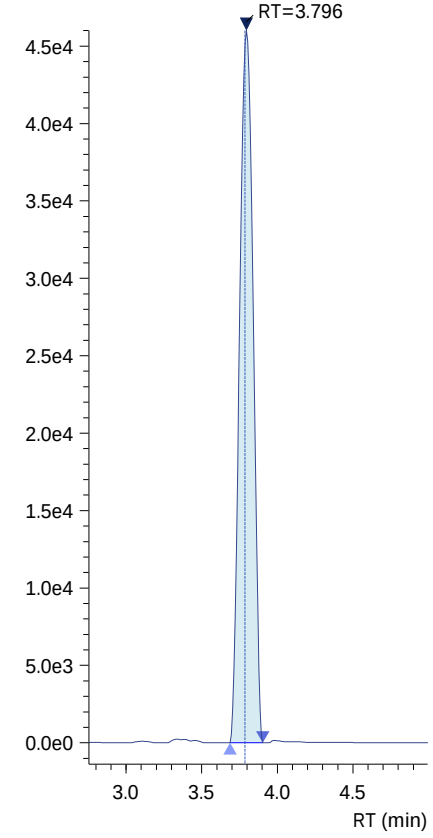
R1 101.00>85.00 (-) A=7442 1.60e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=286041 4.60e4



Insight Report

Printed at 10/24/2022 11:16:28 AM

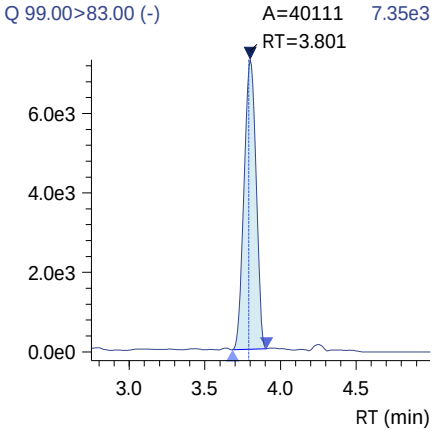
PERCHLORATE4

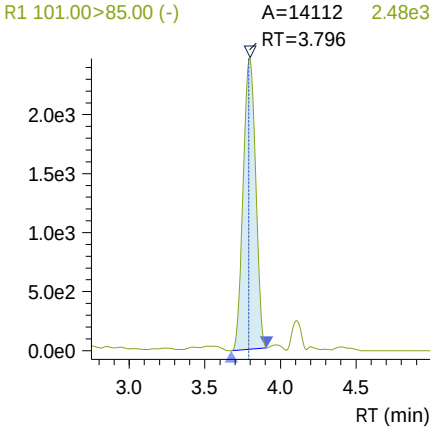
Sample ID: PERCHLORATE4
Date Acquired: 10/13/2022 11:19:07 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221013ICAL\20221013_019.lcd
Vial: 41 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.801	40111	283200	1.0514	ng/mL	101.00 >85.00	35.18	23.94 -44.46
Sodium Perchlorate -18O4_IS	Auto	3.797	283200	283200	1.0000	ng/mL	----	----	

Perchlorate

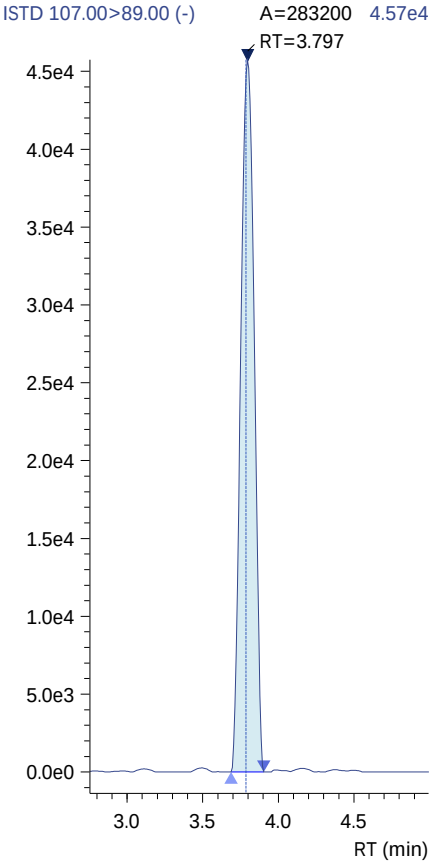
Conc 1.0514
R#1 35.18 (34.20)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/24/2022 11:16:28 AM

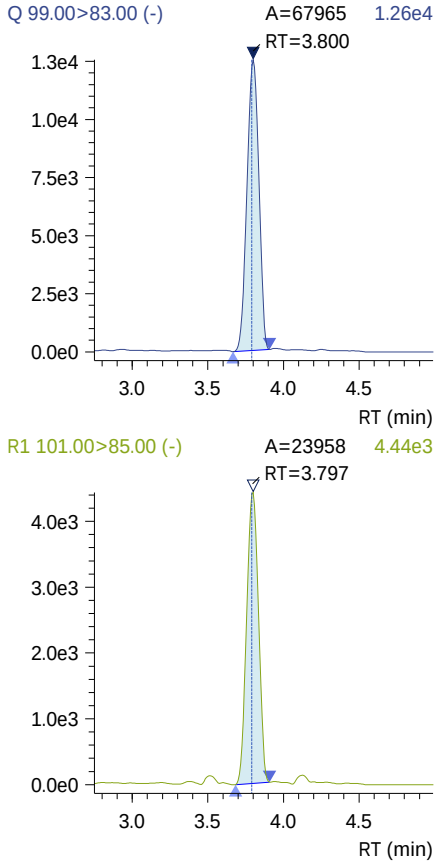
PERCHLORATE5

Sample ID: PERCHLORATE5
Date Acquired: 10/13/2022 11:27:29 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221013ICAL\20221013_020.lcd
Vial: 42 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.800	67965	275186	1.8335	ng/mL	101.00 >85.00	35.25	23.94 -44.46
Sodium Perchlorate -18O4_IS	Auto	3.796	275186	275186	1.0000	ng/mL	----	----	

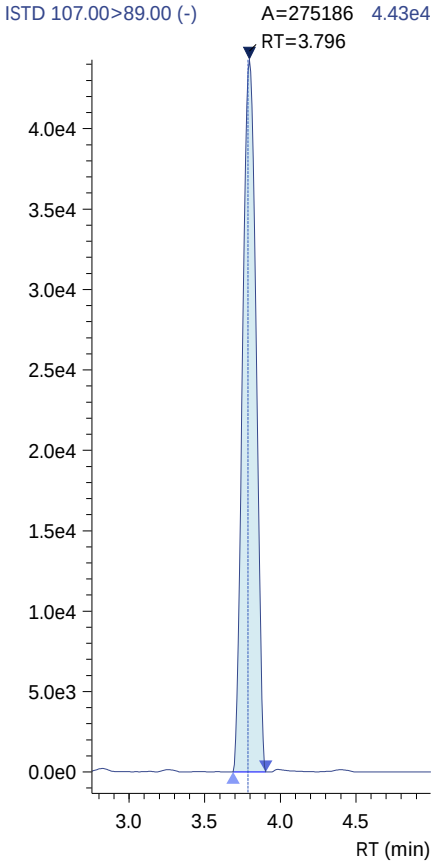
Perchlorate

Conc 1.8335
R#1 35.25 (34.20)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/24/2022 11:16:28 AM

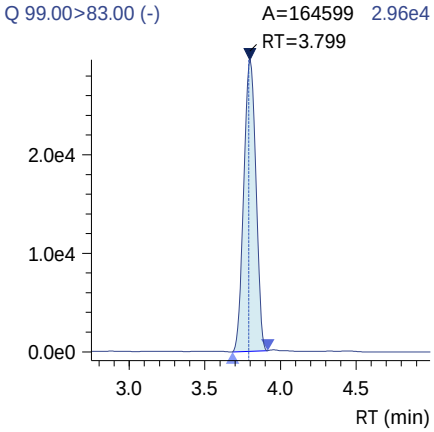
PERCHLORATE6

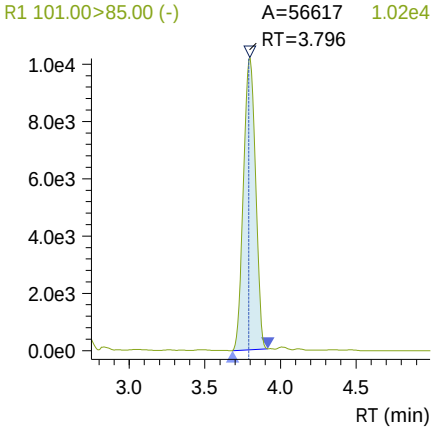
Sample ID: PERCHLORATE6
Date Acquired: 10/13/2022 11:35:51 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221013ICAL\20221013_021.lcd
Vial: 43 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.799	164599	256637	4.7613	ng/mL	101.00 >85.00	34.40	23.94 -44.46
Sodium Perchlorate -18O4_IS	Auto	3.796	256637	256637	1.0000	ng/mL	----	----	

Perchlorate

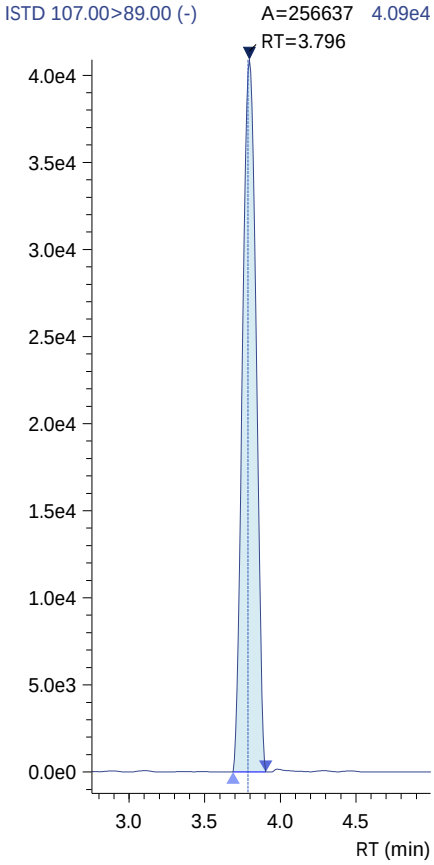
Conc 4.7613
R#1 34.40 (34.20)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/24/2022 11:16:28 AM

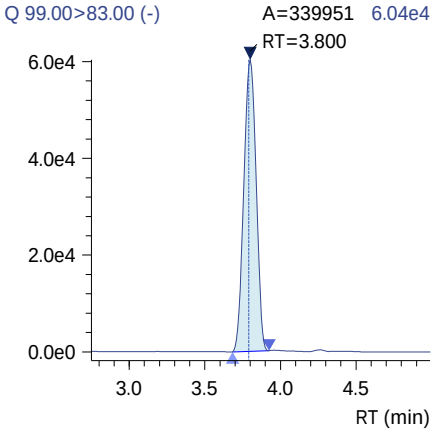
PERCHLORATE7

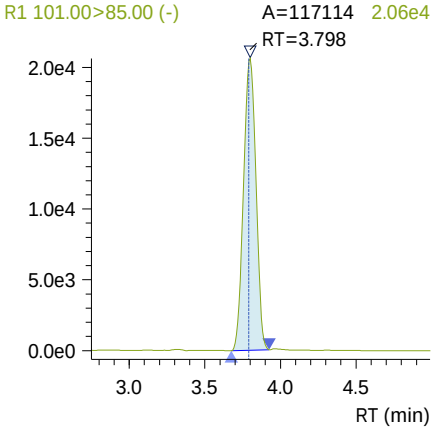
Sample ID: PERCHLORATE7
Date Acquired: 10/13/2022 11:44:14 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221013ICAL\20221013_022.lcd
Vial: 44 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.800	339951	223356	11.2988	ng/mL	101.00 >85.00	34.45	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.796	223356	223356	1.0000	ng/mL	----	----	

Perchlorate

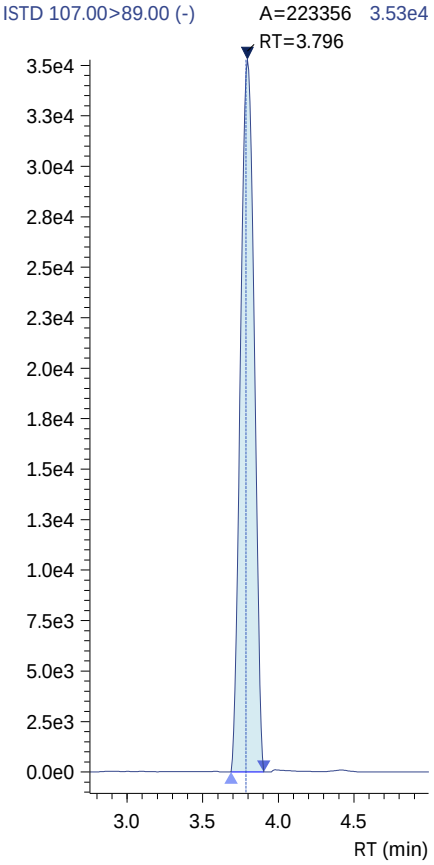
Conc 11.2988
R#1 34.45 (34.20)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/24/2022 11:16:28 AM

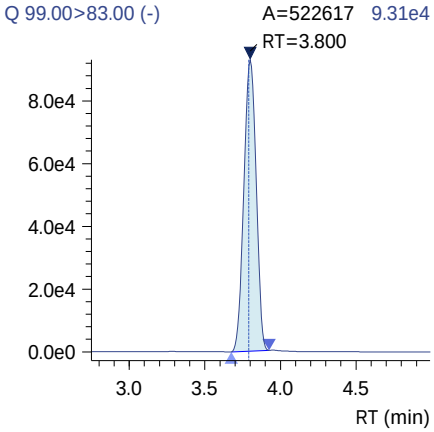
PERCHLORATE8

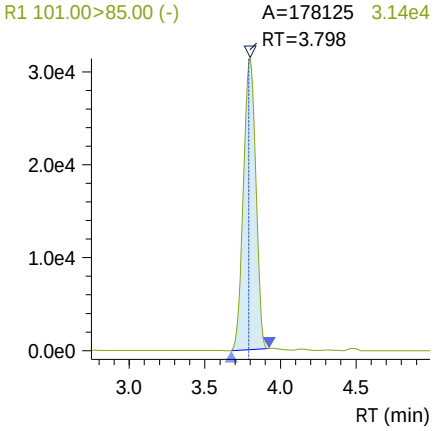
Sample ID: PERCHLORATE8
Date Acquired: 10/13/2022 11:52:37 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221013ICAL\20221013_023.lcd
Vial: 45 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.800	522617	198677	19.5 276	ng/mL	101.00 >85.00	34.08	23.94 -44.46
Sodium Perchlorate -18O4_IS	Auto	3.797	198677	198677	1.0000	ng/mL	----	----	

Perchlorate

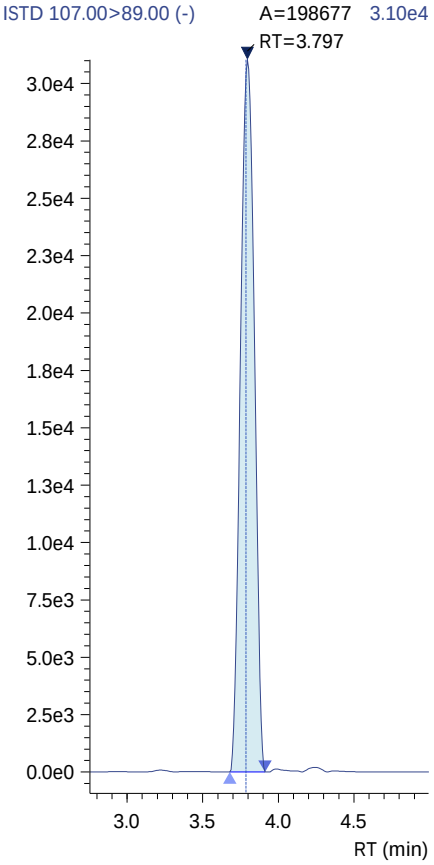
Conc 19.5276
R#1 34.08 (34.20)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/24/2022 11:16:28 AM

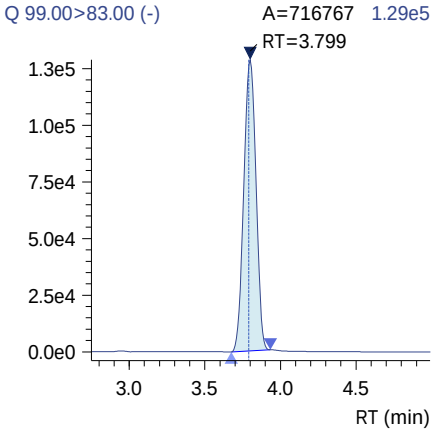
PERCHLORATE9

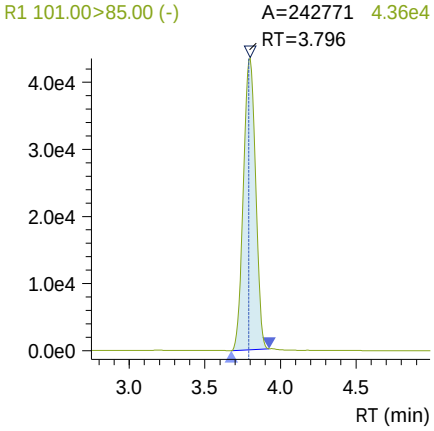
Sample ID: PERCHLORATE9
Date Acquired: 10/13/2022 12:01:03 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221013ICAL\20221013_024.lcd
Vial: 46 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.799	716767	179402	29.6596	ng/mL	101.00 >85.00	33.87	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.796	179402	179402	1.0000	ng/mL	----	----	

Perchlorate

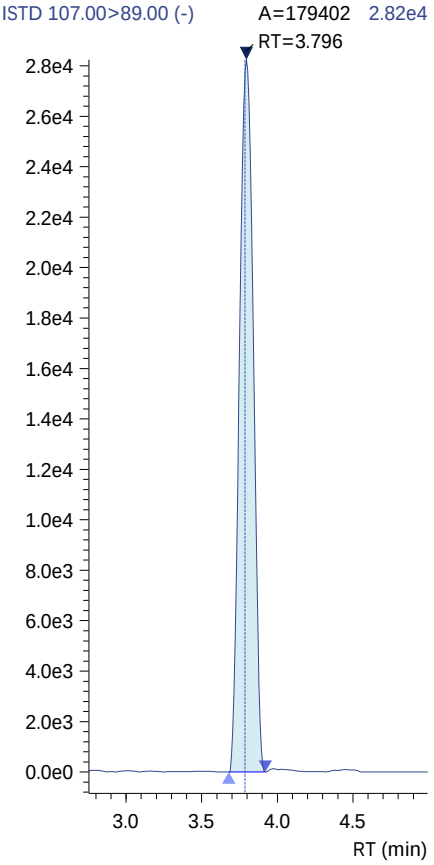
Conc 29.6596
R#1 33.87 (34.20)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/24/2022 11:16:28 AM

PERCHLORATE10

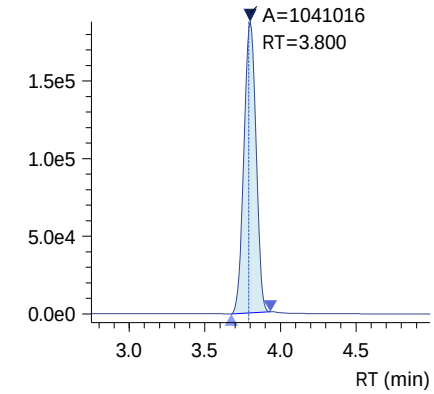
Sample ID: PERCHLORATE10
Date Acquired: 10/13/2022 12:09:25 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221013ICAL\20221013_025.lcd
Vial: 47 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.800	10410	159903	48.3	ng/mL	101.00	34.31	23.94
			16		299		>85.00		-44.46
Sodium Perchlorate -18O4_IS	Auto	3.796	159903	159903	1.0000	ng/mL	----	----	

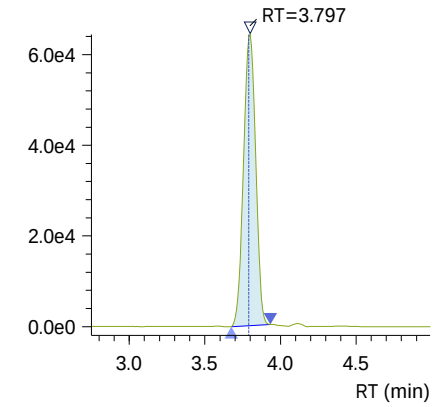
Perchlorate

Conc 48.3299
R#1 34.31 (34.20)

Q 99.00>83.00 (-) 1.88e5



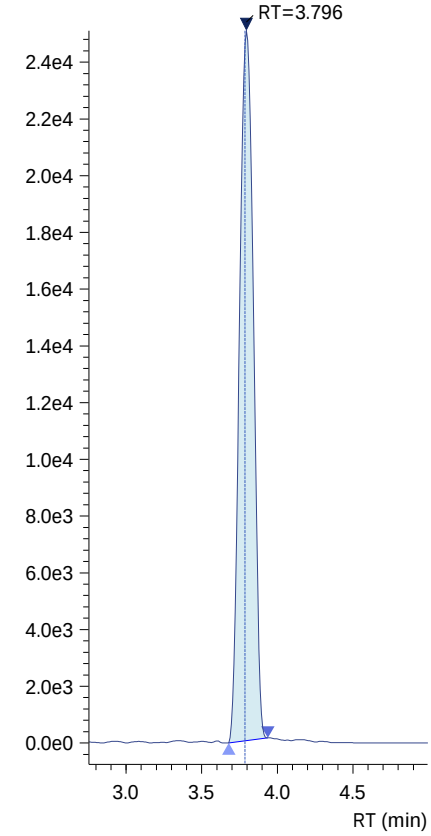
R1 101.00>85.00 (-) A=357160 6.44e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=159903 2.51e4



Insight Report

Printed at 10/24/2022 11:16:28 AM

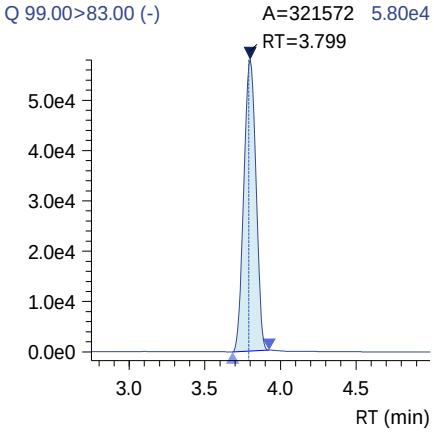
PERCHLORATEICV

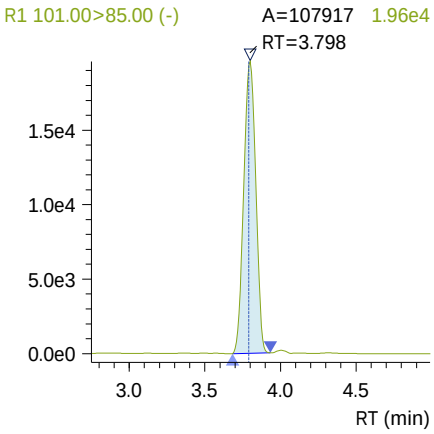
Sample ID: PERCHLORATEICV
Date Acquired: 10/13/2022 12:17:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221013ICAL\20221013_026.lcd
Vial: 48 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.799	321572	218649	10.9 180	ng/mL	101.00 >85.00	33.56	23.94 -44.46
Sodium Perchlorate -18O4_IS	Auto	3.797	218649	218649	1.0000	ng/mL	----	----	

Perchlorate

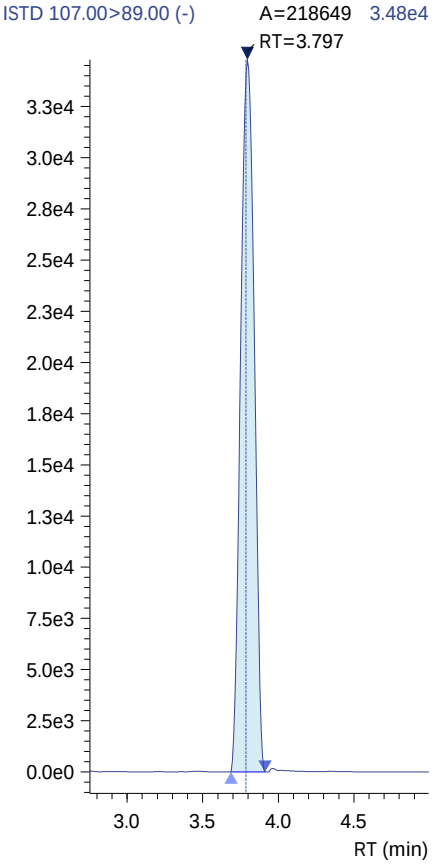
Conc 10.9180
R#1 33.56 (34.20)





Sodium Perchlorate-18O4_IS

Conc 1.0000



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

20221017

1st Review: XMI
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 10/13/2022
Cal. Std. xp: 1/31/2023
ICAL ID: EC2200014

Mobile Phases A:0.10% Formic Acid/Water 3210301-02 B:MeOH 224417

	Sample Name	File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	IB	20221017_006	Perchlorate6850c.lcm	1x	☒		10/17/2022 9:48
2	IB	20221017_007	Perchlorate6850c.lcm	1x	☒		10/17/2022 9:56
3	ICS	20221017_008	Perchlorate6850c.lcm	1x	☒	DNU-reinject	10/17/2022 10:05
4	LODV	20221017_009	Perchlorate6850c.lcm	1x	☒	225199	10/17/2022 10:13
5	ICS	20221017_010	Perchlorate6850c.lcm	1x	☒		10/17/2022 14:02
6	PERCHLORATE7	20221017_011	Perchlorate6850c.lcm	1x	☒	225398	10/17/2022 14:10
7	EQ2200467-01	20221017_012	Perchlorate6850c.lcm	1x	☒		10/17/2022 14:18
8	EQ2200467-02	20221017_013	Perchlorate6850c.lcm	1x	☒		10/17/2022 14:27
9	EQ2200467-03	20221017_014	Perchlorate6850c.lcm	1x	☒		10/17/2022 14:35
10	EQ2200467-04	20221017_015	Perchlorate6850c.lcm	1x	☒		10/17/2022 14:44
11	EQ2200467-05	20221017_016	Perchlorate6850c.lcm	1x	☒		10/17/2022 14:52
12	E2200988-001	20221017_017	Perchlorate6850c.lcm	1x	☒		10/17/2022 15:00
13	E2200988-002	20221017_018	Perchlorate6850c.lcm	1x	☒		10/17/2022 15:09
14	E2200974-001	20221017_019	Perchlorate6850c.lcm	1x	☒		10/17/2022 15:17
15	E2200974-002	20221017_020	Perchlorate6850c.lcm	1x	☒	DNU-reinject for IR	10/17/2022 15:25
16	E2200974-003	20221017_021	Perchlorate6850c.lcm	1x	☒		10/17/2022 15:34
17	PERCHLORATE7	20221017_022	Perchlorate6850c.lcm	1x	☒	225398	10/17/2022 15:42
18	E2200974-004	20221017_023	Perchlorate6850c.lcm	1x	☒		10/17/2022 15:51
19	E2200974-005	20221017_024	Perchlorate6850c.lcm	1000x	☒		10/17/2022 15:59
20	E2200974-006	20221017_025	Perchlorate6850c.lcm	5000x	☒		10/17/2022 16:07
21	R2209422-006	20221017_026	Perchlorate6850c.lcm	1x	☒		10/17/2022 16:16
22	R2209422-013	20221017_027	Perchlorate6850c.lcm	1x	☒		10/17/2022 16:24
23	R2209491-019	20221017_028	Perchlorate6850c.lcm	1x	☒		10/17/2022 16:33
24	R2209491-023	20221017_029	Perchlorate6850c.lcm	1x	☒		10/17/2022 16:41
25	R2209637-008	20221017_030	Perchlorate6850c.lcm	1x	☒		10/17/2022 16:49
26	R2209637-016	20221017_031	Perchlorate6850c.lcm	1x	☒		10/17/2022 16:58
27	E2200974-002	20221017_032	Perchlorate6850c.lcm	1x	☒	DNU-reinject for IR	10/17/2022 17:06
28	PERCHLORATE7	20221017_033	Perchlorate6850c.lcm	1x	☒	225398	10/17/2022 17:14
29	EQ2200469-01	20221017_034	Perchlorate6850c.lcm	1x	☒		10/17/2022 17:23
30	EQ2200469-02	20221017_035	Perchlorate6850c.lcm	1x	☒		10/17/2022 17:31
31	EQ2200469-03	20221017_036	Perchlorate6850c.lcm	1x	☒		10/17/2022 17:40
32	EQ2200469-04	20221017_037	Perchlorate6850c.lcm	1x	☒		10/17/2022 17:48
33	EQ2200469-05	20221017_038	Perchlorate6850c.lcm	1x	☒	DNU-reinject	10/17/2022 17:56
34	E2200993-001	20221017_039	Perchlorate6850c.lcm	1x	☒		10/17/2022 18:05
35	E2200993-002	20221017_040	Perchlorate6850c.lcm	200x	☒		10/17/2022 18:13
36	E2200993-003	20221017_041	Perchlorate6850c.lcm	200x	☒		10/17/2022 18:22
37	E2200993-004	20221017_042	Perchlorate6850c.lcm	10x	☒		10/17/2022 18:30
38	E2200993-005	20221017_043	Perchlorate6850c.lcm	1000x	☒		10/17/2022 18:38
39	PERCHLORATE7	20221017_044	Perchlorate6850c.lcm	1x	☒	225398	10/17/2022 18:47
40	E2200993-006	20221017_045	Perchlorate6850c.lcm	1000x	☒		10/17/2022 18:55
41	IB	20221017_046	Perchlorate6850c.lcm	1x	☒		10/17/2022 19:04
42	E2200993-007	20221017_047	Perchlorate6850c.lcm	1x	☒		10/17/2022 19:12
43	E2200994-001	20221017_048	Perchlorate6850c.lcm	1x	☒	DNU-reinject for IR	10/17/2022 19:20
44	E2200994-002	20221017_049	Perchlorate6850c.lcm	1x	☒		10/17/2022 19:29
45	E2200994-003	20221017_050	Perchlorate6850c.lcm	1x	☒		10/17/2022 19:37
46	E2200994-004	20221017_051	Perchlorate6850c.lcm	1x	☒		10/17/2022 19:46
47	E2200994-005	20221017_052	Perchlorate6850c.lcm	1x	☒		10/17/2022 19:54
48	E2200994-006	20221017_053	Perchlorate6850c.lcm	1x	☒		10/17/2022 20:02
49	E2200994-007	20221017_054	Perchlorate6850c.lcm	1x	☒		10/17/2022 20:11
50	PERCHLORATE7	20221017_055	Perchlorate6850c.lcm	1x	☒	225398	10/17/2022 20:19

I:\LCMS01\InjectionLogs\LCMS01_20221017injection log

20221017

1st Review: XMI
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 10/13/2022
Cal. Std. xp: 1/31/2023
ICAL ID: EC2200014

Mobile Phases A:0.10% Formic Acid/Water 3210301-02 B:MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
51	E2200994-008		20221017_056	Perchlorate6850c.lcm	1x	☒		10/17/2022 20:28
52	E2200994-009		20221017_057	Perchlorate6850c.lcm	1x	☒		10/17/2022 20:36
53	E2200807-003		20221017_058	Perchlorate6850c.lcm	1x	☒		10/17/2022 20:44
54	E2200807-004		20221017_059	Perchlorate6850c.lcm	1x	☒		10/17/2022 20:53
55	PERCHLORATE7		20221017_060	Perchlorate6850c.lcm	1x	☒	225398	10/17/2022 21:01
56	IB		20221017_061	Perchlorate6850c.lcm	1x	☒		10/17/2022 21:09
57	IB		20221017_062	Perchlorate6850c.lcm	1x	☒		10/17/2022 21:18
58	null		20221017_063	Perchlorate6850c.lcm	1x	☒		10/17/2022 21:23
59	null		20221017_064	Perchlorate6850c.lcm	1x	☒		10/17/2022 21:29

20221018

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: Kneir

ICAL Date: 10/13/2022
Cal. Std. xp: 1/31/2023
ICAL ID: EC2200014

Mobile Phases A:0.10% Formic Acid/Water 3210301-02 B:MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	IB		20221018_006	Perchlorate6850c.lcm	1x	☒		10/18/2022 10:12
2	IB		20221018_007	Perchlorate6850c.lcm	1x	☒		10/18/2022 10:21
3	ICS		20221018_008	Perchlorate6850c.lcm	1x	☒		10/18/2022 10:29
4	LODV		20221018_009	Perchlorate6850c.lcm	1x	☒	225199	10/18/2022 10:37
5	PERCHLORATE7		20221018_010	Perchlorate6850c.lcm	1x	☒	225398	10/18/2022 10:46
6	E2200994-001		20221018_012	Perchlorate6850c.lcm	1x	☒		10/18/2022 10:54
7	EQ2200469-05		20221018_014	Perchlorate6850c.lcm	1x	☒		10/18/2022 11:03
8	PERCHLORATE7		20221018_015	Perchlorate6850c.lcm	1x	☒	225398	10/18/2022 11:11
9	IB		20221018_016	Perchlorate6850c.lcm	1x	☒		10/18/2022 11:19
10	IB		20221018_017	Perchlorate6850c.lcm	1x	☒		10/18/2022 11:28
11	null		20221018_018	Perchlorate6850c.lcm	1x	☒		10/18/2022 11:33
12	null		20221018_019	Perchlorate6850c.lcm	1x	☒		10/18/2022 11:39

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS22100577

Service Request: E2200993
Date Analyzed: 10/17/22

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\20221017\20221017_033

Calibration Date: 10/13/22
Calibration ID: EC2200014
Analysis Lot: 781288
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.8	0.1347	0.1456	8.1	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS22100577

Service Request: E2200993
Date Analyzed: 10/17/22

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\20221017\20221017_044

Calibration Date: 10/13/22
Calibration ID: EC2200014
Analysis Lot: 781288
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.7	0.1347	0.1448	7.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS22100577

Service Request: E2200993
Date Analyzed: 10/17/22

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\20221017\20221017_055

Calibration Date: 10/13/22
Calibration ID: EC2200014
Analysis Lot: 781288
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.8	0.1347	0.1461	8.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS22100577

Service Request: E2200993
Date Analyzed: 10/18/22

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\20221018\20221018_010

Calibration Date: 10/13/22
Calibration ID: EC2200014
Analysis Lot: 781799
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.4	0.1347	0.1401	4.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS22100577

Service Request: E2200993
Date Analyzed: 10/18/22

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\20221018\20221018_015

Calibration Date: 10/13/22
Calibration ID: EC2200014
Analysis Lot: 781799
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.6	0.1347	0.1424	5.7	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS22100577

Service Request: E2200993
Date Analyzed: 10/17/22 17:14

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

File ID: I:\LCMS01\DATA\20221017\20221017_033
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2200476-03
Analysis Lot: 781288
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	244,776	3.80
	Upper Limit ==>	367,164	5.80
	Lower Limit ==>	122,388	1.80
Associated Analyses			
Continuing Calibration Verification	EQ2200476-03	183,794	3.79
Method Blank	EQ2200469-01	232,774	3.79
Lab Control Sample	EQ2200469-02	238,567	3.79
Duplicate Lab Control Sample	EQ2200469-03	235,402	3.79
50WW14-221011MS	EQ2200469-04	227,191	3.71
50WW14-221011	E2200993-001	215,229	3.71
50WW13-221011	E2200993-002	145,219	3.79
50WW11-221011	E2200993-003	142,989	3.78
50WW06-221011	E2200993-004	162,309	3.78
50WW12-221011	E2200993-005	160,723	3.79

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: HS22100577

Service Request: E2200993
Date Analyzed: 10/17/22 18:47

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

File ID: I:\LCMS01\DATA\20221017\20221017_044
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2200476-04
Analysis Lot: 781288
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	244,776	3.80
	Upper Limit ==>	367,164	5.80
	Lower Limit ==>	122,388	1.80
Associated Analyses			
Continuing Calibration Verification	EQ2200476-04	183,243	3.79
50WW12-221011-FD	E2200993-006	159,552	3.79
50WW29-221011	E2200993-007	211,307	3.71

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:**	E2200993
Project:	HS22100577	**Date Analyzed:**	10/17/22 20:19

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20221017\20221017_055	**Lab Code:**	EQ2200476-05
Instrument ID:	E-LCMS-01	**Analysis Lot:**	781288
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	244,776	3.80
	Upper Limit ==>	367,164	5.80
	Lower Limit ==>	122,388	1.80
Associated Analyses			
Continuing Calibration Verification	EQ2200476-05	179,081	3.79

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:**	E2200993
Project:	HS22100577	**Date Analyzed:**	10/18/22 10:29

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20221018\20221018_010	**Lab Code:**	EQ2200477-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	781799
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	244,776	3.80
	Upper Limit ==>	367,164	5.80
	Lower Limit ==>	122,388	1.80
Associated Analyses			
Continuing Calibration Verification	EQ2200477-01	205,201	3.78
50WW14-221011DMS	EQ2200469-05	240,694	3.71

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:**	E2200993
Project:	HS22100577	**Date Analyzed:**	10/18/22 11:11

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20221018\20221018_015	**Lab Code:**	EQ2200477-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	781799
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	244,776	3.80
	Upper Limit ==>	367,164	5.80
	Lower Limit ==>	122,388	1.80
Associated Analyses			
Continuing Calibration Verification	EQ2200477-02	203,736	3.79

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

Insight Report

Printed at 10/19/2022 10:19:52 AM

Method File: I:\LCMS01\DATA\20221017\Perchlorate6850i-intensity 10172.lcm
Project File: I:\LCMS01\DATA\20221017\10172022.damlp

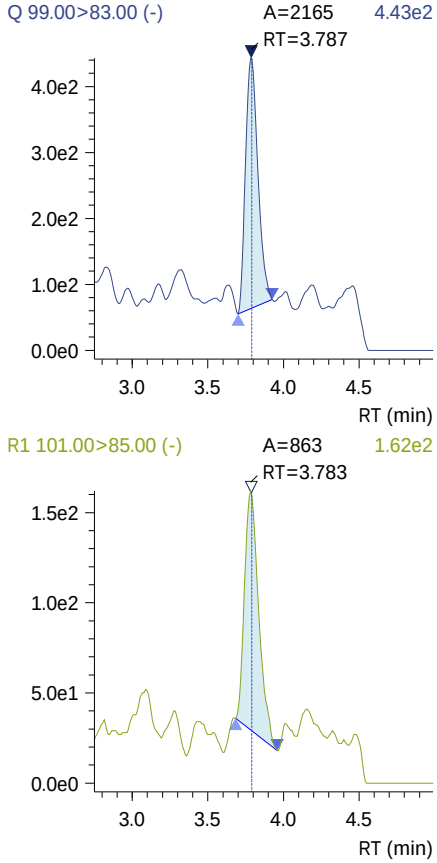
LODV

Sample ID: LODV
Date Acquired: 10/17/2022 10:13:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_009.lcd
Vial: 37 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.787	2165	280903	0.0572	ng/mL	101.00 >85.00	39.84	24.22 -44.99
Sodium Perchlorate-18O4_IS	Auto	3.785	280903	280903	1.0000	ng/mL	----	----	

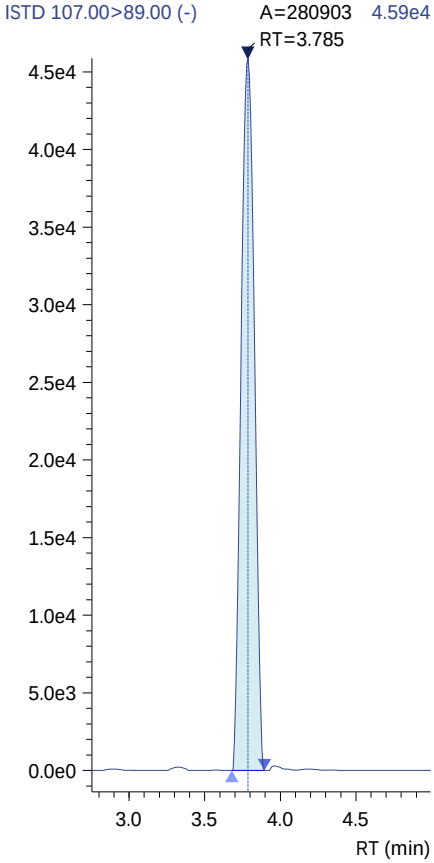
Perchlorate

Conc 0.0572
R#1 39.84 (34.61)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/19/2022 10:19:52 AM

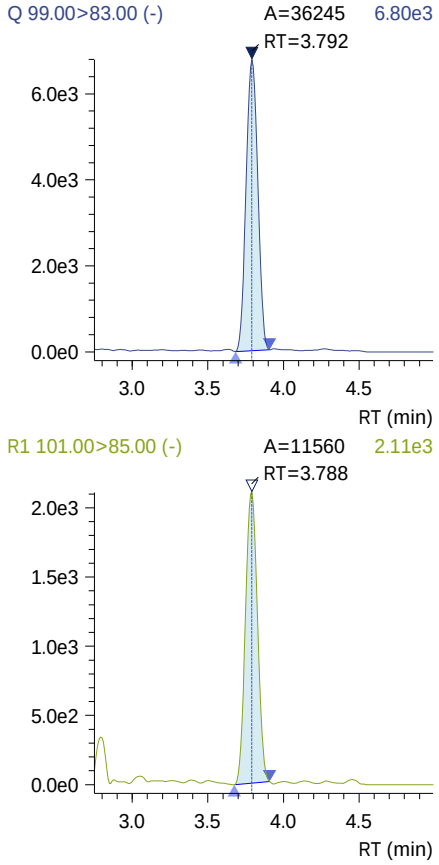
ICS

Sample ID: ICS
Date Acquired: 10/17/2022 2:02:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_010.lcd
Vial: 32 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.792	36245	244852	1.0989	ng/mL	101.00 >85.00	31.89	24.22 -44.99
Sodium Perchlorate-18O4_IS	Auto	3.787	2448 52	244852	1.0000	ng/mL	----	----	

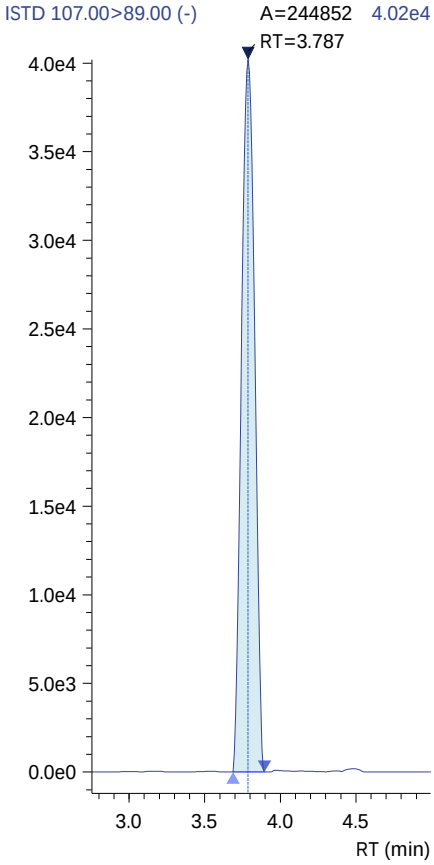
Perchlorate

Conc 1.0989
R#1 31.89 (34.61)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/19/2022 10:19:52 AM

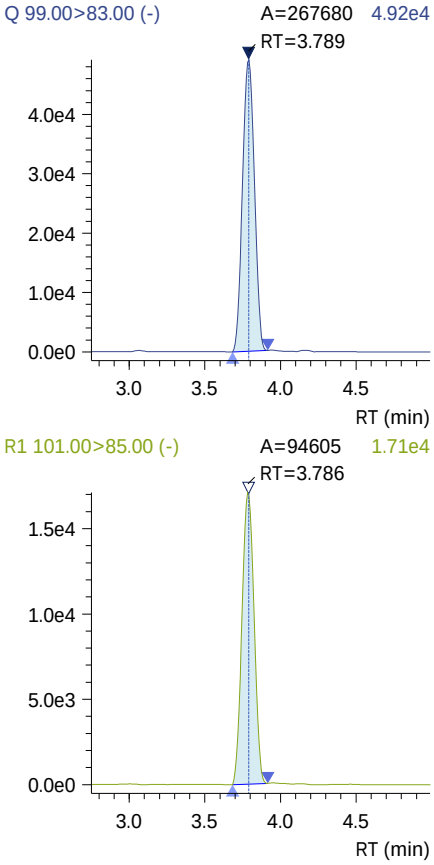
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 10/17/2022 5:14:57 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_033.lcd
Vial: 44 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.789	267680 80	183794	10.8 118	ng/mL	101.00 >85.00	35.34	24.22 -44.99
Sodium Perchlorate-18O4_IS	Auto	3.786	183794	183794	1.0000	ng/mL	----	----	

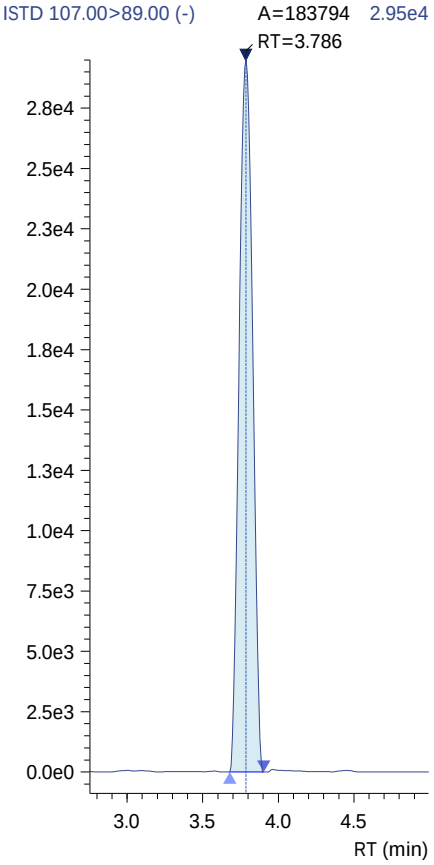
Perchlorate

Conc 10.8118
R#1 35.34 (34.61)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/19/2022 10:19:52 AM

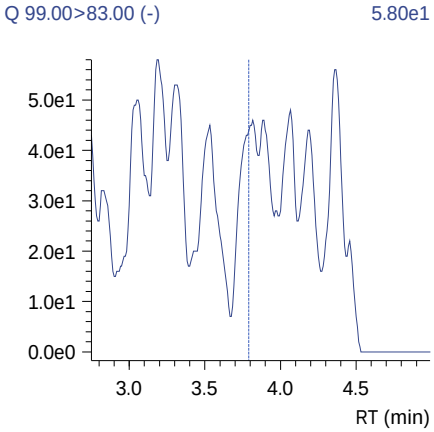
EQ2200469-01

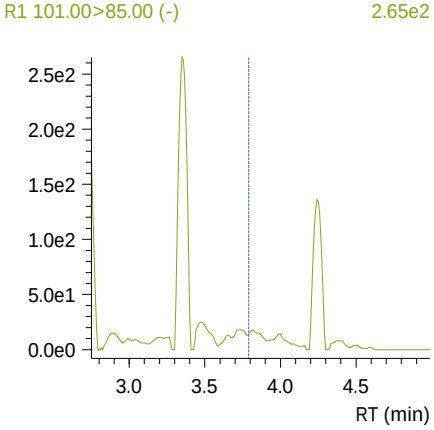
Sample ID: EQ2200469-01
Date Acquired: 10/17/2022 5:23:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_034.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	232774	----	ng/mL	101.00 >85.00	0.00	24.22 -44.99
Sodium Perchlorate-18O4_IS	Auto	3.788	232774	232774	1.0000	ng/mL	----	----	

Perchlorate

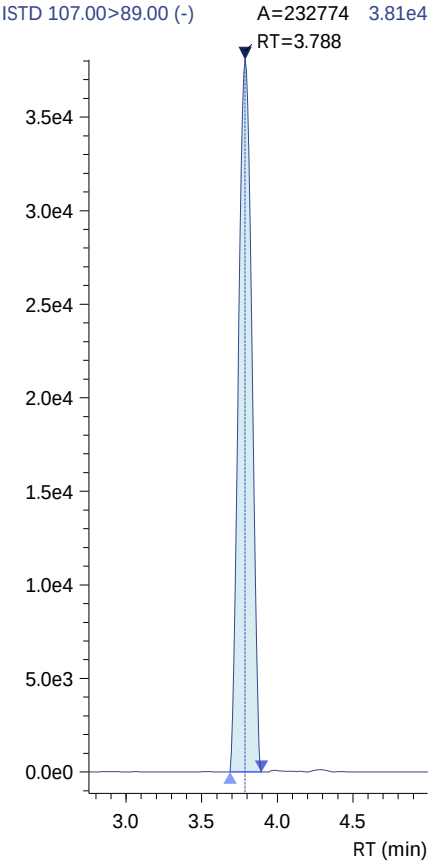
Conc ----
R#1 0.00 (34.61)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/19/2022 10:19:52 AM

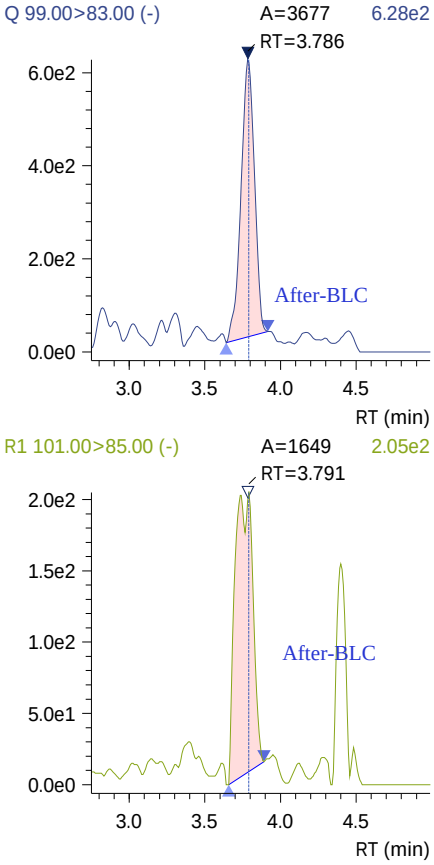
EQ2200469-02

Sample ID: EQ2200469-02
Date Acquired: 10/17/2022 5:31:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_035.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.786	3677	238567	0.1144	ng/mL	101.00 >85.00	44.85	24.22 -44.99
Sodium Perchlorate-18O4 _IS	Auto	3.787	238567	238567	1.0000	ng/mL	----	----	

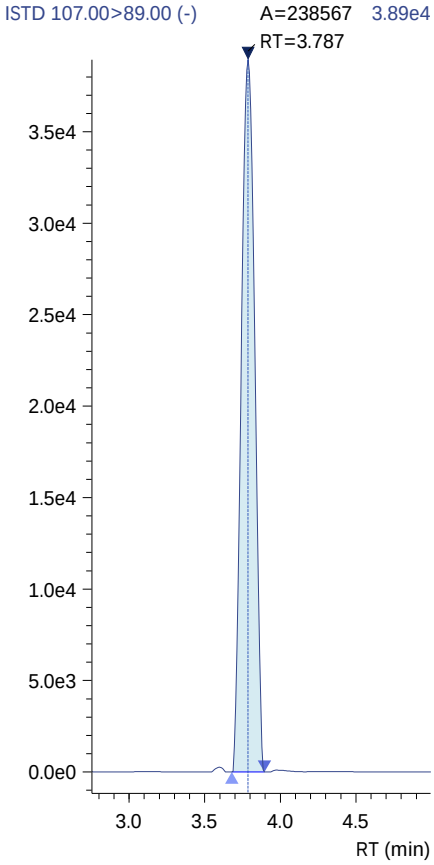
Perchlorate

Conc 0.1144
R#1 44.85 (34.61)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/19/2022 10:21:27 AM

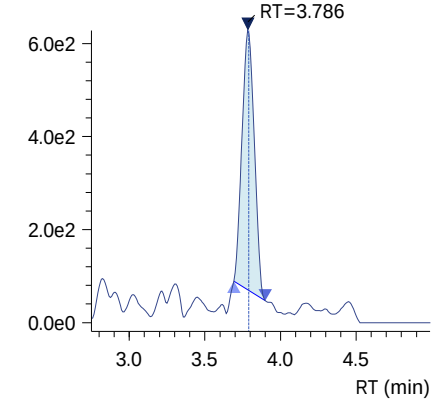
EQ2200469-02

Sample ID: EQ2200469-02
Date Acquired: 10/17/2022 5:31:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_035.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 3

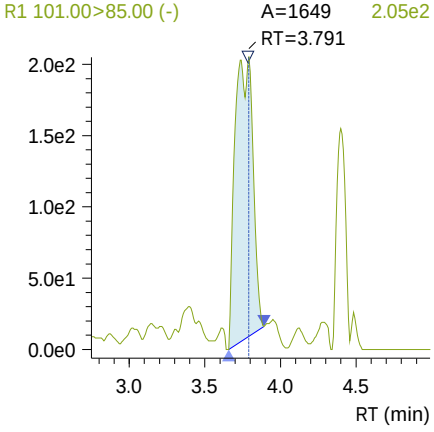
Perchlorate

Conc 0.0982
R#1 52.30 (34.61)

Q 99.00>83.00 (-) A=3153 6.28e2



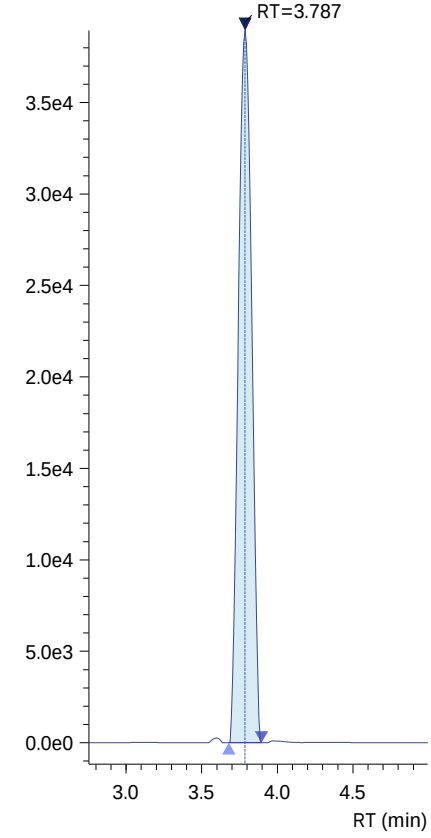
R1 101.00>85.00 (-) A=1649 2.05e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=238567 3.89e4



Insight Report

Printed at 10/19/2022 10:19:52 AM

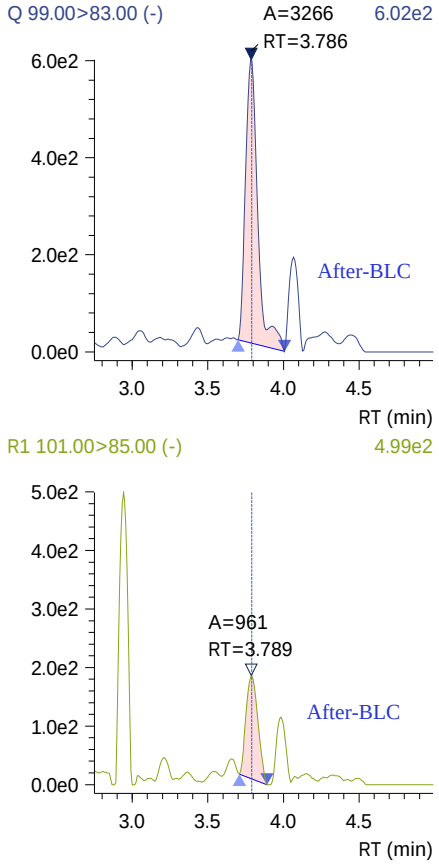
EQ2200469-03

Sample ID: EQ2200469-03
Date Acquired: 10/17/2022 5:40:07 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_036.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.786	3266	235402	0.1030	ng/mL	101.00 >85.00	29.41	24.22 -44.99
Sodium Perchlorate-18O4_IS	Auto	3.787	235402	235402	1.0000	ng/mL	----	----	

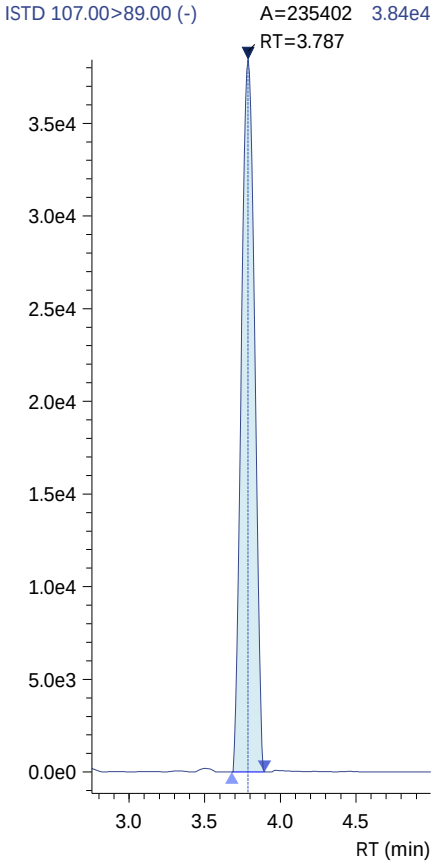
Perchlorate

Conc 0.1030
R#1 29.41 (34.61)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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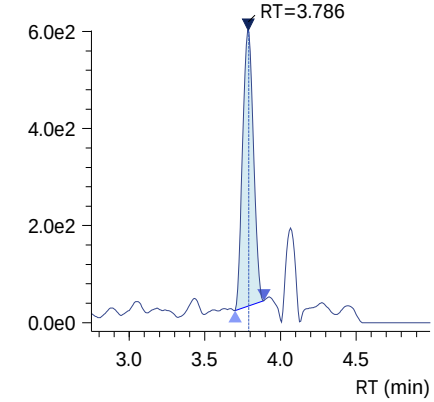
EQ2200469-03

Sample ID: EQ2200469-03
Date Acquired: 10/17/2022 5:40:07 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_036.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 3

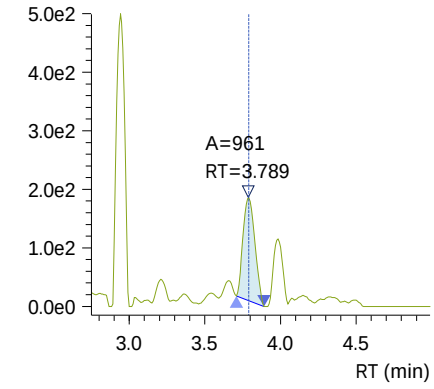
Perchlorate

Conc 0.0895
R#1 33.89 (34.61)

Q 99.00>83.00 (-) A=2834 6.02e2



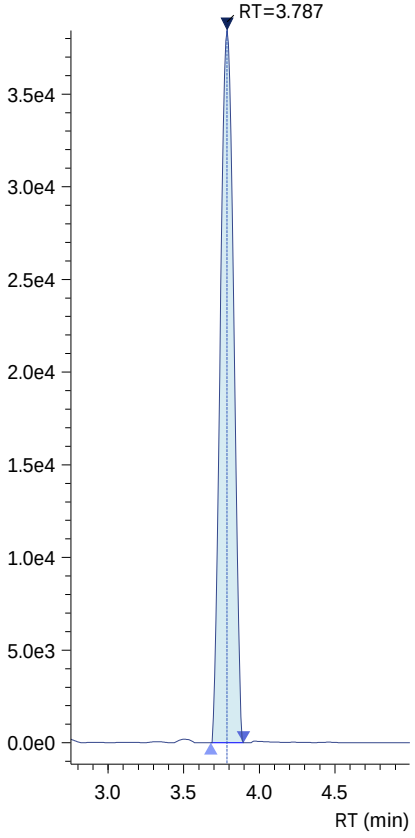
R1 101.00>85.00 (-) 4.99e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=235402 3.84e4



Insight Report

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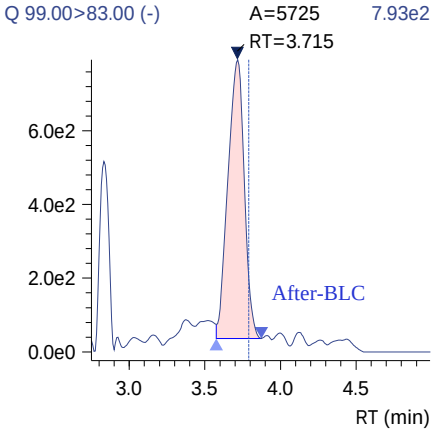
EQ2200469-04

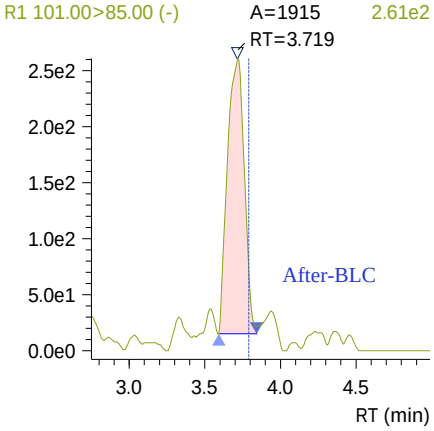
Sample ID: EQ2200469-04
Date Acquired: 10/17/2022 5:48:31 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_037.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.715	5725	227191	0.1871	ng/mL	101.00 >85.00	33.45	24.22 -44.99
Sodium Perchlorate-18O4_IS	Auto	3.707	227191	227191	1.0000	ng/mL	----	----	

Perchlorate

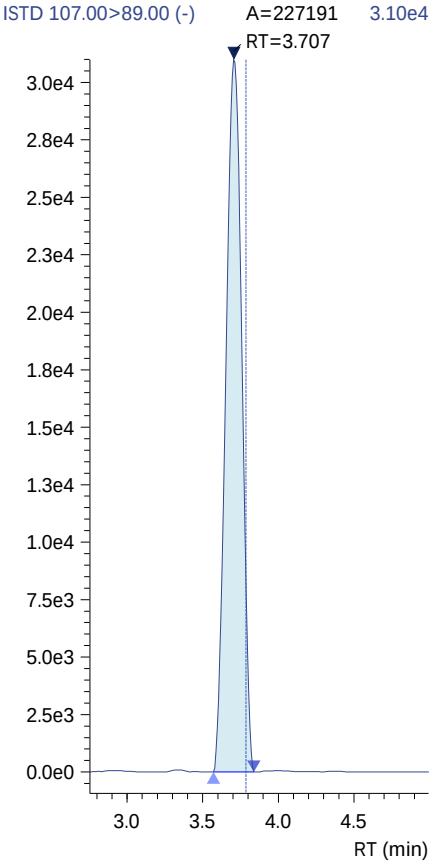
Conc 0.1871
R#1 33.45 (34.61)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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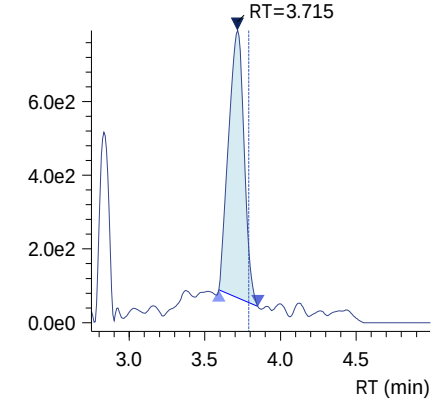
EQ2200469-04

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Date Acquired: 10/17/2022 5:48:31 PM
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Vial: 23 | Inj. Volume: 25.0000uL | Tray: 3

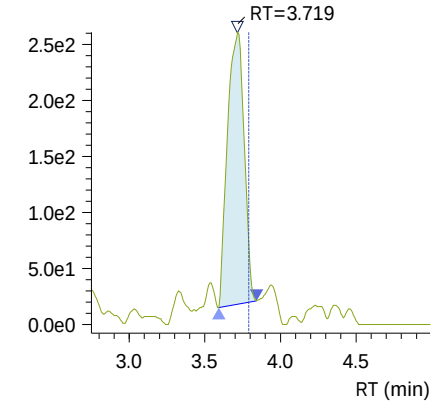
Perchlorate

Conc 0.1703
R#1 35.92 (34.61)

Q 99.00>83.00 (-) A=5206 7.93e2



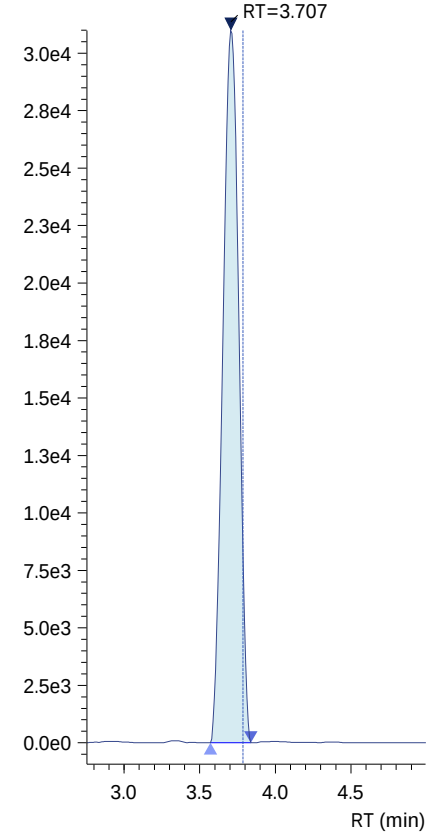
R1 101.00>85.00 (-) A=1870 2.61e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=227191 3.10e4



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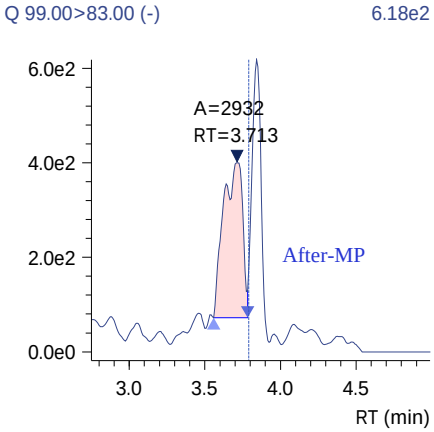
E2200993-001

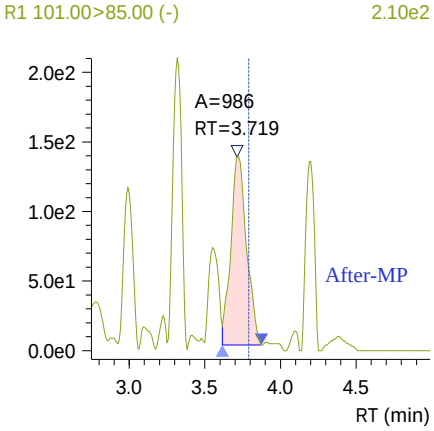
Sample ID: E2200993-001
Date Acquired: 10/17/2022 6:05:20 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_039.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.713	2932	215229	0.1011	ng/mL	101.00 >85.00	33.63	24.22 -44.99
Sodium Perchlorate-18O4_IS	Auto	3.712	215229	215229	1.0000	ng/mL	----	----	

Perchlorate

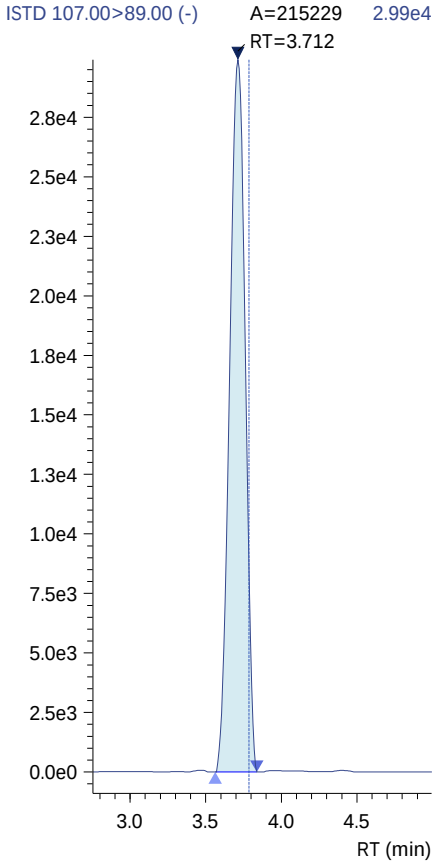
Conc 0.1011
R#1 33.63 (34.61)





Sodium Perchlorate-18O4_IS

Conc 1.0000



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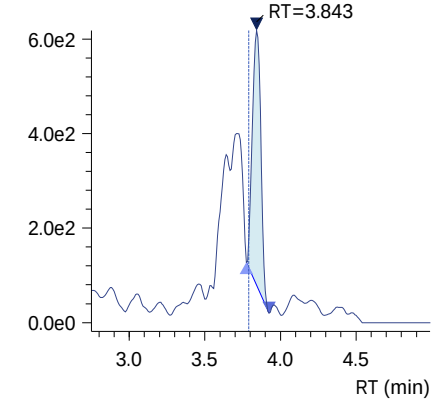
E2200993-001

Sample ID: E2200993-001
Date Acquired: 10/17/2022 6:05:20 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_039.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 3

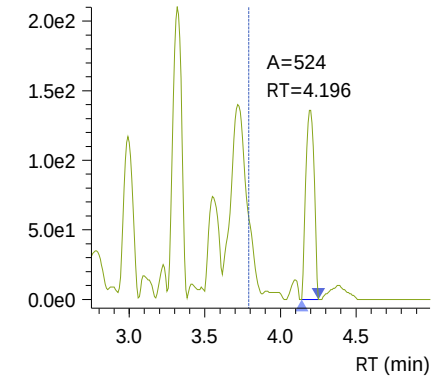
Perchlorate

Conc 0.0732
R#1 0.00 (34.61)

Q 99.00>83.00 (-) A=2120 6.18e2 RT=3.843



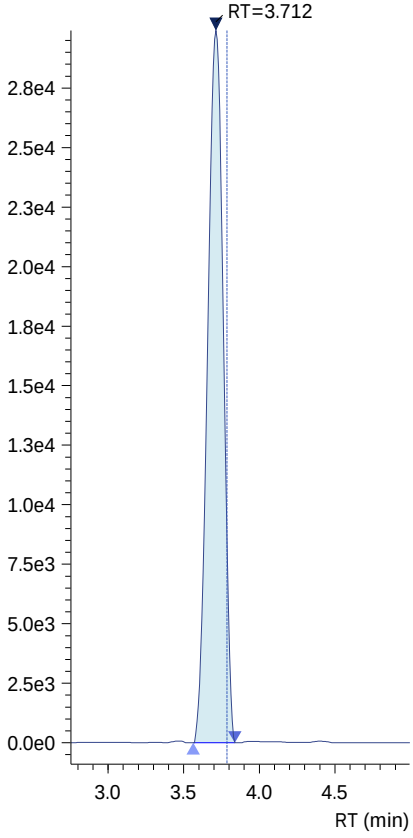
R1 101.00>85.00 (-) 2.10e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=215229 2.99e4 RT=3.712



Insight Report

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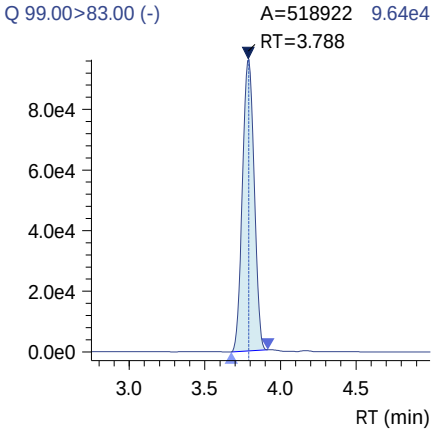
E2200993-002x200

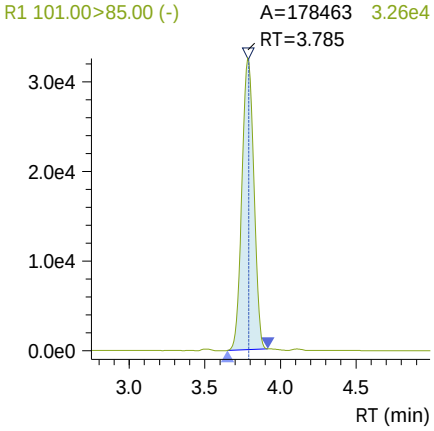
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Date Acquired: 10/17/2022 6:13:43 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_040.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.788	5189 22	145219	26.5 273	ng/mL	101.00 >85.00	34.39	24.22 -44.99
Sodium Perchlorate-18O4_IS	Auto	3.785	1452 19	145219	1.0000	ng/mL	----	----	

Perchlorate

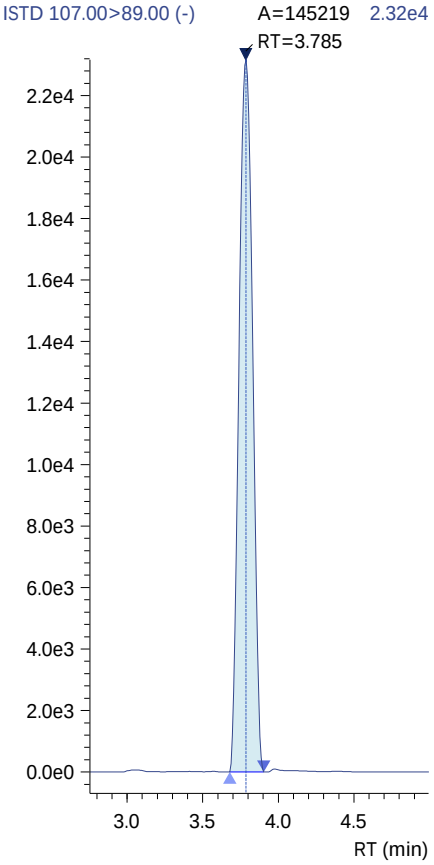
Conc 26.5273
R#1 34.39 (34.61)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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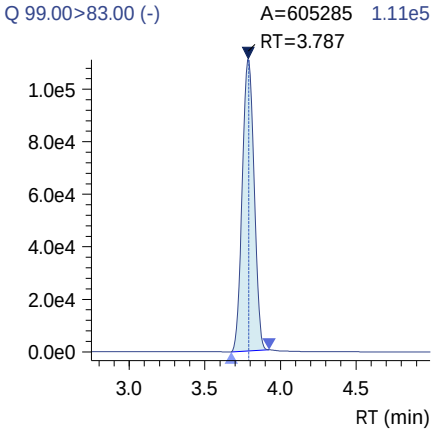
E2200993-003x200

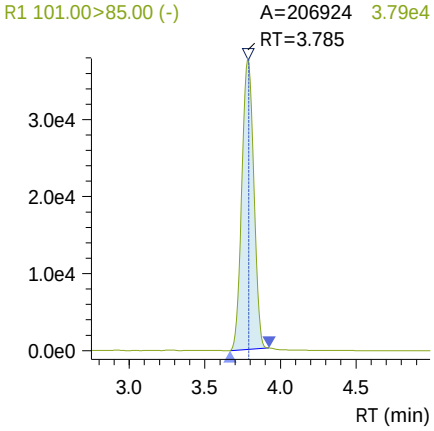
Sample ID: E2200993-003x200
Date Acquired: 10/17/2022 6:22:06 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_041.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.787	6052 85	142989	31.4 247	ng/mL	101.00 >85.00	34.19	24.22 -44.99
Sodium Perchlorate-18O4_IS	Auto	3.784	1429 89	142989	1.0000	ng/mL	----	----	

Perchlorate

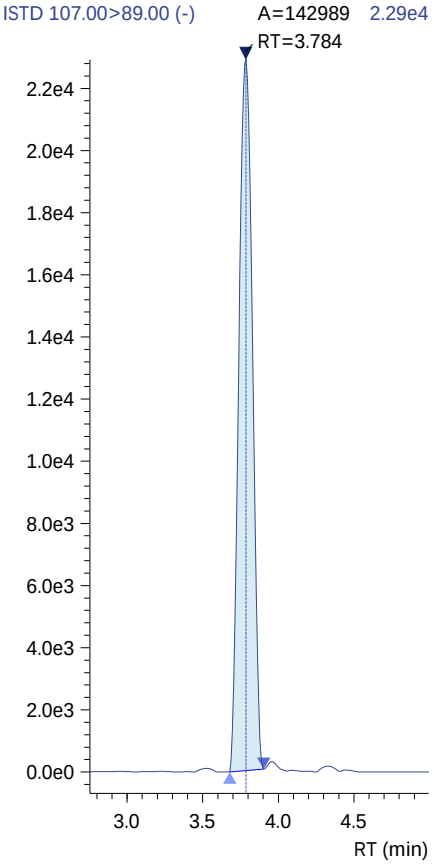
Conc 31.4247
R#1 34.19 (34.61)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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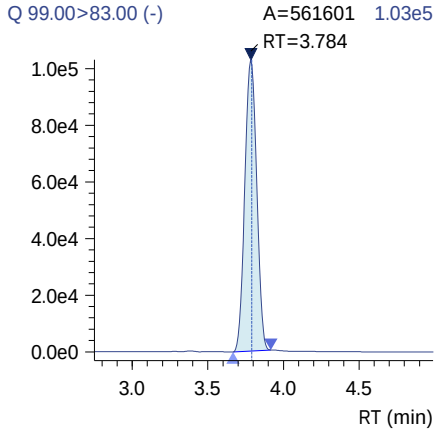
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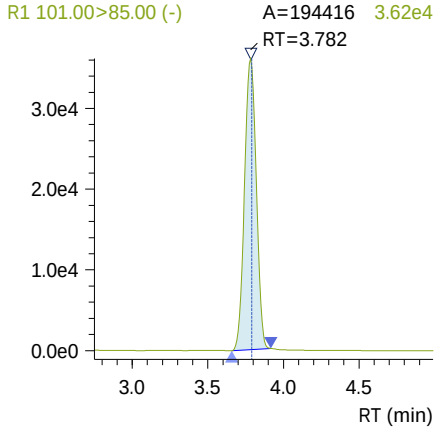
Sample ID: E2200993-004x10
Date Acquired: 10/17/2022 6:30:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_042.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.784	561601	162309	25.6861	ng/mL	101.00 >85.00	34.62	24.22 -44.99
Sodium Perchlorate-18O4_IS	Auto	3.782	162309	162309	1.0000	ng/mL	----	----	

Perchlorate

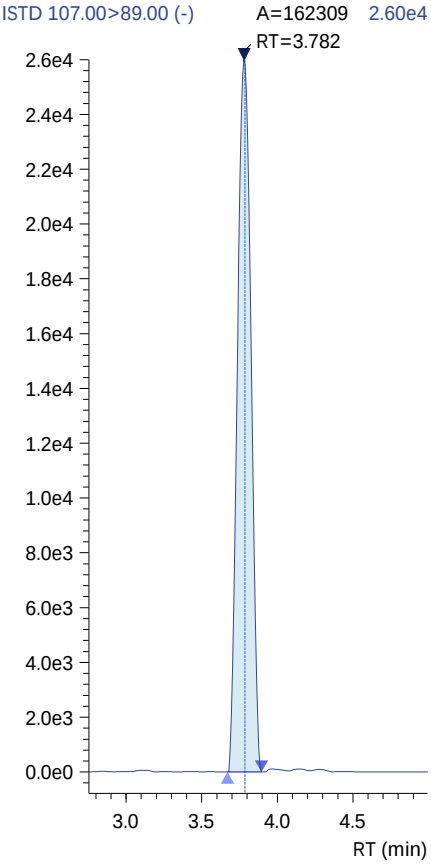
Conc 25.6861
R#1 34.62 (34.61)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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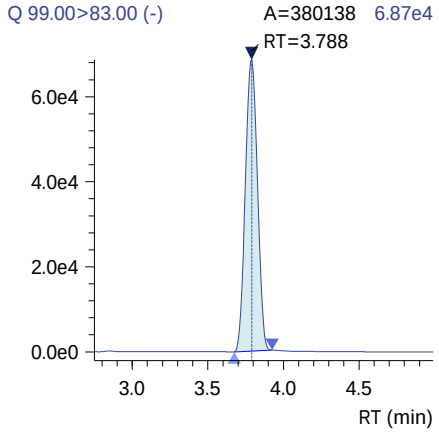
E2200993-005x1000

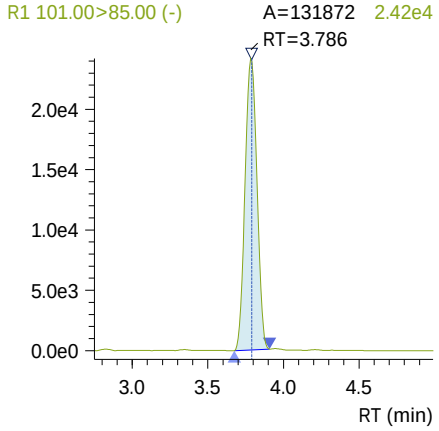
Sample ID: E2200993-005x1000
Date Acquired: 10/17/2022 6:38:54 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_043.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.788	3801 38	160723	17.5 581	ng/mL	101.00 >85.00	34.69	24.22 -44.99
Sodium Perchlorate-18O4_IS	Auto	3.786	1607 23	160723	1.0000	ng/mL	----	----	

Perchlorate

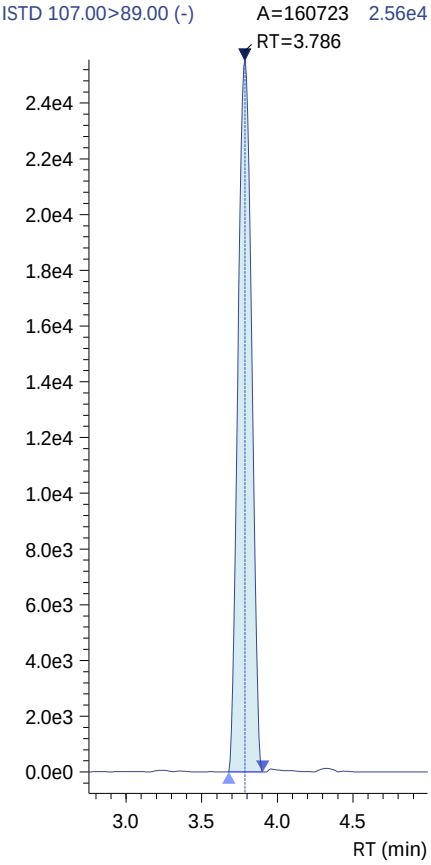
Conc 17.5581
R#1 34.69 (34.61)





Sodium Perchlorate-18O4_IS

Conc 1.0000



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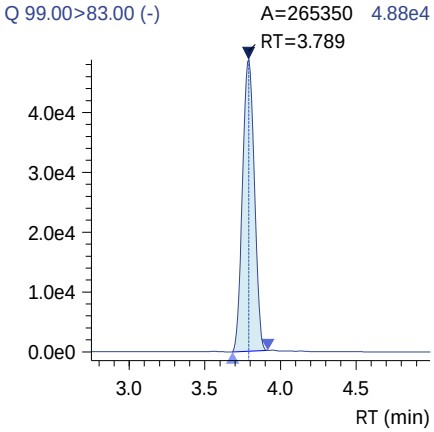
PERCHLORATE7

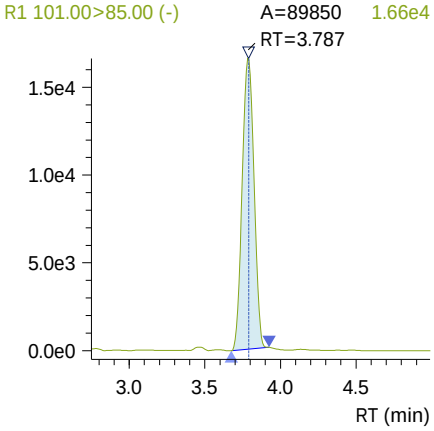
Sample ID: PERCHLORATE7
Date Acquired: 10/17/2022 6:47:16 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_044.lcd
Vial: 44 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.789	2653 50	183243	10.7 499	ng/mL	101.00 >85.00	33.86	24.22 -44.99
Sodium Perchlorate-18O4_IS	Auto	3.786	1832 43	183243	1.0000	ng/mL	----	----	

Perchlorate

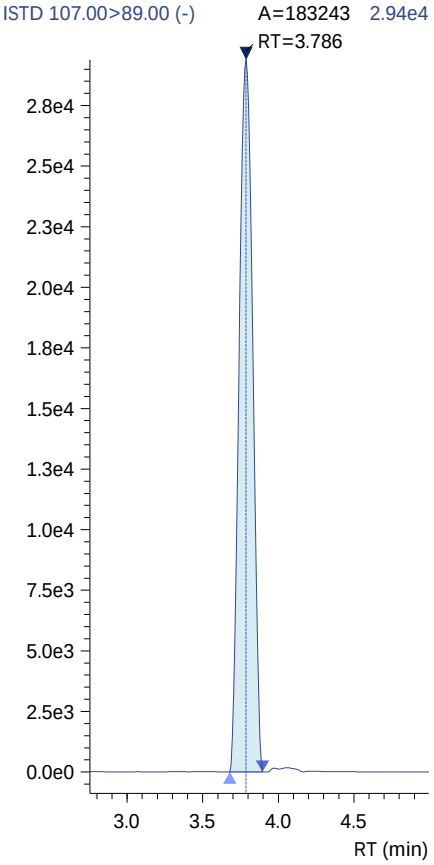
Conc 10.7499
R#1 33.86 (34.61)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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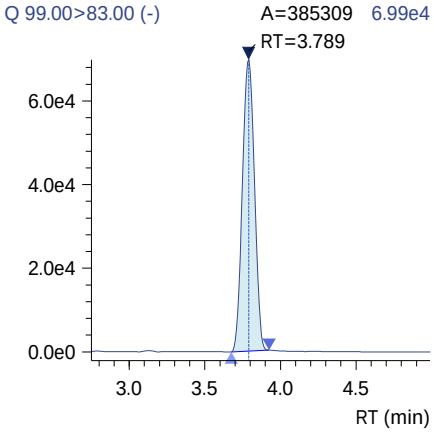
E2200993-006x1000

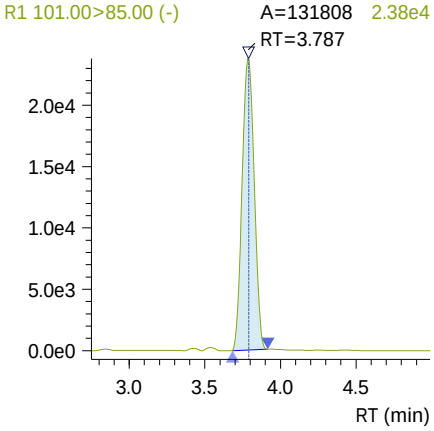
Sample ID: E2200993-006x1000
Date Acquired: 10/17/2022 6:55:40 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_045.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.789	385309	159552	17.9276	ng/mL	101.00 >85.00	34.21	24.22 -44.99
Sodium Perchlorate-18O4_IS	Auto	3.786	159552	159552	1.0000	ng/mL	----	----	

Perchlorate

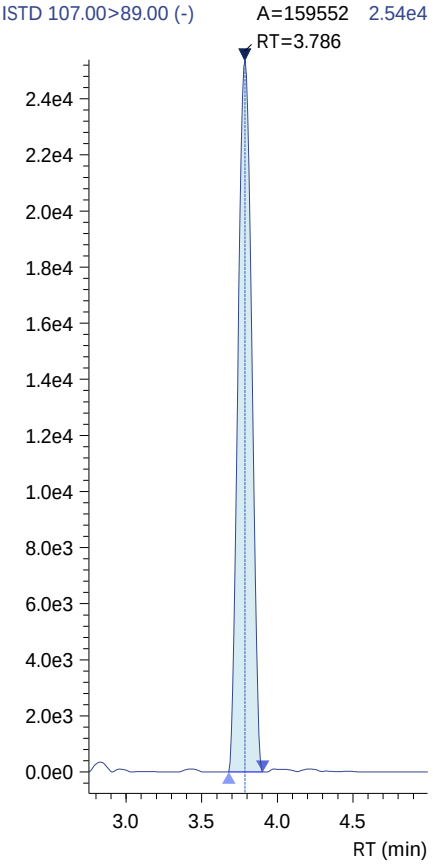
Conc 17.9276
R#1 34.21 (34.61)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/19/2022 10:19:52 AM

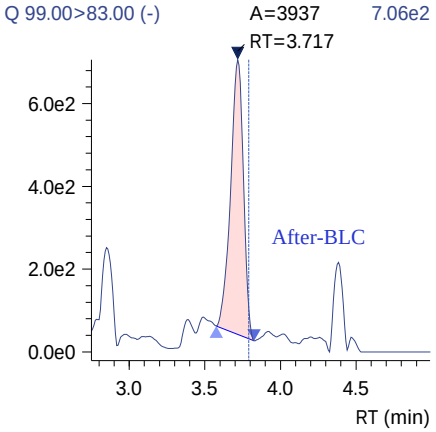
E2200993-007

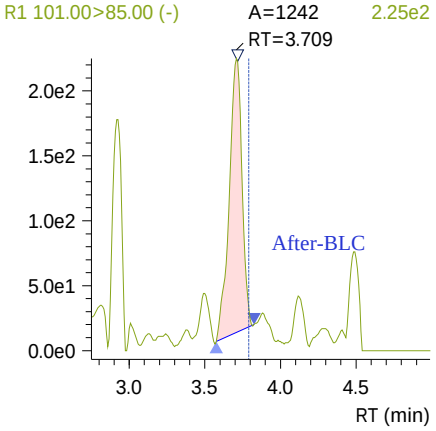
Sample ID: E2200993-007
Date Acquired: 10/17/2022 7:12:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_047.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.717	3937	211307	0.1383	ng/mL	101.00 >85.00	31.56	24.22 -44.99
Sodium Perchlorate-18O4_IS	Auto	3.710	211307	211307	1.0000	ng/mL	----	----	

Perchlorate

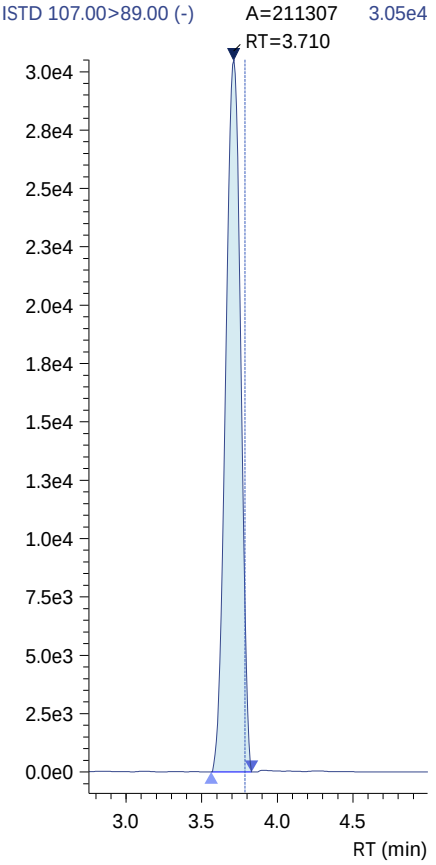
Conc 0.1383
R#1 31.56 (34.61)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

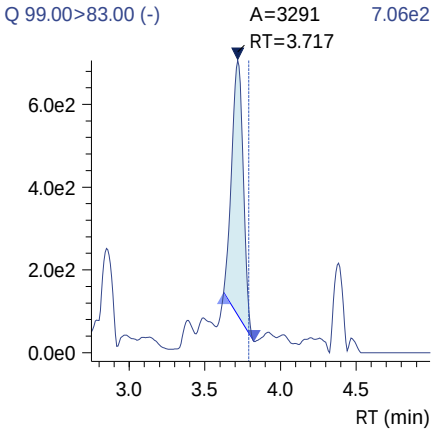
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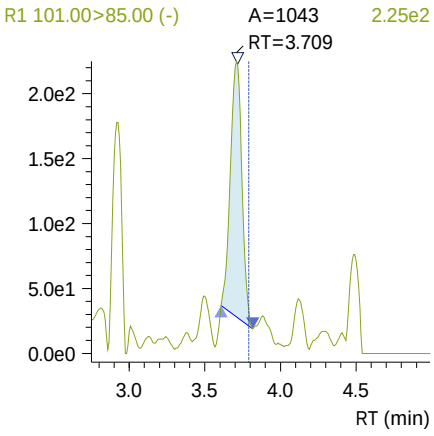
E2200993-007

Sample ID: E2200993-007
Date Acquired: 10/17/2022 7:12:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_047.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 3

Perchlorate

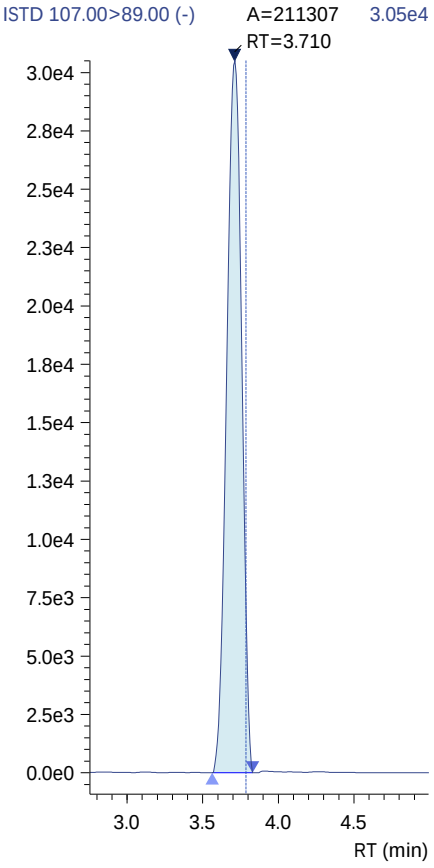
Conc 0.1157
R#1 31.70 (34.61)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/19/2022 10:19:52 AM

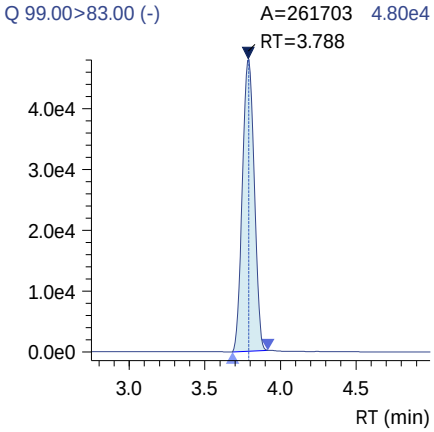
PERCHLORATE7

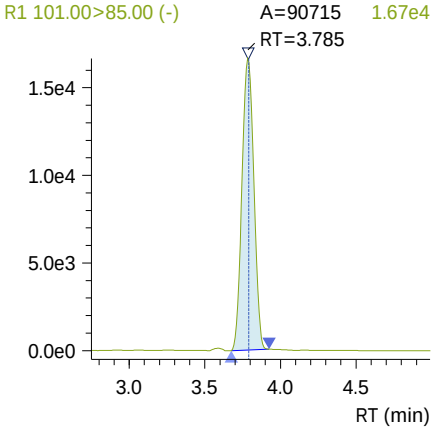
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Date Acquired: 10/17/2022 8:19:35 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221017\20221017_055.lcd
Vial: 44 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.788	261703	179081	10.8486	ng/mL	101.00 >85.00	34.66	24.22 -44.99
Sodium Perchlorate-18O4_IS	Auto	3.785	179081	179081	1.0000	ng/mL	----	----	

Perchlorate

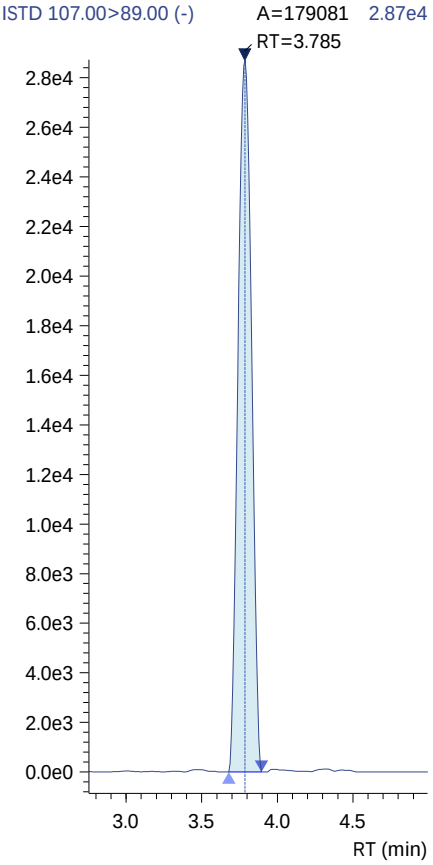
Conc 10.8486
R#1 34.66 (34.61)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/21/2022 3:26:39 PM

Method File: I:\LCMS01\DATA\20221018\Perchlorate6850i-intensity 10172.lcm
Project File: I:\LCMS01\DATA\20221018\20221018.damlp

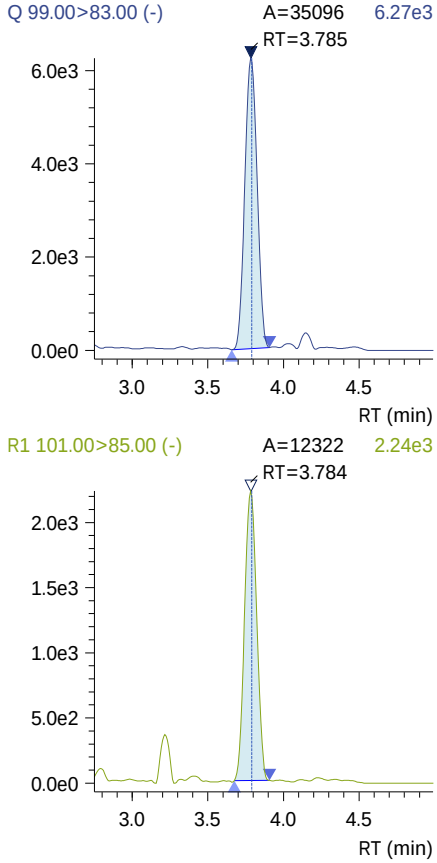
ICS

Sample ID: ICS
Date Acquired: 10/18/2022 10:12:37 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221018\20221018_008.lcd
Vial: 32 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.785	35096	255889	1.0182	ng/mL	101.00 >85.00	35.11	24.24 -45.01
Sodium Perchlorate-18O4 _IS	Auto	3.783	255889	255889	1.0000	ng/mL	----	----	

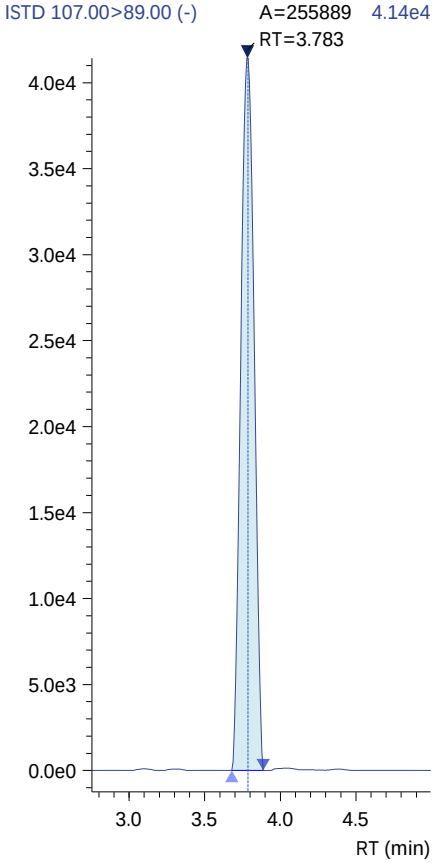
Perchlorate

Conc 1.0182
R#1 35.11 (34.63)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/21/2022 3:26:39 PM

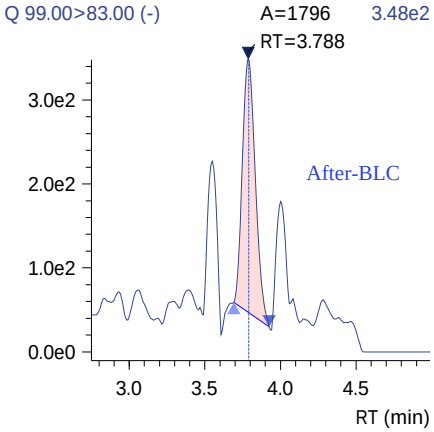
LODV

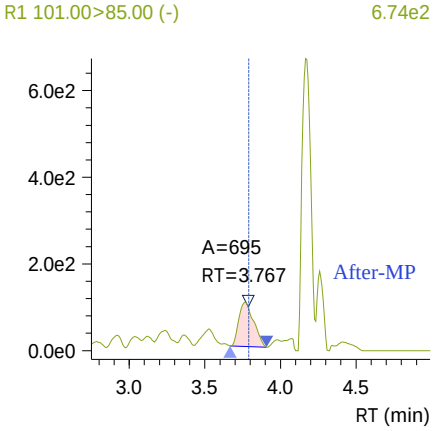
Sample ID: LODV
Date Acquired: 10/18/2022 10:21:00 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221018\20221018_009.lcd
Vial: 37 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI	3.788	1796	262591	0.0508	ng/mL	101.00 >85.00	38.66	24.24 -45.01
Sodium Perchlorate-18O4_IS	Auto	3.783	262591	262591	1.0000	ng/mL	----	----	

Perchlorate

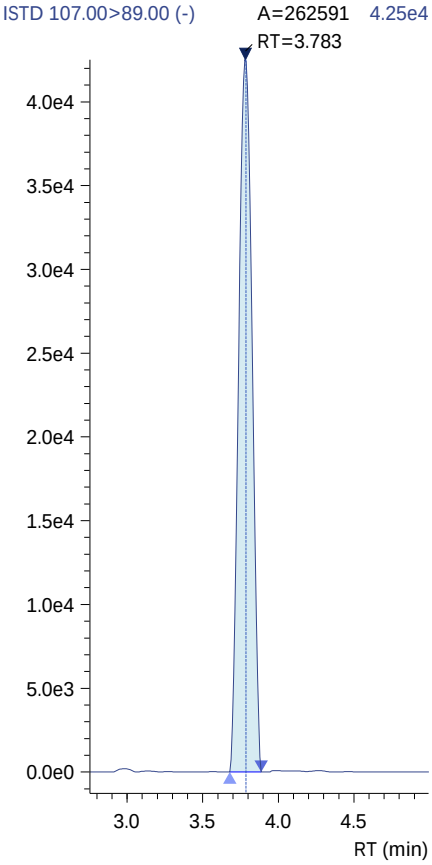
Conc 0.0508
R#1 38.66 (34.63)





Sodium Perchlorate-18O4_IS

Conc 1.0000



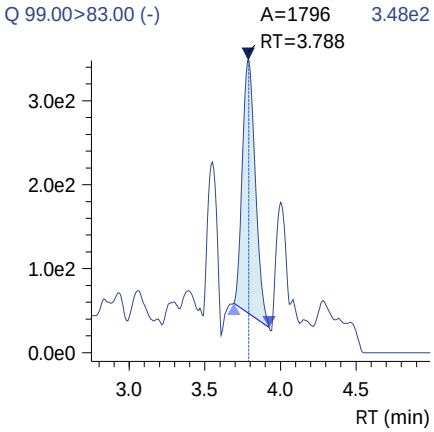
Insight Report

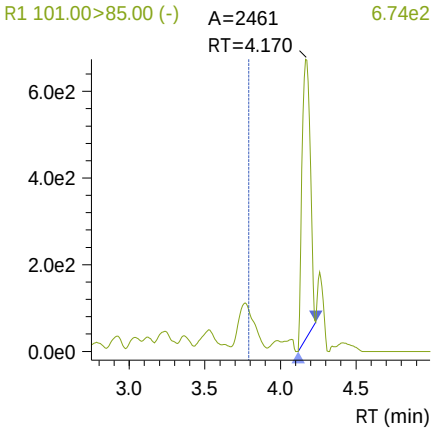
LODV

Sample ID: LODV
Date Acquired: 10/18/2022 10:21:00 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221018\20221018_009.lcd
Vial: 37 | Inj. Volume: 25.0000uL | Tray: 1

Perchlorate

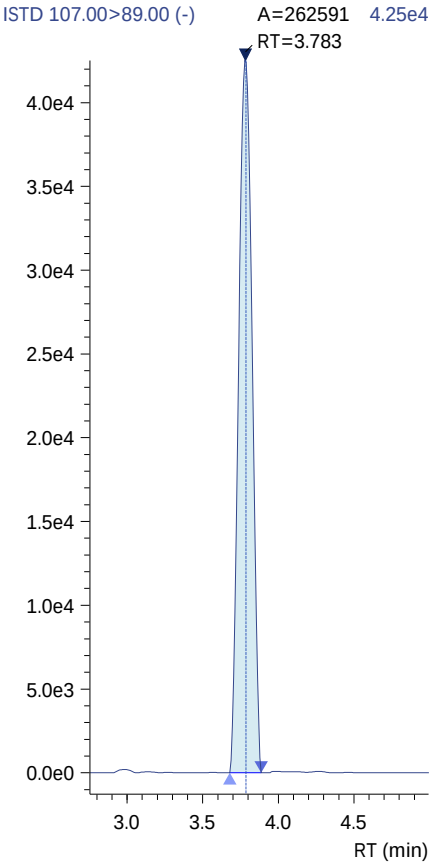
Conc 0.0508
R#1 0.00 (34.63)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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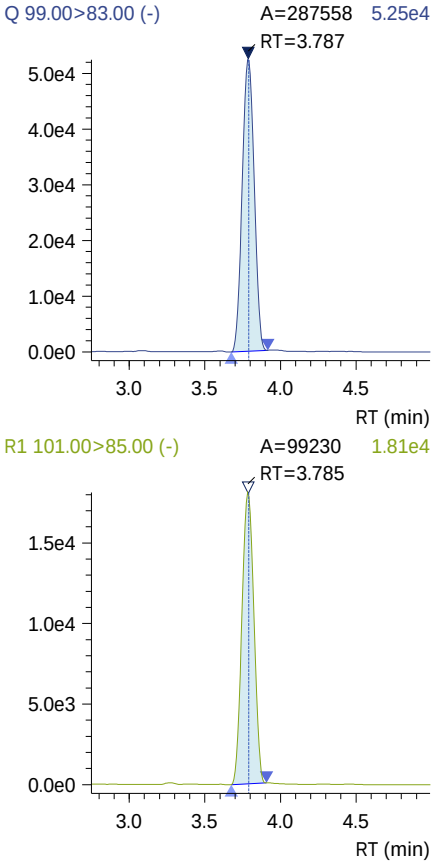
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 10/18/2022 10:29:24 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221018\20221018_010.lcd
Vial: 44 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.787	287558	205201	10.4030	ng/mL	101.00 >85.00	34.51	24.24 -45.01
Sodium Perchlorate-18O4_IS	Auto	3.784	205201	205201	1.0000	ng/mL	----	----	

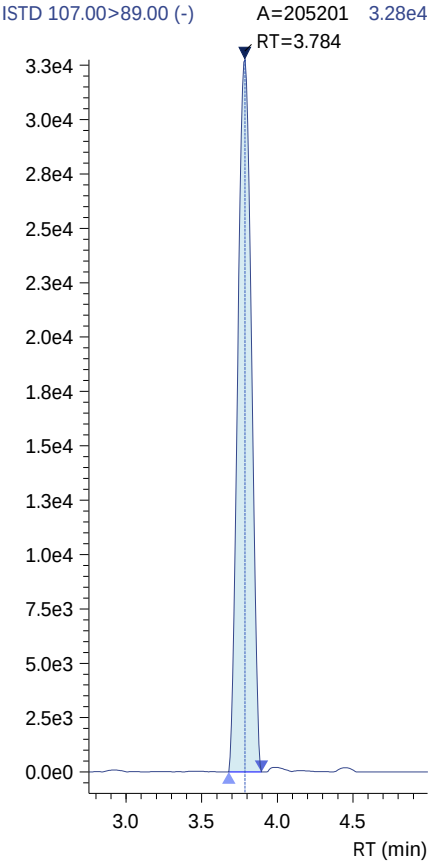
Perchlorate

Conc 10.4030
R#1 34.51 (34.63)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/21/2022 3:26:39 PM

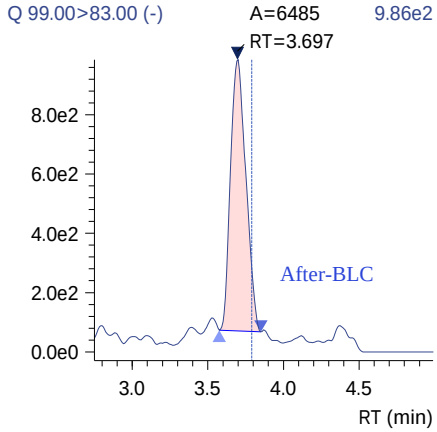
EQ2200469-05

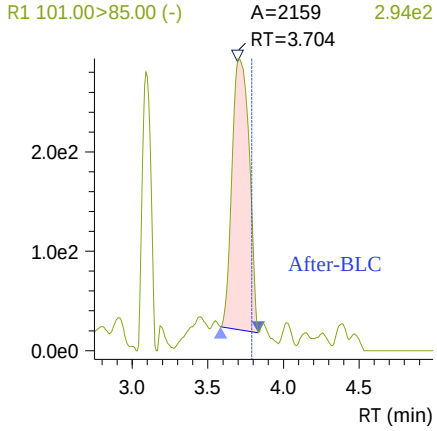
Sample ID: EQ2200469-05
Date Acquired: 10/18/2022 11:03:04 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221018\20221018_014.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.697	6485	240694	0.2000	ng/mL	101.00 >85.00	33.28	24.24 -45.01
Sodium Perchlorate-18O4_IS	Auto	3.709	240694	240694	1.0000	ng/mL	----	----	

Perchlorate

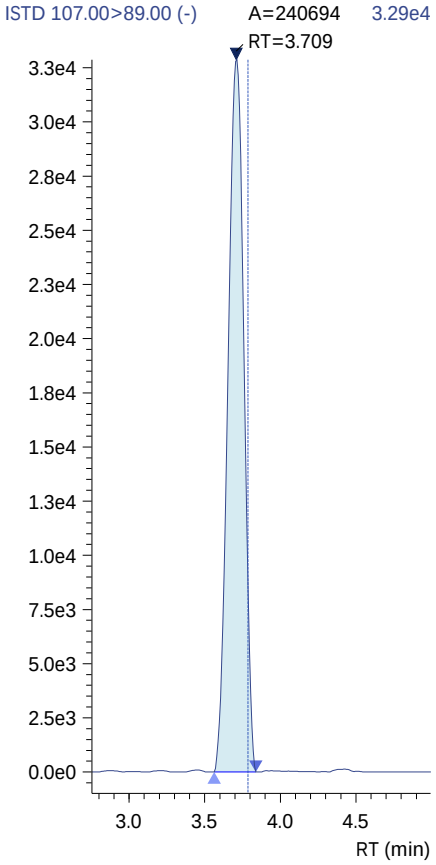
Conc 0.2000
R#1 33.28 (34.63)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

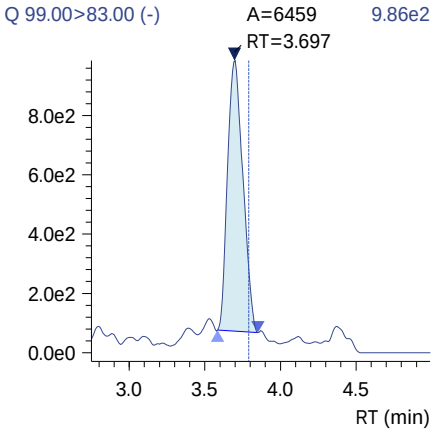
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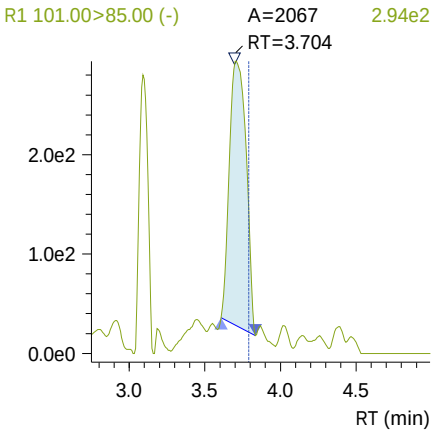
EQ2200469-05

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Acquired by: System Administrator
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Vial: 24 | Inj. Volume: 25.0000uL | Tray: 3

Perchlorate

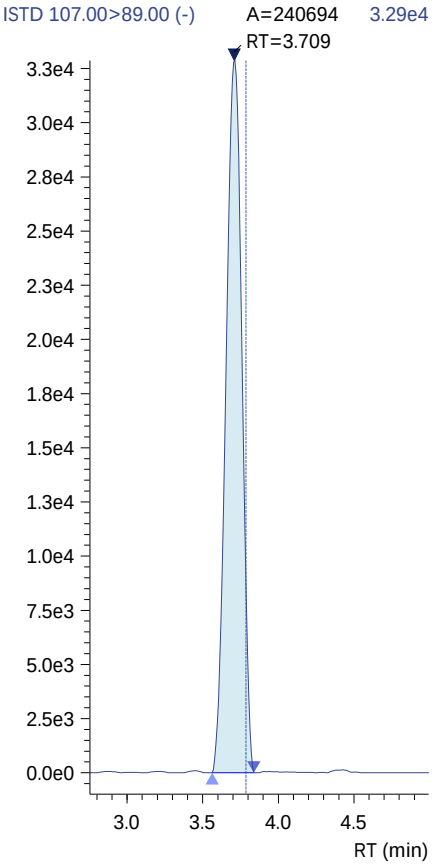
Conc 0.1994
R#1 31.99 (34.63)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 10/21/2022 3:26:39 PM

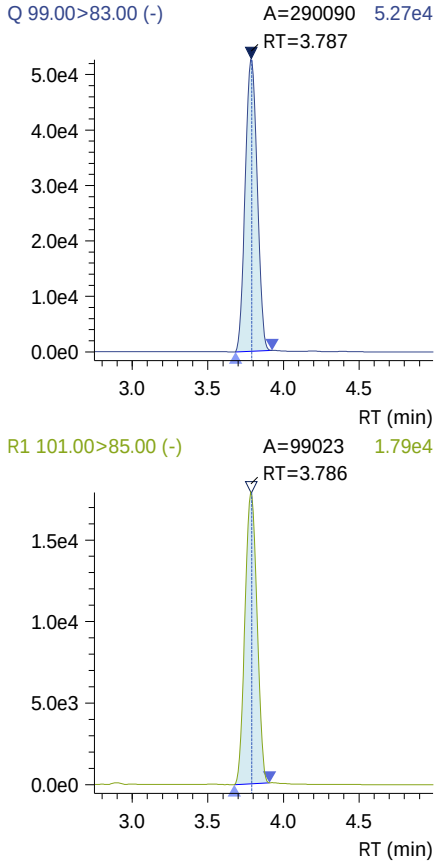
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 10/18/2022 11:11:30 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221018\20221018_015.lcd
Vial: 44 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.787	2900 90	203736	10.5 701	ng/mL	101.00 >85.00	34.14	24.24 -45.01
Sodium Perchlorate-18O4_IS	Auto	3.785	2037 36	203736	1.0000	ng/mL	----	----	

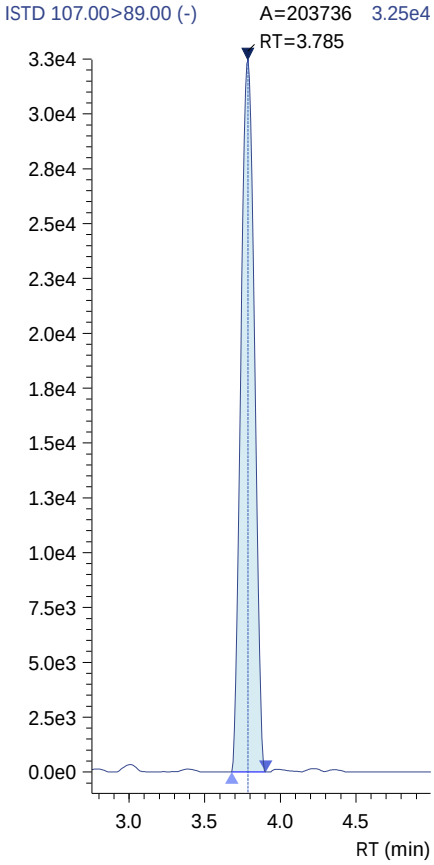
Perchlorate

Conc 10.5701
R#1 34.14 (34.63)



Sodium Perchlorate-18O4_IS

Conc 1.0000



HS22100577 Eurofins SUB Data_J102567-1 Std_Tal_L4 Final Report

ALS WO# HS22100577

ANALYTICAL REPORT

Job Number: 410-102567-1
Job Description: HS22100577

For:
ALS Group USA, Corp
10450 Stancliff Rd.
Suite 210
Houston, TX 77099

Attention Dane Wacasey

Approved for release.
Kelly Bauer
Project Manager
10/31/2022 12:51 PM

Kelly Bauer, Project Manager
2425 New Holland Pike, Lancaster, PA, 17601
(717)556-7262
Kelly.Bauer@et.eurofinsus.com
10/31/2022

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Job Number: 410-102567-1

Job Description: HS22100577

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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Definitions/Glossary

Client: ALS Group USA, Corp
Project/Site: HS22100577

Job ID: 410-102567-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-102567-1

Receipt
The samples were received on 10/20/2022 10:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: ALS Group USA, Corp
Project/Site: HS22100577

Job ID: 410-102567-1

Client Sample ID: 50WW14-221011 — Lab Sample ID: 410-102567-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	75000		12000	2600	ug/L	1		RSK-175	Total/NA

Client Sample ID: 50WW13-221011 — Lab Sample ID: 410-102567-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	67000		12000	2600	ug/L	1		RSK-175	Total/NA

Client Sample ID: 50WW11-221011 — Lab Sample ID: 410-102567-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	74000		12000	2600	ug/L	1		RSK-175	Total/NA

Client Sample ID: 50WW06-221011 — Lab Sample ID: 410-102567-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	72000		12000	2600	ug/L	1		RSK-175	Total/NA

Client Sample ID: 50WW12-221011 — Lab Sample ID: 410-102567-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	80000		12000	2600	ug/L	1		RSK-175	Total/NA

Client Sample ID: 50WW12-221011-FD — Lab Sample ID: 410-102567-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	78000		12000	2600	ug/L	1		RSK-175	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: ALS Group USA, Corp
Project/Site: HS22100577

Job ID: 410-102567-1

Client Sample ID: 50WW14-221011
Lab Sample ID: 410-102567-1
Date Collected: 10/11/22 07:55
Matrix: Water
Date Received: 10/20/22 10:35

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	75000		12000	2600	ug/L		10/21/22 08:17	10/21/22 09:23	1

Client Sample ID: 50WW13-221011
Lab Sample ID: 410-102567-2
Date Collected: 10/11/22 08:55
Matrix: Water
Date Received: 10/20/22 10:35

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	67000		12000	2600	ug/L		10/21/22 08:17	10/21/22 09:46	1

Client Sample ID: 50WW11-221011
Lab Sample ID: 410-102567-3
Date Collected: 10/11/22 09:40
Matrix: Water
Date Received: 10/20/22 10:35

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	74000		12000	2600	ug/L		10/21/22 08:17	10/21/22 09:53	1

Client Sample ID: 50WW06-221011
Lab Sample ID: 410-102567-4
Date Collected: 10/11/22 10:30
Matrix: Water
Date Received: 10/20/22 10:35

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	72000		12000	2600	ug/L		10/21/22 08:17	10/21/22 10:01	1

Client Sample ID: 50WW12-221011
Lab Sample ID: 410-102567-5
Date Collected: 10/11/22 11:20
Matrix: Water
Date Received: 10/20/22 10:35

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	80000		12000	2600	ug/L		10/21/22 08:17	10/21/22 10:09	1

Client Sample ID: 50WW12-221011-FD
Lab Sample ID: 410-102567-6
Date Collected: 10/11/22 11:20
Matrix: Water
Date Received: 10/20/22 10:35

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	78000		12000	2600	ug/L		10/21/22 08:17	10/21/22 10:16	1

Default Detection Limits

Client: ALS Group USA, Corp
Project/Site: HS22100577

Job ID: 410-102567-1

Method: RSK-175 - Dissolved Gases (GC)

Prep: RSK-175

Analyte	RL	MDL	Units
Carbon dioxide	12000	2600	ug/L

QC Sample Results

Client: ALS Group USA, Corp
Project/Site: HS22100577

Job ID: 410-102567-1

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-309055/1-A
Matrix: Water
Analysis Batch: 309068

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	2600	U	12000	2600	ug/L		10/21/22 08:17	10/21/22 08:52	1

Lab Sample ID: LCS 410-309055/2-A
Matrix: Water
Analysis Batch: 309068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon dioxide	35800	38500		ug/L		108	80 - 122

Lab Sample ID: 410-102567-1 MS
Matrix: Water
Analysis Batch: 309068

Client Sample ID: 50WW14-221011
Prep Type: Total/NA
Prep Batch: 309055

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon dioxide	75000		35800	110000		ug/L		97	80 - 122

Lab Sample ID: 410-102567-1 MSD
Matrix: Water
Analysis Batch: 309068

Client Sample ID: 50WW14-221011
Prep Type: Total/NA
Prep Batch: 309055

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon dioxide	75000		35800	113000		ug/L		106	80 - 122	3	30

Lab Sample ID: MB 410-309112/1-A
Matrix: Water
Analysis Batch: 309068

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309112

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	2600	U	12000	2600	ug/L		10/21/22 09:33	10/21/22 21:10	1

Lab Sample ID: LCSD 410-309112/3-A
Matrix: Water
Analysis Batch: 309068

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 309112

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon dioxide	35800	33700		ug/L		94	80 - 122	2	20

QC Association Summary

Client: ALS Group USA, Corp
Project/Site: HS22100577

Job ID: 410-102567-1

GC VOA

Prep Batch: 309055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-102567-1	50WW14-221011	Total/NA	Water	RSK-175	
410-102567-2	50WW13-221011	Total/NA	Water	RSK-175	
410-102567-3	50WW11-221011	Total/NA	Water	RSK-175	
410-102567-4	50WW06-221011	Total/NA	Water	RSK-175	
410-102567-5	50WW12-221011	Total/NA	Water	RSK-175	
410-102567-6	50WW12-221011-FD	Total/NA	Water	RSK-175	
MB 410-309055/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-309055/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
410-102567-1 MS	50WW14-221011	Total/NA	Water	RSK-175	
410-102567-1 MSD	50WW14-221011	Total/NA	Water	RSK-175	

Analysis Batch: 309068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-102567-1	50WW14-221011	Total/NA	Water	RSK-175	309055
410-102567-2	50WW13-221011	Total/NA	Water	RSK-175	309055
410-102567-3	50WW11-221011	Total/NA	Water	RSK-175	309055
410-102567-4	50WW06-221011	Total/NA	Water	RSK-175	309055
410-102567-5	50WW12-221011	Total/NA	Water	RSK-175	309055
410-102567-6	50WW12-221011-FD	Total/NA	Water	RSK-175	309055
MB 410-309055/1-A	Method Blank	Total/NA	Water	RSK-175	309055
MB 410-309112/1-A	Method Blank	Total/NA	Water	RSK-175	309112
LCS 410-309055/2-A	Lab Control Sample	Total/NA	Water	RSK-175	309055
LCSD 410-309112/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	309112
410-102567-1 MS	50WW14-221011	Total/NA	Water	RSK-175	309055
410-102567-1 MSD	50WW14-221011	Total/NA	Water	RSK-175	309055

Prep Batch: 309112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-309112/1-A	Method Blank	Total/NA	Water	RSK-175	
LCSD 410-309112/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Lab Chronicle

Client: ALS Group USA, Corp
Project/Site: HS22100577

Job ID: 410-102567-1

Client Sample ID: 50WW14-221011
Lab Sample ID: 410-102567-1
Date Collected: 10/11/22 07:55
Matrix: Water
Date Received: 10/20/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			309055	SE2A	ELLE	10/21/22 08:17
Total/NA	Analysis	RSK-175		1	309068	LXF2	ELLE	10/21/22 09:23

Client Sample ID: 50WW13-221011
Lab Sample ID: 410-102567-2
Date Collected: 10/11/22 08:55
Matrix: Water
Date Received: 10/20/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			309055	SE2A	ELLE	10/21/22 08:17
Total/NA	Analysis	RSK-175		1	309068	LXF2	ELLE	10/21/22 09:46

Client Sample ID: 50WW11-221011
Lab Sample ID: 410-102567-3
Date Collected: 10/11/22 09:40
Matrix: Water
Date Received: 10/20/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			309055	SE2A	ELLE	10/21/22 08:17
Total/NA	Analysis	RSK-175		1	309068	LXF2	ELLE	10/21/22 09:53

Client Sample ID: 50WW06-221011
Lab Sample ID: 410-102567-4
Date Collected: 10/11/22 10:30
Matrix: Water
Date Received: 10/20/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			309055	SE2A	ELLE	10/21/22 08:17
Total/NA	Analysis	RSK-175		1	309068	LXF2	ELLE	10/21/22 10:01

Client Sample ID: 50WW12-221011
Lab Sample ID: 410-102567-5
Date Collected: 10/11/22 11:20
Matrix: Water
Date Received: 10/20/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			309055	SE2A	ELLE	10/21/22 08:17
Total/NA	Analysis	RSK-175		1	309068	LXF2	ELLE	10/21/22 10:09

Client Sample ID: 50WW12-221011-FD
Lab Sample ID: 410-102567-6
Date Collected: 10/11/22 11:20
Matrix: Water
Date Received: 10/20/22 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			309055	SE2A	ELLE	10/21/22 08:17
Total/NA	Analysis	RSK-175		1	309068	LXF2	ELLE	10/21/22 10:16

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: ALS Group USA, Corp
Project/Site: HS22100577

Job ID: 410-102567-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-22

Method Summary

Client: ALS Group USA, Corp
Project/Site: HS22100577

Job ID: 410-102567-1

Method	Method Description	Protocol	Laboratory
RSK-175	Dissolved Gases (GC)	RSK	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: ALS Group USA, Corp
Project/Site: HS22100577

Job ID: 410-102567-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-102567-1	50WW14-221011	Water	10/11/22 07:55	10/20/22 10:35
410-102567-2	50WW13-221011	Water	10/11/22 08:55	10/20/22 10:35
410-102567-3	50WW11-221011	Water	10/11/22 09:40	10/20/22 10:35
410-102567-4	50WW06-221011	Water	10/11/22 10:30	10/20/22 10:35
410-102567-5	50WW12-221011	Water	10/11/22 11:20	10/20/22 10:35
410-102567-6	50WW12-221011-FD	Water	10/11/22 11:20	10/20/22 10:35

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-102567-1

SDG No.:

Instrument ID: 19506-B Analysis Batch Number: 301115

Lab Sample ID: IC 410-301115/10 Client Sample ID:

Date Analyzed: 09/29/22 07:33 Lab File ID: 312022_9_29B.0010.d GC Column: HP Plot ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon dioxide	1.90	Peak assignment corrected	LXF2	09/29/22 07:57

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-102567-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
EPH_CO2ICV_00002	09/29/23	09/29/22	DI Water, Lot In House	1 mL	EPH_CO2XX_00002	0.0018 g	Carbon dioxide	547000 ppb
.EPH_CO2XX_00002	09/29/23	Air Products, Lot A214157			(Purchased Reagent)		Carbon dioxide	30.3889 %
EPH_CO2MS_00004	07/16/23	07/18/22	DI Water, Lot In House	1 g	EPH_CO2CRV_00002	0.0018 g	Carbon dioxide	1791000 ppb
.EPH_CO2CRV_00002	07/16/23	Praxair, Lot 4-11-18			(Purchased Reagent)		Carbon dioxide	99.5 %

Method RSK-175 CO2 DOD

Dissolved Gases (GC) by Method RSK_175_CO2 DOD

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 312022_10_21B.0006.d

Lab ID: LCS 410-309055/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Carbon dioxide	35800	38500	108	80-122	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 312022_10_21B.0094.d

Lab ID: LCSD 410-309112/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Carbon dioxide	35800	33700	94	2	20	80-122	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 312022_10_21B.0008.d

Lab ID: 410-102567-1 MS Client ID: 50WW14-221011 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Carbon dioxide	35800	75000	110000	97	80-122	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 312022_10_21B.0009.d

Lab ID: 410-102567-1 MSD Client ID: 50WW14-221011 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Carbon dioxide	35800	113000	106	3	30	80-122	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Lab File ID: 312022_10_21B.0005.d Lab Sample ID: MB 410-309055/1-A

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 19506-B Date Analyzed: 10/21/2022 08:52

GC Column: HP Plot ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-309055/2-A	312022_10_21B.0006.d	10/21/2022 09:00
50WW14-221011	410-102567-1	312022_10_21B.0007.d	10/21/2022 09:23
50WW14-221011 MS	410-102567-1 MS	312022_10_21B.0008.d	10/21/2022 09:30
50WW14-221011 MSD	410-102567-1 MSD	312022_10_21B.0009.d	10/21/2022 09:39
50WW13-221011	410-102567-2	312022_10_21B.0010.d	10/21/2022 09:46
50WW11-221011	410-102567-3	312022_10_21B.0011.d	10/21/2022 09:53
50WW06-221011	410-102567-4	312022_10_21B.0012.d	10/21/2022 10:01
50WW12-221011	410-102567-5	312022_10_21B.0013.d	10/21/2022 10:09
50WW12-221011-FD	410-102567-6	312022_10_21B.0014.d	10/21/2022 10:16

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Lab File ID: 312022_10_21B.0092.d Lab Sample ID: MB 410-309112/1-A

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 19506-B Date Analyzed: 10/21/2022 21:10

GC Column: HP Plot ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCSD 410-309112/3-A	312022_10_21B.0094.d	10/21/2022 21:27

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Client Sample ID: 50WW14-221011 Lab Sample ID: 410-102567-1

Matrix: Water Lab File ID: 312022_10_21B.0007.d

Analysis Method: RSK-175 Date Collected: 10/11/2022 07:55

Sample wt/vol: 5(mL) Date Analyzed: 10/21/2022 09:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP Plot ID: 0.53(mm)

Purge Volume: Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 309068 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-38-9	Carbon dioxide	75000		12000	2600

Report Date: 24-Oct-2022 05:59:35

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0007.d				
Lims ID:	410-102567-A-1-A				
Client ID:	50WW14-221011				
Sample Type:	Client				
Inject. Date:	21-Oct-2022 09:23:00	ALS Bottle#:	0	Worklist Smp#:	7
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	x				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	24-Oct-2022 05:59:34	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1617				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.939	1.947	-0.008	123614736	75287	H

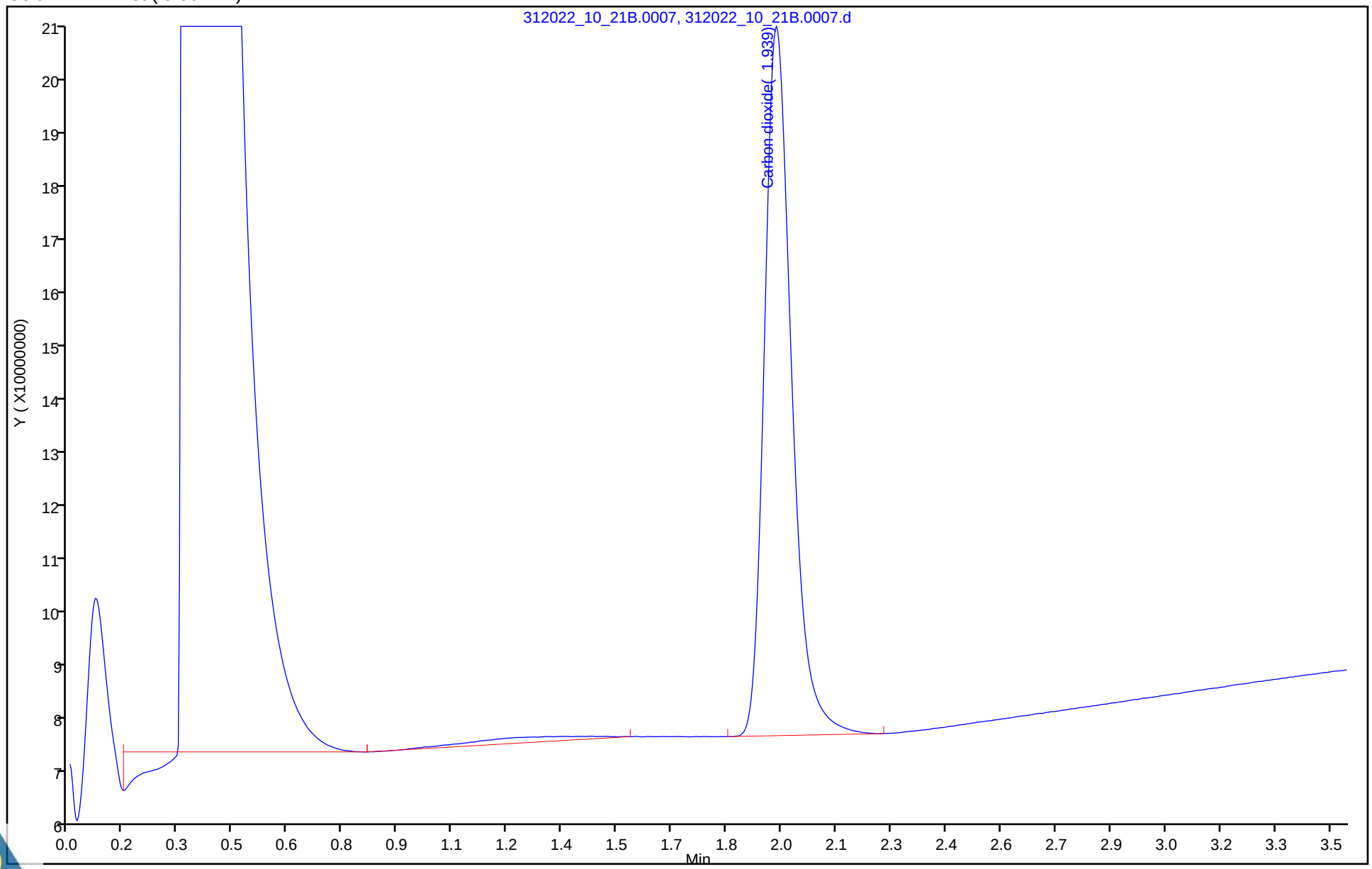
Chrom Revision: 2.3 28-Sep-2022 12:57:42

Report Date: 24-Oct-2022 05:59:35 Chrom Revision: 2.3 28-Sep-2022 12:57:42

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0007.d				
Injection Date:	21-Oct-2022 09:23:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	410-102567-A-1-A	Lab Sample ID:	410-102567-1	Worklist Smp#:	7
Client ID:	50WW14-221011				
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Client Sample ID: 50WW13-221011 Lab Sample ID: 410-102567-2

Matrix: Water Lab File ID: 312022_10_21B.0010.d

Analysis Method: RSK-175 Date Collected: 10/11/2022 08:55

Sample wt/vol: 5(mL) Date Analyzed: 10/21/2022 09:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP Plot ID: 0.53(mm)

Purge Volume: Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 309068 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-38-9	Carbon dioxide	67000		12000	2600

Report Date: 24-Oct-2022 05:59:36

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0010.d				
Lims ID:	410-102567-A-2-A				
Client ID:	50WW13-221011				
Sample Type:	Client				
Inject. Date:	21-Oct-2022 09:46:00	ALS Bottle#:	0	Worklist Smp#:	10
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	x				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	24-Oct-2022 05:59:34	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1617				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.941	1.947	-0.006	109852127	66905	H

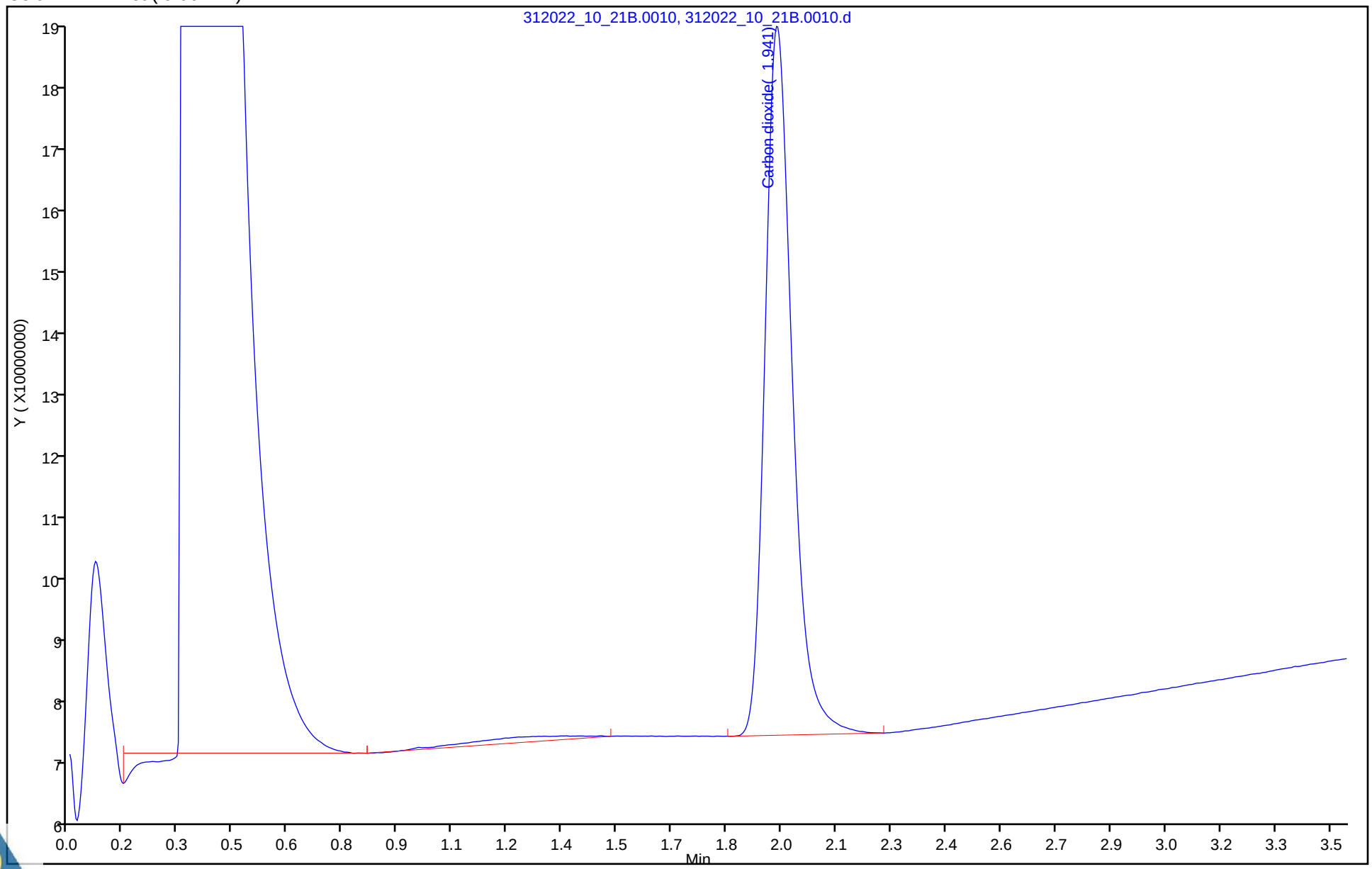
Chrom Revision: 2.3 28-Sep-2022 12:57:42

Report Date: 24-Oct-2022 05:59:36 Chrom Revision: 2.3 28-Sep-2022 12:57:42

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0010.d				
Injection Date:	21-Oct-2022 09:46:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	410-102567-A-2-A	Lab Sample ID:	410-102567-2	Worklist Smp#:	10
Client ID:	50WW13-221011				
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Client Sample ID: 50WW11-221011 Lab Sample ID: 410-102567-3

Matrix: Water Lab File ID: 312022_10_21B.0011.d

Analysis Method: RSK-175 Date Collected: 10/11/2022 09:40

Sample wt/vol: 5(mL) Date Analyzed: 10/21/2022 09:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP Plot ID: 0.53(mm)

Purge Volume: Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 309068 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-38-9	Carbon dioxide	74000		12000	2600

Report Date: 24-Oct-2022 05:59:36

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0011.d				
Lims ID:	410-102567-A-3-A				
Client ID:	50WW11-221011				
Sample Type:	Client				
Inject. Date:	21-Oct-2022 09:53:00	ALS Bottle#:	0	Worklist Smp#:	11
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	x				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	24-Oct-2022 05:59:34	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1617				
First Level Reviewer: SE2A		Date:	21-Oct-2022 10:10:33		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.941	1.947	-0.006	120921534	73646	H

QC Flag Legend

Processing Flags

H - Response Measured by Height

Chrom Revision: 2.3 28-Sep-2022 12:57:42

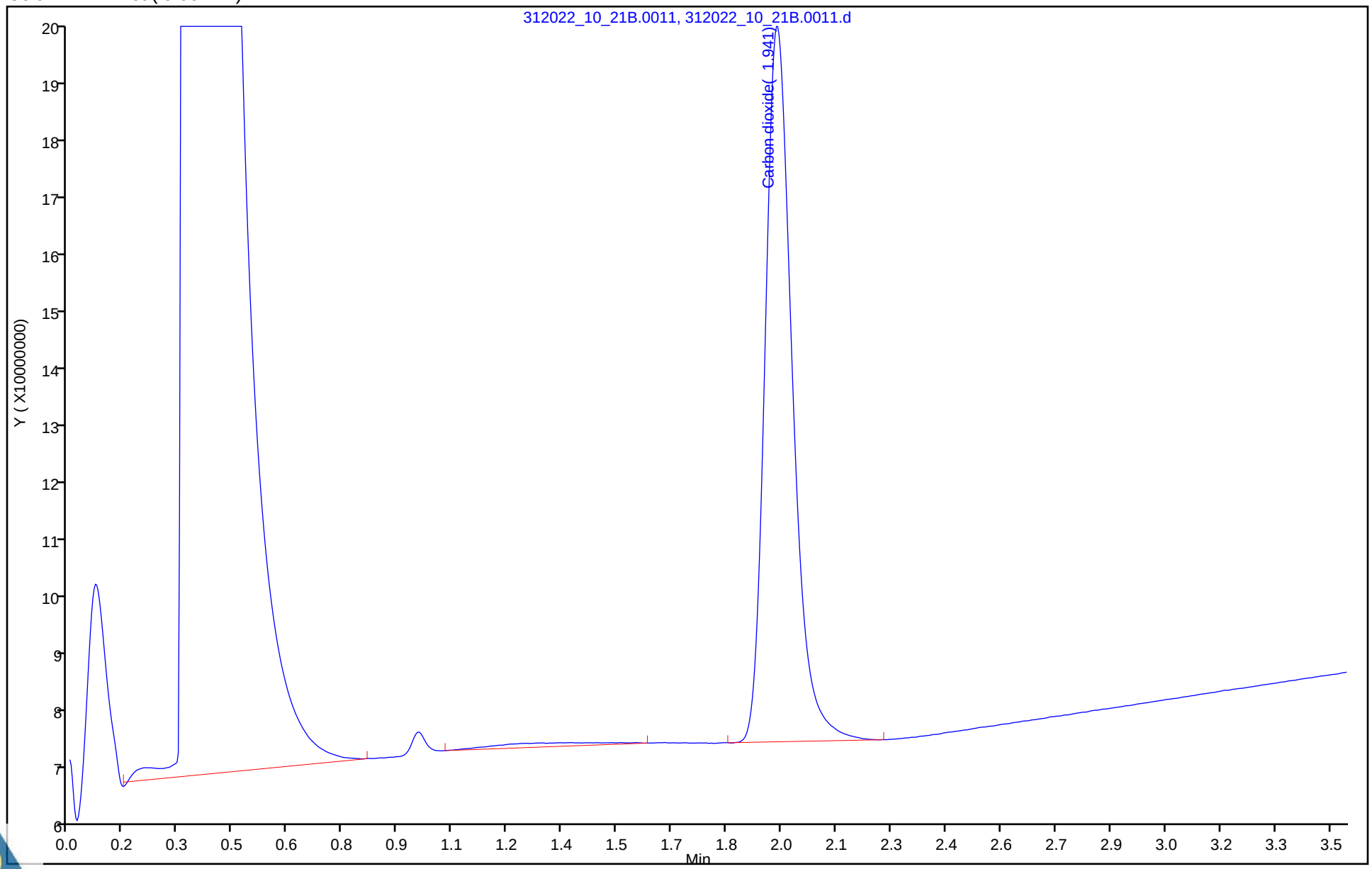
Report Date: 24-Oct-2022 05:59:36 Chrom Revision: 2.3 28-Sep-2022 12:57:42

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0011.d

Injection Date:	21-Oct-2022 09:53:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	410-102567-A-3-A	Lab Sample ID:	410-102567-3	Worklist Smp#:	11
Client ID:	50WW11-221011				
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Client Sample ID: 50WW06-221011 Lab Sample ID: 410-102567-4

Matrix: Water Lab File ID: 312022_10_21B.0012.d

Analysis Method: RSK-175 Date Collected: 10/11/2022 10:30

Sample wt/vol: 5(mL) Date Analyzed: 10/21/2022 10:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP Plot ID: 0.53(mm)

Purge Volume: Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 309068 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-38-9	Carbon dioxide	72000		12000	2600

Report Date: 24-Oct-2022 05:59:36

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0012.d				
Lims ID:	410-102567-B-4-A				
Client ID:	50WW06-221011				
Sample Type:	Client				
Inject. Date:	21-Oct-2022 10:01:00	ALS Bottle#:	0	Worklist Smp#:	12
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	x				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	24-Oct-2022 05:59:34	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1617				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.939	1.947	-0.008	118080600	71916	H

Chrom Revision: 2.3 28-Sep-2022 12:57:42

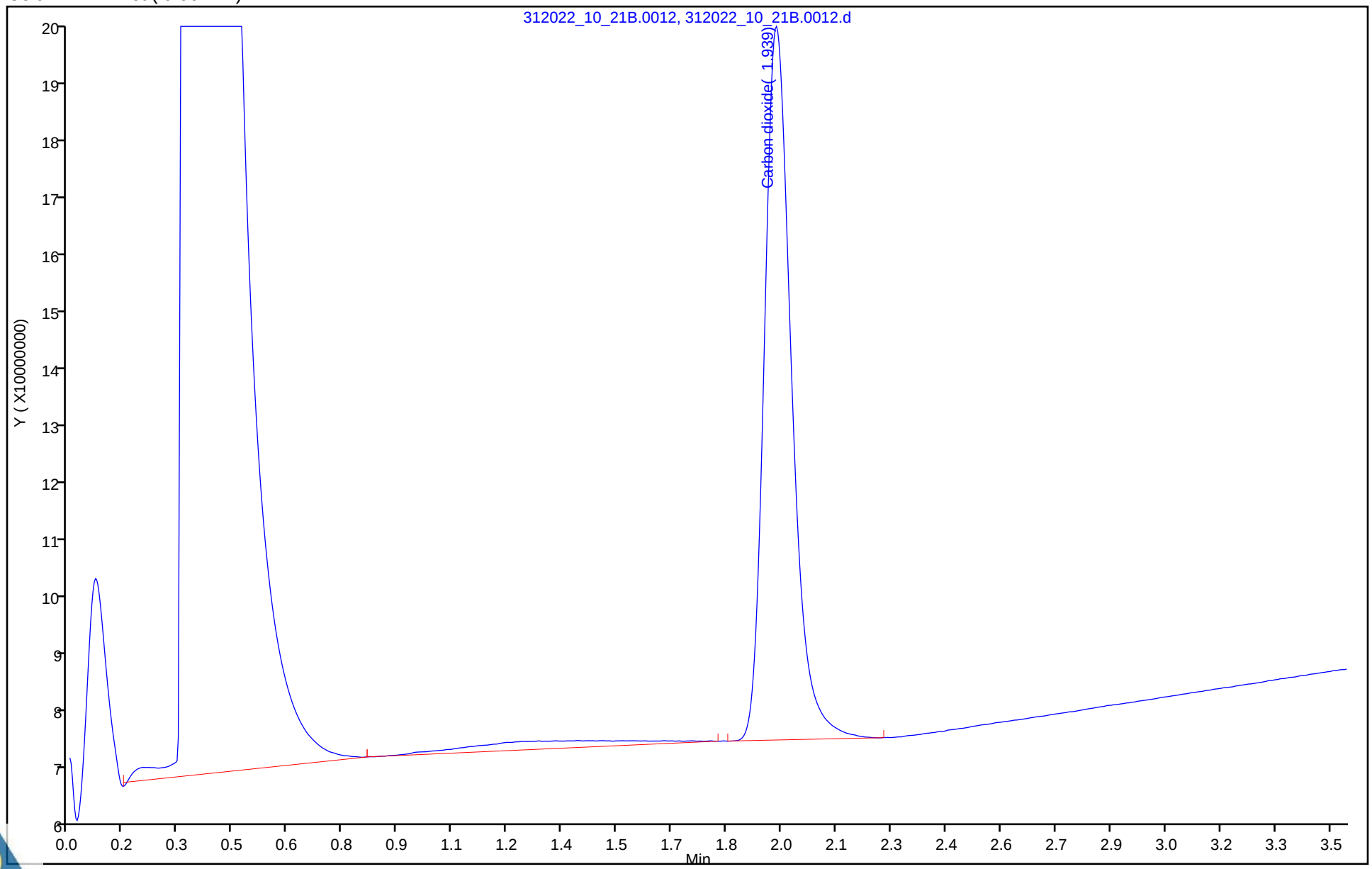
Report Date: 24-Oct-2022 05:59:36 Chrom Revision: 2.3 28-Sep-2022 12:57:42

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0012.d

Injection Date:	21-Oct-2022 10:01:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	410-102567-B-4-A	Lab Sample ID:	410-102567-4	Worklist Smp#:	12
Client ID:	50WW06-221011				
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Client Sample ID: 50WW12-221011 Lab Sample ID: 410-102567-5

Matrix: Water Lab File ID: 312022_10_21B.0013.d

Analysis Method: RSK-175 Date Collected: 10/11/2022 11:20

Sample wt/vol: 5(mL) Date Analyzed: 10/21/2022 10:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP Plot ID: 0.53(mm)

Purge Volume: Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 309068 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-38-9	Carbon dioxide	80000		12000	2600

Report Date: 24-Oct-2022 05:59:36

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0013.d				
Lims ID:	410-102567-A-5-A				
Client ID:	50WW12-221011				
Sample Type:	Client				
Inject. Date:	21-Oct-2022 10:09:00	ALS Bottle#:	0	Worklist Smp#:	13
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	x				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	24-Oct-2022 05:59:34	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1617				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.939	1.947	-0.008	131553097	80121	H

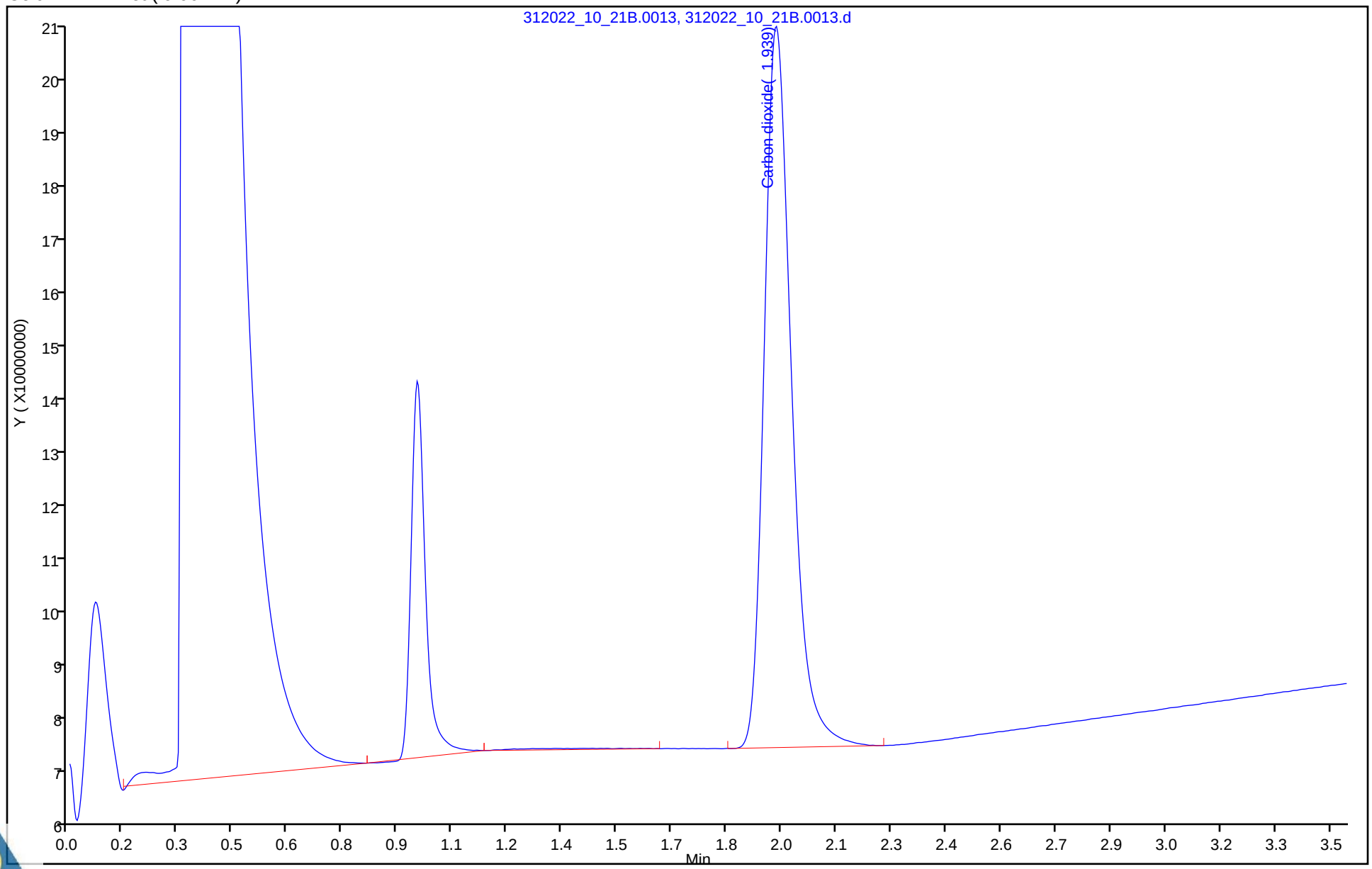
Report Date: 24-Oct-2022 05:59:36 Chrom Revision: 2.3 28-Sep-2022 12:57:42

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0013.d

Injection Date:	21-Oct-2022 10:09:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	410-102567-A-5-A	Lab Sample ID:	410-102567-5	Worklist Smp#:	13
Client ID:	50WW12-221011				
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Client Sample ID: 50WW12-221011-FD Lab Sample ID: 410-102567-6

Matrix: Water Lab File ID: 312022_10_21B.0014.d

Analysis Method: RSK-175 Date Collected: 10/11/2022 11:20

Sample wt/vol: 5(mL) Date Analyzed: 10/21/2022 10:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP Plot ID: 0.53(mm)

Purge Volume: Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 309068 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-38-9	Carbon dioxide	78000		12000	2600

Report Date: 24-Oct-2022 05:59:36

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0014.d				
Lims ID:	410-102567-A-6-A				
Client ID:	50WW12-221011-FD				
Sample Type:	Client				
Inject. Date:	21-Oct-2022 10:16:00	ALS Bottle#:	0	Worklist Smp#:	14
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	x				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	24-Oct-2022 05:59:34	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1617				
First Level Reviewer: SE2A		Date:	21-Oct-2022 10:33:26		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.940	1.947	-0.007	128751445	78415	H

QC Flag Legend

Processing Flags

H - Response Measured by Height

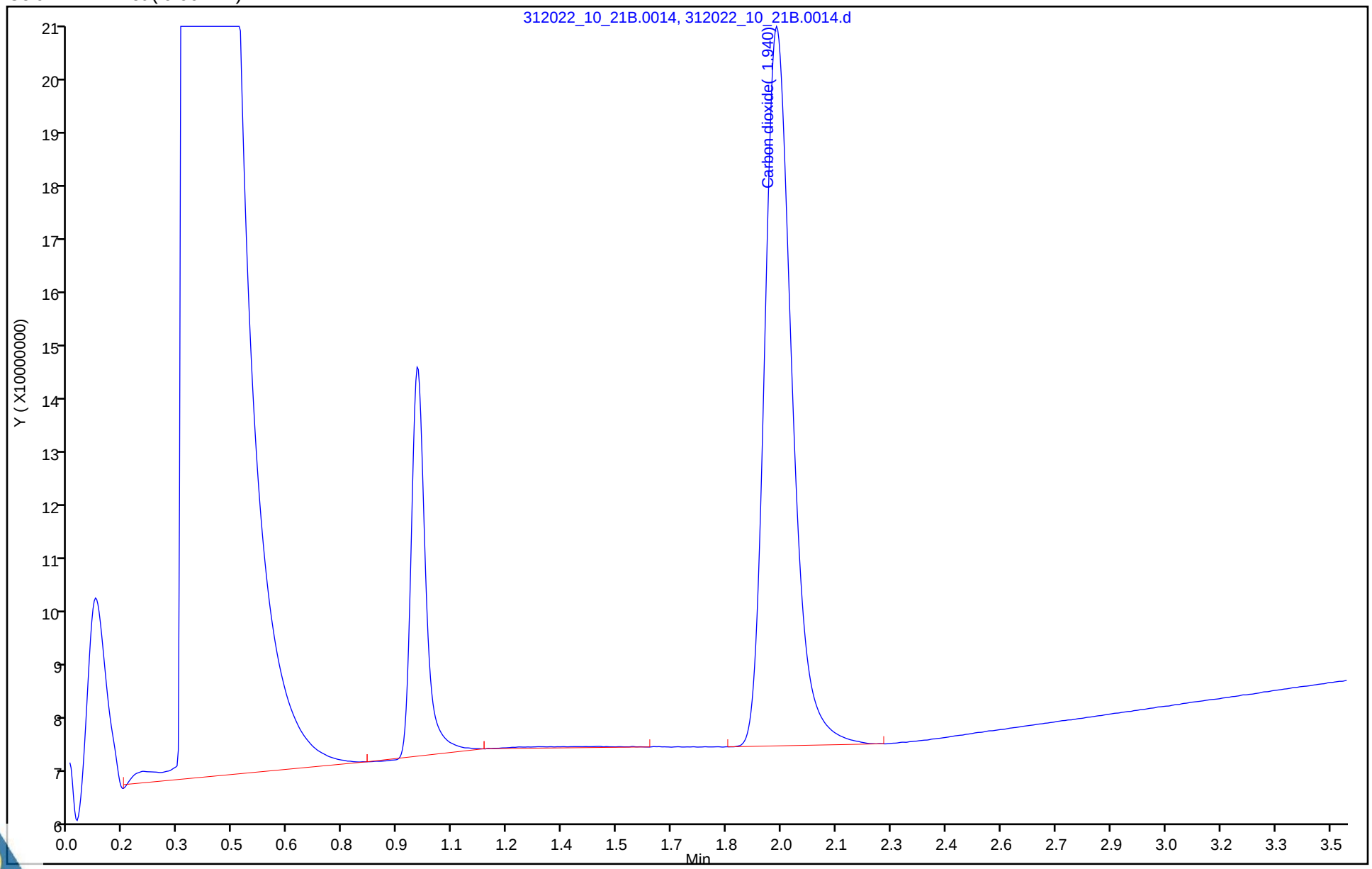
Chrom Revision: 2.3 28-Sep-2022 12:57:42

Report Date: 24-Oct-2022 05:59:37 Chrom Revision: 2.3 28-Sep-2022 12:57:42

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0014.d				
Injection Date:	21-Oct-2022 10:16:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	410-102567-A-6-A	Lab Sample ID:	410-102567-6	Worklist Smp#:	14
Client ID:	50WW12-221011-FD				
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-102567-1 Analy Batch No.: 301115

SDG No.:

Instrument ID: 19506-B GC Column: HP Plot ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2022 06:52 Calibration End Date: 09/29/2022 07:33 Calibration ID: 42648

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-301115/5	312022_9_29B.0005.d
Level 2	IC 410-301115/6	312022_9_29B.0006.d
Level 3	ICRT 410-301115/7	312022_9_29B.0007.d
Level 4	IC 410-301115/8	312022_9_29B.0008.d
Level 5	IC 410-301115/9	312022_9_29B.0009.d
Level 6	IC 410-301115/10	312022_9_29B.0010.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Carbon dioxide	1.939	1.938	1.937	1.931	1.918	1.902					1.907 - 1.967	1.928

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-102567-1 Analy Batch No.: 301115

SDG No.:

Instrument ID: 19506-B GC Column: HP Plot ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2022 06:52 Calibration End Date: 09/29/2022 07:33 Calibration ID: 42648

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-301115/5	312022_9_29B.0005.d
Level 2	IC 410-301115/6	312022_9_29B.0006.d
Level 3	ICRT 410-301115/7	312022_9_29B.0007.d
Level 4	IC 410-301115/8	312022_9_29B.0008.d
Level 5	IC 410-301115/9	312022_9_29B.0009.d
Level 6	IC 410-301115/10	312022_9_29B.0010.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Carbon dioxide	1658.9 1735.0	1655.7 1440.6	1669.8	1691.6	Ave		1641.9211 0				6.3		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-102567-1 Analy Batch No.: 301115

SDG No.:

Instrument ID: 19506-B GC Column: HP Plot ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2022 06:52 Calibration End Date: 09/29/2022 07:33 Calibration ID: 42648

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-301115/5	312022_9_29B.0005.d
Level 2	IC 410-301115/6	312022_9_29B.0006.d
Level 3	ICRT 410-301115/7	312022_9_29B.0007.d
Level 4	IC 410-301115/8	312022_9_29B.0008.d
Level 5	IC 410-301115/9	312022_9_29B.0009.d
Level 6	IC 410-301115/10	312022_9_29B.0010.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Carbon dioxide	Ave	17826195 516013706	35585188	59810588	151483728	310734679	10746 358200	21492	35820	89550	179100

Curve Type Legend
Ave = Average by Height

Report Date: 29-Sep-2022 07:58:25

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0005.d				
Lims ID:	IC				
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	29-Sep-2022 06:52:00	ALS Bottle#:	0	Worklist Smp#:	5
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC				
Misc. Info.:	410-0067491-005				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	29-Sep-2022 07:58:25	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1678				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.939	1.937	0.002	17826195	H 10746	10857	

Reagents:

EPH_CO2MS_00004 Amount Added: 30.00 Units: uL

Chrom Revision: 2.3 22-Sep-2022 21:23:26

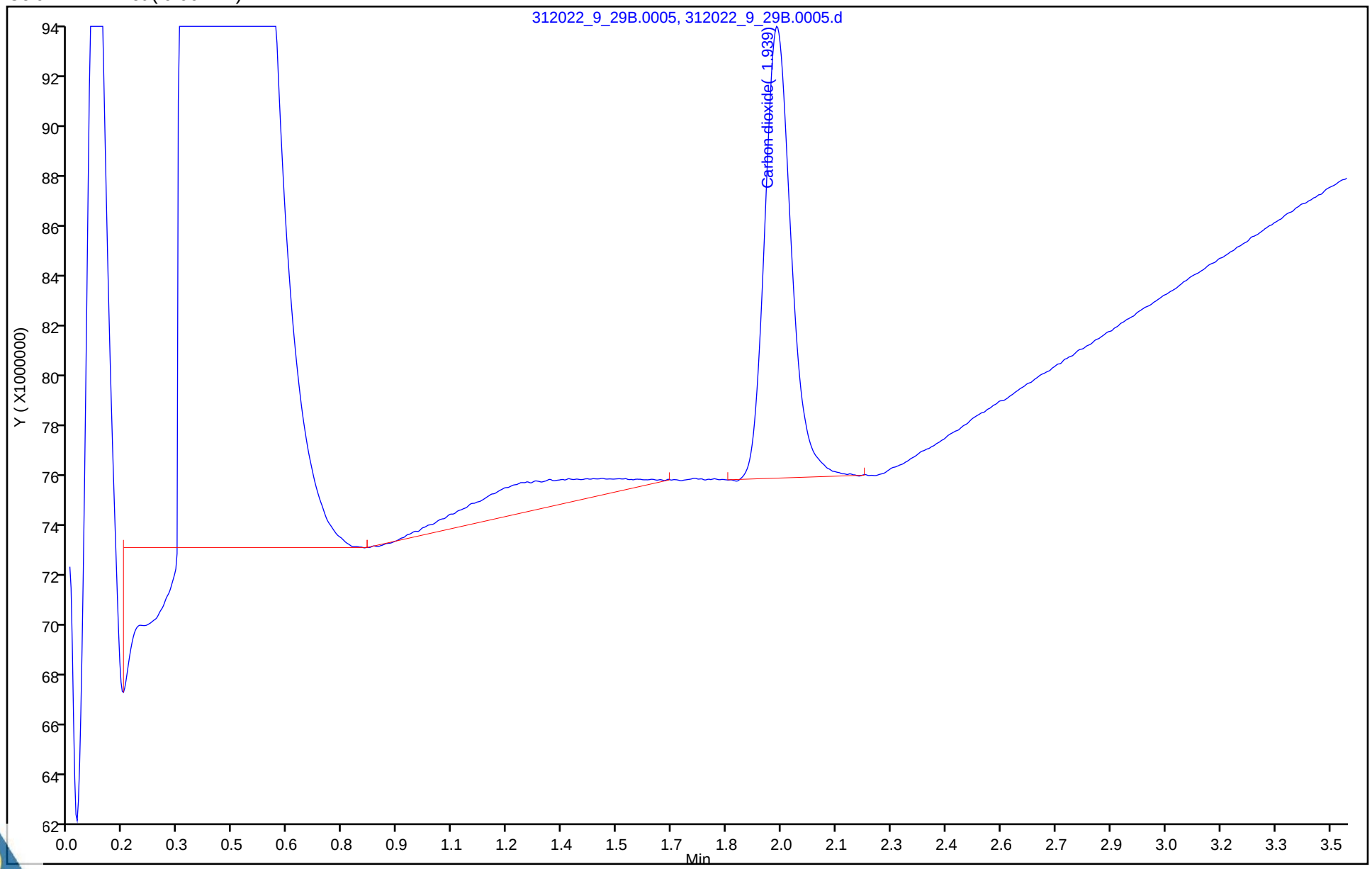
Report Date: 29-Sep-2022 07:58:25 Chrom Revision: 2.3 22-Sep-2022 21:23:26

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0005.d

Injection Date:	29-Sep-2022 06:52:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	IC			Worklist Smp#:	5
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



Report Date: 29-Sep-2022 07:58:25

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0006.d				
Lims ID:	IC				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	29-Sep-2022 07:00:00	ALS Bottle#:	0	Worklist Smp#:	6
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC				
Misc. Info.:	410-0067491-006				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	29-Sep-2022 07:58:25	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1678				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.938	1.937	0.001	35585188	H 21492	21673	

Reagents:

EPH_CO2MS_00004 Amount Added: 60.00 Units: uL

Chrom Revision: 2.3 22-Sep-2022 21:23:26

Report Date: 29-Sep-2022 07:58:25 Chrom Revision: 2.3 22-Sep-2022 21:23:26

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0006.d

Injection Date: 29-Sep-2022 07:00:00 Instrument ID: 19506-B Operator ID:

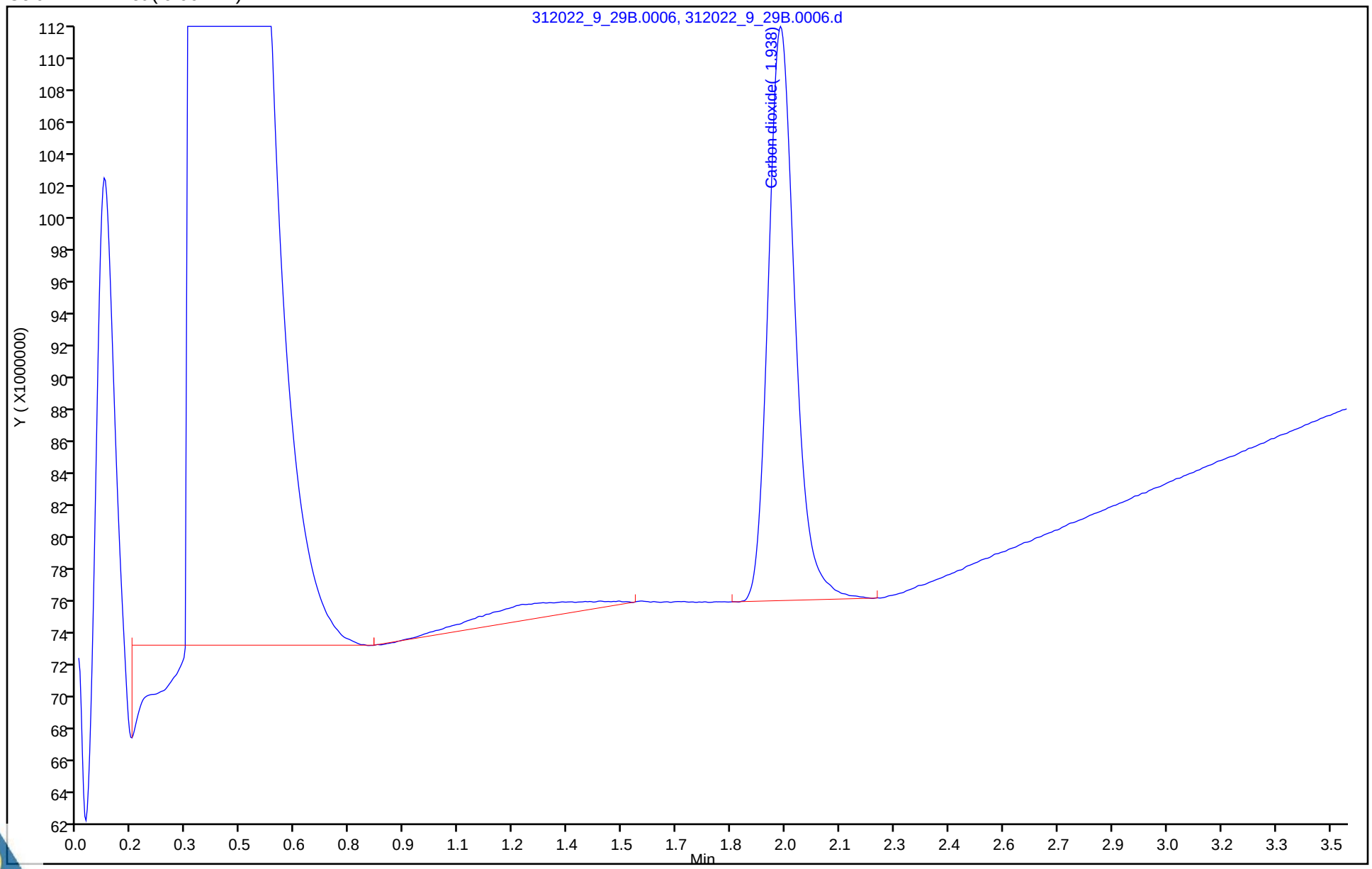
Lims ID: IC Worklist Smp#: 6

Client ID:

Purge Vol: 1.000 mL Dil. Factor: 1.0000 ALS Bottle#: 0

Method: RSK_CO2_19506B Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



Report Date: 29-Sep-2022 07:58:26

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0007.d				
Lims ID:	ICRT				
Client ID:					
Sample Type:	ICRT	Calib Level:	3		
Inject. Date:	29-Sep-2022 07:08:00	ALS Bottle#:	0	Worklist Smp#:	7
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	ICRT				
Misc. Info.:	410-0067491-007				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	29-Sep-2022 07:58:26	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1678				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.937	1.937	0.000	59810588	H 35820	36427	

Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

Chrom Revision: 2.3 22-Sep-2022 21:23:26

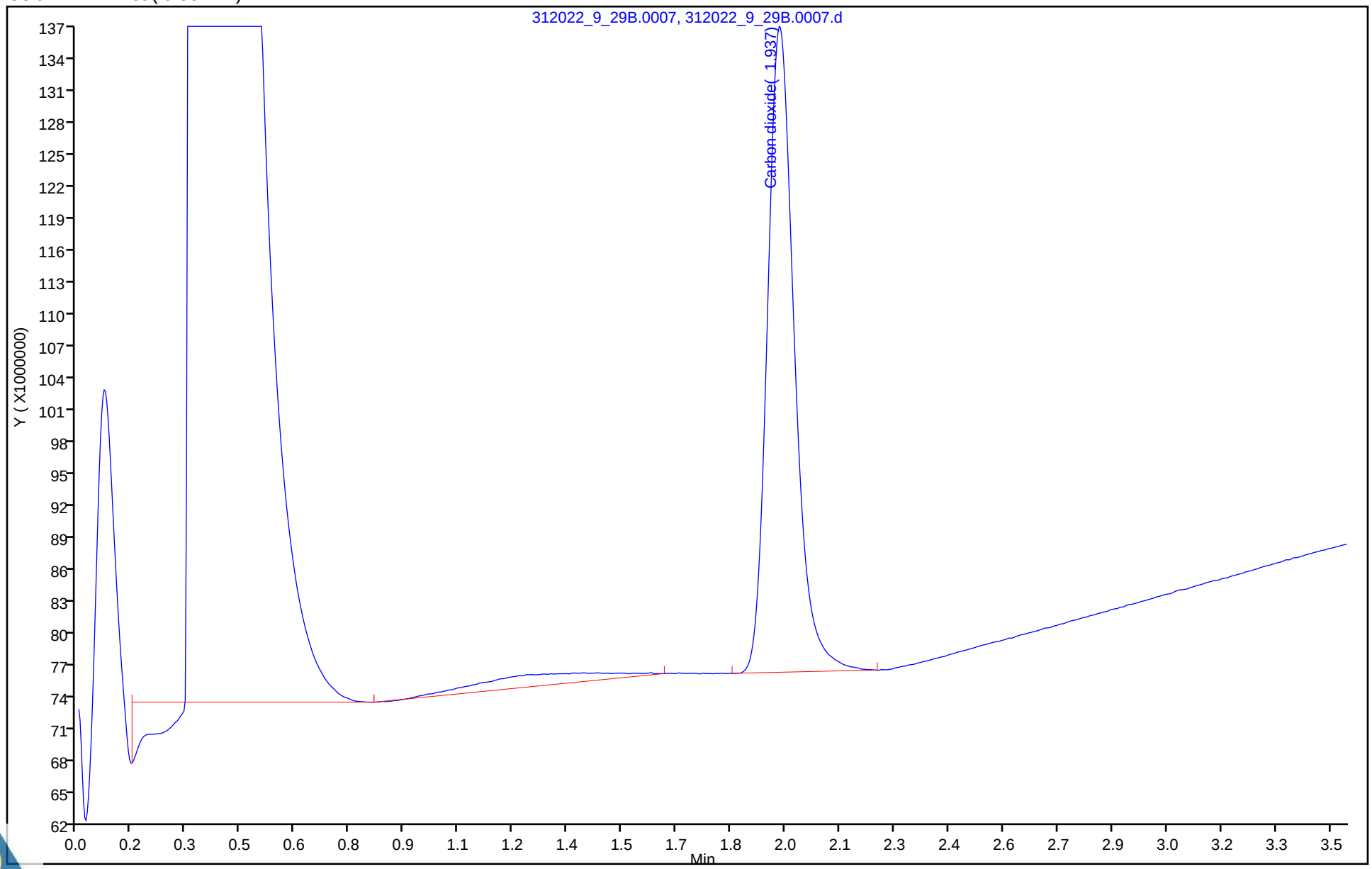
Report Date: 29-Sep-2022 07:58:26 Chrom Revision: 2.3 22-Sep-2022 21:23:26

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0007.d

Injection Date:	29-Sep-2022 07:08:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ICRT			Worklist Smp#:	7
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



Report Date: 29-Sep-2022 07:58:26

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0008.d				
Lims ID:	IC				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	29-Sep-2022 07:16:00	ALS Bottle#:	0	Worklist Smp#:	8
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC				
Misc. Info.:	410-0067491-008				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	29-Sep-2022 07:58:26	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1678				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.931	1.937	-0.006	151483728	H 89550	92260	

Reagents:

EPH_CO2MS_00004 Amount Added: 250.00 Units: uL

Chrom Revision: 2.3 22-Sep-2022 21:23:26

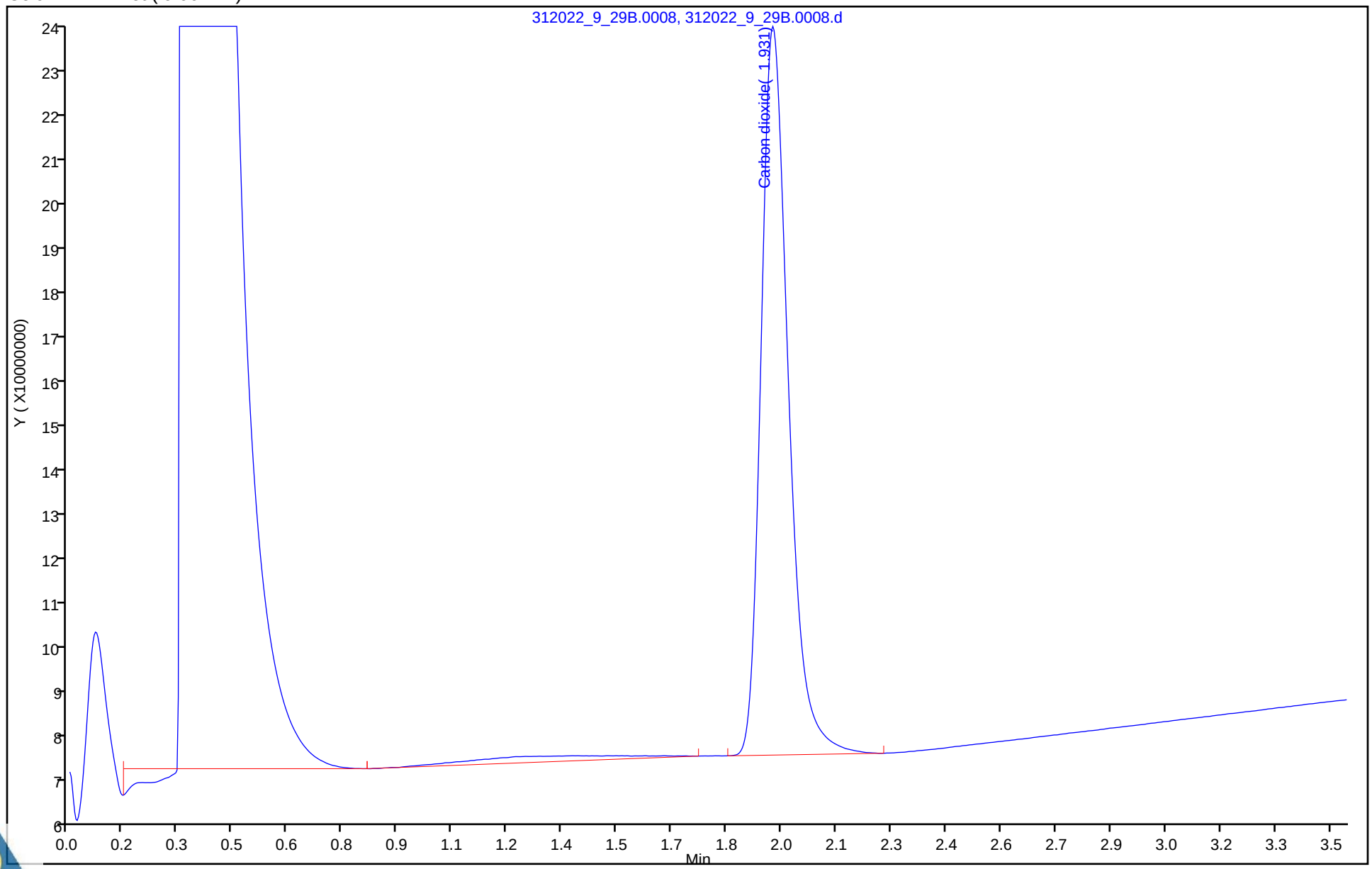
Report Date: 29-Sep-2022 07:58:26 Chrom Revision: 2.3 22-Sep-2022 21:23:26

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0008.d

Injection Date:	29-Sep-2022 07:16:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	IC			Worklist Smp#:	8
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



Report Date: 29-Sep-2022 07:58:27

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0009.d				
Lims ID:	IC				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	29-Sep-2022 07:25:00	ALS Bottle#:	0	Worklist Smp#:	9
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC				
Misc. Info.:	410-0067491-009				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	29-Sep-2022 07:58:27	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1678				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.918	1.937	-0.019	310734679	H 179100	189251	

Reagents:

EPH_CO2MS_00004 Amount Added: 500.00 Units: uL

Chrom Revision: 2.3 22-Sep-2022 21:23:26

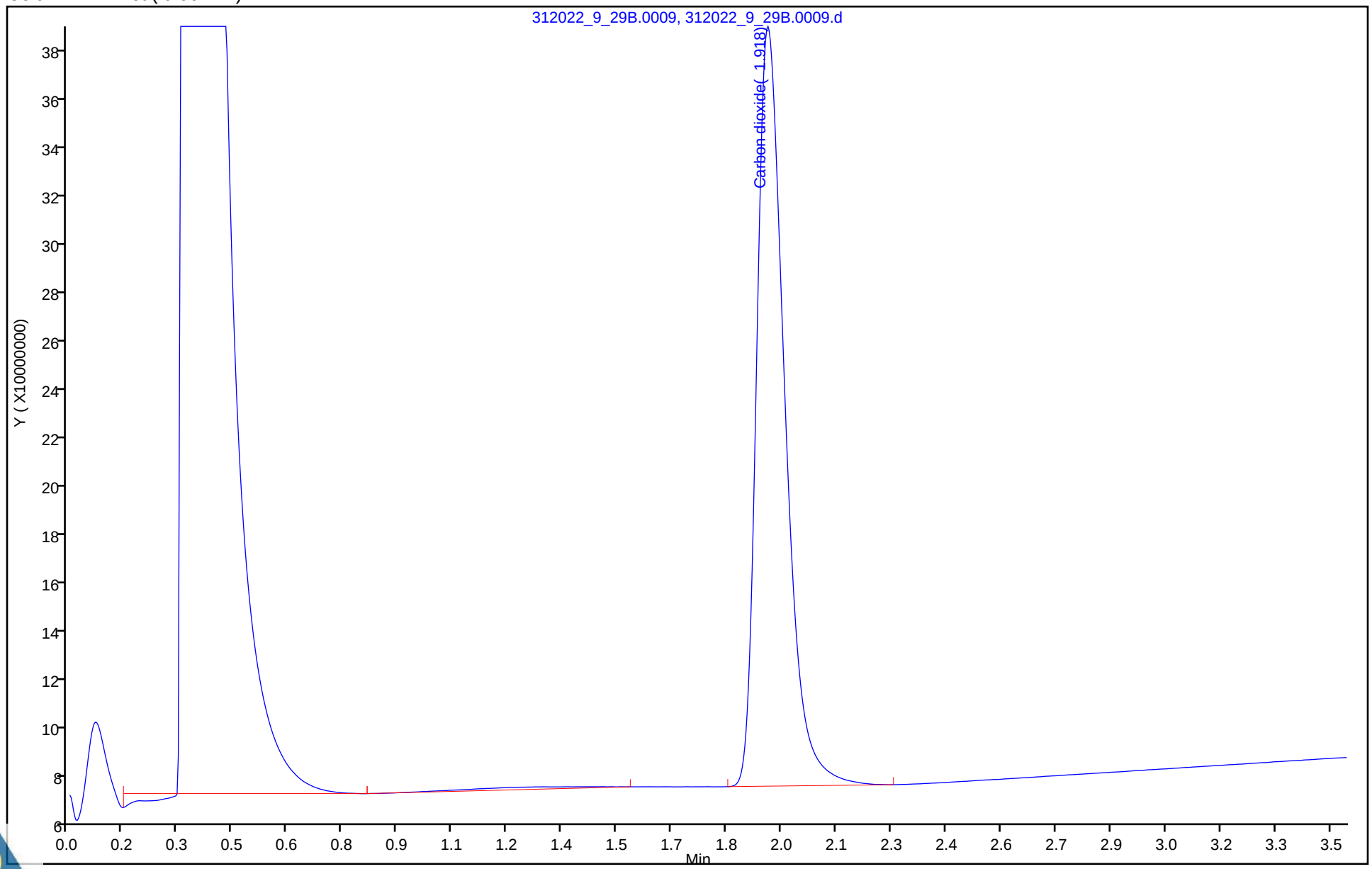
Report Date: 29-Sep-2022 07:58:27 Chrom Revision: 2.3 22-Sep-2022 21:23:26

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0009.d

Injection Date:	29-Sep-2022 07:25:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	IC			Worklist Smp#:	9
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



Report Date: 29-Sep-2022 07:58:27

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Lims ID:	IC				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	29-Sep-2022 07:33:00	ALS Bottle#:	0	Worklist Smp#:	10
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC				
Misc. Info.:	410-0067491-010				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	29-Sep-2022 07:58:27	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1678				
First Level Reviewer: LXF2		Date:	29-Sep-2022 07:57:45		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.902	1.937	-0.035	516013706H	358200	314274	a

QC Flag Legend

Processing Flags
H - Response Measured by Height
Review Flags
a - User Assigned ID

Reagents:

EPH_CO2MS_00004 Amount Added: 1000.00 Units: uL

Chrom Revision: 2.3 22-Sep-2022 21:23:26

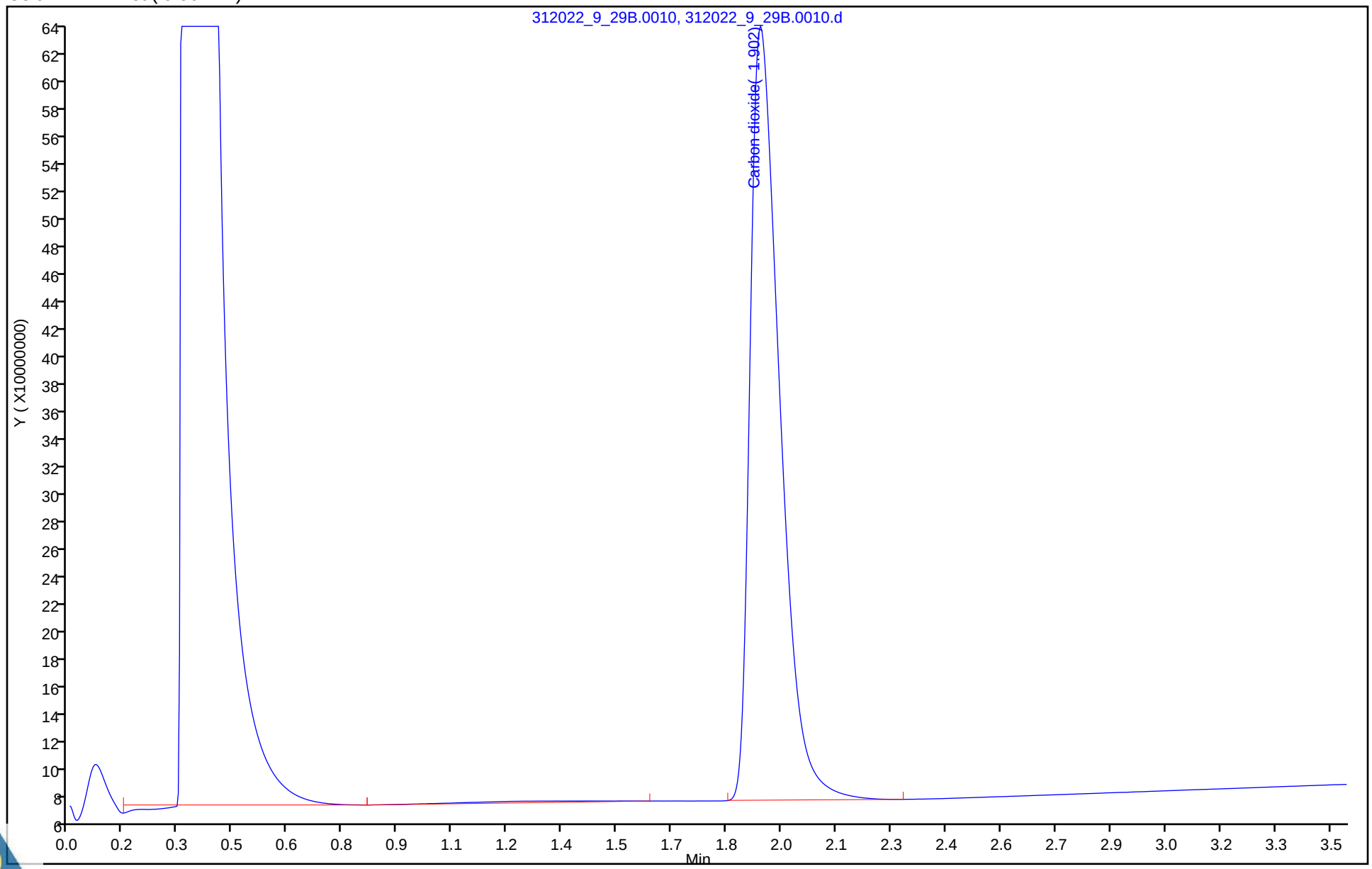
Report Date: 29-Sep-2022 07:58:27 Chrom Revision: 2.3 22-Sep-2022 21:23:26

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d

Injection Date:	29-Sep-2022 07:33:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	IC			Worklist Smp#:	10
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



Report Date: 29-Sep-2022 07:58:27

Chrom Revision: 2.3 22-Sep-2022 21:23:26 Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Environment Testing, LLC

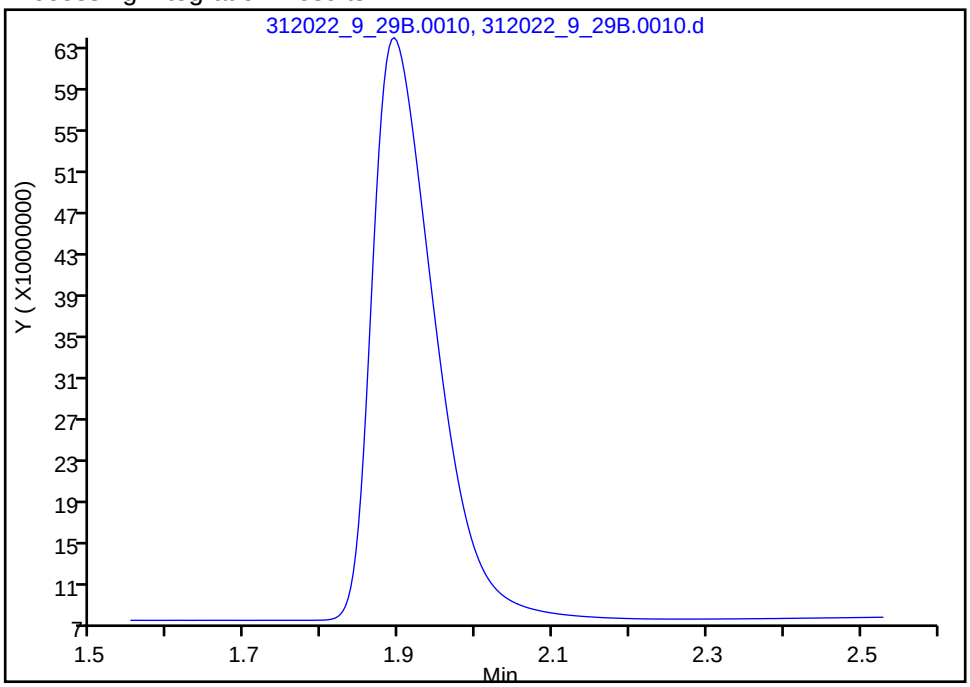
Data File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Injection Date:	29-Sep-2022 07:33:00	Instrument ID:	19506-B		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	10
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		
Column:	HP Plot (0.00 mm)	Detector	0FIDA		

1 Carbon dioxide, CAS: 124-38-9

Signal: 1

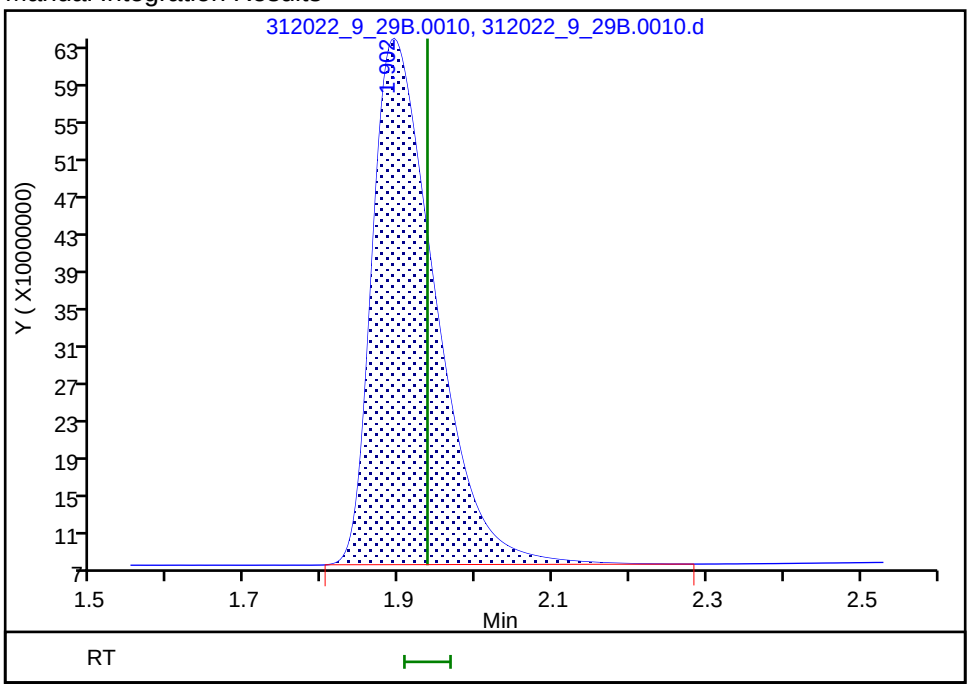
Not Detected
Expected RT: 1.94

Processing Integration Results



Manual Integration Results

RT: 1.90
Height: 516013706
Amount: 314274
Amount Units: ug/l



Reviewer: LXF2, 29-Sep-2022 07:57:34
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Calibration / Carbon dioxide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	HEIGHT
RF Rounding:	0

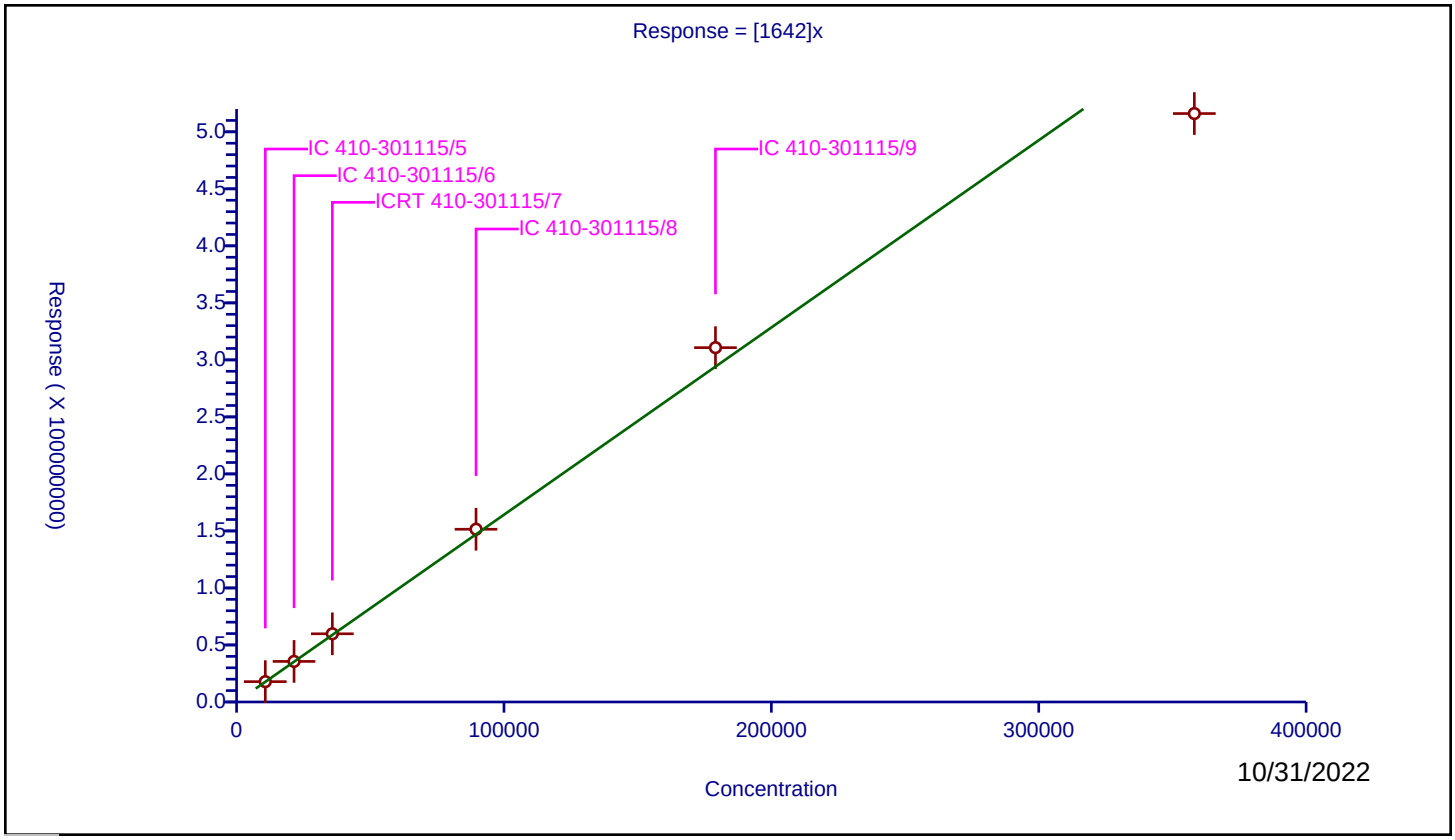
Curve Coefficients

Intercept:	0
Slope:	1642

Error Coefficients

Standard Error:	33200000
Relative Standard Error:	6.3
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 410-301115/5	10746.0	17826195.0			1658.867951	Y
2	IC 410-301115/6	21492.0	35585188.0			1655.741113	Y
3	ICRT 410-301115/7	35820.0	59810588.0			1669.753992	Y
4	IC 410-301115/8	89550.0	151483728.0			1691.610586	Y
5	IC 410-301115/9	179100.0	310734679.0			1734.978666	Y
6	IC 410-301115/10	358200.0	516013706.0			1440.574277	Y



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-102567-1

SDG No.:

Lab Sample ID: ICV 410-301115/13 Calibration Date: 09/29/2022 07:57

Instrument ID: 19506-B Calib Start Date: 09/29/2022 06:52

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 09/29/2022 07:33

Lab File ID: 312022_9_29B.0013.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	1642	1624		34600	35000	-1.1	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-102567-1

SDG No.:

Lab Sample ID: ICV 410-301115/13 Calibration Date: 09/29/2022 07:57

Instrument ID: 19506-B Calib Start Date: 09/29/2022 06:52

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 09/29/2022 07:33

Lab File ID: 312022_9_29B.0013.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	1.94	1.91	1.97

Report Date: 29-Sep-2022 08:05:32

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0013.d				
Lims ID:	ICV				
Client ID:					
Sample Type:	ICV				
Inject. Date:	29-Sep-2022 07:57:00	ALS Bottle#:	0	Worklist Smp#:	13
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	ICV				
Misc. Info.:	410-0067491-013				
Operator ID:		Instrument ID:	19506-B		
Sublist:					
Method:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	29-Sep-2022 06:05:09	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1678				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.936	1.937	-0.001	56861018	H 35008	34631	

Reagents:

EPH_CO2ICV_00002 Amount Added: 320.00 Units: uL

Chrom Revision: 2.3 22-Sep-2022 21:23:26

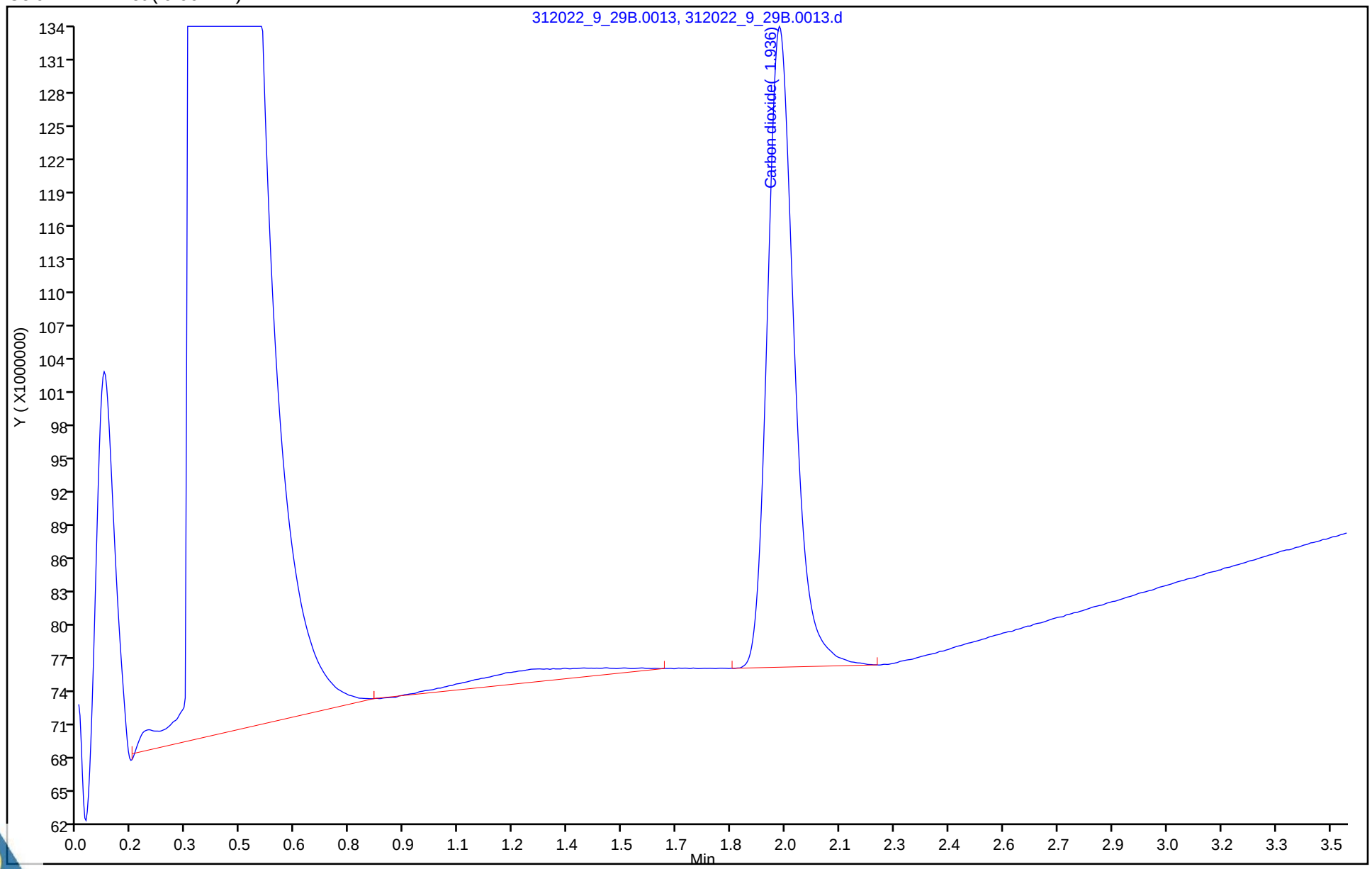
Report Date: 29-Sep-2022 08:05:32 Chrom Revision: 2.3 22-Sep-2022 21:23:26

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0013.d

Injection Date:	29-Sep-2022 07:57:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	13
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-102567-1

SDG No.:

Lab Sample ID: CCVRT 410-309068/4 Calibration Date: 10/21/2022 08:43

Instrument ID: 19506-B Calib Start Date: 09/29/2022 06:52

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 09/29/2022 07:33

Lab File ID: 312022_10_21B.0004.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	1642	1492		32500	35800	-9.1	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-102567-1

SDG No.:

Lab Sample ID: CCVRT 410-309068/4 Calibration Date: 10/21/2022 08:43

Instrument ID: 19506-B Calib Start Date: 09/29/2022 06:52

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 09/29/2022 07:33

Lab File ID: 312022_10_21B.0004.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	1.95	1.92	1.98

Report Date: 24-Oct-2022 05:59:34

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0004.d				
Lims ID:	ccvrt				
Client ID:					
Sample Type:	CCVRT				
Inject. Date:	21-Oct-2022 08:43:00	ALS Bottle#:	0	Worklist Smp#:	4
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	ccvrt				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	24-Oct-2022 05:59:34	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1617				
First Level Reviewer: SE2A		Date:	21-Oct-2022 09:06:02		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.947	1.947	0.000	53436799	H 35820	32545	

QC Flag Legend

Processing Flags

H - Response Measured by Height

Reagents:

EPH_CO2MS_00004 Amount Added: 0.10 Units: mL

Chrom Revision: 2.3 28-Sep-2022 12:57:42

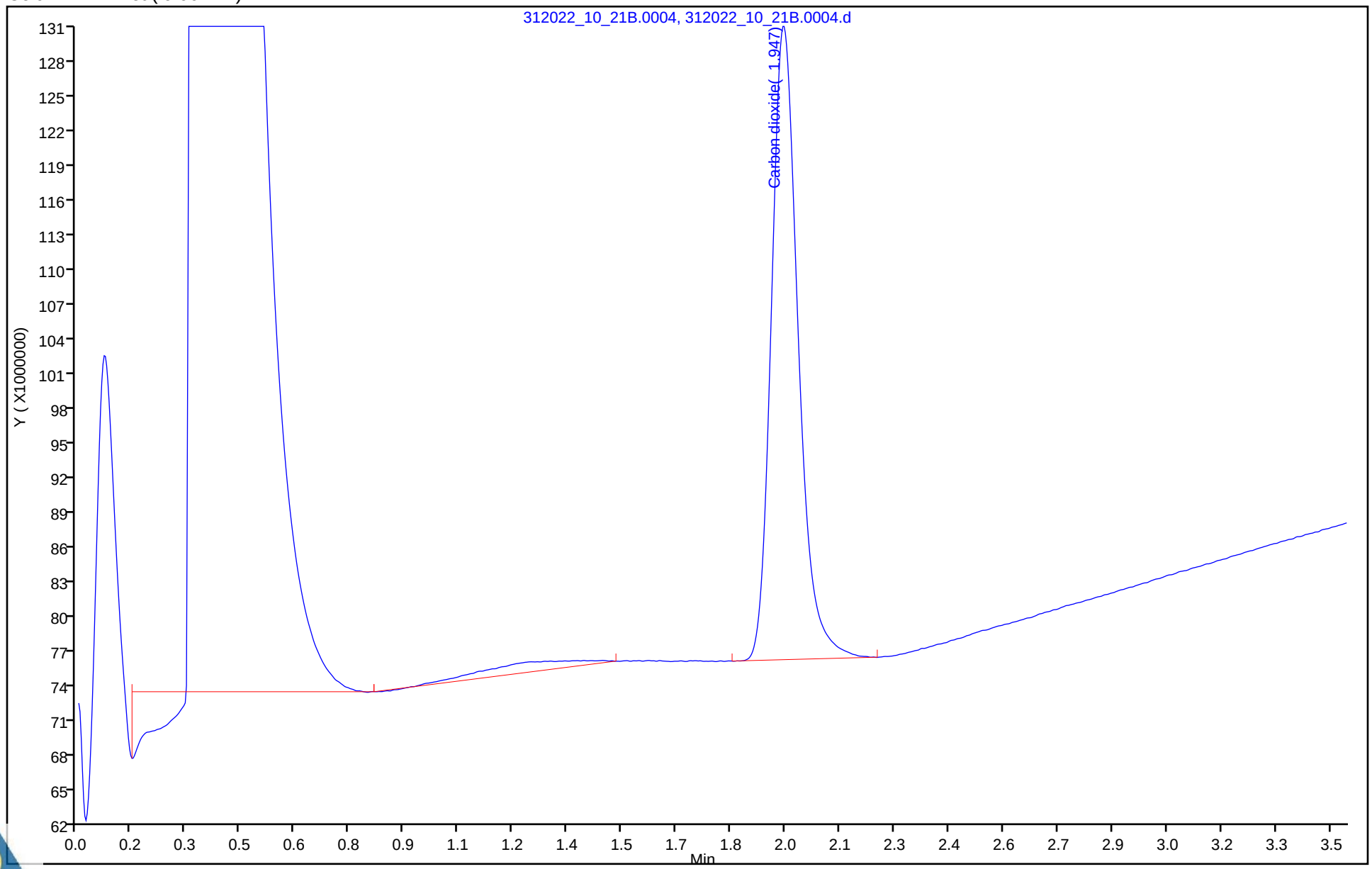
Report Date: 24-Oct-2022 05:59:34 Chrom Revision: 2.3 28-Sep-2022 12:57:42

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0004.d

Injection Date:	21-Oct-2022 08:43:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ccvrt			Worklist Smp#:	4
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-102567-1

SDG No.:

Lab Sample ID: CCV 410-309068/15 Calibration Date: 10/21/2022 10:24

Instrument ID: 19506-B Calib Start Date: 09/29/2022 06:52

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 09/29/2022 07:33

Lab File ID: 312022_10_21B.0015.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	1642	1689		36800	35800	2.8	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-102567-1

SDG No.:

Lab Sample ID: CCV 410-309068/15 Calibration Date: 10/21/2022 10:24

Instrument ID: 19506-B Calib Start Date: 09/29/2022 06:52

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 09/29/2022 07:33

Lab File ID: 312022_10_21B.0015.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	1.95	1.92	1.98

Report Date: 24-Oct-2022 05:59:37

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0015.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	21-Oct-2022 10:24:00	ALS Bottle#:	0	Worklist Smp#:	15
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	x				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	24-Oct-2022 05:59:37	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1617				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.945	1.947	-0.002	60482813H	35820	36837	

Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

Chrom Revision: 2.3 28-Sep-2022 12:57:42

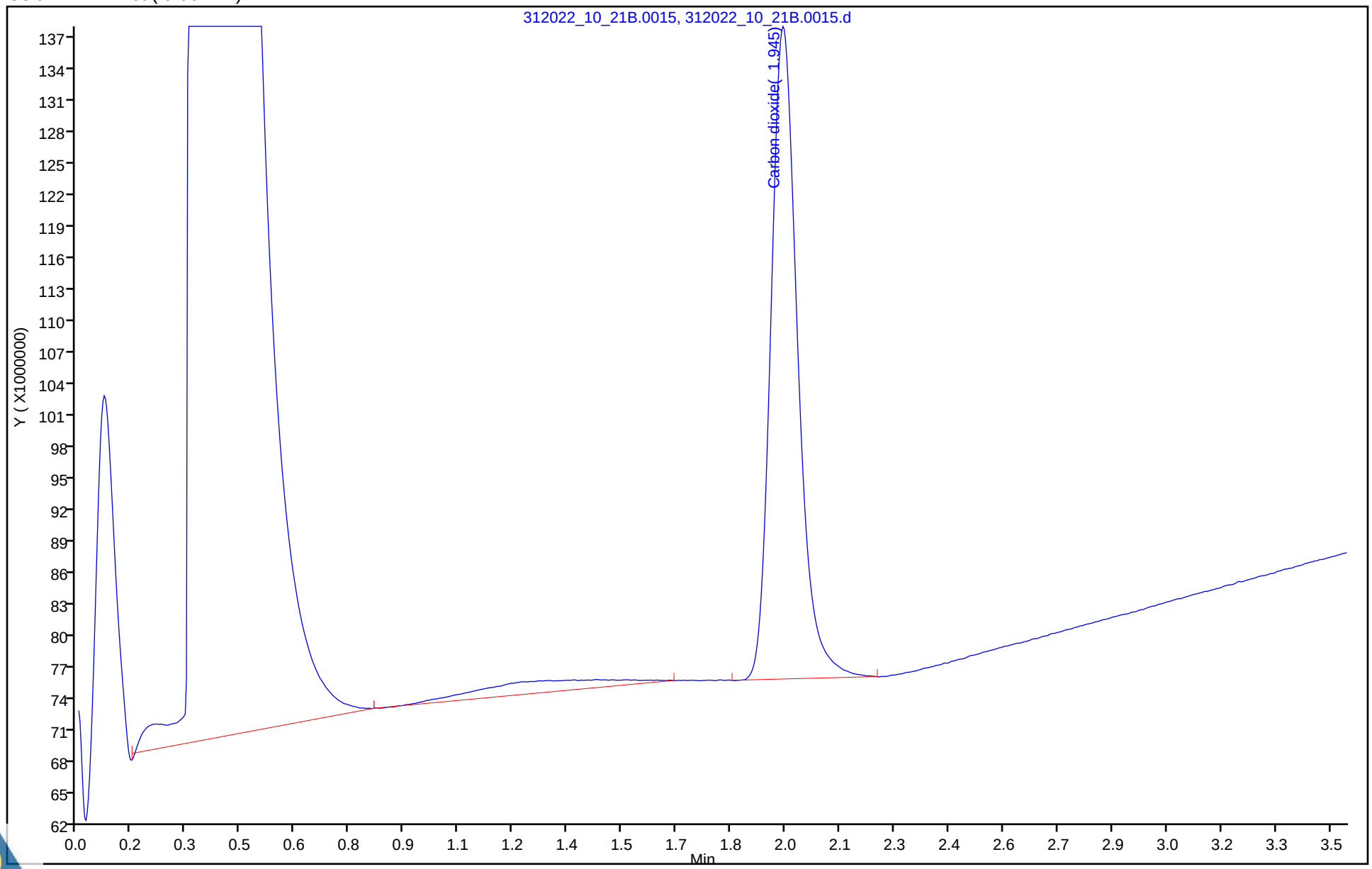
Report Date: 24-Oct-2022 05:59:37 Chrom Revision: 2.3 28-Sep-2022 12:57:42

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0015.d

Injection Date:	21-Oct-2022 10:24:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	15
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-102567-1

SDG No.:

Lab Sample ID: CCV 410-309068/89 Calibration Date: 10/21/2022 21:02

Instrument ID: 19506-B Calib Start Date: 09/29/2022 06:52

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 09/29/2022 07:33

Lab File ID: 312022_10_21B.0091.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	1642	1553		33900	35800	-5.4	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-102567-1

SDG No.:

Lab Sample ID: CCV 410-309068/89 Calibration Date: 10/21/2022 21:02

Instrument ID: 19506-B Calib Start Date: 09/29/2022 06:52

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 09/29/2022 07:33

Lab File ID: 312022_10_21B.0091.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	1.94	1.92	1.98

Report Date: 24-Oct-2022 05:59:55

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0091.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	21-Oct-2022 21:02:00	ALS Bottle#:	0	Worklist Smp#:	89
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	ccv				
Misc. Info.:	410-0069282-089				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	24-Oct-2022 05:59:55	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1617				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.940	1.947	-0.007	55645478H	35820	33890	

Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

Chrom Revision: 2.3 28-Sep-2022 12:57:42

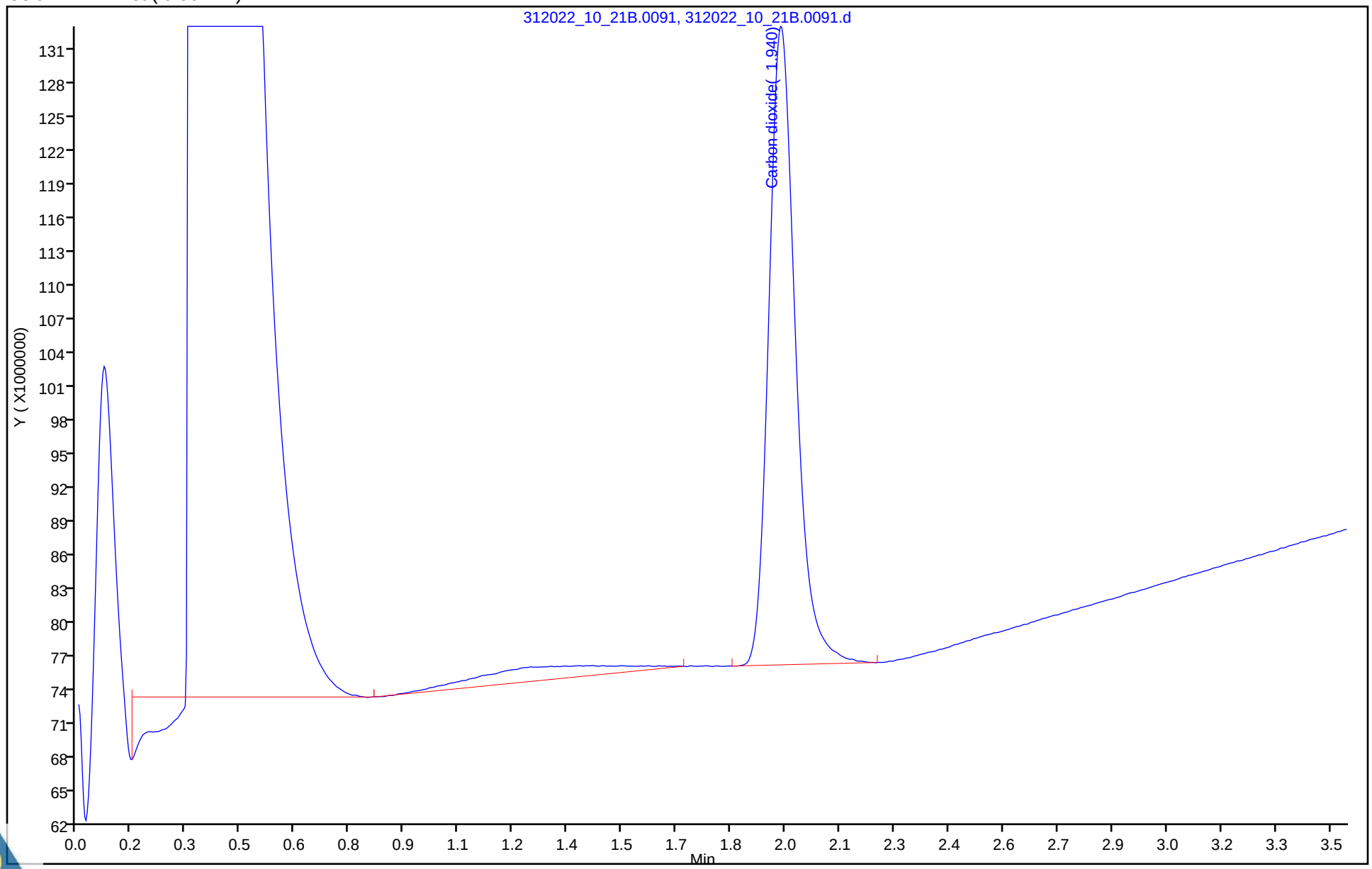
Report Date: 24-Oct-2022 05:59:55 Chrom Revision: 2.3 28-Sep-2022 12:57:42

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0091.d

Injection Date:	21-Oct-2022 21:02:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	89
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-102567-1

SDG No.:

Lab Sample ID: CCV 410-309068/99 Calibration Date: 10/21/2022 22:24

Instrument ID: 19506-B Calib Start Date: 09/29/2022 06:52

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 09/29/2022 07:33

Lab File ID: 312022_10_21B.0101.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	1642	1573		34300	35800	-4.2	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-102567-1

SDG No.:

Lab Sample ID: CCV 410-309068/99 Calibration Date: 10/21/2022 22:24

Instrument ID: 19506-B Calib Start Date: 09/29/2022 06:52

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 09/29/2022 07:33

Lab File ID: 312022_10_21B.0101.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	1.94	1.92	1.98

Report Date: 24-Oct-2022 05:59:57

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0101.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	21-Oct-2022 22:24:00	ALS Bottle#:	0	Worklist Smp#:	99
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	ccv				
Misc. Info.:	410-0069282-099				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	24-Oct-2022 05:59:57	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1617				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.941	1.947	-0.006	56362759H	35820	34327	

Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

Chrom Revision: 2.3 28-Sep-2022 12:57:42

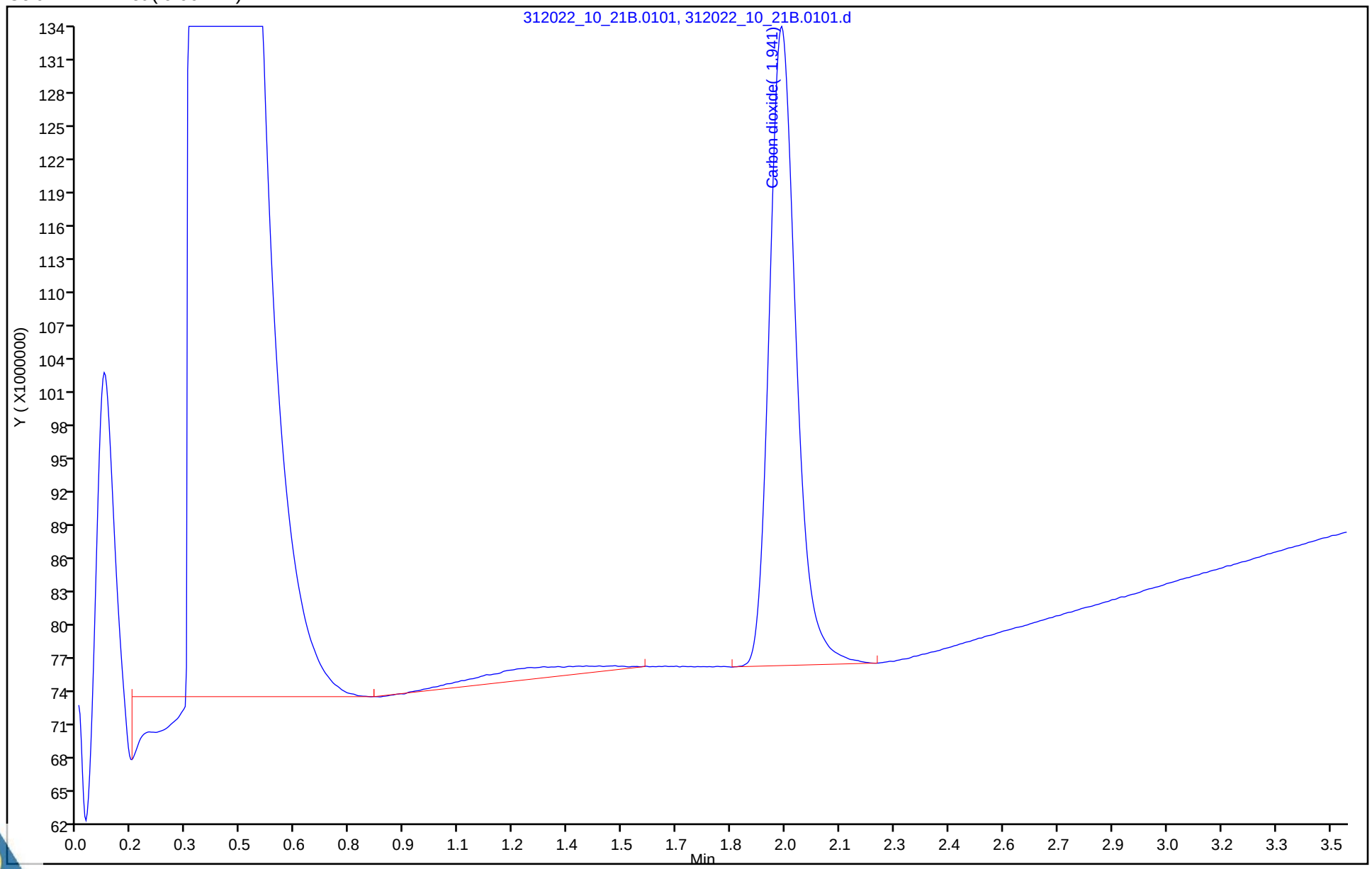
Report Date: 24-Oct-2022 05:59:57 Chrom Revision: 2.3 28-Sep-2022 12:57:42

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0101.d

Injection Date:	21-Oct-2022 22:24:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	99
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-309055/1-A

Matrix: Water Lab File ID: 312022_10_21B.0005.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 10/21/2022 08:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP Plot ID: 0.53(mm)

Purge Volume: Heated Purge: (Y/N) N pH:

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 309068 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-38-9	Carbon dioxide	2600	U	12000	2600

Report Date: 24-Oct-2022 05:59:34

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0005.d				
Lims ID:	MB 410-309055/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	21-Oct-2022 08:52:00	ALS Bottle#:	0	Worklist Smp#:	5
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	mb				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	24-Oct-2022 05:59:34	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1617				
First Level Reviewer: SE2A		Date:	21-Oct-2022 09:15:58		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.950	1.947	0.003	3055584	H	1861.0	

QC Flag Legend

Processing Flags

H - Response Measured by Height

Chrom Revision: 2.3 28-Sep-2022 12:57:42

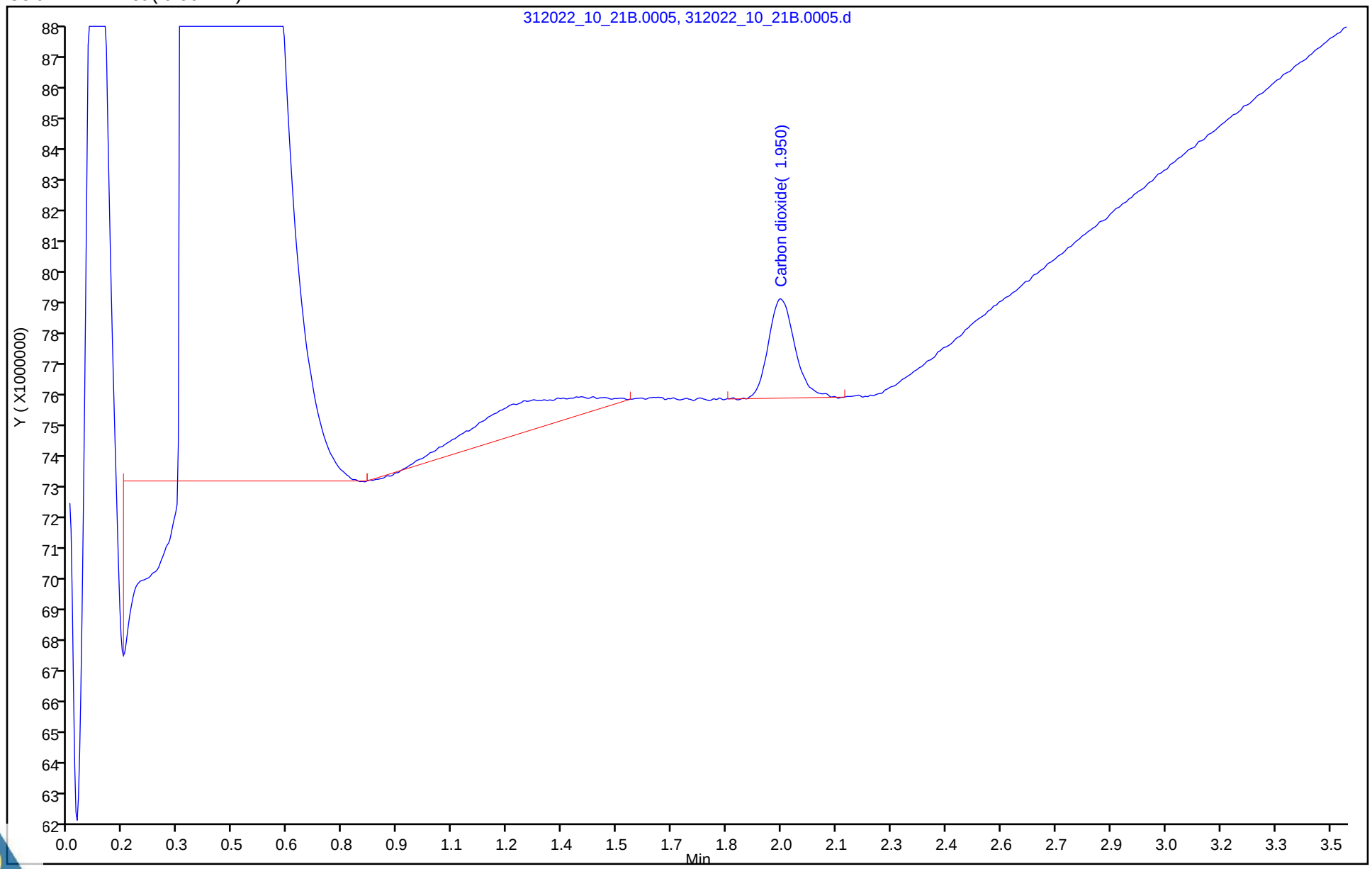
Report Date: 24-Oct-2022 05:59:34 Chrom Revision: 2.3 28-Sep-2022 12:57:42

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0005.d

Injection Date:	21-Oct-2022 08:52:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	MB 410-309055/1-A			Worklist Smp#:	5
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-309112/1-A

Matrix: Water Lab File ID: 312022_10_21B.0092.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 10/21/2022 21:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP Plot ID: 0.53(mm)

Purge Volume: Heated Purge: (Y/N) N pH:

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 309068 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-38-9	Carbon dioxide	2600	U	12000	2600

Report Date: 24-Oct-2022 05:59:55

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0092.d				
Lims ID:	MB 410-309112/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	21-Oct-2022 21:10:00	ALS Bottle#:	0	Worklist Smp#:	90
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	MB 410-309112/1-A				
Misc. Info.:	410-0069282-090				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	24-Oct-2022 05:59:55	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1617				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.946	1.947	-0.001	2477643H		1509.0	

Chrom Revision: 2.3 28-Sep-2022 12:57:42

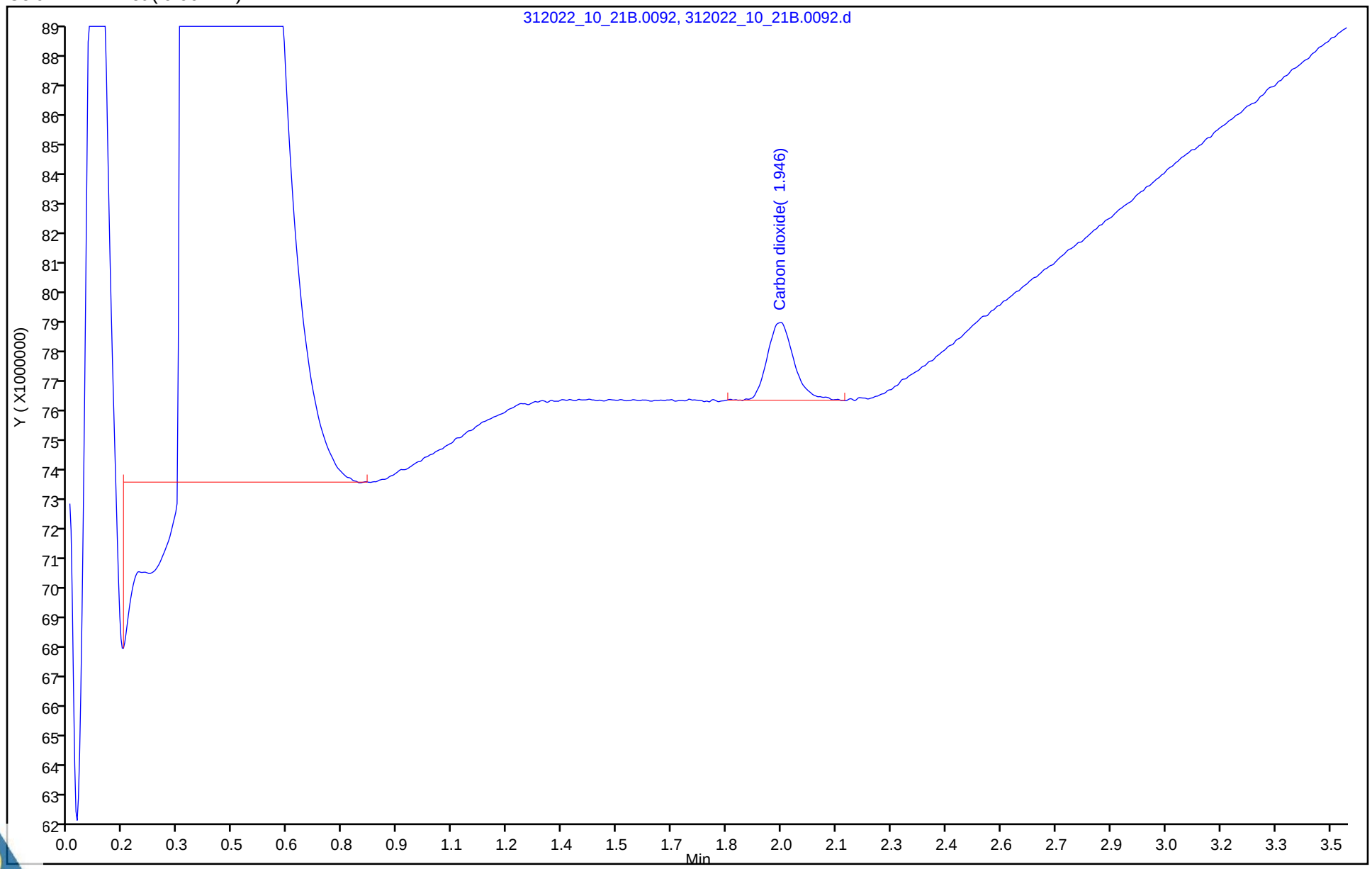
Report Date: 24-Oct-2022 05:59:55 Chrom Revision: 2.3 28-Sep-2022 12:57:42

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0092.d

Injection Date:	21-Oct-2022 21:10:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	MB 410-309112/1-A			Worklist Smp#:	90
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-309055/2-A

Matrix: Water Lab File ID: 312022_10_21B.0006.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 10/21/2022 09:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP Plot ID: 0.53(mm)

Purge Volume: Heated Purge: (Y/N) N pH:

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 309068 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-38-9	Carbon dioxide	38500		12000	2600

Report Date: 24-Oct-2022 05:59:35

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0006.d				
Lims ID:	LCS 410-309055/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	21-Oct-2022 09:00:00	ALS Bottle#:	0	Worklist Smp#:	6
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	lcs				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	24-Oct-2022 05:59:34	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1617				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.943	1.947	-0.004	63294595	H 35820	38549	

Chrom Revision: 2.3 28-Sep-2022 12:57:42

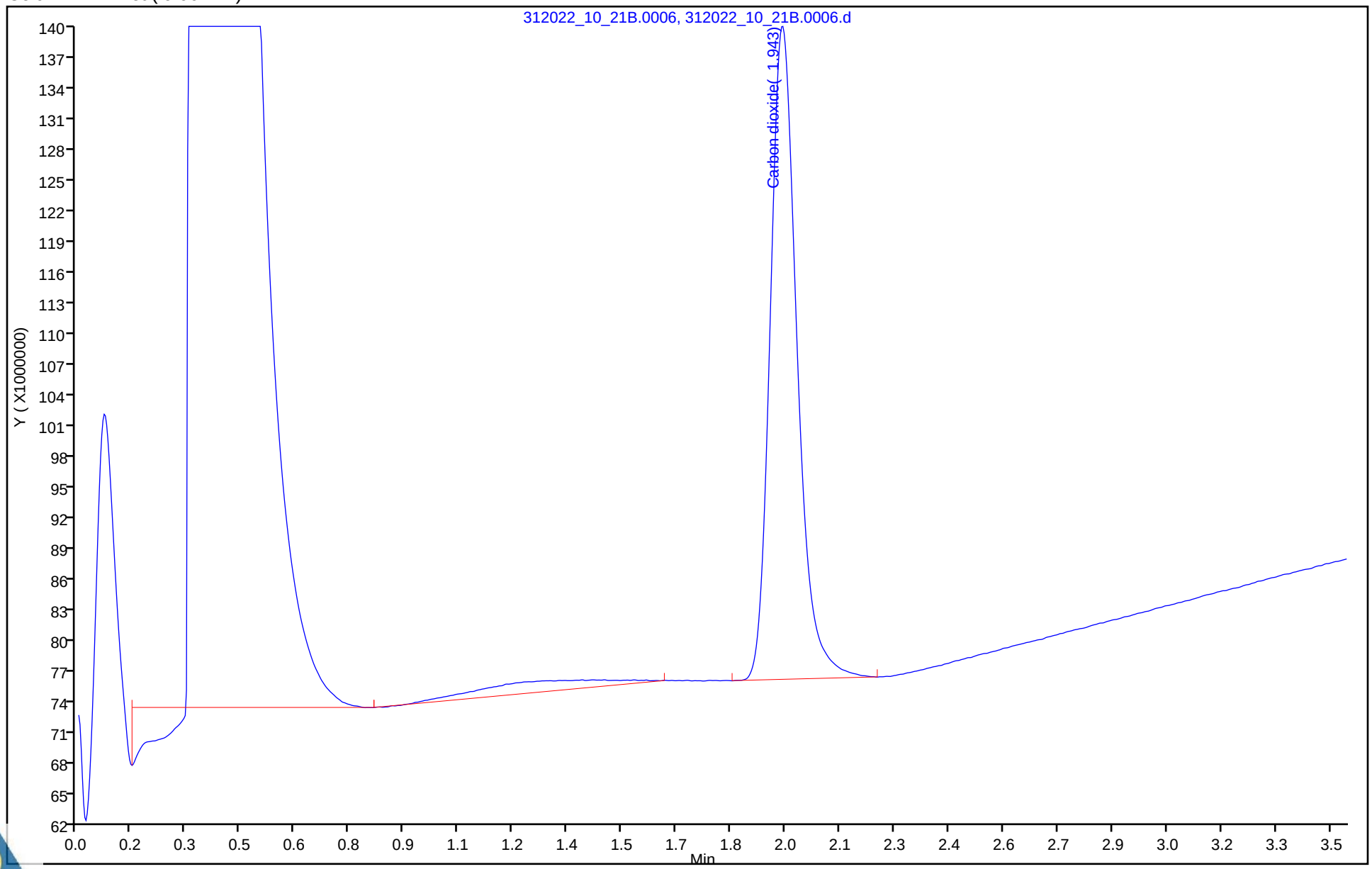
Report Date: 24-Oct-2022 05:59:35 Chrom Revision: 2.3 28-Sep-2022 12:57:42

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0006.d

Injection Date:	21-Oct-2022 09:00:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	LCS 410-309055/2-A			Worklist Smp#:	6
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-309112/3-A

Matrix: Water Lab File ID: 312022_10_21B.0094.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 10/21/2022 21:27

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP Plot ID: 0.53(mm)

Purge Volume: Heated Purge: (Y/N) N pH:

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 309068 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-38-9	Carbon dioxide	33700		12000	2600

Report Date: 24-Oct-2022 05:59:56

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0094.d				
Lims ID:	LCSD 410-309112/3-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	21-Oct-2022 21:27:00	ALS Bottle#:	0	Worklist Smp#:	92
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	LCSD 410-309112/3-A				
Misc. Info.:	410-0069282-092				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	24-Oct-2022 05:59:55	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1617				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.941	1.947	-0.006	55307098	H 35820	33684	

Chrom Revision: 2.3 28-Sep-2022 12:57:42

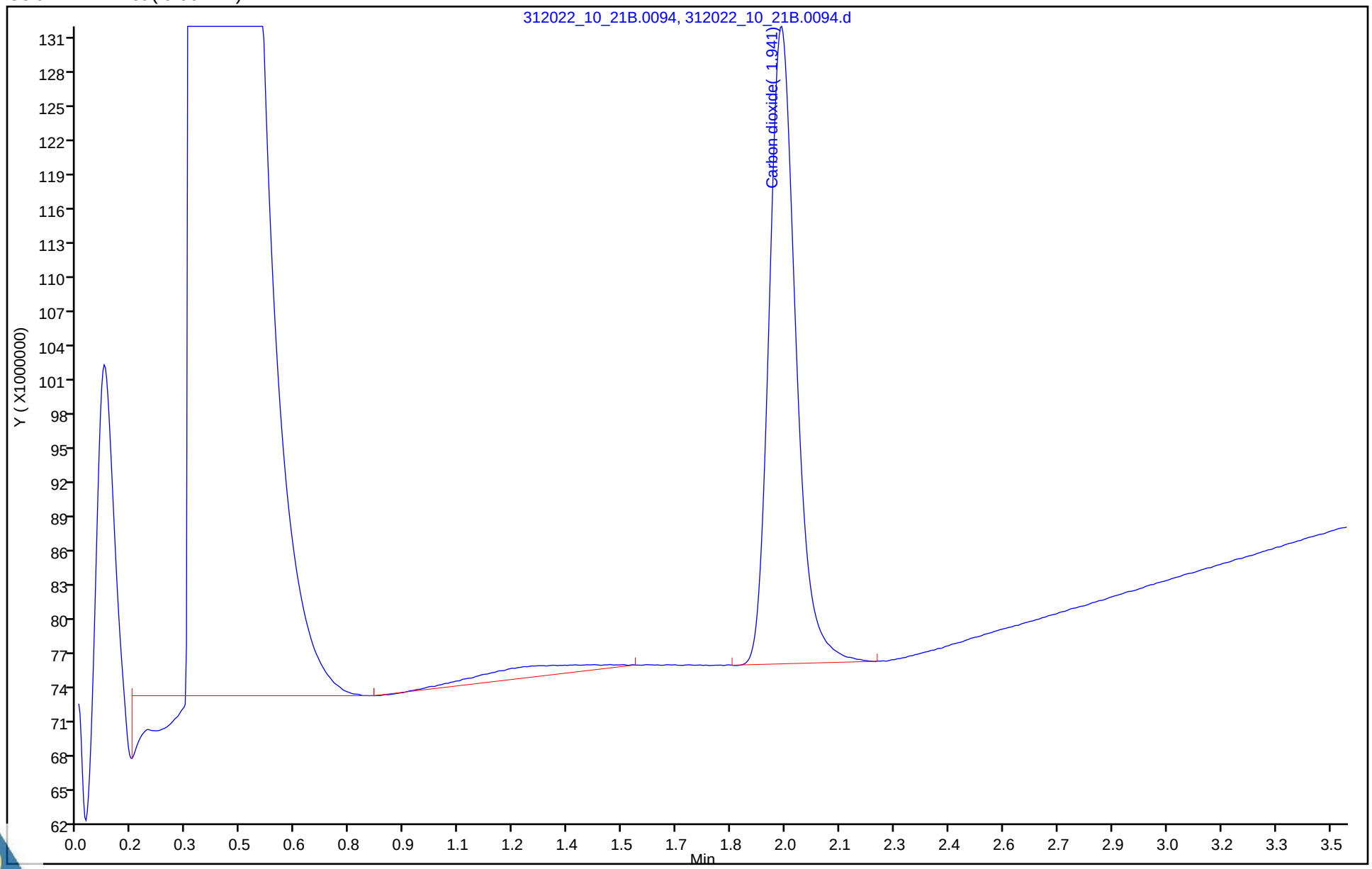
Report Date: 24-Oct-2022 05:59:56 Chrom Revision: 2.3 28-Sep-2022 12:57:42

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0094.d

Injection Date:	21-Oct-2022 21:27:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	LCSD 410-309112/3-A			Worklist Smp#:	92
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Client Sample ID: 50WW14-221011 MS Lab Sample ID: 410-102567-1 MS

Matrix: Water Lab File ID: 312022_10_21B.0008.d

Analysis Method: RSK-175 Date Collected: 10/11/2022 07:55

Sample wt/vol: 5(mL) Date Analyzed: 10/21/2022 09:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP Plot ID: 0.53(mm)

Purge Volume: Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 309068 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-38-9	Carbon dioxide	110000		12000	2600

Report Date: 24-Oct-2022 05:59:35

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0008.d				
Lims ID:	410-102567-A-1-B MS				
Client ID:	50WW14-221011				
Sample Type:	MS				
Inject. Date:	21-Oct-2022 09:30:00	ALS Bottle#:	0	Worklist Smp#:	8
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	x				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	24-Oct-2022 05:59:34	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1617				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.937	1.947	-0.010	180440060	H 35820	109896	

Chrom Revision: 2.3 28-Sep-2022 12:57:42

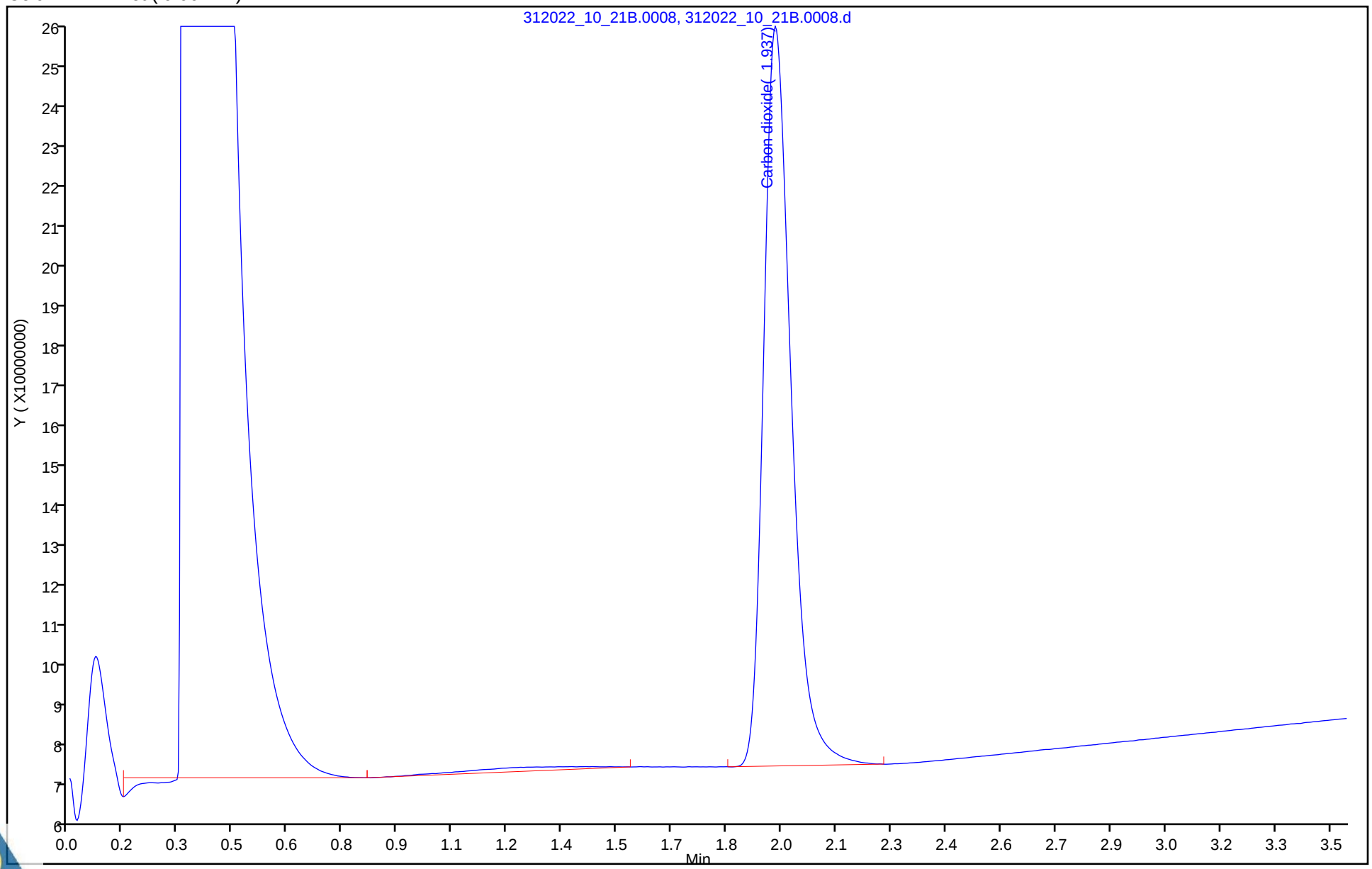
Report Date: 24-Oct-2022 05:59:35 Chrom Revision: 2.3 28-Sep-2022 12:57:42

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0008.d

Injection Date:	21-Oct-2022 09:30:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	410-102567-A-1-B MS			Worklist Smp#:	8
Client ID:	50WW14-221011				
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-102567-1

SDG No.:

Client Sample ID: 50WW14-221011 MSD Lab Sample ID: 410-102567-1 MSD

Matrix: Water Lab File ID: 312022_10_21B.0009.d

Analysis Method: RSK-175 Date Collected: 10/11/2022 07:55

Sample wt/vol: 5(mL) Date Analyzed: 10/21/2022 09:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP Plot ID: 0.53(mm)

Purge Volume: Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 309068 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-38-9	Carbon dioxide	113000		12000	2600

Report Date: 24-Oct-2022 05:59:35

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0009.d				
Lims ID:	410-102567-A-1-C MSD				
Client ID:	50WW14-221011				
Sample Type:	MSD				
Inject. Date:	21-Oct-2022 09:39:00	ALS Bottle#:	0	Worklist Smp#:	9
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	x				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	24-Oct-2022 05:59:34	Calib Date:	29-Sep-2022 07:33:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20220929-67491.b\312022_9_29B.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1617				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.935	1.947	-0.012	186237344	H 35820	113426	

Chrom Revision: 2.3 28-Sep-2022 12:57:42

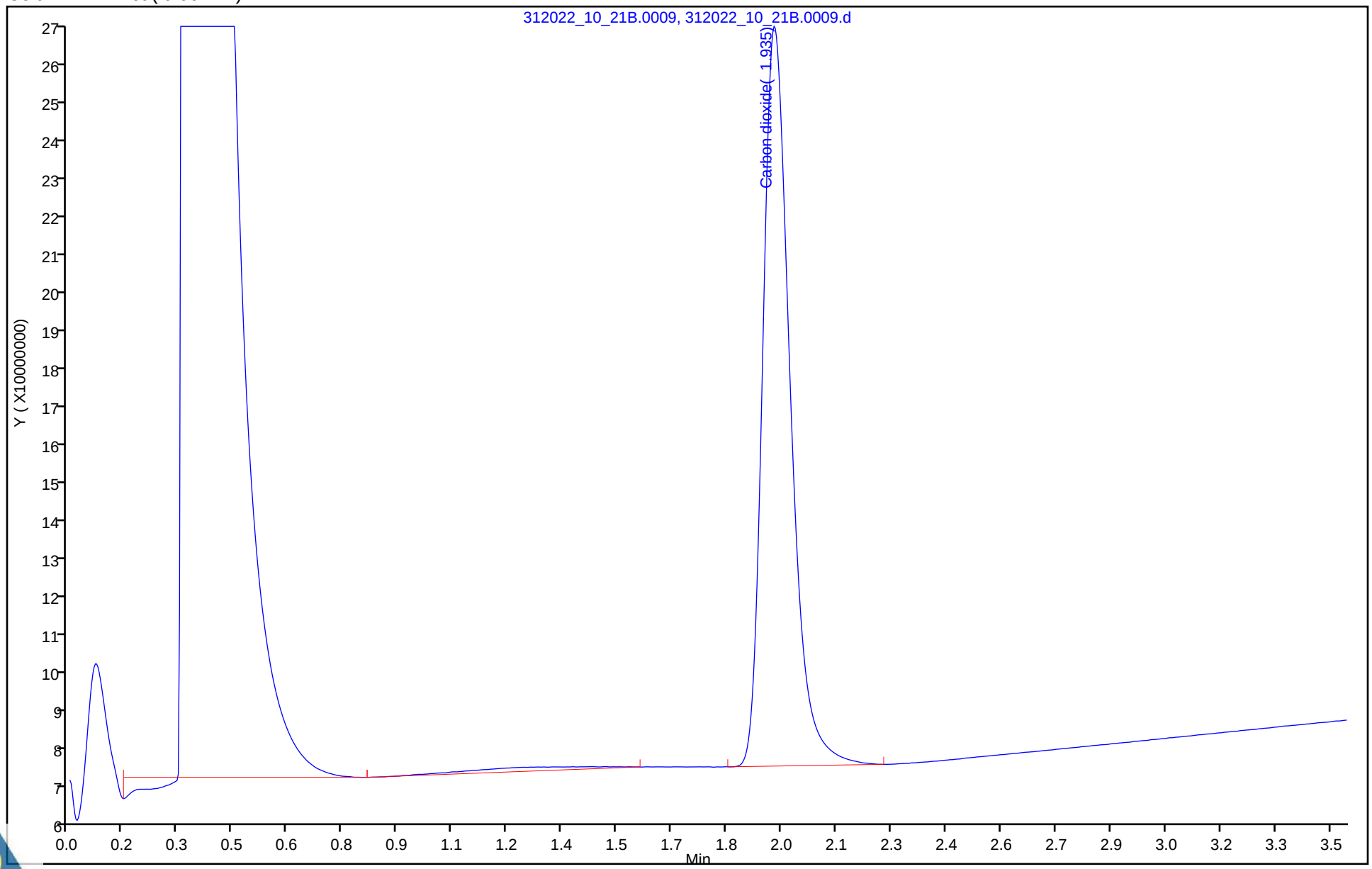
Report Date: 24-Oct-2022 05:59:35 Chrom Revision: 2.3 28-Sep-2022 12:57:42

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221021-69282.b\312022_10_21B.0009.d

Injection Date:	21-Oct-2022 09:39:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	410-102567-A-1-C MSD			Worklist Smp#:	9
Client ID:	50WW14-221011				
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-102567-1

SDG No.:

Instrument ID: 19506-B Start Date: 09/29/2022 06:44

Analysis Batch Number: 301115 End Date: 09/29/2022 07:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PIBLK 410-301115/4		09/29/2022 06:44	1		HP Plot 0.53(mm)
IC 410-301115/5		09/29/2022 06:52	1	312022_9_29B.0005.d	HP Plot 0.53(mm)
IC 410-301115/6		09/29/2022 07:00	1	312022_9_29B.0006.d	HP Plot 0.53(mm)
ICRT 410-301115/7		09/29/2022 07:08	1	312022_9_29B.0007.d	HP Plot 0.53(mm)
IC 410-301115/8		09/29/2022 07:16	1	312022_9_29B.0008.d	HP Plot 0.53(mm)
IC 410-301115/9		09/29/2022 07:25	1	312022_9_29B.0009.d	HP Plot 0.53(mm)
IC 410-301115/10		09/29/2022 07:33	1	312022_9_29B.0010.d	HP Plot 0.53(mm)
PIBLK 410-301115/11		09/29/2022 07:41	1		HP Plot 0.53(mm)
ICVL 410-301115/12		09/29/2022 07:49	1		HP Plot 0.53(mm)
ICV 410-301115/13		09/29/2022 07:57	1	312022_9_29B.0013.d	HP Plot 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-102567-1

SDG No.:

Instrument ID: 19506-B Start Date: 10/21/2022 08:43

Analysis Batch Number: 309068 End Date: 10/21/2022 22:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 410-309068/4		10/21/2022 08:43	1	312022_10_21B.0004.d	HP Plot 0.53(mm)
MB 410-309055/1-A		10/21/2022 08:52	1	312022_10_21B.0005.d	HP Plot 0.53(mm)
LCS 410-309055/2-A		10/21/2022 09:00	1	312022_10_21B.0006.d	HP Plot 0.53(mm)
410-102567-1	50WW14-221011	10/21/2022 09:23	1	312022_10_21B.0007.d	HP Plot 0.53(mm)
410-102567-1 MS	50WW14-221011 MS	10/21/2022 09:30	1	312022_10_21B.0008.d	HP Plot 0.53(mm)
410-102567-1 MSD	50WW14-221011 MSD	10/21/2022 09:39	1	312022_10_21B.0009.d	HP Plot 0.53(mm)
410-102567-2	50WW13-221011	10/21/2022 09:46	1	312022_10_21B.0010.d	HP Plot 0.53(mm)
410-102567-3	50WW11-221011	10/21/2022 09:53	1	312022_10_21B.0011.d	HP Plot 0.53(mm)
410-102567-4	50WW06-221011	10/21/2022 10:01	1	312022_10_21B.0012.d	HP Plot 0.53(mm)
410-102567-5	50WW12-221011	10/21/2022 10:09	1	312022_10_21B.0013.d	HP Plot 0.53(mm)
410-102567-6	50WW12-221011-FD	10/21/2022 10:16	1	312022_10_21B.0014.d	HP Plot 0.53(mm)
CCV 410-309068/15		10/21/2022 10:24	1	312022_10_21B.0015.d	HP Plot 0.53(mm)
ZZZZZ		10/21/2022 10:39	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 10:46	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 10:54	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 11:02	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 11:09	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 11:17	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 11:25	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 11:32	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 11:40	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 11:48	1		HP Plot 0.53(mm)
CCV 410-309068/26		10/21/2022 11:55	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 12:13	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 12:20	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 12:28	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 12:35	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 12:43	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 12:51	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 13:04	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 13:12	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 13:20	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 13:28	1		HP Plot 0.53(mm)
CCV 410-309068/37		10/21/2022 13:36	1		HP Plot 0.53(mm)
CCV 410-309068/100		10/21/2022 13:54	1		HP Plot 0.53(mm)
CCV 410-309068/101		10/21/2022 14:02	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 14:14	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 14:21	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 14:29	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 14:37	1		HP Plot 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-102567-1

SDG No.:

Instrument ID: 19506-B Start Date: 10/21/2022 08:43

Analysis Batch Number: 309068 End Date: 10/21/2022 22:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		10/21/2022 14:44	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 14:52	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 15:00	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 15:08	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 15:15	1		HP Plot 0.53(mm)
CCV 410-309068/47		10/21/2022 15:23	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 15:31	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 15:39	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 15:46	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 15:54	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 16:02	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 16:09	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 16:17	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 16:25	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 16:33	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 16:40	1		HP Plot 0.53(mm)
CCV 410-309068/58		10/21/2022 16:48	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 16:56	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 17:03	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 17:11	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 17:19	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 17:27	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 17:34	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 17:42	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 17:50	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 17:58	1		HP Plot 0.53(mm)
CCV 410-309068/68		10/21/2022 18:10	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 18:18	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 18:26	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 18:35	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 18:43	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 18:51	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 18:59	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 19:07	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 19:16	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 19:24	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 19:32	1		HP Plot 0.53(mm)
CCV 410-309068/79		10/21/2022 19:40	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 19:48	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 19:57	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 20:05	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 20:13	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 20:21	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 20:29	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 20:37	1		HP Plot 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-102567-1

SDG No.:

Instrument ID: 19506-B Start Date: 10/21/2022 08:43

Analysis Batch Number: 309068 End Date: 10/21/2022 22:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		10/21/2022 20:46	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 20:54	1		HP Plot 0.53(mm)
CCV 410-309068/89		10/21/2022 21:02	1	312022_10_21B.0091.d	HP Plot 0.53(mm)
MB 410-309112/1-A		10/21/2022 21:10	1	312022_10_21B.0092.d	HP Plot 0.53(mm)
ZZZZZ		10/21/2022 21:18	1		HP Plot 0.53(mm)
LCSD 410-309112/3-A		10/21/2022 21:27	1	312022_10_21B.0094.d	HP Plot 0.53(mm)
ZZZZZ		10/21/2022 21:35	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 21:43	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 21:51	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 21:59	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 22:08	1		HP Plot 0.53(mm)
ZZZZZ		10/21/2022 22:16	1		HP Plot 0.53(mm)
CCV 410-309068/99		10/21/2022 22:24	1	312022_10_21B.0101.d	HP Plot 0.53(mm)

GC VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-102567-1

SDG No.:

Batch Number: 301115 Batch Start Date: 09/29/22 06:44 Batch Analyst: Kennedy, Johanna C

Batch Method: RSK-175 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EPH_CO2ICV 00002	EPH_CO2MS 00004		
IC 410-301115/5		RSK-175		5 mL	5 mL		30 uL		
IC 410-301115/6		RSK-175		5 mL	5 mL		60 uL		
ICRT 410-301115/7		RSK-175		5 mL	5 mL		100 uL		
IC 410-301115/8		RSK-175		5 mL	5 mL		250 uL		
IC 410-301115/9		RSK-175		5 mL	5 mL		500 uL		
IC 410-301115/10		RSK-175		5 mL	5 mL		1000 uL		
ICV 410-301115/13		RSK-175		5 mL	5 mL	320 uL			

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-102567-1

SDG No.:

Batch Number: 309055 Batch Start Date: 10/21/22 08:17 Batch Analyst: Ford, Ashley

Batch Method: RSK-175 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	Headspace	EPH_CO2MS 00004	
MB 410-309055/1		RSK-175, RSK-175		n/a SU	5 mL	5 mL	n/a		
LCS 410-309055/2		RSK-175, RSK-175		n/a SU	5 mL	5 mL	n/a	0.1 mL	
410-102567-A-1	50WW14-221011	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	no		
410-102567-A-1 MS	50WW14-221011	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	no	0.1 mL	
410-102567-A-1 MSD	50WW14-221011	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	no	0.1 mL	
410-102567-A-2	50WW13-221011	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	no		
410-102567-A-3	50WW11-221011	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	no		
410-102567-B-4	50WW06-221011	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	no		
410-102567-A-5	50WW12-221011	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	no		
410-102567-A-6	50WW12-221011-FD	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	no		

Batch Notes	
Pipette/Syringe/Dispenser ID	7105
pH Indicator ID	10bdh1521

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-102567-1

SDG No.:

Batch Number: 309112 Batch Start Date: 10/21/22 09:33 Batch Analyst: Ford, Ashley

Batch Method: RSK-175 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	Headspace	EPH_CO2MS 00004	
MB 410-309112/1		RSK-175, RSK-175		n/a SU	5 mL	5 mL	n/a		
LCSD 410-309112/3		RSK-175, RSK-175		n/a SU	5 mL	5 mL	n/a	0.1 mL	

Batch Notes	
Pipette/Syringe/Dispenser ID	7105
pH Indicator ID	10bdh1521

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents



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:** **20093**

SUBCONTRACT TO:

Eurofins Lancaster Laboratories Envt Testing
2425 New Holland Pike
Lancaster, PA 17601

Phone: +1 717 656 2300

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@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:	HS22100577
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS22100577-01**	**50WW14-221011**	**Groundwater**	**11 Oct 2022 07:55**
	RSK175 CO2; LHAAP; DoD Level IV, LHAAP EQUIS EDD			26 Oct 2022
	XXX SUB			26 Oct 2022
2.	**HS22100577-02**	**50WW13-221011**	**Groundwater**	**11 Oct 2022 08:55**
	RSK175 CO2; LHAAP; DoD Level IV, LHAAP EQUIS EDD			26 Oct 2022
	XXX SUB			26 Oct 2022
3.	**HS22100577-03**	**50WW11-221011**	**Groundwater**	**11 Oct 2022 09:40**
	RSK175 CO2; LHAAP; DoD Level IV, LHAAP EQUIS EDD			26 Oct 2022
	XXX SUB			26 Oct 2022
4.	**HS22100577-04**	**50WW06-221011**	**Groundwater**	**11 Oct 2022 10:30**
	RSK175 CO2; LHAAP; DoD Level IV, LHAAP EQUIS EDD			26 Oct 2022
	XXX SUB			26 Oct 2022
5.	**HS22100577-05**	**50WW12-221011**	**Groundwater**	**11 Oct 2022 11:20**
	RSK175 CO2; LHAAP; DoD Level IV, LHAAP EQUIS EDD			26 Oct 2022
	XXX SUB			26 Oct 2022
6.	**HS22100577-06**	**50WW12-221011-FD**	**Groundwater**	**11 Oct 2022 11:20**
	RSK175 CO2; LHAAP; DoD Level IV, LHAAP EQUIS EDD			26 Oct 2022
	XXX SUB			26 Oct 2022

RIGHT SOLUTIONS | RIGHT PARTNER

CB

Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **20093**

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
ANALYSIS REQUESTED			DUE DATE

Comments: 50WW14-221011 (HS22100577-01) designate as MS/MSD
3 Week TAT for Level IV Data Package

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

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: 10/19/22 1800

Received By: _____ Date/Time: 10/20/22 1035

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

19 Oct 2022 Page 2 of 2

Login Sample Receipt Checklist

Client: ALS Group USA, Corp

Job Number: 410-102567-1

Login Number: 102567
List Number: 1
Creator: Ballard, Megan

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	True	

HS23051708 LHAAP 50 Cover Page

ALS WO# HS23051708

ALS Environmental
ALS Group USA, Corp
10450 Stancliff Road, Suite 210
Houston, TX 77099
T : +1 281 530 5656
F : +1 281 530 5887
www.alsglobal.com

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- Preparation Sheets
- Analytical Results
- Accuracy and Precision

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
alsglobal.com

right solutions.
right partner.

WorkOrder: HS23051708

LHAAP 50

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

09-Jun-2023

HS23051708 LHAAP 50 Final

ALS WO# HS23051708

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

June 19, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23051708**

Laboratory Results for: **LHAAP 50**

Dear Marcia Olive,

ALS Environmental received 8 sample(s) on May 25, 2023 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
James Guin

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Work Order: HS23051708

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23051708-01	50WW09_052423	Groundwater		24-May-2023 06:55	25-May-2023 09:30	☐
HS23051708-02	50WW08_052423	Groundwater		24-May-2023 07:35	25-May-2023 09:30	☐
HS23051708-03	50WW22_052423	Groundwater		24-May-2023 08:20	25-May-2023 09:30	☐
HS23051708-04	50WW13_052423	Groundwater		24-May-2023 09:05	25-May-2023 09:30	☐
HS23051708-05	50WW11_052423	Groundwater		24-May-2023 09:55	25-May-2023 09:30	☐
HS23051708-06	50WW06_052423	Groundwater		24-May-2023 10:50	25-May-2023 09:30	☐
HS23051708-07	50WW29_052423	Groundwater		24-May-2023 11:40	25-May-2023 09:30	☐
HS23051708-08	Trip Blank	Water		24-May-2023 00:00	25-May-2023 09:30	☐

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: LHAAP 50
Work Order: HS23051708

Work Order Comments

- The analysis for Hexavalent Chromium was subcontracted to Eurofins Environmental Testing America l in Lancaster, PA . Final report attached
- The analysis for Perchlorate was subcontracted to ALS High Res Lab Houston, TX. Final report attached.

GC Semivolatiles by Method RSK-175

Batch ID: R436671

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

GCMS Volatiles by Method SW8260

Batch ID: R436483

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

Batch ID: R436840

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

WetChemistry by Method E415.1

Batch ID: R437365

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

WetChemistry by Method SW9056

Batch ID: R436347

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

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: 50WW09_052423
Collection Date: 24-May-2023 06:55

ANALYTICAL REPORT
WorkOrder:HS23051708
Lab ID:HS23051708-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 14:50
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 14:50
cis-1,2-Dichloroethene	**1.1**		**0.20**	**0.50**	**1.0**	**ug/L**	1	29-May-2023 14:50
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	29-May-2023 14:50
Trichloroethene	**11**		**0.20**	**0.50**	**1.0**	**ug/L**	1	29-May-2023 14:50
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 14:50
Surr: 1,2-Dichloroethane-d4	*111*			**0**	*81-118*	*%REC*	*1*	*29-May-2023 14:50*
Surr: 4-Bromofluorobenzene	*95.8*			**0**	*85-114*	*%REC*	*1*	*29-May-2023 14:50*
Surr: Dibromofluoromethane	*103*			**0**	*80-119*	*%REC*	*1*	*29-May-2023 14:50*
Surr: Toluene-d8	*106*			**0**	*89-112*	*%REC*	*1*	*29-May-2023 14:50*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	31-May-2023 13:22

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

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: 50WW08_052423
Collection Date: 24-May-2023 07:35

ANALYTICAL REPORT
WorkOrder:HS23051708
Lab ID:HS23051708-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1-Dichloroethene	**1.1**		**0.20**	**0.50**	**1.0**	**ug/L**	1	29-May-2023 15:11
1,2-Dichloroethane	**1.5**		**0.20**	**0.50**	**1.0**	**ug/L**	1	29-May-2023 15:11
cis-1,2-Dichloroethene	**85**		**0.20**	**0.50**	**1.0**	**ug/L**	1	29-May-2023 15:11
Tetrachloroethene	**1.8**		**0.30**	**0.50**	**1.0**	**ug/L**	1	29-May-2023 15:11
Trichloroethene	**650**		**2.0**	**5.0**	**10**	**ug/L**	10	01-Jun-2023 18:12
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 15:11
Surr: 1,2-Dichloroethane-d4	*110*			**0**	*81-118*	*%REC*	*1*	*29-May-2023 15:11*
Surr: 1,2-Dichloroethane-d4	*111*			**0**	*81-118*	*%REC*	*10*	*01-Jun-2023 18:12*
Surr: 4-Bromofluorobenzene	*95.2*			**0**	*85-114*	*%REC*	*1*	*29-May-2023 15:11*
Surr: 4-Bromofluorobenzene	*94.8*			**0**	*85-114*	*%REC*	*10*	*01-Jun-2023 18:12*
Surr: Dibromofluoromethane	*103*			**0**	*80-119*	*%REC*	*1*	*29-May-2023 15:11*
Surr: Dibromofluoromethane	*102*			**0**	*80-119*	*%REC*	*10*	*01-Jun-2023 18:12*
Surr: Toluene-d8	*106*			**0**	*89-112*	*%REC*	*1*	*29-May-2023 15:11*
Surr: Toluene-d8	*107*			**0**	*89-112*	*%REC*	*10*	*01-Jun-2023 18:12*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	31-May-2023 13:22

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

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: 50WW22_052423
Collection Date: 24-May-2023 08:20

ANALYTICAL REPORT
WorkOrder:HS23051708
Lab ID:HS23051708-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 17:59
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 17:59
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 17:59
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	29-May-2023 17:59
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 17:59
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 17:59
Surr: 1,2-Dichloroethane-d4	*107*			**0**	*81-118*	*%REC*	*1*	*29-May-2023 17:59*
Surr: 4-Bromofluorobenzene	*93.4*			**0**	*85-114*	*%REC*	*1*	*29-May-2023 17:59*
Surr: Dibromofluoromethane	*103*			**0**	*80-119*	*%REC*	*1*	*29-May-2023 17:59*
Surr: Toluene-d8	*106*			**0**	*89-112*	*%REC*	*1*	*29-May-2023 17:59*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	31-May-2023 13:22

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

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: 50WW13_052423
Collection Date: 24-May-2023 09:05

ANALYTICAL REPORT
WorkOrder:HS23051708
Lab ID:HS23051708-04
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1-Dichloroethene	**1.5**		**0.20**	**0.50**	**1.0**	**ug/L**	1	01-Jun-2023 18:54
1,2-Dichloroethane	**3.0**		**0.20**	**0.50**	**1.0**	**ug/L**	1	01-Jun-2023 18:54
cis-1,2-Dichloroethene	**30**		**0.20**	**0.50**	**1.0**	**ug/L**	1	01-Jun-2023 18:54
Tetrachloroethene	**2.2**		**0.30**	**0.50**	**1.0**	**ug/L**	1	01-Jun-2023 18:54
Trichloroethene	**490**		**5.0**	**12**	**25**	**ug/L**	25	29-May-2023 15:53
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	01-Jun-2023 18:54
Surr: 1,2-Dichloroethane-d4	*109*			**0**	*81-118*	*%REC*	*25*	*29-May-2023 15:53*
Surr: 1,2-Dichloroethane-d4	*112*			**0**	*81-118*	*%REC*	*1*	*01-Jun-2023 18:54*
Surr: 4-Bromofluorobenzene	*94.7*			**0**	*85-114*	*%REC*	*25*	*29-May-2023 15:53*
Surr: 4-Bromofluorobenzene	*95.5*			**0**	*85-114*	*%REC*	*1*	*01-Jun-2023 18:54*
Surr: Dibromofluoromethane	*103*			**0**	*80-119*	*%REC*	*25*	*29-May-2023 15:53*
Surr: Dibromofluoromethane	*104*			**0**	*80-119*	*%REC*	*1*	*01-Jun-2023 18:54*
Surr: Toluene-d8	*105*			**0**	*89-112*	*%REC*	*25*	*29-May-2023 15:53*
Surr: Toluene-d8	*105*			**0**	*89-112*	*%REC*	*1*	*01-Jun-2023 18:54*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: SAM
Ethane	0.500	U	0.144	0.500	1.00	ug/L	1	30-May-2023 17:41
Ethene	0.500	U	0.234	0.500	1.00	ug/L	1	30-May-2023 17:41
Methane	**1.55**		**0.107**	**0.500**	**0.500**	**ug/L**	1	30-May-2023 17:41
TOTAL ORGANIC CARBON BY E415.1		**Method:E415.1**						Analyst: DW
Organic Carbon, Total	**1.59**	a	**0.500**	**1.00**	**1.00**	**mg/L**	1	07-Jun-2023 21:19
ANIONS BY SW9056A		**Method:SW9056**						Analyst: TH
Chloride	**401**		**2.00**	**2.50**	**5.00**	**mg/L**	10	25-May-2023 13:29
Nitrogen, Nitrate (As N)	**0.119**		**0.0300**	**0.0500**	**0.100**	**mg/L**	1	25-May-2023 13:23
Sulfate	**374**		**2.00**	**2.50**	**5.00**	**mg/L**	10	25-May-2023 13:29
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	31-May-2023 13:22
SUBCONTRACT ANALYSIS - RSK		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	07-Jun-2023 12:02

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

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: 50WW11_052423
Collection Date: 24-May-2023 09:55

ANALYTICAL REPORT
WorkOrder:HS23051708
Lab ID:HS23051708-05
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1-Dichloroethene	**2.1**		**0.20**	**0.50**	**1.0**	**ug/L**	1	01-Jun-2023 18:33
1,2-Dichloroethane	**1.9**		**0.20**	**0.50**	**1.0**	**ug/L**	1	01-Jun-2023 18:33
cis-1,2-Dichloroethene	**8.5**		**0.20**	**0.50**	**1.0**	**ug/L**	1	01-Jun-2023 18:33
Tetrachloroethene	**0.82**	J	**0.30**	**0.50**	**1.0**	**ug/L**	1	01-Jun-2023 18:33
Trichloroethene	**250**		**2.0**	**5.0**	**10**	**ug/L**	10	29-May-2023 15:32
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	01-Jun-2023 18:33
Surr: 1,2-Dichloroethane-d4	*110*			**0**	*81-118*	*%REC*	*10*	*29-May-2023 15:32*
Surr: 1,2-Dichloroethane-d4	*111*			**0**	*81-118*	*%REC*	*1*	*01-Jun-2023 18:33*
Surr: 4-Bromofluorobenzene	*94.3*			**0**	*85-114*	*%REC*	*10*	*29-May-2023 15:32*
Surr: 4-Bromofluorobenzene	*94.0*			**0**	*85-114*	*%REC*	*1*	*01-Jun-2023 18:33*
Surr: Dibromofluoromethane	*104*			**0**	*80-119*	*%REC*	*10*	*29-May-2023 15:32*
Surr: Dibromofluoromethane	*104*			**0**	*80-119*	*%REC*	*1*	*01-Jun-2023 18:33*
Surr: Toluene-d8	*105*			**0**	*89-112*	*%REC*	*10*	*29-May-2023 15:32*
Surr: Toluene-d8	*105*			**0**	*89-112*	*%REC*	*1*	*01-Jun-2023 18:33*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: SAM
Ethane	0.500	U	0.144	0.500	1.00	ug/L	1	30-May-2023 17:55
Ethene	0.500	U	0.234	0.500	1.00	ug/L	1	30-May-2023 17:55
Methane	**4.07**		**0.107**	**0.500**	**0.500**	**ug/L**	1	30-May-2023 17:55
TOTAL ORGANIC CARBON BY E415.1		**Method:E415.1**						Analyst: DW
Organic Carbon, Total	**1.50**	a	**0.500**	**1.00**	**1.00**	**mg/L**	1	07-Jun-2023 21:31
ANIONS BY SW9056A		**Method:SW9056**						Analyst: TH
Chloride	**335**		**2.00**	**2.50**	**5.00**	**mg/L**	10	25-May-2023 13:40
Nitrogen, Nitrate (As N)	0.0500	U	0.0300	0.0500	0.100	mg/L	1	25-May-2023 13:34
Sulfate	**324**		**2.00**	**2.50**	**5.00**	**mg/L**	10	25-May-2023 13:40
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	31-May-2023 13:22
SUBCONTRACT ANALYSIS - RSK		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	07-Jun-2023 12:02

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

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: 50WW06_052423
Collection Date: 24-May-2023 10:50

ANALYTICAL REPORT
WorkOrder:HS23051708
Lab ID:HS23051708-06
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 18:20
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 18:20
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 18:20
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	29-May-2023 18:20
Trichloroethene	**13**		**0.20**	**0.50**	**1.0**	**ug/L**	1	29-May-2023 18:20
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 18:20
Surr: 1,2-Dichloroethane-d4	*107*			**0**	*81-118*	*%REC*	*1*	*29-May-2023 18:20*
Surr: 4-Bromofluorobenzene	*92.1*			**0**	*85-114*	*%REC*	*1*	*29-May-2023 18:20*
Surr: Dibromofluoromethane	*102*			**0**	*80-119*	*%REC*	*1*	*29-May-2023 18:20*
Surr: Toluene-d8	*105*			**0**	*89-112*	*%REC*	*1*	*29-May-2023 18:20*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: SAM
Ethane	0.500	U	0.144	0.500	1.00	ug/L	1	30-May-2023 18:03
Ethene	0.500	U	0.234	0.500	1.00	ug/L	1	30-May-2023 18:03
Methane	**0.821**		**0.107**	**0.500**	**0.500**	**ug/L**	1	30-May-2023 18:03
TOTAL ORGANIC CARBON BY E415.1		**Method:E415.1**						Analyst: DW
Organic Carbon, Total	**1.83**	a	**0.500**	**1.00**	**1.00**	**mg/L**	1	07-Jun-2023 21:43
ANIONS BY SW9056A		**Method:SW9056**						Analyst: TH
Chloride	**3.89**		**0.200**	**0.250**	**0.500**	**mg/L**	1	25-May-2023 13:05
Nitrogen, Nitrate (As N)	**0.144**		**0.0300**	**0.0500**	**0.100**	**mg/L**	1	25-May-2023 13:05
Sulfate	**12.1**		**0.200**	**0.250**	**0.500**	**mg/L**	1	25-May-2023 13:05
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	31-May-2023 13:22
SUBCONTRACT ANALYSIS - RSK		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	07-Jun-2023 12:02

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

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: 50WW29_052423
Collection Date: 24-May-2023 11:40

ANALYTICAL REPORT
WorkOrder:HS23051708
Lab ID:HS23051708-07
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 18:41
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 18:41
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 18:41
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	29-May-2023 18:41
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 18:41
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 18:41
Surr: 1,2-Dichloroethane-d4	*108*			**0**	*81-118*	*%REC*	*1*	*29-May-2023 18:41*
Surr: 4-Bromofluorobenzene	*92.9*			**0**	*85-114*	*%REC*	*1*	*29-May-2023 18:41*
Surr: Dibromofluoromethane	*104*			**0**	*80-119*	*%REC*	*1*	*29-May-2023 18:41*
Surr: Toluene-d8	*106*			**0**	*89-112*	*%REC*	*1*	*29-May-2023 18:41*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	31-May-2023 13:22

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

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: Trip Blank
Collection Date: 24-May-2023 00:00

ANALYTICAL REPORT
WorkOrder:HS23051708
Lab ID:HS23051708-08
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 14:29
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 14:29
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 14:29
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	29-May-2023 14:29
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 14:29
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	29-May-2023 14:29
Surr: 1,2-Dichloroethane-d4	*110*			**0**	*81-118*	*%REC*	*1*	*29-May-2023 14:29*
Surr: 4-Bromofluorobenzene	*96.9*			**0**	*85-114*	*%REC*	*1*	*29-May-2023 14:29*
Surr: Dibromofluoromethane	*104*			**0**	*80-119*	*%REC*	*1*	*29-May-2023 14:29*
Surr: Toluene-d8	*105*			**0**	*89-112*	*%REC*	*1*	*29-May-2023 14:29*

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

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051708

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R436347 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Groundwater	
HS23051708-04	50WW13_052423	24 May 2023 09:05			25 May 2023 13:29	10
HS23051708-04	50WW13_052423	24 May 2023 09:05			25 May 2023 13:23	1
HS23051708-05	50WW11_052423	24 May 2023 09:55			25 May 2023 13:40	10
HS23051708-05	50WW11_052423	24 May 2023 09:55			25 May 2023 13:34	1
HS23051708-06	50WW06_052423	24 May 2023 10:50			25 May 2023 13:05	1
Batch ID: R436483 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS23051708-08	Trip Blank	24 May 2023 00:00			29 May 2023 14:29	1
Batch ID: R436483 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS23051708-01	50WW09_052423	24 May 2023 06:55			29 May 2023 14:50	1
HS23051708-02	50WW08_052423	24 May 2023 07:35			29 May 2023 15:11	1
HS23051708-03	50WW22_052423	24 May 2023 08:20			29 May 2023 17:59	1
HS23051708-04	50WW13_052423	24 May 2023 09:05			29 May 2023 15:53	25
HS23051708-05	50WW11_052423	24 May 2023 09:55			29 May 2023 15:32	10
HS23051708-06	50WW06_052423	24 May 2023 10:50			29 May 2023 18:20	1
HS23051708-07	50WW29_052423	24 May 2023 11:40			29 May 2023 18:41	1
Batch ID: R436668 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Groundwater	
HS23051708-01	50WW09_052423	24 May 2023 06:55			31 May 2023 13:22	1
HS23051708-02	50WW08_052423	24 May 2023 07:35			31 May 2023 13:22	1
HS23051708-03	50WW22_052423	24 May 2023 08:20			31 May 2023 13:22	1
HS23051708-04	50WW13_052423	24 May 2023 09:05			31 May 2023 13:22	1
HS23051708-05	50WW11_052423	24 May 2023 09:55			31 May 2023 13:22	1
HS23051708-06	50WW06_052423	24 May 2023 10:50			31 May 2023 13:22	1
HS23051708-07	50WW29_052423	24 May 2023 11:40			31 May 2023 13:22	1
Batch ID: R436671 (0)	**Test Name :** DISSOLVED GASES BY RSK-175				**Matrix:** Groundwater	
HS23051708-04	50WW13_052423	24 May 2023 09:05			30 May 2023 17:41	1
HS23051708-05	50WW11_052423	24 May 2023 09:55			30 May 2023 17:55	1
HS23051708-06	50WW06_052423	24 May 2023 10:50			30 May 2023 18:03	1
Batch ID: R436840 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS23051708-02	50WW08_052423	24 May 2023 07:35			01 Jun 2023 18:12	10
HS23051708-04	50WW13_052423	24 May 2023 09:05			01 Jun 2023 18:54	1
HS23051708-05	50WW11_052423	24 May 2023 09:55			01 Jun 2023 18:33	1
Batch ID: R437285 (0)	**Test Name :** SUBCONTRACT ANALYSIS - RSK				**Matrix:** Groundwater	
HS23051708-04	50WW13_052423	24 May 2023 09:05			07 Jun 2023 12:02	1
HS23051708-05	50WW11_052423	24 May 2023 09:55			07 Jun 2023 12:02	1
HS23051708-06	50WW06_052423	24 May 2023 10:50			07 Jun 2023 12:02	1

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051708

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R437365 (0)	**Test Name :** TOTAL ORGANIC CARBON BY E415.1				**Matrix:** Groundwater	
HS23051708-04	50WW13_052423	24 May 2023 09:05			07 Jun 2023 21:19	1
HS23051708-05	50WW11_052423	24 May 2023 09:55			07 Jun 2023 21:31	1
HS23051708-06	50WW06_052423	24 May 2023 10:50			07 Jun 2023 21:43	1

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051708

QC BATCH REPORT

Batch ID: R436671 (0) **Instrument: FID-4** **Method: DISSOLVED GASES BY RSK-175**

MBLK Sample ID: **MBLK-230530** Units: **ug/L** Analysis Date: **30-May-2023 09:36**
Client ID: Run ID: **FID-4_436671** SeqNo: **7332634** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.500	1.00								U
Ethene	0.500	1.00								U
Methane	0.500	0.500								U

LCS Sample ID: **LCS-230530** Units: **ug/L** Analysis Date: **30-May-2023 09:50**
Client ID: Run ID: **FID-4_436671** SeqNo: **7332635** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	20.91	1.00	18.04	0	116	74 - 131				
Ethene	17.24	1.00	16.8	0	103	72 - 133				
Methane	8.486	0.500	9.647	0	88.0	73 - 125				

LCSD Sample ID: **LCSD-230530** Units: **ug/L** Analysis Date: **30-May-2023 10:06**
Client ID: Run ID: **FID-4_436671** SeqNo: **7332636** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	20.78	1.00	18.04	0	115	74 - 131	20.91	0.62	30	
Ethene	17.64	1.00	16.8	0	105	72 - 133	17.24	2.3	30	
Methane	8.732	0.500	9.647	0	90.5	73 - 125	8.486	2.86	30	

MS Sample ID: **HS23051834-04MS** Units: **ug/L** Analysis Date: **30-May-2023 10:43**
Client ID: Run ID: **FID-4_436671** SeqNo: **7332638** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	18.94	1.00	18.04	0	105	74 - 131				
Ethene	16.83	1.00	16.8	0	100	72 - 133				
Methane	14.52	0.500	9.647	6.763	80.4	73 - 125				

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051708

QC BATCH REPORT

Batch ID: R436671 (0) **Instrument:** FID-4 **Method:** DISSOLVED GASES BY RSK-175

MSD Sample ID: **HS23051834-04MSD** Units: **ug/L** Analysis Date: **30-May-2023 10:52**
Client ID: Run ID: **FID-4_436671** SeqNo: **7332639** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	18.7	1.00	18.04	0	104	74 - 131	18.94	1.28	30	
Ethene	16.79	1.00	16.8	0	99.9	72 - 133	16.83	0.244	30	
Methane	14.13	0.500	9.647	6.763	76.4	73 - 125	14.52	2.69	30	

The following samples were analyzed in this batch: HS23051708-04 HS23051708-05 HS23051708-06

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051708

QC BATCH REPORT

Batch ID: R436483 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230529** Units: **ug/L** Analysis Date: **29-May-2023 14:08**
Client ID: Run ID: **VOA6_436483** SeqNo: **7329163** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
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
Tetrachloroethene	0.50	1.0								U
Trichloroethene	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*55.75*	*1.0*	*50*	*0*	*112*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.25*	*1.0*	*50*	*0*	*96.5*	*85 - 114*				
Surr: Dibromofluoromethane	*52.62*	*1.0*	*50*	*0*	*105*	*80 - 119*				
Surr: Toluene-d8	*52.25*	*1.0*	*50*	*0*	*105*	*89 - 112*				

LCS Sample ID: **VLCSW-230529** Units: **ug/L** Analysis Date: **29-May-2023 13:26**
Client ID: Run ID: **VOA6_436483** SeqNo: **7329162** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	19.39	1.0	20	0	97.0	71 - 131				
1,2-Dichloroethane	22.78	1.0	20	0	114	73 - 128				
cis-1,2-Dichloroethene	20.64	1.0	20	0	103	78 - 123				
Tetrachloroethene	18.18	1.0	20	0	90.9	74 - 129				
Trichloroethene	18.68	1.0	20	0	93.4	79 - 123				
Vinyl chloride	17.92	1.0	20	0	89.6	58 - 137				
Surr: 1,2-Dichloroethane-d4	*58.8*	*1.0*	*50*	*0*	*118*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.83*	*1.0*	*50*	*0*	*97.7*	*85 - 114*				
Surr: Dibromofluoromethane	*55.81*	*1.0*	*50*	*0*	*112*	*80 - 119*				
Surr: Toluene-d8	*47.3*	*1.0*	*50*	*0*	*94.6*	*89 - 112*				

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051708

QC BATCH REPORT

Batch ID: R436483 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23051708-01MS** Units: **ug/L** Analysis Date: **29-May-2023 16:14**
Client ID: **50WW09_052423** Run ID: **VOA6_436483** SeqNo: **7329169** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	22.37	1.0	20	0	112	71 - 131				
1,2-Dichloroethane	23.26	1.0	20	0	116	73 - 128				
cis-1,2-Dichloroethene	21.48	1.0	20	1.113	102	78 - 123				
Tetrachloroethene	24.32	1.0	20	0	122	74 - 129				
Trichloroethene	32.75	1.0	20	10.61	111	79 - 123				
Vinyl chloride	14.59	1.0	20	0	72.9	58 - 137				
Surr: 1,2-Dichloroethane-d4	*54.34*	*1.0*	*50*	*0*	*109*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*50.37*	*1.0*	*50*	*0*	*101*	*85 - 114*				
Surr: Dibromofluoromethane	*51.63*	*1.0*	*50*	*0*	*103*	*80 - 119*				
Surr: Toluene-d8	*50.62*	*1.0*	*50*	*0*	*101*	*89 - 112*				

MSD Sample ID: **HS23051708-01MSD** Units: **ug/L** Analysis Date: **29-May-2023 16:35**
Client ID: **50WW09_052423** Run ID: **VOA6_436483** SeqNo: **7329170** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	20.43	1.0	20	0	102	71 - 131	22.37	9.08	20	
1,2-Dichloroethane	23.02	1.0	20	0	115	73 - 128	23.26	1.03	20	
cis-1,2-Dichloroethene	20.8	1.0	20	1.113	98.4	78 - 123	21.48	3.21	20	
Tetrachloroethene	22.93	1.0	20	0	115	74 - 129	24.32	5.9	20	
Trichloroethene	30.64	1.0	20	10.61	100	79 - 123	32.75	6.64	20	
Vinyl chloride	13.46	1.0	20	0	67.3	58 - 137	14.59	8.01	20	
Surr: 1,2-Dichloroethane-d4	*53.86*	*1.0*	*50*	*0*	*108*	*81 - 118*	*54.34*	*0.896*	*20*	
Surr: 4-Bromofluorobenzene	*50.73*	*1.0*	*50*	*0*	*101*	*85 - 114*	*50.37*	*0.707*	*20*	
Surr: Dibromofluoromethane	*51.3*	*1.0*	*50*	*0*	*103*	*80 - 119*	*51.63*	*0.64*	*20*	
Surr: Toluene-d8	*50.56*	*1.0*	*50*	*0*	*101*	*89 - 112*	*50.62*	*0.108*	*20*	

The following samples were analyzed in this batch:

HS23051708-01	HS23051708-02	HS23051708-03	HS23051708-04
HS23051708-05	HS23051708-06	HS23051708-07	HS23051708-08

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051708

QC BATCH REPORT

Batch ID: R436840 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230601** Units: **ug/L** Analysis Date: **01-Jun-2023 14:11**
Client ID: Run ID: **VOA6_436840** SeqNo: **7336532** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
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
Tetrachloroethene	0.50	1.0								U
Trichloroethene	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*54.66*	*1.0*	*50*	*0*	*109*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*46.16*	*1.0*	*50*	*0*	*92.3*	*85 - 114*				
Surr: Dibromofluoromethane	*51.04*	*1.0*	*50*	*0*	*102*	*80 - 119*				
Surr: Toluene-d8	*52.38*	*1.0*	*50*	*0*	*105*	*89 - 112*				

LCS Sample ID: **VLCSW-230601** Units: **ug/L** Analysis Date: **01-Jun-2023 14:32**
Client ID: Run ID: **VOA6_436840** SeqNo: **7336533** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	22.42	1.0	20	0	112	71 - 131				
1,2-Dichloroethane	23.22	1.0	20	0	116	73 - 128				
cis-1,2-Dichloroethene	19.33	1.0	20	0	96.6	78 - 123				
Tetrachloroethene	17.53	1.0	20	0	87.6	74 - 129				
Trichloroethene	18.34	1.0	20	0	91.7	79 - 123				
Vinyl chloride	20.33	1.0	20	0	102	58 - 137				
Surr: 1,2-Dichloroethane-d4	*58.09*	*1.0*	*50*	*0*	*116*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.44*	*1.0*	*50*	*0*	*96.9*	*85 - 114*				
Surr: Dibromofluoromethane	*53.79*	*1.0*	*50*	*0*	*108*	*80 - 119*				
Surr: Toluene-d8	*46.05*	*1.0*	*50*	*0*	*92.1*	*89 - 112*				

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051708

QC BATCH REPORT

Batch ID: R436840 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23052050-05MS** Units: **ug/L** Analysis Date: **01-Jun-2023 16:47**
Client ID: Run ID: **VOA6_436840** SeqNo: **7336538** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	24.96	1.0	20	0	125	71 - 131				
1,2-Dichloroethane	23.69	1.0	20	0	118	73 - 128				
cis-1,2-Dichloroethene	19.89	1.0	20	0	99.4	78 - 123				
Tetrachloroethene	25.74	1.0	20	0	129	74 - 129				
Trichloroethene	21.62	1.0	20	0	108	79 - 123				
Vinyl chloride	16.96	1.0	20	0	84.8	58 - 137				
Surr: 1,2-Dichloroethane-d4	*53.91*	*1.0*	*50*	*0*	*108*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*49.22*	*1.0*	*50*	*0*	*98.4*	*85 - 114*				
Surr: Dibromofluoromethane	*50.69*	*1.0*	*50*	*0*	*101*	*80 - 119*				
Surr: Toluene-d8	*51.91*	*1.0*	*50*	*0*	*104*	*89 - 112*				

MSD Sample ID: **HS23052050-05MSD** Units: **ug/L** Analysis Date: **01-Jun-2023 17:09**
Client ID: Run ID: **VOA6_436840** SeqNo: **7336539** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	23.08	1.0	20	0	115	71 - 131	24.96	7.85	20	
1,2-Dichloroethane	23.42	1.0	20	0	117	73 - 128	23.69	1.14	20	
cis-1,2-Dichloroethene	19.22	1.0	20	0	96.1	78 - 123	19.89	3.4	20	
Tetrachloroethene	23.31	1.0	20	0	117	74 - 129	25.74	9.89	20	
Trichloroethene	20.63	1.0	20	0	103	79 - 123	21.62	4.65	20	
Vinyl chloride	15.46	1.0	20	0	77.3	58 - 137	16.96	9.27	20	
Surr: 1,2-Dichloroethane-d4	*55.11*	*1.0*	*50*	*0*	*110*	*81 - 118*	*53.91*	*2.2*	*20*	
Surr: 4-Bromofluorobenzene	*50.7*	*1.0*	*50*	*0*	*101*	*85 - 114*	*49.22*	*2.97*	*20*	
Surr: Dibromofluoromethane	*51.83*	*1.0*	*50*	*0*	*104*	*80 - 119*	*50.69*	*2.22*	*20*	
Surr: Toluene-d8	*51.13*	*1.0*	*50*	*0*	*102*	*89 - 112*	*51.91*	*1.52*	*20*	

The following samples were analyzed in this batch: HS23051708-02 HS23051708-04 HS23051708-05

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051708

QC BATCH REPORT

Batch ID: R436347 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **25-May-2023 12:48**
Client ID: Run ID: **ICS-Integrion_436347** SeqNo: **7325726** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.250	0.500								U
Nitrogen, Nitrate (As N)	0.0500	0.100								U
Nitrogen, Nitrite (As N)	0.0500	0.100								U
Sulfate	0.250	0.500								U
Nitrate/Nitrite (as N)	0.100	0.100								U

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **25-May-2023 12:54**
Client ID: Run ID: **ICS-Integrion_436347** SeqNo: **7325727** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.85	0.500	20	0	104	80 - 120				
Nitrogen, Nitrate (As N)	4.275	0.100	4	0	107	80 - 120				
Nitrogen, Nitrite (As N)	4.294	0.100	4	0	107	80 - 120				
Sulfate	21.06	0.500	20	0	105	80 - 120				
Nitrate/Nitrite (as N)	8.568	0.100	8	0	107	80 - 120				

MS Sample ID: **HS23051708-06MS** Units: **mg/L** Analysis Date: **25-May-2023 13:11**
Client ID: **50WW06_052423** Run ID: **ICS-Integrion_436347** SeqNo: **7325729** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	14.44	0.500	10	3.891	105	80 - 120				
Nitrogen, Nitrate (As N)	2.123	0.100	2	0.1442	99.0	80 - 120				
Nitrogen, Nitrite (As N)	2.078	0.100	2	0.1755	95.1	80 - 120				
Sulfate	22.07	0.500	10	12.13	99.3	80 - 120				
Nitrate/Nitrite (as N)	4.201	0.100	4	0.3197	97.0	80 - 120				

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051708

QC BATCH REPORT

Batch ID: R436347 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MSD Sample ID: **HS23051708-06MSD** Units: **mg/L** Analysis Date: **25-May-2023 13:17**
Client ID: **50WW06_052423** Run ID: **ICS-Integrion_436347** SeqNo: **7325730** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	14.47	0.500	10	3.891	106	80 - 120	14.44	0.256	20	
Nitrogen, Nitrate (As N)	2.127	0.100	2	0.1442	99.1	80 - 120	2.123	0.169	20	
Nitrogen, Nitrite (As N)	2.081	0.100	2	0.1755	95.3	80 - 120	2.078	0.144	20	
Sulfate	22.08	0.500	10	12.13	99.5	80 - 120	22.07	0.0797	20	
Nitrate/Nitrite (as N)	4.208	0.100	4	0.3197	97.2	80 - 120	4.201	0.157	20	

The following samples were analyzed in this batch: HS23051708-04 HS23051708-05 HS23051708-06

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051708

QC BATCH REPORT

Batch ID: R437365 (0) **Instrument: TOC_04** **Method: TOTAL ORGANIC CARBON BY E415.1**

MBLK Sample ID: **MBLK-06072023** Units: **mg/L** Analysis Date: **07-Jun-2023 20:14**
Client ID: Run ID: **TOC_04_437365** SeqNo: **7351159** 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-06072023** Units: **mg/L** Analysis Date: **07-Jun-2023 20:27**
Client ID: Run ID: **TOC_04_437365** SeqNo: **7351160** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.52	1.00	10	0	105	85 - 115				

LCSD Sample ID: **LCSD-06072023** Units: **mg/L** Analysis Date: **07-Jun-2023 20:41**
Client ID: Run ID: **TOC_04_437365** SeqNo: **7351161** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.67	1.00	10	0	107	85 - 115	10.52	1.42	20	

MS Sample ID: **HS23051834-04MS** Units: **mg/L** Analysis Date: **07-Jun-2023 23:15**
Client ID: Run ID: **TOC_04_437365** SeqNo: **7351173** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	12.13	1.00	10	1.412	107	80 - 120				

The following samples were analyzed in this batch: HS23051708-04 HS23051708-05 HS23051708-06

ALS Houston, US Date: 19-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: **HS23051708**

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	88-00356	27-Mar-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-37	30-Jun-2023
Kansas	E-10352; 2022-2023	31-Jul-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2023	31-Dec-2023
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932022-13	31-Jul-2023

ALS Houston, US Date: 19-Jun-23

Sample Receipt Checklist

Work Order ID: HS23051708 **Date/Time Received:** **25-May-2023 09:30**

Client Name: Bhate Environmental **Received by:** **Paresh M. Giga**

Completed By:	/S/ Nilesh D. Ranchod	25-May-2023 11:40	**Reviewed by:**	/S/ Dane J. Wacasey	30-May-2023 12:30
	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 ☐	
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):	2.1C/2.0C UC/C	IR 31
Cooler(s)/Kit(s):	46349	
Date/Time sample(s) sent to storage:	05/25/2023 11:45	

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:

bhate ENVIRONMENTAL CONSTRUCTION ENERGY

1608 13th Avenue South, Suite 300
Birmingham Alabama 35205
Tel: 205-918-4000
Fax: 205-918-4050

Chain of Custody and Analytical Request

Page: ____ of ____

Project/Phase No: JVPCIBH.0001

COC Number(1): ____

LIMS Number: ____

Facility/Base I.D.: LHAAP

Project/Site Name: LHAAP / Site 50

Client Name:

Collected by: Scott Beesinger

Field Sample ID (30 Characters Max)	Date Collected (dd-mmm-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOC by SW 8260B	TOC by SM5310C	MEE by RSK 175	Anions by SW9056	CO2 by RSK 175	Perchlorate by SW 6850				Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
							Sample Analysis Requested (5)										Quality Assurance Samples (6)			
SOWW09_052423	24 mAy 2023	0655	-	N		WG	4	X					X							
SOWW08_052423	24 mAy 2023	0735	-	N		WG	4	X					X							
SOWW22_052423	24 mAy 2023	0820	-	N		WG	4	X					X							
SOWW13_052423	24 mAy 2023	0905		N		WG	13	X	X	X	X	X	X							
SOWW11_052423	24 mAy 2023	0955		N		WG	13	X	X	X	X	X	X							
SOWW06_052423	24 mAy 2023	1050	-	N		WG	13	X	X	X	X	X	X							
SOWW29_052423	24 mAy 2023	1140	-	N		WG	4	X					X							
TRip BLANK	24 mAy 2023		-	TB		W	2	X												
			-																	
			-																	
			-																	

COMMENTS: STANDARD TAT

HS23051708

Bhate Environmental Associates, Inc.
LHAAP/ Site 50

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.	Scott Beesinger	5/24/23	1315		5/25/23	09:30
2.						
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: ____ Shipped ____ No.:

Method of Shipment: ____

Fed Ex ____ Airbill Number: ____

Analytical Lab: ALS 10450 Stancliff Rd. Suite 210 Houston, TX 77099 (281) 530-5656

ATTN: Dane Wacasey Lab Recipient: Delivery Date/Time:

1.) Chain of Custody Number = date collected + custody number (e.g. 09-02-1999-01)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date(ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 10109901 in the Equipment Blank Lot Control

46349 2.10 #31

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

46349

CUSTODY SEAL

Date: 5/24/23 Time: 1330
Name: Scott Beesiner
Company: BHATE

Seal Broken By:
Date: 05/25/23

46349 MAY 25 2023 MAY 25 2023

Part # 159469-434 MTW EXP 0124

46349

ORIGIN ID:SGRA (903) 930-6193
SCOTT BEESINER
BHATE ENVIRONMENTAL ASSOCIATES
1203-B EAST GRAND AVE. PMB202

MARSHALL, TX 75670
UNITED STATES US

SHIP DATE: 20MAY23
ACTWGT: 1.00 LB MAN
CAD: 0221247/CAFE3704
DIMS: 19x16x13 IN

TO SHIPPING DEPT
ALS LABORATORY GROUP
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099
(281) 530-5656
REF: LHAAP 50=BO 93172-DW

RMA:

FedEx Express

RETURNS MON-SAT

THU 25 MAY 10:30A

FedEx TRK# 0221 6230 3000 0802

PRIORITY OVERNIGHT

AB SGRA

77099
TX-US
IAH

412334 24May2023 GGGA 581G3/2BC3/C0B8

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Dane Wacasey
ALS Group USA, Corp
10450 Stancliff Rd.
Suite 210
Houston, Texas 77099

Generated 6/7/2023 5:08:32 PM

JOB DESCRIPTION

HS23051708

JOB NUMBER

410-128291-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

my EOL

Eurofins Lancaster Laboratories Environment Testing, LLC

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
6/7/2023 5:08:32 PM

Authorized for release by
Kelly Bauer, Project Manager
Kelly.Bauer@et.eurofinsus.com
(717)556-7262

Eurofins Lancaster Laboratories Environment Testing, LLC

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



Client: ALS Group USA, Corp
Project/Site: HS23051708

Laboratory Job ID: 410-128291-1

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Definitions/Glossary

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Job ID: 410-128291-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Narrative

Job Narrative
410-128291-1

Receipt
The samples were received on 5/26/2023 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.1°C

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Client Sample ID: 50WW13_052423 — Lab Sample ID: 410-128291-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	38000		12000	2600	ug/L	1		RSK-175	Total/NA

Client Sample ID: 50WW11_052423 — Lab Sample ID: 410-128291-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	42000		12000	2600	ug/L	1		RSK-175	Total/NA

Client Sample ID: 50WW06_052423 — Lab Sample ID: 410-128291-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	30000		12000	2600	ug/L	1		RSK-175	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Client Sample ID: 50WW13_052423
Lab Sample ID: 410-128291-1
Date Collected: 05/24/23 09:05
Matrix: Water
Date Received: 05/26/23 09:45

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	38000		12000	2600	ug/L		06/06/23 09:48	06/06/23 14:32	1

Client Sample ID: 50WW11_052423
Lab Sample ID: 410-128291-2
Date Collected: 05/24/23 09:55
Matrix: Water
Date Received: 05/26/23 09:45

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	42000		12000	2600	ug/L		06/06/23 09:48	06/06/23 14:40	1

Client Sample ID: 50WW06_052423
Lab Sample ID: 410-128291-3
Date Collected: 05/24/23 10:50
Matrix: Water
Date Received: 05/26/23 09:45

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	30000		12000	2600	ug/L		06/06/23 09:48	06/06/23 14:48	1

QC Sample Results

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-383339/1-A
Matrix: Water
Analysis Batch: 383299

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 383339

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	2600	U	12000	2600	ug/L		06/06/23 08:57	06/06/23 11:01	1

Lab Sample ID: MB 410-383371/1-A
Matrix: Water
Analysis Batch: 383299

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 383371

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	2600	U	12000	2600	ug/L		06/06/23 09:48	06/06/23 11:17	1

Lab Sample ID: LCS 410-383371/2-A
Matrix: Water
Analysis Batch: 383299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 383371

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon dioxide	35800	34700		ug/L		97	80 - 122

QC Association Summary

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

GC VOA

Analysis Batch: 383299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-128291-1	50WW13_052423	Total/NA	Water	RSK-175	383371
410-128291-2	50WW11_052423	Total/NA	Water	RSK-175	383371
410-128291-3	50WW06_052423	Total/NA	Water	RSK-175	383371
MB 410-383339/1-A	Method Blank	Total/NA	Water	RSK-175	383339
MB 410-383371/1-A	Method Blank	Total/NA	Water	RSK-175	383371
LCS 410-383371/2-A	Lab Control Sample	Total/NA	Water	RSK-175	383371

Prep Batch: 383339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-383339/1-A	Method Blank	Total/NA	Water	8015 HS Prep	

Prep Batch: 383371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-128291-1	50WW13_052423	Total/NA	Water	RSK-175	
410-128291-2	50WW11_052423	Total/NA	Water	RSK-175	
410-128291-3	50WW06_052423	Total/NA	Water	RSK-175	
MB 410-383371/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-383371/2-A	Lab Control Sample	Total/NA	Water	RSK-175	

Lab Chronicle

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Client Sample ID: 50WW13_052423
Lab Sample ID: 410-128291-1
Date Collected: 05/24/23 09:05
Matrix: Water
Date Received: 05/26/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			383371	HQR6	ELLE	06/06/23 09:48
Total/NA	Analysis	RSK-175		1	383299	LXF2	ELLE	06/06/23 14:32

Client Sample ID: 50WW11_052423
Lab Sample ID: 410-128291-2
Date Collected: 05/24/23 09:55
Matrix: Water
Date Received: 05/26/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			383371	HQR6	ELLE	06/06/23 09:48
Total/NA	Analysis	RSK-175		1	383299	LXF2	ELLE	06/06/23 14:40

Client Sample ID: 50WW06_052423
Lab Sample ID: 410-128291-3
Date Collected: 05/24/23 10:50
Matrix: Water
Date Received: 05/26/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			383371	HQR6	ELLE	06/06/23 09:48
Total/NA	Analysis	RSK-175		1	383299	LXF2	ELLE	06/06/23 14:48

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-24

Method Summary

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Method	Method Description	Protocol	Laboratory
RSK-175	Dissolved Gases (GC)	RSK	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-128291-1	50WW13_052423	Water	05/24/23 09:05	05/26/23 09:45
410-128291-2	50WW11_052423	Water	05/24/23 09:55	05/26/23 09:45
410-128291-3	50WW06_052423	Water	05/24/23 10:50	05/26/23 09:45

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

410-128291 Chair of Custody

Subcontract Chain of Custody

SAMPLING STATE: Texas **COC ID:** 21838

SUBCONTRACT TO:

Eurofins Lancaster Laboratories Envt Testing
2425 New Holland Pike
Lancaster, PA 17601

Phone: +1 717 656 2300

CUSTOMER INFORMATION:

Company: ALS Houston
Contact: Dane J. Wacasey
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Email: Dane.Wacasey@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: HS23051708
TSR: Holly Tignac

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23051708-04**	**50WW13_052423**	**Groundwater**	**24 May 2023 09:05**
	RSK-CO2; Level II & IV, DoD, EQUIS LHAAP EDD (Aptim)			09 Jun 2023
2.	**HS23051708-05**	**50WW11_052423**	**Groundwater**	**24 May 2023 09:55**
	RSK-CO2; Level II & IV, DoD, EQUIS LHAAP EDD (Aptim)			09 Jun 2023
3.	**HS23051708-06**	**50WW06_052423**	**Groundwater**	**24 May 2023 10:50**
	RSK-CO2; Level II & IV, DoD, EQUIS LHAAP EDD (Aptim)			09 Jun 2023

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

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: 5.25.23 1800

Received By: _____ Date/Time: 5/26/23 0945

Cooler ID(s): _____ Temperature(s): raw: 3.8 cor: 3.1

RIGHT SOLUTIONS | RIGHT PARTNER

25 May 2023

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
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Purchase Order

PO: HS23051708

VENDOR:

Eurofins Lancaster Laboratories Envt Testing
2425 New Holland Pike
Lancaster, PA 17601

Phone: +1 717 656 2300

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@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:	21838
TSR:	Holly Tignac

Item	Catalog No	Unit Price	Quantity	Ext Price
1. RSK-CO2; Level II & IV, DoD, EQUIS LHAAP EDD (Aptim)	NA	$125.00	3	$375.00
			Order Total:	$375.00

Login Sample Receipt Checklist

Client: ALS Group USA, Corp

Job Number: 410-128291-1

Login Number: 128291
List Number: 1
Creator: McBeth, Jessica

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	True	

May 31, 2023 Service Request No:E2300512

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS23051708

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory May 25, 2023
For your reference, these analyses have been assigned our service request number **E2300512.**

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.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



James Guin

Certificate of Analysis

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - US	**Service Request No.:**	E2300512
Project:	HS23051708	**Date Received:**	05/25/23
Sample Matrix:	Ground Water		

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

Seven samples were received for analysis at ALS Environmental in Houston on 05/25/23.

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:

EQ2300265: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

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:**E2300512
Project: HS23051708

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300512-001	50WW09_052423	5/24/2023	0655
E2300512-002	50WW08_052423	5/24/2023	0735
E2300512-003	50WW22_052423	5/24/2023	0820
E2300512-004	50WW13_052423	5/24/2023	0905
E2300512-005	50WW11_052423	5/24/2023	0955
E2300512-006	50WW06_052423	5/24/2023	1050
E2300512-007	50WW29_052423	5/24/2023	1140

Service Request Summary

Folder #: **E2300512**
Client Name: ALS Environmental - US
Project Name: HS23051708
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/25/23
Internal Due Date: 6/9/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23051708
EDD: BASIC_WQC_CASNo_LOD

7 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300512-001	50WW09_052423	Ground Water	05/24/23 0655	**IV**
E2300512-002	50WW08_052423	Ground Water	05/24/23 0735	**IV**
E2300512-003	50WW22_052423	Ground Water	05/24/23 0820	**IV**
E2300512-004	50WW13_052423	Ground Water	05/24/23 0905	**IV**
E2300512-005	50WW11_052423	Ground Water	05/24/23 0955	**IV**
E2300512-006	50WW06_052423	Ground Water	05/24/23 1050	**IV**
E2300512-007	50WW29_052423	Ground Water	05/24/23 1140	**IV**

Service Request Summary

Folder #: **E2300512**
Client Name: ALS Environmental - US
Project Name: HS23051708
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/25/23
Internal Due Date: 6/9/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23051708
EDD: BASIC_WQC_CASNo_LOD

7 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

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	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
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.

Data Qualifiers

Lab Standard

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.
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

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arkansas Department of Environmental Quality	88-00356	3/27/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

Chain of Custody

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
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: **Texas** **COC ID:** **21839**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@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:	HS23051708
TSR:	Holly Tignac

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23051708-01**	**50WW09_052423**	**Groundwater**	**24 May 2023 06:55**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			09 Jun 2023
2.	**HS23051708-02**	**50WW08_052423**	**Groundwater**	**24 May 2023 07:35**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			09 Jun 2023
3.	**HS23051708-03**	**50WW22_052423**	**Groundwater**	**24 May 2023 08:20**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			09 Jun 2023
4.	**HS23051708-04**	**50WW13_052423**	**Groundwater**	**24 May 2023 09:05**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			09 Jun 2023
5.	**HS23051708-05**	**50WW11_052423**	**Groundwater**	**24 May 2023 09:55**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			09 Jun 2023
6.	**HS23051708-06**	**50WW06_052423**	**Groundwater**	**24 May 2023 10:50**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			09 Jun 2023
7.	**HS23051708-07**	**50WW29_052423**	**Groundwater**	**24 May 2023 11:40**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			09 Jun 2023

Subcontract Chain of Custody

SAMPLING STATE: **Texas** **COC ID:** **21839**

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

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: 5-25-23 2137

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

ALS Environmental

Cooler Receipt Form

Project Chemist JG

Client/Project ALS

Thermometer ID IR4

Date/Time Received: 5.25.23 Initials: JG

Date/Time Logged in: 5.25.23 Initials JG

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

2. Samples received in: ⊗ Cooler ○ Box ○ Envelope ○ Other _____

3. Were custody seals on coolers? ○ Yes ⊗ No

Were they intact? ○ Yes ○ No ⊗ N/A

Were they signed and dated? ○ Yes ○ No ⊗ N/A

If yes, how many and where?

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		5.25.23	2137	JG	3.3	☒
						☐
						☐
						☐

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

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

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 Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 420569 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 5/30/23 08:20

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300499-001	LH18/24-SP650_052223_AIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2300499-002	LH18/24-SP650_052223_BIX	.01	6850/ClO4 DOD			Water	10mL	
3	E2300500-001	LH18/24-SP650_052223_AIX	.01	6850/ClO4 DOD			Water	10mL	
4	E2300501-001	LH18/24-SP140_052223	.01	6850/ClO4 DOD			Water	10mL	
5	E2300512-001	50WW09_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2300512-002	50WW08_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2300512-003	50WW22_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2300512-004	50WW13_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2300512-005	50WW11_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2300512-006	50WW06_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2300512-007	50WW29_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
12	EQ2300265-01	MB		6850/ClO4			Liquid	10mL	
13	EQ2300265-02	LCS		6850/ClO4			Liquid	10mL	
14	EQ2300265-03	DLCS		6850/ClO4			Liquid	10mL	
15	K2305800-001	LGAC-INF-052223	.01	6850/ClO4			Water	10mL	
16	K2305800-002	LGAC-INT1-052223	.01	6850/ClO4			Water	10mL	
17	R2304146-004	2305090957X BLM-38-620	.01	6850/ClO4			Water	10mL	
18	R2304146-009	2305090931B ST-1-630	.01	6850/ClO4			Water	10mL	
19	R2304203-004	2305100842X BLM-38-480	.01	6850/ClO4			Water	10mL	
20	R2304203-011	2305100858B 600-C-173	.01	6850/ClO4			Water	10mL	
21	R2304267-009	2305111350X WB-1-330	.01	6850/ClO4			Water	10mL	
22	R2304267-012	2305121010X WB-1-200	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300265-02 1.00µL EQ2300265-02 1.00µL EQ2300265-03 1.00µL EQ2300265-03 1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 227244 Logbook Ref: Perchlorate Internal Standard Expires On: 07/31/2023

E2300499-001	100.00µL	E2300499-002	100.00µL	E2300500-001	100.00µL	E2300501-001	100.00µL	E2300512-001	100.00µL	E2300512-002	100.00µL
E2300512-003	100.00µL	E2300512-004	100.00µL	E2300512-005	100.00µL	E2300512-006	100.00µL	E2300512-007	100.00µL	EQ2300265-01	100.00µL
EQ2300265-01	100.00µL	EQ2300265-02	100.00µL	EQ2300265-02	100.00µL	EQ2300265-03	100.00µL	EQ2300265-03	100.00µL	K2305800-001	100.00µL
K2305800-002	100.00µL	R2304146-004	100.00µL	R2304146-009	100.00µL	R2304203-004	100.00µL	R2304203-011	100.00µL	R2304267-009	100.00µL
R2304267-012	100.00µL										

Preparation Information Benchsheet

Prep Run#: 420569 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 5/30/23 08:20

Preparation Materials

Water HPLC Grade	HPLC water 5/18/23CG (229314)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 0.45um syringe (229005)
6850 Luer-Lok Syringes	luer-lock syringes (228116)				

Preparation Steps

Step: Preparation
Started: 5/30/23 08:20
Finished: 5/30/23 09:20
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 05/30/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

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10450 Stancliff Rd., Suite 210, Houston TX 77099
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www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	5/24/23 0655
Sample Matrix:	Ground Water	**Date Received:**	5/25/23
Sample Name:	50WW09_052423	**Units:**	µg/L
Lab Code:	E2300512-001	**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	**0.712**		0.500	0.0500	0.0250	1	5/30/23	5/30/23 17:24	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	5/24/23 0735
Sample Matrix:	Ground Water	**Date Received:**	5/25/23
Sample Name:	50WW08_052423	**Units:**	µg/L
Lab Code:	E2300512-002	**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	**81.1**		2.50	0.250	0.125	5	5/30/23	5/30/23 17:30	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	5/24/23 0820
Sample Matrix:	Ground Water	**Date Received:**	5/25/23
Sample Name:	50WW22_052423	**Units:**	µg/L
Lab Code:	E2300512-003	**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	**0.981**		0.500	0.0500	0.0250	1	5/30/23	5/30/23 17:36	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	5/24/23 0905
Sample Matrix:	Ground Water	**Date Received:**	5/25/23
Sample Name:	50WW13_052423	**Units:**	µg/L
Lab Code:	E2300512-004	**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	**186**		5.00	0.500	0.250	10	5/30/23	5/30/23 17:41	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	5/24/23 0955
Sample Matrix:	Ground Water	**Date Received:**	5/25/23
Sample Name:	50WW11_052423	**Units:**	µg/L
Lab Code:	E2300512-005	**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	**570**		25.0	2.50	1.25	50	5/30/23	5/30/23 17:47	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	5/24/23 1050
Sample Matrix:	Ground Water	**Date Received:**	5/25/23
Sample Name:	50WW06_052423	**Units:**	µg/L
Lab Code:	E2300512-006	**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	**5.79**		0.500	0.0500	0.0250	1	5/30/23	5/30/23 17:53	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	5/24/23 1140
Sample Matrix:	Ground Water	**Date Received:**	5/25/23
Sample Name:	50WW29_052423	**Units:**	µg/L
Lab Code:	E2300512-007	**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	**0.0701**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 17:59	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300265-01	**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	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:38	420569	805870	

Accuracy & Precision

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10450 Stancliff Rd., Suite 210, Houston TX 77099
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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051708
Sample Matrix: Ground Water

Service Request: E2300512
Date Analyzed: 5/30/23

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: 420569

	Lab Control Sample EQ2300265-02			Duplicate Lab Control Sample EQ2300265-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.105	0.100	105	0.101	0.100	101	84 - 119	4	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:**	E2300512
Project:	HS23051708	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300265-02	**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	**0.105**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:44	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300265-03	**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	**0.101**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:50	420569	805870	

HS23051708-MSVOA-SW8260

ALS WO# HS23051708

01230540

right solutions.
right partner.

Form 1

Organic Analysis Data Sheet

Volatiles by EPA 8260

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

HS23051708-01	Collected	Received	Matrix	Basis
50WW09_052423	05/24/23 06:55	05/25/23 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	ND		0.20	1.0	1.0	1	05/29/23 14:50	VOA6_436483_R43648	X052909
1,2-Dichloroethane	ug/L	ND		0.20	1.0	1.0	1	05/29/23 14:50	VOA6_436483_R43648	X052909
cis-1,2-Dichloroethene	ug/L	1.1		0.20	1.0	1.0	1	05/29/23 14:50	VOA6_436483_R43648	X052909
Tetrachloroethene	ug/L	ND		0.30	1.0	1.0	1	05/29/23 14:50	VOA6_436483_R43648	X052909
Trichloroethene	ug/L	11		0.20	1.0	1.0	1	05/29/23 14:50	VOA6_436483_R43648	X052909
Vinyl chloride	ug/L	ND		0.20	1.0	1.0	1	05/29/23 14:50	VOA6_436483_R43648	X052909

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

HS23051708-02	Collected	Received	Matrix	Basis
50WW08_052423	05/24/23 07:35	05/25/23 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	1.1		0.20	1.0	1.0	1	05/29/23 15:11	VOA6_436483_R43648	X052910
1,2-Dichloroethane	ug/L	1.5		0.20	1.0	1.0	1	05/29/23 15:11	VOA6_436483_R43648	X052910
cis-1,2-Dichloroethene	ug/L	85		0.20	1.0	1.0	1	05/29/23 15:11	VOA6_436483_R43648	X052910
Tetrachloroethene	ug/L	1.8		0.30	1.0	1.0	1	05/29/23 15:11	VOA6_436483_R43648	X052910
Trichloroethene	ug/L	650		2.0	10	10	10	06/01/23 18:12	VOA6_436840_R43684	X060115
Vinyl chloride	ug/L	ND		0.20	1.0	1.0	1	05/29/23 15:11	VOA6_436483_R43648	X052910

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

HS23051708-03	Collected	Received	Matrix	Basis
50WW22_052423	05/24/23 08:20	05/25/23 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	ND		0.20	1.0	1.0	1	05/29/23 17:59	VOA6_436483_R43648	X052918
1,2-Dichloroethane	ug/L	ND		0.20	1.0	1.0	1	05/29/23 17:59	VOA6_436483_R43648	X052918
cis-1,2-Dichloroethene	ug/L	ND		0.20	1.0	1.0	1	05/29/23 17:59	VOA6_436483_R43648	X052918
Tetrachloroethene	ug/L	ND		0.30	1.0	1.0	1	05/29/23 17:59	VOA6_436483_R43648	X052918
Trichloroethene	ug/L	ND		0.20	1.0	1.0	1	05/29/23 17:59	VOA6_436483_R43648	X052918
Vinyl chloride	ug/L	ND		0.20	1.0	1.0	1	05/29/23 17:59	VOA6_436483_R43648	X052918

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

HS23051708-04

50WW13_052423

Collected	Received	Matrix	Basis
05/24/23 09:05	05/25/23 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	1.5		0.20	1.0	1.0	1	06/01/23 18:54	VOA6_436840_R43684	X060117
1,2-Dichloroethane	ug/L	3.0		0.20	1.0	1.0	1	06/01/23 18:54	VOA6_436840_R43684	X060117
cis-1,2-Dichloroethene	ug/L	30		0.20	1.0	1.0	1	06/01/23 18:54	VOA6_436840_R43684	X060117
Tetrachloroethene	ug/L	2.2		0.30	1.0	1.0	1	06/01/23 18:54	VOA6_436840_R43684	X060117
Trichloroethene	ug/L	490		5.0	25	25	25	05/29/23 15:53	VOA6_436483_R43648	X052912
Vinyl chloride	ug/L	ND		0.20	1.0	1.0	1	06/01/23 18:54	VOA6_436840_R43684	X060117

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

HS23051708-05	Collected	Received	Matrix	Basis
50WW11_052423	05/24/23 09:55	05/25/23 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	2.1		0.20	1.0	1.0	1	06/01/23 18:33	VOA6_436840_R43684	X060116
1,2-Dichloroethane	ug/L	1.9		0.20	1.0	1.0	1	06/01/23 18:33	VOA6_436840_R43684	X060116
cis-1,2-Dichloroethene	ug/L	8.5		0.20	1.0	1.0	1	06/01/23 18:33	VOA6_436840_R43684	X060116
Tetrachloroethene	ug/L	ND		0.30	1.0	1.0	1	06/01/23 18:33	VOA6_436840_R43684	X060116
Trichloroethene	ug/L	250		2.0	10	10	10	05/29/23 15:32	VOA6_436483_R43648	X052911
Vinyl chloride	ug/L	ND		0.20	1.0	1.0	1	06/01/23 18:33	VOA6_436840_R43684	X060116

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

HS23051708-06	Collected	Received	Matrix	Basis
50WW06_052423	05/24/23 10:50	05/25/23 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	ND		0.20	1.0	1.0	1	05/29/23 18:20	VOA6_436483_R43648	X052919
1,2-Dichloroethane	ug/L	ND		0.20	1.0	1.0	1	05/29/23 18:20	VOA6_436483_R43648	X052919
cis-1,2-Dichloroethene	ug/L	ND		0.20	1.0	1.0	1	05/29/23 18:20	VOA6_436483_R43648	X052919
Tetrachloroethene	ug/L	ND		0.30	1.0	1.0	1	05/29/23 18:20	VOA6_436483_R43648	X052919
Trichloroethene	ug/L	13		0.20	1.0	1.0	1	05/29/23 18:20	VOA6_436483_R43648	X052919
Vinyl chloride	ug/L	ND		0.20	1.0	1.0	1	05/29/23 18:20	VOA6_436483_R43648	X052919

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

HS23051708-07	Collected	Received	Matrix	Basis
50WW29_052423	05/24/23 11:40	05/25/23 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	ND		0.20	1.0	1.0	1	05/29/23 18:41	VOA6_436483_R43648	X052920
1,2-Dichloroethane	ug/L	ND		0.20	1.0	1.0	1	05/29/23 18:41	VOA6_436483_R43648	X052920
cis-1,2-Dichloroethene	ug/L	ND		0.20	1.0	1.0	1	05/29/23 18:41	VOA6_436483_R43648	X052920
Tetrachloroethene	ug/L	ND		0.30	1.0	1.0	1	05/29/23 18:41	VOA6_436483_R43648	X052920
Trichloroethene	ug/L	ND		0.20	1.0	1.0	1	05/29/23 18:41	VOA6_436483_R43648	X052920
Vinyl chloride	ug/L	ND		0.20	1.0	1.0	1	05/29/23 18:41	VOA6_436483_R43648	X052920

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

HS23051708-08	Collected	Received	Matrix	Basis
Trip Blank	05/24/23 00:00	05/25/23 09:30	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	ND		0.20	1.0	1.0	1	05/29/23 14:29	VOA6_436483_R43648	X052908
1,2-Dichloroethane	ug/L	ND		0.20	1.0	1.0	1	05/29/23 14:29	VOA6_436483_R43648	X052908
cis-1,2-Dichloroethene	ug/L	ND		0.20	1.0	1.0	1	05/29/23 14:29	VOA6_436483_R43648	X052908
Tetrachloroethene	ug/L	ND		0.30	1.0	1.0	1	05/29/23 14:29	VOA6_436483_R43648	X052908
Trichloroethene	ug/L	ND		0.20	1.0	1.0	1	05/29/23 14:29	VOA6_436483_R43648	X052908
Vinyl chloride	ug/L	ND		0.20	1.0	1.0	1	05/29/23 14:29	VOA6_436483_R43648	X052908

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

VBLKW-230529	Collected	Received	Matrix	Basis
VBLKW-230529	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	ND		0.20	1.0	1.0	1	05/29/23 14:08	VOA6_436483_R43648	X052907
1,2-Dichloroethane	ug/L	ND		0.20	1.0	1.0	1	05/29/23 14:08	VOA6_436483_R43648	X052907
cis-1,2-Dichloroethene	ug/L	ND		0.20	1.0	1.0	1	05/29/23 14:08	VOA6_436483_R43648	X052907
Tetrachloroethene	ug/L	ND		0.30	1.0	1.0	1	05/29/23 14:08	VOA6_436483_R43648	X052907
Trichloroethene	ug/L	ND		0.20	1.0	1.0	1	05/29/23 14:08	VOA6_436483_R43648	X052907
Vinyl chloride	ug/L	ND		0.20	1.0	1.0	1	05/29/23 14:08	VOA6_436483_R43648	X052907

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

VBLKW-230601	Collected	Received	Matrix	Basis
VBLKW-230601	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	ND		0.20	1.0	1.0	1	06/01/23 14:11	VOA6_436840_R43684	X060104
1,2-Dichloroethane	ug/L	ND		0.20	1.0	1.0	1	06/01/23 14:11	VOA6_436840_R43684	X060104
cis-1,2-Dichloroethene	ug/L	ND		0.20	1.0	1.0	1	06/01/23 14:11	VOA6_436840_R43684	X060104
Tetrachloroethene	ug/L	ND		0.30	1.0	1.0	1	06/01/23 14:11	VOA6_436840_R43684	X060104
Trichloroethene	ug/L	ND		0.20	1.0	1.0	1	06/01/23 14:11	VOA6_436840_R43684	X060104
Vinyl chloride	ug/L	ND		0.20	1.0	1.0	1	06/01/23 14:11	VOA6_436840_R43684	X060104

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Form 2

System Monitoring Compound Recovery

Volatiles by EPA 8260

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
VOA6_436483_R436483

Volatiles by EPA 8260

CCV	Analyzed 05/29/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	58.83	50	118	80-120	
4-Bromofluorobenzene	50.11	50	100	80-120	
Dibromofluoromethane	56.24	50	112	80-120	
Toluene-d8	48.99	50	98.0	80-120	

CCB	Analyzed 05/29/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	54.66	50	109	80-120	
4-Bromofluorobenzene	48.52	50	97.0	80-120	
Dibromofluoromethane	51.47	50	103	80-120	
Toluene-d8	52.85	50	106	80-120	

VLCSW-230529	Analyzed 05/29/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	58.8	50	118	81-118	
4-Bromofluorobenzene	48.83	50	97.7	85-114	
Dibromofluoromethane	55.81	50	112	80-119	
Toluene-d8	47.3	50	94.6	89-112	

VBLKW-230529	Analyzed 05/29/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	55.75	50	112	81-118	
4-Bromofluorobenzene	48.25	50	96.5	85-114	
Dibromofluoromethane	52.62	50	105	80-119	
Toluene-d8	52.25	50	105	89-112	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
VOA6_436483_R436483

Volatiles by EPA 8260

HS23051708-08	Analyzed 05/29/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	55	50	110	81-118	
4-Bromofluorobenzene	48	50	96.9	85-114	
Dibromofluoromethane	52	50	104	80-119	
Toluene-d8	52	50	105	89-112	

HS23051708-01	Analyzed 05/29/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	55	50	111	81-118	
4-Bromofluorobenzene	48	50	95.8	85-114	
Dibromofluoromethane	51	50	103	80-119	
Toluene-d8	53	50	106	89-112	

HS23051708-02	Analyzed 05/29/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	55	50	110	81-118	
4-Bromofluorobenzene	48	50	95.2	85-114	
Dibromofluoromethane	51	50	103	80-119	
Toluene-d8	53	50	106	89-112	

HS23051708-05	Analyzed 05/29/23	Conc Units µg/L	Dilution 10		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	550	500	110	81-118	
4-Bromofluorobenzene	470	500	94.3	85-114	
Dibromofluoromethane	520	500	104	80-119	
Toluene-d8	520	500	105	89-112	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

RunID
VOA6_436483_R436483

HS23051708-04	Analyzed 05/29/23	Conc Units µg/L	Dilution 25

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	1,400	1250	109	81-118	
4-Bromofluorobenzene	1,200	1250	94.7	85-114	
Dibromofluoromethane	1,300	1250	103	80-119	
Toluene-d8	1,300	1250	105	89-112	

HS23051708-01MS	Analyzed 05/29/23	Conc Units µg/L	Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	54.34	50	109	81-118	
4-Bromofluorobenzene	50.37	50	101	85-114	
Dibromofluoromethane	51.63	50	103	80-119	

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

RunID
VOA6_436483_R436483

HS23051708-06	Analyzed 05/29/23	Conc Units µg/L	Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	53	50	107	81-118	
4-Bromofluorobenzene	46	50	92.1	85-114	
Dibromofluoromethane	51	50	102	80-119	
Toluene-d8	52	50	105	89-112	

HS23051708-07	Analyzed 05/29/23	Conc Units µg/L	Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	54	50	108	81-118	
4-Bromofluorobenzene	46	50	92.9	85-114	
Dibromofluoromethane	52	50	104	80-119	
Toluene-d8	53	50	106	89-112	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
VOA6_436840_R436840

Volatiles by EPA 8260

CCV	Analyzed 06/01/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	59.82	50	120	80-120	
4-Bromofluorobenzene	52.28	50	105	80-120	
Dibromofluoromethane	56.25	50	113	80-120	
Toluene-d8	48.25	50	96.5	80-120	

CCB	Analyzed 06/01/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	55.39	50	111	80-120	
4-Bromofluorobenzene	48.18	50	96.4	80-120	
Dibromofluoromethane	51.51	50	103	80-120	
Toluene-d8	53.34	50	107	80-120	

VBLKW-230601	Analyzed 06/01/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	54.66	50	109	81-118	
4-Bromofluorobenzene	46.16	50	92.3	85-114	
Dibromofluoromethane	51.04	50	102	80-119	
Toluene-d8	52.38	50	105	89-112	

VLCSW-230601	Analyzed 06/01/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	58.09	50	116	81-118	
4-Bromofluorobenzene	48.44	50	96.9	85-114	
Dibromofluoromethane	53.79	50	108	80-119	
Toluene-d8	46.05	50	92.1	89-112	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

RunID
VOA6_436840_R436840

HS23052050-05MS	Analyzed 06/01/23	Conc Units µg/L	Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	53.91	50	108	81-118	
4-Bromofluorobenzene	49.22	50	98.4	85-114	
Dibromofluoromethane	50.69	50	101	80-119	
Toluene-d8	51.91	50	104	89-112	

HS23052050-05MSD	Analyzed 06/01/23	Conc Units µg/L	Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	55.11	50	110	81-118	
4-Bromofluorobenzene	50.7	50	101	85-114	
Dibromofluoromethane	51.83	50	104	80-119	
Toluene-d8	51.13	50	102	89-112	

HS23051708-02	Analyzed 06/01/23	Conc Units µg/L	Dilution 10

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	550	500	111	81-118	
4-Bromofluorobenzene	470	500	94.8	85-114	
Dibromofluoromethane	510	500	102	80-119	
Toluene-d8	530	500	107	89-112	

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

RunID
VOA6_436840_R436840

HS23051708-04	Analyzed 06/01/23	Conc Units µg/L	Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	56	50	112	81-118	
4-Bromofluorobenzene	48	50	95.5	85-114	
Dibromofluoromethane	52	50	104	80-119	
Toluene-d8	53	50	105	89-112	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

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Form 3A

Matrix Spike/Spike Duplicate Recovery

Volatiles by EPA 8260

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

50WW09_052423	HS23051708-01	HS23051708-01MS	HS23051708-01MSD	
Sample Matrix Aqueous	**Run Date** 05/29/23	05/29/23	05/29/23	
Units µg/L	**Run Time** 14:50	16:14	16:35	
	Data File X052909.D	X052913.D	X052914.D	

Analyte	%R Limits	DF	Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
1,1-Dichloroethene	71-131	1	0	22.37	20.00	112		20.43	20.00	102		20	9.10	
1,2-Dichloroethane	73-128	1	0	23.26	20.00	116		23.02	20.00	115		20	1.00	
cis-1,2-Dichloroethene	78-123	1	1.113	21.48	20.00	102		20.8	20.00	98		20	3.20	
Tetrachloroethene	74-129	1	0	24.32	20.00	122		22.93	20.00	115		20	5.90	
Trichloroethene	79-123	1	10.61	32.75	20.00	111		30.64	20.00	100		20	6.60	
Vinyl chloride	58-137	1	0	14.59	20.00	73		13.46	20.00	67		20	8.00	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits

Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

	HS23052050-05	HS23052050-05MS	HS23052050-05MSD	
Sample Matrix Aqueous	**Run Date** 06/01/23	06/01/23	06/01/23	
Units µg/L	**Run Time** 15:23	16:47	17:09	
	Data File X060107.D	X060111.D	X060112.D	

Analyte	%R Limits	DF	Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
1,1-Dichloroethene	71-131	1	0	24.96	20.00	125		23.08	20.00	115		20	7.80	
1,2-Dichloroethane	73-128	1	0	23.69	20.00	118		23.42	20.00	117		20	1.10	
cis-1,2-Dichloroethene	78-123	1	0	19.89	20.00	99		19.22	20.00	96		20	3.40	
Tetrachloroethene	74-129	1	0	25.74	20.00	129		23.31	20.00	117		20	9.90	
Trichloroethene	79-123	1	0	21.62	20.00	108		20.63	20.00	103		20	4.70	
Vinyl chloride	58-137	1	0	16.96	20.00	85		15.46	20.00	77		20	9.30	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits

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Form 3B

Laboratory Control Sample Recovery

Volatiles by EPA 8260

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

VOA6_436483_R436483		QC ID	LCS-R436483			
QC Matrix Aqueous	Units	Run Date	05/29/23			
	ug/L	Run Time	13:26			

Analyte	%R Limits	Spike Added	LCS Result	%R	Q	
1,1-Dichloroethene	71-131	20	19.39	97		
1,2-Dichloroethane	73-128	20	22.78	114		
1,2-Dichloroethane-d4	81-118	50	58.8	118		
4-Bromofluorobenzene	85-114	50	48.83	98		
cis-1,2-Dichloroethene	78-123	20	20.64	103		
Dibromofluoromethane	80-119	50	55.81	112		
Tetrachloroethene	74-129	20	18.18	91		
Toluene-d8	89-112	50	47.3	95		
Trichloroethene	79-123	20	18.68	93		
Vinyl chloride	58-137	20	17.92	90		

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

VOA6_436840_R436840		QC ID	LCS-R436840
QC Matrix Aqueous	Units	Run Date	06/01/23
	ug/L	Run Time	14:32

Analyte	%R Limits	Spike Added	LCS Result	%R	Q
1,1-Dichloroethene	71-131	20	22.42	112	
1,2-Dichloroethane	73-128	20	23.22	116	
1,2-Dichloroethane-d4	81-118	50	58.09	116	
4-Bromofluorobenzene	85-114	50	48.44	97	
cis-1,2-Dichloroethene	78-123	20	19.33	97	
Dibromofluoromethane	80-119	50	53.79	108	
Tetrachloroethene	74-129	20	17.53	88	
Toluene-d8	89-112	50	46.05	92	
Trichloroethene	79-123	20	18.34	92	
Vinyl chloride	58-137	20	20.33	102	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits

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Form 4

Method Blank Summary

Volatiles by EPA 8260

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	VBLKW-230529	X052907.D	05/29/23 14:08	VOA6_436483_R436483
VLCSW-230529	LCS	VLCSW-230529	X052905.D	05/29/23 13:26	VOA6_436483_R436483
Trip Blank	SAMP	HS23051708-08	X052908.D	05/29/23 14:29	VOA6_436483_R436483
50WW09_052423	SAMP	HS23051708-01	X052909.D	05/29/23 14:50	VOA6_436483_R436483
50WW08_052423	SAMP	HS23051708-02	X052910.D	05/29/23 15:11	VOA6_436483_R436483
50WW11_052423	SAMP	HS23051708-05	X052911.D	05/29/23 15:32	VOA6_436483_R436483
50WW13_052423	SAMP	HS23051708-04	X052912.D	05/29/23 15:53	VOA6_436483_R436483
50WW09_052423	MS	HS23051708-01MS	X052913.D	05/29/23 16:14	VOA6_436483_R436483
50WW09_052423	MSD	HS23051708-01MSD	X052914.D	05/29/23 16:35	VOA6_436483_R436483
50WW22_052423	SAMP	HS23051708-03	X052918.D	05/29/23 17:59	VOA6_436483_R436483
50WW06_052423	SAMP	HS23051708-06	X052919.D	05/29/23 18:20	VOA6_436483_R436483
50WW29_052423	SAMP	HS23051708-07	X052920.D	05/29/23 18:41	VOA6_436483_R436483

Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Volatiles by EPA 8260

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	VBLKW-230601	X060104.D	06/01/23 14:11	VOA6_436840_R436840
VLCSW-230601	LCS	VLCSW-230601	X060105.D	06/01/23 14:32	VOA6_436840_R436840
BatchQC	MS	HS23052050-05MS	X060111.D	06/01/23 16:47	VOA6_436840_R436840
BatchQC	MSD	HS23052050-05MSD	X060112.D	06/01/23 17:09	VOA6_436840_R436840
50WW08_052423	SAMP	HS23051708-02	X060115.D	06/01/23 18:12	VOA6_436840_R436840
50WW11_052423	SAMP	HS23051708-05	X060116.D	06/01/23 18:33	VOA6_436840_R436840
50WW13_052423	SAMP	HS23051708-04	X060117.D	06/01/23 18:54	VOA6_436840_R436840

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Form 5

Instrument Performance Check

Volatiles by EPA 8260

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
VOA6_435536

Tune File X051701.D 05/17/23 11:57

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	15.1 (15.1)
75	30.0 - 60.0% of mass 95	42.8 (42.8)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	6.6 (6.6)
173	Less than 2.0% of mass 174	0.6 (0.657) 1
174	50.0 - 120.0% of mass 95	90.7 (90.7)
175	4.0 - 9.0% of mass 174	6.7 (7.41) 1
176	93.0 - 101.0% of mass 174	88.6 (97.6) 1
177	5.0 - 9.0% of mass 176	5.6 (6.32) 2

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

	Type	Date Analyzed	Lab File ID	Sample ID
1	ICAL1	05/17/23 12:17	X051702	VSTD000.25
2	ICAL2	05/17/23 12:59	X051703	VSTD000.5
3	ICAL3	05/17/23 13:20	X051704	VSTD001
4	ICAL4	05/17/23 13:41	X051705	VSTD002
5	ICAL5	05/17/23 14:02	X051706	VSTD005
6	ICAL6	05/17/23 14:23	X051707	VSTD020
7	ICAL7	05/17/23 14:44	X051708	VSTD050
8	ICAL8	05/17/23 15:05	X051709	VSTD100
9	ICAL9	05/17/23 15:26	X051710	VSTD150
10	ICAL	05/17/23 15:47	X051711	VSTD200
11	ICV	05/17/23 16:29	X051713	CCV

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
VOA6_436483

Tune File X052901.D 05/29/23 12:02

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	20.8 (20.8)
75	30.0 - 60.0% of mass 95	46.8 (46.8)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	7.5 (7.55)
173	Less than 2.0% of mass 174	0.7 (0.826) 1
174	50.0 - 120.0% of mass 95	85.1 (85.1)
175	4.0 - 9.0% of mass 174	6.2 (7.33) 1
176	93.0 - 101.0% of mass 174	82.4 (96.9) 1
177	5.0 - 9.0% of mass 176	5.6 (6.81) 2

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	05/29/23 12:23	X052902	CCV
2	CCB	05/29/23 13:05	X052904	CCB
3	LCS	05/29/23 13:26	X052905	VLCSW-230529
4	MBLK	05/29/23 14:08	X052907	VBLKW-230529
5	SAMP	05/29/23 14:29	X052908	Trip Blank
6	SAMP	05/29/23 14:50	X052909	50WW09_052423
7	SAMP	05/29/23 15:11	X052910	50WW08_052423
8	SAMP	05/29/23 15:32	X052911	50WW11_052423
9	SAMP	05/29/23 15:53	X052912	50WW13_052423
10	MS	05/29/23 16:14	X052913	HS23051708-01MS
11	MSD	05/29/23 16:35	X052914	HS23051708-01MSD
12	SAMP	05/29/23 17:59	X052918	50WW22_052423
13	SAMP	05/29/23 18:20	X052919	50WW06_052423
14	SAMP	05/29/23 18:41	X052920	50WW29_052423
15	CCV_EN	05/29/23 22:12	X052930	CCV-END

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
VOA6_436840

Tune File X060101.D 06/01/23 13:08

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	20 (20)
75	30.0 - 60.0% of mass 95	50.5 (50.5)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	7 (7.04)
173	Less than 2.0% of mass 174	0.6 (0.694) 1
174	50.0 - 120.0% of mass 95	91.1 (91.1)
175	4.0 - 9.0% of mass 174	6.2 (6.84) 1
176	93.0 - 101.0% of mass 174	86.6 (95.1) 1
177	5.0 - 9.0% of mass 176	5.4 (6.21) 2

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	06/01/23 13:29	X060102	CCV
2	CCB	06/01/23 13:50	X060103	CCB
3	MBLK	06/01/23 14:11	X060104	VBLKW-230601
4	LCS	06/01/23 14:32	X060105	VLCSW-230601
5	MS	06/01/23 16:47	X060111	ZZZZZZMS
6	MSD	06/01/23 17:09	X060112	ZZZZZZMSD
7	SAMP	06/01/23 18:12	X060115	50WW08_052423
8	SAMP	06/01/23 18:33	X060116	50WW11_052423
9	SAMP	06/01/23 18:54	X060117	50WW13_052423
10	CCV_EN	06/01/23 23:06	X060129	CCV-END

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Form 6

Initial Calibration Data

Volatiles by EPA 8260

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217

ICAL End Date 17-MAY-2023 1547

Calibration Files

Level 1 ..voa6.i\X230517.b\X051702.D
Level 2 ..voa6.i\X230517.b\X051703.D
Level 3 ..voa6.i\X230517.b\X051704.D
Level 4 ..voa6.i\X230517.b\X051705.D
Level 5 ..voa6.i\X230517.b\X051706.D
Level 6 ..voa6.i\X230517.b\X051707.D
Level 7 ..voa6.i\X230517.b\X051708.D
Level 8 ..voa6.i\X230517.b\X051709.D
Level 9 ..voa6.i\X230517.b\X051710.D
Level 10.voa6.i\X230517.b\X051711.D

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Dichlorodifluoromethane	NE 254046	2884 559449	5723 843502	10464 1100606	22495	119708	LINR	0.01273	0.48867		0.99813	
Chloromethane	NE 0.61921	0.77927 0.69542	0.76967 0.72779	0.72599 0.71362	0.62014	0.66257	AVRG		0.70152		8.29311	
Propionitrile	NE 0.06434	0.07817 0.06678	0.06343 0.07134	0.06718 0.06742	0.06843	0.06999	AVRG		0.06857		6.37131	
Vinyl Chloride	NE 0.61811	0.71436 0.67926	0.72158 0.67889	0.65254 0.65323	0.57005	0.67194	AVRG		0.66222		7.06682	
Bromomethane	NE 192549	2591 393567	4982 597056	9450 787052	20042	79030	LINR	0.00530	0.34698		0.99905	
Chloroethane	NE 0.38690	0.47344 0.40524	0.46127 0.40106	0.41893 0.37402	0.38156	0.41805	AVRG		0.41339		8.30744	
Trichlorofluoromethane	NE 0.63017	0.81654 0.73026	0.71830 0.73471	0.67647 0.67958	0.55807	0.73113	AVRG		0.69725		10.50622	
Acrolein	NE 0.04192	0.04943 0.04447	0.04327 0.04569	0.04111 0.04271	0.03378	0.03414	AVRG		0.04183		12.15392	
Acetone	NE 208973	7283 403846	10636 561504	14791 771960	25117	87346	LINR	-0.08712	0.16681		0.99969	
1,1-Dichloroethene	NE 0.40947	0.47327 0.45644	0.46915 0.45253	0.45288 0.43481	0.37152	0.44797	AVRG		0.44089		7.28581	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Isobutyl Alcohol	NE 0.06286	0.06381 0.06793	0.05724 0.06980	0.06982 0.06436	0.06431	0.06645	AVRG		0.06518		6.03492	
Acetonitrile	NE 0.04918	0.04880 0.04924	0.04603 0.05081	0.05041 0.04777	0.04444	0.04655	AVRG		0.04814		4.39264	
Allyl Chloride	NE 1.18326	1.30975 1.21305	1.27541 1.25167	1.25405 1.16839	1.10943	1.16270	AVRG		1.21419		5.25381	
Iodomethane	NE 735694	3196 1590979	6806 2478075	16693 NE	43279	256751	QUAD	0.04713	1.63045	-0.06676	0.99973	
Acrylonitrile	NE 0.17091	0.15781 0.17701	0.14273 0.17832	0.15151 0.17567	0.15419	0.17770	AVRG		0.16510		8.23363	
Methylene Chloride	NE 0.49950	0.55917 0.49767	0.64824 0.50185	0.44831 0.47639	0.54436	0.54173	AVRG		0.52414		11.12128	
Methyl tert-butyl ether	NE 1.28251	1.62836 1.31959	1.48045 1.37221	1.36120 1.29878	1.31894	1.31588	AVRG		1.37532		8.11213	
Carbon Disulfide	NE 1.26138	1.60902 1.38522	1.36592 1.52012	1.36412 1.36128	1.17365	1.40938	AVRG		1.38334		9.22663	
trans-1,2-Dichloroethene	NE 0.43201	0.47537 0.45467	0.47819 0.45907	0.49999 0.43757	0.41276	0.46614	AVRG		0.45731		5.82986	
Vinyl Acetate	NE 1.27496	1.35726 1.27023	1.22311 1.32539	1.13749 1.24591	1.27166	1.34652	AVRG		1.27250		5.33339	
1,1-Dichloroethane	NE 0.79388	0.92781 0.81544	0.84992 0.82356	0.92336 0.78899	0.76894	0.85489	AVRG		0.83853		6.74787	
Chloroprene	NE 0.17384	0.22552 0.21179	0.21097 0.20683	0.21021 0.19947	0.17062	0.20730	AVRG		0.20184		8.98744	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
2-Butanone	NE 0.16799	0.13979 0.18659	0.16354 0.19168	0.15782 0.18495	0.13832	0.16690	AVRG		0.16640		11.58187	
Methacrylonitrile	NE 0.40906	0.54255 0.42760	0.42779 0.45052	0.45680 0.42680	0.43634	0.43393	AVRG		0.44571		8.72590	
2,2-Dichloropropane	NE 349452	4065 728556	7909 1056504	15835 1382720	32480	149611	LINR	-0.00624	0.61372		0.99874	
cis-1,2-Dichloroethene	NE 0.50367	0.57247 0.52173	0.54435 0.53166	0.60019 0.50638	0.52223	0.53835	AVRG		0.53789		5.81550	
Chloroform	NE 0.77839	0.92029 0.79564	0.86223 0.80969	0.93273 0.77169	0.77967	0.82933	AVRG		0.83107		7.35918	
Bromochloromethane	NE 0.26603	0.30408 0.27243	0.32266 0.27947	0.30443 0.25594	0.26363	0.28282	AVRG		0.28350		7.88131	
1,1,1-Trichloroethane	NE 0.58943	0.67570 0.69662	0.64063 0.65648	0.64405 0.62912	0.57118	0.65688	AVRG		0.64001		6.16759	
1,1-Dichloropropene	NE 0.38583	0.42912 0.42581	0.39588 0.39409	0.37572 0.40929	0.32710	0.39745	AVRG		0.39336		7.71426	
1,2-Dichloroethane	NE 0.37699	0.41600 0.37944	0.43682 0.39592	0.40424 0.36966	0.36106	0.37529	AVRG		0.39060		6.30467	
Carbon Tetrachloride	NE 0.34259	0.39299 0.37898	0.38547 0.35165	0.38679 0.36738	0.31037	0.35439	AVRG		0.36340		7.30193	
Benzene	NE 1.25276	1.35461 1.29971	1.27288 1.29351	1.35158 1.24787	1.10745	1.26825	AVRG		1.27207		5.72509	
Trichloroethene	NE 0.34241	0.36308 0.35689	0.33451 0.35415	0.33162 0.35991	0.30293	0.34006	AVRG		0.34284		5.47895	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Bromodichloromethane	NE 0.42249	0.48526 0.43703	0.41814 0.42740	0.45763 0.43062	0.40221	0.43711	AVRG		0.43532		5.53139	
Methyl Methacrylate	NE 0.40902	0.45665 0.44739	0.40317 0.46605	0.46296 0.43199	0.42516	0.43116	AVRG		0.43706		5.20348	
2-Chloroethylvinyl ether	NE 0.14735	0.14786 0.15777	0.12463 0.14758	0.14286 0.15715	0.12938	0.14665	AVRG		0.14458		7.71581	
1,2-Dichloropropane	NE 0.35705	0.37198 0.35490	0.38547 0.35022	0.38364 0.35347	0.34213	0.35438	AVRG		0.36147		4.21306	
2-Nitropropane	NE 1.06800	1.03367 1.05968	1.15079 1.02837	1.12658 1.01120	0.99836	1.06778	AVRG		1.06049		4.79342	
Dibromomethane	NE 0.21251	0.24513 0.22338	0.21055 0.20697	0.24357 0.21175	0.20274	0.21774	AVRG		0.21937		6.99028	
4-Methyl-2-Pentanone	NE 0.36326	0.34169 0.35948	0.36698 0.30718	0.36910 0.30262	0.32596	0.35868	AVRG		0.34388		7.54364	
cis-1,3-Dichloropropene	NE 0.58221	0.61066 0.59865	0.57499 0.57761	0.58553 0.60917	0.51148	0.58487	AVRG		0.58169		5.04789	
Ethyl Methacrylate	NE 0.48741	0.59565 0.48720	0.53360 0.50415	0.50669 0.50078	0.47927	0.50273	AVRG		0.51083		6.93633	
Toluene	NE 1.38442	1.53412 1.46899	1.42013 1.30247	1.50766 1.27256	1.27005	1.46585	AVRG		1.40292		7.21159	
trans-1,3-Dichloropropene	NE 0.48288	0.45346 0.47410	0.40432 0.48538	0.48662 0.49728	0.42528	0.47168	AVRG		0.46456		6.70520	
2-Hexanone	NE 0.22853	0.24429 0.23087	0.23197 0.23374	0.26061 0.20845	0.21418	0.26552	AVRG		0.23535		8.06310	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
1,1,2-Trichloroethane	NE 0.27409	0.29843 0.28069	0.29436 0.26274	0.32883 0.24821	0.27792	0.31330	AVRG		0.28651		8.73140	
1,3-Dichloropropane	NE 0.61464	0.61548 0.57441	0.58296 0.57463	0.68870 0.50502	0.56388	0.64582	AVRG		0.59617		8.83708	
Dibromochloromethane	NE 0.39785	0.41988 0.39997	0.36853 0.35955	0.42772 0.35478	0.36027	0.41061	AVRG		0.38880		7.27547	
Tetrachloroethene	NE 0.27024	0.29241 0.30005	0.26482 0.27032	0.27877 0.25305	0.24080	0.27568	AVRG		0.27179		6.69943	
1,2-Dibromoethane	NE 0.36005	0.36702 0.35169	0.33803 0.32277	0.38809 0.31674	0.32580	0.37193	AVRG		0.34912		7.08512	
1-Chlorohexane	NE 242669	2937 542958	5794 864100	10048 1116920	19611	103587	LINR	0.03692	0.31789		0.99853	
Chlorobenzene	NE 0.92818	1.09562 0.97394	1.00256 0.96138	1.02039 0.91475	0.88811	0.95563	AVRG		0.97117		6.42759	
1,1,1,2-Tetrachloroethane	NE 0.33615	0.38356 0.34896	0.32413 0.32769	0.37622 0.32193	0.30572	0.34299	AVRG		0.34082		7.48927	
Ethylbenzene	NE 0.47027	0.55325 0.50633	0.48089 0.45997	0.50015 0.45201	0.39963	0.47244	AVRG		0.47721		8.82570	
m,p-Xylenes	NE 0.59459	0.63040 0.62386	0.58638 0.58313	0.64543 0.55666	0.52952	0.59918	AVRG		0.59435		6.12892	
o-Xylene	NE 0.57434	0.65319 0.59955	0.55952 0.56223	0.61728 0.55685	0.51902	0.58836	AVRG		0.58115		6.72196	
Styrene	NE 0.99210	1.05386 1.01273	0.89303 0.95805	1.00638 0.93539	0.89968	1.00508	AVRG		0.97292		5.63376	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Bromoform	NE 0.25671	0.29542 0.26047	0.25522 0.25661	0.27753 0.24957	0.25059	0.26292	AVRG		0.26278		5.61794	
Isopropylbenzene	NE 1.37198	1.59821 1.49809	1.37810 1.35382	1.43857 1.34479	1.18674	1.37631	AVRG		1.39407		8.12204	
1,1,2,2-Tetrachloroethane	NE 392411	5038 757153	8792 1240541	17448 NE	40039	169748	LINR	0.00715	0.88580		0.99759	
1,2,3-Trichloropropane	NE 0.61611	0.63738 0.60512	0.65181 0.65946	0.71015 0.58281	0.61193	0.68251	AVRG		0.63970		6.32544	
trans-1,4-Dichloro-2-butene	NE 0.11522	0.11926 0.11558	0.09524 0.11374	0.11079 0.11264	0.09545	0.12267	AVRG		0.11118		8.66948	
n-Propylbenzene	NE 3.13540	3.33637 3.37322	2.80598 3.32277	3.23770 3.00068	2.57069	3.10528	AVRG		3.09868		8.66586	
Bromobenzene	NE 0.78763	0.79275 0.79217	0.77432 0.81987	0.79127 0.73469	0.74165	0.78876	AVRG		0.78034		3.42554	
1,3,5-Trimethylbenzene	NE 2.21479	2.44135 2.40966	2.25468 2.31482	2.36788 2.15524	1.86791	2.17290	AVRG		2.24436		7.75095	
2-Chlorotoluene	NE 1.94888	2.30251 1.97621	2.07431 1.98879	2.30860 1.78870	1.75399	1.96935	AVRG		2.01237		9.62776	
4-Chlorotoluene	NE 2.16812	2.37911 2.28582	2.21985 2.22059	2.40121 2.07706	1.96154	2.20489	AVRG		2.21313		6.23268	
tert-Butylbenzene	NE 1.79421	2.18327 2.03358	1.88374 1.93535	1.95310 1.91965	1.50226	1.79865	AVRG		1.88931		9.92749	
1,2,4-Trimethylbenzene	NE 2.22177	2.57039 2.40794	2.31570 2.31818	2.35002 2.31271	1.94159	2.23029	AVRG		2.29651		7.34028	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
sec-Butylbenzene	NE 2.53137	3.01257 2.94399	2.37741 2.75620	2.62395 2.89500	2.01608	2.55457	AVRG		2.63457		11.90558	
p-Isopropyltoluene	NE 2.26757	2.41328 2.59388	2.08236 2.43264	2.23742 2.44743	1.77738	2.23647	AVRG		2.27649		10.56832	
1,3-Dichlorobenzene	NE 1.36095	1.61335 1.44237	1.35830 1.41967	1.45654 1.43739	1.23538	1.33728	AVRG		1.40680		7.37752	
1,4-Dichlorobenzene	NE 1.41088	1.60182 1.49335	1.52448 1.47619	1.58923 1.46055	1.32685	1.42329	AVRG		1.47852		5.89388	
Benzyl Chloride	NE 0.74273	0.83213 0.83321	0.64222 0.77447	0.72093 0.87703	0.66351	0.77697	AVRG		0.76258		10.33629	
n-Butylbenzene	NE 1.98859	2.01353 2.30205	1.74818 2.13763	1.74928 2.15862	1.46216	1.98310	AVRG		1.94924		13.18330	
1,2-Dichlorobenzene	NE 1.35701	1.54458 1.42117	1.46890 1.38747	1.44772 1.35177	1.25379	1.35279	AVRG		1.39835		5.99865	
1,2-Dibromo-3-Chloropropane	NE 65906	725 141877	1225 212665	2511 298660	6381	27687	LINR	-0.00660	0.14899		0.99776	
1,2,4-Trichlorobenzene	NE 1.02027	0.96553 1.13115	0.78056 1.06725	0.96896 0.98116	0.82986	0.96274	AVRG		0.96750		11.18140	
Hexachlorobutadiene	NE 0.41008	0.45698 0.51326	0.37536 0.46094	0.38531 0.42148	0.32633	0.39678	AVRG		0.41628		13.21957	
Naphthalene	NE 2.40923	2.68420 2.76658	2.19126 2.43095	2.48355 2.27153	2.10902	2.27534	AVRG		2.40241		9.11254	
1,2,3-Trichlorobenzene	NE 0.94733	1.11829 1.08042	0.85327 0.97173	0.98314 0.88705	0.79549	0.89282	AVRG		0.94773		11.02386	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Ethyl Acetate	NE 0.32958	0.41308 0.35518	0.39998 0.37747	0.36324 0.36512	0.24424	0.34561	AVRG		0.35483		13.76075	
Methyl Acrylate	NE 0.44710	0.49374 0.53289	0.40494 0.56037	0.46150 0.53292	0.48029	0.46597	AVRG		0.48664		10.04222	
n-Butanol	NE 150551	566 321653	1207 523242	2750 702850	9680	50896	LINR	1.36390	0.01551		0.99713	*
Ethyl Acrylate	NE 723023	5171 1505762	9158 2266239	23488 2966598	55584	241025	LINR	0.02813	1.32259		0.99862	
Cyclohexanone	NE 275540	4234 539320	6460 845318	13177 NE	28595	113707	LINR	-0.00852	0.03046		0.99940	
1,4-Dioxane	0.00726 0.00624	0.00680 0.00656	0.00731 0.00684	0.00698 0.00670	0.00677	0.00627	AVRG		0.00677		5.28023	
n-Hexane	NE 263012	2794 634405	5002 NE	9316 NE	19066	108733	QUAD	-0.00227	2.48457	-0.60625	0.99916	
Freon TF	NE 212562	2410 505340	4639 NE	8897 NE	18404	93083	QUAD	-0.00980	3.04073	-0.85519	0.99862	
Methyl Acetate	NE 0.30139	0.26856 0.31095	0.25570 0.32578	0.29475 0.30407	0.28285	0.31530	AVRG		0.29548		7.68562	
Methylcyclohexane	NE 0.80600	0.84267 0.83468	0.79187 0.84291	0.72693 0.83720	0.58430	0.65362	AVRG		0.76891		12.24720	
Isopropyl alcohol	NE 0.02829	0.03278 0.02943	0.03189 0.03219	0.03155 0.03003	0.02896	0.03014	AVRG		0.03059		5.14086	
Amyl alcohol	NE 0.01052	NE 0.01105	0.00542 0.01196	0.00999 0.01020	0.00640	0.01042	AVRG		0.00949		24.32126	*

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Allyl alcohol	NE 0.02209	0.02444 0.02761	0.02215 NE	0.02049 NE	0.01656	0.02348	AVRG		0.02241		15.29104	*
4-Methyl-2-pentanol	NE 0.07122	0.19234 0.07596	0.09292 0.08235	0.08565 0.08259	0.07783	0.07219	AVRG		0.09256		41.08480	*
Tert-butyl alcohol	NE 0.04378	0.05598 0.04547	0.05180 0.04945	0.05428 0.04761	0.04767	0.04839	AVRG		0.04938		8.07035	
Diethyl ether	NE 0.40234	0.46102 0.41847	0.48519 0.43043	0.42614 0.41973	0.40095	0.40042	AVRG		0.42719		6.76146	
1,3-Butadiene	NE 0.48175	0.56635 0.55443	0.55586 0.55038	0.52876 0.53888	0.44094	0.54550	AVRG		0.52921		7.78450	
Cyclohexane	NE 0.59116	0.71909 0.74572	0.56835 0.65357	0.58251 0.63422	0.49071	0.64592	AVRG		0.62569		12.50195	
Tetrahydrofuran	NE 0.07440	0.09325 0.07849	0.08388 0.08344	0.08188 0.07793	0.08866	0.07984	AVRG		0.08242		6.99990	
alpha-Methylstyrene	NE 1.10093	1.15332 1.17426	1.02672 1.15227	1.11935 1.07136	0.92914	1.08263	AVRG		1.09000		6.97578	
Diisopropyl ether	NE 1.48334	1.69222 1.49768	1.58044 1.52228	1.54159 1.42640	1.40230	1.46933	AVRG		1.51284		5.74095	
Dichlorofluoromethane	NE 0.85302	NE 0.87360	NE 0.90871	NE 0.85353	0.71308	0.80030	AVRG		0.83371		8.24903	*
Propylene oxide	NE 0.05358	0.17723 0.05410	0.12249 NE	0.06989 NE	0.07033	0.05848	AVRG		0.08659		53.72541	*
3-Methyl-1-butanol	NE 0.00979	NE 0.00998	0.00262 0.01061	0.00504 0.00938	0.00789	0.00986	AVRG		0.00815		35.00454	*

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Butyl acrylate	NE 0.72459	0.76527 0.73062	0.60245 0.74252	0.72802 0.71331	0.66250	0.73575	AVRG		0.71167		6.94564	
Butyl methacrylate	NE 0.84640	0.90438 0.90236	0.77387 0.90842	0.83861 0.99592	0.73312	0.85683	AVRG		0.86221		9.04986	
Dicyclopentadiene	NE 2.68207	2.96209 2.72399	2.48983 2.83256	2.60564 2.83343	2.23122	2.32688	AVRG		2.63197		9.26155	
1,2,3-Trimethylbenzene	NE 2.20671	2.71858 2.30161	2.20680 2.30664	2.27711 2.26825	1.96627	2.01764	AVRG		2.25218		9.48020	
Ethanol	NE 71440	957 127476	1978 201113	3325 271159	7435	27907	LINR	-0.02960	0.00589		0.99894	
tert-Butyl formate	NE 0.35443	NE 0.40885	NE 0.44025	0.51059 0.41281	0.45629	0.39576	AVRG		0.42557		11.66261	*
3,3-Dimethyl-1-butanol	NE 0.03594	NE 0.03940	NE 0.03767	NE 0.03606	0.03730	0.03989	AVRG		0.03771		4.37372	*
tert-Amyl methyl ether	NE 1.45404	2.71538 1.63053	2.22674 1.69865	1.80748 1.60744	1.47625	1.54760	AVRG		1.79601		23.16054	*
tert-Butyl ethyl ether	NE 1.44128	2.20992 1.47784	1.61684 1.52606	1.56618 1.44711	1.44570	1.43168	AVRG		1.57362		15.69956	*
tert-Amyl alcohol	NE 0.03544	0.04553 0.04089	0.04135 0.04403	0.05106 0.04128	0.04682	0.03958	AVRG		0.04289		10.61827	
Epichlorohydrin	NE 0.02991	0.03274 0.03460	0.03166 0.03205	0.03524 0.03423	0.03051	0.03267	AVRG		0.03262		5.57042	
Isoprene	NE 0.14407	0.31003 0.16182	0.13976 0.15463	0.17832 0.14655	0.10681	0.17036	AVRG		0.16804		33.97541	*

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
n-Amyl acetate	NE 0.61245	NE 0.61378	NE 0.62073	NE 0.61013	0.62699	0.66699	AVRG		0.62518		3.42254	*
Isopropyl acetate	NE 0.83453	0.92760 0.86512	0.84143 0.86682	0.89610 0.83634	0.81597	0.85951	AVRG		0.86038		3.99182	
n-Butyl acetate	NE 0.58763	0.53682 0.58945	0.49688 0.54788	0.53762 0.53801	0.52454	0.64982	AVRG		0.55652		8.16049	
Acetaldehyde	NE 79325	NE 156941	NE 227240	4725 294948	12047	37259	LINR	-0.26507	0.03229		0.99826	*
Methyl Amyl Ketone	NE 0.72996	1.07330 0.74513	0.63849 0.73045	0.70205 0.70651	0.69593	0.76159	AVRG		0.75371		16.57704	*
Dimethyl Disulfide	NE 0.72573	0.76261 0.82577	0.69905 0.69989	0.69095 0.69121	0.62532	0.69960	AVRG		0.71335		7.76307	
Isobutylene	NE 0.06596	0.08171 0.07315	0.08193 0.07020	0.06167 0.06357	0.05245	0.05826	AVRG		0.06765		14.89725	
2-Ethylhexyl Acrylate	NE 0.95222	0.98794 1.17354	0.93109 0.96637	0.86284 0.92915	0.77264	0.76736	AVRG		0.92702		13.21875	
1,2-Dichloroethylene (total)	NE 0.46784	0.52392 0.48820	0.51127 0.49537	0.55009 0.47198	0.46749	0.50224	AVRG		0.49760		5.59393	
Xylenes (total)	NE 0.57335	0.61318 0.57790	0.57180 0.59887	0.61522 0.60406	0.49741	0.56954	AVRG		0.58015		6.19169	
Dibromofluoromethane	NE 254583	3260 556227	6379 755598	11532 1008592	30264	109945	LINR	-0.01710	0.44638		0.99798	
1,2-Dichloroethane-d4	NE 280472	2810 577397	6358 823824	10804 1089460	29580	114636	LINR	-0.00920	0.48206		0.99902	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_435536

ICAL Start Date 17-MAY-2023 1217 **ICAL End Date** 17-MAY-2023 1547

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Toluene-d8	NE 1.18418	1.40978 1.28131	1.40459 1.09822	1.31074 1.13807	1.35754	1.28170	AVRG		1.27402		8.83576	
4-Bromofluorobenzene	NE 0.42949	0.55718 0.45128	0.55054 0.42455	0.50868 0.43206	0.48595	0.47685	AVRG		0.47962		10.56688	

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Form 6I

Initial Calibration Verification (ICV)

Volatiles by EPA 8260

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 50

Workorder HS23051708

RunID VOA6_435536

Instrument ID voa6.i ICAL Date 17-MAY-2023
Lab File ID X051713.D ICAL Time 1444
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

Compound	Amount Added	Amount Recovered	% Recovered	Limits	Q
1,1,1,2-Tetrachlor	50.00	49.11	98.23	80-120	
1,1,1-Trichloroeth	50.00	49.36	98.72	80-120	
1,1,2,2-Tetrachlor	50.00	48.52	97.04	80-120	
Freon TF	50.00	51.23	102.46	80-120	
Methyl Acetate	50.00	54.37	108.76	80-120	
Cyclohexane	50.00	49.60	99.22	80-120	
Methylcyclohexane	50.00	54.95	109.91	80-120	
Carbon Disulfide	100.00	97.62	97.63	80-120	
2-Hexanone	100.00	96.07	96.07	80-120	
1,1,2-Trichloroeth	50.00	49.37	98.75	80-120	
1,1-Dichloroethane	50.00	46.16	92.33	80-120	
1,1-Dichloroethene	50.00	47.07	94.15	80-120	
1,1-Dichloropropen	50.00	49.96	99.94	80-120	
1,2,3-Trichloroben	50.00	48.35	96.72	80-120	
1,2,3-Trichloropro	50.00	48.71	97.43	80-120	
1,2,4-Trichloroben	50.00	52.14	104.29	80-120	
1,2,4-Trimethylben	50.00	47.36	94.73	80-120	
1,2-Dibromo-3-Chlo	50.00	51.48	102.97	80-120	
1,2-Dibromoethane	50.00	48.84	97.69	80-120	
Acrolein	100.00	89.30	89.31	80-120	
Acrylonitrile	100.00	104.90	104.90	80-120	
1,2-Dichlorobenzen	50.00	46.69	93.39	80-120	
1,2-Dichloroethane	50.00	50.09	100.19	80-120	
1,2-Dichloropropan	50.00	53.11	106.24	80-120	
1,3,5-Trimethylben	50.00	48.75	97.52	80-120	
1,3-Dichlorobenzen	50.00	47.69	95.39	80-120	
1,3-Dichloropropan	50.00	46.78	93.58	80-120	
1,4-Dichlorobenzen	50.00	47.03	94.06	80-120	
1-Chlorohexane	50.00	43.57	87.16	80-120	
2,2-Dichloropropan	50.00	49.43	98.87	80-120	
2-Butanone	100.00	107.94	107.94	80-120	
2-Chloroethylvinyl	100.00	97.76	97.77	80-120	
2-Chlorotoluene	50.00	46.05	92.11	80-120	
4-Chlorotoluene	50.00	48.96	97.93	80-120	

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_435536

Instrument ID voa6.i ICAL Date 17-MAY-2023
Lab File ID X051713.D ICAL Time 1444
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

Compound	Amount Added	Amount Recovered	% Recovered	Limits	Q
p-Isopropyltoluene	50.00	49.43	98.87	80-120	
4-Methyl-2-Pentano	100.00	95.62	95.62	80-120	
Acetone	100.00	107.29	107.30	80-120	
Acetonitrile	500.00	520.68	104.14	80-120	
Allyl Chloride	50.00	51.40	102.82	80-120	
Benzene	50.00	49.31	98.64	80-120	
Bromobenzene	50.00	48.34	96.68	80-120	
Bromochloromethane	50.00	47.93	95.87	80-120	
Bromodichlorometha	50.00	52.01	104.02	80-120	
Bromoform	50.00	49.39	98.80	80-120	
Bromomethane	50.00	51.42	102.84	80-120	
Carbon Tetrachlori	50.00	47.41	94.82	80-120	
Chlorobenzene	50.00	47.40	94.82	80-120	
Chloroethane	50.00	46.44	92.88	80-120	
Chloroform	50.00	47.99	95.99	80-120	
Chloromethane	50.00	45.99	91.99	80-120	
Chloroprene	50.00	46.85	93.72	80-120	
cis-1,2-Dichloroet	50.00	46.62	93.25	80-120	
cis-1,3-Dichloropr	50.00	48.70	97.41	80-120	
Dibromochlorometha	50.00	47.30	94.60	80-120	
Dibromomethane	50.00	51.69	103.38	80-120	
Dichlorodifluorome	50.00	51.62	103.24	80-120	
Ethylbenzene	50.00	49.65	99.32	80-120	
Ethyl Methacrylate	50.00	45.53	91.07	80-120	
Iodomethane	100.00	89.70	89.71	80-120	
Isobutyl Alcohol	1000.00	1054.96	105.50	70-130	
Propionitrile	500.00	481.63	96.33	70-130	
Hexachlorobutadien	50.00	51.78	103.56	80-120	
Isopropylbenzene	50.00	47.55	95.10	80-120	
m,p-Xylenes	100.00	98.27	98.27	80-120	
Methyl tert-butyl	50.00	46.22	92.46	80-120	
Methylene Chloride	50.00	46.48	92.97	80-120	
Methacrylonitrile	50.00	48.12	96.26	80-120	
Methyl Methacrylat	50.00	55.16	110.33	80-120	

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_435536

Instrument ID voa6.i ICAL Date 17-MAY-2023
Lab File ID X051713.D ICAL Time 1444
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

Compound	Amount Added	Amount Recovered	% Recovered	Limits	Q
n-Butylbenzene	50.00	50.65	101.31	80-120	
n-Propylbenzene	50.00	48.63	97.28	80-120	
Naphthalene	50.00	49.38	98.77	80-120	
o-Xylene	50.00	48.98	97.97	80-120	
sec-Butylbenzene	50.00	47.34	94.69	80-120	
Styrene	50.00	50.24	100.49	80-120	
tert-Butylbenzene	50.00	46.54	93.08	80-120	
Tetrachloroethene	50.00	48.80	97.62	80-120	
Toluene	50.00	47.91	95.82	80-120	
trans-1,2-Dichloro	50.00	47.28	94.56	80-120	
trans-1,3-Dichloro	50.00	50.37	100.75	80-120	
trans-1,4-Dichloro	50.00	52.52	105.06	80-120	
Trichloroethene	50.00	48.37	96.76	80-120	
Trichlorofluoromet	50.00	46.70	93.40	80-120	
Vinyl Acetate	100.00	99.79	99.79	80-120	
Vinyl Chloride	50.00	47.60	95.20	80-120	
1,2-Dichloroethyle	100.00	93.90	93.91	80-120	
Xylenes (total)	150.00	147.25	98.17	80-120	
1,4-Dioxane	1000.00	1041.21	104.12	80-120	
Dibromofluorometha	50.00	51.32	102.66	71-125	
1,2-Dichloroethane	50.00	51.05	102.11	70-125	
Toluene-d8	50.00	47.88	95.77	75-125	
4-Bromofluorobenze	50.00	47.94	95.89	72-125	

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right solutions.
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Form 7

Continuing Calibration Verification (CCV)

Volatiles by EPA 8260

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_436483

Instrument ID voa6.i Injection Date 29-MAY-2023 1223
Lab File ID X052902.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,4-Dioxane	0.00677	0.00645	0.00645	0.001	4.68598	20.0	Averaged	
1,3-Butadiene	0.52921	0.51520	0.51520	0.100	2.64734	20.0	Averaged	
Methacrylonitrile	0.44571	0.49368	0.49368	0.100	-10.76210	20.0	Averaged	
Isobutyl Alcohol	0.06518	0.07781	0.07781	0.005	-19.37889	20.0	Averaged	
Acetonitrile	0.04814	0.06143	0.06143	0.005	-27.62721	20.0	Averaged	<-
Allyl Chloride	1.21419	1.25049	1.25049	0.100	-2.98954	20.0	Averaged	
Propionitrile	0.06857	0.07168	0.07168	0.010	-4.54661	20.0	Averaged	
Ethyl Acetate	0.35483	0.00328	0.00328	0.100	99	20.0	Averaged	<-
Methyl Methacrylate	0.43706	0.47521	0.47521	0.100	-8.72739	20.0	Averaged	
Ethyl Methacrylate	0.51083	0.50866	0.50866	0.100	0.42469	20.0	Averaged	
alpha-Methylstyrene	1.09000	1.12142	1.12142	0.100	-2.88243	20.0	Averaged	
Diisopropyl ether	1.51284	1.65354	1.65354	0.100	-9.30002	20.0	Averaged	
1,2,3-Trimethylbenzene	2.25218	2.38022	2.38022	0.100	-5.68491	20.0	Averaged	
Dichlorodifluoromethane	50.0	51.80096	0.50005	0.100	-3.60193	20.0	Linear	
Chloromethane	0.70152	0.57255	0.57255	0.100	18.38432	20.0	Averaged	
Vinyl Chloride	0.66222	0.64372	0.64372	0.100	2.79263	20.0	Averaged	
Bromomethane	50.0	49.83186	0.34398	0.100	0.33629	20.0	Linear	
Chloroethane	0.41339	0.40814	0.40814	0.100	1.26980	20.0	Averaged	
Trichlorofluoromethane	0.69725	0.76006	0.76006	0.100	-9.00917	20.0	Averaged	
Acrolein	0.04183	0.04054	0.04054	0.010	3.09602	20.0	Averaged	
Acetone	100	100	0.17485	0.100	-0.46180	20.0	Linear	
1,1-Dichloroethene	0.44089	0.45735	0.45735	0.100	-3.73334	20.0	Averaged	
Iodomethane	100	94.63119	0.59493	0.100	5.36881	20.0	Quadratic	
Acrylonitrile	0.16510	0.16935	0.16935	0.050	-2.57405	20.0	Averaged	
Methylene Chloride	0.52414	0.53168	0.53168	0.100	-1.43984	20.0	Averaged	
Methyl tert-butyl ether	1.37532	1.44490	1.44490	0.100	-5.05866	20.0	Averaged	
Carbon Disulfide	1.38334	1.31693	1.31693	0.100	4.80063	20.0	Averaged	
trans-1,2-Dichloroethene	0.45731	0.49299	0.49299	0.100	-7.80216	20.0	Averaged	
Vinyl Acetate	1.27250	1.51524	1.51524	0.010	-19.07594	20.0	Averaged	
1,1-Dichloroethane	0.83853	0.91139	0.91139	0.200	-8.68888	20.0	Averaged	
2-Butanone	0.16640	0.19064	0.19064	0.100	-14.56794	20.0	Averaged	
2,2-Dichloropropane	50.0	63.53207	0.78364	0.100	-27.06414	20.0	Linear	<-
cis-1,2-Dichloroethene	0.53789	0.56961	0.56961	0.100	-5.89585	20.0	Averaged	
Chloroform	0.83107	0.94571	0.94571	0.200	-13.79403	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_436483

Instrument ID voa6.i Injection Date 29-MAY-2023 1223
Lab File ID X052902.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Bromochloromethane	0.28350	0.30023	0.30023	0.100	-5.90063	20.0	Averaged	
Dibromofluoromethane	50.0	56.24343	0.50975	0.100	-12.48687	20.0	Linear	
1,1,1-Trichloroethane	0.64001	0.75446	0.75446	0.100	-17.88327	20.0	Averaged	
1,1-Dichloropropene	0.39336	0.41722	0.41722	0.100	-6.06477	20.0	Averaged	
1,2-Dichloroethane	0.39060	0.45327	0.45327	0.100	-16.04365	20.0	Averaged	
Carbon Tetrachloride	0.36340	0.38500	0.38500	0.100	-5.94392	20.0	Averaged	
1,2-Dichloroethane-d4	50.0	58.82694	0.57159	0.100	-17.65389	20.0	Linear	
Benzene	1.27207	1.27856	1.27856	0.500	-0.50996	20.0	Averaged	
Trichloroethene	0.34284	0.33845	0.33845	0.200	1.28047	20.0	Averaged	
Bromodichloromethane	0.43532	0.46171	0.46171	0.200	-6.06245	20.0	Averaged	
2-Chloroethylvinyl ether	0.14458	0.13403	0.13403	0.001	7.29762	20.0	Averaged	
1,2-Dichloropropane	0.36147	0.35381	0.35381	0.100	2.11844	20.0	Averaged	
Dibromomethane	0.21937	0.22345	0.22345	0.100	-1.85912	20.0	Averaged	
4-Methyl-2-Pentanone	0.34388	0.34447	0.34447	0.100	-0.17131	20.0	Averaged	
cis-1,3-Dichloropropene	0.58169	0.59784	0.59784	0.200	-2.77775	20.0	Averaged	
Toluene-d8	1.27402	1.24820	1.24820	0.100	2.02615	20.0	Averaged	
Toluene	1.40292	1.47503	1.47503	0.400	-5.14009	20.0	Averaged	
trans-1,3-Dichloropropene	0.46456	0.51257	0.51257	0.100	-10.33449	20.0	Averaged	
2-Hexanone	0.23535	0.23619	0.23619	0.100	-0.35532	20.0	Averaged	
1,1,2-Trichloroethane	0.28651	0.28843	0.28843	0.100	-0.67159	20.0	Averaged	
1,3-Dichloropropane	0.59617	0.59975	0.59975	0.100	-0.60015	20.0	Averaged	
Dibromochloromethane	0.38880	0.40038	0.40038	0.100	-2.97892	20.0	Averaged	
Tetrachloroethene	0.27179	0.26683	0.26683	0.200	1.82783	20.0	Averaged	
1,2-Dibromoethane	0.34912	0.36763	0.36763	0.100	-5.30171	20.0	Averaged	
1-Chlorohexane	50.0	46.71141	0.28524	0.100	6.57717	20.0	Linear	
Chlorobenzene	0.97117	0.98372	0.98372	0.500	-1.29255	20.0	Averaged	
1,1,1,2-Tetrachloroethane	0.34082	0.35891	0.35891	0.100	-5.30824	20.0	Averaged	
Ethylbenzene	0.47721	0.49105	0.49105	0.100	-2.89918	20.0	Averaged	
m,p-Xylenes	0.59435	0.63434	0.63434	0.100	-6.72912	20.0	Averaged	
o-Xylene	0.58115	0.61215	0.61215	0.300	-5.33548	20.0	Averaged	
Styrene	0.97292	1.05815	1.05815	0.300	-8.75957	20.0	Averaged	
Bromoform	0.26278	0.27817	0.27817	0.100	-5.85765	20.0	Averaged	
Isopropylbenzene	1.39407	1.45931	1.45931	0.100	-4.68034	20.0	Averaged	
1,1,2,2-Tetrachloroethane	50.0	51.53783	0.90670	0.300	-3.07567	20.0	Linear	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_436483

Instrument ID voa6.i Injection Date 29-MAY-2023 1223
Lab File ID X052902.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
4-Bromofluorobenzene	0.47962	0.48071	0.48071	0.100	-0.22767	20.0	Averaged	
1,2,3-Trichloropropane	0.63970	0.65953	0.65953	0.100	-3.10059	20.0	Averaged	
n-Propylbenzene	3.09868	3.24031	3.24031	0.100	-4.57070	20.0	Averaged	
Bromobenzene	0.78034	0.79028	0.79028	0.100	-1.27299	20.0	Averaged	
1,3,5-Trimethylbenzene	2.24436	2.33438	2.33438	0.100	-4.01114	20.0	Averaged	
2-Chlorotoluene	2.01237	2.01662	2.01662	0.100	-0.21125	20.0	Averaged	
4-Chlorotoluene	2.21313	2.36780	2.36780	0.100	-6.98872	20.0	Averaged	
tert-Butylbenzene	1.88931	1.86649	1.86649	0.100	1.20778	20.0	Averaged	
1,2,4-Trimethylbenzene	2.29651	2.37547	2.37547	0.100	-3.43831	20.0	Averaged	
sec-Butylbenzene	2.63457	2.65781	2.65781	0.100	-0.88209	20.0	Averaged	
p-Isopropyltoluene	2.27649	2.36306	2.36306	0.100	-3.80250	20.0	Averaged	
1,3-Dichlorobenzene	1.40680	1.39268	1.39268	0.600	1.00377	20.0	Averaged	
1,4-Dichlorobenzene	1.47852	1.49361	1.49361	0.400	-1.02075	20.0	Averaged	
n-Butylbenzene	1.94924	2.17797	2.17797	0.500	-11.73461	20.0	Averaged	
1,2-Dichlorobenzene	1.39835	1.40800	1.40800	0.400	-0.69005	20.0	Averaged	
1,2-Dibromo-3-Chloropropane	50.0	49.06028	0.14717	0.040	1.87944	20.0	Linear	
1,2,4-Trichlorobenzene	0.96750	0.99061	0.99061	0.100	-2.38922	20.0	Averaged	
Hexachlorobutadiene	0.41628	0.41303	0.41303	0.100	0.78013	20.0	Averaged	
Naphthalene	2.40241	2.37890	2.37890	0.200	0.97844	20.0	Averaged	
1,2,3-Trichlorobenzene	0.94773	0.91363	0.91363	0.010	3.59814	20.0	Averaged	
1,2-Dichloroethylene (total	0.49760	0.53130	0.53130	0.200	-6.77182	20.0	Averaged	
Xylenes (total)	0.58015	0.60290	0.60290	0.100	-3.92081	20.0	Averaged	
Cyclohexane	0.62569	0.63705	0.63705	0.100	-1.81489	20.0	Averaged	
Freon TF	50.0	56.87641	0.42911	0.100	-13.75281	20.0	Quadratic	
Methylcyclohexane	0.76891	0.76025	0.76025	0.100	1.12568	20.0	Averaged	
Methyl Acetate	0.29548	0.34398	0.34398	0.100	-16.41230	20.0	Averaged	
Tert-butyl alcohol	0.04938	0.05146	0.05146	0.005	-4.21662	20.0	Averaged	
Isopropyl alcohol	0.03059	0.02916	0.02916	0.005	4.65012	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_436483

Instrument ID voa6.i Injection Date 29-MAY-2023 2212
Lab File ID X052930.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV-END Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,4-Dioxane	0.00677	0.00680	0.00680	0.001	-0.44161	50.0	Averaged	
1,3-Butadiene	0.52921	0.46838	0.46838	0.100	11.49294	50.0	Averaged	
Methacrylonitrile	0.44571	0.48055	0.48055	0.100	-7.81638	50.0	Averaged	
Isobutyl Alcohol	0.06518	0.07610	0.07610	0.005	-16.75799	50.0	Averaged	
Acetonitrile	0.04814	0.05816	0.05816	0.005	-20.83292	50.0	Averaged	
Allyl Chloride	1.21419	1.08409	1.08409	0.100	10.71534	50.0	Averaged	
Propionitrile	0.06857	0.06786	0.06786	0.010	1.02273	50.0	Averaged	
Ethyl Acetate	0.35483	0.00569	0.00569	0.100	98.39720	50.0	Averaged	<-
Methyl Methacrylate	0.43706	0.46963	0.46963	0.100	-7.45164	50.0	Averaged	
Ethyl Methacrylate	0.51083	0.52142	0.52142	0.100	-2.07213	50.0	Averaged	
alpha-Methylstyrene	1.09000	1.15916	1.15916	0.100	-6.34549	50.0	Averaged	
Diisopropyl ether	1.51284	1.57959	1.57959	0.100	-4.41227	50.0	Averaged	
1,2,3-Trimethylbenzene	2.25218	2.49594	2.49594	0.100	-10.82300	50.0	Averaged	
Dichlorodifluoromethane	50.0	37.58546	0.36111	0.100	24.82909	50.0	Linear	
Chloromethane	0.70152	0.45389	0.45389	0.100	35.29899	50.0	Averaged	
Vinyl Chloride	0.66222	0.59601	0.59601	0.100	9.99860	50.0	Averaged	
Bromomethane	50.0	56.76790	0.39211	0.100	-13.53581	50.0	Linear	
Chloroethane	0.41339	0.42646	0.42646	0.100	-3.16313	50.0	Averaged	
Trichlorofluoromethane	0.69725	0.84135	0.84135	0.100	-20.66704	50.0	Averaged	
Acrolein	0.04183	0.04533	0.04533	0.010	-8.35200	50.0	Averaged	
Acetone	100	96.02662	0.16745	0.100	3.97338	50.0	Linear	
1,1-Dichloroethene	0.44089	0.50312	0.50312	0.100	-14.11498	50.0	Averaged	
Iodomethane	100	93.66657	0.58838	0.100	6.33343	50.0	Quadratic	
Acrylonitrile	0.16510	0.17555	0.17555	0.050	-6.33094	50.0	Averaged	
Methylene Chloride	0.52414	0.50785	0.50785	0.100	3.10708	50.0	Averaged	
Methyl tert-butyl ether	1.37532	1.43018	1.43018	0.100	-3.98889	50.0	Averaged	
Carbon Disulfide	1.38334	1.17979	1.17979	0.100	14.71483	50.0	Averaged	
trans-1,2-Dichloroethene	0.45731	0.47934	0.47934	0.100	-4.81734	50.0	Averaged	
Vinyl Acetate	1.27250	1.39547	1.39547	0.010	-9.66358	50.0	Averaged	
1,1-Dichloroethane	0.83853	0.82647	0.82647	0.200	1.43866	50.0	Averaged	
2-Butanone	0.16640	0.16903	0.16903	0.100	-1.58021	50.0	Averaged	
2,2-Dichloropropane	50.0	54.05046	0.66726	0.100	-8.10093	50.0	Linear	
cis-1,2-Dichloroethene	0.53789	0.56550	0.56550	0.100	-5.13197	50.0	Averaged	
Chloroform	0.83107	0.95993	0.95993	0.200	-15.50527	50.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
VOA6_436483

Instrument ID voa6.i Injection Date 29-MAY-2023 2212
Lab File ID X052930.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV-END Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Bromochloromethane	0.28350	0.30208	0.30208	0.100	-6.55469	50.0	Averaged	
Dibromofluoromethane	50.0	59.37394	0.53770	0.100	-18.74789	50.0	Linear	
1,1,1-Trichloroethane	0.64001	0.77762	0.77762	0.100	-21.50096	50.0	Averaged	
1,1-Dichloropropene	0.39336	0.40826	0.40826	0.100	-3.78715	50.0	Averaged	
1,2-Dichloroethane	0.39060	0.44950	0.44950	0.100	-15.07839	50.0	Averaged	
Carbon Tetrachloride	0.36340	0.38882	0.38882	0.100	-6.99402	50.0	Averaged	
1,2-Dichloroethane-d4	50.0	62.27017	0.60479	0.100	-24.54034	50.0	Linear	
Benzene	1.27207	1.21815	1.21815	0.500	4.23869	50.0	Averaged	
Trichloroethene	0.34284	0.35385	0.35385	0.200	-3.21239	50.0	Averaged	
Bromodichloromethane	0.43532	0.45264	0.45264	0.200	-3.97744	50.0	Averaged	
2-Chloroethylvinyl ether	0.14458	0.11832	0.11832	0.001	18.16633	50.0	Averaged	
1,2-Dichloropropane	0.36147	0.33470	0.33470	0.100	7.40633	50.0	Averaged	
Dibromomethane	0.21937	0.22363	0.22363	0.100	-1.94241	50.0	Averaged	
4-Methyl-2-Pentanone	0.34388	0.30240	0.30240	0.100	12.06188	50.0	Averaged	
cis-1,3-Dichloropropene	0.58169	0.54845	0.54845	0.200	5.71374	50.0	Averaged	
Toluene-d8	1.27402	1.22876	1.22876	0.100	3.55206	50.0	Averaged	
Toluene	1.40292	1.44494	1.44494	0.400	-2.99532	50.0	Averaged	
trans-1,3-Dichloropropene	0.46456	0.50011	0.50011	0.100	-7.65276	50.0	Averaged	
2-Hexanone	0.23535	0.21680	0.21680	0.100	7.88139	50.0	Averaged	
1,1,2-Trichloroethane	0.28651	0.28671	0.28671	0.100	-0.07219	50.0	Averaged	
1,3-Dichloropropane	0.59617	0.57332	0.57332	0.100	3.83255	50.0	Averaged	
Dibromochloromethane	0.38880	0.38938	0.38938	0.100	-0.15134	50.0	Averaged	
Tetrachloroethene	0.27179	0.28589	0.28589	0.200	-5.18751	50.0	Averaged	
1,2-Dibromoethane	0.34912	0.37331	0.37331	0.100	-6.92773	50.0	Averaged	
1-Chlorohexane	50.0	55.21853	0.33933	0.100	-10.43705	50.0	Linear	
Chlorobenzene	0.97117	1.00148	1.00148	0.500	-3.12061	50.0	Averaged	
1,1,1,2-Tetrachloroethane	0.34082	0.35796	0.35796	0.100	-5.02960	50.0	Averaged	
Ethylbenzene	0.47721	0.50858	0.50858	0.100	-6.57349	50.0	Averaged	
m,p-Xylenes	0.59435	0.66111	0.66111	0.100	-11.23203	50.0	Averaged	
o-Xylene	0.58115	0.63049	0.63049	0.300	-8.49104	50.0	Averaged	
Styrene	0.97292	1.11449	1.11449	0.300	-14.55040	50.0	Averaged	
Bromoform	0.26278	0.28490	0.28490	0.100	-8.41551	50.0	Averaged	
Isopropylbenzene	1.39407	1.61957	1.61957	0.100	-16.17599	50.0	Averaged	
1,1,2,2-Tetrachloroethane	50.0	49.15353	0.86446	0.300	1.69295	50.0	Linear	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
VOA6_436483

Instrument ID voa6.i Injection Date 29-MAY-2023 2212
Lab File ID X052930.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV-END Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
4-Bromofluorobenzene	0.47962	0.50758	0.50758	0.100	-5.82948	50.0	Averaged	
1,2,3-Trichloropropane	0.63970	0.61647	0.61647	0.100	3.63174	50.0	Averaged	
n-Propylbenzene	3.09868	3.34009	3.34009	0.100	-7.79075	50.0	Averaged	
Bromobenzene	0.78034	0.78433	0.78433	0.100	-0.51034	50.0	Averaged	
1,3,5-Trimethylbenzene	2.24436	2.41484	2.41484	0.100	-7.59594	50.0	Averaged	
2-Chlorotoluene	2.01237	2.02269	2.02269	0.100	-0.51269	50.0	Averaged	
4-Chlorotoluene	2.21313	2.38713	2.38713	0.100	-7.86214	50.0	Averaged	
tert-Butylbenzene	1.88931	2.02769	2.02769	0.100	-7.32409	50.0	Averaged	
1,2,4-Trimethylbenzene	2.29651	2.47357	2.47357	0.100	-7.70981	50.0	Averaged	
sec-Butylbenzene	2.63457	2.89276	2.89276	0.100	-9.79988	50.0	Averaged	
p-Isopropyltoluene	2.27649	2.55313	2.55313	0.100	-12.15181	50.0	Averaged	
1,3-Dichlorobenzene	1.40680	1.42875	1.42875	0.600	-1.55973	50.0	Averaged	
1,4-Dichlorobenzene	1.47852	1.54407	1.54407	0.400	-4.43396	50.0	Averaged	
n-Butylbenzene	1.94924	2.35461	2.35461	0.500	-20.79650	50.0	Averaged	
1,2-Dichlorobenzene	1.39835	1.46032	1.46032	0.400	-4.43133	50.0	Averaged	
1,2-Dibromo-3-Chloropropane	50.0	47.48401	0.14247	0.040	5.03197	50.0	Linear	
1,2,4-Trichlorobenzene	0.96750	0.98465	0.98465	0.100	-1.77278	50.0	Averaged	
Hexachlorobutadiene	0.41628	0.41082	0.41082	0.100	1.31198	50.0	Averaged	
Naphthalene	2.40241	2.36368	2.36368	0.200	1.61208	50.0	Averaged	
1,2,3-Trichlorobenzene	0.94773	0.92790	0.92790	0.010	2.09210	50.0	Averaged	
1,2-Dichloroethylene (total	0.49760	0.52242	0.52242	0.200	-4.98739	50.0	Averaged	
Xylenes (total)	0.58015	0.67572	0.67572	0.100	-16.47386	50.0	Averaged	
Cyclohexane	0.62569	0.66320	0.66320	0.100	-5.99409	50.0	Averaged	
Freon TF	50.0	62.44384	0.47827	0.100	-24.88769	50.0	Quadratic	
Methylcyclohexane	0.76891	0.76677	0.76677	0.100	0.27819	50.0	Averaged	
Methyl Acetate	0.29548	0.29437	0.29437	0.100	0.37678	50.0	Averaged	
Tert-butyl alcohol	0.04938	0.04643	0.04643	0.005	5.98088	50.0	Averaged	
Isopropyl alcohol	0.03059	0.02563	0.02563	0.005	16.19980	50.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
VOA6_436840

Instrument ID voa6.i Injection Date 01-JUN-2023 1329
Lab File ID X060102.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,4-Dioxane	0.00677	0.00628	0.00628	0.001	7.20916	20.0	Averaged	
1,3-Butadiene	0.52921	0.49878	0.49878	0.100	5.74902	20.0	Averaged	
Methacrylonitrile	0.44571	0.48053	0.48053	0.100	-7.81194	20.0	Averaged	
Isobutyl Alcohol	0.06518	0.07711	0.07711	0.005	-18.31029	20.0	Averaged	
Acetonitrile	0.04814	0.06034	0.06034	0.005	-25.34766	20.0	Averaged	<-
Allyl Chloride	1.21419	1.14818	1.14818	0.100	5.43662	20.0	Averaged	
Propionitrile	0.06857	0.06684	0.06684	0.010	2.51442	20.0	Averaged	
trans-1,4-Dichloro-2-butene	0.11118	0.13348	0.13348	0.050	-20.05878	20.0	Averaged	<-
Acetaldehyde	200	196	0.03379	0.001	1.97655	20.0	Linear	
Chloroprene	0.20184	0.18869	0.18869	0.100	6.51668	20.0	Averaged	
Methyl Methacrylate	0.43706	0.47110	0.47110	0.100	-7.78890	20.0	Averaged	
Ethyl Methacrylate	0.51083	0.50610	0.50610	0.100	0.92554	20.0	Averaged	
Methyl Acrylate	0.48664	0.48400	0.48400	0.100	0.54112	20.0	Averaged	
alpha-Methylstyrene	1.09000	1.05603	1.05603	0.100	3.11606	20.0	Averaged	
Diisopropyl ether	1.51284	1.56117	1.56117	0.100	-3.19471	20.0	Averaged	
Butyl acrylate	0.71167	0.85182	0.85182	0.100	-19.69373	20.0	Averaged	
1,2,3-Trimethylbenzene	2.25218	2.46638	2.46638	0.100	-9.51065	20.0	Averaged	
2-Ethylhexyl Acrylate	0.92702	0.97072	0.97072	0.100	-4.71476	20.0	Averaged	
Dichlorodifluoromethane	50.0	40.27058	0.38736	0.100	19.45884	20.0	Linear	
Chloromethane	0.70152	0.56568	0.56568	0.100	19.36389	20.0	Averaged	
Vinyl Chloride	0.66222	0.64943	0.64943	0.100	1.93123	20.0	Averaged	
Bromomethane	50.0	57.50944	0.39725	0.100	-15.01887	20.0	Linear	
Chloroethane	0.41339	0.43524	0.43524	0.100	-5.28665	20.0	Averaged	
Trichlorofluoromethane	0.69725	0.75999	0.75999	0.100	-8.99809	20.0	Averaged	
Acrolein	0.04183	0.04660	0.04660	0.010	-11.38474	20.0	Averaged	
Acetone	100	120	0.20684	0.100	-19.63827	20.0	Linear	
1,1-Dichloroethene	0.44089	0.46607	0.46607	0.100	-5.70977	20.0	Averaged	
Iodomethane	100	98.79685	0.62331	0.100	1.20315	20.0	Quadratic	
Acrylonitrile	0.16510	0.17448	0.17448	0.050	-5.68605	20.0	Averaged	
Methylene Chloride	0.52414	0.49960	0.49960	0.100	4.68086	20.0	Averaged	
Methyl tert-butyl ether	1.37532	1.39310	1.39310	0.100	-1.29285	20.0	Averaged	
Carbon Disulfide	1.38334	1.15191	1.15191	0.100	16.72991	20.0	Averaged	
trans-1,2-Dichloroethene	0.45731	0.44252	0.44252	0.100	3.23267	20.0	Averaged	
Vinyl Acetate	1.27250	1.45648	1.45648	0.010	-14.45816	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_436840

Instrument ID voa6.i Injection Date 01-JUN-2023 1329
Lab File ID X060102.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,1-Dichloroethane	0.83853	0.81690	0.81690	0.200	2.57965	20.0	Averaged	
2-Butanone	0.16640	0.17869	0.17869	0.100	-7.38591	20.0	Averaged	
2,2-Dichloropropane	50.0	54.98372	0.67872	0.100	-9.96743	20.0	Linear	
cis-1,2-Dichloroethene	0.53789	0.52870	0.52870	0.100	1.71009	20.0	Averaged	
Chloroform	0.83107	0.89424	0.89424	0.200	-7.60016	20.0	Averaged	
Bromochloromethane	0.28350	0.28359	0.28359	0.100	-0.03217	20.0	Averaged	
Dibromofluoromethane	50.0	56.25283	0.50984	0.100	-12.50566	20.0	Linear	
1,1,1-Trichloroethane	0.64001	0.67592	0.67592	0.100	-5.61050	20.0	Averaged	
1,1-Dichloropropene	0.39336	0.36729	0.36729	0.100	6.62907	20.0	Averaged	
1,2-Dichloroethane	0.39060	0.45378	0.45378	0.100	-16.17419	20.0	Averaged	
Carbon Tetrachloride	0.36340	0.33866	0.33866	0.100	6.80758	20.0	Averaged	
1,2-Dichloroethane-d4	50.0	59.81515	0.58112	0.100	-19.63029	20.0	Linear	
Benzene	1.27207	1.17384	1.17384	0.500	7.72189	20.0	Averaged	
Trichloroethene	0.34284	0.31242	0.31242	0.200	8.87230	20.0	Averaged	
Bromodichloromethane	0.43532	0.44231	0.44231	0.200	-1.60615	20.0	Averaged	
2-Chloroethylvinyl ether	0.14458	0.12764	0.12764	0.001	11.71627	20.0	Averaged	
1,2-Dichloropropane	0.36147	0.33054	0.33054	0.100	8.55738	20.0	Averaged	
Dibromomethane	0.21937	0.22203	0.22203	0.100	-1.21060	20.0	Averaged	
4-Methyl-2-Pentanone	0.34388	0.32262	0.32262	0.100	6.18389	20.0	Averaged	
cis-1,3-Dichloropropene	0.58169	0.56353	0.56353	0.200	3.12208	20.0	Averaged	
Toluene-d8	1.27402	1.22938	1.22938	0.100	3.50346	20.0	Averaged	
Toluene	1.40292	1.34843	1.34843	0.400	3.88344	20.0	Averaged	
trans-1,3-Dichloropropene	0.46456	0.48837	0.48837	0.100	-5.12560	20.0	Averaged	
2-Hexanone	0.23535	0.22765	0.22765	0.100	3.27425	20.0	Averaged	
1,1,2-Trichloroethane	0.28651	0.27805	0.27805	0.100	2.95282	20.0	Averaged	
1,3-Dichloropropane	0.59617	0.57288	0.57288	0.100	3.90657	20.0	Averaged	
Dibromochloromethane	0.38880	0.38393	0.38393	0.100	1.25064	20.0	Averaged	
Tetrachloroethene	0.27179	0.24676	0.24676	0.200	9.20964	20.0	Averaged	
1,2-Dibromoethane	0.34912	0.35656	0.35656	0.100	-2.12883	20.0	Averaged	
1-Chlorohexane	50.0	43.30389	0.26358	0.100	13.39223	20.0	Linear	
Chlorobenzene	0.97117	0.94275	0.94275	0.500	2.92678	20.0	Averaged	
1,1,1,2-Tetrachloroethane	0.34082	0.34339	0.34339	0.100	-0.75652	20.0	Averaged	
Ethylbenzene	0.47721	0.44828	0.44828	0.100	6.06328	20.0	Averaged	
m,p-Xylenes	0.59435	0.58848	0.58848	0.100	0.98829	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_436840

Instrument ID voa6.i Injection Date 01-JUN-2023 1329
Lab File ID X060102.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
o-Xylene	0.58115	0.57647	0.57647	0.300	0.80556	20.0	Averaged	
Styrene	0.97292	1.06258	1.06258	0.300	-9.21487	20.0	Averaged	
Bromoform	0.26278	0.27337	0.27337	0.100	-4.02938	20.0	Averaged	
Isopropylbenzene	1.39407	1.38148	1.38148	0.100	0.90312	20.0	Averaged	
1,1,2,2-Tetrachloroethane	50.0	47.80803	0.84063	0.300	4.38395	20.0	Linear	
4-Bromofluorobenzene	0.47962	0.50147	0.50147	0.100	-4.55569	20.0	Averaged	
1,2,3-Trichloropropane	0.63970	0.60303	0.60303	0.100	5.73225	20.0	Averaged	
n-Propylbenzene	3.09868	2.89027	2.89027	0.100	6.72558	20.0	Averaged	
Bromobenzene	0.78034	0.72659	0.72659	0.100	6.88912	20.0	Averaged	
1,3,5-Trimethylbenzene	2.24436	2.16514	2.16514	0.100	3.52972	20.0	Averaged	
2-Chlorotoluene	2.01237	1.85627	1.85627	0.100	7.75713	20.0	Averaged	
4-Chlorotoluene	2.21313	2.24536	2.24536	0.100	-1.45600	20.0	Averaged	
tert-Butylbenzene	1.88931	1.69964	1.69964	0.100	10.03912	20.0	Averaged	
1,2,4-Trimethylbenzene	2.29651	2.24548	2.24548	0.100	2.22214	20.0	Averaged	
sec-Butylbenzene	2.63457	2.41254	2.41254	0.100	8.42775	20.0	Averaged	
p-Isopropyltoluene	2.27649	2.18984	2.18984	0.100	3.80636	20.0	Averaged	
1,3-Dichlorobenzene	1.40680	1.34179	1.34179	0.600	4.62127	20.0	Averaged	
1,4-Dichlorobenzene	1.47852	1.44487	1.44487	0.400	2.27553	20.0	Averaged	
n-Butylbenzene	1.94924	2.06360	2.06360	0.500	-5.86690	20.0	Averaged	
1,2-Dichlorobenzene	1.39835	1.37333	1.37333	0.400	1.78918	20.0	Averaged	
1,2-Dibromo-3-Chloropropane	50.0	45.05477	0.13524	0.040	9.89047	20.0	Linear	
1,2,4-Trichlorobenzene	0.96750	0.90501	0.90501	0.100	6.45878	20.0	Averaged	
Hexachlorobutadiene	0.41628	0.36825	0.36825	0.100	11.53875	20.0	Averaged	
Naphthalene	2.40241	2.25256	2.25256	0.200	6.23732	20.0	Averaged	
1,2,3-Trichlorobenzene	0.94773	0.85892	0.85892	0.010	9.37025	20.0	Averaged	
1,2-Dichloroethylene (total	0.49760	0.48561	0.48561	0.200	2.40974	20.0	Averaged	
Xylenes (total)	0.58015	0.57862	0.57862	0.100	0.26331	20.0	Averaged	
Cyclohexane	0.62569	0.52167	0.52167	0.100	16.62530	20.0	Averaged	
Freon TF	50.0	56.60427	0.42675	0.100	-13.20854	20.0	Quadratic	
Methylcyclohexane	0.76891	0.75613	0.75613	0.100	1.66237	20.0	Averaged	
Methyl Acetate	0.29548	0.32006	0.32006	0.100	-8.31690	20.0	Averaged	
Tert-butyl alcohol	0.04938	0.04697	0.04697	0.005	4.87658	20.0	Averaged	
Isopropyl alcohol	0.03059	0.02722	0.02722	0.005	11.01375	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_436840

Instrument ID voa6.i Injection Date 01-JUN-2023 2306
Lab File ID X060129.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV-END Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,4-Dioxane	0.00677	0.00827	0.00827	0.001	-22.11082	50.0	Averaged	
1,3-Butadiene	0.52921	0.43141	0.43141	0.100	18.47909	50.0	Averaged	
Methacrylonitrile	0.44571	0.62997	0.62997	0.100	-41.34125	50.0	Averaged	
Isobutyl Alcohol	0.06518	0.09748	0.09748	0.005	-49.56029	50.0	Averaged	
Acetonitrile	0.04814	0.07034	0.07034	0.005	-46.13663	50.0	Averaged	
Allyl Chloride	1.21419	1.38739	1.38739	0.100	-14.26496	50.0	Averaged	
Propionitrile	0.06857	0.08896	0.08896	0.010	-29.75108	50.0	Averaged	
trans-1,4-Dichloro-2-butene	0.11118	0.13921	0.13921	0.050	-25.21720	50.0	Averaged	
Acetaldehyde	200	660	0.10866	0.001	-230	50.0	Linear	
Chloroprene	0.20184	0.16918	0.16918	0.100	16.17869	50.0	Averaged	
Methyl Methacrylate	0.43706	0.60702	0.60702	0.100	-38.88594	50.0	Averaged	
Ethyl Methacrylate	0.51083	0.58916	0.58916	0.100	-15.33384	50.0	Averaged	
Methyl Acrylate	0.48664	0.64753	0.64753	0.100	-33.06279	50.0	Averaged	
alpha-Methylstyrene	1.09000	1.04457	1.04457	0.100	4.16748	50.0	Averaged	
Diisopropyl ether	1.51284	1.92312	1.92312	0.100	-27.11964	50.0	Averaged	
Butyl acrylate	0.71167	0.94251	0.94251	0.100	-32.43651	50.0	Averaged	
1,2,3-Trimethylbenzene	2.25218	2.46588	2.46588	0.100	-9.48847	50.0	Averaged	
2-Ethylhexyl Acrylate	0.92702	0.99817	0.99817	0.100	-7.67505	50.0	Averaged	
Dichlorodifluoromethane	50.0	32.09060	0.30741	0.100	35.81879	50.0	Linear	
Chloromethane	0.70152	0.60064	0.60064	0.100	14.37976	50.0	Averaged	
Vinyl Chloride	0.66222	0.63979	0.63979	0.100	3.38709	50.0	Averaged	
Bromomethane	50.0	68.17770	0.47129	0.100	-36.35540	50.0	Linear	
Chloroethane	0.41339	0.48900	0.48900	0.100	-18.29195	50.0	Averaged	
Trichlorofluoromethane	0.69725	0.66157	0.66157	0.100	5.11706	50.0	Averaged	
Acrolein	0.04183	0.03656	0.03656	0.010	12.60201	50.0	Averaged	
Acetone	100	141	0.24281	0.100	-41.20107	50.0	Linear	
1,1-Dichloroethene	0.44089	0.46351	0.46351	0.100	-5.13033	50.0	Averaged	
Iodomethane	100	106	0.67532	0.100	-6.37501	50.0	Quadratic	
Acrylonitrile	0.16510	0.22074	0.22074	0.050	-33.70537	50.0	Averaged	
Methylene Chloride	0.52414	0.62417	0.62417	0.100	-19.08542	50.0	Averaged	
Methyl tert-butyl ether	1.37532	1.74386	1.74386	0.100	-26.79640	50.0	Averaged	
Carbon Disulfide	1.38334	1.16973	1.16973	0.100	15.44210	50.0	Averaged	
trans-1,2-Dichloroethene	0.45731	0.47846	0.47846	0.100	-4.62641	50.0	Averaged	
Vinyl Acetate	1.27250	1.75914	1.75914	0.010	-38.24258	50.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID VOA6_436840

Instrument ID voa6.i Injection Date 01-JUN-2023 2306
Lab File ID X060129.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV-END Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,1-Dichloroethane	0.83853	0.93737	0.93737	0.200	-11.78759	50.0	Averaged	
2-Butanone	0.16640	0.23245	0.23245	0.100	-39.69508	50.0	Averaged	
2,2-Dichloropropane	50.0	50.98895	0.62969	0.100	-1.97791	50.0	Linear	
cis-1,2-Dichloroethene	0.53789	0.60894	0.60894	0.100	-13.20778	50.0	Averaged	
Chloroform	0.83107	1.06646	1.06646	0.200	-28.32391	50.0	Averaged	
Bromochloromethane	0.28350	0.34553	0.34553	0.100	-21.88024	50.0	Averaged	
Dibromofluoromethane	50.0	67.05777	0.60630	0.100	-34.11554	50.0	Linear	
1,1,1-Trichloroethane	0.64001	0.69311	0.69311	0.100	-8.29763	50.0	Averaged	
1,1-Dichloropropene	0.39336	0.32351	0.32351	0.100	17.75713	50.0	Averaged	
1,2-Dichloroethane	0.39060	0.51246	0.51246	0.100	-31.19672	50.0	Averaged	
Carbon Tetrachloride	0.36340	0.29366	0.29366	0.100	19.19209	50.0	Averaged	
1,2-Dichloroethane-d4	50.0	73.90973	0.71701	0.100	-47.81946	50.0	Linear	
Benzene	1.27207	1.20812	1.20812	0.500	5.02702	50.0	Averaged	
Trichloroethene	0.34284	0.30055	0.30055	0.200	12.33459	50.0	Averaged	
Bromodichloromethane	0.43532	0.49428	0.49428	0.200	-13.54382	50.0	Averaged	
2-Chloroethylvinyl ether	0.14458	0.14303	0.14303	0.001	1.07228	50.0	Averaged	
1,2-Dichloropropane	0.36147	0.36234	0.36234	0.100	-0.23949	50.0	Averaged	
Dibromomethane	0.21937	0.24854	0.24854	0.100	-13.29535	50.0	Averaged	
4-Methyl-2-Pentanone	0.34388	0.37994	0.37994	0.100	-10.48655	50.0	Averaged	
cis-1,3-Dichloropropene	0.58169	0.59122	0.59122	0.200	-1.63899	50.0	Averaged	
Toluene-d8	1.27402	1.20325	1.20325	0.100	5.55469	50.0	Averaged	
Toluene	1.40292	1.32121	1.32121	0.400	5.82393	50.0	Averaged	
trans-1,3-Dichloropropene	0.46456	0.53210	0.53210	0.100	-14.53944	50.0	Averaged	
2-Hexanone	0.23535	0.26657	0.26657	0.100	-13.26619	50.0	Averaged	
1,1,2-Trichloroethane	0.28651	0.31970	0.31970	0.100	-11.58408	50.0	Averaged	
1,3-Dichloropropane	0.59617	0.64580	0.64580	0.100	-8.32400	50.0	Averaged	
Dibromochloromethane	0.38880	0.42265	0.42265	0.100	-8.70712	50.0	Averaged	
Tetrachloroethene	0.27179	0.21648	0.21648	0.200	20.35163	50.0	Averaged	
1,2-Dibromoethane	0.34912	0.41007	0.41007	0.100	-17.45645	50.0	Averaged	
1-Chlorohexane	50.0	36.64629	0.22125	0.100	26.70742	50.0	Linear	
Chlorobenzene	0.97117	0.94073	0.94073	0.500	3.13405	50.0	Averaged	
1,1,1,2-Tetrachloroethane	0.34082	0.35495	0.35495	0.100	-4.14739	50.0	Averaged	
Ethylbenzene	0.47721	0.42446	0.42446	0.100	11.05502	50.0	Averaged	
m,p-Xylenes	0.59435	0.55186	0.55186	0.100	7.14906	50.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
VOA6_436840

Instrument ID voa6.i Injection Date 01-JUN-2023 2306
Lab File ID X060129.D ICAL Date(s) 17-MAY-2023 17-MAY-2023
Analysis Type WATER ICAL Times 1217 1547
Lab Sample ID CCV-END Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
o-Xylene	0.58115	0.56478	0.56478	0.300	2.81712	50.0	Averaged	
Styrene	0.97292	1.03164	1.03164	0.300	-6.03532	50.0	Averaged	
Bromoform	0.26278	0.30919	0.30919	0.100	-17.66086	50.0	Averaged	
Isopropylbenzene	1.39407	1.23345	1.23345	0.100	11.52142	50.0	Averaged	
1,1,2,2-Tetrachloroethane	50.0	59.17973	1.04209	0.300	-18.35946	50.0	Linear	
4-Bromofluorobenzene	0.47962	0.50352	0.50352	0.100	-4.98270	50.0	Averaged	
1,2,3-Trichloropropane	0.63970	0.81228	0.81228	0.100	-26.97910	50.0	Averaged	
n-Propylbenzene	3.09868	2.68737	2.68737	0.100	13.27358	50.0	Averaged	
Bromobenzene	0.78034	0.80519	0.80519	0.100	-3.18341	50.0	Averaged	
1,3,5-Trimethylbenzene	2.24436	2.05535	2.05535	0.100	8.42166	50.0	Averaged	
2-Chlorotoluene	2.01237	1.86053	1.86053	0.100	7.54562	50.0	Averaged	
4-Chlorotoluene	2.21313	2.20347	2.20347	0.100	0.43654	50.0	Averaged	
tert-Butylbenzene	1.88931	1.56108	1.56108	0.100	17.37299	50.0	Averaged	
1,2,4-Trimethylbenzene	2.29651	2.19315	2.19315	0.100	4.50075	50.0	Averaged	
sec-Butylbenzene	2.63457	2.11924	2.11924	0.100	19.56030	50.0	Averaged	
p-Isopropyltoluene	2.27649	1.94298	1.94298	0.100	14.65048	50.0	Averaged	
1,3-Dichlorobenzene	1.40680	1.35246	1.35246	0.600	3.86292	50.0	Averaged	
1,4-Dichlorobenzene	1.47852	1.46116	1.46116	0.400	1.17395	50.0	Averaged	
n-Butylbenzene	1.94924	1.75174	1.75174	0.500	10.13198	50.0	Averaged	
1,2-Dichlorobenzene	1.39835	1.45537	1.45537	0.400	-4.07706	50.0	Averaged	
1,2-Dibromo-3-Chloropropane	50.0	55.64417	0.16679	0.040	-11.28834	50.0	Linear	
1,2,4-Trichlorobenzene	0.96750	0.94190	0.94190	0.100	2.64579	50.0	Averaged	
Hexachlorobutadiene	0.41628	0.30501	0.30501	0.100	26.72903	50.0	Averaged	
Naphthalene	2.40241	2.68518	2.68518	0.200	-11.77057	50.0	Averaged	
1,2,3-Trichlorobenzene	0.94773	0.93035	0.93035	0.010	1.83355	50.0	Averaged	
1,2-Dichloroethylene (total	0.49760	0.54370	0.54370	0.200	-9.26453	50.0	Averaged	
Xylenes (total)	0.58015	0.55344	0.55344	0.100	4.60292	50.0	Averaged	
Cyclohexane	0.62569	0.43977	0.43977	0.100	29.71485	50.0	Averaged	
Freon TF	50.0	48.58847	0.35907	0.100	2.82306	50.0	Quadratic	
Methylcyclohexane	0.76891	0.74252	0.74252	0.100	3.43222	50.0	Averaged	
Methyl Acetate	0.29548	0.42431	0.42431	0.100	-43.59792	50.0	Averaged	
Tert-butyl alcohol	0.04938	0.06114	0.06114	0.005	-23.81645	50.0	Averaged	
Isopropyl alcohol	0.03059	0.03490	0.03490	0.005	-14.09810	50.0	Averaged	

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Form 8

Internal Standard Area and RT Summary

Volatiles by EPA 8260

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Form 8 - Internal Standard Area and RT Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
VOA6_436483

		IS1				IS2				IS3				IS4			
Sample ID	File ID	Area		RT		Area		RT		Area		RT		Area		RT	
12-HOUR STD (CCV)	X052902	552595	#	4.18	#	900566	#	4.96	#	866016	#	7.67	#	474501	#	9.66	#
CCB	X052904	606931		4.18		923615		4.96		815140		7.67		399556		9.66	
VLCSW-230529	X052905	526166		4.18		860224		4.96		830681		7.67		448063		9.66	
VBLKW-230529	X052907	567992		4.18		868910		4.97		802494		7.67		405507		9.66	
HS23051708-08	X052908	549371		4.18		832287		4.96		749461		7.67		376441		9.66	
HS23051708-01	X052909	546188		4.18		828426		4.97		744721		7.67		376900		9.66	
HS23051708-02	X052910	531698		4.18		812667		4.97		714079		7.67		346421		9.66	
HS23051708-05	X052911	526530		4.18		797014		4.97		723167		7.67		357705		9.66	
HS23051708-04	X052912	515356		4.18		781020		4.97		707660		7.67		350829		9.66	
HS23051708-01MS	X052913	518569		4.18		798531		4.96		759650		7.67		421058		9.66	
HS23051708-01MSD	X052914	541269		4.18		821321		4.96		783834		7.67		432543		9.66	
HS23051708-03	X052918	484492		4.18		725259		4.97		647100		7.67		312462		9.66	
HS23051708-06	X052919	486307		4.18		732057		4.96		663050		7.67		323728		9.66	
HS23051708-07	X052920	471694		4.18		701543		4.97		627696		7.67		307881		9.66	
CCV-END	X052930	428325		4.18		713011		4.97		740198		7.67		434246		9.66	

IS1 - Pentafluorobenzene IS2 - 1,4-Difluorobenzene IS3 - Chlorobenzene-d5 IS4 - 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of 12H STD IS Area
AREA LOWER LIMIT = - 50% of 12H STD IS Area
RT - Retention Time IS - Internal Standard

RT UPPER LIMIT = + 0.50 of 12H STD IS RT
RT LOWER LIMIT = - 0.50 of 12H STD IS RT
CCV - Continuing Calibration Verification

- Area or RT Limit Flag
* - Value Outside Area or RT limits
H - Hour STD - Standard

Form 8 - Internal Standard Area and RT Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
VOA6_436840

		IS1		IS2		IS3		IS4	
Sample ID	File ID	Area	RT	Area	RT	Area	RT	Area	RT
12-HOUR STD (CCV)	X060102	441782 #	4.18 #	711352 #	4.97 #	704230 #	7.67 #	415008 #	9.66 #
CCB	X060103	487358	4.18	724588	4.97	643587	7.67	320135	9.66
VBLKW-230601	X060104	452882	4.18	676206	4.97	606588	7.67	294354	9.66
VLCSW-230601	X060105	409838	4.18	649901	4.97	643808	7.67	356819	9.66
ZZZZZZMS	X060111	452210	4.18	673454	4.97	626272	7.67	336570	9.66
ZZZZZZMSD	X060112	465504	4.18	697931	4.97	658414	7.67	360706	9.66
HS23051708-02	X060115	443575	4.18	665571	4.97	579453	7.67	286096	9.66
HS23051708-05	X060116	449244	4.18	676063	4.97	597237	7.67	290632	9.66
HS23051708-04	X060117	438018	4.18	662451	4.97	592126	7.67	300499	9.66
CCV-END	X060129	346185	4.18	615627	4.97	612616	7.67	338036	9.66

IS1 - Pentafluorobenzene IS2 - 1,4-Difluorobenzene IS3 - Chlorobenzene-d5 IS4 - 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of 12H STD IS Area
AREA LOWER LIMIT = - 50% of 12H STD IS Area
RT - Retention Time IS - Internal Standard

RT UPPER LIMIT = + 0.50 of 12H STD IS RT
RT LOWER LIMIT = - 0.50 of 12H STD IS RT
CCV - Continuing Calibration Verification

- Area or RT Limit Flag
* - Value Outside Area or RT limits
H - Hour STD - Standard

01230605

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Analysis Run Log

Volatiles by EPA 8260

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
VOA6_435536

Run ID VOA6_435536 **Start Date** 05/17/23 **EndDate** 05/17/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
11:57	BFB	TUNE	BFB	X051701.D	05/17/23	1
12:17	VSTD000.25	ICAL1	VSTD000.25	X051702.D	05/17/23	1
12:59	VSTD000.5	ICAL2	VSTD000.5	X051703.D	05/17/23	1
13:20	VSTD001	ICAL3	VSTD001	X051704.D	05/17/23	1
13:41	VSTD002	ICAL4	VSTD002	X051705.D	05/17/23	1
14:02	VSTD005	ICAL5	VSTD005	X051706.D	05/17/23	1
14:23	VSTD020	ICAL6	VSTD020	X051707.D	05/17/23	1
14:44	VSTD050	ICAL7	VSTD050	X051708.D	05/17/23	1
15:05	VSTD100	ICAL8	VSTD100	X051709.D	05/17/23	1
15:26	VSTD150	ICAL9	VSTD150	X051710.D	05/17/23	1
15:47	VSTD200	ICAL	VSTD200	X051711.D	05/17/23	1
16:29	CCV	ICV	CCV	X051713.D	05/17/23	1

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
VOA6_436483

Run ID VOA6_436483 **Start Date** 05/29/23 **EndDate** 05/29/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
12:02	BFB	TUNE	BFB	X052901.D	05/29/23	1
12:23	CCV	CCV	CCV	X052902.D	05/29/23	1
13:05	CCB	CCB	CCB	X052904.D	05/29/23	1
13:26	VLCSW-230529	LCS	VLCSW-230529	X052905.D	05/29/23	1
14:08	VBLKW-230529	MBLK	VBLKW-230529	X052907.D	05/29/23	1
14:29	Trip Blank	SAMP	HS23051708-08	X052908.D	05/29/23	1
14:50	50WW09_052423	SAMP	HS23051708-01	X052909.D	05/29/23	1
15:11	50WW08_052423	SAMP	HS23051708-02	X052910.D	05/29/23	1
15:32	50WW11_052423	SAMP	HS23051708-05	X052911.D	05/29/23	10
15:53	50WW13_052423	SAMP	HS23051708-04	X052912.D	05/29/23	25
16:14	HS23051708-01MS	MS	HS23051708-01MS	X052913.D	05/29/23	1
16:35	HS23051708-01MSD	MSD	HS23051708-01MSD	X052914.D	05/29/23	1
16:56	ZZZZZZZZZZ	SAMP	HS23051343-06	X052915.D	05/29/23	10
17:17	ZZZZZZZZZZ	SAMP	HS23051896-05	X052916.D	05/29/23	1
17:38	ZZZZZZZZZZ	SAMP	HS23051897-09	X052917.D	05/29/23	1
17:59	50WW22_052423	SAMP	HS23051708-03	X052918.D	05/29/23	1
18:20	50WW06_052423	SAMP	HS23051708-06	X052919.D	05/29/23	1
18:41	50WW29_052423	SAMP	HS23051708-07	X052920.D	05/29/23	1
19:02	ZZZZZZZZZZ	SAMP	HS23051896-01	X052921.D	05/29/23	1
19:23	ZZZZZZZZZZ	SAMP	HS23051896-02	X052922.D	05/29/23	1
19:44	ZZZZZZZZZZ	SAMP	HS23051896-03	X052923.D	05/29/23	1
20:05	ZZZZZZZZZZ	SAMP	HS23051896-04	X052924.D	05/29/23	1
20:26	ZZZZZZZZZZ	SAMP	HS23051897-03	X052925.D	05/29/23	1
20:47	ZZZZZZZZZZ	SAMP	HS23051897-04	X052926.D	05/29/23	1
21:09	ZZZZZZZZZZ	SAMP	HS23051897-07	X052927.D	05/29/23	1
21:30	ZZZZZZZZZZ	SAMP	HS23051897-06	X052928.D	05/29/23	1
21:51	ZZZZZZZZZZ	SAMP	HS23051897-05	X052929.D	05/29/23	1
22:12	CCV-END	CCV_END	CCV-END	X052930.D	05/29/23	1

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
VOA6_436840

Run ID VOA6_436840 **Start Date** 06/01/23 **EndDate** 06/01/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
13:08	BFB	TUNE	BFB	X060101.D	06/01/23	1
13:29	CCV	CCV	CCV	X060102.D	06/01/23	1
13:50	CCB	CCB	CCB	X060103.D	06/01/23	1
14:11	VBLKW-230601	MBLK	VBLKW-230601	X060104.D	06/01/23	1
14:32	VLCSW-230601	LCS	VLCSW-230601	X060105.D	06/01/23	1
15:23	ZZZZZZZZZZ	SAMP	HS23052050-05	X060107.D	06/01/23	1
15:44	ZZZZZZZZZZ	SAMP	HS23051897-01	X060108.D	06/01/23	1
16:05	ZZZZZZZZZZ	SAMP	HS23051897-02	X060109.D	06/01/23	1
16:26	ZZZZZZZZZZ	SAMP	HS23051897-08	X060110.D	06/01/23	1
16:47	ZZZZZZMS	MS	HS23052050-05MS	X060111.D	06/01/23	1
17:09	ZZZZZZMSD	MSD	HS23052050-05MSD	X060112.D	06/01/23	1
17:30	ZZZZZZZZZZ	SAMP	HS23051897-05	X060113.D	06/01/23	25
17:51	ZZZZZZZZZZ	SAMP	HS23051897-06	X060114.D	06/01/23	10
18:12	50WW08_052423	SAMP	HS23051708-02	X060115.D	06/01/23	10
18:33	50WW11_052423	SAMP	HS23051708-05	X060116.D	06/01/23	1
18:54	50WW13_052423	SAMP	HS23051708-04	X060117.D	06/01/23	1
23:06	CCV-END	CCV_END	CCV-END	X060129.D	06/01/23	1

01230609

right solutions.
right partner.

Raw Data VOA6 435536

Volatiles by EPA 8260

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051701.D Page 1
Report Date: 17-May-2023 12:37

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051701.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 17-MAY-2023 11:57
Operator : PC Inst ID: voa6.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\bfb.m
Meth Date : 14-Mar-2023 15:45 Linh.Pham Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/l)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
8.691	8.889	(0.000)	95	138816			0.00- 100.00	100.00
8.691	8.889	(0.000)	50	21024			15.00- 40.00	15.15
8.691	8.889	(0.000)	75	59416			30.00- 60.00	42.80
8.691	8.889	(0.000)	96	9161			5.00- 9.00	6.60
8.691	8.889	(0.000)	173	828			0.00- 2.00	0.66
8.691	8.889	(0.000)	174	125960			50.00- 0.00	90.74
8.691	8.889	(0.000)	175	9339			5.00- 9.00	7.41
8.691	8.889	(0.000)	176	122984			95.00- 101.00	97.64
8.691	8.889	(0.000)	177	7772			5.00- 9.00	6.32

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.15
75	30.00 - 60.00% of mass 95	42.80
96	5.00 - 9.00% of mass 95	6.60
173	Less than 2.00% of mass 174	0.60 (0.66)
174	Greater than 50.00% of mass 95	90.74
175	5.00 - 9.00% of mass 174	6.73 (7.41)
176	95.00 - 101.00% of mass 174	88.59 (97.64)
177	5.00 - 9.00% of mass 176	5.60 (6.32)

Data File: X051701.D
Spectrum: Avg. Scans 2160-2164 (8.69)
Location of Maximum: 95.00
Number of points: 111

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	878	67.00	271	104.00	477	144.00	74
37.00	4899	68.00	11648	105.00	243	145.00	100
38.00	4589	69.00	11278	106.00	520	146.00	216
39.00	1934	70.00	901	107.00	109	147.00	97
40.00	2301	72.00	617	110.00	49	148.00	270
42.00	39	73.00	4978	111.00	84	150.00	145
43.00	81	74.00	18448	113.00	30	151.00	20
44.00	1915	75.00	59416	115.00	99	152.00	79
45.00	924	76.00	5455	116.00	357	153.00	90
46.00	92	77.00	911	117.00	685	154.00	62
47.00	1686	78.00	684	118.00	486	155.00	302
48.00	673	79.00	2405	119.00	532	157.00	256
49.00	4557	80.00	648	122.00	23	159.00	141
50.00	21024	81.00	2316	123.00	10	160.00	31
51.00	6432	82.00	542	124.00	81	161.00	85
52.00	352	83.00	53	126.00	28	170.00	10
53.00	12	86.00	197	127.00	61	171.00	18
55.00	314	87.00	6207	128.00	464	172.00	84
56.00	1473	88.00	5933	129.00	234	173.00	828
57.00	2750	89.00	10	130.00	439	174.00	125960
58.00	105	91.00	404	131.00	205	175.00	9339
60.00	1131	92.00	3007	135.00	164	176.00	122984
61.00	4744	93.00	4752	137.00	270	177.00	7772
62.00	4832	94.00	14163	139.00	39	178.00	243
63.00	3516	95.00	138816	140.00	102	186.00	49
64.00	388	96.00	9161	141.00	1022	191.00	15
65.00	130	97.00	287	142.00	110	278.00	65
66.00	66	103.00	32	143.00	1063		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051701.D

Date : 17-MAY-2023 11:57

Client ID: BFB

Instrument: voa6.i

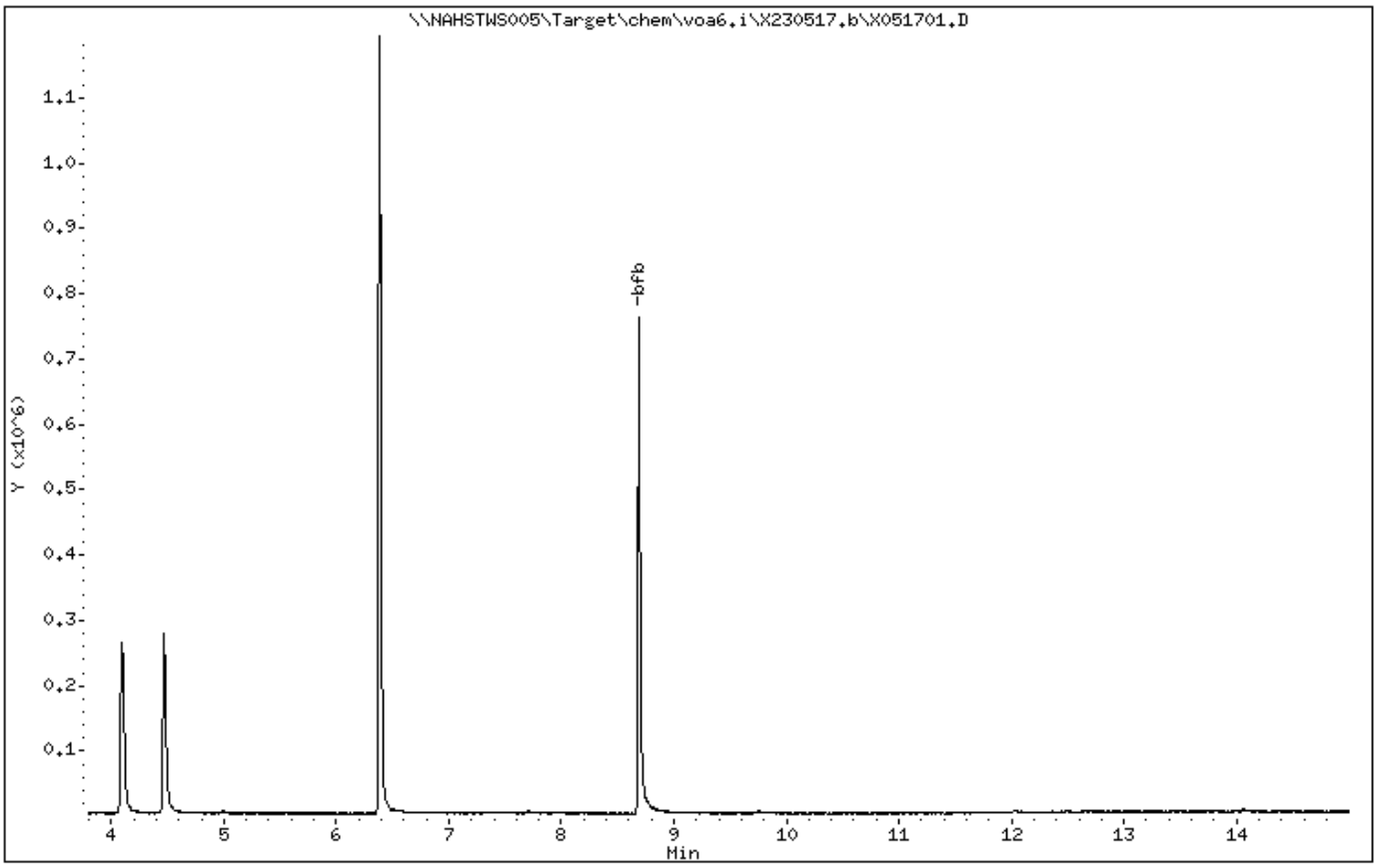
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051701.D

Date : 17-MAY-2023 11:57

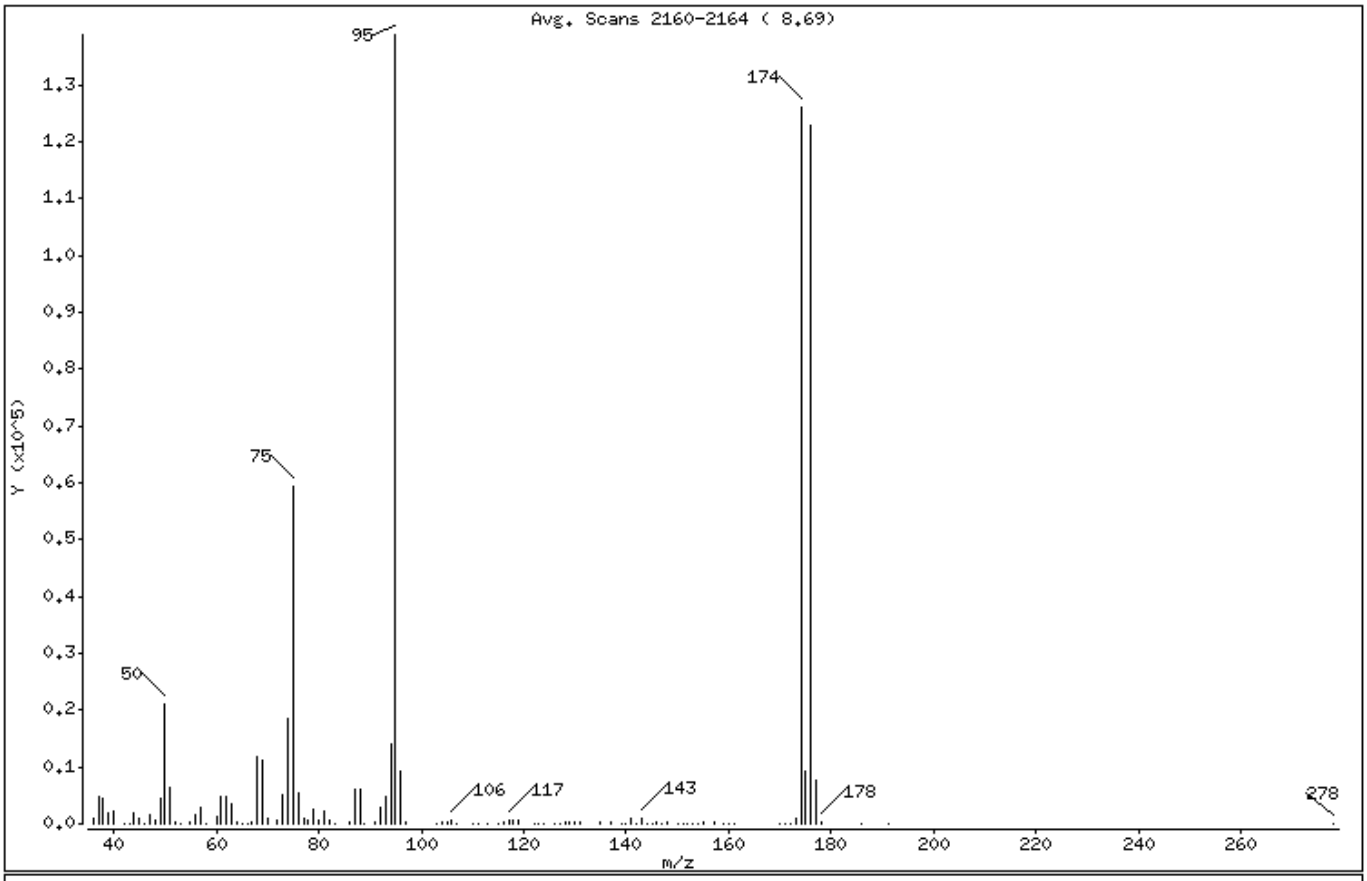
Client ID: BFB Instrument: voa6.i

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	15.15
75	30.00 - 60.00% of mass 95	42.80
96	5.00 - 9.00% of mass 95	6.60
173	Less than 2.00% of mass 174	0.60 (0.66)
174	Greater than 50.00% of mass 95	90.74
175	5.00 - 9.00% of mass 174	6.73 (7.41)
176	95.00 - 101.00% of mass 174	88.59 (97.64)
177	5.00 - 9.00% of mass 176	5.60 (6.32)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051701.D

Date : 17-MAY-2023 11:57

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: X051701.D
Spectrum: Avg. Scans 2160-2164 (8.69)
Location of Maximum: 95.00
Number of points: 111

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	878	67.00	271	104.00	477	144.00	74
37.00	4899	68.00	11648	105.00	243	145.00	100
38.00	4589	69.00	11278	106.00	520	146.00	216
39.00	1934	70.00	901	107.00	109	147.00	97
40.00	2301	72.00	617	110.00	49	148.00	270
42.00	39	73.00	4978	111.00	84	150.00	145
43.00	81	74.00	18448	113.00	30	151.00	20
44.00	1915	75.00	59416	115.00	99	152.00	79
45.00	924	76.00	5455	116.00	357	153.00	90
46.00	92	77.00	911	117.00	685	154.00	62
47.00	1686	78.00	684	118.00	486	155.00	302
48.00	673	79.00	2405	119.00	532	157.00	256
49.00	4557	80.00	648	122.00	23	159.00	141
50.00	21024	81.00	2316	123.00	10	160.00	31
51.00	6432	82.00	542	124.00	81	161.00	85
52.00	352	83.00	53	126.00	28	170.00	10
53.00	12	86.00	197	127.00	61	171.00	18
55.00	314	87.00	6207	128.00	464	172.00	84
56.00	1473	88.00	5933	129.00	234	173.00	828
57.00	2750	89.00	10	130.00	439	174.00	125960
58.00	105	91.00	404	131.00	205	175.00	9339
60.00	1131	92.00	3007	135.00	164	176.00	122984
61.00	4744	93.00	4752	137.00	270	177.00	7772
62.00	4832	94.00	14163	139.00	39	178.00	243
63.00	3516	95.00	138816	140.00	102	186.00	49
64.00	388	96.00	9161	141.00	1022	191.00	15
65.00	130	97.00	287	142.00	110	278.00	65
66.00	66	103.00	32	143.00	1063		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051702.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051702.D
Lab Smp Id: VSTD000.25 Client Smp ID: VSTD000.25
Inj Date : 17-MAY-2023 12:17
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.25;VSTD000.25;1;1;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\8260W.m
Meth Date : 18-May-2023 13:43 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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

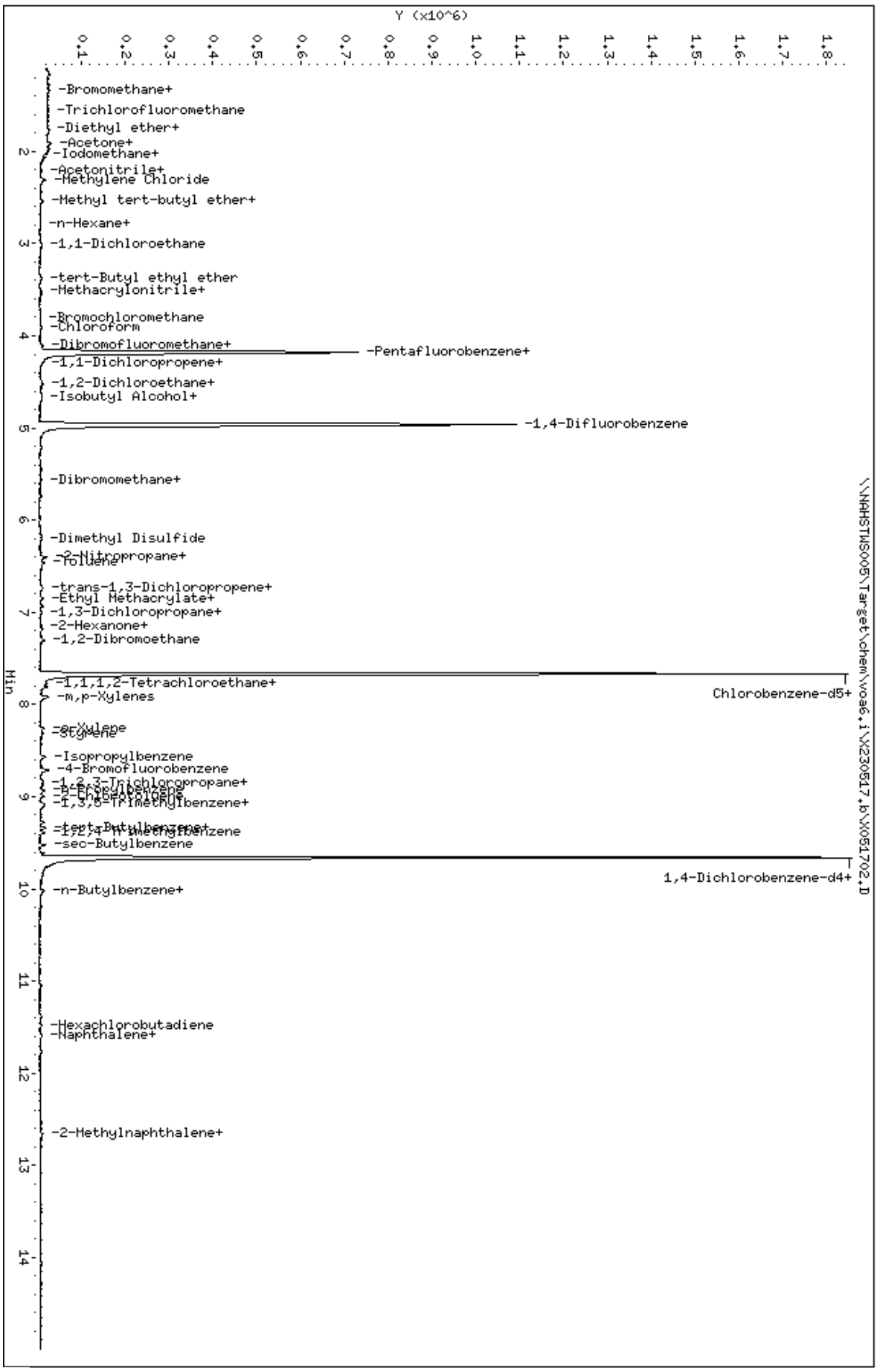
		QUANT SIG					AMOUNTS	
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.177	4.177	(1.000)	607658	50.0000	
	135 1,4-Dioxane	88	5.632	5.632	(1.348)	441	5.00000	5.35(aM)
	2 Dichlorodifluoromethane	85	0.976	0.976	(0.234)	1260	0.25000	0.84(a)
	6 Bromomethane	94	1.340	1.340	(0.321)	2119	0.25000	0.76(a)
	15 Iodomethane	142	2.033	2.033	(0.487)	1289	0.50000	2.52(Ta)
$	30 Dibromofluoromethane	113	4.117	4.117	(0.986)	2984	0.25000	(a)
$	35 1,2-Dichloroethane-d4	65	4.489	4.489	(1.074)	3075	0.25000	0.06(a)
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	938911	50.0000	
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	888821	50.0000	
$	48 Toluene-d8	98	6.397	6.397	(0.834)	11563	0.25000	0.51(a)
	58 1-Chlorohexane	55	7.664	7.664	(1.544)	9863	0.25000	3.49(a)
	60 1,1,1,2-Tetrachloroethane	131	7.776	7.776	(1.014)	1943	0.25000	0.32(a)
$	69 4-Bromofluorobenzene	95	8.706	8.706	(1.135)	9402	0.25000	1.10(a)
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	458275	50.0000	
M	94 1,2-Dichloroethylene (total)	96				3814	0.50000	(a)
	141 Cyclohexane	56	4.181	4.181	(1.001)	8730	0.25000	1.14(a)

QC Flag Legend

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

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa6.i\X230517.b\X051702.D
Date : 17-MAY-2023 12:17
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

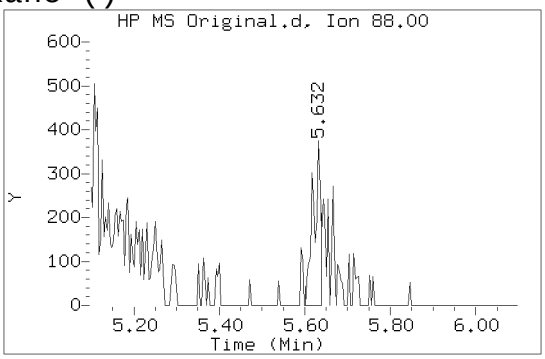
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Inj Date : 17-MAY-2023 12:17
InstruID : voa6.i
LabSampID : VSTD000.25

1,4-Dioxane ()

Reason Code:

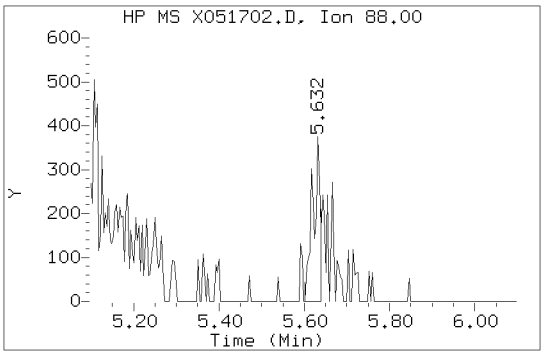
BEFORE

MASS
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AREA
441
HEIGHT
375
18-May-2023
13:42
linh
pham



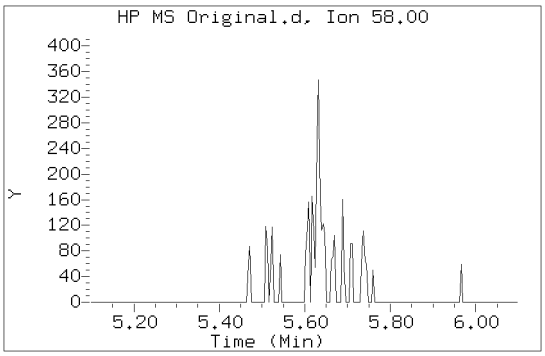
AFTER

MASS
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AREA
441
HEIGHT
375
18-May-2023
13:42
linh
pham



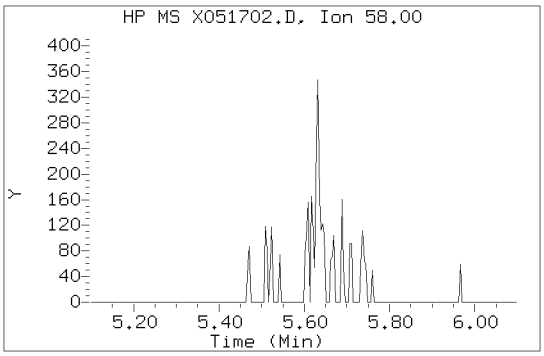
BEFORE

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HEIGHT
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18-May-2023
13:42
linh
pham



AFTER

MASS
58
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Lab Smp Id: VSTD000.5 Client Smp ID: VSTD000.5
Inj Date : 17-MAY-2023 12:59
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.5;VSTD000.5;1;2;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\8260W.m
Meth Date : 18-May-2023 13:43 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 12:17 Cal File: X051702.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	571558	50.0000	
135	1,4-Dioxane	88	5.628	5.628	(1.347)	777	10.0000	10.03(aM)
140	1,3-Butadiene	54	1.168	1.168	(0.280)	3237	0.50000	0.53(aM)
25	Methacrylonitrile	41	3.874	3.874	(0.927)	3101	0.50000	0.60(aM)
12	Isobutyl Alcohol	43	4.699	4.699	(1.125)	7294	10.0000	9.79(aM)
13	Acetonitrile	39	2.202	2.202	(0.527)	2789	5.00000	5.06(aM)
72	trans-1,4-Dichloro-2-butene	53	8.935	8.935	(1.165)	1031	0.50000	0.53(aM)
23	Chloroprene	53	1.782	1.782	(0.427)	1289	0.50000	0.55(aM)
130	Ethyl Acetate	43	3.679	3.679	(0.881)	2361	0.50000	0.58(TaM)
40	Methyl Methacrylate	41	5.651	5.651	(1.353)	2610	0.50000	0.52(aM)
49	Ethyl Methacrylate	69	6.802	6.802	(1.370)	5358	0.50000	0.58(aM)
131	Methyl Acrylate	55	3.792	3.792	(0.908)	2822	0.50000	0.50(TaM)
132	n-Butanol	56	5.362	5.362	(1.284)	566	10.0000	71.38(TaM)
139	Diethyl ether	59	1.760	1.760	(0.421)	2635	0.50000	0.53(aM)
142	Tetrahydrofuran	42	3.870	3.870	(0.926)	1066	1.00000	1.13(aM)
145	alpha-Methylstyrene	118	9.268	9.268	(0.959)	5300	0.50000	0.52(a)
156	Diisopropyl ether	45	3.008	3.008	(0.720)	9672	0.50000	0.55(TaM)
162	Butyl acrylate	55	8.282	8.282	(1.080)	6616	0.50000	0.53(aM)
167	Ethanol	45	1.704	1.704	(0.408)	957	10.0000	12.73
200	Dimethyl Disulfide	94	6.206	6.206	(0.809)	6593	0.50000	0.53(aM)

164	Dicyclopentadiene	66	9.681	9.681 (1.002)	13612	0.50000	0.56(aM)
166	1,2,3-Trimethylbenzene	105	9.737	9.737 (1.008)	12493	0.50000	0.60(aM)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D Page 2
Report Date: 18-May-2023 13:43

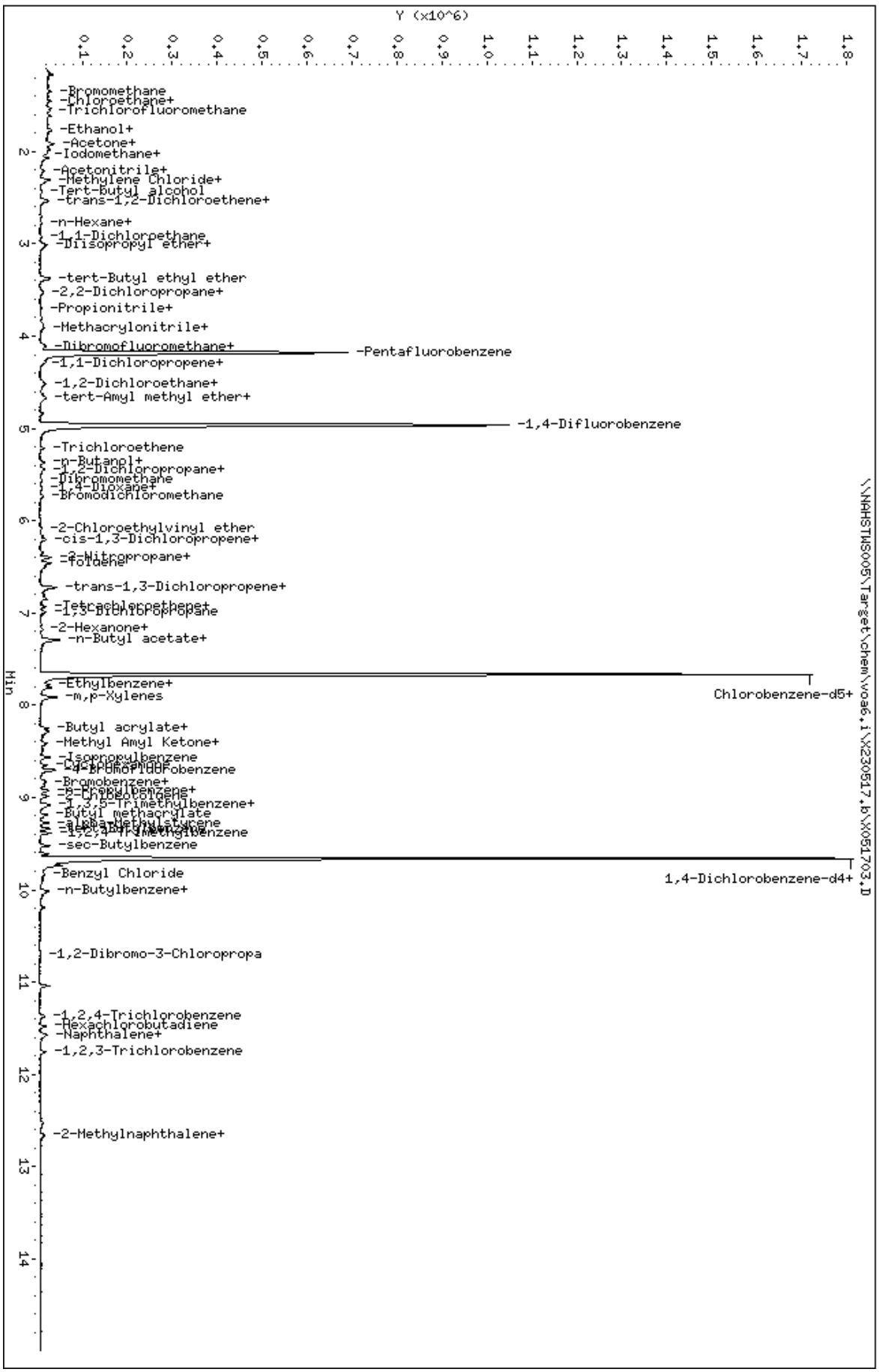
			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
	205	2-Ethylhexyl Acrylate	55	11.562	11.562	(1.197)	4540	0.50000	0.53(aM)
	86	Benzyl Chloride	91	9.834	9.834	(1.283)	7194	0.50000	0.54(aM)
	133	Ethyl Acrylate	55	5.467	5.467	(1.309)	5171	0.50000	1.74(aM)
	163	Butyl methacrylate	41	9.186	9.186	(0.951)	4156	0.50000	0.52(aM)
	188	Isopropyl acetate	43	4.699	4.699	(0.946)	8344	0.50000	0.53(aM)
	2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	2884	0.50000	1.15(a)
	3	Chloromethane	50	1.081	1.081	(0.259)	4454	0.50000	0.55(aM)
	5	Vinyl Chloride	62	1.145	1.145	(0.274)	4083	0.50000	0.53(aM)
	6	Bromomethane	94	1.344	1.344	(0.322)	2591	0.50000	0.91(aM)
	7	Chloroethane	64	1.404	1.404	(0.336)	2706	0.50000	0.57(aM)
	11	1,1-Dichloroethene	96	1.917	1.917	(0.459)	2705	0.50000	0.53(aM)
	15	Iodomethane	142	2.030	2.030	(0.486)	3196	1.00000	2.81(Ta)
	19	Carbon Disulfide	76	2.071	2.071	(0.496)	18393	1.00000	1.16(a)
	22	1,1-Dichloroethane	63	2.922	2.922	(0.699)	5303	0.50000	0.55(aM)
	29	Bromochloromethane	128	3.795	3.795	(0.908)	1738	0.50000	0.53(aM)
$	30	Dibromofluoromethane	113	4.114	4.114	(0.985)	3260	0.50000	(aM)
	31	1,1,1-Trichloroethane	97	4.088	4.088	(0.978)	3862	0.50000	0.52(aM)
	32	1,1-Dichloropropene	75	4.298	4.298	(0.866)	3860	0.50000	0.54(a)
	33	1,2-Dichloroethane	62	4.571	4.571	(0.921)	3742	0.50000	0.53(a)
$	35	1,2-Dichloroethane-d4	65	4.485	4.485	(1.074)	2810	0.50000	0.05(aM)
*	36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	899522	50.0000	
	38	Trichloroethene	130	5.212	5.212	(1.050)	3266	0.50000	0.52(a)
*	47	Chlorobenzene-d5	117	7.668	7.668	(1.000)	864532	50.0000	
$	48	Toluene-d8	98	6.397	6.397	(0.834)	12188	0.50000	0.55(aM)
	50	Toluene	91	6.457	6.457	(0.842)	13263	0.50000	0.54(aM)
	52	2-Hexanone	43	7.120	7.120	(0.929)	4224	1.00000	1.03(aMH)
	53	1,1,2-Trichloroethane	83	6.843	6.843	(0.892)	2580	0.50000	0.52(aM)
	54	1,3-Dichloropropane	76	6.993	6.993	(0.912)	5321	0.50000	0.51(aM)
	55	Dibromochloromethane	129	7.180	7.180	(0.936)	3630	0.50000	0.53(aM)
	57	1,2-Dibromoethane	107	7.274	7.274	(0.949)	3173	0.50000	0.52(aM)
	58	1-Chlorohexane	55	7.701	7.701	(1.551)	2937	0.50000	2.35(aH)
	59	Chlorobenzene	112	7.690	7.690	(1.003)	9472	0.50000	0.56(a)
	60	1,1,1,2-Tetrachloroethane	131	7.776	7.776	(1.014)	3316	0.50000	0.56(aM)
	61	Ethylbenzene	106	7.806	7.806	(1.018)	4783	0.50000	0.57(a)
	62	m,p-Xylenes	106	7.915	7.915	(1.032)	10900	1.00000	1.06(aM)
	63	o-Xylene	106	8.256	8.256	(1.077)	5647	0.50000	0.56(aM)
	64	Styrene	104	8.290	8.290	(1.081)	9111	0.50000	0.54(aM)
	66	Bromoform	173	8.421	8.421	(1.098)	2554	0.50000	0.56(TaM)
	67	Isopropylbenzene	105	8.564	8.564	(1.117)	13817	0.50000	0.57(a)
	68	1,1,2,2-Tetrachloroethane	83	8.845	8.845	(0.915)	5038	0.50000	0.97(aM)
$	69	4-Bromofluorobenzene	95	8.699	8.699	(1.134)	4817	0.50000	0.58(aM)
*	70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	459541	50.0000	
	73	n-Propylbenzene	91	8.927	8.927	(0.924)	15332	0.50000	0.53(a)
	74	Bromobenzene	156	8.818	8.818	(0.913)	3643	0.50000	0.50(a)
	79	1,2,4-Trimethylbenzene	105	9.388	9.388	(0.972)	11812	0.50000	0.55(a)
	82	p-Isopropyltoluene	119	9.654	9.654	(0.999)	11090	0.50000	0.53(a)
	83	1,3-Dichlorobenzene	146	9.613	9.613	(0.995)	7414	0.50000	0.57(a)
M	94	1,2-Dichloroethylene (total)	96				5989	1.00000	(a)

QC Flag Legend

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

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\x230517.b\x051703.D
Date : 17-MAY-2023 12:59
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

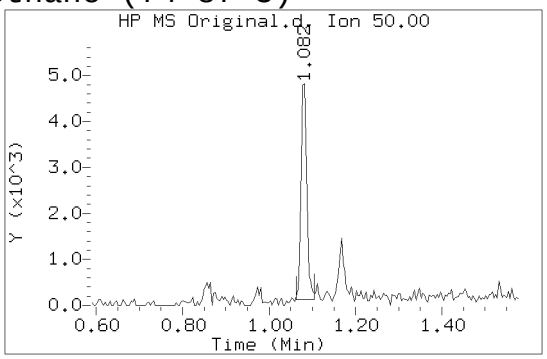
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Chloromethane (74-87-3)

Reason Code:

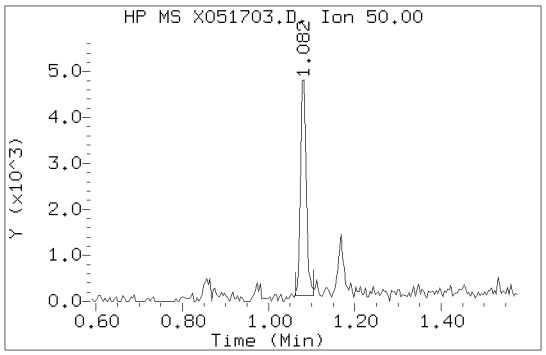
BEFORE

MASS
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AREA
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HEIGHT
4699
18-May-2023
13:42
linh
pham



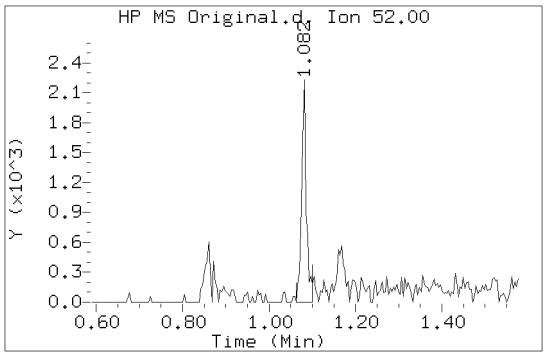
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pham



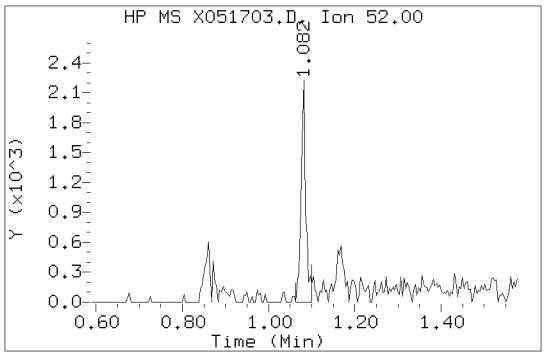
BEFORE

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AREA
1701
HEIGHT
2230
18-May-2023
13:42
linh
pham



AFTER

MASS
52
AREA
1701
HEIGHT
2230
18-May-2023
13:42
linh
pham

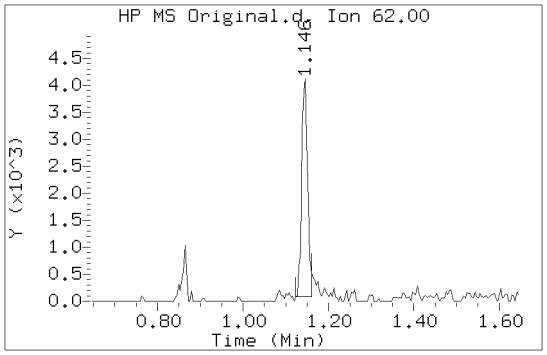


Vinyl Chloride (75-01-4)

Reason Code:

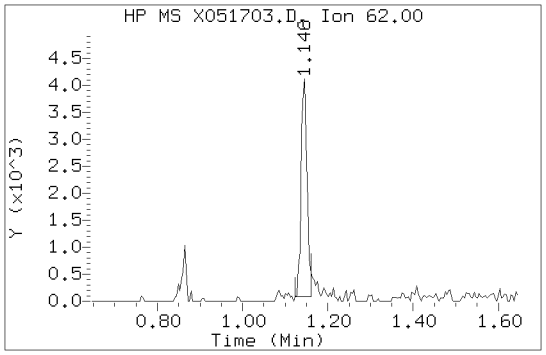
BEFORE

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AREA
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HEIGHT
4040
18-May-2023
13:42
linh
pham



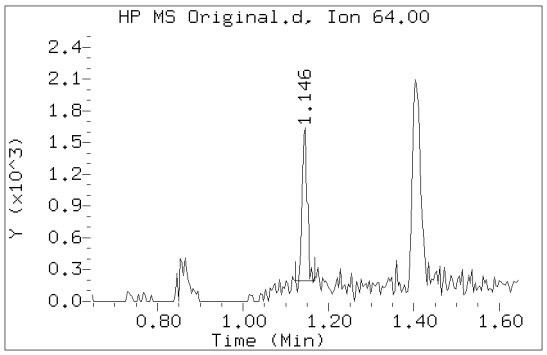
AFTER

MASS
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HEIGHT
4040
18-May-2023
13:42
linh
pham



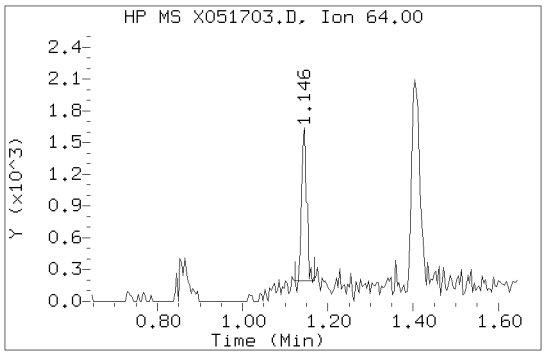
BEFORE

MASS
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AREA
1228
HEIGHT
1448
18-May-2023
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pham



AFTER

MASS
64
AREA
1228
HEIGHT
1448
18-May-2023
13:42
linh
pham

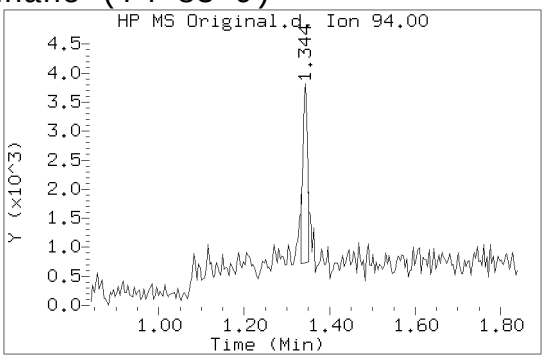


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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

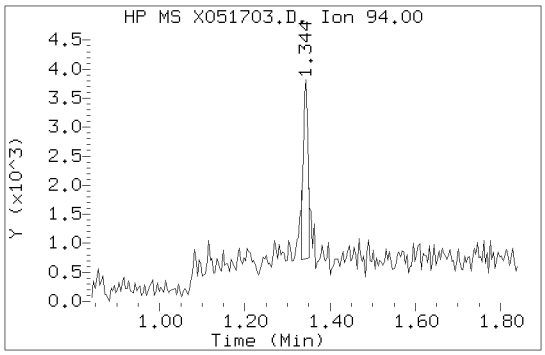
Bromomethane (74-83-9)

Reason Code:

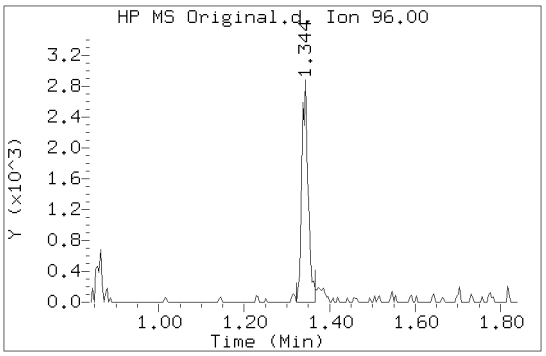
BEFORE
MASS
94
AREA
2591
HEIGHT
3079
18-May-2023
13:42
linh
pham



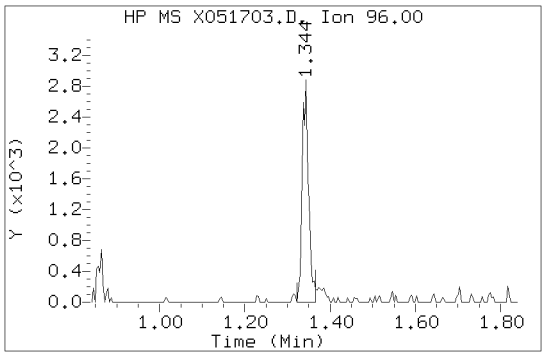
AFTER
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AREA
2591
HEIGHT
3079
18-May-2023
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linh
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BEFORE
MASS
96
AREA
3070
HEIGHT
2880
18-May-2023
13:42
linh
pham



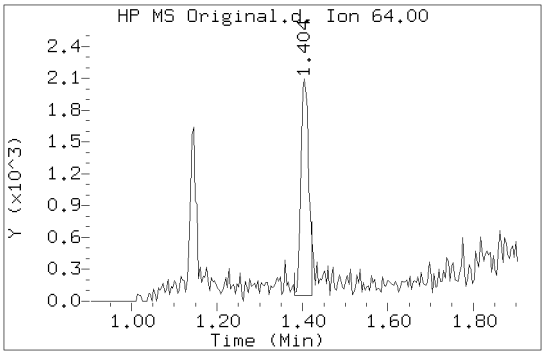
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HEIGHT
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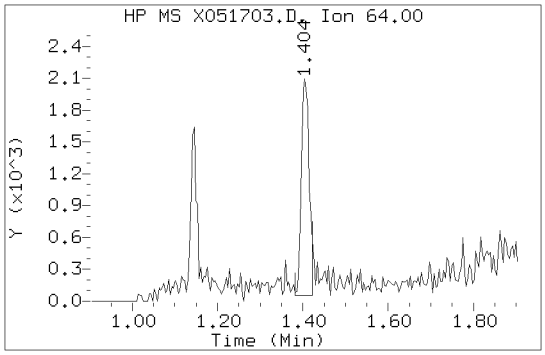
Chloroethane (75-00-3)

Reason Code:

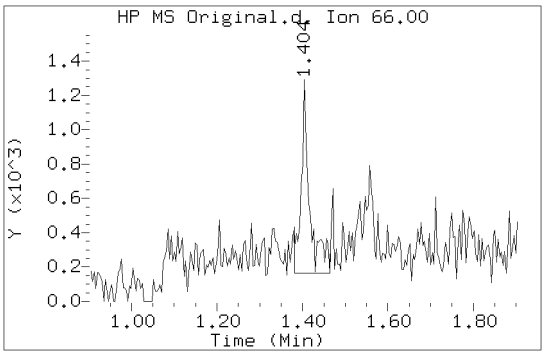
BEFORE
MASS
64
AREA
2706
HEIGHT
2037
18-May-2023
13:42
linh
pham



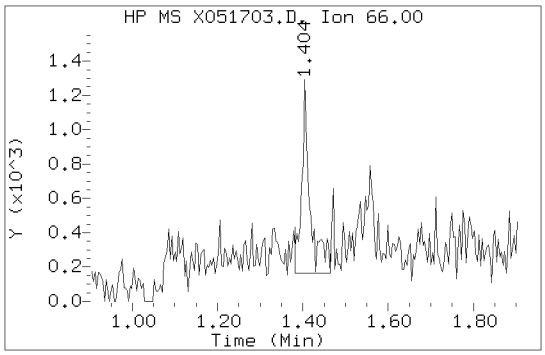
AFTER
MASS
64
AREA
2706
HEIGHT
2037
18-May-2023
13:42
linh
pham



BEFORE
MASS
66
AREA
1567
HEIGHT
1127
18-May-2023
13:42
linh
pham



AFTER
MASS
66
AREA
1567
HEIGHT
1127
18-May-2023
13:42
linh
pham



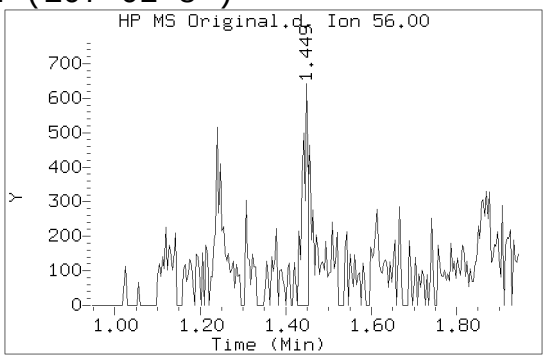
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Acrolein (107-02-8)

Reason Code:

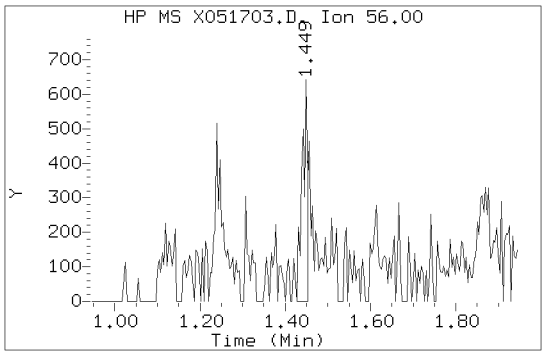
BEFORE

MASS
56
AREA
565
HEIGHT
642
18-May-2023
13:42
linh
pham



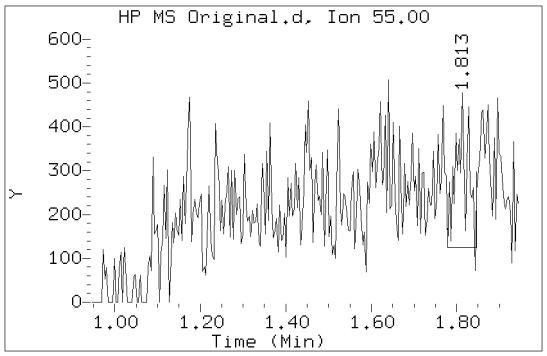
AFTER

MASS
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AREA
565
HEIGHT
642
18-May-2023
13:42
linh
pham



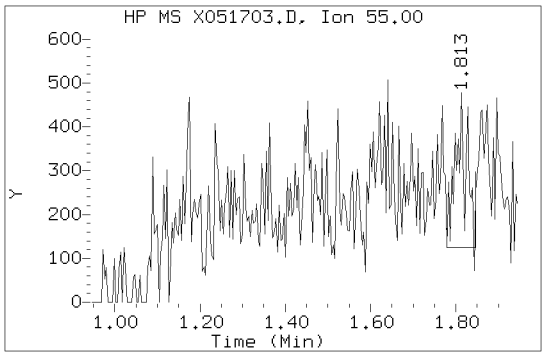
BEFORE

MASS
55
AREA
644
HEIGHT
353
18-May-2023
13:42
linh
pham



AFTER

MASS
55
AREA
644
HEIGHT
353
18-May-2023
13:42
linh
pham

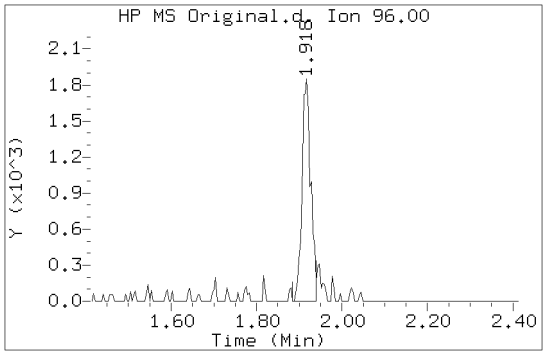


1,1-Dichloroethene (75-35-4)

Reason Code:

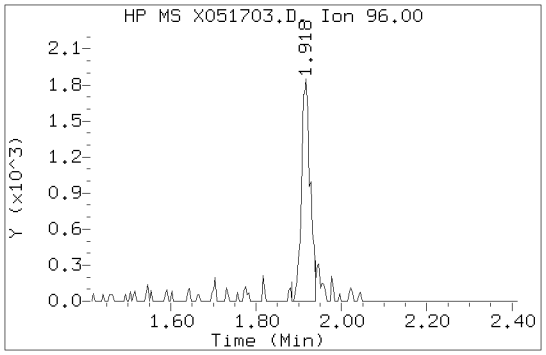
BEFORE

MASS
96
AREA
2705
HEIGHT
1850
18-May-2023
13:42
linh
pham



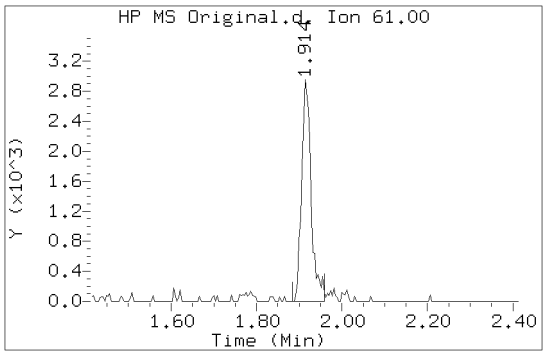
AFTER

MASS
96
AREA
2705
HEIGHT
1850
18-May-2023
13:42
linh
pham



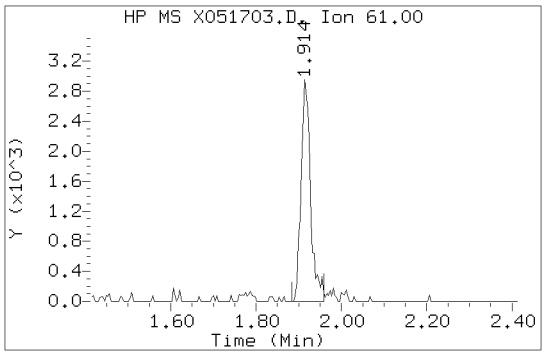
BEFORE

MASS
61
AREA
4709
HEIGHT
2954
18-May-2023
13:42
linh
pham



AFTER

MASS
61
AREA
4709
HEIGHT
2954
18-May-2023
13:42
linh
pham



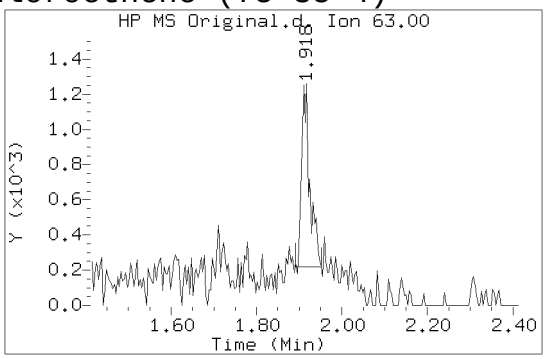
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,1-Dichloroethene (75-35-4)

Reason Code:

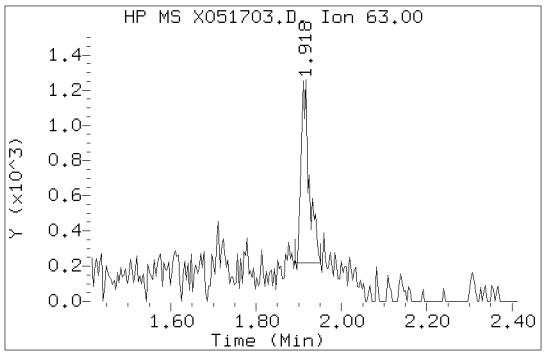
BEFORE

MASS
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HEIGHT
1041
18-May-2023
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linh
pham



AFTER

MASS
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AREA
1400
HEIGHT
1041
18-May-2023
13:42
linh
pham

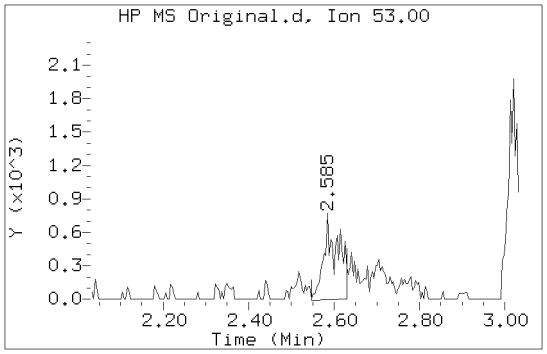


Acrylonitrile (107-13-1)

Reason Code:

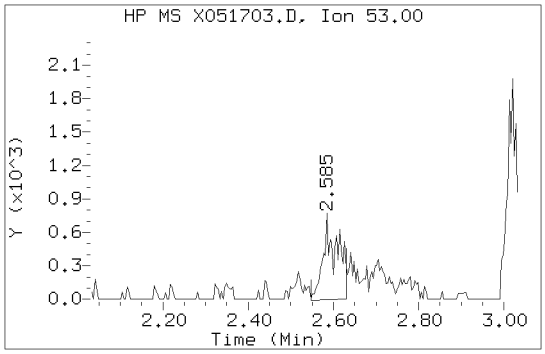
BEFORE

MASS
53
AREA
1804
HEIGHT
775
18-May-2023
13:42
linh
pham



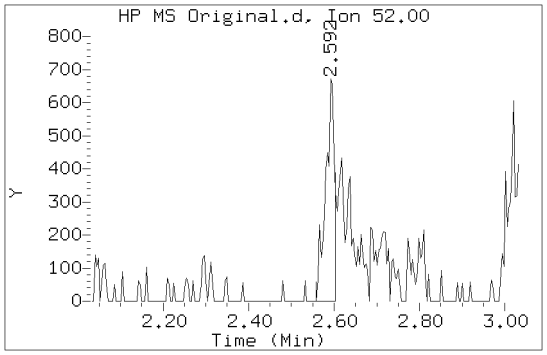
AFTER

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AREA
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HEIGHT
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18-May-2023
13:42
linh
pham



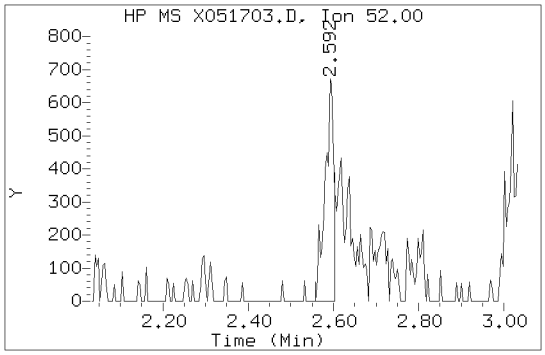
BEFORE

MASS
52
AREA
946
HEIGHT
672
18-May-2023
13:42
linh
pham



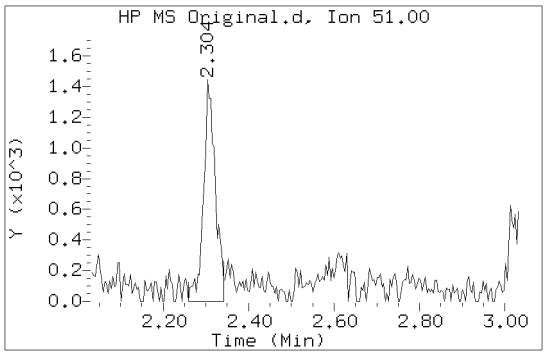
AFTER

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18-May-2023
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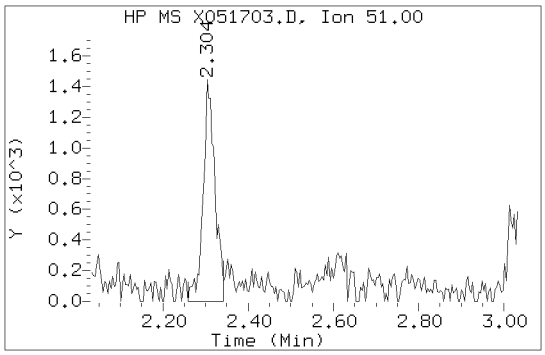
BEFORE

MASS
51
AREA
2762
HEIGHT
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18-May-2023
13:42
linh
pham



AFTER

MASS
51
AREA
2762
HEIGHT
1445
18-May-2023
13:42
linh
pham



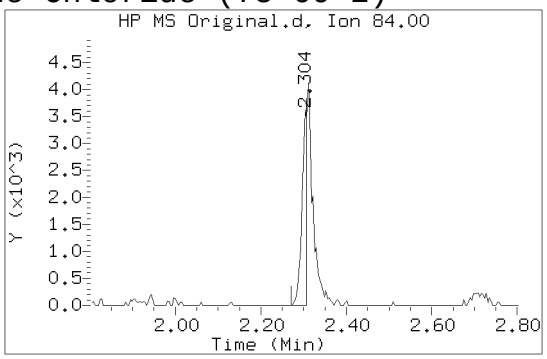
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Methylene Chloride (75-09-2)

Reason Code:

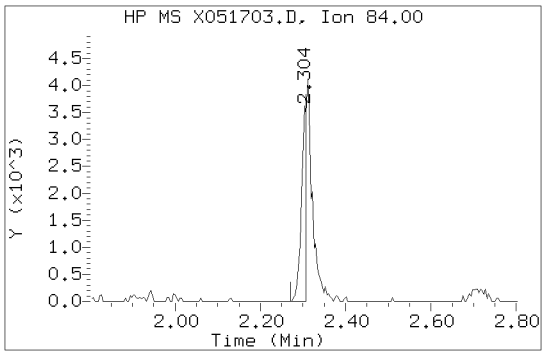
BEFORE

MASS
84
AREA
3196
HEIGHT
3626
18-May-2023
13:42
linh
pham



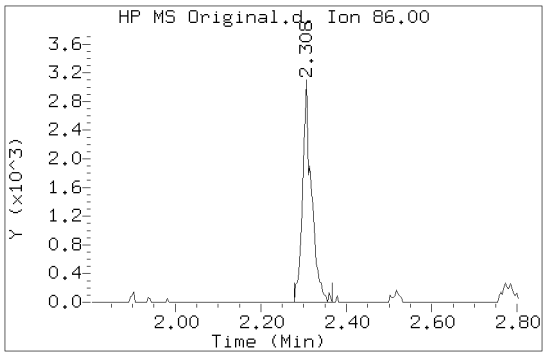
AFTER

MASS
84
AREA
3196
HEIGHT
3626
18-May-2023
13:42
linh
pham



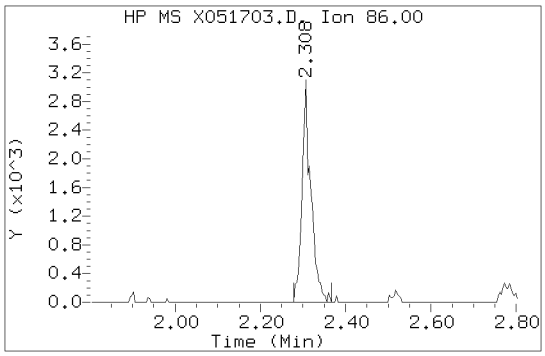
BEFORE

MASS
86
AREA
4604
HEIGHT
3102
18-May-2023
13:42
linh
pham



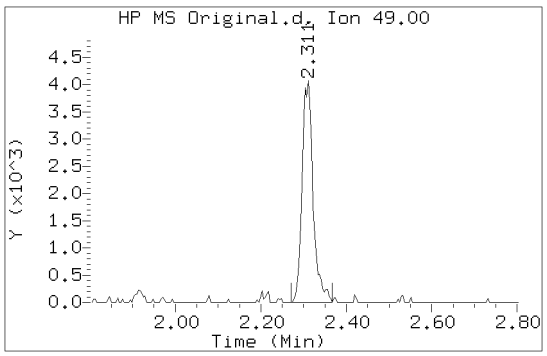
AFTER

MASS
86
AREA
4604
HEIGHT
3102
18-May-2023
13:42
linh
pham



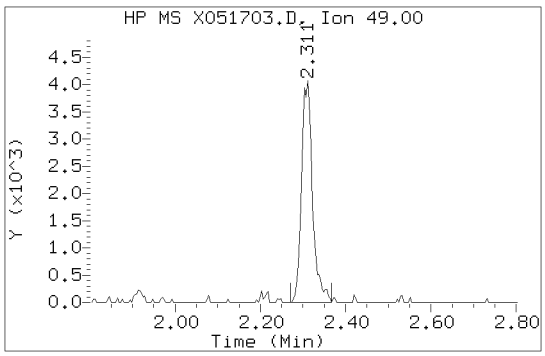
BEFORE

MASS
49
AREA
7449
HEIGHT
4072
18-May-2023
13:42
linh
pham



AFTER

MASS
49
AREA
7449
HEIGHT
4072
18-May-2023
13:42
linh
pham

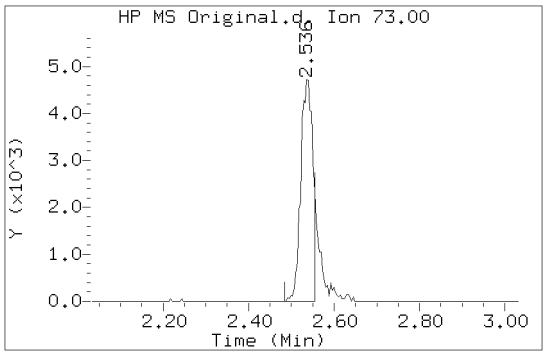


Methyl tert-butyl ether (1634-04-4)

Reason Code:

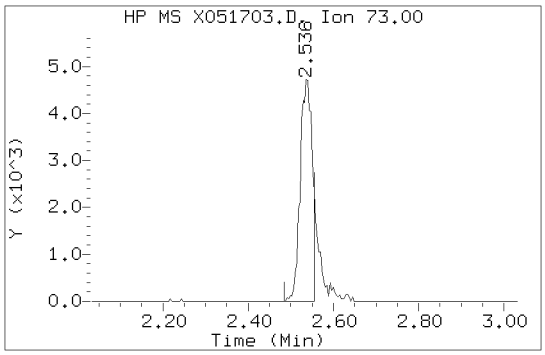
BEFORE

MASS
73
AREA
9307
HEIGHT
4719
18-May-2023
13:42
linh
pham



AFTER

MASS
73
AREA
9307
HEIGHT
4719
18-May-2023
13:42
linh
pham

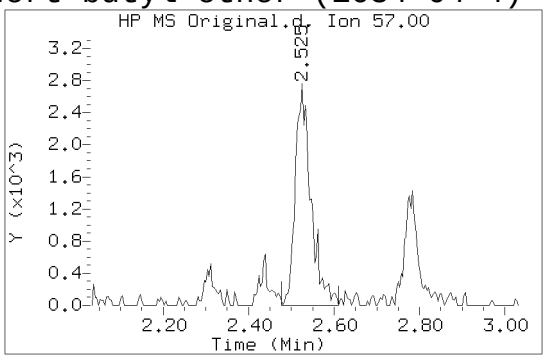


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

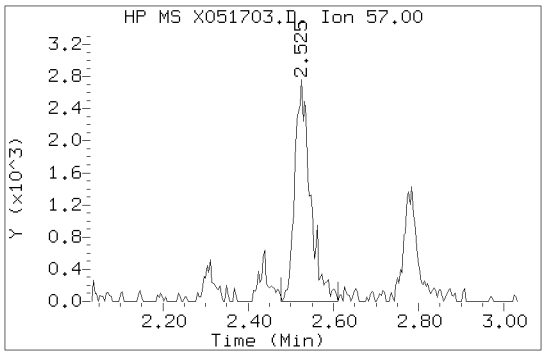
Methyl tert-butyl ether (1634-04-4)

Reason Code:

BEFORE
MASS
57
AREA
7096
HEIGHT
2760
18-May-2023
13:42
linh
pham



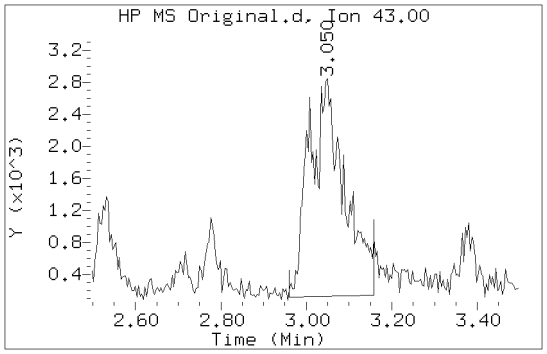
AFTER
MASS
57
AREA
7096
HEIGHT
2760
18-May-2023
13:42
linh
pham



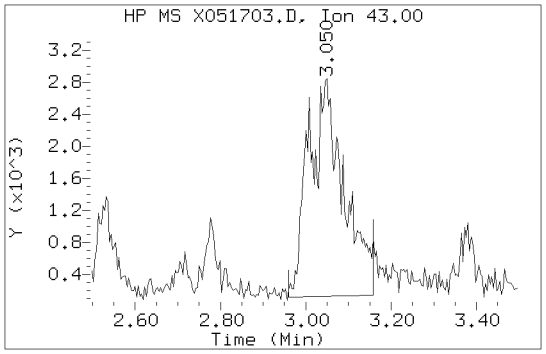
Vinyl Acetate (108-05-4)

Reason Code:

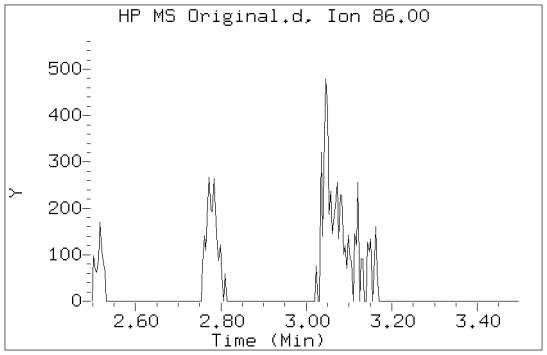
BEFORE
MASS
43
AREA
15515
HEIGHT
2716
18-May-2023
13:42
linh
pham



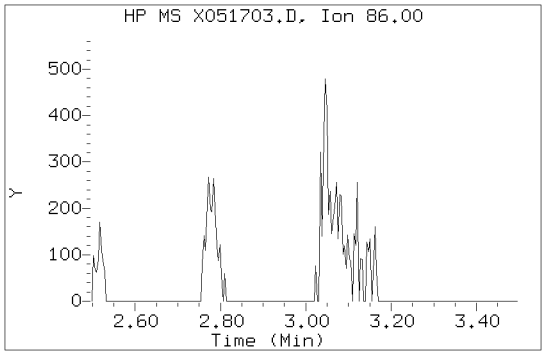
AFTER
MASS
43
AREA
15515
HEIGHT
2716
18-May-2023
13:42
linh
pham



BEFORE
MASS
86
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



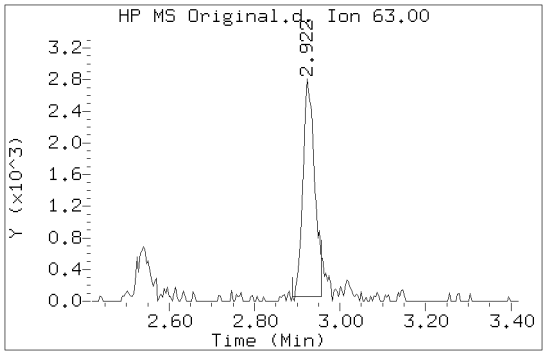
AFTER
MASS
86
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



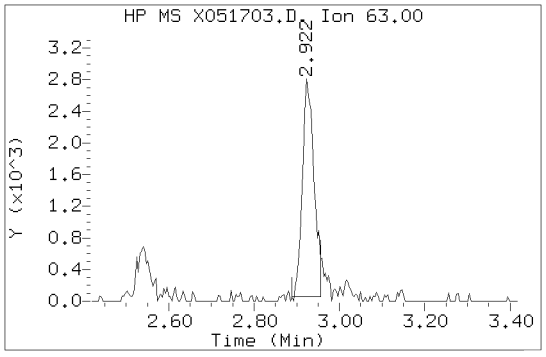
1,1-Dichloroethane (75-34-3)

Reason Code:

BEFORE
MASS
63
AREA
5303
HEIGHT
2755
18-May-2023
13:42
linh
pham



AFTER
MASS
63
AREA
5303
HEIGHT
2755
18-May-2023
13:42
linh
pham



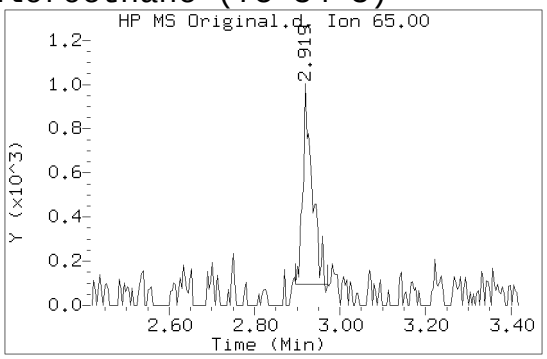
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,1-Dichloroethane (75-34-3)

Reason Code:

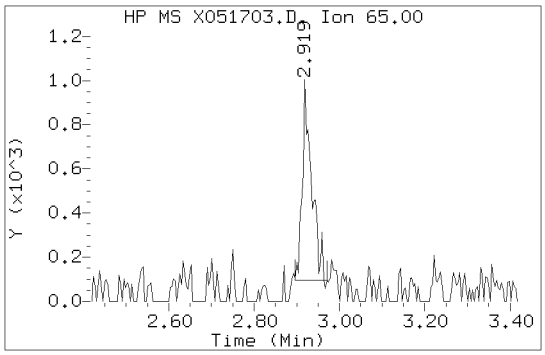
BEFORE

MASS
65
AREA
1385
HEIGHT
907
18-May-2023
13:42
linh
pham



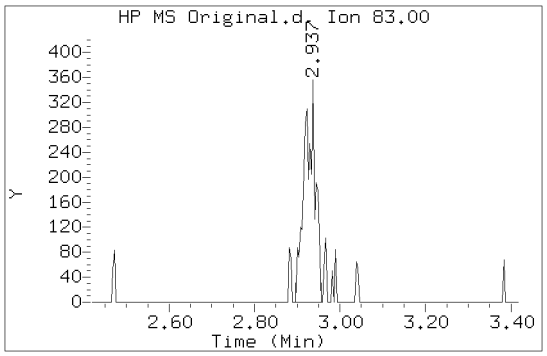
AFTER

MASS
65
AREA
1385
HEIGHT
907
18-May-2023
13:42
linh
pham



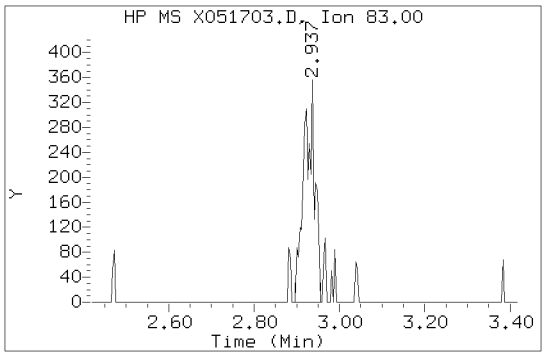
BEFORE

MASS
83
AREA
635
HEIGHT
356
18-May-2023
13:42
linh
pham



AFTER

MASS
83
AREA
635
HEIGHT
356
18-May-2023
13:42
linh
pham

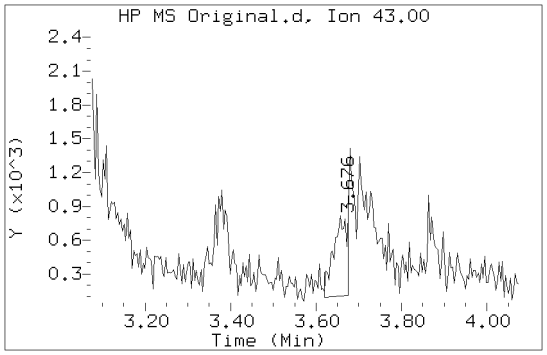


2-Butanone (78-93-3)

Reason Code:

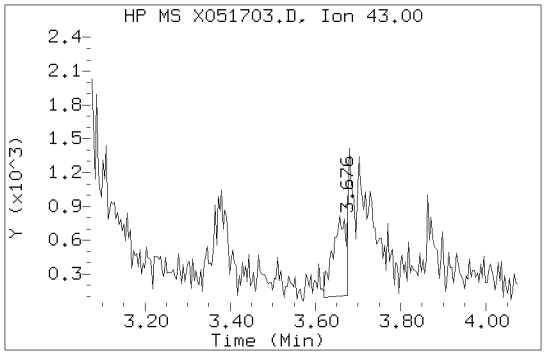
BEFORE

MASS
43
AREA
1598
HEIGHT
713
18-May-2023
13:42
linh
pham



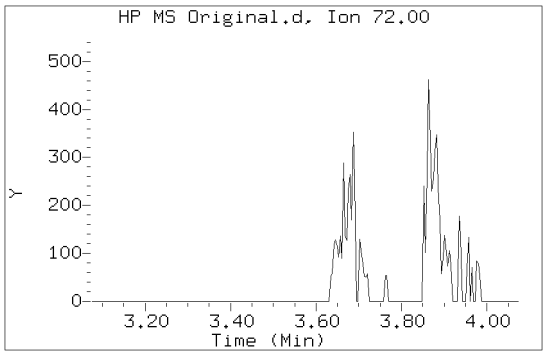
AFTER

MASS
43
AREA
1598
HEIGHT
713
18-May-2023
13:42
linh
pham



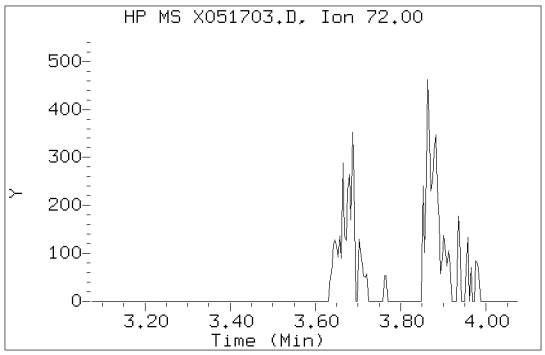
BEFORE

MASS
72
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
72
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



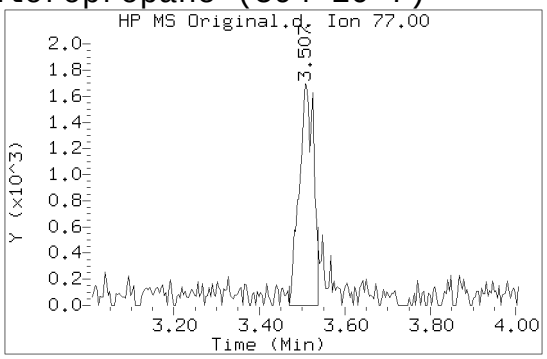
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

2,2-Dichloropropane (594-20-7)

Reason Code:

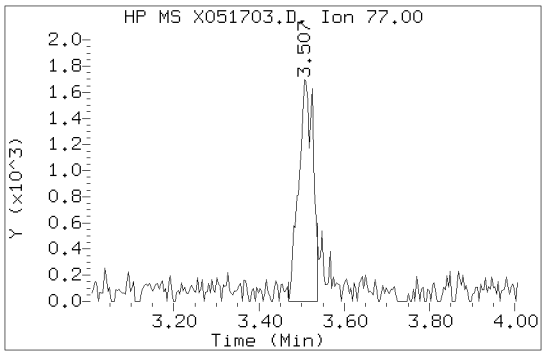
BEFORE

MASS
77
AREA
4065
HEIGHT
1696
18-May-2023
13:42
linh
pham



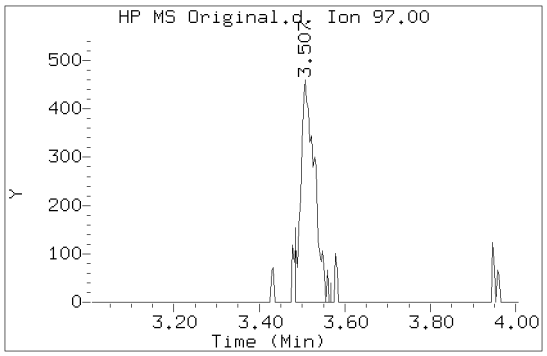
AFTER

MASS
77
AREA
4065
HEIGHT
1696
18-May-2023
13:42
linh
pham



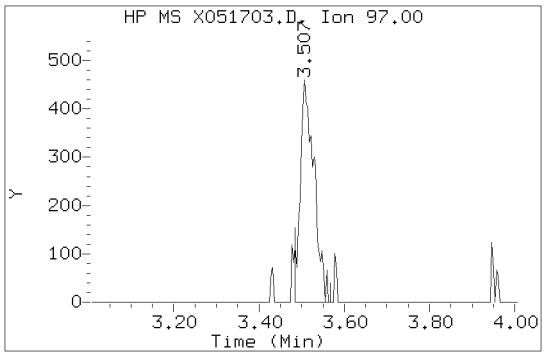
BEFORE

MASS
97
AREA
1051
HEIGHT
460
18-May-2023
13:42
linh
pham



AFTER

MASS
97
AREA
1051
HEIGHT
460
18-May-2023
13:42
linh
pham

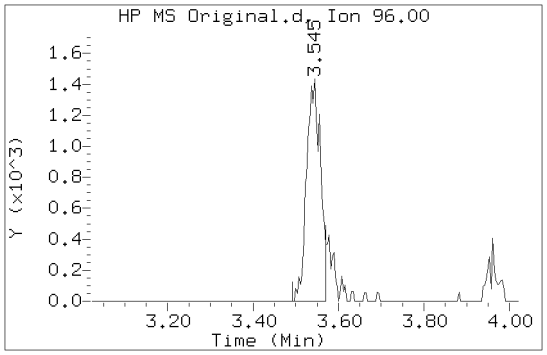


cis-1,2-Dichloroethene (156-59-2)

Reason Code:

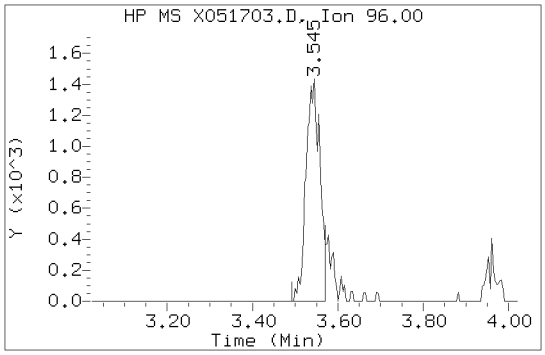
BEFORE

MASS
96
AREA
3272
HEIGHT
1435
18-May-2023
13:42
linh
pham



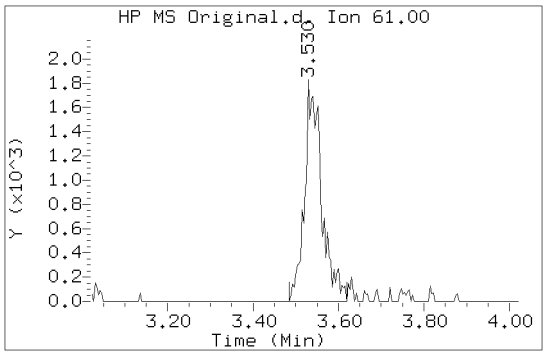
AFTER

MASS
96
AREA
3272
HEIGHT
1435
18-May-2023
13:42
linh
pham



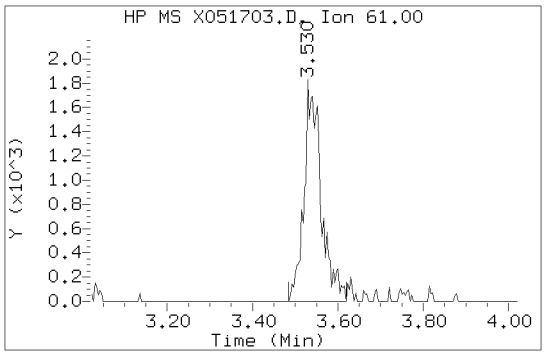
BEFORE

MASS
61
AREA
5044
HEIGHT
1829
18-May-2023
13:42
linh
pham



AFTER

MASS
61
AREA
5044
HEIGHT
1829
18-May-2023
13:42
linh
pham



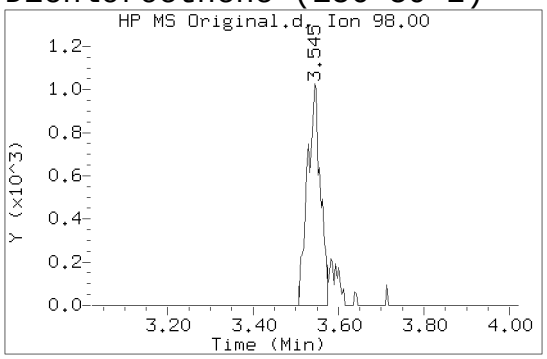
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

cis-1,2-Dichloroethene (156-59-2)

Reason Code:

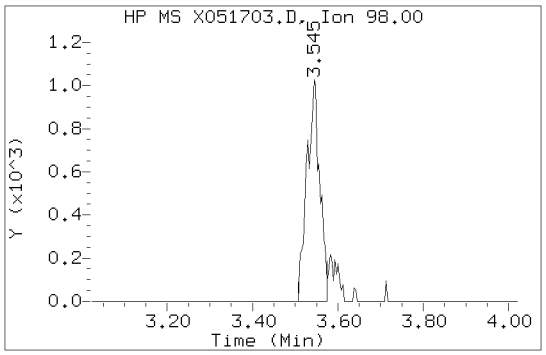
BEFORE

MASS
98
AREA
2158
HEIGHT
1027
18-May-2023
13:42
linh
pham



AFTER

MASS
98
AREA
2158
HEIGHT
1027
18-May-2023
13:42
linh
pham

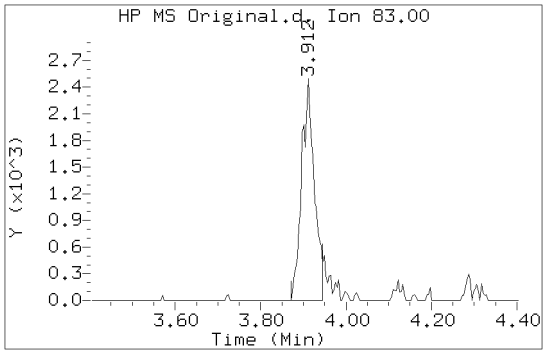


Chloroform (67-66-3)

Reason Code:

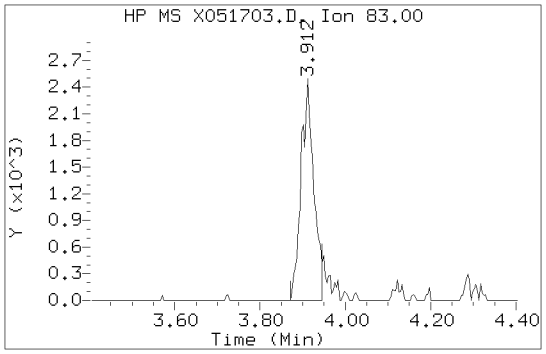
BEFORE

MASS
83
AREA
5260
HEIGHT
2495
18-May-2023
13:42
linh
pham



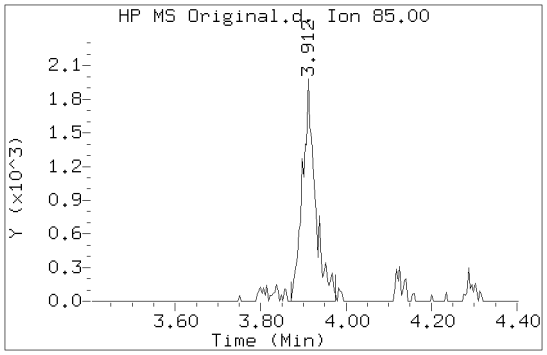
AFTER

MASS
83
AREA
5260
HEIGHT
2495
18-May-2023
13:42
linh
pham



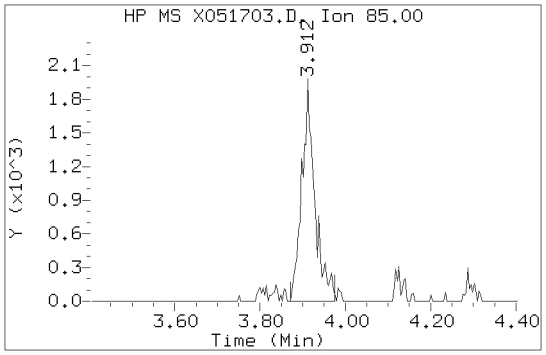
BEFORE

MASS
85
AREA
4218
HEIGHT
1981
18-May-2023
13:42
linh
pham



AFTER

MASS
85
AREA
4218
HEIGHT
1981
18-May-2023
13:42
linh
pham

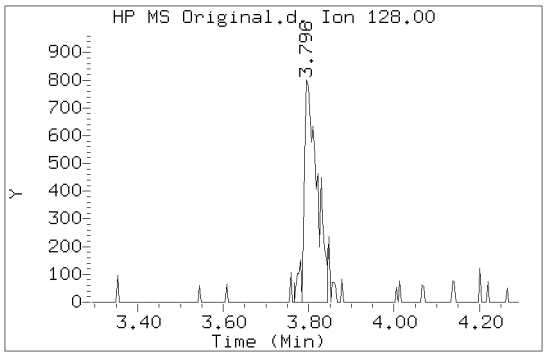


Bromochloromethane (74-97-5)

Reason Code:

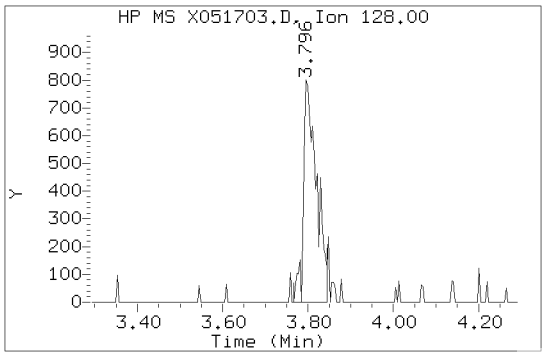
BEFORE

MASS
128
AREA
1738
HEIGHT
801
18-May-2023
13:42
linh
pham



AFTER

MASS
128
AREA
1738
HEIGHT
801
18-May-2023
13:42
linh
pham

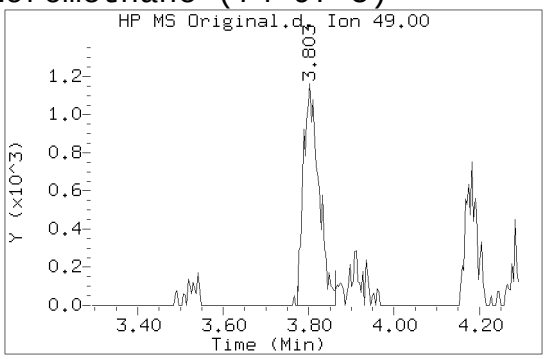


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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Bromochloromethane (74-97-5)

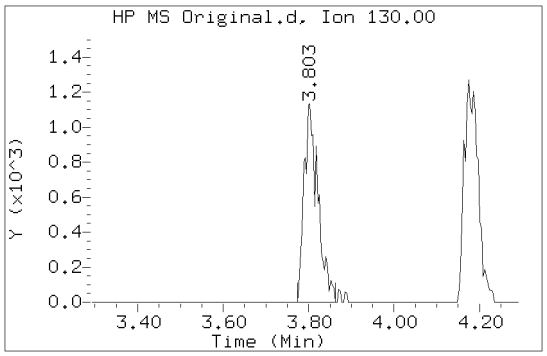
BEFORE

MASS
49
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2948
HEIGHT
1162
18-May-2023
13:42
linh
pham



BEFORE

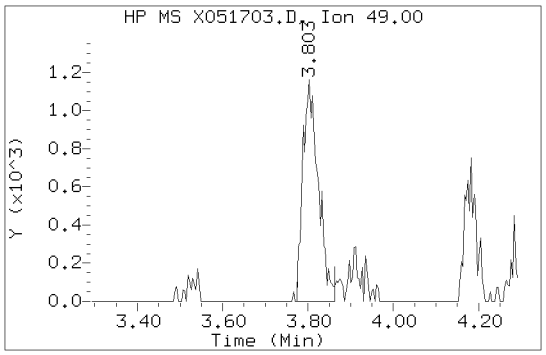
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2582
HEIGHT
1133
18-May-2023
13:42
linh
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Reason Code:

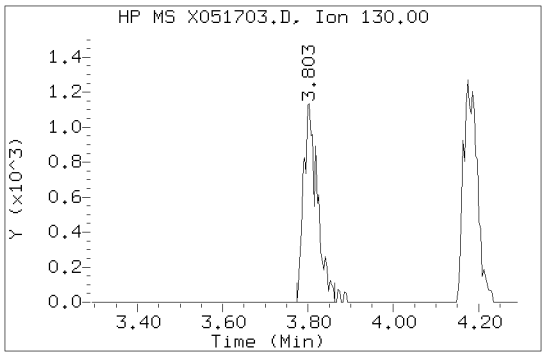
AFTER

MASS
49
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2948
HEIGHT
1162
18-May-2023
13:42
linh
pham



AFTER

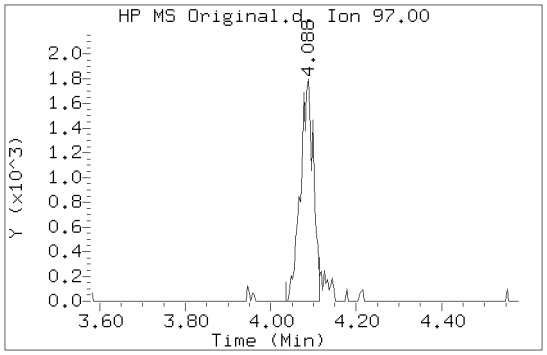
MASS
130
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2582
HEIGHT
1133
18-May-2023
13:42
linh
pham



1,1,1-Trichloroethane (71-55-6)

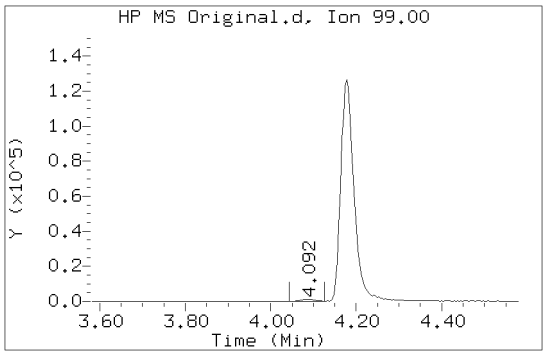
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97
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3862
HEIGHT
1798
18-May-2023
13:42
linh
pham



BEFORE

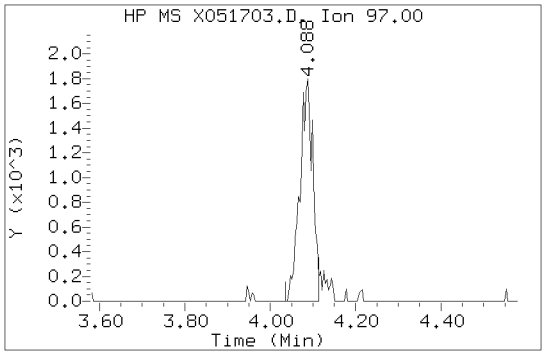
MASS
99
AREA
2612
HEIGHT
1249
18-May-2023
13:42
linh
pham



Reason Code:

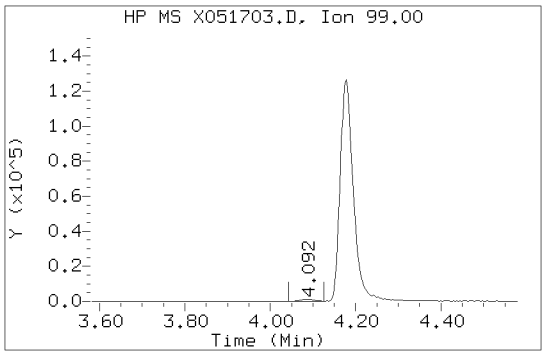
AFTER

MASS
97
AREA
3862
HEIGHT
1798
18-May-2023
13:42
linh
pham



AFTER

MASS
99
AREA
2612
HEIGHT
1249
18-May-2023
13:42
linh
pham



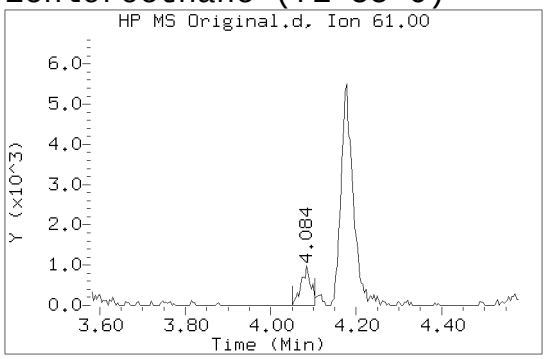
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,1,1-Trichloroethane (71-55-6)

Reason Code:

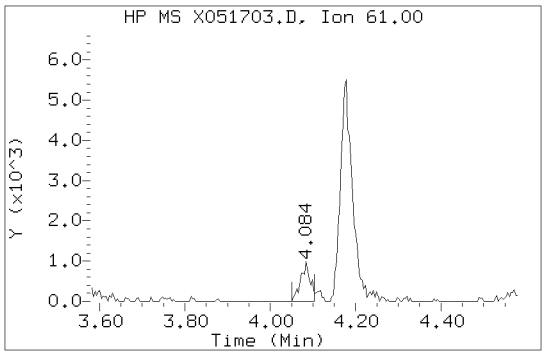
BEFORE

MASS
61
AREA
1532
HEIGHT
993
18-May-2023
13:42
linh
pham



AFTER

MASS
61
AREA
1532
HEIGHT
993
18-May-2023
13:42
linh
pham

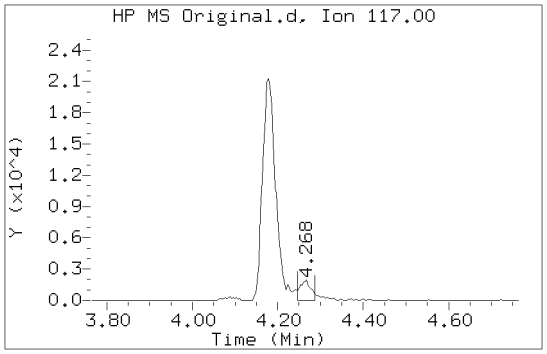


Carbon Tetrachloride (56-23-5)

Reason Code:

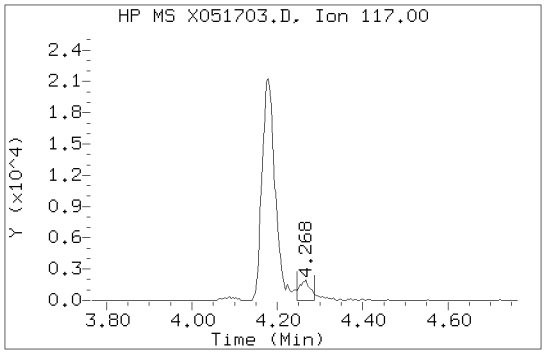
BEFORE

MASS
117
AREA
3535
HEIGHT
1948
18-May-2023
13:42
linh
pham



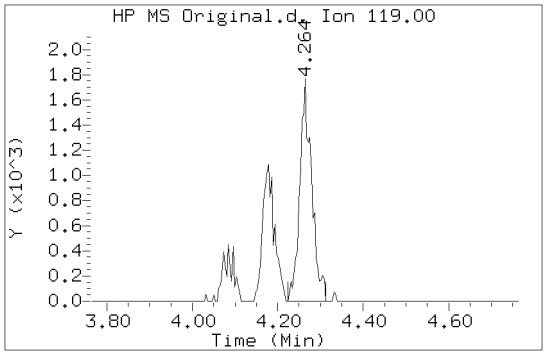
AFTER

MASS
117
AREA
3535
HEIGHT
1948
18-May-2023
13:42
linh
pham



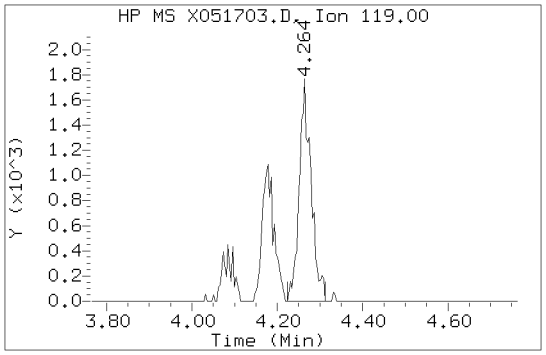
BEFORE

MASS
119
AREA
3467
HEIGHT
1767
18-May-2023
13:42
linh
pham



AFTER

MASS
119
AREA
3467
HEIGHT
1767
18-May-2023
13:42
linh
pham

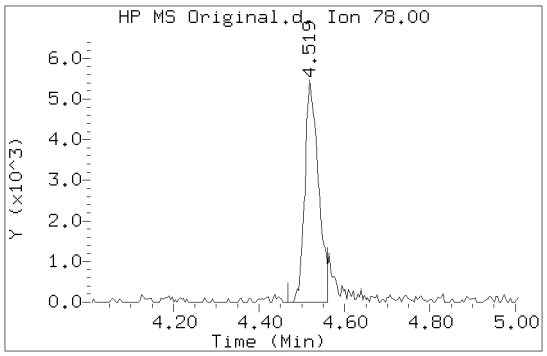


Benzene (71-43-2)

Reason Code:

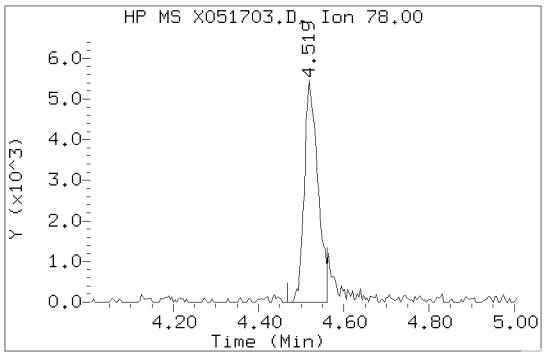
BEFORE

MASS
78
AREA
12185
HEIGHT
5472
18-May-2023
13:42
linh
pham



AFTER

MASS
78
AREA
12185
HEIGHT
5472
18-May-2023
13:42
linh
pham

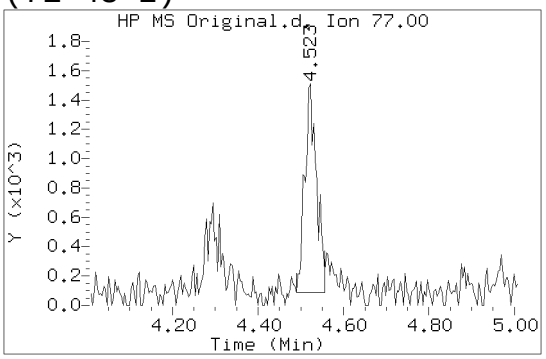


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

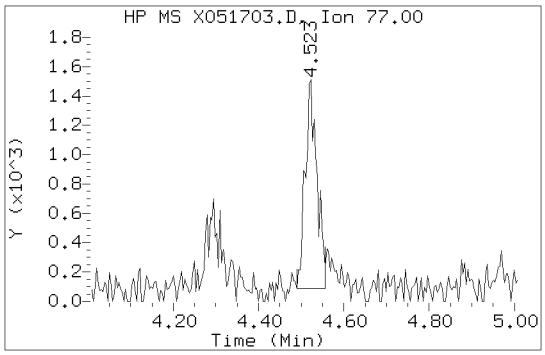
Benzene (71-43-2)

Reason Code:

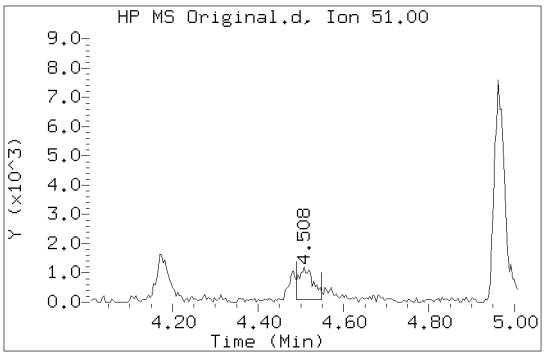
BEFORE
MASS
77
AREA
2772
HEIGHT
1425
18-May-2023
13:42
linh
pham



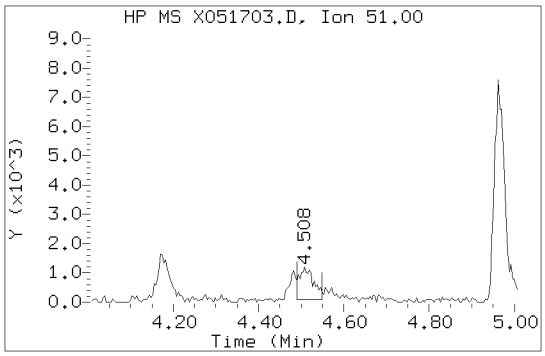
AFTER
MASS
77
AREA
2772
HEIGHT
1425
18-May-2023
13:42
linh
pham



BEFORE
MASS
51
AREA
2692
HEIGHT
1118
18-May-2023
13:42
linh
pham



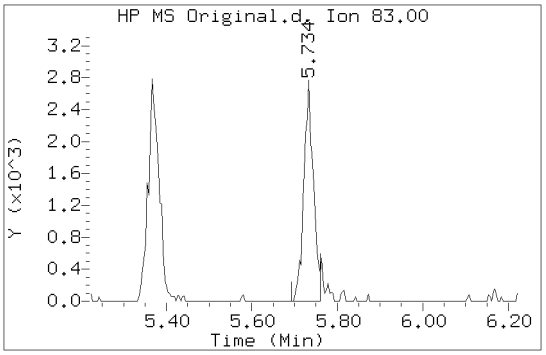
AFTER
MASS
51
AREA
2692
HEIGHT
1118
18-May-2023
13:42
linh
pham



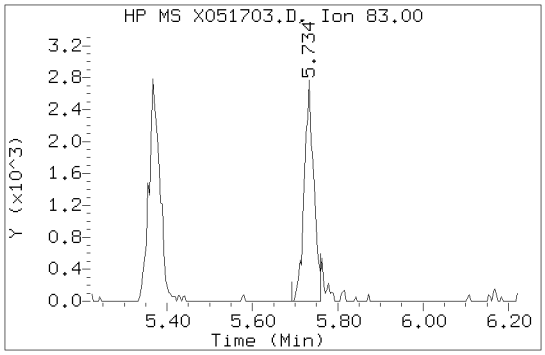
Bromodichloromethane (75-27-4)

Reason Code:

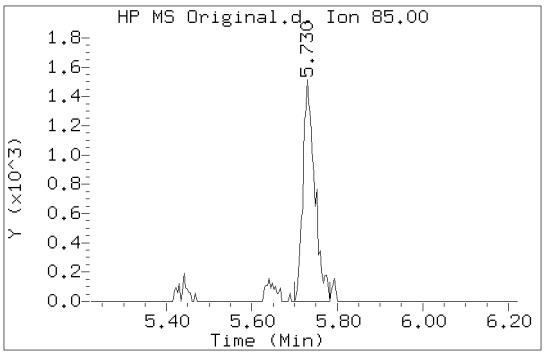
BEFORE
MASS
83
AREA
4365
HEIGHT
2768
18-May-2023
13:42
linh
pham



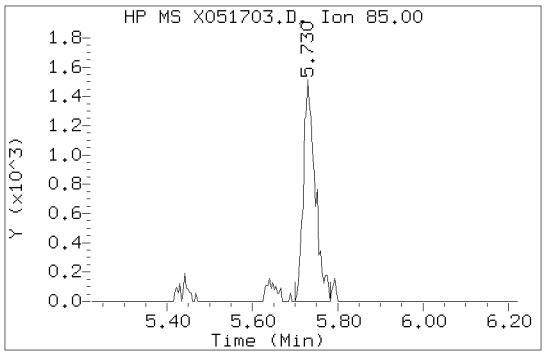
AFTER
MASS
83
AREA
4365
HEIGHT
2768
18-May-2023
13:42
linh
pham



BEFORE
MASS
85
AREA
2952
HEIGHT
1514
18-May-2023
13:42
linh
pham



AFTER
MASS
85
AREA
2952
HEIGHT
1514
18-May-2023
13:42
linh
pham

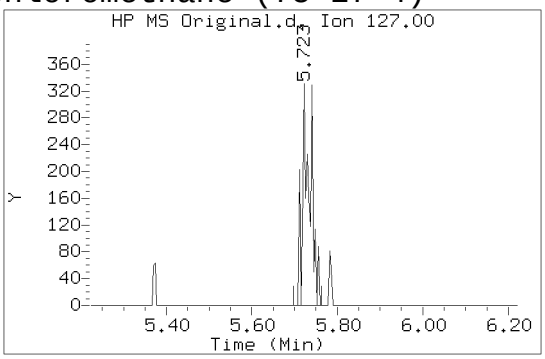


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

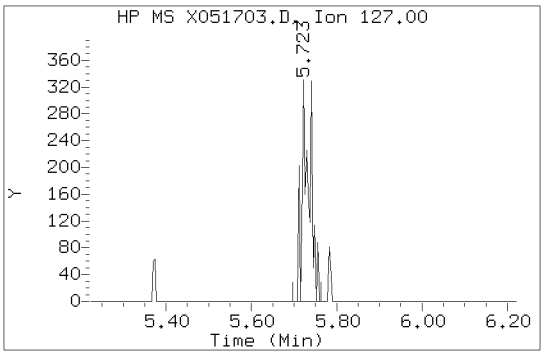
Bromodichloromethane (75-27-4)

Reason Code:

BEFORE
MASS
127
AREA
439
HEIGHT
331
18-May-2023
13:42
linh
pham



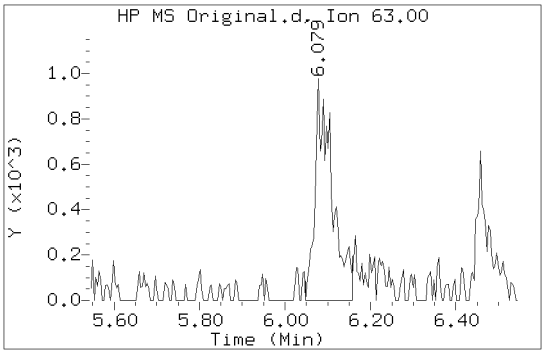
AFTER
MASS
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AREA
439
HEIGHT
331
18-May-2023
13:42
linh
pham



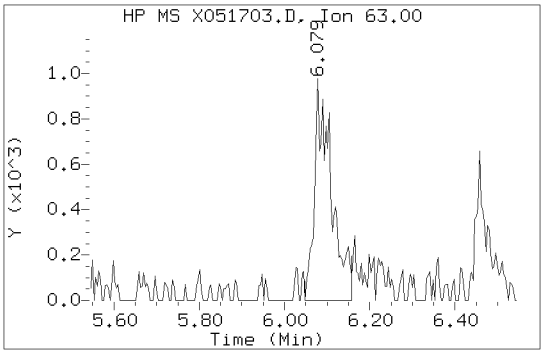
2-Chloroethylvinyl ether (110-75-8)

Reason Code:

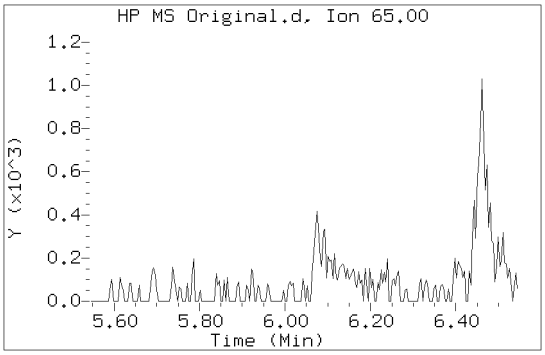
BEFORE
MASS
63
AREA
2660
HEIGHT
977
18-May-2023
13:42
linh
pham



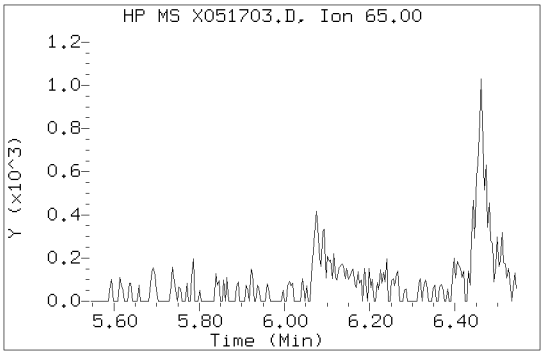
AFTER
MASS
63
AREA
2660
HEIGHT
977
18-May-2023
13:42
linh
pham



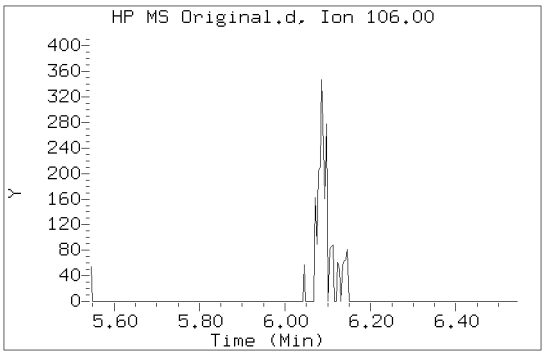
BEFORE
MASS
65
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



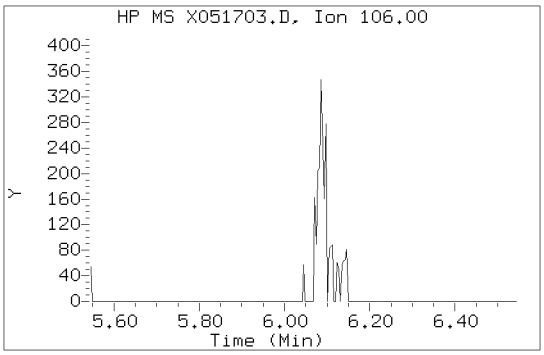
AFTER
MASS
65
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



BEFORE
MASS
106
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER
MASS
106
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



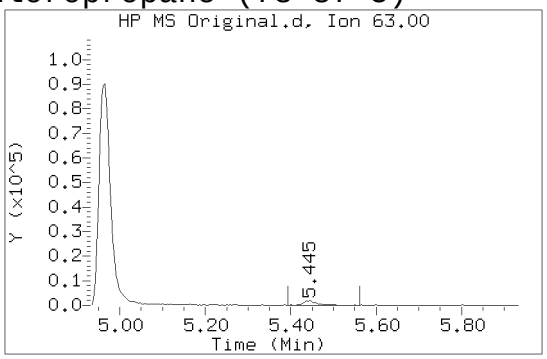
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,2-Dichloropropane (78-87-5)

Reason Code:

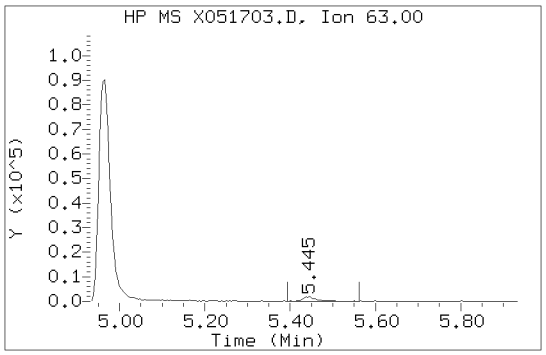
BEFORE

MASS
63
AREA
3346
HEIGHT
2002
18-May-2023
13:42
linh
pham



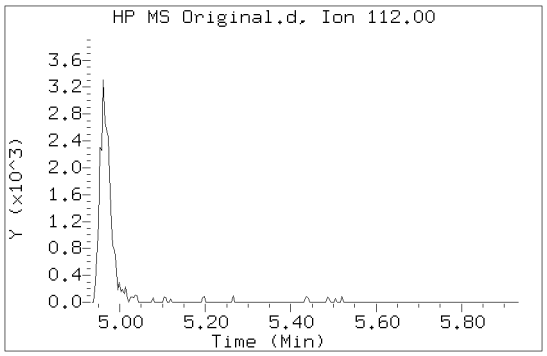
AFTER

MASS
63
AREA
3346
HEIGHT
2002
18-May-2023
13:42
linh
pham



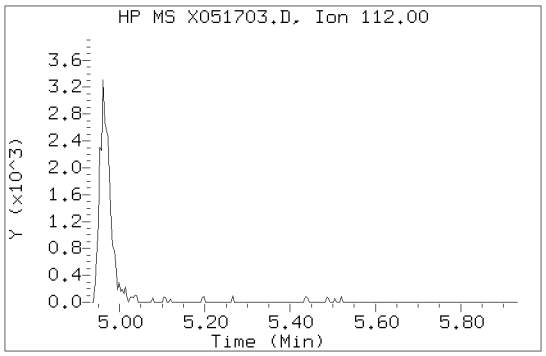
BEFORE

MASS
112
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
112
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

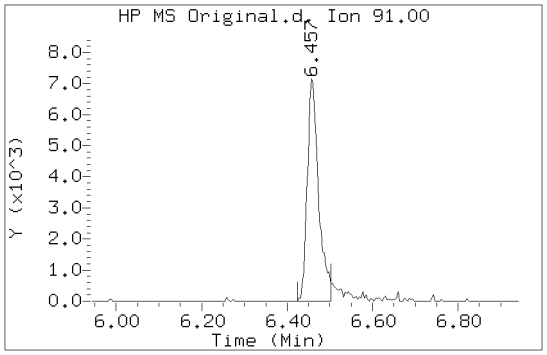


Toluene (108-88-3)

Reason Code:

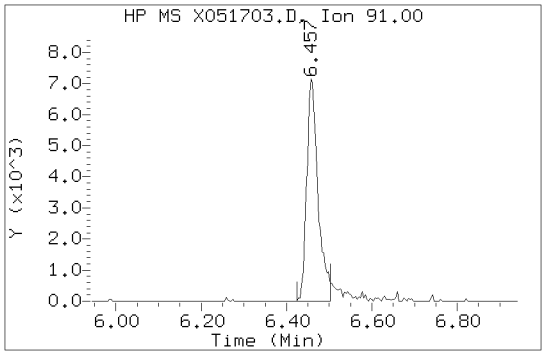
BEFORE

MASS
91
AREA
13263
HEIGHT
7147
18-May-2023
13:42
linh
pham



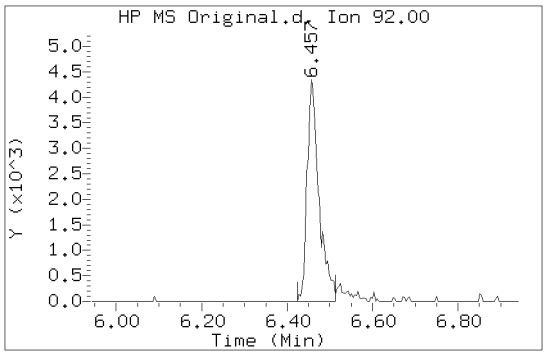
AFTER

MASS
91
AREA
13263
HEIGHT
7147
18-May-2023
13:42
linh
pham



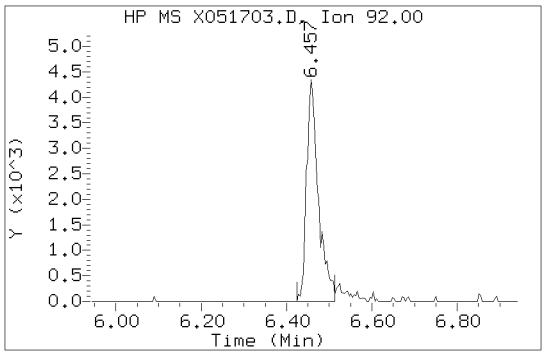
BEFORE

MASS
92
AREA
8443
HEIGHT
4346
18-May-2023
13:42
linh
pham



AFTER

MASS
92
AREA
8443
HEIGHT
4346
18-May-2023
13:42
linh
pham



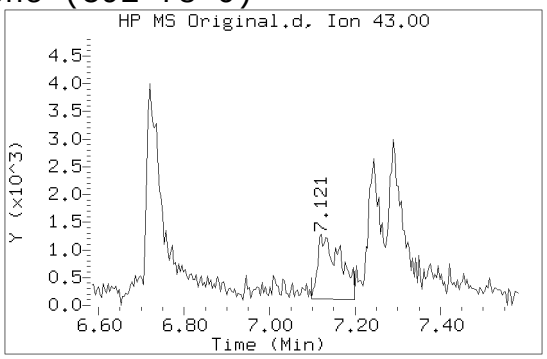
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

2-Hexanone (591-78-6)

Reason Code:

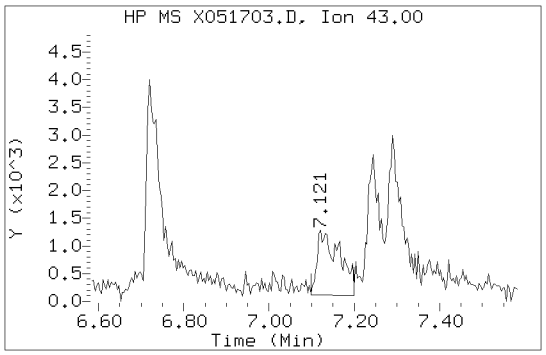
BEFORE

MASS
43
AREA
4224
HEIGHT
1179
18-May-2023
13:42
linh
pham



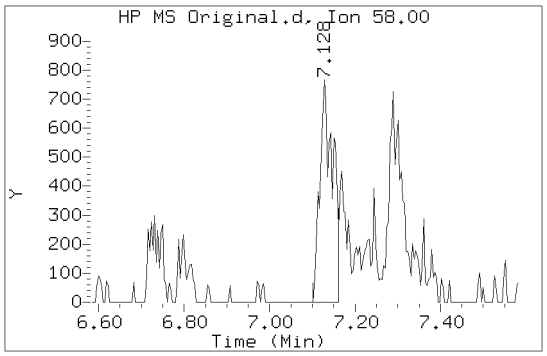
AFTER

MASS
43
AREA
4224
HEIGHT
1179
18-May-2023
13:42
linh
pham



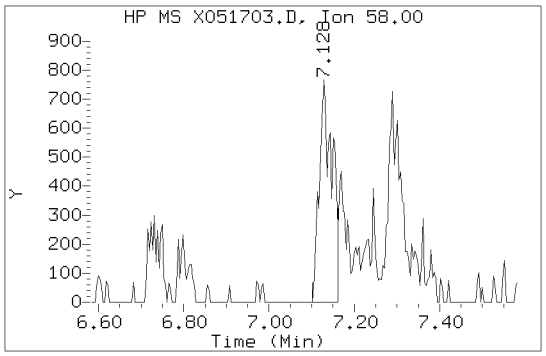
BEFORE

MASS
58
AREA
1632
HEIGHT
766
18-May-2023
13:42
linh
pham



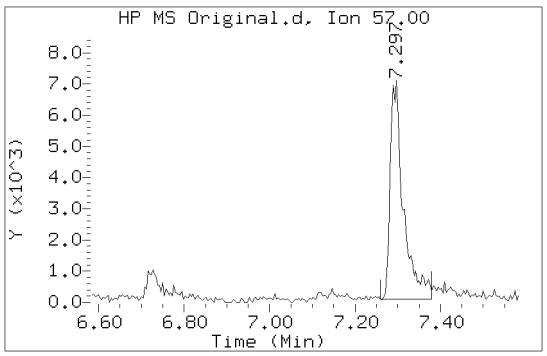
AFTER

MASS
58
AREA
1632
HEIGHT
766
18-May-2023
13:42
linh
pham



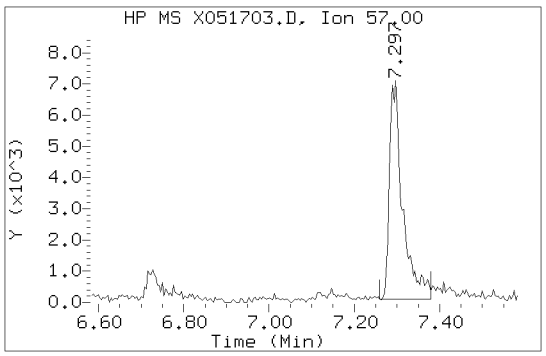
BEFORE

MASS
57
AREA
15046
HEIGHT
7006
18-May-2023
13:42
linh
pham



AFTER

MASS
57
AREA
15046
HEIGHT
7006
18-May-2023
13:42
linh
pham

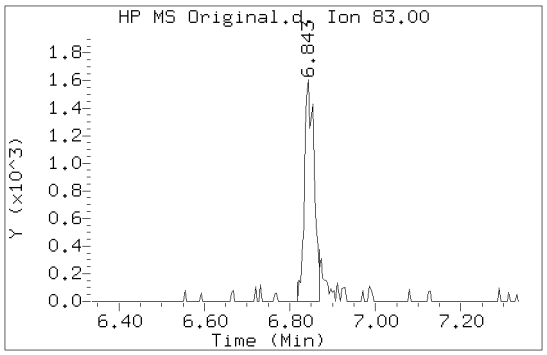


1,1,2-Trichloroethane (79-00-5)

Reason Code:

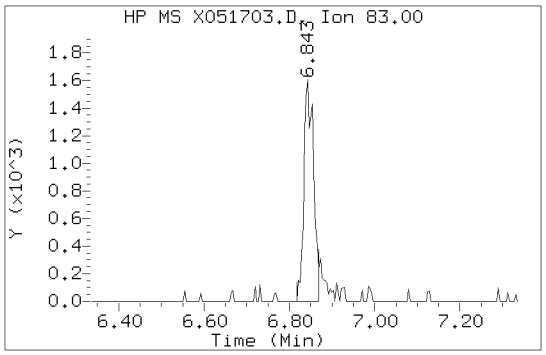
BEFORE

MASS
83
AREA
2580
HEIGHT
1606
18-May-2023
13:42
linh
pham



AFTER

MASS
83
AREA
2580
HEIGHT
1606
18-May-2023
13:42
linh
pham



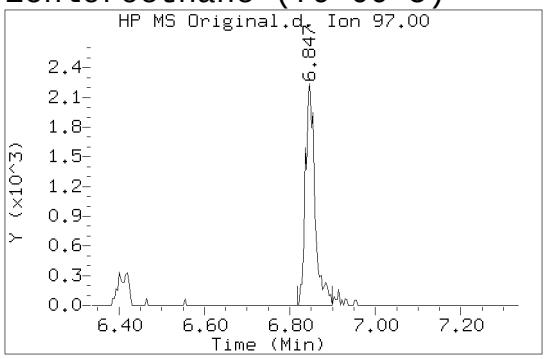
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,1,2-Trichloroethane (79-00-5)

Reason Code:

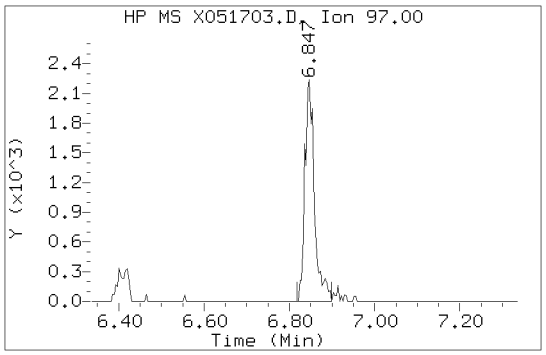
BEFORE

MASS
97
AREA
3533
HEIGHT
2239
18-May-2023
13:42
linh
pham



AFTER

MASS
97
AREA
3533
HEIGHT
2239
18-May-2023
13:42
linh
pham

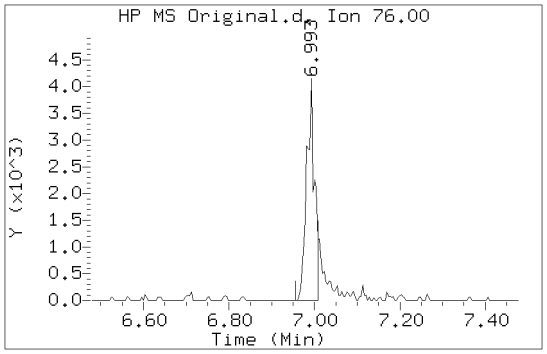


1,3-Dichloropropane (142-28-9)

Reason Code:

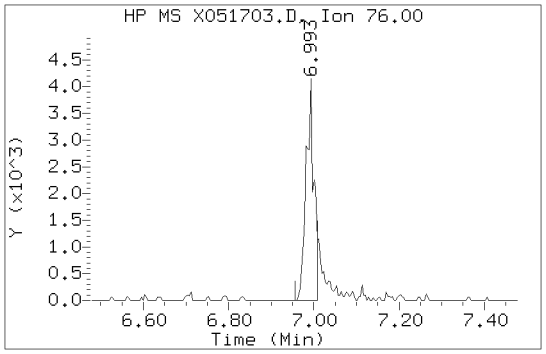
BEFORE

MASS
76
AREA
5321
HEIGHT
4147
18-May-2023
13:42
linh
pham



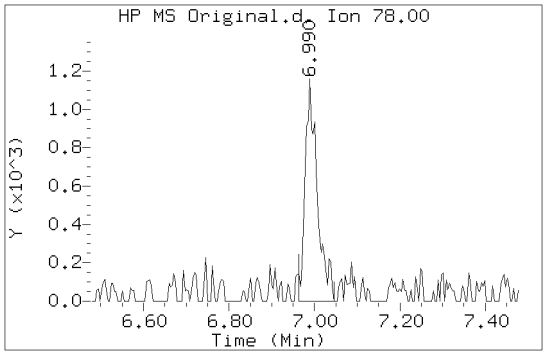
AFTER

MASS
76
AREA
5321
HEIGHT
4147
18-May-2023
13:42
linh
pham



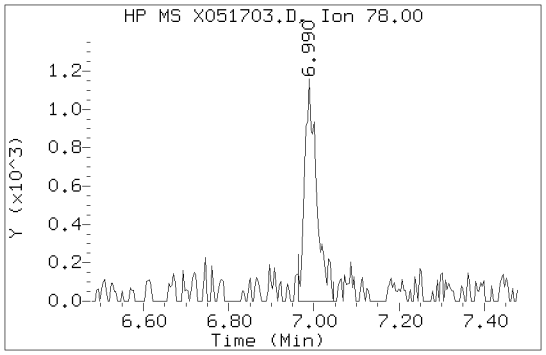
BEFORE

MASS
78
AREA
2324
HEIGHT
1159
18-May-2023
13:42
linh
pham



AFTER

MASS
78
AREA
2324
HEIGHT
1159
18-May-2023
13:42
linh
pham

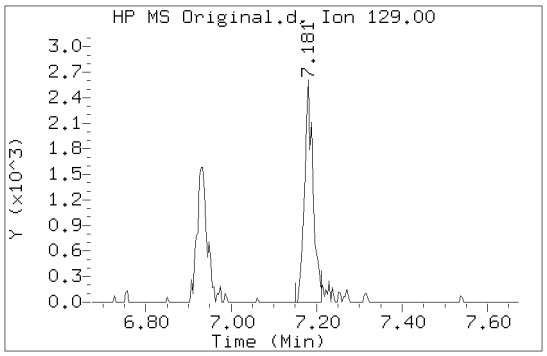


Dibromochloromethane (124-48-1)

Reason Code:

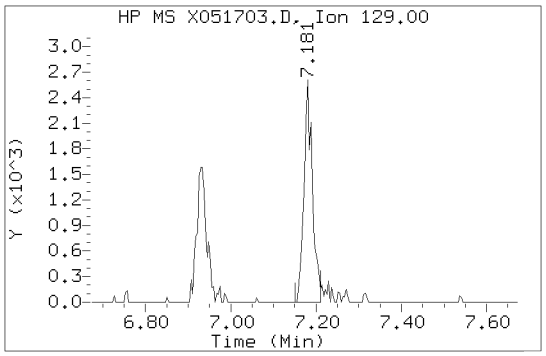
BEFORE

MASS
129
AREA
3630
HEIGHT
2609
18-May-2023
13:42
linh
pham



AFTER

MASS
129
AREA
3630
HEIGHT
2609
18-May-2023
13:42
linh
pham



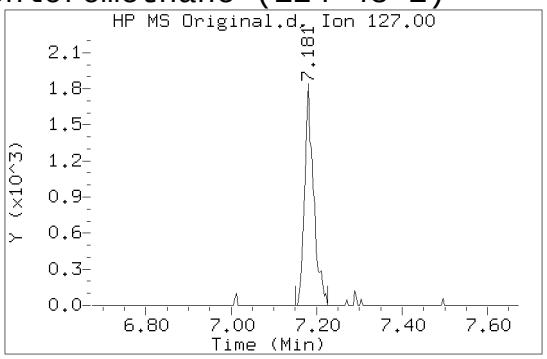
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Dibromochloromethane (124-48-1)

Reason Code:

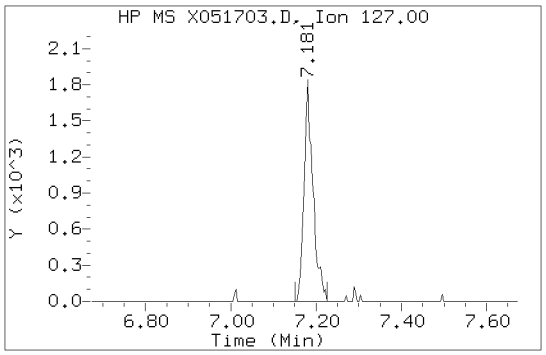
BEFORE

MASS
127
AREA
2711
HEIGHT
1842
18-May-2023
13:42
linh
pham



AFTER

MASS
127
AREA
2711
HEIGHT
1842
18-May-2023
13:42
linh
pham

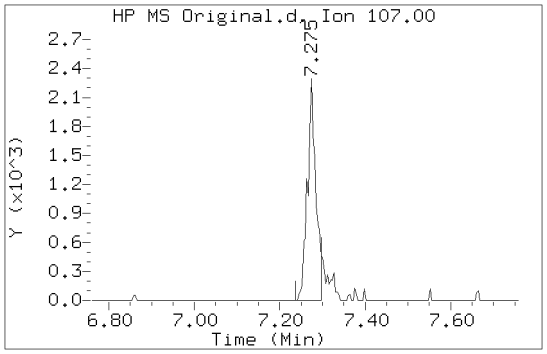


1,2-Dibromoethane (106-93-4)

Reason Code:

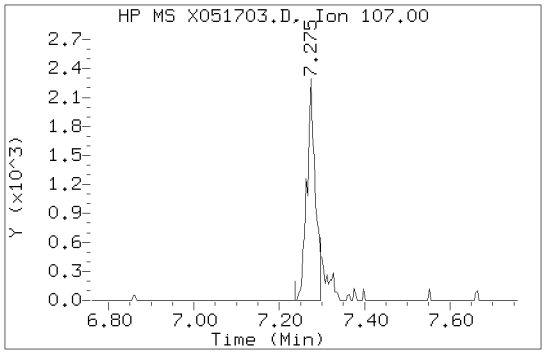
BEFORE

MASS
107
AREA
3173
HEIGHT
2295
18-May-2023
13:42
linh
pham



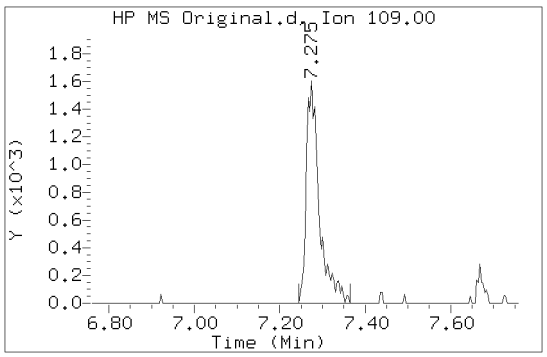
AFTER

MASS
107
AREA
3173
HEIGHT
2295
18-May-2023
13:42
linh
pham



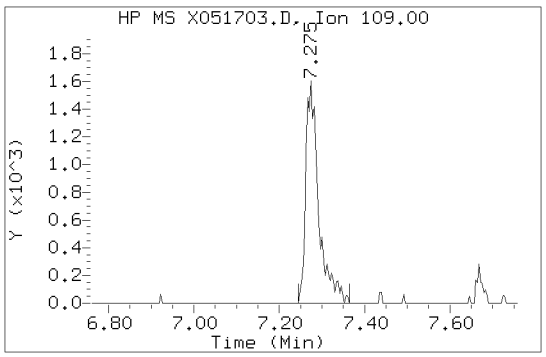
BEFORE

MASS
109
AREA
3389
HEIGHT
1604
18-May-2023
13:42
linh
pham



AFTER

MASS
109
AREA
3389
HEIGHT
1604
18-May-2023
13:42
linh
pham

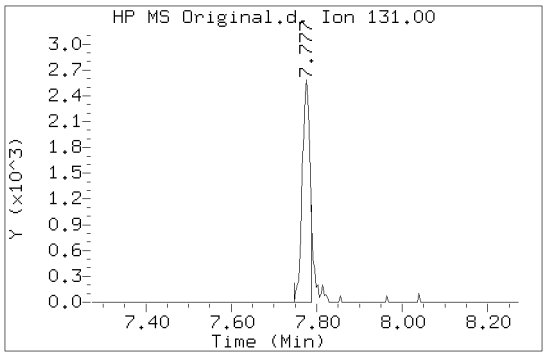


1,1,1,2-Tetrachloroethane (630-20-6)

Reason Code:

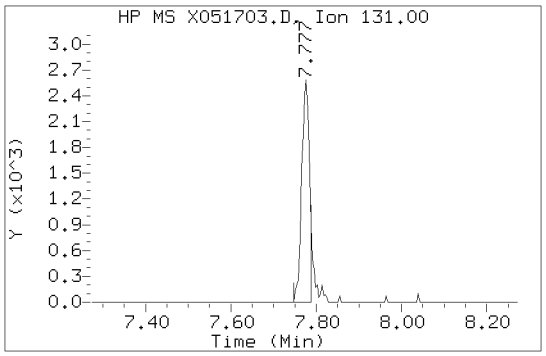
BEFORE

MASS
131
AREA
3316
HEIGHT
2585
18-May-2023
13:42
linh
pham



AFTER

MASS
131
AREA
3316
HEIGHT
2585
18-May-2023
13:42
linh
pham



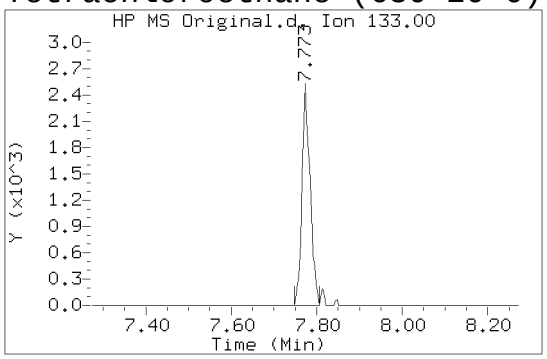
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,1,1,2-Tetrachloroethane (630-20-6)

Reason Code:

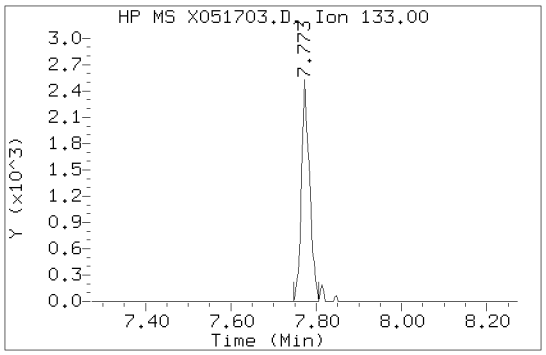
BEFORE

MASS
133
AREA
3452
HEIGHT
2529
18-May-2023
13:42
linh
pham



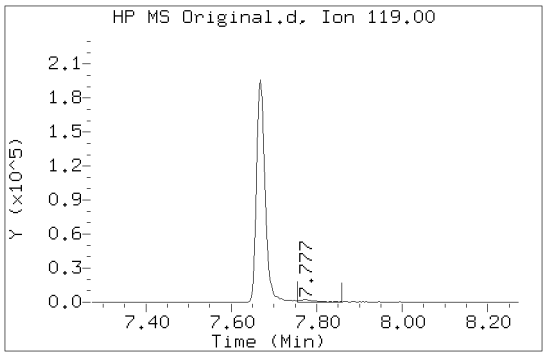
AFTER

MASS
133
AREA
3452
HEIGHT
2529
18-May-2023
13:42
linh
pham



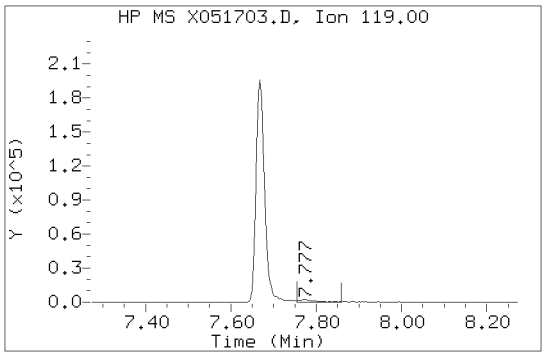
BEFORE

MASS
119
AREA
5616
HEIGHT
2260
18-May-2023
13:42
linh
pham



AFTER

MASS
119
AREA
5616
HEIGHT
2260
18-May-2023
13:42
linh
pham

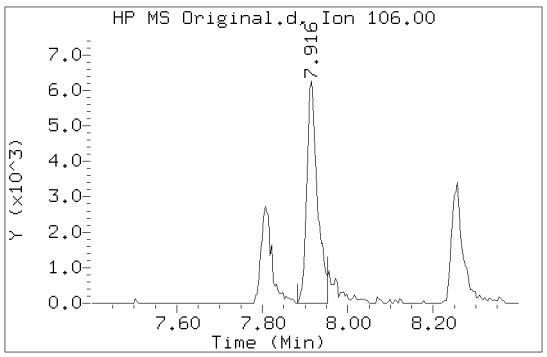


m,p-Xylenes ()

Reason Code:

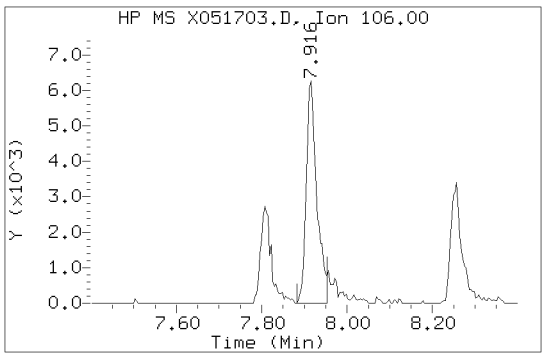
BEFORE

MASS
106
AREA
10900
HEIGHT
6266
18-May-2023
13:42
linh
pham



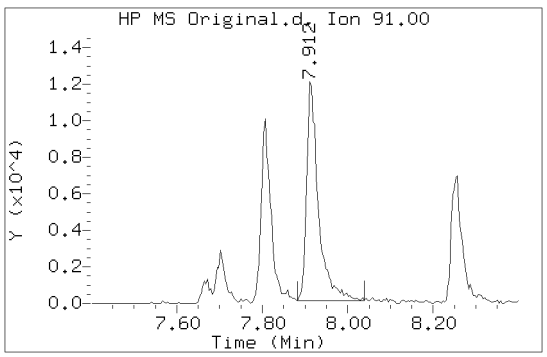
AFTER

MASS
106
AREA
10900
HEIGHT
6266
18-May-2023
13:42
linh
pham



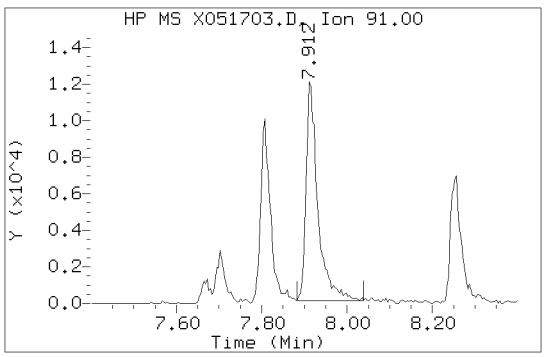
BEFORE

MASS
91
AREA
23148
HEIGHT
11994
18-May-2023
13:42
linh
pham



AFTER

MASS
91
AREA
23148
HEIGHT
11994
18-May-2023
13:42
linh
pham



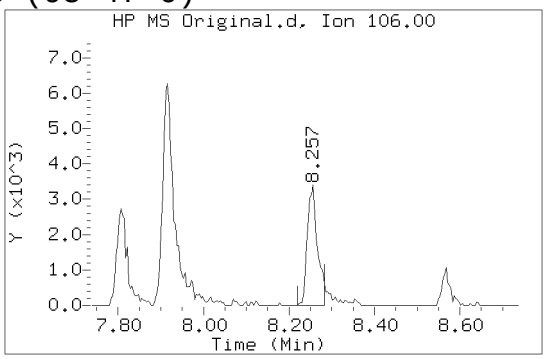
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

o-Xylene (95-47-6)

Reason Code:

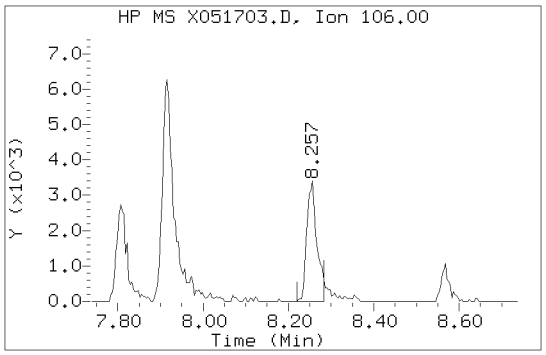
BEFORE

MASS
106
AREA
5647
HEIGHT
3402
18-May-2023
13:42
linh
pham



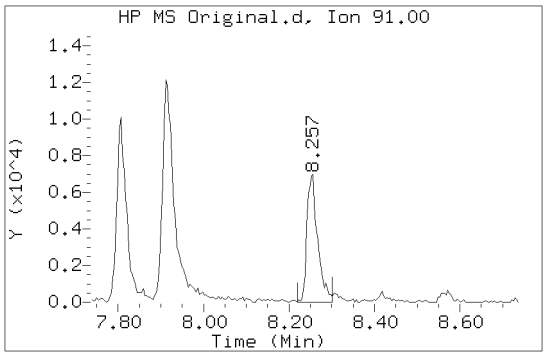
AFTER

MASS
106
AREA
5647
HEIGHT
3402
18-May-2023
13:42
linh
pham



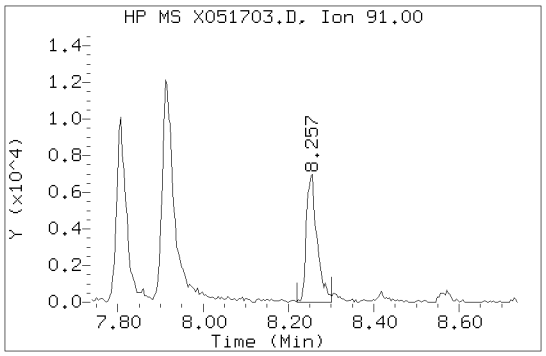
BEFORE

MASS
91
AREA
12247
HEIGHT
6972
18-May-2023
13:42
linh
pham



AFTER

MASS
91
AREA
12247
HEIGHT
6972
18-May-2023
13:42
linh
pham

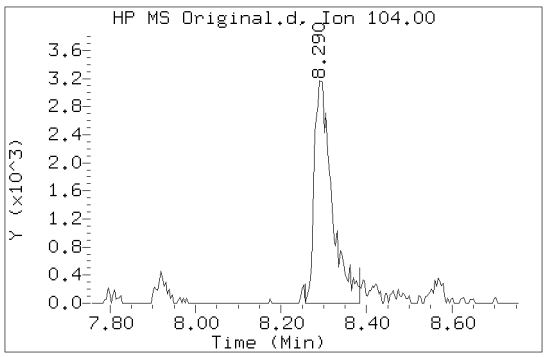


Styrene (100-42-5)

Reason Code:

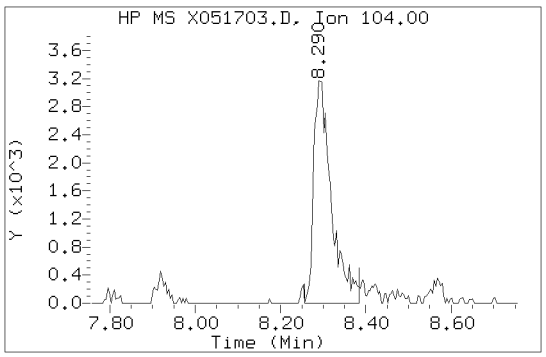
BEFORE

MASS
104
AREA
9111
HEIGHT
3167
18-May-2023
13:42
linh
pham



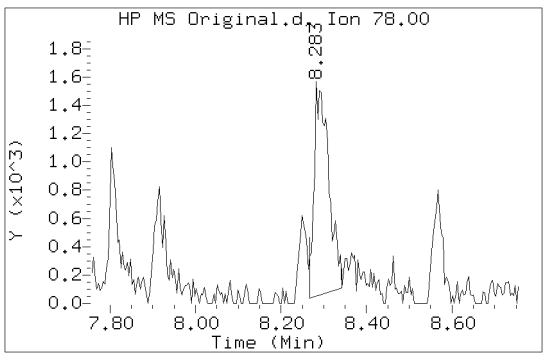
AFTER

MASS
104
AREA
9111
HEIGHT
3167
18-May-2023
13:42
linh
pham



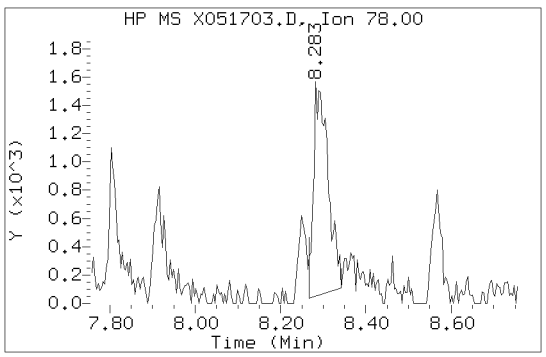
BEFORE

MASS
78
AREA
3542
HEIGHT
1516
18-May-2023
13:42
linh
pham



AFTER

MASS
78
AREA
3542
HEIGHT
1516
18-May-2023
13:42
linh
pham



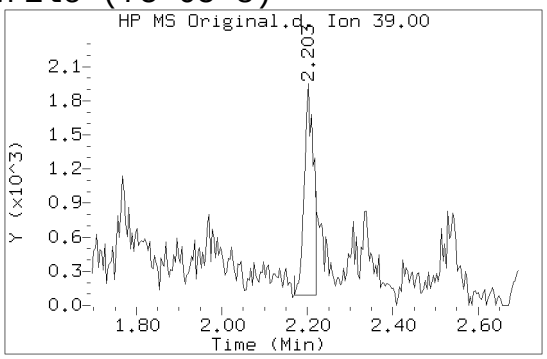
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Acetonitrile (75-05-8)

Reason Code:

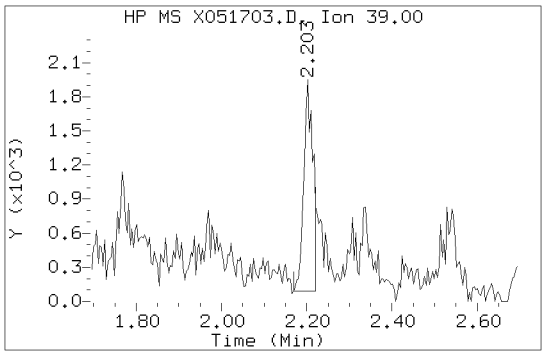
BEFORE

MASS
39
AREA
2789
HEIGHT
1859
18-May-2023
13:42
linh
pham



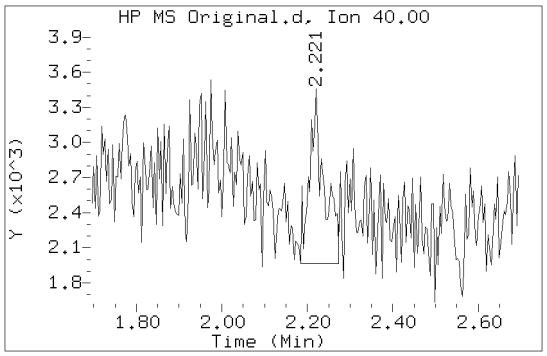
AFTER

MASS
39
AREA
2789
HEIGHT
1859
18-May-2023
13:42
linh
pham



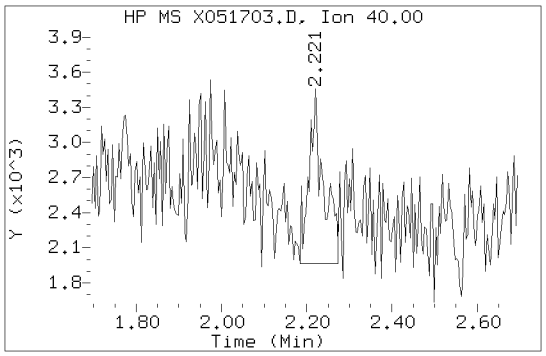
BEFORE

MASS
40
AREA
3559
HEIGHT
1493
18-May-2023
13:42
linh
pham



AFTER

MASS
40
AREA
3559
HEIGHT
1493
18-May-2023
13:42
linh
pham

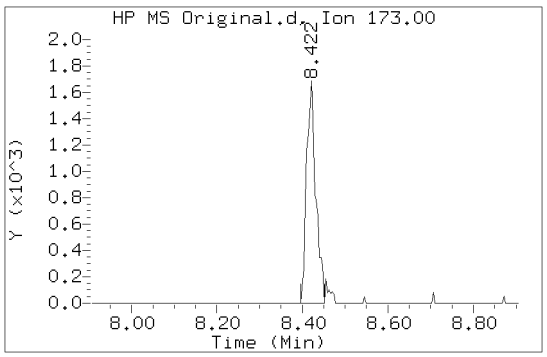


Bromoform (75-25-2)

Reason Code:

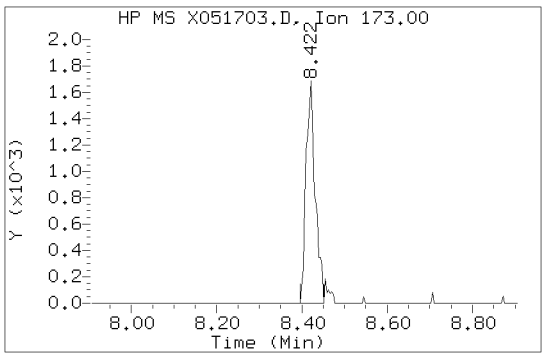
BEFORE

MASS
173
AREA
2554
HEIGHT
1686
18-May-2023
13:42
linh
pham



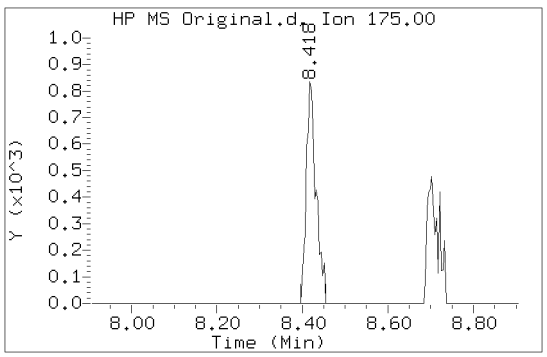
AFTER

MASS
173
AREA
2554
HEIGHT
1686
18-May-2023
13:42
linh
pham



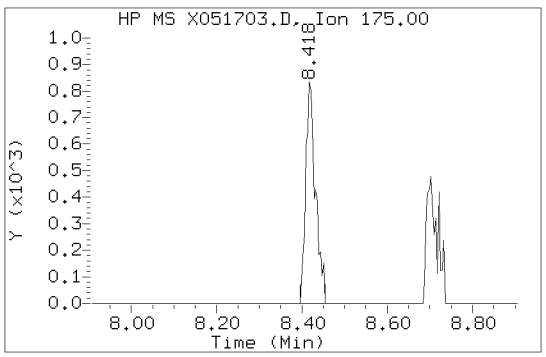
BEFORE

MASS
175
AREA
1334
HEIGHT
835
18-May-2023
13:42
linh
pham



AFTER

MASS
175
AREA
1334
HEIGHT
835
18-May-2023
13:42
linh
pham



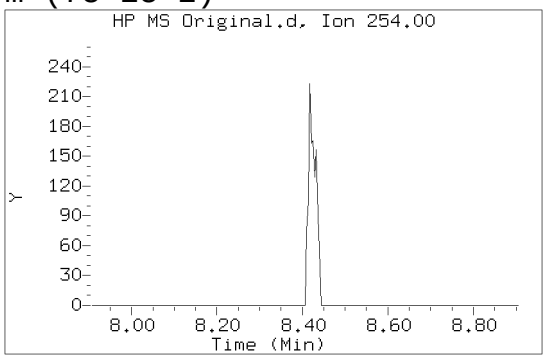
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Bromoform (75-25-2)

Reason Code:

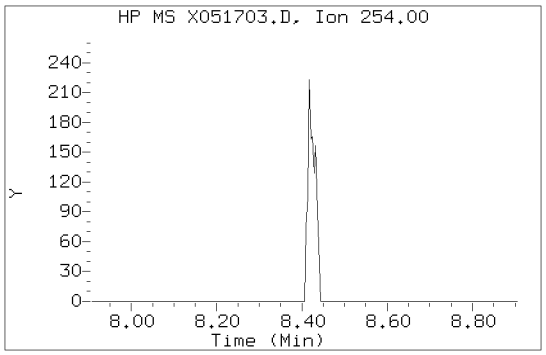
BEFORE

MASS
254
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
254
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

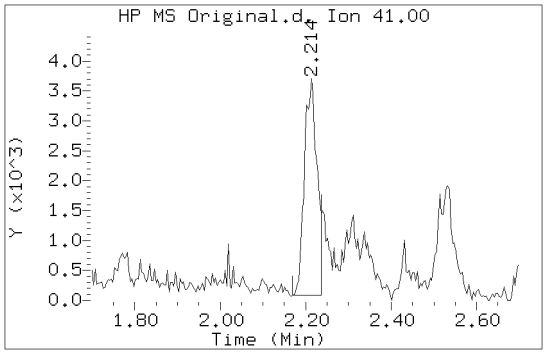


Allyl Chloride (107-05-1)

Reason Code:

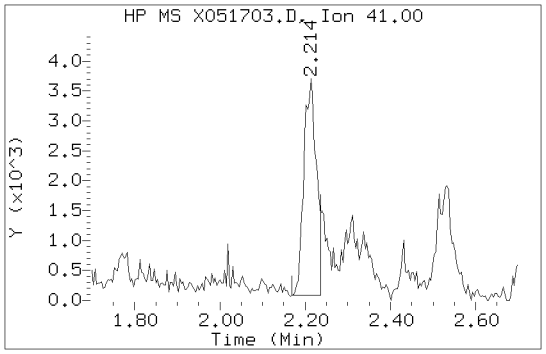
BEFORE

MASS
41
AREA
7486
HEIGHT
3617
18-May-2023
13:42
linh
pham



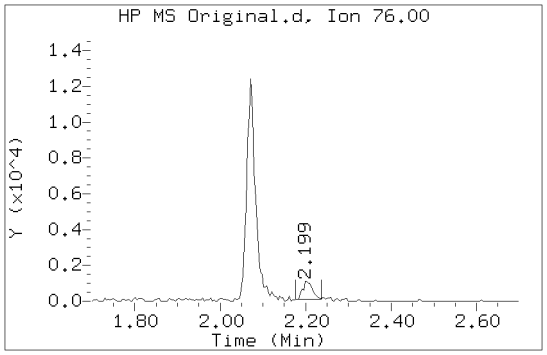
AFTER

MASS
41
AREA
7486
HEIGHT
3617
18-May-2023
13:42
linh
pham



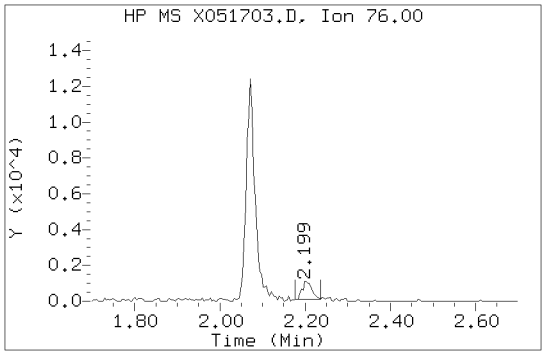
BEFORE

MASS
76
AREA
1615
HEIGHT
1007
18-May-2023
13:42
linh
pham



AFTER

MASS
76
AREA
1615
HEIGHT
1007
18-May-2023
13:42
linh
pham

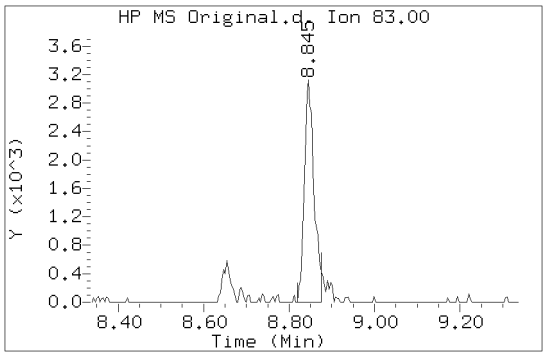


1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

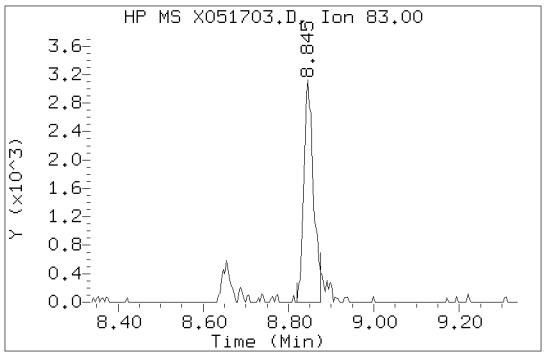
BEFORE

MASS
83
AREA
5038
HEIGHT
3125
18-May-2023
13:42
linh
pham



AFTER

MASS
83
AREA
5038
HEIGHT
3125
18-May-2023
13:42
linh
pham

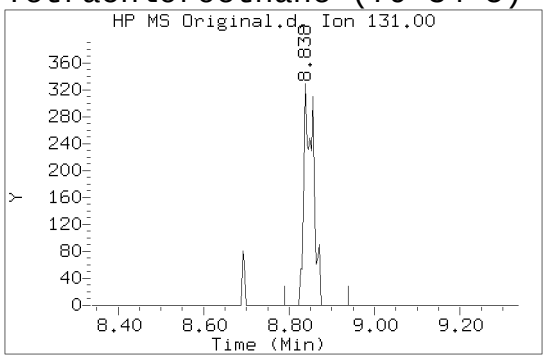


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,1,2,2-Tetrachloroethane (79-34-5)

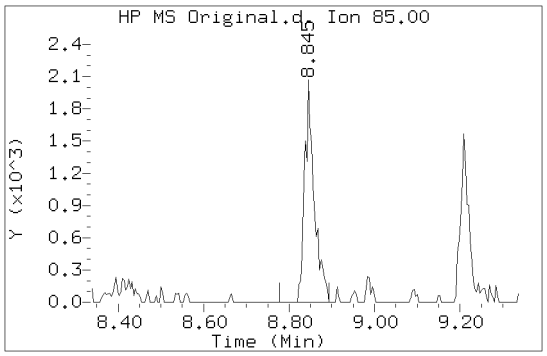
BEFORE

MASS
131
AREA
503
HEIGHT
329
18-May-2023
13:42
linh
pham



BEFORE

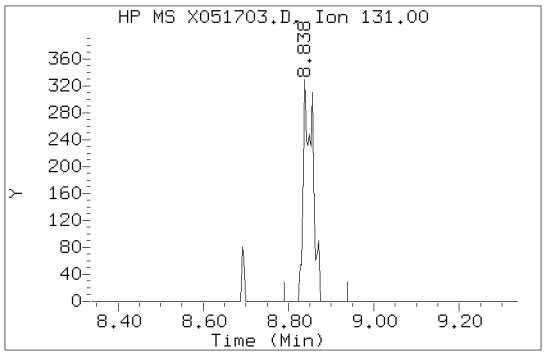
MASS
85
AREA
3304
HEIGHT
2070
18-May-2023
13:42
linh
pham



Reason Code:

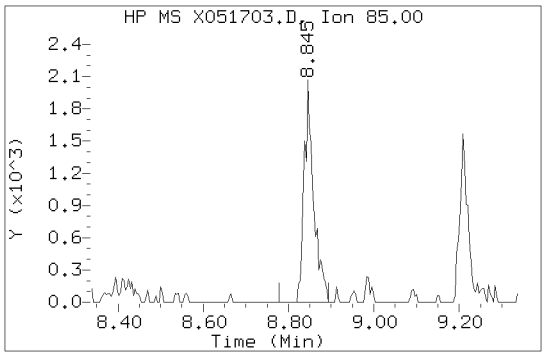
AFTER

MASS
131
AREA
503
HEIGHT
329
18-May-2023
13:42
linh
pham



AFTER

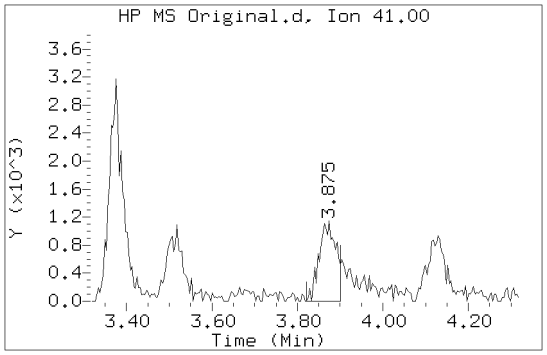
MASS
85
AREA
3304
HEIGHT
2070
18-May-2023
13:42
linh
pham



Methacrylonitrile (126-98-7)

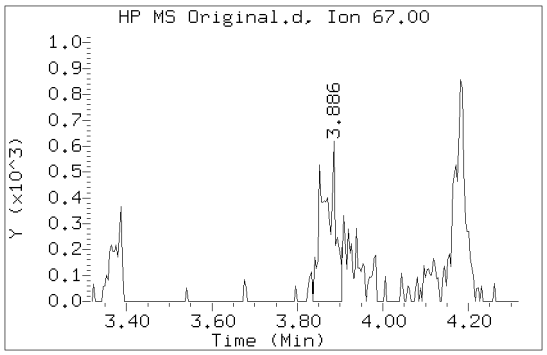
BEFORE

MASS
41
AREA
3101
HEIGHT
1149
18-May-2023
13:42
linh
pham



BEFORE

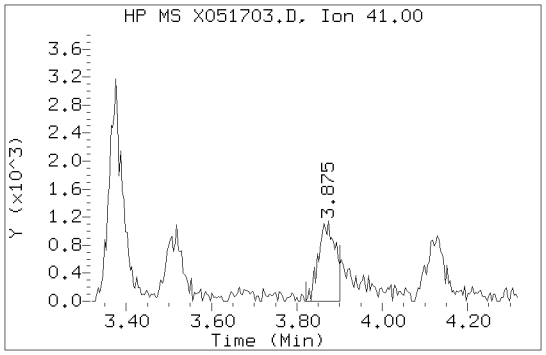
MASS
67
AREA
1235
HEIGHT
620
18-May-2023
13:42
linh
pham



Reason Code:

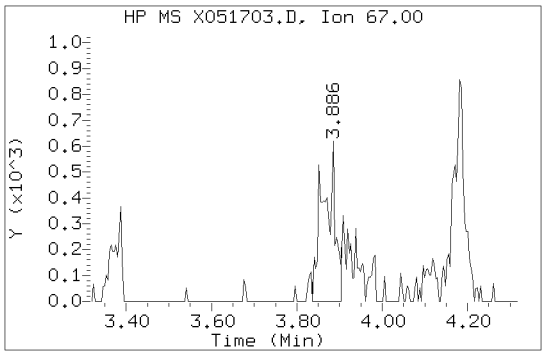
AFTER

MASS
41
AREA
3101
HEIGHT
1149
18-May-2023
13:42
linh
pham



AFTER

MASS
67
AREA
1235
HEIGHT
620
18-May-2023
13:42
linh
pham



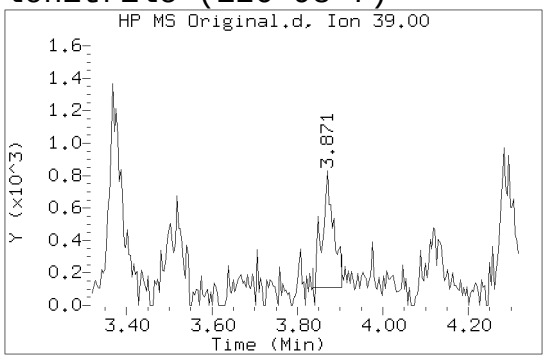
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Methacrylonitrile (126-98-7)

Reason Code:

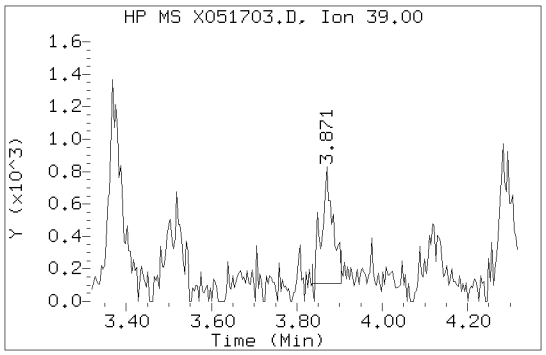
BEFORE

MASS
39
AREA
1293
HEIGHT
719
18-May-2023
13:42
linh
pham



AFTER

MASS
39
AREA
1293
HEIGHT
719
18-May-2023
13:42
linh
pham

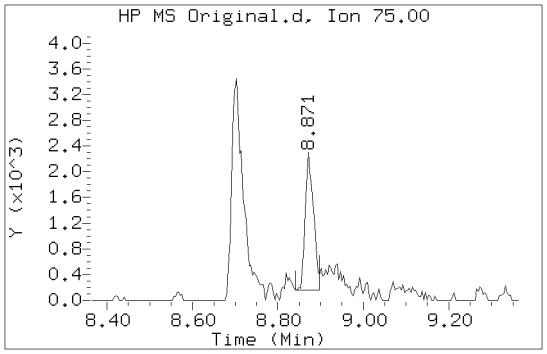


1,2,3-Trichloropropane (96-18-4)

Reason Code:

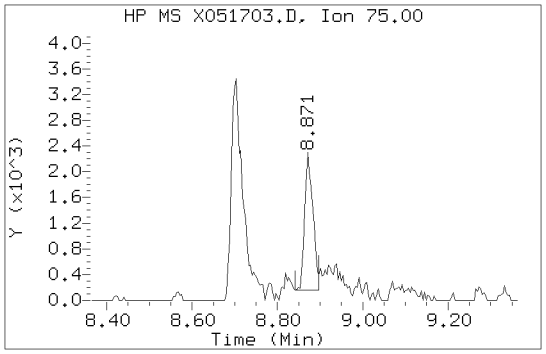
BEFORE

MASS
75
AREA
2929
HEIGHT
2142
18-May-2023
13:42
linh
pham



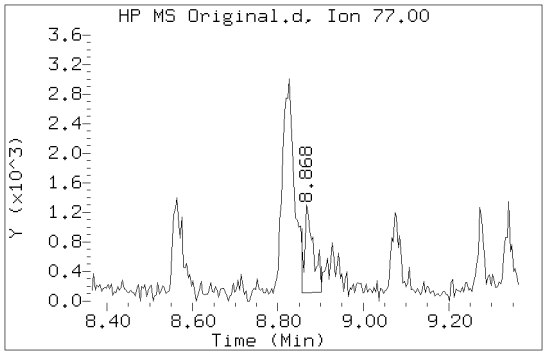
AFTER

MASS
75
AREA
2929
HEIGHT
2142
18-May-2023
13:42
linh
pham



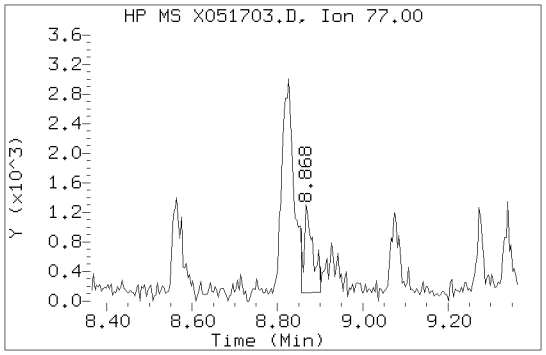
BEFORE

MASS
77
AREA
1742
HEIGHT
1192
18-May-2023
13:42
linh
pham



AFTER

MASS
77
AREA
1742
HEIGHT
1192
18-May-2023
13:42
linh
pham

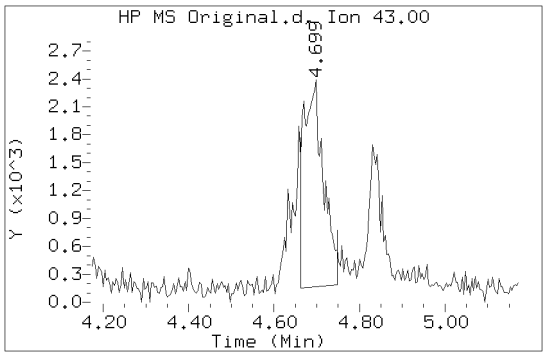


Isobutyl Alcohol (78-83-1)

Reason Code:

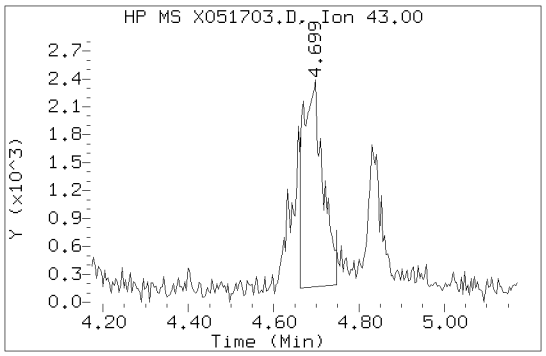
BEFORE

MASS
43
AREA
7294
HEIGHT
2221
18-May-2023
13:42
linh
pham



AFTER

MASS
43
AREA
7294
HEIGHT
2221
18-May-2023
13:42
linh
pham



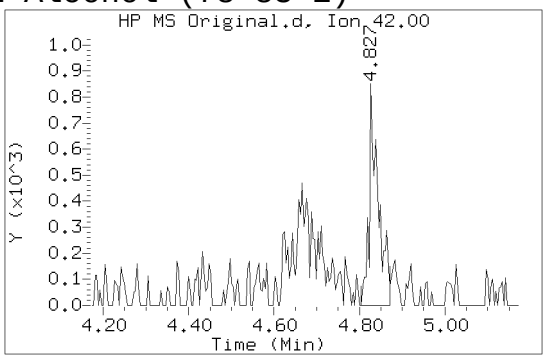
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Isobutyl Alcohol (78-83-1)

Reason Code:

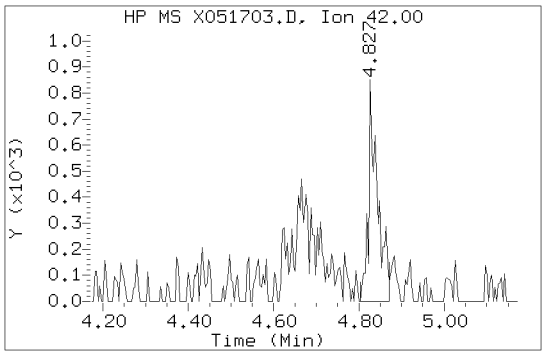
BEFORE

MASS
42
AREA
1251
HEIGHT
851
18-May-2023
13:42
linh
pham



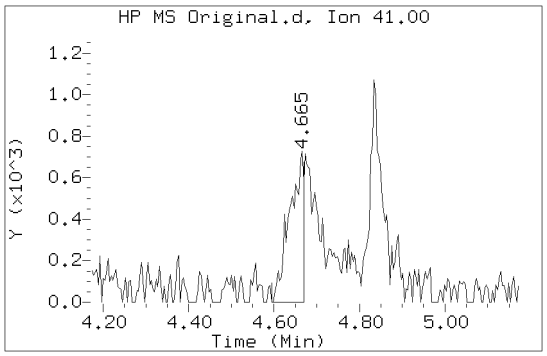
AFTER

MASS
42
AREA
1251
HEIGHT
851
18-May-2023
13:42
linh
pham



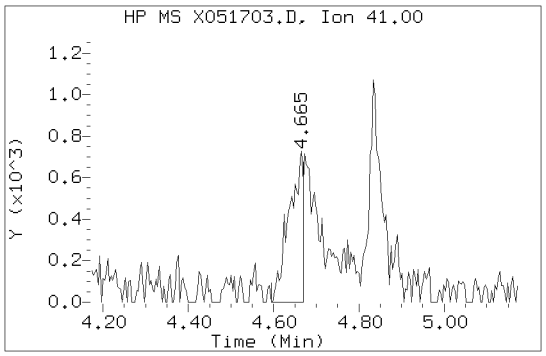
BEFORE

MASS
41
AREA
1645
HEIGHT
729
18-May-2023
13:42
linh
pham



AFTER

MASS
41
AREA
1645
HEIGHT
729
18-May-2023
13:42
linh
pham

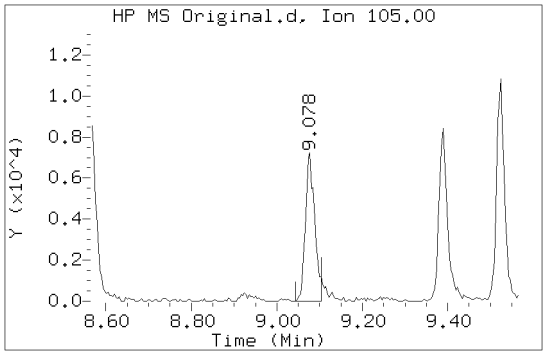


1,3,5-Trimethylbenzene (108-67-8)

Reason Code:

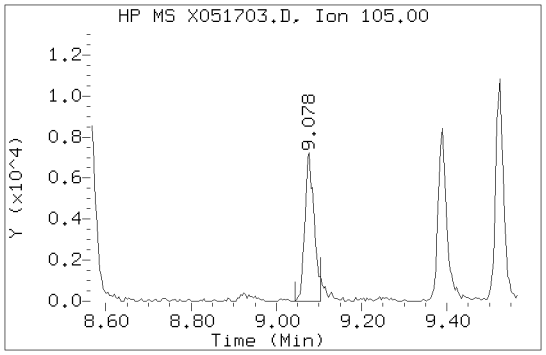
BEFORE

MASS
105
AREA
11219
HEIGHT
7248
18-May-2023
13:42
linh
pham



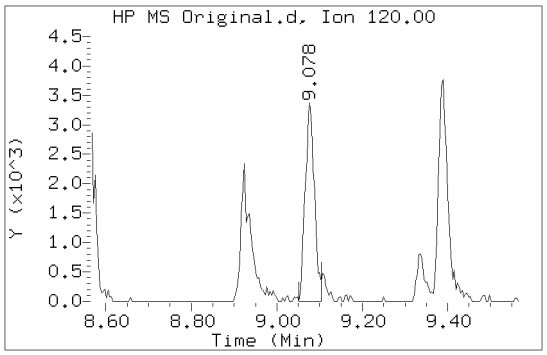
AFTER

MASS
105
AREA
11219
HEIGHT
7248
18-May-2023
13:42
linh
pham



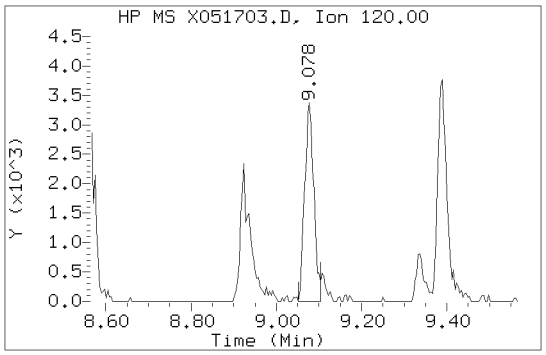
BEFORE

MASS
120
AREA
5185
HEIGHT
3372
18-May-2023
13:42
linh
pham



AFTER

MASS
120
AREA
5185
HEIGHT
3372
18-May-2023
13:42
linh
pham



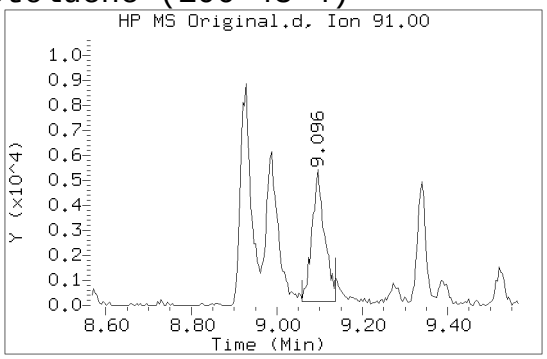
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

4-Chlorotoluene (106-43-4)

Reason Code:

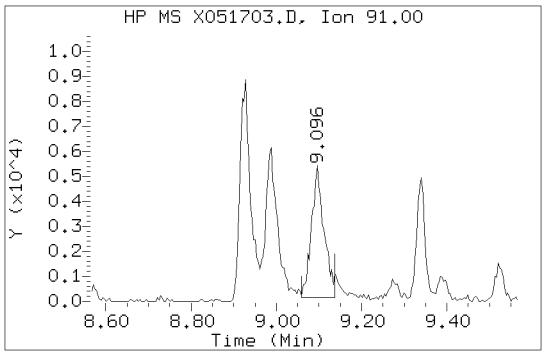
BEFORE

MASS
91
AREA
10933
HEIGHT
5281
18-May-2023
13:42
linh
pham



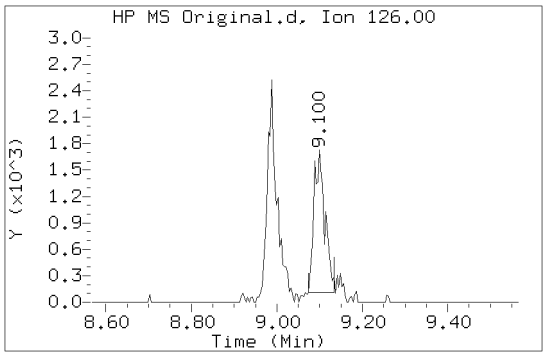
AFTER

MASS
91
AREA
10933
HEIGHT
5281
18-May-2023
13:42
linh
pham



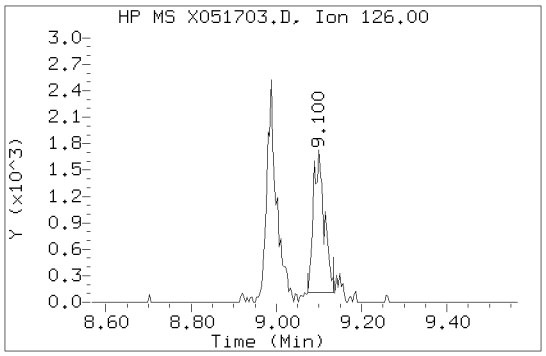
BEFORE

MASS
126
AREA
2859
HEIGHT
1622
18-May-2023
13:42
linh
pham



AFTER

MASS
126
AREA
2859
HEIGHT
1622
18-May-2023
13:42
linh
pham

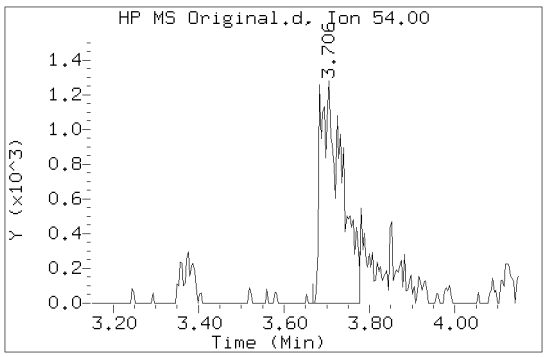


Propionitrile (107-12-0)

Reason Code:

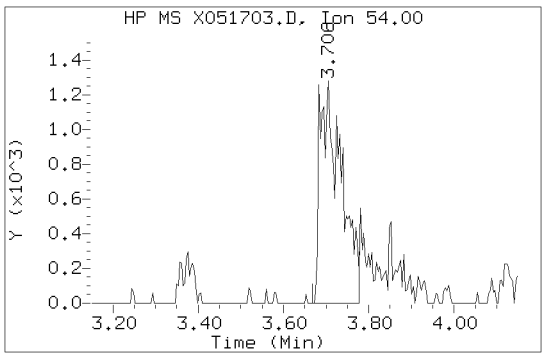
BEFORE

MASS
54
AREA
4468
HEIGHT
1280
18-May-2023
13:42
linh
pham



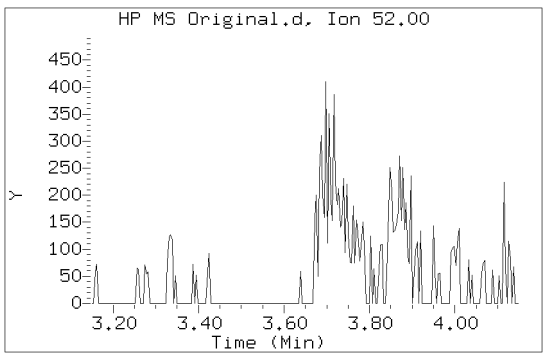
AFTER

MASS
54
AREA
4468
HEIGHT
1280
18-May-2023
13:42
linh
pham



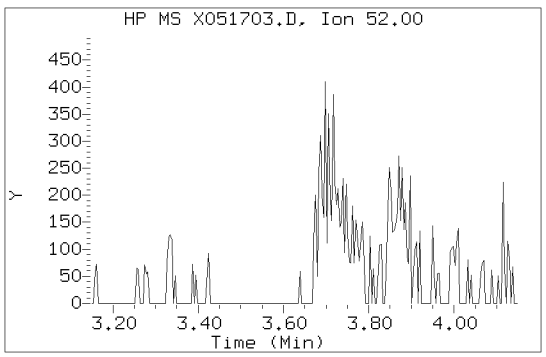
BEFORE

MASS
52
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
52
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



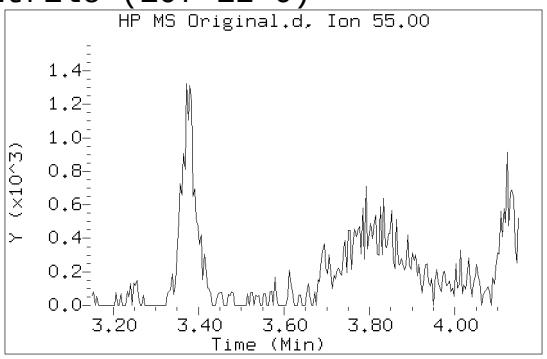
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Propionitrile (107-12-0)

Reason Code:

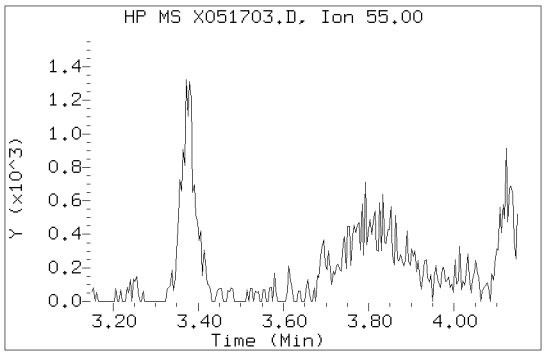
BEFORE

MASS
55
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
55
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

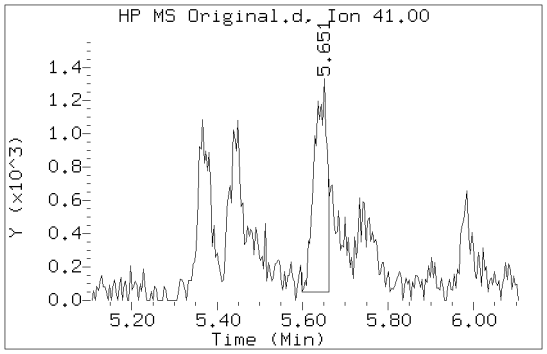


Methyl Methacrylate (80-62-6)

Reason Code:

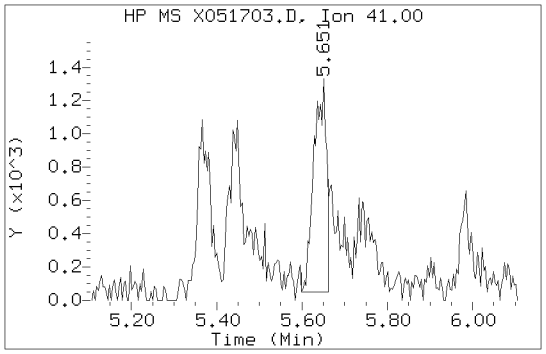
BEFORE

MASS
41
AREA
2610
HEIGHT
1281
18-May-2023
13:42
linh
pham



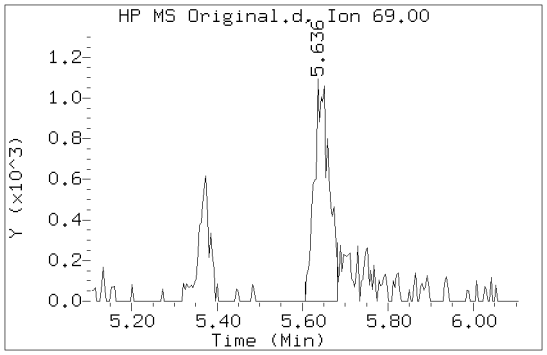
AFTER

MASS
41
AREA
2610
HEIGHT
1281
18-May-2023
13:42
linh
pham



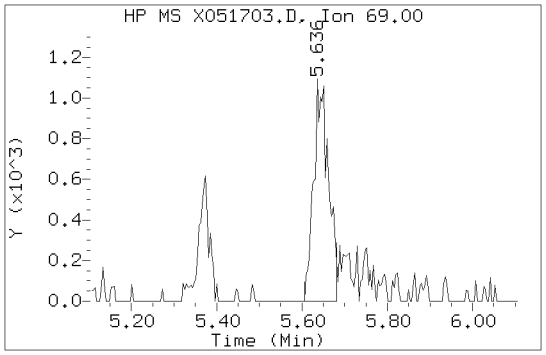
BEFORE

MASS
69
AREA
2617
HEIGHT
1094
18-May-2023
13:42
linh
pham



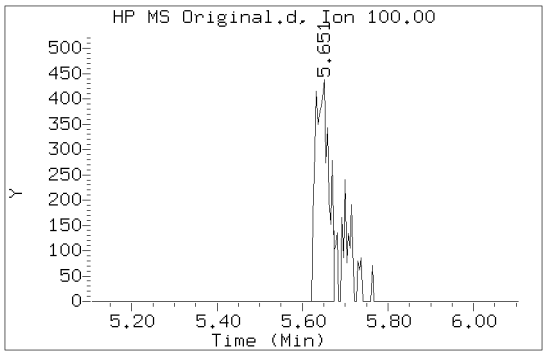
AFTER

MASS
69
AREA
2617
HEIGHT
1094
18-May-2023
13:42
linh
pham



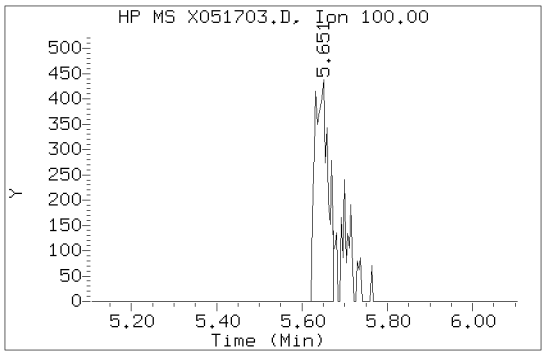
BEFORE

MASS
100
AREA
938
HEIGHT
438
18-May-2023
13:42
linh
pham



AFTER

MASS
100
AREA
938
HEIGHT
438
18-May-2023
13:42
linh
pham



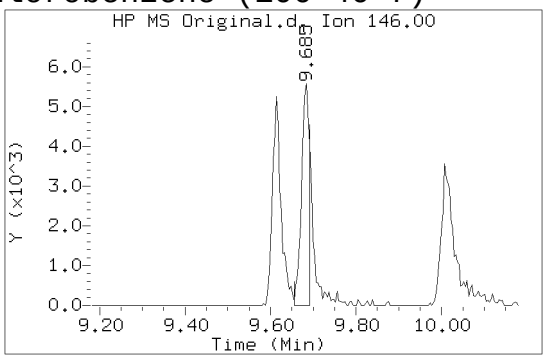
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,4-Dichlorobenzene (106-46-7)

Reason Code:

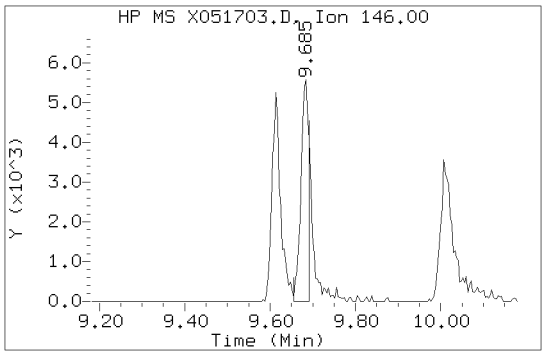
BEFORE

MASS
146
AREA
7361
HEIGHT
5575
18-May-2023
13:42
linh
pham



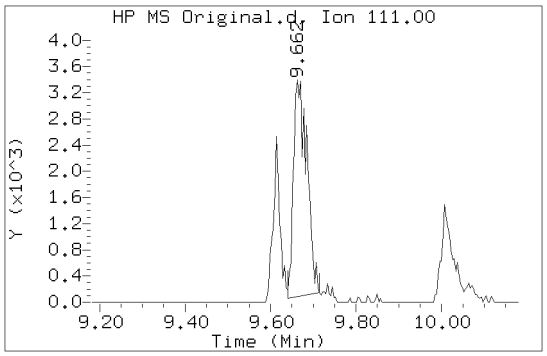
AFTER

MASS
146
AREA
7361
HEIGHT
5575
18-May-2023
13:42
linh
pham



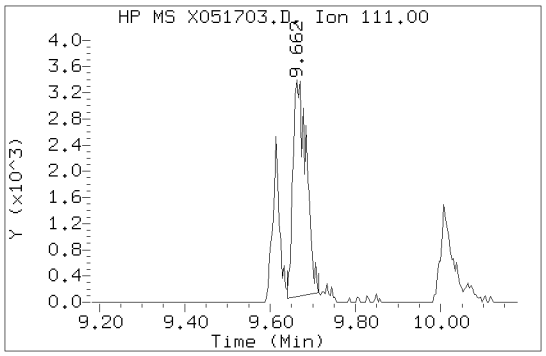
BEFORE

MASS
111
AREA
7290
HEIGHT
3306
18-May-2023
13:42
linh
pham



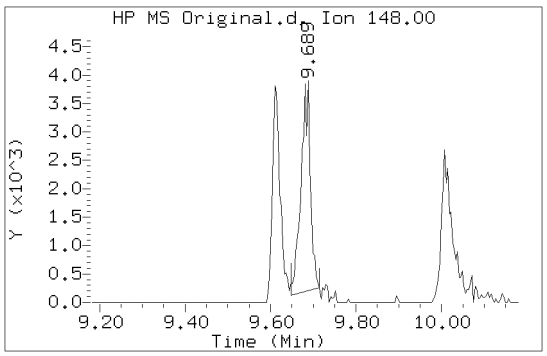
AFTER

MASS
111
AREA
7290
HEIGHT
3306
18-May-2023
13:42
linh
pham



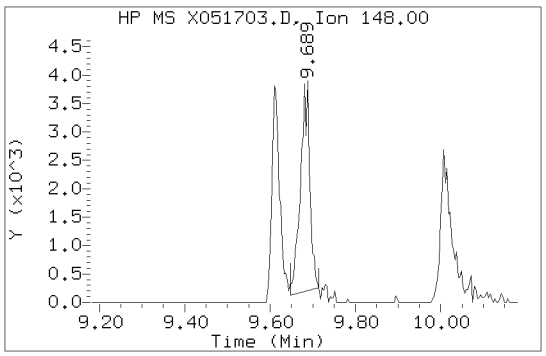
BEFORE

MASS
148
AREA
5780
HEIGHT
3699
18-May-2023
13:42
linh
pham



AFTER

MASS
148
AREA
5780
HEIGHT
3699
18-May-2023
13:42
linh
pham

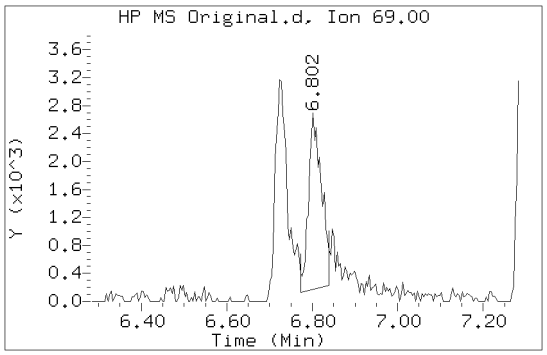


Ethyl Methacrylate (97-63-2)

Reason Code:

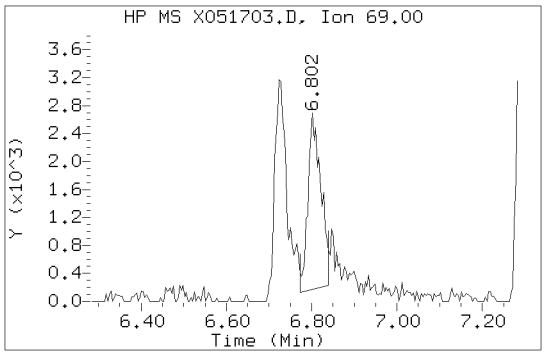
BEFORE

MASS
69
AREA
5358
HEIGHT
2519
18-May-2023
13:42
linh
pham



AFTER

MASS
69
AREA
5358
HEIGHT
2519
18-May-2023
13:42
linh
pham



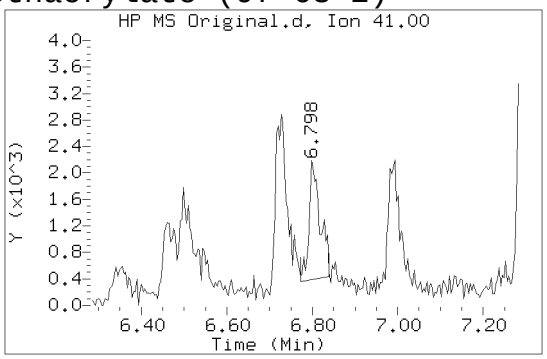
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Ethyl Methacrylate (97-63-2)

Reason Code:

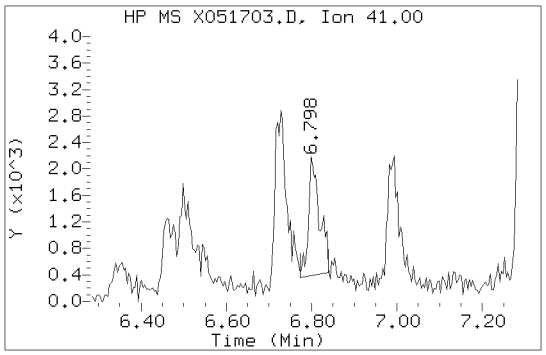
BEFORE

MASS
41
AREA
3237
HEIGHT
1798
18-May-2023
13:42
linh
pham



AFTER

MASS
41
AREA
3237
HEIGHT
1798
18-May-2023
13:42
linh
pham

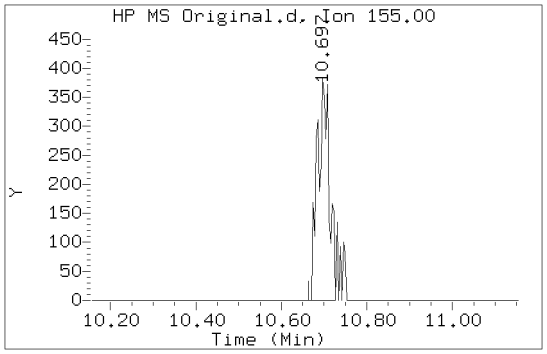


1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

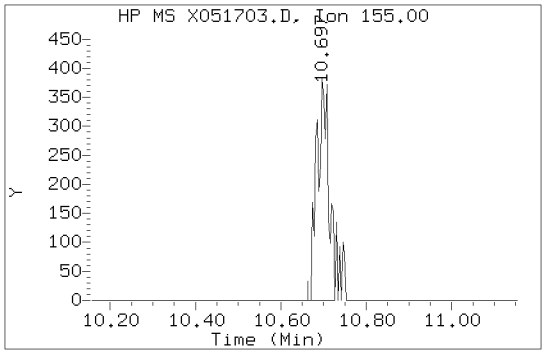
BEFORE

MASS
155
AREA
725
HEIGHT
382
18-May-2023
13:42
linh
pham



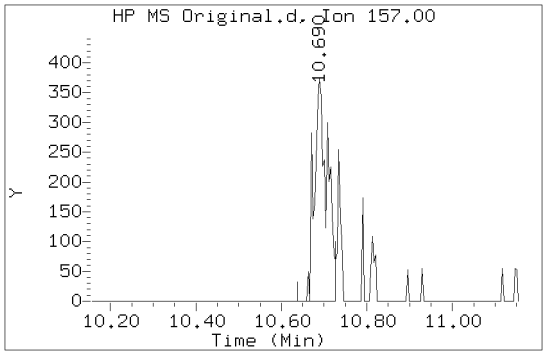
AFTER

MASS
155
AREA
725
HEIGHT
382
18-May-2023
13:42
linh
pham



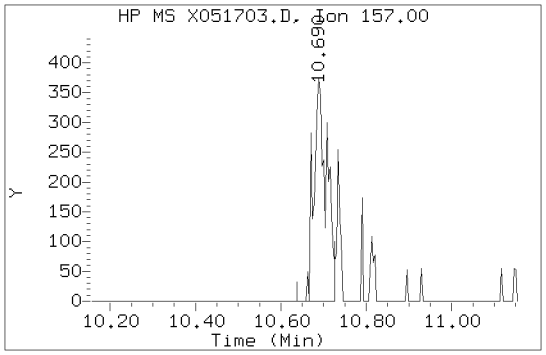
BEFORE

MASS
157
AREA
793
HEIGHT
373
18-May-2023
13:42
linh
pham



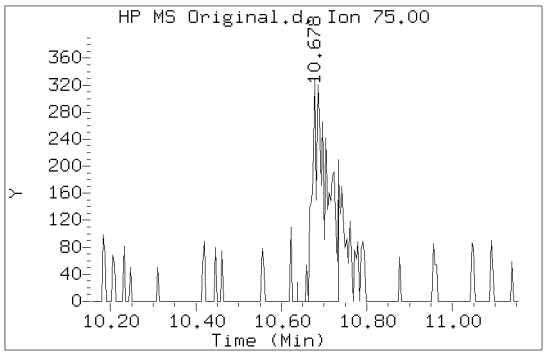
AFTER

MASS
157
AREA
793
HEIGHT
373
18-May-2023
13:42
linh
pham



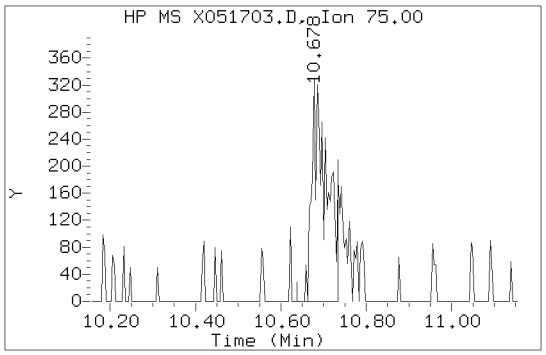
BEFORE

MASS
75
AREA
800
HEIGHT
328
18-May-2023
13:42
linh
pham



AFTER

MASS
75
AREA
800
HEIGHT
328
18-May-2023
13:42
linh
pham

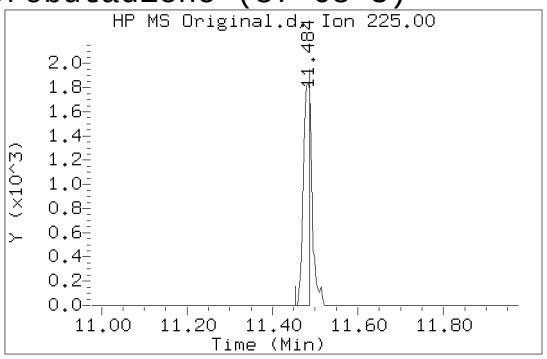


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

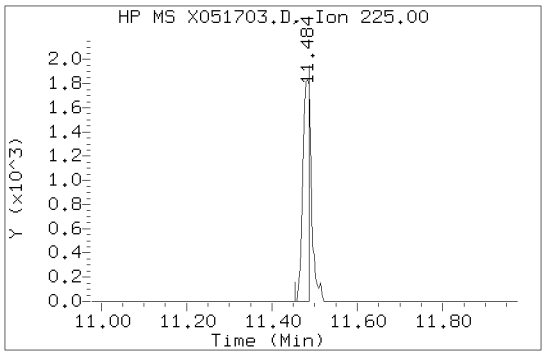
Hexachlorobutadiene (87-68-3)

Reason Code:

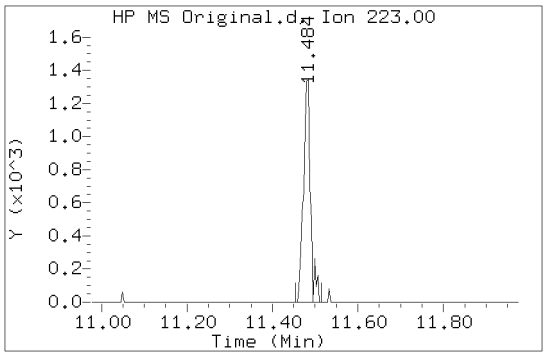
BEFORE
MASS
225
AREA
2100
HEIGHT
1832
18-May-2023
13:42
linh
pham



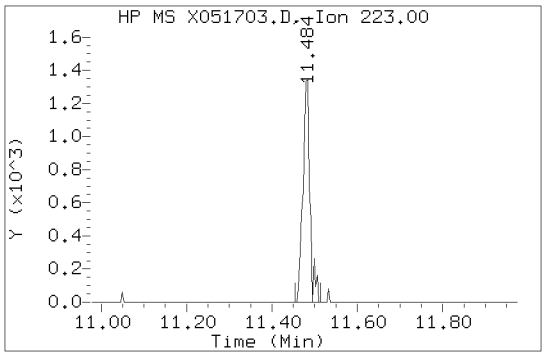
AFTER
MASS
225
AREA
2100
HEIGHT
1832
18-May-2023
13:42
linh
pham



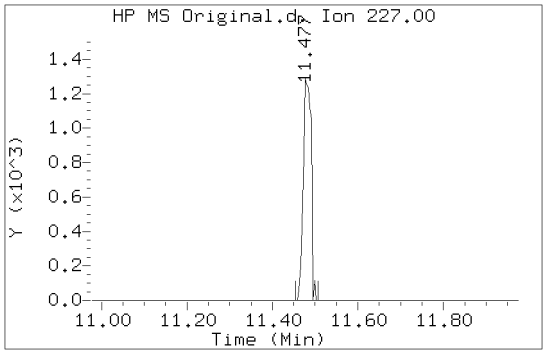
BEFORE
MASS
223
AREA
1589
HEIGHT
1342
18-May-2023
13:42
linh
pham



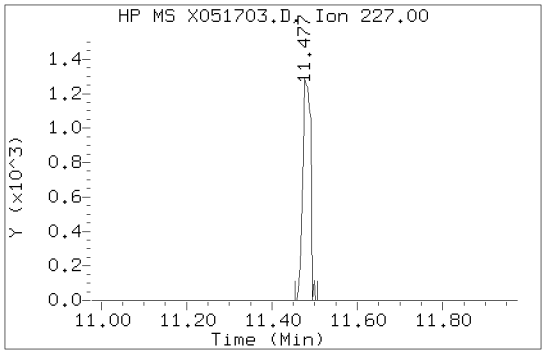
AFTER
MASS
223
AREA
1589
HEIGHT
1342
18-May-2023
13:42
linh
pham



BEFORE
MASS
227
AREA
1710
HEIGHT
1287
18-May-2023
13:42
linh
pham



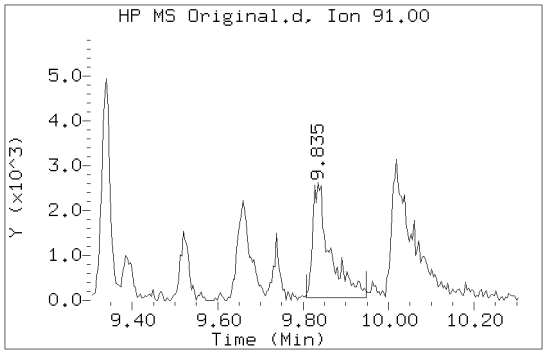
AFTER
MASS
227
AREA
1710
HEIGHT
1287
18-May-2023
13:42
linh
pham



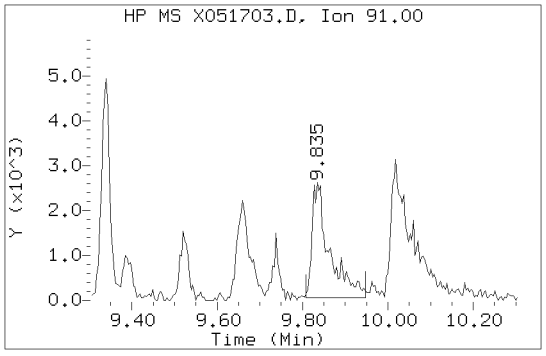
Benzyl Chloride (100-44-7)

Reason Code:

BEFORE
MASS
91
AREA
7194
HEIGHT
2572
18-May-2023
13:42
linh
pham



AFTER
MASS
91
AREA
7194
HEIGHT
2572
18-May-2023
13:42
linh
pham



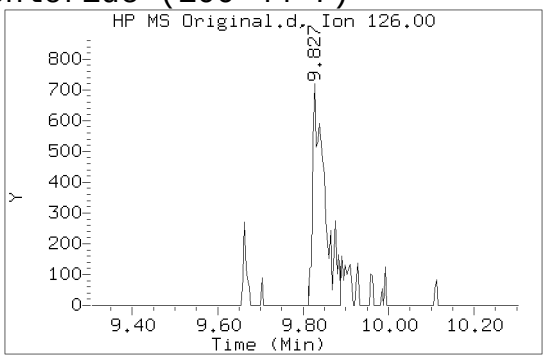
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Benzyl Chloride (100-44-7)

Reason Code:

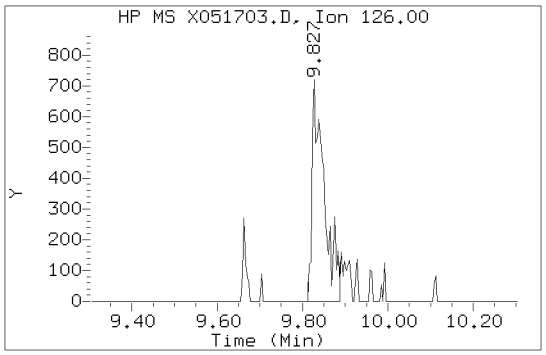
BEFORE

MASS
126
AREA
1409
HEIGHT
720
18-May-2023
13:42
linh
pham



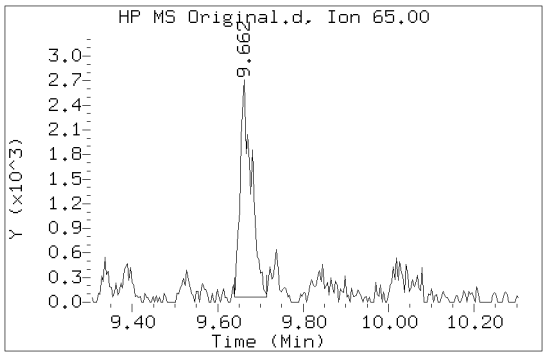
AFTER

MASS
126
AREA
1409
HEIGHT
720
18-May-2023
13:42
linh
pham



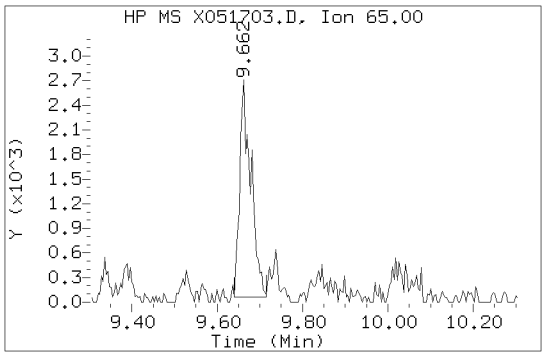
BEFORE

MASS
65
AREA
4805
HEIGHT
2643
18-May-2023
13:42
linh
pham



AFTER

MASS
65
AREA
4805
HEIGHT
2643
18-May-2023
13:42
linh
pham

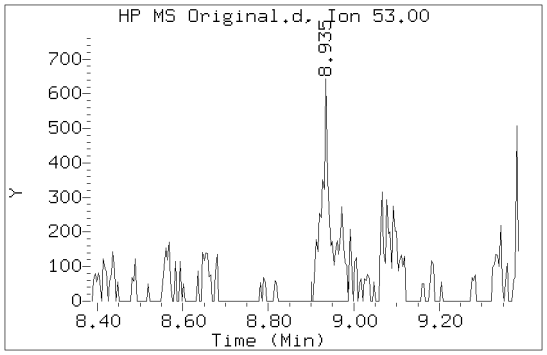


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

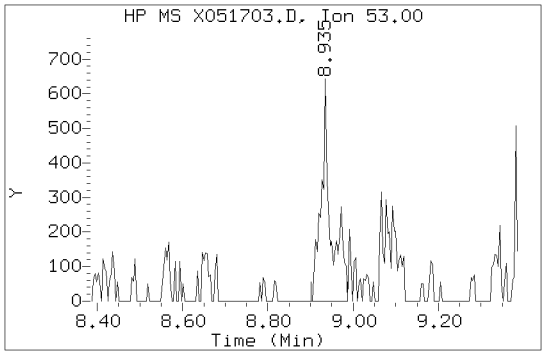
BEFORE

MASS
53
AREA
1031
HEIGHT
643
18-May-2023
13:42
linh
pham



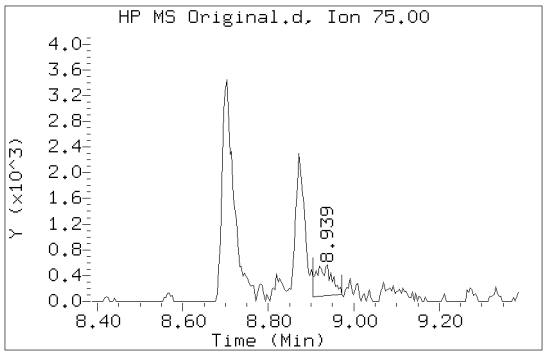
AFTER

MASS
53
AREA
1031
HEIGHT
643
18-May-2023
13:42
linh
pham



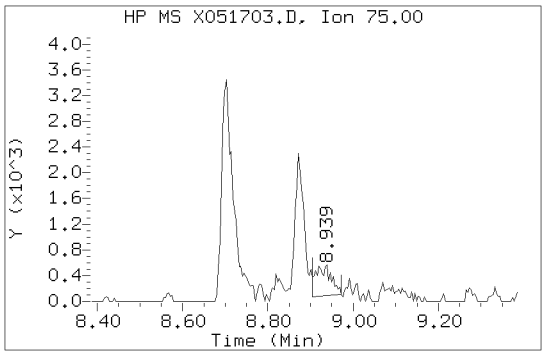
BEFORE

MASS
75
AREA
1211
HEIGHT
479
18-May-2023
13:42
linh
pham



AFTER

MASS
75
AREA
1211
HEIGHT
479
18-May-2023
13:42
linh
pham

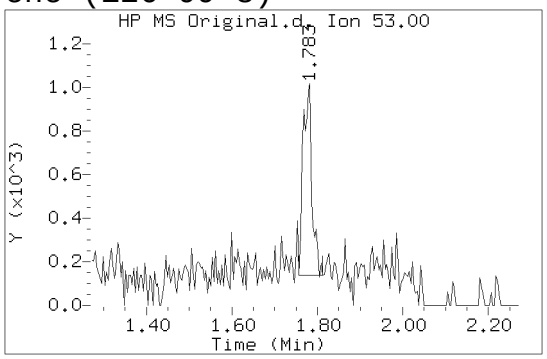


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

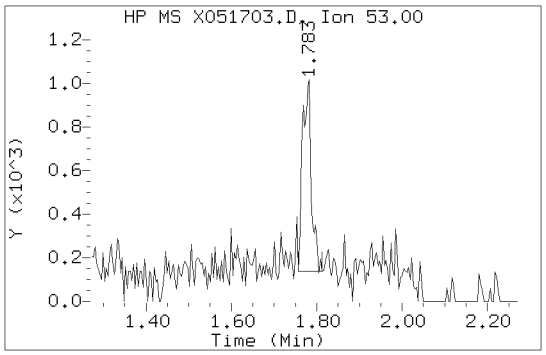
Chloroprene (126-99-8)

Reason Code:

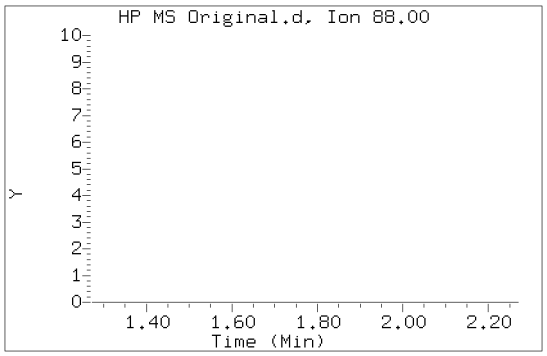
BEFORE
MASS
53
AREA
1289
HEIGHT
879
18-May-2023
13:42
linh
pham



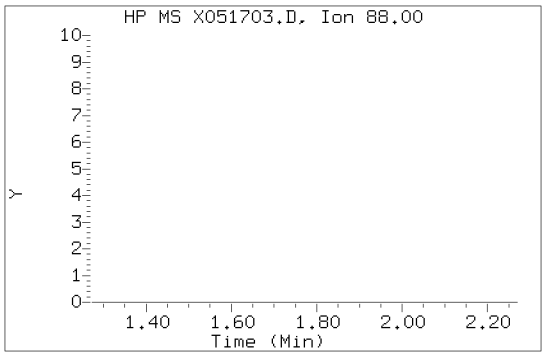
AFTER
MASS
53
AREA
1289
HEIGHT
879
18-May-2023
13:42
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



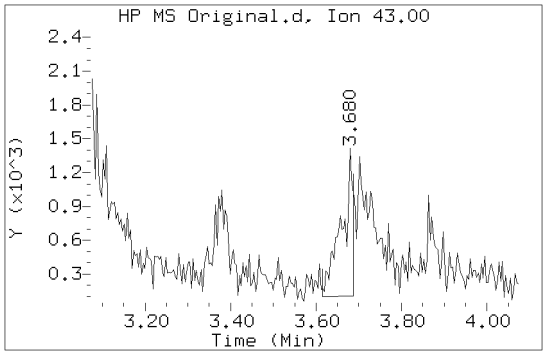
AFTER
MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



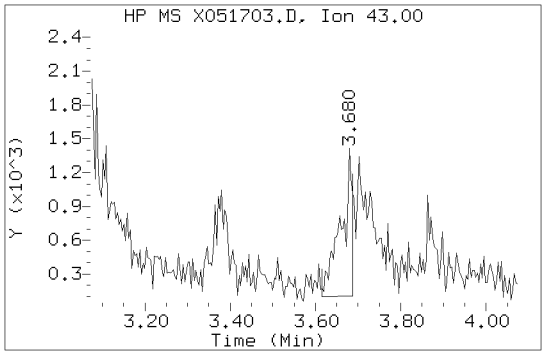
Ethyl Acetate (141-78-6)

Reason Code:

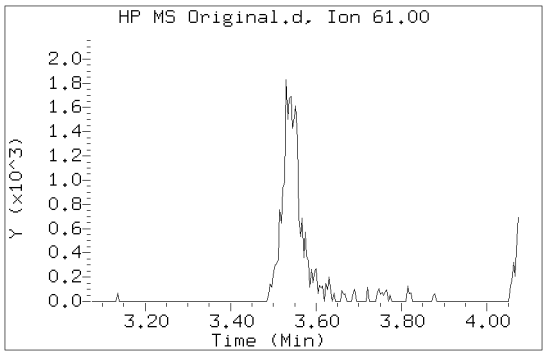
BEFORE
MASS
43
AREA
2361
HEIGHT
1314
18-May-2023
13:42
linh
pham



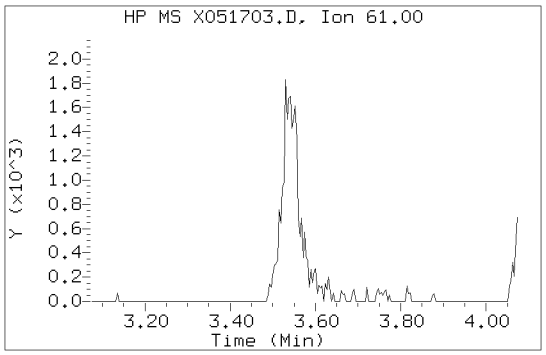
AFTER
MASS
43
AREA
2361
HEIGHT
1314
18-May-2023
13:42
linh
pham



BEFORE
MASS
61
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER
MASS
61
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



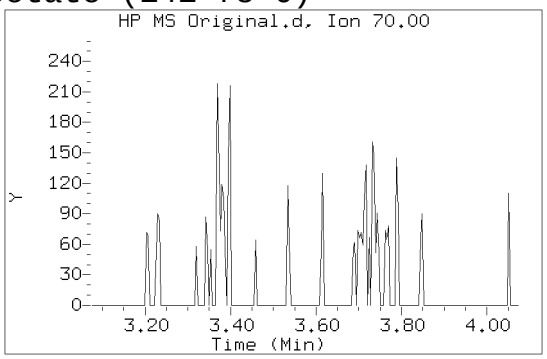
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Ethyl Acetate (141-78-6)

Reason Code:

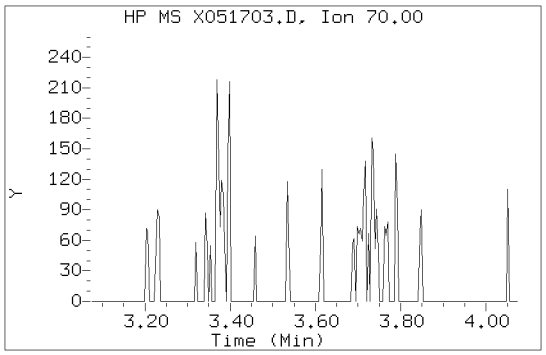
BEFORE

MASS
70
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
70
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

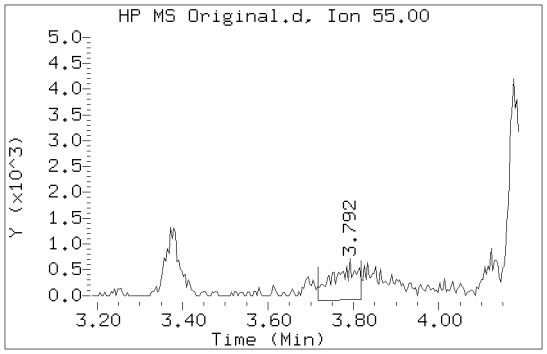


Methyl Acrylate (96-33-3)

Reason Code:

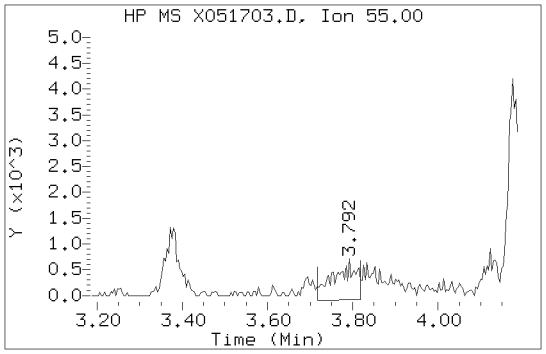
BEFORE

MASS
55
AREA
2822
HEIGHT
791
18-May-2023
13:42
linh
pham



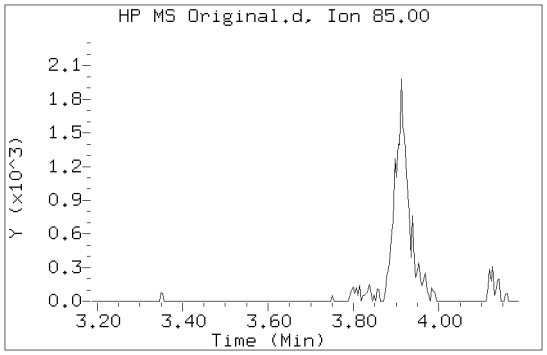
AFTER

MASS
55
AREA
2822
HEIGHT
791
18-May-2023
13:42
linh
pham



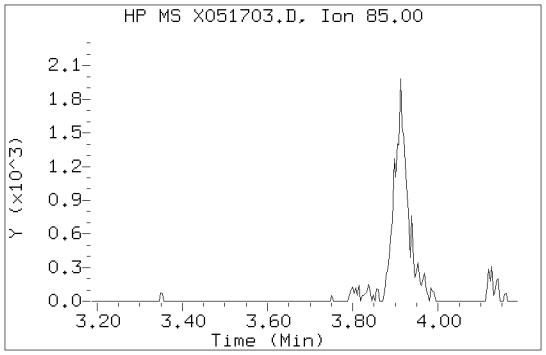
BEFORE

MASS
85
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

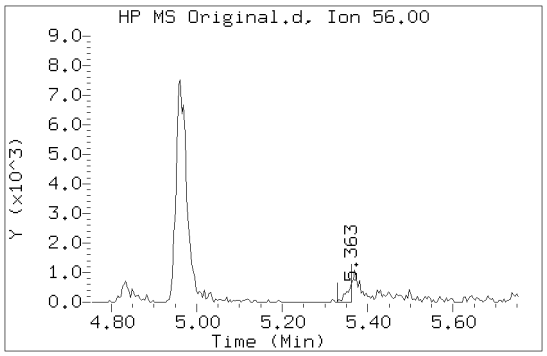


n-Butanol (71-36-3)

Reason Code:

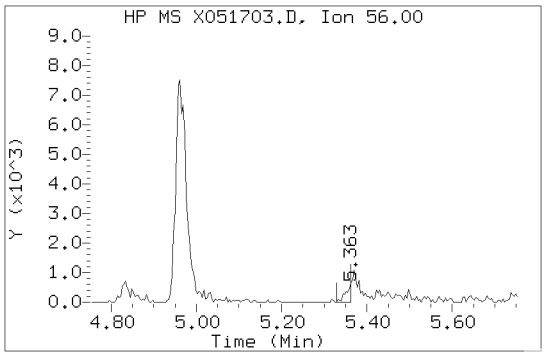
BEFORE

MASS
56
AREA
566
HEIGHT
636
18-May-2023
13:42
linh
pham



AFTER

MASS
56
AREA
566
HEIGHT
636
18-May-2023
13:42
linh
pham



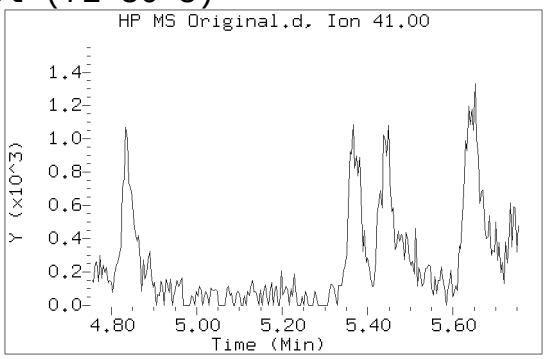
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

n-Butanol (71-36-3)

Reason Code:

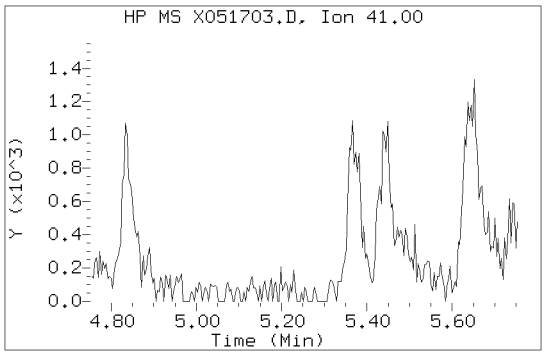
BEFORE

MASS
41
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
41
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

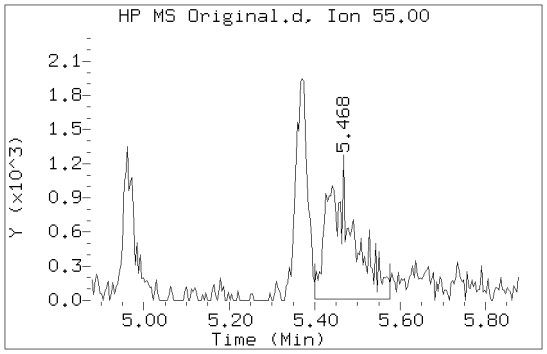


Ethyl Acrylate (140-88-5)

Reason Code:

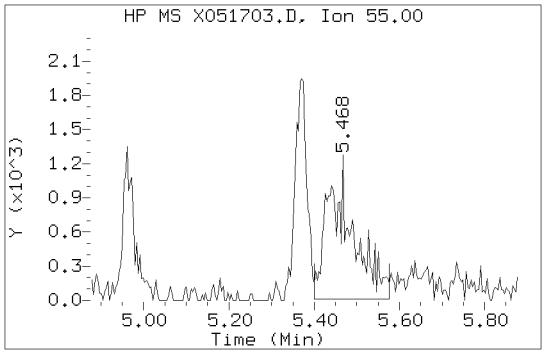
BEFORE

MASS
55
AREA
5171
HEIGHT
1265
18-May-2023
13:42
linh
pham



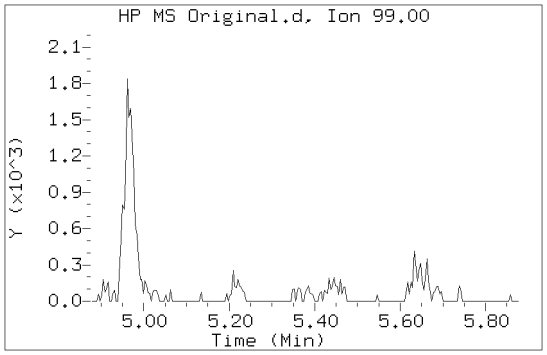
AFTER

MASS
55
AREA
5171
HEIGHT
1265
18-May-2023
13:42
linh
pham



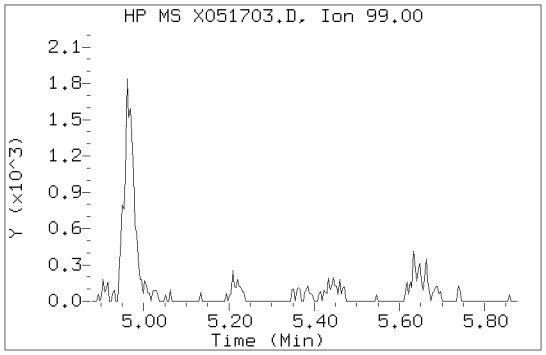
BEFORE

MASS
99
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
99
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

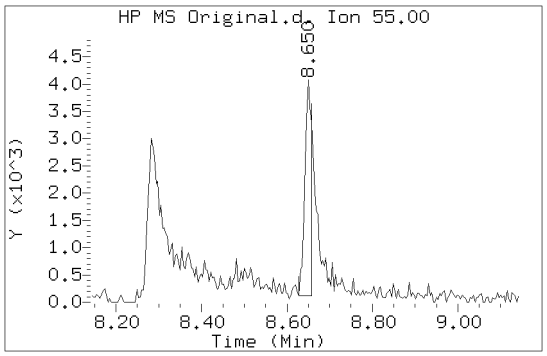


Cyclohexanone (108-94-1)

Reason Code:

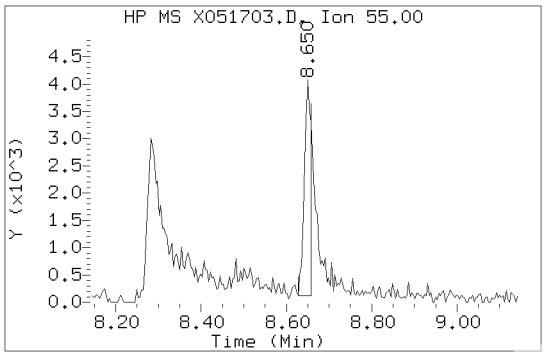
BEFORE

MASS
55
AREA
4234
HEIGHT
3960
18-May-2023
13:42
linh
pham



AFTER

MASS
55
AREA
4234
HEIGHT
3960
18-May-2023
13:42
linh
pham



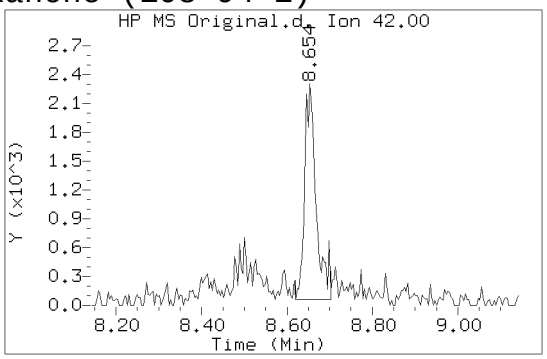
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Cyclohexanone (108-94-1)

Reason Code:

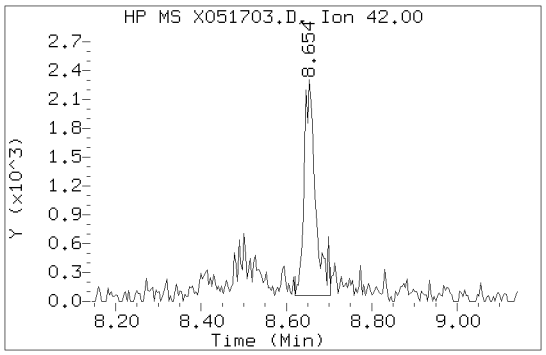
BEFORE

MASS
42
AREA
4224
HEIGHT
2244
18-May-2023
13:42
linh
pham



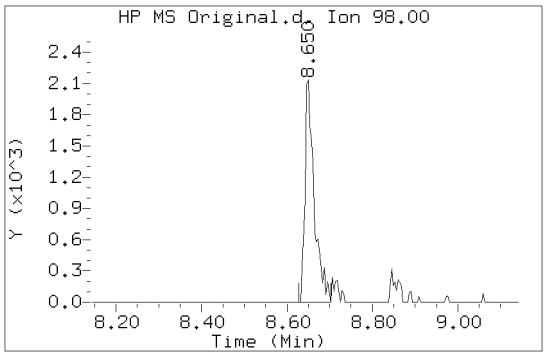
AFTER

MASS
42
AREA
4224
HEIGHT
2244
18-May-2023
13:42
linh
pham



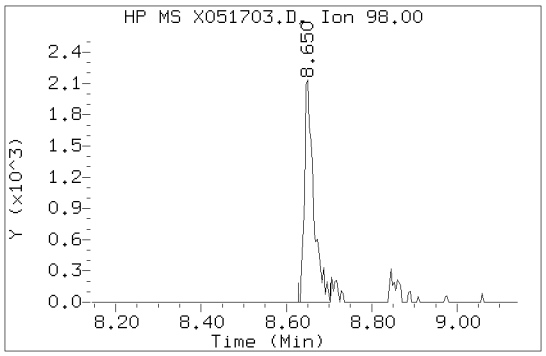
BEFORE

MASS
98
AREA
3244
HEIGHT
2134
18-May-2023
13:42
linh
pham



AFTER

MASS
98
AREA
3244
HEIGHT
2134
18-May-2023
13:42
linh
pham

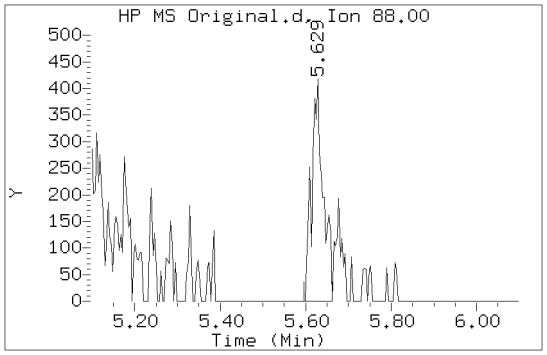


1,4-Dioxane ()

Reason Code:

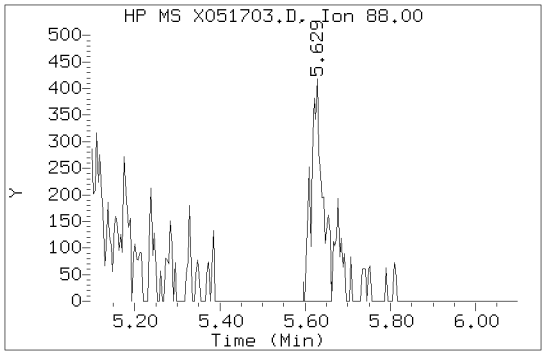
BEFORE

MASS
88
AREA
777
HEIGHT
418
18-May-2023
13:42
linh
pham



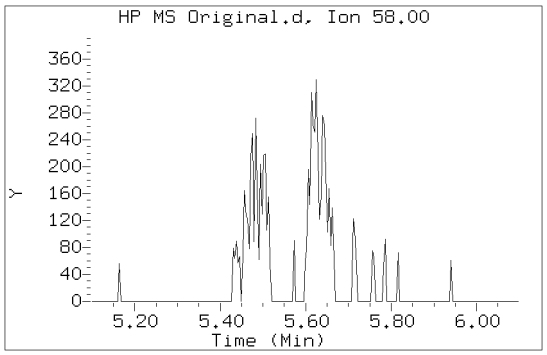
AFTER

MASS
88
AREA
777
HEIGHT
418
18-May-2023
13:42
linh
pham



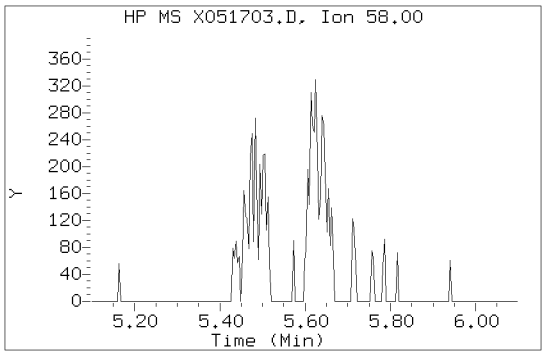
BEFORE

MASS
58
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
58
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

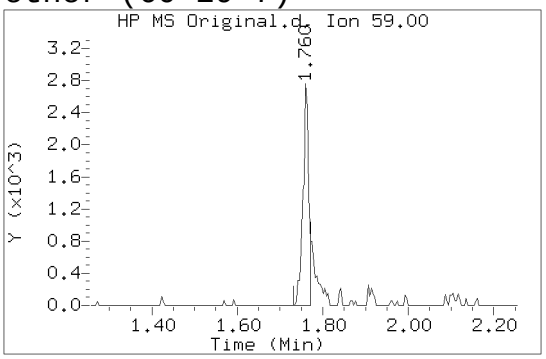


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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

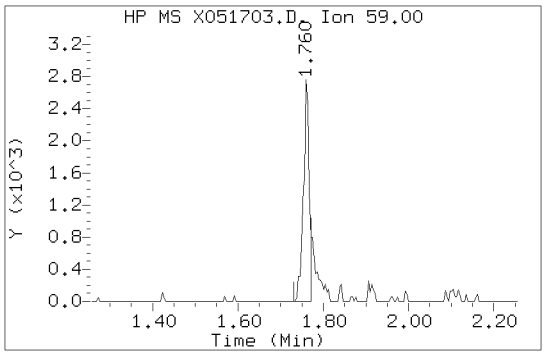
Diethyl ether (60-29-7)

Reason Code:

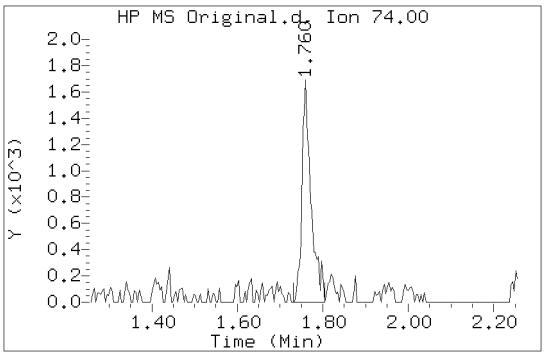
BEFORE
MASS
59
AREA
2635
HEIGHT
2761
18-May-2023
13:42
linh
pham



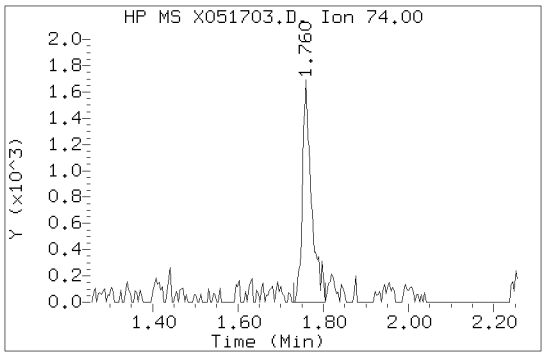
AFTER
MASS
59
AREA
2635
HEIGHT
2761
18-May-2023
13:42
linh
pham



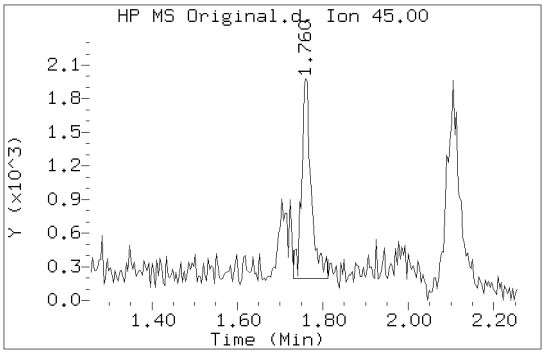
BEFORE
MASS
74
AREA
2561
HEIGHT
1692
18-May-2023
13:42
linh
pham



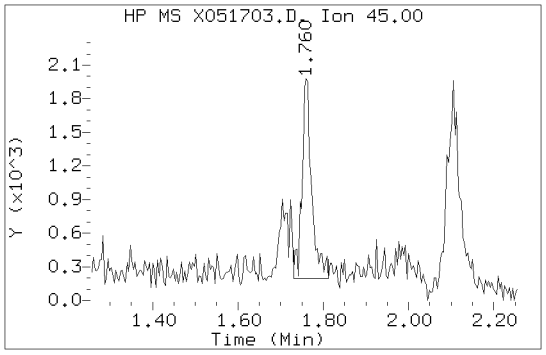
AFTER
MASS
74
AREA
2561
HEIGHT
1692
18-May-2023
13:42
linh
pham



BEFORE
MASS
45
AREA
2921
HEIGHT
1787
18-May-2023
13:42
linh
pham



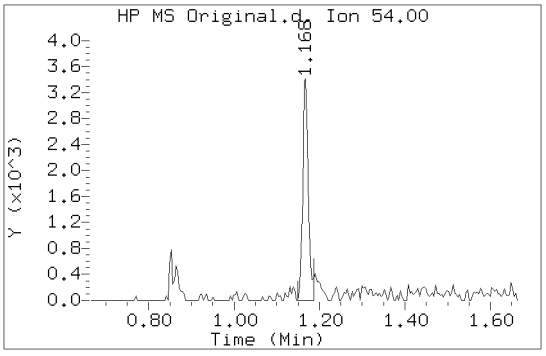
AFTER
MASS
45
AREA
2921
HEIGHT
1787
18-May-2023
13:42
linh
pham



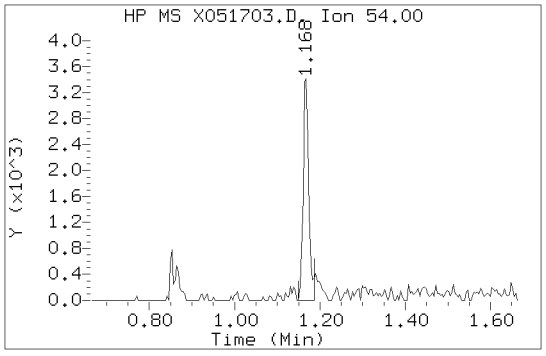
1,3-Butadiene (106-99-0)

Reason Code:

BEFORE
MASS
54
AREA
3237
HEIGHT
3414
18-May-2023
13:42
linh
pham



AFTER
MASS
54
AREA
3237
HEIGHT
3414
18-May-2023
13:42
linh
pham



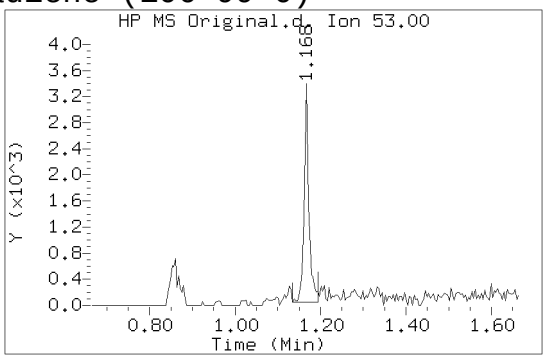
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

1,3-Butadiene (106-99-0)

Reason Code:

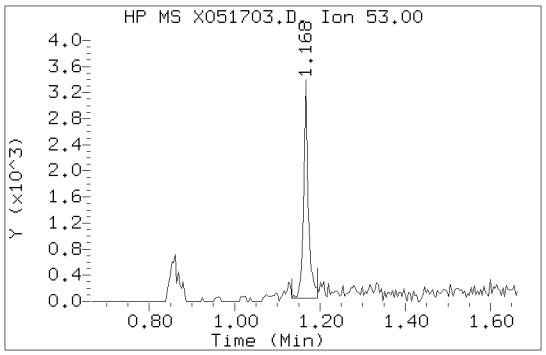
BEFORE

MASS
53
AREA
2654
HEIGHT
3348
18-May-2023
13:42
linh
pham



AFTER

MASS
53
AREA
2654
HEIGHT
3348
18-May-2023
13:42
linh
pham

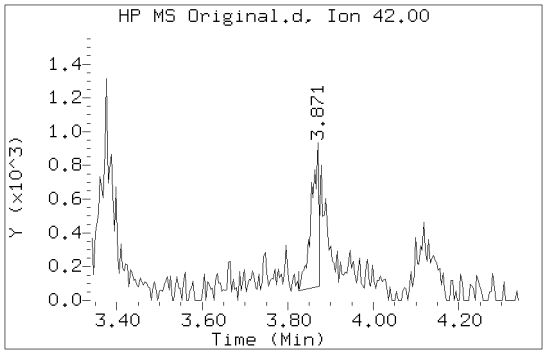


Tetrahydrofuran (109-99-9)

Reason Code:

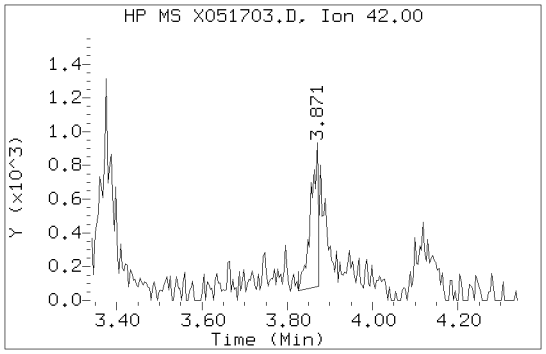
BEFORE

MASS
42
AREA
1066
HEIGHT
856
18-May-2023
13:42
linh
pham



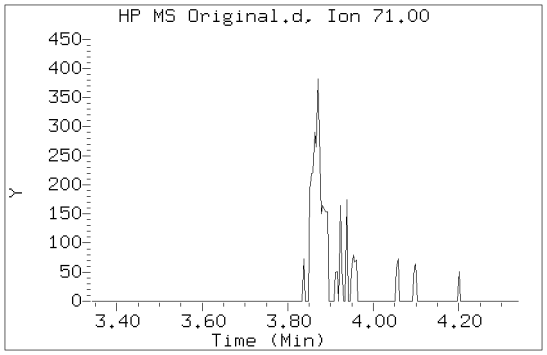
AFTER

MASS
42
AREA
1066
HEIGHT
856
18-May-2023
13:42
linh
pham



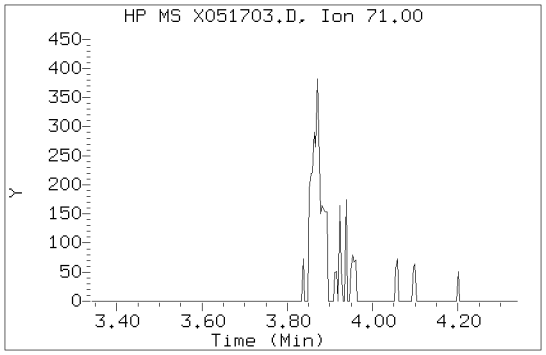
BEFORE

MASS
71
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
71
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

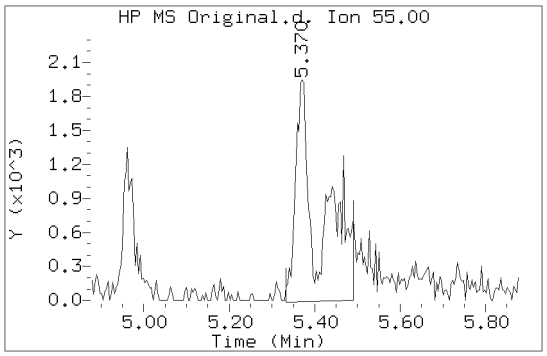


Methylcyclohexane (108-87-2)

Reason Code:

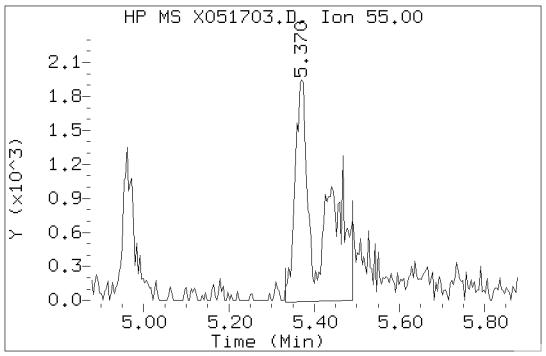
BEFORE

MASS
55
AREA
7580
HEIGHT
1957
18-May-2023
13:42
linh
pham



AFTER

MASS
55
AREA
7580
HEIGHT
1957
18-May-2023
13:42
linh
pham

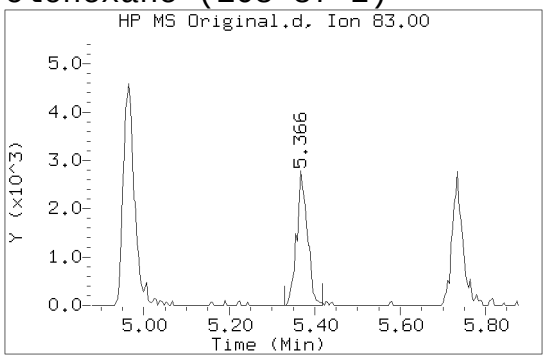


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Methylcyclohexane (108-87-2)

BEFORE

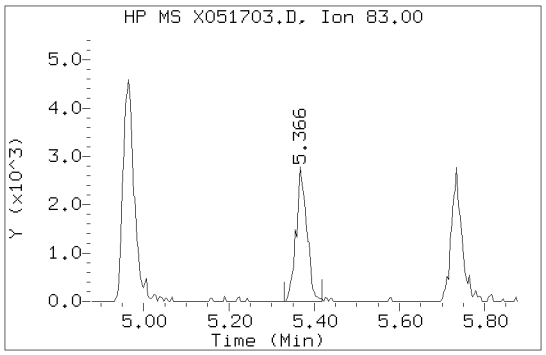
MASS
83
AREA
4922
HEIGHT
2785
18-May-2023
13:42
linh
pham



Reason Code:

AFTER

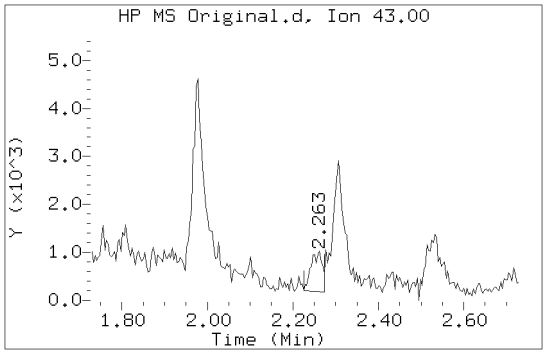
MASS
83
AREA
4922
HEIGHT
2785
18-May-2023
13:42
linh
pham



Methyl Acetate (79-20-9)

BEFORE

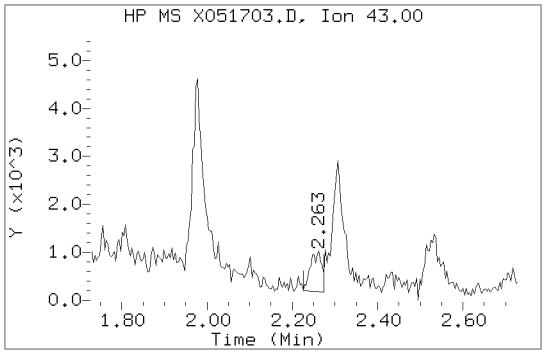
MASS
43
AREA
1535
HEIGHT
843
18-May-2023
13:42
linh
pham



Reason Code:

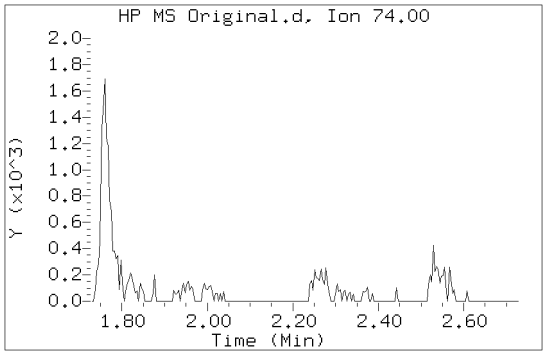
AFTER

MASS
43
AREA
1535
HEIGHT
843
18-May-2023
13:42
linh
pham



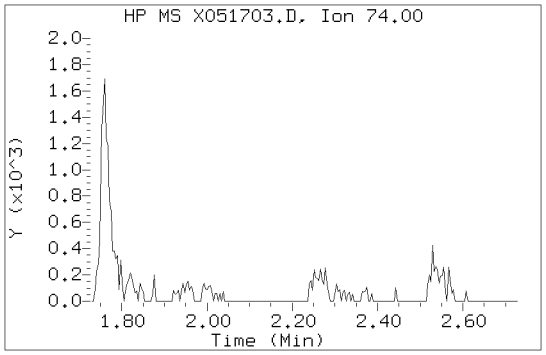
BEFORE

MASS
74
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

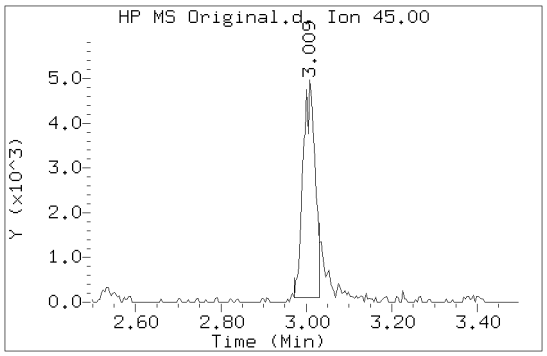
MASS
74
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



Diisopropyl ether (108-20-3)

BEFORE

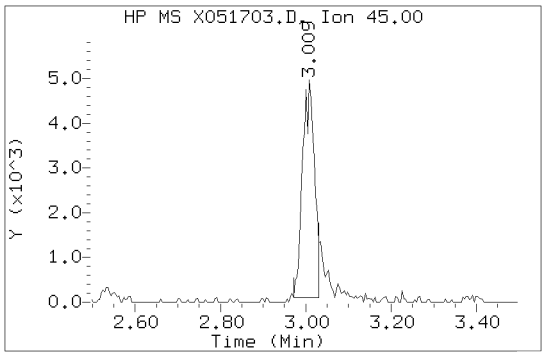
MASS
45
AREA
9672
HEIGHT
4867
18-May-2023
13:42
linh
pham



Reason Code:

AFTER

MASS
45
AREA
9672
HEIGHT
4867
18-May-2023
13:42
linh
pham

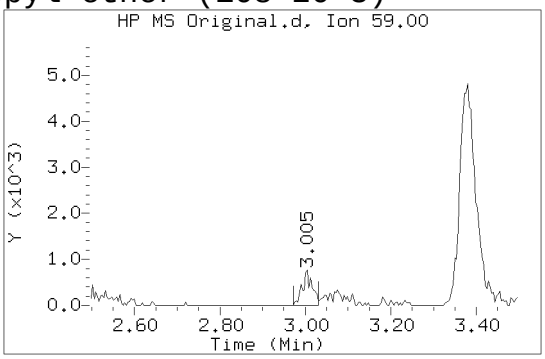


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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

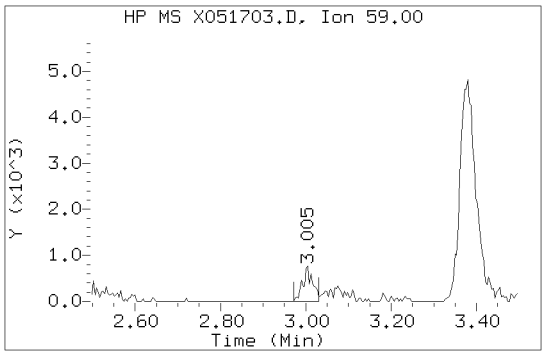
Diisopropyl ether (108-20-3)

Reason Code:

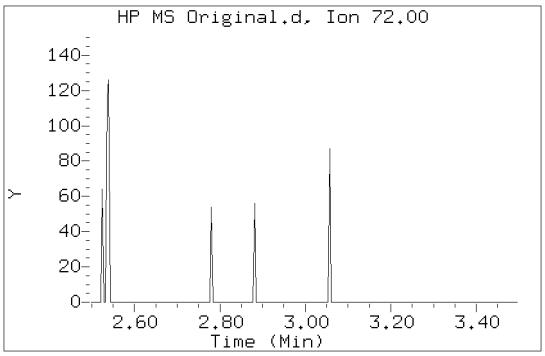
BEFORE
MASS
59
AREA
1226
HEIGHT
761
18-May-2023
13:42
linh
pham



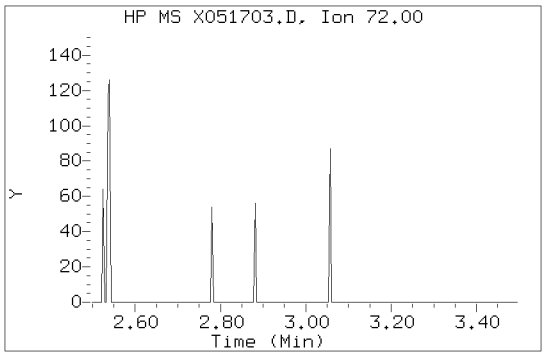
AFTER
MASS
59
AREA
1226
HEIGHT
761
18-May-2023
13:42
linh
pham



BEFORE
MASS
72
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



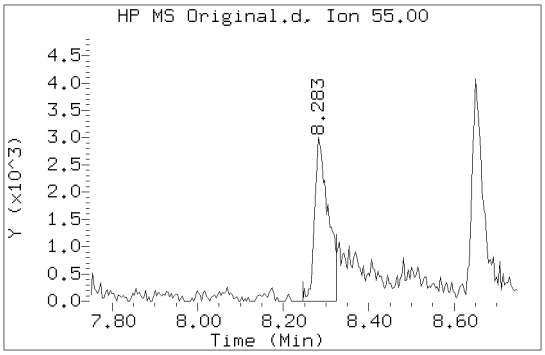
AFTER
MASS
72
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



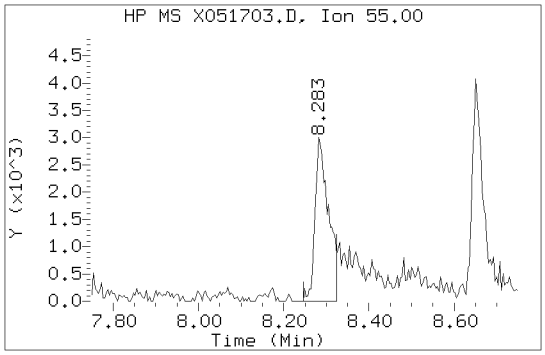
Butyl acrylate (141-32-2)

Reason Code:

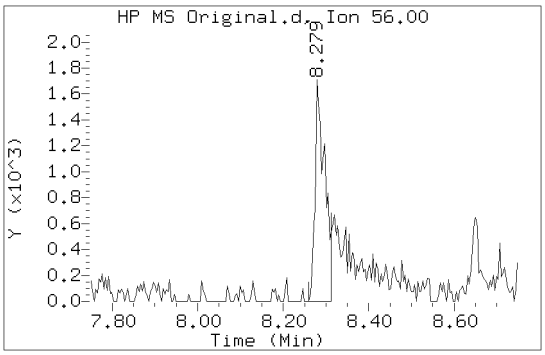
BEFORE
MASS
55
AREA
6616
HEIGHT
3009
18-May-2023
13:42
linh
pham



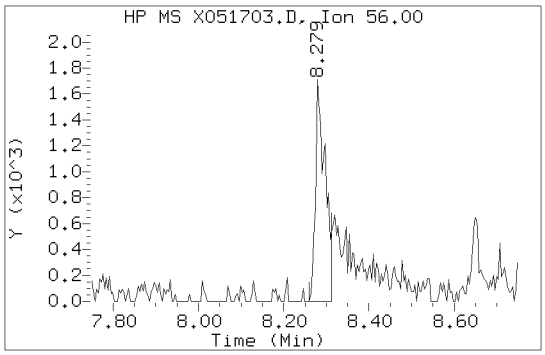
AFTER
MASS
55
AREA
6616
HEIGHT
3009
18-May-2023
13:42
linh
pham



BEFORE
MASS
56
AREA
2725
HEIGHT
1710
18-May-2023
13:42
linh
pham



AFTER
MASS
56
AREA
2725
HEIGHT
1710
18-May-2023
13:42
linh
pham



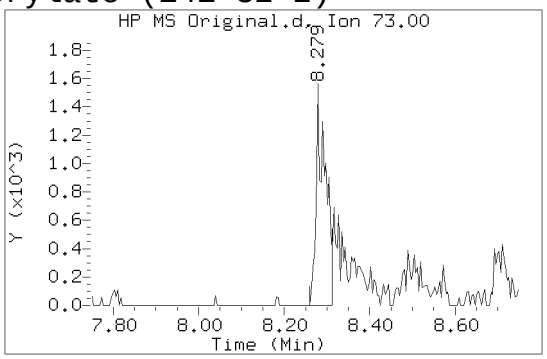
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Butyl acrylate (141-32-2)

Reason Code:

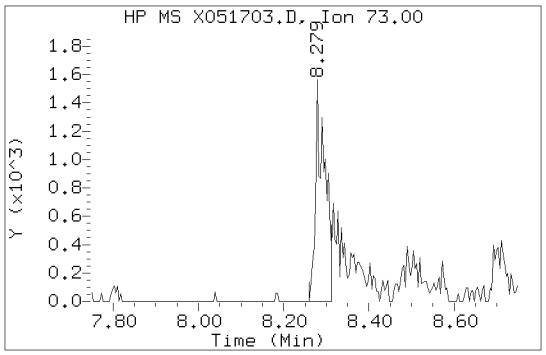
BEFORE

MASS
73
AREA
2368
HEIGHT
1564
18-May-2023
13:42
linh
pham



AFTER

MASS
73
AREA
2368
HEIGHT
1564
18-May-2023
13:42
linh
pham

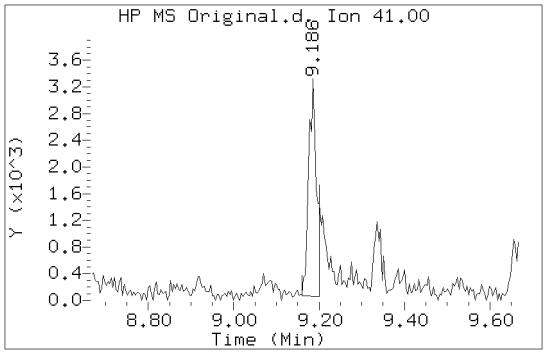


Butyl methacrylate (97-88-1)

Reason Code:

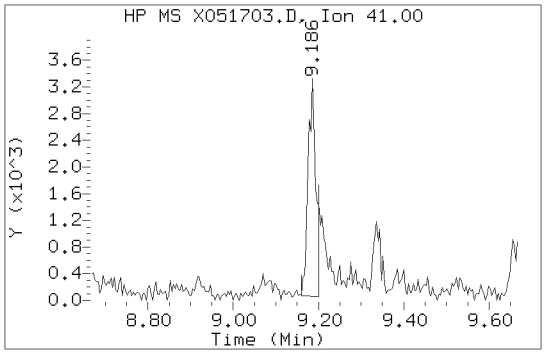
BEFORE

MASS
41
AREA
4156
HEIGHT
3265
18-May-2023
13:42
linh
pham



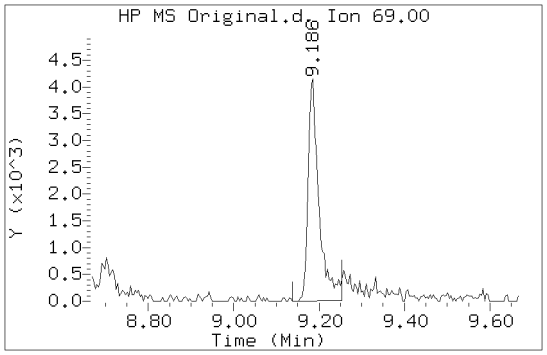
AFTER

MASS
41
AREA
4156
HEIGHT
3265
18-May-2023
13:42
linh
pham



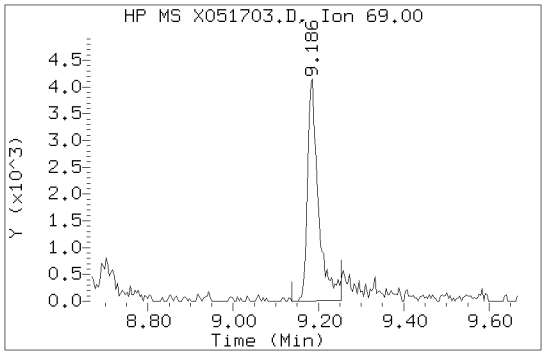
BEFORE

MASS
69
AREA
7379
HEIGHT
4141
18-May-2023
13:42
linh
pham



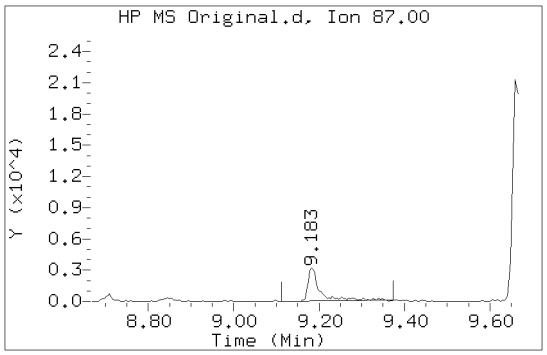
AFTER

MASS
69
AREA
7379
HEIGHT
4141
18-May-2023
13:42
linh
pham



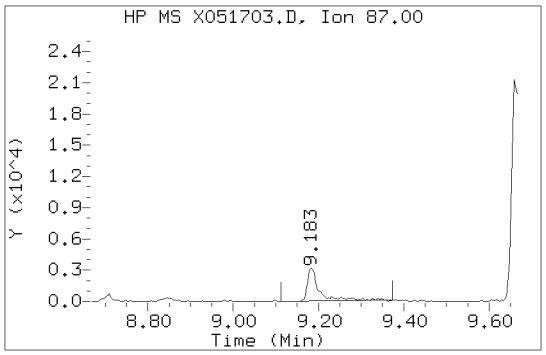
BEFORE

MASS
87
AREA
6001
HEIGHT
3151
18-May-2023
13:42
linh
pham



AFTER

MASS
87
AREA
6001
HEIGHT
3151
18-May-2023
13:42
linh
pham



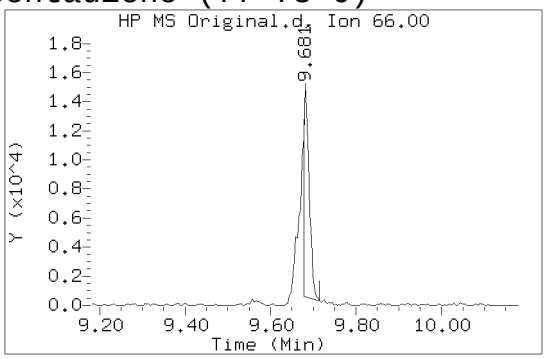
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Dicyclopentadiene (77-73-6)

Reason Code:

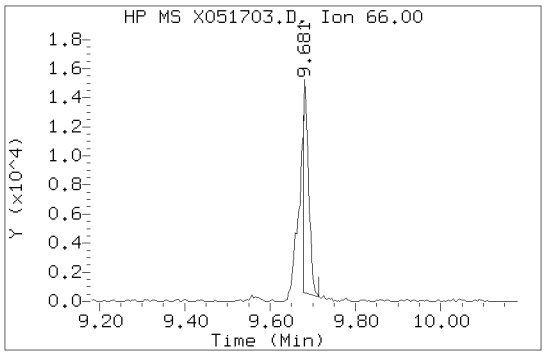
BEFORE

MASS
66
AREA
13612
HEIGHT
14665
18-May-2023
13:42
linh
pham



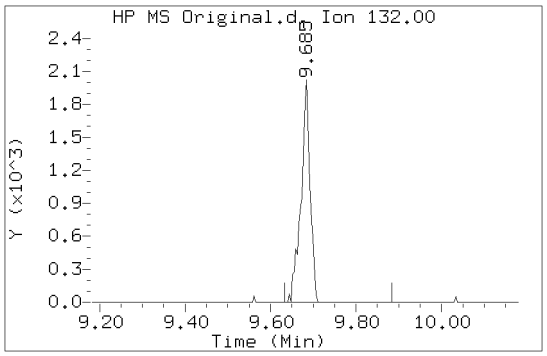
AFTER

MASS
66
AREA
13612
HEIGHT
14665
18-May-2023
13:42
linh
pham



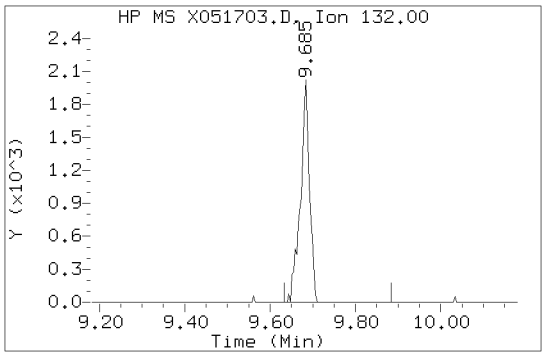
BEFORE

MASS
132
AREA
3055
HEIGHT
2023
18-May-2023
13:42
linh
pham



AFTER

MASS
132
AREA
3055
HEIGHT
2023
18-May-2023
13:42
linh
pham

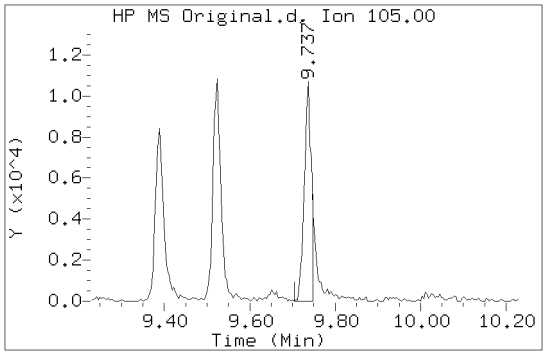


1,2,3-Trimethylbenzene (526-73-8)

Reason Code:

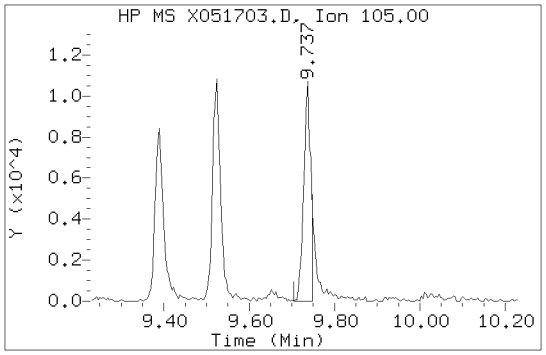
BEFORE

MASS
105
AREA
12493
HEIGHT
10720
18-May-2023
13:42
linh
pham



AFTER

MASS
105
AREA
12493
HEIGHT
10720
18-May-2023
13:42
linh
pham

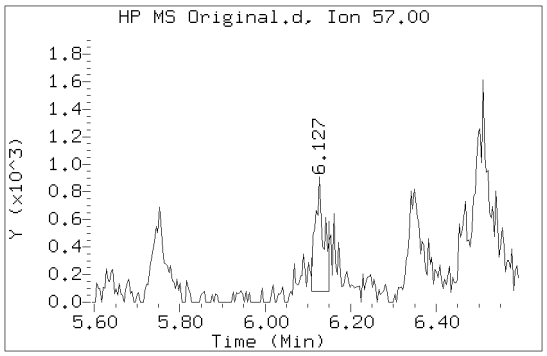


Epichlorohydrin (106-89-8)

Reason Code:

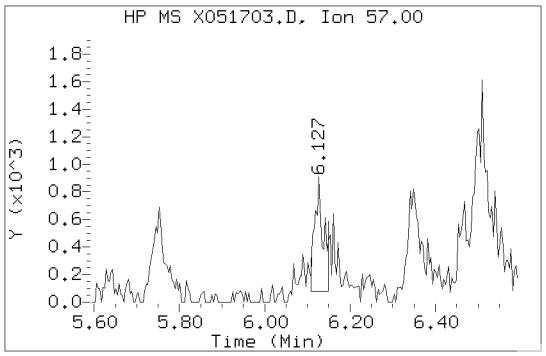
BEFORE

MASS
57
AREA
1178
HEIGHT
828
18-May-2023
13:42
linh
pham



AFTER

MASS
57
AREA
1178
HEIGHT
828
18-May-2023
13:42
linh
pham



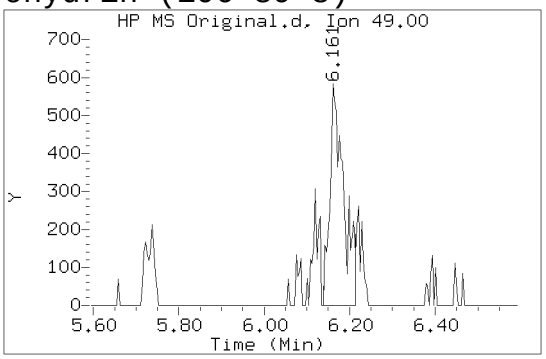
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Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Epichlorohydrin (106-89-8)

Reason Code:

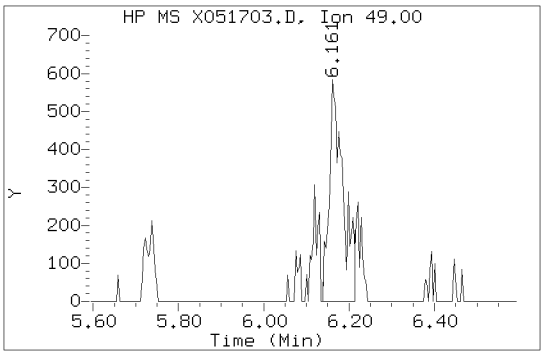
BEFORE

MASS
49
AREA
1308
HEIGHT
584
18-May-2023
13:42
linh
pham



AFTER

MASS
49
AREA
1308
HEIGHT
584
18-May-2023
13:42
linh
pham

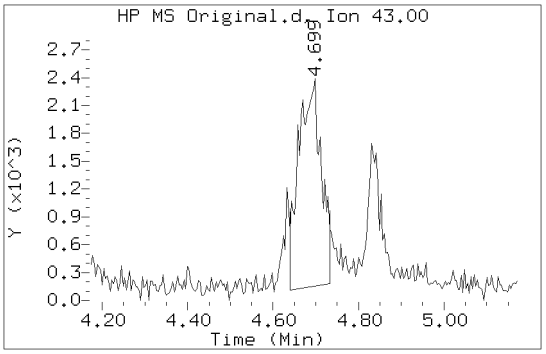


Isopropyl acetate (108-21-4)

Reason Code:

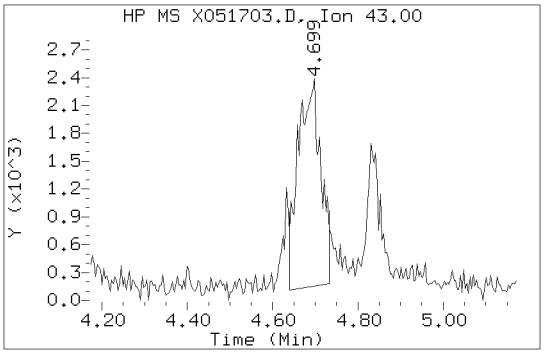
BEFORE

MASS
43
AREA
8344
HEIGHT
2233
18-May-2023
13:42
linh
pham



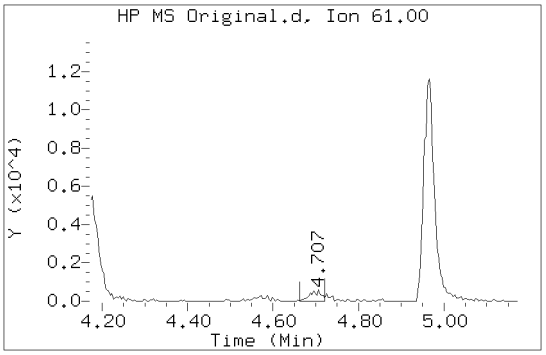
AFTER

MASS
43
AREA
8344
HEIGHT
2233
18-May-2023
13:42
linh
pham



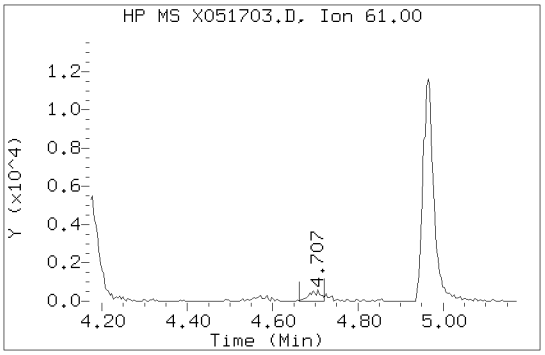
BEFORE

MASS
61
AREA
1043
HEIGHT
617
18-May-2023
13:42
linh
pham



AFTER

MASS
61
AREA
1043
HEIGHT
617
18-May-2023
13:42
linh
pham

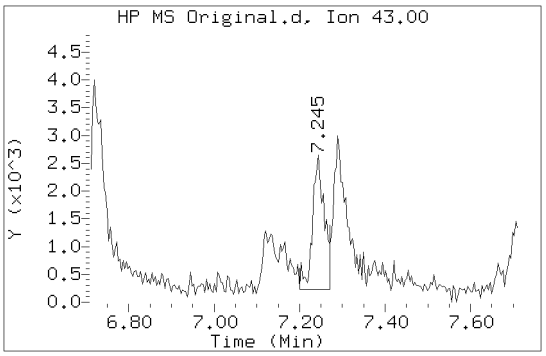


n-Butyl acetate (123-86-4)

Reason Code:

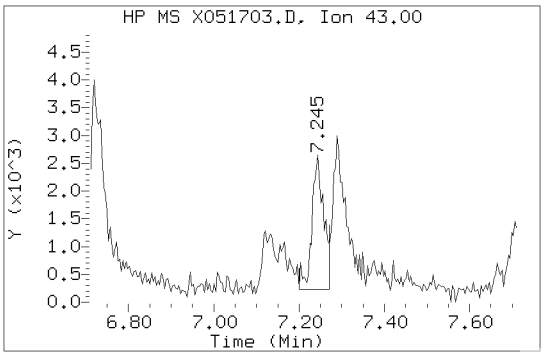
BEFORE

MASS
43
AREA
4641
HEIGHT
2413
18-May-2023
13:42
linh
pham



AFTER

MASS
43
AREA
4641
HEIGHT
2413
18-May-2023
13:42
linh
pham



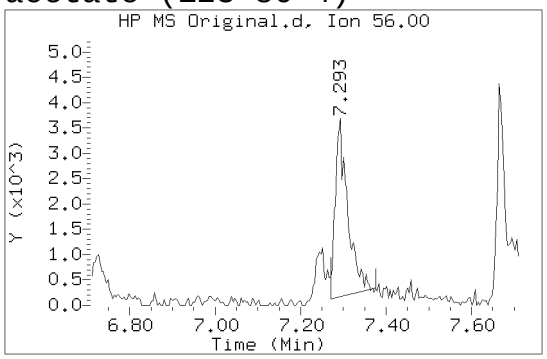
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

n-Butyl acetate (123-86-4)

Reason Code:

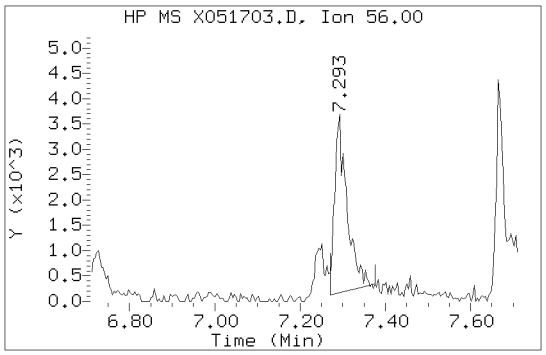
BEFORE

MASS
56
AREA
7102
HEIGHT
3530
18-May-2023
13:42
linh
pham



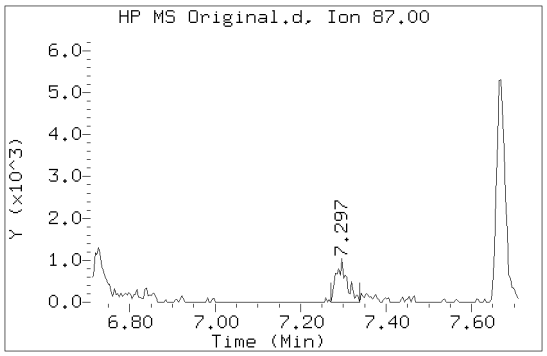
AFTER

MASS
56
AREA
7102
HEIGHT
3530
18-May-2023
13:42
linh
pham



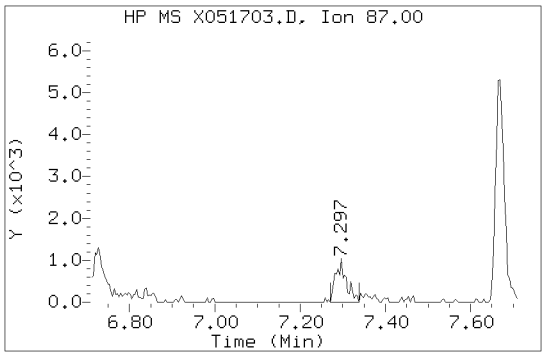
BEFORE

MASS
87
AREA
1765
HEIGHT
1036
18-May-2023
13:42
linh
pham



AFTER

MASS
87
AREA
1765
HEIGHT
1036
18-May-2023
13:42
linh
pham

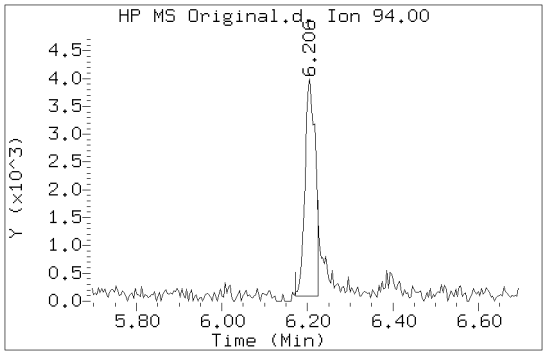


Dimethyl Disulfide (624-92-0)

Reason Code:

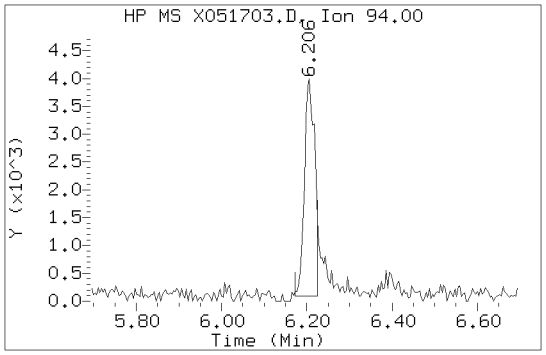
BEFORE

MASS
94
AREA
6593
HEIGHT
3899
18-May-2023
13:42
linh
pham



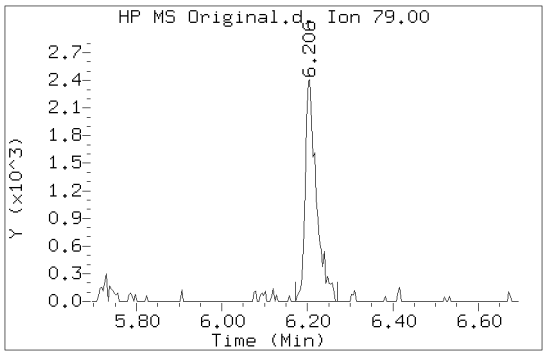
AFTER

MASS
94
AREA
6593
HEIGHT
3899
18-May-2023
13:42
linh
pham



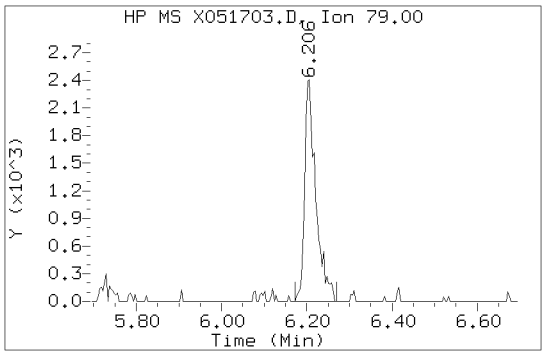
BEFORE

MASS
79
AREA
4432
HEIGHT
2407
18-May-2023
13:42
linh
pham



AFTER

MASS
79
AREA
4432
HEIGHT
2407
18-May-2023
13:42
linh
pham



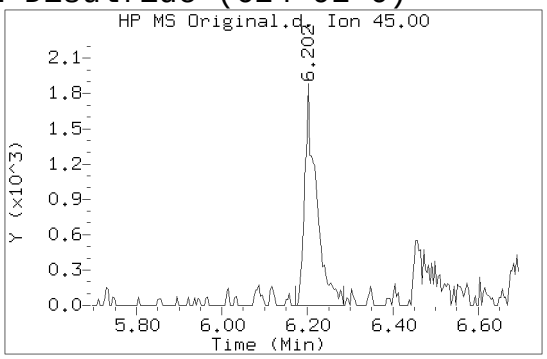
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

Dimethyl Disulfide (624-92-0)

Reason Code:

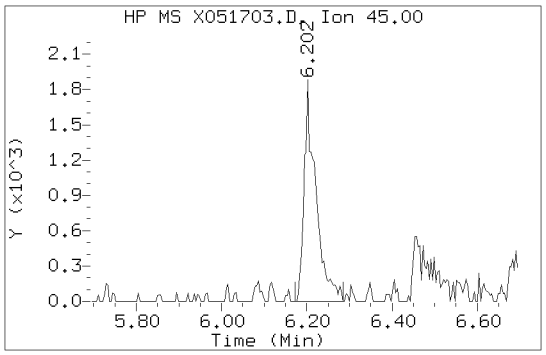
BEFORE

MASS
45
AREA
3622
HEIGHT
1883
18-May-2023
13:42
linh
pham



AFTER

MASS
45
AREA
3622
HEIGHT
1883
18-May-2023
13:42
linh
pham

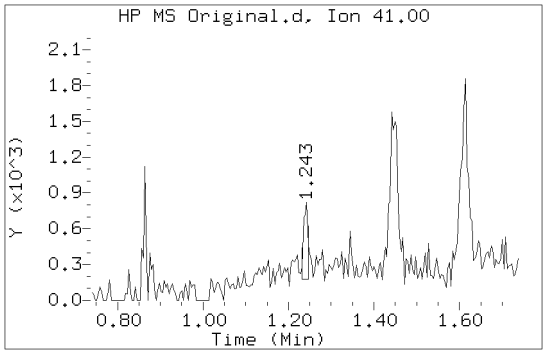


Isobutylene (115-11-7)

Reason Code:

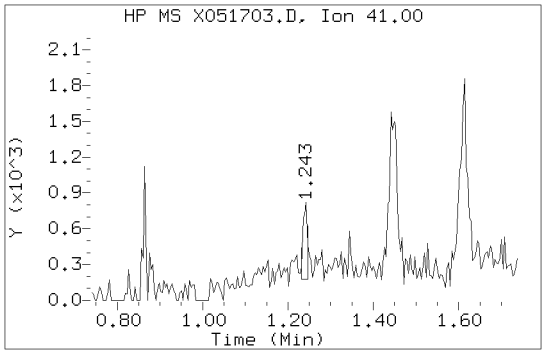
BEFORE

MASS
41
AREA
467
HEIGHT
644
18-May-2023
13:42
linh
pham



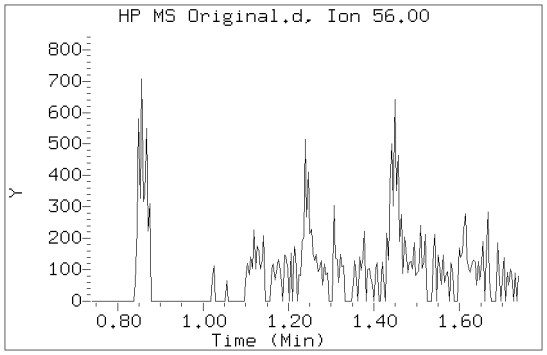
AFTER

MASS
41
AREA
467
HEIGHT
644
18-May-2023
13:42
linh
pham



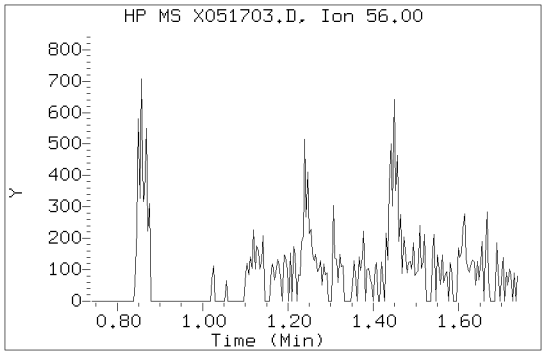
BEFORE

MASS
56
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



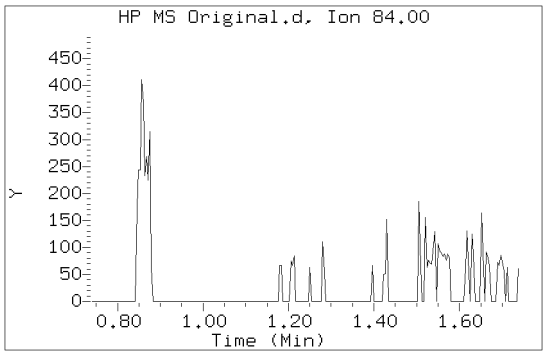
AFTER

MASS
56
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



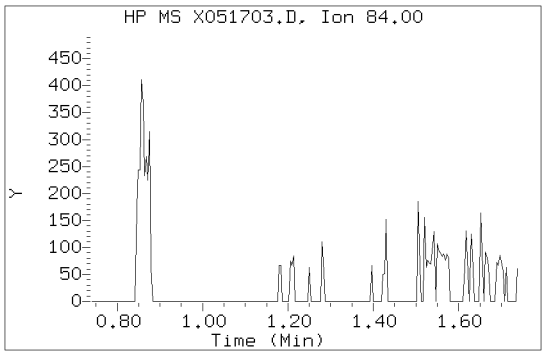
BEFORE

MASS
84
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
84
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



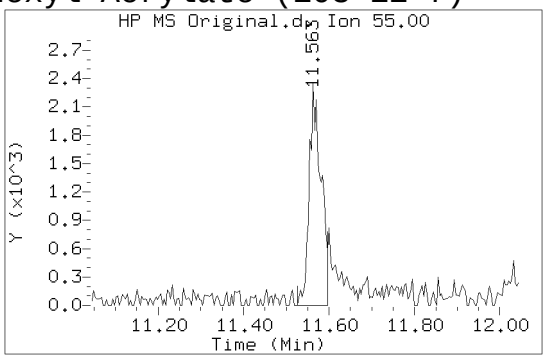
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051703.D
Inj Date : 17-MAY-2023 12:59
InstruID : voa6.i
LabSampID : VSTD000.5

2-Ethylhexyl Acrylate (103-11-7)

Reason Code:

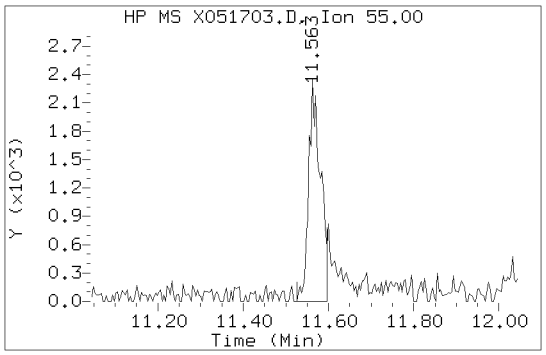
BEFORE

MASS
55
AREA
4540
HEIGHT
2345
18-May-2023
13:42
linh
pham



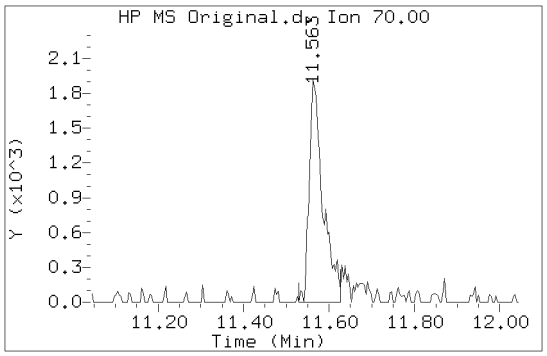
AFTER

MASS
55
AREA
4540
HEIGHT
2345
18-May-2023
13:42
linh
pham



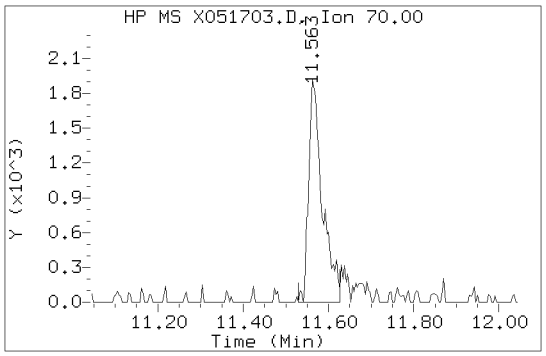
BEFORE

MASS
70
AREA
4304
HEIGHT
1916
18-May-2023
13:42
linh
pham



AFTER

MASS
70
AREA
4304
HEIGHT
1916
18-May-2023
13:42
linh
pham

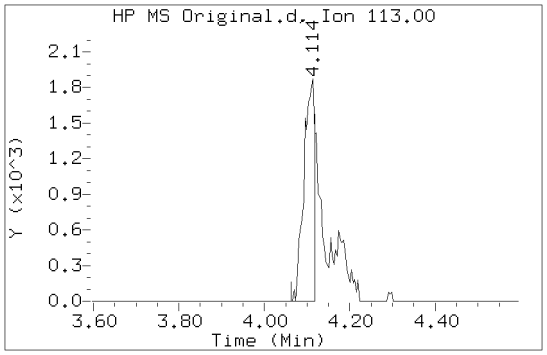


Dibromofluoromethane (1868-53-7)

Reason Code:

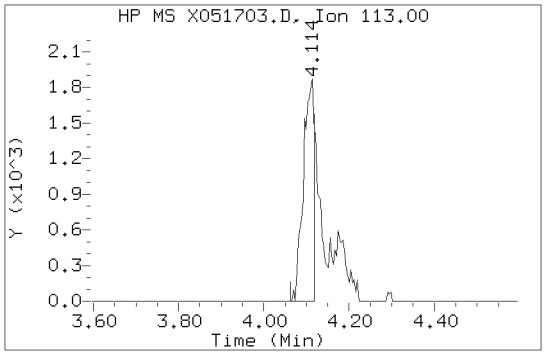
BEFORE

MASS
113
AREA
3260
HEIGHT
1872
18-May-2023
13:42
linh
pham



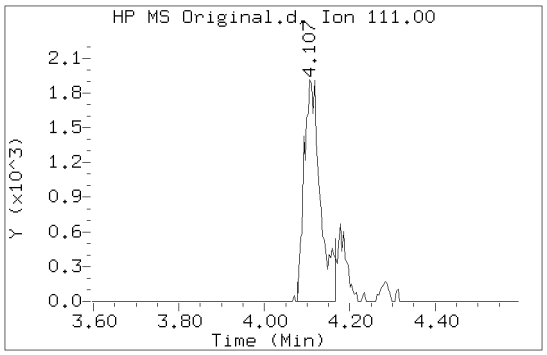
AFTER

MASS
113
AREA
3260
HEIGHT
1872
18-May-2023
13:42
linh
pham



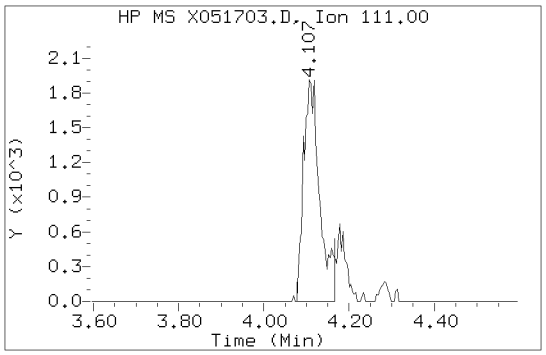
BEFORE

MASS
111
AREA
5100
HEIGHT
1915
18-May-2023
13:42
linh
pham



AFTER

MASS
111
AREA
5100
HEIGHT
1915
18-May-2023
13:42
linh
pham



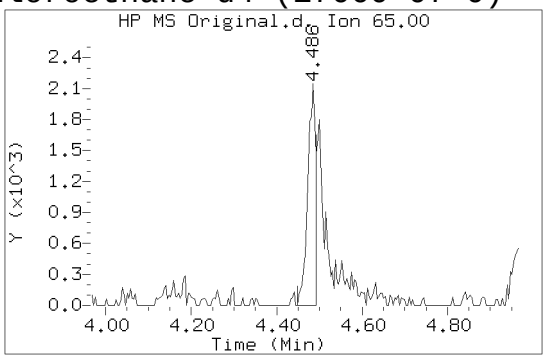
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1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

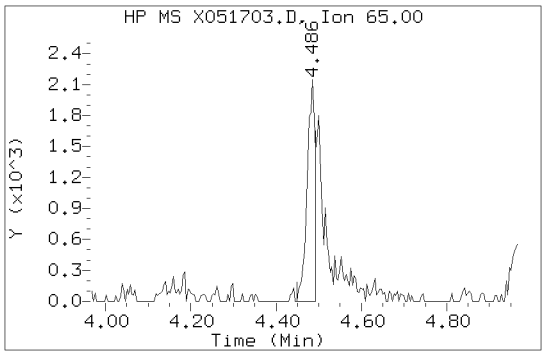
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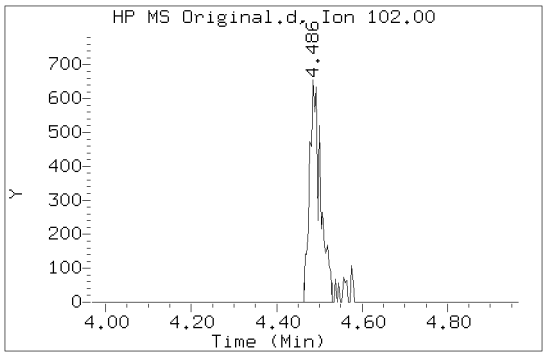
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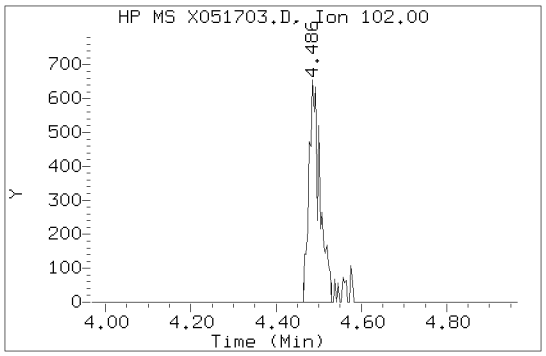
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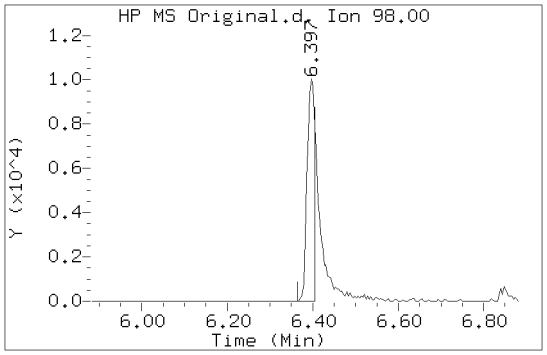


Toluene-d8 (2037-26-5)

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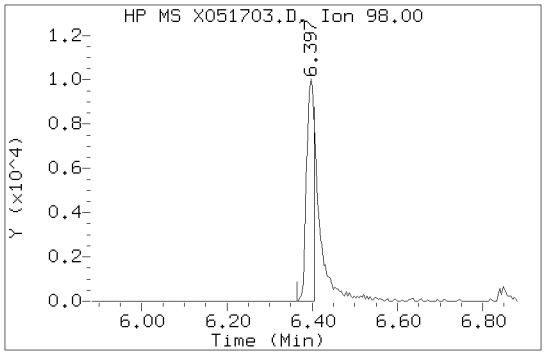
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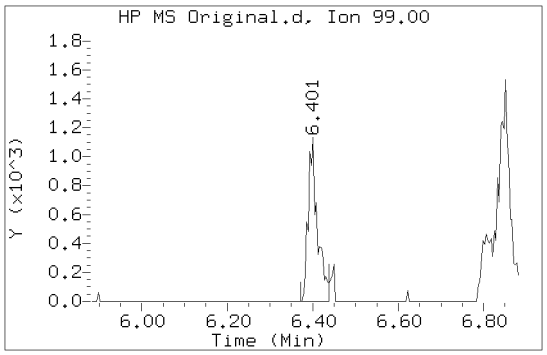
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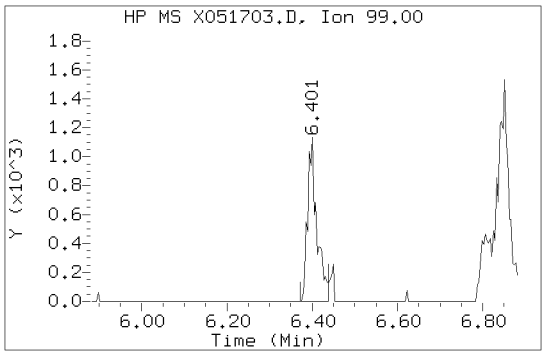
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AFTER

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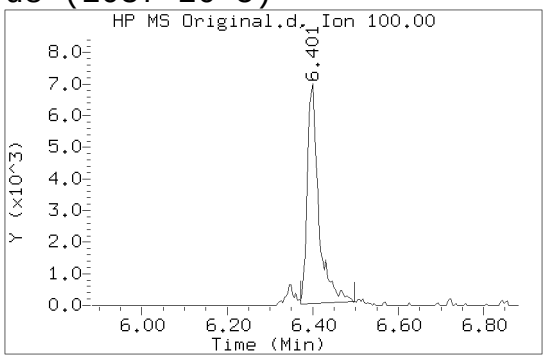
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Toluene-d8 (2037-26-5)

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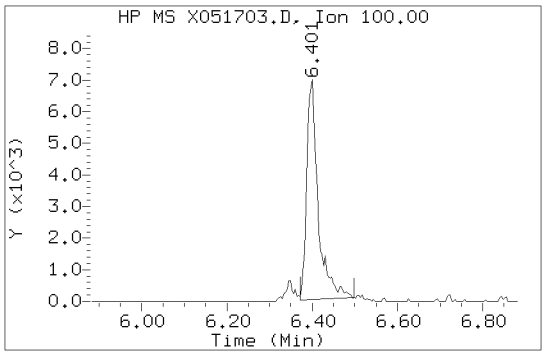
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AFTER

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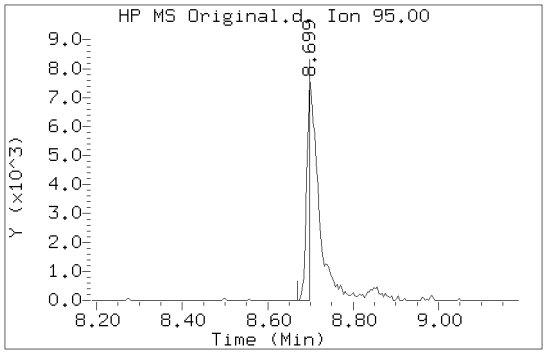


4-Bromofluorobenzene (460-00-4)

Reason Code:

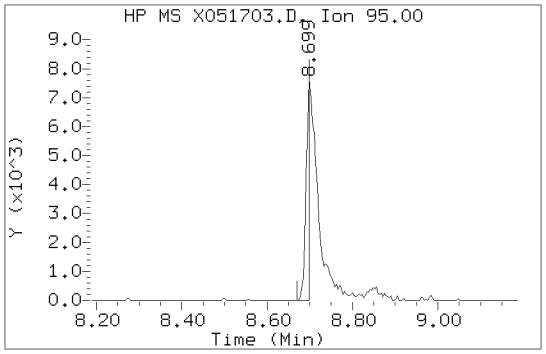
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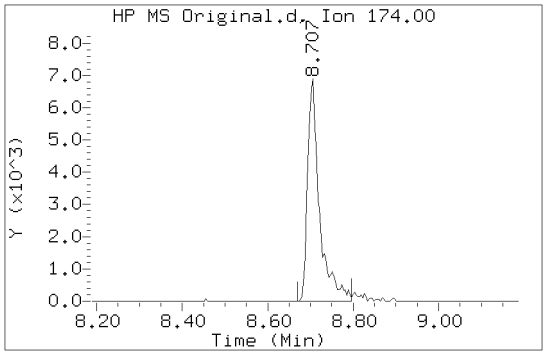
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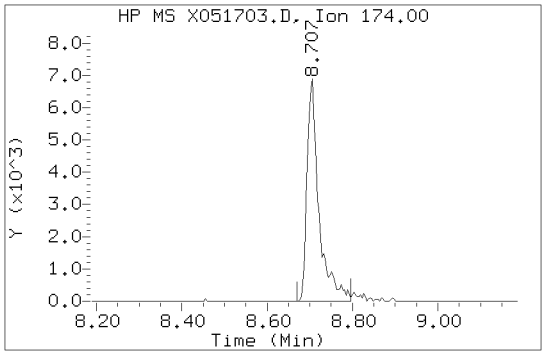
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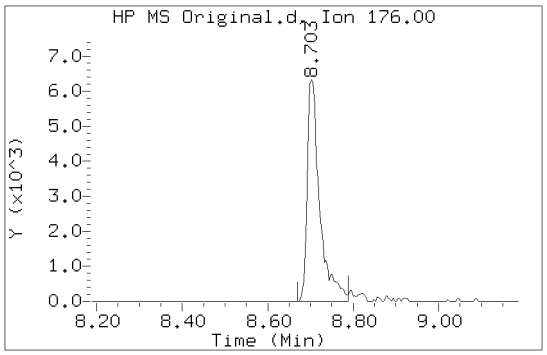
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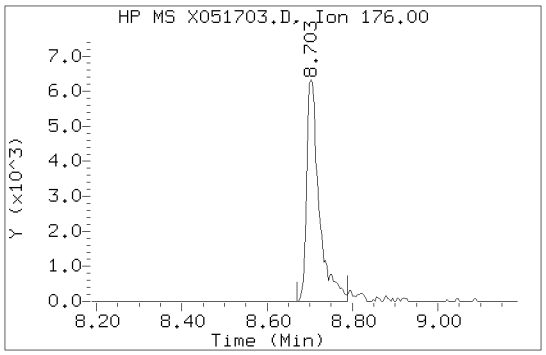
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AFTER

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18-May-2023
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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
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Inj Date : 17-MAY-2023 13:20
Operator : PC Inst ID: voa6.i
Smp Info : VSTD001;VSTD001;1;3;
Misc Info : V6;WATER;0;1;
Comment   :
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Meth Date : 18-May-2023 13:43 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 12:59 Cal File: X051703.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.181	4.181	(1.000)	564526	50.0000	
135 1,4-Dioxane	88	5.624	5.624	(1.345)	1650	20.0000	21.58(aM)
140 1,3-Butadiene	54	1.164	1.164	(0.278)	6276	1.00000	1.05(aM)
25 Methacrylonitrile	41	3.863	3.863	(0.924)	4830	1.00000	0.95(aM)
12 Isobutyl Alcohol	43	4.691	4.691	(1.122)	12926	20.0000	17.56(aM)
13 Acetonitrile	39	2.206	2.206	(0.528)	5197	10.0000	9.56(a)
14 Allyl Chloride	41	2.209	2.209	(0.528)	14400	1.00000	1.05
72 trans-1,4-Dichloro-2-butene	53	8.920	8.920	(1.163)	1686	1.00000	0.85(aM)
23 Chloroprene	53	1.775	1.775	(0.424)	2382	1.00000	1.04(aM)
130 Ethyl Acetate	43	3.679	3.679	(0.880)	4516	1.00000	1.12(aM)
40 Methyl Methacrylate	41	5.632	5.632	(1.347)	4552	1.00000	0.92(aM)
49 Ethyl Methacrylate	69	6.798	6.798	(1.369)	9539	1.00000	1.04(aM)
131 Methyl Acrylate	55	3.765	3.765	(0.900)	4572	1.00000	0.83(aM)
132 n-Butanol	56	5.351	5.351	(1.280)	1207	20.0000	75.08(aM)
136 n-Hexane	57	2.776	2.776	(0.664)	5002	1.00000	0.98(a)
139 Diethyl ether	59	1.763	1.763	(0.422)	5478	1.00000	1.13(a)
142 Tetrahydrofuran	42	3.874	3.874	(0.926)	1894	2.00000	2.03(aM)
145 alpha-Methylstyrene	118	9.272	9.272	(0.960)	9051	1.00000	0.94(a)
156 Diisopropyl ether	45	3.004	3.004	(0.719)	17844	1.00000	1.04(Ta)
162 Butyl acrylate	55	8.275	8.275	(1.079)	10665	1.00000	0.84(a)

167 Ethanol	45	1.707	1.707 (0.408)	1978	20.0000	28.26
200 Dimethyl Disulfide	94	6.202	6.202 (0.809)	12375	1.00000	0.97(a)

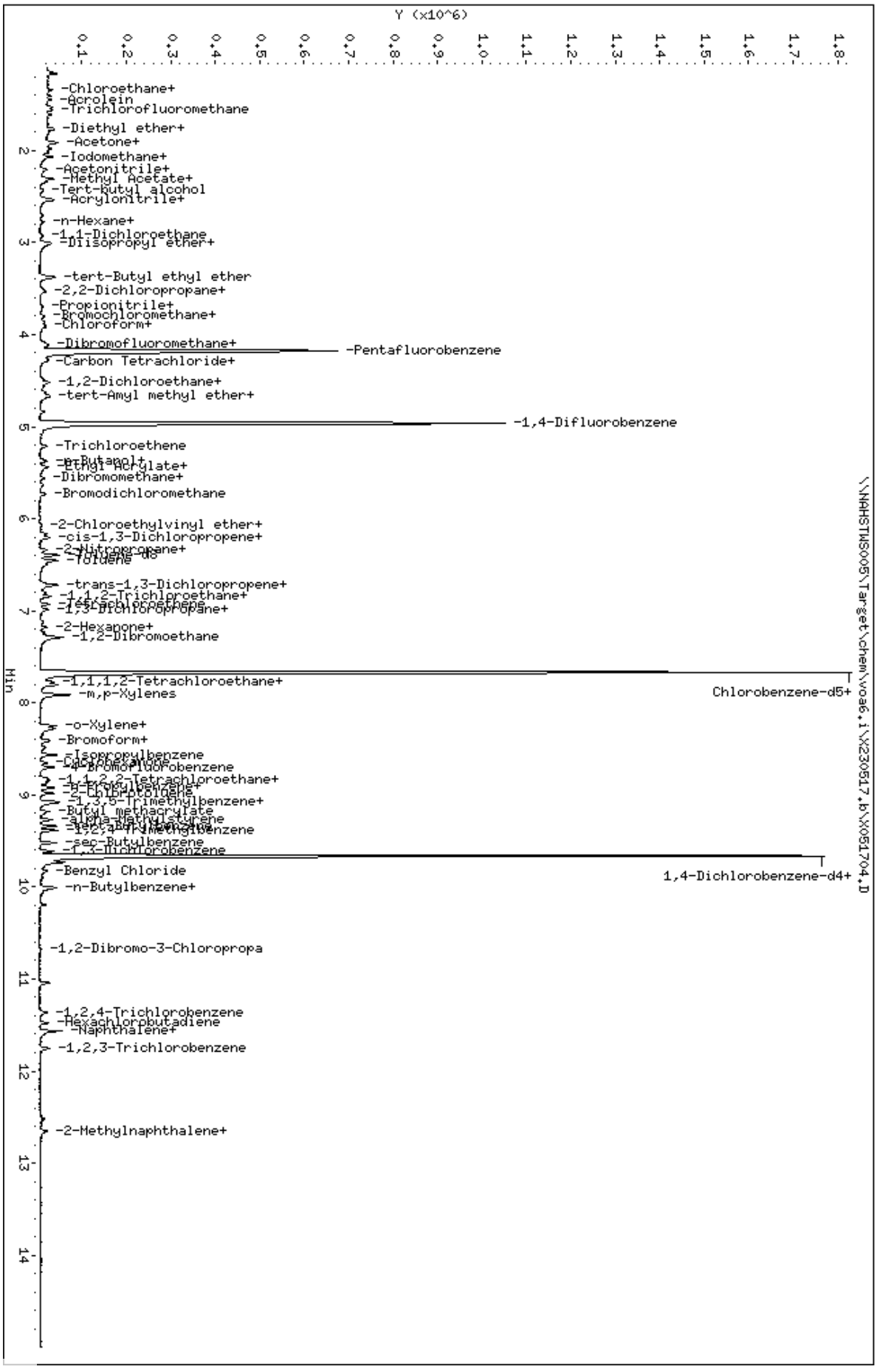
			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
	164	Dicyclopentadiene	66	9.684	9.684	(1.002)	21949	1.00000	0.94(aM)
	166	1,2,3-Trimethylbenzene	105	9.733	9.733	(1.007)	19454	1.00000	0.97(a)
	205	2-Ethylhexyl Acrylate	55	11.566	11.566	(1.197)	8208	1.00000	1.00(aM)
	86	Benzyl Chloride	91	9.830	9.830	(1.282)	11369	1.00000	0.84(a)
	134	Cyclohexanone	55	8.653	8.653	(0.896)	6460	20.0000	23.63(a)
	133	Ethyl Acrylate	55	5.430	5.430	(1.299)	9158	1.00000	2.01(aM)
	163	Butyl methacrylate	41	9.182	9.182	(0.950)	6822	1.00000	0.89(aM)
	188	Isopropyl acetate	43	4.691	4.691	(0.945)	15042	1.00000	0.97(aM)
	189	n-Butyl acetate	43	7.233	7.233	(0.943)	8796	1.00000	0.89(aM)
	2	Dichlorodifluoromethane	85	0.972	0.972	(0.233)	5723	1.00000	1.67(a)
	3	Chloromethane	50	1.081	1.081	(0.259)	8690	1.00000	1.09(a)
	5	Vinyl Chloride	62	1.145	1.145	(0.274)	8147	1.00000	1.08(a)
	6	Bromomethane	94	1.344	1.344	(0.321)	4982	1.00000	1.53(aM)
	7	Chloroethane	64	1.404	1.404	(0.336)	5208	1.00000	1.11(a)
	8	Trichlorofluoromethane	101	1.561	1.561	(0.373)	8110	1.00000	1.03(a)
	11	1,1-Dichloroethene	96	1.913	1.913	(0.458)	5297	1.00000	1.06(a)
	15	Iodomethane	142	2.026	2.026	(0.485)	6806	2.00000	3.33(a)
	18	Methyl tert-butyl ether	73	2.539	2.539	(0.607)	16715	1.00000	1.07(a)
	19	Carbon Disulfide	76	2.071	2.071	(0.495)	30844	2.00000	1.97(a)
	20	trans-1,2-Dichloroethene	96	2.539	2.539	(0.607)	5399	1.00000	1.04(a)
	22	1,1-Dichloroethane	63	2.925	2.925	(0.700)	9596	1.00000	1.01(a)
	24	2-Butanone	43	3.668	3.668	(0.877)	3693	2.00000	1.96(aM)
	26	2,2-Dichloropropane	77	3.514	3.514	(0.840)	7909	1.00000	0.82(a)
	27	cis-1,2-Dichloroethene	96	3.533	3.533	(0.845)	6146	1.00000	1.01(a)
	28	Chloroform	83	3.915	3.915	(0.936)	9735	1.00000	1.03(a)
	29	Bromochloromethane	128	3.803	3.803	(0.909)	3643	1.00000	1.13(a)
$	30	Dibromofluoromethane	113	4.106	4.106	(0.982)	6379	1.00000	0.41(a)
	31	1,1,1-Trichloroethane	97	4.080	4.080	(0.976)	7233	1.00000	1.00(a)
	32	1,1-Dichloropropene	75	4.290	4.290	(0.864)	7077	1.00000	1.00(aM)
	33	1,2-Dichloroethane	62	4.575	4.575	(0.921)	7809	1.00000	1.11(a)
	34	Carbon Tetrachloride	117	4.264	4.264	(0.859)	6891	1.00000	1.06(a)
$	35	1,2-Dichloroethane-d4	65	4.485	4.485	(1.073)	6358	1.00000	0.70(aM)
*	36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	893837	50.0000	
	37	Benzene	78	4.522	4.522	(0.911)	22755	1.00000	1.00(a)
	38	Trichloroethene	130	5.216	5.216	(1.051)	5980	1.00000	0.97(a)
	39	Bromodichloromethane	83	5.726	5.726	(1.153)	7475	1.00000	0.96(a)
	42	1,2-Dichloropropane	63	5.445	5.445	(1.097)	6891	1.00000	1.06(aM)
	44	Dibromomethane	93	5.561	5.561	(1.120)	3764	1.00000	0.95(a)
	45	4-Methyl-2-Pentanone	43	6.344	6.344	(0.827)	12993	2.00000	2.13(a)
	46	cis-1,3-Dichloropropene	75	6.168	6.168	(1.242)	10279	1.00000	0.98(a)
*	47	Chlorobenzene-d5	117	7.668	7.668	(1.000)	885131	50.0000	
$	48	Toluene-d8	98	6.397	6.397	(0.834)	24865	1.00000	1.10(aM)
	50	Toluene	91	6.457	6.457	(0.842)	25140	1.00000	1.01(a)
	51	trans-1,3-Dichloropropene	75	6.693	6.693	(1.348)	7228	1.00000	0.87(a)
	52	2-Hexanone	43	7.116	7.116	(0.928)	8213	2.00000	1.97(a)
	53	1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	5211	1.00000	1.02(a)
	54	1,3-Dichloropropane	76	6.985	6.985	(0.911)	10320	1.00000	0.97(a)
	55	Dibromochloromethane	129	7.180	7.180	(0.936)	6524	1.00000	0.94(a)
	56	Tetrachloroethene	164	6.933	6.933	(0.904)	4688	1.00000	0.97(a)
	57	1,2-Dibromoethane	107	7.270	7.270	(0.948)	5984	1.00000	0.96(a)
	58	1-Chlorohexane	55	7.701	7.701	(1.551)	5794	1.00000	2.86(aH)
	59	Chlorobenzene	112	7.694	7.694	(1.003)	17748	1.00000	1.03(a)

60 1,1,1,2-Tetrachloroethane	131	7.776	7.776 (1.014)	5738	1.00000	0.95(a)
61 Ethylbenzene	106	7.806	7.806 (1.018)	8513	1.00000	1.00(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	62 m,p-Xylenes	106	7.915	7.915	(1.032)	20761	2.00000	1.97(a)
	63 o-Xylene	106	8.252	8.252	(1.076)	9905	1.00000	0.96(a)
	64 Styrene	104	8.282	8.282	(1.080)	15809	1.00000	0.91(a)
	66 Bromoform	173	8.417	8.417	(1.098)	4518	1.00000	0.97(Ta)
	67 Isopropylbenzene	105	8.567	8.567	(1.117)	24396	1.00000	0.98(a)
	68 1,1,2,2-Tetrachloroethane	83	8.845	8.845	(0.915)	8792	1.00000	1.48(a)
$	69 4-Bromofluorobenzene	95	8.698	8.698	(1.134)	9746	1.00000	1.14(aM)
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	440773	50.0000	
	71 1,2,3-Trichloropropane	75	8.875	8.875	(0.919)	5746	1.00000	1.01(aM)
	73 n-Propylbenzene	91	8.920	8.920	(0.923)	24736	1.00000	0.90(a)
	74 Bromobenzene	156	8.818	8.818	(0.913)	6826	1.00000	0.99(a)
	75 1,3,5-Trimethylbenzene	105	9.069	9.069	(0.939)	19876	1.00000	1.00(a)
	76 2-Chlorotoluene	91	8.980	8.980	(0.929)	18286	1.00000	1.03(a)
	77 4-Chlorotoluene	91	9.088	9.088	(0.941)	19569	1.00000	1.00(a)
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	16606	1.00000	0.99(a)
	79 1,2,4-Trimethylbenzene	105	9.384	9.384	(0.971)	20414	1.00000	1.00(a)
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	20958	1.00000	0.90(a)
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	18357	1.00000	0.91(a)
	83 1,3-Dichlorobenzene	146	9.609	9.609	(0.995)	11974	1.00000	0.96(a)
	84 1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	13439	1.00000	1.03(a)
	88 1,2-Dichlorobenzene	146	10.007	10.007	(1.036)	12949	1.00000	1.05(a)
	89 1,2-Dibromo-3-Chloropropane	155	10.696	10.696	(1.107)	1225	1.00000	0.60(a)
	93 1,2,3-Trichlorobenzene	180	11.754	11.754	(1.216)	7522	1.00000	0.90(a)
M	94 1,2-Dichloroethylene (total)	96				11545	2.00000	(a)
	141 Cyclohexane	56	4.121	4.121	(0.986)	6417	1.00000	0.90(aH)
	138 Freon TF	101	1.925	1.925	(0.460)	4639	1.00000	0.75(a)
	147 Methylcyclohexane	55	5.373	5.373	(1.082)	14156	1.00000	1.02(aM)
	146 Methyl Acetate	43	2.262	2.262	(0.541)	2887	1.00000	0.86(a)
	148 Tert-Butyl alcohol	59	2.434	2.434	(0.582)	11698	20.0000	20.98(a)

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.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
Date : 17-MAY-2023 13:20
Client ID: WSTD001
Sample Info: WSTD001;WSTD001;1;3;
Purge Volume: 5.0
Column phase: DB624

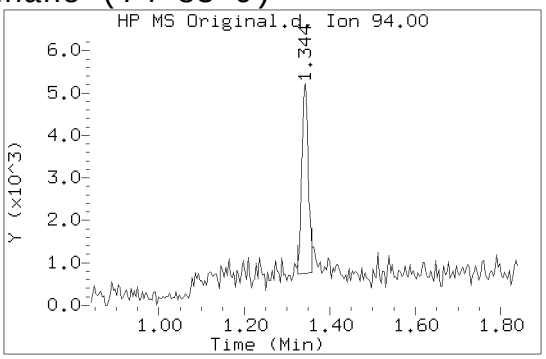
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Bromomethane (74-83-9)

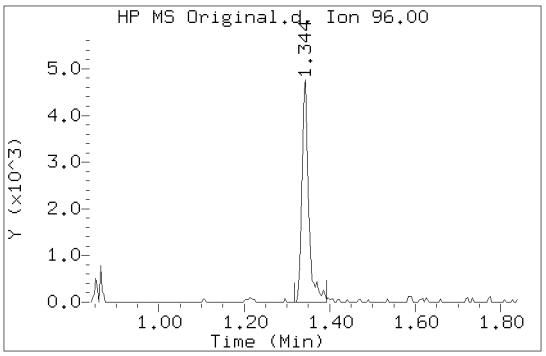
BEFORE

MASS
94
AREA
4982
HEIGHT
4459
18-May-2023
13:42
linh
pham



BEFORE

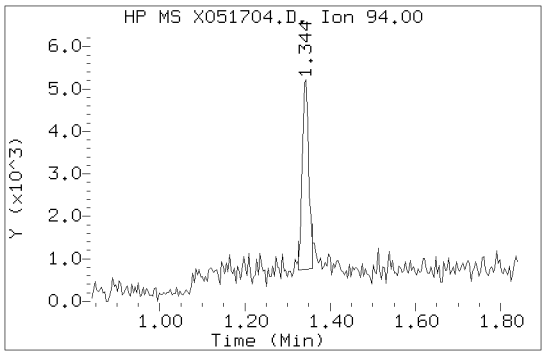
MASS
96
AREA
5442
HEIGHT
4762
18-May-2023
13:42
linh
pham



Reason Code:

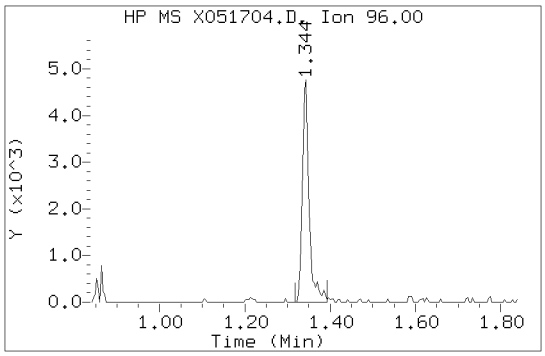
AFTER

MASS
94
AREA
4982
HEIGHT
4459
18-May-2023
13:42
linh
pham



AFTER

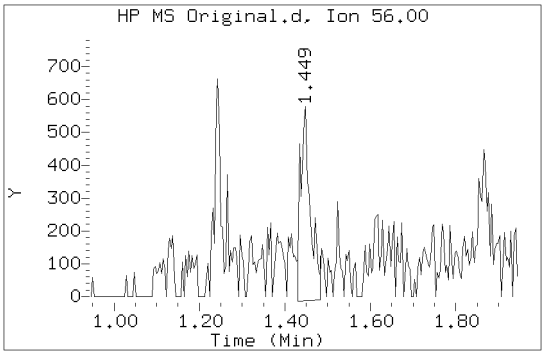
MASS
96
AREA
5442
HEIGHT
4762
18-May-2023
13:42
linh
pham



Acrolein (107-02-8)

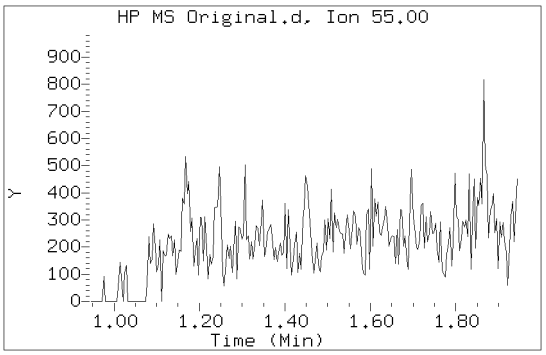
BEFORE

MASS
56
AREA
977
HEIGHT
591
18-May-2023
13:42
linh
pham



BEFORE

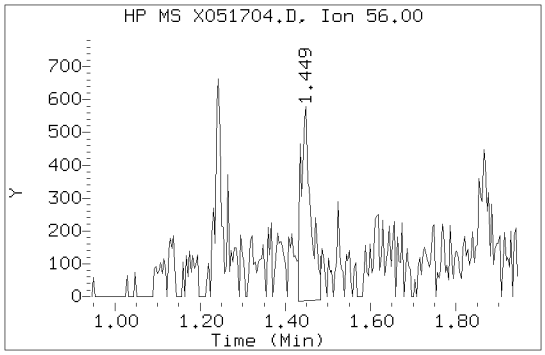
MASS
55
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



Reason Code:

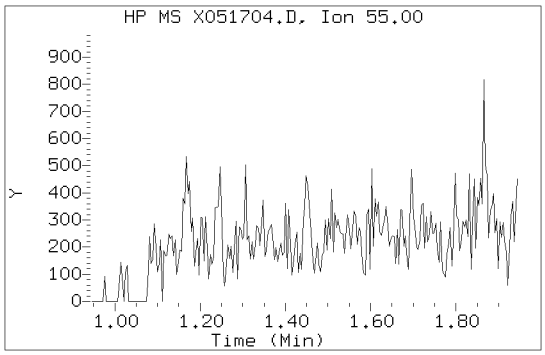
AFTER

MASS
56
AREA
977
HEIGHT
591
18-May-2023
13:42
linh
pham



AFTER

MASS
55
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



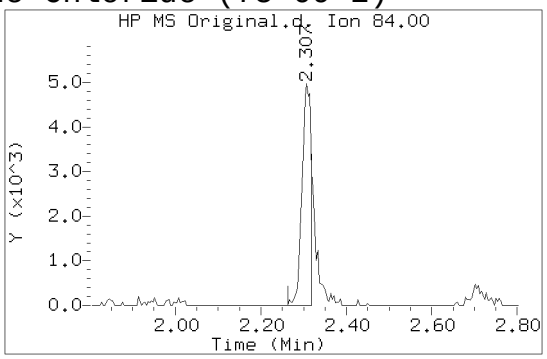
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Methylene Chloride (75-09-2)

Reason Code:

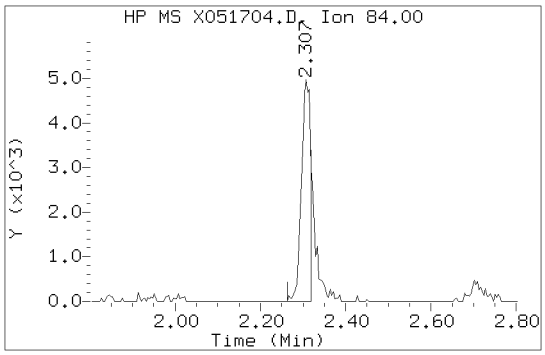
BEFORE

MASS
84
AREA
7319
HEIGHT
4968
18-May-2023
13:42
linh
pham



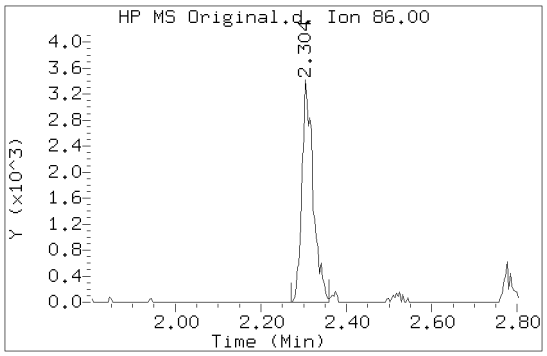
AFTER

MASS
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AREA
7319
HEIGHT
4968
18-May-2023
13:42
linh
pham



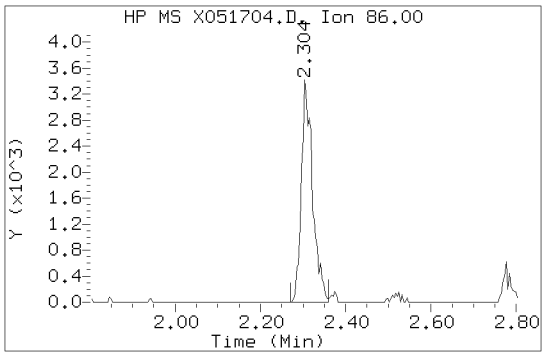
BEFORE

MASS
86
AREA
6375
HEIGHT
3418
18-May-2023
13:42
linh
pham



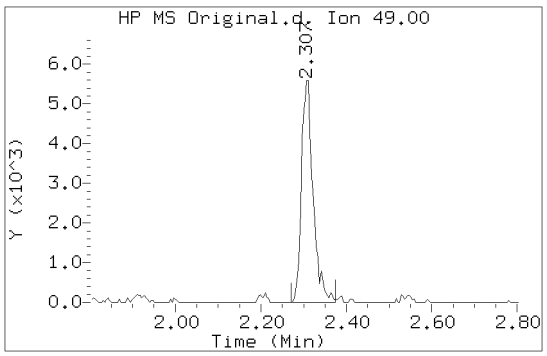
AFTER

MASS
86
AREA
6375
HEIGHT
3418
18-May-2023
13:42
linh
pham



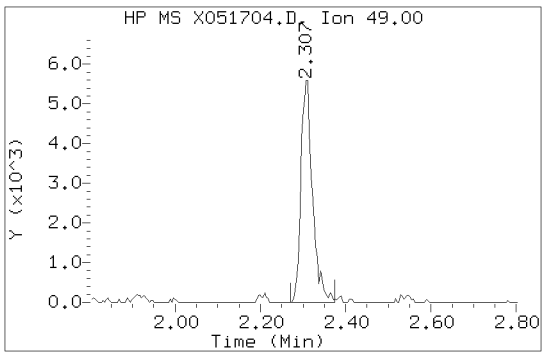
BEFORE

MASS
49
AREA
10775
HEIGHT
5585
18-May-2023
13:42
linh
pham



AFTER

MASS
49
AREA
10775
HEIGHT
5585
18-May-2023
13:42
linh
pham

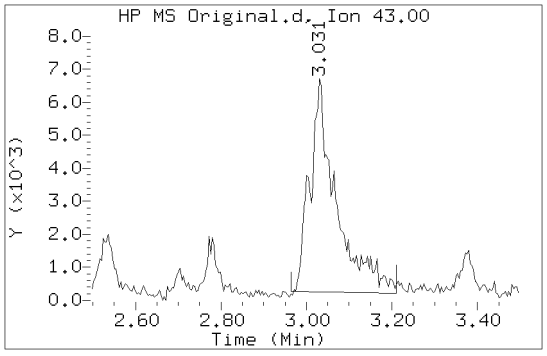


Vinyl Acetate (108-05-4)

Reason Code:

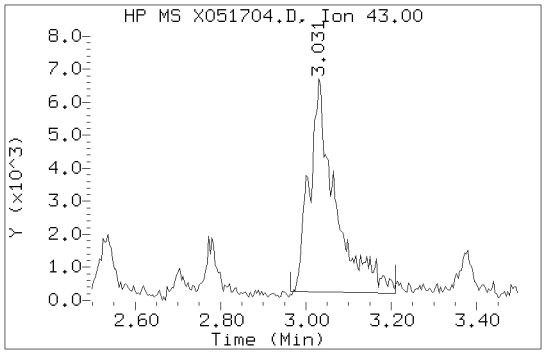
BEFORE

MASS
43
AREA
27619
HEIGHT
6461
18-May-2023
13:42
linh
pham



AFTER

MASS
43
AREA
27619
HEIGHT
6461
18-May-2023
13:42
linh
pham



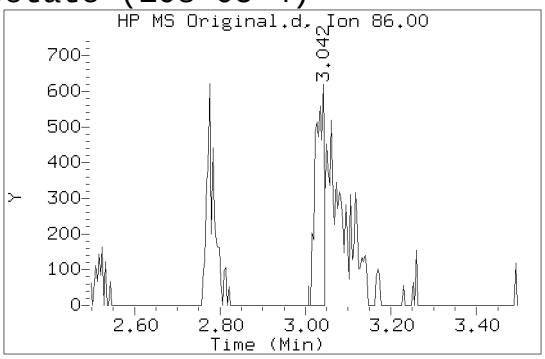
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Vinyl Acetate (108-05-4)

Reason Code:

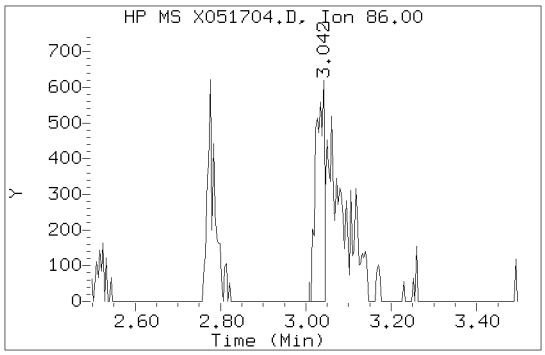
BEFORE

MASS
86
AREA
855
HEIGHT
619
18-May-2023
13:42
linh
pham



AFTER

MASS
86
AREA
855
HEIGHT
619
18-May-2023
13:42
linh
pham

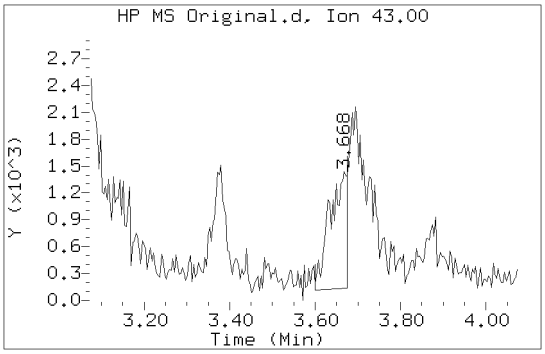


2-Butanone (78-93-3)

Reason Code:

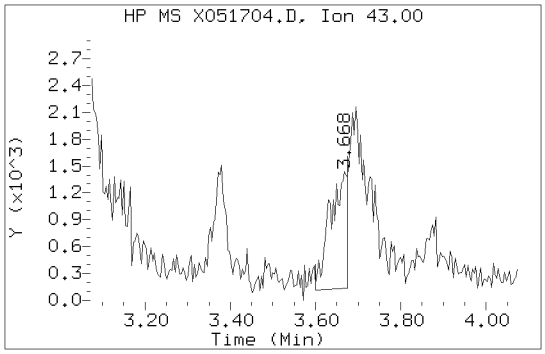
BEFORE

MASS
43
AREA
3693
HEIGHT
1304
18-May-2023
13:42
linh
pham



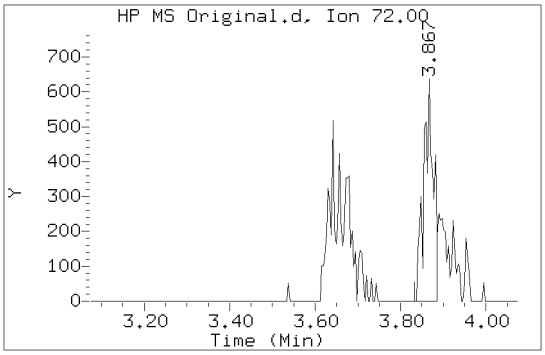
AFTER

MASS
43
AREA
3693
HEIGHT
1304
18-May-2023
13:42
linh
pham



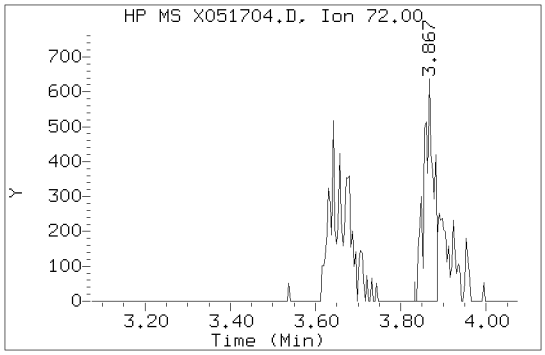
BEFORE

MASS
72
AREA
1004
HEIGHT
637
18-May-2023
13:42
linh
pham



AFTER

MASS
72
AREA
1004
HEIGHT
637
18-May-2023
13:42
linh
pham

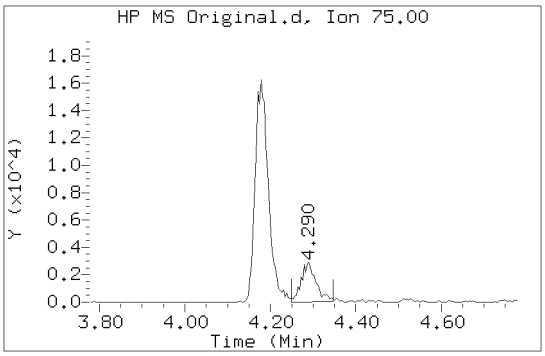


1,1-Dichloropropene (563-58-6)

Reason Code:

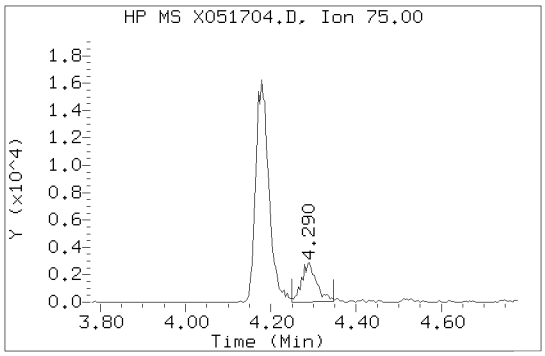
BEFORE

MASS
75
AREA
7077
HEIGHT
2910
18-May-2023
13:42
linh
pham



AFTER

MASS
75
AREA
7077
HEIGHT
2910
18-May-2023
13:42
linh
pham

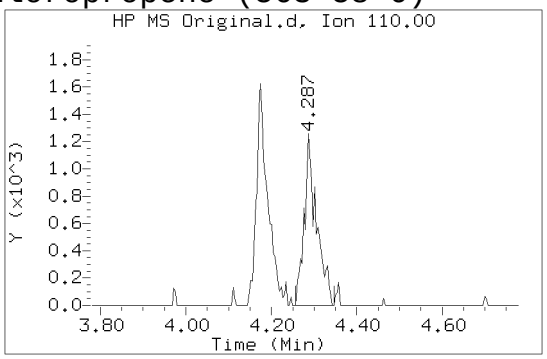


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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

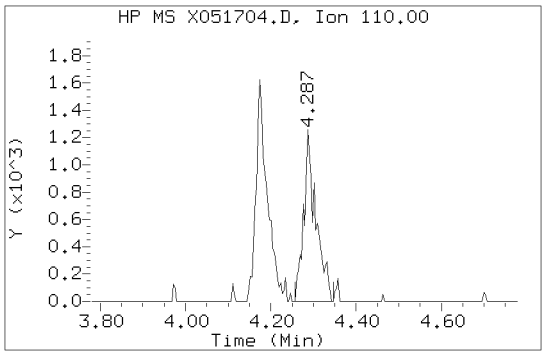
1,1-Dichloropropene (563-58-6)

Reason Code:

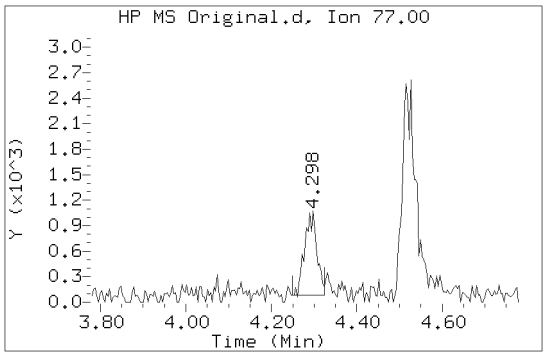
BEFORE
MASS
110
AREA
2518
HEIGHT
1259
18-May-2023
13:42
linh
pham



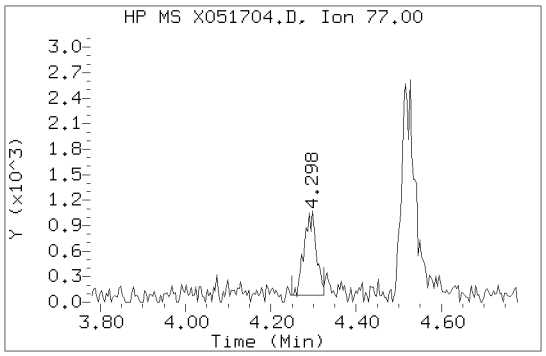
AFTER
MASS
110
AREA
2518
HEIGHT
1259
18-May-2023
13:42
linh
pham



BEFORE
MASS
77
AREA
1982
HEIGHT
990
18-May-2023
13:42
linh
pham



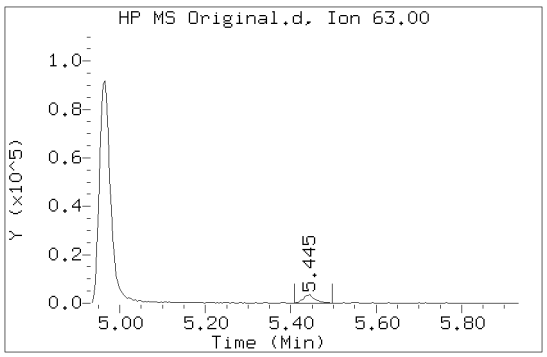
AFTER
MASS
77
AREA
1982
HEIGHT
990
18-May-2023
13:42
linh
pham



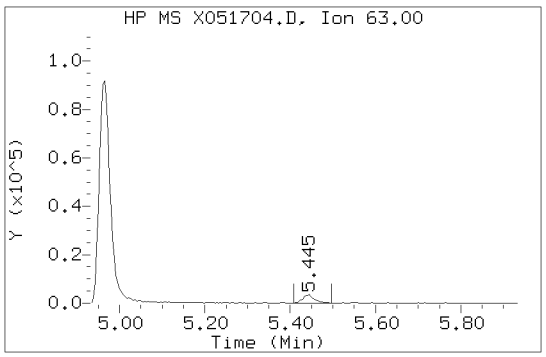
1,2-Dichloropropane (78-87-5)

Reason Code:

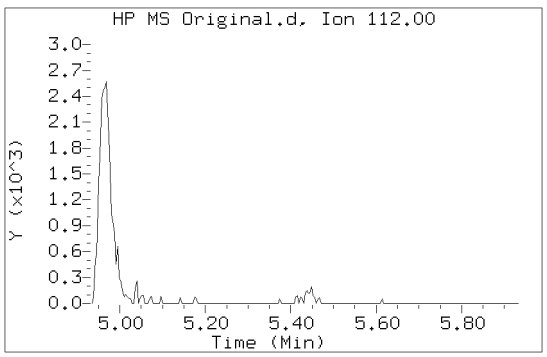
BEFORE
MASS
63
AREA
6891
HEIGHT
3798
18-May-2023
13:42
linh
pham



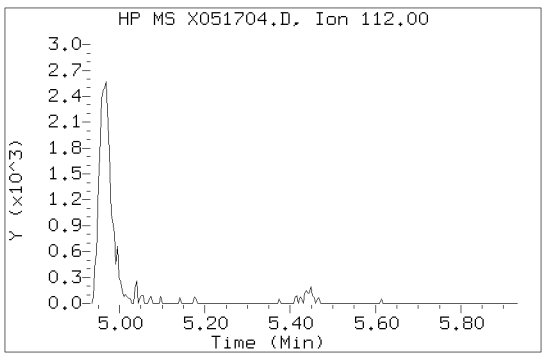
AFTER
MASS
63
AREA
6891
HEIGHT
3798
18-May-2023
13:42
linh
pham



BEFORE
MASS
112
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER
MASS
112
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

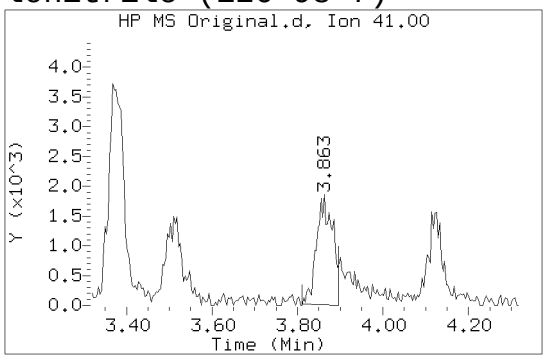


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LabSampID : VSTD001

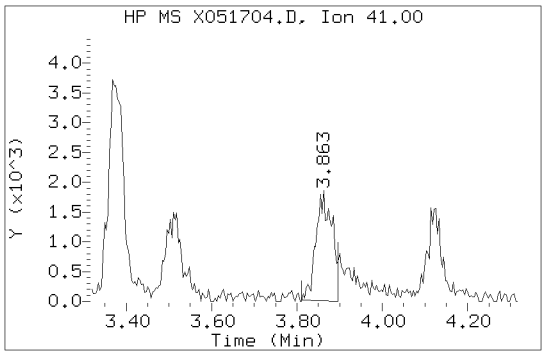
Methacrylonitrile (126-98-7)

Reason Code:

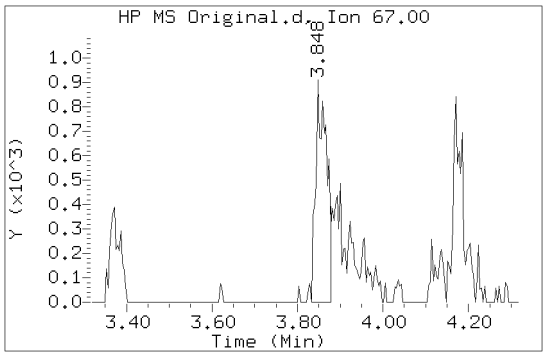
BEFORE
MASS
41
AREA
4830
HEIGHT
1846
18-May-2023
13:42
linh
pham



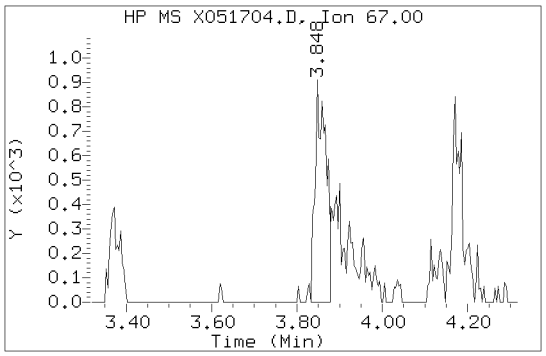
AFTER
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HEIGHT
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18-May-2023
13:42
linh
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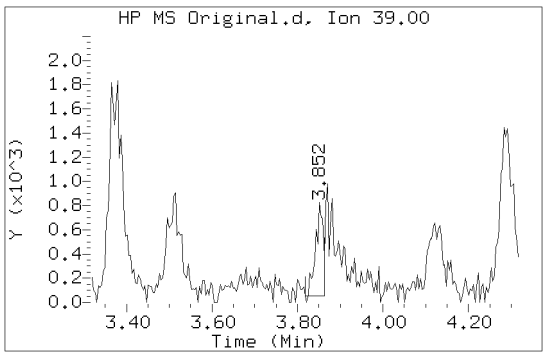
BEFORE
MASS
67
AREA
1602
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911
18-May-2023
13:42
linh
pham



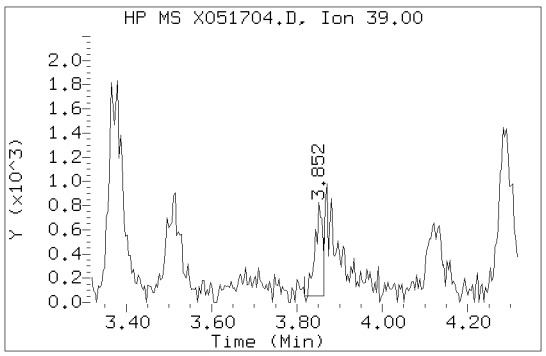
AFTER
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67
AREA
1602
HEIGHT
911
18-May-2023
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linh
pham



BEFORE
MASS
39
AREA
933
HEIGHT
777
18-May-2023
13:42
linh
pham



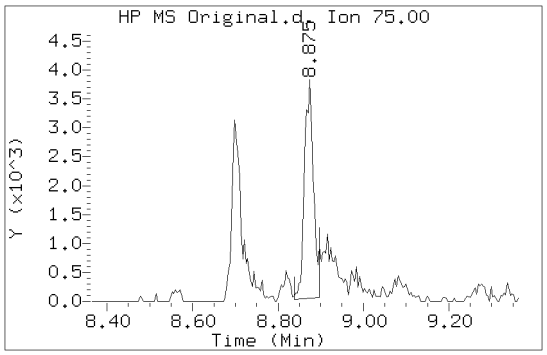
AFTER
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AREA
933
HEIGHT
777
18-May-2023
13:42
linh
pham



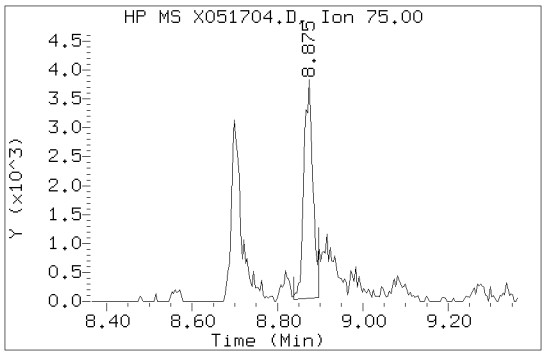
1,2,3-Trichloropropane (96-18-4)

Reason Code:

BEFORE
MASS
75
AREA
5746
HEIGHT
3778
18-May-2023
13:42
linh
pham



AFTER
MASS
75
AREA
5746
HEIGHT
3778
18-May-2023
13:42
linh
pham



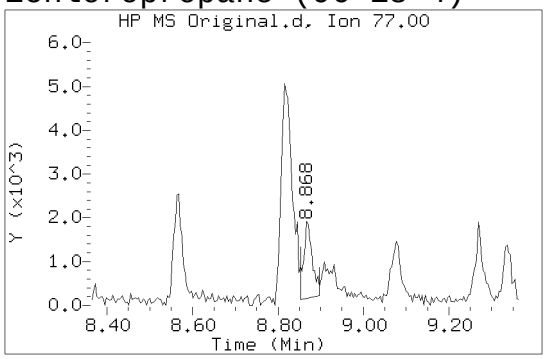
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

1,2,3-Trichloropropane (96-18-4)

Reason Code:

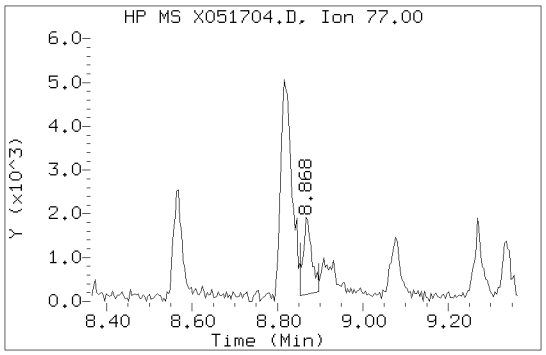
BEFORE

MASS
77
AREA
2594
HEIGHT
1753
18-May-2023
13:42
linh
pham



AFTER

MASS
77
AREA
2594
HEIGHT
1753
18-May-2023
13:42
linh
pham

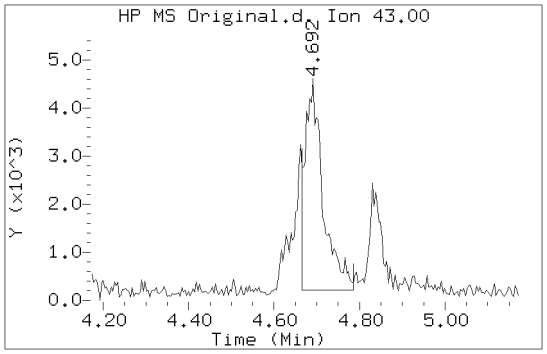


Isobutyl Alcohol (78-83-1)

Reason Code:

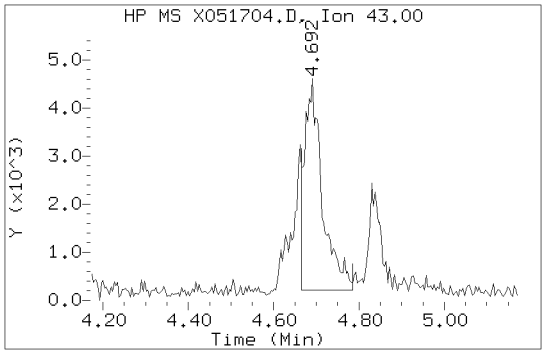
BEFORE

MASS
43
AREA
12926
HEIGHT
4397
18-May-2023
13:42
linh
pham



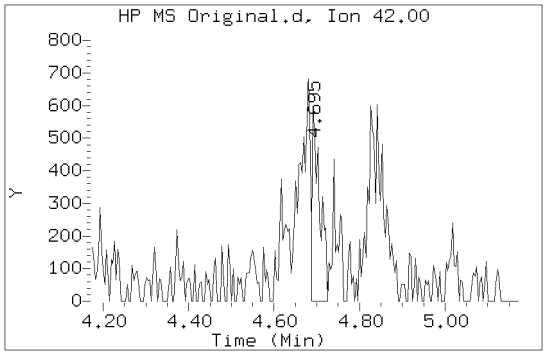
AFTER

MASS
43
AREA
12926
HEIGHT
4397
18-May-2023
13:42
linh
pham



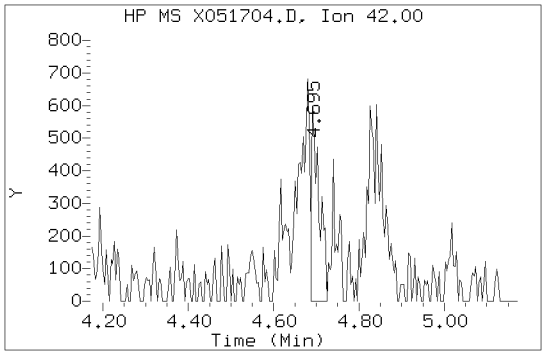
BEFORE

MASS
42
AREA
752
HEIGHT
495
18-May-2023
13:42
linh
pham



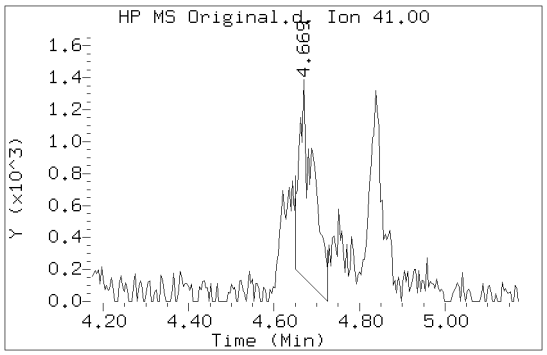
AFTER

MASS
42
AREA
752
HEIGHT
495
18-May-2023
13:42
linh
pham



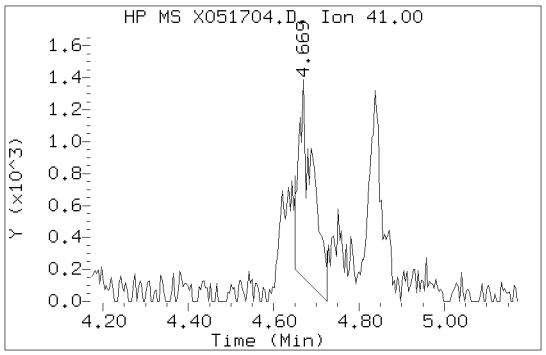
BEFORE

MASS
41
AREA
2978
HEIGHT
1238
18-May-2023
13:42
linh
pham



AFTER

MASS
41
AREA
2978
HEIGHT
1238
18-May-2023
13:42
linh
pham

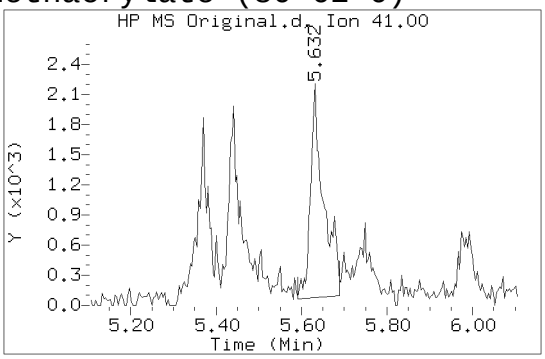


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Methyl Methacrylate (80-62-6)

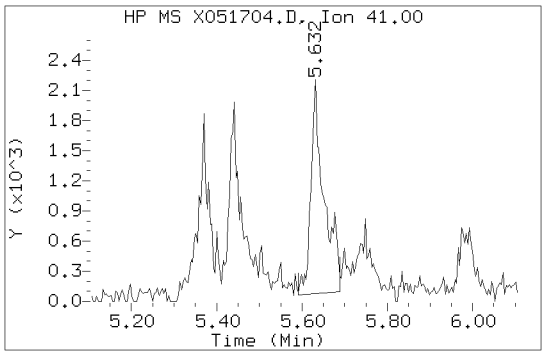
BEFORE

MASS
41
AREA
4552
HEIGHT
2129
18-May-2023
13:42
linh
pham



AFTER

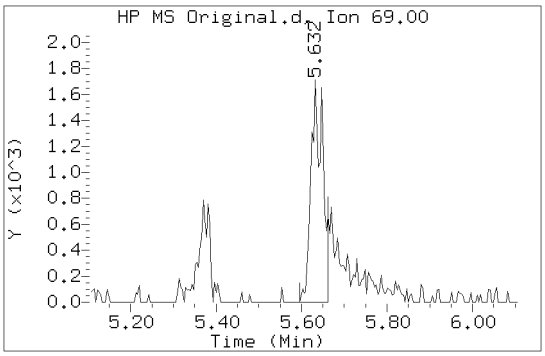
MASS
41
AREA
4552
HEIGHT
2129
18-May-2023
13:42
linh
pham



Reason Code:

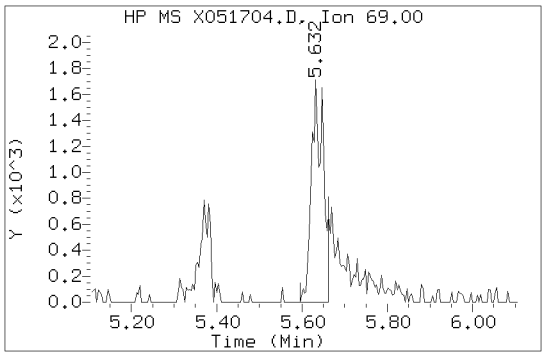
BEFORE

MASS
69
AREA
3262
HEIGHT
1712
18-May-2023
13:42
linh
pham



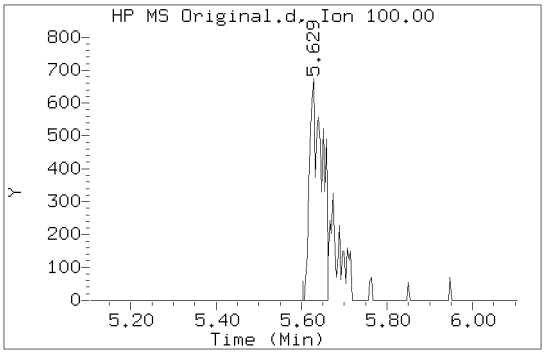
AFTER

MASS
69
AREA
3262
HEIGHT
1712
18-May-2023
13:42
linh
pham



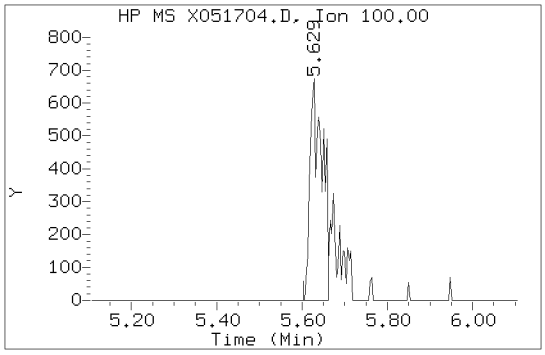
BEFORE

MASS
100
AREA
1367
HEIGHT
674
18-May-2023
13:42
linh
pham



AFTER

MASS
100
AREA
1367
HEIGHT
674
18-May-2023
13:42
linh
pham

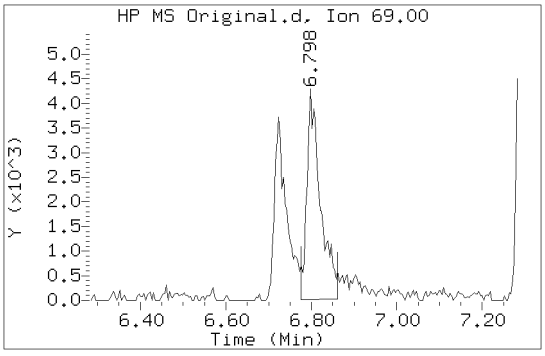


Ethyl Methacrylate (97-63-2)

Reason Code:

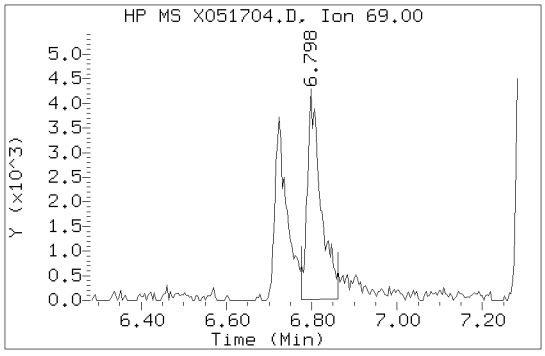
BEFORE

MASS
69
AREA
9539
HEIGHT
4281
18-May-2023
13:42
linh
pham



AFTER

MASS
69
AREA
9539
HEIGHT
4281
18-May-2023
13:42
linh
pham



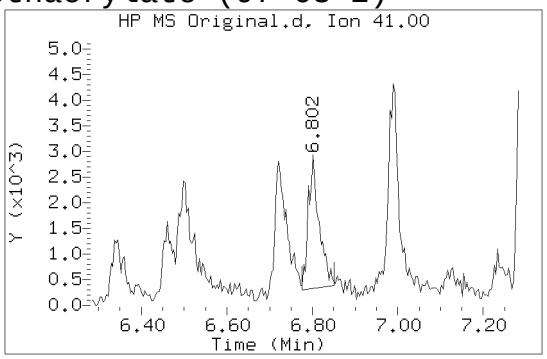
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Ethyl Methacrylate (97-63-2)

Reason Code:

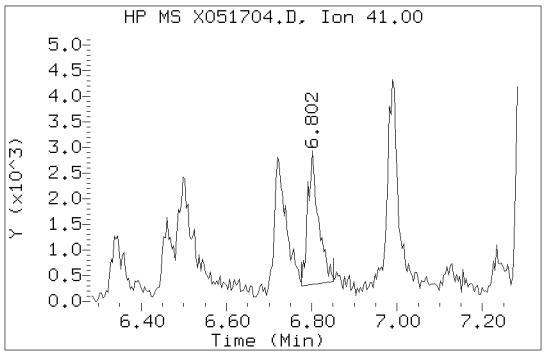
BEFORE

MASS
41
AREA
4568
HEIGHT
2613
18-May-2023
13:42
linh
pham



AFTER

MASS
41
AREA
4568
HEIGHT
2613
18-May-2023
13:42
linh
pham

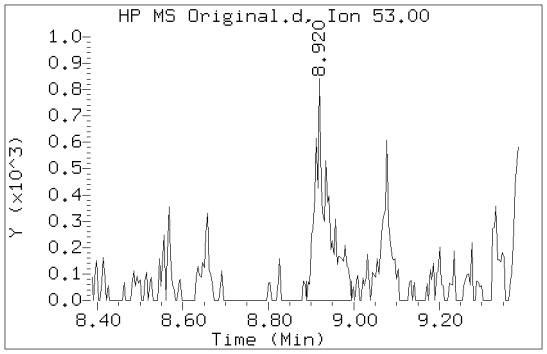


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

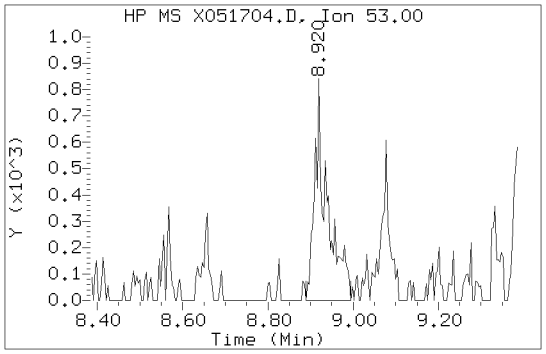
BEFORE

MASS
53
AREA
1686
HEIGHT
841
18-May-2023
13:42
linh
pham



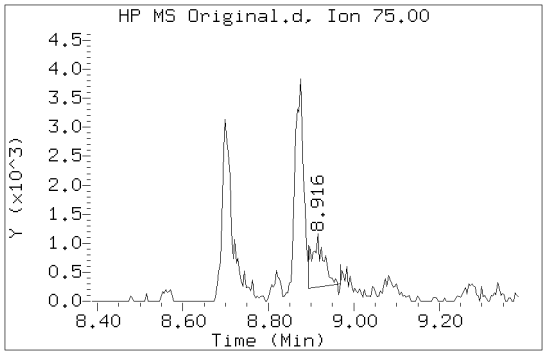
AFTER

MASS
53
AREA
1686
HEIGHT
841
18-May-2023
13:42
linh
pham



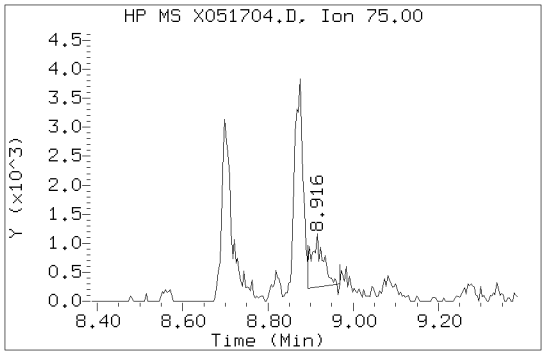
BEFORE

MASS
75
AREA
1706
HEIGHT
923
18-May-2023
13:42
linh
pham



AFTER

MASS
75
AREA
1706
HEIGHT
923
18-May-2023
13:42
linh
pham

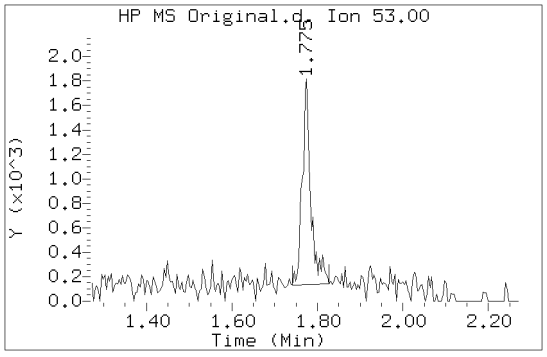


Chloroprene (126-99-8)

Reason Code:

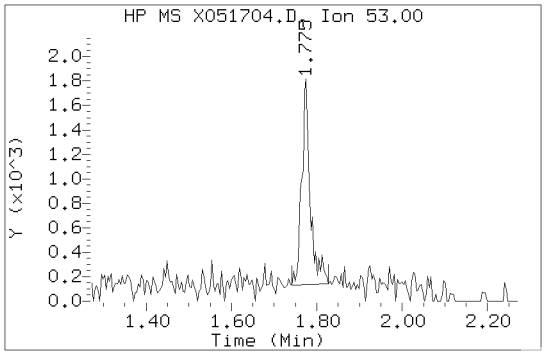
BEFORE

MASS
53
AREA
2382
HEIGHT
1680
18-May-2023
13:42
linh
pham



AFTER

MASS
53
AREA
2382
HEIGHT
1680
18-May-2023
13:42
linh
pham



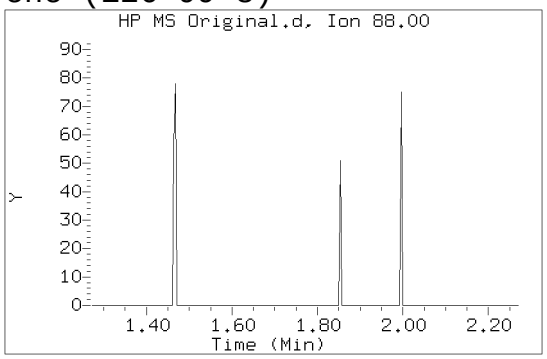
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Chloroprene (126-99-8)

Reason Code:

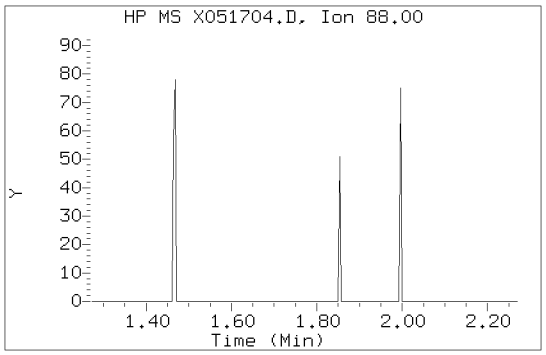
BEFORE

MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

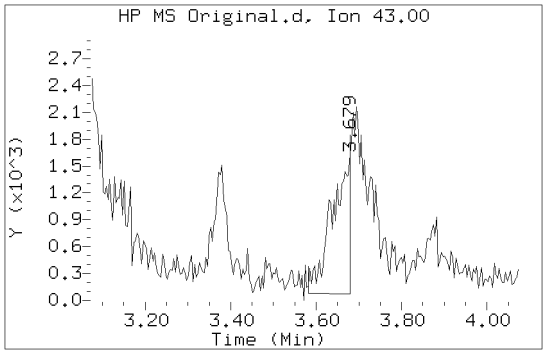


Ethyl Acetate (141-78-6)

Reason Code:

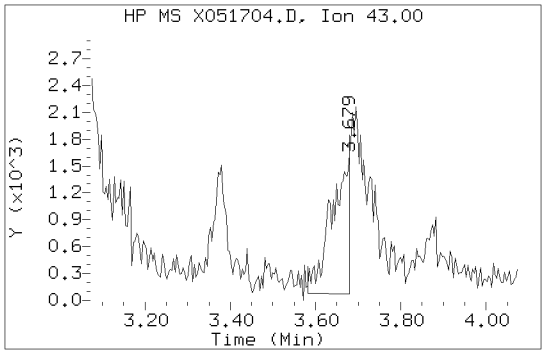
BEFORE

MASS
43
AREA
4516
HEIGHT
1560
18-May-2023
13:42
linh
pham



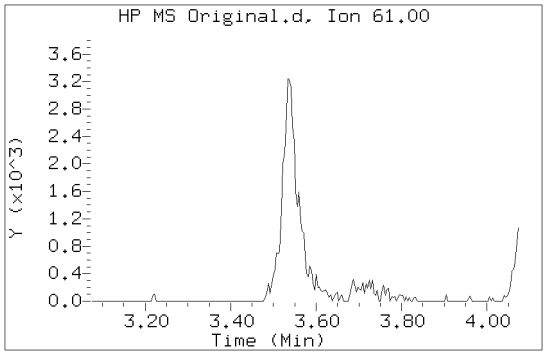
AFTER

MASS
43
AREA
4516
HEIGHT
1560
18-May-2023
13:42
linh
pham



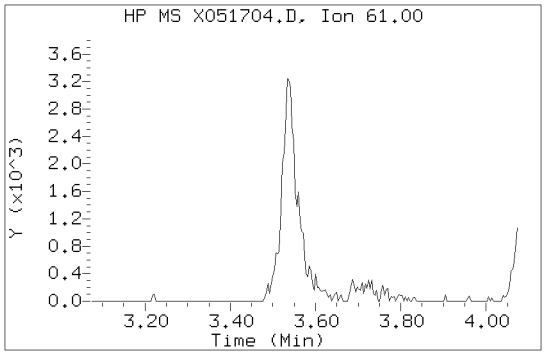
BEFORE

MASS
61
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



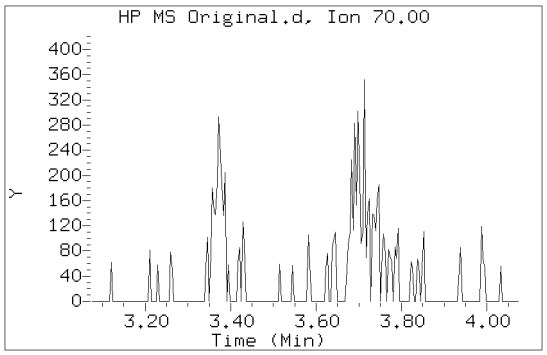
AFTER

MASS
61
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



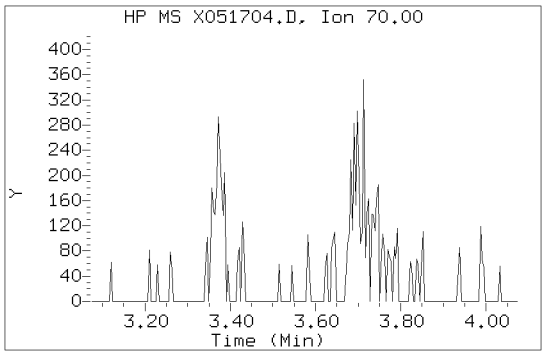
BEFORE

MASS
70
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
70
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



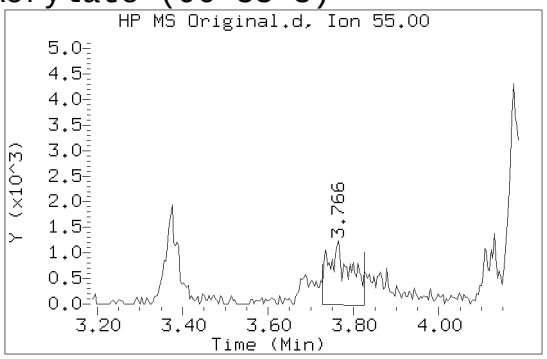
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Methyl Acrylate (96-33-3)

Reason Code:

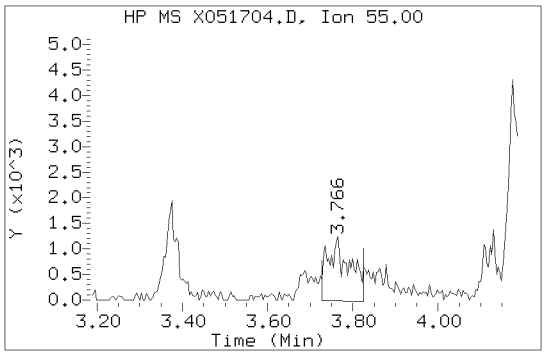
BEFORE

MASS
55
AREA
4572
HEIGHT
1254
18-May-2023
13:42
linh
pham



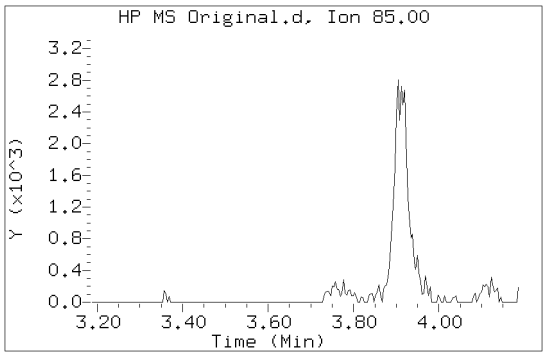
AFTER

MASS
55
AREA
4572
HEIGHT
1254
18-May-2023
13:42
linh
pham



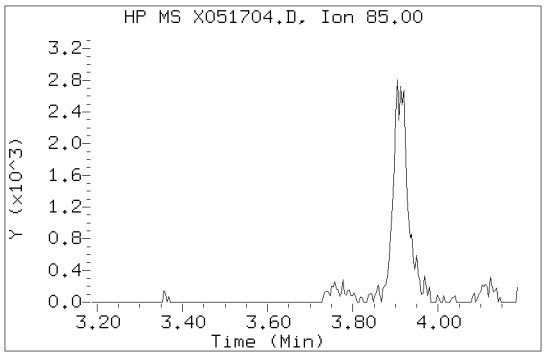
BEFORE

MASS
85
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

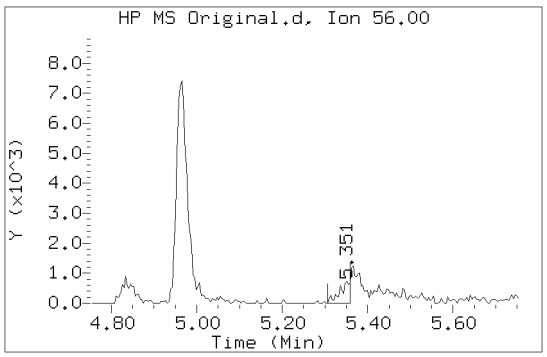


n-Butanol (71-36-3)

Reason Code:

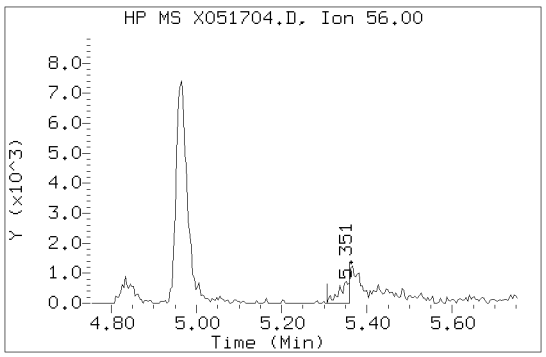
BEFORE

MASS
56
AREA
1207
HEIGHT
723
18-May-2023
13:42
linh
pham



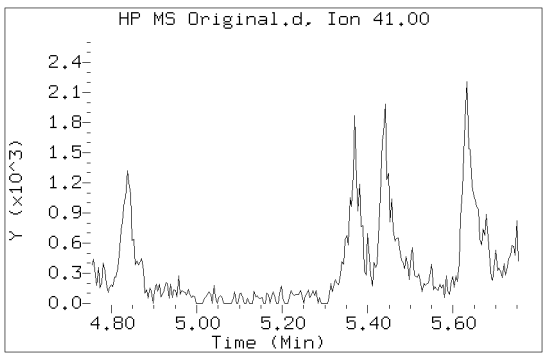
AFTER

MASS
56
AREA
1207
HEIGHT
723
18-May-2023
13:42
linh
pham



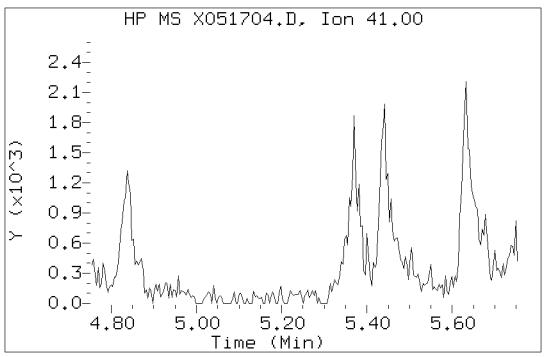
BEFORE

MASS
41
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
41
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



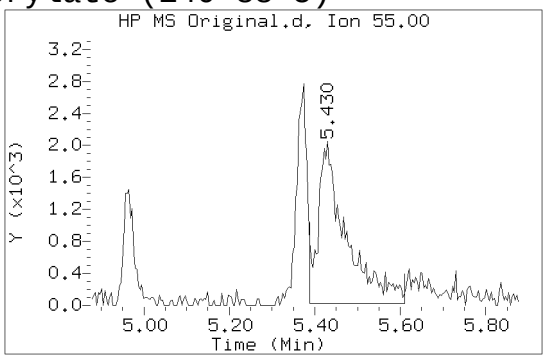
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Ethyl Acrylate (140-88-5)

Reason Code:

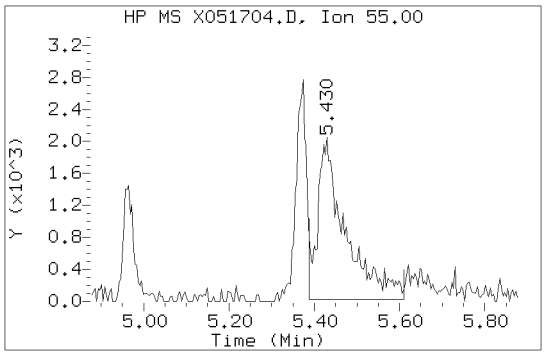
BEFORE

MASS
55
AREA
9158
HEIGHT
2029
18-May-2023
13:42
linh
pham



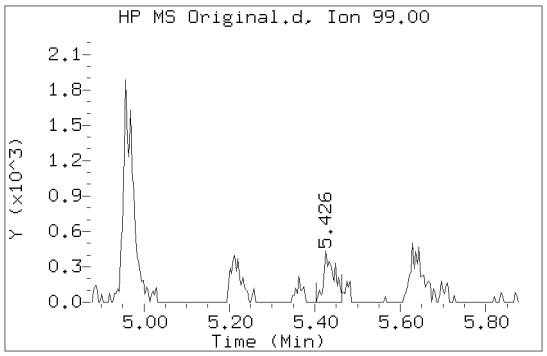
AFTER

MASS
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AREA
9158
HEIGHT
2029
18-May-2023
13:42
linh
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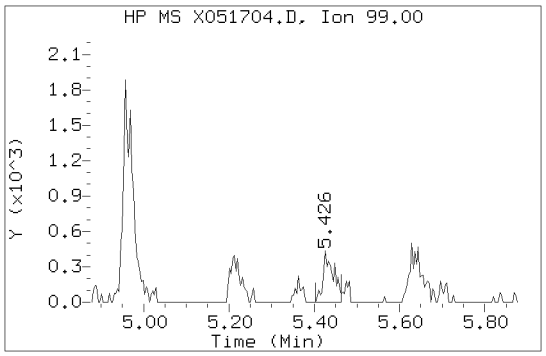
BEFORE

MASS
99
AREA
734
HEIGHT
437
18-May-2023
13:42
linh
pham



AFTER

MASS
99
AREA
734
HEIGHT
437
18-May-2023
13:42
linh
pham

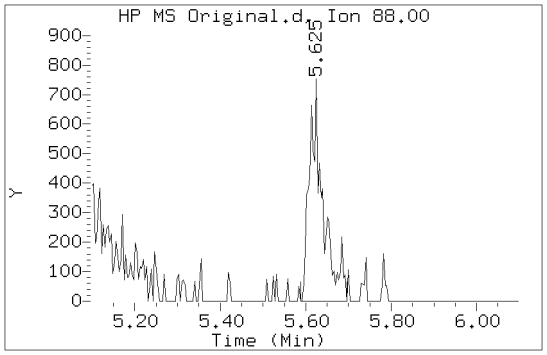


1,4-Dioxane ()

Reason Code:

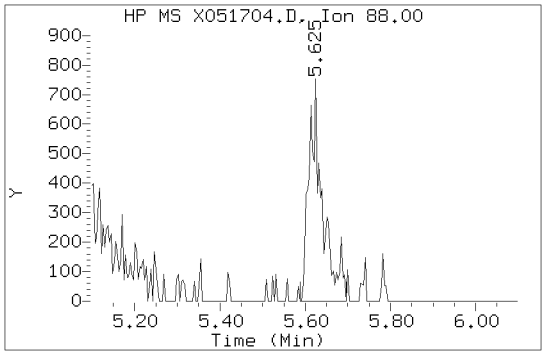
BEFORE

MASS
88
AREA
1650
HEIGHT
753
18-May-2023
13:42
linh
pham



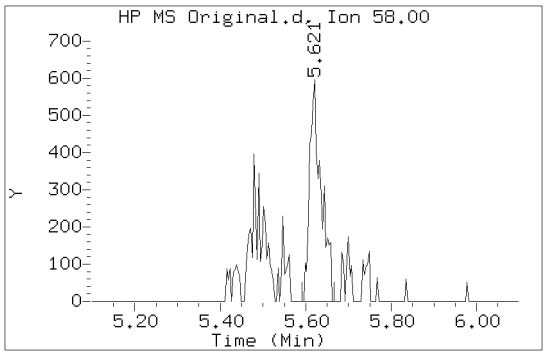
AFTER

MASS
88
AREA
1650
HEIGHT
753
18-May-2023
13:42
linh
pham



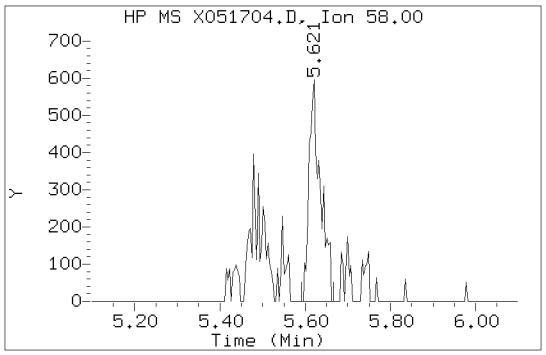
BEFORE

MASS
58
AREA
1111
HEIGHT
596
18-May-2023
13:42
linh
pham



AFTER

MASS
58
AREA
1111
HEIGHT
596
18-May-2023
13:42
linh
pham



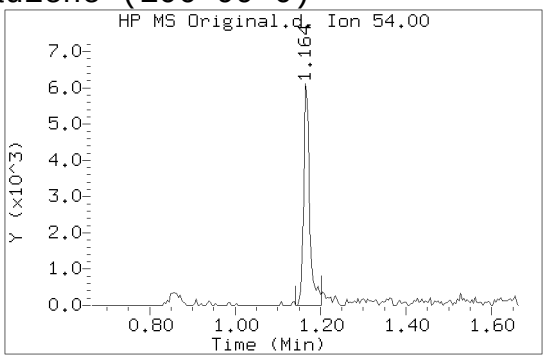
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

1,3-Butadiene (106-99-0)

Reason Code:

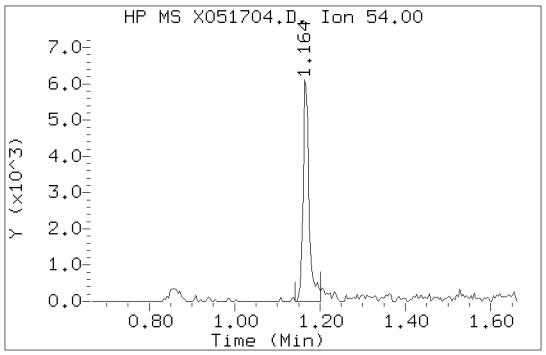
BEFORE

MASS
54
AREA
6276
HEIGHT
6116
18-May-2023
13:42
linh
pham



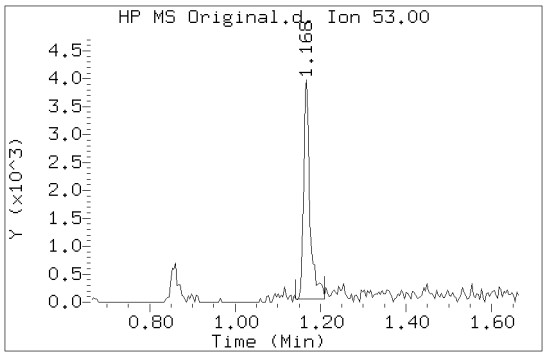
AFTER

MASS
54
AREA
6276
HEIGHT
6116
18-May-2023
13:42
linh
pham



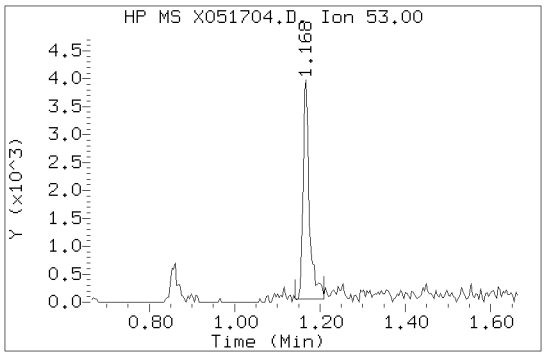
BEFORE

MASS
53
AREA
4170
HEIGHT
3916
18-May-2023
13:42
linh
pham



AFTER

MASS
53
AREA
4170
HEIGHT
3916
18-May-2023
13:42
linh
pham

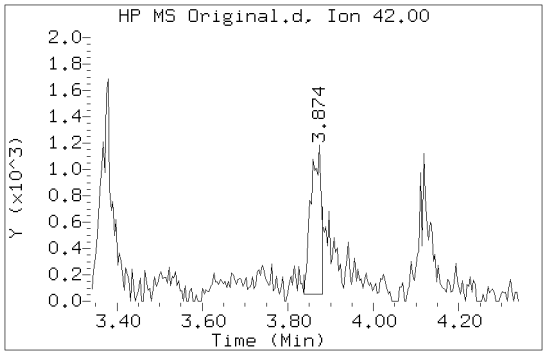


Tetrahydrofuran (109-99-9)

Reason Code:

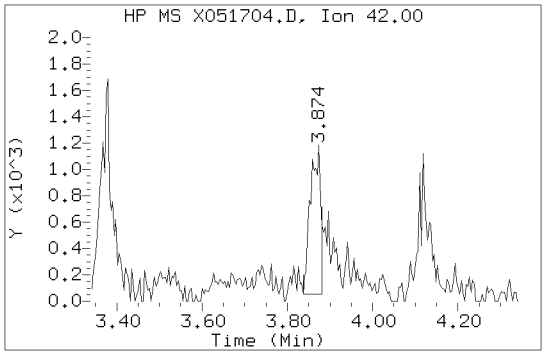
BEFORE

MASS
42
AREA
1894
HEIGHT
1132
18-May-2023
13:42
linh
pham



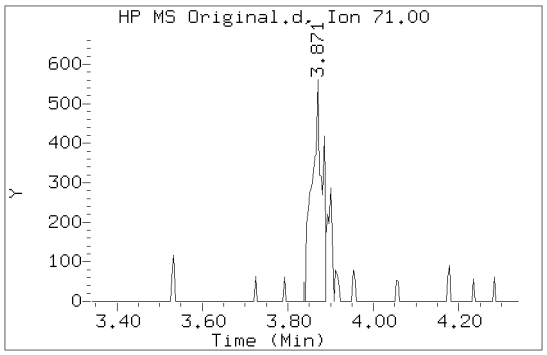
AFTER

MASS
42
AREA
1894
HEIGHT
1132
18-May-2023
13:42
linh
pham



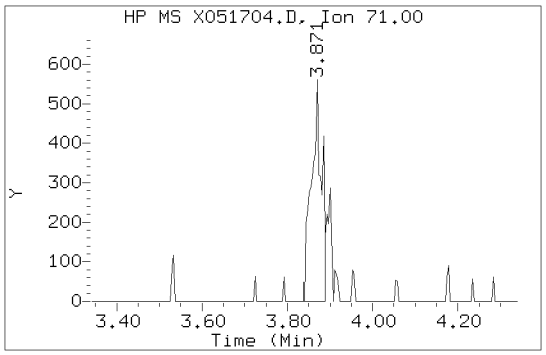
BEFORE

MASS
71
AREA
921
HEIGHT
561
18-May-2023
13:42
linh
pham



AFTER

MASS
71
AREA
921
HEIGHT
561
18-May-2023
13:42
linh
pham

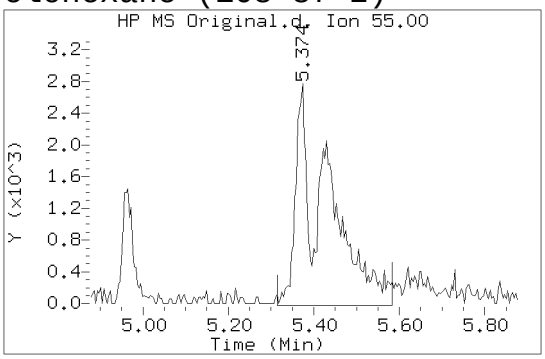


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051704.D
Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

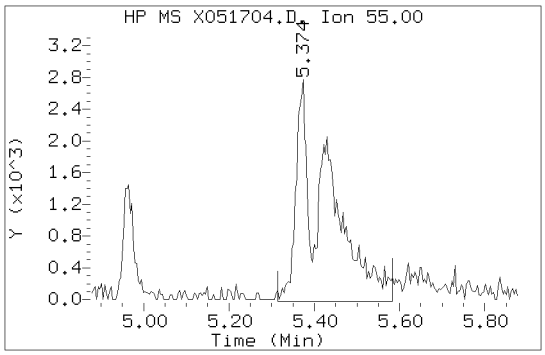
Methylcyclohexane (108-87-2)

Reason Code:

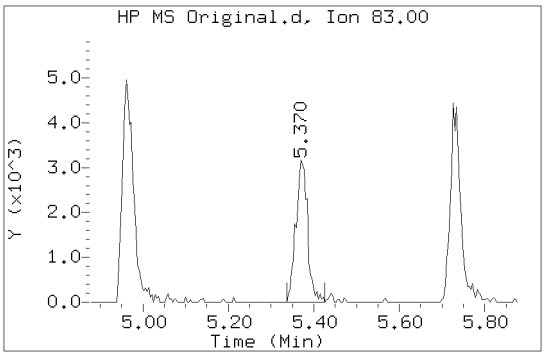
BEFORE
MASS
55
AREA
14156
HEIGHT
2794
18-May-2023
13:42
linh
pham



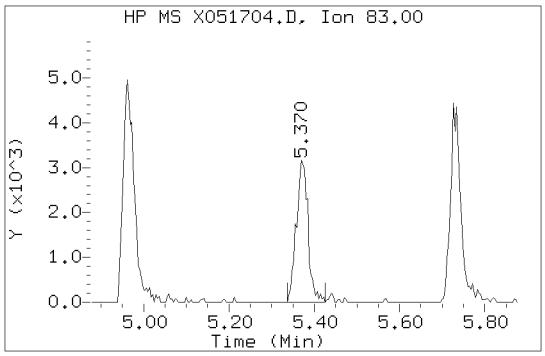
AFTER
MASS
55
AREA
14156
HEIGHT
2794
18-May-2023
13:42
linh
pham



BEFORE
MASS
83
AREA
6166
HEIGHT
3161
18-May-2023
13:42
linh
pham



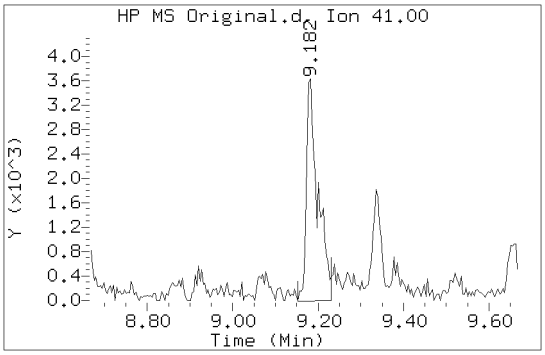
AFTER
MASS
83
AREA
6166
HEIGHT
3161
18-May-2023
13:42
linh
pham



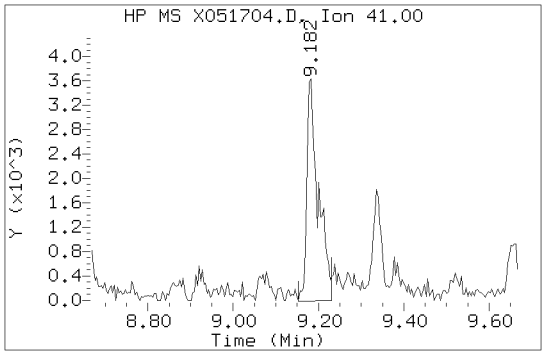
Butyl methacrylate (97-88-1)

Reason Code:

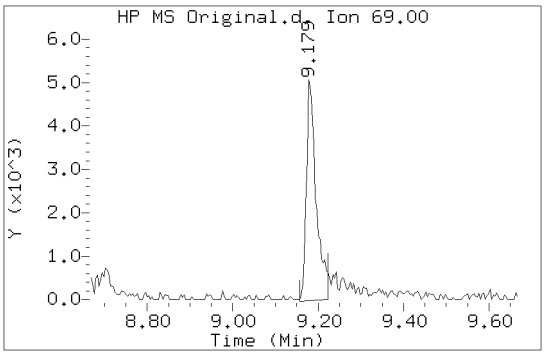
BEFORE
MASS
41
AREA
6822
HEIGHT
3642
18-May-2023
13:42
linh
pham



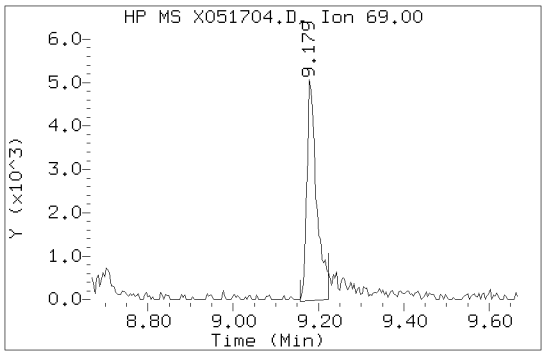
AFTER
MASS
41
AREA
6822
HEIGHT
3642
18-May-2023
13:42
linh
pham



BEFORE
MASS
69
AREA
8151
HEIGHT
5089
18-May-2023
13:42
linh
pham



AFTER
MASS
69
AREA
8151
HEIGHT
5089
18-May-2023
13:42
linh
pham



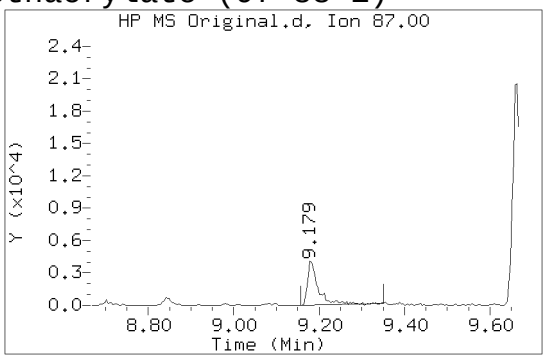
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Butyl methacrylate (97-88-1)

Reason Code:

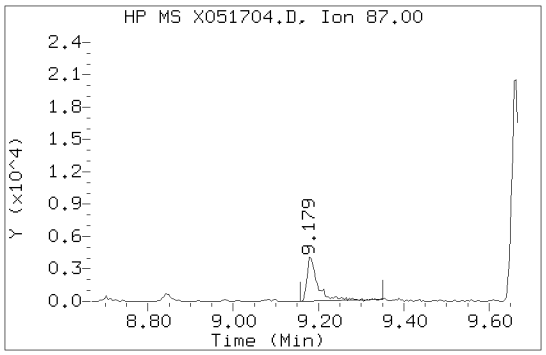
BEFORE

MASS
87
AREA
6953
HEIGHT
4093
18-May-2023
13:42
linh
pham



AFTER

MASS
87
AREA
6953
HEIGHT
4093
18-May-2023
13:42
linh
pham

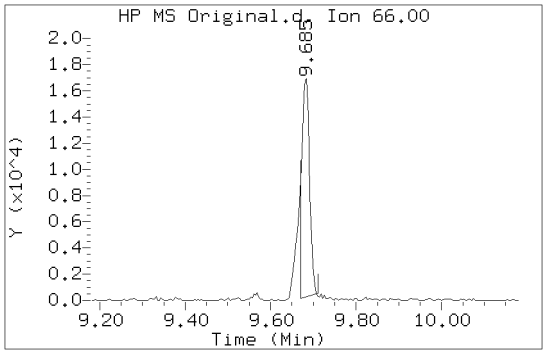


Dicyclopentadiene (77-73-6)

Reason Code:

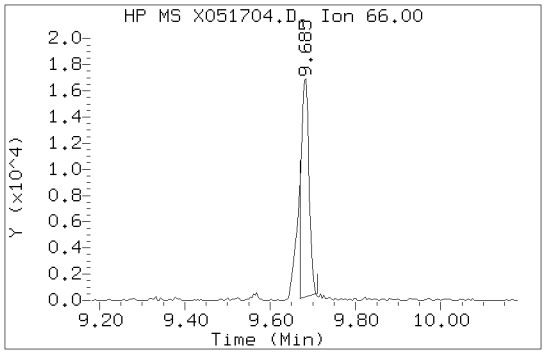
BEFORE

MASS
66
AREA
21949
HEIGHT
16633
18-May-2023
13:42
linh
pham



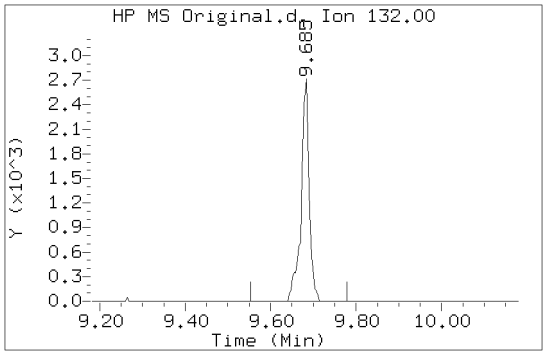
AFTER

MASS
66
AREA
21949
HEIGHT
16633
18-May-2023
13:42
linh
pham



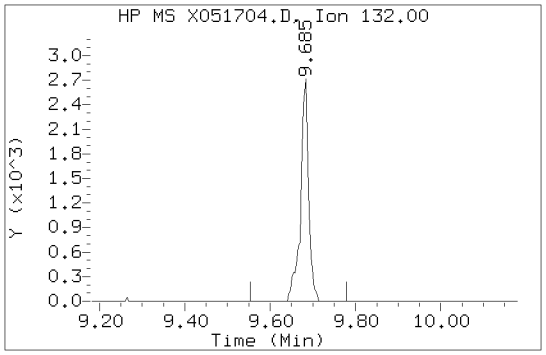
BEFORE

MASS
132
AREA
3685
HEIGHT
2716
18-May-2023
13:42
linh
pham



AFTER

MASS
132
AREA
3685
HEIGHT
2716
18-May-2023
13:42
linh
pham

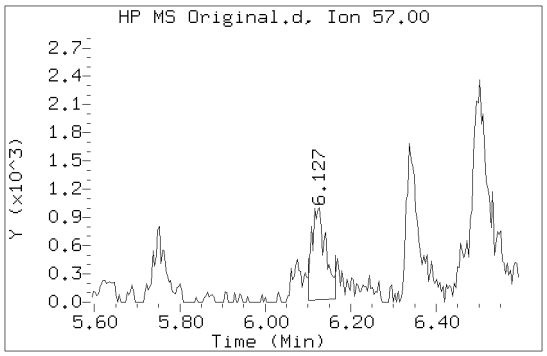


Epichlorohydrin (106-89-8)

Reason Code:

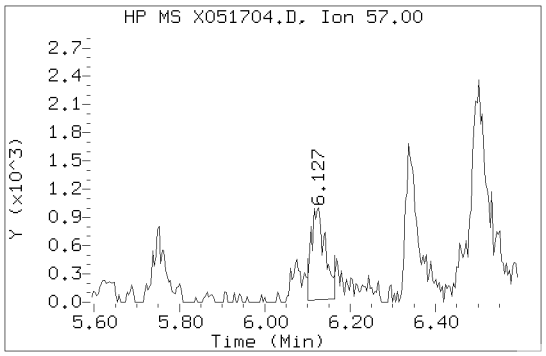
BEFORE

MASS
57
AREA
2264
HEIGHT
978
18-May-2023
13:42
linh
pham



AFTER

MASS
57
AREA
2264
HEIGHT
978
18-May-2023
13:42
linh
pham



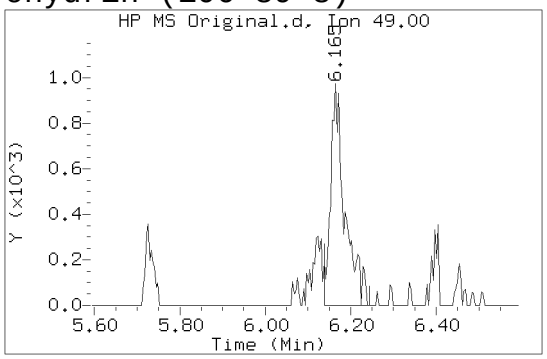
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Epichlorohydrin (106-89-8)

Reason Code:

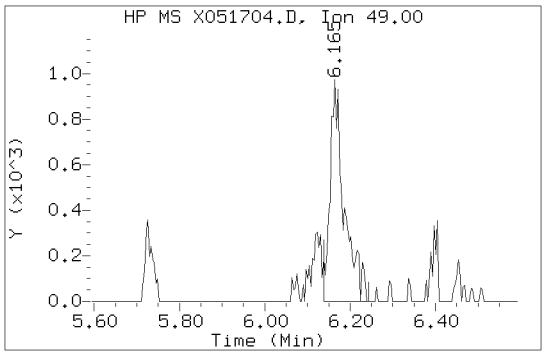
BEFORE

MASS
49
AREA
2250
HEIGHT
973
18-May-2023
13:42
linh
pham



AFTER

MASS
49
AREA
2250
HEIGHT
973
18-May-2023
13:42
linh
pham

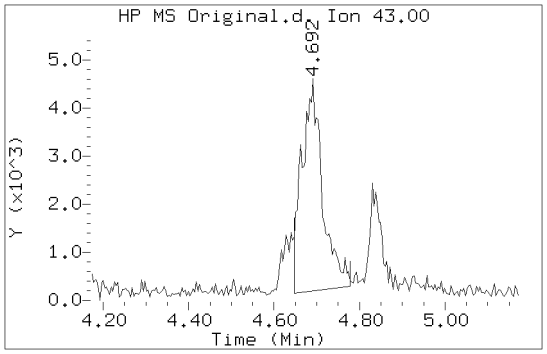


Isopropyl acetate (108-21-4)

Reason Code:

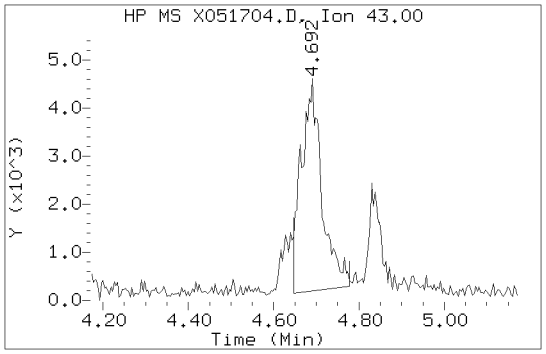
BEFORE

MASS
43
AREA
15042
HEIGHT
4413
18-May-2023
13:42
linh
pham



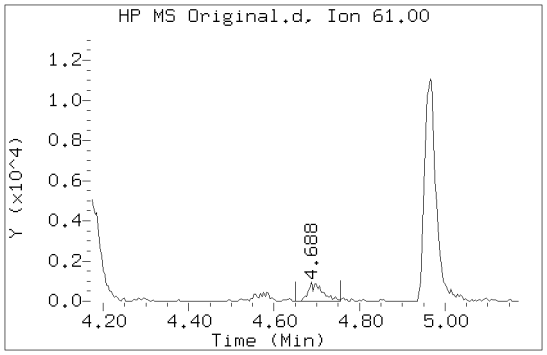
AFTER

MASS
43
AREA
15042
HEIGHT
4413
18-May-2023
13:42
linh
pham



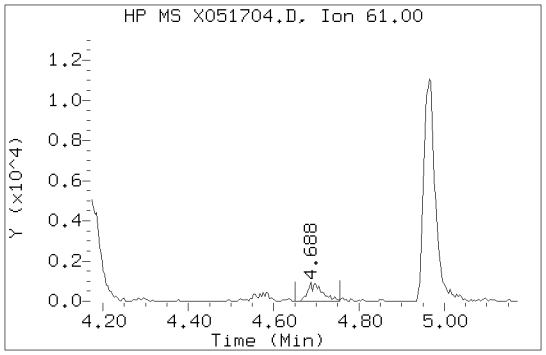
BEFORE

MASS
61
AREA
2124
HEIGHT
964
18-May-2023
13:42
linh
pham



AFTER

MASS
61
AREA
2124
HEIGHT
964
18-May-2023
13:42
linh
pham

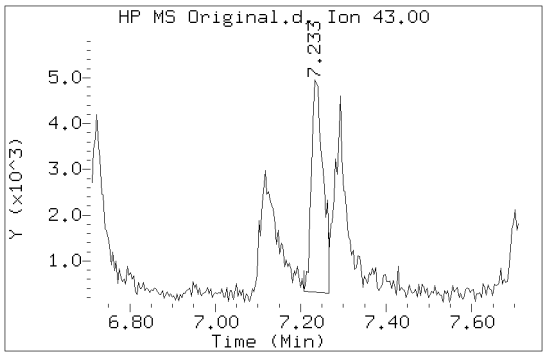


n-Butyl acetate (123-86-4)

Reason Code:

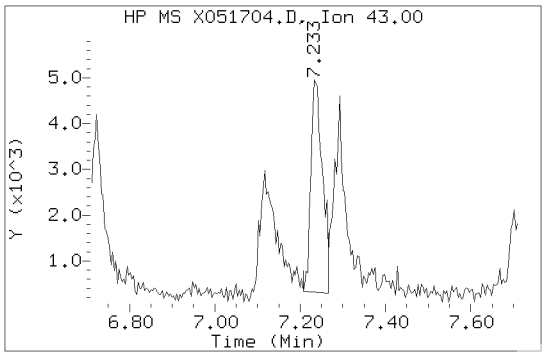
BEFORE

MASS
43
AREA
8796
HEIGHT
4635
18-May-2023
13:42
linh
pham



AFTER

MASS
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AREA
8796
HEIGHT
4635
18-May-2023
13:42
linh
pham



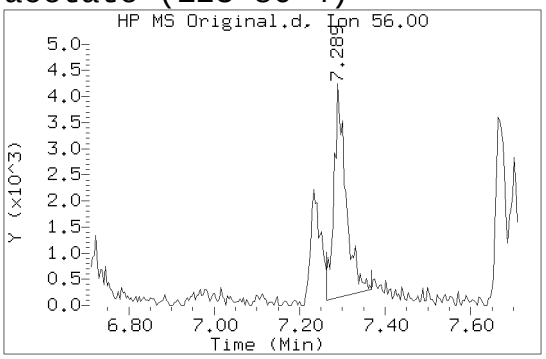
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

n-Butyl acetate (123-86-4)

Reason Code:

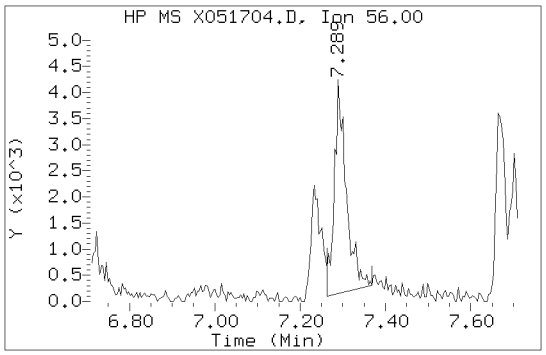
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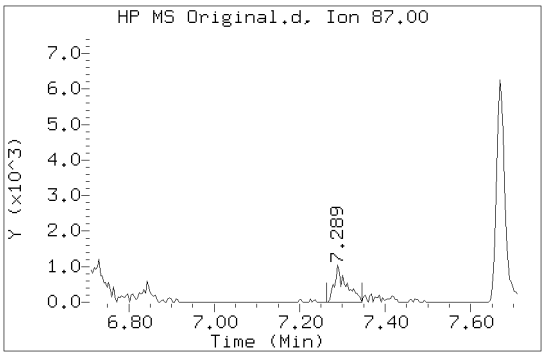
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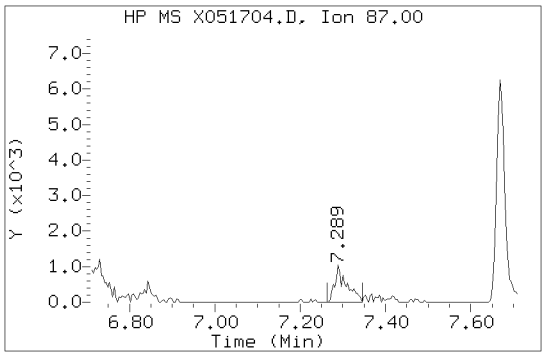
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AFTER

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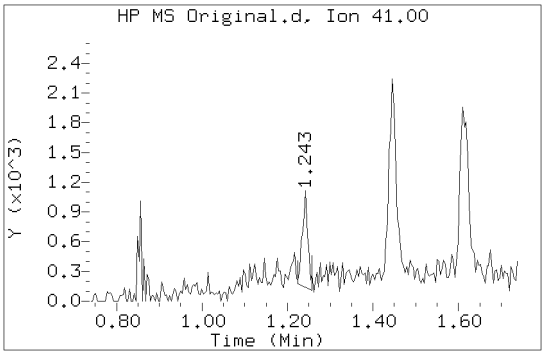


Isobutylene (115-11-7)

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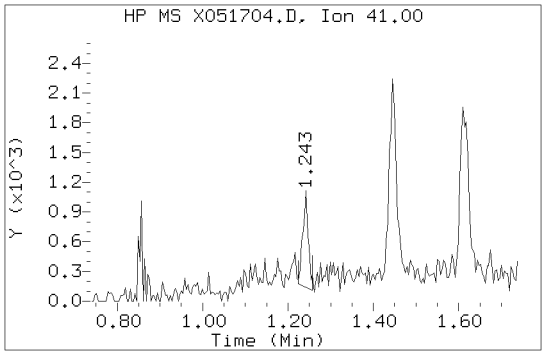
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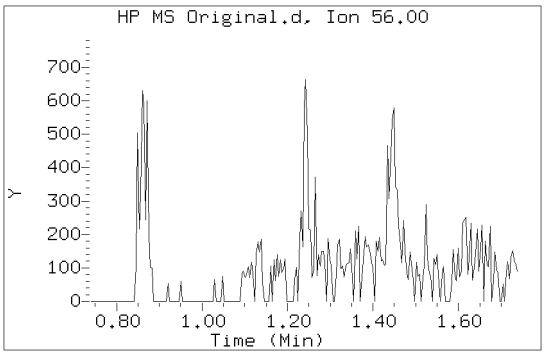
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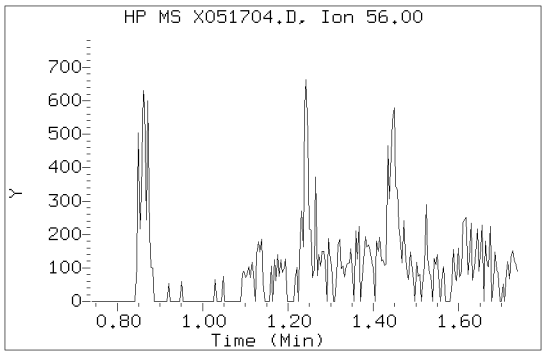
BEFORE

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18-May-2023
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AFTER

MASS
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AREA
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HEIGHT
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18-May-2023
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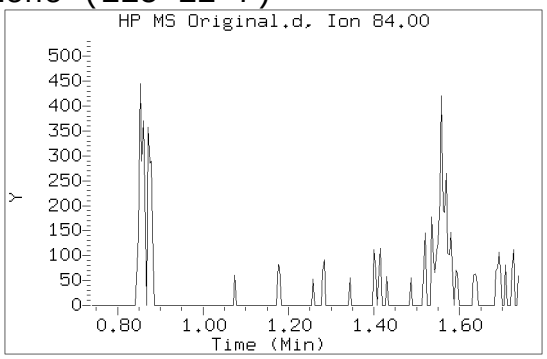
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

Isobutylene (115-11-7)

Reason Code:

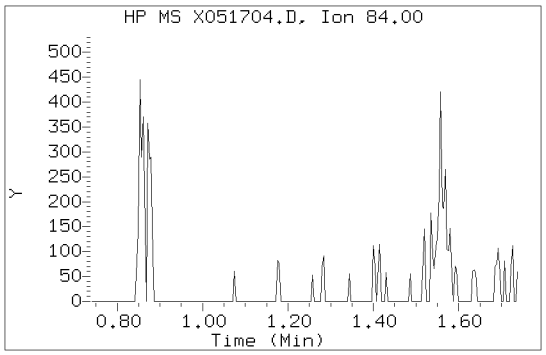
BEFORE

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18-May-2023
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AFTER

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HEIGHT
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18-May-2023
13:42
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pham

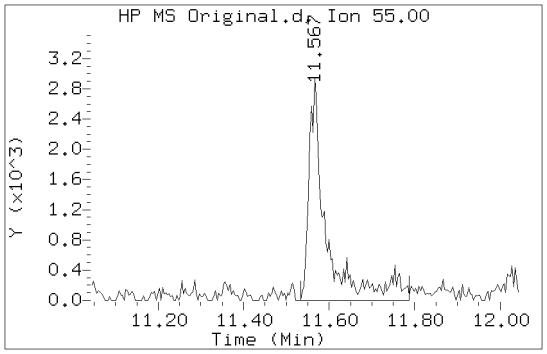


2-Ethylhexyl Acrylate (103-11-7)

Reason Code:

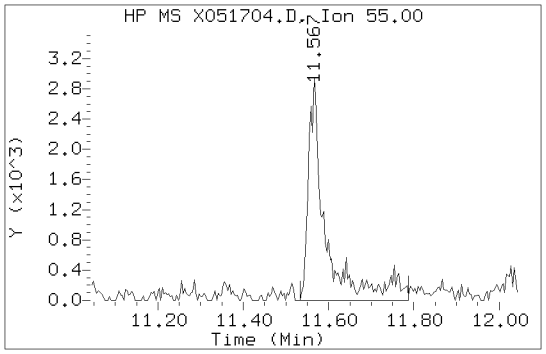
BEFORE

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HEIGHT
2934
18-May-2023
13:42
linh
pham



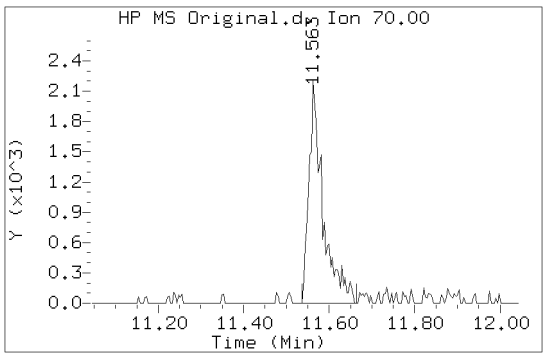
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18-May-2023
13:42
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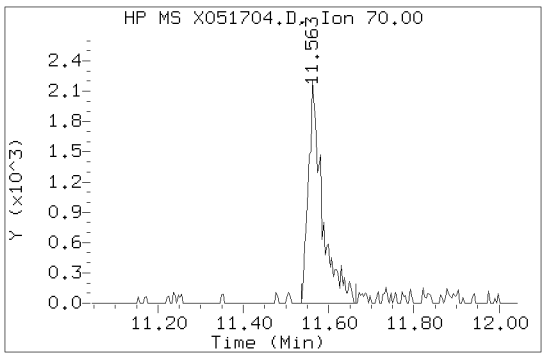
BEFORE

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2202
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AFTER

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18-May-2023
13:42
linh
pham

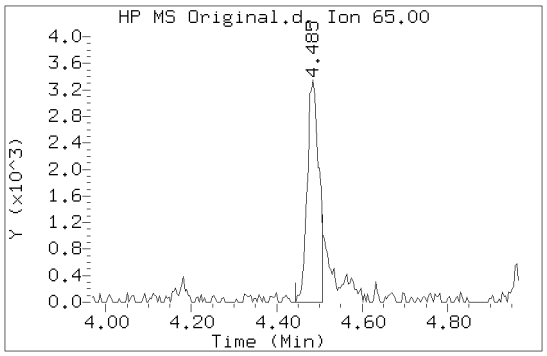


1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

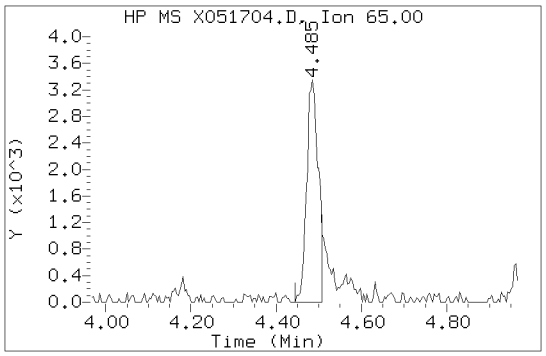
BEFORE

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3350
18-May-2023
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AFTER

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HEIGHT
3350
18-May-2023
13:42
linh
pham



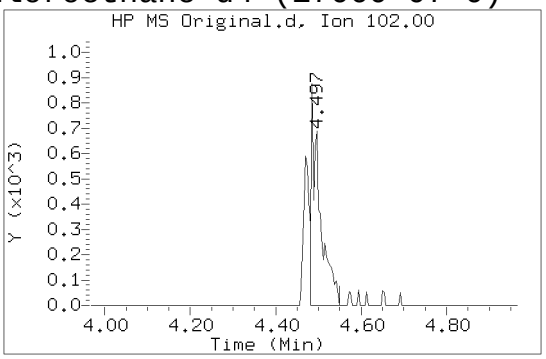
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

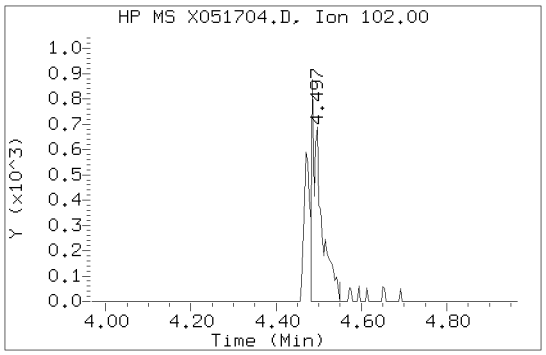
BEFORE

MASS
102
AREA
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HEIGHT
689
18-May-2023
13:42
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AFTER

MASS
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1212
HEIGHT
689
18-May-2023
13:42
linh
pham

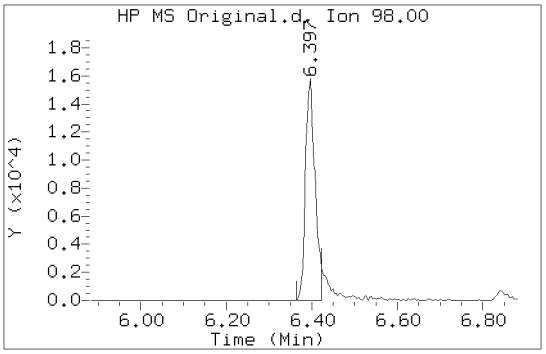


Toluene-d8 (2037-26-5)

Reason Code:

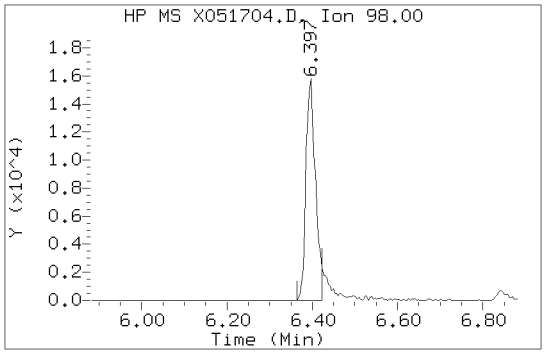
BEFORE

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18-May-2023
13:42
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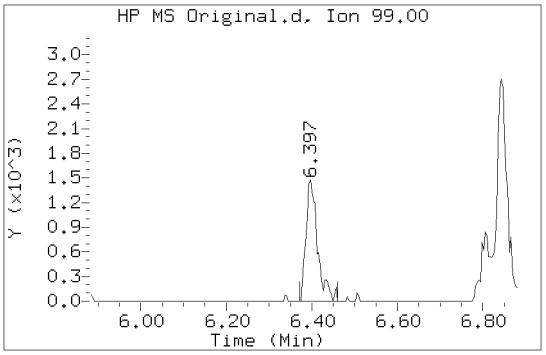
AFTER

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18-May-2023
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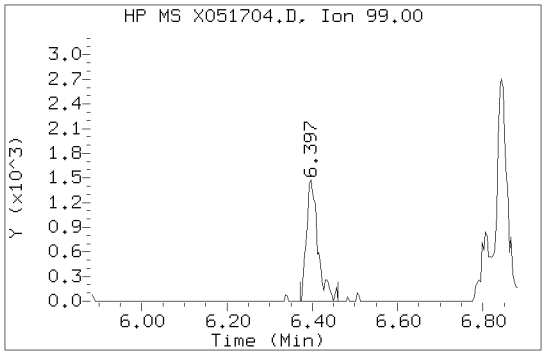
BEFORE

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18-May-2023
13:42
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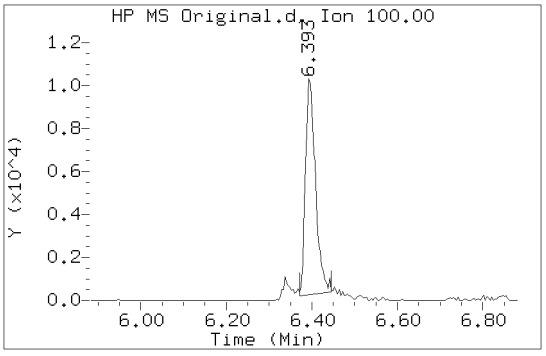
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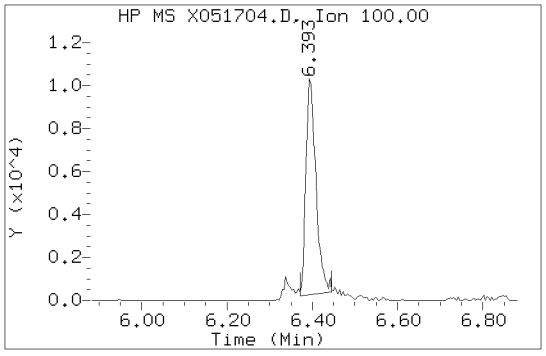
BEFORE

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18-May-2023
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AFTER

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13:42
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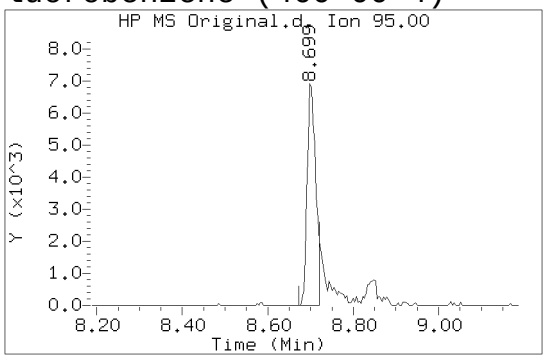
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Inj Date : 17-MAY-2023 13:20
InstruID : voa6.i
LabSampID : VSTD001

4-Bromofluorobenzene (460-00-4)

Reason Code:

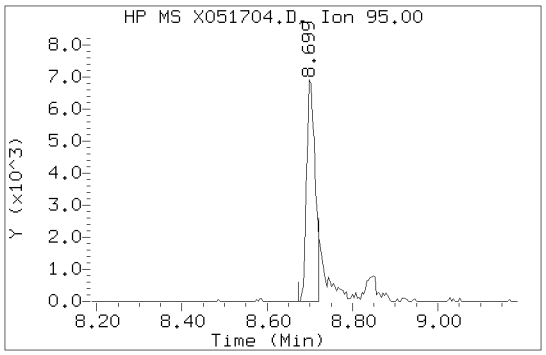
BEFORE

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18-May-2023
13:42
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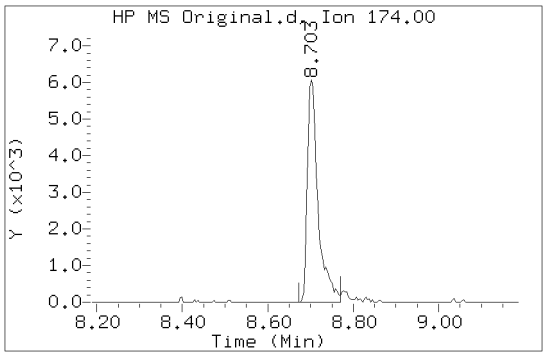
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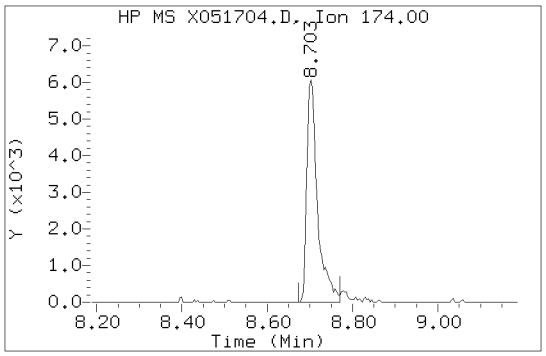
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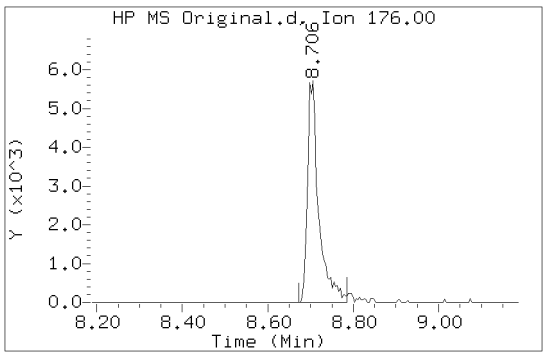
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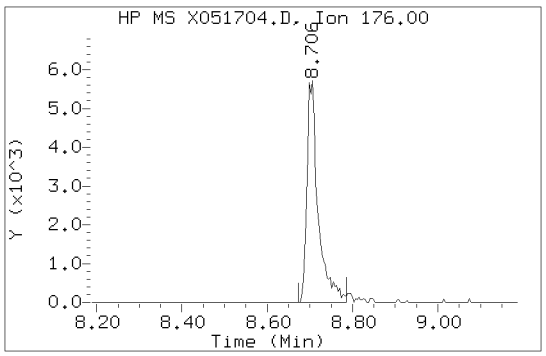
BEFORE

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HEIGHT
5718
18-May-2023
13:42
linh
pham



AFTER

MASS
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10496
HEIGHT
5718
18-May-2023
13:42
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051705.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051705.D
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Inj Date : 17-MAY-2023 13:41
Operator : PC Inst ID: voa6.i
Smp Info : VSTD002;VSTD002;1;4;
Misc Info : V6;WATER;0;1;
Comment   :
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Meth Date : 18-May-2023 13:43 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 13:20 Cal File: X051704.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.177	4.177	(1.000)	568359	50.0000	
135 1,4-Dioxane	88	5.617	5.617	(1.345)	3173	40.0000	41.22(a)
140 1,3-Butadiene	54	1.167	1.167	(0.280)	12021	2.00000	1.99(a)
25 Methacrylonitrile	41	3.855	3.855	(0.923)	10385	2.00000	2.04
12 Isobutyl Alcohol	43	4.687	4.687	(1.122)	31747	40.0000	42.85
13 Acetonitrile	39	2.202	2.202	(0.527)	11460	20.0000	20.94
14 Allyl Chloride	41	2.206	2.206	(0.528)	28510	2.00000	2.06
72 trans-1,4-Dichloro-2-butene	53	8.904	8.904	(1.161)	3844	2.00000	1.99
23 Chloroprene	53	1.778	1.778	(0.426)	4779	2.00000	2.08(aM)
130 Ethyl Acetate	43	3.656	3.656	(0.875)	8258	2.00000	2.04(TaM)
40 Methyl Methacrylate	41	5.628	5.628	(1.347)	10525	2.00000	2.11(M)
49 Ethyl Methacrylate	69	6.794	6.794	(1.368)	18175	2.00000	1.98(a)
131 Methyl Acrylate	55	3.731	3.731	(0.893)	10492	2.00000	1.89(aM)
132 n-Butanol	56	5.309	5.309	(1.271)	2750	40.0000	83.79(a)
136 n-Hexane	57	2.772	2.772	(0.664)	9316	2.00000	1.91(a)
139 Diethyl ether	59	1.756	1.756	(0.420)	9688	2.00000	1.99(a)
142 Tetrahydrofuran	42	3.851	3.851	(0.922)	3723	4.00000	3.97(aM)
145 alpha-Methylstyrene	118	9.264	9.264	(0.959)	20051	2.00000	2.05(a)
156 Diisopropyl ether	45	3.000	3.000	(0.718)	35047	2.00000	2.03(Ta)
162 Butyl acrylate	55	8.267	8.267	(1.078)	25259	2.00000	2.04(a)

167 Ethanol	45	1.707	1.707 (0.409)	3325	40.0000	48.17
200 Dimethyl Disulfide	94	6.202	6.202 (0.809)	23973	2.00000	1.93(a)

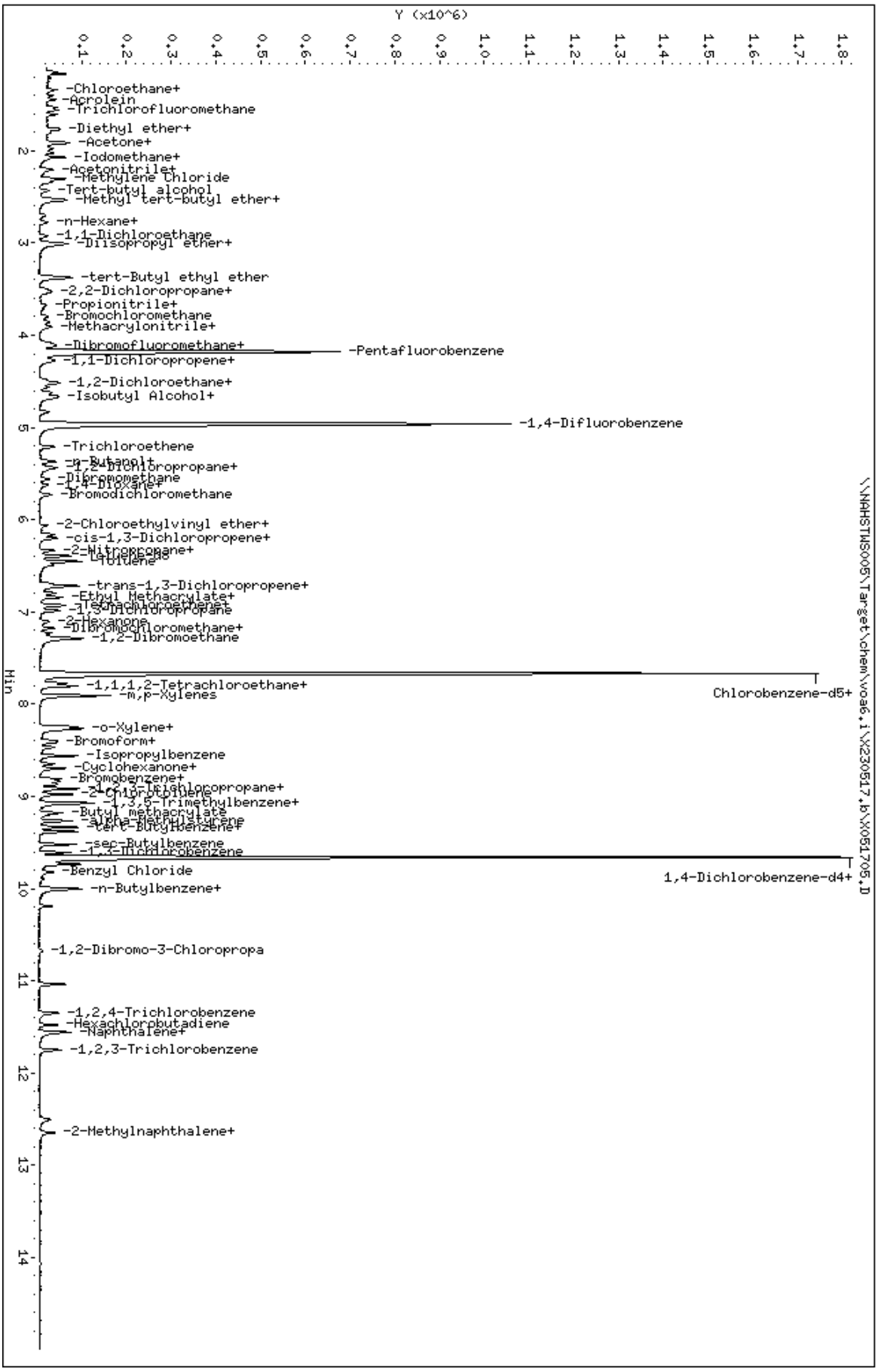
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	182 Epichlorohydrin	57	6.115	6.115	(1.232)	5056	8.00000	8.64
	164 Dicyclopentadiene	66	9.680	9.680	(1.002)	46675	2.00000	1.98(aM)
	166 1,2,3-Trimethylbenzene	105	9.733	9.733	(1.007)	40790	2.00000	2.02(a)
	205 2-Ethylhexyl Acrylate	55	11.555	11.555	(1.196)	15456	2.00000	1.86(aM)
	86 Benzyl Chloride	91	9.823	9.823	(1.281)	25013	2.00000	1.89(aM)
	134 Cyclohexanone	55	8.650	8.650	(0.895)	13177	40.0000	47.87(a)
	133 Ethyl Acrylate	55	5.411	5.411	(1.295)	23488	2.00000	2.96(aM)
	163 Butyl methacrylate	41	9.178	9.178	(0.950)	15022	2.00000	1.94(aM)
	188 Isopropyl acetate	43	4.687	4.687	(0.944)	32143	2.00000	2.08(a)
	189 n-Butyl acetate	43	7.229	7.229	(0.943)	18653	2.00000	1.93(aH)
	2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	10464	2.00000	2.52(a)
	3 Chloromethane	50	1.081	1.081	(0.259)	16505	2.00000	2.06(a)
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	14835	2.00000	1.97(a)
	6 Bromomethane	94	1.340	1.340	(0.321)	9450	2.00000	2.66(aM)
	7 Chloroethane	64	1.403	1.403	(0.336)	9524	2.00000	2.02(a)
	8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	15379	2.00000	1.94(a)
	10 Acetone	43	1.973	1.973	(0.472)	14791	4.00000	3.44(a)
	11 1,1-Dichloroethene	96	1.917	1.917	(0.459)	10296	2.00000	2.05(a)
	15 Iodomethane	142	2.026	2.026	(0.485)	16693	4.00000	4.74(a)
	17 Methylene Chloride	84	2.303	2.303	(0.551)	10192	2.00000	1.71(aM)
	18 Methyl tert-butyl ether	73	2.539	2.539	(0.608)	30946	2.00000	1.97(a)
	19 Carbon Disulfide	76	2.071	2.071	(0.496)	62025	4.00000	3.94(a)
	20 trans-1,2-Dichloroethene	96	2.535	2.535	(0.607)	11367	2.00000	2.18(a)
	21 Vinyl Acetate	43	3.015	3.015	(0.722)	51720	4.00000	3.57(aM)
	22 1,1-Dichloroethane	63	2.925	2.925	(0.700)	20992	2.00000	2.20(a)
	24 2-Butanone	43	3.656	3.656	(0.875)	7176	4.00000	3.79(aM)
	26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	15835	2.00000	1.95(a)
	27 cis-1,2-Dichloroethene	96	3.533	3.533	(0.846)	13645	2.00000	2.23(a)
	28 Chloroform	83	3.907	3.907	(0.935)	21205	2.00000	2.24(a)
	29 Bromochloromethane	128	3.791	3.791	(0.908)	6921	2.00000	2.14(a)
$	30 Dibromofluoromethane	113	4.102	4.102	(0.982)	11532	2.00000	1.41(a)
	31 1,1,1-Trichloroethane	97	4.084	4.084	(0.978)	14642	2.00000	2.01(a)
	32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	13477	2.00000	1.91(a)
	33 1,2-Dichloroethane	62	4.564	4.564	(0.919)	14500	2.00000	2.06(a)
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	13874	2.00000	2.12(a)
$	35 1,2-Dichloroethane-d4	65	4.485	4.485	(1.074)	10804	2.00000	1.51(aM)
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	896747	50.0000	
	37 Benzene	78	4.515	4.515	(0.909)	48481	2.00000	2.12(a)
	38 Trichloroethene	130	5.208	5.208	(1.049)	11895	2.00000	1.93(a)
	39 Bromodichloromethane	83	5.729	5.729	(1.154)	16415	2.00000	2.10(a)
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	13761	2.00000	2.12(a)
	44 Dibromomethane	93	5.557	5.557	(1.119)	8737	2.00000	2.22(a)
	45 4-Methyl-2-Pentanone	43	6.333	6.333	(0.826)	25612	4.00000	4.29(a)
	46 cis-1,3-Dichloropropene	75	6.164	6.164	(1.242)	21003	2.00000	2.01(a)
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	867389	50.0000	
$	48 Toluene-d8	98	6.393	6.393	(0.834)	45477	2.00000	2.05(a)
	50 Toluene	91	6.453	6.453	(0.842)	52309	2.00000	2.14(a)
	51 trans-1,3-Dichloropropene	75	6.696	6.696	(1.349)	17455	2.00000	2.09(a)
	52 2-Hexanone	43	7.101	7.101	(0.926)	18084	4.00000	4.42(a)
	53 1,1,2-Trichloroethane	83	6.843	6.843	(0.892)	11409	2.00000	2.29(a)
	54 1,3-Dichloropropane	76	6.989	6.989	(0.912)	23895	2.00000	2.31(a)
	55 Dibromochloromethane	129	7.176	7.176	(0.936)	14840	2.00000	2.20(a)

56	Tetrachloroethene	164	6.929	6.929 (0.904)	9672	2.00000	2.05(a)
57	1,2-Dibromoethane	107	7.263	7.263 (0.947)	13465	2.00000	2.22(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
58	1-Chlorohexane	55	7.697	7.697	(1.550)	10048	2.00000	3.60(aH)
59	Chlorobenzene	112	7.697	7.697	(1.004)	35403	2.00000	2.10(a)
60	1,1,1,2-Tetrachloroethane	131	7.776	7.776	(1.014)	13053	2.00000	2.20(a)
61	Ethylbenzene	106	7.802	7.802	(1.018)	17353	2.00000	2.09(a)
62	m,p-Xylenes	106	7.907	7.907	(1.031)	44787	4.00000	4.34(a)
63	o-Xylene	106	8.248	8.248	(1.076)	21417	2.00000	2.12(a)
64	Styrene	104	8.275	8.275	(1.079)	34917	2.00000	2.06(a)
66	Bromoform	173	8.417	8.417	(1.098)	9629	2.00000	2.11(a)
67	Isopropylbenzene	105	8.563	8.563	(1.117)	49912	2.00000	2.06(a)
68	1,1,2,2-Tetrachloroethane	83	8.841	8.841	(0.915)	17448	2.00000	2.55(aM)
$ 69	4-Bromofluorobenzene	95	8.694	8.694	(1.134)	17649	2.00000	2.12(aM)
* 70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	447826	50.0000	
71	1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	12721	2.00000	2.22(a)
73	n-Propylbenzene	91	8.916	8.916	(0.923)	57997	2.00000	2.08(a)
74	Bromobenzene	156	8.811	8.811	(0.912)	14174	2.00000	2.02(a)
75	1,3,5-Trimethylbenzene	105	9.069	9.069	(0.939)	42416	2.00000	2.11(a)
76	2-Chlorotoluene	91	8.976	8.976	(0.929)	41354	2.00000	2.29(a)
77	4-Chlorotoluene	91	9.077	9.077	(0.939)	43013	2.00000	2.16(a)
78	tert-Butylbenzene	119	9.336	9.336	(0.966)	34986	2.00000	2.06(a)
79	1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	42096	2.00000	2.04(a)
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	47003	2.00000	1.99(a)
82	p-Isopropyltoluene	119	9.650	9.650	(0.999)	40079	2.00000	1.96(a)
83	1,3-Dichlorobenzene	146	9.609	9.609	(0.995)	26091	2.00000	2.07(a)
84	1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	28468	2.00000	2.14(a)
87	n-Butylbenzene	91	10.007	10.007	(1.036)	31335	2.00000	1.79(a)
88	1,2-Dichlorobenzene	146	9.999	9.999	(1.035)	25933	2.00000	2.07(a)
89	1,2-Dibromo-3-Chloropropane	155	10.678	10.678	(1.105)	2511	2.00000	1.55(a)
90	1,2,4-Trichlorobenzene	180	11.356	11.356	(1.175)	17357	2.00000	2.00(a)
93	1,2,3-Trichlorobenzene	180	11.750	11.750	(1.216)	17611	2.00000	2.07(a)
M 94	1,2-Dichloroethylene (total)	96				25012	4.00000	(a)
141	Cyclohexane	56	4.114	4.114	(0.985)	13243	2.00000	1.86(aH)
138	Freon TF	101	1.913	1.913	(0.458)	8897	2.00000	1.87(a)
147	Methylcyclohexane	55	5.366	5.366	(1.081)	26075	2.00000	1.89(aM)
146	Methyl Acetate	43	2.243	2.243	(0.537)	6701	2.00000	1.99(a)
148	Tert-Butyl alcohol	59	2.434	2.434	(0.583)	24680	40.0000	43.96(a)
149	Isopropyl Alcohol	45	2.097	2.097	(0.502)	14345	40.0000	41.26

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.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6,i\X230517,b\X051705,D
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Client ID: VSTD002
Sample Info: VSTD002;VSTD002;1;4;
Purge Volume: 5.0
Column phase: DB624

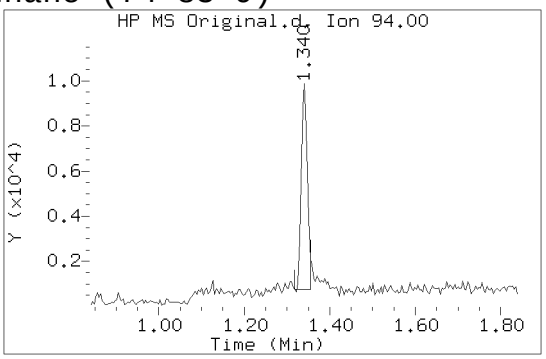
Instrument: voa6,i
Operator: PC
Column diameter: 0.18

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InstruID : voa6.i
LabSampID : VSTD002

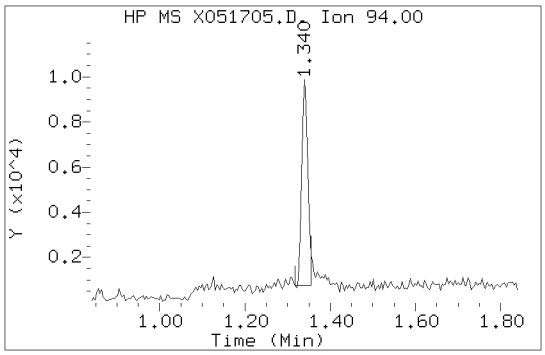
Bromomethane (74-83-9)

Reason Code:

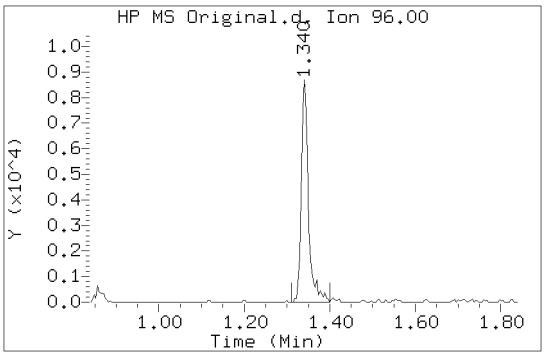
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18-May-2023
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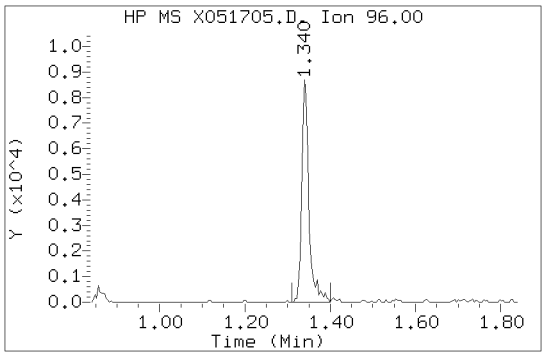
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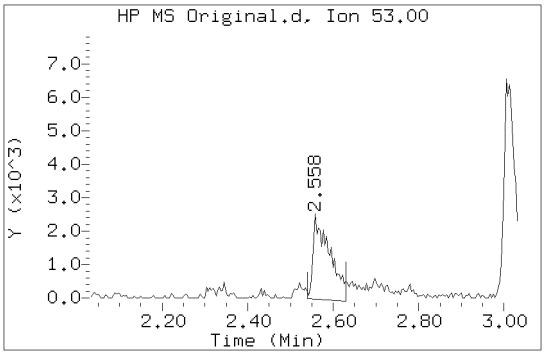
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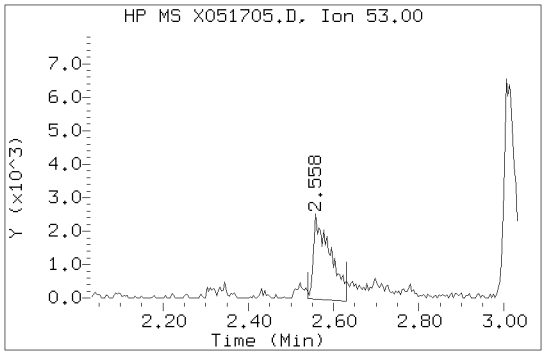
Acrylonitrile (107-13-1)

Reason Code:

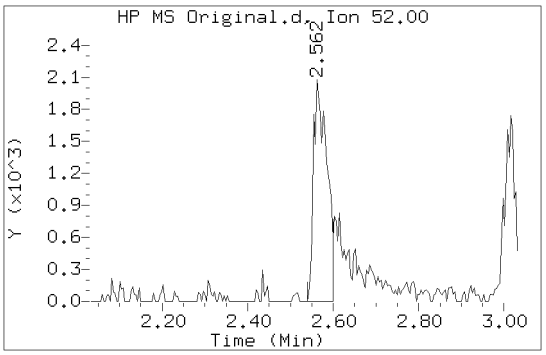
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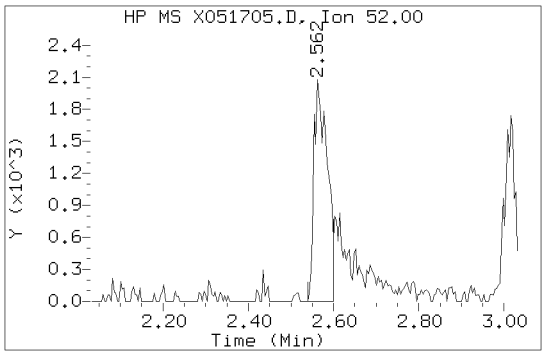
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BEFORE
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AFTER
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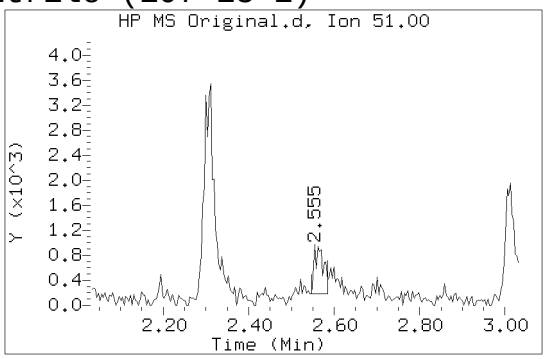
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InstruID : voa6.i
LabSampID : VSTD002

Acrylonitrile (107-13-1)

Reason Code:

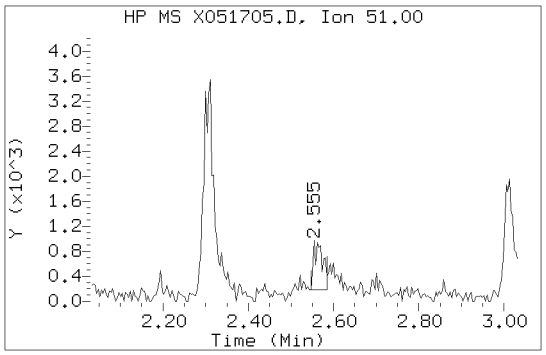
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AFTER

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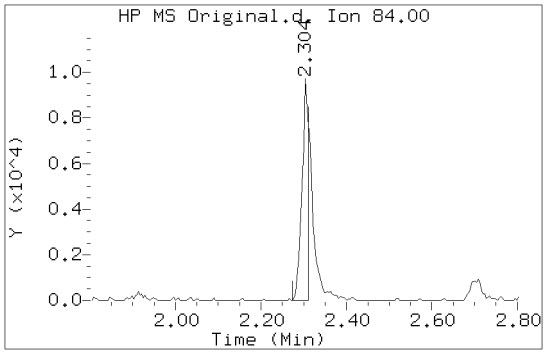


Methylene Chloride (75-09-2)

Reason Code:

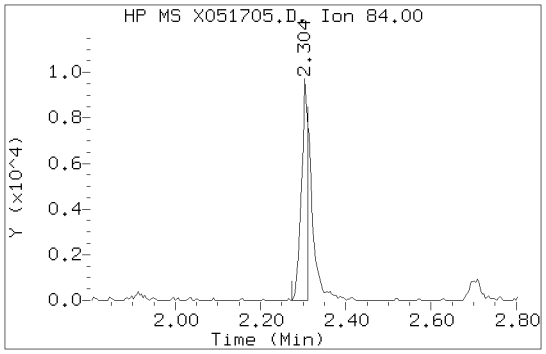
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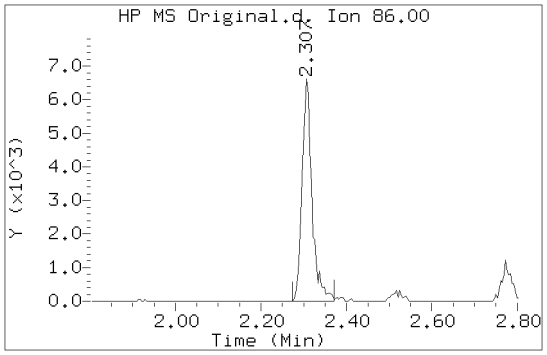
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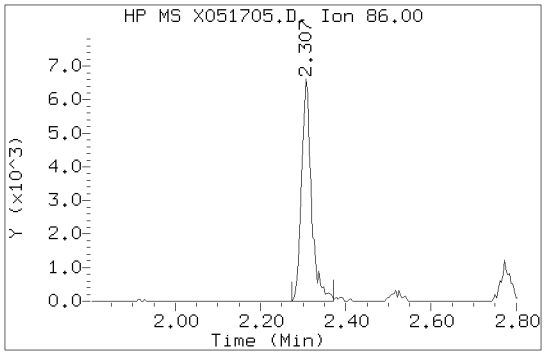
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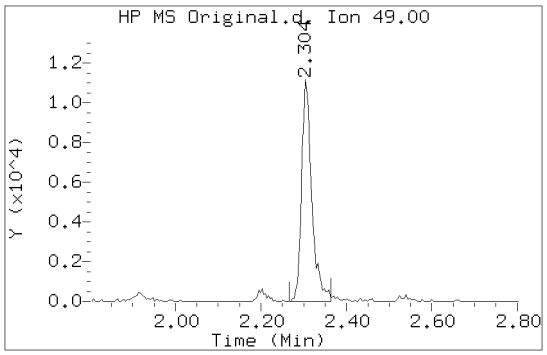
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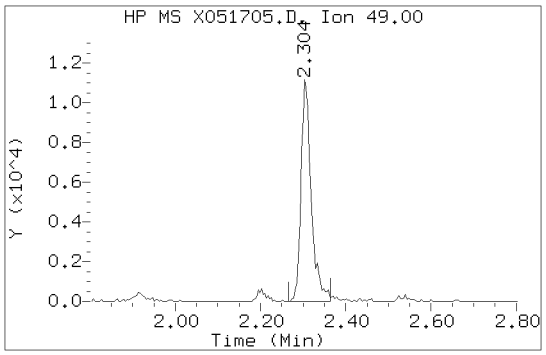
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AFTER

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linh
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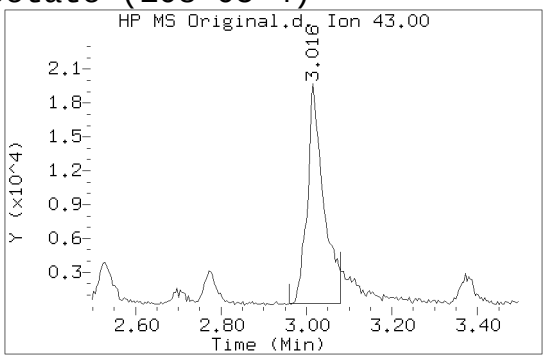
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Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

Vinyl Acetate (108-05-4)

Reason Code:

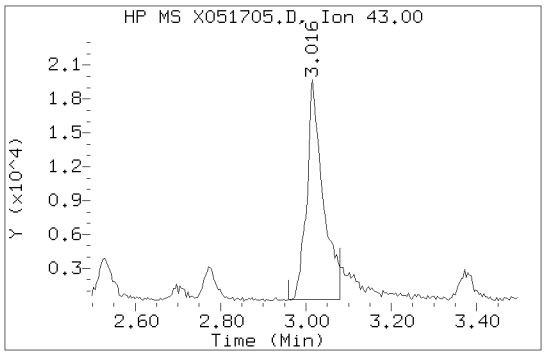
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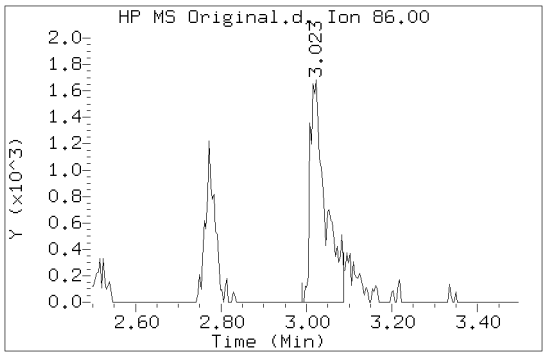
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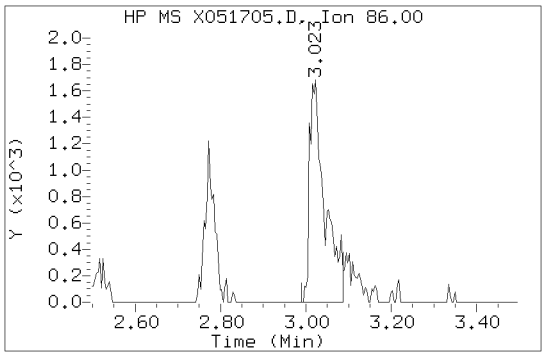
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AFTER

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linh
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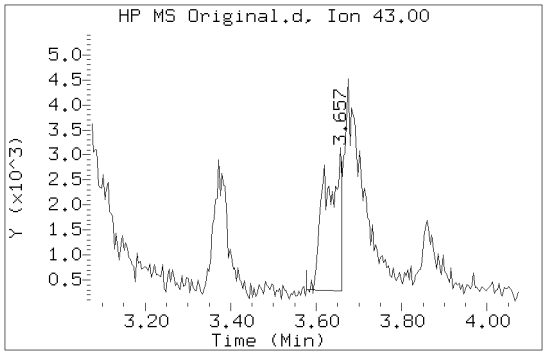


2-Butanone (78-93-3)

Reason Code:

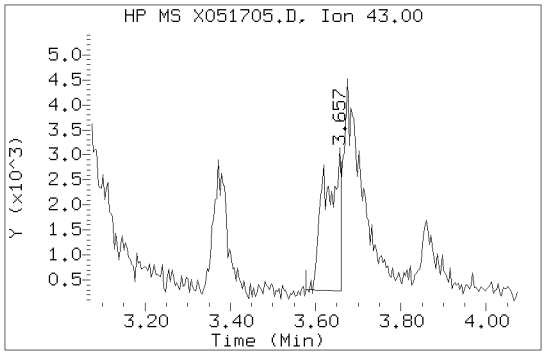
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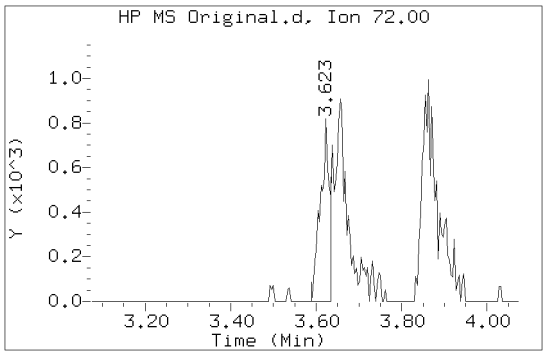
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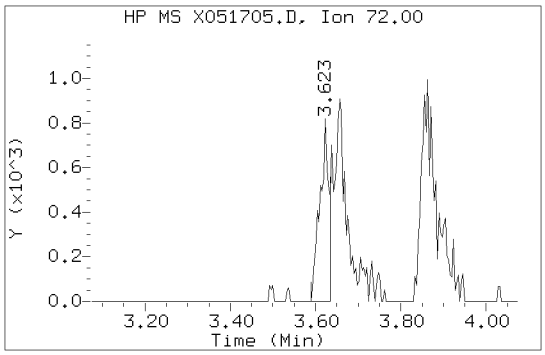
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818
18-May-2023
13:42
linh
pham



AFTER

MASS
72
AREA
1170
HEIGHT
818
18-May-2023
13:42
linh
pham



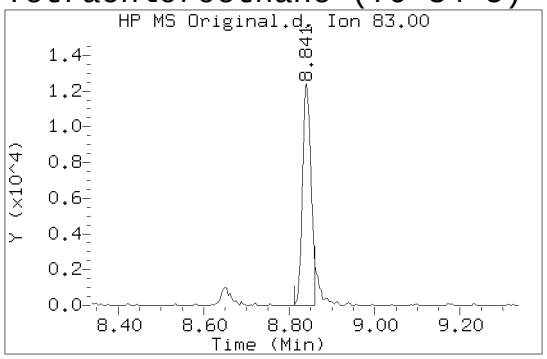
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Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

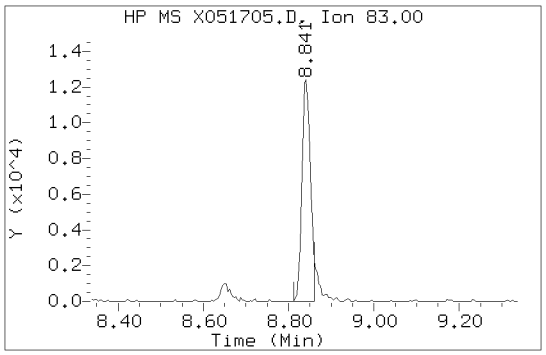
BEFORE

MASS
83
AREA
17448
HEIGHT
12410
18-May-2023
13:42
linh
pham



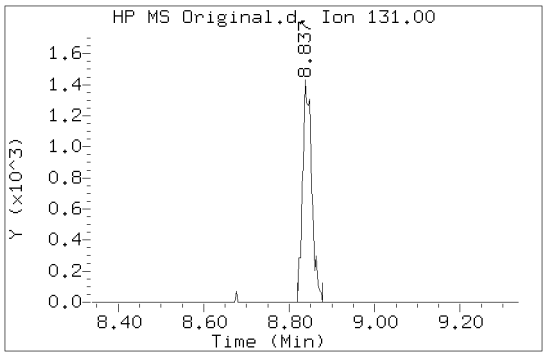
AFTER

MASS
83
AREA
17448
HEIGHT
12410
18-May-2023
13:42
linh
pham



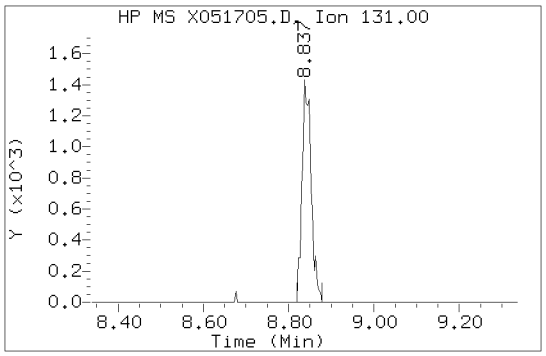
BEFORE

MASS
131
AREA
2148
HEIGHT
1431
18-May-2023
13:42
linh
pham



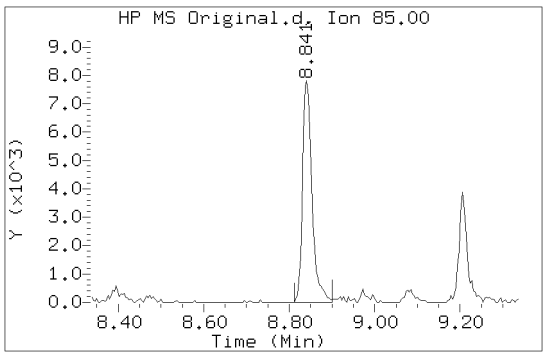
AFTER

MASS
131
AREA
2148
HEIGHT
1431
18-May-2023
13:42
linh
pham



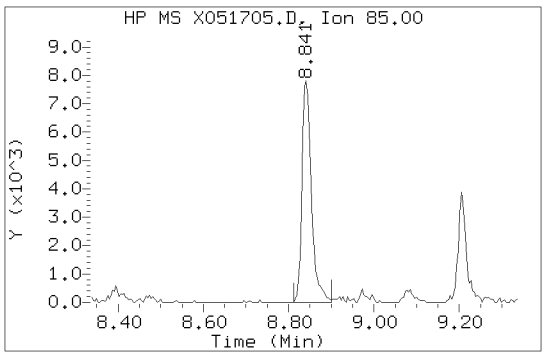
BEFORE

MASS
85
AREA
12201
HEIGHT
7811
18-May-2023
13:42
linh
pham



AFTER

MASS
85
AREA
12201
HEIGHT
7811
18-May-2023
13:42
linh
pham

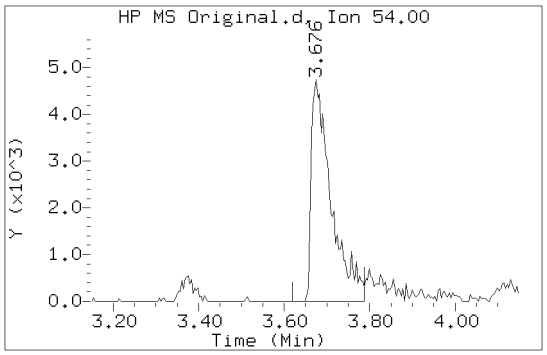


Propionitrile (107-12-0)

Reason Code:

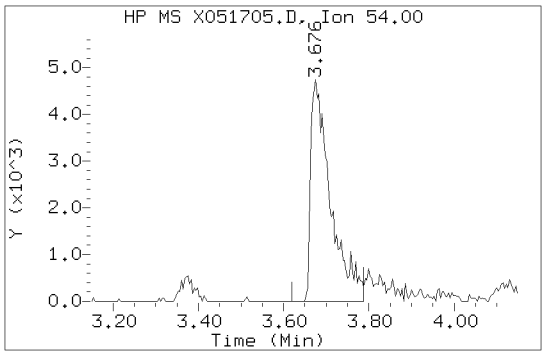
BEFORE

MASS
54
AREA
15274
HEIGHT
4742
18-May-2023
13:42
linh
pham



AFTER

MASS
54
AREA
15274
HEIGHT
4742
18-May-2023
13:42
linh
pham

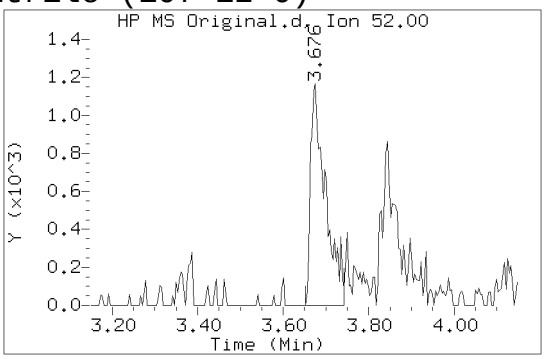


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051705.D
Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

Propionitrile (107-12-0)

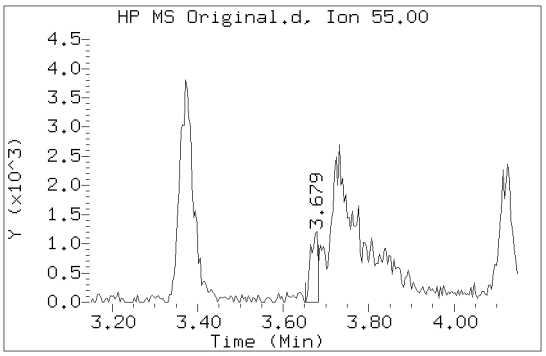
BEFORE

MASS
52
AREA
2822
HEIGHT
1167
18-May-2023
13:42
linh
pham



BEFORE

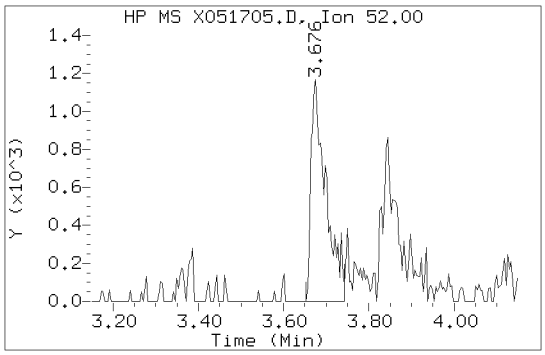
MASS
55
AREA
1433
HEIGHT
1207
18-May-2023
13:42
linh
pham



Reason Code:

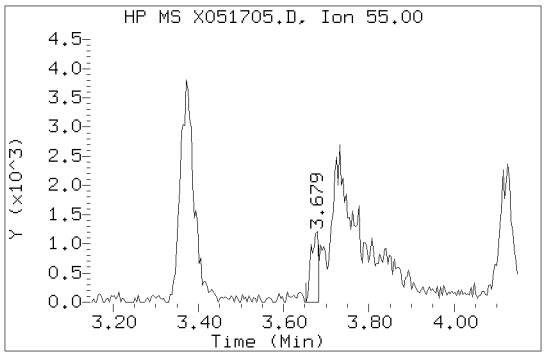
AFTER

MASS
52
AREA
2822
HEIGHT
1167
18-May-2023
13:42
linh
pham



AFTER

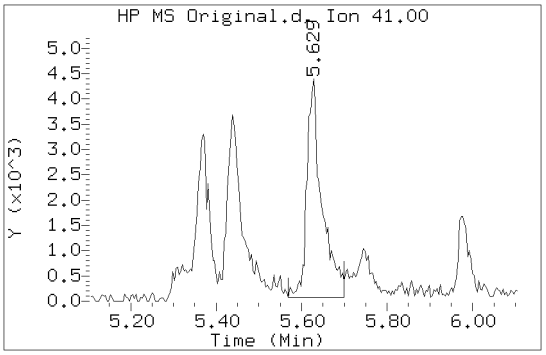
MASS
55
AREA
1433
HEIGHT
1207
18-May-2023
13:42
linh
pham



Methyl Methacrylate (80-62-6)

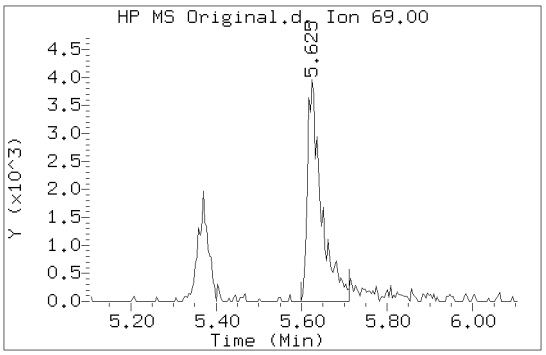
BEFORE

MASS
41
AREA
10525
HEIGHT
4313
18-May-2023
13:42
linh
pham



BEFORE

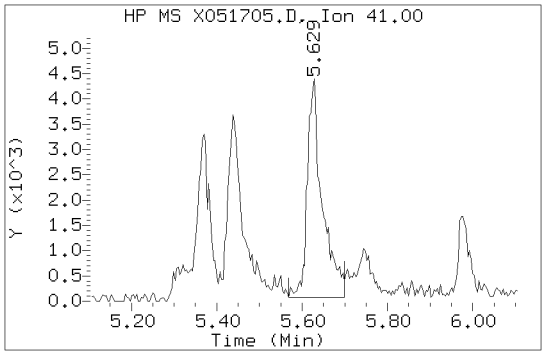
MASS
69
AREA
8892
HEIGHT
3961
18-May-2023
13:42
linh
pham



Reason Code:

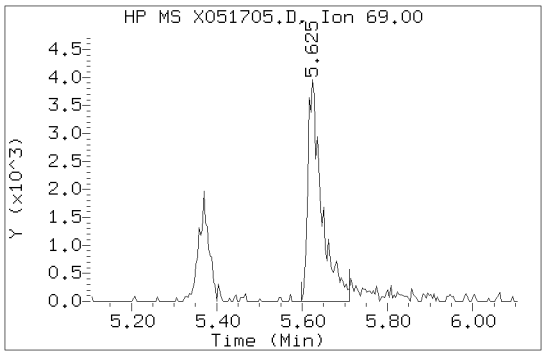
AFTER

MASS
41
AREA
10525
HEIGHT
4313
18-May-2023
13:42
linh
pham



AFTER

MASS
69
AREA
8892
HEIGHT
3961
18-May-2023
13:42
linh
pham



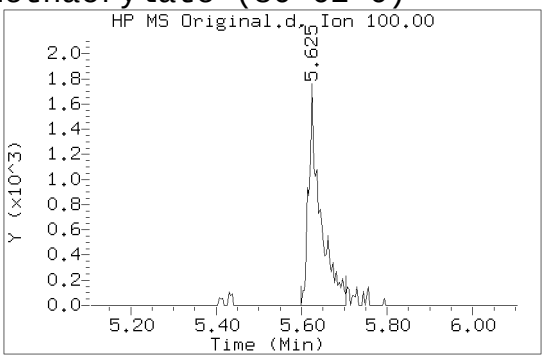
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051705.D
Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

Methyl Methacrylate (80-62-6)

Reason Code:

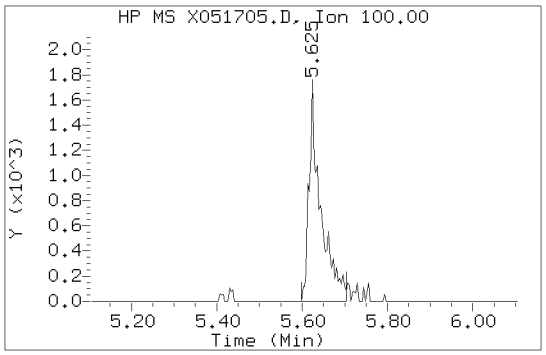
BEFORE

MASS
100
AREA
3307
HEIGHT
1761
18-May-2023
13:42
linh
pham



AFTER

MASS
100
AREA
3307
HEIGHT
1761
18-May-2023
13:42
linh
pham

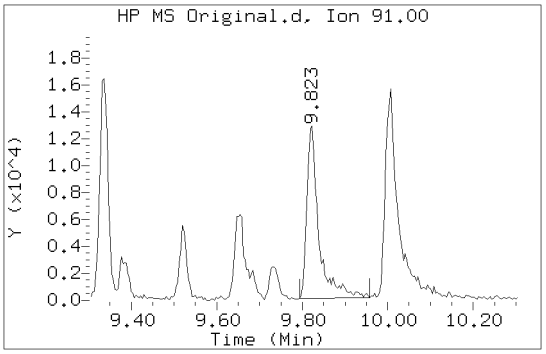


Benzyl Chloride (100-44-7)

Reason Code:

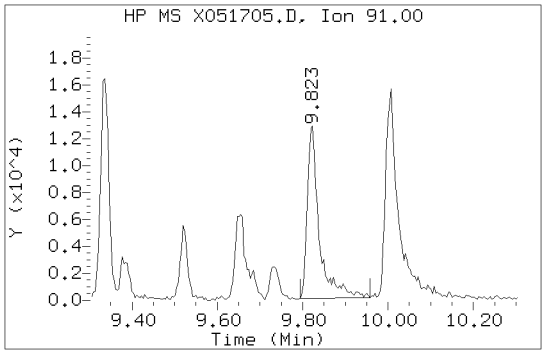
BEFORE

MASS
91
AREA
25013
HEIGHT
12765
18-May-2023
13:42
linh
pham



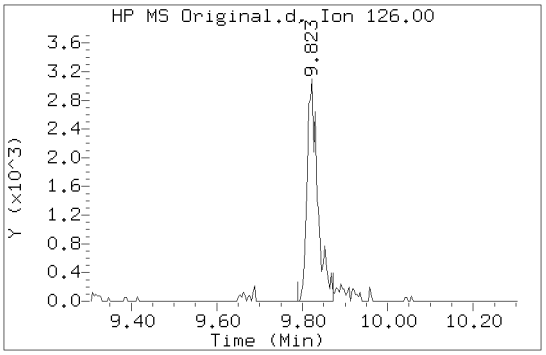
AFTER

MASS
91
AREA
25013
HEIGHT
12765
18-May-2023
13:42
linh
pham



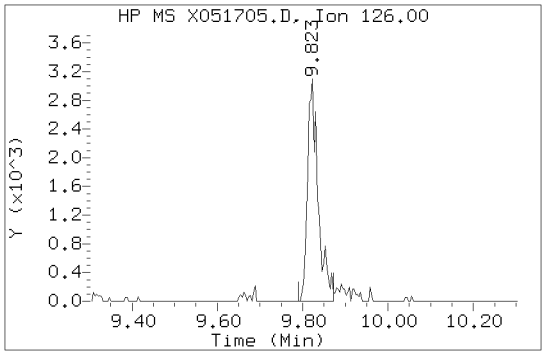
BEFORE

MASS
126
AREA
5340
HEIGHT
3099
18-May-2023
13:42
linh
pham



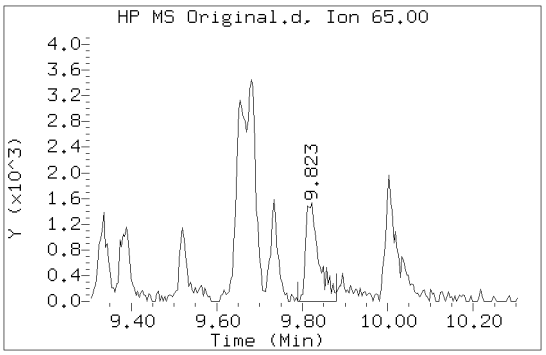
AFTER

MASS
126
AREA
5340
HEIGHT
3099
18-May-2023
13:42
linh
pham



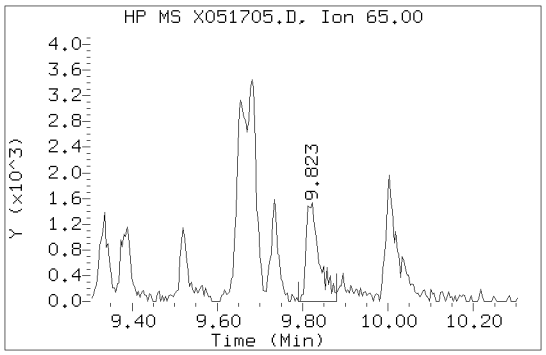
BEFORE

MASS
65
AREA
3307
HEIGHT
1541
18-May-2023
13:42
linh
pham



AFTER

MASS
65
AREA
3307
HEIGHT
1541
18-May-2023
13:42
linh
pham



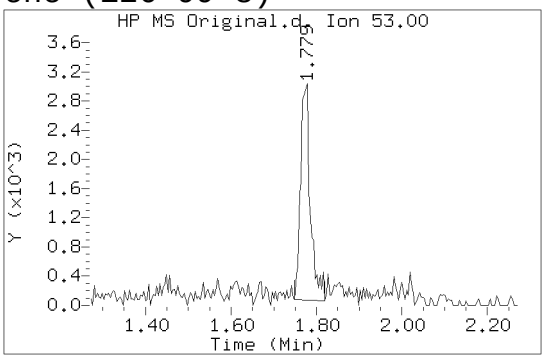
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051705.D
Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

Chloroprene (126-99-8)

Reason Code:

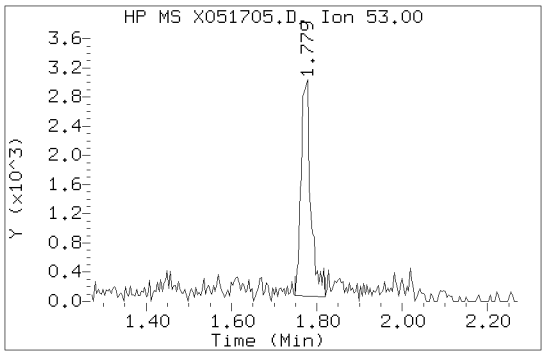
BEFORE

MASS
53
AREA
4779
HEIGHT
2965
18-May-2023
13:42
linh
pham



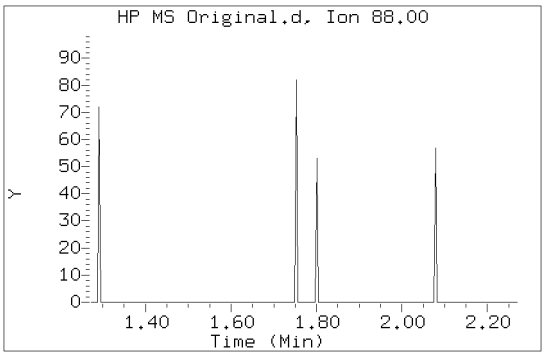
AFTER

MASS
53
AREA
4779
HEIGHT
2965
18-May-2023
13:42
linh
pham



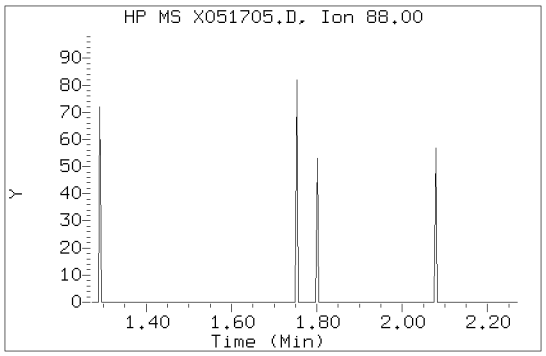
BEFORE

MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

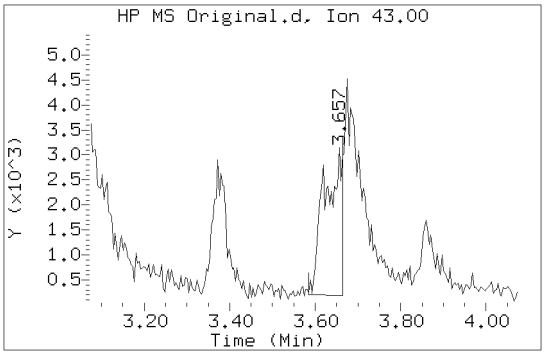


Ethyl Acetate (141-78-6)

Reason Code:

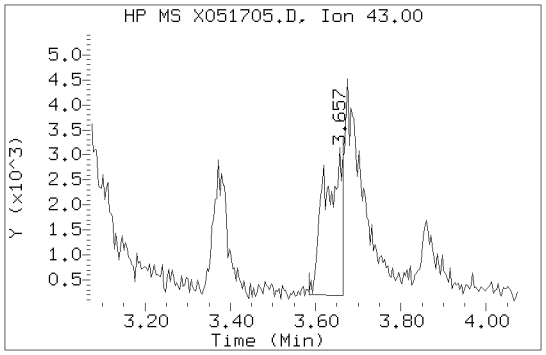
BEFORE

MASS
43
AREA
8258
HEIGHT
2948
18-May-2023
13:42
linh
pham



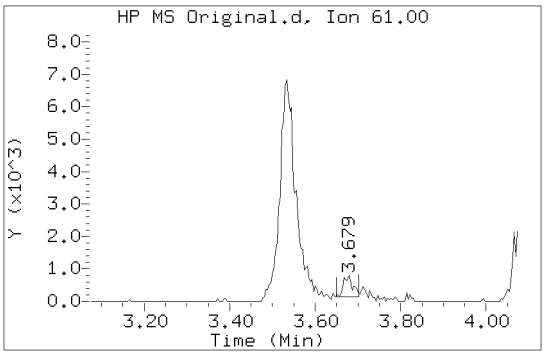
AFTER

MASS
43
AREA
8258
HEIGHT
2948
18-May-2023
13:42
linh
pham



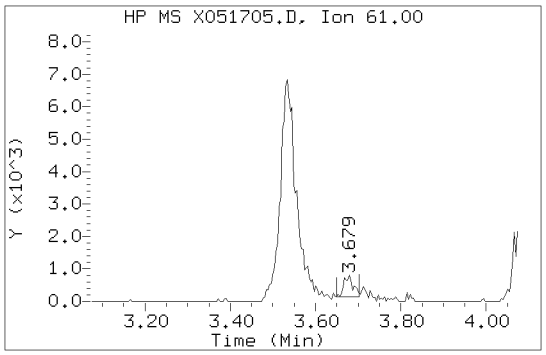
BEFORE

MASS
61
AREA
1001
HEIGHT
665
18-May-2023
13:42
linh
pham



AFTER

MASS
61
AREA
1001
HEIGHT
665
18-May-2023
13:42
linh
pham



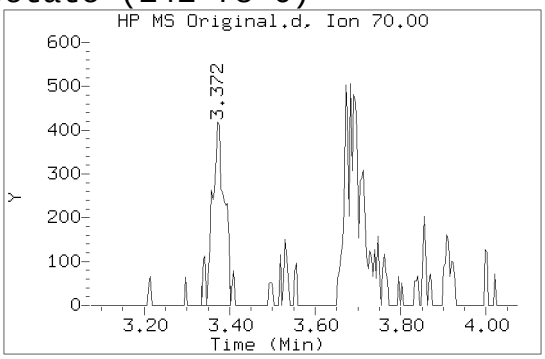
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051705.D
Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

Ethyl Acetate (141-78-6)

Reason Code:

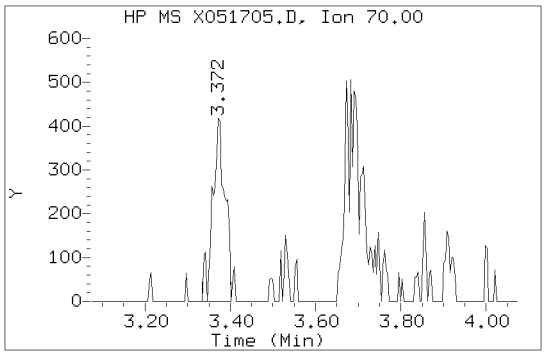
BEFORE

MASS
70
AREA
837
HEIGHT
418
18-May-2023
13:42
linh
pham



AFTER

MASS
70
AREA
837
HEIGHT
418
18-May-2023
13:42
linh
pham

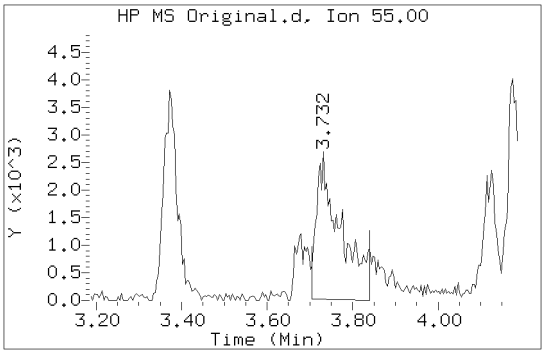


Methyl Acrylate (96-33-3)

Reason Code:

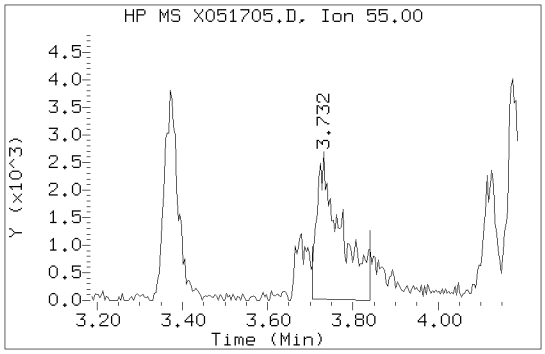
BEFORE

MASS
55
AREA
10492
HEIGHT
2678
18-May-2023
13:42
linh
pham



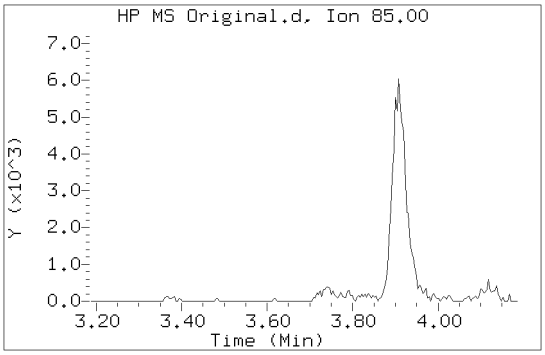
AFTER

MASS
55
AREA
10492
HEIGHT
2678
18-May-2023
13:42
linh
pham



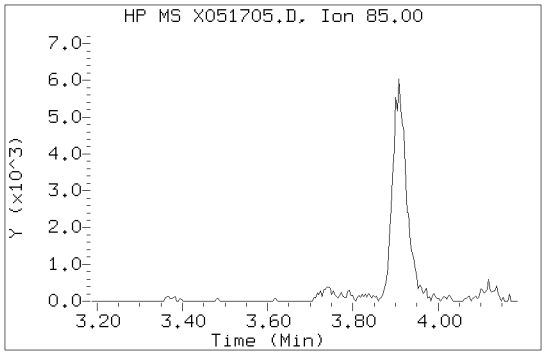
BEFORE

MASS
85
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

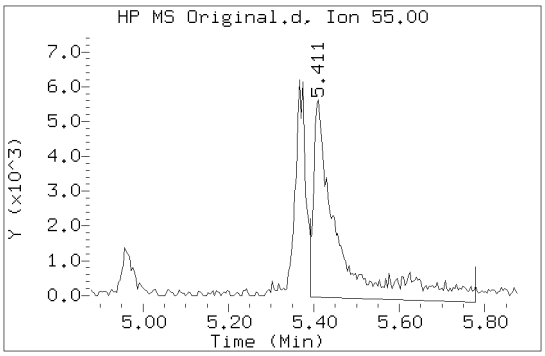


Ethyl Acrylate (140-88-5)

Reason Code:

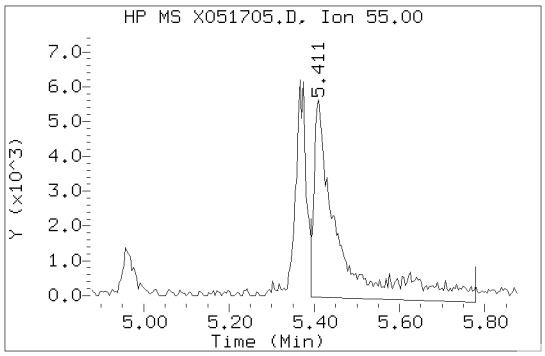
BEFORE

MASS
55
AREA
23488
HEIGHT
5673
18-May-2023
13:42
linh
pham



AFTER

MASS
55
AREA
23488
HEIGHT
5673
18-May-2023
13:42
linh
pham

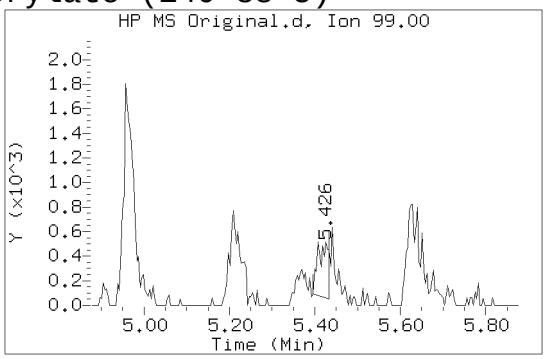


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Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

Ethyl Acrylate (140-88-5)

BEFORE

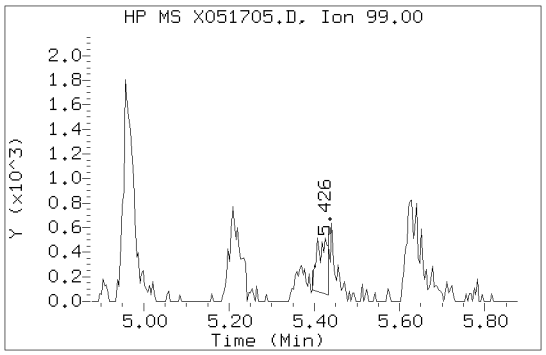
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99
AREA
776
HEIGHT
460
18-May-2023
13:42
linh
pham



Reason Code:

AFTER

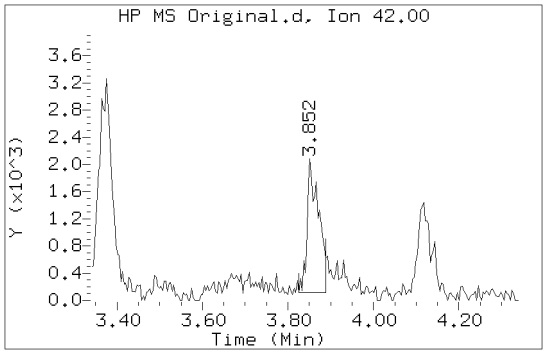
MASS
99
AREA
776
HEIGHT
460
18-May-2023
13:42
linh
pham



Tetrahydrofuran (109-99-9)

BEFORE

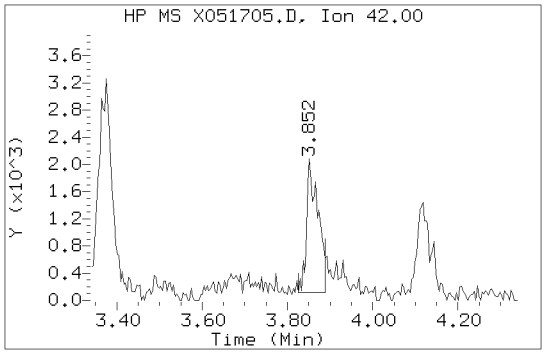
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42
AREA
3723
HEIGHT
1971
18-May-2023
13:42
linh
pham



Reason Code:

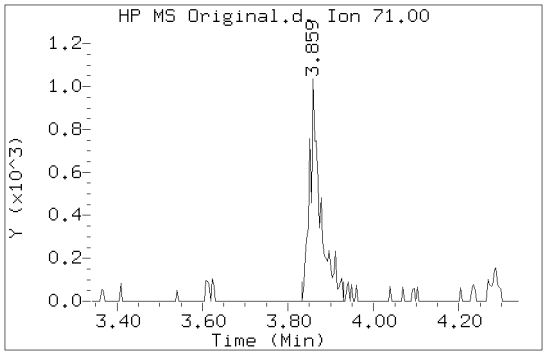
AFTER

MASS
42
AREA
3723
HEIGHT
1971
18-May-2023
13:42
linh
pham



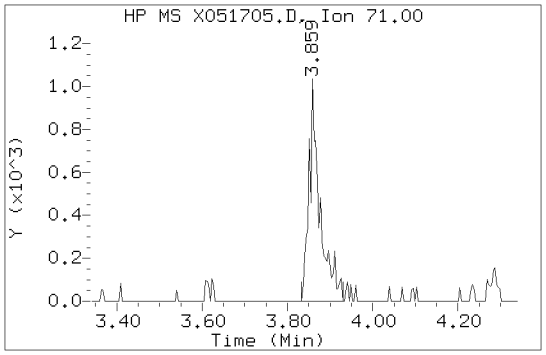
BEFORE

MASS
71
AREA
1826
HEIGHT
1036
18-May-2023
13:42
linh
pham



AFTER

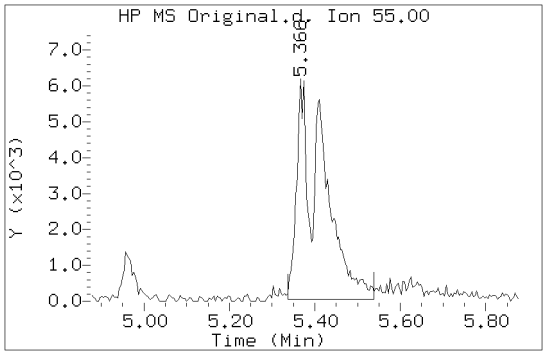
MASS
71
AREA
1826
HEIGHT
1036
18-May-2023
13:42
linh
pham



Methylcyclohexane (108-87-2)

BEFORE

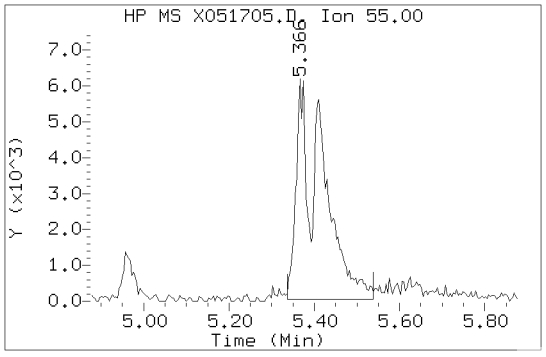
MASS
55
AREA
26075
HEIGHT
6146
18-May-2023
13:42
linh
pham



Reason Code:

AFTER

MASS
55
AREA
26075
HEIGHT
6146
18-May-2023
13:42
linh
pham



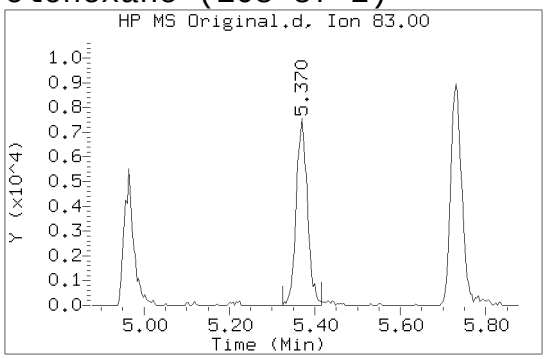
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Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

Methylcyclohexane (108-87-2)

Reason Code:

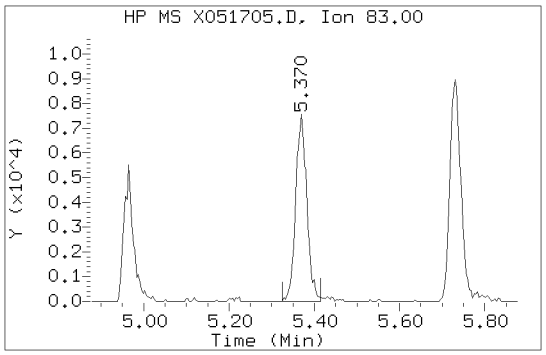
BEFORE

MASS
83
AREA
13937
HEIGHT
7565
18-May-2023
13:42
linh
pham



AFTER

MASS
83
AREA
13937
HEIGHT
7565
18-May-2023
13:42
linh
pham

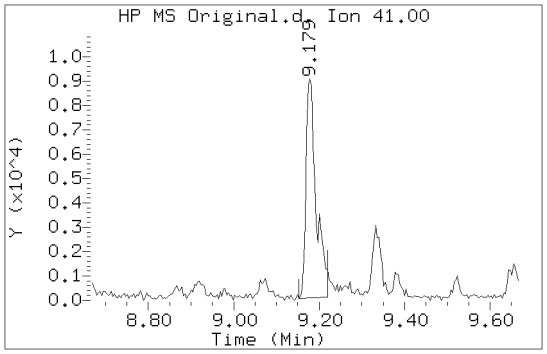


Butyl methacrylate (97-88-1)

Reason Code:

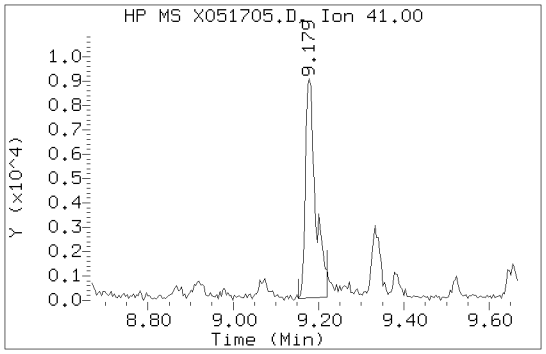
BEFORE

MASS
41
AREA
15022
HEIGHT
8999
18-May-2023
13:42
linh
pham



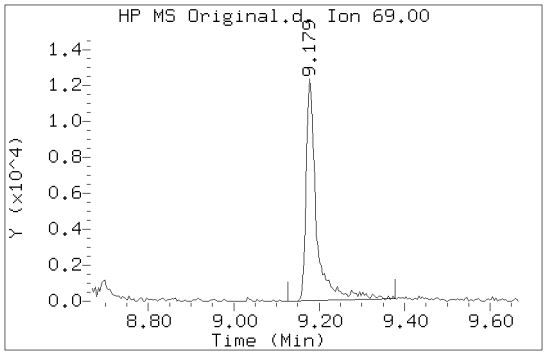
AFTER

MASS
41
AREA
15022
HEIGHT
8999
18-May-2023
13:42
linh
pham



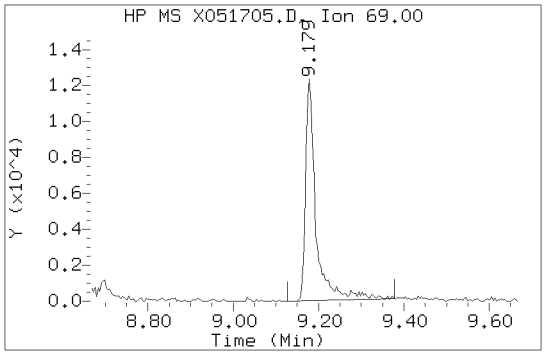
BEFORE

MASS
69
AREA
20885
HEIGHT
12333
18-May-2023
13:42
linh
pham



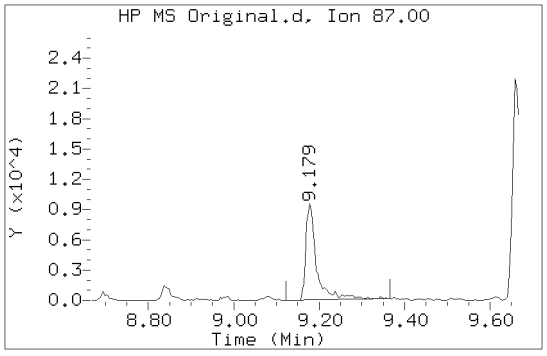
AFTER

MASS
69
AREA
20885
HEIGHT
12333
18-May-2023
13:42
linh
pham



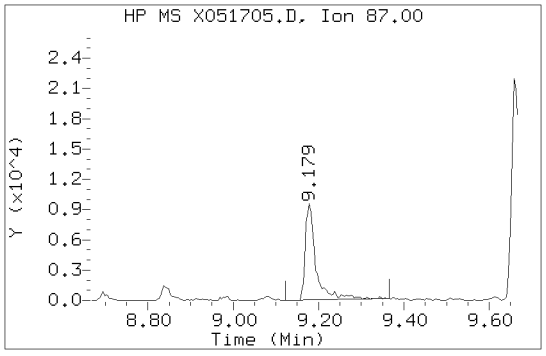
BEFORE

MASS
87
AREA
16659
HEIGHT
9565
18-May-2023
13:42
linh
pham



AFTER

MASS
87
AREA
16659
HEIGHT
9565
18-May-2023
13:42
linh
pham

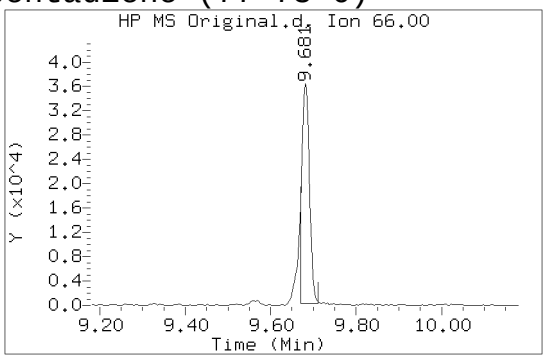


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Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

Dicyclopentadiene (77-73-6)

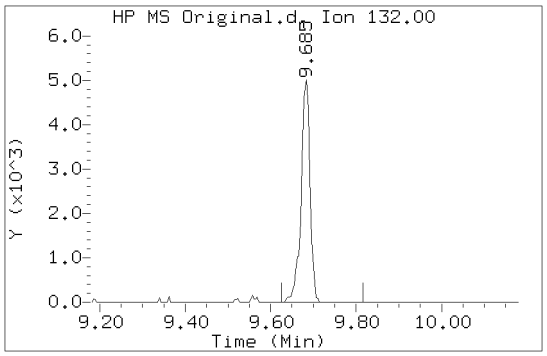
BEFORE

MASS
66
AREA
46675
HEIGHT
36119
18-May-2023
13:42
linh
pham



BEFORE

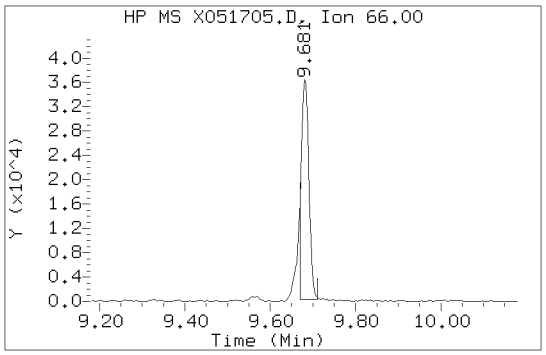
MASS
132
AREA
7535
HEIGHT
5009
18-May-2023
13:42
linh
pham



Reason Code:

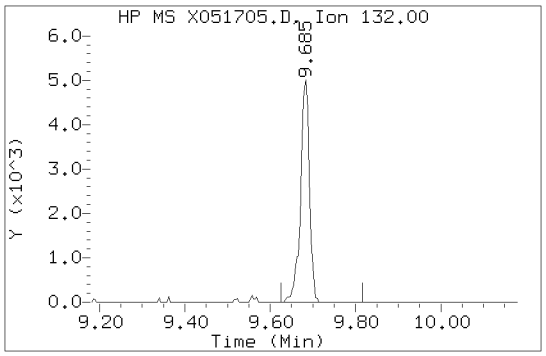
AFTER

MASS
66
AREA
46675
HEIGHT
36119
18-May-2023
13:42
linh
pham



AFTER

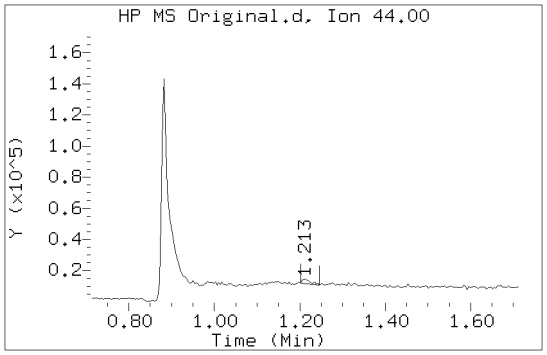
MASS
132
AREA
7535
HEIGHT
5009
18-May-2023
13:42
linh
pham



Acetaldehyde (75-07-0)

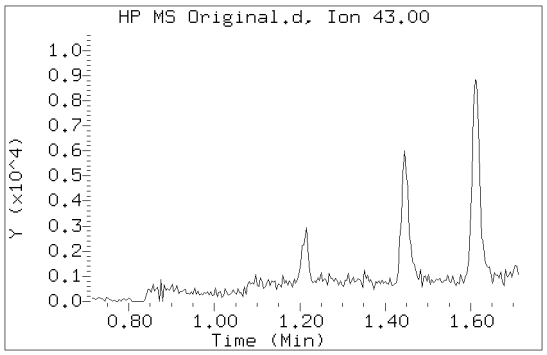
BEFORE

MASS
44
AREA
4725
HEIGHT
3209
18-May-2023
13:42
linh
pham



BEFORE

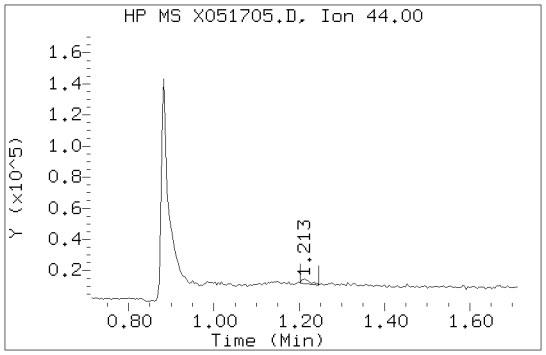
MASS
43
AREA
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HEIGHT
0
18-May-2023
13:42
linh
pham



Reason Code:

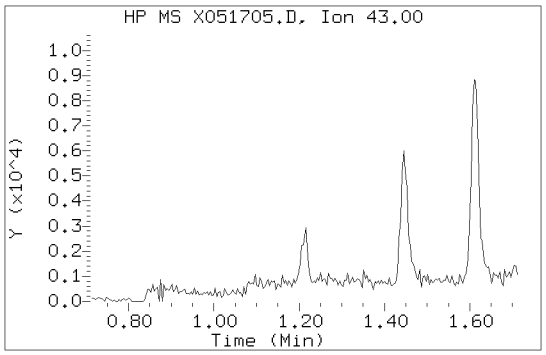
AFTER

MASS
44
AREA
4725
HEIGHT
3209
18-May-2023
13:42
linh
pham



AFTER

MASS
43
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

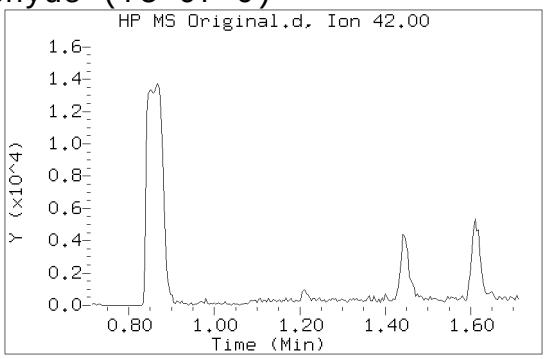


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Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

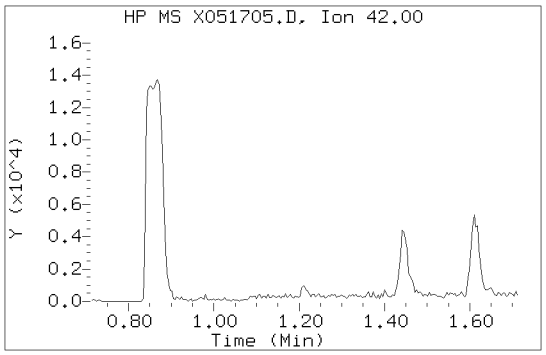
Acetaldehyde (75-07-0)

Reason Code:

BEFORE
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42
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



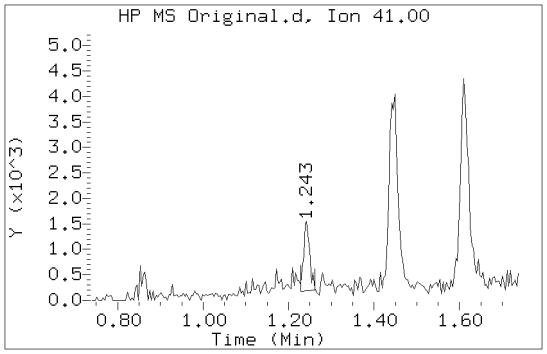
AFTER
MASS
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AREA
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HEIGHT
0
18-May-2023
13:42
linh
pham



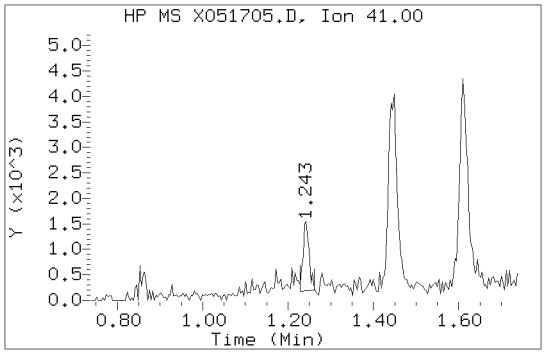
Isobutylene (115-11-7)

Reason Code:

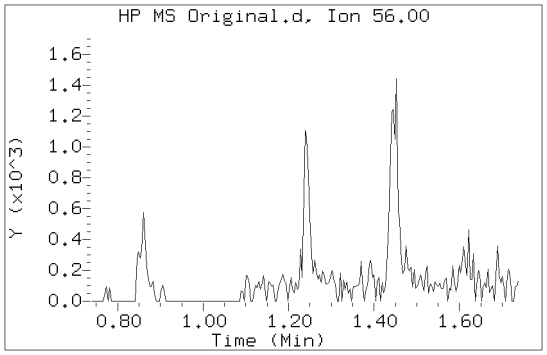
BEFORE
MASS
41
AREA
1402
HEIGHT
1361
18-May-2023
13:42
linh
pham



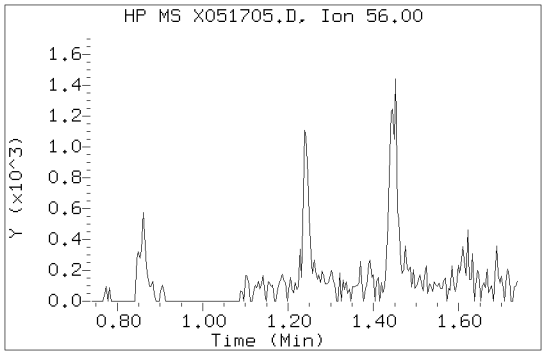
AFTER
MASS
41
AREA
1402
HEIGHT
1361
18-May-2023
13:42
linh
pham



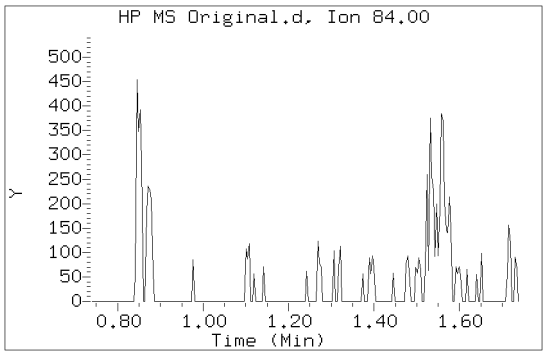
BEFORE
MASS
56
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



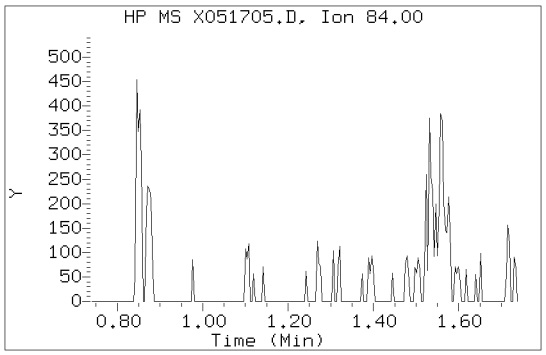
AFTER
MASS
56
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



BEFORE
MASS
84
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER
MASS
84
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



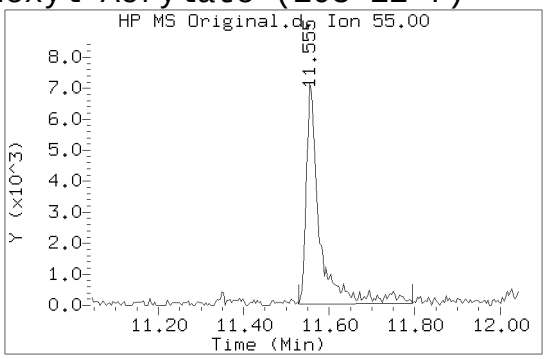
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Inj Date : 17-MAY-2023 13:41
InstruID : voa6.i
LabSampID : VSTD002

2-Ethylhexyl Acrylate (103-11-7)

Reason Code:

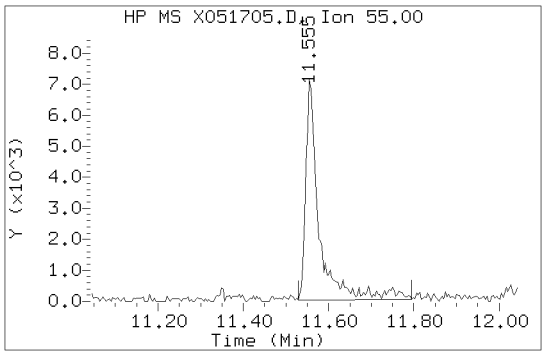
BEFORE

MASS
55
AREA
15456
HEIGHT
7093
18-May-2023
13:42
linh
pham



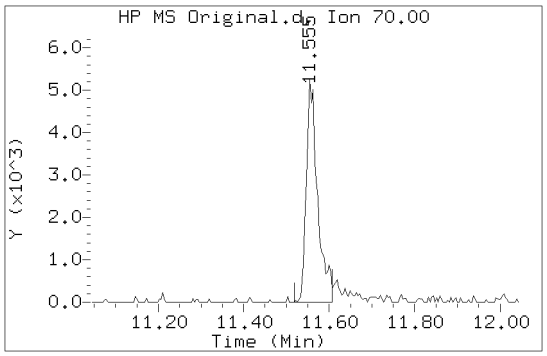
AFTER

MASS
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AREA
15456
HEIGHT
7093
18-May-2023
13:42
linh
pham



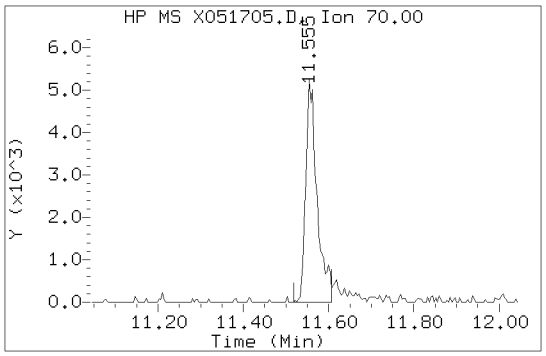
BEFORE

MASS
70
AREA
9667
HEIGHT
5242
18-May-2023
13:42
linh
pham



AFTER

MASS
70
AREA
9667
HEIGHT
5242
18-May-2023
13:42
linh
pham

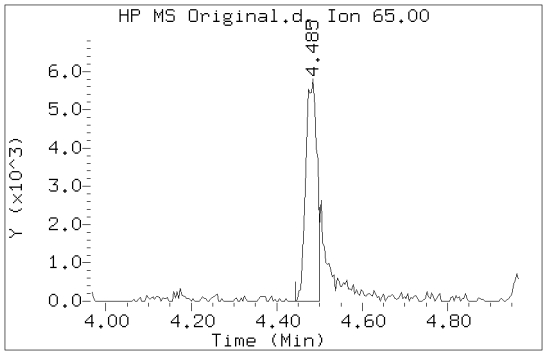


1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

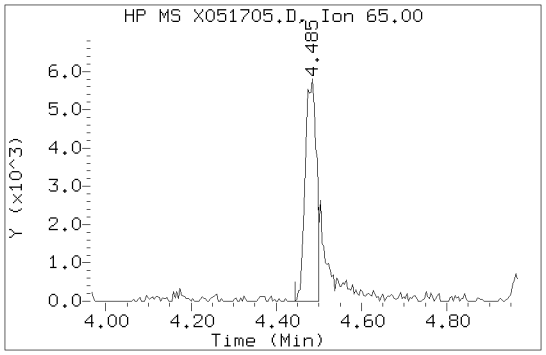
BEFORE

MASS
65
AREA
10804
HEIGHT
5806
18-May-2023
13:42
linh
pham



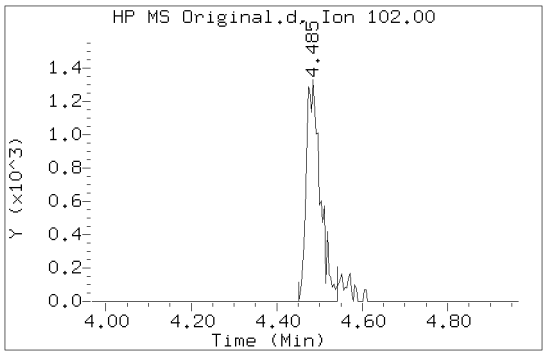
AFTER

MASS
65
AREA
10804
HEIGHT
5806
18-May-2023
13:42
linh
pham



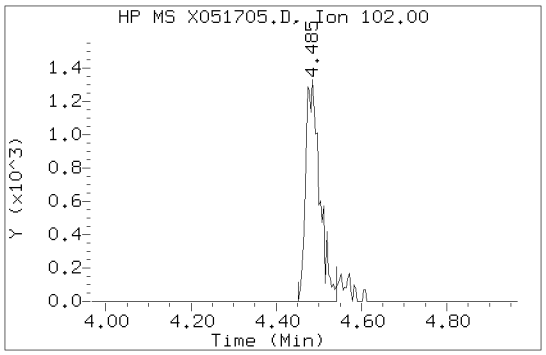
BEFORE

MASS
102
AREA
3074
HEIGHT
1329
18-May-2023
13:42
linh
pham



AFTER

MASS
102
AREA
3074
HEIGHT
1329
18-May-2023
13:42
linh
pham



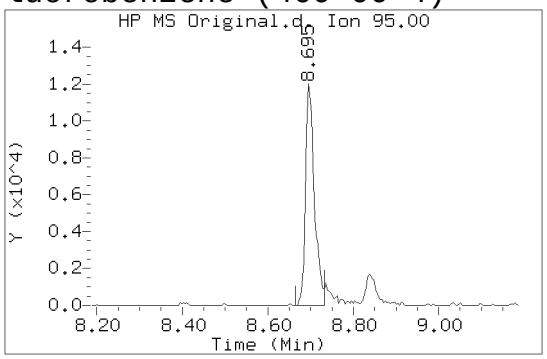
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LabSampID : VSTD002

4-Bromofluorobenzene (460-00-4)

Reason Code:

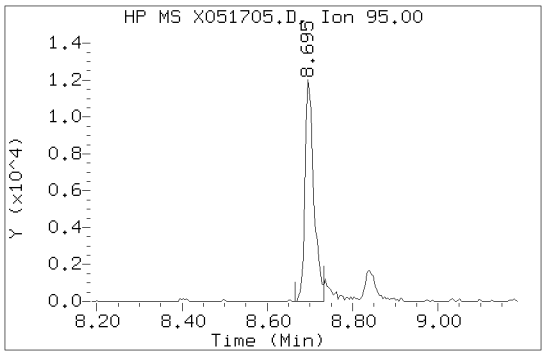
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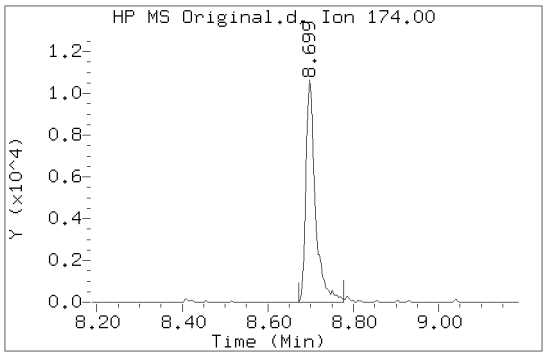
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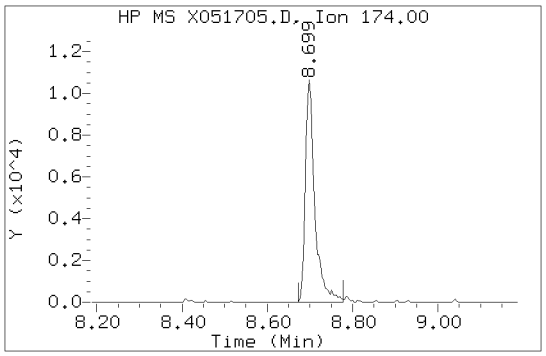
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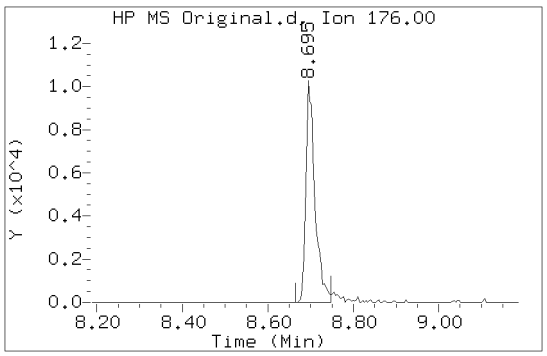
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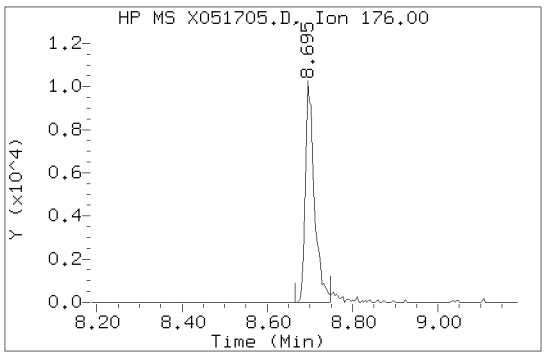
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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051706.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051706.D
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Inj Date : 17-MAY-2023 14:02
Operator : PC Inst ID: voa6.i
Smp Info : VSTD005;VSTD005;1;5;
Misc Info : V6;WATER;0;1;
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Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	575612	50.0000	
135 1,4-Dioxane	88	5.610	5.610	(1.343)	7791	100.000	99.94(a)
140 1,3-Butadiene	54	1.167	1.167	(0.280)	25381	5.00000	4.16(aM)
25 Methacrylonitrile	41	3.844	3.844	(0.920)	25116	5.00000	4.89
12 Isobutyl Alcohol	43	4.676	4.676	(1.119)	74032	100.000	98.66
13 Acetonitrile	39	2.202	2.202	(0.527)	25582	50.0000	46.16
14 Allyl Chloride	41	2.202	2.202	(0.527)	63860	5.00000	4.56
72 trans-1,4-Dichloro-2-butene	53	8.897	8.897	(1.160)	8414	5.00000	4.29
23 Chloroprene	53	1.771	1.771	(0.424)	9821	5.00000	4.22(aM)
130 Ethyl Acetate	43	3.600	3.600	(0.862)	14059	5.00000	3.44(TaM)
40 Methyl Methacrylate	41	5.617	5.617	(1.345)	24473	5.00000	4.86
49 Ethyl Methacrylate	69	6.790	6.790	(1.368)	44678	5.00000	4.69(a)
131 Methyl Acrylate	55	3.705	3.705	(0.887)	27646	5.00000	4.93(aM)
132 n-Butanol	56	5.291	5.291	(1.266)	9680	100.000	122.42(a)
136 n-Hexane	57	2.772	2.772	(0.664)	19066	5.00000	3.96(a)
139 Diethyl ether	59	1.756	1.756	(0.420)	23079	5.00000	4.69(a)
142 Tetrahydrofuran	42	3.851	3.851	(0.922)	10207	10.0000	10.75
145 alpha-Methylstyrene	118	9.264	9.264	(0.959)	41638	5.00000	4.26(a)
156 Diisopropyl ether	45	2.997	2.997	(0.717)	80718	5.00000	4.63(Ta)
162 Butyl acrylate	55	8.260	8.260	(1.077)	58400	5.00000	4.65(a)

167 Ethanol	45	1.703	1.703 (0.408)	7435	100.000	108.15
200 Dimethyl Disulfide	94	6.202	6.202 (0.809)	55123	5.00000	4.38(a)

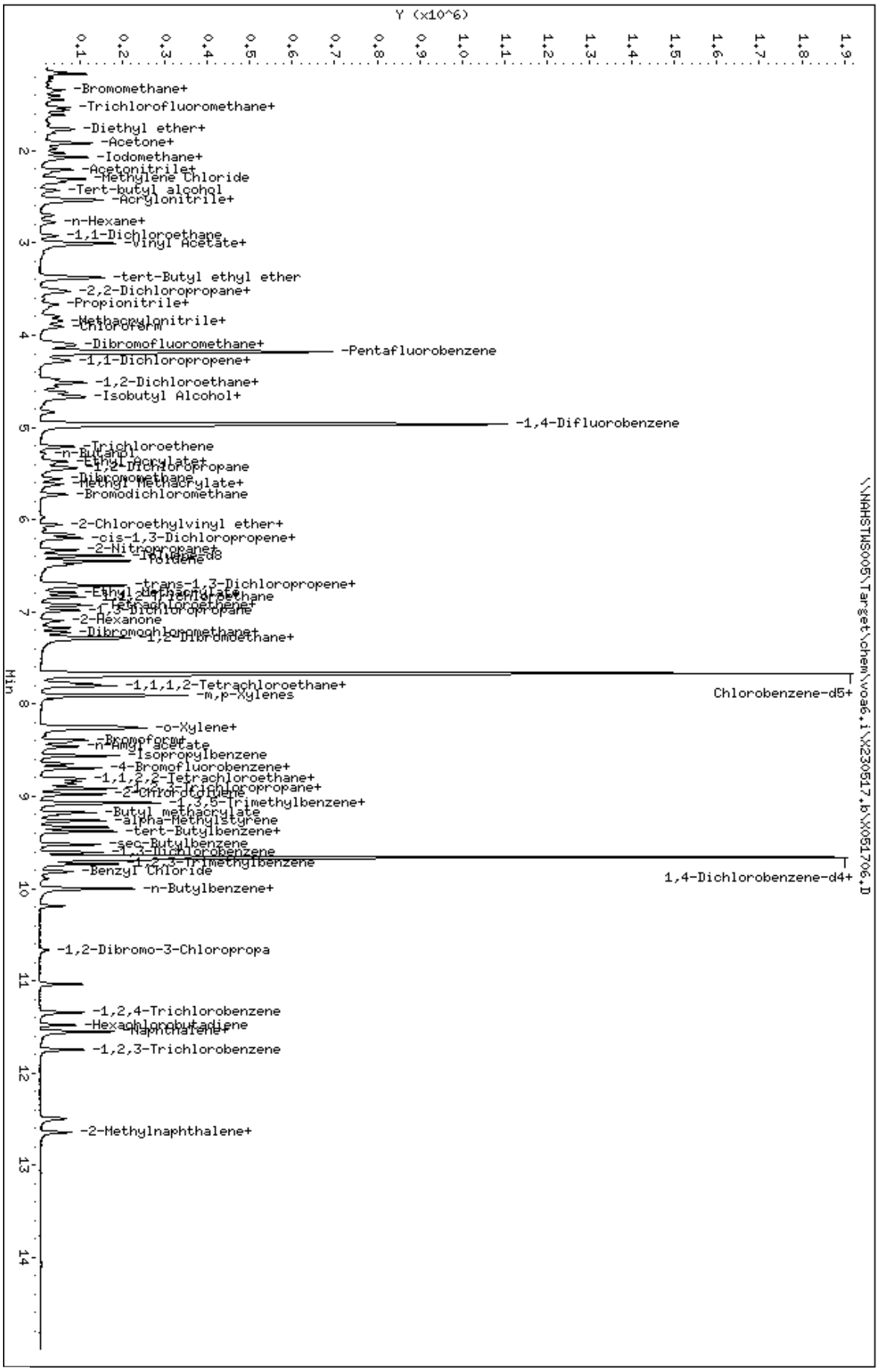
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	182 Epichlorohydrin	57	6.104	6.104	(1.230)	11378	20.0000	18.70
	164 Dicyclopentadiene	66	9.681	9.681	(1.002)	99989	5.00000	4.23(aM)
	166 1,2,3-Trimethylbenzene	105	9.733	9.733	(1.007)	88116	5.00000	4.36(a)
	205 2-Ethylhexyl Acrylate	55	11.551	11.551	(1.196)	34625	5.00000	4.16(aM)
	86 Benzyl Chloride	91	9.816	9.816	(1.280)	58489	5.00000	4.35(aM)
	134 Cyclohexanone	55	8.646	8.646	(0.895)	28595	100.000	104.31(a)
	133 Ethyl Acrylate	55	5.396	5.396	(1.292)	55584	5.00000	5.05(M)
	163 Butyl methacrylate	41	9.174	9.174	(0.950)	32854	5.00000	4.25(aM)
	188 Isopropyl acetate	43	4.676	4.676	(0.942)	76066	5.00000	4.74(a)
	189 n-Butyl acetate	43	7.218	7.218	(0.941)	46239	5.00000	4.71(aH)
	2 Dichlorodifluoromethane	85	0.976	0.976	(0.234)	22495	5.00000	4.63(a)
	3 Chloromethane	50	1.081	1.081	(0.259)	35696	5.00000	4.41(a)
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	32813	5.00000	4.30(a)
	6 Bromomethane	94	1.340	1.340	(0.321)	20042	5.00000	5.28
	7 Chloroethane	64	1.404	1.404	(0.336)	21963	5.00000	4.61(a)
	8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	32123	5.00000	4.00(a)
	9 Acrolein	56	1.449	1.449	(0.347)	3889	10.0000	8.07(aM)
	10 Acetone	43	1.977	1.977	(0.473)	25117	10.0000	8.72
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	21385	5.00000	4.21(a)
	15 Iodomethane	142	2.026	2.026	(0.485)	43279	10.0000	8.46
	16 Acrylonitrile	53	2.551	2.551	(0.611)	17751	10.0000	9.33(a)
	17 Methylene Chloride	84	2.307	2.307	(0.552)	31334	5.00000	5.19
	18 Methyl tert-butyl ether	73	2.536	2.536	(0.607)	75920	5.00000	4.79(a)
	19 Carbon Disulfide	76	2.071	2.071	(0.496)	135113	10.0000	8.48
	20 trans-1,2-Dichloroethene	96	2.536	2.536	(0.607)	23759	5.00000	4.51(a)
	21 Vinyl Acetate	43	3.008	3.008	(0.720)	146396	10.0000	9.99
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	44261	5.00000	4.58(a)
	24 2-Butanone	43	3.600	3.600	(0.862)	15924	10.0000	8.31(M)
	26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	32480	5.00000	4.28(a)
	27 cis-1,2-Dichloroethene	96	3.533	3.533	(0.846)	30060	5.00000	4.85(a)
	28 Chloroform	83	3.908	3.908	(0.935)	44879	5.00000	4.69(a)
	29 Bromochloromethane	128	3.795	3.795	(0.908)	15175	5.00000	4.64(a)
$	30 Dibromofluoromethane	113	4.099	4.099	(0.981)	30264	5.00000	5.03
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	32878	5.00000	4.46(a)
	32 1,1-Dichloropropene	75	4.283	4.283	(0.863)	30493	5.00000	4.15(a)
	33 1,2-Dichloroethane	62	4.560	4.560	(0.918)	33658	5.00000	4.62(a)
	34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	28933	5.00000	4.27(aM)
$	35 1,2-Dichloroethane-d4	65	4.477	4.477	(1.072)	29580	5.00000	4.87(aM)
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	932210	50.0000	
	37 Benzene	78	4.515	4.515	(0.909)	103238	5.00000	4.35(a)
	38 Trichloroethene	130	5.208	5.208	(1.049)	28239	5.00000	4.41(a)
	39 Bromodichloromethane	83	5.726	5.726	(1.153)	37494	5.00000	4.61(a)
	42 1,2-Dichloropropane	63	5.437	5.437	(1.095)	31894	5.00000	4.73(a)
	44 Dibromomethane	93	5.553	5.553	(1.119)	18900	5.00000	4.62(a)
	45 4-Methyl-2-Pentanone	43	6.329	6.329	(0.825)	57467	10.0000	9.47
	46 cis-1,3-Dichloropropene	75	6.161	6.161	(1.241)	47681	5.00000	4.39(a)
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	881514	50.0000	
$	48 Toluene-d8	98	6.389	6.389	(0.833)	119669	5.00000	5.32
	50 Toluene	91	6.449	6.449	(0.841)	111957	5.00000	4.52(a)
	51 trans-1,3-Dichloropropene	75	6.689	6.689	(1.347)	39645	5.00000	4.57(a)
	52 2-Hexanone	43	7.094	7.094	(0.925)	37760	10.0000	9.10(H)
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	24499	5.00000	4.85(a)

54	1,3-Dichloropropane	76	6.982	6.982 (0.911)	49707	5.00000	4.72(a)
55	Dibromochloromethane	129	7.176	7.176 (0.936)	31758	5.00000	4.63(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	21227	5.00000	4.42(a)
	57 1,2-Dibromoethane	107	7.263	7.263	(0.947)	28720	5.00000	4.66(a)
	58 1-Chlorohexane	55	7.698	7.698	(1.550)	19611	5.00000	5.15(H)
	59 Chlorobenzene	112	7.694	7.694	(1.003)	78288	5.00000	4.57(a)
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	26950	5.00000	4.48(a)
	61 Ethylbenzene	106	7.802	7.802	(1.018)	35228	5.00000	4.18(a)
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	93356	10.0000	8.90(a)
	63 o-Xylene	106	8.245	8.245	(1.075)	45752	5.00000	4.46(a)
	64 Styrene	104	8.267	8.267	(1.078)	79308	5.00000	4.62(a)
	66 Bromoform	173	8.410	8.410	(1.097)	22090	5.00000	4.76(a)
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	104613	5.00000	4.25(a)
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	40039	5.00000	5.40
$	69 4-Bromofluorobenzene	95	8.691	8.691	(1.133)	42837	5.00000	5.06
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	448137	50.0000	
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	27423	5.00000	4.78(a)
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	115202	5.00000	4.14(a)
	74 Bromobenzene	156	8.811	8.811	(0.912)	33236	5.00000	4.75(a)
	75 1,3,5-Trimethylbenzene	105	9.070	9.070	(0.939)	83708	5.00000	4.16(a)
	76 2-Chlorotoluene	91	8.976	8.976	(0.929)	78603	5.00000	4.35(a)
	77 4-Chlorotoluene	91	9.077	9.077	(0.939)	87904	5.00000	4.43(a)
	78 tert-Butylbenzene	119	9.332	9.332	(0.966)	67322	5.00000	3.97(a)
	79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	87010	5.00000	4.22(a)
	81 sec-Butylbenzene	105	9.523	9.523	(0.986)	90348	5.00000	3.82(a)
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	79651	5.00000	3.90(a)
	83 1,3-Dichlorobenzene	146	9.609	9.609	(0.995)	55362	5.00000	4.39(a)
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	59461	5.00000	4.48(a)
	87 n-Butylbenzene	91	9.999	9.999	(1.035)	65525	5.00000	3.75(a)
	88 1,2-Dichlorobenzene	146	9.999	9.999	(1.035)	56187	5.00000	4.48(a)
	89 1,2-Dibromo-3-Chloropropane	155	10.670	10.670	(1.104)	6381	5.00000	4.44(a)
	90 1,2,4-Trichlorobenzene	180	11.345	11.345	(1.174)	37189	5.00000	4.28(a)
	92 Naphthalene	128	11.551	11.551	(1.196)	94513	5.00000	4.38(a)
	93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	35649	5.00000	4.19(a)
M	94 1,2-Dichloroethylene (total)	96				53819	10.0000	(a)
	141 Cyclohexane	56	4.121	4.121	(0.987)	28246	5.00000	3.92(aH)
	138 Freon TF	101	1.917	1.917	(0.459)	18404	5.00000	4.32(a)
	147 Methylcyclohexane	55	5.396	5.396	(1.087)	54469	5.00000	3.79(aM)
	146 Methyl Acetate	43	2.247	2.247	(0.538)	16281	5.00000	4.78(a)
	148 Tert-Butyl alcohol	59	2.431	2.431	(0.582)	54877	100.000	96.53
	149 Isopropyl Alcohol	45	2.097	2.097	(0.502)	33341	100.000	94.69(T)

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.
H - Operator selected an alternate compound hit.



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Sample Info: VSTD005;VSTD005;1;5;
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Column phase: DB624

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

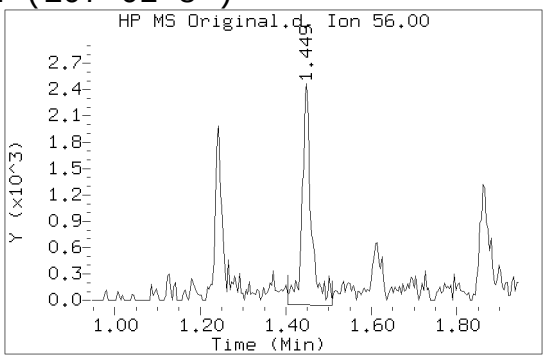
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LabSampID : VSTD005

Acrolein (107-02-8)

Reason Code:

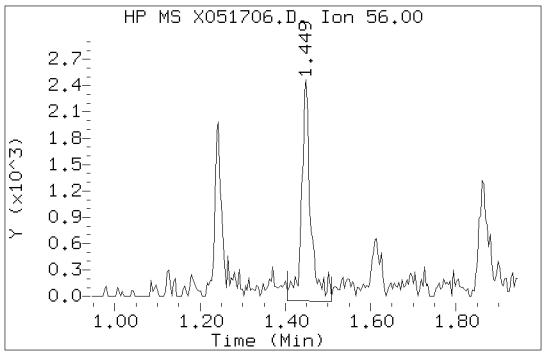
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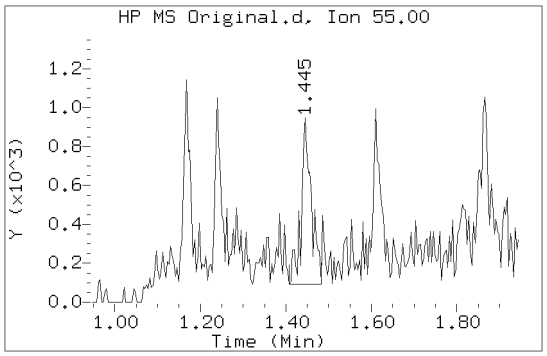
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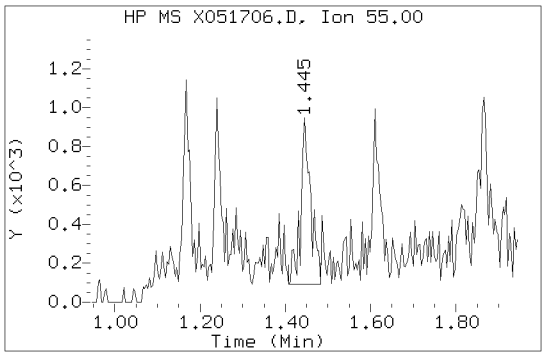
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AFTER

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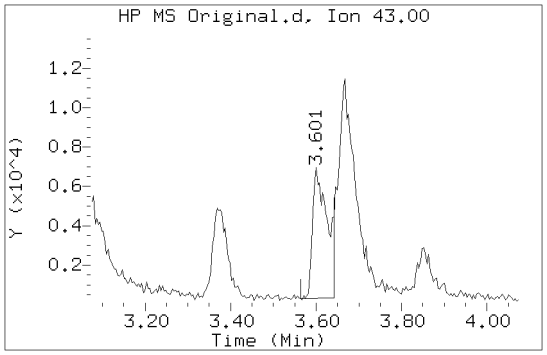


2-Butanone (78-93-3)

Reason Code:

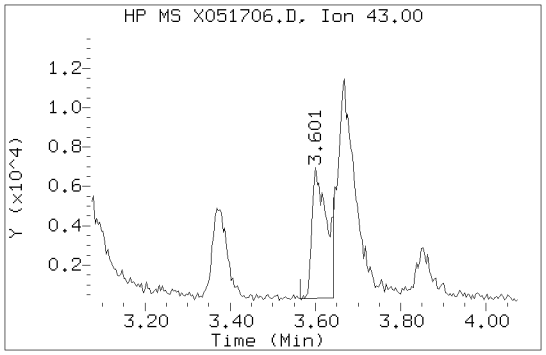
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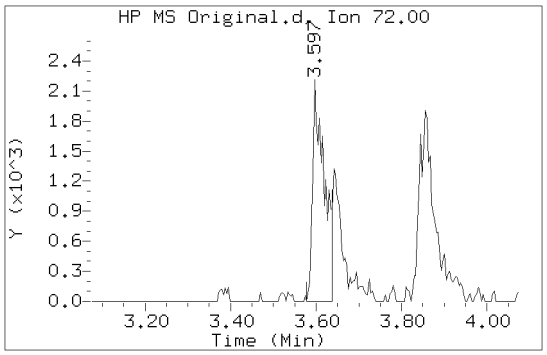
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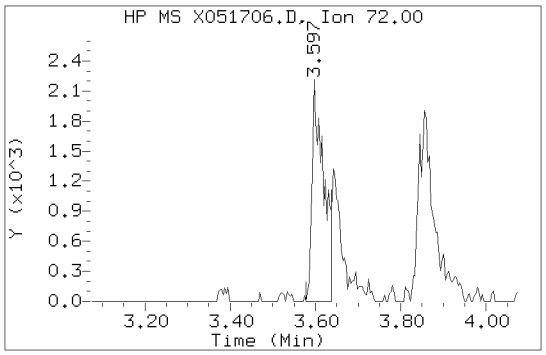
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HEIGHT
2213
18-May-2023
13:42
linh
pham



AFTER

MASS
72
AREA
4231
HEIGHT
2213
18-May-2023
13:42
linh
pham

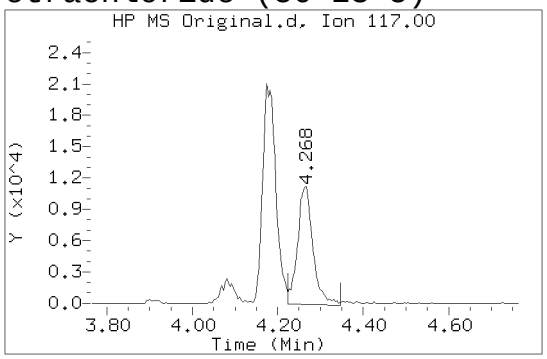


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051706.D
Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

Carbon Tetrachloride (56-23-5)

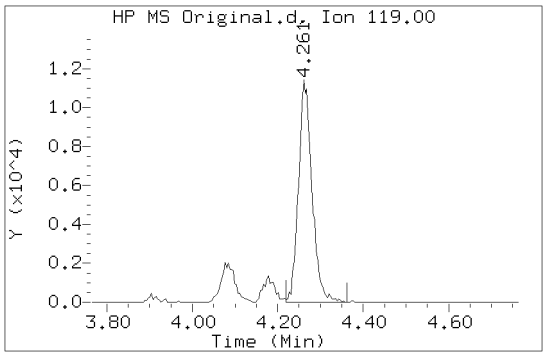
BEFORE

MASS
117
AREA
28933
HEIGHT
11295
18-May-2023
13:42
linh
pham



BEFORE

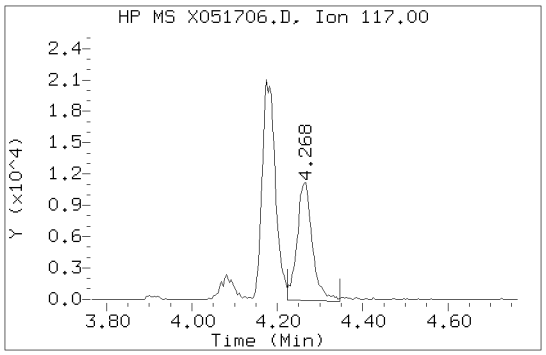
MASS
119
AREA
25597
HEIGHT
11427
18-May-2023
13:42
linh
pham



Reason Code:

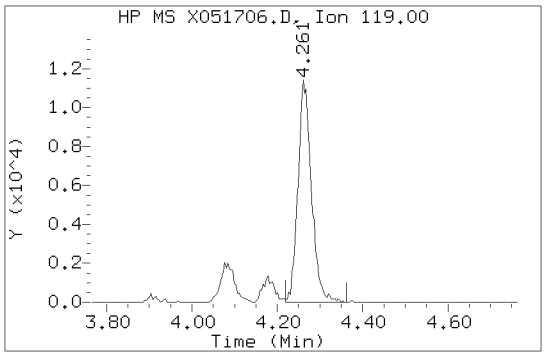
AFTER

MASS
117
AREA
28933
HEIGHT
11295
18-May-2023
13:42
linh
pham



AFTER

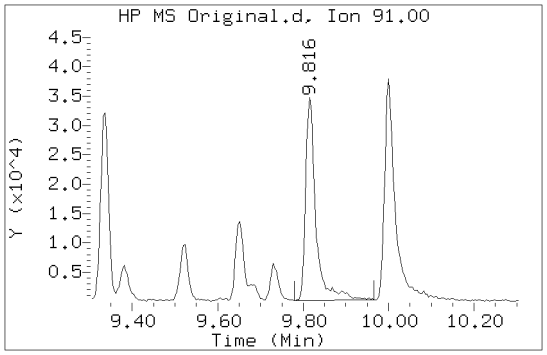
MASS
119
AREA
25597
HEIGHT
11427
18-May-2023
13:42
linh
pham



Benzyl Chloride (100-44-7)

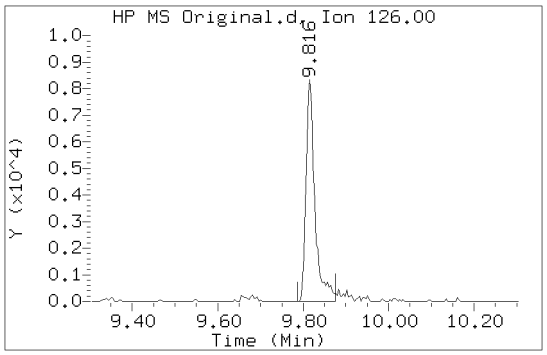
BEFORE

MASS
91
AREA
58489
HEIGHT
34563
18-May-2023
13:42
linh
pham



BEFORE

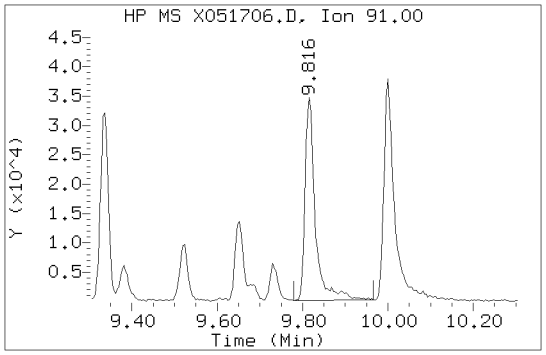
MASS
126
AREA
12237
HEIGHT
8341
18-May-2023
13:42
linh
pham



Reason Code:

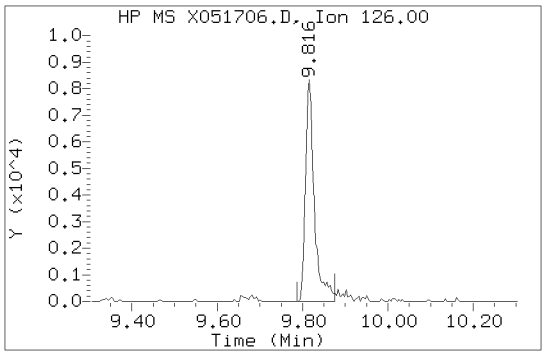
AFTER

MASS
91
AREA
58489
HEIGHT
34563
18-May-2023
13:42
linh
pham



AFTER

MASS
126
AREA
12237
HEIGHT
8341
18-May-2023
13:42
linh
pham



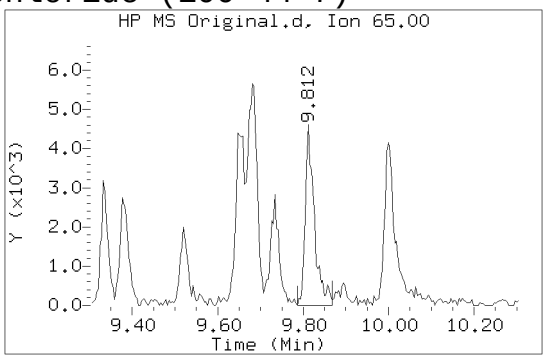
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051706.D
Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

Benzyl Chloride (100-44-7)

Reason Code:

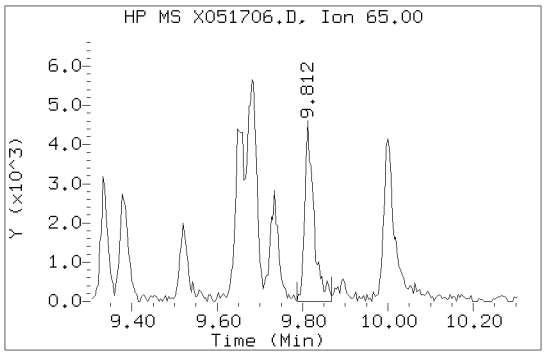
BEFORE

MASS
65
AREA
6923
HEIGHT
4605
18-May-2023
13:42
linh
pham



AFTER

MASS
65
AREA
6923
HEIGHT
4605
18-May-2023
13:42
linh
pham

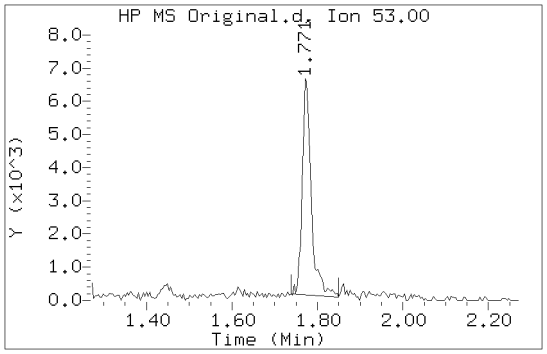


Chloroprene (126-99-8)

Reason Code:

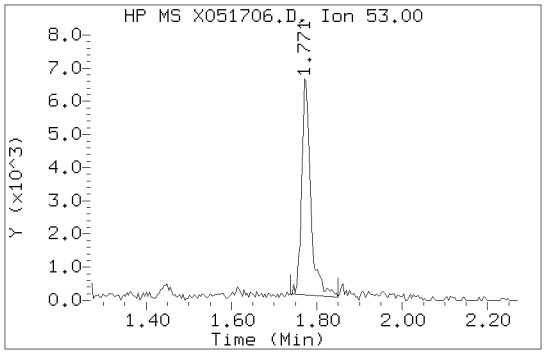
BEFORE

MASS
53
AREA
9821
HEIGHT
6510
18-May-2023
13:42
linh
pham



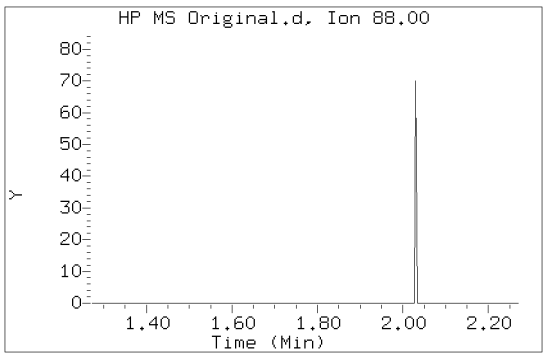
AFTER

MASS
53
AREA
9821
HEIGHT
6510
18-May-2023
13:42
linh
pham



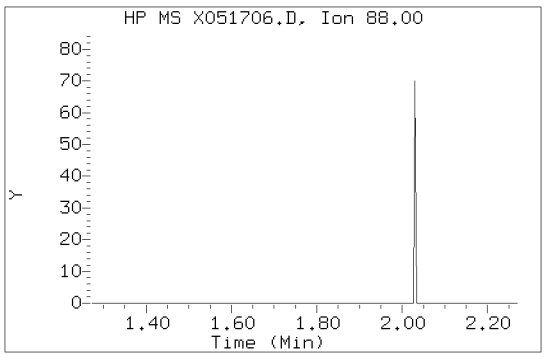
BEFORE

MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham

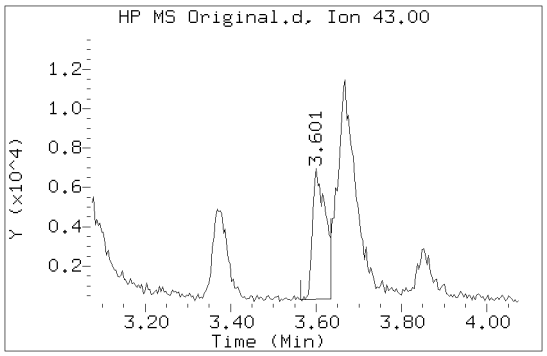


Ethyl Acetate (141-78-6)

Reason Code:

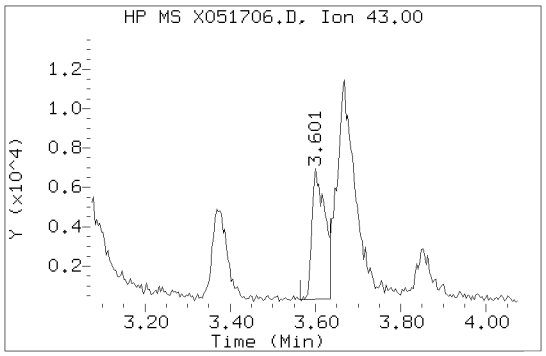
BEFORE

MASS
43
AREA
14059
HEIGHT
6630
18-May-2023
13:42
linh
pham



AFTER

MASS
43
AREA
14059
HEIGHT
6630
18-May-2023
13:42
linh
pham



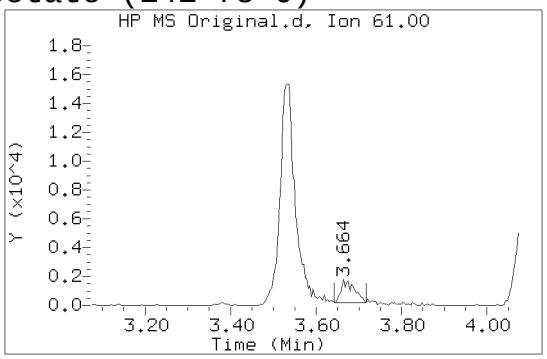
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051706.D
Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

Ethyl Acetate (141-78-6)

Reason Code:

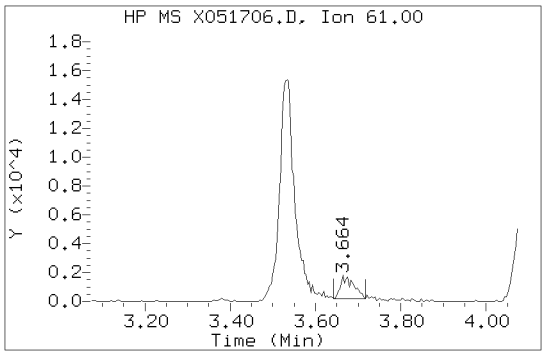
BEFORE

MASS
61
AREA
3344
HEIGHT
1655
18-May-2023
13:42
linh
pham



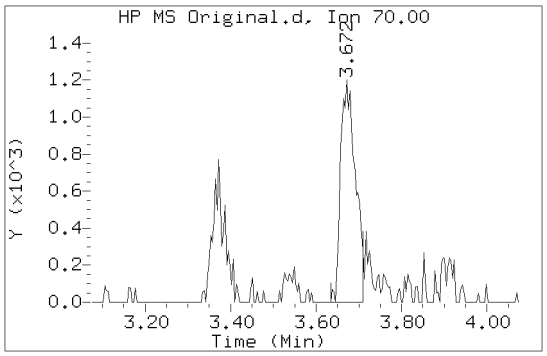
AFTER

MASS
61
AREA
3344
HEIGHT
1655
18-May-2023
13:42
linh
pham



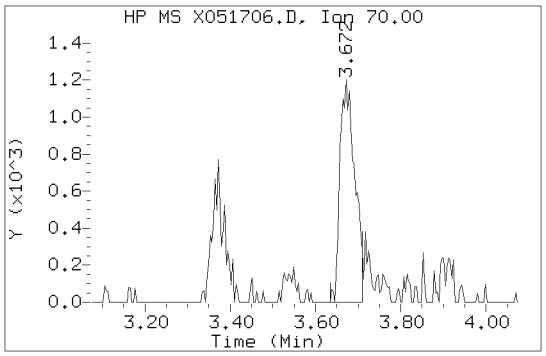
BEFORE

MASS
70
AREA
2895
HEIGHT
1201
18-May-2023
13:42
linh
pham



AFTER

MASS
70
AREA
2895
HEIGHT
1201
18-May-2023
13:42
linh
pham

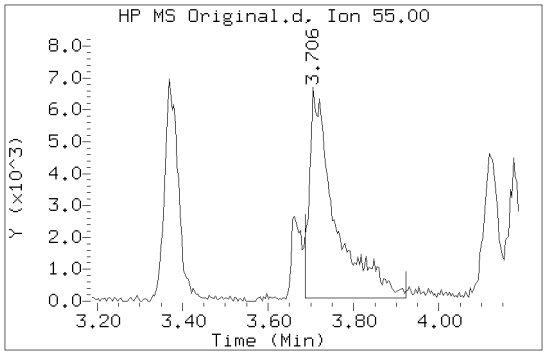


Methyl Acrylate (96-33-3)

Reason Code:

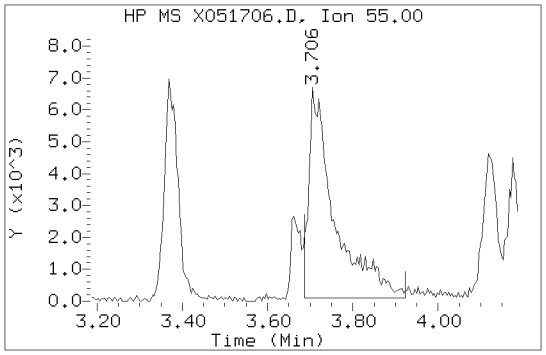
BEFORE

MASS
55
AREA
27646
HEIGHT
6609
18-May-2023
13:42
linh
pham



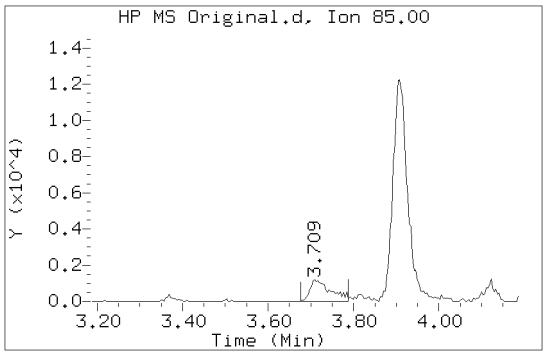
AFTER

MASS
55
AREA
27646
HEIGHT
6609
18-May-2023
13:42
linh
pham



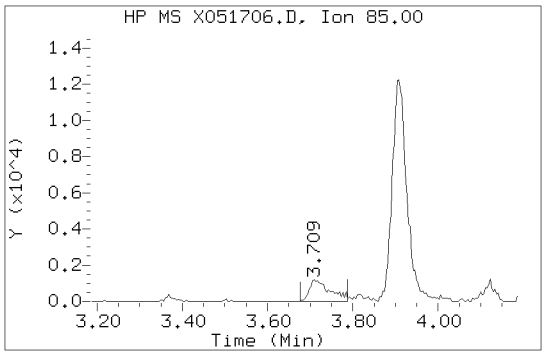
BEFORE

MASS
85
AREA
3986
HEIGHT
1204
18-May-2023
13:42
linh
pham



AFTER

MASS
85
AREA
3986
HEIGHT
1204
18-May-2023
13:42
linh
pham



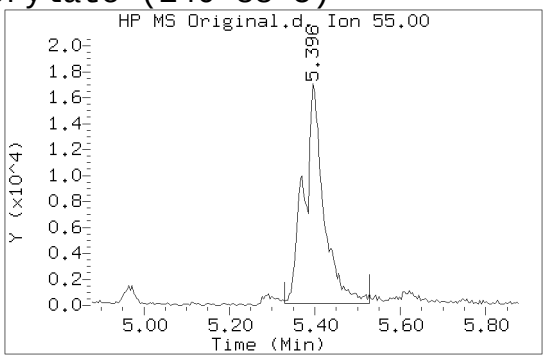
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Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

Ethyl Acrylate (140-88-5)

Reason Code:

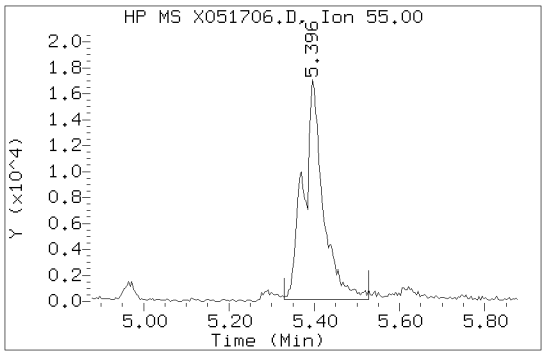
BEFORE

MASS
55
AREA
55584
HEIGHT
16945
18-May-2023
13:42
linh
pham



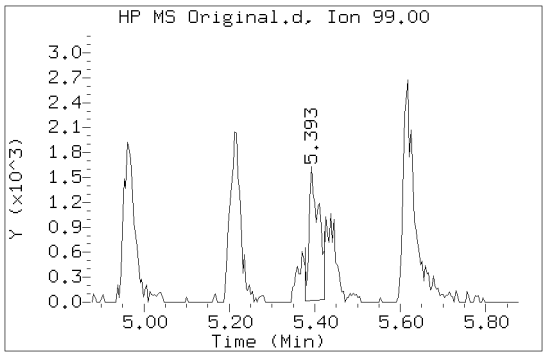
AFTER

MASS
55
AREA
55584
HEIGHT
16945
18-May-2023
13:42
linh
pham



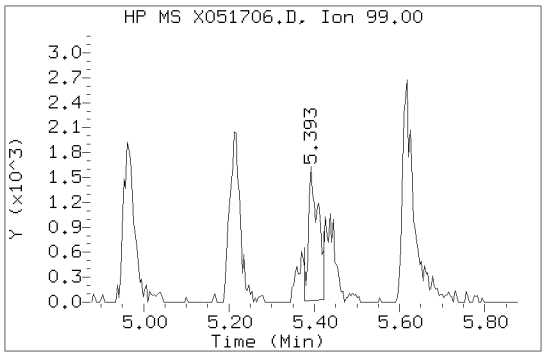
BEFORE

MASS
99
AREA
2612
HEIGHT
1609
18-May-2023
13:42
linh
pham



AFTER

MASS
99
AREA
2612
HEIGHT
1609
18-May-2023
13:42
linh
pham

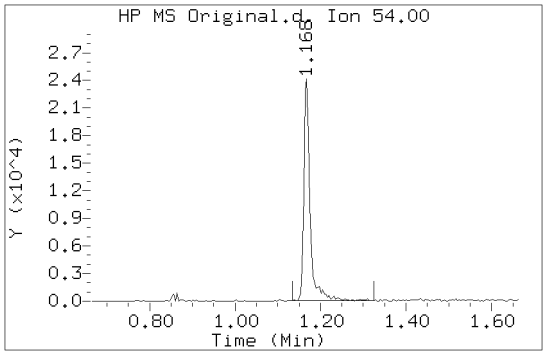


1,3-Butadiene (106-99-0)

Reason Code:

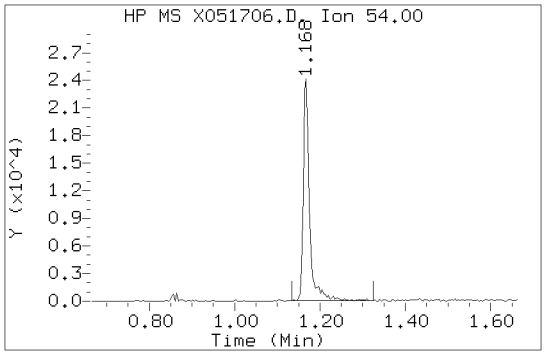
BEFORE

MASS
54
AREA
25381
HEIGHT
24090
18-May-2023
13:42
linh
pham



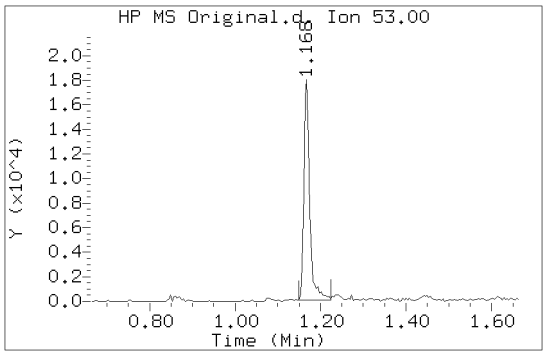
AFTER

MASS
54
AREA
25381
HEIGHT
24090
18-May-2023
13:42
linh
pham



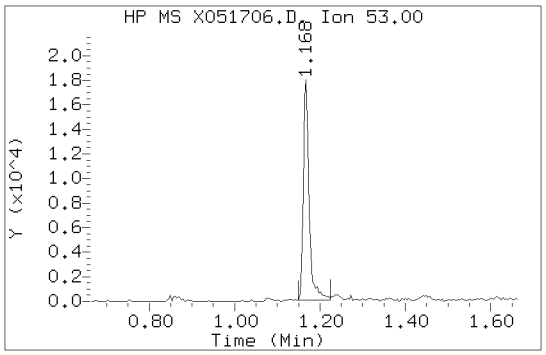
BEFORE

MASS
53
AREA
17532
HEIGHT
17927
18-May-2023
13:42
linh
pham



AFTER

MASS
53
AREA
17532
HEIGHT
17927
18-May-2023
13:42
linh
pham

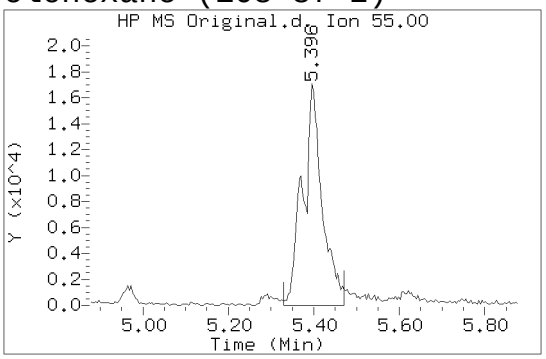


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051706.D
Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

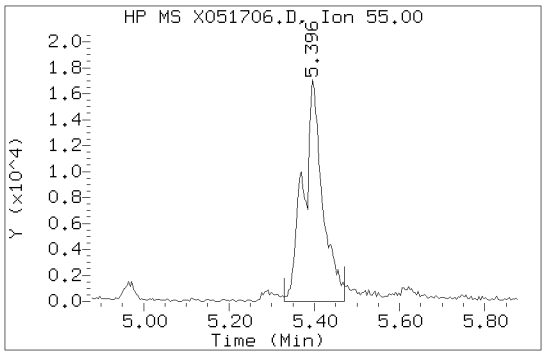
Methylcyclohexane (108-87-2)

Reason Code:

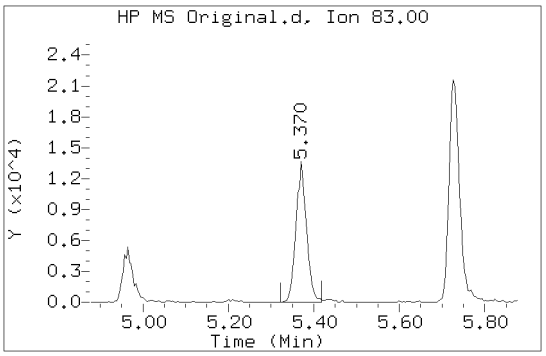
BEFORE
MASS
55
AREA
54469
HEIGHT
17080
18-May-2023
13:42
linh
pham



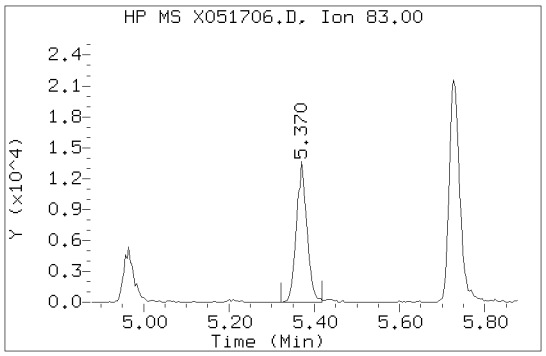
AFTER
MASS
55
AREA
54469
HEIGHT
17080
18-May-2023
13:42
linh
pham



BEFORE
MASS
83
AREA
23902
HEIGHT
13676
18-May-2023
13:42
linh
pham



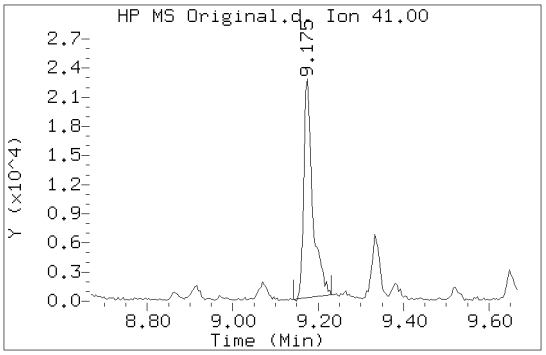
AFTER
MASS
83
AREA
23902
HEIGHT
13676
18-May-2023
13:42
linh
pham



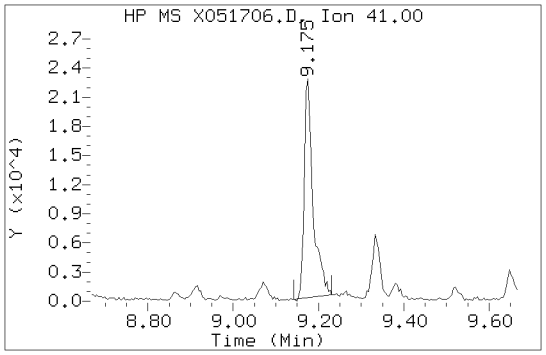
Butyl methacrylate (97-88-1)

Reason Code:

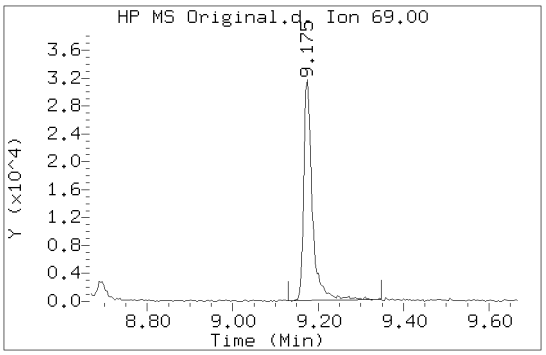
BEFORE
MASS
41
AREA
32854
HEIGHT
22485
18-May-2023
13:42
linh
pham



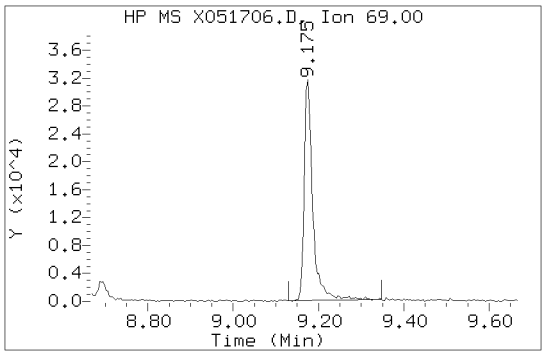
AFTER
MASS
41
AREA
32854
HEIGHT
22485
18-May-2023
13:42
linh
pham



BEFORE
MASS
69
AREA
45047
HEIGHT
31613
18-May-2023
13:42
linh
pham



AFTER
MASS
69
AREA
45047
HEIGHT
31613
18-May-2023
13:42
linh
pham

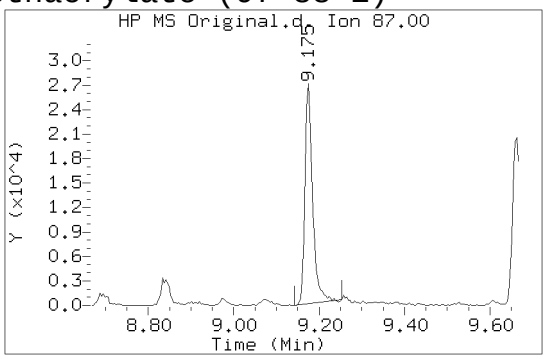


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Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

Butyl methacrylate (97-88-1)

BEFORE

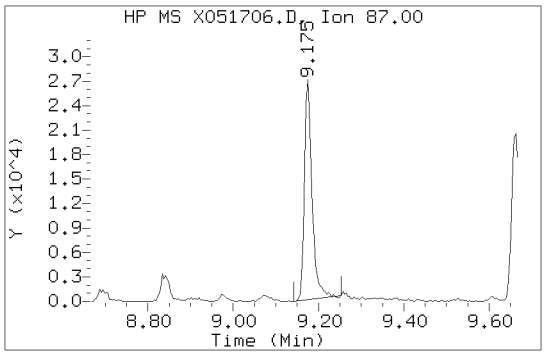
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HEIGHT
26973
18-May-2023
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AFTER

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18-May-2023
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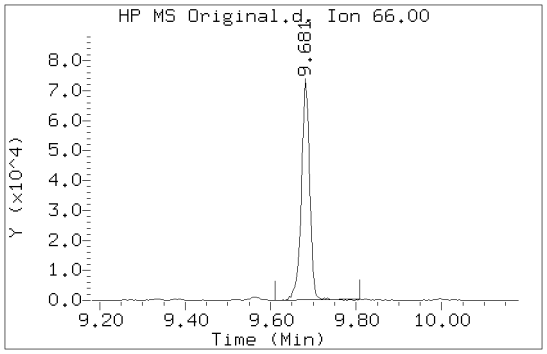
Reason Code:



Dicyclopentadiene (77-73-6)

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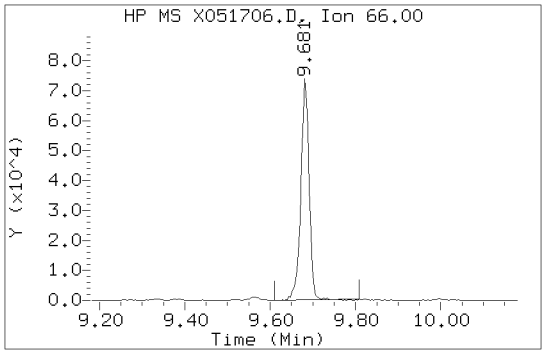
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AFTER

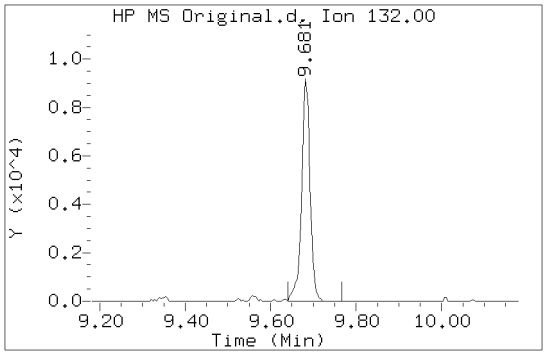
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Reason Code:



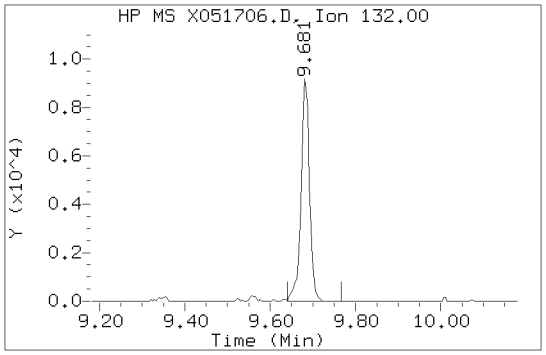
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AFTER

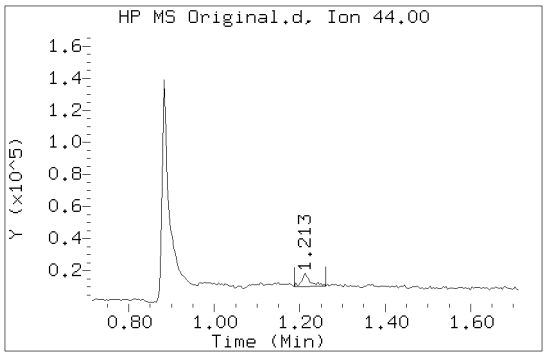
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Acetaldehyde (75-07-0)

BEFORE

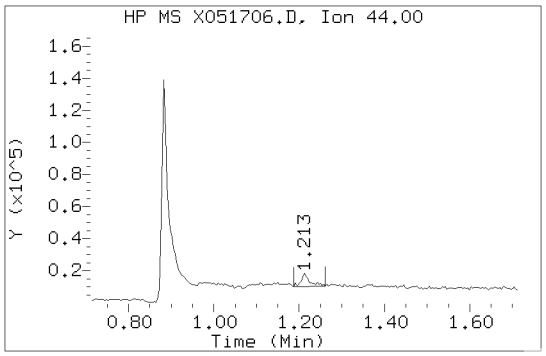
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AFTER

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18-May-2023
13:42
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Reason Code:

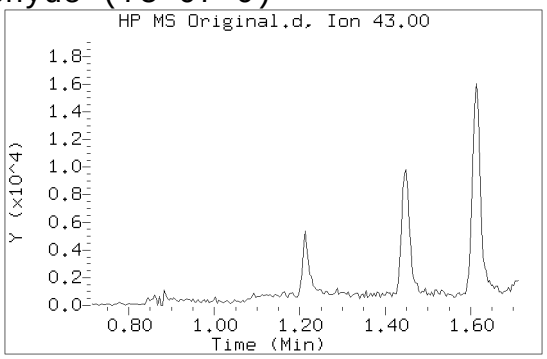


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LabSampID : VSTD005

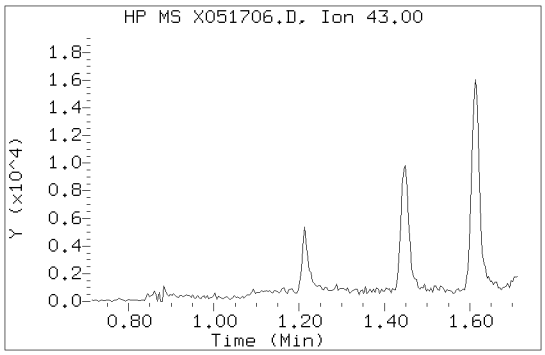
Acetaldehyde (75-07-0)

Reason Code:

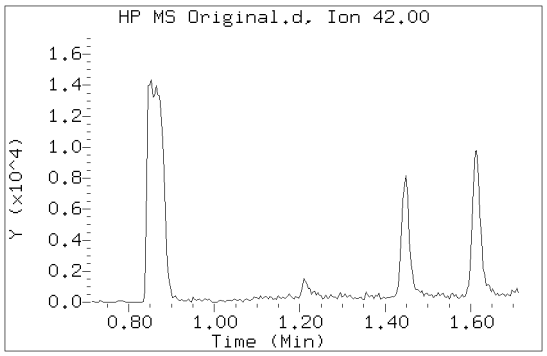
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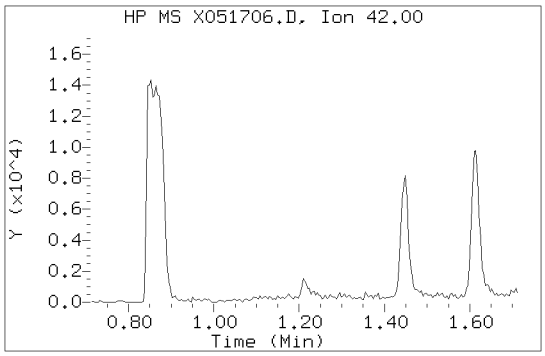
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BEFORE
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18-May-2023
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pham



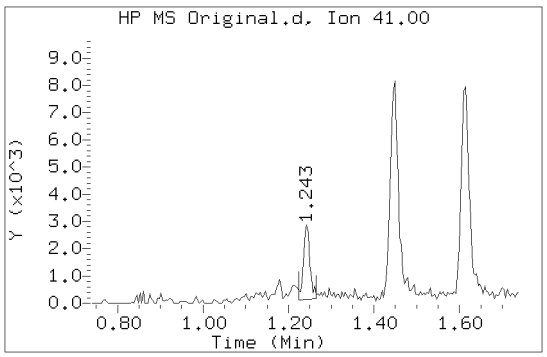
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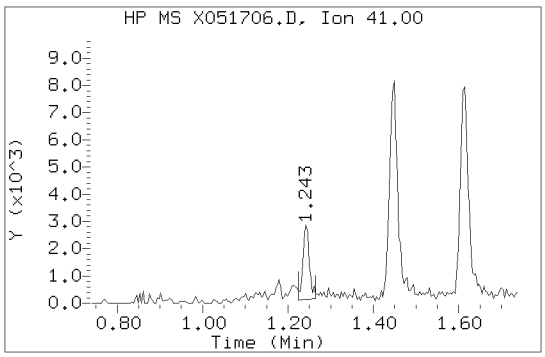
Isobutylene (115-11-7)

Reason Code:

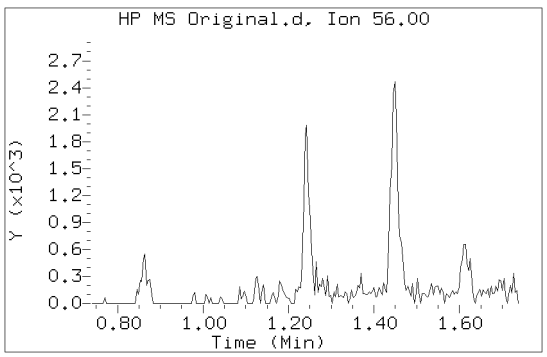
BEFORE
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HEIGHT
2738
18-May-2023
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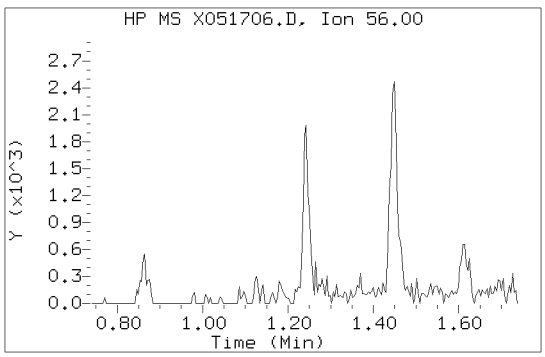
AFTER
MASS
41
AREA
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HEIGHT
2738
18-May-2023
13:42
linh
pham



BEFORE
MASS
56
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



AFTER
MASS
56
AREA
0
HEIGHT
0
18-May-2023
13:42
linh
pham



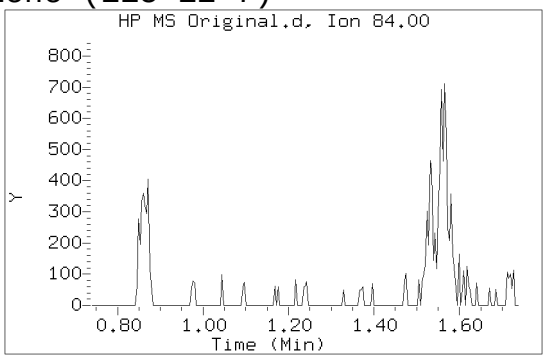
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Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

Isobutylene (115-11-7)

Reason Code:

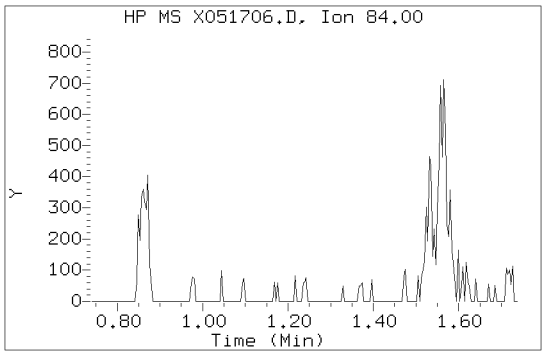
BEFORE

MASS
84
AREA
0
HEIGHT
0
18-May-2023
13:42
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AFTER

MASS
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HEIGHT
0
18-May-2023
13:42
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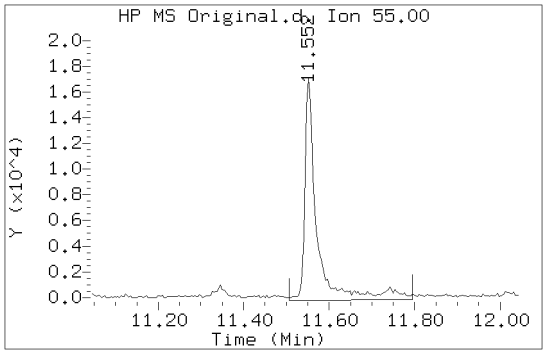


2-Ethylhexyl Acrylate (103-11-7)

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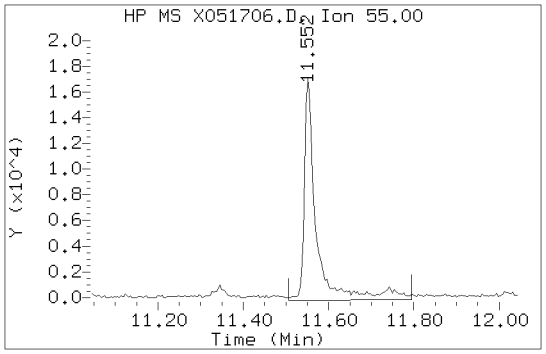
BEFORE

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18-May-2023
13:42
linh
pham



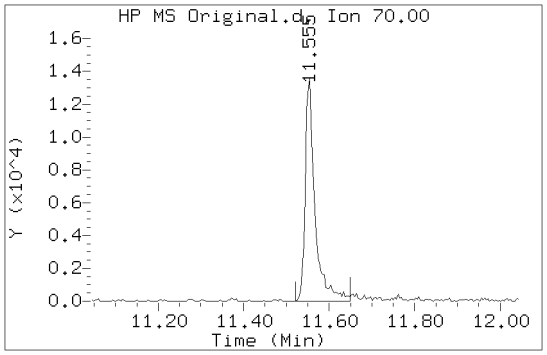
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18-May-2023
13:42
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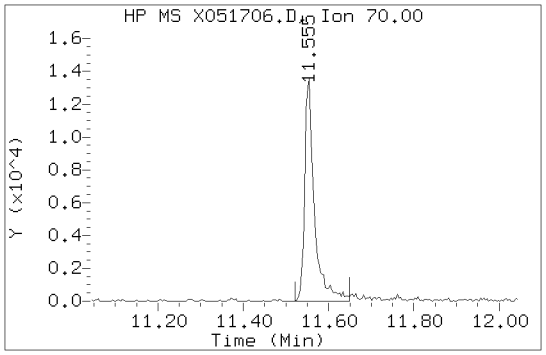
BEFORE

MASS
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13540
18-May-2023
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AFTER

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18-May-2023
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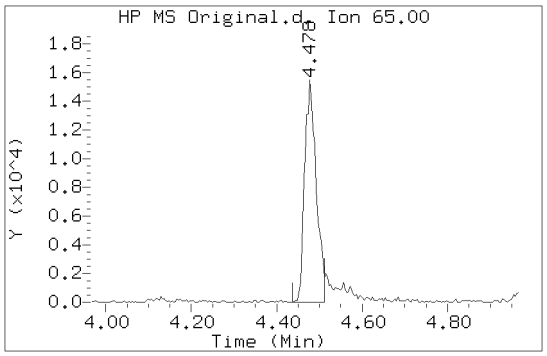


1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

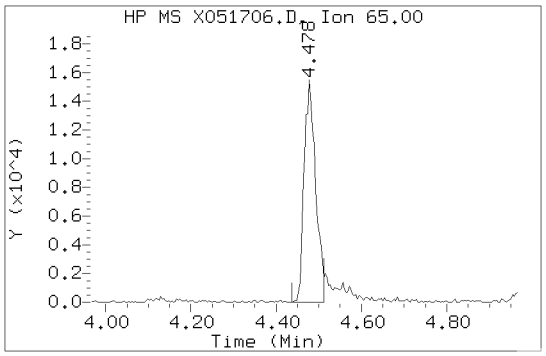
BEFORE

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18-May-2023
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AFTER

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18-May-2023
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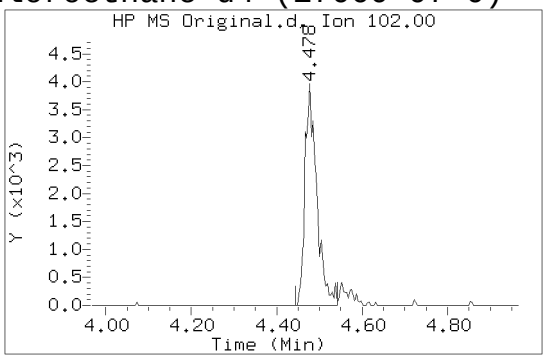
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Inj Date : 17-MAY-2023 14:02
InstruID : voa6.i
LabSampID : VSTD005

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

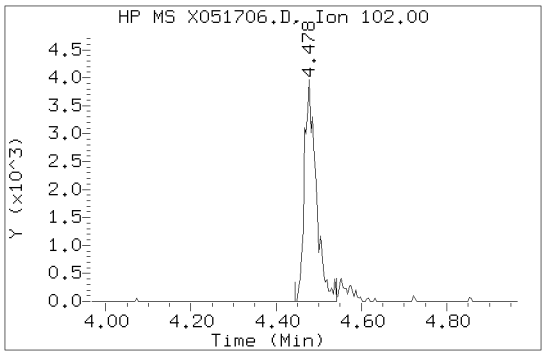
BEFORE

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18-May-2023
13:42
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pham



AFTER

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102
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HEIGHT
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18-May-2023
13:42
linh
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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051707.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051707.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 17-MAY-2023 14:23
Operator : PC Inst ID: voa6.i
Smp Info : VSTD020;VSTD020;1;6;
Misc Info : V6;WATER;0;1;
Comment   :
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Meth Date : 18-May-2023 13:43 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:02 Cal File: X051706.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.177	4.177	(1.000)	578759	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	29040	400.000	370.49(a)
140 1,3-Butadiene	54	1.167	1.167	(0.280)	126285	20.0000	20.61
25 Methacrylonitrile	41	3.821	3.821	(0.915)	100457	20.0000	19.47
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	307677	400.000	407.83
13 Acetonitrile	39	2.202	2.202	(0.527)	107763	200.000	193.40
14 Allyl Chloride	41	2.202	2.202	(0.527)	269170	20.0000	19.15
4 Propionitrile	54	3.653	3.653	(0.874)	162030	200.000	204.15(a)
72 trans-1,4-Dichloro-2-butene	53	8.889	8.889	(1.159)	42270	20.0000	22.06
194 Acetaldehyde	44	1.212	1.212	(0.290)	37259	80.0000	86.43(M)
23 Chloroprene	53	1.771	1.771	(0.424)	47990	20.0000	20.54(M)
130 Ethyl Acetate	43	3.581	3.581	(0.857)	80009	20.0000	19.47(M)
40 Methyl Methacrylate	41	5.606	5.606	(1.342)	99816	20.0000	19.73
49 Ethyl Methacrylate	69	6.786	6.786	(1.368)	181158	20.0000	19.68
131 Methyl Acrylate	55	3.690	3.690	(0.883)	107874	20.0000	19.15
132 n-Butanol	56	5.261	5.261	(1.259)	50896	400.000	351.76(a)
136 n-Hexane	57	2.772	2.772	(0.664)	108733	20.0000	22.15
139 Diethyl ether	59	1.756	1.756	(0.420)	92698	20.0000	18.74
142 Tetrahydrofuran	42	3.844	3.844	(0.920)	36967	40.0000	38.74
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	198492	20.0000	19.86

156	Diisopropyl ether	45	3.000	3.000 (0.718)	340156	20.0000	19.42
162	Butyl acrylate	55	8.252	8.252 (1.076)	253533	20.0000	20.67

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051707.D Page 2
Report Date: 18-May-2023 13:43

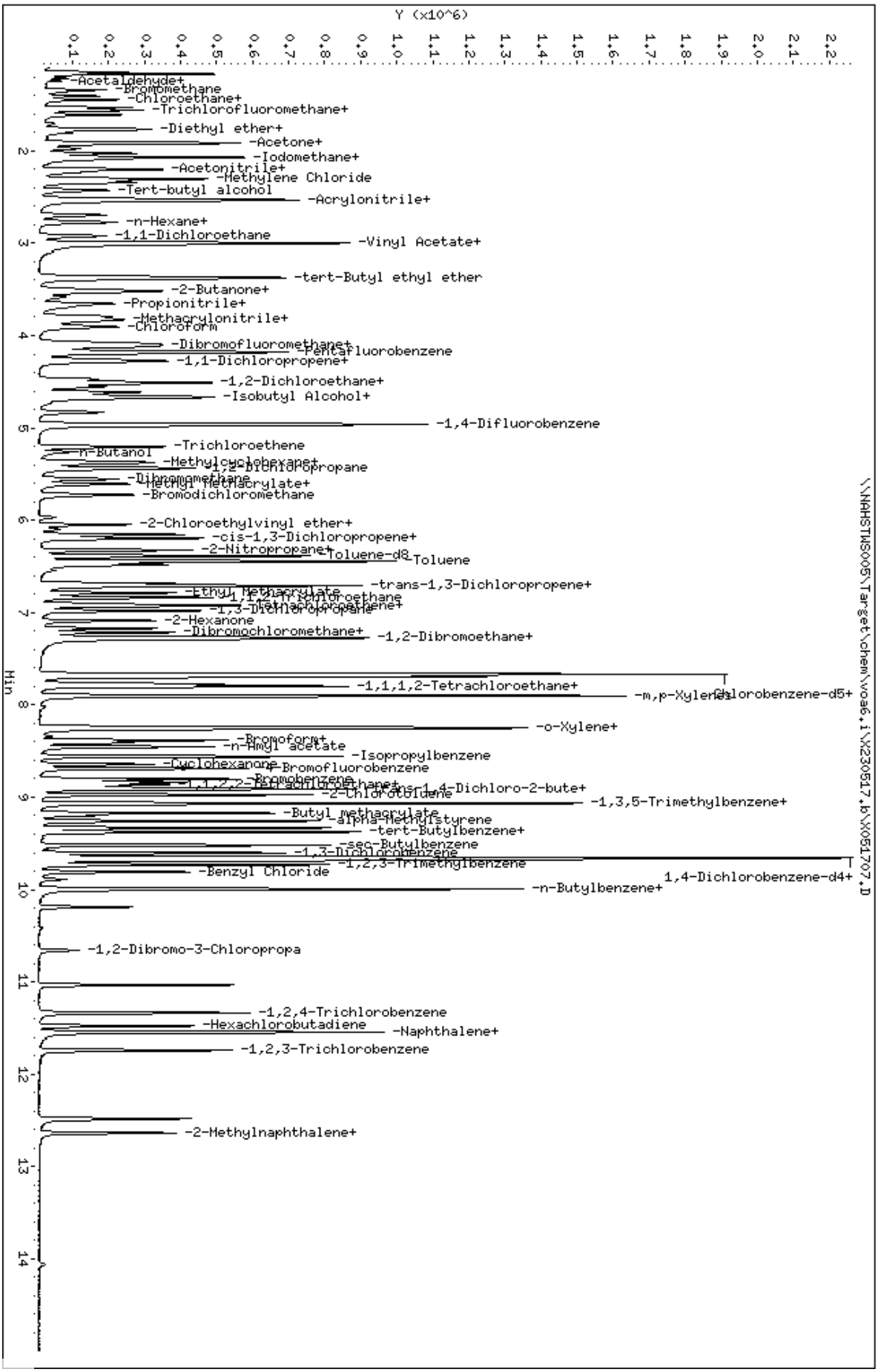
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	167 Ethanol	45	1.703	1.703	(0.408)	27907	400.000	407.79
	200 Dimethyl Disulfide	94	6.194	6.194	(0.808)	241078	20.0000	19.61
	182 Epichlorohydrin	57	6.097	6.097	(1.229)	47092	80.0000	80.11
	164 Dicyclopentadiene	66	9.680	9.680	(1.002)	426618	20.0000	17.68(M)
	166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	369921	20.0000	17.91
	205 2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	140691	20.0000	16.55(M)
	86 Benzyl Chloride	91	9.808	9.808	(1.279)	267737	20.0000	20.37
	134 Cyclohexanone	55	8.642	8.642	(0.894)	113707	400.000	406.78(a)
	202 Isobutylene	41	1.242	1.242	(0.297)	13487	20.0000	17.22(M)
	133 Ethyl Acrylate	55	5.381	5.381	(1.288)	241025	20.0000	17.15
	163 Butyl methacrylate	41	9.167	9.167	(0.949)	157094	20.0000	19.87(M)
	188 Isopropyl acetate	43	4.672	4.672	(0.942)	309723	20.0000	19.97
	189 n-Butyl acetate	43	7.214	7.214	(0.941)	223924	20.0000	23.35(H)
	2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	119708	20.0000	21.79
	3 Chloromethane	50	1.077	1.077	(0.258)	153387	20.0000	18.88
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	155556	20.0000	20.29
	6 Bromomethane	94	1.340	1.340	(0.321)	79030	20.0000	19.94
	7 Chloroethane	64	1.403	1.403	(0.336)	96780	20.0000	20.22
	8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	169259	20.0000	20.97
	9 Acrolein	56	1.448	1.448	(0.347)	15808	40.0000	32.64
	10 Acetone	43	1.973	1.973	(0.472)	87346	40.0000	40.88
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	103706	20.0000	20.32
	15 Iodomethane	142	2.026	2.026	(0.485)	256751	40.0000	37.86
	16 Acrylonitrile	53	2.536	2.536	(0.607)	82278	40.0000	43.05
	17 Methylene Chloride	84	2.303	2.303	(0.551)	125412	20.0000	20.67
	18 Methyl tert-butyl ether	73	2.536	2.536	(0.607)	304630	20.0000	19.13
	19 Carbon Disulfide	76	2.071	2.071	(0.496)	652552	40.0000	40.75
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	107912	20.0000	20.38
	21 Vinyl Acetate	43	2.997	2.997	(0.717)	623449	40.0000	42.32
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	197910	20.0000	20.39
	24 2-Butanone	43	3.581	3.581	(0.857)	77277	40.0000	40.12
	26 2,2-Dichloropropane	77	3.506	3.506	(0.839)	149611	20.0000	20.74
	27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.844)	124631	20.0000	20.01
	28 Chloroform	83	3.904	3.904	(0.935)	191992	20.0000	19.95
	29 Bromochloromethane	128	3.795	3.795	(0.908)	65473	20.0000	19.95
$	30 Dibromofluoromethane	113	4.099	4.099	(0.981)	109945	20.0000	20.42
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	152070	20.0000	20.52
	32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	143218	20.0000	20.20
	33 1,2-Dichloroethane	62	4.552	4.552	(0.918)	135236	20.0000	19.21
	34 Carbon Tetrachloride	117	4.260	4.260	(0.859)	127702	20.0000	19.50
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	114636	20.0000	20.08
*	36 1,4-Difluorobenzene	114	4.961	4.961	(1.000)	900866	50.0000	
	37 Benzene	78	4.507	4.507	(0.909)	457008	20.0000	19.93
	38 Trichloroethene	130	5.208	5.208	(1.050)	122539	20.0000	19.83
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	157512	20.0000	20.08
	41 2-Chloroethylvinyl ether	63	6.048	6.048	(1.219)	105693	40.0000	40.57
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	127700	20.0000	19.60
	44 Dibromomethane	93	5.553	5.553	(1.119)	78462	20.0000	19.85
	45 4-Methyl-2-Pentanone	43	6.325	6.325	(0.825)	247195	40.0000	41.72
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	210755	20.0000	20.10
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	861482	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	441663	20.0000	20.12

50	Toluene	91	6.445	6.445 (0.841)	505120	20.0000	20.89
51	trans-1,3-Dichloropropene	75	6.681	6.681 (1.347)	169967	20.0000	20.30

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	52 2-Hexanone	43	7.086	7.086	(0.924)	182993	40.0000	45.12(H)
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	107960	20.0000	21.87
	54 1,3-Dichloropropane	76	6.981	6.981	(0.911)	222544	20.0000	21.66
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	141494	20.0000	21.12
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	94999	20.0000	20.28
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	128163	20.0000	21.30
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	103587	20.0000	19.93
	59 Chlorobenzene	112	7.694	7.694	(1.003)	329302	20.0000	19.67
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	118191	20.0000	20.12
	61 Ethylbenzene	106	7.799	7.799	(1.017)	162799	20.0000	19.79
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	412946	40.0000	40.32
	63 o-Xylene	106	8.241	8.241	(1.075)	202744	20.0000	20.24
	64 Styrene	104	8.260	8.260	(1.077)	346344	20.0000	20.66
	66 Bromoform	173	8.410	8.410	(1.097)	90600	20.0000	20.01
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	474265	20.0000	19.74
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	169748	20.0000	21.26
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	164318	20.0000	19.88
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	458358	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	125134	20.0000	21.33
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	569332	20.0000	20.04
	74 Bromobenzene	156	8.803	8.803	(0.911)	144613	20.0000	20.21
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	398387	20.0000	19.36
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	361067	20.0000	19.57
	77 4-Chlorotoluene	91	9.069	9.069	(0.939)	404251	20.0000	19.92
	78 tert-Butylbenzene	119	9.332	9.332	(0.966)	329770	20.0000	19.04
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	408909	20.0000	19.42
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	468363	20.0000	19.39
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	410042	20.0000	19.64
	83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	245182	20.0000	19.01
	84 1,4-Dichlorobenzene	146	9.680	9.680	(1.002)	260950	20.0000	19.25
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	363588	20.0000	20.34
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	248024	20.0000	19.34
	89 1,2-Dibromo-3-Chloropropane	155	10.659	10.659	(1.103)	27687	20.0000	19.94
	90 1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	176512	20.0000	19.90
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	72746	20.0000	19.06
	92 Naphthalene	128	11.543	11.543	(1.195)	417168	20.0000	18.94
	93 1,2,3-Trichlorobenzene	180	11.742	11.742	(1.215)	163693	20.0000	18.84
M	94 1,2-Dichloroethylene (total)	96				232543	40.0000	(a)
	141 Cyclohexane	56	4.121	4.121	(0.987)	149533	20.0000	20.64
	138 Freon TF	101	1.917	1.917	(0.459)	93083	20.0000	22.85
	147 Methylcyclohexane	55	5.381	5.381	(1.085)	235529	20.0000	17.00
	146 Methyl Acetate	43	2.232	2.232	(0.534)	72992	20.0000	21.34
	148 Tert-Butyl alcohol	59	2.427	2.427	(0.581)	224056	400.000	391.97
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	139558	400.000	394.19

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



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Sample Info: VSTD020;VSTD020;1;6;
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Column phase: DB624

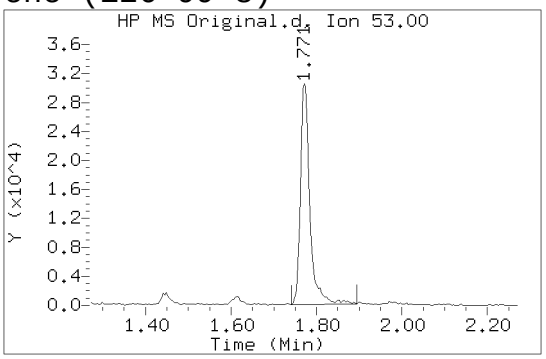
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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InstruID : voa6.i
LabSampID : VSTD020

Chloroprene (126-99-8)

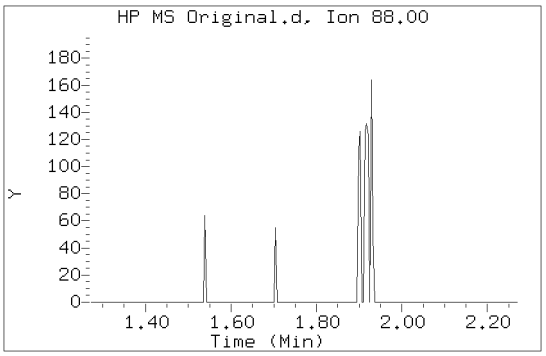
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BEFORE

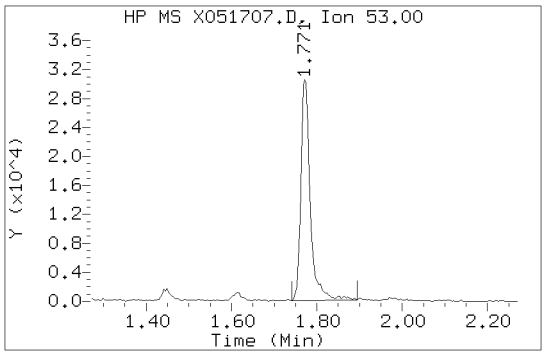
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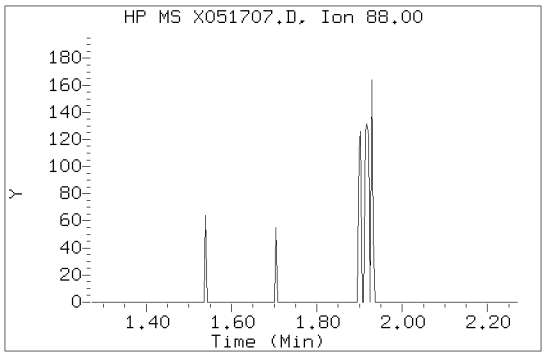
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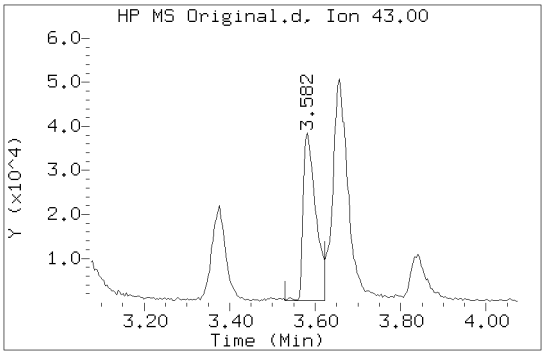
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Ethyl Acetate (141-78-6)

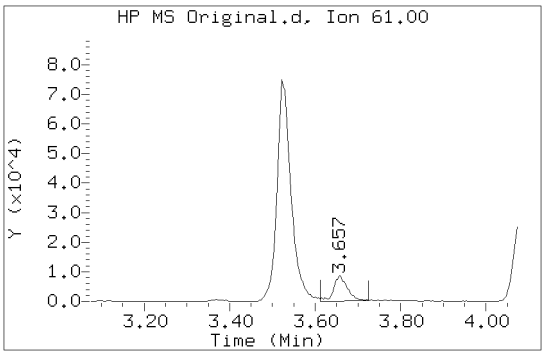
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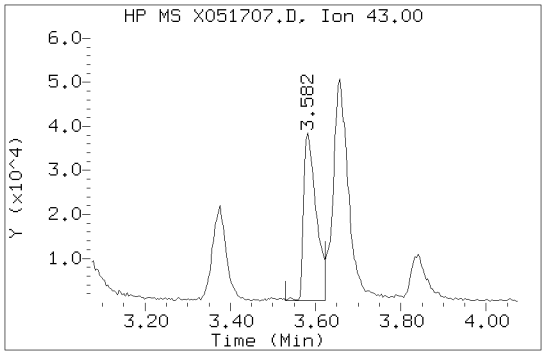
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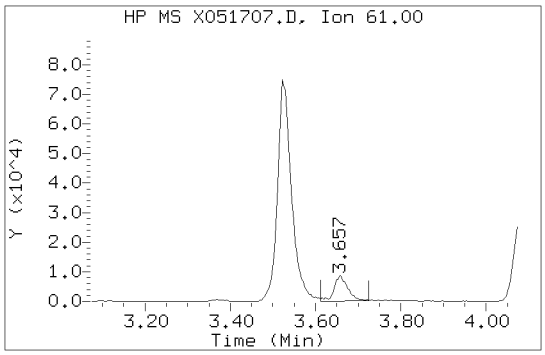
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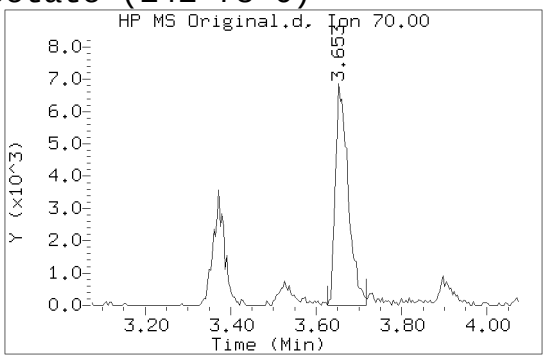
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LabSampID : VSTD020

Ethyl Acetate (141-78-6)

Reason Code:

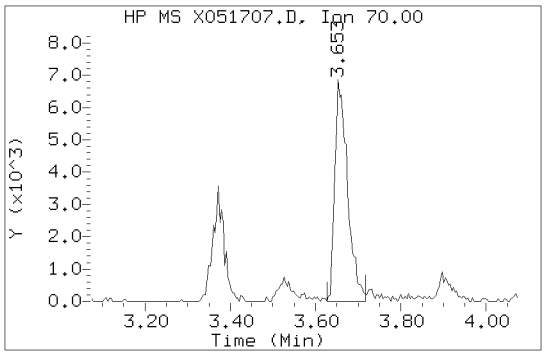
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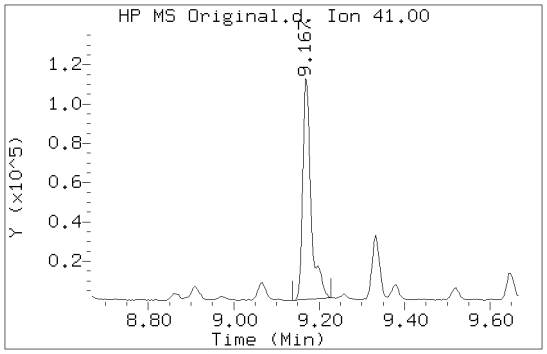


Butyl methacrylate (97-88-1)

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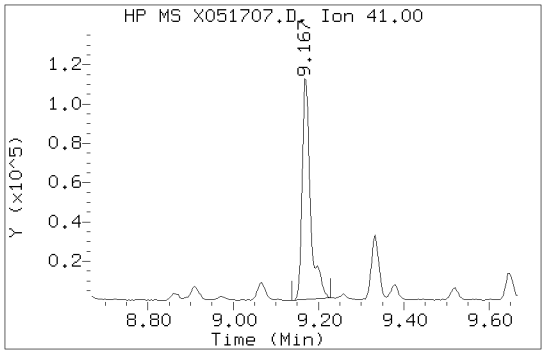
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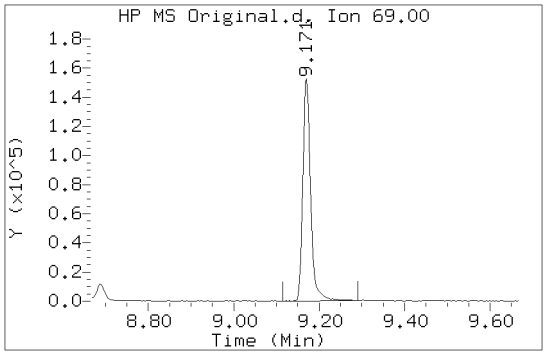
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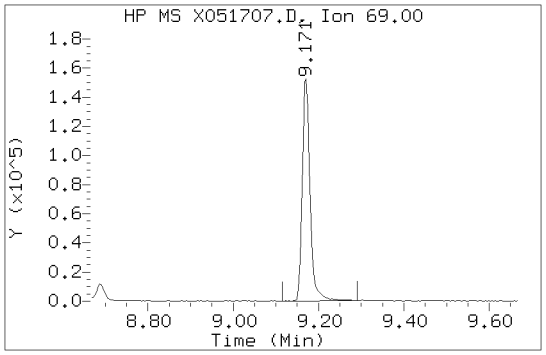
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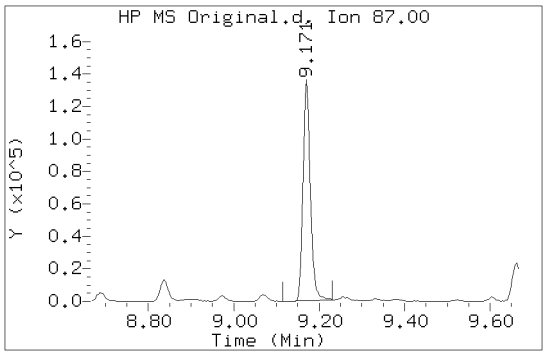
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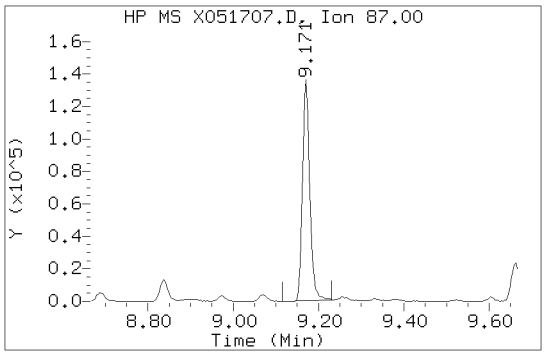
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AFTER

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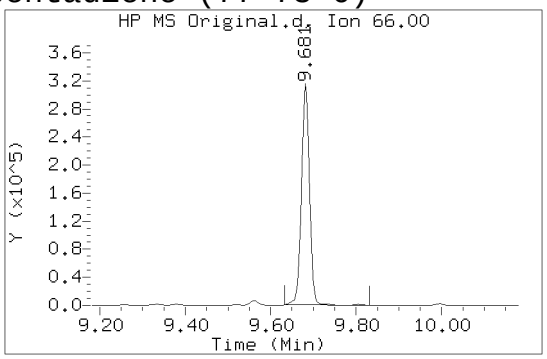


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Inj Date : 17-MAY-2023 14:23
InstruID : voa6.i
LabSampID : VSTD020

Dicyclopentadiene (77-73-6)

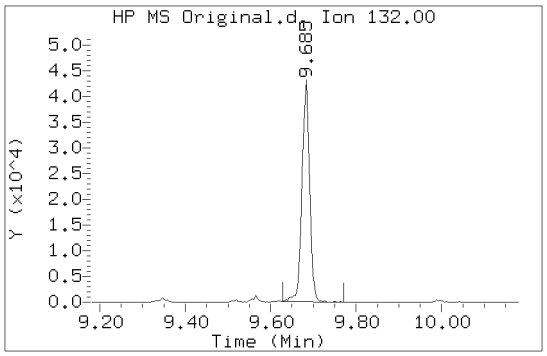
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BEFORE

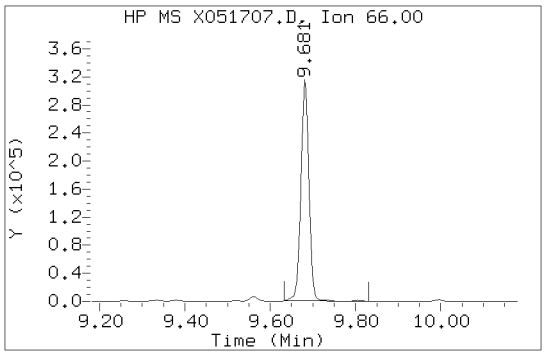
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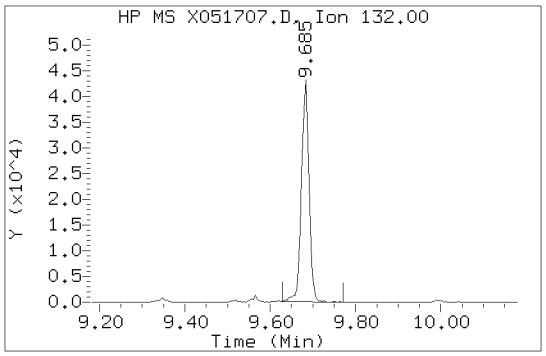
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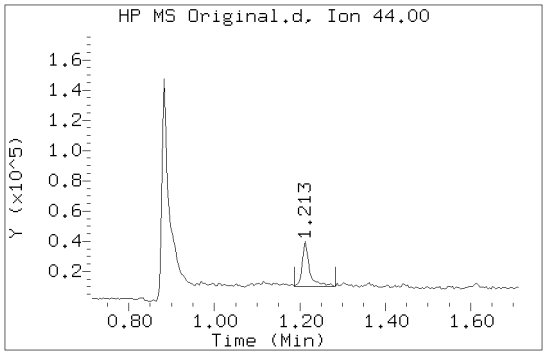
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Acetaldehyde (75-07-0)

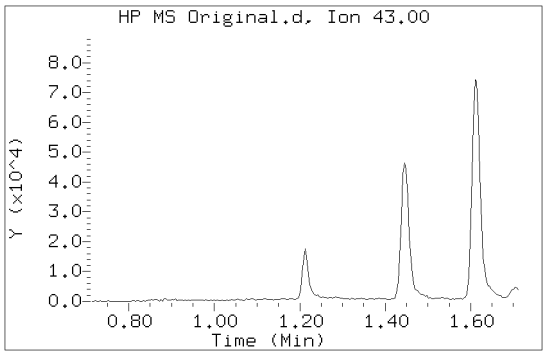
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BEFORE

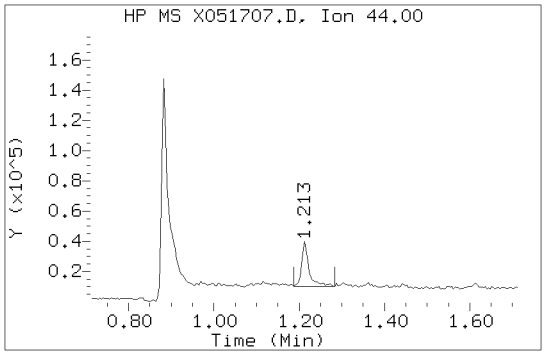
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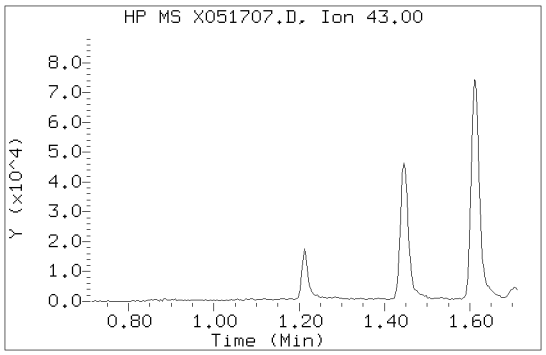
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AFTER

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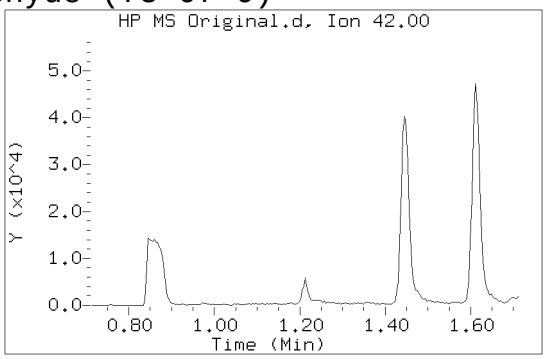
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LabSampID : VSTD020

Acetaldehyde (75-07-0)

Reason Code:

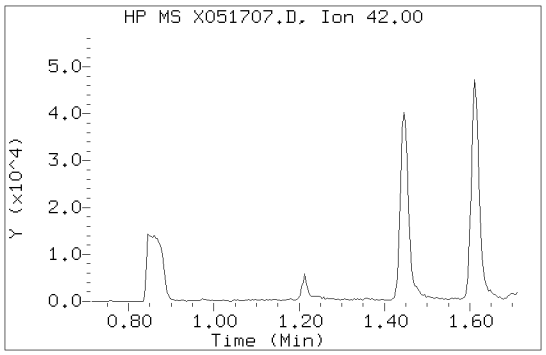
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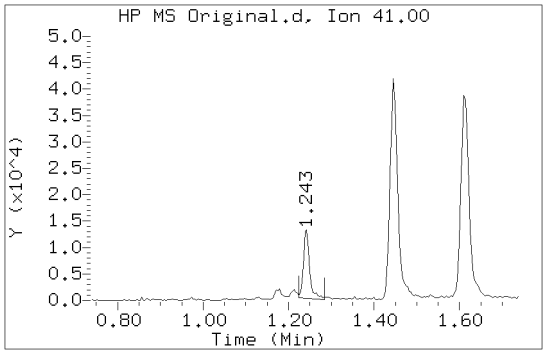


Isobutylene (115-11-7)

Reason Code:

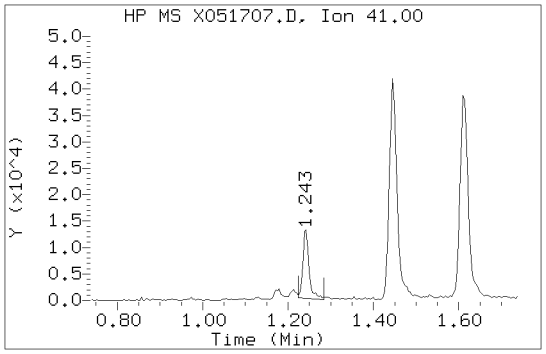
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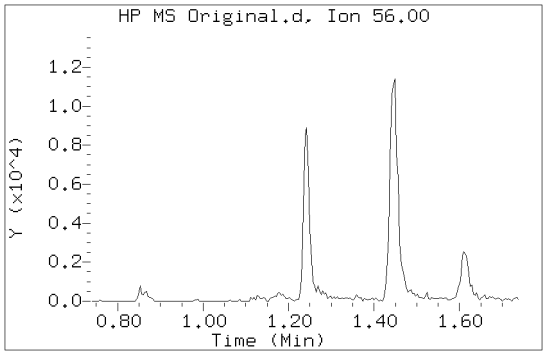
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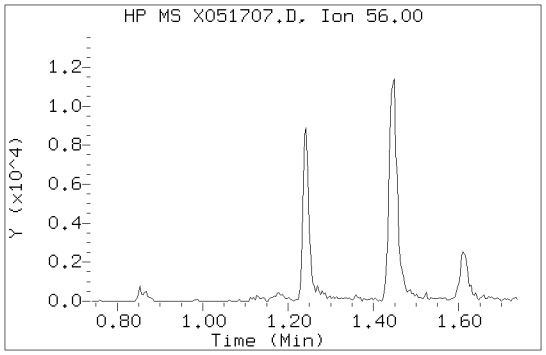
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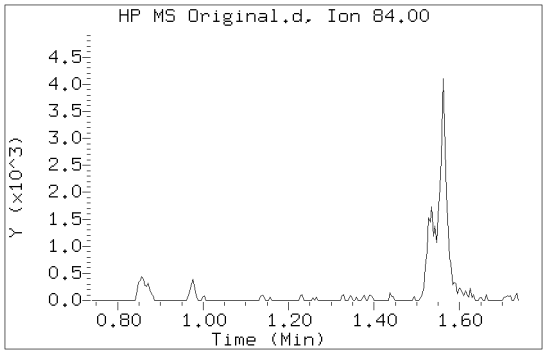
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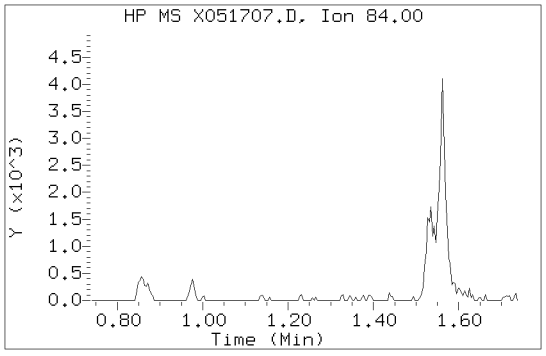
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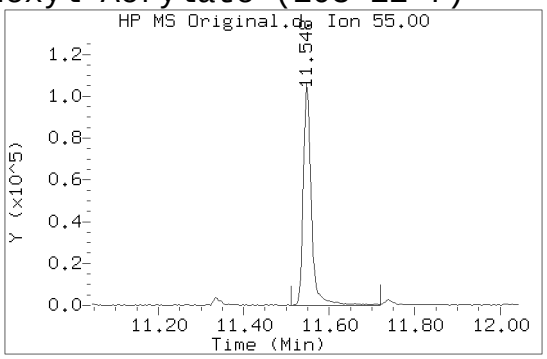
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LabSampID : VSTD020

2-Ethylhexyl Acrylate (103-11-7)

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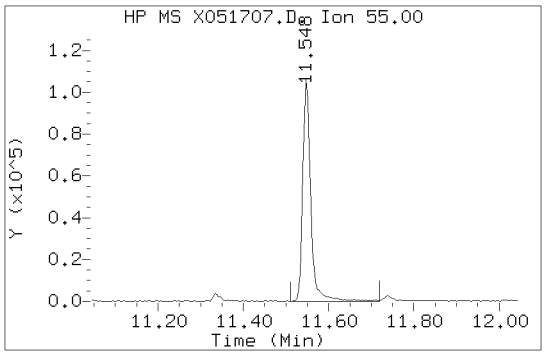
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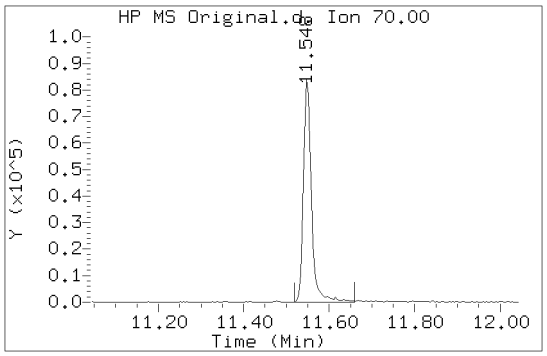
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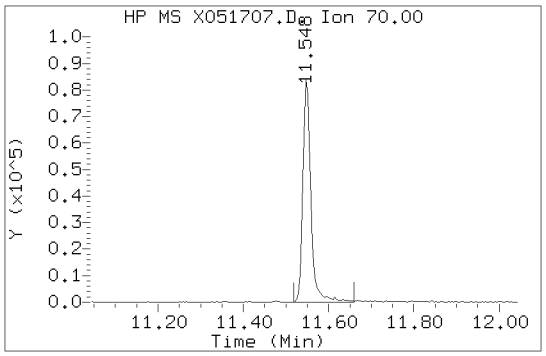
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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051708.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051708.D
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Inj Date : 17-MAY-2023 14:44
Operator : PC Inst ID: voa6.i
Smp Info : VSTD050;VSTD050;1;7;
Misc Info : V6;WATER;0;1;
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Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.177	4.177	(1.000)	595193	50.0000	
135 1,4-Dioxane	88	5.594	5.594	(1.339)	74308	1000.00	921.84
140 1,3-Butadiene	54	1.163	1.163	(0.279)	286736	50.0000	45.51
25 Methacrylonitrile	41	3.818	3.818	(0.914)	243471	50.0000	45.88
12 Isobutyl Alcohol	43	4.676	4.676	(1.119)	748234	1000.00	964.42
13 Acetonitrile	39	2.194	2.194	(0.525)	292706	500.000	510.82
14 Allyl Chloride	41	2.194	2.194	(0.525)	704271	50.0000	48.72
4 Propionitrile	54	3.645	3.645	(0.873)	382951	500.000	469.19
72 trans-1,4-Dichloro-2-butene	53	8.886	8.886	(1.159)	100808	50.0000	51.81
194 Acetaldehyde	44	1.212	1.212	(0.290)	79325	200.000	193.13(M)
23 Chloroprene	53	1.771	1.771	(0.424)	103468	50.0000	43.06(M)
130 Ethyl Acetate	43	3.574	3.574	(0.856)	196163	50.0000	46.44(M)
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	243447	50.0000	46.79
49 Ethyl Methacrylate	69	6.783	6.783	(1.367)	437234	50.0000	47.70
131 Methyl Acrylate	55	3.686	3.686	(0.882)	266111	50.0000	45.93
132 n-Butanol	56	5.253	5.253	(1.258)	150551	1000.00	883.82
136 n-Hexane	57	2.772	2.772	(0.664)	263012	50.0000	48.86
139 Diethyl ether	59	1.756	1.756	(0.420)	239471	50.0000	47.09
142 Tetrahydrofuran	42	3.844	3.844	(0.920)	88570	100.000	90.27
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	501118	50.0000	50.50

156	Diisopropyl ether	45	2.997	2.997 (0.717)	882875	50.0000	49.02
162	Butyl acrylate	55	8.248	8.248 (1.076)	633975	50.0000	50.90

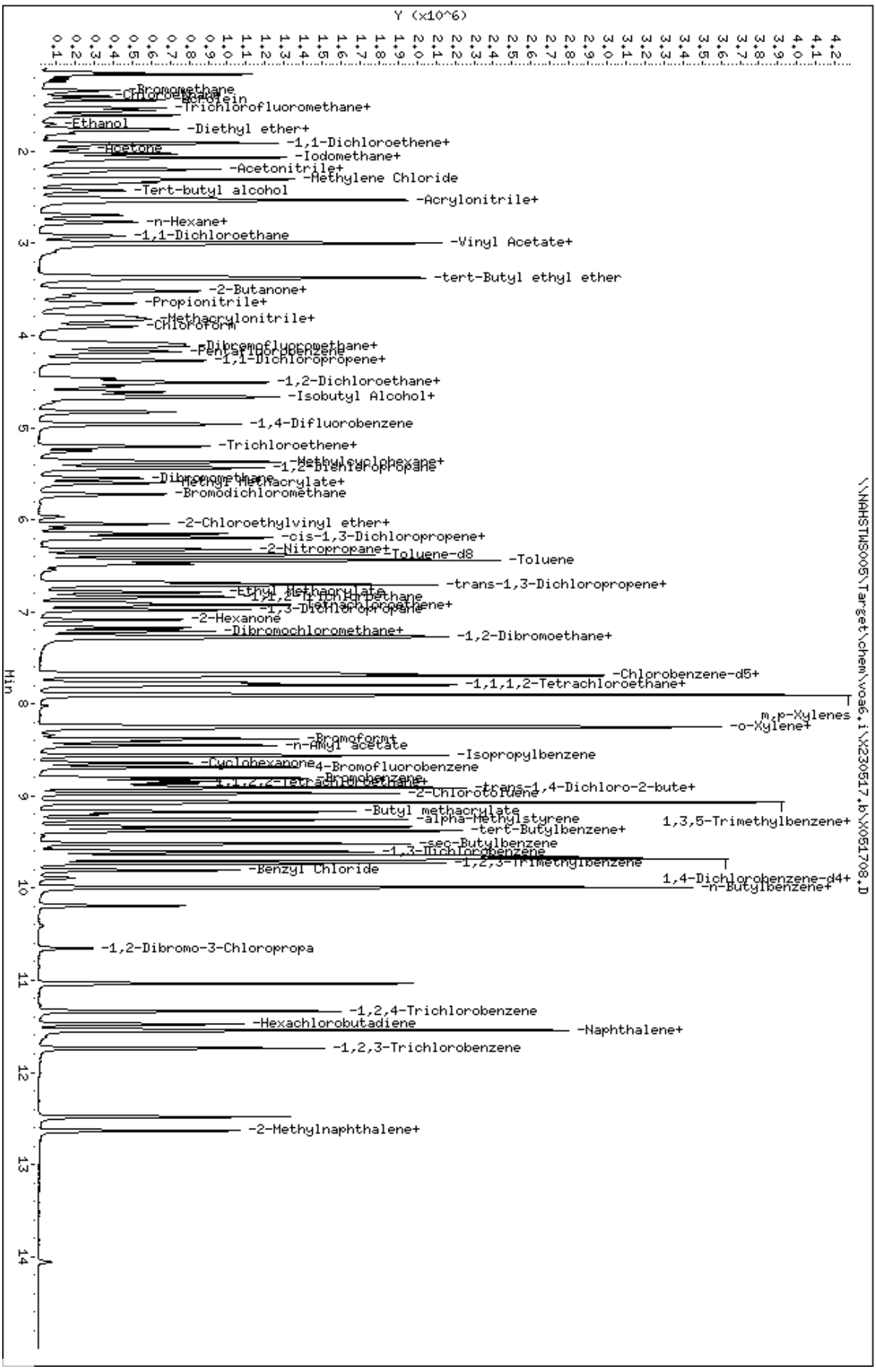
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	167 Ethanol	45	1.703	1.703	(0.408)	71440	1000.00	1017.31
	200 Dimethyl Disulfide	94	6.194	6.194	(0.808)	634967	50.0000	50.86
	182 Epichlorohydrin	57	6.093	6.093	(1.228)	107309	200.000	183.34
	164 Dicyclopentadiene	66	9.680	9.680	(1.002)	1220809	50.0000	50.95(M)
	166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	1004441	50.0000	48.99
	205 2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	433426	50.0000	51.35
	86 Benzyl Chloride	91	9.804	9.804	(1.279)	649842	50.0000	48.69
	134 Cyclohexanone	55	8.642	8.642	(0.894)	275540	1000.00	993.24
	202 Isobutylene	41	1.238	1.238	(0.297)	39260	50.0000	48.74(M)
	133 Ethyl Acrylate	55	5.377	5.377	(1.287)	723023	50.0000	47.33
	163 Butyl methacrylate	41	9.167	9.167	(0.949)	385260	50.0000	49.08(M)
	188 Isopropyl acetate	43	4.676	4.676	(0.943)	748621	50.0000	48.49
	189 n-Butyl acetate	43	7.210	7.210	(0.940)	514140	50.0000	52.79(H)
	2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	254046	50.0000	44.30
	3 Chloromethane	50	1.077	1.077	(0.258)	368551	50.0000	44.13
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	367893	50.0000	46.66
	6 Bromomethane	94	1.340	1.340	(0.321)	192549	50.0000	46.88
	7 Chloroethane	64	1.403	1.403	(0.336)	230278	50.0000	46.79
	8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	375073	50.0000	45.18
	9 Acrolein	56	1.445	1.445	(0.346)	49904	100.000	100.20
	10 Acetone	43	1.973	1.973	(0.472)	208973	100.000	100.88
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	243715	50.0000	46.43
	15 Iodomethane	142	2.026	2.026	(0.485)	735694	100.000	98.02
	16 Acrylonitrile	53	2.532	2.532	(0.606)	203454	100.000	103.52
	17 Methylene Chloride	84	2.303	2.303	(0.551)	297300	50.0000	47.65
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	763338	50.0000	46.62
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	1501525	100.000	91.18
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	257127	50.0000	47.23
	21 Vinyl Acetate	43	2.997	2.997	(0.717)	1517700	100.000	100.19
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	472513	50.0000	47.33
	24 2-Butanone	43	3.574	3.574	(0.856)	199974	100.000	100.95
	26 2,2-Dichloropropane	77	3.506	3.506	(0.839)	349452	50.0000	47.52
	27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.844)	299782	50.0000	46.81
	28 Chloroform	83	3.904	3.904	(0.935)	463293	50.0000	46.83
	29 Bromochloromethane	128	3.791	3.791	(0.908)	158337	50.0000	46.91
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	254583	50.0000	47.05
	31 1,1,1-Trichloroethane	97	4.076	4.076	(0.976)	350824	50.0000	46.04
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	346111	50.0000	49.04
	33 1,2-Dichloroethane	62	4.552	4.552	(0.918)	338178	50.0000	48.25
	34 Carbon Tetrachloride	117	4.260	4.260	(0.859)	307318	50.0000	47.13
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	280472	50.0000	48.41
*	36 1,4-Difluorobenzene	114	4.961	4.961	(1.000)	897054	50.0000	
	37 Benzene	78	4.507	4.507	(0.909)	1123795	50.0000	49.24
	38 Trichloroethene	130	5.205	5.205	(1.049)	307157	50.0000	49.93
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	379000	50.0000	48.52
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.218)	264356	100.000	101.91
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	320296	50.0000	49.38
	44 Dibromomethane	93	5.549	5.549	(1.119)	190636	50.0000	48.43
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	635668	100.000	105.63
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	522271	50.0000	50.04
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	874941	50.0000	
$	48 Toluene-d8	98	6.382	6.382	(0.832)	1036092	50.0000	46.47(M)

50	Toluene	91	6.442	6.442 (0.840)	1211286	50.0000	49.34
51	trans-1,3-Dichloropropene	75	6.678	6.678 (1.346)	433165	50.0000	51.97

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	52 2-Hexanone	43	7.083	7.083	(0.924)	399899	100.000	97.10(H)
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	239813	50.0000	47.83
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	537773	50.0000	51.54
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	348094	50.0000	51.16
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	236445	50.0000	49.71
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	315026	50.0000	51.56
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	242669	50.0000	44.39
	59 Chlorobenzene	112	7.690	7.690	(1.003)	812099	50.0000	47.78
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	294115	50.0000	49.31
	61 Ethylbenzene	106	7.795	7.795	(1.017)	411455	50.0000	49.27
	62 m,p-Xylenes	106	7.900	7.900	(1.030)	1040462	100.000	100.04
	63 o-Xylene	106	8.241	8.241	(1.075)	502515	50.0000	49.41
	64 Styrene	104	8.256	8.256	(1.077)	868032	50.0000	50.98
	66 Bromoform	173	8.406	8.406	(1.096)	224608	50.0000	48.84
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	1200405	50.0000	49.20
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	392411	50.0000	49.02
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	375781	50.0000	44.77
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	455175	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	280438	50.0000	48.15
	73 n-Propylbenzene	91	8.908	8.908	(0.922)	1427156	50.0000	50.59
	74 Bromobenzene	156	8.803	8.803	(0.911)	358510	50.0000	50.46
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	1008115	50.0000	49.34
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	887083	50.0000	48.42
	77 4-Chlorotoluene	91	9.069	9.069	(0.939)	986873	50.0000	48.98
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	816679	50.0000	47.48
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	1011293	50.0000	48.37
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	1152215	50.0000	48.04
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	1032140	50.0000	49.80
	83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	619472	50.0000	48.37
	84 1,4-Dichlorobenzene	146	9.680	9.680	(1.002)	642198	50.0000	47.71
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	905156	50.0000	51.00
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	617677	50.0000	48.52
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	65906	50.0000	48.26
	90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	464402	50.0000	52.72
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	186659	50.0000	49.25
	92 Naphthalene	128	11.540	11.540	(1.194)	1096619	50.0000	50.14
	93 1,2,3-Trichlorobenzene	180	11.738	11.738	(1.215)	431199	50.0000	49.97
M	94 1,2-Dichloroethylene (total)	96				556909	100.000	(a)
	141 Cyclohexane	56	4.121	4.121	(0.987)	351855	50.0000	47.24
	138 Freon TF	101	1.913	1.913	(0.458)	212562	50.0000	48.35
	147 Methylcyclohexane	55	5.377	5.377	(1.084)	723023	50.0000	52.41
	146 Methyl Acetate	43	2.228	2.228	(0.533)	179385	50.0000	50.99
	148 Tert-Butyl alcohol	59	2.427	2.427	(0.581)	521203	1000.00	886.65
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	336770	1000.00	924.98

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



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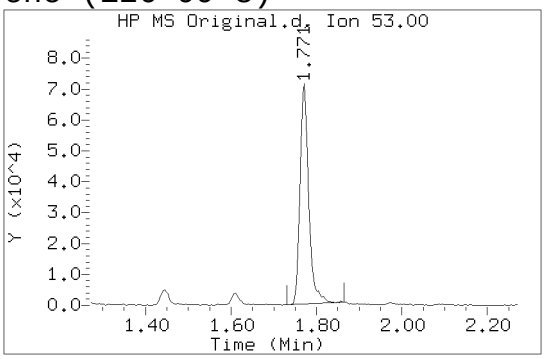
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Inj Date : 17-MAY-2023 14:44
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LabSampID : VSTD050

Chloroprene (126-99-8)

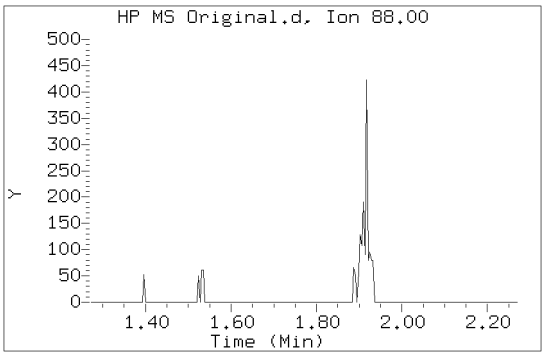
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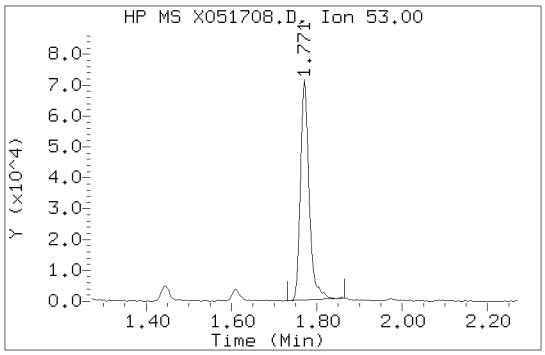
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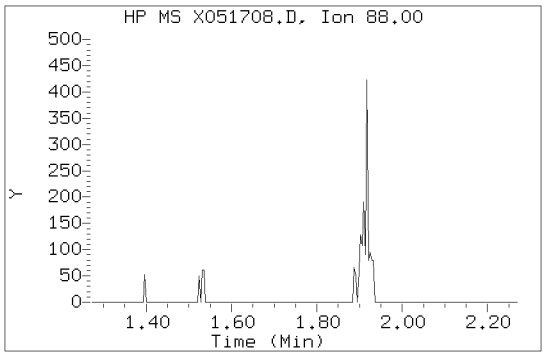
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AFTER

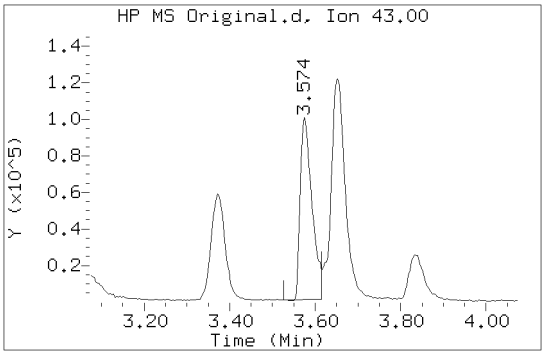
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HEIGHT
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18-May-2023
13:42
linh
pham



Ethyl Acetate (141-78-6)

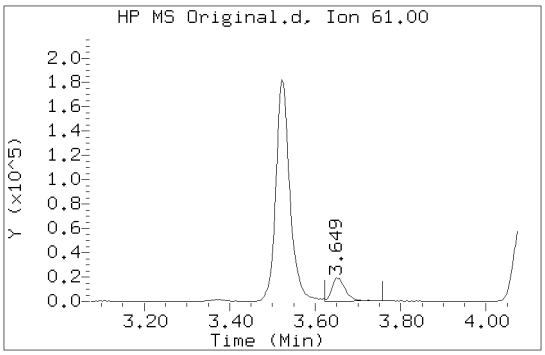
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BEFORE

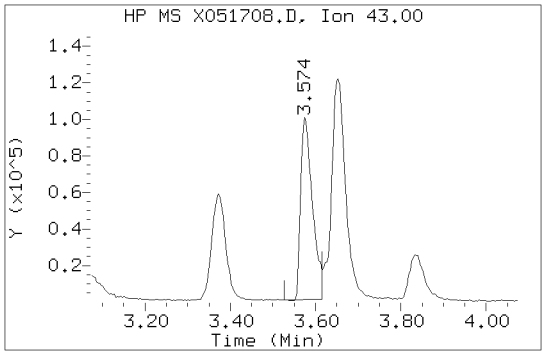
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Reason Code:

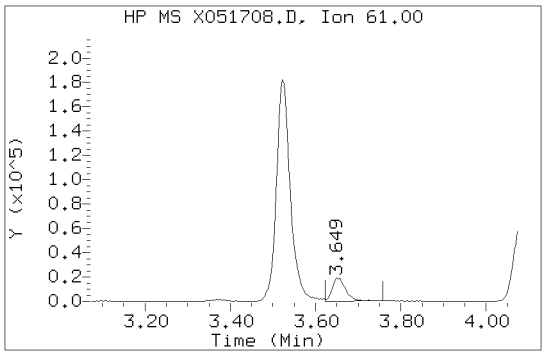
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99556
18-May-2023
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AFTER

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19419
18-May-2023
13:42
linh
pham



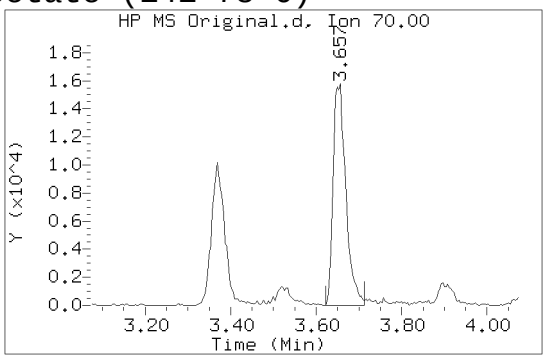
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Inj Date : 17-MAY-2023 14:44
InstruID : voa6.i
LabSampID : VSTD050

Ethyl Acetate (141-78-6)

Reason Code:

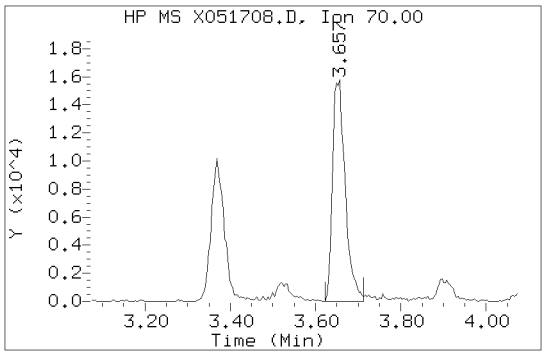
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15790
18-May-2023
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AFTER

MASS
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AREA
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HEIGHT
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18-May-2023
13:42
linh
pham

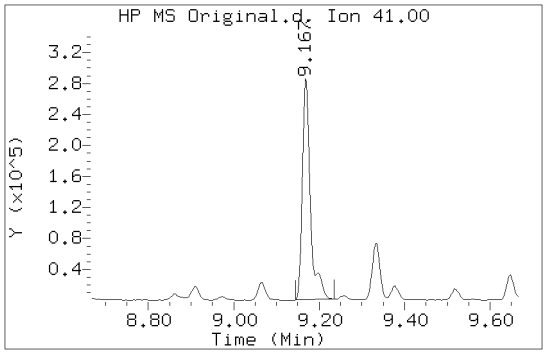


Butyl methacrylate (97-88-1)

Reason Code:

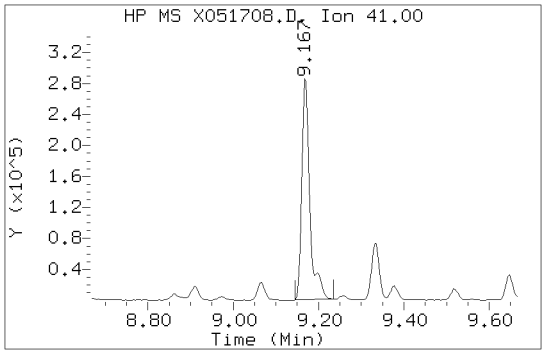
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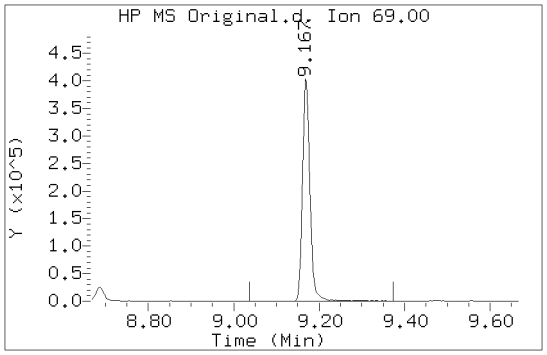
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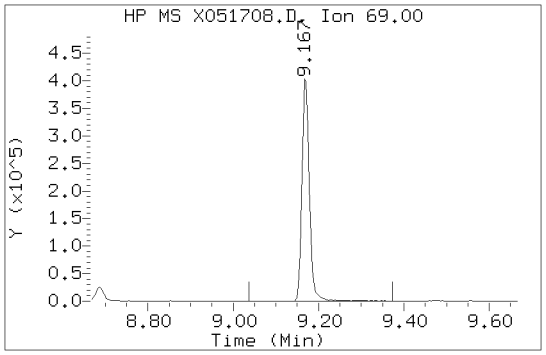
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18-May-2023
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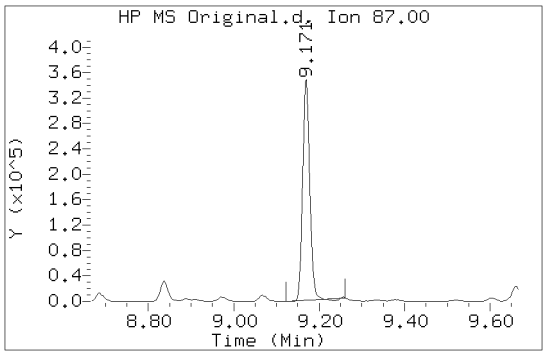
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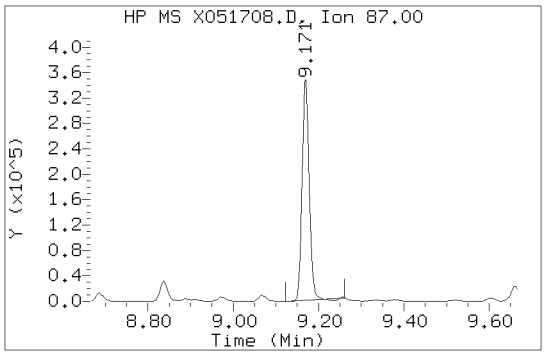
BEFORE

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AREA
410205
HEIGHT
347120
18-May-2023
13:42
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AFTER

MASS
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AREA
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HEIGHT
347120
18-May-2023
13:42
linh
pham

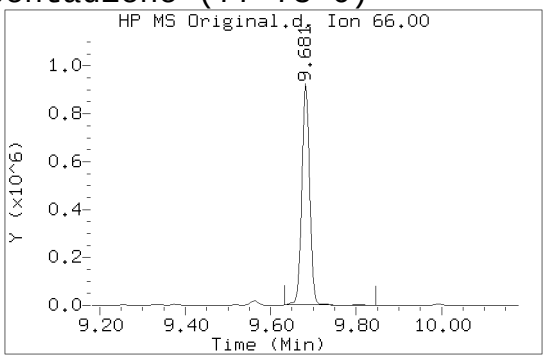


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Inj Date : 17-MAY-2023 14:44
InstruID : voa6.i
LabSampID : VSTD050

Dicyclopentadiene (77-73-6)

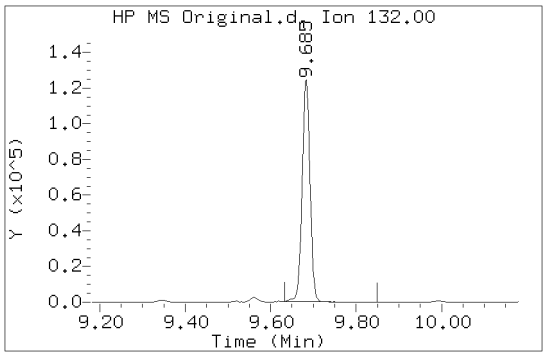
BEFORE

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AREA
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HEIGHT
924408
18-May-2023
13:42
linh
pham



BEFORE

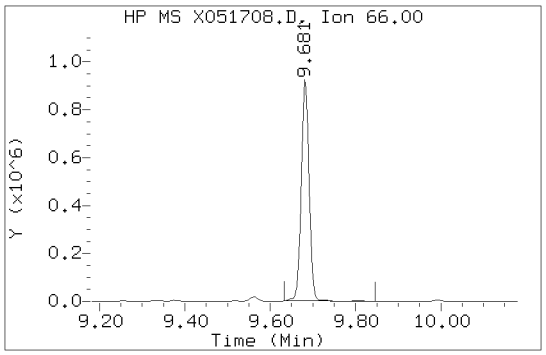
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132
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164013
HEIGHT
124222
18-May-2023
13:42
linh
pham



Reason Code:

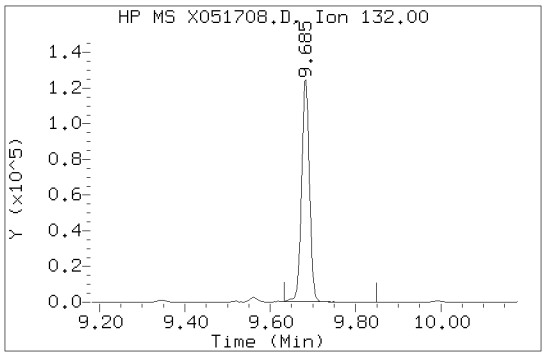
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AFTER

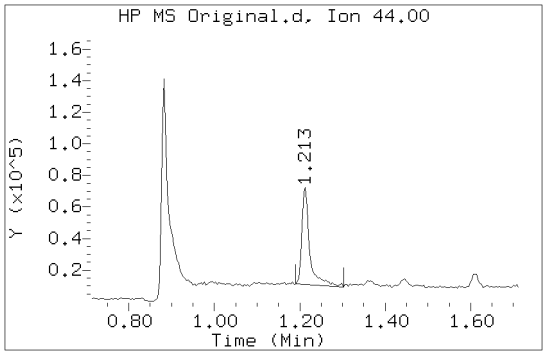
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AREA
164013
HEIGHT
124222
18-May-2023
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linh
pham



Acetaldehyde (75-07-0)

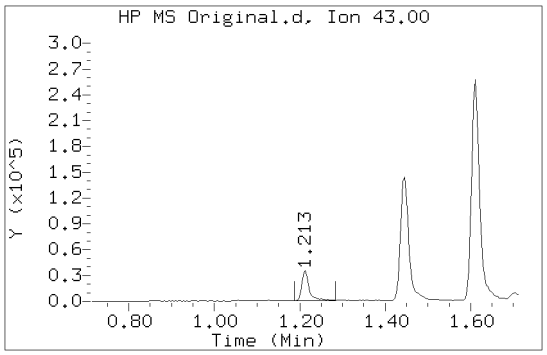
BEFORE

MASS
44
AREA
79325
HEIGHT
61418
18-May-2023
13:42
linh
pham



BEFORE

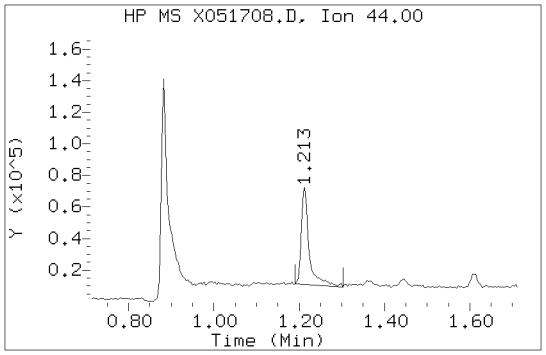
MASS
43
AREA
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34949
18-May-2023
13:42
linh
pham



Reason Code:

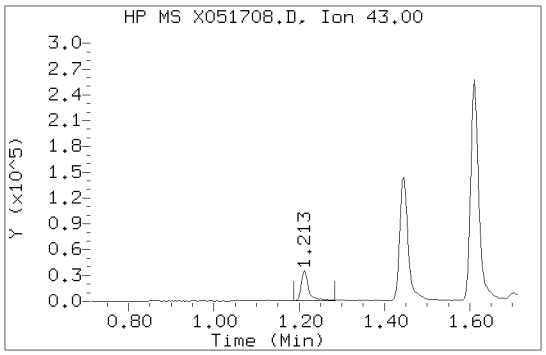
AFTER

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AREA
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HEIGHT
61418
18-May-2023
13:42
linh
pham



AFTER

MASS
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AREA
43672
HEIGHT
34949
18-May-2023
13:42
linh
pham



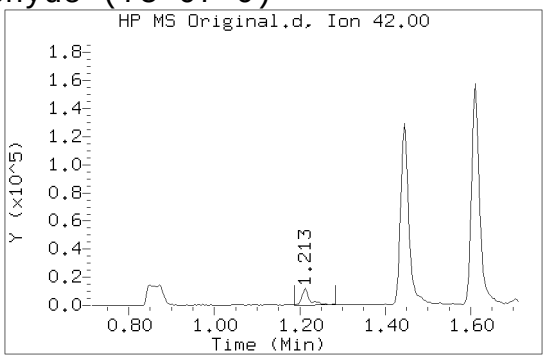
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Inj Date : 17-MAY-2023 14:44
InstruID : voa6.i
LabSampID : VSTD050

Acetaldehyde (75-07-0)

Reason Code:

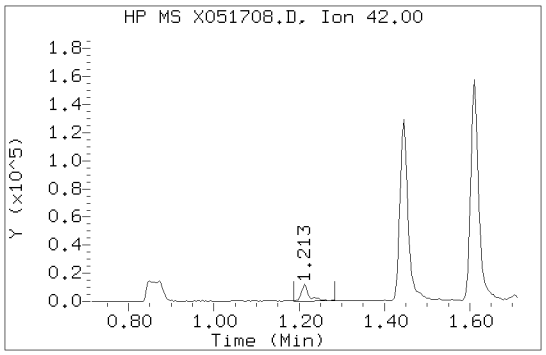
BEFORE

MASS
42
AREA
15506
HEIGHT
12241
18-May-2023
13:42
linh
pham



AFTER

MASS
42
AREA
15506
HEIGHT
12241
18-May-2023
13:42
linh
pham

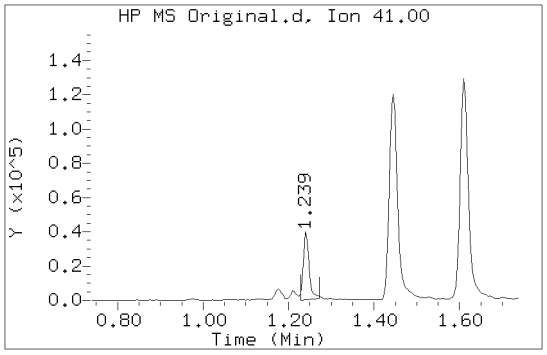


Isobutylene (115-11-7)

Reason Code:

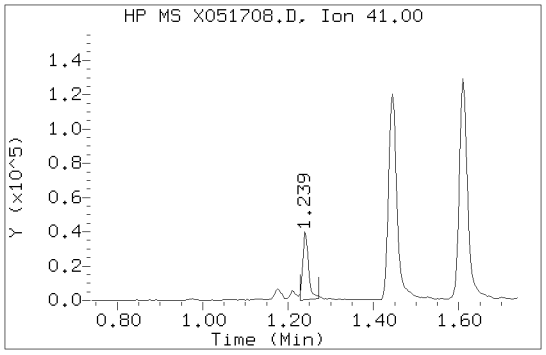
BEFORE

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AREA
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HEIGHT
39627
18-May-2023
13:42
linh
pham



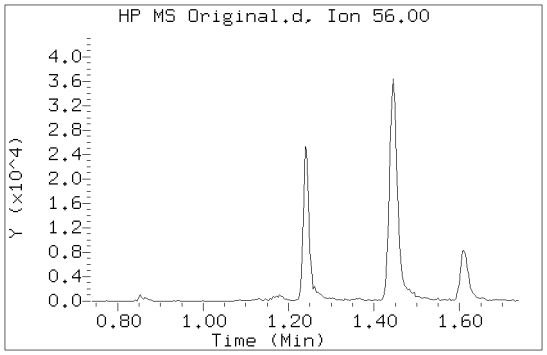
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18-May-2023
13:42
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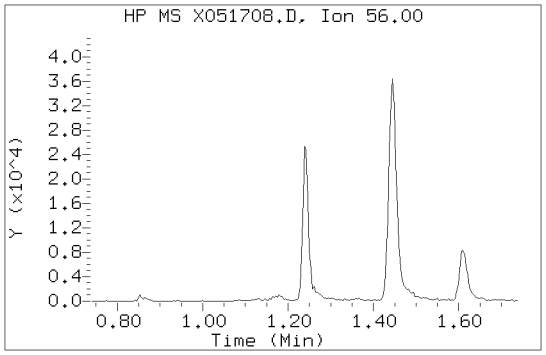
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AREA
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0
18-May-2023
13:42
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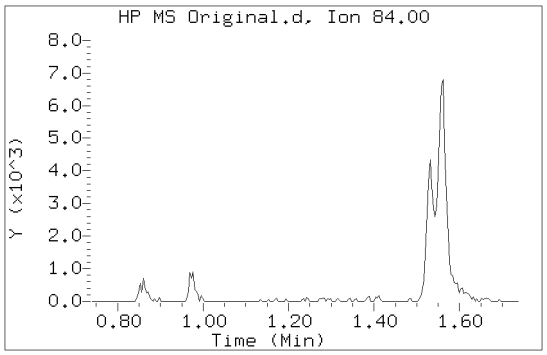
AFTER

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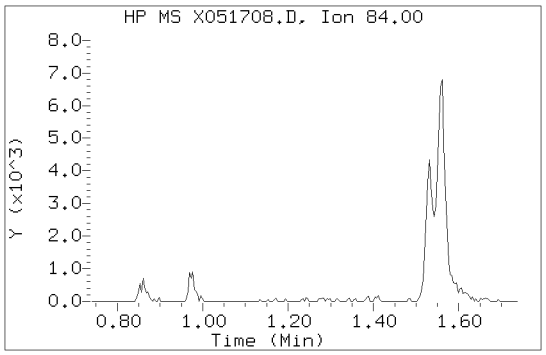
BEFORE

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0
18-May-2023
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AFTER

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HEIGHT
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18-May-2023
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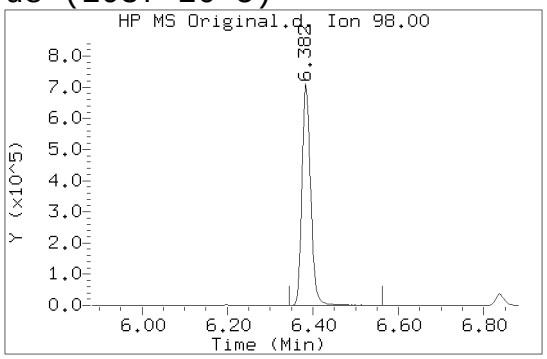


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Inj Date : 17-MAY-2023 14:44
InstruID : voa6.i
LabSampID : VSTD050

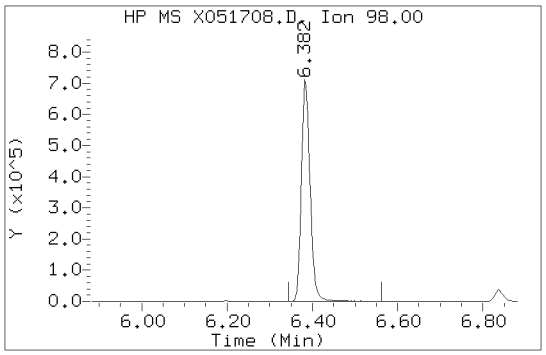
Toluene-d8 (2037-26-5)

Reason Code:

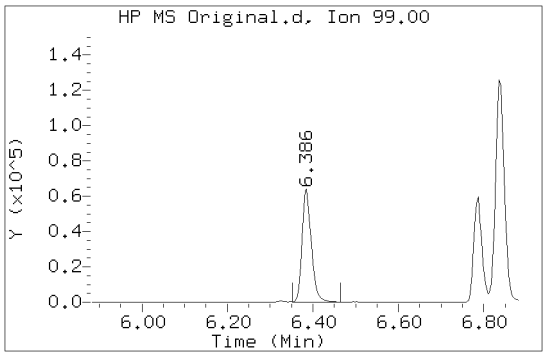
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HEIGHT
711204
18-May-2023
13:42
linh
pham



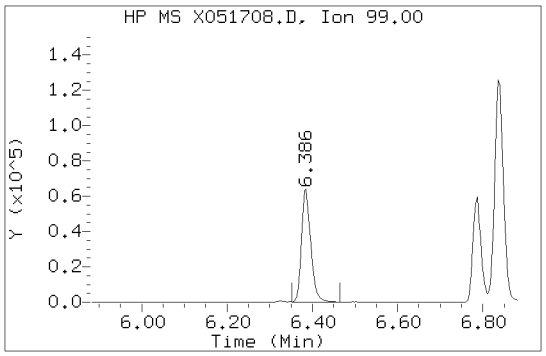
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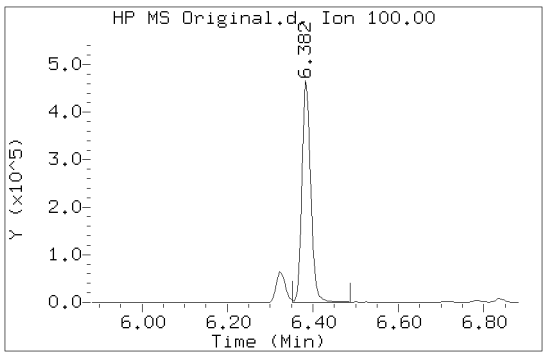
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AREA
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13:42
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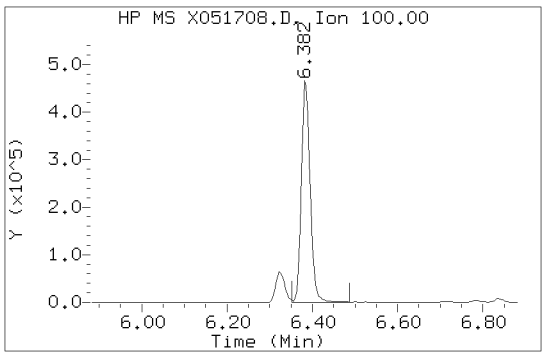
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BEFORE
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682341
HEIGHT
466011
18-May-2023
13:42
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pham



AFTER
MASS
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682341
HEIGHT
466011
18-May-2023
13:42
linh
pham



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Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051709.D
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Inj Date : 17-MAY-2023 15:05
Operator : PC Inst ID: voa6.i
Smp Info : VSTD100;VSTD100;1;8;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\8260W.m
Meth Date : 18-May-2023 13:43 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	574355	50.0000	
135 1,4-Dioxane	88	5.594	5.594	(1.339)	150705	2000.00	1937.43
140 1,3-Butadiene	54	1.164	1.164	(0.279)	636878	100.000	104.76
25 Methacrylonitrile	41	3.814	3.814	(0.913)	491187	100.000	95.93
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	1560686	2000.00	2084.59
13 Acetonitrile	39	2.198	2.198	(0.526)	565643	1000.00	1022.97
14 Allyl Chloride	41	2.194	2.194	(0.525)	1393448	100.000	99.90
4 Propionitrile	54	3.649	3.649	(0.873)	767054	1000.00	973.89
72 trans-1,4-Dichloro-2-butene	53	8.886	8.886	(1.159)	195691	100.000	103.96
194 Acetaldehyde	44	1.212	1.212	(0.290)	156941	400.000	409.88(M)
23 Chloroprene	53	1.771	1.771	(0.424)	243284	100.000	104.92(M)
130 Ethyl Acetate	43	3.574	3.574	(0.856)	408001	100.000	100.09(M)
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	513919	100.000	102.36
49 Ethyl Methacrylate	69	6.783	6.783	(1.366)	878906	100.000	95.37
131 Methyl Acrylate	55	3.683	3.683	(0.882)	612135	100.000	109.50
132 n-Butanol	56	5.250	5.250	(1.257)	321653	2000.00	1874.02
136 n-Hexane	57	2.768	2.768	(0.663)	634405	100.000	100.12
139 Diethyl ether	59	1.756	1.756	(0.420)	480696	100.000	97.95
142 Tetrahydrofuran	42	3.840	3.840	(0.919)	180333	200.000	190.47
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	1071212	100.000	107.73

156	Diisopropyl ether	45	2.997	2.997 (0.717)	1720400	100.000	98.99
162	Butyl acrylate	55	8.249	8.249 (1.076)	1236994	100.000	102.66

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	167 Ethanol	45	1.703	1.703	(0.408)	127476	2000.00	1882.39
	200 Dimethyl Disulfide	94	6.194	6.194	(0.808)	1398099	100.000	115.75
	182 Epichlorohydrin	57	6.089	6.089	(1.226)	249645	400.000	424.19
	164 Dicyclopentadiene	66	9.681	9.681	(1.002)	2484950	100.000	103.49(M)
	166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	2099638	100.000	102.19
	205 2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	1070555	100.000	126.59(M)
	86 Benzyl Chloride	91	9.804	9.804	(1.279)	1410699	100.000	109.26
	134 Cyclohexanone	55	8.642	8.642	(0.894)	539320	2000.00	1940.46
	202 Isobutylene	41	1.239	1.239	(0.297)	84023	100.000	108.11(M)
	133 Ethyl Acrylate	55	5.373	5.373	(1.286)	1505762	100.000	100.51
	163 Butyl methacrylate	41	9.167	9.167	(0.949)	823175	100.000	104.65(M)
	188 Isopropyl acetate	43	4.672	4.672	(0.941)	1560686	100.000	100.55
	189 n-Butyl acetate	43	7.210	7.210	(0.940)	997979	100.000	105.91(H)
	2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	559449	100.000	100.30
	3 Chloromethane	50	1.077	1.077	(0.258)	798841	100.000	99.13
	5 Vinyl Chloride	62	1.145	1.145	(0.274)	780278	100.000	102.57
	6 Bromomethane	94	1.336	1.336	(0.320)	393567	100.000	99.00
	7 Chloroethane	64	1.404	1.404	(0.336)	465504	100.000	98.02
	8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	838856	100.000	104.73
	9 Acrolein	56	1.441	1.441	(0.345)	102170	200.000	212.60
	10 Acetone	43	1.970	1.970	(0.472)	403846	200.000	206.39
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	524314	100.000	103.52
	15 Iodomethane	142	2.026	2.026	(0.485)	1590979	200.000	202.56
	16 Acrylonitrile	53	2.532	2.532	(0.606)	406664	200.000	214.43
	17 Methylene Chloride	84	2.303	2.303	(0.551)	571682	100.000	94.95
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	1515821	100.000	95.94
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	3182424	200.000	200.27
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	522283	100.000	99.42
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	2918253	200.000	199.64
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	936700	100.000	97.24
	24 2-Butanone	43	3.574	3.574	(0.856)	428665	200.000	224.26
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	728556	100.000	103.03
	27 cis-1,2-Dichloroethene	96	3.521	3.521	(0.843)	599318	100.000	96.99
	28 Chloroform	83	3.900	3.900	(0.934)	913956	100.000	95.73
	29 Bromochloromethane	128	3.791	3.791	(0.908)	312939	100.000	96.09
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	556227	100.000	107.62
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	800215	100.000	108.84
	32 1,1-Dichloropropene	75	4.275	4.275	(0.861)	768167	100.000	108.24
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	684507	100.000	97.14
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	683689	100.000	104.28
$	35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	577397	100.000	103.81
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	902001	50.0000	
	37 Benzene	78	4.507	4.507	(0.908)	2344684	100.000	102.17
	38 Trichloroethene	130	5.201	5.201	(1.048)	643829	100.000	104.09
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	788403	100.000	100.39
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	569223	200.000	218.23
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	640235	100.000	98.18
	44 Dibromomethane	93	5.550	5.550	(1.118)	402973	100.000	101.82
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	1217264	200.000	209.07
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	1079966	100.000	102.91
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	846541	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	2169362	100.000	100.57

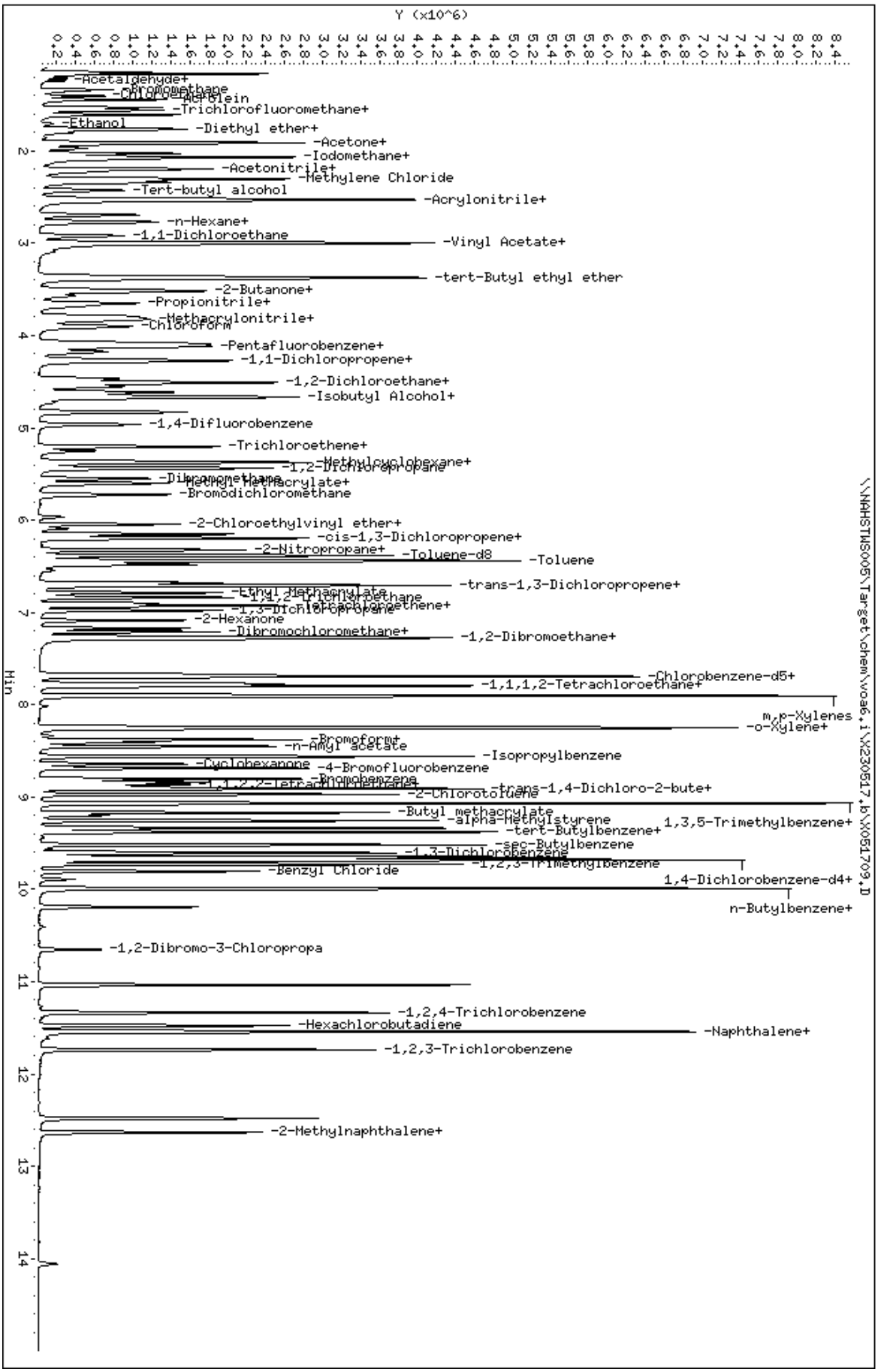
50	Toluene	91	6.445	6.445 (0.841)	2487121	100.000	104.70
51	trans-1,3-Dichloropropene	75	6.678	6.678 (1.345)	855285	100.000	102.05

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
52	2-Hexanone	43	7.083	7.083	(0.924)	781769	200.000	196.19(H)
53	1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	475227	100.000	97.96
54	1,3-Dichloropropane	76	6.978	6.978	(0.910)	972523	100.000	96.34
55	Dibromochloromethane	129	7.173	7.173	(0.935)	677178	100.000	102.87
56	Tetrachloroethene	164	6.925	6.925	(0.903)	508010	100.000	110.39
57	1,2-Dibromoethane	107	7.259	7.259	(0.947)	595442	100.000	100.73
58	1-Chlorohexane	55	7.694	7.694	(1.550)	542958	100.000	96.52
59	Chlorobenzene	112	7.690	7.690	(1.003)	1648952	100.000	100.28
60	1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	590826	100.000	102.39
61	Ethylbenzene	106	7.799	7.799	(1.017)	857255	100.000	106.10
62	m,p-Xylenes	106	7.904	7.904	(1.031)	2112501	200.000	209.93
63	o-Xylene	106	8.241	8.241	(1.075)	1015079	100.000	103.16
64	Styrene	104	8.256	8.256	(1.077)	1714637	100.000	104.09
66	Bromoform	173	8.406	8.406	(1.096)	440996	100.000	99.12
67	Isopropylbenzene	105	8.560	8.560	(1.116)	2536383	100.000	107.46
68	1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	757153	100.000	94.05
$ 69	4-Bromofluorobenzene	95	8.687	8.687	(1.133)	764056	100.000	94.09
* 70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	456123	50.0000	
71	1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	552019	100.000	94.59
73	n-Propylbenzene	91	8.912	8.912	(0.922)	3077203	100.000	108.85
74	Bromobenzene	156	8.803	8.803	(0.911)	722656	100.000	101.51
75	1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	2198203	100.000	107.36
76	2-Chlorotoluene	91	8.972	8.972	(0.929)	1802793	100.000	98.20
77	4-Chlorotoluene	91	9.069	9.069	(0.939)	2085233	100.000	103.28
78	tert-Butylbenzene	119	9.336	9.336	(0.966)	1855129	100.000	107.63
79	1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	2196632	100.000	104.85
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	2685646	100.000	111.74
82	p-Isopropyltoluene	119	9.647	9.647	(0.998)	2366261	100.000	113.94
83	1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	1315794	100.000	102.52
84	1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	1362299	100.000	101.00
87	n-Butylbenzene	91	9.992	9.992	(1.034)	2100037	100.000	118.10
88	1,2-Dichlorobenzene	146	9.988	9.988	(1.034)	1296454	100.000	101.63
89	1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	141877	100.000	104.05
90	1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	1031885	100.000	116.91
91	Hexachlorobutadiene	225	11.476	11.476	(1.188)	468220	100.000	123.29
92	Naphthalene	128	11.540	11.540	(1.194)	2523803	100.000	115.15
93	1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	985609	100.000	114.00
M 94	1,2-Dichloroethylene (total)	96				1121601	200.000	(a)
141	Cyclohexane	56	4.118	4.118	(0.986)	856612	100.000	119.18
138	Freon TF	101	1.913	1.913	(0.458)	505340	100.000	100.17
147	Methylcyclohexane	55	5.373	5.373	(1.082)	1505762	100.000	108.55(A)
146	Methyl Acetate	43	2.228	2.228	(0.533)	357187	100.000	105.23
148	Tert-Butyl alcohol	59	2.427	2.427	(0.581)	1044646	2000.00	1841.58
149	Isopropyl Alcohol	45	2.093	2.093	(0.501)	676128	2000.00	1924.44

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.
H - Operator selected an alternate compound hit.



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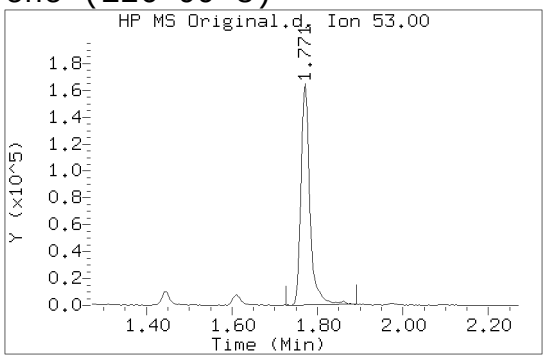
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Chloroprene (126-99-8)

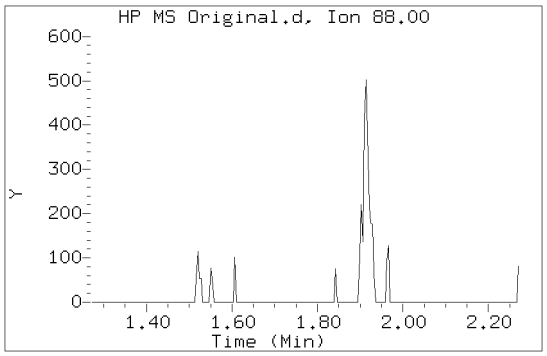
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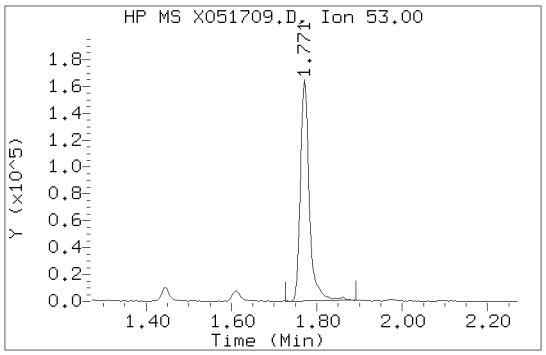
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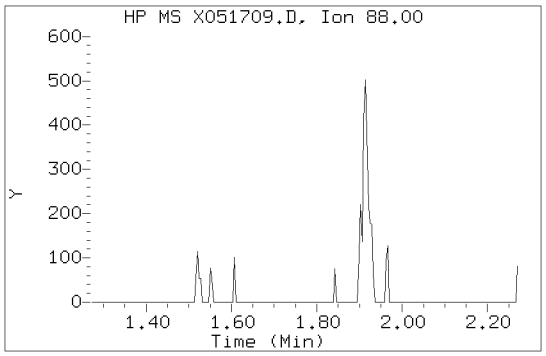
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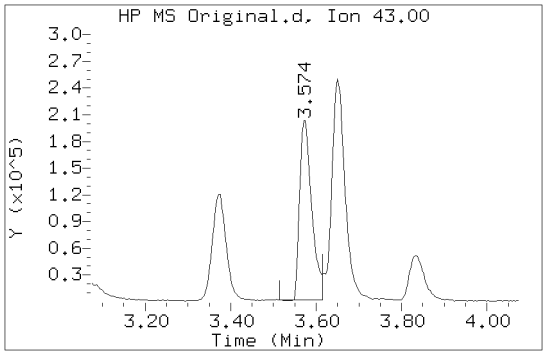
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Ethyl Acetate (141-78-6)

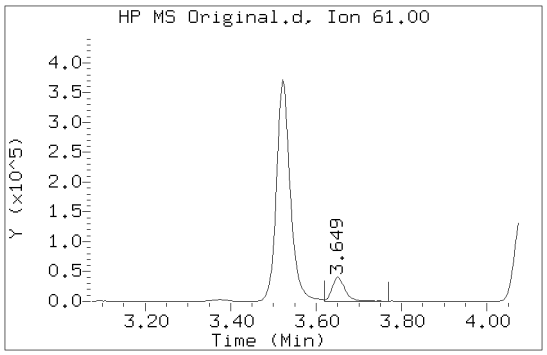
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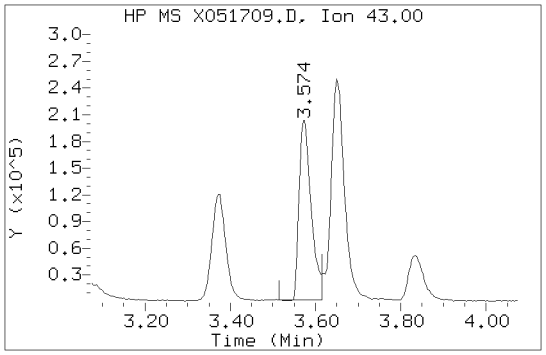
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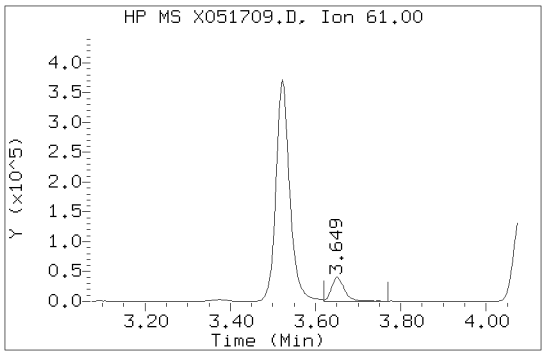
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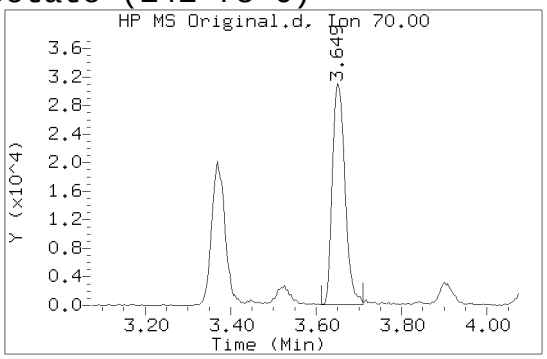
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LabSampID : VSTD100

Ethyl Acetate (141-78-6)

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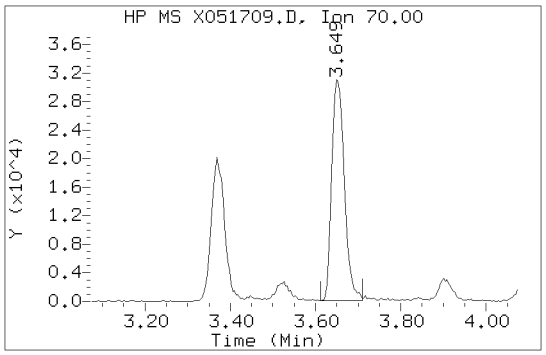
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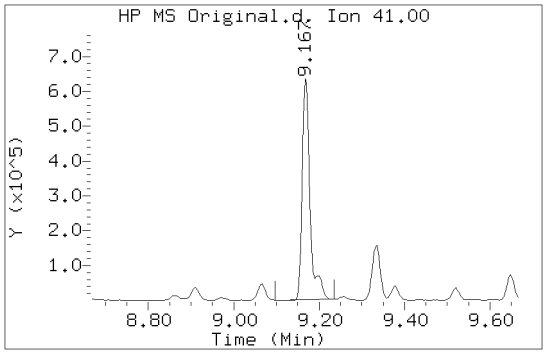


Butyl methacrylate (97-88-1)

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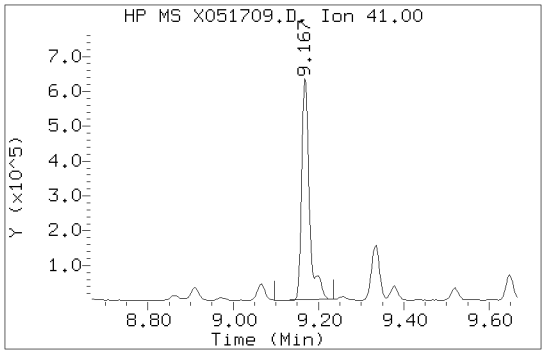
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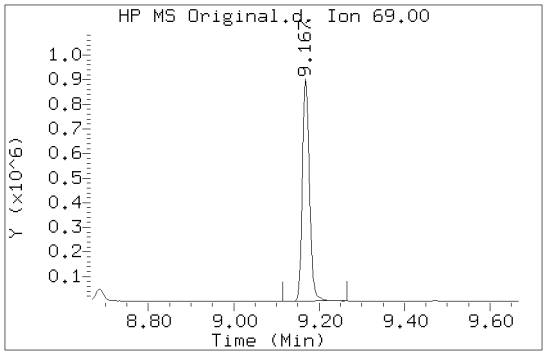
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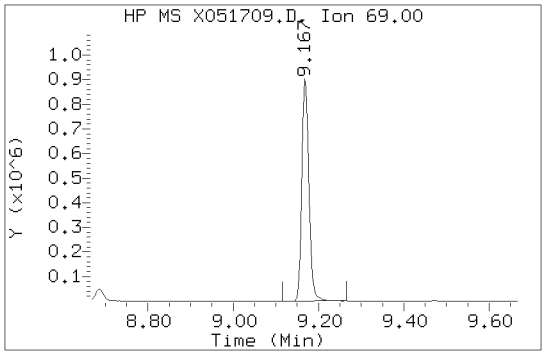
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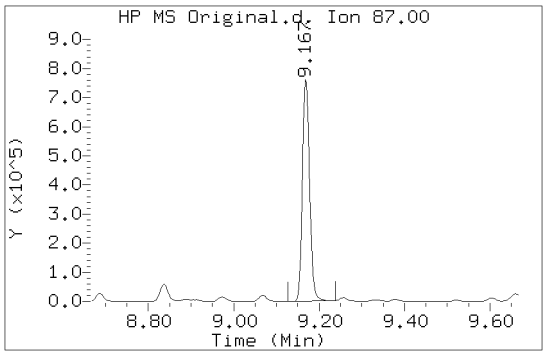
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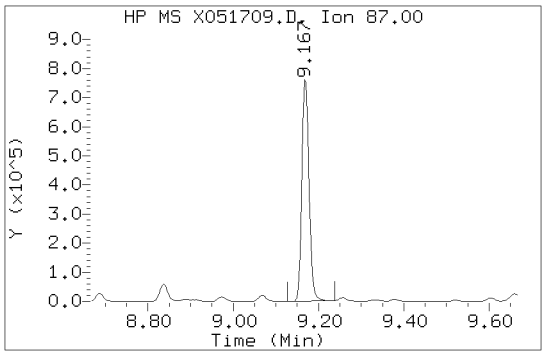
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AFTER

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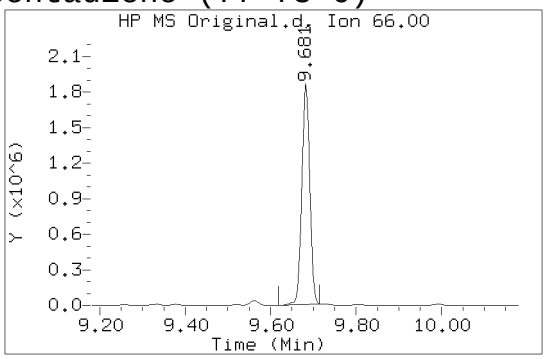


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LabSampID : VSTD100

Dicyclopentadiene (77-73-6)

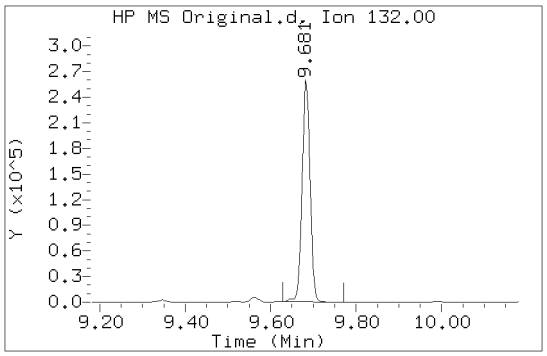
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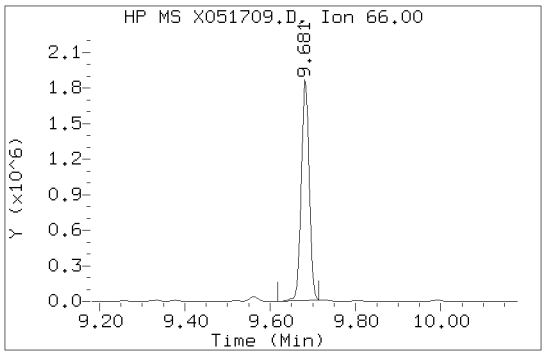
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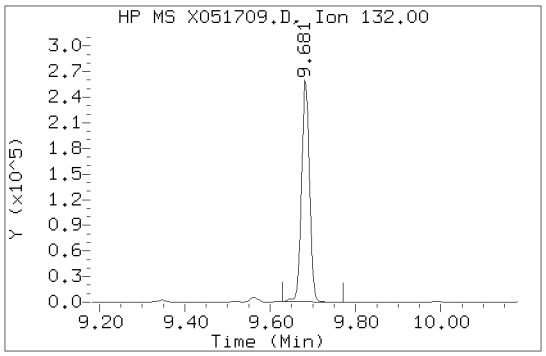
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AFTER

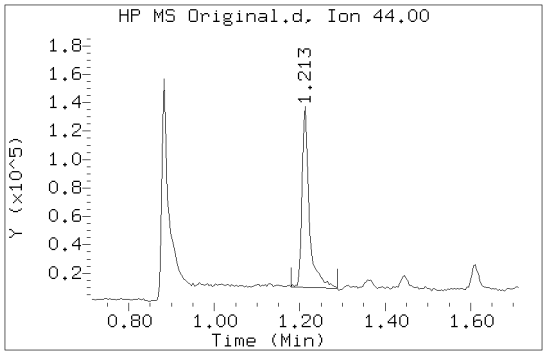
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Acetaldehyde (75-07-0)

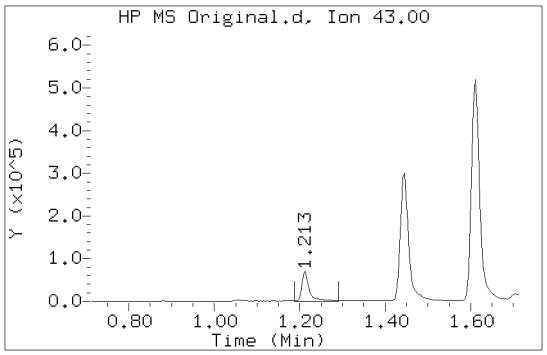
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BEFORE

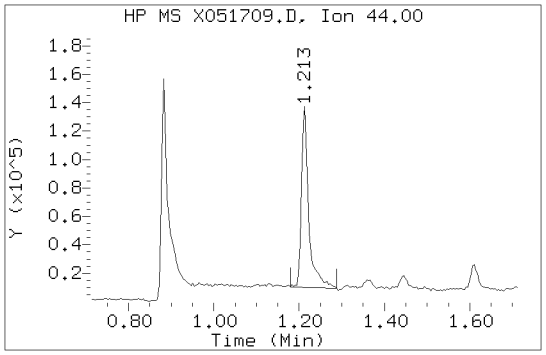
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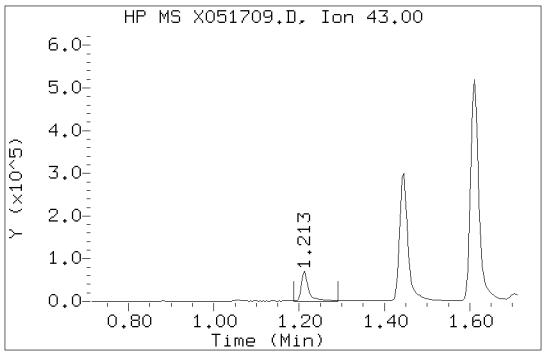
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AFTER

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18-May-2023
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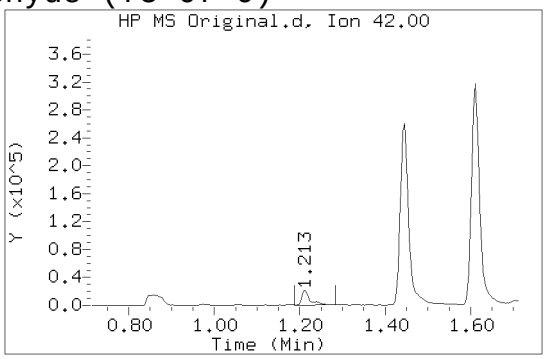
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InstruID : voa6.i
LabSampID : VSTD100

Acetaldehyde (75-07-0)

Reason Code:

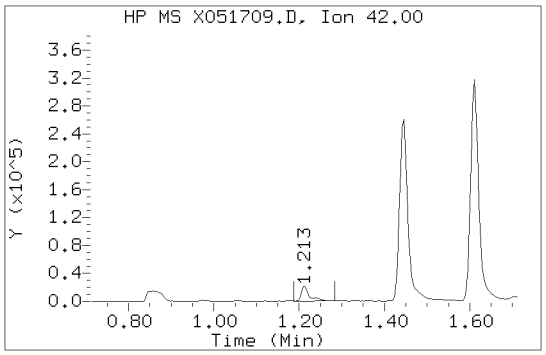
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AFTER

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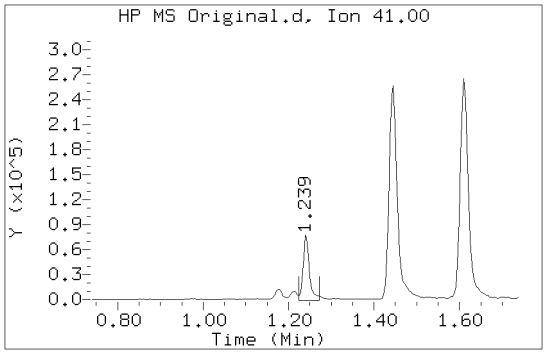


Isobutylene (115-11-7)

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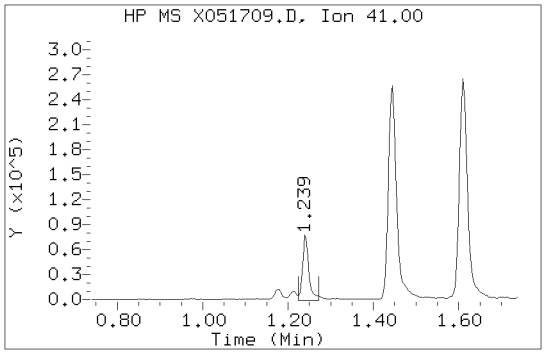
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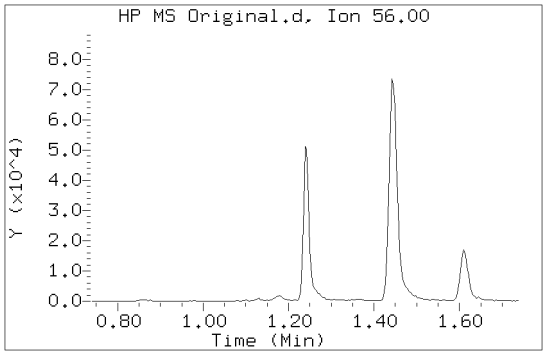
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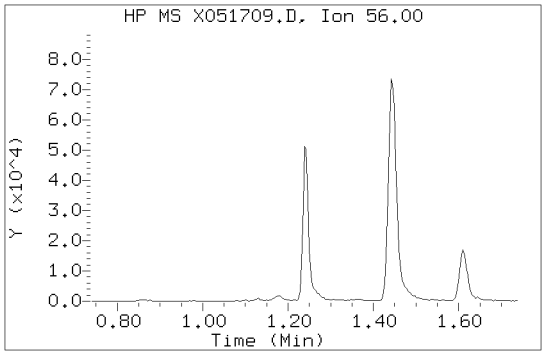
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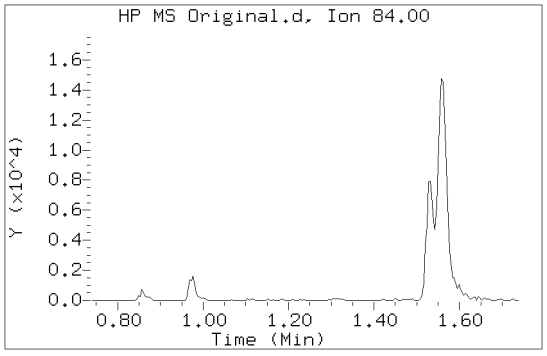
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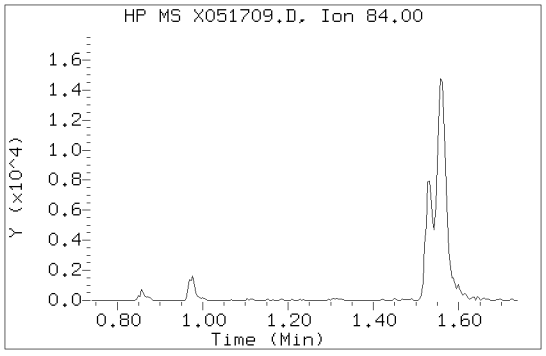
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AFTER

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18-May-2023
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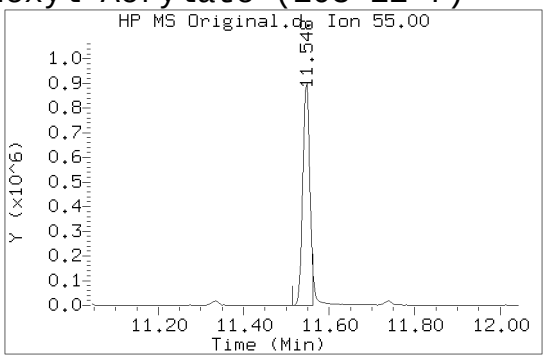
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Inj Date : 17-MAY-2023 15:05
InstruID : voa6.i
LabSampID : VSTD100

2-Ethylhexyl Acrylate (103-11-7)

Reason Code:

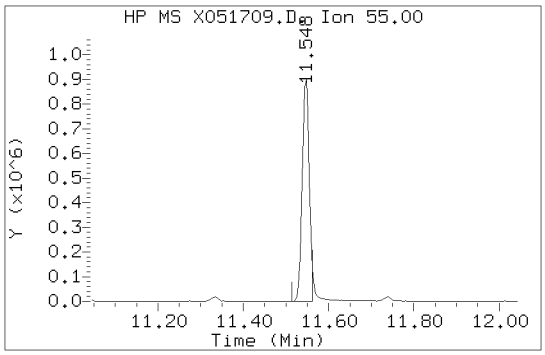
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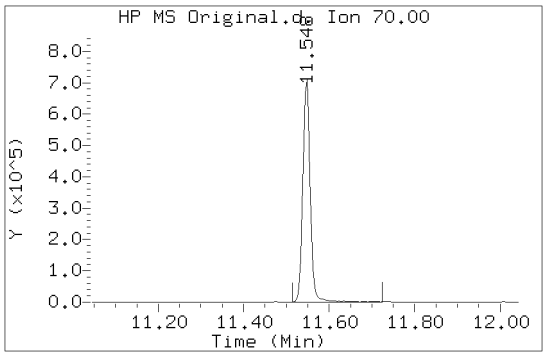
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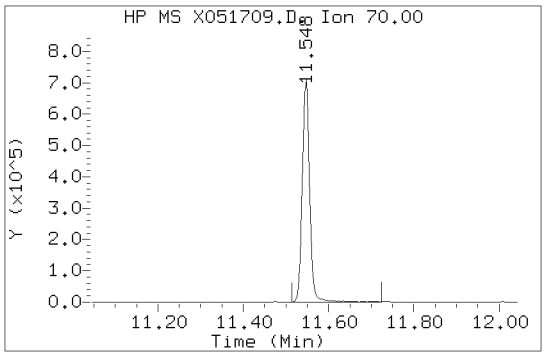
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AFTER

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18-May-2023
13:42
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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051710.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051710.D
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Operator : PC Inst ID: voa6.i
Smp Info : VSTD150;VSTD150;1;9;
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Cal Date : 17-MAY-2023 15:05 Cal File: X051709.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	556501	50.0000	
135 1,4-Dioxane	88	5.595	5.595	(1.339)	228306	3000.00	3029.21
140 1,3-Butadiene	54	1.164	1.164	(0.279)	918869	150.000	156.00
25 Methacrylonitrile	41	3.818	3.818	(0.914)	752149	150.000	151.61
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	2330517	3000.00	3212.72
13 Acetonitrile	39	2.195	2.195	(0.525)	848220	1500.00	1583.22
14 Allyl Chloride	41	2.195	2.195	(0.525)	2089661	150.000	154.62
4 Propionitrile	54	3.649	3.649	(0.873)	1191075	1500.00	1560.77
72 trans-1,4-Dichloro-2-butene	53	8.886	8.886	(1.159)	317846	150.000	153.45
194 Acetaldehyde	44	1.209	1.209	(0.289)	227240	600.000	619.08(M)
23 Chloroprene	53	1.767	1.767	(0.423)	345305	150.000	153.70
130 Ethyl Acetate	43	3.570	3.570	(0.855)	630195	150.000	159.57(M)
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	778067	150.000	159.94
49 Ethyl Methacrylate	69	6.787	6.787	(1.367)	1355454	150.000	148.03
131 Methyl Acrylate	55	3.683	3.683	(0.882)	935544	150.000	172.72
132 n-Butanol	56	5.253	5.253	(1.258)	523242	3000.00	3100.03
136 n-Hexane	57	2.768	2.768	(0.663)	865594	150.000	119.77
139 Diethyl ether	59	1.756	1.756	(0.420)	718599	150.000	151.13
142 Tetrahydrofuran	42	3.840	3.840	(0.919)	278604	300.000	303.71
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	1578122	150.000	158.56

156 Diisopropyl ether	45	2.997	2.997 (0.717)	2541448	150.000	150.93
162 Butyl acrylate	55	8.249	8.249 (1.076)	2075045	150.000	156.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	167 Ethanol	45	1.707	1.707	(0.409)	201113	3000.00	3065.97
	200 Dimethyl Disulfide	94	6.194	6.194	(0.808)	1955918	150.000	147.17
	182 Epichlorohydrin	57	6.093	6.093	(1.227)	344684	600.000	589.47
	164 Dicyclopentadiene	66	9.684	9.684	(1.002)	3879408	150.000	161.43(M)
	166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	3159121	150.000	153.62
	205 2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	1323514	150.000	156.36(M)
	86 Benzyl Chloride	91	9.804	9.804	(1.279)	2164329	150.000	152.33
	134 Cyclohexanone	55	8.642	8.642	(0.894)	845318	3000.00	3038.99
	202 Isobutylene	41	1.239	1.239	(0.297)	117191	150.000	155.63(M)
	133 Ethyl Acrylate	55	5.377	5.377	(1.287)	2266239	150.000	155.35
	163 Butyl methacrylate	41	9.171	9.171	(0.949)	1244153	150.000	158.03(M)
	188 Isopropyl acetate	43	4.672	4.672	(0.941)	2330517	150.000	151.12
	189 n-Butyl acetate	43	7.210	7.210	(0.940)	1531113	150.000	147.67(H)
	2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	843502	150.000	155.72
	3 Chloromethane	50	1.077	1.077	(0.258)	1215050	150.000	155.61
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	1133406	150.000	153.77
	6 Bromomethane	94	1.332	1.332	(0.319)	597056	150.000	154.86
	7 Chloroethane	64	1.400	1.400	(0.335)	669573	150.000	145.52
	8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	1226596	150.000	158.05
	9 Acrolein	56	1.441	1.441	(0.345)	152553	300.000	327.63
	10 Acetone	43	1.973	1.973	(0.472)	561504	300.000	298.07
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	755499	150.000	153.95
	15 Iodomethane	142	2.026	2.026	(0.485)	2478075	300.000	299.18
	16 Acrylonitrile	53	2.528	2.528	(0.605)	595427	300.000	324.03
	17 Methylene Chloride	84	2.300	2.300	(0.550)	837832	150.000	143.62
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	2290915	150.000	149.66
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	5075676	300.000	329.66
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	766419	150.000	150.57
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	4425499	300.000	312.46
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	1374928	150.000	147.32
	24 2-Butanone	43	3.570	3.570	(0.855)	640020	300.000	345.57
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	1056504	150.000	154.35
	27 cis-1,2-Dichloroethene	96	3.522	3.522	(0.843)	887608	150.000	148.26
	28 Chloroform	83	3.904	3.904	(0.935)	1351772	150.000	146.13
	29 Bromochloromethane	128	3.788	3.788	(0.907)	466584	150.000	147.87
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	755598	150.000	151.23
	31 1,1,1-Trichloroethane	97	4.076	4.076	(0.976)	1095998	150.000	153.86
	32 1,1-Dichloropropene	75	4.275	4.275	(0.861)	1059537	150.000	150.27
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	1064458	150.000	152.04
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	945448	150.000	145.15
$	35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	823824	150.000	153.08
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	896199	50.0000	
	37 Benzene	78	4.507	4.507	(0.908)	3477739	150.000	152.52
	38 Trichloroethene	130	5.201	5.201	(1.048)	952156	150.000	154.94
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	1149104	150.000	147.27
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	793583	300.000	306.22
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	941597	150.000	145.33
	44 Dibromomethane	93	5.550	5.550	(1.118)	556458	150.000	141.51
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	1716863	300.000	267.97
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	1552973	150.000	148.95
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	931532	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	3069084	150.000	129.30

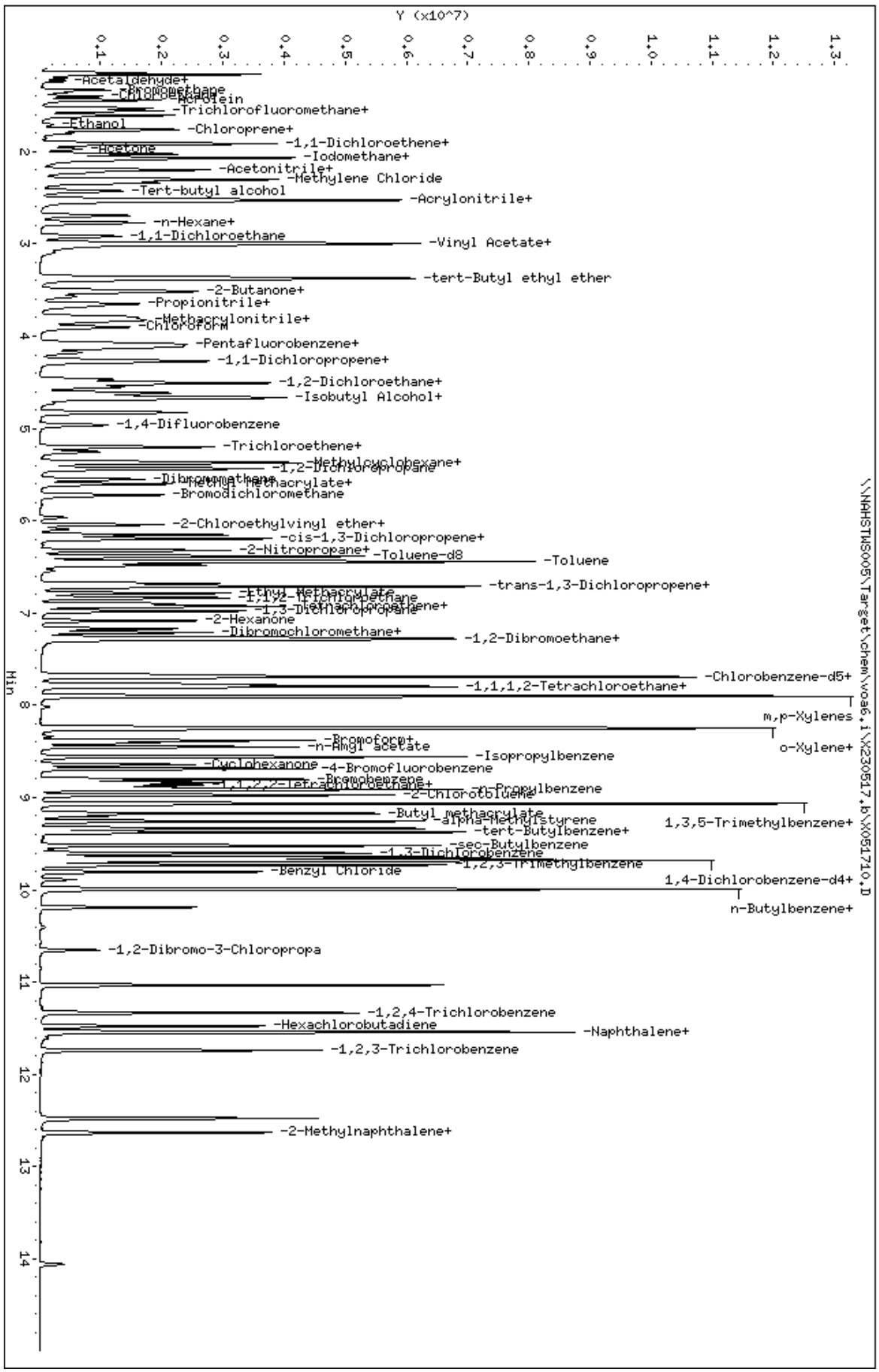
50	Toluene	91	6.442	6.442 (0.840)	3639869	150.000	139.25
51	trans-1,3-Dichloropropene	75	6.678	6.678 (1.345)	1305000	150.000	156.72

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	52 2-Hexanone	43	7.083	7.083	(0.924)	1306404	300.000	297.94(H)
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	734241	150.000	137.55
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	1605845	150.000	144.57
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	1004799	150.000	138.71
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	755444	150.000	149.18
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	902010	150.000	138.67
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	864100	150.000	153.50
	59 Chlorobenzene	112	7.690	7.690	(1.003)	2686659	150.000	148.48
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	915748	150.000	144.22
	61 Ethylbenzene	106	7.795	7.795	(1.017)	1285426	150.000	144.57
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	3259199	300.000	294.33
	63 o-Xylene	106	8.241	8.241	(1.075)	1571194	150.000	145.11
	64 Styrene	104	8.256	8.256	(1.077)	2677361	150.000	147.70
	66 Bromoform	173	8.406	8.406	(1.096)	717111	150.000	146.47
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	3783380	150.000	145.66
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	1240541	150.000	153.74
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	1186439	150.000	132.77
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	456526	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	903182	150.000	154.63
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	4550786	150.000	160.84
	74 Bromobenzene	156	8.803	8.803	(0.911)	1122870	150.000	157.59
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	3170322	150.000	154.70
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	2723799	150.000	148.24
	77 4-Chlorotoluene	91	9.066	9.066	(0.938)	3041274	150.000	150.50
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	2650611	150.000	153.65
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	3174928	150.000	151.41
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	3774828	150.000	156.92
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	3331697	150.000	160.28
	83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	1944348	150.000	151.37
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	2021762	150.000	149.76
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	2927654	150.000	164.49
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	1900248	150.000	148.83
	89 1,2-Dibromo-3-Chloropropane	155	10.651	10.651	(1.102)	212665	150.000	156.00
	90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	1461685	150.000	165.46
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	631292	150.000	166.09
	92 Naphthalene	128	11.540	11.540	(1.194)	3329380	150.000	151.78
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	1330866	150.000	153.79
M	94 1,2-Dichloroethylene (total)	96				1654027	300.000	(a)
	141 Cyclohexane	56	4.118	4.118	(0.986)	1091141	150.000	156.68
	138 Freon TF	101	1.913	1.913	(0.458)	701824	150.000	123.24
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	2266239	150.000	164.43(A)
	146 Methyl Acetate	43	2.228	2.228	(0.533)	543898	150.000	165.38
	148 Tert-Butyl alcohol	59	2.431	2.431	(0.582)	1651095	3000.00	3004.06
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	1074903	3000.00	3157.62

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.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTMS005\Target\chem\voa6.i\X230517.b\X051710.D
Date : 17-MAY-2023 15:26
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

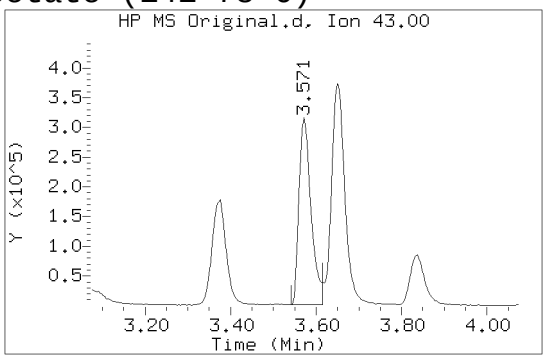
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Inj Date : 17-MAY-2023 15:26
InstruID : voa6.i
LabSampID : VSTD150

Ethyl Acetate (141-78-6)

Reason Code:

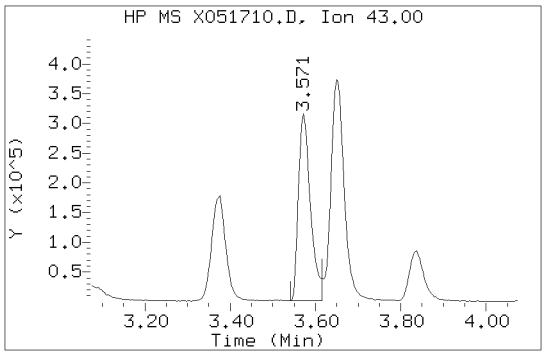
BEFORE

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HEIGHT
315524
18-May-2023
13:42
linh
pham



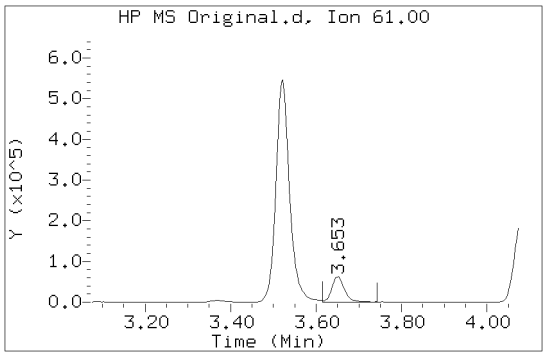
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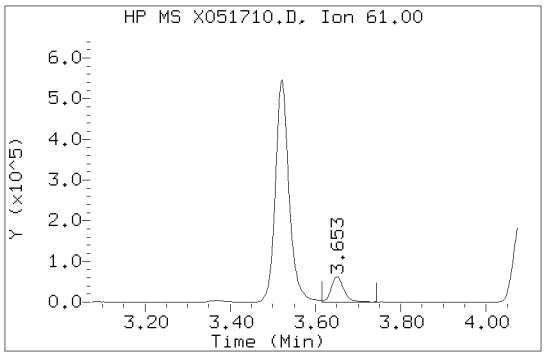
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62452
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13:42
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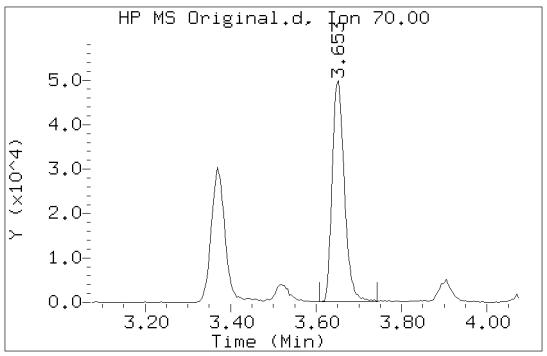
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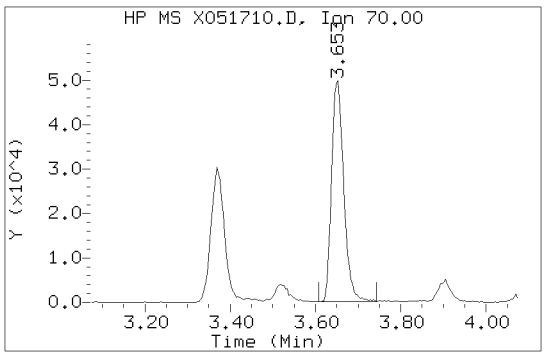
BEFORE

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49803
18-May-2023
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AFTER

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HEIGHT
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18-May-2023
13:42
linh
pham

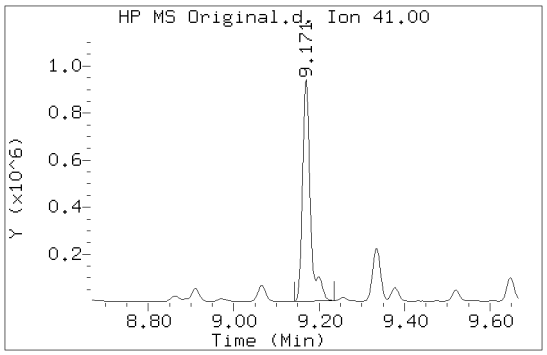


Butyl methacrylate (97-88-1)

Reason Code:

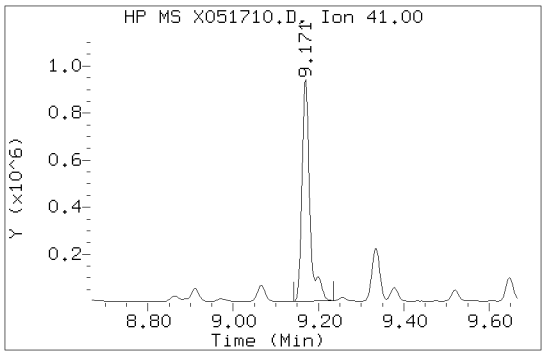
BEFORE

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HEIGHT
940012
18-May-2023
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AFTER

MASS
41
AREA
1244153
HEIGHT
940012
18-May-2023
13:42
linh
pham



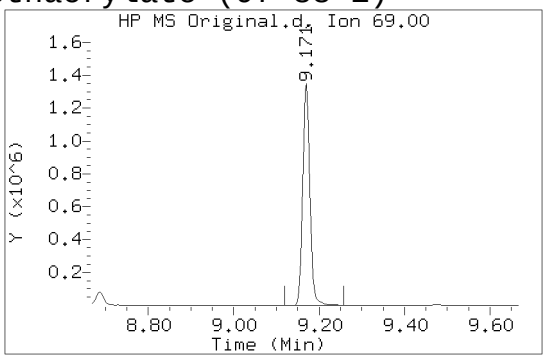
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Inj Date : 17-MAY-2023 15:26
InstruID : voa6.i
LabSampID : VSTD150

Butyl methacrylate (97-88-1)

Reason Code:

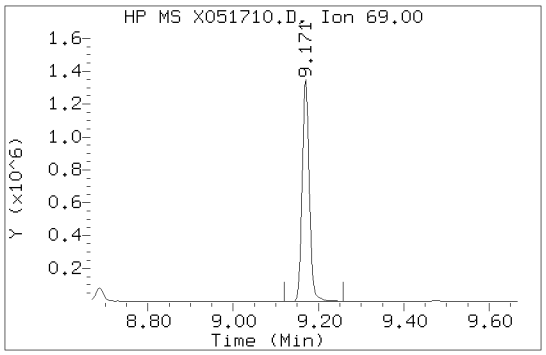
BEFORE

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AREA
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HEIGHT
1347810
18-May-2023
13:42
linh
pham



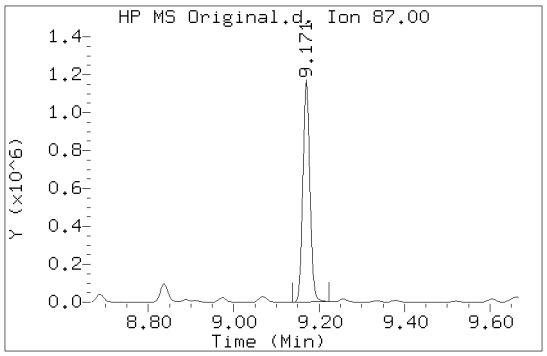
AFTER

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HEIGHT
1347810
18-May-2023
13:42
linh
pham



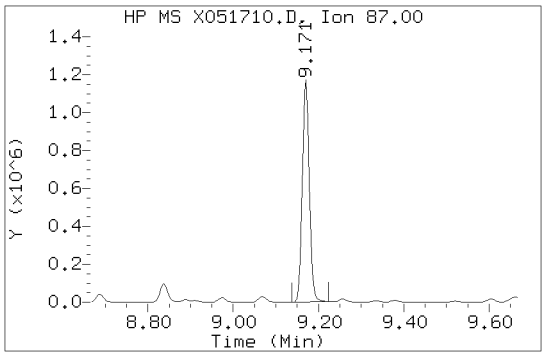
BEFORE

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87
AREA
1382484
HEIGHT
1171829
18-May-2023
13:42
linh
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AFTER

MASS
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AREA
1382484
HEIGHT
1171829
18-May-2023
13:42
linh
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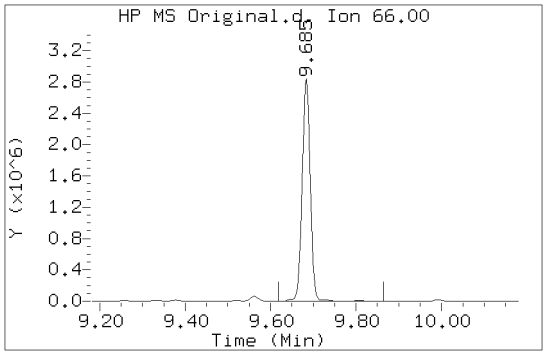


Dicyclopentadiene (77-73-6)

Reason Code:

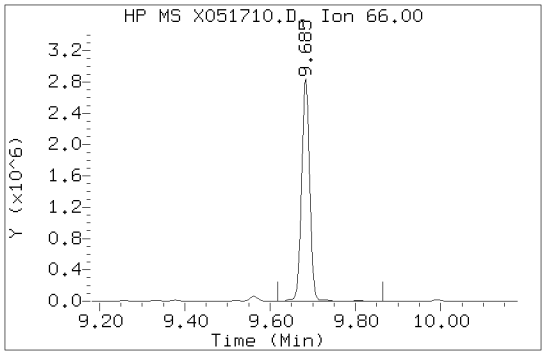
BEFORE

MASS
66
AREA
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HEIGHT
2838824
18-May-2023
13:42
linh
pham



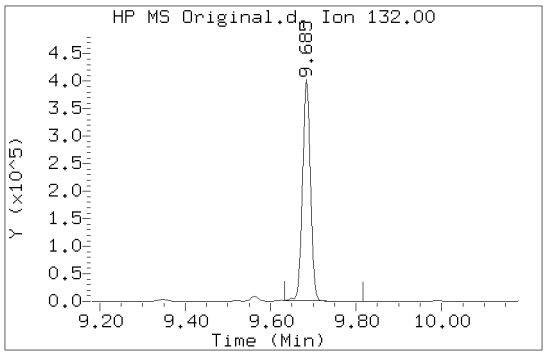
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HEIGHT
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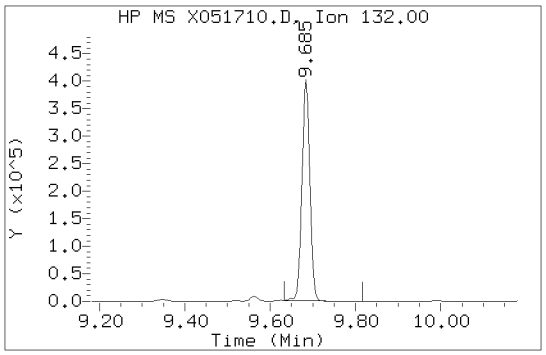
BEFORE

MASS
132
AREA
533677
HEIGHT
401583
18-May-2023
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AFTER

MASS
132
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533677
HEIGHT
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18-May-2023
13:42
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pham

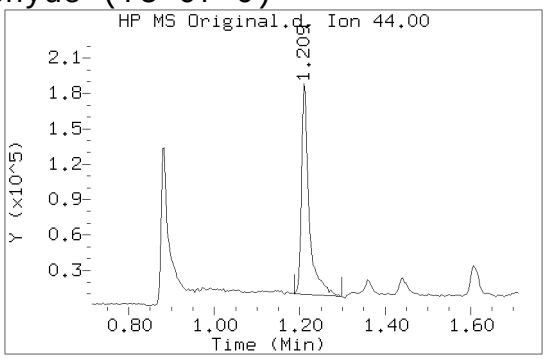


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Inj Date : 17-MAY-2023 15:26
InstruID : voa6.i
LabSampID : VSTD150

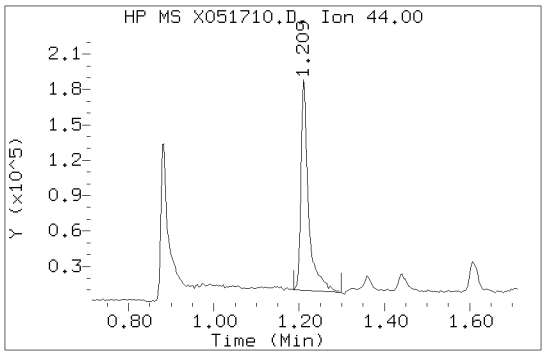
Acetaldehyde (75-07-0)

Reason Code:

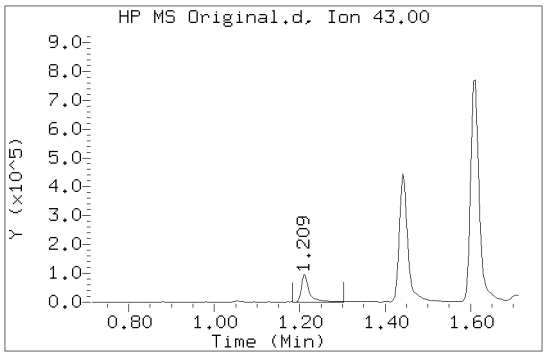
BEFORE
MASS
44
AREA
227240
HEIGHT
178408
18-May-2023
13:42
linh
pham



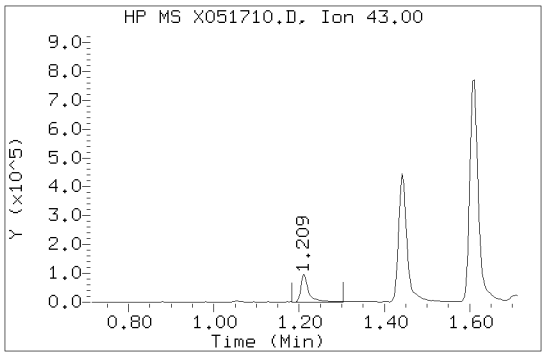
AFTER
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18-May-2023
13:42
linh
pham



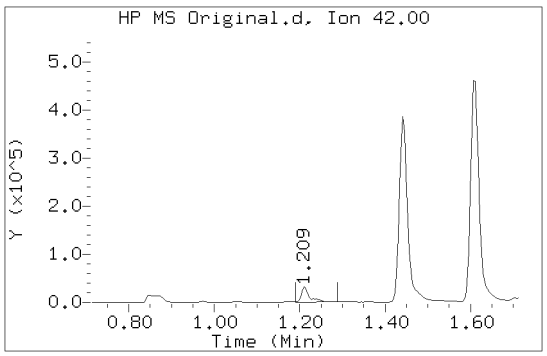
BEFORE
MASS
43
AREA
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HEIGHT
95773
18-May-2023
13:42
linh
pham



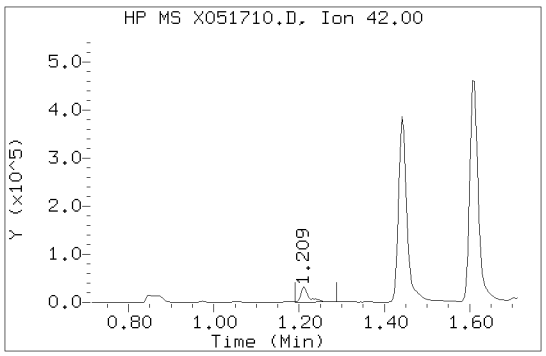
AFTER
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HEIGHT
95773
18-May-2023
13:42
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BEFORE
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HEIGHT
31132
18-May-2023
13:42
linh
pham



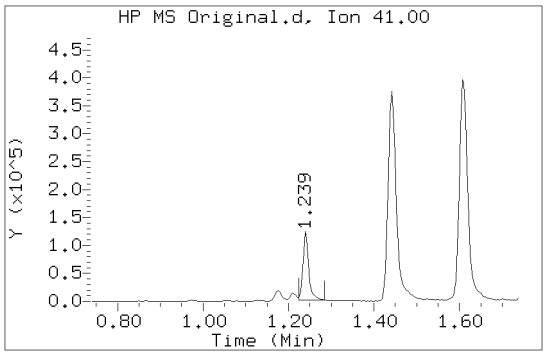
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18-May-2023
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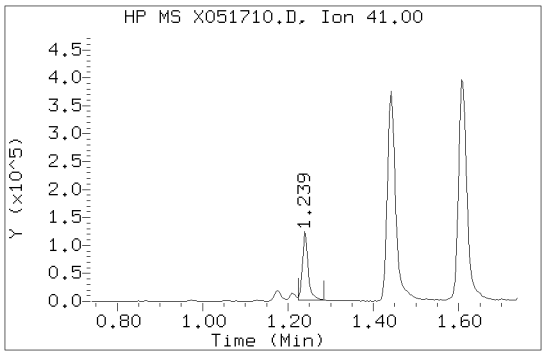
Isobutylene (115-11-7)

Reason Code:

BEFORE
MASS
41
AREA
117191
HEIGHT
121869
18-May-2023
13:42
linh
pham



AFTER
MASS
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HEIGHT
121869
18-May-2023
13:42
linh
pham



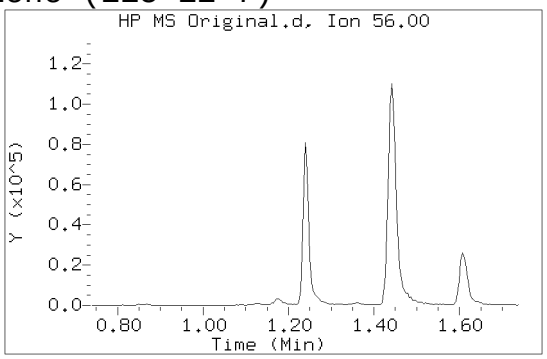
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051710.D
Inj Date : 17-MAY-2023 15:26
InstruID : voa6.i
LabSampID : VSTD150

Isobutylene (115-11-7)

Reason Code:

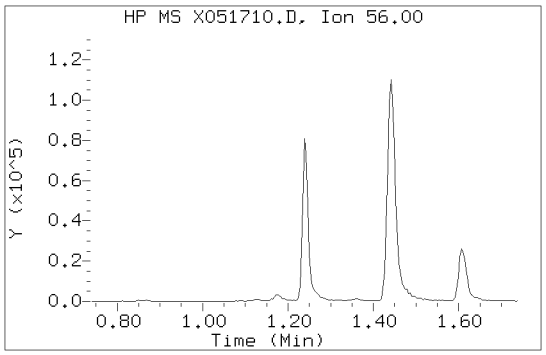
BEFORE

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AREA
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HEIGHT
0
18-May-2023
13:42
linh
pham



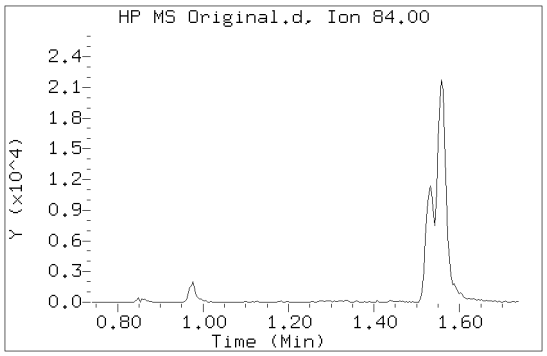
AFTER

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18-May-2023
13:42
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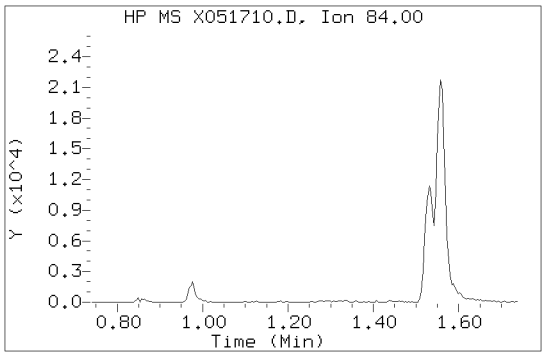
BEFORE

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84
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18-May-2023
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AFTER

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HEIGHT
0
18-May-2023
13:42
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pham

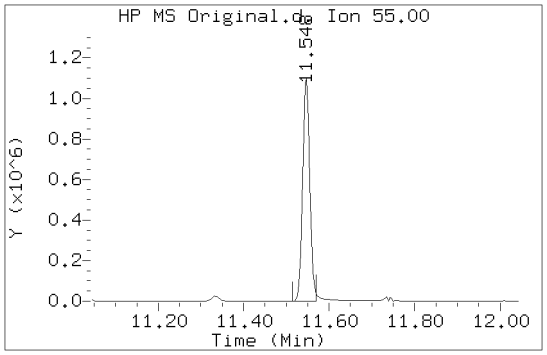


2-Ethylhexyl Acrylate (103-11-7)

Reason Code:

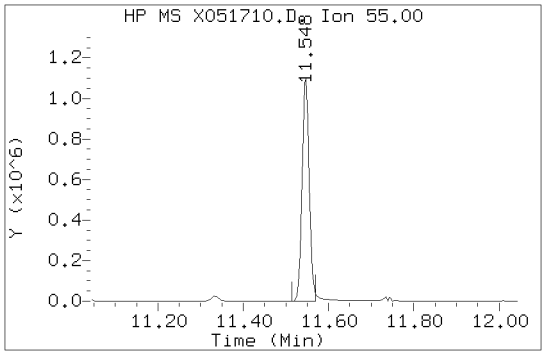
BEFORE

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HEIGHT
1095822
18-May-2023
13:42
linh
pham



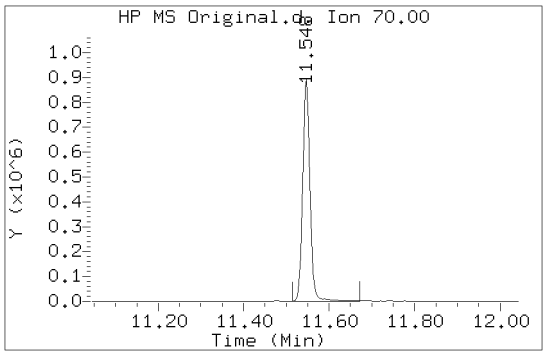
AFTER

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18-May-2023
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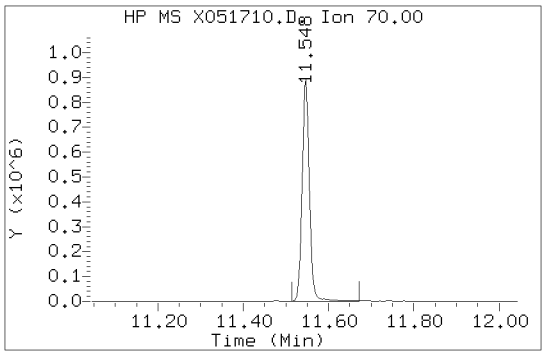
BEFORE

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HEIGHT
891074
18-May-2023
13:42
linh
pham



AFTER

MASS
70
AREA
1094875
HEIGHT
891074
18-May-2023
13:42
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051711.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051711.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 17-MAY-2023 15:47
Operator : PC Inst ID: voa6.i
Smp Info : VSTD200;VSTD200;1;10;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\8260W.m
Meth Date : 18-May-2023 13:43 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 15:26 Cal File: X051710.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.177	4.177	(1.000)	575301	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	308206	4000.00	3955.71
140 1,3-Butadiene	54	1.164	1.164	(0.279)	1240077	200.000	203.65(A)
25 Methacrylonitrile	41	3.814	3.814	(0.913)	982149	200.000	191.51
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	2962148	4000.00	3950.01
13 Acetonitrile	39	2.194	2.194	(0.525)	1099277	2000.00	1984.78
14 Allyl Chloride	41	2.194	2.194	(0.525)	2688697	200.000	192.45
4 Propionitrile	54	3.649	3.649	(0.873)	1551389	2000.00	1966.49
72 trans-1,4-Dichloro-2-butene	53	8.886	8.886	(1.159)	433084	200.000	202.63(A)
194 Acetaldehyde	44	1.209	1.209	(0.289)	294948	800.000	780.67(M)
23 Chloroprene	53	1.767	1.767	(0.423)	459018	200.000	197.65
130 Ethyl Acetate	43	3.570	3.570	(0.855)	840211	200.000	205.79(AM)
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	994102	200.000	197.68
49 Ethyl Methacrylate	69	6.787	6.787	(1.368)	1774509	200.000	196.06
131 Methyl Acrylate	55	3.679	3.679	(0.881)	1226368	200.000	219.02(A)
132 n-Butanol	56	5.253	5.253	(1.258)	702850	4000.00	4007.65(A)
136 n-Hexane	57	2.768	2.768	(0.663)	1146601	200.000	127.07
139 Diethyl ether	59	1.756	1.756	(0.420)	965882	200.000	196.50
142 Tetrahydrofuran	42	3.840	3.840	(0.919)	358657	400.000	378.20
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	2216747	200.000	196.58

156 Diisopropyl ether	45	2.997	2.997 (0.717)	3282435	200.000	188.57
162 Butyl acrylate	55	8.249	8.249 (1.076)	2742517	200.000	200.46(A)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051711.D Page 2
Report Date: 18-May-2023 13:43

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	167 Ethanol	45	1.707	1.707	(0.409)	271159	4000.00	3999.19
	200 Dimethyl Disulfide	94	6.194	6.194	(0.808)	2657537	200.000	193.79
	182 Epichlorohydrin	57	6.093	6.093	(1.228)	485179	800.000	839.42(A)
	164 Dicyclopentadiene	66	9.684	9.684	(1.002)	5862638	200.000	215.30(AM)
	166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	4693237	200.000	201.42(A)
	205 2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	1922507	200.000	200.46(A)
	86 Benzyl Chloride	91	9.808	9.808	(1.279)	3371958	200.000	230.01(A)
	134 Cyclohexanone	55	8.642	8.642	(0.894)	1113172	4000.00	3532.03
	202 Isobutylene	41	1.239	1.239	(0.297)	146298	200.000	187.94(M)
	133 Ethyl Acrylate	55	5.377	5.377	(1.287)	2966598	200.000	196.35
	163 Butyl methacrylate	41	9.171	9.171	(0.949)	2060657	200.000	231.01(AM)
	188 Isopropyl acetate	43	4.672	4.672	(0.942)	2963534	200.000	194.41
	189 n-Butyl acetate	43	7.210	7.210	(0.940)	2068504	200.000	193.34(H)
	2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	1100606	200.000	196.38
	3 Chloromethane	50	1.077	1.077	(0.258)	1642174	200.000	203.44(A)
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	1503217	200.000	197.28
	6 Bromomethane	94	1.329	1.329	(0.318)	787052	200.000	197.40
	7 Chloroethane	64	1.400	1.400	(0.335)	860698	200.000	180.95
	8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	1563856	200.000	194.93
	9 Acrolein	56	1.437	1.437	(0.344)	196569	400.000	408.36(A)
	10 Acetone	43	1.970	1.970	(0.472)	771960	400.000	397.84
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	1000583	200.000	197.23
	15 Iodomethane	142	2.026	2.026	(0.485)	3137706	400.000	347.68
	16 Acrylonitrile	53	2.528	2.528	(0.605)	808513	400.000	425.62(A)
	17 Methylene Chloride	84	2.299	2.299	(0.550)	1096267	200.000	181.78
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	2988752	200.000	188.86
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	6265168	400.000	393.62
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	1006944	200.000	191.36
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	5734192	400.000	391.64
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	1815635	200.000	188.18
	24 2-Butanone	43	3.570	3.570	(0.855)	851204	400.000	444.58(A)
	26 2,2-Dichloropropane	77	3.506	3.506	(0.839)	1382720	200.000	195.50
	27 cis-1,2-Dichloroethene	96	3.521	3.521	(0.843)	1165294	200.000	188.28
	28 Chloroform	83	3.900	3.900	(0.934)	1775812	200.000	185.70
	29 Bromochloromethane	128	3.788	3.788	(0.907)	588978	200.000	180.56
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	1008592	200.000	195.52
	31 1,1,1-Trichloroethane	97	4.076	4.076	(0.976)	1447733	200.000	196.59
	32 1,1-Dichloropropene	75	4.275	4.275	(0.862)	1450289	200.000	208.09(A)
	33 1,2-Dichloroethane	62	4.552	4.552	(0.918)	1309874	200.000	189.27
	34 Carbon Tetrachloride	117	4.260	4.260	(0.859)	1301809	200.000	202.19(A)
$	35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	1089460	200.000	195.96
*	36 1,4-Difluorobenzene	114	4.961	4.961	(1.000)	885864	50.0000	
	37 Benzene	78	4.507	4.507	(0.909)	4421772	200.000	196.19
	38 Trichloroethene	130	5.205	5.205	(1.049)	1275318	200.000	209.95(A)
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	1525884	200.000	197.84
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.218)	1113726	400.000	434.77(A)
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	1252495	200.000	195.57
	44 Dibromomethane	93	5.549	5.549	(1.119)	750316	200.000	193.04
	45 4-Methyl-2-Pentanone	43	6.325	6.325	(0.825)	2326966	400.000	351.99
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	2158565	200.000	209.44(A)
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	961189	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	4375608	200.000	178.65

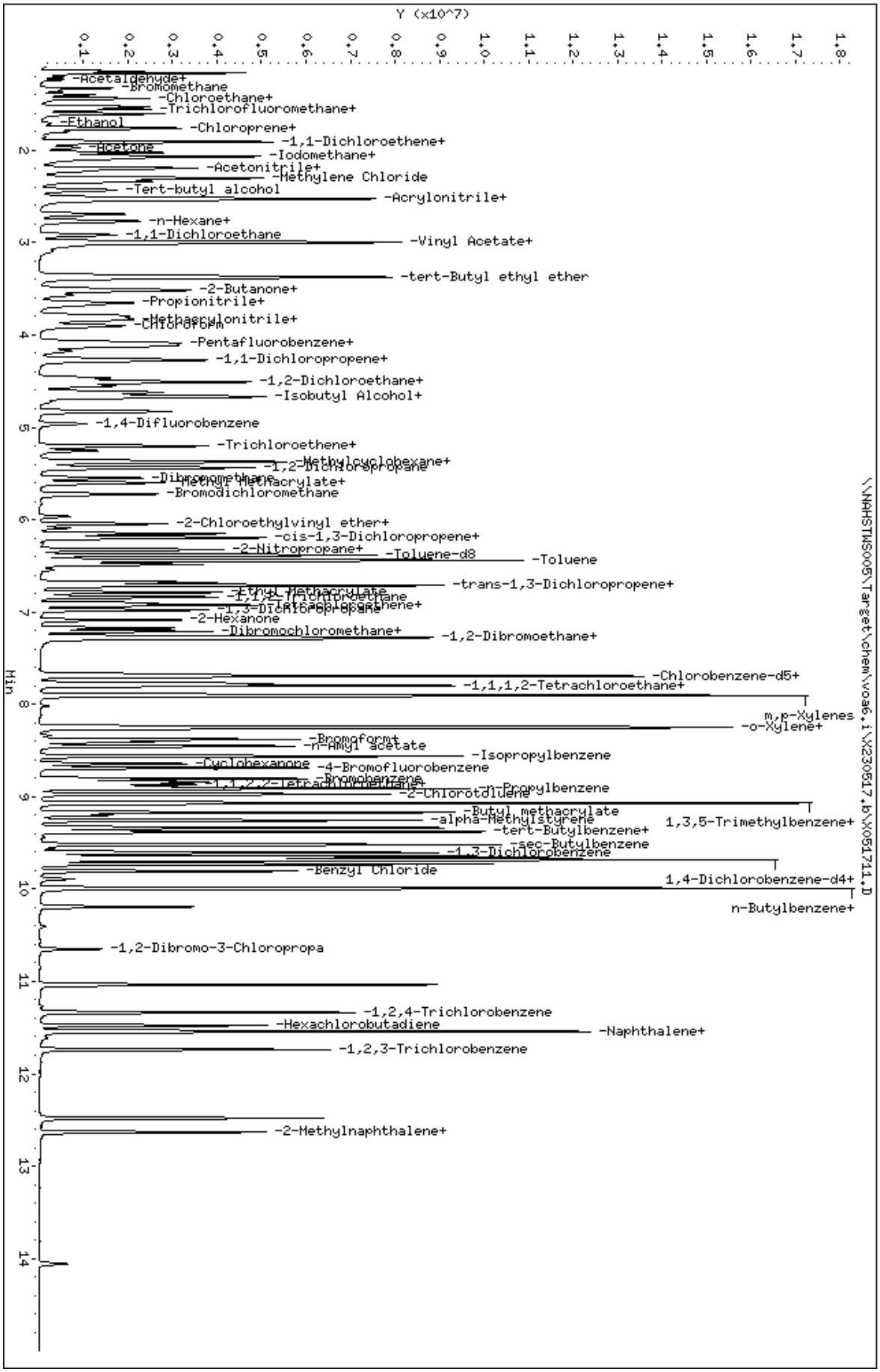
50 Toluene	91	6.445	6.445 (0.841)	4892665	200.000	181.41
51 trans-1,3-Dichloropropene	75	6.678	6.678 (1.346)	1762080	200.000	214.08(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	52 2-Hexanone	43	7.086	7.086	(0.924)	1602869	400.000	354.27(H)
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	954306	200.000	173.26
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	1941667	200.000	169.42
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	1364034	200.000	182.50
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	972911	200.000	186.20
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	1217783	200.000	181.44
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	1116920	200.000	200.15(A)
	59 Chlorobenzene	112	7.690	7.690	(1.003)	3516975	200.000	188.37
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	1237724	200.000	188.91
	61 Ethylbenzene	106	7.799	7.799	(1.017)	1737875	200.000	189.43
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	4280462	400.000	374.63
	63 o-Xylene	106	8.237	8.237	(1.074)	2140967	200.000	191.63
	64 Styrene	104	8.256	8.256	(1.077)	3596350	200.000	192.28
	66 Bromoform	173	8.406	8.406	(1.096)	959521	200.000	189.94
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	5170407	200.000	192.93
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	1649045	200.000	180.30
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	1661161	200.000	180.16
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	517274	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	1205893	200.000	182.21
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	6208704	200.000	193.67
	74 Bromobenzene	156	8.803	8.803	(0.911)	1520154	200.000	188.30
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	4459402	200.000	192.05
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	3700996	200.000	177.77
	77 4-Chlorotoluene	91	9.069	9.069	(0.939)	4297645	200.000	187.70
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	3971944	200.000	203.21(A)
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	4785228	200.000	201.41(A)
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	5990030	200.000	219.76(A)
	82 p-Isopropyltoluene	119	9.650	9.650	(0.999)	5063968	200.000	215.01(A)
	83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	2974100	200.000	204.34(A)
	84 1,4-Dichlorobenzene	146	9.680	9.680	(1.002)	3022015	200.000	197.56
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	4466388	200.000	221.48(A)
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	2796933	200.000	193.33
	89 1,2-Dibromo-3-Chloropropane	155	10.651	10.651	(1.102)	298660	200.000	193.43
	90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	2030116	200.000	202.82(A)
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	872086	200.000	202.49(A)
	92 Naphthalene	128	11.536	11.536	(1.194)	4700011	200.000	189.10
	93 1,2,3-Trichlorobenzene	180	11.738	11.738	(1.215)	1835393	200.000	187.19
M	94 1,2-Dichloroethylene (total)	96				2172238	400.000	(a)
	141 Cyclohexane	56	4.118	4.118	(0.986)	1459472	200.000	202.72(A)
	138 Freon TF	101	1.910	1.910	(0.457)	933585	200.000	133.62
	147 Methylcyclohexane	55	5.377	5.377	(1.084)	2966598	200.000	217.76(A)
	146 Methyl Acetate	43	2.228	2.228	(0.533)	699726	200.000	205.81(A)
	148 Tert-Butyl alcohol	59	2.431	2.431	(0.582)	2191222	4000.00	3856.51
	149 Isopropyl Alcohol	45	2.097	2.097	(0.502)	1382086	4000.00	3927.32

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.
H - Operator selected an alternate compound hit.



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Client ID: VSTD200
Sample Info: VSTD200;VSTD200;1;10;
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Column phase: DB624

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

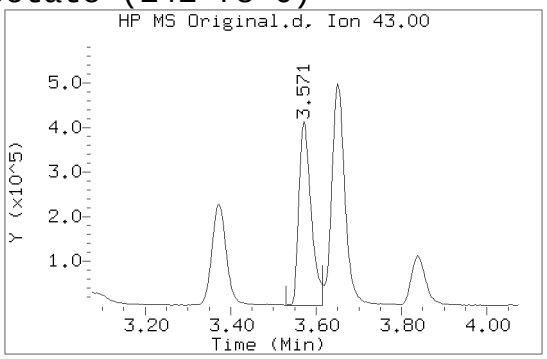
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Ethyl Acetate (141-78-6)

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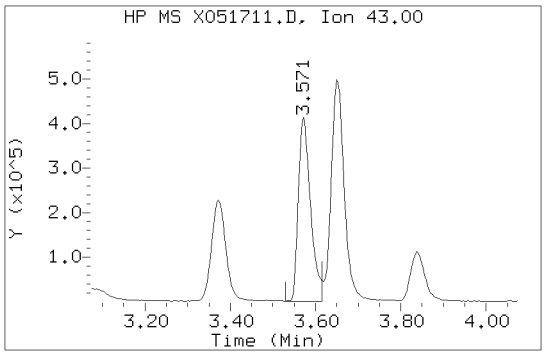
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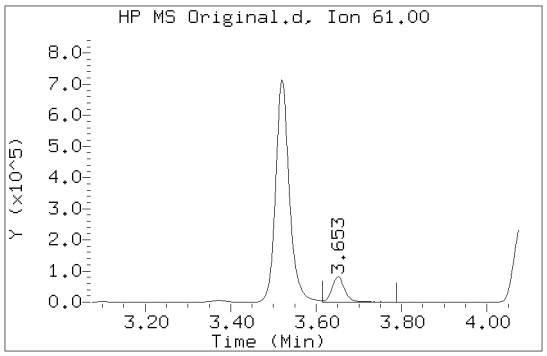
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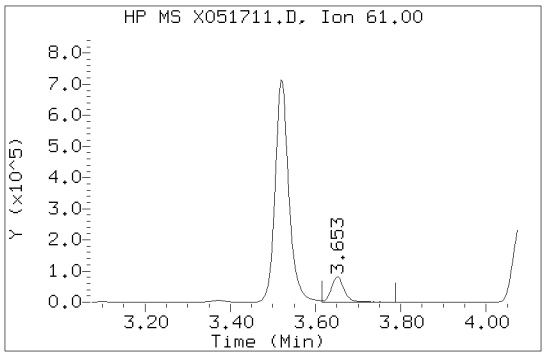
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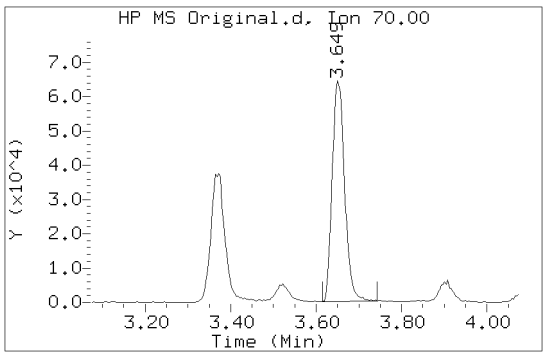
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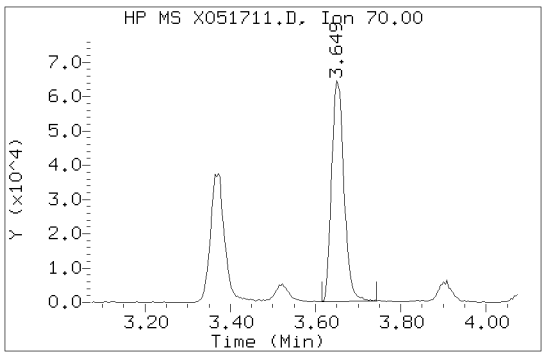
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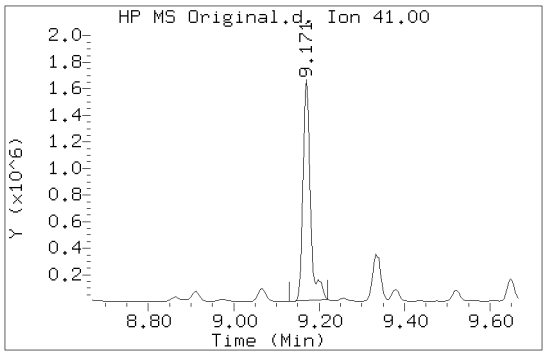


Butyl methacrylate (97-88-1)

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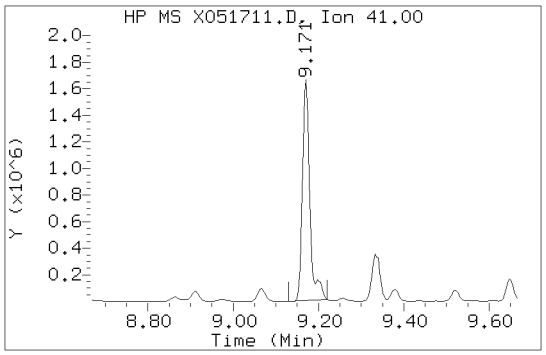
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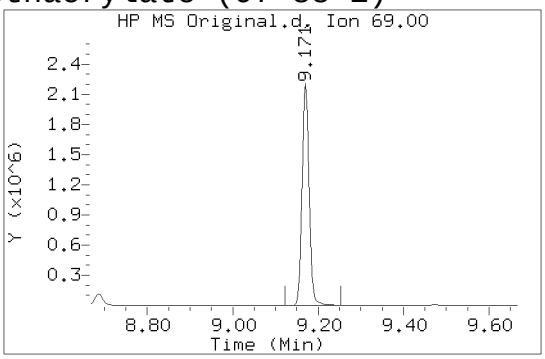


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Butyl methacrylate (97-88-1)

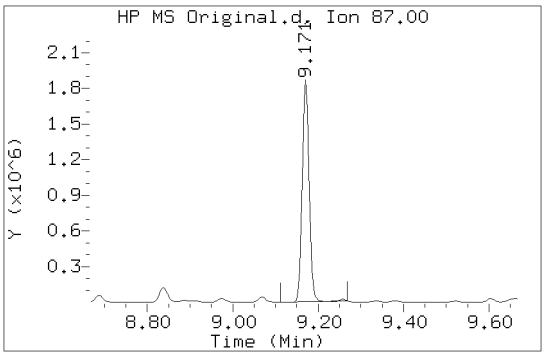
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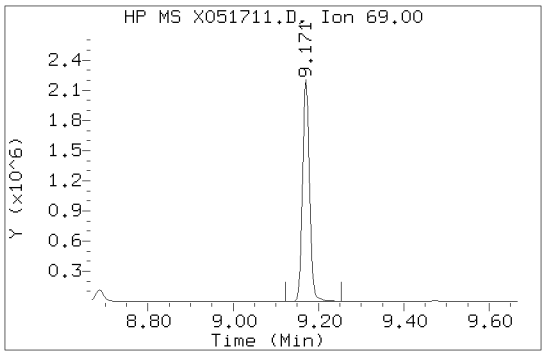
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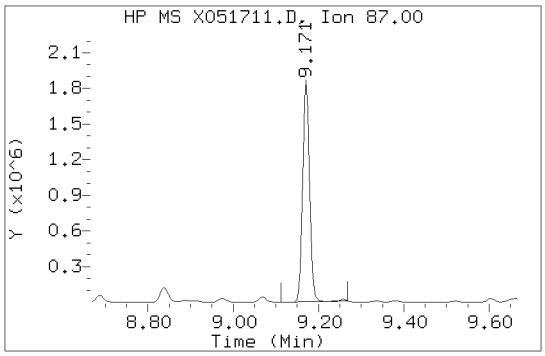
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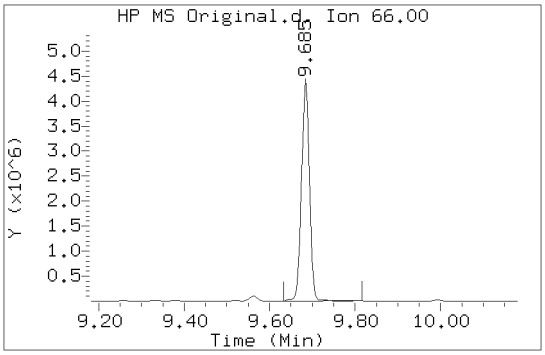
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Dicyclopentadiene (77-73-6)

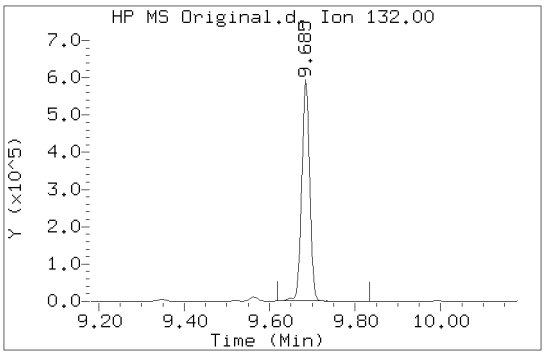
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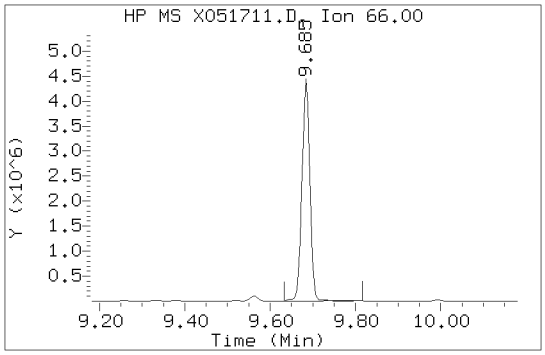
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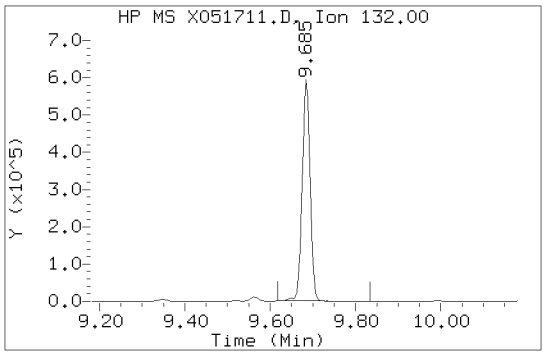
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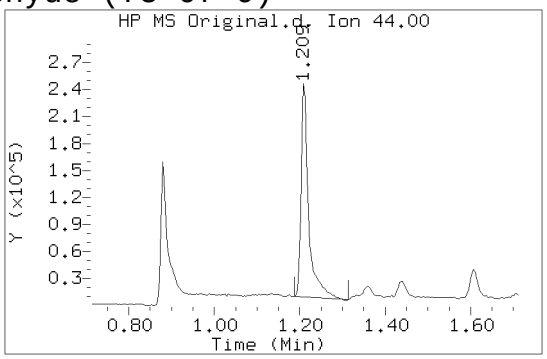


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LabSampID : VSTD200

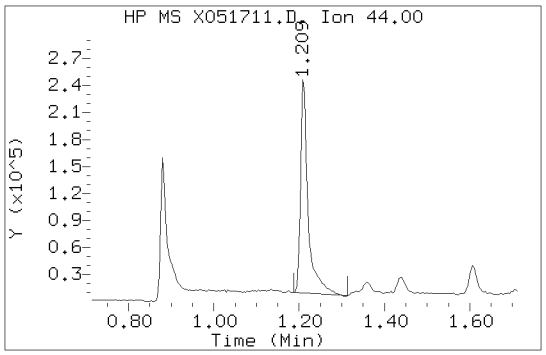
Acetaldehyde (75-07-0)

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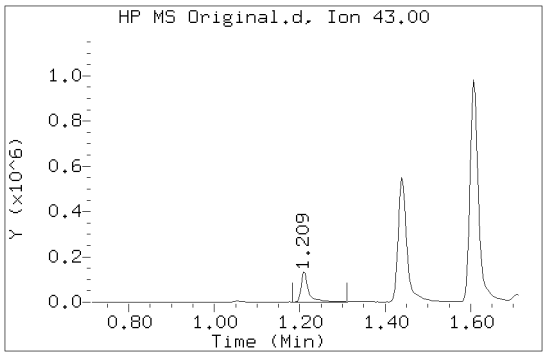
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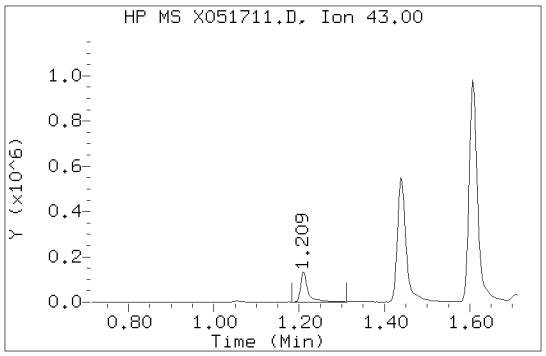
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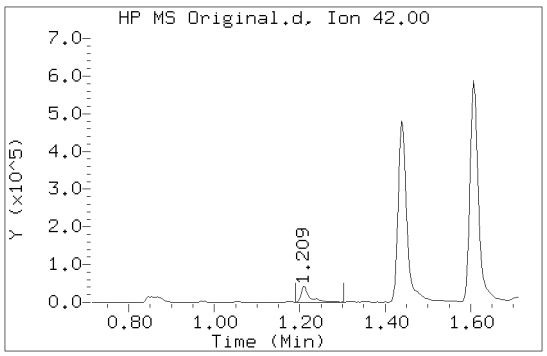
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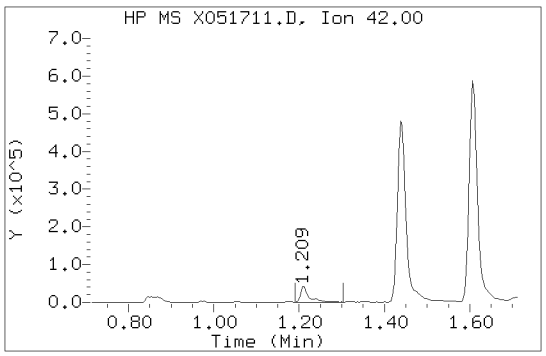
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BEFORE
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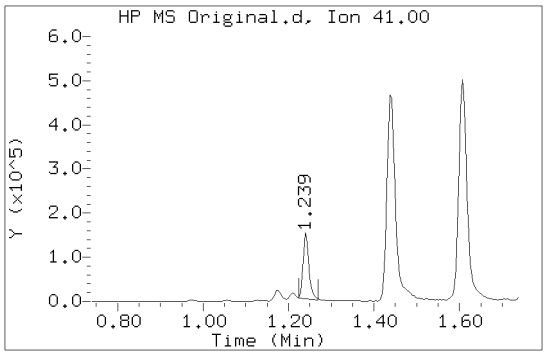
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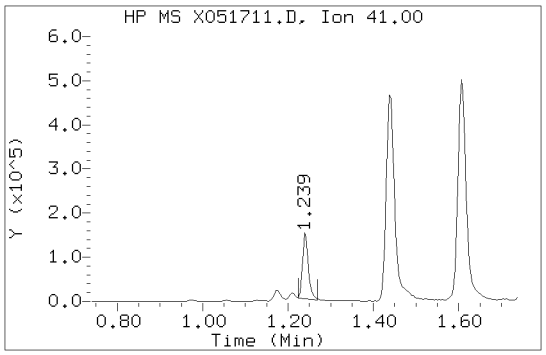
Isobutylene (115-11-7)

Reason Code:

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18-May-2023
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AFTER
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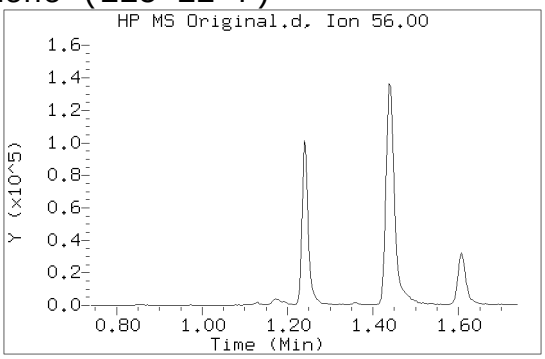


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LabSampID : VSTD200

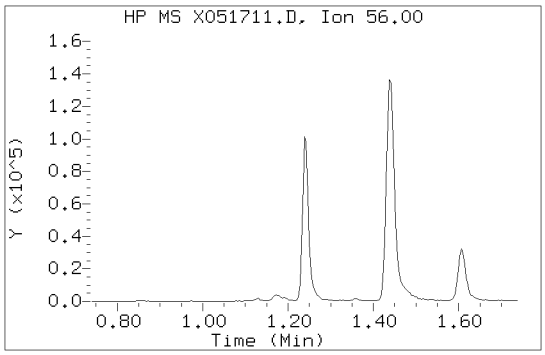
Isobutylene (115-11-7)

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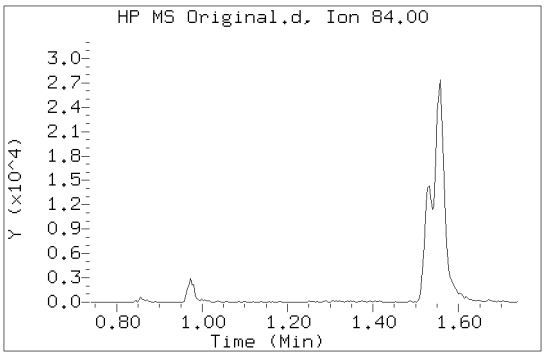
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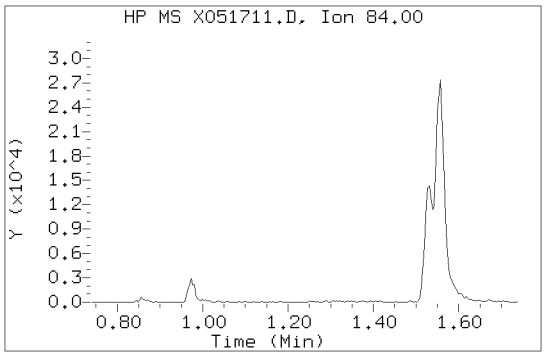
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BEFORE
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AFTER
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18-May-2023
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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051713.D Page 1
Report Date: 18-May-2023 13:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051713.D
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Inj Date : 17-MAY-2023 16:29
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;ICV
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\8260W.m
Meth Date : 18-May-2023 13:43 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 15:47 Cal File: X051711.D
Als bottle: 14 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.177	(1.000)	605858	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	85434	1041.21	1041.21
140 1,3-Butadiene	54	1.164	1.164	(0.279)	313186	48.8401	48.84
25 Methacrylonitrile	41	3.818	3.814	(0.914)	259925	48.1276	48.12
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	833146	1054.96	1054.96
13 Acetonitrile	39	2.198	2.194	(0.526)	303699	520.683	520.68
14 Allyl Chloride	41	2.198	2.194	(0.526)	756356	51.4089	51.40
4 Propionitrile	54	3.649	3.649	(0.873)	400147	481.632	481.63
72 trans-1,4-Dichloro-2-butene	53	8.886	8.886	(1.159)	104877	52.5292	52.52
194 Acetaldehyde	44	1.212	1.209	(0.290)	79351	189.567	189.56(M)
23 Chloroprene	53	1.771	1.767	(0.424)	114605	46.8595	46.85(M)
130 Ethyl Acetate	43	3.574	3.570	(0.856)	207512	48.2633	48.26(M)
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	292158	55.1664	55.16
49 Ethyl Methacrylate	69	6.783	6.787	(1.366)	435786	45.5360	45.53
131 Methyl Acrylate	55	3.686	3.679	(0.882)	280799	47.6201	47.62
132 n-Butanol	56	5.253	5.253	(1.258)	171293	979.866	979.86
136 n-Hexane	57	2.768	2.768	(0.663)	276764	50.3101	50.31
139 Diethyl ether	59	1.756	1.756	(0.420)	234885	45.3772	45.37
142 Tetrahydrofuran	42	3.844	3.840	(0.920)	97513	97.6405	97.64
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	519601	49.1676	49.16

156	Diisopropyl ether	45	2.997	2.997 (0.717)	840058	45.8263	45.82
162	Butyl acrylate	55	8.249	8.249 (1.076)	646901	50.6163	50.61

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051713.D Page 2
Report Date: 18-May-2023 13:43

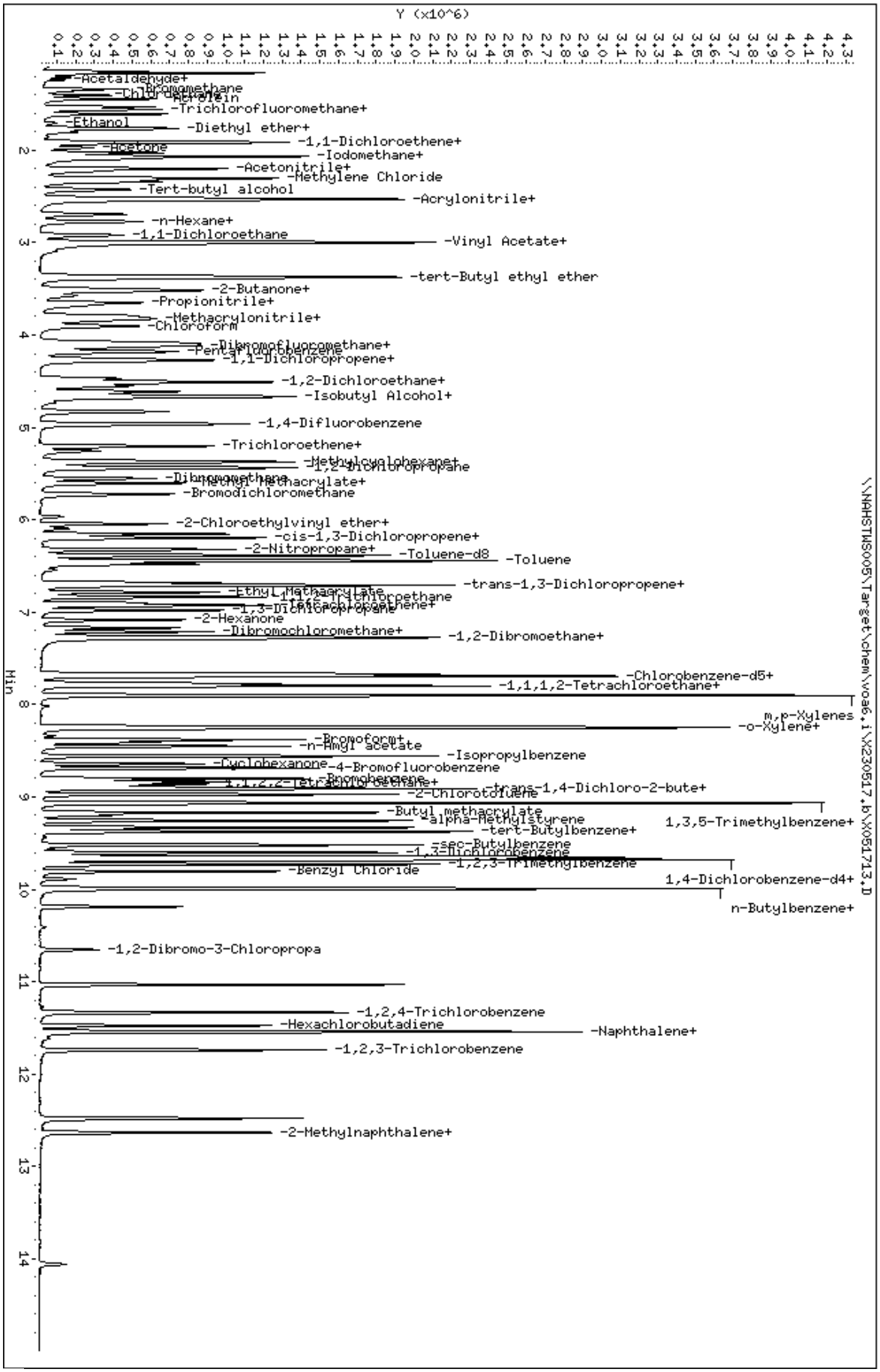
		QUANT SIG					CONCENTRATIONS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
	==========	====	====	========	========	========	=======	=======
	167 Ethanol	45	1.703	1.707	(0.408)	71425	999.173	999.17
	200 Dimethyl Disulfide	94	6.194	6.194	(0.808)	624359	48.7375	48.73
	182 Epichlorohydrin	57	6.093	6.093	(1.227)	118982	194.678	194.67
	164 Dicyclopentadiene	66	9.681	9.684	(1.002)	1210663	47.4435	47.44(M)
	166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	1011845	46.3388	46.33
	205 2-Ethylhexyl Acrylate	55	11.547	11.547	(1.196)	434758	48.3720	48.37
	86 Benzyl Chloride	91	9.804	9.808	(1.279)	774949	56.5875	56.58
	134 Cyclohexanone	55	8.642	8.642	(0.895)	303859	1028.47	1028.47
	202 Isobutylene	41	1.239	1.239	(0.297)	36582	44.6245	44.62(M)
	133 Ethyl Acrylate	55	5.377	5.377	(1.287)	791647	50.8040	50.80
	163 Butyl methacrylate	41	9.171	9.171	(0.950)	421622	50.4363	50.43(M)
	188 Isopropyl acetate	43	4.672	4.672	(0.941)	834631	51.7801	51.78
	189 n-Butyl acetate	43	7.210	7.210	(0.940)	499534	49.9825	49.98
	2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	301896	51.6218	51.62
	3 Chloromethane	50	1.077	1.077	(0.258)	390973	45.9944	45.99
	5 Vinyl Chloride	62	1.145	1.141	(0.274)	381971	47.6024	47.60
	6 Bromomethane	94	1.340	1.329	(0.321)	215083	51.4213	51.42
	7 Chloroethane	64	1.404	1.400	(0.336)	232629	46.4417	46.44
	8 Trichlorofluoromethane	101	1.561	1.557	(0.374)	394571	46.7022	46.70
	9 Acrolein	56	1.445	1.437	(0.346)	45272	89.3080	89.30
	10 Acetone	43	1.973	1.970	(0.472)	225682	107.296	107.29
	11 1,1-Dichloroethene	96	1.913	1.910	(0.458)	251500	47.0765	47.07
	15 Iodomethane	142	2.026	2.026	(0.485)	680448	89.7052	89.70
	16 Acrylonitrile	53	2.532	2.528	(0.606)	209858	104.903	104.90
	17 Methylene Chloride	84	2.303	2.299	(0.551)	295217	46.4833	46.48
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	770398	46.2285	46.22
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	1636452	97.6276	97.62
	20 trans-1,2-Dichloroethene	96	2.528	2.524	(0.605)	261999	47.2815	47.28
	21 Vinyl Acetate	43	2.997	2.993	(0.717)	1538749	99.7949	99.79
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	469044	46.1629	46.16
	24 2-Butanone	43	3.574	3.570	(0.856)	217644	107.943	107.94
	26 2,2-Dichloropropane	77	3.506	3.506	(0.839)	369927	49.4326	49.43
	27 cis-1,2-Dichloroethene	96	3.525	3.521	(0.844)	303896	46.6260	46.62
	28 Chloroform	83	3.904	3.900	(0.935)	483298	47.9927	47.99
	29 Bromochloromethane	128	3.791	3.788	(0.908)	164662	47.9337	47.93
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	282259	51.3297	51.32
	31 1,1,1-Trichloroethane	97	4.080	4.076	(0.977)	382810	49.3624	49.36
	32 1,1-Dichloropropene	75	4.275	4.275	(0.861)	368251	49.9699	49.96
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	366564	50.0928	50.09
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	322787	47.4121	47.41
$	35 1,2-Dichloroethane-d4	65	4.470	4.466	(1.070)	300903	51.0542	51.05
*	36 1,4-Difluorobenzene	114	4.965	4.961	(1.000)	936722	50.0000	
	37 Benzene	78	4.511	4.507	(0.909)	1175345	49.3189	49.31
	38 Trichloroethene	130	5.205	5.205	(1.048)	310734	48.3792	48.37
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	424187	52.0124	52.01
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	264822	97.7687	97.76
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	359715	53.1184	53.11
	44 Dibromomethane	93	5.550	5.549	(1.118)	212439	51.6906	51.69
	45 4-Methyl-2-Pentanone	43	6.322	6.325	(0.824)	590518	95.6214	95.62
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	530753	48.7038	48.70
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	897923	50.0000	
$	48 Toluene-d8	98	6.382	6.385	(0.832)	1095579	47.8850	47.88

50 Toluene	91	6.442	6.445 (0.840)	1207105	47.9120	47.91
51 trans-1,3-Dichloropropene	75	6.678	6.678 (1.345)	438434	50.3762	50.37

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	52 2-Hexanone	43	7.083	7.086	(0.924)	406057	96.0731	96.07
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	254039	49.3737	49.37
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	500943	46.7895	46.78
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	330266	47.3014	47.30
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	238239	48.8094	48.80
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	306248	48.8454	48.84
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	248535	43.5783	43.57
	59 Chlorobenzene	112	7.690	7.690	(1.003)	826826	47.4077	47.40
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	300603	49.1138	49.11
	61 Ethylbenzene	106	7.799	7.799	(1.017)	425571	49.6580	49.65
	62 m,p-Xylenes	106	7.900	7.904	(1.030)	1048935	98.2737	98.27
	63 o-Xylene	106	8.237	8.237	(1.074)	511213	48.9831	48.98
	64 Styrene	104	8.256	8.256	(1.077)	877898	50.2454	50.24
	66 Bromoform	173	8.406	8.406	(1.096)	233123	49.3994	49.39
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	1190478	47.5520	47.55
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	413642	48.5219	48.52
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	412962	47.9451	47.94
*	70 1,4-Dichlorobenzene-d4	152	9.658	9.662	(1.000)	484770	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.918)	302139	48.7153	48.71
	73 n-Propylbenzene	91	8.908	8.912	(0.922)	1461231	48.6381	48.63
	74 Bromobenzene	156	8.803	8.803	(0.912)	365734	48.3407	48.34
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.939)	1060981	48.7584	48.75
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	898591	46.0562	46.05
	77 4-Chlorotoluene	91	9.066	9.069	(0.939)	1050697	48.9671	48.96
	78 tert-Butylbenzene	119	9.332	9.336	(0.966)	852534	46.5417	46.54
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	1054574	47.3634	47.36
	81 sec-Butylbenzene	105	9.519	9.519	(0.986)	1209361	47.3457	47.34
	82 p-Isopropyltoluene	119	9.647	9.650	(0.999)	1091077	49.4337	49.43
	83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	650504	47.6926	47.69
	84 1,4-Dichlorobenzene	146	9.681	9.680	(1.002)	674194	47.0320	47.03
	87 n-Butylbenzene	91	9.992	9.992	(1.035)	957333	50.6562	50.65
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.035)	633083	46.6958	46.69
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.651	(1.103)	74847	51.4851	51.48
	90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	489140	52.1456	52.14
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	208990	51.7815	51.78
	92 Naphthalene	128	11.540	11.536	(1.195)	1150310	49.3858	49.38
	93 1,2,3-Trichlorobenzene	180	11.739	11.738	(1.215)	444341	48.3579	48.35
M	94 1,2-Dichloroethylene (total)	96				565895	93.9074	93.90
M	95 Xylenes (total)	106				1560148	147.257	147.25
	141 Cyclohexane	56	4.118	4.118	(0.986)	376107	49.6076	49.60
	138 Freon TF	101	1.913	1.910	(0.458)	230845	51.2315	51.23
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	791647	54.9561	54.95
	146 Methyl Acetate	43	2.232	2.228	(0.534)	194695	54.3777	54.37
	148 Tert-Butyl alcohol	59	2.427	2.431	(0.581)	562324	939.765	939.76
	149 Isopropyl Alcohol	45	2.093	2.097	(0.501)	401876	1084.37	1084.37

QC Flag Legend

M - Compound response manually integrated.



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Purge Volume: 5.0
Column phase: DB624

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

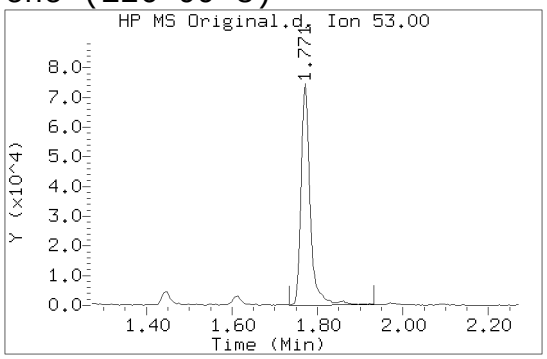
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051713.D
Inj Date : 17-MAY-2023 16:29
InstruID : voa6.i
LabSampID : ICV

Chloroprene (126-99-8)

Reason Code:

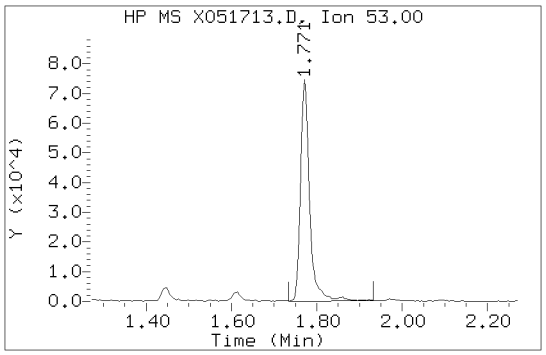
BEFORE

MASS
53
AREA
114605
HEIGHT
74554
18-May-2023
13:43
linh
pham



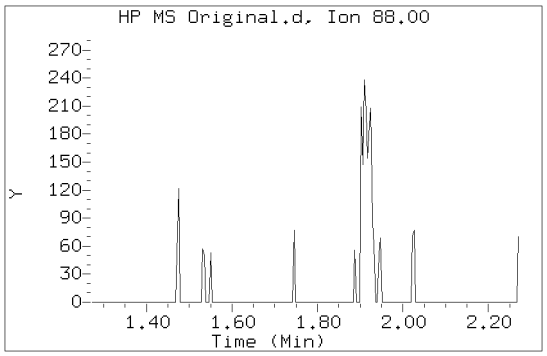
AFTER

MASS
53
AREA
114605
HEIGHT
74554
18-May-2023
13:43
linh
pham



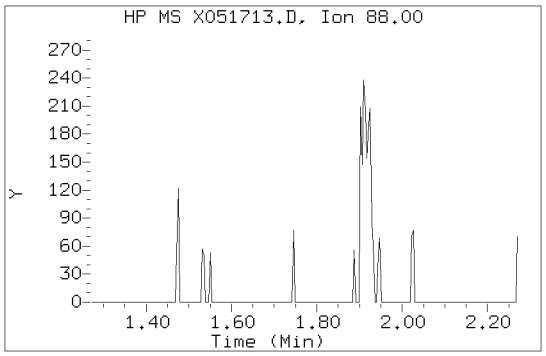
BEFORE

MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham

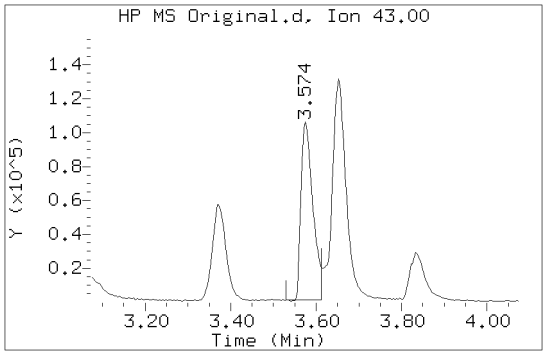


Ethyl Acetate (141-78-6)

Reason Code:

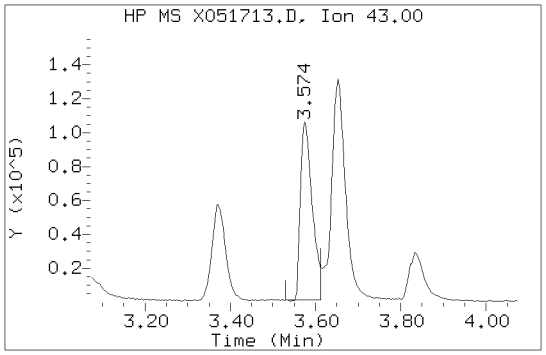
BEFORE

MASS
43
AREA
207512
HEIGHT
105273
18-May-2023
13:43
linh
pham



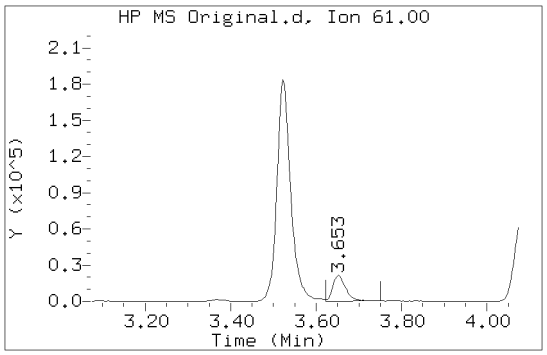
AFTER

MASS
43
AREA
207512
HEIGHT
105273
18-May-2023
13:43
linh
pham



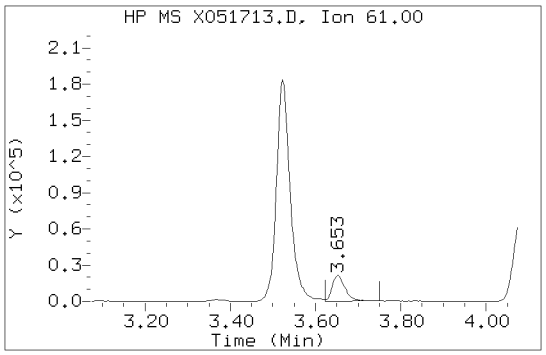
BEFORE

MASS
61
AREA
43828
HEIGHT
21319
18-May-2023
13:43
linh
pham



AFTER

MASS
61
AREA
43828
HEIGHT
21319
18-May-2023
13:43
linh
pham



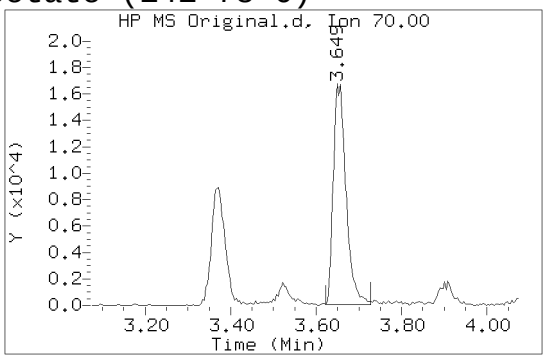
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Inj Date : 17-MAY-2023 16:29
InstruID : voa6.i
LabSampID : ICV

Ethyl Acetate (141-78-6)

Reason Code:

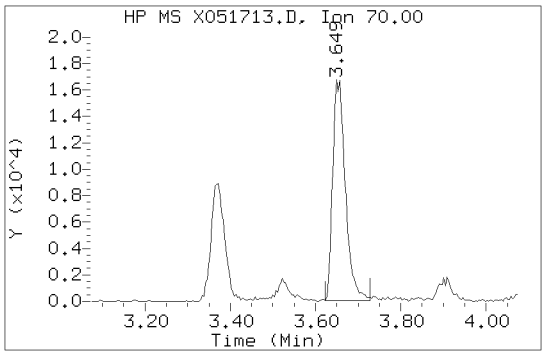
BEFORE

MASS
70
AREA
34528
HEIGHT
16715
18-May-2023
13:43
linh
pham



AFTER

MASS
70
AREA
34528
HEIGHT
16715
18-May-2023
13:43
linh
pham

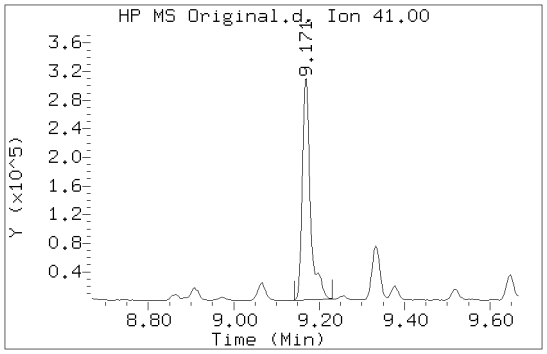


Butyl methacrylate (97-88-1)

Reason Code:

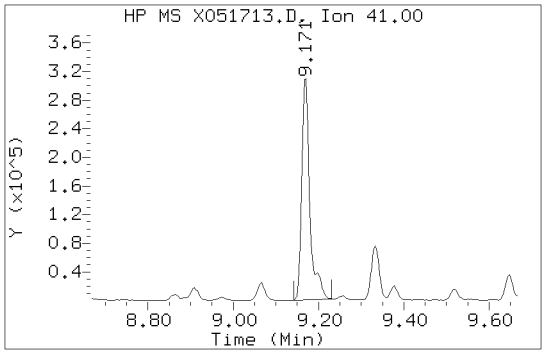
BEFORE

MASS
41
AREA
421622
HEIGHT
308974
18-May-2023
13:43
linh
pham



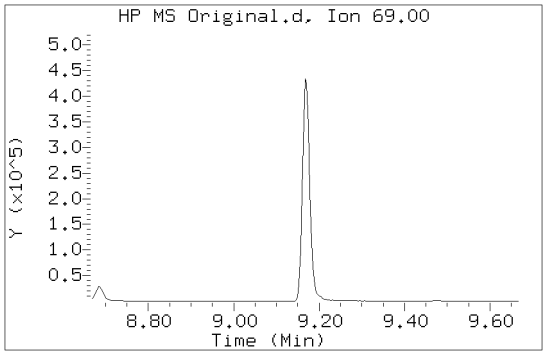
AFTER

MASS
41
AREA
421622
HEIGHT
308974
18-May-2023
13:43
linh
pham



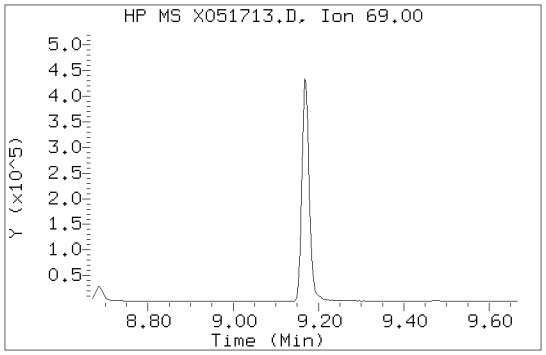
BEFORE

MASS
69
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham



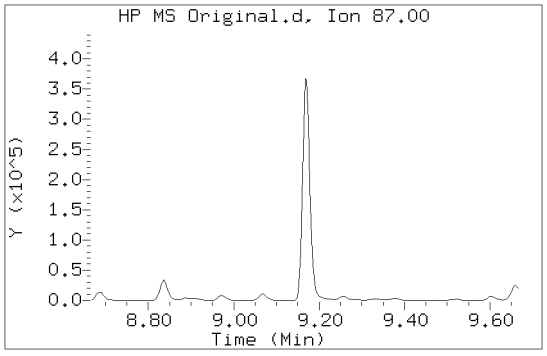
AFTER

MASS
69
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham



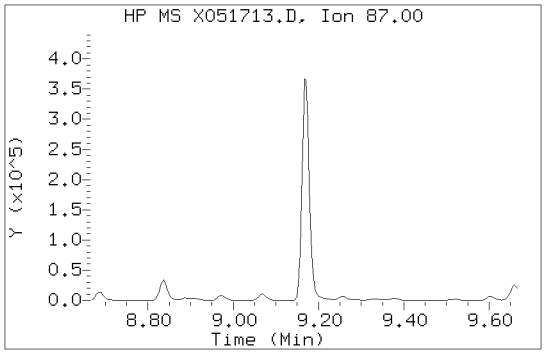
BEFORE

MASS
87
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham



AFTER

MASS
87
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham



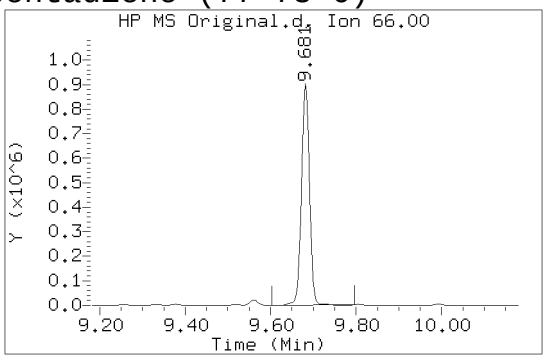
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051713.D
Inj Date : 17-MAY-2023 16:29
InstruID : voa6.i
LabSampID : ICV

Dicyclopentadiene (77-73-6)

Reason Code:

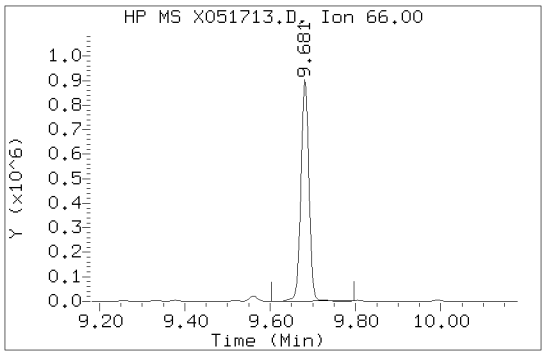
BEFORE

MASS
66
AREA
1210663
HEIGHT
902638
18-May-2023
13:43
linh
pham



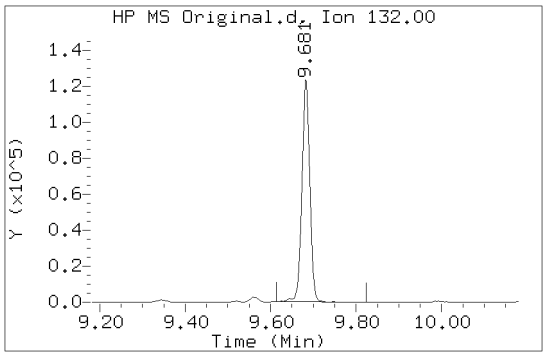
AFTER

MASS
66
AREA
1210663
HEIGHT
902638
18-May-2023
13:43
linh
pham



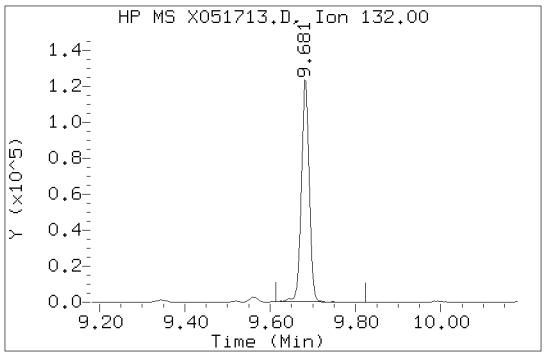
BEFORE

MASS
132
AREA
162759
HEIGHT
123157
18-May-2023
13:43
linh
pham



AFTER

MASS
132
AREA
162759
HEIGHT
123157
18-May-2023
13:43
linh
pham

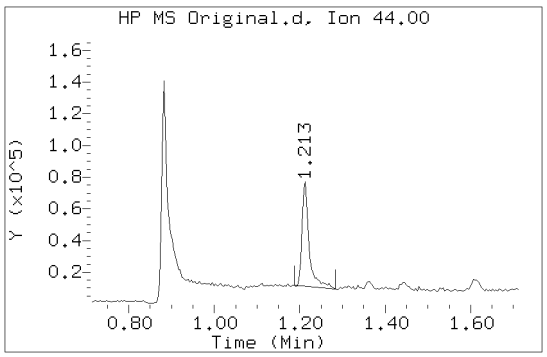


Acetaldehyde (75-07-0)

Reason Code:

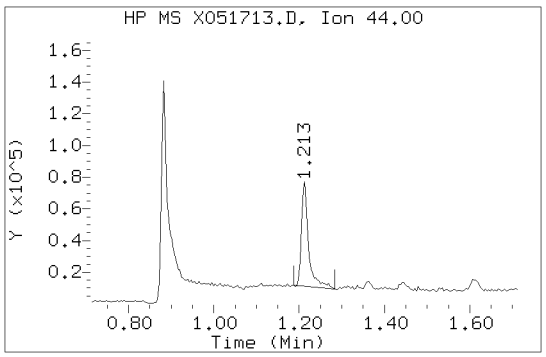
BEFORE

MASS
44
AREA
79351
HEIGHT
65950
18-May-2023
13:43
linh
pham



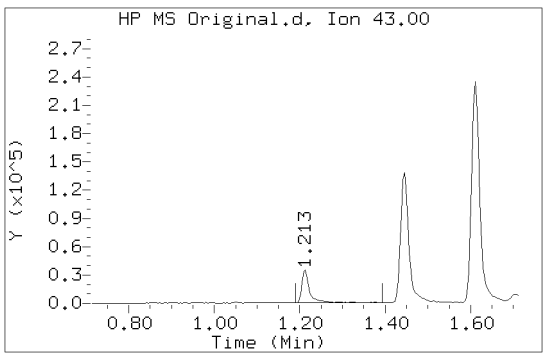
AFTER

MASS
44
AREA
79351
HEIGHT
65950
18-May-2023
13:43
linh
pham



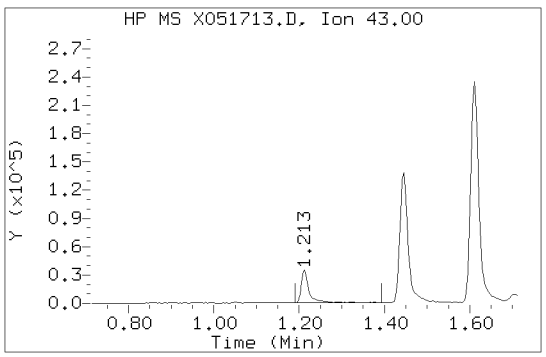
BEFORE

MASS
43
AREA
46507
HEIGHT
34773
18-May-2023
13:43
linh
pham



AFTER

MASS
43
AREA
46507
HEIGHT
34773
18-May-2023
13:43
linh
pham



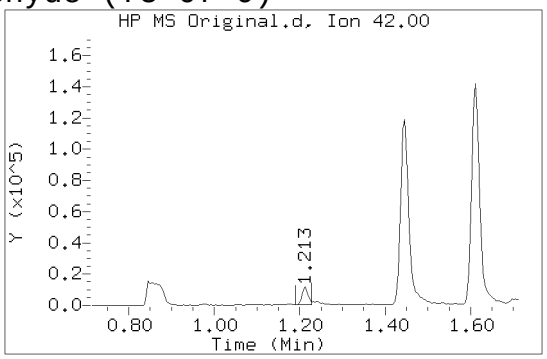
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230517.b\X051713.D
Inj Date : 17-MAY-2023 16:29
InstruID : voa6.i
LabSampID : ICV

Acetaldehyde (75-07-0)

Reason Code:

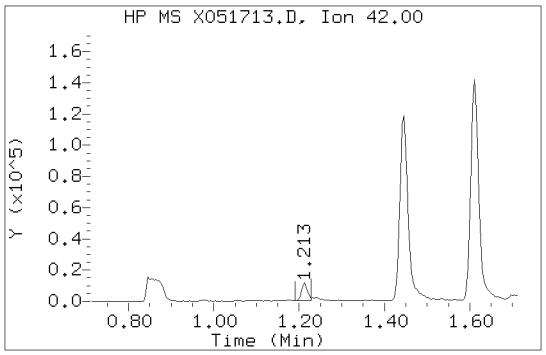
BEFORE

MASS
42
AREA
11777
HEIGHT
11595
18-May-2023
13:43
linh
pham



AFTER

MASS
42
AREA
11777
HEIGHT
11595
18-May-2023
13:43
linh
pham

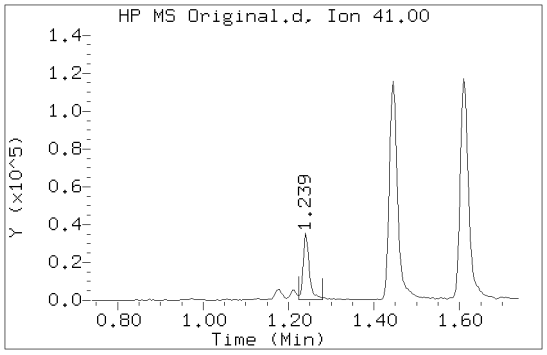


Isobutylene (115-11-7)

Reason Code:

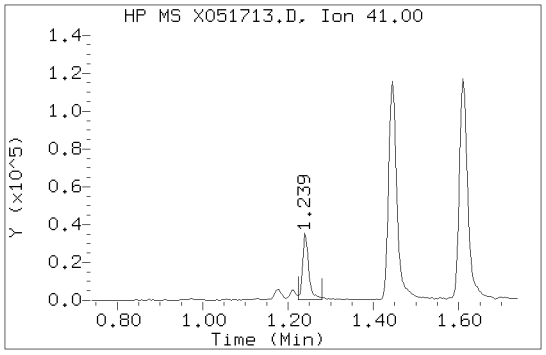
BEFORE

MASS
41
AREA
36582
HEIGHT
35043
18-May-2023
13:43
linh
pham



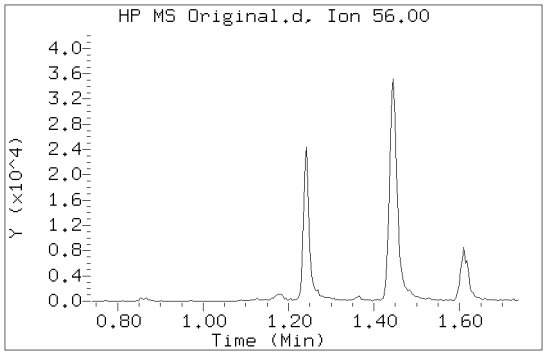
AFTER

MASS
41
AREA
36582
HEIGHT
35043
18-May-2023
13:43
linh
pham



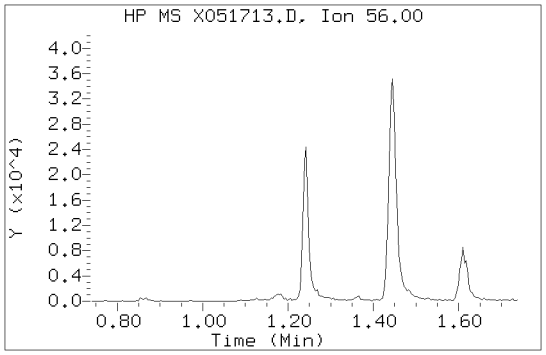
BEFORE

MASS
56
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham



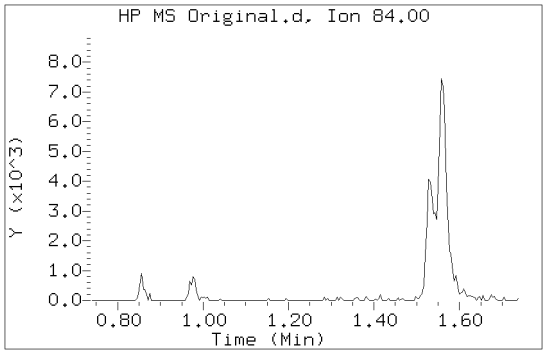
AFTER

MASS
56
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham



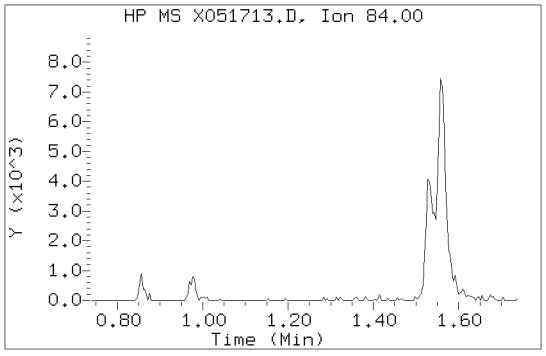
BEFORE

MASS
84
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham



AFTER

MASS
84
AREA
0
HEIGHT
0
18-May-2023
13:43
linh
pham



01230800

right solutions.
right partner.

Raw Data VOA6 436483

Volatiles by EPA 8260

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052901.D Page 1
Report Date: 29-May-2023 22:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052901.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 29-MAY-2023 12:02
Operator : PC Inst ID: voa6.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\bfb.m
Meth Date : 14-Mar-2023 15:45 Linh.Pham Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/l)		
RT	EXP RT	REL RT	MASS	RESPONSE			TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
8.687	8.889	(0.000)	95	76968			0.00- 100.00	100.00
8.687	8.889	(0.000)	50	16025			15.00- 40.00	20.82
8.687	8.889	(0.000)	75	36000			30.00- 60.00	46.77
8.687	8.889	(0.000)	96	5810			5.00- 9.00	7.55
8.687	8.889	(0.000)	173	541			0.00- 2.00	0.83
8.687	8.889	(0.000)	174	65464			50.00- 0.00	85.05
8.687	8.889	(0.000)	175	4796			5.00- 9.00	7.33
8.687	8.889	(0.000)	176	63440			95.00- 101.00	96.91
8.687	8.889	(0.000)	177	4318			5.00- 9.00	6.81

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.82
75	30.00 - 60.00% of mass 95	46.77
96	5.00 - 9.00% of mass 95	7.55
173	Less than 2.00% of mass 174	0.70 (0.83)
174	Greater than 50.00% of mass 95	85.05
175	5.00 - 9.00% of mass 174	6.23 (7.33)
176	95.00 - 101.00% of mass 174	82.42 (96.91)
177	5.00 - 9.00% of mass 176	5.61 (6.81)

Data File: X052901.D
Spectrum: Scan 2160 (8.68)
Location of Maximum: 95.00
Number of points: 103

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	849	63.10	2602	92.00	2417	128.90	382
37.00	3672	63.80	242	93.00	2768	130.00	312
38.10	3344	65.00	278	94.00	7983	131.00	87
39.10	2088	65.90	160	95.00	76968	134.50	58
40.00	2592	67.10	333	96.10	5810	135.10	207
41.00	1528	68.00	8166	96.90	302	136.80	94
42.00	1907	69.00	9294	98.00	941	140.80	662
43.10	1173	69.90	1133	99.00	79	141.90	171
44.00	2217	71.00	489	103.10	86	142.70	489
45.00	913	72.00	398	104.00	450	147.80	183
47.00	1061	73.00	3870	105.10	324	152.90	119
47.90	344	74.00	12396	105.90	417	154.10	50
49.10	3474	75.00	36000	106.90	137	154.90	186
50.00	16025	75.90	2907	108.90	174	156.90	275
51.00	5246	77.10	814	110.10	80	158.80	82
52.00	372	78.00	384	111.00	113	168.00	61
53.00	203	78.90	1843	112.00	59	171.80	89
54.10	493	79.90	659	113.00	65	173.00	541
55.10	3002	80.90	2086	114.80	155	173.90	65464
56.10	1475	81.90	372	115.80	297	174.90	4796
57.10	3068	83.00	390	116.80	381	175.90	63440
58.00	276	84.00	70	117.90	379	176.90	4318
59.10	130	85.10	161	118.90	413	178.10	57
60.10	690	86.90	3324	123.90	62	186.00	297
61.00	4224	88.00	3655	127.00	66	233.70	58
62.00	3744	90.90	553	127.90	367		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052901.D Page 1

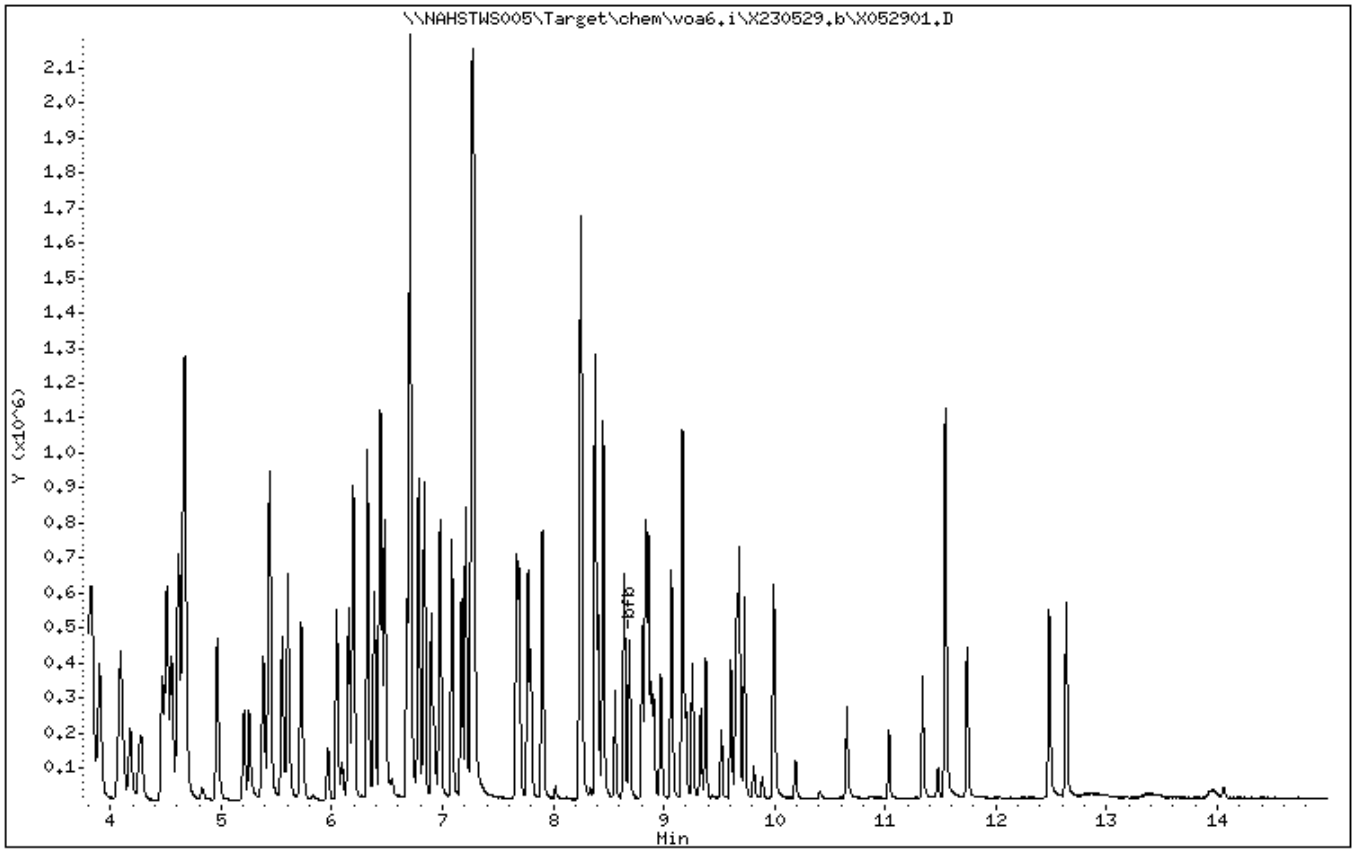
Date : 29-MAY-2023 12:02

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\X230529.b\X052901.D Page 2

Date : 29-MAY-2023 12:02

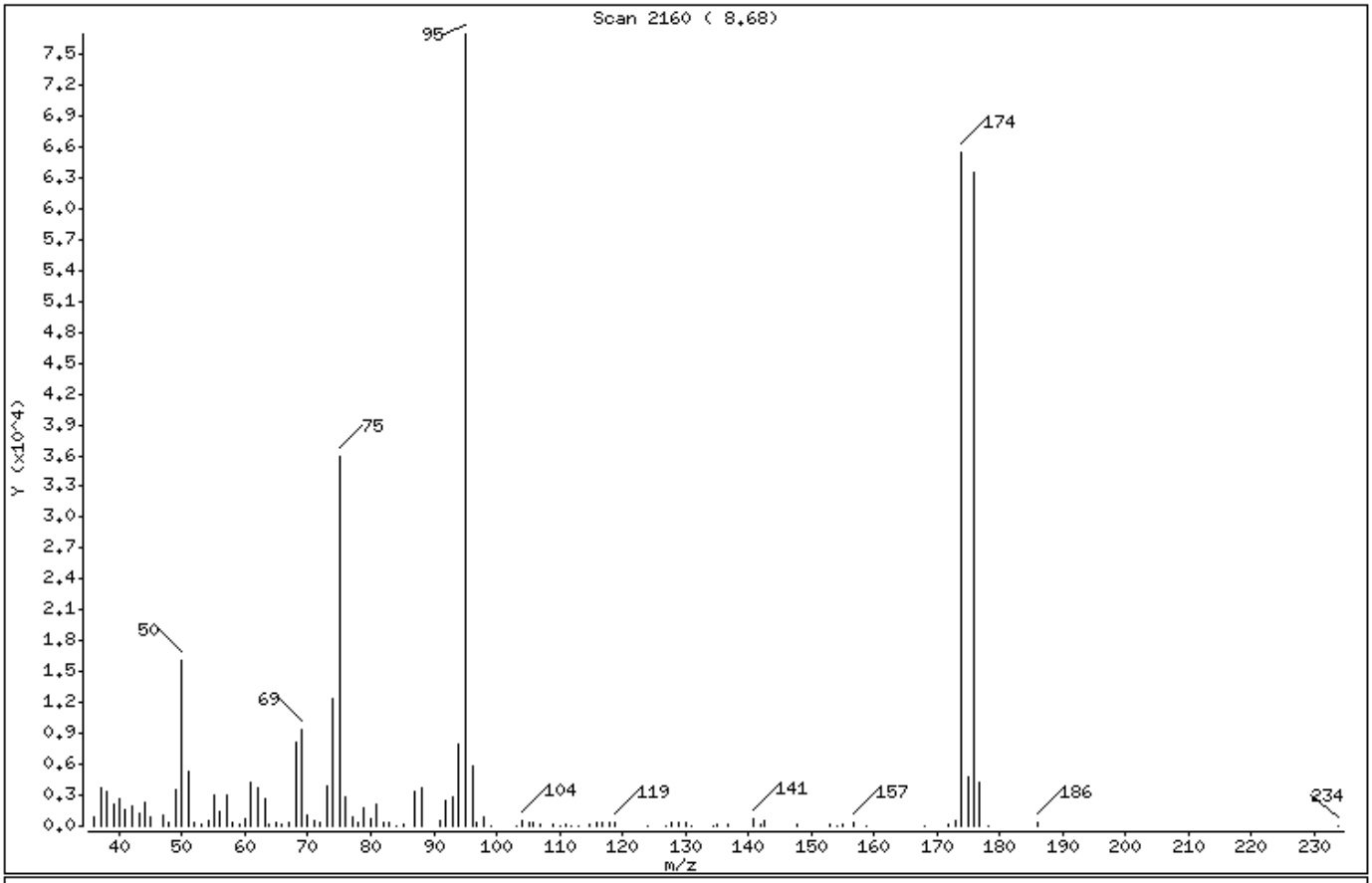
Client ID: BFB Instrument: voa6.i

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	20.82
75	30.00 - 60.00% of mass 95	46.77
96	5.00 - 9.00% of mass 95	7.55
173	Less than 2.00% of mass 174	0.70 (0.83)
174	Greater than 50.00% of mass 95	85.05
175	5.00 - 9.00% of mass 174	6.23 (7.33)
176	95.00 - 101.00% of mass 174	82.42 (96.91)
177	5.00 - 9.00% of mass 176	5.61 (6.81)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052901.D Page 3

Date : 29-MAY-2023 12:02

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: X052901.D
Spectrum: Scan 2160 (8.68)
Location of Maximum: 95.00
Number of points: 103

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	849	63.10	2602	92.00	2417	128.90	382
37.00	3672	63.80	242	93.00	2768	130.00	312
38.10	3344	65.00	278	94.00	7983	131.00	87
39.10	2088	65.90	160	95.00	76968	134.50	58
40.00	2592	67.10	333	96.10	5810	135.10	207
41.00	1528	68.00	8166	96.90	302	136.80	94
42.00	1907	69.00	9294	98.00	941	140.80	662
43.10	1173	69.90	1133	99.00	79	141.90	171
44.00	2217	71.00	489	103.10	86	142.70	489
45.00	913	72.00	398	104.00	450	147.80	183
47.00	1061	73.00	3870	105.10	324	152.90	119
47.90	344	74.00	12396	105.90	417	154.10	50
49.10	3474	75.00	36000	106.90	137	154.90	186
50.00	16025	75.90	2907	108.90	174	156.90	275
51.00	5246	77.10	814	110.10	80	158.80	82
52.00	372	78.00	384	111.00	113	168.00	61
53.00	203	78.90	1843	112.00	59	171.80	89
54.10	493	79.90	659	113.00	65	173.00	541
55.10	3002	80.90	2086	114.80	155	173.90	65464
56.10	1475	81.90	372	115.80	297	174.90	4796
57.10	3068	83.00	390	116.80	381	175.90	63440
58.00	276	84.00	70	117.90	379	176.90	4318
59.10	130	85.10	161	118.90	413	178.10	57
60.10	690	86.90	3324	123.90	62	186.00	297
61.00	4224	88.00	3655	127.00	66	233.70	58
62.00	3744	90.90	553	127.90	367		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052902.D Page 1
Report Date: 31-May-2023 16:38

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052902.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 29-MAY-2023 12:23
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\8260W.m
Meth Date : 31-May-2023 16:38 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	552595	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	71332	1000.00	953.14
140 1,3-Butadiene	54	1.164	1.164	(0.279)	284695	50.0000	48.67
25 Methacrylonitrile	41	3.818	3.818	(0.914)	272804	50.0000	55.38
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	859899	1000.00	1193.78
13 Acetonitrile	39	2.195	2.195	(0.525)	339484	500.000	638.13
14 Allyl Chloride	41	2.198	2.198	(0.526)	691014	50.0000	51.49
4 Propionitrile	54	3.649	3.649	(0.873)	396114	500.000	522.73
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	262596	50.0000	54.36
49 Ethyl Methacrylate	69	6.783	6.783	(1.367)	458084	50.0000	49.78
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	532113	50.0000	51.44
156 Diisopropyl ether	45	2.997	2.997	(0.717)	913736	50.0000	54.65
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	1129415	50.0000	52.84
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	276323	50.0000	51.80
3 Chloromethane	50	1.078	1.078	(0.258)	316389	50.0000	40.80
5 Vinyl Chloride	62	1.141	1.141	(0.273)	355719	50.0000	48.60
6 Bromomethane	94	1.340	1.340	(0.321)	190079	50.0000	49.83
7 Chloroethane	64	1.404	1.404	(0.336)	225534	50.0000	49.36
8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	420007	50.0000	54.50
9 Acrolein	56	1.441	1.441	(0.345)	44804	100.000	96.90

10 Acetone	43	1.970	1.970 (0.472)	193242	100.000	100.46
11 1,1-Dichloroethene	96	1.913	1.913 (0.458)	252731	50.0000	51.86

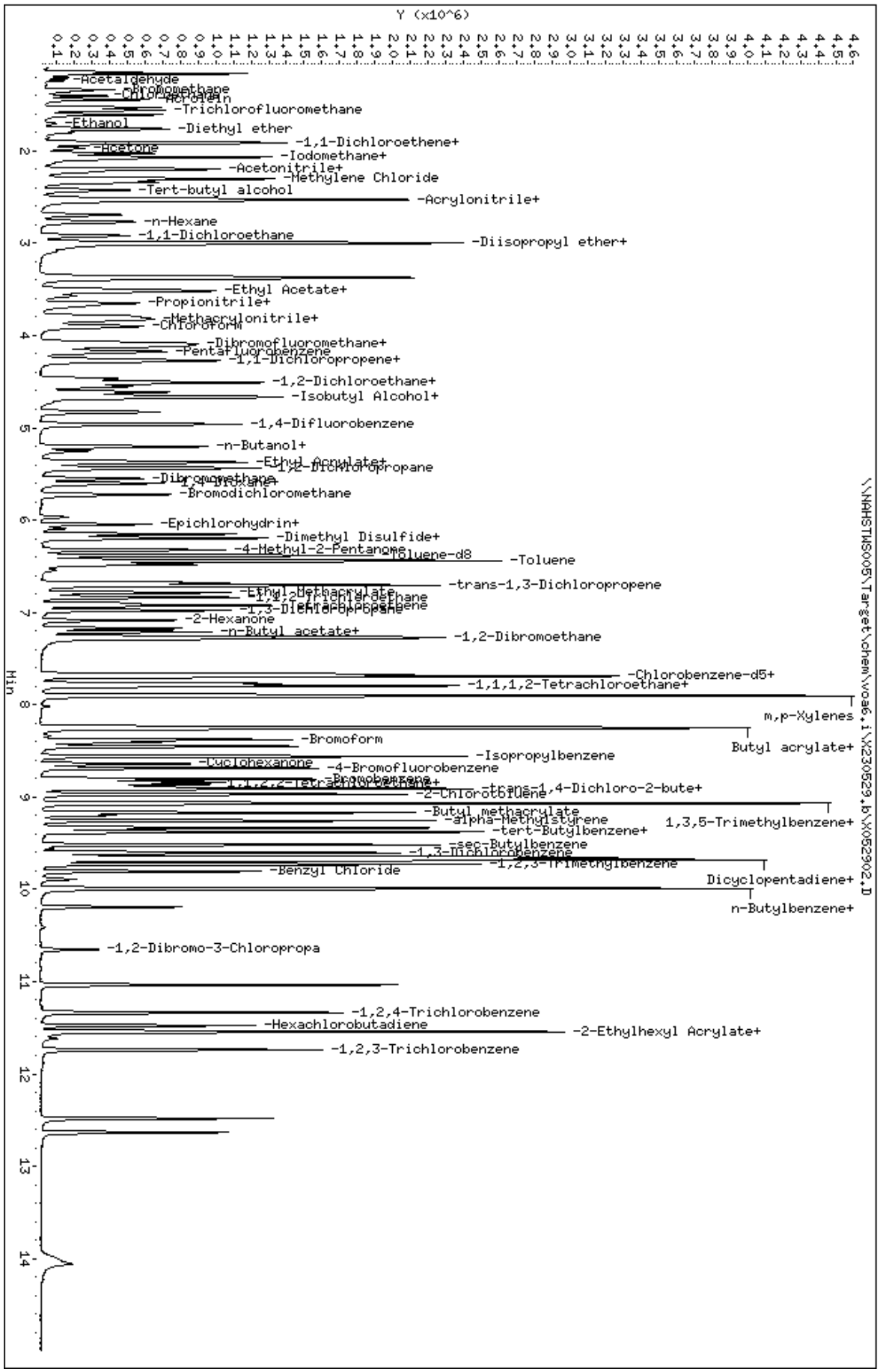
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	15 Iodomethane	142	2.026	2.026	(0.485)	657511	100.000	94.63
	16 Acrylonitrile	53	2.532	2.532	(0.606)	187160	100.000	102.57
	17 Methylene Chloride	84	2.300	2.300	(0.550)	293805	50.0000	50.71
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	798442	50.0000	52.52
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	1455462	100.000	95.19
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	272422	50.0000	53.90
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	1674633	100.000	119.07
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	503630	50.0000	54.34
	24 2-Butanone	43	3.574	3.574	(0.856)	210693	100.000	114.56
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	433038	50.0000	63.53
	27 cis-1,2-Dichloroethene	96	3.522	3.522	(0.843)	314762	50.0000	52.94
	28 Chloroform	83	3.904	3.904	(0.935)	522595	50.0000	56.89
	29 Bromochloromethane	128	3.792	3.792	(0.908)	165904	50.0000	52.95
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	281686	50.0000	56.24
	31 1,1,1-Trichloroethane	97	4.076	4.076	(0.976)	416913	50.0000	58.94
	32 1,1-Dichloropropene	75	4.275	4.275	(0.862)	375735	50.0000	53.03
	33 1,2-Dichloroethane	62	4.553	4.553	(0.918)	408198	50.0000	58.02
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	346719	50.0000	52.97
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	315860	50.0000	58.82
*	36 1,4-Difluorobenzene	114	4.961	4.961	(1.000)	900566	50.0000	
	37 Benzene	78	4.508	4.508	(0.909)	1151425	50.0000	50.25
	38 Trichloroethene	130	5.201	5.201	(1.048)	304795	50.0000	49.35
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	415802	50.0000	53.03
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.218)	241407	100.000	92.70
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	318632	50.0000	48.94
	44 Dibromomethane	93	5.550	5.550	(1.119)	201232	50.0000	50.92
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	596634	100.000	100.17
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	538398	50.0000	51.38
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	866016	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	1080963	50.0000	48.98
	50 Toluene	91	6.446	6.446	(0.841)	1277397	50.0000	52.57
	51 trans-1,3-Dichloropropene	75	6.678	6.678	(1.346)	461599	50.0000	55.16
	52 2-Hexanone	43	7.083	7.083	(0.924)	409084	100.000	100.35
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	249786	50.0000	50.33
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	519392	50.0000	50.30
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	346733	50.0000	51.48
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	231076	50.0000	49.08
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	318377	50.0000	52.65
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	256881	50.0000	46.71
	59 Chlorobenzene	112	7.690	7.690	(1.003)	851921	50.0000	50.64
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	310820	50.0000	52.65
	61 Ethylbenzene	106	7.795	7.795	(1.017)	425257	50.0000	51.44
	62 m,p-Xylenes	106	7.900	7.900	(1.030)	1098705	100.000	106.72
	63 o-Xylene	106	8.237	8.237	(1.074)	530136	50.0000	52.66
	64 Styrene	104	8.256	8.256	(1.077)	916373	50.0000	54.37
	66 Bromoform	173	8.410	8.410	(1.097)	240903	50.0000	52.92
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	1263790	50.0000	52.34
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	430232	50.0000	51.53
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	416304	50.0000	50.11
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	474501	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	312949	50.0000	51.55
	73 n-Propylbenzene	91	8.908	8.908	(0.922)	1537529	50.0000	52.28

74	Bromobenzene	156	8.803	8.803 (0.911)	374988	50.0000	50.63
75	1,3,5-Trimethylbenzene	105	9.066	9.066 (0.938)	1107667	50.0000	52.00

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	956890	50.0000	50.10	
	77 4-Chlorotoluene	91	9.066	9.066	(0.938)	1123525	50.0000	53.49	
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	885653	50.0000	49.39	
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	1127164	50.0000	51.71	
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	1261134	50.0000	50.44	
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	1121273	50.0000	51.90	
	83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	660829	50.0000	49.49	
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	708718	50.0000	50.51	
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	1033451	50.0000	55.86	
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	668099	50.0000	50.34	
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	69833	50.0000	49.06	
	90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	470047	50.0000	51.19	
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	195984	50.0000	49.60	
	92 Naphthalene	128	11.540	11.540	(1.194)	1128791	50.0000	49.51	
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	433517	50.0000	48.20	
M	94 1,2-Dichloroethylene (total)	96				587184	100.000		(a)
	141 Cyclohexane	56	4.118	4.118	(0.986)	352031	50.0000	50.90	
	138 Freon TF	101	1.913	1.913	(0.458)	237122	50.0000	56.87	
	147 Methylcyclohexane	55	5.377	5.377	(1.084)	684658	50.0000	49.43	
	146 Methyl Acetate	43	2.228	2.228	(0.533)	190081	50.0000	58.20	
	148 Tert-Butyl alcohol	59	2.423	2.423	(0.580)	568775	1000.00	1042.16	
	149 Isopropyl Alcohol	45	2.090	2.090	(0.500)	322307	1000.00	953.49	

QC Flag Legend

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



Data File: \\NAHSTMS005\Target\chem\voa6.i\X230529.b\X052902.D
Date : 29-MAY-2023 12:23
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\X230529.b\X052902.D
Inj Date : 29-MAY-2023 12:23
InstruID : voa6.i
LabSampID : CCV

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052904.D
Lab Smp Id: CCB Client Smp ID: CCB
Inj Date : 29-MAY-2023 13:05
Operator : PC Inst ID: voa6.i
Smp Info : CCB;CCB;;;
Misc Info : V6;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\8260W.m
Meth Date : 31-May-2023 16:38 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	606931	50.0000	
$ 30 Dibromofluoromethane	113	4.095	4.095	(0.980)	283494	51.4653	51.46
$ 35 1,2-Dichloroethane-d4	65	4.466	4.470	(1.069)	322511	54.6559	54.65
* 36 1,4-Difluorobenzene	114	4.961	4.961	(1.000)	923615	50.0000	
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	815140	50.0000	
$ 48 Toluene-d8	98	6.386	6.386	(0.833)	1097626	52.8466	52.84
$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	379373	48.5185	48.51
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	399556	50.0000	

01230815

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052904.D

Page 1

Date : 29-MAY-2023 13:05

Client ID: CCB

Instrument: voa6.i

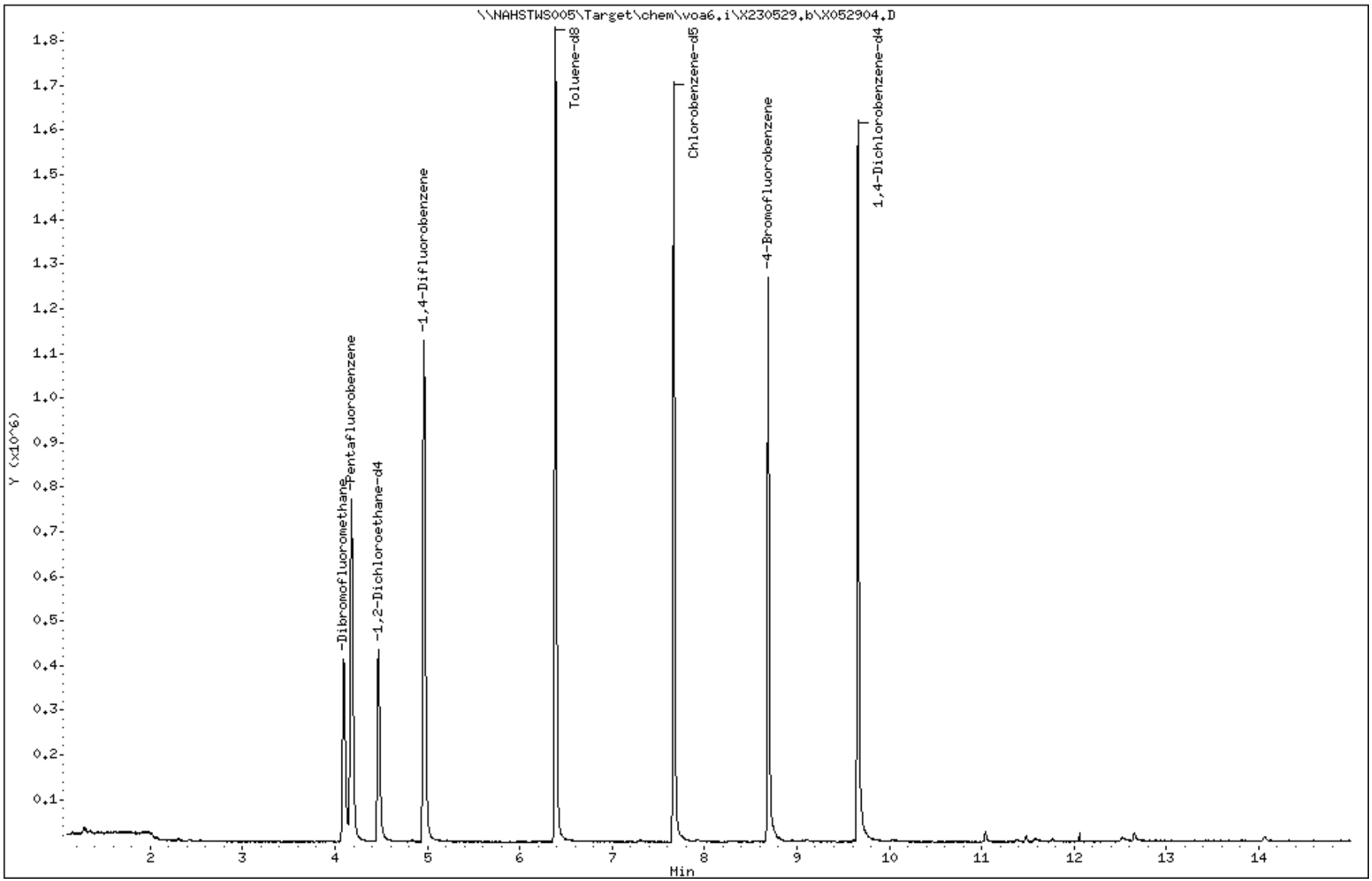
Sample Info: CCB:CCB:::

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052904.D
Inj Date : 29-MAY-2023 13:05
InstruID : voa6.i
LabSampID : CCB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052905.D Page 1
Report Date: 31-May-2023 16:38

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052905.D
Lab Smp Id: VLCSW-230529 Client Smp ID: VLCSW-230529
Inj Date : 29-MAY-2023 13:26
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-230529;VLCSW-230529;3;;LCS
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\8260W.m
Meth Date : 31-May-2023 16:38 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	526166	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	26495	371.809	371.80(a)
140 1,3-Butadiene	54	1.164	1.164	(0.279)	93955	16.8710	16.87
25 Methacrylonitrile	41	3.825	3.818	(0.916)	101084	21.5515	21.55
12 Isobutyl Alcohol	43	4.676	4.672	(1.119)	325009	473.870	473.87
13 Acetonitrile	39	2.198	2.195	(0.526)	116161	229.318	229.31
14 Allyl Chloride	41	2.198	2.198	(0.526)	239076	18.7110	18.71
4 Propionitrile	54	3.649	3.649	(0.873)	149164	206.732	206.73(a)
40 Methyl Methacrylate	41	5.606	5.602	(1.342)	98828	21.4875	21.48
49 Ethyl Methacrylate	69	6.787	6.783	(1.368)	171580	19.5230	19.52
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	189088	19.3584	19.35
156 Diisopropyl ether	45	3.000	2.997	(0.718)	313820	19.7122	19.71
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	389895	19.3186	19.31
2 Dichlorodifluoromethane	85	0.972	0.973	(0.233)	91420	18.4142	18.41
3 Chloromethane	50	1.077	1.078	(0.258)	117514	15.9183	15.91
5 Vinyl Chloride	62	1.141	1.141	(0.273)	124886	17.9209	17.92
6 Bromomethane	94	1.340	1.340	(0.321)	77069	21.3717	21.37
7 Chloroethane	64	1.404	1.404	(0.336)	88895	20.4348	20.43
8 Trichlorofluoromethane	101	1.561	1.557	(0.374)	143597	19.5707	19.57
9 Acrolein	56	1.445	1.441	(0.346)	11363	25.8108	25.81

10 Acetone	43	1.973	1.970 (0.472)	89995	46.9109	46.91
11 1,1-Dichloroethene	96	1.913	1.913 (0.458)	89975	19.3926	19.39

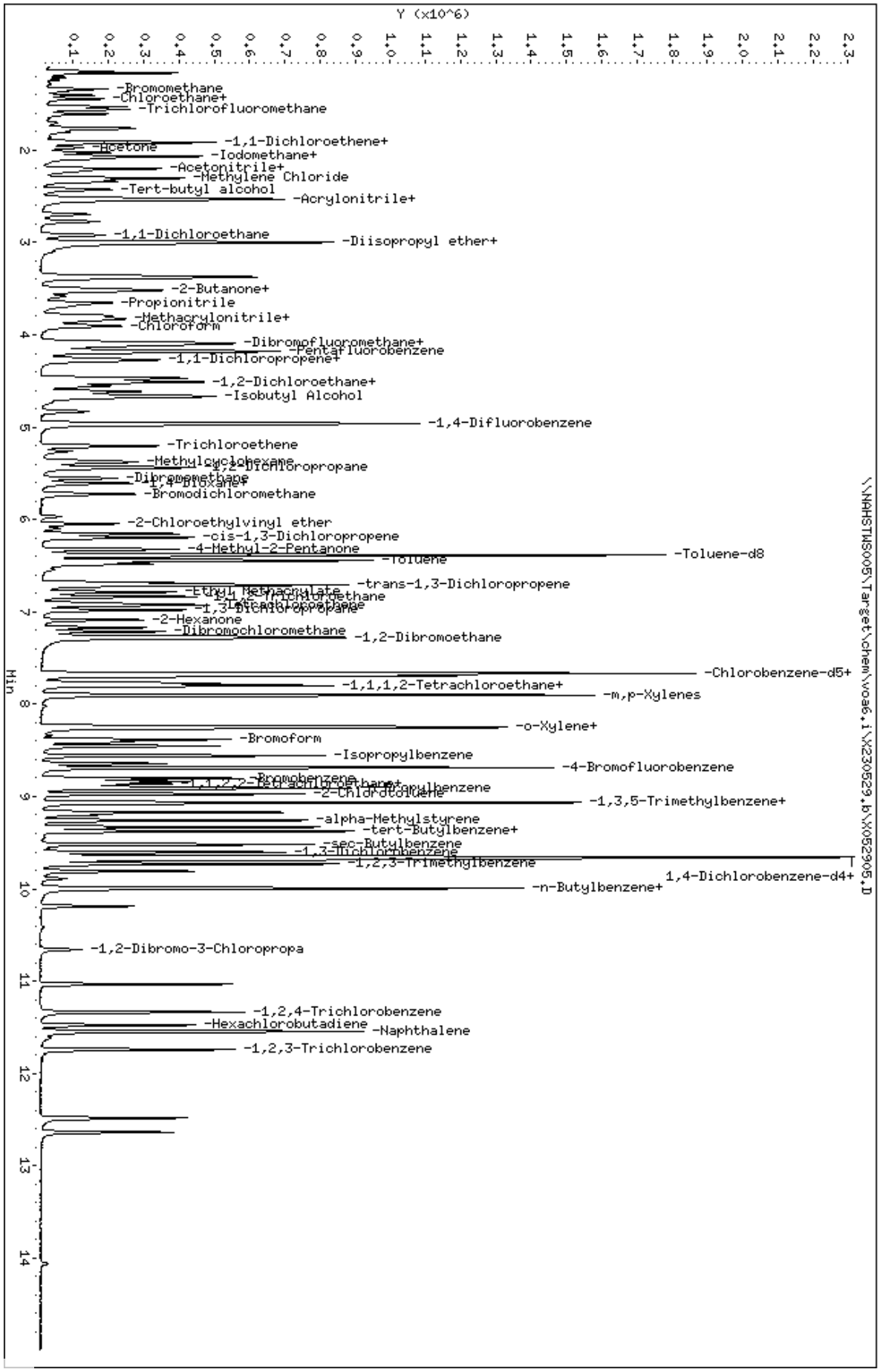
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	15 Iodomethane	142	2.026	2.026	(0.485)	193323	31.8589	31.85
	16 Acrylonitrile	53	2.536	2.532	(0.607)	66019	37.9995	37.99
	17 Methylene Chloride	84	2.303	2.300	(0.551)	111074	20.1380	20.13
	18 Methyl tert-butyl ether	73	2.536	2.532	(0.607)	298152	20.6006	20.60
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	515109	35.3848	35.38
	20 trans-1,2-Dichloroethene	96	2.528	2.524	(0.605)	99145	20.6020	20.60
	21 Vinyl Acetate	43	2.997	2.993	(0.717)	619570	46.2678	46.26
	22 1,1-Dichloroethane	63	2.922	2.918	(0.699)	182982	20.7365	20.73
	24 2-Butanone	43	3.581	3.574	(0.857)	79503	45.4026	45.40
	26 2,2-Dichloropropane	77	3.503	3.507	(0.838)	153499	23.4554	23.45
	27 cis-1,2-Dichloroethene	96	3.525	3.522	(0.844)	116847	20.6428	20.64
	28 Chloroform	83	3.904	3.904	(0.935)	197236	22.5525	22.55
	29 Bromochloromethane	128	3.788	3.792	(0.907)	61625	20.6563	20.65
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	266183	55.8111	55.81
	31 1,1,1-Trichloroethane	97	4.080	4.076	(0.977)	146336	21.7276	21.72
	32 1,1-Dichloropropene	75	4.279	4.275	(0.862)	124890	18.4540	18.45
	33 1,2-Dichloroethane	62	4.552	4.553	(0.918)	153106	22.7833	22.78
	34 Carbon Tetrachloride	117	4.260	4.264	(0.859)	115416	18.4603	18.46
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	300626	58.8018	58.80(M)
*	36 1,4-Difluorobenzene	114	4.961	4.961	(1.000)	860224	50.0000	
	37 Benzene	78	4.511	4.508	(0.909)	417886	19.0944	19.09
	38 Trichloroethene	130	5.205	5.201	(1.049)	110168	18.6778	18.67
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	152655	20.3826	20.38
	41 2-Chloroethylvinyl ether	63	6.048	6.044	(1.219)	90762	36.4879	36.48
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	115475	18.5684	18.56
	44 Dibromomethane	93	5.553	5.550	(1.119)	76909	20.3776	20.37
	45 4-Methyl-2-Pentanone	43	6.325	6.322	(0.825)	228717	40.0337	40.03
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	194965	19.4817	19.48
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	830681	50.0000	
$	48 Toluene-d8	98	6.382	6.386	(0.832)	1001052	47.2953	47.29
	50 Toluene	91	6.445	6.446	(0.841)	461322	19.7928	19.79
	51 trans-1,3-Dichloropropene	75	6.682	6.678	(1.347)	171713	21.4844	21.48
	52 2-Hexanone	43	7.086	7.083	(0.924)	161542	41.3147	41.31
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	95825	20.1316	20.13
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	194523	19.6398	19.63
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	130329	20.1770	20.17
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	82096	18.1810	18.18
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	121926	21.0209	21.02
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	90491	18.3917	18.39
	59 Chlorobenzene	112	7.694	7.690	(1.003)	318038	19.7115	19.71
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.773	(1.014)	115867	20.4633	20.46
	61 Ethylbenzene	106	7.799	7.795	(1.017)	150130	18.9361	18.93
	62 m,p-Xylenes	106	7.900	7.900	(1.030)	387568	39.2502	39.25
	63 o-Xylene	106	8.241	8.237	(1.075)	190818	19.7637	19.76
	64 Styrene	104	8.260	8.256	(1.077)	335586	20.7616	20.76
	66 Bromoform	173	8.410	8.410	(1.097)	89813	20.5722	20.57
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	438563	18.9358	18.93
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	164446	21.0743	21.07
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	389126	48.8347	48.83
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	448063	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	123856	21.6059	21.60(M)
	73 n-Propylbenzene	91	8.908	8.908	(0.922)	533953	19.2290	19.22

74	Bromobenzene	156	8.803	8.803 (0.911)	139268	19.9157	19.91
75	1,3,5-Trimethylbenzene	105	9.066	9.066 (0.938)	388655	19.3243	19.32

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	344360	19.0957	19.09
	77 4-Chlorotoluene	91	9.070	9.066	(0.939)	403999	20.3706	20.37
	78 tert-Butylbenzene	119	9.332	9.336	(0.966)	313031	18.4890	18.48
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	403880	19.6252	19.62
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	436980	18.5090	18.50
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	390014	19.1181	19.11
	83 1,3-Dichlorobenzene	146	9.606	9.602	(0.994)	240589	19.0842	19.08
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	258871	19.5384	19.53
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	357093	20.4431	20.44
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	247205	19.7275	19.72
	89 1,2-Dibromo-3-Chloropropane	155	10.659	10.655	(1.103)	26379	19.4278	19.42
	90 1,2,4-Trichlorobenzene	180	11.337	11.334	(1.173)	166599	19.2156	19.21
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	69166	18.5412	18.54
	92 Naphthalene	128	11.544	11.540	(1.195)	412140	19.1438	19.14
	93 1,2,3-Trichlorobenzene	180	11.742	11.739	(1.215)	156405	18.4161	18.41
M	94 1,2-Dichloroethylene (total)	96				215992	41.2448	41.24
M	95 Xylenes (total)	106				578386	59.0139	59.01
	141 Cyclohexane	56	4.118	4.118	(0.986)	115752	17.5798	17.57
	138 Freon TF	101	1.913	1.913	(0.458)	80306	21.7185	21.71
	147 Methylcyclohexane	55	5.381	5.377	(1.085)	211179	15.9637	15.96
	146 Methyl Acetate	43	2.232	2.228	(0.534)	72801	23.4127	23.41
	148 Tert-Butyl alcohol	59	2.427	2.423	(0.581)	227599	437.977	437.97
	149 Isopropyl Alcohol	45	2.093	2.090	(0.501)	126233	392.200	392.19

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\x230529.b\x052905.D
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Sample Info: VLCSW-230529;VLCSW-230529;3;;LCS
Purge Volume: 5.0
Column phase: DB624

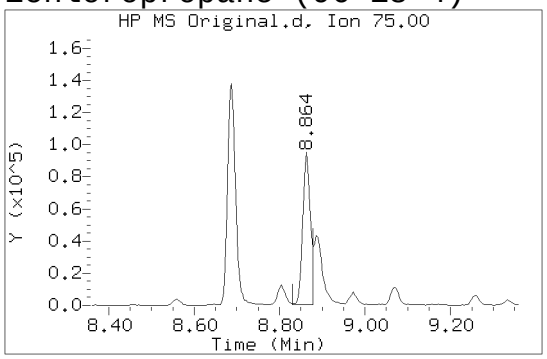
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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Inj Date : 29-MAY-2023 13:26
InstruID : voa6.i
LabSampID : VLCSW-230529

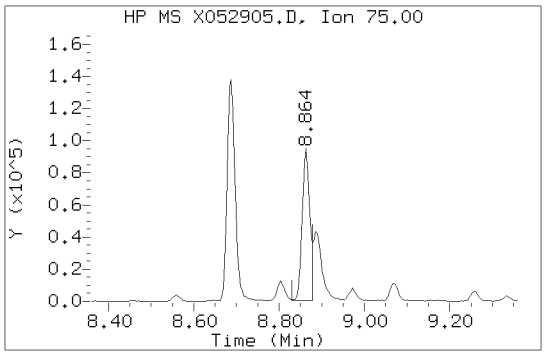
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Reason Code:

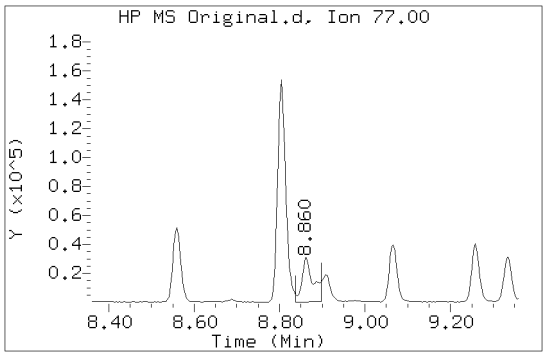
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31-May-2023
16:37
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pham



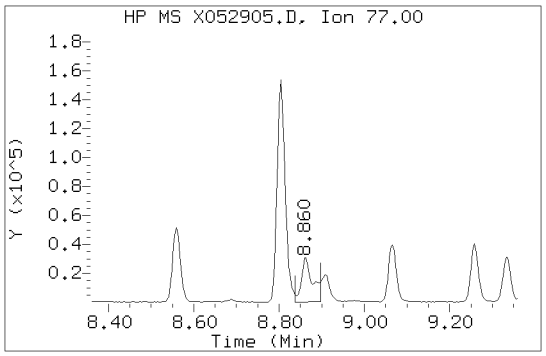
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31-May-2023
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BEFORE
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31-May-2023
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linh
pham



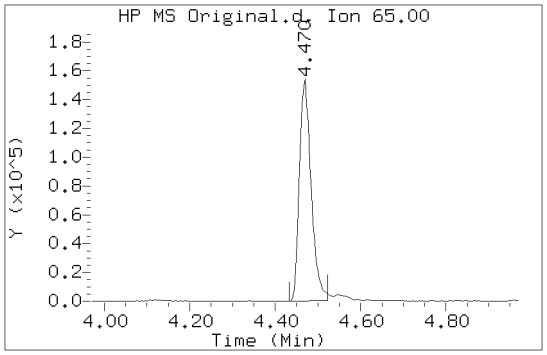
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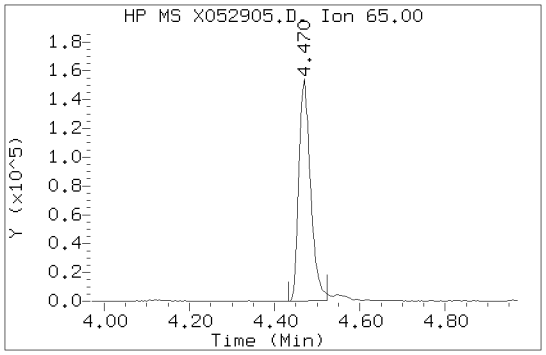
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Reason Code:

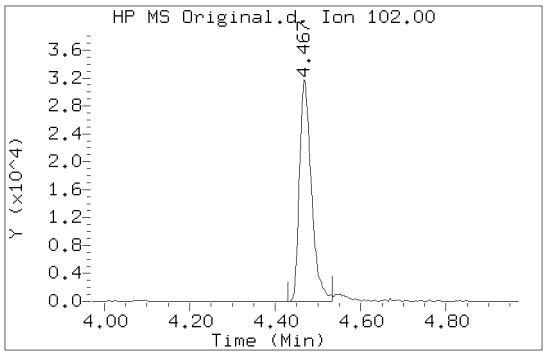
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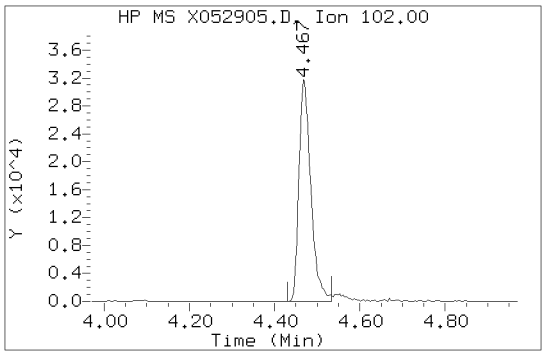
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31-May-2023
16:37
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AFTER
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31-May-2023
16:37
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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052907.D Page 1
Report Date: 31-May-2023 16:38

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052907.D
Lab Smp Id: VBLKW-230529 Client Smp ID: VBLKW-230529
Inj Date : 29-MAY-2023 14:08
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-230529;VBLKW-230529;3;;BLANK
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\8260W.m
Meth Date : 31-May-2023 16:38 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	567992	50.0000	
$ 30 Dibromofluoromethane	113	4.095	4.095	(0.980)	271136	52.6151	52.61
$ 35 1,2-Dichloroethane-d4	65	4.466	4.470	(1.069)	307822	55.7520	55.75
* 36 1,4-Difluorobenzene	114	4.965	4.961	(1.000)	868910	50.0000	
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	802494	50.0000	
$ 48 Toluene-d8	98	6.386	6.386	(0.833)	1068445	52.2523	52.25
$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	371423	48.2503	48.25
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	405507	50.0000	

01230825

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052907.D

Date : 29-MAY-2023 14:08

Client ID: VBLKW-230529

Instrument: voa6.i

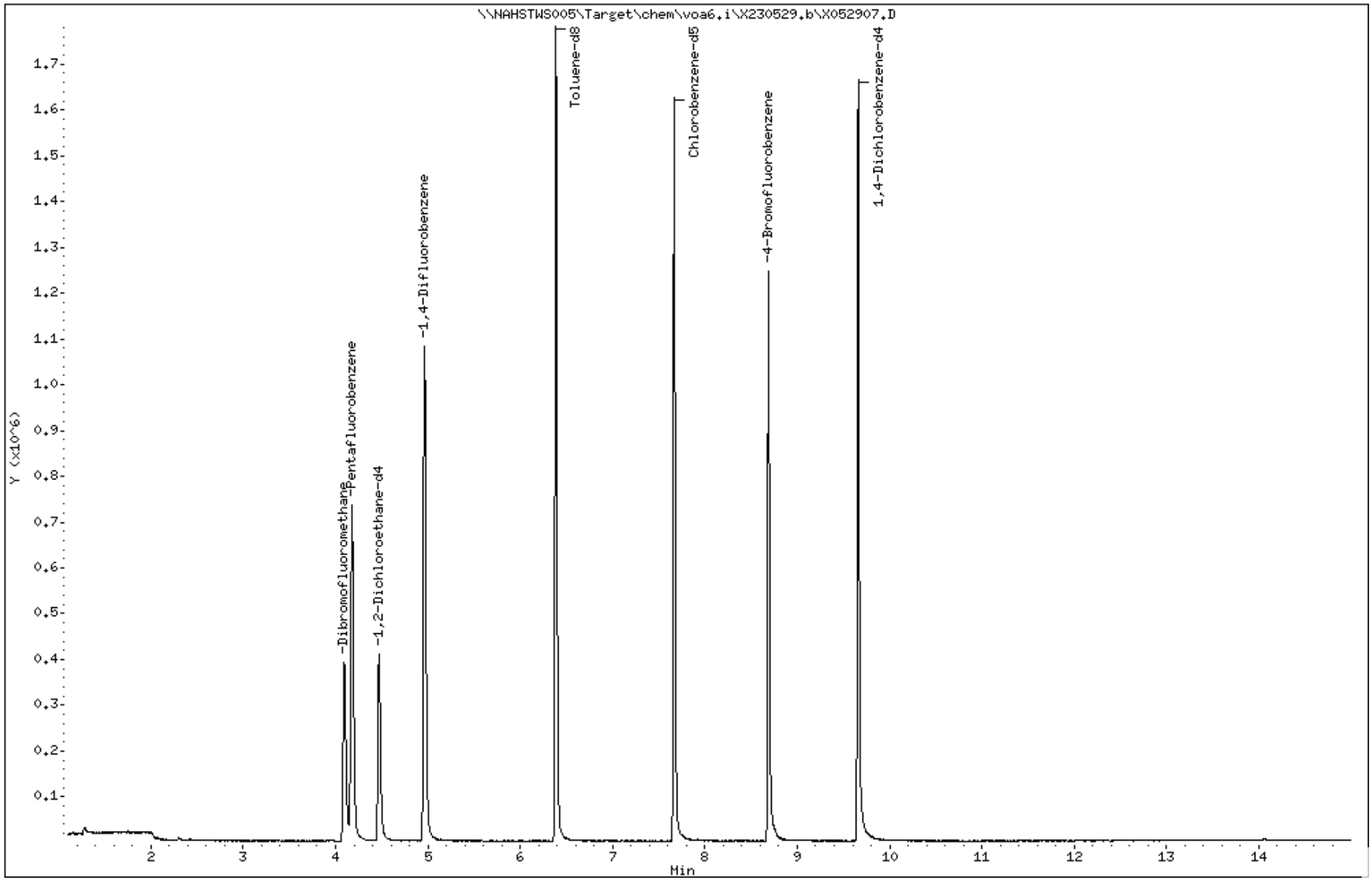
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Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052907.D
Inj Date : 29-MAY-2023 14:08
InstruID : voa6.i
LabSampID : VBLKW-230529

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052908.D
Lab Smp Id: HS23051708-08 Client Smp ID: HS23051708-08
Inj Date : 29-MAY-2023 14:29
Operator : PC Inst ID: voa6.i
Smp Info : HS23051708-08;HS23051708-08;;;
Misc Info : V6;WATER;0;1;
Comment   :
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Meth Date : 31-May-2023 16:38 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	549371	50.0000	
$ 30 Dibromofluoromethane	113	4.099	4.095	(0.981)	259328	52.0199	52.01
$ 35 1,2-Dichloroethane-d4	65	4.466	4.470	(1.069)	293198	54.8963	54.89
* 36 1,4-Difluorobenzene	114	4.961	4.961	(1.000)	832287	50.0000	
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	749461	50.0000	
$ 48 Toluene-d8	98	6.386	6.386	(0.833)	1001258	52.4315	52.43
$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	348295	48.4475	48.44
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	376441	50.0000	

01230828

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052908.D

Page 1

Date : 29-MAY-2023 14:29

Client ID: HS23051708-08

Instrument: voa6.i

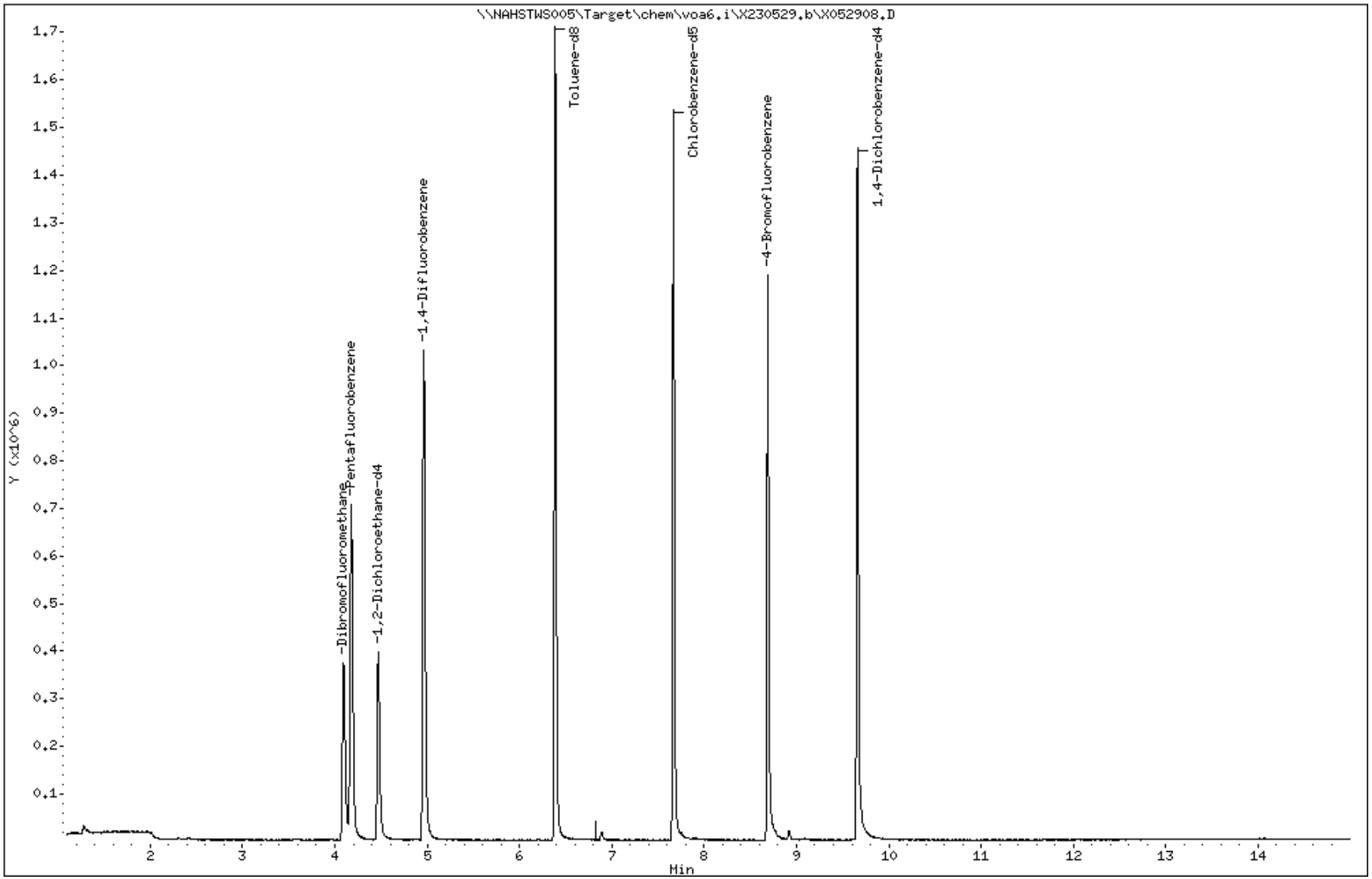
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Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



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Inj Date : 29-MAY-2023 14:29
InstruID : voa6.i
LabSampID : HS23051708-08

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052909.D Page 1
Report Date: 31-May-2023 16:38

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052909.D
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Misc Info : V6;WATER;0;1;
Comment   :
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Meth Date : 31-May-2023 16:38 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	546188	50.0000	
	27 cis-1,2-Dichloroethene	96	3.537	3.522	(0.847)	6542	1.11338	1.11(a)
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	255057	51.4521	51.45
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	294573	55.4800	55.47
*	36 1,4-Difluorobenzene	114	4.965	4.961	(1.000)	828426	50.0000	
	38 Trichloroethene	130	5.208	5.201	(1.049)	60290	10.6138	10.61
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	744721	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	1007168	53.0767	53.07
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	342089	47.8871	47.88
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	376900	50.0000	
M	94 1,2-Dichloroethylene (total)	96				6542	1.11338	1.11(a)

QC Flag Legend

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

01230831

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052909.D

Date : 29-MAY-2023 14:50

Client ID: HS23051708-01

Instrument: voa6.i

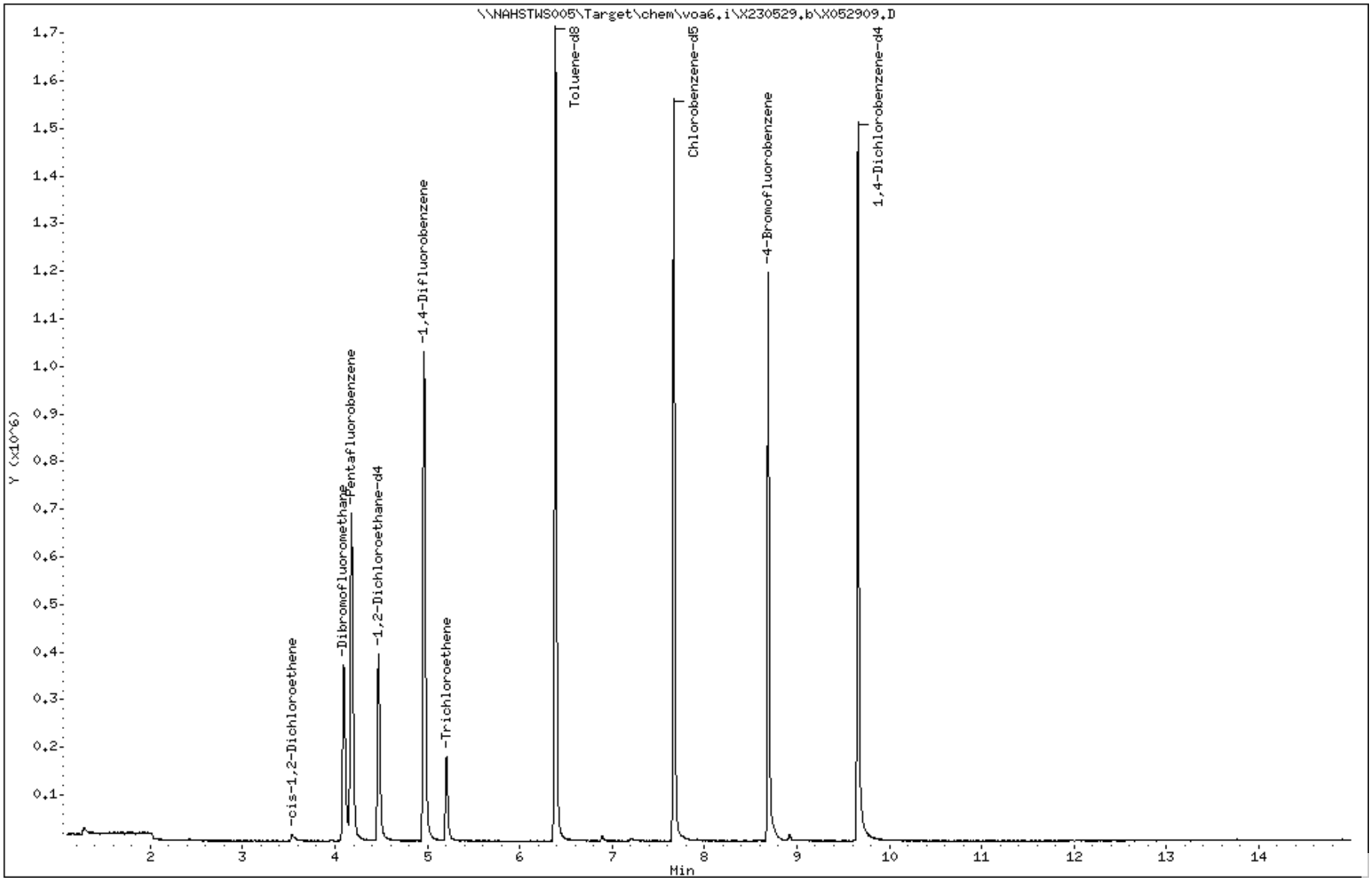
Sample Info: HS23051708-01;HS23051708-01;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052909.D

Date : 29-MAY-2023 14:50

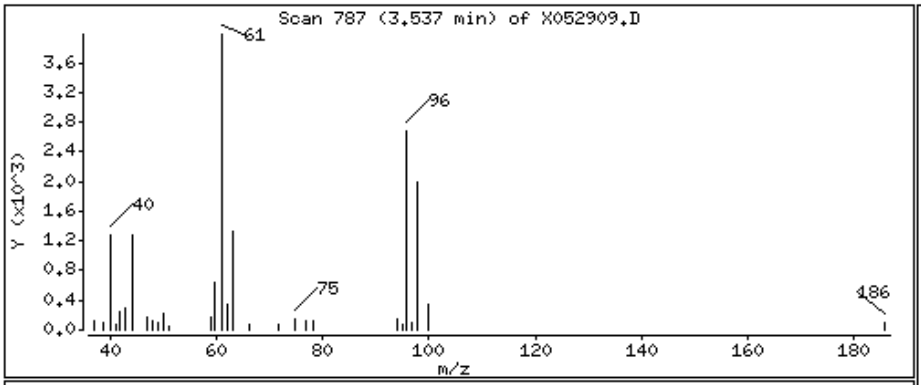
Client ID: HS23051708-01 Instrument: voa6.i

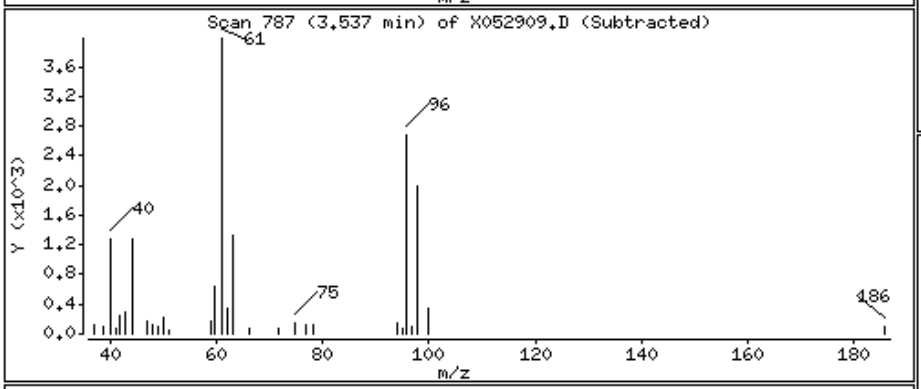
Sample Info: HS23051708-01;HS23051708-01;;;

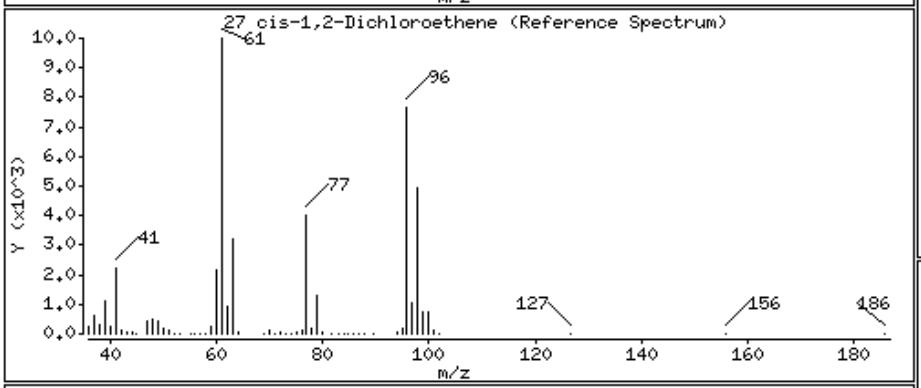
Purge Volume: 5.0 Operator: PC

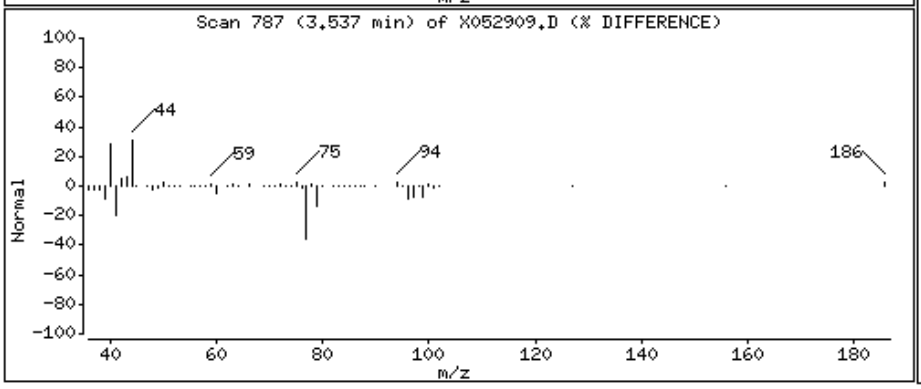
Column phase: DB624 Column diameter: 0.18

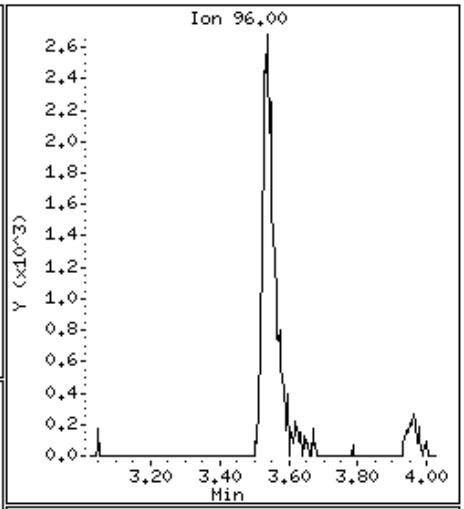
27 cis-1,2-Dichloroethene Concentration: 1.11 ug/l

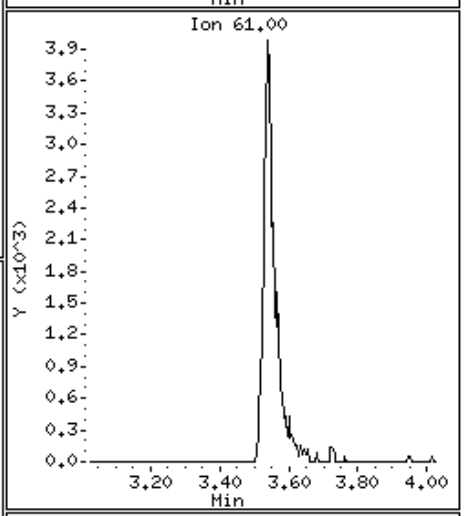


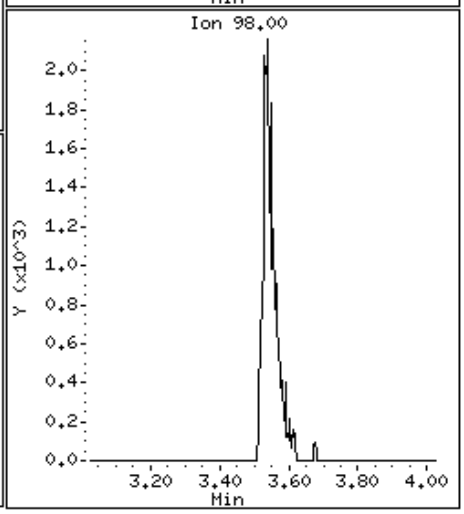












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052909.D Page 3

Date : 29-MAY-2023 14:50

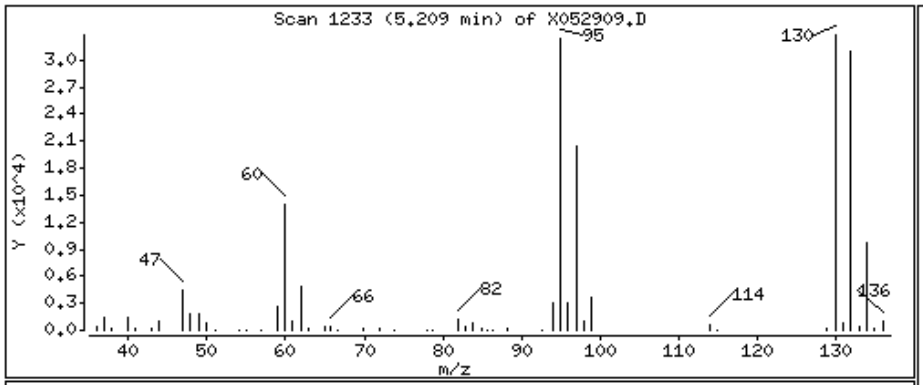
Client ID: HS23051708-01 Instrument: voa6.i

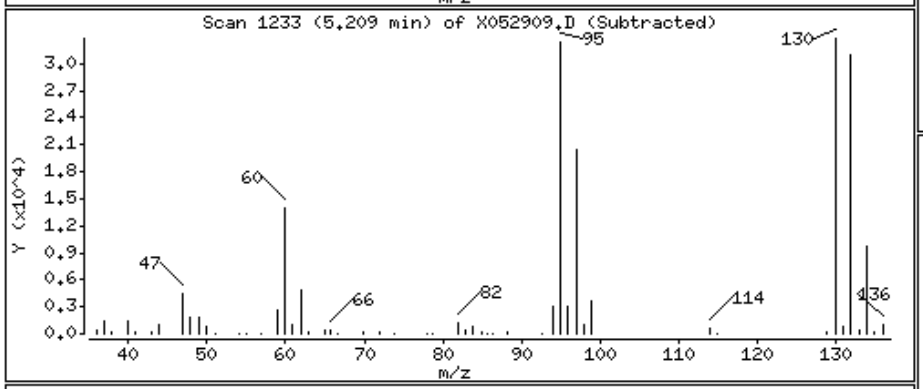
Sample Info: HS23051708-01;HS23051708-01;;;

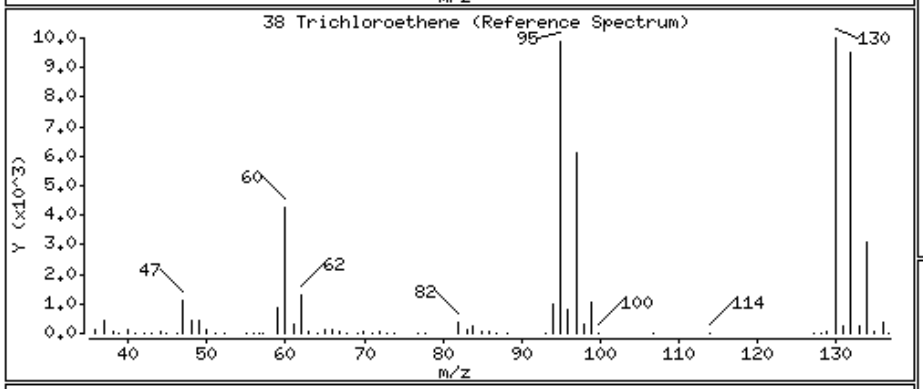
Purge Volume: 5.0 Operator: PC

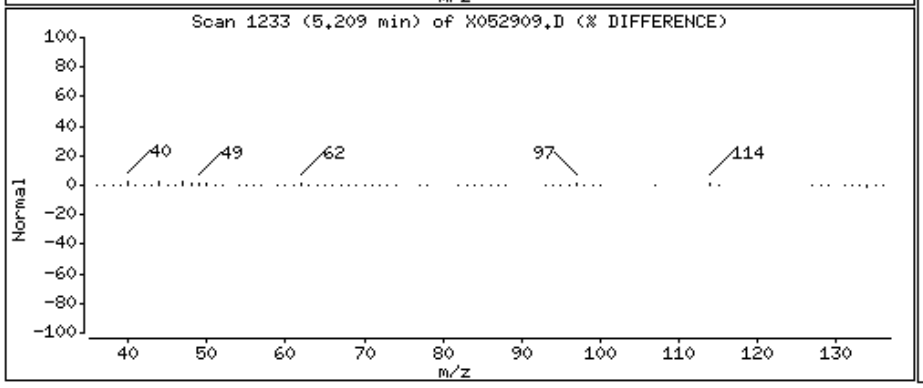
Column phase: DB624 Column diameter: 0.18

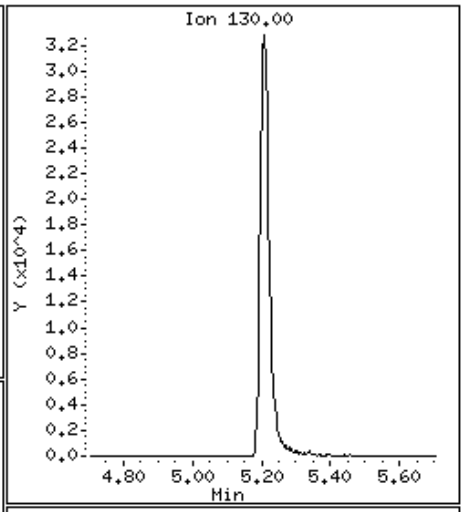
38 Trichloroethene Concentration: 10.61 ug/l

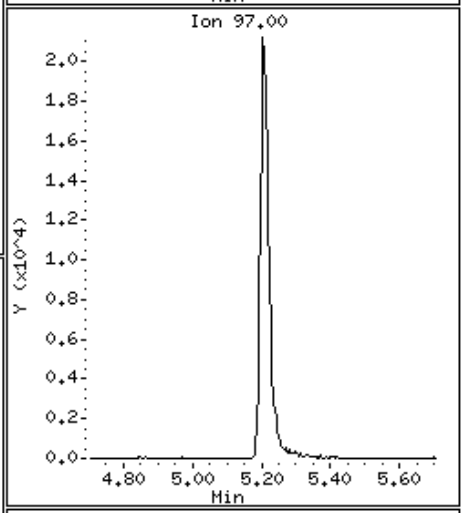


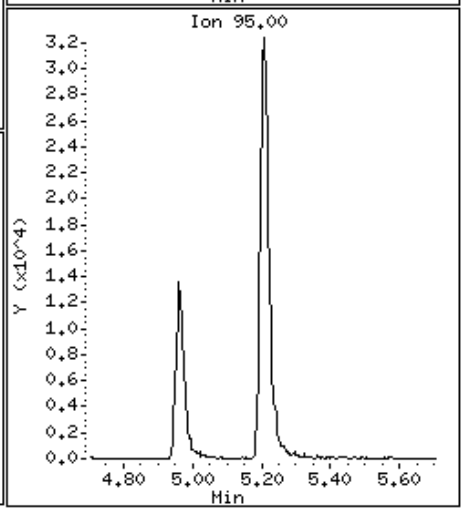












Data File : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052909.D
Inj Date : 29-MAY-2023 14:50
InstruID : voa6.i
LabSampID : HS23051708-01

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052910.D Page 1
Report Date: 31-May-2023 16:38

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052910.D
Lab Smp Id: HS23051708-02 Client Smp ID: HS23051708-02
Inj Date : 29-MAY-2023 15:11
Operator : PC Inst ID: voa6.i
Smp Info : HS23051708-02;HS23051708-02;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\8260W.m
Meth Date : 31-May-2023 16:38 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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

		QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
*	1 Pentafluorobenzene	168	4.178	4.178	(1.000)	531698	50.0000	
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	5369	1.14516	1.14(a)
	22 1,1-Dichloroethane	63	2.929	2.918	(0.701)	12770	1.43211	1.43(a)
	27 cis-1,2-Dichloroethene	96	3.522	3.522	(0.843)	488126	85.3376	85.33
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	247516	51.2890	51.28
	33 1,2-Dichloroethane	62	4.564	4.553	(0.919)	9460	1.49010	1.49(a)
$	35 1,2-Dichloroethane-d4	65	4.466	4.470	(1.069)	285263	55.1883	55.18
*	36 1,4-Difluorobenzene	114	4.965	4.961	(1.000)	812667	50.0000	
	38 Trichloroethene	130	5.201	5.201	(1.048)	4701068	843.655	843.65(A)
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	714079	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	966042	53.0939	53.09
	56 Tetrachloroethene	164	6.929	6.925	(0.904)	6951	1.79073	1.79(a)
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	326182	47.6197	47.61
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	346421	50.0000	
M	94 1,2-Dichloroethylene (total)	96				488126	85.3376	85.33
	138 Freon TF	101	1.913	1.913	(0.458)	7774	1.72380	1.72(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.

01230837

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052910.D

Date : 29-MAY-2023 15:11

Client ID: HS23051708-02

Instrument: voa6.i

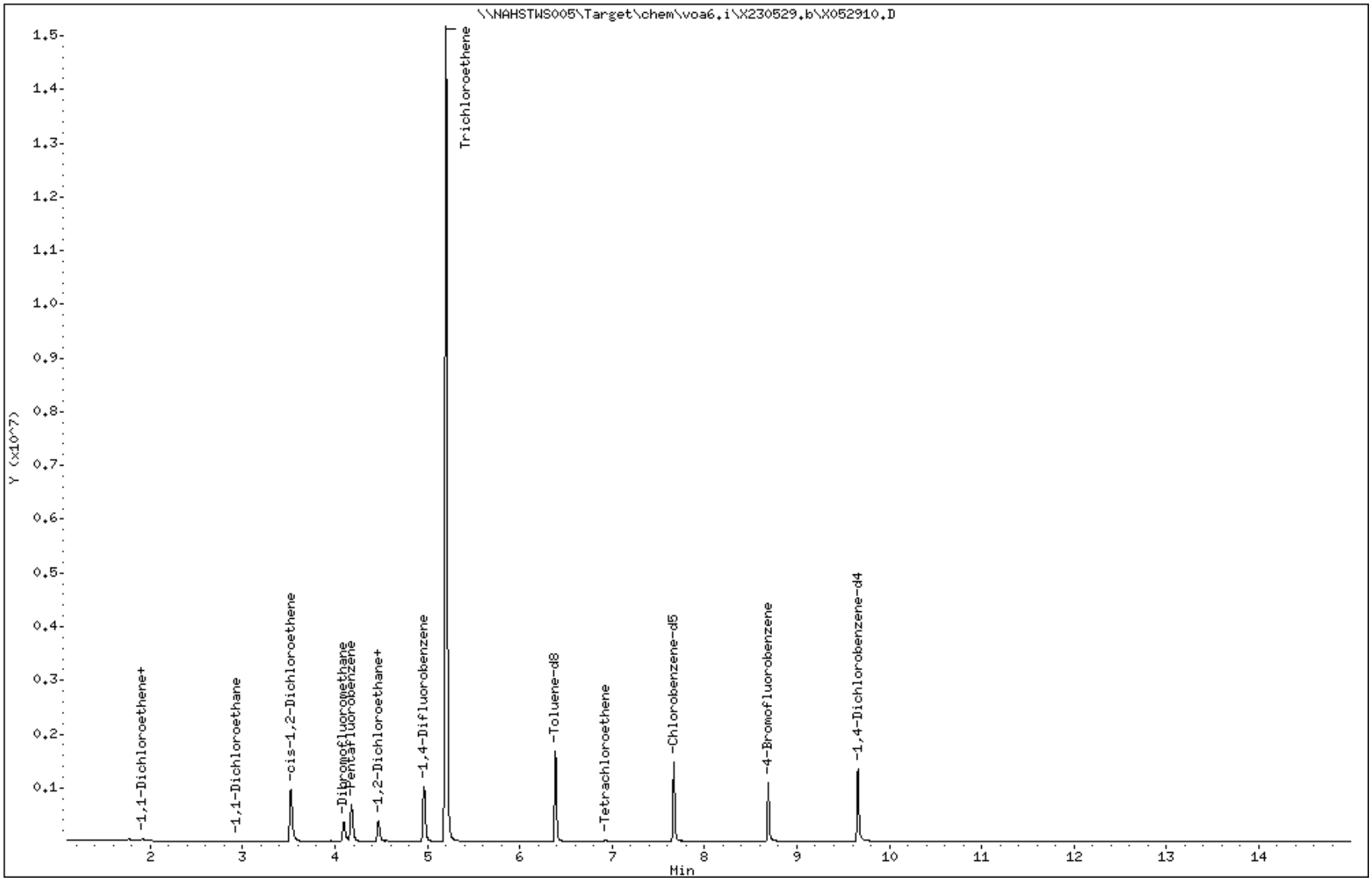
Sample Info: HS23051708-02;HS23051708-02;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052910.D

Date : 29-MAY-2023 15:11

Client ID: HS23051708-02

Instrument: voa6.i

Sample Info: HS23051708-02;HS23051708-02;;;

Purge Volume: 5.0

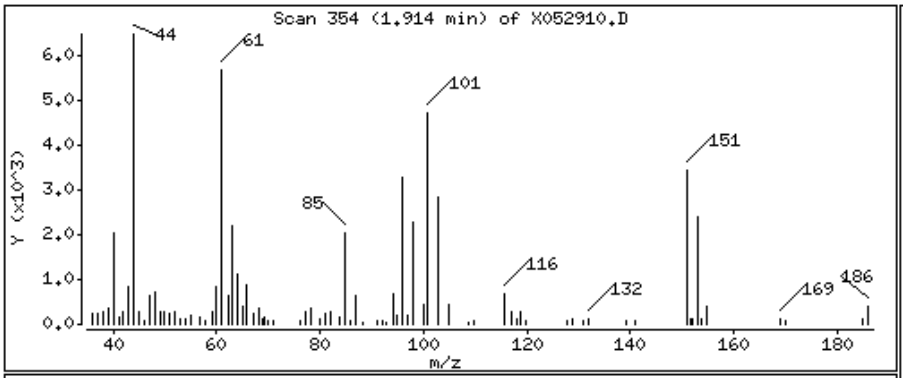
Operator: PC

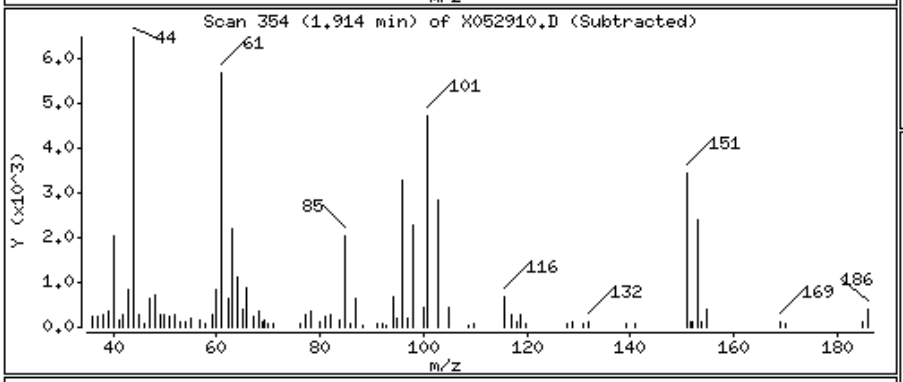
Column phase: DB624

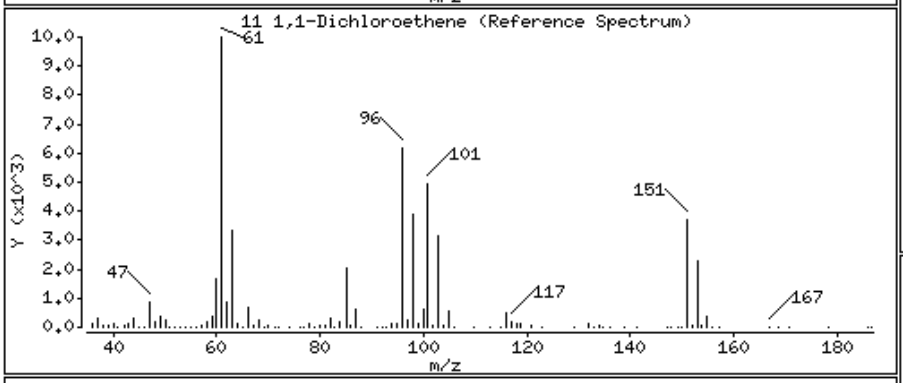
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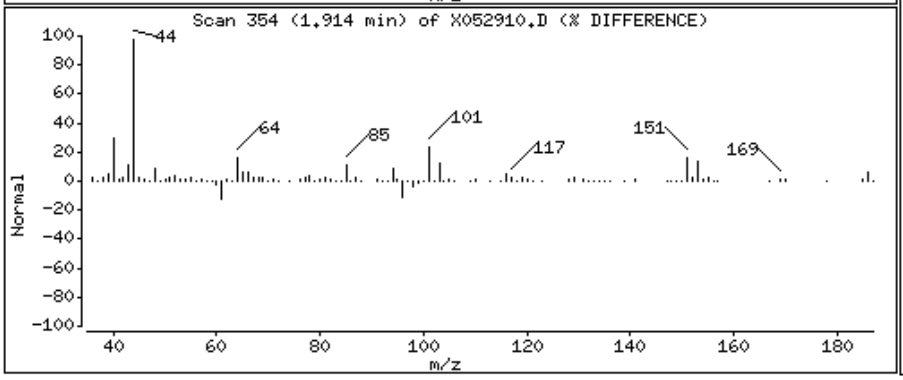
11 1,1-Dichloroethene

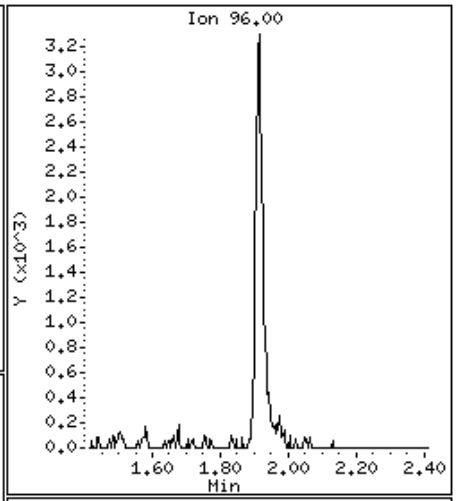
Concentration: 1.14 ug/l

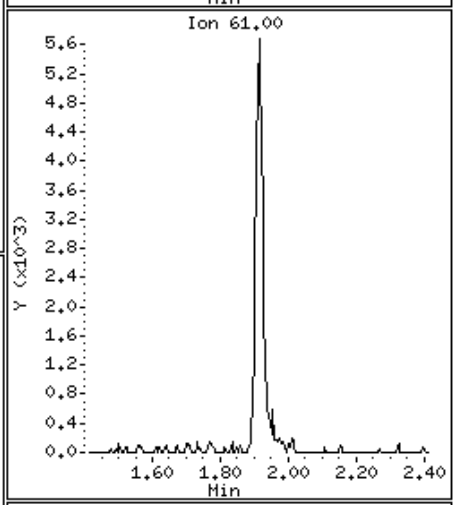


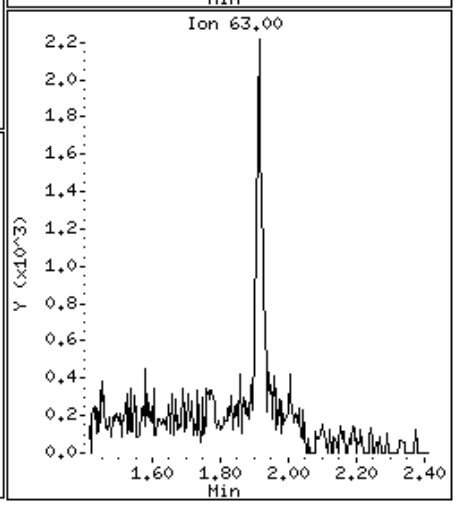












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052910.D Page 3

Date : 29-MAY-2023 15:11

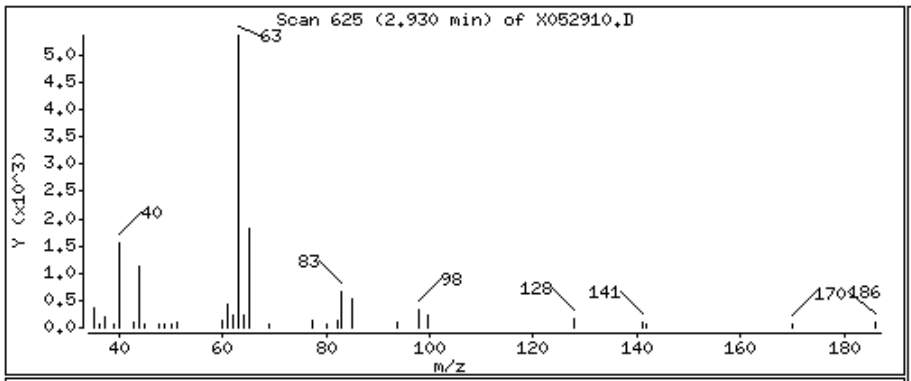
Client ID: HS23051708-02 Instrument: voa6.i

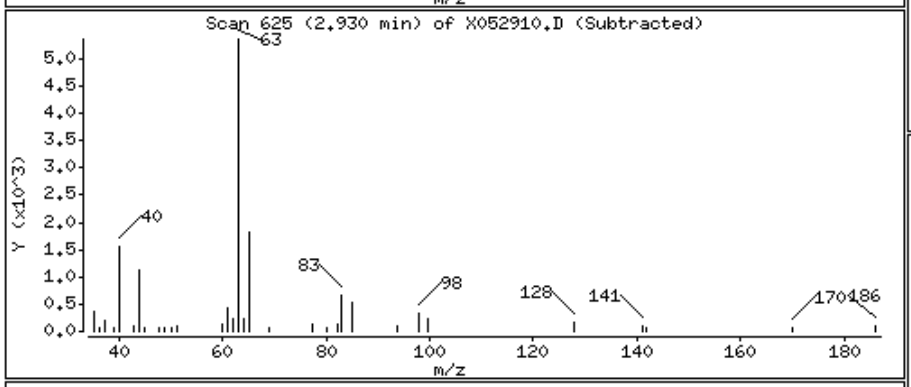
Sample Info: HS23051708-02;HS23051708-02;;;

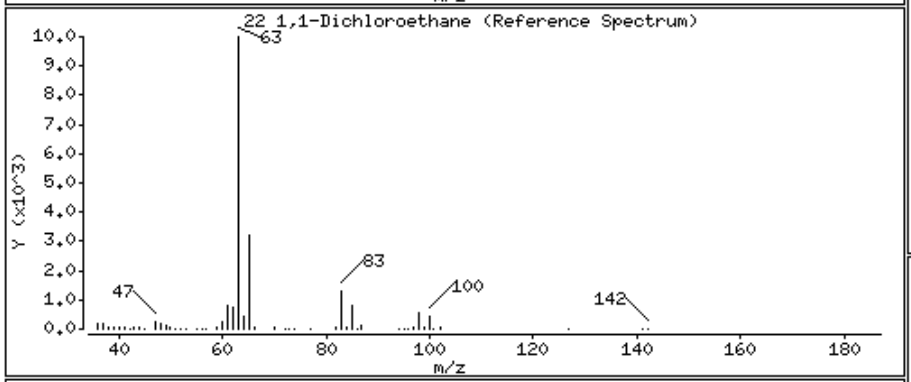
Purge Volume: 5.0 Operator: PC

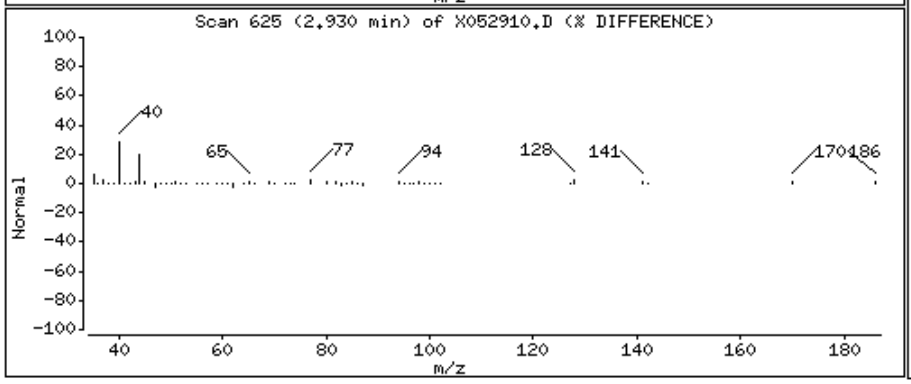
Column phase: DB624 Column diameter: 0.18

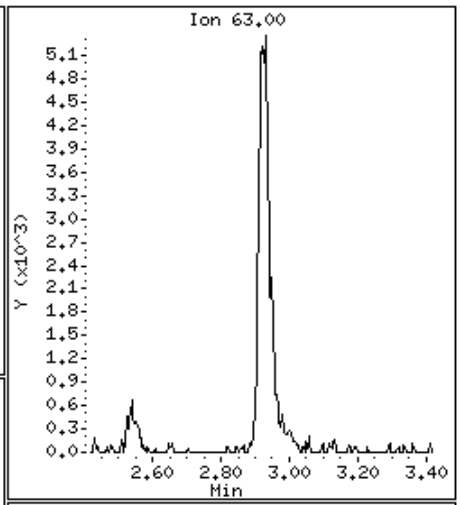
22 1,1-Dichloroethane Concentration: 1.43 ug/l

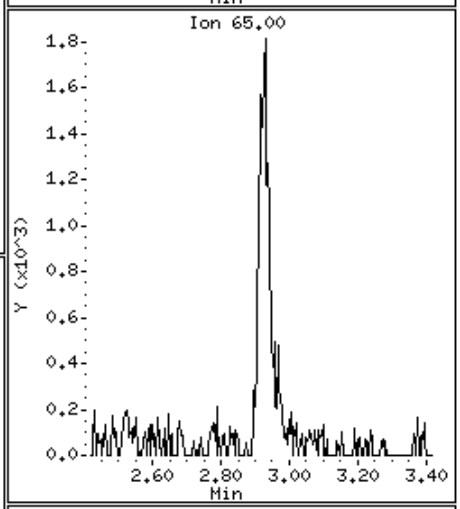


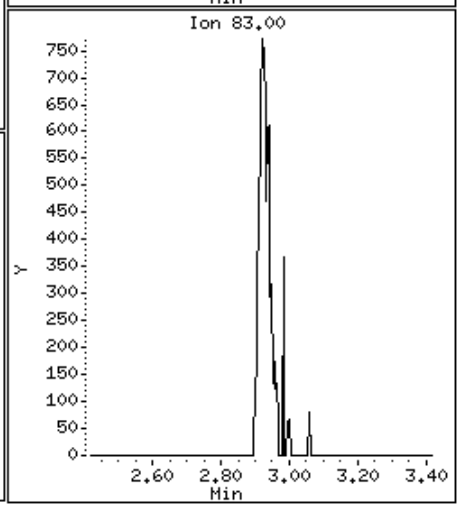












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052910.D Page 4

Date : 29-MAY-2023 15:11

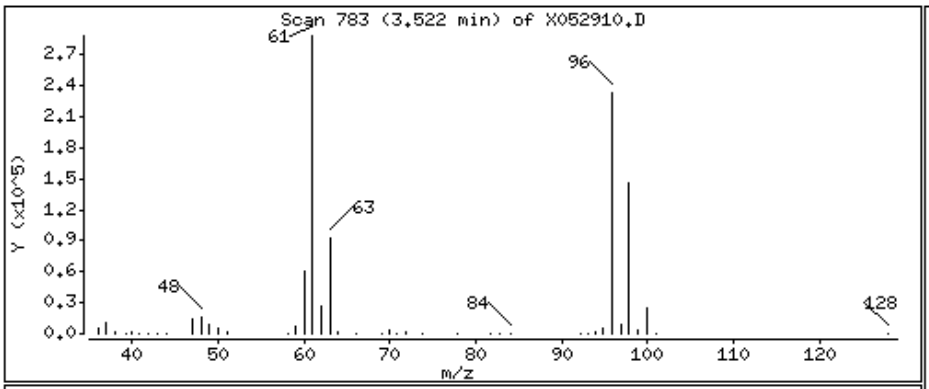
Client ID: HS23051708-02 Instrument: voa6.i

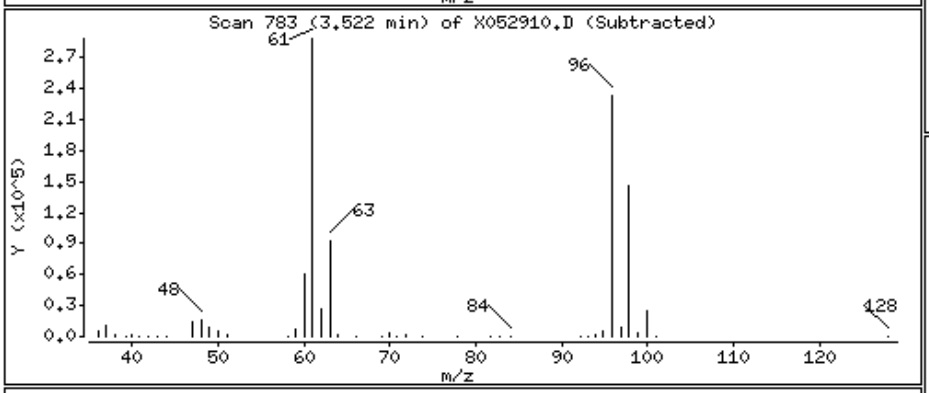
Sample Info: HS23051708-02;HS23051708-02;;;

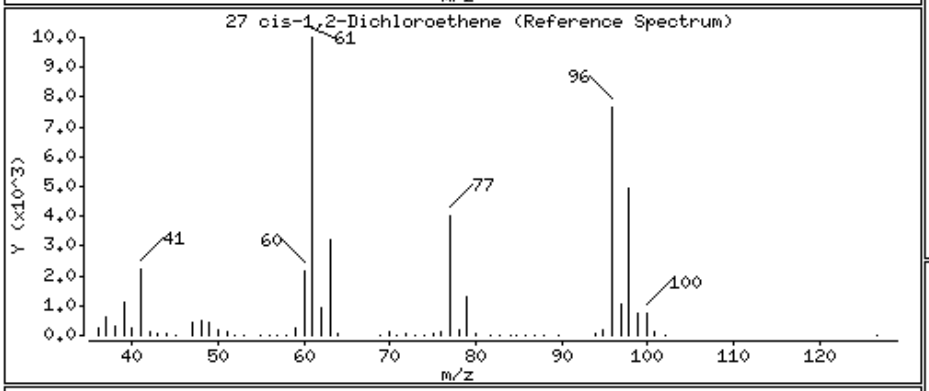
Purge Volume: 5.0 Operator: PC

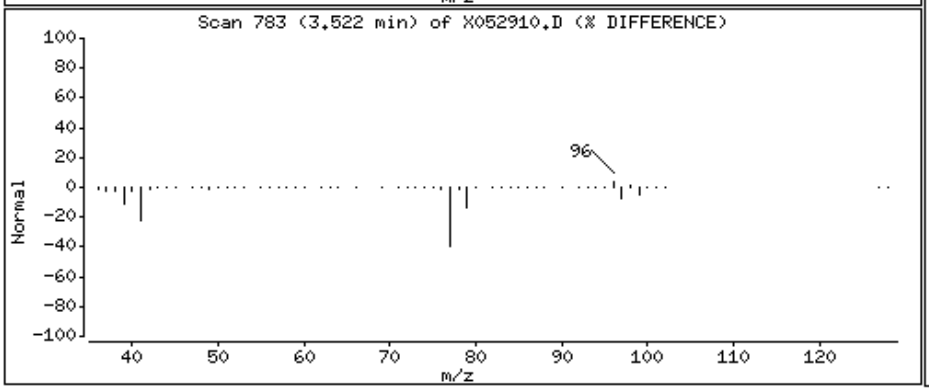
Column phase: DB624 Column diameter: 0.18

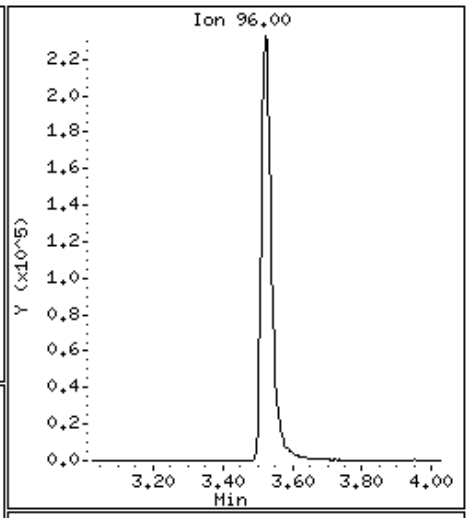
27 cis-1,2-Dichloroethene Concentration: 85.33 ug/l

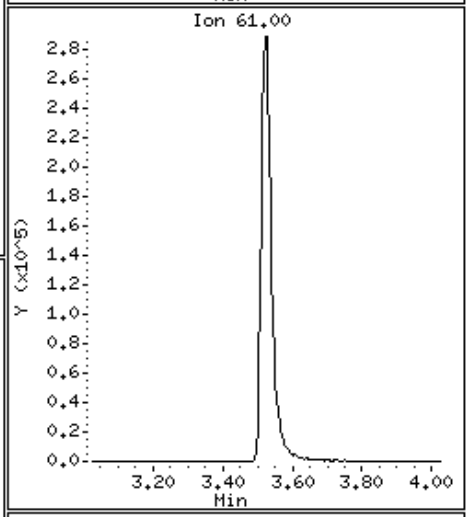


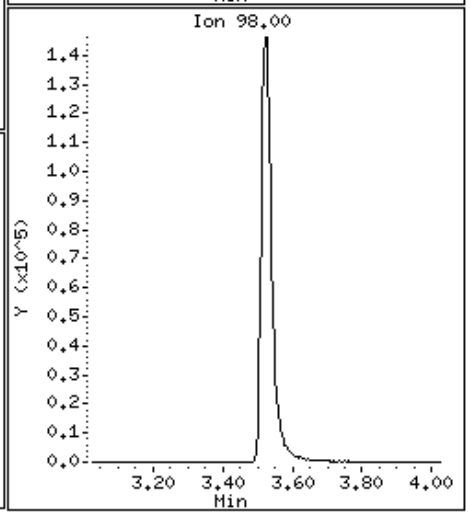












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052910.D Page 5

Date : 29-MAY-2023 15:11

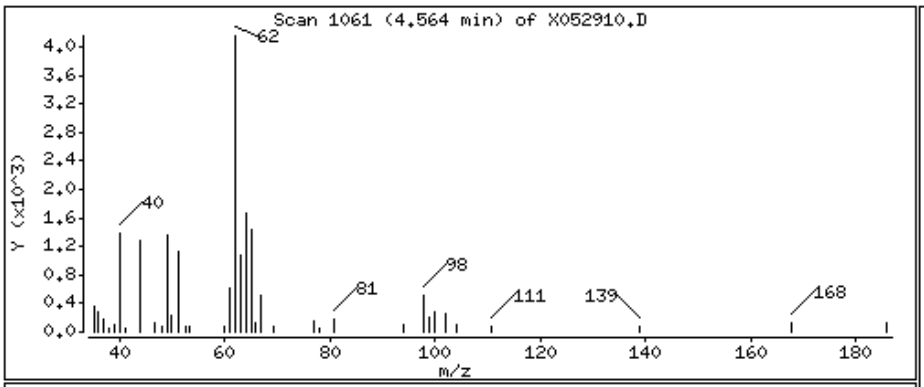
Client ID: HS23051708-02 Instrument: voa6.i

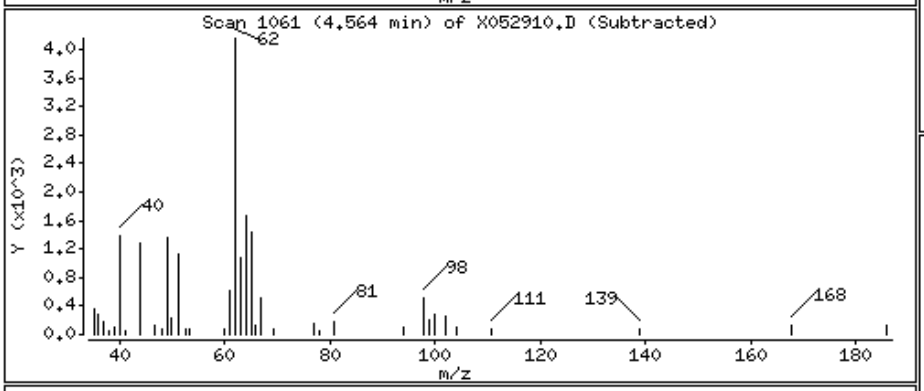
Sample Info: HS23051708-02;HS23051708-02;;;

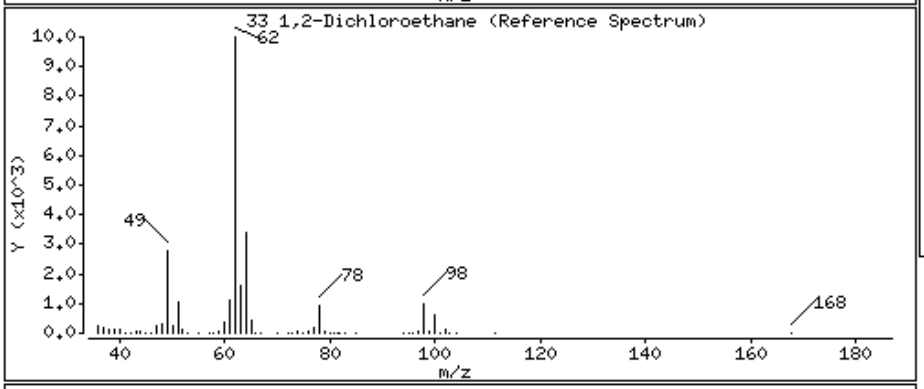
Purge Volume: 5.0 Operator: PC

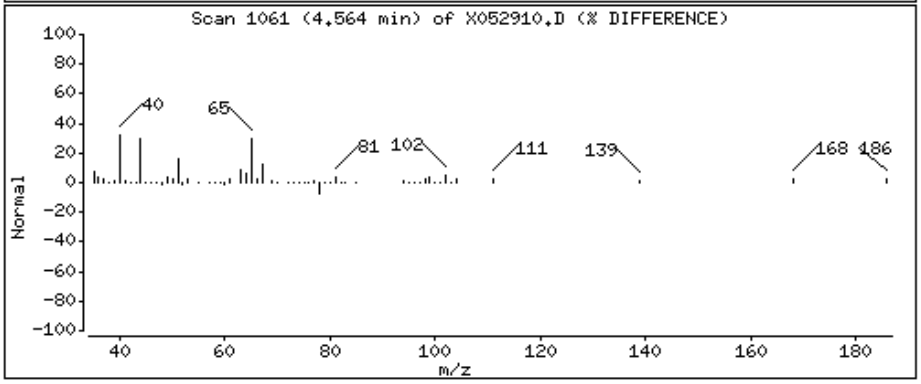
Column phase: DB624 Column diameter: 0.18

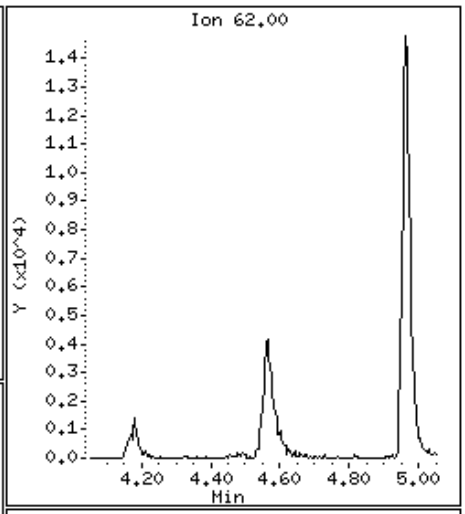
33 1,2-Dichloroethane Concentration: 1.49 ug/l

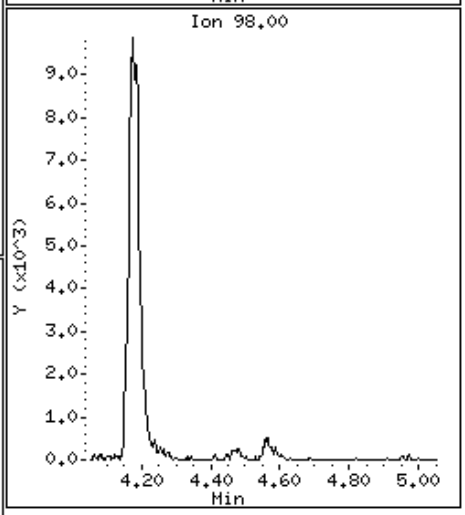












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052910.D Page 6

Date : 29-MAY-2023 15:11

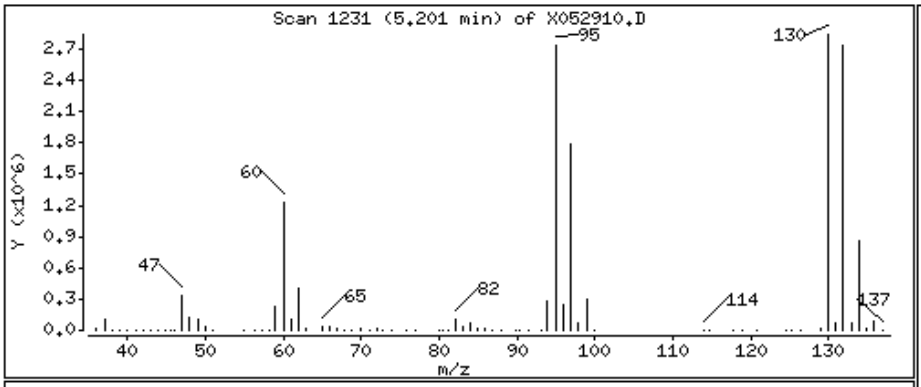
Client ID: HS23051708-02 Instrument: voa6.i

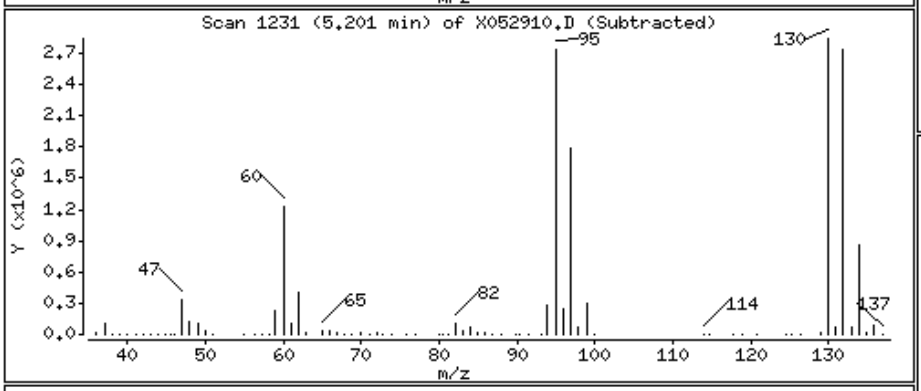
Sample Info: HS23051708-02;HS23051708-02;;;

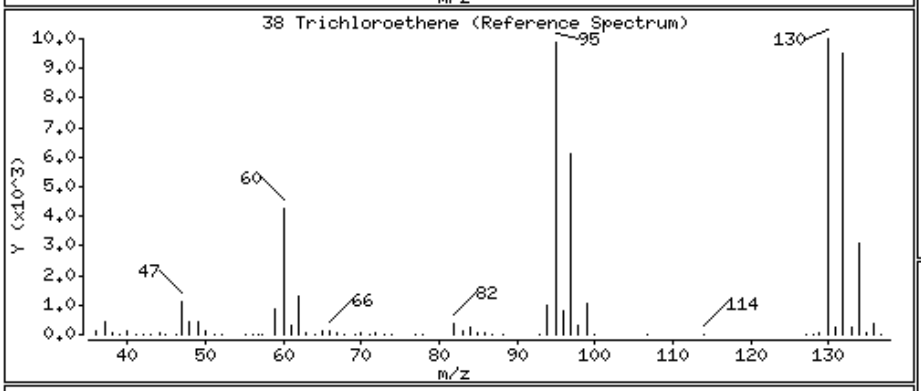
Purge Volume: 5.0 Operator: PC

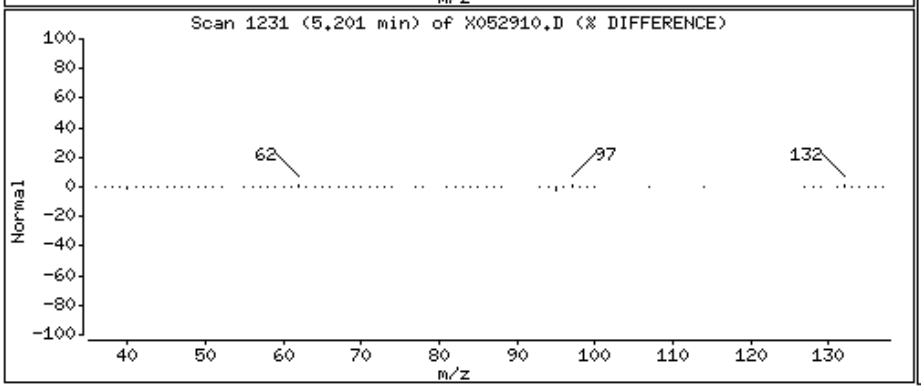
Column phase: DB624 Column diameter: 0.18

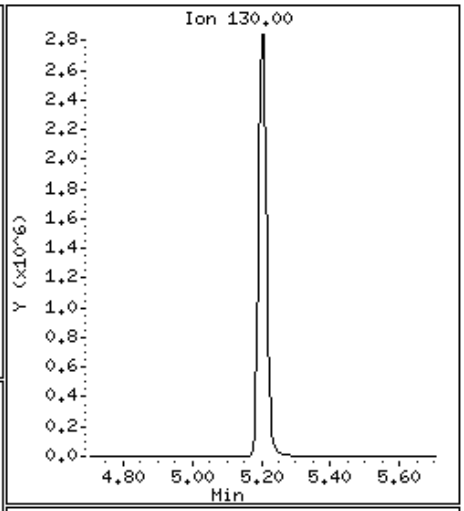
38 Trichloroethene Concentration: 843.65 ug/l

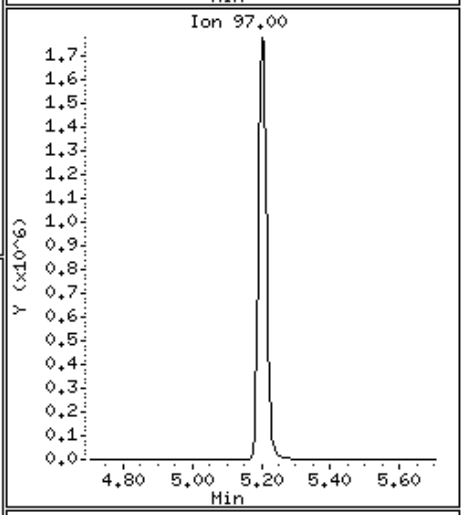


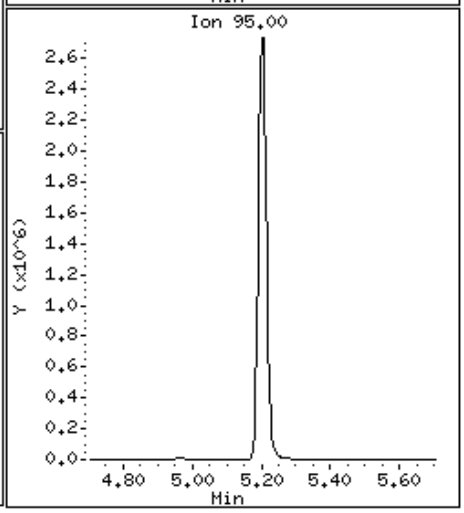












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052910.D Page 7

Date : 29-MAY-2023 15:11

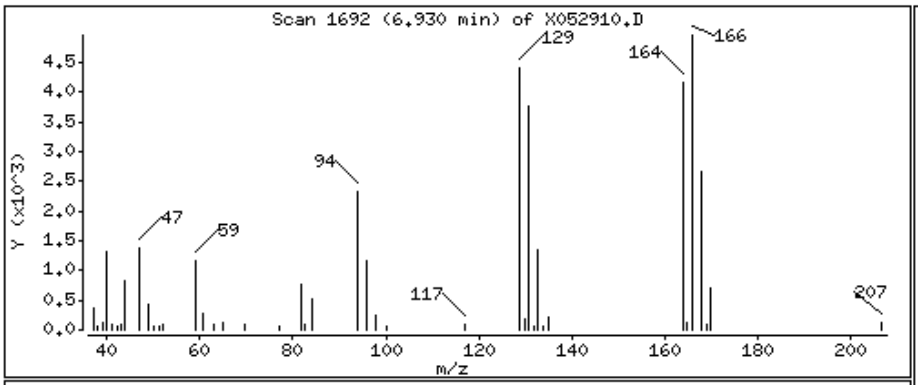
Client ID: HS23051708-02 Instrument: voa6.i

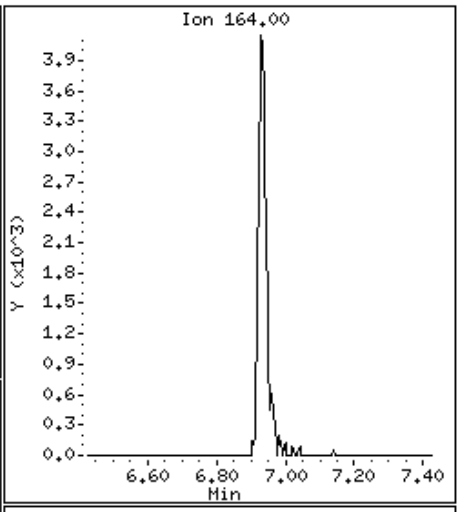
Sample Info: HS23051708-02;HS23051708-02;;;

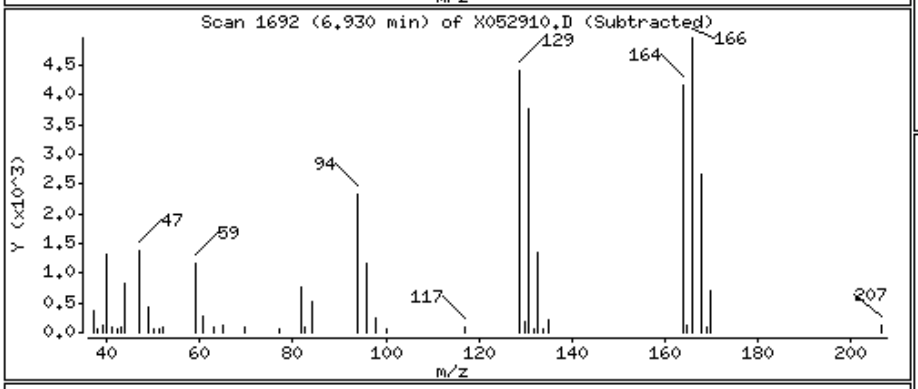
Purge Volume: 5.0 Operator: PC

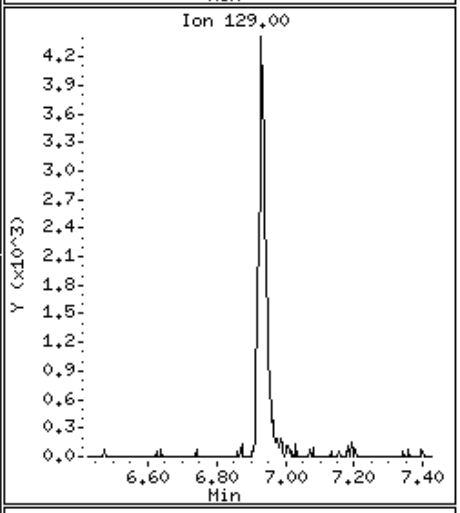
Column phase: DB624 Column diameter: 0.18

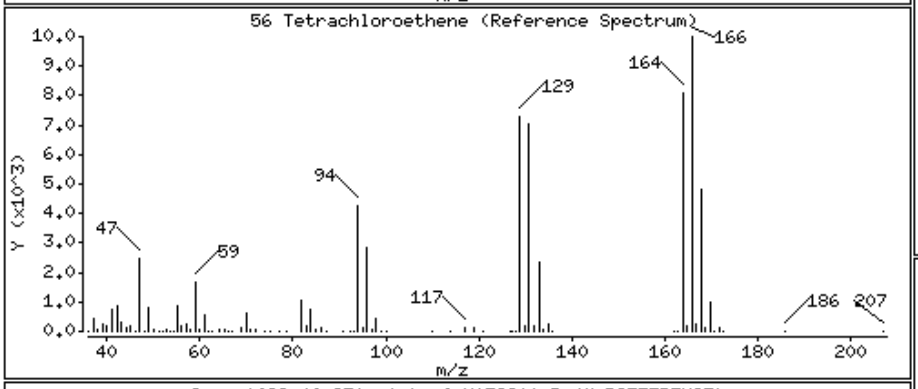
56 Tetrachloroethene Concentration: 1.79 ug/l

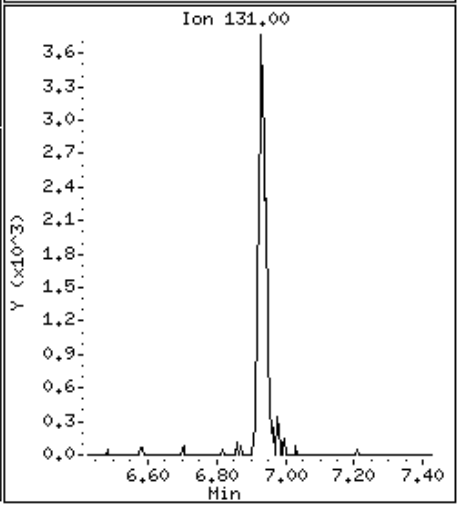


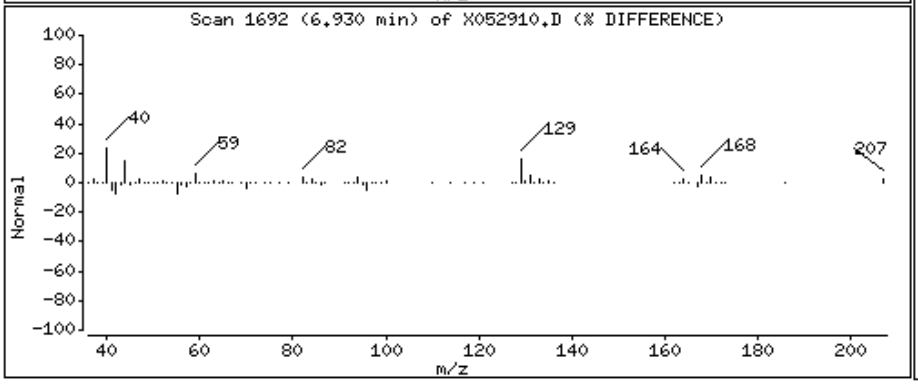












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052910.D Page 8

Date : 29-MAY-2023 15:11

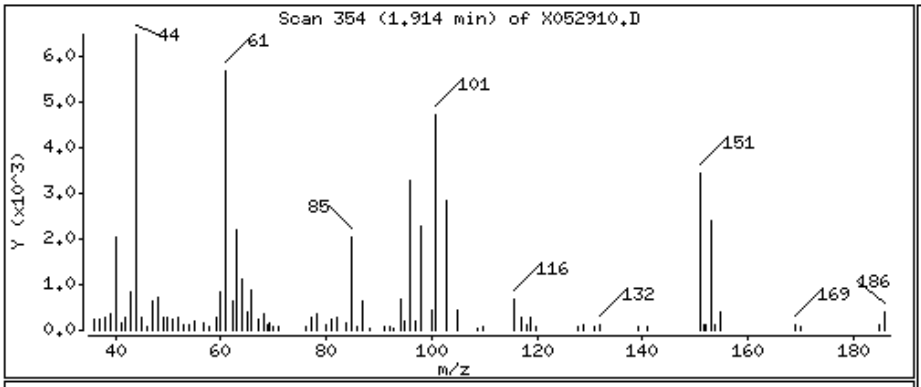
Client ID: HS23051708-02 Instrument: voa6.i

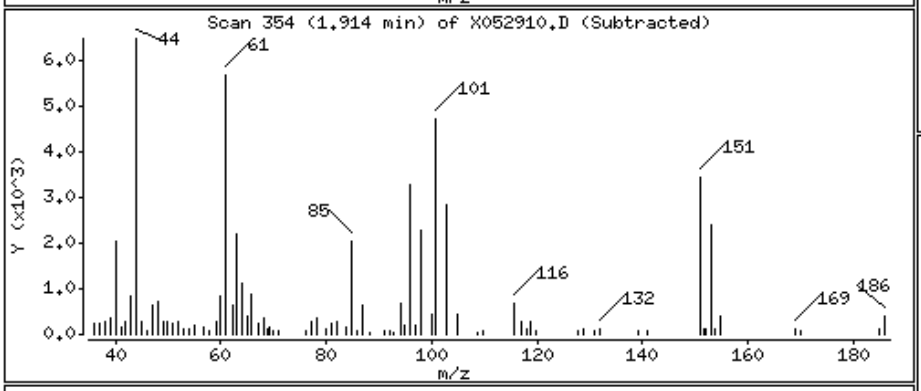
Sample Info: HS23051708-02;HS23051708-02;;;

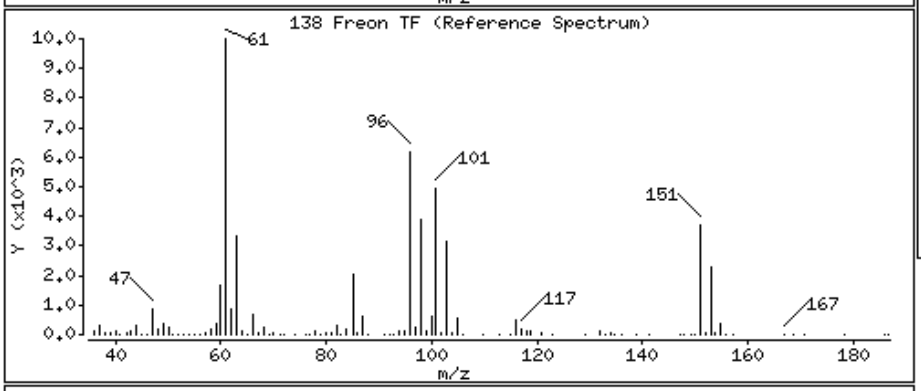
Purge Volume: 5.0 Operator: PC

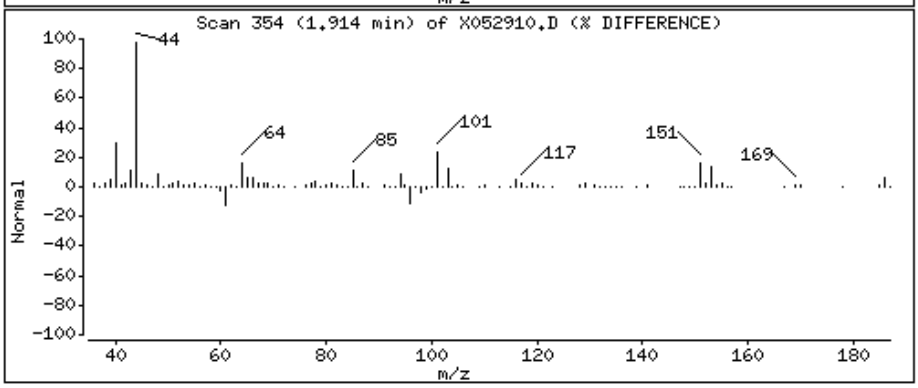
Column phase: DB624 Column diameter: 0.18

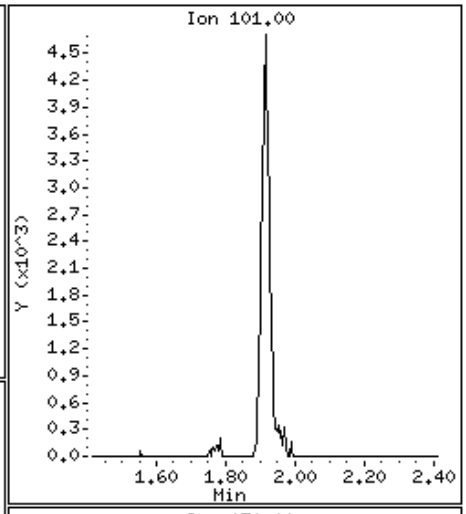
138 Freon TF Concentration: 1.72 ug/l

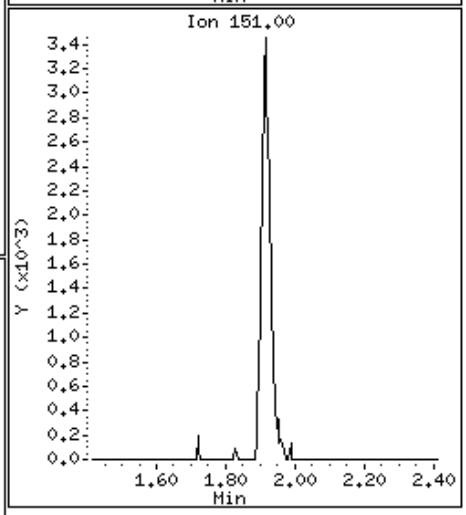












Data File : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052910.D
Inj Date : 29-MAY-2023 15:11
InstruID : voa6.i
LabSampID : HS23051708-02

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052911.D Page 1
Report Date: 31-May-2023 16:38

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052911.D
Lab Smp Id: HS23051708-05 Client Smp ID: HS23051708-05
Inj Date : 29-MAY-2023 15:32
Operator : PC Inst ID: voa6.i
Smp Info : HS23051708-05;HS23051708-05;;;
Misc Info : V6;WATER;0;10;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\8260W.m
Meth Date : 31-May-2023 16:38 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 11
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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	4.177	4.178	(1.000)	526530	50.0000	
	15 Iodomethane	142	2.022	2.026	(0.484)	609	2.45088	24.50(a)
	27 cis-1,2-Dichloroethene	96	3.548	3.522	(0.849)	5118	0.90355	9.03(a)
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	249624	52.2492	52.24
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	281474	54.9881	54.98
*	36 1,4-Difluorobenzene	114	4.965	4.961	(1.000)	797014	50.0000	
	38 Trichloroethene	130	5.205	5.201	(1.048)	137336	25.1304	251.30
*	47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	723167	50.0000	
$	48 Toluene-d8	98	6.385	6.386	(0.833)	965194	52.3807	52.38
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	326974	47.1354	47.13
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	357705	50.0000	
M	94 1,2-Dichloroethylene (total)	96				5118	0.90355	9.03(a)

QC Flag Legend

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

01230847

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052911.D

Date : 29-MAY-2023 15:32

Client ID: HS23051708-05

Instrument: voa6.i

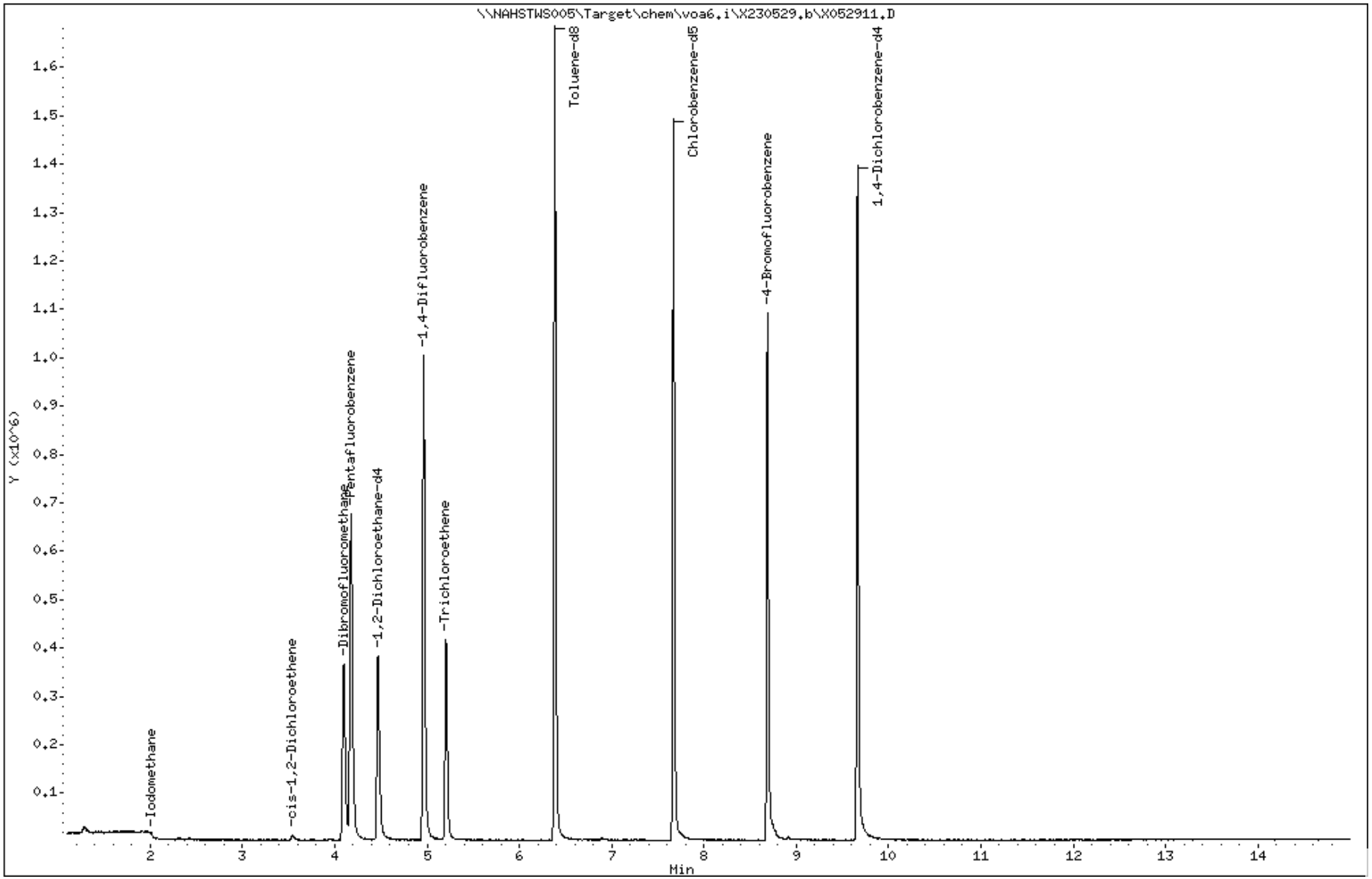
Sample Info: HS23051708-05;HS23051708-05;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052911.D Page 2

Date : 29-MAY-2023 15:32

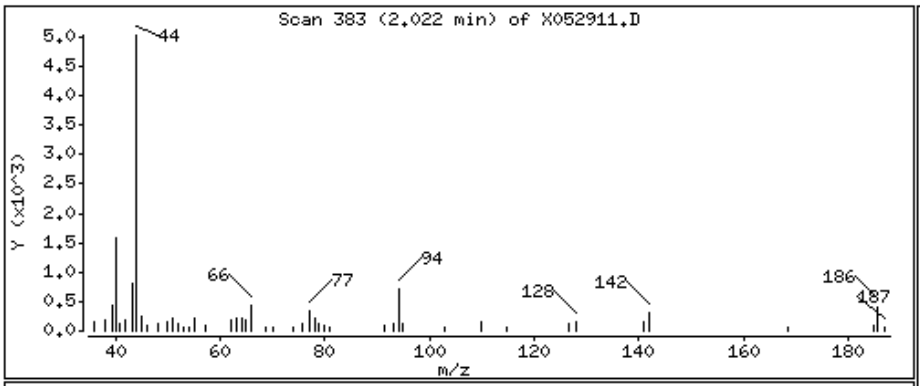
Client ID: HS23051708-05 Instrument: voa6.i

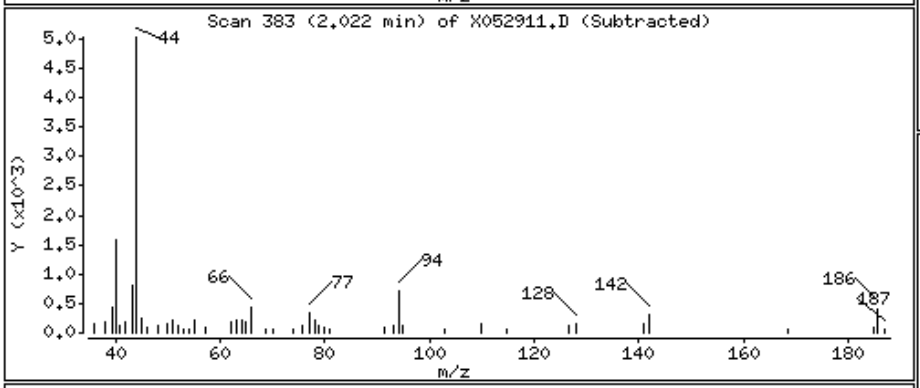
Sample Info: HS23051708-05;HS23051708-05;;;

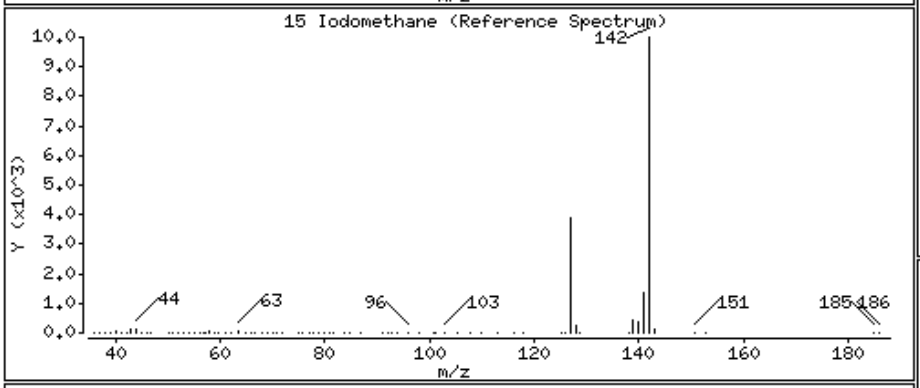
Purge Volume: 5.0 Operator: PC

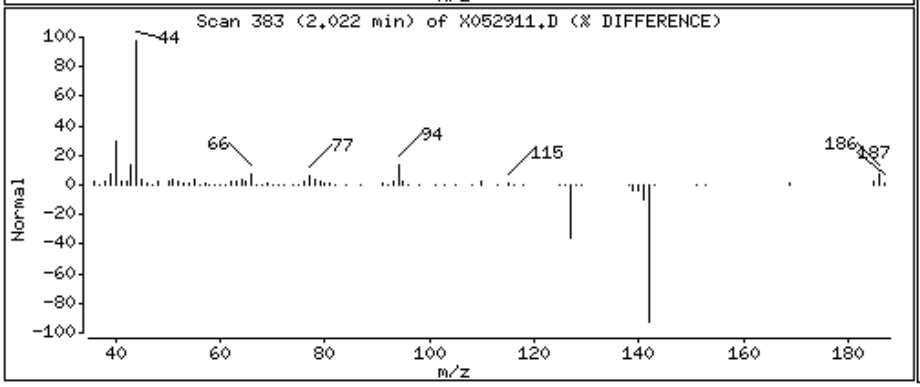
Column phase: DB624 Column diameter: 0.18

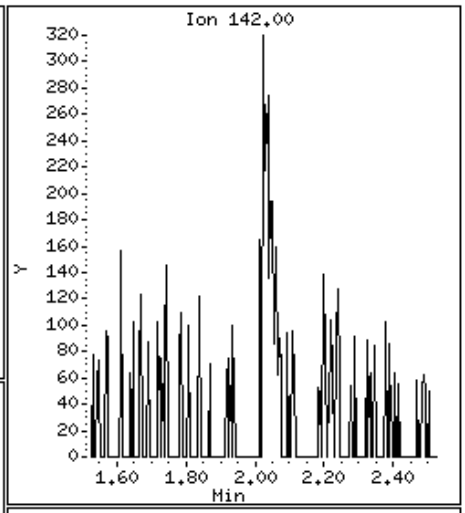
15 Iodomethane Concentration: 24.50 ug/l

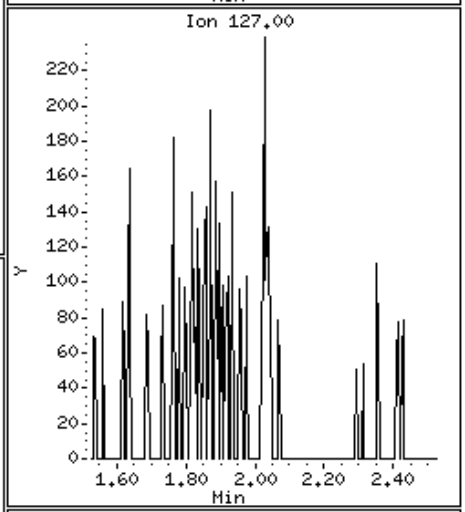


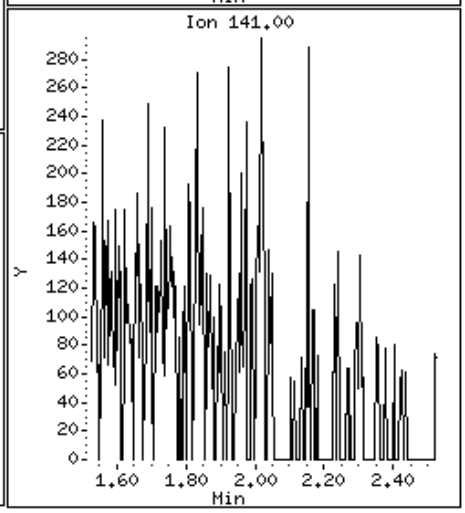












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052911.D Page 3

Date : 29-MAY-2023 15:32

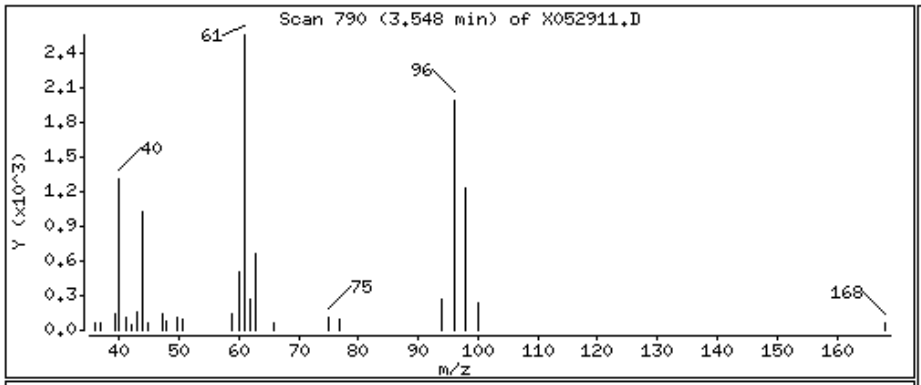
Client ID: HS23051708-05 Instrument: voa6.i

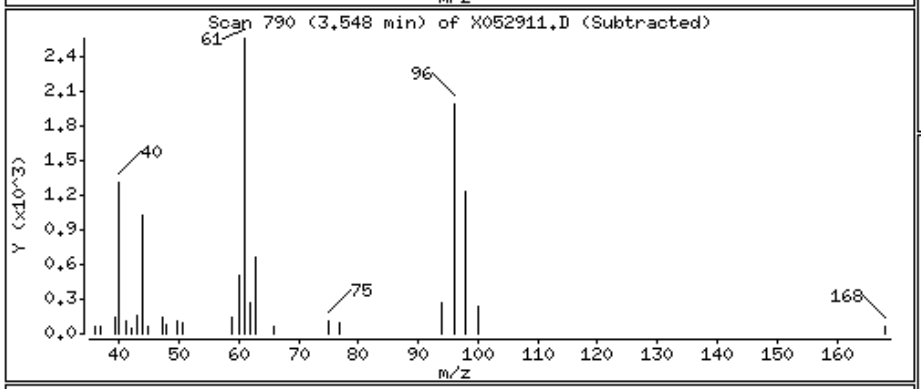
Sample Info: HS23051708-05;HS23051708-05;;;

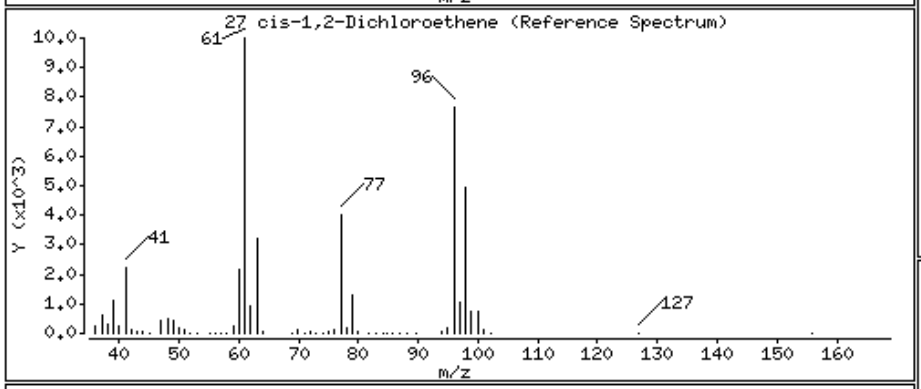
Purge Volume: 5.0 Operator: PC

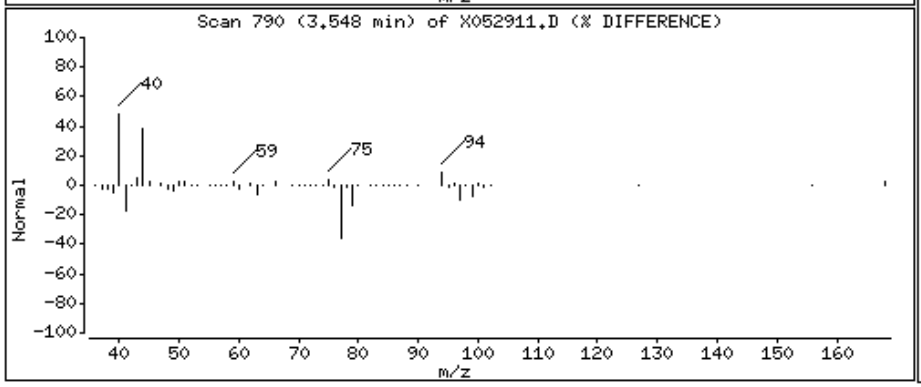
Column phase: DB624 Column diameter: 0.18

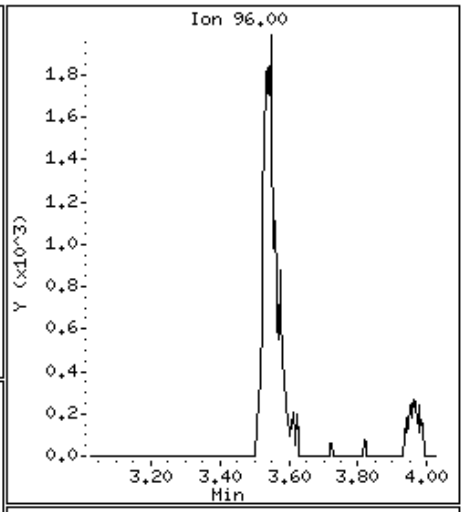
27 cis-1,2-Dichloroethene Concentration: 9.03 ug/l

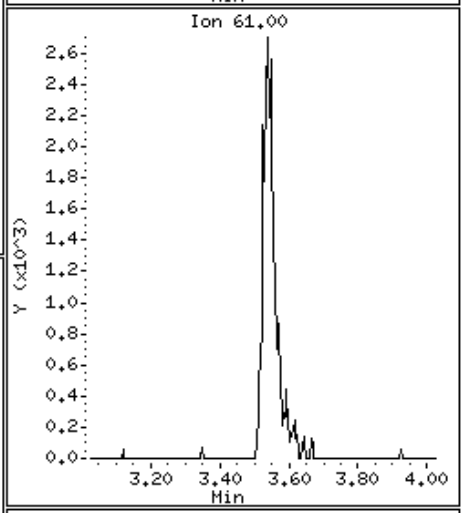


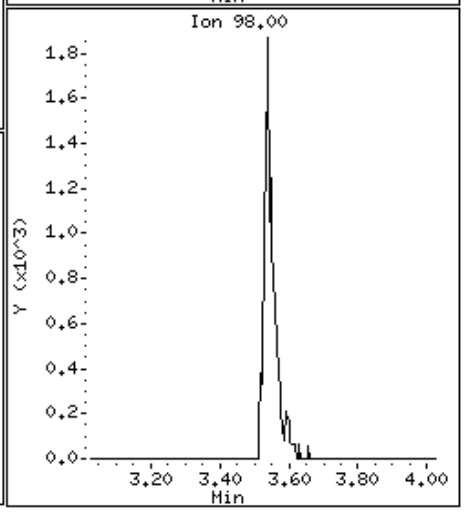












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052911.D

Date : 29-MAY-2023 15:32

Client ID: HS23051708-05

Instrument: voa6.i

Sample Info: HS23051708-05;HS23051708-05;;;

Purge Volume: 5.0

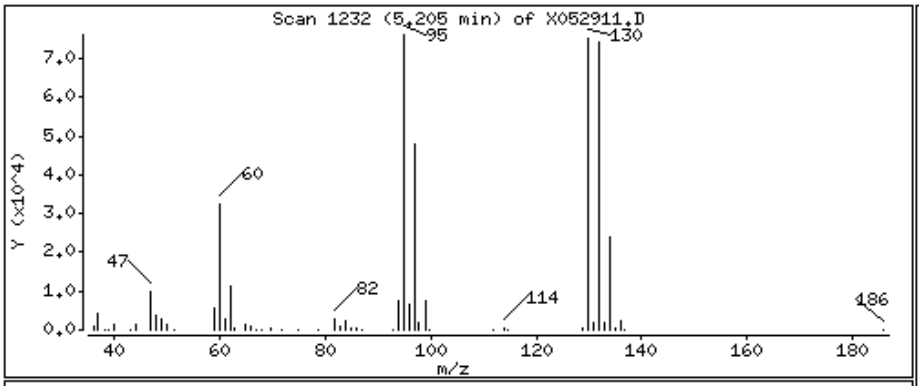
Operator: PC

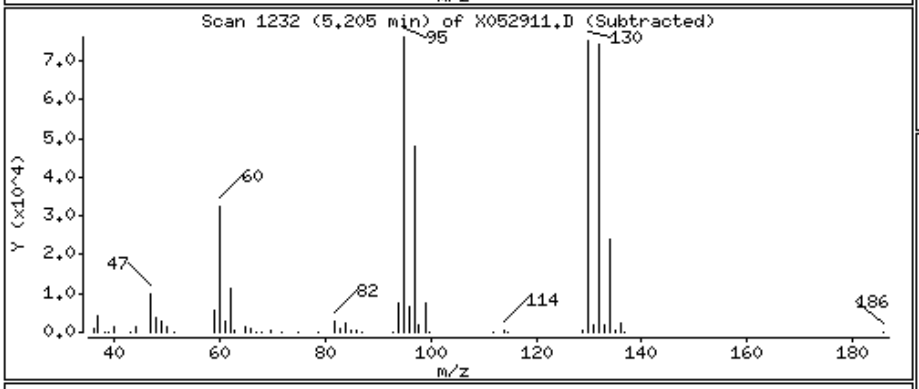
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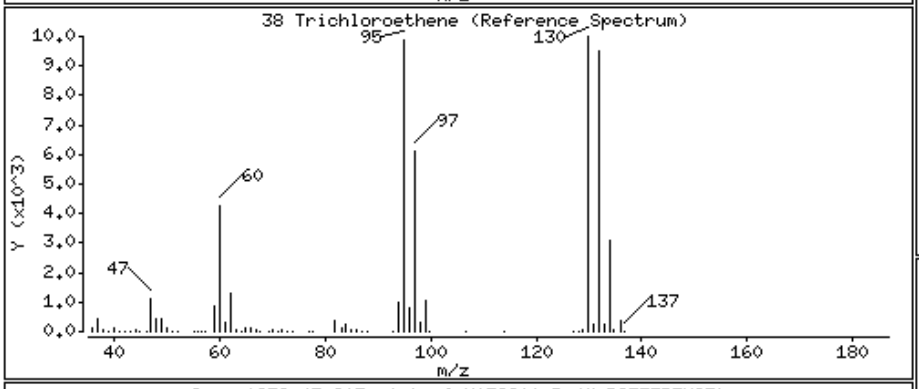
Column diameter: 0.18

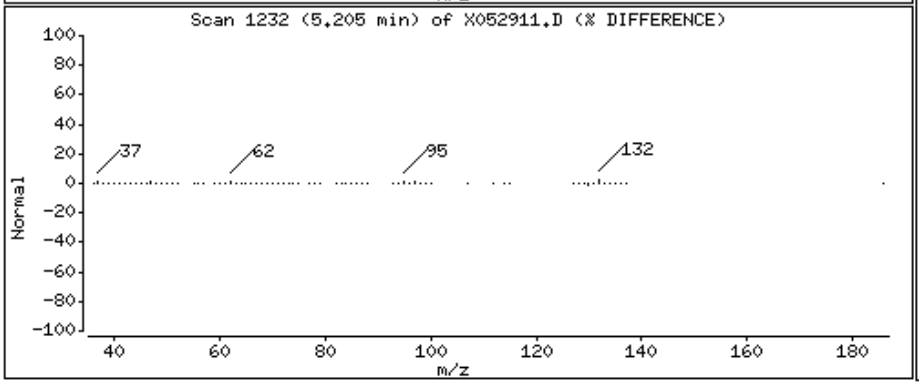
38 Trichloroethene

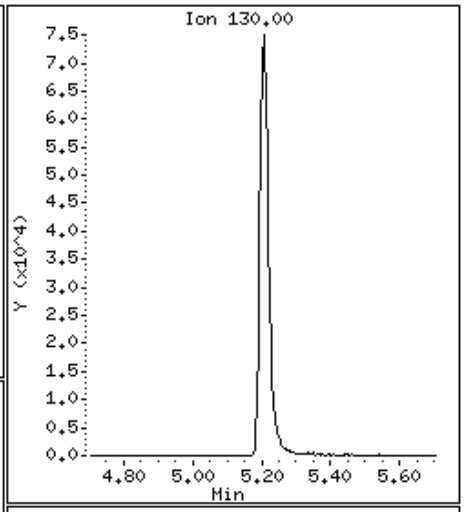
Concentration: 251.30 ug/l

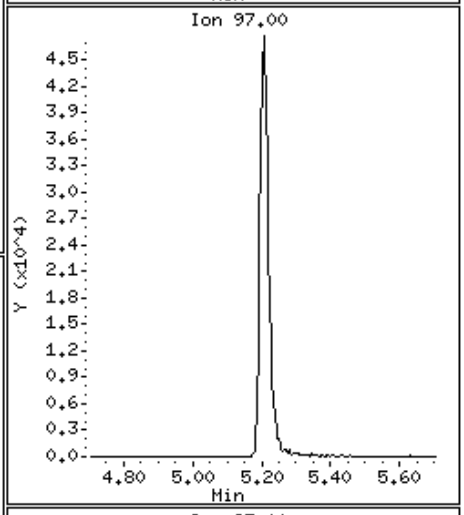


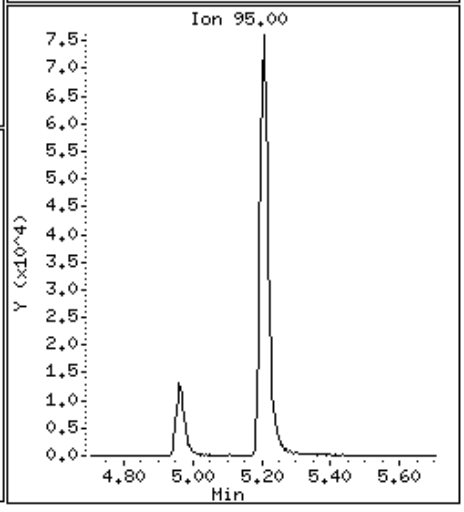












Data File : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052911.D
Inj Date : 29-MAY-2023 15:32
InstruID : voa6.i
LabSampID : HS23051708-05

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052912.D Page 1
Report Date: 31-May-2023 16:38

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052912.D
Lab Smp Id: HS23051708-04 Client Smp ID: HS23051708-04
Inj Date : 29-MAY-2023 15:53
Operator : PC Inst ID: voa6.i
Smp Info : HS23051708-04;HS23051708-04;;;
Misc Info : V6;WATER;0;25;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\8260W.m
Meth Date : 31-May-2023 16:38 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 12
Dil Factor: 25.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	515356	50.0000	
	27 cis-1,2-Dichloroethene	96	3.533	3.522	(0.846)	5289	0.95398	23.84(a)
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	241037	51.5343	51.53
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	272331	54.3502	54.35
*	36 1,4-Difluorobenzene	114	4.965	4.961	(1.000)	781020	50.0000	
	38 Trichloroethene	130	5.205	5.201	(1.048)	103938	19.4085	485.21
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	707660	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	947942	52.5717	52.57
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	321528	47.3660	47.36
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	350829	50.0000	
M	94 1,2-Dichloroethylene (total)	96				5289	0.95398	23.84(a)

QC Flag Legend

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

01230853

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052912.D

Date : 29-MAY-2023 15:53

Client ID: HS23051708-04

Instrument: voa6.i

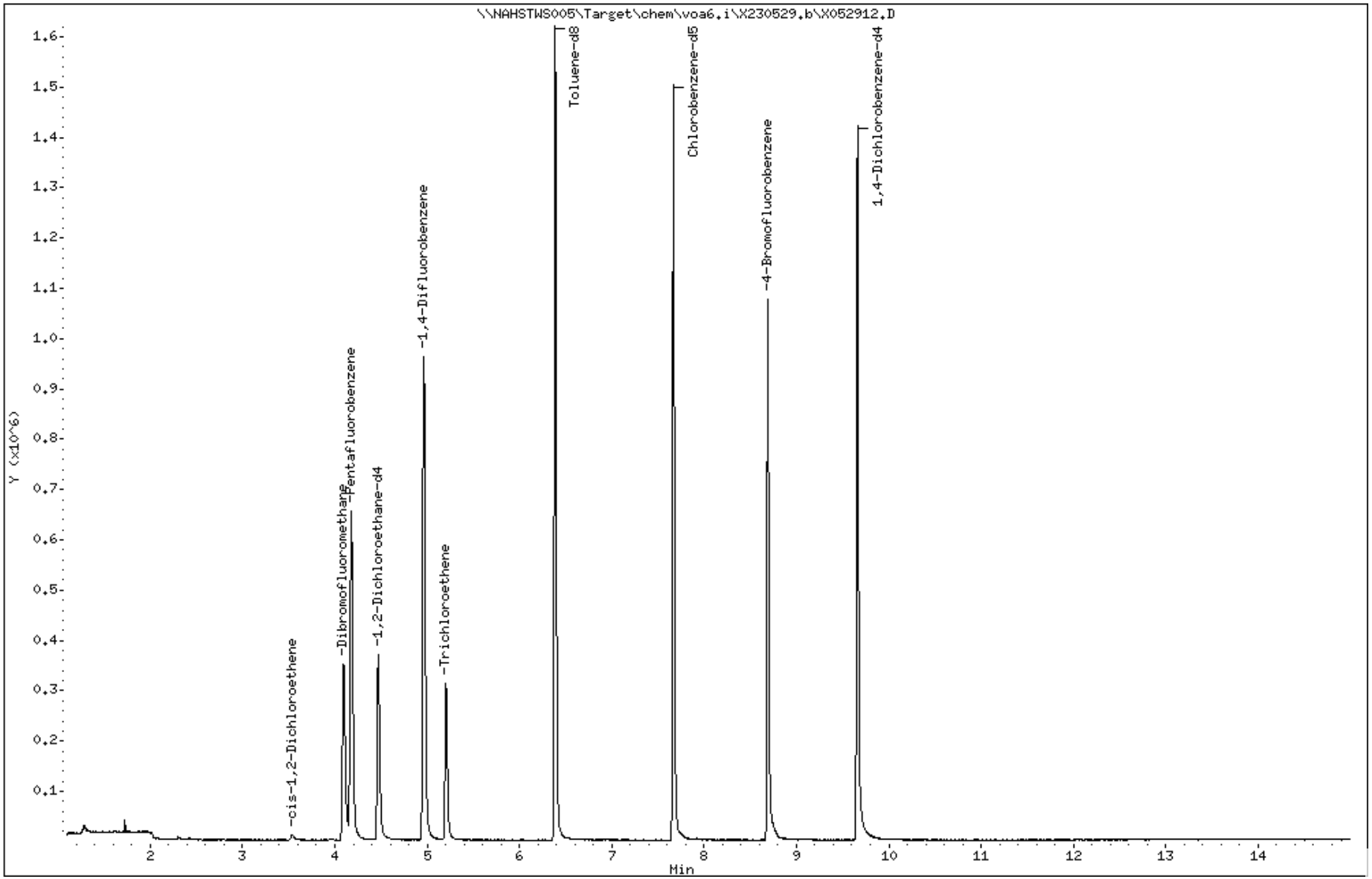
Sample Info: HS23051708-04;HS23051708-04;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052912.D

Date : 29-MAY-2023 15:53

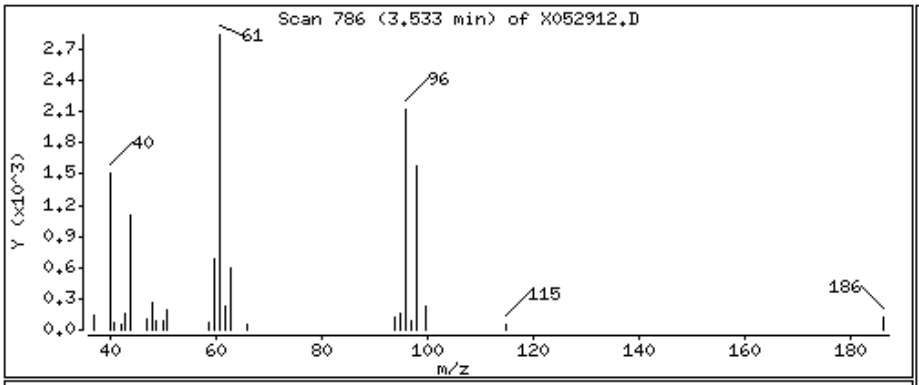
Client ID: HS23051708-04 Instrument: voa6.i

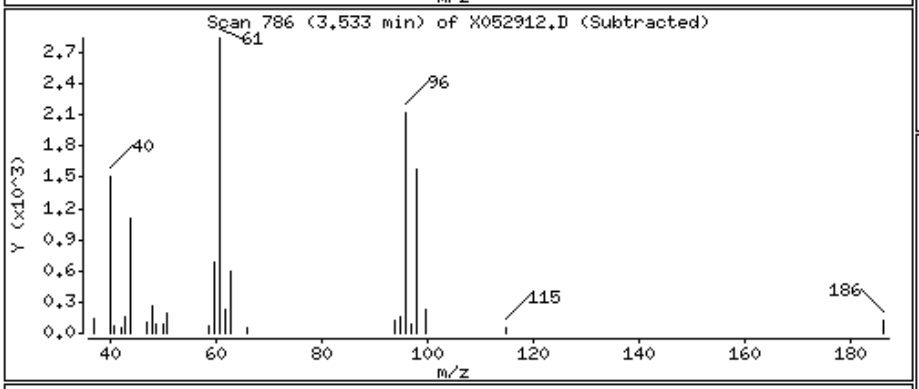
Sample Info: HS23051708-04;HS23051708-04;;;

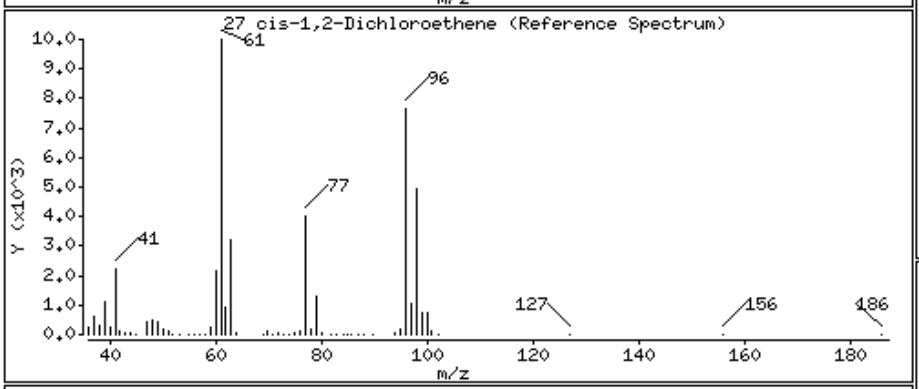
Purge Volume: 5.0 Operator: PC

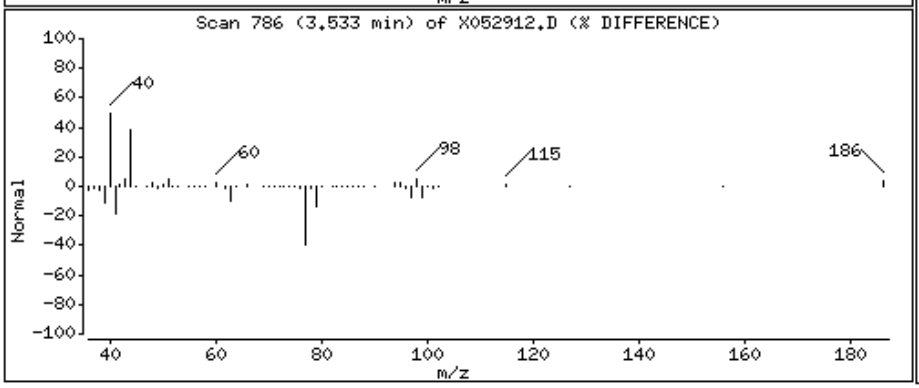
Column phase: DB624 Column diameter: 0.18

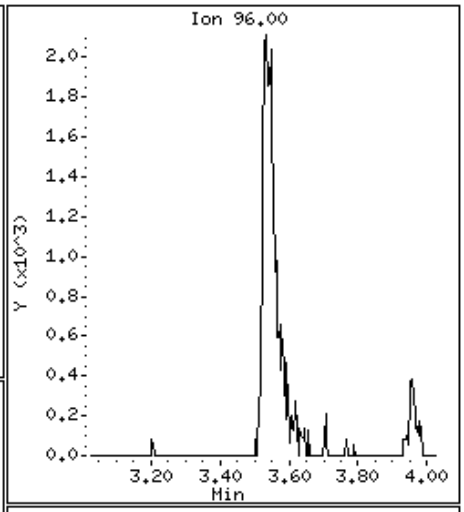
27 cis-1,2-Dichloroethene Concentration: 23.84 ug/l

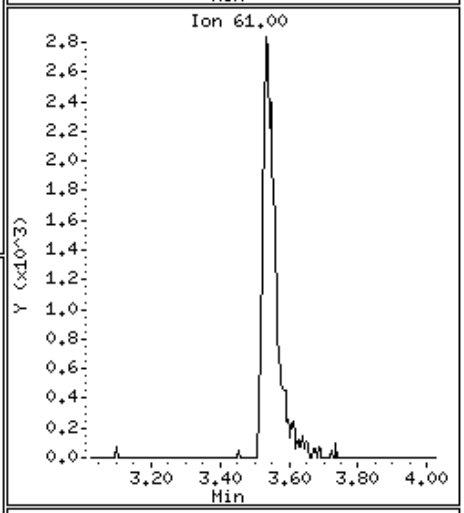


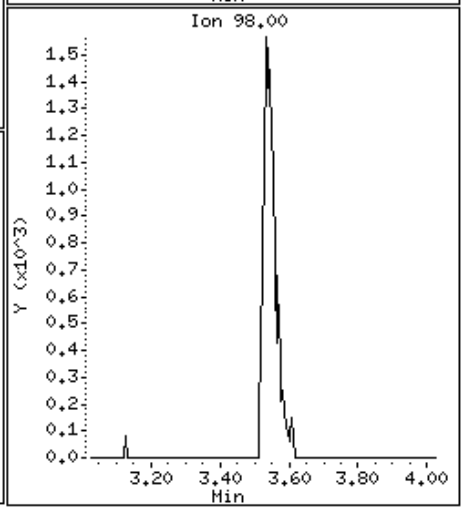












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052912.D Page 3

Date : 29-MAY-2023 15:53

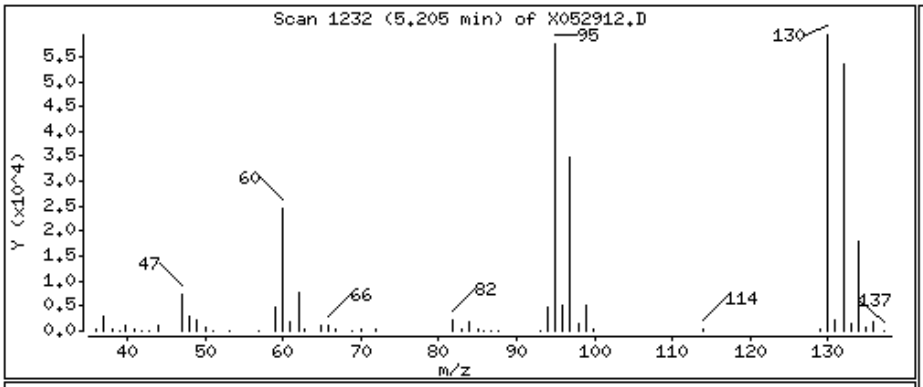
Client ID: HS23051708-04 Instrument: voa6.i

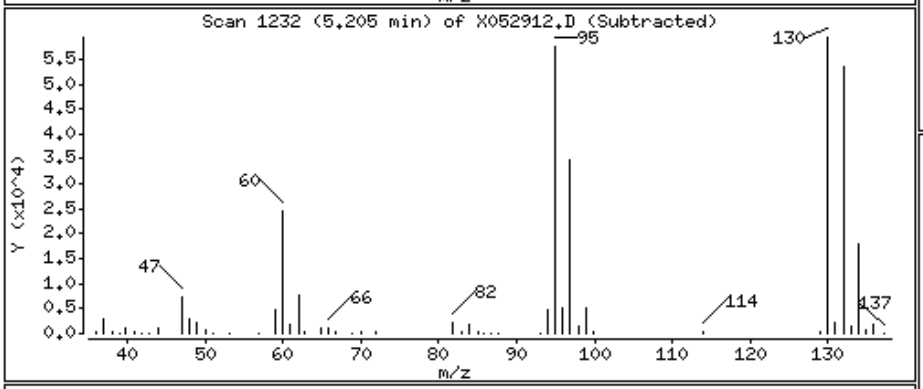
Sample Info: HS23051708-04;HS23051708-04;;;

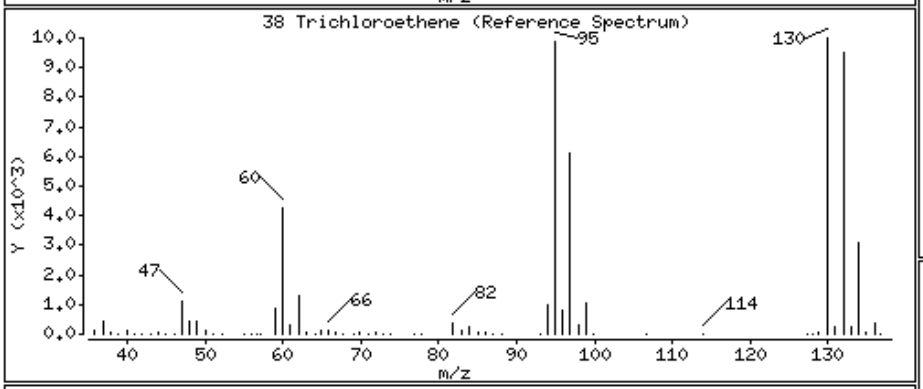
Purge Volume: 5.0 Operator: PC

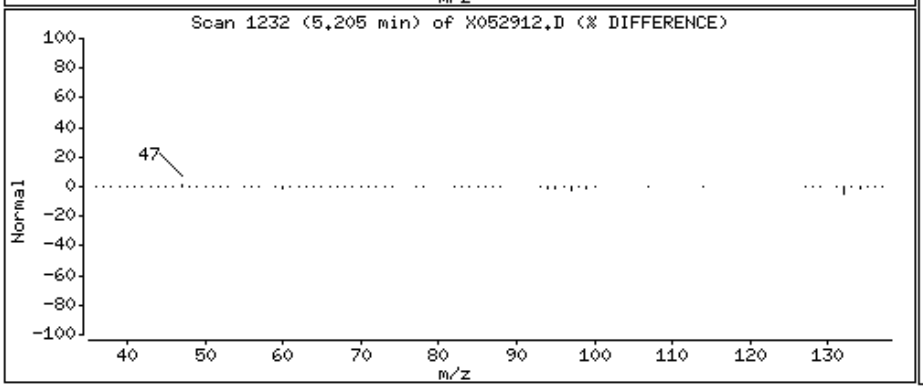
Column phase: DB624 Column diameter: 0.18

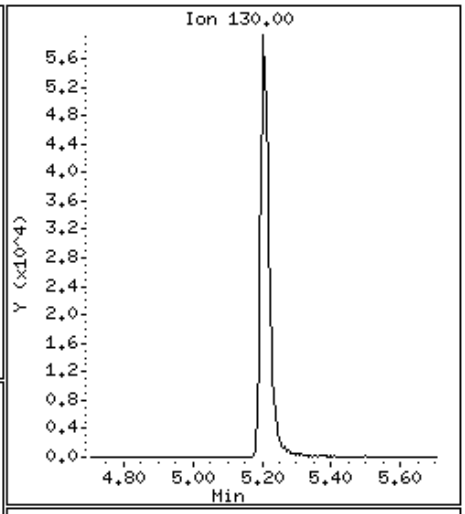
38 Trichloroethene Concentration: 485.21 ug/l

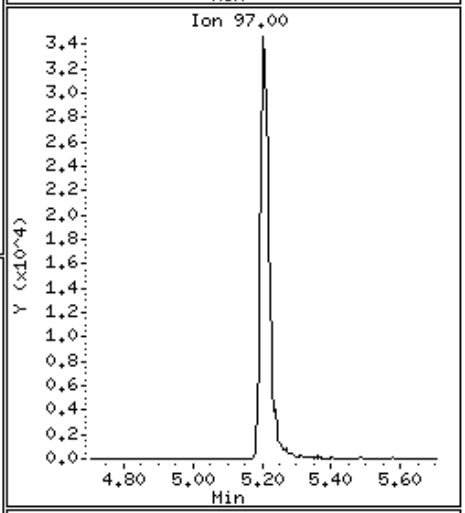


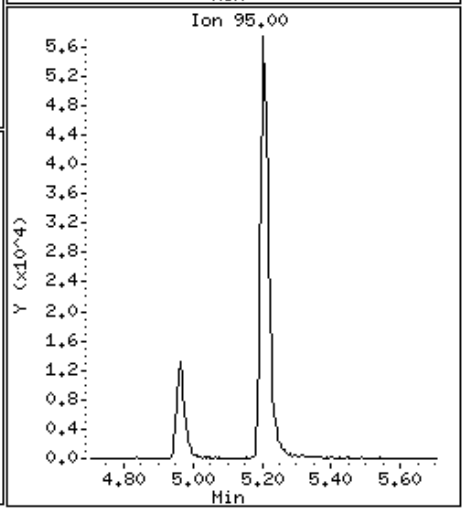












Data File : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052912.D
Inj Date : 29-MAY-2023 15:53
InstruID : voa6.i
LabSampID : HS23051708-04

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052913.D
Lab Smp Id: HS23051708-01MS Client Smp ID: HS23051708-01MS
Inj Date : 29-MAY-2023 16:14
Operator : PC Inst ID: voa6.i
Smp Info : HS23051708-01MS;HS23051708-01MS;3;;MS
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\8260W.m
Meth Date : 31-May-2023 16:38 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 13 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.177	4.178	(1.000)	518569	50.0000	
135	1,4-Dioxane	88	5.598	5.598	(1.340)	24835	353.620	353.62(a)
140	1,3-Butadiene	54	1.164	1.164	(0.279)	81821	14.9074	14.90
25	Methacrylonitrile	41	3.821	3.818	(0.915)	99086	21.4350	21.43
12	Isobutyl Alcohol	43	4.672	4.672	(1.118)	311601	460.977	460.97
13	Acetonitrile	39	2.198	2.195	(0.526)	129206	258.808	258.80
14	Allyl Chloride	41	2.198	2.198	(0.526)	237220	18.8377	18.83
4	Propionitrile	54	3.653	3.649	(0.874)	137151	192.868	192.86(a)
40	Methyl Methacrylate	41	5.606	5.602	(1.342)	102138	22.5325	22.53
49	Ethyl Methacrylate	69	6.787	6.783	(1.368)	179244	21.9708	21.97
145	alpha-Methylstyrene	118	9.257	9.257	(0.958)	197397	21.5052	21.50
156	Diisopropyl ether	45	2.997	2.997	(0.717)	333645	21.2645	21.26
166	1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	496639	26.1858	26.18
2	Dichlorodifluoromethane	85	0.972	0.973	(0.233)	31283	6.80897	6.80
3	Chloromethane	50	1.077	1.078	(0.258)	68166	9.36894	9.36
5	Vinyl Chloride	62	1.145	1.141	(0.274)	100180	14.5862	14.58
6	Bromomethane	94	1.340	1.340	(0.321)	71624	20.1679	20.16
7	Chloroethane	64	1.403	1.404	(0.336)	79743	18.5995	18.59
8	Trichlorofluoromethane	101	1.561	1.557	(0.374)	174213	24.0911	24.09
9	Acrolein	56	1.445	1.441	(0.346)	21005	48.4114	48.41

10 Acetone	43	1.973	1.970 (0.472)	65240	33.3534	33.35
11 1,1-Dichloroethene	96	1.913	1.913 (0.458)	102297	22.3714	22.37

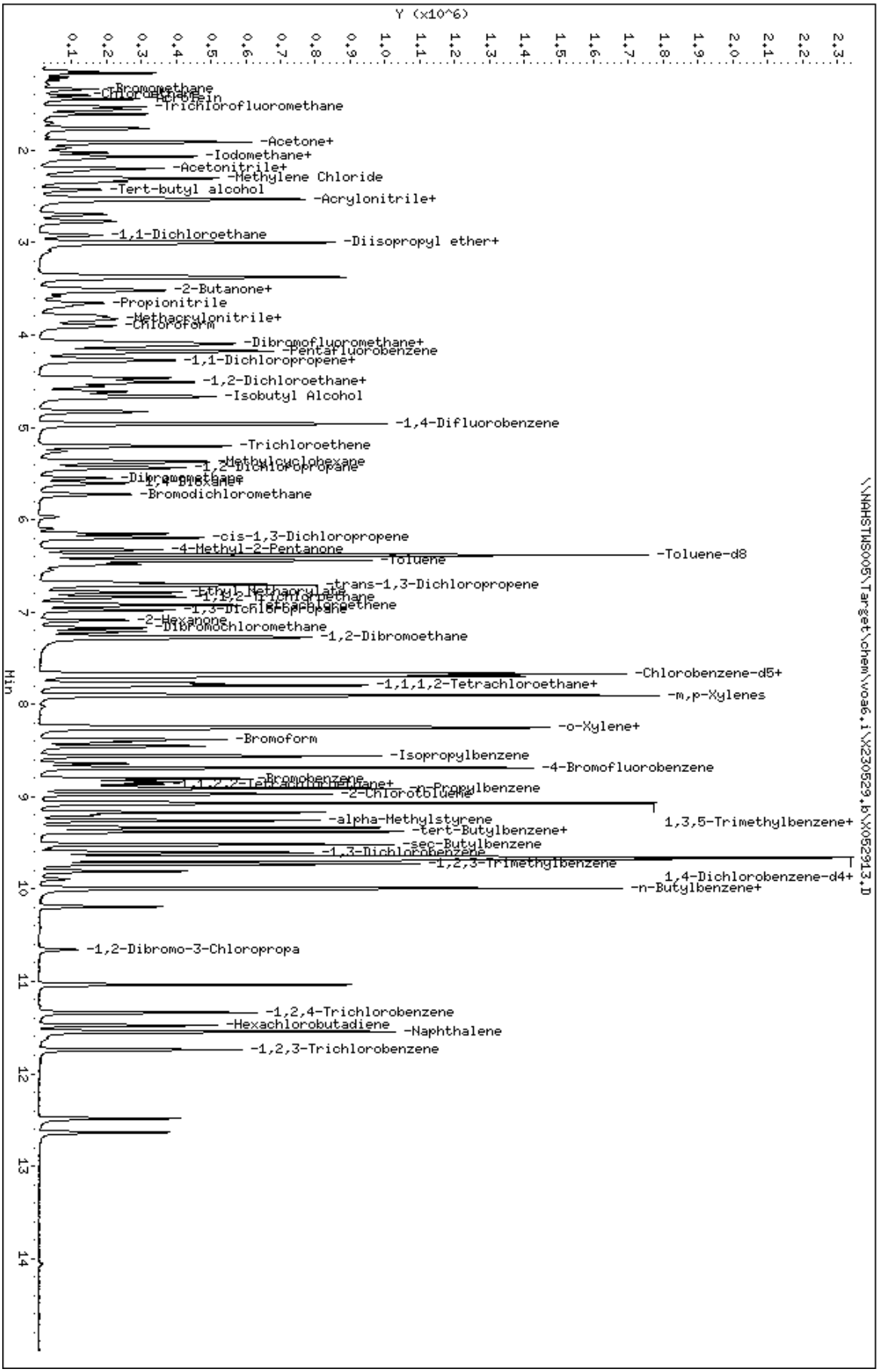
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	15 Iodomethane	142	2.026	2.026	(0.485)	190159	31.8020	31.80
	16 Acrylonitrile	53	2.539	2.532	(0.608)	65413	38.2022	38.20
	17 Methylene Chloride	84	2.303	2.300	(0.551)	100741	18.5322	18.53
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	307285	21.5427	21.54
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	508024	35.4093	35.40
	20 trans-1,2-Dichloroethene	96	2.528	2.524	(0.605)	94947	20.0187	20.01
	21 Vinyl Acetate	43	2.997	2.993	(0.717)	553999	41.9772	41.97
	22 1,1-Dichloroethane	63	2.922	2.918	(0.699)	174187	20.0290	20.02
	24 2-Butanone	43	3.581	3.574	(0.857)	63516	36.8041	36.80
	26 2,2-Dichloropropane	77	3.503	3.507	(0.838)	156577	24.2872	24.28
	27 cis-1,2-Dichloroethene	96	3.525	3.522	(0.844)	119821	21.4783	21.47
	28 Chloroform	83	3.904	3.904	(0.935)	190844	22.1413	22.14
	29 Bromochloromethane	128	3.791	3.792	(0.908)	57888	19.6880	19.68
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	242984	51.6302	51.63
	31 1,1,1-Trichloroethane	97	4.080	4.076	(0.977)	161563	24.3399	24.33
	32 1,1-Dichloropropene	75	4.279	4.275	(0.862)	142265	22.6455	22.64
	33 1,2-Dichloroethane	62	4.556	4.553	(0.918)	145110	23.2617	23.26
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	139812	24.0900	24.08
$	35 1,2-Dichloroethane-d4	65	4.466	4.470	(1.069)	273991	54.3426	54.34
*	36 1,4-Difluorobenzene	114	4.961	4.961	(1.000)	798531	50.0000	
	37 Benzene	78	4.511	4.508	(0.909)	401011	19.7389	19.73
	38 Trichloroethene	130	5.205	5.201	(1.049)	179308	32.7483	32.74
	39 Bromodichloromethane	83	5.726	5.722	(1.154)	147100	21.1583	21.15
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	107557	18.6313	18.63
	44 Dibromomethane	93	5.549	5.550	(1.119)	73141	20.8765	20.87
	45 4-Methyl-2-Pentanone	43	6.325	6.322	(0.825)	201548	38.5768	38.57
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	178539	19.2186	19.21
*	47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	759650	50.0000	
$	48 Toluene-d8	98	6.385	6.386	(0.833)	979721	50.6156	50.61
	50 Toluene	91	6.445	6.446	(0.841)	477811	22.4172	22.41
	51 trans-1,3-Dichloropropene	75	6.682	6.678	(1.347)	160315	21.6080	21.60
	52 2-Hexanone	43	7.086	7.083	(0.924)	138719	38.7950	38.79
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	92136	21.1666	21.16
	54 1,3-Dichloropropane	76	6.981	6.978	(0.911)	183241	20.2306	20.23
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	125845	21.3045	21.30
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	100446	24.3248	24.32
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	115716	21.8157	21.81
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	117158	24.9227	24.92
	59 Chlorobenzene	112	7.694	7.690	(1.003)	324928	22.0215	22.02
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.773	(1.014)	115623	22.3296	22.32
	61 Ethylbenzene	106	7.795	7.795	(1.017)	168682	23.2655	23.26
	62 m,p-Xylenes	106	7.904	7.900	(1.031)	434437	48.1106	48.11
	63 o-Xylene	106	8.241	8.237	(1.075)	208666	23.6331	23.63
	64 Styrene	104	8.260	8.256	(1.077)	347952	23.5395	23.53
	66 Bromoform	173	8.410	8.410	(1.097)	86694	21.7146	21.71
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	536892	25.3489	25.34
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	159452	21.7335	21.73
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	367040	50.3701	50.37
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	421058	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	115422	21.4260	21.42(M)
	73 n-Propylbenzene	91	8.908	8.908	(0.922)	649750	24.8999	24.89
	74 Bromobenzene	156	8.803	8.803	(0.911)	145807	22.1881	22.18

75	1,3,5-Trimethylbenzene	105	9.066	9.066 (0.938)	459961	24.3364	24.33
76	2-Chlorotoluene	91	8.972	8.972 (0.929)	385678	22.7585	22.75

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	77 4-Chlorotoluene	91	9.069	9.066	(0.939)	449068	24.0953	24.09
	78 tert-Butylbenzene	119	9.332	9.336	(0.966)	394940	24.8231	24.82
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	461359	23.8560	23.85
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	569058	25.6492	25.64
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	495117	25.8267	25.82
	83 1,3-Dichlorobenzene	146	9.606	9.602	(0.994)	264280	22.3079	22.30
	84 1,4-Dichlorobenzene	146	9.680	9.681	(1.002)	285646	22.9420	22.94
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	452270	27.5525	27.55
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	266988	22.6727	22.67
	89 1,2-Dibromo-3-Chloropropane	155	10.659	10.655	(1.103)	25221	19.7720	19.77
	90 1,2,4-Trichlorobenzene	180	11.337	11.334	(1.173)	172650	21.1907	21.19
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	80473	22.9559	22.95
	92 Naphthalene	128	11.544	11.540	(1.195)	408567	20.1950	20.19
	93 1,2,3-Trichlorobenzene	180	11.742	11.739	(1.215)	159074	19.9317	19.93
M	94 1,2-Dichloroethylene (total)	96				214768	41.4971	41.49
M	95 Xylenes (total)	106				643103	71.7438	71.74
	141 Cyclohexane	56	4.121	4.118	(0.987)	153218	23.6108	23.61
	138 Freon TF	101	1.913	1.913	(0.458)	110750	30.0299	30.02
	147 Methylcyclohexane	55	5.381	5.377	(1.085)	281067	22.8883	22.88
	146 Methyl Acetate	43	2.232	2.228	(0.534)	60314	19.6811	19.68
	148 Tert-Butyl alcohol	59	2.427	2.423	(0.581)	192978	376.795	376.79
	149 Isopropyl Alcohol	45	2.093	2.090	(0.501)	107287	338.219	338.21

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\X230529,b\X052913,D
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Instrument: voa6,i
Operator: PC
Column diameter: 0.18

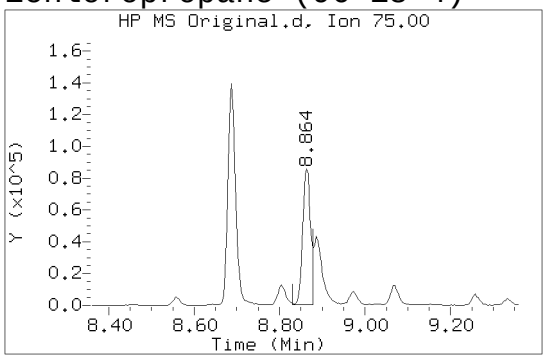
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LabSampID : HS23051708-01MS

1,2,3-Trichloropropane (96-18-4)

Reason Code:

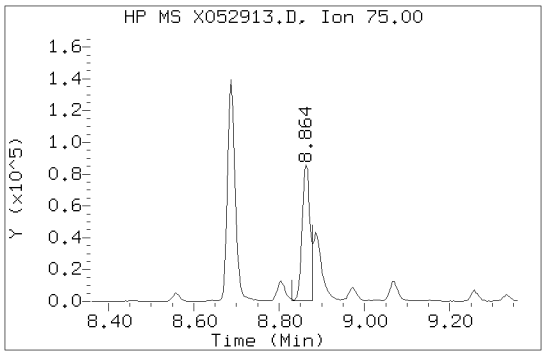
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16:37
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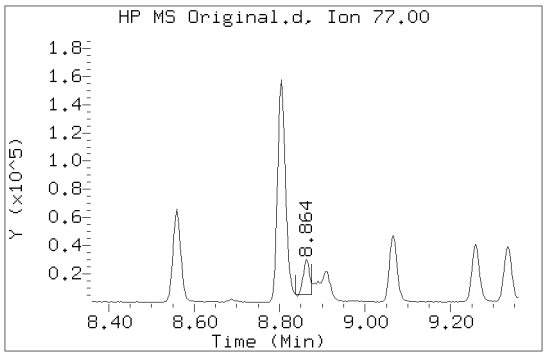
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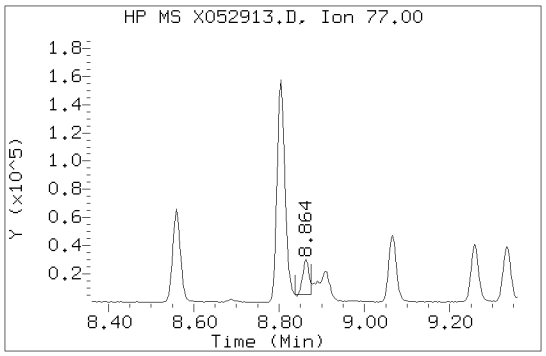
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AFTER

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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052914.D Page 1
Report Date: 31-May-2023 16:38

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052914.D
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Meth Date : 31-May-2023 16:38 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 13 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	541269	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	24243	330.714	330.71(a)
140 1,3-Butadiene	54	1.164	1.164	(0.279)	78487	13.7003	13.70
25 Methacrylonitrile	41	3.822	3.818	(0.915)	102094	21.1595	21.15
12 Isobutyl Alcohol	43	4.676	4.672	(1.119)	310804	440.515	440.51
13 Acetonitrile	39	2.198	2.195	(0.526)	125728	241.279	241.27
14 Allyl Chloride	41	2.198	2.198	(0.526)	238369	18.1351	18.13
4 Propionitrile	54	3.649	3.649	(0.873)	129241	174.122	174.12(a)
40 Methyl Methacrylate	41	5.606	5.602	(1.342)	101532	21.4594	21.45
49 Ethyl Methacrylate	69	6.787	6.783	(1.368)	182759	21.7800	21.78
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	181704	19.2699	19.26
156 Diisopropyl ether	45	3.001	2.997	(0.718)	335982	20.5154	20.51
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	482994	24.7901	24.79
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	30506	6.40322	6.40
3 Chloromethane	50	1.078	1.078	(0.258)	70245	9.24978	9.24
5 Vinyl Chloride	62	1.145	1.141	(0.274)	96516	13.4634	13.46
6 Bromomethane	94	1.340	1.340	(0.321)	66998	18.1016	18.10
7 Chloroethane	64	1.404	1.404	(0.336)	75745	16.9261	16.92
8 Trichlorofluoromethane	101	1.561	1.557	(0.374)	160649	21.2838	21.28
9 Acrolein	56	1.445	1.441	(0.346)	19069	42.1062	42.10

10 Acetone	43	1.973	1.970 (0.472)	62552	30.2834	30.28
11 1,1-Dichloroethene	96	1.913	1.913 (0.458)	97496	20.4273	20.42

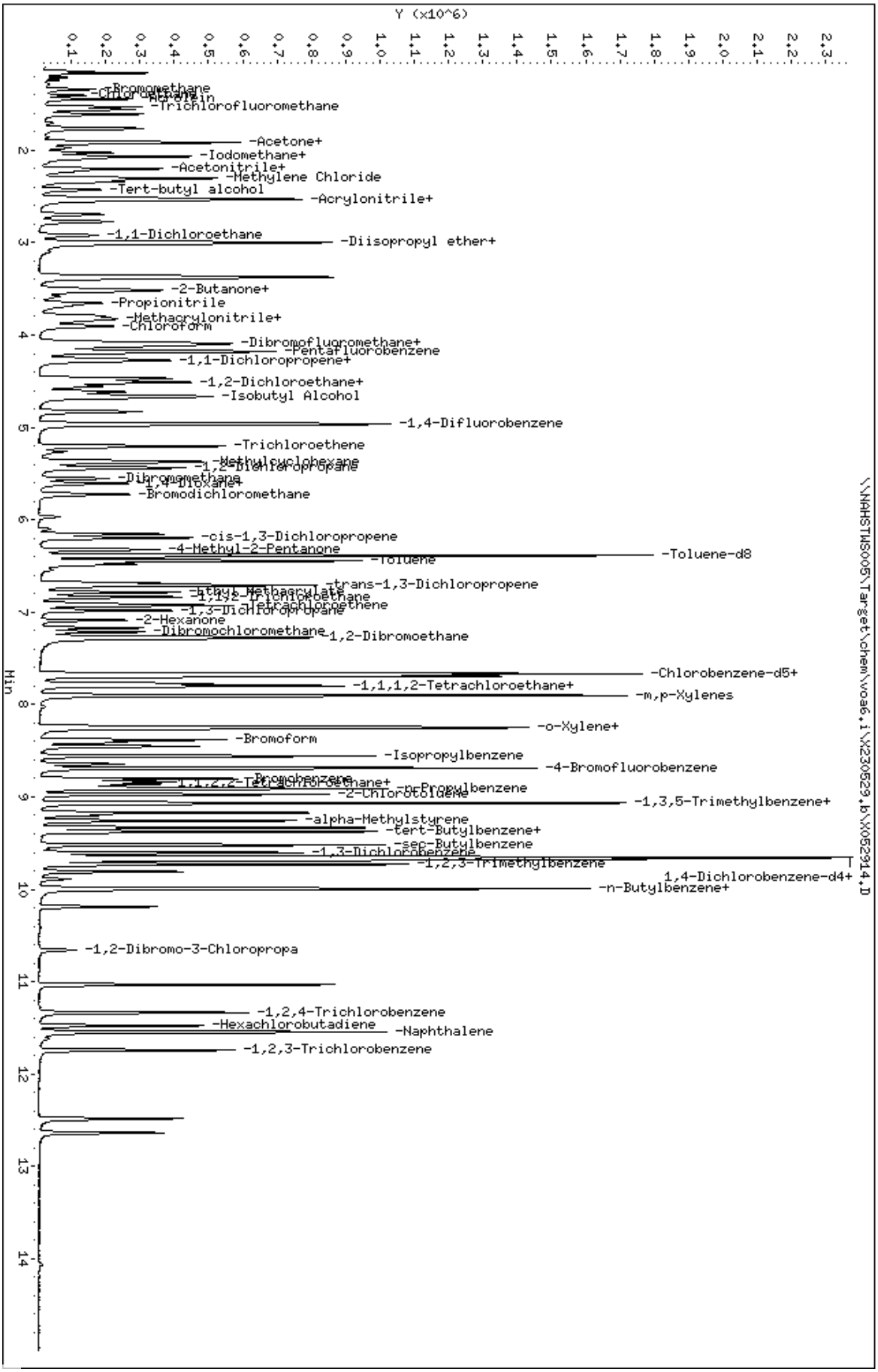
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	15 Iodomethane	142	2.026	2.026	(0.485)	216760	34.4683	34.46
	16 Acrylonitrile	53	2.539	2.532	(0.608)	64396	36.0311	36.03
	17 Methylene Chloride	84	2.303	2.300	(0.551)	102888	18.1333	18.13
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	307938	20.6831	20.68
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	500332	33.4107	33.41
	20 trans-1,2-Dichloroethene	96	2.528	2.524	(0.605)	95017	19.1933	19.19
	21 Vinyl Acetate	43	2.997	2.993	(0.717)	563651	40.9174	40.91
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	173286	19.0898	19.08
	24 2-Butanone	43	3.585	3.574	(0.858)	62775	34.8493	34.84
	26 2,2-Dichloropropane	77	3.503	3.507	(0.839)	154430	22.9323	22.93
	27 cis-1,2-Dichloroethene	96	3.525	3.522	(0.844)	121113	20.7994	20.79
	28 Chloroform	83	3.904	3.904	(0.935)	188686	20.9729	20.97
	29 Bromochloromethane	128	3.792	3.792	(0.908)	57903	18.8672	18.86
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	252030	51.3011	51.30
	31 1,1,1-Trichloroethane	97	4.080	4.076	(0.977)	159444	23.0133	23.01
	32 1,1-Dichloropropene	75	4.279	4.275	(0.862)	138696	21.4648	21.46
	33 1,2-Dichloroethane	62	4.556	4.553	(0.918)	147720	23.0230	23.02
	34 Carbon Tetrachloride	117	4.260	4.264	(0.859)	136420	22.8533	22.85
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	283456	53.8580	53.85
*	36 1,4-Difluorobenzene	114	4.961	4.961	(1.000)	821321	50.0000	
	37 Benzene	78	4.511	4.508	(0.909)	397568	19.0264	19.02
	38 Trichloroethene	130	5.205	5.201	(1.049)	172573	30.6437	30.64
	39 Bromodichloromethane	83	5.726	5.722	(1.154)	145813	20.3913	20.39
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	109931	18.5142	18.51
	44 Dibromomethane	93	5.550	5.550	(1.119)	71722	19.9034	19.90
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	205913	38.1963	38.19
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	179485	18.7844	18.78
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	783834	50.0000	
$	48 Toluene-d8	98	6.382	6.386	(0.832)	1009815	50.5607	50.56
	50 Toluene	91	6.446	6.446	(0.841)	468804	21.3160	21.31
	51 trans-1,3-Dichloropropene	75	6.682	6.678	(1.347)	159055	20.8433	20.84
	52 2-Hexanone	43	7.087	7.083	(0.924)	137800	37.3490	37.34
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	91302	20.3278	20.32
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	186673	19.9736	19.97
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	124662	20.4531	20.45
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	97706	22.9312	22.93
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	116374	21.2629	21.26
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	115652	23.9940	23.99
	59 Chlorobenzene	112	7.690	7.690	(1.003)	320340	21.0407	21.04
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	113980	21.3331	21.33
	61 Ethylbenzene	106	7.799	7.795	(1.017)	160793	21.4931	21.49
	62 m,p-Xylenes	106	7.904	7.900	(1.031)	423917	45.4972	45.49
	63 o-Xylene	106	8.241	8.237	(1.075)	200297	21.9854	21.98
	64 Styrene	104	8.256	8.256	(1.077)	335460	21.9942	21.99
	66 Bromoform	173	8.410	8.410	(1.097)	86532	21.0053	21.00
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	522246	23.8967	23.89
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	158694	21.0670	21.06
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	381411	50.7273	50.72
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	432543	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	117184	21.1755	21.17(M)
	73 n-Propylbenzene	91	8.912	8.908	(0.922)	631597	23.5616	23.56
	74 Bromobenzene	156	8.803	8.803	(0.911)	141586	20.9737	20.97

75	1,3,5-Trimethylbenzene	105	9.066	9.066 (0.938)	442309	22.7811	22.78
76	2-Chlorotoluene	91	8.972	8.972 (0.929)	378686	21.7526	21.75

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	77 4-Chlorotoluene	91	9.070	9.066	(0.939)	432940	22.6131	22.61
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	381438	23.3379	23.33
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	448487	22.5747	22.57
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	553166	24.2709	24.27
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	480058	24.3763	24.37
	83 1,3-Dichlorobenzene	146	9.606	9.602	(0.994)	259507	21.3234	21.32
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	277670	21.7092	21.70
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	439977	26.0919	26.09
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	261816	21.6431	21.64
	89 1,2-Dibromo-3-Chloropropane	155	10.659	10.655	(1.103)	24333	18.5493	18.54
	90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	171344	20.4720	20.47
	91 Hexachlorobutadiene	225	11.480	11.476	(1.188)	77729	21.5843	21.58
	92 Naphthalene	128	11.544	11.540	(1.195)	407157	19.5910	19.59
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	162764	19.8525	19.85
M	94 1,2-Dichloroethylene (total)	96				216130	39.9928	39.99
M	95 Xylenes (total)	106				624214	67.4825	67.48
	141 Cyclohexane	56	4.118	4.118	(0.986)	150548	22.2264	22.22
	138 Freon TF	101	1.913	1.913	(0.458)	107122	27.9246	27.92
	147 Methylcyclohexane	55	5.381	5.377	(1.085)	276577	21.8977	21.89
	146 Methyl Acetate	43	2.232	2.228	(0.534)	61962	19.3709	19.37
	148 Tert-Butyl alcohol	59	2.427	2.423	(0.581)	199067	372.383	372.38
	149 Isopropyl Alcohol	45	2.093	2.090	(0.501)	107195	323.757	323.75

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\X230529.b\X052914.D
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Purge Volume: 5.0
Column phase: DB624

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

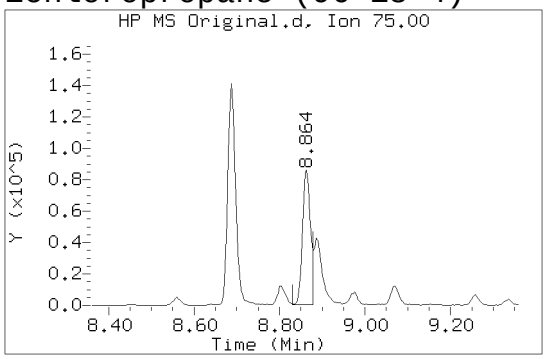
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Inj Date : 29-MAY-2023 16:35
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LabSampID : HS23051708-01MSD

1,2,3-Trichloropropane (96-18-4)

Reason Code:

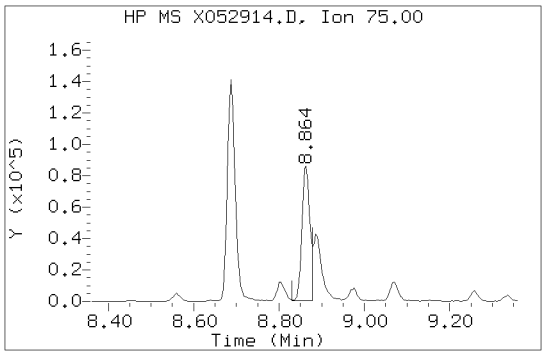
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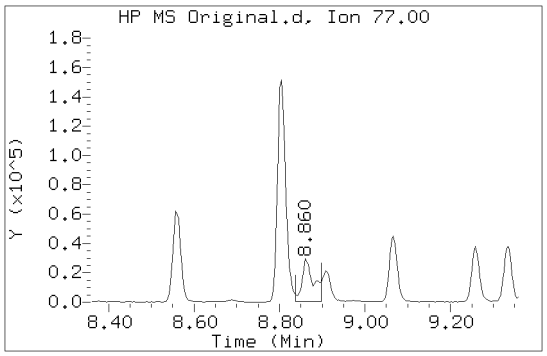
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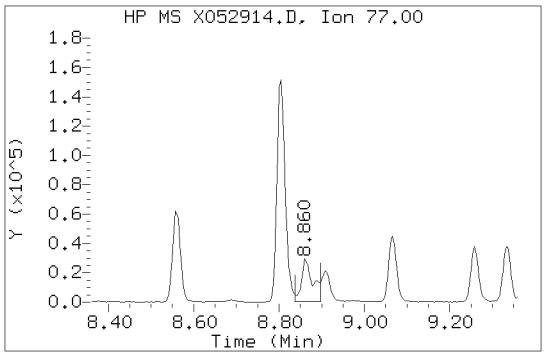
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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052918.D Page 1
Report Date: 31-May-2023 16:38

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052918.D
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Inj Date : 29-MAY-2023 17:59
Operator : PC Inst ID: voa6.i
Smp Info : HS23051708-03;HS23051708-03;;;
Misc Info : V6;WATER;0;1;
Comment   :
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Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	484492	50.0000	
$ 30 Dibromofluoromethane	113	4.099	4.095	(0.981)	227393	51.7172	51.71
$ 35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	252383	53.5712	53.57
* 36 1,4-Difluorobenzene	114	4.965	4.961	(1.000)	725259	50.0000	
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	647100	50.0000	
$ 48 Toluene-d8	98	6.386	6.386	(0.833)	870428	52.7906	52.79
$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	290018	46.7226	46.72
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	312462	50.0000	

01230872

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052918.D

Date : 29-MAY-2023 17:59

Client ID: HS23051708-03

Instrument: voa6.i

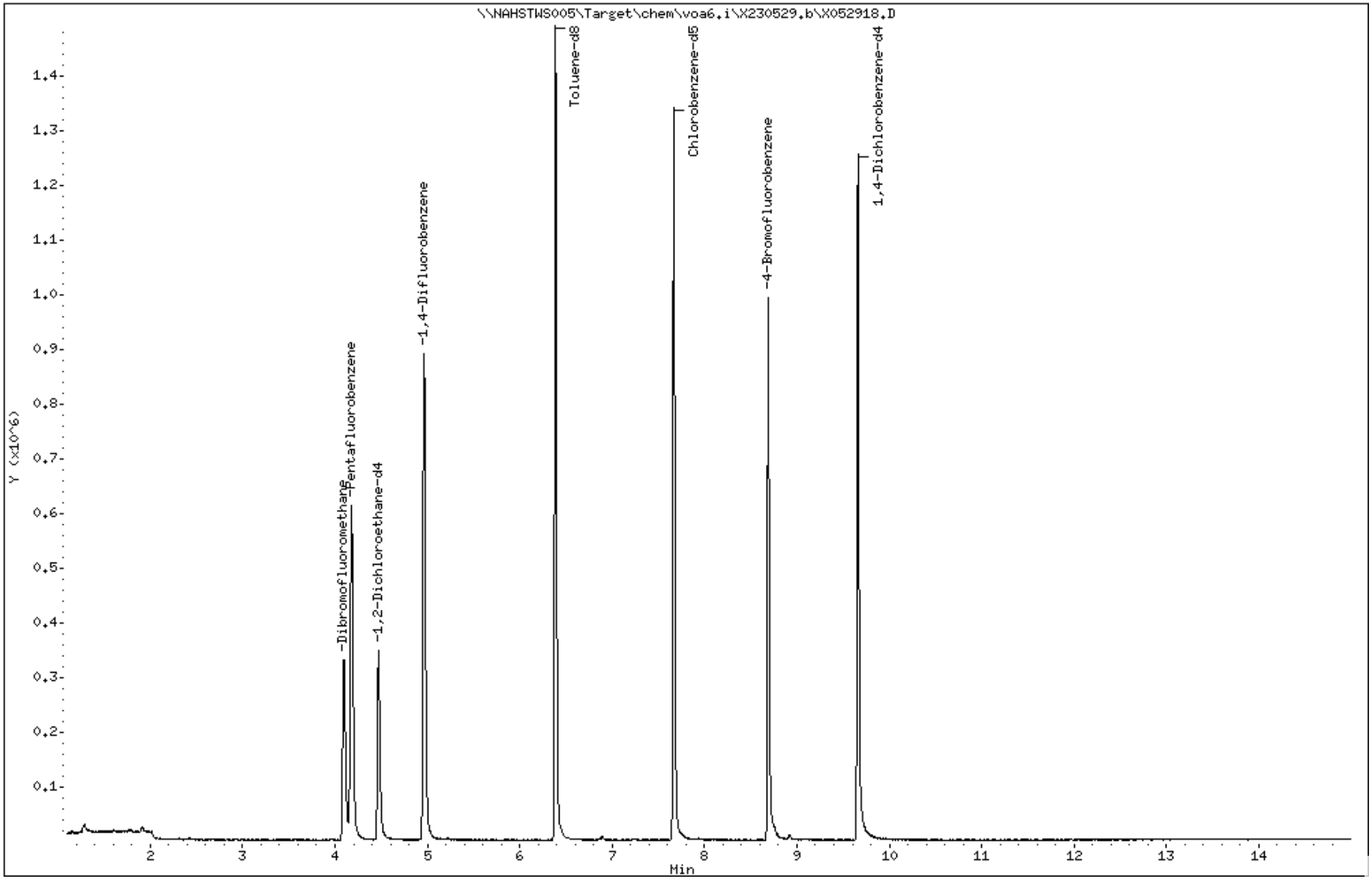
Sample Info: HS23051708-03;HS23051708-03;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052918.D
Inj Date : 29-MAY-2023 17:59
InstruID : voa6.i
LabSampID : HS23051708-03

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052919.D Page 1
Report Date: 31-May-2023 16:38

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052919.D
Lab Smp Id: HS23051708-06 Client Smp ID: HS23051708-06
Inj Date : 29-MAY-2023 18:20
Operator : PC Inst ID: voa6.i
Smp Info : HS23051708-06;HS23051708-06;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\8260W.m
Meth Date : 31-May-2023 16:38 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.177	4.178	(1.000)	486307	50.0000	
$ 30 Dibromofluoromethane	113	4.095	4.095	(0.980)	225534	51.0928	51.09
$ 35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	252038	53.2960	53.29
* 36 1,4-Difluorobenzene	114	4.961	4.961	(1.000)	732057	50.0000	
38 Trichloroethene	130	5.208	5.201	(1.050)	66476	13.2434	13.24
* 47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	663050	50.0000	
$ 48 Toluene-d8	98	6.385	6.386	(0.833)	883546	52.2972	52.29
$ 69 4-Bromofluorobenzene	95	8.691	8.687	(1.133)	292954	46.0602	46.06
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	323728	50.0000	

01230875

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052919.D

Date : 29-MAY-2023 18:20

Client ID: HS23051708-06

Instrument: voa6.i

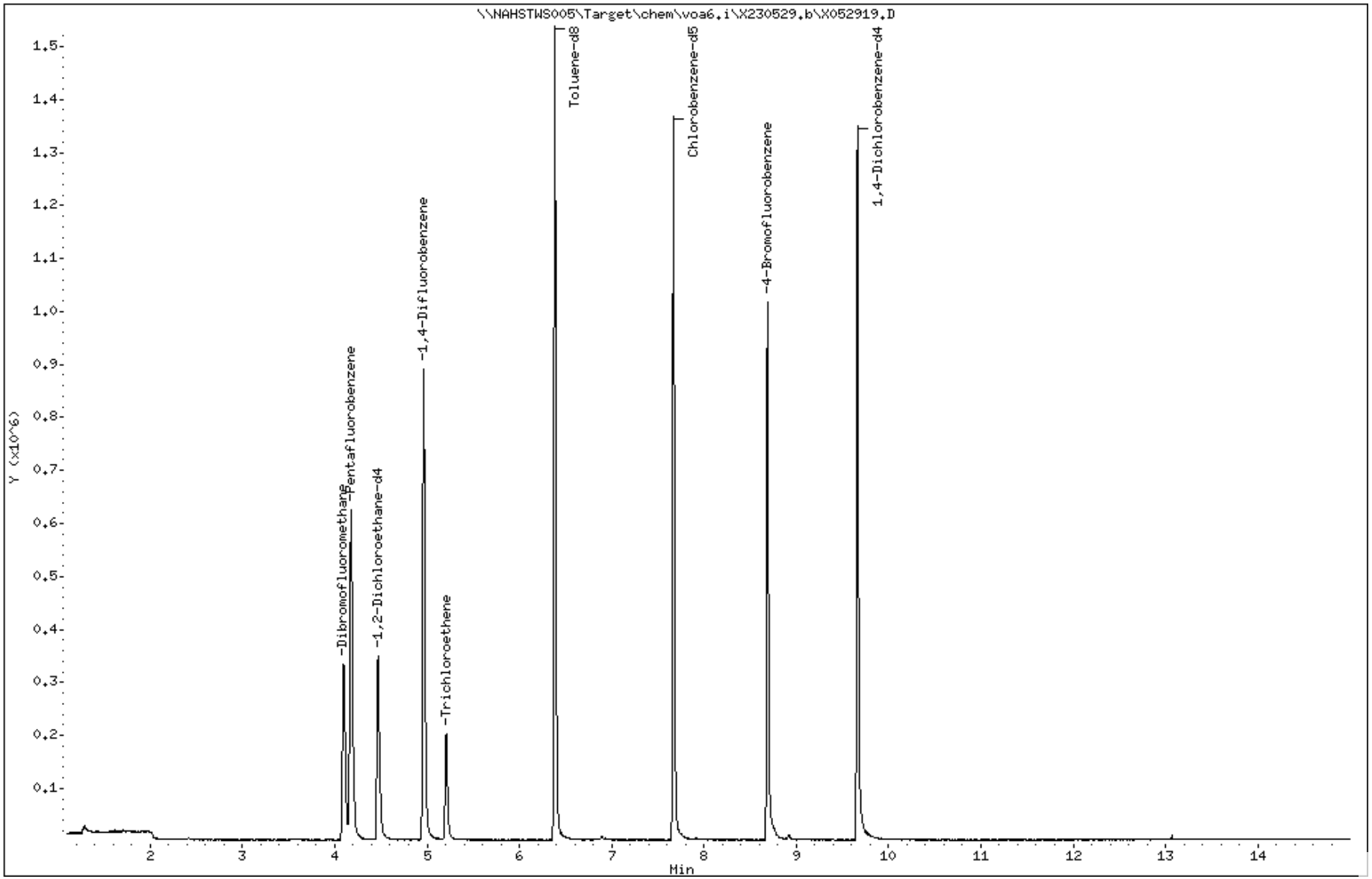
Sample Info: HS23051708-06;HS23051708-06;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052919.D

Date : 29-MAY-2023 18:20

Client ID: HS23051708-06

Instrument: voa6.i

Sample Info: HS23051708-06;HS23051708-06;;;

Purge Volume: 5.0

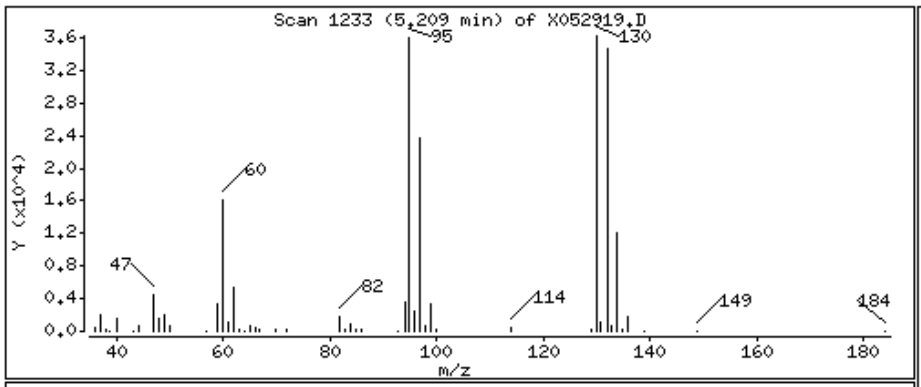
Operator: PC

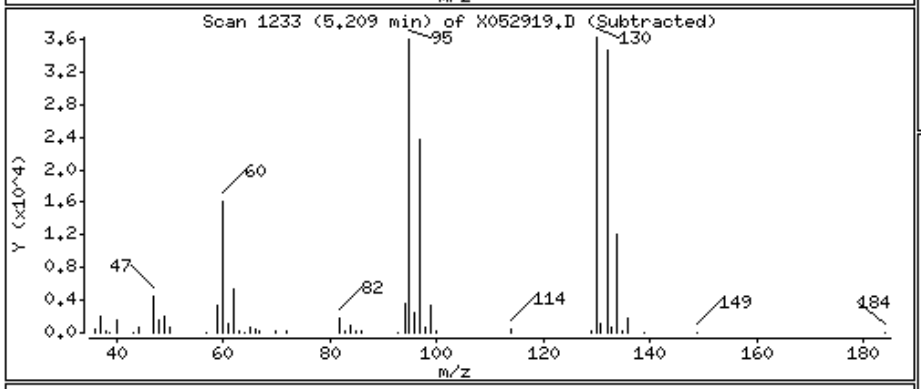
Column phase: DB624

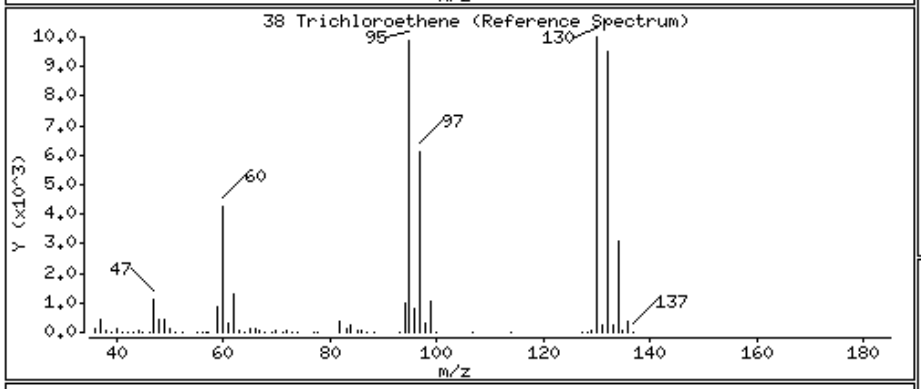
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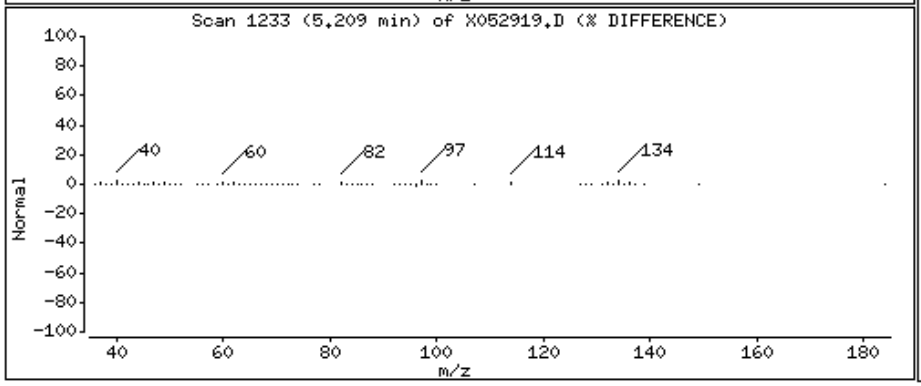
38 Trichloroethene

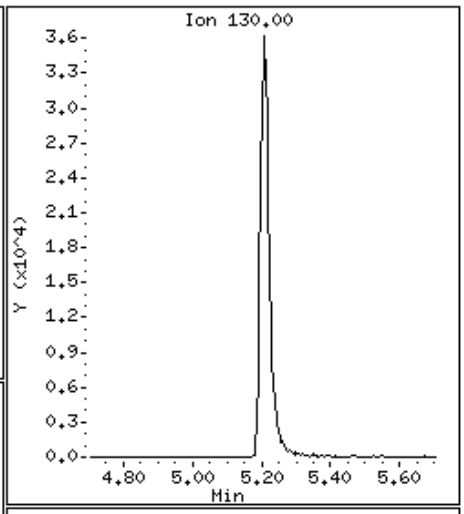
Concentration: 13.24 ug/l

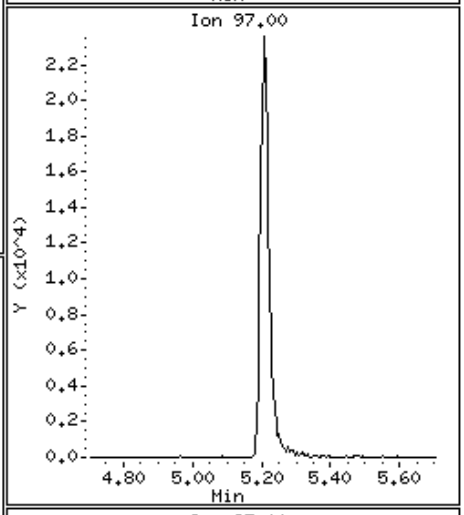


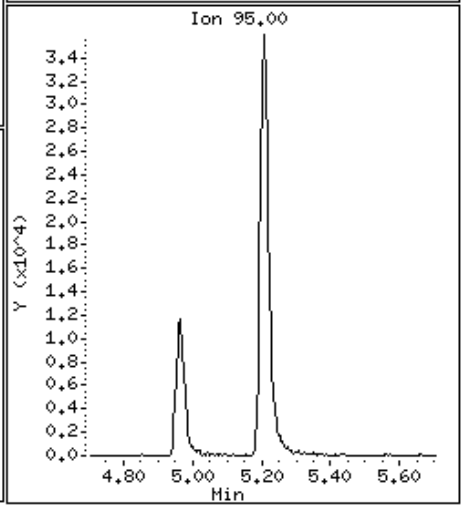












Data File : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052919.D
Inj Date : 29-MAY-2023 18:20
InstruID : voa6.i
LabSampID : HS23051708-06

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052920.D Page 1
Report Date: 31-May-2023 16:38

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052920.D
Lab Smp Id: HS23051708-07 Client Smp ID: HS23051708-07
Inj Date : 29-MAY-2023 18:41
Operator : PC Inst ID: voa6.i
Smp Info : HS23051708-07;HS23051708-07;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\8260W.m
Meth Date : 31-May-2023 16:38 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.177	4.178	(1.000)	471694	50.0000	
$ 30 Dibromofluoromethane	113	4.099	4.095	(0.981)	221559	51.7582	51.75
$ 35 1,2-Dichloroethane-d4	65	4.466	4.470	(1.069)	248017	54.0772	54.07
* 36 1,4-Difluorobenzene	114	4.965	4.961	(1.000)	701543	50.0000	
* 47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	627696	50.0000	
$ 48 Toluene-d8	98	6.385	6.386	(0.833)	849782	53.1317	53.13
$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	279619	46.4398	46.43
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	307881	50.0000	

01230879

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052920.D

Date : 29-MAY-2023 18:41

Client ID: HS23051708-07

Instrument: voa6.i

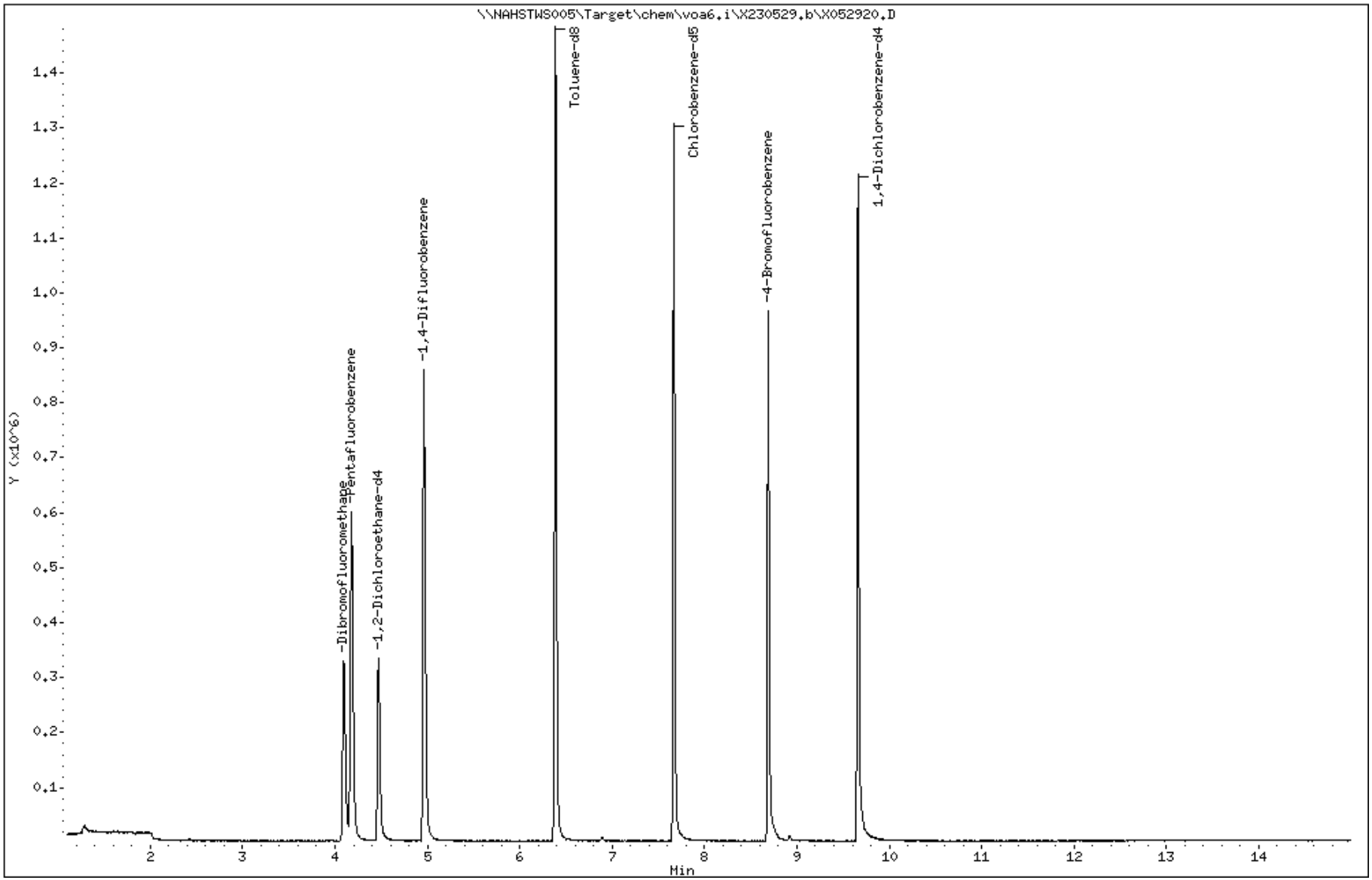
Sample Info: HS23051708-07;HS23051708-07;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052920.D
Inj Date : 29-MAY-2023 18:41
InstruID : voa6.i
LabSampID : HS23051708-07

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052930.D Page 1
Report Date: 31-May-2023 16:38

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052930.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 29-MAY-2023 22:12
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\8260W.m
Meth Date : 31-May-2023 16:38 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.177	4.177	(1.000)	428325	50.0000	
135 1,4-Dioxane	88	5.594	5.594	(1.339)	58265	1000.00	1004.41
140 1,3-Butadiene	54	1.167	1.167	(0.280)	200621	50.0000	44.25
25 Methacrylonitrile	41	3.818	3.818	(0.914)	205831	50.0000	53.90
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	651888	1000.00	1167.57
13 Acetonitrile	39	2.198	2.198	(0.526)	249131	500.000	604.16
14 Allyl Chloride	41	2.198	2.198	(0.526)	464341	50.0000	44.64
4 Propionitrile	54	3.645	3.645	(0.873)	290678	500.000	494.88
130 Ethyl Acetate	43	3.510	3.510	(0.840)	2436	50.0000	0.80(a)
40 Methyl Methacrylate	41	5.606	5.606	(1.342)	201154	50.0000	53.72
49 Ethyl Methacrylate	69	6.783	6.783	(1.366)	371776	50.0000	51.03
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	503362	50.0000	53.17
156 Diisopropyl ether	45	3.000	3.000	(0.718)	676579	50.0000	52.20
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	1083850	50.0000	55.41
2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	154674	50.0000	37.58
3 Chloromethane	50	1.081	1.081	(0.259)	194413	50.0000	32.35
5 Vinyl Chloride	62	1.145	1.145	(0.274)	255284	50.0000	45.00
6 Bromomethane	94	1.340	1.340	(0.321)	167950	50.0000	56.76
7 Chloroethane	64	1.403	1.403	(0.336)	182664	50.0000	51.58
8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	360370	50.0000	60.33

9	Acrolein	56	1.445	1.445 (0.346)	38831	100.000	108.35
10	Acetone	43	1.973	1.973 (0.472)	143447	100.000	96.02

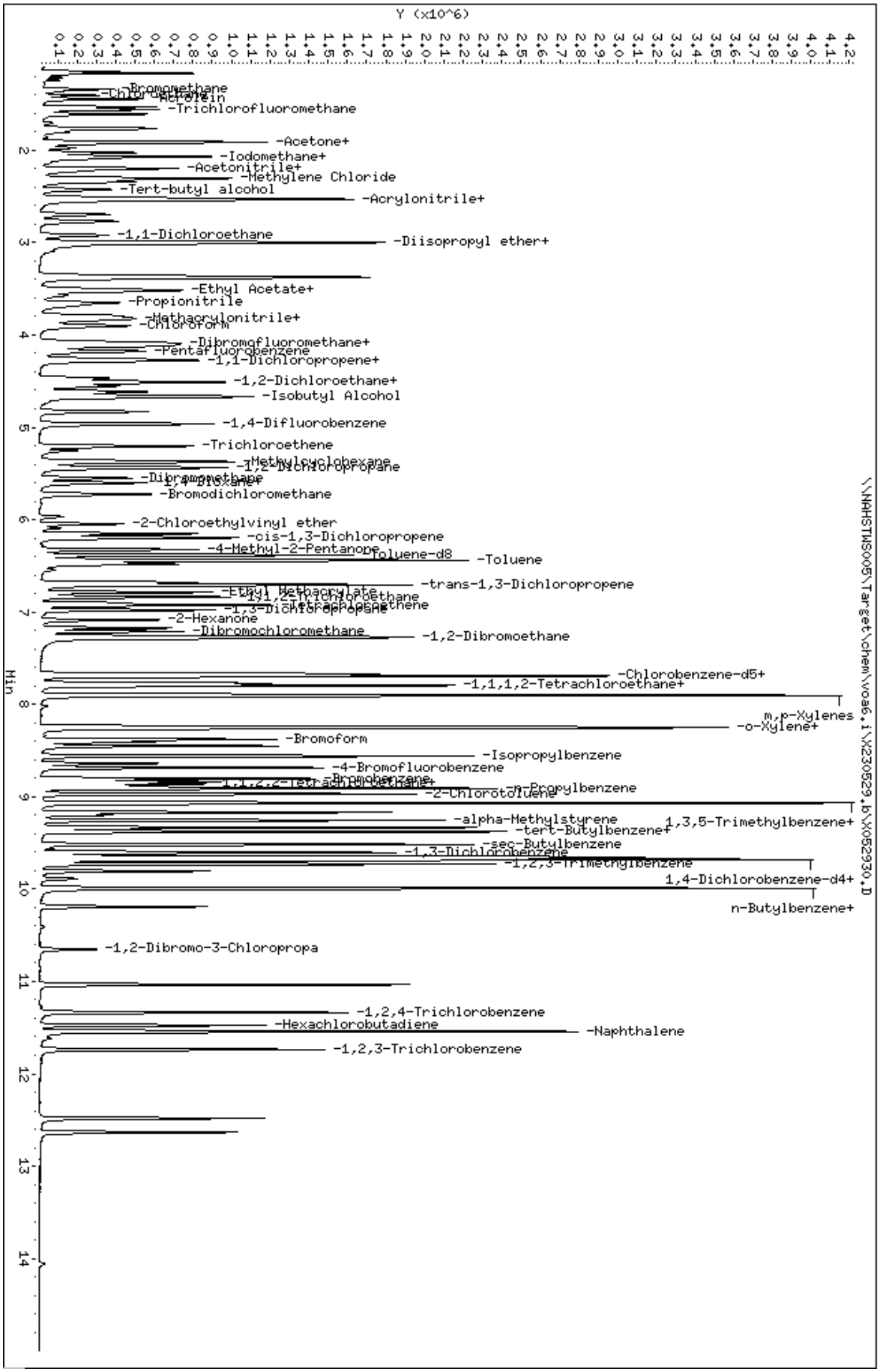
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	215501	50.0000	57.05
	15 Iodomethane	142	2.026	2.026	(0.485)	504035	100.000	93.66
	16 Acrylonitrile	53	2.532	2.532	(0.606)	150384	100.000	106.33
	17 Methylene Chloride	84	2.303	2.303	(0.551)	217525	50.0000	48.44
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	612583	50.0000	51.99
	19 Carbon Disulfide	76	2.071	2.071	(0.496)	1010664	100.000	85.28
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	205312	50.0000	52.40
	21 Vinyl Acetate	43	2.997	2.997	(0.717)	1195431	100.000	109.66
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	353997	50.0000	49.28
	24 2-Butanone	43	3.574	3.574	(0.856)	144798	100.000	101.58
	26 2,2-Dichloropropane	77	3.506	3.506	(0.839)	285806	50.0000	54.05
	27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.844)	242217	50.0000	52.56
	28 Chloroform	83	3.904	3.904	(0.935)	411163	50.0000	57.75
	29 Bromochloromethane	128	3.791	3.791	(0.908)	129389	50.0000	53.27
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	230310	50.0000	59.37
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	333073	50.0000	60.75
	32 1,1-Dichloropropene	75	4.275	4.275	(0.861)	291095	50.0000	51.89
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	320497	50.0000	57.53
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	277231	50.0000	53.49
$	35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	259047	50.0000	62.27
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	713011	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	868555	50.0000	47.88
	38 Trichloroethene	130	5.205	5.205	(1.048)	252300	50.0000	51.60
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	322734	50.0000	51.98
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	168722	100.000	81.83
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	238644	50.0000	46.29
	44 Dibromomethane	93	5.549	5.549	(1.118)	159453	50.0000	50.97
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	447676	100.000	87.93
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	391051	50.0000	47.14
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	740198	50.0000	
$	48 Toluene-d8	98	6.382	6.382	(0.832)	909527	50.0000	48.22
	50 Toluene	91	6.445	6.445	(0.841)	1069540	50.0000	51.49
	51 trans-1,3-Dichloropropene	75	6.678	6.678	(1.345)	356582	50.0000	53.82
	52 2-Hexanone	43	7.083	7.083	(0.924)	320953	100.000	92.11
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	212225	50.0000	50.03
	54 1,3-Dichloropropane	76	6.981	6.981	(0.911)	424372	50.0000	48.08
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	288221	50.0000	50.07
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	211618	50.0000	52.59
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	276324	50.0000	53.46
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	241946	50.0000	55.21
	59 Chlorobenzene	112	7.690	7.690	(1.003)	741292	50.0000	51.56
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	264960	50.0000	52.51
	61 Ethylbenzene	106	7.795	7.795	(1.017)	376453	50.0000	53.28
	62 m,p-Xylenes	106	7.900	7.900	(1.030)	978701	100.000	111.23
	63 o-Xylene	106	8.241	8.241	(1.075)	466690	50.0000	54.24
	64 Styrene	104	8.256	8.256	(1.077)	824942	50.0000	57.27
	66 Bromoform	173	8.406	8.406	(1.096)	210879	50.0000	54.20
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	1198804	50.0000	58.08
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	375390	50.0000	49.15
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	375709	50.0000	52.91
*	70 1,4-Dichlorobenzene-d4	152	9.658	9.658	(1.000)	434246	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.918)	267698	50.0000	48.18

73 n-Propylbenzene	91	8.908	8.908 (0.922)	1450419	50.0000	53.89
74 Bromobenzene	156	8.803	8.803 (0.912)	340591	50.0000	50.25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
75	1,3,5-Trimethylbenzene	105	9.066	9.066	(0.939)	1048634	50.0000	53.79	
76	2-Chlorotoluene	91	8.972	8.972	(0.929)	878345	50.0000	50.25	
77	4-Chlorotoluene	91	9.069	9.069	(0.939)	1036603	50.0000	53.93	
78	tert-Butylbenzene	119	9.332	9.332	(0.966)	880515	50.0000	53.66	
79	1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	1074137	50.0000	53.85	
81	sec-Butylbenzene	105	9.519	9.519	(0.986)	1256168	50.0000	54.89	
82	p-Isopropyltoluene	119	9.647	9.647	(0.999)	1108686	50.0000	56.07	
83	1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	620427	50.0000	50.77	
84	1,4-Dichlorobenzene	146	9.680	9.680	(1.002)	670507	50.0000	52.21	
87	n-Butylbenzene	91	9.992	9.992	(1.035)	1022481	50.0000	60.39	
88	1,2-Dichlorobenzene	146	9.992	9.992	(1.035)	634138	50.0000	52.21	
89	1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	61869	50.0000	47.48	
90	1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	427580	50.0000	50.88	
91	Hexachlorobutadiene	225	11.476	11.476	(1.188)	178396	50.0000	49.34	
92	Naphthalene	128	11.540	11.540	(1.195)	1026418	50.0000	49.19	
93	1,2,3-Trichlorobenzene	180	11.738	11.738	(1.215)	402937	50.0000	48.95	
M 94	1,2-Dichloroethylene (total)	96				447529	100.000		(a)
141	Cyclohexane	56	4.117	4.117	(0.986)	284065	50.0000	52.99	
138	Freon TF	101	1.913	1.913	(0.458)	204856	50.0000	62.44	
147	Methylcyclohexane	55	5.377	5.377	(1.083)	546715	50.0000	49.86	
146	Methyl Acetate	43	2.232	2.232	(0.534)	126086	50.0000	49.81	
148	Tert-Butyl alcohol	59	2.427	2.427	(0.581)	397728	1000.00	940.19	
149	Isopropyl Alcohol	45	2.093	2.093	(0.501)	219564	1000.00	838.00	

QC Flag Legend

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



Data File: \\NAHSTWS005\Target\chem\voa6,i\X230529,b\X052930,D
Date : 29-MAY-2023 22:12
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

\\NAHSTWS005\Target\chem\voa6,i\X230529,b\X052930,D

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230529.b\X052930.D
Inj Date : 29-MAY-2023 22:12
InstruID : voa6.i
LabSampID : CCV-END

NO MANUAL INTEGRATIONS

01230888

right solutions.
right partner.

Raw Data VOA6 436840

Volatiles by EPA 8260

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060101.D Page 1
Report Date: 01-Jun-2023 14:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060101.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 01-JUN-2023 13:08
Operator : PC Inst ID: voa6.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\bfb.m
Meth Date : 14-Mar-2023 15:45 Linh.Pham Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 4 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

RT	EXP RT	REL RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/l)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
8.691	8.889	(0.000)	95	198912			0.00- 100.00	100.00
8.691	8.889	(0.000)	50	39752			15.00- 40.00	19.98
8.691	8.889	(0.000)	75	100416			30.00- 60.00	50.48
8.691	8.889	(0.000)	96	13993			5.00- 9.00	7.03
8.691	8.889	(0.000)	173	1258			0.00- 2.00	0.69
8.691	8.889	(0.000)	174	181248			50.00- 0.00	91.12
8.691	8.889	(0.000)	175	12403			5.00- 9.00	6.84
8.691	8.889	(0.000)	176	172288			95.00- 101.00	95.06
8.691	8.889	(0.000)	177	10704			5.00- 9.00	6.21

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.98
75	30.00 - 60.00% of mass 95	50.48
96	5.00 - 9.00% of mass 95	7.03
173	Less than 2.00% of mass 174	0.63 (0.69)
174	Greater than 50.00% of mass 95	91.12
175	5.00 - 9.00% of mass 174	6.24 (6.84)
176	95.00 - 101.00% of mass 174	86.62 (95.06)
177	5.00 - 9.00% of mass 176	5.38 (6.21)

Data File: X060101.D
Spectrum: Scan 2161 (8.69)
Location of Maximum: 95.00
Number of points: 105

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2089	66.90	416	104.90	286	140.90	1629
37.00	11319	68.00	21512	105.90	1005	141.70	506
38.00	9506	69.00	20904	106.70	230	143.00	1901
39.00	3342	70.00	1429	109.60	90	143.90	185
40.00	2093	71.90	1167	110.20	50	145.10	124
42.30	76	73.00	8879	110.90	192	145.90	256
43.10	248	74.00	33760	111.90	166	146.90	57
44.00	2377	75.00	100416	112.90	189	147.70	462
45.00	1701	76.00	8480	114.80	337	148.70	263
46.00	198	77.00	1224	115.90	609	149.70	103
47.00	2067	77.90	1485	116.90	1297	150.00	105
47.90	1011	78.90	6292	117.90	608	152.70	96
49.00	10397	79.90	2032	118.80	741	154.80	434
50.00	39752	81.00	5994	119.80	63	156.80	303
51.00	12032	82.00	1052	122.50	60	158.80	406
52.00	528	86.00	280	123.60	113	160.90	233
55.10	645	87.00	8726	125.10	78	170.50	186
56.00	3026	87.90	7628	125.80	97	171.80	159
57.00	5537	91.00	842	126.90	112	173.00	1258
57.90	366	92.00	5630	127.80	623	173.90	181248
60.00	1641	93.00	7557	128.80	473	174.90	12403
61.00	10081	94.00	23440	129.80	727	175.90	172288
62.00	8547	95.00	198912	130.90	286	176.90	10704
63.00	6981	96.00	13993	134.80	411	177.80	453
64.00	494	96.90	503	136.00	52		
64.80	157	102.70	231	136.90	358		
65.90	63	103.90	994	140.10	52		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060102.D Page 1
Report Date: 06-Jun-2023 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060102.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 01-JUN-2023 13:29
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\8260W.m
Meth Date : 06-Jun-2023 11:14 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	441782	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	55518	1000.00	927.90
140 1,3-Butadiene	54	1.167	1.167	(0.280)	220353	50.0000	47.12
25 Methacrylonitrile	41	3.818	3.818	(0.914)	212289	50.0000	53.90
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	681308	1000.00	1183.10
13 Acetonitrile	39	2.198	2.198	(0.526)	266559	500.000	626.73
14 Allyl Chloride	41	2.198	2.198	(0.526)	507245	50.0000	47.28
4 Propionitrile	54	3.649	3.649	(0.873)	295292	500.000	487.42
72 trans-1,4-Dichloro-2-butene	53	8.886	8.886	(1.159)	93998	50.0000	60.02
194 Acetaldehyde	44	1.212	1.212	(0.290)	59710	200.000	196.04(M)
23 Chloroprene	53	1.775	1.775	(0.425)	83358	50.0000	46.74(M)
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	208125	50.0000	53.89
49 Ethyl Methacrylate	69	6.783	6.783	(1.366)	360018	50.0000	49.53
131 Methyl Acrylate	55	3.687	3.687	(0.882)	213824	50.0000	49.72
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	438262	50.0000	48.44
156 Diisopropyl ether	45	3.001	3.001	(0.718)	689698	50.0000	51.59
162 Butyl acrylate	55	8.249	8.249	(1.076)	599880	50.0000	59.84(M)
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	1023567	50.0000	54.75
205 2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	402858	50.0000	52.35
2 Dichlorodifluoromethane	85	0.976	0.976	(0.234)	171127	50.0000	40.27

3 Chloromethane	50	1.081	1.081 (0.259)	249907	50.0000	40.31
5 Vinyl Chloride	62	1.145	1.145 (0.274)	286906	50.0000	49.03

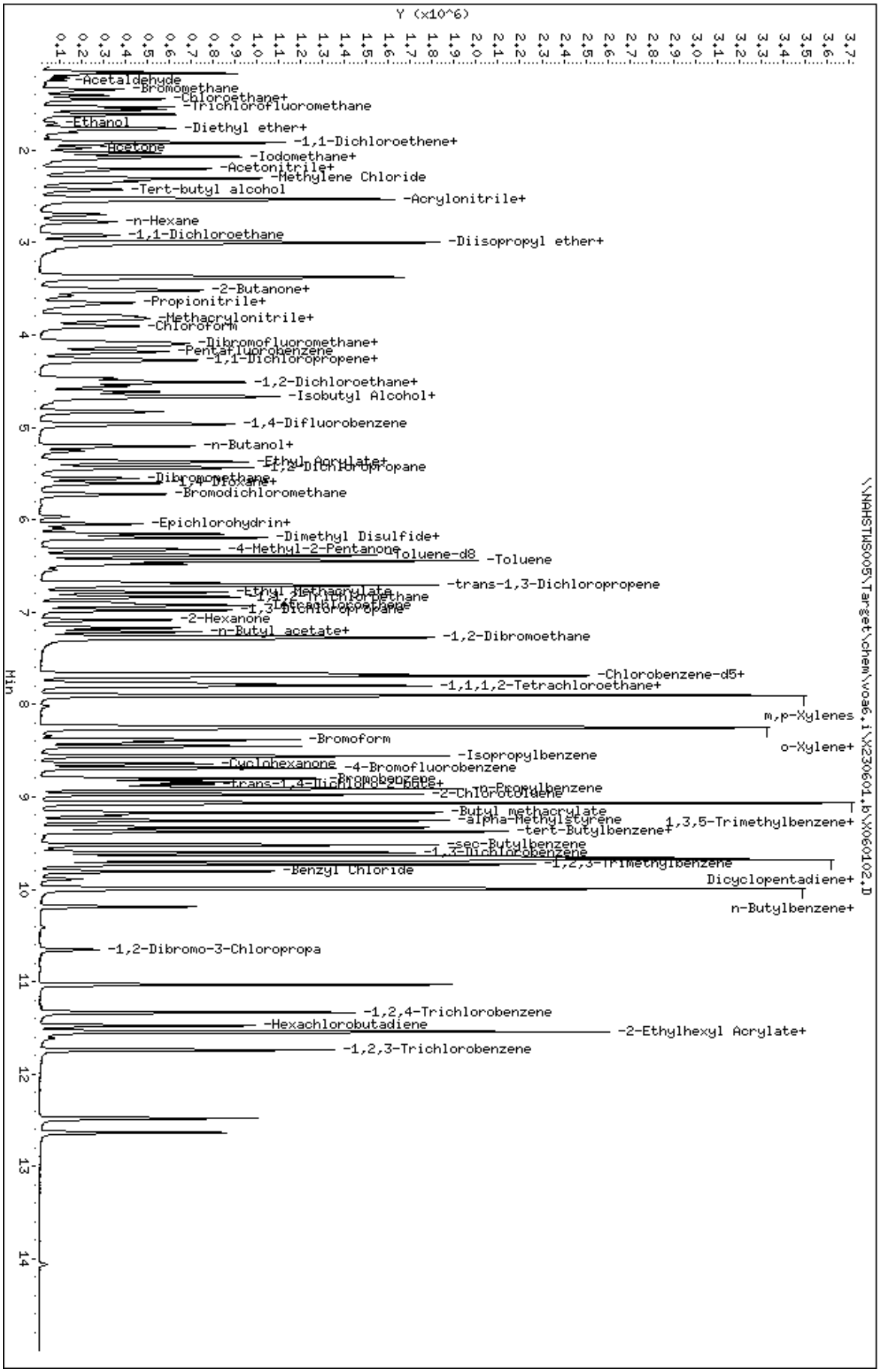
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	6 Bromomethane	94	1.340	1.340	(0.321)	175500	50.0000	57.50
	7 Chloroethane	64	1.404	1.404	(0.336)	192281	50.0000	52.64
	8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	335748	50.0000	54.49
	9 Acrolein	56	1.445	1.445	(0.346)	41172	100.000	111.38
	10 Acetone	43	1.973	1.973	(0.472)	182755	100.000	119.63
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	205900	50.0000	52.85
	15 Iodomethane	142	2.026	2.026	(0.485)	550735	100.000	98.79
	16 Acrylonitrile	53	2.532	2.532	(0.606)	154168	100.000	105.68
	17 Methylene Chloride	84	2.303	2.303	(0.551)	220715	50.0000	47.65
	18 Methyl tert-butyl ether	73	2.536	2.536	(0.607)	615448	50.0000	50.64
	19 Carbon Disulfide	76	2.071	2.071	(0.496)	1017787	100.000	83.27
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	195499	50.0000	48.38
	21 Vinyl Acetate	43	2.997	2.997	(0.717)	1286896	100.000	114.45
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	360892	50.0000	48.71
	24 2-Butanone	43	3.574	3.574	(0.856)	157883	100.000	107.38
	26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	299846	50.0000	54.98
	27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.844)	233568	50.0000	49.14
	28 Chloroform	83	3.904	3.904	(0.935)	395057	50.0000	53.80
	29 Bromochloromethane	128	3.791	3.791	(0.908)	125285	50.0000	50.01
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	225236	50.0000	56.25
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	298608	50.0000	52.80
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	261271	50.0000	46.68
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	322796	50.0000	58.08
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	240908	50.0000	46.59
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	256729	50.0000	59.81(M)
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	711352	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	835015	50.0000	46.13
	38 Trichloroethene	130	5.205	5.205	(1.048)	222241	50.0000	45.56
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	314640	50.0000	50.80
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	181597	100.000	88.28
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	235129	50.0000	45.72
	44 Dibromomethane	93	5.550	5.550	(1.118)	157940	50.0000	50.60
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	454392	100.000	93.81
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	400865	50.0000	48.43
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	704230	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	865767	50.0000	48.24
	50 Toluene	91	6.446	6.446	(0.841)	949608	50.0000	48.05
	51 trans-1,3-Dichloropropene	75	6.678	6.678	(1.345)	347401	50.0000	52.56
	52 2-Hexanone	43	7.083	7.083	(0.924)	320629	100.000	96.72
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	195809	50.0000	48.52
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	403440	50.0000	48.04
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	270377	50.0000	49.37
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	173778	50.0000	45.39
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	251098	50.0000	51.06
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	187498	50.0000	43.30
	59 Chlorobenzene	112	7.690	7.690	(1.003)	663911	50.0000	48.53
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	241829	50.0000	50.37
	61 Ethylbenzene	106	7.795	7.795	(1.017)	315692	50.0000	46.96
	62 m,p-Xylenes	106	7.900	7.900	(1.030)	828845	100.000	99.01
	63 o-Xylene	106	8.241	8.241	(1.075)	405965	50.0000	49.59
	64 Styrene	104	8.256	8.256	(1.077)	748299	50.0000	54.60
	66 Bromoform	173	8.406	8.406	(1.096)	192515	50.0000	52.01

67	Isopropylbenzene	105	8.560	8.560 (1.116)	972878	50.0000	49.54
68	1,1,2,2-Tetrachloroethane	83	8.837	8.837 (0.915)	348867	50.0000	47.80

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	353150	50.0000	52.27	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	415008	50.0000		
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	250262	50.0000	47.13	
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	1199486	50.0000	46.63	
	74 Bromobenzene	156	8.803	8.803	(0.911)	301539	50.0000	46.55	
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	898550	50.0000	48.23	
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	770367	50.0000	46.12	
	77 4-Chlorotoluene	91	9.066	9.066	(0.938)	931841	50.0000	50.72	
	78 tert-Butylbenzene	119	9.332	9.332	(0.966)	705365	50.0000	44.98	
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	931892	50.0000	48.88	
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	1001222	50.0000	45.78	
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	908802	50.0000	48.09	
	83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	556854	50.0000	47.68	
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	599633	50.0000	48.86	
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	856410	50.0000	52.93	
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	569945	50.0000	49.10	
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	56124	50.0000	45.05	
	90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	375586	50.0000	46.77	
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	152825	50.0000	44.23	
	92 Naphthalene	128	11.540	11.540	(1.194)	934831	50.0000	46.88	
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	356460	50.0000	45.31	
M	94 1,2-Dichloroethylene (total)	96				429067	100.000		(a)
	141 Cyclohexane	56	4.121	4.121	(0.987)	230465	50.0000	41.68	
	138 Freon TF	101	1.917	1.917	(0.459)	188530	50.0000	56.60	
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	537872	50.0000	49.16	
	146 Methyl Acetate	43	2.232	2.232	(0.534)	141396	50.0000	54.15	
	148 Tert-Butyl alcohol	59	2.427	2.427	(0.581)	415042	1000.00	951.23	
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	240477	1000.00	889.86	

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\X230601,b\X060102,D
Date : 01-JUN-2023 13:29
Client ID: CCV
Sample Info: CCV;CCV;2;;
Purge Volume: 5.0
Column phase: DB624

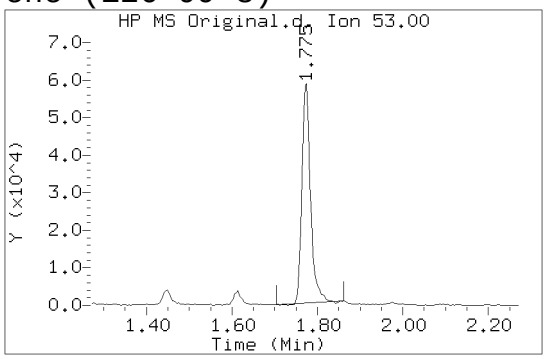
Instrument: voa6,i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060102.D
Inj Date : 01-JUN-2023 13:29
InstruID : voa6.i
LabSampID : CCV

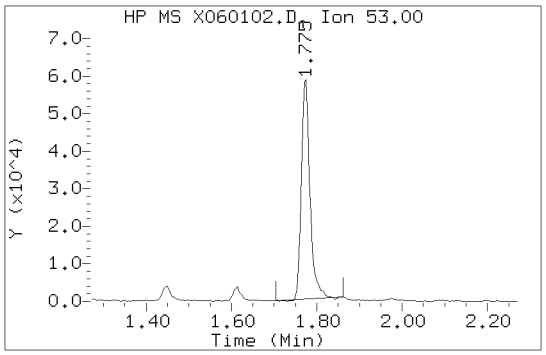
Chloroprene (126-99-8)

Reason Code:

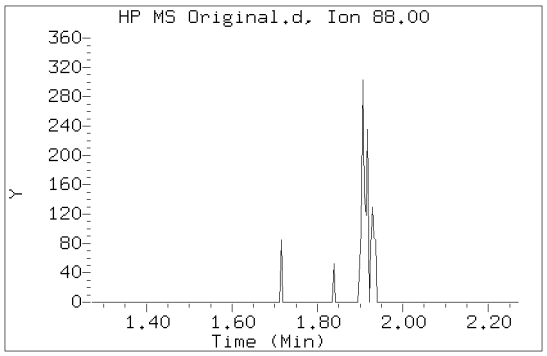
BEFORE
MASS
53
AREA
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HEIGHT
58451
06-Jun-2023
11:14
linh
pham



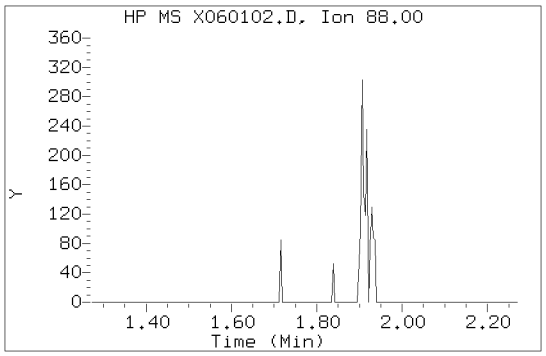
AFTER
MASS
53
AREA
83358
HEIGHT
58451
06-Jun-2023
11:14
linh
pham



BEFORE
MASS
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AREA
0
HEIGHT
0
06-Jun-2023
11:14
linh
pham



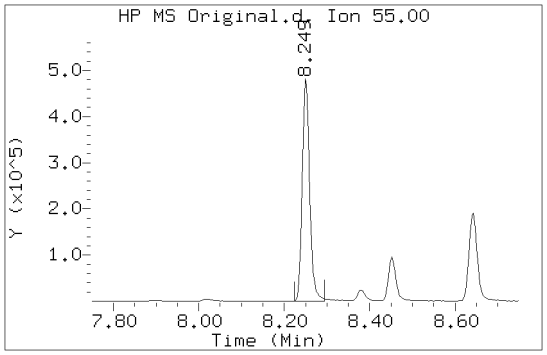
AFTER
MASS
88
AREA
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HEIGHT
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06-Jun-2023
11:14
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pham



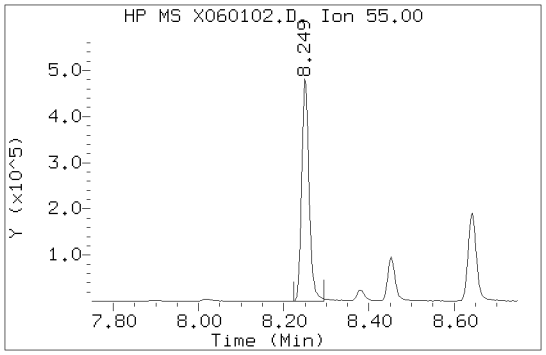
Butyl acrylate (141-32-2)

Reason Code:

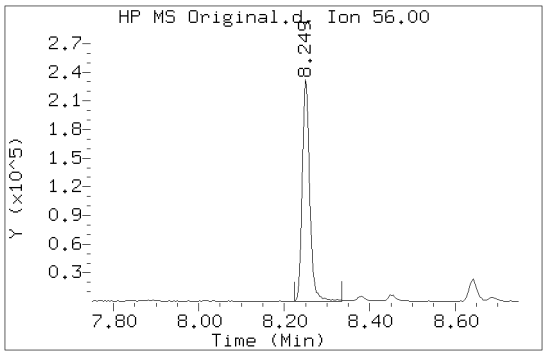
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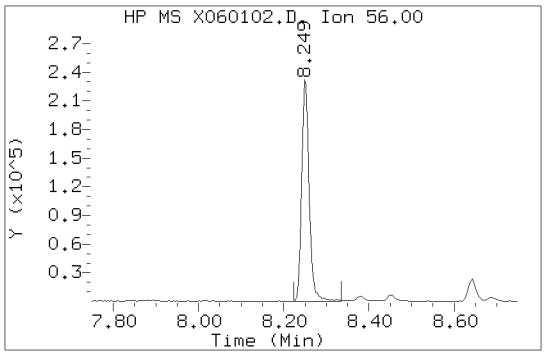
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BEFORE
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AFTER
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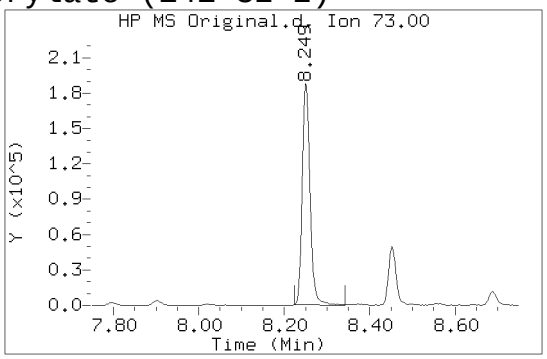
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Inj Date : 01-JUN-2023 13:29
InstruID : voa6.i
LabSampID : CCV

Butyl acrylate (141-32-2)

Reason Code:

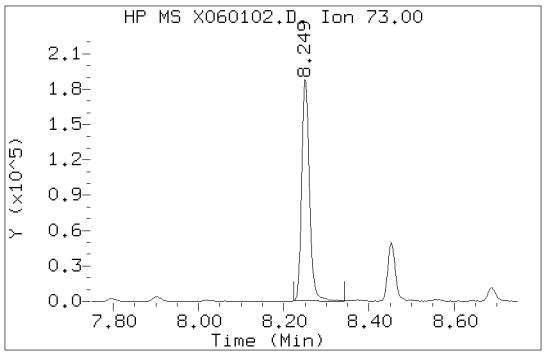
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AFTER

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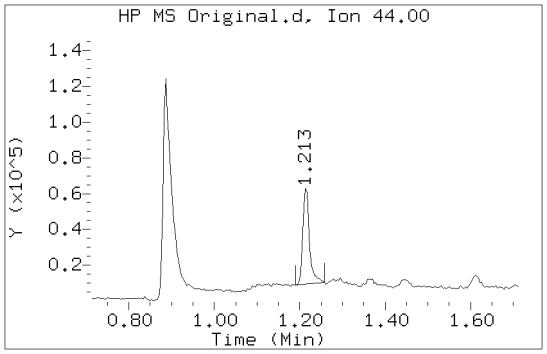


Acetaldehyde (75-07-0)

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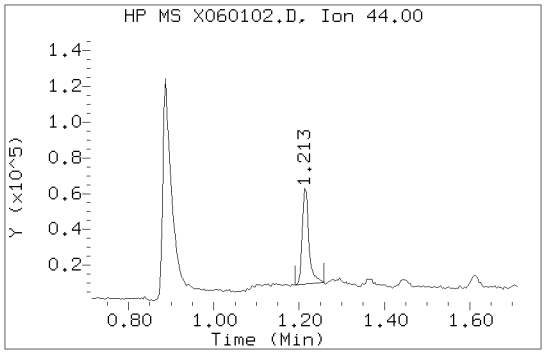
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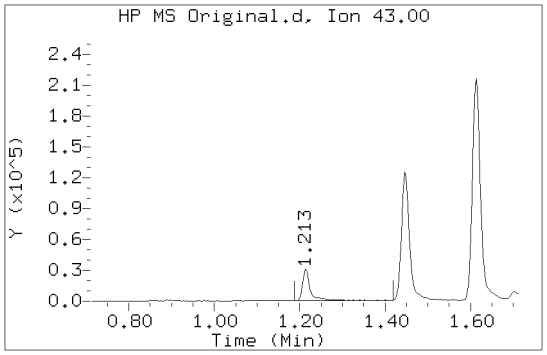
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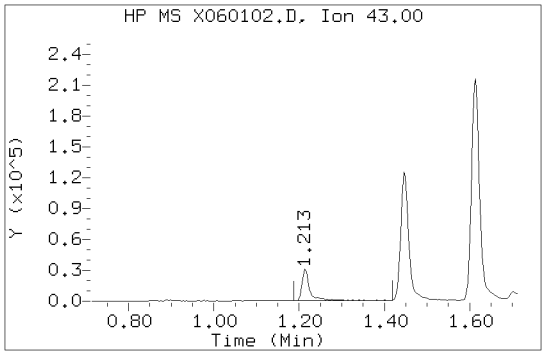
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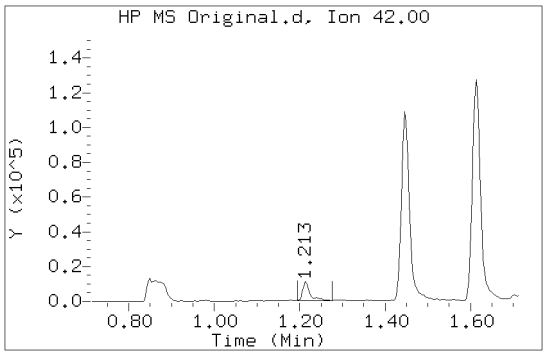
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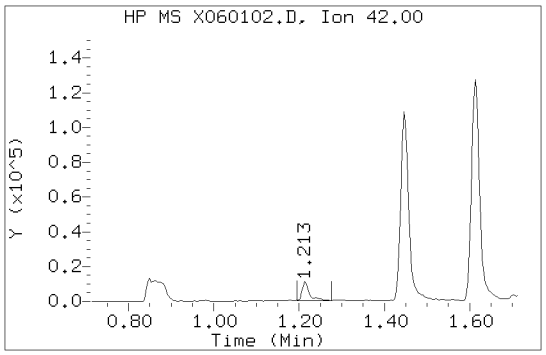
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AFTER

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HEIGHT
11074
06-Jun-2023
11:14
linh
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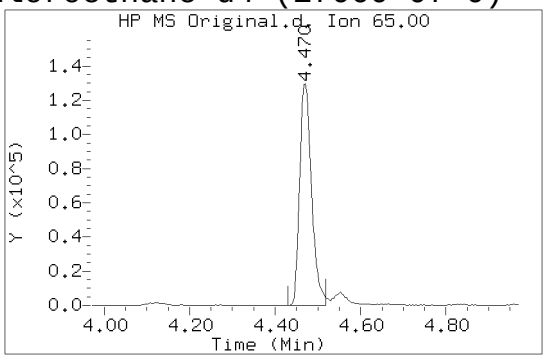
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Inj Date : 01-JUN-2023 13:29
InstruID : voa6.i
LabSampID : CCV

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

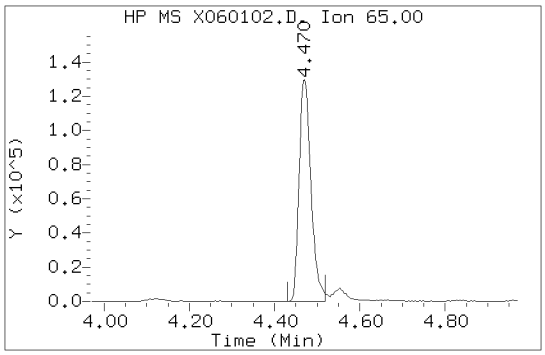
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06-Jun-2023
11:14
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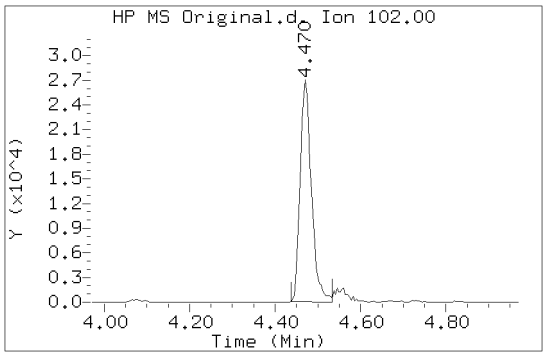
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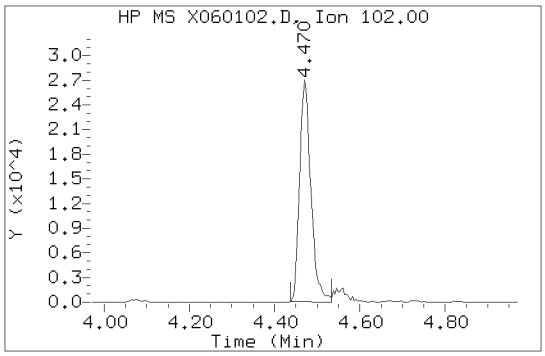
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06-Jun-2023
11:14
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pham



AFTER

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HEIGHT
26994
06-Jun-2023
11:14
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060103.D Page 1
Report Date: 06-Jun-2023 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060103.D
Lab Smp Id: CCB Client Smp ID: CCB
Inj Date : 01-JUN-2023 13:50
Operator : PC Inst ID: voa6.i
Smp Info : CCB;CCB;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\8260W.m
Meth Date : 06-Jun-2023 11:14 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.177	4.178	(1.000)	487358	50.0000	
$ 30 Dibromofluoromethane	113	4.099	4.095	(0.981)	227841	51.5110	51.51
$ 35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	262415	55.3886	55.38
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	724588	50.0000	
* 47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	643587	50.0000	
$ 48 Toluene-d8	98	6.385	6.386	(0.833)	874674	53.3377	53.33
$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	297461	48.1832	48.18
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	320135	50.0000	

01230902

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060103.D

Date : 01-JUN-2023 13:50

Client ID: CCB

Instrument: voa6.i

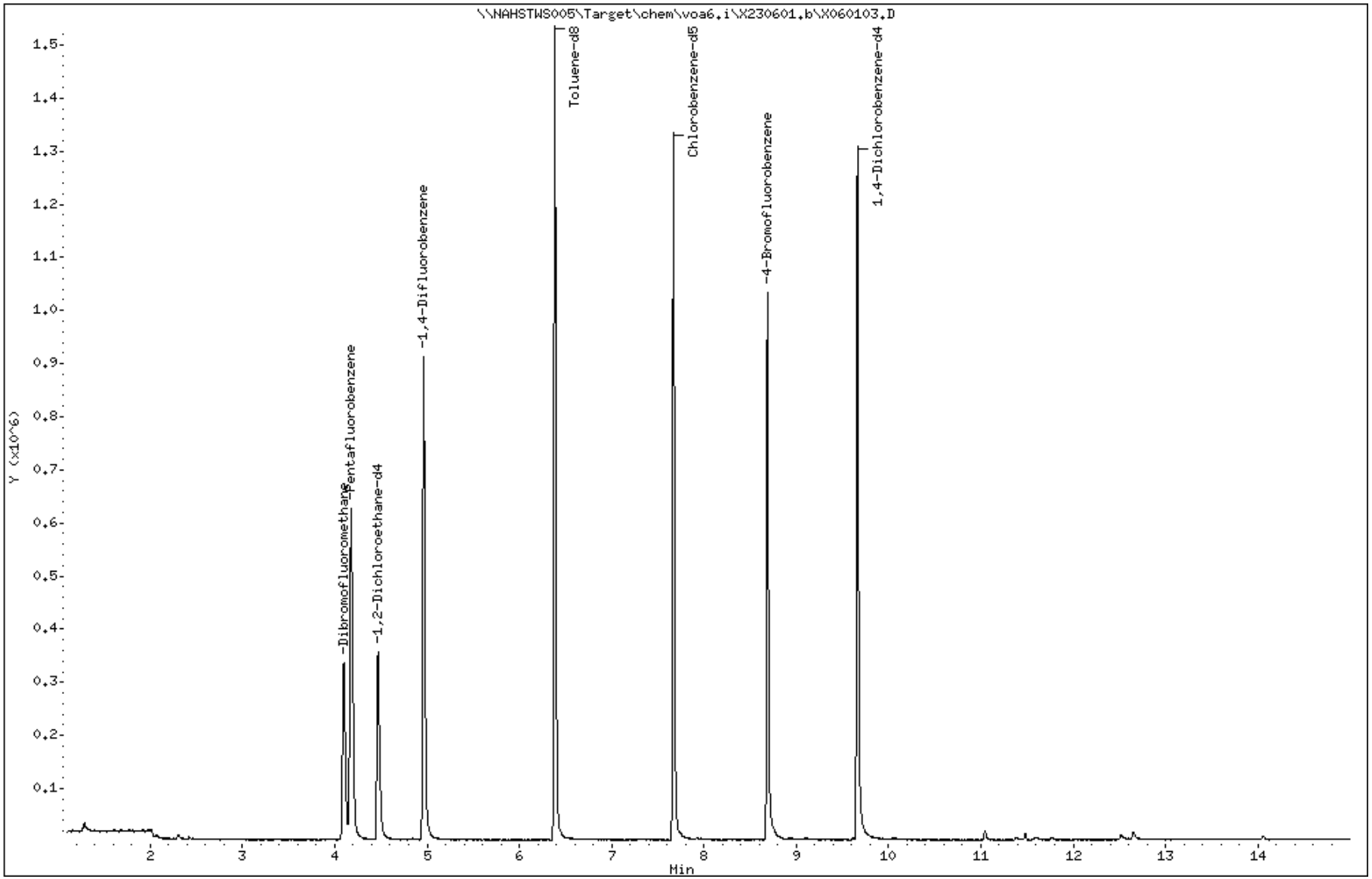
Sample Info: CCB;CCB;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060103.D
Inj Date : 01-JUN-2023 13:50
InstruID : voa6.i
LabSampID : CCB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060104.D Page 1
Report Date: 06-Jun-2023 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060104.D
Lab Smp Id: VBLKW-230601 Client Smp ID: VBLKW-230601
Inj Date : 01-JUN-2023 14:11
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-230601;VBLKW-230601;3;;BLANK
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\8260W.m
Meth Date : 06-Jun-2023 11:14 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	452882	50.0000	
$ 30 Dibromofluoromethane	113	4.099	4.095	(0.981)	209800	51.0353	51.03
$ 35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	240684	54.6631	54.66
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	676206	50.0000	
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	606588	50.0000	
$ 48 Toluene-d8	98	6.386	6.386	(0.833)	809564	52.3784	52.37
$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	268560	46.1552	46.15
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	294354	50.0000	

01230905

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060104.D

Page 1

Date : 01-JUN-2023 14:11

Client ID: VBLKW-230601

Instrument: voa6.i

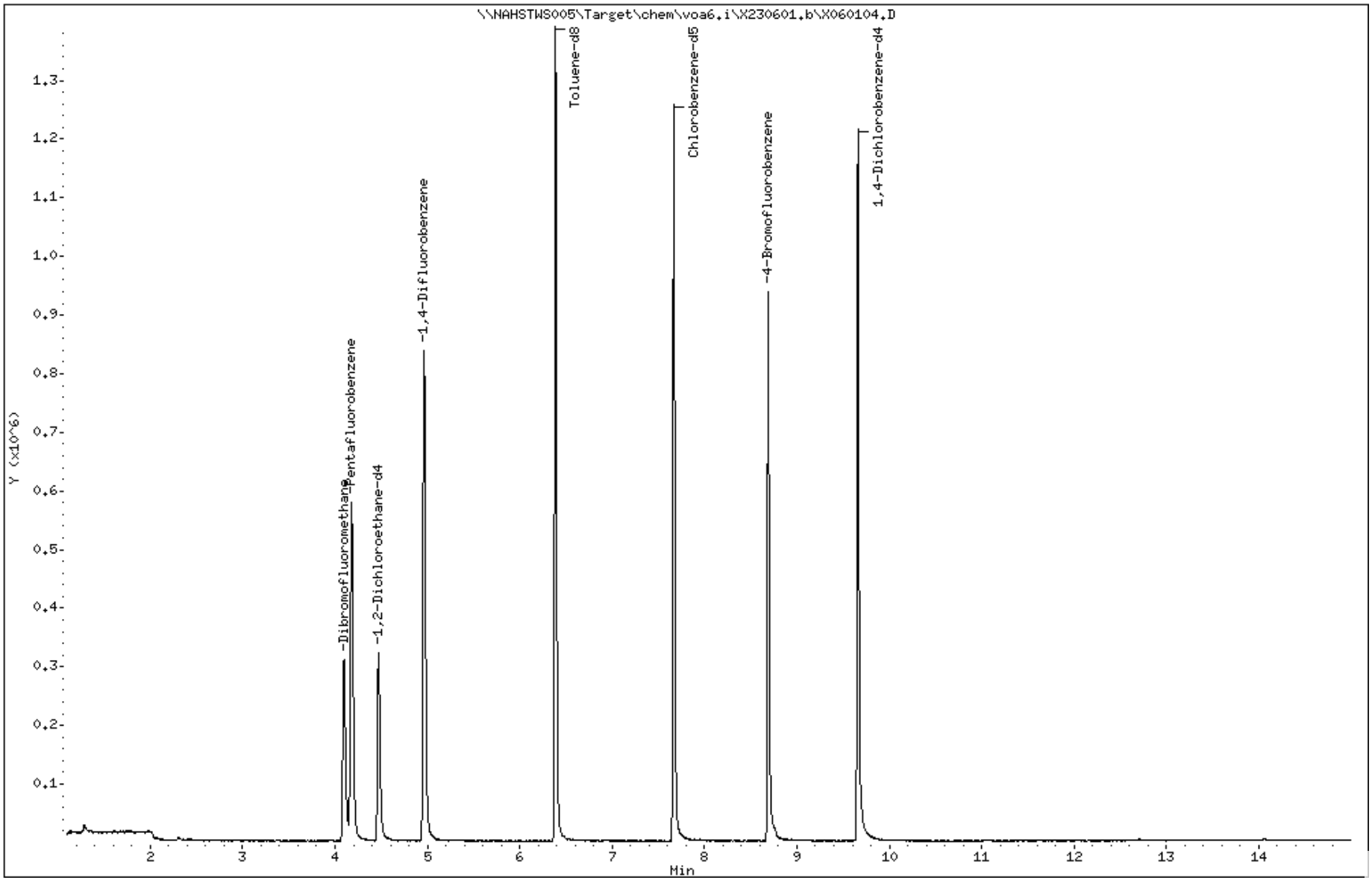
Sample Info: VBLKW-230601;VBLKW-230601;3;;BLANK

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060104.D
Inj Date : 01-JUN-2023 14:11
InstruID : voa6.i
LabSampID : VBLKW-230601

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060105.D Page 1
Report Date: 06-Jun-2023 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060105.D
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Inj Date : 01-JUN-2023 14:32
Operator : PC Inst ID: voa6.i
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Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\8260W.m
Meth Date : 06-Jun-2023 11:14 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	409838	50.0000	
135	1,4-Dioxane	88	5.598	5.598	(1.340)	21608	389.298	389.29(a)
140	1,3-Butadiene	54	1.167	1.167	(0.280)	84277	19.4286	19.42
25	Methacrylonitrile	41	3.822	3.818	(0.915)	76496	20.9384	20.93
12	Isobutyl Alcohol	43	4.672	4.672	(1.118)	253554	474.619	474.61
13	Acetonitrile	39	2.198	2.198	(0.526)	99263	251.580	251.57
14	Allyl Chloride	41	2.198	2.198	(0.526)	195312	19.6246	19.62
4	Propionitrile	54	3.653	3.649	(0.874)	118854	211.480	211.47(a)
72	trans-1,4-Dichloro-2-butene	53	8.890	8.886	(1.159)	32401	22.6340	22.63
194	Acetaldehyde	44	1.212	1.212	(0.290)	25355	82.5502	82.55(M)
23	Chloroprene	53	1.771	1.775	(0.424)	34887	21.0871	21.08(M)
40	Methyl Methacrylate	41	5.610	5.602	(1.343)	76644	21.3941	21.39
49	Ethyl Methacrylate	69	6.787	6.783	(1.367)	134567	20.2667	20.26
131	Methyl Acrylate	55	3.690	3.687	(0.883)	67294	16.8706	16.87
145	alpha-Methylstyrene	118	9.257	9.257	(0.958)	144091	18.5239	18.52
156	Diisopropyl ether	45	3.001	3.001	(0.718)	250358	20.1895	20.18
162	Butyl acrylate	55	8.252	8.249	(1.076)	211668	23.0989	23.09
166	1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	347287	21.6076	21.60
205	2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	122112	18.4583	18.45
2	Dichlorodifluoromethane	85	0.976	0.976	(0.234)	63462	16.4803	16.48

3 Chloromethane	50	1.081	1.081 (0.259)	96196	16.7292	16.72
5 Vinyl Chloride	62	1.145	1.145 (0.274)	110336	20.3270	20.32

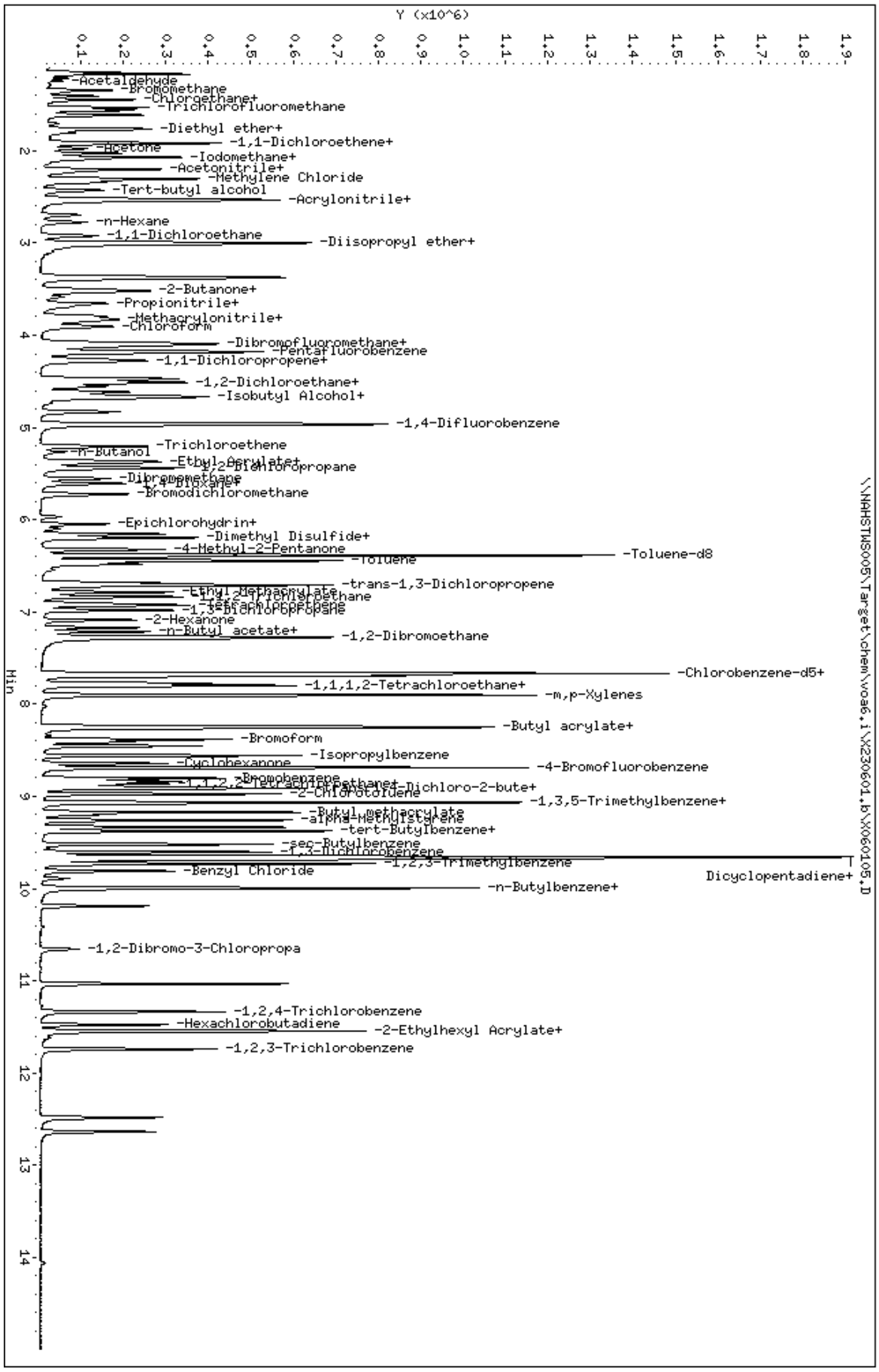
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	6 Bromomethane	94	1.340	1.340	(0.321)	72106	25.6177	25.61
	7 Chloroethane	64	1.404	1.404	(0.336)	78097	23.0482	23.04
	8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	127274	22.2695	22.26
	9 Acrolein	56	1.445	1.445	(0.346)	15823	46.1433	46.14
	10 Acetone	43	1.973	1.973	(0.472)	85509	58.1815	58.18
	11 1,1-Dichloroethene	96	1.917	1.913	(0.459)	81006	22.4152	22.41
	15 Iodomethane	142	2.026	2.026	(0.485)	177917	37.1178	37.11
	16 Acrylonitrile	53	2.536	2.532	(0.607)	57049	42.1568	42.15
	17 Methylene Chloride	84	2.303	2.303	(0.551)	85302	19.8552	19.85
	18 Methyl tert-butyl ether	73	2.536	2.536	(0.607)	239095	21.2092	21.20
	19 Carbon Disulfide	76	2.071	2.071	(0.496)	372403	32.8429	32.84
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	70916	18.9188	18.91
	21 Vinyl Acetate	43	3.001	2.997	(0.718)	457710	43.8823	43.88
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	135652	19.7362	19.73
	24 2-Butanone	43	3.582	3.574	(0.857)	62543	45.8550	45.85
	26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	107616	21.0806	21.08
	27 cis-1,2-Dichloroethene	96	3.529	3.525	(0.845)	85222	19.3292	19.32
	28 Chloroform	83	3.904	3.904	(0.935)	147180	21.6057	21.60
	29 Bromochloromethane	128	3.792	3.791	(0.908)	45881	19.7442	19.74
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	199921	53.7852	53.78
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	107972	20.5818	20.58
	32 1,1-Dichloropropene	75	4.283	4.279	(0.863)	88474	17.3039	17.30
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	117895	23.2212	23.22
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	83231	17.6206	17.62
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	231367	58.0945	58.09
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	649901	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	302846	18.3161	18.31
	38 Trichloroethene	130	5.209	5.205	(1.049)	81714	18.3371	18.33
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	114862	20.2997	20.29
	41 2-Chloroethylvinyl ether	63	6.048	6.044	(1.218)	64688	34.4218	34.42
	42 1,2-Dichloropropane	63	5.437	5.433	(1.095)	87028	18.5229	18.52
	44 Dibromomethane	93	5.550	5.550	(1.118)	58606	20.5534	20.55
	45 4-Methyl-2-Pentanone	43	6.326	6.322	(0.825)	171627	38.7606	38.76
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	142100	18.7944	18.79
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	643808	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	755489	46.0540	46.05
	50 Toluene	91	6.446	6.446	(0.841)	338650	18.7471	18.74
	51 trans-1,3-Dichloropropene	75	6.682	6.678	(1.346)	123389	20.4344	20.43
	52 2-Hexanone	43	7.087	7.083	(0.924)	124430	41.0603	41.06
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	73296	19.8682	19.86
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	147978	19.2770	19.27
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	98521	19.6798	19.67
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	61335	17.5259	17.52
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	93186	20.7293	20.72
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	64381	17.4272	17.42
	59 Chlorobenzene	112	7.694	7.690	(1.003)	235873	18.8624	18.86
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	86117	19.6237	19.62
	61 Ethylbenzene	106	7.799	7.795	(1.017)	111568	18.1568	18.15
	62 m,p-Xylenes	106	7.904	7.900	(1.031)	290495	37.9586	37.95
	63 o-Xylene	106	8.241	8.241	(1.075)	140199	18.7358	18.73
	64 Styrene	104	8.260	8.256	(1.077)	250831	20.0224	20.02
	66 Bromoform	173	8.410	8.406	(1.097)	70833	20.9341	20.93

67	Isopropylbenzene	105	8.560	8.560 (1.116)	325195	18.1165	18.11
68	1,1,2,2-Tetrachloroethane	83	8.837	8.837 (0.915)	128232	20.6431	20.64

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	299138	48.4382	48.43
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	356819	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	94888	20.7854	20.78(M)
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	393002	17.7722	17.77
	74 Bromobenzene	156	8.803	8.803	(0.911)	110478	19.8386	19.83
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	285346	17.8156	17.81
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	258913	18.0288	18.02
	77 4-Chlorotoluene	91	9.070	9.066	(0.939)	304805	19.2991	19.29
	78 tert-Butylbenzene	119	9.336	9.332	(0.966)	223603	16.5843	16.58
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	299564	18.2786	18.27
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	307926	16.3779	16.37
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	275802	16.9767	16.97
	83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	185921	18.5190	18.51
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	202069	19.1512	19.15
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	247641	17.8024	17.80
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	191691	19.2091	19.20
	89 1,2-Dibromo-3-Chloropropane	155	10.659	10.655	(1.103)	19325	17.8457	17.84
	90 1,2,4-Trichlorobenzene	180	11.338	11.334	(1.173)	124975	18.1007	18.10
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	44769	15.0700	15.07
	92 Naphthalene	128	11.540	11.540	(1.194)	320515	18.6949	18.69
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	119334	17.6442	17.64
M	94 1,2-Dichloroethylene (total)	96				156138	38.2480	38.24
M	95 Xylenes (total)	106				430694	56.6944	56.69
	141 Cyclohexane	56	4.118	4.121	(0.986)	77977	15.2041	15.20(M)
	138 Freon TF	101	1.917	1.917	(0.459)	67781	23.4850	23.48
	147 Methylcyclohexane	55	5.381	5.377	(1.084)	191463	19.1572	19.15
	146 Methyl Acetate	43	2.236	2.232	(0.535)	51713	21.3513	21.35
	148 Tert-Butyl alcohol	59	2.427	2.427	(0.581)	164764	407.055	407.05
	149 Isopropyl Alcohol	45	2.097	2.093	(0.502)	89997	358.982	358.98

QC Flag Legend

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



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Column phase: DB624

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

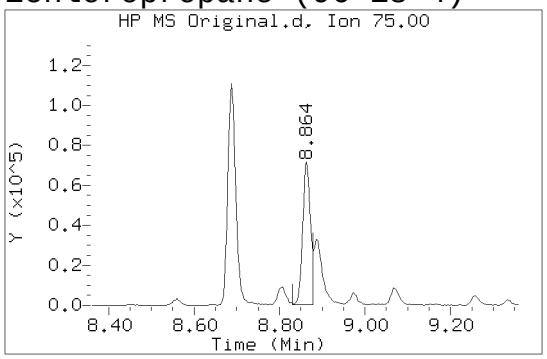
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LabSampID : VLCSW-230601

1,2,3-Trichloropropane (96-18-4)

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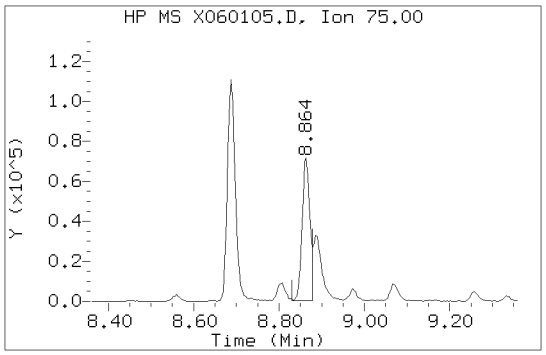
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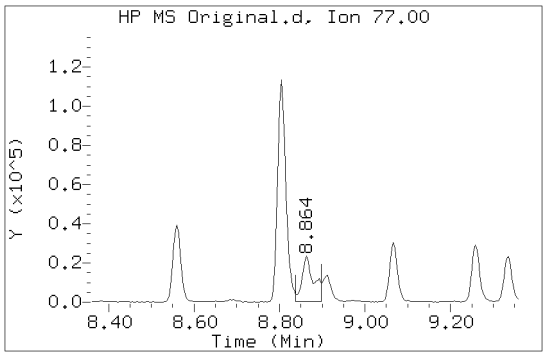
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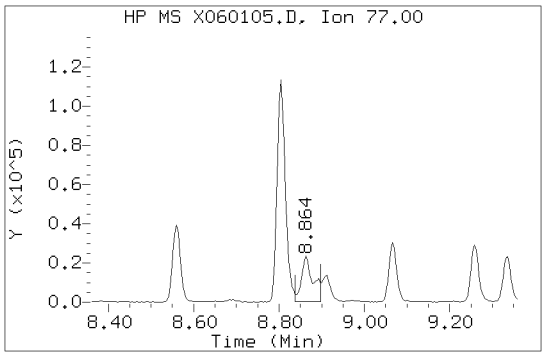
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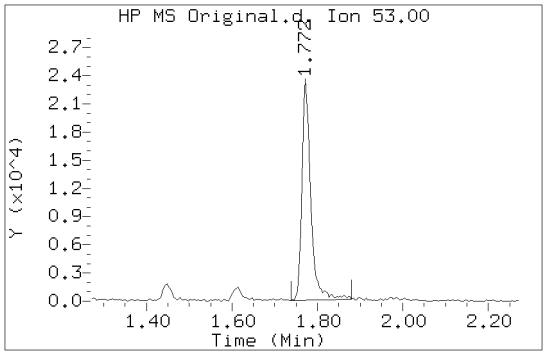


Chloroprene (126-99-8)

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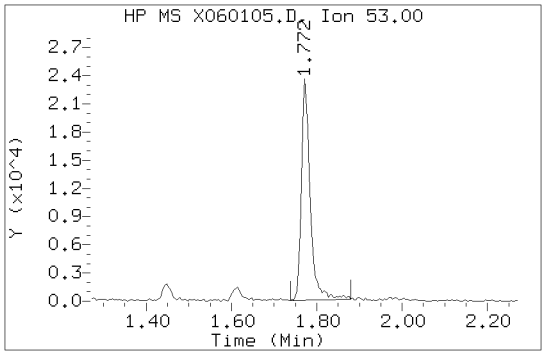
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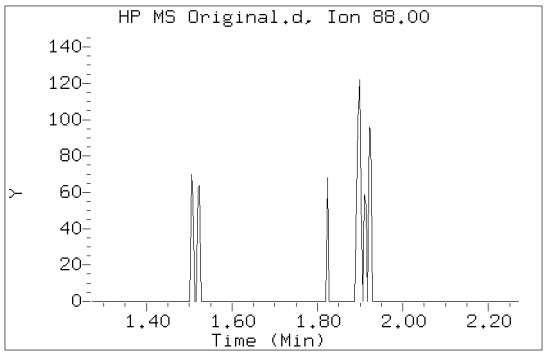
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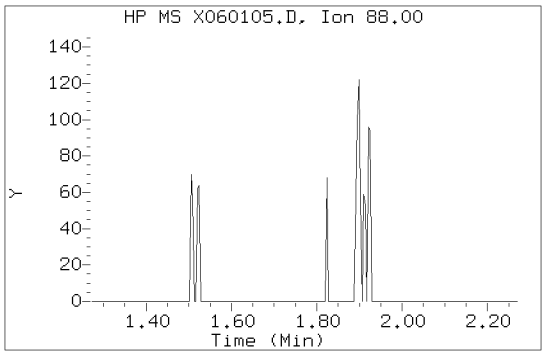
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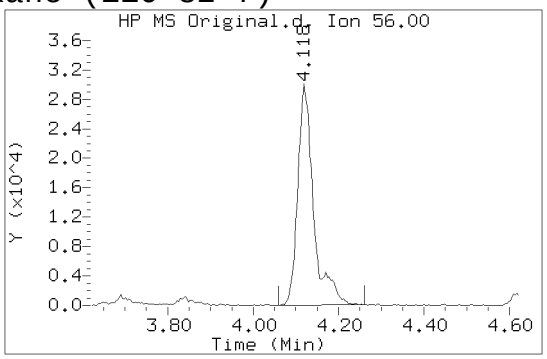


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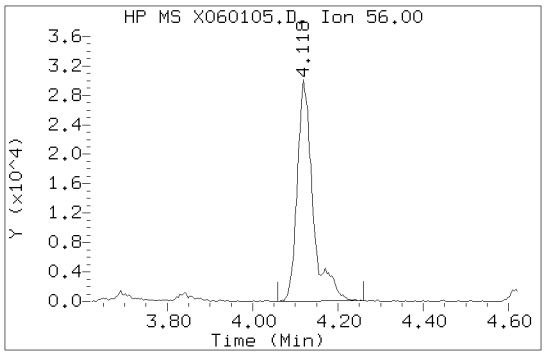
Cyclohexane (110-82-7)

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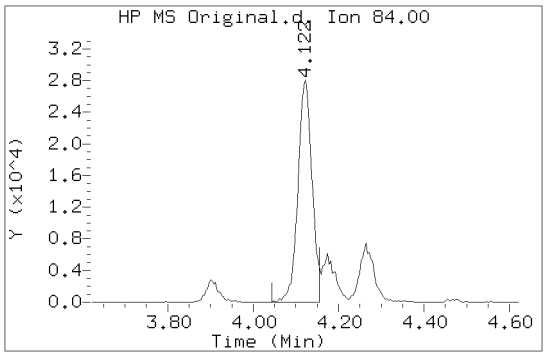
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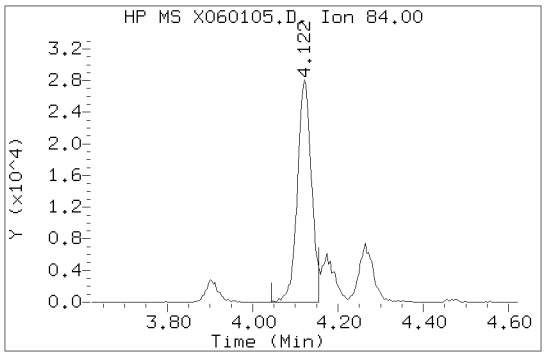
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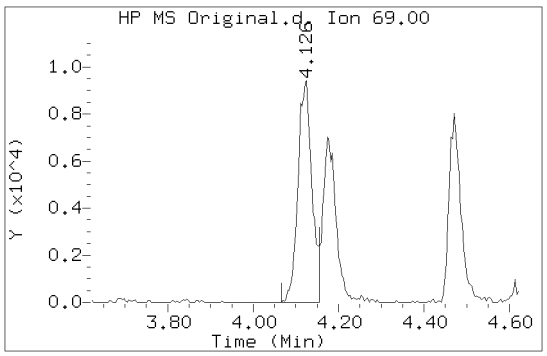
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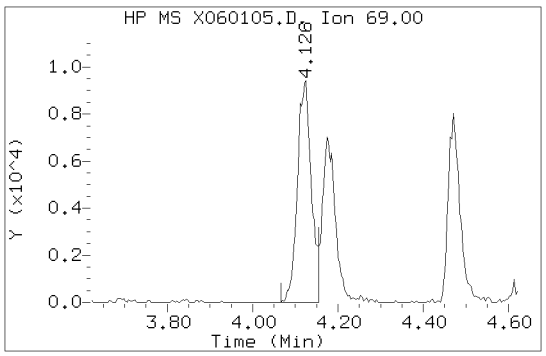
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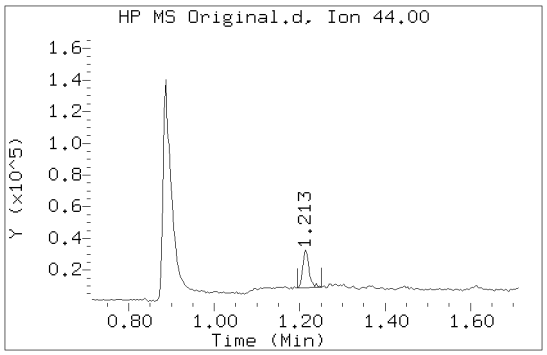
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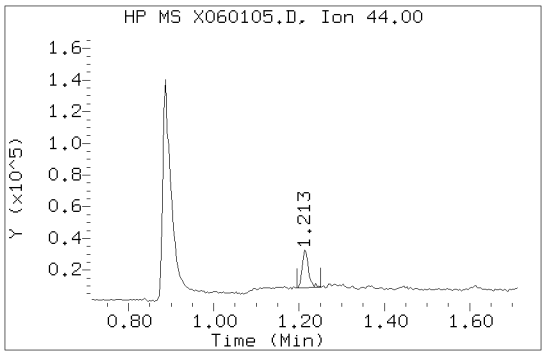
Acetaldehyde (75-07-0)

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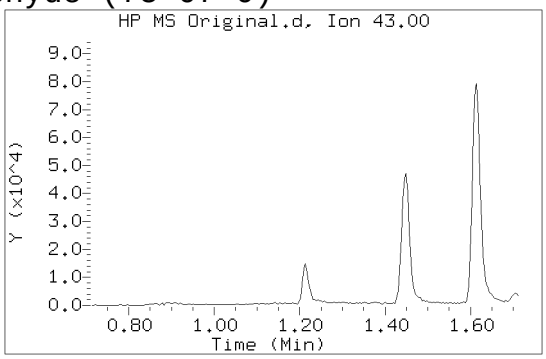


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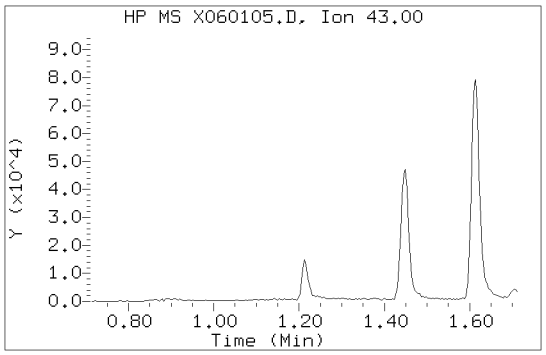
Acetaldehyde (75-07-0)

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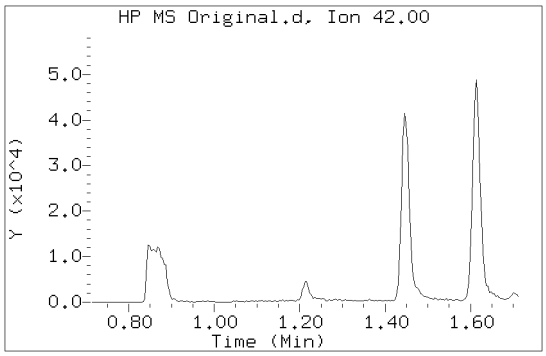
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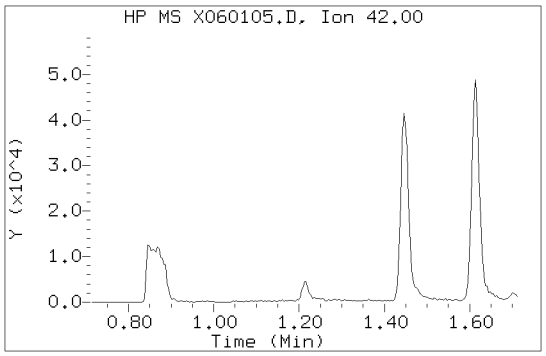
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Report Date: 06-Jun-2023 11:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060111.D
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Inj Date : 01-JUN-2023 16:47
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Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 14 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.181	4.178	(1.000)	452210	50.0000	
135	1,4-Dioxane	88	5.598	5.598	(1.339)	21214	346.387	346.38(a)
140	1,3-Butadiene	54	1.167	1.167	(0.279)	82140	17.1617	17.16
25	Methacrylonitrile	41	3.818	3.818	(0.913)	84012	20.8410	20.84
12	Isobutyl Alcohol	43	4.676	4.672	(1.118)	265727	450.799	450.79
13	Acetonitrile	39	2.202	2.198	(0.527)	113361	260.390	260.39
14	Allyl Chloride	41	2.198	2.198	(0.526)	205590	18.7217	18.72
4	Propionitrile	54	3.653	3.649	(0.874)	111294	179.473	179.47(a)
72	trans-1,4-Dichloro-2-butene	53	8.890	8.886	(1.159)	34975	25.1162	25.11
194	Acetaldehyde	44	1.212	1.212	(0.290)	31414	94.3222	94.32(M)
23	Chloroprene	53	1.771	1.775	(0.424)	44713	24.4939	24.49(M)
40	Methyl Methacrylate	41	5.606	5.602	(1.341)	84736	21.4366	21.43
49	Ethyl Methacrylate	69	6.787	6.783	(1.367)	148586	21.5954	21.59
131	Methyl Acrylate	55	3.690	3.687	(0.883)	88868	20.1916	20.19
145	alpha-Methylstyrene	118	9.257	9.257	(0.958)	183674	25.0332	25.03
156	Diisopropyl ether	45	3.000	3.001	(0.718)	286504	20.9395	20.93
162	Butyl acrylate	55	8.252	8.249	(1.076)	229942	25.7957	25.79
166	1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	416778	27.4913	27.49
205	2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	146164	23.4233	23.42
2	Dichlorodifluoromethane	85	0.976	0.976	(0.234)	29182	7.23936	7.23

3 Chloromethane	50	1.081	1.081 (0.259)	61352	9.66981	9.66
5 Vinyl Chloride	62	1.145	1.145 (0.274)	101567	16.9583	16.95

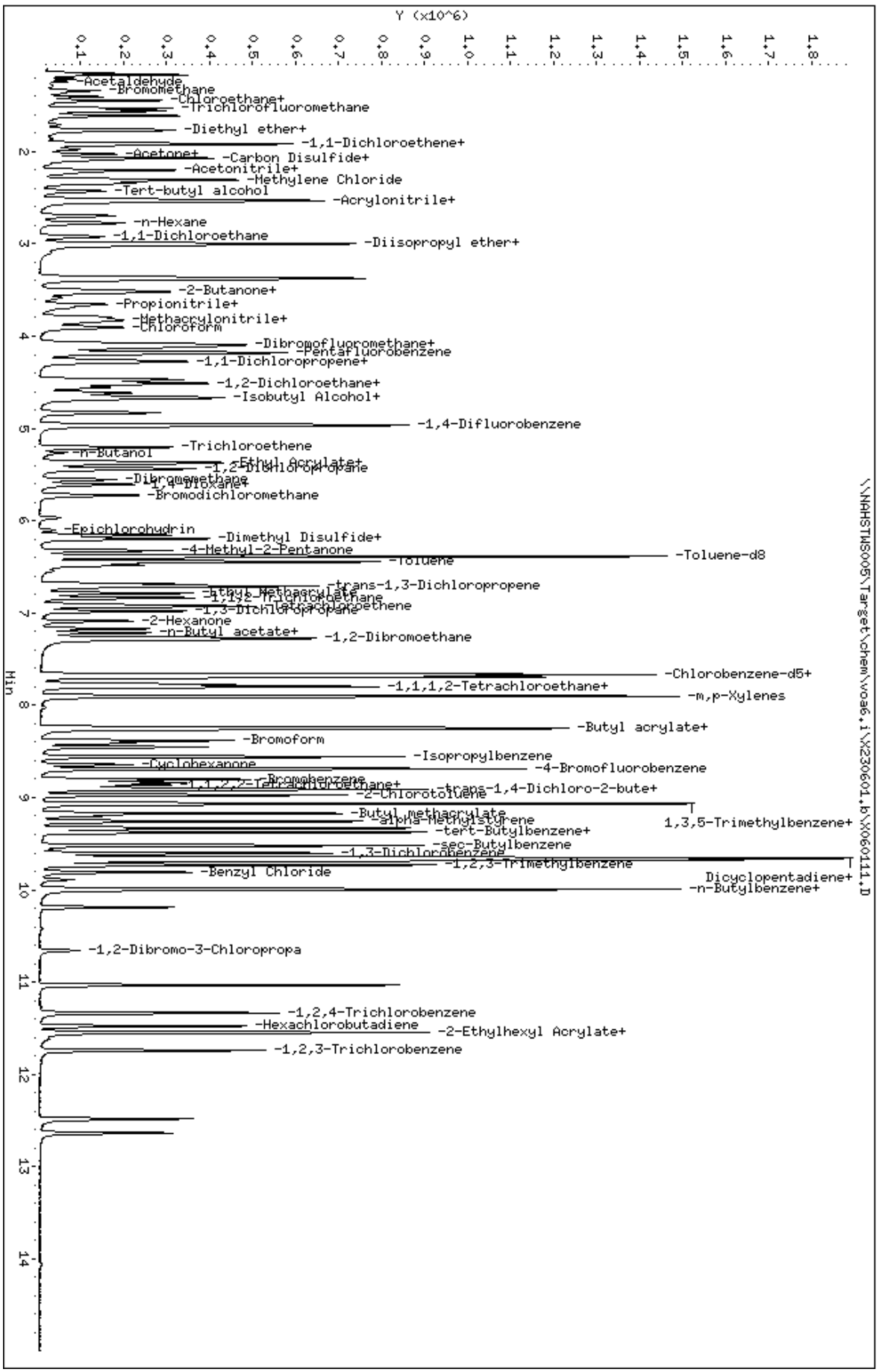
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	6 Bromomethane	94	1.340	1.340	(0.321)	55534	17.9613	17.96
	7 Chloroethane	64	1.404	1.404	(0.336)	86808	23.2185	23.21
	8 Trichlorofluoromethane	101	1.561	1.561	(0.373)	165907	26.3092	26.30
	9 Acrolein	56	1.445	1.445	(0.346)	19676	52.0030	52.00
	10 Acetone	43	1.973	1.973	(0.472)	66220	39.5365	39.53
	11 1,1-Dichloroethene	96	1.917	1.913	(0.459)	99534	24.9614	24.96
	15 Iodomethane	142	2.026	2.026	(0.485)	167016	32.0103	32.01
	16 Acrylonitrile	53	2.539	2.532	(0.607)	56342	37.7332	37.73
	17 Methylene Chloride	84	2.307	2.303	(0.552)	89687	18.9198	18.91
	18 Methyl tert-butyl ether	73	2.536	2.536	(0.606)	261413	21.0161	21.01
	19 Carbon Disulfide	76	2.071	2.071	(0.495)	451140	36.0588	36.05
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	85268	20.6162	20.61
	21 Vinyl Acetate	43	2.997	2.997	(0.717)	481839	41.8671	41.86
	22 1,1-Dichloroethane	63	2.926	2.922	(0.700)	148796	19.6201	19.62
	24 2-Butanone	43	3.582	3.574	(0.857)	52585	34.9415	34.94
	26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	135595	24.1168	24.11
	27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.843)	96746	19.8869	19.88
	28 Chloroform	83	3.904	3.904	(0.934)	163916	21.8078	21.80
	29 Bromochloromethane	128	3.795	3.791	(0.908)	49047	19.1289	19.12
$	30 Dibromofluoromethane	113	4.099	4.095	(0.980)	208107	50.6931	50.69
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.976)	137715	23.7917	23.79
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	124023	23.4083	23.40
	33 1,2-Dichloroethane	62	4.556	4.552	(0.918)	124616	23.6866	23.68
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	123424	25.2160	25.21
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.069)	237050	53.9115	53.91
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	673454	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	347308	20.2706	20.27
	38 Trichloroethene	130	5.205	5.205	(1.048)	99812	21.6150	21.61
	39 Bromodichloromethane	83	5.726	5.722	(1.153)	125082	21.3328	21.33
	42 1,2-Dichloropropane	63	5.437	5.433	(1.095)	93626	19.2303	19.23
	44 Dibromomethane	93	5.550	5.550	(1.118)	61093	20.6763	20.67
	45 4-Methyl-2-Pentanone	43	6.326	6.322	(0.825)	174513	40.5160	40.51
	46 cis-1,3-Dichloropropene	75	6.157	6.153	(1.240)	151548	19.3430	19.34
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	626272	50.0000	
$	48 Toluene-d8	98	6.385	6.386	(0.833)	828434	51.9147	51.91
	50 Toluene	91	6.445	6.446	(0.841)	403497	22.9623	22.96
	51 trans-1,3-Dichloropropene	75	6.682	6.678	(1.346)	132986	21.2535	21.25
	52 2-Hexanone	43	7.086	7.083	(0.924)	119902	40.6740	40.67
	53 1,1,2-Trichloroethane	83	6.839	6.835	(0.892)	76890	21.4260	21.42
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	156046	20.8972	20.89
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	106321	21.8326	21.83
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	87625	25.7392	25.73
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	98979	22.6344	22.63
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	105200	26.4158	26.41
	59 Chlorobenzene	112	7.690	7.690	(1.003)	270727	22.2558	22.25
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.773	(1.014)	96678	22.6472	22.64
	61 Ethylbenzene	106	7.799	7.795	(1.017)	143328	23.9786	23.97
	62 m,p-Xylenes	106	7.904	7.900	(1.031)	363840	48.8737	48.87
	63 o-Xylene	106	8.241	8.241	(1.075)	171831	23.6060	23.60
	64 Styrene	104	8.260	8.256	(1.077)	290078	23.8036	23.80
	66 Bromoform	173	8.410	8.406	(1.097)	74858	22.7432	22.74
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	450702	25.8115	25.81

	68	1,1,2,2-Tetrachloroethane	83	8.837	8.837 (0.915)	132370	22.5575	22.55
$	69	4-Bromofluorobenzene	95	8.687	8.687 (1.133)	295702	49.2226	49.22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	336570	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	96648	22.4446	22.44(M)
	73 n-Propylbenzene	91	8.908	8.912	(0.922)	552900	26.5073	26.50
	74 Bromobenzene	156	8.803	8.803	(0.911)	122889	23.3949	23.39
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	384726	25.4656	25.46
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	325427	24.0237	24.02
	77 4-Chlorotoluene	91	9.070	9.066	(0.939)	380152	25.5179	25.51
	78 tert-Butylbenzene	119	9.332	9.332	(0.966)	334288	26.2852	26.28
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	392200	25.3708	25.37
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	493720	27.8397	27.83
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	424610	27.7088	27.70
	83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	228029	24.0797	24.07
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	244179	24.5345	24.53
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	397401	30.2872	30.28
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	230770	24.5164	24.51
	89 1,2-Dibromo-3-Chloropropane	155	10.659	10.655	(1.103)	20595	20.2055	20.20
	90 1,2,4-Trichlorobenzene	180	11.337	11.334	(1.173)	154023	23.6500	23.64
	91 Hexachlorobutadiene	225	11.480	11.476	(1.188)	74949	26.7470	26.74
	92 Naphthalene	128	11.544	11.540	(1.195)	343599	21.2471	21.24
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	145790	22.8528	22.85
M	94 1,2-Dichloroethylene (total)	96				182014	40.5030	40.50
M	95 Xylenes (total)	106				535671	72.4797	72.47
	141 Cyclohexane	56	4.121	4.121	(0.986)	135014	23.8587	23.85
	138 Freon TF	101	1.917	1.917	(0.459)	107838	33.3343	33.33
	147 Methylcyclohexane	55	5.381	5.377	(1.084)	241808	23.3485	23.34
	146 Methyl Acetate	43	2.236	2.232	(0.535)	54396	20.3547	20.35
	148 Tert-Butyl alcohol	59	2.431	2.427	(0.581)	163019	365.007	365.00
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	93370	337.539	337.53

QC Flag Legend

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



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Column phase: DB624

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

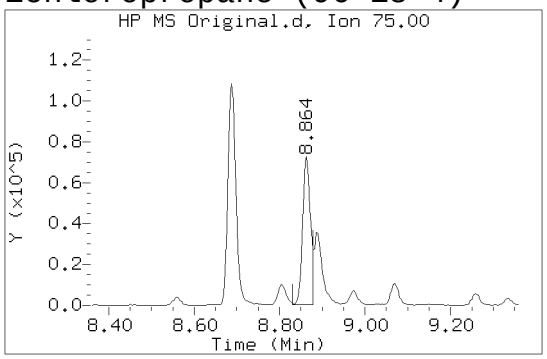
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LabSampID : HS23052050-05MS

1,2,3-Trichloropropane (96-18-4)

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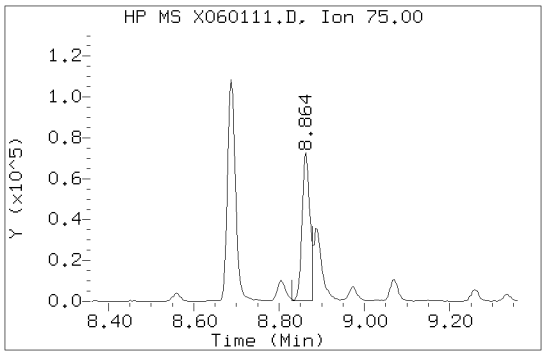
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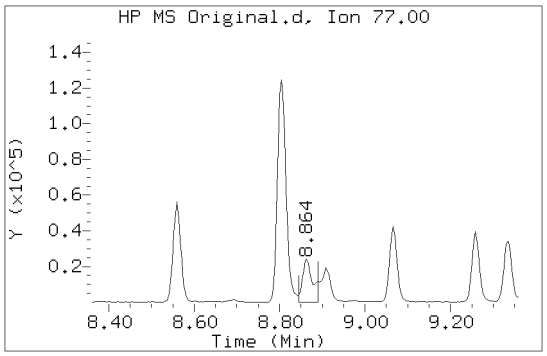
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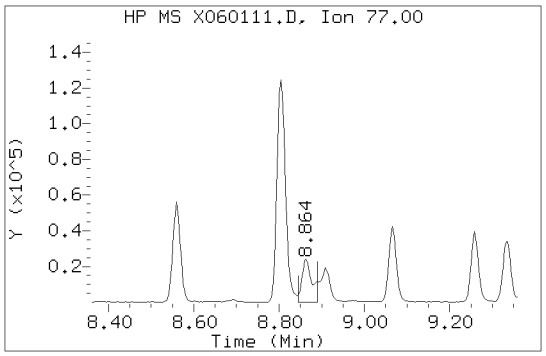
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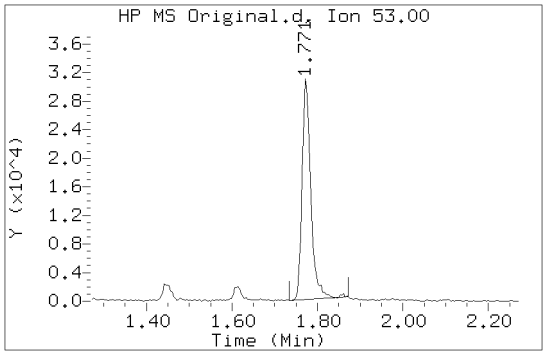


Chloroprene (126-99-8)

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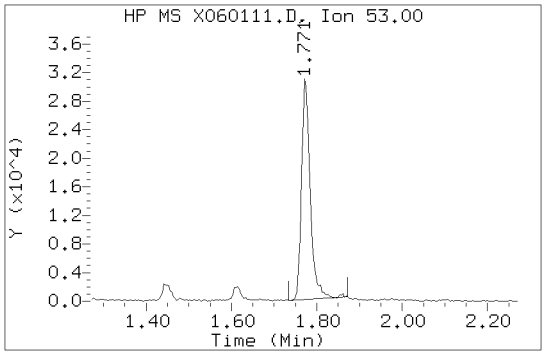
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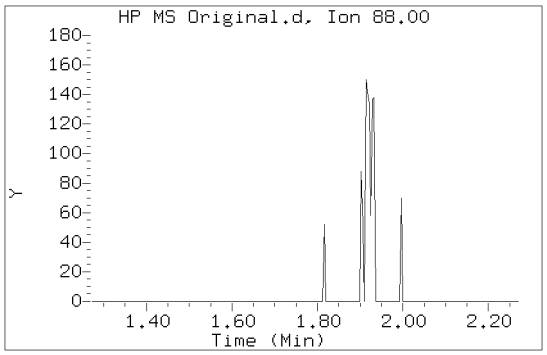
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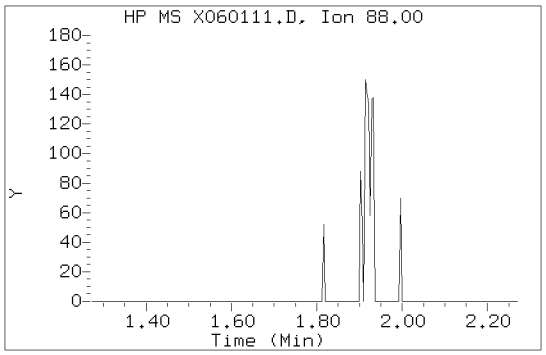
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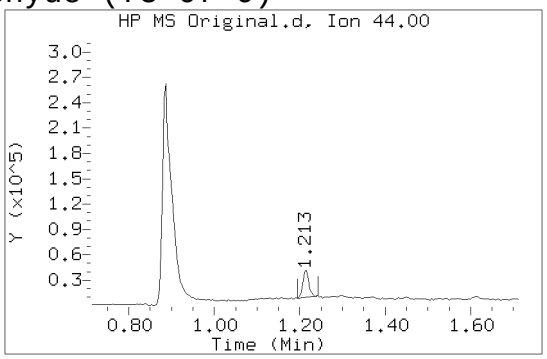
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LabSampID : HS23052050-05MS

Acetaldehyde (75-07-0)

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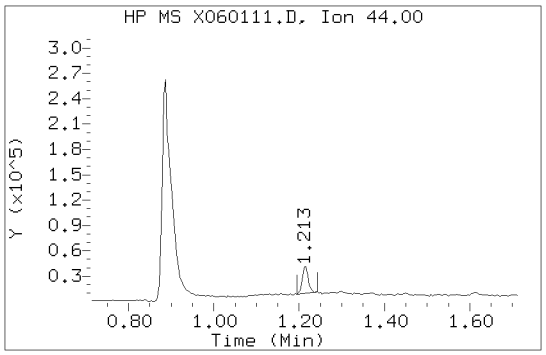
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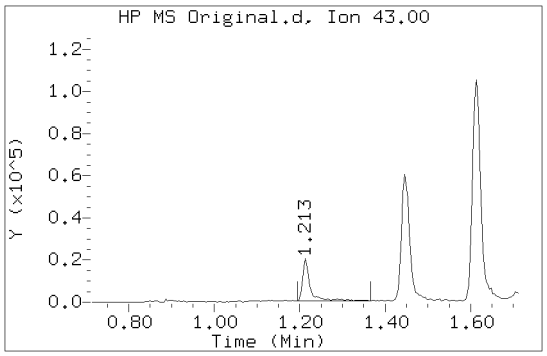
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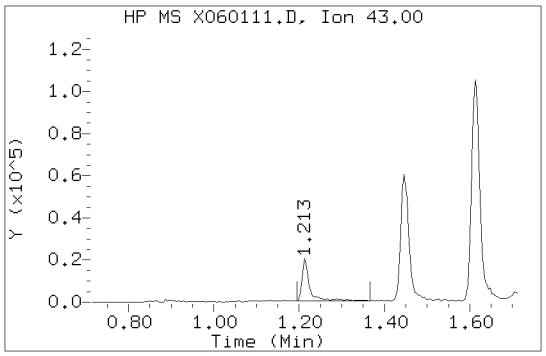
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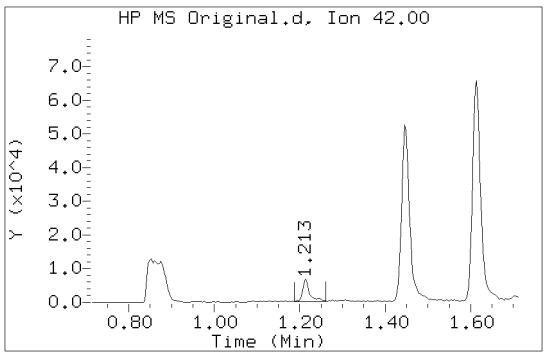
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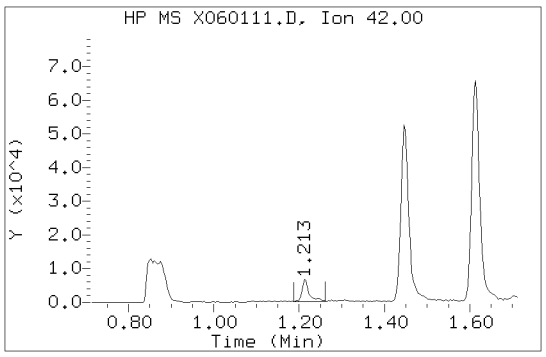
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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060112.D Page 1
Report Date: 06-Jun-2023 11:15

ALS Laboratory Group

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Misc Info : V6;WATER;0;1;
Comment   :
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Meth Date : 06-Jun-2023 11:14 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 14 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	465504	50.0000	
135	1,4-Dioxane	88	5.598	5.598	(1.340)	21429	339.905	339.90(a)
140	1,3-Butadiene	54	1.167	1.167	(0.280)	78012	15.8337	15.83
25	Methacrylonitrile	41	3.821	3.818	(0.915)	87233	21.0220	21.02
12	Isobutyl Alcohol	43	4.676	4.672	(1.119)	272446	448.998	448.99
13	Acetonitrile	39	2.202	2.198	(0.527)	113687	253.681	253.68
14	Allyl Chloride	41	2.202	2.198	(0.527)	209867	18.5654	18.56
4	Propionitrile	54	3.653	3.649	(0.874)	115306	180.632	180.63(a)
72	trans-1,4-Dichloro-2-butene	53	8.890	8.886	(1.159)	36577	24.9844	24.98
194	Acetaldehyde	44	1.212	1.212	(0.290)	33417	97.9133	97.91(M)
23	Chloroprene	53	1.775	1.775	(0.425)	41044	21.8419	21.84(M)
40	Methyl Methacrylate	41	5.606	5.602	(1.342)	88498	21.7489	21.74
49	Ethyl Methacrylate	69	6.787	6.783	(1.367)	152287	21.3571	21.35
131	Methyl Acrylate	55	3.694	3.687	(0.884)	86784	19.1550	19.15
145	alpha-Methylstyrene	118	9.257	9.257	(0.958)	175815	22.3587	22.35
156	Diisopropyl ether	45	3.001	3.001	(0.718)	296362	21.0414	21.04
162	Butyl acrylate	55	8.252	8.249	(1.076)	234771	25.0517	25.05
166	1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	405481	24.9565	24.95
205	2-Ethylhexyl Acrylate	55	11.547	11.547	(1.195)	141095	21.0980	21.09
2	Dichlorodifluoromethane	85	0.976	0.976	(0.234)	27809	6.74900	6.74

3 Chloromethane	50	1.081	1.081 (0.259)	65363	10.0078	10.00
5 Vinyl Chloride	62	1.145	1.145 (0.274)	95287	15.4554	15.45

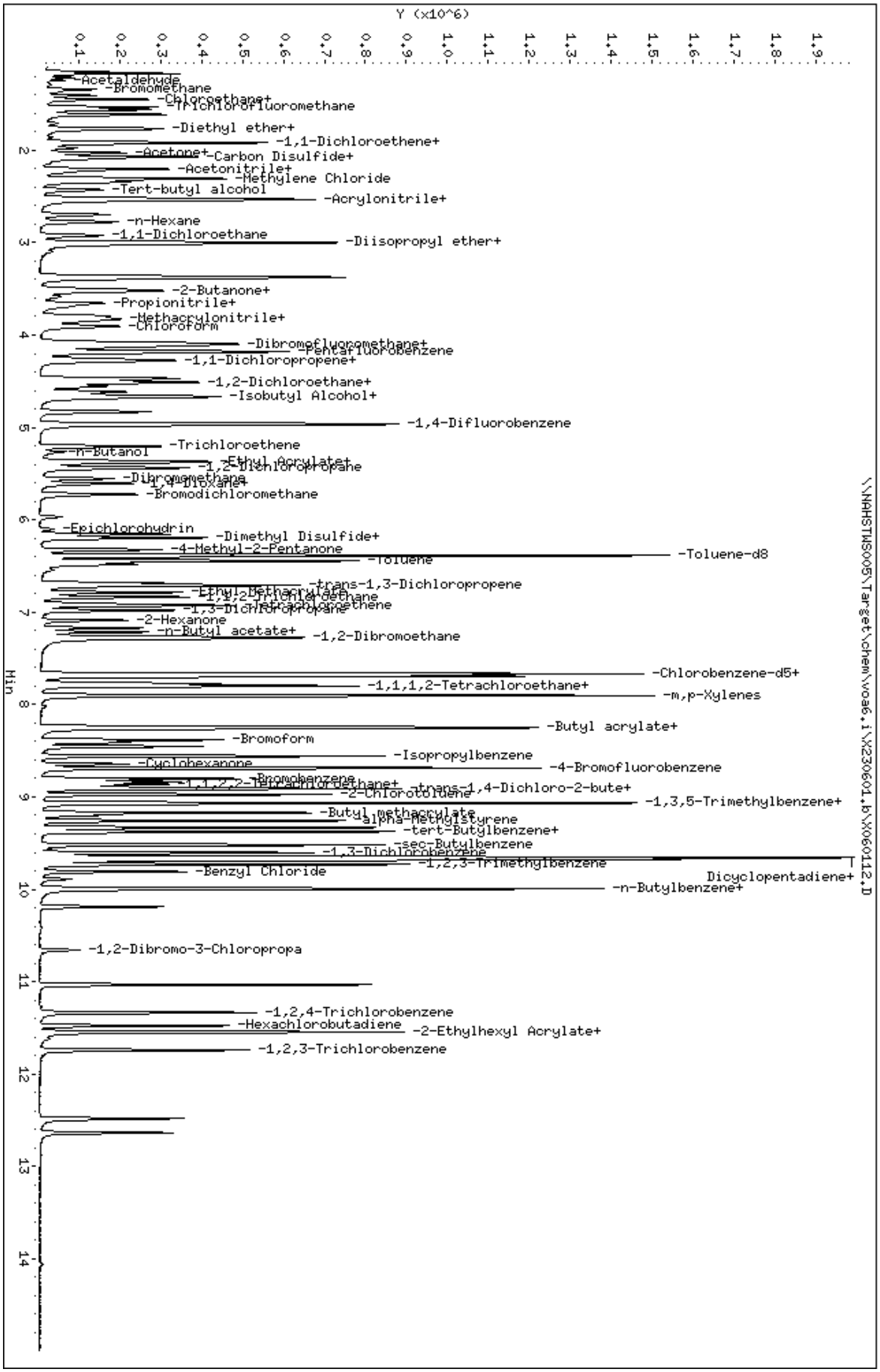
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	6 Bromomethane	94	1.344	1.340	(0.322)	59268	18.6118	18.61
	7 Chloroethane	64	1.404	1.404	(0.336)	79262	20.5948	20.59
	8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	156394	24.0924	24.09
	9 Acrolein	56	1.445	1.445	(0.346)	18202	46.7334	46.73
	10 Acetone	43	1.973	1.973	(0.472)	65020	37.5104	37.51
	11 1,1-Dichloroethene	96	1.917	1.913	(0.459)	94723	23.0764	23.07
	15 Iodomethane	142	2.026	2.026	(0.485)	204759	37.5697	37.56
	16 Acrylonitrile	53	2.539	2.532	(0.608)	58571	38.1058	38.10
	17 Methylene Chloride	84	2.307	2.303	(0.552)	89407	18.3221	18.32
	18 Methyl tert-butyl ether	73	2.536	2.536	(0.607)	268604	20.9775	20.97
	19 Carbon Disulfide	76	2.071	2.071	(0.496)	441771	34.3016	34.30
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	82146	19.2941	19.29
	21 Vinyl Acetate	43	3.001	2.997	(0.718)	495198	41.7991	41.79
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	154043	19.7319	19.73
	24 2-Butanone	43	3.582	3.574	(0.857)	54646	35.2740	35.27
	26 2,2-Dichloropropane	77	3.507	3.510	(0.839)	133236	23.0063	23.00
	27 cis-1,2-Dichloroethene	96	3.529	3.525	(0.845)	96258	19.2215	19.22
	28 Chloroform	83	3.904	3.904	(0.935)	162990	21.0654	21.06
	29 Bromochloromethane	128	3.795	3.791	(0.908)	50861	19.2699	19.26
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	218961	51.8327	51.83
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	136541	22.9152	22.91
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	119715	21.8027	21.80
	33 1,2-Dichloroethane	62	4.556	4.552	(0.918)	127683	23.4184	23.41
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	117035	23.0721	23.07
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	249407	55.1121	55.11
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	697931	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	343994	19.3730	19.37
	38 Trichloroethene	130	5.205	5.205	(1.048)	98736	20.6321	20.63
	39 Bromodichloromethane	83	5.726	5.722	(1.153)	124934	20.5603	20.56
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	92559	18.3444	18.34
	44 Dibromomethane	93	5.553	5.550	(1.119)	62046	20.2623	20.26
	45 4-Methyl-2-Pentanone	43	6.326	6.322	(0.825)	177467	39.1904	39.19
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	154949	19.0835	19.08
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	658414	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	857840	51.1331	51.13
	50 Toluene	91	6.446	6.446	(0.841)	391644	21.1998	21.19
	51 trans-1,3-Dichloropropene	75	6.682	6.678	(1.346)	131730	20.3144	20.31
	52 2-Hexanone	43	7.087	7.083	(0.924)	117705	37.9795	37.97
	53 1,1,2-Trichloroethane	83	6.839	6.835	(0.892)	76628	20.3106	20.31
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	155854	19.8526	19.85
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	106014	20.7068	20.70
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	83437	23.3125	23.31
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	98323	21.3868	21.38
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	101400	24.6977	24.69
	59 Chlorobenzene	112	7.694	7.690	(1.003)	268337	20.9824	20.98
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	95926	21.3740	21.37
	61 Ethylbenzene	106	7.799	7.795	(1.017)	139955	22.2713	22.27
	62 m,p-Xylenes	106	7.904	7.900	(1.031)	354033	45.2348	45.23
	63 o-Xylene	106	8.241	8.241	(1.075)	168066	21.9616	21.96
	64 Styrene	104	8.260	8.256	(1.077)	283377	22.1186	22.11
	66 Bromoform	173	8.410	8.406	(1.097)	73610	21.2723	21.27
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	445157	24.2494	24.24

	68	1,1,2,2-Tetrachloroethane	83	8.837	8.837 (0.915)	133840	21.3021	21.30
$	69	4-Bromofluorobenzene	95	8.687	8.687 (1.133)	320236	50.7042	50.70

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	360706	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	104933	22.7381	22.73
	73 n-Propylbenzene	91	8.908	8.912	(0.922)	537955	24.0650	24.06
	74 Bromobenzene	156	8.803	8.803	(0.911)	123953	22.0185	22.01
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	377396	23.3089	23.30
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	323080	22.2545	22.25
	77 4-Chlorotoluene	91	9.070	9.066	(0.939)	367934	23.0451	23.04
	78 tert-Butylbenzene	119	9.336	9.332	(0.966)	322288	23.6460	23.64
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	375466	22.6631	22.66
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	470006	24.7292	24.72
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	407492	24.8124	24.81
	83 1,3-Dichlorobenzene	146	9.606	9.602	(0.994)	224873	22.1575	22.15
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	238862	22.3943	22.39
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	377395	26.8379	26.83
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	221350	21.9421	21.94
	89 1,2-Dibromo-3-Chloropropane	155	10.659	10.655	(1.103)	20693	18.9226	18.92
	90 1,2,4-Trichlorobenzene	180	11.334	11.334	(1.173)	152395	21.8342	21.83
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	72091	24.0056	24.00
	92 Naphthalene	128	11.544	11.540	(1.195)	342545	19.7646	19.76
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	142202	20.7988	20.79
M	94 1,2-Dichloroethylene (total)	96				178404	38.5156	38.51
M	95 Xylenes (total)	106				522099	67.1964	67.19
	141 Cyclohexane	56	4.121	4.121	(0.987)	128526	22.0635	22.06
	138 Freon TF	101	1.917	1.917	(0.459)	101120	30.5187	30.51
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	238690	22.2391	22.23
	146 Methyl Acetate	43	2.232	2.232	(0.534)	54059	19.6509	19.65
	148 Tert-Butyl alcohol	59	2.427	2.427	(0.581)	168634	366.796	366.79
	149 Isopropyl Alcohol	45	2.097	2.093	(0.502)	94057	330.313	330.31

QC Flag Legend

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



Data File: \\NAHSTMS005\Target\chem\voa6.i\X230601.b\X060112.D
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Sample Info: HS23052050-05HSD;HS23052050-05HSD;3;;HSD
Purge Volume: 5.0
Column phase: DB624

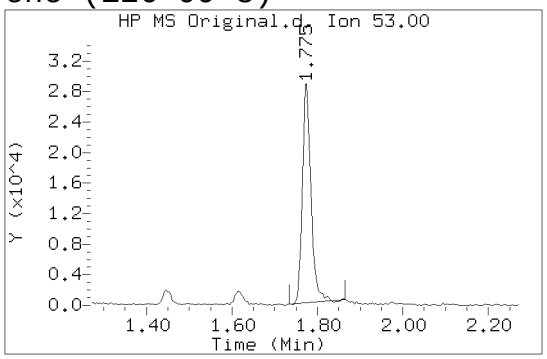
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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Inj Date : 01-JUN-2023 17:09
InstruID : voa6.i
LabSampID : HS23052050-05MSD

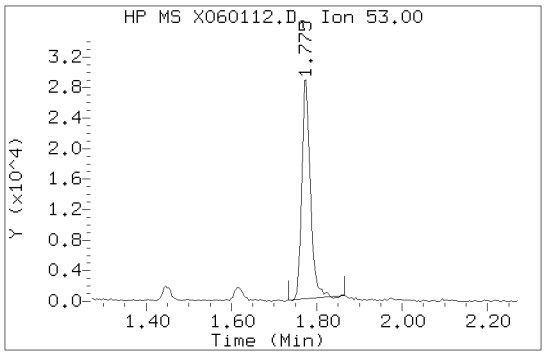
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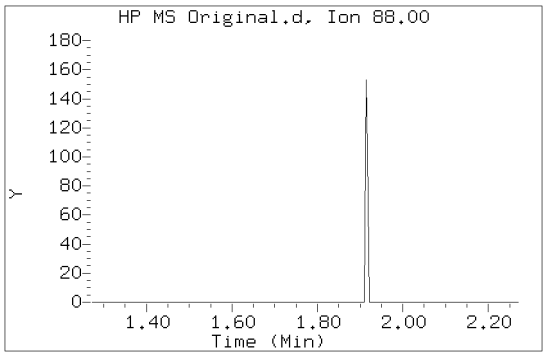
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06-Jun-2023
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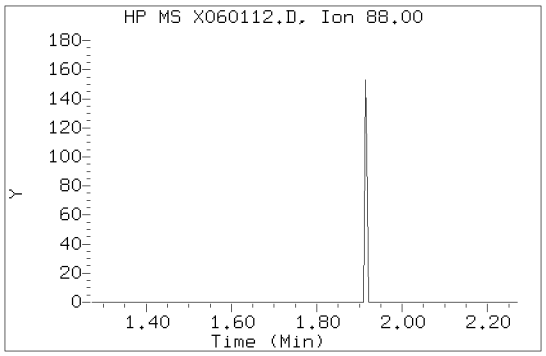
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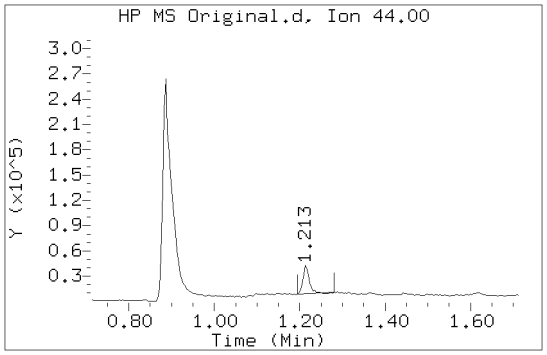
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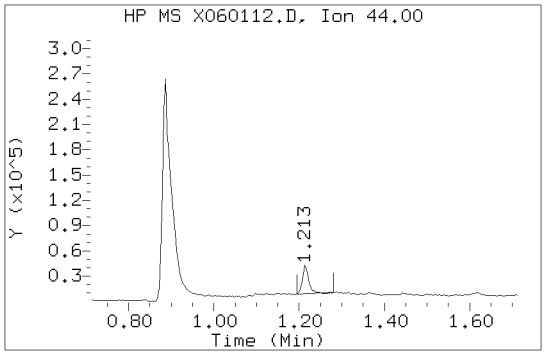
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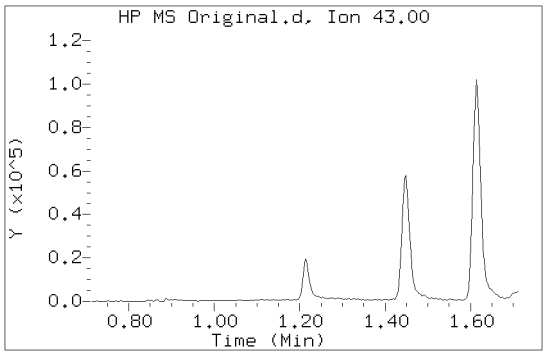
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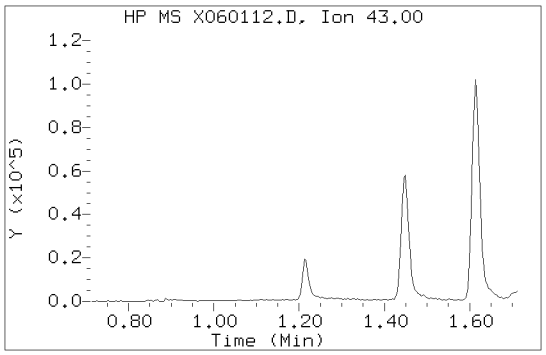
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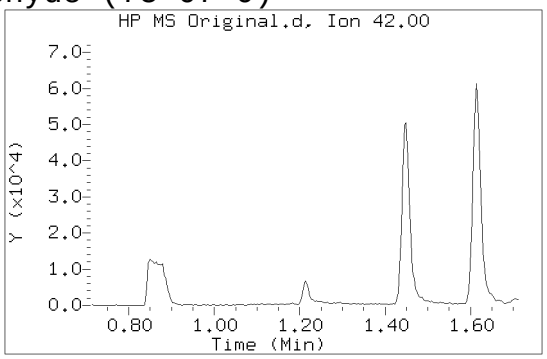
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Inj Date : 01-JUN-2023 17:09
InstruID : voa6.i
LabSampID : HS23052050-05MSD

Acetaldehyde (75-07-0)

Reason Code:

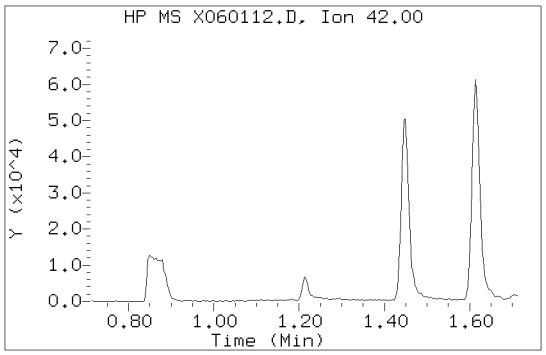
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AFTER

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Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060115.D Page 1
Report Date: 06-Jun-2023 11:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060115.D
Lab Smp Id: HS23051708-02 Client Smp ID: HS23051708-02
Inj Date : 01-JUN-2023 18:12
Operator : PC Inst ID: voa6.i
Smp Info : HS23051708-02;HS23051708-02;;;
Misc Info : V6;WATER;0;10;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\8260W.m
Meth Date : 06-Jun-2023 11:14 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 17
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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	4.178	4.178	(1.000)	443575	50.0000	
	27 cis-1,2-Dichloroethene	96	3.533	3.525	(0.846)	34057	7.13695	71.36
$	30 Dibromofluoromethane	113	4.099	4.095	(0.981)	205582	51.0589	51.05
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	238771	55.3724	55.37
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	665571	50.0000	
	38 Trichloroethene	130	5.205	5.205	(1.048)	296103	64.8827	648.82
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	579453	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	786243	53.2517	53.25
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	263580	47.4206	47.42
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	286096	50.0000	
M	94 1,2-Dichloroethylene (total)	96				34057	7.13695	71.36(a)

QC Flag Legend

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

01230933

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060115.D

Date : 01-JUN-2023 18:12

Client ID: HS23051708-02

Instrument: voa6.i

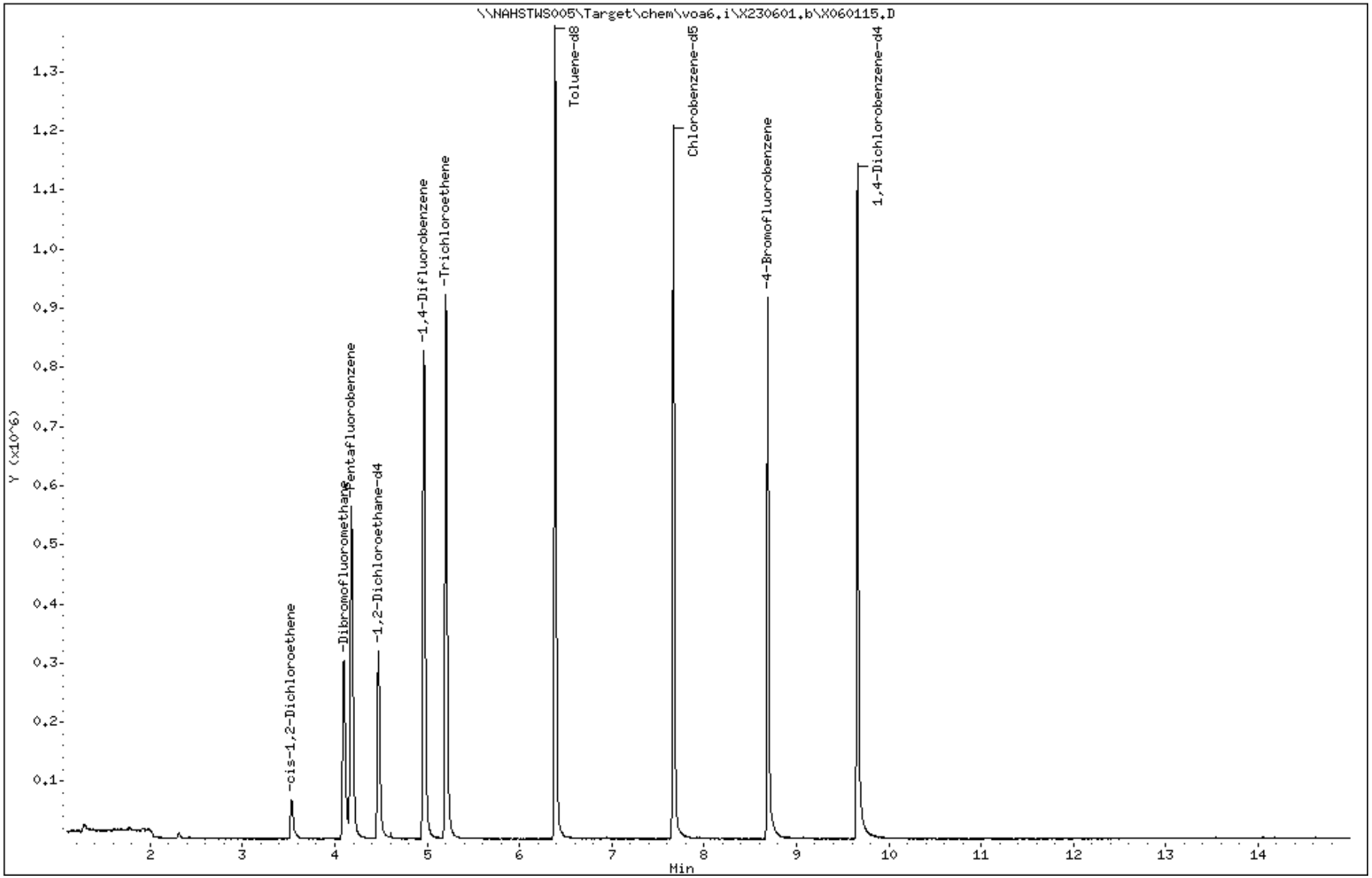
Sample Info: HS23051708-02;HS23051708-02;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060115.D

Date : 01-JUN-2023 18:12

Client ID: HS23051708-02

Instrument: voa6.i

Sample Info: HS23051708-02;HS23051708-02;;;

Purge Volume: 5.0

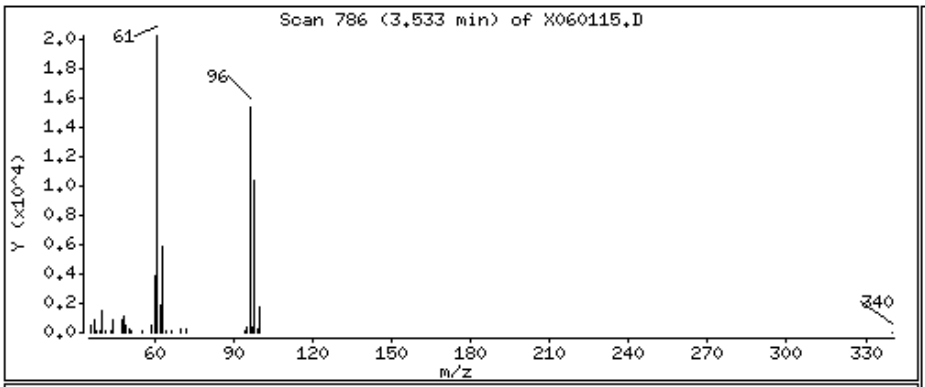
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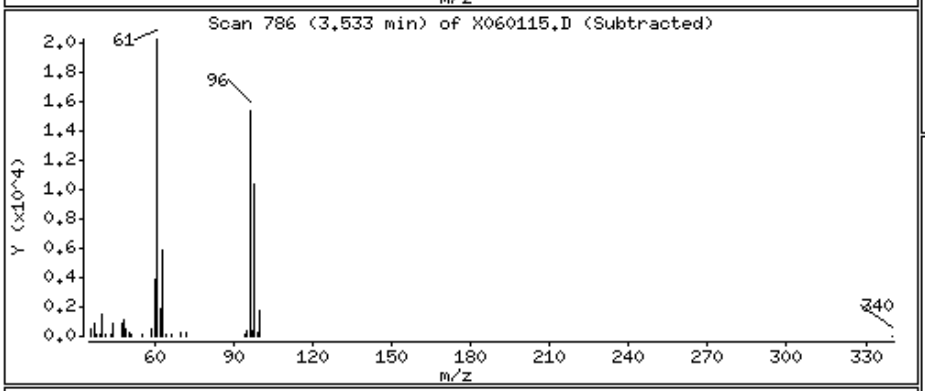
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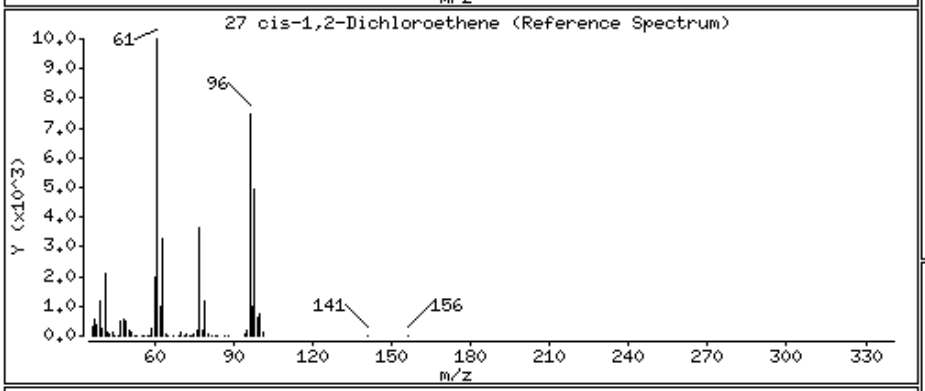
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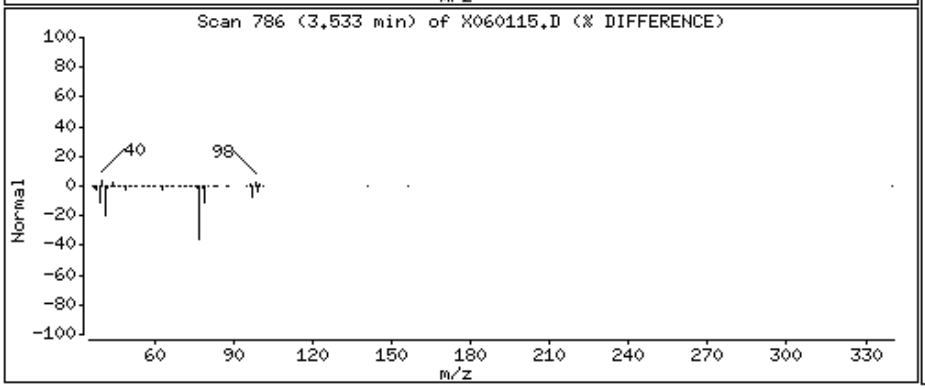
27 cis-1,2-Dichloroethene

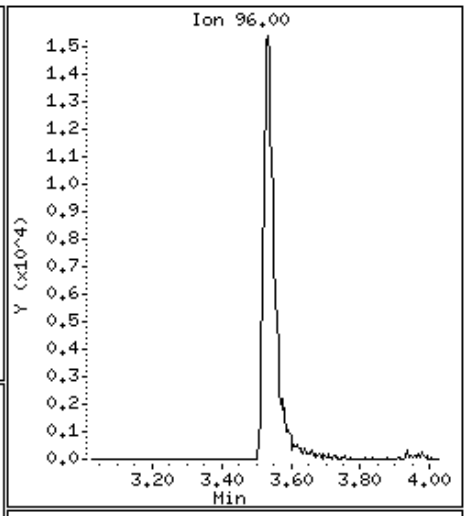
Concentration: 71.36 ug/l

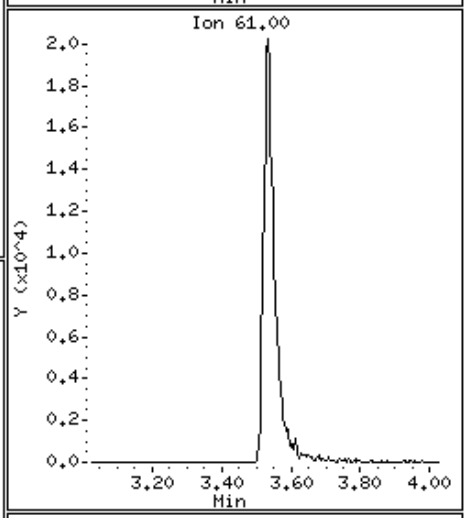


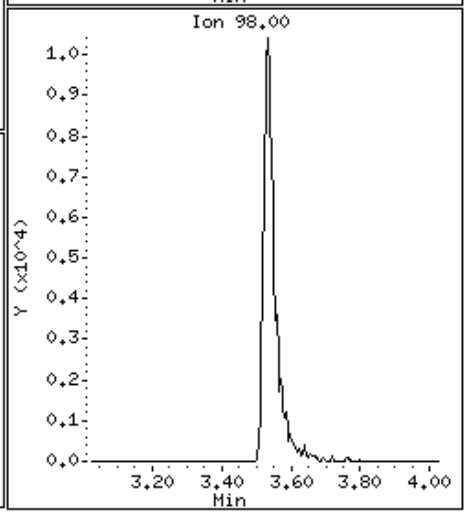












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060115.D Page 3

Date : 01-JUN-2023 18:12

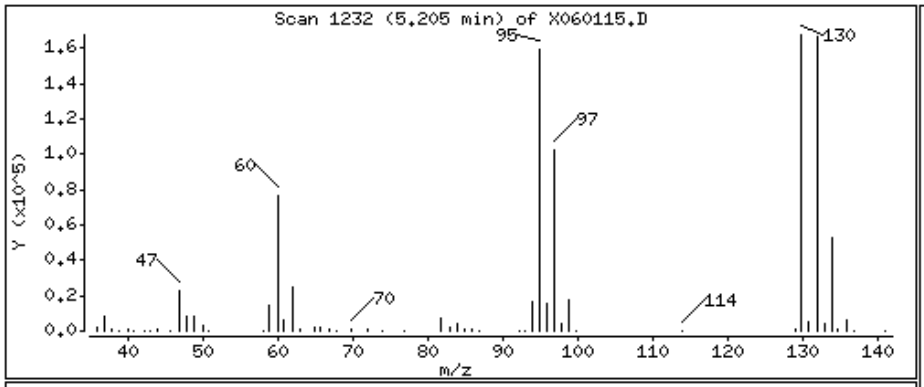
Client ID: HS23051708-02 Instrument: voa6.i

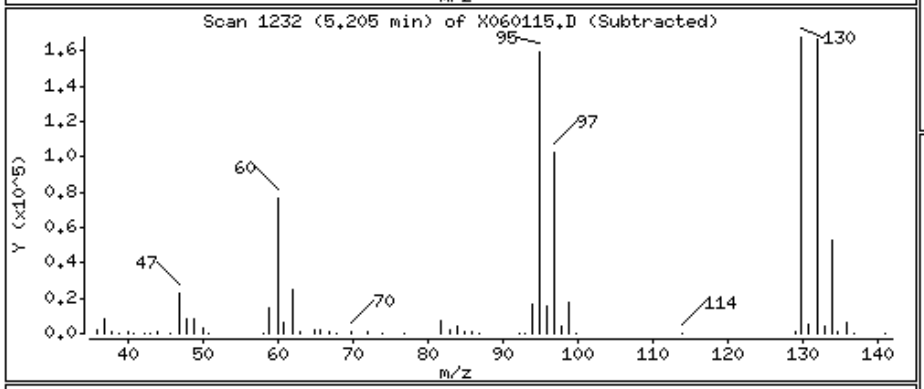
Sample Info: HS23051708-02;HS23051708-02;;;

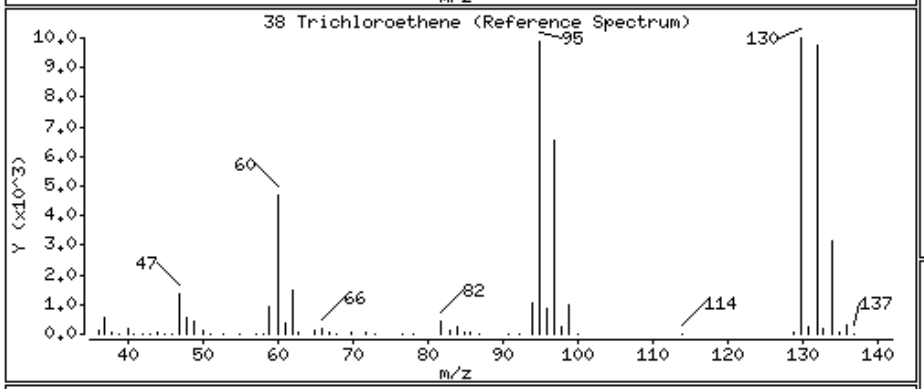
Purge Volume: 5.0 Operator: PC

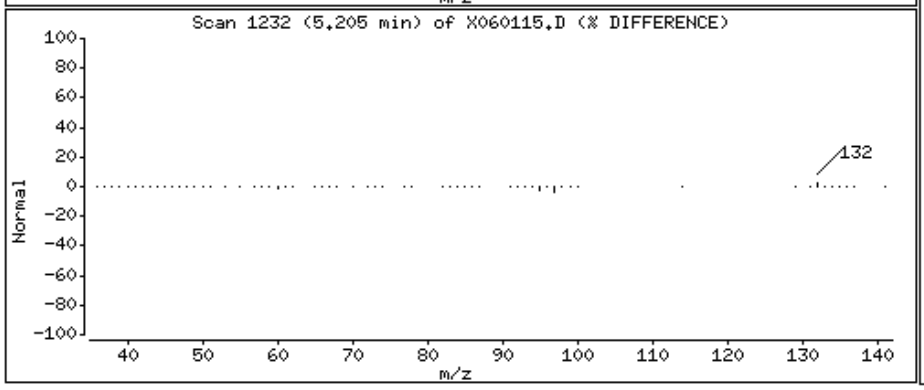
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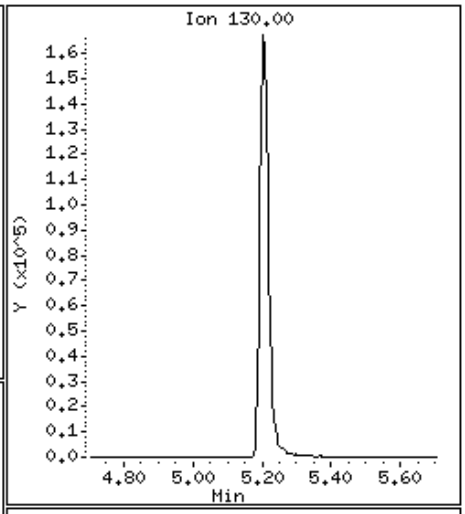
38 Trichloroethene Concentration: 648.82 ug/l

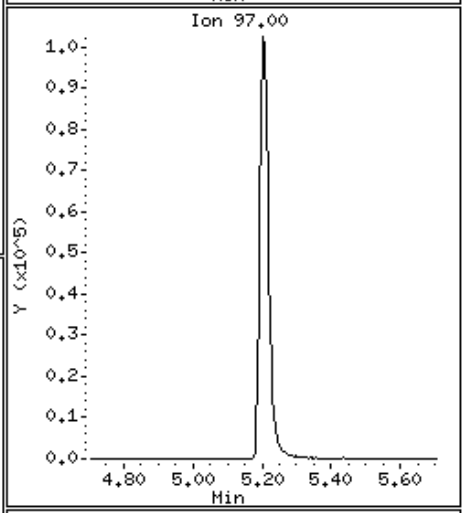


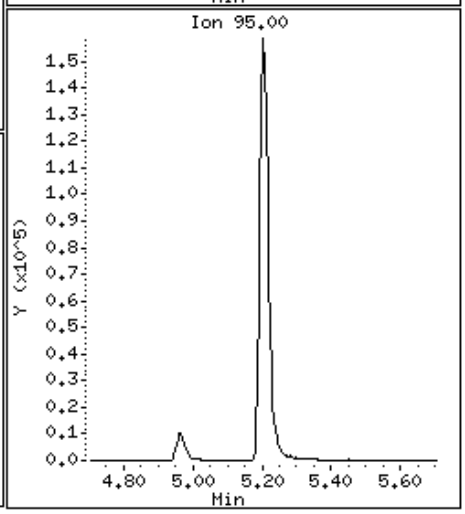












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Inj Date : 01-JUN-2023 18:12
InstruID : voa6.i
LabSampID : HS23051708-02

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060116.D Page 1
Report Date: 06-Jun-2023 11:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060116.D
Lab Smp Id: HS23051708-05 Client Smp ID: HS23051708-05
Inj Date : 01-JUN-2023 18:33
Operator : PC Inst ID: voa6.i
Smp Info : HS23051708-05;HS23051708-05;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\8260W.m
Meth Date : 06-Jun-2023 11:14 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.178	4.178	(1.000)	449244	50.0000	
	11 1,1-Dichloroethene	96	1.921	1.913	(0.460)	8389	2.11770	2.11(a)
	22 1,1-Dichloroethane	63	2.937	2.922	(0.703)	3120	0.41412	0.41(a)
	27 cis-1,2-Dichloroethene	96	3.533	3.525	(0.846)	41303	8.54620	8.54
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	212471	52.1215	52.12
	33 1,2-Dichloroethane	62	4.571	4.552	(0.921)	10258	1.94228	1.94(a)
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	243095	55.6661	55.66
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	676063	50.0000	
	38 Trichloroethene	130	5.201	5.205	(1.048)	1289781	278.234	278.23(A)
*	47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	597237	50.0000	
$	48 Toluene-d8	98	6.385	6.386	(0.833)	801725	52.6834	52.68
	56 Tetrachloroethene	164	6.937	6.925	(0.905)	2647	0.81534	0.81(a)
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	269159	46.9824	46.98
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	290632	50.0000	
M	94 1,2-Dichloroethylene (total)	96				41303	8.54620	8.54(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.

01230939

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060116.D

Date : 01-JUN-2023 18:33

Client ID: HS23051708-05

Instrument: voa6.i

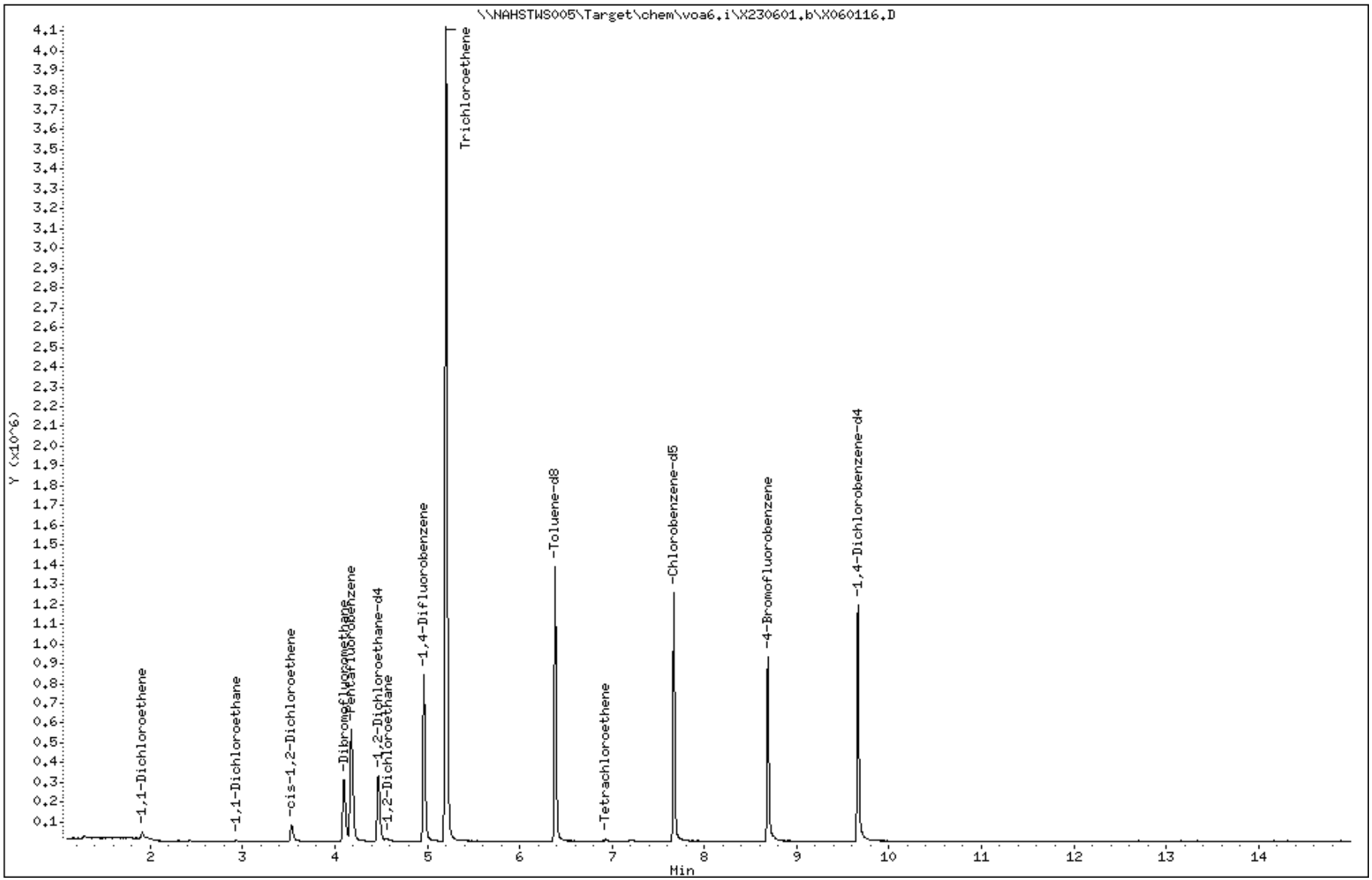
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Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060116.D

Date : 01-JUN-2023 18:33

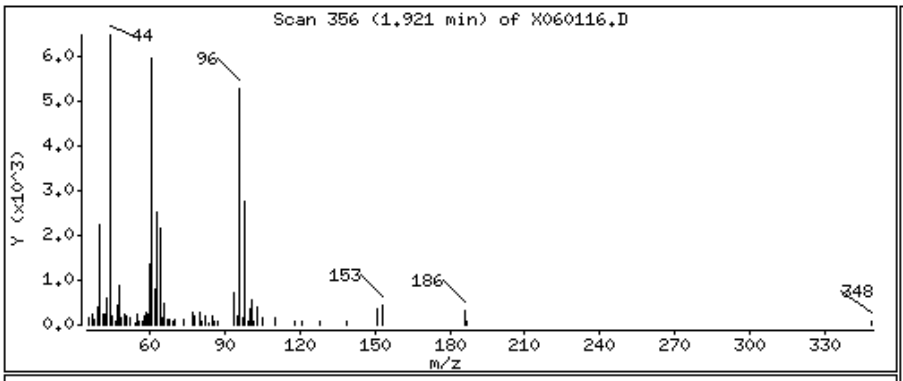
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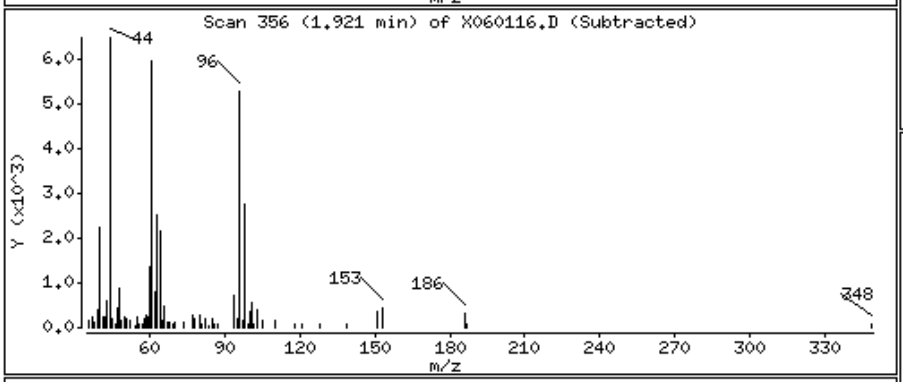
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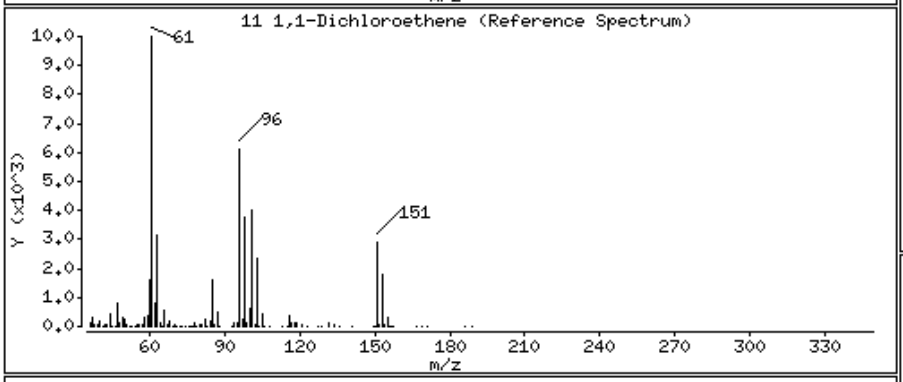
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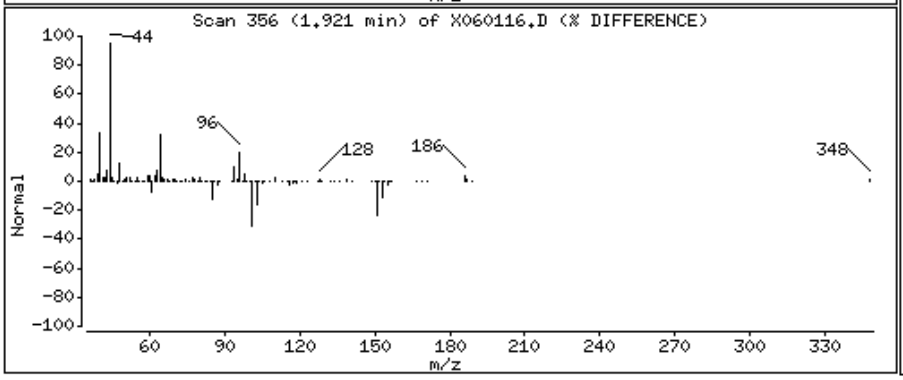
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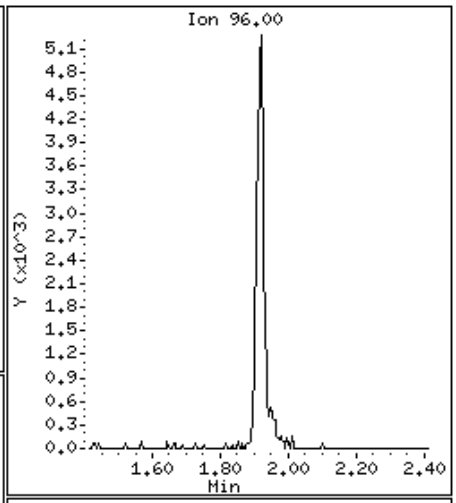
11 1,1-Dichloroethene Concentration: 2.11 ug/l

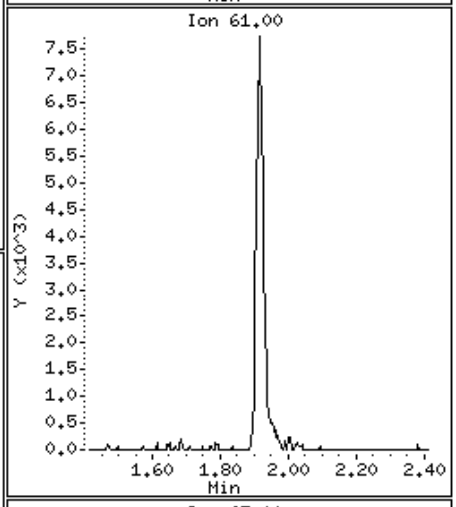


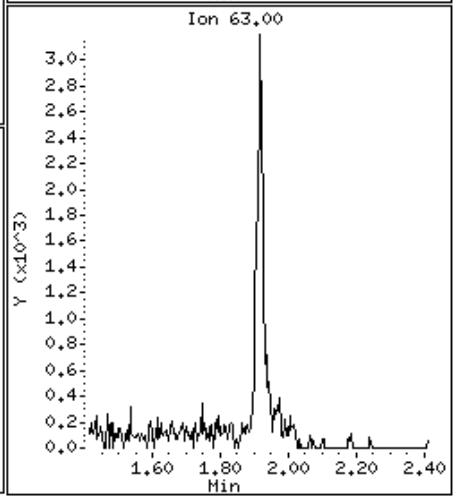












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060116.D

Date : 01-JUN-2023 18:33

Client ID: HS23051708-05

Instrument: voa6.i

Sample Info: HS23051708-05;HS23051708-05;;;

Purge Volume: 5.0

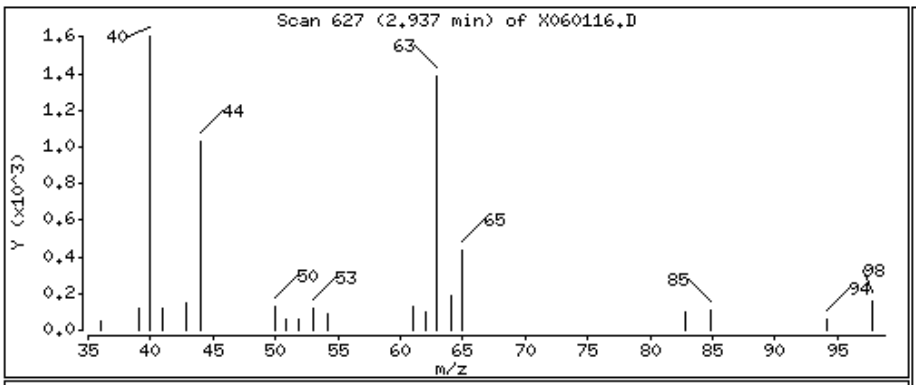
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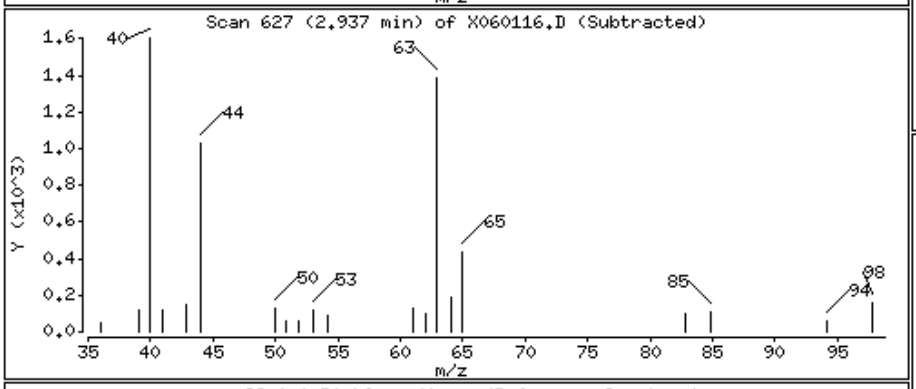
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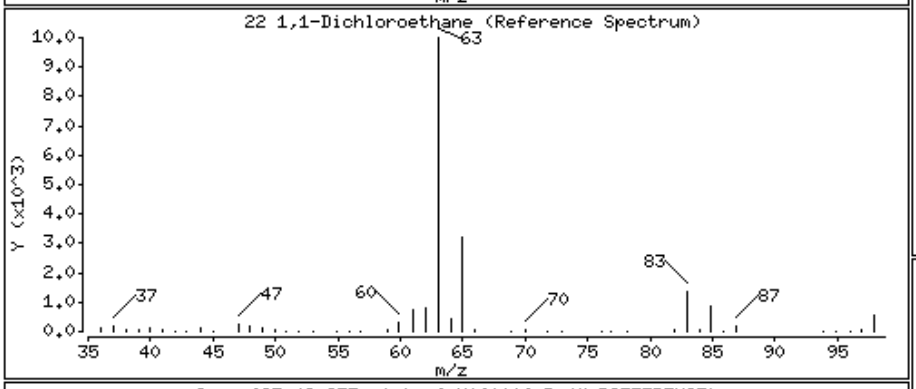
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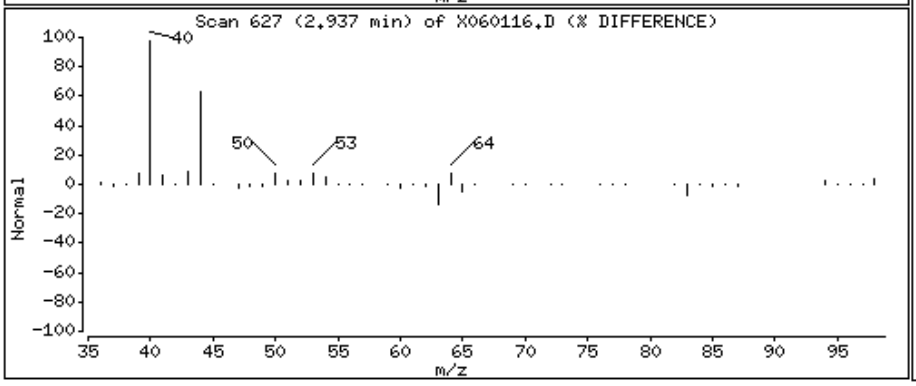
22 1,1-Dichloroethane

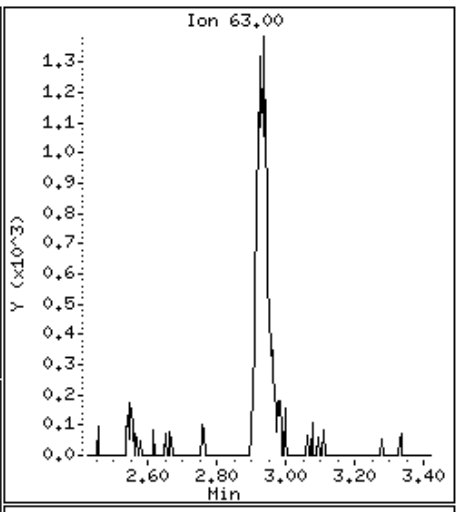
Concentration: 0.41 ug/l

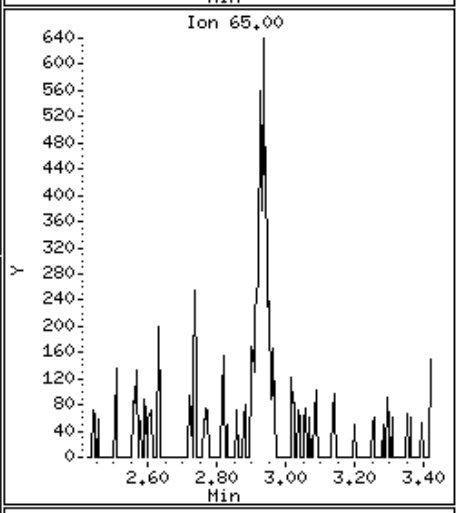


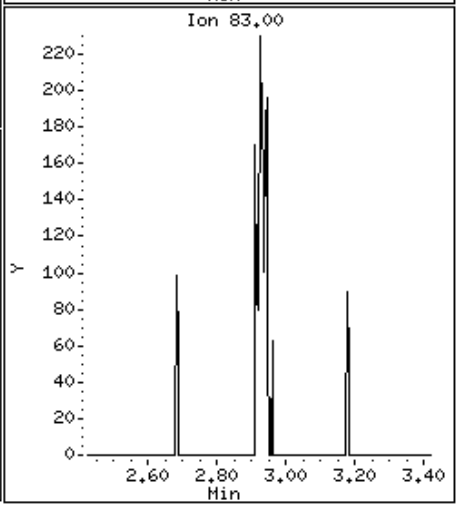












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060116.D

Date : 01-JUN-2023 18:33

Client ID: HS23051708-05

Instrument: voa6.i

Sample Info: HS23051708-05;HS23051708-05;;;

Purge Volume: 5.0

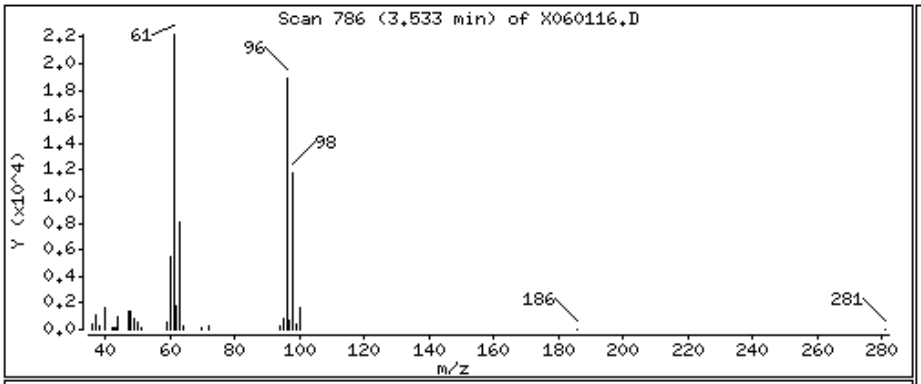
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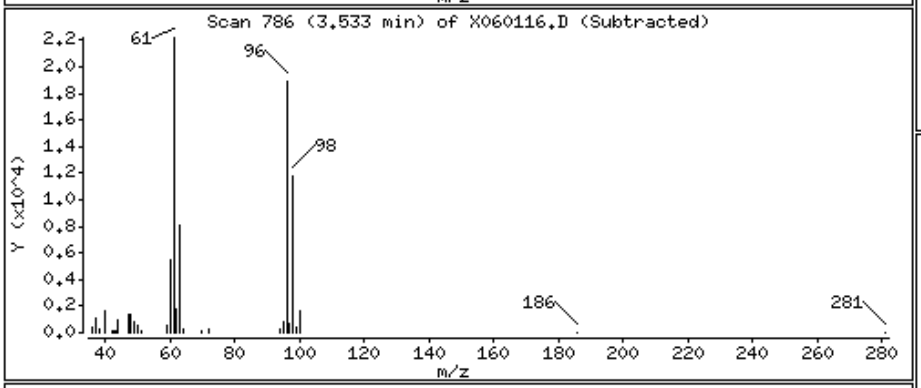
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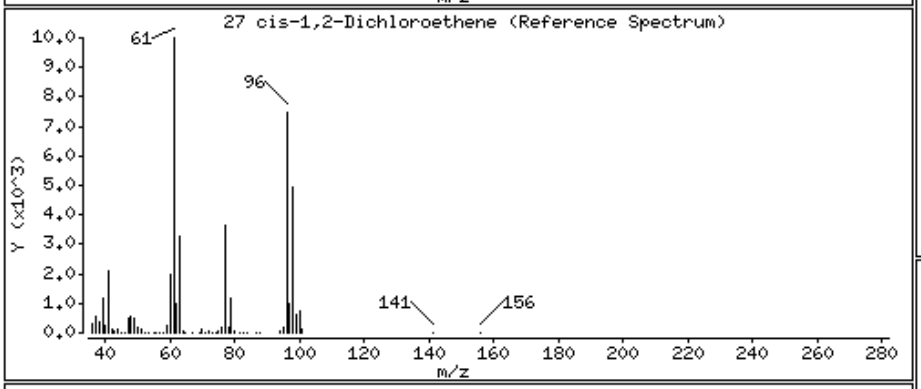
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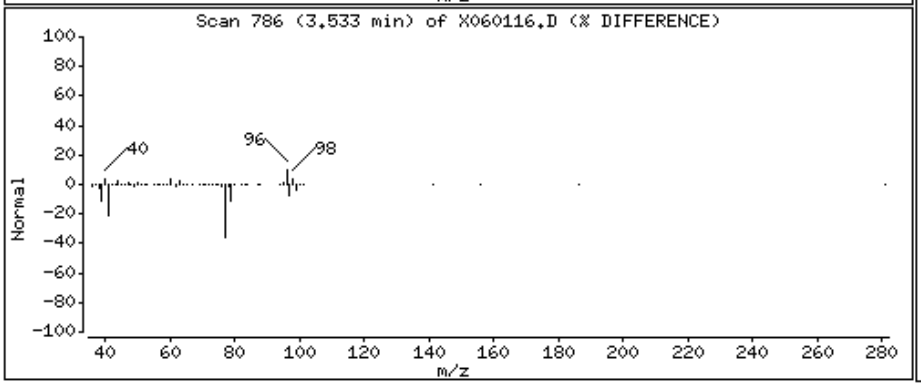
27 cis-1,2-Dichloroethene

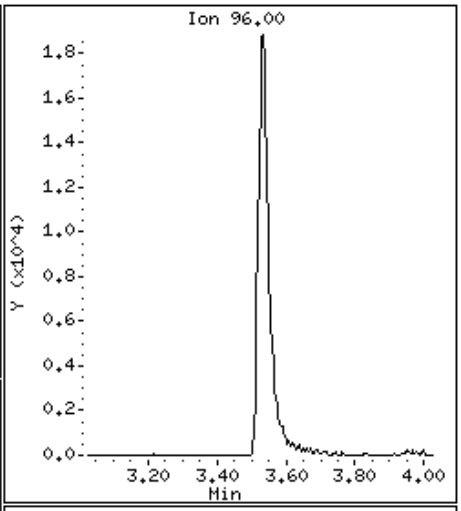
Concentration: 8.54 ug/l

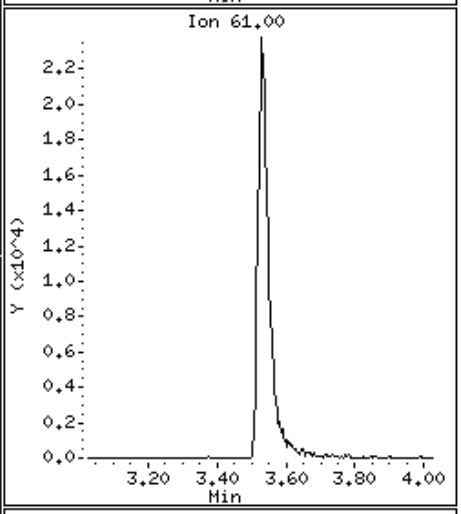


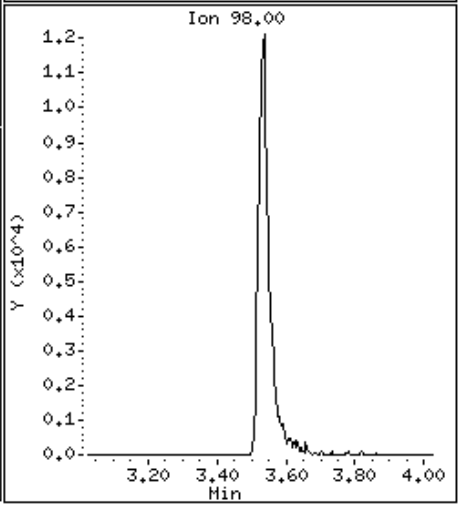












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060116.D Page 5

Date : 01-JUN-2023 18:33

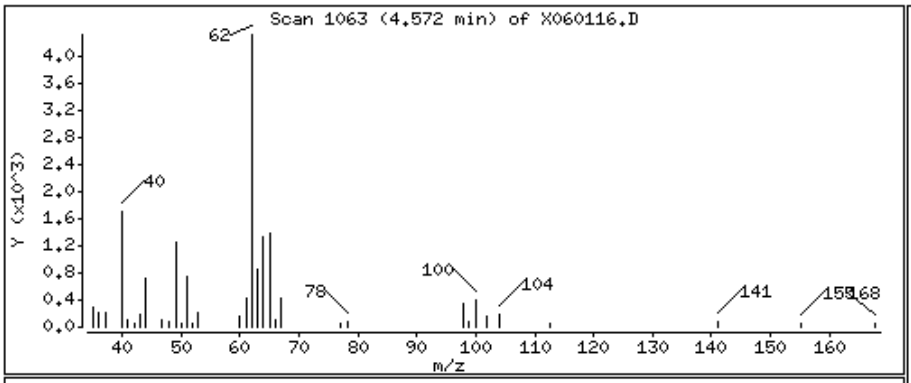
Client ID: HS23051708-05 Instrument: voa6.i

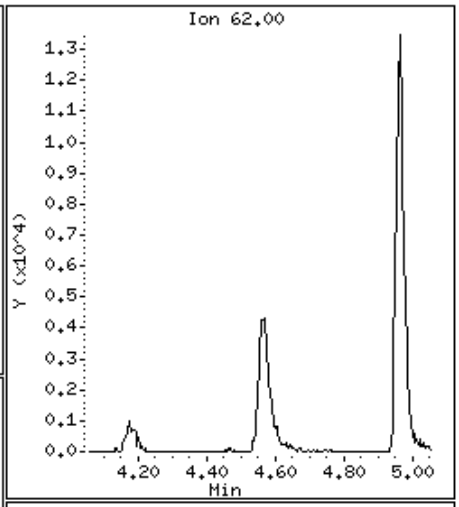
Sample Info: HS23051708-05;HS23051708-05;;;

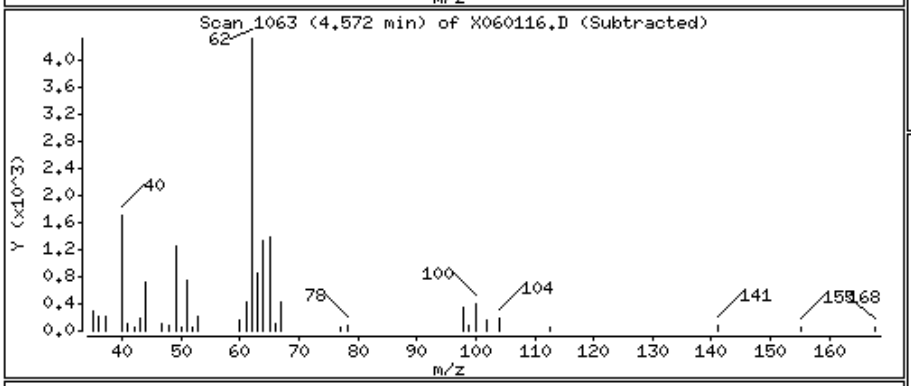
Purge Volume: 5.0 Operator: PC

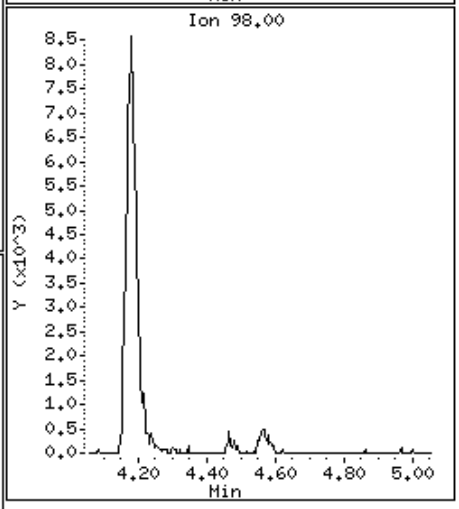
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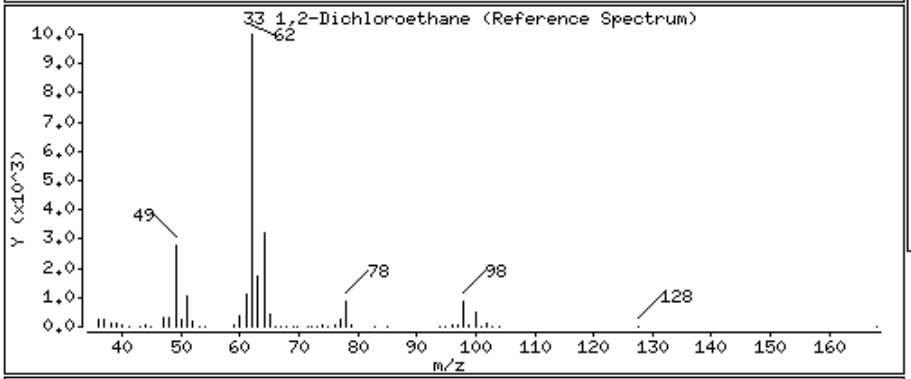
33 1,2-Dichloroethane Concentration: 1.94 ug/l

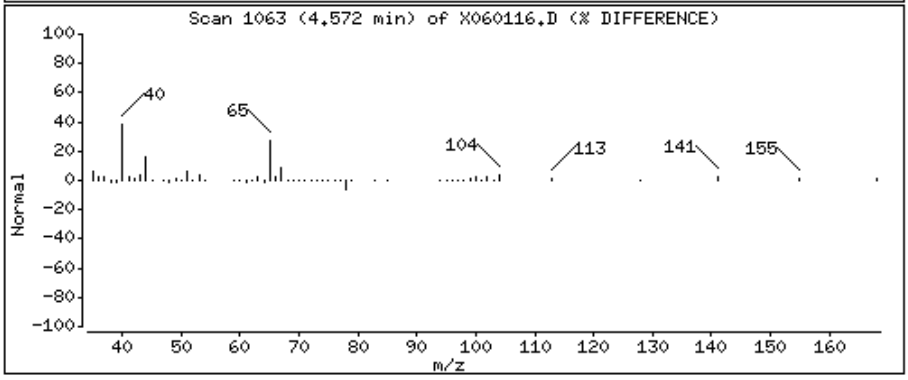












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Date : 01-JUN-2023 18:33

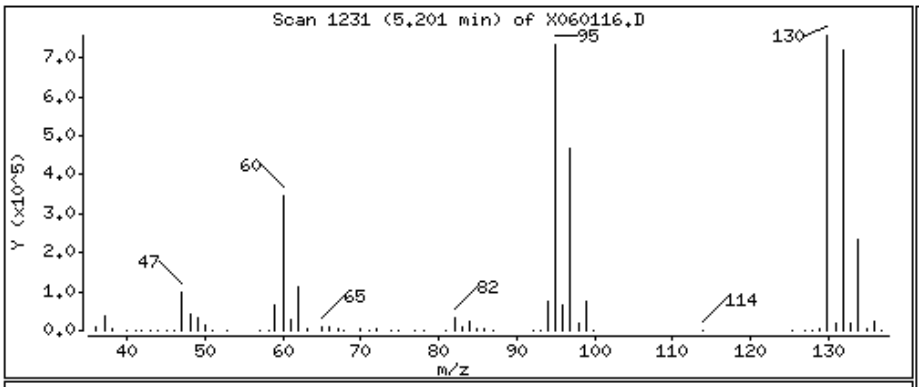
Client ID: HS23051708-05 Instrument: voa6.i

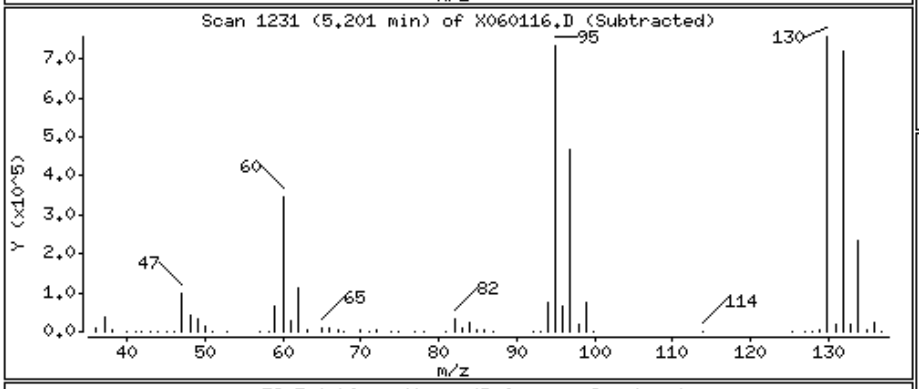
Sample Info: HS23051708-05;HS23051708-05;;;

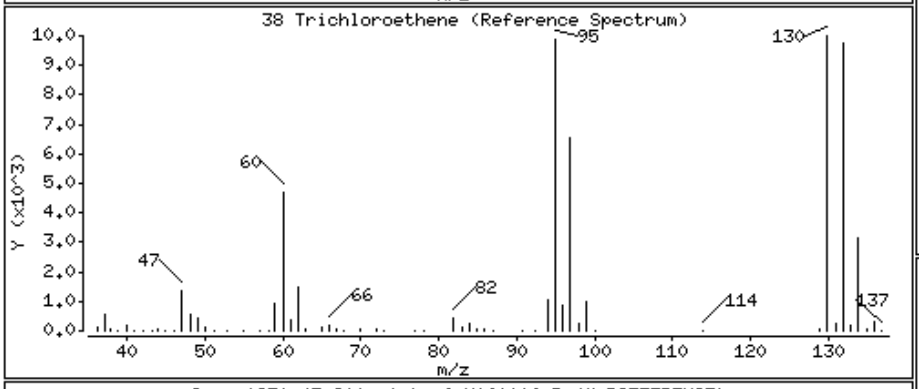
Purge Volume: 5.0 Operator: PC

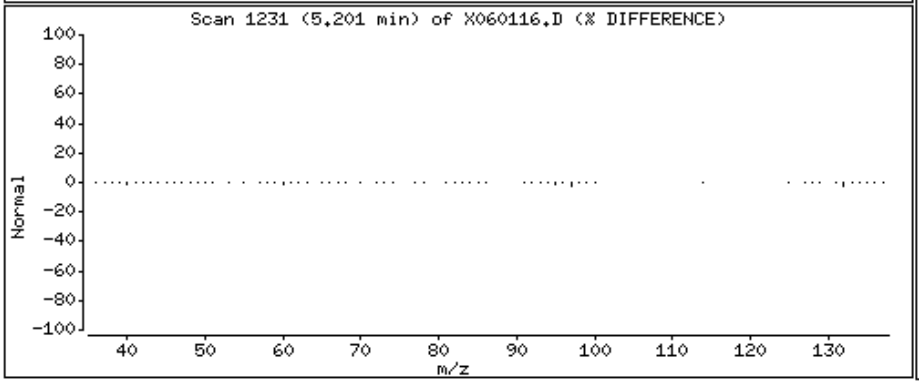
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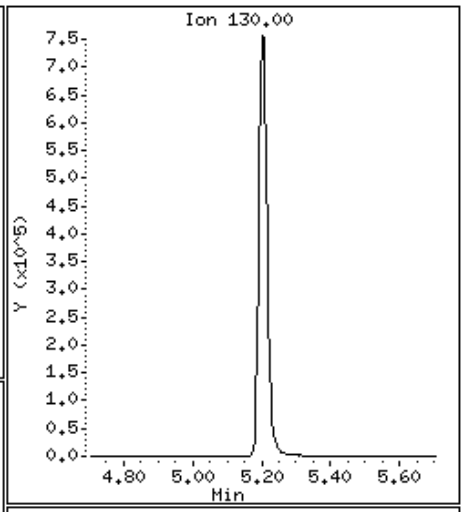
38 Trichloroethene Concentration: 278.23 ug/l

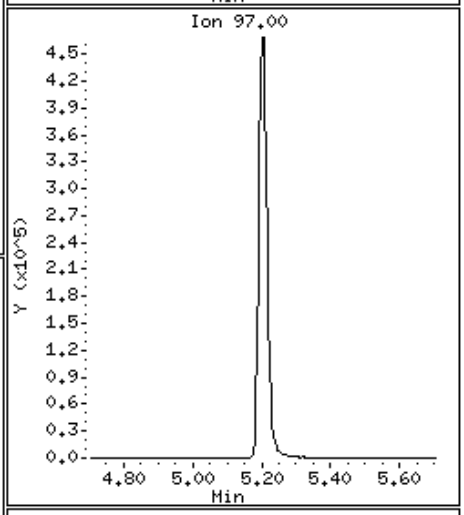


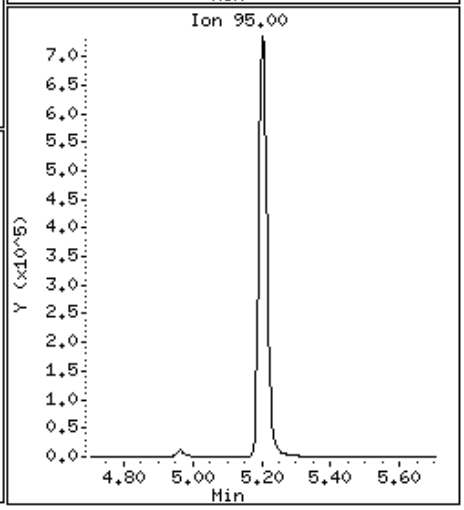












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060116.D Page 7

Date : 01-JUN-2023 18:33

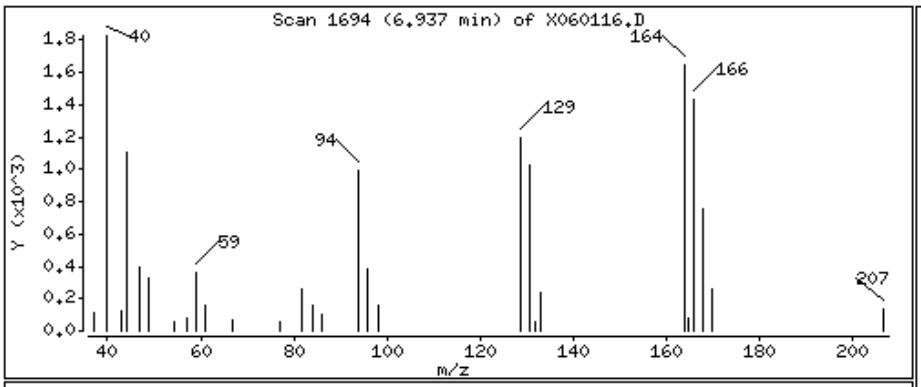
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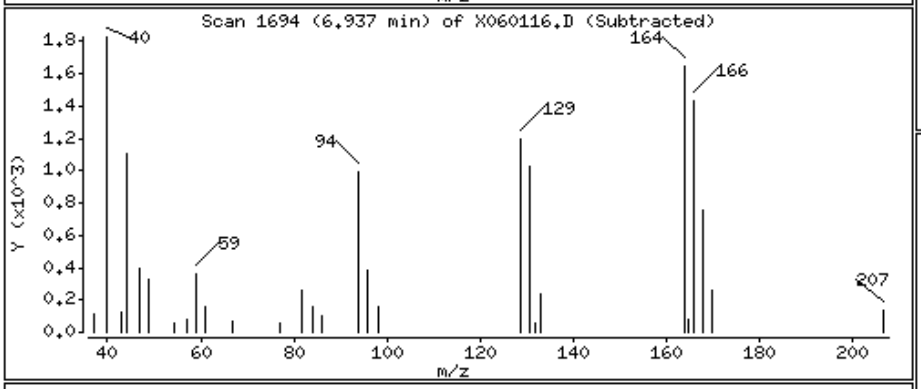
Sample Info: HS23051708-05;HS23051708-05;;;

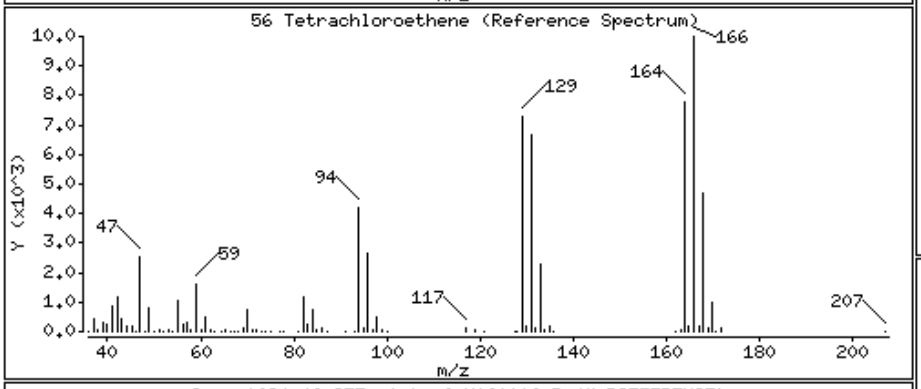
Purge Volume: 5.0 Operator: PC

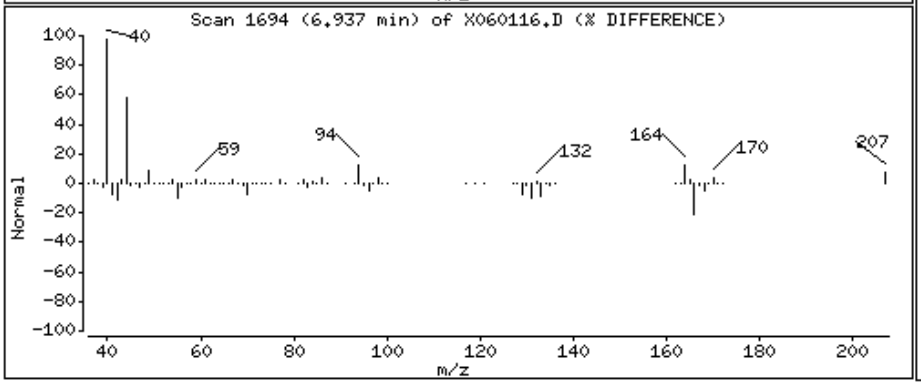
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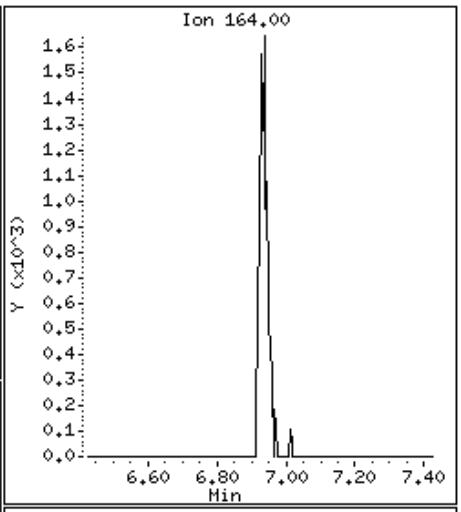
56 Tetrachloroethene Concentration: 0.81 ug/l

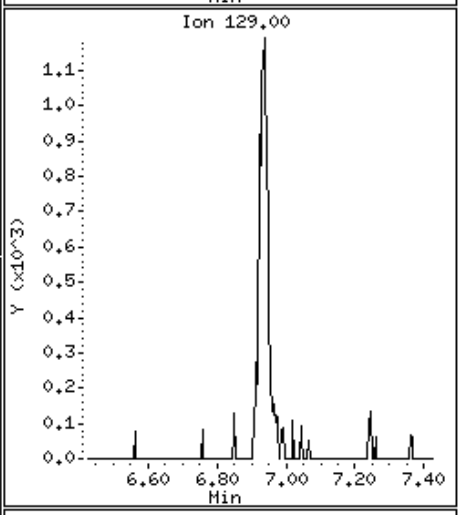


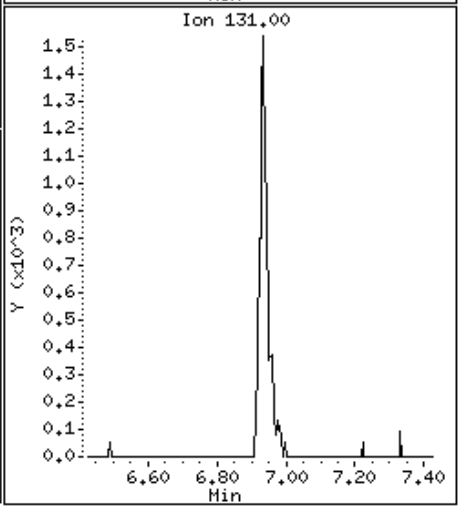












Data File : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060116.D
Inj Date : 01-JUN-2023 18:33
InstruID : voa6.i
LabSampID : HS23051708-05

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060117.D Page 1
Report Date: 06-Jun-2023 11:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060117.D
Lab Smp Id: HS23051708-04 Client Smp ID: HS23051708-04
Inj Date : 01-JUN-2023 18:54
Operator : PC Inst ID: voa6.i
Smp Info : HS23051708-04;HS23051708-04;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\8260W.m
Meth Date : 06-Jun-2023 11:14 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.181	4.178	(1.000)	438018	50.0000	
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	5928	1.53480	1.53(a)
	22 1,1-Dichloroethane	63	2.925	2.922	(0.700)	3594	0.48926	0.48(a)
	27 cis-1,2-Dichloroethene	96	3.529	3.525	(0.844)	140482	29.8128	29.81
$	30 Dibromofluoromethane	113	4.099	4.095	(0.980)	206912	52.0577	52.05
	33 1,2-Dichloroethane	62	4.564	4.552	(0.919)	15753	3.04401	3.04(a)
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.069)	239211	56.1849	56.18
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	662451	50.0000	
	38 Trichloroethene	130	5.205	5.205	(1.048)	2706897	595.935	595.93(A)
*	47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	592126	50.0000	
$	48 Toluene-d8	98	6.385	6.386	(0.833)	792570	52.5314	52.53
	56 Tetrachloroethene	164	6.929	6.925	(0.904)	6998	2.17415	2.17(a)
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	271315	47.7675	47.76
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	300499	50.0000	
M	94 1,2-Dichloroethylene (total)	96				140482	29.8128	29.81
	141 Cyclohexane	56	4.125	4.121	(0.987)	6687	1.21996	1.21(a)
	138 Freon TF	101	1.913	1.917	(0.458)	12128	3.68686	3.68(a)

QC Flag Legend

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

QC Flag Legend

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

01230950

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060117.D

Page 1

Date : 01-JUN-2023 18:54

Client ID: HS23051708-04

Instrument: voa6.i

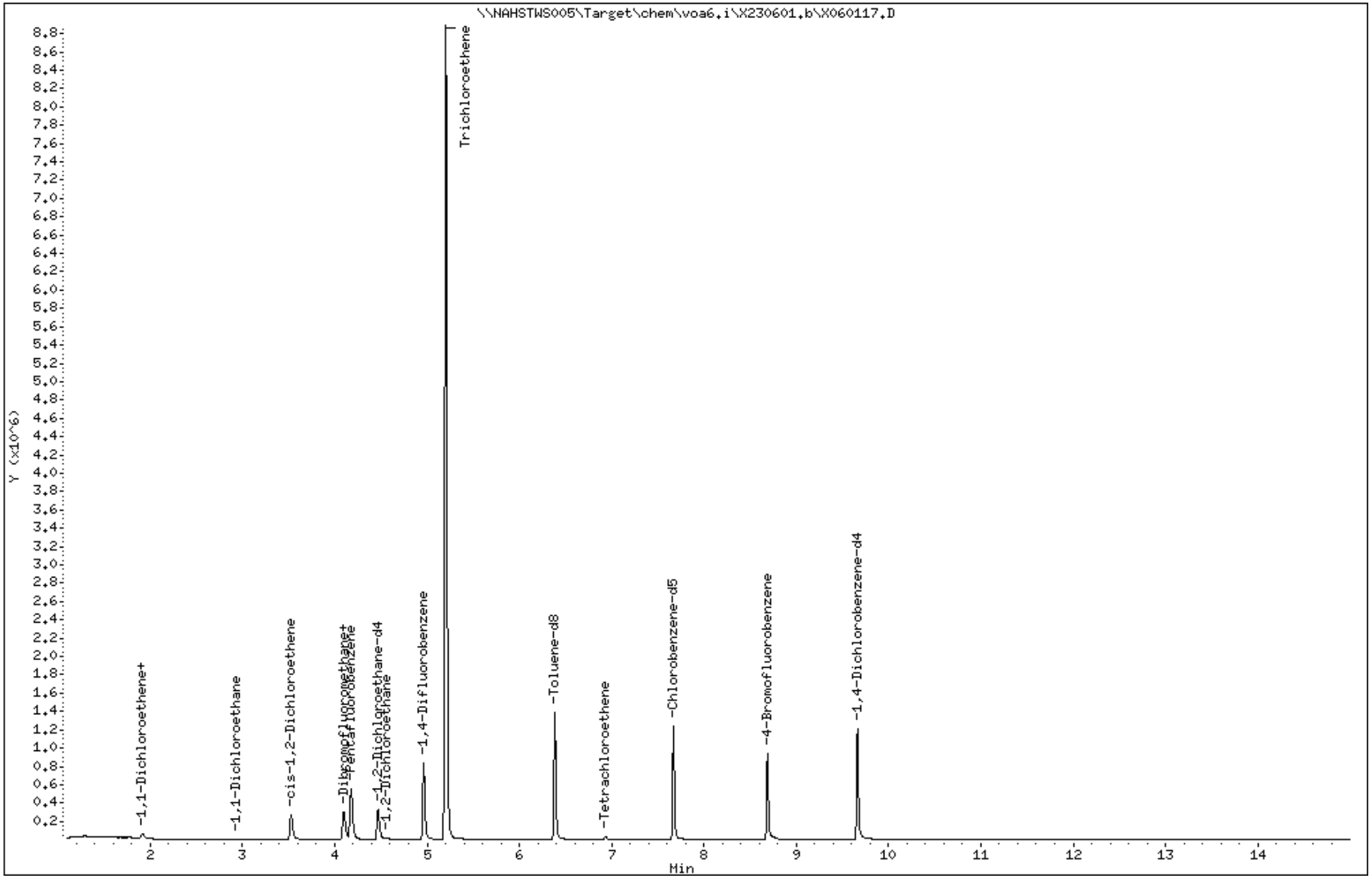
Sample Info: HS23051708-04;HS23051708-04;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060117.D

Date : 01-JUN-2023 18:54

Client ID: HS23051708-04

Instrument: voa6.i

Sample Info: HS23051708-04;HS23051708-04;;;

Purge Volume: 5.0

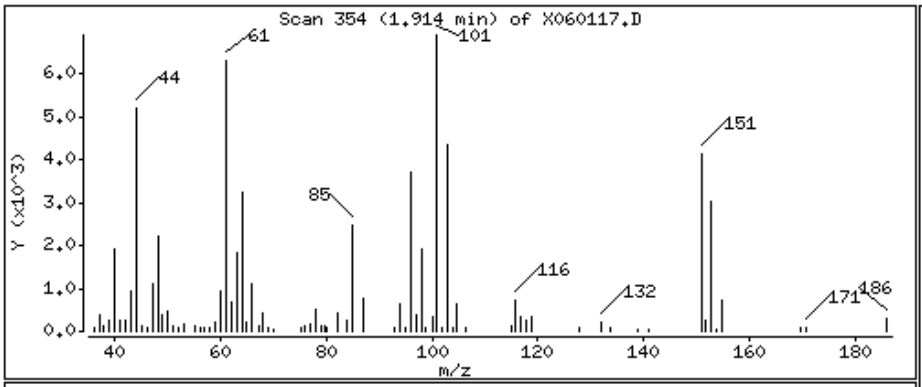
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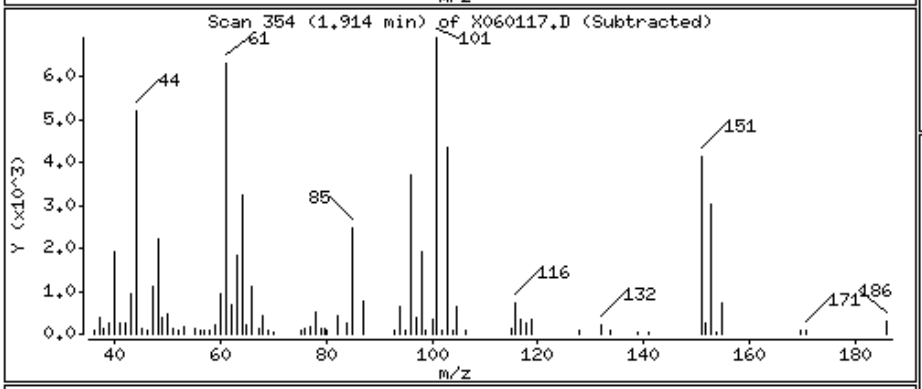
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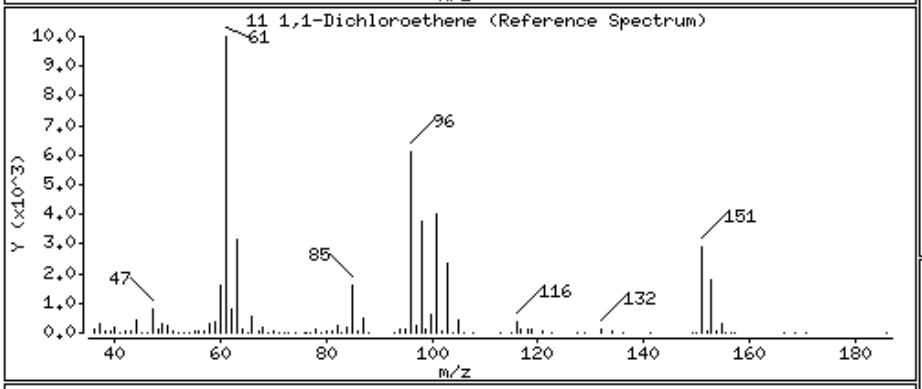
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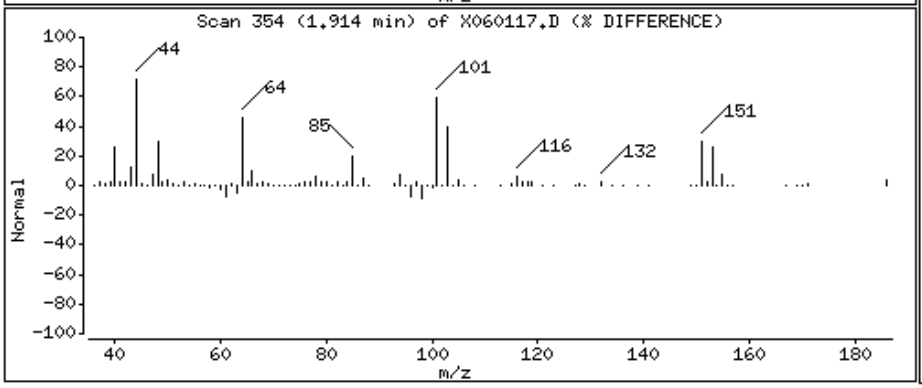
11 1,1-Dichloroethene

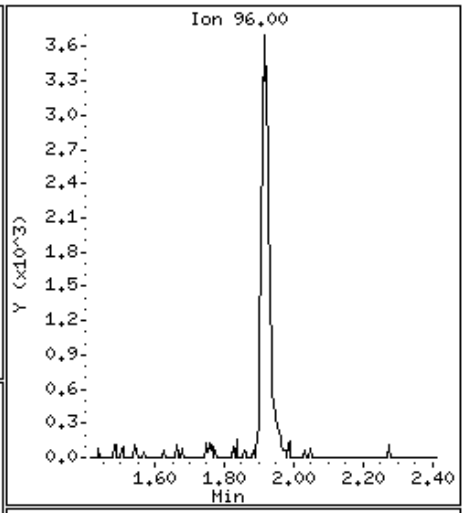
Concentration: 1.53 ug/l

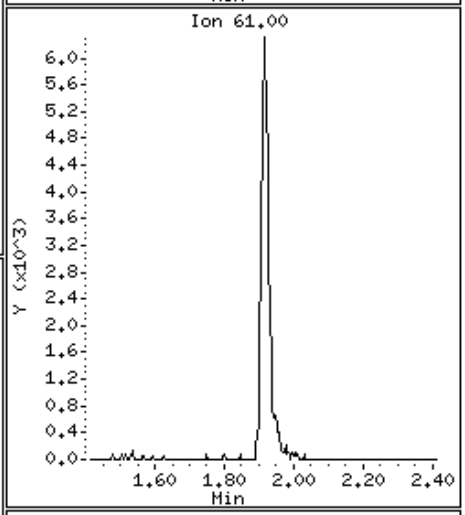


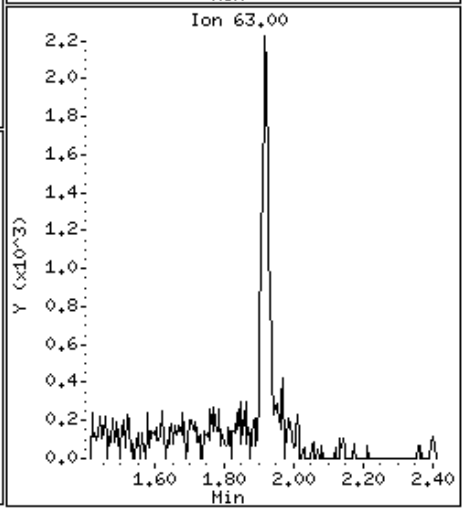












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060117.D

Date : 01-JUN-2023 18:54

Client ID: HS23051708-04

Instrument: voa6.i

Sample Info: HS23051708-04;HS23051708-04;;;

Purge Volume: 5.0

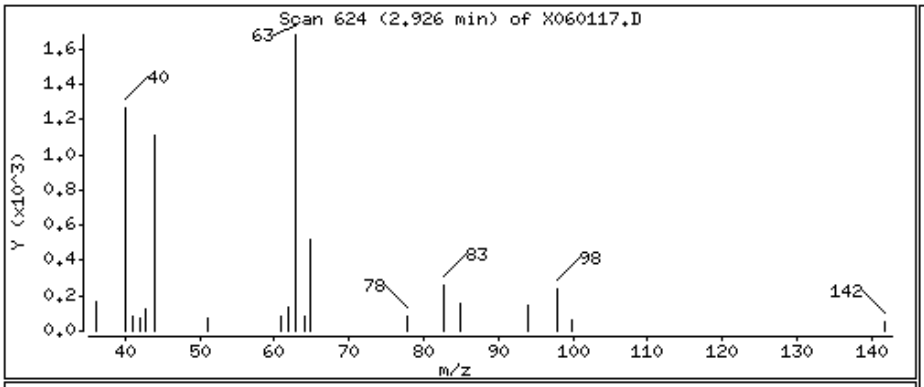
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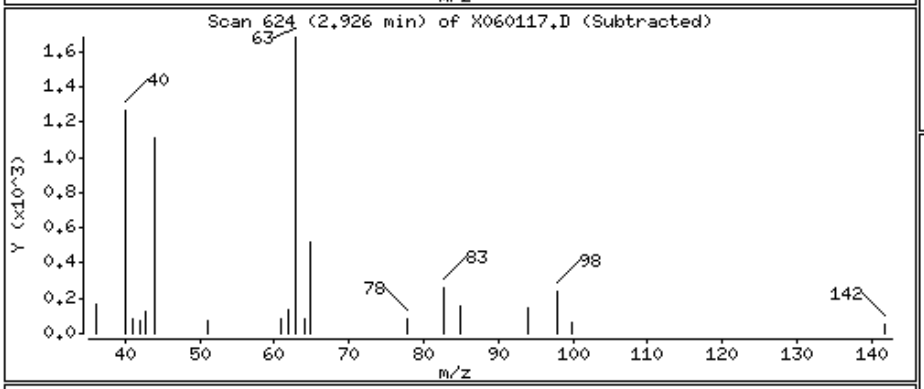
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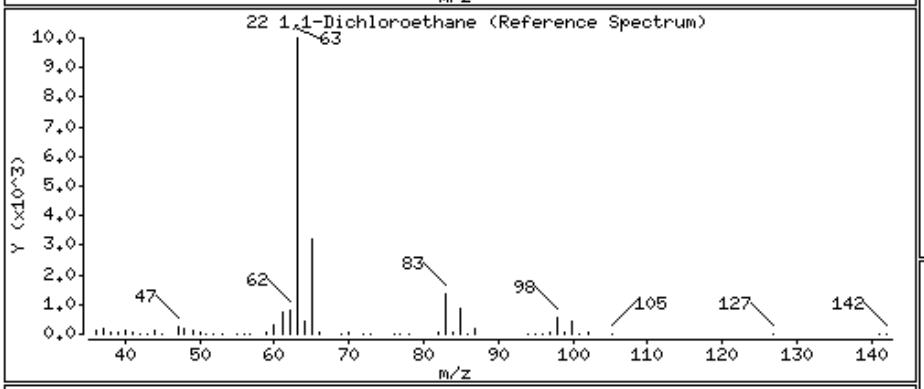
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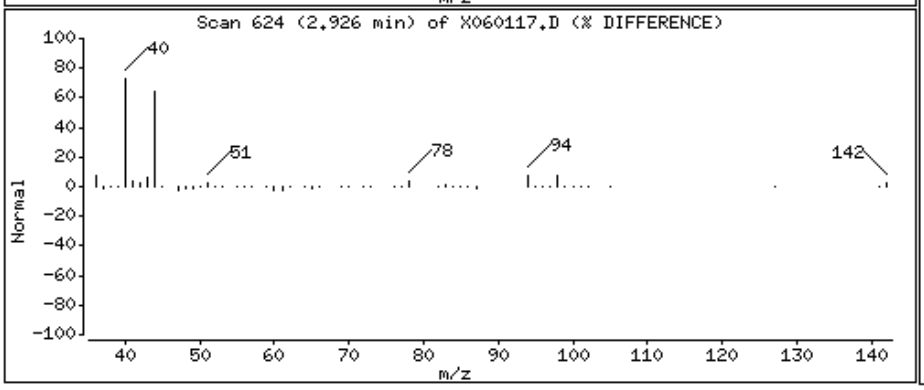
22 1,1-Dichloroethane

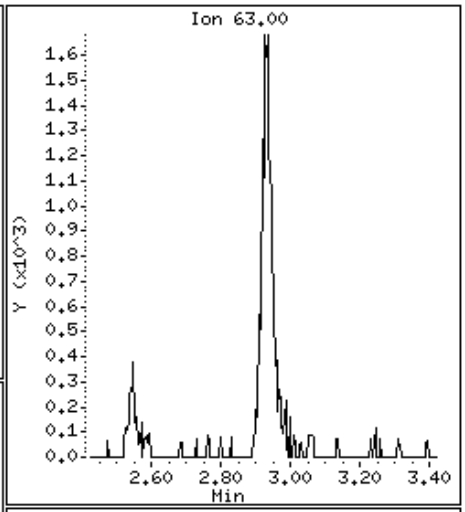
Concentration: 0.48 ug/l

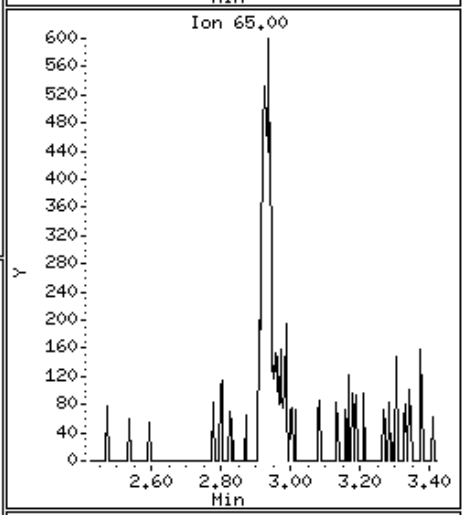


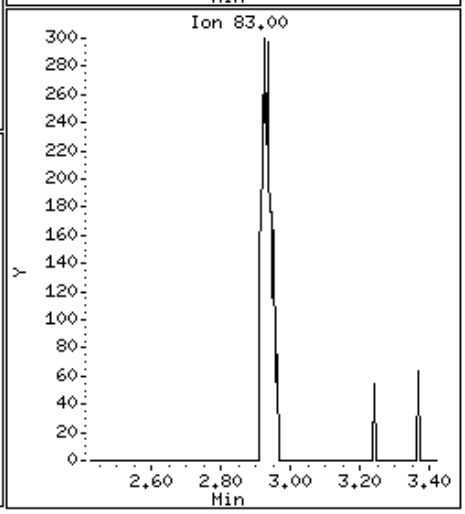












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060117.D Page 4

Date : 01-JUN-2023 18:54

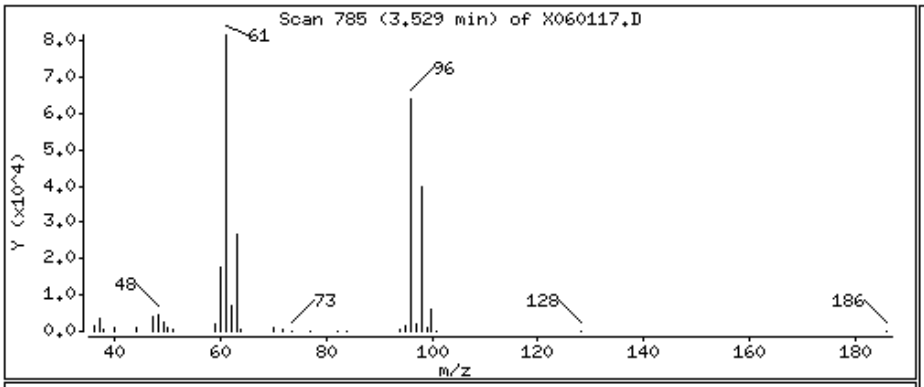
Client ID: HS23051708-04 Instrument: voa6.i

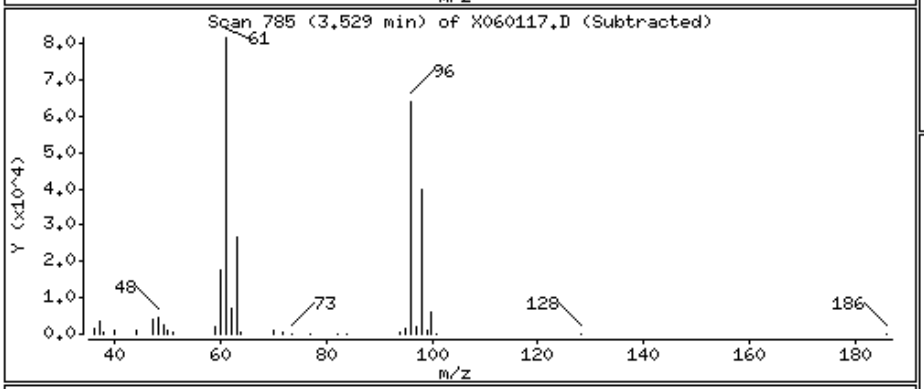
Sample Info: HS23051708-04;HS23051708-04;;;

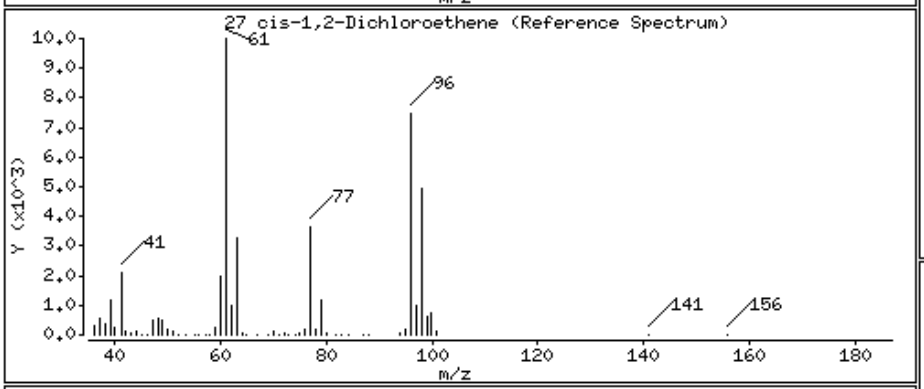
Purge Volume: 5.0 Operator: PC

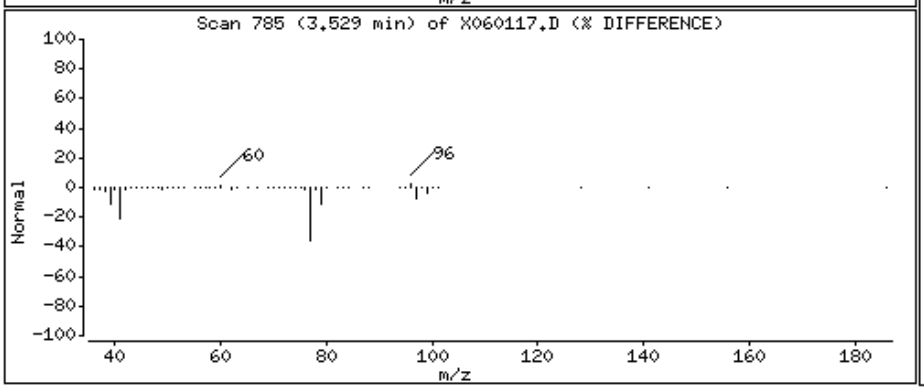
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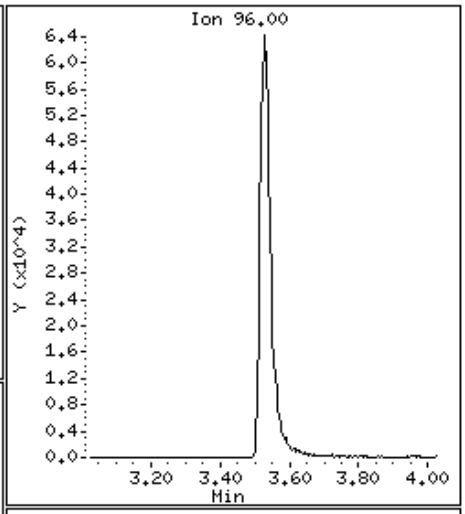
27 cis-1,2-Dichloroethene Concentration: 29.81 ug/l

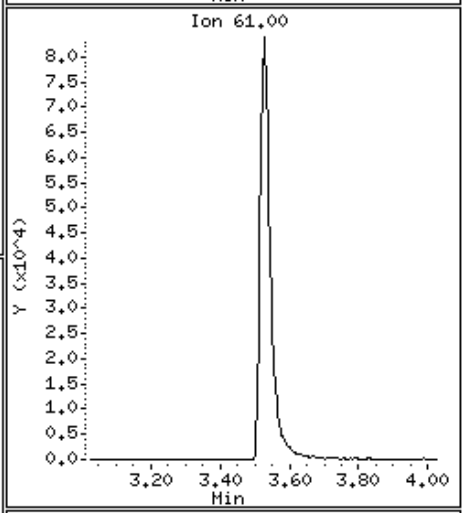


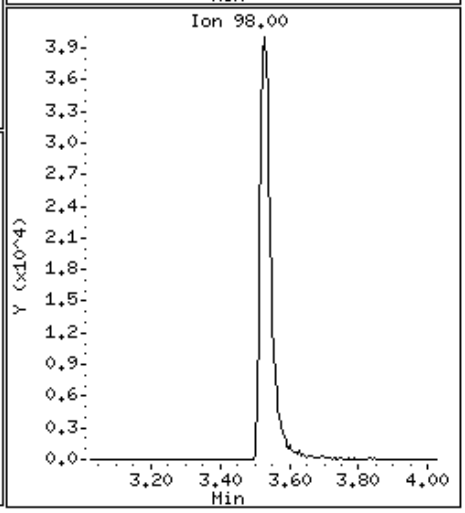












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060117.D Page 5

Date : 01-JUN-2023 18:54

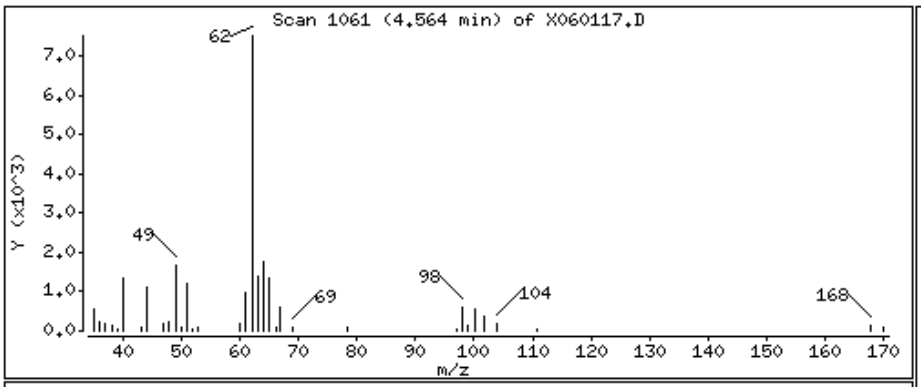
Client ID: HS23051708-04 Instrument: voa6.i

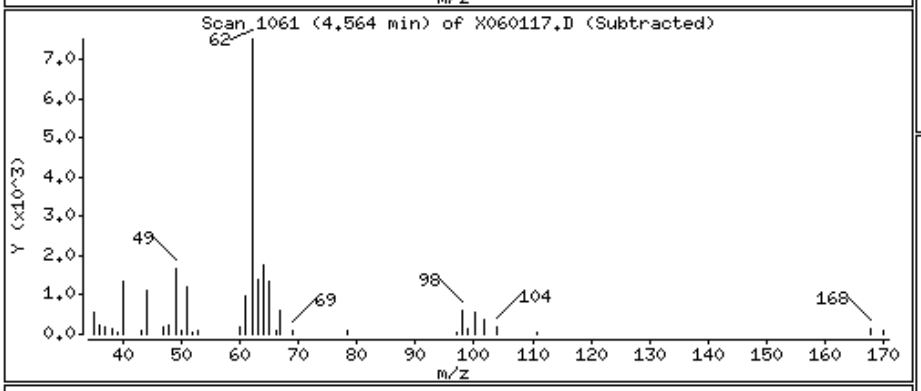
Sample Info: HS23051708-04;HS23051708-04;;;

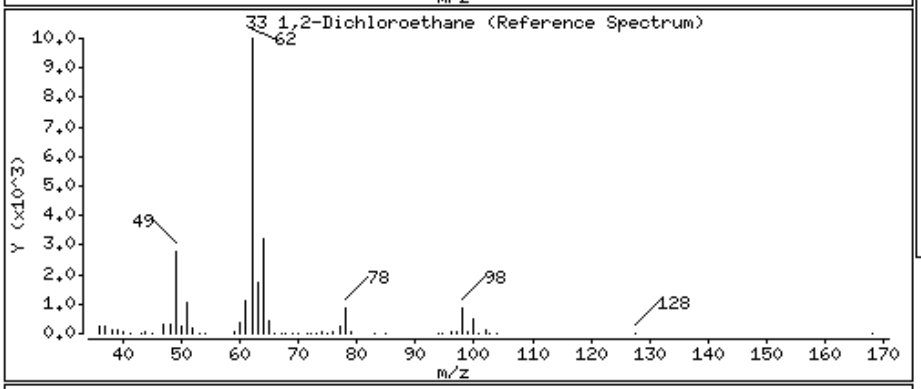
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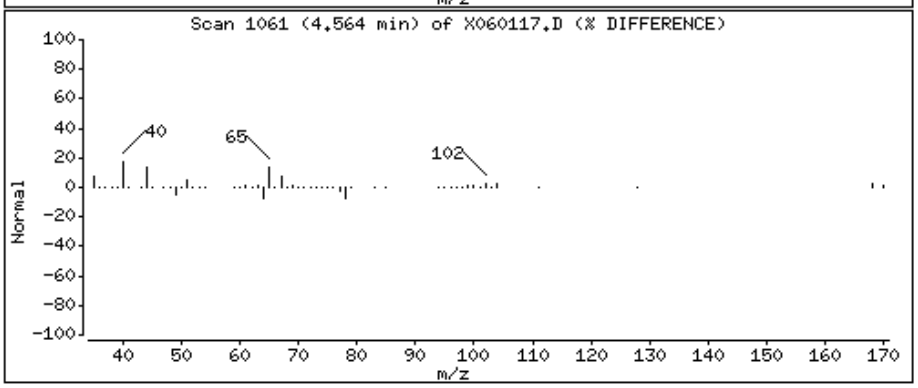
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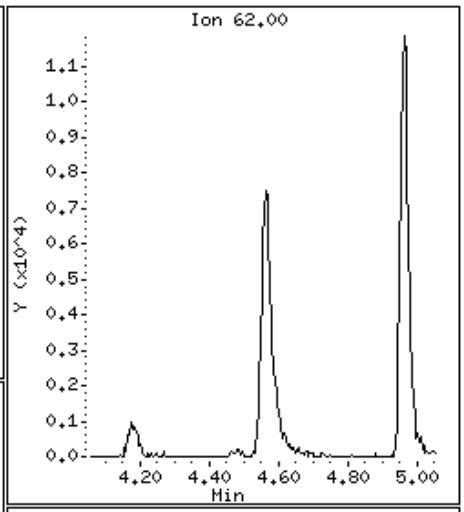
33 1,2-Dichloroethane Concentration: 3.04 ug/l

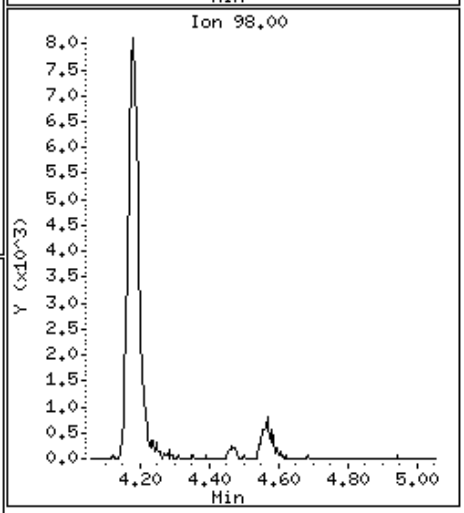












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060117.D Page 6

Date : 01-JUN-2023 18:54

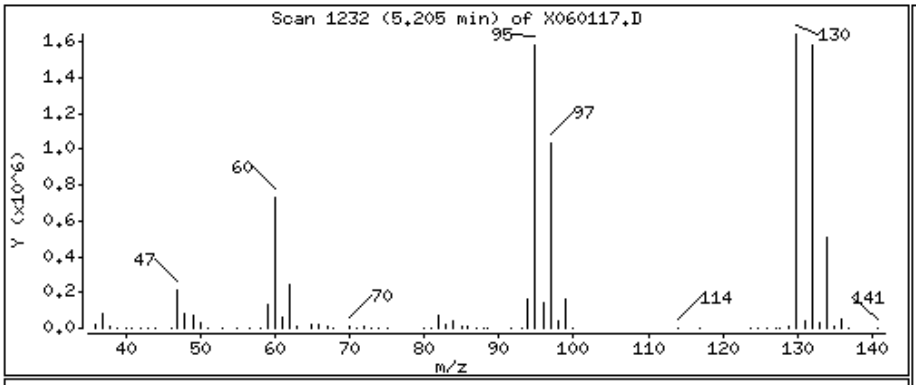
Client ID: HS23051708-04 Instrument: voa6.i

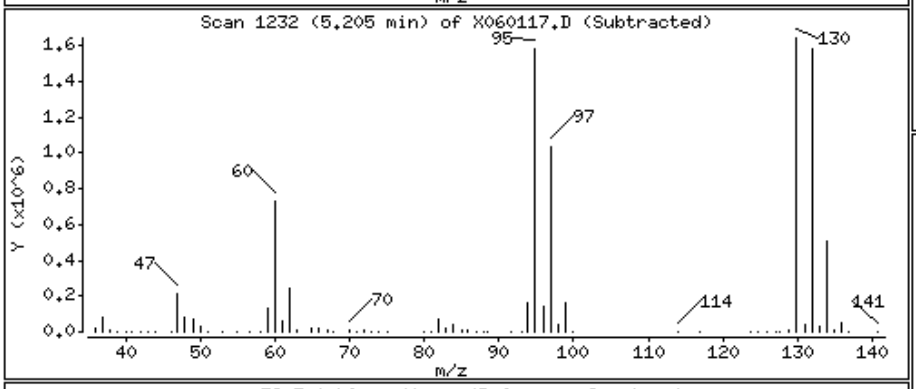
Sample Info: HS23051708-04;HS23051708-04;;;

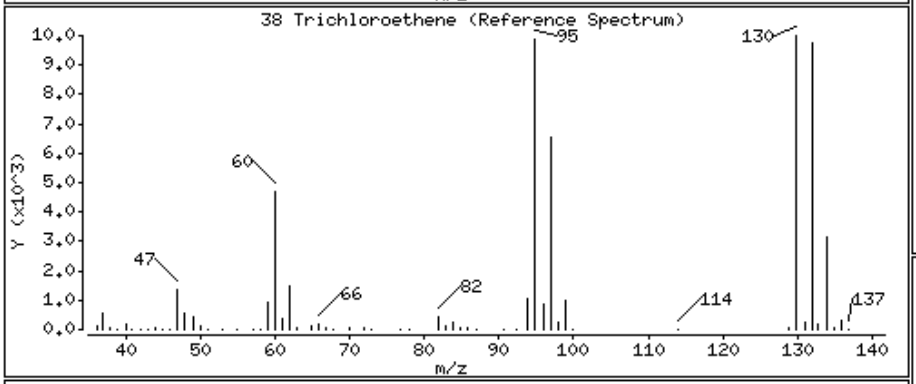
Purge Volume: 5.0 Operator: PC

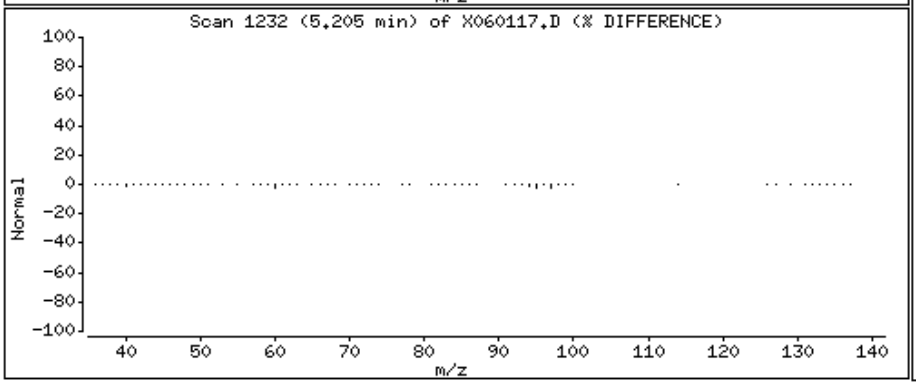
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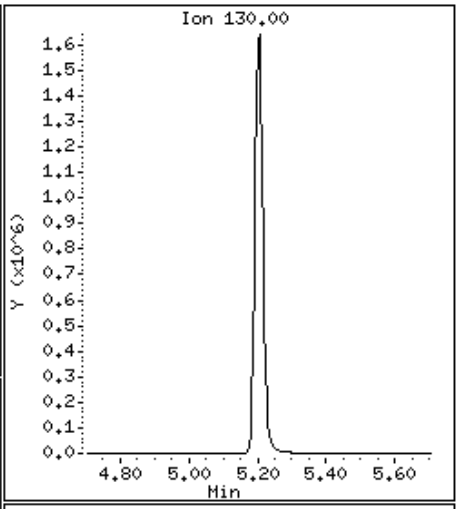
38 Trichloroethene Concentration: 595.93 ug/l

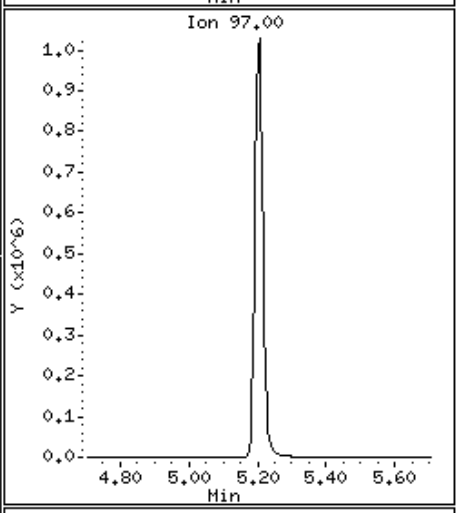


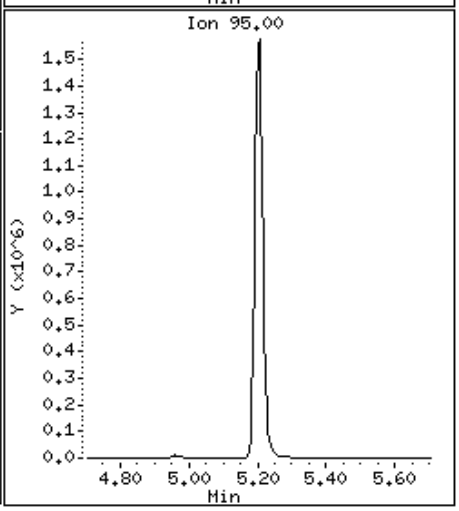












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060117.D Page 7

Date : 01-JUN-2023 18:54

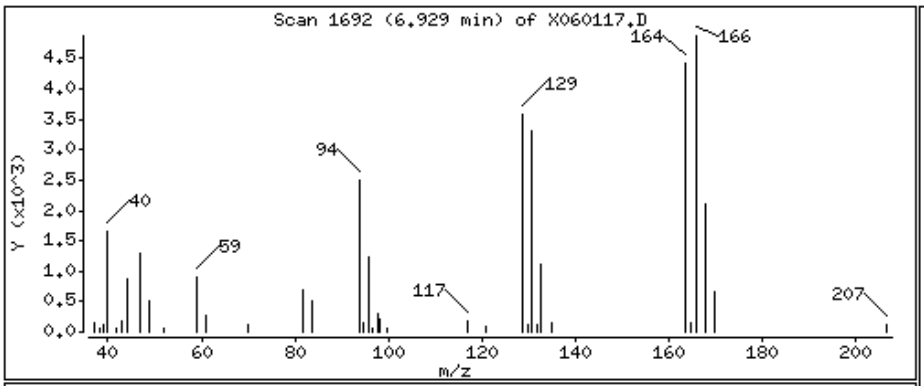
Client ID: HS23051708-04 Instrument: voa6.i

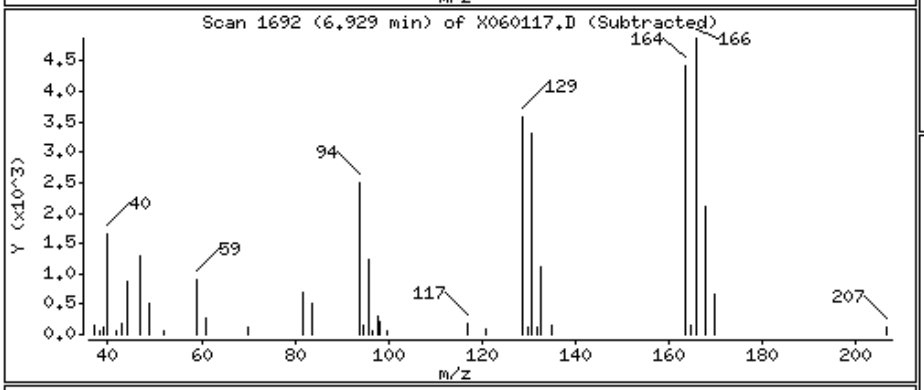
Sample Info: HS23051708-04;HS23051708-04;;;

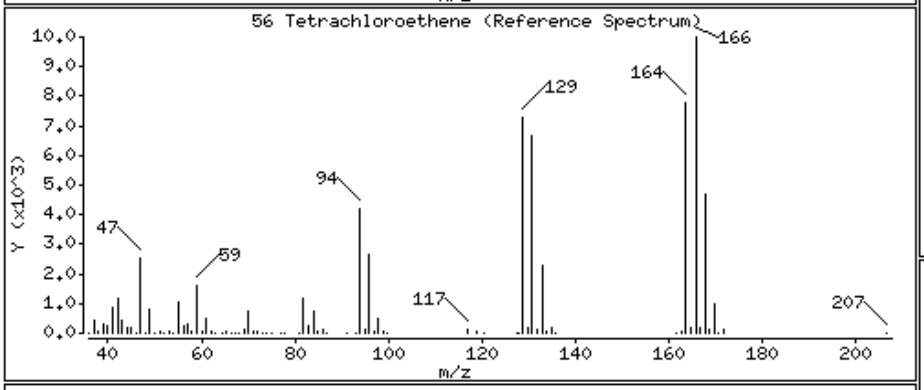
Purge Volume: 5.0 Operator: PC

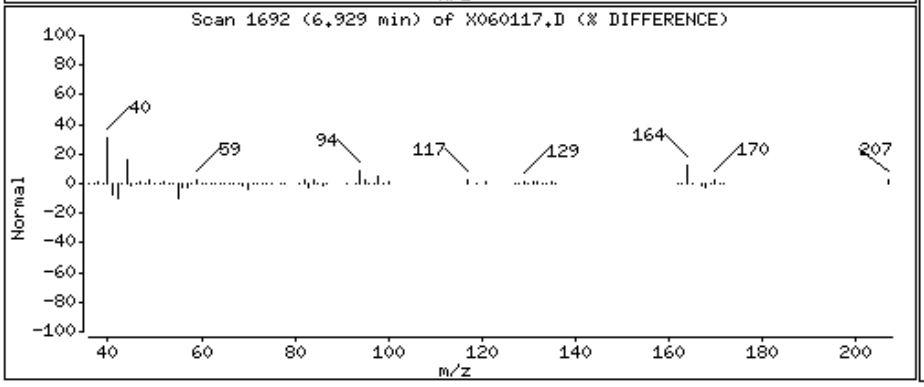
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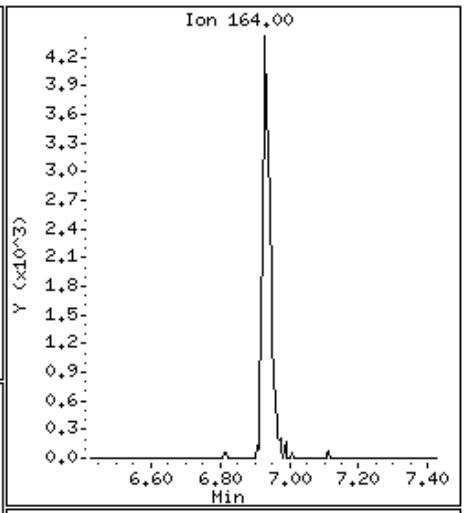
56 Tetrachloroethene Concentration: 2.17 ug/l

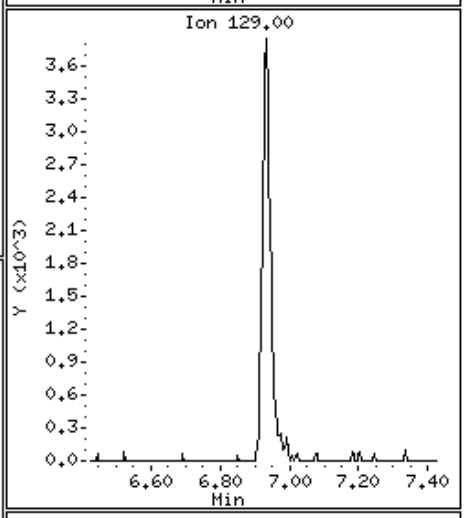


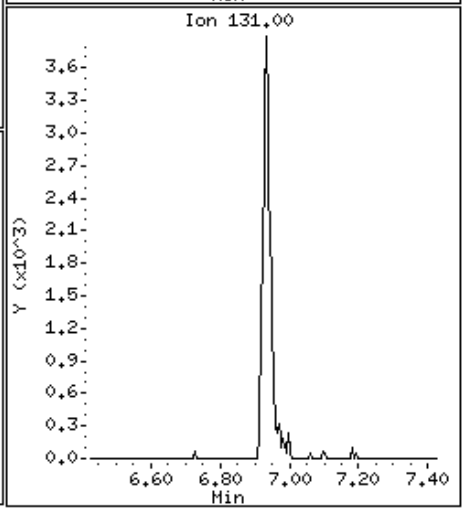












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060117.D Page 8

Date : 01-JUN-2023 18:54

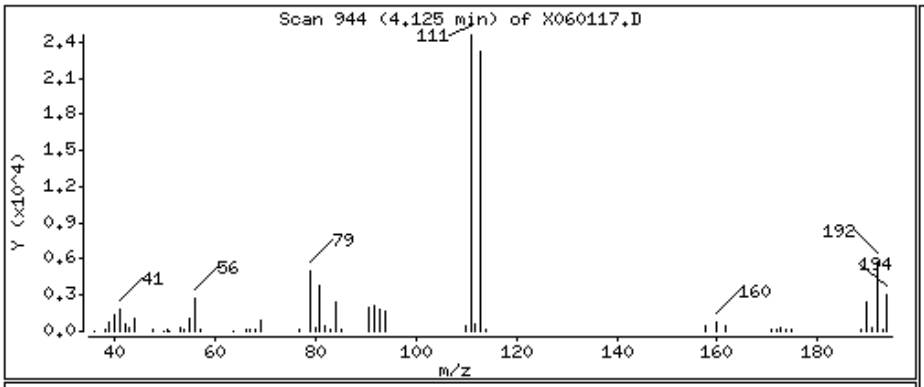
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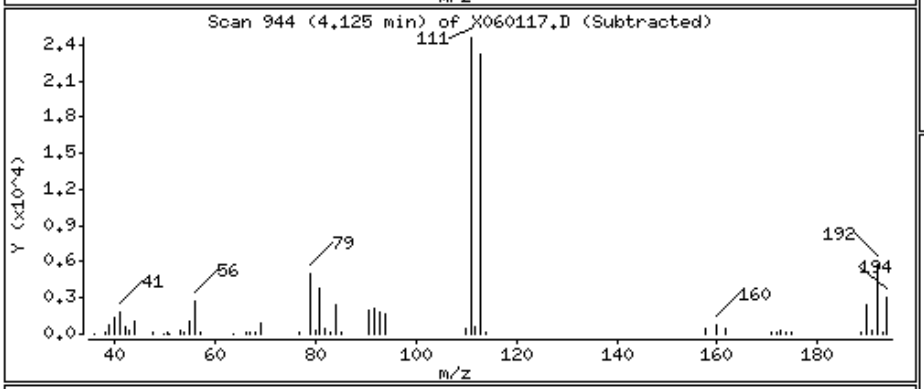
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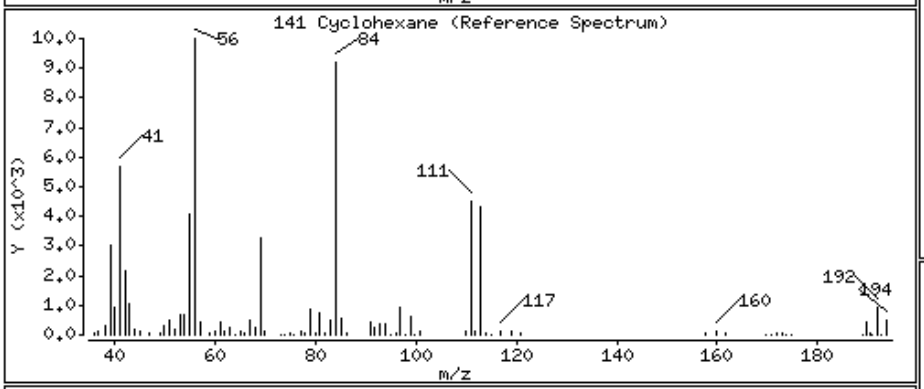
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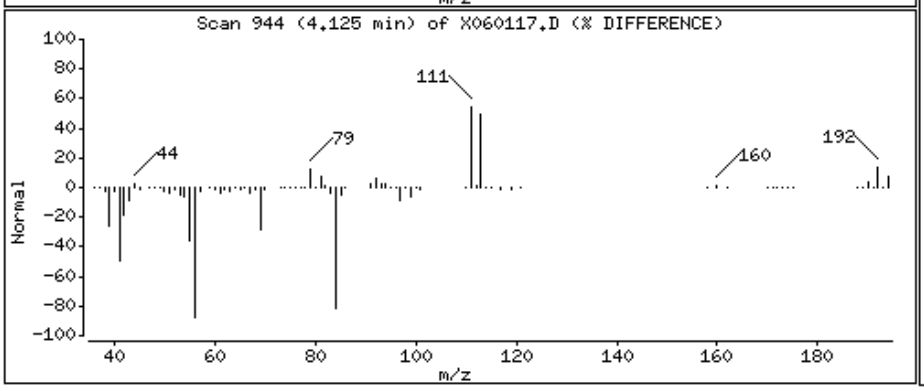
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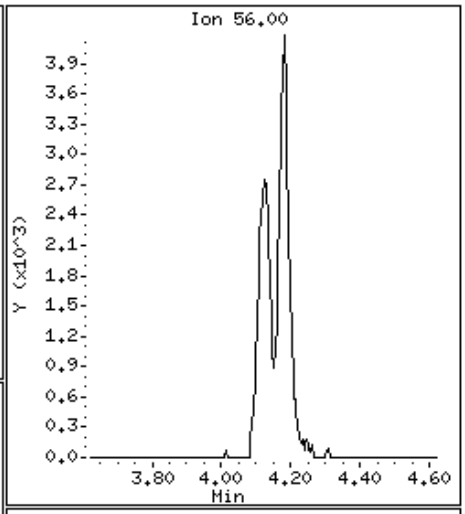
141 Cyclohexane Concentration: 1.21 ug/l

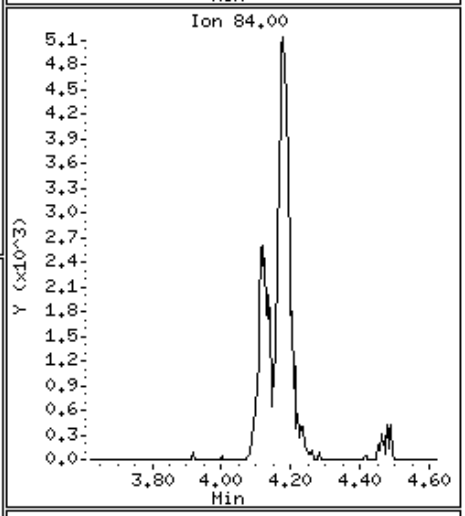


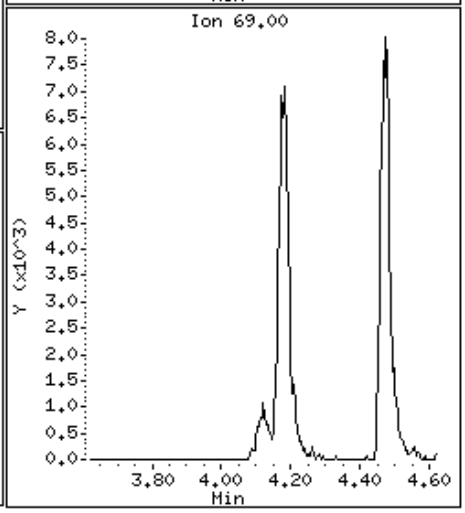












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060117.D Page 9

Date : 01-JUN-2023 18:54

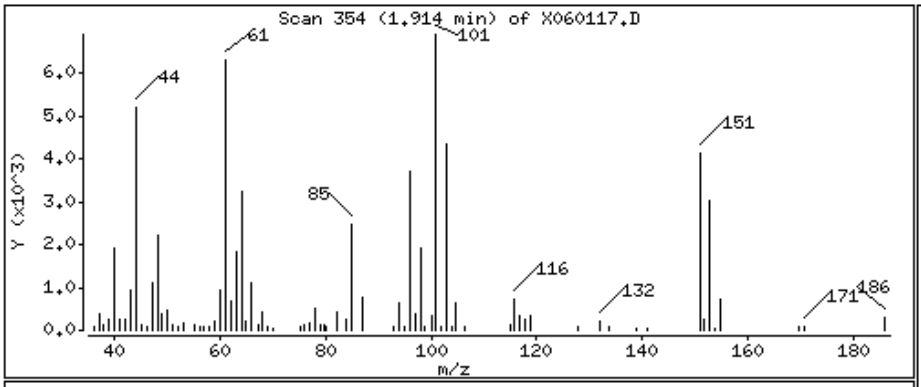
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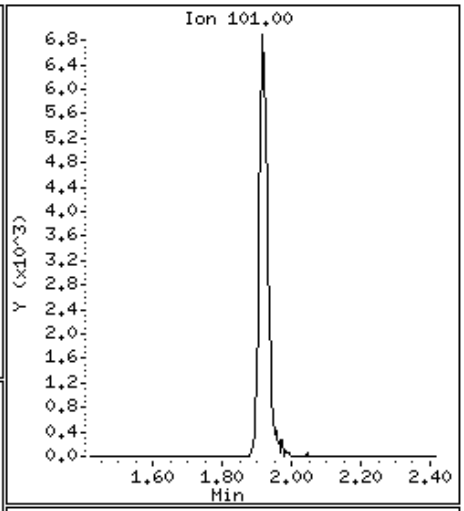
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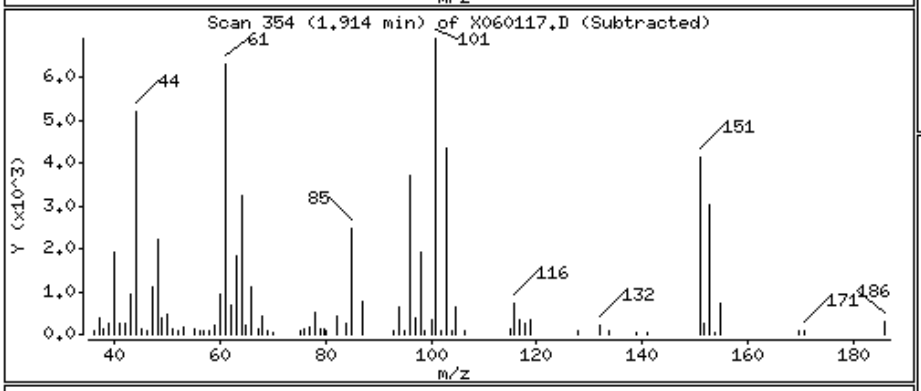
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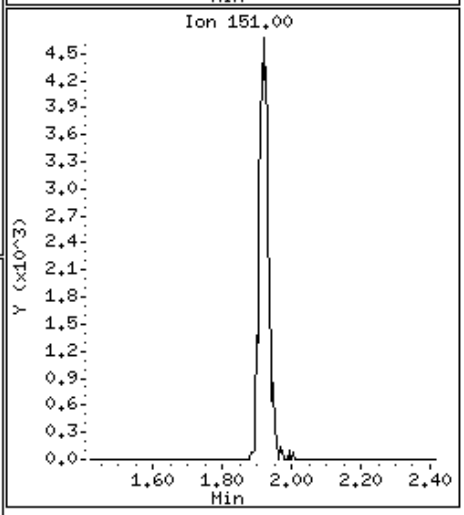
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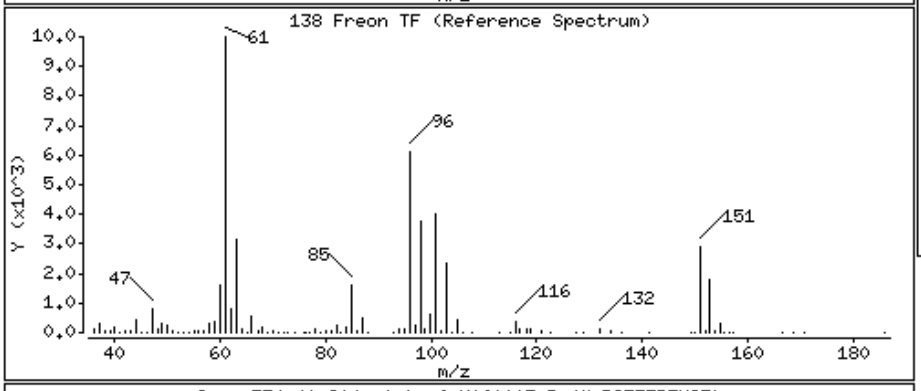
138 Freon TF Concentration: 3.68 ug/l

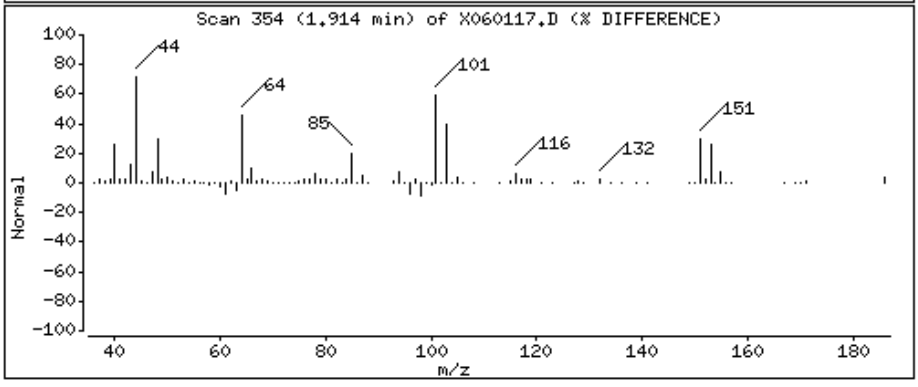












Data File : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060117.D
Inj Date : 01-JUN-2023 18:54
InstruID : voa6.i
LabSampID : HS23051708-04

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060129.D Page 1
Report Date: 06-Jun-2023 11:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060129.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 01-JUN-2023 23:06
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230601.b\8260W.m
Meth Date : 06-Jun-2023 11:15 voa6.i Quant Type: ISTD
Cal Date : 17-MAY-2023 14:44 Cal File: X051708.D
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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	4.181	4.181	(1.000)	346185	50.0000	
135 1,4-Dioxane	88	5.595	5.595	(1.338)	57251	1000.00	1221.10
140 1,3-Butadiene	54	1.167	1.167	(0.279)	149349	50.0000	40.76
25 Methacrylonitrile	41	3.818	3.818	(0.913)	218087	50.0000	70.67
12 Isobutyl Alcohol	43	4.672	4.672	(1.117)	674897	1000.00	1495.60
13 Acetonitrile	39	2.198	2.198	(0.526)	243521	500.000	730.68
14 Allyl Chloride	41	2.198	2.198	(0.526)	480295	50.0000	57.13
4 Propionitrile	54	3.649	3.649	(0.873)	307980	500.000	648.75
72 trans-1,4-Dichloro-2-butene	53	8.886	8.886	(1.159)	85283	50.0000	62.60
194 Acetaldehyde	44	1.212	1.212	(0.290)	150471	200.000	659.84
23 Chloroprene	53	1.771	1.771	(0.424)	58569	50.0000	41.91(M)
40 Methyl Methacrylate	41	5.606	5.606	(1.341)	210140	50.0000	69.44
49 Ethyl Methacrylate	69	6.787	6.787	(1.367)	362704	50.0000	57.66
131 Methyl Acrylate	55	3.687	3.687	(0.882)	224166	50.0000	66.53
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	353103	50.0000	47.91
156 Diisopropyl ether	45	3.001	3.001	(0.718)	665755	50.0000	63.55
162 Butyl acrylate	55	8.249	8.249	(1.076)	577397	50.0000	66.21
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	833556	50.0000	54.74
205 2-Ethylhexyl Acrylate	55	11.547	11.547	(1.196)	337416	50.0000	53.83
2 Dichlorodifluoromethane	85	0.976	0.976	(0.234)	106421	50.0000	32.09

3 Chloromethane	50	1.081	1.081 (0.259)	207934	50.0000	42.81
5 Vinyl Chloride	62	1.145	1.145 (0.274)	221485	50.0000	48.30

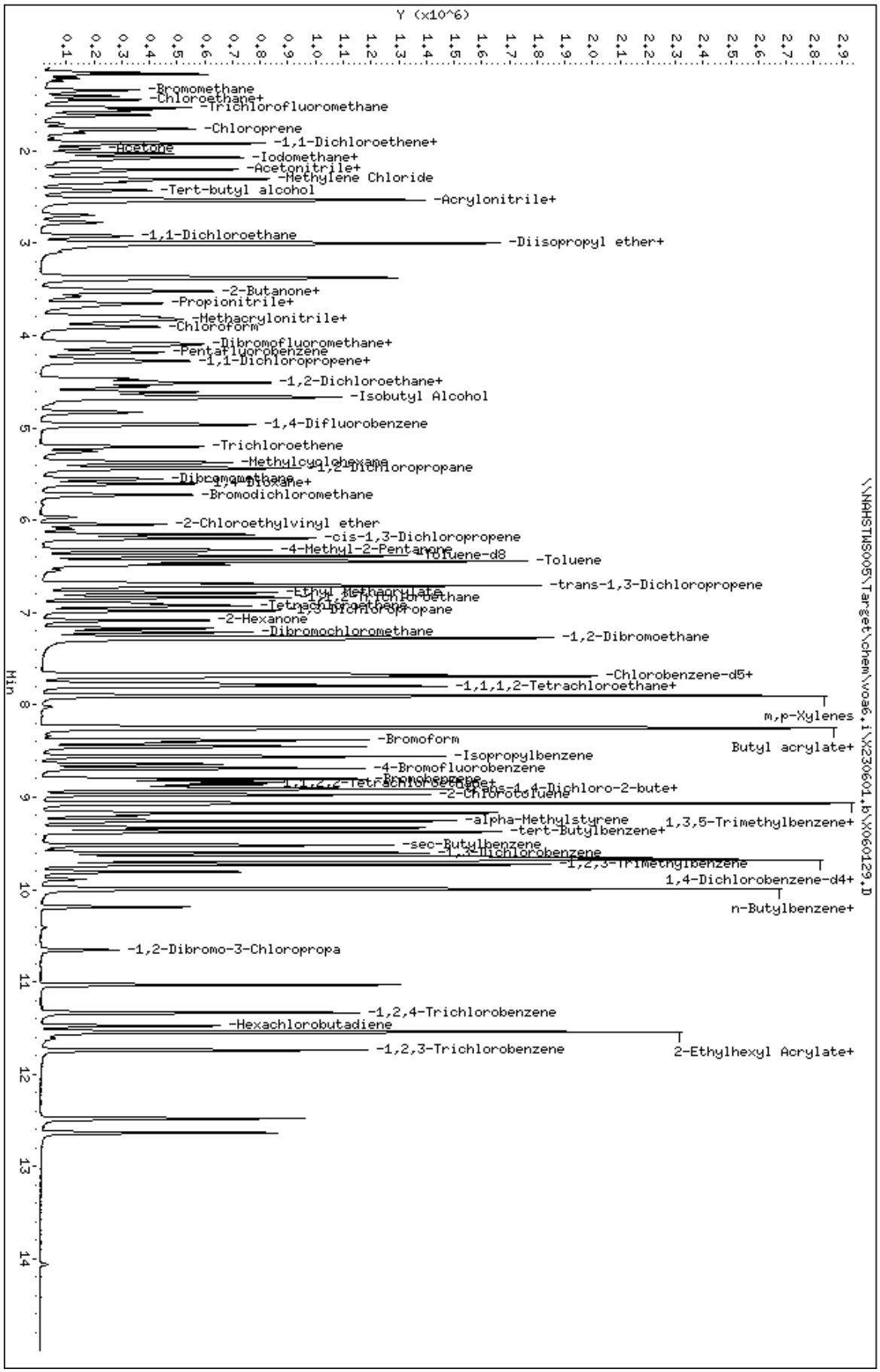
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	6 Bromomethane	94	1.340	1.340	(0.321)	163153	50.0000	68.17
	7 Chloroethane	64	1.404	1.404	(0.336)	169285	50.0000	59.14
	8 Trichlorofluoromethane	101	1.561	1.561	(0.373)	229025	50.0000	47.44
	9 Acrolein	56	1.445	1.445	(0.346)	25315	100.000	87.39
	10 Acetone	43	1.973	1.973	(0.472)	168113	100.000	141.20
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	160461	50.0000	52.56
	15 Iodomethane	142	2.026	2.026	(0.485)	467572	100.000	106.37
	16 Acrylonitrile	53	2.532	2.532	(0.606)	152836	100.000	133.70
	17 Methylene Chloride	84	2.303	2.303	(0.551)	216078	50.0000	59.54
	18 Methyl tert-butyl ether	73	2.536	2.536	(0.606)	603698	50.0000	63.39
	19 Carbon Disulfide	76	2.071	2.071	(0.495)	809883	100.000	84.55
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	165637	50.0000	52.31
	21 Vinyl Acetate	43	2.997	2.997	(0.717)	1217976	100.000	138.24
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	324505	50.0000	55.89
	24 2-Butanone	43	3.574	3.574	(0.855)	160942	100.000	139.69
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	217988	50.0000	50.98
	27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.843)	210805	50.0000	56.60
	28 Chloroform	83	3.904	3.904	(0.934)	369194	50.0000	64.16
	29 Bromochloromethane	128	3.795	3.795	(0.908)	119617	50.0000	60.94
$	30 Dibromofluoromethane	113	4.095	4.095	(0.979)	209891	50.0000	67.05
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.976)	239946	50.0000	54.14
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	199164	50.0000	41.12
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	315482	50.0000	65.59
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	180783	50.0000	40.40
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.069)	248218	50.0000	73.90
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	615627	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	743753	50.0000	47.48
	38 Trichloroethene	130	5.205	5.205	(1.048)	185027	50.0000	43.83
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	304292	50.0000	56.77
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	176108	100.000	98.92
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	223064	50.0000	50.11
	44 Dibromomethane	93	5.550	5.550	(1.118)	153007	50.0000	56.64
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	465518	100.000	110.48
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	363971	50.0000	50.81
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	612616	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	737129	50.0000	47.22
	50 Toluene	91	6.446	6.446	(0.841)	809395	50.0000	47.08
	51 trans-1,3-Dichloropropene	75	6.678	6.678	(1.345)	327575	50.0000	57.26
	52 2-Hexanone	43	7.083	7.083	(0.924)	326614	100.000	113.26
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	195851	50.0000	55.79
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	395625	50.0000	54.16
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	258921	50.0000	54.35
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	132619	50.0000	39.82
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	251215	50.0000	58.72
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	136209	50.0000	36.64
	59 Chlorobenzene	112	7.690	7.690	(1.003)	576309	50.0000	48.43
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	217449	50.0000	52.07
	61 Ethylbenzene	106	7.799	7.799	(1.017)	260030	50.0000	44.47
	62 m,p-Xylenes	106	7.900	7.900	(1.030)	676156	100.000	92.85
	63 o-Xylene	106	8.241	8.241	(1.075)	345991	50.0000	48.59
	64 Styrene	104	8.256	8.256	(1.077)	632001	50.0000	53.01
	66 Bromoform	173	8.406	8.406	(1.096)	189415	50.0000	58.83

67	Isopropylbenzene	105	8.560	8.560 (1.116)	755632	50.0000	44.23
68	1,1,2,2-Tetrachloroethane	83	8.837	8.837 (0.915)	352263	50.0000	59.17

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	308463	50.0000	52.49
*	70 1,4-Dichlorobenzene-d4	152	9.658	9.658	(1.000)	338036	50.0000	
	71 1,2,3-Trichloropropane	75	8.860	8.860	(0.917)	274581	50.0000	63.48(M)
	73 n-Propylbenzene	91	8.908	8.908	(0.922)	908428	50.0000	43.36
	74 Bromobenzene	156	8.803	8.803	(0.912)	272182	50.0000	51.59
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.939)	694781	50.0000	45.78
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	628925	50.0000	46.22
	77 4-Chlorotoluene	91	9.070	9.070	(0.939)	744853	50.0000	49.78
	78 tert-Butylbenzene	119	9.332	9.332	(0.966)	527702	50.0000	41.31
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	741364	50.0000	47.74
	81 sec-Butylbenzene	105	9.519	9.519	(0.986)	716380	50.0000	40.21
	82 p-Isopropyltoluene	119	9.647	9.647	(0.999)	656796	50.0000	42.67
	83 1,3-Dichlorobenzene	146	9.602	9.602	(0.994)	457180	50.0000	48.06
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	493924	50.0000	49.41
	87 n-Butylbenzene	91	9.992	9.992	(1.035)	592152	50.0000	44.93
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.035)	491966	50.0000	52.03
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	56381	50.0000	55.64
	90 1,2,4-Trichlorobenzene	180	11.337	11.337	(1.174)	318396	50.0000	48.67
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	103105	50.0000	36.63
	92 Naphthalene	128	11.540	11.540	(1.195)	907689	50.0000	55.88
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	314492	50.0000	49.08
M	94 1,2-Dichloroethylene (total)	96				376442	100.000	(a)
	141 Cyclohexane	56	4.121	4.121	(0.986)	152242	50.0000	35.14
	138 Freon TF	101	1.913	1.913	(0.458)	124304	50.0000	48.58
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	457114	50.0000	48.28
	146 Methyl Acetate	43	2.232	2.232	(0.534)	146889	50.0000	71.79
	148 Tert-Butyl alcohol	59	2.427	2.427	(0.580)	423334	1000.00	1238.16
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	241618	1000.00	1140.98

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\X230601.b\X060129.D
Date : 01-JUN-2023 23:06
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;
Purge Volume: 5.0
Column phase: DB624

\\NAHSTWS005\Target\chem\voa6.i\X230601.b\X060129.D

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

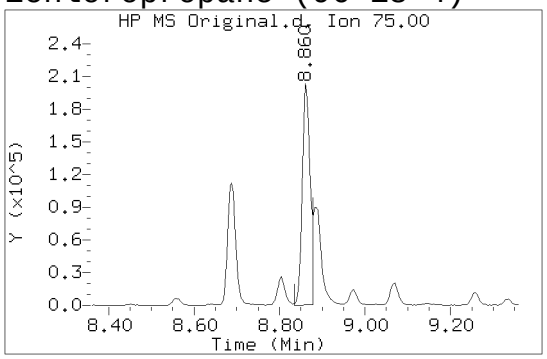
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Inj Date : 01-JUN-2023 23:06
InstruID : voa6.i
LabSampID : CCV-END

1,2,3-Trichloropropane (96-18-4)

Reason Code:

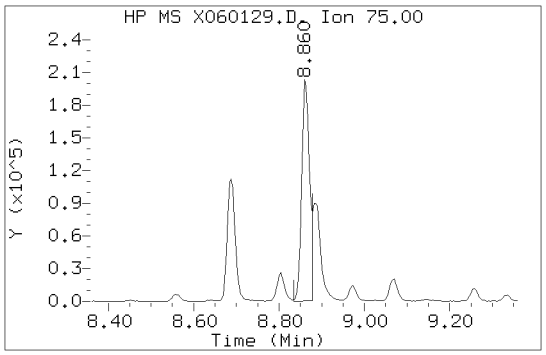
BEFORE

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HEIGHT
202957
06-Jun-2023
11:14
linh
pham



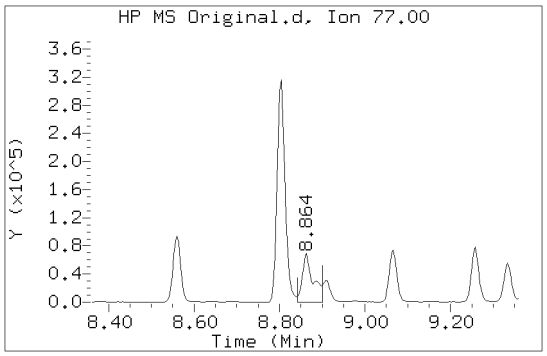
AFTER

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AREA
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HEIGHT
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06-Jun-2023
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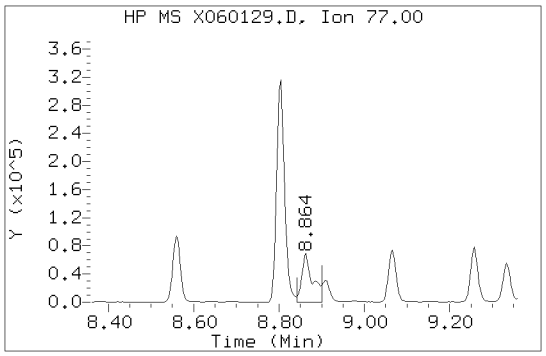
BEFORE

MASS
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AREA
127456
HEIGHT
69363
06-Jun-2023
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linh
pham



AFTER

MASS
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HEIGHT
69363
06-Jun-2023
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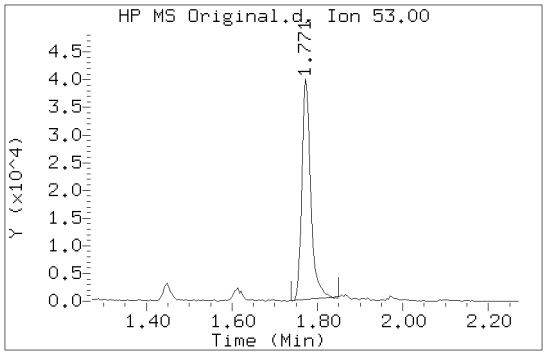


Chloroprene (126-99-8)

Reason Code:

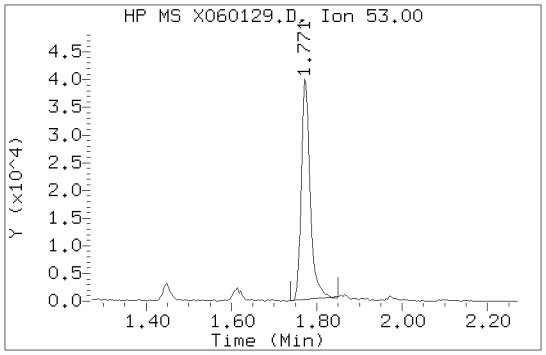
BEFORE

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HEIGHT
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pham



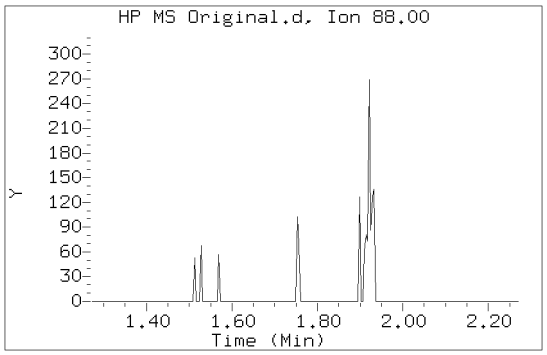
AFTER

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06-Jun-2023
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linh
pham



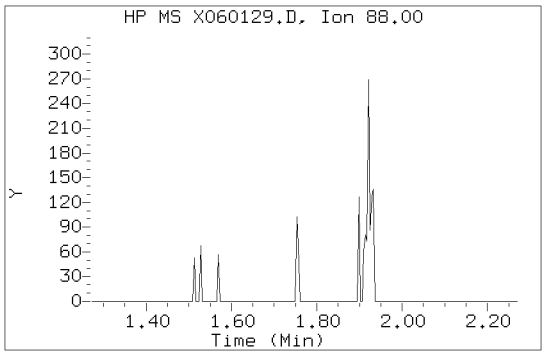
BEFORE

MASS
88
AREA
0
HEIGHT
0
06-Jun-2023
11:14
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
06-Jun-2023
11:14
linh
pham



HS23051708-GCSEMI-RSK-175

ALS WO# HS23051708

01230968

right solutions.
right partner.

Form 1

Organic Analysis Data Sheet

Semi-Volatiles by RSK-175

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Semi-Volatiles by RSK-175

HS23051708-04	Collected	Received	Matrix	Basis
50WW13_052423	05/24/23 09:05	05/25/23 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	ug/L	ND		0.144	1.00	1.00	1	05/30/23 17:41	FID-	015
Ethene	ug/L	ND		0.234	1.00	1.00	1	05/30/23 17:41	FID-	015
Methane	ug/L	1.55		0.107	0.500	0.500	1	05/30/23 17:41	FID-	015

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Semi-Volatiles by RSK-175

HS23051708-05	Collected	Received	Matrix	Basis
50WW11_052423	05/24/23 09:55	05/25/23 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	ug/L	ND		0.144	1.00	1.00	1	05/30/23 17:55	FID-	016
Ethene	ug/L	ND		0.234	1.00	1.00	1	05/30/23 17:55	FID-	016
Methane	ug/L	4.07		0.107	0.500	0.500	1	05/30/23 17:55	FID-	016

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Semi-Volatiles by RSK-175

HS23051708-06	Collected	Received	Matrix	Basis
50WW06_052423	05/24/23 10:50	05/25/23 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	ug/L	ND		0.144	1.00	1.00	1	05/30/23 18:03	FID-	017
Ethene	ug/L	ND		0.234	1.00	1.00	1	05/30/23 18:03	FID-	017
Methane	ug/L	0.821		0.107	0.500	0.500	1	05/30/23 18:03	FID-	017

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Semi-Volatiles by RSK-175

MBLK-230530

Collected	Received	Matrix	Basis
NA	NA	Aqueous	Wet

MBLK-230530

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	ug/L	ND		0.144	1.00	1.00	1	05/30/23 09:36	FID-	002
Ethene	ug/L	ND		0.234	1.00	1.00	1	05/30/23 09:36	FID-	002
Methane	ug/L	ND		0.107	0.500	0.500	1	05/30/23 09:36	FID-	002

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Form 3A

Matrix Spike/Spike Duplicate Recovery

Semi-Volatiles by RSK-175

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
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Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

	HS23051834-04	HS23051834-04MS	HS23051834-04MSD	
Sample Matrix Aqueous	**Run Date** 05/30/23	05/30/23	05/30/23	
Units µg/L	**Run Time** 10:16	10:43	10:52	
	Data File 005.D	006.D	007.D	

Analyte	%R Limits	DF	Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
Ethane	74-131	1	0	18.94	18.04	105		18.7	18.04	104		30	1.30	
Ethene	72-133	1	0	16.83	16.80	100		16.79	16.80	100		30	0.200	
Methane	73-125	1	6.763	14.52	9.647	80		14.13	9.647	76		30	2.70	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits

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Form 3B

Laboratory Control Sample Recovery

Semi-Volatiles by RSK-175

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

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Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Semi-Volatiles by RSK-175

FID-4_436671_R436671		QC ID	LCS-R436671			LCSD-R436671					
QC Matrix Aqueous	Units	Run Date	05/30/23			05/30/23					
	ug/L	Run Time	09:50			10:06					
Analyte	%R Limits	Spike Added	LCS Result	%R	Q	LCSD Result	%R	Q	RPD Limit	RPD	Q
Ethane	74-131	18.04	20.91	116		20.78	115.0		30	0.62	
Ethene	72-133	16.8	17.24	103		17.64	105.0		30	2.3	
Methane	73-125	9.647	8.486	88		8.732	90.0		30	2.86	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits

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Form 4

Method Blank Summary

Semi-Volatiles by RSK-175

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
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Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

Semi-Volatiles by RSK-175

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	MBLK-230530	002.D	05/30/23 09:36	FID-4_436671_R436671
LCS-230530	LCS	LCS-230530	003.D	05/30/23 09:50	FID-4_436671_R436671
LCSD-230530	LCSD	LCSD-230530	004.D	05/30/23 10:06	FID-4_436671_R436671
BatchQC	MS	HS23051834-04MS	006.D	05/30/23 10:43	FID-4_436671_R436671
BatchQC	MSD	HS23051834-04MSD	007.D	05/30/23 10:52	FID-4_436671_R436671
50WW13_052423	SAMP	HS23051708-04	015.D	05/30/23 17:41	FID-4_436671_R436671
50WW11_052423	SAMP	HS23051708-05	016.D	05/30/23 17:55	FID-4_436671_R436671
50WW06_052423	SAMP	HS23051708-06	017.D	05/30/23 18:03	FID-4_436671_R436671

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Form 6

Initial Calibration Data

Semi-Volatiles by RSK-175

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID FID-4_322102

Semi-Volatiles by RSK-175

ICAL Start Date 24-JAN-2017 0906
ICAL End Date 24-JAN-2017 1113

Calibration Files

Calibration File Names

Level 1 ..FID-4.i\170124.b\001.D
Level 2 ..FID-4.i\170124.b\002.D
Level 3 ..FID-4.i\170124.b\003.D
Level 4 ..FID-4.i\170124.b\004.D
Level 5 ..FID-4.i\170124.b\005.D
Level 6 ..FID-4.i\170124.b\006.D
Level 7 ..FID-4.i\170124.b\007.D

Compound	Level 1 10.00 Level 7 1000.0	Level 2 25.00	Level 3 50.00	Level 4 100.00	Level 5 250.00	Level 6 500.00	Curve	b	m1	m2	%RSD or R^2	Q
Methane	969 1082	978	1020	881	961	931	AVRG		974		6.55041	
Ethene	536 829	567	565	516	665	426	AVRG		586		21.93197	
Ethane	602 999	670	659	597	809	818	AVRG		736		19.88517	
Propane	500 96509	1279	2602	4785	18294	38286	QUAD	0.97987	0.00153	-4.583e-00	0.99914	
N-Butane	438 114164	936	2034	3864	18446	42817	QUAD	2.46870	0.00183	-5.537e-00	0.99808	
Pentane	115 488	3945	2080	950	501	412	AVRG		1213		112	*

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

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Form 6I

Initial Calibration Verification (ICV)

Semi-Volatiles by RSK-175

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
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Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID FID-4_322102

Compound	Amount Added	Amount Recovered	% Recovered	Limits	Q
Methane	9.647	9.597	99.49	75-125	
Ethene	16.800	19.090	113.63	75-125	
Ethane	18.043	19.657	108.95	75-125	
Propane	26.463	27.238	102.93	75-125	
N-Butane	34.955	36.010	103.02	75-125	

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Form 7

Continuing Calibration Verification (CCV)

Semi-Volatiles by RSK-175

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
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Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID FID-4_436671

Instrument ID FID-4.i Injection Date 30-MAY-2023 0921
Lab File ID 001.D ICAL Date(s) 24-JAN-2017 24-JAN-2017
Analysis Type WATER ICAL Times 0906 1113
Lab Sample ID RSK-CCV Quant Type ESTD

Compound	$\overline{RRF}$ / $\overline{RRF}$ / Amount	RF250	CCV RRF250	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Methane	975	793	793	0.010	18.63489	20.0	Averaged	
Ethene	586	563	563	0.010	3.87093	20.0	Averaged	
Ethane	719	762	762	0.010	-5.86398	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID FID-4_436671

Instrument ID FID-4.i Injection Date 30-MAY-2023 1654
Lab File ID 011.D ICAL Date(s) 24-JAN-2017 24-JAN-2017
Analysis Type WATER ICAL Times 0906 1113
Lab Sample ID RSK-CCV Quant Type ESTD

Compound	$\overline{RRF}$ / $\overline{RRF}$ / Amount	RF250	CCV RRF250	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Methane	975	828	828	0.010	15.10513	20.0	Averaged	
Ethene	586	622	622	0.010	-6.10874	20.0	Averaged	
Ethane	719	809	809	0.010	-12.37312	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051708

RunID FID-4_436671

Instrument ID FID-4.i Injection Date 30-MAY-2023 1848
Lab File ID 021.D ICAL Date(s) 24-JAN-2017 24-JAN-2017
Analysis Type WATER ICAL Times 0906 1113
Lab Sample ID RSK-CCV Quant Type ESTD

Compound	$\overline{RRF}$ / $\overline{RRF}$ / Amount	RF250	CCV RRF250	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Methane	975	846	846	0.010	13.22330	20.0	Averaged	
Ethene	586	632	632	0.010	-7.95270	20.0	Averaged	
Ethane	719	829	829	0.010	-15.16165	20.0	Averaged	

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Analysis Run Log

Semi-Volatiles by RSK-175

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
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Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
FID-4_322102

Run ID FID-4_322102 **Start Date** 01/24/17 **EndDate** 01/24/17

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
09:06	ICAL1	ICAL1	ICAL1	001.D	01/24/17	1
09:30	ICAL2	ICAL2	ICAL2	002.D	01/24/17	1
09:59	ICAL3	ICAL3	ICAL3	003.D	01/24/17	1
10:15	ICAL4	ICAL4	ICAL4	004.D	01/24/17	1
10:39	ICAL5	ICAL5	ICAL5	005.D	01/24/17	1
10:57	ICAL6	ICAL6	ICAL6	006.D	01/24/17	1
11:13	ICAL7	ICAL7	ICAL7	007.D	01/24/17	1
12:05	ICV	ICV	ICV	008.D	01/24/17	1

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051708

RunID
FID-4_436671

Run ID FID-4_436671 **Start Date** 05/30/23 **EndDate** 05/30/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
09:21	RSK-CCV	CCV	RSK-CCV	001.D	05/30/23	1
09:36	MBLK-230530	MBLK	MBLK-230530	002.D	05/30/23	1
09:50	LCS-230530	LCS	LCS-230530	003.D	05/30/23	1
10:06	LCSD-230530	LCSD	LCSD-230530	004.D	05/30/23	1
10:16	ZZZZZZZZZZ	SAMP	HS23051834-04	005.D	05/30/23	1
10:43	ZZZZZZMS	MS	HS23051834-04MS	006.D	05/30/23	1
10:52	ZZZZZZMSD	MSD	HS23051834-04MSD	007.D	05/30/23	1
16:24	ZZZZZZZZZZ	SAMP	HS23051834-02	008.D	05/30/23	1
16:37	ZZZZZZZZZZ	SAMP	HS23051834-03	009.D	05/30/23	1
16:46	ZZZZZZZZZZ	SAMP	HS23051834-02	010.D	05/30/23	500
16:54	RSK-CCV	CCV	RSK-CCV	011.D	05/30/23	1
17:09	ZZZZZZZZZZ	SAMP	HS23051834-03	012.D	05/30/23	500
17:18	ZZZZZZZZZZ	SAMP	HS23051772-02	013.D	05/30/23	1
17:29	ZZZZZZZZZZ	SAMP	HS23051774-02	014.D	05/30/23	1
17:41	50WW13_052423	SAMP	HS23051708-04	015.D	05/30/23	1
17:55	50WW11_052423	SAMP	HS23051708-05	016.D	05/30/23	1
18:03	50WW06_052423	SAMP	HS23051708-06	017.D	05/30/23	1
18:21	ZZZZZZZZZZ	SAMP	HS23051832-02	018.D	05/30/23	1
18:31	ZZZZZZZZZZ	SAMP	HS23051916-02	019.D	05/30/23	1
18:39	ZZZZZZZZZZ	SAMP	HS23051920-01	020.D	05/30/23	1
18:48	RSK-CCV	CCV	RSK-CCV	021.D	05/30/23	1

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Raw Data FID-4 322102

Semi-Volatiles by RSK-175

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\001.D Page 1
Report Date: 28-Sep-2022 10:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.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\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.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	1.043	1.043	0.000	374	0.38600	0.383(a)
2 Ethene	1.553	1.553	0.000	361	0.67400	0.615(a)
3 Ethane	1.716	1.716	0.000	435	0.72200	0.590(a)
4 Propane	4.073	4.073	0.000	500	1.05900	1.743
5 N-Butane	7.640	7.640	0.000	438	1.39800	3.271

QC Flag Legend

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

01230992

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\001.D

Date : 24-JAN-2017 09:06

Client ID: ICAL1

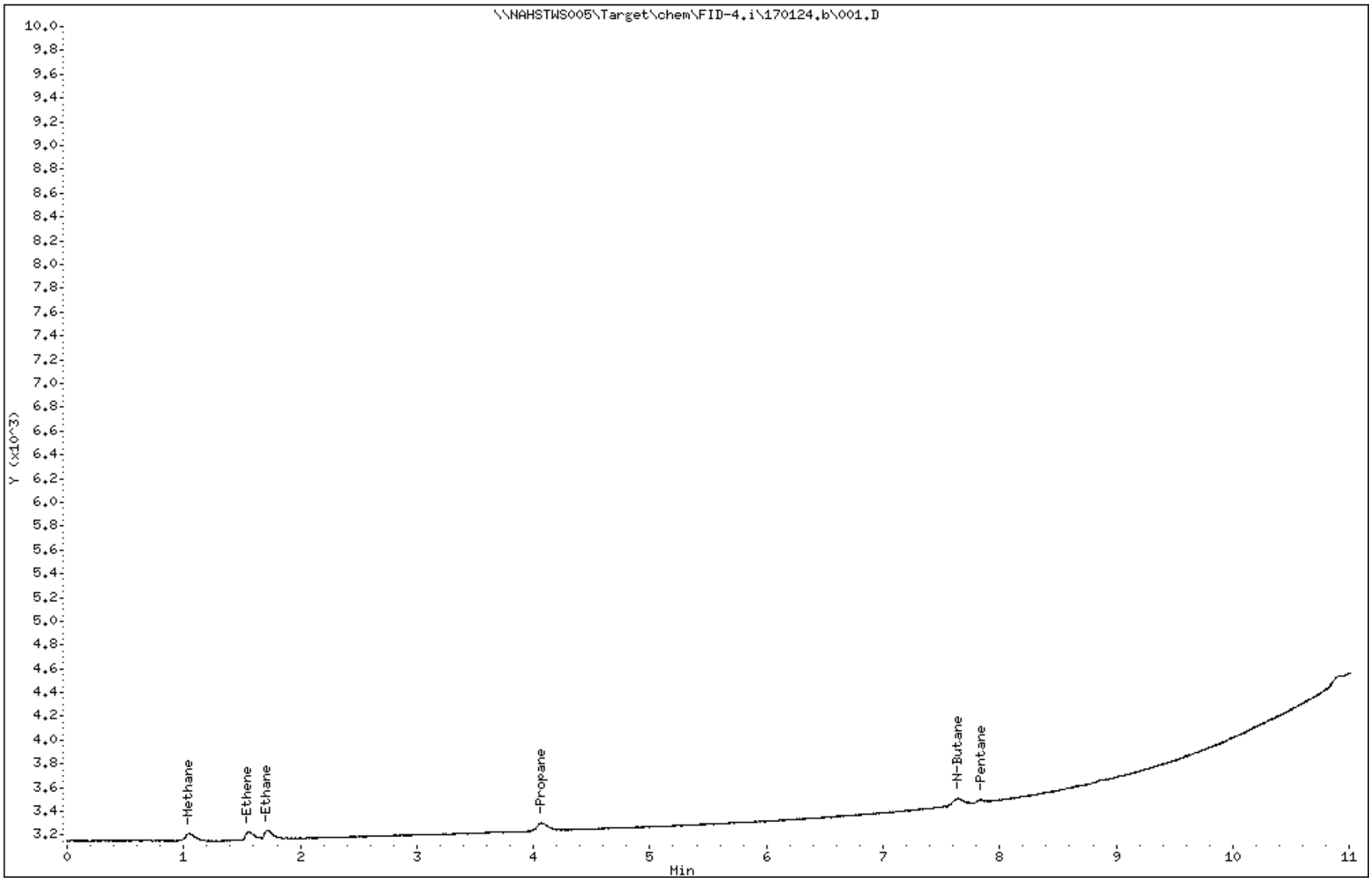
Instrument: FID-4.i

Sample Info: ICAL1;ICAL1;;;

Operator: JA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\001.D
Inj Date : 24-JAN-2017 09:06
InstruID : FID-4.i
LabSampID : ICAL1

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.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\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 09:06 Cal File: 001.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.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	1.023	1.023	0.000	944	0.96500	0.968
2 Ethene	1.560	1.560	0.000	956	1.68500	1.630
3 Ethane	1.723	1.723	0.000	1209	1.80400	1.641
4 Propane	4.123	4.123	0.000	1279	2.64600	2.927
5 N-Butane	7.716	7.716	0.000	936	3.49600	4.180

01230995

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\002.D

Date : 24-JAN-2017 09:30

Client ID: ICAL2

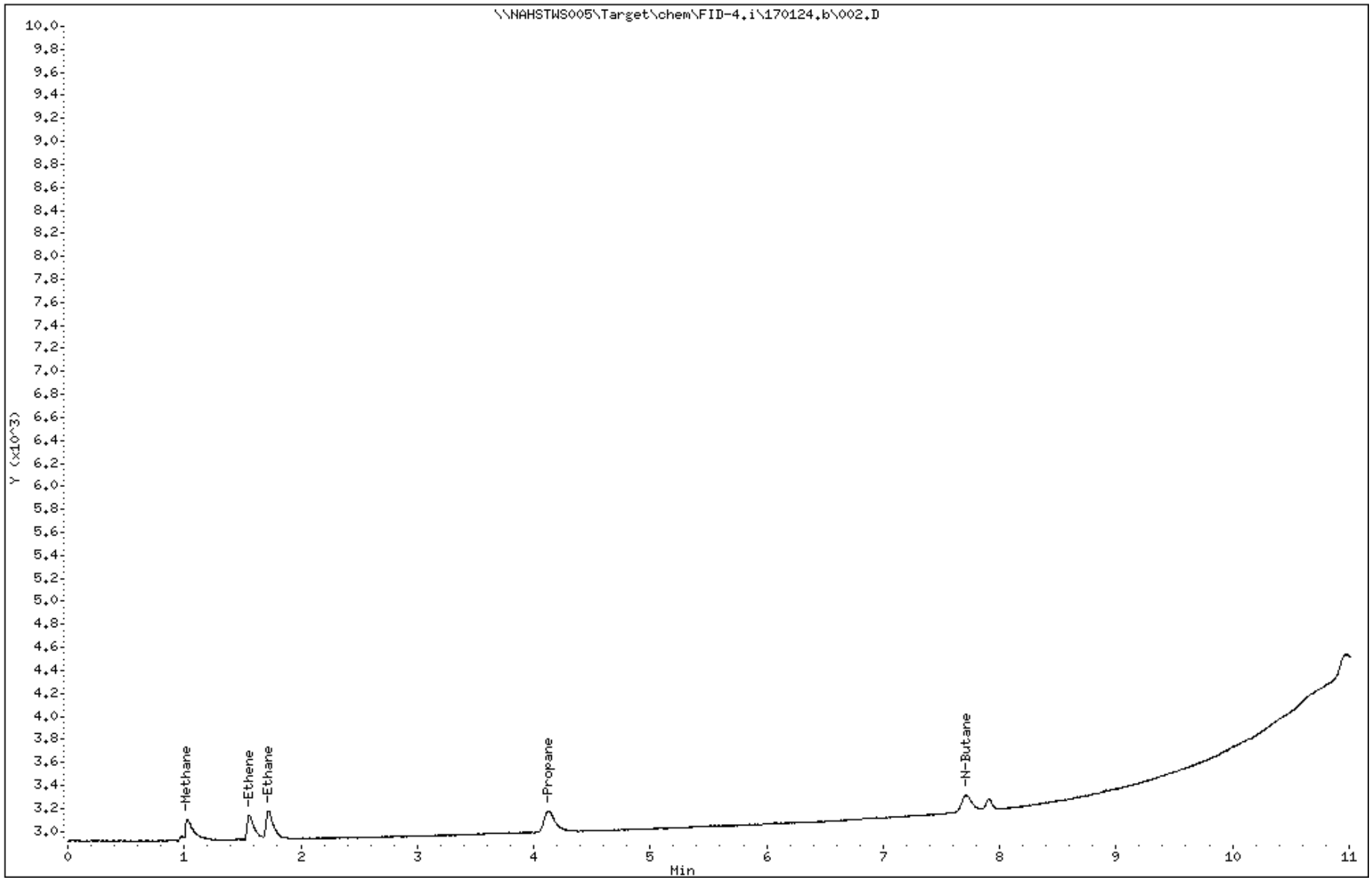
Instrument: FID-4.i

Sample Info: ICAL2;ICAL2;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\002.D
Inj Date : 24-JAN-2017 09:30
InstruID : FID-4.i
LabSampID : ICAL2

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.D Page 1
Report Date: 28-Sep-2022 10:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.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\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 09:30 Cal File: 002.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.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	1.043	1.043	0.000	1967	1.92900	2.018
2 Ethene	1.570	1.570	0.000	1904	3.37000	3.247
3 Ethane	1.736	1.736	0.000	2378	3.60900	3.229
4 Propane	4.123	4.123	0.000	2602	5.29300	4.926
5 N-Butane	7.703	7.703	0.000	2034	6.99100	6.176

01230998

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.D

Page 1

Date : 24-JAN-2017 09:59

Client ID: ICAL3

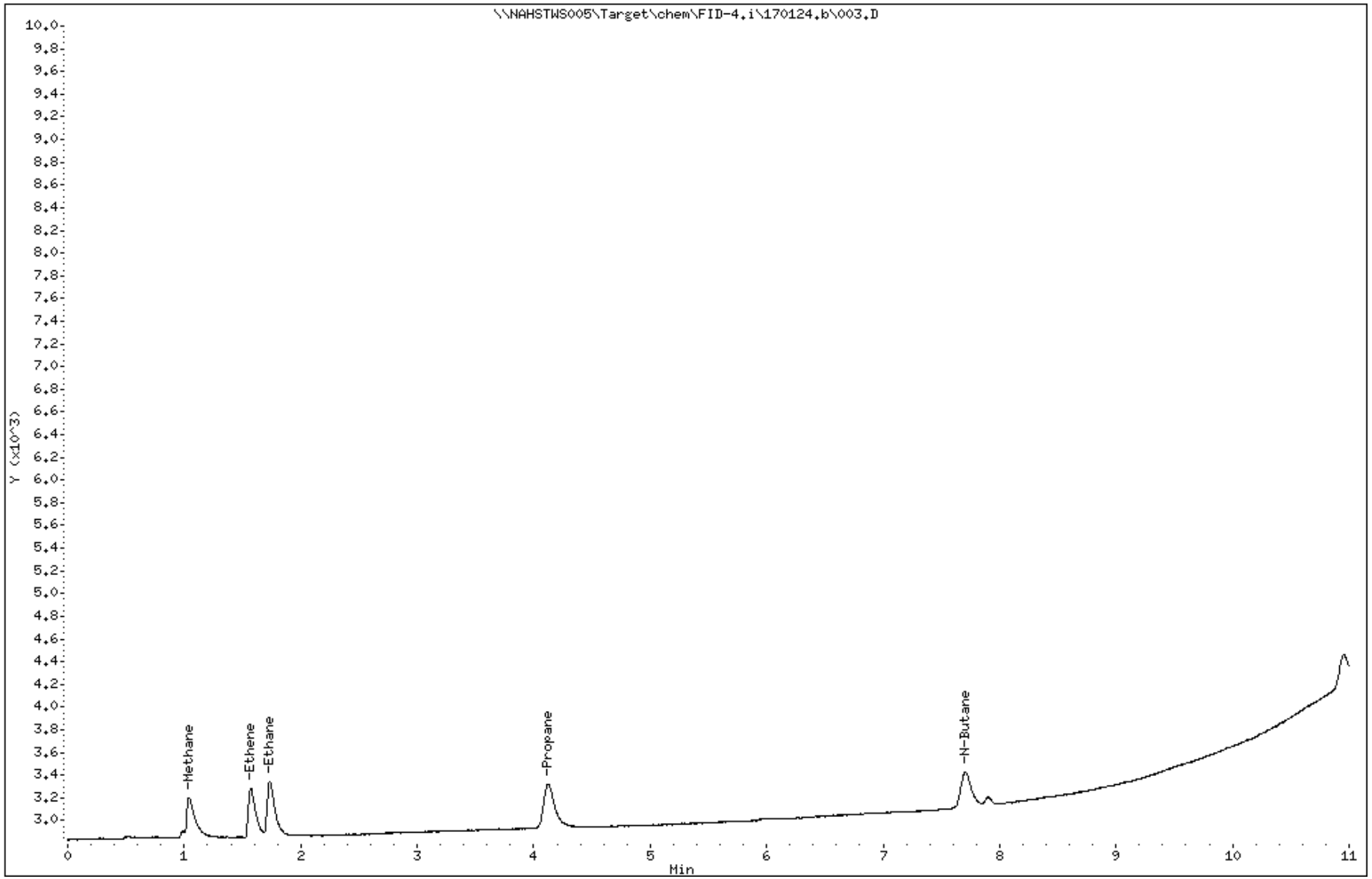
Instrument: FID-4.i

Sample Info: ICAL3;ICAL3;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.D
Inj Date : 24-JAN-2017 09:59
InstruID : FID-4.i
LabSampID : ICAL3

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D Page 1
Report Date: 28-Sep-2022 10:02

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.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\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:02 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.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)	ON-COL (ug/L)
1 Methane	1.033	1.033	0.000	3399	3.85900	3.488
2 Ethene	1.563	1.563	0.000	3478	6.74000	5.932
3 Ethane	1.726	1.726	0.000	4310	7.21700	5.853
4 Propane	4.120	4.120	0.000	4785	10.5850	8.190
5 N-Butane	7.703	7.703	0.000	3864	13.9820	9.473(M)

QC Flag Legend

M - Compound response manually integrated.

01231001

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D

Date : 24-JAN-2017 10:15

Client ID: ICAL4

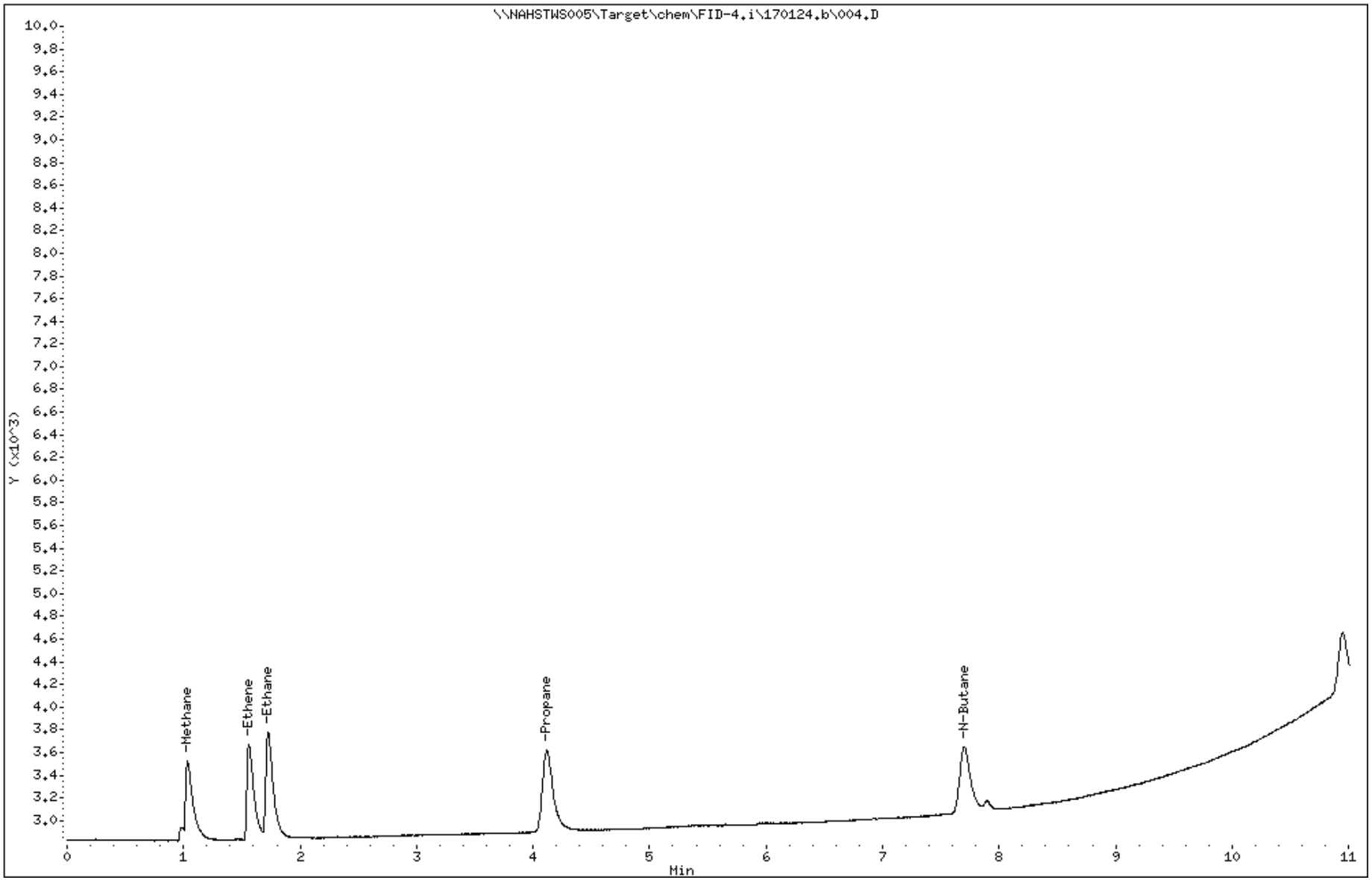
Instrument: FID-4.i

Sample Info: ICAL4;ICAL4;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



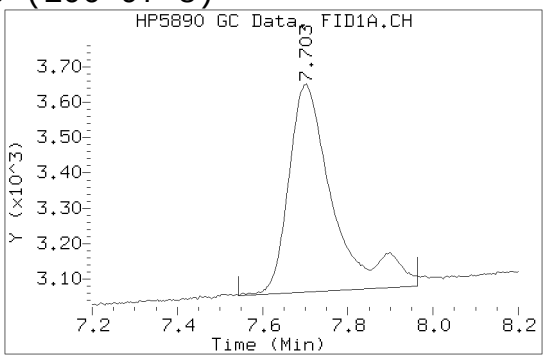
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Inj Date : 24-JAN-2017 10:15
InstruID : FID-4.i
LabSampID : ICAL4

N-Butane (106-97-8)

Reason Code:

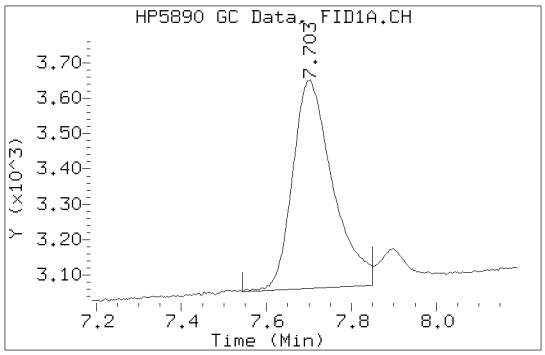
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28-Sep-2022
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pham



AFTER

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591
28-Sep-2022
10:02
linh
pham



Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\005.D Page 1
Report Date: 28-Sep-2022 10:02

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.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\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:02 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: stdNIP2.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)	ON-COL (ug/L)
1 Methane	1.043	1.043	0.000	9268	9.64700	9.511
2 Ethene	1.570	1.570	0.000	11210	16.8500	19.121
3 Ethane	1.733	1.733	0.000	14588	18.0430	19.811
4 Propane	4.120	4.120	0.000	18294	26.4630	27.415
5 N-Butane	7.700	7.700	0.000	18446	34.9550	34.419(M)

QC Flag Legend

M - Compound response manually integrated.

01231004

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\005.D

Date : 24-JAN-2017 10:39

Client ID: ICAL5

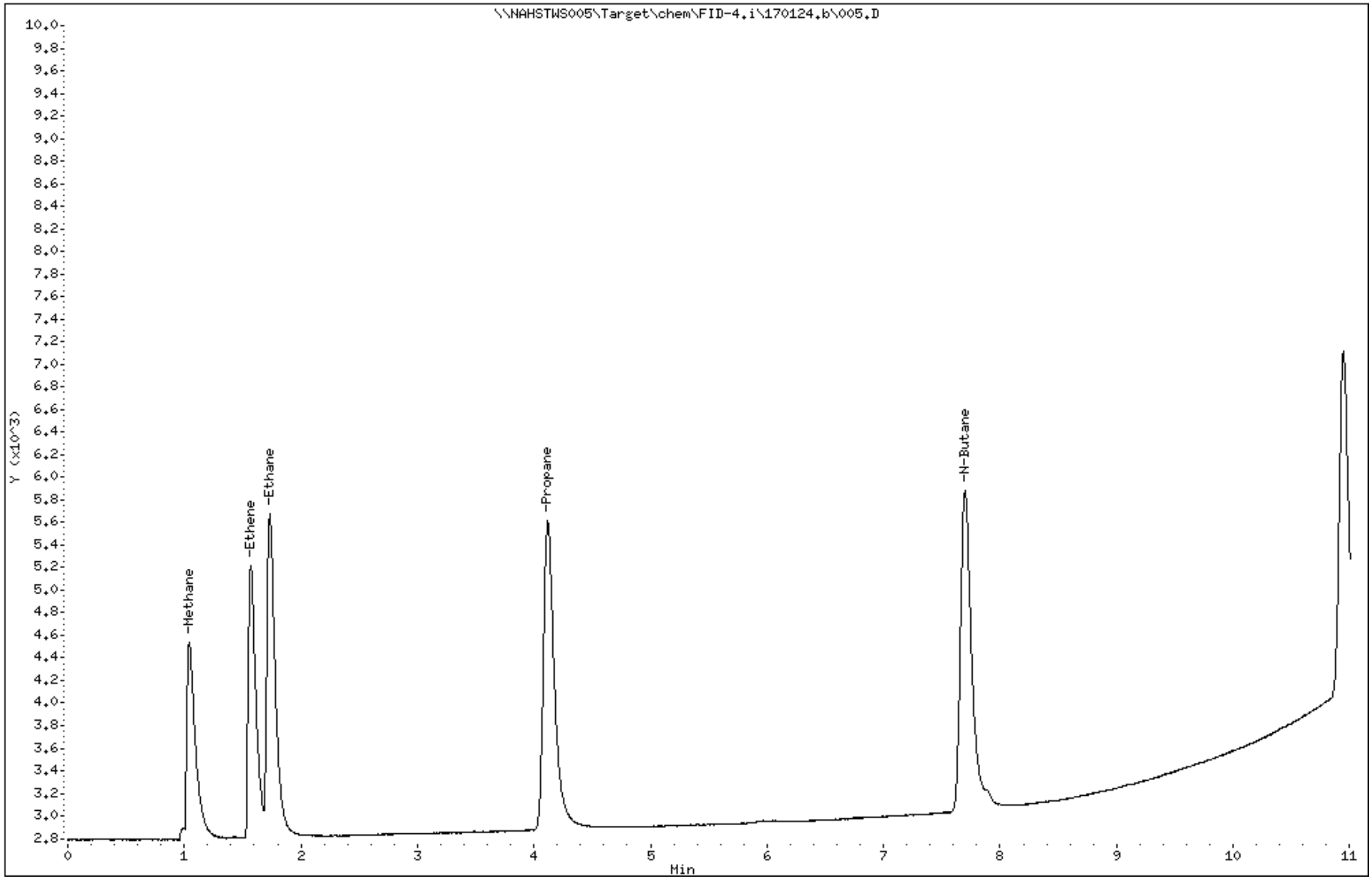
Instrument: FID-4.i

Sample Info: ICAL5;ICAL5;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



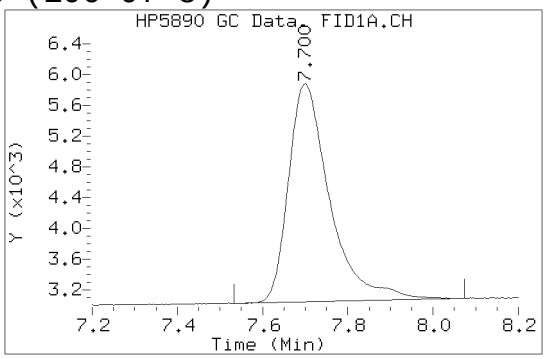
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Inj Date : 24-JAN-2017 10:39
InstruID : FID-4.i
LabSampID : ICAL5

N-Butane (106-97-8)

Reason Code:

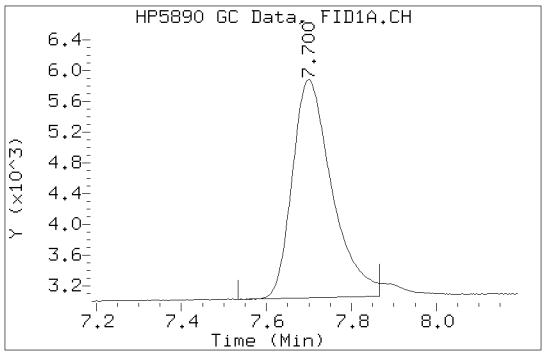
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28-Sep-2022
10:02
linh
pham



AFTER

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AREA
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28-Sep-2022
10:02
linh
pham



Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\006.D Page 1
Report Date: 28-Sep-2022 10:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.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\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i 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
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	1.023	1.023	0.000	17957	19.2940	18.429
2 Ethene	1.550	1.550	0.000	22910	53.8200	39.078
3 Ethane	1.716	1.716	0.000	29505	36.0860	40.070
4 Propane	4.110	4.110	0.000	38286	52.9260	52.796
5 N-Butane	7.696	7.696	0.000	42817	69.9110	70.855

01231007

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\006.D

Page 1

Date : 24-JAN-2017 10:57

Client ID: ICAL6

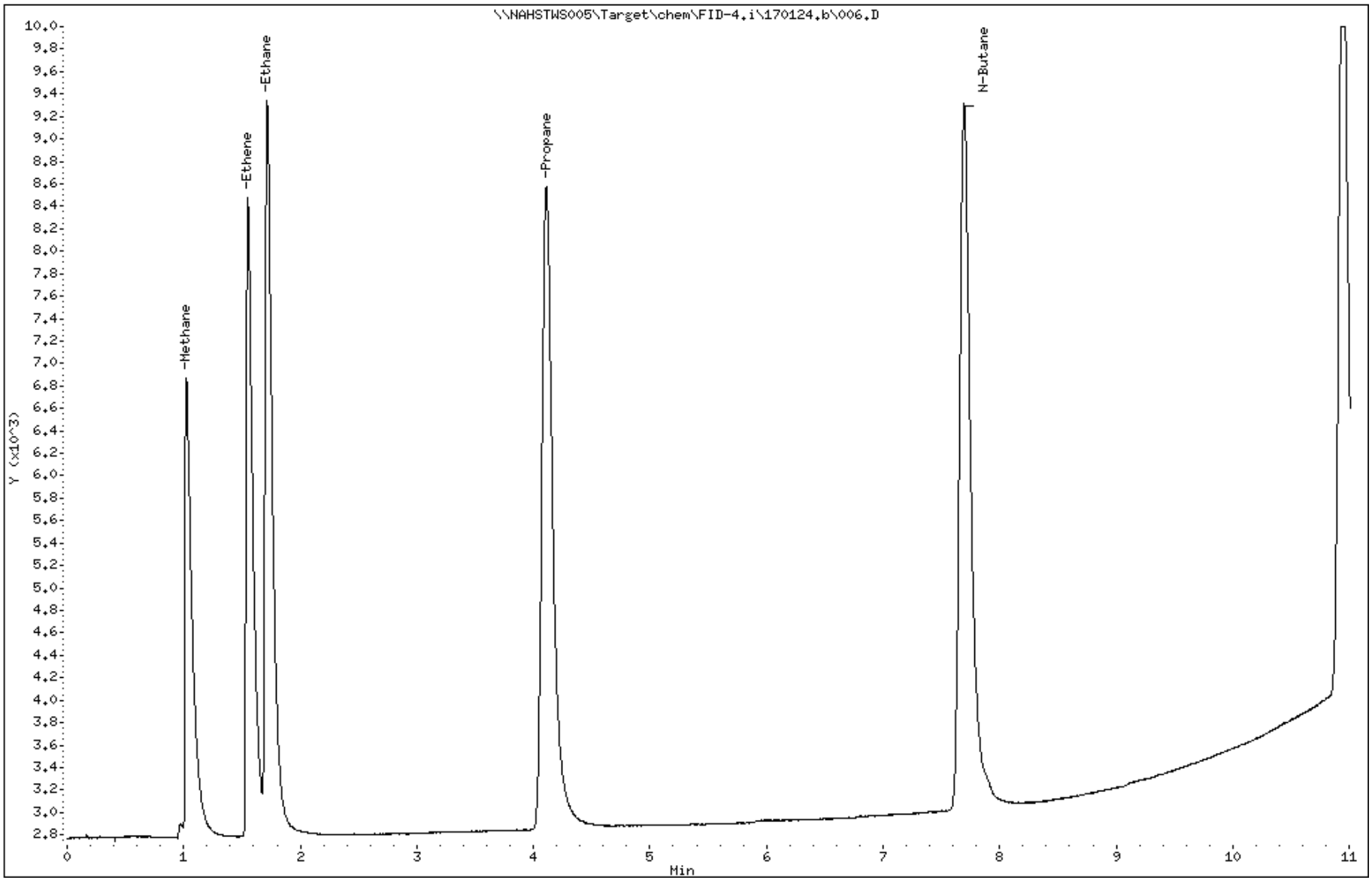
Instrument: FID-4.i

Sample Info: ICAL6;ICAL6;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\006.D
Inj Date : 24-JAN-2017 10:57
InstruID : FID-4.i
LabSampID : ICAL6

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\007.D Page 1
Report Date: 28-Sep-2022 10:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.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\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i 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
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)	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.

01231010

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\007.D

Page 1

Date : 24-JAN-2017 11:13

Client ID: ICAL7

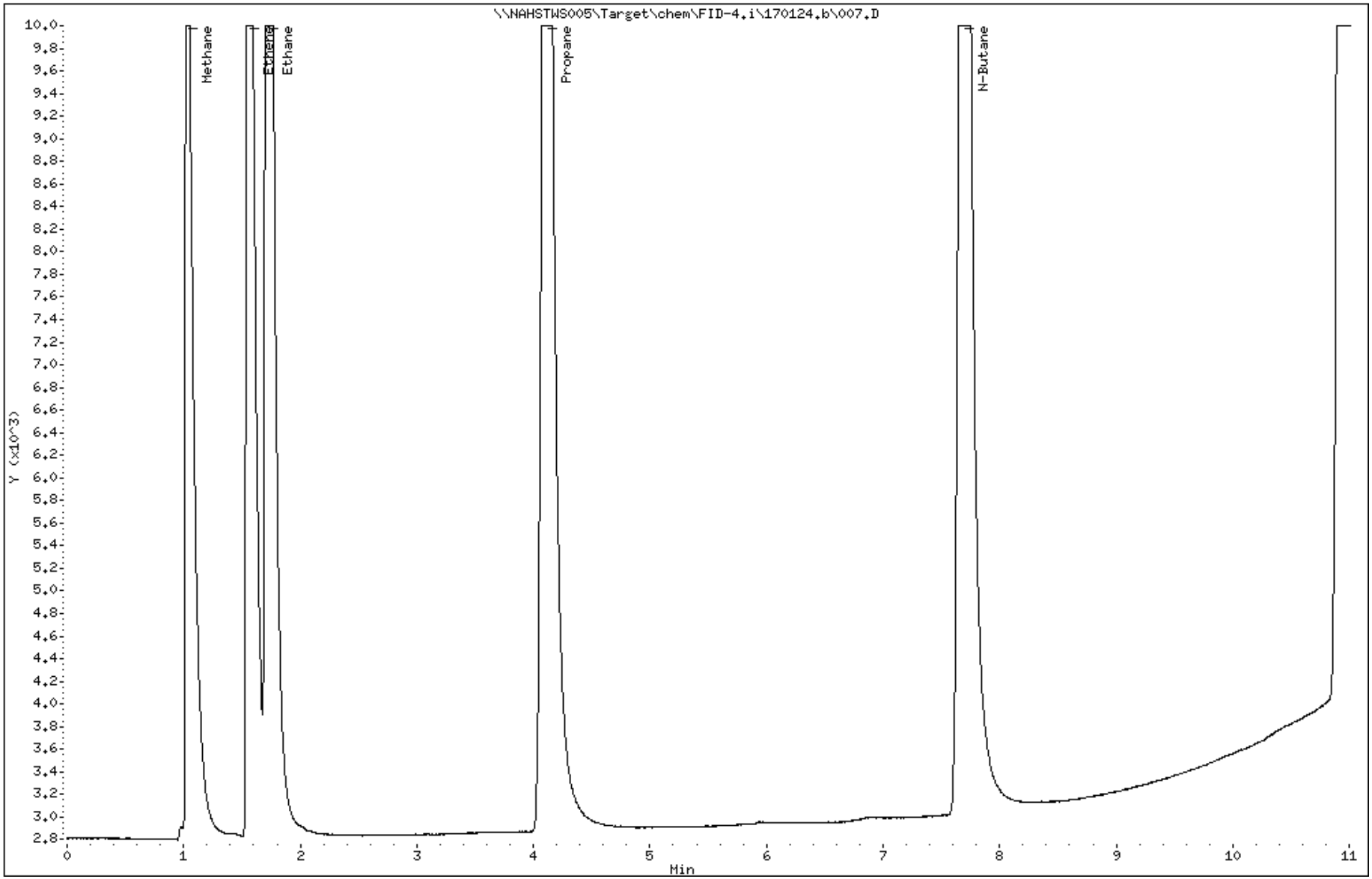
Instrument: FID-4.i

Sample Info: ICAL7;ICAL7;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\007.D
Inj Date : 24-JAN-2017 11:13
InstruID : FID-4.i
LabSampID : ICAL7

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\008.D Page 1
Report Date: 28-Sep-2022 10:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.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\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i 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
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	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

01231013

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\008.D

Page 1

Date : 24-JAN-2017 12:05

Client ID: ICV

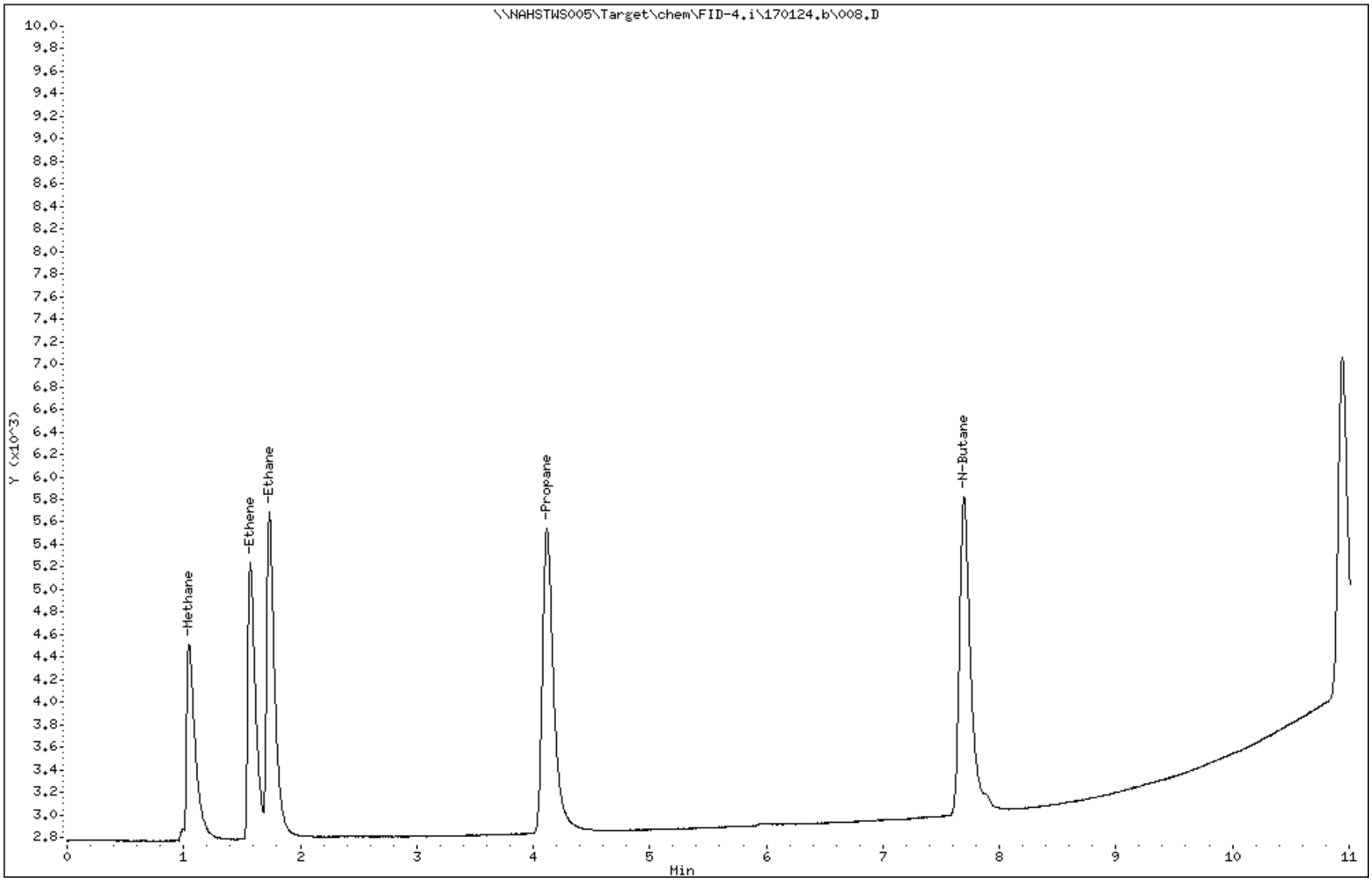
Instrument: FID-4.i

Sample Info: ICV;ICV;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\008.D
Inj Date : 24-JAN-2017 12:05
InstruID : FID-4.i
LabSampID : ICV

NO MANUAL INTEGRATIONS

01231015

right solutions.
right partner.

Raw Data FID-4 436671

Semi-Volatiles by RSK-175

Workorder

HS23051708

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230530.b\001.D Page 1
Report Date: 06-Jun-2023 15:31

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\001.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 30-MAY-2023 09:21
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\230530.b\RSKNI3.m
Meth Date : 06-Jun-2023 15:31 FID-4.i 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	0.426	0.426	0.000	7653	9.64700	7.849
2 Ethene	0.640	0.640	0.000	9488	16.8500	16.197
3 Ethane	0.710	0.710	0.000	13743	18.0430	19.101

01231017

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230530.b\001.D

Page 1

Date : 30-MAY-2023 09:21

Client ID: RSK-CCV

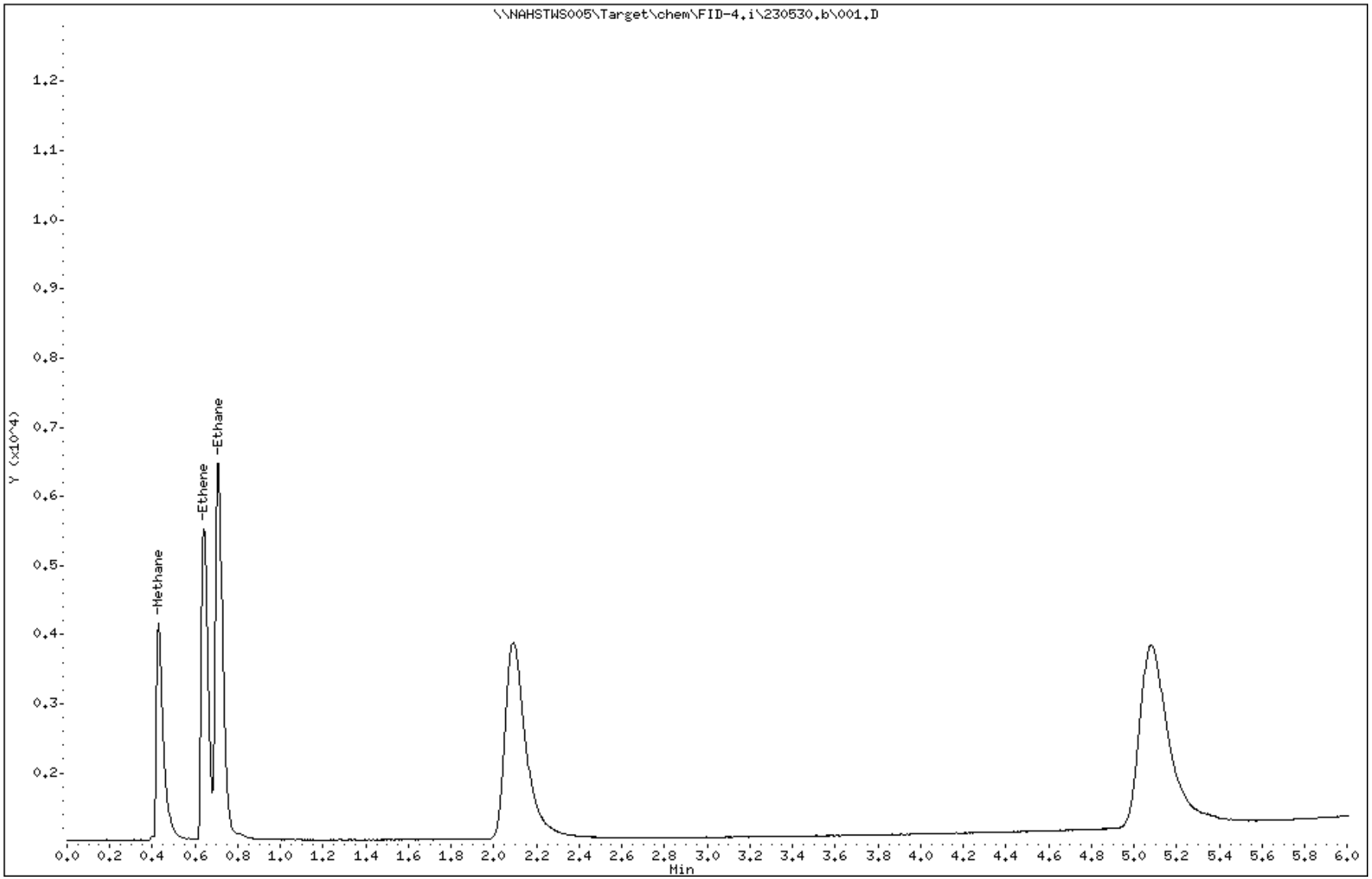
Instrument: FID-4.i

Sample Info: RSK-CCV;RSK-CCV;2;4

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\001.D
Inj Date : 30-MAY-2023 09:21
InstruID : FID-4.i
LabSampID : RSK-CCV

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\002.D
Lab Smp Id: MBLK-230530 Client Smp ID: MBLK-230530
Inj Date : 30-MAY-2023 09:36
Operator : PL Inst ID: FID-4.i
Smp Info : MBLK-230530;MBLK-230530;3;;BLANK
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\RSKNI3.m
Meth Date : 06-Jun-2023 15:31 FID-4.i 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)

01231020

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230530.b\002.D

Date : 30-MAY-2023 09:36

Client ID: MBLK-230530

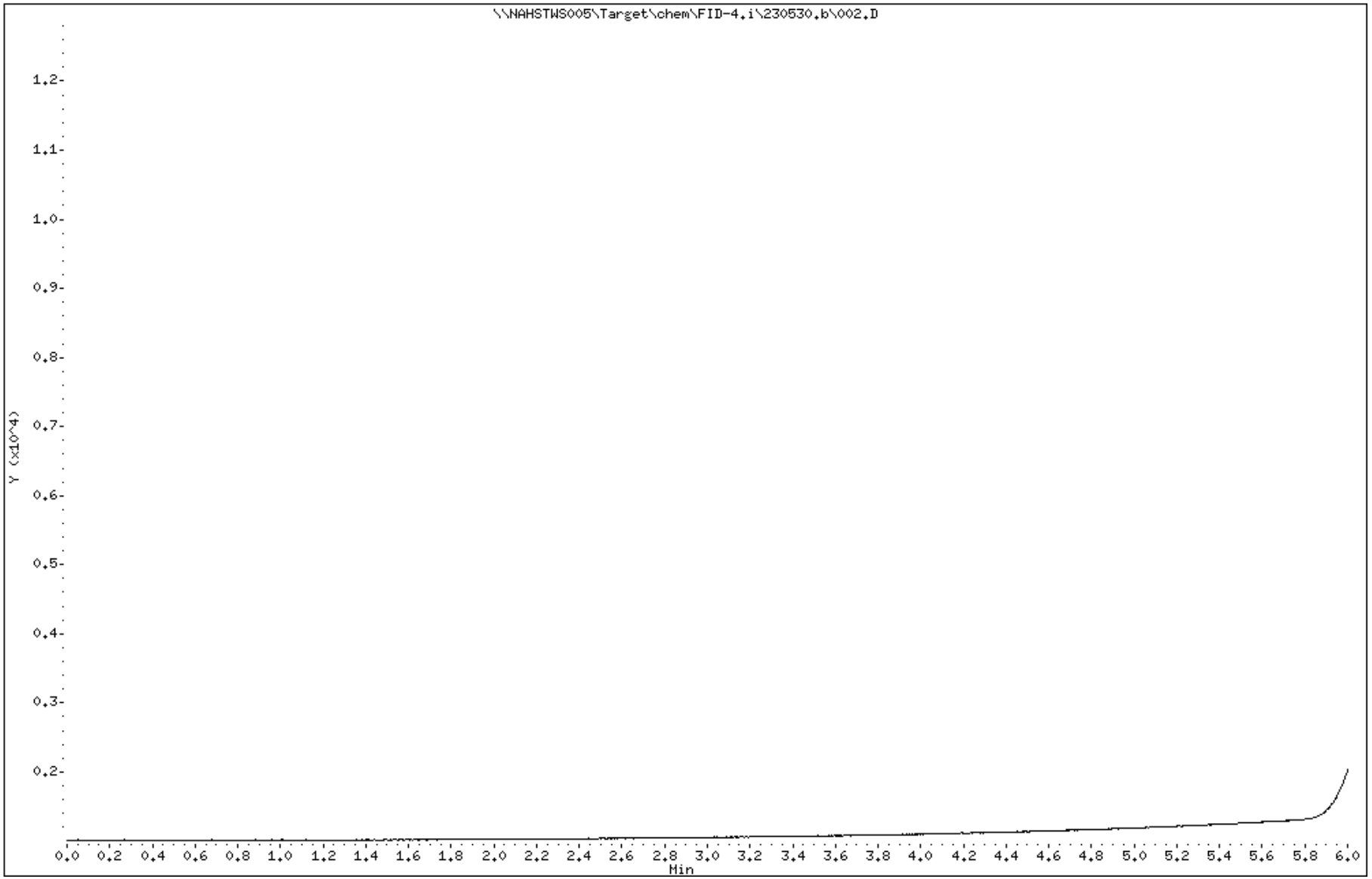
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Sample Info: MBLK-230530;MBLK-230530;3;;BLANK

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\002.D
Inj Date : 30-MAY-2023 09:36
InstruID : FID-4.i
LabSampID : MBLK-230530

NO MANUAL INTEGRATIONS

Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\003.D Page 1
Report Date: 30-May-2023 10:19

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\003.D
Lab Smp Id: LCS-230530 Client Smp ID: LCS-230530
Inj Date : 30-MAY-2023 09:50
Operator : PL Inst ID: FID-4.i
Smp Info : LCS-230530;LCS-230530;3;;LCS
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\230530.b\RSKNI3.m
Meth Date : 30-May-2023 09:35 samy.mata 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: NAHSTW7022

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	0.433	0.426	0.007	8274	8.48622	8.486
2 Ethene	0.650	0.640	0.010	10099	17.2408	17.240
3 Ethane	0.716	0.710	0.006	15042	20.9065	20.906

01231023

Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\003.D

Page 1

Date : 30-MAY-2023 09:50

Client ID: LCS-230530

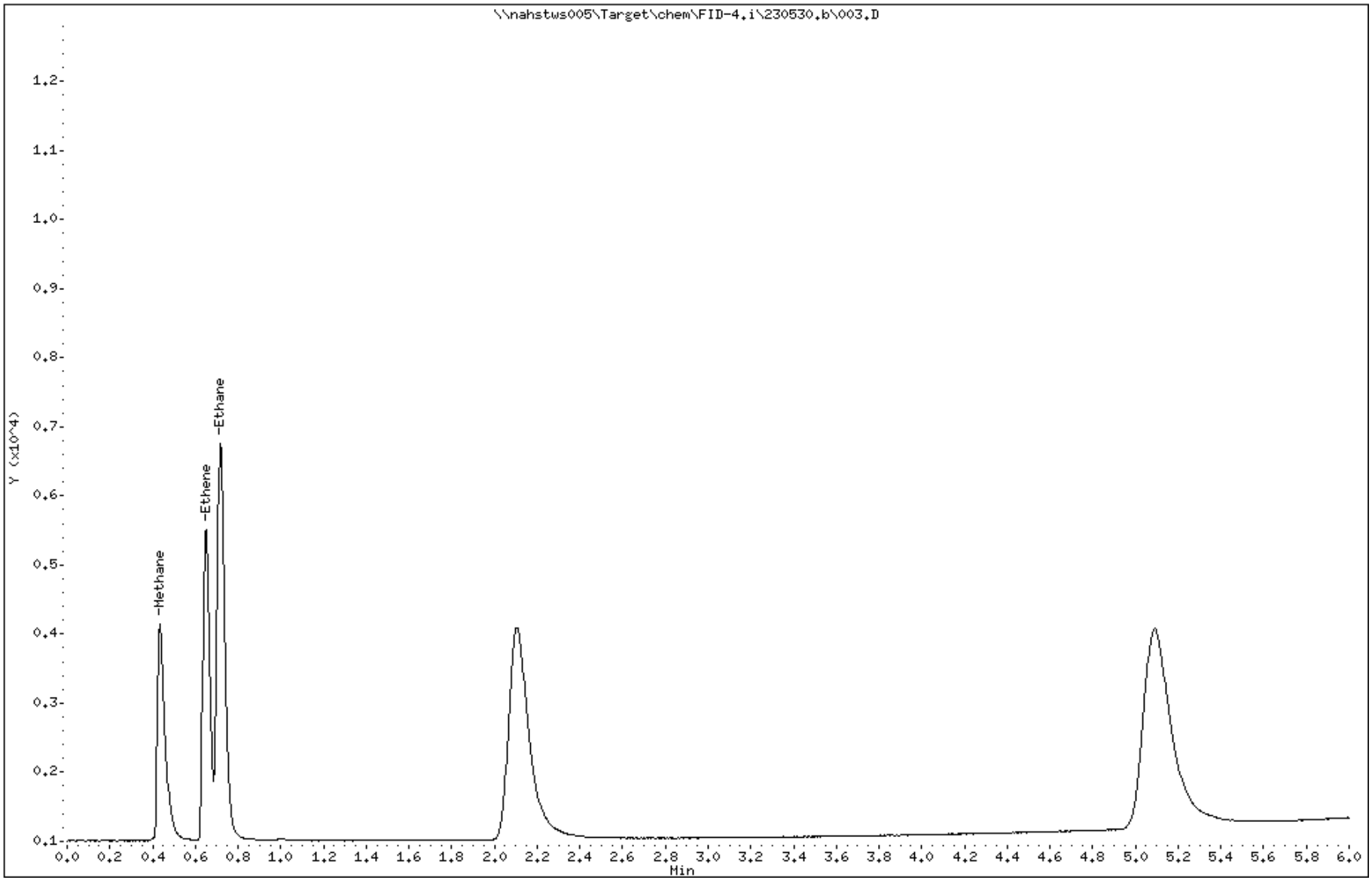
Instrument: FID-4.i

Sample Info: LCS-230530;LCS-230530;3;;LCS

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\nahstws005\Target\chem\FID-4.i\230530.b\003.D
Inj Date : 30-MAY-2023 09:50
InstruID : FID-4.i
LabSampID : LCS-230530

NO MANUAL INTEGRATIONS

Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\004.D Page 1
Report Date: 30-May-2023 10:20

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\004.D
Lab Smp Id: LCSD-230530 Client Smp ID: LCSD-230530
Inj Date : 30-MAY-2023 10:06
Operator : PL Inst ID: FID-4.i
Smp Info : LCSD-230530;LCSD-230530;3;;LCSD
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\230530.b\RSKNI3.m
Meth Date : 30-May-2023 09:35 samy.mata 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: NAHSTW7022

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	0.430	0.426	0.004	8514	8.73238	8.732
2 Ethene	0.646	0.640	0.006	10334	17.6420	17.642
3 Ethane	0.713	0.710	0.003	14949	20.7772	20.777

01231026

Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\004.D

Date : 30-MAY-2023 10:06

Client ID: LCSD-230530

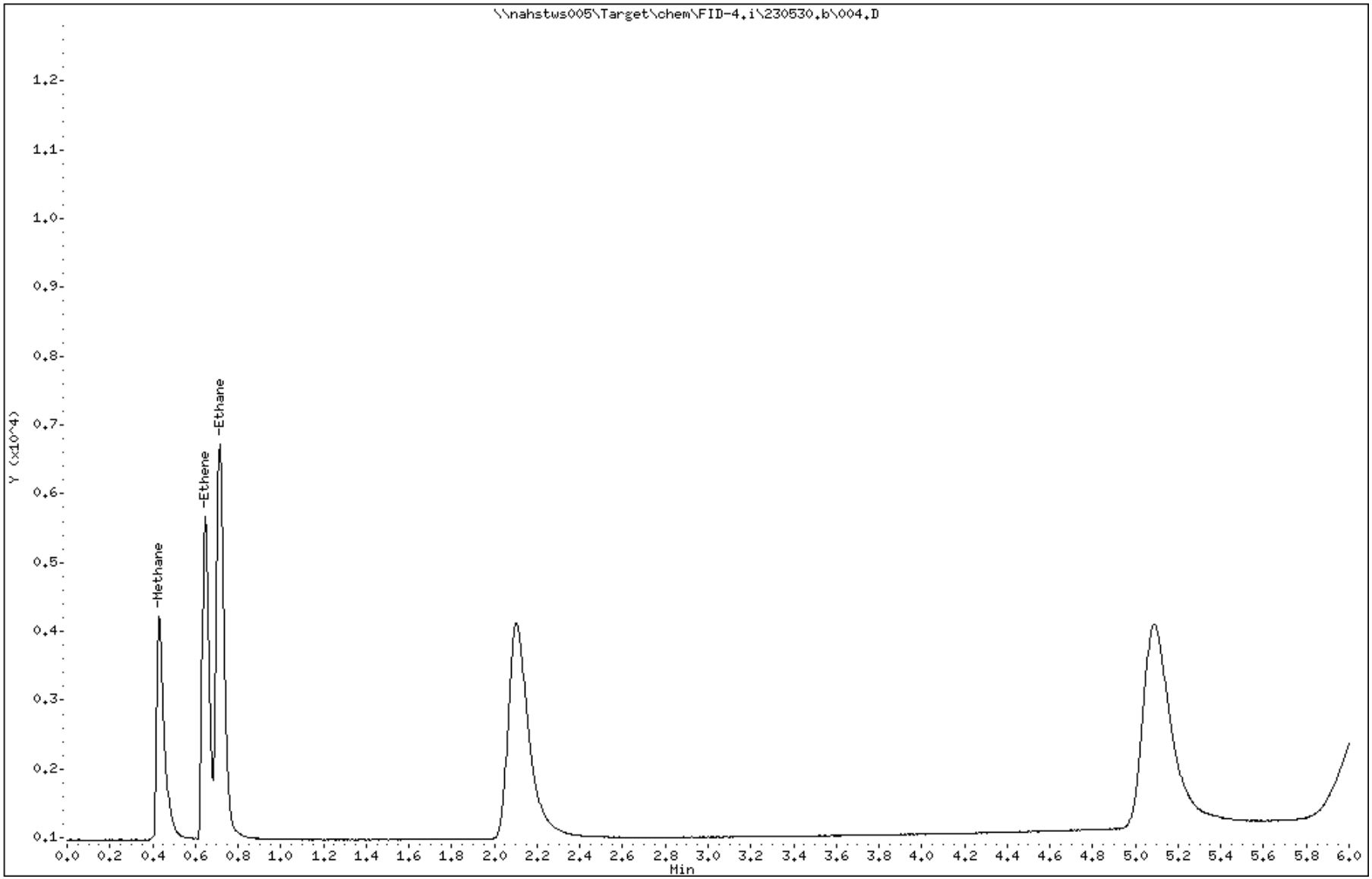
Instrument: FID-4.i

Sample Info: LCSD-230530;LCSD-230530;3;;LCSD

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\nahstws005\Target\chem\FID-4.i\230530.b\004.D
Inj Date : 30-MAY-2023 10:06
InstruID : FID-4.i
LabSampID : LCSD-230530

NO MANUAL INTEGRATIONS

Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\006.D Page 1
Report Date: 30-May-2023 10:51

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\006.D
Lab Smp Id: HS23051834-04MS Client Smp ID: HS23051834-04MS
Inj Date : 30-MAY-2023 10:43
Operator : PL Inst ID: FID-4.i
Smp Info : HS23051834-04MS;HS23051834-04MS
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\230530.b\RSKNI3.m
Meth Date : 30-May-2023 09:35 samy.mata 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: NAHSTW7022

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	0.433	0.426	0.007	14155	14.5181	14.518(R)
2 Ethene	0.646	0.640	0.006	9859	16.8311	16.831
3 Ethane	0.716	0.710	0.006	13630	18.9440	18.943

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

01231029

Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\006.D

Date : 30-MAY-2023 10:43

Client ID: HS23051834-04MS

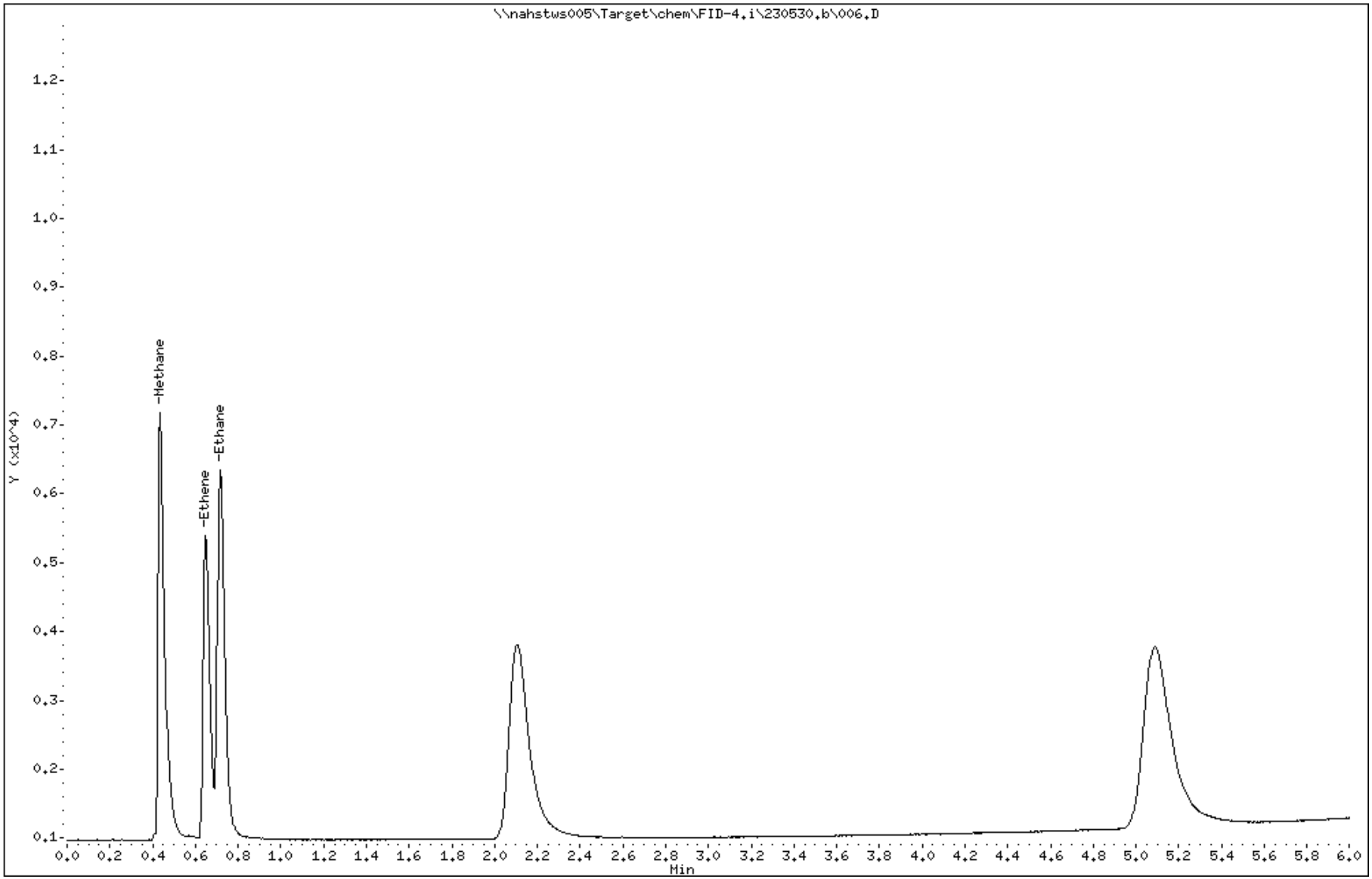
Instrument: FID-4.i

Sample Info: HS23051834-04MS;HS23051834-04MS

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\nahstws005\Target\chem\FID-4.i\230530.b\006.D
Inj Date : 30-MAY-2023 10:43
InstruID : FID-4.i
LabSampID : HS23051834-04MS

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230530.b\007.D Page 1
Report Date: 06-Jun-2023 15:31

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\007.D
Lab Smp Id: HS23051834-04MSD Client Smp ID: HS23051834-04MSD
Inj Date : 30-MAY-2023 10:52
Operator : PL Inst ID: FID-4.i
Smp Info : HS23051834-04MSD;HS23051834-04MSD
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\RSKNI3.m
Meth Date : 06-Jun-2023 15:31 FID-4.i 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	0.433	0.426	0.007	13779	14.1324	14.132(R)
2 Ethene	0.643	0.640	0.003	9835	16.7901	16.790(M)
3 Ethane	0.713	0.710	0.003	13457	18.7035	18.703(M)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

01231032

Data File: \\NAHSTWS005\Target\chem\FID-4.i\230530.b\007.D

Page 1

Date : 30-MAY-2023 10:52

Client ID: HS23051834-04MSD

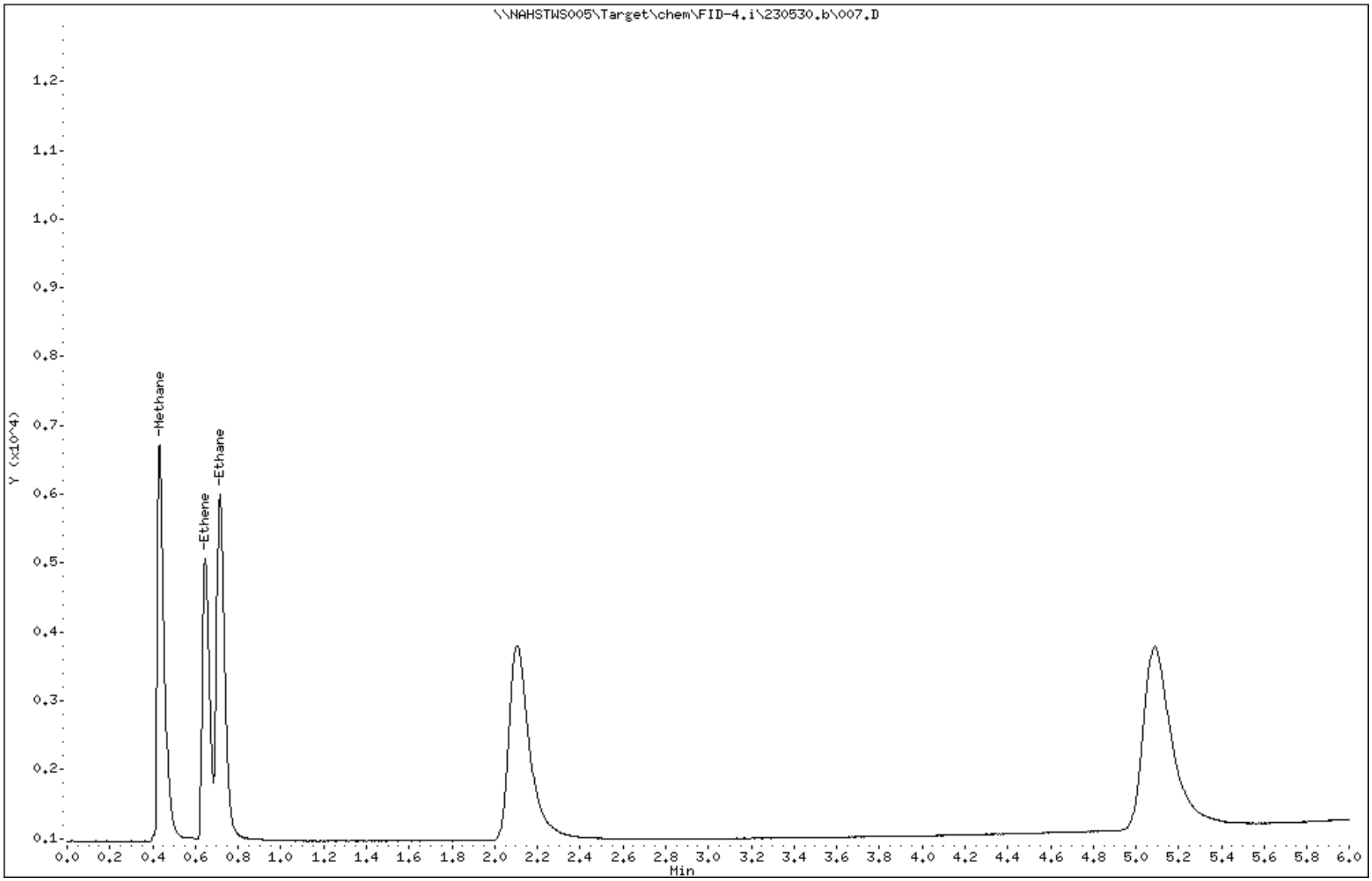
Instrument: FID-4.i

Sample Info: HS23051834-04MSD;HS23051834-04MSD

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53

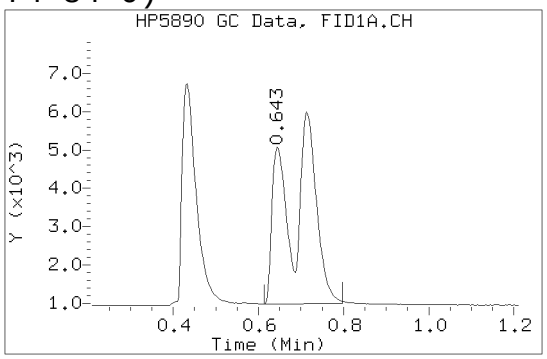


Data File : \\NAHSTWS005\Target\chem\FID-4.i\230530.b\007.D
Inj Date : 30-MAY-2023 10:52
InstruID : FID-4.i
LabSampID : HS23051834-04MSD

Ethane (74-84-0)

BEFORE

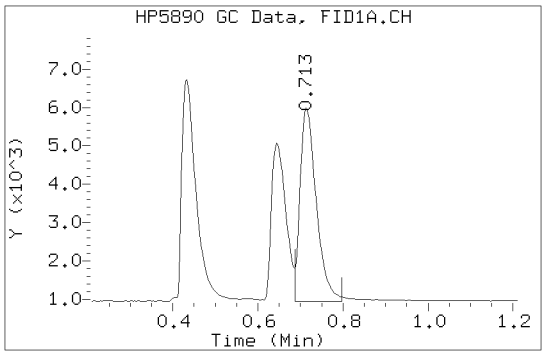
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AREA
22616
HEIGHT
4081
30-May-2023
10:59
ALSHS
Server



Reason Code:

AFTER

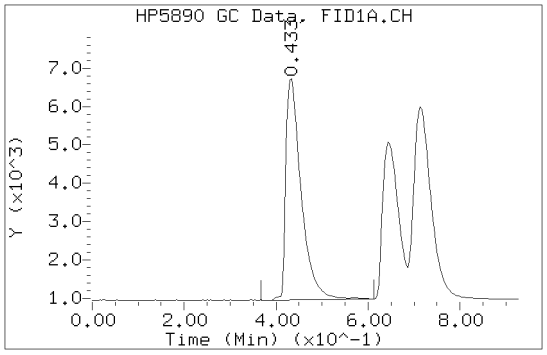
MASS
44
AREA
13457
HEIGHT
5040
06-Jun-2023
15:31
ALSHS
Ser



Ethene (74-85-1)

BEFORE

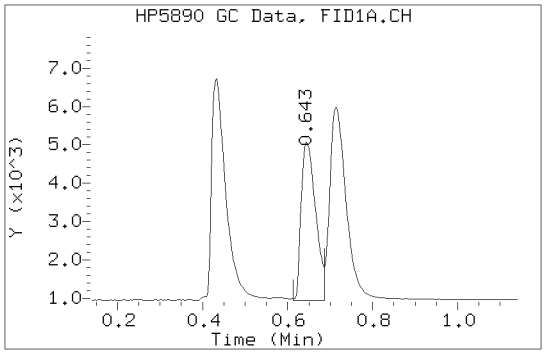
MASS
100
AREA
0
HEIGHT
0
30-May-2023
10:59
ALSHS
Server



Reason Code:

AFTER

MASS
100
AREA
9835
HEIGHT
4121
06-Jun-2023
15:31
ALSHS
Ser



Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\011.D Page 1
Report Date: 30-May-2023 17:08

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\011.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 30-MAY-2023 16:54
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\230530.b\RSKNI3.m
Meth Date : 30-May-2023 17:07 samy.mata 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: NAHSTW7022

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	0.433	0.433	0.000	7985	9.64700	8.189
2 Ethene	0.646	0.646	0.000	10473	16.8500	17.879(M)
3 Ethane	0.713	0.713	0.000	14588	18.0430	20.275(M)

QC Flag Legend

M - Compound response manually integrated.

01231035

Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\011.D

Date : 30-MAY-2023 16:54

Client ID: RSK-CCV

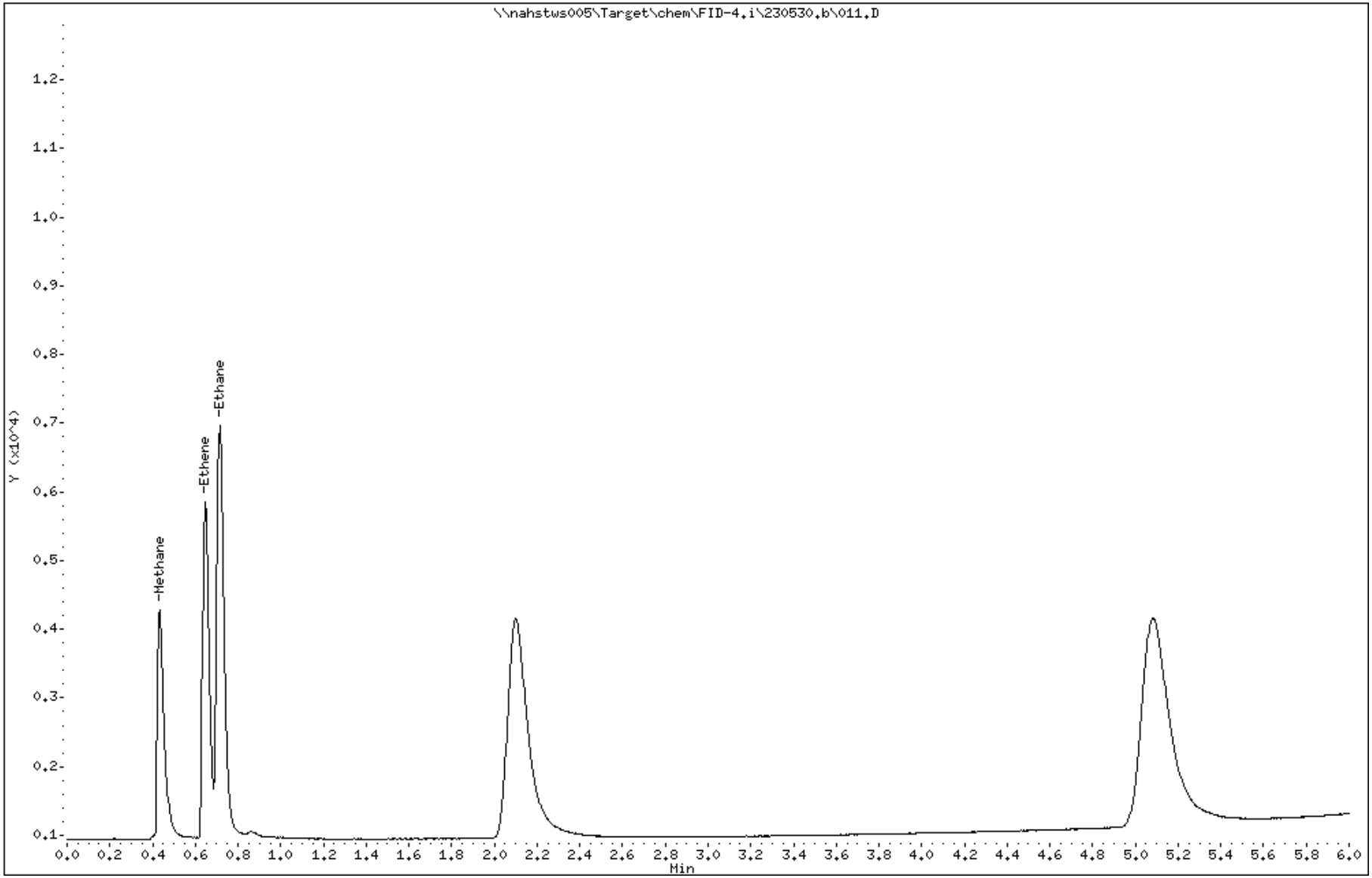
Instrument: FID-4.i

Sample Info: RSK-CCV;RSK-CCV;2;4

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



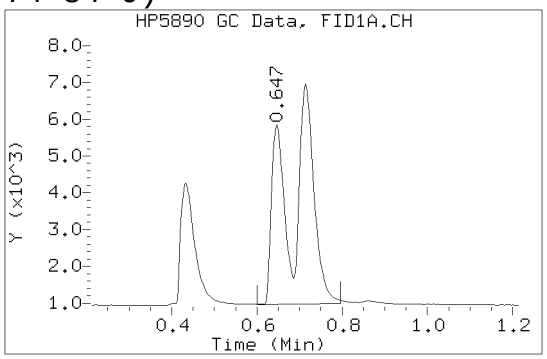
Data File : \\nahstws005\Target\chem\FID-4.i\230530.b\011.D
Inj Date : 30-MAY-2023 16:54
InstruID : FID-4.i
LabSampID : RSK-CCV

Ethane (74-84-0)

Reason Code:

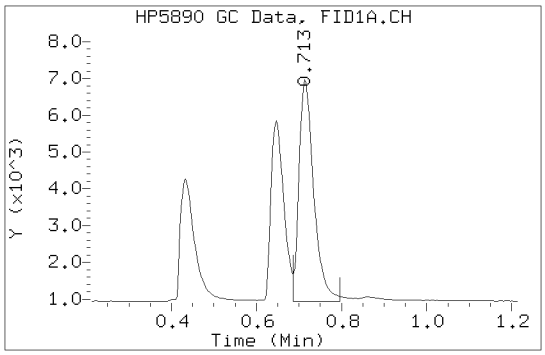
BEFORE

MASS
44
AREA
24477
HEIGHT
4890
30-May-2023
17:02
ALSHS
Server



AFTER

MASS
44
AREA
14588
HEIGHT
6026
30-May-2023
17:08
ALSHS
Ser

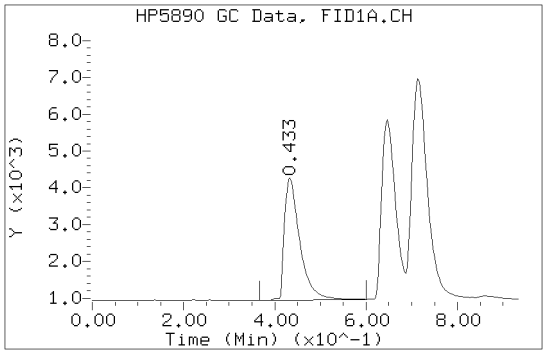


Ethene (74-85-1)

Reason Code:

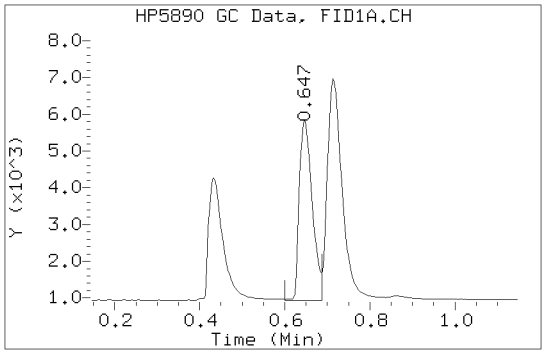
BEFORE

MASS
100
AREA
0
HEIGHT
0
30-May-2023
17:02
ALSHS
Server



AFTER

MASS
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AREA
10473
HEIGHT
4919
30-May-2023
17:08
ALSHS
Ser



Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\015.D Page 1
Report Date: 30-May-2023 18:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\015.D
Lab Smp Id: HS23051708-04 Client Smp ID: HS23051708-04
Inj Date : 30-MAY-2023 17:41
Operator : PL Inst ID: FID-4.i
Smp Info : HS23051708-04;HS23051708-04
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\230530.b\RSKNI3.m
Meth Date : 30-May-2023 17:07 samy.mata 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: NAHSTW7022

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	0.433	0.433	0.000	1513	1.55181	1.551(M)

QC Flag Legend

M - Compound response manually integrated.

01231038

Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\015.D

Page 1

Date : 30-MAY-2023 17:41

Client ID: HS23051708-04

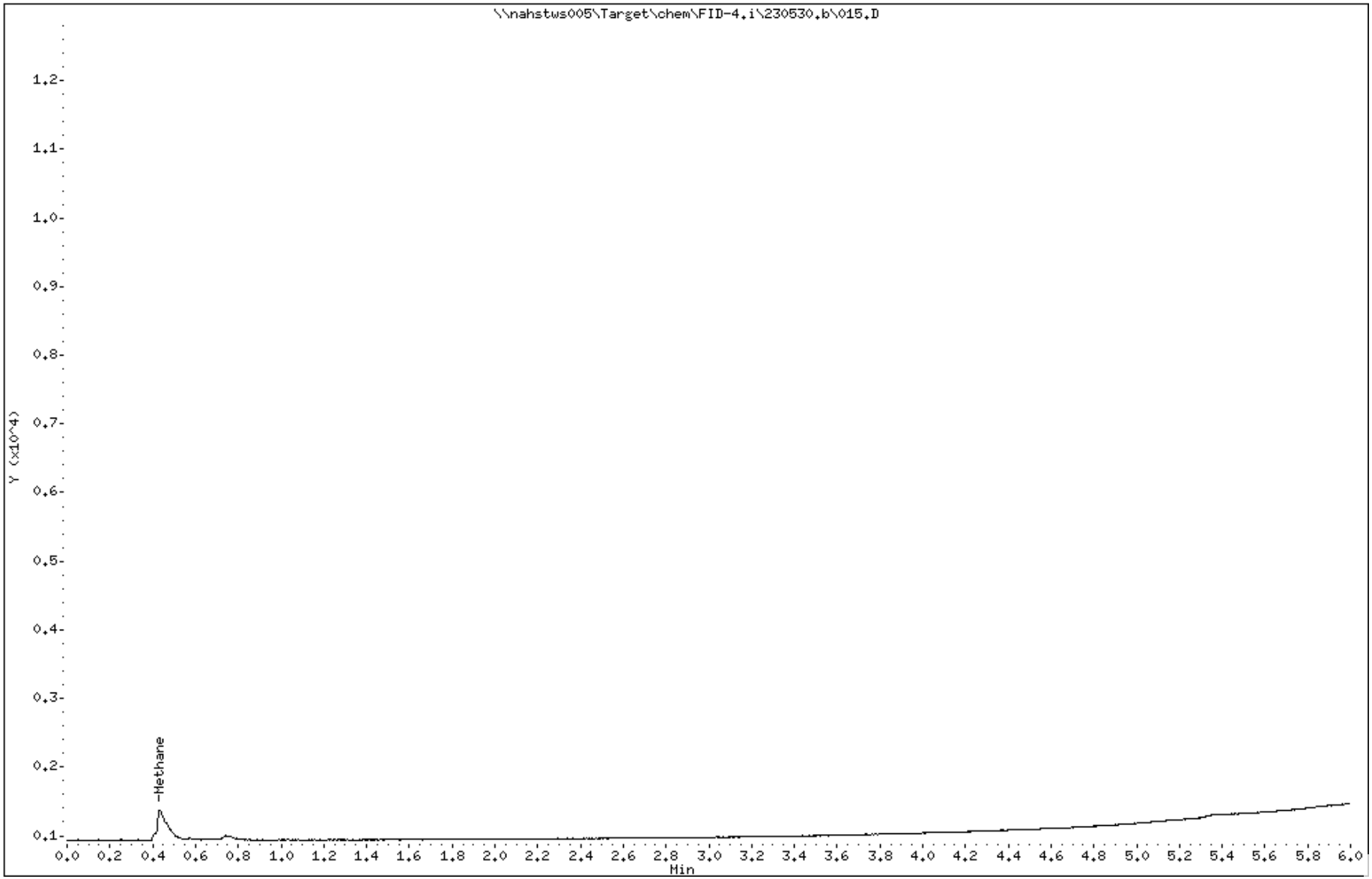
Instrument: FID-4.i

Sample Info: HS23051708-04;HS23051708-04

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



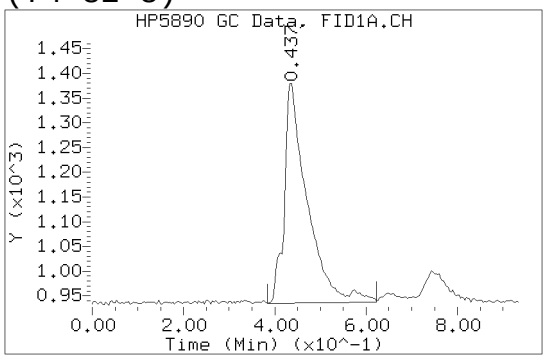
Data File : \\nahstws005\Target\chem\FID-4.i\230530.b\015.D
Inj Date : 30-MAY-2023 17:41
InstruID : FID-4.i
LabSampID : HS23051708-04

Methane (74-82-8)

Reason Code:

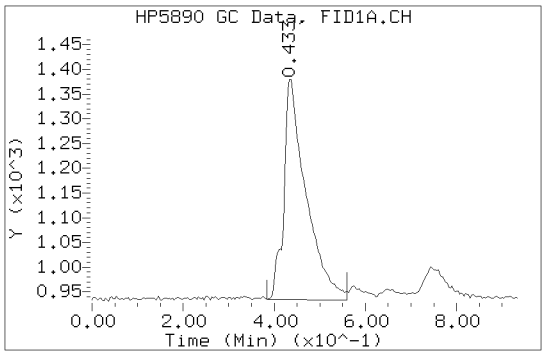
BEFORE

MASS
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AREA
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HEIGHT
0
30-May-2023
17:48
ALSHS
Server



AFTER

MASS
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AREA
1513
HEIGHT
444
30-May-2023
18:00
ALSHS
Ser



Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\016.D Page 1
Report Date: 30-May-2023 18:11

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\016.D
Lab Smp Id: HS23051708-05 Client Smp ID: HS23051708-05
Inj Date : 30-MAY-2023 17:55
Operator : PL Inst ID: FID-4.i
Smp Info : HS23051708-05;HS23051708-05
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\230530.b\RSKNI3.m
Meth Date : 30-May-2023 17:07 samy.mata 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: NAHSTW7022

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	0.433	0.433	0.000	3968	4.06978	4.069(M)

QC Flag Legend

M - Compound response manually integrated.

01231041

Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\016.D

Date : 30-MAY-2023 17:55

Client ID: HS23051708-05

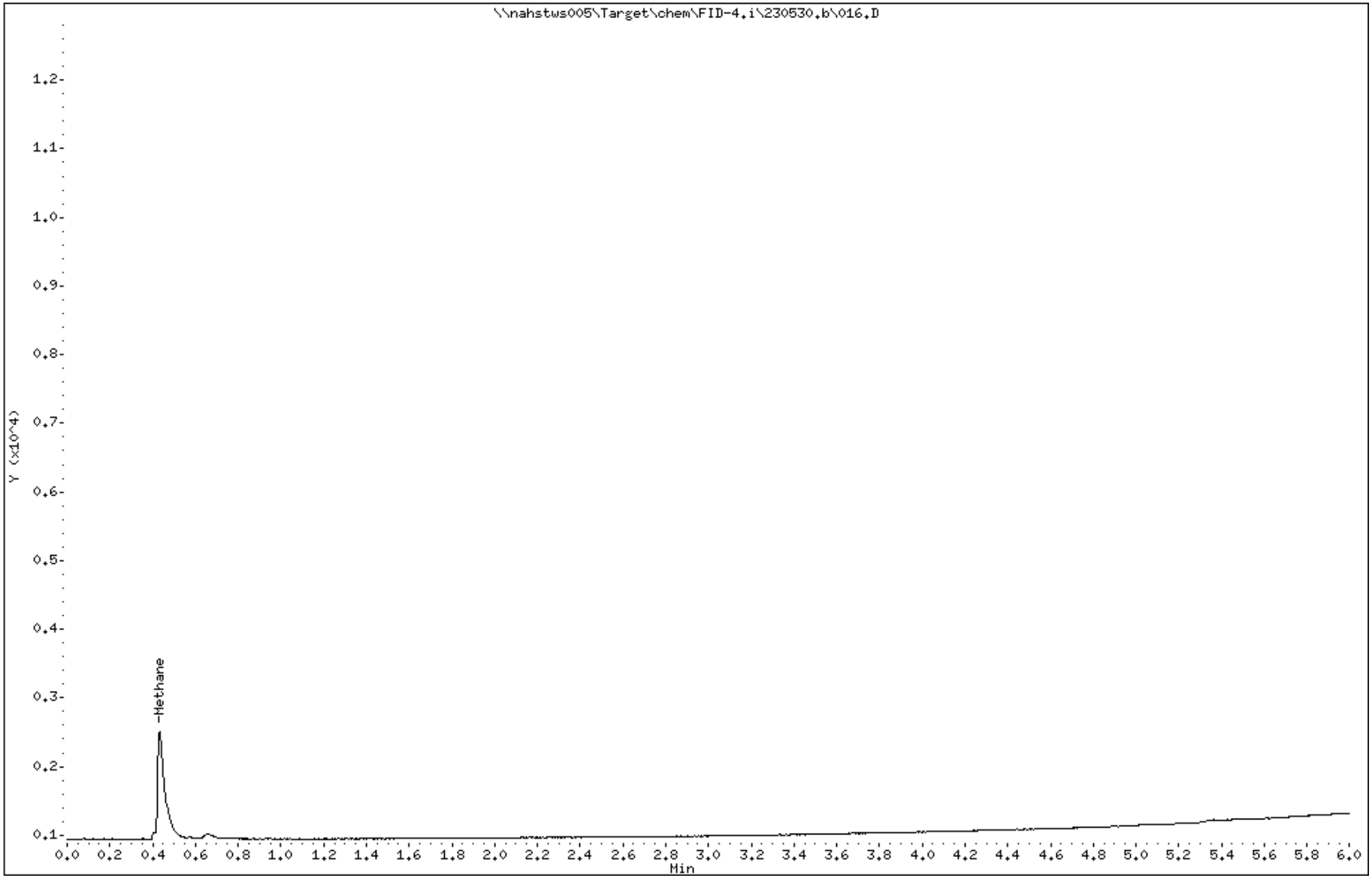
Instrument: FID-4.i

Sample Info: HS23051708-05;HS23051708-05

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



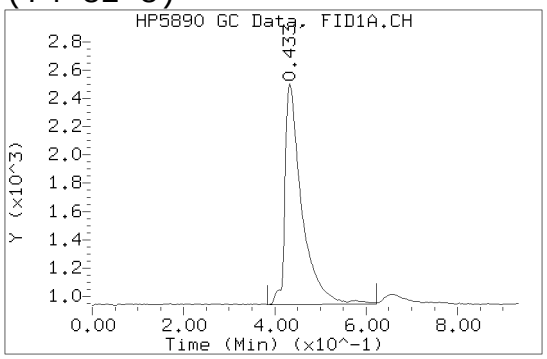
Data File : \\nahstws005\Target\chem\FID-4.i\230530.b\016.D
Inj Date : 30-MAY-2023 17:55
InstruID : FID-4.i
LabSampID : HS23051708-05

Methane (74-82-8)

Reason Code:

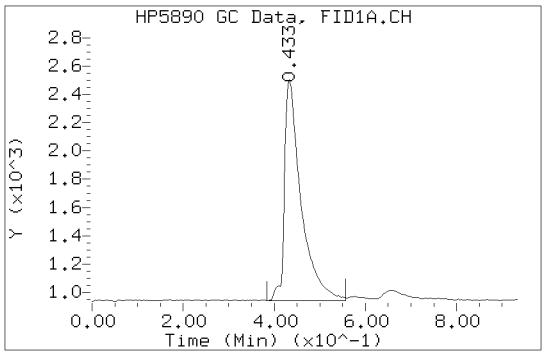
BEFORE

MASS
100
AREA
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HEIGHT
0
30-May-2023
18:03
ALSHS
Server



AFTER

MASS
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AREA
3968
HEIGHT
1562
30-May-2023
18:11
ALSHS
Ser



Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\017.D Page 1
Report Date: 30-May-2023 18:39

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\017.D
Lab Smp Id: HS23051708-06 Client Smp ID: HS23051708-06
Inj Date : 30-MAY-2023 18:03
Operator : PL Inst ID: FID-4.i
Smp Info : HS23051708-06;HS23051708-06
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\FID-4.i\230530.b\RSKNI3.m
Meth Date : 30-May-2023 17:07 samy.mata 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: NAHSTW7022

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	0.463	0.433	0.030	800	0.82052	0.820(M)

QC Flag Legend

M - Compound response manually integrated.

01231044

Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\017.D

Date : 30-MAY-2023 18:03

Client ID: HS23051708-06

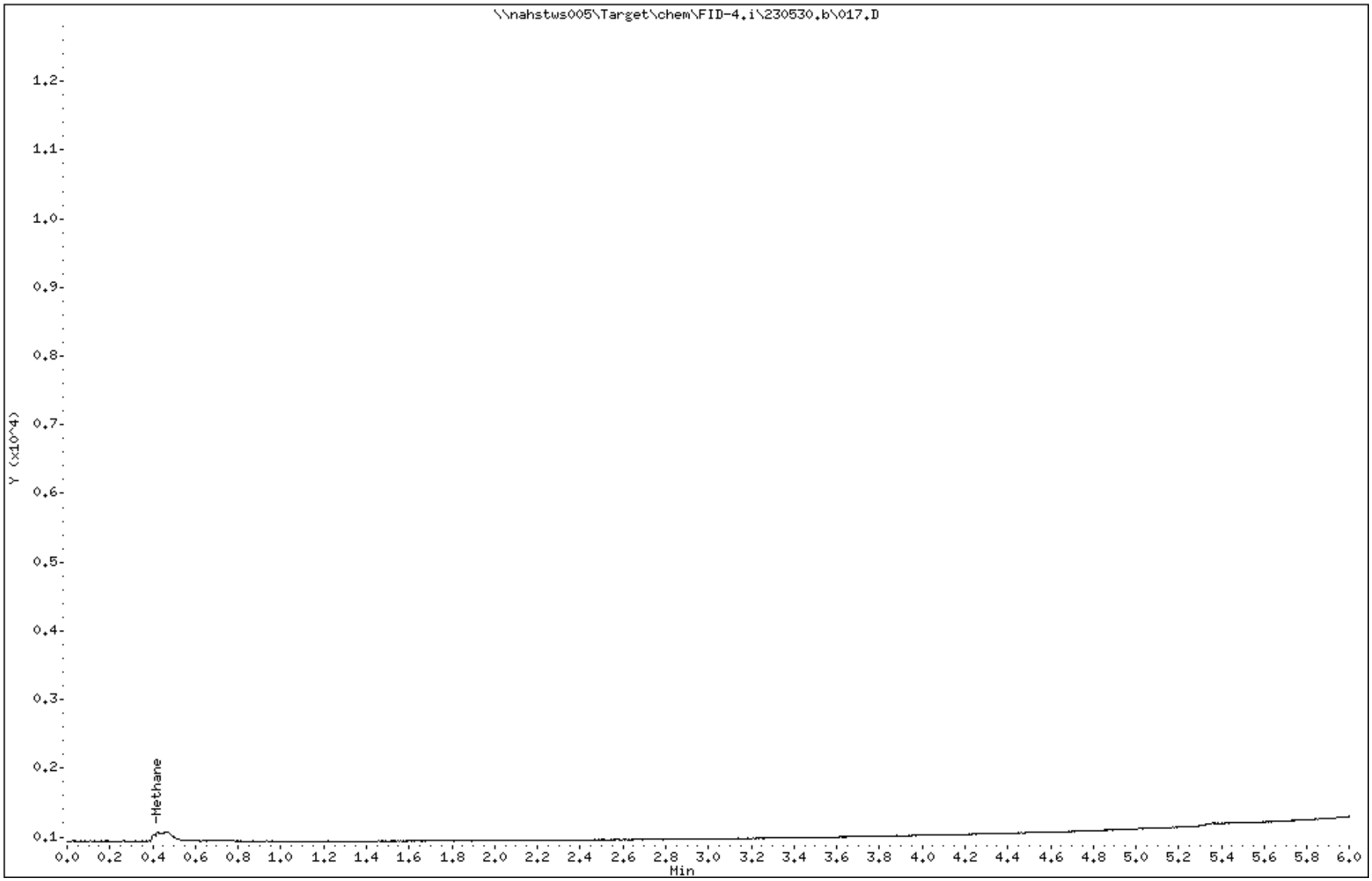
Instrument: FID-4.i

Sample Info: HS23051708-06;HS23051708-06

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



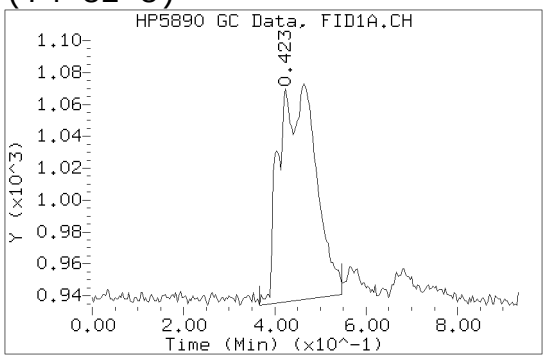
Data File : \\nahstws005\Target\chem\FID-4.i\230530.b\017.D
Inj Date : 30-MAY-2023 18:03
InstruID : FID-4.i
LabSampID : HS23051708-06

Methane (74-82-8)

Reason Code:

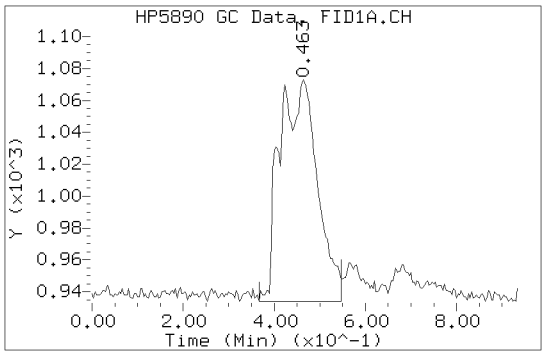
BEFORE

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AREA
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HEIGHT
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30-May-2023
18:12
ALSHS
Server



AFTER

MASS
100
AREA
800
HEIGHT
139
30-May-2023
18:39
ALSHS
Ser



Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\021.D Page 1
Report Date: 30-May-2023 18:56

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\230530.b\021.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 30-MAY-2023 18:48
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\230530.b\RSKNI3.m
Meth Date : 30-May-2023 18:56 samy.mata Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7022

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	0.430	0.430	0.000	8162	9.64700	8.371
2 Ethene	0.643	0.643	0.000	10655	16.8500	18.190
3 Ethane	0.710	0.710	0.000	14950	18.0430	20.778

01231047

Data File: \\nahstws005\Target\chem\FID-4.i\230530.b\021.D

Page 1

Date : 30-MAY-2023 18:48

Client ID: RSK-CCV

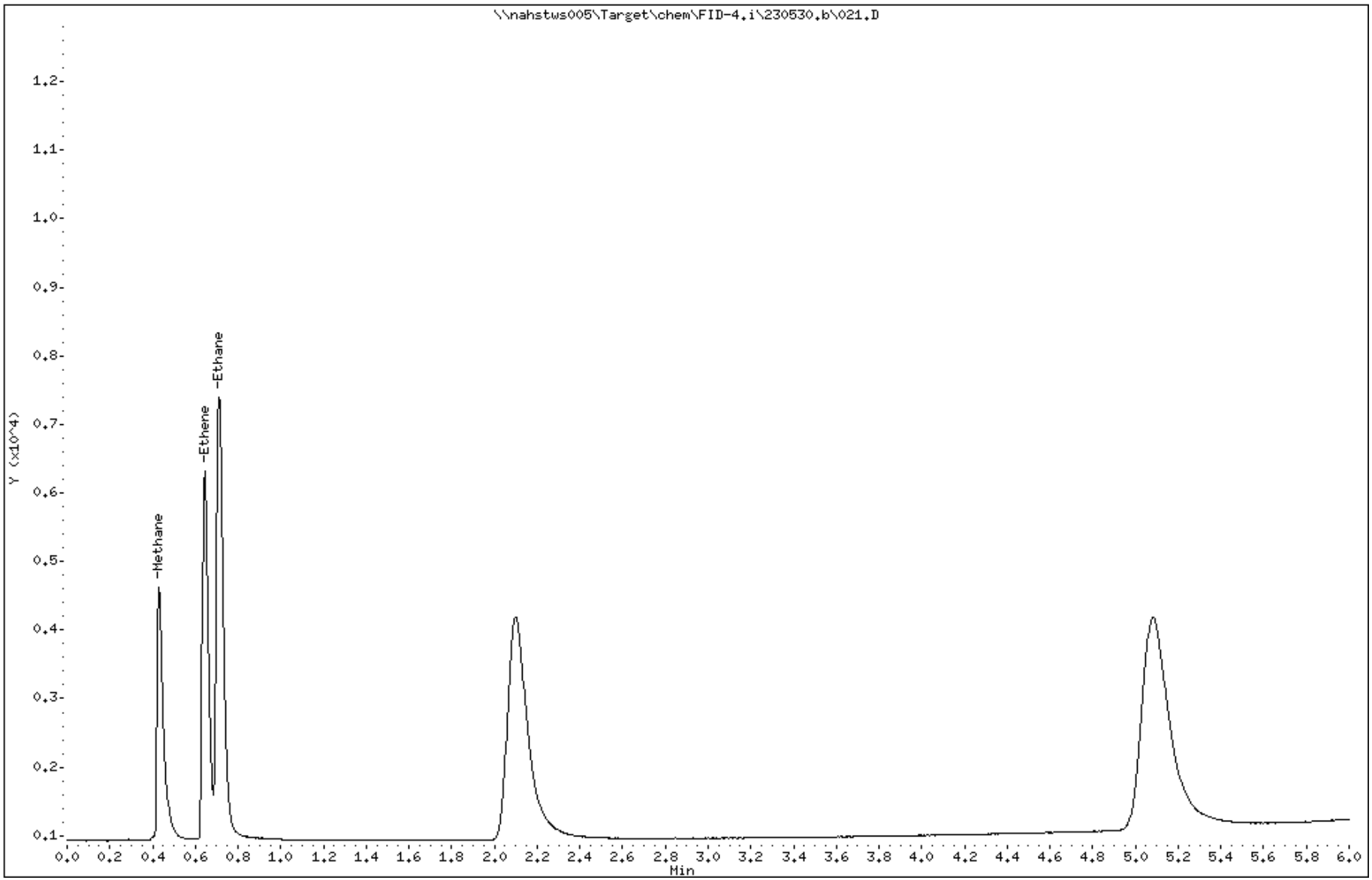
Instrument: FID-4.i

Sample Info: RSK-CCV;RSK-CCV;2;4

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



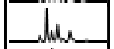
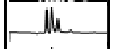
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Inj Date : 30-MAY-2023 18:48
InstruID : FID-4.i
LabSampID : RSK-CCV

NO MANUAL INTEGRATIONS

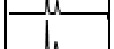
HS23051708 Wetchem 9056_W

ALS WO# HS23051708

Sequence: 052523
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	STD1		Calibratio	BA1	1.00	1	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD2		Calibratio	BA2	1.00	2	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD3		Calibratio	BA3	1.00	3	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD4		Calibratio	BA4	1.00	4	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD5		Calibratio	BA5	1.00	5	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD6		Calibratio	BA6	1.00	6	Anions Program ISO37mM 150mm short 0.4 Constant current
	ICV		Unknown	BA7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	ICB		Unknown	BA8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknown	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknown	R8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	MBLK	9056-W-SH	Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	LCS		Unknown	R2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23051708-06		Unknown	RA7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23051708-06MS		Unknown	RA8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23051708-06MSD		Unknown	RB1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23051708-04		Unknown	RB2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23051708-04DF10		Unknown	RB3	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23051708-05		Unknown	RB4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS23051708-05DF10	9056-W-SH	Unknown	RB5	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknown	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current

Sequence: 052523
Last Update Operator: alshs.nouser

Processing Method	CD	Name	me	Status	Inject Time
Anions Processing Method ISO		STD1	5.0	Finished	5/23/2023 2:40:38 PM -05:00
Anions Processing Method ISO		STD2	5.0	Finished	5/23/2023 2:46:28 PM -05:00
Anions Processing Method ISO		STD3	5.0	Finished	5/23/2023 2:52:17 PM -05:00
Anions Processing Method ISO		STD4	5.0	Finished	5/23/2023 2:58:07 PM -05:00
Anions Processing Method ISO		STD5	5.0	Finished	5/23/2023 3:03:57 PM -05:00
Anions Processing Method ISO		STD6	5.0	Finished	5/23/2023 3:09:46 PM -05:00
Anions Processing Method ISO		ICV	5.0	Finished	5/23/2023 3:21:25 PM -05:00
Anions Processing Method ISO		ICB	5.0	Finished	5/23/2023 3:33:05 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	5/25/2023 10:49:21 AM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	5/25/2023 11:00:59 AM -05:00
Anions Processing Method ISO		CCV1	5.0	Finished	5/25/2023 12:19:19 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	5/25/2023 12:30:57 PM -05:00
Anions Processing Method ISO		MBLK	5.0	Finished	5/25/2023 12:48:25 PM -05:00
Anions Processing Method ISO		LCS	5.0	Finished	5/25/2023 12:54:15 PM -05:00
Anions Processing Method ISO		HS23051708-06	5.0	Finished	5/25/2023 1:05:53 PM -05:00
Anions Processing Method ISO		HS23051708-06MS	5.0	Finished	5/25/2023 1:11:42 PM -05:00
Anions Processing Method ISO		HS23051708-06MSD	5.0	Finished	5/25/2023 1:17:31 PM -05:00
Anions Processing Method ISO		HS23051708-04	5.0	Finished	5/25/2023 1:23:21 PM -05:00
Anions Processing Method ISO		HS23051708-04DF10	5.0	Finished	5/25/2023 1:29:10 PM -05:00
Anions Processing Method ISO		HS23051708-05	5.0	Finished	5/25/2023 1:34:59 PM -05:00
Anions Processing Method ISO		HS23051708-05DF10	5.0	Finished	5/25/2023 1:40:48 PM -05:00
Anions Processing Method ISO		CCV	5.0	Finished	5/25/2023 1:52:27 PM -05:00
Anions Processing Method ISO		CCB	5.0	Finished	5/25/2023 1:58:16 PM -05:00

Sequence: 052523
Injection #6: STD6

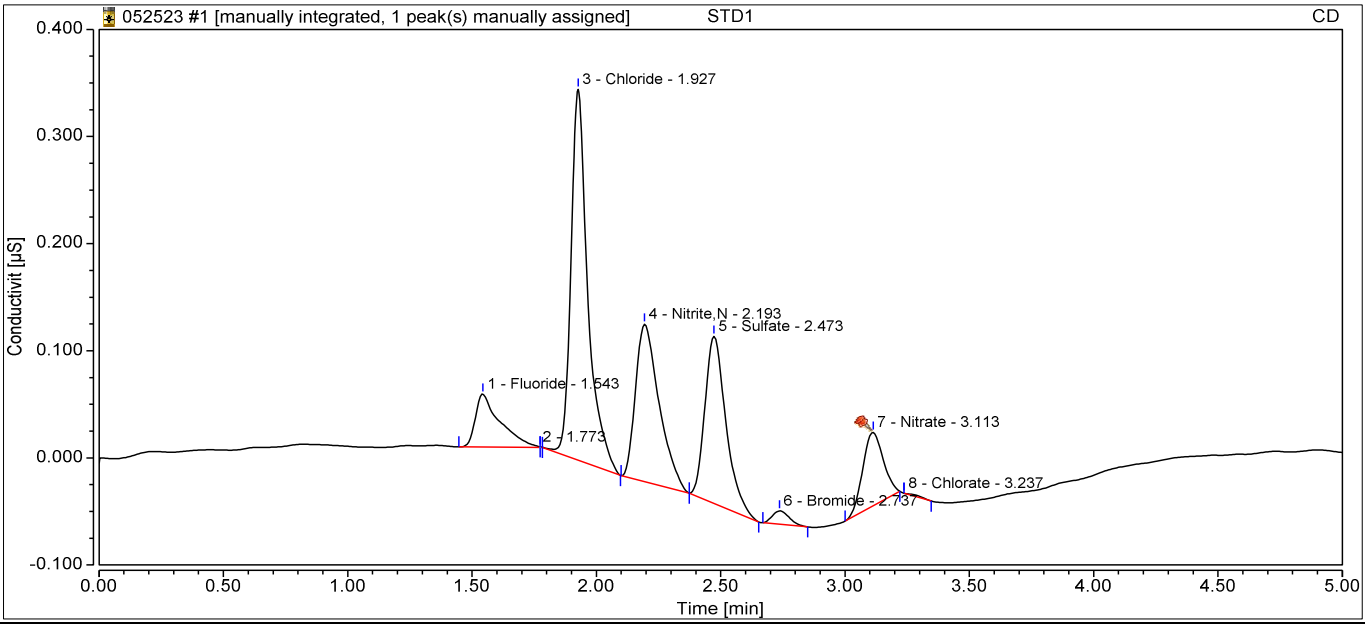
Calibration

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/A	Area	6	83.9625	0.98326	-0.0293	0.2016	0.0000
2	Chloride	Lin, WithOffset, 1/A	Area	6	26.3672	0.99783	-0.0819	0.1581	0.0000
3	*Nitrite,N*	*Quad, WithOffset, 1/A*	*Area*	*6*	*18.2290*	*0.99886*	*-0.0236*	*0.3308*	*-0.0039*
4	Sulfate	Lin, WithOffset, 1/A	Area	6	13.3771	0.99939	-0.0492	0.1098	0.0000
5	Bromide	Lin, WithOffset, 1/A	Area	6	25.7663	0.99803	-0.0064	0.0574	0.0000
6	Nitrate	Lin, WithOffset, 1/A	Area	6	23.5280	0.99835	-0.0371	0.3323	0.0000
7	Chlorate	Quad, WithOffset, 1/A	Area	6	22.2900	0.99884	-0.0032	0.0268	-0.0002
n.a.	Phosphate	Lin, WithOffset, 1/A	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
Maximum					**83.9625**	0.99939			
Minimum					13.3771	**0.98326**			

1 STD1

Sample Name:	**STD1**	*Injection Volume:*	**5.00**
Vial Number:	**BA1**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/23/2023 14:40**	*Sample Weight:*	**1.0000**

Run Time:

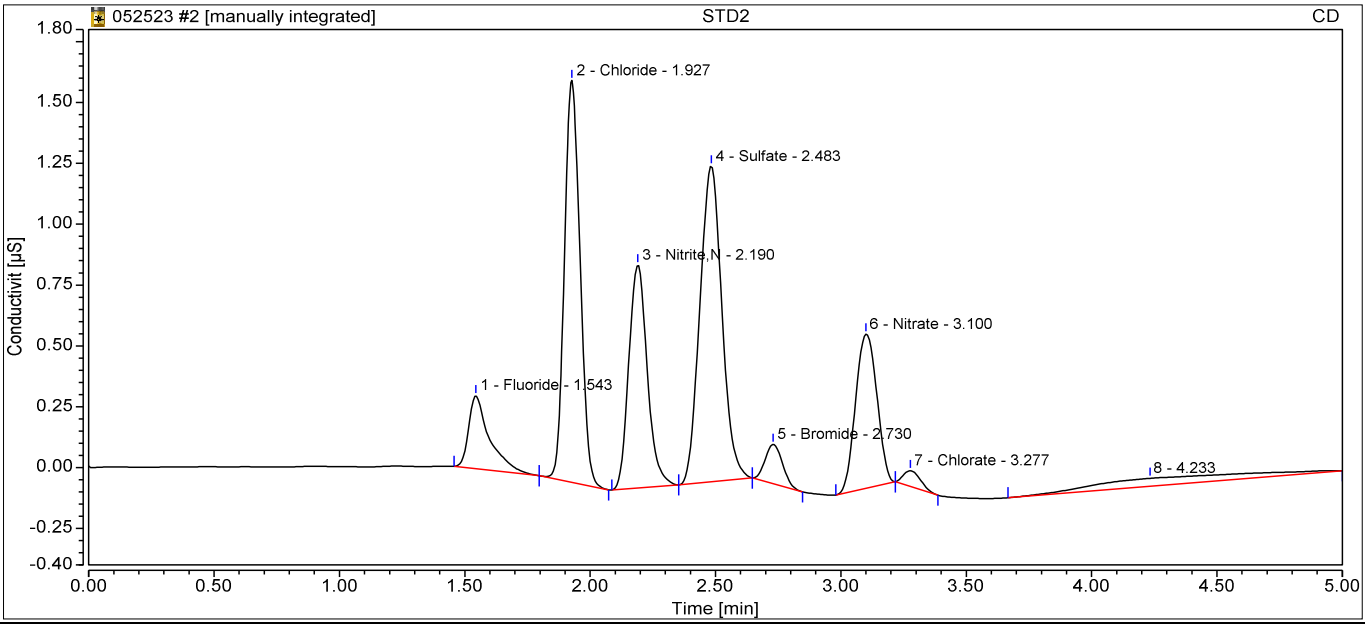


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BM *	0.006	0.1735	0.1735	1.0000
3	1.93	Chloride	BMB	0.027	0.6897	0.6897	1.0000
4	2.19	Nitrite,N	BMB	0.016	0.1203	0.1203	1.0000
5	2.47	Sulfate	BMB	0.015	0.5877	0.5877	1.0000
6	2.74	Bromide	BMB*	0.001	0.1291	0.1291	1.0000
7	3.11	Nitrate	BMB*^	0.007	0.1315	0.1315	1.0000
8	3.24	Chlorate	BMB*	0.000	0.1228	0.1228	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.072**		**1.95**	

2	*STD2*		
Sample Name:	**STD2**	*Injection Volume:*	**5.00**
Vial Number:	**BA2**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/23/2023 14:46**	*Sample Weight:*	**1.0000**

Run Time:



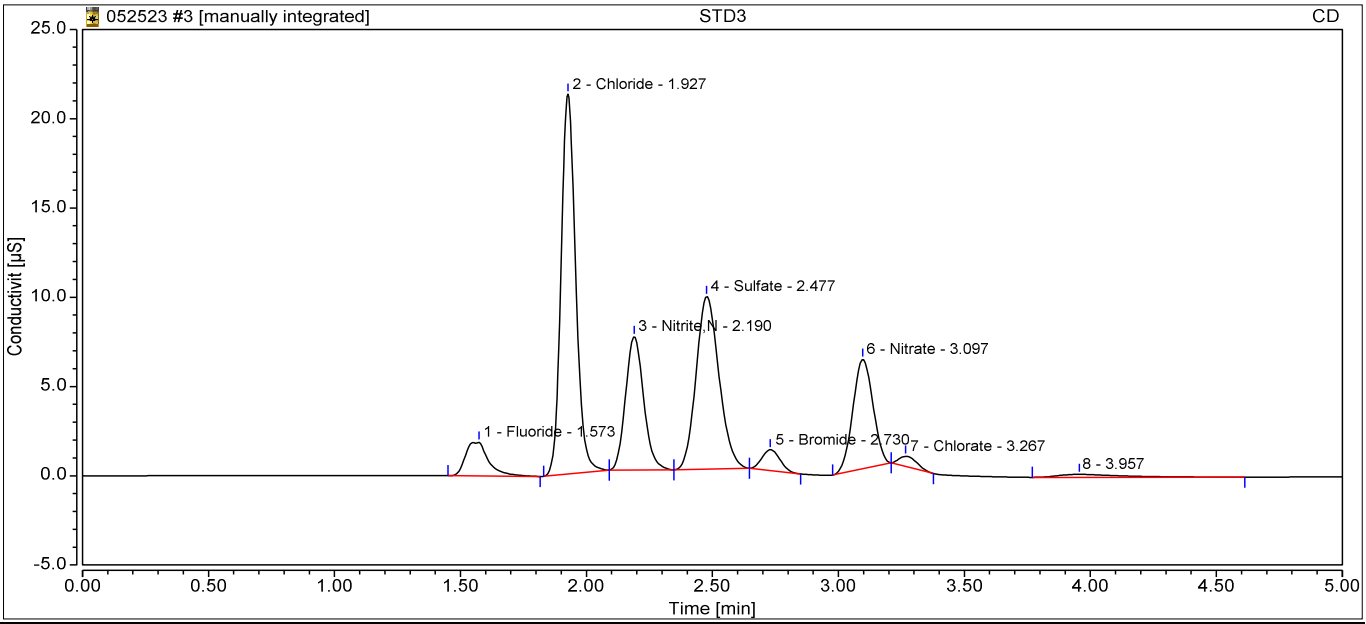
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BMB*	0.029	0.2885	0.2885	1.0000
2	1.93	Chloride	BMB	0.119	1.2711	1.2711	1.0000
3	2.19	Nitrite,N	BMB	0.078	0.3097	0.3097	1.0000
4	2.48	Sulfate	BMB	0.132	1.6510	1.6510	1.0000
5	2.73	Bromide	BMB	0.013	0.3384	0.3384	1.0000
6	3.10	Nitrate	BMB	0.063	0.2999	0.2999	1.0000
7	3.28	Chlorate	BMB	0.005	0.3157	0.3157	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.439**		**4.47**	

3 STD3

Sample Name:	**STD3**	*Injection Volume:*	**5.00**
Vial Number:	**BA3**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/23/2023 14:52**	*Sample Weight:*	**1.0000**

Run Time:



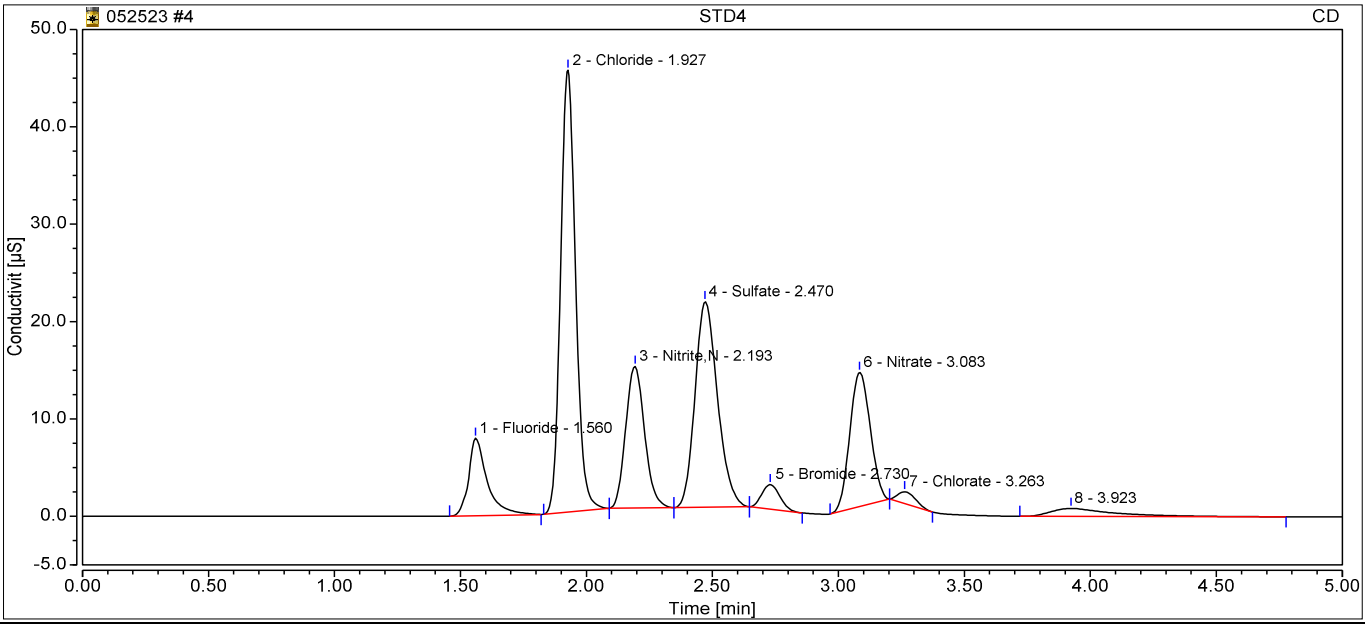
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.57	Fluoride	BMB*	0.201	1.1411	1.1411	1.0000
2	1.93	Chloride	BMB	1.431	9.5666	9.5666	1.0000
3	2.19	Nitrite,N	BMB	0.622	1.9999	1.9999	1.0000
4	2.48	Sulfate	BMB	1.018	9.7219	9.7219	1.0000
5	2.73	Bromide	BMB	0.097	1.8046	1.8046	1.0000
6	3.10	Nitrate	BMB	0.567	1.8186	1.8186	1.0000
7	3.27	Chlorate	BMB	0.047	1.9131	1.9131	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**3.984**		**27.97**	

4 STD4

Sample Name:	**STD4**	*Injection Volume:*	**5.00**
Vial Number:	**BA4**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/23/2023 14:58**	*Sample Weight:*	**1.0000**

Run Time:



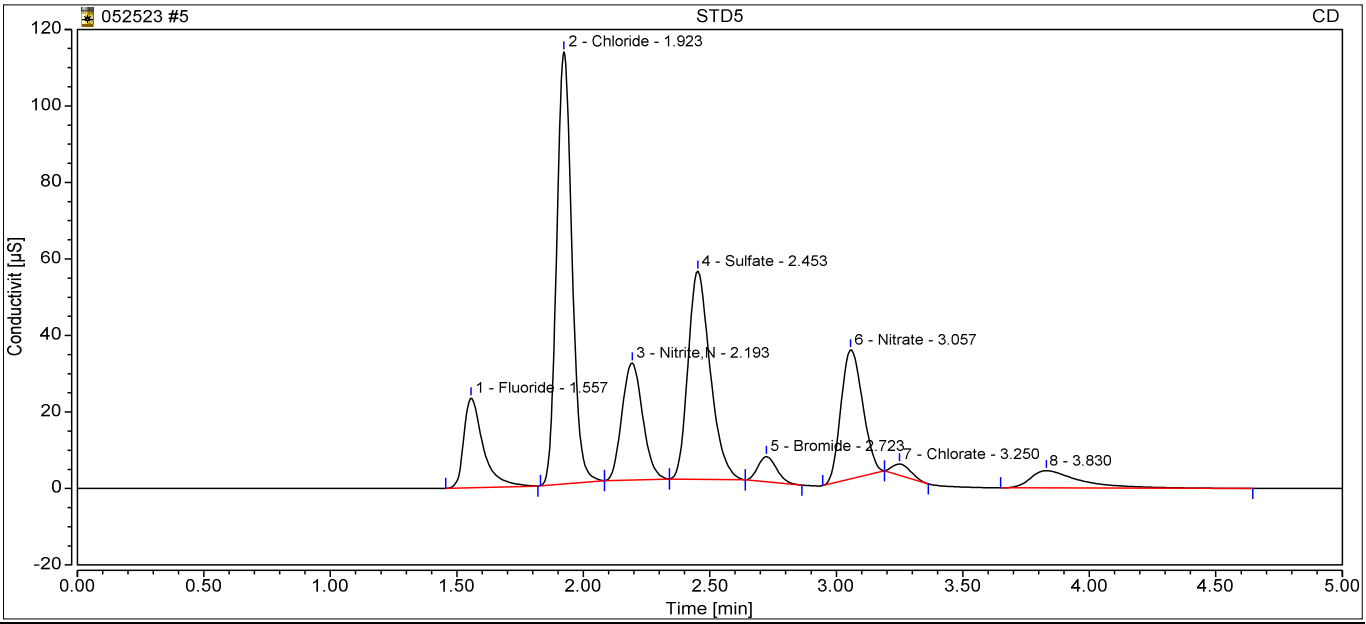
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.56	Fluoride	BMB	0.680	3.5179	3.5179	1.0000
2	1.93	Chloride	BMB	3.133	20.3356	20.3356	1.0000
3	2.19	Nitrite,N	BMB	1.268	4.1039	4.1039	1.0000
4	2.47	Sulfate	BMB	2.187	20.3668	20.3668	1.0000
5	2.73	Bromide	BMB	0.210	3.7772	3.7772	1.0000
6	3.08	Nitrate	BMB	1.297	4.0160	4.0160	1.0000
7	3.26	Chlorate	BMB	0.102	4.0359	4.0359	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.878**		**60.15**	

5 STD5

Sample Name:	**STD5**	*Injection Volume:*	**5.00**
Vial Number:	**BA5**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/23/2023 15:03**	*Sample Weight:*	**1.0000**

Run Time:

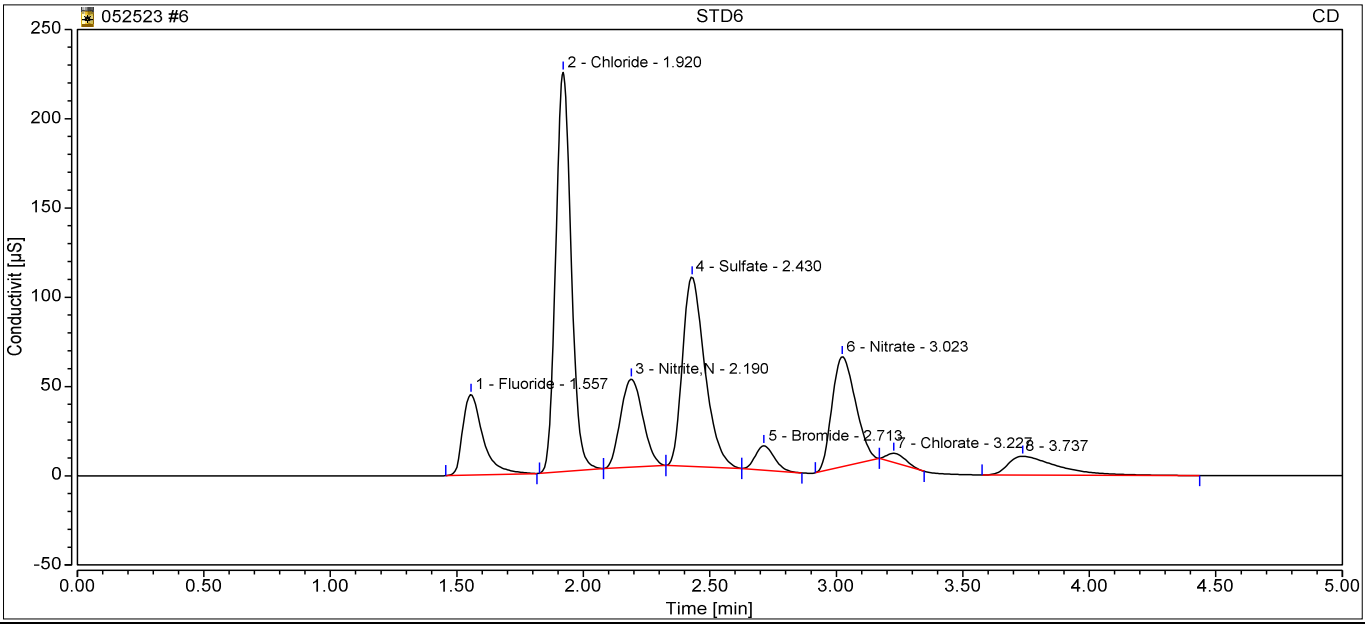


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.56	Fluoride	BMB	2.087	10.4993	10.4993	1.0000
2	1.92	Chloride	BMB	7.907	50.5276	50.5276	1.0000
3	2.19	Nitrite,N	BMB	2.889	9.9806	9.9806	1.0000
4	2.45	Sulfate	BMB	5.516	50.6794	50.6794	1.0000
5	2.72	Bromide	BMB	0.561	9.8834	9.8834	1.0000
6	3.06	Nitrate	BMB	3.355	10.2088	10.2088	1.0000
7	3.25	Chlorate	BMB	0.252	10.2519	10.2519	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**22.567**		**152.03**	

6	*STD6*		
Sample Name:	**STD6**	*Injection Volume:*	**5.00**
Vial Number:	**BA6**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/23/2023 15:09**	*Sample Weight:*	**1.0000**

Run Time:



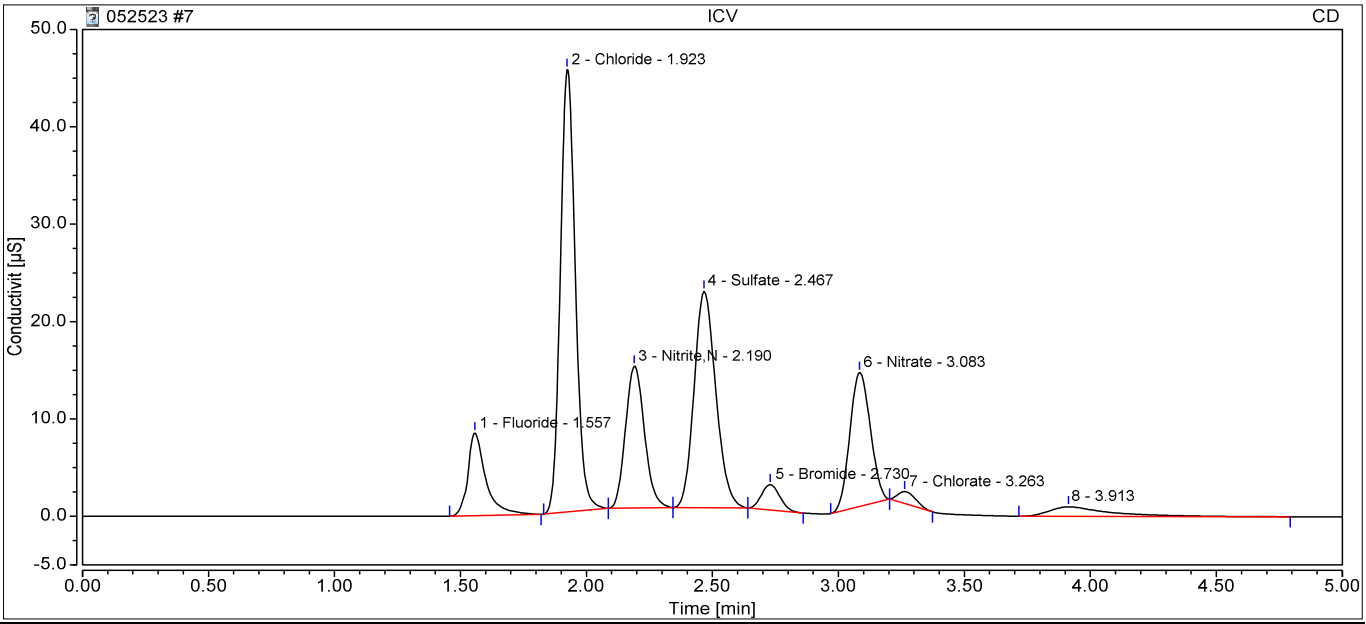
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.56	Fluoride	BMB	4.180	20.8797	20.8797	1.0000
2	1.92	Chloride	BMB	15.747	100.1095	100.1095	1.0000
3	2.19	Nitrite,N	BMB	5.028	19.9817	19.9817	1.0000
4	2.43	Sulfate	BMB	10.876	99.4931	99.4931	1.0000
5	2.71	Bromide	BMB	1.174	20.5674	20.5674	1.0000
6	3.02	Nitrate	BMB	6.617	20.0252	20.0252	1.0000
7	3.23	Chlorate	BMB	0.457	19.8555	19.8555	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**44.079**		**300.91**	

7 ICV

Sample Name:	**ICV**	*Injection Volume:*	**5.00**
Vial Number:	**BA7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/23/2023 15:21**	*Sample Weight:*	**1.0000**

Run Time:



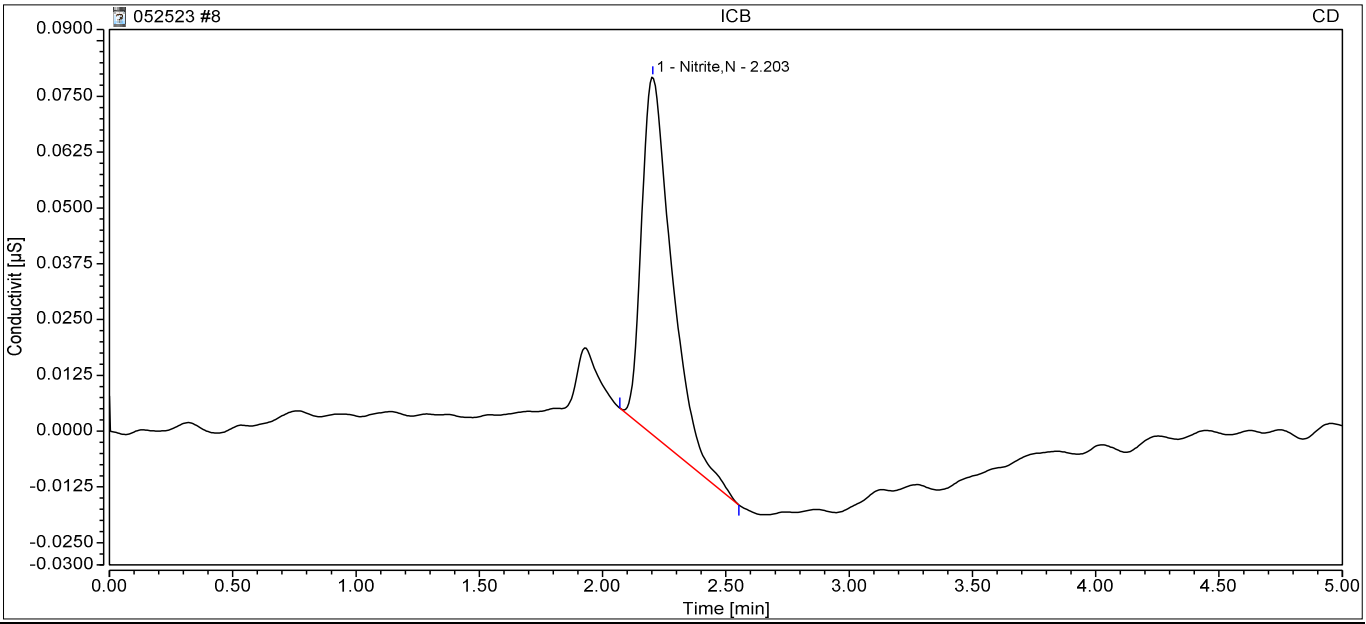
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.56	Fluoride	BMB	0.702	3.6253	3.6253	1.0000
2	1.92	Chloride	BMB	3.139	20.3704	20.3704	1.0000
3	2.19	Nitrite,N	BMB	1.269	4.1072	4.1072	1.0000
4	2.47	Sulfate	BMB	2.215	20.6152	20.6152	1.0000
5	2.73	Bromide	BMB	0.219	3.9331	3.9331	1.0000
6	3.08	Nitrate	BMB	1.297	4.0156	4.0156	1.0000
7	3.26	Chlorate	BMB	0.104	4.1133	4.1133	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.944**		**60.78**	

8 ICB

Sample Name:	**ICB**	*Injection Volume:*	**5.00**
Vial Number:	**BA8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/23/2023 15:33**	*Sample Weight:*	**1.0000**

Run Time:

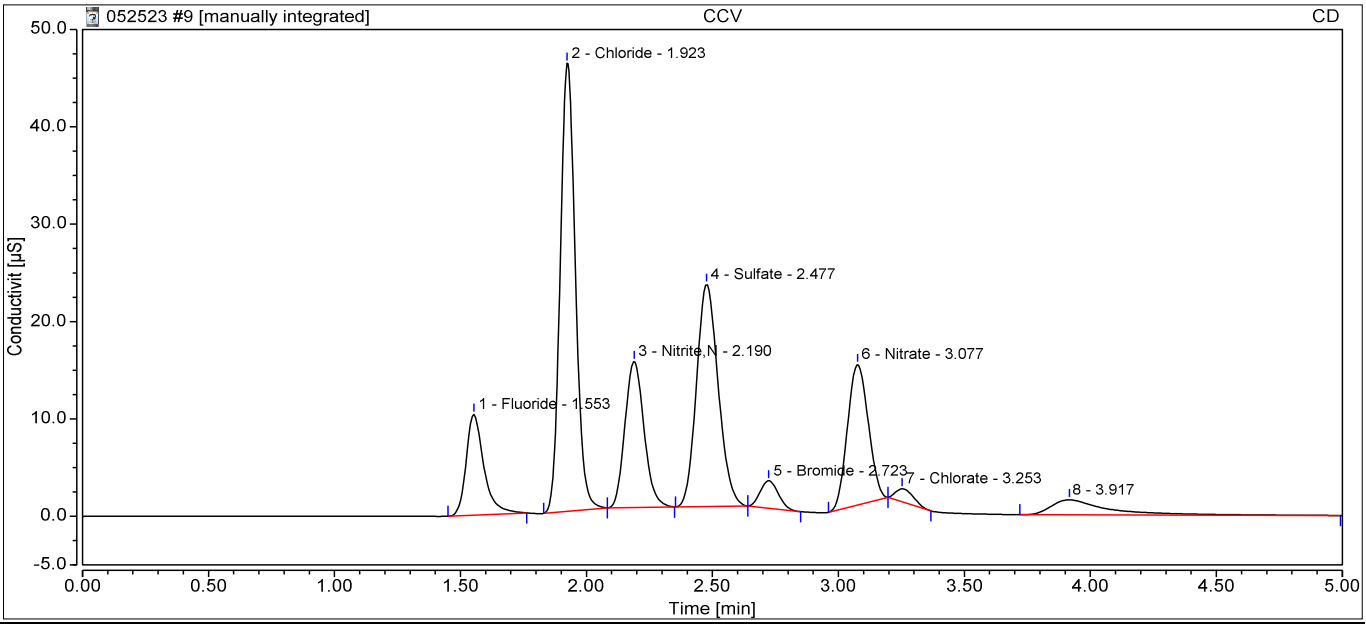


Integration Results

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	2.20	Nitrite,N	BMB	0.011	0.1062	0.1062	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**		**0.11**	

9 CCV			
Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/25/2023 10:49**	*Sample Weight:*	**1.0000**

Run Time:



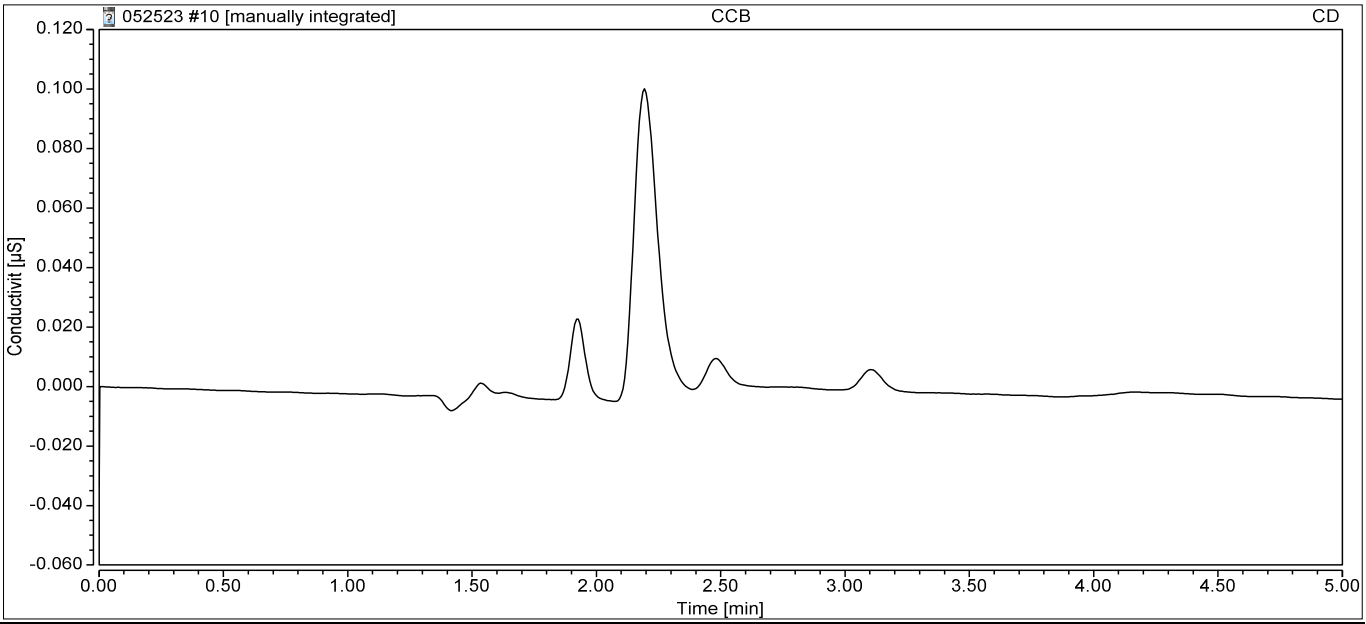
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB*	0.846	4.3418	4.3418	1.0000
2	1.92	Chloride	BMB	3.212	20.8309	20.8309	1.0000
3	2.19	Nitrite,N	BMB	1.319	4.2754	4.2754	1.0000
4	2.48	Sulfate	BMB	2.278	21.1893	21.1893	1.0000
5	2.72	Bromide	BMB	0.234	4.1966	4.1966	1.0000
6	3.08	Nitrate	BMB	1.383	4.2749	4.2749	1.0000
7	3.25	Chlorate	BMB	0.112	4.4463	4.4463	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**9.385**		**63.56**	

10 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/25/2023 11:00**	*Sample Weight:*	**1.0000**

Run Time:



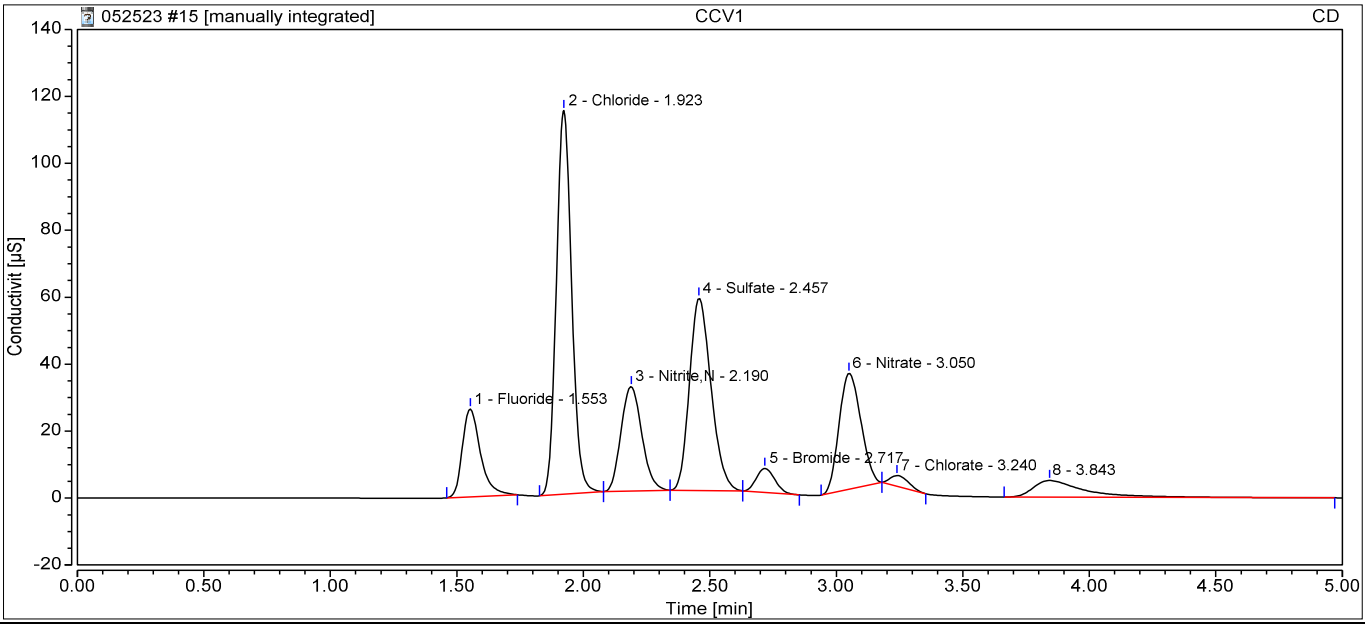
Integration Results

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
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
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**	**0.000**		**0.00**	

15 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/25/2023 12:19**	*Sample Weight:*	**1.0000**

Run Time:



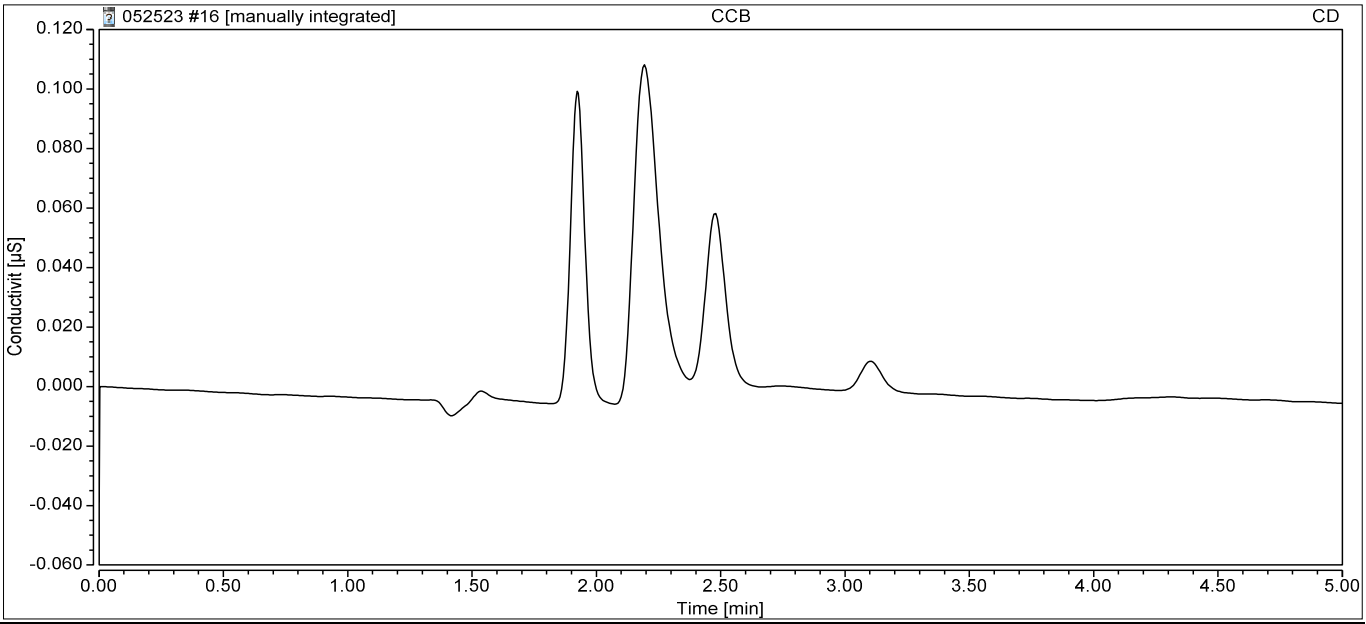
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB*	2.186	10.9857	10.9857	1.0000
2	1.92	Chloride	BMB	8.020	51.2448	51.2448	1.0000
3	2.19	Nitrite,N	BMB	2.972	10.3080	10.3080	1.0000
4	2.46	Sulfate	BMB	5.676	52.1419	52.1419	1.0000
5	2.72	Bromide	BMB	0.608	10.7046	10.7046	1.0000
6	3.05	Nitrate	BMB	3.461	10.5286	10.5286	1.0000
7	3.24	Chlorate	BMB	0.274	11.1980	11.1980	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**23.197**		**157.11**	

16 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/25/2023 12:30**	*Sample Weight:*	**1.0000**

Run Time:



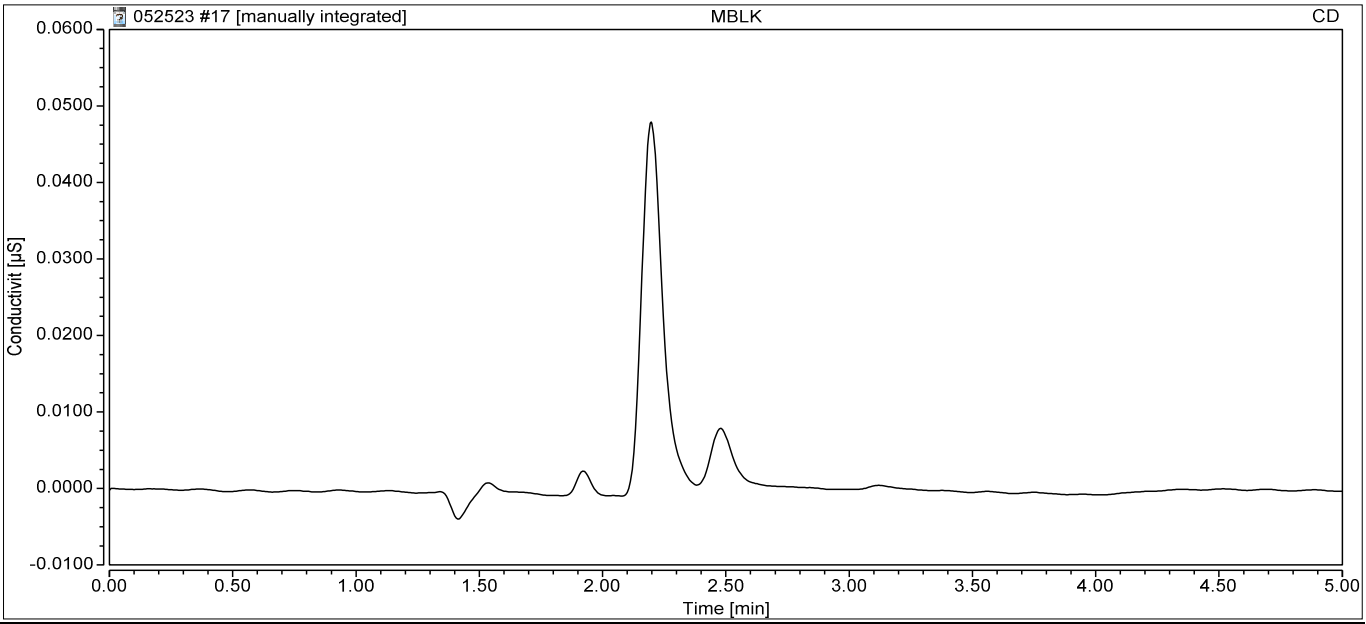
Integration Results

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
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
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**	**0.000**		**0.00**	

17 MBLK

Sample Name:	**MBLK**	*Injection Volume:*	**5.00**
Vial Number:	**R5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/25/2023 12:48**	*Sample Weight:*	**1.0000**

Run Time:

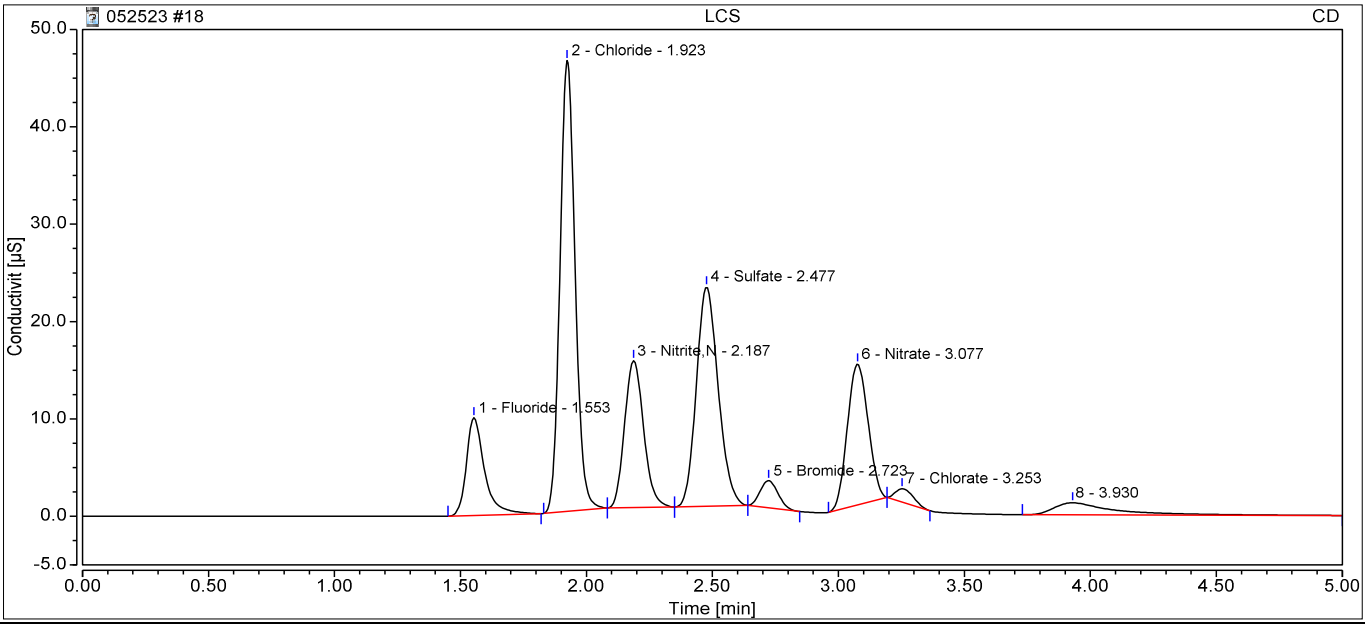


Integration Results

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
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
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**	**0.000**		**0.00**	

18 LCS			
Sample Name:	**LCS**	*Injection Volume:*	**5.00**
Vial Number:	**R2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/25/2023 12:54**	*Sample Weight:*	**1.0000**

Run Time:

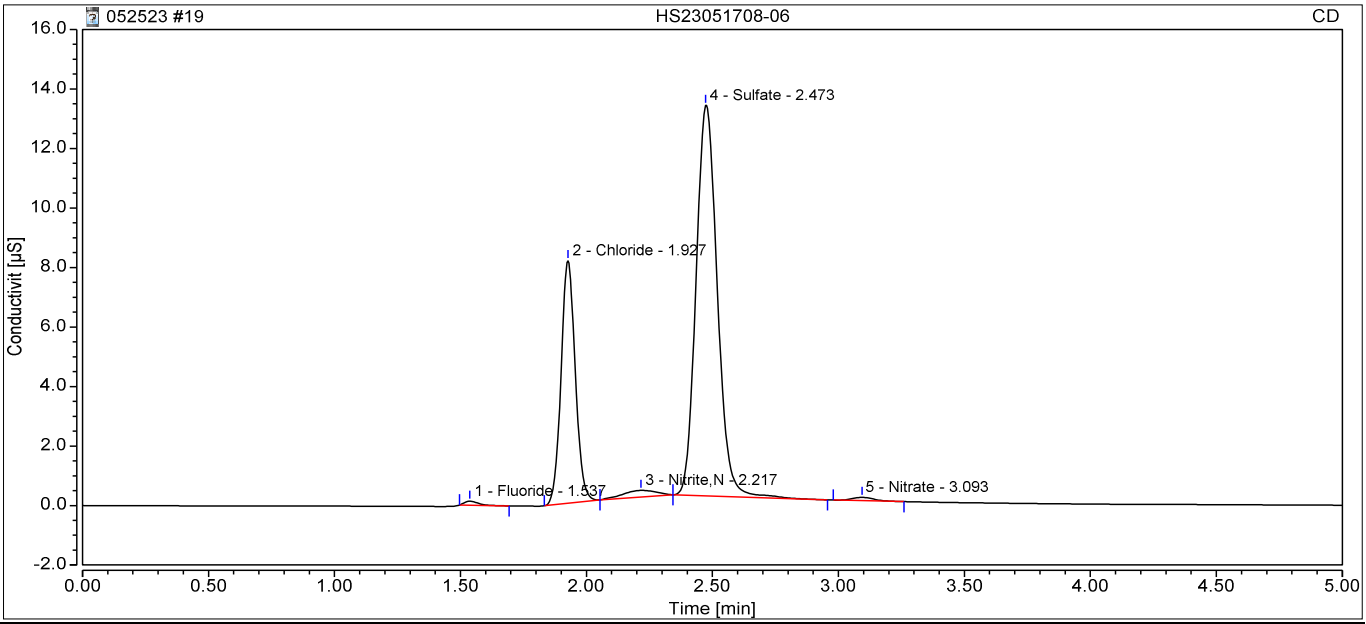


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	0.841	4.3173	4.3173	1.0000
2	1.92	Chloride	BMB	3.215	20.8491	20.8491	1.0000
3	2.19	Nitrite,N	BMB	1.325	4.2937	4.2937	1.0000
4	2.48	Sulfate	BMB	2.263	21.0563	21.0563	1.0000
5	2.72	Bromide	BMB	0.231	4.1404	4.1404	1.0000
6	3.08	Nitrate	BMB	1.383	4.2747	4.2747	1.0000
7	3.25	Chlorate	BMB	0.115	4.5652	4.5652	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**9.373**		**63.50**	

19	*HS23051708-06*		
Sample Name:	**HS23051708-06**	*Injection Volume:*	**5.00**
Vial Number:	**RA7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/25/2023 13:05**	*Sample Weight:*	**1.0000**

Run Time:

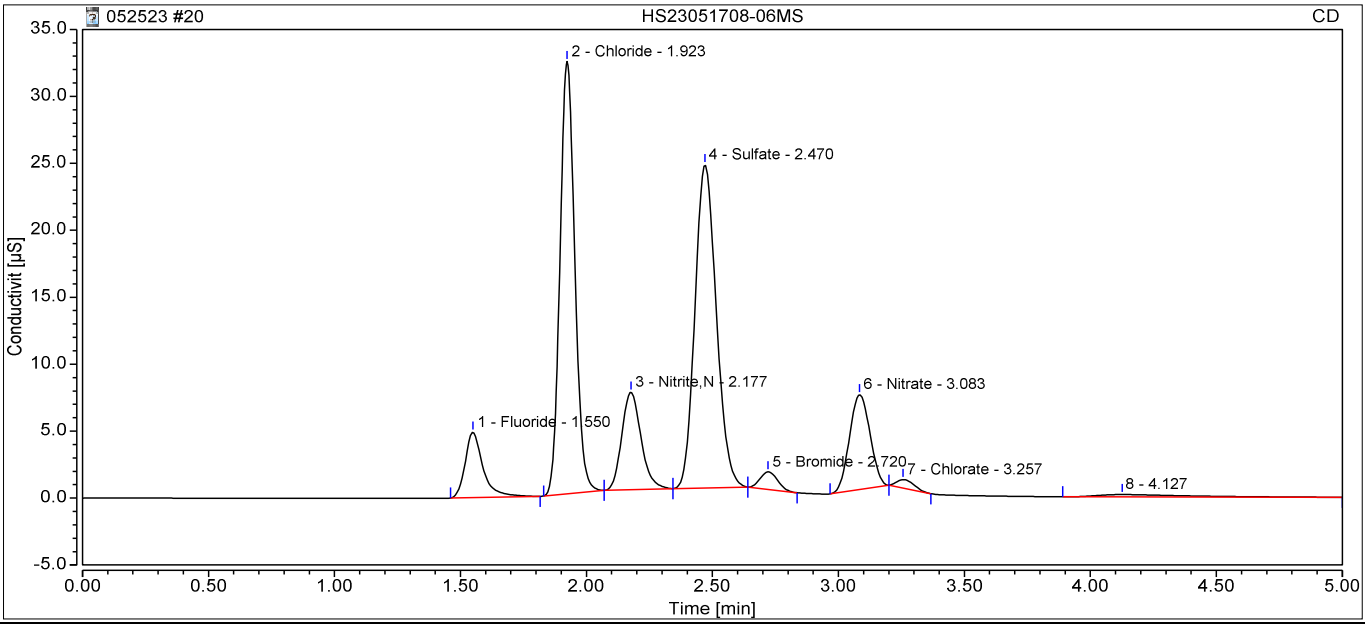


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BMB	0.009	0.1880	0.1880	1.0000
2	1.93	Chloride	BMB	0.533	3.8911	3.8911	1.0000
3	2.22	Nitrite,N	BMB	0.034	0.1755	0.1755	1.0000
4	2.47	Sulfate	BMB	1.283	12.1330	12.1330	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
5	3.09	Nitrate	BMB	0.011	0.1442	0.1442	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**	**1.870**		**16.53**	

20	*HS23051708-06MS*		
Sample Name:	**HS23051708-06MS**	*Injection Volume:*	**5.00**
Vial Number:	**RA8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/25/2023 13:11**	*Sample Weight:*	**1.0000**

Run Time:



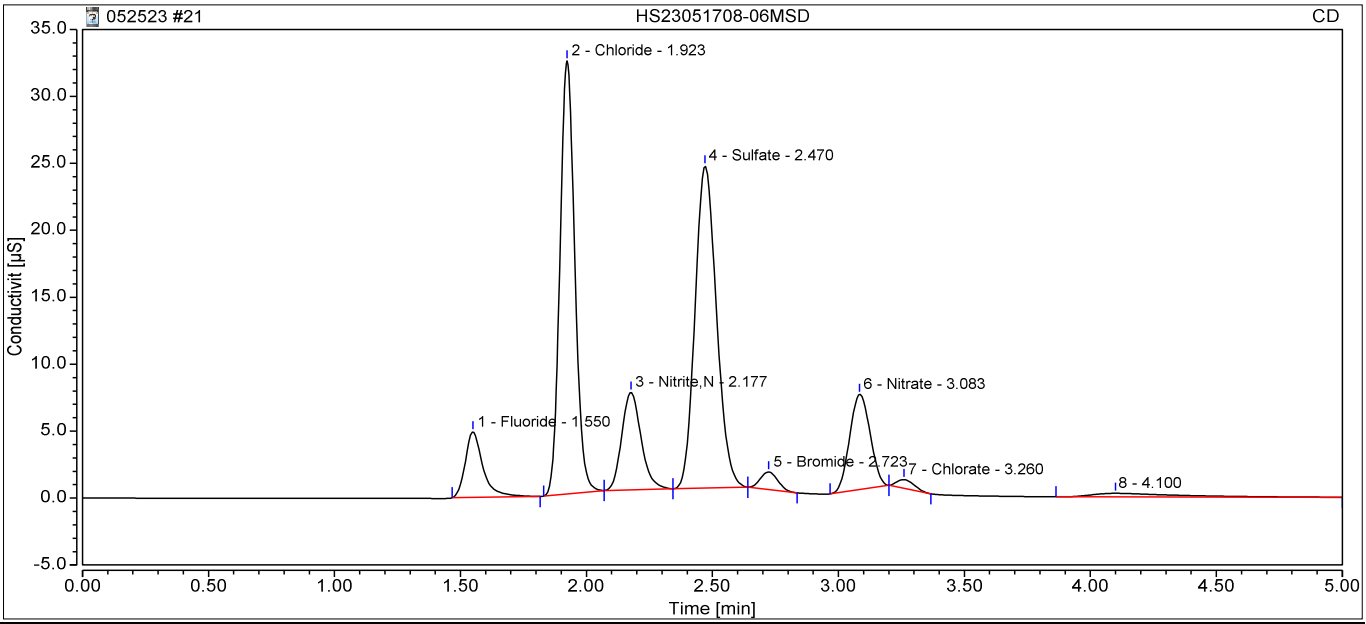
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	0.404	2.1494	2.1494	1.0000
2	1.92	Chloride	BMB	2.201	14.4359	14.4359	1.0000
3	2.18	Nitrite,N	BMB	0.647	2.0778	2.0778	1.0000
4	2.47	Sulfate	BMB	2.374	22.0661	22.0661	1.0000
5	2.72	Bromide	BMB	0.105	1.9435	1.9435	1.0000
6	3.08	Nitrate	BMB	0.668	2.1234	2.1234	1.0000
7	3.26	Chlorate	BMB	0.052	2.0816	2.0816	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**6.451**		**46.88**	

21 HS23051708-06MSD

Sample Name:	**HS23051708-06MSD**	*Injection Volume:*	**5.00**
Vial Number:	**RB1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/25/2023 13:17**	*Sample Weight:*	**1.0000**

Run Time:



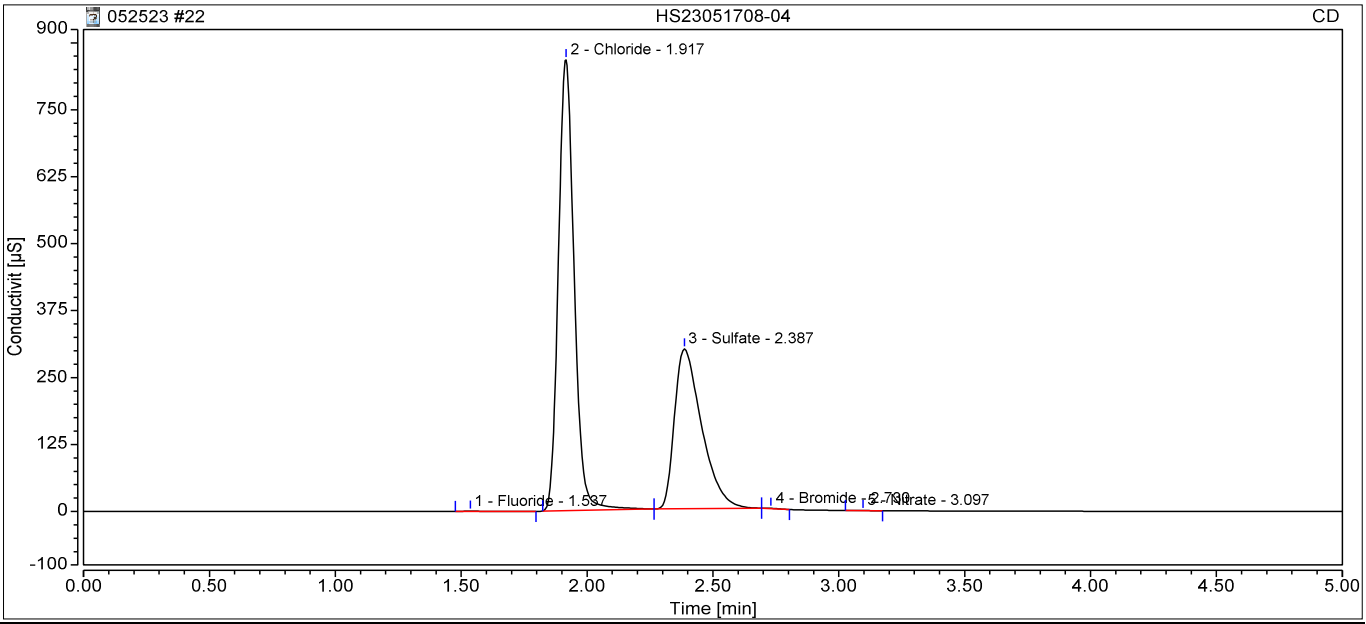
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB	0.401	2.1365	2.1365	1.0000
2	1.92	Chloride	BMB	2.206	14.4734	14.4734	1.0000
3	2.18	Nitrite,N	BMB	0.648	2.0808	2.0808	1.0000
4	2.47	Sulfate	BMB	2.376	22.0837	22.0837	1.0000
5	2.72	Bromide	BMB	0.105	1.9480	1.9480	1.0000
6	3.08	Nitrate	BMB	0.670	2.1270	2.1270	1.0000
7	3.26	Chlorate	BMB	0.052	2.0969	2.0969	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**6.459**		**46.95**	

22 HS23051708-04

Sample Name:	**HS23051708-04**	*Injection Volume:*	**5.00**
Vial Number:	**RB2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/25/2023 13:23**	*Sample Weight:*	**1.0000**

Run Time:



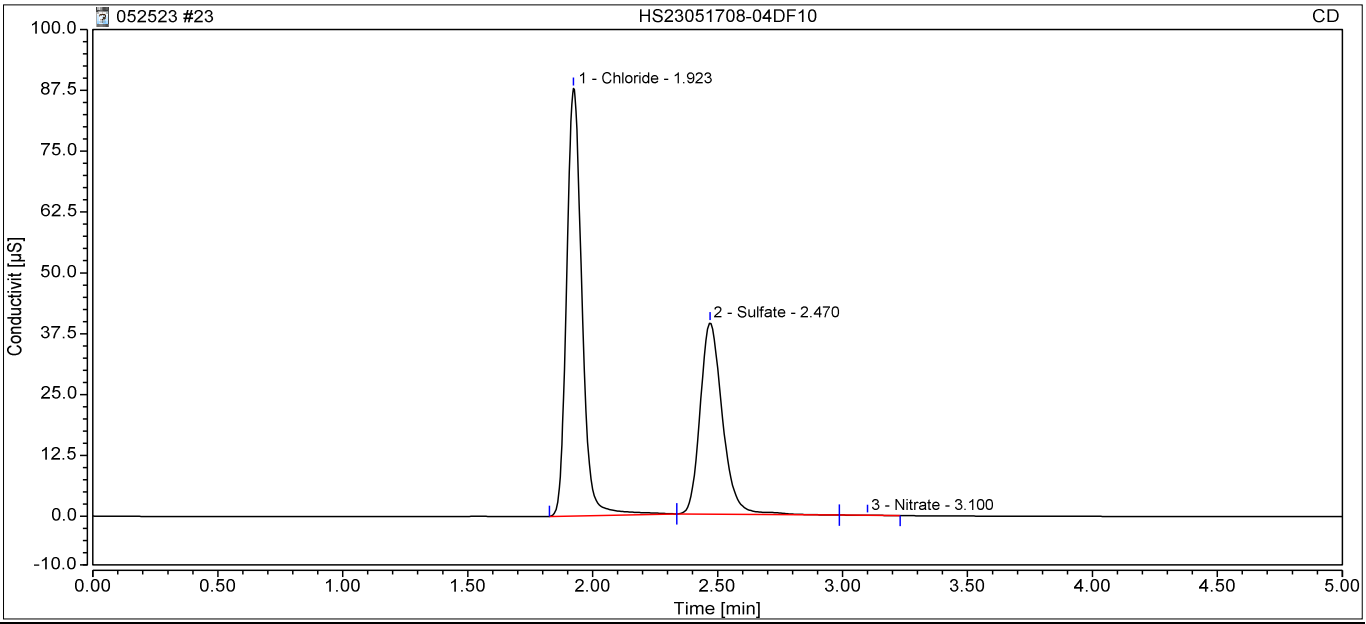
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BMB	0.043	0.3582	0.3582	1.0000
2	1.92	Chloride	BMB	61.043	386.5947	386.5947	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
3	2.39	Sulfate	BMB	37.280	339.9479	339.9479	1.0000
4	2.73	Bromide	BMB	0.031	0.6516	0.6516	1.0000
5	3.10	Nitrate	BMB	0.002	0.1191	0.1191	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**	**98.399**		**727.67**	

23 HS23051708-04DF10

Sample Name:	**HS23051708-04DF10**	*Injection Volume:*	**5.00**
Vial Number:	**RB3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**05/25/2023 13:29**	*Sample Weight:*	**1.0000**

Run Time:

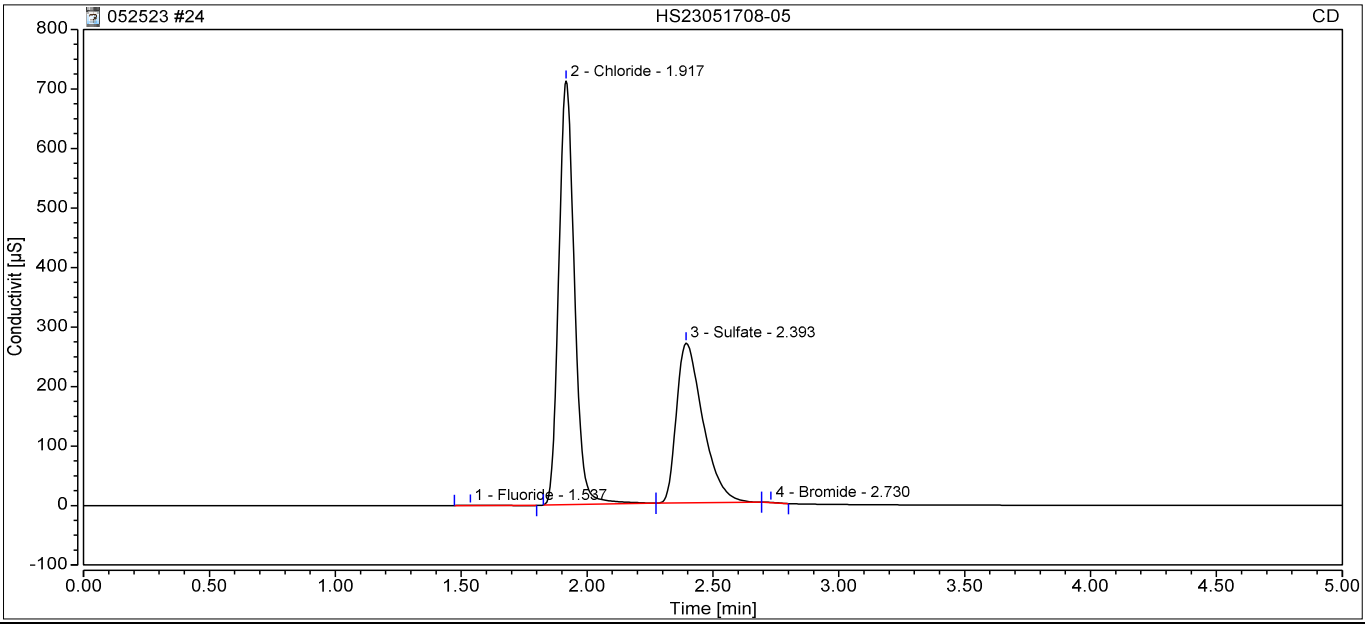


Integration Results

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.	10.0000
1	1.92	Chloride	BMB	6.258	40.0986	400.9857	10.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	10.0000
2	2.47	Sulfate	BMB	4.053	37.3561	373.5614	10.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	10.0000
3	3.10	Nitrate	BMB	0.002	0.1184	1.1840	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**	**10.313**		**775.73**	

24	*HS23051708-05*		
Sample Name:	**HS23051708-05**	*Injection Volume:*	**5.00**
Vial Number:	**RB4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/25/2023 13:34**	*Sample Weight:*	**1.0000**

Run Time:

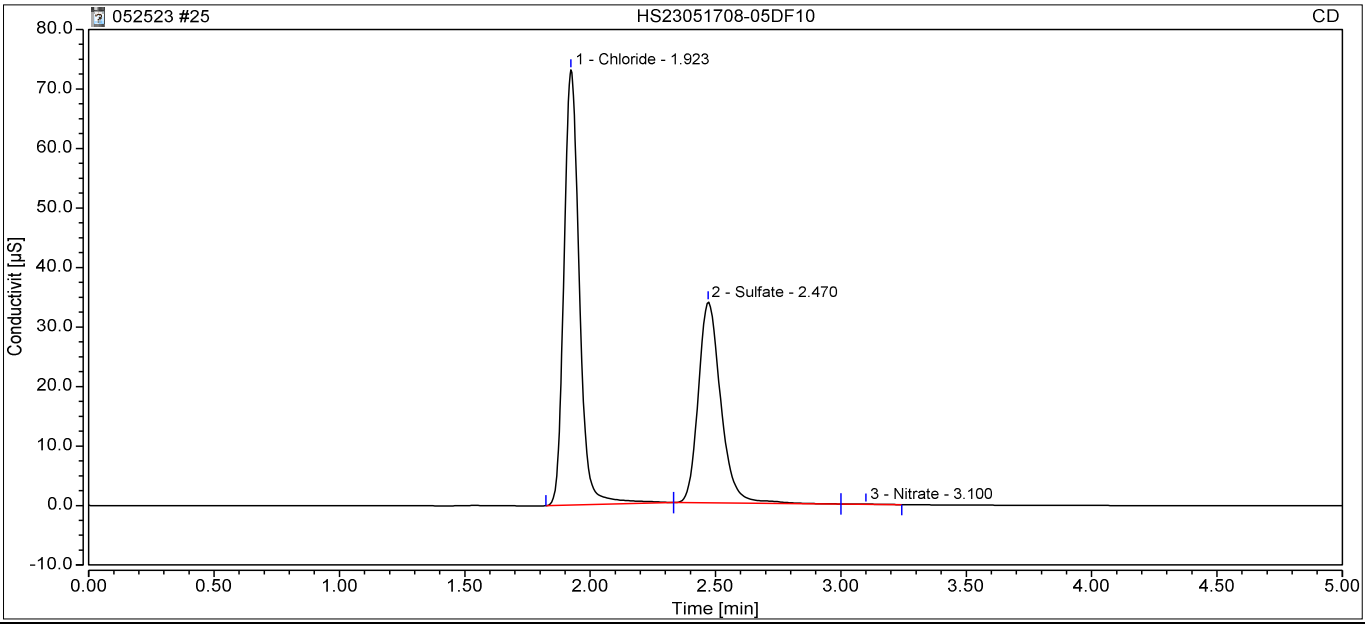


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.54	Fluoride	BMB	0.033	0.3080	0.3080	1.0000
2	1.92	Chloride	BMB	51.417	325.7100	325.7100	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
3	2.39	Sulfate	BMB	32.688	298.1291	298.1291	1.0000
4	2.73	Bromide	BMB	0.027	0.5797	0.5797	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**	**84.164**		**624.73**	

25	*HS23051708-05DF10*		
Sample Name:	**HS23051708-05DF10**	*Injection Volume:*	**5.00**
Vial Number:	**RB5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**05/25/2023 13:40**	*Sample Weight:*	**1.0000**

Run Time:



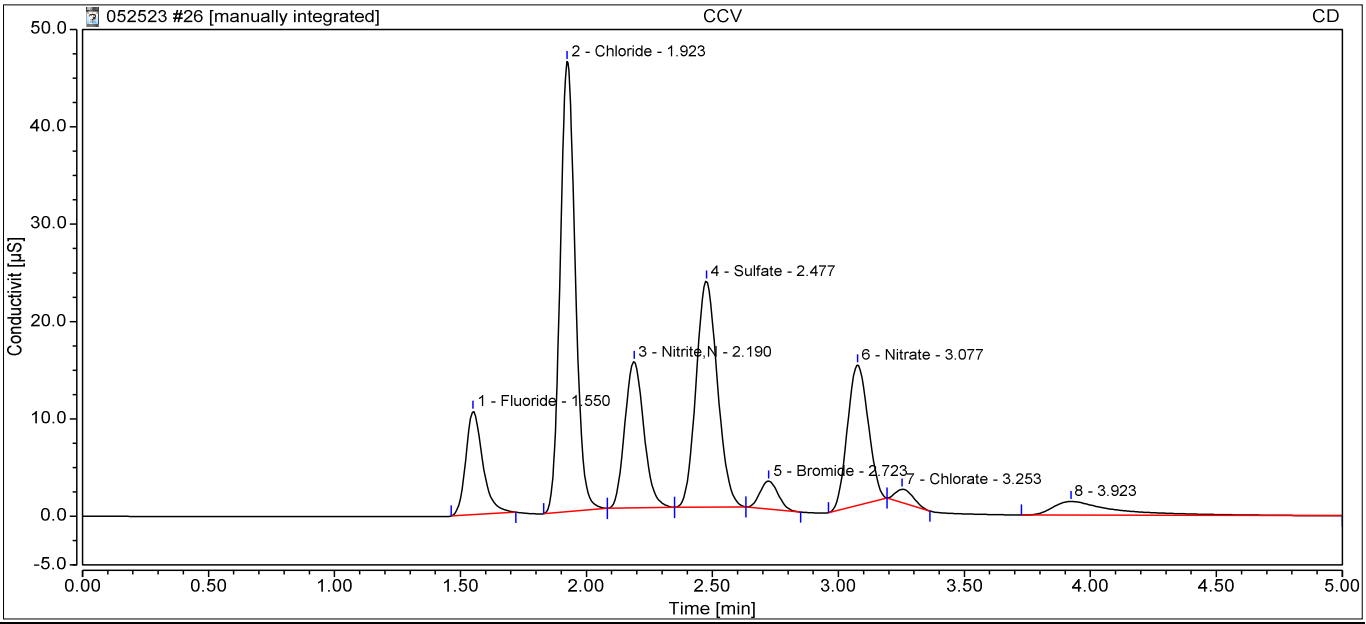
Integration Results

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.	10.0000
1	1.92	Chloride	BMB	5.209	33.4635	334.6345	10.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	10.0000
2	2.47	Sulfate	BMB	3.506	32.3800	323.8005	10.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	10.0000
3	3.10	Nitrate	BMB	0.002	0.1177	1.1770	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**	**8.717**		**659.61**	

26 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/25/2023 13:52**	*Sample Weight:*	**1.0000**

Run Time:



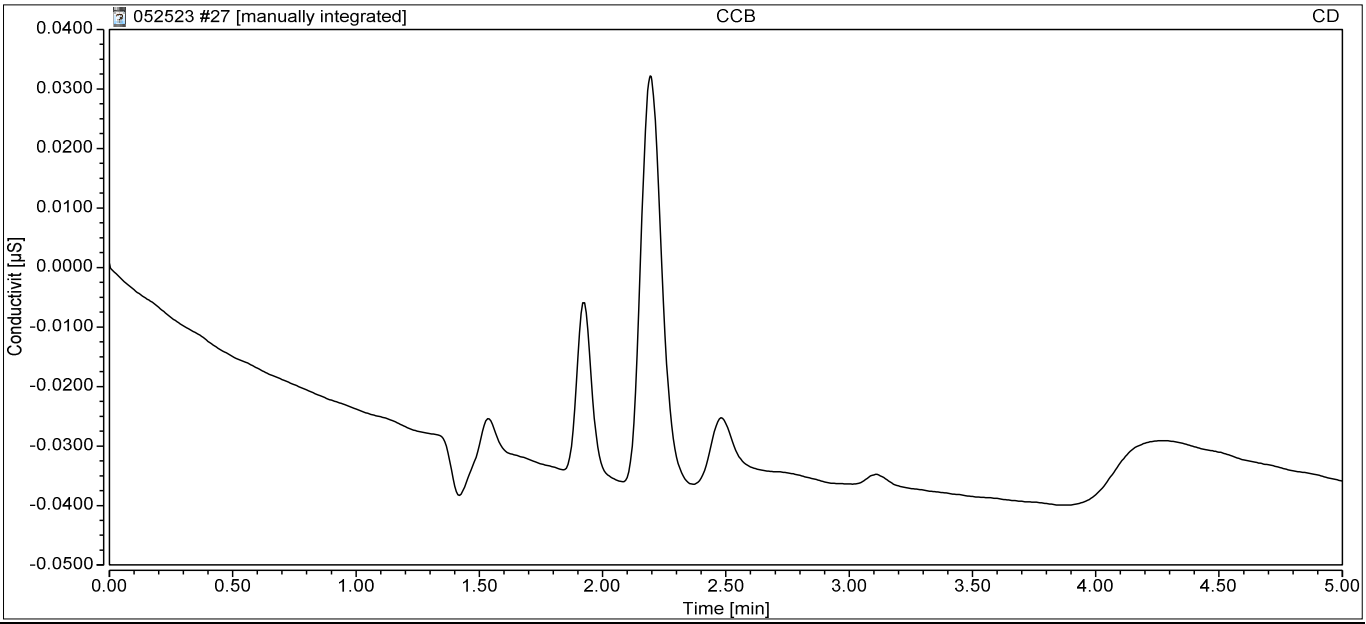
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.55	Fluoride	BMB*	0.833	4.2750	4.2750	1.0000
2	1.92	Chloride	BMB	3.213	20.8374	20.8374	1.0000
3	2.19	Nitrite,N	BMB	1.320	4.2788	4.2788	1.0000
4	2.48	Sulfate	BMB	2.281	21.2162	21.2162	1.0000
5	2.72	Bromide	BMB	0.240	4.2912	4.2912	1.0000
6	3.08	Nitrate	BMB	1.381	4.2690	4.2690	1.0000
7	3.25	Chlorate	BMB	0.116	4.5856	4.5856	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**9.383**		**63.75**	

27 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Program ISO37mM 150mm short 0.4 Constant current**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/25/2023 13:58**	*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
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
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**	**0.000**		**0.00**	

HS23051708 Wetchem TOC_W

ALS WO# HS23051708

C:\TOC-L\Data\2023_03_27_002.CAL.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes
1	Standard	NPOC	CAL	321104406	03_27_2023	1.000		
2	Unknown	NPOC	ICV	3100606923	03_27_2023	1.000	NPOC:10.39mg/L	
3	Unknown	NPOC	ICB		03_27_2023	1.000	NPOC:0.5513mg/	

	Status	Date / Time	Vial
1	Completed	3/27/2023 2:55:48	1, 2, 3, 4, 5,
2	Completed	3/27/2023 3:09:01	8
3	Completed	3/27/2023 3:21:20	9

TOC-Control L Report

2023_03_27_002.CAL.tlx

Instr.Information

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

Cal. Curve

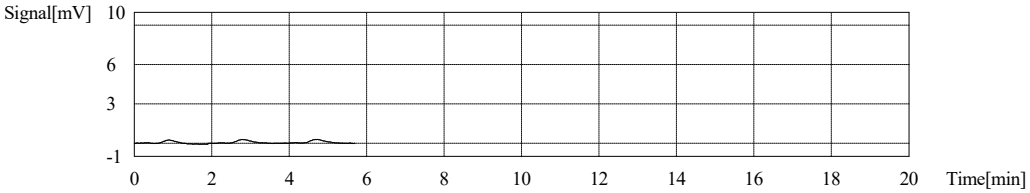
Sample Name:	CAL
Sample ID:	321104406
Cal. Curve:	03_27_2023_CAL.2023_03_27_13_24_18.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.6126	50uL	1.000	*******		3/27/2023 1:32:15 PM
2	0.6651	50uL	1.000	*******		3/27/2023 1:34:25 PM
3	0.7575	50uL	1.000	*******		3/27/2023 1:36:33 PM

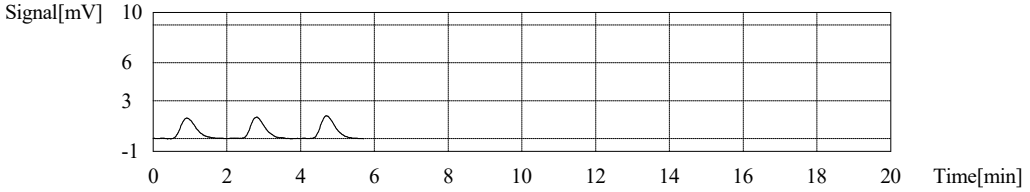
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	0.6784



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.693	50uL	1.000	*******		3/27/2023 1:44:37 PM
2	4.633	50uL	1.000	*******		3/27/2023 1:46:45 PM
3	4.978	50uL	1.000	*******		3/27/2023 1:48:53 PM

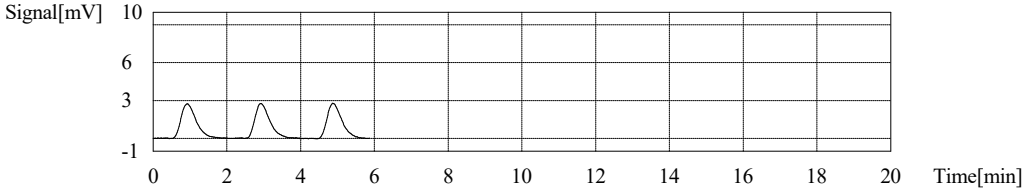
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	4.768



Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.890	50uL	1.000	*******		3/27/2023 1:57:04 PM
2	7.696	50uL	1.000	*******		3/27/2023 1:59:15 PM
3	7.919	50uL	1.000	*******		3/27/2023 2:01:23 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	7.835



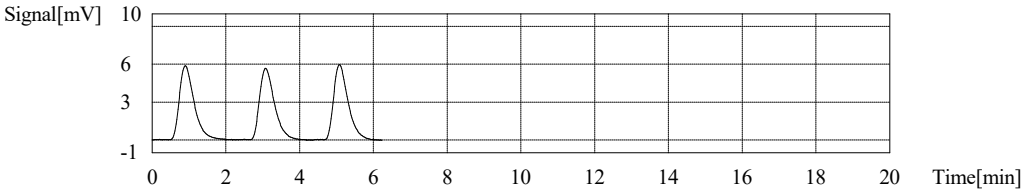
TOC-Control L Report

2023_03_27_002.CAL.tlx

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	16.42	50uL	1.000	*******		3/27/2023 2:09:43 PM
2	16.08	50uL	1.000	*******		3/27/2023 2:11:58 PM
3	16.30	50uL	1.000	*******		3/27/2023 2:14:15 PM

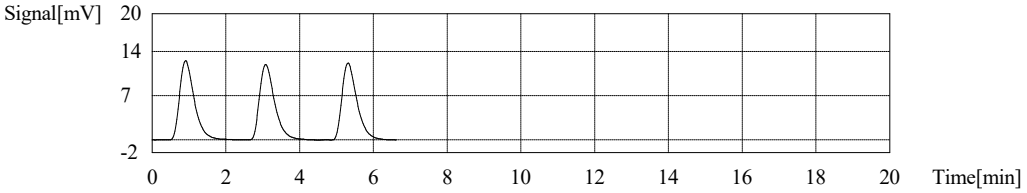
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 16.27



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	35.01	50uL	1.000	*******		3/27/2023 2:22:35 PM
2	34.18	50uL	1.000	*******		3/27/2023 2:25:03 PM
3	34.84	50uL	1.000	*******		3/27/2023 2:27:30 PM

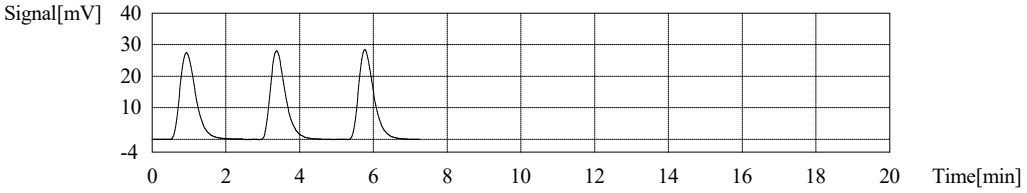
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 34.68



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	82.45	50uL	1.000	*******		3/27/2023 2:36:07 PM
2	80.86	50uL	1.000	*******		3/27/2023 2:38:45 PM
3	82.11	50uL	1.000	*******		3/27/2023 2:41:24 PM

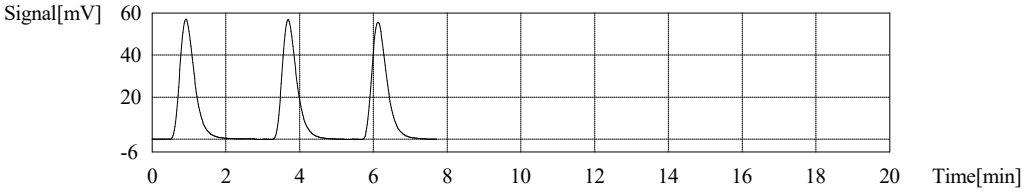
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 81.81



Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	161.9	50uL	1.000	*******		3/27/2023 2:50:21 PM
2	158.5	50uL	1.000	*******		3/27/2023 2:53:02 PM
3	161.9	50uL	1.000	*******		3/27/2023 2:55:48 PM

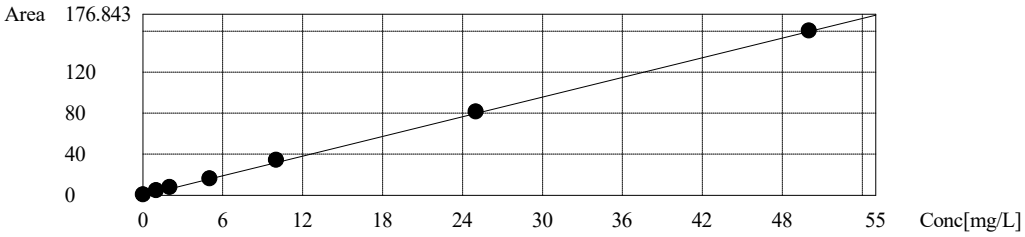
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 160.8



TOC-Control L Report

2023_03_27_002.CAL.tlx

Slope:	3.197
Intercept	0.000
r^2	0.9998
r	0.9999
RSE(%)	N/A
Zero Shift	Yes



Sample

Sample Name:	ICV
Sample ID:	3100606923
Origin:	03_27_2023_CAL.cal
Status	Completed
Chk. Result	

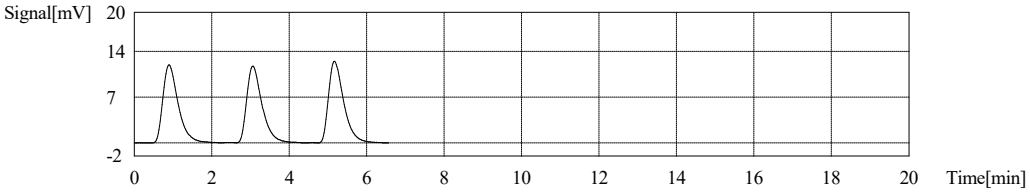
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	33.19	10.38mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	3/27/2023 3:04:08 PM
2	32.30	10.10mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	3/27/2023 3:06:30 PM
3	34.14	10.68mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	3/27/2023 3:09:01 PM

Mean Area	33.21
Mean Conc.	10.39mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	03_27_2023_CAL.cal
Status	Completed
Chk. Result	

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5513mg/L

1. Det

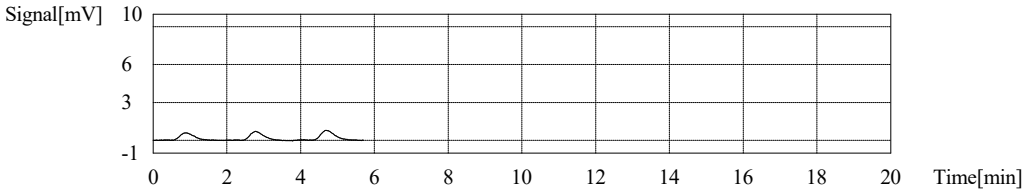
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.462	0.4573mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	3/27/2023 3:17:05 PM
2	1.831	0.5727mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	3/27/2023 3:19:13 PM
3	1.994	0.6237mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	3/27/2023 3:21:20 PM

TOC-Control L Report

2023_03_27_002.CAL.tlx

Mean Area	1.762
Mean Conc.	0.5513mg/L



C:\TOC-L\Data\2023_06_07_001.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status
1	Unknown	NPOC	CCV	321107307	03_27_2023	1.000	NPOC:27.0		Completed
2	Unknown	NPOC	CCB		03_27_2023	1.000	NPOC:0.08		Completed
3	Unknown	NPOC	MBLK-06072023		03_27_2023	1.000	NPOC:0.11		Completed
4	Unknown	NPOC	LCS-06072023	3100606923	03_27_2023	1.000	NPOC:10.7		Completed
5	Unknown	NPOC	LCSD-06072023		03_27_2023	1.000	NPOC:10.7		Completed
6	Unknown	NPOC	HS23060259-01	TOC_W	03_27_2023	1.000	NPOC:14.3		Completed
7	Unknown	NPOC	HS23051636-01		03_27_2023	1.000	NPOC:5.94		Completed
8	Unknown	NPOC	HS23051636-01MS		03_27_2023	1.000	NPOC:17.2		Completed
9	Unknown	NPOC	HS23051636-02		03_27_2023	1.000	NPOC:9.10		Completed
10	Unknown	NPOC	HS23051636-03		03_27_2023	1.000	NPOC:6.76		Completed
11	Unknown	NPOC	HS23060055-09		03_27_2023	1.000	NPOC:1.89		Completed
12	Unknown	NPOC	HS23060055-10		03_27_2023	1.000	NPOC:2.02		Completed
13	Unknown	NPOC	CCV		03_27_2023	1.000	NPOC:26.5		Completed
14	Unknown	NPOC	CCB		03_27_2023	1.000	NPOC:0.17		Completed
15	Unknown	NPOC	HS23060055-11		03_27_2023	1.000	NPOC:3.41		Completed
16	Unknown	NPOC	HS23060055-12		03_27_2023	1.000	NPOC:5.17		Completed
17	Unknown	NPOC	HS23060055-13		03_27_2023	1.000	NPOC:5.83		Completed
18	Unknown	NPOC	HS23060055-14		03_27_2023	1.000	NPOC:2.82		Completed
19	Unknown	NPOC	CCV	321107307	03_27_2023	1.000	NPOC:26.9		Completed
20	Unknown	NPOC	CCB		03_27_2023	1.000	NPOC:0.27		Completed
21	Unknown	NPOC	MBLK-06072023		03_27_2023	1.000	NPOC:0.17		Completed
22	Unknown	NPOC	LCS-06072023	3100606923	03_27_2023	1.000	NPOC:10.5		Completed
23	Unknown	NPOC	LCSD-06072023		03_27_2023	1.000	NPOC:10.6		Completed
24	Unknown	NPOC	HS23060055-15	TOC_W	03_27_2023	1.000	NPOC:4.84		Completed
25	Unknown	NPOC	HS23060055-16		03_27_2023	1.000	NPOC:1.33		Completed
26	Unknown	NPOC	HS23051708-04		03_27_2023	1.000	NPOC:1.59		Completed
27	Unknown	NPOC	HS23051708-05		03_27_2023	1.000	NPOC:1.49		Completed
28	Unknown	NPOC	HS23051708-06		03_27_2023	1.000	NPOC:1.82		Completed
29	Unknown	NPOC	HS23051734-01		03_27_2023	1.000	NPOC:10.7		Completed
30	Unknown	NPOC	HS23051834-02		03_27_2023	1.000	NPOC:2.04		Completed
31	Unknown	NPOC	CCV		03_27_2023	1.000	NPOC:26.6		Completed
32	Unknown	NPOC	CCB		03_27_2023	1.000	NPOC:0.22		Completed
33	Unknown	NPOC	HS23051834-03		03_27_2023	1.000	NPOC:1.96		Completed
34	Unknown	NPOC	HS23051834-04		03_27_2023	1.000	NPOC:1.41		Completed
35	Unknown	NPOC	HS23051834-04MS		03_27_2023	1.000	NPOC:12.1		Completed
36	Unknown	NPOC	HS23041197-29		03_27_2023	1.000	NPOC:1.39		Completed
37	Unknown	NPOC	CCV		03_27_2023	1.000	NPOC:26.4		Completed
38	Unknown	NPOC	CCB		03_27_2023	1.000	NPOC:0.23		Completed

	Date / Time	Vial
1	6/7/2023 3:51:57 PM	1
2	6/7/2023 4:04:14 PM	2
3	6/7/2023 4:16:34 PM	3
4	6/7/2023 4:29:56 PM	4
5	6/7/2023 4:43:16 PM	5
6	6/7/2023 4:56:47 PM	6
7	6/7/2023 5:09:55 PM	7
8	6/7/2023 5:23:36 PM	8
9	6/7/2023 5:36:57 PM	9
10	6/7/2023 5:50:19 PM	10
11	6/7/2023 6:03:58 PM	11
12	6/7/2023 6:16:31 PM	12
13	6/7/2023 6:30:45 PM	1
14	6/7/2023 6:43:02 PM	2
15	6/7/2023 6:55:57 PM	13
16	6/7/2023 7:08:58 PM	14
17	6/7/2023 7:22:15 PM	15
18	6/7/2023 7:35:03 PM	16
19	6/7/2023 7:49:24 PM	1
20	6/7/2023 8:01:43 PM	2
21	6/7/2023 8:14:01 PM	3
22	6/7/2023 8:27:32 PM	4
23	6/7/2023 8:41:26 PM	5
24	6/7/2023 8:54:28 PM	17
25	6/7/2023 9:06:54 PM	18
26	6/7/2023 9:19:15 PM	19
27	6/7/2023 9:31:37 PM	20
28	6/7/2023 9:43:59 PM	21
29	6/7/2023 9:57:23 PM	22
30	6/7/2023 10:09:55 PM	23
31	6/7/2023 10:24:11 PM	28
32	6/7/2023 10:36:30 PM	29
33	6/7/2023 10:49:05 PM	24
34	6/7/2023 11:01:25 PM	25
35	6/7/2023 11:15:01 PM	26
36	6/7/2023 11:27:22 PM	27
37	6/7/2023 11:41:38 PM	28
38	6/7/2023 11:53:57 PM	29

TOC-Control L Report

2023_06_07_001.tlx

Instr.Information

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

Sample

Sample Name: CCV
Sample ID: 321107307
Origin: 03_27_2023_CAL.cal
Status: Completed
Chk. Result

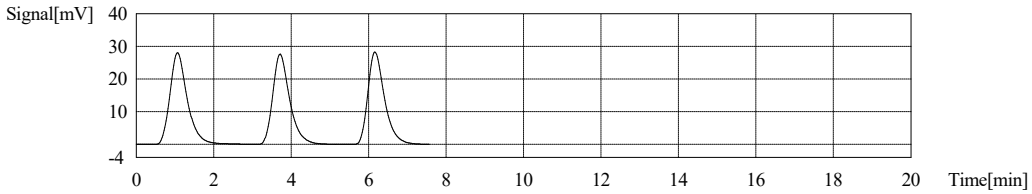
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.93mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	88.20	27.59mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 7:44:00 PM
2	85.31	26.68mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 7:46:44 PM
3	84.75	26.51mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 7:49:24 PM

Mean Area: 86.09
Mean Conc.: 26.93mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 03_27_2023_CAL.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2711mg/L

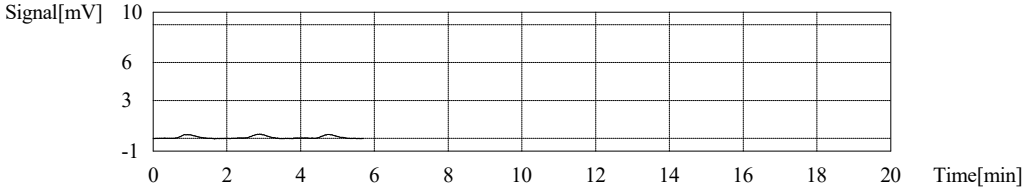
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8883	0.2779mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 7:57:28 PM
2	0.8552	0.2675mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 7:59:35 PM
3	0.8569	0.2680mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:01:43 PM

TOC-Control L Report

Mean Area 0.8668
Mean Conc. 0.2711mg/L



Sample

Sample Name: MBLK-06072023
Sample ID:
Origin: 03_27_2023_CAL.cal
Status Completed
Chk. Result

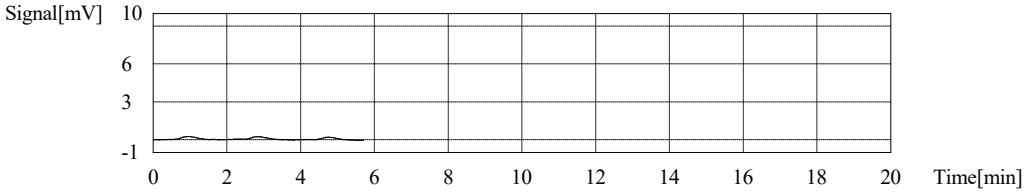
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1719mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5519	0.1726mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:09:47 PM
2	0.5459	0.1708mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:11:54 PM
3	0.5511	0.1724mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:14:01 PM

Mean Area 0.5496
Mean Conc. 0.1719mg/L



Sample

Sample Name: LCS-06072023
Sample ID: 3100606923
Origin: 03_27_2023_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.52mg/L

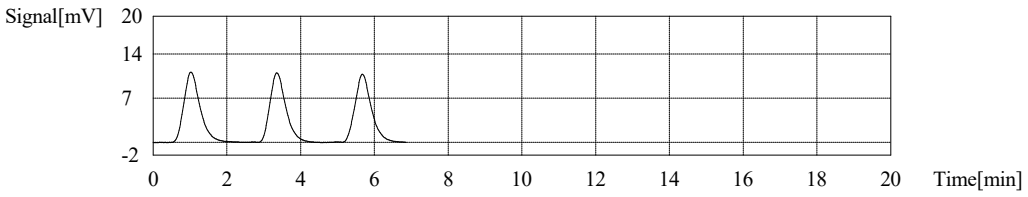
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.29	10.73mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:22:32 PM
2	33.36	10.43mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:25:03 PM
3	33.27	10.41mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:27:32 PM

TOC-Control L Report

Mean Area 33.64
Mean Conc. 10.52mg/L



Sample

Sample Name: LCSD-06072023
Sample ID:
Origin: 03_27_2023_CAL.cal
Status Completed
Chk. Result

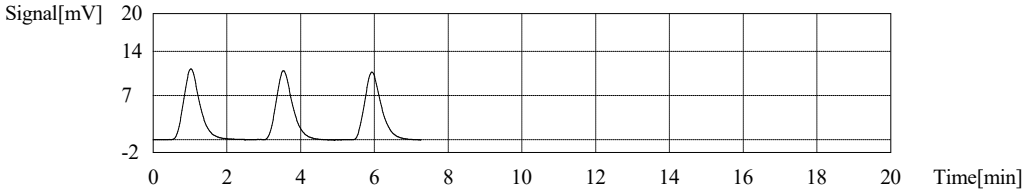
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.67mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.48	10.79mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:36:11 PM
2	33.92	10.61mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:38:51 PM
3	33.95	10.62mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 8:41:26 PM

Mean Area 34.12
Mean Conc. 10.67mg/L



Sample

Sample Name: HS23051708-04
Sample ID:
Origin: 03_27_2023_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.593mg/L

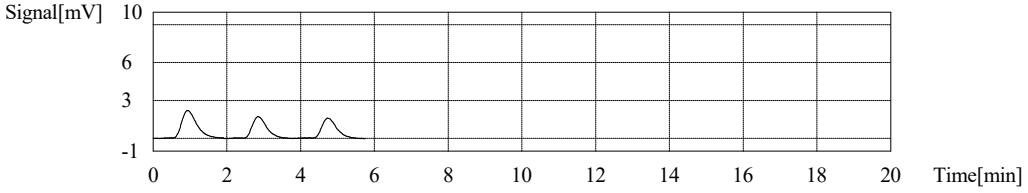
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.167	1.929mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 9:14:56 PM
2	4.650	1.455mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 9:17:04 PM
3	4.459	1.395mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 9:19:15 PM

TOC-Control L Report

Mean Area 5.092
Mean Conc. 1.593mg/L



Sample

Sample Name: HS23051708-05
Sample ID:
Origin: 03_27_2023_CAL.cal
Status Completed
Chk. Result

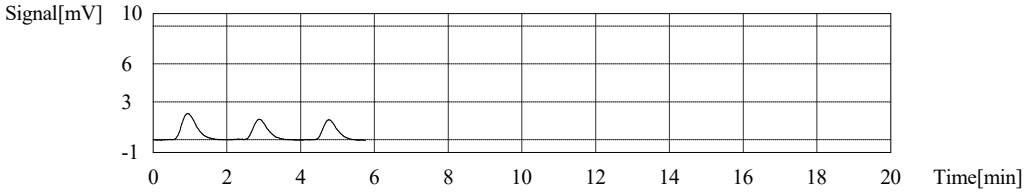
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.495mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.828	1.823mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 9:27:22 PM
2	4.274	1.337mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 9:29:30 PM
3	4.241	1.327mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 9:31:37 PM

Mean Area 4.781
Mean Conc. 1.495mg/L



Sample

Sample Name: HS23051708-06
Sample ID:
Origin: 03_27_2023_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.826mg/L

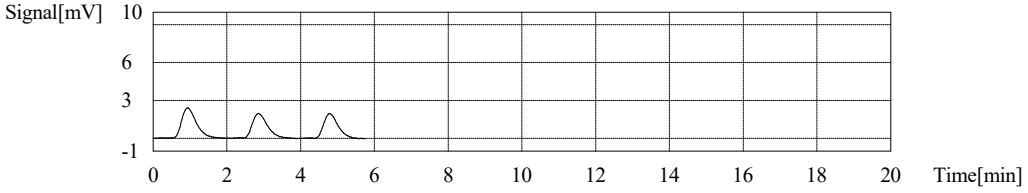
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.596	2.063mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 9:39:43 PM
2	5.533	1.731mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 9:41:52 PM
3	5.385	1.684mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 9:43:59 PM

TOC-Control L Report

Mean Area 5.838
Mean Conc. 1.826mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: 03_27_2023_CAL.cal
Status Completed
Chk. Result

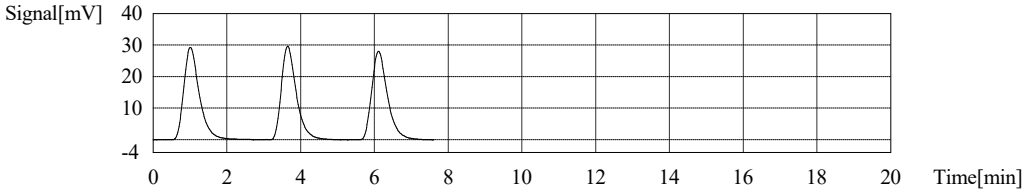
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.63mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	86.38	27.02mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:18:47 PM
2	84.69	26.49mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:21:27 PM
3	84.30	26.37mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:24:11 PM

Mean Area 85.12
Mean Conc. 26.63mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 03_27_2023_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2232mg/L

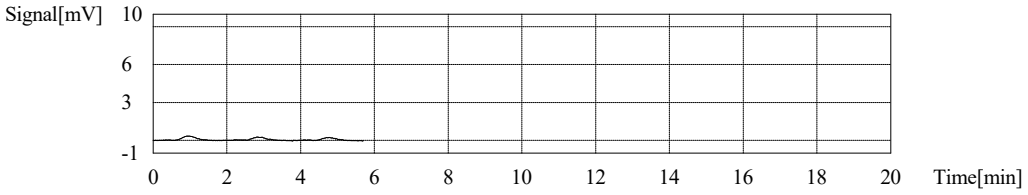
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9237	0.2889mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:32:16 PM
2	0.5935	0.1856mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:34:22 PM
3	0.6230	0.1949mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:36:30 PM

TOC-Control L Report

Mean Area 0.7134
Mean Conc. 0.2232mg/L



Sample

Sample Name: HS23051834-04
Sample ID:
Origin: 03_27_2023_CAL.cal
Status Completed
Chk. Result

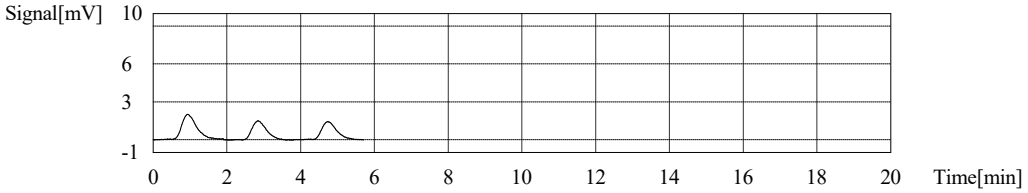
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.412mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.413	1.693mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:57:08 PM
2	4.141	1.295mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 10:59:17 PM
3	3.986	1.247mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:01:25 PM

Mean Area 4.513
Mean Conc. 1.412mg/L



Sample

Sample Name: HS23051834-04MS
Sample ID:
Origin: 03_27_2023_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.13mg/L

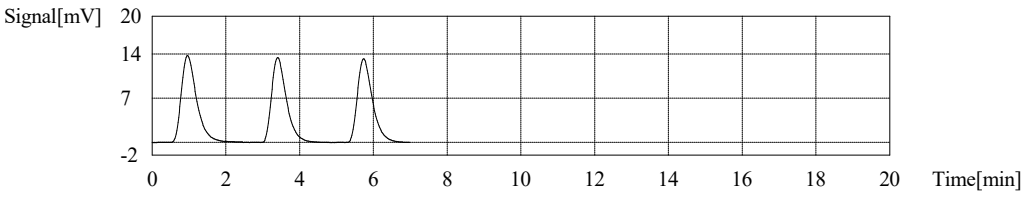
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	40.16	12.56mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:10:01 PM
2	38.01	11.89mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:12:35 PM
3	38.17	11.94mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:15:01 PM

TOC-Control L Report

Mean Area 38.78
Mean Conc. 12.13mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: 03_27_2023_CAL.cal
Status Completed
Chk. Result

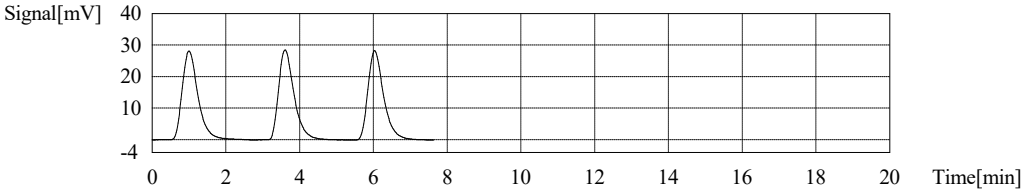
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.41mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	84.60	26.46mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:36:10 PM
2	83.96	26.26mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:38:48 PM
3	84.69	26.49mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:41:38 PM

Mean Area 84.42
Mean Conc. 26.41mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 03_27_2023_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2360mg/L

1. Det

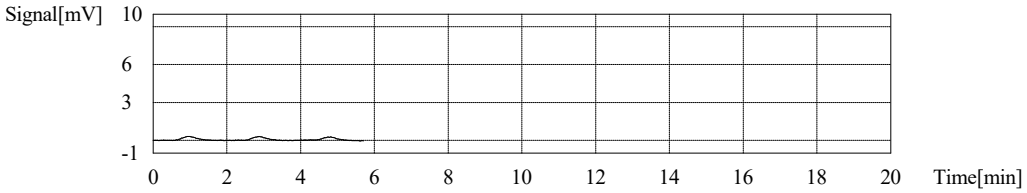
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8264	0.2585mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:49:42 PM
2	0.7908	0.2474mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:51:50 PM
3	0.6458	0.2020mg/L	50uL	1.000		03_27_2023_CAL.2023_03_27_13_24_18.cal	6/7/2023 11:53:57 PM

TOC-Control L Report

2023_06_07_001.tlx

Mean Area	0.7543
Mean Conc.	0.2360mg/L



HS23051708-E2300512 Perchlorate Level IV

ALS WO# HS23051708

May 31, 2023 Service Request No:E2300512

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS23051708

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory May 25, 2023
For your reference, these analyses have been assigned our service request number **E2300512.**

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.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



James Guin

Certificate of Analysis

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - US	**Service Request No.:**	E2300512
Project:	HS23051708	**Date Received:**	05/25/23
Sample Matrix:	Ground Water		

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 IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Seven samples were received for analysis at ALS Environmental in Houston on 05/25/23.

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:

EQ2300265: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

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:**E2300512
Project: HS23051708

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300512-001	50WW09_052423	5/24/2023	0655
E2300512-002	50WW08_052423	5/24/2023	0735
E2300512-003	50WW22_052423	5/24/2023	0820
E2300512-004	50WW13_052423	5/24/2023	0905
E2300512-005	50WW11_052423	5/24/2023	0955
E2300512-006	50WW06_052423	5/24/2023	1050
E2300512-007	50WW29_052423	5/24/2023	1140

Service Request Summary

Folder #: **E2300512**
Client Name: ALS Environmental - US
Project Name: HS23051708
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/25/23
Internal Due Date: 6/9/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23051708
EDD: BASIC_WQC_CASNo_LOD

7 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300512-001	50WW09_052423	Ground Water	05/24/23 0655	**IV**
E2300512-002	50WW08_052423	Ground Water	05/24/23 0735	**IV**
E2300512-003	50WW22_052423	Ground Water	05/24/23 0820	**IV**
E2300512-004	50WW13_052423	Ground Water	05/24/23 0905	**IV**
E2300512-005	50WW11_052423	Ground Water	05/24/23 0955	**IV**
E2300512-006	50WW06_052423	Ground Water	05/24/23 1050	**IV**
E2300512-007	50WW29_052423	Ground Water	05/24/23 1140	**IV**

Service Request Summary

Folder #: **E2300512**
Client Name: ALS Environmental - US
Project Name: HS23051708
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/25/23
Internal Due Date: 6/9/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23051708
EDD: BASIC_WQC_CASNo_LOD

7 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

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	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
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.

Data Qualifiers

Lab Standard

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.
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
Arkansas Department of Environmental Quality	88-00356	3/27/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

Chain of Custody

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
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: **Texas** **COC ID:** **21839**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@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:	HS23051708
TSR:	Holly Tignac

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23051708-01**	**50WW09_052423**	**Groundwater**	**24 May 2023 06:55**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			09 Jun 2023
2.	**HS23051708-02**	**50WW08_052423**	**Groundwater**	**24 May 2023 07:35**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			09 Jun 2023
3.	**HS23051708-03**	**50WW22_052423**	**Groundwater**	**24 May 2023 08:20**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			09 Jun 2023
4.	**HS23051708-04**	**50WW13_052423**	**Groundwater**	**24 May 2023 09:05**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			09 Jun 2023
5.	**HS23051708-05**	**50WW11_052423**	**Groundwater**	**24 May 2023 09:55**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			09 Jun 2023
6.	**HS23051708-06**	**50WW06_052423**	**Groundwater**	**24 May 2023 10:50**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			09 Jun 2023
7.	**HS23051708-07**	**50WW29_052423**	**Groundwater**	**24 May 2023 11:40**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			09 Jun 2023

Subcontract Chain of Custody

SAMPLING STATE: **Texas** **COC ID:** **21839**

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

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: 5-25-23 2137

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

ALS Environmental

Cooler Receipt Form

Project Chemist JL

Client/Project ALS

Thermometer ID IR4

Date/Time Received: 5.25.23 Initials: CL Date/Time Logged in: 5.25.23 Initials CL

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
   Were they intact? ○ Yes ○ No ⊗ N/A
   Were they signed and dated? ○ Yes ○ No ⊗ N/A
   If yes, how many and where?

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		5.25.23	2137	CL	3.3	☒
						☐
						☐
						☐

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

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

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 Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 420569 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 5/30/23 08:20

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300499-001	LH18/24-SP650_052223_AIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2300499-002	LH18/24-SP650_052223_BIX	.01	6850/ClO4 DOD			Water	10mL	
3	E2300500-001	LH18/24-SP650_052223_AIX	.01	6850/ClO4 DOD			Water	10mL	
4	E2300501-001	LH18/24-SP140_052223	.01	6850/ClO4 DOD			Water	10mL	
5	E2300512-001	50WW09_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2300512-002	50WW08_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2300512-003	50WW22_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2300512-004	50WW13_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2300512-005	50WW11_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2300512-006	50WW06_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2300512-007	50WW29_052423	.01	6850/ClO4 DOD			Ground Water	10mL	
12	EQ2300265-01	MB		6850/ClO4			Liquid	10mL	
13	EQ2300265-02	LCS		6850/ClO4			Liquid	10mL	
14	EQ2300265-03	DLCS		6850/ClO4			Liquid	10mL	
15	K2305800-001	LGAC-INF-052223	.01	6850/ClO4			Water	10mL	
16	K2305800-002	LGAC-INT1-052223	.01	6850/ClO4			Water	10mL	
17	R2304146-004	2305090957X BLM-38-620	.01	6850/ClO4			Water	10mL	
18	R2304146-009	2305090931B ST-1-630	.01	6850/ClO4			Water	10mL	
19	R2304203-004	2305100842X BLM-38-480	.01	6850/ClO4			Water	10mL	
20	R2304203-011	2305100858B 600-C-173	.01	6850/ClO4			Water	10mL	
21	R2304267-009	2305111350X WB-1-330	.01	6850/ClO4			Water	10mL	
22	R2304267-012	2305121010X WB-1-200	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300265-02	1.00µL	EQ2300265-02	1.00µL	EQ2300265-03	1.00µL	EQ2300265-03	1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 227244 Logbook Ref: Perchlorate Internal Standard Expires On: 07/31/2023

E2300499-001	100.00µL	E2300499-002	100.00µL	E2300500-001	100.00µL	E2300501-001	100.00µL	E2300512-001	100.00µL	E2300512-002	100.00µL
E2300512-003	100.00µL	E2300512-004	100.00µL	E2300512-005	100.00µL	E2300512-006	100.00µL	E2300512-007	100.00µL	EQ2300265-01	100.00µL
EQ2300265-01	100.00µL	EQ2300265-02	100.00µL	EQ2300265-02	100.00µL	EQ2300265-03	100.00µL	EQ2300265-03	100.00µL	K2305800-001	100.00µL
K2305800-002	100.00µL	R2304146-004	100.00µL	R2304146-009	100.00µL	R2304203-004	100.00µL	R2304203-011	100.00µL	R2304267-009	100.00µL
R2304267-012	100.00µL										

Preparation Information Benchsheet

Prep Run#: 420569 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 5/30/23 08:20

Preparation Materials

Water HPLC Grade	HPLC water 5/18/23CG (229314)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 0.45um syringe (229005)
6850 Luer-Lok Syringes	luer-lock syringes (228116)				

Preparation Steps

Step: Preparation
Started: 5/30/23 08:20
Finished: 5/30/23 09:20
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 05/30/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	5/24/23 0655
Sample Matrix:	Ground Water	**Date Received:**	5/25/23
Sample Name:	50WW09_052423	**Units:**	µg/L
Lab Code:	E2300512-001	**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	**0.712**		0.500	0.0500	0.0250	1	5/30/23	5/30/23 17:24	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	5/24/23 0735
Sample Matrix:	Ground Water	**Date Received:**	5/25/23
Sample Name:	50WW08_052423	**Units:**	µg/L
Lab Code:	E2300512-002	**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	**81.1**		2.50	0.250	0.125	5	5/30/23	5/30/23 17:30	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	5/24/23 0820
Sample Matrix:	Ground Water	**Date Received:**	5/25/23
Sample Name:	50WW22_052423	**Units:**	µg/L
Lab Code:	E2300512-003	**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	**0.981**		0.500	0.0500	0.0250	1	5/30/23	5/30/23 17:36	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	5/24/23 0905
Sample Matrix:	Ground Water	**Date Received:**	5/25/23
Sample Name:	50WW13_052423	**Units:**	µg/L
Lab Code:	E2300512-004	**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	**186**		5.00	0.500	0.250	10	5/30/23	5/30/23 17:41	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	5/24/23 0955
Sample Matrix:	Ground Water	**Date Received:**	5/25/23
Sample Name:	50WW11_052423	**Units:**	µg/L
Lab Code:	E2300512-005	**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	**570**		25.0	2.50	1.25	50	5/30/23	5/30/23 17:47	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	5/24/23 1050
Sample Matrix:	Ground Water	**Date Received:**	5/25/23
Sample Name:	50WW06_052423	**Units:**	µg/L
Lab Code:	E2300512-006	**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	**5.79**		0.500	0.0500	0.0250	1	5/30/23	5/30/23 17:53	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	5/24/23 1140
Sample Matrix:	Ground Water	**Date Received:**	5/25/23
Sample Name:	50WW29_052423	**Units:**	µg/L
Lab Code:	E2300512-007	**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	**0.0701**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 17:59	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300265-01	**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	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:38	420569	805870	

Accuracy & Precision

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051708
Sample Matrix: Ground Water

Service Request: E2300512
Date Analyzed: 5/30/23

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: 420569

	Lab Control Sample EQ2300265-02			Duplicate Lab Control Sample EQ2300265-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.105	0.100	105	0.101	0.100	101	84 - 119	4	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:**	E2300512
Project:	HS23051708	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300265-02	**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	**0.105**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:44	420569	805870	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300265-03	**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	**0.101**	J	0.500	0.0500	0.0250	1	5/30/23	5/30/23 16:50	420569	805870	

Initial Calibration

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

20230530-805870

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 5/30/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300007

Mobile Phases : A:20mM ammonium acetate in water 32103044 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB		20230530-001	Perchlorate6850c.lcm	1x		5/30/2023 14:56
2	PERCHLORATE1		20230530-002	Perchlorate6850c.lcm	1x	227245	5/30/2023 15:08
3	PERCHLORATE2		20230530-003	Perchlorate6850c.lcm	1x	227246	5/30/2023 15:14
4	PERCHLORATE3		20230530-004	Perchlorate6850c.lcm	1x	227247	5/30/2023 15:21
5	PERCHLORATE4		20230530-005	Perchlorate6850c.lcm	1x	227248	5/30/2023 15:27
6	PERCHLORATE5		20230530-006	Perchlorate6850c.lcm	1x	227249	5/30/2023 15:33
7	PERCHLORATE6		20230530-007	Perchlorate6850c.lcm	1x	227250	5/30/2023 15:39
8	PERCHLORATE7		20230530-008	Perchlorate6850c.lcm	1x	227251	5/30/2023 15:45
9	PERCHLORATE8		20230530-009	Perchlorate6850c.lcm	1x	227252	5/30/2023 15:51
10	PERCHLORATE9		20230530-010	Perchlorate6850c.lcm	1x	227253	5/30/2023 15:57
11	PERCHLORATE10		20230530-011	Perchlorate6850c.lcm	1x	227254	5/30/2023 16:03
12	PERCHLORATEICV		20230530-012	Perchlorate6850c.lcm	1x	227256	5/30/2023 16:10
13	IB		20230530-013	Perchlorate6850c.lcm	1x		5/30/2023 16:15
14	LODV		20230530-014	Perchlorate6850c.lcm	1x	227251	5/30/2023 16:21
15	ICS		20230530-015	Perchlorate6850c.lcm	1x	32103024	5/30/2023 16:27
16	CCV		20230530-016	Perchlorate6850c.lcm	1x	227251	5/30/2023 16:33
17	EQ2300265-01		20230530-017	Perchlorate6850c.lcm	1x		5/30/2023 16:38
18	EQ2300265-02		20230530-018	Perchlorate6850c.lcm	1x		5/30/2023 16:44
19	EQ2300265-03		20230530-019	Perchlorate6850c.lcm	1x		5/30/2023 16:50
20	E2300499-001		20230530-020	Perchlorate6850c.lcm	1x		5/30/2023 16:55
21	E2300499-002		20230530-021	Perchlorate6850c.lcm	1x		5/30/2023 17:01
22	E2300500-001		20230530-022	Perchlorate6850c.lcm	1x		5/30/2023 17:07
23	E2300501-001		20230530-023	Perchlorate6850c.lcm	5000x		5/30/2023 17:13
24	CCV		20230530-024	Perchlorate6850c.lcm	1x	227251	5/30/2023 17:18
25	E2300512-001		20230530-025	Perchlorate6850c.lcm	1x		5/30/2023 17:24
26	E2300512-002		20230530-026	Perchlorate6850c.lcm	5x		5/30/2023 17:30
27	E2300512-003		20230530-027	Perchlorate6850c.lcm	1x		5/30/2023 17:36
28	E2300512-004		20230530-028	Perchlorate6850c.lcm	10x		5/30/2023 17:41
29	E2300512-005		20230530-029	Perchlorate6850c.lcm	50x		5/30/2023 17:47
30	E2300512-006		20230530-030	Perchlorate6850c.lcm	1x		5/30/2023 17:53
31	E2300512-007		20230530-031	Perchlorate6850c.lcm	1x		5/30/2023 17:59
32	CCV		20230530-032	Perchlorate6850c.lcm	1x	227251	5/30/2023 18:04
33	K2305800-001		20230530-033	Perchlorate6850c.lcm	1x		5/30/2023 18:10
34	K2305800-002		20230530-034	Perchlorate6850c.lcm	1x		5/30/2023 18:16
35	R2304146-004		20230530-035	Perchlorate6850c.lcm	1x		5/30/2023 18:22
36	R2304146-009		20230530-036	Perchlorate6850c.lcm	1x		5/30/2023 18:27
37	R2304203-004		20230530-037	Perchlorate6850c.lcm	1x		5/30/2023 18:33

20230530-805870

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 5/30/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300007

Mobile Phases : **A:**20mM ammonium acetate in water 32103044 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
38	R2304203-011		20230530-038	Perchlorate6850c.lcm	1x		5/30/2023 18:39
39	R2304267-009		20230530-039	Perchlorate6850c.lcm	1x		5/30/2023 18:45
40	R2304267-012		20230530-040	Perchlorate6850c.lcm	1x		5/30/2023 18:50
41	CCV		20230530-041	Perchlorate6850c.lcm	1x	227251	5/30/2023 18:56

Initial Calibration - Detailed Report

Calibration ID: EC2300007 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
11	EC2300007-11	PERCHLORATE1	20230530-002	05/30/2023 15:08
01	EC2300007-01	PERCHLORATE2	20230530-003	05/30/2023 15:14
02	EC2300007-02	PERCHLORATE3	20230530-004	05/30/2023 15:21
03	EC2300007-03	PERCHLORATE4	20230530-005	05/30/2023 15:27
04	EC2300007-04	PERCHLORATE5	20230530-006	05/30/2023 15:33
05	EC2300007-05	PERCHLORATE6	20230530-007	05/30/2023 15:39
06	EC2300007-06	PERCHLORATE7	20230530-008	05/30/2023 15:45
07	EC2300007-07	PERCHLORATE8	20230530-009	05/30/2023 15:51
08	EC2300007-08	PERCHLORATE9	20230530-010	05/30/2023 15:57
09	EC2300007-09	PERCHLORATE10	20230530-011	05/30/2023 16:03

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 1.842** **Average RF = 0.1844**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5000	0.1845	02	0.7000	0.1911	03	1.0000	0.181	04	2.0000	0.1794
05	5.0000	0.1836	06	10.0000	0.1842	07	20.0000	0.1862	08	30.0000	0.1828
09	50.0000	0.1863	11								

Analyte

Perchlorate RSE = 1.74

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.5000	0.500	0.1	02	0.7000	0.726	3.7	03	1.0000	0.982	-1.8
04	2.0000	1.95	-2.7	05	5.0000	4.98	-0.4	06	10.0000	9.99	-0.1
07	20.0000	20.2	1.0	08	30.0000	29.8	-0.8	09	50.0000	50.5	1.1
11											

Initial Calibration Verification Summary Report

Calibration ID:	EC2300007	**Instrument ID:**	E-LCMS-01
Datafile ID:	20230530-012	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300007-10	T	Average RF	10	10.045	ng/mL	0.4	<= 15

Insight Report

Printed at 5/31/2023 8:58:43 AM

Method File: I:\LCMS01\DATA\20230530\20230530.lcm
Project File: I:\LCMS01\DATA\20230530\20230530b.damlp

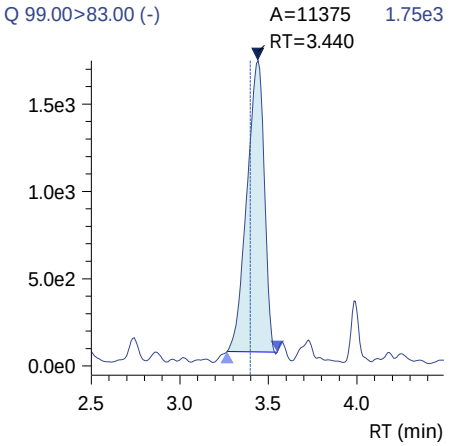
PERCHLORATE1

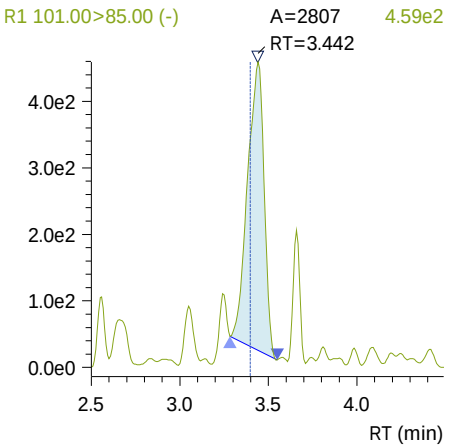
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Date Acquired: 5/30/2023 3:08:46 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.440	11375	579508	0.1065	ng/mL	101.00 >85.00	24.68	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.437	579508	579508	1.0000	ng/mL	----	----	

Perchlorate

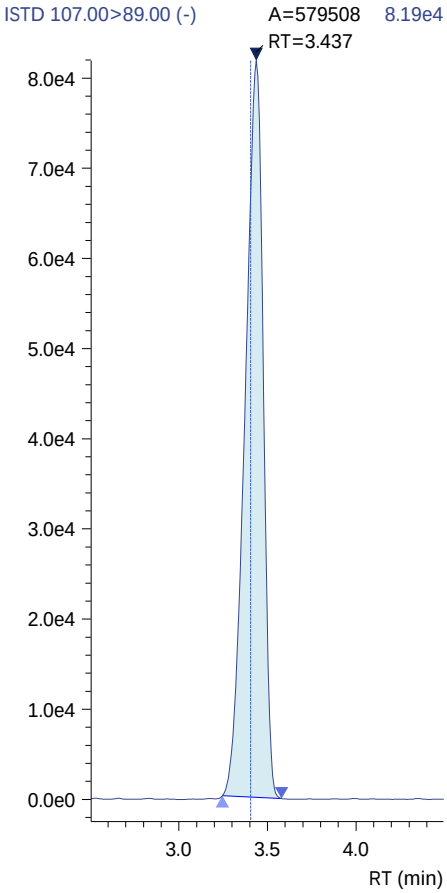
Conc 0.1065
R#1 24.68 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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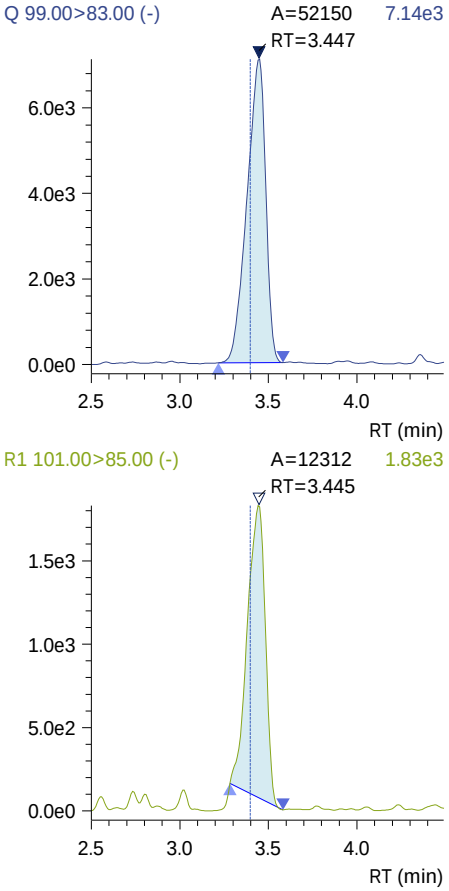
PERCHLORATE2

Sample ID: PERCHLORATE2
Date Acquired: 5/30/2023 3:14:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-003.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.447	52150	565411	0.5003	ng/mL	101.00 >85.00	23.61	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	565411	565411	1.0000	ng/mL	----	----	

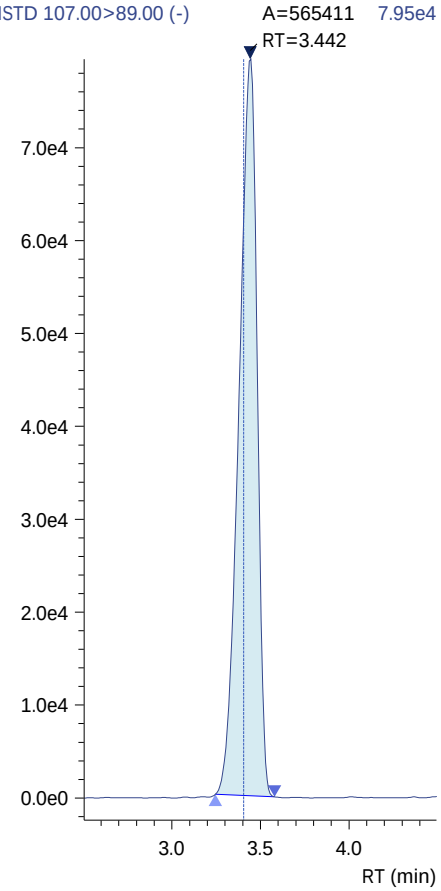
Perchlorate

Conc 0.5003
R#1 23.61 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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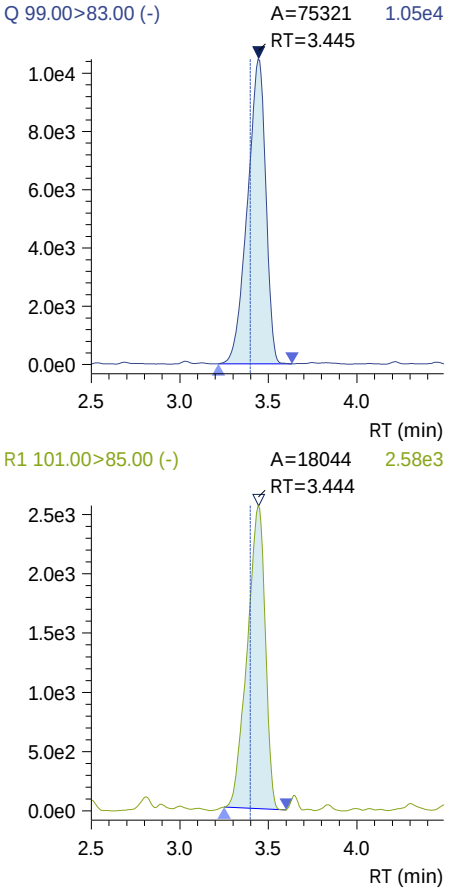
PERCHLORATE3

Sample ID: PERCHLORATE3
Date Acquired: 5/30/2023 3:21:04 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-004.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.445	75321	562984	0.7257	ng/mL	101.00 >85.00	23.96	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	562984	562984	1.0000	ng/mL	----	----	

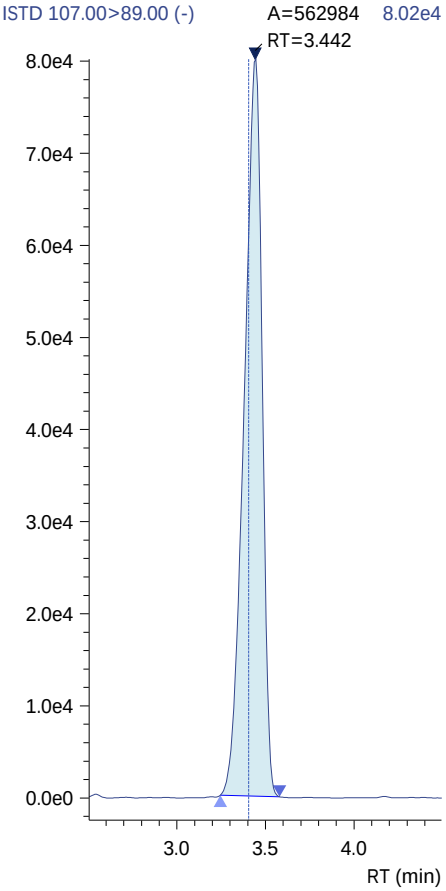
Perchlorate

Conc 0.7257
R#1 23.96 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

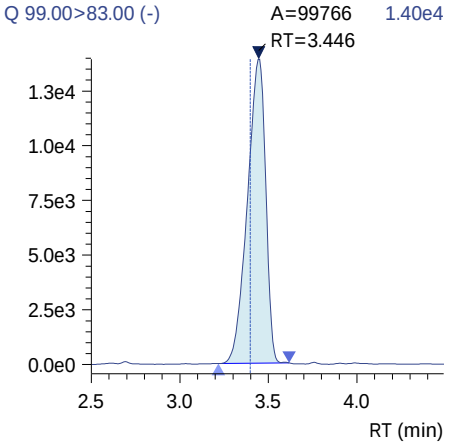
PERCHLORATE4

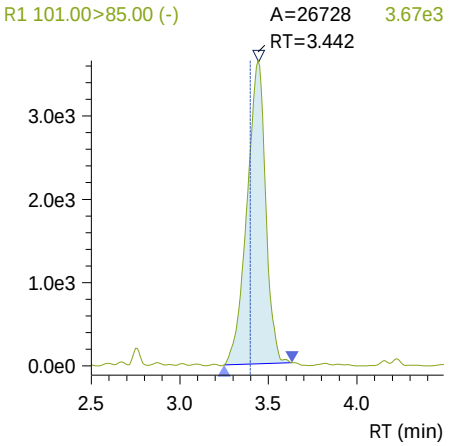
Sample ID: PERCHLORATE4
Date Acquired: 5/30/2023 3:27:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-005.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	99766	551315	0.9816	ng/mL	101.00 >85.00	26.79	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	551315	551315	1.0000	ng/mL	----	----	

Perchlorate

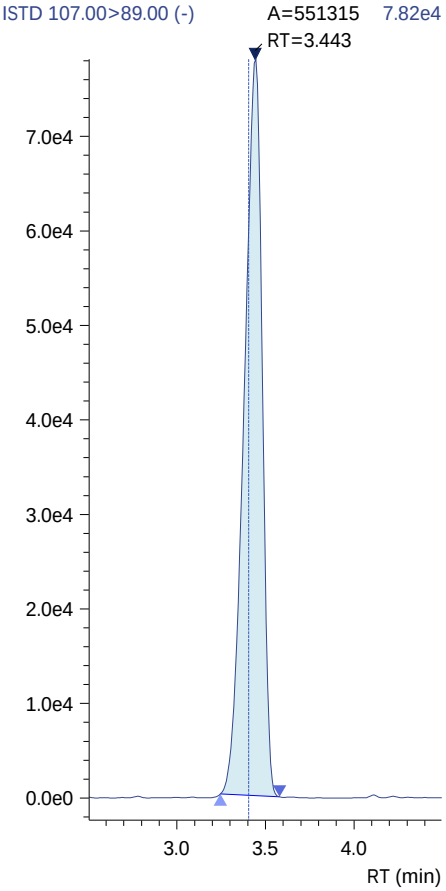
Conc 0.9816
R#1 26.79 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

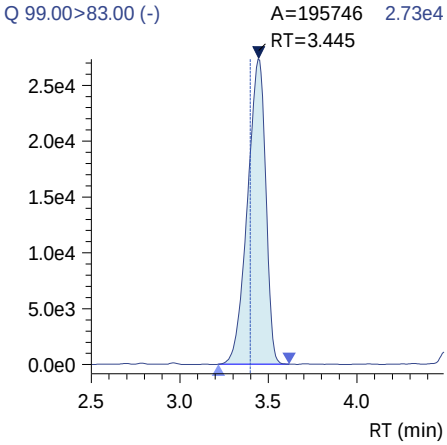
PERCHLORATE5

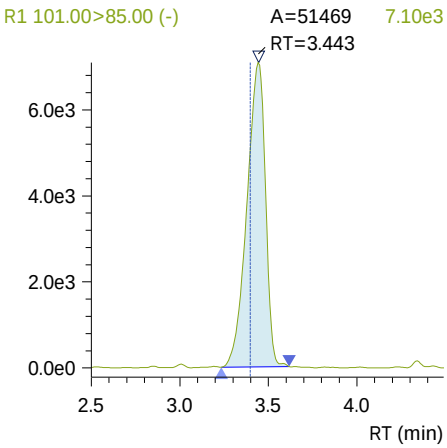
Sample ID: PERCHLORATE5
Date Acquired: 5/30/2023 3:33:20 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-006.lcd
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.445	195746	545560	1.9463	ng/mL	101.00 >85.00	26.29	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	545560	545560	1.0000	ng/mL	----	----	

Perchlorate

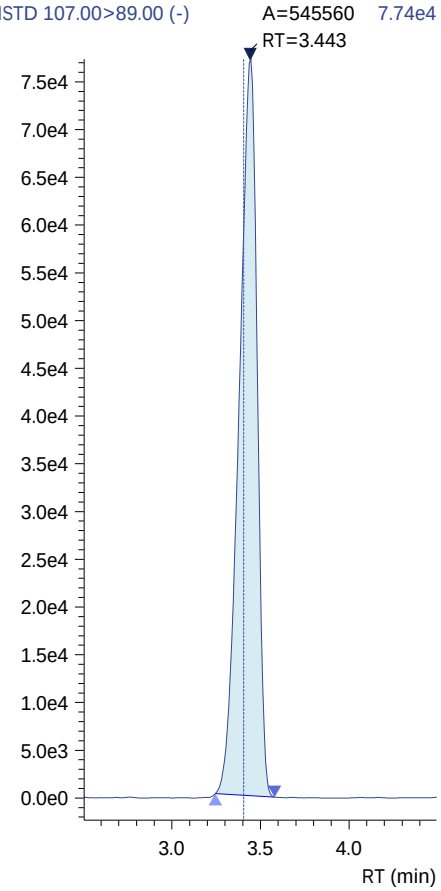
Conc 1.9463
R#1 26.29 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

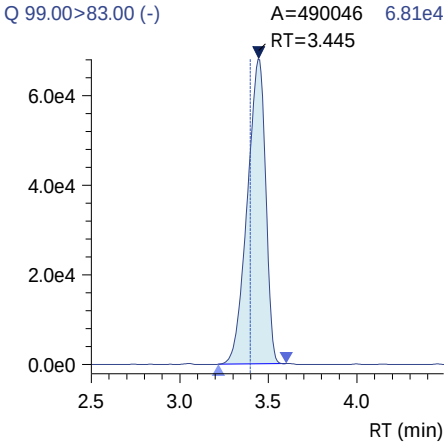
PERCHLORATE6

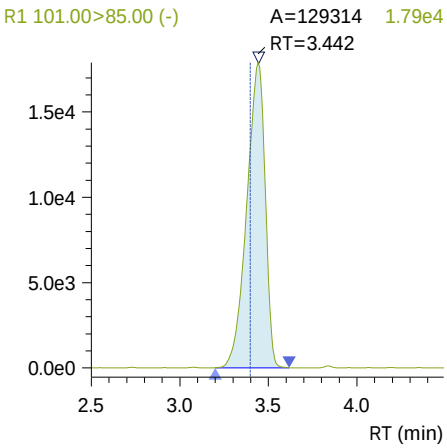
Sample ID: PERCHLORATE6
Date Acquired: 5/30/2023 3:39:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-007.lcd
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.445	490046	533799	4.9798	ng/mL	101.00 >85.00	26.39	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	533799	533799	1.0000	ng/mL	----	----	

Perchlorate

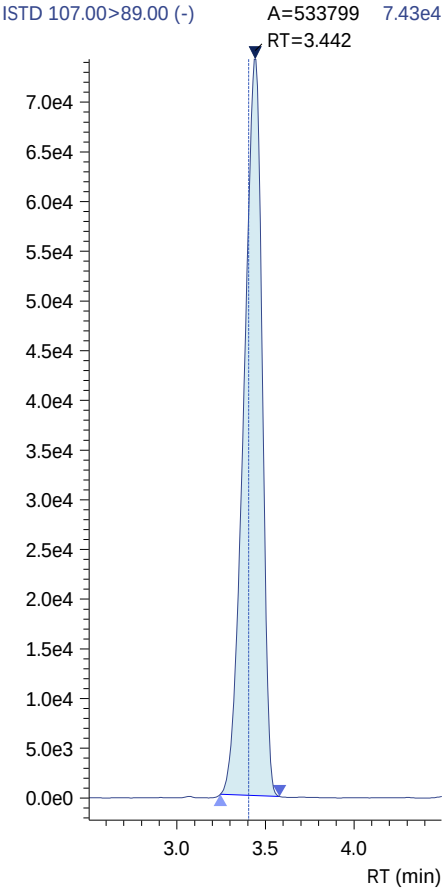
Conc 4.9798
R#1 26.39 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

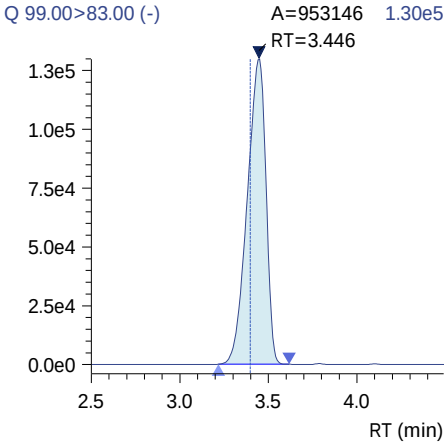
PERCHLORATE7

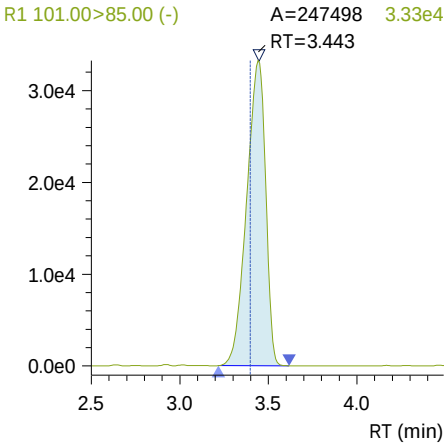
Sample ID: PERCHLORATE7
Date Acquired: 5/30/2023 3:45:35 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-008.lcd
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	953146	517404	9.9927	ng/mL	101.00 >85.00	25.97	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	517404	517404	1.0000	ng/mL	----	----	

Perchlorate

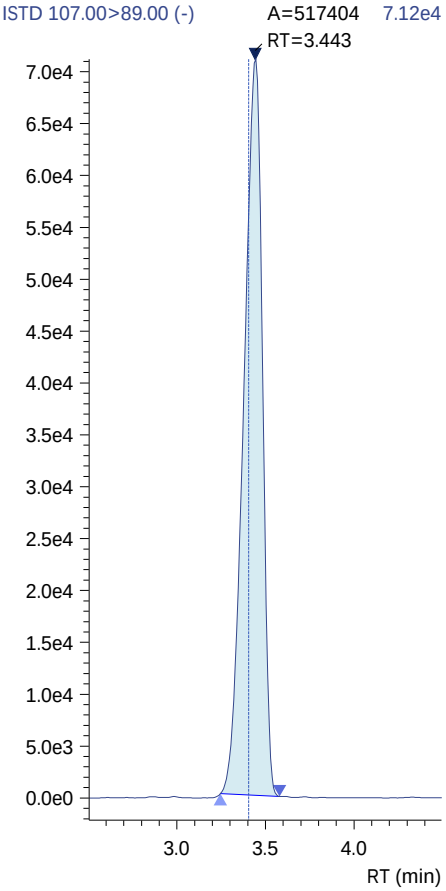
Conc 9.9927
R#1 25.97 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

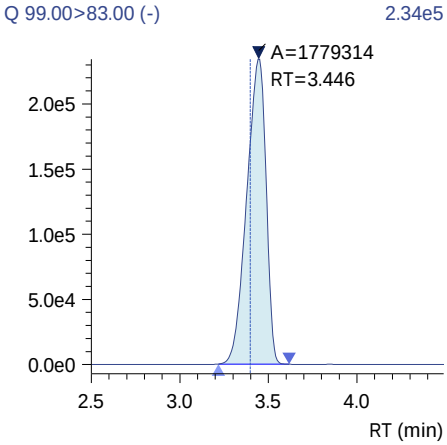
PERCHLORATE8

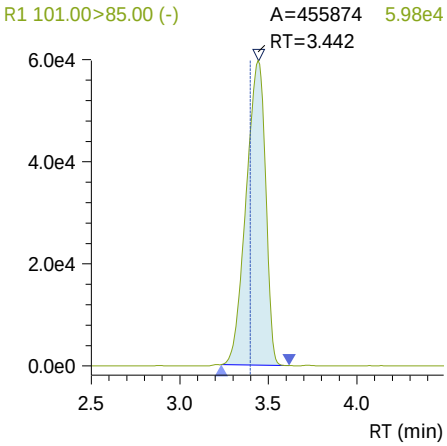
Sample ID: PERCHLORATE8
Date Acquired: 5/30/2023 3:51:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-009.lcd
Vial: 8 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	1779314	477685	20.2052	ng/mL	101.00 >85.00	25.62	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.442	477685	477685	1.0000	ng/mL	----	----	

Perchlorate

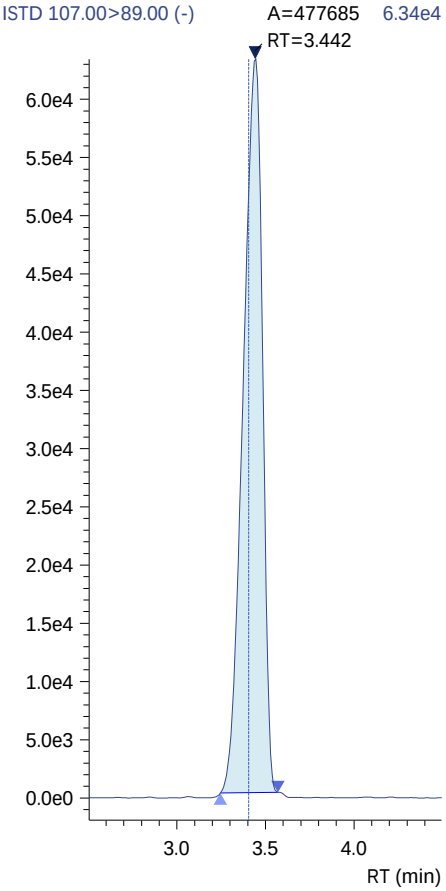
Conc 20.2052
R#1 25.62 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

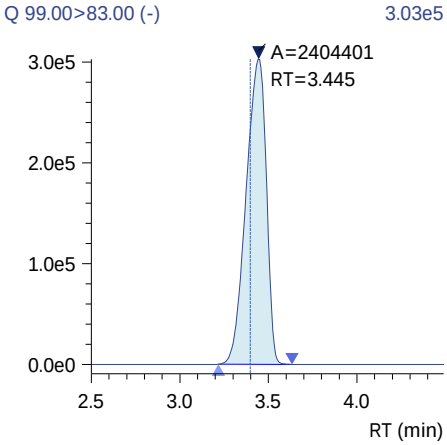
PERCHLORATE9

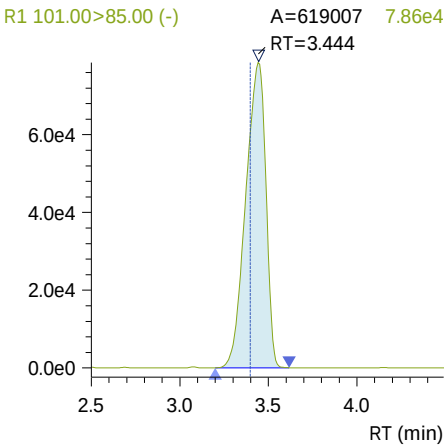
Sample ID: PERCHLORATE9
Date Acquired: 5/30/2023 3:57:51 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-010.lcd
Vial: 9 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.445	2404401	438344	29.75 39	ng/mL	101.00 >85.00	25.75	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.442	438344	438344	1.0000	ng/mL	----	----	

Perchlorate

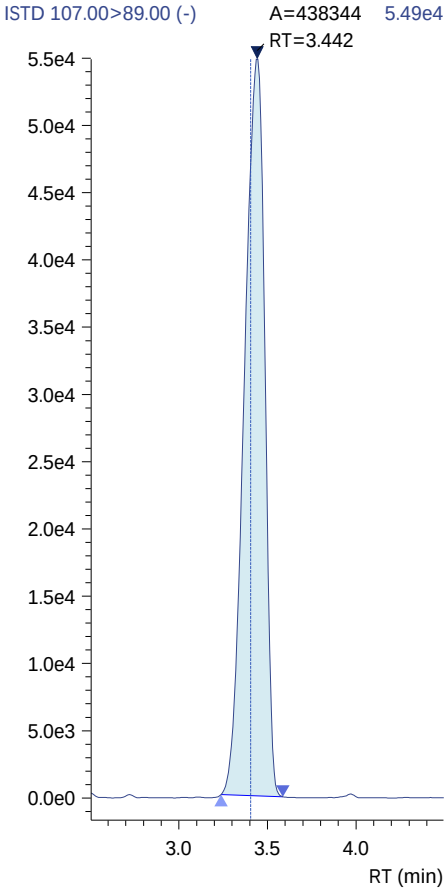
Conc 29.7539
R#1 25.75 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

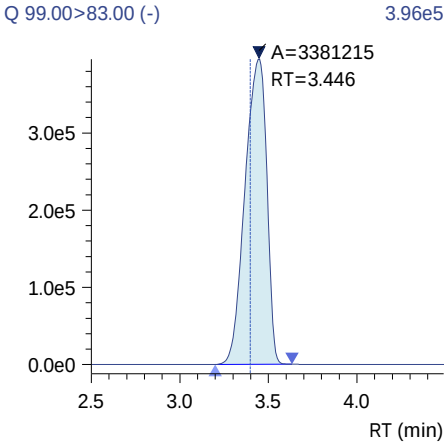
PERCHLORATE10

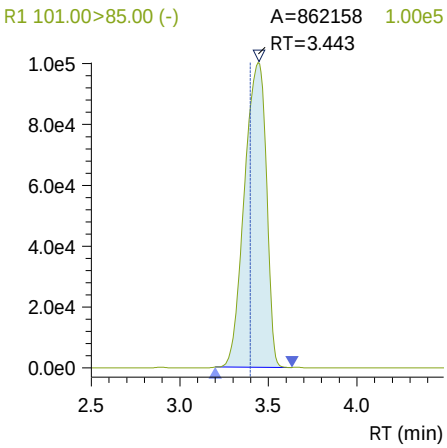
Sample ID: PERCHLORATE10
Date Acquired: 5/30/2023 4:03:59 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-011.lcd
Vial: 10 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	3381215	362968	50.5309	ng/mL	101.00 >85.00	25.50	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.441	362968	362968	1.0000	ng/mL	----	----	

Perchlorate

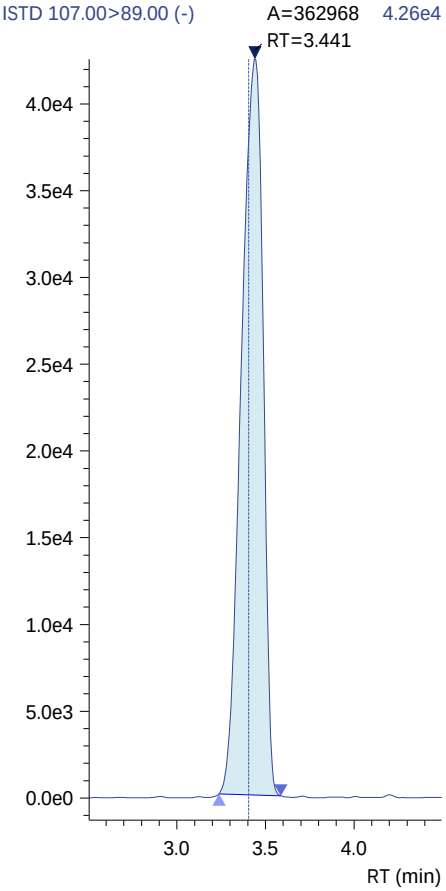
Conc 50.5309
R#1 25.50 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

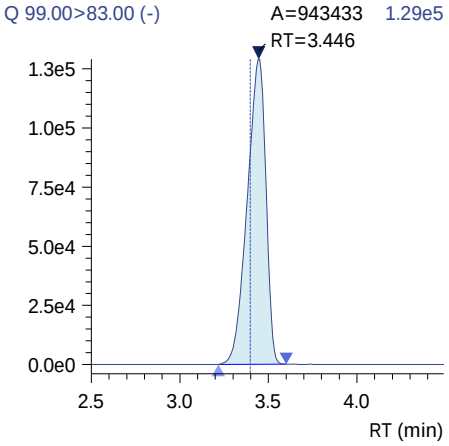
PERCHLORATEICV

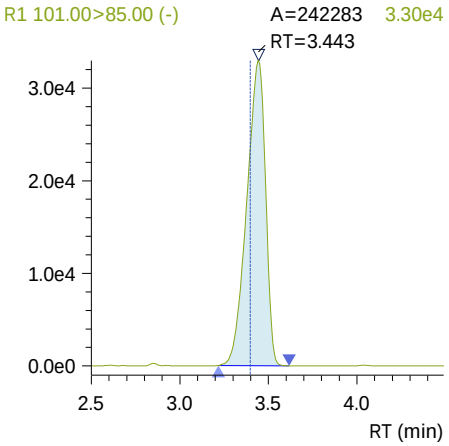
Sample ID: PERCHLORATEICV
Date Acquired: 5/30/2023 4:10:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-012.lcd
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	943433	509464	10.04 50	ng/mL	101.00 >85.00	25.68	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.442	509464	509464	1.0000	ng/mL	----	----	

Perchlorate

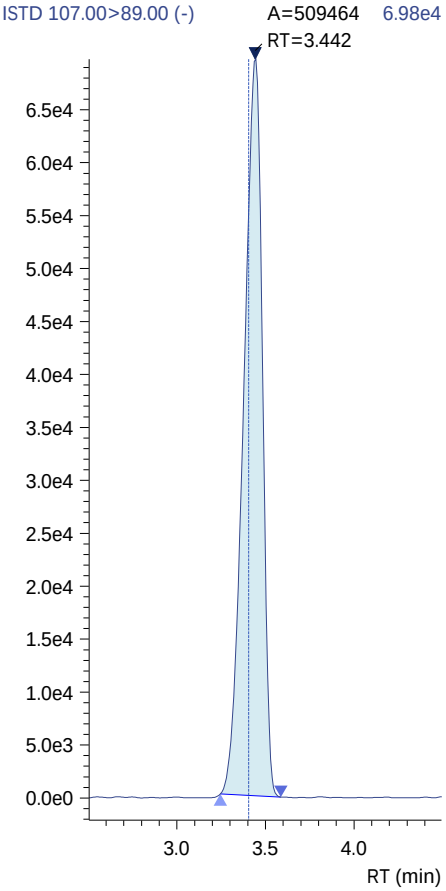
Conc 10.0450
R#1 25.68 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



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

20230530-805870

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 5/30/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300007

Mobile Phases : A:20mM ammonium acetate in water 32103044 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB		20230530-001	Perchlorate6850c.lcm	1x		5/30/2023 14:56
2	PERCHLORATE1		20230530-002	Perchlorate6850c.lcm	1x	227245	5/30/2023 15:08
3	PERCHLORATE2		20230530-003	Perchlorate6850c.lcm	1x	227246	5/30/2023 15:14
4	PERCHLORATE3		20230530-004	Perchlorate6850c.lcm	1x	227247	5/30/2023 15:21
5	PERCHLORATE4		20230530-005	Perchlorate6850c.lcm	1x	227248	5/30/2023 15:27
6	PERCHLORATE5		20230530-006	Perchlorate6850c.lcm	1x	227249	5/30/2023 15:33
7	PERCHLORATE6		20230530-007	Perchlorate6850c.lcm	1x	227250	5/30/2023 15:39
8	PERCHLORATE7		20230530-008	Perchlorate6850c.lcm	1x	227251	5/30/2023 15:45
9	PERCHLORATE8		20230530-009	Perchlorate6850c.lcm	1x	227252	5/30/2023 15:51
10	PERCHLORATE9		20230530-010	Perchlorate6850c.lcm	1x	227253	5/30/2023 15:57
11	PERCHLORATE10		20230530-011	Perchlorate6850c.lcm	1x	227254	5/30/2023 16:03
12	PERCHLORATEICV		20230530-012	Perchlorate6850c.lcm	1x	227256	5/30/2023 16:10
13	IB		20230530-013	Perchlorate6850c.lcm	1x		5/30/2023 16:15
14	LODV		20230530-014	Perchlorate6850c.lcm	1x	227251	5/30/2023 16:21
15	ICS		20230530-015	Perchlorate6850c.lcm	1x	32103024	5/30/2023 16:27
16	CCV		20230530-016	Perchlorate6850c.lcm	1x	227251	5/30/2023 16:33
17	EQ2300265-01		20230530-017	Perchlorate6850c.lcm	1x		5/30/2023 16:38
18	EQ2300265-02		20230530-018	Perchlorate6850c.lcm	1x		5/30/2023 16:44
19	EQ2300265-03		20230530-019	Perchlorate6850c.lcm	1x		5/30/2023 16:50
20	E2300499-001		20230530-020	Perchlorate6850c.lcm	1x		5/30/2023 16:55
21	E2300499-002		20230530-021	Perchlorate6850c.lcm	1x		5/30/2023 17:01
22	E2300500-001		20230530-022	Perchlorate6850c.lcm	1x		5/30/2023 17:07
23	E2300501-001		20230530-023	Perchlorate6850c.lcm	5000x		5/30/2023 17:13
24	CCV		20230530-024	Perchlorate6850c.lcm	1x	227251	5/30/2023 17:18
25	E2300512-001		20230530-025	Perchlorate6850c.lcm	1x		5/30/2023 17:24
26	E2300512-002		20230530-026	Perchlorate6850c.lcm	5x		5/30/2023 17:30
27	E2300512-003		20230530-027	Perchlorate6850c.lcm	1x		5/30/2023 17:36
28	E2300512-004		20230530-028	Perchlorate6850c.lcm	10x		5/30/2023 17:41
29	E2300512-005		20230530-029	Perchlorate6850c.lcm	50x		5/30/2023 17:47
30	E2300512-006		20230530-030	Perchlorate6850c.lcm	1x		5/30/2023 17:53
31	E2300512-007		20230530-031	Perchlorate6850c.lcm	1x		5/30/2023 17:59
32	CCV		20230530-032	Perchlorate6850c.lcm	1x	227251	5/30/2023 18:04
33	K2305800-001		20230530-033	Perchlorate6850c.lcm	1x		5/30/2023 18:10
34	K2305800-002		20230530-034	Perchlorate6850c.lcm	1x		5/30/2023 18:16
35	R2304146-004		20230530-035	Perchlorate6850c.lcm	1x		5/30/2023 18:22
36	R2304146-009		20230530-036	Perchlorate6850c.lcm	1x		5/30/2023 18:27
37	R2304203-004		20230530-037	Perchlorate6850c.lcm	1x		5/30/2023 18:33

20230530-805870

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 5/30/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300007

Mobile Phases : **A:**20mM ammonium acetate in water 32103044 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
38	R2304203-011		20230530-038	Perchlorate6850c.lcm	1x		5/30/2023 18:39
39	R2304267-009		20230530-039	Perchlorate6850c.lcm	1x		5/30/2023 18:45
40	R2304267-012		20230530-040	Perchlorate6850c.lcm	1x		5/30/2023 18:50
41	CCV		20230530-041	Perchlorate6850c.lcm	1x	227251	5/30/2023 18:56

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300512
Project:	HS23051708	**Date Analyzed:**	5/30/23 16:33

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230530\20230530-016	**Lab Code:**	EQ2300267-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	805870
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,498	3.44
	Upper Limit ==>	770,247	5.44
	Lower Limit ==>	256,749	1.44
Associated Analyses			
Continuing Calibration Verification	EQ2300267-01	446,992	3.44
Method Blank	EQ2300265-01	521,804	3.44
Lab Control Sample	EQ2300265-02	512,245	3.44
Duplicate Lab Control Sample	EQ2300265-03	508,088	3.44

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:**	E2300512
Project:	HS23051708	**Date Analyzed:**	5/30/23 17:18

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230530\20230530-024	**Lab Code:**	EQ2300267-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	805870
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,498	3.44
	Upper Limit ==>	770,247	5.44
	Lower Limit ==>	256,749	1.44
Associated Analyses			
Continuing Calibration Verification	EQ2300267-02	438,284	3.45
50WW09_052423	E2300512-001	516,312	3.45
50WW08_052423	E2300512-002	456,660	3.45
50WW22_052423	E2300512-003	513,015	3.45
50WW13_052423	E2300512-004	443,877	3.44
50WW11_052423	E2300512-005	473,749	3.44
50WW06_052423	E2300512-006	495,909	3.44
50WW29_052423	E2300512-007	505,206	3.45

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:**	E2300512
Project:	HS23051708	**Date Analyzed:**	5/30/23 18:04

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230530\20230530-032	**Lab Code:**	EQ2300267-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	805870
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,498	3.44
	Upper Limit ==>	770,247	5.44
	Lower Limit ==>	256,749	1.44
Associated Analyses			
Continuing Calibration Verification	EQ2300267-03	427,101	3.44

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:**	E2300512
Project:	HS23051708	**Date Analyzed:**	5/30/23 18:56

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230530\20230530-041	**Lab Code:**	EQ2300267-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	805870
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,498	3.44
	Upper Limit ==>	770,247	5.44
	Lower Limit ==>	256,749	1.44
Associated Analyses			
Continuing Calibration Verification	EQ2300267-04	409,761	3.44

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: HS23051708

Service Request: E2300512
Date Analyzed: 5/30/23

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\20230530\20230530-016

Calibration Date: 5/30/23
Calibration ID: EC2300007
Analysis Lot: 805870
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.4	0.1844	0.2102	14.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051708

Service Request: E2300512
Date Analyzed: 5/30/23

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\20230530\20230530-024

Calibration Date: 5/30/23
Calibration ID: EC2300007
Analysis Lot: 805870
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.4	0.1844	0.2106	14.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051708

Service Request: E2300512
Date Analyzed: 5/30/23

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\20230530\20230530-032

Calibration Date: 5/30/23
Calibration ID: EC2300007
Analysis Lot: 805870
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.5	0.1844	0.2115	14.7	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051708

Service Request: E2300512
Date Analyzed: 5/30/23

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\20230530\20230530-041

Calibration Date: 5/30/23
Calibration ID: EC2300007
Analysis Lot: 805870
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.4	0.1844	0.2104	14.1	NA	± 15 %	Average RF

Insight Report

Printed at 5/31/2023 8:58:43 AM

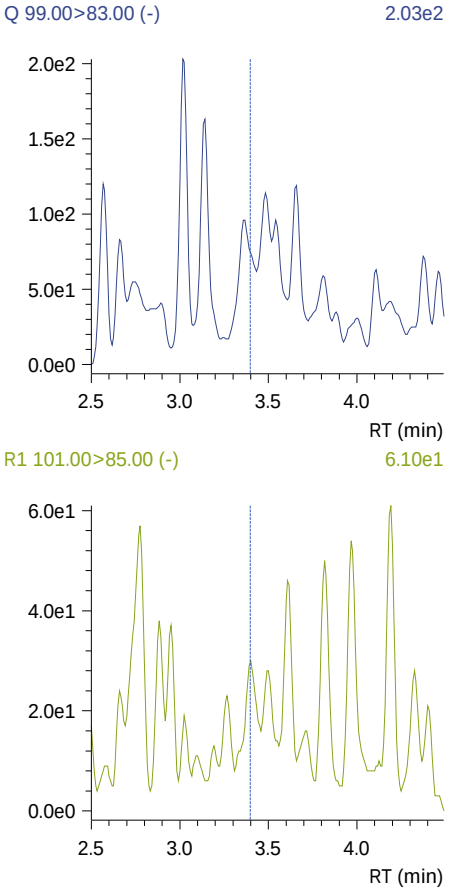
IB

Sample ID: IB
Date Acquired: 5/30/2023 4:15:52 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-013.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	541043	----	ng/mL	101.00 >85.00	0.00	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.445	541043	541043	1.0000	ng/mL	----	----	

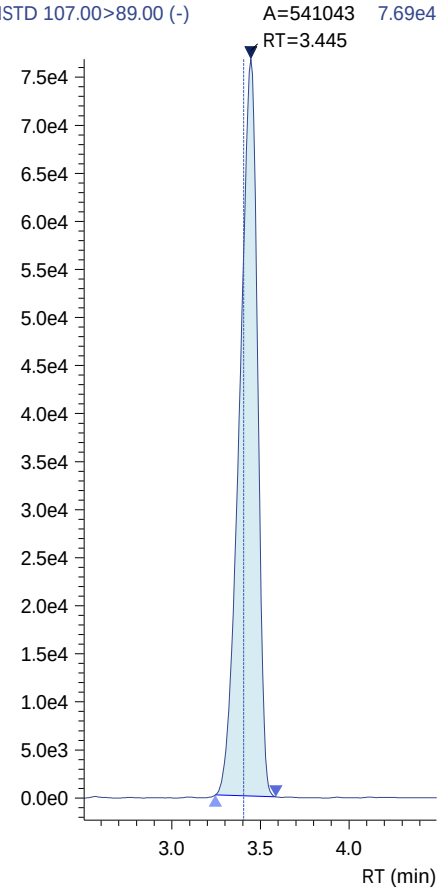
Perchlorate

Conc ----
R#1 0.00 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

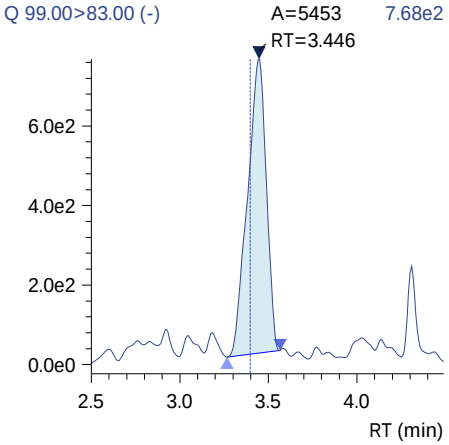
LODV

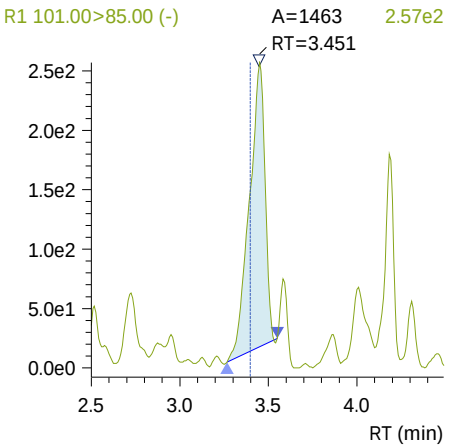
Sample ID: LODV
Date Acquired: 5/30/2023 4:21:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-014.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	5453	525947	0.0562	ng/mL	101.00 >85.00	26.83	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.445	525947	525947	1.0000	ng/mL	----	----	

Perchlorate

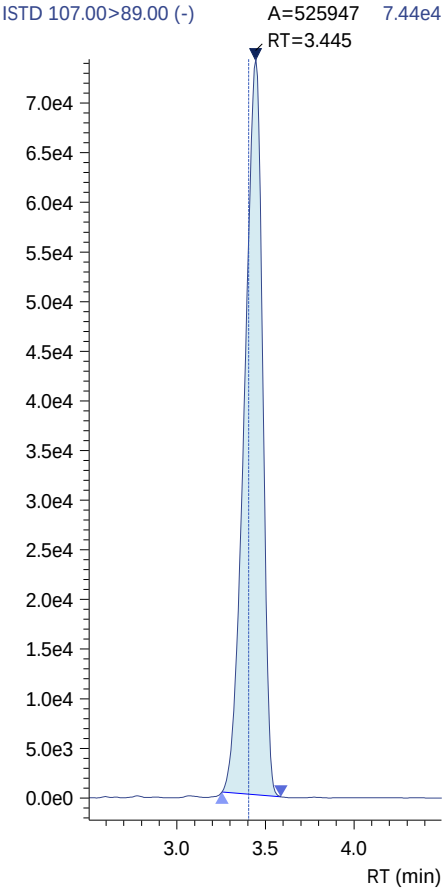
Conc 0.0562
R#1 26.83 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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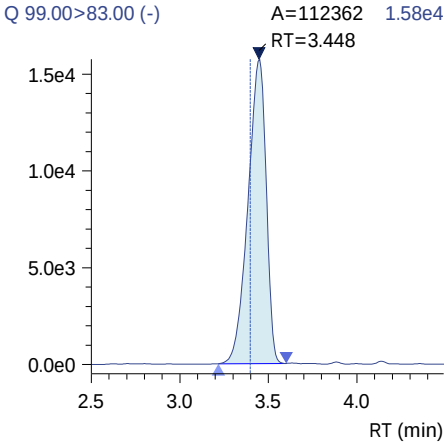
ICS

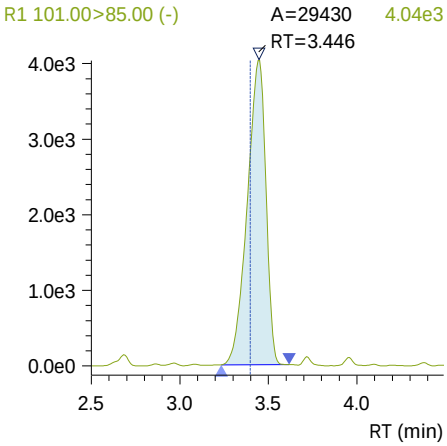
Sample ID: ICS
Date Acquired: 5/30/2023 4:27:18 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-015.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.448	112362	575368	1.0593	ng/mL	101.00 >85.00	26.19	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.445	575368	575368	1.0000	ng/mL	----	----	

Perchlorate

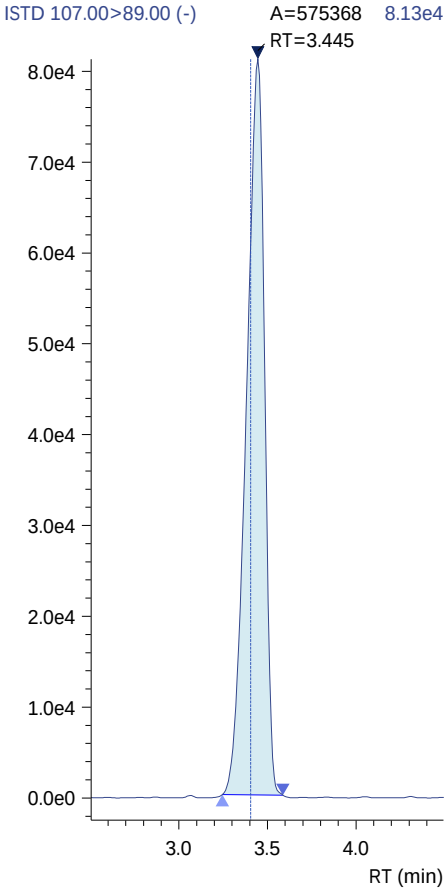
Conc 1.0593
R#1 26.19 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

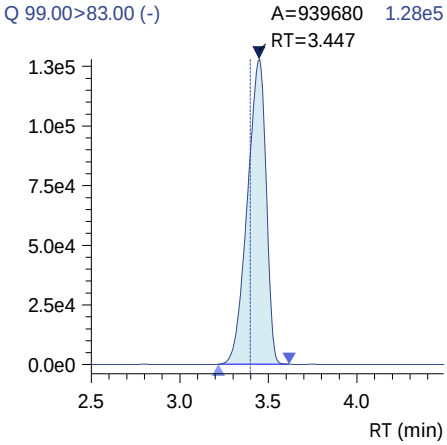
CCV

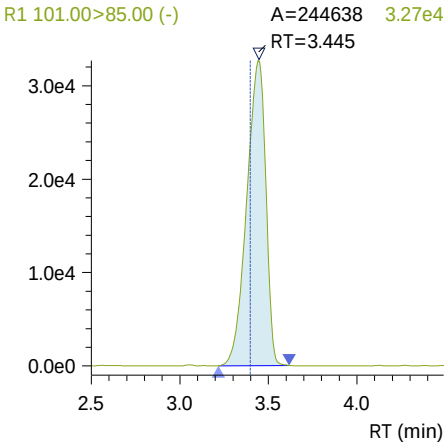
Sample ID: CCV
Date Acquired: 5/30/2023 4:33:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-016.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.447	939680	446992	11.40 33	ng/mL	101.00 >85.00	26.03	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.443	446992	446992	1.0000	ng/mL	----	----	

Perchlorate

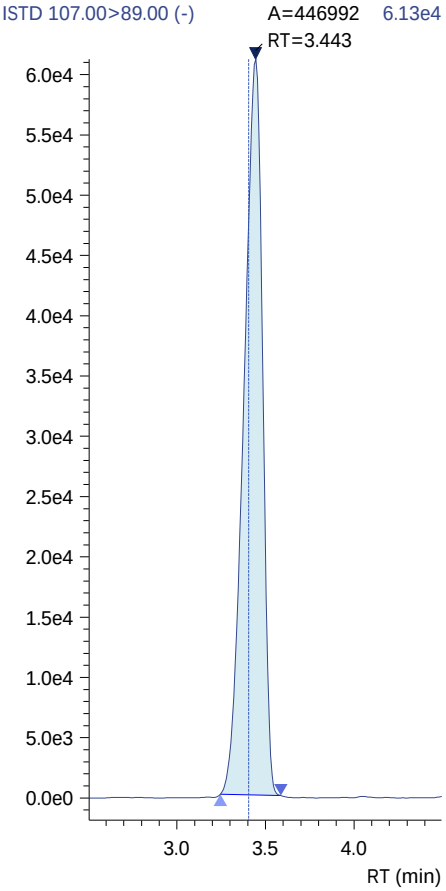
Conc 11.4033
R#1 26.03 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

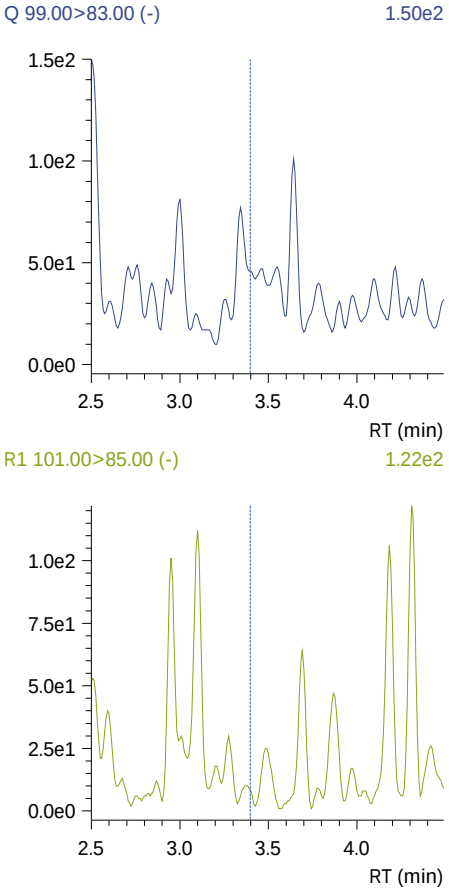
EQ2300265-01

Sample ID: EQ2300265-01
Date Acquired: 5/30/2023 4:38:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-017.lcd
Vial: 15 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	521804	----	ng/mL	101.00 >85.00	0.00	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.444	521804	521804	1.0000	ng/mL	----	----	

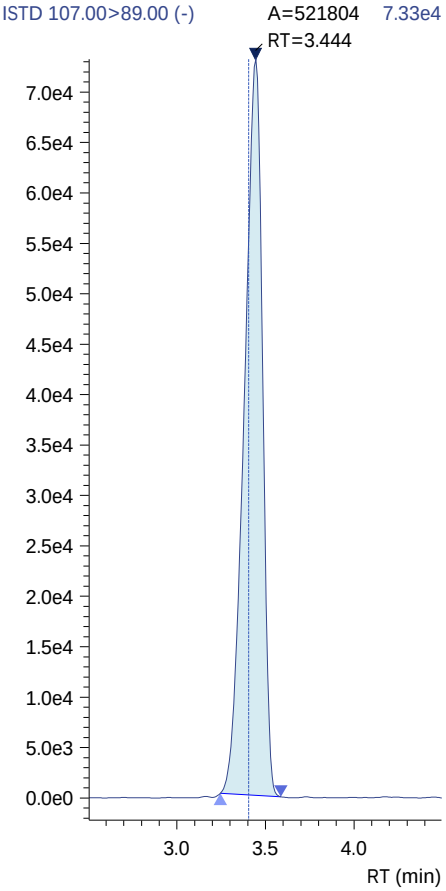
Perchlorate

Conc ----
R#1 0.00 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

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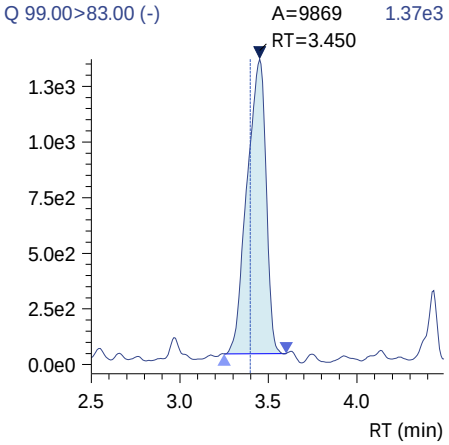
EQ2300265-02

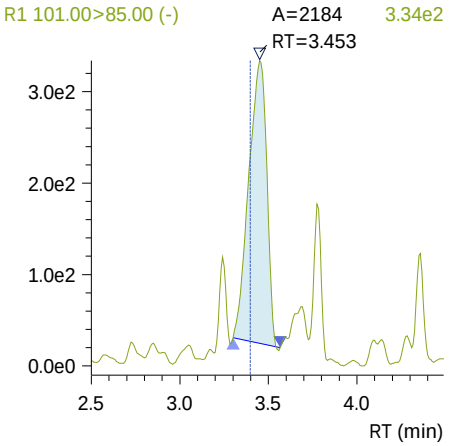
Sample ID: EQ2300265-02
Date Acquired: 5/30/2023 4:44:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-018.lcd
Vial: 16 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.450	9869	512245	0.1045	ng/mL	101.00 >85.00	22.13	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	512245	512245	1.0000	ng/mL	----	----	

Perchlorate

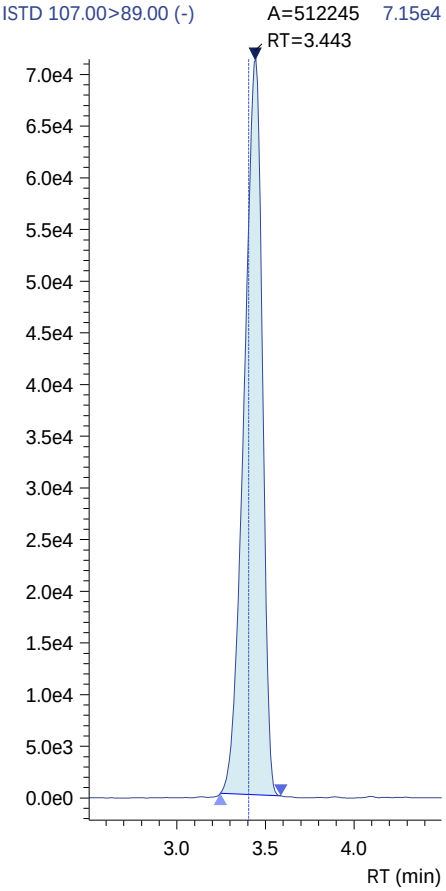
Conc 0.1045
R#1 22.13 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

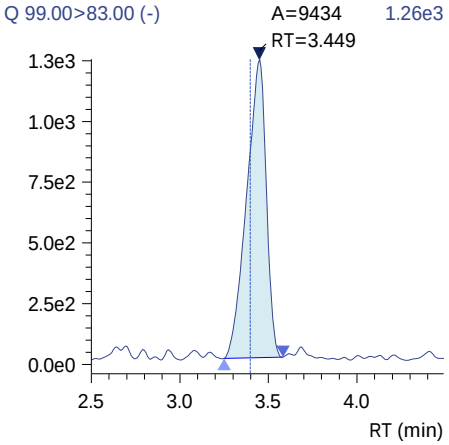
EQ2300265-03

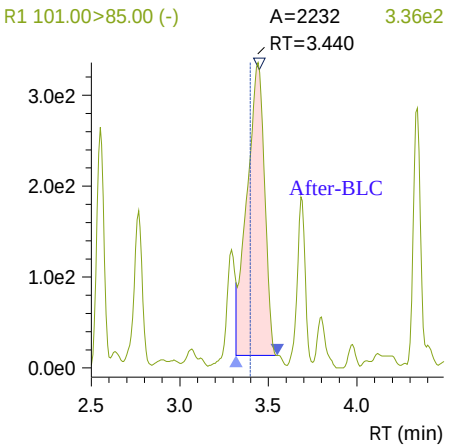
Sample ID: EQ2300265-03
Date Acquired: 5/30/2023 4:50:13 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-019.lcd
Vial: 17 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.449	9434	508088	0.1007	ng/mL	101.00 >85.00	23.65	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.443	508088	508088	1.0000	ng/mL	----	----	

Perchlorate

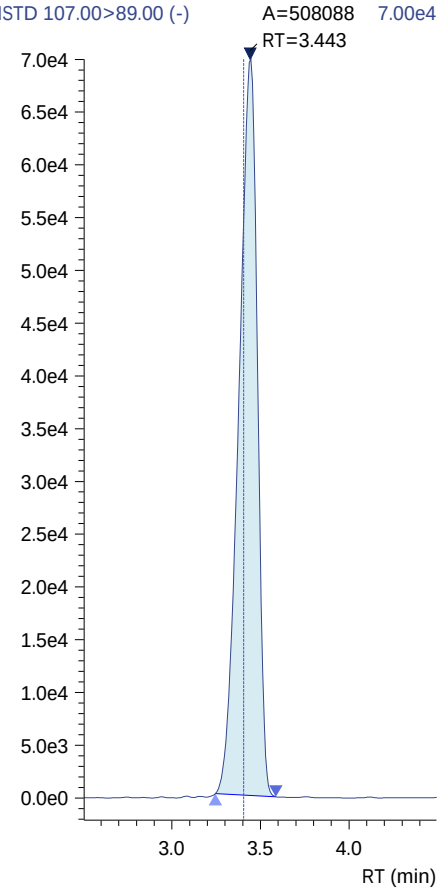
Conc 0.1007
R#1 23.65 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 9:00:07 AM

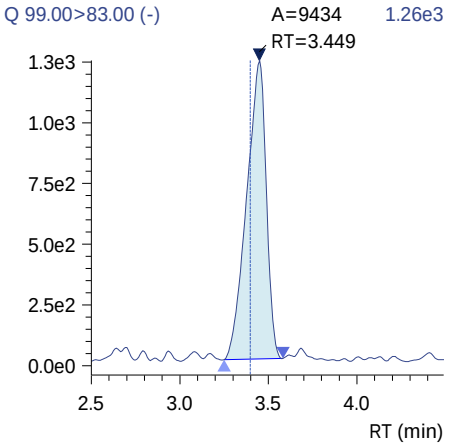
Method File: I:\LCMS01\DATA\20230530\20230530.lcm
Project File: I:\LCMS01\DATA\20230530\20230530b.damlp

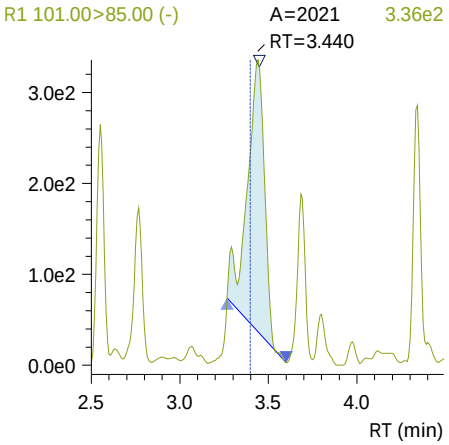
EQ2300265-03

Sample ID: EQ2300265-03
Date Acquired: 5/30/2023 4:50:13 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-019.lcd
Vial: 17 | Inj. Volume: 10.0000uL | Tray: 3

Perchlorate

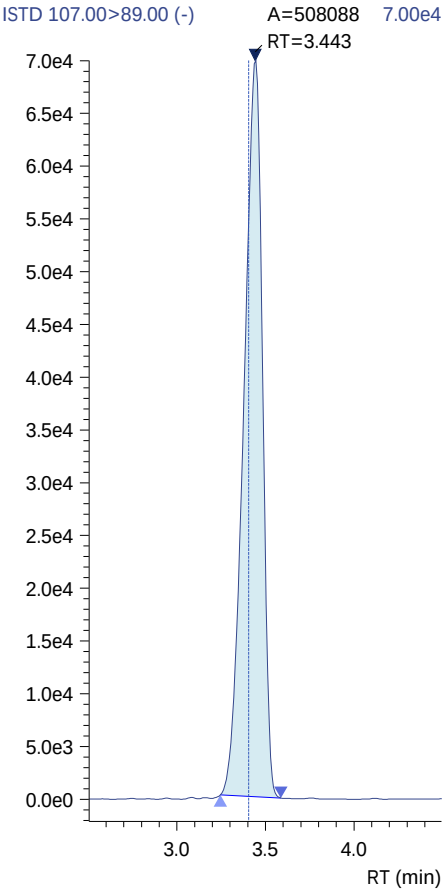
Conc 0.1007
R#1 21.42 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

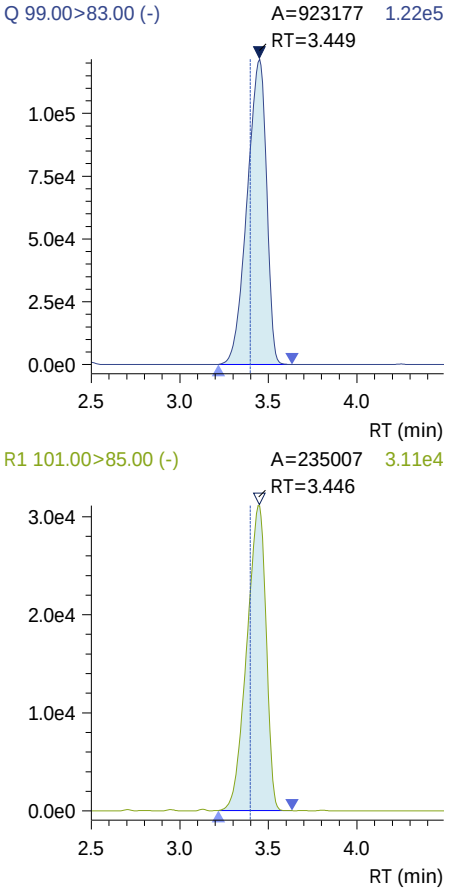
CCV

Sample ID: CCV
Date Acquired: 5/30/2023 5:18:52 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-024.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.449	923177	438284	11.42 57	ng/mL	101.00 >85.00	25.46	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.445	438284	438284	1.0000	ng/mL	----	----	

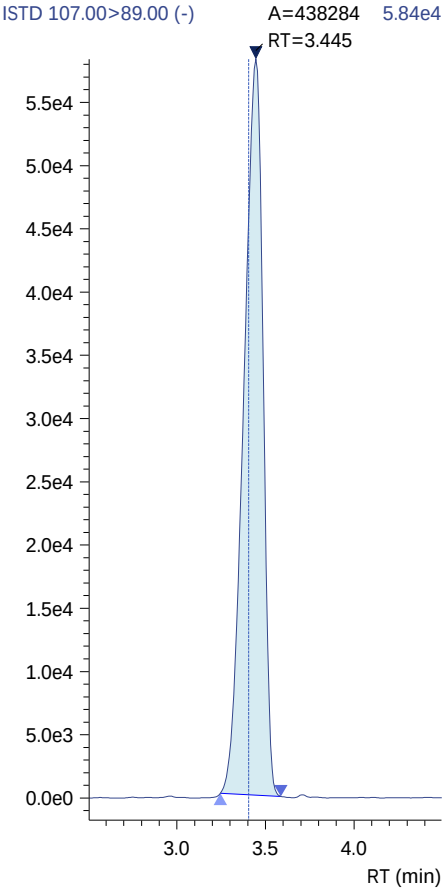
Perchlorate

Conc 11.4257
R#1 25.46 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

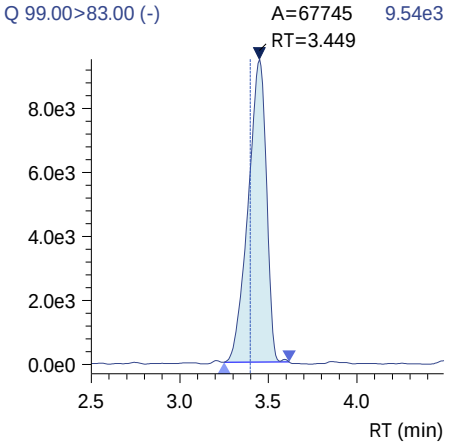
E2300512-001

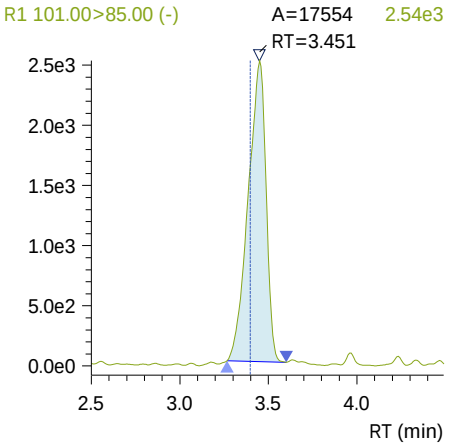
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Date Acquired: 5/30/2023 5:24:39 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-025.lcd
Vial: 22 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.449	67745	516312	0.7117	ng/mL	101.00 >85.00	25.91	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.446	516312	516312	1.0000	ng/mL	----	----	

Perchlorate

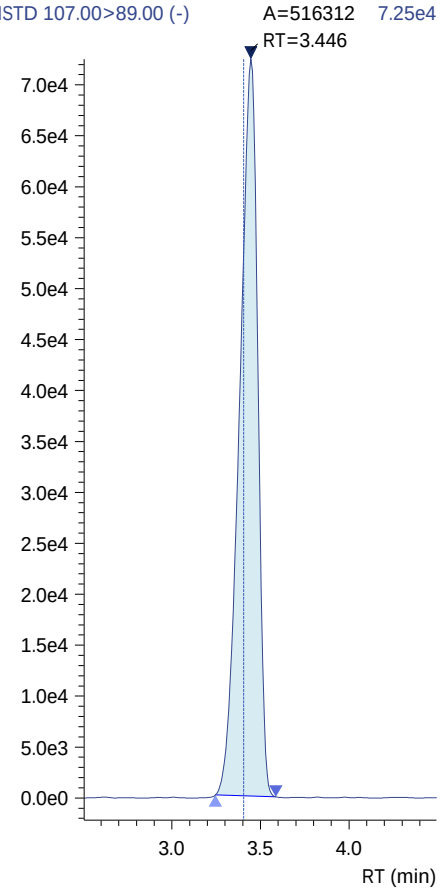
Conc 0.7117
R#1 25.91 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

E2300512-002x5

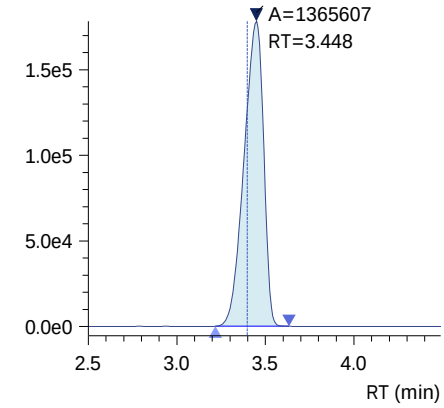
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Date Acquired: 5/30/2023 5:30:25 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-026.lcd
Vial: 23 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.448	1365607	456660	16.22 13	ng/mL	101.00 >85.00	25.72	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.445	456660	456660	1.0000	ng/mL	----	----	

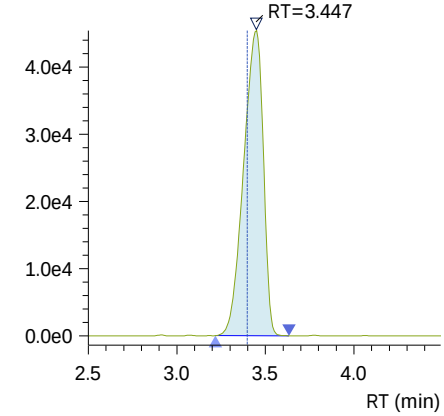
Perchlorate

Conc 16.2213
R#1 25.72 (25.79)

Q 99.00>83.00 (-) 1.78e5



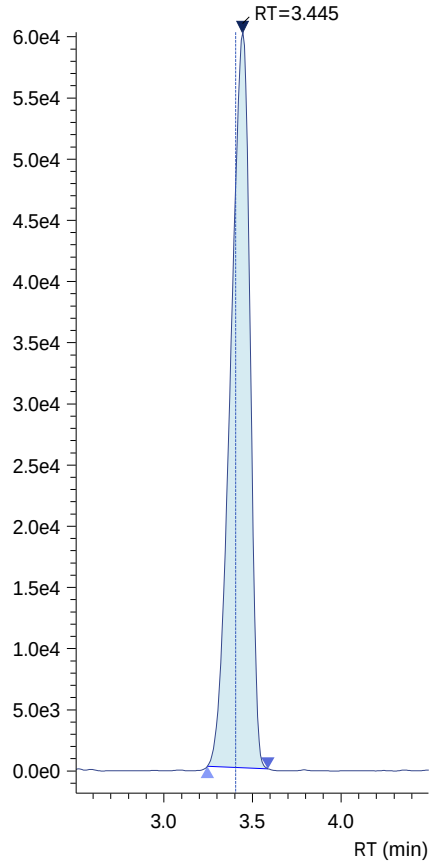
R1 101.00>85.00 (-) A=351175 4.54e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=456660 6.04e4



Insight Report

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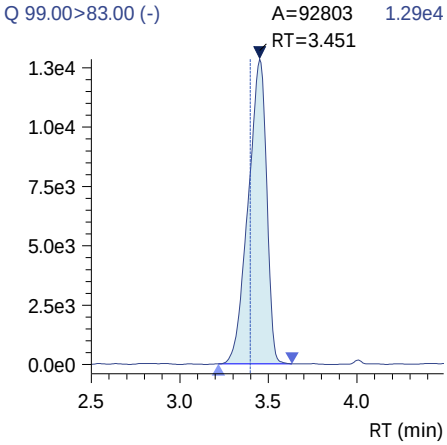
E2300512-003

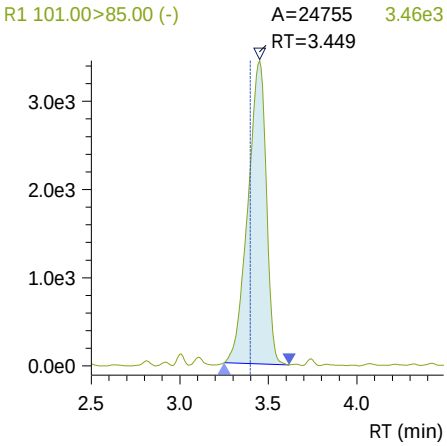
Sample ID: E2300512-003
Date Acquired: 5/30/2023 5:36:12 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-027.lcd
Vial: 24 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.451	92803	513015	0.9813	ng/mL	101.00 >85.00	26.68	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.448	513015	513015	1.0000	ng/mL	----	----	

Perchlorate

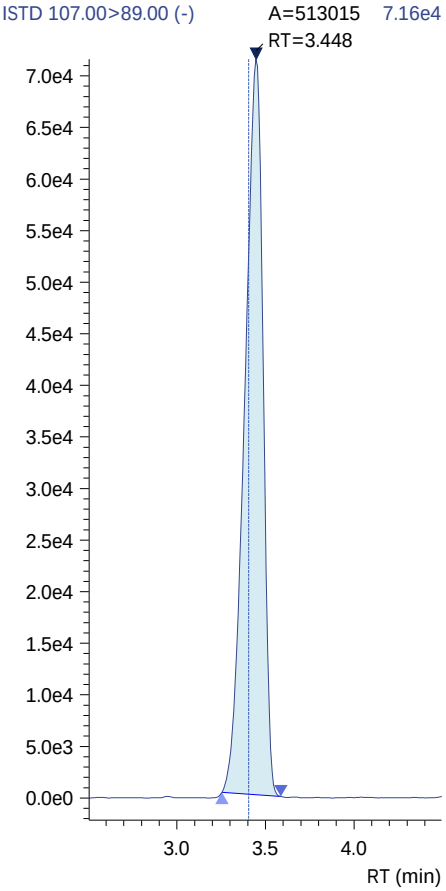
Conc 0.9813
R#1 26.68 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

E2300512-004x10

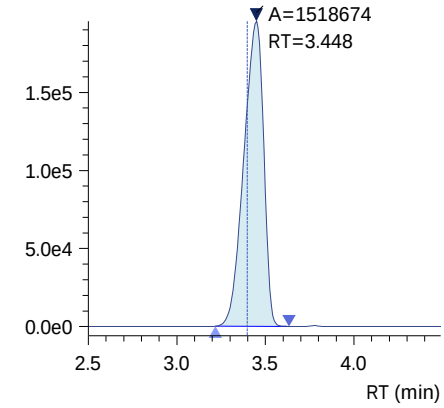
Sample ID: E2300512-004
Date Acquired: 5/30/2023 5:41:58 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-028.lcd
Vial: 25 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.448	1518674	443877	18.55 90	ng/mL	101.00 >85.00	25.55	18.05-33.53
Sodium Perchlorate-18O4_IS	Auto	3.444	443877	443877	1.0000	ng/mL	----	----	

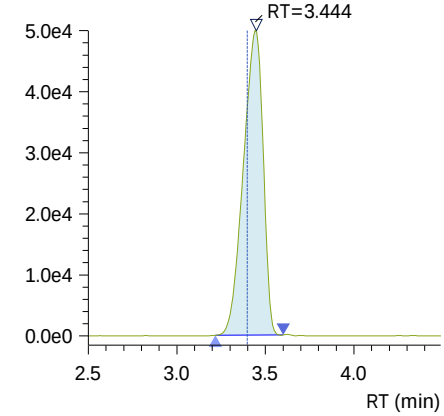
Perchlorate

Conc 18.5590
R#1 25.55 (25.79)

Q 99.00>83.00 (-) 1.96e5



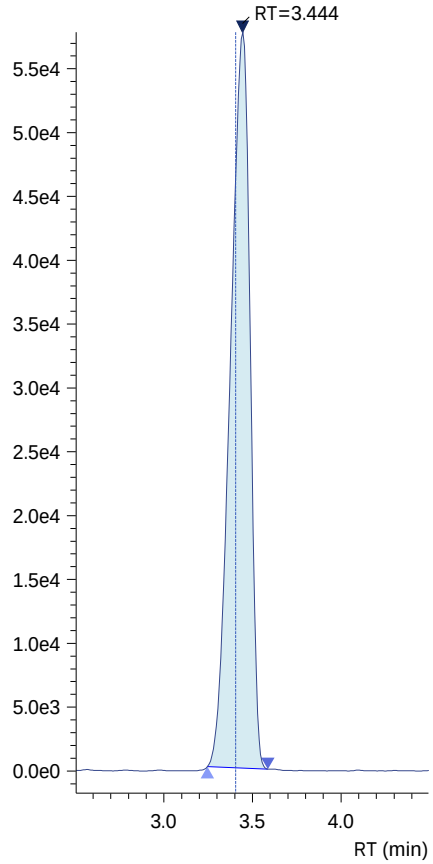
R1 101.00>85.00 (-) A=387957 5.00e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=443877 5.79e4



Insight Report

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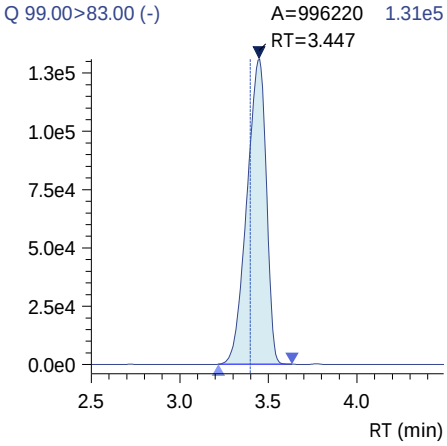
E2300512-005x50

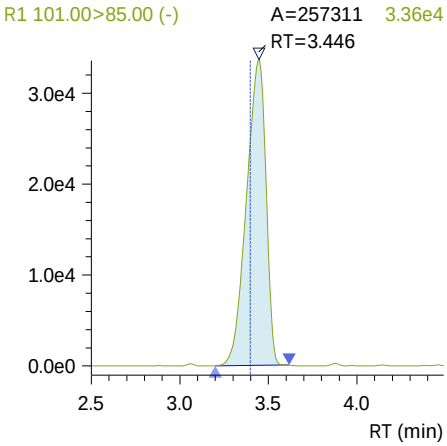
Sample ID: E2300512-005
Date Acquired: 5/30/2023 5:47:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-029.lcd
Vial: 26 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.447	996220	473749	11.40 67	ng/mL	101.00 >85.00	25.83	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.444	473749	473749	1.0000	ng/mL	----	----	

Perchlorate

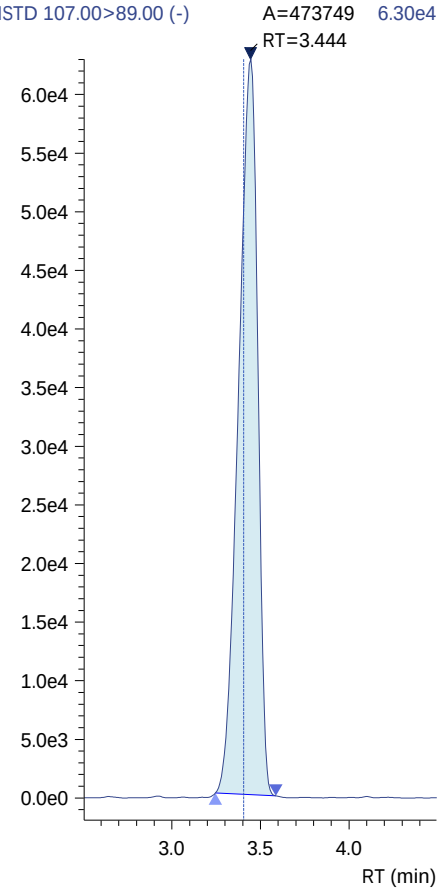
Conc 11.4067
R#1 25.83 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

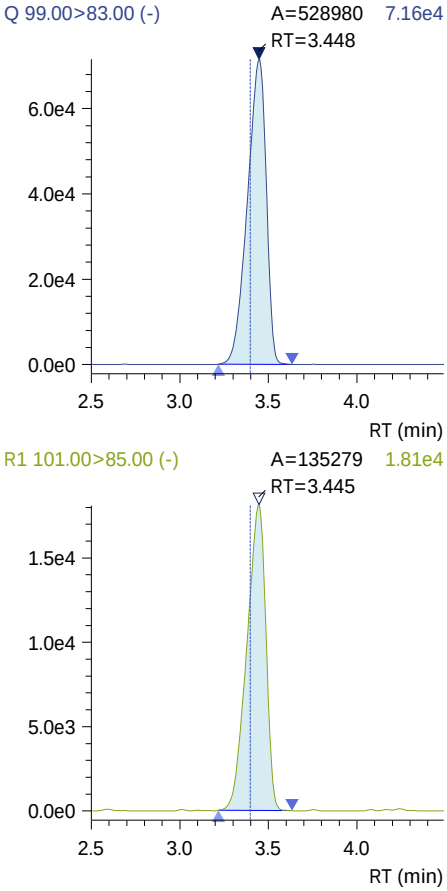
E2300512-006

Sample ID: E2300512-006
Date Acquired: 5/30/2023 5:53:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-030.lcd
Vial: 27 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.448	528980	495909	5.7861	ng/mL	101.00 >85.00	25.57	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.444	495909	495909	1.0000	ng/mL	----	----	

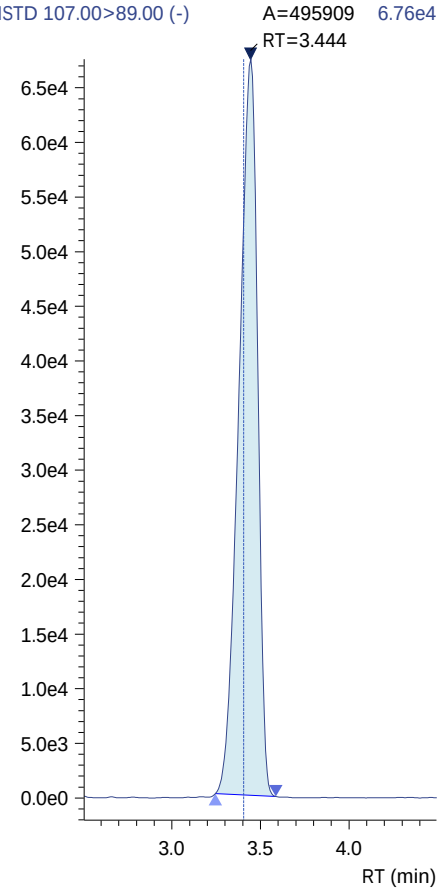
Perchlorate

Conc 5.7861
R#1 25.57 (25.79)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

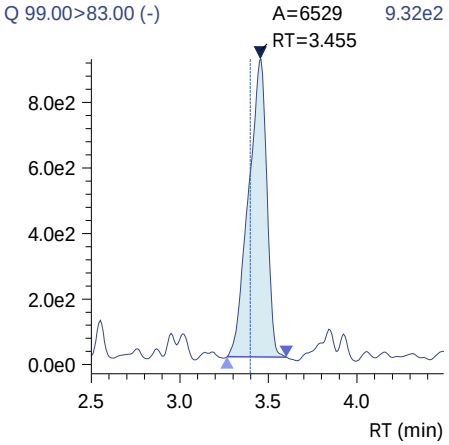
E2300512-007

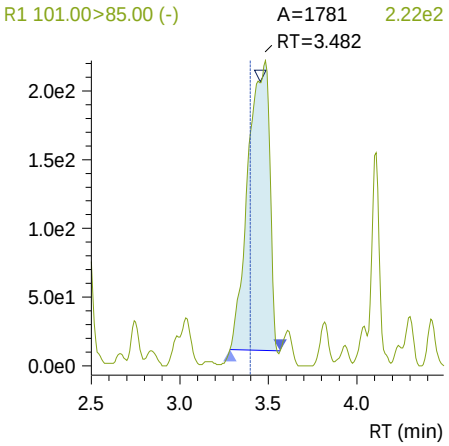
Sample ID: E2300512-007
Date Acquired: 5/30/2023 5:59:12 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-031.lcd
Vial: 28 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.455	6529	505206	0.0701	ng/mL	101.00 >85.00	27.28	18.05-33.53
Sodium Perchlorate-18O4 _IS	Auto	3.447	505206	505206	1.0000	ng/mL	----	----	

Perchlorate

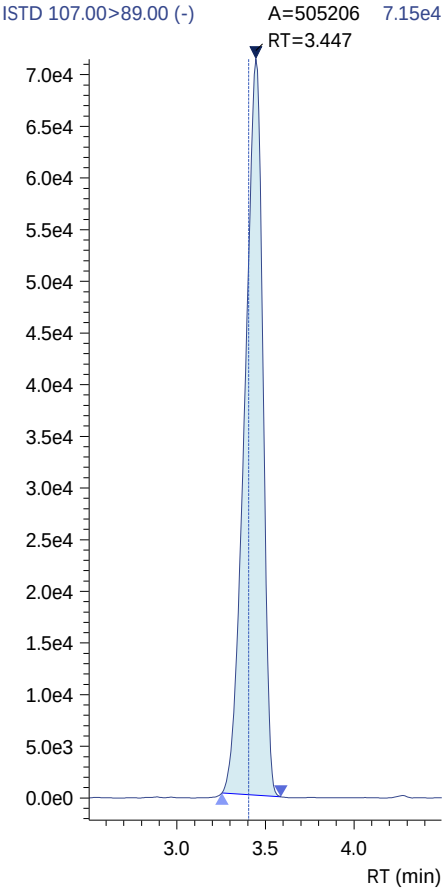
Conc 0.0701
R#1 27.28 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 5/31/2023 8:58:43 AM

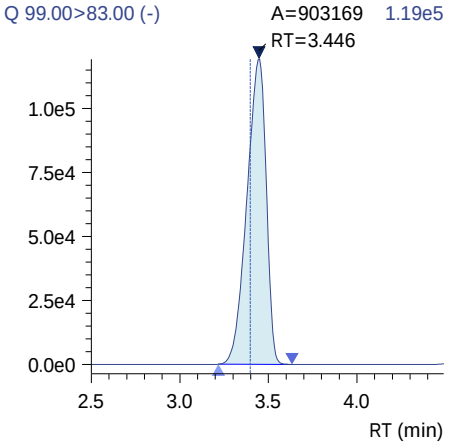
CCV

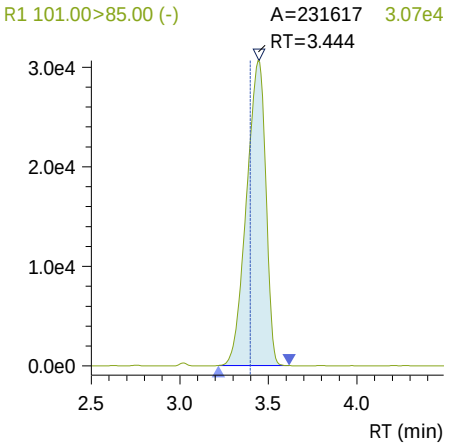
Sample ID: CCV
Date Acquired: 5/30/2023 6:04:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-032.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.446	903169	427101	11.4707	ng/mL	101.00 >85.00	25.65	18.05-33.53
Sodium Perchlorate-18O4_IS	M	3.443	427101	427101	1.0000	ng/mL	----	----	

Perchlorate

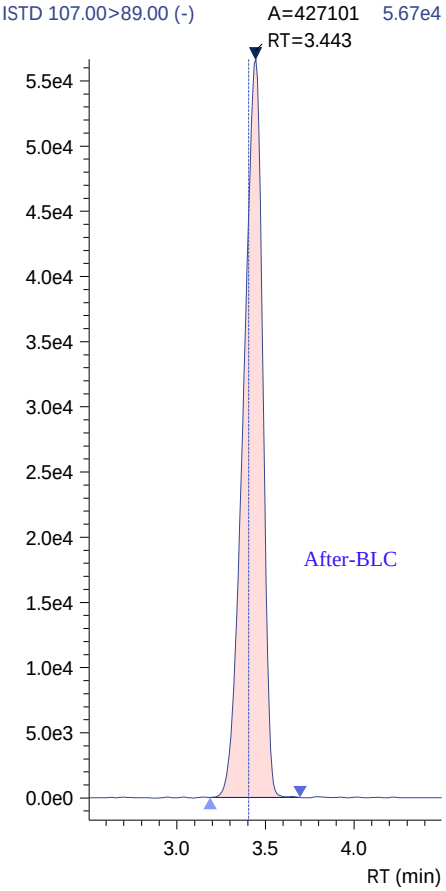
Conc 11.4707
R#1 25.65 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

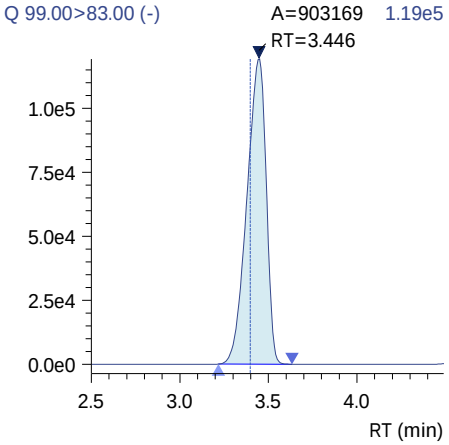
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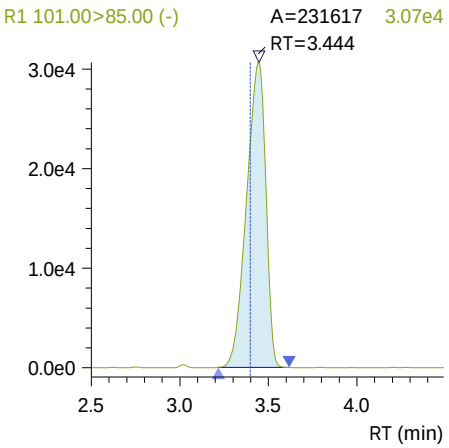
CCV

Sample ID: CCV
Date Acquired: 5/30/2023 6:04:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230530\20230530-032.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Perchlorate

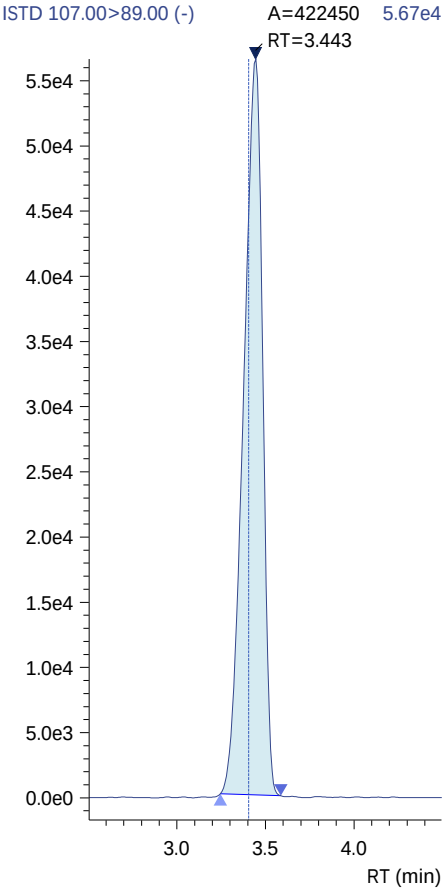
Conc 11.5970
R#1 25.65 (25.79)





Sodium Perchlorate-18O4_IS

Conc 1.0000



HS23051708 Eurofin Lab J128291-1 Std_Tal_L4 Final Report

ALS WO# HS23051708

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Dane Wacasey
ALS Group USA, Corp
10450 Stancliff Rd.
Suite 210
Houston TX 77099

Generated 6/7/2023 5:12 PM

JOB DESCRIPTION

HS23051708

JOB NUMBER

410-128291-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

my EOL

Eurofins Lancaster Laboratories Environment Testing, LLC

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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6/7/2023 5:12 PM

Authorized for release by
Kelly Bauer, Project Manager
Kelly.Bauer@et.eurofinsus.com
717 556-7262

Eurofins Lancaster Laboratories Environment Testing, LLC

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Definitions/Glossary

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-128291-1

Receipt
The samples were received on 5/26/2023 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.1°C

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Client Sample ID: 50WW13_052423 — Lab Sample ID: 410-128291-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	38000		12000		2600	ug/L	1		RSK-175	Total/NA

Client Sample ID: 50WW11_052423 — Lab Sample ID: 410-128291-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	42000		12000		2600	ug/L	1		RSK-175	Total/NA

Client Sample ID: 50WW06_052423 — Lab Sample ID: 410-128291-3

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	30000		12000		2600	ug/L	1		RSK-175	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Client Sample ID: 50WW13_052423
Lab Sample ID: 410-128291-1
Date Collected: 05/24/23 09:05
Matrix: Water
Date Received: 05/26/23 09:45

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	38000		12000		2600	ug/L		06/06/23 14:32	1

Client Sample ID: 50WW11_052423
Lab Sample ID: 410-128291-2
Date Collected: 05/24/23 09:55
Matrix: Water
Date Received: 05/26/23 09:45

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	42000		12000		2600	ug/L		06/06/23 14:40	1

Client Sample ID: 50WW06_052423
Lab Sample ID: 410-128291-3
Date Collected: 05/24/23 10:50
Matrix: Water
Date Received: 05/26/23 09:45

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	30000		12000		2600	ug/L		06/06/23 14:48	1

Default Detection Limits

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Method: RSK-175 - Dissolved Gases (GC)

Prep: RSK-175

Analyte	LOQ	DL	Units
Carbon dioxide	12000	2600	ug/L

QC Sample Results

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-383339/1-A
Matrix: Water
Analysis Batch: 383299

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 383339

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	2600	U	12000		2600	ug/L		06/06/23 11:01	1

Lab Sample ID: MB 410-383371/1-A
Matrix: Water
Analysis Batch: 383299

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 383371

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	2600	U	12000		2600	ug/L		06/06/23 11:17	1

Lab Sample ID: LCS 410-383371/2-A
Matrix: Water
Analysis Batch: 383299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 383371

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon dioxide	35800	34700		ug/L		97	80 - 122

QC Association Summary

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

GC VOA

Analysis Batch: 383299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-128291-1	50WW13_052423	Total/NA	Water	RSK-175	383371
410-128291-2	50WW11_052423	Total/NA	Water	RSK-175	383371
410-128291-3	50WW06_052423	Total/NA	Water	RSK-175	383371
MB 410-383339/1-A	Method Blank	Total/NA	Water	RSK-175	383339
MB 410-383371/1-A	Method Blank	Total/NA	Water	RSK-175	383371
LCS 410-383371/2-A	Lab Control Sample	Total/NA	Water	RSK-175	383371

Prep Batch: 383339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-383339/1-A	Method Blank	Total/NA	Water	8015 HS Prep	

Prep Batch: 383371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-128291-1	50WW13_052423	Total/NA	Water	RSK-175	
410-128291-2	50WW11_052423	Total/NA	Water	RSK-175	
410-128291-3	50WW06_052423	Total/NA	Water	RSK-175	
MB 410-383371/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-383371/2-A	Lab Control Sample	Total/NA	Water	RSK-175	

Lab Chronicle

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Client Sample ID: 50WW13_052423
Lab Sample ID: 410-128291-1
Date Collected: 05/24/23 09:05
Matrix: Water
Date Received: 05/26/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			383371	HQR6	ELLE	06/06/23 09:48
Total/NA	Analysis	RSK-175		1	383299	LXF2	ELLE	06/06/23 14:32

Client Sample ID: 50WW11_052423
Lab Sample ID: 410-128291-2
Date Collected: 05/24/23 09:55
Matrix: Water
Date Received: 05/26/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			383371	HQR6	ELLE	06/06/23 09:48
Total/NA	Analysis	RSK-175		1	383299	LXF2	ELLE	06/06/23 14:40

Client Sample ID: 50WW06_052423
Lab Sample ID: 410-128291-3
Date Collected: 05/24/23 10:50
Matrix: Water
Date Received: 05/26/23 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			383371	HQR6	ELLE	06/06/23 09:48
Total/NA	Analysis	RSK-175		1	383299	LXF2	ELLE	06/06/23 14:48

Laboratory References:
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-24

Method Summary

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Method	Method Description	Protocol	Laboratory
RSK-175	Dissolved Gases (GC)	RSK	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: ALS Group USA, Corp
Project/Site: HS23051708

Job ID: 410-128291-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-128291-1	50WW13_052423	Water	05/24/23 09:05	05/26/23 09:45
410-128291-2	50WW11_052423	Water	05/24/23 09:55	05/26/23 09:45
410-128291-3	50WW06_052423	Water	05/24/23 10:50	05/26/23 09:45

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-128291-1

SDG No.:

Instrument ID: 19506-B Analysis Batch Number: 369251

Lab Sample ID: IC 410-369251/5 Client Sample ID:

Date Analyzed: 04/27/23 09:59 Lab File ID: 312023_04_27BB.0005.d GC Column: HP Plot ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon dioxide	2.06	Baseline Smoothing	WN7O	04/28/23 07:18

Lab Sample ID: IC 410-369251/10 Client Sample ID:

Date Analyzed: 04/27/23 10:37 Lab File ID: 312023_04_27BB.0010.d GC Column: HP Plot ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon dioxide	1.98	Baseline Smoothing	WN7O	04/28/23 07:17

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-128291-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
EPH_CO2ICV_00002	09/29/23	09/29/22	DI Water, Lot In House	1 mL	EPH_CO2XX_00002	0.0018 g	Carbon dioxide	547000 ppb
.EPH_CO2XX_00002	09/29/23	Air Products, Lot A214157			(Purchased Reagent)		Carbon dioxide	30.3889 %
EPH_CO2MS_00004	07/16/23	07/18/22	DI Water, Lot In House	1 g	EPH_CO2CRV_00002	0.0018 g	Carbon dioxide	1791000 ppb
.EPH_CO2CRV_00002	07/16/23	Praxair, Lot 4-11-18			(Purchased Reagent)		Carbon dioxide	99.5 %

Method RSK-175 CO2 DOD

Dissolved Gases (GC) by Method RSK_175_CO2 DOD

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-128291-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 312023_06_6BB.0009.d

Lab ID: LCS 410-383371/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Carbon dioxide	35800	34700	97	80-122	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-128291-1

SDG No.:

Lab File ID: 312023_06_6BB.0006.d Lab Sample ID: MB 410-383339/1-A

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 19506-B Date Analyzed: 06/06/2023 11:01

GC Column: HP Plot ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-383371/2-A	312023_06_6BB.0009.d	06/06/2023 11:25
50WW13_052423	410-128291-1	312023_06_6BB.0026.d	06/06/2023 14:32
50WW11_052423	410-128291-2	312023_06_6BB.0027.d	06/06/2023 14:40
50WW06_052423	410-128291-3	312023_06_6BB.0028.d	06/06/2023 14:48

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-128291-1

SDG No.:

Lab File ID: 312023_06_6BB.0008.d Lab Sample ID: MB 410-383371/1-A

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 19506-B Date Analyzed: 06/06/2023 11:17

GC Column: HP Plot ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC
Job No.: 410-128291-1

SDG No.:

Client Sample ID: 50WW13_052423
Lab Sample ID: 410-128291-1

Matrix: Water
Lab File ID: 312023_06_6BB.0026.d

Analysis Method: RSK-175
Date Collected: 05/24/2023 09:05

Sample wt/vol: 5(mL)
Date Analyzed: 06/06/2023 14:32

Soil Aliquot Vol:
Dilution Factor: 1

Soil Extract Vol.:
GC Column: HP Plot ID: 0.53(mm)

Purge Volume:
Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids:
Level: (low/med) Low

Analysis Batch No.: 383299
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	DL
124-38-9	Carbon dioxide	38000		12000	2600

Report Date: 06-Jun-2023 16:34:42

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0026.d				
Lims ID:	410-128291-A-1-A				
Client ID:	50WW13_052423				
Sample Type:	Client				
Inject. Date:	06-Jun-2023 14:32:00	ALS Bottle#:	0	Worklist Smp#:	26
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0085856-026				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	06-Jun-2023 16:34:42	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1667				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.053	2.054	-0.001	126015195	38301	H

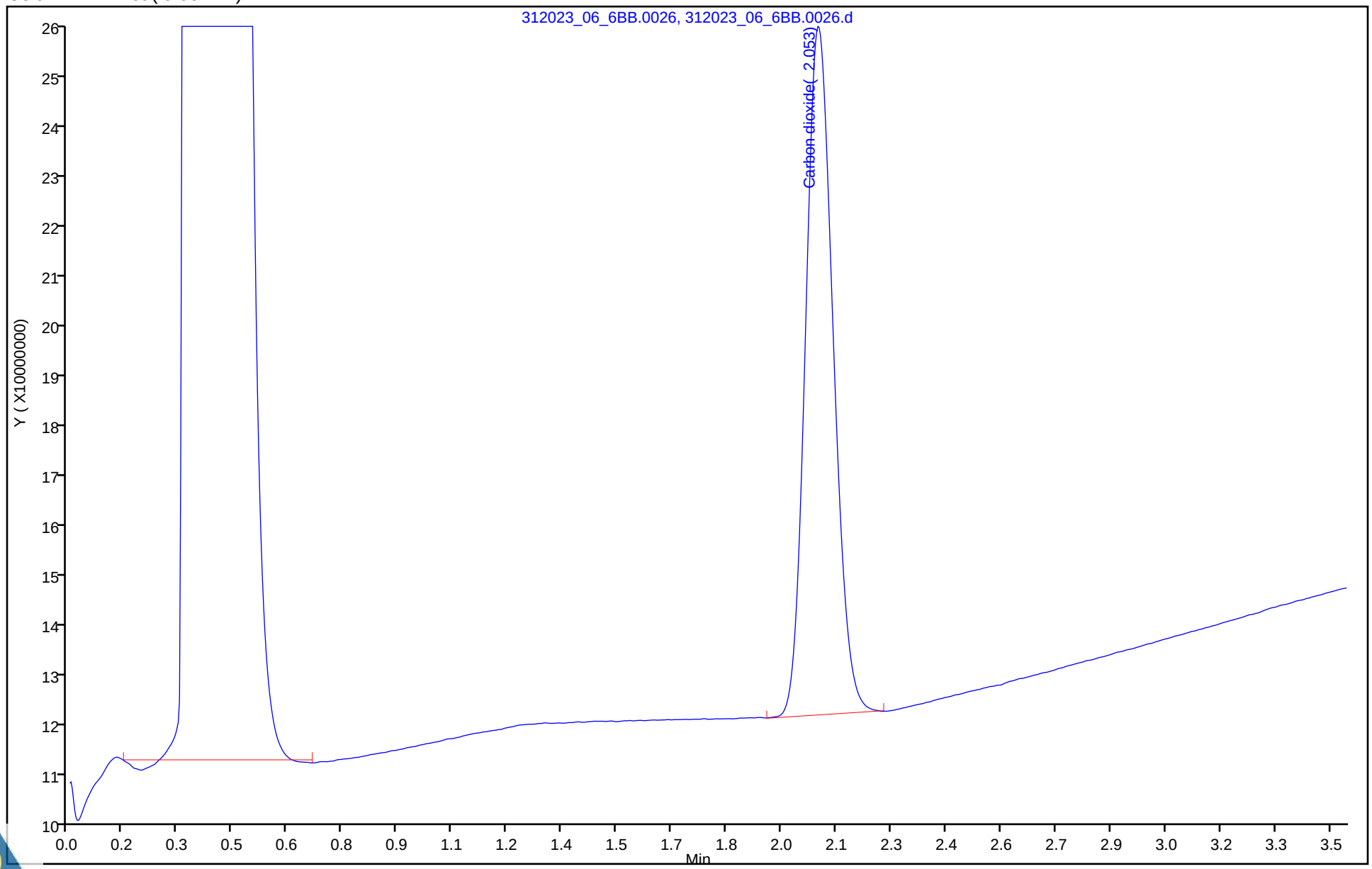
Chrom Revision: 2.3 05-Jun-2023 19:02:10

Report Date: 06-Jun-2023 16:34:42 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0026.d				
Injection Date:	06-Jun-2023 14:32:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	410-128291-A-1-A	Lab Sample ID:	410-128291-1	Worklist Smp#:	26
Client ID:	50WW13_052423				
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-128291-1

SDG No.:

Client Sample ID: 50WW11_052423 Lab Sample ID: 410-128291-2

Matrix: Water Lab File ID: 312023_06_6BB.0027.d

Analysis Method: RSK-175 Date Collected: 05/24/2023 09:55

Sample wt/vol: 5(mL) Date Analyzed: 06/06/2023 14:40

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP Plot ID: 0.53(mm)

Purge Volume: Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 383299 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	DL
124-38-9	Carbon dioxide	42000		12000	2600

Report Date: 06-Jun-2023 16:34:43

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0027.d				
Lims ID:	410-128291-A-2-A				
Client ID:	50WW11_052423				
Sample Type:	Client				
Inject. Date:	06-Jun-2023 14:40:00	ALS Bottle#:	0	Worklist Smp#:	27
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0085856-027				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	06-Jun-2023 16:34:42	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1667				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.053	2.054	-0.001	137988428	41940	H

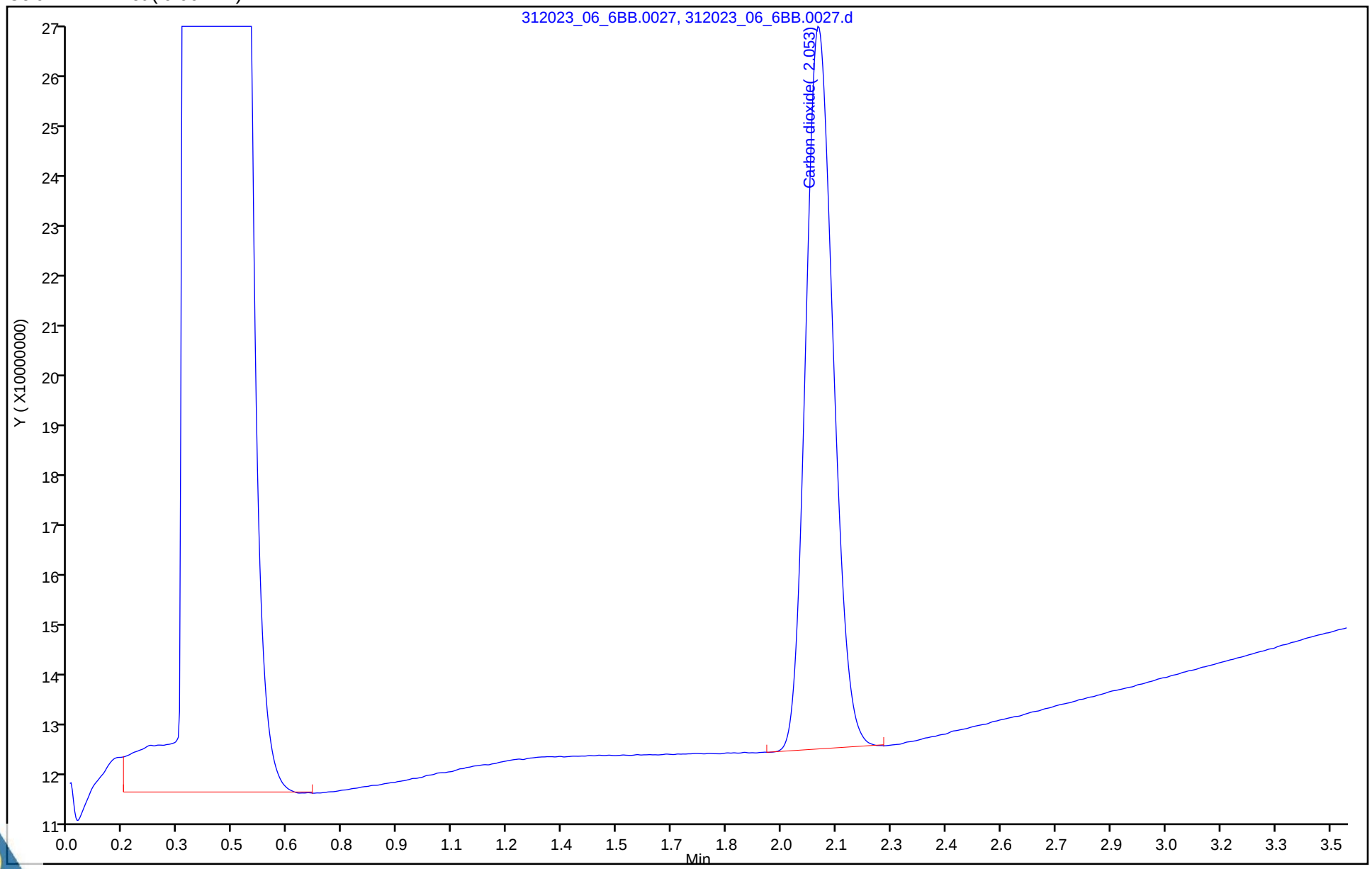
Chrom Revision: 2.3 05-Jun-2023 19:02:10

Report Date: 06-Jun-2023 16:34:43 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0027.d				
Injection Date:	06-Jun-2023 14:40:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	410-128291-A-2-A	Lab Sample ID:	410-128291-2	Worklist Smp#:	27
Client ID:	50WW11_052423				
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC
Job No.: 410-128291-1

SDG No.:

Client Sample ID: 50WW06_052423
Lab Sample ID: 410-128291-3

Matrix: Water
Lab File ID: 312023_06_6BB.0028.d

Analysis Method: RSK-175
Date Collected: 05/24/2023 10:50

Sample wt/vol: 5(mL)
Date Analyzed: 06/06/2023 14:48

Soil Aliquot Vol:
Dilution Factor: 1

Soil Extract Vol.:
GC Column: HP Plot ID: 0.53(mm)

Purge Volume:
Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids:
Level: (low/med) Low

Analysis Batch No.: 383299
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	DL
124-38-9	Carbon dioxide	30000		12000	2600

Report Date: 06-Jun-2023 16:34:43

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0028.d				
Lims ID:	410-128291-A-3-A				
Client ID:	50WW06_052423				
Sample Type:	Client				
Inject. Date:	06-Jun-2023 14:48:00	ALS Bottle#:	0	Worklist Smp#:	28
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0085856-028				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	06-Jun-2023 16:34:42	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1667				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.057	2.054	0.003	98803374H	30030	

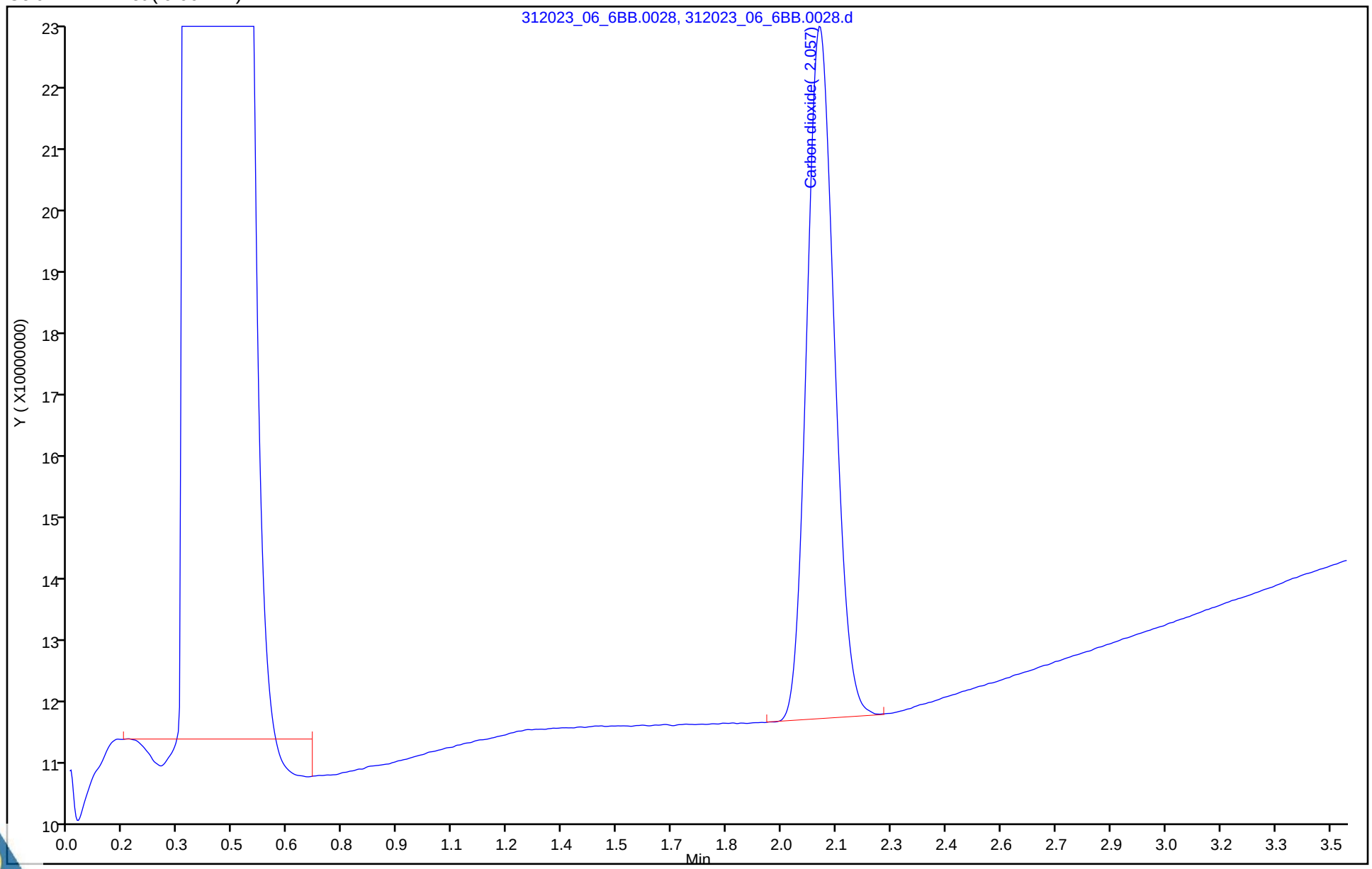
Chrom Revision: 2.3 05-Jun-2023 19:02:10

Report Date: 06-Jun-2023 16:34:43 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0028.d				
Injection Date:	06-Jun-2023 14:48:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	410-128291-A-3-A	Lab Sample ID:	410-128291-3	Worklist Smp#:	28
Client ID:	50WW06_052423				
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-128291-1 Analy Batch No.: 369251

SDG No.:

Instrument ID: 19506-B GC Column: HP Plot ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/27/2023 09:59 Calibration End Date: 04/27/2023 10:37 Calibration ID: 49603

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-369251/5	312023_04_27BB.0005.d
Level 2	IC 410-369251/6	312023_04_27BB.0006.d
Level 3	ICRT 410-369251/7	312023_04_27BB.0007.d
Level 4	IC 410-369251/8	312023_04_27BB.0008.d
Level 5	IC 410-369251/9	312023_04_27BB.0009.d
Level 6	IC 410-369251/10	312023_04_27BB.0010.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Carbon dioxide	2.060	2.059	2.054	2.043	2.024	1.983					2.024 - 2.084	2.037

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-128291-1 Analy Batch No.: 369251

SDG No.:

Instrument ID: 19506-B GC Column: HP Plot ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/27/2023 09:59 Calibration End Date: 04/27/2023 10:37 Calibration ID: 49603

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-369251/5	312023_04_27BB.0005.d
Level 2	IC 410-369251/6	312023_04_27BB.0006.d
Level 3	ICRT 410-369251/7	312023_04_27BB.0007.d
Level 4	IC 410-369251/8	312023_04_27BB.0008.d
Level 5	IC 410-369251/9	312023_04_27BB.0009.d
Level 6	IC 410-369251/10	312023_04_27BB.0010.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Carbon dioxide	3853.7 3132.6	3271.4 2761.6	3403.0	3318.5	Ave		3290.12214				10.8		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-128291-1 Analy Batch No.: 369251

SDG No.:

Instrument ID: 19506-B GC Column: HP Plot ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/27/2023 09:59 Calibration End Date: 04/27/2023 10:37 Calibration ID: 49603

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-369251/5	312023_04_27BB.0005.d
Level 2	IC 410-369251/6	312023_04_27BB.0006.d
Level 3	ICRT 410-369251/7	312023_04_27BB.0007.d
Level 4	IC 410-369251/8	312023_04_27BB.0008.d
Level 5	IC 410-369251/9	312023_04_27BB.0009.d
Level 6	IC 410-369251/10	312023_04_27BB.0010.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Carbon dioxide	Ave	41411686 989211697	70308888	121893696	297170647	561047460	10746 358200	21492	35820	89550	179100

Curve Type Legend
Ave = Average by Height

Report Date: 28-Apr-2023 07:19:05

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0005.d				
Lims ID:	ic				
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	27-Apr-2023 09:59:00	ALS Bottle#:	0	Worklist Smp#:	5
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0082537-005				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	28-Apr-2023 07:19:05	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1628				
First Level Reviewer: WN7O		Date:	28-Apr-2023 07:18:31		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.060	2.054	0.006	41411686H	10746	12587	M

QC Flag Legend

Processing Flags
H - Response Measured by Height
Review Flags
M - Manually Integrated

Reagents:

EPH_CO2MS_00004 Amount Added: 30.00 Units: uL

Chrom Revision: 2.3 20-Apr-2023 08:27:48

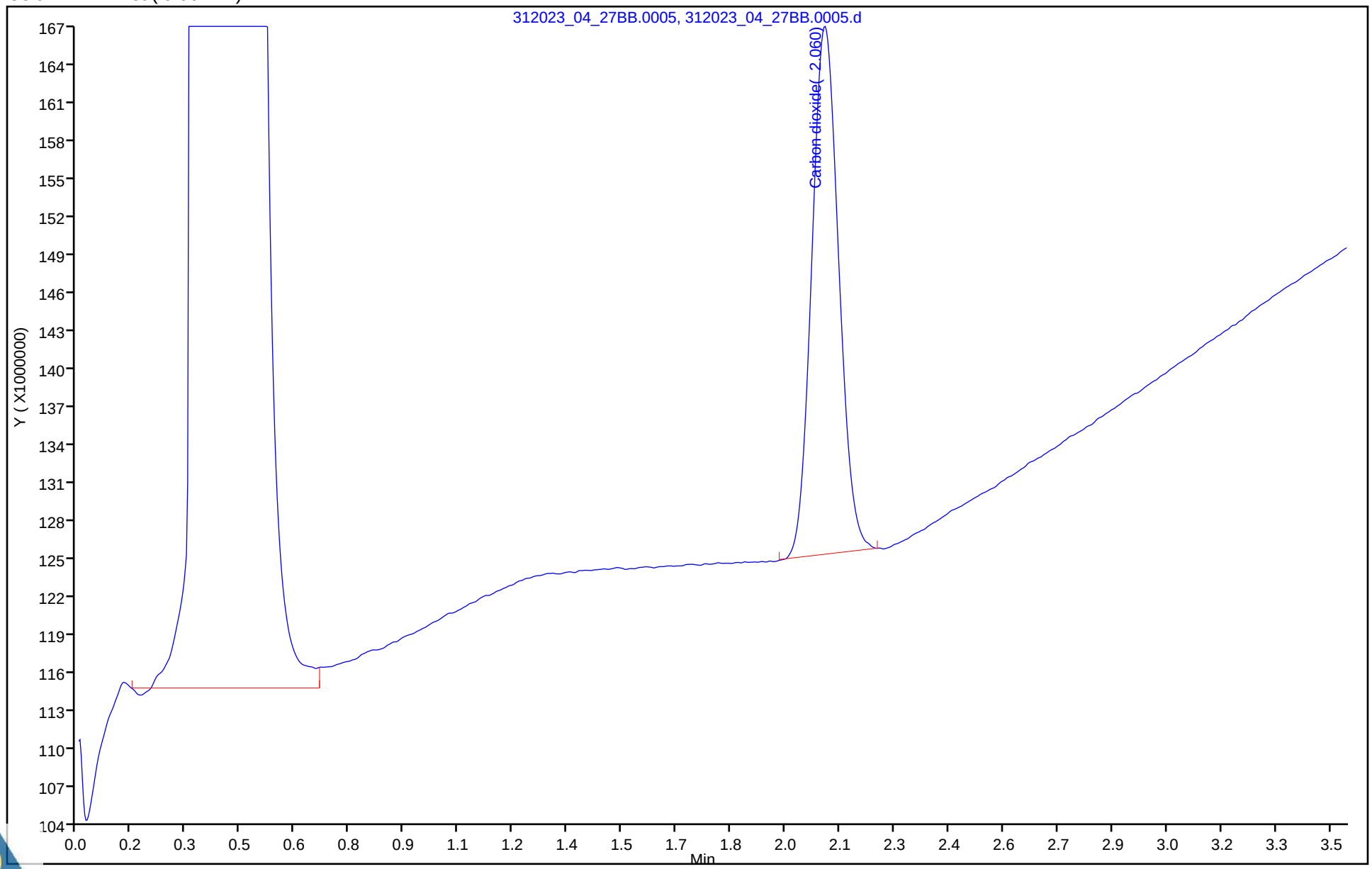
Report Date: 28-Apr-2023 07:19:05 Chrom Revision: 2.3 20-Apr-2023 08:27:48

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0005.d

Injection Date:	27-Apr-2023 09:59:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ic			Worklist Smp#:	5
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



Report Date: 28-Apr-2023 07:19:05

Chrom Revision: 2.3 20-Apr-2023 08:27:48 Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Environment Testing, LLC

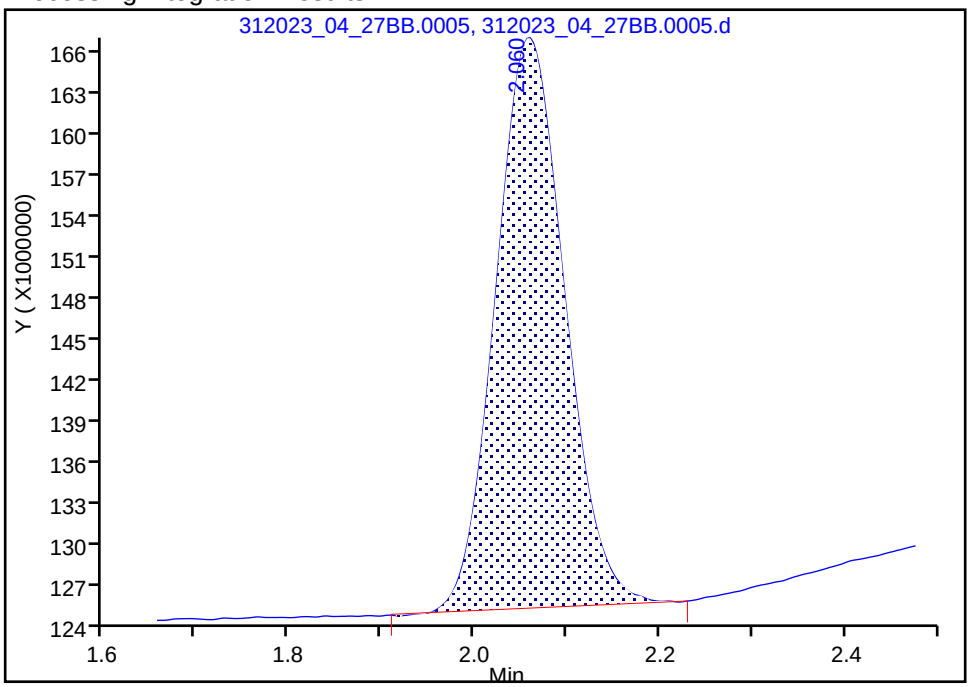
Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0005.d		
Injection Date:	27-Apr-2023 09:59:00	Instrument ID:	19506-B
Lims ID:	ic		
Client ID:			
Operator ID:		ALS Bottle#:	0 Worklist Smp#: 5
Purge Vol:	1.000 mL	Dil. Factor:	1.0000
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2
Column:	HP Plot (0.00 mm)	Detector	0FIDA

1 Carbon dioxide, CAS: 124-38-9

Signal: 1

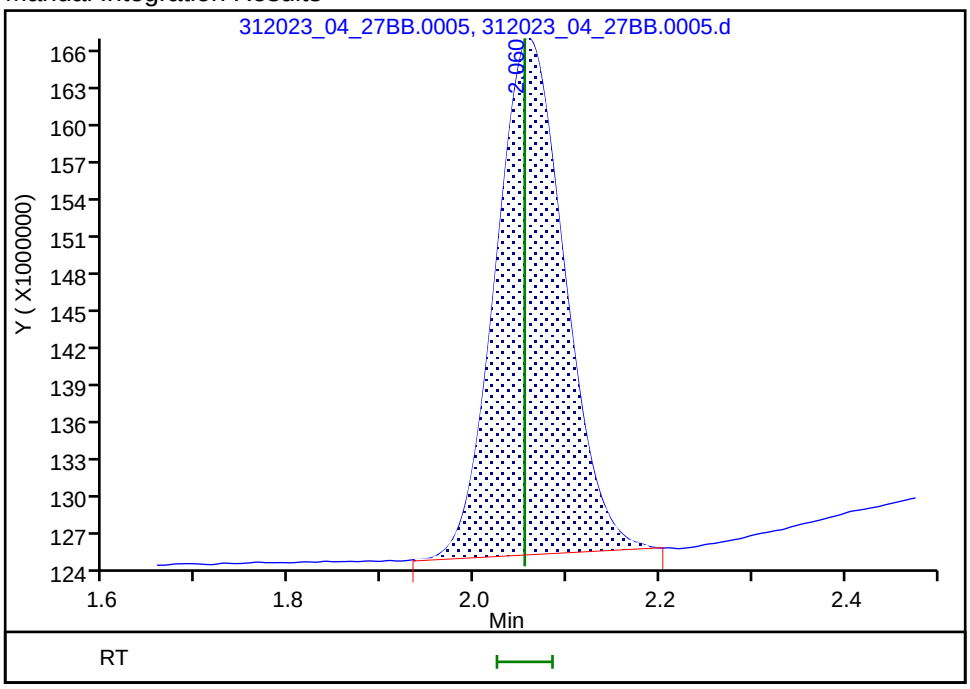
Processing Integration Results

RT: 2.06
Height: 40493056
Amount: 12361
Amount Units: ug/l



Manual Integration Results

RT: 2.06
Height: 41411686
Amount: 12587
Amount Units: ug/l



Audit Reason: Baseline Smoothing

Reviewer: WN7O, 28-Apr-2023 07:18:28
Audit Action: Manually Integrated

Report Date: 28-Apr-2023 07:19:06

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0006.d				
Lims ID:	ic				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	27-Apr-2023 10:06:00	ALS Bottle#:	0	Worklist Smp#:	6
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0082537-006				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	28-Apr-2023 07:19:06	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1628				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.059	2.054	0.005	70308888	H 21492	21370	

Reagents:

EPH_CO2MS_00004 Amount Added: 60.00 Units: uL

Chrom Revision: 2.3 20-Apr-2023 08:27:48

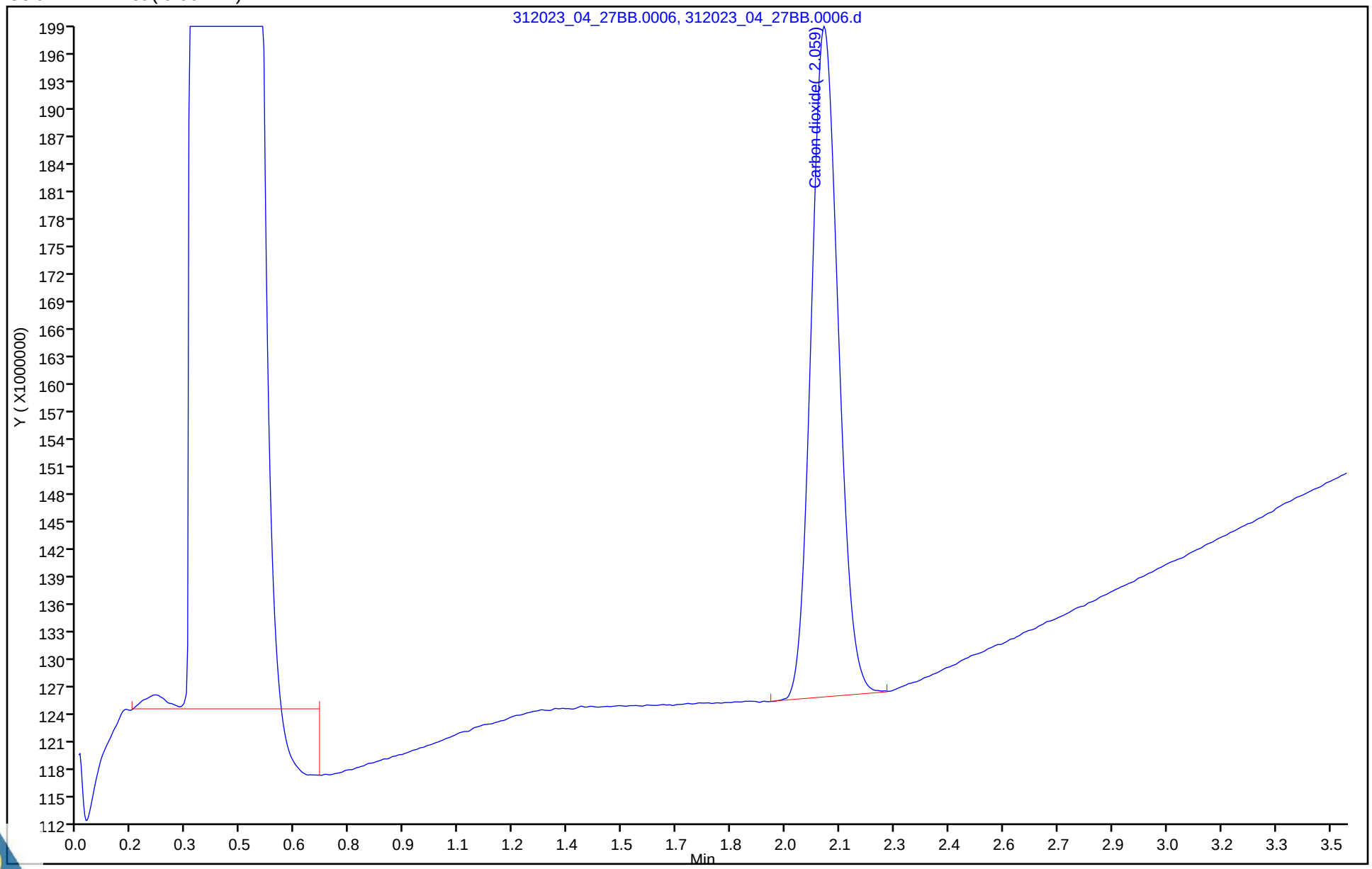
Report Date: 28-Apr-2023 07:19:06 Chrom Revision: 2.3 20-Apr-2023 08:27:48

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0006.d

Injection Date:	27-Apr-2023 10:06:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ic			Worklist Smp#:	6
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



Report Date: 28-Apr-2023 07:19:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0007.d				
Lims ID:	icrt				
Client ID:					
Sample Type:	ICRT	Calib Level:	3		
Inject. Date:	27-Apr-2023 10:14:00	ALS Bottle#:	0	Worklist Smp#:	7
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0082537-007				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	28-Apr-2023 07:19:08	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1628				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.054	2.054	0.000	121893696H	35820	37048	

Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

Chrom Revision: 2.3 20-Apr-2023 08:27:48

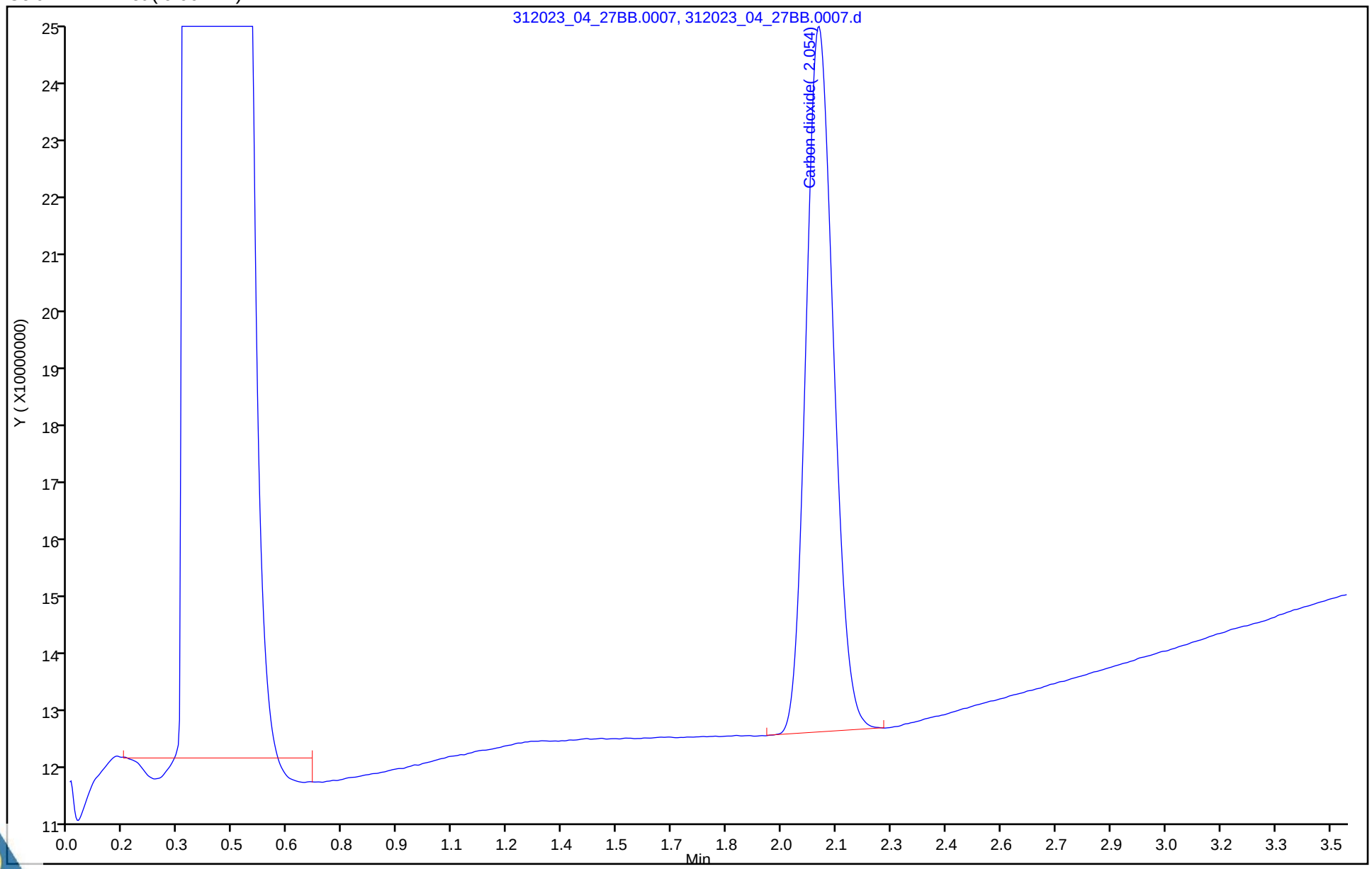
Report Date: 28-Apr-2023 07:19:08 Chrom Revision: 2.3 20-Apr-2023 08:27:48

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0007.d

Injection Date:	27-Apr-2023 10:14:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	icrt			Worklist Smp#:	7
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



Report Date: 28-Apr-2023 07:19:09

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0008.d				
Lims ID:	ic				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	27-Apr-2023 10:22:00	ALS Bottle#:	0	Worklist Smp#:	8
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0082537-008				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	28-Apr-2023 07:19:09	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1628				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.043	2.054	-0.011	297170647	H 89550	90322	

Reagents:

EPH_CO2MS_00004 Amount Added: 250.00 Units: uL

Chrom Revision: 2.3 20-Apr-2023 08:27:48

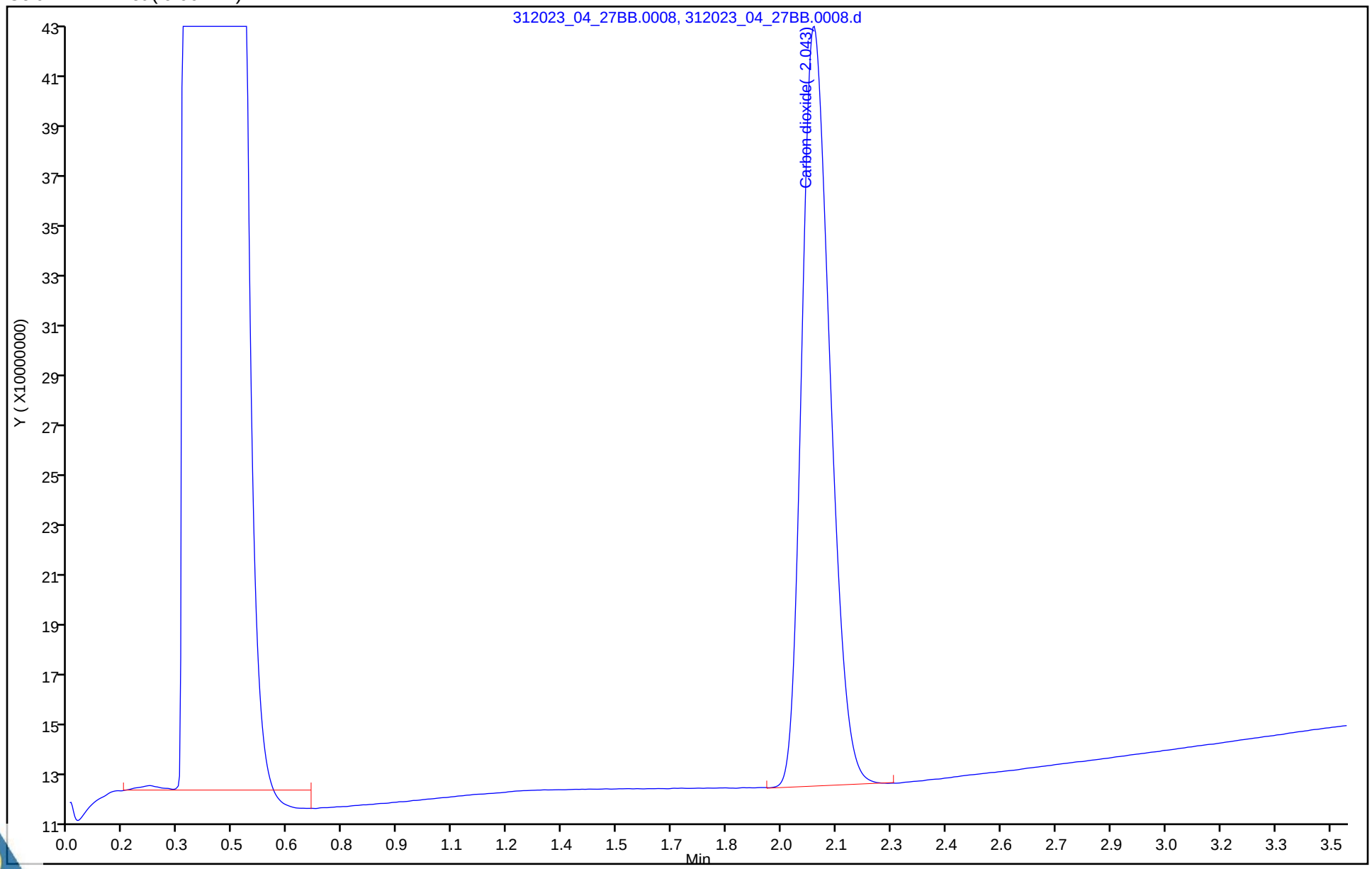
Report Date: 28-Apr-2023 07:19:09 Chrom Revision: 2.3 20-Apr-2023 08:27:48

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0008.d

Injection Date:	27-Apr-2023 10:22:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ic			Worklist Smp#:	8
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



Report Date: 28-Apr-2023 07:19:10

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0009.d				
Lims ID:	ic				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	27-Apr-2023 10:30:00	ALS Bottle#:	0	Worklist Smp#:	9
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0082537-009				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	28-Apr-2023 07:19:10	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1628				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.024	2.054	-0.030	561047460H	179100	170525	

Reagents:

EPH_CO2MS_00004 Amount Added: 500.00 Units: uL

Chrom Revision: 2.3 20-Apr-2023 08:27:48

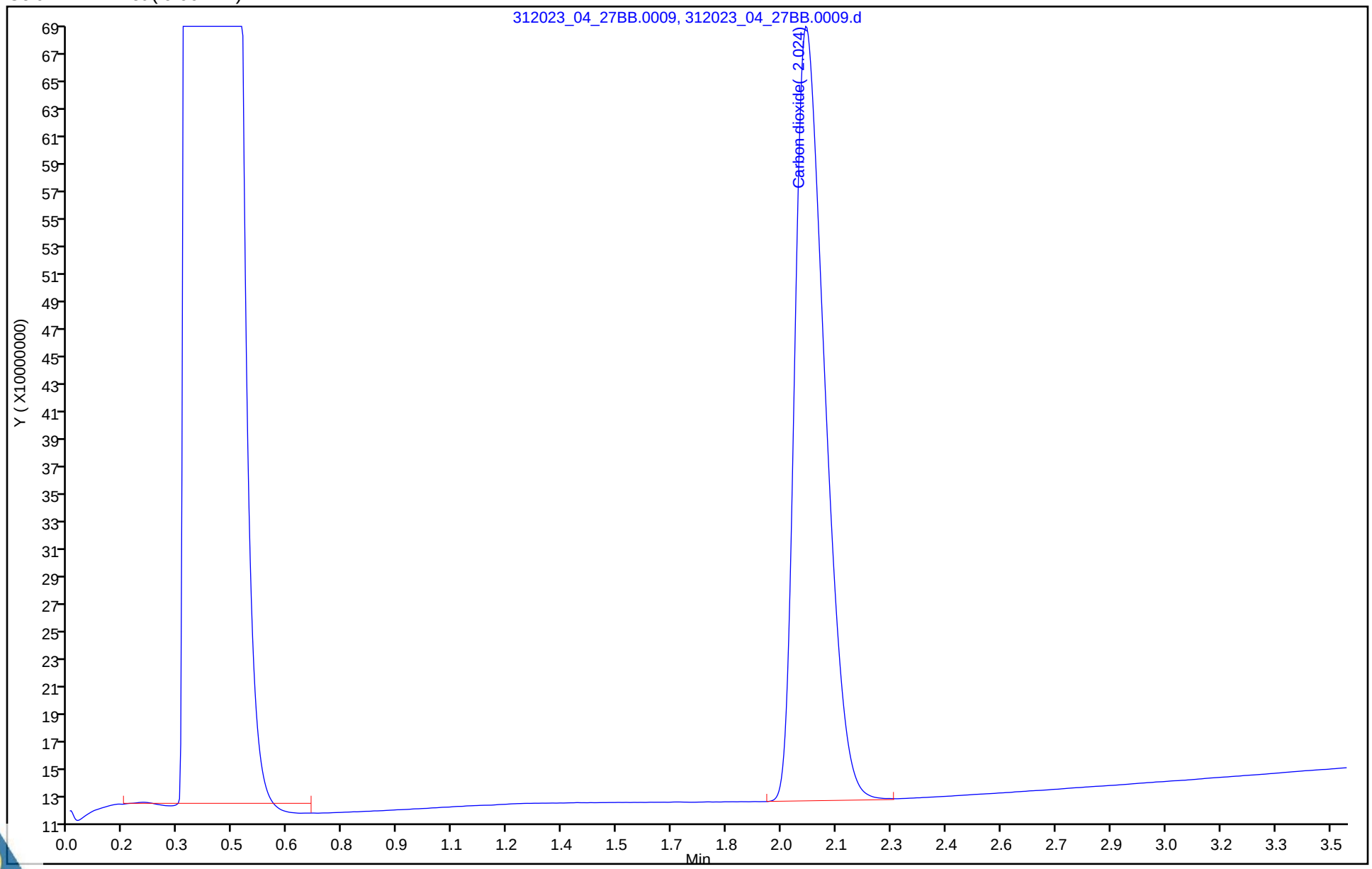
Report Date: 28-Apr-2023 07:19:10 Chrom Revision: 2.3 20-Apr-2023 08:27:48

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0009.d

Injection Date:	27-Apr-2023 10:30:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ic			Worklist Smp#:	9
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



Report Date: 28-Apr-2023 07:19:12

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Lims ID:	ic				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	27-Apr-2023 10:37:00	ALS Bottle#:	0	Worklist Smp#:	10
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0082537-010				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	28-Apr-2023 07:19:11	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1628				
First Level Reviewer: WN7O		Date:	28-Apr-2023 07:17:52		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.983	2.054	-0.071	989211697H	358200	300661	Ma

QC Flag Legend

Processing Flags
H - Response Measured by Height
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

EPH_CO2MS_00004 Amount Added: 1000.00 Units: uL

Chrom Revision: 2.3 20-Apr-2023 08:27:48

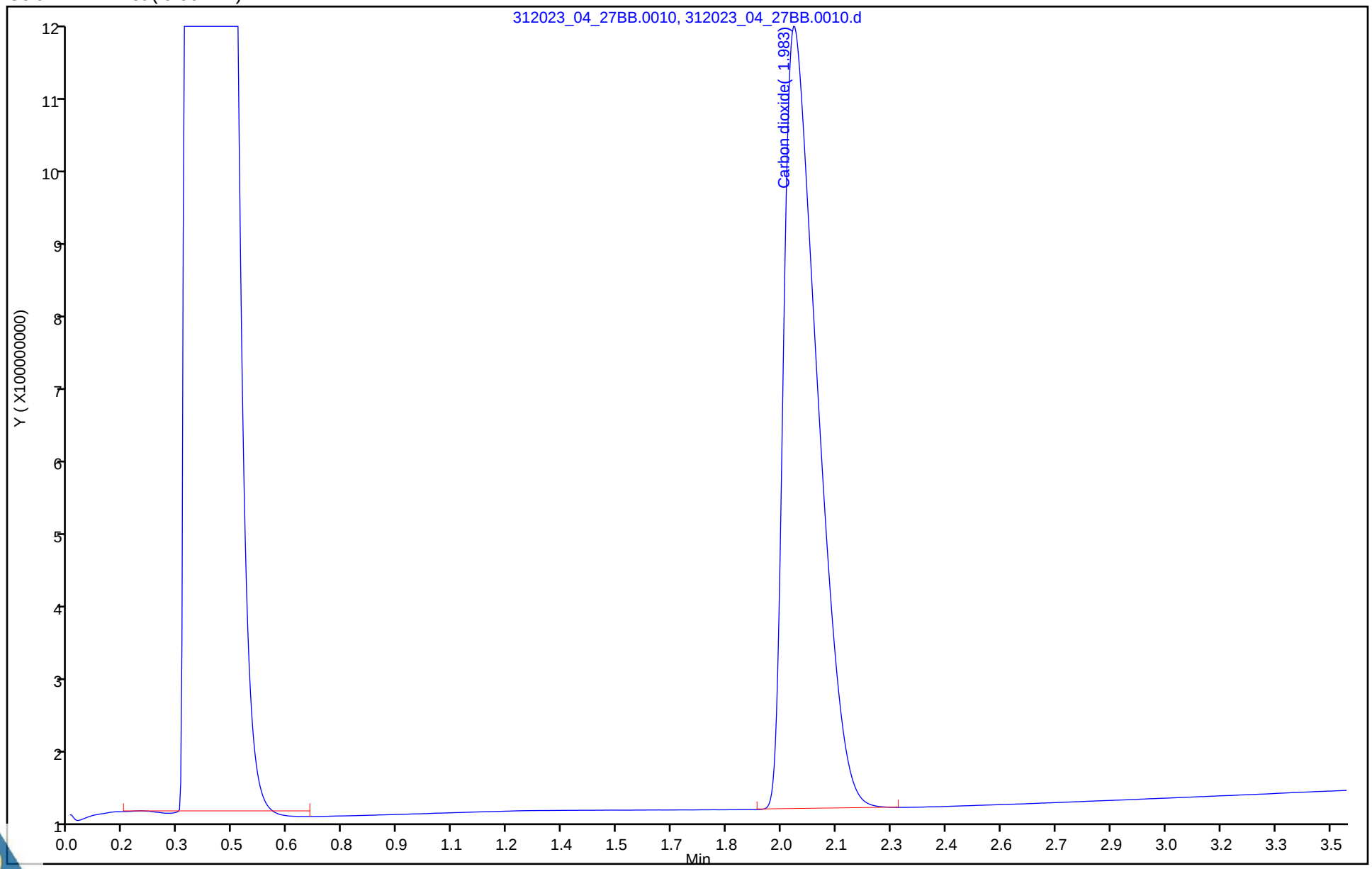
Report Date: 28-Apr-2023 07:19:12 Chrom Revision: 2.3 20-Apr-2023 08:27:48

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d

Injection Date:	27-Apr-2023 10:37:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ic			Worklist Smp#:	10
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



Report Date: 28-Apr-2023 07:19:12

Chrom Revision: 2.3 20-Apr-2023 08:27:48 Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Environment Testing, LLC

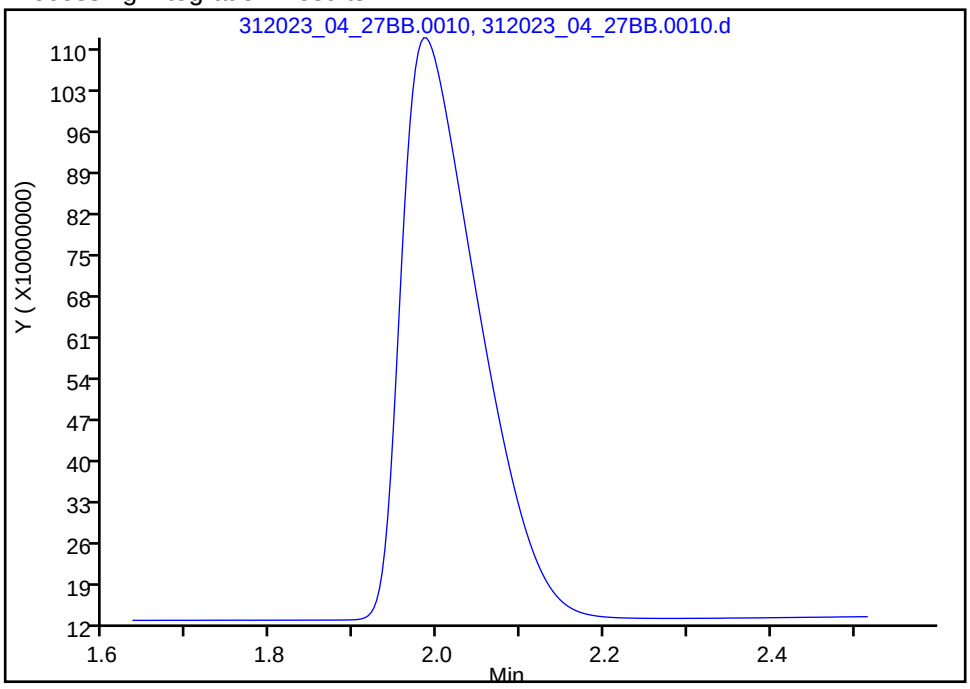
Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d		
Injection Date:	27-Apr-2023 10:37:00	Instrument ID:	19506-B
Lims ID:	ic		
Client ID:			
Operator ID:		ALS Bottle#:	0 Worklist Smp#: 10
Purge Vol:	1.000 mL	Dil. Factor:	1.0000
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2
Column:	HP Plot (0.00 mm)	Detector	0FIDA

1 Carbon dioxide, CAS: 124-38-9

Signal: 1

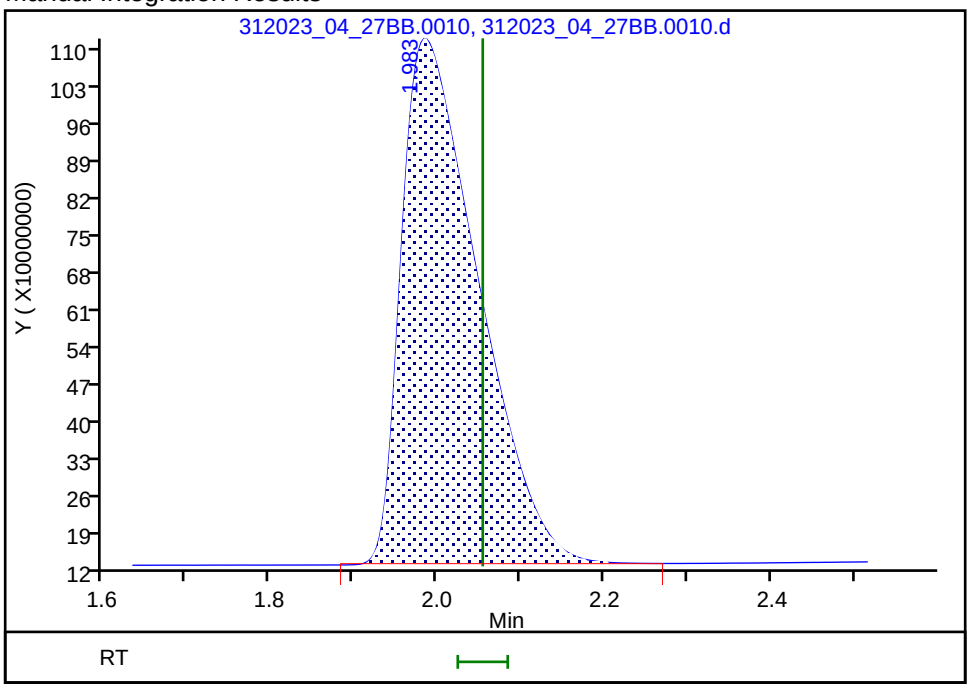
Not Detected
Expected RT: 2.05

Processing Integration Results



Manual Integration Results

RT: 1.98
Height: 989211697
Amount: 300661
Amount Units: ug/l



Reviewer: WN7O, 28-Apr-2023 07:17:41
Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Calibration / Carbon dioxide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	HEIGHT
RF Rounding:	0

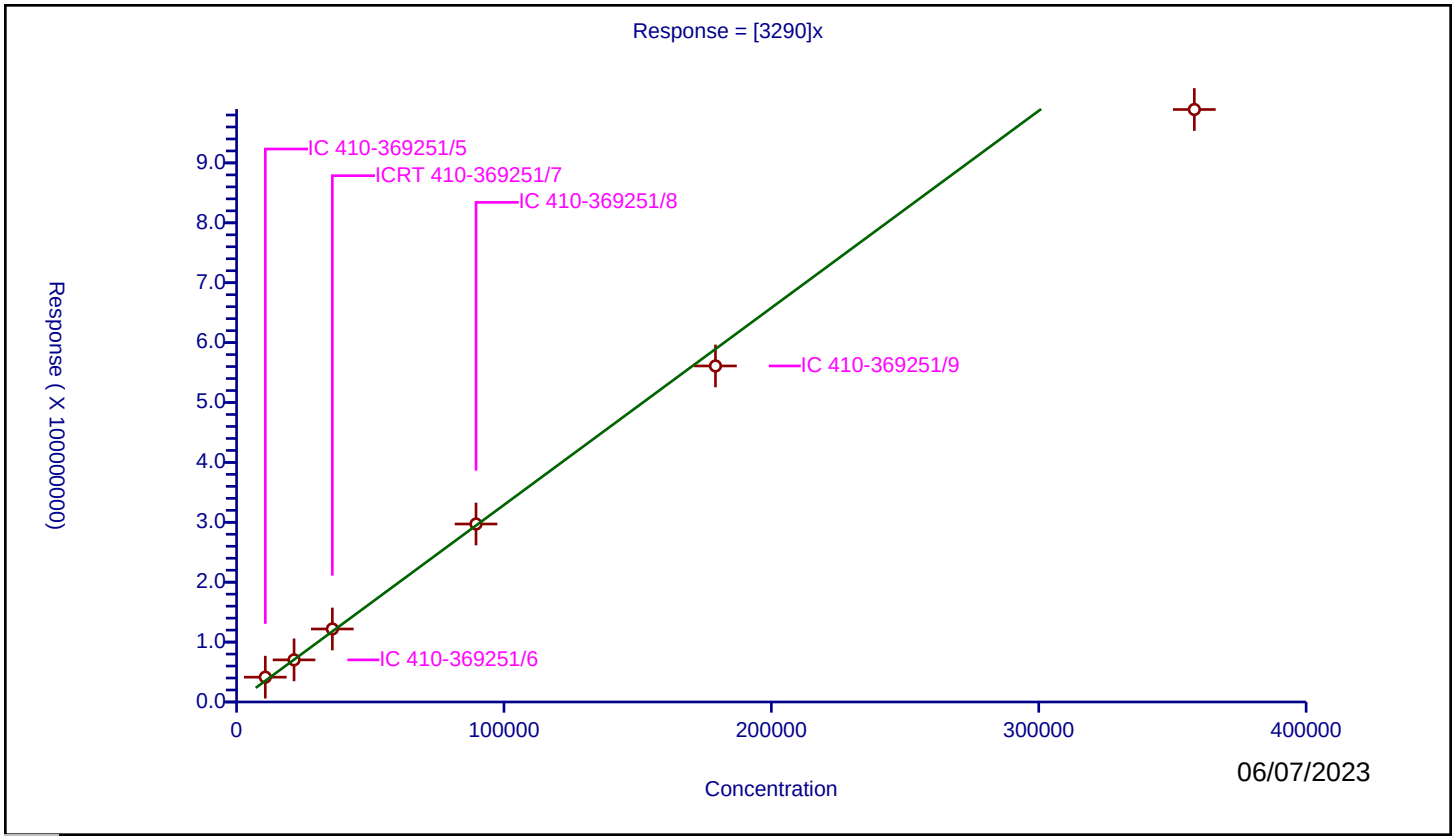
Curve Coefficients

Intercept:	0
Slope:	3290

Error Coefficients

Standard Error:	85700000
Relative Standard Error:	10.8
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.977

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 410-369251/5	10746.0	41411686.0			3853.683789	Y
2	IC 410-369251/6	21492.0	70308888.0			3271.398102	Y
3	ICRT 410-369251/7	35820.0	121893696.0			3402.950754	Y
4	IC 410-369251/8	89550.0	297170647.0			3318.48852	Y
5	IC 410-369251/9	179100.0	561047460.0			3132.5933	Y
6	IC 410-369251/10	358200.0	989211697.0			2761.618361	Y



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128291-1

SDG No.:

Lab Sample ID: ICV 410-369251/13 Calibration Date: 04/27/2023 11:01

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312023_04_27BB.0013.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	3290	3122		33200	35000	-5.1	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128291-1

SDG No.:

Lab Sample ID: ICV 410-369251/13 Calibration Date: 04/27/2023 11:01

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312023_04_27BB.0013.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.06	2.02	2.08

Report Date: 28-Apr-2023 08:51:00

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0013.d				
Lims ID:	icv				
Client ID:					
Sample Type:	ICV				
Inject. Date:	27-Apr-2023 11:01:00	ALS Bottle#:	0	Worklist Smp#:	13
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0082537-013				
Operator ID:		Instrument ID:	19506-B		
Sublist:					
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	28-Apr-2023 08:50:24	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1654				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.057	2.054	0.003	109307674	H 35008	33223	

Reagents:

EPH_CO2ICV_00002 Amount Added: 320.00 Units: uL

Chrom Revision: 2.3 20-Apr-2023 08:27:48

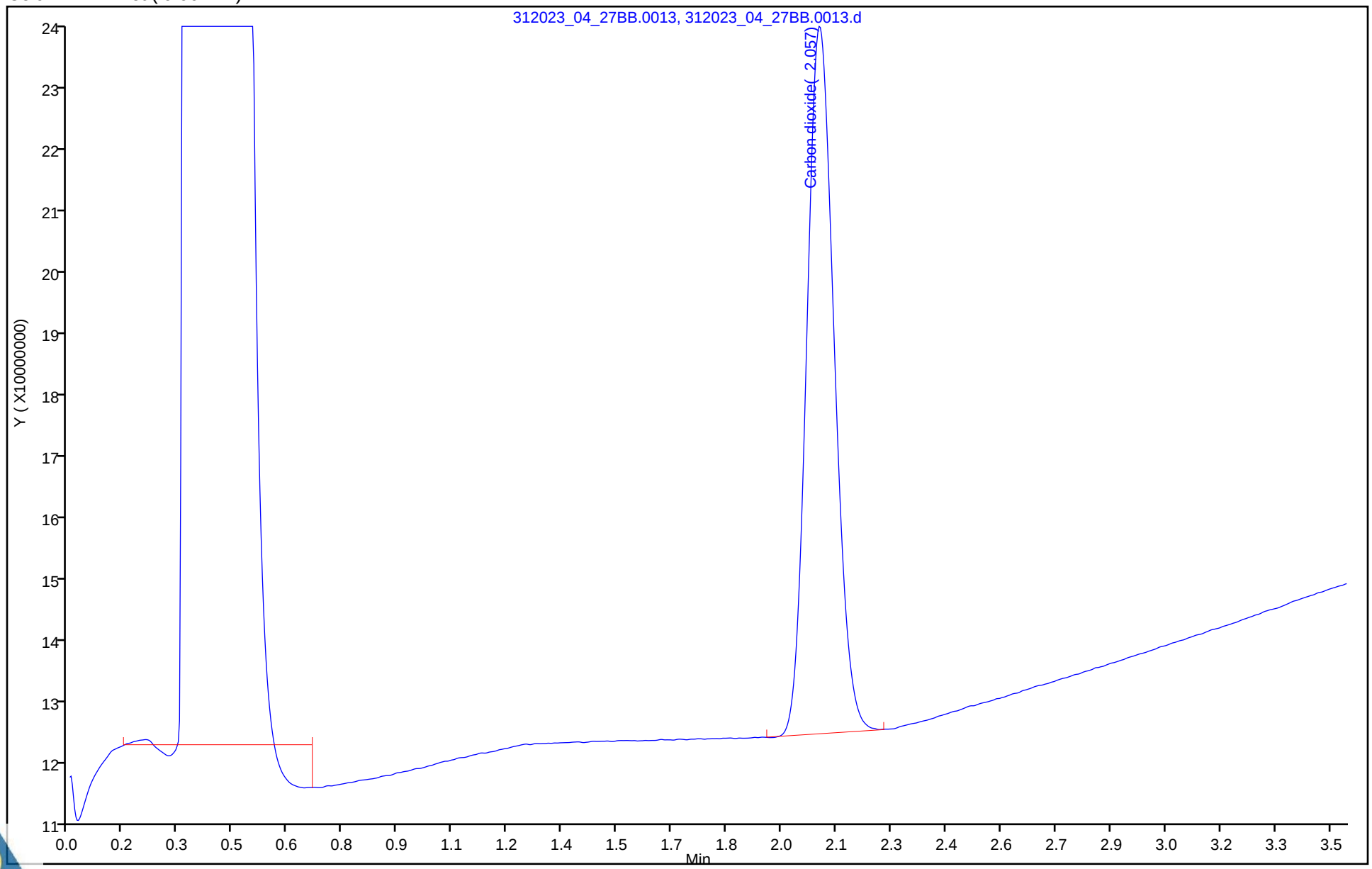
Report Date: 28-Apr-2023 08:51:00 Chrom Revision: 2.3 20-Apr-2023 08:27:48

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0013.d

Injection Date:	27-Apr-2023 11:01:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	icv			Worklist Smp#:	13
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128291-1

SDG No.:

Lab Sample ID: CCVRT 410-383299/5 Calibration Date: 06/06/2023 10:41

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312023_06_6BB.0005.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	3290	3204		34900	35800	-2.6	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128291-1

SDG No.:

Lab Sample ID: CCVRT 410-383299/5 Calibration Date: 06/06/2023 10:41

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312023_06_6BB.0005.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.05	2.02	2.08

Report Date: 06-Jun-2023 16:34:33

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0005.d				
Lims ID:	ccvrt				
Client ID:					
Sample Type:	CCVRT				
Inject. Date:	06-Jun-2023 10:41:00	ALS Bottle#:	0	Worklist Smp#:	5
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0085856-005				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	06-Jun-2023 16:34:33	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1667				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.054	2.054	0.000	114766267	H 35820	34882	

Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

Chrom Revision: 2.3 05-Jun-2023 19:02:10

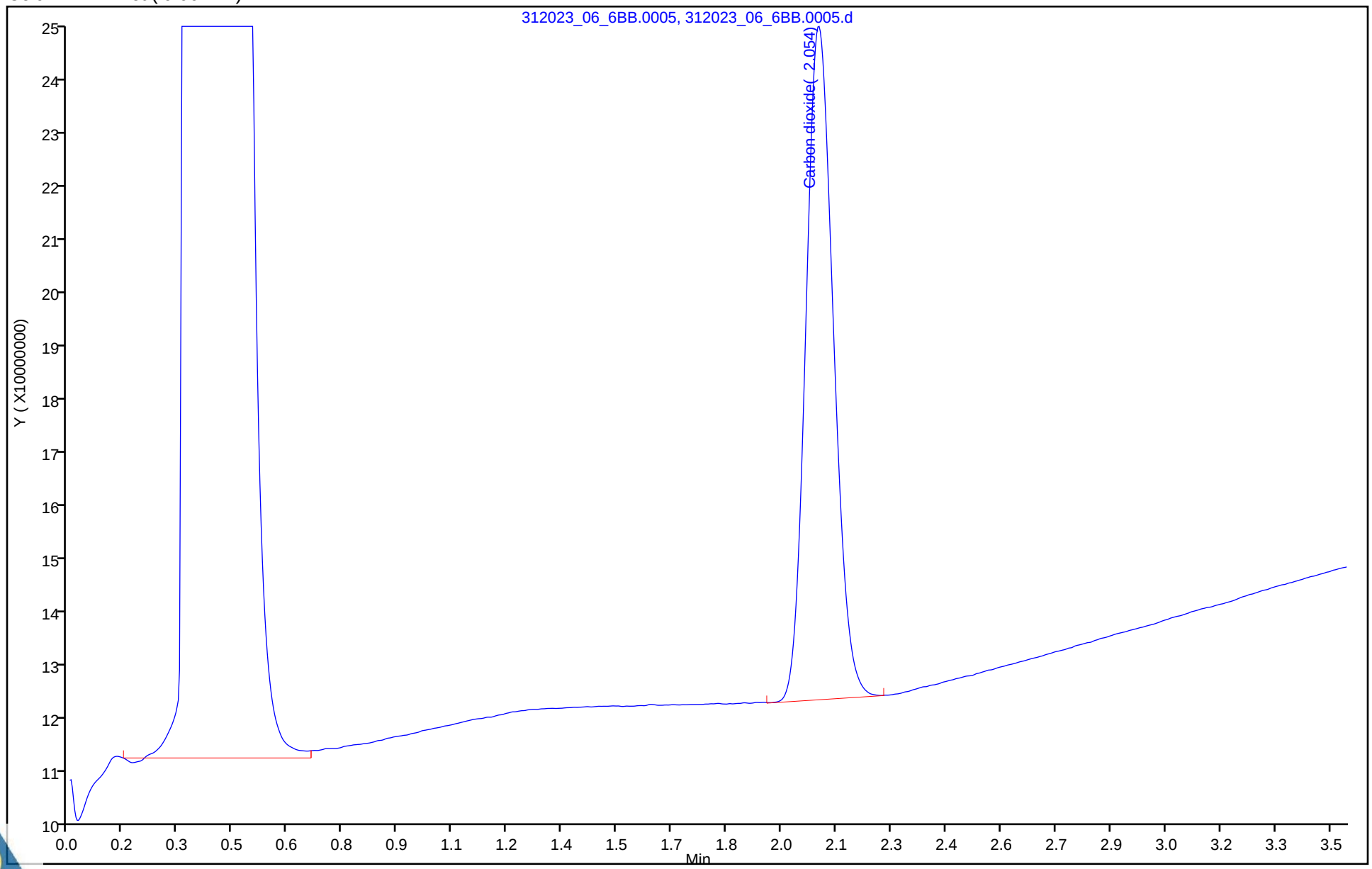
Report Date: 06-Jun-2023 16:34:34 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0005.d

Injection Date:	06-Jun-2023 10:41:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ccvrt			Worklist Smp#:	5
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128291-1

SDG No.:

Lab Sample ID: CCV 410-383299/16 Calibration Date: 06/06/2023 13:07

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312023_06_6BB.0016.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	3290	3123		34000	35800	-5.1	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128291-1

SDG No.:

Lab Sample ID: CCV 410-383299/16 Calibration Date: 06/06/2023 13:07

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312023_06_6BB.0016.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.05	2.02	2.08

Report Date: 06-Jun-2023 16:34:38

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0016.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	06-Jun-2023 13:07:00	ALS Bottle#:	0	Worklist Smp#:	16
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0085856-016				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	06-Jun-2023 16:34:38	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1667				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.054	2.054	0.000	111879582	H 35820	34005	

Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

Chrom Revision: 2.3 05-Jun-2023 19:02:10

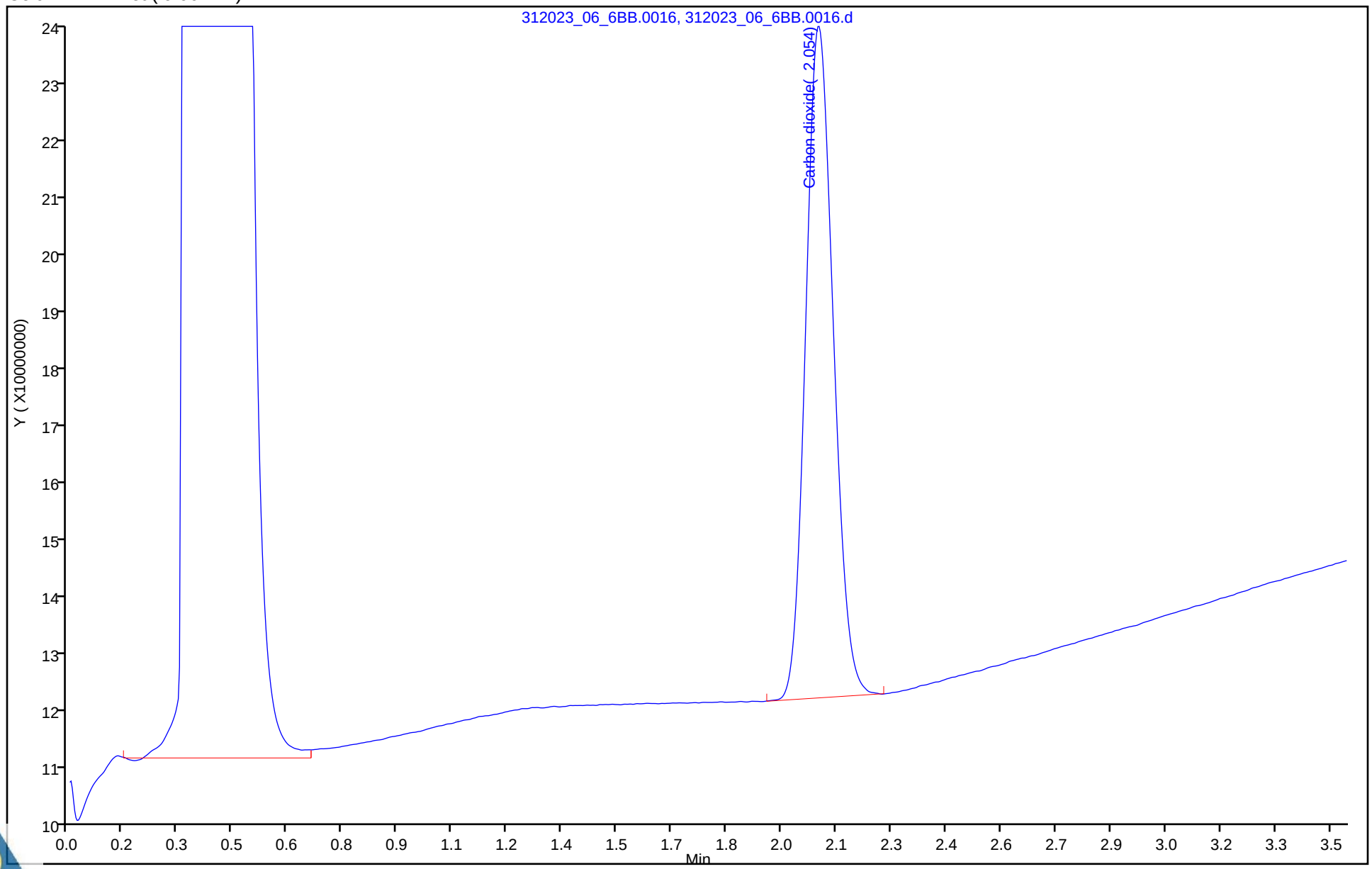
Report Date: 06-Jun-2023 16:34:38 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0016.d

Injection Date:	06-Jun-2023 13:07:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	16
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128291-1

SDG No.:

Lab Sample ID: CCV 410-383299/25 Calibration Date: 06/06/2023 14:18

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312023_06_6BB.0025.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	3290	3019		32900	35800	-8.2	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128291-1

SDG No.:

Lab Sample ID: CCV 410-383299/25 Calibration Date: 06/06/2023 14:18

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312023_06_6BB.0025.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.05	2.02	2.08

Report Date: 06-Jun-2023 16:34:42

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0025.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	06-Jun-2023 14:18:00	ALS Bottle#:	0	Worklist Smp#:	25
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0085856-025				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	06-Jun-2023 16:34:42	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1667				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.052	2.054	-0.002	108153467H	35820	32872	

Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

Chrom Revision: 2.3 05-Jun-2023 19:02:10

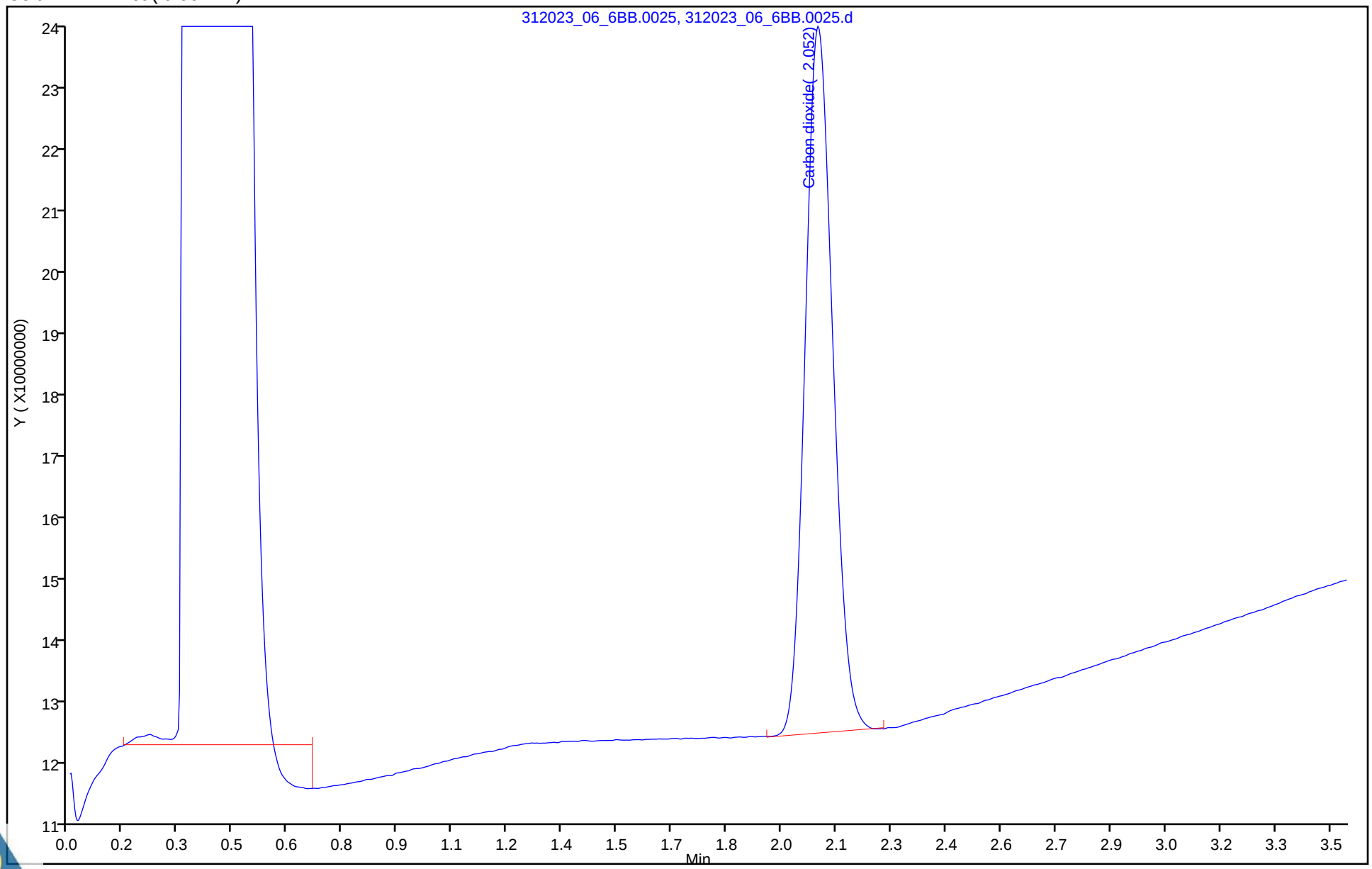
Report Date: 06-Jun-2023 16:34:42 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0025.d

Injection Date:	06-Jun-2023 14:18:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	25
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128291-1

SDG No.:

Lab Sample ID: CCV 410-383299/36 Calibration Date: 06/06/2023 15:51

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312023_06_6BB.0036.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	3290	3121		34000	35800	-5.1	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128291-1

SDG No.:

Lab Sample ID: CCV 410-383299/36 Calibration Date: 06/06/2023 15:51

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: HP Plot ID: 0.53(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312023_06_6BB.0036.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.05	2.02	2.08

Report Date: 06-Jun-2023 16:34:47

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0036.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	06-Jun-2023 15:51:00	ALS Bottle#:	0	Worklist Smp#:	36
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0085856-036				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	06-Jun-2023 16:34:47	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1667				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.054	2.054	0.000	111805434	H 35820	33982	

Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

Chrom Revision: 2.3 05-Jun-2023 19:02:10

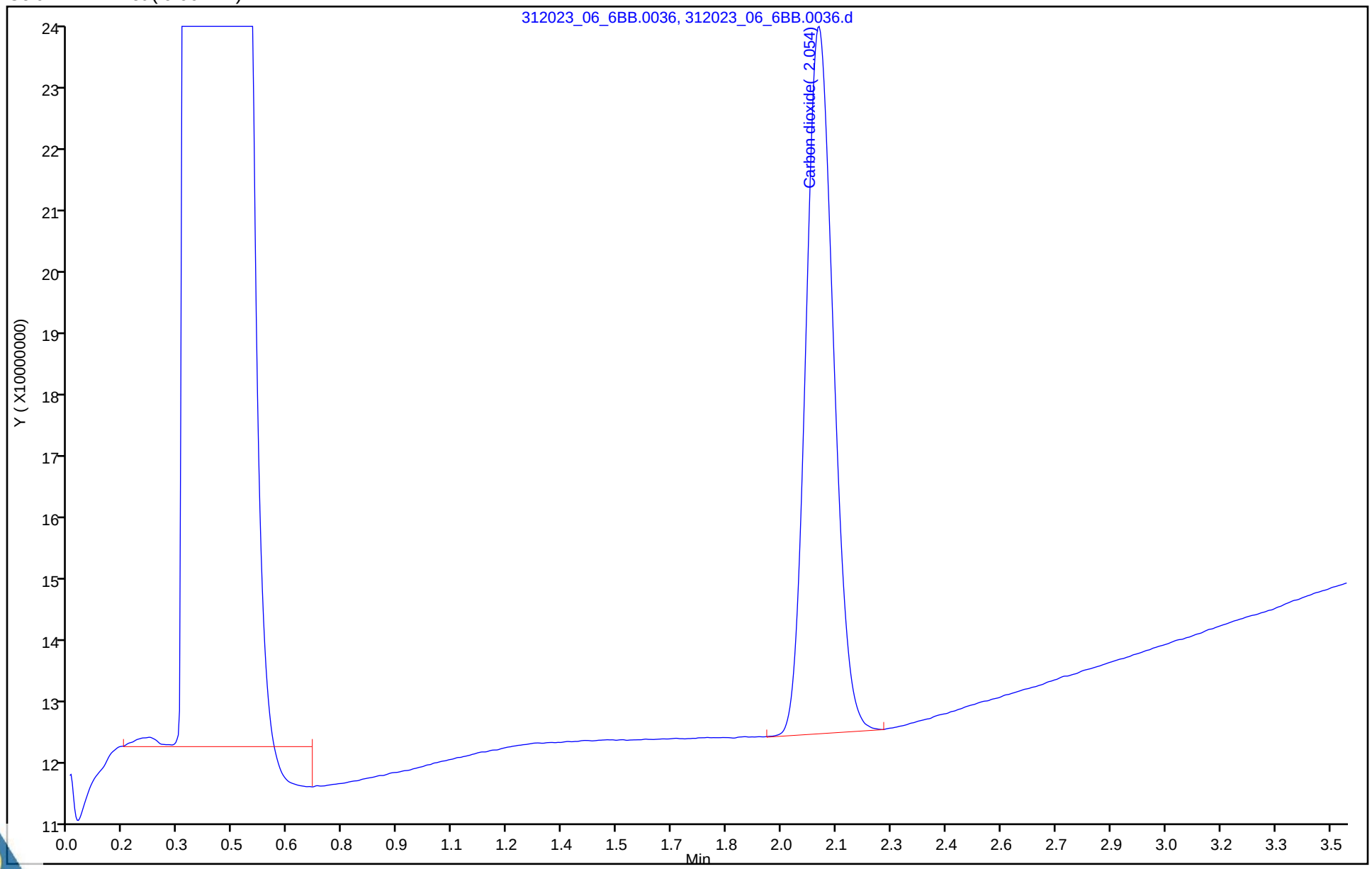
Report Date: 06-Jun-2023 16:34:47 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0036.d

Injection Date:	06-Jun-2023 15:51:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	36
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-128291-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-383339/1-A

Matrix: Water Lab File ID: 312023_06_6BB.0006.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/06/2023 11:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP Plot ID: 0.53(mm)

Purge Volume: Heated Purge: (Y/N) N pH:

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 383299 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	DL
124-38-9	Carbon dioxide	2600	U	12000	2600

Report Date: 06-Jun-2023 16:40:28

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0006.d				
Lims ID:	MB 410-383339/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	06-Jun-2023 11:01:00	ALS Bottle#:	0	Worklist Smp#:	6
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0085856-006				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	06-Jun-2023 16:34:48	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1667				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.067	2.054	0.013	957246H		290.9	

Chrom Revision: 2.3 05-Jun-2023 19:02:10

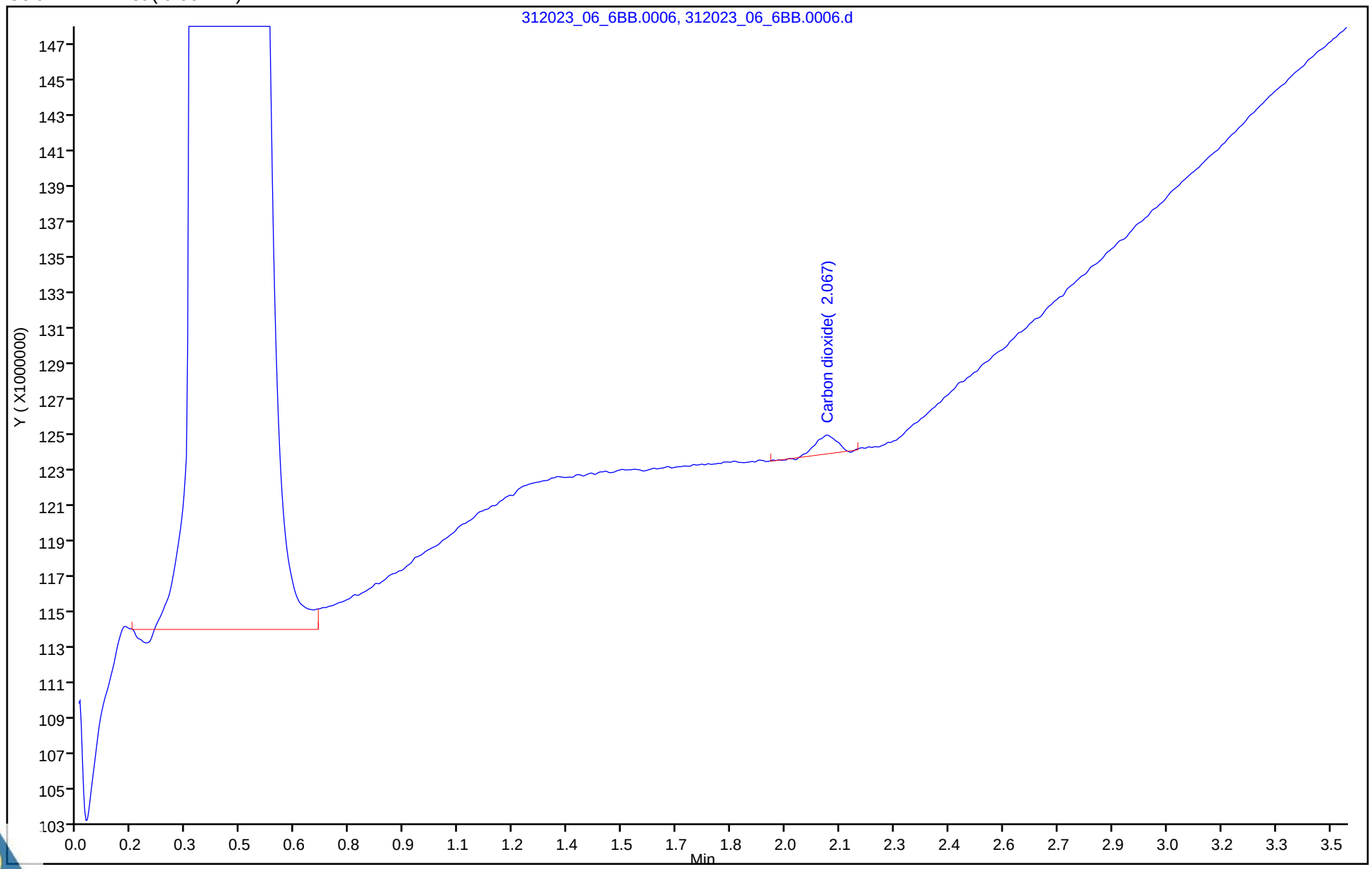
Report Date: 06-Jun-2023 16:40:28 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0006.d

Injection Date:	06-Jun-2023 11:01:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	MB 410-383339/1-A			Worklist Smp#:	6
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC
Job No.: 410-128291-1

SDG No.:

Client Sample ID:
Lab Sample ID: MB 410-383371/1-A

Matrix: Water
Lab File ID: 312023_06_6BB.0008.d

Analysis Method: RSK-175
Date Collected:

Sample wt/vol: 5(mL)
Date Analyzed: 06/06/2023 11:17

Soil Aliquot Vol:
Dilution Factor: 1

Soil Extract Vol.:
GC Column: HP Plot ID: 0.53(mm)

Purge Volume:
Heated Purge: (Y/N) N pH:

% Moisture: % Solids:
Level: (low/med) Low

Analysis Batch No.: 383299
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	DL
124-38-9	Carbon dioxide	2600	U	12000	2600

Report Date: 06-Jun-2023 16:34:35

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0008.d				
Lims ID:	MB 410-383371/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	06-Jun-2023 11:17:00	ALS Bottle#:	0	Worklist Smp#:	8
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0085856-008				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	06-Jun-2023 16:34:33	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1667				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.067	2.054	0.013	881879H		268.0	

Chrom Revision: 2.3 05-Jun-2023 19:02:10

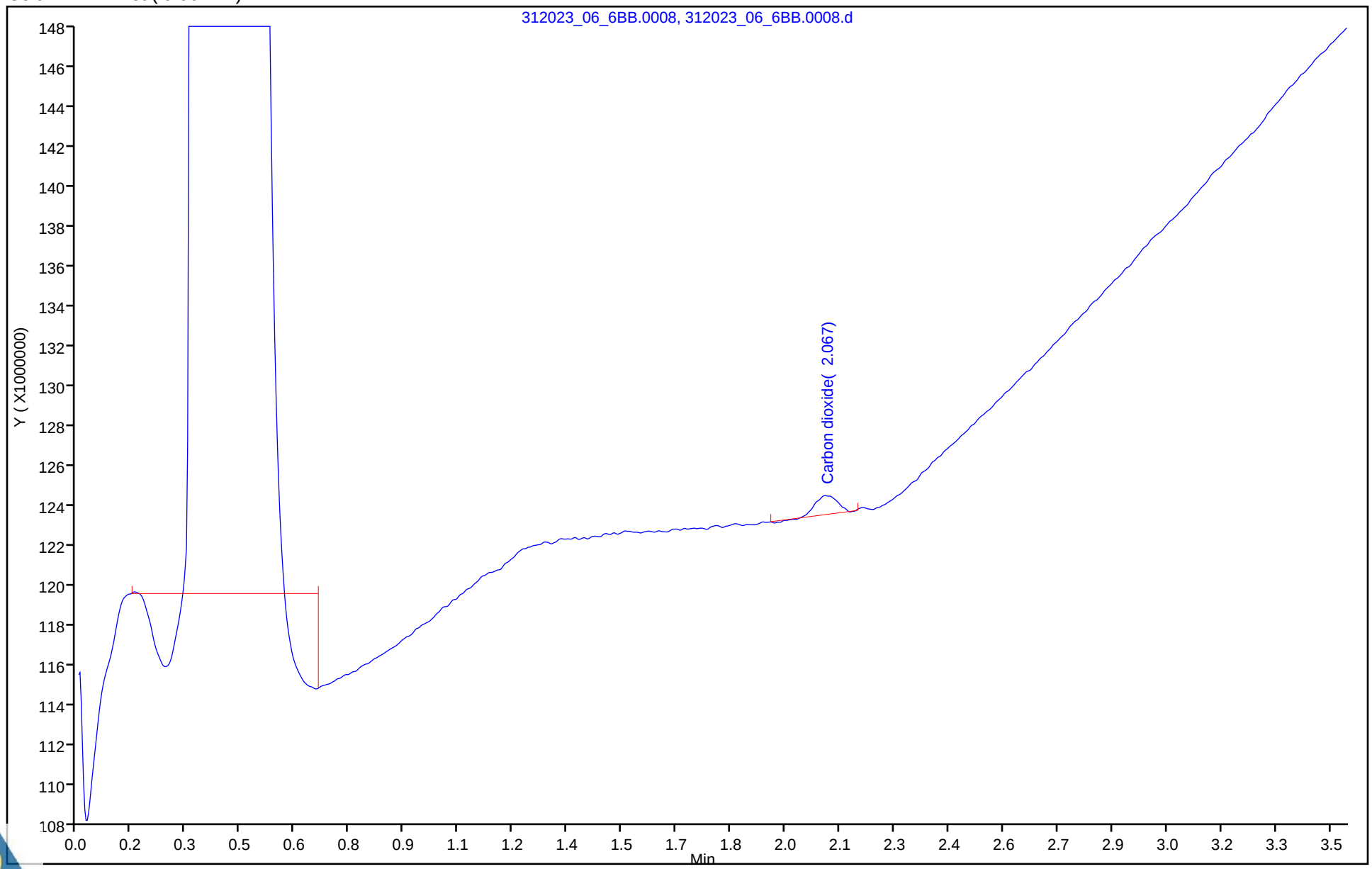
Report Date: 06-Jun-2023 16:34:35 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0008.d

Injection Date:	06-Jun-2023 11:17:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	MB 410-383371/1-A			Worklist Smp#:	8
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC
Job No.: 410-128291-1

SDG No.:

Client Sample ID:
Lab Sample ID: LCS 410-383371/2-A

Matrix: Water
Lab File ID: 312023_06_6BB.0009.d

Analysis Method: RSK-175
Date Collected:

Sample wt/vol: 5(mL)
Date Analyzed: 06/06/2023 11:25

Soil Aliquot Vol:
Dilution Factor: 1

Soil Extract Vol.:
GC Column: HP Plot ID: 0.53(mm)

Purge Volume:
Heated Purge: (Y/N) N pH:

% Moisture: % Solids:
Level: (low/med) Low

Analysis Batch No.: 383299
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	DL
124-38-9	Carbon dioxide	34700		12000	2600

Report Date: 06-Jun-2023 16:34:35

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0009.d				
Lims ID:	LCS 410-383371/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	06-Jun-2023 11:25:00	ALS Bottle#:	0	Worklist Smp#:	9
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0085856-009				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	06-Jun-2023 16:34:33	Calib Date:	27-Apr-2023 10:37:00		
Integrator:	Genie				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d				
Column 1 :	HP Plot (0.00 mm)		Det: 0FIDA		
Process Host:	CTX1667				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.052	2.054	-0.002	114142608	H 35820	34693	

Chrom Revision: 2.3 05-Jun-2023 19:02:10

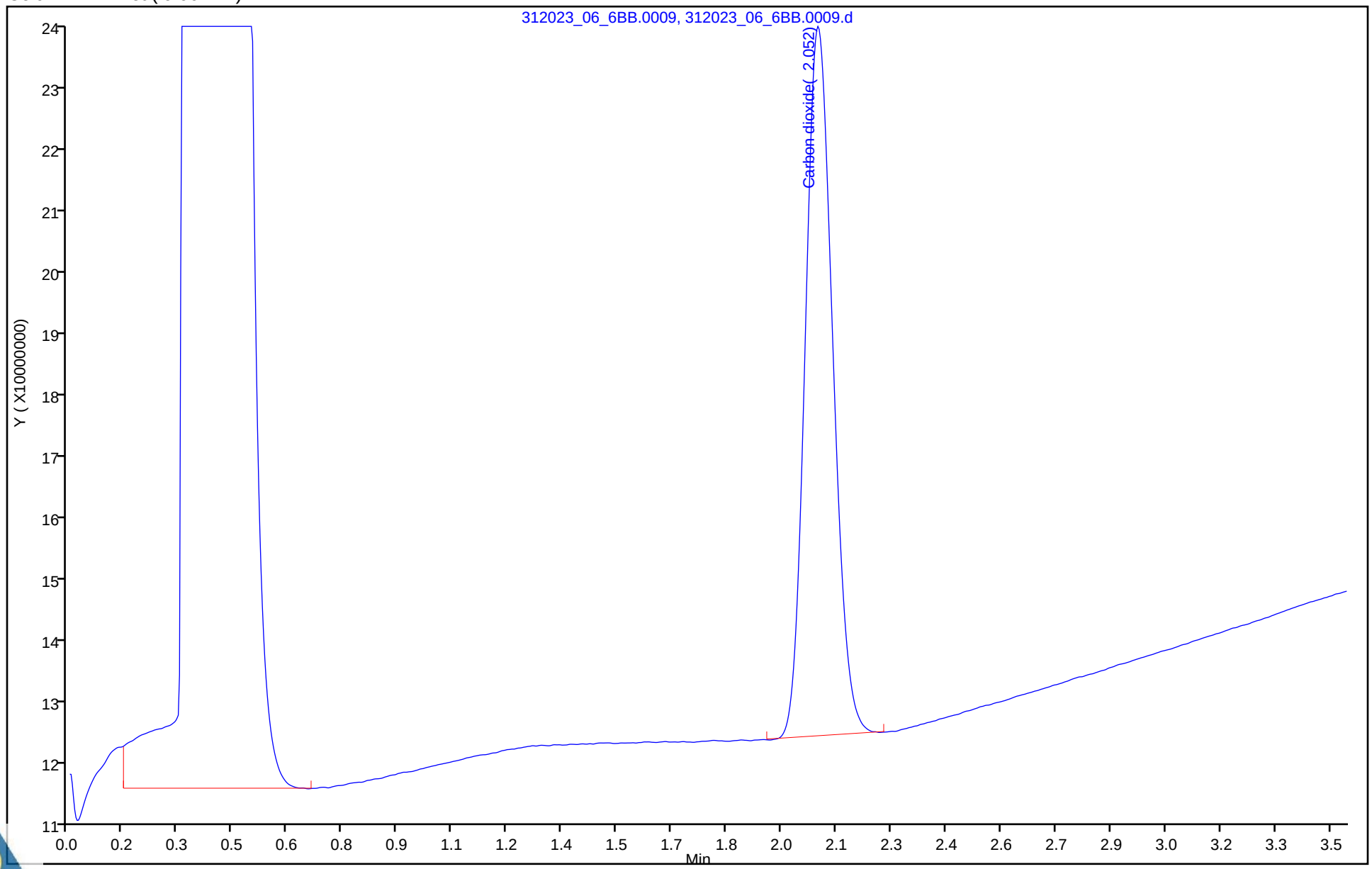
Report Date: 06-Jun-2023 16:34:35 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20230606-85856.b\312023_06_6BB.0009.d

Injection Date:	06-Jun-2023 11:25:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	LCS 410-383371/2-A			Worklist Smp#:	9
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: HP Plot (0.00 mm)



GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128291-1

SDG No.:

Instrument ID: 19506-B Start Date: 04/27/2023 09:16

Analysis Batch Number: 369251 End Date: 04/27/2023 17:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PIBLK 410-369251/3		04/27/2023 09:16	1		HP Plot 0.53(mm)
IC 410-369251/5		04/27/2023 09:59	1	312023_04_27BB.0005.d	HP Plot 0.53(mm)
IC 410-369251/6		04/27/2023 10:06	1	312023_04_27BB.0006.d	HP Plot 0.53(mm)
ICRT 410-369251/7		04/27/2023 10:14	1	312023_04_27BB.0007.d	HP Plot 0.53(mm)
IC 410-369251/8		04/27/2023 10:22	1	312023_04_27BB.0008.d	HP Plot 0.53(mm)
IC 410-369251/9		04/27/2023 10:30	1	312023_04_27BB.0009.d	HP Plot 0.53(mm)
IC 410-369251/10		04/27/2023 10:37	1	312023_04_27BB.0010.d	HP Plot 0.53(mm)
PIBLK 410-369251/11		04/27/2023 10:45	1		HP Plot 0.53(mm)
ICVL 410-369251/12		04/27/2023 10:53	1		HP Plot 0.53(mm)
ICV 410-369251/13		04/27/2023 11:01	1	312023_04_27BB.0013.d	HP Plot 0.53(mm)
ZZZZZ		04/27/2023 11:45	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 11:52	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 12:01	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 12:08	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 12:16	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 12:24	1		HP Plot 0.53(mm)
CCV 410-369251/20		04/27/2023 12:31	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 13:03	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 13:10	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 13:18	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 13:26	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 13:33	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 13:41	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 13:49	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 13:57	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 14:04	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 14:12	1		HP Plot 0.53(mm)
CCV 410-369251/31		04/27/2023 14:20	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 14:38	1		HP Plot 0.53(mm)
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ZZZZZ		04/27/2023 15:15	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 15:23	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 15:31	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 15:39	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 15:47	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 15:56	1		HP Plot 0.53(mm)
CCV 410-369251/42		04/27/2023 16:04	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 16:12	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 16:20	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 16:28	1		HP Plot 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128291-1

SDG No.:

Instrument ID: 19506-B Start Date: 04/27/2023 09:16

Analysis Batch Number: 369251 End Date: 04/27/2023 17:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/27/2023 16:37	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 16:45	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 16:53	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 17:01	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 17:09	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 17:18	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 17:26	1		HP Plot 0.53(mm)
CCV 410-369251/53		04/27/2023 17:34	1		HP Plot 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-128291-1

SDG No.:

Instrument ID: 19506-B Start Date: 06/06/2023 10:41

Analysis Batch Number: 383299 End Date: 06/06/2023 16:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 410-383299/5		06/06/2023 10:41	1	312023_06_6BB.0005.d	HP Plot 0.53(mm)
MB 410-383339/1-A		06/06/2023 11:01	1	312023_06_6BB.0006.d	HP Plot 0.53(mm)
MB 410-383371/1-A		06/06/2023 11:17	1	312023_06_6BB.0008.d	HP Plot 0.53(mm)
LCS 410-383371/2-A		06/06/2023 11:25	1	312023_06_6BB.0009.d	HP Plot 0.53(mm)
CCV 410-383299/16		06/06/2023 13:07	1	312023_06_6BB.0016.d	HP Plot 0.53(mm)
ZZZZZ		06/06/2023 14:10	1		HP Plot 0.53(mm)
CCV 410-383299/25		06/06/2023 14:18	1	312023_06_6BB.0025.d	HP Plot 0.53(mm)
410-128291-1	50WW13_052423	06/06/2023 14:32	1	312023_06_6BB.0026.d	HP Plot 0.53(mm)
410-128291-2	50WW11_052423	06/06/2023 14:40	1	312023_06_6BB.0027.d	HP Plot 0.53(mm)
410-128291-3	50WW06_052423	06/06/2023 14:48	1	312023_06_6BB.0028.d	HP Plot 0.53(mm)
ZZZZZ		06/06/2023 14:56	1		HP Plot 0.53(mm)
ZZZZZ		06/06/2023 15:04	1		HP Plot 0.53(mm)
ZZZZZ		06/06/2023 15:12	1		HP Plot 0.53(mm)
ZZZZZ		06/06/2023 15:20	1		HP Plot 0.53(mm)
ZZZZZ		06/06/2023 15:28	1		HP Plot 0.53(mm)
ZZZZZ		06/06/2023 15:35	1		HP Plot 0.53(mm)
ZZZZZ		06/06/2023 15:43	1		HP Plot 0.53(mm)
CCV 410-383299/36		06/06/2023 15:51	1	312023_06_6BB.0036.d	HP Plot 0.53(mm)
ZZZZZ		06/06/2023 16:04	1		HP Plot 0.53(mm)
CCV 410-383299/38		06/06/2023 16:12	1		HP Plot 0.53(mm)

GC VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-128291-1

SDG No.:

Batch Number: 369251 Batch Start Date: 04/27/23 09:16 Batch Analyst: Kennedy, Johanna C

Batch Method: RSK-175 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EPH_CO2ICV 00002	EPH_CO2MS 00004		
IC 410-369251/5		RSK-175		5 mL	5 mL		30 uL		
IC 410-369251/6		RSK-175		5 mL	5 mL		60 uL		
ICRT 410-369251/7		RSK-175		5 mL	5 mL		100 uL		
IC 410-369251/8		RSK-175		5 mL	5 mL		250 uL		
IC 410-369251/9		RSK-175		5 mL	5 mL		500 uL		
IC 410-369251/10		RSK-175		5 mL	5 mL		1000 uL		
ICV 410-369251/13		RSK-175		5 mL	5 mL	320 uL			

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-128291-1

SDG No.:

Batch Number: 383339 Batch Start Date: 06/06/23 08:57 Batch Analyst: Omorogbe, Malachi

Batch Method: 8015 HS Prep Batch End Date: 06/06/23 11:43

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
MB 410-383339/1		8015 HS Prep, RSK-175		5 mL	5 mL				

Batch Notes	
Pipette/Syringe/Dispenser ID	7105
pH Indicator ID	10BDH4321

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-128291-1

SDG No.:

Batch Number: 383371 Batch Start Date: 06/06/23 09:48 Batch Analyst: Omorogbe, Malachi

Batch Method: RSK-175 Batch End Date: 06/06/23 14:41

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	Headspace	EPH_CO2MS 00004	
MB 410-383371/1		RSK-175, RSK-175			5 mL	5 mL			
LCS 410-383371/2		RSK-175, RSK-175			5 mL	5 mL		0.1 mL	
410-128291-A-1	50WW13_052423	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	No		
410-128291-A-2	50WW11_052423	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	No		
410-128291-A-3	50WW06_052423	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	No		

Batch Notes	
Pipette/Syringe/Dispenser ID	7105
pH Indicator ID	10BDH4321

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents



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: Texas **COC ID:** 21838

SUBCONTRACT TO:

Eurofins Lancaster Laboratories Envt Testing
2425 New Holland Pike
Lancaster, PA 17601

Phone: +1 717 656 2300

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@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:	HS23051708
TSR:	Holly Tignac

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23051708-04**	**50WW13_052423**	**Groundwater**	**24 May 2023 09:05**
	RSK-CO2; Level II & IV, DoD, EQUIS LHAAP EDD (Aptim)			09 Jun 2023
2.	**HS23051708-05**	**50WW11_052423**	**Groundwater**	**24 May 2023 09:55**
	RSK-CO2; Level II & IV, DoD, EQUIS LHAAP EDD (Aptim)			09 Jun 2023
3.	**HS23051708-06**	**50WW06_052423**	**Groundwater**	**24 May 2023 10:50**
	RSK-CO2; Level II & IV, DoD, EQUIS LHAAP EDD (Aptim)			09 Jun 2023

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

QC Level: DOD IV (DoD Data Package)

Relinquished By:	CG	Date/Time:	5.25.23 1800
Received By:		Date/Time:	5/26/23 0945
Cooler ID(s):		Temperature(s):	raw: 3.8 cor: 3.1

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10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
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Purchase Order

PO: HS23051708

VENDOR:

Eurofins Lancaster Laboratories Envt Testing
2425 New Holland Pike
Lancaster, PA 17601

Phone: +1 717 656 2300

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@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:	21838
TSR:	Holly Tignac

Item	Catalog No	Unit Price	Quantity	Ext Price
1. RSK-CO2; Level II & IV, DoD, EQUIS LHAAP EDD (Aptim)	NA	$125.00	3	$375.00
			Order Total:	$375.00

Login Sample Receipt Checklist

Client: ALS Group USA, Corp

Job Number: 410-128291-1

Login Number: 128291
List Number: 1
Creator: McBeth, Jessica

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	True	

HS23051834 LHAAP 50 Cover Page

ALS WO# HS23051834

ALS Environmental
ALS Group USA, Corp
10450 Stancliff Road, Suite 210
Houston, TX 77099
T : +1 281 530 5656
F : +1 281 530 5887
www.alsglobal.com

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  - 50WW12_052523
  - 50WW12_052523_a
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Form 3B - LCS/LCSD

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Form 7 - CCV

Form 8 - ISTD

Run Log

Raw Data VOA9 433802

Raw Data VOA9 436716

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HS23051834-GCSEMI-RSK-175

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HS23051834 Wetchem 9056_W

HS23051834 Wetchem TOC_W

HS23051834-E2300519 Perchlorate Final Report Level IV

CoverLetter

Certificate of Analysis

Chain of Custody

Preparation Sheets

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
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right solutions.
right partner.

WorkOrder: HS23051834

LHAAP 50

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

09-Jun-2023

HS23051834 LHAAP 50 Final REV01

ALS WO# HS23051834

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

June 21, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23051834**

Laboratory Results for: **LHAAP 50**

Dear Marcia Olive,

ALS Environmental received 10 sample(s) on May 26, 2023 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
James Guin

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Work Order: HS23051834

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23051834-01	50WW23_052523	Groundwater		25-May-2023 07:10	26-May-2023 10:00	☐
HS23051834-02	50WW12_052523	Groundwater		25-May-2023 07:55	26-May-2023 10:00	☐
HS23051834-03	50WW12_052523_a	Groundwater		25-May-2023 07:55	26-May-2023 10:00	☐
HS23051834-04	50WW14_052523	Groundwater		25-May-2023 08:55	26-May-2023 10:00	☐
HS23051834-05	50WW05_052523	Groundwater		25-May-2023 09:55	26-May-2023 10:00	☐
HS23051834-06	50WW15_052523	Groundwater		25-May-2023 10:35	26-May-2023 10:00	☐
HS23051834-07	50WW16_052523	Groundwater		25-May-2023 11:20	26-May-2023 10:00	☐
HS23051834-08	50WW16_052523_a	Groundwater		25-May-2023 12:05	26-May-2023 10:00	☐
HS23051834-09	50WW18_052523	Groundwater		25-May-2023 00:00	26-May-2023 10:00	☐
HS23051834-10	Trip Blank	Water	cg-041923-522	25-May-2023 00:00	26-May-2023 10:00	☐

Revision:1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: LHAAP 50
Work Order: HS23051834

Work Order Comments

- Client requested Nitrite analysis be removed from the report.

Work Order Comments

- The analysis for CO2 by RSK175 was subcontracted to Eurofin Lancaster Analytical Lab in Lancaster, PA Final report attached.
- The analysis for Perchlorate was subcontracted to our ALS Houston TX, High Resolution Lab. Final report attached.

GC Semivolatiles by Method RSK-175

Batch ID: R436671

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

GCMS Volatiles by Method SW8260

Batch ID: R436716

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

Batch ID: R436835

Sample ID: HS23051984-01MS

- MS/MSD was performed on an unrelated sample.

WetChemistry by Method E415.1

Batch ID: R437365

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

WetChemistry by Method SW9056

Batch ID: R436436

Sample ID: 50WW14_052523 (HS23051834-04MS)

- The MS and/or MSD recovery was outside of the control limits; however, the result in the parent sample is greater than 4x the spike amount. (Chloride,Sulfate)

Sample ID: 50WW14_052523 (HS23051834-04MS/MSD)

- The recovery of the Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) associated with this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS/MSD may be due to sample matrix interference. (Nitrogen, Nitrite (As N))

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: 50WW23_052523
Collection Date: 25-May-2023 07:10

ANALYTICAL REPORT
WorkOrder:HS23051834
Lab ID:HS23051834-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 14:00
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 14:00
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 14:00
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	31-May-2023 14:00
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 14:00
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 14:00
Surr: 1,2-Dichloroethane-d4	*85.5*			**0**	*81-118*	*%REC*	*1*	*31-May-2023 14:00*
Surr: 4-Bromofluorobenzene	*90.5*			**0**	*85-114*	*%REC*	*1*	*31-May-2023 14:00*
Surr: Dibromofluoromethane	*88.2*			**0**	*80-119*	*%REC*	*1*	*31-May-2023 14:00*
Surr: Toluene-d8	*98.5*			**0**	*89-112*	*%REC*	*1*	*31-May-2023 14:00*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	08-Jun-2023 15:34

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: 50WW12_052523
Collection Date: 25-May-2023 07:55

ANALYTICAL REPORT
WorkOrder:HS23051834
Lab ID:HS23051834-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1-Dichloroethene	**19**		**0.20**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 15:29
1,2-Dichloroethane	**6.3**		**0.20**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 15:29
cis-1,2-Dichloroethene	**1.6**		**0.20**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 15:29
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	31-May-2023 15:29
Trichloroethene	**1,100**		**5.0**	**12**	**25**	**ug/L**	25	01-Jun-2023 17:20
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 15:29
Surr: 1,2-Dichloroethane-d4	*85.5*			**0**	*81-118*	*%REC*	*1*	*31-May-2023 15:29*
Surr: 1,2-Dichloroethane-d4	*81.6*			**0**	*81-118*	*%REC*	*25*	*01-Jun-2023 17:20*
Surr: 4-Bromofluorobenzene	*90.1*			**0**	*85-114*	*%REC*	*1*	*31-May-2023 15:29*
Surr: 4-Bromofluorobenzene	*90.2*			**0**	*85-114*	*%REC*	*25*	*01-Jun-2023 17:20*
Surr: Dibromofluoromethane	*88.8*			**0**	*80-119*	*%REC*	*1*	*31-May-2023 15:29*
Surr: Dibromofluoromethane	*87.0*			**0**	*80-119*	*%REC*	*25*	*01-Jun-2023 17:20*
Surr: Toluene-d8	*99.1*			**0**	*89-112*	*%REC*	*1*	*31-May-2023 15:29*
Surr: Toluene-d8	*99.6*			**0**	*89-112*	*%REC*	*25*	*01-Jun-2023 17:20*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: SAM
Ethane	0.500	U	0.144	0.500	1.00	ug/L	1	30-May-2023 16:24
Ethene	0.500	U	0.234	0.500	1.00	ug/L	1	30-May-2023 16:24
Methane	**14,800**		**53.5**	**250**	**250**	**ug/L**	500	30-May-2023 16:46
TOTAL ORGANIC CARBON BY E415.1		**Method:E415.1**						Analyst: DW
Organic Carbon, Total	**2.05**		**0.500**	**1.00**	**1.00**	**mg/L**	1	07-Jun-2023 22:09
ANIONS BY SW9056A		**Method:SW9056**						Analyst: TH
Chloride	**1,150**		**4.00**	**5.00**	**10.0**	**mg/L**	20	27-May-2023 00:18
Nitrogen, Nitrate (As N)	**0.164**		**0.0300**	**0.0500**	**0.100**	**mg/L**	1	27-May-2023 00:12
Sulfate	**616**		**4.00**	**5.00**	**10.0**	**mg/L**	20	27-May-2023 00:18
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	08-Jun-2023 15:34
SUBCONTRACT ANALYSIS - RSK		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	13-Jun-2023 15:37

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: 50WW12_052523_a
Collection Date: 25-May-2023 07:55

ANALYTICAL REPORT
WorkOrder:HS23051834
Lab ID:HS23051834-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1-Dichloroethene	**19**		**0.20**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 15:51
1,2-Dichloroethane	**6.6**		**0.20**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 15:51
cis-1,2-Dichloroethene	**1.6**		**0.20**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 15:51
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	31-May-2023 15:51
Trichloroethene	**1,100**		**5.0**	**12**	**25**	**ug/L**	25	01-Jun-2023 17:42
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 15:51
Surr: 1,2-Dichloroethane-d4	*83.3*			**0**	*81-118*	*%REC*	*1*	*31-May-2023 15:51*
Surr: 1,2-Dichloroethane-d4	*82.9*			**0**	*81-118*	*%REC*	*25*	*01-Jun-2023 17:42*
Surr: 4-Bromofluorobenzene	*90.4*			**0**	*85-114*	*%REC*	*1*	*31-May-2023 15:51*
Surr: 4-Bromofluorobenzene	*88.9*			**0**	*85-114*	*%REC*	*25*	*01-Jun-2023 17:42*
Surr: Dibromofluoromethane	*88.0*			**0**	*80-119*	*%REC*	*1*	*31-May-2023 15:51*
Surr: Dibromofluoromethane	*88.2*			**0**	*80-119*	*%REC*	*25*	*01-Jun-2023 17:42*
Surr: Toluene-d8	*99.5*			**0**	*89-112*	*%REC*	*1*	*31-May-2023 15:51*
Surr: Toluene-d8	*99.7*			**0**	*89-112*	*%REC*	*25*	*01-Jun-2023 17:42*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: SAM
Ethane	0.500	U	0.144	0.500	1.00	ug/L	1	30-May-2023 16:37
Ethene	0.500	U	0.234	0.500	1.00	ug/L	1	30-May-2023 16:37
Methane	**12,100**		**53.5**	**250**	**250**	**ug/L**	500	30-May-2023 17:09
TOTAL ORGANIC CARBON BY E415.1		**Method:E415.1**						Analyst: DW
Organic Carbon, Total	**1.96**		**0.500**	**1.00**	**1.00**	**mg/L**	1	07-Jun-2023 22:49
ANIONS BY SW9056A		**Method:SW9056**						Analyst: TH
Chloride	**1,150**		**4.00**	**5.00**	**10.0**	**mg/L**	20	27-May-2023 00:29
Nitrogen, Nitrate (As N)	**0.157**		**0.0300**	**0.0500**	**0.100**	**mg/L**	1	27-May-2023 00:24
Sulfate	**613**		**4.00**	**5.00**	**10.0**	**mg/L**	20	27-May-2023 00:29
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	08-Jun-2023 15:34
SUBCONTRACT ANALYSIS - RSK		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	13-Jun-2023 15:37

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: 50WW14_052523
Collection Date: 25-May-2023 08:55

ANALYTICAL REPORT
WorkOrder:HS23051834
Lab ID:HS23051834-04
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 13:15
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 13:15
cis-1,2-Dichloroethene	**2.1**		**0.20**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 13:15
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	31-May-2023 13:15
Trichloroethene	**20**		**0.20**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 13:15
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 13:15
Surr: 1,2-Dichloroethane-d4	*85.2*			**0**	*81-118*	*%REC*	*1*	*31-May-2023 13:15*
Surr: 4-Bromofluorobenzene	*90.7*			**0**	*85-114*	*%REC*	*1*	*31-May-2023 13:15*
Surr: Dibromofluoromethane	*89.1*			**0**	*80-119*	*%REC*	*1*	*31-May-2023 13:15*
Surr: Toluene-d8	*98.3*			**0**	*89-112*	*%REC*	*1*	*31-May-2023 13:15*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: SAM
Ethane	0.500	U	0.144	0.500	1.00	ug/L	1	30-May-2023 10:16
Ethene	0.500	U	0.234	0.500	1.00	ug/L	1	30-May-2023 10:16
Methane	**6.76**		**0.107**	**0.500**	**0.500**	**ug/L**	1	30-May-2023 10:16
TOTAL ORGANIC CARBON BY E415.1		**Method:E415.1**						Analyst: DW
Organic Carbon, Total	**1.41**		**0.500**	**1.00**	**1.00**	**mg/L**	1	07-Jun-2023 23:01
ANIONS BY SW9056A		**Method:SW9056**						Analyst: TH
Chloride	**409**		**2.00**	**2.50**	**5.00**	**mg/L**	10	27-May-2023 01:16
Nitrogen, Nitrate (As N)	0.0500	U	0.0300	0.0500	0.100	mg/L	1	27-May-2023 00:59
Sulfate	**408**		**2.00**	**2.50**	**5.00**	**mg/L**	10	27-May-2023 01:16
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	08-Jun-2023 15:34
SUBCONTRACT ANALYSIS - RSK		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	13-Jun-2023 15:37

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: 50WW05_052523
Collection Date: 25-May-2023 09:55

ANALYTICAL REPORT
WorkOrder:HS23051834
Lab ID:HS23051834-05
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1-Dichloroethene	**3.1**		**0.20**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 16:14
1,2-Dichloroethane	**1.2**		**0.20**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 16:14
cis-1,2-Dichloroethene	**130**		**0.20**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 16:14
Tetrachloroethene	**0.65**	J	**0.30**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 16:14
Trichloroethene	**130**		**0.20**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 16:14
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 16:14
Surr: 1,2-Dichloroethane-d4	*85.9*			**0**	*81-118*	*%REC*	*1*	*31-May-2023 16:14*
Surr: 4-Bromofluorobenzene	*89.1*			**0**	*85-114*	*%REC*	*1*	*31-May-2023 16:14*
Surr: Dibromofluoromethane	*88.8*			**0**	*80-119*	*%REC*	*1*	*31-May-2023 16:14*
Surr: Toluene-d8	*98.7*			**0**	*89-112*	*%REC*	*1*	*31-May-2023 16:14*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	08-Jun-2023 15:34

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: 50WW15_052523
Collection Date: 25-May-2023 10:35

ANALYTICAL REPORT
WorkOrder:HS23051834
Lab ID:HS23051834-06
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 14:22
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 14:22
cis-1,2-Dichloroethene	**3.2**		**0.20**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 14:22
Tetrachloroethene	**1.4**		**0.30**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 14:22
Trichloroethene	**6.1**		**0.20**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 14:22
Vinyl chloride	**0.52**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	31-May-2023 14:22
Surr: 1,2-Dichloroethane-d4	*86.8*			**0**	*81-118*	*%REC*	*1*	*31-May-2023 14:22*
Surr: 4-Bromofluorobenzene	*92.4*			**0**	*85-114*	*%REC*	*1*	*31-May-2023 14:22*
Surr: Dibromofluoromethane	*90.2*			**0**	*80-119*	*%REC*	*1*	*31-May-2023 14:22*
Surr: Toluene-d8	*98.9*			**0**	*89-112*	*%REC*	*1*	*31-May-2023 14:22*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	08-Jun-2023 15:34

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: 50WW16_052523
Collection Date: 25-May-2023 11:20

ANALYTICAL REPORT
WorkOrder:HS23051834
Lab ID:HS23051834-07
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 14:44
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 14:44
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 14:44
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	31-May-2023 14:44
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 14:44
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 14:44
Surr: 1,2-Dichloroethane-d4	*84.1*			**0**	*81-118*	*%REC*	*1*	*31-May-2023 14:44*
Surr: 4-Bromofluorobenzene	*88.6*			**0**	*85-114*	*%REC*	*1*	*31-May-2023 14:44*
Surr: Dibromofluoromethane	*88.8*			**0**	*80-119*	*%REC*	*1*	*31-May-2023 14:44*
Surr: Toluene-d8	*98.3*			**0**	*89-112*	*%REC*	*1*	*31-May-2023 14:44*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	08-Jun-2023 15:34

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: 50WW16_052523_a
Collection Date: 25-May-2023 12:05

ANALYTICAL REPORT
WorkOrder:HS23051834
Lab ID:HS23051834-08
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	01-Jun-2023 16:58
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	01-Jun-2023 16:58
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	01-Jun-2023 16:58
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	01-Jun-2023 16:58
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	01-Jun-2023 16:58
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	01-Jun-2023 16:58
Surr: 1,2-Dichloroethane-d4	*82.2*			**0**	*81-118*	*%REC*	*1*	*01-Jun-2023 16:58*
Surr: 4-Bromofluorobenzene	*90.4*			**0**	*85-114*	*%REC*	*1*	*01-Jun-2023 16:58*
Surr: Dibromofluoromethane	*86.3*			**0**	*80-119*	*%REC*	*1*	*01-Jun-2023 16:58*
Surr: Toluene-d8	*99.3*			**0**	*89-112*	*%REC*	*1*	*01-Jun-2023 16:58*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	08-Jun-2023 15:34

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: 50WW18_052523
Collection Date: 25-May-2023 00:00

ANALYTICAL REPORT
WorkOrder:HS23051834
Lab ID:HS23051834-09
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 15:07
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 15:07
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 15:07
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	31-May-2023 15:07
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 15:07
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 15:07
Surr: 1,2-Dichloroethane-d4	*85.6*			**0**	*81-118*	*%REC*	*1*	*31-May-2023 15:07*
Surr: 4-Bromofluorobenzene	*91.0*			**0**	*85-114*	*%REC*	*1*	*31-May-2023 15:07*
Surr: Dibromofluoromethane	*88.6*			**0**	*80-119*	*%REC*	*1*	*31-May-2023 15:07*
Surr: Toluene-d8	*98.1*			**0**	*89-112*	*%REC*	*1*	*31-May-2023 15:07*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	08-Jun-2023 15:34

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
Sample ID: Trip Blank
Collection Date: 25-May-2023 00:00

ANALYTICAL REPORT
WorkOrder:HS23051834
Lab ID:HS23051834-10
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 12:53
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 12:53
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 12:53
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	31-May-2023 12:53
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 12:53
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	31-May-2023 12:53
Surr: 1,2-Dichloroethane-d4	*83.5*			**0**	*81-118*	*%REC*	*1*	*31-May-2023 12:53*
Surr: 4-Bromofluorobenzene	*89.0*			**0**	*85-114*	*%REC*	*1*	*31-May-2023 12:53*
Surr: Dibromofluoromethane	*86.9*			**0**	*80-119*	*%REC*	*1*	*31-May-2023 12:53*
Surr: Toluene-d8	*98.1*			**0**	*89-112*	*%REC*	*1*	*31-May-2023 12:53*

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051834

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R436436 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Groundwater	
HS23051834-02	50WW12_052523	25 May 2023 07:55			27 May 2023 00:18	20
HS23051834-02	50WW12_052523	25 May 2023 07:55			27 May 2023 00:12	1
HS23051834-03	50WW12_052523_a	25 May 2023 07:55			27 May 2023 00:29	20
HS23051834-03	50WW12_052523_a	25 May 2023 07:55			27 May 2023 00:24	1
HS23051834-04	50WW14_052523	25 May 2023 08:55			27 May 2023 01:16	10
HS23051834-04	50WW14_052523	25 May 2023 08:55			27 May 2023 00:59	1
Batch ID: R436671 (0)	**Test Name :** DISSOLVED GASES BY RSK-175				**Matrix:** Groundwater	
HS23051834-02	50WW12_052523	25 May 2023 07:55			30 May 2023 16:46	500
HS23051834-02	50WW12_052523	25 May 2023 07:55			30 May 2023 16:24	1
HS23051834-03	50WW12_052523_a	25 May 2023 07:55			30 May 2023 17:09	500
HS23051834-03	50WW12_052523_a	25 May 2023 07:55			30 May 2023 16:37	1
HS23051834-04	50WW14_052523	25 May 2023 08:55			30 May 2023 10:16	1
Batch ID: R436716 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS23051834-10	Trip Blank	25 May 2023 00:00			31 May 2023 12:53	1
Batch ID: R436716 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS23051834-01	50WW23_052523	25 May 2023 07:10			31 May 2023 14:00	1
HS23051834-02	50WW12_052523	25 May 2023 07:55			31 May 2023 15:29	1
HS23051834-03	50WW12_052523_a	25 May 2023 07:55			31 May 2023 15:51	1
HS23051834-04	50WW14_052523	25 May 2023 08:55			31 May 2023 13:15	1
HS23051834-05	50WW05_052523	25 May 2023 09:55			31 May 2023 16:14	1
HS23051834-06	50WW15_052523	25 May 2023 10:35			31 May 2023 14:22	1
HS23051834-07	50WW16_052523	25 May 2023 11:20			31 May 2023 14:44	1
HS23051834-09	50WW18_052523	25 May 2023 00:00			31 May 2023 15:07	1
Batch ID: R436835 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS23051834-02	50WW12_052523	25 May 2023 07:55			01 Jun 2023 17:20	25
HS23051834-03	50WW12_052523_a	25 May 2023 07:55			01 Jun 2023 17:42	25
HS23051834-08	50WW16_052523_a	25 May 2023 12:05			01 Jun 2023 16:58	1
Batch ID: R437365 (0)	**Test Name :** TOTAL ORGANIC CARBON BY E415.1				**Matrix:** Groundwater	
HS23051834-02	50WW12_052523	25 May 2023 07:55			07 Jun 2023 22:09	1
HS23051834-03	50WW12_052523_a	25 May 2023 07:55			07 Jun 2023 22:49	1
HS23051834-04	50WW14_052523	25 May 2023 08:55			07 Jun 2023 23:01	1

Revision: 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051834

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R437432 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Groundwater	
HS23051834-01	50WW23_052523	25 May 2023 07:10			08 Jun 2023 15:34	1
HS23051834-02	50WW12_052523	25 May 2023 07:55			08 Jun 2023 15:34	1
HS23051834-03	50WW12_052523_a	25 May 2023 07:55			08 Jun 2023 15:34	1
HS23051834-04	50WW14_052523	25 May 2023 08:55			08 Jun 2023 15:34	1
HS23051834-05	50WW05_052523	25 May 2023 09:55			08 Jun 2023 15:34	1
HS23051834-06	50WW15_052523	25 May 2023 10:35			08 Jun 2023 15:34	1
HS23051834-07	50WW16_052523	25 May 2023 11:20			08 Jun 2023 15:34	1
HS23051834-08	50WW16_052523_a	25 May 2023 12:05			08 Jun 2023 15:34	1
HS23051834-09	50WW18_052523	25 May 2023 00:00			08 Jun 2023 15:34	1
Batch ID: R437733 (0)	**Test Name :** SUBCONTRACT ANALYSIS - RSK				**Matrix:** Groundwater	
HS23051834-02	50WW12_052523	25 May 2023 07:55			13 Jun 2023 15:37	1
HS23051834-03	50WW12_052523_a	25 May 2023 07:55			13 Jun 2023 15:37	1
HS23051834-04	50WW14_052523	25 May 2023 08:55			13 Jun 2023 15:37	1

Revision: 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051834

QC BATCH REPORT

Batch ID: R436671 (0) **Instrument:** FID-4 **Method:** DISSOLVED GASES BY RSK-175

MBLK Sample ID: **MBLK-230530** Units: **ug/L** Analysis Date: **30-May-2023 09:36**
Client ID: Run ID: **FID-4_436671** SeqNo: **7332634** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.500	1.00								U
Ethene	0.500	1.00								U
Methane	0.500	0.500								U

LCS Sample ID: **LCS-230530** Units: **ug/L** Analysis Date: **30-May-2023 09:50**
Client ID: Run ID: **FID-4_436671** SeqNo: **7332635** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	20.91	1.00	18.04	0	116	74 - 131				
Ethene	17.24	1.00	16.8	0	103	72 - 133				
Methane	8.486	0.500	9.647	0	88.0	73 - 125				

LCSD Sample ID: **LCSD-230530** Units: **ug/L** Analysis Date: **30-May-2023 10:06**
Client ID: Run ID: **FID-4_436671** SeqNo: **7332636** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	20.78	1.00	18.04	0	115	74 - 131	20.91	0.62	30	
Ethene	17.64	1.00	16.8	0	105	72 - 133	17.24	2.3	30	
Methane	8.732	0.500	9.647	0	90.5	73 - 125	8.486	2.86	30	

MS Sample ID: **HS23051834-04MS** Units: **ug/L** Analysis Date: **30-May-2023 10:43**
Client ID: **50WW14_052523** Run ID: **FID-4_436671** SeqNo: **7332638** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	18.94	1.00	18.04	0	105	74 - 131				
Ethene	16.83	1.00	16.8	0	100	72 - 133				
Methane	14.52	0.500	9.647	6.763	80.4	73 - 125				

Revision: 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051834

QC BATCH REPORT

Batch ID: R436671 (0) **Instrument:** FID-4 **Method:** DISSOLVED GASES BY RSK-175

MSD Sample ID: **HS23051834-04MSD** Units: **ug/L** Analysis Date: **30-May-2023 10:52**
Client ID: **50WW14_052523** Run ID: **FID-4_436671** SeqNo: **7332639** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	18.7	1.00	18.04	0	104	74 - 131	18.94	1.28	30	
Ethene	16.79	1.00	16.8	0	99.9	72 - 133	16.83	0.244	30	
Methane	14.13	0.500	9.647	6.763	76.4	73 - 125	14.52	2.69	30	

The following samples were analyzed in this batch: HS23051834-02 HS23051834-03 HS23051834-04

Revision: 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051834

QC BATCH REPORT

Batch ID: R436716 (0) **Instrument: VOA9** **Method: VOLATILES ORGANICS BY METHOD 8260C**

MBLK Sample ID: **VBLKW-230531** Units: **ug/L** Analysis Date: **31-May-2023 12:30**
Client ID: Run ID: **VOA9_436716** SeqNo: **7333615** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
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
Tetrachloroethene	0.50	1.0								U
Trichloroethene	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*41.84*	*1.0*	*50*	*0*	*83.7*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*46.28*	*1.0*	*50*	*0*	*92.6*	*85 - 114*				
Surr: Dibromofluoromethane	*43.6*	*1.0*	*50*	*0*	*87.2*	*80 - 119*				
Surr: Toluene-d8	*50.08*	*1.0*	*50*	*0*	*100*	*89 - 112*				

LCS Sample ID: **VLCSW-230531** Units: **ug/L** Analysis Date: **31-May-2023 11:45**
Client ID: Run ID: **VOA9_436716** SeqNo: **7333614** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	20.26	1.0	20	0	101	71 - 131				
1,2-Dichloroethane	20.5	1.0	20	0	102	73 - 128				
cis-1,2-Dichloroethene	20.3	1.0	20	0	101	78 - 123				
Tetrachloroethene	21.36	1.0	20	0	107	74 - 129				
Trichloroethene	20.23	1.0	20	0	101	79 - 123				
Vinyl chloride	21.22	1.0	20	0	106	58 - 137				
Surr: 1,2-Dichloroethane-d4	*45.22*	*1.0*	*50*	*0*	*90.4*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*45.43*	*1.0*	*50*	*0*	*90.9*	*85 - 114*				
Surr: Dibromofluoromethane	*48.27*	*1.0*	*50*	*0*	*96.5*	*80 - 119*				
Surr: Toluene-d8	*46.6*	*1.0*	*50*	*0*	*93.2*	*89 - 112*				

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051834

QC BATCH REPORT

Batch ID: R436716 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23051834-04MS** Units: **ug/L** Analysis Date: **31-May-2023 16:59**
Client ID: **50WW14_052523** Run ID: **VOA9_436716** SeqNo: **7333626** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	18.15	1.0	20	0	90.7	71 - 131				
1,2-Dichloroethane	18.25	1.0	20	0	91.2	73 - 128				
cis-1,2-Dichloroethene	19.25	1.0	20	2.148	85.5	78 - 123				
Tetrachloroethene	23.56	1.0	20	0	118	74 - 129				
Trichloroethene	40.53	1.0	20	19.6	105	79 - 123				
Vinyl chloride	14.24	1.0	20	0	71.2	58 - 137				
Surr: 1,2-Dichloroethane-d4	*41.12*	*1.0*	*50*	*0*	*82.2*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*47.97*	*1.0*	*50*	*0*	*95.9*	*85 - 114*				
Surr: Dibromofluoromethane	*44.45*	*1.0*	*50*	*0*	*88.9*	*80 - 119*				
Surr: Toluene-d8	*50.08*	*1.0*	*50*	*0*	*100*	*89 - 112*				

MSD Sample ID: **HS23051834-04MSD** Units: **ug/L** Analysis Date: **31-May-2023 17:21**
Client ID: **50WW14_052523** Run ID: **VOA9_436716** SeqNo: **7333627** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	17.9	1.0	20	0	89.5	71 - 131	18.15	1.37	20	
1,2-Dichloroethane	17.28	1.0	20	0	86.4	73 - 128	18.25	5.46	20	
cis-1,2-Dichloroethene	19.34	1.0	20	2.148	86.0	78 - 123	19.25	0.437	20	
Tetrachloroethene	24.79	1.0	20	0	124	74 - 129	23.56	5.06	20	
Trichloroethene	39.48	1.0	20	19.6	99.4	79 - 123	40.53	2.62	20	
Vinyl chloride	14.17	1.0	20	0	70.9	58 - 137	14.24	0.458	20	
Surr: 1,2-Dichloroethane-d4	*40.98*	*1.0*	*50*	*0*	*82.0*	*81 - 118*	*41.12*	*0.329*	*20*	
Surr: 4-Bromofluorobenzene	*46.96*	*1.0*	*50*	*0*	*93.9*	*85 - 114*	*47.97*	*2.12*	*20*	
Surr: Dibromofluoromethane	*44.83*	*1.0*	*50*	*0*	*89.7*	*80 - 119*	*44.45*	*0.832*	*20*	
Surr: Toluene-d8	*50.92*	*1.0*	*50*	*0*	*102*	*89 - 112*	*50.08*	*1.66*	*20*	

The following samples were analyzed in this batch: HS23051834-01 HS23051834-02 HS23051834-03 HS23051834-04 HS23051834-05 HS23051834-06 HS23051834-07 HS23051834-09 HS23051834-10

Revision: 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051834

QC BATCH REPORT

Batch ID: R436835 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230601** Units: **ug/L** Analysis Date: **01-Jun-2023 14:21**
Client ID: Run ID: **VOA9_436835** SeqNo: **7336457** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
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
Tetrachloroethene	0.50	1.0								U
Trichloroethene	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*40.76*	*1.0*	*50*	*0*	*81.5*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*44.92*	*1.0*	*50*	*0*	*89.8*	*85 - 114*				
Surr: Dibromofluoromethane	*43.59*	*1.0*	*50*	*0*	*87.2*	*80 - 119*				
Surr: Toluene-d8	*49.67*	*1.0*	*50*	*0*	*99.3*	*89 - 112*				

LCS Sample ID: **VLCSW-230601** Units: **ug/L** Analysis Date: **01-Jun-2023 13:36**
Client ID: Run ID: **VOA9_436835** SeqNo: **7336456** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	22.16	1.0	20	0	111	71 - 131				
1,2-Dichloroethane	19.97	1.0	20	0	99.8	73 - 128				
cis-1,2-Dichloroethene	20.7	1.0	20	0	103	78 - 123				
Tetrachloroethene	24.93	1.0	20	0	125	74 - 129				
Trichloroethene	21.65	1.0	20	0	108	79 - 123				
Vinyl chloride	22.66	1.0	20	0	113	58 - 137				
Surr: 1,2-Dichloroethane-d4	*47.5*	*1.0*	*50*	*0*	*95.0*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.67*	*1.0*	*50*	*0*	*97.3*	*85 - 114*				
Surr: Dibromofluoromethane	*50.44*	*1.0*	*50*	*0*	*101*	*80 - 119*				
Surr: Toluene-d8	*49.78*	*1.0*	*50*	*0*	*99.6*	*89 - 112*				

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051834

QC BATCH REPORT

Batch ID: R436835 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23051984-01MS** Units: **ug/L** Analysis Date: **01-Jun-2023 15:28**
Client ID: Run ID: **VOA9_436835** SeqNo: **7336459** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	19.75	1.0	20	0	98.7	71 - 131				
1,2-Dichloroethane	19.17	1.0	20	0	95.8	73 - 128				
cis-1,2-Dichloroethene	18.91	1.0	20	0	94.5	78 - 123				
Tetrachloroethene	28.07	1.0	20	0	140	74 - 129				S
Trichloroethene	21.91	1.0	20	0	110	79 - 123				
Vinyl chloride	15.95	1.0	20	0	79.7	58 - 137				
Surr: 1,2-Dichloroethane-d4	*40.25*	*1.0*	*50*	*0*	*80.5*	*81 - 118*				S
Surr: 4-Bromofluorobenzene	*46.37*	*1.0*	*50*	*0*	*92.7*	*85 - 114*				
Surr: Dibromofluoromethane	*44.36*	*1.0*	*50*	*0*	*88.7*	*80 - 119*				
Surr: Toluene-d8	*50.7*	*1.0*	*50*	*0*	*101*	*89 - 112*				

MSD Sample ID: **HS23051984-01MSD** Units: **ug/L** Analysis Date: **01-Jun-2023 15:50**
Client ID: Run ID: **VOA9_436835** SeqNo: **7336460** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	19.16	1.0	20	0	95.8	71 - 131	19.75	3.03	20	
1,2-Dichloroethane	19.16	1.0	20	0	95.8	73 - 128	19.17	0.066	20	
cis-1,2-Dichloroethene	18.35	1.0	20	0	91.8	78 - 123	18.91	2.98	20	
Tetrachloroethene	26.35	1.0	20	0	132	74 - 129	28.07	6.32	20	S
Trichloroethene	21.2	1.0	20	0	106	79 - 123	21.91	3.3	20	
Vinyl chloride	15.54	1.0	20	0	77.7	58 - 137	15.95	2.57	20	
Surr: 1,2-Dichloroethane-d4	*40.99*	*1.0*	*50*	*0*	*82.0*	*81 - 118*	*40.25*	*1.81*	*20*	
Surr: 4-Bromofluorobenzene	*47.85*	*1.0*	*50*	*0*	*95.7*	*85 - 114*	*46.37*	*3.14*	*20*	
Surr: Dibromofluoromethane	*44.36*	*1.0*	*50*	*0*	*88.7*	*80 - 119*	*44.36*	*0.00901*	*20*	
Surr: Toluene-d8	*49.56*	*1.0*	*50*	*0*	*99.1*	*89 - 112*	*50.7*	*2.27*	*20*	

The following samples were analyzed in this batch: HS23051834-02 HS23051834-03 HS23051834-08

Revision: 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051834

QC BATCH REPORT

Batch ID: R436436 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY SW9056A

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **26-May-2023 22:51**
Client ID: Run ID: **ICS-Integrion_436436** SeqNo: **7328005** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.250	0.500								U
Nitrogen, Nitrate (As N)	0.0500	0.100								U
Nitrogen, Nitrite (As N)	0.0500	0.100								U
Sulfate	0.250	0.500								U

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **26-May-2023 22:56**
Client ID: Run ID: **ICS-Integrion_436436** SeqNo: **7328006** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.78	0.500	20	0	104	80 - 120				
Nitrogen, Nitrate (As N)	4.301	0.100	4	0	108	80 - 120				
Nitrogen, Nitrite (As N)	4.275	0.100	4	0	107	80 - 120				
Sulfate	21.07	0.500	20	0	105	80 - 120				

MS Sample ID: **HS23051834-04MS** Units: **mg/L** Analysis Date: **27-May-2023 01:04**
Client ID: **50WW14_052523** Run ID: **ICS-Integrion_436436** SeqNo: **7328023** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	384.7	0.500	10	391.3	-66.1	80 - 120				SEO
Nitrogen, Nitrate (As N)	2.12	0.100	2	0	106	80 - 120				
Nitrogen, Nitrite (As N)	1.422	0.100	2	0	71.1	80 - 120				S
Sulfate	375.8	0.500	10	378.6	-28.0	80 - 120				SEO

MSD Sample ID: **HS23051834-04MSD** Units: **mg/L** Analysis Date: **27-May-2023 01:10**
Client ID: **50WW14_052523** Run ID: **ICS-Integrion_436436** SeqNo: **7328024** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	383.6	0.500	10	391.3	-76.9	80 - 120	384.7	0.279	20	SEO
Nitrogen, Nitrate (As N)	2.13	0.100	2	0	106	80 - 120	2.12	0.438	20	
Nitrogen, Nitrite (As N)	1.431	0.100	2	0	71.5	80 - 120	1.422	0.603	20	S
Sulfate	374.7	0.500	10	378.6	-38.7	80 - 120	375.8	0.284	20	SEO

The following samples were analyzed in this batch: HS23051834-02 HS23051834-03 HS23051834-04

Revision: 1

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 21-Jun-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: HS23051834

QC BATCH REPORT

Batch ID: R437365 (0) **Instrument:** TOC_04 **Method:** TOTAL ORGANIC CARBON BY E415.1

MBLK Sample ID: **MBLK-06072023** Units: **mg/L** Analysis Date: **07-Jun-2023 20:14**
Client ID: Run ID: **TOC_04_437365** SeqNo: **7351159** 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-06072023** Units: **mg/L** Analysis Date: **07-Jun-2023 20:27**
Client ID: Run ID: **TOC_04_437365** SeqNo: **7351160** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.52	1.00	10	0	105	85 - 115				

LCSD Sample ID: **LCSD-06072023** Units: **mg/L** Analysis Date: **07-Jun-2023 20:41**
Client ID: Run ID: **TOC_04_437365** SeqNo: **7351161** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.67	1.00	10	0	107	85 - 115	10.52	1.42	20	

MS Sample ID: **HS23051834-04MS** Units: **mg/L** Analysis Date: **07-Jun-2023 23:15**
Client ID: **50WW14_052523** Run ID: **TOC_04_437365** SeqNo: **7351173** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	12.13	1.00	10	1.412	107	80 - 120				

The following samples were analyzed in this batch: HS23051834-02 HS23051834-03 HS23051834-04

Revision: 1

RIGHT SOLUTIONS | RIGHT PARTNER

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 50
WorkOrder: **HS23051834**

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

RIGHT SOLUTIONS | RIGHT PARTNER

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-37	30-Jun-2023
Kansas	E-10352; 2022-2023	31-Jul-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2023	31-Dec-2023
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932022-13	31-Jul-2023

ALS Houston, US Date: 21-Jun-23

Sample Receipt Checklist

Work Order ID: HS23051834 **Date/Time Received:** 26-May-2023 10:00

Client Name: Bhate Environmental **Received by:** Paresh M. Giga

Completed By:	/S/ Corey Grandits	26-May-2023 11:40	**Reviewed by:**	/S/ Dane J. Wacasey	30-May-2023 12:19
	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 ☐	
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):	3.4UC/3.3C	IR 31
Cooler(s)/Kit(s):	Blue	
Date/Time sample(s) sent to storage:	05/26/2023	

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: Trip Blank received, not listed on COC and was logged in for analysis.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

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bhate ENVIRONMENTAL CONSTRUCTION ENERGY

1608 13th Avenue South, Suite 300
Birmingham Alabama 35205
Tel: 205-918-4000
Fax: 205-918-4050

Chain of Custody and Analytical Request

Page: ____ of ____

Project/Phase No: JVPCIBH.0001

COC Number(1): ____

LIMS Number: ____

Facility/Base I.D.: LHAAP

Project/Site Name: LHAAP / Site 50

Client Name:

Collected by: Scott Beesinger

Field Sample ID (30 Characters Max)	Date Collected (dd-mmm-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOC by SW 8260B	TOC by SM5310C	MEE by RSK 175	Anions by SW9056	CO2 by RSK 175	Perchlorate by SW 6850	Ambient Blank Lot Control Number	Lot Control Number	Cooler ID
SDWW23_052523	25 MAY 2023	0710	-	N		WG	4	X					X			
SDWW12_052523	25 MAY 2023	0755	-	N		WG	13	X	X	X	X	X	X			
SDWW12_052523_FD	25 MAY 2023	0755	-	FD		WG	13	X	X	X	X	X	X			
SDWW14_052523	25 MAY 2023	0855	-	N		WG	13	X	X	X	X	X	X			
SDWW14_052523_MS	25 MAY 2023	0855	-	MS		WG	13	X	X	X	X	X	X			
SDWW14_052523_MSD	25 MAY 2023	0855	-	SD		WG	13	X	X	X	X	X	X			
SDWW05_052523	25 MAY 2023	0955	-	N		WG	4	X					X			
SDWW15_052523	25 MAY 2023	1035	-	N		WG	4	X					X			
SDWW16_052523	25 MAY 2023	1120	-	N		WG	4	X					X			
SDWW16_052523_FD	25 MAY 2023	1205	-	FD		WG	4	X					X			
SDWW18_052523	25 MAY 2023		-	N		WG	4	X					X			

Sample Analysis Requested (5)

Quality Assurance Samples (6)

Bhate Environmental Associates, Inc.
LHAAP/ Site 50
HS23051834

COMMENTS:

STANDARD TAT

Custody Transfers Prior to Receipt by Laboratory

Relinquished By (Signed)	Date	Time	Received by (Signed)	Date	Time
1. Scott Beesinger	5/26/23	1315	1.		
2.			2.		
3.			3.		

Cooler # Blue
3.4°
IR#1

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: ____ Shipped No.:

Method of Shipment: ____

Fed Ex Airbill Number:

Analytical Lab: ALS 10450 Stancliff Rd. Suite 210 Houston, TX 77099 (281) 530-5656

ATTN: Dane Wacasey Lab Recipient: Delivery Date/Time:

1.) Chain of Custody Number = date collected + custody number (e.g. 09-02-1999-01)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 10109901 in the Equipment Blank Lot Control

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

Blue

CUSTODY SEAL

Date: 5/25/23 Time: 1330
Name: Scott Beesinger
Company: BHATE

Seal Broken By:
Date: 05/26/23

Blue

MAY 2 6 2023

Part # 159469-434 MTW EXP 01/24

Blue

ORIGIN ID:SGRA (903) 930-6193
SCOTT BEESINER
BHATE ENVIRONMENTAL ASSOCIATES
1203-B EAST GRAND AVE. PMB202

MARSHALL, TX 75670
UNITED STATES US

SHIP DATE: 20MAY23
ACTWGT: 1.00 LB MAN
CAD: 0221247/CAFE3704
DIMS: 19x16x13 IN

583G3/2BC3/FE2D

TO **SHIPPING DEPT**
ALS LABORATORY GROUP
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099
(281) 530-5656
REF: LHAAP 50=BO 93172-DW

RMA:

FedEx Express

TRK# 0221 6230 3000 0787

FedEx.

TRK# 0221 6230 3000 0787

RETURNS MON-SAT
PRIORITY OVERNIGHT
FRI - 26 MAY 10:30A
PRIORITY OVERNIGHT

AB SGRA

77099
TX-US
IAH

412334 25May2023 GGGA 581G3/2BC3/C0B8

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June 08, 2023 Service Request No:E2300519

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS23051834

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory May 30, 2023
For your reference, these analyses have been assigned our service request number **E2300519.**

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.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

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 Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental- US	**Service Request No.:**	E2300519
Project:	HS23051834	**Date Received:**	05/30/23
Sample Matrix:	Ground Water		

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

Six samples were received for analysis at ALS Environmental in Houston on 05/30/23.

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:

EQ2300272: 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 batch precision (MS/DMS) measurements were determined on an unrelated sample in the extraction batch. The MS/DMS results are not included 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.

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Client: ALS Environmental - US **Service Request:**E2300519
Project: HS23051834

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300519-001	50WW23_052523	5/25/2023	0710
E2300519-002	50WW12_052523	5/25/2023	0755
E2300519-003	50WW12_052523_a	5/25/2023	0755
E2300519-004	50WW14_052523	5/25/2023	0855
E2300519-005	50WW05_052523	5/25/2023	0955
E2300519-006	50WW15_052523	5/25/2023	1035
E2300519-007	50WW16_052523	5/25/2023	1120
E2300519-008	50WW16_052523_a	5/25/2023	1205
E2300519-009	50WW18_052523	5/25/2023	0000

Service Request Summary

Folder #: **E2300519**
Client Name: ALS Environmental - US
Project Name: HS23051834
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/30/23
Internal Due Date: 6/12/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23051834
EDD: BASIC_WQC_CASNo_LOD

11 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	Semivoa GCMS ClO4 DOD/6850
E2300519-001	50WW23_052523	Ground Water	05/25/23 0710	**IV**
E2300519-002	50WW12_052523	Ground Water	05/25/23 0755	**IV**
E2300519-003	50WW12_052523_a	Ground Water	05/25/23 0755	**IV**
E2300519-004	50WW14_052523	Ground Water	05/25/23 0855	**IV**
E2300519-005	50WW05_052523	Ground Water	05/25/23 0955	**IV**
E2300519-006	50WW15_052523	Ground Water	05/25/23 1035	**IV**
E2300519-007	50WW16_052523	Ground Water	05/25/23 1120	**IV**
E2300519-008	50WW16_052523_a	Ground Water	05/25/23 1205	**IV**
E2300519-009	50WW18_052523	Ground Water	05/25/23 0000	**IV**

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Service Request Summary

Folder #: **E2300519**
Client Name: ALS Environmental - US
Project Name: HS23051834
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/30/23
Internal Due Date: 6/12/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23051834
EDD: BASIC_WQC_CASNo_LOD

11 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	1	MS/MSD

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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	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
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.

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Data Qualifiers

Lab Standard

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.
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.

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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
Arizona Department of Health Services	AZ0793_2024	5/27/2024
Arkansas Department of Environmental Quality	88-00356	3/27/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	TN04016-2023	4/30/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

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Chain of Custody

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
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: **Texas** **COC ID:** **21862**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@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:	HS23051834
TSR:	Holly Tignac

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23051834-01**	**50WW23_052523**	**Groundwater**	**25 May 2023 07:10**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023
2.	**HS23051834-02**	**50WW12_052523**	**Groundwater**	**25 May 2023 07:55**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023
3.	**HS23051834-03**	**50WW12_052523_a**	**Groundwater**	**25 May 2023 07:55**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023
4.	**HS23051834-04**	**50WW14_052523**	**Groundwater**	**25 May 2023 08:55**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023
5.	**HS23051834-05**	**50WW05_052523**	**Groundwater**	**25 May 2023 09:55**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023
6.	**HS23051834-06**	**50WW15_052523**	**Groundwater**	**25 May 2023 10:35**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023
7.	**HS23051834-07**	**50WW16_052523**	**Groundwater**	**25 May 2023 11:20**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023
8.	**HS23051834-08**	**50WW16_052523_a**	**Groundwater**	**25 May 2023 12:05**

Subcontract Chain of Custody

SAMPLING STATE: **Texas** **COC ID:** **21862**

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023
9.	**HS23051834-09**	**50WW18_052523**	**Groundwater**	**25 May 2023 00:00**
	6850 Perchlorate; separte Level II & Level IV PDF; EQUIS EDD LHAAP			12 Jun 2023

Comments: HS23051834-04 MS/MSD

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

QC Level: DOD IV (DoD Data Package)

Relinquished By: NTR Date/Time:

Received By: CA Date/Time: 5-30-23 0800

Cooler ID(s): Temperature(s):

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ALS Environmental

Cooler Receipt Form

Project Chemist JG

Client/Project ALS

Thermometer ID IR31

Date/Time Received: 5.30.23 Initials: EL Date/Time Logged in: 5.30.23 Initials EL

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
   Were they intact? ○ Yes ○ No ◉ N/A
   Were they signed and dated? ○ Yes ○ No ◉ N/A
   If yes, how many and where?

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		5.30.23	0800	EL	0.8	☒
						☐
						☐
						☐

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

RIGHT SOLUTIONS | RIGHT PARTNER

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
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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 Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 420944 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 6/5/23 08:04

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300519-001	50WW23_052523	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2300519-002	50WW12_052523	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2300519-003	50WW12_052523_a	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2300519-004	50WW14_052523	.02	6850/ClO4 DOD			Ground Water	10mL	
5	E2300519-005	50WW05_052523	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2300519-006	50WW15_052523	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2300519-007	50WW16_052523	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2300519-008	50WW16_052523_a	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2300519-009	50WW18_052523	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2300520-001	MW-18	.01	6850/ClO4			Water	10mL	
11	E2300520-002	MW-7	.01	6850/ClO4			Water	10mL	
12	E2300520-003	MW-2A	.01	6850/ClO4			Water	10mL	
13	E2300520-004	MW-2	.01	6850/ClO4			Water	10mL	
14	E2300520-005	W-8	.01	6850/ClO4			Water	10mL	
15	E2300520-006	MW-17	.01	6850/ClO4			Water	10mL	
16	E2300520-007	MW-1	.01	6850/ClO4			Water	10mL	
17	E2300520-008	W-4	.01	6850/ClO4			Water	10mL	
18	E2300520-009	MW-15	.01	6850/ClO4			Water	10mL	
19	E2300520-010	W-15	.01	6850/ClO4			Water	10mL	
20	E2300520-011	W-16	.01	6850/ClO4			Water	10mL	
21	EQ2300272-01	MB		6850/ClO4			Liquid	10mL	
22	EQ2300272-02	LCS		6850/ClO4			Liquid	10mL	
23	EQ2300272-03	DLCS		6850/ClO4			Liquid	10mL	
24	EQ2300272-04	50WW14_052523 MS	.02	6850/ClO4 DOD			Liquid	10mL	
25	EQ2300272-05	50WW14_052523 DMS	.02	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300272-02	1.00µL	EQ2300272-02	1.00µL	EQ2300272-03	1.00µL	EQ2300272-03	1.00µL	EQ2300272-04	1.00µL	EQ2300272-05	1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 227244 Logbook Ref: Perchlorate Internal Standard Expires On: 07/31/2023

E2300519-001	100.00µL	E2300519-002	100.00µL	E2300519-003	100.00µL	E2300519-004	100.00µL	E2300519-005	100.00µL	E2300519-006	100.00µL
E2300519-007	100.00µL	E2300519-008	100.00µL	E2300519-009	100.00µL	E2300520-001	100.00µL	E2300520-002	100.00µL	E2300520-003	100.00µL
E2300520-004	100.00µL	E2300520-005	100.00µL	E2300520-006	100.00µL	E2300520-007	100.00µL	E2300520-008	100.00µL	E2300520-009	100.00µL

Preparation Information Benchsheet

Prep Run#: 420944 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 6/5/23 08:04

E2300520-010	100.00µL	E2300520-011	100.00µL	EQ2300272-01	100.00µL	EQ2300272-01	100.00µL	EQ2300272-02	100.00µL	EQ2300272-02	100.00µL
EQ2300272-03	100.00µL	EQ2300272-03	100.00µL	EQ2300272-04	100.00µL	EQ2300272-05	100.00µL				

Preparation Materials

Water HPLC Grade	HPLC water 5/18/23CG (229314)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 0.45um syringe (229005)
6850 Luer-Lok Syringes	luer-lock syringes (228116)				

Preparation Steps

Step: Preparation
Started: 6/5/23 08:04
Finished: 6/6/23 09:34
By: XMI
Comments

Comments: _____

Reviewed By: XM Date: 06/05/23

Chain of Custody

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Extracts Examined
Yes No

Analytical Results

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300519
Project:	HS23051834	**Date Collected:**	5/25/23 0710
Sample Matrix:	Ground Water	**Date Received:**	5/30/23
Sample Name:	50WW23_052523	**Units:**	µg/L
Lab Code:	E2300519-001	**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	**0.0857**	J	0.100	0.0500	0.0250	1	6/ 5/23	6/6/23 13:36	420944	806642	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300519
Project:	HS23051834	**Date Collected:**	5/25/23 0755
Sample Matrix:	Ground Water	**Date Received:**	5/30/23
Sample Name:	50WW12_052523	**Units:**	µg/L
Lab Code:	E2300519-002	**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	**79100**		500	250	125	5000	6/ 5/23	6/6/23 13:42	420944	806642	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300519
Project:	HS23051834	**Date Collected:**	5/25/23 0755
Sample Matrix:	Ground Water	**Date Received:**	5/30/23
Sample Name:	50WW12_052523_a	**Units:**	µg/L
Lab Code:	E2300519-003	**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	**84500**		500	250	125	5000	6/ 5/23	6/6/23 13:48	420944	806642	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300519
Project:	HS23051834	**Date Collected:**	5/25/23 0855
Sample Matrix:	Ground Water	**Date Received:**	5/30/23
Sample Name:	50WW14_052523	**Units:**	µg/L
Lab Code:	E2300519-004	**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	**0.168**		0.100	0.0500	0.0250	1	6/ 5/23	6/6/23 13:54	420944	806642	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300519
Project:	HS23051834	**Date Collected:**	5/25/23 0955
Sample Matrix:	Ground Water	**Date Received:**	5/30/23
Sample Name:	50WW05_052523	**Units:**	µg/L
Lab Code:	E2300519-005	**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	**0.130**		0.100	0.0500	0.0250	1	6/ 5/23	6/6/23 14:11	420944	806642	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300519
Project:	HS23051834	**Date Collected:**	5/25/23 1035
Sample Matrix:	Ground Water	**Date Received:**	5/30/23
Sample Name:	50WW15_052523	**Units:**	µg/L
Lab Code:	E2300519-006	**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	**0.113**		0.100	0.0500	0.0250	1	6/ 5/23	6/6/23 14:17	420944	806642	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300519
Project:	HS23051834	**Date Collected:**	5/25/23 1120
Sample Matrix:	Ground Water	**Date Received:**	5/30/23
Sample Name:	50WW16_052523	**Units:**	µg/L
Lab Code:	E2300519-007	**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	**0.0369**	J	0.100	0.0500	0.0250	1	6/ 5/23	6/7/23 13:41	420944	806739	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300519
Project:	HS23051834	**Date Collected:**	5/25/23 1205
Sample Matrix:	Ground Water	**Date Received:**	5/30/23
Sample Name:	50WW16_052523_a	**Units:**	µg/L
Lab Code:	E2300519-008	**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	6/ 5/23	6/7/23 09:19	420944	806739	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300519
Project:	HS23051834	**Date Collected:**	5/25/23 0000
Sample Matrix:	Ground Water	**Date Received:**	5/30/23
Sample Name:	50WW18_052523	**Units:**	µg/L
Lab Code:	E2300519-009	**Basis:**	NA

Form 1A

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	6/ 5/23	6/7/23 09:25	420944	806739	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300519
Project:	HS23051834	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300272-01	**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	6/ 5/23	6/6/23 12:22	420944	806642	

Accuracy & Precision

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23051834
Sample Matrix: Ground Water

Service Request: E2300519
Date Analyzed: 6/ 6/23

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: 420944

	Lab Control Sample EQ2300272-02			Duplicate Lab Control Sample EQ2300272-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.107	0.100	107	0.103	0.100	103	84 - 119	4	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:**	E2300519
Project:	HS23051834	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300272-02	**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	**0.107**		0.100	0.0500	0.0250	1	6/ 5/23	6/6/23 12:27	420944	806642	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300519
Project:	HS23051834	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300272-03	**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	**0.103**		0.100	0.0500	0.0250	1	6/ 5/23	6/6/23 12:33	420944	806642	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300519
Project:	HS23051834	**Date Collected:**	5/25/23
Sample Matrix:	Ground Water	**Date Received:**	5/30/23
		Date Analyzed:	6/ 6/23

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

Sample Name:	50WW14_052523	**Units:**	µg/L
Lab Code:	E2300519-004	**Basis:**	NA

Analytical Method: 6850
Prep Method: Method

		50WW14_052523MS				50WW14_052523DMS					
		Matrix Spike				**Duplicate Matrix Spike**					
		EQ2300272-04				EQ2300272-05					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.168	0.269	0.100	100	0.260	0.100	92	84 - 119	3	15

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

Results flagged with a pound (#) indicate the control criteria is not applicable.

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:**	E2300519
Project:	HS23051834	**Date Collected:**	5/25/23 0855
Sample Matrix:	Ground Water	**Date Received:**	5/30/23
Sample Name:	50WW14_052523	**Units:**	µg/L
Lab Code:	EQ2300272-04	**Basis:**	NA
Run Type:	Matrix Spike		

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	**0.269**		0.100	0.0500	0.0250	1	6/ 5/23	6/6/23 13:59	420944	806642	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Dane Wacasey
ALS Group USA, Corp
10450 Stancliff Rd.
Suite 210
Houston, Texas 77099

Generated 6/12/2023 3:57:54 AM

JOB DESCRIPTION

HS23051834

JOB NUMBER

410-128779-1

Eurofins Lancaster Laboratories Environment Testing, LLC

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
6/12/2023 3:57:54 AM

Authorized for release by
Kelly Bauer, Project Manager
Kelly.Bauer@et.eurofinsus.com
(717)556-7262

Eurofins Lancaster Laboratories Environment Testing, LLC

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



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Definitions/Glossary

Client: ALS Group USA, Corp
Job ID: 410-128779-1
Project/Site: HS23051834

Qualifiers

GC VOA

Qualifier	Qualifier Description
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: ALS Group USA, Corp
Project/Site: HS23051834

Job ID: 410-128779-1

Job ID: 410-128779-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Narrative

Job Narrative
410-128779-1

Receipt
The samples were received on 6/1/2023 10:08 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: ALS Group USA, Corp
Project/Site: HS23051834

Job ID: 410-128779-1

Client Sample ID: HS23051834-02 — Lab Sample ID: 410-128779-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	64000		12000	2600	ug/L	1		RSK-175	Total/NA

Client Sample ID: HS23051834-03 — Lab Sample ID: 410-128779-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	64000		12000	2600	ug/L	1		RSK-175	Total/NA

Client Sample ID: HS23051834-04 — Lab Sample ID: 410-128779-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	49000	J1	12000	2600	ug/L	1		RSK-175	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: ALS Group USA, Corp
Project/Site: HS23051834

Job ID: 410-128779-1

Client Sample ID: HS23051834-02

Lab Sample ID: 410-128779-1

Date Collected: 05/25/23 07:55
Matrix: Water
Date Received: 06/01/23 10:08

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	64000		12000	2600	ug/L		06/06/23 09:48	06/06/23 15:12	1

Client Sample ID: HS23051834-03

Lab Sample ID: 410-128779-2

Date Collected: 05/25/23 07:55
Matrix: Water
Date Received: 06/01/23 10:08

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	64000		12000	2600	ug/L		06/06/23 09:48	06/06/23 15:20	1

Client Sample ID: HS23051834-04

Lab Sample ID: 410-128779-3

Date Collected: 05/25/23 08:55
Matrix: Water
Date Received: 06/01/23 10:08

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	49000	J1	12000	2600	ug/L		06/06/23 09:48	06/06/23 15:28	1

QC Sample Results

Client: ALS Group USA, Corp
Project/Site: HS23051834

Job ID: 410-128779-1

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-383371/1-A
Matrix: Water
Analysis Batch: 383299

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 383371

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	2600	U	12000	2600	ug/L		06/06/23 09:48	06/06/23 11:17	1

Lab Sample ID: LCS 410-383371/2-A
Matrix: Water
Analysis Batch: 383299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 383371

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Carbon dioxide			35800	34700		ug/L		97	80 - 122		

Lab Sample ID: 410-128779-3 MS
Matrix: Water
Analysis Batch: 383299

Client Sample ID: HS23051834-04
Prep Type: Total/NA
Prep Batch: 383371

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Carbon dioxide	49000	J1	35800	68900	J1	ug/L		56	80 - 122		

Lab Sample ID: 410-128779-3 MSD
Matrix: Water
Analysis Batch: 383299

Client Sample ID: HS23051834-04
Prep Type: Total/NA
Prep Batch: 383371

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon dioxide	49000	J1	35800	70100	J1	ug/L		59	80 - 122	2	30

QC Association Summary

Client: ALS Group USA, Corp
Project/Site: HS23051834

Job ID: 410-128779-1

GC VOA

Analysis Batch: 383299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-128779-1	HS23051834-02	Total/NA	Water	RSK-175	383371
410-128779-2	HS23051834-03	Total/NA	Water	RSK-175	383371
410-128779-3	HS23051834-04	Total/NA	Water	RSK-175	383371
MB 410-383371/1-A	Method Blank	Total/NA	Water	RSK-175	383371
LCS 410-383371/2-A	Lab Control Sample	Total/NA	Water	RSK-175	383371
410-128779-3 MS	HS23051834-04	Total/NA	Water	RSK-175	383371
410-128779-3 MSD	HS23051834-04	Total/NA	Water	RSK-175	383371

Prep Batch: 383371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-128779-1	HS23051834-02	Total/NA	Water	RSK-175	
410-128779-2	HS23051834-03	Total/NA	Water	RSK-175	
410-128779-3	HS23051834-04	Total/NA	Water	RSK-175	
MB 410-383371/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-383371/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
410-128779-3 MS	HS23051834-04	Total/NA	Water	RSK-175	
410-128779-3 MSD	HS23051834-04	Total/NA	Water	RSK-175	

Lab Chronicle

Client: ALS Group USA, Corp
Project/Site: HS23051834

Job ID: 410-128779-1

Client Sample ID: HS23051834-02

Lab Sample ID: 410-128779-1

Date Collected: 05/25/23 07:55
Matrix: Water
Date Received: 06/01/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			383371	HQR6	ELLE	06/06/23 09:48
Total/NA	Analysis	RSK-175		1	383299	LXF2	ELLE	06/06/23 15:12

Client Sample ID: HS23051834-03

Lab Sample ID: 410-128779-2

Date Collected: 05/25/23 07:55
Matrix: Water
Date Received: 06/01/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			383371	HQR6	ELLE	06/06/23 09:48
Total/NA	Analysis	RSK-175		1	383299	LXF2	ELLE	06/06/23 15:20

Client Sample ID: HS23051834-04

Lab Sample ID: 410-128779-3

Date Collected: 05/25/23 08:55
Matrix: Water
Date Received: 06/01/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			383371	HQR6	ELLE	06/06/23 09:48
Total/NA	Analysis	RSK-175		1	383299	LXF2	ELLE	06/06/23 15:28

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: ALS Group USA, Corp
Project/Site: HS23051834

Job ID: 410-128779-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-24

Method Summary

Client: ALS Group USA, Corp
Project/Site: HS23051834

Job ID: 410-128779-1

Method	Method Description	Protocol	Laboratory
RSK-175	Dissolved Gases (GC)	RSK	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: ALS Group USA, Corp
Project/Site: HS23051834

Job ID: 410-128779-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-128779-1	HS23051834-02	Water	05/25/23 07:55	06/01/23 10:08
410-128779-2	HS23051834-03	Water	05/25/23 07:55	06/01/23 10:08
410-128779-3	HS23051834-04	Water	05/25/23 08:55	06/01/23 10:08

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

410-128779 Chain of Custody

Subcontract Chain of Custody

SAMPLING STATE: Texas **COC ID:** 21863

SUBCONTRACT TO:

Eurofins Lancaster Laboratories Envt Testing
2425 New Holland Pike
Lancaster, PA 17601 **Phone:** +1 717 656 2300

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@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:	HS23051834
TSR:	Holly Tignac

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23051834-02**	**50WW12_052523**	**Groundwater**	**25 May 2023 07:55**
	RSK-CO2; Level II & IV, DoD, EQUIS LHAAP EDD (Aptim)			12 Jun 2023
2.	**HS23051834-03**	**50WW12_052523_a**	**Groundwater**	**25 May 2023 07:55**
	RSK-CO2; Level II & IV, DoD, EQUIS LHAAP EDD (Aptim)			12 Jun 2023
3.	**HS23051834-04**	**50WW14_052523**	**Groundwater**	**25 May 2023 08:55**
	RSK-CO2; Level II & IV, DoD, EQUIS LHAAP EDD (Aptim)			12 Jun 2023

Comments: HS23051834-04 MS/MSD

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

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: MAY 30 2023 _____

Received By: _____ Date/Time: 6-1-23 1008

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

RIGHT SOLUTIONS | RIGHT PARTNER

Login Sample Receipt Checklist

Client: ALS Group USA, Corp

Job Number: 410-128779-1

Login Number: 128779
List Number: 1
Creator: Chambers, Haley

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	True	

HS23051834-MSVOA-SW8260

ALS WO# HS23051834

01231343

right solutions.
right partner.

Form 1

Organic Analysis Data Sheet

Volatiles by EPA 8260

Workorder

HS23051834

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

HS23051834-01	Collected	Received	Matrix	Basis
50WW23_052523	05/25/23 07:10	05/26/23 10:00	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 14:00	VOA9_436716_R43671	U053111
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 14:00	VOA9_436716_R43671	U053111
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 14:00	VOA9_436716_R43671	U053111
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	05/31/23 14:00	VOA9_436716_R43671	U053111
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 14:00	VOA9_436716_R43671	U053111
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 14:00	VOA9_436716_R43671	U053111

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

HS23051834-02	Collected	Received	Matrix	Basis
50WW12_052523	05/25/23 07:55	05/26/23 10:00	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	19		0.20	1.0	1.0	1	05/31/23 15:29	VOA9_436716_R43671	U053115
1,2-Dichloroethane	ug/L	6.3		0.20	1.0	1.0	1	05/31/23 15:29	VOA9_436716_R43671	U053115
cis-1,2-Dichloroethene	ug/L	1.6		0.20	1.0	1.0	1	05/31/23 15:29	VOA9_436716_R43671	U053115
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	05/31/23 15:29	VOA9_436716_R43671	U053115
Trichloroethene	ug/L	1,100		5.0	25	25	25	06/01/23 17:20	VOA9_436835_R43683	U060115
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 15:29	VOA9_436716_R43671	U053115

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

HS23051834-03	Collected	Received	Matrix	Basis
50WW12_052523_a	05/25/23 07:55	05/26/23 10:00	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	19		0.20	1.0	1.0	1	05/31/23 15:51	VOA9_436716_R43671	U053116
1,2-Dichloroethane	ug/L	6.6		0.20	1.0	1.0	1	05/31/23 15:51	VOA9_436716_R43671	U053116
cis-1,2-Dichloroethene	ug/L	1.6		0.20	1.0	1.0	1	05/31/23 15:51	VOA9_436716_R43671	U053116
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	05/31/23 15:51	VOA9_436716_R43671	U053116
Trichloroethene	ug/L	1,100		5.0	25	25	25	06/01/23 17:42	VOA9_436835_R43683	U060116
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 15:51	VOA9_436716_R43671	U053116

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

HS23051834-04

50WW14_052523

Collected	Received	Matrix	Basis
05/25/23 08:55	05/26/23 10:00	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 13:15	VOA9_436716_R43671	U053109
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 13:15	VOA9_436716_R43671	U053109
cis-1,2-Dichloroethene	ug/L	2.1		0.20	1.0	1.0	1	05/31/23 13:15	VOA9_436716_R43671	U053109
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	05/31/23 13:15	VOA9_436716_R43671	U053109
Trichloroethene	ug/L	20		0.20	1.0	1.0	1	05/31/23 13:15	VOA9_436716_R43671	U053109
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 13:15	VOA9_436716_R43671	U053109

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

HS23051834-05	Collected	Received	Matrix	Basis
50WW05_052523	05/25/23 09:55	05/26/23 10:00	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	3.1		0.20	1.0	1.0	1	05/31/23 16:14	VOA9_436716_R43671	U053117
1,2-Dichloroethane	ug/L	1.2		0.20	1.0	1.0	1	05/31/23 16:14	VOA9_436716_R43671	U053117
cis-1,2-Dichloroethene	ug/L	130		0.20	1.0	1.0	1	05/31/23 16:14	VOA9_436716_R43671	U053117
Tetrachloroethene	ug/L	0.65	J	0.30	1.0	1.0	1	05/31/23 16:14	VOA9_436716_R43671	U053117
Trichloroethene	ug/L	130		0.20	1.0	1.0	1	05/31/23 16:14	VOA9_436716_R43671	U053117
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 16:14	VOA9_436716_R43671	U053117

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

HS23051834-06

Collected	Received	Matrix	Basis
05/25/23 10:35	05/26/23 10:00	Groundwater	Wet

50WW15_052523

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 14:22	VOA9_436716_R43671	U053112
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 14:22	VOA9_436716_R43671	U053112
cis-1,2-Dichloroethene	ug/L	3.2		0.20	1.0	1.0	1	05/31/23 14:22	VOA9_436716_R43671	U053112
Tetrachloroethene	ug/L	1.4		0.30	1.0	1.0	1	05/31/23 14:22	VOA9_436716_R43671	U053112
Trichloroethene	ug/L	6.1		0.20	1.0	1.0	1	05/31/23 14:22	VOA9_436716_R43671	U053112
Vinyl chloride	ug/L	0.52	J	0.20	1.0	1.0	1	05/31/23 14:22	VOA9_436716_R43671	U053112

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

HS23051834-07

50WW16_052523

Collected	Received	Matrix	Basis
05/25/23 11:20	05/26/23 10:00	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 14:44	VOA9_436716_R43671	U053113
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 14:44	VOA9_436716_R43671	U053113
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 14:44	VOA9_436716_R43671	U053113
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	05/31/23 14:44	VOA9_436716_R43671	U053113
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 14:44	VOA9_436716_R43671	U053113
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 14:44	VOA9_436716_R43671	U053113

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

HS23051834-08

50WW16_052523_a

Collected	Received	Matrix	Basis
05/25/23 12:05	05/26/23 10:00	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/01/23 16:58	VOA9_436835_R43683	U060114
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/01/23 16:58	VOA9_436835_R43683	U060114
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/01/23 16:58	VOA9_436835_R43683	U060114
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	06/01/23 16:58	VOA9_436835_R43683	U060114
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/01/23 16:58	VOA9_436835_R43683	U060114
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	06/01/23 16:58	VOA9_436835_R43683	U060114

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

HS23051834-09	Collected	Received	Matrix	Basis
50WW18_052523	05/25/23 00:00	05/26/23 10:00	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 15:07	VOA9_436716_R43671	U053114
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 15:07	VOA9_436716_R43671	U053114
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 15:07	VOA9_436716_R43671	U053114
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	05/31/23 15:07	VOA9_436716_R43671	U053114
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 15:07	VOA9_436716_R43671	U053114
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 15:07	VOA9_436716_R43671	U053114

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

HS23051834-10	Collected	Received	Matrix	Basis
Trip Blank	05/25/23 00:00	05/26/23 10:00	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 12:53	VOA9_436716_R43671	U053108
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 12:53	VOA9_436716_R43671	U053108
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 12:53	VOA9_436716_R43671	U053108
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	05/31/23 12:53	VOA9_436716_R43671	U053108
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 12:53	VOA9_436716_R43671	U053108
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 12:53	VOA9_436716_R43671	U053108

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

VBLKW-230531	Collected	Received	Matrix	Basis
VBLKW-230531	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 12:30	VOA9_436716_R43671	U053107
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 12:30	VOA9_436716_R43671	U053107
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 12:30	VOA9_436716_R43671	U053107
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	05/31/23 12:30	VOA9_436716_R43671	U053107
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 12:30	VOA9_436716_R43671	U053107
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	05/31/23 12:30	VOA9_436716_R43671	U053107

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

VBLKW-230601	Collected	Received	Matrix	Basis
VBLKW-230601	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/01/23 14:21	VOA9_436835_R43683	U060107
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/01/23 14:21	VOA9_436835_R43683	U060107
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/01/23 14:21	VOA9_436835_R43683	U060107
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	06/01/23 14:21	VOA9_436835_R43683	U060107
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/01/23 14:21	VOA9_436835_R43683	U060107
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	06/01/23 14:21	VOA9_436835_R43683	U060107

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Form 2

System Monitoring Compound Recovery

Volatiles by EPA 8260

Workorder

HS23051834

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_436716_R436716

Volatiles by EPA 8260

CCV	Analyzed 05/31/23	Conc Units µg/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
1,2-Dichloroethane-d4	43.17	50	86.3	80-120	
4-Bromofluorobenzene	43.99	50	88.0	80-120	
Dibromofluoromethane	47.3	50	94.6	80-120	
Toluene-d8	45.73	50	91.5	80-120	

CCB	Analyzed 05/31/23	Conc Units µg/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
1,2-Dichloroethane-d4	40.98	50	82.0	80-120	
4-Bromofluorobenzene	45.82	50	91.6	80-120	
Dibromofluoromethane	43.29	50	86.6	80-120	
Toluene-d8	49.06	50	98.1	80-120	

VLCSW-230531	Analyzed 05/31/23	Conc Units µg/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
1,2-Dichloroethane-d4	45.22	50	90.4	81-118	
4-Bromofluorobenzene	45.43	50	90.9	85-114	
Dibromofluoromethane	48.27	50	96.5	80-119	
Toluene-d8	46.6	50	93.2	89-112	

VBLKW-230531	Analyzed 05/31/23	Conc Units µg/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
1,2-Dichloroethane-d4	41.84	50	83.7	81-118	
4-Bromofluorobenzene	46.28	50	92.6	85-114	
Dibromofluoromethane	43.6	50	87.2	80-119	
Toluene-d8	50.08	50	100	89-112	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_436716_R436716

Volatiles by EPA 8260

HS23051834-10	Analyzed 05/31/23	Conc Units µg/L	Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	42	50	83.5	81-118	
4-Bromofluorobenzene	44	50	89.0	85-114	
Dibromofluoromethane	43	50	86.9	80-119	
Toluene-d8	49	50	98.1	89-112	

HS23051834-04	Analyzed 05/31/23	Conc Units µg/L	Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	43	50	85.2	81-118	
4-Bromofluorobenzene	45	50	90.7	85-114	
Dibromofluoromethane	45	50	89.1	80-119	
Toluene-d8	49	50	98.3	89-112	

HS23051834-01	Analyzed 05/31/23	Conc Units µg/L	Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	43	50	85.5	81-118	
4-Bromofluorobenzene	45	50	90.5	85-114	
Dibromofluoromethane	44	50	88.2	80-119	
Toluene-d8	49	50	98.5	89-112	

HS23051834-06	Analyzed 05/31/23	Conc Units µg/L	Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	43	50	86.8	81-118	
4-Bromofluorobenzene	46	50	92.4	85-114	
Dibromofluoromethane	45	50	90.2	80-119	
Toluene-d8	49	50	98.9	89-112	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_436716_R436716

Volatiles by EPA 8260

HS23051834-07	Analyzed 05/31/23	Conc Units µg/L	Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	42	50	84.1	81-118	
4-Bromofluorobenzene	44	50	88.6	85-114	
Dibromofluoromethane	44	50	88.8	80-119	
Toluene-d8	49	50	98.3	89-112	

HS23051834-09	Analyzed 05/31/23	Conc Units µg/L	Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	43	50	85.6	81-118	
4-Bromofluorobenzene	46	50	91.0	85-114	
Dibromofluoromethane	44	50	88.6	80-119	
Toluene-d8	49	50	98.1	89-112	

HS23051834-02	Analyzed 05/31/23	Conc Units µg/L	Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	43	50	85.5	81-118	
4-Bromofluorobenzene	45	50	90.1	85-114	
Dibromofluoromethane	44	50	88.8	80-119	

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_436716_R436716

Volatiles by EPA 8260

HS23051834-05	Analyzed 05/31/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	43	50	85.9	81-118	
4-Bromofluorobenzene	45	50	89.1	85-114	
Dibromofluoromethane	44	50	88.8	80-119	
Toluene-d8	49	50	98.7	89-112	

HS23051834-04MS	Analyzed 05/31/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	41.12	50	82.2	81-118	
4-Bromofluorobenzene	47.97	50	95.9	85-114	
Dibromofluoromethane	44.45	50	88.9	80-119	
Toluene-d8	50.08	50	100	89-112	

HS23051834-04MSD	Analyzed 05/31/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	40.98	50	82.0	81-118	
4-Bromofluorobenzene	46.96	50	93.9	85-114	
Dibromofluoromethane	44.83	50	89.7	80-119	
Toluene-d8	50.92	50	102	89-112	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_436835_R436835

Volatiles by EPA 8260

CCV	Analyzed 06/01/23	Conc Units µg/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
1,2-Dichloroethane-d4	45.2	50	90.4	80-120	
4-Bromofluorobenzene	46.34	50	92.7	80-120	
Dibromofluoromethane	49.34	50	98.7	80-120	
Toluene-d8	48.11	50	96.2	80-120	

CCB	Analyzed 06/01/23	Conc Units µg/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
1,2-Dichloroethane-d4	40.53	50	81.1	80-120	
4-Bromofluorobenzene	45.32	50	90.6	80-120	
Dibromofluoromethane	43.3	50	86.6	80-120	
Toluene-d8	50.86	50	102	80-120	

VLCSW-230601	Analyzed 06/01/23	Conc Units µg/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
1,2-Dichloroethane-d4	47.5	50	95.0	81-118	
4-Bromofluorobenzene	48.67	50	97.3	85-114	
Dibromofluoromethane	50.44	50	101	80-119	
Toluene-d8	49.78	50	99.6	89-112	

VBLKW-230601	Analyzed 06/01/23	Conc Units µg/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
1,2-Dichloroethane-d4	40.76	50	81.5	81-118	
4-Bromofluorobenzene	44.92	50	89.8	85-114	
Dibromofluoromethane	43.59	50	87.2	80-119	
Toluene-d8	49.67	50	99.3	89-112	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_436835_R436835

Volatiles by EPA 8260

HS23051984-01MS	Analyzed 06/01/23	Conc Units µg/L	Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	40.25	50	80.5	81-118	*
4-Bromofluorobenzene	46.37	50	92.7	85-114	
Dibromofluoromethane	44.36	50	88.7	80-119	
Toluene-d8	50.7	50	101	89-112	

HS23051984-01MSD	Analyzed 06/01/23	Conc Units µg/L	Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	40.99	50	82.0	81-118	
4-Bromofluorobenzene	47.85	50	95.7	85-114	
Dibromofluoromethane	44.36	50	88.7	80-119	
Toluene-d8	49.56	50	99.1	89-112	

HS23051834-08	Analyzed 06/01/23	Conc Units µg/L	Dilution 1

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	41	50	82.2	81-118	
4-Bromofluorobenzene	45	50	90.4	85-114	
Dibromofluoromethane	43	50	86.3	80-119	
Toluene-d8	50	50	99.3	89-112	

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

RunID
VOA9_436835_R436835

HS23051834-03 **Analyzed** 06/01/23 **Conc Units** µg/L **Dilution** 25

Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	1,000	1250	82.9	81-118	
4-Bromofluorobenzene	1,100	1250	88.9	85-114	
Dibromofluoromethane	1,100	1250	88.2	80-119	
Toluene-d8	1,200	1250	99.7	89-112	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

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Form 3A

Matrix Spike/Spike Duplicate Recovery

Volatiles by EPA 8260

Workorder

HS23051834

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

50WW14_052523	HS23051834-04	HS23051834-04MS	HS23051834-04MSD	
Sample Matrix Aqueous	**Run Date** 05/31/23	05/31/23	05/31/23	
Units µg/L	**Run Time** 13:15	16:59	17:21	
	Data File U053109.D	U053119.D	U053120.D	

Analyte	%R Limits	DF	Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
1,1-Dichloroethene	71-131	1	0	18.15	20.00	91		17.9	20.00	90		20	1.40	
1,2-Dichloroethane	73-128	1	0	18.25	20.00	91		17.28	20.00	86		20	5.50	
cis-1,2-Dichloroethene	78-123	1	2.148	19.25	20.00	86		19.34	20.00	86		20	0.400	
Tetrachloroethene	74-129	1	0	23.56	20.00	118		24.79	20.00	124		20	5.10	
Trichloroethene	79-123	1	19.60	40.53	20.00	105		39.48	20.00	99		20	2.60	
Vinyl chloride	58-137	1	0	14.24	20.00	71		14.17	20.00	71		20	0.500	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits

Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

	HS23051984-01	HS23051984-01MS	HS23051984-01MSD	
Sample Matrix Aqueous	**Run Date** 06/01/23	06/01/23	06/01/23	
Units µg/L	**Run Time** 14:43	15:28	15:50	
	Data File U060108.D	U060110.D	U060111.D	

Analyte	%R Limits	DF	Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
1,1-Dichloroethene	71-131	1	0	19.75	20.00	99		19.16	20.00	96		20	3.00	
1,2-Dichloroethane	73-128	1	0	19.17	20.00	96		19.16	20.00	96		20	0.100	
cis-1,2-Dichloroethene	78-123	1	0	18.91	20.00	95		18.35	20.00	92		20	3.00	
Tetrachloroethene	74-129	1	0	28.07	20.00	140	*	26.35	20.00	132	*	20	6.30	
Trichloroethene	79-123	1	0	21.91	20.00	110		21.2	20.00	106		20	3.30	
Vinyl chloride	58-137	1	0	15.95	20.00	80		15.54	20.00	78		20	2.60	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits

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Form 3B

Laboratory Control Sample Recovery

Volatiles by EPA 8260

Workorder

HS23051834

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

VOA9_436716_R436716		QC ID	LCS-R436716
QC Matrix Aqueous	**Units** ug/L	**Run Date**	05/31/23
		Run Time	11:45

Analyte	%R Limits	Spike Added	LCS Result	%R	Q
1,1-Dichloroethene	71-131	20	20.26	101	
1,2-Dichloroethane	73-128	20	20.5	102	
1,2-Dichloroethane-d4	81-118	50	45.22	90	
4-Bromofluorobenzene	85-114	50	45.43	91	
cis-1,2-Dichloroethene	78-123	20	20.3	101	
Dibromofluoromethane	80-119	50	48.27	96	
Tetrachloroethene	74-129	20	21.36	107	
Toluene-d8	89-112	50	46.6	93	
Trichloroethene	79-123	20	20.23	101	
Vinyl chloride	58-137	20	21.22	106	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

VOA9_436835_R436835		QC ID	LCS-R436835	
QC Matrix Aqueous	**Units** ug/L	**Run Date**	06/01/23	
		Run Time	13:36	

Analyte	%R Limits	Spike Added	LCS Result	%R	Q
1,1-Dichloroethene	71-131	20	22.16	111	
1,2-Dichloroethane	73-128	20	19.97	100	
1,2-Dichloroethane-d4	81-118	50	47.5	95	
4-Bromofluorobenzene	85-114	50	48.67	97	
cis-1,2-Dichloroethene	78-123	20	20.7	103	
Dibromofluoromethane	80-119	50	50.44	101	
Tetrachloroethene	74-129	20	24.93	125	
Toluene-d8	89-112	50	49.78	100	
Trichloroethene	79-123	20	21.65	108	
Vinyl chloride	58-137	20	22.66	113	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits

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Form 4

Method Blank Summary

Volatiles by EPA 8260

Workorder

HS23051834

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	VBLKW-230531	U053107.D	05/31/23 12:30	VOA9_436716_R436716
VLCSW-230531	LCS	VLCSW-230531	U053105.D	05/31/23 11:45	VOA9_436716_R436716
Trip Blank	SAMP	HS23051834-10	U053108.D	05/31/23 12:53	VOA9_436716_R436716
50WW14_052523	SAMP	HS23051834-04	U053109.D	05/31/23 13:15	VOA9_436716_R436716
50WW23_052523	SAMP	HS23051834-01	U053111.D	05/31/23 14:00	VOA9_436716_R436716
50WW15_052523	SAMP	HS23051834-06	U053112.D	05/31/23 14:22	VOA9_436716_R436716
50WW16_052523	SAMP	HS23051834-07	U053113.D	05/31/23 14:44	VOA9_436716_R436716
50WW18_052523	SAMP	HS23051834-09	U053114.D	05/31/23 15:07	VOA9_436716_R436716
50WW12_052523	SAMP	HS23051834-02	U053115.D	05/31/23 15:29	VOA9_436716_R436716
50WW12_052523_a	SAMP	HS23051834-03	U053116.D	05/31/23 15:51	VOA9_436716_R436716
50WW05_052523	SAMP	HS23051834-05	U053117.D	05/31/23 16:14	VOA9_436716_R436716
50WW14_052523	MS	HS23051834-04MS	U053119.D	05/31/23 16:59	VOA9_436716_R436716
50WW14_052523	MSD	HS23051834-04MSD	U053120.D	05/31/23 17:21	VOA9_436716_R436716

Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

Volatiles by EPA 8260

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	VBLKW-230601	U060107.D	06/01/23 14:21	VOA9_436835_R436835
VLCSW-230601	LCS	VLCSW-230601	U060105.D	06/01/23 13:36	VOA9_436835_R436835
BatchQC	MS	HS23051984-01MS	U060110.D	06/01/23 15:28	VOA9_436835_R436835
BatchQC	MSD	HS23051984-01MSD	U060111.D	06/01/23 15:50	VOA9_436835_R436835
50WW16_052523_a	SAMP	HS23051834-08	U060114.D	06/01/23 16:58	VOA9_436835_R436835
50WW12_052523	SAMP	HS23051834-02	U060115.D	06/01/23 17:20	VOA9_436835_R436835
50WW12_052523_a	SAMP	HS23051834-03	U060116.D	06/01/23 17:42	VOA9_436835_R436835

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Form 5

Instrument Performance Check

Volatiles by EPA 8260

Workorder

HS23051834

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_433802

Tune File U042701.D 04/27/23 11:28

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	20.4 (20.4)
75	30.0 - 60.0% of mass 95	51.6 (51.6)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	7.3 (7.29)
173	Less than 2.0% of mass 174	0 (0) 1
174	50.0 - 120.0% of mass 95	83.2 (83.2)
175	4.0 - 9.0% of mass 174	7.3 (8.74) 1
176	93.0 - 101.0% of mass 174	81.5 (98) 1
177	5.0 - 9.0% of mass 176	6 (7.38) 2

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

	Type	Date Analyzed	Lab File ID	Sample ID
1	ICAL1	04/27/23 11:50	U042702	VSTS000.25
2	ICAL2	04/27/23 12:12	U042703	VSTS000.5
3	ICAL3	04/27/23 12:56	U042704	VSTS001
4	ICAL4	04/27/23 13:19	U042705	VSTS002
5	ICAL5	04/27/23 13:41	U042706	VSTS005
6	ICAL6	04/27/23 14:03	U042707	VSTS020
7	ICAL7	04/27/23 14:25	U042708	VSTS050
8	ICAL8	04/27/23 14:48	U042709	VSTS100
9	ICAL9	04/27/23 15:10	U042710	VSTS150
10	ICAL	04/27/23 15:32	U042711	VSTS200
11	ICV	04/27/23 16:39	U042714	CCV

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_436716

Tune File U053101.D 05/31/23 10:16

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	18.6 (18.6)
75	30.0 - 60.0% of mass 95	47.6 (47.6)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	6.7 (6.72)
173	Less than 2.0% of mass 174	0 (0) 1
174	50.0 - 120.0% of mass 95	96.7 (96.7)
175	4.0 - 9.0% of mass 174	8.3 (8.6) 1
176	93.0 - 101.0% of mass 174	93.5 (96.7) 1
177	5.0 - 9.0% of mass 176	6.6 (7.04) 2

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	05/31/23 11:01	U053103	CCV
2	CCB	05/31/23 11:23	U053104	CCB
3	LCS	05/31/23 11:45	U053105	VLCSW-230531
4	MBLK	05/31/23 12:30	U053107	VBLKW-230531
5	SAMP	05/31/23 12:53	U053108	Trip Blank
6	SAMP	05/31/23 13:15	U053109	50WW14_052523
7	SAMP	05/31/23 14:00	U053111	50WW23_052523
8	SAMP	05/31/23 14:22	U053112	50WW15_052523
9	SAMP	05/31/23 14:44	U053113	50WW16_052523
10	SAMP	05/31/23 15:07	U053114	50WW18_052523
11	SAMP	05/31/23 15:29	U053115	50WW12_052523
12	SAMP	05/31/23 15:51	U053116	50WW12_052523_a
13	SAMP	05/31/23 16:14	U053117	50WW05_052523
14	MS	05/31/23 16:59	U053119	HS23051834-04MS
15	MSD	05/31/23 17:21	U053120	HS23051834-04MSD
16	CCV_EN	05/31/23 18:28	U053123	CCV-END

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_436835

Tune File U060101.D 06/01/23 12:01

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	19.9 (19.9)
75	30.0 - 60.0% of mass 95	49.8 (49.8)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	7.7 (7.73)
173	Less than 2.0% of mass 174	0 (0) 1
174	50.0 - 120.0% of mass 95	91.5 (91.5)
175	4.0 - 9.0% of mass 174	7.7 (8.41) 1
176	93.0 - 101.0% of mass 174	89.5 (97.8) 1
177	5.0 - 9.0% of mass 176	6.1 (6.8) 2

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	06/01/23 12:45	U060103	CCV
2	CCB	06/01/23 13:07	U060104	CCB
3	LCS	06/01/23 13:36	U060105	VLCSW-230601
4	MBLK	06/01/23 14:21	U060107	VBLKW-230601
5	MS	06/01/23 15:28	U060110	ZZZZZZMS
6	MSD	06/01/23 15:50	U060111	ZZZZZZMSD
7	SAMP	06/01/23 16:58	U060114	50WW16_052523_a
8	SAMP	06/01/23 17:20	U060115	50WW12_052523
9	SAMP	06/01/23 17:42	U060116	50WW12_052523_a
10	CCV_EN	06/01/23 20:42	U060124	CCV-END

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Form 6

Initial Calibration Data

Volatiles by EPA 8260

Workorder

HS23051834

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_433802

ICAL Start Date 27-APR-2023 1150

ICAL End Date 27-APR-2023 1532

Calibration Files

Level 1 ..voa9.i\U230427.b\U042702.D
Level 2 ..voa9.i\U230427.b\U042703.D
Level 3 ..voa9.i\U230427.b\U042704.D
Level 4 ..voa9.i\U230427.b\U042705.D
Level 5 ..voa9.i\U230427.b\U042706.D
Level 6 ..voa9.i\U230427.b\U042707.D
Level 7 ..voa9.i\U230427.b\U042708.D
Level 8 ..voa9.i\U230427.b\U042709.D
Level 9 ..voa9.i\U230427.b\U042710.D
Level 10.voa9.i\U230427.b\U042711.D

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Dichlorodifluoromethane	NE 244264	2905 672742	4521 1032473	12104 1410531	24489	103583	LINR	0.05887	0.45617		0.99664	
Chloromethane	NE 0.44766	0.53923 0.47728	0.45882 0.49192	0.49832 0.50819	0.44731	0.42590	AVRG		0.47718		7.48548	
Propionitrile	NE 0.07615	0.07579 0.07603	0.08434 0.07517	0.07025 0.07470	0.07830	0.07562	AVRG		0.07626		4.85980	
Vinyl Chloride	NE 0.44511	0.55651 0.52791	0.54524 0.52570	0.49507 0.52810	0.44344	0.44155	AVRG		0.50096		9.23310	
Bromomethane	NE 188810	2674 454199	5245 739651	10046 1039722	20997	66743	QUAD	0.01962	3.61267	-0.48637	0.99889	
Chloroethane	NE 0.32184	0.36561 0.34608	0.31930 0.33978	0.34540 0.34128	0.30437	0.30843	AVRG		0.33245		6.04924	
Trichlorofluoromethane	NE 395545	5539 1066985	8903 NE	19132 NE	39896	168140	QUAD	-0.01566	2.11668	-0.48680	0.99925	
Acrolein	NE 31613	482 70688	814 102834	1539 137669	3876	13247	LINR	-0.02043	0.02225		0.99921	
Acetone	NE 303424	7647 566343	11170 888680	15331 NE	36867	117551	LINR	-0.04498	0.19123		0.99917	
1,1-Dichloroethene	NE 0.33682	0.44793 0.40162	0.34508 0.40252	0.35950 0.40391	0.33450	0.34353	AVRG		0.37505		10.68398	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_433802

ICAL Start Date 27-APR-2023 1150 **ICAL End Date** 27-APR-2023 1532

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Isobutyl Alcohol	NE 0.07996	0.08495 0.07873	0.07840 0.07885	0.07264 0.07704	0.07811	0.07909	AVRG		0.07864		4.03793	
Acetonitrile	NE 0.06758	0.06625 0.06638	0.06644 0.06525	0.06153 0.06282	0.06543	0.05925	AVRG		0.06455		4.26109	
Allyl Chloride	NE 1.43126	1.61212 1.43004	1.49432 1.39872	1.21739 1.36362	1.43256	1.30769	AVRG		1.40975		7.89765	
Iodomethane	NE 810600	3076 1746371	6906 NE	15869 NE	52031	278097	QUAD	0.04043	1.91117	-0.08645	0.99962	
Acrylonitrile	NE 0.20756	0.23723 0.20558	0.23211 0.20273	0.19546 0.19905	0.21891	0.19870	AVRG		0.21081		7.19596	
Methylene Chloride	NE 339515	5015 700759	8403 1052568	17953 1433114	37402	131952	LINR	-0.00630	0.45862		0.99996	
Methyl tert-butyl ether	NE 1.45191	1.66627 1.43265	1.48347 1.41253	1.33998 1.40136	1.47230	1.36202	AVRG		1.44694		6.56676	
Carbon Disulfide	NE 1.06107	1.26372 1.19725	1.04094 1.18985	1.08955 1.18493	1.01092	1.05101	AVRG		1.12102		7.91719	
trans-1,2-Dichloroethene	NE 0.42158	0.46167 0.44234	0.40489 0.43825	0.44718 0.44026	0.39381	0.41015	AVRG		0.42890		5.22534	
Vinyl Acetate	NE 1.53814	1.40999 1.51048	1.49853 1.47741	1.34979 1.47804	1.43134	1.48882	AVRG		1.46473		3.95634	
1,1-Dichloroethane	NE 0.76230	0.87627 0.79003	0.80249 0.78700	0.78177 0.78469	0.73950	0.74928	AVRG		0.78593		5.03547	
Chloroprene	NE 0.14713	0.16736 0.19026	0.14421 0.19266	0.17919 0.19293	0.15325	0.15558	AVRG		0.16917		11.84332	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_433802

ICAL Start Date 27-APR-2023 1150 **ICAL End Date** 27-APR-2023 1532

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
2-Butanone	NE 0.24602	0.27492 0.23756	0.23988 0.24279	0.23949 0.23173	0.23556	0.24702	AVRG		0.24388		5.16894	
Methacrylonitrile	NE 0.40271	0.41160 0.41437	0.33254 0.39271	0.32544 0.38680	0.38163	0.37032	AVRG		0.37979		8.44464	
2,2-Dichloropropane	NE 0.61641	0.68850 0.67971	0.66403 0.67243	0.65918 0.66306	0.61665	0.62332	AVRG		0.65370		4.24110	
cis-1,2-Dichloroethene	NE 0.49038	0.49896 0.50879	0.55204 0.50851	0.53337 0.50905	0.47414	0.48803	AVRG		0.50703		4.68506	
Chloroform	NE 0.82427	0.81014 0.83454	0.84662 0.82800	0.80681 0.82516	0.79785	0.80972	AVRG		0.82034		1.87619	
Bromochloromethane	NE 0.26172	0.25757 0.25686	0.25872 0.24736	0.26518 0.24083	0.25981	0.25489	AVRG		0.25588		2.92374	
1,1,1-Trichloroethane	NE 0.65149	0.81504 0.74020	0.80137 0.74221	0.71344 0.73788	0.66050	0.65491	AVRG		0.72412		8.34846	
1,1-Dichloropropene	NE 0.34625	0.37555 0.40772	0.38845 0.41094	0.35162 0.41367	0.34755	0.35283	AVRG		0.37718		7.62348	
1,2-Dichloroethane	NE 0.47636	0.46495 0.47408	0.54019 0.47029	0.46218 0.46926	0.48095	0.46775	AVRG		0.47844		4.98669	
Carbon Tetrachloride	NE 381636	3806 967508	7972 1487565	18403 2041393	36619	153313	LINR	0.05052	0.44502		0.99779	
Benzene	NE 1.15499	1.35078 1.20022	1.15964 1.19013	1.18643 1.19555	1.09613	1.13794	AVRG		1.18576		5.92642	
Trichloroethene	NE 0.32068	0.39416 0.35239	0.31090 0.35351	0.34435 0.35551	0.32020	0.32124	AVRG		0.34144		7.66144	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_433802

ICAL Start Date 27-APR-2023 1150 **ICAL End Date** 27-APR-2023 1532

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Bromodichloromethane	NE 0.42228	0.47890 0.43946	0.40754 0.44446	0.38994 0.44302	0.39012	0.41326	AVRG		0.42544		6.80839	
Methyl Methacrylate	NE 0.55788	0.58890 0.55734	0.61871 0.55666	0.46006 0.54675	0.53830	0.54093	AVRG		0.55173		7.76607	
2-Chloroethylvinyl ether	NE 0.12096	0.10011 0.12399	0.10158 0.12841	0.10760 0.12991	0.09883	0.10939	AVRG		0.11342		11.00135	
1,2-Dichloropropane	NE 0.30919	0.30066 0.31761	0.31513 0.31952	0.28336 0.31909	0.28404	0.30361	AVRG		0.30580		4.64046	
Dibromomethane	NE 0.21307	0.21765 0.21338	0.22534 0.21420	0.22924 0.21453	0.20959	0.20510	AVRG		0.21579		3.45813	
4-Methyl-2-Pentanone	NE 0.40872	0.39864 0.40923	0.43980 0.41310	0.39670 0.41062	0.41682	0.41807	AVRG		0.41241		3.05007	
cis-1,3-Dichloropropene	NE 0.53497	0.54942 0.55468	0.54538 0.55805	0.48830 0.56357	0.47958	0.51154	AVRG		0.53172		5.85586	
Ethyl Methacrylate	NE 0.52456	0.51202 0.53502	0.51386 0.54528	0.47426 0.55125	0.50121	0.49749	AVRG		0.51722		4.75833	
Toluene	NE 1.31664	1.54351 1.40050	1.36410 1.37692	1.35343 1.36846	1.30851	1.32353	AVRG		1.37284		5.15782	
trans-1,3-Dichloropropene	NE 0.47372	0.50299 0.49152	0.39321 0.49574	0.39744 0.50121	0.39897	0.45050	AVRG		0.45614		10.41633	
2-Hexanone	NE 0.28562	0.28210 0.28795	0.30656 0.29483	0.28865 0.29275	0.27867	0.29017	AVRG		0.28970		2.78422	
1,1,2-Trichloroethane	NE 0.26825	0.25949 0.26870	0.25964 0.27094	0.26173 0.27089	0.25303	0.26770	AVRG		0.26448		2.36242	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_433802

ICAL Start Date 27-APR-2023 1150 **ICAL End Date** 27-APR-2023 1532

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
1,3-Dichloropropane	NE 0.57462	0.69390 0.57723	0.59090 0.58020	0.53689 0.57893	0.53902	0.56587	AVRG		0.58195		7.88231	
Dibromochloromethane	NE 0.39363	0.42370 0.40770	0.39038 0.41224	0.33643 0.41388	0.34835	0.37783	AVRG		0.38935		7.74577	
Tetrachloroethene	NE 0.25766	0.32373 0.31145	0.31819 0.31144	0.29624 0.31234	0.26057	0.26527	AVRG		0.29521		9.01799	
1,2-Dibromoethane	NE 0.34769	0.35155 0.35320	0.34181 0.35268	0.34764 0.35285	0.33040	0.34482	AVRG		0.34696		2.12278	
1-Chlorohexane	NE 243644	2561 643544	5817 NE	11306 NE	30543	100584	QUAD	-0.01982	5.13561	-2.81218	0.99924	
Chlorobenzene	NE 0.91594	1.07857 0.95641	0.95988 0.95286	0.92808 0.95871	0.89388	0.89553	AVRG		0.94887		5.83203	
1,1,1,2-Tetrachloroethane	NE 0.35658	0.38558 0.37530	0.38050 0.37549	0.33569 0.37988	0.33361	0.34588	AVRG		0.36317		5.63625	
Ethylbenzene	NE 0.44524	0.49926 0.49499	0.45300 0.48881	0.43773 0.49787	0.43433	0.43768	AVRG		0.46544		6.21029	
m,p-Xylenes	NE 0.57228	0.51812 0.62896	0.51804 0.62278	0.53962 0.62698	0.53533	0.56474	AVRG		0.56965		8.10574	
o-Xylene	NE 0.56824	0.58322 0.62402	0.52108 0.61427	0.54506 0.62359	0.54132	0.55138	AVRG		0.57469		6.71528	
Styrene	NE 1.00370	0.96419 1.07633	0.86124 1.06198	0.80120 1.07100	0.87193	0.97928	AVRG		0.96565		10.41976	
Bromoform	NE 0.29074	0.28230 0.31029	0.28042 0.31796	0.24545 0.32012	0.24665	0.27074	AVRG		0.28496		9.81499	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_433802

ICAL Start Date 27-APR-2023 1150 **ICAL End Date** 27-APR-2023 1532

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Isopropylbenzene	NE 1.30688	1.44524 1.53286	1.31326 1.51135	1.39797 1.51853	1.22500	1.28241	AVRG		1.39261		8.27758	
1,1,2,2-Tetrachloroethane	NE 0.83526	0.89521 0.86118	0.90172 0.88147	0.84024 0.88411	0.80121	0.83682	AVRG		0.85969		3.90557	
1,2,3-Trichloropropane	NE 0.96804	1.00820 0.99995	0.99965 1.03891	0.86176 1.04014	0.86598	0.93955	AVRG		0.96913		6.95668	
trans-1,4-Dichloro-2-butene	NE 0.14437	0.13350 0.14403	0.11942 0.14850	0.10829 0.14385	0.13540	0.13423	AVRG		0.13462		9.78250	
n-Propylbenzene	NE 2.66042	2.88209 3.10075	2.49411 3.11555	2.53781 3.05895	2.46370	2.61730	AVRG		2.77008		9.75389	
Bromobenzene	NE 0.77939	0.86370 0.81685	0.85684 0.82968	0.75339 0.84029	0.73938	0.75940	AVRG		0.80432		5.86953	
1,3,5-Trimethylbenzene	NE 1.98879	2.08539 2.27437	1.69548 2.27697	1.77319 2.30618	1.66041	1.88567	AVRG		1.99405		12.85189	
2-Chlorotoluene	NE 1.73108	1.81179 1.89168	1.88987 1.88579	1.86326 1.91239	1.71185	1.75498	AVRG		1.82808		4.24014	
4-Chlorotoluene	NE 2.06332	2.21268 2.22414	2.11691 2.21317	2.09175 2.25181	1.95043	2.06457	AVRG		2.13209		4.69086	
tert-Butylbenzene	NE 959353	10853 2347378	18227 3530696	39403 4819427	84028	370839	QUAD	0.02374	0.54128	-0.00602	0.99897	
1,2,4-Trimethylbenzene	NE 2.06019	2.00137 2.32469	1.81824 2.31551	1.76689 2.32735	1.64198	1.98936	AVRG		2.02729		12.63293	
sec-Butylbenzene	NE 1197903	13938 3102101	21732 NE	47014 NE	101928	455780	QUAD	-0.00618	0.55467	-0.03230	0.99985	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_433802

ICAL Start Date 27-APR-2023 1150 **ICAL End Date** 27-APR-2023 1532

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
p-Isopropyltoluene	NE 1111605	12064 2815657	17689 4229682	38993 5771327	82800	409668	LINR	0.05617	2.41590		0.99794	
1,3-Dichlorobenzene	NE 1.33289	1.52624 1.43283	1.36848 1.45084	1.36818 1.47141	1.23607	1.32511	AVRG		1.39023		6.37463	
1,4-Dichlorobenzene	NE 1.38232	1.52135 1.49096	1.48260 1.49316	1.50097 1.51205	1.33150	1.39912	AVRG		1.45712		4.66089	
Benzyl Chloride	NE 701554	6221 1516332	12479 2452672	21641 3485389	49694	224999	LINR	0.06175	0.79075		0.99741	
n-Butylbenzene	NE 903220	10626 2358150	16188 3572280	35791 4928510	73193	342114	LINR	0.06391	2.05499		0.99709	
1,2-Dichlorobenzene	NE 1.34978	1.62710 1.42722	1.46623 1.44695	1.37819 1.46745	1.27868	1.35204	AVRG		1.42151		7.00407	
1,2-Dibromo-3-Chloropropane	NE 95256	964 211316	2085 334502	3334 459081	8009	35964	LINR	0.04573	0.19014		0.99831	
1,2,4-Trichlorobenzene	NE 0.91755	1.16048 1.06332	1.06586 1.08179	1.01563 1.11639	0.88629	0.96424	AVRG		1.03017		8.90949	
Hexachlorobutadiene	NE 165523	1936 490376	3518 NE	8006 NE	14820	64680	QUAD	-0.01369	4.11402	-2.01981	0.99962	
Naphthalene	NE 2.76505	2.94384 2.90282	3.00143 2.93886	2.64814 2.95506	2.55367	2.81421	AVRG		2.83590		5.41608	
1,2,3-Trichlorobenzene	NE 0.91183	1.09276 1.04179	1.11322 1.04401	0.97571 1.07265	0.86169	0.95824	AVRG		1.00799		8.52293	
Methyl Acrylate	NE 0.65013	0.64550 0.64679	0.49377 0.64267	0.70080 0.63429	0.53731	0.62791	AVRG		0.61991		10.25918	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_433802

ICAL Start Date 27-APR-2023 1150 **ICAL End Date** 27-APR-2023 1532

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
1,4-Dioxane	0.00609 0.00603	0.00725 0.00585	0.00662 0.00587	0.00613 0.00565	0.00571	0.00536	AVRG		0.00606		8.84934	
n-Hexane	NE 202205	2717 666132	4851 NE	10918 NE	18408	85240	QUAD	-0.01670	4.24536	-2.21882	0.99915	
Freon TF	NE 193298	2536 584371	4343 NE	9850 NE	20034	84618	QUAD	-0.01893	4.38416	-2.28926	0.99874	
Methyl Acetate	NE 0.41381	0.48344 0.41436	0.52045 0.40600	0.43142 0.39852	0.41307	0.41137	AVRG		0.43249		9.56527	
Methylcyclohexane	NE 0.85325	0.80538 0.87839	0.77443 0.87153	0.66693 0.89030	0.68895	0.66672	AVRG		0.78843		11.82466	
Isopropyl alcohol	NE 0.03415	0.03806 0.03284	0.04357 0.03208	0.03536 0.03091	0.03233	0.03210	AVRG		0.03460		11.55092	
Allyl alcohol	NE 202205	2507 666132	4851 NE	10918 NE	18408	85240	QUAD	-0.32728	84.86172	-44.33333	0.99914	
4-Methyl-2-pentanol	NE 0.08295	0.11505 0.08654	0.09151 0.08929	0.08520 0.08920	0.08672	0.08991	AVRG		0.09071		10.47361	
Tert-butyl alcohol	NE 0.05876	0.07032 0.05691	0.07398 0.05685	0.05948 0.05535	0.05840	0.05828	AVRG		0.06093		10.73963	
Diethyl ether	NE 0.37511	0.43582 0.37409	0.43795 0.37129	0.32859 0.37092	0.37503	0.34194	AVRG		0.37897		9.69426	
1,3-Butadiene	NE 0.36818	0.38779 0.46981	0.31986 0.47356	0.40058 0.47551	0.37297	0.38247	AVRG		0.40564		13.59290	
Cyclohexane	NE 316940	3518 941952	6485 NE	15056 NE	33340	144205	QUAD	-0.01762	2.63447	-0.81297	0.99808	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_433802

ICAL Start Date 27-APR-2023 1150 **ICAL End Date** 27-APR-2023 1532

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Tetrahydrofuran	NE 0.10247	0.12348 0.10693	0.10674 0.10354	0.11769 0.10187	0.11563	0.10911	AVRG		0.10972		6.89004	
alpha-Methylstyrene	NE 602686	5587 1385812	8731 2091943	17535 2902715	41259	210404	LINR	0.04984	1.20489		0.99876	
Diisopropyl ether	NE 1.58724	1.75594 1.56398	1.61080 1.54504	1.38919 NE	1.54258	1.45512	AVRG		1.55624		6.96827	
Butyl acrylate	NE 0.79383	0.83630 0.85161	0.74711 0.88681	0.65959 0.89536	0.69233	0.70830	AVRG		0.78569		11.14316	
Dicyclopentadiene	NE 2.67665	2.61031 2.67038	2.41099 2.61473	2.06035 2.66847	2.35726	2.14769	AVRG		2.46854		9.61578	
1,2,3-Trimethylbenzene	NE 2.13750	2.20725 2.15760	1.88049 2.13794	1.52943 2.16070	1.74798	1.84745	AVRG		1.97848		11.98595	
Ethanol	NE 0.00603	0.00641 0.00577	0.00633 0.00572	0.00544 0.00554	0.00588	0.00574	AVRG		0.00587		5.62995	
Acetaldehyde	NE 0.04446	NE 0.04478	NE 0.04441	0.04724 0.04040	0.04639	0.04368	AVRG		0.04448		4.90948	
Dimethyl Disulfide	NE 0.74901	0.69360 0.77283	0.65486 0.77486	0.59355 0.77962	0.66757	0.65992	AVRG		0.70509		9.44569	
2-Ethylhexyl Acrylate	NE 0.96686	1.05473 0.96847	0.88140 0.92013	0.69218 0.90637	0.69999	0.77954	AVRG		0.87441		14.33560	
1,2-Dichloroethylene (total)	NE 0.45598	0.48031 0.47556	0.47846 0.47338	0.49027 0.47465	0.43397	0.44909	AVRG		0.46797		3.81332	
Xylenes (total)	NE 0.53587	0.49207 0.59091	0.48028 0.58641	0.49211 0.59294	0.49013	0.51791	AVRG		0.53096		8.92437	

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Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_433802

ICAL Start Date 27-APR-2023 1150 **ICAL End Date** 27-APR-2023 1532

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Dibromofluoromethane	NE 335198	4375 731079	7399 1053937	14813 1392055	38110	137923	LINR	-0.01769	0.45294		0.99871	
1,2-Dichloroethane-d4	NE 421021	5644 882376	9967 1287228	18316 1703524	45826	171066	LINR	-0.02104	0.55263		0.99909	
Toluene-d8	NE 1.13986	1.44694 1.22821	1.30107 1.13913	1.29489 1.07740	1.32183	1.23021	AVRG		1.24217		9.13901	
4-Bromofluorobenzene	NE 482849	8179 1045731	11803 1509530	22807 1988190	51785	197636	LINR	-0.02293	0.46254		0.99871	

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Form 6I

Initial Calibration Verification (ICV)

Volatiles by EPA 8260

Workorder

HS23051834

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_433802

Instrument ID VOA9.i ICAL Date 27-APR-2023
Lab File ID U042714.D ICAL Time 1425
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

Compound	Amount Added	Amount Recovered	% Recovered	Limits	Q
1,1,1,2-Tetrachlor	50.00	48.30	96.61	80-120	
1,1,1-Trichloroeth	50.00	43.67	87.35	80-120	
1,1,2,2-Tetrachlor	50.00	48.26	96.53	80-120	
Freon TF	50.00	56.17	112.35	80-120	
Methyl Acetate	50.00	44.20	88.41	80-120	
Cyclohexane	50.00	53.63	107.28	80-120	
Methylcyclohexane	50.00	46.54	93.08	80-120	
Carbon Disulfide	100.00	93.37	93.38	80-120	
2-Hexanone	100.00	96.44	96.45	80-120	
1,1,2-Trichloroeth	50.00	50.19	100.38	80-120	
1,1-Dichloroethane	50.00	45.20	90.41	80-120	
1,1-Dichloroethene	50.00	45.58	91.17	80-120	
1,1-Dichloropropen	50.00	47.83	95.66	80-120	
1,2,3-Trichloroben	50.00	45.91	91.83	80-120	
1,2,3-Trichloropro	50.00	48.12	96.25	80-120	
1,2,4-Trichloroben	50.00	46.86	93.73	80-120	
1,2,4-Trimethylben	50.00	51.18	102.38	80-120	
1,2-Dibromo-3-Chlo	50.00	45.47	90.94	80-120	
1,2-Dibromoethane	50.00	48.91	97.83	80-120	
Acrolein	100.00	93.70	93.71	80-120	
Acrylonitrile	100.00	89.69	89.70	80-120	
1,2-Dichlorobenzen	50.00	46.39	92.79	80-120	
1,2-Dichloroethane	50.00	48.66	97.32	80-120	
1,2-Dichloropropan	50.00	50.10	100.21	80-120	
1,3,5-Trimethylben	50.00	48.82	97.64	80-120	
1,3-Dichlorobenzen	50.00	47.10	94.20	80-120	
1,3-Dichloropropan	50.00	48.75	97.51	80-120	
1,4-Dichlorobenzen	50.00	47.17	94.34	80-120	
1-Chlorohexane	50.00	51.78	103.56	80-120	
2,2-Dichloropropan	50.00	48.07	96.15	80-120	
2-Butanone	100.00	92.66	92.67	80-120	
2-Chloroethylvinyl	100.00	100.45	100.46	80-120	
2-Chlorotoluene	50.00	45.85	91.70	80-120	
4-Chlorotoluene	50.00	47.06	94.14	80-120	

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_433802

Instrument ID VOA9.i ICAL Date 27-APR-2023
Lab File ID U042714.D ICAL Time 1425
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

Compound	Amount Added	Amount Recovered	% Recovered	Limits	Q
p-Isopropyltoluene	50.00	43.03	86.08	80-120	
4-Methyl-2-Pentano	100.00	96.40	96.41	80-120	
Acetone	100.00	93.40	93.41	80-120	
Acetonitrile	500.00	433.86	86.77	80-120	
Allyl Chloride	50.00	44.29	88.59	80-120	
Benzene	50.00	47.49	95.00	80-120	
Bromobenzene	50.00	46.62	93.25	80-120	
Bromochloromethane	50.00	48.73	97.47	80-120	
Bromodichlorometha	50.00	49.27	98.54	80-120	
Bromoform	50.00	51.29	102.60	80-120	
Bromomethane	50.00	51.41	102.83	80-120	
Carbon Tetrachlori	50.00	43.67	87.34	80-120	
Chlorobenzene	50.00	47.56	95.14	80-120	
Chloroethane	50.00	45.47	90.95	80-120	
Chloroform	50.00	46.36	92.73	80-120	
Chloromethane	50.00	48.29	96.58	80-120	
Chloroprene	50.00	45.40	90.81	80-120	
cis-1,2-Dichloroet	50.00	45.90	91.81	80-120	
cis-1,3-Dichloropr	50.00	49.61	99.24	80-120	
Dibromochlorometha	50.00	49.77	99.54	80-120	
Dibromomethane	50.00	47.90	95.81	80-120	
Dichlorodifluorome	50.00	43.24	86.49	80-120	
Ethylbenzene	50.00	46.96	93.93	80-120	
Ethyl Methacrylate	50.00	49.74	99.49	80-120	
Iodomethane	100.00	84.26	84.27	80-120	
Isobutyl Alcohol	1000.00	928.03	92.80	70-130	
Propionitrile	500.00	455.76	91.15	70-130	
Hexachlorobutadien	50.00	55.39	110.78	80-120	
Isopropylbenzene	50.00	46.68	93.36	80-120	
m,p-Xylenes	100.00	98.70	98.71	80-120	
Methyl tert-butyl	50.00	45.70	91.41	80-120	
Methylene Chloride	50.00	46.51	93.03	80-120	
Methacrylonitrile	50.00	46.62	93.26	80-120	
Methyl Methacrylat	50.00	46.00	92.01	80-120	

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_433802

Instrument ID VOA9.i ICAL Date 27-APR-2023
Lab File ID U042714.D ICAL Time 1425
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

Compound	Amount Added	Amount Recovered	% Recovered	Limits	Q
n-Butylbenzene	50.00	43.15	86.32	80-120	
n-Propylbenzene	50.00	46.12	92.26	80-120	
Naphthalene	50.00	48.33	96.67	80-120	
o-Xylene	50.00	48.97	97.95	80-120	
sec-Butylbenzene	50.00	50.78	101.58	80-120	
Styrene	50.00	52.06	104.12	80-120	
tert-Butylbenzene	50.00	44.52	89.05	80-120	
Tetrachloroethene	50.00	45.26	90.53	80-120	
Toluene	50.00	47.29	94.59	80-120	
trans-1,2-Dichloro	50.00	46.16	92.33	80-120	
trans-1,3-Dichloro	50.00	51.24	102.50	80-120	
trans-1,4-Dichloro	50.00	49.42	98.85	80-120	
Trichloroethene	50.00	47.12	94.25	80-120	
Trichlorofluoromet	50.00	52.60	105.22	80-120	
Vinyl Acetate	100.00	97.75	97.75	80-120	
Vinyl Chloride	50.00	44.15	88.30	80-120	
1,2-Dichloroethyle	100.00	92.07	92.07	80-120	
Xylenes (total)	150.00	147.68	98.45	80-120	
1,4-Dioxane	1000.00	890.69	89.07	80-120	
Dibromofluorometha	50.00	50.01	100.02	71-125	
1,2-Dichloroethane	50.00	48.91	97.83	70-125	
Toluene-d8	50.00	50.06	100.12	75-125	
4-Bromofluorobenze	50.00	52.33	104.67	72-125	

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Form 7

Continuing Calibration Verification (CCV)

Volatiles by EPA 8260

Workorder

HS23051834

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_436716

Instrument ID VOA9.i Injection Date 31-MAY-2023 1101
Lab File ID U053103.D ICAL Date(s) 27-APR-2023 27-APR-2023
Analysis Type WATER ICAL Times 1150 1532
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Dichlorodifluoromethane	50.0	57.43306	0.49713	0.100	-14.86612	20.0	Linear	
Chloromethane	0.47718	0.79630	0.79630	0.100	-66.87630	20.0	Averaged	<-
Vinyl Chloride	0.50096	0.55489	0.55489	0.100	-10.76591	20.0	Averaged	
Bromomethane	50.0	53.48315	0.30302	0.100	-6.96629	20.0	Quadratic	
Chloroethane	0.33245	0.36589	0.36589	0.100	-10.05705	20.0	Averaged	
Trichlorofluoromethane	50.0	60.06458	0.68186	0.100	-20.12916	20.0	Quadratic	<-
Acrolein	100	117	0.02623	0.010	-16.84461	20.0	Linear	
Acetone	100	108	0.21151	0.100	-8.35535	20.0	Linear	
1,1-Dichloroethene	0.37505	0.39468	0.39468	0.100	-5.23644	20.0	Averaged	
Iodomethane	100	50.32997	0.25883	0.100	49.67003	20.0	Quadratic	<-
Acrylonitrile	0.21081	0.20133	0.20133	0.050	4.49654	20.0	Averaged	
Methylene Chloride	50.0	53.43431	0.49301	0.100	-6.86863	20.0	Linear	
Methyl tert-butyl ether	1.44694	1.24788	1.24788	0.100	13.75776	20.0	Averaged	
Carbon Disulfide	1.12102	1.13282	1.13282	0.100	-1.05183	20.0	Averaged	
trans-1,2-Dichloroethene	0.42890	0.44180	0.44180	0.100	-3.00646	20.0	Averaged	
Vinyl Acetate	1.46473	1.37796	1.37796	0.010	5.92346	20.0	Averaged	
1,1-Dichloroethane	0.78593	0.77107	0.77107	0.200	1.89018	20.0	Averaged	
2-Butanone	0.24388	0.23075	0.23075	0.100	5.38453	20.0	Averaged	
2,2-Dichloropropane	0.65370	0.59389	0.59389	0.100	9.14949	20.0	Averaged	
cis-1,2-Dichloroethene	0.50703	0.50440	0.50440	0.100	0.51813	20.0	Averaged	
Chloroform	0.82034	0.82831	0.82831	0.200	-0.97114	20.0	Averaged	
Bromochloromethane	0.25588	0.26841	0.26841	0.100	-4.89661	20.0	Averaged	
Dibromofluoromethane	50.0	47.29617	0.43646	0.100	5.40766	20.0	Linear	
1,1,1-Trichloroethane	0.72412	0.65884	0.65884	0.100	9.01387	20.0	Averaged	
1,1-Dichloropropene	0.37718	0.40440	0.40440	0.100	-7.21654	20.0	Averaged	
1,2-Dichloroethane	0.47844	0.46394	0.46394	0.100	3.03097	20.0	Averaged	
Carbon Tetrachloride	50.0	45.04919	0.37847	0.100	9.90163	20.0	Linear	
1,2-Dichloroethane-d4	50.0	43.16832	0.48875	0.100	13.66336	20.0	Linear	
Benzene	1.18576	1.24594	1.24594	0.500	-5.07570	20.0	Averaged	
Trichloroethene	0.34144	0.36154	0.36154	0.200	-5.88749	20.0	Averaged	
Bromodichloromethane	0.42544	0.41608	0.41608	0.200	2.20205	20.0	Averaged	
2-Chloroethylvinyl ether	0.11342	0.01509	0.01509	0.001	86.69967	20.0	Averaged	<-
1,2-Dichloropropane	0.30580	0.33412	0.33412	0.100	-9.26105	20.0	Averaged	
Dibromomethane	0.21579	0.21413	0.21413	0.100	0.76711	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_436716

Instrument ID VOA9.i Injection Date 31-MAY-2023 1101
Lab File ID U053103.D ICAL Date(s) 27-APR-2023 27-APR-2023
Analysis Type WATER ICAL Times 1150 1532
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
4-Methyl-2-Pentanone	0.41241	0.38514	0.38514	0.100	6.61160	20.0	Averaged	
cis-1,3-Dichloropropene	0.53172	0.50232	0.50232	0.200	5.52840	20.0	Averaged	
Toluene-d8	1.24217	1.13620	1.13620	0.100	8.53145	20.0	Averaged	
Toluene	1.37284	1.46063	1.46063	0.400	-6.39427	20.0	Averaged	
trans-1,3-Dichloropropene	0.45614	0.42060	0.42060	0.100	7.79300	20.0	Averaged	
2-Hexanone	0.28970	0.26600	0.26600	0.100	8.18161	20.0	Averaged	
1,1,2-Trichloroethane	0.26448	0.28392	0.28392	0.100	-7.34771	20.0	Averaged	
1,3-Dichloropropane	0.58195	0.60513	0.60513	0.100	-3.98374	20.0	Averaged	
Dibromochloromethane	0.38935	0.38179	0.38179	0.100	1.94253	20.0	Averaged	
Tetrachloroethene	0.29521	0.35245	0.35245	0.200	-19.38915	20.0	Averaged	
1,2-Dibromoethane	0.34696	0.35192	0.35192	0.100	-1.43034	20.0	Averaged	
1-Chlorohexane	50.0	56.91590	0.26354	0.100	-13.83180	20.0	Quadratic	
Chlorobenzene	0.94887	0.99843	0.99843	0.500	-5.22223	20.0	Averaged	
1,1,1,2-Tetrachloroethane	0.36317	0.36292	0.36292	0.100	0.06736	20.0	Averaged	
Ethylbenzene	0.46544	0.49368	0.49368	0.100	-6.06883	20.0	Averaged	
m,p-Xylenes	0.56965	0.60946	0.60946	0.100	-6.98802	20.0	Averaged	
o-Xylene	0.57469	0.59489	0.59489	0.300	-3.51619	20.0	Averaged	
Styrene	0.96565	1.00092	1.00092	0.300	-3.65231	20.0	Averaged	
Bromoform	0.28496	0.25336	0.25336	0.100	11.08992	20.0	Averaged	
Isopropylbenzene	1.39261	1.42931	1.42931	0.100	-2.63555	20.0	Averaged	
1,1,2,2-Tetrachloroethane	0.85969	0.90769	0.90769	0.300	-5.58372	20.0	Averaged	
4-Bromofluorobenzene	50.0	43.99346	0.41759	0.100	12.01308	20.0	Linear	
1,2,3-Trichloropropane	0.96913	0.82025	0.82025	0.100	15.36282	20.0	Averaged	
n-Propylbenzene	2.77008	2.89250	2.89250	0.100	-4.41961	20.0	Averaged	
Bromobenzene	0.80432	0.84812	0.84812	0.100	-5.44524	20.0	Averaged	
1,3,5-Trimethylbenzene	1.99405	1.94109	1.94109	0.100	2.65584	20.0	Averaged	
2-Chlorotoluene	1.82808	1.94874	1.94874	0.100	-6.60065	20.0	Averaged	
4-Chlorotoluene	2.13209	2.17507	2.17507	0.100	-2.01583	20.0	Averaged	
tert-Butylbenzene	50.0	50.69496	1.86811	0.100	-1.38991	20.0	Quadratic	
1,2,4-Trimethylbenzene	2.02729	1.93537	1.93537	0.100	4.53386	20.0	Averaged	
sec-Butylbenzene	50.0	57.65250	2.43535	0.100	-15.30499	20.0	Quadratic	
p-Isopropyltoluene	50.0	44.88769	2.03318	0.100	10.22461	20.0	Linear	
1,3-Dichlorobenzene	1.39023	1.44803	1.44803	0.600	-4.15745	20.0	Averaged	
1,4-Dichlorobenzene	1.45712	1.51310	1.51310	0.400	-3.84207	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_436716

Instrument ID VOA9.i Injection Date 31-MAY-2023 1101
Lab File ID U053103.D ICAL Date(s) 27-APR-2023 27-APR-2023
Analysis Type WATER ICAL Times 1150 1532
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
n-Butylbenzene	50.0	45.04875	1.72016	0.500	9.90251	20.0	Linear	
1,2-Dichlorobenzene	1.42151	1.44123	1.44123	0.400	-1.38705	20.0	Averaged	
1,2-Dibromo-3-Chloropropane	50.0	40.31886	0.14463	0.050	19.36229	20.0	Linear	
1,2,4-Trichlorobenzene	1.03017	1.01471	1.01471	0.200	1.50077	20.0	Averaged	
Hexachlorobutadiene	50.0	69.32672	0.43196	0.100	-38.65344	20.0	Quadratic	<-
Naphthalene	2.83590	2.52006	2.52006	0.200	11.13696	20.0	Averaged	
1,2,3-Trichlorobenzene	1.00799	0.98719	0.98719	0.100	2.06317	20.0	Averaged	
1,2-Dichloroethylene (total	0.46797	0.47310	0.47310	0.200	-1.09706	20.0	Averaged	
Xylenes (total)	0.53096	0.57814	0.57814	0.100	-8.88539	20.0	Averaged	
1,4-Dioxane	0.00606	0.00665	0.00665	0.001	-9.77613	20.0	Averaged	
Cyclohexane	50.0	59.96671	0.55803	0.100	-19.93341	20.0	Quadratic	
Freon TF	50.0	64.22117	0.36800	0.100	-28.44234	20.0	Quadratic	<-
Methylcyclohexane	0.78843	0.75389	0.75389	0.100	4.38149	20.0	Averaged	
Methyl Acetate	0.43249	0.42200	0.42200	0.100	2.42530	20.0	Averaged	
Tert-butyl alcohol	0.06093	0.04994	0.04994	0.005	18.03009	20.0	Averaged	
Isopropyl alcohol	0.03460	0.03326	0.03326	0.005	3.87380	20.0	Averaged	
Isobutyl Alcohol	0.07864	0.07297	0.07297	0.005	7.20895	20.0	Averaged	
Acetonitrile	0.06455	0.05917	0.05917	0.005	8.33901	20.0	Averaged	
Allyl Chloride	1.40975	1.34988	1.34988	0.100	4.24680	20.0	Averaged	
Methacrylonitrile	0.37979	0.33032	0.33032	0.100	13.02471	20.0	Averaged	
Methyl Methacrylate	0.55173	0.47261	0.47261	0.100	14.33896	20.0	Averaged	
Propionitrile	0.07626	0.07428	0.07428	0.010	2.58956	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_436716

Instrument ID VOA9.i Injection Date 31-MAY-2023 1828
Lab File ID U053123.D ICAL Date(s) 27-APR-2023 27-APR-2023
Analysis Type WATER ICAL Times 1150 1532
Lab Sample ID CCV-END Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Dibromofluoromethane	50.0	45.82792	0.42315	0.100	8.34416	50.0	Linear	
1,2-Dichloroethane-d4	50.0	43.20404	0.48915	0.100	13.59192	50.0	Linear	
Toluene-d8	1.24217	1.08067	1.08067	0.100	13.00117	50.0	Averaged	
4-Bromofluorobenzene	50.0	41.47726	0.39431	0.100	17.04549	50.0	Linear	
Vinyl Chloride	0.50096	0.48787	0.48787	0.100	2.61331	50.0	Averaged	
1,1-Dichloroethene	0.37505	0.36573	0.36573	0.100	2.48456	50.0	Averaged	
trans-1,2-Dichloroethene	0.42890	0.41541	0.41541	0.100	3.14552	50.0	Averaged	
cis-1,2-Dichloroethene	0.50703	0.49508	0.49508	0.100	2.35642	50.0	Averaged	
1,2-Dichloroethane	0.47844	0.45352	0.45352	0.100	5.20998	50.0	Averaged	
Trichloroethene	0.34144	0.35407	0.35407	0.200	-3.69910	50.0	Averaged	
Tetrachloroethene	0.29521	0.32852	0.32852	0.200	-11.28263	50.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_436835

Instrument ID VOA9.i Injection Date 01-JUN-2023 1245
Lab File ID U060103.D ICAL Date(s) 27-APR-2023 27-APR-2023
Analysis Type WATER ICAL Times 1150 1532
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Dichlorodifluoromethane	50.0	49.31052	0.42302	0.100	1.37897	20.0	Linear	
Chloromethane	0.47718	0.71414	0.71414	0.100	-49.65773	20.0	Averaged	<-
Vinyl Chloride	0.50096	0.50106	0.50106	0.100	-0.01989	20.0	Averaged	
Bromomethane	50.0	48.69529	0.27428	0.100	2.60942	20.0	Quadratic	
Chloroethane	0.33245	0.33102	0.33102	0.100	0.43020	20.0	Averaged	
Trichlorofluoromethane	50.0	54.07082	0.60151	0.100	-8.14163	20.0	Quadratic	
Acrolein	100	105	0.02370	0.010	-5.49511	20.0	Linear	
Acetone	100	106	0.20738	0.100	-6.20041	20.0	Linear	
1,1-Dichloroethene	0.37505	0.35724	0.35724	0.100	4.74639	20.0	Averaged	
Iodomethane	100	53.30631	0.27519	0.100	46.69369	20.0	Quadratic	<-
Acrylonitrile	0.21081	0.18840	0.18840	0.050	10.63378	20.0	Averaged	
Methylene Chloride	50.0	48.67694	0.44937	0.100	2.64611	20.0	Linear	
Methyl tert-butyl ether	1.44694	1.21070	1.21070	0.100	16.32711	20.0	Averaged	
Carbon Disulfide	1.12102	1.04519	1.04519	0.100	6.76509	20.0	Averaged	
trans-1,2-Dichloroethene	0.42890	0.40689	0.40689	0.100	5.13183	20.0	Averaged	
Vinyl Acetate	1.46473	1.27839	1.27839	0.010	12.72123	20.0	Averaged	
1,1-Dichloroethane	0.78593	0.71332	0.71332	0.200	9.23780	20.0	Averaged	
2-Butanone	0.24388	0.21745	0.21745	0.100	10.84091	20.0	Averaged	
2,2-Dichloropropane	0.65370	0.52799	0.52799	0.100	19.23044	20.0	Averaged	
cis-1,2-Dichloroethene	0.50703	0.47012	0.47012	0.100	7.27948	20.0	Averaged	
Chloroform	0.82034	0.74588	0.74588	0.200	9.07718	20.0	Averaged	
Bromochloromethane	0.25588	0.24269	0.24269	0.100	5.15505	20.0	Averaged	
Dibromofluoromethane	50.0	49.33536	0.45493	0.100	1.32928	20.0	Linear	
1,1,1-Trichloroethane	0.72412	0.60348	0.60348	0.100	16.65990	20.0	Averaged	
1,1-Dichloropropene	0.37718	0.36810	0.36810	0.100	2.40733	20.0	Averaged	
1,2-Dichloroethane	0.47844	0.41996	0.41996	0.100	12.22469	20.0	Averaged	
Carbon Tetrachloride	50.0	40.53449	0.33829	0.100	18.93103	20.0	Linear	
1,2-Dichloroethane-d4	50.0	45.19519	0.51115	0.100	9.60962	20.0	Linear	
Benzene	1.18576	1.18682	1.18682	0.500	-0.08948	20.0	Averaged	
Trichloroethene	0.34144	0.33137	0.33137	0.200	2.94912	20.0	Averaged	
Bromodichloromethane	0.42544	0.37799	0.37799	0.200	11.15344	20.0	Averaged	
2-Chloroethylvinyl ether	0.11342	0.01000	0.01000	0.001	91.18242	20.0	Averaged	<-
1,2-Dichloropropane	0.30580	0.31206	0.31206	0.100	-2.04606	20.0	Averaged	
Dibromomethane	0.21579	0.19863	0.19863	0.100	7.95274	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_436835

Instrument ID VOA9.i Injection Date 01-JUN-2023 1245
Lab File ID U060103.D ICAL Date(s) 27-APR-2023 27-APR-2023
Analysis Type WATER ICAL Times 1150 1532
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
4-Methyl-2-Pentanone	0.41241	0.35942	0.35942	0.100	12.84853	20.0	Averaged	
cis-1,3-Dichloropropene	0.53172	0.46216	0.46216	0.200	13.08166	20.0	Averaged	
Toluene-d8	1.24217	1.19521	1.19521	0.100	3.78079	20.0	Averaged	
Toluene	1.37284	1.36337	1.36337	0.400	0.69030	20.0	Averaged	
trans-1,3-Dichloropropene	0.45614	0.38597	0.38597	0.100	15.38340	20.0	Averaged	
2-Hexanone	0.28970	0.25074	0.25074	0.100	13.44987	20.0	Averaged	
1,1,2-Trichloroethane	0.26448	0.26213	0.26213	0.100	0.88896	20.0	Averaged	
1,3-Dichloropropane	0.58195	0.55490	0.55490	0.100	4.64854	20.0	Averaged	
Dibromochloromethane	0.38935	0.35538	0.35538	0.100	8.72599	20.0	Averaged	
Tetrachloroethene	0.29521	0.33222	0.33222	0.200	-12.53481	20.0	Averaged	
1,2-Dibromoethane	0.34696	0.33092	0.33092	0.100	4.62399	20.0	Averaged	
1-Chlorohexane	50.0	51.59004	0.23501	0.100	-3.18009	20.0	Quadratic	
Chlorobenzene	0.94887	0.94657	0.94657	0.500	0.24279	20.0	Averaged	
1,1,1,2-Tetrachloroethane	0.36317	0.33609	0.33609	0.100	7.45488	20.0	Averaged	
Ethylbenzene	0.46544	0.46117	0.46117	0.100	0.91540	20.0	Averaged	
m,p-Xylenes	0.56965	0.57448	0.57448	0.100	-0.84795	20.0	Averaged	
o-Xylene	0.57469	0.55889	0.55889	0.300	2.74805	20.0	Averaged	
Styrene	0.96565	0.93809	0.93809	0.300	2.85376	20.0	Averaged	
Bromoform	0.28496	0.24028	0.24028	0.100	15.68134	20.0	Averaged	
Isopropylbenzene	1.39261	1.33441	1.33441	0.100	4.17917	20.0	Averaged	
1,1,2,2-Tetrachloroethane	0.85969	0.85866	0.85866	0.300	0.11957	20.0	Averaged	
4-Bromofluorobenzene	50.0	46.33532	0.43925	0.100	7.32936	20.0	Linear	
1,2,3-Trichloropropane	0.96913	0.77569	0.77569	0.100	19.95992	20.0	Averaged	
n-Propylbenzene	2.77008	2.72527	2.72527	0.100	1.61758	20.0	Averaged	
Bromobenzene	0.80432	0.80001	0.80001	0.100	0.53684	20.0	Averaged	
1,3,5-Trimethylbenzene	1.99405	1.82973	1.82973	0.100	8.24045	20.0	Averaged	
2-Chlorotoluene	1.82808	1.84513	1.84513	0.100	-0.93302	20.0	Averaged	
4-Chlorotoluene	2.13209	2.06282	2.06282	0.100	3.24893	20.0	Averaged	
tert-Butylbenzene	50.0	47.45772	1.74349	0.100	5.08456	20.0	Quadratic	
1,2,4-Trimethylbenzene	2.02729	1.81549	1.81549	0.100	10.44749	20.0	Averaged	
sec-Butylbenzene	50.0	54.00754	2.25454	0.100	-8.01509	20.0	Quadratic	
p-Isopropyltoluene	50.0	42.06715	1.89689	0.100	15.86569	20.0	Linear	
1,3-Dichlorobenzene	1.39023	1.35292	1.35292	0.600	2.68337	20.0	Averaged	
1,4-Dichlorobenzene	1.45712	1.41082	1.41082	0.400	3.17712	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_436835

Instrument ID VOA9.i Injection Date 01-JUN-2023 1245
Lab File ID U060103.D ICAL Date(s) 27-APR-2023 27-APR-2023
Analysis Type WATER ICAL Times 1150 1532
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
n-Butylbenzene	50.0	42.02825	1.59602	0.500	15.94350	20.0	Linear	
1,2-Dichlorobenzene	1.42151	1.33788	1.33788	0.400	5.88330	20.0	Averaged	
1,2-Dibromo-3-Chloropropane	50.0	40.01861	0.14349	0.050	19.96277	20.0	Linear	
1,2,4-Trichlorobenzene	1.03017	0.94423	0.94423	0.200	8.34292	20.0	Averaged	
Hexachlorobutadiene	50.0	64.09284	0.38933	0.100	-28.18568	20.0	Quadratic	<-
Naphthalene	2.83590	2.37877	2.37877	0.200	16.11930	20.0	Averaged	
1,2,3-Trichlorobenzene	1.00799	0.91779	0.91779	0.100	8.94813	20.0	Averaged	
1,2-Dichloroethylene (total	0.46797	0.43851	0.43851	0.200	6.29529	20.0	Averaged	
Xylenes (total)	0.53096	0.54580	0.54580	0.100	-2.79494	20.0	Averaged	
1,4-Dioxane	0.00606	0.00659	0.00659	0.001	-8.80317	20.0	Averaged	
Cyclohexane	50.0	54.59906	0.49759	0.100	-9.19812	20.0	Quadratic	
Freon TF	50.0	56.72460	0.31485	0.100	-13.44920	20.0	Quadratic	
1,3-Butadiene	0.40564	0.46303	0.46303	0.100	-14.14842	20.0	Averaged	
Methylcyclohexane	0.78843	0.77024	0.77024	0.100	2.30682	20.0	Averaged	
Methyl Acetate	0.43249	0.38653	0.38653	0.100	10.62639	20.0	Averaged	
Tert-butyl alcohol	0.06093	0.04543	0.04543	0.005	25.42705	20.0	Averaged	<-
Isopropyl alcohol	0.03460	0.03051	0.03051	0.005	11.83477	20.0	Averaged	
trans-1,4-Dichloro-2-butene	0.13462	0.05479	0.05479	0.050	59.29743	20.0	Averaged	<-
Isobutyl Alcohol	0.07864	0.06852	0.06852	0.005	12.86925	20.0	Averaged	
Chloroprene	0.16917	0.14930	0.14930	0.100	11.74757	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_436835

Instrument ID VOA9.i Injection Date 01-JUN-2023 2042
Lab File ID U060124.D ICAL Date(s) 27-APR-2023 27-APR-2023
Analysis Type WATER ICAL Times 1150 1532
Lab Sample ID CCV-END Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Dichlorodifluoromethane	50.0	42.58526	0.36167	0.100	14.82948	50.0	Linear	
Chloromethane	0.47718	0.75905	0.75905	0.100	-59.07083	50.0	Averaged	
Vinyl Chloride	0.50096	0.52663	0.52663	0.100	-5.12531	50.0	Averaged	
Bromomethane	50.0	52.61852	0.29781	0.100	-5.23704	50.0	Quadratic	
Chloroethane	0.33245	0.35540	0.35540	0.100	-6.90121	50.0	Averaged	
Trichlorofluoromethane	50.0	58.54806	0.66113	0.100	-17.09612	50.0	Quadratic	
Acrolein	100	125	0.02813	0.010	-25.38733	50.0	Linear	
Acetone	100	102	0.19986	0.100	-2.26294	50.0	Linear	
1,1-Dichloroethene	0.37505	0.38866	0.38866	0.100	-3.63005	50.0	Averaged	
Iodomethane	100	41.07294	0.20826	0.100	58.92706	50.0	Quadratic	<-
Acrylonitrile	0.21081	0.19876	0.19876	0.050	5.71911	50.0	Averaged	
Methylene Chloride	50.0	53.33444	0.49209	0.100	-6.66888	50.0	Linear	
Methyl tert-butyl ether	1.44694	1.27669	1.27669	0.100	11.76634	50.0	Averaged	
Carbon Disulfide	1.12102	1.07999	1.07999	0.100	3.66033	50.0	Averaged	
trans-1,2-Dichloroethene	0.42890	0.43567	0.43567	0.100	-1.57798	50.0	Averaged	
Vinyl Acetate	1.46473	1.06431	1.06431	0.010	27.33739	50.0	Averaged	
1,1-Dichloroethane	0.78593	0.77698	0.77698	0.200	1.13826	50.0	Averaged	
2-Butanone	0.24388	0.22796	0.22796	0.100	6.53149	50.0	Averaged	
2,2-Dichloropropane	0.65370	0.49715	0.49715	0.100	23.94733	50.0	Averaged	
cis-1,2-Dichloroethene	0.50703	0.50899	0.50899	0.100	-0.38702	50.0	Averaged	
Chloroform	0.82034	0.83936	0.83936	0.200	-2.31831	50.0	Averaged	
Bromochloromethane	0.25588	0.27791	0.27791	0.100	-8.60913	50.0	Averaged	
Dibromofluoromethane	50.0	52.17239	0.48063	0.100	-4.34478	50.0	Linear	
1,1,1-Trichloroethane	0.72412	0.65377	0.65377	0.100	9.71511	50.0	Averaged	
1,1-Dichloropropene	0.37718	0.37685	0.37685	0.100	0.08519	50.0	Averaged	
1,2-Dichloroethane	0.47844	0.44116	0.44116	0.100	7.79221	50.0	Averaged	
Carbon Tetrachloride	50.0	42.02812	0.35158	0.100	15.94376	50.0	Linear	
1,2-Dichloroethane-d4	50.0	46.92933	0.53032	0.100	6.14135	50.0	Linear	
Benzene	1.18576	1.21554	1.21554	0.500	-2.51201	50.0	Averaged	
Trichloroethene	0.34144	0.35636	0.35636	0.200	-4.37097	50.0	Averaged	
Bromodichloromethane	0.42544	0.39587	0.39587	0.200	6.95041	50.0	Averaged	
2-Chloroethylvinyl ether	0.11342	0.01017	0.01017	0.001	91.03130	50.0	Averaged	<-
1,2-Dichloropropane	0.30580	0.32448	0.32448	0.100	-6.10778	50.0	Averaged	
Dibromomethane	0.21579	0.20723	0.20723	0.100	3.96760	50.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_436835

Instrument ID VOA9.i Injection Date 01-JUN-2023 2042
Lab File ID U060124.D ICAL Date(s) 27-APR-2023 27-APR-2023
Analysis Type WATER ICAL Times 1150 1532
Lab Sample ID CCV-END Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
4-Methyl-2-Pentanone	0.41241	0.36688	0.36688	0.100	11.04139	50.0	Averaged	
cis-1,3-Dichloropropene	0.53172	0.45950	0.45950	0.200	13.58262	50.0	Averaged	
Toluene-d8	1.24217	1.19951	1.19951	0.100	3.43473	50.0	Averaged	
Toluene	1.37284	1.39443	1.39443	0.400	-1.57222	50.0	Averaged	
trans-1,3-Dichloropropene	0.45614	0.38886	0.38886	0.100	14.75109	50.0	Averaged	
2-Hexanone	0.28970	0.24733	0.24733	0.100	14.62496	50.0	Averaged	
1,1,2-Trichloroethane	0.26448	0.27464	0.27464	0.100	-3.83886	50.0	Averaged	
1,3-Dichloropropane	0.58195	0.58042	0.58042	0.100	0.26287	50.0	Averaged	
Dibromochloromethane	0.38935	0.36519	0.36519	0.100	6.20542	50.0	Averaged	
Tetrachloroethene	0.29521	0.33202	0.33202	0.200	-12.46718	50.0	Averaged	
1,2-Dibromoethane	0.34696	0.33722	0.33722	0.100	2.80798	50.0	Averaged	
1-Chlorohexane	50.0	52.77231	0.24124	0.100	-5.54462	50.0	Quadratic	
Chlorobenzene	0.94887	0.96113	0.96113	0.500	-1.29139	50.0	Averaged	
1,1,1,2-Tetrachloroethane	0.36317	0.34783	0.34783	0.100	4.22259	50.0	Averaged	
Ethylbenzene	0.46544	0.46683	0.46683	0.100	-0.30051	50.0	Averaged	
m,p-Xylenes	0.56965	0.57580	0.57580	0.100	-1.08016	50.0	Averaged	
o-Xylene	0.57469	0.56352	0.56352	0.300	1.94349	50.0	Averaged	
Styrene	0.96565	0.92512	0.92512	0.300	4.19738	50.0	Averaged	
Bromoform	0.28496	0.24349	0.24349	0.100	14.55300	50.0	Averaged	
Isopropylbenzene	1.39261	1.34159	1.34159	0.100	3.66393	50.0	Averaged	
1,1,2,2-Tetrachloroethane	0.85969	0.84082	0.84082	0.300	2.19534	50.0	Averaged	
4-Bromofluorobenzene	50.0	46.25227	0.43848	0.100	7.49545	50.0	Linear	
1,2,3-Trichloropropane	0.96913	0.77945	0.77945	0.100	19.57196	50.0	Averaged	
n-Propylbenzene	2.77008	2.65730	2.65730	0.100	4.07112	50.0	Averaged	
Bromobenzene	0.80432	0.82122	0.82122	0.100	-2.10031	50.0	Averaged	
1,3,5-Trimethylbenzene	1.99405	1.74623	1.74623	0.100	12.42798	50.0	Averaged	
2-Chlorotoluene	1.82808	1.87469	1.87469	0.100	-2.54989	50.0	Averaged	
4-Chlorotoluene	2.13209	2.05552	2.05552	0.100	3.59105	50.0	Averaged	
tert-Butylbenzene	50.0	48.57200	1.78635	0.100	2.85600	50.0	Quadratic	
1,2,4-Trimethylbenzene	2.02729	1.73961	1.73961	0.100	14.19018	50.0	Averaged	
sec-Butylbenzene	50.0	53.74650	2.24179	0.100	-7.49300	50.0	Quadratic	
p-Isopropyltoluene	50.0	39.75785	1.78531	0.100	20.48430	50.0	Linear	
1,3-Dichlorobenzene	1.39023	1.37947	1.37947	0.600	0.77395	50.0	Averaged	
1,4-Dichlorobenzene	1.45712	1.42645	1.42645	0.400	2.10471	50.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder HS23051834

RunID VOA9_436835

Instrument ID VOA9.i Injection Date 01-JUN-2023 2042
Lab File ID U060124.D ICAL Date(s) 27-APR-2023 27-APR-2023
Analysis Type WATER ICAL Times 1150 1532
Lab Sample ID CCV-END Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
n-Butylbenzene	50.0	39.11507	1.47629	0.500	21.76985	50.0	Linear	
1,2-Dichlorobenzene	1.42151	1.38020	1.38020	0.400	2.90662	50.0	Averaged	
1,2-Dibromo-3-Chloropropane	50.0	37.05959	0.13224	0.050	25.88083	50.0	Linear	
1,2,4-Trichlorobenzene	1.03017	0.92180	0.92180	0.200	10.51948	50.0	Averaged	
Hexachlorobutadiene	50.0	59.34031	0.35298	0.100	-18.68061	50.0	Quadratic	
Naphthalene	2.83590	2.32311	2.32311	0.200	18.08206	50.0	Averaged	
1,2,3-Trichlorobenzene	1.00799	0.90463	0.90463	0.100	10.25453	50.0	Averaged	
1,2-Dichloroethylene (total	0.46797	0.47233	0.47233	0.200	-0.93279	50.0	Averaged	
Xylenes (total)	0.53096	0.54715	0.54715	0.100	-3.04850	50.0	Averaged	
1,4-Dioxane	0.00606	0.00678	0.00678	0.001	-11.94161	50.0	Averaged	
Cyclohexane	50.0	60.36000	0.56260	0.100	-20.72000	50.0	Quadratic	
Freon TF	50.0	59.09951	0.33120	0.100	-18.19902	50.0	Quadratic	
1,3-Butadiene	0.40564	0.47732	0.47732	0.100	-17.67218	50.0	Averaged	
Methylcyclohexane	0.78843	0.69023	0.69023	0.100	12.45554	50.0	Averaged	
Methyl Acetate	0.43249	0.40963	0.40963	0.100	5.28674	50.0	Averaged	
Tert-butyl alcohol	0.06093	0.04871	0.04871	0.005	20.05386	50.0	Averaged	
Isopropyl alcohol	0.03460	0.03268	0.03268	0.005	5.53730	50.0	Averaged	
trans-1,4-Dichloro-2-butene	0.13462	0.05657	0.05657	0.050	57.98172	50.0	Averaged	<-
Isobutyl Alcohol	0.07864	0.07897	0.07897	0.005	-0.42125	50.0	Averaged	
Chloroprene	0.16917	0.16312	0.16312	0.100	3.57993	50.0	Averaged	

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Form 8

Internal Standard Area and RT Summary

Volatiles by EPA 8260

Workorder

HS23051834

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Form 8 - Internal Standard Area and RT Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_436716

		IS1		IS2		IS3		IS4	
Sample ID	File ID	Area	RT	Area	RT	Area	RT	Area	RT
12-HOUR STD (CCV)	U053103	631167 #	4.82 #	923886 #	5.55 #	883444 #	8.19 #	469592 #	10.17 #
CCB	U053104	740116	4.82	1001605	5.55	927041	8.19	468076	10.17
VLCSW-230531	U053105	620188	4.82	900416	5.55	861569	8.19	461529	10.17
VBLKW-230531	U053107	729612	4.82	993898	5.55	909332	8.19	459395	10.17
HS23051834-10	U053108	741079	4.82	1007184	5.55	928529	8.19	456147	10.17
HS23051834-04	U053109	725193	4.82	1000380	5.55	918036	8.19	466638	10.17
HS23051834-01	U053111	713563	4.82	984012	5.55	908837	8.19	455492	10.17
HS23051834-06	U053112	692282	4.82	955814	5.55	881459	8.19	454876	10.17
HS23051834-07	U053113	711201	4.82	964563	5.55	894692	8.19	449913	10.17
HS23051834-09	U053114	721506	4.82	989648	5.55	921678	8.19	469765	10.17
HS23051834-02	U053115	762541	4.81	1055299	5.55	940631	8.19	471474	10.17
HS23051834-03	U053116	741543	4.82	1003624	5.56	903944	8.19	465178	10.17
HS23051834-05	U053117	710258	4.81	975837	5.55	893823	8.19	436242	10.17
HS23051834-04MS	U053119	741942	4.82	998986	5.56	937528	8.19	510750	10.17
HS23051834-04MSD	U053120	770466	4.81	1054085	5.55	947556	8.19	500727	10.17
CCV-END	U053123	622756	4.82	935184	5.55	895891	8.19	474367	10.17

IS1 - Pentafluorobenzene IS2 - 1,4-Difluorobenzene IS3 - Chlorobenzene-d5 IS4 - 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of 12H STD IS Area
AREA LOWER LIMIT = - 50% of 12H STD IS Area
RT - Retention Time IS - Internal Standard

RT UPPER LIMIT = + 0.50 of 12H STD IS RT
RT LOWER LIMIT = - 0.50 of 12H STD IS RT
CCV - Continuing Calibration Verification

- Area or RT Limit Flag
* - Value Outside Area or RT limits
H - Hour STD - Standard

Form 8 - Internal Standard Area and RT Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_436835

		IS1				IS2				IS3				IS4			
Sample ID	File ID	Area		RT		Area		RT		Area		RT		Area		RT	
12-HOUR STD (CCV)	U060103	676710	#	4.82	#	990214	#	5.56	#	949363	#	8.19	#	495435	#	10.17	#
CCB	U060104	807891		4.81		1112707		5.55		964548		8.19		480474		10.17	
VLCSW-230601	U060105	636299		4.82		943679		5.55		894424		8.19		473569		10.17	
VBLKW-230601	U060107	750109		4.82		1018476		5.55		936384		8.19		465512		10.17	
ZZZZZZMS	U060110	765101		4.82		1049428		5.55		954314		8.19		499607		10.17	
ZZZZZZMSD	U060111	777444		4.82		1069323		5.55		997448		8.19		528033		10.17	
HS23051834-08	U060114	755499		4.82		1033615		5.56		942922		8.19		474024		10.17	
HS23051834-02	U060115	769254		4.81		1044786		5.55		952775		8.19		475345		10.17	
HS23051834-03	U060116	765013		4.81		1056840		5.55		956157		8.19		481553		10.17	
CCV-END	U060124	634431		4.82		973038		5.55		931233		8.19		488084		10.17	

IS1 - Pentafluorobenzene IS2 - 1,4-Difluorobenzene IS3 - Chlorobenzene-d5 IS4 - 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of 12H STD IS Area
AREA LOWER LIMIT = - 50% of 12H STD IS Area
RT - Retention Time IS - Internal Standard

RT UPPER LIMIT = + 0.50 of 12H STD IS RT
RT LOWER LIMIT = - 0.50 of 12H STD IS RT
CCV - Continuing Calibration Verification

- Area or RT Limit Flag
* - Value Outside Area or RT limits
H - Hour STD - Standard

01231406

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Analysis Run Log

Volatiles by EPA 8260

Workorder

HS23051834

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_433802

Run ID VOA9_433802 **Start Date** 04/27/23 **EndDate** 04/27/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
11:28	BFB	TUNE	BFB	U042701.D	04/27/23	1
11:50	VSTS000.25	ICAL1	VSTS000.25	U042702.D	04/27/23	1
12:12	VSTS000.5	ICAL2	VSTS000.5	U042703.D	04/27/23	1
12:56	VSTS001	ICAL3	VSTS001	U042704.D	04/27/23	1
13:19	VSTS002	ICAL4	VSTS002	U042705.D	04/27/23	1
13:41	VSTS005	ICAL5	VSTS005	U042706.D	04/27/23	1
14:03	VSTS020	ICAL6	VSTS020	U042707.D	04/27/23	1
14:25	VSTS050	ICAL7	VSTS050	U042708.D	04/27/23	1
14:48	VSTS100	ICAL8	VSTS100	U042709.D	04/27/23	1
15:10	VSTS150	ICAL9	VSTS150	U042710.D	04/27/23	1
15:32	VSTS200	ICAL	VSTS200	U042711.D	04/27/23	1
16:39	CCV	ICV	CCV	U042714.D	04/27/23	1

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_436716

Run ID VOA9_436716 **Start Date** 05/31/23 **EndDate** 05/31/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
10:16	BFB	TUNE	BFB	U053101.D	05/31/23	1
11:01	CCV	CCV	CCV	U053103.D	05/31/23	1
11:23	CCB	CCB	CCB	U053104.D	05/31/23	1
11:45	VLCSW-230531	LCS	VLCSW-230531	U053105.D	05/31/23	1
12:30	VBLKW-230531	MBLK	VBLKW-230531	U053107.D	05/31/23	1
12:53	Trip Blank	SAMP	HS23051834-10	U053108.D	05/31/23	1
13:15	50WW14_052523	SAMP	HS23051834-04	U053109.D	05/31/23	1
14:00	50WW23_052523	SAMP	HS23051834-01	U053111.D	05/31/23	1
14:22	50WW15_052523	SAMP	HS23051834-06	U053112.D	05/31/23	1
14:44	50WW16_052523	SAMP	HS23051834-07	U053113.D	05/31/23	1
15:07	50WW18_052523	SAMP	HS23051834-09	U053114.D	05/31/23	1
15:29	50WW12_052523	SAMP	HS23051834-02	U053115.D	05/31/23	1
15:51	50WW12_052523_a	SAMP	HS23051834-03	U053116.D	05/31/23	1
16:14	50WW05_052523	SAMP	HS23051834-05	U053117.D	05/31/23	1
16:59	HS23051834-04MS	MS	HS23051834-04MS	U053119.D	05/31/23	1
17:21	HS23051834-04MSD	MSD	HS23051834-04MSD	U053120.D	05/31/23	1
18:28	CCV-END	CCV_END	CCV-END	U053123.D	05/31/23	1

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 50

Workorder
HS23051834

RunID
VOA9_436835

Run ID VOA9_436835 **Start Date** 06/01/23 **EndDate** 06/01/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
12:01	BFB	TUNE	BFB	U060101.D	06/01/23	1
12:45	CCV	CCV	CCV	U060103.D	06/01/23	1
13:07	CCB	CCB	CCB	U060104.D	06/01/23	1
13:36	VLCSW-230601	LCS	VLCSW-230601	U060105.D	06/01/23	1
14:21	VBLKW-230601	MBLK	VBLKW-230601	U060107.D	06/01/23	1
14:43	ZZZZZZZZZZ	SAMP	HS23051984-01	U060108.D	06/01/23	1
15:28	ZZZZZZMS	MS	HS23051984-01MS	U060110.D	06/01/23	1
15:50	ZZZZZZMSD	MSD	HS23051984-01MSD	U060111.D	06/01/23	1
16:58	50WW16_052523_a	SAMP	HS23051834-08	U060114.D	06/01/23	1
17:20	50WW12_052523	SAMP	HS23051834-02	U060115.D	06/01/23	25
17:42	50WW12_052523_a	SAMP	HS23051834-03	U060116.D	06/01/23	25
18:05	ZZZZZZZZZZ	SAMP	HS23052051-01	U060117.D	06/01/23	1
18:27	ZZZZZZZZZZ	SAMP	HS23051916-01	U060118.D	06/01/23	1
18:50	ZZZZZZZZZZ	SAMP	HS23060014-01	U060119.D	06/01/23	1
19:12	ZZZZZZZZZZ	SAMP	HS23052051-02	U060120.D	06/01/23	1
19:35	ZZZZZZZZZZ	SAMP	HS23052051-03	U060121.D	06/01/23	1
19:57	ZZZZZZZZZZ	SAMP	HS23051916-02	U060122.D	06/01/23	1
20:19	ZZZZZZZZZZ	SAMP	HS23060014-02	U060123.D	06/01/23	1
20:42	CCV-END	CCV_END	CCV-END	U060124.D	06/01/23	1

01231410

right solutions.
right partner.

Raw Data VOA9 433802

Volatiles by EPA 8260

Workorder

HS23051834

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 50

06/08/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042701.D Page 1
Report Date: 27-Apr-2023 12:24

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042701.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 27-APR-2023 11:28
Operator : PC Inst ID: VOA9.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V9;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\bfb.m
Meth Date : 27-Jan-2023 08:08 apoluri Quant Type: ISTD
Cal Date : 30-MAR-2018 18:09 Cal File: U033003.d
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/l)		
RT	EXP RT	REL RT	MASS	RESPONSE			TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
9.194	9.180	(0.000)	95	158016			0.00- 100.00	100.00
9.194	9.180	(0.000)	50	32312			15.00- 40.00	20.45
9.194	9.180	(0.000)	75	81480			30.00- 60.00	51.56
9.194	9.180	(0.000)	96	11525			5.00- 9.00	7.29
9.194	9.180	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
9.194	9.180	(0.000)	174	131520			50.00- 0.00	83.23
9.194	9.180	(0.000)	175	11489			5.00- 9.00	8.74
9.194	9.180	(0.000)	176	128840			95.00- 101.00	97.96
9.194	9.180	(0.000)	177	9506			5.00- 9.00	7.38

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.45
75	30.00 - 60.00% of mass 95	51.56
96	5.00 - 9.00% of mass 95	7.29
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	83.23
175	5.00 - 9.00% of mass 174	7.27 (8.74)
176	95.00 - 101.00% of mass 174	81.54 (97.96)
177	5.00 - 9.00% of mass 176	6.02 (7.38)

Data File: U042701.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 95.05
Number of points: 193

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.10	316	84.30	183	132.30	124	183.30	66
35.90	2081	84.90	285	133.20	201	187.10	50
37.00	9881	86.10	314	133.70	138	187.70	58
38.00	8405	86.90	5902	134.80	455	188.60	92
39.00	3321	88.00	5246	136.20	98	192.30	81
39.90	922	88.80	321	137.00	376	193.50	93
41.00	711	89.60	138	138.00	103	194.00	100
42.10	471	90.90	1052	139.10	106	195.40	75
43.00	1071	92.00	5100	139.60	155	197.00	97
44.00	2983	93.00	7089	140.20	271	198.20	157
45.00	1577	94.10	20528	141.00	1718	202.10	137
45.90	284	95.00	158016	142.00	353	204.30	70
47.00	1837	96.00	11525	142.90	1850	205.60	101
48.00	1323	97.00	665	143.90	192	207.10	163
49.00	8118	98.30	112	144.90	323	210.80	106
50.00	32312	99.20	121	145.90	317	211.70	58
51.00	9974	99.80	94	146.90	197	214.10	51
52.00	690	100.50	77	147.90	501	214.80	101
52.90	224	101.10	75	148.80	184	216.30	77
53.80	187	101.50	90	149.80	233	216.90	122
55.00	1122	103.90	824	150.80	74	222.80	65
56.00	3258	105.00	553	151.30	61	224.90	72
57.00	5654	105.90	877	152.00	155	225.60	66
58.00	393	107.00	250	153.00	215	226.50	86
60.00	1806	108.20	131	153.80	181	229.30	92
61.00	7499	109.50	186	155.00	522	236.60	59
62.00	7484	109.80	188	155.70	105	243.10	115
63.00	6712	111.00	272	156.10	95	246.40	66
64.00	770	111.80	166	156.90	346	248.30	110
64.90	219	112.80	282	157.90	114	250.80	55
65.70	235	113.70	135	158.70	245	252.40	72
66.30	272	114.20	163	159.50	134	257.90	72
67.10	841	114.90	206	161.00	229	260.40	71
68.00	17112	115.90	748	161.70	93	265.70	75
69.00	16784	116.90	1016	162.80	52	266.80	53
70.10	1513	117.90	726	164.40	75	270.00	80
71.10	396	118.90	980	164.90	93	272.20	106
72.10	1166	120.20	77	165.40	112	281.30	53
73.00	7914	121.10	144	166.50	75	282.60	61
74.00	27152	122.00	108	167.40	166	288.30	76
75.00	81480	122.90	134	167.90	84	298.20	69
76.00	7594	123.80	216	168.90	155	317.30	59
77.00	1043	124.80	149	170.20	236	327.80	53
78.00	734	126.10	247	174.00	131520	330.30	71
78.90	5335	126.80	179	175.00	11489	339.60	52

79.90	1929	128.00	650	176.00	128840	348.10	51
80.90	5338	128.90	376	177.00	9506		
81.90	1435	130.00	441	178.00	299		
83.10	482	130.90	211	178.70	72		

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042701.D Page 1

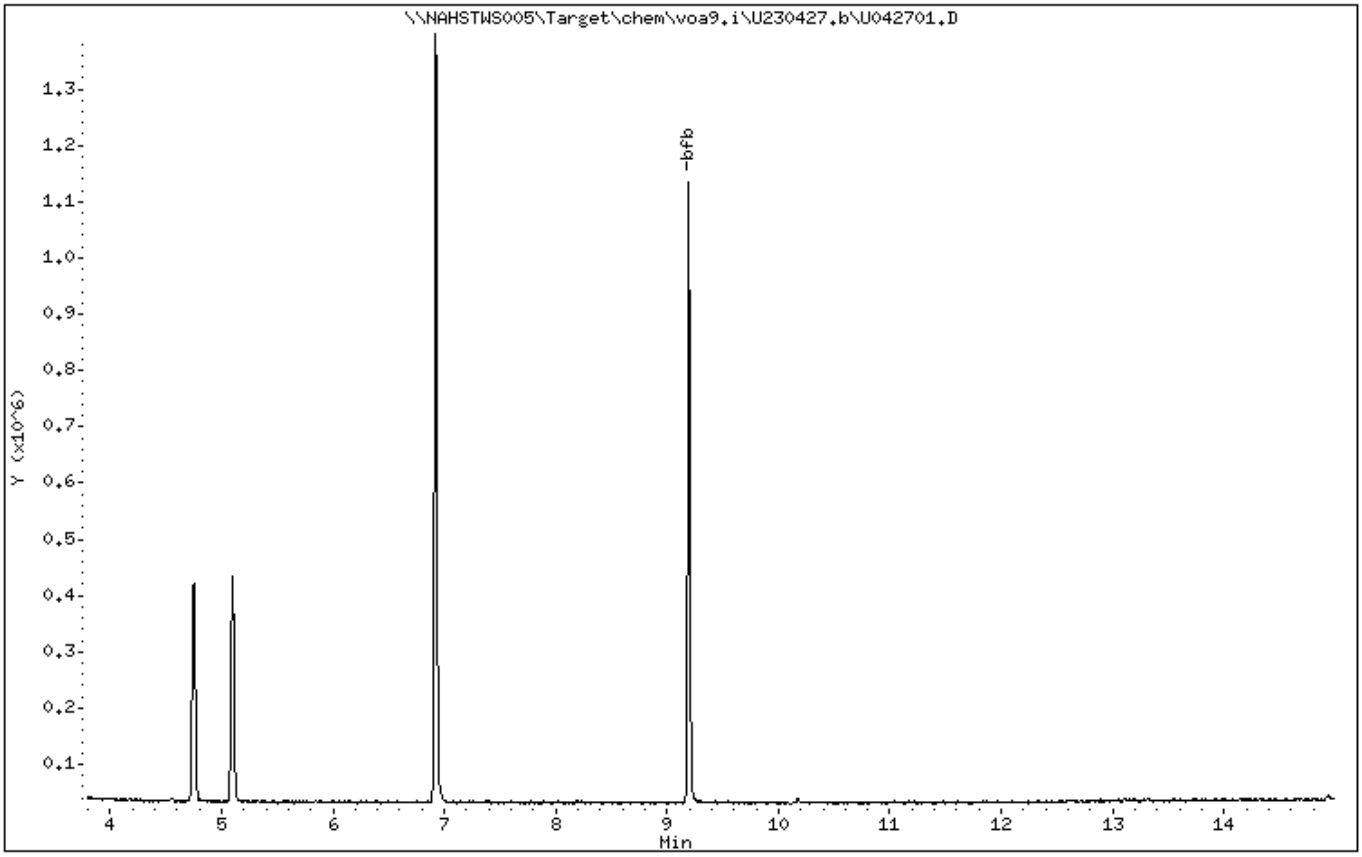
Date : 27-APR-2023 11:28

Client ID: BFB Instrument: VOA9.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\voa9.i\U230427.b\U042701.D

Date : 27-APR-2023 11:28

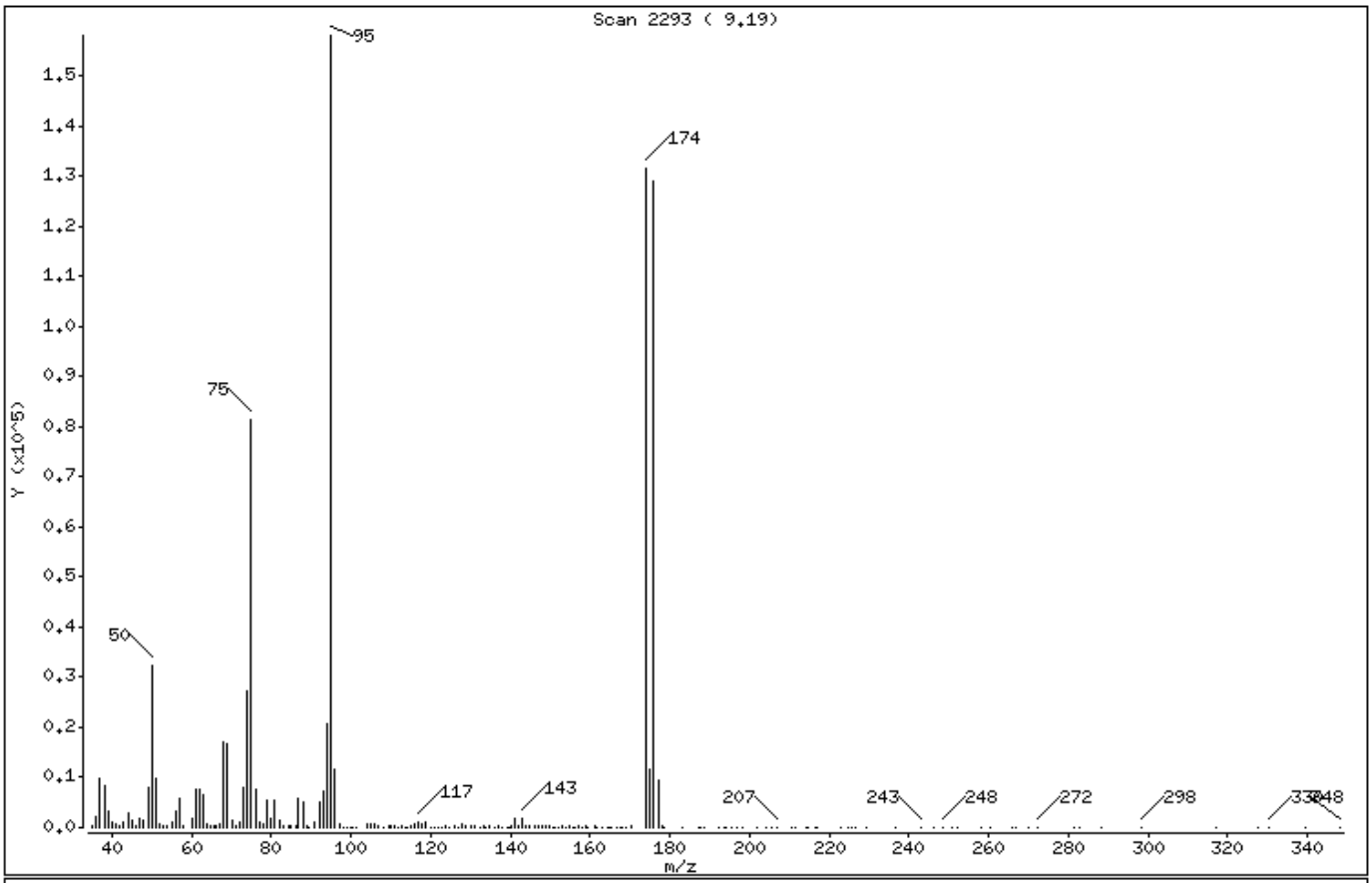
Client ID: BFB Instrument: VOA9.i

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	20.45
75	30.00 - 60.00% of mass 95	51.56
96	5.00 - 9.00% of mass 95	7.29
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	83.23
175	5.00 - 9.00% of mass 174	7.27 (8.74)
176	95.00 - 101.00% of mass 174	81.54 (97.96)
177	5.00 - 9.00% of mass 176	6.02 (7.38)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042701.D Page 3

Date : 27-APR-2023 11:28

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: U042701.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 95.05
Number of points: 193

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.10	316	84.30	183	132.30	124	183.30	66
35.90	2081	84.90	285	133.20	201	187.10	50
37.00	9881	86.10	314	133.70	138	187.70	58
38.00	8405	86.90	5902	134.80	455	188.60	92
39.00	3321	88.00	5246	136.20	98	192.30	81
39.90	922	88.80	321	137.00	376	193.50	93
41.00	711	89.60	138	138.00	103	194.00	100
42.10	471	90.90	1052	139.10	106	195.40	75
43.00	1071	92.00	5100	139.60	155	197.00	97
44.00	2983	93.00	7089	140.20	271	198.20	157
45.00	1577	94.10	20528	141.00	1718	202.10	137
45.90	284	95.00	158016	142.00	353	204.30	70
47.00	1837	96.00	11525	142.90	1850	205.60	101
48.00	1323	97.00	665	143.90	192	207.10	163
49.00	8118	98.30	112	144.90	323	210.80	106
50.00	32312	99.20	121	145.90	317	211.70	58
51.00	9974	99.80	94	146.90	197	214.10	51
52.00	690	100.50	77	147.90	501	214.80	101
52.90	224	101.10	75	148.80	184	216.30	77
53.80	187	101.50	90	149.80	233	216.90	122
55.00	1122	103.90	824	150.80	74	222.80	65
56.00	3258	105.00	553	151.30	61	224.90	72
57.00	5654	105.90	877	152.00	155	225.60	66
58.00	393	107.00	250	153.00	215	226.50	86
60.00	1806	108.20	131	153.80	181	229.30	92
61.00	7499	109.50	186	155.00	522	236.60	59
62.00	7484	109.80	188	155.70	105	243.10	115
63.00	6712	111.00	272	156.10	95	246.40	66
64.00	770	111.80	166	156.90	346	248.30	110
64.90	219	112.80	282	157.90	114	250.80	55
65.70	235	113.70	135	158.70	245	252.40	72
66.30	272	114.20	163	159.50	134	257.90	72
67.10	841	114.90	206	161.00	229	260.40	71
68.00	17112	115.90	748	161.70	93	265.70	75
69.00	16784	116.90	1016	162.80	52	266.80	53

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042701.D Page 4

Date : 27-APR-2023 11:28

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: U042701.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 95.05
Number of points: 193

m/z	Y	m/z	Y	m/z	Y	m/z	Y
70.10	1513	117.90	726	164.40	75	270.00	80
71.10	396	118.90	980	164.90	93	272.20	106
72.10	1166	120.20	77	165.40	112	281.30	53
73.00	7914	121.10	144	166.50	75	282.60	61
74.00	27152	122.00	108	167.40	166	288.30	76
75.00	81480	122.90	134	167.90	84	298.20	69
76.00	7594	123.80	216	168.90	155	317.30	59
77.00	1043	124.80	149	170.20	236	327.80	53
78.00	734	126.10	247	174.00	131520	330.30	71
78.90	5335	126.80	179	175.00	11489	339.60	52
79.90	1929	128.00	650	176.00	128840	348.10	51
80.90	5338	128.90	376	177.00	9506		
81.90	1435	130.00	441	178.00	299		
83.10	482	130.90	211	178.70	72		

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042702.D Page 1
Report Date: 03-May-2023 09:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042702.D
Lab Smp Id: VSTS000.25 Client Smp ID: VSTD000.25
Inj Date : 27-APR-2023 11:50
Operator : PC Inst ID: VOA9.i
Smp Info : VSTS000.25;VSTD000.25;1;1;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\8260C.m
Meth Date : 03-May-2023 09:43 VOA9.i Quant Type: ISTD
Cal Date : 27-APR-2023 14:25 Cal File: U042708.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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

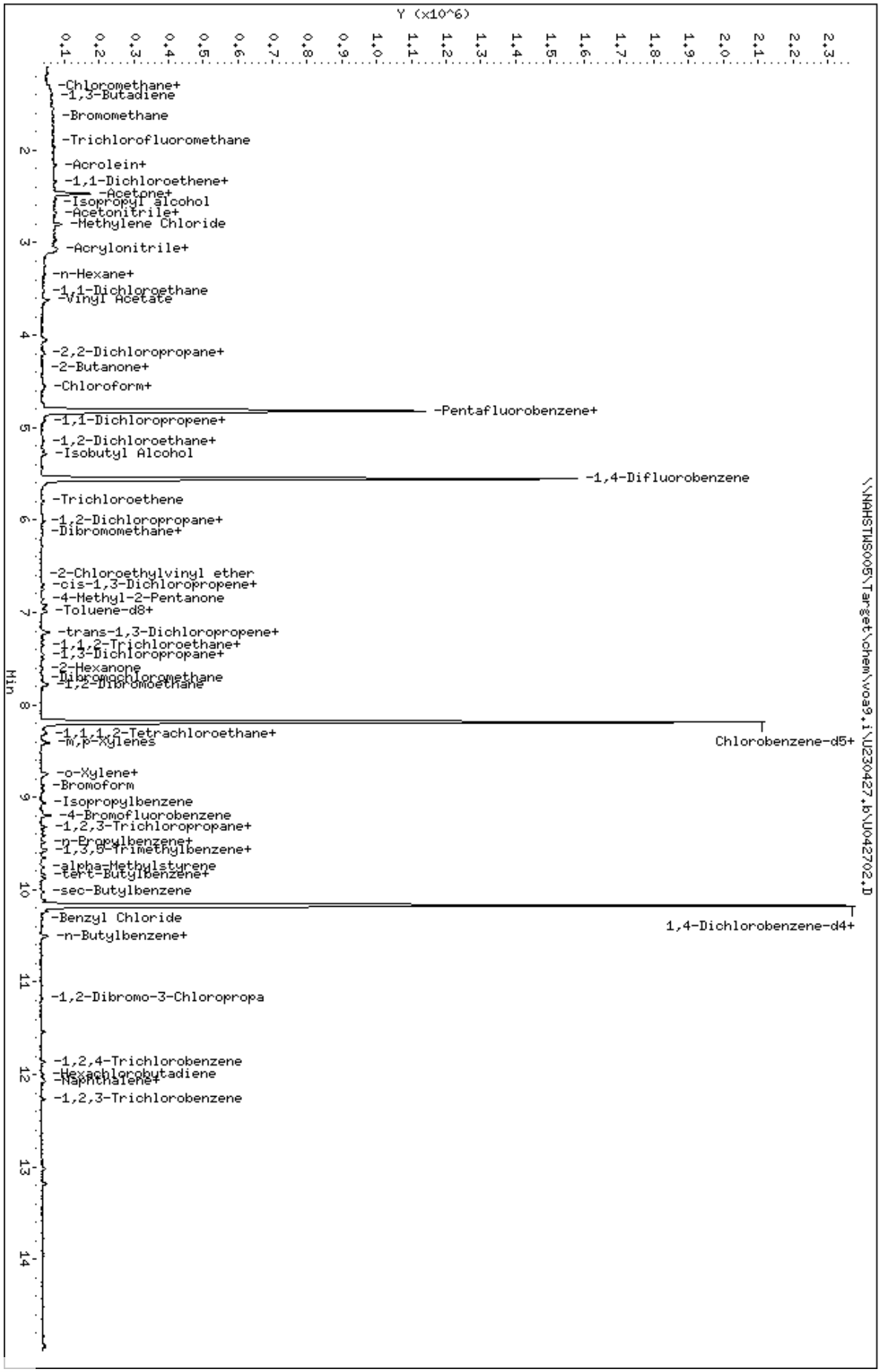
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.819	4.819	(1.000)	783074	50.0000	
	2 Dichlorodifluoromethane	85	1.171	1.171	(0.243)	2191	0.25000	3.25(a)
	5 Vinyl Chloride	62	1.381	1.381	(0.287)	3403	0.25000	0.43(a)
	6 Bromomethane	94	1.625	1.625	(0.337)	1937	0.25000	1.42(a)
	15 Iodomethane	142	2.472	2.472	(0.513)	1123	0.50000	2.15(Ta)
$	30 Dibromofluoromethane	113	4.751	4.751	(0.986)	2789	0.25000	(a)
	34 Carbon Tetrachloride	117	4.920	4.920	(0.885)	2861	0.25000	2.80(a)
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	3914	0.25000	(a)
*	36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	1152207	50.0000	
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1042963	50.0000	
$	48 Toluene-d8	98	6.926	6.926	(0.846)	11820	0.25000	0.45(a)
	58 1-Chlorohexane	55	8.181	8.181	(1.472)	12596	0.25000	1.79(a)
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	2787	0.25000	0.36(a)
$	69 4-Bromofluorobenzene	95	9.197	9.197	(1.124)	9139	0.25000	(a)
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	586135	50.0000	
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	5303	0.25000	1.43(a)
	82 p-Isopropyltoluene	119	10.149	10.149	(0.998)	6489	0.25000	3.03(a)
	87 n-Butylbenzene	91	10.494	10.494	(1.032)	5370	0.25000	3.41(a)
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	794	0.25000	2.64(a)
M	94 1,2-Dichloroethylene (total)	96				5265	0.50000	(a)

141 Cyclohexane	56	4.819	4.819 (1.000)	15037	0.25000	1.63(a)
140 1,3-Butadiene	54	1.404	1.404 (0.291)	1952	0.25000	0.30(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
72	trans-1,4-Dichloro-2-butene	53	9.385	9.385	(1.147)	1506	0.25000	0.53(a)
167	Ethanol	45	2.153	2.153	(0.447)	1567	5.00000	17.03
145	alpha-Methylstyrene	118	9.760	9.760	(0.959)	2385	0.25000	2.66(a)
142	Tetrahydrofuran	42	4.553	4.553	(0.945)	5584	0.50000	3.24(a)
86	Benzyl Chloride	91	10.314	10.314	(1.260)	4485	0.25000	3.35(a)
162	Butyl acrylate	55	8.740	8.740	(1.068)	6585	0.25000	0.40(a)

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\woa9.i\U230427.b\U042702.D
Date : 27-APR-2023 11:50
Client ID: VSTD000.25
Sample Info: VSTS000.25;VSTD000.25;1;1;
Purge Volume: 5.0
Column phase: DB624

Instrument: WOA9.i
Operator: PC
Column diameter: 0.18

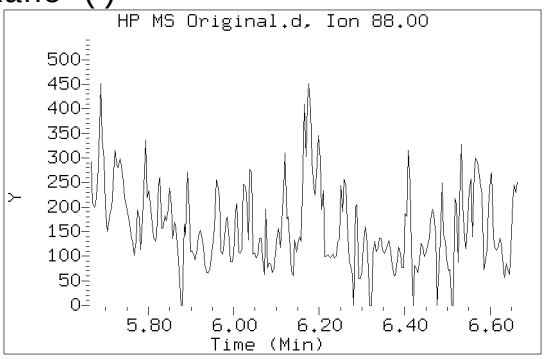
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042702.D
Inj Date : 27-APR-2023 11:50
InstruID : VOA9.i
LabSampID : VSTS000.25

1,4-Dioxane ()

Reason Code:

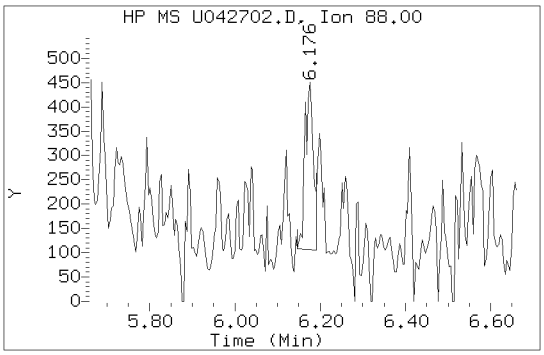
BEFORE

MASS
59
AREA
2177
HEIGHT
1349
01-May-2023
12:42
linh
pham



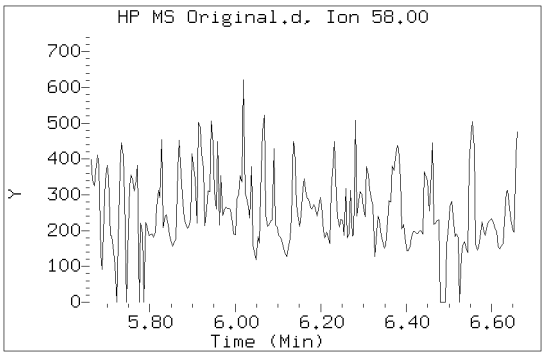
AFTER

MASS
88
AREA
477
HEIGHT
344
03-May-2023
09:43
linh
pham



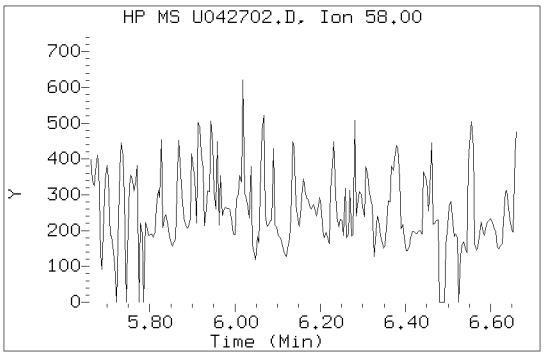
BEFORE

MASS
74
AREA
1867
HEIGHT
1307
01-May-2023
12:42
linh
pham



AFTER

MASS
58
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D Page 1
Report Date: 03-May-2023 09:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
Lab Smp Id: VSTS000.5 Client Smp ID: VSTD000.5
Inj Date : 27-APR-2023 12:12
Operator : PC Inst ID: VOA9.i
Smp Info : VSTS000.5;VSTD000.5;1;2;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\8260C.m
Meth Date : 03-May-2023 09:43 VOA9.i Quant Type: ISTD
Cal Date : 27-APR-2023 11:50 Cal File: U042702.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.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

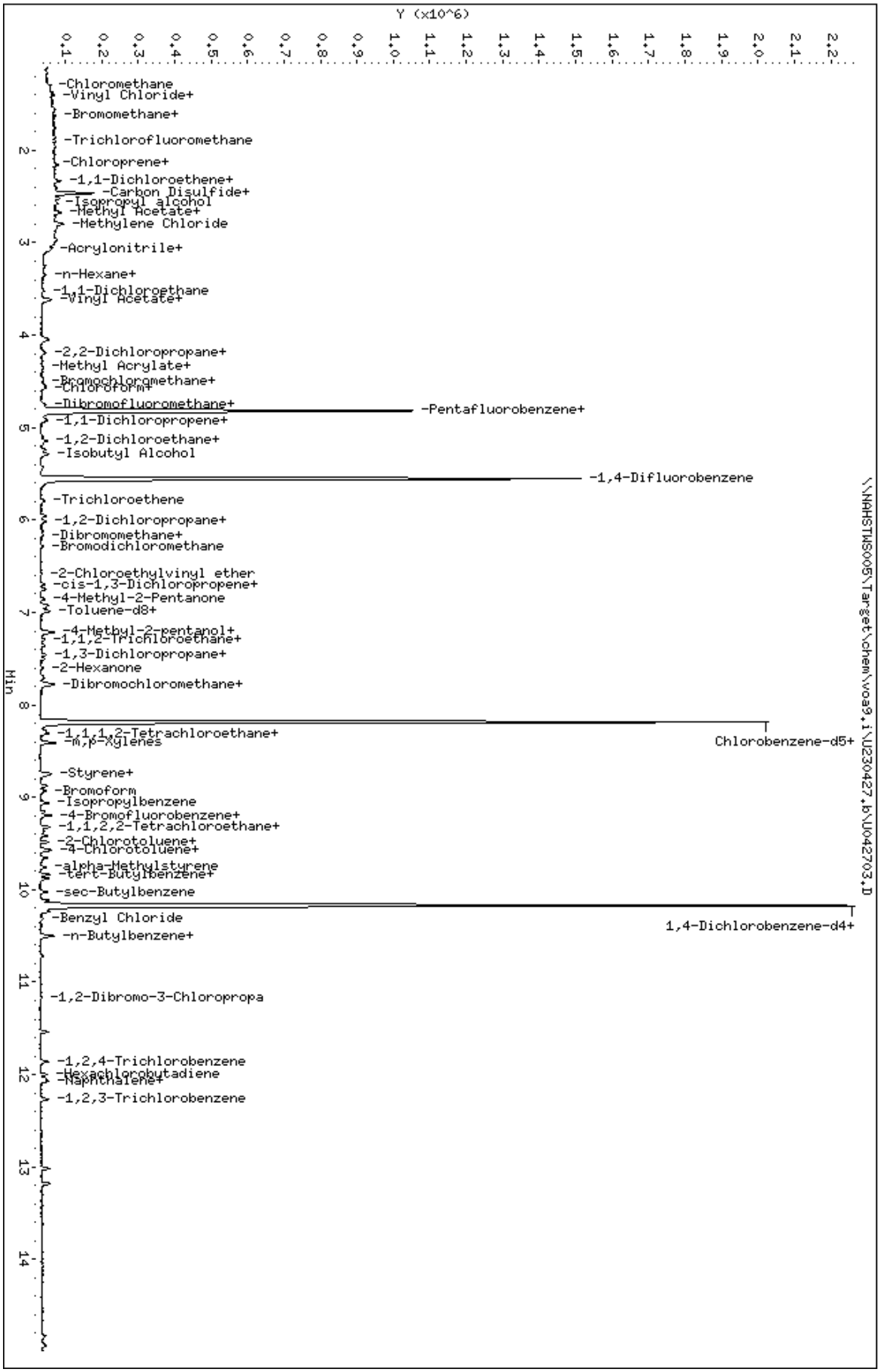
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.819	4.819	(1.000)	734935	50.0000	
	2 Dichlorodifluoromethane	85	1.164	1.164	(0.242)	2905	0.50000	3.37(a)
	3 Chloromethane	50	1.295	1.295	(0.269)	3963	0.50000	0.56(aM)
	5 Vinyl Chloride	62	1.374	1.374	(0.285)	4090	0.50000	0.55(aM)
	6 Bromomethane	94	1.621	1.621	(0.337)	2674	0.50000	1.63(aM)
	7 Chloroethane	64	1.700	1.700	(0.353)	2687	0.50000	0.54(aM)
	15 Iodomethane	142	2.468	2.468	(0.512)	3076	1.00000	2.42(aM)
	19 Carbon Disulfide	76	2.521	2.521	(0.523)	18575	1.00000	1.12(a)
	20 trans-1,2-Dichloroethene	96	3.061	3.061	(0.635)	3393	0.50000	0.53(a)
	22 1,1-Dichloroethane	63	3.518	3.518	(0.730)	6440	0.50000	0.55(a)
	24 2-Butanone	43	4.283	4.283	(0.889)	4041	1.00000	1.12(aM)
	29 Bromochloromethane	128	4.470	4.470	(0.928)	1893	0.50000	0.50(a)
$	30 Dibromofluoromethane	113	4.748	4.748	(0.985)	4375	0.50000	(aM)
	31 1,1,1-Trichloroethane	97	4.744	4.744	(0.984)	5990	0.50000	0.56(aM)
	34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	3806	0.50000	2.91(aM)
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	5644	0.50000	(aM)
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	1096255	50.0000	
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	999282	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	14459	0.50000	0.58(a)
	50 Toluene	91	6.986	6.986	(0.853)	15424	0.50000	0.56(a)

54	1,3-Dichloropropane	76	7.499	7.499 (0.916)	6934	0.50000	0.59(a)
55	Dibromochloromethane	129	7.694	7.694 (0.940)	4234	0.50000	0.54(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
57	1,2-Dibromoethane	107	7.788	7.788	(0.951)	3513	0.50000	0.50(a)
59	Chlorobenzene	112	8.211	8.211	(1.003)	10778	0.50000	0.56(a)
60	1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	3853	0.50000	0.53(a)
61	Ethylbenzene	106	8.309	8.309	(1.015)	4989	0.50000	0.53(a)
62	m,p-Xylenes	106	8.414	8.414	(1.028)	10355	1.00000	0.90(a)
63	o-Xylene	106	8.748	8.748	(1.069)	5828	0.50000	0.50(aM)
67	Isopropylbenzene	105	9.062	9.062	(1.107)	14442	0.50000	0.51(a)
68	1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	4944	0.50000	0.52(aM)
$ 69	4-Bromofluorobenzene	95	9.197	9.197	(1.124)	8179	0.50000	(aM)
* 70	1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	552272	50.0000	
73	n-Propylbenzene	91	9.415	9.415	(0.926)	15917	0.50000	0.52(aM)
74	Bromobenzene	156	9.321	9.321	(0.916)	4770	0.50000	0.53(aM)
78	tert-Butylbenzene	119	9.838	9.838	(0.967)	10853	0.50000	1.71(a)
82	p-Isopropyltoluene	119	10.146	10.146	(0.997)	12064	0.50000	3.26(a)
83	1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	8429	0.50000	0.54(a)
87	n-Butylbenzene	91	10.494	10.494	(1.032)	10626	0.50000	3.66(aM)
89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165	(1.098)	964	0.50000	2.74(aM)
93	1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	6035	0.50000	0.54(aM)
M 94	1,2-Dichloroethylene (total)	96				7060	1.00000	(a)
140	1,3-Butadiene	54	1.404	1.404	(0.291)	2850	0.50000	0.47(aM)
12	Isobutyl Alcohol	43	5.284	5.284	(1.096)	12486	10.0000	10.80(a)
13	Acetonitrile	39	2.671	2.671	(0.554)	4869	5.00000	5.13(aM)
40	Methyl Methacrylate	41	6.165	6.165	(1.279)	4328	0.50000	0.53(aM)
166	1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	12190	0.50000	0.55(aM)
167	Ethanol	45	2.086	2.086	(0.433)	942	10.0000	10.91(M)
164	Dicyclopentadiene	66	10.202	10.202	(1.003)	14416	0.50000	0.52(a)
145	alpha-Methylstyrene	118	9.756	9.756	(0.959)	5587	0.50000	2.91(aM)
156	Diisopropyl ether	45	3.627	3.627	(0.753)	12905	0.50000	0.56(Ta)
151	4-Methyl-2-pentanol	45	7.214	7.214	(1.299)	25225	10.0000	12.68
86	Benzyl Chloride	91	10.314	10.314	(1.260)	6221	0.50000	3.48(a)
162	Butyl acrylate	55	8.740	8.740	(1.068)	8357	0.50000	0.53(aM)
139	Diethyl ether	59	2.150	2.150	(0.446)	3203	0.50000	0.57(aM)
203	2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	5825	0.50000	0.60(aM)
130	Ethyl Acetate	43	4.347	4.347	(0.902)	4676	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: \\NAHSTMS005\Target\chem\voa9.i\U230427.b\U042703.D
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Client ID: VSTD000.5
Sample Info: VSTS000.5;VSTD000.5;1;2;
Purge Volume: 5.0
Column phase: DB624

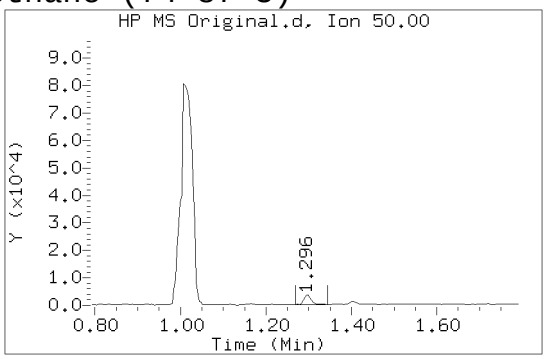
Instrument: VOA9.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
Inj Date : 27-APR-2023 12:12
InstruID : VOA9.i
LabSampID : VSTS000.5

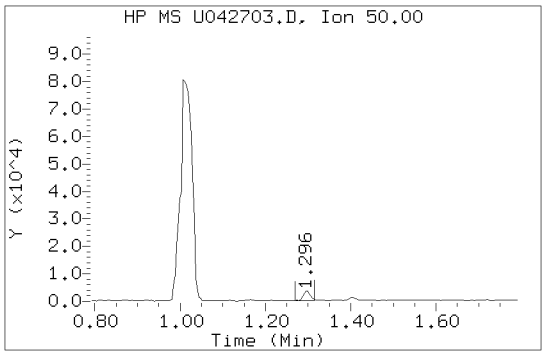
Chloromethane (74-87-3)

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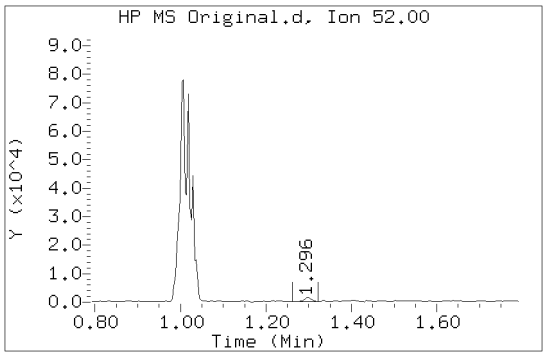
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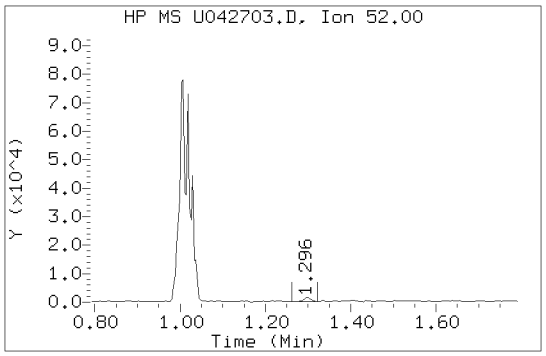
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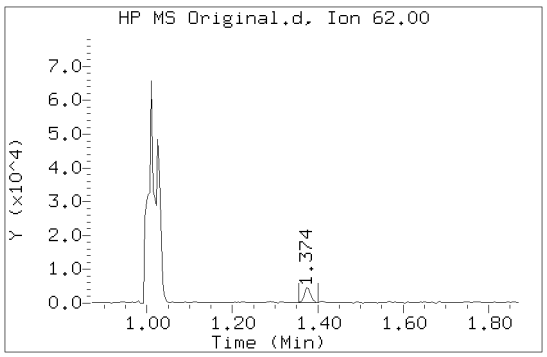
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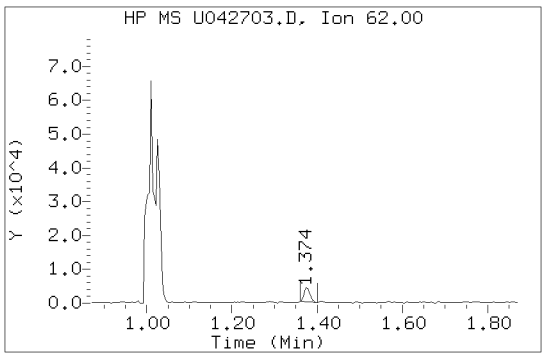
Vinyl Chloride (75-01-4)

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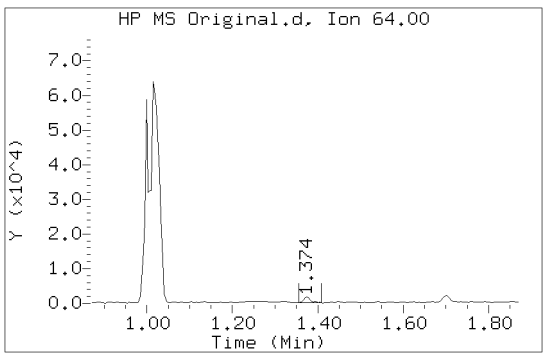
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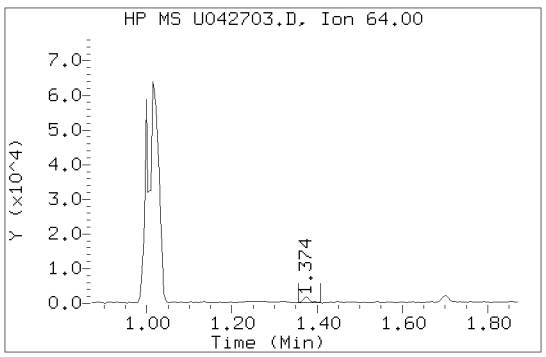
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BEFORE
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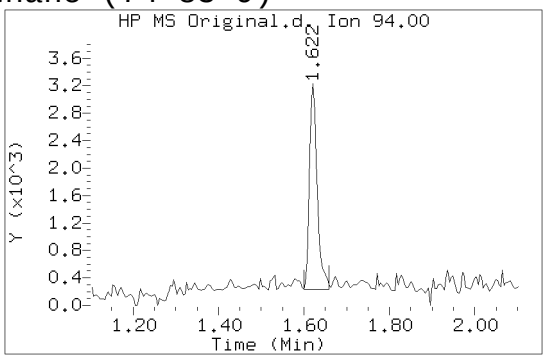


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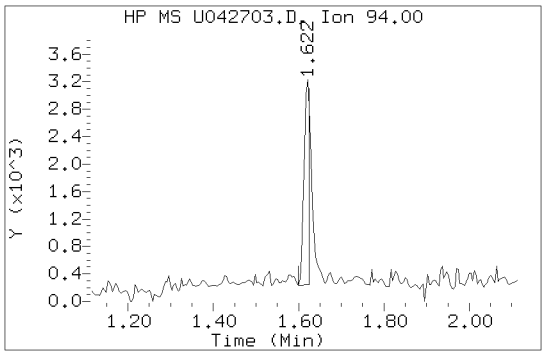
Bromomethane (74-83-9)

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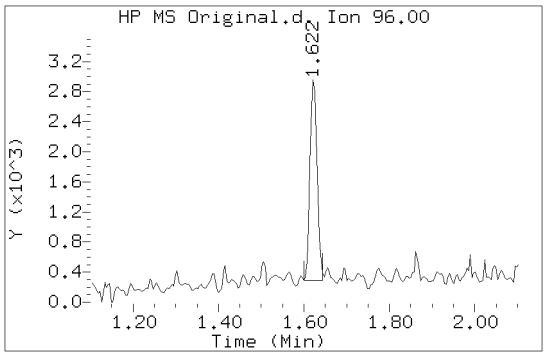
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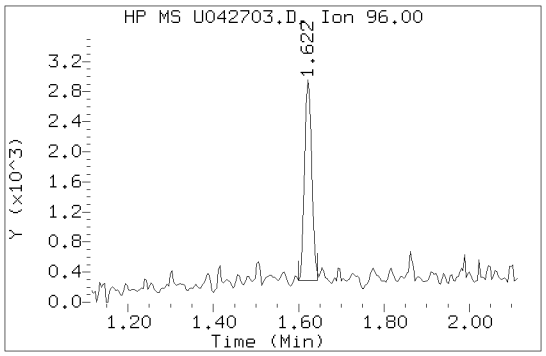
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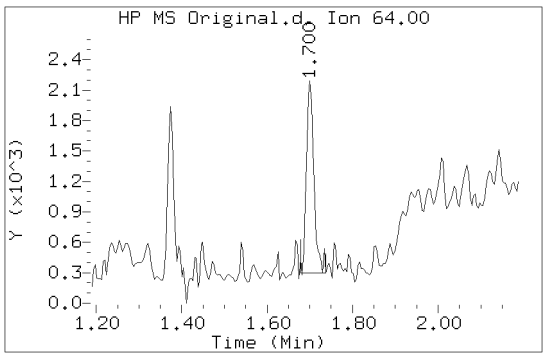
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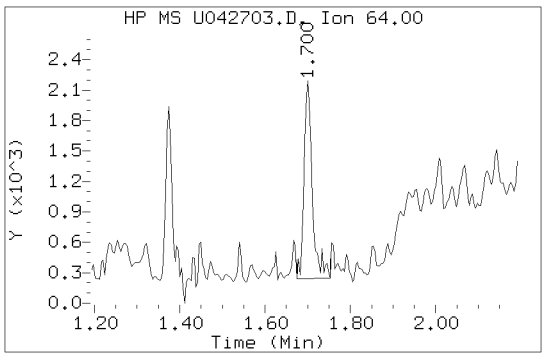
Chloroethane (75-00-3)

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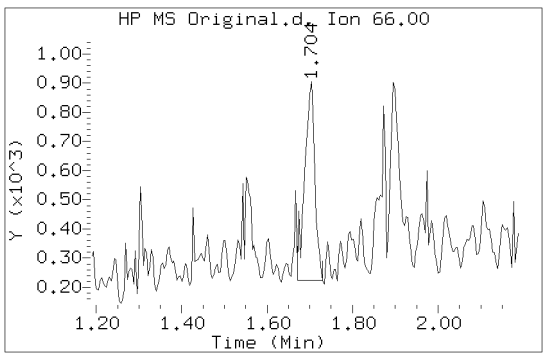
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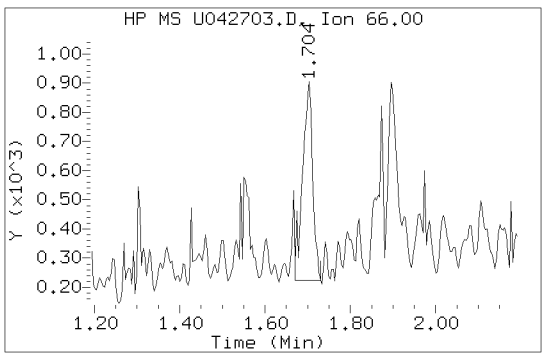
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BEFORE
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01-May-2023
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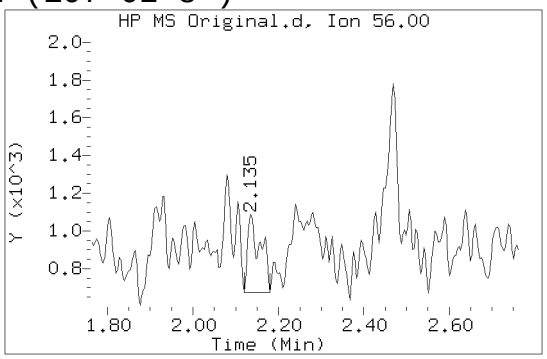


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LabSampID : VSTS000.5

Acrolein (107-02-8)

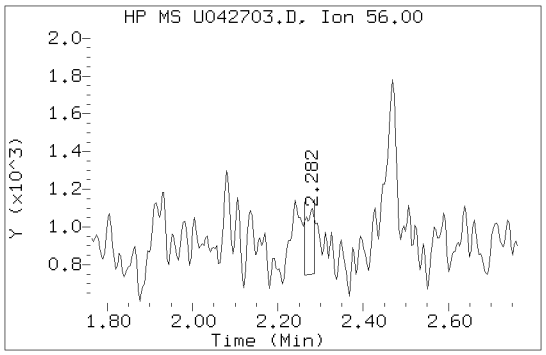
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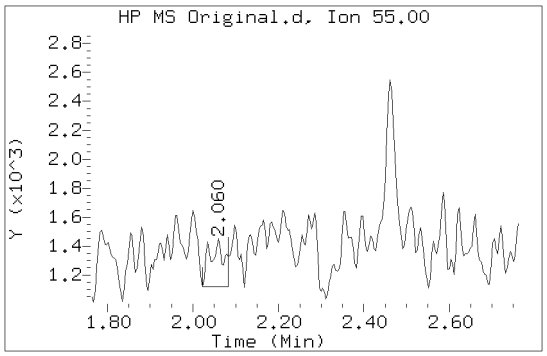
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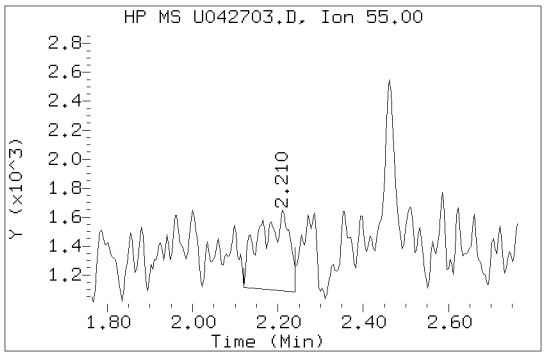
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BEFORE



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pham

AFTER

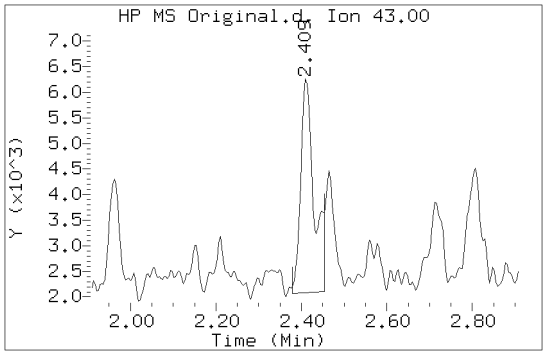


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09:43
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pham

Acetone (67-64-1)

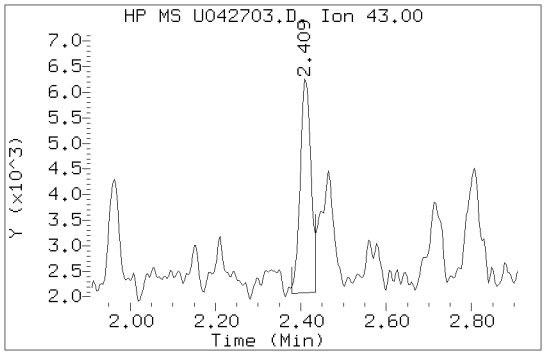
Reason Code:

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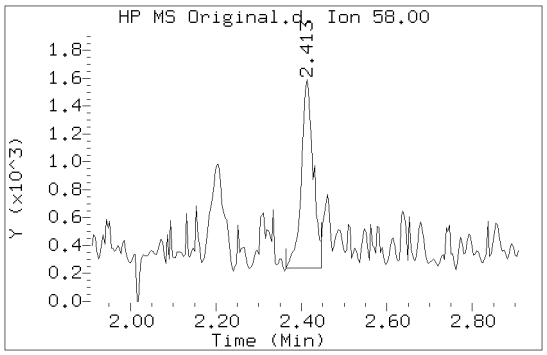
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AFTER



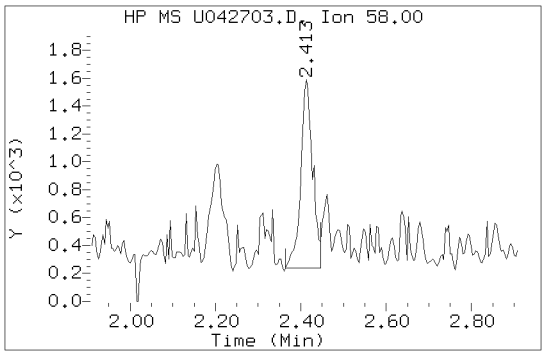
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BEFORE



MASS
58
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2661
HEIGHT
1349
01-May-2023
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AFTER



MASS
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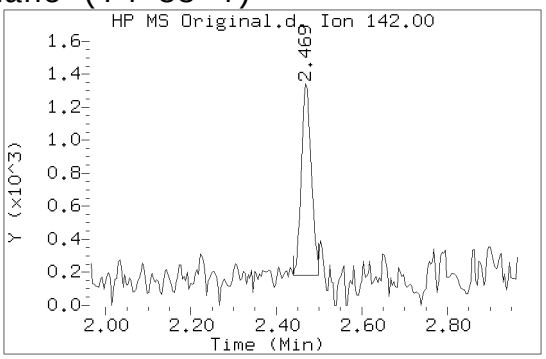
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Inj Date : 27-APR-2023 12:12
InstruID : VOA9.i
LabSampID : VSTS000.5

Iodomethane (74-88-4)

Reason Code:

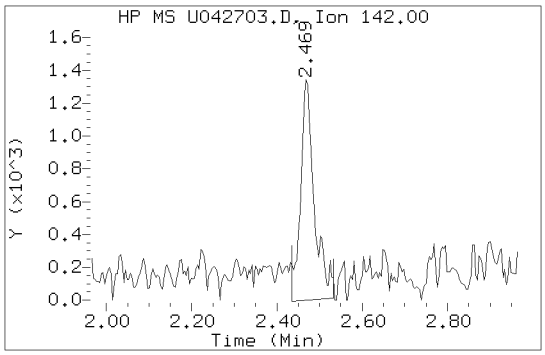
BEFORE

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linh
pham



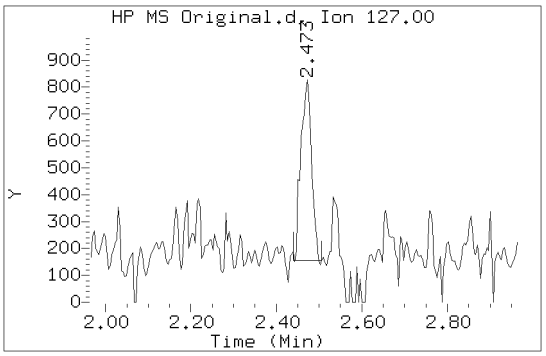
AFTER

MASS
142
AREA
3076
HEIGHT
1343
03-May-2023
09:43
linh
pham



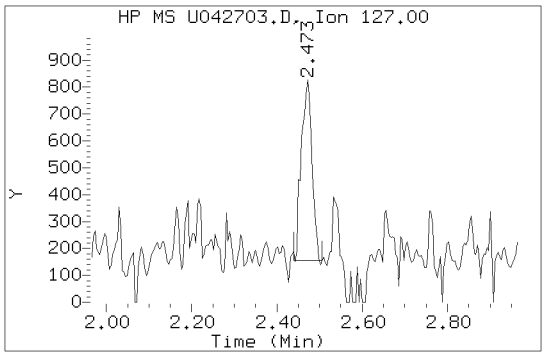
BEFORE

MASS
127
AREA
1186
HEIGHT
671
01-May-2023
12:42
linh
pham



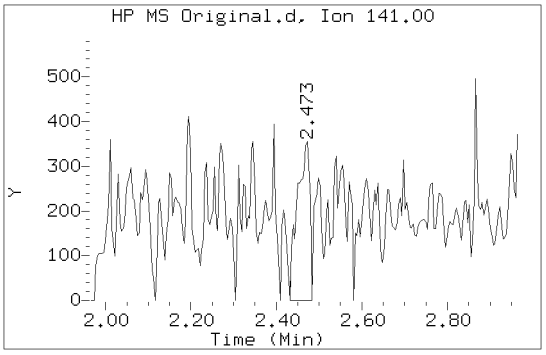
AFTER

MASS
127
AREA
1186
HEIGHT
671
03-May-2023
09:43
linh
pham



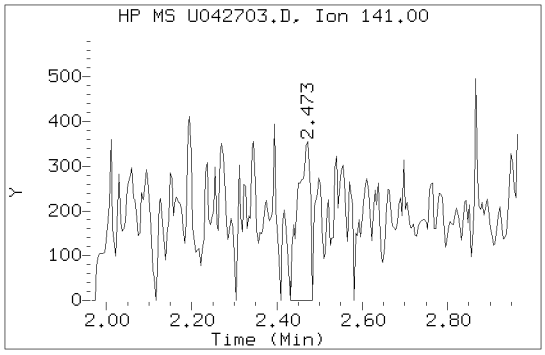
BEFORE

MASS
141
AREA
725
HEIGHT
356
01-May-2023
12:42
linh
pham



AFTER

MASS
141
AREA
725
HEIGHT
356
03-May-2023
09:43
linh
pham

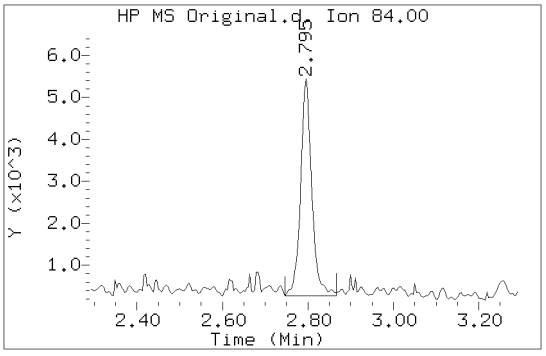


Methylene Chloride (75-09-2)

Reason Code:

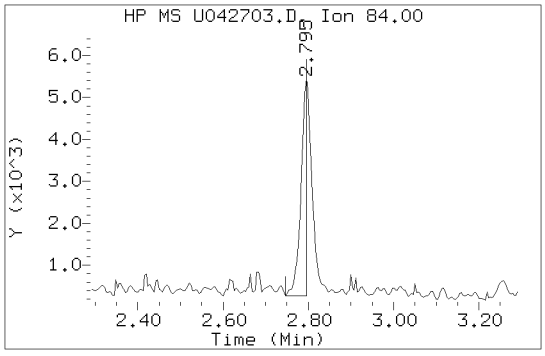
BEFORE

MASS
84
AREA
9581
HEIGHT
5168
01-May-2023
12:42
linh
pham



AFTER

MASS
84
AREA
5015
HEIGHT
5168
03-May-2023
09:43
linh
pham



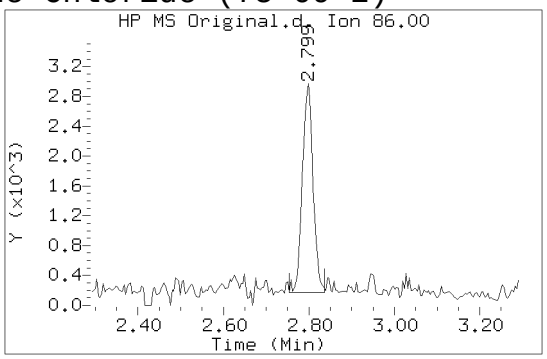
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
Inj Date : 27-APR-2023 12:12
InstruID : VOA9.i
LabSampID : VSTS000.5

Methylene Chloride (75-09-2)

Reason Code:

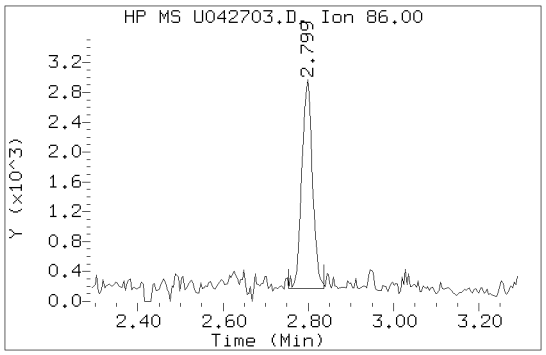
BEFORE

MASS
86
AREA
5009
HEIGHT
2801
01-May-2023
12:42
linh
pham



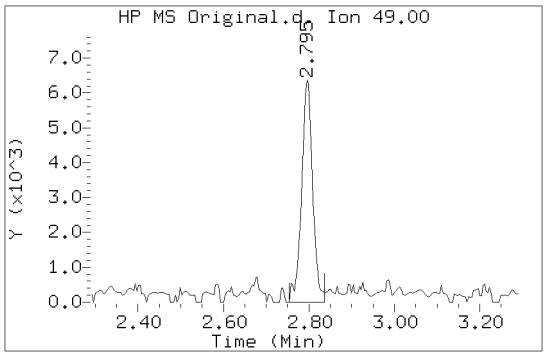
AFTER

MASS
86
AREA
5009
HEIGHT
2801
03-May-2023
09:43
linh
pham



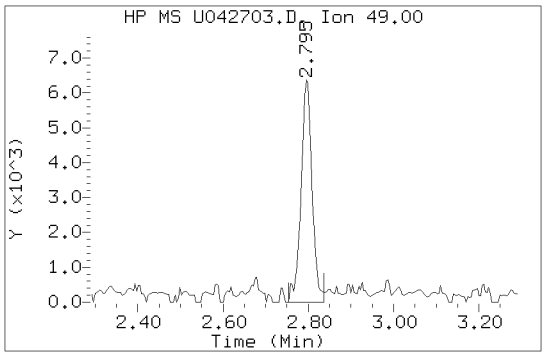
BEFORE

MASS
49
AREA
11741
HEIGHT
6373
01-May-2023
12:42
linh
pham



AFTER

MASS
49
AREA
11741
HEIGHT
6373
03-May-2023
09:43
linh
pham

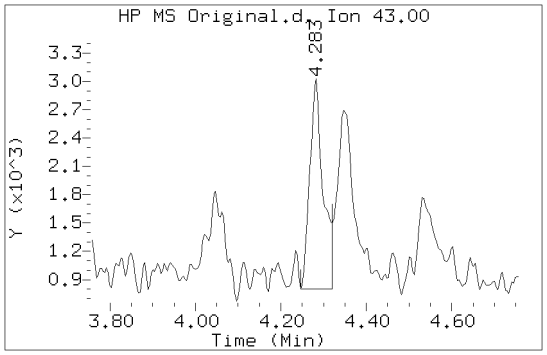


2-Butanone (78-93-3)

Reason Code:

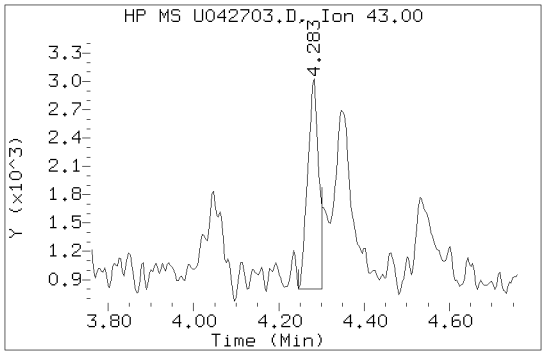
BEFORE

MASS
43
AREA
4908
HEIGHT
2224
01-May-2023
12:42
linh
pham



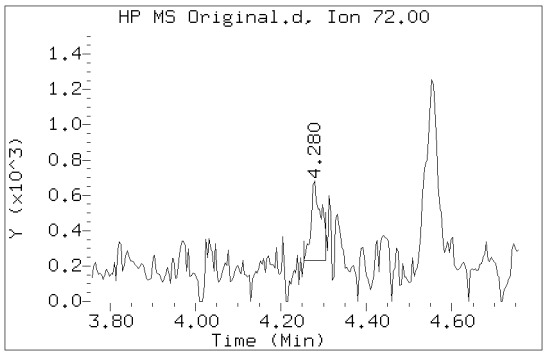
AFTER

MASS
43
AREA
4041
HEIGHT
2224
03-May-2023
09:43
linh
pham



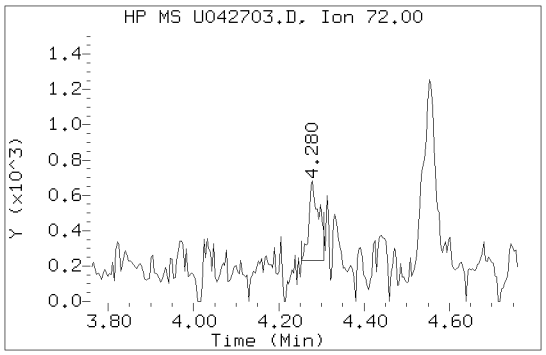
BEFORE

MASS
72
AREA
737
HEIGHT
452
01-May-2023
12:42
linh
pham



AFTER

MASS
72
AREA
737
HEIGHT
452
03-May-2023
09:43
linh
pham



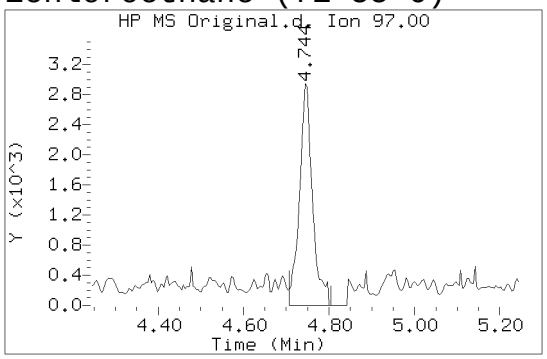
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
Inj Date : 27-APR-2023 12:12
InstruID : VOA9.i
LabSampID : VSTS000.5

1,1,1-Trichloroethane (71-55-6)

Reason Code:

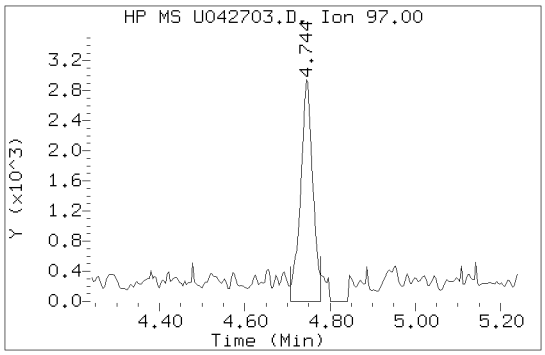
BEFORE

MASS
97
AREA
6327
HEIGHT
2946
01-May-2023
12:42
linh
pham



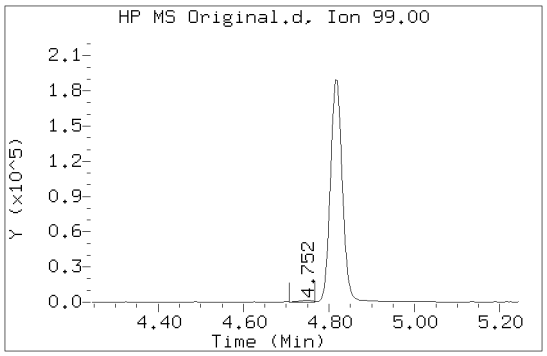
AFTER

MASS
97
AREA
5990
HEIGHT
2946
03-May-2023
09:43
linh
pham



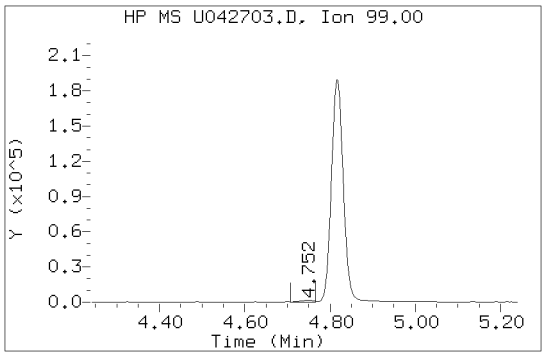
BEFORE

MASS
99
AREA
2925
HEIGHT
1490
01-May-2023
12:42
linh
pham



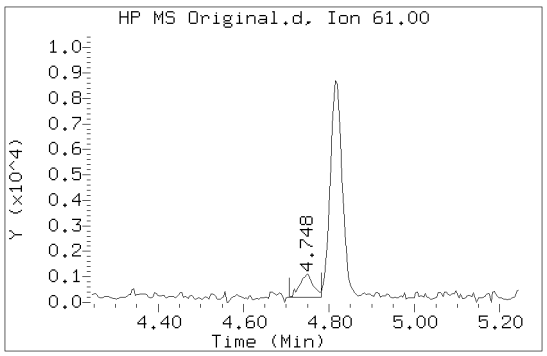
AFTER

MASS
99
AREA
2925
HEIGHT
1490
03-May-2023
09:43
linh
pham



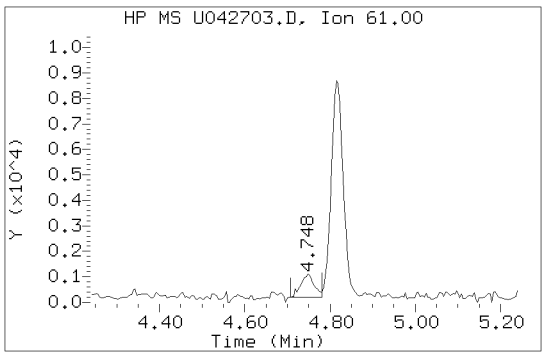
BEFORE

MASS
61
AREA
2013
HEIGHT
897
01-May-2023
12:42
linh
pham



AFTER

MASS
61
AREA
2013
HEIGHT
897
03-May-2023
09:43
linh
pham

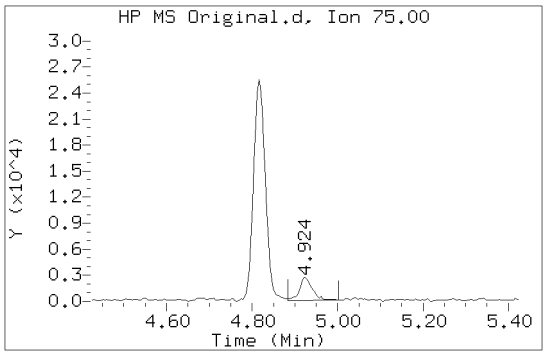


1,1-Dichloropropene (563-58-6)

Reason Code:

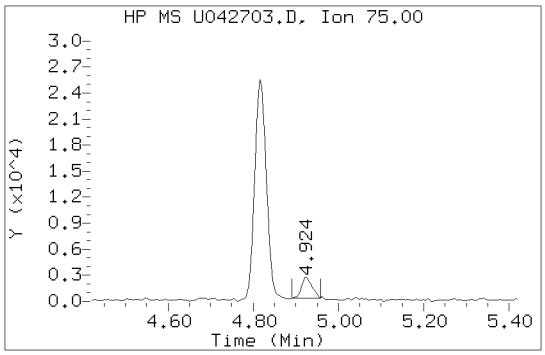
BEFORE

MASS
75
AREA
5735
HEIGHT
2637
01-May-2023
12:42
linh
pham



AFTER

MASS
75
AREA
4117
HEIGHT
2351
03-May-2023
09:43
linh
pham



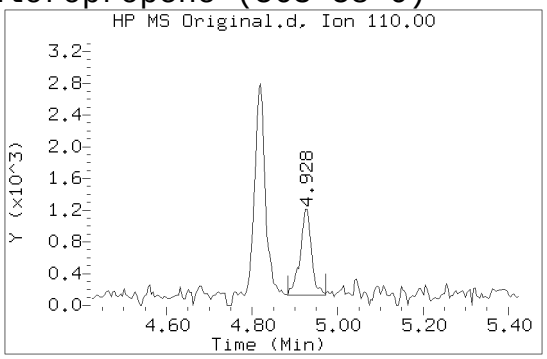
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
Inj Date : 27-APR-2023 12:12
InstruID : VOA9.i
LabSampID : VSTS000.5

1,1-Dichloropropene (563-58-6)

Reason Code:

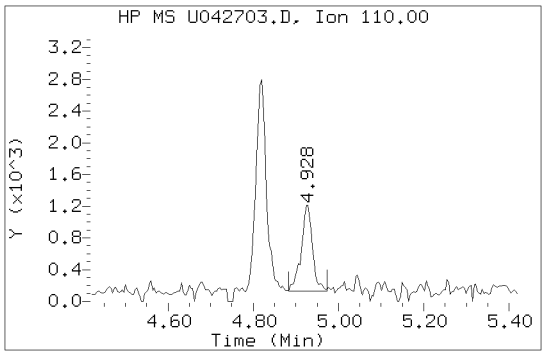
BEFORE

MASS
110
AREA
2056
HEIGHT
1089
01-May-2023
12:42
linh
pham



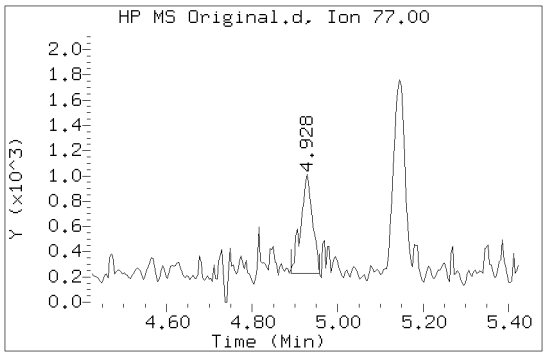
AFTER

MASS
110
AREA
2056
HEIGHT
1089
03-May-2023
09:43
linh
pham



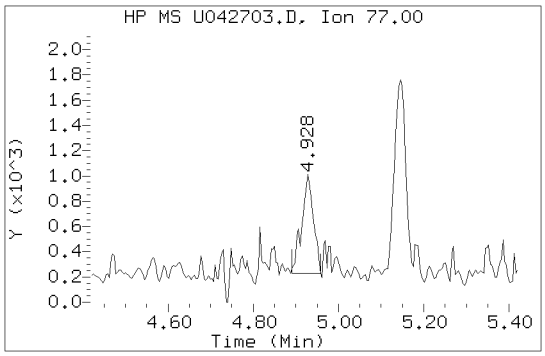
BEFORE

MASS
77
AREA
1531
HEIGHT
784
01-May-2023
12:42
linh
pham



AFTER

MASS
77
AREA
1531
HEIGHT
784
03-May-2023
09:43
linh
pham

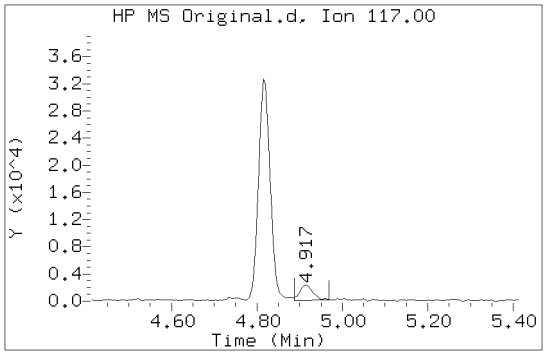


Carbon Tetrachloride (56-23-5)

Reason Code:

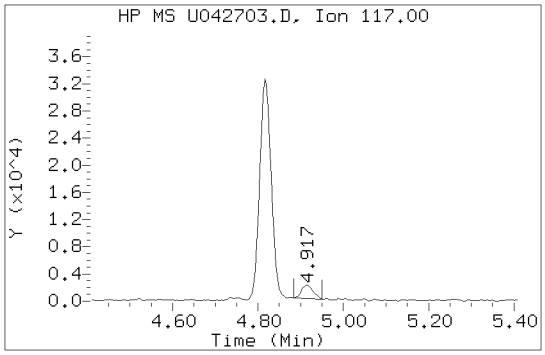
BEFORE

MASS
117
AREA
4913
HEIGHT
2194
01-May-2023
12:42
linh
pham



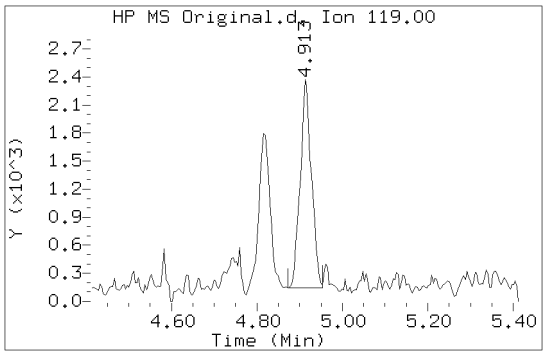
AFTER

MASS
117
AREA
3806
HEIGHT
1956
03-May-2023
09:43
linh
pham



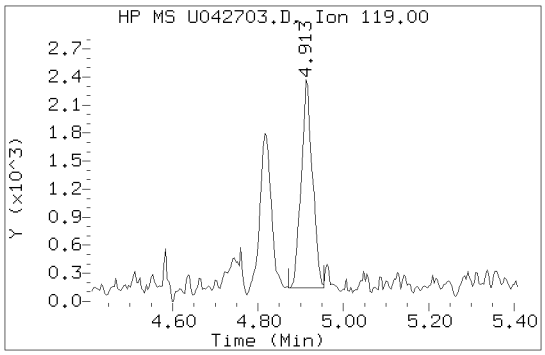
BEFORE

MASS
119
AREA
4101
HEIGHT
2226
01-May-2023
12:42
linh
pham



AFTER

MASS
119
AREA
4101
HEIGHT
2226
03-May-2023
09:43
linh
pham



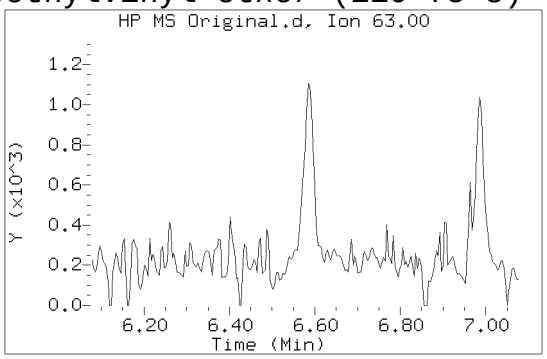
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
Inj Date : 27-APR-2023 12:12
InstruID : VOA9.i
LabSampID : VSTS000.5

2-Chloroethylvinyl ether (110-75-8)

Reason Code:

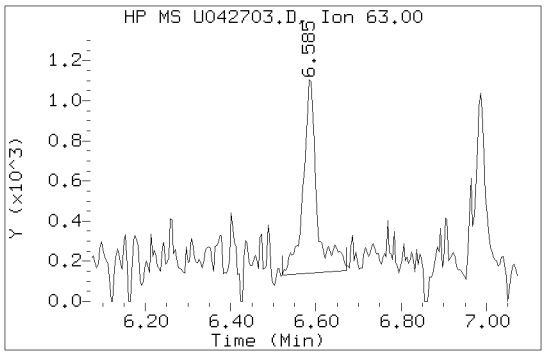
BEFORE

MASS
63
AREA
0
HEIGHT
0
01-May-2023
12:42
linh
pham



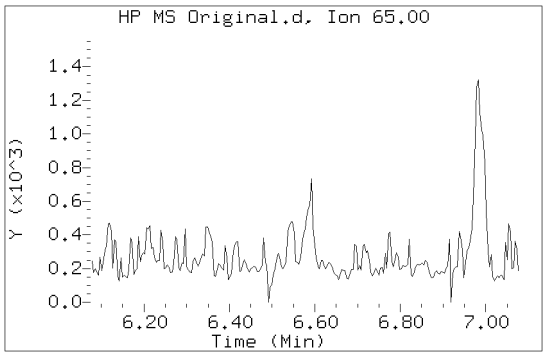
AFTER

MASS
63
AREA
2195
HEIGHT
964
03-May-2023
09:43
linh
pham



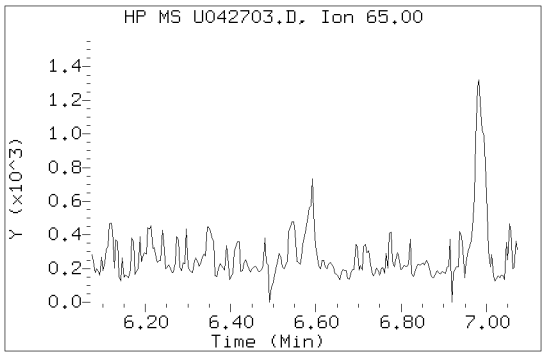
BEFORE

MASS
65
AREA
0
HEIGHT
0
01-May-2023
12:42
linh
pham



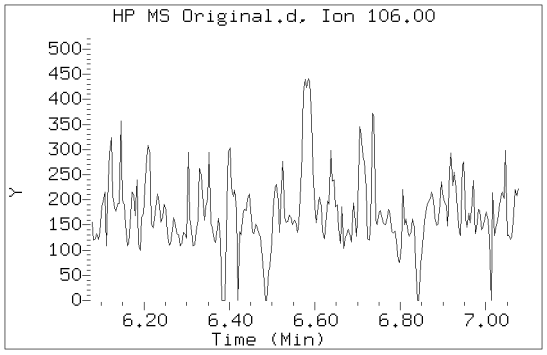
AFTER

MASS
65
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham



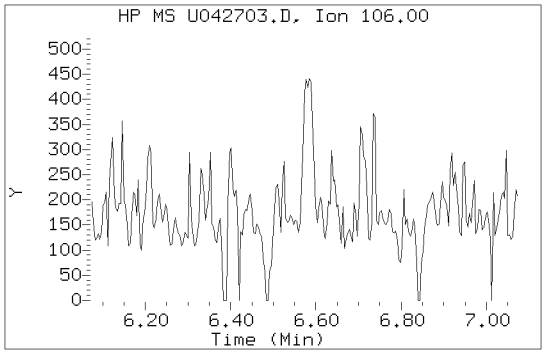
BEFORE

MASS
106
AREA
0
HEIGHT
0
01-May-2023
12:42
linh
pham



AFTER

MASS
106
AREA
0
HEIGHT
0
03-May-2023
09:43
linh
pham

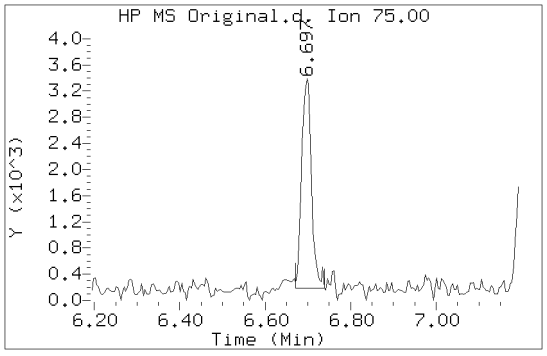


cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

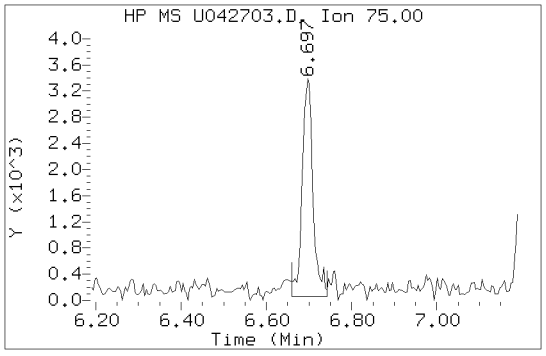
BEFORE

MASS
75
AREA
5278
HEIGHT
3206
01-May-2023
12:42
linh
pham



AFTER

MASS
75
AREA
6023
HEIGHT
3335
03-May-2023
09:43
linh
pham



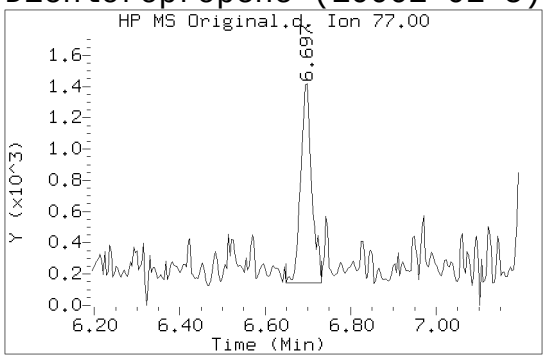
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230427.b\U042703.D
Inj Date : 27-APR-2023 12:12
InstruID : VOA9.i
LabSampID : VSTS000.5

cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

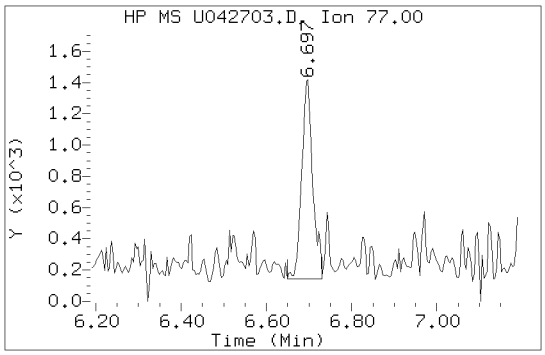
BEFORE

MASS
77
AREA
2334
HEIGHT
1274
01-May-2023
12:42
linh
pham



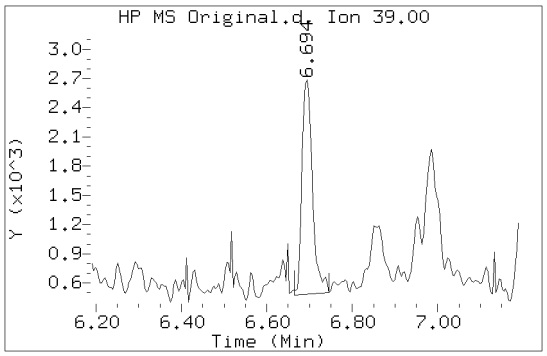
AFTER

MASS
77
AREA
2334
HEIGHT
1274
03-May-2023
09:43
linh
pham



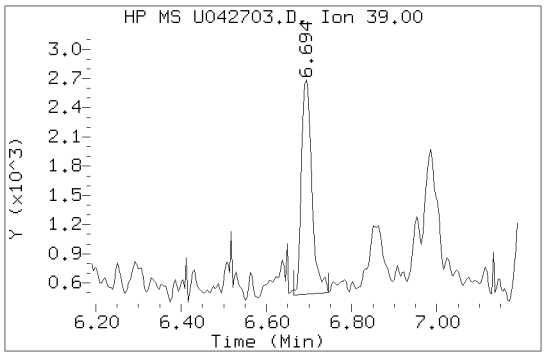
BEFORE

MASS
39
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3844
HEIGHT
2198
01-May-2023
12:42
linh
pham



AFTER

MASS
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HEIGHT
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03-May-2023
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linh
pham

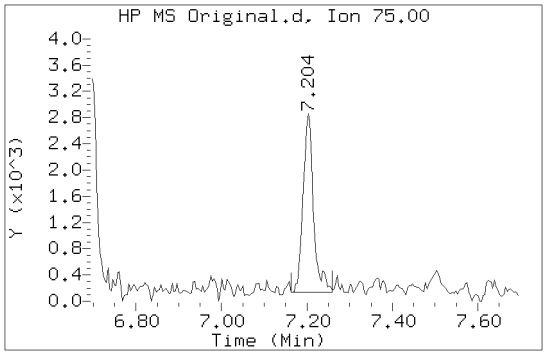


trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

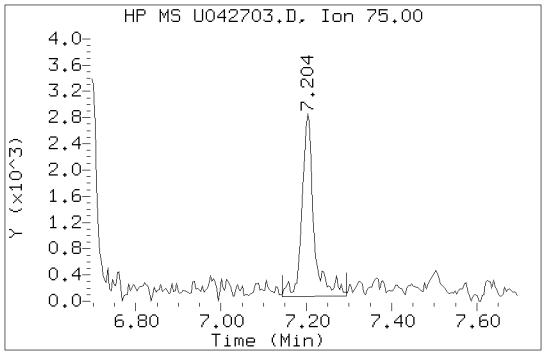
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AREA
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12:42
linh
pham



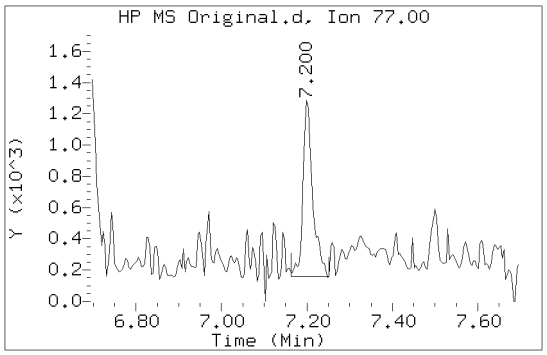
AFTER

MASS
75
AREA
5514
HEIGHT
2796
03-May-2023
09:43
linh
pham



BEFORE

MASS
77
AREA
1800
HEIGHT
1129
01-May-2023
12:42
linh
pham



AFTER

MASS
77
AREA
1800
HEIGHT
1129
03-May-2023
09:43
linh
pham

